REVISED AGENDA
Proclamation Added to Presentations

TRACY CITY COUNCIL

REGULAR MEETING AGENDA

Tuesday, April 16, 2024, 7:00 P.M.

Tracy City Hall Chambers, 333 Civic Center Plaza, Tracy
Web Site: www.cityoftracy.org

THIS MEETING WILL BE OPEN TO THE PUBLIC FOR IN-PERSON AND REMOTE PARTICIPATION PURSUANT TO GOVERNMENT CODE SECTION 54953(e).

MEMBERS OF THE PUBLIC MAY PARTICIPATE REMOTELY IN THE MEETING VIA THE FOLLOWING METHOD:

As always, the public may view the City Council meetings live on the City of Tracy's website at CityofTracy.org or on Comcast Channel 26/AT&T U-verse Channel 99. To view from the City's website, open the "Government" menu at the top of the City's homepage and select "City Council Meeting Videos" under the "City Council" section.

If you only wish to watch the meeting and do not wish to address the Council, the City requests that you stream the meeting through the City's website or watch on Channel 26.

***Remote Public Comment**:*

During the upcoming City Council meeting public comment will be accepted via the options listed below. If you would like to comment remotely, please follow the protocols below:

- *Comments via:*
  - **Online by visiting** https://cityoftracyevents.webex.com and using the following **Event Number: 2551 997 5320** and **Event Password**: TracyCC
  - ***If you would like to participate in the public comment anonymously***, you may submit your comment in WebEx by typing "Anonymous" when prompted to provide a First and Last Name and inserting Anonymous@example.com when prompted to provide an email address.
  - Join by phone by dialing +1-408-418-9388, enter 25519975320 #8722922# Press *3 to raise the hand icon to speak on an item.

- *Protocols for commenting via WebEx:*
  - *If you wish to comment on the "Consent Calendar", "Items from the Audience/Public Comment" or "Regular Agenda" portions of the agenda:*
    - *Listen for the Mayor to open that portion of the agenda for discussion, then raise your hand to speak by clicking on the Hand icon on the Participants panel to the right of your screen.*
    - *If you no longer wish to comment, you may lower your hand by clicking on the Hand icon again.*
  - *Comments for the "Consent Calendar" "Items from the Agenda/Public Comment" or "Regular Agenda" portions of the agenda will be accepted until the public comment for that item is closed.*
  - *Comments received on Webex outside of the comment periods outlined above will not be included in the record.*

Date Posted: April 12, 2024

Americans With Disabilities Act - The City of Tracy complies with the Americans with Disabilities Act and makes all reasonable accommodations for the disabled to participate in Council meetings. Persons requiring assistance or auxiliary aids should call City Hall (209/831-6105) 24 hours prior to the meeting.

Addressing the Council on Items on the Agenda - The Brown Act provides that every regular Council meeting shall provide an opportunity for the public to address the Council on any item within its jurisdiction before or during the Council's consideration of the item, provided no action shall be taken on any item not on the agenda. To facilitate the orderly process of public comment and to assist the Council to conduct its business as efficiently as possible, members of the public wishing to address the Council are requested to, but not required to, hand a speaker card, which includes the speaker's name or other identifying designation and address to the City Clerk prior to the agenda item being called. Generally, once the City Council begins its consideration of an item, no more speaker cards will be accepted. An individual's failure to present a speaker card or state their name shall not preclude the individual from addressing the Council. Each citizen will be allowed a maximum of five minutes for input or testimony. In the event there are 15 or more individuals wishing to speak regarding any agenda item including the "Items from the Audience/Public Comment" portion of the agenda and regular items, the maximum amount of time allowed per speaker will be three minutes. When speaking under a specific agenda item, each speaker should avoid repetition of the remarks of the prior speakers. To promote time efficiency and an orderly meeting, the Presiding Officer may request that a spokesperson be designated to represent similar views. A designated spokesperson shall have 10 minutes to speak. At the Presiding Officer's discretion, additional time may be granted. The City Clerk shall be the timekeeper.

Consent Calendar - All items listed on the Consent Calendar are considered routine and/or consistent with previous City Council direction. One motion, a second, and a roll call vote may enact the items listed on the Consent Calendar. No separate discussion of Consent Calendar items shall take place unless a member of the City Council, City staff or the public request discussion on a specific item.

Addressing the Council on Items not on the Agenda – The Brown Act prohibits discussion or action on items not on the posted agenda. The City Council's Meeting Protocols and Rules of Procedure provide that in the interest of allowing Council to have adequate time to address the agendized items of business, "Items from the Audience/Public Comment" following the Consent Calendar will be limited to 15-minutes maximum period. "Items from the Audience/Public Comment" listed near the end of the agenda will not have a maximum time limit. A five-minute maximum time limit per speaker will apply to all individuals speaking during "Items from the Audience/Public Comment". For non-agendized items, Council Members may briefly respond to statements made or questions posed by individuals during public comment; ask questions for clarification; direct the individual to the appropriate staff member; or request that the matter be placed on a future agenda or that staff provide additional information to Council. When members of the public address the Council, they should be as specific as possible about their concerns. If several members of the public comment on the same issue an effort should be made to avoid repetition of views already expressed.

Notice - A 90 day limit is set by law for filing challenges in the Superior Court to certain City administrative decisions and orders when those decisions or orders require: (1) a hearing by law, (2) the receipt of evidence, and (3) the exercise of discretion. The 90 day limit begins on the date the decision is final (Code of Civil Procedure Section 1094.6). Further, if you challenge a City Council action in court, you may be limited, by California law, including but not limited to Government Code Section 65009, to raising only those issues you or someone else raised during the public hearing, or raised in written correspondence delivered to the City Council prior to or at the public hearing.

Full copies of the agenda are available on the City's website: *www.cityoftracy.org*

Date Posted: April 12, 2024

CALL TO ORDER

ACTIONS, BY MOTION, OF CITY COUNCIL PURSUANT TO AB 2449, IF ANY

ROLL CALL AND DECLARATION OF CONFLICTS

PLEDGE OF ALLEGIANCE

INVOCATION

PRESENTATIONS

1. Proclamation - National Day of Prayer
2. Proclamation - Bike to Work Week
3. Proclamation - Older Americans Month
4. Proclamation – National Volunteer Week
5. Proclamation - Building Safety Month
6. Proclamation - Asian American and Pacific Islander Heritage Month
7. Proclamation - Earth Day

ORDER OF BUSINESS

1. CONSENT CALENDAR

1.A. Adoption of April 2, 2024 Special Meeting and Regular Meeting Minutes.

1.B. Staff recommends that the City Council adopt a resolution approving a leave of absence for Transportation Advisory Commissioner Maurice Francis for the months of April and May 2024.

1.C. Staff recommends that the City Council adopt a Resolution 1) accepting a donation of 342 trees from Google LLC, valued at $76,093, in accordance with the City's Donation Policy adopted by Resolution 2021-108; and 2) authorizing the City Manager to sign the acceptance letter.

1.D. Staff recommends that the City Council adopt a Resolution authorizing the purchase order for one Atlas Copco PAS F88 mobile dewatering pump from Holland Pump Company through a competitively bid Sourcewell Cooperative Agreement in the amount of $97,392.50 for the John Jones Water Treatment Plant; and 2) declaring the existing mobile dewatering pump as surplus and approving its disposition pursuant to Tracy Municipal Code Section 2.20.310.

1.E. Staff recommends that the City Council adopt a resolution (1) accepting improvements for Corral Hollow Road Widening as complete, (2) authorizing the City Engineer to release the bonds furnished by the developer, and (3) authorizing the City Clerk to file the Notice of Completion with the San Joaquin County Recorder's Office.

1.F. Staff recommends that the City Council adopt a resolution (1) Approving the City's Annual Military Equipment Report (2) Adopting findings required under Government Code Section 7071(e)(2) for each item of military equipment identified in such report; and (3) Approving the renewal of City Ordinance 1327 authorizing the continued use of specified military equipment as required by Government Code Section 7071(e)(2).

1.G. Staff recommends that the City Council accept the Tracy Homelessness Advisory Committee's informational report regarding the ongoing progress of the Tracy Police Department's Homeless Outreach Team (Familiar Faces) and response to Homeless Encampments.

1.H. Staff recommends that the City Council adopt a resolution: (1) making findings under Tracy Municipal Code Section 2.20.180(B)(4) that strict compliance with the bidding process is not in the best interest of the City;(2) approving a General Service Agreement with American Traffic Solutions, Inc., a Kansas corporation doing business as Verra Mobility, to implement the City's automated red-light photo enforcement program for up to 15 traffic intersections throughout the City for a five-year term and annual not-to-exceed amount of $63,000.00; and (3) authorizing the City Manager to administratively extend the agreement for up to two additional five-year terms.

1.I. Staff recommends that the City Council waive the second reading and adopt an Ordinance approving a rezone from Medium Density Residential Zone to High Density Residential Zone for a 1.94-Acre portion of an overall 6.85-Acre site located at 301 West Street, Assessor's Parcel Number 235-420-16 (application number R23-0005).

2. ITEMS FROM THE AUDIENCE

3. REGULAR AGENDA

3.A. Staff recommends that City Council adopt a resolution (1) approving the Citywide Water System Master Plan Update, (2) approving the Citywide Public Safety Master Plan Update, (3) approving the Citywide Public Facilities Master Plan Update, and (4) determining that the updates are exempt from the California Environmental Quality Act pursuant to CEQA Guidelines Section 15183.

3.B Staff recommends that the City Council, by motion:

1) Determine that the authorizing initial negotiation of a development agreement is categorically exempt from the California Environment Quality Act, pursuant to CEQA Guidelines Section 15061(b)(3);

2) Authorize staff to negotiate a Development Agreement with the Tracy Alliance group, by and through Dermody Properties, related to property at the northeast corner of Grant Line and Paradise Roads.

4. ITEMS FROM THE AUDIENCE

5. STAFF ITEMS

6. COUNCIL ITEMS

7. ADJOURNMENT

TRACY CITY COUNCIL - SPECIAL MEETING MINUTES

April 2, 2024, 5:00 p.m.

Tracy City Hall, 333 Civic Center Plaza, Tracy, CA.

1. Mayor Young called the meeting to order at 5:02 p.m.

2. There were no actions taken pursuant to AB 2449.

3. Roll call found Council Member Evans, Mayor Pro Tem Davis and Mayor Young present. City Council had no declarations of conflicts. Council Members Arriola and Bedolla absent from roll call.

   Council Member Arriola arrived at 5:05 p.m. and had no declaration of conflicts.

   Council Member Bedolla arrived at 5:09 p.m. and had no declaration of conflicts.

4. Items from the audience – Kristina Darling, President and Founder of Tracy DogGirls Rescue stated the City is in a serious pandemic with stray dogs. Animal Services is doing everything they can to help the stray dogs and cats. Ms. Darling provided facts regarding the growth of dog ownership, not having responsible ownership and provided solutions: Portable kennels spaces, more adoption events, tougher fines for repeat offenders and people breeding dogs, spay and neuter options, more shelter staff and asked if there was a way to add to the agenda to get funding or staffing for the shelter.

   Mayor Young stated we have the report coming up and see what we can do from there and is happy to request that from the Council. Mayor Pro Tem Davis seconded the request.

   Mia Sota spoke about issues related to neglecting of service for dogs in the Tracy Animal Shelter and beyond and shared concerns regarding the growth of stray dogs in Tracy. Services have not been fixed to be equipped for the development. Ms. Sota shared her concerns regarding the animal shelter.

5. DISCUSSION ITEMS

   5.A. <u>The Tracy Finance Committee recommends that the City Council, as a part of the Fiscal Year (FY) 2024-25 budget development process: (A) receive a report on FY 2023-24 departmental and capital project accomplishments, and (B) provide direction regarding anticipated departmental and capital project augmentation requests and funding objectives for the FY 2024-25 Operating and Capital Budget.</u>

   Sara Cowell, Finance Director introduced Felicia Galindo, Budget Officer who provided the staff report and presentation and responded to questions.

   Council questions followed.

   Karin Schnaider, Assistant City Manager responded to Council questions.

Mary Mitracos shared the GoTracy App works well and stated she was here a year ago and asked for augmentation to the CIP for $1 million being added which Council supported but it did not happen and was told there was no project in place, construction of the nature park. Would like to ask for $2 million to be set aside this year. The Aquatic Center may be fully funded, and the next project up is the Nature Park. Understand there will be a discussion on the Aquatic Center on April 30 and have no doubt that people will say that more the Council has to allocate more money to the Aquatic Center. Ms. Mitracos requested that the $8 million that has been set aside before we put more money to the Aquatic Center. It may be another year or two before the Aquatic Center gets built anyway.

Mayor Young stated just as we have CIP's it is important to look at the funding that has gone into Measure V and the funding that is anticipated and even our update on that. CIP's are out five years as well and requested an update on Measure V. Council Member Evans supported the request.

Council comments continued.

David Murphy, Assistant Director of Operations, Jorge Barrera – Economic Development Manager, Brian MacDonald – Interim Public Works Director, JoAnn Weberg – Interim Human Resources Director, Kimberly Murdaugh – Interim Assistant City Manager, Koosun Kim – City Engineer responded to Council questions and provided information regarding their departments during the meeting.

Council Member Bedolla stated he would like to see the following: more options for increased funding for public works for road rehabilitation, parks and rec for youth sports, increase amounts going to road rehabilitation. What are options based on staff's capacity whether internal or using consultants. Interested to see what discussion comes up regarding the Animal Shelter.

Mayor Pro Tem Davis stated she would like to see the following: plans for expanding the animal shelter come back at a later time during the year, $4 million for roads deferred maintenance, need to look at investing more to road maintenance, $5 million plus deferred park maintenance – find money elsewhere to give the money they deserve. Tracy Blvd, the road to the airport, should give priority to fixing and add signage, Economic Development program, South Tracy Police substation, software for processing and streamlining building and planning, website overhaul, outdated and not ADA compliant, software to help with our public records system to become more streamlined, transparent and user friendly, media team added to cover things we are doing across the departments. Did support increasing the Nature Park funding, where are we with that conversation getting committed allocation of funds.

Council Member Arriola stated he would like to see the following: Economic Development incentive program, substation, BMX pump Nature Park, and looking for support policies or budgetary accommodations to make sure we are fully staffed always in our Police Department, parks maintenance and roadway maintenance.

Ms. Schnaider stated staff is taking the entire list in and we will let you know what got rolled into the June budget and what will come back in the September discussion.

Council Member Evans stated he would like to see the following: road maintenance and widening, airport road to be prioritized, interim shelter some kind of solution in place because some time before permanent solution is there, $1 million for Nature Park, thought that was already allocated, Economic Development – looking forward to bringing to fruition, public safety is number one, substation – need to find a way to make it happen.

Mayor Young asked when it is coming back to look at Human Resources position for DEI, and asked for chairs to be added to the dais for all Council.

Mayor Pro Tem Davis asked about funding for repairs of the community center.

Council questions continued.

City Council accepted the report.

6. Council Items and Comments – None

7. Adjournment – Time: 6:53 p.m.

ACTION: Motion was made by Council Member Arriola and seconded by Mayor Pro Tem Davis to adjourn. Roll call found all in favor; passed and so ordered.

The above agenda was posted at the Tracy City Hall on March 28, 2024. The above are action minutes. A recording is available at the office of the City Clerk.

_____
Mayor

ATTEST:

_____
City Clerk

TRACY CITY COUNCIL REGULAR MEETING MINUTES

April 2, 2024, 7:00 p.m.

City Hall, 333 Civic Center Plaza, Tracy *Web Site:* *www.cityoftracy.org*

Mayor Young called the meeting to order at 7:05 p.m.

There were no actions taken pursuant to AB 2449.

Roll call found Council Members Arriola, Bedolla, Evans, Mayor Pro Tem Davis and Mayor Young present. City Council had no declarations of conflict. Council Member Evans announced out of an abundance of caution he would be recusing himself from Consent Item 1.H.

Pastor Kevin James, New Creation Bible Fellowship offered the invocation.

Karin Schnaider, Assistant City Manager presented the Employee of the Month Award to Juan Lopez, Utilities Division.

Mayor Young presented Certificates of Congratulations to Montessori Elementary and Middle School First Place Winners of the 2024 San Joaquin County Science Olympiad Competition.

Mayor Young presented a proclamation for National Public Safety Telecommunications Week to Michele Elmore and Shaina Marquez, Police Department Dispatchers.

Mayor Young presented a proclamation for Sexual Assault Awareness Month to Elizabeth Sanchez, Prevail Director of Community Engagement and Diana Poe, Housing Coordinator.

Mayor Young presented a proclamation for Arts, Culture, and Creativity Month to Tracy Arts Commissioner Cynthia Reis and Cultural Arts Manager, Anna Cross.

Mayor Young presented a proclamation for the Grand Theatre Centennial to Anna Cross, Cultural Arts Manager.

1. CONSENT CALENDAR – Motion was made by Council Member Arriola and seconded by Mayor Pro Tem Davis to adopt the Consent Calendar. Roll call found all in favor; passed and so ordered. Council Member Evans abstained from voting on Consent Item 1.H.

   1.A. Adoption of March 19, 2024 Closed Session Meeting and Regular Meeting Minutes.- **Minutes were adopted.**

   1.B. The Environmental Sustainability Commission recommends that the City Council adopt a resolution approving the proposed City-Wide Urban Forest Management Plan, to appropriately guide City resources in the planting and maintenance of City Trees. – **Resolution 2024-043** approved the City-Wide Urban Forest Management Plan.

1.C. Staff recommends that the City Council receive the 2023 Water Loss Audit Report. – **Report accepted.**

1.D. Staff recommends that the City Council adopt a Resolution, pursuant to Tracy Municipal Code Section 4.12.1190(d) approving the following public alcohol special event permits for events on public property in 2024: (1) Downtown Block Parties (May 3, June 7, July 12, August 2, and September 6); (2) Tracy African American Association (Juneteenth Festival on June 8); (3) Grassroots Resource Connections International (Tracy Jazz and Blues Festival on June 29-30); (4) Blues, Brews, and BBQ (October 5); (5) Girls Night Out – Witches and Broomsticks (October 18); (6) Tracy City Center Association Events (Taps on Tenth on April 6, Downtown Tracy Wine Stroll on August 17, and Car Show with Clutch Burners on September 28); and (7) South Side Community Organization Event (September 14). – **Resolution 2024-044** adopted the public alcohol special event permits for various 2024 events.

1.E. Staff recommends that the City Council adopt a Resolution (1) approving a General Services Agreement with ADT Commercial, LLC, utilizing OMNIA Partners cooperative purchasing agreement to lease two mobile security units in the amount of $59,771 annually for an initial 12-month term; and (2) authorizing the City Manager to administratively extend the Agreement for up to four (4) additional 12-month terms. – **Resolution 2024-045** approved a General Service Agreement with ADT Commercial, LLC.

1.F. The Tracy Homelessness Advisory Committee recommend that the City Council adopt a Resolution approving Amendment No. 1 to the General Services Agreement with SC Commercial LLC, DBA SC Fuels at the Temporary Emergency Housing Facility, CIP 71112, at 370 Arbor Avenue, to amend the scope of work to include the installation and rental of a 500-gallon auxiliary fuel tank for generator #3 for a monthly rental and monitoring fee of $265. – **Resolution 2024-046** approved Amendment No. 1 to the General Services Agreement with SC Commercial LLC, DBA SC Fuels.

1.G. The Tracy Homelessness Advisory Committee recommend that the City Council adopt a resolution (1) determining that compliance with the standard procurement process is not in the best interest of the City pursuant to California Public Contract Code Section 20301 and Tracy Municipal Code Section 2.20.180(b)(4), and (2) approving a Purchase Agreement with Nelco Electrical Supply, Inc., in the amount of $392,792.45, for the purchase of electrical equipment required for permanent power supplies. – **Resolution 2024-047** determined that compliance with the standard procurement process is not in the best interest of the City pursuant to California Public Contract Code Section 20301 and Tracy Municipal Code Section 2.20.180(b)(4), and approved a Purchase Agreement with Nelco Electrical Supply, Inc.

1.H. Staff recommends that the City Council adopt two Resolutions approving amendments to two related Professional Services Agreements with CH2M HILL Engineers, Inc. for Design Services for the "Urban and Multi-benefit Drought Relief Grant-funded Recycled Water System Expansion Project," Capital Improvement Plan Number 74168, as follows: (1) adopt a resolution approving Amendment No. 1 to the Professional Services Agreement for Pipeline Design Services to reduce the scope of work, extend the term to February 21, 2026 with an administrative option to extend one year, to decrease the total compensation under the Agreement by $294,990, to a Not-to-Exceed amount of $1,565,010; and (2) adopt a resolution approving Amendment No. 1 to the Professional Services Agreement with CH2M HILL Engineers, Inc., for Lammers Road Pump Station Design Services, to modify the scope of work, extend the term to February 21, 2026 with an administrative option to extend one year, and increase the total compensation under the PSA by $294,990, to a Not-to-Exceed amount of $1,534,990.

Resolution 2024-048 approved Amendment No. 1 to the Professional Services Agreement with CH2M HILL Engineers, Inc. for pipeline design services for the Recycled Water System Expansion Project, CIP 74168, to reduce the scope of work, extend the term to February 21, 2026 with an administrative option to extend one year, and decrease the total compensation by $294,990, to a not-to-exceed amount of $1,565,010.

Resolution 2024-049 approved Amendment No. 1 to the Professional Services Agreement with CH2M HILL Engineers, Inc., for Pump Station design services for the Recycled Water System Expansion Project (Project), CIP 74168, to increase the scope of work, extend the term to February 21, 2026 with an administrative option to extend one additional year, and increase the total compensation by $294,990 to a not-to-exceed amount of $1,534,990.

Council Member Evans abstained from voting on Consent Item 1.H.

1.I. Staff recommends that the City Council adopt a resolution 1) approving the Concession Agreement with Tracy City Center Association commencing May 1, 2024, and expiring December 31, 2024; and 2) authorizing the City Manager to grant extensions in two-year increments with a maximum of five (5) years pursuant to the terms of the agreement. – **Resolution 2024-050** approved the Concession Agreement with Tracy City Center Association.

1J. Staff recommends that the City Council adopt a resolution 1) approving the Concession Agreement with Children's Dance Theatre of Tracy for a three-month period commencing April 15, 2024, and expiring June 30, 2024; and 2) authorizing the City Manager to grant extensions in two-year increments for a maximum term of four (4) years. – **Resolution 2024-051** approved the Concession Agreement with Children's Dance Theatre of Tracy.

1.K The Tracy Finance Committee recommends that the City Council adopt a Resolution: 1) Authorizing the acceptance of a grant award from the California Department of Health Care Services in partnership with the San Joaquin County Behavioral Health Services and related actions; 2) Appropriating the grant award of $336,350.00 to the Police Department's operational budget. – **Resolution 2024-052** authorized the acceptance of a grant award from the California Department of Health Care Services in partnership with the San Joaquin County Behavioral Health Services, appropriated the grant award to the Police Department's operational budget.

1.L. The Tracy Homelessness Advisory Committee recommend that the City Council adopt a Resolution (1) determining that compliance with the standard procurement process is not in the best interest of the City pursuant to California Public Contract Code Section 20301 and Tracy Municipal Code Section 2.20.180(b)(4) for entering into two agreements with PowerGen, Inc. for the rental and maintenance of diesel generators required at the Temporary Emergency Housing Facility; (2) approving an interim General Services Agreement with PowerGen, Inc. for nine (9) months effective July 1, 2023 through March 31, 2024 with a not-to exceed amount to $617,539.47; (3) approving a new General Services Agreement with PowerGen, Inc. with a not to exceed amount of $657,253.70 with an initial term from April 1, 2024 through June 30, 2025; and (4) authorizing the City Manager to extend the Agreement up to one additional year, subject to the not-to-exceed amount. – **Resolution 2024-053** determined that compliance with the standard procurement process is not in the best interest of the City pursuant to California Public Contract Code Section 20301 and Tracy Municipal Code Section 2.20.180(b)(4) for entering into an interim General Services Agreement and a new General Services Agreement with PowerGen, Inc.

Mayor Young briefly left the meeting at 7:42 p.m.

Mayor Pro Tem Davis continued with the meeting.

2. ITEMS FROM THE AUDIENCE – Mary Mitracos asked Council not to back down from the lawsuit with Surland and stated more than ten years ago in exchange for a contractual obligation of goods and services received among those were sewer capacity, water hookups and time. Time was granted time and time again and Surland liked to say it was at the City's request but don't believe it. They have recommitted that same $10 million that they are going to donate that for the Aquatic Center, they owe that, they want that to be their contribution to the swim center. The same thing is true of the 16 acres, they owe that, it is contractual. Please collect.

Rosario Arulappan stated it finally appears we may have the Aquatic Center and spoke about Surland narrating stories narrated that there was no guarantee the City would use the land as a water park. It makes sense that Surland would prefer to build more million-dollar homes than build an amenity that cost them money although it was a commitment made to the City. Mr. Arulappan provided a timeline of meetings in 2023 regarding the acceptance of the land, residents coming to Council and putting pressure on the two remaining Council members to accept the land, an organized citizen Tracy group going after the City Attorney attempting to disqualify her from the administrative matter that occurred at the July 5 meeting, spoke about delay tactics by Surland and requested Council to take proper action and bring back the Aquatic Center.

Robert Tanner shared concerns regarding the Mayor's behavior at the last meeting. This has been the worst three years. The first year the Mayor eased into it and then became the dictator. This is like an unscripted reality show. Council needs to get their act together.

Joey Chavez spoke about the Presidential Volunteer Service Award would be a great program for City of Tracy to become certified for. Any age can be eligible for the award but the youth demographic between 14-18 would be a good group to target. Seventy-five to 250 hours need to be completed and can receive a signed certificate by the President in addition to a medal showing the service completed to an organization. In order to become a certified organization, the City Manager would have to file a form online which indicates the City will verify the volunteer hours, pay the nominal cost of these awards and shipping and take an e-course annually to ensure we remain certified.

Robert shared his concerns regarding the last Council meeting stating two Council Members overstepped their boundaries speaking at the same time while the Mayor was speaking and a member of the public was on the microphone at the same time as though it was coordinated, attacking the Mayor and violating the Brown Act. Robert shared support for Mayor Young.

Mayor Young returned to the dais at 7:52 p.m.

Raymond Guerrera, representing people from the shelter stated people were in a frenzy because they were told they have to move vehicles out of the parking lot within two days. Any vehicles that aren't fixed or registered are going to be towed. The shelter was supposed to be a place to help the homeless and the last thing a person who is homeless needs to be burdened with is how to pay for getting their vehicle fixed or registered so they can park in a dirt lot. Need more time to come up with a solution. Cannot afford to store it.

3. REGULAR AGENDA

3.A. Staff recommends that the City Council conduct a public hearing to consider a report of the final costs for the abatement of weeds, rubbish, refuse, and flammable materials on designated parcels, and upon conclusion, approve such report and assessment of such costs in accordance with Tracy Municipal Code Section 4.12.320.

Mayor Young opened the public hearing.

Tim Spears, Fire Marshal provided the staff report and responded to questions.

Michelle spoke several times during the item on behalf of the property owner and stated she has taken care of the property. Every year it has been landscaped and have gone to the City and Fire Department and showed them the job that was completed, and everything was fine so do not know where the bill is from after five months. Rudy, the neighbor does the land each year for both parcels. Has been done for 302 W. Mt. Diablo and 280 W. Mt. Diablo. Pictures were provided to the Council for reference.

Rudy stated he has been cutting grass for both properties every year and following the same process. The pictures shared are from September 2023. Did get notices from the Fire Department and appreciated the heads up. Since the grass is already cut, not sure what more they can do. We do not understand what work was done by the vendor because they did not get an itemized bill. Got a bill last March with no breakdown, $9,200.00 for about an acre, it was shocking. There were other options in fire season to mitigate also. Are committed to maintaining to the level the Fire Department requires. However, this bill is huge and causing hardship.

Robert Tanner stated over the years we have had this process and when owners are being invoiced it goes as a lien on the property. Owner has opportunity to pay or wait until the property sells. Asked about the current balance of the lien account for this type of issue, does it go to the General Fund or back to the Fire Department, how much is balance of liens is waiting to be reimbursed. There have been some properties over the years who have been charged and have not sold and citizens need to know what that balance is of future income.

Council questions and comments followed.

Bijal Patel, City Attorney explained the Tracy Municipal Codes (TMC) required two-step process. First step is for Council to make a decision that an abatement is required based on the information that is provided in the hearings and an Order of Abatement is issued. Those two hearings happened on September 5 and September 19, 2023. Ms. Patel explained the noticing requirements pursuant to the TMC. At this point it is no longer an issue whether abatement should occur because that was already ordered and a final decision that is already done. What Council is concerned about is whether or not the charges for the property owners are appropriate.

Council comments continued.

Mayor Pro Tem Davis moved that Council postpone the consideration of the item pending the before and after pictures and more time to get clarity on the issues Council is hearing. Maybe 30-60 days for clarity.

Ms. Patel responded it is within Council's purview to continue the item and ask for additional documentation from the vendor that performed the work and perhaps the Finance Department staff. It is important to continue to a date certain. Next meeting is April 16 but if more time is needed the following regular meeting is May 21, 2024.

Council questions and comments continued.

Michelle, speaking on behalf of the property owners responded to questions.

Mayor Pro Tem Davis asked Council to consider postponing the item because of the sticker shock but someone did do a service at the request of the City so someone does have to get paid. It is a matter of showing the rationale of the billing. Do you have pictures and breakdown of services provided and how is the vendor verifying the cost.

Council Member Evans would like to see comp bids also. Especially for future, would like to ensure – if disked and cleared can anyone be used but then the City does it they have to be licensed and insured and costs more. Would like to ensure we are being reasonable.

Ms. Patel responded staff will work internally to figure out what our procurement process was in selecting this contract. The work has already been completed and will try to identify based on the pictures and what the cost was and figure out if there are other vendors. We are a public agency so our price will be higher.

Fire Marshal Spears added an RFP was done and this contractor was given the requirements and was the only contractor that bid on the Request for Proposal.

Fire Marshal Spears stated he will reach out to the contractor for before and after pictures, dates and cost breakdown on services and comp bids.

Mayor Young added the vendor should have a unit acre that would be a part of the RFP and also comparable to other smaller abatement done to give us something to work with. Come back on May 21, 2024.

The property owner shared more information regarding the property and stated he is leaving for India on April 10 and returning after two months. Michelle will represent the property owner.

ACTION: Motion was made by Mayor Pro Tem Davis and Council Member Evans to continue the hearing until Tuesday, May 21, 2024 pending documentation and can make a decision at that time. Roll call found all in favor; passed and so ordered.

3.B Staff recommends that the City Council:

(1) Adopt a Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program for the approval of the general plan amendment, rezoning, and development review permit for construction of 110 units of very low-income senior housing consisting of two buildings and site improvements on a 1.94-acre portion of an overall 6.85-acre site, located at 301 West Street, APN 235-420-16 (Project), in accordance with the California Environmental Quality Act, based on the findings, pursuant to Public Resources Code Sections § 21064.5 and 21080(C);

(2) Adopt a Resolution approving a general plan map amendment from residential medium to residential high for a 1.94-acre portion of an overall 6.85-acre site, located at 301 West Street, Assessor's Parcel Number 235-420-16 (Application Number GPA22- 0008);

(3) Introduce an Ordinance approving a rezone from medium density residential zone to high density residential zone for a 1.94- acre portion of an overall 6.85-acre site, located at 301 West Street, Assessor's Parcel Number 235-420-16 (Application Number R22-0005); and

(4) Adopt a Resolution approving a development review permit and a density bonus for the Project (Application Number D22-0043).

The applicant is Artifex West, Inc. for the Housing Authority County of San Joaquin.

Mayor Young opened the public hearing.

Kenny Lipich, Interim Senior Planner provided the staff report.

Peter Ragsdale, Director of Housing Authority of San Joaquin County stated they are excited to bring the project to Tracy. Have had robust conversations with Planning and could have an early 2025 start. Mr. Ragsdale responded to Council questions.

Council questions and comments followed.

Mayor Young closed the public hearing.

ACTION: Motion was made by Council Member Arriola and seconded by Mayor Pro Tem Davis to adopt **Resolution 2024-054** 1) Adopting a Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program for the approval of the General Plan Amendment, rezoning, and Development Review Permit for construction of 110 units of very low-income senior housing consisting of two buildings and site improvements on a 1.94-acre portion of an overall 6.85-acre site, located at 301 West Street, APN 235-420-16 (Project), in accordance with the California Environmental Quality Act, based on the findings, pursuant to Public Resources Code Sections § 21064.5 AND 21080(C); 2) Approving a General Plan Map Amendment from Residential Medium to Residential High for a 1.94-acre portion of an overall 6.85-acre site, located at 301 West Street, Assessor's Parcel Number 235-420-16 (Application Number GPA22-0008); and 3) Approving a Development Review Permit with a Density Bonus for the Project (Application Number D22-0043). Roll call found all in favor; passed and so ordered.

Adrianne Richardson, City Clerk read the title of the proposed ordinance.

ACTION: Motion was made by Council Member Arriola and seconded by Mayor Pro Tem Davis to introduce an ordinance of the City of Tracy amending the Zoning Map from Medium Density Residential to High Density Residential for a 1.94-acre portion of an overall 6.85-acre site located at 301 West Street, Assessor's Parcel Number 235-420-16 (Application Number R23-0005). Roll call found all in favor; passed and so ordered.

3.C Staff recommends that the City Council discuss and adopt, by motion, proposed talking points for the City Council's meetings with the various federal agencies and legislators that will occur during the 2024 Federal Lobbying Trip in Washington, DC from April 9-11, 2024.

Karin Schnaider, Assistant City Manager provided the staff report.

Council questions and comments followed.

Andrew Christensen stated it is a great opportunity to ask for federal funding for these projects Tracy needs. A lot will overlap between different agencies. Spoke about rails to trails. See a lot of people along the rails. He goes along the rails as not being bombarded by noise and cars. Tie projects together like trails and

paths on the railroad corridor. Nature Park is a great thing. Tracy does not have a lot of wide-open space and taking steps forward to reverse environmental destruction of this valley is a great step in the right direction.

Council comments followed.

ACTION: Motion was made by Council Member Arriola and seconded by Mayor Pro Tem Davis to adopt the proposed talking points for the City Council's meetings with the various federal agencies and legislators that will occur during the 2024 Federal Lobbying Trip in Washington, DC from April 9-11, 2024. Roll call found all in favor; passed and so ordered.

3.D Consider and Determine, by Motion, Response to Notice of Brown Act Violation and Request to Cure or Correct and Cease and Desist from Steve Nicolaou dated March 5, 2024.

Bijal Patel, City Attorney recused herself from the item.

John Natalizio, BBK Law provided the staff report.

Council Member Arriola asked for confirmation that Council has received multiple demand letters from Mr. Nicolaou and one was related to discussions of salary but this one is essentially related to having legal counsel present during closed session.

Mr. Natalizio confirmed that is correct.

There was no public comment.

Council questions and comments followed.

Mayor Young made a statement: As Council Members and Mayor were not notified that our counsel was not able to practice law at that particular time, as a technicality because someone else was there is not good enough for her because she felt Council should have been notified and should have been acting in accordance with that.

Council Member Bedolla asked Mr. Natalizio that based on the Mayor's comments did he stand by the letter he wrote that Council was covered by legal counsel.

Mr. Natalizio responded yes and he understands the Mayor's position as well and yes and clarified the language in 54956.9 which references legal counsel and is not specific to City Attorney, general counsel, it is just legal counsel. As is common practice, public agencies will retain special counsel for specific matters and the Brown Act is intending to include legal counsels generally that are retained and not just for example a specially appointed City Attorney in this instance. Ms. Patel's license status with the California Bar does not affect his opinion as to the validity of the fact that the City did have its legal counsel present which was Mr. Siegel.

Council Member Bedolla asked if the point we are at it is just a matter of difference of opinion if we are talking about the legal facts.

Mr. Natalizio responded if the Mayor has a fundamental difference of opinion in reading that provision, she is entitled to that opinion to the extent that she disagrees with him. He stands by his interpretation. Ms. Patel was present by the fact that she was the appointed City Attorney of the City and she being an official, an employee and a necessary party to the Closed Session was also fully capable of being present in the Closed Session as well without abrogating rights afforded under the Brown Act.

Mayor Young stated this particular item was for two specific things and as you have already represented Mr. Natalizio as far as that it was no harm to the City for having had the participation by our current counsel even though we were unaware she was not licensed at the time.

ACTION: Motion was made by Mayor Pro Tem Davis and seconded by Council Member Evans to adopt the response to Notice of Brown Act Violation and Request to Cure or Correct and Cease and Desist from Steve Nicolaou dated March 5, 2024. Roll call found Council Members Arriola, Bedolla, Evans, and Mayor Pro Tem Davis in favor; passed and so ordered. Mayor Young opposed.

Council Member Bedolla left the meeting at 10:00 p.m.

3.E Staff recommends that the City Council receive an informational report regarding the City of Tracy Police Department's Annual Report for 2023.

Sekou Millington, Police Chief provided the staff report and presentation and introduced the command staff.

Captain Luis Mejia spoke about the 2023 accomplishments for Bureau of Operations.

Captain Octavio Lopez spoke about the 2023 accomplishments for Bureau of Investigations.

Brittany Pasquale, Animal Services Supervisor spoke about the 2023 accomplishments for the Bureau of Support Services.

Lieutenant Scott Muir spoke about the 2023 accomplishments for the Professional Standards and Training Division.

Council questions followed.

Robert Tanner stated Tracy has the best Police force in California. The Flock license plate reader is paying for itself, hoped more UAS go up on the 4th of July. Mr. Tanner asked the following questions: How many UAS does the Police have, does the person running the UAS have to be a Police Officer or PAL, what is the cost of one UAS, what happened to the previous program of having a sitting

District Attorney in the Police Department to speed up the process and when will there be a Police substation in south Tracy, it is needed now.

Mike Shober asked why there were no white-collar crime statistics in the report. For someone who might be a victim of ID theft or embezzlement, do not see statistics.

Alice English shared support for the first responders. Tracy was on the news as an example for other cities regarding the license plate readers. Hope we have more motorcycle Police Officers out there especially at Valpico and Tracy Blvd. Substation has not been brought up on the agenda for funding.

Conrad Levoit stated we have an outstanding Police Department. And thanked the Police Department from the community standpoint. Mr. Levoit spoke about red light runners – people disobeying the integrity of the stop light, and encouraged community to participate with coffee with a cop. Thanked Council for support of Tracy Crime Stoppers and will continue to reach out to the community for assistance when called upon and spoke about the business team who reaches out to all the businesses – talking to the business owners one on one and the Chamber.

Council questions and comments followed.

ACTION: City Council accepted the informational report regarding the City of Tracy Police Department's Annual Report for 2023. Council Member Bedolla absent.

3.F. The Tracy Finance Committee recommends that the City Council adopt a resolution approving the Capital Improvement Projects Prioritization Policy.

Sara Cowell, Finance Director provided the staff report.

Council questions and comments followed.

Council Member Evans suggested under Priority 1-A. – Change language to read: Corrects or *prevents* a condition dangerous to public health or safety. Council Member Arriola supported the request.

Mayor Young asked for clarification on what "P" stands for in CIP, Capital Improvement Project or Capital Improvement Plan. Needs to be consistent.

There was no public comment.

Mayor Pro Tem Davis stated she understands that the Council can reprioritize if they chose. Councils change things, gets lost in interpretation and does not see anything about that in the resolution. Things have been taken off priority lists before. Would hate to say this is our formal policy but there is nothing in the resolution that the Council may choose to reprioritize at any time. Would like to see it in the resolution to feel comfortable adopting it. Council Member Evans stated if it is not stated he agrees.

Bijal Patel, City Attorney responded what you are asking for is flexibility in the policy. The resolution is a one-time action that is adopting the policy but it is really the policy that moves forward so perhaps that language can be imbedded into the policy.

Mayor Pro Tem Davis agreed.

Council Member Arriola suggested that as you look at the policy, Attachment A, if we could include that as a bunch of listed considerations, maybe a last one could be added as City Council considerations.

Karin Schnaider, Assistant City Manager responded what Mayor Pro Tem Davis is asking for is saying they can automatically say we think this is a Priority 2, and want authorization to reprioritize something on your own merits.

Ms. Schnaider added under the Purpose Section 1 of the policy, recommended adding a sentence the City Council may still assign prioritization of capital projects, based on motion of a majority – something along those lines. Council Member Arriola supported that amendment.

Ms. Schnaider continued where it belongs, after conferring with the City Attorney, is somewhere near the end of Section 1 under Purpose. Explain what the policy was done and is not intended to be binding to these only. If she can wordsmith that a little, staff understands the intention. Mayor Pro Tem Davis agreed.

ACTION: Motion was made by Council Member Arriola and seconded by Mayor Pro Tem Davis to adopt Resolution **2024-055** approving the Capital Improvement Projects Prioritization Policy as amended. Roll call found Council Members Arriola, Evans, Mayor Pro Tem Davis and Mayor Young in favor; passed and so ordered. Council Member Bedolla absent.

4. ITEMS FROM THE AUDIENCE – A Tracy resident asked if there is a food budget for the Emergency Homeless Shelter. On Easter they were served bread, butter and water and asked if Council has heard the count of food poisoning out there. No one ever gets back to her. Why are they eating leftovers four days a week. Isn't there a Homeless Manager supposed to be at the shelter.

5. STAFF ITEMS – Kimberly Murdaugh, Interim Assistant City Manager stated at the Tracy Homeless Advisory Committee meeting staff was asked to return to Council with an informational item on the City's ongoing efforts regarding the encampment cleanups. That item will return to City Council on the April 16, 2024, Council meeting.

Karin Schnaider, Assistant City Manager provided the following announcements:

- Join us for Rollin' Rec at Greymont Park tomorrow from 2:30-5:00 p.m. for free arts and crafts, games, and sports.
- Our Parks and Rec Summer Activity Guide is now available, and registration begins at 8:00 a.m. on Monday, April 8th.
- Our Youth Advisory Commission is recruiting for both youth and adult commissioners - please visit their page on our website for more information and to apply: CityOfTracy.org. The deadline is April 26, 2024.
- The Finance Committee is conducting a workshop on the City's new business tax structure tomorrow at 6:00 p.m. in Council Chambers.

- The City needs help to name two new Tracy Hills parks! The Park Nomination form is available on our website and the deadline for submittal is April 25, 2024.

Mayor Young stated part of the request Ms. Schnaider spoke about was about different clubs, organizations like TAAA and Southside, other organizations to reach out to for youth. They have youth components and raising scholarships to make sure they are aware as they have expressed interest in applying for the adult position.

6. COUNCIL ITEMS – Mayor Pro Tem Davis stated she was pleased to join Mayor and staff to welcome students from Memuro, Japan and attend the Sayonara dinner that was held last week. Great meeting the exchange students and nice to hear how happy they were to visit some of the places that their exchange parents took them between Tracy, the Bay Area and the valley.

Mayor Pro Tem Davis stated she attended the first ever Holi event in Tracy put on by the Tracy Reach team at Lincoln Park and is known as festival of color spreading peace and joy. Also supported SK Vineyards who held a women's empowerment networking event. Congratulated Skyview Aviation who put on a wonderful mixer. It is Tracy's only flight school and met a young female pilot and talked to them about flying commercial in the next year or so.

Council Member Arriola reported on his attendance at NLC and various projects and announced he was elected to Executive Board of the National LGBTQ Caucus. Council Member Arriola wished safe travels to his Council colleagues to the federal lobbying trip next week.

Council Member Evans echoed the sentiment from Mayor Pro Tem Davis regarding the Sayonara event with exchange students from our sister city, the Holi event and the Chamber event at Skyview Aviation. Tracy has a great community and so many opportunities to engage with them.

Council Member Evans asked if Council will be getting an update on the Housing Element soon. It has been a few months since we submitted to the state.

Ms. Schnaider responded the responses received were of a technical nature and staff is working on answers at this time and believe that it will not be returning to City Council and will be able to return it directly to HCD with those comments. Had two meetings with HCD and no material changes to the plan, just further analysis to prove those sites were viable and expect to return it with that analysis to HCD for the next set of reviews.

Council Member Evans stated Kristina Darling came in at the earlier meeting regarding some interim solutions while we are waiting for the full build out of the animal shelter. Was there an action on that and takeaway from staff.

Ms. Schnaider responded what she heard was Council would like that item to return with discussion with a first and second from Mayor Young and Mayor Pro Tem Davis and will work with the Police Chief for a date.

Council Member Evans stated another member of the public mentioned the Presidential Volunteer Service Award. Sounds like a good opportunity for our City and asked if it was something the City can do.

Kimberly Murdaugh, Interim Assistant City Manager stated the Human Resources team is already researching the program and will be presenting it to the City Manager upon her return next week.

Mayor Young added to her report that she has already submitted, there are links to check out agendas if interested. Mayor Young reminded all young high school students that the deadline is coming up on April 15, 2024, at 3:00 p.m. for the Mayor's Summer Youth Internship Program. It will be from June 17 through July 25, 2024. It is a great way to learn about government service, is paid and is a way to have a level of independence which our youth need.

7. ADJOURNMENT – Time: 11:39 p.m.

ACTION: Motion was made by Mayor Pro Tem Davis and seconded by Council Member Evans to adjourn. Roll call found Council Members Arriola, Evans, Mayor Pro Tem Davis and Mayor Young in favor; passed and so ordered. Council Member Bedolla absent.

The above agenda was posted at the Tracy City Hall on March 28, 2024. The above are action minutes. A recording is available at the office of the City Clerk.

_____
Mayor

ATTEST:

_____
City Clerk

April 16, 2024

Agenda Item 1.B

RECOMMENDATION

Staff recommends that the City Council adopt a resolution approving a leave of absence for Transportation Advisory Commissioner Maurice Francis for the months of April and May 2024.

EXECUTIVE SUMMARY

Staff received a request from Transportation Advisory Commissioner Maurice Francis for a leave of absence for the months of April and May 2024 due to a scheduled trip out of the country. The Transportation Advisory Commission Bylaws state that a Transportation Advisory Commission member may submit a written request to the City Council for a leave of absence of up to six months, which may be approved at the City Council's discretion.

BACKGROUND AND LEGISLATIVE HISTORY

The Transportation Advisory Commission consists of five members and all seats are currently filled.

Under the Transportation Advisory Commission Bylaws, a commission member who fails to attend four regular commission meetings in any calendar year vacates his/her position. The Bylaws further stipulate that any Commissioner can request up to a six-month leave of absence from his/her duties on the Commission. An approved leave of absence excuses a commissioner from attending commission meetings during the specified period of time and ensures that those absences are not counted against the three-absence limit. This request is to be directed to, and can only be approved by, the City Council.

On March 13, 2024, a request for a leave of absence was submitted to staff by Transportation Advisory Commissioner Maurice Francis, due to a scheduled trip out of the country which would cause him to miss two commission meetings.

ANALYSIS

Transportation Advisory Commissioners hold regular monthly meetings and are allowed to miss up to three meetings throughout the calendar year. This amounts to being able to miss 25% of regularly scheduled meetings throughout the year based on 12 regular monthly meetings. Once a fourth meeting is missed, a commissioner is automatically removed from the Commission. If a meeting is canceled, it does not count against a commissioner. If a commissioner misses a scheduled special meeting, that absence does not count against them.

The current bylaws do not take into consideration the reason why a meeting is missed, be it due to work related conflicts, vacations, family related matters, or illness. Per the bylaws, the only way to have an "excused" absence is to have a formal leave of absence approved by City Council.

As there are only five members of the Transportation Advisory Commission, a minimum of three

commissioners are needed to form a quorum needed to conduct meetings. During the previous calendar year, there were 10 commission meetings held. Of those 10 meetings only one, or 10% of the meetings, had full commissioner attendance. One meeting was canceled due to lack of a quorum.

While a commissioner often cannot plan ahead of time if they will be absent from a meeting, there are circumstances where they can do so periodically, especially with planned work schedules. Requesting a leave of absence helps to ensure that a commissioner will be able to remain on the commission should unexpected circumstances arise throughout the year.

FISCAL IMPACT

Approval of a leave of absence for a commissioner will not impact the Transit Fund or the Airport Fund, from which Transportation Advisory Commissioners are paid for attendance of their meetings.

CEQA DETERMINATION

This item is exempt from review under the California Environmental Quality Act because this item proposes an organizational or administrative activity that will not result in a direct or indirect physical change in the environment and is therefore not a “project.” (CEQA Guidelines §15378(b)(5)).

STRATEGIC PLAN

This is a routine operational item and does not directly relate to a City Council Strategic Priority.

ACTION REQUESTED OF THE CITY COUNCIL

Staff recommends that the City Council adopt a resolution approving a leave of absence for Transportation Advisory Commissioner Maurice Francis for the months of April and May 2024.

Prepared by: Ed Lovell, Transit Manager
Reviewed by: Brian MacDonald, Interim Public Works Director
Sara Cowell, Finance Director
Karin Schnaider, Assistant City Manager
Bijal M. Patel, City Attorney
Approved by: Midori Lichtwardt, City Manager

APPROVED AS TO FORM AND LEGALITY

_____
CITY ATTORNEY'S OFFICE

TRACY CITY COUNCIL

RESOLUTION NO. _____

APPROVING A LEAVE OF ABSENCE FOR TRANSPORTATION ADVISORY COMMISSIONER MAURICE FRANCIS FOR THE MONTHS OF APRIL AND MAY 2024

WHEREAS, Transportation Advisory Commissioner Maurice Francis requested a leave of absence for the months of April and May 2024, due to scheduled trip out of the country; and

WHEREAS, The Transportation Advisory Commission Bylaws stipulate that any Commissioner can request up to a six-month leave of absence with Council approval; and

WHEREAS, The Transportation Advisory Commission consists of five members and all seats are currently filled; now, therefore, be it

RESOLVED: That the City Council hereby approves a leave of absence for Transportation Advisory Commissioner Maurice Francis for the months of April and May 2024.

* * * * * * * * * * * * * * *

The foregoing Resolution 2024-_____ was adopted by the Tracy City Council on April 16, 2024, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTENTION: COUNCIL MEMBERS:

_____
NANCY D. YOUNG
Mayor of the City of Tracy, California

ATTEST:_____
ADRIANNE RICHARDSON
City Clerk and Clerk of the Council of the
City of Tracy, California

April 16, 2024

Agenda Item 1.C

RECOMMENDATION

Staff recommends that the City Council adopt a Resolution 1) accepting a donation of 342 trees from Google LLC, valued at $76,093, in accordance with the City's Donation Policy adopted by Resolution 2021-108; and 2) authorizing the City Manager to sign the acceptance letter.

EXECUTIVE SUMMARY

The City of Tracy Public Works staff was informed that Google LLC was generously donating trees to cities across California as part of their Green Initiative. Following the initial contact with Google, Public Works staff requested 342 native trees that are well-suited for Tracy. This contribution aligns seamlessly with the City's vision of achieving a 40% canopy cover by 2040, as outlined in the City's Urban Forest Management Plan. The acceptance of this donation is in accordance with the City of Tracy's Policy Establishing Rules and Procedures for Accepting Donations and Gifts from the Public (see Attachment B) which outlines accepting donations and gifts (Donation Policy).

BACKGROUND AND LEGISLATIVE HISTORY

In October 2023, Public Works staff received news from colleagues with the City of San Jose and Cal-Fire regarding Google LLC's (Google) intention to donate a substantial number of trees to cities across California. On October 5, 2023, Public Works staff participated in an online presentation hosted by Google, which provided comprehensive details such as inventory, species, size, and locations for the trees. Subsequently, Public Works staff developed a list of trees suited for the Tracy environment and awaited Google's response. Their response arrived on February 22, 2024, as Google approved the donation request and appraised the donation at a value of $76,093.

In accordance with the City's Donation Policy, donations of $5,000 or more may be accepted, via resolution, by the City Council. This opportunity precisely aligns with the City's commitment to environmental sustainability and community well-being.

Google provided staff with a required compliance letter template to accept the donation (Attachment A), and subject to City Council approval, this letter will be signed by the City Manager.

ANALYSIS

This donation is consistent with the City's Donation Policy. Per the Donation Policy, donations must meet, among other requirements, the following key requirements:

1) The Donation must be consistent with the City's policies, including any applicable ordinances or resolutions.
2) The Donation must not conflict with any provision of the state or federal law. Any questions regarding whether a Donation conflicts with state or federal law should be directed to the City Attorney's Office.

3) The Donation will not add to the City' s workload unless it provides a net benefit to the City.
4) The Donation will not impose future/new costs such as starting an on-going program or additional staff responsibilities.
5) Any restrictions placed on the Donation by the donor are consistent with City's goals and policies. Donor restrictions may not include any requirement that any specific individual employee benefit from the Donation.
6) Donations may not be accepted from any individual or entity that could benefit in any way from a pending and/or upcoming Council policy decision.

Google has placed no restrictions or requirements on the donations, only specifying that the trees be planted within City limits. This donation will help the City towards achieving its ambitious aim of 40% canopy cover by 2040, as outlined in the City's Urban Forest Management Plan, which was approved by the City Council on April 2, 2024 via Resolution 2024-043. Public Works staff has identified many vacant sites where these trees can fill.

FISCAL IMPACT

There is no direct fiscal impact to the City's budget. Public Works will be responsible for transporting the trees from the nursery located in Gilroy, California back to Tracy. The cost of labor and supplies (tree stakes and strapping) to plant the trees is included in the adopted Public Works operating budget, as well as ongoing maintenance of the trees once they are planted.

STRATEGIC PLAN

This agenda item applies to the Quality-of-Life strategic plan.

ACTION REQUESTED OF THE CITY COUNCIL

Staff recommends that the City Council adopt a Resolution 1) accepting a donation of 342 trees from Google LLC, valued at $76,093 in accordance with the City's Donation Policy adopted by Resolution 2021-108**;** and 2) authorizing the City Manager to sign the acceptance letter.

Prepared by: John Newman, Operations Superintendent
Reviewed by: Brian MacDonald, Interim Public Works Director
David Murphy, Assistant Director, Operations
Sara Cowell, Finance Director
Karin Schnaider, Assistant City Manager
Jeff Crosswhite, Assistant City Attorney
Approved by: Midori Lichtwardt, City Manager

Attachments:
A. Google Compliance Letter Template
B. City Donation Policy

COMPLIANCE LETTER TEMPLATE

[PLEASE DELETE ONCE PLACED ON INSTITUTION LETTERHEAD] INSTRUCTIONS: Please have your institution's ethics official complete the bracketed fields and return to Google on your institution's letterhead or in an email showing a signature block of the signatory. If you have any questions, please reach out to your Google contact or us-gov-ethics@google.com.

As [TITLE] at the City of Tracy, I am responsible for advising this institution on ethics and compliance matters. Google is offering to provide the City of Tracy with (342) trees for improving the environment as well as strengthening, enhancing & aligning tree canopy coverage throughout the community. This tree donation is valued at approximately $76,093. This is not a gift to any specific individual; rather, it is a gift to the City of Tracy.

I understand that Google may be a vendor and/or lobbyist employer and that Google employees may be registered lobbyists. Notwithstanding, the City of Tracy can accept, and Google can provide, these services under applicable laws. These services will not prevent Google or its affiliates from supplying products or services to the the City of Tracy.

I represent that I have authority to sign this letter on behalf of the City of Tracy.

Sincerely,
[SIGNATURE]
[NAME]
[TITLE]

RESOLUTION 2021-108

APPROVING A COUNCIL POLICY ESTABLISHING RULES AND PROCEDURES FOR ACCEPTING DONATIONS AND GIFTS FROM THE PUBLIC

WHEREAS, The City of Tracy has been offered gifts and donations from the public; and

WHEREAS, The City does not have local rules or guidelines regarding the acceptance of donations and/or gifts from the public, and

WHEREAS, The City wishes to adopt a policy to provide clear guidelines regarding the acceptance of donations and gifts so as to ensure transparent handling of such offers, consistent with the City's commitment to treating all individuals and entities with whom it conducts business fairly and impartially; and

WHEREAS, The City Manager will be responsible for the implementation of the policy.

NOW, THEREFORE BE IT RESOLVED, that the City Council of the City of Tracy hereby adopts the policy establishing rules and procedures for accepting donations and gifts from the public as described in the attachment to this resolution.

****

The foregoing Resolution 2021-108 was adopted by the Tracy City Council on the 20th day of July, 2021, by the following vote:

AYES:	COUNCIL MEMBERS: ARRIOLA, DAVIS, YOUNG
NOES:	COUNCIL MEMBERS: NONE
ABSENT:	COUNCIL MEMBERS: BEDOLLA, VARGAS
ABSTAIN:	COUNCIL MEMBERS: NONE

MAYOR

ATTEST:

CITY CLERK

CITY OF TRACY
ADMINISTRATIVE POLICY AND PROCEDURE MANUAL

SUBJECT: : DONATIONS – *Policy & Procedure*

DATE ISSUED: : July 20, 2021

SECTION: : D

SECTION 1: PURPOSE

The purpose of this policy is to establish rules and procedures for the acceptance of gifts and donations ("Donations") to the City of Tracy ("City"), as authorized by Government Code section 37354. This policy is necessary to ensure that Donations can be accepted, processed and accounted for in a transparent manner and consistent with the City's commitment to treating all individuals and entities with whom it conducts business fairly and impartially. Implementation of this policy is the responsibility of the City Manager or designee. This Policy is separate and apart from the City's Ticket Policy and Gift Policy and Procedure (See Section 3).

SECTION 2: OVERVIEW

All Donations received by the City must be reported and reviewed carefully for consistency with the City's policies, including policies and procedures for accepting cash and other inventory. Only individuals authorized by this Policy may accept Donations on behalf of the City. Before accepting a Donation, the authorized individual must review the Donation and determine that it satisfies all of the following requirements:

1. The Donation must be consistent with the City's policies, including any applicable ordinances or resolutions.

2. The Donation must not conflict with any provision of the state or federal law. Any questions regarding whether a Donation conflicts with state or federal law should be directed to the City Attorney's Office.

3. The Donation will not add to the City's workload unless it provides a net benefit to the City.

4. The Donation will not impose future/new costs such as starting an on-going program or additional staff responsibilities.

5. Any restrictions placed on the Donation by the donor are consistent with City's goals and policies. Donor restrictions may not include any requirement that any specific individual employee benefit from the Donation.

6. The City will not accept Donations of any weapons, hazardous materials or dangerous items (excluding programs where the City accepts such items for the purpose of disposal).

7. Donations of tobacco, cannabis, or alcohol products of any kind are prohibited. Donations may not be accepted from any individual or entity that has an application for any discretionary approval pending with the City. Additionally, donations may not be accepted from any individual or entity that could benefit in any way from a pending and/or upcoming Council policy decision.

8. Donations of marketing goods (e.g. hats, t-shirts, etc.) may not be accepted from vendors, consultants or service providers unless they are made available to the overall general staff of the City or given department.

SECTION 3: APPLICABILITY OF THIS POLICY

This policy shall apply to any Donation offered or given to the City, including Donations from community groups that support various City operations or events. This policy does not apply to any gift or sponsorship of a City event or program that is made in exchange for any type of public acknowledgement or recognition, except for acknowledgment as provided for herein. This policy also does not apply to any gift, donation or financial or in-kind contribution made in accordance with an agreement (e.g. MOU, development agreement, community benefit agreement, etc.) with the City. Additionally, this policy does not apply to tickets or passes given to the City and distributed in accordance with the City's Ticket and Pass policy adopted by Resolution No. 2018-041 (Appendix A). Finally, this policy does not apply to gifts made to individual employees or officials of the City, which are governed by the City's Gift Policy and Procedure (Appendix B), as may be amended from time to time, as well as the Political Reform Act and regulations of the Fair Political Practices Commission ("FPPC"). Donations made to officials directly or for which the donor designates by name, class, or other title the official who may use the Donation are not Donations to the City, but rather individual gifts that may be required to be reported on FPPC Form 700.

SECTION 4: PROCEDURES FOR ACCEPTING AND ACKNOWLEDGING DONATIONS

A. Authorized Individuals

Only the individuals identified herein are authorized to accept Donations on behalf of the City.
The estimated value of a Donation is based on the donor's estimate. The City will not independently assign a value to the donation unless it is cash.

1. City Council
   a. Donations of $5,000 or more may be accepted, via resolution, by the City Council.
   b. Any donation that does not comply with the requirements of this Policy, regardless of value, may only be accepted by the City Council.

2. City Manager
   a. Donations of between $1,000 - $4,999 may be accepted by the City Manager.
   b. Notwithstanding any other limitation contained in this Policy, the City Manager may accept any Donation to the City when the City Manager deems it necessary for the health and safety of City employees, City property, or the public.

   c. The City Manager, at their sole discretion, may decline a Donation when doing so is deemed necessary for the health and safety of City employees, City property, or the public

   d. The City Manager shall notify the City Council of a Donation at the next practicable City Council meeting or in writing as soon as possible.

3. Department Head
   a. Donations of less than $1,000 may be accepted by a Department Head
   b. The Department Head shall notify the City Manager of a Donation as soon as possible, but in no event later than one (1) business day after receipt.
   c. Any Donation that includes an ongoing obligation by the City, regardless of the value of the donation, must be approved by the City Manager.

B. Cash Donations

The following additional requirements apply to cash Donations, or the Donation of any cash equivalent:

1. The Donation shall be recorded in the appropriate revenue fund. The daily cash receipts should also indicate the account number used and the last name of the donor as a reference. All such funds shall remain earmarked within that specific fund for use only for the intended purpose and carried over within the budget until such time as it is expended. The Finance Director or designee may take any other necessary steps to properly document the donation.

2. For small Donations that include restrictions and/or obligations accepted by the City, the money should be used as soon as reasonably possible toward the specific category indicated by the donor.

3. A budget amendment is required for budget appropriation of any portion of Donation funds.

C. Acknowledgment of Donations

If requested by the donor, an acknowledgment letter on behalf of the City for any gift valued less than $1,000 may be provided by a Department Head, and by the City Manager for any gift valued $1,000 or more. The letter should clearly identify the nature of the Donation. Except for Donations of cash

or cash equivalents, where the donor amount is apparent, no dollar amount should be stated in the letter. Instead, the letter should contain the following paragraph: "Your donations may be tax deductible. To determine the amount you may properly deduct for tax purposes, you should consult your tax preparer or tax attorney." The City will not provide any tax services or documentation to donors.

D. Records

A record of cash Donations shall be made in accordance with Section B above and any other applicable policies of the Finance Department. A record of any non-cash donation valued by the donor at over five hundred dollars ($1,000) shall be created by the City Manager, or designee, and kept on file with the City Clerk. In addition, the City Manager, or designee, shall complete and submit to the FPPC a Form 801 for qualifying Donations when required by FPPC Regulations Sections 18944 and 18950.1. Examples of such qualifying Donations include the payment of travel expenses by third parties for official City business. Consult the City Attorney's Office to determine whether or not a Form 801 is required.

E. Declined Donations

The City reserves the right to decline any donation, if upon review and in the sole discretion of the City, acceptance of the donation is determined not to be in the best interests of the City.

APPROVED AS TO FORM AND LEGALITY

_____
CITY ATTORNEY'S OFFICE

TRACY CITY COUNCIL

RESOLUTION NO. _____

ACCEPTING A DONATION OF 342 TREES FROM GOOGLE LLC, VALUED AT $76,093 IN ACCORDANCE WITH THE CITY'S DONATION POLICY ADOPTED BY RESOLUTION 2021-108; AND AUTHORIZING THE CITY MANAGER TO SIGN THE DONATION ACCEPTANCE LETTER

WHEREAS, The City of Tracy Public Works staff was informed that Google LLC was generously donating trees to cities across California as part of their Green Initiative; and

WHEREAS, On October 5, 2023, Public Works staff participated in an online presentation hosted by Google LLC, which provided comprehensive details such as inventory, species, size, and locations for the trees; and

WHEREAS, Public Works staff developed a list of trees suited for the Tracy environment and requested 342 native trees from Google LLC; and

WHEREAS, Their response arrived on February 22, 2024, as Google approved the donation request and appraised the donation at a value of $76,093; and

WHEREAS, This contribution aligns with the City's vision of achieving a 40% canopy cover by 2040, as outlined in the City's Urban Forest Management Plan adopted by the City Council on April 2, 2024 via Resolution 2024-043; and

WHEREAS, The acceptance of this donation is in accordance with the City of Tracy Policy Establishing Rules and Procedures for Accepting Donations and Gifts from the Public, which outlines accepting donations and gifts (Donation Policy); and

WHEREAS, Google provided City staff with a required compliance letter template to accept the donation; and

WHEREAS, Google has placed no restrictions or requirements on the donations, only specifying that the trees be planted within City limits; and

WHEREAS, Staff has identified many vacant sites that these trees can fill; and, now therefore, be it

RESOLVED: That the City Council of the City of Tracy accepts a donation of 342 trees from Google LLC valued at $76,093 pursuant to the City Donation Policy; and be it

RESOLVED: That the City Council authorizes the City Manager to sign the donation acceptance letter set forth in Attachment A;

* * * * * * * * * * * * * *

The foregoing Resolution 2024-_____ was adopted by the Tracy City Council on April 16, 2024, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTENTION: COUNCIL MEMBERS:

_____
NANCY D. YOUNG
Mayor of the City of Tracy, California

ATTEST:_____
ADRIANNE RICHARDSON
City Clerk and Clerk of the Council of the
City of Tracy, California

April 16, 2024

Agenda Item 1.D

RECOMMENDATION

Staff recommends that the City Council adopt a Resolution authorizing the purchase order for one Atlas Copco PAS F88 mobile dewatering pump from Holland Pump Company through a competitively bid Sourcewell Cooperative Agreement in the amount of $97,392.50 for the John Jones Water Treatment Plant; and 2) declaring the existing mobile dewatering pump as surplus and approving its disposition pursuant to Tracy Municipal Code Section 2.20.310

EXECUTIVE SUMMARY

City Council's approval of this request will authorize the purchase of replacement equipment from Holland Pump Company, a Sourcewell cooperatively bid contract company. A current need exists to acquire a new dewatering pump for the John Jones Water Treatment Plant (Water Plant) due to the malfunctioning, and complete failure of the existing mobile dewatering pump. The pump is vital in the operation and treatment of the Water Plant. This equipment was previously identified for replacement in FY23/24 under the City's equipment replacement program. Staff is requesting to purchase the equipment in the amount of $97,392.50 using the Fleet Replacement Fund.

BACKGROUND

The Operations Division of the Operations and Utilities Department is tasked with managing, maintaining, and replacing most of the City's vehicle and equipment fleet. As a part of that assignment, the Operations Division must maintain a vehicle and equipment replacement program to ensure future funding for replacement of purchased equipment and vehicles that reach their useful life or must be replaced due to irreparable condition. The Utilities Division has an existing need to replace a failed and unrepairable dewatering pump under this program.

The mobile dewatering pump is needed to ensure that the Water Plant can continue to provide water services to the Tracy community. This equipment provides the ability to be able to remove excess water from the sedimentation basin which is a part of the treatment process for the Water Plant. Without this pump, the water department will be compelled to seek out rental options, risking potential service disruptions.

ANALYSIS

On November 17, 2023 City staff requested bids from Sourcewell (formerly National Joint Powers Alliance (NJPA). Sourcewell serves government and education organizations with a cooperative purchasing program that manages a competitive solicitation process offering its members an established network of awarded contracts that meet local requirements. The City of Tracy is an established customer with Sourcewell (customer number 18531) and is authorized to make purchases using Sourcewell cooperative purchasing agreements, per Tracy Municipal Code section 2.20.220.

Sourcewell contracts purchasing solutions that are competitively solicited nationally, offering awarded contracts to companies like Holland Pump. Holland Pump Company, a Florida

Corporation, located at 7312 Westport Place, West Palm Beach, Florida, 33413 is a Sourcewell awarded contract company and qualified vendor of the equipment the City needs to replace its dewatering pump This streamlined process ensures efficiency while still obtaining the best value for our purchases. Holland Pump Company is a Sourcewell awarded contract company and the City is proposing the purchase of the equipment from this vendor.

The City will contract directly with Holland Pump “piggybacking” on the Sourcewell cooperative agreement, through a purchase order that will incorporate the Sourcewell cooperative agreement terms and conditions. As there are no customized design standards or other requirements needed here, staff recommends proceeding with this contracting approach.

The existing failed dewatering pump will be sold at public auction to the highest bidder for disposal. The disposal of surplus equipment and commodities or other property no longer needed by any department of the City is governed by Section 2.20.310 of the Tracy Municipal Code (TMC) which identifies the method of disposition of surplus property. Per the TMC, surplus items are sold at public auction to the highest bidder. Funds recovered from auction are typically returned to the department to offset replacement costs. This ensures that any losses incurred are mitigated, allowing the department to maintain financial stability and continue its operations effectively. Items which are not sold at public auction will be reviewed for value, and if appropriate, sold for scrap value.

The City utilizes the Faster Web Fleet Asset Management program to efficiently manage and evaluate the repair costs associated with our extensive array of equipment. This innovative system meticulously analyzes various factors including the equipment's life expectancy, hours of use, and current condition. By examining these key metrics, the program provides invaluable insights into potential repair costs and even forecasts the equipment's end-of-life expectancy. This strategic approach allows us to make informed decisions regarding maintenance, replacement, and budget allocation, ensuring optimal functionality and longevity of our equipment fleet. This background underscores the purpose behind the City’s adoption of the Faster Web Fleet Asset Management Program, aimed at officially managing and evaluating the repair costs associated with our extensive array of equipment. After careful examination of the dewatering pump it was discovered that key components were now obsolete, and to make an attempt to retrofit the unit would have exceeded the actual value of the unit.

Below is a list of equipment that will be purchased.

Description	Vendor	Cost	Public Bidding Procedure
2024 Atlas Copco PAS F88JD-S 8” PUMP	HOLLAND PUMP	$97,392.50	Sourcewell (NJPA) 060920-NVS

Below is a list of the equipment that will be removed and surplused.

Retiring Equipment	Equipment Age	Repair Cost	Equipment Condition
2279A POWER PRIME DV200C	2006 year 2000+ HRS.	Estimated at $20,000 as the unit was in service before Faster Fleet Maintenance program was in use. Most parts are now obsolete.	Failed/Unrepairable

FISCAL IMPACT

The funding for the purchase of the pump in the amount of $97,392.50 is available in the Fleet Replacement Fund (FD 605).

STRATEGIC PLAN

This agenda item is a routine operational item and does not relate to the City Council's Strategic Plans.

CEQA REVIEW

The item is categorically exempt from the California Environmental Quality Act pursuant to CEQA Guidelines section 15311 that pertains to construction, or replacement of minor structures accessory to existing commercial, industrial, or institutional facilities, including on-premises signs.

ACTION REQUESTED OF THE CITY COUNCIL

Staff recommends that the City Council adopt a Resolution authorizing the purchase order for one Atlas Copco PAS F88 mobile dewatering pump from Holland Pump Company through a competitively bid Sourcewell Cooperative Agreement in the amount of $97,392.50 for the John Jones Water Treatment Plant; and 2) declaring the existing mobile dewatering pump as surplus and approving its disposition pursuant to Tracy Municipal Code Section 2.20.310.

Prepared by: Adrian Taylor, Fleet Supervisor
Reviewed by: Brian MacDonald, Interim Public Works Director
Jim Thompson, Operations Superintendent
Stephanie Reyna-Hiestand, Assistant Director of Utilities
David Murphy, Assistant Director of Operations
Sara Cowell, Director of Finance
Karin Schnaider, Assistant City Manager
Jeff Crosswhite, Assistant City Attorney

Approved by: Midori Lichtwardt, City Manager

Attachments:

A – Sourcewell Contract 091521
B – Holland Pump Quote

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Solicitation Number: RFP #101221

CONTRACT

This Contract is between Sourcewell, 202 12th Street Northeast, P.O. Box 219, Staples, MN 56479 (Sourcewell) and Holland Pump Company, 7312 Westport Pl., West Palm Beach, FL 33413 (Supplier).

Sourcewell is a State of Minnesota local government unit and service cooperative created under the laws of the State of Minnesota (Minnesota Statutes Section 123A.21) that offers cooperative procurement solutions to government entities. Participation is open to eligible federal, state/province, and municipal governmental entities, higher education, K-12 education, nonprofit, tribal government, and other public entities located in the United States and Canada. Sourcewell issued a public solicitation for Sewer Vacuum, Hydro-Excavation, and Municipal Pumping Equipment with Related Accessories and Supplies from which Supplier was awarded a contract.

Supplier desires to contract with Sourcewell to provide equipment, products, or services to Sourcewell and the entities that access Sourcewell's cooperative purchasing contracts (Participating Entities).

1. TERM OF CONTRACT

A. EFFECTIVE DATE. This Contract is effective upon the date of the final signature below.

B. EXPIRATION DATE AND EXTENSION. This Contract expires November 29, 2025, unless it is cancelled sooner pursuant to Article 22. This Contract may be extended one additional year upon the request of Sourcewell and written agreement by Supplier.

C. SURVIVAL OF TERMS. Notwithstanding any expiration or termination of this Contract, all payment obligations incurred prior to expiration or termination will survive, as will the following: Articles 11 through 14 survive the expiration or cancellation of this Contract. All rights will cease upon expiration or termination of this Contract.

2. EQUIPMENT, PRODUCTS, OR SERVICES

A. EQUIPMENT, PRODUCTS, OR SERVICES. Supplier will provide the Equipment, Products, or Services as stated in its Proposal submitted under the Solicitation Number listed above.

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Supplier's Equipment, Products, or Services Proposal (Proposal) is attached and incorporated into this Contract.

All Equipment and Products provided under this Contract must be new and the current model. Supplier may offer close-out or refurbished Equipment or Products if they are clearly indicated in Supplier's product and pricing list. Unless agreed to by the Participating Entities in advance, Equipment or Products must be delivered as operational to the Participating Entity's site.

This Contract offers an indefinite quantity of sales, and while substantial volume is anticipated, sales and sales volume are not guaranteed.

B. WARRANTY. Supplier warrants that all Equipment, Products, and Services furnished are free from liens and encumbrances, and are free from defects in design, materials, and workmanship. In addition, Supplier warrants the Equipment, Products, and Services are suitable for and will perform in accordance with the ordinary use for which they are intended. Supplier's dealers and distributors must agree to assist the Participating Entity in reaching a resolution in any dispute over warranty terms with the manufacturer. Any manufacturer's warranty that extends beyond the expiration of the Supplier's warranty will be passed on to the Participating Entity.

C. DEALERS, DISTRIBUTORS, AND/OR RESELLERS. Upon Contract execution and throughout the Contract term, Supplier must provide to Sourcewell a current means to validate or authenticate Supplier's authorized dealers, distributors, or resellers relative to the Equipment, Products, and Services offered under this Contract, which will be incorporated into this Contract by reference. It is the Supplier's responsibility to ensure Sourcewell receives the most current information.

3. PRICING

All Equipment, Products, or Services under this Contract will be priced at or below the price stated in Supplier's Proposal.

When providing pricing quotes to Participating Entities, all pricing quoted must reflect a Participating Entity's total cost of acquisition. This means that the quoted cost is for delivered Equipment, Products, and Services that are operational for their intended purpose, and includes all costs to the Participating Entity's requested delivery location.

Regardless of the payment method chosen by the Participating Entity, the total cost associated with any purchase option of the Equipment, Products, or Services must always be disclosed in the pricing quote to the applicable Participating Entity at the time of purchase.

A. SHIPPING AND SHIPPING COSTS. All delivered Equipment and Products must be properly packaged. Damaged Equipment and Products may be rejected. If the damage is not readily apparent at the time of delivery, Supplier must permit the Equipment and Products to be

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returned within a reasonable time at no cost to Sourcewell or its Participating Entities. Participating Entities reserve the right to inspect the Equipment and Products at a reasonable time after delivery where circumstances or conditions prevent effective inspection of the Equipment and Products at the time of delivery. In the event of the delivery of nonconforming Equipment and Products, the Participating Entity will notify the Supplier as soon as possible and the Supplier will replace nonconforming Equipment and Products with conforming Equipment and Products that are acceptable to the Participating Entity.

Supplier must arrange for and pay for the return shipment on Equipment and Products that arrive in a defective or inoperable condition.

Sourcewell may declare the Supplier in breach of this Contract if the Supplier intentionally delivers substandard or inferior Equipment or Products.

B. SALES TAX. Each Participating Entity is responsible for supplying the Supplier with valid tax-exemption certification(s). When ordering, a Participating Entity must indicate if it is a tax-exempt entity.

C. HOT LIST PRICING. At any time during this Contract, Supplier may offer a specific selection of Equipment, Products, or Services at discounts greater than those listed in the Contract. When Supplier determines it will offer Hot List Pricing, it must be submitted electronically to Sourcewell in a line-item format. Equipment, Products, or Services may be added or removed from the Hot List at any time through a Sourcewell Price and Product Change Form as defined in Article 4 below.

Hot List program and pricing may also be used to discount and liquidate close-out and discontinued Equipment and Products as long as those close-out and discontinued items are clearly identified as such. Current ordering process and administrative fees apply. Hot List Pricing must be published and made available to all Participating Entities.

4. PRODUCT AND PRICING CHANGE REQUESTS

Supplier may request Equipment, Product, or Service changes, additions, or deletions at any time. All requests must be made in writing by submitting a signed Sourcewell Price and Product Change Request Form to the assigned Sourcewell Supplier Development Administrator. This approved form is available from the assigned Sourcewell Supplier Development Administrator. At a minimum, the request must:

- Identify the applicable Sourcewell contract number;
- Clearly specify the requested change;
- Provide sufficient detail to justify the requested change;

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- Individually list all Equipment, Products, or Services affected by the requested change, along with the requested change (e.g., addition, deletion, price change); and
- Include a complete restatement of pricing documentation in Microsoft Excel with the effective date of the modified pricing, or product addition or deletion. The new pricing restatement must include all Equipment, Products, and Services offered, even for those items where pricing remains unchanged.

A fully executed Sourcewell Price and Product Change Request Form will become an amendment to this Contract and will be incorporated by reference.

5. PARTICIPATION, CONTRACT ACCESS, AND PARTICIPATING ENTITY REQUIREMENTS

A. PARTICIPATION. Sourcewell's cooperative contracts are available and open to public and nonprofit entities across the United States and Canada; such as federal, state/province, municipal, K-12 and higher education, tribal government, and other public entities.

The benefits of this Contract should be available to all Participating Entities that can legally access the Equipment, Products, or Services under this Contract. A Participating Entity's authority to access this Contract is determined through its cooperative purchasing, interlocal, or joint powers laws. Any entity accessing benefits of this Contract will be considered a Service Member of Sourcewell during such time of access. Supplier understands that a Participating Entity's use of this Contract is at the Participating Entity's sole convenience and Participating Entities reserve the right to obtain like Equipment, Products, or Services from any other source.

Supplier is responsible for familiarizing its sales and service forces with Sourcewell contract use eligibility requirements and documentation and will encourage potential participating entities to join Sourcewell. Sourcewell reserves the right to add and remove Participating Entities to its roster during the term of this Contract.

B. PUBLIC FACILITIES. Supplier's employees may be required to perform work at government-owned facilities, including schools. Supplier's employees and agents must conduct themselves in a professional manner while on the premises, and in accordance with Participating Entity policies and procedures, and all applicable laws.

6. PARTICIPATING ENTITY USE AND PURCHASING

A. ORDERS AND PAYMENT. To access the contracted Equipment, Products, or Services under this Contract, a Participating Entity must clearly indicate to Supplier that it intends to access this Contract; however, order flow and procedure will be developed jointly between Sourcewell and Supplier. Typically, a Participating Entity will issue an order directly to Supplier or its authorized subsidiary, distributor, dealer, or reseller. If a Participating Entity issues a purchase order, it may use its own forms, but the purchase order should clearly note the applicable Sourcewell

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contract number. All Participating Entity orders under this Contract must be issued prior to expiration or cancellation of this Contract; however, Supplier performance, Participating Entity payment obligations, and any applicable warranty periods or other Supplier or Participating Entity obligations may extend beyond the term of this Contract.

Supplier's acceptable forms of payment are included in its attached Proposal. Participating Entities will be solely responsible for payment and Sourcewell will have no liability for any unpaid invoice of any Participating Entity.

B. ADDITIONAL TERMS AND CONDITIONS/PARTICIPATING ADDENDUM. Additional terms and conditions to a purchase order, or other required transaction documentation, may be negotiated between a Participating Entity and Supplier, such as job or industry-specific requirements, legal requirements (e.g., affirmative action or immigration status requirements), or specific local policy requirements. Some Participating Entities may require the use of a Participating Addendum; the terms of which will be negotiated directly between the Participating Entity and the Supplier. Any negotiated additional terms and conditions must never be less favorable to the Participating Entity than what is contained in this Contract.

C. SPECIALIZED SERVICE REQUIREMENTS. In the event that the Participating Entity requires service or specialized performance requirements not addressed in this Contract (such as e-commerce specifications, specialized delivery requirements, or other specifications and requirements), the Participating Entity and the Supplier may enter into a separate, standalone agreement, apart from this Contract. Sourcewell, including its agents and employees, will not be made a party to a claim for breach of such agreement.

D. TERMINATION OF ORDERS. Participating Entities may terminate an order, in whole or in part, immediately upon notice to Supplier in the event of any of the following events:

1. The Participating Entity fails to receive funding or appropriation from its governing body at levels sufficient to pay for the equipment, products, or services to be purchased; or
2. Federal, state, or provincial laws or regulations prohibit the purchase or change the Participating Entity's requirements.

E. GOVERNING LAW AND VENUE. The governing law and venue for any action related to a Participating Entity's order will be determined by the Participating Entity making the purchase.

7. CUSTOMER SERVICE

A. PRIMARY ACCOUNT REPRESENTATIVE. Supplier will assign an Account Representative to Sourcewell for this Contract and must provide prompt notice to Sourcewell if that person is changed. The Account Representative will be responsible for:

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- Maintenance and management of this Contract;
- Timely response to all Sourcewell and Participating Entity inquiries; and
- Business reviews to Sourcewell and Participating Entities, if applicable.

B. BUSINESS REVIEWS. Supplier must perform a minimum of one business review with Sourcewell per contract year. The business review will cover sales to Participating Entities, pricing and contract terms, administrative fees, sales data reports, supply issues, customer issues, and any other necessary information.

8. REPORT ON CONTRACT SALES ACTIVITY AND ADMINISTRATIVE FEE PAYMENT

A. CONTRACT SALES ACTIVITY REPORT. Each calendar quarter, Supplier must provide a contract sales activity report (Report) to the Sourcewell Supplier Development Administrator assigned to this Contract. Reports are due no later than 45 days after the end of each calendar quarter. A Report must be provided regardless of the number or amount of sales during that quarter (i.e., if there are no sales, Supplier must submit a report indicating no sales were made).

The Report must contain the following fields:

- Participating Entity Name (e.g., City of Staples Highway Department);
- Participating Entity Physical Street Address;
- Participating Entity City;
- Participating Entity State/Province;
- Participating Entity Zip/Postal Code;
- Participating Entity Contact Name;
- Participating Entity Contact Email Address;
- Participating Entity Contact Telephone Number;
- Sourcewell Assigned Entity/Participating Entity Number;
- Item Purchased Description;
- Item Purchased Price;
- Sourcewell Administrative Fee Applied; and
- Date Purchase was invoiced/sale was recognized as revenue by Supplier.

B. ADMINISTRATIVE FEE. In consideration for the support and services provided by Sourcewell, the Supplier will pay an administrative fee to Sourcewell on all Equipment, Products, and Services provided to Participating Entities. The Administrative Fee must be included in, and not added to, the pricing. Supplier may not charge Participating Entities more than the contracted price to offset the Administrative Fee.

The Supplier will submit payment to Sourcewell for the percentage of administrative fee stated in the Proposal multiplied by the total sales of all Equipment, Products, and Services purchased

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by Participating Entities under this Contract during each calendar quarter. Payments should note the Supplier's name and Sourcewell-assigned contract number in the memo; and must be mailed to the address above "Attn: Accounts Receivable" or remitted electronically to Sourcewell's banking institution per Sourcewell's Finance department instructions. Payments must be received no later than 45 calendar days after the end of each calendar quarter.

Supplier agrees to cooperate with Sourcewell in auditing transactions under this Contract to ensure that the administrative fee is paid on all items purchased under this Contract.

In the event the Supplier is delinquent in any undisputed administrative fees, Sourcewell reserves the right to cancel this Contract and reject any proposal submitted by the Supplier in any subsequent solicitation. In the event this Contract is cancelled by either party prior to the Contract's expiration date, the administrative fee payment will be due no more than 30 days from the cancellation date.

9. AUTHORIZED REPRESENTATIVE

Sourcewell's Authorized Representative is its Chief Procurement Officer.

Supplier's Authorized Representative is the person named in the Supplier's Proposal. If Supplier's Authorized Representative changes at any time during this Contract, Supplier must promptly notify Sourcewell in writing.

10. AUDIT, ASSIGNMENT, AMENDMENTS, WAIVER, AND CONTRACT COMPLETE

A. AUDIT. Pursuant to Minnesota Statutes Section 16C.05, subdivision 5, the books, records, documents, and accounting procedures and practices relevant to this Agreement are subject to examination by Sourcewell or the Minnesota State Auditor for a minimum of six years from the end of this Contract. This clause extends to Participating Entities as it relates to business conducted by that Participating Entity under this Contract.

B. ASSIGNMENT. Neither party may assign or otherwise transfer its rights or obligations under this Contract without the prior written consent of the other party and a fully executed assignment agreement. Such consent will not be unreasonably withheld. Any prohibited assignment will be invalid.

C. AMENDMENTS. Any amendment to this Contract must be in writing and will not be effective until it has been duly executed by the parties.

D. WAIVER. Failure by either party to take action or assert any right under this Contract will not be deemed a waiver of such right in the event of the continuation or repetition of the circumstances giving rise to such right. Any such waiver must be in writing and signed by the parties.

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E. CONTRACT COMPLETE. This Contract represents the complete agreement between the parties. No other understanding regarding this Contract, whether written or oral, may be used to bind either party.For any conflict between the attached Proposal and the terms set out in Articles 1-22 of this Contract, the terms of Articles 1-22 will govern.

F. RELATIONSHIP OF THE PARTIES. The relationship of the parties is one of independent contractors, each free to exercise judgment and discretion with regard to the conduct of their respective businesses. This Contract does not create a partnership, joint venture, or any other relationship such as master-servant, or principal-agent.

11. INDEMNITY AND HOLD HARMLESS

Supplier must indemnify, defend, save, and hold Sourcewell and its Participating Entities, including their agents and employees, harmless from any claims or causes of action, including attorneys' fees incurred by Sourcewell or its Participating Entities, arising out of any act or omission in the performance of this Contract by the Supplier or its agents or employees; this indemnification includes injury or death to person(s) or property alleged to have been caused by some defect in the Equipment, Products, or Services under this Contract to the extent the Equipment, Product, or Service has been used according to its specifications. Sourcewell's responsibility will be governed by the State of Minnesota's Tort Liability Act (Minnesota Statutes Chapter 466) and other applicable law.

12. GOVERNMENT DATA PRACTICES

Supplier and Sourcewell must comply with the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13, as it applies to all data provided by or provided to Sourcewell under this Contract and as it applies to all data created, collected, received, stored, used, maintained, or disseminated by the Supplier under this Contract.

13. INTELLECTUAL PROPERTY, PUBLICITY, MARKETING, AND ENDORSEMENT

A. INTELLECTUAL PROPERTY

1. *Grant of License.* During the term of this Contract:
   a. Sourcewell grants to Supplier a royalty-free, worldwide, non-exclusive right and license to use thetrademark(s) provided to Supplier by Sourcewell in advertising and promotional materials for the purpose of marketing Sourcewell's relationship with Supplier.
   b. Supplier grants to Sourcewell a royalty-free, worldwide, non-exclusive right and license to use Supplier's trademarks in advertising and promotional materials for the purpose of marketing Supplier's relationship with Sourcewell.
2. *Limited Right of Sublicense*. The right and license granted herein includes a limited right of each party to grant sublicenses to their respective subsidiaries, distributors, dealers,

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resellers, marketing representatives, and agents (collectively "Permitted Sublicensees") in advertising and promotional materials for the purpose of marketing the Parties' relationship to Participating Entities. Any sublicense granted will be subject to the terms and conditions of this Article. Each party will be responsible for any breach of this Article by any of their respective sublicensees.

3. *Use; Quality Control.*

a. Neither party may alter the other party's trademarks from the form provided and must comply with removal requests as to specific uses of its trademarks or logos.

b. Each party agrees to use, and to cause its Permitted Sublicensees to use, the other party's trademarks only in good faith and in a dignified manner consistent with such party's use of the trademarks. Upon written notice to the breaching party, the breaching party has 30 days of the date of the written notice to cure the breach or the license will be terminated.

4. As applicable, Supplier agrees to indemnify and hold harmless Sourcewell and its Participating Entities against any and all suits, claims, judgments, and costs instituted or recovered against Sourcewell or Participating Entities by any person on account of the use of any Equipment or Products by Sourcewell or its Participating Entities supplied by Supplier in violation of applicable patent or copyright laws.

5. Termination. Upon the termination of this Contract for any reason, each party, including Permitted Sublicensees, will have 30 days to remove all Trademarks from signage, websites, and the like bearing the other party's name or logo (excepting Sourcewell's pre-printed catalog of suppliers which may be used until the next printing). Supplier must return all marketing and promotional materials, including signage, provided by Sourcewell, or dispose of it according to Sourcewell's written directions.

B. PUBLICITY. Any publicity regarding the subject matter of this Contract must not be released without prior written approval from the Authorized Representatives. Publicity includes notices, informational pamphlets, press releases, research, reports, signs, and similar public notices prepared by or for the Supplier individually or jointly with others, or any subcontractors, with respect to the program, publications, or services provided resulting from this Contract.

C. MARKETING. Any direct advertising, marketing, or offers with Participating Entities must be approved by Sourcewell. Send all approval requests to the Sourcewell Supplier Development Administrator assigned to this Contract.

D. ENDORSEMENT. The Supplier must not claim that Sourcewell endorses its Equipment, Products, or Services.

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14. GOVERNING LAW, JURISDICTION, AND VENUE

The substantive and procedural laws of the State of Minnesota will govern this Contract. Venue for all legal proceedings arising out of this Contract, or its breach, must be in the appropriate state court in Todd County, Minnesota or federal court in Fergus Falls, Minnesota.

15. FORCE MAJEURE

Neither party to this Contract will be held responsible for delay or default caused by acts of God or other conditions that are beyond that party's reasonable control. A party defaulting under this provision must provide the other party prompt written notice of the default.

16. SEVERABILITY

If any provision of this Contract is found by a court of competent jurisdiction to be illegal, unenforceable, or void then both parties will be relieved from all obligations arising from that provision. If the remainder of this Contract is capable of being performed, it will not be affected by such determination or finding and must be fully performed.

17. PERFORMANCE, DEFAULT, AND REMEDIES

A. PERFORMANCE. During the term of this Contract, the parties will monitor performance and address unresolved contract issues as follows:

1. *Notification.* The parties must promptly notify each other of any known dispute and work in good faith to resolve such dispute within a reasonable period of time. If necessary, Sourcewell and the Supplier will jointly develop a short briefing document that describes the issue(s), relevant impact, and positions of both parties.
2. *Escalation.* If parties are unable to resolve the issue in a timely manner, as specified above, either Sourcewell or Supplier may escalate the resolution of the issue to a higher level of management. The Supplier will have 30 calendar days to cure an outstanding issue.
3. *Performance while Dispute is Pending*. Notwithstanding the existence of a dispute, the Supplier must continue without delay to carry out all of its responsibilities under the Contract that are not affected by the dispute. If the Supplier fails to continue without delay to perform its responsibilities under the Contract, in the accomplishment of all undisputed work, the Supplier will bear any additional costs incurred by Sourcewell and/or its Participating Entities as a result of such failure to proceed.

B. DEFAULT AND REMEDIES. Either of the following constitutes cause to declare this Contract, or any Participating Entity order under this Contract, in default:

1. Nonperformance of contractual requirements, or
2. A material breach of any term or condition of this Contract.

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The party claiming default must provide written notice of the default, with 30 calendar days to cure the default. Time allowed for cure will not diminish or eliminate any liability for liquidated or other damages. If the default remains after the opportunity for cure, the non-defaulting party may:

- Exercise any remedy provided by law or equity, or
- Terminate the Contract or any portion thereof, including any orders issued against the Contract.

18. INSURANCE

A. REQUIREMENTS. At its own expense, Supplier must maintain insurance policy(ies) in effect at all times during the performance of this Contract with insurance company(ies) licensed or authorized to do business in the State of Minnesota having an "AM BEST" rating of A- or better, with coverage and limits of insurance not less than the following:

1. *Workers' Compensation and Employer's Liability.*
Workers' Compensation: As required by any applicable law or regulation.
Employer's Liability Insurance: must be provided in amounts not less than listed below:
Minimum limits:
$500,000 each accident for bodily injury by accident
$500,000 policy limit for bodily injury by disease
$500,000 each employee for bodily injury by disease

2. *Commercial General Liability Insurance.* Supplier will maintain insurance covering its operations, with coverage on an occurrence basis, and must be subject to terms no less broad than the Insurance Services Office ("ISO") Commercial General Liability Form CG0001 (2001 or newer edition), or equivalent. At a minimum, coverage must include liability arising from premises, operations, bodily injury and property damage, independent contractors, products-completed operations including construction defect, contractual liability, blanket contractual liability, and personal injury and advertising injury. All required limits, terms and conditions of coverage must be maintained during the term of this Contract.
Minimum Limits:
$1,000,000 each occurrence Bodily Injury and Property Damage
$1,000,000 Personal and Advertising Injury
$2,000,000 aggregate for Products-Completed operations
$2,000,000 general aggregate

3. *Commercial Automobile Liability Insurance.* During the term of this Contract, Supplier will maintain insurance covering all owned, hired, and non-owned automobiles in limits of liability not less than indicated below. The coverage must be subject to terms

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no less broad than ISO Business Auto Coverage Form CA 0001 (2010 edition or newer), or equivalent.

Minimum Limits:
$1,000,000 each accident, combined single limit

4. *Umbrella Insurance*. During the term of this Contract, Supplier will maintain umbrella coverage over Employer's Liability, Commercial General Liability, and Commercial Automobile.

Minimum Limits:
$2,000,000

5. *Network Security and Privacy Liability Insurance*. During the term of this Contract, Supplier will maintain coverage for network security and privacy liability. The coverage may be endorsed on another form of liability coverage or written on a standalone policy. The insurance must cover claims which may arise from failure of Supplier's security resulting in, but not limited to, computer attacks, unauthorized access, disclosure of not public data – including but not limited to, confidential or private information, transmission of a computer virus, or denial of service.

Minimum limits:
$2,000,000 per occurrence
$2,000,000 annual aggregate

Failure of Supplier to maintain the required insurance will constitute a material breach entitling Sourcewell to immediately terminate this Contract for default.

B. CERTIFICATES OF INSURANCE. Prior to commencing under this Contract, Supplier must furnish to Sourcewell a certificate of insurance, as evidence of the insurance required under this Contract. Prior to expiration of the policy(ies), renewal certificates must be mailed to Sourcewell, 202 12th Street Northeast, P.O. Box 219, Staples, MN 56479 or sent to the Sourcewell Supplier Development Administrator assigned to this Contract. The certificates must be signed by a person authorized by the insurer(s) to bind coverage on their behalf.

Failure to request certificates of insurance by Sourcewell, or failure of Supplier to provide certificates of insurance, in no way limits or relieves Supplier of its duties and responsibilities in this Contract.

C. ADDITIONAL INSURED ENDORSEMENT AND PRIMARY AND NON-CONTRIBUTORY INSURANCE CLAUSE. Supplier agrees to list Sourcewell and its Participating Entities, including their officers, agents, and employees, as an additional insured under the Supplier's commercial general liability insurance policy with respect to liability arising out of activities, "operations," or "work" performed by or on behalf of Supplier, and products and completed operations of Supplier. The policy provision(s) or endorsement(s) must further provide that coverage is

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primary and not excess over or contributory with any other valid, applicable, and collectible insurance or self-insurance in force for the additional insureds.

D. WAIVER OF SUBROGATION. Supplier waives and must require (by endorsement or otherwise) all its insurers to waive subrogation rights against Sourcewell and other additional insureds for losses paid under the insurance policies required by this Contract or other insurance applicable to the Supplier or its subcontractors. The waiver must apply to all deductibles and/or self-insured retentions applicable to the required or any other insurance maintained by the Supplier or its subcontractors. Where permitted by law, Supplier must require similar written express waivers of subrogation and insurance clauses from each of its subcontractors.

E. UMBRELLA/EXCESS LIABILITY/SELF-INSURED RETENTION. The limits required by this Contract can be met by either providing a primary policy or in combination with umbrella/excess liability policy(ies), or self-insured retention.

19. COMPLIANCE

A. LAWS AND REGULATIONS. All Equipment, Products, or Services provided under this Contract must comply fully with applicable federal laws and regulations, and with the laws in the states and provinces in which the Equipment, Products, or Services are sold.

B. LICENSES. Supplier must maintain a valid and current status on all required federal, state/provincial, and local licenses, bonds, and permits required for the operation of the business that the Supplier conducts with Sourcewell and Participating Entities.

20. BANKRUPTCY, DEBARMENT, OR SUSPENSION CERTIFICATION

Supplier certifies and warrants that it is not in bankruptcy or that it has previously disclosed in writing certain information to Sourcewell related to bankruptcy actions. If at any time during this Contract Supplier declares bankruptcy, Supplier must immediately notify Sourcewell in writing.

Supplier certifies and warrants that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from programs operated by the State of Minnesota; the United States federal government or the Canadian government, as applicable; or any Participating Entity. Supplier certifies and warrants that neither it nor its principals have been convicted of a criminal offense related to the subject matter of this Contract. Supplier further warrants that it will provide immediate written notice to Sourcewell if this certification changes at any time.

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21. PROVISIONS FOR NON-UNITED STATES FEDERAL ENTITY PROCUREMENTS UNDER UNITED STATES FEDERAL AWARDS OR OTHER AWARDS

Participating Entities that use United States federal grant or FEMA funds to purchase goods or services from this Contract may be subject to additional requirements including the procurement standards of the Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards, 2 C.F.R. § 200. Participating Entities may have additional requirements based on specific funding source terms or conditions. Within this Article, all references to "federal" should be interpreted to mean the United States federal government. The following list only applies when a Participating Entity accesses Supplier's Equipment, Products, or Services with United States federal funds.

A. EQUAL EMPLOYMENT OPPORTUNITY. Except as otherwise provided under 41 C.F.R. § 60, all contracts that meet the definition of "federally assisted construction contract" in 41 C.F.R. § 60-1.3 must include the equal opportunity clause provided under 41 C.F.R. §60-1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 C.F.R. §, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 C.F.R. § 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor." The equal opportunity clause is incorporated herein by reference.

B. DAVIS-BACON ACT, AS AMENDED (40 U.S.C. § 3141-3148). When required by federal program legislation, all prime construction contracts in excess of $2,000 awarded by non-federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. § 3141-3144, and 3146-3148) as supplemented by Department of Labor regulations (29 C.F.R. § 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-federal entity must report all suspected or reported violations to the federal awarding agency. The contracts must also include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. § 3145), as supplemented by Department of Labor regulations (29 C.F.R. § 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-federal entity must report all suspected or reported violations to the federal awarding agency. Supplier must be in compliance with all applicable Davis-Bacon Act provisions.

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C. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT (40 U.S.C. § 3701-3708). Where applicable, all contracts awarded by the non-federal entity in excess of $100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. §§ 3702 and 3704, as supplemented by Department of Labor regulations (29 C.F.R. § 5). Under 40 U.S.C. § 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. § 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence. This provision is hereby incorporated by reference into this Contract. Supplier certifies that during the term of an award for all contracts by Sourcewell resulting from this procurement process, Supplier must comply with applicable requirements as referenced above.

D. RIGHTS TO INVENTIONS MADE UNDER A CONTRACT OR AGREEMENT. If the federal award meets the definition of “funding agreement” under 37 C.F.R. § 401.2(a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that “funding agreement,” the recipient or subrecipient must comply with the requirements of 37 C.F.R. § 401, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency. Supplier certifies that during the term of an award for all contracts by Sourcewell resulting from this procurement process, Supplier must comply with applicable requirements as referenced above.

E. CLEAN AIR ACT (42 U.S.C. § 7401-7671Q.) AND THE FEDERAL WATER POLLUTION CONTROL ACT (33 U.S.C. § 1251-1387). Contracts and subgrants of amounts in excess of $150,000 require the non-federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. § 7401- 7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. § 1251- 1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA). Supplier certifies that during the term of this Contract will comply with applicable requirements as referenced above.

F. DEBARMENT AND SUSPENSION (EXECUTIVE ORDERS 12549 AND 12689). A contract award (see 2 C.F.R. § 180.220) must not be made to parties listed on the government wide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 C.F.R. §180 that implement Executive Orders 12549 (3 C.F.R. § 1986 Comp., p. 189) and 12689 (3 C.F.R. § 1989 Comp., p. 235), “Debarment and Suspension.” SAM Exclusions contains the names

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of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549. Supplier certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any federal department or agency.

G. BYRD ANTI-LOBBYING AMENDMENT, AS AMENDED (31 U.S.C. § 1352). Suppliers must file any required certifications. Suppliers must not have used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Suppliers must disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier up to the non-federal award. Suppliers must file all certifications and disclosures required by, and otherwise comply with, the Byrd Anti-Lobbying Amendment (31 U.S.C. § 1352).

H. RECORD RETENTION REQUIREMENTS. To the extent applicable, Supplier must comply with the record retention requirements detailed in 2 C.F.R. § 200.333. The Supplier further certifies that it will retain all records as required by 2 C.F.R. § 200.333 for a period of 3 years after grantees or subgrantees submit final expenditure reports or quarterly or annual financial reports, as applicable, and all other pending matters are closed.

I. ENERGY POLICY AND CONSERVATION ACT COMPLIANCE. To the extent applicable, Supplier must comply with the mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

J. BUY AMERICAN PROVISIONS COMPLIANCE. To the extent applicable, Supplier must comply with all applicable provisions of the Buy American Act. Purchases made in accordance with the Buy American Act must follow the applicable procurement rules calling for free and open competition.

K. ACCESS TO RECORDS (2 C.F.R. § 200.336). Supplier agrees that duly authorized representatives of a federal agency must have access to any books, documents, papers and records of Supplier that are directly pertinent to Supplier's discharge of its obligations under this Contract for the purpose of making audits, examinations, excerpts, and transcriptions. The right also includes timely and reasonable access to Supplier's personnel for the purpose of interview and discussion relating to such documents.

L. PROCUREMENT OF RECOVERED MATERIALS (2 C.F.R. § 200.322). A non-federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation

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and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 C.F.R. § 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds $10,000 or the value of the quantity acquired during the preceding fiscal year exceeded $10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

M. FEDERAL SEAL(S), LOGOS, AND FLAGS. The Supplier not use the seal(s), logos, crests, or reproductions of flags or likenesses of Federal agency officials without specific pre-approval.

N. NO OBLIGATION BY FEDERAL GOVERNMENT. The U.S. federal government is not a party to this Contract or any purchase by an Participating Entity and is not subject to any obligations or liabilities to the Participating Entity, Supplier, or any other party pertaining to any matter resulting from the Contract or any purchase by an authorized user.

O. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS OR RELATED ACTS. The Contractor acknowledges that 31 U.S.C. 38 (Administrative Remedies for False Claims and Statements) applies to the Supplier's actions pertaining to this Contract or any purchase by a Participating Entity.

P. FEDERAL DEBT. The Supplier certifies that it is non-delinquent in its repayment of any federal debt. Examples of relevant debt include delinquent payroll and other taxes, audit disallowance, and benefit overpayments.

Q. CONFLICTS OF INTEREST. The Supplier must notify the U.S. Office of General Services, Sourcewell, and Participating Entity as soon as possible if this Contract or any aspect related to the anticipated work under this Contract raises an actual or potential conflict of interest (as described in 2 C.F.R. Part 200). The Supplier must explain the actual or potential conflict in writing in sufficient detail so that the U.S. Office of General Services, Sourcewell, and Participating Entity are able to assess the actual or potential conflict; and provide any additional information as necessary or requested.

R. U.S. EXECUTIVE ORDER 13224. The Supplier, and its subcontractors, must comply with U.S. Executive Order 13224 and U.S. Laws that prohibit transactions with and provision of resources and support to individuals and organizations associated with terrorism.

S. PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT. To the extent applicable, Supplier certifies that during the term of this Contract it will comply with applicable requirements of 2 C.F.R. § 200.216.

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T. DOMESTIC PREFERENCES FOR PROCUREMENTS. To the extent applicable, Supplier certifies that during the term of this Contract will comply with applicable requirements of 2 C.F.R. § 200.322.

22. CANCELLATION

Sourcewell or Supplier may cancel this Contract at any time, with or without cause, upon 60 days' written notice to the other party. However, Sourcewell may cancel this Contract immediately upon discovery of a material defect in any certification made in Supplier's Proposal. Cancellation of this Contract does not relieve either party of financial, product, or service obligations incurred or accrued prior to cancellation.

Sourcewell

DocuSigned by:
By: Jeremy Schwartz
C0FD2A139D06489...
Jeremy Schwartz
Title: Chief Procurement Officer
Date: 11/23/2021 | 8:47 PM CST

Holland Pump Company

DocuSigned by:
By: Robert Hennessy
DA43E39B068B4CD...
Robert Hennessy
Title: National Sales Manager
Date: 11/29/2021 | 12:46 PM PST

Approved:

DocuSigned by:
By: Chad Coauette
7E42B8F817A64CC...
Chad Coauette
Title: Executive Director/CEO
Date: 11/29/2021 | 2:56 PM CST

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RFP 101221 - Sewer Vacuum, Hydro-Excavation, and Municipal Pumping Equipment with Related Accessories and Supplies

Vendor Details

Company Name:	Holland Pump Company
Address:	7312 Westport Place West Palm Beach , FL 33413
Contact:	Robert Hennessy
Email:	roberth@hollandpump.com
Phone:	386-872-0403
Fax:	561-683-7247
HST#:	65-0921051

Submission Details

Created On:	Monday October 11, 2021 16:04:22
Submitted On:	Tuesday October 12, 2021 16:29:51
Submitted By:	Robert Hennessy
Email:	roberth@hollandpump.com
Transaction #:	dcb06cdf-cb84-4790-9837-5eb53a701222
Submitter's IP Address:	72.188.14.231

Specifications

Table 1: Proposer Identity & Authorized Representatives

General Instructions (applies to all Tables) Sourcewell prefers a brief but thorough response to each question. Do not merely attach additional documents to your response without also providing a substantive response. Do not leave answers blank; respond "N/A" if the question does not apply to you (preferably with an explanation).

Line Item	Question	Response *	
1	Proposer Legal Name (one legal entity only): (In the event of award, will execute the resulting contract as "Supplier")	Holland Pump Company	*
2	Identify all subsidiary entities of the Proposer whose equipment, products, or services are included in the Proposal.	NONE	*
3	Identify all applicable assumed names or DBA names of the Proposer or Proposer's subsidiaries in Line 1 or Line 2 above.	NONE	*
4	Proposer Physical Address:	7312 Westport Pl., West Palm Beach, FL 33413	*
5	Proposer website address (or addresses):	www.hollandpump.com	*
6	Proposer's Authorized Representative (name, title, address, email address & phone) (The representative must have authority to sign the "Proposer's Assurance of Compliance" on behalf of the Proposer and, in the event of award, will be expected to execute the resulting contract):	Robert Hennessy, National Sales Manager 7312 Westport Pl, West Palm Beach, FL 33413 roberth@hollandpump.com (386) 872-0403	*
7	Proposer's primary contact for this proposal (name, title, address, email address & phone):	Robert Hennessy, National Sales Manager 7312 Westport Pl, West Palm Beach, FL 33413 roberth@hollandpump.com (386) 872-0403	*
8	Proposer's other contacts for this proposal, if any (name, title, address, email address & phone):	Eugene Lant, VP Sales 7312 Westport Pl, West Palm Beach, FL 33413 eugene@hollandpump.com (407) 855-7109	

Table 2: Company Information and Financial Strength

Line Item	Question	Response *	
9	Provide a brief history of your company, including your company's core values, business philosophy, and industry longevity related to the requested equipment, products or services.	Main Core Value: Our People are Our Biggest Asset. We pursue all business dealings with a positive attitude, urgency, integrity and professionalism, & be passionate about all that we do. Holland Pump was formed in 1978 and is involved in the manufacture, sales, distribution, rental, and service of dewatering pumps. We currently have nine (9) company-owned locations, primarily in the Southeast, along with a growing dealer network nationwide. Plans are to have a Holland Canadian operation by 2023. Holland Pump Mfg. has produced 300 diesel driven systems in one year, with capabilities to double production with our acquisition of Complete Dewatering.. Holland Pump maintains a large fleet including 1,200+ diesel driven rental pumps, Holland Pump company partnered with XPV Water Partners two-years ago, and the growth impact is self evident. With this partnership, Holland is experiencing explosive growth.. We have acquired the 75-year old pump equipment manufacturer Complete Wellpoint & Dewatering Co., Edgewater, FL, further expanding our product offerings; The acquisition of Alpha Pump, a major industrial pump & rental supplier out of Baton Rouge, LA, moved the Holland footprint westward & into new market. Expansion in 2021-2022 include acquisitions in the Northeast, South, South Central, Midwest, and Pacific Coast regions. NDA's prevent revealing the LOI's for the soon to be acquired companies. Note: XPV has $500M+ invested between 16 companies, all of which are in the water industry.	*
10	What are your company's expectations in the event of an award?	Great expectations! Promote the value of and participate to the fullest in the Sourcewell Contract. Holland successfully recruited the former Sourcewell contract administrator for Thompson Pump, Robert Hennessy. He was the lead to get Thompson onboard with their successful NJPA/ Sourcewell contract. Also, we anticipate an even faster growth curve, especially with swift addition of related companies across the country and a new, dedicated marketing team. It is not unreasonable to project seven-figure growth within three-years.	*
11	Demonstrate your financial strength and stability with meaningful data. This could include such items as financial statements, SEC filings, credit and bond ratings, letters of credit, and detailed reference letters. Upload supporting documents (as applicable) in the document upload section of your response.	Holland Pump Company has 90 total employees across all of its locations and generates $20.16 million in sales (USD). As mentioned, we have our financial partner, XPV Water Partners, to bolster our standing.	*
12	What is your US market share for the solutions that you are proposing?	Although difficult to judge because pump sales are not as readily tracked, even by the U.S. standard association, the Contractors Pump Bureau (CPB), Holland stands at about 3% of the portable pump market.	*
13	What is your Canadian market share for the solutions that you are proposing?	Our Canadian operations are just unfolding, with three (3) dealers set to sign before year's end. This is in addition to the prospect of having a company-owned location near Pointe- Claire, Quebec. A pair of XPV's principles are domiciled in eastern Canada.	*
14	Has your business ever petitioned for bankruptcy protection? If so, explain in detail.	No, we have never petitioned.	*
15	How is your organization best described: is it a manufacturer, a distributor/dealer/reseller, or a service provider? Answer whichever question (either a) or b) just below) best applies to your organization. a) If your company is best described as a distributor/dealer/reseller (or similar entity), provide your written authorization to act as a distributor/dealer/reseller for the manufacturer of the products proposed in this RFP. If applicable, is your dealer network independent or company owned? b) If your company is best described as a manufacturer or service provider, describe your relationship with your sales and service force and with your dealer network in delivering the products and services proposed in this RFP. Are these individuals your employees, or the employees of a third party?	We are a manufacturer & a service provider, supplemented by an independent dealer network nationwide. Expanding our footprint, we anticipate having (14) company-owned locations by 2022 end. Each location has 2-3 salespersons & 3-4 service personnel. Our dealer network provides an extra (17) Holland sales and service outlets to cover Participating Entities nationwide.	*
16	If applicable, provide a detailed explanation outlining the licenses and certifications that are both required to be held, and actually held, by your organization (including third parties and subcontractors that you use) in pursuit of the business contemplated by this RFP.	We offer a two-year warranty now to Sourcewell, so we are confident in our product quality is excellent. We are striving, though, to improve the overall customer experience by having the ISO 90001 certification process begin in 2023. Otherwise, we have safety certifications at each company branch depending on their market.	*
17	Provide all "Suspension or Debarment" information that has applied to your organization during the past ten years.	Holland Pump has never had any actions taken against the company related to Suspension or Disbarment.	*

Table 3: Industry Recognition & Marketplace Success

Line Item	Question	Response *	
18	Describe any relevant industry awards or recognition that your company has received in the past five years	Other than local recognition, Holland Pump has not received any awards or recognition in the past 5 years.	*
19	What percentage of your sales are to the governmental sector in the past three years	We are integrating figures from acquisitions as well. Approximately 7% of new pump sales are from government entities.	*
20	What percentage of your sales are to the education sector in the past three years	We currently do not have any recordable sales to the education sector.	*
21	List any state, provincial, or cooperative purchasing contracts that you hold. What is the annual sales volume for each of these contracts over the past three years?	Please note: Until the second quarter of 2021, Holland Pump did not have a dedicated sales team for Municipal Sales. HGAC - $63,000 VASA - $28,760 FSA - $86,564	*
22	List any GSA contracts or Standing Offers and Supply Arrangements (SOSA) that you hold. What is the annual sales volume for each of these contracts over the past three years?	We have just started the GSA product qualification process with Federal Contracts Corp as our agent.	*

Table 4: References/Testimonials

Line Item 23. Supply reference information from three customers who are eligible to be Sourcewell participating entities.

Entity Name *	Contact Name *	Phone Number *	
Palm Beach County Fleet West Palm Beach, Florida	Jason Josephs	561-233-4571	*
The Port Authority of NY and NJ	Anthony Armao	516-375-1809	*
Ohio DOT – District 2	Robert Shirey	419-373-4453	*

Table 5: Top Five Government or Education Customers

Line Item 24. Provide a list of your top five government, education, or non-profit customers (entity name is optional), including entity type, the state or province the entity is located in, scope of the project(s), size of transaction(s), and dollar volumes from the past three years.

Entity Name	Entity Type *	State / Province *	Scope of Work *	Size of Transactions *	Dollar Volume Past Three Years *	
JEA, #7	Government	Florida - FL	PT4 Super Silent Pumps	$378,000	$392,000	*
City of Houston	Government	Texas - TX	8" Trailer Mounted Pumps	$111,030	$111,030	*
Port Authority of NY NJ	Government	New York - NY	6" Silenced Trailer Mounted Pumps	$196,242	$196,242	*
South Florida Water District	Government	Florida - FL	Axial Flow Pumps 12 x 8 pumps and pipe	$552,622	$640,889	*
Hillsborough County	Government	Florida - FL	6" Trailer Mounted Pumps; Pump Rentals	$266,622	$292, 334	*

Table 6: Ability to Sell and Deliver Service

Describe your company's capability to meet the needs of Sourcewell participating entities across the US and Canada, as applicable. Your response should address in detail at least the following areas: locations of your network of sales and service providers, the number of workers (full-time equivalents) involved in each sector, whether these workers are your direct employees (or employees of a third party), and any overlap between the sales and service functions.

Line Item	Question	Response *	
25	Sales force.	We currently have (28) company salespersons nationwide, not including upcoming acquisitions.	*
26	Dealer network or other distribution methods.	We have a dealer network nationwide that we are committed to expanding.	*
27	Service force.	We have 36 dedicated service personnel.	*
28	Describe the ordering process. If orders will be handled by distributors, dealers or others, explain the respective roles of the Proposer and others.	All orders, direct or through dealers, go through the our contract team leader via email, and consequently secured to our Microsoft Teams folder as outlined.	*
29	Describe in detail the process and procedure of your customer service program, if applicable. Include your response-time capabilities and commitments, as well as any incentives that help your providers meet your stated service goals or promises.	We are often an emergency-based business due to our rental fleet business, so we are available 24/7 via phone or text to our sales and service personnel, email during the day. We are dedicated to customer service for 100% satisfaction. Example: Our rental business states that if the customer is not satisfied with our equipment, we will reimburse the rental.	*
30	Describe your ability and willingness to provide your products and services to Sourcewell participating entities in the United States.	We cannot stress enough that we find this contract very important. Very willing and able with our resources.	*
31	Describe your ability and willingness to provide your products and services to Sourcewell participating entities in Canada.	We have expansion plans for Canada. Very willing.	*
32	Identify any geographic areas of the United States or Canada that you will NOT be fully serving through the proposed contract.	NONE.	*
33	Identify any Sourcewell participating entity sectors (i.e., government, education, not-for-profit) that you will NOT be fully serving through the proposed contract. Explain in detail. For example, does your company have only a regional presence, or do other cooperative purchasing contracts limit your ability to promote another contract?	We are offering to service ALL participating entity sectors our all of our goods and services nationally. We have a national presence. Although we do have other cooperative contracts	*
34	Define any specific contract requirements or restrictions that would apply to our participating entities in Hawaii and Alaska and in US Territories.	We have no restrictions to these outlying participating entities.	*

Table 7: Marketing Plan

Line Item	Question	Response *	
35	Describe your marketing strategy for promoting this contract opportunity. Upload representative samples of your marketing materials (if applicable) in the document upload section of your response.	We have ramped-up our marketing efforts from a regional setting to a national scope, owing to our continued explosive growth nationally. We have and will employ heavy social media, tradeshows, local municipal sponsorships & activities, training of our sales force on how to sell the Sourcewell contract, including a growing dealer network. We have hired an experienced lead to aggressively oversee the development of the Sourcewell contract, as evidenced by his visit this summer to your Staples HQ to re-acquaint & get up to speed on the current bidding process. We wish to employ web-based seminars and pump training videos under the Sourcewell sponsorship as you offer these opportunities.	*
36	Describe your use of technology and digital data (e.g., social media, metadata usage) to enhance marketing effectiveness.	Besides our excellent website, we are on many channels. This includes Twitter, LinkedIn, YouTube, Facebook, & Instagram We have posts on these sites several times weekly.	*
37	In your view, what is Sourcewell's role in promoting contracts arising out of this RFP? How will you integrate a Sourcewell-awarded contract into your sales process?	Initially, Holland would appreciate a visit from Sourcewell in some form to assist in training our sales group. We have already laid groundwork in an earlier internal sales summit regarding the possibility of being on your contract. Our sales group anticipates a metric that includes calling on municipalities a determined amount of times per week. We will participate in as many Sourcewell sponsored or directed activities including your marketing offerings such as reaching out to Participating Entities through member lists.	*
38	Are your products or services available through an e-procurement ordering process? If so, describe your e-procurement system and how governmental and educational customers have used it.	We are slated to be on an e-procurement system in late 2022 after we bring a new CRM online in the 1st/2nd quarter of 2022.	*

Table 8: Value-Added Attributes

Line Item	Question	Response *	
39	Describe any product, equipment, maintenance, or operator training programs that you offer to Sourcewell participating entities. Include details, such as whether training is standard or optional, who provides training, and any costs that apply.	We appreciate any opportunity to provide training to Participating Entities! The training is optional, and it may cover equipment, maintenance, or operator information as requested. Factory and Dealer representatives provide professional training in the classroom and hands-on in the field. Holland Pump provides this training at no cost to Participating Entities.	*
40	Describe any technological advances that your proposed products or services offer.	We fully remote/ automated pump controls and monitoring available with upgradeable ability as technology advances. We also have a true cutter pump that will be of incredible value to Participating Entities who pump harsh materials that usually clog pumps.	*
41	Describe any "green" initiatives that relate to your company or to your products or services, and include a list of the certifying agency for each.	Holland Pump has a long history of working with the SFWMD (South Florida Water Management District) and other water management agencies and also on ACOE (Army Corp of Engineers) on conservation projects. Because of reliability, our Hydraulically Driven Submersible are widely used by these agencies for dewatering. Holland identified the Green Initiative as early in 1999, converting from standard hydraulic oil to canola oil which is biodegradable. Later, we introduced mineral oils which proved to have even higher reliability & a lower risk of hurting the environment. Holland Pump has also stayed at the forefront of control panels which can be automated to start and stop remotely or by pressure transducer or by float mechanisms, avoiding excessive fuel use, lowering consumption and air pollution. Holland Pump uses the only the best environmental oils and has complied with all EPA requirements for the use and manufacture of pumping systems which are now mandated to be Tier 4 Final. Holland Pump is able to incorporate telemetry to remotely monitor warnings and shutdowns, to auto-start/stop pumps, and to monitor GPS locations. Used in combination with VFD's (Cariabale Frequency Drivess) and electric motors, these systems optimize power use according to the exact horsepower and flows required improving efficiency & again, lowering consumption.	*
42	Identify any third-party issued eco-labels, ratings or certifications that your company has received for the equipment or products included in your Proposal related to energy efficiency or conservation, life-cycle design (cradle-to-cradle), or other green/sustainability factors.	We utilize only EPA approved Tier 4 engines in our U.S. and Canadian sales of pumps.	*
43	Describe any Women or Minority Business Entity (WMBE), Small Business Entity (SBE), or veteran owned business certifications that your company or hub partners have obtained. Upload documentation of certification (as applicable) in the document upload section of your response.	By contract, we solely sell to Federal Agencies exclusively through supporting Federal Contracts Corp, a Service Disabled Owned Small Business & HUB Zone Business. We are also in the process of getting qualified on GSA & the DLA through FCC.	*
44	What unique attributes does your company, your products, or your services offer to Sourcewell participating entities? What makes your proposed solutions unique in your industry as it applies to Sourcewell participating entities?	We have a group of tenured employees who seek innovation. We are the industry consensus top two, if not the top, quality supplier of hydraulic pump equipment. Innovation in this product is the totally unique Triple Play Hydraulic System. We are on the cutting edge with developing the newest industry game changing Holland Diesel Drive Cutter Pump. This unit will help solve the problem of having to dedicate technicians just to keep emergency backup lift station pumps operational. This is HUGE! We also have a wide selection of smaller, highly efficient wellpointing pumps that are cost effective, especially for tightly budgeted groups. Overall, we offer a mix of extensive pump & pump system knowledge with excellent products. We are very accommodating and easy to work with as a partner.	*

Table 9A: Warranty

Describe in detail your manufacturer warranty program, including conditions and requirements to qualify, claims procedure, and overall structure. You may upload representative samples of your warranty materials (if applicable) in the document upload section of your response in addition to responding to the questions below.

Line Item	Question	Response *	
45	Do your warranties cover all products, parts, and labor?	Yes, all of our products, parts, and labor from manufacturing and material defects.	*
46	Do your warranties impose usage restrictions or other limitations that adversely affect coverage?	No. However, evident abuse of the products is cause for affecting coverage. Please note Line item 49 below for engines/ motors.	*
47	Do your warranties cover the expense of technicians' travel time and mileage to perform warranty repairs?	Yes.	*
48	Are there any geographic regions of the United States or Canada (as applicable) for which you cannot provide a certified technician to perform warranty repairs? How will Sourcewell participating entities in these regions be provided service for warranty repair?	We have a wide geographical range of coverage. However, in the unlikely event we do not service an area, or if the service event occurs while the area designated service group is on other calls, Holland Pump will find and assign a qualified service group to provide proper, prompt, & professional service and attention to the Participating Entity.	*
49	Will you cover warranty service for items made by other manufacturers that are part of your proposal, or are these warranties issues typically passed on to the original equipment manufacturer?	We will cover ALL pump-related service items. As is with the industry norm, all engine and motor warranties will be advanced WITH THE ASSISTANCE OF HOLLAND PUMP to the manufacturer to be promptly addressed, as the Participating Entities' advocate. The engine manufacturers generally offer an industry accepted two-year warranty or 1,800 hours, whichever comes first.	*
50	What are your proposed exchange and return programs and policies?	Exchanges will be made on a case-by-case basis. All returns must have a Returned Goods Authorization number (RGA#) issued from Holland Pump for acceptance of possible warranty items and general product returns for tracking purposes.	*
51	Describe any service contract options for the items included in your proposal.	We offer preventative maintenance (PM) programs to field service Holland Pump equipment every 250-hours or as requested by the Participating Entity. This includes oil change, other fluid and mechanical checks, and vacuum/ pump priming checks.	*

Table 9B: Performance Standards or Guarantees

Describe in detail your performance standards or guarantees, including conditions and requirements to qualify, claims procedure, and overall structure. You may upload representative samples of your performance materials (if applicable) in the document upload section of your response in addition to responding to the questions below.

Line Item	Question	Response *	
52	Describe any performance standards or guarantees that apply to your services	We are providing Sourcewell with a value-added Two-Year Limited Warranty against manufacturing and material defects. Our standard is a One-Year Limited Warranty.	*
53	Describe any service standards or guarantees that apply to your services (policies, metrics, KPIs, etc.)	We are offering preventive maintenance (PM) to service pumps in our network where applicable. For a nominal charge, routine service is provided every 250-hours of operation. This includes oil changes and other serviceable items to keep the Participant up-and-running. 100% satisfaction guaranteed or the PM charge is returned.	*

Table 10: Payment Terms and Financing Options

Line Item	Question	Response *	
54	Describe your payment terms and accepted payment methods?	Our terms are Net 30 days. Accepted payment is by check, bank card (3% fee), or similar electronic fund transfers.	*
55	Describe any leasing or financing options available for use by educational or governmental entities.	We utilize New Line leasing Corporation to assist in funding new, used, and leasing of equipment.	*
56	Describe any standard transaction documents that you propose to use in connection with an awarded contract (order forms, terms and conditions, service level agreements, etc.). Upload a sample of each (as applicable) in the document upload section of your response.	We have a signature & PO section at the bottom of our quotes to approve the offer. This form is utilized for sales and service.	*
57	Do you accept the P-card procurement and payment process? If so, is there any additional cost to Sourcewell participating entities for using this process?	Yes. There is a 3% fee associated with utilizing this payment process.	*

Table 11: Pricing and Delivery

Provide detailed pricing information in the questions that follow below. Keep in mind that reasonable price and product adjustments can be made during the term of an awarded Contract as described in the RFP, the template Contract, and the Sourcewell Price and Product Change Request Form.

Line Item	Question	Response *	
58	Describe your pricing model (e.g., line-item discounts or product-category discounts). Provide detailed pricing data (including standard or list pricing and the Sourcewell discounted price) on all of the items that you want Sourcewell to consider as part of your RFP response. If applicable, provide a SKU for each item in your proposal. Upload your pricing materials (if applicable) in the document upload section of your response.	We are offering a product category (across the board) discount, which is very favorable to Participating Entities.	*
59	Quantify the pricing discount represented by the pricing proposal in this response. For example, if the pricing in your response represents a percentage discount from MSRP or list, state the percentage or percentage range.	The discount across all products is higher/ better than any standard Holland Pump category of discounting. The discount is 12%.PLEASE NOTE: From the outset, our list price is set-up often lower than industry standard.	*
60	Describe any quantity or volume discounts or rebate programs that you offer.	There is an extra 1% for early payment. In addition, an extra 1% is allowed for prompt payment of orders over $100,000 USD.	*
61	Propose a method of facilitating “sourced” products or related services, which may be referred to as “open market” items or “nonstandard options”. For example, you may supply such items “at cost” or “at cost plus a percentage,” or you may supply a quote for each such request.	We will offer options for Participating Entities for Open Market items for each requested quote as requested.	*
62	Identify any element of the total cost of acquisition that is NOT included in the pricing submitted with your response. This includes all additional charges associated with a purchase that are not directly identified as freight or shipping charges. For example, list costs for items like pre-delivery inspection, installation, set up, mandatory training, or initial inspection. Identify any parties that impose such costs and their relationship to the Proposer.	Other than freight, we do not employ charges for pre-delivery inspection or set-up. We provide training at no cost. We do not provide permanent installation services, but we can advise and assist with pump selection through engineering and experience.	*
63	If freight, delivery, or shipping is an additional cost to the Sourcewell participating entity, describe in detail the complete freight, shipping, and delivery program.	We will research and offer to the Participating Entity the best cost and time effective freight rate available. We assess, with Participating Entity, how to ship on a case-by-case basis with Holland's shipping department. We attempt to utilize our purchasing power with freight companies, and we will pre-pay freight and add to the customer bill unless otherwise instructed.	*
64	Specifically describe freight, shipping, and delivery terms or programs available for Alaska, Hawaii, Canada, or any offshore delivery.	With such a flux in fuel costs and other shipping-related expenses in our current economy, we utilize several freight forwarders on a case-by-case basis. These companies specialize in these moves, especially for offshore requirements such as U.S. bases in Guam.	*
65	Describe any unique distribution and/or delivery methods or options offered in your proposal.	We offer free freight to Participating Entities within Florida.	*

Table 12: Pricing Offered

Line Item	The Pricing Offered in this Proposal is: *	Comments
66	c. better than the Proposer typically offers to GPOs, cooperative procurement organizations, or state purchasing departments.	We are offering an additional 2% discount. This is better than our stocking distributors and other cooperative contract discounts moving forward. We see the great value of the Sourcewell contract. Please note that our pricing structure is now a bit different; the list price is lower overall in the market than others at the outset.

Table 13: Audit and Administrative Fee

Line Item	Question	Response *	
67	Specifically describe any self-audit process or program that you plan to employ to verify compliance with your proposed Contract with Sourcewell. This process includes ensuring that Sourcewell participating entities obtain the proper pricing, that the Vendor reports all sales under the Contract each quarter, and that the Vendor remits the proper administrative fee to Sourcewell. Provide sufficient detail to support your ability to report quarterly sales to Sourcewell as described in the Contract template.	We have a process we will follow as with our other awarded municipal cooperative buying contracts/ agreements. We have a one-person contact with Sourcewell as receiving conduit (Team Lead), with two (two) back-up personnel. All incoming email correspondence for the contract is set-up by rule to go into our Microsoft Teams "Municipal Team" folder/ company file sharing. Our Accounts Payable (AP) Department is a member of the Municipal Team, and they receive alerts for correspondence including purchase orders. Near the end of the quarter, the AP group relays sales figures to the Team. After review, the Team confirms the figure(s) for payment. The Team lead/ contract contact reports back to the contract owner, and the AP group issues appropriate funds to cover the contract fee.	*
68	If you are awarded a contract, provide a few examples of internal metrics that will be tracked to measure whether you are having success with the contract.	We update key metropolitan statistical areas (MSA's) twice yearly to check market share with the governing body of the (AEM) Contractor's Pump Bureau pump sales statistics. We also have a monthly upper management meeting to review sales progress versus goals, including municipal sales.	*
69	Identify a proposed administrative fee that you will pay to Sourcewell for facilitating, managing, and promoting the Sourcewell Contract in the event that you are awarded a Contract. This fee is typically calculated as a percentage of Vendor's sales under the Contract or as a per-unit fee; it is not a line-item addition to the Member's cost of goods. (See the RFP and template Contract for additional details.)	As growing company, we would like to propose a 1% fee; however, we are open to the 2% maximum if Sourcewell deems it necessary.	*

Table 14A: Depth and Breadth of Offered Equipment Products and Services

Line Item	Question	Response *	
70	Provide a detailed description of the equipment, products, and services that you are offering in your proposal.	Hydraulically Driven Submersible Systems 4"-30"; Rotary Wellpoint Pumps & Accessories 4"-12";Suction Lift Pumps from 3"-18";Diesel Jet Pumps 4"-8"; Diesel Axial Flow Pumps 18"-42"; High Head Suction Lift Pumps 4"-18" Pumping accessories such as hose, pipe fittings, and accessories Preventative Maintenance Services	*
71	Within this RFP category there may be subcategories of solutions. List subcategory titles that best describe your products and services.	Emergency Back-up Lift Station Pump Bypass Pumping Equipment Fire Suppression Equipment Wellpoint Pumps and Accessories Dewatering Equipment Portable Dewatering Equipment Pump Accessories Permanently Mounted Back-up Pumps	*

Table 14B: Depth and Breadth of Offered Equipment Products and Services

Indicate below if the listed types or classes of equipment, products, and services are offered within your proposal. Provide additional comments in the text box provided, as necessary.

Line Item	Category or Type	Offered *	Comments	
72	Sewer vacuums or combination sewer cleaners	○ Yes ◉ No	N/A	*
73	Hydro or air excavation equipment	○ Yes ◉ No	N/A	*
74	Jetters and rodders	○ Yes ◉ No	N/A	*
75	Dewatering, mud, trash, and centrifugal pumps	◉ Yes ○ No	We offer a complete portfolio of dewatering, mud, trash, centrifugal pumps, and more.	*
76	Pumps used in lift stations, sewage treatment, water treatment, or water collection facilities	◉ Yes ○ No	Extensive list of rental fleet-proven products for standby portable and fixed emergency back-up diesel driven pumps.	*
77	Accessories, supplies and replacement or wear parts related to the offerings above.	◉ Yes ○ No	We have parts departments at all company stores and dealers across the country.	

Table 15: Industry Specific Questions

Line Item	Question	Response *	
78	Describe any product or equipment features that improve operator safety.	We offer the Triple Play combination unit. The premise is one hydraulic power pack that can power three type pumps: suction lift, submersible, & jet/ dewatering pumps. This set-up is the choice for confined/ small spaces. This allows the operator more room to work, and to work remotely in potentially hazardous (esp. gaseous) conditions. Also, see below for our related cutter pump.	*
79	Describe any product or equipment innovations that increase uptime and operator productivity.	We will be offering a specialized portable/ emergency lift station standby diesel cutter pump series that will allow less down time cleaning out debris, especially sewage related items, from the pump casing. Also provides the operator less exposure time to hazardous materials.	

Table 16: Exceptions to Terms, Conditions, or Specifications Form

Line Item 80. **NOTICE**: To identify any exception, or to request any modification, to the Sourcewell template Contract terms, conditions, or specifications, a Proposer must submit the exception or requested modification on the **Exceptions to Terms, Conditions, or Specifications Form** immediately below. The contract section, the specific text addressed by the exception or requested modification, and the proposed modification must be identified in detail. Proposer's exceptions and proposed modifications are subject to review and approval of Sourcewell and will not automatically be included in the contract.

Contract Section	Term, Condition, or Specification	Exception or Proposed Modification
N/A		

Documents

Ensure your submission document(s) conforms to the following:

1. Documents in PDF format are preferred. Documents in Word, Excel, or compatible formats may also be provided.

2. Documents should NOT have a security password, as Sourcewell may not be able to open the file. It is your sole responsibility to ensure that the uploaded document(s) are not either defective, corrupted or blank and that the documents can be opened and viewed by Sourcewell.

3. Sourcewell may reject any response where any document(s) cannot be opened and viewed by Sourcewell.

4. If you need to upload more than one (1) document for a single item, you should combine the documents into one zipped file. If the zipped file contains more than one (1) document, ensure each document is named, in relation to the submission format item responding to. For example, if responding to the Marketing Plan category save the document as "Marketing Plan."

- Pricing - Holland Pump - Sourcewell Pricing - All List Pricing - Take 12% off for NET.xlsm - Tuesday October 12, 2021 16:14:43
- Financial Strength and Stability - Holland Pump 2020 Audit Report.pdf - Tuesday October 12, 2021 16:15:13
- Marketing Plan/Samples - HOLLAND TRIPLE PLAY PUMP SET.pdf - Tuesday October 12, 2021 16:15:28
- WMBE/MBE/SBE or Related Certificates - FCC Capabilities Statement 2021.pdf - Tuesday October 12, 2021 16:18:36
- Warranty Information - Holland Pump Two-Year Warranty.pdf - Tuesday October 12, 2021 16:19:35
- Standard Transaction Document Samples - Holland 4-inch Vac Priming Enclosed Pump 10-2021 JB.xlsx - Tuesday October 12, 2021 16:20:06
- Upload Additional Document - Holland Pump Dealers.pdf - Tuesday October 12, 2021 16:28:12

Addenda, Terms and Conditions

PROPOSER AFFIDAVIT AND ASSURANCE OF COMPLIANCE

I certify that I am the authorized representative of the Proposer submitting the foregoing Proposal with the legal authority to bind the Proposer to this Affidavit and Assurance of Compliance:

1. The Proposer is submitting this Proposal under its full and complete legal name, and the Proposer legally exists in good standing in the jurisdiction of its residence.

2. The Proposer warrants that the information provided in this Proposal is true, correct, and reliable for purposes of evaluation for contract award.

3. The Proposer, including any person assisting with the creation of this Proposal, has arrived at this Proposal independently and the Proposal has been created without colluding with any other person, company, or parties that have or will submit a proposal under this solicitation; and the Proposal has in all respects been created fairly without any fraud or dishonesty. The Proposer has not directly or indirectly entered into any agreement or arrangement with any person or business in an effort to influence any part of this solicitation or operations of a resulting contract; and the Proposer has not taken any action in restraint of free trade or competitiveness in connection with this solicitation. Additionally, if Proposer has worked with a consultant on the Proposal, the consultant (an individual or a company) has not assisted any other entity that has submitted or will submit a proposal for this solicitation.

4. To the best of its knowledge and belief, and except as otherwise disclosed in the Proposal, there are no relevant facts or circumstances which could give rise to an organizational conflict of interest. An organizational conflict of interest exists when a vendor has an unfair competitive advantage or the vendor's objectivity in performing the contract is, or might be, impaired.

5. The contents of the Proposal have not been communicated by the Proposer or its employees or agents to any person not an employee or legally authorized agent of the Proposer and will not be communicated to any such persons prior to Due Date of this solicitation.

6. If awarded a contract, the Proposer will provide to Sourcewell Participating Entities the equipment, products, and services in accordance with the terms, conditions, and scope of a resulting contract.

7. The Proposer possesses, or will possess before delivering any equipment, products, or services, all applicable licenses or certifications necessary to deliver such equipment, products, or services under any resulting contract.

8. The Proposer agrees to deliver equipment, products, and services through valid contracts, purchase orders, or means that are acceptable to Sourcewell Members. Unless otherwise agreed to, the Proposer must provide only new and first-quality products and related services to Sourcewell Members under an awarded Contract.

9. The Proposer will comply with all applicable provisions of federal, state, and local laws, regulations, rules, and orders.

10. The Proposer understands that Sourcewell will reject RFP proposals that are marked "confidential" (or "nonpublic," etc.), either substantially or in their entirety. Under Minnesota Statutes Section 13.591, subdivision 4, all proposals are considered nonpublic data until the evaluation is complete and a Contract is awarded. At that point, proposals become public data. Minnesota Statutes Section 13.37 permits only certain narrowly defined data to be considered a "trade secret," and thus nonpublic data under Minnesota's Data Practices Act.

11. Proposer its employees, agents, and subcontractors are not:

    1. Included on the "Specially Designated Nationals and Blocked Persons" list maintained by the Office of Foreign Assets Control of the United States Department of the Treasury found at: https://www.treasury.gov/ofac/downloads/sdnlist.pdf;

    2. Included on the government-wide exclusions lists in the United States System for Award Management found at: https://sam.gov/SAM/; or

    3. Presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from programs operated by the State of Minnesota; the United States federal government or the Canadian government, as applicable; or any Participating Entity. Vendor certifies and warrants that neither it nor its principals have been convicted of a criminal offense related to the subject matter of this solicitation.

☑ By checking this box I acknowledge that I am bound by the terms of the Proposer's Affidavit, have the legal authority to submit this Proposal on behalf of the Proposer, and that this electronic acknowledgment has the same legal effect, validity, and enforceability as if I had hand signed the Proposal. This signature will not be denied such legal effect, validity, or enforceability solely because an electronic signature or electronic record was used in its formation. - Robert Hennessy, Natl Sales, Holland Pump

The Proposer declares that there is an actual or potential Conflict of Interest relating to the preparation of its submission, and/or the Proposer foresees an actual or potential Conflict of Interest in performing the contractual obligations contemplated in the bid.

○ **Yes** ◉ **No**

The Bidder acknowledges and agrees that the addendum/addenda below form part of the Bid Document.

Check the box in the column "**I have reviewed this addendum"** below to acknowledge each of the addenda.

File Name	I have reviewed the below addendum and attachments (if applicable)	Pages
Addendum_3_Sewer_Vac_Hydro-Excavation_Pumps_RFP_101221 Thu September 30 2021 03:29 PM	☑	2
Addendum_2_Sewer_Vac_Hydro-Excavation_Pumps_RFP_101221 Fri September 10 2021 02:40 PM	☑	2
Addendum_1_Sewer_Vac_Hydro-Excavation_Pumps_RFP_101221 Thu August 26 2021 05:40 PM	☑	1

HOLLAND PUMP
FINISH FASTER

SALES QUOTE

QUOTE No.:14148

Customer #: CITY0210
Customer: CITY OF TRACY PUBLIC WORKS DEP
Address: 520 TRACY BLVD.
TRACY CA 95376

Site: CITY OF TRACY PUBLIC WORKS
Address: City of Tracy Public Works
520 Tracy Bvd
Tracy CA 95376

Customer Order #:
Quote Date: 11/27/2023
Division: 1066
Sales Person: Carl Calabrese

Contact: JAMES THOMPSON
Phone: 209-831-6371

Site Contact: Adrian Taylor
Phone: 209-483-6815

Equipment	Description	Qty Ordered	Qty B/Ordered	Unit Price	Sales Value	TAX	Line Total
MISC	Atlas Copco PAS F88 JD-S 125HP FT4, 8" Pump, Wheel Mount, Enclosed	1	1	$87,325.00	$87,325.00	$0.00	$87,325.00
MISC	8" Flange x 8" Bauer SOC	1	1	$367.00	$367.00	$0.00	$367.00
MISC	8" x 10 ft. Suction Hose, M x F Buer	2	2	$998.00	$1,996.00	$0.00	$1,996.00
MISC	8" RH STrainer x Bauer Coupling	1	1	$485.00	$485.00	$0.00	$485.00
MISC	8" Flange x 6" Male Cam Lock	1	1	$467.50	$467.50	$0.00	$467.50
MISC	6" x 50 ft. Red LF Disch. Hose, M x F Cam	4	4	$378.00	$1,512.00	$0.00	$1,512.00
MISC	Dual Float Switch, 40 ft.	1	1	$440.00	$440.00	$0.00	$440.00
FREIGHT	Trucking to CA	1	1	$4,800.00	$4,800.00	$0.00	$4,800.00

Notes:
The pump is offered thru our Sourcewell contract 101221-HLD
This 8" Enclosed Wheel Mounted unit has a 6 - 12 week lead time
Comparable to the first pump you purchased from us, though the model / engine has changed.

Pumping capacity to 3750 GPM, heads to 196 ft.

More options have been added, though items and quantities can be adjusted to your budget.

Terms are N-30 with purchase order.
ANY CA SALES OR USE TAXES
ARE THE PURCHASERS RESPONSIBILITY

Carl Calabrese
carlc@hollandpump.com
386-426-1345 x 6603

SUB TOTAL:	**$92,592.50**
FREIGHT (SHIPPING/DELIVERY):	**$4,800.00**
TAX:	**$0.00**
TOTAL:	**$97,392.50**

DATE ISSUED: 11/28/2023

PAS F88 JD-S 125HP FT4

Diesel - Qmax 3,750 USgpm - Hmax 196 ft

Indicative picture of the product

Distributed By:
Holland Pump Co.
7312 Westport Place
West Palm Beach, FL 33413

Carl Calabrese
Government Sales
Carlc@hollandpump.com
Direct 386-426-1345 x 6603

DRAFT

PAC Flow series

The pump system consists of a centrifugal pump and a separator, which enables air to be separated from the liquid and be sucked by a vacuum pump - making automatic priming possible. Even with suction heights of several feet the machine rapidly evacuates the air from the suction pipe and starts to pump. The PAS range is also suitable for pumping liquids with solids in suspension with best possible efficiency.

Applications

The PAS F88 Atlas Copco pump is designed to withstand toughest applications and delivers best in class pumping efficiency. One of the most common area of utilization is the mining and Oil & Gas segment where reliability, efficiency and versatility is the key to provide a customized solution. Other suitable applications within Construction and General dewatering, Municipal as well as General Industry are ideal for the PAS F88 pump. Atlas Copco pumps are packed with features that not only meet, but exceed the needs of our customers.

Benefits

Efficiency
The 12" impeller with **80%** efficiency at B.E.P. provides best pumping result with minimal efforts

Solids handling
3" solids handling capability for trouble free operation

Easy maintenance
Hinged cover for direct access to the impeller and pump volute

Polyethylene Fuel tank
Corrosion-free PE tank provides longer lifetime and avoids tank cleaning due to oxidation

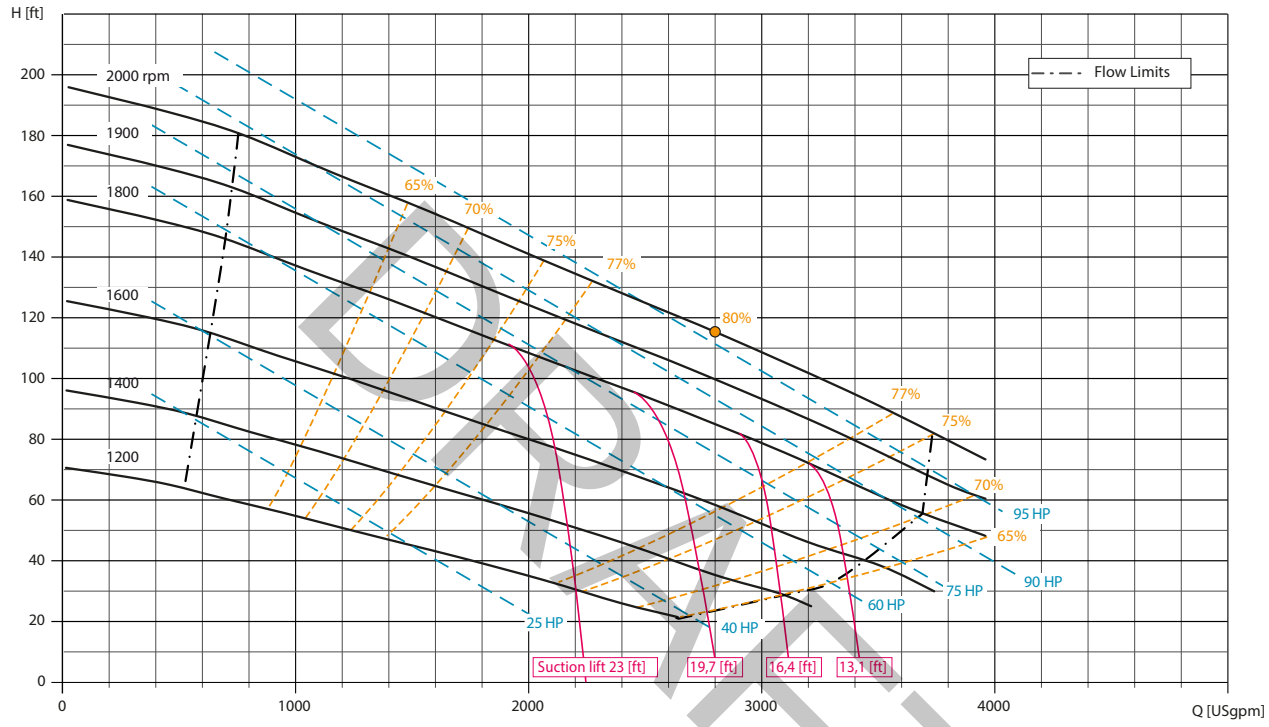
PAS F88 JD-S 125HP FT4

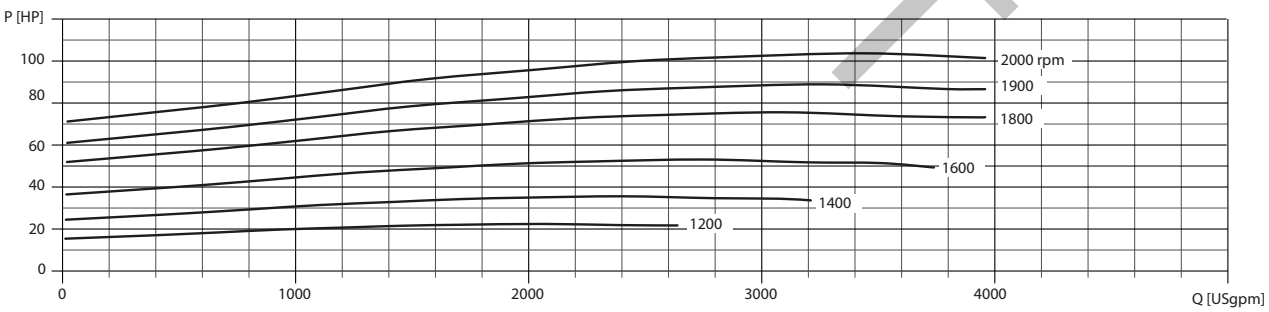
Performance curves

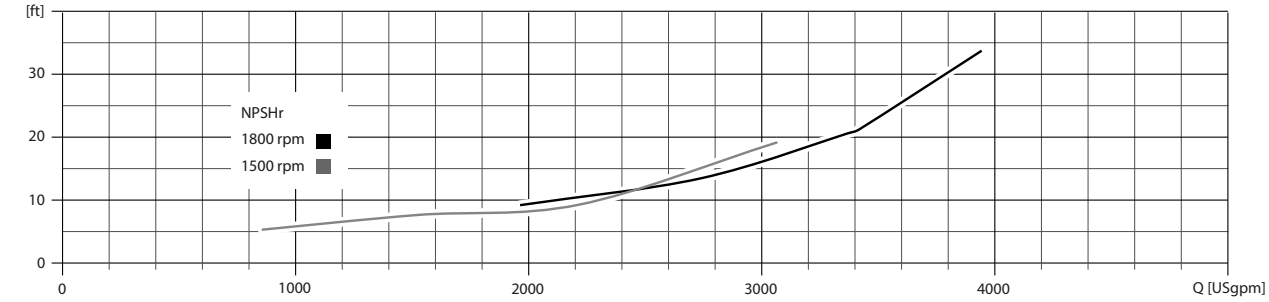
Test according to UNI EN ISO 9906 standard - level 2B
Test liquid: clean water, density 62.43 lb/ft3 (8.345 lb/gal)

Losses from priming system and check valve not included

Speed	Impeller Dia.	Style	Solids Dia.	Ns	Suction	Discharge	No. Vanes
Various	12" / 315 mm	Semi Open	3" / 76 mm	2000 rpm	8" / 200 mm	8" / 200 mm	2







DRAFT

PAS F88 JD-S 125HP FT4

Technical data

Pump

Model	PAS F88
Qmax	3,750 USgpm
Hmax	196 ft
Q max eff.	2,900 USgpm
Eff. max	80 %
Suction port	8" Flange - ANSI class 150
Delivery port	8" Flange - ANSI class 150
Impeller type	Semi Open, 2 vane
Impeller diameter	12"
Solids handling	3"
Material	
Casing	ASTM A536 ductile iron
Impeller	ASTM A536 ductile iron
Wear ring	ASTM A48 Class 20 grey iron
Wear plate	ASTM A48 Class 20 grey iron
Shaft	AISI 630 stainless steel
Mechanical Seal faces	Silicon carbide / Silicon carbide / VITON
Elastomers	NBR + VITON
Lubrication	Grease (bearings)
Check Valve	ASTM A536 ductile iron + NBR rubber flap
Separator	Aluminium alloy

Priming system

Vacuum pump	
Vacuum pump type	Diaphragm
Nominal air capacity	50 cfm
Max vacuum	- 26.6 inHg
Drives	Link belt

Engine

Make	John Deere
Model	4045HI550
Type	Diesel turbo common rail
Displacement	275 in^3
No. cylinders	4
Cooling	Liquid with radiator
Rpm type	Variable
Max operating speed	2000 rpm
US emissions	EPA Tier 4F
Starting	Electric
Engine system voltage	12 V
Engine power rating	125 HP

Control panel

Model	PW 1000
	Manual operation
	Automatic operation: start-stop with transducers or floats
	FleetLink Optional

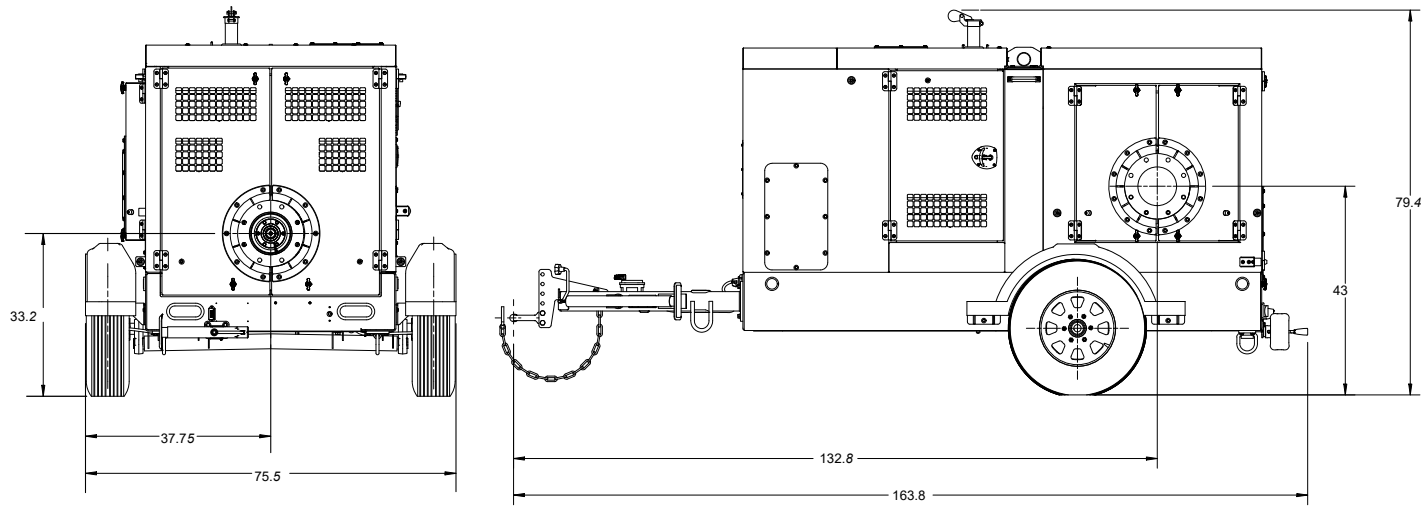
Arrangement

Technical data	
Material	ASTM A36 steel
Coatings	Epoxy powder, average thickness of 3 MIL
Features	Lifting beam. Fork lift pockets. Pump access through hinged door. PE fuel tank.
Battery	Acid charge Pb-Ca maintenance free, 12V - 1100 CCA
Fuel tank capacity	90 USG
Fuel consumption	6,1 US Gal/hr @2000 rpm @BEP
Dry weight	5,283 lbs
Wet weight	5,980 lbs

DRAFT

Dimensional drawing

[in]



APPROVED AS TO FORM AND LEGALITY

_____
CITY ATTORNEY'S OFFICE

TRACY CITY COUNCIL

RESOLUTION NO. _____

AUTHORIZING THE PURCHASE OF ONE ATLAS COPCO PAS F88 MOBILE DEWATERING PUMP FROM HOLLAND PUMP COMPANY THROUGH A COMPETITIVELY BID SOURCEWELL COOPERATIVE AGREEMENT IN THE AMOUNT OF $97,392.50 FOR THE JOHN JONES WATER TREATMENT PLANT; AND 2) DECLARING THE EXISTING MOBILE DEWATERING PUMP AS SURPLUS CITY PROPERTY AND APPROVING ITS DISPOSITION PURSUANT TO TRACY MUNICIPAL CODE SECTION 2.20.310

WHEREAS, A new dewatering pump for the John Jones Water Treatment Plant (Water Plant) is needed due to the malfunctioning and failure of the existing mobile dewatering pump; and

WHEREAS, The mobile dewatering pump is vital in the operation and treatment of the Water Plant; and

WHEREAS, This equipment was previously identified for replacement in FY23/24 under the City's equipment replacement program; and

WHEREAS, This equipment provides the ability to be able to remove excess water from the sedimentation basin which is a part of the treatment process for the Water Plant; and

WHEREAS, On November 17, 2023, City staff requested bids from Sourcewell (formerly National Joint Powers Alliance (NJPA)); and

WHEREAS, Tracy is an established customer with Sourcewell (customer number 18531) and is authorized to make purchases using Sourcewell cooperative purchasing agreements, per Tracy Municipal Code section 2.20.220; and

WHEREAS, Holland Pump Company, a Florida Corporation, located at 7312 Westport Place, West Palm Beach, Florida, 33413 (Holland Pump) is a Sourcewell awarded contract company and qualified vendor of the equipment the City needs to replace its dewatering pump; and

WHEREAS, Pursuant to Tracy Municipal Code section 2.20.220, the City will contract directly with Holland Pump, by and through incorporation of the Sourcewell cooperative agreement with a purchase order; and

WHEREAS, As there are no customized design standards or other requirements needed here,staff recommends proceeding with this contracting approach; and

WHEREAS, The existing failed City dewatering pump needs to be disposed; and

WHEREAS, Section 2.20.310 of the Tracy Municipal Code requires City Council approval for disposition of City property valued at over $2,000 as surplus; and

WHEREAS, Section 2.20.310 of the Tracy Municipal Code identifies the method of disposition of surplus property, including sale at public auction to the highest bidder, and the disposition of funds recovered from auction returned to the City department to offset replacement costs; and

WHEREAS, This action is categorically exempt from the California Environmental Quality Act pursuant to CEQA Guidelines section 15311 that pertains to construction, or replacement of minor structures accessory to existing commercial, industrial, or institutional facilities, including on-premises signs; and

NOW, THEREFORE, be it

RESOLVED: That the City Council for the City of Tracy finds and determines that the resolutions and City actions described herein are categorically exempt from the California Environmental Quality Act pursuant to CEQA Guidelines section 15311 that pertains to construction, or replacement of minor structures accessory to existing commercial, industrial, or institutional facilities; and be it further

RESOLVED: That that the City Council for the City of Tracy authorizes and approves the purchase of one Atlas Copco PAS F88 mobile dewatering pump from Holland Pump Company, a Florida Corporation, located at 7312 Westport Place, West Palm Beach, Florida, 33413, by and through the Sourcewell Cooperative Agreement in the amount of $97,392.50 for the City of Tracy John Jones Water Treatment Plant; and, be it further

RESOLVED: That the City Council authorizes the City Public Works Director, pursuant to Tracy Municipal Code Section 2.20.080, to execute a purchase order with Holland Pump Company for one Atlas Copco PAS F88 mobile dewatering pump in the amount of $97,392.50, which incorporates the Sourcewell Cooperative Agreement with Holland Pump Company; and be it further

RESOLVED: That the City Council approves the determination that the existing mobile dewatering pump is surplus City property pursuant to Tracy Municipal Code Section 2.20.310; and, be it further

RESOLVED: That the City Council authorizes the City Public Works Director to cause the surplus mobile dewatering pump to be sold at public auction and carry out related tasks for its disposition pursuant to Tracy Municipal Code Section 2.20.310.

* * * * * * * * * * * * * * *

The foregoing Resolution 2024-_____ was adopted by the Tracy City Council on April 16, 2024, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTENTION: COUNCIL MEMBERS:

_____
NANCY D. YOUNG
Mayor of the City of Tracy, California

ATTEST:_____
ADRIANNE RICHARDSON
City Clerk and Clerk of the Council of the
City of Tracy, California

April 16, 2024

Agenda Item 1.E

RECOMMENDATION

Staff recommends that the City Council adopt a resolution (1) accepting improvements for Corral Hollow Road Widening as complete, (2) authorizing the City Engineer to release the bonds furnished by the developer, and (3) authorizing the City Clerk to file the Notice of Completion with the San Joaquin County Recorder's Office.

EXECUTIVE SUMMARY

Tracy Phase 1, LLC, a Delaware Limited Liability Company (Developer), has completed public improvements for Corral Hollow Road Widening, located adjacent to the Tracy Hills KT II Project as shown on Attachment A hereto, in accordance with the Offsite Improvement Agreement, project plans, and specifications (Project). Staff recommends the City Council accept the Project improvements as complete, authorize the City Clerk to file Notice of Completion, and authorize the City Engineer to release the Developer's bonds.

BACKGROUND AND LEGISLATIVE HISTORY

On November 10, 2020, by Resolution No. 2020-189, City Council approved a Vesting Tentative Map for the Tracy Hills KT Project. The Conditions of Approval attached to the Project included, among other things, certain improvements to Corral Hollow Road, generally extending from just south of the California Aqueduct to the westbound I-580 ramps.

On August 30, 2021, the City Manager approved an Inspection Improvement Agreement (IIA) with Developer, pursuant to Urgency Ordinance No. 1285, allowing construction of the Project to proceed prior to final approval of the Project plans and specifications by the City Engineer.

On October 3, 2023, by Resolution No. 2023-208, the City Council approved an Offsite Improvement Agreement (Agreement) with Developer thereby replacing the previously approved IIA. The Agreement modified the Project to enable City supervision of the Project and achieve compliance with the Conditions of Approval, and determine the work covered under the Agreement was within the scope of the Environmental Impact Report for the Tracy Hills Specific Plan certified by City Council on April 5, 2016.

ANALYSIS

The Agreement required Developer to perform the scope of work defined in the following plan sets:

"Improvement Plans Corral Hollow Road Widening at Tracy Hills Phase 1A," consisting of thirteen (13) sheets, prepared by Ruggeri-Jensen-Azar.

"Signal Installation at Corral Hollow Road & Tracy Hills Drive Corral Hollow Road Widening," consisting of two (2) sheets, prepared by TJKM.

"Joint Trench Composite Tracy Hills Corral Hollow Road," consisting of four (4) sheets, prepared by O'Dell Engineering.

"Street Light Plan Tracy Hills Corral Hollow Road," consisting of two (2) sheets, prepared by O'Dell Engineering.

"Tracy Hills Landscape Improvement Plans – Corral Hollow Road Widening Tracy Hills KT Property – Tract 4037, Tracy, CA," consisting of twenty-three (23) sheets, prepared by FORMA.

Developer has completed all the work required to be done in accordance with the Agreement and has requested acceptance of the public improvements. The City Engineer has inspected the completed work and confirmed that the improvements conform to the Agreement and City plans and specifications. The estimated cost of the public improvements are as follows:

Cost Breakdown:		
Roadway Improvements	$	1,141,176
Water	$	158,015
Storm Drainage	$	47,575
Recycled Water	$	58,630
Street Lighting	$	33,000
Traffic Signal	$	389,730
Landscaping	$	417,406
Total	**$**	**2,245,532**
Dedicated Land Value	$	304,000

Bonds were provided by Developer as required by the Agreement in the amounts as follows:

Bond Type		**Amount**
Faithful Performance	$	2,251,582
Labor and Material	$	2,251,582
Warranty	$	225,158
Monumentation	$	2,500

Faithful Performance bonds may be released upon acceptance of improvements by the City Council.

Labor and Material bonds may be released thirty days after recordation of Notice of Completion as statute of limitations period expires in accordance with Civil Code §9356.

Warranty bonds may be released one year after City Council acceptance of improvements and warranty work is completed.

Monumentation bonds may be released upon City receipt of a letter from the project surveyor stating full payment has been received for installation of monumentation, per Government Code Section 66496. City is now in receipt of said letter.

A total of 3.04 acres has been dedicated by Developer as public right-of-way for Corral Hollow Road, along the frontages of the Tracy Hills KT Project and Tracy Hills Phase 1 and accepted by the City Clerk subject to satisfactory completion of improvements.

Corral Hollow Road dedications were made on four separate maps as follows:

1. 0.82 acre on Parcel Map 25-PM-168
2. 1.14 acres on Tracy Hills Tract No. 3878
3. 0.65 acre on KT Property I Tract No. 4013
4. 0.43 acre on KT Property II Tract No. 4037

In addition, 0.17 acres of public right-of-way for Corral Hollow Road has been granted by Tracy Parcel Three, LLC, by means of an Irrevocable Offer of Dedication of Fee Interest (IOD), recorded March 7, 2022, as Document No. 2022-030118. The IOD was accepted by the City Clerk, subject to improvements, reserving the right to accept the offer of dedication in fee title by separate document.

Estimated land value is estimated at $321,000. Filing of Notice of Completion by City Clerk will commemorate satisfactory completion of improvements per Tracy Municipal Code 12.36.110.

FISCAL IMPACT

All improvements were completed by the Developer in accordance with the Offsite Improvement Agreements and there is no fiscal impact associated with this action.

PUBLIC OUTREACH / INTEREST

Not applicable.

COORDINATION

Project construction activities were coordinated with City of Tracy Public Works Department.

CEQA DETERMINATION

On October 3, 2023, by Resolution No. 2023-208, City Council determined the work covered under the Agreement was within the scope of the Environmental Impact Report for the Tracy Hills Specific Plan certified by City Council on April 5, 2016. No further environmental review is required.

STRATEGIC PLAN

This agenda item is consistent with the Council approved Economic Development Strategy to ensure physical infrastructure necessary for development.

ACTION REQUESTED OF THE CITY COUNCIL

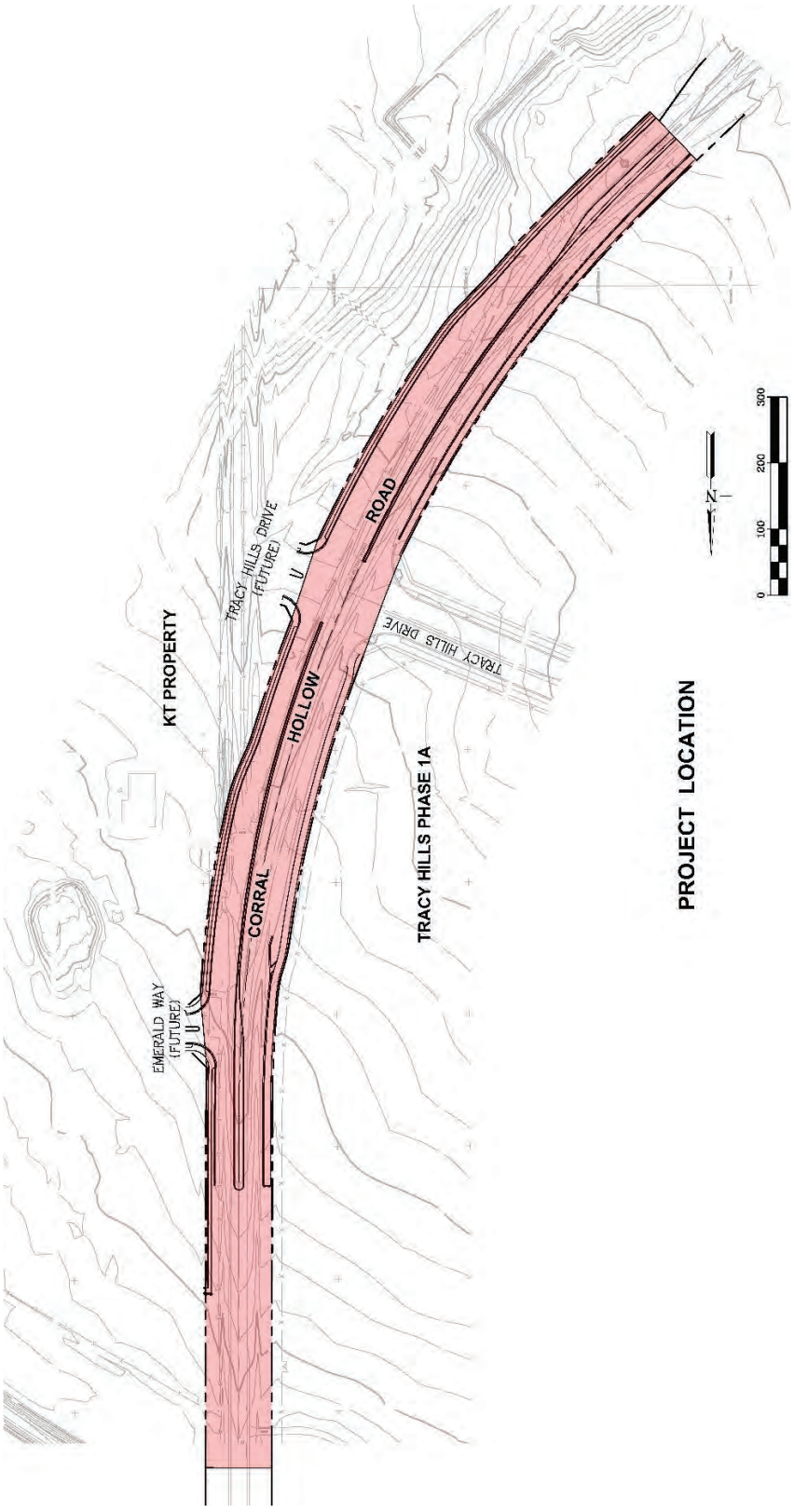
Staff recommends that the City Council, by resolution, (1) accept improvements for Corral Hollow Road Widening as complete, (2) authorize the City Engineer to release the bonds

furnished by the developer, and (3) authorize the City Clerk to file the Notice of Completion with the San Joaquin County Recorder's Office.

Prepared by: Al Gali, Associate Engineer
Reviewed by: Koosun Kim, PE, City Engineer
Sara Cowell, Finance Director
Bijal M. Patel, City Attorney
Karin Schnaider, Assistant City Manager
Approved by: Midori Lichtwardt, City Manager

ATTACHMENTS:
Attachment A – Project Location

PROJECT LOCATION



APPROVED AS TO FORM AND LEGALITY

_____
CITY ATTORNEY'S OFFICE

TRACY CITY COUNCIL

RESOLUTION 2024-_____

---

(1) ACCEPTING IMPROVEMENTS FOR CORRAL HOLLOW WIDENING AS COMPLETE,
(2) AUTHORIZING THE CITY ENGINEER TO RELEASE THE BONDS FURNISHED BY THE DEVELOPER, AND
(3) AUTHORIZING THE CITY CLERK TO FILE A NOTICE OF COMPLETION WITH THE SAN JOAQUIN COUNTY RECORDER'S OFFICE.

WHEREAS, on November 10, 2020, by Resolution No. 2020-189, City Council approved a Vesting Tentative Map for Tracy Hills KT Project; Conditions of Approval included, among other things, certain improvements to Corral Hollow Road, generally extending from just south of the California Aqueduct to the westbound I-580 ramps; and

WHEREAS, on August 30, 2021, the City Manager approved an Inspection Improvement Agreement (IIA) with Tracy Phase 1, LLC, a Delaware Limited Liability Company (Developer), pursuant to Urgency Ordinance No. 1285, allowing construction of Corral Hollow Widening Improvements to proceed prior to final City approval of the project plans and specifications; and

WHEREAS, on October 3, 2023, by Resolution No. 2023-208, City Council approved an Offsite Improvement Agreement (Agreement) with Developer, thereby replacing the previously approved IIA, and determined the work covered under the Agreement was within the scope of the Environmental Impact Report for the Tracy Hills Specific Plan certified by City Council on April 5, 2016, and is therefore exempt from additional review under California Environmental Quality Act Guidelines Section 15378; and

WHEREAS, the City Engineer has inspected the completed work and recommends acceptance of all the improvements completed in accordance with the Agreement; and

WHEREAS, Developer furnished Performance, Payment, and Warranty bonds assuring completion of the work. The estimated cost of the improvements is as follows:

Cost Breakdown:	
Roadway Improvements	$ 1,141,176
Water	$ 158,015
Storm Drainage	$ 47,575
Recycled Water	$ 58,630
Street Lighting	$ 33,000
Traffic Signal	$ 389,730
Landscaping	$ 417,406
Total	$ 2,245,532; and

WHEREAS, a total of 3.21 acres, valued at $321,000, was dedicated as public right-of-way Parcel Map 25-PM-168, Tracy Hills Tract No. 3878, KT Property I Tract No. 4013, KT Property II Tract No. 4037, and an Irrevocable Offer of Dedication in Fee Interest recorded as Document No. 2022-030118, and accepted by the City Clerk subject to satisfactory completion of improvements thereon; now, therefore, be it

RESOLVED: That the City Council of the City of Tracy finds and determines that the actions approved by this Resolution are part of a previously reviewed and approved Project and therefore are exempt from additional review under California Environmental Quality Act Guidelines Section 15378; and be it

FURTHER RESOLVED: That the City Council of the City of Tracy hereby accepts the improvements for Corral Hollow Road Widening as complete in accordance with the Agreement and Conditions of Approval of the Vesting Tentative Map for Tracy Hills KT Project; and be it

FURTHER RESOLVED: That the City Council authorizes the City Engineer to release the Developer's bonds in accordance with the terms of the Agreement; and be it

FURTHER RESOLVED: That City Council authorizes the City Clerk to file a Notice of Completion with the San Joaquin County Recorder's Office.

* * * * * * * * * * * * * *

The foregoing Resolution 2024-_____ was adopted by the Tracy City Council on the 16th day of April 2024, by the following vote:

AYES:	COUNCIL MEMBERS:
NOES:	COUNCIL MEMBERS:
ABSENT:	COUNCIL MEMBERS:
ABSTENTION:	COUNCIL MEMBERS:

_____
NANCY D. YOUNG
Mayor of the City of Tracy, California

ATTEST: _____
ADRIANNE RICHARDSON
City Clerk and Clerk of the Council of the
City of Tracy, California

April 16, 2024

Agenda Item 1.F

RECOMMENDATION

Staff recommends that the City Council adopt a resolution (1) Approving the City's Annual Military Equipment Report (2) Adopting findings required under Government Code Section 7071(e)(2) for each item of military equipment identified in such report; and (3) Approving the renewal of City Ordinance 1327 authorizing the continued use of specified military equipment as required by Government Code Section 7071(e)(2).

EXECUTIVE SUMMARY

This agenda item requests renewal of the previously adopted Ordinance 1327 for the continued use of the military equipment specified in Tracy Police Department Policy 708 – Military Equipment attached hereto as Attachment D. To renew this Ordinance and continue using the military equipment, Government Code Section 7072 requires the City Council to review Ordinance 1327 annually, based on an annual report from Tracy Police Department, and adopt the following specific findings provided in Government Code Section 7071(d)(1):

(A) The military equipment is necessary because there is no reasonable alternative that can achieve the same objective of officer and civilian safety.

(B) The proposed military equipment use policy will safeguard the public's welfare, safety, civil rights, and civil liberties.

(C) If purchasing the equipment, the equipment is reasonably cost effective compared to available alternatives that can achieve the same objective of officer and civilian safety.

(D) Prior military equipment use complied with the military equipment use policy that was in effect at the time, or if prior uses did not comply with the accompanying military equipment use policy, corrective action has been taken to remedy nonconforming uses and ensure future compliance.

This staff report and its attachments incorporated herewith provide the six (6) items of content required by Government Code Section 7072(a). Staff recommends City Council make the findings set forth above based on this report.

BACKGROUND AND LEGISLATIVE HISTORY

On September 30, 2021, Governor Gavin Newsom signed into law California Assembly Bill 481 (AB 481), regarding the use of military equipment by law enforcement agencies. California Government Code sections 7070 through 7075 codified AB 481, required all law enforcement agencies to adopt an ordinance approving a military equipment use policy that governed the purchase, acquisition, and use of the military equipment specified within the law. AB 481 also allowed law enforcement agencies to continue using previously purchased and acquired military equipment if the governing body (City Council) adopted an ordinance approving the continued use no later than May 1, 2022. Last year, the Tracy Police Department complied with these new requirements and Ordinance 1327 was introduced at a regular meeting of the Tracy City Council on April 5, 2022, and adopted on April 19, 2022.

In addition to the above, AB 481 requires the Tracy Police Department to submit an annual

report to the City Council to obtain continued approval of the military equipment policy by City Council vote.

Annual renewal (by adoption) of the previously adopted City Ordinance 1327 is authorized by Government Code Section 36934 and Government Code Section 7071(e)(1). Ordinance 1327 was originally introduced at a regular meeting of the Tracy City Council on April 5, 2022. Staff is recommending re-adoption of City Ordinance 1327 attached hereto as Attachment C. The attached City Ordinance 1327 is in substantially the same form as originally adopted, except for clerical modifications to the title and dates of renewal, as authorized by Government Code Section 36934.

ANALYSIS

Annual Military Equipment Report

Government Code Section 7072, subsection (a), requires the following information be reported annually to City Council:

1. ***A summary of how the military equipment was used and the purpose of its use:***

   The Tracy Police Department created its Military Equipment Policy to specify how each piece of equipment is to be used and for what purpose. The policy attached hereto covers the approved uses and all uses for the reporting period.

2. ***A summary of complaints or concerns received concerning the military equipment:***

   There have been no complaints regarding the equipment.

3. ***The results of any internal audits, any information about violations of the military equipment use policy, and any action taken in response:***

   All equipment is accounted for and there were no known policy violations regarding the equipment's use.

4. ***The total annual cost for each type of military equipment, including acquisition, personnel, training, transportation, maintenance, storage, upgrade, and other ongoing costs, and from what source funds will be provided for the military equipment in the calendar year following submission of the annual military equipment report:***

   Refer to Attachment D attached hereto, the Tracy Military Equipment Policy, section 708.4 – Military Equipment Inventory, subsections 1 through 9. The Council-approved policy contains all the above information.

   All ongoing costs are from funds already approved as part of the general fund appropriations by City Council for the Tracy Police Department annually.

5. ***The quantity possessed of each type of military equipment:***

Refer to Attachment D attached hereto, the Tracy Military Equipment Policy, section 708.4 – Military Equipment Inventory, subsections 1 through 9. The Council-approved policy contains all the above information.

6. If the law enforcement agency intends to acquire additional military equipment in the next year, the quantity sought for each type of military equipment:

Some of the specified equipment is used on an ongoing basis for training and real-world events to maintain supply levels throughout the year. This includes ammunition, less lethal munitions, distraction devices, and Chemical Agents / Smoke Canisters. The Tracy Police Department will be making these purchases with existing funds throughout the year in alignment with approved amounts.

The approved policy, in section 704.4.1, allows for the maintenance of supply levels and to increase the number of specified equipment previously approved by City Council should the Chief of Police deem it necessary. An example of this would be if there were to be additional sworn peace officer's positions approved, there would be a need to purchase additional rifles training ammunition, etc. The approved policy authorized the Chief of Police to purchase this type of equipment at his discretion without additional approval required under AB 481.

Findings Required to Renew City Ordinance 1327 authorizing the continued use of the military equipment specified in Tracy Police Department Policy 708 – Military Equipment.

Pursuant to Government Code Section 7071(e)(2), based on the foregoing report, staff recommends City Council make each of the following findings:

(A) The military equipment is necessary because there is no reasonable alternative that can achieve the same objective of officer and civilian safety.

(B) The proposed military equipment use policy will safeguard the public's welfare, safety, civil rights, and civil liberties.

(C) If purchasing the equipment, the equipment is reasonably cost effective compared to available alternatives that can achieve the same objective of officer and civilian safety

(D) Prior military equipment use complied with the military equipment use policy that was in effect at the time, or if prior uses did not comply with the accompanying military equipment use policy, corrective action has been taken to remedy nonconforming uses and ensure future compliance.

FISCAL IMPACT

There is no additional fiscal impact for this item. All funding is approved as part of the annual budget appropriation for the Tracy Police Department by City Council.

PUBLIC OUTREACH/INTEREST

Within 30 days of the acceptance of this report, the Tracy Police Department will hold a community outreach event specific to the use of military equipment.

CEQA DETERMINATION

This action item is exempt review under the California Environmental Quality Act (CEQA) because it is not a "project" for purposes of CEQA (as defined by CEQA Guidelines §15378). Specifically, this item proposes an organizational or administrative activity that will not result in a direct or indirect physical change in the environment (CEQA Guidelines §§15378(b)(5)).

COORDINATION

None.

FOLLOW-UP

The informational report is required annually for continued authorization to use the specified equipment and will be posted on the Tracy Police Department's website.

STRATEGIC PLAN

This item relates to the City Council's Public Safety Strategic Priority Goal 1 – Partner with and engage the community to address public safety concerns by helping increase communication with residents regarding crime information and prevention.

ACTION REQUESTED OF THE CITY COUNCIL

Staff recommends that the City Council adopt a resolution (1) Approving the City's Annual Military Equipment Report; (2) Adopting findings required under Government Code Section 7071(e)(2) for each item of military equipment identified in such report; and (3) Approving the renewal of City Ordinance 1327 authorizing the continued use of specified military equipment as required by Government Code Section 7071(e)(2).

Prepared by: Scott Muir, Police Lieutenant
Reviewed by: Sekou Millington, Chief of Police
Approved by: Midori Lichtwardt, City Manager

Attachments:

Attachment A: AB 481 Annual Memorandum
Attachment B: AB 481 Resolution
Attachment C: Ordinance 1327 – Adopting a Military Equipment Use Policy Pursuant to California Assembly Bill 481
Attachment D: Tracy Police Department Lexipol Policy 708 – Military Equipment

TRACY POLICE DEPARTMENT

MEMORANDUM

Date: 02/22/2024

To: Sekou Millington, Chief of Police

From: Scott Muir, Lieutenant PS&T

Re: AB481 entries for 2023

Chief Millington,
From January 1st, 2023 – December 31st, 2023, the Tracy Police Department logged 259 AB 481 entries into our PlanIt database. Below is a breakdown of how many times each AB481 listed equipment had been deployed in 2023:

Bearcat:	34
Drone:	156
40mm:	23
Less Lethal Shotgun:	134
Command Post:	5
Flashbang:	5
Shotgun Breach:	5
Patrol Rifle/AR15:	83
Swat Van:	10
Swat Robot:	0
Swat Sniper Rifle:	8
Chemical Agents:	7

Respectfully,

Scott Muir

Scott Muir
PS&T Lieutenant

Attachment B

APPROVED AS TO FORM AND LEGALITY

_____

CITY ATTORNEY'S OFFICE

TRACY CITY COUNCIL

RESOLUTION NO. _____

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(1) APPROVING THE CITY'S ANNUAL MILITARY EQUIPMENT REPORT; (2) ADOPTING FINDINGS REQUIRED UNDER GOVERNMENT CODE SECTION 7071(E)(2) FOR EACH ITEM OF MILITARY EQUIPMENT IDENTIFIED IN SUCH REPORT; AND (3) APPROVING THE RENEWAL OF CITY ORDINANCE 1327 AUTHORIZING THE CONTINUED USE OF SPECIFIED MILITARY EQUIPMENT AS REQUIRED BY GOVERNMENT CODE SECTION 7071(E)(2)

WHEREAS, on September 30, 2021, Governor Gavin Newsom signed into law California Assembly Bill 481 (AB 481), regarding the use and annual reporting requirements of military equipment by law enforcement agencies; and

WHEREAS, California Government Code Sections 7070 through 7075 codified AB 481, which required that the governing bodies for all law enforcement agencies adopt an ordinance approving a military equipment use policy that governed the funding, acquisition, or use of military equipment, and also allowed law enforcement agencies to continue using already purchased and acquired military equipment if the governing body adopted an ordinance approving the continued use no later than May 1, 2022; and

WHEREAS, on April 5, 2022, the Tracy Police Department complied with AB 481 and introduced Ordinance 1327, which was adopted on April 19, 2022, and approved Tracy Police Department's Military Equipment Use Policy (Lexipol Policy #708); and

WHEREAS, Government Code Section 7072 requires a law enforcement agency to submit to the governing body an annual military equipment report for each type of military equipment previously approved by the government body within one year of approval; and

WHEREAS, Government Code Section 7071, subsection (e)(2), states that the governing body shall determine, based on the annual equipment report submitted pursuant to Section 7072, whether each type of military equipment identified in that report has complied with the standards of approval set forth in Section 7071, subsection (d); and

WHEREAS, Government Code Section 7071, subsection (e)(1), requires the governing body to review any ordinance it has adopted for the funding, acquisition, or use of military equipment annually, and vote whether to renew the ordinance at a regular meeting; and

WHEREAS, the Tracy Police Department prepared and the City Council received the annual report required by Government Code Section 7071, and the items of military equipment are identified in Attachment 1 hereto; and

NOW THEREFORE, be it

RESOLVED: That the City Council of the City of Tracy hereby approves the Tracy Police Department's annual military equipment report pursuant to Government Code Section 7072, and finds that pursuant to Government Code Section 7071, subsection (e)(2), each type of military equipment identified in the report has complied with the standards of approval set forth in Government Code Section 7071, subsection (d); and be it further

RESOLVED: That pursuant to Government Code Section 7071(e)(2), and based on the annual report and Attachment 1 hereto, the City Council hereby makes each of the following findings for each item of military equipment, that:

(A) The military equipment is necessary because there is no reasonable alternative that can achieve the same objective of officer and civilian safety;

(B) The proposed military equipment use policy will safeguard the public's welfare, safety, civil rights, and civil liberties;

(C) If purchasing the equipment, the equipment is reasonably cost effective compared to available alternatives that can achieve the same objective of officer and civilian safety; and

(D) Prior military equipment use complied with the military equipment use policy that was in effect at the time, or if prior uses did not comply with the accompanying military equipment use policy, corrective action has been taken to remedy nonconforming uses and ensure future compliance; and be it further

RESOLVED: That the City Council renews Ordinance 1327 (that is, makes no changes to such ordinance), pursuant to Government Code Section 7071, subsection (e)(1), and authorizes the continued use of the military equipment specified in Tracy Police Department's Military Equipment Use Policy .

* * * * * * * * * * * * *

The foregoing Resolution 2024-_____ was adopted by the Tracy City Council on April 16, 2024, by the following vote:

AYES:	COUNCIL MEMBERS:
NOES:	COUNCIL MEMBERS:
ABSENT:	COUNCIL MEMBERS:
ABSTENTION:	COUNCIL MEMBERS:

_____
NANCY D. YOUNG
Mayor of the City of Tracy, California

ATTEST:_____
ADRIANNE RICHARDSON
City Clerk and Clerk of the Council of the
City of Tracy, California

Date of Attestation: _____

ATTACHMENTS:

(1) Ordinance 1327, which was adopted on April 19, 2022, and approved Tracy Police Department's Military Equipment Use Policy (Lexipol Policy #708)

Attachment C

ORDINANCE 1327

AN ORDINANCE OF THE CITY OF TRACY ADOPTING A MILITARY EQUIPMENT USE POLICY PURSUANT TO CALIFORNIA ASSEMBLY BILL 481

WHEREAS, on September 30, 2021, Governor Gavin Newsom signed into law California Assembly Bill 481 (AB 481), regarding the use of military equipment by law enforcement agencies, and

WHEREAS, AB 481, codified by California Government Code section 7070 through 7075, requires that all law enforcement agencies obtain approval from the applicable governing body, by ordinance, adopting a military equipment use policy prior to taking certain actions relating to the funding, acquisition, or use of military equipment, and

WHEREAS, Government Code section 7070 defines the term “military equipment”, and

WHEREAS, the proposed military equipment policy is found within the Tracy Police Department Military Equipment Use Policy (Lexipol Policy #708), and

WHEREAS, AB 481 requires that the law enforcement agency make the military equipment use policy available on the law enforcement agency’s website at least 30 days prior to the public hearing relating to the adoption of the military use equipment policy, and

WHEREAS, the Tracy Police Department Military Equipment Use Policy was published on the Tracy Police Department’s internet website on March 4, 2022, at least 30 days before the public hearing, and

WHEREAS, the Tracy Police Department Military Equipment Use Policy meets the requirements of Government Code section 7070, subdivision (d).

NOW THEREFORE, the City Council of the City of Tracy does ordain as follows:

SECTION 1: The City Council hereby determines the following:

A. The military equipment identified in the Tracy Police Department’s Military Equipment Use Policy (Lexipol Policy #708) is necessary because there are no reasonable alternatives that can achieve the same objectives of officer and civilian safety;

B. Tracy Police Department’s Military Equipment Use Policy (Lexipol Policy #708) will safeguard the public’s welfare, safety, civil rights, and civil liberties;

C. Prior military equipment use complied with the military equipment use policy that was in effect at the time; and

D. Tracy Police Department’s Military Equipment Use Policy (Lexipol Policy #708) is hereby approved and adopted.

SECTION 2: If any provision or the application of this Ordinance is for any reason held to be unconstitutional, invalid, or otherwise unenforceable, such decision shall not affect the validity of the remaining portions of this Ordinance or any part thereof. The City Council hereby declares that it would have adopted each subsection or provision of this Ordinance irrespective of the invalidity of any particular portion thereof and intends that the invalid portions should be severed, and the balance of the Ordinance enforced.

SECTION 3: This Ordinance shall take effect thirty (30) days after its final passage and adoption.

SECTION 4: This Ordinance shall either (1) be published once in a newspaper of general circulation, within 15 days after its final adoption, or (2) be published in summary form and posted in the City Clerk's office at least five days before the ordinance is adopted and within 15 days after adoption, with the names of the Council Members voting for and against the ordinance. (Gov't. Code §36933.)

* *

The foregoing Ordinance 1327 was introduced at a regular meeting of the Tracy City Council on the 5th day of April 2022, and finally adopted on the 19th day of April 2022, by the following vote:

AYES:	COUNCIL MEMBERS: ARRIOLA, BEDOLLA, DAVIS, VARGAS, YOUNG
NOES:	COUNCIL MEMBERS: NONE
ABSENT:	COUNCIL MEMBERS: NONE
ABTENTION:	COUNCIL MEMBERS: NONE

SIGNED: Nancy D. Young, Mayor

ATTESTED: Adrianne Richardson, City Clerk

A copy of the Tracy Police Department Military Equipment Use Policy (Lexipol Policy #708) can be viewed upon request by making an appointment with the City Clerk's Office.

Military Equipment

708.1 PURPOSE AND SCOPE

The purpose of this policy is to provide guidelines for the approval, acquisition, and reporting requirements of military equipment (Government Code § 7070; Government Code § 7071; Government Code § 7072).

708.1.1 DEFINITIONS

Definitions related to this policy include (Government Code § 7070):

Governing body – The elected or appointed body that oversees the Department.

Military equipment – Includes but is not limited to the following:

- Unmanned, remotely piloted, powered aerial or ground vehicles.
- Mine-resistant ambush-protected (MRAP) vehicles or armored personnel carriers.
- High mobility multipurpose wheeled vehicles (HMMWV), two-and-one-half-ton trucks, five-ton trucks, or wheeled vehicles that have a breaching or entry apparatus attached.
- Tracked armored vehicles that provide ballistic protection to their occupants.
- Command and control vehicles that are either built or modified to facilitate the operational control and direction of public safety units.
- Weaponized aircraft, vessels, or vehicles of any kind.
- Battering rams, slugs, and breaching apparatuses that are explosive in nature. This does not include a handheld, one-person ram.
- Firearms and ammunition of .50 caliber or greater, excluding standard-issue shotguns and standard-issue shotgun ammunition.
- Specialized firearms and ammunition of less than .50 caliber, including firearms and accessories identified as assault weapons in Penal Code § 30510 and Penal Code § 30515, with the exception of standard-issue firearms.
- Any firearm or firearm accessory that is designed to launch explosive projectiles.
- Noise-flash diversionary devices and explosive breaching tools.
- Munitions containing tear gas or OC, excluding standard, service-issued handheld pepper spray.
- TASER® Shockwave, microwave weapons, water cannons, and long-range acoustic devices (LRADs).
- Kinetic energy weapons and munitions.
- Any other equipment as determined by a governing body or a state agency to require additional oversight.

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708.2 POLICY

It is the policy of the Tracy Police Department that members of this department comply with the provisions of Government Code § 7071 with respect to military equipment.

708.3 MILITARY EQUIPMENT COORDINATOR

The Chief of Police should designate a member of this department to act as the military equipment coordinator. The Professional Standards and Training Lieutenant is designated as the coordinator. The responsibilities of the military equipment coordinator include but are not limited to:

(a) Acting as liaison to the governing body for matters related to the requirements of this policy.

(b) Identifying department equipment that qualifies as military equipment in the current possession of the Department, or the equipment the Department intends to acquire that requires approval by the governing body.

(c) Conducting an inventory of all military equipment at least annually.

(d) Collaborating with any allied agency that may use military equipment within the jurisdiction of Tracy Police Department (Government Code § 7071).

(e) Preparing for, scheduling, and coordinating the annual community engagement meeting to include:

1. Publicizing the details of the meeting.
2. Preparing for public questions regarding the department's funding, acquisition, and use of equipment.

(f) Preparing the annual military equipment report for submission to the Chief of Police and ensuring that the report is made available on the department website (Government Code § 7072).

(g) Establishing the procedure for a person to register a complaint or concern, or how that person may submit a question about the use of a type of military equipment, and how the Department will respond in a timely manner.

708.4 MILITARY EQUIPMENT INVENTORY

The following constitutes a list of qualifying equipment for the Department:

1. Mobile Incident Command Post (CP): A vehicle used as a mobile office that provides shelter, access to Department computer systems, and restrooms.

(a) Description, quantity, capabilities, and purchase cost: LDV USA (Custom Build) vehicle, cost: $ 369,045.00 using a grant from the Office of Homeland Security in 2006, quantity: (1). The CP can be utilized for operations involving the Crisis Response Unit (CRU), critical incident management, preplanned large events, searching for missing persons, natural disasters, and community events.

(b) Purpose: Used during specific circumstances such as a critical incident, large events, natural disasters, or community events.

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(c) Authorized Use: Only staff trained in the deployment and operations consistent with policy, law, and training are authorized to operate the CP. Staff must also obtain a Class B drivers' license from the California Department of Motor Vehicles (DMV). The CP is authorized for use during but not limited to critical incidents, emergencies, community events, and natural disasters.

(d) Lifespan: 20 years on chassis and vehicle structure. IT systems currently outdated.

(e) Fiscal Impact: Annual maintenance cost is approximately $4,000.

(f) Training: The driver/operator shall receive training in the safe handling of the vehicle and obtain and maintain a class B license from the California DMV.

(g) Legal and Procedural Rules: It is the policy of this Department to use the CP for official law enforcement purposes in compliance with California state law and the policies of the Tracy Police Department.

2. Armored Vehicle: Commercially produced wheeled vehicle armored vehicle utilized for law enforcement purposes.

(a) Description, quantity, capabilities, and purchase cost: LENCO BEARCAT is an armored rescue vehicle that seats 10-12 personnel with open floor plan that allows for rescue
of down personnel. It can stop various projectiles, which provides greater safety to citizens and officers beyond the protection level of shield and personal body armor, quantity: 1, cost: $281,000; $181,000 from general fund and $100,000 from COPS grant in 2012.

(b) Purpose: Used in response to critical incidents to enhance officer and community safety. In addition, allows for scene containment, stabilization to assist in resolving incidents and as a rescue vehicle to evacuate officers and community members from potential harm.

(c) Authorized Use: The use of armored vehicles shall only be authorized by a sworn supervisor, watch commander, or incident / tactical commander. Armored vehicles shall be used by only officers trained in its deployment and in a manner consistent with training and Department policy.

(d) Lifespan: 25 years.

(e) Fiscal Impact: Annual maintenance cost is approximately $3,500.

(f) Training: All drivers must be attend a department orientation training. No special license is required by California DMV.

(g) Legal and Procedural Rules: It is the policy of this Department to utilize armored vehicles only for legitimate law enforcement purposes and in a manner consistent with State and Federal law.

3. Transport Vehicle: Commercially produced wheeled van utilized for law enforcement purposes.

(a) Description, quantity, capabilities, and purchase cost: 2017 LDV Freightliner transport vehicle, quantity: 1, used to transport personnel and equipment to active scenes where the Crisis Response Unit is deployed and often deployed along with the LENCO

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BEARCAT' cost: $206,000 ($140,000 from State COPS Grant / $66,000 from Asset Forfeiture) in 2016.

(b) Purpose: Used in response to critical incident to transport personnel and equipment to critical incidents to enhance officer and community safety; often deployed with the LENCO BEARCAT.

(c) Authorized Use: The use of the transport vehicle shall only be authorized by a sworn supervisor, watch commander, or incident / tactical commander. Armored vehicles shall be used by only officers trained in its deployment and in a manner consistent with training and Department policy.

(d) Lifespan: 25 years.

(e) Fiscal Impact: Annual maintenance cost is $3,500.00.

(f) Training: All drivers must be attend a department orientation training. No special license is required by California DMV.

(g) Legal and Procedural Rules: It is the policy of this Department to utilize the vehicle only for legitimate law enforcement purposes and in a manner consistent with State and Federal law.

4. Unmanned Aerial System (UAS): An unmanned aircraft and associated equipment necessary to control it remotely.

(a) Description, quantity, capabilities, and purchase cost:

1. DJI Mavic 2 Enterprise Advanced 909 grams, quantity 7; M2EA thermal camera, M2EA Visual Camera, spotlight, strobe with a flight time of approx. 28 minutes. Cost: $6,240 / each.

2. DJI Mini 2 249 grams, quantity: 4, 1/2" CMOS Visual Camera 12mp 4k video with a flight time of approx. 30 minutes. Cost: $599 / each.

3. DJI Mavic Air 570 grams, quantity: 2; 1/2" CMOS visual camera 48mp 4k video with a flight time of approx. 34 minutes. Cost: $988 / each.

4. Brinc Lemur 2.4 lbs, quantity: 1, 1080P HD Camera with IR sensitivity, spotlight, window breach attachment, and cellular two-way communications with a flight time of approx. 31 minutes. Cost: $ 8,999 / each,

(b) Purpose: To be deployed when its view would assist officers or incident commanders with the following situations, which include but are not limited to:

1. major collision investigations.

2. search for missing persons.

3. natural disaster management.

4. crime scene photography.

5. SWAT, tactical or other public safety and life preservation missions.

6. In response to specific requests from local, state or federal fire authorities for fire response and/or prevention.

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(c) Authorized Use: Only assigned operators who have completed the required training shall be permitted to operate any UAS during approved missions.

(d) Lifespan: 5 - 10 years.

(e) Fiscal Impact: Annual maintenance and battery replacement expected to be $4,000 - $6,000.

(f) Training: All Department UAS operators are licensed by the Federal Aviation Administration for UAS operation. In addition, each operator must attend ongoing department training.

(g) Legal and Procedural Rules: Use is established under Tracy Police Department policy 610, FAA Regulation 14 CFR Part 107, It is the policy of the Tracy Police Department to utilize UAS only for official law enforcement purposes, and in a manner that respects the privacy of our community, pursuant to State and Federal law.

5. Robots: A remotely controlled unmanned machine that operates on the ground which is utilized to enhance the safety of the community and officers.

(a) Description, quantity, capabilities, and purchase cost: AVATAR Tactical Robot; quantity 1; enhances the compatibilities of the Crisis Response Unit by allowing to quickly and safely inspect dangerous situations without sending personnel. AVATAR has live feed video and audio with the capability to record; cost: $ 15,132.

(b) Purpose: Used remotely to gain visual and audio access to clear areas in high risk situations.

(c) Authorized Use: Used by trained members of the Crisis Response Unit.

(d) Lifespan: 8 - 10 years.

(e) Fiscal Impact: Annual maintenance cost of between $500.

(f) Training: Training conducted internally by the Crisis Response Unit.

(g) Legal and Procedural Rules: It is the policy of the Tracy Police Department to utilize the robot for official law enforcement purposes and in a manner that reflect the privacy of the community pursuant to Federal and State law.

6. Less Lethal Shotguns / Breaching Shotguns / 40MM Launchers and Munitions: These systems deploy less-lethal impact projectiles and breaching rounds.

(a) Description, quantity, capabilities, and purchase cost:

1. Shotguns and 40MM Launchers:

(a) Less-Lethal Remington 870 Shotgun: quantity 23; The Remington 870 Less Lethal Shotgun is used to deploy the less lethal 12-gauge Super-Sock Beanbag Round up to a distance of 75 feet. The range of the weapon; system helps to maintain space between officers and a suspect reducing the immediacy of the threat which is a principle of De-escalation; cost $425/each.

(b) Breaching Remington 870 Shotgun: quantity 2; This weapon allows for breachers to safely utilize shotgun breaching rounds in order to destroy

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deadbolts, locks, and hinges. The stand-off device that is attached to the end of the barrel allows for positive placement of the shotgun into the correct position and vents gases to prevent overpressure. cost $425/each.

(c) 40MM Defense Technology Launcher (single shot); quantity 7; The 40MM Single Launcher is a single shot launcher. It will fire standard 40mm less-lethal ammunition up to 4..8 inches in length. It will launch a 40MM less lethal round up to 131 feet; cost: $1000/each.

(d) 40MM Defense Technology Multi-Launcher; quantity 2; The 40MM Tactical 4-Shot Launcher is low-profile and lightweight, providing multi-shot capability in an easy to carry launcher; cost $2,000 / each.

2. Munitions:

(a) CTS 12-Gauge Super-Sock beanbag round, cost: $5, quantity: 2000. A less lethal 2.4-inch 12-gauge shotgun round firing a ballistic fiber bag filled with 40 grams of lead shot at a velocity of 270-290 feet per second (FPS). CTS Super-Sock rounds are discharged from a dedicated 12-gauge shotgun that is distinguishable by an orange butt stock and fore grip. This round provides accurate and effective performance
when fired from the approved distance of not fewer than five (5) feet. The maximum effective range of this munition is up to 75 feet from the target

(b) Royal Arms TESAR #1 orange cap 275 grain copper frangible breaching round; fired from a dedicated breaching shotgun and is used to destroy deadbolts, locks, and hinges; quantity 150; cost: $125 per box of 25 rounds.

(c) Royal Arms TESAR #2 black cap 425 grain copper frangible breaching round; fired from a dedicated breaching shotgun and is used to destroy deadbolts, locks, and hinges; quantity 150; cost: $125 per box of 25 rounds.

(d) Royal Arms TESAR #4 yellow cap 750 grain copper frangible breaching round; fired from a dedicated breaching shotgun and is used to destroy deadbolts, locks, and hinges; quantity 100; cost: $125 per box of 25 rounds.

(e) CTS 4557 40MM sponge round, fired from 40MM launcher, quantity 150; the 4557 sponge round is a smokeless, spin stabilized round, 4" long intended to deliver a less-lethal blunt trauma effect; cost $20/per round.

(b) Purpose: To increase opportunities to utilize de-escalation and in an effort to reduce lethal force within law enforcement. To be used in efforts to resolve dynamic incidents where deadly force is not authorized or otherwise undesirable.

(c) Authorized Use: Situations for use of the less lethal weapon systems may include, but are not limited to:

1. Self-destructive, dangerous and/or combative individuals.

2. Riot/crowd control and civil unrest incidents.

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3. Circumstances where a tactical advantage can be obtained.
4. Potentially vicious animals.
5. Training exercises or approved demonstrations

(d) Lifespan: 25 + years for launchers and shotguns. 5 years for munitions.

(e) Fiscal Impact: Annual maintenance of approx. $25-$50 per shotgun and 40MM Launcher. munitions replenished as necessary based on usage and lifespan.

(f) Training: Requires a 4 hours less lethal course by a certified instructor. The 4 hours course is required to be completed annually to maintain certification; the course is reviewed and updated annually to ensure compliance with current law and procedures.

(g) Legal and Procedural Rules: Use of less-lethal shotguns and 40MM launchers is established under policy sections 300 - Use of Force and 303 - Control Devices and Techniques. It is the policy of the Tracy Police Department to utilize less-lethal equipment only for official law enforcement purposes and consistent with State and Federal law regarding use of force.

7. Distraction Devices: A device used to distract potentially dangerous persons.

(a) Description, quantity, capabilities, and purchase cost:

1. Combined Tactical Systems, 7290-9 Flash-Bang, cost: $52, quantity: 50. A non-bursting, non-fragmenting multi-bang device that produces a thunderous bang with an intense bright light. Ideal for distracting dangerous suspects during assaults, hostage rescue, room entry or other high-risk arrest situations.
2. Combined Tactical Systems, 7290M Mini Flash-Bang, cost: $55, quantity: 75. The 7290M Flash-Bang exhibits all the same attributes of its larger counterpart but in a smaller and lighter package. Weighing in at 15 ounces the new 7290M is approximately 30% lighter than the 7290 but still has the same 175db output of the 7290 and produces 6-8 million candelas of light.

(b) Purpose: A distraction device is ideal for distracting dangerous suspects during assaults, hostage rescue, room entry or other high-risk arrest situations. To produce atmospheric overpressure and brilliant white light and, as a result, can cause short-term (6 - 8 seconds) physiological/psychological sensory deprivation to give officers a tactical advantage.

(c) Authorized Use: Diversionary Devices shall only be used:

1. By officers who have been trained in their proper use.
2. In hostage and barricaded subject situations.
3. In high risk warrant (search/arrest) services where there may be extreme hazards to officers.
4. During other high-risk situations where their use would enhance officer safety.
5. During training exercises.

(d) Lifespan: 5 years from date of shipment.

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(e) Fiscal Impact: No annual maintenance. Cost is associated with replacement after use.

(f) Training: Prior to use, officers must attend diversionary device training that is conducted by certified instructors.

(g) Legal and Procedural Rules: Use is established under Crisis Response Unit Operational Manual. It is the policy of the Tracy Police Department to utilize diversion devices only for official law enforcement purposes, and pursuant to State and Federal law regarding the use of force.

8. Rifles: Firearms which are shoulder fired having long spiraled rifling within the barrel intended to improve the accuracy of the rifle.

(a) Description, quantity, capabilities, and purchase cost:

1. AR-15/M-4 Platform:

(a) Colt; AR-15 standard rifle with 16" barrel, quantity 84; standard issue rifle which fires a .223 caliber cartridge providing more powerful round than a stand issue handgun with greater accuracy; cost: $1,100/each.

(b) Sionics; AR-15 custom rifle with 11.5" barrel; quantity 11; standard issue rifle which fires a .223 caliber cartridge providing more powerful round than a stand issue handgun with greater accuracy. It is a short-barreled rifle which allows a a trained officer better control inside of structures; cost $1,100/each.

(c) Sons of Liberty; M4-89 custom rifle with 11.5" barrel; quantity 24; standard issue rifle which fires a .223 caliber cartridge providing more powerful round than a stand issue handgun with greater accuracy; cost $1,350/ each.

2. Precision Rifles:

(a) Accuracy International AT .308 caliber bolt action rifle; quantity 4; rifle chambered in .308 caliber. The rifle is primarily used in over watch in critical incidents and other high-risk tactical situations such as hostage rescue and search warrant service, Cost $4,000 / each.

(b) Rock River Arms LAR-8 .308 caliber semi-automatic rifle; quantity 2; rifle chambered in .308 caliber. The rifle is primarily used in over watch in critical incidents and other high-risk tactical situations such as hostage rescue and search warrant service, Cost $2,000 / each.

3. Ammunition:

(a) Speer Gold Dot .223 caliber 62 grain rifle round, quantity 125 cases (500 rounds per case); cost: $285 per case.

(b) Hornaday A-Max .308 caliber 168 grain rifle round, quantity 5 cases (500 rounds per case); cost: $400 per case.

(c) Hornaday Bonded .308 caliber 165 grain rifles round, quantity 5 cases (500 rounds per case); cost: $400 per case.

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(b) Purpose: To be used as precision weapons to address a threat with more precision and/or at greater distances than a handgun.

(c) Authorized Use: Only members who have attended a POST certified course are authorized to use a rifle. Tracy Police Department provides this training to all sworn peace officers.

(d) Lifespan: 15 years.

(e) Fiscal Impact: annual maintenance of approx. $50-100 per rifle.

(f) Training: Prior to using a rifle, officers must be certified by POST instructors in the operation of the rifle. Additionally, all members that operate any rifle are required to pass a range qualification two
times a year.

(g) Legal and Procedural Rules: Use of rifles is established under policy sections 300 - Use of Force, 306 - Firearms, and 419 - Patrol Rifles. It is the policy of the Tracy Police Department to utilize rifles only for official law enforcement purposes and consistent with State and Federal law regarding use of force.

9. Chemical Agent and Smoke Canisters: Canister which contain chemical agents that are released when deployed.

(a) Description, quantity, capabilities, and purchase cost:

1. Remington 870 shotgun dedicated to launch CS; quantity 2; specialized Remington 870 shotgun with th dedicated launching cup for the purpose of launching CS cannisters; cost: $425/each. A 1210,12 gauge launching cartridge is used to deploy the CS cannisters. The launching cartridge is designed to propel the CS cannister further than could be thrown by hand.

2. CTS 5230B - CS Baffled canister grenade, pyro, low flame potential; quantity 100; The 5230B pyrotechnic grenade is designed for indoor use delivering a maximum amount of irritant smoke throughout multiple rooms with minimal risk of fire; cost: $37/each.

3. Defense Technology Spede-Heat Continuous Discharge Grenade, CS; quantity 50; The Spede-Heat CS Grenade is a high-volume continuous burn device. It expels its payload in approx. 30 - 4- seconds. The payload is discharged through four gas ports on the top of the canister, three on the side, and one on the bottom. The canister holds approx. 81.2 grams of CS; cost $25/each.

4. Defense Technology Flameless TRI-CHAMBER CS Grenade, #1032; quantity 50; The design of the Tri-Chamber Flameless CS Grenade allows the contents to burn within an internal can and disperse the agent safely with reduced risk of fire. The grenade is designed primarily for indoor tactical situations to detect and/or dislodge a barricaded subject. This grenade will deliver approximately.70 oz. of agent during its 20-25 seconds burn time. The Tri-Chamber Flameless Grenade can be used in crowd control as well as tactical deployment situations by Law Enforcement and Corrections but was designed with the barricade situation in mind. Its applications in tactical situations are primarily to detect and/or dislodge barricaded subjects. The purpose of the Tri-Chamber Flameless Grenade is to

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minimize the risks to all parties through pain compliance, temporary discomfort, and/or incapacitation of potentially violent or dangerous subjects. The Tri-Chamber Flameless Grenade provides the option of delivering a pyrotechnic chemical device indoors, maximizing the chemicals' effectiveness via heat and vaporization, while minimizing or negatin the chance of fire to the structure; cost $25/each.

5. Defense Technology Ferret 40MM Liquid Barricade Penetrator Round, CS; quantity 100; The Ferret 40mm Round is non-burning and suitable for indoor use. Used primarily by tactical teams, it is designed to penetrate barriers, such as windows, hollow core doors, wallboard and thin plywood. Upon impacting the barrier, the nose cone ruptures and instantaneously delivers a small chemical payload inside of a structure or vehicle. In a tactical deployment situation, the 40mm Ferret is primarily used to dislodge barricaded subjects from confined areas. Its purpose is to minimize the risks to all parties through pain compliance, temporary discomfort and/or incapacitation or potentially violent or dangerous subjects; cots: $23/each.

6. Defense Technology OC Aerosol Grenade 1.3% Fogger, 6oz; quantity 25; The 6 oz. OC Aerosol Grenade will delivery its payload of 1.3% MC% OC in 20-25 seconds. This is a anatomized mist which enhances the pungent 1.3% OC formulation. Ideal for area denial areas like attics, garages, etc. This device has minimum clean up. The canister may also be hand held to direct the spray pattern. This product is designed to provide room clearing ability with minimum clear up requirements; cost: $ 17/each.

7. Defense Technology Maximum HC Smoke Military-Style Canister; quantity 25; The Military-Style Maximum Smoke Grenade comes from the Defense Technology® #3 smoke grenade. It is a slow burning, high volume, continuous discharge grenade designed for outdoor use in crowd management situations. Emits grey-white smoke only for approximately 1.5 to 2 minutes; cost: $30/each.

8. Defense Technology CS HAN-BALL Grenade; quantity 50; The Han-Ball™ CS Grenade is an outdoor use grenade expelling its payload in approximately 15-20 seconds. The rubber ball round has an over all size of 4.8 in. tall, including the fuze head, and 3.1 in. diameter. This launchable grenade holds approximately 1.6 oz. of active agent which is expelled through three ports around the equator of the ball. Due the intense heat generated by this grenade, it should not be used inside a building or near flammable material; cost: $45/each.

9. Golden Eagle Fogger Series 4 CS/OC Fogger; quantity 1; dispenses CS or OC efficiently in riotous situations. Utilizes Pepper Fog CS irritant and Pepper Fog OC; quantity 4 quarts each; cost $60 per quart.

(b) Purpose: To safely resolve critical situations high risk operations. These are necessary because there are no reasonable alternatives that can achieve the same objective of officer and civilian safety and will safeguard the public's welfare.

(c) Authorized Use: To limit the escalation of conflict where employment of lethal force is prohibited or undesirable. Situations for use of the less lethal weapon systems may include, but are not limited to:

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1. Self-destructive, dangerous and/or combative individuals.
2. Riot/crowd control and civil unrest incidents.
3. Circumstances where a tactical advantage can be obtained.
4. Potentially vicious animals.
5. Training exercises or approved demonstrations.

(d) Lifespan: 25 + years for breaching shotguns and 5 years for other materials.

(e) Fiscal Impact: Annual maintenance and replacement is approx. $2,500.

(f) Training: All staff utilzing the equipment must be training by a POST certified chemical agent instructor.

(g) Legal and Procedural Rules: The use of items is established by Department policy and the Crisis Response Unit Operational Manual.Tracy Police Department to utilize rifles only for official law enforcement purposes and consistent with State and Federal law regarding use of force.

708.4.1 MAINTENANCE OF SUPPLY LEVELS

The Department, by authorization of the Chief of Police is authorized to purchase equipment and associated and munitions approved by Council pursuant to this policy as long as it does not go beyond the scope of capabilities currently approved. The Department is authorized to maintain adequate levels of approved munitions, replace defective equipment, and increase quantities of approved equipment as needed to meet operational and safety needs of the Department and community. All purchases shall follow pre-established purchasing guidelines of the City of Tracy.

Purchase of equipment does not have to be the exact make and model listed however, they shall not exceed to capabilities and intended use as described and approved within this policy.

Example(s)

1. An increase in allocated positions by City Council may make necessary the purchase of additional equipment and munitions for both operational and training needs.
2. A manufacturer may stop making a specific model of a product, or that item may become difficult to obtain due to supply chain issues and it may become necessary to locate and purchase a similar product to maintain operation capabilities.
3. An approved military equipment program, may need to expand for operational needs (ex: increase the number of UAS in deployment, or purchase of additional less lethal shotguns).

It is the stated purpose of this policy section not exceed the scope of City Council approval and any increases in quantity shall be reported to City Council as part of the annual report for Military Equipment.

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708.4.2 MILITARY EQUIPMENT USE REPORTING REQUIREMENTS
All military equipment and munitions approved for use by this policy, when deployed in the field shall be documented and reported in PlanIt by the supervisor by the end of their assigned shift using the form titled "AB 481". The patrol Watch Commander shall conduct a weekly audit ensure the deployment data is being properly reported.

The Crisis Response Unit shall document the military equipment deployment as part of their after action report and the Team Leader, or designee shall enter the information into PlanIt using the form titled "AB 481". The Tactical Commander shall conduct a quarterly audit to the date is being property reported.

As part of the annual reporting requirement, the Professional Standards and Training Division shall complete a report to be submitted to City Council in a regular meeting.

As it relates to this policy, the term deployed means to have been utilized it response to a real world incident whether or not the equipment was used (i.e. kinetic energy round fired from platform).

708.5 APPROVAL

The Chief of Police or the authorized designee shall obtain approval from the governing body by way of an ordinance adopting the military equipment policy. As part of the approval process, the Chief of Police or the authorized designee shall ensure the proposed military equipment policy is submitted to the governing body and is available on the department website at least 30 days prior to any public hearing concerning the military equipment at issue (Government Code § 7071). The military equipment policy must be approved by the governing body prior to engaging in any of the following (Government Code § 7071):

(a) Requesting military equipment made available pursuant to 10 USC § 2576a.

(b) Seeking funds for military equipment, including but not limited to applying for a grant, soliciting or accepting private, local, state, or federal funds, in-kind donations, or other donations or transfers.

(c) Acquiring military equipment either permanently or temporarily, including by borrowing or leasing.

(d) Collaborating with another law enforcement agency in the deployment or other use of military equipment within the jurisdiction of this department.

(e) Using any new or existing military equipment for a purpose, in a manner, or by a person not previously approved by the governing body.

(f) Soliciting or responding to a proposal for, or entering into an agreement with, any other person or entity to seek funds for, apply to receive, acquire, use, or collaborate in the use of military equipment.

(g) Acquiring military equipment through any means not provided above.

708.6 COORDINATION WITH OTHER JURISDICTIONS

Military equipment used by any member of this Department shall be approved for use and in accordance with this Department policy. Military equipment used by other jurisdictions that are

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providing mutual aid to this Department, or otherwise engaged in law enforcement operations in this jurisdiction, shall comply with their respective military equipment use policies.

708.7 ANNUAL REPORT

Upon approval of a military equipment policy, the Chief of Police or the authorized designee should submit a military equipment report to the governing body for each type of military equipment approved within one year of approval, and annually thereafter for as long as the military equipment is available for use (Government Code § 7072).

The Chief of Police or the authorized designee should also make each annual military equipment report publicly available on the department website for as long as the military equipment is available for use. The report shall include all information required by Government Code § 7072 for the preceding calendar year for each type of military equipment in department inventory.

708.8 COMMUNITY ENGAGEMENT

Within 30 days of submitting and publicly releasing the annual report, the Department shall hold at least one well-publicized and conveniently located community engagement meeting, at which the Department should discuss the report and respond to public questions regarding the funding, acquisition, or use of military equipment.

Any member of the public can register a question or concern regarding military equipment by contacting the Professional Standards and Training Division by email at PROFESSIONALSTANDARDS@TRACYPD.COM or by telephone at (209) 831-6559.

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April 16, 2024

Agenda Item 1.G

RECOMMENDATION

Staff recommends that the City Council accept the Tracy Homelessness Advisory Committee's informational report regarding the ongoing progress of the Tracy Police Department's Homeless Outreach Team (Familiar Faces) and response to Homeless Encampments.

EXECUTIVE SUMMARY

This informational report provides an update regarding the Tracy Police Department's efforts to address quality of life and public safety concerns related to homelessness. The Community Services Division of the Tracy Police Department has taken lead on Homeless Outreach and response to encampment cleanups. The Community Services Division includes our Code Enforcement Unit, Neighborhood Resource Officers, Familiar Faces Homeless Outreach Team, Mobile Evaluation Team (MET) along with our Animal Services Unit. In addition, the Tracy Police Department partners with our internal City of Tracy Departments, to include Public Works, Parks, and South County Fire, to address blight, hazards to the public and law violations.

BACKGROUND AND LEGISLATIVE HISTORY

The Tracy Police Department's Familiar Faces Program is one component of the City's commitment to addressing the challenges of homelessness in the community. The Familiar Faces Team has been able to establish a connection with our City's most acute individuals who suffer from homelessness and or mental health issues.

With the relocation of homeless individuals to the Tracy Emergency Housing Shelter in December of 2023, coupled with our Familiar Faces Homeless Outreach efforts to offer diversion resources collectively, the City of Tracy team has successfully closed three encampments and relocated individuals seeking services. The encampments include El Pescadero Park, Detention Basin 4 (MacArthur Drive), and Detention Basin 5 (Plascencia Fields).

On 12/05/23, the Tracy City Council approved an update to the municipal code ordinance designating City of Tracy Parks as "sensitive areas." The updated Municipal Code has provided clear direction to people who attempt to establish encampments within our City park infrastructure.

ANALYSIS

Current Homeless Encampment Activity

With the adoption of the new Municipal Code, transient activity has significantly shifted from our City parks and public spaces to private properties to include Caltrans, Union Pacific Railroad and privately owned lands. The Tracy Police Department's Community Services Division, Code Enforcement Unit has been proactive by partnering with Caltrans, Union Pacific Railroad and private property owners to advise and assist with coordinated clean-ups. Typically, City staff will identify encampment locations on private properties and inform the respective property managers. Our Familiar Faces Team will also offer resources to those individuals on Caltrans, Union Pacific

Railroad and private properties. Staff is currently reviewing dated Memorandums of Understanding which allow City staff to proactively cleanup and invoice Caltrans.

Encampment Outreach Activity

Daily checks of former encampment sites located on Union Pacific (railroad) and Caltrans properties, as well as our City parks, City property, business properties and private properties are ongoing. The Familiar Faces Team continues to assist with coordinating shelter intake, transportation, and networking with non-profit and faith-based providers to identify gaps and solutions for the unique challenges faced by those experiencing homelessness in our community. Police Dispatch and Police patrol teams continue to work collaboratively with communicating with the Familiar Faces Homeless Outreach Team.

Upcoming Grants

The Tracy Police Department once again partnered with the San Joaquin County Behavioral Health Services and has been given a third grant award of $336,350.00 to the Tracy Police Department through the California Department of Health Care, Behavioral Health Justice Intervention Services. This item will be presented to the Finance Committee and approved by City Council on April 2, 2024. The grant award would fund for one year, one new Administrative Assistant position and one new Homeless Outreach Coordinator, from January 1, 2024, to March 31, 2025. The award would also support the Police Department's Mental Health Mobile Evaluation Team (MET) and the Homeless Outreach Familiar Faces Team. In addition, the remaining award will be used to fund continued consultant services, equipment, and operating expenses.

FISCAL IMPACT

This update is provided as an informational report only.

COORDINATION

The Tracy Police Department has coordinated with San Joaquin County Behavioral Health and the City of Tracy Homeless Services Division.

STRATEGIC PLAN

This agenda item relates to the City of Tracy Council Strategic Priorities for 2024-2025, Quality of Life, Goal #5 continue to implement the adopted Homelessness Strategic Plan.

ACTION REQUESTED OF THE HOMELESS ADVISORY COMMITTEE

Staff recommends that the City Council accept the Tracy Homelessness Advisory Committee's informational report regarding the ongoing progress of the Tracy Police Department's Homeless Outreach Team (Familiar Faces) and response to Homeless Encampments.

Prepared by: Miguel Contreras, Police Lieutenant
Reviewed by: Octavio Lopez, Police Captain
Sekou Millington, Chief of Police
Sara Cowell, Finance Director
Karin Schnaider, Assistant City Manager

Approved by: Midori Lichtwardt, City Manager

ATTACHMENTS:
A: PD Community Services Division PowerPoint

Attachment A

PD Community Services Division

Tracy Homeless Advisory Committee Update

03/21/24

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COMMUNITY SERVICES DIVISION

- Neighborhood Resources Officers
- Familiar Faces Team
- Mobile Evaluation Team
- Code Enforcement Unit
- School Resource Officers
- DARE
- Traffic Safety Unit
- Volunteers in Police Services
- Crime Prevention Specialist

Community Services Division

Neighborhood Resources Officers

ROBERT BRANDI

DWAYNE PAVESLKI

FRANK STRONG

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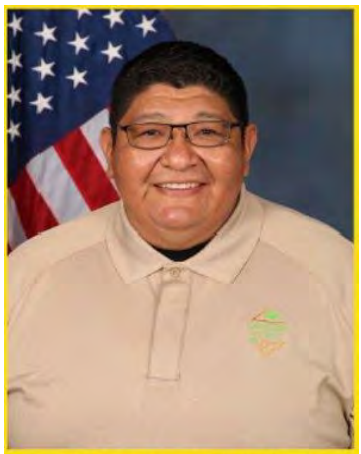
Community Services Division

- Familiar Faces Homeless Outreach Team (FEB.24)

AYESHA NIC-GONGORA



HECTOR JAIMES

NRO BRANDI

Monthly Activities

New Clients Enrolled to National HMIS Database	24
Outreach Contacts	28
Case Management Sessions	63
Service Transports	40

Monthly Accomplishments

Housing Obtained	1
Shelter Enrollments	8
Vital Documents Obtained	3
Obtained Mental Health Services	1

Community Services Division

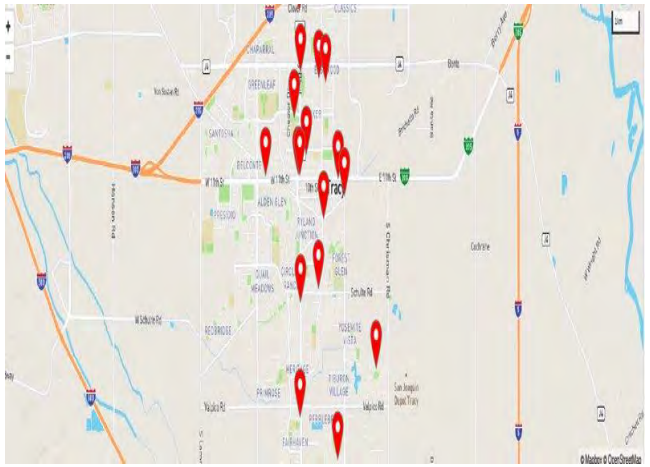
- Mobile Evaluation Team (MET) (JAN.24)

DWAYNE PAVESLKI

GISELL CASTILLO

ROSALVA SANDOVAL

TATIANA JACKSON



Summary of Activities

- 01/14/24: Patrol referral of services to MET.
- 01/17/24: Patrol referral of services to MET.
- 01/17/24: Patrol referral of services to MET.
- 01/23/24: Patrol referral of services to MET.
- 01/25/24: Patrol referral of services to MET.
- 01/25/24: Patrol referral of services to MET.
- 01/25/24: Patrol referral of services to MET.
- 01/25/24: Patrol referral of services to MET (arrested for PC 243(e)(1)).
- 01/27/24: Patrol referral of services to MET.

Summary of Activities

- 01/17/24: MET welfare check/evaluation conducted.
- 01/19/24: MET welfare check/evaluation conducted and transported to adult mental health for services.
- 01/23/24: MET welfare check/evaluation conducted.
- 01/24/24: MET welfare check/evaluation conducted and transported to adult mental health for services.
- 01/24/24: MET welfare check/evaluation conducted.
- 01/25/24: MET welfare check/evaluation conducted.
- 01/31/24: MET welfare check/evaluation conducted.
- 01/31/24: MET welfare check/evaluation conducted and transported to adult mental health for services.
- 01/31/24: MET welfare check/evaluation conducted and transported to adult mental health for services.

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PREVIOUS HOMELESS ENCAMPMENTS

EL PESCADERO PARK (December 20th 2023)

PREVIOUS HOMELESS ENCAMPMENTS

EL PESCADERO PARK

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PREVIOUS HOMELESS ENCAMPMENTS

DETENTION BASIN 4 (MACARTHUR DRIVE)

BEFORE

AFTER

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PRIVATE PROPERTY

Pescadero Avenue and Paradise Road

BEFORE

AFTER

TRACY

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PRIVATE PROPERTY

530 W. Grantline Road

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New Encampments

- City-wide checks of our over 70 parks are conducted on a weekly basis to include utilizing drone fly overs.
- City staff has identified an increase in tents on Private Properties to include Cal-Trans and Union Pacific Railroad.
- Our Community Services Division has coordinated with Cal-Trans and Unions Pacific Railroad for Outreach, Enforcement and Cleanups.
- Staff is researching prior MOU with Caltrans.

CALTRANS PROPERTY

Highway 205 and Naglee Road Exit

Under Highway 205 / Macarthur Drive

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CALTRANS PROPERTY

Highway 205 and Holly Dr.

Highway 205 and Naglee Rd

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Upcoming

- Present a Matching Grant in the amount of $336,350.00 to fund one new Administrative Assistant and one new Homeless Outreach Coordinator (MET)

- New CAD Deposition Codes for Patrol (Familiar Faces) and (MET)

- Update Homeless Outreach Pamphlets

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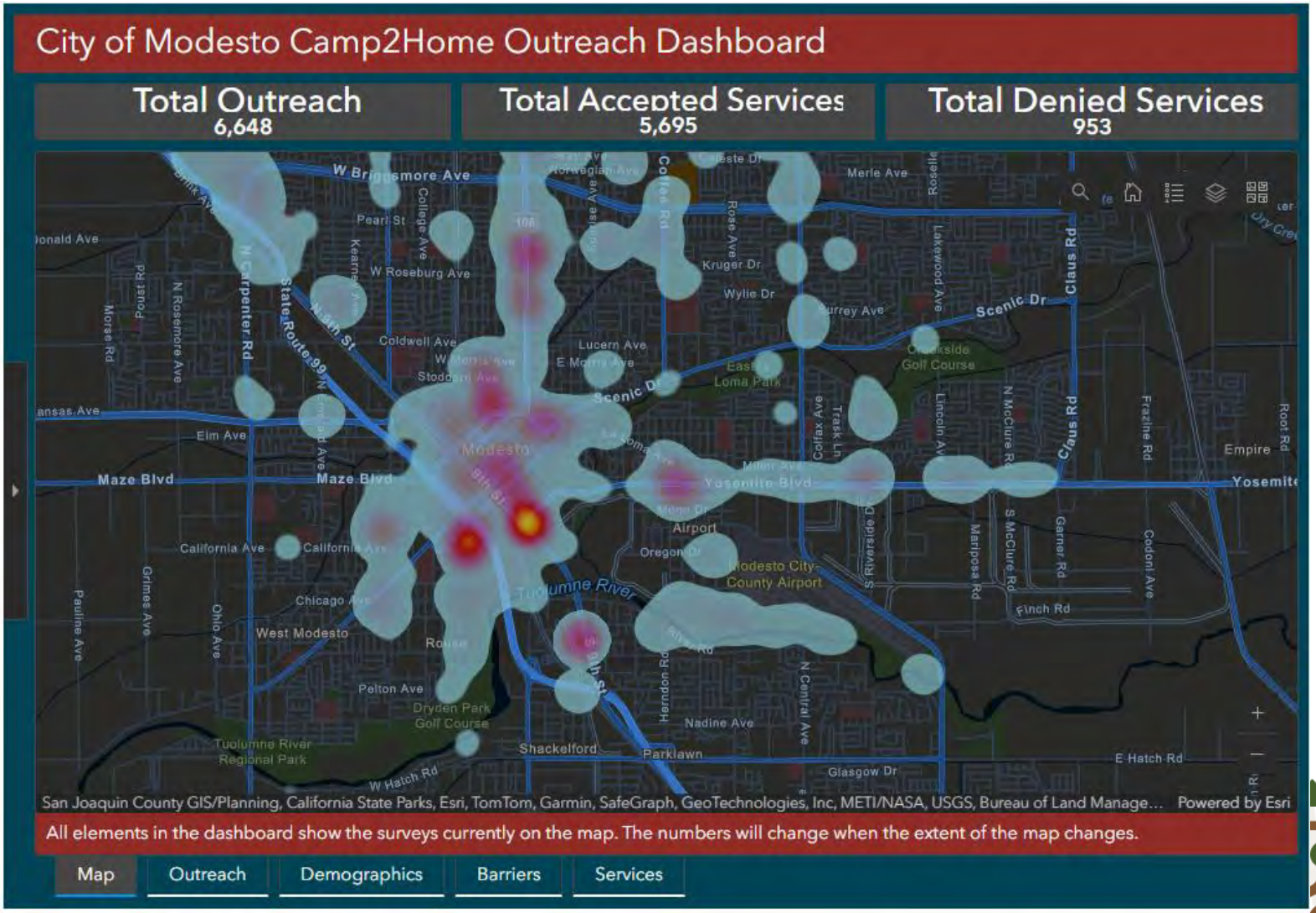
Upcoming ESRI Dashboard



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CONTACT INFORMATION

- [Familiar Faces | Tracy Police Department (tracypd.com)]

Familiar Faces Hotline

(209) 831-6640

Email

PDFamiliarFaces@TracyPD.com

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April 16, 2024

Agenda Item 1.H

RECOMMENDATION

Staff recommends that the City Council adopt a resolution: (1) making findings under Tracy Municipal Code Section 2.20.180(B)(4) that strict compliance with the bidding process is not in the best interest of the City;(2) approving a General Service Agreement with American Traffic Solutions, Inc., a Kansas corporation doing business as Verra Mobility, to implement the City's automated red-light photo enforcement program for up to 15 traffic intersections throughout the City for a five-year term and annual not-to-exceed amount of $63,000.00; and (3) authorizing the City Manager to administratively extend the agreement for up to two additional five-year terms.

EXECUTIVE SUMMARY

On February 6, 2024, pursuant to Resolution 2024-013 the City Council approved the adoption of the City's red light photo enforcement program for up to 15 intersections (Program).

After conducting a formal bidding process, staff now recommends entering into a five-year agreement with a vendor to implement that Program. Staff recommends vendor, American Traffic Solutions, Inc., a Kansas corporation doing business as Verra Mobility, (Verra Mobility) by and through the agreement attached hereto as Attachment A.

The cost agreement would be neutral because of the revenue generated by the increased red light violation citations. The City's up-front cost per camera is $5,250 per month, $63,000 annually. These funds are anticipated to be self-generated through revenue generated from individual citations issued. The proposed agreement includes a guarantee from Verra Mobility that in the event the generated revenue is not enough to fully cover the flat monthly fees, Verra Mobility will waive the remaining balance. The result is a completely cost-neutral program. Any revenue in excess of the balance owed to Verra Mobility, Inc. will remain with the City's general fund.

BACKGROUND AND LEGISLATIVE HISTORY

Residents of the City have requested increased safety precautions in response to traffic light violations in the City.

On February 6, 2024, pursuant to Resolution 2024-13 the City Council approved the adoption of the City's red light photo enforcement program for up to 15 intersections, identify as follows:

- Corral Hollow Rd. and 11th St.
- Clover Rd. and Tracy Blvd.
- Corral Hollow Rd. and Grantline Rd.
- Grantline Rd. and Naglee Rd.
- 11th St. and Tracy Blvd.
- Grantline Rd. and Tracy Blvd.
- Grantline Rd. and MacArthur Dr.

- 11th St. and MacArthur Dr.
- Lammers Rd. and 11th St.
- Valpico Rd. and Tracy Blvd.
- Valpico Rd. and Corral Hollow Rd.
- Schulte Rd. and Corral Hollow Rd.
- Schulte Rd. and Tracy Blvd.
- Schulte Rd. and MacArthur Dr.
- Schulte Rd. and International Pkwy.

Adoption of a red-light photo enforcement program is a three-step process under the California Vehicle Code (CVC). First, CVC Section 21455.6(a) requires the City Council to conduct a noticed public hearing on the "proposed use of an automated enforcement system." Second, typically the agency awards a service contract through public bidding or sole source authority to a contractor specializing in the installation, implementation, and maintenance of the red-light photo system. Third, prior to launching a program or system at particular signalized intersections, CVC Section 21455.5(b) requires a "public announcement" 30 days in advance, and a 30-day grace period following the commencement of the system, whereby only warning notices are issued in lieu of citations. The first two steps require City Council approvals, and this item relates only to the second step: the service contract.

On February 14th, 2024, the Tracy Police Department published a Request for Proposals on the City of Tracy website. Four vendors providing red-light photo enforcement services contacted the Tracy Police Department. On February 29th, 2024, the City received proposals from two vendors.

Verra Mobility	$5250 per camera, per month
Novoaglobal	$4200 per camera, per month

Although not the "lowest bid," the Verra Mobility proposal was the most responsive to the City's needs and met the standards set by the City and State of California Vehicle Code (CVC). Verra Mobility currently operates the red-light program for 26 municipalities at more than 300 approaches throughout the State of California. The three-image capture with 45 mega pixel camera meets the state requirement for identification purposes.

ANALYSIS

Tracy Municipal Code Section 2.20.180(a)(5) requires the City award a contract for "general services" that do not fall into the category of "professional services," defined in Tracy Municipal Code Section 2.20.030(c), the "lowest responsible bidder," irrespective of qualifications necessary for the satisfactory performance of the required services, and irrespective of net-savings to the City, or other benefits occasionally derived from not selecting the "lowest" bid. Tracy Municipal Code Section 2.20.180(b)(4) authorizes the City Council to approve an exception to the contracting procedure for general services agreements where the Council finds strict compliance is not in the best interest of the City for the subject services.

Here, to comply with the City's public bidding requirements under Tracy Municipal Code Section 2.20.180(a)(5), staff recommends City Council make the findings that strict compliance is not in the best interest of the City for awarding the agreement to Verra Mobility. Verra Mobility's services offered are unique and specialized, analogous to professional services, and Verra Mobility is uniquely qualified to deliver such specialized services. Under the General Service Agreement,

Verra Mobility, will provide the program, as proposed, will be cost-neutral for the City because the program will be installed and maintained by Verra Mobility at its cost.

The red-light photo enforcement program complies with CVC Section 21455.5 by including the following components:

- Red-light cameras will be clearly identified by signs posted within 200 feet;
- Compliance with specific yellow-light time intervals as required by CVC Section 21455.7;
- The program will be supervised by the Tracy Police Department, and is anticipated to be implemented by a qualified service contractor;
- No access to or manipulation of traffic signal timing;
- All records and information is confidential;
- Payment to the contractor shall not be based on the number of citations generated or related to revenue from the system;
- Verra Mobility shall provide statistical reports to the judicial council.

Once a violation is recorded by the automated system Verra Mobility will review and provide a summary to the Tracy Police Department for verification of the violation. If verified, Verra Mobility will issue the citation by mail to the driver and the fine is paid directly to the Superior Court of California – County of San Joaquin. Once the driver receives the citation in the mail, they will have the opportunity to review the images and video, pay the citation, nominate another driver, or request a hearing and go to court. A portion of the funds will be routed to the City and a set monthly fee is paid to Verra Mobility. The monthly fee does not change, and the City will only pay what is collected in the revenue from violations up to the monthly fee; excess revenue can be utilized at the City's discretion.

The Tracy Police Department will be required to provide an Officer or designated person to interact with the citation process, evaluate photos and video to determine violations, attend court proceedings and provide administration for the Tracy Police Department program. It is anticipated existing staff will be assigned to monitor the program there will not be additional cost associated with the citation process at this time. It is expected that revenue will be collected exceeding the contractor's cost and City administration of the system.

FISCAL IMPACT

By agreement, the fiscal impact of red-light photo enforcement will be cost-neutral and requires no upfront funding for the installation of the cameras.

The agreement will call for a specific dollar amount per approach paid to Verra Mobility covering the equipment installation, maintenance, and the processing of the photo/motion pictures. Language is included in the proposed agreement that will require the City to pay a flat fee for each camera at $5,250 month, $63,000 annually, through revenue generated from individual citations issued. In the event, the generated revenue is not enough to fully cover the camera fees, Verra Mobility, Inc. will waive the remaining balance. The result is a completely cost-neutral program.

Any revenue in excess of the balance owed to Verra Mobility, Inc. will remain with the City's general fund.

The 5-year agreement will include annual CPI adjustments. The annual not-to-exceed amount of $63,000.00 is estimated to cover actual costs inclusive of Consumer Price Index adjustments.

PUBLIC OUTREACH/INTEREST

Traffic enforcement continues to be a topic of concern expressed by the public and City Council. The request for additional enforcement is ongoing throughout Tracy. The Tracy Police Department is in continuous receipt of feedback from the public regarding traffic concerns and traffic safety. Acquisition of this technology would increase the efficiency in which the Tracy Police Department enforces, and provides data related to traffic safety to the City Council, the public and department members, and to better deploy its resources to address traffic concerns.

COORDINATION

In preparation of this project, the Tracy Police Department has coordinated with our Police Department's Bureau of Support Operations, Bureau of Field Operations, City Engineering, City Attorney's Office, and the City of Tracy's Information Technology Department. In addition, we have consulted with Verra Mobility and Superior Court of California – County of San Joaquin.

CEQA DETERMINATION

This project is exempt under CEQA pursuant to CEQA guidelines section 15311 pertaining to construction, or replacement of minor structures accessory to existing commercial, industrial, or institutional facilities, including on-premises signs. This project is also exempt under Common Sense Exemption CEQA Guidelines 15061(b)(3) because it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment.

STRATEGIC PLAN

This agenda item relates to Council's strategic priority for Public Safety 2.c. Reduce fatal injury collisions through enforcement, education, roadway engineering, and use of technology.

ACTION REQUESTED OF THE CITY COUNCIL

Staff recommends that the City Council adopt a resolution: (1) making findings under Tracy Municipal Code Section 2.20.180(B)(4) that strict compliance with the bidding process is not in the best interest of the City; (2) approving a General Service Agreement with American Traffic Solutions, Inc., a Kansas corporation doing business as Verra Mobility, to implement the City's automated red-light photo enforcement program for up to 15 traffic intersections throughout the City for a five-year term and annual not-to-exceed amount of $63,000.00; and (3) authorizing the City Manager to administratively extend the agreement for up to two additional five-year terms.

Prepared by: Brian Wilmshurst, Traffic Safety Unit Sergeant
Reviewed by: Sekou Millington, Chief of Police
Sara Cowell, Director of Finance
Karin Schnaider, Assistant City Manager
Jeffrey Crosswhite, Assistant City Attorney
Koosun Kim, City Engineer

Approved by: Midori Lichtwardt

ATTACHMENTS:

A: Vera Mobility, Inc. Service Agreement

PHOTO ENFORCEMENT SERVICES AGREEMENT

This Photo Enforcement Services Agreement includes the attached Exhibits ("Agreement") and is made by and between American Traffic Solutions, Inc., a Kansas corporation doing business as Verra Mobility, ("Verra Mobility") and the City of Tracy, California ("Customer").

WHEREAS, Customer desires to implement a photo enforcement program to enforce traffic violations pursuant to California Vehicle Code § 21455 (the "Program");

WHEREAS, City Council for Customer approved the adoption of the Program on February 6, 2024 pursuant to Resolution 2024-013, authorizing photo enforcement at various traffic intersections, and the provisions of that Resolution are hereby incorporated with this Agreement by reference;

WHEREAS, Verra Mobility has the exclusive possession and ownership of the Back-office System "BOS", including certain knowledge, equipment, licenses, and the processes for processing Events;

WHEREAS, Customer issued a Request for Proposal dated February 29, 2024 and through a competitive bid process, with two received bids,selected Verra Mobility to provide services to implement the Customer's Program;

WHEREAS, Tracy Municipal Code Section 2.20.180(a)(5) requires the City award a contract for "general services" that do not fall into the category of "professional services," defined in Tracy Municipal Code Section 2.20.030(c), the "lowest responsible bidder," irrespective of qualifications necessary for the satisfactory performance of the required services, and irrespective of net-savings to the City, or other benefits occasionally derived from not selecting the "lowest" bid. Tracy Municipal Code Section 2.20.180(b)(4) authorizes the City Council to approve an exception to the contracting procedure for general services agreements where the Council finds compliance is not in the best interest of the City for the subject services. Pursuant to City Council resolution _____2024 , the Council found it not in the best interest of the City to strictly comply with Tracy Municipal Code Section 2.20.180(a)(5) to award this Agreement because Verra Mobility's services offered are unique and specialized, analogous to professional services, and Verra Mobility is uniquely qualified to deliver such specialized services, and because City staff nonetheless performed an bidding procedure to ensure the contract was awarded to the service provider that met minimum requirements at the lowest possible cost;

WHEREAS, Customer desires to use the Camera Systems together with the BOS to monitor and enforce traffic Violations and to issue Citations for traffic Violations as part of its Program; and

WHEREAS, Customer has determined that it has the authority to enter into this Agreement in compliance with the laws, regulations, and policies applicable to it, including procurement laws, regulations, and policies.

NOW, THEREFORE, for good and valuable consideration, the sufficiency of which is hereby admitted and acknowledged, the parties agree as follows:

By signing below, the parties agree to the terms and conditions of this Agreement. Each individual signing below represents that such individual has the requisite authority to execute this Agreement on behalf of the entity which such individual represents and that all the necessary formalities have been met. This Agreement is effective on the date of execution by the last signatory to this cover page ("Effective Date").

ACKNOWLEDGED AND AGREED TO BY:

AMERICAN TRAFFIC SOLUTIONS, INC.

By: _____ 4/4/2024
Name: Jon Baldwin Date
Title: Executive Vice President

By: _____
Name: Kristen Young Date
Title: Deputy General Counsel &
Asst. Secretary

CITY OF TRACY, CALIFORNIA

By: _____
Name: Nancy D. Young Date
Title: Mayor

ATTEST:

By: _____
Name: Adrianne Richardson
Title: City Clerk

I. DEFINITIONS

As used in this Agreement, the following words and terms shall, unless the context otherwise requires, have the respective meanings provided below:

"Approach": One (1) direction of travel on a road including up to four (4) contiguous lanes and, if applicable controlled by up to two (2) signal phases, on which a Camera System may be installed upon the mutual agreement of the parties.

"Back-Office System"* or *"BOS": The proprietary back-end system that processes Events and Violations, including the printing and mailing of Citations, the generation of evidence packages, and that provides system generated reports of Violation counts.

"Business Hours": Eight (8) hours per day, Monday through Friday, excluding weekends and holidays.

"Business Rules": The Business Rules Questionnaire to be completed by Customer and delivered to Verra Mobility setting forth the business rules for the implementation and operation of the Program.

"Camera System" or ***"Camera"***: A photo-traffic monitoring device consisting of one (1) rear camera, strobe (if applicable), one (1) front camera, strobe (if applicable), and traffic monitoring device (including the wiring associated with each) capable of accurately detecting a Violation, which records such data with one (1) or more images of such vehicle.

"Change Order Notice": Written notice from Customer requesting changes to the work required to be performed or the addition of products or services to those required pursuant to the terms of this Agreement, setting forth in reasonable detail the proposed changes.

"Change Order Proposal": A written statement from Verra Mobility describing the cost of the changes to the work or addition of products or services requested by Customer in a Change Order Notice.

"Citation": A citation, notice of violation, notice of infraction, notice of liability or equivalent instrument issued by a competent state, county or municipal law enforcement agent or agency or by a court of competent jurisdiction relating to a Violation documented or evidenced in the BOS.

"Event": A potential Violation captured by the Camera System.

"Fees": The amount payable by Customer to Verra Mobility for equipment, services, and maintenance as set forth in **EXHIBIT A**.

"Laws": All federal, state, or local, laws, ordinances, regulations, and orders.

"Notice to Proceed": Written confirmation from Customer that Verra Mobility may proceed with the installation or deployment of a given Camera System, a form of which is attached as **EXHIBIT C**.

"Owner": The owner(s) of a motor vehicle as shown by the motor vehicle registration records of the motor vehicle department or the analogous agency of another state or country, including a lessee of a motor vehicle under a lease of six months or longer.

"Paid Citation": A situation where the Person cited has paid any portion of the penalty, fine, funds, fees or costs associated with the particular Citation.

"Person" or ***"Persons"***: Any individual, partnership, joint venture, corporation, limited liability company, trust, unincorporated association, governmental authority or political subdivision thereof or any other form of entity.

"Photo Enforcement Infrastructure": The poles, foundation, conduit, and other below-grade infrastructure associated with installing Camera Systems.

"Project Time Line": The initial schedule and timelines required to begin the implementation of Customer's project, as mutually agreed upon by the parties. The initial project timeline will be prepared assuming the active cooperation and engagement of the Program stakeholders set forth in Section 2.1.1 of **EXHIBIT B.**

*"**Red Light Safety Camera System**"*: A Camera System that uses vehicle detection technology to capture a vehicle violating a red light traffic signal and generates recorded images of a Violation, and is installed on a mutually agreed upon Approach.

"System": A Camera System and the related Photo Enforcement Infrastructure.

*"**Violation**"*: A failure to obey an applicable traffic law or regulation related to a failure to obey a traffic signal as determined in Customer's sole discretion.

II. GENERAL TERMS AND CONDITIONS

1. VERRA MOBILITY AGREES TO PROVIDE:

The scope of work identified in **EXHIBIT B**, Section 1.

2. CUSTOMER AGREES TO PROVIDE:

The scope of work identified in **EXHIBIT B**, Section 2.

3. (if applicable) ADDITIONAL SERVICES: [Reserved]

4. TERM:

This Agreement shall commence upon the Effective Date and shall continue for a term of five (5) years beginning on the first day of the month following the first-issued Citation from the last Camera System that

is installed or deployed pursuant to the first Notice to Proceed delivered by Customer to Verra Mobility. The Agreement may be extended for consecutive five (5) year terms upon written confirmation from the City Manager that Verra Mobility has substantially complied with its obligations hereunder. However, Customer or Verra Mobility may terminate this Agreement at the expiration of any term by providing written notice of its intent not to extend the Agreement one hundred twenty (120) days prior to the expiration of the then-current term.

5. FEES AND PAYMENT:

5.1 Customer shall pay for all equipment, installation, relocation, services, and maintenance related to the Verra Mobility's Scope of Work and products based on the fee schedule indicated in **EXHIBIT A**, Service Fee Schedule 1.

5.2 Invoices shall be in standard Verra Mobility format and provided electronically.

5.3 Customer shall pay all Fees due Verra Mobility based upon invoices from the preceding month within thirty (30) days of submission. Late payments may be subject to interest calculated at 1.5% per month on open balances.

5.4 Verra Mobility's Fees will be fixed for the first twelve (12) months invoiced of the Agreement; thereafter, unit prices will increase annually by the Consumer Price Index (CPI), according to the average change during the prior twelve (12) months in the CPI for All Urban Consumers (CPI-U) for U.S. Consumer average, as published by the Bureau of Labor Statistics, U.S. Department of Labor for the Services category listed under Commodity and Service Group.

5.5 During the term of the Agreement, payments by the Customer may be made to Verra Mobility under a Flexible Payment Plan if the total funds collected by the Program are insufficient to cover the Fees due Verra Mobility. Under the Flexible Payment Plan, the Customer may defer certain payments due and owing to Verra Mobility during the term of the Agreement. If at the end of the term sufficient funds have not been collected by the Customer to pay the accrued balance then due to Verra Mobility, Verra Mobility agrees to waive its right to recovery with respect to any balance owing to Verra Mobility at the end of that term.

This Flexible Payment Plan will be applied as follows: Verra Mobility will maintain an accounting of any net balances owed Verra Mobility each month during the term. If the total amount of funds collected from all Camera Systems combined during a month exceeds the amount of the Verra Mobility invoice for the same month, the Customer shall pay Verra Mobility the total amount due on the invoice. If the total amount of funds collected from all Camera Systems combined during a month is less than the amount of the Verra Mobility invoice for the same month, the Customer shall pay Verra Mobility only the amount collected during the same month and Customer may defer payment of the remaining balance. If opting to use a Flexible Payment Plan, Customer will provide Verra Mobility with sufficient information about payments received directly by the Customer or by the Courts to accurately determine the amount of funds collected. Payments due Verra Mobility will be reconciled by applying funds collected in subsequent months, first to the accrued balance and then to the subsequent monthly invoice. If at any time the Verra Mobility invoices, including any accrued balance are fully repaid, Customer will retain all additional funds collected. Any funds in excess of the total balance due (whether reserved in cash or not by Customer) will be available to offset future Verra Mobility invoices during the term of the Agreement and any renewal term. Customer agrees and understands the Flexible Payment Plan shall be applied in the aggregate across all installed Camera Systems and will not be applied on a per Camera System basis or on a per month basis.

Example: Fee of $5,250 per Camera System per month and four (4) cameras installed. If during Month 1 camera #1 revenue is $5,000, camera #2 revenue is $5,500, camera #3 revenue is $6,000 and camera #4 revenue is $3,000, the total revenue from the Camera System for the month is $19,500. Verra Mobility would invoice Customer for $21,000 ($5,250 x 4 Camera Systems). However, Customer would only be required to pay $19,500 in Month 1 and the $1,500 deficit would carry over to subsequent months. If in Month 2 the combined revenue from the 4 Camera Systems was $25,000, Verra Mobility would invoice the Customer $21,000 ($5,250 X 4 Camera Systems) and the prior month $1,500 deficit would also be due for a total payment of $22,500 for Month 2. The Customer is not responsible for any previously deferred balance remaining after termination of the Agreement.

5.6 Flexible Payment Plan – Limitations. This provision shall not apply if: (1) Customer elects not to enforce all legally enforceable Violations; (2) Customer elects not to pursue collections on unpaid Violations; (3) Customer directs Verra Mobility to install a camera at a site where violation rates are projected by Verra Mobility to be below the rate required by Verra Mobility for an acceptable installation; (4) Customer waives and/or fails to timely process more than ten percent (10%) of valid Violations forwarded to law enforcement for acceptance according to the Business Rules; or (5) Customer does not provide Verra Mobility with access to an accurate accounting of all payments received other than payments received through Verra Mobility enabled payment channels; or (6) Customer does not cause Verra Mobility to deploy and operate each Red Light Safety Camera each day and for the hours as authorized under the applicable statute.

6. COMMUNICATION OF INFORMATION:

Verra Mobility will comply with reasonable requests from Customer for information obtained by Verra Mobility through operation of the Camera Systems or the BOS. Verra Mobility reserves the right to assess a fee for such services if such information is requested by a third-party or if Customer could retrieve the information from the BOS without the assistance of Verra Mobility. Verra Mobility will not be under any obligation to provide information directly to non-Customer requesting parties. For any non-Customer requests for information, Verra Mobility shall work collaboratively with Customer to provide requested information in a timely manner to Customer. Nothing in this paragraph shall be construed contrary to the terms and provisions of any public records laws, insofar as they may be applicable.

7. CONFIDENTIALITY:

No information given by Verra Mobility to Customer will be of a confidential nature, unless specifically designated in writing as proprietary or confidential by Verra Mobility ("Verra Mobility Confidential Information"). If, however, Verra Mobility does designate certain information as proprietary or confidential, Customer shall treat the Verra Mobility Confidential Information with the same degree of care and same restrictions as Customer treats its own proprietary and confidential information, but in no event with less than reasonable care and reasonable restrictions. Customer will use Verra Mobility Confidential Information solely in connection with its rights and obligations under this Agreement, and will not use Verra Mobility Confidential Information for any other purpose, including but not limited to any use to harm or injure Verra Mobility or in any other way detrimental to Verra Mobility. If Customer receives a request or becomes legally obligated or compelled (by deposition, interrogatory, request for documents, subpoena, civil investigative demand, other demand or request by a governmental agency, or the application of statutes, rules or regulations) to disclose any of the Verra Mobility Confidential Information, Customer will promptly provide Verra Mobility with written notice of such request or requirement before any disclosure, and will cooperate with Verra Mobility's reasonable efforts to obtain confidential treatment of the Verra Mobility Confidential Information. If a protective order or other confidential treatment is not obtained or if Verra Mobility waives its rights under this paragraph, Customer agrees to furnish only so much of the Verra Mobility Confidential Information as it is legally required to furnish and to exercise its best efforts to obtain written assurances that confidential treatment will be accorded to the Verra Mobility Confidential Information. Customer will give

Verra Mobility an opportunity to review the Verra Mobility Confidential Information prior to its disclosure, and Customer will allow Verra Mobility to participate in any related proceeding. Nothing in this paragraph shall be construed contrary to the terms and provisions of any public records laws, insofar as they may be applicable.

8. PROPRIETARY RIGHTS:

8.1 Back Office: Verra Mobility's proprietary BOS is software-as-a-service. Under all circumstances, Verra Mobility shall retain ownership of the BOS, including any modifications, configurations, improvements, enhancements, upgrades, or further developments of the BOS, even if modified, configured, improved, enhanced, upgraded, or further developed at the request, feedback, or recommendation of the Customer. Under no circumstance will any modifications, configurations, improvements, enhancements, upgrades, or further developments of the BOS be considered "Work for Hire". During the term of our Agreement with Customer, Verra Mobility grants Customer a non-exclusive, non-transferable, revocable license to access and use the BOS for the sole purpose of Customer performing its obligations under this Agreement.

8.2 Systems: Under all circumstances, Verra Mobility shall retain ownership of all Camera Systems. On and as of the date of termination of this Agreement, Customer shall be deemed to accept and receive full ownership and control of the Photo Enforcement Infrastructure.

8.3 Public Safety Campaign and Public Awareness: As between the parties, Verra Mobility owns and retains all rights, title and interest in and to the Public Safety Campaign Content, if any, created by Verra Mobility and all intellectual property rights therein, excluding all Customer Content. "Public Safety Campaign Content" means all content, trademarks, service marks, works of authorship, products, software, software code, databases, technology, information, data, specifications, documentation, algorithms, technical and business plans, and other materials of any kind, and all intellectual property rights therein produced by Verra Mobility for a Public Safety Campaign pursuant to **EXHIBIT B**. Verra Mobility grants to Customer a perpetual, revocable, non-transferable, and non-exclusive license to use, copy, display, and distribute the Public Safety Campaign Content solely to promote Customer's photo enforcement programs, and to modify the Public Safety Campaign Content as needed for formatting for exercise of the license granted.

8.4 In order to produce the Public Safety Campaign Content, Customer grants Verra Mobility a nonexclusive, fully paid-up, license to use, reproduce, distribute, perform, practice and display, and to create derivatives of all content, trademarks, service marks, works of authorship, products, software, software code, databases, technology, information, data, specifications, documentation, algorithms, technical and business plans, and other materials of any kind, and all intellectual property rights therein provided to Verra Mobility ("Customer Content") solely for Verra Mobility to (i) create the Public Safety Campaign Content, and (ii) provide services to Customer. Customer has the ability to approve use of any Customer Content in the Public Safety Campaign Content. In order to carry out the purposes of this Agreement, for the term of this Agreement, Verra Mobility grants Customer a non-exclusive, non-transferable, revocable license to use and display Verra Mobility information provided by Verra Mobility on or in marketing, public awareness or education, or other publications or materials relating to the Program, so long as any and all such publications or materials are approved by Verra Mobility in advance of use.

8.5 Data Use: Verra Mobility shall retain the ownership rights to all metadata, business intelligence, or other analytics obtained, gathered, or mined by Verra Mobility from the data captured by the Camera Systems and the BOS. Furthermore, Verra Mobility has a right to use non-personalized and aggregated Program data for its internal business purposes, analytics, statistical analysis, and to perform analyses which would further Customer's Program.

8.6 Public Disclosure: Verra Mobility Corporation, the ultimate parent company in the corporate family, is a public company registered with the U.S. Securities and Exchange Commission (SEC) with shares of its common stock listed on the NASDAQ. Nothing in this Agreement shall be construed to limit Verra Mobility's or Verra Mobility Corporation's ability to comply with our disclosure obligations as interpreted by our attorneys and accountants under applicable, laws, rules, and regulations of the SEC or the NASDAQ.

9. INDEMNIFICATION AND LIABILITY:

9.1 Indemnification by Verra Mobility. Verra Mobility agrees to indemnify Customer and its managers, officers, directors, employees, agents, representatives and successors (individually, a "Customer Party" and collectively, the "Customer Parties") against all liabilities, obligations, losses, damages, penalties and judgments (collectively, "Losses"), which may be imposed on or incurred by any Customer Party arising out of or related to the gross negligence of, willful misconduct of, or material breach of this Agreement by Verra Mobility, which results in death or bodily injury to any natural person (including third parties) or any damage to any real or tangible personal property (including the personal property of third parties), except to the extent caused by the gross negligence of, willful misconduct of, or material breach of this Agreement by any Customer Party and any claim, action or demand (a "Claim") caused by Customer's failure to perform its obligations under this Agreement.

9.2 Indemnification by Customer. Customer hereby agrees to indemnify Verra Mobility and its affiliates, shareholders or other interest holders, managers, officers, directors, employees, agents, representatives and successors, permitted assignees and all Persons acting by, through, under or in concert with them (individually, an "Verra Mobility Party" and collectively, the "Verra Mobility Parties") against any and all Losses which may be imposed on or incurred by any Verra Mobility Party arising out of or related the gross negligence of, willful misconduct of, or material breach of this Agreement by the Customer which results in death or bodily injury to any natural person (including third parties) or any damage to any real or tangible personal property (including the personal property of third parties), except (a) to the extent caused by the gross negligence of, willful misconduct of, or material breach of this Agreement by any Verra Mobility Party or (b) any Claim caused by Verra Mobility's failure to perform its obligations under this Agreement. Upon the termination of this Agreement, Customer agrees to indemnify Verra Mobility Parties against any and all Losses which may be imposed on or incurred by any Verra Mobility Party arising out of or related to any Claim related to the Photo Enforcement Infrastructure.

9.3 Indemnification Procedures. In the event of any Claim in respect of which any party hereto seeks indemnification from the other, the party seeking indemnification (the "Indemnified Party") shall give the party from whom indemnification is sought (the "Indemnifying Party") written notice of such Claim promptly after the Indemnified Party first becomes aware thereof; provided, however, that failure to give such notice shall not preclude indemnification with respect to such Claim except to the extent of any additional or increased Losses or other actual prejudice directly caused by such failure. The Indemnifying Party and the Indemnified Party shall cooperate in the defense or settlement of any Claim and no party shall have the right to enter into any settlement agreement that materially affects the other party's material rights or material interests without such party's prior written consent, which consent shall not be unreasonably withheld or delayed.

9.4 Limited Liability. In no event shall Verra Mobility's liability under this Agreement exceed the greater of $2,000,000 or the prior twelve (12) months of Fees paid by Customer pursuant to this Agreement. Notwithstanding anything to the contrary in this Agreement, neither party shall be liable to the other, by reason of any representation or express or implied warranty, condition or other term or any duty at common or civil law, for any indirect, incidental, special, or consequential damages, or lost profits, lost

fines, or lost data however caused and on any theory of liability, arising out of or relating to this Agreement.

10. INSURANCE:

Verra Mobility shall maintain the following minimum scope and limits of insurance:

10.1 Commercial General Liability Insurance (with coverage at least as broad as ISO form CG 00 01 01 96) "per occurrence" coverage shall be maintained in an amount not less than $2,000,000 general aggregate and $1,000,000 per occurrence for general liability, bodily injury, personal injury, and property damage.

10.2 Workers' Compensation as required by applicable state law, and Employer's Liability Insurance with limits of not less than $500,000 each accident. Verra Mobility shall at all times maintain Worker's Compensation insurance coverage in the amounts required by Law, but shall not be required to provide such coverage for any actual or statutory employee of Customer.

10.3 Commercial Automobile Liability Insurance for all owned, non-owned and hired automobiles and other vehicles used by Verra Mobility with a minimum $1,000,000 per occurrence combined single limit bodily injury and property damage.

10.4 Professional Liability "claims made" coverage shall be maintained to cover damages that may be the result of errors, omissions, or negligent acts of Consultant in an amount not less than $1,000,000 per claim.

10.5 Consultant shall obtain endorsements to the automobile and commercial general liability insurance policies with the following provisions:

10.5.1 The City (including its elected officials, officers, employees, agents, and volunteers) shall be named as an additional "insured."

10.5.2 For any claims related to this Agreement, Consultant's coverage shall be primary insurance with respect to the City. Any insurance maintained by the City shall be excess of the Consultant's insurance and shall not contribute with it.

Customer shall maintain the following minimum scope and limits of insurance:

10.6 Commercial General Liability insurance (with coverage at least as broad as ISO form CG 00 01 01 96) "per occurrence" coverage shall be maintained in an amount not less than $2,000,000 general aggregate and $1,000,000 per occurrence including coverage for bodily injury, property damage, premises and operations, products/completed operations, personal and advertising injury, and contractual liability. Customer shall provide certificates of Insurance listing Verra Mobility as an Additional Insured on General Liability. Coverage will be Primary and Non Contributory over any existing insurance. To the extent allowed by law, Customer shall waive, and shall require its insurers to endorse its policies to waive, any right of recovery, under subrogation or otherwise, in favor of Verra Mobility, its affiliates, subsidiaries, officers, directors, employees and agents, including any applicable self-insured retentions, deductibles, and/or self-insurance.

10.7 Worker's Compensation coverage as required by applicable state law and Employer's Liability Insurance with limits of not less than $1,000,000 each accident. To the extent allowed by law, Customer shall waive, and shall require its insurers to endorse its policies to waive, any right of recovery, under subrogation or otherwise, in favor of Verra Mobility, its affiliates, subsidiaries, officers, directors, employees and agents, including any applicable self-insured retentions, deductibles, and/or self-insurance.

10.8 Customer will provide certificates of insurance, listing Verra Mobility as an additional insured on Business Automobile Liability Insurance. If self-insured, the Customer will maintain coverages sufficient to cover any liability specified above that may arise from the performance of this Agreement and show evidence of such. If Customer fails to meet the above insurance requirements, Verra Mobility reserves the right to procure such insurance and bill the Customer.

11. LIMITED WARRANTY:

EXCEPT AS EXPRESSLY PROVIDED IN THIS AGREEMENT, VERRA MOBILITY MAKES NO WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, WITH RESPECT TO THE CAMERA SYSTEMS, THE BOS, OR ANY RELATED EQUIPMENT OR SOFTWARE, OR WITH RESPECT TO THE RESULTS OF THE PROGRAM. THE CUSTOMER ACKNOWLEDGES THAT AT TIMES SUCH SYSTEMS AND RELATED EQUIPMENT AND SOFTWARE MAY MALFUNCTION OR OTHERWISE NOT OPERATE AS ANTICIPATED. VERRA MOBILITY SHALL DILIGENTLY ENDEAVOR TO CORRECT ANY SUCH MALFUNCTION IN A TIMELY MANNER.

12. STATE LAW TO APPLY:

This Agreement shall be construed under and in accordance with the laws of the State of California.

13. DISPUTE RESOLUTION:

13.1 All disputes arising out of or in connection with the Agreement shall be attempted to be settled through good-faith efforts between senior management of both parties. Following thirty (30) days of unsuccessful negotiation, the parties shall participate in professionally-assisted mediation, with a mediator acceptable to both parties. The parties agree to discuss their differences in good faith and to attempt, with the assistance of the mediator, to reach an amicable resolution of the dispute. The mediation will be treated as a settlement discussion and therefore will be confidential. The mediator may not testify for either party in any later proceeding relating to the dispute. No recording or transcript shall be made of the mediation proceedings. Each party will bear its own costs in the mediation. The fees and expenses of the mediator will be shared equally by the parties.

13.2 Failing resolution through negotiation or mediation, any remaining dispute shall be submitted to binding arbitration in accordance with the Arbitration Rules for Professional Accounting and Related Services Disputes of the American Arbitration Association ("AAA Rules") before a single arbitrator. The place of arbitration will be mutually agreed upon within fourteen (14) days of a decision to seek arbitration. Limited discovery will be permitted in connection with the arbitration upon agreement of the parties and upon a showing of substantial need by the party seeking discovery.

13.3 The arbitrator's decision shall follow the plain and natural meaning of the relevant documents and shall be final and binding. The arbitrator will have no power to award:

a) damages inconsistent with the Agreement; or,

b) punitive damages or any other damages not measured by the prevailing party's actual damages, and the parties expressly waive their right to obtain such damages in arbitration or in any other forum.

13.4 All aspects of the arbitration will be confidential. Neither the parties nor the arbitrator may disclose the existence, content or results of the arbitration, except as may be necessary to comply with legal or regulatory requirements.

13.5 Each party will promptly pay its share of all arbitration fees and costs, provided that such fees and costs shall be recoverable by the prevailing party as determined by the arbitrator. If a party fails to pay such share promptly upon demand, the arbitrator shall, upon written request by the other party, enter a final and binding decision against the nonpaying party for the full amount of such share, together with an award of attorneys' fees and costs incurred by the other party in obtaining such decision, which decision may be entered in any court of competent jurisdiction. Except for the failure of a party to pay arbitration fees and costs that requires the arbitrator to order such payment, the parties will bear their own attorneys' fees in any matter or dispute under this Agreement.

14. CHANGE ORDERS:

Customer may request the addition of any products or services that Verra Mobility provides or other changes to the scope of work to be performed under this Agreement by providing a Change Order Notice to Verra Mobility. Upon Verra Mobility's receipt of the Change Order Notice, Verra Mobility shall deliver to Customer a Change Order Proposal. Following Customer's receipt of the Change Order Proposal, the parties shall negotiate in good faith regarding a plan and schedule for implementation of the proposed changes; the time, manner and amount of payment or price and any other matters relating to the proposed changes. Any Change Order Proposal mutually agreed to by the parties in writing shall be incorporated as an addendum to this Agreement. Any failure of the parties to reach agreement with respect to any foregoing as a result of any proposed changes will not be deemed to be a breach of this Agreement.

15. TERMINATION:

15.1 City Budget Limitations. Notwithstanding any provision of this Agreement to the contrary, this Agreement will terminate without penalty, liability or expense of any kind to City, except as provided in Subsection 15.2(iii), at the end of any fiscal year if funds are not appropriated for the next succeeding fiscal year. If funds are appropriated for a portion of the fiscal year, this Agreement will automatically terminate, without penalty, liability or expense of any kind at the end of the term for which funds are appropriated. City has no obligation to make appropriations for this Agreement in lieu of appropriations for new or other agreements. City budget decisions are subject to the discretion of the City Council. Verra Mobility's assumption of risk of possible non-appropriation is part of the consideration for this Agreement. The payment of any compensation under this Agreement shall be subject to the City of Tracy appropriation of funds for the Services. This Agreement shall terminate in the event that such funds are not appropriated.

15.2 Verra Mobility's services may be terminated:

(i) By mutual written consent of the parties; or

(ii) For material breach of this Agreement by either party, where the other party fails in any material way to perform its obligations under this Agreement.

a) Where Customer is in breach of this Agreement for non-payment of Fees to Verra Mobility, Verra Mobility may exercise any or all of the following remedies: (1) provide Customer written notice and ten (10) days to cure before suspending performance and turning off the Camera Systems; (2) terminate this Agreement for cause where Customer's account remains delinquent sixty (60) days after written notice; and (3) in addition to the foregoing, seek any other available remedies at law or equity.

b) Termination under this Subsection 15.2(ii) for any reason other than non-payment of Fees by Customer is subject to the condition that the terminating party notifies the other party of its intent to terminate, stating with reasonable specificity the grounds therefore, and the other party fails to cure the default within forty-five (45) days after receiving written notice.

(iii) In the event of termination of this Agreement prior to the end of its term for any reason, except material breach by Verra Mobility, so long as Verra Mobility is not in breach of this Agreement, Customer shall pay Verra Mobility an early termination fee based on an amount of $157,000 per functioning Red Light Safety Camera System or Verra Mobility's actual cost (whatever is less) amortized over sixty (60) months on a straight-line basis.

Months	12 mos.	24 mos.	36 mos.	48 mos.	60 mos.
1	$ 154,383	$ 122,933	$ 91,533	$ 60,133	$ 28,733
2	$ 151,767	$ 120,317	$ 88,917	$ 57,517	$ 26,117
3	$ 149,150	$ 117,700	$ 86,300	$ 54,900	$ 23,500
4	$ 146,533	$ 115,083	$ 83,683	$ 52,283	$ 20,883
5	$ 143,917	$ 112,467	$ 81,067	$ 49,667	$ 18,267
6	$ 141,300	$ 109,850	$ 78,450	$ 47,050	$ 15,650
7	$ 138,683	$ 107,233	$ 75,833	$ 44,433	$ 13,033
8	$ 136,067	$ 104,617	$ 73,217	$ 41,817	$ 10,417
9	$ 133,450	$ 102,000	$ 70,600	$ 39,200	$ 7,800
10	$ 130,833	$ 99,383	$ 67,983	$ 36,583	$ 5,183
11	$ 128,217	$ 96,767	$ 65,367	$ 33,967	$ 2,567
12	$ 125,600	$ 94,150	$ 62,750	$ 31,350	$ -

(iv) Customer recognizes the substantial upfront costs Verra Mobility will incur to procure, provide and install Camera Systems. Customer therefore agrees that any Camera Systems that Customer authorizes through a Notice to Proceed shall remain installed and operational for the duration of the term, unless otherwise mutually agreed. Verra Mobility will bill a restocking or standby fee for any upfront costs associated with the Camera System(s), vehicle(s), or other equipment in the event Customer terminates or suspends a Notice to Proceed.

15.3 Upon termination of this Agreement, including because it has reached the end of its term, the parties recognize that Customer will have to process Events in the "pipeline". Accordingly, the parties shall take the following actions and shall have the following obligations, which survive termination during the wind-down period:

(i) Customer shall cease using the Camera Systems to capture Events.

(ii) Unless it is unlawful to do so, Verra Mobility will, for a period of ninety (90) days, continue to process all Events captured before termination and provide all services associated with processing in accordance with this Agreement and shall be entitled to a monthly Fee per Camera System. After such ninety (90) day period, Verra Mobility will terminate all use of the BOS for Customer's Program and upon such termination, the BOS, including Verra Mobility provided website accessible by Owners/violators, and related lockbox shall no longer be capable of accepting payments.

(iii) Except as provided for in Section 15.3(iv) related to the Photo Enforcement Infrastructure, Customer shall return or allow Verra Mobility to recover all provided equipment within a reasonable time not to exceed ninety (90) days.

(iv) Pursuant to Section 8, Customer shall be deemed to accept full ownership and control of the Photo Enforcement Infrastructure. Upon Customer's request or if otherwise required by Law, regulation, or administrative agency, and subject to the limitations set forth herein, Verra Mobility shall remove the Photo Enforcement Infrastructure Verra Mobility installed in connection with Verra Mobility's performance of its obligations under this Agreement for the actual cost of the removal (presently estimated at approximately $5,000 per Approach) plus an additional 20% service fee (the "Removal Fee"). As part of the services performed for the Removal Fee, Verra Mobility shall restore the surface of Customer's property to substantially the same condition as such property was in immediately prior to this Agreement, except for foundation removal, which shall be left approximately flush with grade with no exposed bolts, or other hazards. Installed underground Photo Enforcement Infrastructure shall not be required to be removed, and Customer shall accept and observe any and all duties, obligations, or liabilities associated with the remaining foundation, conduit, or other below-grade Photo Enforcement Infrastructure.

15.4 In the event of termination by Verra Mobility for non-payment of Fees by Customer, Verra Mobility shall cease processing Events as of the date of termination.

15.5 Authorized Customer Relocation of Photo Enforcement Infrastructure, as provided in **EXHIBIT A** shall not constitute breach or termination of this Agreement.

16. LIMITED AGENCY:

Customer hereby grants Verra Mobility the authority to act on its behalf as a limited agent of Customer, and shall cause the applicable law enforcement agency to grant Verra Mobility the authority to act as a limited agent of the law enforcement agency, for the purposes of (i) access to DMV records; and (ii) generating and administratively processing recorded images of Events as described in this Agreement and the Business Rules. Verra Mobility and its employees, contractors, agents and servants will in no event be considered to be employees, agents (other than in the limited capacity described herein), or servants of Customer. This Agreement does not and shall not be interpreted as creating a general agency relationship between Verra Mobility and Customer.

17. USE OF SUBCONTRACTORS:

From time to time, Verra Mobility may subcontract certain services provided under this Agreement without notice to or consent of Customer.

18. DATA RETENTION:

Subject to litigation holds, court orders, changes in Law, or other legal requirements applicable to Verra Mobility, Verra Mobility shall maintain the categories of data set forth under the heading "Type of Record" for the periods of time set forth under the heading "Minimum Verra Mobility Retention Period" on **EXHIBIT E** during the term of this Agreement. Customer represents and warrants to Verra Mobility that the data retention schedule provided by Customer complies with the laws applicable to Customer. Within one hundred-twenty (120) days of the later of the termination of this Agreement or the termination of any wind-down period, Verra Mobility shall at its option either (i) place the Violation Images, Non-Violation Images, Individually Identifiable Violation Records, and Individually Identifiable Non-Violation Records (each as described on **EXHIBIT E**), not previously disposed of in accordance with the data retention schedule at a secured location with SFTP access or (ii) provide Customer with a hard-drive containing the

Violation Images, Non-Violation Images, Individually Identifiable Violation Records, and Individually Identifiable Non-Violation Records, where Customer shall have ninety (90) days to retrieve and validate the information. After ninety (90) days, Verra Mobility shall delete all data from the SFTP location (if applicable) and shall have no further data retention obligations to Customer with respect to such data. Customer acknowledges that DMV data source providers may require Customer to enter into licensing agreements with the DMV data source providers in order for Customer to have continued access to certain registered owner information after the termination of this Agreement.

19. ASSIGNMENT:

Neither party may assign all or any portion of this Agreement without the prior written consent of the other, which consent shall not be unreasonably withheld or delayed. However, for business financing purposes or other corporate reorganizational purposes, Verra Mobility may sell, assign, transfer or convey any interest in this Agreement in whole or in part with 30 day's notice to Customer and without the written consent of Customer.

20. FORCE MAJEURE:

Neither party will be liable to the other or be deemed to be in breach of this Agreement for any failure or delay in rendering performance arising out of causes beyond its reasonable control and without its fault or negligence. Such causes may include but are not limited to, acts of God or the public enemy, terrorism, significant fires, floods, earthquakes, hurricanes, epidemics, pandemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, supply-chain disruptions or governmental authorities approval delays which are not caused by any act or omission by the parties. The party whose performance is affected agrees to notify the other promptly of the existence and nature of any delay. For the avoidance of doubt, road construction is not an event of Force Majeure on behalf of the Customer. The term of the Agreement shall be extended by a period equal to that during which either party's performance is suspended under this section.

21. NOTICES:

Any notices or demand which, under the terms of this Agreement or under any statute, that must or may be given or made by Verra Mobility or Customer shall be in writing and shall be given or made by personal service, overnight delivery service (e.g. Federal Express), or by certified mail to the parties at the following addresses:

Tracy Police Department	American Traffic Solutions, Inc.
1000 Civic Center	1150 North Alma School Road
Tracy, CA 95376	Mesa, Arizona 85201
Attn: Support Operations Technician	Attn: Government Solutions Legal Department

22. LEGAL CONSTRUCTION:

In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement, and this Agreement shall be construed as if such invalid, illegal, or unenforceable provision had not been contained herein. This Agreement shall be enforced to the maximum extent possible so as to give effect to the intent of the parties and shall be reformed without further action by the parties to the extent necessary to make such provision valid and enforceable herein.

23. AMENDMENTS TO THE AGREEMENT:

Any changes, modifications or amendments to this Agreement shall be in writing and signed by both parties.

24. INTEGRATION:

This Agreement constitutes the sole and only agreement of the parties and supersedes any prior or contemporaneous understanding, written or oral, between the parties respecting its subject matter.

25. SURVIVAL:

The following provisions of the General Terms and Conditions shall survive the termination of this Agreement: Sections 5, 7, 8, 9, 11, 12, 13, 15, 16, 18, 20, 21, 22 and this Section 25.

26. ADDITIONAL SERVICES:

During the term of this Agreement, from time-to-time Verra Mobility may propose certain new technologies for Customer to consider and, if so desired, Customer may procure from Verra Mobility the new technologies through an amendment to this Agreement upon terms to be mutually agreed upon by the parties.

27. PILOTS:

From time to time, at the mutual agreement of the parties, Verra Mobility may pilot existing Verra Mobility products and services or products and services that are under development by Verra Mobility or its current or future subcontractors and vendors (each a "Vendor"). During any pilot pursuant to this Section 27, registered owner information shall not be used and no Events will be issued as Citations and no mailing of warnings or Citations will occur. Customer expressly acknowledges that Verra Mobility is under no obligation to retain for any period of time any data produced by any pilot systems. Verra Mobility may request Customer or its employees to provide feedback on the use, quality, viability, features, functionality, or desirability of pilot systems ("Customer Feedback"). All data, drawings, plans, specifications, blueprints, studies, reports, memoranda, computation sheets, computer files and media or other documents prepared or generated by Verra Mobility or a Vendor or a pilot system in connection with any pilot shall remain the property of Verra Mobility (the "Pilot Data"). To the extent that such Pilot Data is provided to Customer, Verra Mobility grants to Customer a limited, personal, non sublicensable, nonexclusive license to use the Pilot Data, solely for evaluation and statistical purposes. Actual program performance may vary from pilot performance. Customer acknowledges and agrees that the terms of this Agreement, *except for* Sections 7, 10, 11, 12, 13, 17, 20, 21, 22 and this Section 27, shall not apply to any such pilot.

28. EXECUTION:

This Agreement may be executed in one or more counterparts, each of which will be deemed to be an original copy of this Agreement, and all of which, when taken together, shall be deemed to constitute one and the same Agreement. The exchange of copies of this Agreement and of signature pages by facsimile or ".pdf" transmission shall constitute effective execution and delivery of this Agreement as to the parties and may be used in lieu of the original Agreement for all purposes. Signatures of the parties transmitted by facsimile or ".pdf" shall be deemed to be their original signatures for any purpose whatsoever.

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EXHIBIT A
SERVICE FEE SCHEDULE

1.0

Description of Pricing

Fees are based on per camera and are as follows:

Product Description	**Fee***
Red Light Safety Camera System – the parties shall mutually agree on the number of Camera Systems to be installed.	$5,250 Fixed Fee per Month per Camera System
Subsequent Notices Mailing Fee – For any additional notices sent by first class mail required by the Customer or required by Law in excess of the standard set of notices as described in Subsection 1.2.3 of **EXHIBIT B**, Verra Mobility will charge the Customer a Subsequent Notices Mailing Fee.	$2.00 per page per notice
Video Retrieval Fee: Verra Mobility shall retrieve up to one (1) video per week at no cost to Customer.	For all additional video retrievals, the fee is $10.00 each.
Service Fees: All service Fees per Camera System above includes all costs required and associated with a Camera System installation, routine maintenance, use of BOS for back-office operations and reporting, Event processing services, DMV records access, the standard set of notices as described in Subsection 1.2.3 of **EXHIBIT B**, lockbox and epayment processing (excluding user convenience fee, which is paid by payor and excluding any bank account set up or monthly bank account fees), IVR call center support for general Program questions and public awareness Program support. Any required certified mail, or other special mailing, is not included and the fee is extra and will be billed per unit as published by the US Postal Service.	
Verra Mobility's Fee anticipate a standard BOS configuration and a standard suite of notices as described in Subsection 1.2.3 of EXHIBIT B to be configured by Verra Mobility. For configuration or Program customization work in excess of the standard BOS configuration and suite of notices, Verra Mobility shall provide Customer with an hours estimate and, upon approval by Customer for the work, shall invoice Customer $200 per hour for such additional configuration or Program customization.	
Relocation - At no cost to the City, the City may require Verra Mobility to permanently remove or temporarily relocate a Camera System at enforcement locations where the Camera System is in conflict with existing or new public facilities. Verra Mobility will remove or relocate the conflicting Camera System within 60 calendar days from notice by the City. Verra Mobility will work with the contractor(s) responsible for the work on the existing or new public facilities to ensure relocation is incorporated into the design and the contractor(s) know and have agreed to pay for the relocation. Prior to approving a location for installation of a Camera System the City shall inform Verra Mobility of any foreseeable public facility work that may cause a conflict with the Camera System to allow for the parties to determine if an alternative location should be found for installation of the Camera System. To the extent that City elects to have Verra Mobility relocate a Camera System for any other reason than as referenced above, the parties must agree on the relocation costs City shall reimburse Verra Mobility prior to the relocation taking place, and if said reimbursement costs are not agreed to, then the Camera System shall remain in place during the duration of the Agreement.	

EXHIBIT B
SCOPE OF WORK

1. VERRA MOBILITY SCOPE OF WORK

1.1 VERRA MOBILITY IMPLEMENTATION

1.1.1 Verra Mobility agrees to provide Camera System(s), use of the BOS and related services to Customer as outlined in this Agreement, excluding those items identified in Section 2 titled "Customer Scope of Work". Verra Mobility and Customer understand and agree that new or previously unforeseen requirements may, from time to time, be identified and that the parties shall negotiate in good faith to assign the proper party the responsibility and cost for such items. In general, if work is to be performed by Customer, unless otherwise specified, Customer shall not charge Verra Mobility for the cost.

1.1.2 Customer and Verra Mobility will complete the Project Time Line within sixty (60) days of Agreement execution date, unless mutually agreed to otherwise by the parties. Verra Mobility agrees to make every effort to adhere to the Project Time Line.

1.1.3 Verra Mobility will install or deploy Camera System(s) at a number of Designated Safety Zones to be mutually agreed upon between Verra Mobility and Customer as reflected in a written Notice to Proceed. In addition to any initial Designated Safety Zones the parties may mutually agree to add additional Camera System(s) or Approaches, which shall also be reflected in a written Notice to Proceed as set forth in **EXHIBIT C**.

1.1.4 Site installation plans for fixed-site installations shall be prepared by Verra Mobility under the supervision of, approved and sealed by a licensed professional engineer licensed to perform engineering services in the state where the Camera Systems will be installed, and supervision of City engineers.

1.1.5 Verra Mobility shall not be responsible for, nor shall it perform, any engineering or traffic safety studies as may be desired by Customer or required by laws applicable to Customer.

1.1.6 Verra Mobility will operate each Camera System on a 24-hour basis, barring downtime for maintenance, normal servicing activities, or other unforeseen instances, unless enforcement times are restricted by law, such as in school zones.

1.1.7 Verra Mobility's Marketing Department will assist Customer with public information content and outreach campaign strategies ("**Public Safety Campaign**").

1.1.8 Verra Mobility agrees to provide a secure website accessible to Owners/violators who have received notices of violation by means of a Notice # and PIN, which will allow Violation image and video viewing. Verra Mobility shall include a link to the payment website(s) and may offer the opportunity to download an affidavit of non-liability online. Verra Mobility will operate this secure website on a 24-hour basis, barring downtime for maintenance, normal servicing activities, or other unforeseen instances.

1.1.9 Verra Mobility will provide technician site visits to each Camera System, as needed, to perform maintenance checks consisting of camera enclosure lens cleaning; camera, strobe and controller enclosure cleaning; inspection of exposed wires; and, general system inspections and maintenance.

1.1.10 Verra Mobility shall take commercially reasonable best efforts to repair a non-functional System within seventy-two (72) hours (excluding weekends and holidays) of determination of a malfunction.

1.2 VERRA MOBILITY OPERATIONS

1.2.1 Verra Mobility shall implement and operate the Program in accordance with the provisions of this Agreement and the Customer's Business Rules.

1.2.2 If a warning period is required before a Camera System may be used to issue Citations, Verra Mobility shall provide Customer with a one-time warning period up to thirty (30) days per Camera System in length following the installation and activation of the Camera System. Customer shall not be charged a fee for the warning period; however for any warning period exceeding thirty (30) days, Customer shall be responsible for the normal monthly Fee.

1.2.3 Verra Mobility shall provide Customer with access to the BOS, including image processing, and printing and mailing of up to six (6) letters/ notices in support of Citation issuance and escalation. In the case of a transfer of liability by the Owner, the BOS shall be setup to mail a Citation to the driver identified in the affidavit of non-liability or identified by a rental car company. Costs of certified mailings are priced separately and paid by Customer to Verra Mobility as indicated in **EXHIBIT A**.

1.2.4 Subsequent notices, other than those specified in Subsection 1.2.3 may be delivered by first class or other mail means for additional compensation to Verra Mobility as agreed upon by the parties.

1.2.5 Verra Mobility shall apply an electronic signature, name, or badge number to the Citation as authorized in the Customer's Business Rules.

1.2.6 Verra Mobility may make non-substantive formatting or incidental changes to the Citation form without approval by Customer.

1.2.7 Verra Mobility shall seek records from vehicle registration databases reasonably accessible to Verra Mobility through its limited agent relationship with Customer and use such records to assist Customer in processing Citations. . Verra Mobility may mail Citations to the address of the Owner obtained through the DMV, obtained through the National Change of Address (NCOA) database provided by the United States Postal Service, if allowed by law, or obtained through other means including but not limited to skip tracing, if allowed by law. Verra Mobility reserves the right to pass-through to Customer any cost increases imposed on Verra Mobility by DMV data sources.

1.2.8 The BOS shall provide Customer with the ability to run and print standard system reports. Verra Mobility provides a suite of standard program reporting at no charge to clients with active Programs. Upon notice to Customer, Verra Mobility reserves the right to modify the suite of standard program reporting available to Customer, so long as such change applies generally to customers with similar programs. Customized reporting services are available upon written request. The fee for such services shall be mutually agreed upon.

1.2.9 During the twelve (12) month period following the installation or deployment of the first Camera System, upon Verra Mobility's receipt of a written request from Customer at least fourteen (14) calendar days in advance of a court proceeding, and if required by the court or

prosecutor, Verra Mobility shall provide Customer with or train a Customer provided local expert witness to testify in court on matters relating to the accuracy, technical operations, and effectiveness of the Camera System or the BOS until judicial notice is taken. Customer shall use its best efforts to obtain judicial notice as soon as possible. If a Verra Mobility expert witness is required more than two (2) times during the twelve (12) month period, Customer shall reimburse Verra Mobility for any reasonable time and travel costs incurred for the additional dates.

1.2.10 In those instances where damage to a System (or sensors where applicable) is caused by (i) negligence on the part of Verra Mobility or its authorized agent(s), Verra Mobility shall bear the cost of repair or (ii) negligence or recklessness on the part of a driver or severe weather or other Force Majeure events, Verra Mobility and Customer shall bear the cost of repair equally with Customer reimbursing Verra Mobility for its portion of the cost of repair. For all other causes of damage, including road construction, Customer negligence, etc. Customer shall reimburse Verra Mobility for the cost of repair.

1.2.11 Verra Mobility shall provide a help-line to assist Customer with resolving any problems encountered regarding its Camera System and/or the BOS. The help-line shall function during Business Hours.

2. CUSTOMER SCOPE OF WORK

2.1 GENERAL IMPLEMENTATION REQUIREMENTS

2.1.1 Within seven (7) business days of the Effective Date of this Agreement, Customer shall provide Verra Mobility with the name, title, mailing address, email address and phone number of all Customer stakeholders, including:

- A project manager with authority to coordinate Customer responsibilities under this Agreement;
- Court manager responsible for oversight of all Court-related program requirements;
- The police contact;
- The court contact;
- The person responsible for overseeing payments by violators (might be court);
- The prosecuting attorney;
- The Customer attorney;
- The finance contact (who receives the invoices and will be in charge of reconciliation);
- The IT person for the police;
- The IT person for the courts;
- The public works and/or engineering contact responsible for issuing any/all permits for construction; and
- Court manager responsible for oversight of all Court-related program requirements.

2.1.2 Customer and Verra Mobility shall complete the Project Time Line within sixty (60) calendar days of the Effective Date of this Agreement, unless mutually agreed to otherwise by the parties. Customer shall make every effort to adhere to the Project Time Line.

2.1.3 As requested from time to time by Customer, Verra Mobility will provide Customer with a mock-up of the Citation and other notices within fifteen (15) days of a completed Business Rules Questionnaire. Customer shall review the Citation and other notices to ensure conformity with the Laws applicable to Customer. Except as outlined in Section 1.2.6, Verra

Mobility shall not implement changes to the Citation or other notices without Customer's prior review and sign-off. Customer is responsible for the content of its Program notices, including but not limited to Citations.

2.1.4 Customer is responsible for establishing and maintaining all payment processing with the court.

2.1.5 Customer shall direct the law enforcement agency to execute the Verra Mobility DMV Services Subscriber Authorization (substantially in the form attached as **EXHIBIT D**) to provide verification to the National Law Enforcement Telecommunications System (NLETS) indicating that Verra Mobility is acting on behalf of the Customer for the purposes of accessing vehicle ownership data pursuant to the list of permissible uses delineated in the Drivers Privacy Protection Act 18 U.S.C. 2721, Section (b)(1). Access to registered owner information through National Law Enforcement Telecommunications System (NLETS) requires Customer to provide Verra Mobility with a unique Customer ORI. In order to access certain state departments of motor vehicles records directly (not through NLETS), agreements or applications directly between customer and the state DMV may be required by Customer, including agreements requiring Customer to comply with certain permissible use, privacy, and security requirements of the applicable state department of motor vehicle. If required, Customer shall execute such agreements or applications with, participate in audits by, or provide certifications to state department of motor vehicles. If Customer requires Verra Mobility to access registered owner information from sources other than NLETS or direct through a state DMV, accessible to Verra Mobility at no cost, additional fees will apply.

2.1.6 Customer shall prepare, execute, update, and maintain the Business Rules for implementation and operation of the Program. Customer's failure to timely prepare the Business Rules may impact the Project Time Line or compliance of Customer's Program with applicable laws. Verra Mobility shall not be liable for Customer's failure to update and maintain the Business Rules. To the extent that there is a conflict between the Business Rules and Agreement, the Agreement shall govern.

2.1.7 Customer is responsible for notifying Verra Mobility of any local legislative and/or ordinance changes in writing within forty-eight (48) hours of the first read of the proposed legislation. Verra Mobility will not be responsible for complying with any change in applicable local law, until such time as Verra Mobility has been notified by Customer in writing of the change in Law and, if applicable, Customer's Business Rules have been updated by Customer. In the event of a change in Law, excluding a change in Customer's local law, which would increase the cost of Verra Mobility's provision of the Services, Verra Mobility may propose a Fee increase to Customer. If the parties cannot mutually agree on the Fee change, Verra Mobility may terminate this Agreement. In the event of a change in or adoption of a local law of Customer, which would increase the cost of Verra Mobility's provision of the Services, Verra Mobility shall provide Customer with a Fee increase consistent with Verra Mobility's increased operating cost, and Customer shall be obligated to pay such increased Fees.

2.1.8 Customer is responsible for all final jurisdictional issues, including but not limited to as they pertain to issuance of Citations, adjudication of Violations, and intergovernmental authorities.

2.1.9 Once a Notice to Proceed is granted to Verra Mobility in writing, Customer shall not issue a stop work order to suspend activity on the implementation process, unless Customer reimburses Verra Mobility for costs incurred up to the date the stop work order is issued.

2.1.10 Customer will comply with all applicable Laws relating to its conduct with respect to the Program. Customer shall not use the Camera Systems, the BOS, or the data captured by the Camera Systems or provided by NLETs or DMV data source providers for any purpose not permitted by Law.

2.1.11 Once a Camera System is installed and certified by Verra Mobility as operational, it shall be immediately put into service at the next available enforcement period or as otherwise mutually agreed to by the Parties.

2.1.12 Customer shall process each Event in accordance with state law and/or municipality ordinances within three (3) business days of its appearance in the law enforcement review queue, using the BOS to determine which Events constitute Violations that will be issued as Citations. In the event that Customer fails to process Events within this timeframe, Verra Mobility shall not be liable for failure of the BOS to allow Customer to issue a notice or Citation within statutory timeframes.

2.1.13 In the event that remote access to the BOS is blocked by Customer network security infrastructure, Customer's Department of Information Technology shall coordinate with Verra Mobility to facilitate appropriate communications while maintaining required security measures.

2.1.14 Customer shall be responsible for any reporting obligations that it has to any state or other regulatory body with respect to its operation of the Program or the payment of Citations.

2.2 STREETS AND TRAFFIC DEPARTMENT OPERATIONS

2.2.1 All Fixed Camera Systems are intended to remain installed for the duration of the Agreement. Subject to the Relocation provisions of **EXHIBIT A**, if Customer requests that Verra Mobility move a Fixed Camera System after initial installation, Customer shall pay for the total cost to relocate the System.

2.2.2 If a construction or improvement project requires an installed Camera System to be deactivated or requires a Camera System, including imbedded sensors, to be removed out of service and not Relocated, Customer shall pay a reduced monthly fee of $2,500 per month for the deactivated Camera System during the time the Camera System is deactivated and pay any costs incurred by Verra Mobility for removing, and if applicable reinstalling, the System. If the System is reinstalled at the same location after project is completed, in lieu of paying the reduced monthly Fee while Camera System is deactivated, Customer may instead elect through a Change Order, or other written modification to the Agreement, to extend the current term of the Agreement for the time period the Camera System was deactivated.

2.2.3 Prior to the installation of any System, Customer shall provide Verra Mobility information regarding any and all road construction or improvement projects scheduled during the term of this Agreement for any Approach designated for System installation. In addition, within thirty (30) days of becoming aware of anticipated construction that may result in the deactivation or removal of a System or otherwise impact an Approach during the term of this Agreement, Customer shall notify Verra Mobility of any such construction.

2.2.4 Customer will design, fabricate, install and maintain camera warning signs required by Law for purposes of operating the Program. If Customer cannot provide such signage, Verra Mobility will do so, and Customer shall reimburse Verra Mobility for such costs. Even if Verra Mobility provides such signage, Customer shall remain responsible for maintaining such signage in

compliance with applicable Laws. Customer is responsible for determining the placement/location of signs in compliance with applicable Laws.

2.2.5 Customer understands that proper operation of the Red Light Camera Systems requires access to traffic signal phase connections. Customer, therefore, shall provide access to traffic signal phase connections according to approved design. When traffic signal phase connections are not under the jurisdiction of Customer, it shall be Customer's responsibility to negotiate agreements with the owner or maintaining agency of the traffic signal controller and infrastructure in order to provide the required access to said phase connections and infrastructure and any costs associated with needed agreements shall be funded by Customer.

2.2.6 Customer understands that proper operation of the Red Light Camera System sometimes requires attachment of certain items of detection equipment to existing signal masts, mast arms and/or other street furniture. Customer, therefore, shall provide access to Verra Mobility to attach certain items of detection equipment to existing signal masts, mast arms and / or other street furniture if required for the proper operation of the System.

2.2.7 Customer shall allow Verra Mobility to access power from existing power sources at no cost and, if applicable, shall allow or facilitate access to traffic signal phase connections to a pull box, pole base, or controller cabinet nearest to each System within Customer's jurisdiction. If these items are not made available, the costs of any additional conduit or power infrastructure needed to support installation of the Camera System shall be funded by Customer. Verra Mobility may agree to cover these upfront costs and separately bill Customer through the monthly invoice over a period not to exceed one year. If existing power sources are not immediately available, Customer will allow Verra Mobility to use temporary power until the existing power is established. In situations where it is not possible to obtain electrical power from a pre-existing source, Customer shall bear the costs (or reimburse Verra Mobility) for obtaining/routing power. When access to power facilities is not under the jurisdiction of Customer, it shall be Customer's responsibility to negotiate any necessary agreements with the owner or maintaining agency of the power facility and infrastructure in order to provide required access to said power facilities and infrastructure. Any costs associated with the needed agreements shall be funded by Customer.

2.2.8 Customer shall approve or reject site plans submitted Verra Mobility within seven (7) business days of receipt. Customer shall use best efforts to ensure that the total duration between submittal and finalization does not exceed ten (10) days for plan approvals when plans are being reviewed and permitted by any state, county, and/or local agencies.

2.2.9 Customer, or any department of Customer, shall not charge Verra Mobility or its subcontractor(s) for building, construction, electrical, street use and/or pole attachment permits, including any fee for traffic control services and permits during installation or maintenance of a System. Customer shall also apply for, when in Customer's name, or coordinate the application for, when in the name of a Customer agency, school, or school district, and fund any and all needed state, local, and/or county permits, including any traffic control permits.

2.2.10 Customer shall issue all needed permits to Verra Mobility and its subcontractor(s) within three (3) business days of plan approval. Customer shall provide its best efforts to aid in achieving these timeframes for permit issuance when permitted by any state, local, and/or county agency.

2.2.11 If required by the submitted design plan for proper operation, Customer shall allow Verra Mobility to install vehicle detection sensors in the pavement of roadways within Customer's jurisdiction. Customer shall provide its best efforts to aid in acquiring any and all required permission and permits when the roadway is under the jurisdiction of the state or county.

2.2.12 Customer shall allow Verra Mobility to build Infrastructure into any existing Customer-owned easement as reasonably required for Verra Mobility's performance of its obligations under this Agreement.

2.2.13 If use of private property right-of-way is needed, Customer shall assist Verra Mobility in acquiring permission to build in existing utility easements as necessary. Any costs for private property right-of-way lease/rental costs shall be borne by Customer as it is expressly excluded from the base fee structure identified in the fee schedule.

2.2.14 Customer shall be responsible for the performance of any engineering or traffic safety studies as may be desired by Customer or required by laws applicable to Customer.

2.3 COURTS OPERATIONS

2.3.1 Customer is responsible for the prosecution and adjudication of Citations in accordance with all applicable Laws.

2.3.2 Customer shall provide a judge or hearing officer and court facilities to schedule and hear disputed Citations.

2.3.3 Customer shall handle inbound and outbound phone calls and correspondence from defendants who have questions about disputes and other issues relating to Citation adjudication.

2.3.4 Verra Mobility shall provide Customer with access to its online BOS adjudication processing module which will enable the adjudication function to review cases, related images, and other related information required to adjudicate disputed Citations. If instead of using the online adjudication processing module in the BOS, Customer desires to integrate Verra Mobility data into its adjudication system, subject to feasibility, Verra Mobility shall provide a court interface. Verra Mobility shall provide a price proposal to Customer for the development of any such court interface.

2.3.5 Customer is responsible for entering all final dispositions of Citations including all payments of Citations into the BOS, either directly through the online adjudication processing module or through the court interface.

3 (if applicable ADDITIONAL SERVICES [Reserved]

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EXHIBIT C
FORM OF NOTICE TO PROCEED

Reference is made to the Professional Services Agreement by and between American Traffic Solutions, Inc., doing business as Verra Mobility ("Verra Mobility") and City of Tracy ("Customer"), dated as of [date] (the "Agreement"). Capitalized terms used in this Notice to Proceed shall have the meaning given to such term in the Agreement.

Customer hereby designates this implementation of Systems at the Approaches listed below. Verra Mobility shall make its best efforts to install a System within sixty (60) days of permits being granted and power delivered for each agreed-upon Approach, providing that Customer has received permission for all implementations in writing from any third-party sources.

Below is a list of Approaches provided by Customer, which have been analyzed based on traffic volumes, road geometry, and existing infrastructure and are believed to be locations at which a System would increase public safety.

Execution of this Notice to Proceed by Customer shall serve as authorization for the installation of Systems for all Approaches designated as follows:

Approach (Direction and Roadway)	Type of Enforcement	Camera System Solution (# of Cameras per Approach)

Customer understands that implementation and installation of any Approach is subject to Site Selection Analysis and engineering results.

Customer recognizes the substantial upfront costs Verra Mobility will incur to construct and install the Systems for the above listed Approaches. Customer agrees that the Systems authorized by this Notice to Proceed for the above-listed Approaches shall remain installed and operational for the duration of the current term of the Agreement. Verra Mobility reserves the right to bill Customer for any upfront costs associated with the Approaches listed above in the event Customer elects to cancel or suspend the installation.

IN WITNESS WHEREOF, Customer has executed this Notice to Proceed as of the date written below.

[CUSTOMER]

By: _____
Name: Date
Title:

ACKNOWLEDGED AND AGREED TO BY:

AMERICAN TRAFFIC SOLUTIONS, INC.

By: _____
Name: Date
Title:

EXHIBIT D
DMV SERVICES SUBSCRIBER AUTHORIZATION

Date:

Frank L. Minice, Executive Director/CEO
National Law Enforcement Telecommunications System, Inc. (NLETS)
1918 W. Whispering Wind Drive
Phoenix, AZ 85085

Dear Mr. Minice:

Re: Authorization for ORI Code: CA0390600

The Tracy Police Department authorizes American Traffic Solutions, Inc. dba. Verra Mobility to use the Tracy Police Department ORI CA0390600 for the limited purpose of obtaining vehicle registration information through NLETS.

This letter acknowledges that a contract to perform automated enforcement between the Tracy Police Department and American Traffic Solutions, Inc., doing business as Verra Mobility ("Verra Mobility") is in force. As a requirement of and in performance of that contract between the Tracy Police Department and Verra Mobility, it will be necessary for Verra Mobility to access Nlets for motor vehicle data on our agency's behalf.

This program will operate within the Axsis environment under partner ORI AZNlets97.

Please accept this letter as authorization from the Tracy Police Department for Verra Mobility to run motor vehicle inquires for this purpose. This authorization will automatically expire upon the termination of the contract between Tracy Police Department and Verra Mobility; and,such authorization is limited to violations detected by the automated enforcement camera systems.

By completing the information below and signing this letter, I am stating that I am a member of and have the authority to extend this authorization on behalf of the Tracy Police Department.

SUBSCRIBER INFORMATION

Subscriber Agency/Name _____

Nlets Agency ORI _____

Name/Title of Authorized Representative _____

Mailing Address _____

_____

_____

Telephone _____ **Fax** _____

Email _____

Signature of Authorized Representative _____

Date Signed _____

_____

_____

EXHIBIT E
RETENTION SCHEDULE***

[*This schedule to be completed by Customer in conformity with their applicable state and local law prior to execution of the Agreement.*]

Type of Record	**Minimum Verra Mobility Retention Period**
Violation Images* (including video clips and related metadata)	6months from payment or final adjudication
Non-Violation Images (including video clips and related metadata)**	90 days from Event capture date
Warning Notice Images (including video clips and related metadata)	90 from issuance date
Individually Identifiable Violation Records*	6 months from payment or final adjudication
Individually Identifiable Non-Violation Records**	90 days from Event capture date
Audio recording from contact center	90 days from call
Written correspondence with citizens regarding Violations	1 year from date of correspondence
Camera System Calibration/Certification Records	6 months from payment or final adjudication of an applicable Violation
Maintenance Records	6 months from payment or final adjudication of an applicable Violation
Other Program Records	1 years from termination of the Agreement

* Violation Image: an image of a Violation issued as a Citation.
Individually Identifiable Violation Records: a record containing individually identifiable information pertaining to a Violation issued as a Citation.

** Non-Violation Image: an image of an Event not issued as a Citation.
Individually Identifiable Non-Violation Records: a record containing individually identifiable information pertaining to an Event not issued as a Citation.

*** Retention period is not applicable upon termination of the Agreement and the data is provided to Customer pursuant to Section 15 of the Agreement.

This records retention schedule does not apply to any Event data captured by the Camera System, but not uploaded into BOS. For the avoidance of doubt, this records retention schedule does not apply to any records related to any Pilot Data.

APPROVED AS TO FORM AND LEGALITY

_____

CITY ATTORNEY'S OFFICE

TRACY CITY COUNCIL

RESOLUTION NO. _____

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(1) MAKING FINDINGS UNDER TRACY MUNICIPAL CODE SECTION 2.20.180(B)(4) THAT STRICT COMPLIANCE WITH THE BIDDING PROCESS IS NOT IN THE BEST INTEREST OF THE CITY; (2) APPROVING A GENERAL SERVICE AGREEMENT WITH AMERICAN TRAFFIC SOLUTIONS, INC., A KANSAS CORPORATION DOING BUSINESS AS VERRA MOBILITY, TO IMPLEMENT THE CITY'S AUTOMATED RED-LIGHT PHOTO ENFORCEMENT PROGRAM FOR UP TO 15 TRAFFIC INTERSECTIONS THROUGHOUT THE CITY FOR A FIVE-YEAR TERM AND ANNUAL NOT-TO-EXCEED AMOUNT OF $63,000.00; AND (3) AUTHORIZING THE CITY MANAGER TO ADMINISTRATIVELY EXTEND THE AGREEMENT FOR UP TO TWO ADDITIONAL FIVE-YEAR TERMS.

WHEREAS, On February 6, 2024, pursuant to Resolution 2024-013 the City Council approved the adoption of the City's red light photo enforcement program for up to 15 intersections, identify as follows:

- Corral Hollow Rd. and 11th St.
- Clover Rd. and Tracy Blvd.
- Corral Hollow Rd. and Grantline Rd.
- Grantline Rd. and Naglee Rd.
- 11th St. and Tracy Blvd.
- Grantline Rd. and Tracy Blvd.
- Grantline Rd. and MacArthur Dr.
- 11th St. and MacArthur Dr.
- Lammers Rd. and 11th St.
- Valpico Rd. and Tracy Blvd.
- Valpico Rd. and Corral Hollow Rd.
- Schulte Rd. and Corral Hollow Rd.
- Schulte Rd. and Tracy Blvd.
- Schulte Rd. and MacArthur Dr.
- Schulte Rd. and International Pkwy; and

WHEREAS, Residents of the City have requested increased safety precautions in response to traffic light violations in the City; and

WHEREAS, The Insurance Institute for Highway Safety found that the use of traffic cameras reduced red-light violations by 40% at the intersections where they were installed, and the fatal collisions rate caused by redlight violations was reduced by 24% throughout cities that used traffic cameras; and

WHEREAS, The City issued a Request for Proposals and American Traffic Solutions, Inc., a Kansas Corporation doing business as Verra Mobility ("Verra Mobility") demonstrated the competence and professional qualifications necessary for satisfactory performance of the required services; and

WHEREAS, Verra Mobility's services offered are unique and specialized, analogous to professional services, and Verra Mobility is uniquely qualified to deliver such specialized services; and

WHEREAS, Tracy Municipal Code Section 2.20.180(a)(5) requires the City to award a contract for "general services" to the "lowest responsible bidder," irrespective of qualifications necessary for the satisfactory performance of the required services, and irrespective of net-savings to the City, or other benefits occasionally derived from not selecting the "lowest" bid; and

WHEREAS, Tracy Municipal Code Section 2.20.180(b)(4), however, authorizes the City Council to approve an exception to the contracting procedure for general services agreements where the Council finds compliance is not in the best interest of the City for the subject services; and

WHEREAS, The City and Verra Mobility reached an agreement to provide these services, attached here as Attachment A; and

WHEREAS, The program, as proposed will be cost-neutral for the City because the program will be installed and maintained by the service contractor at its cost; and

WHEREAS, The proposed red-light photo enforcement program will comply with California Vehicle Code Section 21455.5. and includes all required components; and

WHEREAS, Language is included in the proposed agreement that will require the City to pay a flat fee for each camera at $63,000 annually through revenue generated from individual citations issued; and

WHEREAS, In the event, the generated revenue is not enough to fully cover the camera fees, Verra Mobility, Inc. will waive the remaining balance; and

WHEREAS, Revenue generated in excess of balance owed to Verra Mobility, Inc. will remain with the City; and

WHEREAS, Automated red-light photo enforcement relates to Council's strategic priority for Public Safety 2.c. Reduce fatal injury collisions through enforcement, education, roadway engineering and use of technology; and

NOW, THEREFORE, be it resolved as follows:

RESOLVED: That the City Council for the City of Tracy finds the above recitals are true and correct and incorporate them in support of the findings and resolutions hereinafter; and be it further

RESOLVED: That the City Council for the City of Tracy finds, pursuant to Tracy Municipal Code Section 2.20.180(b)(4), that strict compliance with the bidding procedures for General Services Agreements are not in the best interest of the City because the Verra Mobility services are equivalent to "professional services," because the City complied with bidding procedures for procurement of professional services, and because Verra Mobility was determined to be the most qualified and responsible bidder; and be it further

RESOLVED: that the City Council hereby approves the General Service Agreement attached as Attachment A with American Traffic Solutions, Inc., a Kansas corporation doing business as Verra Mobility, attached hereto as Attachment A, to implement the City's automated red-light photo

enforcement program for up to 15 traffic intersections throughout the City for a five-year term and annual not-to-exceed amount of $63,000.00; and be it further

RESOLVED: The City Council authorizes the City Manager to administratively extend the General Service Agreement for up to two additional five-year terms, upon written confirmation that Verra Mobility has substantially complied with its obligations under the agreement.

* * * * * * * * * * * * *

The foregoing Resolution 2024- _____ was adopted by the Tracy City Council on April 16, 2024 by the following vote:

AYES:	COUNCIL MEMBERS:
NOES:	COUNCIL MEMBERS:
ABSENT:	COUNCIL MEMBERS:
ABSTENTION:	COUNCIL MEMBERS:

_____
NANCY D. YOUNG
Mayor of the City of Tracy, California

ATTEST:_____
ADRIANNE RICHARDSON
City Clerk and Clerk of the Council of the
City of Tracy, California

Date of Attestation: _____

ATTACHMENTS:
A: General Services Agreement with Verra Mobility

PHOTO ENFORCEMENT SERVICES AGREEMENT

This Photo Enforcement Services Agreement includes the attached Exhibits ("Agreement") and is made by and between American Traffic Solutions, Inc., a Kansas corporation doing business as Verra Mobility, ("Verra Mobility") and the City of Tracy, California ("Customer").

WHEREAS, Customer desires to implement a photo enforcement program to enforce traffic violations pursuant to California Vehicle Code § 21455 (the "Program");

WHEREAS, City Council for Customer approved the adoption of the Program on February 6, 2024 pursuant to Resolution 2024-013, authorizing photo enforcement at various traffic intersections, and the provisions of that Resolution are hereby incorporated with this Agreement by reference;

WHEREAS, Verra Mobility has the exclusive possession and ownership of the Back-office System "BOS", including certain knowledge, equipment, licenses, and the processes for processing Events;

WHEREAS, Customer issued a Request for Proposal dated February 29, 2024 and through a competitive bid process, with two received bids,selected Verra Mobility to provide services to implement the Customer's Program;

WHEREAS, Tracy Municipal Code Section 2.20.180(a)(5) requires the City award a contract for "general services" that do not fall into the category of "professional services," defined in Tracy Municipal Code Section 2.20.030(c), the "lowest responsible bidder," irrespective of qualifications necessary for the satisfactory performance of the required services, and irrespective of net-savings to the City, or other benefits occasionally derived from not selecting the "lowest" bid. Tracy Municipal Code Section 2.20.180(b)(4) authorizes the City Council to approve an exception to the contracting procedure for general services agreements where the Council finds compliance is not in the best interest of the City for the subject services. Pursuant to City Council resolution _____2024 , the Council found it not in the best interest of the City to strictly comply with Tracy Municipal Code Section 2.20.180(a)(5) to award this Agreement because Verra Mobility's services offered are unique and specialized, analogous to professional services, and Verra Mobility is uniquely qualified to deliver such specialized services, and because City staff nonetheless performed an bidding procedure to ensure the contract was awarded to the service provider that met minimum requirements at the lowest possible cost;

WHEREAS, Customer desires to use the Camera Systems together with the BOS to monitor and enforce traffic Violations and to issue Citations for traffic Violations as part of its Program; and

WHEREAS, Customer has determined that it has the authority to enter into this Agreement in compliance with the laws, regulations, and policies applicable to it, including procurement laws, regulations, and policies.

NOW, THEREFORE, for good and valuable consideration, the sufficiency of which is hereby admitted and acknowledged, the parties agree as follows:

By signing below, the parties agree to the terms and conditions of this Agreement. Each individual signing below represents that such individual has the requisite authority to execute this Agreement on behalf of the entity which such individual represents and that all the necessary formalities have been met. This Agreement is effective on the date of execution by the last signatory to this cover page ("Effective Date").

ACKNOWLEDGED AND AGREED TO BY:

AMERICAN TRAFFIC SOLUTIONS, INC.

By: _____ 4/4/2024
Name: Jon Baldwin Date
Title: Executive Vice President

By: _____
Name: Kristen Young Date
Title: Deputy General Counsel &
Asst. Secretary

CITY OF TRACY, CALIFORNIA

By: _____
Name: Nancy D. Young Date
Title: Mayor

ATTEST:

By: _____
Name: Adrianne Richardson
Title: City Clerk

I. DEFINITIONS

As used in this Agreement, the following words and terms shall, unless the context otherwise requires, have the respective meanings provided below:

"Approach": One (1) direction of travel on a road including up to four (4) contiguous lanes and, if applicable controlled by up to two (2) signal phases, on which a Camera System may be installed upon the mutual agreement of the parties.

"Back-Office System"* or *"BOS": The proprietary back-end system that processes Events and Violations, including the printing and mailing of Citations, the generation of evidence packages, and that provides system generated reports of Violation counts.

"Business Hours": Eight (8) hours per day, Monday through Friday, excluding weekends and holidays.

"Business Rules": The Business Rules Questionnaire to be completed by Customer and delivered to Verra Mobility setting forth the business rules for the implementation and operation of the Program.

"Camera System" or ***"Camera"***: A photo-traffic monitoring device consisting of one (1) rear camera, strobe (if applicable), one (1) front camera, strobe (if applicable), and traffic monitoring device (including the wiring associated with each) capable of accurately detecting a Violation, which records such data with one (1) or more images of such vehicle.

"Change Order Notice": Written notice from Customer requesting changes to the work required to be performed or the addition of products or services to those required pursuant to the terms of this Agreement, setting forth in reasonable detail the proposed changes.

"Change Order Proposal": A written statement from Verra Mobility describing the cost of the changes to the work or addition of products or services requested by Customer in a Change Order Notice.

"Citation": A citation, notice of violation, notice of infraction, notice of liability or equivalent instrument issued by a competent state, county or municipal law enforcement agent or agency or by a court of competent jurisdiction relating to a Violation documented or evidenced in the BOS.

"Event": A potential Violation captured by the Camera System.

"Fees": The amount payable by Customer to Verra Mobility for equipment, services, and maintenance as set forth in **EXHIBIT A**.

"Laws": All federal, state, or local, laws, ordinances, regulations, and orders.

"Notice to Proceed": Written confirmation from Customer that Verra Mobility may proceed with the installation or deployment of a given Camera System, a form of which is attached as **EXHIBIT C**.

"Owner": The owner(s) of a motor vehicle as shown by the motor vehicle registration records of the motor vehicle department or the analogous agency of another state or country, including a lessee of a motor vehicle under a lease of six months or longer.

"Paid Citation": A situation where the Person cited has paid any portion of the penalty, fine, funds, fees or costs associated with the particular Citation.

"Person" or ***"Persons"***: Any individual, partnership, joint venture, corporation, limited liability company, trust, unincorporated association, governmental authority or political subdivision thereof or any other form of entity.

"Photo Enforcement Infrastructure": The poles, foundation, conduit, and other below-grade infrastructure associated with installing Camera Systems.

"Project Time Line": The initial schedule and timelines required to begin the implementation of Customer's project, as mutually agreed upon by the parties. The initial project timeline will be prepared assuming the active cooperation and engagement of the Program stakeholders set forth in Section 2.1.1 of **EXHIBIT B.**

*"**Red Light Safety Camera System**"*: A Camera System that uses vehicle detection technology to capture a vehicle violating a red light traffic signal and generates recorded images of a Violation, and is installed on a mutually agreed upon Approach.

"System": A Camera System and the related Photo Enforcement Infrastructure.

*"**Violation**"*: A failure to obey an applicable traffic law or regulation related to a failure to obey a traffic signal as determined in Customer's sole discretion.

II. GENERAL TERMS AND CONDITIONS

1. VERRA MOBILITY AGREES TO PROVIDE:

The scope of work identified in **EXHIBIT B**, Section 1.

2. CUSTOMER AGREES TO PROVIDE:

The scope of work identified in **EXHIBIT B**, Section 2.

3. (if applicable) ADDITIONAL SERVICES: [Reserved]

4. TERM:

This Agreement shall commence upon the Effective Date and shall continue for a term of five (5) years beginning on the first day of the month following the first-issued Citation from the last Camera System that

is installed or deployed pursuant to the first Notice to Proceed delivered by Customer to Verra Mobility. The Agreement may be extended for consecutive five (5) year terms upon written confirmation from the City Manager that Verra Mobility has substantially complied with its obligations hereunder. However, Customer or Verra Mobility may terminate this Agreement at the expiration of any term by providing written notice of its intent not to extend the Agreement one hundred twenty (120) days prior to the expiration of the then-current term.

5. FEES AND PAYMENT:

5.1 Customer shall pay for all equipment, installation, relocation, services, and maintenance related to the Verra Mobility's Scope of Work and products based on the fee schedule indicated in **EXHIBIT A**, Service Fee Schedule 1.

5.2 Invoices shall be in standard Verra Mobility format and provided electronically.

5.3 Customer shall pay all Fees due Verra Mobility based upon invoices from the preceding month within thirty (30) days of submission. Late payments may be subject to interest calculated at 1.5% per month on open balances.

5.4 Verra Mobility's Fees will be fixed for the first twelve (12) months invoiced of the Agreement; thereafter, unit prices will increase annually by the Consumer Price Index (CPI), according to the average change during the prior twelve (12) months in the CPI for All Urban Consumers (CPI-U) for U.S. Consumer average, as published by the Bureau of Labor Statistics, U.S. Department of Labor for the Services category listed under Commodity and Service Group.

5.5 During the term of the Agreement, payments by the Customer may be made to Verra Mobility under a Flexible Payment Plan if the total funds collected by the Program are insufficient to cover the Fees due Verra Mobility. Under the Flexible Payment Plan, the Customer may defer certain payments due and owing to Verra Mobility during the term of the Agreement. If at the end of the term sufficient funds have not been collected by the Customer to pay the accrued balance then due to Verra Mobility, Verra Mobility agrees to waive its right to recovery with respect to any balance owing to Verra Mobility at the end of that term.

This Flexible Payment Plan will be applied as follows: Verra Mobility will maintain an accounting of any net balances owed Verra Mobility each month during the term. If the total amount of funds collected from all Camera Systems combined during a month exceeds the amount of the Verra Mobility invoice for the same month, the Customer shall pay Verra Mobility the total amount due on the invoice. If the total amount of funds collected from all Camera Systems combined during a month is less than the amount of the Verra Mobility invoice for the same month, the Customer shall pay Verra Mobility only the amount collected during the same month and Customer may defer payment of the remaining balance. If opting to use a Flexible Payment Plan, Customer will provide Verra Mobility with sufficient information about payments received directly by the Customer or by the Courts to accurately determine the amount of funds collected. Payments due Verra Mobility will be reconciled by applying funds collected in subsequent months, first to the accrued balance and then to the subsequent monthly invoice. If at any time the Verra Mobility invoices, including any accrued balance are fully repaid, Customer will retain all additional funds collected. Any funds in excess of the total balance due (whether reserved in cash or not by Customer) will be available to offset future Verra Mobility invoices during the term of the Agreement and any renewal term. Customer agrees and understands the Flexible Payment Plan shall be applied in the aggregate across all installed Camera Systems and will not be applied on a per Camera System basis or on a per month basis.

Example: Fee of $5,250 per Camera System per month and four (4) cameras installed. If during Month 1 camera #1 revenue is $5,000, camera #2 revenue is $5,500, camera #3 revenue is $6,000 and camera #4 revenue is $3,000, the total revenue from the Camera System for the month is $19,500. Verra Mobility would invoice Customer for $21,000 ($5,250 x 4 Camera Systems). However, Customer would only be required to pay $19,500 in Month 1 and the $1,500 deficit would carry over to subsequent months. If in Month 2 the combined revenue from the 4 Camera Systems was $25,000, Verra Mobility would invoice the Customer $21,000 ($5,250 X 4 Camera Systems) and the prior month $1,500 deficit would also be due for a total payment of $22,500 for Month 2. The Customer is not responsible for any previously deferred balance remaining after termination of the Agreement.

5.6 Flexible Payment Plan – Limitations. This provision shall not apply if: (1) Customer elects not to enforce all legally enforceable Violations; (2) Customer elects not to pursue collections on unpaid Violations; (3) Customer directs Verra Mobility to install a camera at a site where violation rates are projected by Verra Mobility to be below the rate required by Verra Mobility for an acceptable installation; (4) Customer waives and/or fails to timely process more than ten percent (10%) of valid Violations forwarded to law enforcement for acceptance according to the Business Rules; or (5) Customer does not provide Verra Mobility with access to an accurate accounting of all payments received other than payments received through Verra Mobility enabled payment channels; or (6) Customer does not cause Verra Mobility to deploy and operate each Red Light Safety Camera each day and for the hours as authorized under the applicable statute.

6. COMMUNICATION OF INFORMATION:

Verra Mobility will comply with reasonable requests from Customer for information obtained by Verra Mobility through operation of the Camera Systems or the BOS. Verra Mobility reserves the right to assess a fee for such services if such information is requested by a third-party or if Customer could retrieve the information from the BOS without the assistance of Verra Mobility. Verra Mobility will not be under any obligation to provide information directly to non-Customer requesting parties. For any non-Customer requests for information, Verra Mobility shall work collaboratively with Customer to provide requested information in a timely manner to Customer. Nothing in this paragraph shall be construed contrary to the terms and provisions of any public records laws, insofar as they may be applicable.

7. CONFIDENTIALITY:

No information given by Verra Mobility to Customer will be of a confidential nature, unless specifically designated in writing as proprietary or confidential by Verra Mobility ("Verra Mobility Confidential Information"). If, however, Verra Mobility does designate certain information as proprietary or confidential, Customer shall treat the Verra Mobility Confidential Information with the same degree of care and same restrictions as Customer treats its own proprietary and confidential information, but in no event with less than reasonable care and reasonable restrictions. Customer will use Verra Mobility Confidential Information solely in connection with its rights and obligations under this Agreement, and will not use Verra Mobility Confidential Information for any other purpose, including but not limited to any use to harm or injure Verra Mobility or in any other way detrimental to Verra Mobility. If Customer receives a request or becomes legally obligated or compelled (by deposition, interrogatory, request for documents, subpoena, civil investigative demand, other demand or request by a governmental agency, or the application of statutes, rules or regulations) to disclose any of the Verra Mobility Confidential Information, Customer will promptly provide Verra Mobility with written notice of such request or requirement before any disclosure, and will cooperate with Verra Mobility's reasonable efforts to obtain confidential treatment of the Verra Mobility Confidential Information. If a protective order or other confidential treatment is not obtained or if Verra Mobility waives its rights under this paragraph, Customer agrees to furnish only so much of the Verra Mobility Confidential Information as it is legally required to furnish and to exercise its best efforts to obtain written assurances that confidential treatment will be accorded to the Verra Mobility Confidential Information. Customer will give

Verra Mobility an opportunity to review the Verra Mobility Confidential Information prior to its disclosure, and Customer will allow Verra Mobility to participate in any related proceeding. Nothing in this paragraph shall be construed contrary to the terms and provisions of any public records laws, insofar as they may be applicable.

8. PROPRIETARY RIGHTS:

8.1 Back Office: Verra Mobility's proprietary BOS is software-as-a-service. Under all circumstances, Verra Mobility shall retain ownership of the BOS, including any modifications, configurations, improvements, enhancements, upgrades, or further developments of the BOS, even if modified, configured, improved, enhanced, upgraded, or further developed at the request, feedback, or recommendation of the Customer. Under no circumstance will any modifications, configurations, improvements, enhancements, upgrades, or further developments of the BOS be considered "Work for Hire". During the term of our Agreement with Customer, Verra Mobility grants Customer a non-exclusive, non-transferable, revocable license to access and use the BOS for the sole purpose of Customer performing its obligations under this Agreement.

8.2 Systems: Under all circumstances, Verra Mobility shall retain ownership of all Camera Systems. On and as of the date of termination of this Agreement, Customer shall be deemed to accept and receive full ownership and control of the Photo Enforcement Infrastructure.

8.3 Public Safety Campaign and Public Awareness: As between the parties, Verra Mobility owns and retains all rights, title and interest in and to the Public Safety Campaign Content, if any, created by Verra Mobility and all intellectual property rights therein, excluding all Customer Content. "Public Safety Campaign Content" means all content, trademarks, service marks, works of authorship, products, software, software code, databases, technology, information, data, specifications, documentation, algorithms, technical and business plans, and other materials of any kind, and all intellectual property rights therein produced by Verra Mobility for a Public Safety Campaign pursuant to **EXHIBIT B**. Verra Mobility grants to Customer a perpetual, revocable, non-transferable, and non-exclusive license to use, copy, display, and distribute the Public Safety Campaign Content solely to promote Customer's photo enforcement programs, and to modify the Public Safety Campaign Content as needed for formatting for exercise of the license granted.

8.4 In order to produce the Public Safety Campaign Content, Customer grants Verra Mobility a nonexclusive, fully paid-up, license to use, reproduce, distribute, perform, practice and display, and to create derivatives of all content, trademarks, service marks, works of authorship, products, software, software code, databases, technology, information, data, specifications, documentation, algorithms, technical and business plans, and other materials of any kind, and all intellectual property rights therein provided to Verra Mobility ("Customer Content") solely for Verra Mobility to (i) create the Public Safety Campaign Content, and (ii) provide services to Customer. Customer has the ability to approve use of any Customer Content in the Public Safety Campaign Content. In order to carry out the purposes of this Agreement, for the term of this Agreement, Verra Mobility grants Customer a non-exclusive, non-transferable, revocable license to use and display Verra Mobility information provided by Verra Mobility on or in marketing, public awareness or education, or other publications or materials relating to the Program, so long as any and all such publications or materials are approved by Verra Mobility in advance of use.

8.5 Data Use: Verra Mobility shall retain the ownership rights to all metadata, business intelligence, or other analytics obtained, gathered, or mined by Verra Mobility from the data captured by the Camera Systems and the BOS. Furthermore, Verra Mobility has a right to use non-personalized and aggregated Program data for its internal business purposes, analytics, statistical analysis, and to perform analyses which would further Customer's Program.

8.6 Public Disclosure: Verra Mobility Corporation, the ultimate parent company in the corporate family, is a public company registered with the U.S. Securities and Exchange Commission (SEC) with shares of its common stock listed on the NASDAQ. Nothing in this Agreement shall be construed to limit Verra Mobility's or Verra Mobility Corporation's ability to comply with our disclosure obligations as interpreted by our attorneys and accountants under applicable, laws, rules, and regulations of the SEC or the NASDAQ.

9. INDEMNIFICATION AND LIABILITY:

9.1 Indemnification by Verra Mobility. Verra Mobility agrees to indemnify Customer and its managers, officers, directors, employees, agents, representatives and successors (individually, a "Customer Party" and collectively, the "Customer Parties") against all liabilities, obligations, losses, damages, penalties and judgments (collectively, "Losses"), which may be imposed on or incurred by any Customer Party arising out of or related to the gross negligence of, willful misconduct of, or material breach of this Agreement by Verra Mobility, which results in death or bodily injury to any natural person (including third parties) or any damage to any real or tangible personal property (including the personal property of third parties), except to the extent caused by the gross negligence of, willful misconduct of, or material breach of this Agreement by any Customer Party and any claim, action or demand (a "Claim") caused by Customer's failure to perform its obligations under this Agreement.

9.2 Indemnification by Customer. Customer hereby agrees to indemnify Verra Mobility and its affiliates, shareholders or other interest holders, managers, officers, directors, employees, agents, representatives and successors, permitted assignees and all Persons acting by, through, under or in concert with them (individually, an "Verra Mobility Party" and collectively, the "Verra Mobility Parties") against any and all Losses which may be imposed on or incurred by any Verra Mobility Party arising out of or related the gross negligence of, willful misconduct of, or material breach of this Agreement by the Customer which results in death or bodily injury to any natural person (including third parties) or any damage to any real or tangible personal property (including the personal property of third parties), except (a) to the extent caused by the gross negligence of, willful misconduct of, or material breach of this Agreement by any Verra Mobility Party or (b) any Claim caused by Verra Mobility's failure to perform its obligations under this Agreement. Upon the termination of this Agreement, Customer agrees to indemnify Verra Mobility Parties against any and all Losses which may be imposed on or incurred by any Verra Mobility Party arising out of or related to any Claim related to the Photo Enforcement Infrastructure.

9.3 Indemnification Procedures. In the event of any Claim in respect of which any party hereto seeks indemnification from the other, the party seeking indemnification (the "Indemnified Party") shall give the party from whom indemnification is sought (the "Indemnifying Party") written notice of such Claim promptly after the Indemnified Party first becomes aware thereof; provided, however, that failure to give such notice shall not preclude indemnification with respect to such Claim except to the extent of any additional or increased Losses or other actual prejudice directly caused by such failure. The Indemnifying Party and the Indemnified Party shall cooperate in the defense or settlement of any Claim and no party shall have the right to enter into any settlement agreement that materially affects the other party's material rights or material interests without such party's prior written consent, which consent shall not be unreasonably withheld or delayed.

9.4 Limited Liability. In no event shall Verra Mobility's liability under this Agreement exceed the greater of $2,000,000 or the prior twelve (12) months of Fees paid by Customer pursuant to this Agreement. Notwithstanding anything to the contrary in this Agreement, neither party shall be liable to the other, by reason of any representation or express or implied warranty, condition or other term or any duty at common or civil law, for any indirect, incidental, special, or consequential damages, or lost profits, lost

fines, or lost data however caused and on any theory of liability, arising out of or relating to this Agreement.

10. INSURANCE:

Verra Mobility shall maintain the following minimum scope and limits of insurance:

10.1 Commercial General Liability Insurance (with coverage at least as broad as ISO form CG 00 01 01 96) "per occurrence" coverage shall be maintained in an amount not less than $2,000,000 general aggregate and $1,000,000 per occurrence for general liability, bodily injury, personal injury, and property damage.

10.2 Workers' Compensation as required by applicable state law, and Employer's Liability Insurance with limits of not less than $500,000 each accident. Verra Mobility shall at all times maintain Worker's Compensation insurance coverage in the amounts required by Law, but shall not be required to provide such coverage for any actual or statutory employee of Customer.

10.3 Commercial Automobile Liability Insurance for all owned, non-owned and hired automobiles and other vehicles used by Verra Mobility with a minimum $1,000,000 per occurrence combined single limit bodily injury and property damage.

10.4 Professional Liability "claims made" coverage shall be maintained to cover damages that may be the result of errors, omissions, or negligent acts of Consultant in an amount not less than $1,000,000 per claim.

10.5 Consultant shall obtain endorsements to the automobile and commercial general liability insurance policies with the following provisions:

10.5.1 The City (including its elected officials, officers, employees, agents, and volunteers) shall be named as an additional "insured."

10.5.2 For any claims related to this Agreement, Consultant's coverage shall be primary insurance with respect to the City. Any insurance maintained by the City shall be excess of the Consultant's insurance and shall not contribute with it.

Customer shall maintain the following minimum scope and limits of insurance:

10.6 Commercial General Liability insurance (with coverage at least as broad as ISO form CG 00 01 01 96) "per occurrence" coverage shall be maintained in an amount not less than $2,000,000 general aggregate and $1,000,000 per occurrence including coverage for bodily injury, property damage, premises and operations, products/completed operations, personal and advertising injury, and contractual liability. Customer shall provide certificates of Insurance listing Verra Mobility as an Additional Insured on General Liability. Coverage will be Primary and Non Contributory over any existing insurance. To the extent allowed by law, Customer shall waive, and shall require its insurers to endorse its policies to waive, any right of recovery, under subrogation or otherwise, in favor of Verra Mobility, its affiliates, subsidiaries, officers, directors, employees and agents, including any applicable self-insured retentions, deductibles, and/or self-insurance.

10.7 Worker's Compensation coverage as required by applicable state law and Employer's Liability Insurance with limits of not less than $1,000,000 each accident. To the extent allowed by law, Customer shall waive, and shall require its insurers to endorse its policies to waive, any right of recovery, under subrogation or otherwise, in favor of Verra Mobility, its affiliates, subsidiaries, officers, directors, employees and agents, including any applicable self-insured retentions, deductibles, and/or self-insurance.

10.8 Customer will provide certificates of insurance, listing Verra Mobility as an additional insured on Business Automobile Liability Insurance. If self-insured, the Customer will maintain coverages sufficient to cover any liability specified above that may arise from the performance of this Agreement and show evidence of such. If Customer fails to meet the above insurance requirements, Verra Mobility reserves the right to procure such insurance and bill the Customer.

11. LIMITED WARRANTY:

EXCEPT AS EXPRESSLY PROVIDED IN THIS AGREEMENT, VERRA MOBILITY MAKES NO WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, WITH RESPECT TO THE CAMERA SYSTEMS, THE BOS, OR ANY RELATED EQUIPMENT OR SOFTWARE, OR WITH RESPECT TO THE RESULTS OF THE PROGRAM. THE CUSTOMER ACKNOWLEDGES THAT AT TIMES SUCH SYSTEMS AND RELATED EQUIPMENT AND SOFTWARE MAY MALFUNCTION OR OTHERWISE NOT OPERATE AS ANTICIPATED. VERRA MOBILITY SHALL DILIGENTLY ENDEAVOR TO CORRECT ANY SUCH MALFUNCTION IN A TIMELY MANNER.

12. STATE LAW TO APPLY:

This Agreement shall be construed under and in accordance with the laws of the State of California.

13. DISPUTE RESOLUTION:

13.1 All disputes arising out of or in connection with the Agreement shall be attempted to be settled through good-faith efforts between senior management of both parties. Following thirty (30) days of unsuccessful negotiation, the parties shall participate in professionally-assisted mediation, with a mediator acceptable to both parties. The parties agree to discuss their differences in good faith and to attempt, with the assistance of the mediator, to reach an amicable resolution of the dispute. The mediation will be treated as a settlement discussion and therefore will be confidential. The mediator may not testify for either party in any later proceeding relating to the dispute. No recording or transcript shall be made of the mediation proceedings. Each party will bear its own costs in the mediation. The fees and expenses of the mediator will be shared equally by the parties.

13.2 Failing resolution through negotiation or mediation, any remaining dispute shall be submitted to binding arbitration in accordance with the Arbitration Rules for Professional Accounting and Related Services Disputes of the American Arbitration Association ("AAA Rules") before a single arbitrator. The place of arbitration will be mutually agreed upon within fourteen (14) days of a decision to seek arbitration. Limited discovery will be permitted in connection with the arbitration upon agreement of the parties and upon a showing of substantial need by the party seeking discovery.

13.3 The arbitrator's decision shall follow the plain and natural meaning of the relevant documents and shall be final and binding. The arbitrator will have no power to award:

a) damages inconsistent with the Agreement; or,

b) punitive damages or any other damages not measured by the prevailing party's actual damages, and the parties expressly waive their right to obtain such damages in arbitration or in any other forum.

13.4 All aspects of the arbitration will be confidential. Neither the parties nor the arbitrator may disclose the existence, content or results of the arbitration, except as may be necessary to comply with legal or regulatory requirements.

13.5 Each party will promptly pay its share of all arbitration fees and costs, provided that such fees and costs shall be recoverable by the prevailing party as determined by the arbitrator. If a party fails to pay such share promptly upon demand, the arbitrator shall, upon written request by the other party, enter a final and binding decision against the nonpaying party for the full amount of such share, together with an award of attorneys' fees and costs incurred by the other party in obtaining such decision, which decision may be entered in any court of competent jurisdiction. Except for the failure of a party to pay arbitration fees and costs that requires the arbitrator to order such payment, the parties will bear their own attorneys' fees in any matter or dispute under this Agreement.

14. CHANGE ORDERS:

Customer may request the addition of any products or services that Verra Mobility provides or other changes to the scope of work to be performed under this Agreement by providing a Change Order Notice to Verra Mobility. Upon Verra Mobility's receipt of the Change Order Notice, Verra Mobility shall deliver to Customer a Change Order Proposal. Following Customer's receipt of the Change Order Proposal, the parties shall negotiate in good faith regarding a plan and schedule for implementation of the proposed changes; the time, manner and amount of payment or price and any other matters relating to the proposed changes. Any Change Order Proposal mutually agreed to by the parties in writing shall be incorporated as an addendum to this Agreement. Any failure of the parties to reach agreement with respect to any foregoing as a result of any proposed changes will not be deemed to be a breach of this Agreement.

15. TERMINATION:

15.1 City Budget Limitations. Notwithstanding any provision of this Agreement to the contrary, this Agreement will terminate without penalty, liability or expense of any kind to City, except as provided in Subsection 15.2(iii), at the end of any fiscal year if funds are not appropriated for the next succeeding fiscal year. If funds are appropriated for a portion of the fiscal year, this Agreement will automatically terminate, without penalty, liability or expense of any kind at the end of the term for which funds are appropriated. City has no obligation to make appropriations for this Agreement in lieu of appropriations for new or other agreements. City budget decisions are subject to the discretion of the City Council. Verra Mobility's assumption of risk of possible non-appropriation is part of the consideration for this Agreement. The payment of any compensation under this Agreement shall be subject to the City of Tracy appropriation of funds for the Services. This Agreement shall terminate in the event that such funds are not appropriated.

15.2 Verra Mobility's services may be terminated:

(i) By mutual written consent of the parties; or

(ii) For material breach of this Agreement by either party, where the other party fails in any material way to perform its obligations under this Agreement.

a) Where Customer is in breach of this Agreement for non-payment of Fees to Verra Mobility, Verra Mobility may exercise any or all of the following remedies: (1) provide Customer written notice and ten (10) days to cure before suspending performance and turning off the Camera Systems; (2) terminate this Agreement for cause where Customer's account remains delinquent sixty (60) days after written notice; and (3) in addition to the foregoing, seek any other available remedies at law or equity.

b) Termination under this Subsection 15.2(ii) for any reason other than non-payment of Fees by Customer is subject to the condition that the terminating party notifies the other party of its intent to terminate, stating with reasonable specificity the grounds therefore, and the other party fails to cure the default within forty-five (45) days after receiving written notice.

(iii) In the event of termination of this Agreement prior to the end of its term for any reason, except material breach by Verra Mobility, so long as Verra Mobility is not in breach of this Agreement, Customer shall pay Verra Mobility an early termination fee based on an amount of $157,000 per functioning Red Light Safety Camera System or Verra Mobility's actual cost (whatever is less) amortized over sixty (60) months on a straight-line basis.

Months	12 mos.	24 mos.	36 mos.	48 mos.	60 mos.
1	$ 154,383	$ 122,933	$ 91,533	$ 60,133	$ 28,733
2	$ 151,767	$ 120,317	$ 88,917	$ 57,517	$ 26,117
3	$ 149,150	$ 117,700	$ 86,300	$ 54,900	$ 23,500
4	$ 146,533	$ 115,083	$ 83,683	$ 52,283	$ 20,883
5	$ 143,917	$ 112,467	$ 81,067	$ 49,667	$ 18,267
6	$ 141,300	$ 109,850	$ 78,450	$ 47,050	$ 15,650
7	$ 138,683	$ 107,233	$ 75,833	$ 44,433	$ 13,033
8	$ 136,067	$ 104,617	$ 73,217	$ 41,817	$ 10,417
9	$ 133,450	$ 102,000	$ 70,600	$ 39,200	$ 7,800
10	$ 130,833	$ 99,383	$ 67,983	$ 36,583	$ 5,183
11	$ 128,217	$ 96,767	$ 65,367	$ 33,967	$ 2,567
12	$ 125,600	$ 94,150	$ 62,750	$ 31,350	$ -

(iv) Customer recognizes the substantial upfront costs Verra Mobility will incur to procure, provide and install Camera Systems. Customer therefore agrees that any Camera Systems that Customer authorizes through a Notice to Proceed shall remain installed and operational for the duration of the term, unless otherwise mutually agreed. Verra Mobility will bill a restocking or standby fee for any upfront costs associated with the Camera System(s), vehicle(s), or other equipment in the event Customer terminates or suspends a Notice to Proceed.

15.3 Upon termination of this Agreement, including because it has reached the end of its term, the parties recognize that Customer will have to process Events in the "pipeline". Accordingly, the parties shall take the following actions and shall have the following obligations, which survive termination during the wind-down period:

(i) Customer shall cease using the Camera Systems to capture Events.

(ii) Unless it is unlawful to do so, Verra Mobility will, for a period of ninety (90) days, continue to process all Events captured before termination and provide all services associated with processing in accordance with this Agreement and shall be entitled to a monthly Fee per Camera System. After such ninety (90) day period, Verra Mobility will terminate all use of the BOS for Customer's Program and upon such termination, the BOS, including Verra Mobility provided website accessible by Owners/violators, and related lockbox shall no longer be capable of accepting payments.

(iii) Except as provided for in Section 15.3(iv) related to the Photo Enforcement Infrastructure, Customer shall return or allow Verra Mobility to recover all provided equipment within a reasonable time not to exceed ninety (90) days.

(iv) Pursuant to Section 8, Customer shall be deemed to accept full ownership and control of the Photo Enforcement Infrastructure. Upon Customer's request or if otherwise required by Law, regulation, or administrative agency, and subject to the limitations set forth herein, Verra Mobility shall remove the Photo Enforcement Infrastructure Verra Mobility installed in connection with Verra Mobility's performance of its obligations under this Agreement for the actual cost of the removal (presently estimated at approximately $5,000 per Approach) plus an additional 20% service fee (the "Removal Fee"). As part of the services performed for the Removal Fee, Verra Mobility shall restore the surface of Customer's property to substantially the same condition as such property was in immediately prior to this Agreement, except for foundation removal, which shall be left approximately flush with grade with no exposed bolts, or other hazards. Installed underground Photo Enforcement Infrastructure shall not be required to be removed, and Customer shall accept and observe any and all duties, obligations, or liabilities associated with the remaining foundation, conduit, or other below-grade Photo Enforcement Infrastructure.

15.4 In the event of termination by Verra Mobility for non-payment of Fees by Customer, Verra Mobility shall cease processing Events as of the date of termination.

15.5 Authorized Customer Relocation of Photo Enforcement Infrastructure, as provided in **EXHIBIT A** shall not constitute breach or termination of this Agreement.

16. LIMITED AGENCY:

Customer hereby grants Verra Mobility the authority to act on its behalf as a limited agent of Customer, and shall cause the applicable law enforcement agency to grant Verra Mobility the authority to act as a limited agent of the law enforcement agency, for the purposes of (i) access to DMV records; and (ii) generating and administratively processing recorded images of Events as described in this Agreement and the Business Rules. Verra Mobility and its employees, contractors, agents and servants will in no event be considered to be employees, agents (other than in the limited capacity described herein), or servants of Customer. This Agreement does not and shall not be interpreted as creating a general agency relationship between Verra Mobility and Customer.

17. USE OF SUBCONTRACTORS:

From time to time, Verra Mobility may subcontract certain services provided under this Agreement without notice to or consent of Customer.

18. DATA RETENTION:

Subject to litigation holds, court orders, changes in Law, or other legal requirements applicable to Verra Mobility, Verra Mobility shall maintain the categories of data set forth under the heading "Type of Record" for the periods of time set forth under the heading "Minimum Verra Mobility Retention Period" on **EXHIBIT E** during the term of this Agreement. Customer represents and warrants to Verra Mobility that the data retention schedule provided by Customer complies with the laws applicable to Customer. Within one hundred-twenty (120) days of the later of the termination of this Agreement or the termination of any wind-down period, Verra Mobility shall at its option either (i) place the Violation Images, Non-Violation Images, Individually Identifiable Violation Records, and Individually Identifiable Non-Violation Records (each as described on **EXHIBIT E**), not previously disposed of in accordance with the data retention schedule at a secured location with SFTP access or (ii) provide Customer with a hard-drive containing the

Violation Images, Non-Violation Images, Individually Identifiable Violation Records, and Individually Identifiable Non-Violation Records, where Customer shall have ninety (90) days to retrieve and validate the information. After ninety (90) days, Verra Mobility shall delete all data from the SFTP location (if applicable) and shall have no further data retention obligations to Customer with respect to such data. Customer acknowledges that DMV data source providers may require Customer to enter into licensing agreements with the DMV data source providers in order for Customer to have continued access to certain registered owner information after the termination of this Agreement.

19. ASSIGNMENT:

Neither party may assign all or any portion of this Agreement without the prior written consent of the other, which consent shall not be unreasonably withheld or delayed. However, for business financing purposes or other corporate reorganizational purposes, Verra Mobility may sell, assign, transfer or convey any interest in this Agreement in whole or in part with 30 day's notice to Customer and without the written consent of Customer.

20. FORCE MAJEURE:

Neither party will be liable to the other or be deemed to be in breach of this Agreement for any failure or delay in rendering performance arising out of causes beyond its reasonable control and without its fault or negligence. Such causes may include but are not limited to, acts of God or the public enemy, terrorism, significant fires, floods, earthquakes, hurricanes, epidemics, pandemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, supply-chain disruptions or governmental authorities approval delays which are not caused by any act or omission by the parties. The party whose performance is affected agrees to notify the other promptly of the existence and nature of any delay. For the avoidance of doubt, road construction is not an event of Force Majeure on behalf of the Customer. The term of the Agreement shall be extended by a period equal to that during which either party's performance is suspended under this section.

21. NOTICES:

Any notices or demand which, under the terms of this Agreement or under any statute, that must or may be given or made by Verra Mobility or Customer shall be in writing and shall be given or made by personal service, overnight delivery service (e.g. Federal Express), or by certified mail to the parties at the following addresses:

Tracy Police Department	American Traffic Solutions, Inc.
1000 Civic Center	1150 North Alma School Road
Tracy, CA 95376	Mesa, Arizona 85201
Attn: Support Operations Technician	Attn: Government Solutions Legal Department

22. LEGAL CONSTRUCTION:

In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement, and this Agreement shall be construed as if such invalid, illegal, or unenforceable provision had not been contained herein. This Agreement shall be enforced to the maximum extent possible so as to give effect to the intent of the parties and shall be reformed without further action by the parties to the extent necessary to make such provision valid and enforceable herein.

23. AMENDMENTS TO THE AGREEMENT:

Any changes, modifications or amendments to this Agreement shall be in writing and signed by both parties.

24. INTEGRATION:

This Agreement constitutes the sole and only agreement of the parties and supersedes any prior or contemporaneous understanding, written or oral, between the parties respecting its subject matter.

25. SURVIVAL:

The following provisions of the General Terms and Conditions shall survive the termination of this Agreement: Sections 5, 7, 8, 9, 11, 12, 13, 15, 16, 18, 20, 21, 22 and this Section 25.

26. ADDITIONAL SERVICES:

During the term of this Agreement, from time-to-time Verra Mobility may propose certain new technologies for Customer to consider and, if so desired, Customer may procure from Verra Mobility the new technologies through an amendment to this Agreement upon terms to be mutually agreed upon by the parties.

27. PILOTS:

From time to time, at the mutual agreement of the parties, Verra Mobility may pilot existing Verra Mobility products and services or products and services that are under development by Verra Mobility or its current or future subcontractors and vendors (each a "Vendor"). During any pilot pursuant to this Section 27, registered owner information shall not be used and no Events will be issued as Citations and no mailing of warnings or Citations will occur. Customer expressly acknowledges that Verra Mobility is under no obligation to retain for any period of time any data produced by any pilot systems. Verra Mobility may request Customer or its employees to provide feedback on the use, quality, viability, features, functionality, or desirability of pilot systems ("Customer Feedback"). All data, drawings, plans, specifications, blueprints, studies, reports, memoranda, computation sheets, computer files and media or other documents prepared or generated by Verra Mobility or a Vendor or a pilot system in connection with any pilot shall remain the property of Verra Mobility (the "Pilot Data"). To the extent that such Pilot Data is provided to Customer, Verra Mobility grants to Customer a limited, personal, non sublicensable, nonexclusive license to use the Pilot Data, solely for evaluation and statistical purposes. Actual program performance may vary from pilot performance. Customer acknowledges and agrees that the terms of this Agreement, *except for* Sections 7, 10, 11, 12, 13, 17, 20, 21, 22 and this Section 27, shall not apply to any such pilot.

28. EXECUTION:

This Agreement may be executed in one or more counterparts, each of which will be deemed to be an original copy of this Agreement, and all of which, when taken together, shall be deemed to constitute one and the same Agreement. The exchange of copies of this Agreement and of signature pages by facsimile or ".pdf" transmission shall constitute effective execution and delivery of this Agreement as to the parties and may be used in lieu of the original Agreement for all purposes. Signatures of the parties transmitted by facsimile or ".pdf" shall be deemed to be their original signatures for any purpose whatsoever.

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EXHIBIT A
SERVICE FEE SCHEDULE

1.0

Description of Pricing

Fees are based on per camera and are as follows:

Product Description	**Fee***
Red Light Safety Camera System – the parties shall mutually agree on the number of Camera Systems to be installed.	$5,250 Fixed Fee per Month per Camera System
Subsequent Notices Mailing Fee – For any additional notices sent by first class mail required by the Customer or required by Law in excess of the standard set of notices as described in Subsection 1.2.3 of **EXHIBIT B**, Verra Mobility will charge the Customer a Subsequent Notices Mailing Fee.	$2.00 per page per notice
Video Retrieval Fee: Verra Mobility shall retrieve up to one (1) video per week at no cost to Customer.	For all additional video retrievals, the fee is $10.00 each.
Service Fees: All service Fees per Camera System above includes all costs required and associated with a Camera System installation, routine maintenance, use of BOS for back-office operations and reporting, Event processing services, DMV records access, the standard set of notices as described in Subsection 1.2.3 of **EXHIBIT B**, lockbox and epayment processing (excluding user convenience fee, which is paid by payor and excluding any bank account set up or monthly bank account fees), IVR call center support for general Program questions and public awareness Program support. Any required certified mail, or other special mailing, is not included and the fee is extra and will be billed per unit as published by the US Postal Service.	
Verra Mobility's Fee anticipate a standard BOS configuration and a standard suite of notices as described in Subsection 1.2.3 of EXHIBIT B to be configured by Verra Mobility. For configuration or Program customization work in excess of the standard BOS configuration and suite of notices, Verra Mobility shall provide Customer with an hours estimate and, upon approval by Customer for the work, shall invoice Customer $200 per hour for such additional configuration or Program customization.	
Relocation - At no cost to the City, the City may require Verra Mobility to permanently remove or temporarily relocate a Camera System at enforcement locations where the Camera System is in conflict with existing or new public facilities. Verra Mobility will remove or relocate the conflicting Camera System within 60 calendar days from notice by the City. Verra Mobility will work with the contractor(s) responsible for the work on the existing or new public facilities to ensure relocation is incorporated into the design and the contractor(s) know and have agreed to pay for the relocation. Prior to approving a location for installation of a Camera System the City shall inform Verra Mobility of any foreseeable public facility work that may cause a conflict with the Camera System to allow for the parties to determine if an alternative location should be found for installation of the Camera System. To the extent that City elects to have Verra Mobility relocate a Camera System for any other reason than as referenced above, the parties must agree on the relocation costs City shall reimburse Verra Mobility prior to the relocation taking place, and if said reimbursement costs are not agreed to, then the Camera System shall remain in place during the duration of the Agreement.	

EXHIBIT B
SCOPE OF WORK

1. VERRA MOBILITY SCOPE OF WORK

1.1 VERRA MOBILITY IMPLEMENTATION

1.1.1 Verra Mobility agrees to provide Camera System(s), use of the BOS and related services to Customer as outlined in this Agreement, excluding those items identified in Section 2 titled "Customer Scope of Work". Verra Mobility and Customer understand and agree that new or previously unforeseen requirements may, from time to time, be identified and that the parties shall negotiate in good faith to assign the proper party the responsibility and cost for such items. In general, if work is to be performed by Customer, unless otherwise specified, Customer shall not charge Verra Mobility for the cost.

1.1.2 Customer and Verra Mobility will complete the Project Time Line within sixty (60) days of Agreement execution date, unless mutually agreed to otherwise by the parties. Verra Mobility agrees to make every effort to adhere to the Project Time Line.

1.1.3 Verra Mobility will install or deploy Camera System(s) at a number of Designated Safety Zones to be mutually agreed upon between Verra Mobility and Customer as reflected in a written Notice to Proceed. In addition to any initial Designated Safety Zones the parties may mutually agree to add additional Camera System(s) or Approaches, which shall also be reflected in a written Notice to Proceed as set forth in **EXHIBIT C**.

1.1.4 Site installation plans for fixed-site installations shall be prepared by Verra Mobility under the supervision of, approved and sealed by a licensed professional engineer licensed to perform engineering services in the state where the Camera Systems will be installed, and supervision of City engineers.

1.1.5 Verra Mobility shall not be responsible for, nor shall it perform, any engineering or traffic safety studies as may be desired by Customer or required by laws applicable to Customer.

1.1.6 Verra Mobility will operate each Camera System on a 24-hour basis, barring downtime for maintenance, normal servicing activities, or other unforeseen instances, unless enforcement times are restricted by law, such as in school zones.

1.1.7 Verra Mobility's Marketing Department will assist Customer with public information content and outreach campaign strategies ("**Public Safety Campaign**").

1.1.8 Verra Mobility agrees to provide a secure website accessible to Owners/violators who have received notices of violation by means of a Notice # and PIN, which will allow Violation image and video viewing. Verra Mobility shall include a link to the payment website(s) and may offer the opportunity to download an affidavit of non-liability online. Verra Mobility will operate this secure website on a 24-hour basis, barring downtime for maintenance, normal servicing activities, or other unforeseen instances.

1.1.9 Verra Mobility will provide technician site visits to each Camera System, as needed, to perform maintenance checks consisting of camera enclosure lens cleaning; camera, strobe and controller enclosure cleaning; inspection of exposed wires; and, general system inspections and maintenance.

1.1.10 Verra Mobility shall take commercially reasonable best efforts to repair a non-functional System within seventy-two (72) hours (excluding weekends and holidays) of determination of a malfunction.

1.2 VERRA MOBILITY OPERATIONS

1.2.1 Verra Mobility shall implement and operate the Program in accordance with the provisions of this Agreement and the Customer's Business Rules.

1.2.2 If a warning period is required before a Camera System may be used to issue Citations, Verra Mobility shall provide Customer with a one-time warning period up to thirty (30) days per Camera System in length following the installation and activation of the Camera System. Customer shall not be charged a fee for the warning period; however for any warning period exceeding thirty (30) days, Customer shall be responsible for the normal monthly Fee.

1.2.3 Verra Mobility shall provide Customer with access to the BOS, including image processing, and printing and mailing of up to six (6) letters/ notices in support of Citation issuance and escalation. In the case of a transfer of liability by the Owner, the BOS shall be setup to mail a Citation to the driver identified in the affidavit of non-liability or identified by a rental car company. Costs of certified mailings are priced separately and paid by Customer to Verra Mobility as indicated in **EXHIBIT A**.

1.2.4 Subsequent notices, other than those specified in Subsection 1.2.3 may be delivered by first class or other mail means for additional compensation to Verra Mobility as agreed upon by the parties.

1.2.5 Verra Mobility shall apply an electronic signature, name, or badge number to the Citation as authorized in the Customer's Business Rules.

1.2.6 Verra Mobility may make non-substantive formatting or incidental changes to the Citation form without approval by Customer.

1.2.7 Verra Mobility shall seek records from vehicle registration databases reasonably accessible to Verra Mobility through its limited agent relationship with Customer and use such records to assist Customer in processing Citations. . Verra Mobility may mail Citations to the address of the Owner obtained through the DMV, obtained through the National Change of Address (NCOA) database provided by the United States Postal Service, if allowed by law, or obtained through other means including but not limited to skip tracing, if allowed by law. Verra Mobility reserves the right to pass-through to Customer any cost increases imposed on Verra Mobility by DMV data sources.

1.2.8 The BOS shall provide Customer with the ability to run and print standard system reports. Verra Mobility provides a suite of standard program reporting at no charge to clients with active Programs. Upon notice to Customer, Verra Mobility reserves the right to modify the suite of standard program reporting available to Customer, so long as such change applies generally to customers with similar programs. Customized reporting services are available upon written request. The fee for such services shall be mutually agreed upon.

1.2.9 During the twelve (12) month period following the installation or deployment of the first Camera System, upon Verra Mobility's receipt of a written request from Customer at least fourteen (14) calendar days in advance of a court proceeding, and if required by the court or

prosecutor, Verra Mobility shall provide Customer with or train a Customer provided local expert witness to testify in court on matters relating to the accuracy, technical operations, and effectiveness of the Camera System or the BOS until judicial notice is taken. Customer shall use its best efforts to obtain judicial notice as soon as possible. If a Verra Mobility expert witness is required more than two (2) times during the twelve (12) month period, Customer shall reimburse Verra Mobility for any reasonable time and travel costs incurred for the additional dates.

1.2.10 In those instances where damage to a System (or sensors where applicable) is caused by (i) negligence on the part of Verra Mobility or its authorized agent(s), Verra Mobility shall bear the cost of repair or (ii) negligence or recklessness on the part of a driver or severe weather or other Force Majeure events, Verra Mobility and Customer shall bear the cost of repair equally with Customer reimbursing Verra Mobility for its portion of the cost of repair. For all other causes of damage, including road construction, Customer negligence, etc. Customer shall reimburse Verra Mobility for the cost of repair.

1.2.11 Verra Mobility shall provide a help-line to assist Customer with resolving any problems encountered regarding its Camera System and/or the BOS. The help-line shall function during Business Hours.

2. CUSTOMER SCOPE OF WORK

2.1 GENERAL IMPLEMENTATION REQUIREMENTS

2.1.1 Within seven (7) business days of the Effective Date of this Agreement, Customer shall provide Verra Mobility with the name, title, mailing address, email address and phone number of all Customer stakeholders, including:

- A project manager with authority to coordinate Customer responsibilities under this Agreement;
- Court manager responsible for oversight of all Court-related program requirements;
- The police contact;
- The court contact;
- The person responsible for overseeing payments by violators (might be court);
- The prosecuting attorney;
- The Customer attorney;
- The finance contact (who receives the invoices and will be in charge of reconciliation);
- The IT person for the police;
- The IT person for the courts;
- The public works and/or engineering contact responsible for issuing any/all permits for construction; and
- Court manager responsible for oversight of all Court-related program requirements.

2.1.2 Customer and Verra Mobility shall complete the Project Time Line within sixty (60) calendar days of the Effective Date of this Agreement, unless mutually agreed to otherwise by the parties. Customer shall make every effort to adhere to the Project Time Line.

2.1.3 As requested from time to time by Customer, Verra Mobility will provide Customer with a mock-up of the Citation and other notices within fifteen (15) days of a completed Business Rules Questionnaire. Customer shall review the Citation and other notices to ensure conformity with the Laws applicable to Customer. Except as outlined in Section 1.2.6, Verra

Mobility shall not implement changes to the Citation or other notices without Customer's prior review and sign-off. Customer is responsible for the content of its Program notices, including but not limited to Citations.

2.1.4 Customer is responsible for establishing and maintaining all payment processing with the court.

2.1.5 Customer shall direct the law enforcement agency to execute the Verra Mobility DMV Services Subscriber Authorization (substantially in the form attached as **EXHIBIT D**) to provide verification to the National Law Enforcement Telecommunications System (NLETS) indicating that Verra Mobility is acting on behalf of the Customer for the purposes of accessing vehicle ownership data pursuant to the list of permissible uses delineated in the Drivers Privacy Protection Act 18 U.S.C. 2721, Section (b)(1). Access to registered owner information through National Law Enforcement Telecommunications System (NLETS) requires Customer to provide Verra Mobility with a unique Customer ORI. In order to access certain state departments of motor vehicles records directly (not through NLETS), agreements or applications directly between customer and the state DMV may be required by Customer, including agreements requiring Customer to comply with certain permissible use, privacy, and security requirements of the applicable state department of motor vehicle. If required, Customer shall execute such agreements or applications with, participate in audits by, or provide certifications to state department of motor vehicles. If Customer requires Verra Mobility to access registered owner information from sources other than NLETS or direct through a state DMV, accessible to Verra Mobility at no cost, additional fees will apply.

2.1.6 Customer shall prepare, execute, update, and maintain the Business Rules for implementation and operation of the Program. Customer's failure to timely prepare the Business Rules may impact the Project Time Line or compliance of Customer's Program with applicable laws. Verra Mobility shall not be liable for Customer's failure to update and maintain the Business Rules. To the extent that there is a conflict between the Business Rules and Agreement, the Agreement shall govern.

2.1.7 Customer is responsible for notifying Verra Mobility of any local legislative and/or ordinance changes in writing within forty-eight (48) hours of the first read of the proposed legislation. Verra Mobility will not be responsible for complying with any change in applicable local law, until such time as Verra Mobility has been notified by Customer in writing of the change in Law and, if applicable, Customer's Business Rules have been updated by Customer. In the event of a change in Law, excluding a change in Customer's local law, which would increase the cost of Verra Mobility's provision of the Services, Verra Mobility may propose a Fee increase to Customer. If the parties cannot mutually agree on the Fee change, Verra Mobility may terminate this Agreement. In the event of a change in or adoption of a local law of Customer, which would increase the cost of Verra Mobility's provision of the Services, Verra Mobility shall provide Customer with a Fee increase consistent with Verra Mobility's increased operating cost, and Customer shall be obligated to pay such increased Fees.

2.1.8 Customer is responsible for all final jurisdictional issues, including but not limited to as they pertain to issuance of Citations, adjudication of Violations, and intergovernmental authorities.

2.1.9 Once a Notice to Proceed is granted to Verra Mobility in writing, Customer shall not issue a stop work order to suspend activity on the implementation process, unless Customer reimburses Verra Mobility for costs incurred up to the date the stop work order is issued.

2.1.10 Customer will comply with all applicable Laws relating to its conduct with respect to the Program. Customer shall not use the Camera Systems, the BOS, or the data captured by the Camera Systems or provided by NLETs or DMV data source providers for any purpose not permitted by Law.

2.1.11 Once a Camera System is installed and certified by Verra Mobility as operational, it shall be immediately put into service at the next available enforcement period or as otherwise mutually agreed to by the Parties.

2.1.12 Customer shall process each Event in accordance with state law and/or municipality ordinances within three (3) business days of its appearance in the law enforcement review queue, using the BOS to determine which Events constitute Violations that will be issued as Citations. In the event that Customer fails to process Events within this timeframe, Verra Mobility shall not be liable for failure of the BOS to allow Customer to issue a notice or Citation within statutory timeframes.

2.1.13 In the event that remote access to the BOS is blocked by Customer network security infrastructure, Customer's Department of Information Technology shall coordinate with Verra Mobility to facilitate appropriate communications while maintaining required security measures.

2.1.14 Customer shall be responsible for any reporting obligations that it has to any state or other regulatory body with respect to its operation of the Program or the payment of Citations.

2.2 STREETS AND TRAFFIC DEPARTMENT OPERATIONS

2.2.1 All Fixed Camera Systems are intended to remain installed for the duration of the Agreement. Subject to the Relocation provisions of **EXHIBIT A**, if Customer requests that Verra Mobility move a Fixed Camera System after initial installation, Customer shall pay for the total cost to relocate the System.

2.2.2 If a construction or improvement project requires an installed Camera System to be deactivated or requires a Camera System, including imbedded sensors, to be removed out of service and not Relocated, Customer shall pay a reduced monthly fee of $2,500 per month for the deactivated Camera System during the time the Camera System is deactivated and pay any costs incurred by Verra Mobility for removing, and if applicable reinstalling, the System. If the System is reinstalled at the same location after project is completed, in lieu of paying the reduced monthly Fee while Camera System is deactivated, Customer may instead elect through a Change Order, or other written modification to the Agreement, to extend the current term of the Agreement for the time period the Camera System was deactivated.

2.2.3 Prior to the installation of any System, Customer shall provide Verra Mobility information regarding any and all road construction or improvement projects scheduled during the term of this Agreement for any Approach designated for System installation. In addition, within thirty (30) days of becoming aware of anticipated construction that may result in the deactivation or removal of a System or otherwise impact an Approach during the term of this Agreement, Customer shall notify Verra Mobility of any such construction.

2.2.4 Customer will design, fabricate, install and maintain camera warning signs required by Law for purposes of operating the Program. If Customer cannot provide such signage, Verra Mobility will do so, and Customer shall reimburse Verra Mobility for such costs. Even if Verra Mobility provides such signage, Customer shall remain responsible for maintaining such signage in

compliance with applicable Laws. Customer is responsible for determining the placement/location of signs in compliance with applicable Laws.

2.2.5 Customer understands that proper operation of the Red Light Camera Systems requires access to traffic signal phase connections. Customer, therefore, shall provide access to traffic signal phase connections according to approved design. When traffic signal phase connections are not under the jurisdiction of Customer, it shall be Customer's responsibility to negotiate agreements with the owner or maintaining agency of the traffic signal controller and infrastructure in order to provide the required access to said phase connections and infrastructure and any costs associated with needed agreements shall be funded by Customer.

2.2.6 Customer understands that proper operation of the Red Light Camera System sometimes requires attachment of certain items of detection equipment to existing signal masts, mast arms and/or other street furniture. Customer, therefore, shall provide access to Verra Mobility to attach certain items of detection equipment to existing signal masts, mast arms and / or other street furniture if required for the proper operation of the System.

2.2.7 Customer shall allow Verra Mobility to access power from existing power sources at no cost and, if applicable, shall allow or facilitate access to traffic signal phase connections to a pull box, pole base, or controller cabinet nearest to each System within Customer's jurisdiction. If these items are not made available, the costs of any additional conduit or power infrastructure needed to support installation of the Camera System shall be funded by Customer. Verra Mobility may agree to cover these upfront costs and separately bill Customer through the monthly invoice over a period not to exceed one year. If existing power sources are not immediately available, Customer will allow Verra Mobility to use temporary power until the existing power is established. In situations where it is not possible to obtain electrical power from a pre-existing source, Customer shall bear the costs (or reimburse Verra Mobility) for obtaining/routing power. When access to power facilities is not under the jurisdiction of Customer, it shall be Customer's responsibility to negotiate any necessary agreements with the owner or maintaining agency of the power facility and infrastructure in order to provide required access to said power facilities and infrastructure. Any costs associated with the needed agreements shall be funded by Customer.

2.2.8 Customer shall approve or reject site plans submitted Verra Mobility within seven (7) business days of receipt. Customer shall use best efforts to ensure that the total duration between submittal and finalization does not exceed ten (10) days for plan approvals when plans are being reviewed and permitted by any state, county, and/or local agencies.

2.2.9 Customer, or any department of Customer, shall not charge Verra Mobility or its subcontractor(s) for building, construction, electrical, street use and/or pole attachment permits, including any fee for traffic control services and permits during installation or maintenance of a System. Customer shall also apply for, when in Customer's name, or coordinate the application for, when in the name of a Customer agency, school, or school district, and fund any and all needed state, local, and/or county permits, including any traffic control permits.

2.2.10 Customer shall issue all needed permits to Verra Mobility and its subcontractor(s) within three (3) business days of plan approval. Customer shall provide its best efforts to aid in achieving these timeframes for permit issuance when permitted by any state, local, and/or county agency.

2.2.11 If required by the submitted design plan for proper operation, Customer shall allow Verra Mobility to install vehicle detection sensors in the pavement of roadways within Customer's jurisdiction. Customer shall provide its best efforts to aid in acquiring any and all required permission and permits when the roadway is under the jurisdiction of the state or county.

2.2.12 Customer shall allow Verra Mobility to build Infrastructure into any existing Customer-owned easement as reasonably required for Verra Mobility's performance of its obligations under this Agreement.

2.2.13 If use of private property right-of-way is needed, Customer shall assist Verra Mobility in acquiring permission to build in existing utility easements as necessary. Any costs for private property right-of-way lease/rental costs shall be borne by Customer as it is expressly excluded from the base fee structure identified in the fee schedule.

2.2.14 Customer shall be responsible for the performance of any engineering or traffic safety studies as may be desired by Customer or required by laws applicable to Customer.

2.3 COURTS OPERATIONS

2.3.1 Customer is responsible for the prosecution and adjudication of Citations in accordance with all applicable Laws.

2.3.2 Customer shall provide a judge or hearing officer and court facilities to schedule and hear disputed Citations.

2.3.3 Customer shall handle inbound and outbound phone calls and correspondence from defendants who have questions about disputes and other issues relating to Citation adjudication.

2.3.4 Verra Mobility shall provide Customer with access to its online BOS adjudication processing module which will enable the adjudication function to review cases, related images, and other related information required to adjudicate disputed Citations. If instead of using the online adjudication processing module in the BOS, Customer desires to integrate Verra Mobility data into its adjudication system, subject to feasibility, Verra Mobility shall provide a court interface. Verra Mobility shall provide a price proposal to Customer for the development of any such court interface.

2.3.5 Customer is responsible for entering all final dispositions of Citations including all payments of Citations into the BOS, either directly through the online adjudication processing module or through the court interface.

3 (if applicable ADDITIONAL SERVICES [Reserved]

[*REMAINDER OF PAGE INTENTIONALLY LEFT BLANK*]

EXHIBIT C
FORM OF NOTICE TO PROCEED

Reference is made to the Professional Services Agreement by and between American Traffic Solutions, Inc., doing business as Verra Mobility ("Verra Mobility") and City of Tracy ("Customer"), dated as of [date] (the "Agreement"). Capitalized terms used in this Notice to Proceed shall have the meaning given to such term in the Agreement.

Customer hereby designates this implementation of Systems at the Approaches listed below. Verra Mobility shall make its best efforts to install a System within sixty (60) days of permits being granted and power delivered for each agreed-upon Approach, providing that Customer has received permission for all implementations in writing from any third-party sources.

Below is a list of Approaches provided by Customer, which have been analyzed based on traffic volumes, road geometry, and existing infrastructure and are believed to be locations at which a System would increase public safety.

Execution of this Notice to Proceed by Customer shall serve as authorization for the installation of Systems for all Approaches designated as follows:

Approach (Direction and Roadway)	Type of Enforcement	Camera System Solution (# of Cameras per Approach)

Customer understands that implementation and installation of any Approach is subject to Site Selection Analysis and engineering results.

Customer recognizes the substantial upfront costs Verra Mobility will incur to construct and install the Systems for the above listed Approaches. Customer agrees that the Systems authorized by this Notice to Proceed for the above-listed Approaches shall remain installed and operational for the duration of the current term of the Agreement. Verra Mobility reserves the right to bill Customer for any upfront costs associated with the Approaches listed above in the event Customer elects to cancel or suspend the installation.

IN WITNESS WHEREOF, Customer has executed this Notice to Proceed as of the date written below.

[CUSTOMER]

By: _____
Name: Date
Title:

ACKNOWLEDGED AND AGREED TO BY:

AMERICAN TRAFFIC SOLUTIONS, INC.

By: _____
Name: Date
Title:

EXHIBIT D
DMV SERVICES SUBSCRIBER AUTHORIZATION

Date:

Frank L. Minice, Executive Director/CEO
National Law Enforcement Telecommunications System, Inc. (NLETS)
1918 W. Whispering Wind Drive
Phoenix, AZ 85085

Dear Mr. Minice:

Re: Authorization for ORI Code: CA0390600

The Tracy Police Department authorizes American Traffic Solutions, Inc. dba. Verra Mobility to use the Tracy Police Department ORI CA0390600 for the limited purpose of obtaining vehicle registration information through NLETS.

This letter acknowledges that a contract to perform automated enforcement between the Tracy Police Department and American Traffic Solutions, Inc., doing business as Verra Mobility ("Verra Mobility") is in force. As a requirement of and in performance of that contract between the Tracy Police Department and Verra Mobility, it will be necessary for Verra Mobility to access Nlets for motor vehicle data on our agency's behalf.

This program will operate within the Axsis environment under partner ORI AZNlets97.

Please accept this letter as authorization from the Tracy Police Department for Verra Mobility to run motor vehicle inquires for this purpose. This authorization will automatically expire upon the termination of the contract between Tracy Police Department and Verra Mobility; and,such authorization is limited to violations detected by the automated enforcement camera systems.

By completing the information below and signing this letter, I am stating that I am a member of and have the authority to extend this authorization on behalf of the Tracy Police Department.

SUBSCRIBER INFORMATION

Subscriber Agency/Name _____

Nlets Agency ORI _____

Name/Title of Authorized Representative _____

Mailing Address _____

_____

_____

Telephone _____ **Fax** _____

Email _____

Signature of Authorized Representative _____

Date Signed _____

_____

_____

EXHIBIT E
RETENTION SCHEDULE***

[*This schedule to be completed by Customer in conformity with their applicable state and local law prior to execution of the Agreement.*]

Type of Record	**Minimum Verra Mobility Retention Period**
Violation Images* (including video clips and related metadata)	6months from payment or final adjudication
Non-Violation Images (including video clips and related metadata)**	90 days from Event capture date
Warning Notice Images (including video clips and related metadata)	90 from issuance date
Individually Identifiable Violation Records*	6 months from payment or final adjudication
Individually Identifiable Non-Violation Records**	90 days from Event capture date
Audio recording from contact center	90 days from call
Written correspondence with citizens regarding Violations	1 year from date of correspondence
Camera System Calibration/Certification Records	6 months from payment or final adjudication of an applicable Violation
Maintenance Records	6 months from payment or final adjudication of an applicable Violation
Other Program Records	1 years from termination of the Agreement

* Violation Image: an image of a Violation issued as a Citation.
Individually Identifiable Violation Records: a record containing individually identifiable information pertaining to a Violation issued as a Citation.

** Non-Violation Image: an image of an Event not issued as a Citation.
Individually Identifiable Non-Violation Records: a record containing individually identifiable information pertaining to an Event not issued as a Citation.

*** Retention period is not applicable upon termination of the Agreement and the data is provided to Customer pursuant to Section 15 of the Agreement.

This records retention schedule does not apply to any Event data captured by the Camera System, but not uploaded into BOS. For the avoidance of doubt, this records retention schedule does not apply to any records related to any Pilot Data.

April 16, 2024

Agenda Item 1.I

RECOMMENDATION

Staff recommends that the City Council waive the second reading and adopt an Ordinance approving a rezone from Medium Density Residential Zone to High Density Residential Zone for a 1.94-Acre portion of an overall 6.85-Acre site located at 301 West Street, Assessor's Parcel Number 235-420-16 (application number R23-0005).

EXECUTIVE SUMMARY

As explained below, this item is a piece of a larger set of entitlements for a new affordable housing project in the City of Tracy (City). On March 13, 2024, the Planning Commission heard and recommended this item, along with the related entitlements, for City Council approval. On April 2, 2024, the City Council considered the entire project and, after deliberation, approved a General Plan Map amendment from Residential Medium to Residential High for a 1.94-acre portion of an overall 6.85-acre site located at 301 West Street (hereinafter defined as the "Project Site"), introduced an ordinance to rezone the Project Site from Medium Density Residential (MDR) to High Density Residential (HDR), and approved a Development Review Permit (D22-0043), contingent on adoption of the rezone ordinance, for construction of 110 units of very-low income senior housing consisting of two buildings and site improvements on the Project Site. Those actions were approved via Resolution 2024-054. As the zoning is codified in the Tracy Municipal Code (TMC), only an ordinance can amend any part of that code. This item would waive the second reading and adopt an ordinance that would Rezone the 1.94-acre portion Project Site from Medium Density Residential (MDR) to High Density Residential (HDR). The City Council conducted a first reading of the proposed ordinance on April 2, 2024.

BACKGROUND AND LEGISLATIVE HISTORY

The subject Project Site, which is a 1.94-acre portion of an overall 6.85-acre site, consists of seven affordable housing buildings containing 17 units. The seven buildings were all built by the Department of Housing and Urban Development (HUD) for low-income housing in 1954. The seven affordable housing buildings containing 17 units have been uninhabited for over a year. The remainder of the 6.85-acre Property will remain as is which includes 43 units.

The project included a General Plan Amendment which is a legislative act requiring City Council consideration. Therefore, in accordance with TMC Section 10.08.3950(a), the Development Review Permit is a Tier 1 Application, also requiring City Council consideration following review and recommendation by the Planning Commission.

On April 2, 2024 City Council considered this item and, after deliberation, approved a General Plan Map amendment from Residential Medium to Residential High for a 1.94-acre portion of an overall 6.85-acre site located at 301 West Street ("Project Site"), introduced an ordinance to rezone the Project Site from Medium Density Residential (MDR) to High Density Residential (HDR), and approved a Development Review Permit (D22-0043), contingent on adoption of the rezone ordinance, for construction of 110 units of very-low income senior housing consisting of two buildings and site improvements on the Project Site.

ANALYSIS

The proposed density for the project at 56.7 dwelling units per acre would not be allowed within the Residential Medium (RM) designation. Therefore, in addition to the Development Review Permit application, the project includes a request to amend the General Plan designation of the site from RM to Residential High (RH). Attachment B contains the existing and proposed General Plan Map designations.

The HDR Zone will allow a density of up to one dwelling unit (du)/1,400 square feet of net lot area; therefore allowing 60 dwelling units on the 1.94-acre site. The Density Bonus provides for an increase in density of 50 dwelling units on the 1.94-acre site. The zoning of the project site is Medium Density Residential (MDR). The applicant has requested that Planning Commission introduce an ordinance approving a rezone from MDR to High Density Residential (HDR). Zoning must conform with the General Plan. The applicant is proposing to rezone to HDR to be consistent with the proposed General Plan designation of RH. This would bring the General Plan designation in alignment with the zoning of the subject property.

FISCAL IMPACT

This agenda item does not request any expenditure of funds. The Housing Authority of San Joaquin County has been awarded a total of $925,880 in Community Development Block Grants (CDBG) for this project over the last 6 years, as well as a $4,000,000 loan from the Housing Asset Fund for affordable rental housing that City Council approved in July of 2020. The applicant paid the application processing fees established by the City Council and entered into a Cost Recovery Agreement to pay for the California Environmental Quality Act (CEQA) consultants. The applicant will pay applicable grading, building, development impact, and other construction permit fees upon commencement of project improvements.

CEQA DETERMINATION

The City's environmental consultant, De Novo Planning Group, prepared an Initial Study/Mitigated Negative Declaration (MND) and Mitigation Monitoring and Reporting Plan (MMRP) for the project, in accordance with the California Environmental Quality Act (CEQA), which was included in the City Council staff report dated April 2, 2024 as Attachment E. The analysis included evaluation of City's traffic, water, storm, and wastewater for the project site and an independent noise analysis and cultural analysis. Substantial supporting evidence contained in the MND and MMRP demonstrates the Project will not have a significant effect on the environment. Various potentially significant environmental impacts were identified stemming from development of the proposed two buildings containing 110 units. However, mitigation measures were identified for each of the potentially significant impacts that would, upon implementation, reduce the impacts to levels of insignificance. Therefore, in accordance with CEQA Guidelines Section 15074, the City Council adopted the Mitigated Negative Declaration and MMRP for the project on April 2, 2024.

The Mitigated Negative Declaration pursuant to California Environmental Quality Act guidelines 15105 was properly noticed for 20 days to provide a public review period and to the State Clearinghouse, prior to City Council adoption. We received two informational comments regarding excavating around pipeline and project being subject to San Joaquin County Multi-

Species Habitat Conservation and Open Space Plan that were forwarded to applicant.

STRATEGIC PLAN

This project is related to the following City Councils Strategic Priorities:

- Economic Development Strategy Goal Number 6.4: Pursue zoning ordinance amendments to increase residential densities.
- Quality of Life Strategy Goal Number 4.1: Facilitate the development of affordable housing via affordable housing focused policies and incentives.
- Quality of Life Strategy Goal Number 4.2: Pursue, encourage, and incentivize non-profit affordable housing developers to build in Tracy.

ACTION REQUESTED OF THE CITY COUNCIL

Staff recommends that the City Council waive the second reading and adopt an Ordinance approving a rezone from Medium Density Residential Zone to High Density Residential Zone for a 1.94-Acre portion of an overall 6.85-Acre site located at 301 West Street, Assessor's Parcel Number 235-420-16 (application number R23-0005).

Prepared by: Necy Lopez, Deputy City Clerk
Kenneth Lipich, Interim Senior Planner
Scott Claar, Interim Assistant Director of Development Services

Reviewed by: Kimberly Murdaugh, Interim Assistant City Manager
Bijal M. Patel, City Attorney

Approved by: Midori Lichtwardt, City Manager

Attachments:

A. Proposed Ordinance

B. Zoning Districts Map

APPROVED AS TO FORM AND LEGALITY

_____
CITY ATTORNEY'S OFFICE

TRACY CITY COUNCIL

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF TRACY AMENDING THE ZONING MAP FROM MEDIUM DENSITY RESIDENTIAL TO HIGH DENSITY RESIDENTIAL FOR A 1.94-ACRE PORTION OF AN OVERALL 6.85-ACRE SITE LOCATED AT 301 WEST STREET, ASSESSOR'S PARCEL NUMBER 235-420-16 (APPLICATION NUMBER R23-0005).

WHEREAS, An application was submitted for a rezone from Medium Density Residential Zone to High Density Residential Zone for the southern 1.94-acre portion of the property located at 301 West St., Assessor's Parcel Number 235-420-16 Application Number R23-0005; and

WHEREAS, The subject property has existing zoning of Medium Density Residential and a General Plan designation of Residential Medium; and

WHEREAS, An application was also submitted to the amend the General Plan designation of the subject property from Residential Medium to Residential High and is considered separately through a City Council Resolution; and

WHEREAS, The High Density Residential Zone of the site is consistent with the General Plan designation of Residential High; and

WHEREAS, In accordance with California Environmental Quality Act (CEQA) Guidelines an Initial Study/Mitigated Negative Declaration was prepared by the City's environmental consultant, De Novo Planning Group; the analysis included evaluation of City's traffic, water, storm, and wastewater for the project site and an independent noise analysis and cultural assets; substantial supporting evidence contained in the Initial Study demonstrates the Project will not have a significant effect on the environment. Various potentially significant environmental impacts were identified stemming rezoning the site from Medium Density Residential to High Density Residential and from development of the proposed two buildings containing 110 units which is also being considered for the project site under separate City Council action; however, mitigation measures were identified for each of the potentially significant impacts that would, upon implementation, reduce the impacts to levels of insignificance; therefore, in accordance with CEQA Guidelines Section 15074, a Mitigated Negative Declaration (MND) is proposed for adoption concurrently with this Ordinance; and

WHEREAS, The Planning Commission considered this matter at a duly noticed public hearing held on March 13, 2024 and recommended that the City Council introduce and adopt an ordinance to approve the rezone; and

WHEREAS, The City Council considered this matter at a duly noticed public hearing held on April 2, 2024;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF TRACY DOES ORDAIN AS FOLLOWS:

SECTION 1: The Zone District of the southern 1.94-acre portion of the overall 6.85-acre site located at 301 West St., Assessor's Parcel Number 235-420-16, is hereby amended from Medium Density Residential (MDR) Zone to High Density Residential (HDR) Zone and the City's Zoning Map is hereby amended to show this property zoned as HDR as indicated in Exhibit 1.

SECTION 2: This Ordinance shall take effect 30 days after its final passage and adoption.

SECTION 3: This Ordinance shall either (1) be published once in a newspaper of general circulation, within 15 days after its final adoption, or (2) be published in summary form and posted in the City Clerk's office at least five days before the ordinance is adopted and within 15 days after adoption, with the names of the Council Members voting for and against the ordinance. (Gov't. Code §36933.)

* *

The foregoing Ordinance _____ was introduced at a regular meeting of the Tracy City Council on the 2nd day of April, 2024, and finally adopted on the ____ day of _____, 2024, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTENTION: COUNCIL MEMBERS:

_____
NANCY D. YOUNG
Mayor of the City of Tracy, California

ATTEST:_____
ADRIANNE RICHARDSON
City Clerk and Clerk of the Council of the City of Tracy
Date of Attestation: _____

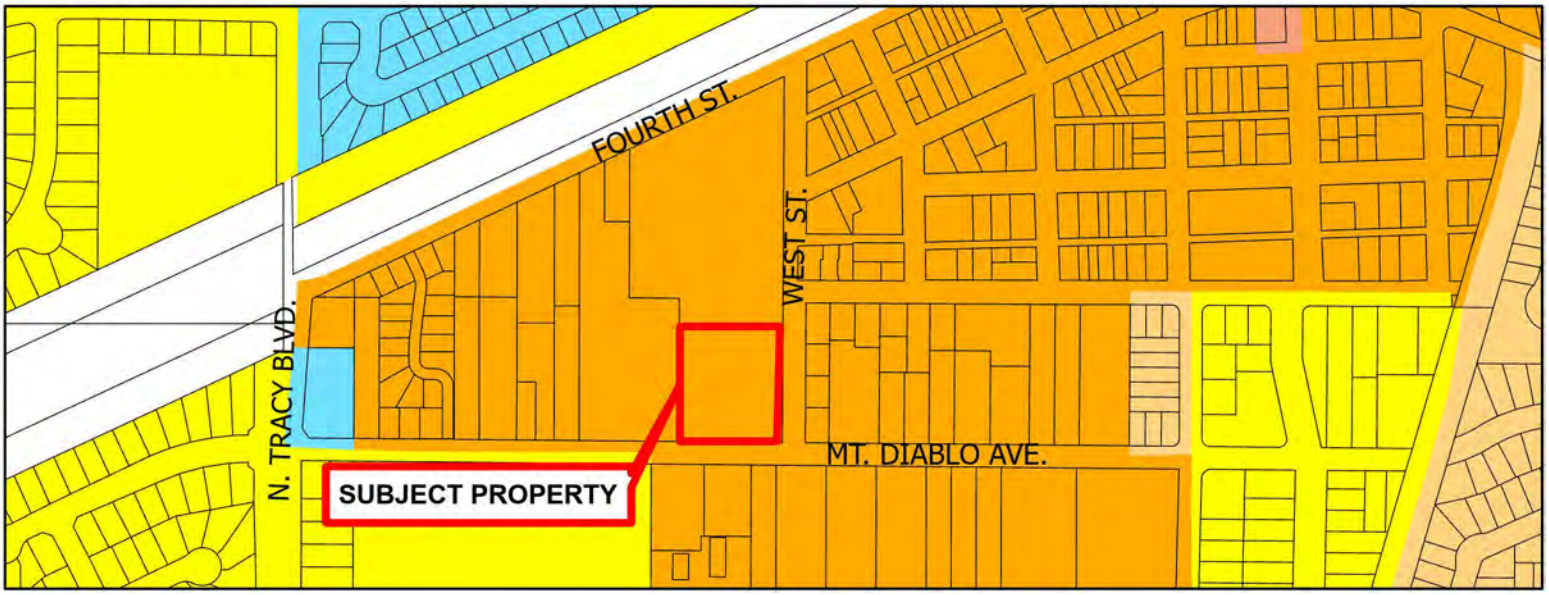
Attachments:

Exhibit 1 – Existing and Proposed Zoning Districts of the Subject Property

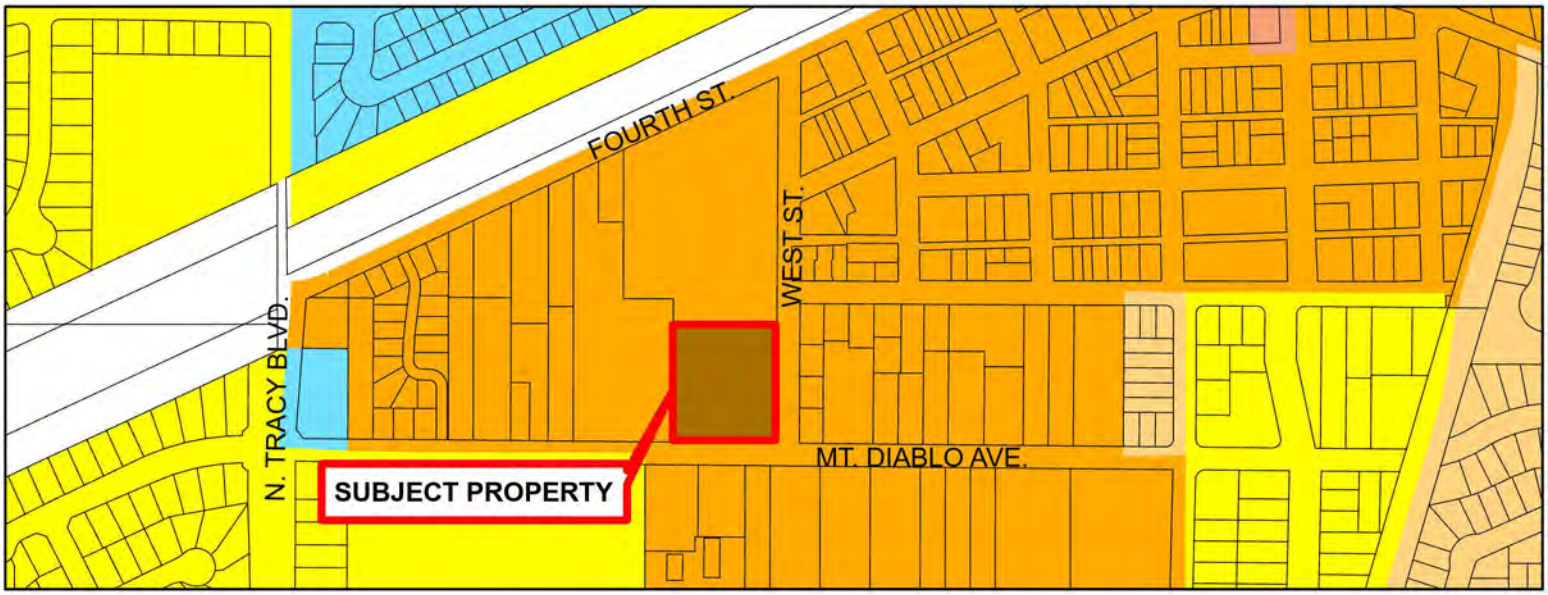
Zoning Districts

Attachment B

Existing



Proposed



ZONING DISTRICTS

- Low Density Residential (LDR)
- Medium Density Residential (MDR)
- Medium Density Cluster (MDC)
- High Density Residential (HDR)
- Planned Unit Development (PUD)
- Neighborhood Shopping (NS)

0 250 500 1,000 1,500 2,000 Feet

N

TRACY

Think Inside the Triangle™

April 16, 2024

Agenda Item 3.A

RECOMMENDATION

Staff recommends that City Council adopt a resolution (1) approving the Citywide Water System Master Plan Update, (2) approving the Citywide Public Safety Master Plan Update, (3) approving the Citywide Public Facilities Master Plan Update, and (4) determining that the updates are exempt from the California Environmental Quality Act pursuant to CEQA Guidelines Section 15183.

EXECUTIVE SUMMARY

The proposed Master Plan Updates for Water, Public Safety, and Public Facilities will update the infrastructure needed to serve new developments identified in the City's General Plan and the growing population of the City.

BACKGROUND AND LEGISLATIVE HISTORY

The City's existing Water Master Plans were approved in January 2013. The City's existing Public Safety and Public Facilities Master Plans were approved in April 2013. These three Master Plans (Master Plans) were based on the City's 2011 General Plan. Since the 2011 adoption, the City has incorporated many general plan amendments and has seen a significant increase in residential and commercial development. The General Plan and its associated amendments (collectively, the General Plan) identify existing and new areas of development within and around the existing City limits. It includes areas east of the City up to Chrisman Road and to the west up to the Altamont Pass south of I-205 and the Larch Clover area, both north and south of I-205.

ANALYSIS

The Master Plan updates are consistent with the City's General Plan. The Master Plan updates evaluate the infrastructure needed to support new development in the City of Tracy and determine the costs associated with the necessary infrastructure. Each of the three master plans focuses on specific types of infrastructure. Below is a summary of what each plan contains.

Water

The Citywide Water System Master Plan (CWSMP) update provides an evaluation of the required backbone potable water and recycled water system facilities required to serve the City's existing and future needs. The State endured five years of drought starting in 2012, including the driest four consecutive years in California history. These unprecedented conditions led to statewide mandated water conservation, significant surface water supply reductions and curtailments, and legislation establishing new water efficiency standards.

The evaluation of the City's water supplies in the CWSMP update was coordinated with the City's 2020 Urban Water Management Plan, which was adopted by the Tracy City Council in June 2021. Due to unprecedented drought conditions from 2012 through 2017 and new flow restrictions resulting from the 2018 Water Quality Control Plan for the San Francisco

Bay/Sacramento San Joaquin Delta Estuary projected reliabilities of the City's surface water supplies from the Central Valley Project (CVP) ans South San Joaquin Irrigation District(SSJID) have been significantly reduced, particularly in dry years. Water supply conditions in California continue to change, and city staff are closely monitoring potential impacts on the City's water supply.

Recommended infrastructure improvements for the City's potable water system include new storage tanks, new Aquifer Storage and Recovery (ASR) wells, new transmission and distribution pipelines to extend the City's water system to serve the proposed new development areas and an expansion of the City's John Jones Water Treatment Plant (JJWTP) to provide additional water treatment capacity and operational flexibility, including a new building to provide additional administrative and maintenance space for future staffing needs. Also included is the City's participation in Contra Costa Water District's proposed Los Vaqueros Reservoir Expansion Project and United States Bureau of Reclamation (USBR) B.F. Sisk Dam Raise and Reservoir Expansion Project that would provide the City with reliable options for storage of excess water during the wet season for use during drought conditions.

Recommended infrastructure improvements for the City's recycled water system include new pump stations, a new storage tank, and new transmission and distribution pipelines to serve new development areas in the western, southern, and eastern portions of the City. Because the conversion of existing irrigated areas can be very costly and disruptive, the Citywide Water System Master Plan update focuses on the infrastructure needed to deliver recycled water supplies to new development areas where practical and taking advantage of the recycled water infrastructure that has been constructed to date.

The Citywide Waste Water System Master Plan (CWWSMP) also includes a proposed Recycled Water Exchange Agreement with the USBR whereby a portion of the City's tertiary treated wastewater (recycled water) would be discharged to the Delta Mendota Canal (DMC) and a like amount of water (i.e., a one-to-one exchange) could then be diverted from the DMC by the City for treatment at the City's JJWTP for potable use. With the potential reduction in reliability of the City's surface water supplies from the CVP and SSJID, this proposed recycled water exchange agreement will be a critical component of the City's future water supply portfolio. The CWWSMP including the above will be updated in early 2024.

Staff anticipates a decrease in the water development impact fees due to overall less water usage per household and drought conservation efforts.

Safety

The City of Tracy initiated the Citywide Public Safety Master Plan (CPSMP) update to maintain a clear statement of community objectives for public safety, establish a vision of the future, and include strategies to achieve that vision. The CPSMP is long-range in its view and is intended to guide development in the City through Horizon Year 2040. The final draft of the CPSMP update promotes a future land use pattern that is consistent with the community's long-range goals.

Consistent with the 2017 recommendations of the South County Fire Authority's Standards of Cover Study, the CPSMP proposes three new fire stations and the expansion of fire training facilities. Further, by consensus of City leadership, this Master Plan proposes keeping the Police Department in the downtown Civic Center, adding a proposed substation to the southern

service area of the City, and expanding the Animal Shelter facilities. Lastly, this Public Safety Master Plan proposes implementation of the 2020 South County Fire Authority Radio System Overall Assessment's recommendations for short and long-term upgrades.

Facilities

The Citywide Public Facilities Master Plan (CPFMP) update provides a comprehensive update to the 2013 Citywide Public Facilities Master Plan by evaluating the condition of existing public facilities and determining current and future public facility needs.

The CPFMP update includes facility condition assessments of twenty-eight (28) City facilities with recommended improvements for proposed new public facilities projects. Deferred maintenance projects are included in the plan for public facilities assessed. Recommendations for staffing renovations at City Hall, improvements and new facilities at the Boyd Service Center, and an expansion of the Community Center and Lolly Hansen Senior Center are recommended as part of the master planning process. Major construction projects, including the Multi-Generational Community Center and the Aquatic Center, are included as well.

FISCAL IMPACT

The cost of completion of the updates was funded from program management fees collected through our development impact fee program. The cost of construction of the physical infrastructure listed in the Master Plan updates will be borne by the developments through development impact fees or other funding mechanisms without any impact to the City's General Fund.

The existing development impact fees for the CWSMP, CPSMP, and CPFMP shall remain in effect until the City completes its updated cost of service analysis (Nexus Study) for the updates. It is anticipated that Council will consider the Nexus Study later in 2024. Staff anticipates a decrease to the water fees due to overall less water usage per household and drought conservation efforts. Staff anticipates an increase to the Public Facilities and Public Safety fees.

PUBLIC OUTREACH / INTEREST

A Public Outreach Meeting was held for the Citywide Water System Master Plan Update on February 14, 2022.

A Public Outreach Meeting was held for the CPFMP and the CPSMP Updates on February 16, 2022.

A Council Workshop was held for the CPFMP and CPSMP Updates on February 28, 2023.

A Council Workshop was held for the Citywide Water System Master Plan Update on September 5, 2023.

COORDINATION

The City's Engineering Division coordinated with Operations and Utilities Division, Parks

Division, Planning Division, Police Department, and Fire Department on the Master Plan Updates.

Staff coordinated with West Yost & Associates to complete the CWSMP Update.

Staff Coordinated with The KPA Group to complete the CPFMP Update.

Staff coordinated with Indigo | Hammond + Playle Architects, LLP for the CWPSMP Update.

CEQA DETERMINATION

The updates are exempt from the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines section 15183 Projects Consistent with a Community Plan, General Plan, or Zoning because all potentially significant effects have been analyzed adequately in the 2011 General Plan EIR (Environmental Impact Report), as such General Plan was amended, pursuant to applicable standards, and have been avoided or mitigated pursuant to the 2011 General Plan EIR, as such General Plan was amended, and there are no new significant environmental effects or impacts resulting from these master plans that were not known or studied at the time of that EIR. In addition, this update is a policy document prepared to implement the objectives and actions identified in the General Plan and does not propose the immediate construction and operation of new facilities or infrastructure projects at this time. Consequently, the adoption of this update would not directly result in the construction and operation of infrastructure that could have negative environmental effects. The referenced environmental documentation is available for review on the City's website.

STRATEGIC PLAN

This agenda item supports the City of Tracy's Quality of Life Strategic Priority, which is to provide an outstanding quality of life by enhancing the City's amenities, business mix and services, and cultivating connections to promote positive change and progress in our community.

ACTION REQUESTED OF THE CITY COUNCIL

Staff recommends that City Council adopt a resolution (1) approving the Citywide Water System Master Plan Update, (2) approving the Citywide Public Safety Master Plan Update, (3) approving the Citywide Public Facilities Master Plan Update, and (4) determining that the updates are exempt from the California Environmental Quality Act pursuant to CEQA Guidelines Section 15183.

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Karin Schnaider, Assistant City Manager
Approved by: Midori Lichtwardt, City Manager

ATTACHMENTS

Attachment A – Citywide Water System Master Plan Update
Attachment B – Citywide Public Safety Master Plan Update
Attachment C – Citywide Public Facilities Master Plan Update

Attachment A

CITY OF TRACY

Citywide Water System Master Plan Update

FINAL REPORT

MAY 2023

WEST YOST ASSOCIATES

Citywide Water System Master Plan Update

Prepared for

City of Tracy

Project No. 404-12-18-41

Project Manager: Amy Kwong, PE	May 2023 Date
QA/QC Review: Elizabeth Drayer, PE	May 2023 Date

PREFACE

During the time that this Citywide Water System Master Plan was prepared and completed, several development projects have progressed, and some associated water system infrastructure improvements have been completed. As such, tables and figures in this Master Plan showing existing water system facilities may not include all of the current existing water system facilities. Similarly, tables and figures showing future recommended water system facilities may include some water system facilities which have already been constructed. This does not change the results or the recommendations of the Citywide Water System Master Plan.

The Tracy Infrastructure Master Plan (TIMP) Impact Fee Nexus Study, being prepared by Harris & Associates based on this Citywide Water System Master Plan, does consider the recent completion of water system facilities, so that updated water system impact fees reflect only those water system facilities which have not yet been constructed.

The City's progress in completing water system infrastructure improvements is exciting, and we look forward to the completion of additional recommended infrastructure improvements in the coming years.

Table of Contents

Executive Summary

Purpose for the Citywide Water System Master Plan Update ES-1
Objectives of the Citywide Water System Master Plan Update ES-1
Key Changes from the 2012 Citywide Water System Master Plan ES-2
Existing and Projected Future Water Demands ES-4
Existing and Projected Future Water Supplies ES-6
- Existing Water Supplies ES-6
- Future Water Supplies ES-7

Evaluation of Existing and Future Potable Water System ES-10
- Existing Potable Water System ES-10
  - Pipeline Improvements ES-11
- 2025 Potable Water System ES-11
  - Pipeline Improvements ES-11
  - New Potable Water Pipelines ES-11
  - Interconnections ES-14
  - Re-zoning ES-14
  - Groundwater Wells ES-14
- Buildout Potable Water System ES-14
  - Storage Reservoirs ES-14
  - Groundwater Wells ES-15
  - Booster Pump Stations ES-15
  - New Potable Water Pipelines ES-15
  - Interconnections ES-16
  - Re-zoning ES-16
  - System Control and Data Acquisition (SCADA) System and Backup Power ES-16
  - JJWTP Expansion ES-16
  - Participation in Phase 2 Los Vaqueros Reservoir Expansion Project ES-17
  - Participation in the B.F. Sisk Dam Raise & Reservoir Expansion Project ES-17
  - Water Master Plan Updates ES-17

Evaluation of Future Recycled Water System ES-17
- 2025 Recycled Water System ES-18
  - Booster Pump Stations ES-18
  - New Recycled Water Pipelines ES-18
- Buildout Recycled Water System ES-18
  - Storage Reservoirs ES-18
  - Booster Pump Stations ES-20
  - New Recycled Water Pipelines ES-20
  - SCADA System ES-20

Recommended Capital Improvement Program ES-20

Chapter 1. Introduction

1.1 Citywide Water System Master Plan Update Purpose 1-1
1.2 Water Master Plan Objectives 1-1
1.3 Key Changes from the 2012 Citywide Water System Master Plan 1-2
1.4 Report Organization 1-4
1.5 Acknowledgements 1-5

Table of Contents

Chapter 2. Water Supply and Infrastructure System Objectives, Goals, and Recommendations

2.1 Overview 2-1

2.2 Overall Water System Objectives and Goals 2-1

2.3 City of Tracy Water Conservation Programs 2-2
- 2.3.1 Existing Water Conservation Programs 2-2
- 2.3.2 Water Efficient Landscape Ordinance 2-3

2.4 Recycled and Non-Potable Water Ordinance 2-4

2.5 City of Tracy General Plan Water Service Goals, Objectives and Policies 2-5

2.6 Compliance with California Green Building Standards Code 2-7

2.7 Recommendations for New Development and New Water System Facilities 2-8

2.8 Principles for Sustainable Infrastructure in the City of Tracy 2-9

Chapter 3. Land Use Assumptions

3.1 Overview 3-1

3.2 City of Tracy General Plan and Sphere of Influence 3-1

3.3 Existing and Planned Development of the City's Sphere of Influence 3-3
- 3.3.1 Existing Developed Land Uses 3-3
- 3.3.2 Approved Projects 3-3
- 3.3.3 Additional Planned Development 3-6
- 3.3.4 Miscellaneous Infill Development 3-6
- 3.3.5 Mountain View Annexation 3-6

3.4 Development Time Frames Evaluated in this Water System Master Plan Update 3-8
- 3.4.1 2025 (Near-Term) Development of the City's Sphere of Influence 3-8
- 3.4.2 2040 Development of the City's Sphere of Influence 3-8
- 3.4.3 Buildout Development of the City's Sphere of Influence 3-8

3.5 Summary of Land Use Projections 3-9

Chapter 4. Existing and Future Water Demands

4.1 Overview 4-1

4.2 Existing Service Area 4-1

4.3 Population Served 4-3

4.4 Historical Potable Water Production and Consumption 4-6
- 4.4.1 Historical Potable Water Production 4-6
- 4.4.2 Historical Potable Water Consumption 4-10
- 4.4.3 Potable Unaccounted-for Water/Non-Revenue Water 4-12
- 4.4.4 Per Capita Potable Water Demand 4-13

4.5 Existing Recycled Water Production and Consumption 4-16

4.6 Water Conservation and Water Use Efficiency 4-16
- 4.6.1 Existing Water Conservation 4-16
- 4.6.2 Compliance with the Water Conservation Act of 2009 (SB X7-7) 4-16
- 4.6.3 Making Water Conservation a California Way of Life 4-17

4.7 Adopted Peaking Factors 4-18
4.7.1 Potable Water System Peaking Factors 4-18
4.7.2 Recycled Water System Peaking Factors 4-19
4.8 Future Water Demand Projections 4-20
4.8.1 Existing Unit Water Demand Factors and Land Use Assumptions 4-20
4.8.2 Verification of Unit Water Demand Factors 4-22
4.8.2.1 General Methodology 4-22
4.8.2.2 Residential Unit Water Demand Factors 4-23
4.8.2.3 Non-Residential Unit Water Demand Factors 4-24
4.8.3 Adopted Unit Water Demand Factors 4-28
4.8.4 Existing (Baseline) Water Demands 4-29
4.8.5 Recycled Water Use Assumptions 4-29
4.8.6 Projected Buildout Water Demands 4-30
4.9 Future Per Capita Water Use Projections 4-33

Chapter 5. Existing and Future Water Supplies

5.1 Overview 5-1
5.2 Changes to the City's Water Supplies Since the Completion of the 2012 Citywide Water System Master Plan and the 2015 Urban Water Management Plan 5-1
5.3 Existing Potable Water Supplies 5-2
5.3.1 Central Valley Project Water via the Delta-Mendota Canal 5-4
5.3.1.1 M&I-Reliability Supplies from the CVP 5-4
5.3.1.2 Ag-Reliability Supplies from the CVP 5-6
5.3.1.3 Treatment and Use of CVP Surface Water Supplies 5-7
5.3.2 Surface Water from BBID Pre-1914 Water Rights 5-8
5.3.3 Stanislaus River Water 5-9
5.3.4 Groundwater 5-11
5.3.4.1 City Wells 5-11
5.3.4.2 Groundwater Yield 5-11
5.3.4.3 Groundwater Quality 5-12
5.3.4.4 Groundwater Management 5-12
5.3.4.4.1 City Groundwater Management Policy and Mitigated Negative Declaration for City Groundwater Production of 9,000 af/yr 5-12
5.3.4.4.2 Compliance with the 1992 Groundwater Management Act (AB 3030) 5-12
5.3.4.4.3 Tracy Regional Groundwater Management Plan 5-13
5.3.4.4.4 Compliance with the 2014 Sustainable Groundwater Management Act 5-13
5.3.4.5 Historical Groundwater Use 5-15
5.3.4.6 Projected Future Groundwater Use 5-16
5.3.5 Aquifer Storage and Recovery 5-17
5.3.6 Out-of-Basin Water Banking 5-18
5.4 Future Potable Water Supplies 5-19
5.4.1 Additional ASR Wells 5-19
5.4.2 Additional CVP Water Supplies from USBR Available Through a Recycled Water Exchange Program 5-20
5.4.3 Additional CVP Water Supplies from BBID 5-21
5.4.4 Additional SCWSP Water Supplies 5-21
5.5 Existing Non-Potable Water Supplies 5-22
5.5.1 Recycled Water 5-22

5.5.2 Shallow Non-Potable Groundwater 5-22
5.6 Reliability of the City's Water Supplies 5-23
5.6.1 Potable Water Supply Reliability 5-23
5.6.1.1 Normal Years 5-23
5.6.1.2 Single Dry Years 5-25
5.6.1.3 Multiple Dry Years 5-27
5.6.2 Emergency Water Supply Conditions 5-31
5.6.3 Non-Potable Water Supply Reliability 5-31
5.7 Sufficiency of the City's Water Supplies 5-31
5.7.1 Potable Water Supply Availability 5-31
5.7.2 Recycled Water Supply Availability 5-33
5.8 Water Management Strategies and Options 5-34
5.8.1 Recycled Water for Non-Potable Use 5-34
5.8.2 Future Water Supply Projects 5-34
5.8.3 Implementation of Demand Management Measures 5-35
5.8.4 Policy-Based Water Efficiency Tools 5-35
5.9 Summary of Water Supply Recommendations 5-36

Chapter 6. System Performance and Operation Criteria

6.1 Overview 6-1
6.2 Potable Water System 6-2
6.2.1 General Potable Water System Reliability and Recommendations 6-2
6.2.1.1 Water Quality Standards 6-2
6.2.1.2 Recommendations for New Developments 6-2
6.2.2 Fire Flow Requirements 6-2
6.2.3 Potable Water System Capacity During High Demand Periods 6-5
6.2.3.1 Maximum Day Demand plus Fire Flow 6-5
6.2.3.2 Peak Hour Demand 6-5
6.2.4 Water Treatment Capacity 6-5
6.2.5 Potable Water Storage Capacity 6-6
6.2.5.1 Operational Storage 6-6
6.2.5.2 Fire Storage 6-6
6.2.5.3 Emergency Storage 6-7
6.2.5.4 Groundwater Credit 6-8
6.2.5.5 Treated Surface Water Supply Credit 6-8
6.2.5.6 Total Storage Capacity Recommended 6-9
6.2.6 Potable Water Pumping Facility Capacity 6-9
6.2.7 Potable Water Critical Supply Facilities 6-10
6.2.8 Potable Water Transmission and Distribution Pipeline Sizing and Recommended System Pressures 6-10
6.2.8.1 Potable Water Transmission System 6-11
6.2.8.2 Potable Water Distribution System 6-11
6.3 Recycled Water System 6-14
6.3.1 Recycled Water Demand Condition Evaluation 6-14
6.3.2 Recycled Water Treatment Capacity 6-14
6.3.3 Recycled Water Storage Capacity 6-14
6.3.3.1 Seasonal Storage 6-14
6.3.3.2 Operational Storage 6-14

6.3.3.3 Total Storage Capacity 6-15
6.3.4 Recycled Water Pumping Facility Capacity 6-15
6.3.5 Recycled Water Transmission Pipeline Sizing and Recommended System Pressures 6-15

Chapter 7. Existing Potable Water System Evaluation

7.1 Overview 7-1
7.2 Description of Existing Potable Water System Facilities 7-1
7.2.1 John Jones Water Treatment Plant 7-1
7.2.2 South County Water Supply Project 7-3
7.2.3 Groundwater Wells 7-4
7.2.4 Water Storage Facilities 7-6
7.2.5 Booster Pump Stations 7-6
7.2.6 Pressure Regulating Stations 7-8
7.2.7 Pressure Zone Boundaries 7-9
7.2.8 Transmission and Distribution System Pipelines 7-11
7.2.9 SCADA System 7-11
7.3 Hydraulic Model Update 7-11
7.3.1 Existing Hydraulic Model Description 7-11
7.3.2 Review of Existing Water System Facilities 7-12
7.3.3 Review of Existing Water System Operations 7-14
7.4 Existing Potable Water System Evaluation 7-14
7.4.1 Existing Potable Water Demands 7-15
7.4.2 Existing Water System Facilities Evaluation 7-17
7.4.2.1 Water Treatment Capacity 7-17
7.4.2.2 Storage Capacity 7-17
7.4.2.3 Pumping Capacity 7-19
7.4.2.4 Critical Supply Facilities 7-19
7.4.3 Existing Water System Hydraulic Analysis 7-22
7.4.3.1 Existing Water System Performance Criteria 7-22
7.4.3.1.1 Peak Hour Demand Scenario 7-22
7.4.3.1.2 Maximum Day Demand plus Fire Flow Scenario 7-23
7.4.3.2 Recommended Improvement Criteria 7-24
7.4.3.3 Existing Water System Evaluation Results 7-24
7.4.3.3.1 Peak Hour Demand Scenario 7-24
7.4.3.3.2 Maximum Day Demand plus Fire Flow Scenario 7-27
7.5 Summary of Recommended Existing Potable Water System Improvements 7-31
Pipeline Hydraulic Capacity Improvements 7-32
7.5.1 Pipeline Renewal and Replacement 7-32

Chapter 8. Future Potable Water System Evaluation

8.1 Overview 8-1
8.2 Pressure Zone Recommendations 8-2
8.3 Projected Future Potable Water Demands 8-5
8.4 Future Potable Water System Facility Evaluation 8-8
8.4.1 Water Treatment Capacity 8-8
8.4.2 Water Storage Capacity 8-10
8.4.3 Pumping Capacity 8-16

8.4.4 Critical Supply Facilities 8-20
8.4.5 SCADA System Improvements 8-20
8.4.6 Update of Future System Facilities in the Hydraulic Model 8-21
8.5 Future Potable Water System Performance Evaluation 8-26
8.5.1 Future Water System Performance Criteria 8-26
8.5.1.1 Peak Hour Demand Scenario 8-26
8.5.1.2 Maximum Day Demand plus Fire Flow Scenario 8-27
8.5.2 Recommended Improvements Criteria 8-28
8.5.3 2025 Water System Evaluation Results 8-28
8.5.3.1 2025 Peak Hour Demand Scenario 8-28
8.5.3.2 2025 Maximum Day Demand plus Fire Flow Scenario 8-31
8.5.4 Buildout Water System Evaluation Results 8-35
8.5.4.1 Buildout Peak Hour Demand Scenario 8-35
8.5.4.2 Buildout Maximum Day Demand plus Fire Flow Scenario 8-38
8.6 Summary of Recommended Future Potable Water System Improvements 8-41
8.6.1 2025 System Improvements 8-41
8.6.1.1 Pipelines 8-41
8.6.1.2 Interconnections 8-44
8.6.1.3 Re-Zoning 8-44
8.6.1.4 Groundwater Wells 8-44
8.6.2 Buildout System Improvements 8-44
8.6.2.1 Storage Facilities 8-44
8.6.2.2 Groundwater Wells 8-45
8.6.2.3 Booster Pumping Facilities 8-45
8.6.2.4 Pipelines 8-46
8.6.2.5 Interconnections 8-46
8.6.2.6 Re-Zoning 8-46
8.6.2.7 SCADA System/Backup Power 8-46
8.6.2.8 JJWTP Expansion 8-47
8.6.2.9 Participation in Phase 2 Los Vaqueros Reservoir Expansion Project 8-47
8.6.2.10 Water Master Plan Updates 8-47

Chapter 9. Recycled Water System Evaluation

9.1 Overview 9-1
9.2 Description of Existing Recycled Water System 9-2
9.2.1 Wastewater Treatment Plant 9-2
9.2.2 Booster Pump Stations 9-2
9.2.3 Pressure Zone Boundaries 9-2
9.2.4 Transmission and Distribution Pipelines 9-2
9.2.5 SCADA System 9-4
9.3 Existing Recycled Water Demands 9-4
9.4 Recommended Buildout Recycled Water System 9-4
9.4.1 Future Recycled Water Demand Areas 9-6
9.4.2 Pressure Zone Recommendations 9-7
9.4.3 Allocation of Future Recycled Water Demands 9-8
9.4.4 Recycled Water Exchange Program Seasonality 9-9
9.4.5 Seasonal and Diurnal Storage Facilities 9-11
9.4.6 Booster Pump Stations 9-12

9.4.7 Recycled Water Pipeline Alignments 9-13
9.4.8 Recycled Water Pipeline Sizes 9-14
9.5 Recycled Water System Criteria 9-16
9.6 Recycled Water System Evaluation Results 9-16
9.6.1 Peak Hour Demand Scenario 9-16
9.6.2 Fill Period Scenario 9-18
9.7 Summary of Recommended Future Recycled Water System Improvements 9-20
9.7.1 2025 System Improvements 9-22
9.7.1.1 Booster Pumping Facilities 9-22
9.7.1.2 Pipelines 9-22
9.7.1.3 Interconnections 9-22
9.7.1.4 SCADA System 9-22
9.7.2 Buildout System Improvements 9-23
9.7.2.1 Storage Facilities 9-23
9.7.2.2 Booster Pumping Facilities 9-23
9.7.2.3 Pipelines 9-24
9.7.2.4 Interconnections 9-24
9.7.2.5 SCADA System 9-24

Chapter 10. Recommended Capital Improvement Program

10.1 Overview 10-1
10.2 Recommended Potable Water System Capital Improvement Program 10-2
10.2.1 Existing Potable Water System Improvements 10-3
10.2.2 2025 Potable Water System Improvements 10-6
10.2.3 Buildout Potable Water System Improvements 10-7
10.2.4 Water Treatment Plant Expansion Costs 10-12
10.2.5 Summary of Recommended Potable Water System CIP Costs 10-12
10.3 Recommended Recycled Water System Capital Improvement Program 10-14
10.3.1 2025 Recycled Water System Improvements 10-14
10.3.2 Buildout Recycled Water System Improvements 10-15
10.3.3 Summary of Recommended Recycled Water System CIP Costs 10-18
10.4 Capital Improvement Program Timing and Triggers 10-20

List of Tables

Table ES-1. Summary of Future Projected Water Production ES-5
Table ES-2. Historical and Projected Potable Water Consumption by Customer Class ES-5
Table ES-3. Future Water Supply Needs under Single Dry Year Conditions ES-9
Table ES-4. Summary of Probable Construction Costs for Recommended Potable and Recycled Water System Improvements ES-21
Table 2-1. City of Tracy General Plan Objectives and Policies for Water Service 2-6
Table 3-1. Summary of Approved Projects 3-5
Table 3-2. Projected Development by Time Frame within the City's Sphere of Influence 3-9
Table 4-1. Historical Population Served 4-4

Table 4-2. Historical Annual City of Tracy Potable Water Production by Source 4-7
Table 4-3. Historical Annual Potable Water Production including Wheeled Water for Patterson Pass Business Park 4-10
Table 4-4. Potable Water Consumption 4-11
Table 4-5. Summary of Top 15 Potable Water Users in 2017 4-12
Table 4-6. Potable Unaccounted-for Water 4-13
Table 4-7. Historical Per Capita Potable Water Demand 4-14
Table 4-8. Historical Maximum Day Demand Peaking Factors 4-19
Table 4-9. Adopted Peaking Factors 4-20
Table 4-10. 2012 WSMP Adopted Unit Water Demand Factors 4-21
Table 4-11. Adopted Dwelling Unit Densities and Floor to Area Ratios[a] 4-21
Table 4-12. Refined Single-Family Residential Unit Water Demand Factors 4-24
Table 4-13. Unit Water Demand Factors for Commercial, Industrial, and Office Land Uses 4-27
Table 4-14. City of Tracy Maximum Allowable Water Use Factors for Irrigation[a] 4-28
Table 4-15. Adopted Unit Water Demand Factors 4-28
Table 4-16. Summary of Future Projected Water Production[a,b,c] 4-32
Table 4-17. Historical and Projected Potable Water Consumption by Customer Class 4-33
Table 4-18. Projected Population and Per Capita Potable Water Use 4-33
Table 5-1. Existing Water Supplies 5-3
Table 5-2. Historical Annual CVP M&I Allocations (South of Delta) 5-5
Table 5-3. Historical Annual CVP Ag Allocations (South of Delta) 5-6
Table 5-4. Historical Annual CVP Surface Water Supplies 5-7
Table 5-5. Historical Annual Deliveries to Patterson Pass Business Park 5-8
Table 5-6. Historical Deliveries from the SCWSP to the City of Tracy 5-9
Table 5-7. Groundwater Well Characteristics 5-15
Table 5-8. Historical Groundwater Production by the City of Tracy 5-16
Table 5-9. Tracy ASR Well 8 Annual Injection and Extraction 5-18
Table 5-10. Semitropic Water Storage District Banking Partners 5-18
Table 5-11. Projected Existing and Additional Planned Future Water Supplies Available in Normal Years at Buildout 5-25
Table 5-12. Projected Existing and Additional Planned Future Water Supplies Available in Single Dry Years at Buildout 5-27
Table 5-13. Projected Existing and Additional Planned Future Water Supplies Available Five-Consecutive-Dry Years at Buildout 5-30
Table 5-14. Summary of Buildout Total Water Supply Versus Demand During Hydrologic Normal, Single Dry, and Multiple Dry Years 5-32
Table 6-1. Recommended Fire Flow Requirements 6-4

Table 6-2. Summary of Recommended Potable Water System Performance and Operational Criteria 6-13
Table 6-3. Summary of Recommended Recycled Water System Performance and Operational Criteria 6-16
Table 7-1. Existing Surface Water Intake Pumps[a] 7-3
Table 7-2. Existing Groundwater Wells 7-5
Table 7-3. Existing Treated Water Storage Facilities 7-6
Table 7-4. Existing Booster Pump Stations 7-7
Table 7-5. Existing Pressure Regulating Stations and Pressure Reducing Valves 7-9
Table 7-6. Existing Pressure Zone Boundaries 7-10
Table 7-7. Existing Potable Water Demands by Pressure Zone 7-15
Table 7-8. Comparison of Available and Required Water Treatment Capacity 7-17
Table 7-9. Comparison of Available and Required Water Storage Capacity 7-20
Table 7-10. Comparison of Available and Required Firm Pumping Capacity 7-21
Table 7-11. Recommended Fire Flow Requirements[a] 7-23
Table 7-12. Results of Additional Fire Flow Simulations 7-31
able 8-1. Existing and Proposed Pressure Zone Boundaries 8-5
Table 8-2. 2025 Potable Water Demands by Pressure Zone 8-6
Table 8-3. Buildout Potable Water Demands by Pressure Zone 8-6
Table 8-4. Summary of Buildout Average Day Potable Water Demands by Development Project 8-7
Table 8-5. Comparison of Available and Required Water Treatment Capacity in 2025 8-8
Table 8-6. Comparison of Available and Required Water Treatment Capacity at Buildout 8-9
Table 8-7. Comparison of Available and Required Water Storage Capacity in 2025 8-12
Table 8-8. Comparison of Available and Required Water Storage Capacity at Buildout 8-13
Table 8-9. Comparison of Available, Proposed, and Required Water Storage Capacity at Buildout 8-15
Table 8-10. Comparison of Available and Required Firm Pumping Capacity in 2025 8-18
Table 8-11. Comparison of Available, Proposed, and Required Firm Pumping Capacity at Buildout 8-19
Table 8-12. Recommended Fire Flow Requirements[a] 8-27
Table 8-13. Results of Additional Fire Flow Simulations for 2025 System 8-32
Table 8-14. Results of Additional Fire Flow Simulations for Buildout System 8-38
Table 9-1. Existing Recycled Water Booster Pump Station 9-2
Table 9-2. Recycled Water Distribution Pressure Zones 9-8
Table 9-3. Recycled Water Demand Peaking Factors 9-8
Table 9-4. Buildout Recycled Water Demands by Pressure Zone 9-9
Table 9-5. Summary of Buildout Average Day Recycled Water Demands by Development Project 9-10

Table 9-6. Projected Buildout Recycled Water Supply and Demand 9-11
Table 9-7. Diurnal Storage Distribution 9-12
Table 9-8. Recycled Water Distribution System Pump Station Design Criteria 9-13
Table 10-1. Probable Construction Costs for the Recommended Existing Potable Water System CIP 10-4
Table 10-2. Probable Construction Costs for the Recommended 2025 Potable Water System CIP 10-9
Table 10-3. Probable Construction Costs for Recommended Buildout Potable Water System CIP 10-13
Table 10-4. Probable Construction Costs for the Recommended 2025 Recycled Water System CIP 10-16
Table 10-5. Probable Construction Costs for the Recommended Buildout Recycled Water System CIP 10-19

List of Figures

Figure ES-1. Existing and Planned Future Water Supplies vs. Water Demand at Buildout ES-8
Figure ES-2. Recommended Existing Potable Water System Improvements ES-12
Figure ES-3. Recommended Future Potable Water System Program Improvements ES-13
Figure ES-4. Recommended Future Recycled Water System Program Improvements ES-19
Figure 3-1. General Plan Land Use 3-2
Figure 3-2. Approved Projects 3-4
Figure 3-3. Additional Planned Development 3-7
Figure 4-1. Water Service Area 4-2
Figure 4-2. Historical Population Served (1990-2020) 4-5
Figure 4-3. Historical Annual Water Production (1990-2020) 4-9
Figure 4-4. Comparison of Historical Per Capita Water Demand, Production and Population 4-15
Figure 4-5. Residential Unit Water Demand Factor Methodology 4-23
Figure 4-6. Representative Commercial and Industrial Areas 4-26
Figure 5-1. Historical Water Supplies 5-4
Figure 7-1. Existing Potable Water System Facilities 7-2
Figure 7-2. New and Revised Existing System Facilities 7-13
Figure 7-3. Allocated Water Meters 7-16
Figure 7-4. Existing System Pressures Peak Hour Demand 7-25
Figure 7-5. Existing Pipeline Velocities Peak Hour Demand 7-26
Figure 7-6. Existing System Available Fire Flow 7-29
Figure 7-7. Locations of Additional Simultaneous Fire Flow Simulations 7-30
Figure 7-8. Existing System Recommended Improvements 7-33

Figure 7-9. Existing System Recommended Improvements from Hydraulic Evaluation 7-34
Figure 8-1. Proposed Development Areas and Pressure Zone Boundaries 8-4
Figure 8-2. 2025 Potable Water System Facilities 8-24
Figure 8-3. Buildout Potable Water System Facilities 8-25
Figure 8-4. 2025 System Pressures Peak Hour Demand 8-29
Figure 8-5. 2025 Pipeline Velocities Peak Hour Demand 8-30
Figure 8-6. 2025 System Available Fire Flow 8-33
Figure 8-7. 2025 System Locations of Additional Simultaneous Fire Flow Simulations 8-34
Figure 8-8. Buildout System Pressures Peak Hour Demand 8-36
Figure 8-9. Buildout Pipeline Velocities Peak Hour Demand 8-37
Figure 8-10. Buildout System Available Fire Flow 8-39
Figure 8-11. Buildout System Locations of Additional Simultaneous Fire Flow Simulations 8-40
Figure 8-12. Proposed Future Water System Recommended Improvements 8-42
Figure 8-13. 2025 System Recommended Pipeline CIP 8-43
Figure 9-1. Existing Recycled Water System Facilities 9-3
Figure 9-2. Buildout Recycled Water System Facilities 9-5
Figure 9-3. DMC Exchange Pipeline Alternatives 9-15
Figure 9-4. Buildout Recycled Water Peak Hour Demand 9-17
Figure 9-5. Buildout Recycled Water Fill Period 9-19
Figure 9-6. Proposed Future Recycled Water System Improvements 9-21
Figure 10-1. Recommended Existing Potable Water System Improvements 10-5
Figure 10-2. Recommended Future Potable Water System Program Improvements 10-8
Figure 10-3. Recommended Future Recycled Water System Program Improvements 10-17

List of Acronyms and Abbreviations

2018 Bay-Delta Water Quality Control Plan	2018 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary
AB	Assembly Bill
AC	Asbestos Cement
ADUs	Accessory Dwelling Units
af/ac/yr	Acre-Feet Per Acre Per Year
af/yr	Acre Feet Per Year
ASR	Aquifer Storage and Recovery
AWWA	American Water Works Association
BBID	Byron Bethany Irrigation District
BCID	Banta-Carbona Irrigation District
BMOs	Basin Management Objectives
BMP	Best Management Practices
BPS	Booster Pump Station
CARB	California Air Resources Board
CBSC	California Building Standards Commission
CFC	California Fire Code
CI	Cast Iron
CIP	Capital Improvement Program
City	City of Tracy
CUWCC	California Urban Water Conservation Council
CVP	Central Valley Project
DDW	Division of Drinking Water
DI	Ductile Iron
DMC	Delta-Mendota Canal
DWR	Department of Water Resources
EIRs	Environmental Impact Reports
EPA	Environmental Protection Agency
FAR	Floor to Area Ratios
fps	Feet Per Second
ft/kft	Feet Per Thousand Feet
GEI	GEI Consultants
GHG	Greenhouse Gas
GIS	Geographic Information System
GMO	Growth Management Ordinance
GMP	Groundwater Management Plan
gpcd	Gallons Per Capita Per Day
gpm	Gallons Per Minute
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
IPC	International Park of Commerce
JJWTP	John Jones Water Treatment Plant

K/J/C	Kennedy/Jenks/Chilton
LEED	Leadership in Energy and Environmental Design
Legislature	California State Legislature
lf	Linear Feet
M&I	Municipal & Industrial
MG	Million Gallons
mgd	Million Gallons per Day
MOA	Memorandum of Agreement
MSR	Municipal Service Review
MWELO	Model Water Efficient Landscape Ordinance
NEI	Northeast Industrial Area
NFPA	National Fire Protection Association
NRW	Non-Revenue Water
O&M	Operations and Maintenance
PPBP	Patterson Pass Business Park
PRS	Pressure Regulating Station
PRV	Pressure Reducing Valve
psi	Pounds Per Square Inch
PSV	Pressure Sustaining Valve
R&R	Renewal and Replacement
RGA	Residential Growth Allotment
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SB X7-7	Water Conservation Act of 2009
SCADA	Supervisory Control and Data Acquisition
SCS	Sustainable Community Strategy
SCWSP	South County Water Supply Project
SED	Substitute Environmental Document
SGMA	Sustainable Groundwater Management Act
SOI	Sphere of Influence
SSJID	South San Joaquin Irrigation District
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
Tracy Subbasin	San Joaquin Valley Groundwater Basin-Tracy Subbasin
UAFW	Unaccounted-for Water
USBR	United States Bureau of Reclamation
UWMP	Urban Water Management Plan
VFD	Variable Frequency Drive
VVH	VVH Consulting Engineers
WSCP	Water Shortage Contingency Plan
WSID	West Side Irrigation District
WSMP	Water System Master Plan
WWTP	Wastewater Treatment Plant

CITYWIDE WATER SYSTEM MASTER PLAN UPDATE
EXECUTIVE SUMMARY

PURPOSE FOR THE CITYWIDE WATER SYSTEM MASTER PLAN UPDATE

The purpose of this Citywide Water System Master Plan Update for the City of Tracy (City) is to provide an evaluation of the required backbone potable water and recycled water system facilities required to serve existing and future needs. The City's last Citywide Water System Master Plan was completed in 2012 (2012 WSMP) and was based on projected land uses included in the City's 2011 General Plan. Since that time, significant new residential and commercial development has occurred in the City (including the International Park of Commerce within the Cordes Ranch Specific Plan area, Tracy Ellis, Tracy Hills and numerous smaller projects) and planning for future developments has been refined. Also, during that same time, the State endured five years of drought starting in 2012, including the driest four consecutive years in California history. These unprecedented conditions led to statewide mandated water conservation, significant surface water supply reductions and curtailments and legislation establishing new water efficiency standards.

All of these factors have led to a need to reevaluate the City's potable water and recycled water needs, the projected availability and reliability of the City's water supplies and the required water system infrastructure improvements to ensure a safe and reliable water supply for the City's residents and businesses.

OBJECTIVES OF THE CITYWIDE WATER SYSTEM MASTER PLAN UPDATE

This Citywide Water System Master Plan Update has been prepared based on the following overall water system objectives and goals:

- Ensure safe, adequate and reliable water supplies for the City's existing and future residents and businesses.
- Support the goals, objectives and policies of the City's General Plan, particularly those contained in the Public Facilities and Services Element.
- Comply with existing and future legislation and regulations for both potable and non-potable (recycled) water supplies.

Based on the City's water system objectives, the objectives of this Citywide Water System Master Plan Update are to:

- Evaluate existing water demands to understand current water use patterns and trends and project future water demands for near-term (2025), future (2040) and General Plan buildout conditions.
- Provide an updated evaluation of the availability and reliability of the City's existing and future water supplies and their ability to meet existing and future water demands considering recent changes in projected supply reliability.

- Review and refine performance and operational criteria under which the potable and recycled water systems will be analyzed and recommendations for future facilities will be formulated.
- Evaluate the need for new backbone potable water facilities (including pipelines, storage facilities and pumping facilities) to serve buildout of the City's General Plan.
- Evaluate the need for new backbone recycled water facilities (including pipelines, storage facilities and pumping facilities) to serve buildout of the City's General Plan.
- Develop a capital improvement program for recommended potable and recycled water system facilities.

KEY CHANGES FROM THE 2012 CITYWIDE WATER SYSTEM MASTER PLAN

This Cityside Water System Master Plan Update incorporates and considers several changed conditions, new water system facilities, and new water supply opportunities from what was included in the 2012 Citywide Water System Master Plan. A summary of these is provided below:

- Changes in Projected Land Use: Compared to the projected land use in 2012 Citywide Water System Master Plan, there has been a significant shift in the City's projected land use composition towards residential development and away from commercial and industrial development. However, when compared to the City's historical and existing land uses, which were primarily residential, the projected land uses for new development are more heavily skewed to non-residential uses (with almost 60 percent of the projected acres of new development being non-residential uses). The future industrial, commercial, and retail growth anticipated in the City's Sphere of Influence is reflective of the City's goal to bring jobs and economic growth and improve the City's jobs-housing balance (see Chapter 3 for additional information).
- Reduction in Unit Water Demands: Due to changes in water use trends and habits resulting from improved water use efficiency, unit water demand factors have been reduced for most land use categories (see Chapter 4 for additional information).
- Reduction in Maximum Day and Peak Hour Demand Factors: Due to changes in water use trends and habits from improved water use efficiency, maximum day and peak hour demand factors have been reduced (see Chapter 4 for additional information).
- Changes in Recycled Water System Planning: Previously, the City was considering implementing the proposed Gateway Exchange Program, under which recycled water service would be extended to most of the existing parks and large irrigated areas in the City to offset the potable water demands from the Gateway development (now called Westside). The Gateway Exchange Program is no longer being considered, and it is projected that only a few existing parks and irrigated areas will receive recycled water supply. Expansion of the recycled water system will focus on extending service to newly developed areas (see Chapters 4 and 9 for additional information).

- Reduction in Surface Water Supply Reliability: Due to unprecedented drought conditions from 2011 through 2017 and new flow restrictions resulting from the 2018 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, projected reliabilities of surface water supplies from the Central Valley Project (CVP) and South San Joaquin Irrigation District (SSJID) have been significantly reduced, particularly in dry years. The City has entered into discussions with the Contra Costa Water District and the San Luis & Delta-Mendota Water Authority to explore the City's potential participation in the Phase 2 Los Vaqueros Reservoir Expansion Project to increase the City's water supply reliability by providing storage of supplies for use in dry years (see Chapter 5 for additional information).
- Proposed Recycled Water Exchange Agreement: The City is evaluating the potential for indirect reuse of its available recycled water through an exchange agreement with the United States Bureau of Reclamation (USBR) whereby a portion of the City's tertiary-treated wastewater (recycled water) would be discharged to the Delta Mendota Canal (DMC) and a like amount of water (i.e., a one-to-one exchange) could then be diverted from the DMC by the City for treatment at the City's John Jones Water Treatment Plant (JJWTP) for potable use. Such supplies would be 100 percent reliable and would not be subject to drought cutbacks. With the potential reduction in reliability of the City's surface water supplies from the CVP and SSJID, this proposed recycled water exchange agreement will be a critical component of the City's future water supply portfolio (see Chapter 5 for additional information).
- Reduction in Emergency Storage Requirement: The 2012 WSMP used an emergency storage volume requirement of two (2) times the average day demand. After reviewing emergency storage criteria for other similar water systems within the region, and taking into account the City's redundant sources of supply (CVP, SSJID, and groundwater), it is recommended that the City reduce the minimum quantity of emergency storage volume required to 1.5 times the average day demand for this Citywide Water System Master Plan Update (see Chapter 6 for additional information).
- Addition of New Water System Facilities: Several new water system facilities have been recently completed which provide for added water system capabilities. These include the Cordes water storage tank and pump station, the Tracy Hills water storage tank and pump station (nearing completion as of September 2021), new pump stations at the City's JJWTP to serve the City's Pressure Zone 3 and initial phases of the Tracy Hills development, and a recycled water pump station and pipeline on the west side of the City to distribute recycled water supplies from the City's Wastewater Treatment Plant to recycled water users on the western side of the City (see Chapters 7 and 9 for additional information).

- Renaming of Potable Water Pressure Zones: To minimize confusion when referring to the City's primary potable water system pressure zones, the potable water system pressure zones have been renamed as follows:
  - Pressure Zone 1 – no change
  - Pressure Zone 2 – no change
  - City-side Pressure Zone 3 – now referred to as Pressure Zone 3
  - Tracy Hills Pressure Zone 3 – now referred to as Pressure Zone 4
  - Tracy Hills Pressure Zone 4 – now referred to as Pressure Zone 5
  - Tracy Hills Pressure Zone 5 – now referred to as Pressure Zone 6

  The remainder of this Citywide Water System Master Plan Update, and all subsequent water system evaluations and studies, will utilize these new pressure zone designations.

EXISTING AND PROJECTED FUTURE WATER DEMANDS

The City of Tracy currently serves a population of about 96,000 people. Total potable water production in 2020 was 18,687 acre-feet per year (af/yr), not including water treated and wheeled to the Patterson Pass Business Park, which equates to a per capita water use of about 174 gallons per capita per day (gpcd). This per capita water use is significantly lower than the City's historical per capita water use which was as high as 300 gpcd in the early 1980s. Per capita water use was as low as 144 gpcd in 2015 due to extreme drought conditions which resulted in voluntary and mandatory water conservation. The per capita water use has increased somewhat in recent years as water use restrictions have been lifted and customers have resumed more typical water use behavior.

As described in Chapter 4, future water demands for buildout of the City's General Plan were projected based on revised unit water demand factors reflecting recent water use patterns and trends for the City's various land uses, consistency with the Model Water Efficient Landscape Ordinance (MWELO) for landscape irrigation water use and the use of recycled water for landscape irrigation for selected land use designations.

With the planned buildout of the City's sphere of influence (SOI), the City's population is projected to increase to about 186,000 people. At buildout, potable water demands are projected to be about 33,500 af/yr, while recycled water demands (for irrigation of landscaped areas) are projected to be 6,300 af/yr. As noted in the City's 2012 WSMP, the City's future use of recycled water for non-potable uses such as landscape irrigation is key to the reduction (offset) of the City's future potable water demand, and the City's ability to meet future demands using existing and future available water supplies.

A summary of the projected future water demands and water production at 2025 (near-term), at 2040, and at buildout, is provided in Table ES-1.

Table ES-1. Summary of Future Projected Water Production[a,b,c]

Demand Category	2025 (Near Term)		2040		Buildout	
	Potable Water, af/yr	Recycled Water, af/yr	Potable Water, af/yr	Recycled Water, af/yr	Potable Water, af/yr	Recycled Water, af/yr
Future	3,000	900	10,900	4,100	15,700	6,200
Existing - City[d]	17,800	100	17,800	100	17,800	100
Total to be Met by City Water Supply Contracts and Rights	**20,800**	**1,000**	**28,700**	**4,200**	**33,500**	**6,300**
Existing - PPBP Wheeled Water[e]	600	0	600	0	600	0
Total to be Delivered by City Distribution System	**21,400**	**1,000**	**29,300**	**4,200**	**34,100**	**6,300**

(a) Refer to Appendix A for detailed water demand calculations.
(b) Includes unaccounted for water.
(c) Totals rounded to the nearest hundred.
(d) Includes water delivered to existing buildings in the International Park of Commerce (IPC).
(e) Does not include water delivered to existing buildings in IPC.

As the City continues to develop, potable water consumption between customer classes is expected to shift due to changes in the City's projected land use composition. A comparison of the historical average and projected potable water consumption by customer class is shown in Table ES-2. As shown, the residential customer classes are expected to decrease their overall potable water consumption proportion as water use shifts towards non-residential customer classes. This trend is primarily due to large industrial developments such as Cordes Ranch, West Side Industrial, East Side Industrial, UR 3, and Tracy Hills Phase 5, among others.

Table ES-2. Historical and Projected Potable Water Consumption by Customer Class

Customer Class	Historical Average Annual Consumption[a]	Projected Annual Consumption in 2025[b]	Projected Annual Consumption in 2040[b]	Projected Annual Consumption at Buildout[b]
Single Family Residential[c]	60.1%	58.0%	54.0%	53.3%
Multi-Family Residential[d]	6.7%	7.6%	6.9%	8.5%
Residential Subtotal	66.8%	65.6%	60.9%	61.7%
Commercial[e]	15.4%	13.5%	14.2%	14.2%
Industrial	4.9%	9.3%	16.4%	17.6%
Irrigation[f]	12.9%	11.6%	8.4%	6.5%
Total	**100%**	**100%**	**100%**	**100%**

(a) Refer to Table 4-4.
(b) Includes existing and projected future potable demands.
(c) Includes projected future residential demands (excluding irrigation) for Residential - Very Low Density, Residential - Low Density, and Residential - Medium Density land use types.
(d) Includes projected future residential demands (excluding irrigation) for Residential - High Density and Residential - Very High Density land use types.
(e) Includes projected future demands (excluding irrigation) for Commercial, Office, and Institutional land use types.
(f) Includes projected future irrigation demands to be served by potable water. Accounts for planned conversions of irrigation services to recycled water use.

Landscape irrigation water use is projected to be a much smaller proportion of the City's potable water use at buildout because many new development areas will be served by the recycled water system at buildout, and some of the City's existing irrigated areas will be converted to recycled water use.

EXISTING AND PROJECTED FUTURE WATER SUPPLIES

Chapter 5 of this Citywide Water System Master Plan Update describes updates to the City's water supply availability and reliability which have occurred since the completion of the 2012 WSMP and the City's 2015 Urban Water Management Plan (2015 UWMP). The water supply availability and reliability described in Chapter 5 is consistent with the City's 2020 UWMP, which was adopted in June 2021.

Existing Water Supplies

The City currently receives water supplies from the following sources:

- Untreated surface water from the DMC (CVP) (treated at the City's John Jones Water Treatment Plant (JJWTP))
- Untreated surface water from Byron Bethany Irrigation District (BBID) pre-1914 rights (treated at the City's JJWTP)
- Treated surface water from the Stanislaus River via the South County Water Supply Project (SCWSP) (treated and delivered to the City by the SSJID)
- Groundwater pumped from eight groundwater wells located within the City

Since the completion of the 2012 WSMP and the 2015 UWMP, the availability and reliability of the City's water supplies have been impacted by drought conditions and associated unprecedented cutbacks in surface water supply deliveries. Also, in recent years new legislation has been passed which will impact future water use and future water supply availability and reliability, including the Sustainable Groundwater Management Act (SGMA), SB 606 and Assembly Bill 1668 Making Water Conservation a California Way of Life and most recently the 2018 amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan Amendment) which was adopted by the State Water Resources Control Board (SWRCB) in December 2018 and restricts the use of flows from the Lower San Joaquin River and its tributaries (the Stanislaus, Tuolumne and Merced Rivers) to improve conditions for fish and wildlife. Specifically, it restricts the use of flows until 40 percent of unimpaired flows are rededicated for water quality and instream fisheries. The Bay-Delta Plan Amendment, depending on its actual implementation, has potential impacts to the water supplies that the City receives from SSJID.

Also, in 2017, new guidelines and procedures went into effect associated with the updated CVP M&I Water Shortage Policy, which base dry year allocations on a contractor's historical use of CVP supplies, not its contractual amount of CVP supplies.

These changed conditions significantly impact the availability and reliability of the City's surface water supplies in dry years (specifically the City's CVP supplies and SSJID supplies).

Future Water Supplies

The City has a projected potable water supply production requirement of 33,500 af/yr for buildout of the City's General Plan. The City will need to develop future water supplies to meet these projected future demands. This will include expansion of its Aquifer Storage and Recovery Program (up to 1,000 af/yr) and implementation of a proposed Recycled Water Exchange Program (up to 7,500 af/yr) to meet its projected future potable water demands. Furthermore, 6,300 af/yr recycled water will be needed to meet landscape irrigation demands at buildout.

The City's Aquifer Storage and Recovery (ASR) Program should be expanded in the future to provide up to 1,000 af/yr of supply. As described in Chapter 5, an evaluation of potential ASR options and operational scenarios should be conducted as additional ASR wells are planned to determine if dedicated SSJID supply pipelines to the ASR wells will be required if the City's ASR permit cannot be modified to allow for other supplies to be injected.

The proposed Recycled Water Exchange Program would provide for the potential for indirect use of its available recycled water through an exchange agreement with the USBR whereby a portion of the City's tertiary-treated wastewater (recycled water) would be discharged to the DMC and a like amount of water (i.e., a one-to-one exchange) could then be diverted from the DMC by the City for treatment at the City's JJWTP for potable use. Such supplies would be 100 percent reliable and would not be subject to drought cutbacks. The project would require development of a project description, NEPA/CEQA review, approval of an exchange agreement, design and construction of a recycled water pipeline that could discharge recycled water to the DMC downstream of the City's JJWTP intake and expansion of the City's wastewater treatment plant. Additional discussion of the pipeline required for the Recycled Water Exchange Program is provided in Chapter 9. If such a project is approved and implemented, the City anticipates that it would initially provide up to 5,900 af/yr of additional potable water supplies to the City, with future expansion as needed to meet future demands.

As shown on Figure ES-1, even with additional supplies, the City may experience water supply shortages in dry years. Table ES-3 provides a summary of the projected water supply needs to meet the single dry year conditions (the most critical hydrologic condition) under the City's projected near-term (2025), future (2040) and buildout demand conditions. As shown, the projected potable water supplies are less than the projected potable water demands, indicating that the City would need to implement its Water Shortage Contingency Plan to reduce water demands and/or develop additional water supplies to meet the projected water demands. Chapter 5 provides a summary of the City's water management strategies and options, including participation in the Phase 2 Los Vaqueros Reservoir Expansion Project, as described in the City's 2020 UWMP.

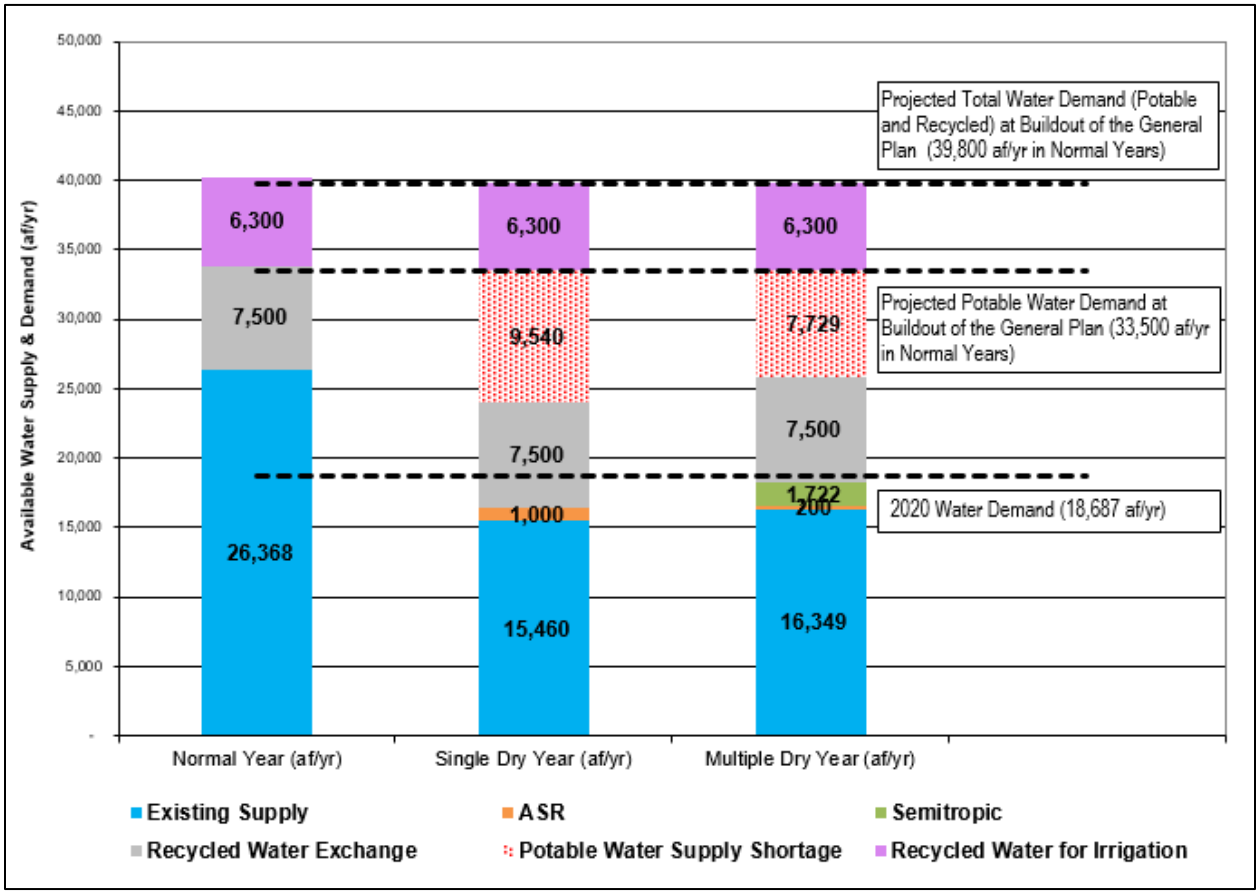


Figure ES-1. Existing and Planned Future Water Supplies vs. Water Demand at Buildout

Table ES-3. Future Water Supply Needs under Single Dry Year Conditions

	Near-Term (2025), af/yr	Future (2040), af/yr	Buildout, af/yr	Comments
Existing Potable Water Supplies				
CVP Surface Water Supplies	1,483	1,483	1,483	Based on 25% of historical use
SSJID Surface Water Supplies	9,974	6,177	6,177	2025 supply includes temporary contract with City of Escalon (which ends in 2025) and a 76% allocation; 2040 and buildout supply assumes a 56% allocation
BBID Pre-1914 (to meet Tracy Hills demand)	800	2,500	3,300	Based on projected potable water demand at Tracy Hills; see Appendix A
Groundwater	4,500	4,500	4,500	Increased from normal year supply of 2,500 af/yr
Total Existing Potable Water Supplies	16,757	14,660	15,460	
Existing Dry Year Water Supplies				
Semitropic Dry Year Supply	0	0	0	Assumed to not be available in Single Dry Years
ASR Dry Year Supply	700	1,000	1,000	Existing capability is 700 af/yr for Well 8; additional ASR wells would be needed for expansion of the ASR program
Total Existing Dry Year Water Supplies	700	1,000	1,000	
Future Potable Water Supplies				
Recycled Water Exchange	0	5,000	7,500	
Total Future Potable Water Supplies	0	5,000	7,500	
Total Potable Water Supplies	**17,457**	**20,660**	**23,960**	
Potable Water Demand	**20,800**	**28,700**	**33,500**	See Table 4-16 in Chapter 4
Recycled Water				
Recycled Water Demand for Landscape Irrigation	**1,000**	**4,200**	**6,300**	See Table 4-16 in Chapter 4
Total Recycled Water Needed, af/yr	1,000	9,200	13,800	As needed to meet needs for Recycled Water Exchange and Landscape Irrigation
Total Recycled Water Needed (average day), mgd	0.9	8.2	12.3	

Subsequent revisions to the projected potable water demand and/or the water supply availability and reliability assumptions may change the required quantities and timing of the proposed Recycled Water Exchange Program. However, even if the required quantities or timing are modified in the future, the direct use of recycled water for landscape irrigation demands and indirect use of recycled water as part of the proposed Recycled Water Exchange Program will be critical components of the City's future water supply portfolio.

The planned future direct and indirect use of recycled water will also require an expansion of the City's Wastewater Treatment Plant (WWTP) to produce adequate quantities of recycled water to meet both the future Recycled Water Exchange Program needs (indirect use), as well as the landscape irrigation demands (direct use), at buildout.

It should also be noted that supply availability and reliability, and actual water demands, may change in the future. As such, the City may need to acquire additional potable water supplies in the future. The City will need to closely track actual potable water demands and supply availability and reliability as future service areas are approved and developed to determine if existing and future supplies are adequate and/or if and when additional potable or recycled water supplies may be required.

EVALUATION OF EXISTING AND FUTURE POTABLE WATER SYSTEM

Chapters 7 and 8 of this Citywide Water System Master Plan Update identify the improvements necessary to eliminate existing deficiencies and support the City's projected future potable water demands, respectively. Recommended improvements are based on evaluations of the existing and future (2025 and buildout) potable water system's treatment, storage, and pumping capacities, as well as its ability to meet recommended performance and operational criteria under maximum day demand plus fire flow and peak hour demand scenarios.

Facility improvements are identified at a Master Plan level and do not necessarily include all required on-site infrastructure nor constitute design of improvements. Subsequent detailed design is required to determine the sizes and locations of the proposed improvements. Further, the hydraulic model is not an "all pipes" model (i.e., not all smaller diameter pipelines are included), so the hydraulic simulations performed may not identify all necessary water system improvements. West Yost recommends conducting additional hydraulic evaluations as development details become available.

The following recommendations exclude non-backbone facilities that only serve a specific development, instead focusing on backbone facility improvements with more widespread system benefit. These shared facilities are designated program facilities.

Existing Potable Water System

The City's existing potable water system includes the following major facilities: JJWTP, eight groundwater wells, clearwells and storage tanks, booster pump stations, pressure regulating stations, and transmission and distribution system pipelines. The City's existing distribution system is divided into four pressure zones. Significant new infrastructure has been constructed in recent years to serve new development projects, including new pump stations at the JJWTP to serve Pressure Zones 3 and 4, a new storage tank and pump station in the Cordes Ranch area, and a new storage tank and pump station in Tracy Hills.

Recommendations for the existing potable water distribution system are shown on Figure ES-2 and described below. These existing system improvements are recommended based on existing water demands, and are not triggered by future new development. The existing water system infrastructure in the areas listed below is insufficient to meet the fire flow requirements based on existing land use and water demands. As such, planning and design for these improvements should be prioritized.

Pipeline Improvements

The following pipeline improvements are recommended:

- Improvement #1:
  - Replace the existing pipelines in 20th Street between Bessie Avenue and Parker Avenue, Wall Street between Lowell Avenue and 20th Street, Emerson Avenue between Bessie Avenue and Holly Drive, Court Drive between Whittier Avenue and Lowell Avenue, and Lowell Avenue between Parker Avenue and Holly Drive with approximately 6,000 linear feet (lf) of new 8-inch diameter pipelines.
- Improvement #2:
  - Install approximately 515 lf of 12-inch diameter pipeline in Ninth Street between School Street and Tenth Street.
- Improvement #3:
  - Replace approximately 485 lf of existing 4-inch diameter pipeline in Tracy Boulevard north of Mount Diablo Avenue with new 12-inch diameter pipeline.

2025 Potable Water System

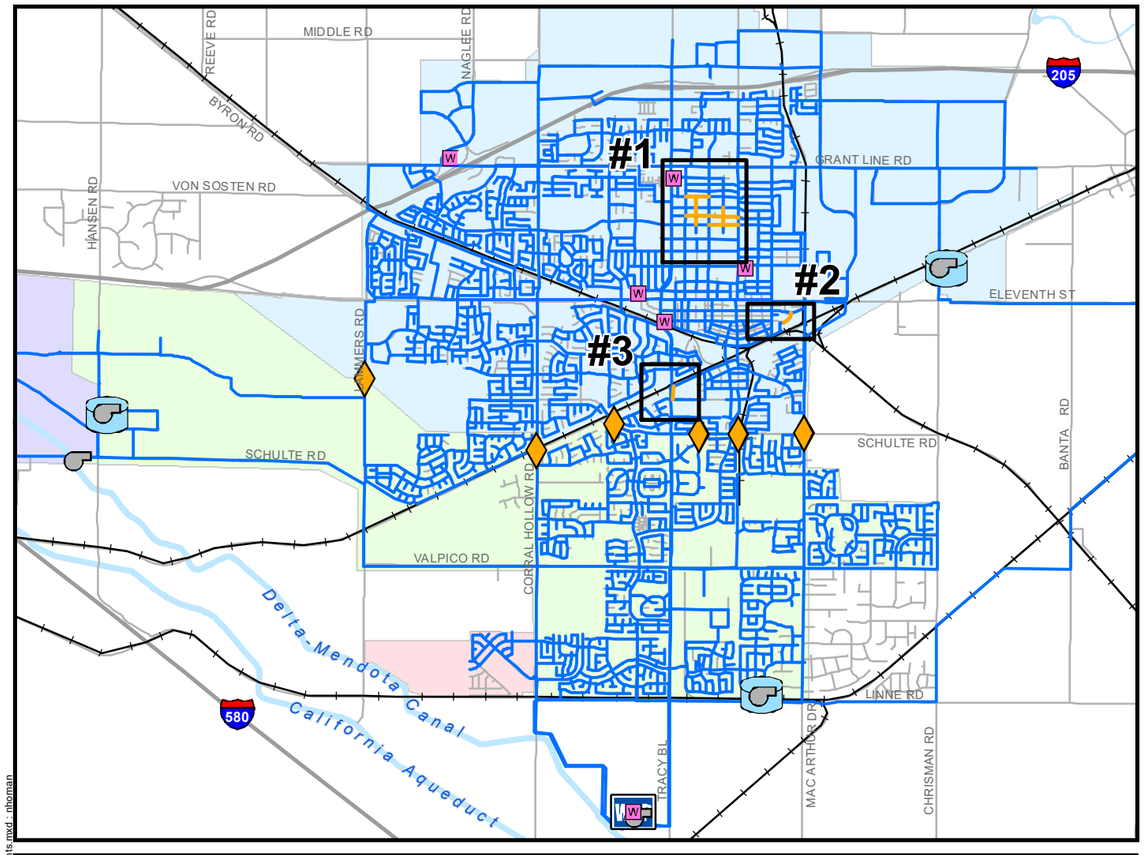
Program facility recommendations for the 2025 potable water system are shown on Figure ES-3 and described below. A complete listing of recommended potable water system improvements (both program and non-program) to serve projected 2025 potable water demands is provided in Chapter 8 along with recommendations for their timing.

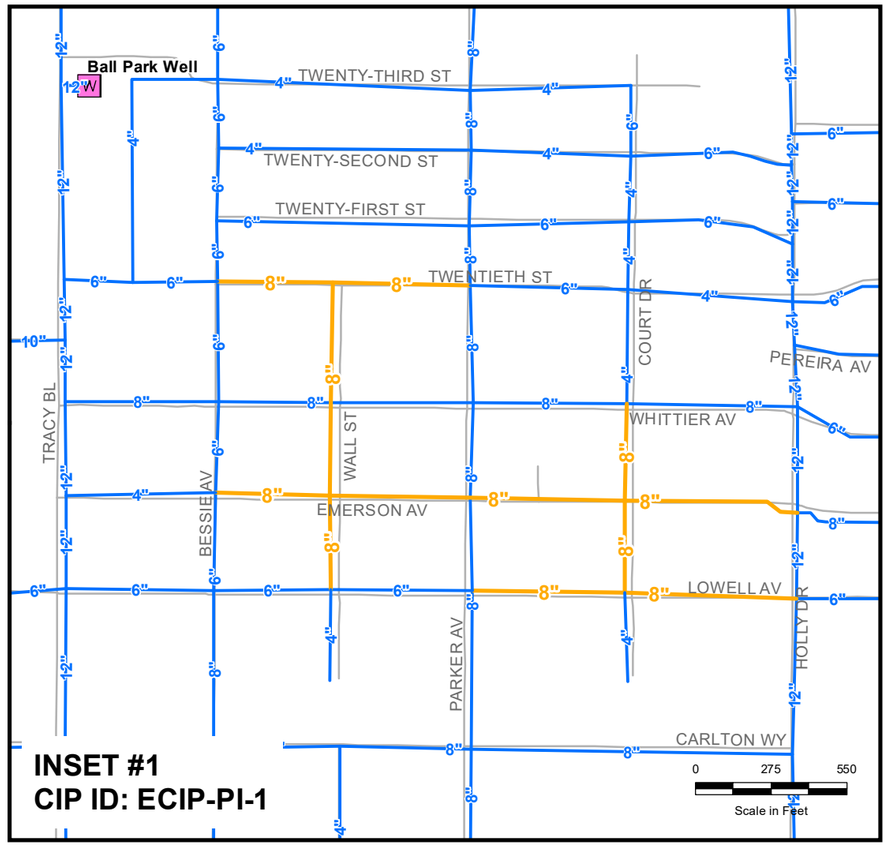
Pipeline Improvements

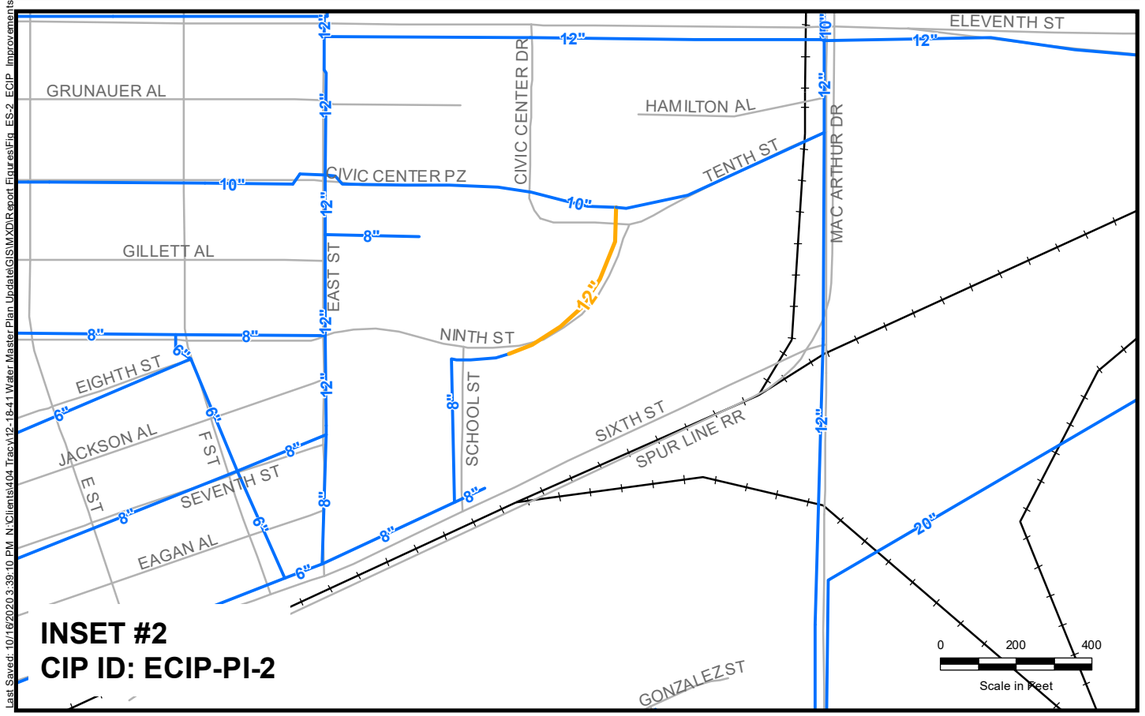
- To serve 2025 potable water demands, replace existing pipelines in Sixth Street, Tracy Boulevard, and Eleventh Street with approximately 1,390 linear feet of new 18-inch and 24-inch diameter pipelines.

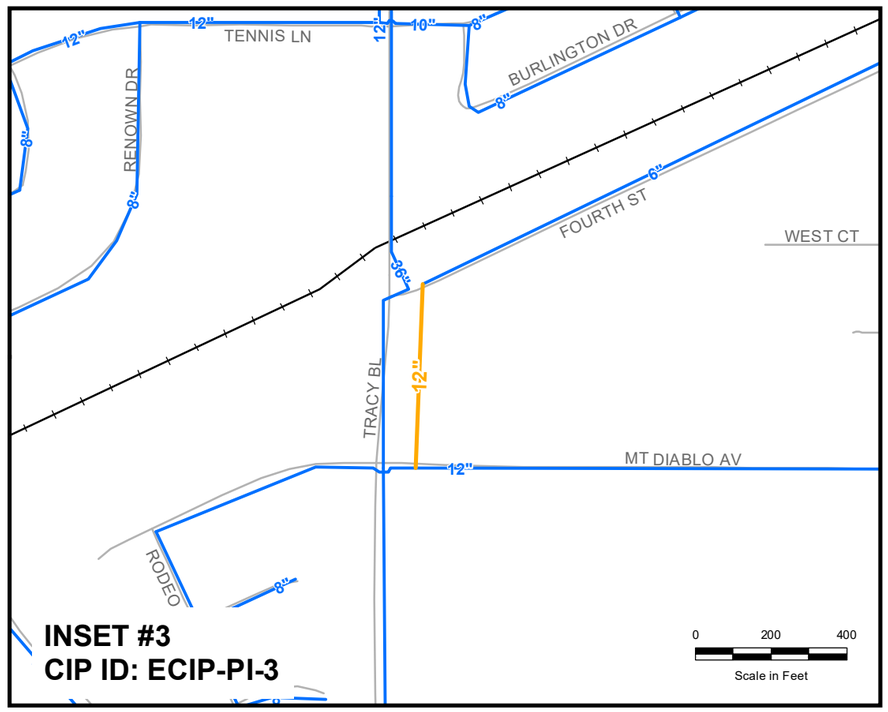
New Potable Water Pipelines

- To serve 2025 potable water demands, install approximately 43,010 lf of new pipelines ranging in diameter from 12 to 24 inches.









Symbology

- Existing Pipeline
- Pipeline Improvement
- Pressure Regulating Station
- Booster Pump Station
- Groundwater Well
- Storage Tank
- WTP John Jones Water Treatment Plant

Pressure Zone

- Zone 1
- Zone 2
- Zone 3 (IPC/PPBP)
- Ellis Reduced Zone

Notes:

1. The City's existing hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.

Figure ES-2

Recommended Existing Potable Water System Improvements

City of Tracy
Water System Master Plan Update

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BETHANY RD
Old River
MOUNTAIN HOUSE PK
REEVE RD
LAMMERS RD
NAGLEE RD
HOLLY DR
MIDDLE RD
BYRON RD
HANSEN RD
VON SOSTEN RD
GRANT LINE RD
ELEVENTH ST
LOVELY RD
BANTA RD
BIRD RD
SCHULTE CT
SCHULTE RD
CORRAL HOLLOW RD
VALPICO RD
TRACY BL
IMAC ARTHUR DR
580
205

Equip wells with ammonia addition

From Mossdale BPS

BCIP-T-WS
BCIP-PS-WSZ1&2
BCIP-PRS-WS
BCIP-W-WS
BCIP-W-WA
BCIP-W-LP
BCIP-W-EL
BCIP-PRV-AV
BCIP-PRV-C
NCIP-PRV-1
NCIP-PRV-2

California Aqueduct
Delta-Mendota Canal

N
0 2,750 5,500
Scale in Feet

NCIP-PI-1&2

ELEVENTH ST
TRACY BL
Well #8

JJWTP Buildout Program Facilities

BCIP-T-CW3
BCIP-PS-Z3
BCIP-JJWTP (10 mgd expansion to 40 mgd treatment capacity).

Notes:
1. The City's hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.
2. Jack and bore pipeline projects are not shown, but jack and bore is required for canal, railroad, or major highway crossings.
3. Install SCADA system monitoring of flows and pressures at each new facility.
4. Install on-site backup power at each new pumping facility.
5. Only existing and program facilities are shown.

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Symbology

Proposed Buildout Program Facilities
- Buildout Pressure Regulating Station
- Buildout Pressure Reducing Valve
- Buildout Booster Pump Station
- Buildout Groundwater Well
- Buildout Storage Tank
- Buildout System Pipeline
- SCADA System Improvement

Proposed 2025 Facilities
- 2025 Pressure Reducing Valve
- 2025 System Pipeline
- 2025 Pipeline CIP

Existing System Facilities
- Existing Pressure Regulating Station
- Existing Pressure Reducing Valve
- Existing Booster Pump Station
- Existing Groundwater Well
- Existing Storage Tank
- John Jones Water Treatment Plant
- Existing System Pipeline
- Proposed Existing System Pipeline CIP

Pressure Zone
- Zone 1
- Zone 2
- Zone 3
- Ellis Reduced Zone
- Zone 4
- Zone 5
- Zone 6

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Figure ES-3

Recommended Future Potable Water System Program Improvements

City of Tracy
Water System Master Plan Update

Interconnections

- Install PRVs at Schulte Road and Bud Lyons Way and at Schulte Road and Pavillion Parkway before the transmission main in Schulte Road is re-zoned to Zone 3.

Re-zoning

- Re-zone the existing transmission mains in Lammers Road, Schulte Road, and Hansen Road from Zone 2 to Zone 3 as described in Appendix D.

Groundwater Wells

- Provide ammonia addition for existing City wells (Lincoln Well, Lewis Manor Well, Park & Ride Well and Ball Park Well) (as noted below under Buildout System Improvements, all future wells are also recommended to be equipped with ammonia addition).
- A feasibility study is recommended to develop an implementation plan for future ASR expansion.

Buildout Potable Water System

Program facility recommendations for the buildout potable water system are shown on Figure ES-3 and described below. A complete listing of recommended potable water system improvements (both program and non-program) to serve projected buildout potable water demands is provided in Chapter 8 along with recommendations for their timing.

Storage Reservoirs

Planning and design of these new storage facilities should be conducted so that the proposed facilities are constructed and operational in time to serve their respective service areas (e.g., Westside, Zone 5 or Zone 6). Because of the additional operational flexibility that Clearwell #3 would provide, it is recommended that Clearwell #3 be constructed as soon as possible. As noted above, no additional storage facilities are required by 2025, but it is recommended that Clearwell #3 be constructed by no later than 2030.

- Westside Tank: Install a new storage tank with a minimum active storage capacity of 1.0 million gallons (MG).
- JJWTP Clearwell #3: Install a new clearwell with a minimum active storage capacity of 1.0 MG to provide storage for Zone 3.

Groundwater Wells

Planning and design of these new groundwater wells should be phased so that the City's ASR Program can be expanded as needed to meet the City's water supply needs, particularly in dry years. A feasibility study for the expansion of the City's ASR Program is included under the 2025 Potable Water System recommendations listed above.

- Westside: Install a new ASR well with a minimum firm pumping capacity of 2,500 gallons per minute (gpm).
- Wainwright: Install a new ASR well with a minimum firm pumping capacity of 2,500 gpm.
- Larsen Park: Install a new ASR well with a minimum firm pumping capacity of 2,500 gpm.
- Ellis: Install a new ASR well with a minimum firm pumping capacity of 1,000 gpm.

Booster Pump Stations

Planning and design of these new booster pumping facilities should be coordinated with the construction of other related facilities (e.g., associated storage tanks) and the timing of new development.

- Zone 3 BPS (JJWTP): Install additional Zone 3 booster pumps at the JJWTP with a minimum firm pumping capacity of 1,500 gpm.
- Westside Zone 1 Tank: Install a new booster pump station with a minimum firm pumping capacity of 4,500 gpm.
- Westside Zone 2 Tank: Install a new booster pump station with a minimum firm pumping capacity of 2,400 gpm.

New Potable Water Pipelines

Planning and design of these new pipelines should be coordinated with the timing of new development.

- To serve buildout potable water demands, install approximately 131,280 lf of new pipelines (in addition to the proposed 2025 pipelines) ranging in diameter from 12 to 20 inches.

Interconnections

Planning and design of these new interconnections should be coordinated with the timing of new development in the respective pressure zones.

- Install the following interconnections between pressure zones to provide supply during peak demands and/or emergency conditions:
  - Westside Pressure Regulating Station (PRS) (from Zone 2 into Zone 1)
  - Avenues Pressure Reducing Valve (PRV) (from Ellis Reduced Zone into Zone 2)
- To provide adequate pressure to the Plan C area and prevent the accumulation of stagnant water in dead-end mains, installation of six (6) PRVs is recommended before the Plan C re-zoning occurs (to be funded through Plan C).

Re-zoning

Planning and design of this rezoning should be coordinated with the timing of the new Zone 3 pipeline from the JJWTP.

- Re-zone the Plan C area from Zone 2 to Zone 3 (to be funded through Plan C).

System Control and Data Acquisition (SCADA) System and Backup Power

Planning and design of the recommended SCADA system improvements and backup power should be prioritized and completed as soon as possible, as these improvements will improve operational flexibility and reliability.

- Install SCADA system monitoring of flows and pressures at PRS #1-#6 to provide operators with additional understanding and flexibility in system operations.
- Add remote operation of Well 8 from the SCADA system to provide additional operational flexibility.
- Install SCADA system monitoring of flows and pressures at each new water supply facility to provide operators with real-time system data and flexibility in system operations.
- Install on-site backup power to any proposed buildout system pumping facility to improve supply reliability.

JJWTP Expansion

- A future additional 10 mgd expansion of the JJWTP (for a total treatment capacity of 40 mgd) is recommended to provide the City with additional water treatment capacity, as well as operational flexibility and reliability. The expansion would also include a new administration/maintenance building to accommodate future staffing needs and maintenance activities.

Participation in Phase 2 Los Vaqueros Reservoir Expansion Project

- The City's participation in the Phase 2 Los Vaqueros Reservoir Expansion Project would increase the City's water supply reliability by providing storage of supplies for use in dry years.
- The estimated cost for 5,000 acre-feet of storage for the City will be approximately $10 million plus an additional $1.5 million for implementation and will be shared by existing rate payers and new development.

Participation in the B.F. Sisk Dam Raise & Reservoir Expansion Project

- The City's participation in the B.F. Sisk Dam Raise & Reservoir Expansion Project would increase the City's water supply reliability by providing storage of supplies for use in dry years.
- The estimated cost for 5,000 acre-feet of storage for the City will be approximately $38 million and will be shared by existing rate payers and new development.

Water Master Plan Updates

- Regular updates of this Citywide Water System Master Plan are recommended to evaluate potable water and recycled water infrastructure needs to reflect any changes in future development plans, water use trends and patterns, and water supply availability and reliability, as well as new regulations and operational needs as new potable water and recycled water system infrastructure is constructed. It is recommended that updates be prepared at least once every 10 years, or more often if changing conditions warrant more frequent updates. For purposes of this Citywide Water System Master Plan Update, three future updates are planned.

EVALUATION OF FUTURE RECYCLED WATER SYSTEM

Chapter 9 of this Citywide Water System Master Plan Update identifies the improvements necessary to support the City's projected future recycled water demands and the recycled water exchange agreement. Recommended improvements are based on evaluations of the future (2025 and buildout) recycled water system's treatment, storage, and pumping capacities, as well as its ability to meet recommended performance and operational criteria under maximum day demand plus fill and peak hour demand scenarios.

Recycled water facility improvements are identified at a Master Plan level and do not necessarily include all required on-site infrastructure nor constitute design of improvements. Subsequent detailed design is required to determine the sizes and locations of the proposed improvements. Further, the recycled water hydraulic model is not an "all pipes" model (i.e., not all smaller diameter pipelines are included), so the hydraulic simulations performed may not identify all necessary system improvements. West Yost recommends conducting additional hydraulic evaluations as development details become available.

The following recommendations exclude non-backbone facilities that only serve a specific development, instead focusing on backbone facility improvements with more widespread system benefit. These shared facilities are designated program facilities.

2025 Recycled Water System

Program facility recommendations for the 2025 recycled water system are shown on Figure ES-4 and described below. A complete listing of recommended recycled water system improvements (both program and non-program) to serve projected 2025 recycled water demands is provided in Chapter 9 along with recommendations for their timing.

Booster Pump Stations

- Zone C Booster Pump Station (BPS): Install a new booster pump station with a minimum pumping capacity of 1,700 gpm.

New Recycled Water Pipelines

- To serve 2025 recycled water demands, install approximately 11,370 lf of new pipelines ranging in diameter from 8 to 30 inches.
- To deliver recycled water to the DMC as part of the City's planned recycled water exchange program, install approximately 23,680 lf of new, 30-inch diameter pipeline (as described above, the exchange program is an essential part of the City's projected future water supply portfolio and should be implemented as soon as possible).

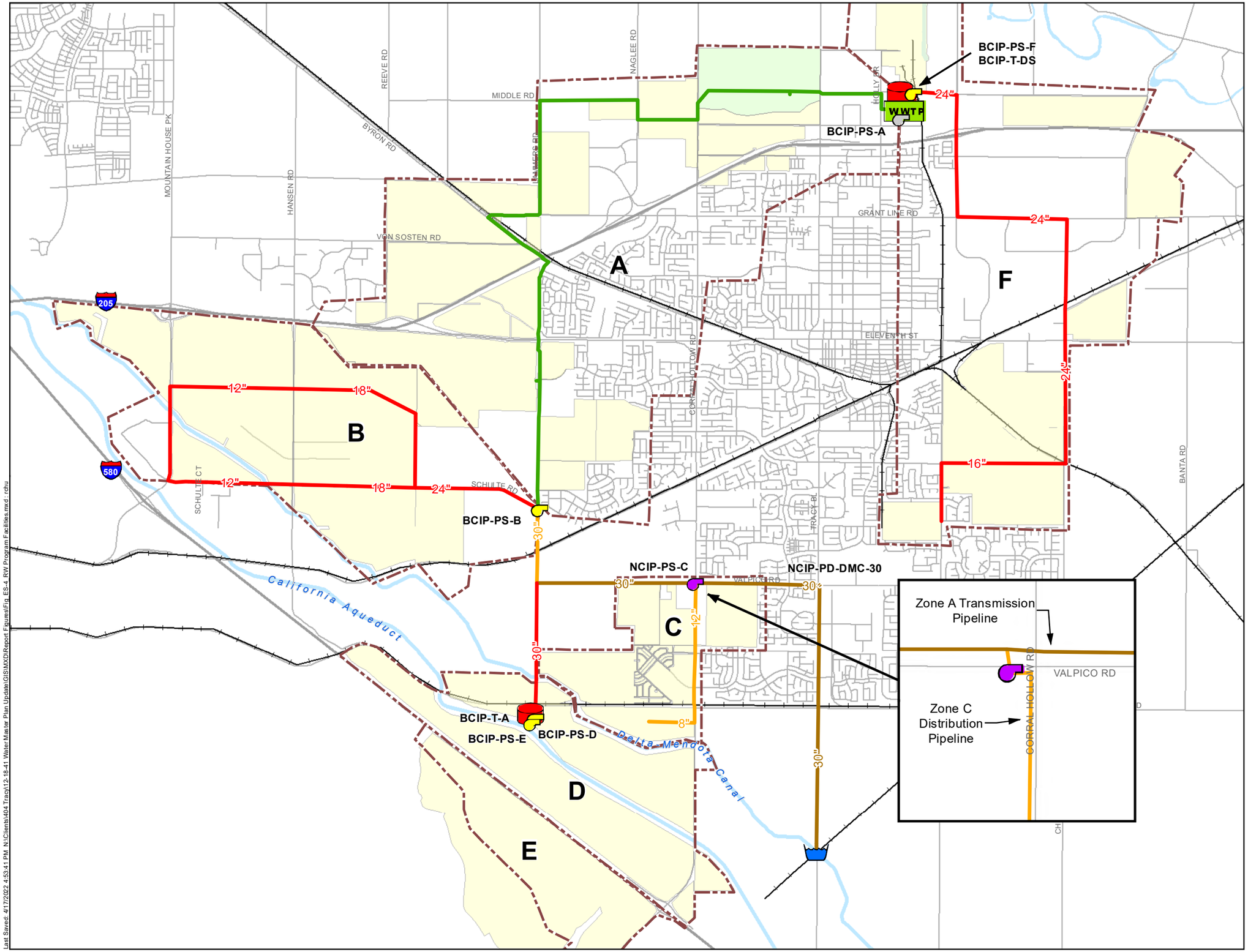
Buildout Recycled Water System

Program facility recommendations for the buildout recycled water system are shown on Figure ES-4 and described below. A complete listing of recommended recycled water system improvements (both program and non-program) to serve projected buildout recycled water demands is provided in Chapter 9 along with recommendations for their timing.

As described in Chapter 9, planning and design for these improvements should be conducted so that these improvements can be constructed and operational as soon as possible, as funding is available, so that recycled water supplies can be used to meet landscape irrigation and other non-potable water demands to minimize the use of potable water supplies for these uses.

Storage Reservoirs

- Zone A Tank: Install an above ground, welded steel storage tank with a minimum active storage capacity of 5.7 MG.
- WWTP Diurnal Tank: Install a partially buried, prestressed concrete diurnal storage tank at the WWTP with a minimum active storage capacity of 2.3 MG; the need for this storage will depend on WWTP diurnal flow patterns, and it is recommended that the City re-evaluate the required diurnal storage at the WWTP by performing a diurnal flow study in 2040.



Symbology

Proposed Buildout Program Facilities

- Buildout Booster Pump Station
- Buidlout Storage Tank
- Buildout System Pipeline

Proposed 2025 Program Facilities

- 2025 Booster Pump Station
- 2025 System Pipeline
- Delta-Mendota Canal Pipeline
- Delta-Mendota Canal Discharge Point

Existing System Facilities

- Existing Booster Pump Station
- WWTP Wastewater Treatment Plant
- Existing System Pipeline
- Legacy Fields
- Future Recycled Water Use Area
- Recycled Water Pressure Zone

Notes:

1. The City's hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.
2. Jack and bore pipeline projects are not shown, but jack and bore is required for canal, railroad, or major highway crossings.
3. Install SCADA system monitoring of flows and pressures at each new facility.
4. Only existing and program facilities are shown.

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Figure ES-4

Recommended Future Recycled Water System Program Improvements

City of Tracy
Water System Master Plan Update

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Booster Pump Stations

- Zone A BPS Expansion: Install additional booster pumps with a minimum pumping capacity of 3,472 gpm.
- Zone B: Install a new booster pump station with a minimum pumping capacity of 5,780 gpm.
- Zone D BPS: Install a new booster pump station with a minimum pumping capacity of 2,700 gpm.
- Zone E BPS: Install a new booster pump station with a minimum pumping capacity of 2,000 gpm.
- Zone F: Install a new booster pump station with a minimum pumping capacity of 4,400 gpm.

New Recycled Water Pipelines

- To serve buildout recycled water demands, install approximately 42,790 lf of new pipelines (in addition to the proposed 2025 pipelines) ranging in diameter from 16 to 30 inches.

SCADA System

- Install SCADA system monitoring of flows and pressures at each new water supply facility to provide operators with real-time system data and flexibility in system operations.

RECOMMENDED CAPITAL IMPROVEMENT PROGRAM

Chapter 10 of this Citywide Water System Master Plan Update presents the recommended Capital Improvement Program (CIP) for the City's existing and future (2025 and buildout) potable water system and proposed future (2025 and buildout) recycled water system to support the City's projected buildout potable water and recycled water demands, respectively. These costs are summarized in Table ES-4. A detailed breakdown of the costs is provided in Chapter 10.

Costs exclude non-backbone facilities that only serve a specific development, as costs associated with those facilities will be borne solely by the corresponding developers. Table ES-4 only includes costs for program facilities.

Table ES-4. Summary of Probable Construction Costs for Recommended Potable and Recycled Water System Improvements[a]

Recommended Improvements	CIP Cost (includes mark-ups)[b,c]
Potable Water System	
Existing Potable Water System CIP (see Table 10-1)	$1,960,000
2025 Potable Water System CIP (see Table 10-2)	$21,988,000
Buildout Potable Water System CIP (see Table 10-3)[d]	$211,916,000
Previous Water Treatment Plant Expansion Buy-in Cost[e]	$27,000,000
Total Potable Water System CIP	**$262,864,000**
Recycled Water System	
2025 Recycled Water System CIP (see Table 10-4)	$27,924,000
Buildout Recycled Water System CIP (see Table 10-5)	$65,528,000
Total Recycled Water System CIP	**$93,452,000**

(a) Includes only costs for program facilities; improvements benefiting only specific developments are excluded.
(b) Estimated construction costs do not reflect an adjustment to account for the current economic bidding climate.
(c) CIP cost includes mark-ups equal to 40 percent (General Contingency: 15 percent; Design and Planning: 10 percent; Construction Management: 10 percent; and Program Administration: 5 percent) and are based on 2020 dollars.
(d) Includes cost for participation in Phase 2 Los Vaqueros Reservoir Expansion Project and the B.F. Sisk Dam Raise & Reservoir Expansion Project which is to be shared between existing rate payers and new development.
(e) The JJWTP was last expanded in 2008. The cost presented in this line item represents the buy-in cost for the portion of the expanded capacity to be utilized by new developments (estimated to be 9 mgd). The cost for the recommended additional 10 mgd expansion of the JJWTP is included in the Buildout Potable Water System CIP (see Table 10-3).

CHAPTER 1
Introduction

1.1 CITYWIDE WATER SYSTEM MASTER PLAN UPDATE PURPOSE

The purpose of this Citywide Water System Master Plan Update for the City of Tracy (City) is to provide an evaluation of the required backbone potable water and recycled water system facilities required to serve existing and future needs. The City's last Citywide Water System Master Plan was completed in 2012 and was based on projected land uses included in the City's 2011 General Plan. Since that time, significant new residential and commercial development has occurred in the City (including the International Park of Commerce within the Cordes Ranch Specific Plan area, Tracy Ellis, Tracy Hills and numerous smaller projects) and planning for future developments has been refined. Also, during that same time, the State endured five years of drought starting in 2012, including the driest four consecutive years in California history. These unprecedented conditions led to statewide mandated water conservation, significant surface water supply reductions and curtailments and legislation establishing new water efficiency standards.

All of these factors have led to a need to reevaluate the City's potable water and recycled water needs, the projected availability and reliability of the City's water supplies and the required water system infrastructure improvements to ensure a safe and reliable water supply for the City's residents and businesses.

1.2 WATER MASTER PLAN OBJECTIVES

The objectives of this Citywide Water System Master Plan Update are to:

- Evaluate existing water demands to understand current water use patterns and trends and project future water demands for near-term (2025), future (2040) and General Plan buildout conditions.
- Provide an updated evaluation of the availability and reliability of the City's existing and future water supplies and their ability to meet existing and future water demands considering recent changes in projected supply reliability.
- Review and refine performance and operational criteria under which the potable and recycled water systems will be analyzed and recommendations for future facilities will be formulated.
- Evaluate the need for new backbone potable water facilities (including pipelines, storage facilities and pumping facilities) to serve buildout of the City's General Plan.
- Evaluate the need for new backbone recycled water facilities (including pipelines, storage facilities and pumping facilities) to serve buildout of the City's General Plan.
- Develop a capital improvement program for recommended potable and recycled water system facilities.

1.3 KEY CHANGES FROM THE 2012 CITYWIDE WATER SYSTEM MASTER PLAN

This Cityside Water System Master Plan Update incorporates and considers several changed conditions, new water system facilities, and new water supply opportunities from what was included in the 2012 Citywide Water System Master Plan (WSMP). A summary of these is provided below:

- Changes in Projected Land Use: Compared to the projected land use in 2012 Citywide Water System Master Plan, there has been a significant shift in the City's projected land use composition towards residential development and away from commercial and industrial development. However, when compared to the City's historical and existing land uses, which were primarily residential, the projected land uses for new development are more heavily skewed to non-residential uses (with almost 60 percent of the projected acres of new development being non-residential uses). The future industrial, commercial, and retail growth anticipated in the City's Sphere of Influence is reflective of the City's goal to bring jobs and economic growth and improve the City's jobs-housing balance (see Chapter 3 for additional information).
- Reduction in Unit Water Demands: Due to changes in water use trends and habits resulting from improved water use efficiency, unit water demand factors have been reduced for most land use categories (see Chapter 4 for additional information).
- Reduction in Maximum Day and Peak Hour Demand Factors: Due to changes in water use trends and habits from improved water use efficiency, maximum day and peak hour demand factors have been reduced (see Chapter 4 for additional information).
- Changes in Recycled Water System Planning: Previously, the City was considering implementing the proposed Gateway Exchange Program, under which recycled water service would be extended to most of the existing parks and large irrigated areas in the City to offset the potable water demands from the Gateway development (now called Westside). The Gateway Exchange Program is no longer being considered, and it is projected that only a few existing parks and irrigated areas will receive recycled water supply. Expansion of the recycled water system will focus on extending service to newly developed areas (see Chapters 4 and 9 for additional information).
- Reduction in Surface Water Supply Reliability: Due to unprecedented drought conditions from 2011 through 2017 and new flow restrictions resulting from the 2018 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, projected reliabilities of surface water supplies from the Central Valley Project (CVP) and South San Joaquin Irrigation District (SSJID) have been significantly reduced, particularly in dry years. The City has entered into discussions with the Contra Costa Water District and the San Luis & Delta-Mendota Water Authority to explore the City's potential participation in the Phase 2 Los Vaqueros Reservoir Expansion Project to increase the City's water supply reliability by providing storage of supplies for use in dry years (see Chapter 5 for additional information).

- Proposed Recycled Water Exchange Agreement: The City is evaluating the potential for indirect reuse of its available recycled water through an exchange agreement with the United States Bureau of Reclamation (USBR) whereby a portion of the City's tertiary-treated wastewater (recycled water) would be discharged to the Delta Mendota Canal (DMC) and a like amount of water (i.e., a one-to-one exchange) could then be diverted from the DMC by the City for treatment at the City's John Jones Water Treatment Plant (JJWTP) for potable use. Such supplies would be 100 percent reliable and would not be subject to drought cutbacks. With the potential reduction in reliability of the City's surface water supplies from the CVP and SSJID during dry years, this proposed recycled water exchange agreement will be a critical component of the City's future water supply portfolio (see Chapter 5 for additional information).
- Reduction in Emergency Storage Requirement: The 2012 WSMP used an emergency storage volume requirement of two (2) times the average day demand. After reviewing emergency storage criteria for other similar water systems within the region, and taking into account the City's redundant sources of supply (CVP, SSJID, and groundwater), it is recommended that the City reduce the minimum quantity of emergency storage volume required to 1.5 times the average day demand for this Citywide WSMP Water System Master Plan Update (see Chapter 6 for additional information).
- Addition of New Water System Facilities: Several new water system facilities have been recently completed which provide for added water system capabilities. These include the Cordes water storage tank and pump station, the Tracy Hills water storage tank and pump station (nearing completion as of September 2021), new pump stations at the City's JJWTP to serve the City's Pressure Zone 3 and initial phases of the Tracy Hills development, and a recycled water pump station and pipeline on the west side of the City to distribute recycled water supplies from the City's Wastewater Treatment Plant to recycled water users on the western side of the City (see Chapters 7 and 9 for additional information).
- Renaming of Potable Water Pressure Zones: To minimize confusion when referring to the City's primary potable water system pressure zones, the potable water system pressure zones have been renamed as follows:
  - Pressure Zone 1 – no change
  - Pressure Zone 2 – no change
  - City-side Pressure Zone 3 – now referred to as Pressure Zone 3
  - Tracy Hills Pressure Zone 3 – now referred to as Pressure Zone 4
  - Tracy Hills Pressure Zone 4 – now referred to as Pressure Zone 5
  - Tracy Hills Pressure Zone 5 – now referred to as Pressure Zone 6

  The remainder of this Citywide Water System Master Plan Update, and all subsequent water system evaluations and studies, will utilize these new pressure zone designations.

1.4 REPORT ORGANIZATION

This Citywide Water System Master Plan Update is organized into the following chapters:

Chapter 1:	Introduction
Chapter 2:	Water Supply and Infrastructure System Objectives, Goals and Recommendations
Chapter 3:	Land Use Assumptions
Chapter 4:	Existing and Future Water Demands
Chapter 5:	Existing and Future Water Supplies
Chapter 6:	System Performance and Operational Criteria
Chapter 7:	Existing Potable Water System Evaluation
Chapter 8:	Future Potable Water System Evaluation
Chapter 9:	Recycled Water System Evaluation
Chapter 10:	Recommended Capital Improvement Program

The following appendices to this Citywide Water System Master Plan Update contain additional technical information, assumptions and calculations:

Appendix A:	Land Use Assumptions and Projected Water Demands for New Developments
Appendix B:	JJWTP Expansion Project Site Plan, Process Schematic, and Hydraulic Profile
Appendix C:	Existing Potable Water System Hydraulic Grade Schematic
Appendix D:	Lammers Road and Hood Way Design Recommendation Technical Memoranda
Appendix E:	Cost Estimating Assumptions
Appendix F:	Proposed Future Potable Water System Facility Improvements
Appendix G:	Proposed Future Recycled Water System Facility Improvements

1.5 ACKNOWLEDGEMENTS

The development of this Citywide Water System Master Plan Update would not have been possible without the focused involvement and assistance of City staff. In particular, the following staff provided comprehensive information, significant input and important insights throughout development of this Citywide Water System Master Plan Update:

- Robert Armijo, City Engineer/Assistant Director of Development Services
- Steve Bayley, Project Specialist
- Wayne Bogart, Public Works Superintendent
- Aleck Cheney, Engineer
- Veronica Child, Management Analyst II
- Bill Dean, Assistant Director of Development Services
- Lea Emmons, Water Treatment Plant Superintendent
- Vicki Lombardo, Senior Planner
- Ilene Macintire, Associate Civil Engineer
- Andrew Malik, Director of Development Services
- Stephanie Reyna-Hiestand, Water Resources Analyst
- Lemar Saffi, Assistant Engineer
- Karin Schnaider, Director of Finance
- Don Scholl, Director of Public Works
- Kul Sharma, Director of Utilities
- Paul Verma, Senior Civil Engineer
  (Project Manager for the Citywide Water System Master Plan Update)
- Thomas Ward, Construction Inspector

CHAPTER 2
Water Supply and Infrastructure System Objectives, Goals, and Recommendations

2.1 OVERVIEW

The recent California drought conditions, environmental restrictions in the San Joaquin Delta, increasing population, and limited water resources are serious problems affecting water agencies statewide. Many water agencies have adopted ordinances and taken other measures to ensure a reliable water supply for their customers. Unfortunately, the challenge of sustaining a water supply for future generations is becoming more and more challenging each year.

This chapter presents an overview of the City's water supply and infrastructure system objectives and goals, describes existing policies, and provides recommendations for future measures to help the City meet those objectives and goals.

2.2 OVERALL WATER SYSTEM OBJECTIVES AND GOALS

This Citywide Water System Master Plan Update has been prepared based on the following overall water system objectives and goals:

- Ensure safe, adequate and reliable water supplies for the City's existing and future residents and businesses.
- Support the goals, objectives and policies of the City's General Plan, particularly those contained in the Public Facilities and Services Element.
- Comply with existing and future legislation and regulations for both potable and non-potable (recycled) water supplies including, but not limited to, the following:
  - Support the City's compliance with legislation related to reducing greenhouse gases (Assembly Bill (AB) 32[1] and Senate Bill (SB) 375[2]) by improving the efficiency of water system facility operations when feasible.
  - Comply with the California Green Building Standards Code, and other "green" building guidelines, as they relate to standards for interior and exterior water use, to promote more efficient use of the City's water supplies.

[1] AB 32 California Global Warming Solutions Act of 2006: Signed into law September 27, 2006; requires the California Air Resources Board (CARB) to develop regulations and market mechanisms that will ultimately reduce California's greenhouse gas (GHG) emissions by 25 percent (to 1990 levels) by 2020.

[2] SB 375: Signed into law September 30, 2008; requires each metropolitan region to adopt a "sustainable community strategy" (SCS) in its regional transportation plans to encourage compact development that aligns with regional GHG emissions reduction targets set by the CARB; enhances the CARB's ability to reach AB 32 goals; intended to promote more environmentally-friendly communities, more sustainable developments, less time people spend in their cars, and more alternative transportation options.

- Comply with the Water Conservation Act of 2009 (SB X7-7) which was passed in November 2009 to increase water use efficiency by reducing per capita water use statewide with a goal to increase the sustainability and extend the longevity of the City's existing water supplies. Per SB X7-7, the City's adopted per capita water use targets are 204 gallons per capita per day (gpcd) (2015 interim target) and 181 gpcd (2020 final target). The City's per capita water use in 2015 was 142 gpcd, which was well below the City's 2015 interim target. The City's per capita water use in 2020 was 181 gpcd, equal to the City's 2020 final target. Additional discussion on the City's per capita water use and compliance with SB X7-7 is provided in Chapter 4.
- Comply with the Sustainable Groundwater Management Act (SGMA) which became effective in January 2015 with the passage of comprehensive groundwater legislation contained in SBs 1168 and 1319, and AB 1739. The legislative intent of SGMA is to provide sustainable management of groundwater basins, enhance local management of groundwater, establish minimum standards for sustainable groundwater management, and provide local groundwater agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater. Discussion on the City's compliance activities related to SGMA is provided in Chapter 5.
- Comply with SB 606 and AB 1668 which were passed in May 2018 and established new statewide water use efficiency standards for indoor residential water use, outdoor residential water use, commercial, industrial and institutional irrigation of landscaped areas and distribution system water loss. A primer entitled "Making Water Conservation a California Way of Life" was developed to be a reference document for the implementation of the complex 2018 legislation. Discussion on the City's compliance with SB 606 and AB 1668 is provided in Chapter 4.

The following sections of this chapter describe the City's existing policies and recommended measures for water conservation, recycled and non-potable water, and water system facility operations, to help meet these overall water system objectives and goals.

2.3 CITY OF TRACY WATER CONSERVATION PROGRAMS

2.3.1 Existing Water Conservation Programs

The City has an on-going water conservation program that includes residential surveys, public and school education programs, rebates for water-efficient appliances and other specific programs. These programs have been successful in reducing water use, especially during the recent drought. In the late 1980's and early 1990's, the City's overall per capita water use was about 300 gpcd. However, since the late 1990's, the City's overall per capita water use has been significantly reduced. Since 2008, the City's average overall per capita water use has been 170 gpcd.

In 2015 and 2016, which were dry years, and years in which overall water demands were affected by water conservation measures and water use restrictions, the City's per capita water use dropped to 142 and 146 gpcd, respectively.

The City also has a Water Shortage Contingency Plan (WSCP) which was originally developed in 1992. The City's WSCP was updated in June 2015 to incorporate mandatory prohibitions on water use required by State Water Resources Control Board (SWRCB), and again updated in early 2021 in conjunction with the City's 2020 Urban Water Management Plan (UWMP) based on new requirements for WSCPs. The WSCP includes mandatory water use prohibitions and restrictions which are always in effect, triggers for implementation of various stages of the WSCP based on various water supply shortage scenarios, and specific water use restrictions for each stage of the WSCP, which are intended to reduce the City's water demand by up to 50 percent and greater than 50 percent in the event of a water supply emergency or a drought condition. Water use restrictions in each stage of the WSCP become increasingly restrictive as needed to reduce the City's water demand.

The City's current WSCP is included in Section 8 of the City's 2020 UWMP. The Tracy Municipal Code (Chapter 11.28 Water Management, Article 5 Drought and Other Water Emergency and Article 6 Water Conservation and Rationing Plan, Water Emergency Plan, Variances and Appeals) will be updated in late 2021 to be consistent with the latest updates to the WSCP.

2.3.2 Water Efficient Landscape Ordinance

About half of the urban water is used for landscape irrigation in California. Large water savings can be gained by efficient landscape design, installation, and maintenance. New development and retrofitted landscape water efficiency standards are governed by the State Model Water Efficient Landscape Ordinance (MWELO) which is codified in the California Code of Regulations Title 23 Waters, Division 2 Department of Water Resources, Chapter 2.7 Model Water Efficient Landscape Ordinance. All agencies must adopt, implement, and enforce the MWELO or a more stringent ordinance. The City has adopted MWELO and it is included in the Tracy Municipal Code Chapter 11.28 Water Management, Article 8 Water Efficient Landscape Ordinance.

Key components of MWELO include requirements for the following:

- Landscape design plans (e.g., plant selection, slopes, guidelines for water features, etc.)
- Irrigation design plans (e.g., separate meters for large landscape areas, automatic irrigation controllers utilizing evapotranspiration or soil moisture sensor data, use of rain sensors, etc.)
- Grading design plans (e.g., erosion and runoff protection)
- Irrigation scheduling and the development of a maximum applied water allowance (e.g., allowable water days and times, landscape water budgets, etc.)
- Landscape and irrigation maintenance scheduling
- Irrigation audits, irrigation surveys and irrigation water use analysis
- Use of recycled water (e.g., landscape irrigation, decorative water features)

2.4 RECYCLED AND NON-POTABLE WATER ORDINANCE

In 2002, the City adopted a Recycled and Non-Potable Water Ordinance which established the policy that recycled water may be used for non-potable uses within the City's designated recycled water use areas (as defined in the Tracy Municipal Code in Chapter 11.30 Recycled and Non-Potable Water). Specific provisions include the following:

> *11.30.030 (b) Each subdivision for which a tentative map or parcel map is required under Government Code section 66426 and located within designated recycled water use areas is required to install a recycled water distribution system to provide recycled water to the common areas[3] of the subdivision and for any industrial cooling or processing uses in the subdivision.*

The intent of this existing City policy is to require new development to use recycled water for landscape irrigation on professionally managed and maintained landscapes located within the City, such as golf courses, parks, greenbelts, and landscaped streets and medians, and for any applicable industrial cooling or processing purposes. This applies to all land use designations within the City's General Plan including, but not limited to, residential, commercial, industrial, and institutional. The only exception is landscaped areas within residential land uses which are maintained by private homeowners (e.g., private backyards or front yards which are not considered common areas); recycled water will not be required for landscape irrigation in these privately maintained areas.

To further encourage and expand the future use of recycled and/or non-potable water within the City, the following additional measures should be considered:

- Require the use of recycled or non-potable water for all decorative water features and artificial lakes.
- Require that existing large, landscaped areas currently irrigated with potable water supplies, such as City parks and sports fields, be converted to recycled or non-potable water use as opportunities for construction of recycled or non-potable water facilities to serve these existing areas occur .

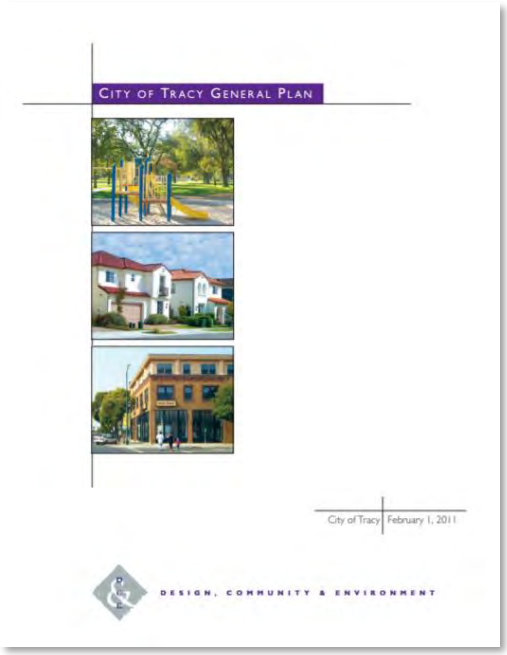
[3] "Common areas" shall include, but not be limited to, golf courses, parks, greenbelts, landscaped streets, and landscaped medians.

- Require that existing facilities with evaporative cooling systems and other industrial cooling processes currently using potable water supplies be converted to recycled or non-potable water use as opportunities for construction of recycled or non-potable water facilities to serve these existing areas occur.

As described further in Chapters 4, 5, and 9, the City has begun construction of a recycled water distribution system to deliver recycled water supplies to designated use areas.

2.5 CITY OF TRACY GENERAL PLAN WATER SERVICE GOALS, OBJECTIVES AND POLICIES

The City's General Plan, last updated in 2011, includes a Public Facilities and Services Element that provides information and policy guidance to ensure provision of facilities and services that will support existing and new development in the City. It addresses the changing public services and infrastructure needs of Tracy and provides for their logical and timely extension to keep pace with growth. Policies supporting well-maintained infrastructure are essential to achieve broader development objectives and support the future envisioned by the residents of Tracy. Specific goals, objectives and policies for water services are included in the Public Facilities and Services Element.



The General Plan goal for the City's water service is to provide "adequate supplies of water for all types of users" (General Plan Goal PF-6). Specific General Plan objectives and policies associated with this goal are summarized in Table 2-1.

Table 2-1. City of Tracy General Plan Objectives and Policies for Water Service

Objectives	Policies
Objective PF-6.1 Ensure that reliable water supply can be provided within the City's service area, even during drought conditions, while protecting the natural environment.	P1. The City shall promote water conservation by implementing the Best Management Practices contained in the UWMP. P2. The City shall continue to acquire additional sources of water supplies to meet the City's future demands. P3. To the extent feasible, the City shall use surface water supplies to meet daily water needs and reduce reliance on groundwater supplies. P4. The City shall establish water demand reduction standards for new development and redevelopment to reduce per capita and total demand for water.
Objective PF-6.2 Provide adequate water infrastructure facilities to meet current and future populations.	P1. The City shall maintain water storage, conveyance and treatment infrastructure in good working condition in order to supply domestic water to all users with adequate quantities, flows and pressures. P2. Storage reservoirs should be buried or partially buried depending on local groundwater conditions to allow for the joint use of the site with parks or recreational facilities, unless reservoirs are elevated to provide a gravity flow system, in which case the reservoirs shall be screened by landscaping and/or earthen berms.
Objective PF-6.3 Promote coordination between land use planning and water facilities and service.	P1. Structures with plumbing that are located within the City limits shall connect to the City water supply system. P2. New developments shall dedicate land for utility infrastructure such as treatment facilities, tanks, pump stations and wells as needed to support the development of their project. P3. The City shall be responsible for constructing new transmission water lines, as needed to meet future needs. Individual development projects shall be responsible for the construction of all water transmission means. P4. All new water facilities shall be designed to accommodate expected capacity for buildout of areas served by these facilities but may be constructed in phases to reduce initial and overall costs. P5. The availability of sufficient, reliable water shall be taken into account when considering the approval of new development. P6. Costs for water service expansion shall be distributed among new water users fairly and equitably.
Objective PF-6.4 Design and manage water system facilities for reliability during catastrophic events such as fires, power outages, droughts and earthquakes.	P1. Groundwater supplies should be reserved for emergency use during water treatment shutdowns, short-term shortages of surface water supplies or during droughts. P2. Backup emergency power systems shall be provided at all essential water facilities that rely on electric power. P3. Storage reservoir facilities should be located at naturally high topographic locations to capitalize on gravity flow, whenever possible. P4. Future water systems and facilities shall be designed to minimize the likelihood of damage from vandalism or terrorist activity.
Objective PF-6.5 Use recycled water to reduce non-potable water demands whenever practicable and feasible.	P1. The City shall provide recycled water systems, including pipelines, pump stations and storage facilities, to serve primarily City-owned facilities, schools and parks as funding becomes available. P2. Recycled water piping systems ("purple pipe") shall be constructed as appropriate in all new development projects to facilitate the distribution and use of recycled water. The specific location and size of the recycled water systems shall be determined during the development review process. P3. Recycled water shall be used for all public properties and large private open spaces or common areas to the extent feasible. P4. The City shall plan for recycled water infrastructure in the City's Infrastructure Master Plans and, to the extent feasible, recycled water should be utilized for non-potable uses, such as landscape irrigation, dust control, industrial uses, cooling water and irrigation of agricultural lands.

2.6 COMPLIANCE WITH CALIFORNIA GREEN BUILDING STANDARDS CODE

The California Green Building Standards Code, also known as CALGreen, was the first-in-the-nation mandatory green building standards code. In 2007, the California Building Standards Commission (CBSC) developed green building standards in an effort to meet the goals of California's landmark initiative AB 32 California Global Warming Solutions Act of 2006, which established a comprehensive program of cost-effective reductions of GHG to 1990 levels by 2020.

The 2008 CALGreen Code was first published in Part 11 of California's Title 24 Code and became effective on August 1, 2009. It included primarily voluntary green building standards for non-residential buildings, and mandatory standards for low-rise residential buildings. The 2010 CALGreen Code established mandatory and voluntary provisions for residential and non-residential construction. The 2016 CALGreen Code and later code supplements updated these provisions with an effective date of July 1, 2018. The 2019 CALGreen Code was published July 1, 2019 with an effective date of January 1, 2020.

The City adopted the 2019 CALGreen Code on November 19, 2019.

The key mandatory provisions of CALGreen are as follows:

- Residential Mandatory Measures:
  - Reduce indoor potable water use by installing ultra-low-flow fixtures and appliances (e.g., 1.8 gallons per minute (gpm) showerheads, 1.8 gpm kitchen faucets, 1.28 gallons/flush toilets, 0.125 gallons/flush wall-mounted urinals).
  - Residential developments with a total landscape area equal to or greater than 500 square feet shall establish landscape irrigation water budgets which conform to the local water efficient landscaping ordinance or to the State MWELO where no local ordinance is applicable.
  - Newly constructed residential developments may be required to have recycled water supply systems installed where disinfected tertiary recycled water is available from a municipal source.
- Non-Residential Mandatory Measures:
  - For buildings in excess of 50,000 square feet, provide separate submeters for each individual leased, rented or other tenant space within the building projected to consume more than 100 gallons per day.
  - Reduce indoor potable water use by 20 percent by installing ultra-low-flow fixtures and appliances (e.g., 1.8 gpm showerheads, 1.8 gpm kitchen faucets, 1.28 gallons/flush toilets, and 0.125 gallons/flush wall-mounted urinals).
  - Establish landscape irrigation water budgets which conform to the local water efficient landscaping ordinance or to the State's MWELO where no local ordinance is applicable.

— Newly constructed non-residential developments are required to have a recycled water supply system installed where a disinfected tertiary recycled water supply pipeline from a municipal source is within 300 feet of the construction site boundary.

Voluntary measures included in the CALGreen Code include further reductions in indoor water use in both residential and non-residential buildings, installation of low-water consumption irrigation systems, installation of rainwater systems, installation of graywater systems, landscaping with noninvasive species, and installation of dual plumbing systems.

2.7 RECOMMENDATIONS FOR NEW DEVELOPMENT AND NEW WATER SYSTEM FACILITIES

In addition to the various guidelines described above, and to allow the City to meet its water conservation goals and maintain the long-term sustainability of its water resources, the following recommendations should be considered for new development projects and new water system facilities in the City:

- Require new development projects to offset or mitigate its water demands if demands exceed those accounted for in the Citywide Water System Master Plan Update based on buildout of the City's adopted General Plan. The offset or mitigation may be achieved by reducing the water demands within the project (through the implementation of water conservation measures and/or incorporation of recycled water use) and/or participating in a project to reduce potable water demands in another portion of the City to offset the potable water demands of the proposed project.
- Establish designated utility corridors within new development areas to be within public rights-of-way to minimize or eliminate the need for utility easements within private property.
- Install solar power systems, or alternative power sources, at existing and new pump stations and other water system facilities, as feasible, to reduce electrical power consumption.
- Increase the frequency of routine operations and maintenance (O&M) activities for existing pump stations and wells to maintain pump efficiencies and reduce power demands.

2.8 PRINCIPLES FOR SUSTAINABLE INFRASTRUCTURE IN THE CITY OF TRACY

In November 2009, the City developed a list of principles for sustainable infrastructure for use in developing its 2012 Infrastructure Master Plans[4]. Principles were developed for storm drainage, water, wastewater, recycled water, and roadways and transportation and, for the most part, remain applicable for this Citywide Water System Master Plan Update.

The principles related to water infrastructure are summarized as follows:

- Energy efficient design and control systems should be used in all new facilities to minimize power consumption. Look for opportunities to use solar generation facilities.
- Promote and encourage, where feasible, the use of recycled water for non-potable uses in existing and future public landscaped areas.
- Establish and adopt interior and exterior water conservation requirements which are consistent with recommended State guidelines, to the degree possible.
- Require existing City customers to participate in water conservation activities that will enable the City to meet or exceed statewide water conservation requirements.
- Create a water rate structure that supports and provides incentives for water conservation.
- Encourage and create incentives to convert high water use outdoor landscaping to more drought-resistant plantings to facilitate water conservation among existing water users.

As applicable, these sustainability principles are incorporated into this Citywide Water System Master Plan Update as described in the following chapters.

[4] See Chapter 2 and Appendix A of the 2012 Citywide Water System Master Plan.

CHAPTER 3
Land Use Assumptions

3.1 OVERVIEW

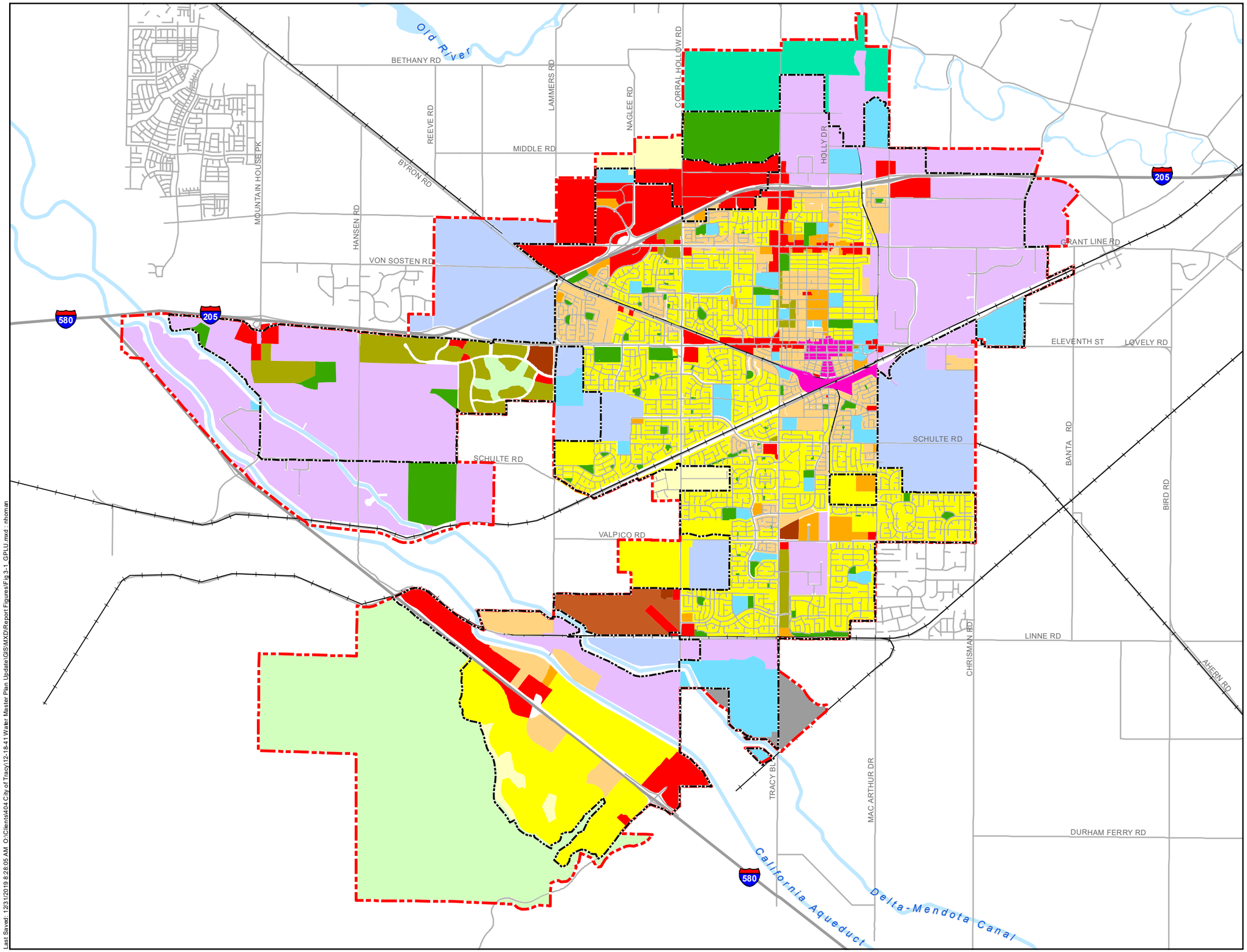
The purpose of this Citywide Water System Master Plan Update is to evaluate the required potable water and recycled water infrastructure to serve buildout of the City's General Plan and Sphere of Influence (SOI). In this Citywide Water System Master Plan Update, the term "buildout" is used to refer to full development of approved projects, additional planned developments, and miscellaneous infill, as identified by the City's Planning Division. However, as it is unclear when buildout will actually occur, no specific year is identified for the buildout condition. Two interim time frames are evaluated in this Citywide Water System Master Plan Update: Year 2025 (near-term) and Year 2040, to help provide prioritization of future system improvements in the period prior to buildout. The following sections present the land use assumptions for the City at 2025, 2040, and buildout time frames.

3.2 CITY OF TRACY GENERAL PLAN AND SPHERE OF INFLUENCE

The City's General Plan is the principal policy document for guiding future planning and development of the City of Tracy, including the SOI, which is the area outside of the City limits that the City expects to annex and urbanize in the future. The SOI area in the City's General Plan is about 16 square miles (existing City limits are approximately 26 square miles, for a total General Plan area of about 42 square miles). The City's most recent General Plan was adopted by City Council on February 1, 2011 and is used as the basis for the City's Infrastructure Master Plans, including this Citywide Water System Master Plan Update. Figure 3-1 illustrates the SOI boundary and the land uses included in the General Plan.

As shown on Figure 3-1, some of the areas outside of the City limits, but within the SOI, are designated as Urban Reserve. Proposed future development within these Urban Reserve areas includes a variety of land uses, such as Residential, Commercial, and Industrial.

Due to the nature of the planning and development process, actual development within the SOI may not conform to the planned land uses shown in the General Plan. Where available, more recent land use data from the City's Planning Division, specific plans, and other available planning documents were used preferentially over the General Plan land uses.



N

0 2,500 5,000

Scale in Feet

Symbology

- City Limits
- Sphere of Influence

General Plan Land Use

- Residential Very Low
- Residential Low
- Residential Medium
- Residential High
- Traditional Residential - Ellis
- Commercial
- Office
- Industrial
- Downtown
- Village Center
- Public Facilities
- Park
- Open Space
- Agriculture
- Aggregate
- Urban Reserve

Notes:
1. General Plan land use GIS file recieved from the City on April 5, 2018.

TRACY

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Figure 3-1

General Plan Land Use

City of Tracy
Water System Master Plan Update

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3.3 EXISTING AND PLANNED DEVELOPMENT OF THE CITY'S SPHERE OF INFLUENCE

Development of the City's SOI will include the following land use components:

- Existing developed land uses within the City limits
- Approved projects
- Additional planned development
- Miscellaneous infill located in existing developed areas
- Annexation of the Mountain View area

Each of these land use components is discussed in more detail below.

3.3.1 Existing Developed Land Uses

Existing developed land use within the City consists primarily of low-density residential land use. With some exceptions, existing developed land use within the City limits conforms to the General Plan. Water demands from the existing developed land uses will be included in the future water demand projections.

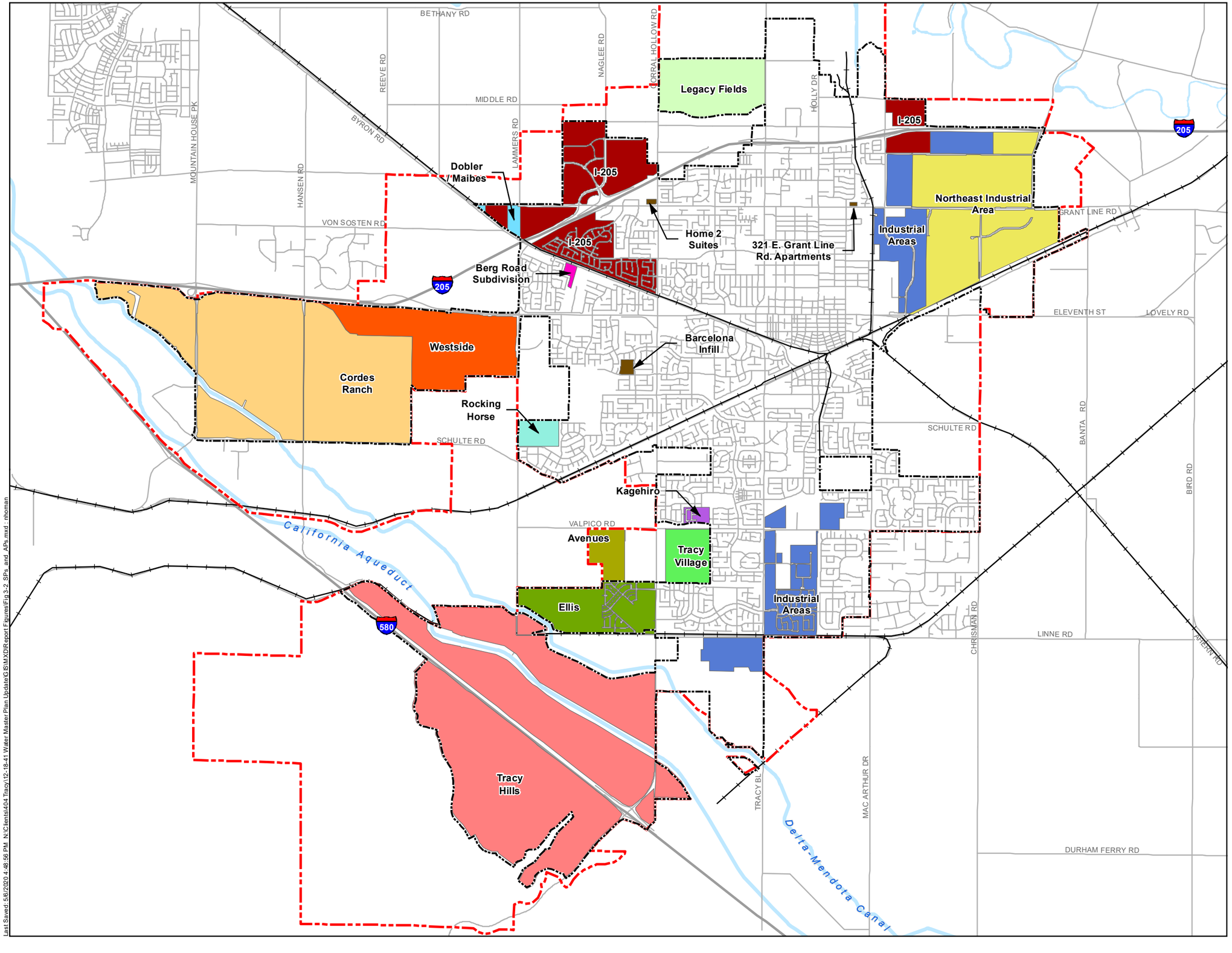
3.3.2 Approved Projects

Approved projects are developments which are far along in the planning process. Future land use can be projected with greater certainty in these areas due to available tentative maps, Environmental Impact Reports (EIRs), hydraulic evaluations, or other planning documents which have been prepared for these developments. Figure 3-2 shows the location of the approved projects in the City.

Table 3-1 summarizes the approved projects in the City. Many of the areas listed in Table 3-1 are partially developed, including the Cordes Ranch, Ellis, and Tracy Hills Specific Plan areas, which have ongoing and rapid development occurring within them.

As discussed in Chapter 4, water demands for the developed portions of these projects are included in the City's existing water demands[1]. Land use data regarding the number of residential dwelling units and non-residential acres remaining to be developed within each of these approved projects were obtained from the data sources listed in Table 3-1. This data was then used to estimate the anticipated additional future water demands associated with completion of these specific plans and projects, which are included in the future water demand projections.

[1] Water meter billing data from 2017 were used as the basis for the existing water system. Land use for development which occurred after 2017 is presented as future land use in this Water System Master Plan Update.



Symbology

- City Limits
- Sphere of Influence

Specific Plans

- I-205 Corridor
- Industrial Areas
- Northeast Industrial Area
- Avenues
- Cordes Ranch
- Ellis
- Tracy Hills
- Tracy Village
- Westside

Other Approved Projects

- Berg Road Subdivision
- Dobler / Maibes
- Kagehiro
- Rocking Horse
- Legacy Fields
- Small Approved Projects

Notes:
1. Dobler / Maibes is part of the I-205 Specific Plan area, but is accounted for separately in this WSMP.

TRACY

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Figure 3-2

Approved Projects

City of Tracy
Water System Master Plan Update

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Table 3-1. Summary of Approved Projects

Project Name	Primary Planning Document(s)	Source(s) of Land Use Data Used
I-205 Corridor Specific Plan	Specific Plan dated February 1991	Previous hydraulic evaluations[(a)]; Data from Planning Division[(b)]
Industrial Areas Specific Plan (North and South)	Specific Plan dated June 1988; major Specific Plan amendment dated 1999	Data from Planning Division[(b)]
Northeast Industrial Specific Plan (Phases 1, 2, and 3)	Specific Plan dated July 2012	Hydraulic Evaluation of Northeast Industrial Area (NEI) Specific Plan, West Yost Associates, September 2018
Avenues Specific Plan	Specific Plan dated May 2018	Hydraulic Evaluation of Avenues Specific Plan, West Yost Associates, April 2018
Cordes Ranch Specific Plan	Specific Plan dated September 2013	Previous hydraulic evaluations[(c)]; Data from Planning Division[(b)]
Ellis Specific Plan	Specific Plan dated January 2013	Hydraulic Evaluation of Ellis Specific Plan Phase 2 - The Gardens, West Yost Associates, December 2016; Hydraulic Evaluation of Ellis Specific Plan Phase 3 - Draft TM, West Yost Associates, July 2019
Tracy Hills Specific Plan	Specific Plan dated April 2016	Peer Review and Hydraulic Evaluation for Tracy Hills Phase 1B and 1C, West Yost Associates, May 2020; Data from Planning Division[(b)]
Tracy Village Specific Plan	Specific Plan dated May 2018	Hydraulic Evaluation of Tracy Village Specific Plan, West Yost Associates, February 2018
Westside Specific Plan	Specific Plan area was previously included in the Gateway Specific Plan; Draft EIR is currently being prepared for the Westside Specific Plan	Preliminary tables from Draft EIR
Berg Road Subdivision	-	Berg Road Properties Development Water Distribution System Analysis, Black Water, January 2016
Dobler / Maibes[(d)]	Included in the I-205 Corridor Specific Plan	Data from Planning Division[(b)]
Kagehiro	-	Data from Planning Division[(e)]
Rocking Horse	Initial Study and Mitigated Negative Declaration dated December 2015	Hydraulic Evaluation of South Lammers Road Development, West Yost Associates, May 2015
Legacy Fields (Holly Sugar Sports Park)	Final EIR dated June 2010	2013 City of Tracy Parks Master Plan
Small Approved Projects[(f)]	-	Previous hydraulic evaluations

(a) Land use data from previous hydraulic evaluations was used for the following development projects within the I-205 Corridor Specific Plan area: Sierra Hills, Grant Line Road Apartments, Aspire II, and Harvest.

(b) *Land Uses with TAZ Estimates_06_25_2021_2025_2040_BU_Independent.xlsx*, received from the City on June 25, 2021.

(c) Hydraulic Evaluation of International Park of Commerce (IPC) Buildings 3, 4, and 12, West Yost Associates, May 2017; Hydraulic Evaluation of International Park of Commerce (IPC) Building 25, West Yost Associates, July 2017; Hydraulic Evaluation of International Park of Commerce (IPC) Buildings 22, 23, and Thermo Fisher, West Yost Associates, October 2017; Hydraulic Evaluation of International Park of Commerce (IPC) Buildings 9, 10, and 14, West Yost Associates, May 2018; Hydraulic Evaluation of IPC Building 19A Draft TM, West Yost Associates, August 2019.

(d) Dobler / Maibes is part of the I-205 Corridor Specific Plan area but is accounted for separately in this WSMP Update.

(e) Correspondence from City staff received on August 7, 2019.

(f) Includes Home 2 Suites, 321 E. Grant Line Road Apartments, and Barcelona Infill.

3.3.3 Additional Planned Development

In addition to the approved projects, the City has also identified many additional planned development areas within the City's SOI which will be served by the City in the future. As described above, some of these additional planned development areas are designated as Urban Reserve in the City's General Plan. Projections of future land use in these areas are less certain than those for the approved projects, as there are few, if any, planning documents available. Many of these additional planned development areas are located outside of the existing City limits. As future developments within the City's SOI, but outside the City limits, are approved, they will be annexed and served by the City. Figure 3-3 shows the locations of these additional planned development areas.

Land use projections for additional planned development areas were provided by the City's Planning Division[2]. This data was then used to estimate the anticipated additional future water demands associated with development of the additional planned development areas, which are included in the future water demand projections. The growth assumptions in this Master Plan Update are based on data from September 2021, received from the City of Tracy. They do not include the growth assumed in the City of Tracy 6th Cycle Housing Element.

3.3.4 Miscellaneous Infill Development

Vacant parcels that are not covered by any of the areas previously discussed may be developed as miscellaneous infill. Land use projections for development of miscellaneous infill parcels were provided by the City's Planning Division[2]. This data was used to estimate the anticipated additional future water demands associated with development of the infill parcels, which are included in the future water demand projections.

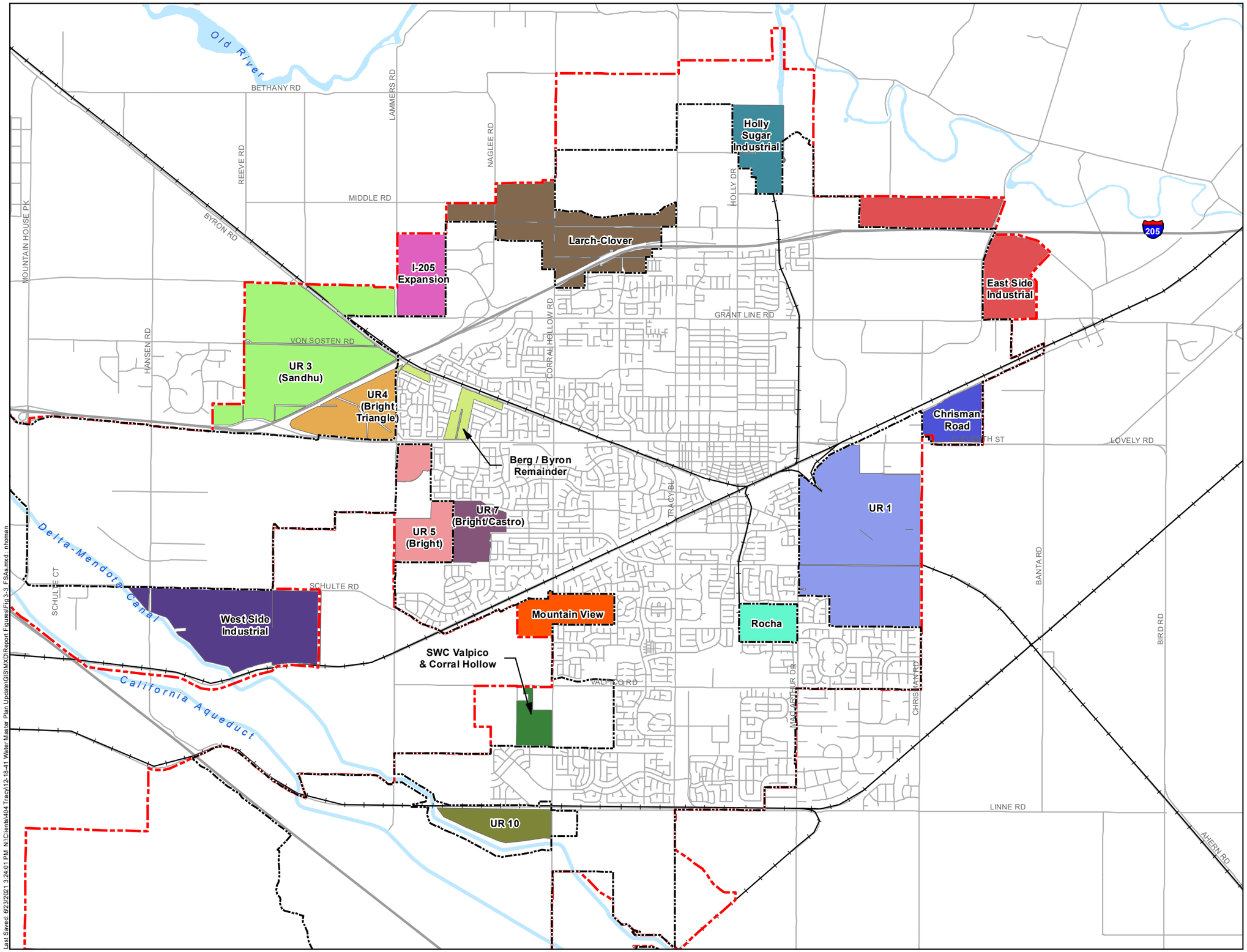
It should be noted that in more urbanized cities throughout California, there has been a recent increase in applications for Accessory Dwelling Units (ADUs), also known as guest houses or granny suites. An ADU is defined as an attached or detached residential dwelling unit built on the same parcel as an existing primary single-family dwelling, which provides complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation. Discussions with City staff acknowledge the possibility of an increase in development of ADUs in the future. However, due to the uncertainty in the timing and extent of ADU development in the City, they were not included in the future water demand projections.

3.3.5 Mountain View Annexation

As stated in the City's 2019 Municipal Service Review (MSR), the area of rural residential land use near the intersection of Mountain View Road and Corral Hollow Road may be annexed and served by the City in the future. The location of the Mountain View Annexation is shown on Figure 3-3.

Although the Mountain View area is already developed, extending water service to these homes would increase the City's water demands. Data from the MSR was used to estimate the anticipated additional future water demands associated with extending service to the Mountain View area, which are included in the future water demand projections.

[2] *Land Uses with TAZ Estimates_06_23_2021_2025_2040_BU_Independent.xlsx*, received from the City on June 25, 2021 and confirmed in September 2021.



Notes:
1. Miscellaneous Infill is not shown. It is assumed that small vacant parcels are evenly distributed throughout the central developed areas of the City.

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Figure 3-3

Additional Planned Development

City of Tracy
Water System Master Plan Update

3.4 DEVELOPMENT TIME FRAMES EVALUATED IN THIS WATER SYSTEM MASTER PLAN UPDATE

Three development time frames are evaluated in this Water System Master Plan Update:

- 2025 (Near-Term)
- 2040
- Buildout

Assumptions for each development time frame are described below. Projections for timing of development were provided by the City's Planning Division.

3.4.1 2025 (Near-Term) Development of the City's Sphere of Influence

Most of the near-term development is projected to occur in the areas covered by the approved projects discussed above. Except for the Westside Specific Plan, Avenues Specific Plan, and Dobler/Maibes projects, all of the approved projects listed in Table 3-1 are expected to begin development soon or continue developing through 2025. A small portion of the near-term development is projected to occur within the UR 7 (Bright/Castro), UR 1, Westside Industrial, Larch-Clover, and Berg/Byron Remainder development areas. In addition, approximately 44 acres of miscellaneous vacant parcels are projected to develop by 2025.

3.4.2 2040 Development of the City's Sphere of Influence

Except for the Tracy Hills Specific Plan and Cordes Ranch Specific Plan it was assumed that all of the other approved projects listed in Table 3-1 will be completely developed by 2040. Only a small portion of the Cordes Ranch Specific Plan was assumed to be developed after 2040. Significant development is projected to occur in many of the additional planned development areas by 2040; only the UR 10, UR 4 (Bright Triangle), UR 3 (Sandhu), Chrisman Road, Rocha, and SWC Valpico & Corral Hollow future service areas are projected to start development after 2040. In addition, approximately 215 acres of miscellaneous vacant parcels are projected to develop by 2040 (171 acres in addition to 2025 development).

3.4.3 Buildout Development of the City's Sphere of Influence

The remaining planning areas assumed to be developed after 2040 were assumed to be part of the buildout development of the City's SOI. In addition, it was assumed that a total of 311 acres of miscellaneous vacant parcels within the City limits will develop by buildout (91 acres in addition to 2040 development). As noted above, actual timing for full buildout of the City's SOI is uncertain as development plans continually change and the City's General Plan is periodically updated.

3.5 SUMMARY OF LAND USE PROJECTIONS

Table 3-2 presents the total projected land use to be developed in the City's SOI by the 2025, 2040, and buildout time frames. Table 3-2 does not include existing developed land within the City, unless it was developed after 2017. Refer to Appendix A for detailed land use assumptions.

Approximately 25,000 new dwelling units and 5,600 new acres of non-residential land use are projected to be developed by buildout. A direct comparison with land use projections from the 2012 WSMP is difficult, as some development has occurred between the completion of the 2012 WSMP and the preparation of this Citywide Water System Master Plan Update. In general, the projection for number of dwelling units at buildout has increased significantly since the 2012 WSMP, while the projection for non-residential acreage at buildout has decreased since the 2012 WSMP. However, when compared to the City's historical and existing land uses, which were primarily residential, the projected land uses for new development are more heavily skewed to non-residential uses (with almost 60 percent of the projected acres of new development at buildout being non-residential uses). The future industrial, commercial, and retail growth anticipated in the City's Sphere of Influence is reflective of the City's goal to bring jobs and economic growth and improve the City's jobs-housing balance.

Table 3-2. Projected Development by Time Frame within the City's Sphere of Influence[a]

Land Use Type	Total Projected New Development by 2025		Total Projected New Development by 2040[b]		Total Projected New Development at Buildout[c]	
	Dwelling Units	Gross Acres	Dwelling Units	Gross Acres	Dwelling Units	Gross Acres
Residential – Very Low Density[d]	-	-	265	223	1,292[e]	907
Residential – Low Density[d]	2,880	647	6,490	1,438	8,375	1,871
Residential – Medium Density[d]	253	49	5,444	608	8,150	902
Residential – High Density	1,591	81	3,300	181	7,033	380
Residential – Very High Density	110	3	110	3	110	3
Commercial	-	45	-	549	-	818
Office	-	1	-	115	-	256
Industrial	-	859	-	3,136	-	4,093
Institutional	-	3	-	187	-	187
Identified Parks[f]	-	139	-	280	-	280
Total	4,834	1,826	15,609	6,720	24,960	9,698

(a) Includes existing development constructed after 2017.
(b) Includes new development constructed within 2025 and 2040 time frames.
(c) Includes new development constructed within 2025, 2040, and Buildout time frames.
(d) For selected projects and development areas, it was assumed that 11.2% of the total gross acres in the very low, low, and medium density residential land use categories will develop as parks.
(e) Includes existing units from Mountain View Annexation.
(f) Includes park areas identified with the Rocking Horse, Ellis, Avenues, Tracy Hills Phase 1 and Legacy Fields developments.

CHAPTER 4
Existing and Future Water Demands

4.1 OVERVIEW

The purpose of this chapter is to present the existing potable and recycled water demands currently served by the City, as well as the projected future potable and recycled water demands for the 2025 (near-term), 2040, and buildout time frames. Any additional evaluations regarding the timing and phasing of future water demands outside of the specified time frames will be developed as part of separate evaluations and are not included in this Citywide Water System Master Plan Update.

Accurate and detailed potable and recycled water demand data and projections are required to:

1. Develop and calibrate the potable and recycled water system hydraulic models.
2. Identify deficiencies in the existing potable and recycled water systems and required improvements.
3. Assess the future water system capacity and identify improvements needed to serve proposed development.

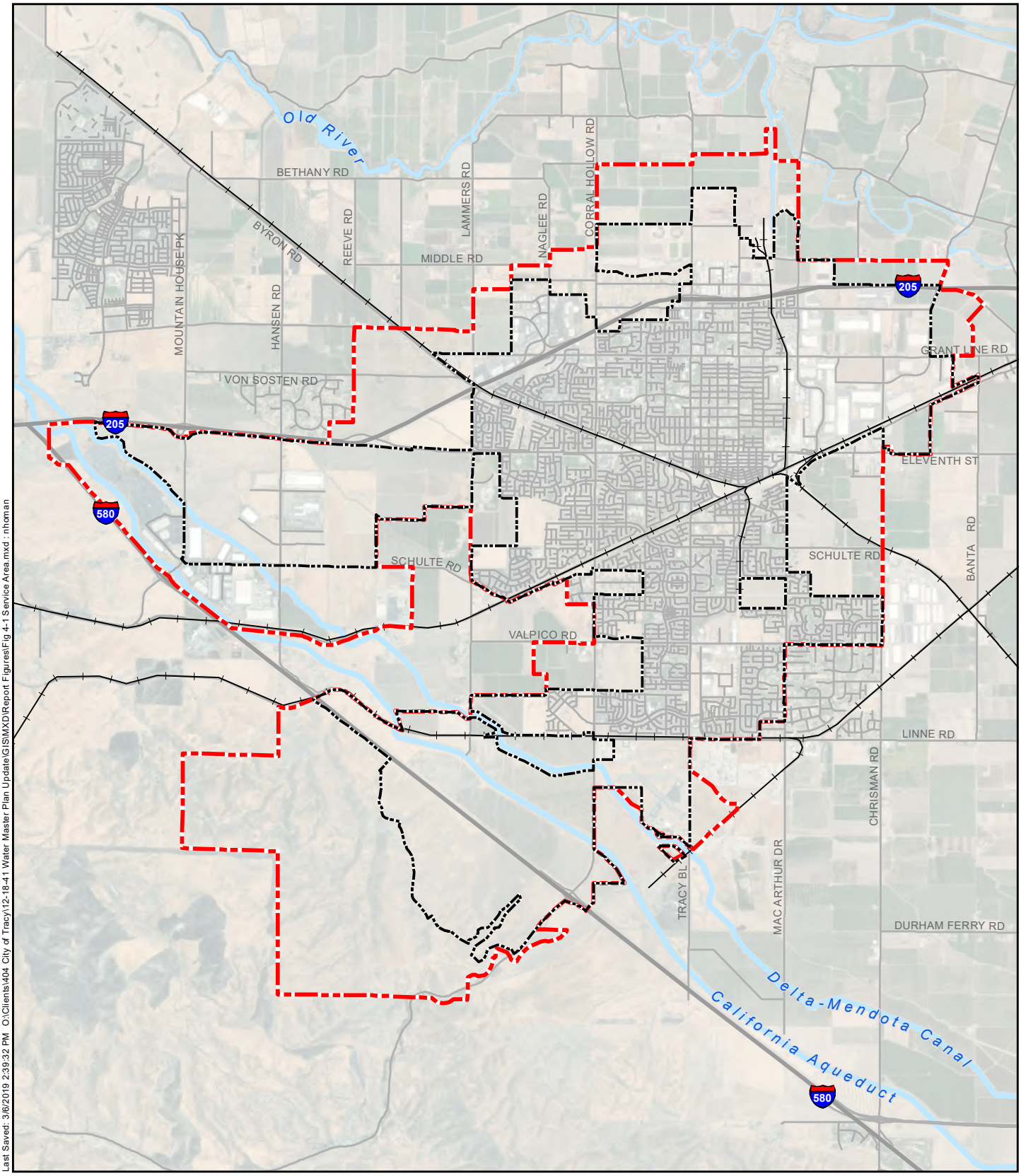
Accurate demand projections also play a key role in helping the City identify and secure sufficient water supplies to serve their customers under various hydrologic conditions. A discussion of the City's existing and future water supplies is provided in Chapter 5 of this Citywide Water System Master Plan Update.

The following sections of this chapter describe the data and methodology used to determine the City's potable and recycled water system demands:

- Existing Service Area
- Population Served
- Historical Potable Water Production and Consumption
- Existing Recycled Water Production and Consumption
- Water Conservation and Water Use Efficiency
- Adopted Peaking Factors
- Future Water Demand Projections
- Future Per Capita Water Use Projections

4.2 EXISTING SERVICE AREA

The City is located in San Joaquin County, California, approximately 70 miles south of Sacramento and 60 miles east of San Francisco. The existing incorporated area of the City (i.e., City limits) encompasses approximately 26 square miles. As described in Chapter 3, the City's SOI is approximately 42 square miles and is 16 square miles larger than the City limits. The SOI encompasses the area outside of and contiguous with the City limits that the City expects to annex and urbanize in the future. Figure 4-1 shows the boundaries of the existing City limits and SOI.



Last Saved: 3/6/2019 2:39:32 PM O:\Clients\404 City of Tracy\12-18-41 Water Master Plan Update\GIS\MXD\Report Figures\Fig 4-1 Service Area.mxd : nhoman

Symbology

- City Limits / Existing Water Service Area
- Sphere of Influence

N

0 3,750 7,500

Scale in Feet

TRACY

WEST YOST ASSOCIATES

Figure 4-1

Water Service Area

City of Tracy
Water System
Master Plan Update

The City's existing water service area is generally coterminous with the City limits as shown on Figure 4-1. The City currently provides potable water service to all of its residents, as well as approximately 400 residents of the Larch-Clover County Services District and the unincorporated Patterson Pass Business Park. Future growth potential for the City includes completion of ongoing development projects and infill within the City limits, and development of areas outside of the City limits within the SOI boundary. Refer to Chapter 3 for details on future land use within the City's SOI.

4.3 POPULATION SERVED

Approximately 96,000 people live in the City as of January 2020. Population growth was rapid in the City over the 15-year period 1990 through 2005, with the City growing by 139 percent. Between 2005 and 2020, however, growth has slowed relative to historical rates; population increased approximately 68 percent over this 15-year period. The reduction in growth rate has likely been caused by a combination of economic forces, such as the economic downturn of 2008 through 2011, and measures taken by the City to limit growth. In 1987, the City adopted a residential Growth Management Ordinance (GMO), which was amended in 2000 by the voter-initiated Measure A. The objective of the GMO and Measure A was to achieve a steady and orderly growth rate that allows for the adequate provision of services and community facilities and includes a balance of housing opportunities. Under the adopted GMO, builders must obtain a Residential Growth Allotment (RGA) in order to secure a residential building permit.

Table 4-1 and Figure 4-2 summarize the City's population between 1990 and 2020.

Table 4-1. Historical Population Served

Year	Population[(a)]	Annual Growth	Last 5-yr Average Annual Growth	Last 10-yr Average Annual Growth	Last 30-yr Average Annual Growth
1990[(b)]	32,450				
1991[(c)]	35,871	11%			3.7%
1992[(c)]	38,006	6%			
1993[(c)]	40,455	6%			
1994[(c)]	42,111	4%			
1995[(c)]	44,546	6%			
1996[(c)]	45,949	3%			
1997[(c)]	47,428	3%			
1998[(c)]	48,962	3%			
1999[(c)]	51,959	6%			
2000[(c)]	56,070	8%			
2001[(d)]	61,048	9%			
2002[(d)]	65,993	8%			
2003[(d)]	70,060	6%			
2004[(d)]	74,745	7%			
2005[(d)]	78,228	5%			
2006[(d)]	80,152	2%			
2007[(d)]	80,700	1%			
2008[(d)]	81,490	1%			
2009[(d)]	82,040	1%			
2010[(d)]	82,922	1%			
2011[(e)]	83,539	1%		1.5%	
2012[(e)]	84,357	1%			
2013[(e)]	85,568	1%			
2014[(e)]	86,061	1%			
2015[(e)]	87,194	1%			
2016[(e)]	88,712	2%	1.9%		
2017[(e)]	90,488	2%			
2018[(e)]	92,395	2%			
2019[(e)]	94,326	2%			
2020[(e)]	95,861	2%			

(a) Does not include Larch Creek Clover CSD service area population which has an estimated total number of accounts (118) and a person per household factor of 3.51 for an estimated population of 414 people.

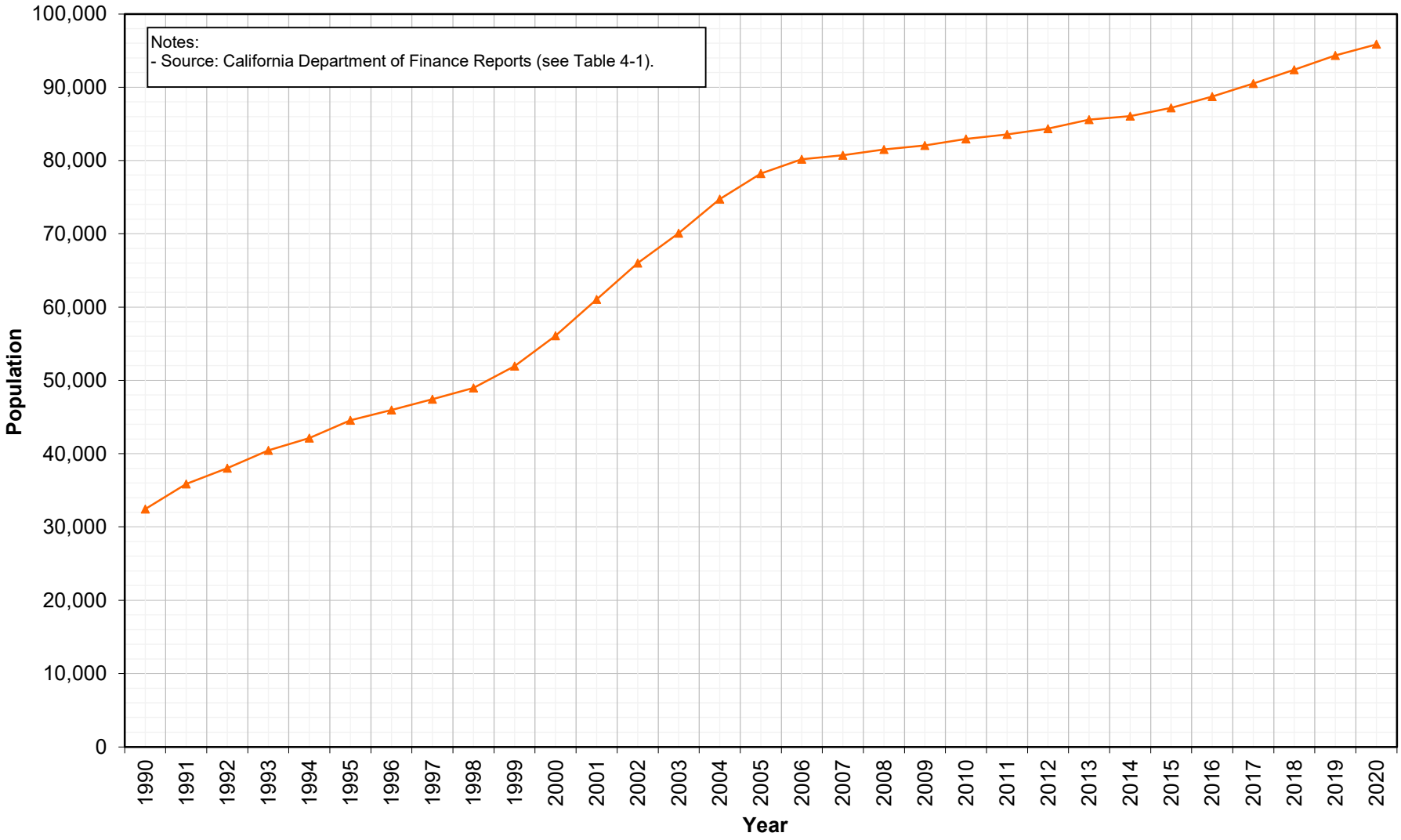
(b) Source: Department of Finance, E-4 Population Estimates for California Cities and Counties, January 1, 1981 to January 1, 1990.

(c) Source: Department of Finance, E-4 Historical Population Estimates for City, County and the State, 1991-2000, with 1990 and 2000 Census Counts, August 2007.

(d) Source: Department of Finance, E-4 Population Estimates for Cities, Counties and the State, 2001–2010, with 2000 and 2010 Census Counts, November 2012.

(e) Source: Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State 2011-2021 with 2010 Census Benchmark, May 2021

Figure 4-2. Historical Population Served (1990-2020)



4.4 HISTORICAL POTABLE WATER PRODUCTION AND CONSUMPTION

The City's potable water production is the combined quantity of surface water purchased from the United States Bureau of Reclamation (USBR) and the South San Joaquin Irrigation District (SSJID) plus the groundwater produced by the City's wells[1], while potable water consumption is the quantity of water actually consumed or used by the City's customers. As will be discussed later, the difference between production and consumption is unaccounted-for water (UAFW), also referred to as non-revenue water (NRW).

The City currently tracks all of the surface water purchased from USBR and SSJID plus the groundwater produced by its wells. The City also meters all of its customers' water use and categorizes their water use by customer class. Consequently, the City tracks water use in two ways: production records and meter (consumption) records. Both are discussed in more detail below, along with a discussion on UAFW and per capita water demands.

4.4.1 Historical Potable Water Production

The City meets its customers' potable water demands with a combination of surface water purchased from USBR and SSJID plus groundwater pumped from municipal wells. Table 4-2 presents the historical annual potable water production, by source, from 1990 to 2020.

Table 4-2 indicates that since SSJID began surface water deliveries in 2005, the City has significantly increased its surface water use to meet its customers' water demands, and as a result groundwater production has dramatically decreased. Surface water use in recent years (2010-2020) accounts for over 94 percent of the total annual water production.

The City plans to continue maximizing surface water use because the City's groundwater is heavily mineralized (e.g., high total dissolved solids (TDS)). Consequently, the reduction in groundwater use will ultimately increase the overall quality of the City's drinking water. However, the City will continue to rely on groundwater for peaking, drought, and emergency supplies to meet water demands when surface water supplies may be limited. Detailed discussions on water supplies and their historical use and availability are presented in Chapter 5.

[1] In 2019, the City also began receiving surface water supplies through an agreement with the Byron Bethany Irrigation District (BBID). The BBID surface water supplies are treated at the City's John Jones Water Treatment Plant (JJWTP) and are used to meet potable water demands within the City's Tracy Hills development. Additional discussion on this water supply is provided in Chapter 5.

Table 4-2. Historical Annual City of Tracy Potable Water Production by Source

Year	Surface Water, af/yr			Groundwater, af/yr	City Production, af/yr	City Production, MG	Percent Surface Water	Percent Groundwater
	USBR[a]	SSJID[b]	Total Surface Water					
1990[c]	4,968	-	4,968	5,838	10,806	3,521	46%	54%
1991[c]	4,995	-	4,995	4,815	9,810	3,197	51%	49%
1992[c]	7,148	-	7,148	4,002	11,150	3,633	64%	36%
1993[c]	7,800	-	7,800	4,127	11,927	3,886	65%	35%
1994[c]	7,788	-	7,788	4,901	12,689	4,135	61%	39%
1995[c]	8,387	-	8,387	4,310	12,697	4,137	66%	34%
1996[c]	8,817	-	8,817	4,562	13,379	4,360	66%	34%
1997[c]	7,539	-	7,539	5,789	13,328	4,343	57%	43%
1998[c]	6,282	-	6,282	4,797	11,079	3,610	57%	43%
1999[c]	7,551	-	7,551	5,559	13,110	4,272	58%	42%
2000[c]	7,785	-	7,785	6,548	14,333	4,670	54%	46%
2001[c]	7,302	-	7,302	7,321	14,623	4,765	50%	50%
2002[c]	7,878	-	7,878	7,802	15,680	5,109	50%	50%
2003[c]	10,118	-	10,118	6,847	16,965	5,528	60%	40%
2004[c]	11,187	-	11,187	7,176	18,363	5,984	61%	39%
2005[d]	8,920	3,146	12,066	5,826	17,892	5,830	67%	33%
2006[d]	6,048	8,918	14,966	3,034	18,000	5,865	83%	17%
2007[d]	6,374	9,130	15,504	3,672	19,176	6,249	81%	19%
2008[d]	6,503	8,017	14,520	2,598	17,118	5,578	85%	15%
2009[d]	4,965	10,401	15,366	1,327	16,693	5,439	92%	8%
2010[d]	5,303	10,850	16,153	498	16,651	5,426	97%	3%
2011[d]	4,790	11,793	16,583	292	16,875	5,499	98%	2%
2012[d]	4,878	12,294	17,172	420	17,592	5,732	98%	2%
2013[d]	4,960	13,112	18,072	515	18,587	6,057	97%	3%
2014[d]	4,018	11,515	15,533	680	16,213	5,283	96%	4%
2015[d]	3,193	10,329	13,522	519	14,041	4,575	96%	4%
2016[d]	2,634	11,372	14,006	648	14,654	4,775	96%	4%
2017[d]	4,906	11,464	16,370	995	17,365	5,658	94%	6%
2018[d]	5,184	10,471	15,655	817	16,472	5,367	95%	5%
2019[d]	7,537	8,750	16,287	645	16,932	5,517	96%	4%
2020[d]	5,733	11,773	17,506	1,181	18,687	6,089	94%	6%

(a) Does not include USBR water wheeled to Patterson Pass Business Park and the Safeway Distribution Center.

(b) SSJID began surface water deliveries to the City in 2005.

(c) Source: Figure 7, WSA for the Holly Sugar Sports Park, June 2009.

(d) Source: Annual Production Totals.xls spreadsheets received from the City.

Figure 4-3 presents the total historical annual potable water production for the City. This historical data indicates that annual water production generally increased at about 3 percent per year from 1990 to 2007. Water production decreased in 2008 and remained relatively constant through 2011, likely in response to poor economic conditions that resulted in vacant properties and unoccupied homes. Water production increased in 2012 and 2013 as economic conditions improved, before decreasing dramatically in 2014 and 2015 due to the voluntary and mandatory water conservation efforts that were implemented by the City's water customers during the extended drought. Water production has increased in recent years (2016-2020) as water use restrictions were lifted and new development projects are being constructed. While the City's water production will likely continue to increase as the City expands, the rate at which water production is expected to increase will likely be lower than 3 percent due to the adopted GMO and water conservation and water use efficiency measures implemented in response to the recent drought and recent legislation. Discussions on the City's projected future water production are presented below under *Section 4.8.6 Projected Buildout Water Demands*.

In addition to providing water to its residents, the City also serves water to the Patterson Pass Business Park (PPBP), which is located outside of the City limits. Water supplied to PPBP is not included in the City's production totals as presented in Table 4-2 and Figure 4-3 because the water supply for this area is purchased by PPBP from the Byron Bethany Irrigation District (formerly the Plain View Water District). The City is only responsible for providing water treatment and delivery services to PPBP in accordance with a "treat and wheel" agreement. Table 4-3 presents the historical water wheeled to PPBP by the City under this agreement.

The City's highest monthly water production has historically occurred in either the month of July or August, which corresponds with the high temperatures and minimal rainfall that is experienced in the City during those summer months. The lowest monthly water production has historically occurred in either January or February. These months correspond with the shut-down of the John Jones Water Treatment Plant for maintenance, which typically occurs in the winter months (e.g., December, January, and/or February).

Figure 4-3. Historical Annual Water Production (1990-2020)

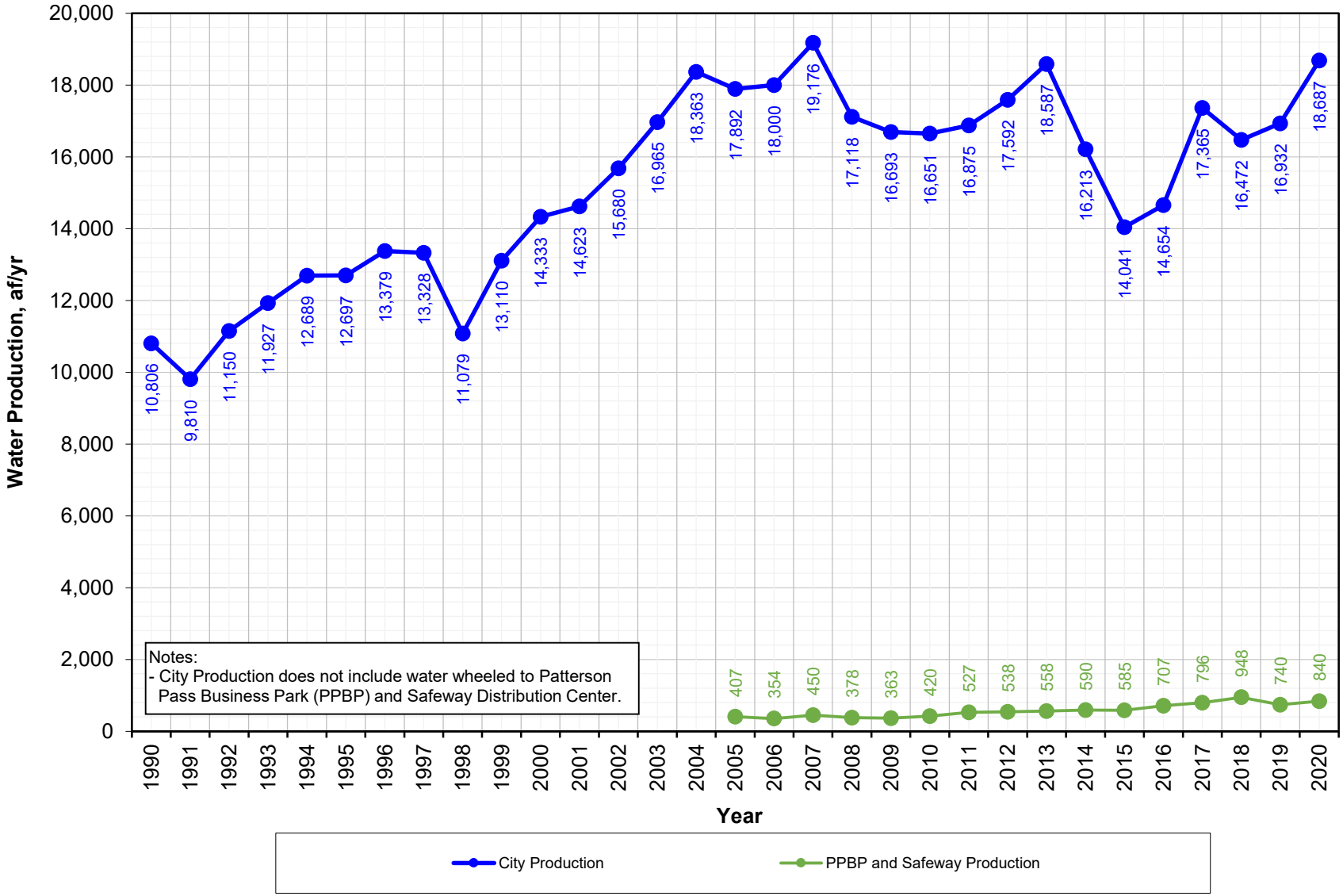


Table 4-3. Historical Annual Potable Water Production including Wheeled Water for Patterson Pass Business Park

Year	City Production, af/yr[(a)]	Wheeled USBR Water for the PPBP, af/yr[(b)]	Total Production	
			af/yr	MG
2005	17,892	407	18,299	5,963
2006	18,000	354	18,354	5,981
2007	19,176	450	19,626	6,395
2008	17,118	378	17,496	5,701
2009	16,693	363	17,056	5,558
2010	16,651	420	17,071	5,563
2011	16,875	527	17,402	5,670
2012	17,592	538	18,130	5,908
2013	18,587	558	19,145	6,239
2014	16,213	590	16,803	5,475
2015	14,041	585	14,626	4,766
2016	14,654	707	15,361	5,005
2017	17,365	796	18,161	5,918
2018	16,472	948	17,420	5,676
2019	16,932	740	17,672	5,758
2020	18,687	840	19,527	6,363

(a) Source: Annual Production Totals.xls spreadsheets received from the City.
(b) The City wheels USBR water for the Patterson Pass Business Park and the Safeway Distribution Center. This water is not part of the City's annual water rights allocations and is therefore tracked separately from the City Production.

4.4.2 Historical Potable Water Consumption

Potable water consumed by customer class between 2015 and 2017 is summarized in Table 4-4. This data indicates that, on average, residential use (including single family and multi-family land use types) represents approximately 67 percent of the total metered water consumption in the City. Commercial and Industrial customers represent an average of approximately 15 and 5 percent, respectively, of the total metered water consumption. Irrigation accounts for the remaining 13 percent of the total metered water consumption.

Projected future water consumption by customer class is discussed below under *Section 4.8.6 Projected Buildout Water Demands*.

Table 4-5 provides a summary of the top 15 potable water users in 2017 by customer classification. These top users accounted for approximately 11 percent of the total metered water consumption in 2017. The top user is an industrial food processing user, and their overall water use represents more than 4 percent of the City's 2017 water consumption. The remaining large Commercial, Multi-Family Residential, and Irrigation water users account for about 7 percent of the City's total water consumption in 2017.

Table 4-4. Potable Water Consumption

Year	Residential Single-Family		Residential Multi-Family		Commercial		Industrial		Irrigation		Total, af/yr[(b)]
	Percent[(a)]	af/yr	Percent[(a)]	af/yr	Percent[(a)]	af/yr	Percent[(a)]	af/yr	Percent[(a)]	af/yr	
2015	61.3%	8,582	7.0%	984	15.2%	2,129	5.2%	725	11.3%	1,579	13,999
2016	60.1%	8,400	7.0%	977	15.0%	2,102	4.9%	685	13.0%	1,811	13,976
2017	58.8%	9,737	6.0%	999	15.8%	2,619	4.7%	784	14.6%	2,413	16,552
Average	60.1%	8,907	6.7%	987	15.4%	2,283	4.9%	731	12.9%	1,935	14,842

(a) Based on meter data received from the City on October 15, 2019.

(b) Source: City of Tracy AWWA Water Audit Spreadsheets, received from the City on November 1, 2018.

Table 4-5. Summary of Top 15 Potable Water Users in 2017

No.	Customer Class	Total Annual Consumption, ccf	Total Annual Consumption, MG	Percentage of Total Annual Consumption, %
1	Industrial	295,480	221	4.10
2	Commercial	123,785	93	1.72
3	Commercial	47,990	36	0.67
4	Irrigation	42,985	32	0.60
5[(a)]	Irrigation	29,466	22	0.41
6	Multi-Family Residential	29,210	22	0.41
7	Irrigation	28,857	22	0.40
8	Commercial	28,070	21	0.39
9	Multi-Family Residential	26,308	20	0.36
10	Commercial	25,167	19	0.35
11	Commercial	23,962	18	0.33
12	Commercial	23,198	17	0.32
13	Commercial	22,344	17	0.31
14	Irrigation	20,720	15	0.29
15	Commercial	20,050	15	0.28
	Total	**787,592**	**589**	**10.9**

Source: 2015. May 2018 Reads.csv received from the City on May 30, 2018.

(a) Large user appears to be due to a leak and has been resolved.

4.4.3 Potable Unaccounted-for Water/Non-Revenue Water

Unaccounted-for water (UAFW) within the City is the difference between the recorded water production and metered water consumption. UAFW includes a combination of various water uses that are not metered, such as water used for hydrant testing, firefighting, and system flushing or water that is lost from system leaks and water main breaks. As noted above, unaccounted-for water is also referred to as non-revenue water (NRW).

Potable UAFW between 2015 and 2017[2] is summarized in Table 4-6. Table 4-6 indicates that the potable UAFW within the City averaged approximately 8.9 percent between 2016 and 2017 (data from 2015 appeared suspect and was not included in the average). This UAFW percentage is lower than the UAFW percentage used in the 2015 UWMP (9.6 percent), but is above the UAFW percentage (7.5 percent) used in the 2012 WSMP. For planning purposes in this Citywide Water System Master Plan, a UAFW percentage of 9.6 percent (consistent with the 2015 UWMP) was used to project the City's total future water production requirements.

[2] The City's 2018-2020 consumption data was not available at the time of this evaluation. Based on data provided in the City's 2020 UWMP, UAFW in 2018 and 2019 dropped to about 6.8 percent and 5.8 percent, respectively, but then increased significantly in 2020 to over 18 percent, although the 2020 data had not yet been validated.

Table 4-6. Potable Unaccounted-for Water

Year	Total Production, af/yr[(a)]	Consumption, af/yr[(b)]	Difference, af/yr	Percentage, UAFW, %
2015	14,626	13,999	627	4.3
2016	15,361	13,976	1,385	9.0
2017	18,161	16,552	1,609	8.9
			Average (2016 and 2017)[(c)]	**8.9**

(a) Source: Refer to Table 4-3. Includes water wheeled to Patterson Pass Business Park and Safeway Distribution Center by the City.
(b) Source: City of Tracy AWWA Water Audit Spreadsheets, received from the City on November 1, 2018.
(c) Average does not include 2015 because data appears to be suspect.

The City Utilities Department, in conjunction with the Public Works and Construction Management Departments, is implementing several new programs to address water loss. A new process was developed for the coordination of installation of new meters in new development areas with the City's billing and accounting systems to ensure that new accounts are metered and billed appropriately. The City has also implemented a new construction meter program, whereby the Public Works Department is now installing the meter on the hydrant and providing clamps so that the meter cannot be moved or stolen. These programs were started in Fall 2021 and water loss numbers were reduced immediately. The City will be conducting ongoing investigations to evaluate water loss and make improvements as needed to meet the State's new water loss standards.

4.4.4 Per Capita Potable Water Demand

Historical per capita potable water demands were calculated by dividing the annual potable water production previously presented in Table 4-2 by the respective annual population previously presented in Table 4-1. Table 4-7 summarizes the per capita potable water demands for the City between 2009 and 2020. As shown in Table 4-7, the per capita water demand has averaged approximately 168 gpcd over the past 10 years. The per capita demand decreased significantly in 2015 and 2016 to 144 gpcd and 147 gpcd, respectively. As discussed previously, this sharp decrease in 2015 and 2016 is most likely due to the extreme dry hydrologic (drought) conditions resulting in voluntary and mandatory water conservation. The per capita demand has increased in recent years (2017-2020) as water use restrictions have been lifted and customers have resumed more typical water use behavior.

Figure 4-4 compares the per capita water demand, water production, and population for the period from 2011 to 2020. As shown on Figure 4-4, the population has increased at a relatively constant rate from 2011 to 2020. Therefore, the majority of the variation observed in the per capita water demand is due to variations in the City's total water production, which appears to vary based on economic and hydrologic conditions.

A comparison of per capita water demands with the goals set by SB X7-7 legislation is discussed below in *Section 4.6 Water Conservation and Water Use Efficiency* and *Section 4.9 Future Per Capita Water Use Projections*.

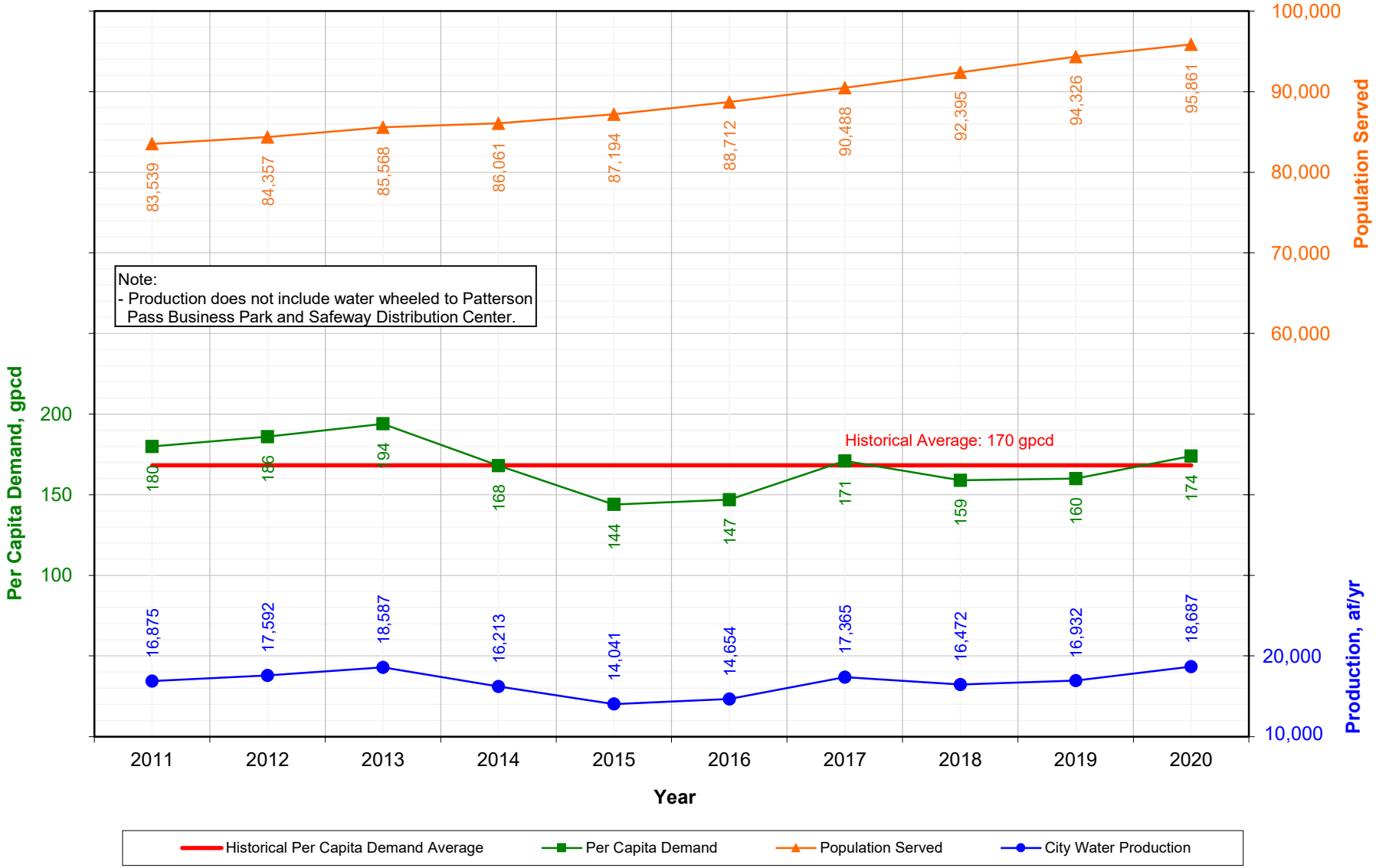
Table 4-7. Historical Per Capita Potable Water Demand

Year	Population Served[(a)]	City Potable Water Production, af/yr[(b)]	Per Capita Potable Water Demand, gpcd	5-yr Average Per Capita Potable Water Demand, gpcd	10-yr Average Per Capita Potable Water Demand, gpcd
2009	82,040	16,693	182		
2010	82,922	16,651	179		
2011	83,539	16,875	180		
2012	84,357	17,592	186		
2013	85,568	18,587	194		
2014	86,061	16,213	168		
2015	87,194	14,041	144		
2016	88,712	14,654	147		168
2017	90,488	17,365	171		
2018	92,395	16,472	159	162	
2019	94,326	16,932	160		
2020	95,861	18,687	174		

(a) Source: Refer to Table 4-1.

(b) Source: Refer to Table 4-2. Includes UAFW. Does not include water wheeled to Patterson Pass Business Park and Safeway Distribution Center, as these are located outside of the City limits.

Figure 4-4. Comparison of Historical Per Capita Water Demand, Production and Population



4.5 EXISTING RECYCLED WATER PRODUCTION AND CONSUMPTION

The City anticipates using recycled water for landscape irrigation to offset potable water demands. The City's Wastewater Treatment Plant can currently produce up to approximately 9 mgd of tertiary-treated wastewater meeting Title 22 requirements, which can be used for landscape irrigation and other non-potable uses. Initially, the City intends to irrigate using recycled water at the Legacy Fields sports complex.

4.6 WATER CONSERVATION AND WATER USE EFFICIENCY

As discussed in Chapter 2, the City has developed a list of principles for sustainable infrastructure to ensure a reliable water supply for future generations. A key principle that relates to the Citywide Water System Master Plan Update is water conservation and water use efficiency. Water conservation and water use efficiency will be necessary to meet requirements set by the State (e.g., the Water Conservation Act of 2009 and Making Water Conservation a California Way of Life legislation) to reduce the City's per capita water use. Discussions regarding existing and future water conservation and water use efficiency in the City are presented below.

4.6.1 Existing Water Conservation

The City is committed to preserving California's water resources through water conservation and efficient use of water, and currently has an ongoing Water Conservation Plan that implements the Best Management Practices (BMPs) which were developed by the California Urban Water Conservation Council (CUWCC)[3]. These BMPs include residential surveys, public and school education programs, rebates for water efficient appliances and other specific programs. These programs have been successful in reducing the City's water use, especially in the recent dry years.

4.6.2 Compliance with the Water Conservation Act of 2009 (SB X7-7)

In February 2008, Governor Arnold Schwarzenegger called for a statewide 20 percent reduction in per capita water use by 2020 and asked State and local agencies to develop a more aggressive plan of water conservation to achieve the goal. A team of State and federal agencies (the 20x2020 Agency Team) consisting of the DWR, SWRCB, California Energy Commission, Public Utilities Commission, Department of Public Health, California Air Resources Board, CALFED Program, the USBR, and the CUWCC was formed to develop a statewide implementation plan for achieving this goal.

Then, on November 10, 2009, Governor Arnold Schwarzenegger signed Senate Bill X7-7 (SB X7-7), one of several bills passed as part of a comprehensive set of Delta and water policy legislation. SB X7-7, known as the Water Conservation Act of 2009, requires a 20 percent reduction in urban water usage by 2020 and establishes various methodologies for urban water suppliers to establish their interim (2015) and final (2020) per capita water use targets.

[3] It should be noted that the CUWCC was replaced by a new organization, the California Water Efficiency Partnership (CalWEP), in March of 2018.

As documented in the City's 2015 UWMP, the City's adopted per capita water use targets were 204 gpcd (2015 interim target) and 181 gpcd (2020 final target). As documented in the City's 2015 UWMP, the City's per capita water use in 2015 was 146 gpcd, which was well below the 2015 interim target[4]. In recent years there has been some rebound in per capita water use from the historic low in 2015 (see Table 4-7 and Figure 4-4). As documented in the City's 2020 UWMP, the City's per capita water use in 2020 was 181 gpcd, equal to its 2020 final target[5].

4.6.3 Making Water Conservation a California Way of Life

In May 2016, Governor Jerry Brown signed Executive Order B-37-16, instructing State agencies to help Californians adopt permanent changes to use water more wisely. The Executive Order laid out a framework for moving the State from temporary, emergency water conservation measures to a more lasting approach customized to the unique conditions of each local water agency.

In May 2018, the California State Legislature (Legislature) enacted two policy bills (SB 606 and AB 1668) to establish a new foundation for long-term improvements in water conservation and drought planning to adapt to climate change and the resulting longer and more intense droughts in California. These two bills amended existing law to expand authorities and requirements to enable permanent changes and actions for those purposes to improve the State's water future for generations to come. SB 606 and AB 1668 are direct outcomes of Governor Brown's Executive Order B-37-16.

The recommendations in the April 2017 report entitled "Making Water Conservation a California Way of Life, Implementing Executive Order B-37-16" and subsequent extensive legislative outreach efforts informed the development of SB 606 and AB 1668. The new laws focus on establishing water use objectives and long-term water efficiency standards that apply to urban retail water suppliers, including:

- **Indoor Residential Water Use:** Although not all standards have been developed, the indoor residential water use efficiency standard has been set by the Legislature. Until January 1, 2025, the standard is set at 55 gpcd, then it drops to the greater of 52.5 gpcd or a standard developed by the DWR between January 2, 2025 and January 1, 2030; and then the greater of 50 gpcd or a standard developed by DWR after January 1, 2030.

[4] It should be noted that the 2015 per capita water use calculated in the City's 2015 UWMP (146 gpcd) is slightly higher than the 2015 per capita water use shown in Table 4-7 and Figure 4-4. The difference is due to a slightly different service area population in the 2015 UWMP per capita water use population.

[5] It should be noted that the 2020 per capita water use calculated in the City's 2020 UWMP (181 gpcd) is slightly higher than the 2020 per capita water use shown in Table 4-7 and Figure 4-4. The difference is due to the inclusion of the Larch Clover CSD in the service area population and the inclusion of the water production wheeled to the PPBP in the 2020 UWMP per capita water use calculation.

- **Outdoor Residential Water Use and Commercial, Industrial and Institutional (CII) Irrigation with Dedicated Meters:** Per SB 606 and AB 1668, the SWRCB is required to adopt long-term standards for outdoor irrigation of landscape areas by June 30, 2022. The standards to be set shall incorporate the principles of the State's MWELO[6], which considers evapotranspiration adjustment factors, landscape areas, maximum applied water allowance, reference evapotranspiration, and special landscape area.
- **Water Loss (due to leaks in water system pipes):** With regard to water loss standards, SB 555, passed in October 2015, requires the SWRCB to develop water loss performance standards for urban retail water suppliers. The SWRCB is required to evaluate the life-cycle cost of achieving these standards. The standards will incorporate local and operational conditions to determine economically achievable water loss reduction for each urban retail water supplier.

The recently passed water efficiency legislation only provides a "provisional standard" for indoor residential water use and does not currently provide specific information on what the water efficiency standards will be for outdoor residential water use and non-residential water uses. These standards will be developed in the coming years and should be further evaluated in subsequent planning studies. Also, there are no guarantees that urban retail water suppliers will meet the water efficiency standards to be set, so West Yost recommends that the City continue to consider more conservative water demand projections based on recent water use for their future water supply and system planning.

4.7 ADOPTED PEAKING FACTORS

Peaking factors are used to calculate water demands expected under high demand conditions (i.e., maximum day and peak hour). The resulting water demands calculated for maximum day and peak hour conditions are then used to evaluate and size transmission/distribution pipelines and storage facilities, and to define water supply needs and capacity requirements. This section describes the methodology used to develop peaking factors for the maximum day and peak hour demand conditions within the City's potable and recycled water systems.

4.7.1 Potable Water System Peaking Factors

Table 4-8 summarizes the average and maximum day production and the corresponding peaking factors between 2010 and 2018. As shown in Table 4-8, the maximum day peaking factor for the City ranged from a low of 1.5 in 2015 and 2017 to a high of 1.8 in 2018. The average maximum day peaking factor from 2010 to 2018 is equal to 1.6 times the average day demand.

The City currently has an adopted maximum day peaking factor of 2.0 times the average day demand, which is higher than what has been observed in recent years. Based on the data from more recent maximum day trends, this higher peaking factor provides a very conservative estimate of the required water supply and distribution facilities to support projected water demands.

[6] California Code of Regulations Title 23 Chapter 2.7 Model Water Efficient Landscape Ordinance.

Consequently, for planning purposes in this Citywide Water System Master Plan Update, a maximum day peaking factor of 1.7 was adopted. This factor provides a slightly more conservative estimate of maximum day demands when compared with the 2010 to 2018 average maximum day peaking factor of 1.6, but will not excessively overestimate maximum day demands as compared with the City's current adopted maximum day peaking factor of 2.0.

Table 4-8. Historical Maximum Day Demand Peaking Factors

Year	Date[a]	Maximum Day Production, mgd[a]	Average Day Production, mgd[b]	Maximum Day to Average Day Factor
2010	July 17	25.8	15.2	1.7
2011	July 28	25.5	15.5	1.6
2012	July 13	27.8	16.2	1.7
2013	June 8	27.0	17.1	1.6
2014	June 9	24.9	15.0	1.7
2015	June 20	19.8	13.1	1.5
2016	August 8	22.0	13.7	1.6
2017	August 1	25.0	16.2	1.5
2018[c]	August 17	27.2	15.3	1.8
			Average	**1.6**

(a) Source: Max Day Data 201810221430.pdf received from the City on October 22, 2018.
(b) Source: Refer to Table 4-3. Includes water wheeled to Patterson Pass Business Park and Safeway Distribution Center.
(c) Maximum day production data for 2018 is from compiled SCADA data received from the City on May 3, 2019.

The City currently has an adopted peak hour demand factor of 3.4 times the average day demand, equivalent to a factor of 1.7 times the maximum day demand. SCADA data from 2018 was used to confirm the peak hour factor, which was found to be 1.6 times the maximum day demand. This confirms that the currently adopted peak hour factor of 1.7 times the maximum day demand is still accurate; this factor will continue to be used for planning purposes in this Citywide Water System Master Plan Update. However, because the adopted maximum day demand factor has been decreased from 2.0 times the average day demand to 1.7 times the average day demand, the new adopted peak hour demand factor used for planning purposes in this Citywide Water System Master Plan Update will be 2.9 times the average day demand.

4.7.2 Recycled Water System Peaking Factors

Peaking factors for recycled water systems are somewhat different from potable water systems, in that irrigation periods are generally limited to shorter time periods, typically during the late evenings and very early mornings (e.g., 10 p.m. to 6 a.m.). For purposes of this Citywide Water System Master Plan Update, an irrigation period of eight (8) hours per day has been assumed. In addition, recycled water demand is anticipated to be at its maximum during the summer and fall months when temperatures and landscape irrigation water demands are at their highest.

To estimate future monthly recycled water use, the City's existing monthly potable water use for its dedicated landscape irrigation accounts was evaluated. Based on 2017 data, monthly irrigation water use reaches a maximum in September with irrigation water use equal to 17.6 percent of the total annual irrigation water use. This percentage of irrigation water use during the maximum month can be converted to an average day to maximum day peaking factor equal to 6.4 times the average day irrigation demand (0.176/30 days x 365 days x [24 hours/8-hour irrigation period]). This factor is higher than the currently adopted factor of 5.8 times the average day irrigation demand. To be conservative, for planning purposes in this Citywide Water System Master Plan Update, the new (higher) maximum day irrigation peaking factor of 6.4 was adopted.

The peak hour recycled water demand was assumed to be approximately 10 percent above the maximum day irrigation demand, which equates to a peak hour peaking factor of 7.0 (1.1 x 6.4).

Table 4-9 summarizes the maximum day and peak hour peaking factors adopted for this Citywide Water System Master Plan Update.

Table 4-9. Adopted Peaking Factors

Demand Condition	Potable Water System	Recycled Water System
Average Day	Annual Use divided by 365 days per year	Annual Use divided by 365 days per year
Maximum Day	1.7 times the Average Day Demand	6.4 times the Average Day Demand (assuming an 8-hour irrigation period)
Peak Hour	2.9 times the Average Day Demand	7.0 times the Average Day Demand (10% above Maximum Day Demand)

4.8 FUTURE WATER DEMAND PROJECTIONS

Future water demands projections consist of two components: (1) existing (baseline) water demands, and (2) projected water demands from new developments calculated using unit water demand factors and the land use assumptions discussed previously in Chapter 3 and presented in Appendix A.

Using the land use assumptions presented in Appendix A, future water demands were calculated using a unit water demand methodology based on the proposed land use acreage or residential dwelling units projected for each project or development area. Subsequent sections describe the current unit water demand factors adopted in the 2012 WSMP and the development of the updated unit water demand factors used to calculate future water demands for this Citywide Water System Master Plan Update, followed by a discussion of total projected water demands for the 2025, 2040, and buildout time frames.

4.8.1 Existing Unit Water Demand Factors and Land Use Assumptions

In the 2012 WSMP, unit water demand factors were generally developed by correlating land use data with existing metered water use. The City's existing unit water demand factors are summarized in Table 4-10. These factors are typically multiplied by dwelling units or land use area data to calculate a projected water demand estimate.

Table 4-10. 2012 WSMP Adopted Unit Water Demand Factors

Land Use Designation	Unit Water Demand Factor		
	gpcd	gpd/du	af/ac/yr
Residential – Very Low Density[a]	130	429	--
Residential – Low Density[a]	130	429	--
Residential – Medium Density[b]	115	310	--
Residential – High Density[b]	100	220	--
Residential – Very High Density	100	150	--
Commercial[c]	--	--	2.0
Office[c]	--	--	1.5
Industrial[c,d]	--	--	1.5
Institutional[c]	--	--	1.5
Parks[e]	--	--	4.0

(a) Assumes exterior water use will be with potable water, except for parks.
(b) Assumes exterior water use will be with recycled water (i.e., 15 percent of the total gross acres will be landscaped and irrigated with recycled water).
(c) Unit water demand factor to be applied to 85 percent of the total gross acres only, assuming that 15 percent of the total gross acres will be landscaped and irrigated with recycled water.
(d) Assumes that high water use industries will not be developed.
(e) Unit water demand factor to be applied to 15 percent of the total gross acres and/or any gross acreage that will require exterior water use.

In addition to these adopted unit water demand factors, the City has also used the following specific assumptions regarding dwelling units per acre for each residential land use type and floor to area ratios (FAR) for Commercial and Industrial land uses. These assumptions help to further refine water demand estimates from various proposed development projects that do not have a specific dwelling unit count or floor area estimate available. Table 4-11 summarizes the adopted dwelling unit and FAR assumptions that the City has recommended for estimating future water demands.

Table 4-11. Adopted Dwelling Unit Densities and Floor to Area Ratios[a]

Land Use Designation	Range	Recommended Density or Ratio
Residential – Very Low Density	0.1 to 2.0 du/acre	1.5 du/acre
Residential – Low Density	2.1 to 5.8 du/acre	4.35 du/acre
Residential – Medium Density	5.9 to 12.0 du/acre	9 du/acre
Residential – High Density	12.1 to 25 du/acre	18.75 du/acre
Residential – Very High Density	Up to 40 du/acre[b]	--
Commercial	Maximum FAR 1.0	FAR 0.3
Office	Maximum FAR 1.0	FAR 0.3
Industrial	Maximum FAR 0.5	FAR 0.4

(a) Source: General Plan, DC&E (February 1, 2011).
(b) Source: Water Supply Assessment for the Downtown Specific Plan, West Yost Associates (April 2009).

4.8.2 Verification of Unit Water Demand Factors

Due to possible changes in water use patterns over time, the existing unit water demand factors presented in Table 4-10 were verified to confirm if they are still representative of the City's more recent water use patterns. Unit water demand factors that are refined using more recent water use data help to project more accurate water demands. The following sections discuss the methodologies used to "spot check" and verify existing residential and non-residential unit water demand factors.

4.8.2.1 General Methodology

Unit water demand factors were verified using existing land use and parcel information in Geographic Information System (GIS) format, which were correlated to existing (2017) metered water use data. Meter data from 2017 was used to verify the unit water demand factors because it was (1) the most recent data available at the time of the evaluation, and (2) more representative of normal water use than 2015 or 2016 data when there were mandatory water use restrictions in place. To calculate unit water demand factors by land use designation, the City's existing land use data was first added to the parcel data using GIS analysis tools. Metered water use data was then automatically linked to the land use/parcel data by service addresses first or manually by location if needed. The unit water demand factor for each land use designation was then calculated by dividing the total metered water use by the total parcel area for which it was linked.

The parcel area used in this initial calculation did not include streets and therefore represented net area. Accordingly, the unit water demand factors calculated were "net" factors. Subsequently, the "net" unit water demand factors were adjusted to account for acreage from streets so they could be applied to the gross acreage information provided by City staff for future development[7]. The following sections describe the updated unit water demand factors first for residential land uses and then for non-residential land uses.

Typically, metered water use data used to determine unit water demand factors would be normalized to represent average water use across multiple years. Although it is expected that some increase or "rebound" in water demand from 2017 could potentially occur in the future, a portion of the observed reduction in water use will likely be permanent. This is supported by the City's 2018 water production, which was less than 2017 water production. Therefore, due to these permanent changes in water use, the 2017 metered water use data was not normalized based on historical water use.

[7] The gross acreage within the existing City limits is 16,616 acres, and the net acreage within the City limits assigned an existing or planned land use is 13,607 acres. Therefore, a factor of 1.22 was used to convert from net acreage to gross acreage.

4.8.2.2 Residential Unit Water Demand Factors

Single family residential unit water demand factors (Residential-Very Low Density and Residential-Low Density land uses) were refined by automatically linking metered water use to parcels by service address. Single family residences are typically served by a single meter, and there is typically only one single family residence on a given parcel. Because of this one-to-one relationship between meters and parcels, the unit water demand factors for single family residences could be accurately calculated using this method. In summary, 87 percent of the existing single family residential parcels were linked with a water meter by service address. Figure 4-5 illustrates the methodology used to calculate the refined unit water demand factors for single family residential land use types.

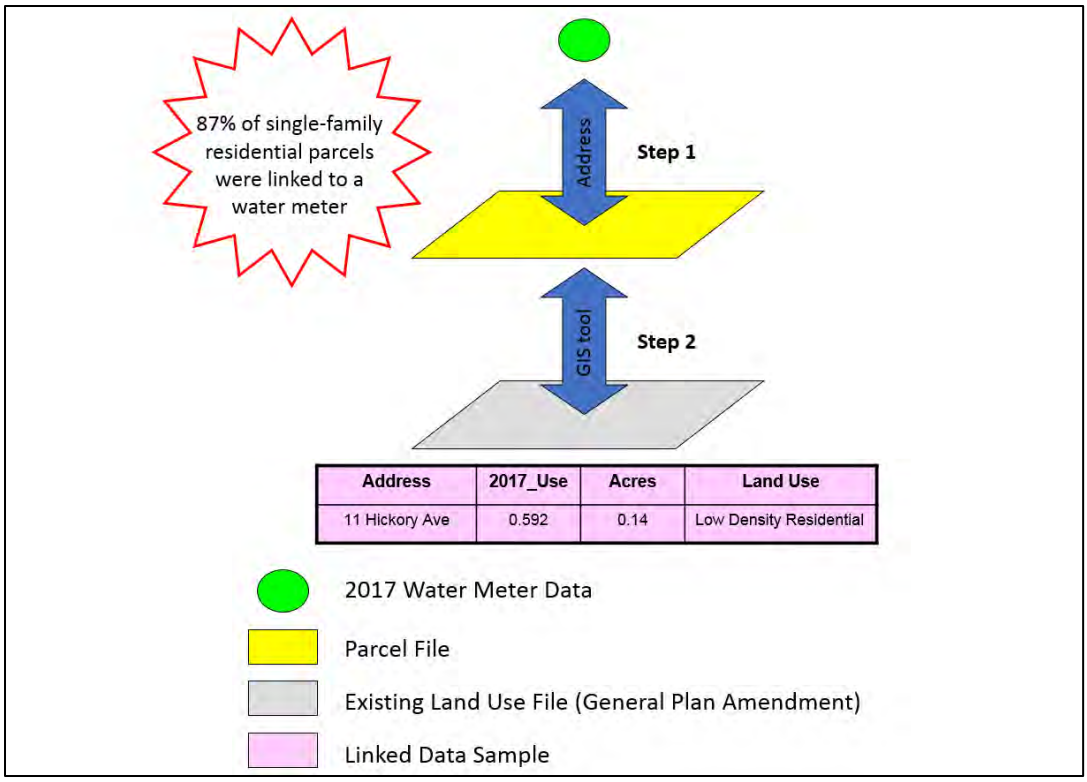


Figure 4-5. Residential Unit Water Demand Factor Methodology

Table 4-12 presents the unit water demand factors calculated using the methodology described above. The calculated Residential-Very Low Density factor is 8 percent higher than the factor adopted in the 2012 WSMP. Because this factor is based on a small sample size of 83 parcels, it is recommended that no adjustment be made to the Residential-Very Low Density unit water demand factor. The calculated Residential-Low Density factor is 14 percent lower than the factor adopted in the 2012 WSMP. Although some rebound in water use from 2017 is expected in existing residences, it is also projected that a combination of future State-mandated conservation measures and the installation of water efficient appliances and landscaping in new homes will lower residential water use even further in the future. Therefore, it is recommended that the Low Density Residential unit water use factor be adjusted 15 percent lower than the adopted 2012 WSMP factor to reflect more recent water use trends.

Table 4-12. Refined Single-Family Residential Unit Water Demand Factors

Land Use Designation	2017 Metered Water Use Linked, af/yr	Number of Occupied Parcels/Dwelling Units Linked[a]	Calculated Unit Water Demand Factor, gpd/du[b]	2012 WSMP Unit Water Demand Factor, gpd/du	Calculated Change in Unit Water Demand Factor, %	Recommended Change in Unit Water Demand Factor, %
Residential – Very Low Density	43	83	464	429	8%	0%
Residential – Low Density	6,238	15,139	368	429	-14%	-15%

(a) Does not include vacant parcels (parcels with no water use in 2017).
(b) Assumes one dwelling unit per parcel.

Residential-Medium, Residential-High Density, and Residential-Very High Density land uses generally have multiple meters and multiple addresses associated with a single parcel. Because of this, the methodology described above to calculate unit water demand factors often underestimates the unit water demand factors for these land use categories because not all the meters which supply a given parcel can be automatically linked with a single parcel address. Therefore, the unit water demand factors for Residential-Medium, Residential-High Density, and Residential-Very High Density land uses are recommended to be reduced by 15 percent, consistent with the adjustment for the Residential-Low Density factor.

4.8.2.3 Non-Residential Unit Water Demand Factors

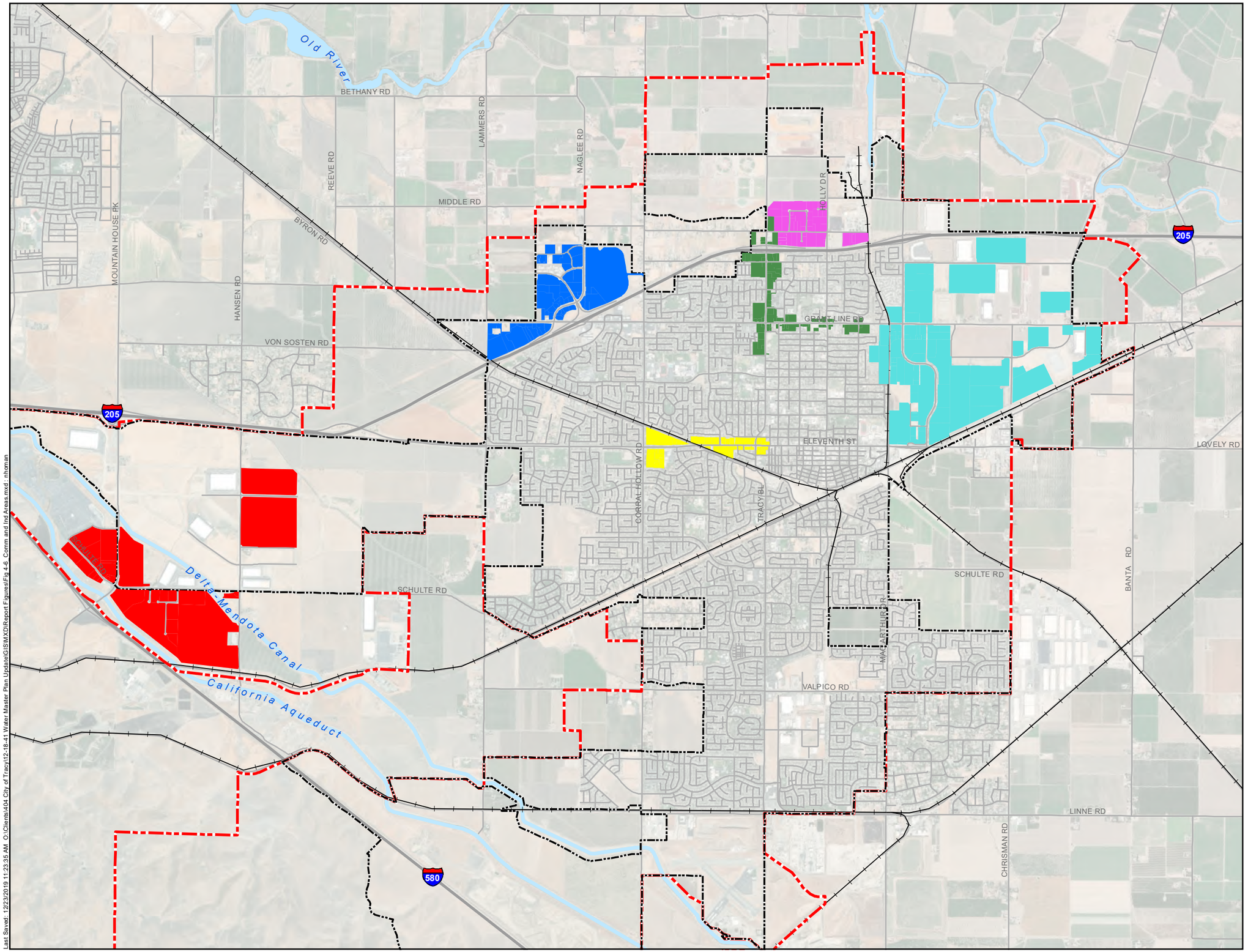
Non-residential land uses generally have multiple water service meters (e.g., domestic and irrigation meters) and multiple addresses associated with a single parcel. Because of this, automatically linking metered water use from multiple meters to a single parcel by address is difficult and would generally underestimate the unit water demand factors for non-residential land use categories because not all the meters which supply a single parcel can be automatically linked with that parcel. Therefore, a different methodology was used to "spot check" and refine the unit water demand factors for non-residential land use categories.

Representative areas of the City with high concentrations of Commercial and Industrial land uses were first selected as shown on Figure 4-6, and the metered water use from water meters in these areas were manually associated with parcels based on each meter's spatial location. From the metered water use and parcel acreage that were linked through this process, unit water demand factors were then calculated for each of these representative areas, which are summarized in Table 4-13.

Unit water demand factors for Commercial land use in the representative areas varied from 1.4 to 2.0 acre-feet per acre per year (af/ac/yr). The much lower factor for the Naglee Mall and West Grant Line Road Shopping Center is likely due to the inclusion of large parking lots which serve the Mall and Shopping Center in the gross acreage linked. The average unit water demand factor for the representative Commercial areas is 1.7 af/ac/yr. To be conservative, it is recommended that a Commercial unit water demand factor of 1.8 af/ac/yr, which is slightly above the average, be adopted. This represents approximately a 10 percent reduction from the 2012 WSMP factor of 2.0 af/ac/yr.

Unit water demand factors for Industrial land use in the representative areas varied from 0.8 to 1.3 af/ac/yr. The Northeast Industrial area likely has a higher factor due to the presence of high water use industries such as food processing plants. The IPC and Patterson Pass Business Park areas have a much lower factor because most of the existing buildings are warehouses with low water use. To be conservative, it is recommended that a unit water demand factor of 1.3 af/ac/yr be adopted as the new Industrial unit water demand factor to accommodate the wide range of possible Industrial water uses for planning purposes. This represents approximately a 13 percent reduction from the 2012 WSMP factor of 1.5 af/ac/yr.

The unit water demand factor for Office land use was also calculated using this procedure. However, since there are no highly concentrated areas of Office land use in the City, and the amount of Office land use is relatively small, the metered water use from water meters for all Office parcels was manually linked with each Office parcel to calculate an Office unit water demand factor. The unit water demand factor calculated in this manner was found to have slightly increased from the 2012 WSMP factor of 1.5 af/ac/yr. However, it is recommended that no adjustment be made to the Office unit water demand factor.



Symbology

- City Limits
- Sphere of Influence

Representative Commercial Areas

- Naglee Mall and Grant Line Road Shopping Center
- Tracy Boulevard and East Grant Line Road
- Eleventh Street

Representative Industrial Areas

- Northeast Industrial Area
- Northern Industrial Area
- IPC/Patterson Pass Business Park

TRACY

WEST YOST ASSOCIATES

Figure 4-6

Representative Commercial and Industrial Areas

City of Tracy
Water System Master Plan Update

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Table 4-13. Unit Water Demand Factors for Commercial, Industrial, and Office Land Uses

Representative Area	2017 Water Use Linked, af/yr	Gross Acreage Linked[(a)]	Unit Water Demand Factor, af/ac/yr
Commercial Land Use			
Naglee Mall and West Grant Line Road Shopping Center	426	313	1.4
Tracy Boulevard and East Grant Line Road	253	126	2.0
Eleventh Street	135	81	1.7
		Average	**1.7**
Industrial Land Use			
Northeast Industrial Area	1,134	900	1.3
Northern Industrial Area	109	130	0.8
IPC/Patterson Pass Business Park	623	730	0.9
		Average	**1.0**
Office Land Use			
All Existing Parcels	87	56	1.6

(a) A factor of 1.22 was used to convert from net acreage to gross acreage.

For Institutional land use, the water meter data which could be linked was insufficient to justify adjusting the Institutional unit water demand factor.

Similarly, the water meter data which could be linked with Parks land use parcels was also insufficient to justify adjusting the Parks unit water demand factor. However, the Parks factor was compared with the maximum allowable water use for parks per MWELO[8] to verify that it did not exceed the maximum allowable usage. As shown in Table 4-14, the maximum allowable water use for parks, which qualify as special landscape areas, is 4.3 af/ac/yr based on MWELO guidelines. Since this is greater than the current Parks unit water demand factor of 4.0 af/ac/yr, it is recommended that no adjustment be made to the Parks unit water demand factor. This factor will also be used for all recycled water irrigation areas within the City.

In the 2012 WSMP, the Parks unit water demand factor was used to calculate water use for irrigated areas for residential and non-residential land uses. However, under current MWELO guidelines, the maximum allowable water use for potable water irrigation in residential and non-residential land use areas is restricted to approximately 2.4 and 1.9 af/ac/yr, respectively, as shown in Table 4-14. Therefore, these factors will be adopted for planning purposes in this Citywide Water System Master Plan Update to comply with MWELO and the City's Water Efficient Landscape Ordinance.

[8] The State's MWELO was adopted by the City of Tracy as part of its Water Efficient Landscape Ordinance (City of Tracy Municipal Code, Chapter 11.28 Water Management, Article 8 Water Efficient Landscape Ordinance).

Table 4-14. City of Tracy Maximum Allowable Water Use Factors for Irrigation[a]		
Land Use	Maximum ETAF[b]	Water Use Factor, af/ac/yr
Special Landscape Areas[c]	1.00	4.3
Residential	0.55	2.4
Non-Residential	0.45	1.9

(a) Based on the California Code of Regulations, Title 23 Waters, Division 2 DWR, Chapter 2.7 Model Water Efficient Landscape Ordinance (MWELO), updated 2015 and included in the City of Tracy Municipal Code Chapter 11.28 Water Management, Article 8 Water Efficient Landscape Ordinance.
(b) ETAF = Evapotranspiration Adjustment Factor = (Plant Factor based on Hydrozone Area)/(Irrigation Efficiency).
(c) Special Landscape Areas are areas dedicated solely to edible plants, recreational areas, areas irrigated with recycled water, or water features using recycled water.

4.8.3 Adopted Unit Water Demand Factors

As discussed above, most of the unit water demand factors were verified and refined (if needed) by linking metered water use data to existing land use data either automatically by service address or manually by location. Table 4-15 summarizes the unit water demand factors adopted for this Citywide Water System Master Plan Update. Based on work completed to "spot check" and refine these adopted factors, they are appropriate for use in projecting future water demands as discussed in the following sections.

Table 4-15. Adopted Unit Water Demand Factors			
Land Use Designation	gpd/du	af/ac/yr	Percent Change from 2012 WSMP, %
Residential – Very Low Density[a]	429	--	0
Residential – Low Density[a]	365	--	-15
Residential – Medium Density[b]	264	--	-15
Residential – High Density[b]	187	--	-15
Residential – Very High Density[b]	128	--	-15
Commercial[c]	--	1.8	-10
Office[c]	--	1.5	0
Industrial[c]	--	1.3	-13
Institutional[c,d]	--	1.5	0
Parks and Areas Irrigated with Recycled Water[d,e]	--	4.0	0
Other Irrigated Area - Residential[f,g]	--	2.4	NA
Other Irrigated Area - Non-Residential[f,h]	--	1.9	NA

(a) Includes exterior water use.
(b) Does not include exterior water use. Assumes that 15 percent of the total gross acres will be landscaped and irrigated.
(c) Does not include exterior water use. Water demand factor to be applied to 85 percent of the total gross acres only, assuming that 15 percent of the total gross acres will be landscaped and irrigated.
(d) Insufficient data available to adjust factor using water meter data; therefore, no adjustment was made.
(e) Factor to be used for turf, recreational areas, edible plants, and areas irrigated with recycled water.
(f) Based on the Maximum Allowable Water Use per MWELO and the City's Water Efficient Landscape Ordinance.
(g) Unit water demand factor to be applied to gross acreage in residential areas that will require potable water for exterior water use.
(h) Unit water demand factor to be applied to gross acreage in non-residential areas that will require potable water for exterior water use.

4.8.4 Existing (Baseline) Water Demands

For this Citywide Water System Master Plan Update, the total "existing" water demand component used for future water demand projections was calculated as the sum of the water delivered to the PPBP and IPC in 2017 plus the City's average water production from 2005 to 2013 for a total of approximately 18,400 af/yr. Because the PPBP and IPC have been growing rapidly, recent water production data was considered the most representative of existing water use for these areas. However, due to the recent drought and associated conservation measures, water production data from 2014 through 2016 were considered less representative of future water use in other areas of the City. It should be noted that the estimated existing baseline water demand of 18,400 af/yr is very similar to the average total water production for 2019 and 2020 (18,600 af/yr), thus validating the estimated existing baseline demand.

Because the water delivered to PPBP is wheeled water, only approximately 17,800 af/yr of the existing water demands must be met by the City's water supply agreements and contracts. The City is responsible for delivering the remaining 600 af/yr to PPBP, and must have adequate water treatment capacity, pumping capacity, and transmission capacity to serve a total of 18,400 af/yr, in addition to projected future water demands.

4.8.5 Recycled Water Use Assumptions

Recycled water will be used as a source of water supply for landscape irrigation and other non-potable uses to offset potable water demands on a project-by-project basis where feasible. The City has constructed a recycled water transmission line which extends south along Lammers Road to the intersection with Schulte Road, and further expansions to the recycled water system are planned in the future.

For this Citywide Water System Master Plan Update, the following assumptions were made regarding the recycled water system:

- The transmission main in Lammers Road will be extended south to the Delta Mendota Canal by 2025. Most large development projects located on the west side of the City will be served by the recycled water system by 2025, except for Cordes Ranch, West Side Industrial, and Tracy Hills Specific Plans.
- Recycled water service will be extended to Cordes Ranch, West Side Industrial, and Tracy Hills Specific Plans by 2040.
- Future recycled water service areas on the east side of the City (East Side Industrial, Chrisman Road, UR 1, and Rocha), will be served by a separate recycled water transmission main which will not be constructed until after 2040.
- Recycled water service will not be extended to developments in the following areas due to the isolated locations and relatively small individual potential recycled water demands within them:
  - I-205 Corridor Specific Plan
  - Industrial Areas Specific Plan
  - Northeast Industrial Specific Plan

  - Berg Road Subdivision
  - Berg/Byron Remainder
  - Other small approved projects (refer to Table 3-1, footnote (f) for the full list)
  - Miscellaneous Infill
- Only a small number of existing parks and irrigated areas located close to the recycled water transmission main alignments will be converted to recycled water service.
- Within new developments served by recycled water, 15 percent of gross acreage for Residential – Medium Density, Residential – High Density, Residential – Very High Density, Commercial, Office, Industrial, and Institutional land uses will be irrigated with recycled water. This represents irrigation use for common landscaped areas and roadway medians.
- Within new developments served by recycled water, 11.2 percent[9] of gross acreage for Residential – Very Low Density, Residential – Low Density, and Residential – Medium Density land uses will develop as neighborhood and community parks which will be irrigated with recycled water.
- Front yards of single-family residences in the Residential – Very Low Density and Residential – Low Density will be irrigated with potable water, even in developments served by recycled water.
- UAFW for the recycled water system will be 5 percent (consistent with the 2015 UWMP).

Potable water demand offsets from recycled water use will be accounted for in the projected water demands. Demands from irrigated acreage in development projects with recycled water supply available will be calculated using the recycled water demand factor of 4.0 af/ac/yr.

4.8.6 Projected Buildout Water Demands

Projected water demands for the 2025, 2040, and buildout time frames were calculated by multiplying the adopted unit water demand factors (refer to Table 4-15) by the additional future dwelling units or gross acreage projected to occur. As discussed in Chapter 3, data regarding the additional future dwelling units and gross acreage to be developed was provided by the City's Planning Division or referenced from available planning documents.

The resulting future water demand projections from the projected future developments were adjusted to account for UAFW and then added to the existing water demands to provide a projection of the total water production required for each of the evaluated time frames. Refer to Appendix A for detailed land use assumptions and water demand calculations.

[9] Consistent with assumption in Appendix D of the 2012 WSMP. A comparison of the future parks area calculated using this assumption and the projection of required park area from the City's 2013 Parks Master Plan showed them to be within 1 percent of each other.

Table 4-16 summarizes the projected potable and recycled water production for the City at the 2025, 2040, and buildout time frames. As shown in Table 4-16, even with the use of recycled water, the City's potable water production is projected to almost double at buildout (from 17,800 af/yr to 33,500 af/yr). Most of the increase in water demand is associated with new development within the City's specific plans and future service areas. Approximately 70 percent of the increase in potable water demands and 65 percent of the increase in recycled water demands are projected to occur by 2040.

The estimated buildout potable water production is approximately 8 percent lower than the previous estimate of 36,300 af/yr, as presented in the City's 2012 WSMP. Although many of the unit water demand factors have been decreased by 10 to 15 percent compared to those used in the 2012 WSMP, the projected buildout potable water production did not decrease substantially because:

- The current buildout land use projections include approximately 5,600 more dwelling units than what was assumed in the 2012 WSMP. Although the projected buildout acreage for non-residential land uses (primarily Commercial and Industrial) has decreased since the 2012 WSMP, residential developments typically use more water than non-residential developments; and
- The potable water UAFW factor was increased from the 7.5 percent factor used in the 2012 WSMP to 9.6 percent.

The estimated buildout recycled water production is approximately 16 percent lower than the previous estimate of 7,500 af/yr as presented in the City's 2012 WSMP. This is because:

- The 2012 WSMP included the Gateway Exchange Program, in which recycled water service would be extended to most of the existing parks and large irrigated areas in the City to offset the potable water demands from the Gateway development (now called Westside). The Gateway Exchange Program is no longer being considered, and it is projected that only a few existing parks and irrigated areas will receive recycled water supply;
- The Tracy Hills Specific Plan previously included a large golf course which was to be irrigated with recycled water. The golf course area is now projected to remain un-irrigated open space instead; and
- The recycled water UAFW factor was decreased from the 7.5 percent factor used in the 2012 WSMP to 5.0 percent.

Table 4-16. Summary of Future Projected Water Production[a,b,c]

Demand Category	2025 (Near Term)		2040		Buildout	
	Potable Water, af/yr	Recycled Water, af/yr	Potable Water, af/yr	Recycled Water, af/yr	Potable Water, af/yr	Recycled Water, af/yr
Future	3,000	900	10,900	4,100	15,700	6,200
Existing - City[d]	17,800	100	17,800	100	17,800	100
Total to be Met by City Water Supply Contracts and Rights	**20,800**	**1,000**	**28,700**	**4,200**	**33,500**	**6,300**
Existing - PPBP Wheeled Water[e]	600	0	600	0	600	0
Total to be Delivered by City Distribution System	**21,400**	**1,000**	**29,300**	**4,200**	**34,100**	**6,300**

(a) Refer to Appendix A for detailed water demand calculations.
(b) Includes UAFW.
(c) Totals rounded to the nearest hundred.
(d) Includes water delivered to existing buildings in the IPC.
(e) Does not include water delivered to existing buildings in IPC.

It should be noted that the potable water demand projections presented in the City's 2020 UWMP are slightly different than those presented in Table 4-16 above. The difference is due to the 2020 UWMP using water demand projections from a previous draft of this Citywide Water System Master Plan Update, which have since been revised due to revisions in the 2040 and Buildout land use assumptions, as well as the 2020 UWMP, which included an estimate of passive conservation due to water savings which resulted primarily from: (1) the natural replacement of existing plumbing fixtures with water-efficient models required under current plumbing code standards, and (2) the installation of water-efficient fixtures and equipment in new buildings and retrofits as required under CALGreen Building Code Standards. Overall, these differences are minor, with the 2020 UWMP projecting a 2025 potable water demand of 20,509 af/yr, a 2040 potable water demand of 28,403 af/yr, and a 2045 (Buildout) potable water demand of 33,079 af/yr.

As the City continues to develop, potable water consumption between customer classes is expected to shift due to changes in the City's projected land use composition. Table 4-17 compares the historical average and projected potable water consumption by customer class. As shown in Table 4-17, the residential customer classes are expected to decrease their overall potable water consumption proportion as water use shifts towards non-residential customer classes. Although, as discussed above, the ratio of projected non-residential to residential development has decreased since the 2012 WSMP, the planned development within the City's SOI will still shift towards more non-residential land use. This trend is primarily due to large industrial developments such as Cordes Ranch, West Side Industrial, East Side Industrial, UR 3, and Tracy Hills Phase 5, among others.

Irrigation water use is projected to be a much smaller proportion of the City's potable water use at buildout because (1) many new development areas will be served by the recycled water system at buildout, and (2) some of the City's existing irrigated areas will be converted to recycled water use.

Table 4-17. Historical and Projected Potable Water Consumption by Customer Class

Customer Class	Historical Average Annual Consumption[a], %	Projected Annual Consumption in 2025[b], %	Projected Annual Consumption in 2040[b], %	Projected Annual Consumption at Buildout[b], %
Single-Family Residential[c]	60.1	58.0	54.0	53.3
Multi-Family Residential[d]	6.7	7.6	6.9	8.5
Residential Subtotal	66.8	65.6	60.9	61.7
Commercial[e]	15.4	13.5	14.2	14.2
Industrial	4.9	9.3	16.4	17.6
Irrigation[f]	12.9	11.6	8.4	6.5
Total	**100**	**100**	100	100

(a) Refer to Table 4-4.
(b) Includes existing and projected future potable demands.
(c) Includes projected future residential demands (excluding irrigation) for Residential - Very Low Density, Residential - Low Density, and Residential - Medium Density land use types.
(d) Includes projected future residential demands (excluding irrigation) for Residential - High Density and Residential - Very High Density land use types.
(e) Includes projected future demands (excluding irrigation) for Commercial, Office, and Institutional land use types.
(f) Includes projected future irrigation demands to be served by potable water. Accounts for planned conversions of irrigation services to recycled water use.

4.9 FUTURE PER CAPITA WATER USE PROJECTIONS

The projected potable water demands shown in Table 4-16 were used in combination with population projections to evaluate the City's projected future per capita water use.

Table 4-18 shows the population projections and projected per capita potable water use for the 2040 and buildout time frames. Population projections for 2040 and buildout were estimated by the City's Planning Division based on the planned future development and California Department of Finance data for the number of people per household. Based on these assumptions, the City is projected to have a total future population of approximately 186,000 at buildout, with an overall per capita water use of 161 gpcd.

Table 4-18. Projected Population and Per Capita Potable Water Use

Time Frame	Projected Potable Water Demand, af/yr[a,b]	Projected Population[c]	Per Capita Potable Water Use, gpcd
2040	28,700	170,152	151
Buildout	33,500	185,961	161

(a) Totals rounded to the nearest hundred.
(b) From Table 4-16.
(c) Population projection from the City Planning Division.

CHAPTER 5
Existing and Future Water Supplies

5.1 OVERVIEW

The purpose of this chapter is to provide an updated evaluation of the availability and reliability of the City's existing and additional planned future water supply sources to meet the projected buildout water demands for the City as described in Chapter 4. This chapter includes the following sections:

- Changes to the City's Water Supplies Since the Completion of the 2012 Citywide Water System Master Plan and the 2015 UWMP
- Existing Potable Water Supplies
- Future Potable Water Supplies
- Existing Non-Potable Water Supplies
- Reliability of the City's Water Supplies
- Sufficiency of the City's Water Supplies
- Summary of Water Supply Recommendations

5.2 CHANGES TO THE CITY'S WATER SUPPLIES SINCE THE COMPLETION OF THE 2012 CITYWIDE WATER SYSTEM MASTER PLAN AND THE 2015 URBAN WATER MANAGEMENT PLAN

The 2012 WSMP evaluated the sufficiency of the City's water supplies to meet the then-projected buildout water demands. The City's 2015 UWMP, adopted by the City in July 2016, evaluated the City's existing and future water supplies, together with the City's water conservation programs, and their ability to meet projected future water demands and comply with SB X7-7. Since those documents were completed, significant new residential and commercial development has occurred in the City and planning for future developments has been refined (as described in Chapter 3).

During this same time, the availability and reliability of the City's water supplies have been impacted by drought conditions and associated unprecedented cutbacks in surface water supply deliveries. The City's 2020 UWMP, adopted in June 2021, addresses these changes in water supply availability and reliability. In addition, new legislation has been passed which will further impact future water use and future water supply availability and reliability, including the following:

- Comprehensive groundwater legislation contained in SBs 1168 and 1319, and AB 1739, which are collectively referred to as the Sustainable Groundwater Management Act (SGMA), was approved in September 2014 and became effective on January 1, 2015. The legislative intent of SGMA is to provide sustainable management of groundwater basins, enhance local management of groundwater, establish minimum standards for sustainable groundwater management, and provide local groundwater agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater.

- SB 606 and AB 1668 were passed in May 2018 and established new statewide water use efficiency standards for indoor residential water use, outdoor residential water use, commercial, industrial and institutional irrigation of landscaped areas and water loss. A primer entitled "Making Water Conservation a California Way of Life" was developed to be a reference document for the implementation of the complex 2018 legislation.
- In 2018, the SWRCB adopted amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan Amendment) which restrict the use of flows from the Lower San Joaquin River and its tributaries (the Stanislaus, Tuolumne and Merced Rivers) to improve conditions for fish and wildlife. Specifically, the Bay-Delta Plan Amendment restricts the use of flows until 40 percent of unimpaired flows are rededicated for water quality and instream fisheries. This restriction could potentially significantly impact the availability of the City's water supplies from the SSJID. However, due to the uncertainty surrounding the implementation of the Bay-Delta Plan Amendment, SSJID's 2020 UWMP assumed that the Bay-Delta Plan Amendment would not be implemented. In its 2020 UWMP, the City also presents the SSJID reliability assuming that the Bay-Delta Plan Amendment is not implemented, but the City's 2020 UWMP also provided a parallel analysis of reliability assuming that the Bay-Delta Plan Amendment is implemented.

5.3 EXISTING POTABLE WATER SUPPLIES

The City currently receives water supplies from the following sources:

- Untreated surface water from the DMC (CVP) (treated at the City's JJWTP)
- Untreated surface water from BBID pre-1914 rights (treated at the City's JJWTP)
- Treated surface water from the Stanislaus River via the South County Water Supply Project (SCWSP) (treated and delivered to the City by the SSJID)
- Groundwater pumped from eight groundwater wells located within the City

Table 5-1 provides a summary of the City's existing water supply agreements and contracts. A discussion of each of these water supplies and their anticipated availability and reliability is provided below.

Table 5-1. Existing Water Supplies

Supply Source	Existing Water Agreements/Contracts (Supply Quantity, af/yr)
Potable Water Supplies	
Surface Water Supplies	
USBR CVP Contract with M&I Reliability (treated at City's JJWTP)	10,000[a]
USBR CVP Contract with Ag Reliability (treated at City's JJWTP)	10,000[b]
BBID Pre-1914 rights for use in Tracy Hills (treated at City's JJWTP)	3,330[c]
SSJID South County Water Supply Project	11,120[d]
Groundwater	Up to 9,000[e]
Semitropic Water Storage Bank	Up to 3,500[f]
ASR	Up to 1,000[g]
Non-Potable Water Supplies[h]	
Recycled Water Exchange	7,500
Recycled Water (for non-potable uses)	6,300

(a) M&I-reliability CVP water. Assumes the terms of the long-term renewal contract with the USBR are consistent with those of the interim renewal contract entered into between the City and USBR in February 2016.

(b) Assignments from Banta-Carbona Irrigation District (BCID) and West Side Irrigation District (WSID).

(c) Up to 4,500 af/yr, but no more than the potable water demand for Tracy Hills (3,330 af/yr). This water is only available for use in the portion of Tracy Hills that lies within BBID Raw Water Service Area 2 the CVP Consolidated Place of Use, so the quantity of supply is limited to potable water demand in this area. Therefore, the maximum BBID supply delivered to this area is reduced to 3,330 af/yr.

(d) Includes the 10,000 af/yr allocation and the additional 1,120 af/yr obtained through the 2013 Lathrop-Tracy Purchase, Sale, and Amendment Agreement. Does not include the interim purchase from Escalon.

(e) The City is able to withdraw up to 9,000 af/yr of groundwater from the Tracy Subbasin. However, due to the aging infrastructure and water quality issues in the City's groundwater supplies, the City is projecting to be able to withdraw up to 2,500 af/yr in normal years. During dry years, the City anticipates increasing its groundwater production on a short-term basis from the normal year production of 2,500 af/yr to 4,500 af/yr.

(f) The City has purchased 10,500 af of water storage in the Stored Water Recovery Unit, which allows the City to withdraw up to 3,500 af/yr for three consecutive years.

(g) Supplies from ASR are assumed to be dry year supplies. During normal years, the City will not withdraw ASR water. In single dry years and multiple dry years, this water supply is considered to be 100 percent reliable. The City estimates that up to 1,000 af/yr of groundwater can be extracted from buffer storage in the Lower Tulare Formation aquifer associated with the City's current ASR Program.

(h) While the City's Wastewater Treatment Plant is currently capable of providing recycled water supply, additional infrastructure will be required to provide for its beneficial use (see additional information in this chapter and in Chapter 9).

Each of these existing supplies is described below. A summary table listing the City's existing and future water supplies under various hydrologic conditions is provided following the discussion of the City's future water supplies.

The City's historical use of these water supplies is shown on Figure 5-1. As shown, the City's highest annual water use occurred in 2007 and totaled 19,176 af/yr. Since then, water use has decreased with downturns resulting from the 2008 Great Recession which slowed development growth for several years and the 2011 to 2017 California drought which prompted mandatory statewide water conservation in 2015 and 2016. Since the end of the drought, water use has rebounded (increased) somewhat but is still below the highest historical use in 2007. Also shown on Figure 5-1 is the City's population since 1980. As shown, while the City's population has more than quadrupled since 1980, water use has only a little more than doubled. The relatively low

increase in water demand as compared to population growth results from the reduction of overall per capita water use from over 300 gpcd in the early 1980s to less than 180 gpcd in recent years as described in Chapter 4.

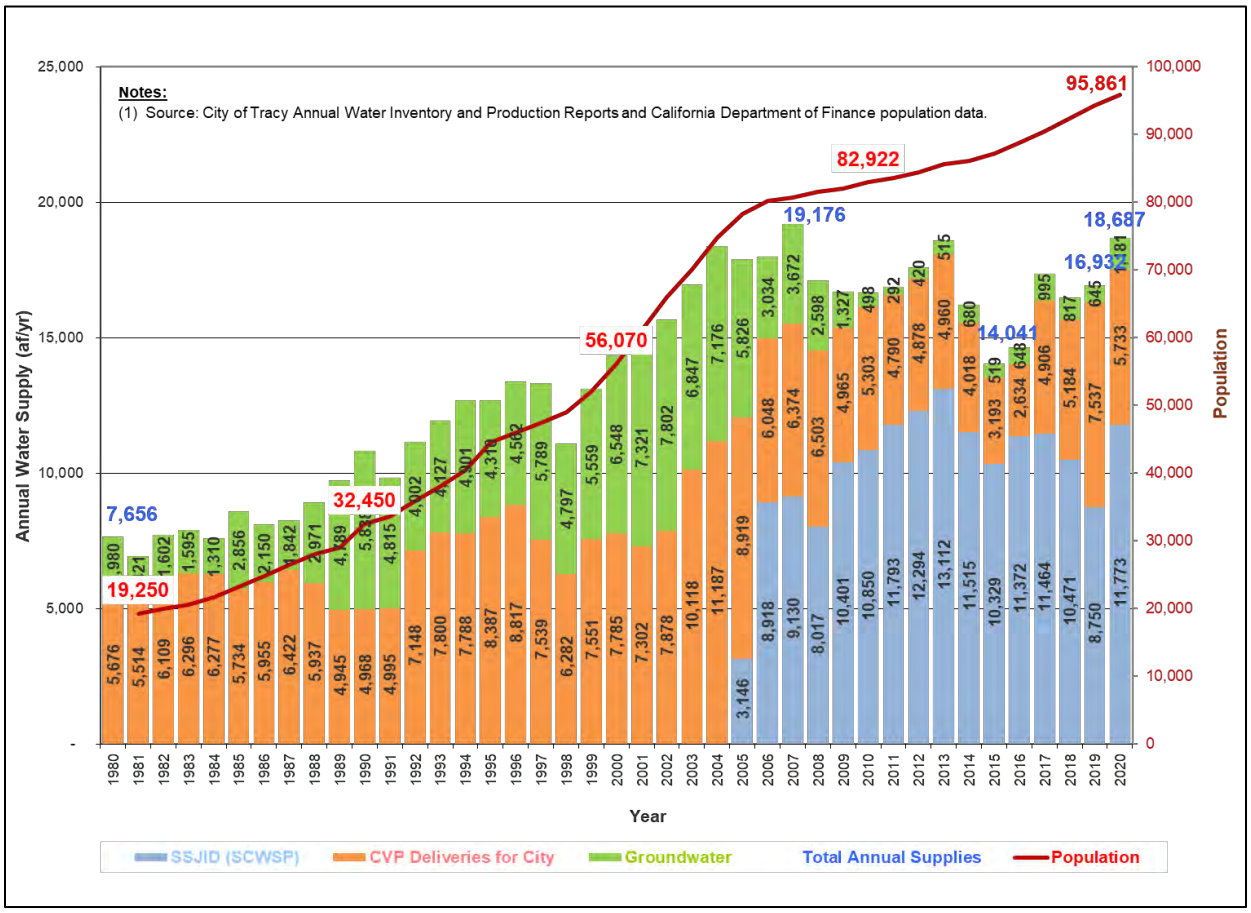


Figure 5-1. Historical Water Supplies

5.3.1 Central Valley Project Water via the Delta-Mendota Canal

5.3.1.1 M&I-Reliability Supplies from the CVP

In 1974, the City entered into a 40-year contract with the USBR for an annual entitlement of 10,000 af/yr of surface water from the CVP via the DMC. The original contract expired in 2014; however, since December 2013, the City and USBR have entered into a series of two-year interim renewal contracts to provide water service to the City while the terms of the long-term contract renewal are negotiated and the associated environmental documentation is prepared. The most recent interim renewal contract term begins March 1, 2020 and ends February 28, 2022. The City anticipates on-going contract renewals for this source.

Allocations for the Municipal and Industrial (M&I)-reliability CVP water since 2010 are summarized in Table 5-2.

Table 5-2. Historical Annual CVP M&I Allocations (South of Delta)

Year	Annual CVP M&I Allocation (percent of contractual amount unless otherwise noted)
2010	75 percent
2011	100 percent
2012	75 percent
2013	70 percent
2014	50 percent
2015	Public health and safety needs or at least 25 percent of historical use, whichever is greater
2016	55 percent of historical use
2017	100 percent of contract amount
2018	Public health and safety needs or at least 75 percent of historical use, whichever is greater
2019	100 percent of historical use
2020	Public health and safety needs or at least 70 percent of historical use, whichever is greater

In February 2017, new guidelines and procedures went into effect associated with the updated CVP M&I Water Shortage Policy. In general, the policy provides for the following:

- When M&I contractor allocations are at 100 percent, the allocation of M&I water will be based on Contract Total.
- When M&I contractor allocations are below 100 percent, the allocation of M&I water will be based on a contractor's historical use of CVP M&I water.
- An M&I contractor's historical use will be determined by calculating the average quantity of CVP water put to beneficial use within the service area during the last three years of water deliveries that were unconstrained by the availability of CVP water.

It should be noted that before allocation of M&I water to a contractor will be reduced, allocation of irrigation water will be reduced below 75 percent of Contract Total. When allocation of irrigation water has been reduced below 75 percent and still further water supply reductions are necessary, both the M&I and irrigation allocations will be reduced by the same percentage increment. The M&I allocation will be reduced until it reaches 75 percent of historical use, and the irrigation allocation will be reduced until it reaches 50 percent of irrigation Contract Total. The M&I allocation will not be further reduced until the irrigation allocation is reduced to below 25 percent of Contract Total. When allocation of irrigation water is reduced below 25 percent of Contract Total, USBR will reassess both the availability of CVP water supply and CVP water demand.

According to the policy, USBR will strive to deliver CVP water to M&I water service contractors at not less than the amount needed to meet public health and safety needs, taking into consideration contractors' CVP allocations and available non-CVP supplies, provided CVP water is available.

For this Citywide Water System Master Plan Update, consistent with the City's 2020 UWMP, the following assumptions have been made with regards to delivery of M&I-reliability supplies from the CVP under the various hydrologic conditions:

- Normal Years: 75 percent of historical use
- Single Dry Years: 25 percent of historical use
- Multiple Dry Years: 40 percent of historical use

5.3.1.2 Ag-Reliability Supplies from the CVP

In 2004, the USBR approved the assignment of 5,000 af/yr of Ag-reliability CVP contract entitlement to the City from the BCID. Also in 2004, the USBR approved the assignment of an additional 2,500 af/yr of Ag-reliability CVP contract entitlement water to the City from the WSID with the option to purchase an additional 2,500 af/yr of CVP contract entitlement from the WSID. The purchase of the additional 2,500 af/yr was approved in December 2013, increasing the City's assignment of WSID water to 5,000 af/yr.

Deliveries of Ag-reliability water can vary significantly, and during severe water shortages supply may be reduced as much as 100 percent, as they were in 2014 and 2015. Allocations for the Ag-reliability CVP water since 2010 are summarized in Table 5-3.

Table 5-3. Historical Annual CVP Ag Allocations (South of Delta)

Year	Annual CVP Ag Allocation, percent of contractual amount
2010	45
2011	80
2012	40
2013	20
2014	0
2015	0
2016	5
2017	100
2018	50
2019	75
2020	20

For this Citywide Water System Master Plan Update, consistent with the City's 2020 UWMP, the following assumptions have been made with regards to delivery of Ag-reliability supplies from the CVP:

- Normal Years: 50 percent of annual entitlement
- Single Dry Years: 0 percent of annual entitlement (based on actual allocation in 2015)
- Multiple Dry Years: 0 percent of annual entitlement (based on the average allocations for 2014, 2015 and 2016; 1.67 percent rounded down to 0 percent)

5.3.1.3 Treatment and Use of CVP Surface Water Supplies

The City's CVP surface water supplies received via the DMC are treated at the City's JJWTP, which was originally constructed in 1979, expanded in 1988, and then expanded again in 2008. The JJWTP is located adjacent to the Delta-Mendota Canal in the southern portion of the City. The current treatment capacity of the JJWTP is 30 mgd.

The City's annual combined M&I and Ag CVP surface water supplies used by the City since 2010 are shown in Table 5-4.

Table 5-4. Historical Annual CVP Surface Water Supplies

Year	Annual CVP Surface Water Supplies, af[(a)]
2010	5,303
2011	4,790
2012	4,878
2013	4,960
2014	4,018
2015	3,193
2016	2,634
2017	4,906
2018	5,184
2019	7,537
2020	5,733

(a) Does not include CVP supplies which are treated and wheeled for the Patterson Pass Business Park (see Table 5-5 below).

The City also treats and serves relatively small quantities of CVP/DMC water purchased by others through a "treatment and wheeling agreement" for use at the Patterson Pass Business Park only. The Patterson Pass Business Park is now built out. The City's deliveries through the Patterson Pass Business Park Booster Pump Station since 2010 are shown in Table 5-5. A comparable quantity of BBID CVP/DMC water is anticipated to be available for annual delivery to the Patterson Pass Business Park in the future.

Table 5-5. Historical Annual Deliveries to Patterson Pass Business Park

Year	Deliveries to Patterson Pass Business Park, af
2010	420
2011	527
2012	538
2013	558
2014	590
2015	585
2016	707[(a)]
2017	796[(a)]
2018	948[(a)]
2019	740[(a)]
2020	840[(a)]

(a) Deliveries shown for 2016 to 2019 may include demands in the International Park of Commerce (Cordes Ranch) due to the metering configuration in place during those years.

5.3.2 Surface Water from BBID Pre-1914 Water Rights

Part of the proposed Tracy Hills Specific Plan area was annexed into the BBID and is entitled to water service from BBID, using BBID's pre-1914 appropriative water rights. This water is delivered to the City via the DMC and is treated at the City's JJWTP before delivery to the Tracy Hills Project. The City anticipates that up to 4,500 af/yr of pre-1914 water rights water could be provided by BBID on a year-round basis to serve the Tracy Hills Project in the BBID service area. However, the volume of water available to the City through this agreement is limited to the demand in the BBID service area portion of the Tracy Hills Project. The projected potable water demand in this area is estimated to be 3,330 af/yr at buildout. Because the water supply is based on pre-1914 appropriative rights, the supply has historically been considered to be firm and well-established.[1]

[1] It should be noted that in August 2021, following the June 2021 adoption of the City's 2020 UWMP, the SWRCB issued an initial order imposing water right curtailment and reporting requirements in the Sacramento-San Joaquin Delta watershed that included the curtailment of pre-1914 appropriative water right claims in the San Joaquin River watershed. Based on this August 2021 order, the reliability of BBID's pre-1914 appropriative water rights may be uncertain.

5.3.3 Stanislaus River Water

The City, in partnership with the cities of Manteca, Lathrop and Escalon, and the SSJID, have constructed a surface water treatment plant near Woodward Reservoir in Stanislaus County and a transmission pipeline to deliver treated surface water to each city. The project is called the South County Water Supply Project (SCWSP). This water supply is based on SSJID's senior pre-1914 appropriative water rights to the Stanislaus River, coupled with an agreement with the USBR to store water in New Melones Reservoir.

As part of the SCWSP, the City was initially allocated up to 10,000 af/yr of water. In 2006, the City entered into a temporary contract with Escalon to purchase Escalon's allocation of 2,015 af/yr of SCWSP supply until Escalon constructs the necessary infrastructure to convey the SCWSP water; this contract is anticipated to sunset in 2025. In August 2013, the City purchased an additional 1,120 af/yr of SCWSP entitlement from the City of Lathrop. Thus, the City's current contractual amount of SCWSP water is 13,135 af/yr in total. Once the agreement with Escalon sunsets (anticipated to occur in 2025), the City's contractual allocation will be reduced to 11,120 af/yr.

Treated water deliveries of SCWSP water commenced in July 2005, and deliveries have been essentially uninterrupted since then (see Figure 5-1). In some years, SCWSP deliveries were less than the City's full project allotment; however, during these years the City did not require its full SCWSP allotment, even though the full contract amount was available from SCWSP. However, since 2010, the City has actually received more than its allotment in some years. Historical deliveries from the SCWSP to the City since 2010 are shown in Table 5-6.

Table 5-6. Historical Deliveries from the SCWSP to the City of Tracy

Year	SCWSP Deliveries, af
2010	10,850
2011	11,793
2012	12,294
2013	13,112
2014	11,515
2015	10,329
2016	11,372
2017	11,464
2018	10,471
2019	8,750
2020	11,773

The SCWSP was expected to have high reliability as a result of its senior pre-1914 rights. SSJID's 2015 UWMP, adopted by SSJID in June 2016, indicated that it would meet 98.2 to 99.9 percent of urban demands in normal years (the percent of urban demand met increases in the future as agricultural demands decrease), 73.6 to 75.3 percent of urban demands in single dry years, and 85.1 to 87.1 percent of urban demand in multiple dry years. In the City's 2015 UWMP, supplies from the SCWSP were assumed to have high reliability with normal year allocations at 100 percent of the City's contractual entitlement, and single dry year and multiple dry year allocations at 85 percent of the City's contractual entitlement.

However, in December 2018, the SWRCB released amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan Amendment) with significant changes to the previous Bay-Delta Water Quality Control Plan. The Bay-Delta Plan Amendment requires releases of approximately 40 percent of what would naturally flow in watersheds tributary to the San Joaquin River (including the Stanislaus River) during the February to June period. This means that surface water users on those watersheds would be restricted from using and storing water until 40 percent of unimpaired flows are rededicated for water quality and instream fishery purposes. For the Stanislaus River, the resulting surface water cutbacks would be significant. However, there is much uncertainty surrounding the implementation of the Bay-Delta Plan Amendment.

In its 2020 UWMP, SSJID presented a water reliability analysis assuming that the Bay-Delta Plan Amendment will not be implemented given its uncertainties. As an SSJID retail agency customer, the City relies on SSJID for the reliability projections for the Stanislaus River water supply. Consistent with SSJID's approach, the City's 2020 UWMP assumes that the Bay-Delta Plan Amendment will not be implemented. However, to fully assess the potential impacts of the Bay-Delta Plan Amendment and better plan for the potential shortfalls, the City conducted a parallel set of reliability analyses assuming that the Bay-Delta Plan Amendment will be implemented and included it as Appendix G of its 2020 UWMP.

For purposes of this Citywide Water System Master Plan Update, the reliability of the SCWSP supply has been revised to be consistent with the City's 2020 UWMP. Allocations will be assumed to be as follows:

- Normal Years: Allocations will be assumed to be 100 percent of the City's contractual entitlement.
- Single Dry Years: Allocations will be assumed to be 56 to 76 percent of the City's contractual entitlement.
- Multiple Dry Years: Allocations will be assumed to be 56 to 100 percent of the City's contractual entitlement.

5.3.4 Groundwater

5.3.4.1 City Wells

The City overlies a portion of the San Joaquin Valley Groundwater Basin-Tracy Subbasin (Tracy Subbasin). The City currently operates eight groundwater production wells and one ASR well. Four wells (Production Wells 1, 2, 3 and 4) are located near the City's JJWTP and pump directly into the JJWTP clearwells, where the groundwater is blended with treated surface water. Four other wells (Lincoln Well, Lewis Manor Well (Well 5), Park and Ride Well (Well 6), and Ball Park Well (Well 7) are located throughout the City and pump water directly into the distribution system after disinfection. The City's newest well, Well 8, located near the intersection of Tracy Boulevard and 6th Street, is an ASR Well, and is capable of injecting treated surface water into the aquifer for storage and extracting it for later use (see additional discussion in Section 5.3.5 below).

5.3.4.2 Groundwater Yield

A 1990 Kennedy/Jenks/Chilton (K/J/C) study estimated a perennial groundwater yield of 6,700 af/yr in the Tracy Subbasin within the Tracy Study Area. However, in 2001, to determine if additional groundwater resources were available in the Tracy Study Area, the City conducted an updated groundwater analysis. The Estimated Groundwater Yield Study, prepared by Bookman-Edmonston Engineering, provided an evaluation of potential groundwater yield and determined that a 2,300 af/yr increase of the average annual operational groundwater yield above the groundwater yield recommended in the 1990 K/J/C study could be provided within the estimated sustainable yield of the Tracy Subbasin in the Tracy Study Area, without adverse impact to groundwater resources or quality in the Tracy Study Area over a 50-year timeframe. This expansion of groundwater usage to 9,000 af/yr would be within the City's estimated share of the aquifer's sustainable yield of 22,000 af/yr of the 28,000 af/yr total (which includes groundwater usage within West Side Irrigation District, Naglee-Burk Irrigation District, Plain View Water District (now part of the BBID), and BCID). It was also estimated that this expansion of groundwater usage would result in a groundwater level drop of 10 feet but would stabilize at this level.

In 2015, the City hired GEI Consultants (GEI) to perform an assessment on what the effects would be if the City were to pump between 16,000 and 22,000 af/yr for a single year to meet its demands during a drought emergency when no surface water supplies were available. The assessment considered potential impacts on groundwater levels, groundwater quality, and land subsidence. GEI's approach to this assessment was to estimate drawdown beneath the City, including drawdown caused by well interference, under scenarios wherein all of the City's wells were pumped for a single year at rates needed to meet the above stated demands. Drawdown estimates were made using analytical methods and aquifer hydraulic property data from pumping tests performed at two of the City's wells. Results showed that the City does have capacity to pump its wells to meet these single dry year demands, but that drawdown in the City wells and at locations proximate to the City would exceed that which has been historically observed. GEI (2015) estimated that groundwater levels would recover from their drawdown within approximately seven years.

5.3.4.3 Groundwater Quality

Groundwater quality in the Tracy Subbasin varies spatially and with depth. In general, the northern part of the Tracy Subbasin is characterized by a sodium water type, and the southern part of the Tracy Subbasin is characterized by calcium-sodium type water. The northern part of the Tracy Subbasin is also characterized by a wide range of anionic water types, including bicarbonate; chloride; and mixed bicarbonate-chloride. Major anions in the southern part of the Tracy Subbasin include sulfate-chloride and bicarbonate-chloride.

One water quality concern that the City actively manages is Total Dissolved Solids (TDS). The City's groundwater supply typically meets the primary maximum contaminant level (MCL) of 1,000 milligrams per liter (mg/L) but frequently exceeds the secondary MCL of 500 mg/L. In 2019, the City's groundwater supply ranged from 386 to 876 mg/L of TDS, with an average concentration of 752 mg/L. Because the TDS concentrations are significantly higher in the groundwater supply than in the City's other water supply sources, in order to meet the secondary MCL in its overall water supply, the City typically scales back its groundwater production from its estimated sustainable yield of 9,000 af/yr, particularly in normal rainfall years.

5.3.4.4 Groundwater Management

5.3.4.4.1 City Groundwater Management Policy and Mitigated Negative Declaration for City Groundwater Production of 9,000 af/yr

On a local level, in 2001, the City adopted a Groundwater Management Policy, and prepared a Groundwater Management Policy Mitigated Negative Declaration. The Groundwater Management Policy and the Groundwater Management Policy Mitigated Negative Declaration are described below.

Pursuant to the findings of the 2001 Bookman-Edmonston study (discussed above in Section 5.3.4.2), the Tracy City Council adopted a Groundwater Management Policy in 2001 that established the City's maximum annual groundwater extraction rate of 9,000 af/yr. To comply with CEQA and to evaluate the potential negative effects of increased groundwater extraction on water quality, water levels, and subsidence, the City also prepared a Groundwater Management Policy Mitigated Negative Declaration. The Groundwater Management Policy Mitigated Negative Declaration specifies the frequency and type of monitoring and reporting the City must conduct to evaluate the sustainability of the increased groundwater extraction rate.

Consistent with the Groundwater Management Policy Mitigated Negative Declaration, the City has maintained groundwater production rates well below the estimated sustainable yield of 9,000 af/yr.

5.3.4.4.2 Compliance with the 1992 Groundwater Management Act (AB 3030)

The 1992 Groundwater Management Act (AB 3030) established provisions by which local water agencies could develop and implement groundwater management plans (GMPs). GMPs are generally designed to prevent local and regional aquifer overdraft, which reduces available groundwater resources and which, under certain conditions, can lead to degradation of water quality and to land subsidence.

The City, BBID, BCID, and San Joaquin County formed a Groundwater Advisory Committee to facilitate the development of a regional groundwater management plan (GWMP) for the Tracy Subbasin. The planning area of the Tracy GWMP encompassed the portion of the Tracy Subbasin underlying San Joaquin County. The Tracy GWMP was adopted in 2007.

The key results of the Tracy GWMP included the following:

- Developed a general consensus among stakeholders regarding the characterization of the area's water problems, current and future demands, and groundwater conditions;
- Documented the region's groundwater management goals and establishing basin management objectives to help measure progress in attaining the goals;
- Developed specific solutions and common programs for the basin; and
- Provided an implementation plan to direct future groundwater management activities.

The Tracy GWMP concluded that the Tracy Subbasin is full, but experiences groundwater quality issues in portions of the basin associated with nitrate, boron, sulfate, chloride, and total dissolved solids (TDS). As such, many of the groundwater management options that were recommended focused on creating available storage and managing pumping in order to increase water quality within the Tracy Subbasin.

San Joaquin County is the designated Monitoring Entity under the California Statewide Groundwater Elevation Monitoring (CASGEM) program for the portion of the Tracy Subbasin underlying the county. However, upon submission of the Groundwater Sustainability Plan, the CASGEM program will be superseded by the SGMA monitoring efforts.

5.3.4.4.3 Tracy Regional Groundwater Management Plan

In addition to participating in the development of the Tracy Subbasin GMP, in 2005 the City was awarded a DWR grant for approximately $185,000 to prepare a Tracy Regional Groundwater Management Plan (Tracy Regional GMP) for the portion of the Tracy Subbasin that underlies the City of Tracy. The Tracy Regional GMP was completed in March 2007. A key objective of the Tracy Regional GMP was the development of Basin Management Objectives (BMOs) for groundwater levels, groundwater quality, and land subsidence in the region.

5.3.4.4.4 Compliance with the 2014 Sustainable Groundwater Management Act

On August 29, 2014, the California Legislature passed comprehensive groundwater legislation contained in SBs 1168 and 1319, and AB 1739, which are collectively referred to as SGMA. This legislation was signed by Governor Brown on September 16, 2014 and it became effective on January 1, 2015. The legislative intent of SGMA is to provide sustainable management of groundwater basins, enhance local management of groundwater, establish minimum standards for sustainable groundwater management, and provide local groundwater agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater.

The Tracy Subbasin is designated by DWR as a medium priority basin. As such, the Tracy Subbasin is subject to the requirements of SGMA, which include the formation of a one or more Groundwater Sustainability Agencies (GSAs) and the development and implementation of one or more Groundwater Sustainability Plans (GSPs) by January 31, 2022. If the statutory deadline is not met for GSP development and/or implementation, the State has the authority to intervene and manage groundwater within non-compliant subbasins. SGMA requires that adopted GSPs result in sustainable groundwater management which avoids undesirable results.

The Tracy Subbasin contained areas of San Joaquin, Contra Costa and Alameda Counties. The Banta-Carbona Irrigation District, Byron-Bethany Irrigation District, City of Tracy, City of Lathrop, Stewart Tract, West Side Irrigation District, and San Joaquin County are GSAs within the Tracy Subbasin. The GSAs recognize that developing and adopting a single GSP for the subbasin would be the most efficient way of achieving sustainability and preventing State intervention into local groundwater management.

Working with San Joaquin County and the Tracy Subbasin GSAs, a Memorandum of Agreement (MOA) has been developed for the development of the San Joaquin County GSP for the Tracy Subbasin. Under the terms of the MOA, San Joaquin County is designated as the lead entity to enter into an agreement with the City of Brentwood to coordinate the allocation of grant funds.

The City, BCID, BBID[2], City of Lathrop, San Joaquin County, and Stewart Tract are the six GSAs formed in the Tracy Subbasin and are working cooperatively to develop a single GSP. The Tracy Subbasin GSAs were awarded a DWR grant to develop the GSP. Pursuant to the Grant Agreement, each GSA designated an appointee to form the GSP Coordination Committee, and the San Joaquin County was appointed as the Grant Administrator. The Grant Administrator or any two appointees may call meetings of the GSP Coordination Committee as needed to in the GSP development process.

The GSP for the Tracy Subbasin has been adopted by the GSAs and was submitted to DWR by the statutory deadline of January 31, 2022. The Final GSP is available on the Tracy Subbasin website: https://tracysubbasin.org.

As one of the six GSAs that are managing the Tracy Subbasin., the City has been actively involved in GSP development activities and will continue to be involved throughout SGMA implementation. The City has one appointee (and an alternate) on the Tracy Subbasin GSP Coordination Committee, which meets quarterly, and the Technical Committee, which meets monthly.

[2] The West Side Irrigation District officially merged with Byron-Bethany Irrigation District in September 2020, which occurred later than the release of the draft GSP chapters.

5.3.4.5 Historical Groundwater Use

As discussed previously, the City currently operates eight groundwater extraction wells and one ASR well. The total production capacity of all of the wells combined is 28.2 mgd, which would equate to a total annual production capability of about 31,600 af/yr if the wells were pumped continuously; however, as described above, the City's maximum annual groundwater extraction rate has been established to be 9,000 af/yr. Key characteristics of the City's wells are listed in Table 5-7.

Table 5-7. Groundwater Well Characteristics

City Well Name/Number	Year Drilled	Total Well Depth (Casing Depth), feet	Casing Diameter, inches	Depth of Perforated Zone, feet[a]	Design Capacity, gpm	Production Capacity, mgd
Well 1	1986	1,010 (1,000)	16"	450-550 580-980	1,500	2.2
Well 2	1989	990 (870)	16"	420-850	2,000	2.9
Well 3	1989	1,020 (900)	16"	420-890	2,000	2.9
Well 4	1989	1,020 (950)	16"	380-940	2,000	2.9
Lincoln Well	1990	1,000 (1,000)	16"	490-980	2,500	3.6
Well 5[b] (Lewis Manor Well)	2000	1,015 (1,000)	18"	410-480 601-630 650-670 805-830 900-930 965-990	2,500	3.6
Well 6 (Park & Ride Well)	2001/02	1,250 (1,216)	18"	550-598 610-636 656-678 738-754 774-796 966-982 1,014-1,122 1,176-1,196	2,000	2.9
Well 7 (Ball Park Well)	2002	1,070 (894)	18"	550-598 570-732 850-874	2,500	3.6
Well 8[c]	2004	850 (850)	18"	370-460 510-640 680-820	2,500	3.6

(a) Source: GEI Consultants, Summary of Groundwater Conditions November 2007 through November 2008, dated January 23, 2009.
(b) Data shown is for the Lewis Manor Replacement Well constructed in 2000.
(c) Well 8 went into operation in September 2010, initially as an extraction well and then as a permitted ASR Well.

It should be noted that only Wells 1, 2, 3, 4 and 8 currently have provisions for ammonia addition. It is recommended that provisions for ammonia addition be added to the City's other wells to provide maximum flexibility in the operation of the wells in conjunction with the City's surface water supplies which are disinfected through chloramination.

The City's annual groundwater production since 2010 is shown in Table 5-8.

Table 5-8. Historical Groundwater Production by the City of Tracy

Year	Annual Groundwater Production, af
2010	498
2011	292
2012	420
2013	515
2014	680
2015	519
2016	648
2017	995
2018	817
2019	645
2020	1,181

5.3.4.6 Projected Future Groundwater Use

As discussed in Section 5.3.4.2, the City may sustainably pump up to 9,000 af/yr from the local groundwater basin. Since the hard, high TDS groundwater is of lower quality than the City's surface water sources, the City has scaled back its groundwater extraction in most years. However, the City will continue to rely on groundwater for peaking and drought and emergency water supply.

The City anticipates that total extraction during a normal year will be 2,500 af/yr. By reducing groundwater extraction on an average annual basis, the City will: (1) increase the overall quality of its drinking water, thus increasing customer satisfaction and reducing system maintenance and repair caused by the lower-quality groundwater; and (2) recharge the underlying aquifer, effectively increasing the availability of groundwater during a drought or emergency condition (i.e., effectively "banking" groundwater).

The projected use of groundwater during dry years is about 4,500 af/yr and is consistent with the City's Groundwater Management Policy. In the event that the City is unable to secure additional high-quality surface water supplies in the future, the City is able to expand groundwater production up to 9,000 af/yr. In the event of a severe water supply shortage or emergency, the City has the ability to increase production dramatically, up to 22,000 af/yr.

5.3.5 Aquifer Storage and Recovery

The City's ASR Program allows the City to optimize conjunctive use of its water supplies through injection of surplus treated (potable) drinking water into selected aquifer zones within the groundwater subbasin for storage when surplus supplies are available, and recovery of that potable water from the aquifer to optimize water quality and meet seasonal peak demands during drought periods, or when emergency or disaster scenarios preclude the use of imported water supplies.

In January 2004, the City constructed a new well (Well 8) that was designed to allow for both injection and extraction of water supplies in conjunction with the City's proposed ASR Program. In early 2009, the City contracted to construct the above-ground well facilities (including the pump house, pump, motor, SCADA, electrical, telemetry, chemical feed systems, *etc.*) to have Well 8 operational in September 2010, initially as an extraction well, and in the future as part of the City's proposed ASR Program. In addition, the City installed two monitoring wells for use in the demonstration project monitoring and testing for the proposed ASR Program.

The City obtained regulatory approval from the Central Valley Regional Water Quality Control Board (RWQCB) to conduct an ASR Demonstration Testing Program. The Phase 1 ASR Demonstration Testing was conducted between January 2011 and September 2011 and involved the injection of 233 acre-feet (76 million gallons) of treated SSJID potable water, storage in the confined aquifer, and subsequent extraction of 340 acre-feet (111 million gallons) of water[3]. The Phase 2 ASR Testing was initiated in late December 2011 and was completed in September 2012 with injection of 700 acre-feet. The Tracy City Council approved and adopted a CEQA Negative Declaration (SCH No. 2012102013) for the permanent ASR Program on December 4, 2012.

Injection of treated SSJID water into the ASR well occurs during the winter months (i.e., November through April), when City demands are low and when the City's JJWTP and groundwater wells can be shut down such that only treated SSJID water is injected per the City's ASR permit. Extraction occurs primarily in the summer months to meet increased demands associated with irrigation needs, and as needed during droughts and water shortage emergencies. It is estimated that between 685 and 915 af/yr of potable water could be injected into the aquifer, assuming a 5-month continuous injection rate of 1.5 to 2.0 mgd at Well 8. The City's current strategic plan for ASR operations involves injecting up to 1,000 af/yr over six months during the winter and extracting 75 percent of the injection volume during the following summer. These operations would result in net injection into the Lower Tulare Formation aquifer, which will gradually create a "buffer supply" that the City can utilize in dry years or during water shortage emergencies.

Net annual ASR injection and extraction amounts from Well 8 since 2013 are shown in Table 5-9.

[3] Interim (Final) Status Report for Well 8 ASR Demonstration Program, Memorandum prepared for City of Tracy by Pueblo Water Resources, dated December 7, 2011.

Table 5-9. Tracy ASR Well 8 Annual Injection and Extraction	
Year	Net Injection or Extraction, af
2013	415 (injection)
2014	221 (extraction)
2015	322 (injection)
2016	165 (injection)
2017	665 (injection)
2018	2 (injection)
2019	0
2020	190 (injection)

5.3.6 Out-of-Basin Water Banking

The Semitropic Groundwater Storage District Groundwater Storage Bank (Semitropic) is a water storage system that began operation in the early 1990s. Located in Kern County between the California Aqueduct and the DMC, Semitropic is one of eight California groundwater banking agencies. Semitropic works by having its banking partners deliver their surplus water to Semitropic for storage. Then, when requested by the banking partner, Semitropic returns the stored water to the California Aqueduct for use by its partners either by exchanging its entitlement or by reversing the intake facility (known as "pumpback"). Through "pumpback," Semitropic can deliver a maximum of 90,000 af/yr of water into the California Aqueduct. The State would then deliver the water to the banking partners.

The total storage capacity at Semitropic is 1.65 million acre-feet and, as listed below, there is still a significant amount of storage capacity which is uncommitted and available. The current Semitropic banking partners and their reserved/available storage capacities are listed in Table 5-10.

Table 5-10. Semitropic Water Storage District Banking Partners[(a)]	
Partner Agency	Storage Allocation, af
Metropolitan Water District of Southern California	350,000
Valley Water (formerly known as Santa Clara Valley Water District)	350,000
Alameda County Water District	150,000
Zone 7 Water Agency	65,000
Newhall Land & Farming Company	55,000
San Diego County Water Authority	45,000
Poso Creek Water Company	60,000
City of Tracy	**10,500**
Homer, LLC	15,000
Harris Farms, LLC	10,500
Available Capacity	474,750
Unallocated Storage	64,250
Total Storage Capacity	**1,650,000**
(a) Source: Semitropic Water Storage District website (www.semitropic.com) as of February 12, 2020.	

In June 2006, the City entered into a pilot agreement with Semitropic for 1,000 acre-feet of water storage at Semitropic, which allowed for an annual withdrawal of up to 333 af/yr (e.g., 1,000 acre-feet divided by 3). The pilot agreement was intended to establish the procedures for water deposits and withdrawals by the City of Tracy and was terminated when the Permanent Agreement with Semitropic was implemented (see below).

On June 5, 2012, the Tracy City Council approved a long-term agreement with Semitropic for 3,500 units of water storage. One unit of water storage allows for a withdrawal of up to 1 af/yr for three years; hence, the agreement would allow for withdrawal of 3,500 af/yr for three years (10,500 af total). To store water in Semitropic, the City would not withdraw its share of CVP water from the DMC, but instead allow this water to continue to move through the DMC and California Aqueduct systems for delivery to and use by Semitropic. This is called "in lieu storage." Upon request by the City, in accordance with the contract, Semitropic would pump the stored water into the California Aqueduct and a like amount of water would be made available to the City directly from the DMC.

Though the City could utilize this supply in any year, it is most valuable during extended drought years when the City's surface water supplies are reduced. The City anticipates that banking water at Semitropic will increase the reliability of the City's water supply and help close the potential future gap between supply and demand during drought conditions or other water supply shortage emergencies. If the City uses water from the Semitropic water bank in any given year, it would manage its supplies during subsequent years such that it could refill the water bank for future use. The City plans to actively maintain storage in Semitropic as feasible.

As of December 2020, the City currently has 6,887 acre-feet of water in storage at Semitropic.

5.4 FUTURE POTABLE WATER SUPPLIES

The City is currently anticipating the following potential future potable water supplies:

- Additional ASR wells
- Additional CVP water supplies from USBR available through a recycled water exchange agreement
- Additional CVP water supplies from BBID
- Additional SCWSP water supplies

These potential future potable water supplies are described below.

5.4.1 Additional ASR Wells

As described above, the City currently has one ASR well (Well 8) which allows the City to inject excess SCWSP water supplies into the groundwater basin for later extraction when needed. The current injection and extraction capacity is 700 af/yr. The City is planning to expand the ASR program with the installation of additional ASR wells. The City's ASR Program will be expanded to provide up to 1,000 af/yr of water supplies from the existing and new ASR wells by 2040. The ASR supply will be used to meet demands during dry years, thereby increasing the reliability of

the City's water supply and helping to close the potential gap between supply and demand during drought conditions or water shortage emergencies.

One constraint with the City's ASR Program is that the permit only allows for SCWSP water to be injected. This means that the City has to shut down the JJWTP and the groundwater wells during the injection period so that only SCWSP supplies are being utilized. The City is considering requesting an amendment to its ASR permit to allow for the use of treated CVP supplies for ASR injection, in addition to the SCWSP water supplies. This would provide more operational flexibility for ASR injection and allow the City to optimize the storage of surface water supplies in wet years for later extraction in dry years. A potential alternative, if the City's ASR permit cannot be modified to allow for other water supplies to be injected, would be to construct a dedicated SCWSP water pipeline to the ASR well(s). Future expansion of the ASR program will need to fully evaluate these operational restrictions and potential alternatives.

5.4.2 Additional CVP Water Supplies from USBR Available Through a Recycled Water Exchange Program

The City is evaluating the potential for indirect reuse of its available recycled water through an exchange agreement with the USBR whereby a portion of the City's tertiary-treated wastewater (recycled water) would be discharged to the DMC and a like amount of water (i.e., a one-to-one exchange) could then be diverted from the DMC by the City for treatment at the City's JJWTP for potable use. Such supplies would be 100 percent reliable and would not be subject to drought cutbacks.

The benefits of such an exchange agreement include the following:

- Provides for the beneficial use of recycled water: Recycled water (tertiary treated wastewater) is currently discharged by the City into the Delta with minimal beneficial use.
- Provides an additional potable water supply for the City: Through indirect reuse, it provides an additional potable water supply for City residents and enhances water supply reliability for the community.
- Provides enhanced water supply reliability: Recycled water is a "drought proof" water supply.
- Reduces the City's dependence on CVP water supply: CVP water has become increasingly unreliable due to drought, climate change and environmental impacts. Indirect reuse of recycled water would reduce the City's dependence on CVP water supplies.
- Builds on existing infrastructure: Operations under the exchange agreement would utilize the existing wastewater treatment facilities and recently constructed recycled water pump station and pipelines.
- Reduces salt loading in the Delta: Recycled water has a total dissolved solids content of approximately 660 milligrams per liter. Water of this quality is suitable for reuse but does not meet Delta salinity standards. This results in the USBR having to release additional water from New Melones Reservoir to attain Delta salinity standards.

The project would require development of a project description, NEPA/CEQA review, approval of an exchange agreement and then design and construction of a recycled water pipeline to discharge recycled water to the DMC downstream of the City's JJWTP intake. If such a project is approved and implemented, the City anticipates that it would initially provide up to 5,900 af/yr of additional potable water supplies to the City, with future expansion as needed to meet future demands.

5.4.3 Additional CVP Water Supplies from BBID

Additional BBID DMC/CVP water supplies may be available to the City as agricultural land is converted to M&I uses. The land area that could potentially provide this additional water supply includes the portion of BBID's service area that falls within the City's planning areas (excluding the BBID Raw Water Service Area 2). Eligible land area is estimated to be approximately 2,600 acres. While the exact quantity of water that would be available is unknown, a contractual entitlement equal to 3.4 af/yr/acre may be available, resulting in a total supply of up to 8,800 af/yr (2,600 acres x 3.4 af/yr/acre). However, it should be noted that the additional water supplies would have agricultural reliability similar to the City's Ag-reliability CVP supplies described in Section 5.3.1.2 above and therefore would be subject to significant cutbacks in dry years. Agreements between Tracy and BBID, as well as environmental review, would need to occur before such a transaction could take place.

However, because of the uncertainty associated with the availability and reliability of this supply source, especially in dry years, for purposes of this Citywide Water System Master Plan Update, it is assumed that this future water supply will not be available to the City in the future.

5.4.4 Additional SCWSP Water Supplies

The City previously anticipated that an additional 1,880 af/yr of treated water supplies may be available from the SCWSP in the future through a Conserved Water Amendment Agreement. This additional supply would have the same reliability as the supply that the City is currently receiving from the SCWSP, including that recently purchased from the City of Lathrop. Delivery of these additional supplies to the City would be through the same, existing facilities currently delivering the City's existing SCWSP supplies. Delivery of these additional supplies would be subject to approval and environmental review.

However, because of the current uncertainty associated with the availability and reliability of this supply source, especially in dry years as a result of the Bay-Delta Plan Amendment, for purposes of this Citywide Water System Master Plan Update, it is assumed that this future water supply will not be available to the City in the future.

5.5 EXISTING NON-POTABLE WATER SUPPLIES

5.5.1 Recycled Water

In 2002, the City adopted a Recycled and Non-Potable Water Ordinance requiring all new subdivisions, to the extent practicable, to install the required infrastructure (such as dual-distribution pipelines) to provide recycled water to meet non-potable water demands at parks, golf courses, athletic fields, schools, median island landscapes, and industrial sites. The ordinance was codified into the Tracy Municipal Code as Chapter 11.30 "Recycled and Non-Potable Water."

In March 2013, the City adopted Ordinance 1183 amending Chapter 11.30 of the Tracy Municipal Code to update the City's recycled water requirements to be consistent with State, regional and local standards, including the California SB X7-7, 2010 California Green Building Standards Code, California Model Water Efficient Landscape Ordinance, and the City of Tracy Sustainability Action Plan. Approvals and permits for the production, distribution and use of recycled water will be required from the RWQCB and the SWRCB Division of Drinking Water.

Both the 2012 WSMP and Tracy Wastewater Master Plan included recommended capital improvement projects for the development of the City's recycled water system, including pump station and pipeline facilities to deliver recycled water within the City's service area for use for landscape irrigation and other non-potable uses. To date, the City has spent approximately $85 million on improvements to the City's WWTP to allow for the production of tertiary-treated wastewater meeting Title 22 requirements for recycled water use for landscape irrigation and other non-potable uses. In December 2013, the City adopted Development Impact Fees to fund recycled water infrastructure improvements. In 2015, the City received a $18 million Proposition 84 grant from DWR to fund construction of pump stations and pipelines to distribute recycled water. In March 2019, the City received an amended order from the SWRCB approving the change in place of use of its treated wastewater. The order allows for the City to change the point of discharge and place of use of treated wastewater by a reduction in discharge to Old River of up to 8.1 mgd, with a maximum annual limit of 5,900 af/yr and use the treated wastewater for industrial and irrigation purposes within the service areas of the City's Sphere of Influence, BBID within the City's Sphere of Influence and WSID.

The City recently completed construction of a recycled water pump station at the City's WWTP and a recycled water pipeline from the WWTP west to Lammers Road and south to Kimball High School. A second phase of construction will include a second pump station and additional recycled water pipeline to further extend the distribution of recycled water supplies within the City.

As described in Chapter 4, at buildout of the City's General Plan, it is estimated that the recycled water demand for landscape irrigation will be approximately 6,300 af/yr.

5.5.2 Shallow Non-Potable Groundwater

As discussed above, the Tracy Subbasin underlying the City has two aquifers: semi-confined and confined. The uppermost semi-confined aquifer is primarily comprised of alluvial and flood basin formations. The underlying confined aquifer is primarily comprised of the Tulare Formation and it is overlain by the Corcoran Clay, which separates the upper semi-confined aquifer from the underlying confined aquifer. The City's production wells draw from the confined aquifer only and

the average annual operational groundwater yield of 9,000 af/yr described in previous sections applies only to the confined aquifer. The City does not currently pump any groundwater from the semi-confined aquifer.

The shallow semi-confined groundwater is considered to be suitable for agricultural irrigation purposes. However, due to the poor water quality associated with the shallow groundwater supply, the use of this supply to meet the non-potable demands within the City's SOI is not recommended and is not discussed further in this Citywide Water System Master Plan Update.

5.6 RELIABILITY OF THE CITY'S WATER SUPPLIES

5.6.1 Potable Water Supply Reliability

The projected reliability for each of the City's supply sources under normal, single dry and multiple dry year conditions are described below.

5.6.1.1 Normal Years

Normal or wet water years are those that match or exceed median rainfall and runoff levels. The reliability of each of Tracy's existing and future water supplies and their projected availability during normal and wet years is described below:

- The City's contract with the USBR for 10,000 af/yr of DMC/CVP water is subject to M&I reliability. Based on the historical record, the City's long-term average allocation of DMC/CVP water pursuant to this contract is anticipated to be at least 85 percent of the total entitlement. However, due to recent environmental concerns in the Delta and potential future impacts due to climate change, the normal year supply of DMC/CVP M&I water is assumed to be 75 percent of the City's historical use. Based on a historical use of 5,930 af/yr (i.e., the average quantity of CVP water put to beneficial use by the City during the last three years of water deliveries that were unconstrained by the availability of CVP water), the projected normal year supply is 4,448 af/yr.
- The City has received acquired assignments from Banta-Carbona Irrigation District (BCID; 5,000 af/yr) and West Side Irrigation District (WSID; 5,000 af/yr) for a total entitlement of 10,000 af/yr of DMC/CVP water. These supplies are subject to Ag-reliability. The City is conservatively estimating that it will receive 50 percent of its Ag-reliability contractual entitlement, or 5,000 af/yr, in normal years.
- The City has acquired up to 4,500 af/yr of pre-1914 appropriative water rights water from BBID. These supplies are restricted in their place of use, and therefore the supply is anticipated to be equal to the projected demand within that place of use (i.e., the Tracy Hills area) ranging from 800 af/yr in 2025 to 3,300 af/yr in 2045. The City anticipates being able to receive 100 percent of this supply in normal years.

- The City has a total contractual entitlement of 13,135 af/yr of Stanislaus River water provided through the SCWSP, including 10,000 af/yr from its original contract with SSJID, 1,120 af/yr purchased from Lathrop, and 2,015 af/yr purchased on an interim basis from Escalon. The agreement between Tracy and Escalon is assumed to terminate after 2025. Based on information provided by SSJID, the City expects to receive 100 percent of its SCWSP water supply allocation during a normal water year. As such, the City anticipates being able to receive 13,135 af/yr of SCWSP supply in 2025 and 11,120 af/yr afterwards, assuming normal year conditions.
- The City is able to withdraw up to 9,000 af/yr of groundwater from the Tracy Subbasin. However, due to the aging infrastructure and water quality issues in the City's groundwater supplies, the City is projecting to be able to withdraw up to 2,500 af/yr in normal years. This groundwater supply is considered to be 100 percent reliable.
- The City does not anticipate using its Semitropic water or ASR water in normal years.
- The City anticipates that a Recycled Water Distribution Network and Exchange agreement will be executed with the USBR by 2030 to provide additional CVP supplies to the City in exchange for the City discharging a like amount of tertiary-treated recycled water to the DMC. The City assumes that the Recycled Water Distribution Network and Exchange will be implemented as needed to meet future demand conditions and is currently projected to supply an amount ranging from 1,925 af/yr in 2030 to 7,500 af/yr in 2045. This water supply is considered to be 100 percent reliable.
- The City's recycled water supply is expected to be 100 percent reliable. Based on the projected non-potable demands and assuming that the City makes investments in infrastructure and permitting, the City estimates that they will have access to 1,000 af/yr of recycled water supply in 2025, increasing to 6,300 af/yr in 2045.

The reliability of each of the City's existing and additional planned future water supplies and their projected availability during normal years at buildout is shown in Table 5-11.

Table 5-11. Projected Existing and Additional Planned Future Water Supplies Available in Normal Years at Buildout

Supply	Percent Allocation/ Entitlement	Projected Available Supplies, af/yr
Existing Water Supplies		
USBR CVP - Tracy Contract[a]	75	4,448
USBR CVP - BCID Contract	50	2,500
USBR CVP - WSID Contract	50	2,500
	Total CVP Supplies	**9,448**
BBID (pre-1914 to meet Tracy Hills demand)	100	3,300
SCWSP (SSJID) (pre-1914)	100	11,120
Groundwater	100	2,500
Semitropic Water Storage Bank[b]	0	0
	Total Existing Potable Supplies	**26,368**
Additional Planned Future Water Supplies[a]		
Additional USBR CVP (BBID contract)	0	0
Aquifer Storage and Recovery[b]	0	0
Recycled Water Exchange	100	7,500
Recycled Water (non-potable)	100	6,300
	Total Additional Planned Future Potable Supplies	**7,500**
	Total Potable Supplies	**33,868**
	Total Additional Planned Future Non-Potable Supplies	**6,300**
	TOTAL WATER SUPPLY	**40,168**

Source: City of Tracy 2020 UWMP, Table 7-2, June 2021.

(a) Percent of historical use
(b) Not used in normal years.

5.6.1.2 Single Dry Years

During a single dry year, all of the City's existing surface water allotments are subject to some level of reduction. Assumed reductions are based on actual reductions in CVP deliveries experienced in the recent drought and the new USBR M&I Reliability Policy adopted in 2017. The actual reductions will vary with the severity of the regional water supply shortage and climatic conditions, and the consideration of contract agreements.

The following describes the availability and reliability of the City's existing and additional planned future water supplies under single dry year conditions:

- The City's contract with the USBR for 10,000 af/yr of DMC/CVP water is subject to M&I reliability. During a single dry year, the City estimates to receive 25 percent of the City's historical use. Based on the historical use of 5,930 af/yr, the projected supply is 1,483 af/yr.

- The City has a total entitlement of 10,000 af/yr of DMC/CVP Ag-reliability water. The City anticipates receiving 0 percent of its DMC/CVP Ag-reliability water in a single dry year.
- The City has acquired up to 4,500 af/yr of pre-1914 appropriative water rights water from BBID. This supply is restricted with regard to the place of use (Tracy Hills). The City anticipates being able to receive 85 percent of its contractual entitlement in a single dry year (3,825 af/yr). As the projected demand is 3,300 af/yr in 2045 and is lower than the 3,825 af/yr of available supply, the reduction in reliability does not result in a reduction to actual amount of water used. Therefore, the supply in a single dry year is anticipated to be equal to the projected demand within the Tracy Hills area, ranging from 800 af/yr in 2025 to 3,300 af/yr in 2045.
- The City has a total contractual entitlement of 13,135 af/yr of Stanislaus River water provided through the SCWSP. Based on information provided by SSJID, the City expects to receive 76 percent of its SCWSP water supply allocation during 2025, 2030, and 2035 and 56 percent during 2040 and 2045. In addition, the SCWSP water transferred from Escalon is assumed to be unavailable after 2025. As such, the City estimates 9,974 af/yr of SCWSP supply in 2025, 8,444 af/yr in 2030 and 2035, and 6,177 af/yr afterwards.
- During a single dry year, the City anticipates increasing its groundwater production on a short-term basis from the normal year production of 2,500 af/yr to 4,500 af/yr. The groundwater supply is considered to be 100 percent reliable.
- The City anticipates that 700 af/yr of water will be available for use in a single dry year through operation of its ASR well. An additional 300 af/yr is estimated to be available by 2040 for a total of 1,000 af/yr. This water supply is considered to be 100 percent reliable assuming that the City is consistently able to refill the ASR storage during non-drought years to maintain at least 1,000 af in storage at the beginning of a single dry year.
- The City has acquired 10,500 af/yr of storage in Semitropic, which allows the City to withdraw up to 3,500 af/yr for three consecutive years. Due to the difficulties experienced by the City in accessing stored water via the DMC on a short timeframe, the City has conservatively assumed that the Semitropic water will not be available in a single dry year.
- The City anticipates that a Recycled Water Distribution Network and Exchange agreement will be executed with the USBR by 2030 to provide additional CVP supplies to the City in exchange for the City discharging a like amount of tertiary-treated recycled water to the DMC. The City assumes that the Recycled Water Distribution Network and Exchange will be implemented as needed to meet future demand conditions and is currently projected to supply an amount ranging from 1,925 af/yr in 2030 to 7,500 af/yr in 2045. This water supply is considered to be 100 percent reliable.
- The City's recycled water supply is expected to be 100 percent reliable. Based on the projected non-potable demands and assuming that the City makes investments in infrastructure and permitting, the City estimates that they will have access to 1,000 af/yr of recycled water supply in 2025, increasing to 6,300 af/yr in 2045.

The reliability of each of the City's existing and additional planned future water supplies and their projected availability during a single dry year at buildout is shown in Table 5-12.

Table 5-12. Projected Existing and Additional Planned Future Water Supplies Available in Single Dry Years at Buildout

Supply	Percent Allocation/ Entitlement	Projected Available Supplies, af/yr
Existing Water Supplies		
USBR CVP - Tracy Contract[a]	25	1,483
USBR CVP - BCID Contract	0	0
USBR CVP - WSID Contract	0	0
	Total CVP Supplies	**1,483**
BBID (pre-1914 to meet Tracy Hills demand)	100	3,300
SCWSP (SSJID) (pre-1914)[b]	56	6,177
Groundwater[c]	100	4,500
Semitropic Water Storage Bank	0	0
Total Existing Potable Supplies		**15,460**
Additional Planned Future Water Supplies		
Additional USBR CVP (BBID contract)	0	0
Aquifer Storage and Recovery[c] [d]	100	1,000
Recycled Water Exchange[c]	100	7,500
Recycled Water (non-potable)[c]	100	6,300
Total Additional Planned Future Potable Supplies		**8,500**
Total Potable Supplies		**23,960**
Total Additional Planned Future Non-Potable Supplies		**6,300**
TOTAL WATER SUPPLY		**30,260**

Source: City of Tracy 2020 UWMP, Table 7-3, June 2021.

(a) Percent of historical use.
(b) Percentage of contract entitlement is based on information from SSJID for 2040 and later.
(c) Groundwater and recycled water volumes assume the City invests in infrastructure and/or permitting.
(d) ASR volumes assume surplus supplies are available in wet years to inject and store, as well as additional investment in ASR construction and operation.

5.6.1.3 Multiple Dry Years

During multiple dry years, the City's surface water supplies (from both the CVP and SCWSP) may be significantly reduced. Thus, in the event of drought, the City will have to depend more heavily on conservation efforts, groundwater, and the proposed future supply projects.

The following describes the availability and reliability of the City's existing and additional planned future water supplies under multiple dry year conditions:

- The City's contract with the USBR for 10,000 af/yr of DMC/CVP water is subject to M&I reliability. During multiple dry years, the City estimates that it will receive 40 percent of the City's historical use. Based on the historical use of 5,930 af/yr, the projected supply is 2,372 af/yr.

- The City has a total entitlement of 10,000 af/yr of DMC/CVP Ag-reliability water. The City anticipates receiving 0 percent of its DMC/CVP Ag-reliability water in multiple dry years.
- The City has acquired up to 4,500 af/yr of pre-1914 appropriative water rights water from BBID. This supply is restricted with regard to the place of use (Tracy Hills). The City anticipates being able to receive 85 percent of its contractual entitlement in multiple dry years (3,825 af/yr). As the projected demand is 3,300 af/yr in 2045 and is lower than the 3,825 af/yr of available supply, the reduction in reliability does not result in a reduction to actual amount of water used. Therefore, the supply in multiple dry years is anticipated to be equal to the projected demand within the Tracy Hills area, ranging from 800 af/yr in 2025 to 3,300 af/yr in 2045.
- The City has a total contractual entitlement of 13,135 af/yr of Stanislaus River water provided through the SCWSP. Based on information provided by SSJID, the City's SCWSP water supply reliability during multiple dry years range from 56 to 100 percent. In addition, the SCWSP water transferred from Escalon is assumed to be unavailable after 2025.
- During multiple dry years, the City anticipates increasing its groundwater production on a short-term basis from the normal year production of 2,500 af/yr to 4,500 af/yr. The groundwater supply is considered to be 100 percent reliable.
- The City anticipates that 700 af of water will be available for use in multiple dry years through operation of its ASR well. An additional 300 af is estimated to be available by 2040 for a total of 1,000 af. The City is assumed to be unable to refill the ASR storage during multiple dry years. Therefore, the annual ASR supply available is assumed to equal one fifth of the total stored volume (i.e., 140 af/yr between 2025 and 2035 and 200 af/yr between 2040 and 2045). This water supply is considered to be 100 percent reliable assuming that the City is consistently able to refill the ASR storage in non-drought years to maintain at least 1,000 af in storage at the beginning of a multiple dry year sequence.
- The City has acquired 10,500 af/yr of storage in Semitropic, which allows the City to withdraw up to 3,500 af/yr for three consecutive years. Due to the difficulties experienced by the City in accessing stored water via the DMC on a short timeframe, the City has conservatively estimated that the 0 percent of the City's storage will be available in the first year of a five-consecutive-year drought, and 100 percent will be available over the following four years. Based on the City's current storage at Semitropic of 6,887 af, the amount available in the second to fifth year of a five-consecutive-year drought is assumed to be 1,722 af/yr (6,887 af divided by four). A similar reliability estimate is provided for all dry-year sequences under the assumption that the City is consistently able to re-fill the water bank in non-drought years to maintain at least 7,000 af/yr in storage at the beginning of a multiple dry year sequence.

- The City anticipates that a Recycled Water Distribution Network and Exchange agreement will be executed with the USBR by 2030 to provide additional CVP supplies to the City in exchange for the City discharging a like amount of tertiary-treated recycled water to the DMC. The City assumes that the Recycled Water Distribution Network and Exchange will be implemented as needed to meet future demand conditions and is currently projected to supply an amount ranging from 1,925 af/yr in 2030 to 7,500 af/yr in 2045. This water supply is considered to be 100 percent reliable.
- The City's recycled water supply is expected to be 100 percent reliable. Based on the projected non-potable demands and assuming that the City makes investments in infrastructure and permitting, the City estimates that they will have access to 1,000 af/yr of recycled water supply in 2025, increasing to 6,300 af/yr in 2045.

The reliability of each of the City's existing and additional planned future water supplies and their projected availability during a five-consecutive-dry year (multiple dry year) period at buildout is shown in Table 5-13.

Table 5-13. Projected Existing and Additional Planned Future Water Supplies Available Five-Consecutive-Dry Years at Buildout

Supply	Percent Allocation/ Entitlement	Projected Available Supplies, af/yr				
		Year 1	Year 2	Year 3	Year 4	Year 5
Existing Water Supplies						
USBR CVP - Tracy Contract[a]	40	2,372	2,372	2,372	2,372	2,372
USBR CVP - BCID Contract	0	0	0	0	0	0
USBR CVP - WSID Contract	0	0	0	0	0	0
Total CVP Supplies		**2,372**	**2,372**	**2,372**	**2,372**	**2,372**
BBID (pre-1914 to meet Tracy Hills demand)	100	3,300	3,300	3,300	3,300	3,300
SCWSP (SSJID) (pre-1914)	*See Note (b)*	11,120	11,120	6,177	6,177	11,120
Groundwater[c]	100	4,500	4,500	4,500	4,500	4,500
Semitropic Water Storage Bank	100	0	1,722	1,722	1,722	1,722
Total Existing Potable Supplies		**21,292**	**23,014**	**18,071**	**18,071**	**23,014**
Additional Planned Future Water Supplies						
Additional USBR CVP (BBID contract)	0	0	0	0	0	0
Aquifer Storage and Recovery[c][d]	100	200	200	200	200	200
Recycled Water Exchange[c]	100	7,500	7,500	7,500	7,500	7,500
Recycled Water (non-potable)[c]	100	6,300	6,300	6,300	6,300	6,300
Total Additional Planned Future Potable Supplies		**7,700**	**7,700**	**7,700**	**7,700**	**7,700**
Total Potable Supplies		**28,992**	**30,714**	**25,771**	**25,771**	**30,714**
Total Additional Planned Future Non-Potable Supplies		**6,300**	**6,300**	**6,300**	**6,300**	**6,300**
TOTAL WATER SUPPLY		**35,292**	**37,014**	**32,071**	**32,071**	**37,014**

Source: City of Tracy 2020 UWMP, Tables 7-4 and 7-5, June 2021.

(a) Percent of historical use.

(b) Information provided by SSJID. SSJID's reliability estimates for a five consecutive year drought were based on the historical supplies available for the SCWSP during the 2012 to 2016 drought period. During 2012, 2013, and 2016 (the first, second, and fifth years), SSJID was able to provide the full allocation to SCWSP participants, whereas during 2014 and 2015 (the third and fourth years), SSJID was only able to provide 75 percent of the full allocation to SCWSP participants.

(c) Groundwater and recycled water volumes assume the City invests in infrastructure and/or permitting.

(d) ASR volumes assume surplus supplies are available in wet years to inject and store, as well as additional investment in ASR construction and operation.

5.6.2 Emergency Water Supply Conditions

During the recent drought conditions in California, water supply deliveries from the SWP and CVP (and other surface water supply sources throughout California) were severely reduced and even the availability of pre-1914 water rights was challenged. Many water supply agencies, including the City, implemented their Water Shortage Contingency Plans, including mandatory water conservation measures, to reduce water use. Even with 0 percent deliveries from the City's USBR CVP agricultural supplies in 2014, the diversity of the City's water supply portfolio together with water conservation efforts by the City's customers allowed the City to meet all water demands. If the recent drought were to re-occur, and deliveries of surface water supplies are reduced further, the City's Water Shortage Contingency Plan would be enacted as needed.

The City's Water Shortage Contingency Plan includes shortage response actions for six water shortage levels up to greater than 50 percent shortage due to foreseeable or unforeseeable events. The City's Water Shortage Contingency Plan is included in Appendix H of the 2020 UWMP. The City may implement demand reduction actions, supply augmentation, mandatory restrictions, and other actions as appropriate for the shortage level to reduce the gap between supply and demand.

Further, the City has prepared a Water System Emergency Response Plan which provides a framework for emergency response by the City's Utilities Department by describing the department's emergency management organization, roles, and responsibilities and emergency policies and procedures. The Water System Emergency Response Plan provides action plans to be implemented to address the emergency.

5.6.3 Non-Potable Water Supply Reliability

Recycled water supplies are generally regarded as being highly reliable water supplies, even during drought conditions. This is because wastewater flows are primarily generated from interior water uses which generally remain about the same throughout the year and during drought conditions (reductions in water use during drought conditions are primarily the result of reduced exterior water uses which generally do not become wastewater flows). For this reason, it is assumed that recycled water supplies will be 100 percent reliable under all hydrologic conditions.

5.7 SUFFICIENCY OF THE CITY'S WATER SUPPLIES

5.7.1 Potable Water Supply Availability

Table 5-14 summarizes the projected availability of the City's existing and planned future potable water supplies compared with projected water demands in normal, single dry and multiple dry years at buildout.

To be conservative, water demands were assumed to be at normal levels. With future planned projects implemented, the results of the assessment show that water supply is sufficient during normal years. However, during a single dry year or a multiple dry year period, the City must depend more heavily on conservation efforts, groundwater, and the proposed future supply projects to overcome the gap between supply and demand. As described in the City's 2020 UWMP, these findings are primarily due to projected reduced reliability of the City's CVP supplies and SSJID supplies in dry years.

Table 5-14. Summary of Buildout Total Water Supply Versus Demand During Hydrologic Normal, Single Dry, and Multiple Dry Years[a]

Hydrologic Condition		Supply and Demand Comparison, af/yr
Normal Year[b]		
Available Total Water Supply		40,168
Total Water Demand		39,800
	Potential Surplus (Deficit)	368
	Percent Shortfall of Demand	-
Single Dry Year[c]		
Available Total Water Supply		30,259
Total Water Demand		39,800
	Potential Surplus (Deficit)	(9,541)
	Percent Shortfall of Demand	24%
Multiple Dry Years[d]		
Year 1	Available Total Water Supply[e]	35,292
	Total Water Demand	39,800
	Potential Surplus (Deficit)	(4,508)
	Percent Shortfall of Demand	11.3%
Year 2	Available Total Water Supply	37,014
	Total Water Demand	39,800
	Potential Surplus (Deficit)	(2,786)
	Percent Shortfall of Demand	7.0%
Year 3	Available Total Water Supply	32,071
	Total Water Demand	39,800
	Potential Surplus (Deficit)	(7,729)
	Percent Shortfall of Demand	19.4%
Year 4	Available Total Water Supply	32,071
	Total Water Demand	39,800
	Potential Surplus (Deficit)	(7,729)
	Percent Shortfall of Demand	19.4%
Year 5	Available Total Water Supply	37,014
	Total Water Demand	39,800
	Potential Surplus (Deficit)	(2,786)
	Percent Shortfall of Demand	7.0%

(a) Water demands are from Table 4-16.
(b) Normal Year supplies are from Table 5-11
(c) Single Dry Year supplies are from Table 5-12.
(d) Multiple Dry Year supplies are from Table 5-13
(e) Assumes 0 percent of the City's storage in Semitropic is available for the first year.

To close the gap between supply and demand during dry years, the City will need to implement its Water Shortage Contingency Plan to reduce water demands and implement future water supply projects. This includes full implementation of the proposed Recycled Water Distribution Network and Exchange Program and expansion of the ASR Program. Delays in implementing these projects could result in greater water supply shortages and the need for additional water conservation to meet demands. Investments in wet year water supplies will also be needed to refill storage in Semitropic and expand the City's ASR program.

The dry year shortfalls presented in Table 5-14 include water supply and demand projections with numerous uncertainties and the situation is dynamic and discussed in Section 7 of the 2020 UWMP. The City continues to work on strategies and actions to address the projected water supply shortfall. Uncertainties are itemized below:

- The Bay-Delta Plan Amendment implementation is under negotiation. The SSJID and others are continuing negotiations with the SWRCB on implementation of the Bay-Delta Plan Amendment for water supply cutbacks, particularly during droughts. This is a dynamic situation and the projected drought cutback allocations may need to be revised before the next (i.e., 2025) UWMP depending on the outcome of ongoing negotiations. The City has considered a conservative estimate of the potential impacts of the Bay-Delta Plan Amendment on the SCWSP (and therefore the City), which is provided in Appendix G of its 2020 UWMP.
- The supply yield of the City's development of additional ASR and recycled water supplies are accounted for in current supply projections. However, implementation of these projects will require significant investment by the City. Similarly, investments in wet years supplies will be needed to refill storage in Semitropic and expand the City's ASR program.
- The City continues to work closely with the USBR and SSJID on their rationing policies to ensure that M&I needs can be met. Rationing policies may potentially be revised.
- The City's projected water demands are subject to change in the future based on water conservation policies and regulations for current and future development, and the pace and extent of development.
- Frequency and duration of cutbacks and, therefore, the shortfalls are also uncertain. In addition to the supply volumes, the above listed uncertainties would also impact the projected frequency and duration of shortfalls.

5.7.2 Recycled Water Supply Availability

Recycled water will be treated to a tertiary level in accordance with Title 22 requirements at the City's WWTP and will be distributed to recycled water use areas within the City's SOI for use for landscape irrigation and other non-potable uses and will be used as part of the Recycled Water Distribution Network and Exchange Program. It is anticipated that with expansion of the City's WWTP adequate recycled water supplies will be available on an annual basis to meet the projected recycled water demands at buildout of the City's General Plan.

The projected future use of recycled water supplies to meet non-potable water demands such as landscape irrigation within the City's service areas is critical to reduce potable water demands and reserve the City's available potable water supplies for their most important uses and to ensure that the City has adequate water supplies to meet future water demands. Without this future recycled water use within the City's service areas, and without the Recycled Water Distribution Network and Exchange Program, the City would have inadequate potable water supplies to meet anticipated future water demands.

5.8 WATER MANAGEMENT STRATEGIES AND OPTIONS

The City has developed strategies and actions to address the projected supply shortfalls. These are discussed in the City's 2020 UWMP and summarized below.

5.8.1 Recycled Water for Non-Potable Use

The City continues to develop recycled water supplies as discussed in Section 5.5.1. Recycled water is planned to augment non-potable demands that would otherwise be supplied with potable water. Buildout potable water demands could be less than the current projections and therefore the resultant supply shortage will likely to be smaller.

5.8.2 Future Water Supply Projects

The City continues to evaluate the expansion of its existing supply and to obtain new supply sources, including the ASR Program and Recycled Water Distribution Network and Exchange Program. Other potential supply options, such as direct potable reuse of recycled water, are also being considered.

The City has also recently entered discussions with the Contra Costa Water District (CCWD) and the San Luis & Delta-Mendota Water Authority to explore the City's potential participation in the Phase 2 Los Vaqueros Reservoir Expansion Project. Los Vaqueros Reservoir is an offstream storage facility located in the coastal foothills west of the Sacramento-San Joaquin Delta. CCWD completed construction of the Los Vaqueros Project in 1997 with an original storage capacity of 100,000 acre-feet. CCWD stores water in Los Vaqueros Reservoir that is diverted from the Delta when water quality is favorable for later release and blending when Delta water quality is degraded. An initial expansion, Phase 1, to 160,000 acre-feet was completed in 2012 to address seasonal water quality degradation and drought needs. The reservoir also provides important emergency water supply storage, recreation, and flood management. The proposed Phase 2 expansion project builds upon the successful Phase 1 expansion completed in 2012. The proposed project will include a regional intertie (the Transfer-Bethany Pipeline), improved pump stations and pipelines and could increase the reservoir's capacity up to 275,000 acre-feet. The Transfer-Bethany Pipeline is currently anticipated to be completed in 2025/2026, with the reservoir expansion to be completed by 2030. The City's participation in the project would increase the City's water supply reliability by providing storage of supplies for use in dry years. The estimated cost for 5,000 acre-feet of storage for the City will be approximately $10 million plus an additional $1.5 million for implementation. In October 2021, the Tracy City Council authorized staff to initiate the process to participate in the project and authorized the City Manager to execute the project activity agreement.

The City is also participating in the proposed B.F. Sisk Dam Raise & Reservoir Expansion Project. The proposed B.F. Sisk Dam Raise & Reservoir Expansion by the USBR and the San Luis Delta Mendota Water Authority provides a reliable option for storage of excess water during the wet season and use during drought conditions when needed. The B.F. Sisk Dam and Reservoir, located approximately 50 miles south of the City, is a major storage facility of the Central Valley Project from which the City receives surface water. The project's environmental document has already been prepared for expansion of the reservoir. The proposed project will add 130,000 acre-feet of additional storage capacity in the reservoir. The project's feasibility study is in its final stages of completion and total cost of the expansion project is estimated at $1 billion. If the City participates in the project, water will be delivered to the City's JJWTP from the DMC through an exchange agreement with the USBR and other participating agencies. The estimated cost for 5,000 acre-feet of storage for the City will be approximately $38 million. In June 2022, the Tracy City Council authorized staff to initiate the process to participate in the project and authorized the City Manager to execute the project activity agreement.

5.8.3 Implementation of Demand Management Measures

The City has an active water conservation program and continues to implement the demand management measures described in Section 9 of the City's 2020 UWMP. Further, in response to the anticipated future shortfalls, the City has developed a robust Water Shortage Contingency Plan that systematically identifies ways in which the City can reduce water demands. The Water Shortage Contingency Plan is included in Section 8 of the City's 2020 UWMP.

5.8.4 Policy-Based Water Efficiency Tools

The City is currently exploring other policy-based water efficiency tools that other supply-constrained agencies across California have implemented. These policy-based tools are often bundled together and referred to as Water Demand Offset (WDO) or Water Neutrality policies. Through these policies, project developers are generally required to offset the new demand anticipated by the development through some combination of demand mitigation options, such as:

- **On-site retrofits.** Project developer with existing property reduces total projected water demand by retrofitting existing property with efficient water fixtures. If projected water demand is reduced below baseline for existing property, no off-site WDOs are required. If not, offsite WDOs are required.
- **Off-site retrofits.** Project developer coordinates and pays for installation of water efficient fixtures at other properties or converts existing irrigation systems to recycled water for other off- site properties, typically those owned by other entities.
- **On-site reuse.** Larger scale developments are required to implement on-site reuse of water, including rainwater, greywater, stormwater, and blackwater, as has recently been implemented by the Cities of San Francisco and Menlo Park.
- **Supply augmentation.** Project developer secures its own water supply to serve the development, either through direct provision of water to the development or through an agreement to transfer rights to the water supplier.

- **WDO fees.** Project developer pays fees to implementing entity based on the amount of water offset, and the agency uses the fees to fund water conservation programs. Such conservation programs could include system water loss mitigation projects (e.g., capital improvement, Advanced Metering Infrastructure [AMI] meters, etc.), purchase of water efficient equipment (e.g., NO-DES hydrant flushing machine to recycle water used to flush mains), and recycled water system infrastructure, as well as fixture rebate or retrofit and education-based conservation programs.

Such policies could be designed as a "net neutral" policy wherein the new development is required to offset all new demands associated with the development project and minimize the overall supply reliability impacts for the existing customers.

5.9 SUMMARY OF WATER SUPPLY RECOMMENDATIONS

The following summarizes recommendations related to the City's water supplies:

- Provisions for ammonia addition should be added to the City's existing Lincoln Well, Lewis Manor Well, Park & Ride Well and Ball Park Well, and any future wells, to provide maximum flexibility for the City's use of groundwater in conjunction with the City's surface water supplies which are disinfected through chloramination.
- The City's ASR Program should be expanded in the future to provide up to 1,000 af/yr of supply. The City is considering requesting an amendment to its ASR permit to allow for the use of treated CVP supplies for ASR injection, in addition to the SCWSP water supplies. This would provide more operational flexibility for ASR injection and allow the City to optimize the storage of surface water supplies in wet years for later extraction in dry years. An evaluation of potential ASR options and operational scenarios should be conducted as additional ASR wells are planned to determine if dedicated SSJID supply pipelines to the ASR wells will be required if the City's ASR permit cannot be modified to allow for other supplies to be injected. See Chapter 8 for additional discussion about the City's future ASR wells.
- The City should continue discussions with the Contra Costa Water District for the City's participation in the Phase 2 Los Vaqueros Reservoir Expansion Project. The City's participation in the project would increase the City's water supply reliability by providing storage of supplies for use in dry years.
- The proposed Recycled Water Distribution Network and Exchange Program should be developed as soon as possible to provide for the exchange of recycled water supplies for surface water supplies which can be treated and used to meet the City's potable water demands. The City's 2020 UWMP assumes an exchange quantity of 7,500 af/yr; however, if this amount could be increased, projected water shortages may be reduced. Subsequent revisions to the projected potable water demand and/or the water supply availability and reliability assumptions may change the required quantities and timing of the proposed Recycled Water Distribution Network and Exchange Program.

- Development the Recycled Water Distribution Network and Exchange Program will require an expansion of the City's WWTP to be able to produce the recycled water required for the exchange and the design and construction of a recycled water pipeline to discharge recycled water to the DMC downstream of the City's JJWTP intake. Additional discussion of the pipeline required for the Recycled Water Distribution Network and Exchange Program is provided in Chapter 9.
- The City's recycled water system should continue to be developed to the maximum extent possible to allow for irrigation demands to be met with recycled water supplies to offset the demand for potable water supplies. The quantity required is estimated to be 6,300 af/yr by buildout based on the recycled water use assumptions described in Chapter 4.

As described in this Citywide Water System Master Plan Update, and in the City's 2020 UWMP, water supply conditions continue to change in California, and the availability and reliability of the City's water supplies may continue to change in the coming years. City staff are continuously monitoring water supply conditions and making adjustments to water system operations as needed. Additional ASR wells and/or other infrastructure improvements may be needed to serve developments which rely on water supplies with agricultural rights under various agreements with the City. The water supply recommendations described above, and their associated costs, may need to be refined in the future as water supply conditions change.

CHAPTER 6
System Performance and Operational Criteria

6.1 OVERVIEW

The purpose of this chapter is to define the recommended performance and operational criteria for the City's potable and recycled water distribution systems. For the potable water system, these criteria include recommendations for the required fire flow and flow duration, definitions of "emergency events", and recommendations for surface water treatment capacity, system storage capacity (operational, fire flow, and emergency components), system pumping capacity, minimum and maximum system pressures, and maximum pipeline velocity and head loss. The recycled water system performance and operational criteria includes recommendations for recycled water treatment capacity, system storage capacity (seasonal and operational components), system pumping capacity, minimum and maximum system pressures, and maximum pipeline velocity and head loss.

The City currently uses the City Design Standards (dated February 2020) and City Standard Plans and Specifications (dated February 2020) for the planning and design of its potable and recycled water distribution systems. The City Design Standards and City Standard Plans and Specifications should be referenced for specific design information for water system facilities as applicable.

Key water system design criteria and operational standards from the City Design Standards and City Standard Plans and Specifications documents are incorporated into this chapter; however, additional explanation and discussion have been added to further describe various system recommendations. The following sections of this chapter present the recommended performance and operational criteria for the City's potable and recycled water systems:

Potable Water System

- General Potable Water System Reliability and Recommendations
- Fire Flow Requirements
- Potable Water System Capacity During High Demand Periods
- Water Treatment Capacity
- Potable Water Storage Capacity
- Potable Water Pumping Facility Capacity
- Potable Water Critical Supply Facilities
- Potable Water Transmission and Distribution Pipeline Sizing and Recommended System Pressures

Recycled Water System

- Recycled Water Demand Condition Evaluation
- Recycled Water Treatment Capacity
- Recycled Water Storage Capacity
- Recycled Water Pumping Facility Capacity
- Recycled Water Transmission Pipeline Sizing and Recommended System Pressures

6.2 POTABLE WATER SYSTEM

Components of the recommended performance and operational criteria for the City's potable water system are discussed below.

6.2.1 General Potable Water System Reliability and Recommendations

Attention to enhancing the reliability of the system under all conditions is an important part of maintaining high quality water service. Water system reliability is achieved through a number of system features including: (1) appropriately sized storage facilities, (2) redundant or "firm" pumping, transmission, and treatment facilities where required, and (3) alternate power supplies. Reliability and water quality are also improved by designing looped water distribution pipelines and avoiding dead-end distribution mains whenever possible. Looping pipeline configurations reduces the potential for stagnant water and the associated problems of poor taste and low chlorine residuals. In addition, proper valve placement is also necessary to maintain reliable and flexible system operation under normal and abnormal operating conditions.

6.2.1.1 Water Quality Standards

Water quality standards largely pertain to protecting public health and consistently delivering a satisfactory product to the customer. The U.S. Environmental Protection Agency (EPA) and the State Water Resources Control Board Division of Drinking Water (DDW) are the agencies responsible for establishing water quality standards. The EPA and DDW prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The City, as water purveyor, is responsible for ensuring that the applicable water quality standards and regulations are met at all times.

6.2.1.2 Recommendations for New Developments

Various policies to reduce water use and comply with water efficiency standards were recommended in Chapter 2 for future service areas and new developments within the City. These policies were recommended to assist the City with achieving its water conservation goals and maintaining the long-term sustainability of its water resources. As new developments are integrated into the City's existing water system, the recommended policies discussed in Chapter 2 should be reviewed for compliance. In addition, proposed water system facilities located in the future service areas and new developments within the City should also meet the recommended system performance criteria (e.g., minimum and maximum system pressures) discussed in the following sections and more specifically under *Section 6.2.8 Potable Water Transmission and Distribution Pipeline Sizing and Recommended System Pressures.*

6.2.2 Fire Flow Requirements

The City's Public Works Department operates and maintains the water distribution system within the City, but the City's Fire Department (Fire Department) is concerned with the availability of adequate water supply for firefighting purposes. Consequently, the Fire Department establishes minimum water flows and residual system pressures during a fire fighting event that the City is responsible for providing from the potable water system.

The Fire Department uses the California Fire Code (CFC) Table B150.1 *Minimum Required Fire Flow and Flow Duration for Buildings,* to assist them in establishing minimum fire flows and durations for individual structures. The recommended fire flow requirements for the City based on various land use designations are presented in Table 6-1. These fire flow requirements were developed based on discussions with the Fire Department's Fire Marshal and will be used for the evaluation of the existing and future water system.

For planning purposes, the minimum fire flows identified in Table 6-1 are to be met concurrently with maximum day demand conditions while maintaining a minimum residual system pressure of 20 pounds per square inch (psi) throughout the water system. This criterion has been decreased from the 2012 WSMP, which used 30 psi as the minimum residual system pressure during a single fire flow event. For this Citywide Water System Master Plan, the criterion has been adjusted for consistency with the Fire Department's requirements and typical industry standards.

For large pressure zones, the City's water system should also have the capability to meet a system demand condition equal to the occurrence of a maximum day demand with two simultaneous fire flow events within that pressure zone while maintaining a minimum residual system pressure of 20 psi throughout the water system[1]. This conservative assumption of two simultaneous fire flow demands will help stress the City's water system and determine if the water system can provide reliable service during high demand conditions. Additionally, as discussed in subsequent sections of this chapter, fire flows presented in Table 6-1 and their expected duration will also be used to establish the City's storage capacity requirements.

[1] It is assumed that these two fire flow events will consist of one smaller single family residential fire flow combined with another larger industrial fire flow.

Table 6-1. Recommended Fire Flow Requirements[a,b]

Land Use Designation	Non-Sprinklered[c]			Sprinklered[c,d]		
	Fire Flow, gpm	Duration, hours	Recommended Storage, MG	Fire Flow, gpm	Duration, hours	Recommended Storage, MG[j]
Single Family Residential[e]	1,500	2	0.18	1,500	2	0.18
Multi Family Residential[f]	2,500	2	0.30	2,500	2	0.30
Commercial/Office[g]	6,000	4	1.44	3,500 [i]	4	0.72
Industrial	8,000	4	1.92	4,500 [i]	4	0.96
Institutional[h]	8,000	4	1.92	4,500 [i]	4	0.96

(a) Construction type and fire flow calculation area are not generally known during the development of a master plan; consequently, fire flow requirements set forth in this table are based on previous estimates for these land use types and similar communities.

(b) Unique projects or projects with alternate materials may require higher fire flows and should be reviewed by the Fire Marshal on a case-by-case basis (e.g., proposed commercial/industrial areas and schools).

(c) Specific fire flows were determined from Table B105.1 of the 2016 CFC, and depend on construction type and fire flow calculation area. Refer to Section 903 of the 2016 CFC and Section 9.06.060 of the City of Tracy Municipal Code for automatic sprinkler system requirements.

(d) As stated in the City of Tracy Design Standards (February 2020), the Fire Marshal normally allows up to a 50 percent reduction in fire flow if a building is provided with an automatic sprinkler system. However, the CFC also requires that no fire flow be less than 1,000 gpm for single family residential or 1,500 gpm for all other building types. For a more conservative fire flow estimate, requirements for sprinklered Single Family and Multiple Family Residential buildings were not reduced for this Citywide Water Master Plan.

(e) Single Family Residential includes Very Low and Low Density Residential land uses.

(f) Multi Family Residential includes Medium, High, and Very High Density Residential land uses.

(g) Commercial/Office includes Commercial, Office, Motel/Hotel and Mixed Use land uses.

(h) Institutional includes Medical, Public Facilities, School, Airport, Church, and Cemetery land uses.

(i) Fire flow includes a 500 gpm demand for on-site sprinkler flow.

(j) Recommended storage volumes do not include volume associated with 500 gpm sprinkler flow.

6.2.3 Potable Water System Capacity During High Demand Periods

Maximum day demand plus fire flow and peak hour demand conditions will be used to assess the adequacy of the City's potable water system during high demand periods. Adopted peaking factors for maximum day and peak hour demands are discussed in Chapter 4. The following sections discuss the assumptions and recommended criteria for each demand condition.

6.2.3.1 Maximum Day Demand plus Fire Flow

In accordance with typical industry standards, the City's water system should have the capability to meet a system demand condition equal to the occurrence of a maximum day demand concurrent with either one or two simultaneous fire flow event(s) while meeting the recommended system performance criteria (e.g., minimum and maximum system pressures) discussed under *Section 6.2.8 Potable Water Transmission and Distribution Pipeline Sizing and Recommended System Pressures.*

Maximum day demand plus fire flow should be met from a combination of supply sources (i.e., treated surface water from the JJWTP and SSJID supplies plus groundwater) and treated water storage reservoirs. The analysis of specific fire flow evaluations will be conducted assuming the largest booster pump at each pump station is offline (i.e., firm booster pumping capacity). In addition, the City's groundwater well system (well pumps) will be assumed to pump at firm capacity (i.e., firm groundwater pumping capacity) during a specific fire flow evaluation. Firm groundwater pumping capacity assumes that 20 percent of the City's groundwater wells will be out of service at any given time due to maintenance or operational issues.

These conservative assumptions ensure the reliability and flexibility of the system to provide sufficient flow during emergency fire flow conditions. It is also assumed that the pump stations with only one booster pump or without back-up power capability (either an on-site generator or adaptor for a plug-in generator) will not be available during an emergency fire flow analysis.

6.2.3.2 Peak Hour Demand

Peak hour demand should be met from a combination of supply sources (i.e., treated surface water from the JJWTP and SSJID supplies plus groundwater) and treated water storage reservoirs. Assumptions regarding firm pumping capacity will also apply during a peak hour demand condition. During a peak hour demand condition, the City's water system should be able to meet the recommended system performance criteria (e.g., minimum and maximum system pressures) discussed under *Section 6.2.8 Potable Water Transmission and Distribution Pipeline Sizing and Recommended System Pressures.*

6.2.4 Water Treatment Capacity

Sufficient water treatment capacity from a combination of the existing and/or expanded JJWTP, the City's treated surface water supplies from SSJID, and groundwater wells should be available to meet the City's maximum day demand condition. In addition, the City's goal is to meet maximum day demands without relying on groundwater. Sufficient treated water pumping capacity should also be available to assist in meeting a maximum day demand condition.

6.2.5 Potable Water Storage Capacity

The total potable water storage capacity required will be based on the following three components within each pressure zone:

- Operational Storage
- Fire Storage
- Emergency Storage

A discussion of these three storage components, along with a discussion of "credits" for groundwater supply and treated surface water supply, follows.

6.2.5.1 Operational Storage

Over any 24-hour period, water demands will vary. Typically, higher water demands will occur during the early morning hours when people are irrigating landscape and getting ready to go to work or school. Water demands will then decline to some nominal baseline level (depending on the proximity to water use patterns of adjacent commercial/industrial areas), and will then begin to increase again depending on outside water needs (and corresponding temperature), until it reaches a higher water demand in the early evening hours as people return home from work or school. Throughout the year, the peaks of this cycle will vary according to customer needs; thereby, creating maximum day and peak hour demands.

Typically, water treatment plants, supply turnouts, and/or wells are operated at a constant rate over a 24-hour period (baseline) and augmented by additional flow from storage tanks, and/or wells during high demand periods, as needed. Storage tanks are normally refilled when demands drop below the baseline water production flow rate. The storage volume used to meet these peak demand periods is called operational storage.

The operational storage requirements should be calculated based on the diurnal demand in a particular pressure zone or service area. If sufficient data is not available to develop a diurnal demand, then the recommended volume of water to be held in reserve for operational storage should be at least equal to 30 percent of the total volume of water used on a maximum day demand condition.

6.2.5.2 Fire Storage

As discussed above, fire flow requirements are identified in the CFC. These requirements are based on flow (in gpm), size of building (in square feet), and type of construction (wood frame, metal, masonry, installation of sprinklers, etc.). After a fire flow requirement is established, it is multiplied by the required fire flow duration to produce an estimate of the total volume of fire flow storage required. Table 6-1 presents the recommended fire flow criteria and associated required fire flow storage.

Sufficient fire flow storage should be available for the following simultaneous fire flow events in larger pressure zones (i.e., Zones 1 and 2):

- A Single Family Residential fire flow of 1,500 gpm for a duration of two hours. The resulting volume required for fire flow storage is 0.18 MG.
- An Industrial fire flow of 4,000 gpm for a duration of four hours (if sprinklered). The resulting volume required for fire flow storage is 0.96 MG[2].

If unavailable by gravity storage, the fire flow must be supplied with a National Fire Protection Association (NFPA) rated fire pump. If an NFPA rated fire pump is not used, then a pump(s) and motor(s) combination with a backup power source of sufficient capacity to meet the required maximum fire flow and minimum residual pressure requirements, as determined by the Fire Marshal, will be required.

6.2.5.3 Emergency Storage

A reserve of stored water is also required to meet demands during an emergency. An emergency is defined as an unforeseen or unplanned event that may degrade the quality or quantity of potable water supplies available to serve customers. There are three types of emergency events that a water utility typically prepares for:

- Minor emergency. A fairly routine, normal, or localized event that affects a few customers, such as a pipeline break, malfunctioning valve, hydrant break, or a brief power loss. Utilities plan for minor emergencies and typically have staff and materials available to correct them quickly.
- Major emergency. A disaster that affects an entire, and/or large, portion of a water system, lowers the quantity and quality of the water, or places the health and safety of the community at risk. Examples include water treatment plant failures, raw water contamination or major power grid outages. Water utilities infrequently experience major emergencies.
- Natural disaster. A disaster caused by natural forces or events that create water utility emergencies. Examples include earthquakes, forest or brush fires, hurricanes, tornados or high winds, floods, and other severe weather conditions such as freezing or drought that damage or cause water system facilities to not be able to operate.

Determination of the required volume of emergency storage is a policy decision based on the assessment of the risk of failures and the desired degree of system reliability. The amount of required emergency storage is a function of several factors including the diversity of the supply sources, redundancy and reliability of the production facilities, and the anticipated length of the emergency outage. In developing an emergency storage requirement for the City, typical industry standards were used.

[2] Recommended storage does not include volume associated with 500 gpm sprinkler flow (refer to Table 6-1). Assumes a 50 percent reduction in the required fire flow due to the installation of fire sprinklers.

The American Water Works Association (AWWA) states that no formula exists for determining the amount of emergency storage required, and that the decision will be made by the utility based on a judgment about the perceived vulnerability of the system. For this Citywide Water System Master Plan, it has been assumed that the emergency storage requirement will be based on minor emergencies and *specific* major emergency criteria. The 2012 WSMP used an emergency storage volume requirement of two (2) times the average day demand. After reviewing emergency storage criteria for other similar water systems within the region, and taking into account the City's redundant sources of supply (JJWTP, SSJID, and groundwater), it is recommended that the City reduce the minimum quantity of emergency storage volume required to 1.5 times the average day demand for this Citywide Water System Master Plan Update.

6.2.5.4 Groundwater Credit

Based on the City's available groundwater wells, groundwater storage can account for a portion of the recommended emergency storage. The following must be true to use the groundwater supply to offset the need to provide surface storage:

- Groundwater supply is of potable water quality and can be reliably accessed (i.e., wells are equipped with on-site emergency generators).
- Groundwater supply is not already being relied upon to meet the City's average day demand requirements.
- Sufficient water distribution facilities are available to distribute this water to demand areas.

It will be assumed that only the firm groundwater supply will be available for a groundwater credit to offset the City's emergency storage requirement (i.e., 20 percent of wells could be out of service at any given time).

6.2.5.5 Treated Surface Water Supply Credit

Because the City currently has two independent sources of treated surface water supply (JJWTP and SSJID supplies), some quantity of treated surface water supply capacity can account for a portion of the City's recommended emergency storage. For this Citywide Water System Master Plan, it will be assumed that the smaller of the treated surface water supply sources (SSJID) will be available to offset a portion of the emergency storage requirement. However, the following must be true to use treated surface water supply to offset the need to provide surface storage:

- Treated surface water supply can be reliably accessed (i.e., treated surface water supply facility is equipped with on-site emergency generator).
- Sufficient treated surface water booster pumping facilities are available to distribute this water to demand areas.

6.2.5.6 Total Storage Capacity Recommended

The City's recommended potable water storage capacity should be the sum of the following components:

- Operational: Volume of water necessary to meet diurnal peaks observed throughout the day, assumed to be equivalent to at least 30 percent of the maximum day demand.
- Fire Flow: Volume of water necessary to supply two simultaneous fire flow events in larger pressure zones (i.e., Zones 1 and 2).
- Emergency: Volume of water necessary to provide 1.5 times an average day demand.
- Groundwater Credit: Equal to the firm groundwater supply that can be reliably accessed (facilities equipped with auxiliary power).
- Treated Surface Water Supply Credit: Equal to the smaller of the available treated surface water supply sources (SSJID).

It should be noted that the sum of groundwater and treated surface water supply credits cannot be greater than the recommended emergency storage volume. The amount of total system storage and system peaking capacity required to meet these criteria will change over time as the City continues to grow and potable water demands increase.

6.2.6 Potable Water Pumping Facility Capacity

Sufficient firm water system pumping capacity should be provided to meet the greater of the following two demand conditions within each pressure zone and any additional pressure zone(s), which are provided service from this particular pressure zone.

1. A maximum day demand with two simultaneous fire flow events in larger pressure zones (i.e., Zones 1 and 2 should assume one smaller single family residential fire flow combined with another larger industrial fire flow) with booster pumps and well pumps assumed to operate at firm pumping capacity.
2. A peak hour demand with booster pumps and well pumps assumed to operate at firm pumping capacity.

The highest demand requirement between these two demand conditions sets the water system pumping capacity requirement. However, sufficient pumping capacity should also be provided so that the maximum day demand within each pressure zone can be supplied using firm pumping capacity with no assistance from storage reservoirs.

6.2.7 Potable Water Critical Supply Facilities

Critical pumping facilities are defined as those facilities that provide service to pressure zone(s) and/or service area(s) which do not have sufficient emergency storage available (see *Section 6.2.5.3 Emergency Storage*) and that meet the following criteria:

- The largest pumping facility that provides water to a particular pressure zone and/or service area.
- A facility that provides the sole source of water to single or multiple pressure zones and/or service areas.
- A pumping facility that provides water from a supply turnout.
- A pumping facility that provides water from key groundwater supply wells (depends on capacity, quality and location).

All critical pumping facilities should be equipped with an on-site, back-up power generator. At less critical facilities, a plug-in adapter will be used to allow interconnection to a portable generator, which will be brought to the site by City staff during a prolonged power outage. In addition, portable generator booster connections will be configured at all tank/booster pump locations.

The City should also consider the following policies to make operations of the City's pumping facilities more efficient:

- Install solar power systems, or alternative power sources, at existing and new pump stations and other water system facilities, as feasible, to reduce electrical power consumption.
- Increase the frequency of routine O&M activities for existing pump stations and wells to maintain pump efficiencies and reduce power demands.

6.2.8 Potable Water Transmission and Distribution Pipeline Sizing and Recommended System Pressures

The following criteria will be used as guidelines for sizing new transmission and distribution pipelines. However, the City's existing system will be evaluated on a case–by-case basis. For example, if an existing pipeline experiences head loss in excess of the criteria described below during a maximum day plus fire flow event, this condition, by itself, does not necessarily indicate a deficiency as long as the minimum system pressure criterion is satisfied.

Consequently, the City's existing system will be evaluated using pressure as the primary criterion; and secondary criteria, such as pipeline velocity, head loss, age, and material type, will be used as indicators to locate where water system improvements may be needed.

New transmission and distribution pipelines to serve the City's future service areas should be located within designated utility corridors wherever possible. These designated utility corridors should be within public rights-of-way to minimize or eliminate the need for utility easements within private property.

6.2.8.1 Potable Water Transmission System

Transmission pipelines are generally 18-inches in diameter or larger and should be designed based on the criteria described below for average day, maximum day, and peak hour demand conditions. The criteria reflect industry standards and West Yost's experience working with the City's existing water system.

- Average Day Demand
  - Pressures should be maintained between a maximum of 100 psi[3] and a minimum of 40 psi.
  - Maximum velocity within transmission pipelines should be 3 fps.
  - Head losses within the transmission system pipelines should be limited to 3 feet per thousand feet (ft/kft) of pipeline.
- Maximum Day Demand
  - Pressures should be maintained between a maximum of 100 psi[4] and a minimum of 40 psi.
  - The maximum velocity within the transmission system pipelines should be 6 fps.
  - Head losses within the transmission system pipelines should be limited to 3 ft/kft of pipeline.
- Peak Hour Demand
  - Pressures should be maintained between a maximum of 100 psi[4] and a minimum of 40 psi.
  - The maximum velocity within the transmission system pipelines should be 6 fps
  - Head losses within the transmission system pipelines should be limited to 3 ft/kft of pipeline.

6.2.8.2 Potable Water Distribution System

Distribution pipelines are generally less than 18-inches in diameter and should be sized based on the criteria described below for average day, maximum day plus fire flow, and peak hour demand conditions. The criteria reflect industry standards and West Yost's experience working with the City's existing water system.

- Average Day Demand
  - Service pressures should be maintained between a maximum of 80 psi[4] and a minimum of 40 psi.
  - The maximum velocity within the distribution system pipelines should be 6 fps.

[3] A pressure reducing valve will be required on all water services with a static pressure greater than 80 psi.

[4] A pressure reducing valve will be required on all water services with a static pressure greater than 80 psi.

  - Head losses within the distribution system pipelines should be limited to 7 ft/kft of pipeline

- Maximum Day Demand plus Fire Flow
  - The minimum allowable residual pressure should be 20 psi at the flowing fire hydrant during the occurrence of a single fire flow event for smaller pressure zones.
  - The minimum allowable residual pressure should be 20 psi at the flowing fire hydrants during the occurrence of two simultaneous fire flow events for larger pressure zones.
  - The maximum velocity within the distribution system pipelines should be 12 fps, or the head losses within the distribution system pipelines should be limited to 10 ft/kft of pipeline, whichever criteria is more conservative given the specific hydraulic/system condition.
- Peak Hour Demand
  - Service pressures should be maintained between a maximum of 80 psi[5] and a minimum of 40 psi.
  - The maximum velocity within the distribution system pipelines should be 8 fps, or the head losses within the distribution system pipelines should be limited to 7 ft/kft of pipeline, whichever criteria is more conservative given the specific hydraulic/system condition.

A summary of the recommended potable water system performance and operational criteria is presented in Table 6-2 and reflect typical water system industry standards including the California Safe Drinking Water Act and related laws, and AWWA standards.

[5] A pressure reducing valve will be required on all water services with a static pressure greater than 80 psi.

Table 6-2. Summary of Recommended Potable Water System Performance and Operational Criteria

Component	Criteria	Remarks / Issues
Fire Flow Requirements (flow [gpm] @ duration [hours])		
Single Family Residential	1,500 gpm @ 2 hrs	Existing development will be evaluated on case-by-case basis because of the historical varying standard.
Multi Family Residential	2,500 gpm @ 2 hrs	
Commercial/Office	3,500 gpm @ 4 hrs (with approved automatic sprinkler system)	
Industrial	4,500 gpm @ 4 hrs (with approved automatic sprinkler system)	
Institutional	4,500 gpm @ 4 hrs (with approved automatic sprinkler system)	
Water System Capacity		
Maximum Day Demand plus Fire Flow	Provide firm capacity equal to maximum day demand plus fire flow	Assume two simultaneous fire flow events in larger pressure zones (i.e., Zones 1 and 2).
Peak Hour Demand	Provide firm capacity equal to peak hour demand	
Water Treatment Capacity		
Treated Water Supply Capacity	Provide capacity equal to maximum day demand	--
Treated Surface Water Supply Capacity	Provide capacity equal to maximum month demand	--
Treated Water Pumping Capacity	Provide capacity equal to maximum day demand	--
Water Storage Capacity		
Operational	30 percent of maximum day demand	
Fire	Assume one Single Family Residential fire flow concurrent with a larger Industrial fire flow in larger pressure zones (i.e., Zones 1 and 2)	1,500 gpm @ 2 hrs = 0.18 MG 2,500 gpm @ 2 hrs = 0.30 MG 3,000 gpm @ 4 hrs = 0.72 MG 4,000 gpm @ 4 hrs = 0.96 MG
Emergency	1.5 x average day demand	--
Groundwater Credit (GWC)	Equal to the firm groundwater supply that can be reliably accessed (facilities equipped with auxiliary power)	The maximum combined emergency storage credit is equal to the recommended emergency storage capacity.
Treated Surface Water Credit (TSWC)	Equal to the smaller of the available treated surface water supply sources	
Total Water Storage Capacity	Operational + Fire + Emergency - GWC - TSWC	If possible, total storage should be evaluated by pressure zone.
Pumping Facility Capacity		
Pumping Capacity	Provide the greater of maximum day with two concurrent fire flows in larger pressure zones (i.e., Zones 1 and 2) or peak hour demand within each pressure zone	Assume firm pumping capacity. Sufficient pumping capacity should also be provided so that the maximum day demand can be supplied using firm pumping capacity with no assistance from storage reservoirs.
Backup Power	Equal to the firm capacity of the pumping facility	On-site generator for critical stations.[(a)] Plug-in portable generator for less critical stations.
Water Transmission Line Sizing		
Diameter	18-inches in diameter or larger	Locate new transmission pipelines within designated utility corridors wherever possible.
Average Day Demand Condition	--	Criteria based on requirements for new development, existing transmission mains will be evaluated on case-by-case basis. Evaluation will include review of age, material type, velocity, head loss, and/or pressure.
Minimum Pressure [psi]	40 psi	
Maximum Pressure [psi]	100 psi	
Maximum Head loss [ft/kft]	3 ft/kft	
Maximum Velocity [fps]	3 fps	
Maximum Day Demand Condition	--	
Minimum Pressure [psi]	40 psi	
Maximum Head loss [ft/kft]	3 ft/kft	
Maximum Velocity [fps]	6 fps	
Peak Hour Demand Condition	--	
Minimum Pressure [psi]	40 psi	
Maximum Head loss [ft/kft]	3 ft/kft	
Maximum Velocity [fps]	6 fps	
Hazen Williams "C" Factor	130	For consistency in hydraulic modeling.
Pipeline Material	Ductile Iron	
Water Distribution Line Sizing		
Diameter	Less than 18-inches in diameter	Must verify pipeline size with maximum day plus fire flow analysis. Locate new distribution pipelines within designated utility corridors wherever possible.
Average Day Demand Condition	--	Criteria based on requirements for new development, existing distribution mains will be evaluated on case-by-case basis. Evaluation will include review of age, material type, velocity, head loss, and/or pressure.
Minimum Pressure [psi]	40 psi	
Maximum Pressure [psi]	80 psi	
Maximum Head loss [ft/kft]	7 ft/kft	
Maximum Velocity [fps]	6 fps	
Maximum Day w/ Fire Flow Demand Condition	--	
Minimum Pressure [psi]	20 psi for a single fire flow event in smaller pressure zones; 20 psi for two simultaneous fire flow events in larger pressure zones	
Maximum Head loss [ft/kft]	10 ft/kft	
Maximum Velocity [fps]	12 fps	
Peak Hour Demand Condition	--	
Minimum Pressure [psi]	40 psi	
Maximum Head loss [ft/kft]	7 ft/kft	
Maximum Velocity [fps]	8 fps	
Minimum Pipeline Diameter	--	--
General	8-inches	--
Industrial	12-inches	--
Distribution to cul-de-sac / dead-end street	6-inches	Permanent dead end runs shall be no longer that 250 feet unless in a cul-de-sac.
Distribution to fire hydrants	8-inches	--
Hazen Williams "C" Factor	130	For consistency in hydraulic modeling.
Pipeline Material	Ductile Iron	
Maximum Water Service Pressure	80 psi	Install PRV if service pressure is greater than 80 psi.

(a) A pumping facility is defined as critical if it provides service to pressure zone(s) and/or service area(s) which do not have sufficient emergency storage, and that meet the following criteria:

- The largest facility that provides water to a particular pressure zone and/or service area;
- A facility that provides the sole source of water to single or multiple pressure zones and/or service areas;
- A facility that provides water from a supply turnout; or
- A facility that provides water from key groundwater supply wells (depends on capacity, quality and location).

6.3 RECYCLED WATER SYSTEM

Components of the recommended performance and operational criteria for the City's backbone recycled water system are discussed below.

6.3.1 Recycled Water Demand Condition Evaluation

A peak hour demand condition during an 8-hour irrigation period will be used to assess the adequacy of the City's recycled water system.

6.3.2 Recycled Water Treatment Capacity

Sufficient recycled water treatment capacity should be available to meet the City's maximum day recycled water demand condition.

6.3.3 Recycled Water Storage Capacity

The total recycled water storage capacity required will be based on the following components:

- Seasonal Storage
- Operational Storage

A discussion of these two storage components follows.

6.3.3.1 Seasonal Storage

As described in Chapter 4, landscape irrigation demands are highest during the summer months (when plant evapotranspiration rates are high) and very low during the winter months. Demand for recycled water supplies to meet these seasonally varying demands will also vary month to month, depending on the specific climatic conditions that are occurring. Therefore, some seasonal storage may have to be provided to store recycled wastewater generated during low irrigation demand periods for use during the high summer demand periods. The actual quantity of seasonal storage required, if any, will be determined using an annual water balance between total recycled water supply available and the total seasonal recycled water demand.

6.3.3.2 Operational Storage

Sufficient operational storage should be provided to supply the demands of an eight-hour irrigation period during a maximum summer month demand condition, with a 10 percent demand increase occurring for one hour (i.e., peak hour) during the irrigation period. Due to concerns about water quality, it is recommended that this operational storage be entirely stored within an enclosed reservoir or tank system to limit exposure to potential contaminant sources after treatment, but before distribution and direct use.

6.3.3.3 Total Storage Capacity

The City's recommended recycled water storage capacity should be the sum of the following components:

- Seasonal: Volume of recycled water necessary to balance the required annual recycled water demands with the annual recycled water supply available.
- Operational: Volume of recycled water necessary to supply the demands of an eight-hour irrigation period during a maximum summer month demand condition, with a 10 percent demand increase occurring for one hour.

The amount of total system storage and system peaking capacity required to meet these criteria will change over time as the City continues to grow and recycled water demands increase.

6.3.4 Recycled Water Pumping Facility Capacity

Sufficient pumping capacity should be provided to meet the City's peak hour recycled water demand condition within each pressure zone and any additional pressure zone(s), which are provided service from this particular pressure zone.

6.3.5 Recycled Water Transmission Pipeline Sizing and Recommended System Pressures

Backbone recycled water system transmission pipelines are generally 16-inches in diameter or larger and should be designed based on the criteria described below for a peak hour demand condition.

- Peak Hour Demand
  - Service pressures should be maintained between a maximum of 100 psi and a minimum of 60 psi.
  - The maximum velocity within the transmission system pipelines should be 10 fps; however, a pipeline velocity of 6 fps is desirable.

A summary of the recommended recycled water system performance and operational criteria is presented in Table 6-3.

Table 6-3. Summary of Recommended Recycled Water System Performance and Operational Criteria		
Component	Criteria	Remarks / Issues
Demand Condition Evaluation		
Peak Hour Demand	Provide capacity equal to peak hour demand during an 8-hour irrigation period	--
Recycled Water Treatment Capacity		
Recycled Water Treatment Capacity	Provide capacity equal to a maximum day demand	--
Recycled Water Storage Capacity		
Seasonal	Equal to volume required to balance the annual demands with the annual supply available	--
Operational	Equal to volume required to supply the demands of an eight-hour irrigation period during a maximum summer month with a 10 percent demand increase occurring for one hour	--
Total Water Storage Capacity	Seasonal + Operational	--
Pumping Facility Capacity		
Pumping Capacity	Provide capacity equal to peak hour demand within each pressure zone	Firm pumping capacity will not be required.
Recycled Water Transmission Line Sizing		
Diameter	16-inches in diameter or larger	--
Peak Hour Demand Condition	--	--
Minimum Pressure [psi]	60 psi	--
Maximum Pressure [psi]	100 psi	--
Maximum Velocity [fps]	10 fps	Pipeline velocity of 6 fps is desirable.
Hazen Williams "C" Factor	130	For consistency in hydraulic modeling.
Pipeline Material	C-900 PVC	

CHAPTER 7
Existing Potable Water System Evaluation

7.1 OVERVIEW

The purpose of this chapter is to first describe the City's existing potable water distribution system, including the corresponding hydraulic model update. Existing water system information was updated through the review of previous reports, maps, plans, record drawings, operation records, GIS files, and other available data provided to West Yost by City staff. Using this information, the City's current hydraulic model was then updated to represent the existing potable water system.

The remainder of the chapter presents an evaluation of the City's existing potable water distribution system and its ability to meet the recommended performance and operational criteria (previously described in Chapter 6) under existing water demand conditions. The evaluation includes an analysis of water storage capacity, pumping capacity, and the existing water system's ability to meet recommended water system performance and operational criteria under peak hour demand and maximum day demand plus fire flow scenarios. This evaluation does not include a condition assessment of the City's existing water system assets and does not cover replacement of existing infrastructure due to age or physical deterioration.

Evaluations, findings, and recommendations for addressing any deficiencies identified within the existing potable water distribution system are included. Recommendations were used to develop a Capital Improvement Program (CIP), which includes an estimate of probable construction costs. The recommended existing potable water system CIP is described further in Chapter 10.

The following sections of this chapter describe the components of the City's existing potable water distribution system evaluation:

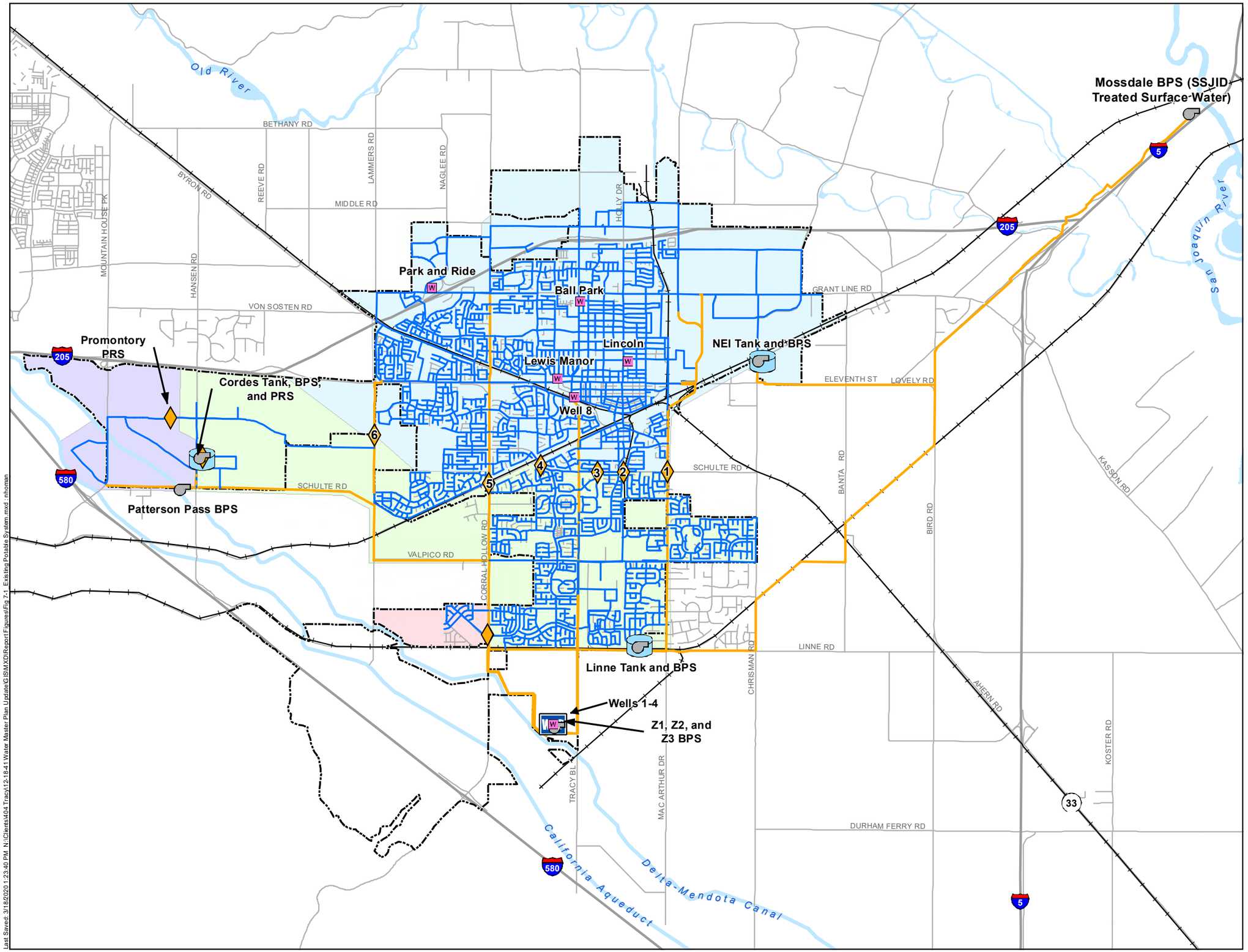
- Description of Existing Potable Water System Facilities
- Hydraulic Model Update
- Existing Potable Water System Evaluation
- Summary of Recommended Existing Potable Water System Improvements

7.2 DESCRIPTION OF EXISTING POTABLE WATER SYSTEM FACILITIES

This section provides a summary of the City's existing potable water system facilities. The City's existing potable water system facilities are located throughout the water service area as shown on Figure 7-1. Additional details regarding each facility are presented below.

7.2.1 John Jones Water Treatment Plant

The City's JJWTP is located just north of the DMC in the southern portion of the City as shown on Figure 7-1. The JJWTP was originally constructed in 1979, expanded in 1988, and then expanded again in 2008. It currently has a treatment capacity of 30 mgd.



Symbology

- Pressure Regulating Station
- Booster Pump Station
- Groundwater Well
- Storage Tank
- John Jones Water Treatment Plant

Pipeline Diameter

- Less than 18-inches
- Greater than or equal to 18-inches

Pressure Zone

- Zone 1
- Zone 2
- Zone 3 (IPC/PPBP)
- Ellis Reduced Zone
- City Limits

Notes:

1. All facilities included in the existing system hydraulic model are shown. Not all existing facilities were included in the model. See Section 7.3.2 for details.
2. Pressure Zones represent the approximate boundaries after the IPC zone split is implemented.
3. The City's hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.
4. Lewis Manor Well is currently inactive.

TRACY

WEST YOST ASSOCIATES

Figure 7-1

Existing Potable Water System Facilities

City of Tracy
Water System Master Plan Update

Last Saved: 3/18/2020 1:23:40 PM N:\Clients\404 Tracy\12-1841 Water Master Plan Update\GIS\MXD\Report Figures\Fig 7-1_Existing Potable System.mxd - mhoman

The most recent expansion added treatment through granulated activated carbon and ultraviolet light disinfection. Granulated activated carbon removes dissolved organic compounds contained in the water, and ultraviolet light disinfection provides an additional level of treatment. Several new process upgrades including new flocculation/sedimentation basins, washwater basins, and chemical addition facilities were also added during the expansion. The site plan, process schematic, and hydraulic profile from the JJWTP Expansion Project is provided in Appendix B.

The City operates three surface water intake pumps at the JJWTP with the capacity to pump a total of approximately 27 mgd of raw surface water from the DMC to the JJWTP for treatment. The key characteristics of the existing surface water intake pumps are summarized in Table 7-1.

Table 7-1. Existing Surface Water Intake Pumps[a]

Intake Pump Name	Year Installed	Production Capacity, mgd	Pump Type	Motor Horsepower	Motor Type
Pump No. 1	2008	14[b]	Vertical Turbine	150	VFD[c]
Pump No. 2	2008	14[b]	Vertical Turbine	150	VFD[c]
Pump No. 3	2008	14[b]	Vertical Turbine	150	VFD[c]

(a) Source: JJWTP Expansion Project, Sheet G-8 (Carollo Engineers).
(b) Intake pumps were designed for 15 mgd. However, testing of the installed pumps determined that the actual production capacity of each pump is 14 mgd. In addition, due to the hydraulics of the JJWTP intake, the maximum intake pumping capacity with all three pumps running is 27 mgd.
(c) Variable Frequency Drive.

7.2.2 South County Water Supply Project

The City, in partnership with the cities of Manteca, Lathrop and Escalon, and SSJID, constructed a new surface water treatment plant near Woodward Reservoir in Stanislaus County and new transmission pipelines to deliver treated surface water to each city. The City's treated surface water allocation from the SCWSP is 17 mgd of treatment capacity and 11,120 af/yr of water supply.

Treated surface water from the surface water treatment plant located near Woodward Reservoir is conveyed to the City through a dedicated 36-inch diameter transmission main and pumped to the City by the Mossdale Pump Station located at the intersection of Manthey and Stewart Roads (see Figure 7-1). Water pumped from the Mossdale Pump Station first fills the City's Linne and NEI storage tanks through 18-inch and 30-inch diameter transmission mains before being pumped into the City's distribution system to serve system demands. The Mossdale Pump Station is operated by SSJID.

7.2.3 Groundwater Wells

The City currently has eight groundwater production wells that provide the City's potable water system with groundwater supply. Currently, the Lewis Manor Well is inactive due to high levels of manganese. As discussed in Chapter 5, a ninth well, Well 8, was constructed in 2004 to be used for the City's ASR Program, but can also be used as an extraction well to serve water demands directly under normal and/or emergency conditions.

The groundwater wells located at the JJWTP (Wells 1-4) pump directly into the Chlorine Contact Basin or Clearwell #2, where the groundwater is blended with the finished surface water and chlorinated prior to distribution. Groundwater from the other remaining wells located in Zone 1 is chlorinated at each well site and pumped directly into the distribution system.

The locations of these existing groundwater wells are shown on Figure 7-1. Table 7-2 presents a summary of these existing groundwater well facilities with key characteristics such as design capacity and age.

Table 7-2. Existing Groundwater Wells

Well Name/Number	Well Location/Address	Year Drilled	Total Well Depth (Casing Depth), ft	Casing Diameter, inches	Depth of Perforated Zone, ft[a]	Design Capacity, gpm	Production Capacity, mgd
Well 1	JJWTP	1986	1,010 (1,000)	16"	450-550 580-980	1,500	2.2
Well 2	JJWTP	1989	990 (870)	16"	420-850	2,000	2.9
Well 3	JJWTP	1989	1,020 (900)	16"	420-890	2,000	2.9
Well 4	JJWTP	1989	1,020 (950)	16"	380-940	2,000	2.9
Lincoln Well	Lincoln Park	1990	1,000 (1,000)	16"	490-980	2,500	3.6
Well 5[b] (Lewis Manor Well) (Currently Inactive)	902 Twelfth Street (north of Eleventh Street between Tracy Boulevard and Corral Hollow Road)	2000	1,015 (1,000)	18"	410-480 601-630 650-670 805-830 900-930 965-990	2,500	3.6
Well 6 (Park& Ride Well)	2650 North Naglee Road (North of I-205 adjacent to West Valley Mall)	2001/02	1,250 (1,216)	18"	550-598 610-636 656-678 738-754 774-796 966-982 1,014-1,122 1,176-1,196	2,000	2.9
Well 7 (Ball Park Well)	2001 Bessie Avenue (east of Tracy Boulevard south of Grant Line Road)	2002	1,070 (894)	18"	550-598 570-732 850-874	2,500	3.6
Well 8[c]	Tracy Boulevard and Sixth Street	2004	850 (850)	18"	370-460 510-640 680-820	2,500	3.6

(a) Source: GEI Consultants, Summary of Groundwater Conditions November 2007 through November 2008, dated January 23, 2009.
(b) Well is currently inactive due to high manganese levels.
(c) Well 8 can be operated as an injection/extraction well as part of the City's ASR Program.

7.2.4 Water Storage Facilities

The City currently operates five treated water storage reservoirs (two clearwells and three storage tanks). Table 7-3 presents a summary of these existing storage facilities with key characteristics such as storage capacity and age. As shown, the City currently has a total potable water storage capacity of approximately 16.2 MG. However, Clearwell #1 operates as a chlorine contact basin and cannot be counted as system storage capacity. Therefore, the total available potable water storage capacity is reduced to approximately 15.5 MG. The locations of the City's three storage tanks are shown on Figure 7-1 (the two clearwells are located at the JJWTP).

Table 7-3. Existing Treated Water Storage Facilities

Storage Facility Name	Storage Type	Material	Year Constructed	Storage Capacity, MG
Clearwells				
#1[(a)]	Partially Buried Tank	--	1978	0.66
#2[(b)]	Partially Buried Tank	--	1987	4.0
Storage Tanks				
Linne	Fully Buried Tank	Concrete	2005	7.1
NEI	Partially Buried Tank	Concrete	2002	2.4
Cordes	Partially Buried Tank	Concrete	2015[(c)]	2.0
			Total Storage Capacity, MG	**16.2**
			Total Available Storage Capacity, MG	**15.5[(d)]**

(a) Clearwell #1 has a design capacity of 1.0 MG, but it has been reduced to 0.66 MG due to the weir within Clearwell #1. Also known as the Chlorine Contact Basin.
(b) Clearwell #2 has a design capacity of 5.6 MG, but it has been reduced to 4.0 MG due to the weir within Clearwell #1.
(c) Although it was constructed in 2015, the Cordes Tank was not put into service until November 2019.
(d) Does not include Clearwell #1 as it is operated as a Chlorine Contact Basin and cannot be counted as system storage capacity.

7.2.5 Booster Pump Stations

The City currently has eight booster pump stations.[1] The locations of these existing booster pump stations are shown on Figure 7-1 (Zone 1, Zone 2, and Zone 3 booster pump stations are located at the JJWTP). Table 7-4 presents a summary of the existing booster pump stations with key characteristics such as design capacity and number of booster pumps.

The booster pumps located at the JJWTP pump treated surface water supply (from USBR) stored in Clearwell #2 into the City's potable water system. The booster pumps located at the Linne and NEI storage tanks pump treated surface water supply (from SSJID) stored in their respective storage tanks into the City's potable water system. The Cordes Booster Pump Station (BPS) pumps treated surface water supply from the Cordes Tank and serves customers located in the PPBP and the IPC development.

[1] The Patterson Pass Booster Pump Station is inactive since the Cordes Booster Pump Station is now operating. The Zone 4 Booster Pump Station is operational, but is not included in the existing system evaluation because Zone 4 has just started development.

Table 7-4. Existing Booster Pump Stations

Booster Pump Station Name	Location	Year Installed	Pump 1, gpm	Pump 2, gpm	Pump 3, gpm	Pump 4, gpm	Pump 5, gpm	Pump 6, gpm	Rated Capacity[a], gpm	Firm Capacity[b], gpm	Firm Capacity[b], mgd
Zone 1[c]	JJWTP	2000	12,000	12,000					24,000	12,000	17.3
Zone 2[c]	JJWTP	1987	3,300	6,700	6,700	3,300			20,000	13,300	19.2
Zone 3	JJWTP	2018	2,600	2,600	370				5,570	2,970	4.3
Zone 4[d]	JJWTP	2018	1,225	1,225	1,225	--[e]			3,675	2,450	3.5
Linne[c]	Linne Tank	2005	4,865	4,865	4,865	4,865			19,460	14,595	21.0
NEI[c]	NEI Tank	2001	1,400	1,400	1,400	1,400			5,600	4,200	6.0
Patterson Pass[c,f]	Schulte Road, west of Hansen Road	2010	1,000	1,000	1,000	1,000			4,000	3,000	4.3
Cordes[c]	Cordes Tank	2015[g]	675	675	1,600	1,600	1,600	1,600	7,750	6,150	8.9

(a) Maximum pumping capacity of entire pump station.

(b) Assumes that the largest booster pump at the pump station is offline.

(c) Pumps are equipped with variable frequency drives.

(d) Existing potable water system infrastructure for Zone 4 is not shown on Chapter 7 figures because Zone 4 has just started development and was not included in the existing system evaluation.

(e) The City plans to add a fourth 1,225 gpm pump to the Zone 4 BPS in the future.

(f) Patterson Pass BPS is currently on standby and will eventually be decommissioned.

(g) Although it was installed in 2015, the Cordes BPS was not put into service until November 2019.

7.2.6 Pressure Regulating Stations

The City currently has ten pressure regulating stations (PRS) and two pressure reducing valves (PRV) as shown on Figure 7-1 (Zone 4 PRS and Northington Drive PRV are not shown because the areas served by these facilities have just started development). All of the PRS except the Cordes PRS and Promontory Parkway PRS are currently active. Once the IPC zone split occurs (see Section 7.2.7), these two PRS will be placed into service. The IPC zone split will permanently convert several of the existing buildings in the IPC development to be served directly from Zone 2 (these buildings are currently served by Zone 3 in the interim).

Each PRS contains a valve which is used to regulate flow into the downstream pressure zone or sustain pressure within the upstream pressure zone depending on the system pressures within each pressure zone. Each PRS can operate in two different modes:

- Pressure Sustaining Valve (PSV) – The valve will maintain a specified pressure in the upstream pressure zone. If the pressure increases above the valve's set point, the valve will open and release water into the downstream pressure zone.
- Pressure Reducing Valve (PRV) – The valve will allow flow into the downstream pressure zone if the pressure in the downstream pressure zone falls below a specified set point. When the pressure is below the valve's set point, the valve will remain open until the pressure increases.

Although the stations can operate in two different ways, most stations primarily operate in one of the two modes. The primary function of PRS #1 – #6, the Summit Drive PRS, and the Zone 4 PRS is that of a PSV, while the primary function of the Cordes PRS and the Promontory Parkway PRS will be that of a PRV. The two PRVs (Summit Drive and Northington Drive) can only operate in the pressure reducing mode. Table 7-5 presents a summary of these existing pressure regulating stations and pressure reducing valves with key characteristics such as upstream and downstream pressure zones, valve size, and pressure setting.

Table 7-5. Existing Pressure Regulating Stations and Pressure Reducing Valves

Facility Name	Upstream Pressure Zone	Downstream Pressure Zone	Valve Size, inches	Elevation, ft	Pressure Setting (upstream/ downstream), psi
Pressure Regulating Station					
#1	Zone 2	Zone 1	12	63.67	83/56
#2	Zone 2	Zone 1	8	66.57	79/53
#3	Zone 2	Zone 1	6	71.19	78/52
#4	Zone 2	Zone 1	10	64.53	80/54
#5	Zone 2	Zone 1	12	68.29	79/53
#6	Zone 2	Zone 1	12	69.0	78/54
Summit Drive	Zone 3	Zone 2	10	160.0	100/60
Cordes[(a)]	Zone 3	Zone 2	16	147.8	76/36
Promontory Parkway[(a)]	Zone 3	Zone 2	12	149.0	75.5/35.5
Zone 4[(b)]	Zone 4	Zone 3	8	204.5	105/90
Pressure Reducing Valve					
Summit Drive	Zone 3	Ellis Reduced Zone	12	160.0	--/70
Northington Drive[(c)]	Zone 3	Ellis Reduced Zone	12	164.0	--/70

(a) Cordes PRS and Promontory Parkway PRS are currently inactive. They will be placed into service when the IPC zone split occurs.
(b) Existing potable water system infrastructure for Zone 4 is not shown on Chapter 7 figures because Zone 4 has just started development and was not included in the existing system evaluation.
(c) Northington Drive PRV is not shown on Chapter 7 figures because it was not included in the existing system evaluation.

7.2.7 Pressure Zone Boundaries

The City's existing potable water system consists of four interconnected pressure zones (Zone 1, Zone 2, Zone 3, and Ellis Reduced Zone) which are isolated from each other by pressure regulating stations, pressure reducing valves, and closed system valves. Zone 3 (previously called City-Side Zone 3) is currently split into two isolated portions: one which serves the Ellis Reduced Zone, and one which serves the International Park of Commerce and the Patterson Pass Business Park (Zone 3 - IPC/PPBP). A fifth pressure zone, Zone 4 (previously called Tracy Hills Zone 3), has just started development and is therefore not included in this existing system evaluation. Note that documents produced prior to this WSMP Update refer to these pressure zones using the old nomenclature.

Zone 1 extends from the northern City limits south to Schulte Road and is the most developed of the four pressure zones. Therefore, it has more transmission pipelines to convey water throughout the zone. Zone 1 is primarily served from the 36-inch diameter transmission main in Tracy Boulevard either by gravity or via the Zone 1 BPS, and from the NEI Tank and BPS located

at the eastern edge of Zone 1. There are also two major water transmission mains located on the east and west sides of Zone 1 which help distribute water to the lower elevations of the zone: an 18-inch diameter transmission main in Corral Hollow Road and a 20-inch diameter transmission main in MacArthur Drive. During periods of peak demand or in an emergency, Zone 1 can also be served by the five groundwater wells located within Zone 1 or by Zone 2 facilities via PRS #1-#6.

Zone 2 extends from Schulte Road south to Linne Road and is mostly comprised of residential and light industrial land use. Water demands in Zone 2 are primarily served by the 24-inch diameter transmission main in Corral Hollow Road, which extends from the Zone 2 BPS at the JJWTP north and west towards Patterson Pass BPS and the IPC, and by the Linne Tank and BPS.

The Ellis Reduced Zone currently consists of the Ellis Specific Plan development located south of Valpico Road and west of Corral Hollow Road. The Ellis Reduced Zone is served by the 20-inch diameter Zone 3 transmission main in Corral Hollow Road which extends from the Zone 3 BPS at the JJWTP to the intersection of Middlefield Drive and Corral Hollow Road.

The Zone 3 - IPC/PPBP pressure zone currently includes the PPBP (*i.e.*, Safeway and Costco) and all of the existing IPC development. This zone is currently served by the Cordes BPS, which supplies water from the Cordes Tank. The Cordes Tank is filled by the Zone 2 transmission mains in Schulte Road and Hansen Road. As discussed above, although all of the IPC development is currently served by Zone 3 – IPC/PPBP, several of the existing buildings are located within the Zone 2 elevation range. The City plans to split the existing IPC water distribution system into two portions: one served by Zone 2 and one served by Zone 3 - IPC/PPBP. To accomplish this, the 16-inch diameter pipeline in Promontory Parkway between Hansen Road and Lammers Road, which is currently constructed but not active, will placed into service as a Zone 2 pipeline. The Cordes PRS and Promontory Parkway PRS (both currently inactive) will be activated to provide support to Zone 2 from Zone 3 in the event of an emergency. This IPC zone split is expected to occur in the spring or summer of 2020.

Figure 7-1 shows the approximate boundaries of each pressure zone after the IPC zone split occurs. A schematic of the City's potable water system is provided in Appendix C. Table 7-6 provides a summary of the existing pressure zone boundaries with key characteristics such as service elevations and static pressure ranges.

Table 7-6. Existing Pressure Zone Boundaries

Pressure Zone	Nominal Hydraulic Grade, ft	Nominal Range of Service Elevations, ft	Static Pressure Range, psi	Supply Sources
Zone 1	195	0 - 75	40 - 75	JJWTP via 36-inch Main, NEI Tank, Wells, and Pressure Regulating Stations
Zone 2	270	75 - 150	40 - 85[(a)]	JJWTP via Zone 2 Pumps and Linne Tank
Zone 3 - IPC/PPBP (formerly City-Side Zone 3)	368	150 - 245	55 - 95[(a)]	Cordes Tank via Zone 2
Ellis Reduced Zone	323	140 - 185	60 - 80	JJWTP via Zone 3 Pumps

(a) Per the California Plumbing Code, services which experience pressures exceeding 80 psi are required to be fitted with a pressure reducing valve.

7.2.8 Transmission and Distribution System Pipelines

Based on the City's existing hydraulic model, there are approximately 280 miles of existing pipelines in the City's water service area.[2] Pipelines in the existing potable water distribution system range from 4 to 42-inches in diameter. Pipeline materials consist mainly of asbestos cement (AC), cast iron (CI), and ductile iron (DI). The City's existing transmission and distribution system pipeline network is shown on Figure 7-1[3].

7.2.9 SCADA System

The City has a SCADA (Supervisory Control and Data Acquisition) system installed to provide for remote operation and monitoring of its facilities. Most of the major existing distribution facilities have SCADA installed except for PRS #1-#6. Well 8 has SCADA installed, but cannot be remotely operated by the SCADA system.

7.3 HYDRAULIC MODEL UPDATE

A computer simulation model (hydraulic model) transforms information about the physical system into a mathematical model that solves for various demand conditions. The hydraulic model then generates information on pressure, flow, velocity and head loss that can be used to analyze system performance and identify system deficiencies. A hydraulic model can also be used to verify the adequacy of recommended or proposed system improvements.

The City currently has a hydraulic model developed to simulate its potable water system performance. As part of this Citywide Water System Master Plan Update, an update of the current potable water system hydraulic model was performed to ensure that the hydraulic model accurately reflects the City's existing water system. This section summarizes the tasks completed to update the City's current hydraulic model of its potable water distribution system.

7.3.1 Existing Hydraulic Model Description

The City's current hydraulic model of its existing potable water system was last comprehensively updated for the 2012 Citywide Water System Master Plan. Since then, West Yost has been frequently updating the City's hydraulic model with new and proposed facilities to perform developer studies and other water system analyses requested by the City. The resulting developer hydraulic model contains existing facilities from the 2012 WSMP, existing facilities constructed since the 2012 WSMP was completed, and proposed facilities which have not yet been constructed.

For this Citywide Water System Master Plan Update, West Yost first reviewed the developer hydraulic model and coordinated with the City to determine which system facilities and pipelines

[2] The City's existing hydraulic model is not an all pipes model; therefore, the exact length of existing system pipelines is not known.

[3] Pipelines not included in the existing system evaluation are not shown on Figure 7-1. This includes all existing Zone 4 pipelines as well as some existing pipelines in the IPC and the Ellis Specific Plan developments (these pipelines are included in the future system evaluation which is described in Chapter 8).

have actually been constructed since the 2012 WSMP. Existing facilities which have been constructed since the 2012 WSMP were reviewed to ensure that they accurately represented existing conditions and were incorporated into the existing potable water system model. This task is discussed in more detail below.

7.3.2 Review of Existing Water System Facilities

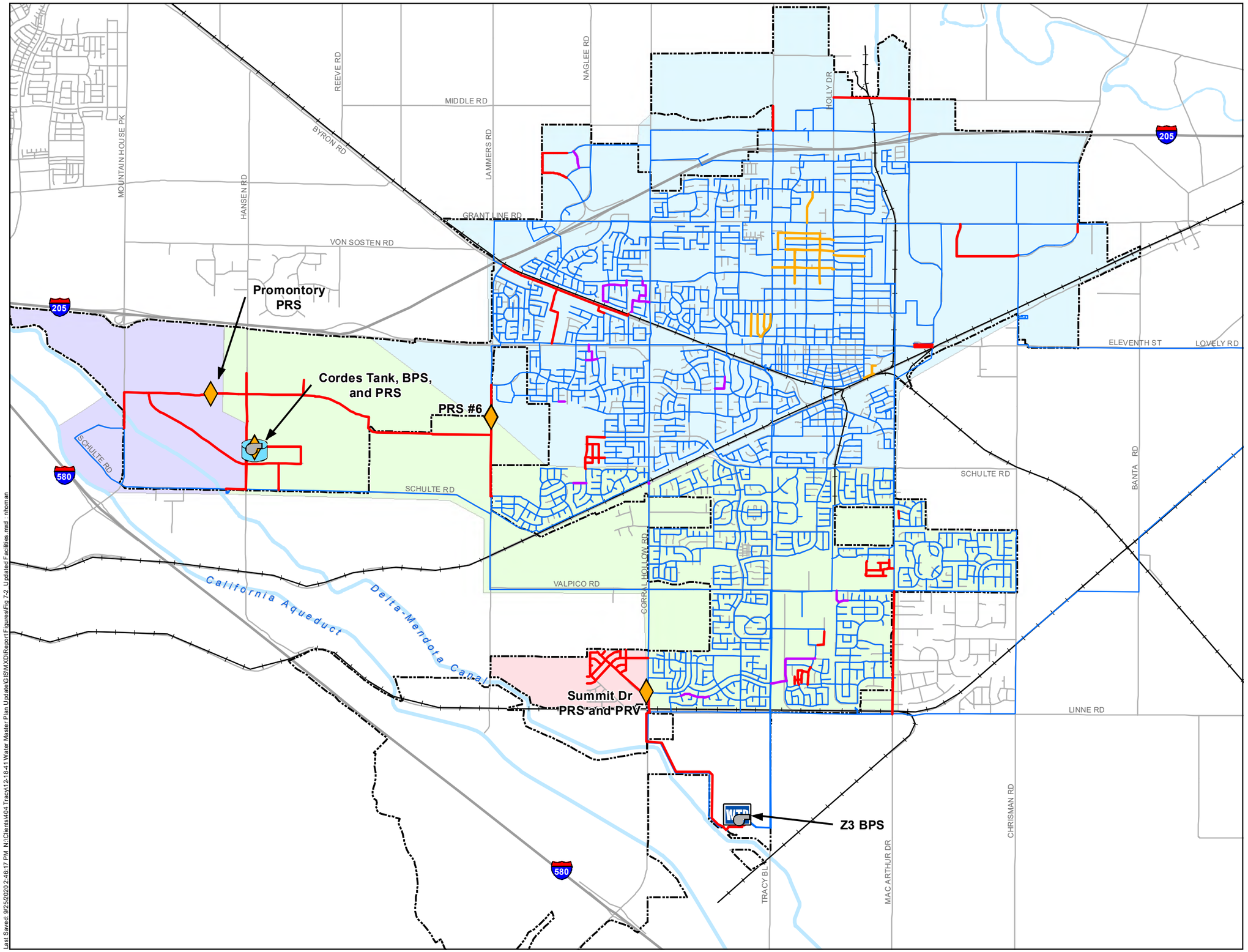
Based on a review of the available facilities data on the existing potable water system, which was provided to West Yost by City staff, the following facilities have been added or revised in the City's existing system hydraulic model since the 2012 WSMP:

- PRS #6 and major 20-inch diameter transmission main in Lammers Road
- 24-inch diameter transmission main in MacArthur Drive
- Cordes Tank, BPS, and PRS
- Major IPC development pipelines
- Promontory Parkway PRS
- Zone 3 BPS
- Zone 3 transmission main in Corral Hollow Road
- Ellis Specific Plan development pipelines
- Summit Drive PRS and PRV
- Other various new pipeline improvements
- Pipelines with incorrect diameters or alignments

As discussed below (see Section 7.4.1), potable water demands for the existing system hydraulic model were allocated based on 2017 meter data. Therefore, some facilities which serve water to areas without demands in 2017 were not included in the existing system hydraulic model (but are included in the future system hydraulic model described in Chapter 8). These facilities include:

- Zone 4 infrastructure, including the Zone 4 BPS, Zone 4 PRS, and major transmission and distribution pipelines
- Northington Drive PRV
- Some pipelines in the IPC development
- Some pipelines in the Ellis Specific Plan development

Figure 7-2 illustrates the locations of the new and revised facilities that were incorporated into the current hydraulic model to accurately represent the City's existing potable water distribution system.



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Scale in Feet

Symbology

- New Pressure Regulating Station
- New Booster Pump Station
- New Storage Tank
- WTP John Jones Water Treatment Plant
- New Pipeline Constructed Since the 2012 WSMP
- Added Pipeline (for Model Refinement)
- Updated Pipeline (for Model Refinement)
- Previously Modeled Pipeline from 2012 WSMP

Pressure Zone

- Zone 1
- Zone 2
- Zone 3 (IPC/PPBP)
- Ellis Reduced Zone
- City Limits

Notes:

1. The City's hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.

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Figure 7-2

New and Revised Existing System Facilities

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7.3.3 Review of Existing Water System Operations

The hydraulic model was last calibrated as part of the model update performed for the 2012 WSMP. Recalibration of the model was not considered necessary for this update, since the majority of pipelines added to the hydraulic model since the last update are new pipelines with known roughness factors. However, West Yost coordinated with City operations staff to confirm that the model accurately reflects existing and planned facility operations. Key changes made to facility operations since the 2012 WSMP include the following:

- In the decade after delivery of SSJID water to the City began, the City preferentially used SSJID water over USBR water to supply its customers. During these years, the JJWTP would shut down for long periods in the winter. However, in recent years the City has begun to use a more balanced mix of USBR and SSJID water.
- The Zone 1 BPS at the JJWTP has been seldom used in recent years due to decreased water demands.
- The City's wells are primarily used as backup sources of supply in the summer.
- The Lewis Manor well is inactive due to high manganese levels.
- The Cordes Tank and BPS now serve Zone 3 IPC/PPBP, and the Patterson Pass BPS (which previously served the same area) has been placed on standby.
- The Zone 3 BPS now serves the Ellis Reduced Zone.
- Booster pump station VFD settings have been adjusted since the 2012 WSMP.

Controls in the existing system hydraulic model have been updated to reflect these operational changes.

In addition, controls in the existing system hydraulic model were updated to reflect system operation changes which will occur in the next year (2020) after the planned IPC zone split is implemented. Key changes made to facility operations to reflect the IPC zone split include:

- Activating the 16-inch diameter pipeline in Promontory Parkway between Hansen Road and Lammers Road
- Activating the Cordes PRS and Promontory Parkway PRS
- Closing and opening valves to isolate Zone 2 and Zone 3 – IPC/PPBP from each other

7.4 EXISTING POTABLE WATER SYSTEM EVALUATION

This section presents the evaluation of the City's existing potable water distribution system and its ability to meet the City's recommended performance and operational criteria (previously presented in Chapter 6) under existing demand conditions. This evaluation includes an analysis of existing surface water treatment capacity, storage capacity, pumping capacity, and a hydraulic analysis of the water system's performance under maximum day demand plus fire flow and peak hour demand scenarios. Recommended improvements for addressing any identified existing potable water

distribution system deficiencies are summarized in *Section 7.5 Summary of Recommended Existing Potable Water System Improvements*.

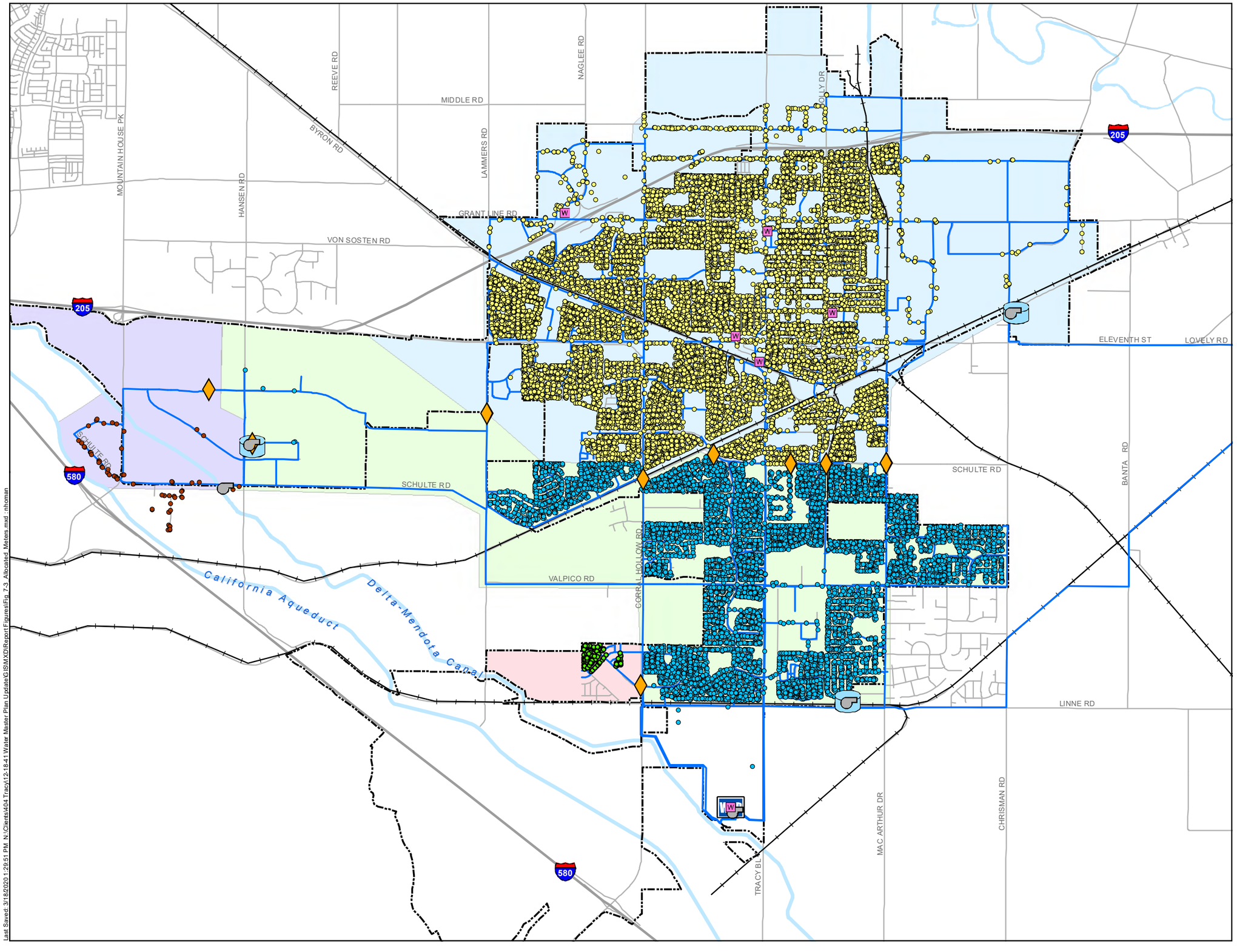
7.4.1 Existing Potable Water Demands

The water demands in the City's water system model were previously allocated based on spatially-located 2006 meter data and scaled up using the City's 2007 water production data. For this Citywide Water System Master Plan Update, the previous water demands were updated based on spatially-located 2017 meter data. The location of allocated water meters is shown on Figure 7-3. Allocated demands located in PPBP and IPC were scaled up to the total recorded flow through the Patterson Pass BPS in 2017 to account for water loss and construction meters. Because this area of the City has been growing rapidly, recent water production data was considered the most representative of existing water use in the PPBP and IPC. Allocated demands in all other areas were scaled up to the City's average water production from 2005 through 2013. Due to the recent drought and associated conservation measures, water production data from 2014 through 2017 were considered less representative of existing water use in these areas. Table 7-7 summarizes the City's existing potable water demands by pressure zone.

Table 7-7. Existing Potable Water Demands by Pressure Zone

Pressure Zone		Average Day Demand[a]		Maximum Day Demand[b]		Peak Hour Demand[c]	
		gpm	mgd	gpm	mgd	gpm	mgd
Zone 1		7,124	10.3	12,111	17.4	20,660	29.8
Zone 2[d]		3,856	5.6	6,555	9.4	11,182	16.1
Zone 3	PPBP[e]	392	0.6	667	1.0	1,138	1.6
	IPC[f]	26	0.04	44	0.1	75	0.1
Ellis Reduced Zone		18	0.03	31	0.0	53	0.1
Total		**11,417**	**16.4**	**19,408**	**27.9**	**33,108**	**47.7**

(a) Based on spatially located 2017 water meter data. Meters located in PPBP and IPC were scaled up to represent recent (2017) data from the Safeway meter (796 af/yr). All other meters were scaled up to represent the City's average water production from 2005 - 2013 (17,620 af/yr).
(b) Maximum day demand is 1.7 times the average day demand.
(c) Peak hour demand is 2.9 times the average day demand.
(d) Includes water demands from IPC water meters that will be served by Zone 2 after the IPC zone split (FedEx and Medline buildings).
(e) Water demands from PPBP are not included in the City's water production totals because the water supply for this area is purchased by PPBP from the Byron Bethany Irrigation District. However, the City is responsible for providing water treatment and delivery services to PPBP.
(f) Excludes water demands from IPC water meters that will be served by Zone 2 after the IPC zone split. Includes demands from Amazon, Smucker's, and Buildings 3 and 4.



Notes:
1. Based on water meter shapefile recieved from the City on July 2, 2018.

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Figure 7-3

Allocated Water Meters

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7.4.2 Existing Water System Facilities Evaluation

To evaluate the existing potable water system, analyses addressing the following system facilities were conducted:

- Surface Water Treatment Capacity
- Storage Capacity
- Pumping Capacity
- Critical Supply Facilities

The results from the existing potable water system facilities analyses are discussed below.

7.4.2.1 Water Treatment Capacity

Sufficient water treatment capacity from the existing JJWTP, the City's treated surface water supplies from the South County Water Supply Project, and groundwater wells should be available to meet the City's existing maximum day demand condition. In addition, the City's goal is to have sufficient surface water treatment capacity to meet the existing maximum month demand without relying on groundwater. Table 7-8 indicates that the City has sufficient water treatment and capacity to meet existing maximum day demands and that the City's current surface water treatment capacity is sufficient to meet existing maximum month potable water demands.

Table 7-8. Comparison of Available and Required Water Treatment Capacity, mgd

Demand Condition	JJWTP[a]	South County Water Supply Project[b]	Groundwater	Total Treated Water Capacity	Existing Maximum Day Demand	Surface Water Capacity Surplus or (Deficit)
Maximum Day	27	17	21.7[c]	65.7	28	38
Maximum Month[d]	27	17	0.0[e]	44.0	25	19

(a) Supplied from Zone 1 36-inch diameter transmission main, Zone 2 BPS, and Zone 3 BPS. Although the JJWTP is designed to supply 30 mgd, the actual maximum pumping capacity of the intake pumps is 27 mgd.
(b) Supplied from Linne Road and NEI Booster Pump Stations.
(c) Equivalent to firm groundwater pumping capacity, assuming that 20 percent of the City's wells would be out of service (*i.e.*, approximately two wells: one in Zone 1, and one at the JJWTP).
(d) Estimated to be 90 percent of maximum day demands.
(e) The City's goal is to meet maximum month demands without relying on groundwater supply.

7.4.2.2 Storage Capacity

The principal advantages that storage provides for the water system are the ability to equalize demands on supply sources, production facilities, and transmission mains; to provide emergency storage in case of supply failure; and to provide water to fight fires. The City's water service area has two sources of available storage: above-ground storage (*i.e.*, clearwells and storage tanks) and storage available through the groundwater basin. Together, these two sources of storage must be

sufficient to meet the City's operational, emergency, and fire flow storage criteria. The volumes required for each of these three storage components are listed below:

- Operational Storage: 30 percent of a maximum day demand
- Emergency Storage: 1.5 times an average day demand
- Fire Flow Storage: The required fire flow rates multiplied by their associated fire flow duration periods, as required by the City's Fire Department. For larger pressure zones (*i.e.*, Zones 1 and 2), two concurrent fire flow events were assumed for the storage capacity analysis. However, the recommended fire flow storage does not include the volume associated with sprinkler flows.

Because the City's potable water supply includes supply from groundwater wells, the groundwater basin can account for a portion of the recommended emergency storage, in the form of a groundwater credit. However, the following criteria must be met to use the groundwater supply to offset the need to provide above-ground storage:

- Groundwater supply is of potable water quality and can be reliably accessed (*i.e.*, wells are equipped with on-site emergency generators).
- Groundwater supply is not already relied upon to meet the City's average day demand requirements.
- Groundwater supply is of firm groundwater supply availability (*i.e.*, assumes 20 percent of wells will be out of service at any given time).
- Sufficient water distribution facilities are available to distribute this water to demand area.

In addition, the City currently has two independent sources of treated surface water supply, and some quantity of the total treated surface water supply capacity can also account for a portion of the recommended emergency storage. The treated surface water credit assumes that the smaller of the treated surface water supply sources can be available to offset a portion of the emergency storage requirement. However, the following criteria must be met to use treated surface water supply to offset the need to provide above-ground storage:

- Treated surface water supply can be reliably accessed (*i.e.*, treated surface water supply facility is equipped with on-site emergency generator).
- Sufficient treated surface water booster pumping facilities are available to distribute water to demand areas.

In summary, the Emergency Storage Credit is equal to the sum of the groundwater and treated surface water supply credits. However, the Emergency Storage Credit can only provide a maximum storage credit equal to the City's required emergency storage volume.

The existing potable water storage facilities, in conjunction with the available Emergency Storage Credit, were evaluated to determine whether the City's existing potable water system has sufficient storage capacity to provide the required operational, emergency, and fire flow storage. Table 7-9 provides a detailed summary of the City's existing available potable water storage capacity, Emergency Storage Credit, and required storage capacity. Table 7-9 indicates that the City currently has a potable water storage capacity surplus of approximately 4.2 MG in Zone 1, Zone 2, and Ellis Reduced Zone, and a 0.7 MG surplus in Zone 3 - IPC/PPBP.

7.4.2.3 Pumping Capacity

The pumping capacity in the City's existing potable water system was evaluated to assess its ability to deliver a reliable firm capacity to the existing water service area. Firm capacity assumes a reduction in total pumping capacity to account for pumps that are out of service at any given time due to mechanical breakdowns, maintenance, water quality, or other operational issues. At each booster pump station, firm booster pumping capacity was defined as the total booster pump station capacity with the largest pump out of service. For groundwater well pumps, the firm groundwater pumping capacity assumed that 20 percent of the wells would be out of service at any given time.

The pumping capacity criterion for the City, described previously in Chapter 6, requires the City's potable water system to have sufficient firm pumping capacity to meet the greater of either a maximum day demand with two simultaneous fire flow events (one fire flow event in smaller pressure zones) or a peak hour demand. In addition, sufficient firm treated water pumping capacity should be available to meet a maximum day demand condition.

Table 7-10 provides a detailed summary of the City's existing available firm pumping capacity at each pump station and provides a comparison between the City's available firm pumping capacity and the requirements stated above. This pumping capacity analysis indicates that the City's existing booster and groundwater pumping capacity can sufficiently meet the pumping capacity criterion for the existing water service area during the governing flow scenario in each pressure zone.

7.4.2.4 Critical Supply Facilities

All critical pumping facilities should be equipped with an on-site, emergency backup power generator to provide pumping capacity during a power outage. Critical pumping facilities are defined as those facilities that provide service to pressure zone(s) and/or service area(s) which do not have sufficient emergency storage, and that meet at least one of the following criteria:

- The largest pumping facility that provides water to a particular pressure zone and/or service area.
- A facility that provides the sole source of water to single or multiple pressure zones and/or service areas.
- A pumping facility that provides water from a supply turnout.
- A pumping facility that provides water from key groundwater supply wells (depends on capacity, quality, and location).

Table 7-9. Comparison of Available and Required Water Storage Capacity

Station	Status	Available Storage Capacity, MG					Required Storage Capacity, MG				Storage Surplus (Deficit), MG
		Reservoir Capacity	Emergency Storage Credit			Total Available Storage	Operational[d]	Emergency[e]	Fire Flow	Total Required Storage	
			Groundwater Credit[a]	Treated Surface Water Supply Credit[b]	Total Emergency Storage Credit[c]						
Zone 1, Zone 2, and Ellis Reduced Zone[f]											
NEI	Active	2.4	--	25.50	23.76	**37.26**	8.08	23.76	1.14[i]	**32.97**	**4.2**
Lincoln Well	Active	--	5.40								
Lewis Manor Well	Inactive	--	--								
Park and Ride Well	Active	--	4.32								
Ball Park Well	Active	--	5.40								
Well 8[g]	Active	--	--								
Linne	Active	7.1	--								
Well 1[h]	Active	--	--								
Well 2[g,h]	Active	--	--								
Well 3[g,h]	Active	--	--								
Well 4[g,h]	Active	--	--								
Clearwell #2	Active	4.0	--								
Zone 3 IPC/PPBP											
Cordes	Active	2.0	--	0.00	0.90[j]	**2.90**	0.31	0.90	0.96[k]	**2.17**	**0.7**

(a) Credit based on 1.5 days of pumping capacity from active groundwater wells with on-site backup power because the required emergency storage capacity is equal to 1.5 times the average day demand. See Table 7-2 for individual well capacity.

(b) Credit based on 1.5 days of available treatment capacity (17 mgd) from the SCWSP because the required emergency storage capacity is equal to 1.5 times the average day demand.

(c) Equal to the sum of the groundwater and treated surface water supply credits; however, the maximum credit is equal to the required emergency storage capacity.

(d) Based on 30 percent of a maximum day demand (see Table 7-7).

(e) Based on 1.5 times the average day demand (see Table 7-7).

(f) The Ellis Reduced Zone is currently isolated from the Cordes Tank and BPS.

(g) Well does not contribute to Groundwater Credit because it does not have on-site backup power.

(h) Well does not contribute to Groundwater Credit because water produced by the well must be blended with chlorinated water from the JJWTP prior to distribution. The JJWTP is assumed to be offline in an emergency.

(i) Based on storage required for two concurrent fire flow events; a Single Family Residential fire flow and an Industrial fire flow (see Table 6-1).

(j) Surplus Treated Surface Water Supply Credit from other pressure zones can be used to provide emergency storage for Zone 3.

(k) Based on storage required for an Industrial fire flow (see Table 6-1).

Table 7-10. Comparison of Available and Required Firm Pumping Capacity

Pump Station	Backup Power	Status	Firm Capacity[a], gpm	Total Firm Pumping Capacity from Supply Sources, gpm[b]	Existing Maximum Day Demand, gpm	Pumping Capacity from Supply Sources Surplus (Deficit), gpm[b]	Total Firm Pumping Capacity, gpm	Existing Maximum Day Demand with Fire Flow Event(s), gpm	Existing Peak Hour Demand, gpm	Pumping Capacity Surplus (Deficit), gpm[b]
Zones 1 and 2										
NEI	✓	Active	4,200	44,106	19,377[d]	24,728	51,095	24,666[e]	31,842	19,253
Zone 1	✓	Active	12,000							
Lincoln Well	✓	Active	2,500							
Lewis Manor Well	✓	Inactive	--							
Park and Ride Well	✓	Active	2,000							
Ball Park Well	✓	Active	2,500							
Well 8		Active	--							
Linne	✓	Active	14,595							
Zone 2	✓	Active	13,300							
Well 1[c]	✓	Active	--							
Well 2[c]		Active	--							
Well 3[c]		Active	--							
Well 4[c]		Active	--							
Zone 3 IPC/PPBP										
Cordes	✓	Active	6,150	NA[g]	NA[g]	NA[g]	6,150	5,211[h]	1,213	939
Patterson Pass[f]	✓	Inactive	--							
Ellis Reduced Zone										
Zone 3	✓	Active	2,970	2,970	31	2,939	2,970	1,531[i]	53	1,439

(a) Firm booster pumping capacity was defined as the total booster pump station capacity with the largest pump out of service and firm groundwater pumping capacity assumed that 20 percent of the City's wells would be out of service (i.e., approximately two wells: one in Zone 1, and one at the JJWTP).

(b) Pumping capacity surplus (deficit) is the total available firm pumping capacity minus the greater of the maximum day demand with required fire flow event(s) or peak hour demand.

(c) Wells 1-4 located at JJWTP pump directly into the Chlorine Contact Basin or Clearwell #2; therefore, these wells do not provide additional pumping capacity to the system.

(d) Includes maximum day demand for Zone 3 IPC/PPBP.

(e) Maximum day demand plus a 1,500 gpm Single Family Residential fire flow and a simultaneous 4,500 gpm Industrial fire flow.

(f) Patterson Pass BPS is inactive since the Cordes BPS is now operating; therefore, it does not provide additional pumping capacity to the system.

(g) Zone 3 IPC/PPBP is supplied treated water via Zone 2 facilities.

(h) Maximum day demand plus a 4,500 gpm Industrial fire flow.

(i) Maximum day demand plus a 1,500 gpm Single Family Residential fire flow.

As shown previously in Table 7-10, most of the City's existing pumping facilities have on-site emergency backup power installed, except for Wells 2 through 4 and Well 8[4]. However, these wells do not meet the criteria listed above and are not considered critical supply facilities. Therefore, the City is currently equipped with sufficient backup power generators to provide pumping capacity during a power outage at its most critical pumping facilities.

7.4.3 Existing Water System Hydraulic Analysis

The system performance criteria recommended for and results of the existing potable water distribution system hydraulic analysis are discussed below.

7.4.3.1 Existing Water System Performance Criteria

Steady state hydraulic analyses using the updated hydraulic model were conducted to help identify areas of the existing potable water system that do not meet the recommended system performance criteria as presented previously in Chapter 6. The results of the existing potable water system evaluation are presented below for the following scenarios:

- Peak Hour Demand—A peak hour flow condition was simulated for the existing water distribution facilities to evaluate their capability to meet a peak hour demand scenario. Peak hour demands are met by the combined supply from treated surface water, storage tanks, and groundwater.
- Maximum Day Demand plus Fire Flow—To evaluate the existing potable water system under the maximum day demand plus fire flow scenario, individual fire flow demands were first assigned and simulated at various locations within the City's water service area. InfoWater's "*Available Fire Flow Analysis*" tool was used to determine the available fire flow while meeting the maximum day demand plus fire flow performance criteria. Additional fire flow simulations were also performed to simulate a condition equal to a maximum day demand with two concurrent fire flow events. Maximum day plus fire flow demands are met by the combined supply from treated surface water and storage tanks.

The recommended system performance criteria for each scenario are discussed in more detail below.

7.4.3.1.1 Peak Hour Demand Scenario

As shown in Table 7-7, the peak hour demand for the existing water service area was calculated to be 33,108 gpm (47.7 mgd). This peak hour demand represents a peaking factor of 2.9 times the average day demand. During a peak hour demand scenario, a minimum pressure of 40 psi must be maintained throughout the water system. In addition, maximum head losses for distribution mains should not exceed 7 ft/kft and maximum velocities should not exceed 8 fps. For transmission mains, maximum head losses should not exceed 3 ft/kft and maximum velocities should not exceed 6 fps.

[4] Well 8 currently has a plug-in adapter installed to allow interconnection to a portable generator.

7.4.3.1.2 Maximum Day Demand plus Fire Flow Scenario

As shown in Table 7-7, the maximum day demand for the existing water service area was calculated to be 19,408 gpm (32.9 mgd). This maximum day demand represents a peaking factor of 1.7 times the average day demand. Fire flow demands were assigned and simulated at various locations within the City's water service area to determine if the minimum residual pressure criterion of 20 psi could be met during a maximum day demand plus fire flow scenario[5]. Fire flow demands were assigned based on General Plan land use designations and are summarized below in Table 7-11.

Table 7-11. Recommended Fire Flow Requirements[a]

Land Use Category	Fire Flow, gpm	Duration, hours
Single Family Residential[b]	1,500	2
Multi-Family Residential[c]	2,500	2
Commercial/Office[d]	3,500[f]	4
Industrial	4,500[f]	4
Institutional[e]	4,500[f]	4

(a) Specific fire flow requirements were determined from Table B105.1 of the 2016 CFC and depend on construction type and fire flow calculation area. Non-residential fire flow requirements are based on the assumption that an automatic sprinkler system has been installed. See Table 6-1 for further explanation of how the fire flow requirements were developed.
(b) Includes Very Low and Low Density Residential land uses.
(c) Includes Medium and High Density Residential land uses.
(d) Includes Commercial, Office, Downtown, and Village Center land uses.
(e) Includes Medical, Public Facilities, School, Airport, Church, and Cemetery land uses.
(f) Fire flow includes a 500 gpm demand for on-site sprinkler flow, which is not included in the recommended fire flow storage volume.

The City's water system should also have the capability to meet a system demand condition equal to the occurrence of a maximum day demand with two concurrent fire flow events in the larger pressure zones (*i.e.*, Zones 1 and 2). It is assumed that the two fire flow events will consist of one smaller single family residential fire flow combined with another larger industrial fire flow. This conservative assumption of two simultaneous fire flow demands will help stress the City's water system and determine if the existing water system can provide reliable service during high demand conditions. Consequently, two concurrent fire flow demands were simulated at various locations within Zones 1 and 2 during a maximum day demand condition to determine if the minimum residual pressure criterion of 20 psi could be met during simultaneous fire flow events.

[5] The maximum pipeline head loss and maximum pipeline velocity criteria for a maximum day demand plus fire flow scenario were not applied to the City's existing water system. Because fire flow conditions occur infrequently, no improvements for the existing water system would be recommended if a location failed to meet these secondary criteria if the primary pressure criterion was met.

7.4.3.2 Recommended Improvement Criteria

The system performance criteria described above were used to evaluate the existing potable water system during peak hour demand and maximum day demand plus fire flow scenarios. The existing potable water system is expected to deliver peak hour flow and maximum day demand plus fire flow within the acceptable pressure, velocity and head loss ranges as identified in the system performance criteria presented in Chapter 6. However, the system was evaluated using pressure as the primary criterion. If necessary, recommended improvements needed to comply with the system performance criteria were added to the existing potable water system model to fix any deficiencies found and are discussed below.

7.4.3.3 Existing Water System Evaluation Results

The results from the hydraulic model for the peak hour demand and maximum day demand plus fire flow analyses are presented below.

7.4.3.3.1 Peak Hour Demand Scenario

During a peak hour demand scenario, results indicate that the existing potable water system is capable of maintaining the City's minimum pressure criterion of 40 psi at all existing service locations, as shown on Figure 7-4. Under this scenario, system pressures at existing service locations ranged from 40 to 85 psi. It should be noted that, per the California Plumbing Code, services which experience pressures exceeding 80 psi are required to be fitted with a pressure reducing valve.

As shown on Figure 7-5, there are two locations within the existing system where the distribution system pipelines did not meet the maximum velocity criterion of 8 fps during a peak hour demand scenario. The following list details pipelines in the existing potable water system that exceeded the maximum velocity criterion and summarizes any recommended improvements.

- Location #1: The 12-inch diameter discharge pipeline from the Ball Park Well off of Tracy Boulevard had a velocity of 8.3 fps.

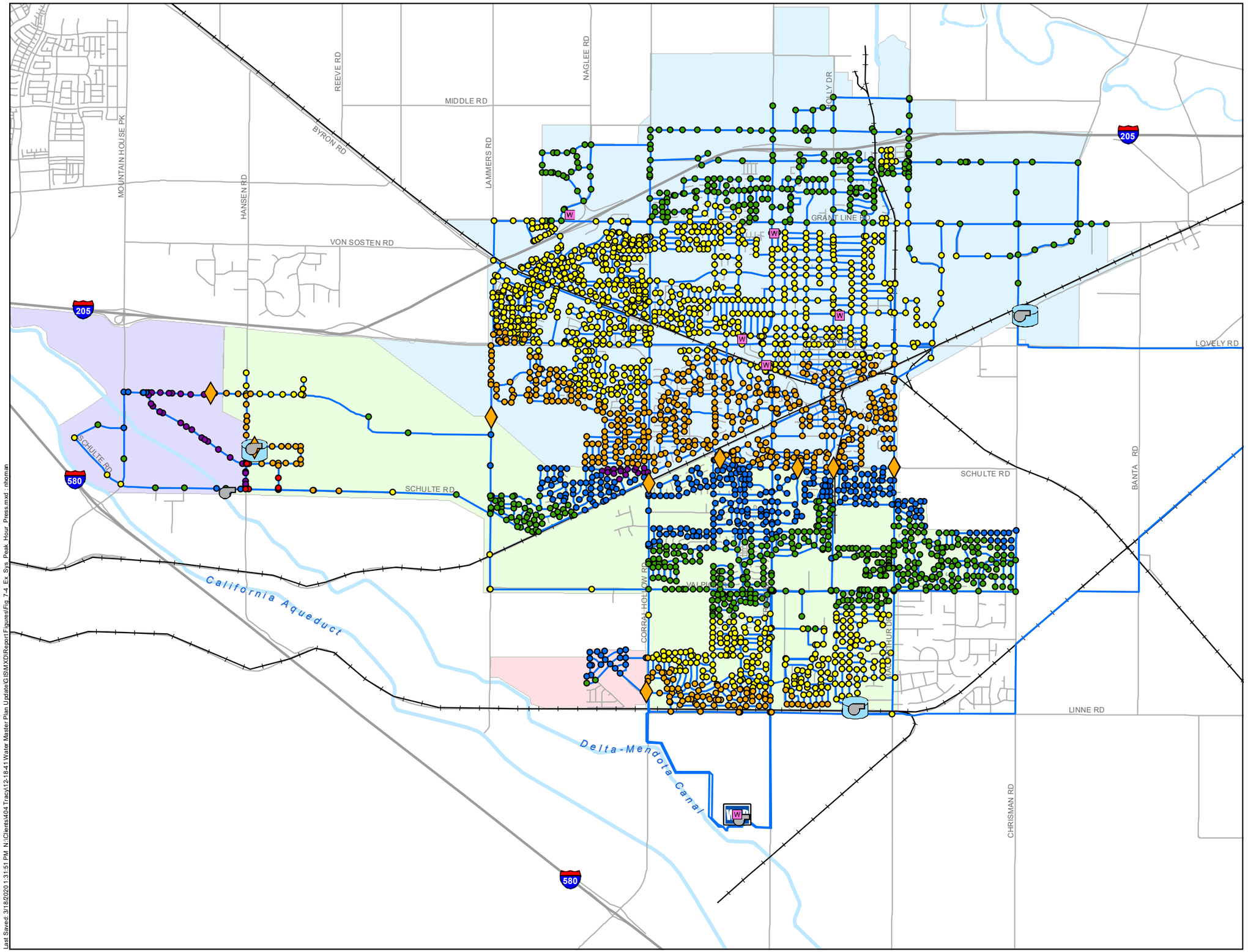
  Recommendation:

  No mitigation is recommended for the 12-inch diameter discharge pipeline from the Ball Park Well, because pipeline velocity is a secondary criterion and no improvements for pipelines exceeding the velocity criterion in the existing potable water system are recommended unless the primary criterion (pressure) is not met.

- Location #2: The 12-inch diameter distribution pipeline located in Sixth Street immediately east of the 36-inch diameter transmission main tie-in had a velocity of 8.3 fps.

  Recommendation:

  No mitigation is recommended for the 12-inch diameter discharge pipeline in Sixth Street immediately east of the 36-inch diameter transmission main tie-in, because pipeline velocity is a secondary criterion and no improvements for pipelines exceeding the velocity criterion in the existing potable water system are recommended unless the primary criterion (pressure) is not met.



Symbology

Peak Hour Pressure

- Less than 40 psi
- 40 psi to 50 psi
- 50 psi to 60 psi
- 60 psi to 70 psi
- 70 psi to 80 psi
- Greater than 80 psi

Pressure Regulating Station

Booster Pump Station

Groundwater Well

Storage Tank

WTP John Jones Water Treatment Plant

Pipeline

Pressure Zone

- Zone 1
- Zone 2
- Zone 3 (IPC/PPBP)
- Ellis Reduced Zone

Notes:

1. The City's existing hydraulic model is not an all pipes model. Therefore, not all existing pipes are shown or evaluated.
2. Per the California Plumbing Code, services which experience pressures exceeding 80 psi are required to be fitted with a pressure reducing valve.

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Figure 7-4

Existing System Pressures Peak Hour Demand

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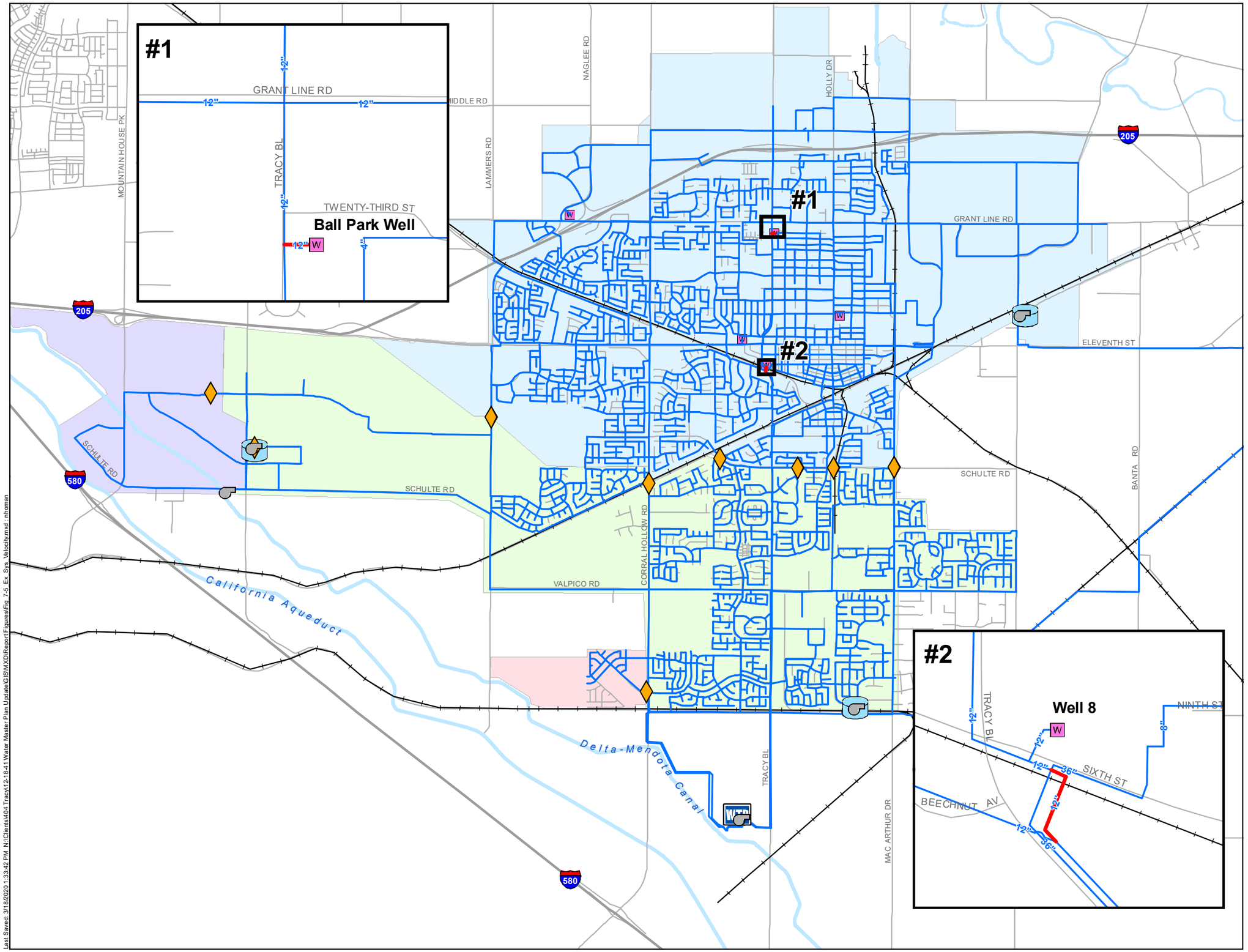

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Scale in Feet

Symbology

Pipeline Diameter ≥ 18-inches

- Velocity ≤ 6 fps
- Velocity > 6 fps

Pipeline Diameter < 18-inches

- Velocity ≤ 8 fps
- Velocity > 8 fps
- Pressure Regulating Station
- Booster Pump Station
- Groundwater Well
- Storage Tank
- WTP John Jones Water Treatment Plant

Pressure Zone

- Zone 1
- Zone 2
- Zone 3 (IPC/PPBP)
- Ellis Reduced Zone

Notes:

1. The City's existing hydraulic model is not an all pipes model. Therefore, not all existing pipes are shown or evaluated.

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Figure 7-5

Existing Pipeline Velocities Peak Hour Demand

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Water System Master Plan Update

7.4.3.3.2 Maximum Day Demand plus Fire Flow Scenario

Fire flow demands were assigned based on Table 7-11 and simulated at various locations within the City's water service area. InfoWater's "*Available Fire Flow Analysis*" tool was used to determine the available fire flow while meeting a minimum residual pressure of 20 psi within the existing water system during a maximum day demand scenario.

As shown on Figure 7-6, the results from the hydraulic model indicate that there are seven fire flow junctions, grouped into four areas, where the available fire flow is less than the minimum required fire flow. The following list details the areas in the existing potable water system that failed to meet the fire flow requirements and summarizes any recommended improvements.

- Location #1: The hydrant at the southern end of Rhonda Way is surrounded by industrial land use, which has a fire flow requirement of 4,500 gpm. This hydrant is served by an 8-inch diameter distribution pipeline in Rhonda Way which terminates at the hydrant. The available fire flow simulated at this hydrant while maintaining a 20 psi minimum residual pressure was approximately 3,640 gpm.

  Recommendation:

  No mitigation is recommended for the hydrant at the southern end of Rhonda Way because the deficient hydrant is located on a short dead-end line. The deficient hydrant is less than 300 ft away from a hydrant at the intersection of Rhonda Way and Larch Road which is capable of providing 4,500 gpm at 20 psi residual pressure.

- Location #2: Four hydrants within the neighborhood located east of Tracy Boulevard, south of Juanita Market, west of Holly Drive, and north of Carlton Way are not capable of meeting minimum fire flow requirements. This neighborhood is located in an older part of the City, and many of the distribution pipelines in the neighborhood are 4-inches or 6-inches in diameter with low C-factors. The northern-most deficient hydrant, at the intersection of Wall Street and 20th Street, was assigned a fire flow requirement of 1,500 gpm, but could only provide approximately 1,230 gpm. The other three deficient hydrants, located at the intersections of Wall Street and Emerson Avenue, Emerson Avenue and Court Drive, and Court Drive and Lowell Avenue, were assigned a fire flow requirement of 2,500 gpm, but could only provide approximately 820 gpm, 1,590 gpm, and 2,350 gpm, respectively.

  Recommendation:

  It is recommended that the existing pipelines in 20th Street between Bessie Avenue and Parker Avenue, Wall Street between Lowell Avenue and 20th Street, Emerson Avenue between Bessie Avenue and Holly Drive, Court Drive between Whittier Avenue and Lowell Avenue, and Lowell Avenue between Parker Avenue and Holly Drive be replaced with new 8-inch diameter pipelines to improve fire flow to this area.

- Location #3: The hydrant at the intersection of School Street and Ninth Street was assigned a fire flow requirement of 2,500 gpm due to the high density residential units located along School Street. This hydrant is currently served by an 8-inch diameter distribution pipeline in School Street which terminates east of the hydrant. The available fire flow simulated at this hydrant while maintaining a 20 psi minimum residual pressure was approximately 2,330 gpm.

  Recommendation:

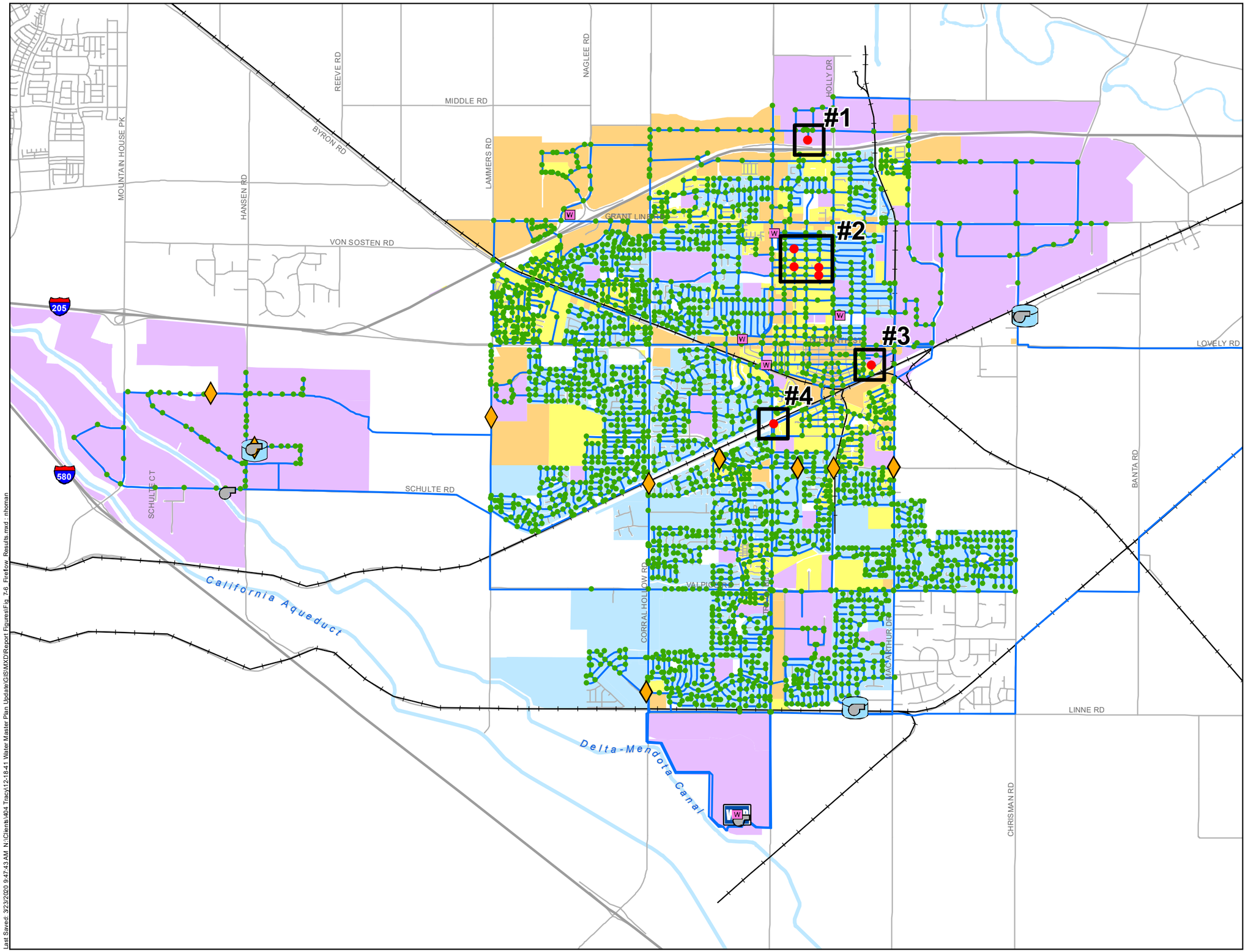
  It is recommended that a new 12-inch diameter pipeline be installed in Ninth Street between School Street and Tenth Street.

- Location #4: The hydrant at the intersection of Tracy Boulevard and Fourth Street was assigned a fire flow requirement of 2,500 gpm due to the medium density residential units located in the vicinity. This hydrant is served by an existing 4-inch diameter pipeline in Tracy Boulevard and an existing 6-inch diameter pipeline in Fourth Street. The available fire flow simulated at this hydrant while maintaining a 20 psi minimum residual pressure was approximately 1,350 gpm.

  Recommendation:

  It is recommended that the existing 4-inch diameter pipeline in Tracy Boulevard north of Mount Diablo Avenue be replaced with a new 12-inch diameter pipeline to improve the fire flow to this area. This improvement was previously recommended in the 2012 WSMP.

Four additional fire flow simulations were performed within the hydraulic model to simulate a condition equal to a maximum day demand with two concurrent fire flow events. Two concurrent fire flow events were simulated during a maximum day demand condition to determine if the minimum residual pressure criterion of 20 psi could be met. Figure 7-7 shows the locations of the additional fire flow simulations. Locations were selected within each pressure zone based on the existing land use designations and spatial distance from supply sources to stress the City's water system. As summarized in Table 7-12, results from the hydraulic model indicate that all four of the concurrent fire flow simulations met the minimum residual pressure criterion of 20 psi.



Notes:
1. The available fire flow shown is the maximum flow available while maintaining 20 psi residual system pressure.
2. The City's existing hydraulic model is not an all pipes model. Therefore, not all existing pipes are shown or evaluated.

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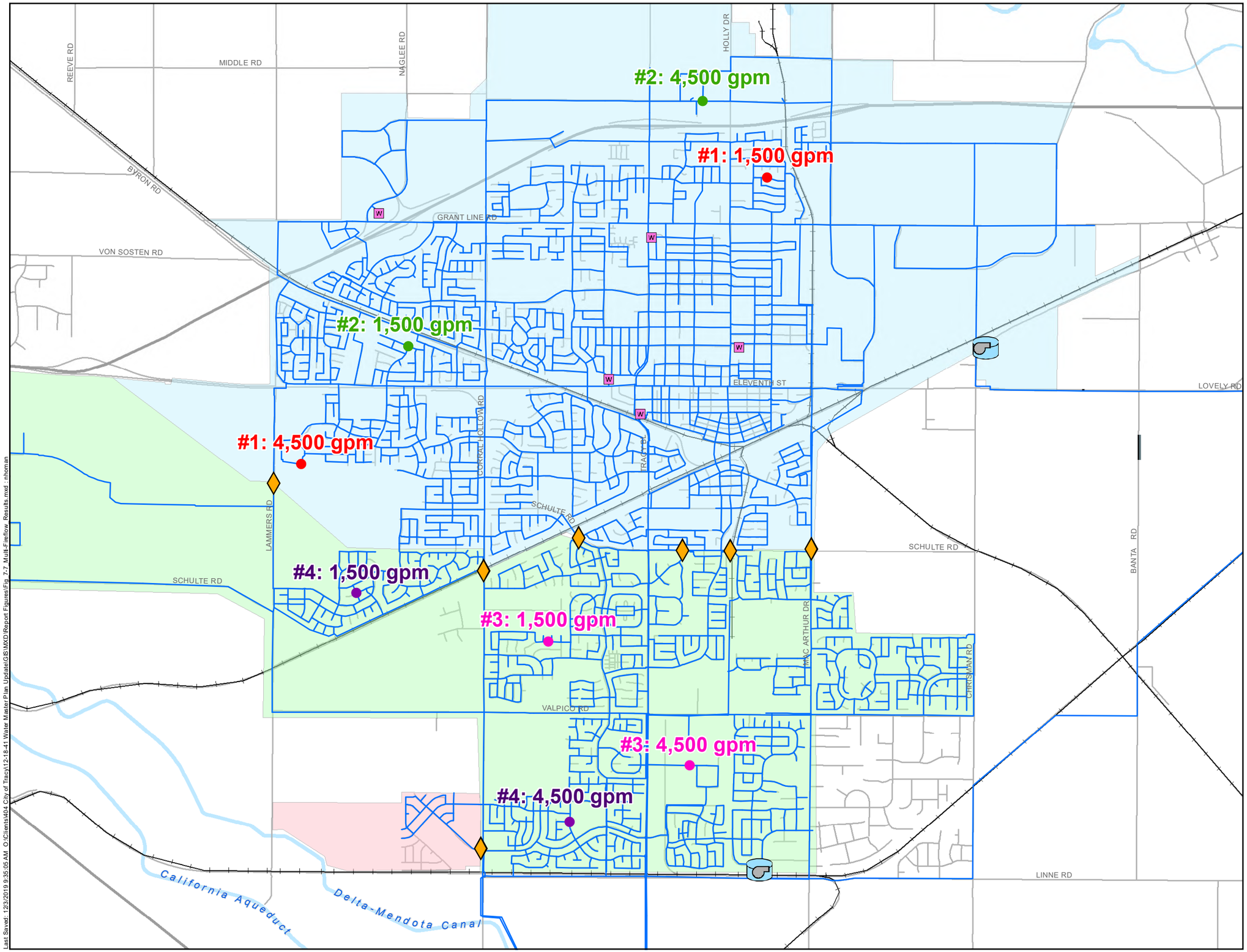
Figure 7-6

Existing System Available Fire Flow

City of Tracy
Water System Master Plan Update



Notes:
1. The City's existing hydraulic model is not an all pipes model. Therefore, not all existing pipes are shown or evaluated.

Last Saved: 12/3/2019 9:35:05 AM O:\Clients\404 City of Tracy\12-18-41 Water Master Plan Update\GIS\MXD\Report Figures\Fig 7-7 Multi-Fireflow Results.mxd - mhoman

Figure 7-7

Locations of Additional Simultaneous Fire Flow Simulations

City of Tracy
Water System Master Plan Update

Table 7-12. Results of Additional Fire Flow Simulations

Pressure Zone	Location #	Fire Flow Demand, gpm[(a)]	Residual Pressure, psi
Zone 1	1	1,500	51
		4,500	32
	2	1,500	52
		4,500	45
Zone 2	3	1,500	67
		4,500	52
	4	1,500	67
		4,500	32

(a) It is assumed that the two concurrent fire flow events will consist of one smaller Single Family Residential fire flow combined with another larger Industrial fire flow.

7.5 SUMMARY OF RECOMMENDED EXISTING POTABLE WATER SYSTEM IMPROVEMENTS

The recommended hydraulic improvements for the existing potable water distribution system are summarized below. These existing system improvements are recommended based on existing water demands, and are not triggered by future new development. It should be noted that these recommendations only identify facility improvements at a master plan level and do not necessarily include all required on-site infrastructure nor constitute design of improvements. Subsequent detailed design is required to determine the exact sizes and final locations of these proposed improvements. Recommended improvements are based on available information on the City's existing water system and existing water demands as presented in Table 7-7.

It should also be noted that the existing hydraulic model is not an "all pipes" model (*i.e.*, not all smaller diameter pipelines are included); therefore, the hydraulic simulations performed as discussed above may not identify all necessary water system hydraulic improvements. While some small diameter pipelines which were not previously included in the hydraulic model were added in this Citywide Water System Master Plan as part of the model refinement process, there may still be other small diameter pipelines not represented in the hydraulic model. Consequently, it is recommended that City staff review older parts of the water system where smaller diameter pipelines are typically found and consider possible upsizing of these lines as the City plans for future pipeline renewal and replacement projects. Ongoing replacement of older and/or smaller diameter pipelines will improve the available fire flow capacity of the existing potable water system.

Pipeline Hydraulic Capacity Improvements

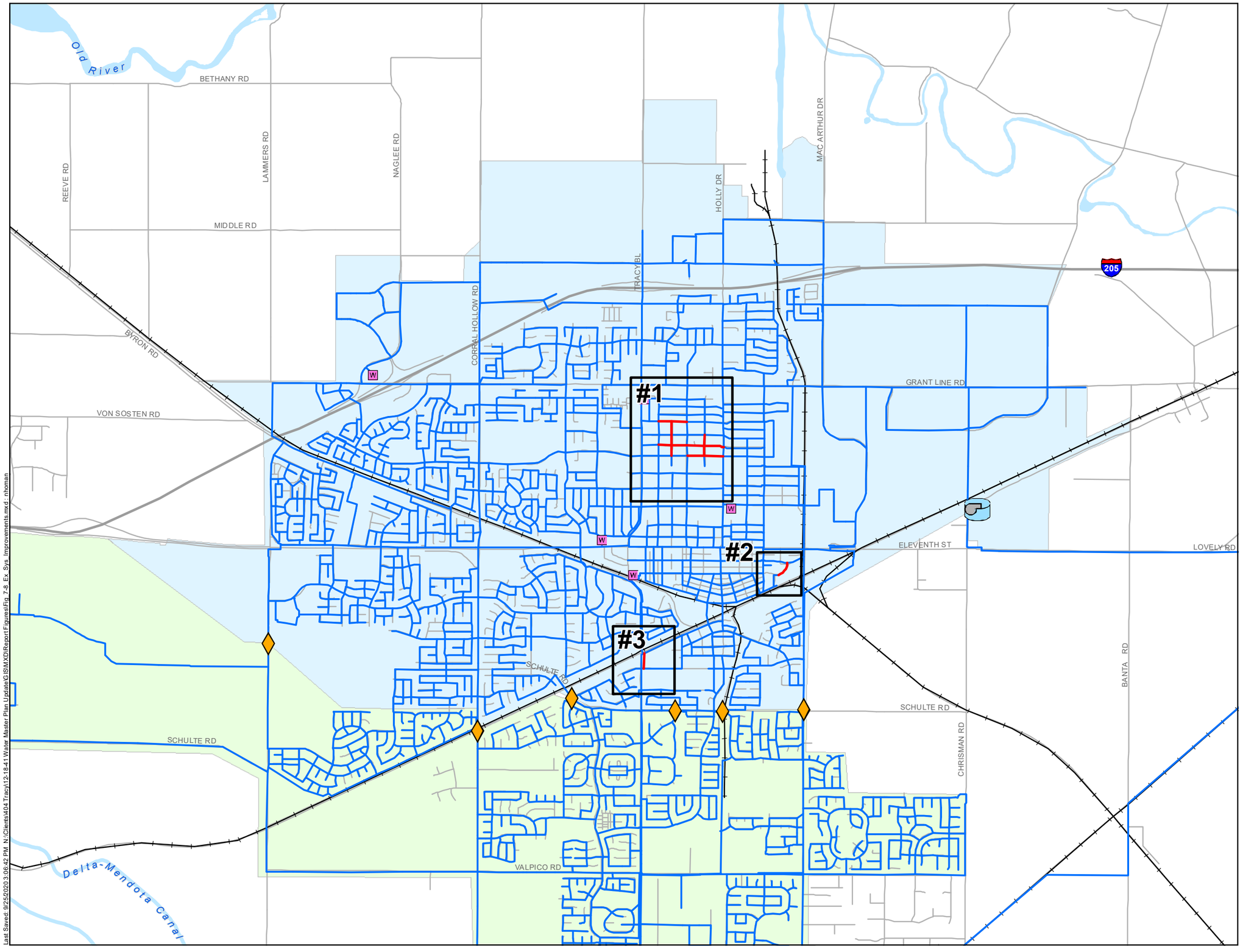
The locations of all recommended pipeline improvements are shown on Figure 7-8.

Several pipeline improvements are recommended to mitigate existing fire flow deficiencies. These fire flow deficiencies are not triggered by projected future water demands from new development. The existing water system infrastructure in the areas listed below is insufficient to meet the fire flow requirements based on existing land use and water demands. As such, planning and design for these improvements should be prioritized. Detailed locations of these improvements are shown on Figure 7-9.

- Improvement #1: Replace the existing pipelines in 20th Street between Bessie Avenue and Parker Avenue, Wall Street between Lowell Avenue and 20th Street, Emerson Avenue between Bessie Avenue and Holly Drive, Court Drive between Whittier Avenue and Lowell Avenue, and Lowell Avenue between Parker Avenue and Holly Drive with approximately 6,000 linear feet (lf) of new 8-inch diameter pipelines.
- Improvement #2: Install approximately 515 lf of 12-inch diameter pipeline in Ninth Street between School Street and Tenth Street.
- Improvement #3: Replace approximately 485 lf of existing 4-inch diameter pipeline in Tracy Boulevard north of Mount Diablo Avenue with new 12-inch diameter pipeline; this improvement was previously recommended in the 2012 WSMP.

7.5.1 Pipeline Renewal and Replacement

As the City's water system ages, older water pipelines will deteriorate and have decreased hydraulic capacity and greater chance of leaking or breaking. To address this, the City should implement a renewal and replacement (R&R) program to proactively replace at-risk water pipelines before they fail. This Citywide Water System Master Plan Update does not include a condition assessment of existing facilities or development of a renewal and replacement (R&R) program. Therefore, it is recommended that the City perform a separate study which evaluates the condition of existing water system assets and develops a prioritized list for asset replacement based on age, material, failure history, and other parameters.



Symbology

- Recommended Improvement from Hydraulic Evaluation
- Existing Pipeline
- Pressure Regulating Station
- Booster Pump Station
- Groundwater Well
- Storage Tank
- John Jones Water Treatment Plant (WTP)

Pressure Zone

- Zone 1
- Zone 2

Notes:
1. See Figure 7-9 for detailed views of recommended improvements from hydraulic evaluation (areas #1 - #3).

Figure 7-8

Existing System Recommended Improvements

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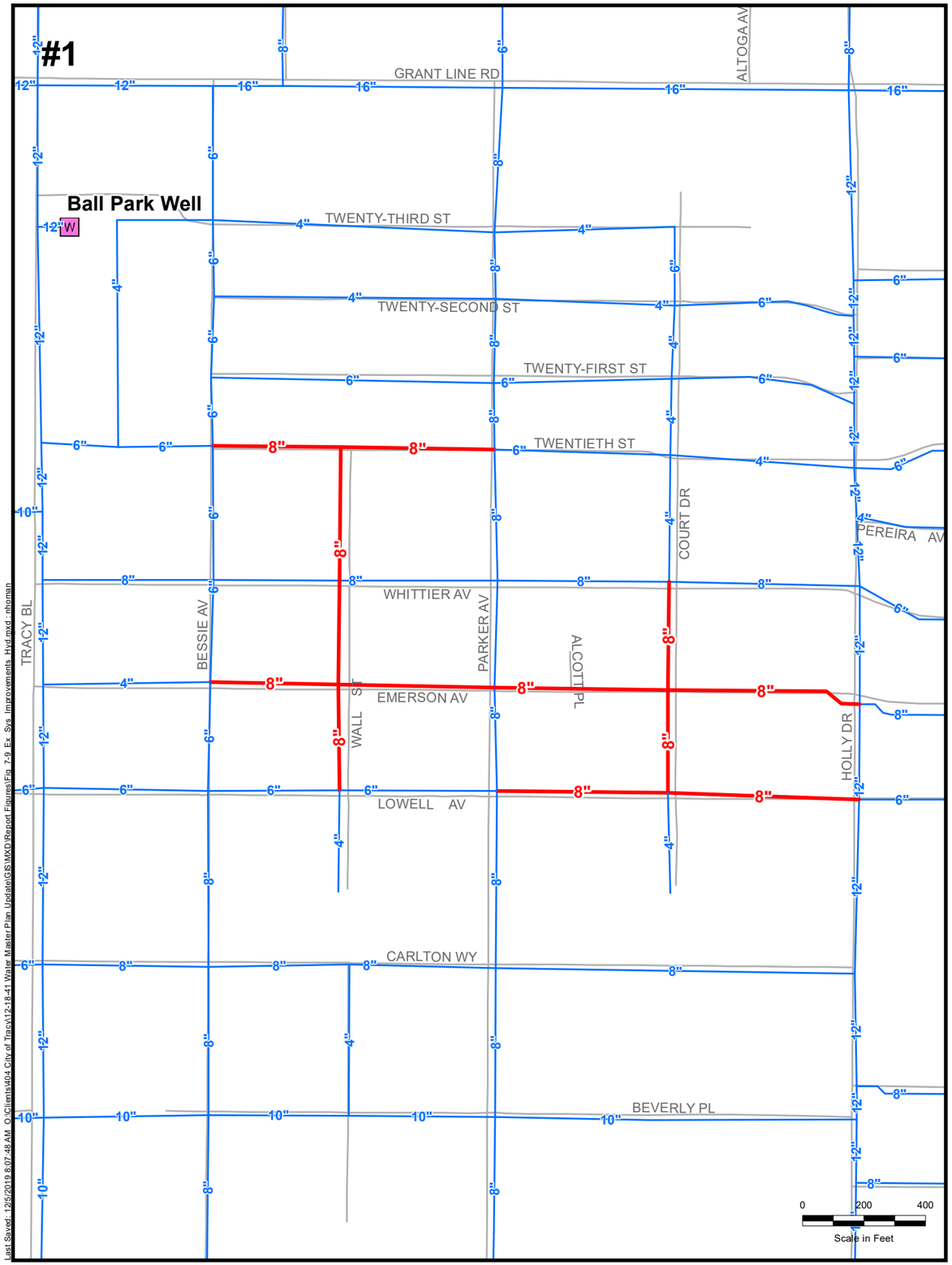

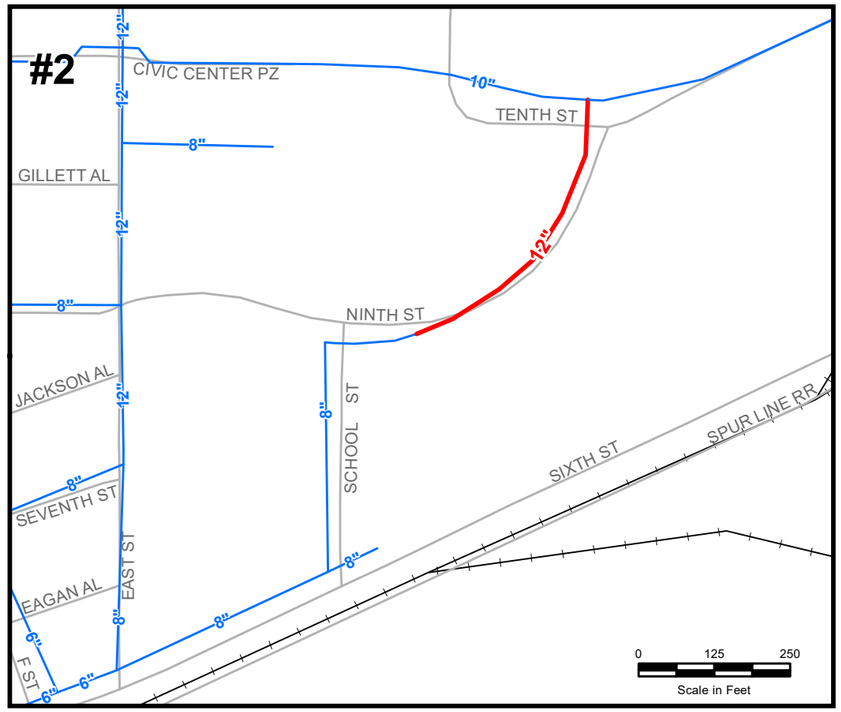

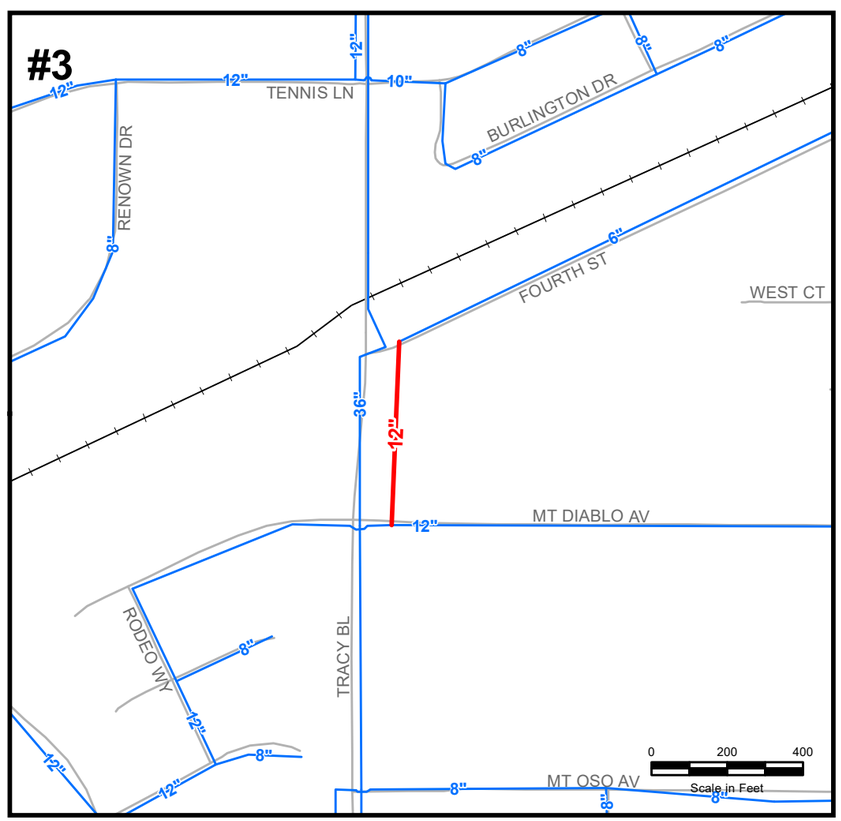

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Symbology

- W — Groundwater Well
- Recommended Improvement from Hydraulic Evaluation
- Existing Pipeline

Notes:
1. See Figure 7-8 for the locations of the recommended improvements.

Figure 7-9

Existing System Recommended Improvements from Hydraulic Evaluation

City of Tracy
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CHAPTER 8
Future Potable Water System Evaluation

8.1 OVERVIEW

The purpose of this chapter is to present the development and evaluation of the City's proposed potable water backbone transmission and distribution system for the 2025 and buildout timeframes. This chapter identifies the additional improvements that will be required in addition to the existing potable water system infrastructure improvements (described in Chapter 7) to support the City's projected potable water demands in the future. Development of the future potable water system includes an evaluation of the following: (1) the required future water treatment, storage and pumping capacity; and (2) the future water system's ability to meet recommended water system performance and operational criteria under maximum day demand plus fire flow and peak hour demand scenarios. The future water system was evaluated at both the 2025 and buildout timeframes. The future water system was not evaluated at the 2040 timeframe discussed in Chapters 4 and 5 because new water system facilities should be sized to accommodate buildout demands. Future updates to the WSMP may evaluate the 2040 timeframe as a near-term condition.

Using the City's recommended performance and operational criteria described in Chapter 6, preliminary sizing of major transmission pipelines and facilities required to serve future development projects was developed based on the projected potable water demands presented in Chapter 4. To evaluate the suitability of these preliminary sized facilities to meet the recommended performance and operational criteria, they were subsequently incorporated into the hydraulic model of the existing potable water system (evaluated in Chapter 7). This updated hydraulic model of the future potable water system was then used to evaluate maximum day demand plus fire flow and peak hour demand conditions for the 2025 and buildout timeframes to identify any deficiencies and to refine the preliminary sizing of major transmission pipelines and facilities.

Evaluations, findings, and recommendations for supporting projected future potable water demands and addressing any deficiencies identified within the future potable water backbone transmission and distribution system are included in this chapter. Recommendations were used to develop a CIP, which includes an estimate of probable construction costs for Master Plan Program facilities. The recommended potable water system CIP is described further in Chapter 10.

The following sections of this chapter describe the components of the City's future potable water backbone transmission and distribution system evaluation:

- Pressure Zone Recommendations
- Projected Future Potable Water Demands
- Future Potable Water System Facility Evaluation
- Future Potable Water System Performance Evaluation
- Summary of Recommended Future Potable Water System Improvements

To assist in the evaluation of the City's overall future potable water system, the future infrastructure recommended in this chapter includes the infrastructure required to serve the Tracy Hills development and, for consistency, is based on the adopted water use, peaking factors, and system performance criteria described in previous chapters of this WSMP Update. Although the Tracy Hills development is located within separate and distinct pressures zones from the rest of the City, West Yost has included the Tracy Hills development in the future potable water system evaluation because it will be a part of the City's overall future potable water system operations since it will be served directly from the City's JJWTP. The Tracy Hills Phase 1 water system infrastructure included in this WSMP Update is based on prepared plans and drawings, and the infrastructure for Tracy Hills Phases 2 through 5 is based on the Tracy Hills Water Study prepared by RJA in December 2014. However, projected land use for Tracy Hills used in this WSMP Update is not from the Tracy Hills Water Study, but is instead based on development data provided by the City's Planning Department, as discussed in Chapter 3 and presented in Appendix A. Including the Tracy Hills development in the 2025 and buildout hydraulic model evaluations ensures that the future potable water system will be adequate to serve potable water demands to the entire City (including Tracy Hills) and can provide water service at acceptable system pressures and pipeline velocities. Because planning for future phases of Tracy Hills is subject to change, the sizing of any future water system improvements to serve Tracy Hills should be confirmed based on the latest development plans and associated water demand projections.

8.2 PRESSURE ZONE RECOMMENDATIONS

The City's existing potable water system currently consists of several interconnected pressure zones (Zone 1, Zone 2, Zone 3, and Ellis Reduced Zone). With the exception of the Tracy Hills development, all of the City's future development projects will be located in one of these existing pressure zones. In addition to the planned IPC re-zoning discussed in Chapter 7, there are two planned re-zoning projects which will alter the existing pressure zone boundaries in the 2025 and buildout time frames.

Zone 3 (formerly called City-Side Zone 3) is currently split into two isolated portions: one which serves the Ellis Reduced Zone, and one which serves the International Park of Commerce and the Patterson Pass Business Park. The City plans to connect these two isolated portions by constructing new transmission pipelines and by re-zoning some existing transmission pipeline from Zone 2 to Zone 3. A detailed description of the planned modifications to the City's water system required to fully integrate Zone 3 are provided in Appendix D. The City plans to install new PRVs at the intersection of Schulte Road and Bud Lyons Way and the intersection of Schulte Road and Pavillion Parkway to avoid stagnant water in the dead-end Zone 2 pipelines created by the re-zoning. Once Zone 3 is fully integrated, the Zone 3 BPS will primarily be used to fill the Cordes Tank. The Cordes BPS will serve the integrated Zone 3 and the Ellis Reduced Zone (via several PRVs) when the Cordes Tank is not being filled. For this WSMP Update, it was assumed that this re-zoning project will be complete by 2025.

Another re-zoning project, referred to as "Plan C", will re-zone a small area bounded by Middlefield Drive to the north, Whirlaway Lane to the east, Linne Road to the south, and Corral Hollow Road to the west from Zone 2 to Zone 3. As currently zoned, the Plan C area experiences low pressures because it is located at the top of Zone 2. To improve pressure in the Plan C area, a new Zone 3 transmission pipeline will be constructed. This transmission pipeline will exit the JJWTP from the

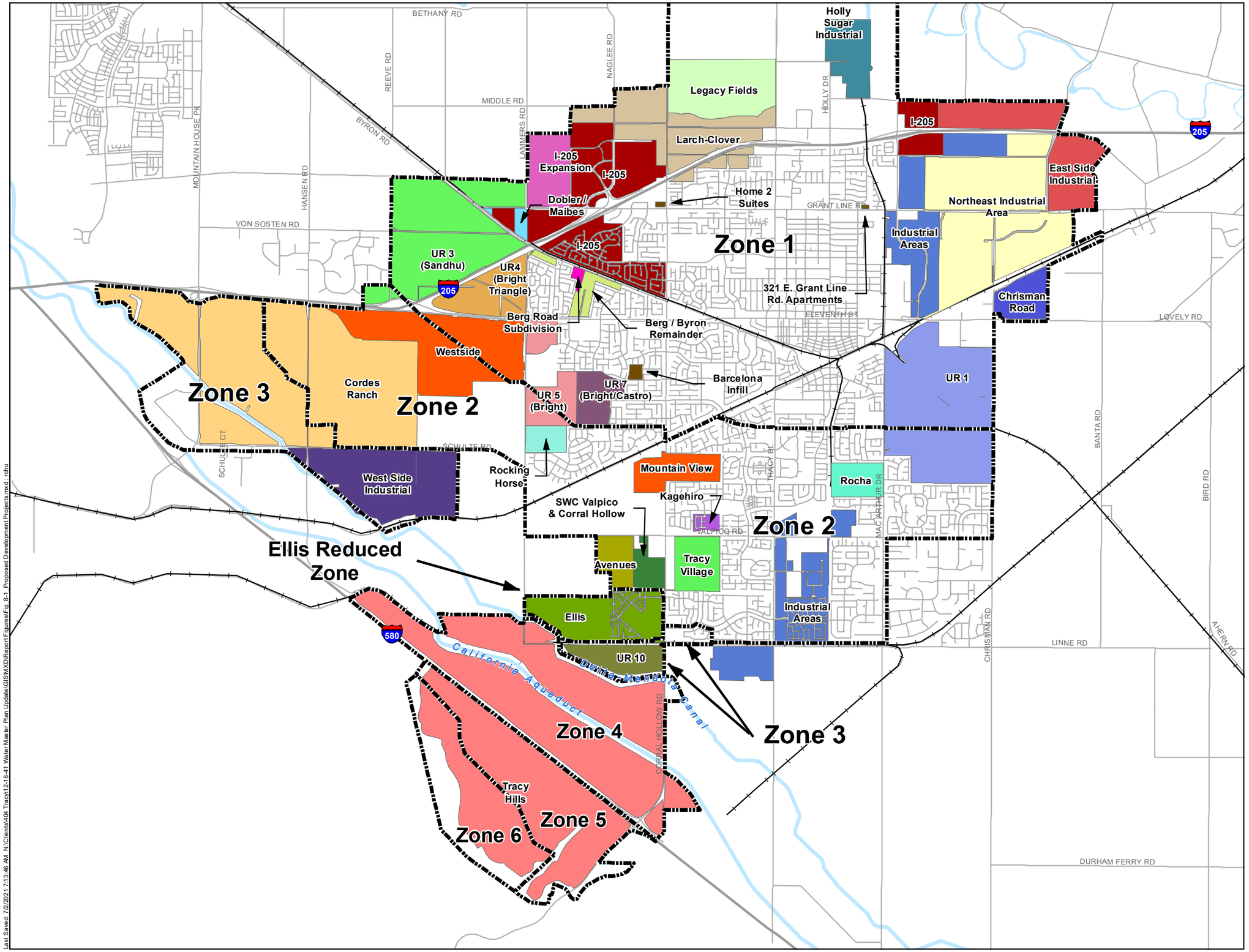
east and tie into the existing pipeline in Linne Road, which will also be re-zoned to Zone 3. This new Zone 3 pipeline will support the Plan C area and provide redundant transmission capacity for Zone 3. To prevent service pressures from exceeding 80 psi in the Plan C area after re-zoning, the City plans to install PRVs at the intersection of Middlefield Drive and Corral Hollow Road and at the Whirlaway pipeline connection to Linne Road. The City also plans to install four new PRVs to separate the Plan C area from the Zone 2 service areas to the north and east. These PRVs will prevent stagnant water from forming in the dead-end pipelines created by the re-zoning. It should be noted that alternative approaches to resolving the stagnant water issue may be possible and should be further evaluated before proceeding with this improvement. It was assumed that the Plan C re-zoning will not occur by 2025 and is therefore only included in the buildout evaluation. Funding for this improvement will be provided through Plan C funds.

In order to serve water demands in the Tracy Hills development, which is located at higher elevations than the City's existing customers, the City plans to add three additional pressure zones onto the existing service area, called Zones 4, 5, and 6. These pressure zones were previously referred to as Tracy Hills Zone 3, Tracy Hills Zone 4, and Tracy Hills Zone 5, respectively. Note that documents produced prior to this Water System Master Plan Update use the old nomenclature. As currently planned, these pressure zones will be exclusive to the proposed Tracy Hills development. Although the service elevations of Zone 3 and Zone 4 partially overlap, the two pressure zones will operate at different hydraulic grades and will be hydraulically separate.

The approximate boundaries of the existing and proposed pressure zones and the locations of future development projects are shown on Figure 8-1. Table 8-1 provides a summary of the existing and proposed pressure zone boundaries with key characteristics such as service elevations and static pressure ranges.

System pressures at some service elevations in the Tracy Hills development are expected to be high (up to 118 psi or more) due to the service elevation ranges proposed for Zones 5 and 6 as developed in the Tracy Hills Water Study (RJA, 2014). To be consistent with the study, the proposed service elevation ranges for Zones 5 and 6 were not adjusted for this Citywide WSMP Update. However, it is recommended that these proposed pressure zones for the Tracy Hills development be reviewed and redefined, if possible, to reduce the occurrence of such high system pressures.

As discussed in Chapter 6, the highest recommended system pressure for the Citywide WSMP Update is 100 psi and any water service connections located in areas with service connection pressures exceeding 80 psi will require the installation of individual PRVs to reduce the pressure below 80 psi.



Symbology

- Pressure Zone

Specific Plans

- I-205 Corridor
- Industrial Areas
- Northeast Industrial Area
- Avenues
- Cordes Ranch
- Ellis
- Tracy Hills
- Tracy Village
- Westside

Other Approved Projects

- Berg Road Subdivision
- Dobler / Maibes
- Kagehiro
- Rocking Horse
- Legacy Fields
- Small Approved Projects

Annexations

- Mountain View Annexation

Additional Planned Development Areas

- Berg / Byron Remainder
- Chrisman Road
- East Side Industrial
- Holly Sugar Industrial
- I-205 Expansion
- Larch-Clover
- Rocha
- SWC Valpico & Corral Hollow
- UR 1
- UR 3 (Sandhu)
- UR 4 (Bright Triangle)
- UR 5 (Bright)
- UR 7 (Bright/Castro)
- UR 10
- West Side Industrial

Notes:

1. Dobler / Maibes is part of the I-205 Specific Plan area, but is accounted for separately in this WSMP.
2. Pressure zone boundaries shown reflect planned re-zoning of areas to take place by buildout.
3. Small Approved Projects include Home 2 Suites, 321 E. Grant Line Road Apartments, and Barcelona Infill.

TRACY

WEST YOST ASSOCIATES

Figure 8-1

Proposed Development Areas and Pressure Zone Boundaries

City of Tracy
Water System Master Plan Update

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Table 8-1. Existing and Proposed Pressure Zone Boundaries

Pressure Zone	Nominal Hydraulic Grade, ft	Nominal Range of Service Elevations, ft	Static Pressure Range, psi
Zone 1	195	0 - 75	40 - 75
Zone 2	270	75 - 150	40 - 85[(a)]
Zone 3 (formerly City-Side Zone 3)	368	150 - 245	55 - 95[(a)]
Ellis Reduced Zone	323	140 - 185	60 - 80
Zone 4 (formerly Tracy Hills Zone 3)	425	209 - 325	43 - 93[(a)]
Zone 5 (formerly Tracy Hills Zone 4)[(b)]	580	305 - 470	47 - 118[(a)]
Zone 6 (formerly Tracy Hills Zone 5)[(b)]	735	460 - 630	45 - 118[(a)]

(a) Per the California Plumbing Code, services which experience pressures exceeding 80 psi are required to be fitted with a pressure reducing valve.
(b) Based on Tracy Hills Water Study prepared by RJA, December 2014.

8.3 PROJECTED FUTURE POTABLE WATER DEMANDS

Future potable water demands were developed based on the additional projected future land use information provided by the City, and the adopted unit water demand factors as described in Chapter 4. Based on the existing and proposed pressure zone boundaries, the projected potable water demands were calculated and categorized by pressure zone. Table 8-2 summarizes the City's 2025 potable water demands (including existing demands) by pressure zone. Table 8-3 summarizes the City's buildout potable water demands (including existing and 2025 demands) by pressure zone. Table 8-4 provides additional detail of the projected average day water demands at buildout for each future development project by pressure zone (not including existing demands).

Table 8-2. 2025 Potable Water Demands by Pressure Zone

Pressure Zone		Average Day Demand[a]		Maximum Day Demand[b]		Peak Hour Demand[c]	
		gpm	mgd	gpm	mgd	gpm	mgd
Zone 1		7,590	10.9	12,903	18.6	22,011	31.7
Zone 2		4,251	6.1	7,227	10.4	12,329	17.8
Zone 3	PPBP[d]	392	0.6	667	1.0	1,138	1.6
	Ellis Reduced Zone	186	0.3	316	0.5	540	0.8
	Other	474	0.7	806	1.2	1,375	2.0
Zone 4		370	0.5	629	0.9	1,074	1.5
Total		**13,264**	**19.1**	**22,550**	**32.5**	**38,467**	**55.4**

(a) Equal to existing water demands plus projected 2025 water demands presented in Table 4-16.
(b) Maximum day demand is 1.7 times the average day demand.
(c) Peak hour demand is 2.9 times the average day demand.
(d) Water demands from PPBP are not included in the City's water production totals because the water supply for this area is purchased by PPBP from the Byron Bethany Irrigation District. However, the City is responsible for providing water treatment and delivery services to PPBP.

Table 8-3. Buildout Potable Water Demands by Pressure Zone

Pressure Zone		Average Day Demand[a]		Maximum Day Demand[b]		Peak Hour Demand[c]	
		gpm	mgd	gpm	mgd	gpm	mgd
Zone 1		11,249	16.2	19,123	27.5	32,622	47.0
Zone 2		5,816	8.4	9,887	14.2	16,866	24.3
Zone 3	PPBP[d]	392	0.6	667	1.0	1,138	1.6
	Ellis Reduced Zone	342	0.5	582	0.8	993	1.4
	Other	1,286	1.9	2,185	3.1	3,728	5.4
Zone 4		1,187	1.7	2,018	2.9	3,443	5.0
Zone 5		568	0.8	965	1.4	1,646	2.4
Zone 6[e]		309	0.4	526	0.8	897	1.3
Total		**21,149**	**30.5**	**35,954**	**51.8**	**61,333**	**88.3**

(a) Equal to existing water demands plus projected buildout water demands presented in Table 4-16.
(b) Maximum day demand is 1.7 times the average day demand.
(c) Peak hour demand is 2.9 times the average day demand.
(d) Water demands from PPBP are not included in the City's water production totals because the water supply for this area is purchased by PPBP from the Byron Bethany Irrigation District. However, the City is responsible for providing water treatment and delivery services to PPBP.
(e) Tracy Hills demands were allocated by pressure zone based on recent land use data provided by the City's planning division. The proportion of Tracy Hills demands allocated to Zone 6 in this WSMP is significantly greater than allocated to Zone 6 (formerly Tracy Hills Zone 5) in the Tracy Hills Water Study prepared by RJA (December 2014). Demands should be confirmed using the most recent land use data before development of Zones 5 and 6 begins.

Table 8-4. Summary of Buildout Average Day Potable Water Demands by Development Project[a,b]

Project or Development Area	Zone 1		Zone 2		Zone 3 and Ellis Reduced Zone		Zone 4		Zone 5		Zone 6		Total	
	gpm	percent of total	gpm	percent of total	gpm	percent of total	gpm	percent of total	gpm	percent of total	gpm	percent of total	gpm	percent of total
UR 5 (Bright)	181.79	4.14%		0.00%		0.00%		0.00%		0.00%		0.00%	181.79	1.81%
UR 7 (Bright/Castro)	136.40	3.10%		0.00%		0.00%		0.00%		0.00%		0.00%	136.40	1.36%
Rocking Horse		0.00%	63.37	3.08%		0.00%		0.00%		0.00%		0.00%	63.37	0.63%
Tracy Village		0.00%	183.40	8.91%		0.00%		0.00%		0.00%		0.00%	183.40	1.82%
UR 1	535.24	12.18%	219.02	10.64%		0.00%		0.00%		0.00%		0.00%	754.26	7.50%
Ellis		0.00%		0.00%	324.35	21.10%		0.00%		0.00%		0.00%	324.35	3.23%
Avenues		0.00%	134.59	6.54%		0.00%		0.00%		0.00%		0.00%	134.59	1.34%
UR 10		0.00%		0.00%	87.91	5.72%		0.00%		0.00%		0.00%	87.91	0.87%
Tracy Hills		0.00%		0.00%		0.00%	1,187.29	100.00%	567.61	100.00%	309.45	100.00%	2064.35	20.53%
Westside	389.47	8.87%	389.47	18.92%		0.00%		0.00%		0.00%		0.00%	778.94	7.75%
Cordes Ranch		0.00%	464.82	22.58%	627.36	40.82%		0.00%		0.00%		0.00%	1092.17	10.86%
UR 4 (Bright Triangle)	239.63	5.45%		0.00%		0.00%		0.00%		0.00%		0.00%	239.63	2.38%
UR 3 (Sandhu)	437.60	9.96%	69.79	3.39%		0.00%		0.00%		0.00%		0.00%	507.39	5.05%
I-205 Expansion	325.93	7.42%		0.00%		0.00%		0.00%		0.00%		0.00%	325.93	3.24%
West Side Industrial		0.00%		0.00%	492.57	32.05%		0.00%		0.00%		0.00%	492.57	4.90%
East Side Industrial	280.33	6.38%		0.00%		0.00%		0.00%		0.00%		0.00%	280.33	2.79%
Larch-Clover	402.17	9.15%		0.00%		0.00%		0.00%		0.00%		0.00%	402.17	4.00%
Chrisman Road	89.42	2.04%		0.00%		0.00%		0.00%		0.00%		0.00%	89.42	0.89%
Rocha		0.00%	144.91	7.04%		0.00%		0.00%		0.00%		0.00%	144.91	1.44%
Berg/Byron Remainder	116.54	2.65%		0.00%		0.00%		0.00%		0.00%		0.00%	116.54	1.16%
Berg Road Subdivision	16.84	0.38%		0.00%		0.00%		0.00%		0.00%		0.00%	16.84	0.17%
SWC Valpico & Corral Hollow		0.00%	79.07	3.84%		0.00%		0.00%		0.00%		0.00%	79.07	0.79%
Kagehiro		0.00%	55.70	2.71%		0.00%		0.00%		0.00%		0.00%	55.70	0.55%
Dobler/Maibes	24.13	0.55%		0.00%		0.00%		0.00%		0.00%		0.00%	24.13	0.24%
Holly Sugar Industrial	113.61	2.59%		0.00%		0.00%		0.00%		0.00%		0.00%	113.61	1.13%
Northeast Industrial Area	446.12	10.15%		0.00%		0.00%		0.00%		0.00%		0.00%	446.12	4.44%
Industrial Areas Specific Plan		0.00%	146.92	7.14%		0.00%		0.00%		0.00%		0.00%	146.92	1.46%
I-205 Corridor Specific Plan	46.93	1.07%		0.00%		0.00%		0.00%		0.00%		0.00%	46.93	0.47%
Mountain View		0.00%	54.38	2.64%		0.00%		0.00%		0.00%		0.00%	54.38	0.54%
Legacy Fields	32.44	0.74%		0.00%		0.00%		0.00%		0.00%		0.00%	32.44	0.32%
Small Approved Projects[c]	202.69	4.61%	0.00	0.00%		0.00%		0.00%		0.00%		0.00%	202.69	2.02%
Infill (misc.)	375.96	8.56%	53.02	2.58%	4.87	0.32%		0.00%		0.00%		0.00%	433.85	4.32%
Total	**4,393.25**	**100%**	**2,058.45**	**100%**	**1,537.05**	**100%**	**1,187.29**	**100%**	**567.61**	**100%**	**309.45**	**100%**	**10,053.10**	**100%**

(a) Water demands shown are for new development only and do not include existing potable water demands. See Appendix A for detailed demand calculations by project or development area.

(b) Water demands shown include UAFW.

(c) Includes Home 2 Suites, 321 E. Grant Line Road Apartments, and Barcelona Infill.
Also includes the following identified projects within the I-205 Corridor Specific Plan area: Sierra Hills, Grant Line Road Apartments, Aspire II, Harvest.

8.4 FUTURE POTABLE WATER SYSTEM FACILITY EVALUATION

To develop the future potable water system, analyses addressing the following system facilities were conducted:

- Water Treatment Capacity
- Water Storage Capacity
- Pumping Capacity
- Critical Supply Facilities

The results from the future potable water system facilities analyses are discussed below. Recommendations for supporting projected future potable water demands and addressing any deficiencies identified within the future potable water backbone transmission and distribution system are summarized in *Section 8.6 Summary of Recommended Future Potable Water System Improvements*.

8.4.1 Water Treatment Capacity

Sufficient water treatment capacity from the JJWTP, the South County Water Supply Project, and groundwater wells will be required to meet the City's 2025 and buildout maximum day demand conditions. In addition, the City's goal is to have sufficient surface water treatment capacity to meet the 2025 and buildout maximum month demands without relying on groundwater.

Table 8-5 shows that the City's current water treatment capacity is sufficient to meet 2025 maximum day potable water demands and that the City's current surface water treatment capacity is sufficient to meet 2025 maximum month potable water demands.

Table 8-5. Comparison of Available and Required Water Treatment Capacity in 2025, mgd

Demand Condition	JJWTP[a]	South County Water Supply Project[b]	Groundwater	Total Treated Water Capacity	2025 Demand	Treated Water Capacity Surplus or (Deficit)
Maximum Day	27	15.5	21.7[c]	64.2	32	32
Maximum Month[d]	27	15.5	0.0[e]	42.5	29	13

(a) Supplied from Zone 1 36-inch diameter transmission main, Zone 2 BPS, Zone 3 BPS, and Zone 4 BPS. Although the JJWTP is designed to supply 30 mgd, the actual maximum pumping capacity of the intake pumps is 27 mgd.
(b) Supplied from Linne Road and NEI Booster Pump Stations. It is anticipated that as Manteca and Lathrop develop, Tracy's share of the deliverable capacity from this source will be reduced to 15.5 mgd.
(c) Equivalent to firm groundwater pumping capacity, assuming that 20 percent of the City's wells would be out of service (i.e., approximately two wells: one in Zone 1, and one at the JJWTP).
(d) Estimated to be 90 percent of maximum day demands.
(e) The City's goal is to meet maximum month demands without relying on groundwater supply.

Table 8-6 shows that the City's current water treatment capacity is sufficient to meet buildout maximum day potable water demands. Although the City's current surface water treatment capacity is not sufficient to meet buildout maximum month potable water demands, the deficit could be made up using 4 mgd of groundwater.

Table 8-6. Comparison of Available and Required Water Treatment Capacity at Buildout, mgd

Demand Condition	JJWTP[a]	South County Water Supply Project[b]	Groundwater	Total Treated Water Capacity	Buildout Demand	Treated Water Capacity Surplus or (Deficit)
Maximum Day	27	15.5	32.5[c]	75.0	52	23
Maximum Month[d]	27	15.5	0.0[e]	42.5	47	(4)

(a) Supplied from Zone 1 36-inch diameter transmission main, Zone 2 BPS, Zone 3 BPS, and Zone 4 BPS. Although the JJWTP is designed to supply 30 mgd, the actual maximum pumping capacity of the intake pumps is 27 mgd.
(b) Supplied from Linne Road and NEI Booster Pump Stations. It is anticipated that as Manteca and Lathrop develop, Tracy's share of the deliverable capacity from this source will be reduced to 15.5 mgd.
(c) Equivalent to firm groundwater pumping capacity, assuming that 20 percent of the City's wells would be out of service (i.e., approximately three wells: two in Zone 1, and one at the JJWTP). Includes the capacity of recommended wells to be constructed by buildout.
(d) Estimated to be 90 percent of maximum day demands.
(e) The City's goal is to meet maximum month demands without relying on groundwater supply.

Based on discussion with City staff, plans for a future 15 mgd expansion at the JJWTP were already envisioned and integrated into the planning and associated environmental review process during the most recent 15 mgd expansion (from 15 to 30 mgd) completed in 2008. Based on the updated future demand projections, an expansion of the JJWTP would not be required if the City is able to pump groundwater at a sustainable rate to supplement surface water treatment capacity. However, as a part of the City's wastewater permit, the City needs to reduce the use of the groundwater as part of its Salinity Reduction Plan, as well as to comply with the Groundwater Sustainability Plan prepared for compliance with the Sustainable Groundwater Management Act. As such, a future additional 10 mgd expansion of the JJWTP is recommended to provide the City with additional water treatment capacity, as well as operational flexibility and reliability, if the use of groundwater supplies needs to be limited or if there is a supply outage from South County Water Supply Project. The expansion would also include a new administration/maintenance building to accommodate future staffing needs and maintenance activities.

Additional JJWTP treated water storage and pumping facilities are also recommended at buildout. Based on the additional demands in Zone 3 at buildout, it is recommended that a new clearwell be constructed at the JJWTP to provide operational flexibility for the water treatment plant and to provide additional operational and emergency storage capacity to serve future developments. For this Citywide WSMP Update, it was assumed that the new clearwell will have a minimum active (useable) storage capacity of 1.0 MG. Buildout demands will also require new booster pumps to be installed at the JJWTP. *Section 8.4.3 Pumping Capacity* provides additional discussion regarding the additional treated surface water booster pumping capacity required at the JJWTP to serve buildout maximum day demands.

8.4.2 Water Storage Capacity

The principal advantages that storage provides for the water system are the ability to equalize demands on supply sources, production facilities, and transmission mains; to provide emergency storage in case of supply failure; and to provide water to fight fires. The City's water service area has two sources of available storage: above ground storage (i.e., clearwells and storage tanks) and storage available through the groundwater basin. Together, these two sources of storage must be sufficient to meet the City's operational, emergency, and fire flow storage criteria. The volumes required for each of these three storage components are listed below:

- Operational Storage: 30 percent of a maximum day demand.
- Emergency Storage: 1.5 times an average day demand.
- Fire Flow Storage: The required fire flow rates multiplied by their associated fire flow duration periods, as required by the City's Fire Department. For larger pressure zones, two concurrent fire flow events were assumed for the storage capacity analysis.[1] However, the recommended fire flow storage does not include the volume associated with sprinkler flows.

Because the City's potable water supply includes supply from groundwater wells, the groundwater basin can account for a portion of the recommended emergency storage, in the form of a groundwater credit. However, the following must be true to use the groundwater supply to offset the need to provide surface storage reservoirs:

- Groundwater supply is of potable water quality and can be reliably accessed (i.e., wells are equipped with on-site emergency generators).
- Groundwater supply is not already relied upon to meet the City's average day demand requirements.
- Groundwater supply is of firm groundwater supply availability (i.e., assumes 20 percent of wells will be out of service at any given time).
- Sufficient water distribution facilities are available to distribute this water to demand areas.

[1] Two concurrent fire flow events were not simulated in Zones 4, 5 and 6 for the Tracy Hills development because these smaller pressure zones do not justify the use of two simultaneous fire flow events.

In addition, the City currently has two independent sources of treated surface water supply, and some quantity of the total treated surface water supply capacity can also account for a portion of the recommended emergency storage. The treated surface water credit assumes that the smaller of the treated surface water supply sources can be available to offset a portion of the emergency storage requirement. However, the following must be true to use treated surface water supply to offset the need to provide above-ground storage:

- Treated surface water supply can be reliably accessed (i.e., treated surface water supply facility is equipped with on-site emergency generator).
- Sufficient treated surface water booster pumping facilities are available to distribute this water to demand areas.

In summary, the Emergency Storage Credit is equal to the sum of the groundwater and treated surface water supply credits. However, the Emergency Storage Credit can only provide a maximum storage credit equal to the City's required emergency storage volume.

The existing potable water storage facilities (including the Tracy Hills At-Grade Tank, which is currently under construction), in conjunction with the available Emergency Storage Credit, were evaluated to determine whether the City's current potable water system has sufficient storage capacity within each pressure zone to provide the required operational, emergency, and fire flow storage for the 2025 and buildout timeframes.

Table 8-7 provides a comparison of the City's available potable water storage capacity and emergency storage credit with the required 2025 storage capacity. The comparison indicates that the City's existing facilities will be sufficient and that no additional storage facilities need to be constructed by 2025.

Table 8-8 provides a comparison of the City's available potable water storage capacity and emergency storage credit with the required buildout storage capacity. The comparison between the City's available and required storage capacities indicates that the City will have the following potable water storage capacity deficits within each pressure zone at buildout:

- Zones 1 and 2[2]: 0.2 MG
- Zone 3: 1.2 MG
- Zone 4: 0.6 MG
- Zone 5: 2.6 MG
- Zone 6: 1.1 MG

[2] Under existing conditions, Zones 1 and 2 are interconnected through six existing pressure regulating stations (PRS). Therefore, Zones 1 and 2 were evaluated together for the future potable water system facility evaluation.

Table 8-7. Comparison of Available and Required Water Storage Capacity in 2025

[A]	[B]	[C]	[D]	[E]	[F]	[G] = [C] + [F]	[H]	[I]	[J]	[K] = [H] + [I] + [J]	[L] = [G] - [K]
		Available Storage Capacity, MG					Required Storage Capacity, MG				
			Emergency Storage Credit								
Station	Status	Reservoir Capacity	Groundwater Credit[a]	Treated Surface Water Supply Credit[b]	Total Emergency Storage Credit[c]	Total Available Storage	Operational[d]	Emergency[e]	Fire Flow	Total Required Storage	Storage Surplus (Deficit), MG
Zone 1 and Zone 2											
NEI	Active	2.4	--	25.50	25.58	**39.08**	8.70	25.58	1.14[h]	**35.41**	**3.6**
Lincoln Well	Active	--	5.40								
Lewis Manor Well	Inactive	--	--								
Park and Ride Well	Active	--	4.32								
Ball Park Well	Active	--	5.40								
Well 8[f]	Active	--	--								
Linne	Active	7.1	--								
Well 1[g]	Active	--	--								
Well 2[f,g]	Active	--	--								
Well 3[f,g]	Active	--	--								
Well 4[f,g]	Active	--	--								
Clearwell #2	Active	4.0	--								
Zone 3 and Ellis Reduced Zone											
Cordes	Active	2.0	--	0.00	2.27[i]	**4.27**	0.77	2.27	1.14[h]	**4.19**	**0.1**
Zone 4											
Tracy Hills At-Grade	Under Construction	3.8	--	0.00	0.00	**3.75**	0.27	0.80	0.18[j]	**1.25**	**2.5**

(a) Credit based on 1.5 days of pumping capacity from active groundwater wells with on-site backup power because the required emergency storage capacity is equal to 1.5 times the average day demand. See Table 7-2 for individual well capacity.

(b) Credit based on 1.5 days of available treatment capacity (17 mgd) from the SCWSP because the required emergency storage capacity is equal to 1.5 times the average day demand.

(c) Equal to the sum of the groundwater and treated surface water supply credits; however, the maximum credit is equal to the required emergency storage capacity.

(d) Based on 30 percent of a maximum day demand (see Table 8-2).

(e) Based on 1.5 times the average day demand (see Table 8-2).

(f) Well does not contribute to Groundwater Credit because it does not have on-site backup power.

(g) Well does not contribute to Groundwater Credit because water produced by the well must be blended with chlorinated water from the JJWTP prior to distribution. The JJWTP is assumed to be offline in an emergency.

(h) Based on storage required for two concurrent fire flow events; a Single Family Residential fire flow and an Industrial fire flow (see Table 6-1).

(i) Surplus Treated Surface Water Supply Credit from other pressure zones can be used to provide emergency storage for Zone 3.

(j) Based on storage required for a Single Family Residential fire flow (see Table 6-1).

Table 8-8. Comparison of Available and Required Water Storage Capacity at Buildout

[A]	[B]	[C]	[D]	[E]	[F]	[G] = [C] + [F]	[H]	[I]	[J]	[K] = [H] + [I] + [J]	[L] = [G] - [K]
		Available Storage Capacity, MG					Required Storage Capacity, MG				
			Emergency Storage Credit								
Station	Status	Reservoir Capacity	Groundwater Credit[a]	Treated Surface Water Supply Credit[b]	Total Emergency Storage Credit[c]	Total Available Storage	Operational[d]	Emergency[e]	Fire Flow	Total Required Storage	Storage Surplus (Deficit), MG
Zone 1 and Zone 2											
NEI	Active	2.4	--	25.50	36.86	**50.36**	12.53	36.86	1.14[h]	**50.53**	**(0.2)**
Lincoln Well	Active	--	5.40								
Lewis Manor Well	Inactive	--	--								
Park and Ride Well	Active	--	4.32								
Ball Park Well	Active	--	5.40								
Well 8[f]	Active	--	--								
Linne	Active	7.1	--								
Well 1[g]	Active	--	--								
Well 2[f,g]	Active	--	--								
Well 3[f,g]	Active	--	--								
Well 4[f,g]	Active	--	--								
Clearwell #2	Active	4.0	--								
Zone 3 and Ellis Reduced Zone											
Cordes	Active	2.0	--	0.00	3.27[i]	**5.76**	1.48	4.36	1.14[h]	**6.99**	**(1.2)**
Zone 4											
Tracy Hills At-Grade	Under Construction	3.8	--	0.00	0.00	**3.75**	0.87	2.56	0.96[j]	**4.40**	**(0.6)**
Zone 5											
--	--	--	--	0.00	0.00	**0.00**	0.42	1.23	0.96[j]	**2.60**	**(2.6)**
Zone 6											
--	--	--	--	0.00	0.00	**0.00**	0.23	0.67	0.18[k]	**1.08**	**(1.1)**

(a) Credit based on 1.5 days of pumping capacity from active groundwater wells with on-site backup power because the required emergency storage capacity is equal to 1.5 times the average day demand. See Table 7-2 for individual well capacity.

(b) Credit based on 1.5 days of available treatment capacity (17 mgd) from the SCWSP because the required emergency storage capacity is equal to 1.5 times the average day demand.

(c) Equal to the sum of the groundwater and treated surface water supply credits; however, the maximum credit is equal to the required emergency storage capacity.

(d) Based on 30 percent of a maximum day demand (see Table 8-3).

(e) Based on 1.5 times the average day demand (see Table 8-3).

(f) Well does not contribute to Groundwater Credit because it does not have on-site backup power.

(g) Well does not contribute to Groundwater Credit because water produced by the well must be blended with chlorinated water from the JJWTP prior to distribution. The JJWTP is assumed to be offline in an emergency.

(h) Based on storage required for two concurrent fire flow events; a Single Family Residential fire flow and an Industrial fire flow (see Table 6-1).

(i) Surplus Treated Surface Water Supply Credit from other pressure zones can be used to provide emergency storage for Zone 3.

(j) Based on storage required for an Industrial or Institutional fire flow (see Table 6-1).

(k) Based on storage required for a Single Family Residential fire flow (see Table 6-1).

It should be noted that in the period before the future Clearwell #3 is completed, the full storage capacity in Clearwell #2 is not available. During normal operations, the water level in Clearwell #2 is maintained near the maximum water level, at water surface elevation (WSEL) 197.5 feet, approximately 11.5 feet above the floor. This maximum WSEL provides approximately 4 MG of storage in Clearwell #2. Under emergency conditions, the City is able to significantly draw down the WSEL in Clearwell #2 with the Zone 2 pumps. However, because the Zone 4 and Zone 5 pump station suction pipe cannot draw water from Clearwell #2 at a WSEL less than approximately five feet above the floor, the available storage in Clearwell #2 is currently limited to 2.25 MG. Until the Tracy Hills tanks are in service, sufficient operational, emergency, and fire flow storage must be maintained in Clearwell #2 to serve Tracy Hills and prevent dewatering of the Zone 4 and Zone 5 pumps.

Once in service, the Tracy Hills Zone 4 tank will provide sufficient operational, emergency, and fire storage for Zone 4. Similarly, the planned Zone 5 tank will provide sufficient operational, emergency, and fire storage for Zones 5 and 6 once constructed. With these tanks in service, the full volume of Clearwell #2 may be used in an emergency. Although this will dewater the Zone 4 and Zone 5 pumps, the Tracy Hills tanks will provide emergency supply to Zones 4 and 5 until service from the JJWTP can be restored. The water level in Clearwell #2 should still be maintained at greater than five feet above the floor for normal operations.

An additional clearwell (Clearwell #3) is proposed at the JJWTP and will be hydraulically connected to Clearwell #2 and the Zone 4 and Zone 5 pump stations. Once Clearwell #3 is constructed, the suction piping for the Tracy Hills pump stations will be connected to the pump wet well in Clearwell #3 at a low enough elevation to allow the Tracy Hills pump stations to continue in operation as long as volume remains in Clearwell #3, allowing the City to use the full volume of operational, emergency, and fire flow storage in both Clearwell #2 and Clearwell #3 without dewatering the Zone 4 and Zone 5 pumps.

Based on the storage capacity deficits identified in Table 8-8, Table 8-9 summarizes the recommended facility improvements to provide additional buildout storage capacity. The proposed specific facility improvements are based on those presented in the 2012 WSMP and in the Tracy Hills Water Study (RJA, December 2014), but were modified to reflect the reduced buildout storage capacity requirements.

Table 8-9. Comparison of Available, Proposed, and Required Water Storage Capacity at Buildout

[A]	[B]	[C]	[D]	[E]	[F]	[G] = [C] + [F]	[H]	[I]	[J]	[K] = [H] + [I] + [J]	[L] = [G] - [K]
		Available Storage Capacity, MG					Required Storage Capacity, MG				
			Emergency Storage Credit								
Station	Status	Reservoir Capacity	Groundwater Credit[a]	Treated Surface Water Supply Credit[b]	Total Emergency Storage Credit[c]	Total Available Storage	Operational[d]	Emergency[e]	Fire Flow	Total Required Storage	Storage Surplus (Deficit), MG
Zone 1 and Zone 2											
NEI	Active	2.4	--	25.50	36.86	**51.36**	12.53	36.86	1.14[i]	**50.53**	**0.8**
Lincoln Well	Active	--	5.40								
Lewis Manor Well	Inactive	--	--								
Park and Ride Well	Active	--	4.32								
Ball Park Well	Active	--	5.40								
Well 8[f]	Active	--	--								
Linne	Active	7.1	--								
Well 1[g]	Active	--	--								
Well 2[f,g]	Active	--	--								
Well 3[f,g]	Active	--	--								
Well 4[f,g]	Active	--	--								
Clearwell #2	Active	4.0	--								
Westside Tank	Proposed[h]	1.0	--								
Westside ASR Well	Proposed	--	5.40								
Wainwright ASR Well	Proposed	--	5.40								
Larsen Park ASR Well	Proposed	--	5.40								
Zone 3 and Ellis Reduced Zone											
Cordes	Active	2.0	--	0.00	4.86[j]	**7.36**	1.48	4.36	1.14[i]	**6.99**	**0.4**
JJWTP Clearwell #3	Proposed[h]	1.0	--								
Ellis ASR Well	Proposed	--	2.16								
Zone 4											
Tracy Hills At-Grade	Under Construction	3.8	--	0.00	0.00	**3.75**	0.87	2.56	0.96[k]	**4.40**	**(0.6)**
Zone 5											
Gravity Tank[l]	Proposed[h]	3.2	--	0.00	0.00	**3.2**	0.42	1.23	0.96[k]	**2.60**	**0.6**
Zone 6											
Gravity Tank[m]	Proposed[h]	1.1	--	0.00	0.00	**1.10**	0.23	0.67	0.18[n]	**1.08**	**0.0**

(a) Credit based on 1.5 days of pumping capacity from active groundwater wells with on-site backup power because the required emergency storage capacity is equal to 1.5 times the average day demand. See Table 7-2 for the individual capacity of existing wells. Proposed ASR wells in Zone 1 and Zone 2 were assumed to have a capacity of 2,500 gpm. The proposed Ellis ASR Well was assumed to have a capacity of 1,000 gpm.

(b) Credit based on 1.5 days of available treatment capacity (17 mgd) from the SCWSP because the required emergency storage capacity is equal to 1.5 times the average day demand.

(c) Equal to the sum of the groundwater and treated surface water supply credits; however, the maximum credit is equal to the required emergency storage capacity.

(d) Based on 30 percent of a maximum day demand (see Table 8-3).

(e) Based on 1.5 times the average day demand (see Table 8-3).

(f) Well does not contribute to Groundwater Credit because it does not have on-site backup power.

(g) Well does not contribute to Groundwater Credit because water produced by the well must be blended with chlorinated water from the JJWTP prior to distribution. The JJWTP is assumed to be offline in an emergency.

(h) Proposed reservoir capacity is the recommended active and useable reservoir storage capacity and does not include dead and freeboard storage, which will be determined during design.

(i) Based on storage required for two concurrent fire flow events; a Single Family Residential fire flow and an Industrial fire flow (see Table 6-1).

(j) Surplus Treated Surface Water Supply Credit from other pressure zones can be used to provide emergency storage for Zone 3.

(k) Based on storage required for an Industrial or Institutional fire flow (see Table 6-1).

(l) The Tracy Hills Water Study prepared by RJA (December 2014) recommended two Zone 5 (formerly Tracy Hills Zone 4) tanks with a combined capacity of 8.8 MG. Recommended Zone 5 capacity is significantly smaller than previously evaluated due to decrease in demand factors and emergency storage requirement. Sizing of the proposed tanks should be confirmed before development of Zone 5 begins.

(m) Based on previous recommendations from the Tracy Hills Water Study prepared by RJA (December 2014). Sizing of the proposed tank should be confirmed before development of Zone 6 begins.

(n) Based on storage required for a Single Family fire flow (see Table 6-1).

A portion of the buildout storage capacity requirement is met by additional Emergency Storage Credit provided by the new ASR wells recommended in Chapter 5. It was assumed that three of the ASR wells will be located in Zones 1 and 2, while the fourth ASR well will be located in Zone 3. The ASR well in Zone 3 was assumed to have a lower production capacity due to the less ideal aquifer conditions underlying Zone 3. All new wells should be equipped with ammonia addition.

It is recommended that the City construct a 1.0 MG pumped storage tank near the Westside Specific Plan development in Zone 1. In addition to providing additional storage capacity needed to meet the operational storage requirement for Zones 1 and 2, the Westside Tank would provide localized storage for the northwest sector of the City. Localized storage provides supply reliability in the chance that storage from the JJWTP or any other storage facility is unavailable for any reason.

It is recommended that the City construct a Clearwell (Clearwell #3) with a minimum volume of 1.0 MG at the JJWTP to provide additional storage capacity for Zone 3. In addition to providing storage, Clearwell #3 would provide operational flexibility for the JJWTP. Because of the additional operational flexibility that Clearwell #3 would provide, it is recommended that Clearwell #3 be constructed as soon as possible. As noted above, no additional storage facilities are required by 2025, but it is recommended that Clearwell #3 be constructed by no later than 2030.

It is also recommended that the City construct a 3.2 MG gravity storage tank in Zone 5 and a 1.1 MG gravity storage tank in Zone 6. The remaining 0.6 MG storage capacity deficit in Zone 4 is to be provided by Zone 5 via a PRV. It should be noted that the 3.2 MG capacity of the Zone 5 Tank recommended in this WSMP Update is significantly smaller than the 8.8 MG recommended in the Tracy Hills Water Study (RJA, December 2014) for several reasons: (1) since the Tracy Hills Water Study was conducted, the proposed land use plan for Tracy Hills has changed; (2) the water demand factors used to project demands for Tracy Hills in this WSMP Update are lower than those used in the Tracy Hills Water Study; and (3) the emergency storage capacity requirement used in this WSMP Update is lower than that used in the Tracy Hills Water Study. As proposed land use plans may continue to be refined, the size of the Zone 5 and Zone 6 tanks should be confirmed before development of Zones 5 and 6 begins.

8.4.3 Pumping Capacity

The existing and proposed pumping capacity in the City's potable water system was evaluated to assess its ability to deliver a reliable firm capacity to serve the water service area for the 2025 and buildout timeframes. Firm capacity assumes a reduction in total pumping capacity to account for pumps that are out of service at any given time due to mechanical breakdowns, maintenance, water quality, or other operational issues. At each booster pump station, firm booster pumping capacity was defined as the total booster pump station capacity with the largest pump out of service. For groundwater well pumps, the firm groundwater pumping capacity assumed that 20 percent of the wells could be out of service at any given time.

The pumping capacity criterion for the City, described previously in Chapter 6, requires the City's potable water system to have sufficient firm pumping capacity to meet the greater of either a maximum day demand with two simultaneous fire flow events[3] or a peak hour demand. In addition, sufficient firm treated water pumping capacity should be available to meet a maximum day demand condition.

Table 8-10 provides a comparison between the City's available firm pumping capacity and the required 2025 pumping capacity under different water demand conditions. The City's existing pumping facilities are sufficient to meet the 2025 pumping capacity requirements.

Table 8-11 provides a comparison between the City's available and proposed buildout firm pumping capacity for the different water demand scenarios. The proposed pumping facility improvements are based on:

- The necessity to deliver water from proposed storage facilities to the system.
- The necessity to provide treated water pumping capacity to meet buildout maximum day demands (e.g., JJWTP Clearwell #3 pumps).
- The necessity for localized pumping capacity to support system pressure during periods of high demand (fire flow and peak hour).

The pumping capacity analysis indicates that the City's existing and proposed firm booster and groundwater pumping capacity will be sufficient to meet the pumping capacity criterion for the buildout water service area during the governing demand scenario within each pressure zone. It should be noted that Zones 5 and 6 will provide water supply by gravity, rather than by pumping, to meet potable water demands during maximum day plus fire flow and peak hour demand conditions.

It is recommended that the City construct Zone 1 and Zone 2 booster pumps at the proposed Westside Tank. Although the proposed capacity of these booster pumps is more than required to meet the Zone 1 and 2 pumping capacity requirements, the capacity of these pumps is needed to maintain sufficient system pressure during periods of high demand (fire flow and peak hour) in the northwest quadrant of the City.

It is also recommended that the City install additional Zone 3 booster pumps on the proposed Clearwell #3. It is recommended that these pumps have a capacity of at least 1,500 gpm to provide operational flexibility for the Zone 3 BPS.

A new Zone 5 BPS (located at the JJWTP) and a Zone 6 BPS must also be constructed to supply water to Zones 5 and 6, respectively. The Zone 5 BPS was sized based on the Tracy Hills Water Study (RJA, December 2014). The Zone 6 BPS recommended in this WSMP Update is larger than previously recommended in the Tracy Hills Water Study because the proposed land use plan for Tracy Hills has changed since the study was conducted. Sizing of the Zone 6 BPS should be confirmed before development of Zone 6 begins.

[3] Two concurrent fire flow events were not simulated in Zones 4, 5 and 6 for the Tracy Hills development because these smaller pressure zones do not justify the use of two simultaneous fire flow events.

Table 8-10. Comparison of Available and Required Firm Pumping Capacity in 2025

Pump Station	Backup Power	Status	Firm Capacity[a], gpm	Total Firm Pumping Capacity from Supply Sources, gpm[b]	2025 Maximum Day Demand, gpm	Pumping Capacity from Supply Sources Surplus (Deficit), gpm[b]	Total Firm Pumping Capacity, gpm	2025 Maximum Day Demand with Fire Flow Event(s), gpm	2025 Peak Hour Demand, gpm	Pumping Capacity Surplus (Deficit), gpm[c]
Zones 1 and 2										
NEI	✓	Active	4,200	44,106	20,131	23,975	51,095	26,839[e]	34,340	16,755
Zone 1	✓	Active	12,000							
Lincoln Well	✓	Active	2,500							
Lewis Manor Well	✓	Inactive	--							
Park and Ride Well	✓	Active	2,000							
Ball Park Well	✓	Active	2,500							
Well 8		Active	--							
Linne	✓	Active	14,595							
Zone 2	✓	Active	13,300							
Well 1[d]	✓	Active	--							
Well 2[d]		Active	--							
Well 3[d]		Active	--							
Well 4[d]		Active	--							
Zone 3 and Ellis Reduced Zone										
Cordes	✓	Active	6,150	2,970	1,790	1,180	9,120	7,676[e]	3,053	1,330
Patterson Pass[f]	✓	Inactive	--							
Zone 3	✓	Active	2,970							
Zone 4										
Zone 4	✓	Active	2,450	2,450	629	1,821	8,350	2,095[g]	1,074	6,221
Tracy Hills At-Grade	✓	Under Construction	5,900							

(a) Firm booster pumping capacity was defined as the total booster pump station capacity with the largest pump out of service and firm groundwater pumping capacity assumed that 20 percent of the City's wells would be out of service (i.e., approximately two wells: one in Zone 1, and one at the JJWTP).

(b) Maximum day water demands should be met through firm treated water pumping capacity. The firm pumping capacity available from NEI and Linne is limited to 17 mgd based on the available water supply from the SCWSP.

(c) Pumping capacity surplus (deficit) is the total firm pumping capacity minus the greater of the maximum day demand with required fire flow event(s) or peak hour demand.

(d) Wells 1-4 located at JJWTP pump directly into the Chlorine Contact Basin or Clearwell #2; therefore, these wells do not provide additional pumping capacity to the system.

(e) Equal to maximum day demand plus a 1,500 gpm Single Family Residential fire flow and a simultaneous 4,500 gpm Industrial fire flow.

(f) Patterson Pass BPS is inactive since the Cordes BPS is now operating; therefore, it does not provide additional pumping capacity to the system.

(g) Equal to maximum day demand plus a 1,500 gpm Single Family Residential fire flow.

Table 8-11. Comparison of Available, Proposed, and Required Firm Pumping Capacity at Buildout

Pump Station		Backup Power	Status	Firm Capacity[a], gpm	Total Firm Pumping Capacity from Supply Sources, gpm[b]	Buildout Maximum Day Demand, gpm	Pumping Capacity from Supply Sources Surplus (Deficit), gpm[b]	Total Firm Pumping Capacity, gpm	Buildout Maximum Day Demand with Fire Flow Event(s), gpm	Buildout Peak Hour Demand, gpm	Pumping Capacity Surplus (Deficit), gpm[c]
Zones 1 and 2											
NEI		✓	Active	4,200	44,106	29,010	15,096	57,995	35,754[e]	49,487	8,508
Zone 1		✓	Active	12,000							
Lincoln Well		✓	Active	2,500							
Lewis Manor Well		✓	Inactive	--							
Park and Ride Well		✓	Active	2,000							
Ball Park Well		✓	Active	2,500							
Well 8			Active	--							
Linne		✓	Active	14,595							
Zone 2		✓	Active	13,300							
Well 1[d]		✓	Active	--							
Well 2[d]			Active	--							
Well 3[d]			Active	--							
Well 4[d]			Active	--							
Westside Ranch Tank Zone 1		✓	Proposed	4,500							
Westside Ranch Tank Zone 2		✓	Proposed	2,400							
Westside Ranch ASR Well		✓	Proposed	--							
Wainwright ASR Well		✓	Proposed	--							
Larsen Park ASR Well		✓	Proposed	--							
Zone 3 and Ellis Reduced Zone											
Cordes		✓	Active	6,150	4,470	3,435	1,035	10,620	9,590[e]	5,859	1,185
Patterson Pass[f]		✓	Inactive	--							
Zone 3[g]	Clearwell #2 Pumps	✓	Active	2,970							
	Clearwell #3 Pumps	✓	Proposed	1,500							
Ellis ASR Well		✓	Proposed	--							
Zone 4											
Zone 4[h]		✓	Active	3,675	3,675	2,018	1,657	11,875	6,432[i]	3,443	5,357
Tracy Hills At-Grade[h]		✓	Under Construction	8,200							
Zone 5											
Zone 5[j]		✓	Proposed	2,410	2,410	1,491[k]	919	NA			
Zone 6											
Zone 6[l]		✓	Proposed	550	550	526	24	NA			

(a) Firm booster pumping capacity was defined as the total booster pump station capacity with the largest pump out of service and firm groundwater pumping capacity assumed that 20 percent of the City's wells would be out of service (i.e., approximately two wells: one in Zone 1, and one at the JJWTP). It was assumed that the proposed ASR wells do not contribute to pumping capacity in a normal hydrologic year.

(b) Maximum day water demands should be met through firm treated water pumping capacity. The firm pumping capacity available from NEI and Linne is limited to 17 mgd based on the available water supply from the SCWSP.

(c) Pumping capacity surplus (deficit) is the total firm pumping capacity minus the greater of the maximum day demand with required fire flow event(s) or peak hour demand.

(d) Wells 1-4 located at JJWTP pump directly into the Chlorine Contact Basin or Clearwell #2; therefore, these wells do not provide additional pumping capacity to the system.

(e) Equal to maximum day demand plus a 1,500 gpm Single Family Residential fire flow and a simultaneous 4,500 gpm Industrial fire flow.

(f) Patterson Pass BPS is inactive since the Cordes BPS is now operating; therefore, it does not provide additional pumping capacity to the system.

(g) Zone 3 pumps on Clearwell #2 and Clearwell #3 are considered a single booster pump station for purposes of determining firm capacity.

(h) Buildout firm capacity includes the capacity of an additional pump to be installed after 2025.

(i) Equal to maximum day demand plus a 4,500 gpm Industrial fire flow.

(j) Based on previous recommendations from the Tracy Hills Water Study prepared by RJA (December 2014). Water demands from Zone 5 (formerly Tracy Hills Zone 4) and Zone 6 (formerly Tracy Hills Zone 5) will be served from a single Zone 5 BPS located at the JJWTP. Water supplied by the Zone 5 BPS will be subsequently boosted by the Zone 6 BPS to serve Zone 6 water demands.

(k) Equal to maximum day demands for Zone 5 and Zone 6.

(l) Recommended firm pump station capacity is larger than previously recommended in Tracy Hills Water Study prepared by RJA (December 2014). Required firm capacity should be confirmed before Zone 6 begins development.

8.4.4 Critical Supply Facilities

All critical pumping facilities should be equipped with an on-site, emergency backup power generator to provide pumping capacity during a power outage. Critical pumping facilities are defined as those facilities that provide service to pressure zone(s) and/or service area(s) which do not have sufficient emergency storage, and that meet the following criteria:

- The largest pumping facility that provides water to a particular pressure zone and/or service area,
- A facility that provides the sole source of water to single or multiple pressure zones and/or service areas,
- A pumping facility that provides water from a supply turnout, or
- A pumping facility that provides water from key groundwater supply wells (depends on capacity, quality, and location).

As shown previously in Table 8-11, most of the City's existing pumping facilities have on-site emergency backup power installed, except for Wells 2 through 4 and Well 8[4]. As shown in Table 8-11, proposed future pumping facilities for the buildout potable water system are assumed to have an on-site backup power generator installed to improve supply reliability.

8.4.5 SCADA System Improvements

As stated in Chapter 7, the City does not have SCADA installed on PRS #1-#6. As the City's water system continues to grow and serve larger water demands, the ability to operate the system efficiently and properly regulate flow between zones will be essential. PRS #1-#6 can provide a significant amount of water supply from Zone 2 to Zone 1 and should be monitored to provide operators with complete real-time system operations data. The addition of SCADA system monitoring at PRS #1-#6 would provide operators with the ability to operate the City's water system more efficiently between the use of the Zone 1 BPS and the pressure regulating stations to maintain pressures in Zone 1. The addition of SCADA system monitoring to PRS #1-#6 would also provide the ability to create diurnal curves that are specific to each zone, which will help provide a better understanding of water demand patterns within each zone. Therefore, it is recommended that SCADA system monitoring of flow and pressure be installed at PRS #1-#6 to provide operators with additional understanding and flexibility in system operations.

Similarly, SCADA improvements at Well 8 to allow remote operation is also a recommended improvement to provide additional operational flexibility as the system continues to grow.

All new booster pump stations, storage tanks, groundwater wells, and PRVs should be equipped with SCADA for remote monitoring and operation.

[4] Well 8 currently has a plug-in adapter installed to allow interconnection to a portable generator. On-site backup power is not recommended due to site constraints.

8.4.6 Update of Future System Facilities in the Hydraulic Model

Facilities recommended based on the future potable water system facility evaluation were incorporated into the existing hydraulic model (including existing system improvements described in Chapter 7) to evaluate the performance of the proposed future potable water system. Major transmission pipelines were also added to distribute water to new demand areas. In addition, some smaller distribution pipelines were added to provide additional detail and system looping. The preliminary locations and sizes of some of the future facilities and pipelines were based on the following previously prepared reports/technical memoranda and/or data provided by the developers:

- Draft Peer Review and Hydraulic Evaluation for Tracy Hills Phase 1B and 1C (May 22, 2019), prepared by West Yost Associates.
- Tracy Hills Water Study Technical Memorandum (December 5, 2014), prepared by Ruggeri-Jensen-Azar.
- Water System Evaluation for the City of Tracy's Initial Pressure Zone 3 Area (June 3, 2013), prepared by West Yost Associates.
- Ellis Specific Plan Water System Analysis - Phase 1 (August 13, 2015), prepared by West Yost Associates.
- Hydraulic Evaluation of Ellis Specific Plan Phase 2 – The Gardens (December 9, 2016), prepared by West Yost Associates.
- Draft Hydraulic Evaluation of Ellis Specific Plan Phase 3 – Town and Country (July 11, 2019), prepared by West Yost Associates.
- Design Recommendations for Lammers Road Pipeline (September 25, 2019), prepared by West Yost Associates.
- Hydraulic Evaluation of International Park of Commerce (IPC) Building 25 (July 28, 2017), prepared by West Yost Associates.
- Hydraulic Evaluation of International Park of Commerce (IPC) Buildings 9, 10, and 14 (May 3, 2018), prepared by West Yost Associates.
- Hydraulic Evaluation of Valpico and MacDonald Apartments (July 16, 2012), prepared by West Yost Associates.
- Hydraulic Evaluation of Tracy Village Specific Plan (February 16, 2018), prepared by West Yost Associates.
- Hydraulic Evaluation of Avenues Specific Plan (April 30, 2018), prepared by West Yost Associates.
- Hydraulic Evaluation of South Lammers Road Development (May 20, 2015), prepared by West Yost Associates.
- Berg Road Properties Development Water Distribution System Analysis (January 14, 2016), prepared by BlackWater Consulting Engineers, Inc.

- Improvement Plans for Kagehiro Phase 1 and Kagehiro Phase 2 (received on September 3, 2019) prepared by VVH Consulting Engineers.
- Water Exhibit of International Park of Commerce for Prologis (received June 2018) provided by Kier and Wright.

The proposed locations and sizing of facilities and pipelines described in the documents listed above were incorporated into the future potable water system hydraulic model. Locations of other future facilities and pipelines were based on the 2012 WSMP and recommendations from City staff. The 2012 WSMP facilities were modified as needed to account for existing potable water system facilities constructed since the 2012 WSMP, updated planning data, and the updated projected future water demands.

It should be noted that the elevations of new junctions that have been added into the hydraulic model were assigned based on their spatial location and the closest corresponding elevation contour.[5] These elevations may not accurately represent the actual elevation of water services since grading will typically occur during the construction of a new development project. However, these preliminary junction elevations are the best estimates of the proposed service elevations at this time. As future development projects are constructed, service elevations for each future development should be confirmed to correspond to the service elevation ranges developed for each pressure zone, as identified in Table 8-1, to meet the minimum and maximum system pressure criteria.

In addition to proposed future facilities, some existing facilities which were not included in the existing system hydraulic model (refer to *Section 7.3.2* for more information) were added to the future water system model. These facilities include:

- Zone 4 infrastructure, including the Zone 4 BPS, Zone 4 PRS, and major transmission and distribution pipelines
- Northington Drive PRV
- Some pipelines in the IPC development
- Some pipelines in the Ellis Specific Plan development

The Tracy Hills At-Grade Tank and BPS, which has been designed and is currently under construction, was also included in the future water system hydraulic model.

[5] Digital topology information was extracted as a GIS shapefile using the software program TopoDepot®. TopoDepot® provides elevation contours generated from the USGS National Elevation Database Digital Elevation Model.

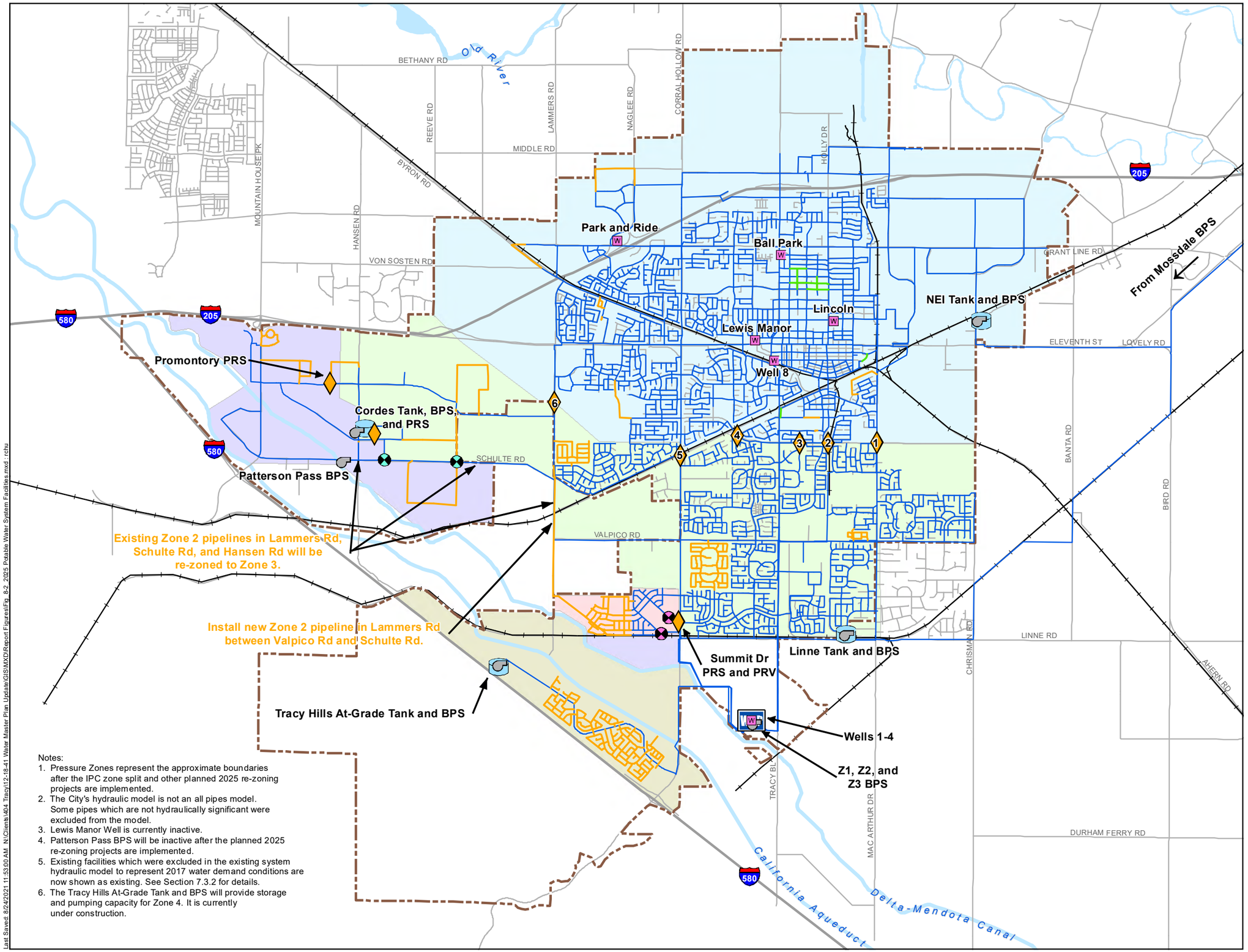
To provide emergency and/or peaking water supply between pressure zones, the following future interconnections are recommended and were incorporated into the hydraulic model to allow for the flow of water between pressure zones[6]:

- Westside PRS – Supplies water from Zone 2 to Zone 1
- Avenues PRV – Supplies water from the Ellis Reduced Zone to Zone 2
- One (1) additional Ellis PRV – Supplies water from Zone 3 to the Ellis Reduced Zone
- Zone 4 PRV – Supplies water from Zone 5 to Zone 4
- Two (2) Zone 5 PRVs – Supply water from Zone 6 to Zone 5

All of the facilities discussed above were included in the buildout water system hydraulic model, however, not all future facilities were needed to serve 2025 demands. The 2025 water system model only includes future pipelines in areas expected to develop by 2025 (refer to Chapter 3 and Appendix A for details). None of the recommended future tanks, pump stations, or interconnections between pressure zones were included in the 2025 water system model. Figure 8-2 illustrates the locations of the proposed 2025 facilities and pipeline alignments.

Figure 8-3 illustrates the locations of the proposed buildout facilities and pipeline alignments. Preliminary pipeline sizes are not shown on Figure 8-2, as they will be refined based on hydraulic evaluations discussed below in *Section 8.5 Future Potable Water System Performance Evaluation*. Recommended pipeline sizes are presented in *Section 8.6 Summary of Recommended Future Potable Water System Improvements*.

[6] Pressure Regulating Stations (PRS) contain a combination of one pressure sustaining valve (PSV) and one pressure reducing valve (PRV) to control the flow of water between pressure zones.



Notes:
1. Pressure Zones represent the approximate boundaries after the IPC zone split and other planned 2025 re-zoning projects are implemented.
2. The City's hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.
3. Lewis Manor Well is currently inactive.
4. Patterson Pass BPS will be inactive after the planned 2025 re-zoning projects are implemented.
5. Existing facilities which were excluded in the existing system hydraulic model to represent 2017 water demand conditions are now shown as existing. See Section 7.3.2 for details.
6. The Tracy Hills At-Grade Tank and BPS will provide storage and pumping capacity for Zone 4. It is currently under construction.

N

0 2,500 5,000

Scale in Feet

Symbology

Proposed 2025 Facilities

- Proposed 2025 Pressure Reducing Valve
- Proposed 2025 System Pipeline

Existing Facilities

- Existing Pressure Regulating Station
- Existing Pressure Reducing Valve
- Existing Booster Pump Station
- Existing Groundwater Well
- Existing Storage Tank
- WTP John Jones Water Treatment Plant
- Existing System Pipeline
- Proposed Existing System Pipeline CIP

Pressure Zone

- Zone 1
- Zone 2
- Zone 3
- Ellis Reduced Zone
- Zone 4
- Sphere of Influence

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Figure 8-2

2025 Potable Water System Facilities

City of Tracy
Water System Master Plan Update

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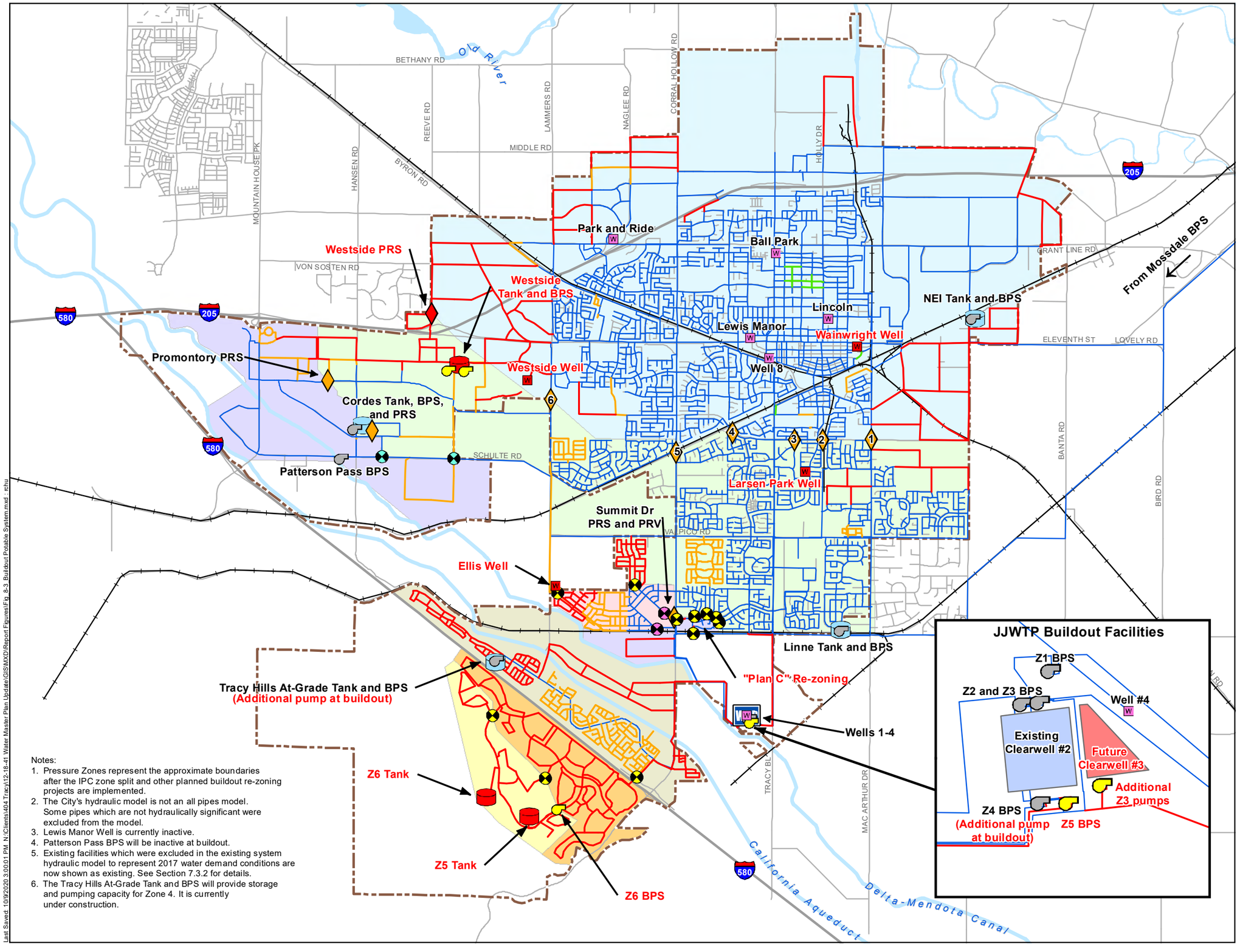

Notes:
1. Pressure Zones represent the approximate boundaries after the IPC zone split and other planned buildout re-zoning projects are implemented.
2. The City's hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.
3. Lewis Manor Well is currently inactive.
4. Patterson Pass BPS will be inactive at buildout.
5. Existing facilities which were excluded in the existing system hydraulic model to represent 2017 water demand conditions are now shown as existing. See Section 7.3.2 for details.
6. The Tracy Hills At-Grade Tank and BPS will provide storage and pumping capacity for Zone 4. It is currently under construction.

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N

0 2,500 5,000

Scale in Feet

Symbology

Proposed Buildout Facilities

- Buildout Pressure Regulating Station
- Buildout Pressure Reducing Valve
- Buildout Booster Pump Station
- Buildout Groundwater Well
- Buildout Storage Tank
- Buildout System Pipeline

Existing and 2025 Facilities

- Existing Pressure Regulating Station
- Existing Pressure Reducing Valve
- Proposed 2025 Pressure Reducing Valve
- Existing Booster Pump Station
- Existing Groundwater Well
- Existing Storage Tank
- John Jones Water Treatment Plant
- Existing System Pipeline
- Proposed 2025 System Pipeline
- Proposed Existing System Pipeline CIP

Pressure Zone

- Zone 1
- Zone 2
- Zone 3
- Ellis Reduced Zone
- Zone 4
- Zone 5
- Zone 6
- Sphere of Influence

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Figure 8-3

Buildout Potable Water System Facilities

City of Tracy
Water System Master Plan Update

8.5 FUTURE POTABLE WATER SYSTEM PERFORMANCE EVALUATION

To evaluate the performance of the City's proposed future potable water system, additional projected potable water demands were first allocated into the updated future system hydraulic model (see Tables 8-2 through 8-4). This updated hydraulic model was then used to evaluate the City's 2025 and buildout potable water backbone transmission and distribution systems and their ability to meet the City's recommended performance and operational criteria under future maximum day demand plus fire flow and peak hour demand scenarios.

The performance criteria recommended for and results of the future potable water backbone transmission and distribution system evaluation are discussed below. Recommendations for supporting projected future potable water demands and addressing any deficiencies identified within the future potable water backbone transmission and distribution system are summarized in *Section 8.6 Summary of Recommended Future Potable Water System Improvements*.

8.5.1 Future Water System Performance Criteria

Steady state hydraulic analyses using the updated future potable water system hydraulic model were conducted to help identify areas of the future potable water system that do not meet the recommended system performance criteria as presented previously in Chapter 6. The results of the future potable water system evaluation are presented below for the following potable water demand scenarios:

- Peak Hour Demand—A peak hour flow condition was simulated for the future water distribution facilities to evaluate their capability to meet a peak hour demand scenario. Peak hour demands are met by the combined supply from treated surface water, storage tanks, and groundwater.
- Maximum Day Demand plus Fire Flow—To evaluate the future potable water system under the maximum day demand plus fire flow scenario, individual fire flow demands were first assigned and simulated at various locations within the City's water service area. InfoWater's "*Available Fire Flow Analysis*" tool was used to determine the available fire flow while meeting the maximum day demand plus fire flow performance criteria. Additional fire flow simulations were also performed to simulate a condition equal to a maximum day demand with two concurrent fire flow events in the larger pressure zones. Maximum day plus fire flow demands are met by the combined supply from treated surface water, storage tanks, and groundwater.

The performance criteria and results for each scenario are discussed in more detail below.

8.5.1.1 Peak Hour Demand Scenario

As shown in Tables 8-2 and 8-3, the peak hour demands for the 2025 and buildout water service areas were calculated to be 38,467 gpm (55.4 mgd) and 61,333 gpm (88.3 mgd), respectively. Peak hour demand represents a peaking factor of 2.9 times the average day demand. During a peak hour demand scenario, a minimum pressure of 40 psi must be maintained throughout the water system. In addition, maximum head loss per thousand feet of distribution main should not exceed 7 ft/kft and maximum velocities should not exceed 8 fps. For transmission mains, maximum head loss per

thousand feet of transmission main should not exceed 3 ft/kft and maximum velocities should not exceed 6 fps. Details of the system pressures and pipeline characteristics as simulated in the hydraulic model under the peak hour demand scenario are discussed below.

8.5.1.2 Maximum Day Demand plus Fire Flow Scenario

As shown in Tables 8-2 and 8-3, the maximum day demands for the 2025 and buildout water service areas were calculated to be 22,550 gpm (32.5 mgd) and 35,954 gpm (51.8 mgd), respectively. Maximum day demand represents a peaking factor of 1.7 times the average day demand. Fire flow demands were assigned and simulated at various locations within the City's water service area to determine if the minimum residual pressure criterion of 20 psi could be met during a maximum day demand plus fire flow scenario. Fire flow demands in future development areas were assigned based on proposed land use, and are summarized below in Table 8-12.

Table 8-12. Recommended Fire Flow Requirements[a]

Land Use Category	Fire Flow, gpm	Duration, hours
Single Family Residential[b]	1,500	2
Multi-Family Residential[c]	2,500	2
Commercial/Office[d]	3,500[e]	4
Industrial	4,500[e]	4
Institutional[f]	4,500[e]	4

(a) Specific fire flow requirements were determined from Table B105.1 of the 2016 CFC, and depend on construction type and fire flow calculation area. Non-residential fire flow requirements are based on the assumption that an automatic sprinkler system has been installed. See Table 6-1 for further explanation of how the fire flow requirements were developed.
(b) Includes Very Low and Low Density Residential land uses.
(c) Includes Medium and High Density Residential land uses.
(d) Includes Commercial, Office, Downtown, and Village Center land uses.
(e) Fire flow includes a 500 gpm demand for on-site sprinkler flow, which is not included in the recommended fire flow storage volume.
(f) Includes Medical, Public Facilities, School, Airport, Church, and Cemetery land uses.

The City's water system should also have the capability to meet a system demand condition equal to the occurrence of a maximum day demand with two concurrent fire flow events in the larger pressure zones (Zone 1, Zone 2, and Zone 3). It is assumed that the two fire flow events will consist of one smaller single family residential fire flow combined with another larger industrial fire flow. This conservative assumption of two simultaneous fire flow demands will help stress the City's water system, and determine if the future water system can provide reliable service during high demand conditions. Consequently, two concurrent fire flow demands were simulated at various locations within the City's water service area during a maximum day demand condition to determine if the minimum residual pressure criterion of 20 psi could be met during simultaneous fire flow events.

8.5.2 Recommended Improvements Criteria

The performance criteria described above was used to evaluate the future potable water system during peak hour demand and maximum day demand plus fire flow scenarios. The future potable water system is expected to deliver peak hour flow and maximum day demand plus fire flow within the acceptable pressure, velocity and head loss ranges as identified in the performance criteria presented in Chapter 6. However, the system was evaluated using pressure as the primary criterion. If necessary, recommended improvements needed to comply with the performance criteria were added to the future potable water system to fix any deficiencies found and are discussed below.

8.5.3 2025 Water System Evaluation Results

The results from the 2025 hydraulic model for the peak hour demand and maximum day demand plus fire flow analyses are presented below.

8.5.3.1 2025 Peak Hour Demand Scenario

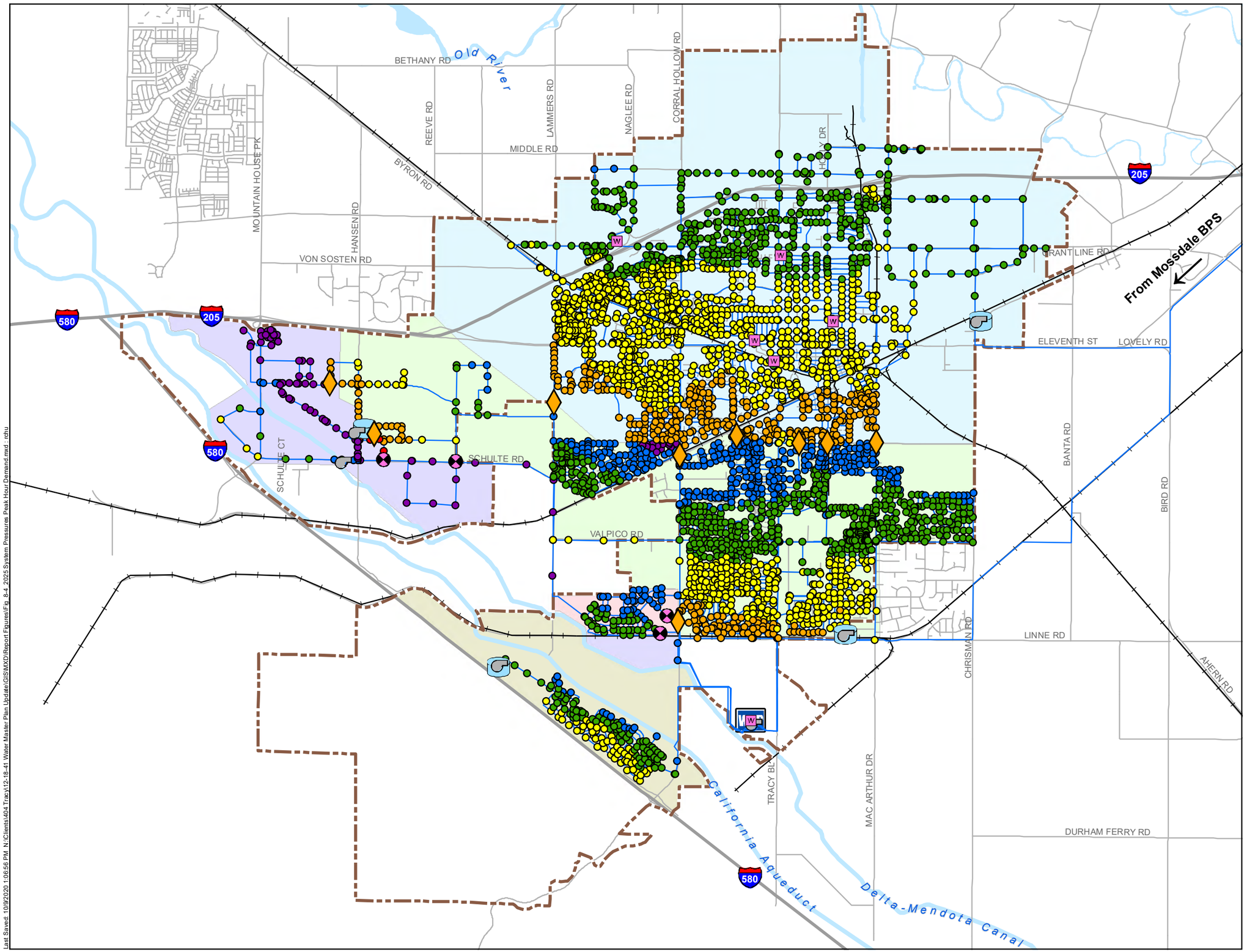
During a peak hour demand scenario, results indicate that the 2025 potable water system could adequately deliver peak hour demands to meet the City's minimum pressure criterion of 40 psi at all existing and future service locations as illustrated on Figure 8-4. Under this scenario, system pressures at service locations ranged from 40 to 113 psi. It should be noted that, per the California Plumbing Code, any individual service connection pressure exceeding 80 psi will require the installation of an individual PRV. As discussed previously, new junction elevations in the hydraulic model may not accurately represent the actual elevation of water services since grading will typically occur during the construction of a new development. Therefore, the system pressures simulated by the hydraulic model are best estimates of the proposed service pressures at this time. It is recommended that as the water system infrastructure for future development projects are designed, the proposed service elevations for each future development project should correspond to the service elevation ranges developed for each pressure zone (see Table 8-1) and that additional hydraulic analyses should be performed to confirm that the recommended minimum and maximum system pressure criteria can be met.

As illustrated on Figure 8-5, there is one location within the 2025 system where the distribution system pipelines did not meet the maximum velocity criterion of 8 fps during a peak hour demand scenario. The following list details pipelines in the 2025 potable water system that exceeded the maximum velocity criterion and summarizes any recommended improvements.

- The existing 12-inch diameter distribution pipelines which cross the railroad tracks between Sixth Street and Tracy Boulevard east of the 36-inch diameter transmission main tie-in had a velocity of 11.4 fps.

  Recommendation:

  It is recommended that the existing 12-inch diameter pipelines located between Sixth Street and Tracy Boulevard east of the 36-inch diameter transmission tie-in be replaced with a new 18-inch diameter pipeline. The recommended diameter of the new pipeline is sized to accommodate buildout demands.



0 2,500 5,000

Scale in Feet

Symbology

Peak Hour Pressure

- Less than 40 psi
- 40 psi to 50 psi
- 50 psi to 60 psi
- 60 psi to 70 psi
- 70 psi to 80 psi
- Greater than 80 psi

- Pressure Regulating Station
- Pressure Reducing Valve
- Booster Pump Station
- Groundwater Well
- Storage Tank
- WTP John Jones Water Treatment Plant
- Pipeline

Pressure Zone

- Zone 1
- Zone 2
- Zone 3
- Ellis Reduced Zone
- Zone 4
- Sphere of Influence

Notes:

1. The City's hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.
2. Per the California Plumbing Code, services which experience pressures exceeding 80 psi are required to be fitted with a pressure reducing valve.

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Figure 8-4

2025 System Pressures Peak Hour Demand

City of Tracy
Water System Master Plan Update

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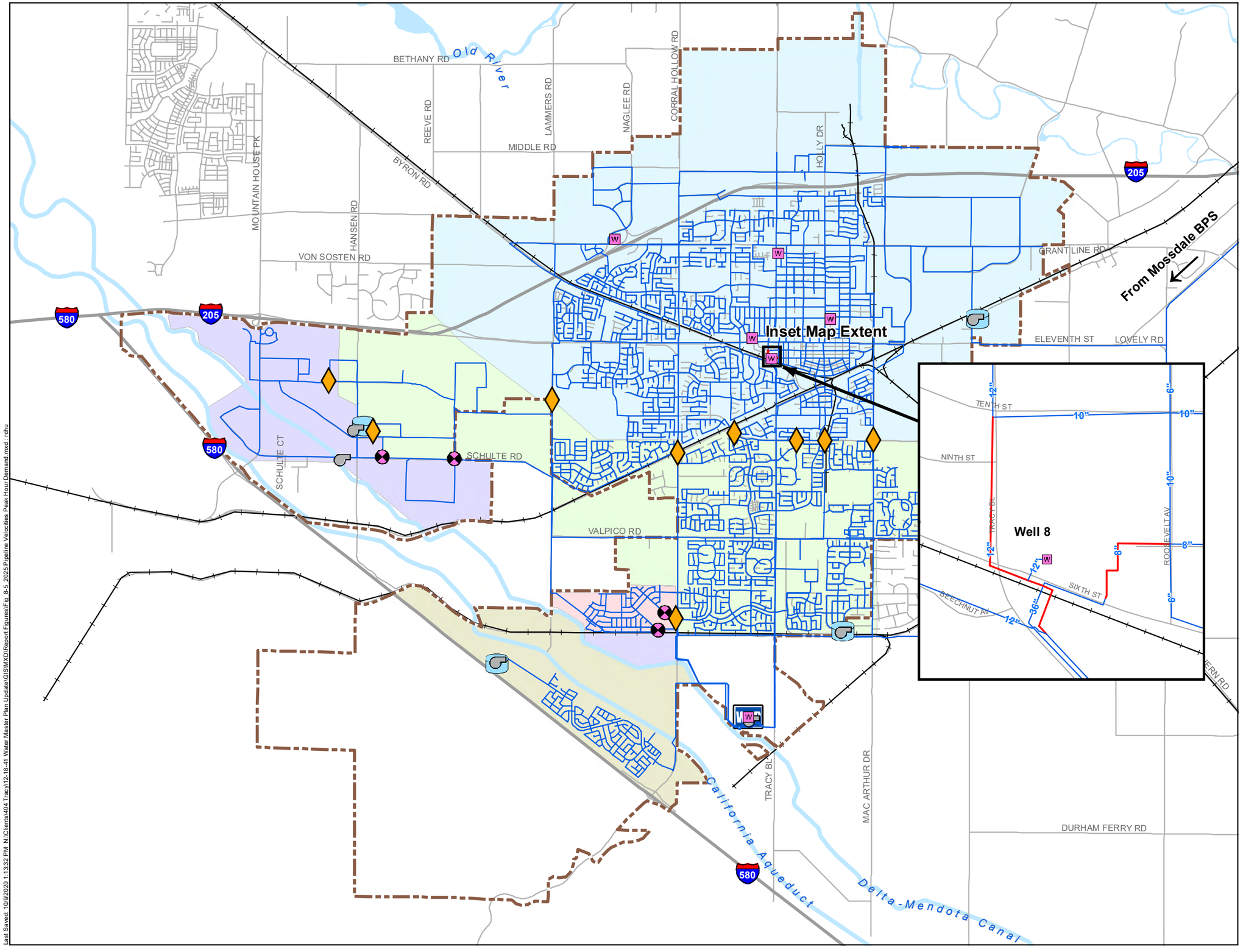

0 2,500 5,000

Scale in Feet

Symbology

Pipeline Diameter ≥ 18-inches

- Velocity > 6 fps
- Velocity ≤ 6 fps

Pipeline Diameter < 18-inches

- Velocity > 8 fps
- Velocity ≤ 8 fps
- Pressure Regulating Station
- Pressure Reducing Valve
- Booster Pump Station
- Groundwater Well
- Storage Tank
- WTP John Jones Water Treatment Plant

Pressure Zone

- Zone 1
- Zone 2
- Zone 3
- Ellis Reduced Zone
- Zone 4
- Sphere of Influence

Notes:
1. The City's hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.

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Figure 8-5

2025 Pipeline Velocities Peak Hour Demand

City of Tracy
Water System Master Plan Update

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- The existing 12-inch diameter distribution pipelines located in Sixth Street west of the 36-inch diameter transmission main tie-in and in Tracy Boulevard between Sixth Street and Tenth Street, had a velocity of 9.4 fps.

  Recommendation:

  It is recommended that the existing 12-inch diameter pipeline in Sixth Street west of the 36-inch diameter transmission main tie-in, the 12-inch diameter pipeline in Tracy Boulevard between Sixth Street and Eleventh Street, and a 40 ft section of existing 12-inch diameter pipeline in Eleventh Street, be replaced with new 24-inch diameter pipeline. The recommended diameter of the new pipeline is sized to accommodate buildout demands.

8.5.3.2 2025 Maximum Day Demand plus Fire Flow Scenario

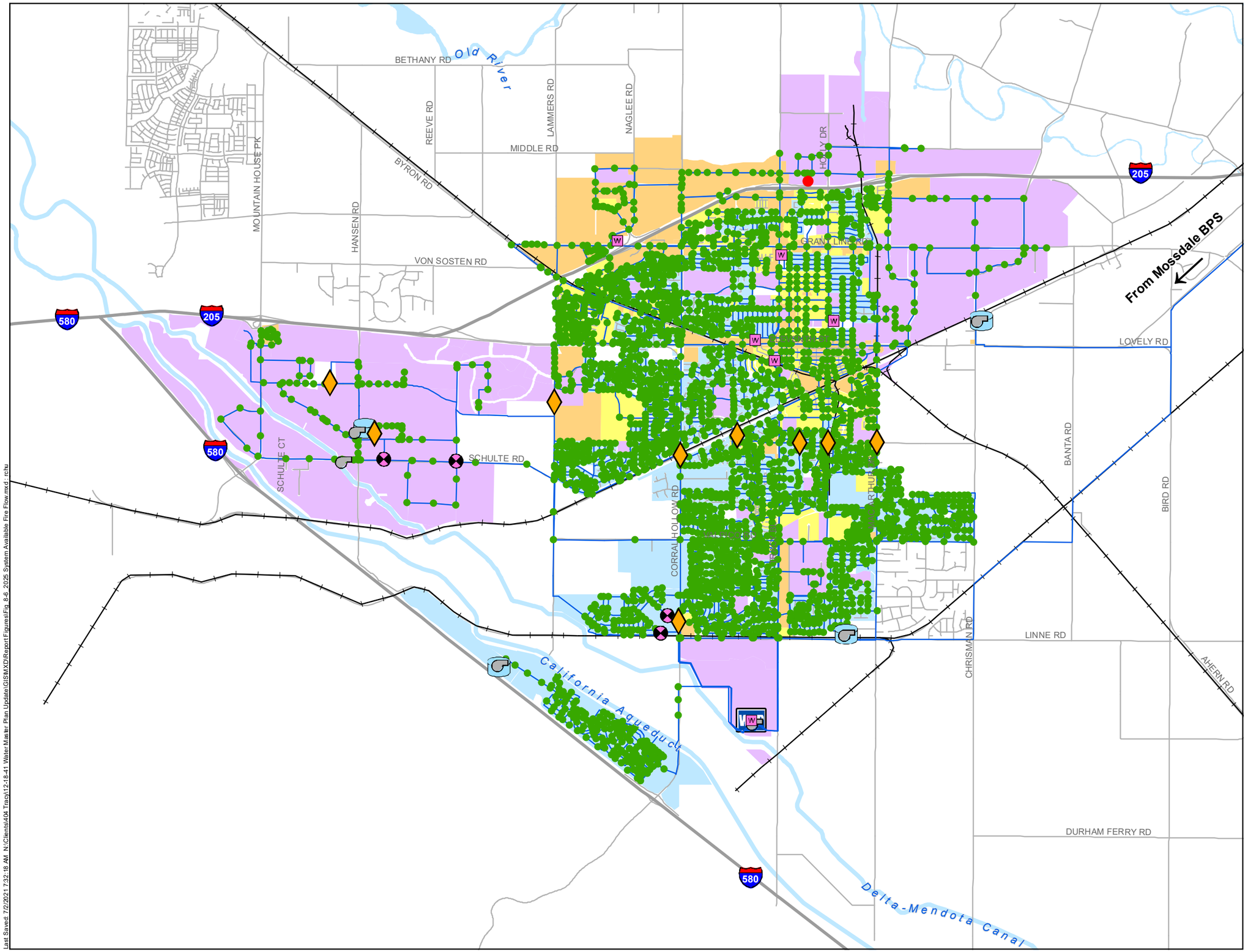
Fire flow demands were assigned based on the fire flow requirements summarized in Table 8-12 and simulated at various locations within the City's 2025 water service area. InfoWater's "*Available Fire Flow Analysis*" tool was used to determine the available fire flow (while meeting the maximum day demand plus fire flow minimum residual pressure of 20 psi and the maximum velocity performance criteria in proposed pipelines of 12 fps) at each fire flow junction within the 2025 water system during a maximum day demand scenario. Figure 8-6 illustrates the results of the 2025 maximum day plus fire flow evaluation. With the exception of the hydrant located at the southern end of Rhonda Way (discussed in Chapter 7), results indicate that all evaluated locations within the model were able to meet the minimum fire flow requirements.

Six additional fire flow simulations were performed within the 2025 system hydraulic model to simulate a condition equal to a maximum day demand with two concurrent fire flow events. Figure 8-7 illustrates the locations of the additional fire flow simulations. Locations were selected within each pressure zone based on the existing and proposed land use designations and spatial distance from supply sources to stress the City's water system. As summarized in Table 8-13, results from the hydraulic model indicate that all six of the concurrent fire flow simulations met the minimum residual pressure criterion of 20 psi.

Table 8-13. Results of Additional Fire Flow Simulations for 2025 System

Pressure Zone	Location #	Fire Flow Demand, gpm[(a)]	Residual Pressure, psi
Zone 1	1	1,500	48
		4,500	30
	2	1,500	50
		4,500	44
Zone 2	3	1,500	67
		4,500	52
	4	1,500	66
		4,500	33
	5	1,500	60
		4,500	26
Zone 3	6	1,500	48
		4,500	31

(a) It is assumed that the two concurrent fire flow events will consist of one smaller Single Family Residential fire flow combined with another larger Industrial fire flow.



N

0 2,500 5,000

Scale in Feet

Symbology

Available Fire Flow

- Does Not Meet Requirement
- Meets Requirement
- Pressure Regulating Station
- Pressure Reducing Valve
- Booster Pump Station
- Groundwater Well
- Storage Tank
- WTP John Jones Water Treatment Plant
- Pipeline

Fire Flow Requirement

- 1,500 gpm
- 2,500 gpm
- 3,500 gpm
- 4,500 gpm

Notes:

1. The available fire flow shown is the maximum flow available while maintaining 20 psi residual system pressure and velocities of less than 12 fps in proposed pipelines.
2. The City's hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.

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Figure 8-6

2025 System Available Fire Flow

City of Tracy
Water System Master Plan Update

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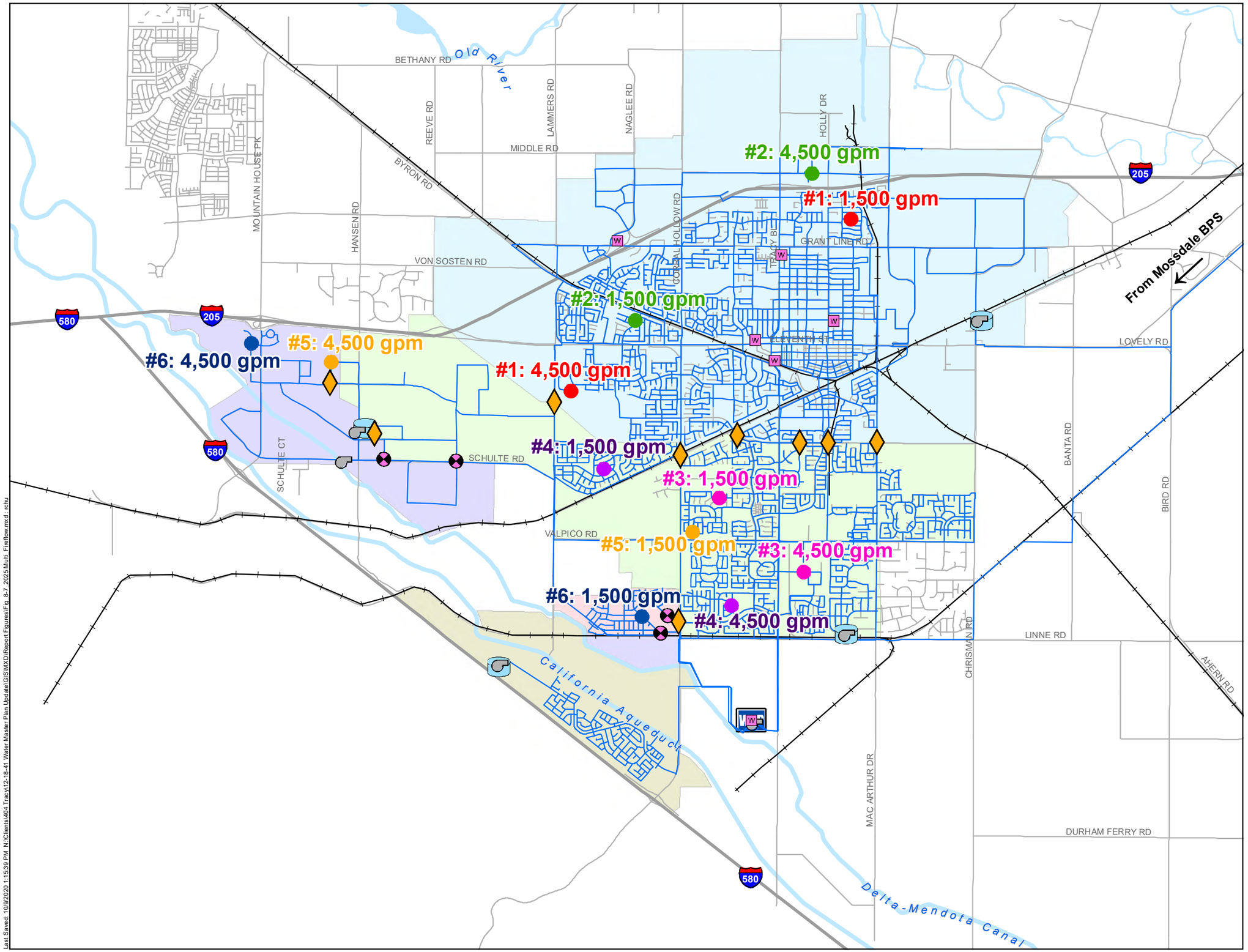

N

0 2,500 5,000

Scale in Feet

Symbology

Simultaneous Fire Flows

- Location #1
- Location #2
- Location #3
- Location #4
- Location #5
- Location #6

- Pressure Regulating Station
- Pressure Reducing Valve
- Booster Pump Station
- Groundwater Well
- Storage Tank
- WTP John Jones Water Treatment Plant
- Pipeline

Pressure Zone

- Zone 1
- Zone 2
- Zone 3
- Ellis Reduced Zone
- Zone 4

Notes:
1. The City's hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.

TRACY

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Figure 8-7

2025 System Locations of Additional Simultaneous Fire Flow Simulations

City of Tracy
Water System Master Plan Update

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8.5.4 Buildout Water System Evaluation Results

The results from the buildout hydraulic model for the peak hour demand and maximum day demand plus fire flow analyses are presented below. The results assume that the recommended 2025 pipeline replacements discussed in *Section 8.5.3.1 2025 Peak Hour Demand Scenario* are constructed before buildout.

8.5.4.1 Buildout Peak Hour Demand Scenario

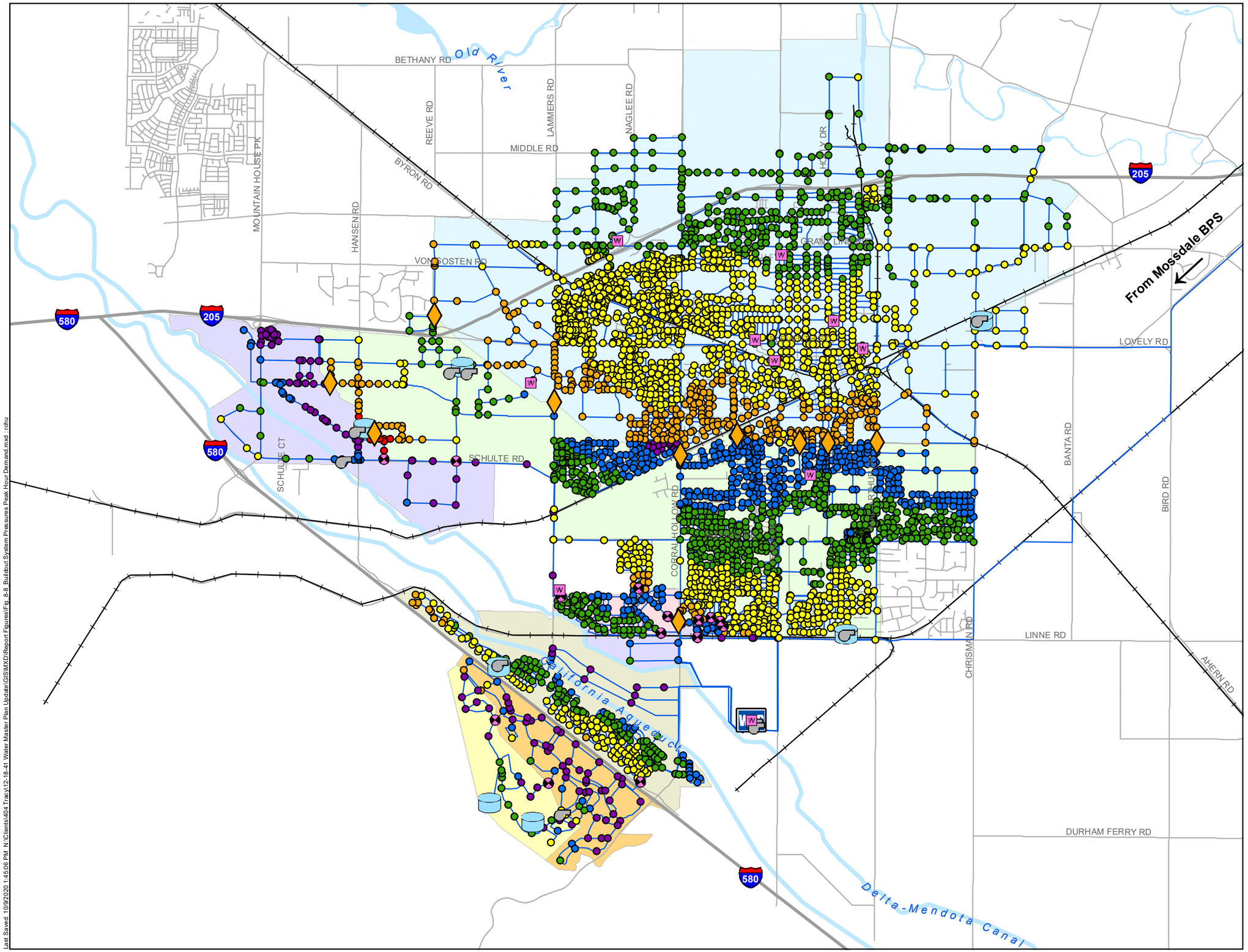
During a peak hour demand scenario, results indicate that the buildout potable water system could adequately deliver peak hour demands to meet the City's minimum pressure criterion of 40 psi at all existing and future service locations as illustrated on Figure 8-8. Under this scenario, system pressures at service locations ranged from 40 to 118 psi. It should be noted that, per the California Plumbing Code, any individual service connection pressure exceeding 80 psi will require the installation of an individual PRV. As discussed previously, new junction elevations in the hydraulic model may not accurately represent the actual elevation of water services since grading will typically occur during the construction of a new development. Therefore, the system pressures simulated by the hydraulic model are best estimates of the proposed service pressures at this time. It is recommended that as the water system infrastructure for future development projects are designed, the proposed service elevations for each future development project should correspond to the service elevation ranges developed for each pressure zone (see Table 8-1) and that additional hydraulic analyses should be performed to confirm that the recommended minimum and maximum system pressure criteria can be met.

As illustrated on Figure 8-9, there is one location within the buildout system where the transmission system pipelines did not meet the maximum velocity criterion of 6 fps during a peak hour demand scenario. The following list details pipelines in the buildout potable water system that exceeded the maximum velocity criterion and summarizes any recommended improvements.

- The existing 18-inch diameter transmission pipeline in Tracy Boulevard between Linne Road and Windsong Drive had velocities ranging from 6.0 fps to 6.5 fps.

  Recommendation:

  No mitigation is recommended for the 18-inch diameter pipeline in Tracy Boulevard because the simulated velocities are only slightly higher than the maximum criterion of 6 fps. In addition, upsizing this pipeline does not provide a significant improvement in system pressures.



N

0 2,500 5,000

Scale in Feet

Symbology

Peak Hour Pressure

- Less than 40 psi
- 40 psi to 50 psi
- 50 psi to 60 psi
- 60 psi to 70 psi
- 70 psi to 80 psi
- Greater than 80 psi

- Pressure Regulating Station
- Pressure Reducing Valve
- Booster Pump Station
- Groundwater Well
- Storage Tank
- WTP John Jones Water Treatment Plant
- Pipeline

Pressure Zone

- Zone 1
- Zone 2
- Zone 3
- Ellis Reduced Zone
- Zone 4
- Zone 5
- Zone 6

Notes:

1. The City's hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.
2. Per the California Plumbing Code, services which experience pressures exceeding 80 psi are required to be fitted with a pressure reducing valve.

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Figure 8-8

Buildout System Pressures Peak Hour Demand

City of Tracy
Water System Master Plan Update

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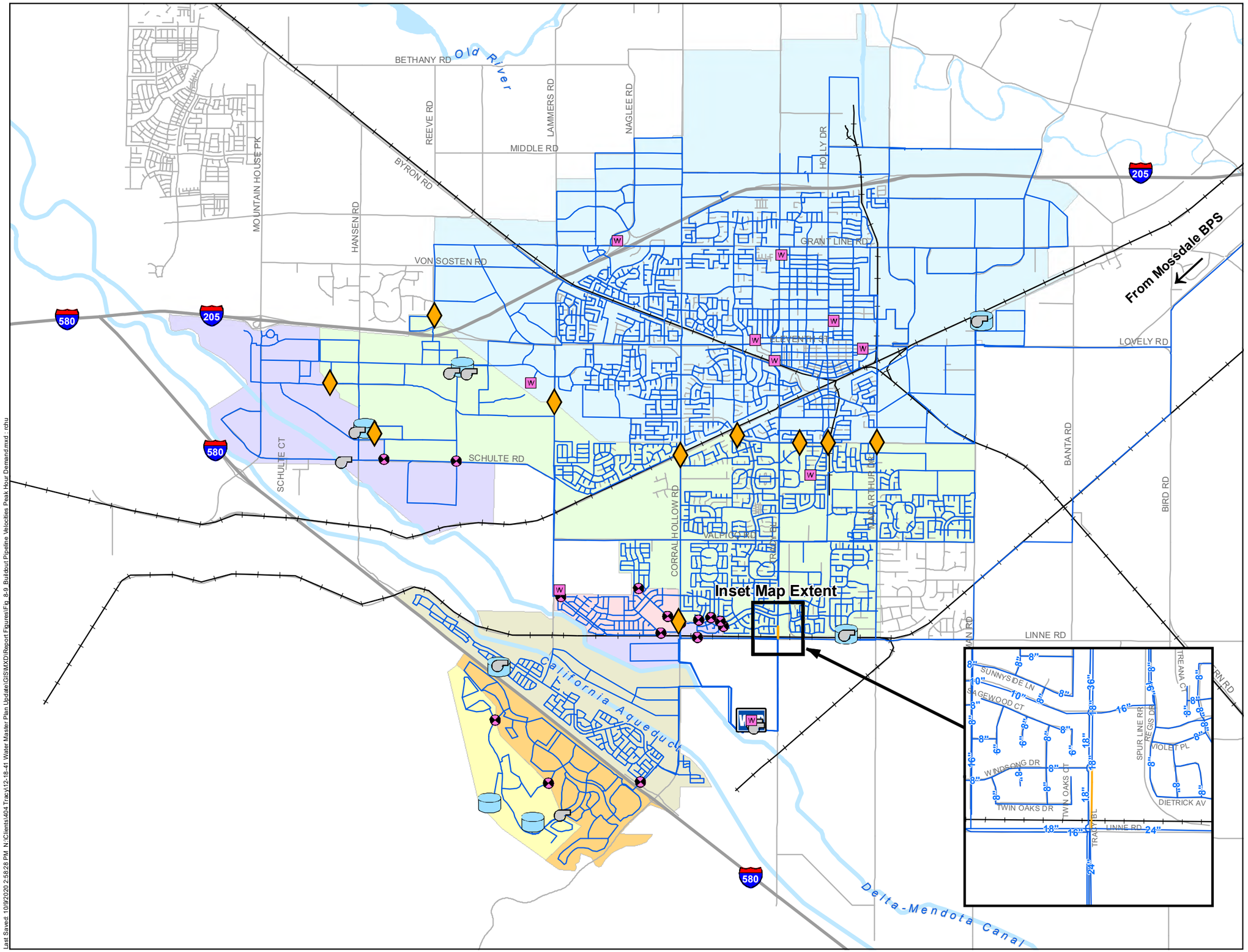

Notes:
1. The City's hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.

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Figure 8-9

Buildout Pipeline Velocities Peak Hour Demand

City of Tracy
Water System Master Plan Update

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8.5.4.2 Buildout Maximum Day Demand plus Fire Flow Scenario

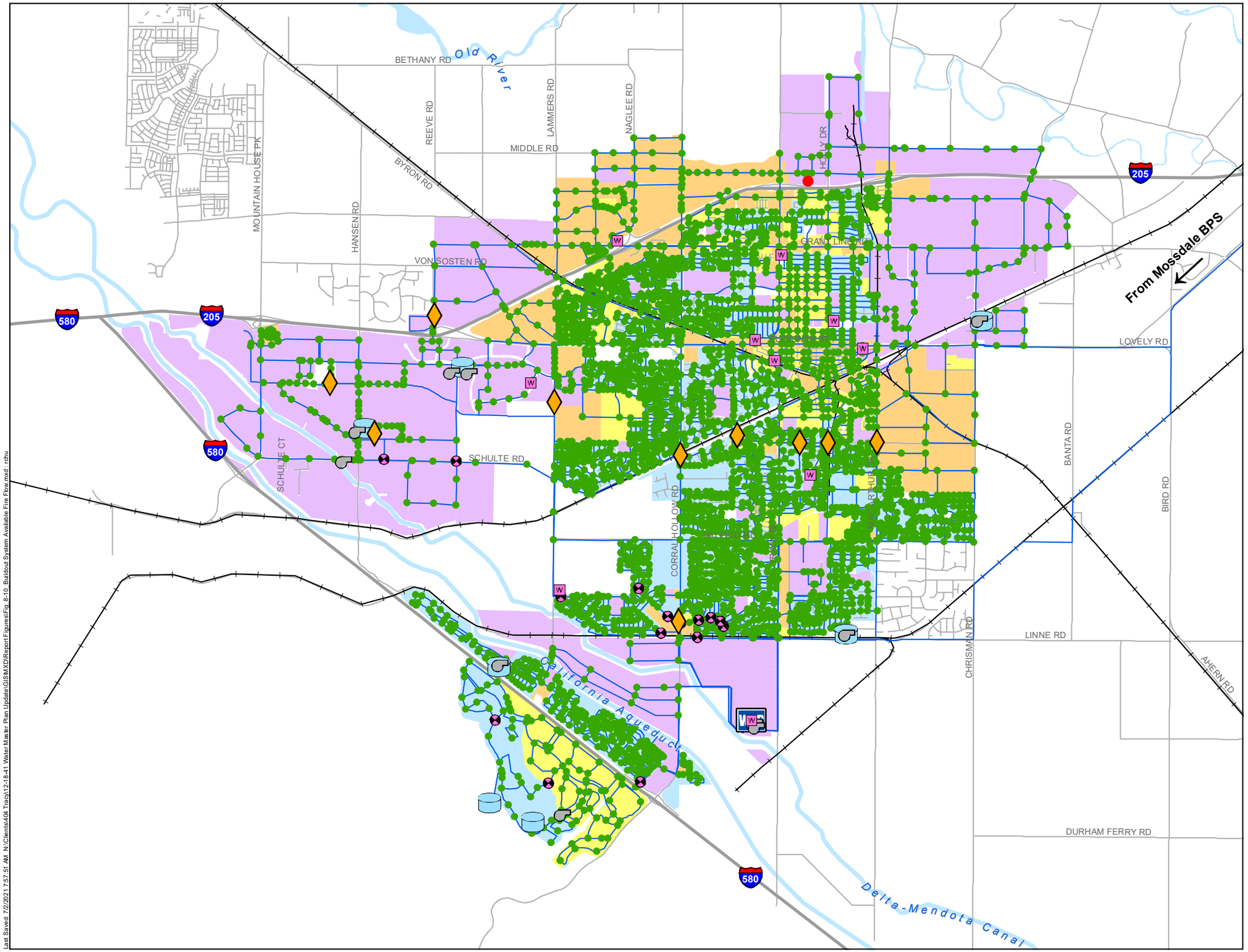
Fire flow demands were assigned based the fire flow requirements summarized in Table 8-12 and simulated at various locations within the City's buildout water service area. InfoWater's "*Available Fire Flow Analysis*" tool was used to determine the available fire flow (while meeting the maximum day demand plus fire flow minimum residual pressure of 20 psi and the maximum velocity performance criteria in proposed pipelines of 12 fps) at each fire flow junction within the buildout water system during a maximum day demand scenario. Figure 8-10 illustrates the results of the buildout maximum day plus fire flow evaluation. With the exception of the hydrant located at the southern end of Rhonda Way (discussed in Chapter 7), results indicate that all evaluated locations within the model were able to meet the minimum fire flow requirements.

Seven additional fire flow simulations were performed within the buildout system hydraulic model to simulate a condition equal to a maximum day demand with two concurrent fire flow events. Figure 8-11 illustrates the locations of the additional fire flow simulations. Locations were selected within each pressure zone based on the existing and proposed land use designations and spatial distance from supply sources to stress the City's water system. As summarized in Table 8-14, results from the hydraulic model indicate that all seven of the concurrent fire flow simulations met the minimum residual pressure criterion of 20 psi.

Table 8-14. Results of Additional Fire Flow Simulations for Buildout System

Pressure Zone	Location #	Fire Flow Demand, gpm[(a)]	Residual Pressure, psi
Zone 1	1	1,500	54
		4,500	40
	2	1,500	56
		4,500	50
	7	1,500	43
		4,500	39
Zone 2	3	1,500	68
		4,500	55
	4	1,500	68
		4,500	34
	5	1,500	61
		4,500	31
Zone 3	6	1,500	70
		4,500	60

(a) It is assumed that the two concurrent fire flow events will consist of one smaller Single Family Residential fire flow combined with another larger Industrial fire flow.



N

0 2,500 5,000

Scale in Feet

Symbology

Available Fire Flow

- Does Not Meet Requirement
- Meets Requirement
- Pressure Regulating Station
- Pressure Reducing Valve
- Booster Pump Station
- Groundwater Well
- Storage Tank
- WTP John Jones Water Treatment Plant
- Pipeline

Fire Flow Requirement

- 1,500 gpm
- 2,500 gpm
- 3,500 gpm
- 4,500 gpm

Notes:

1. The available fire flow shown is the maximum flow available while maintaining 20 psi residual system pressure and velocities of less than 12 fps in proposed pipelines.
2. The City's hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.
3. The buildout storage and pumping capacity analysis include a maximum fire flow requirement of 4,500 gpm in Zone 5 to account for the potential construction of a school in Zone 5. However, because the location of this potential school is unknown, fireflow requirements were limited to 2,500 gpm in Zone 5 in the hydraulic analysis. Once the location of the school is known, additional analysis should be performed to determine which pipelines must be upsized to accomodate the higher fire flow requirement.

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Figure 8-10

Buildout System Available Fire Flow

City of Tracy
Water System Master Plan Update

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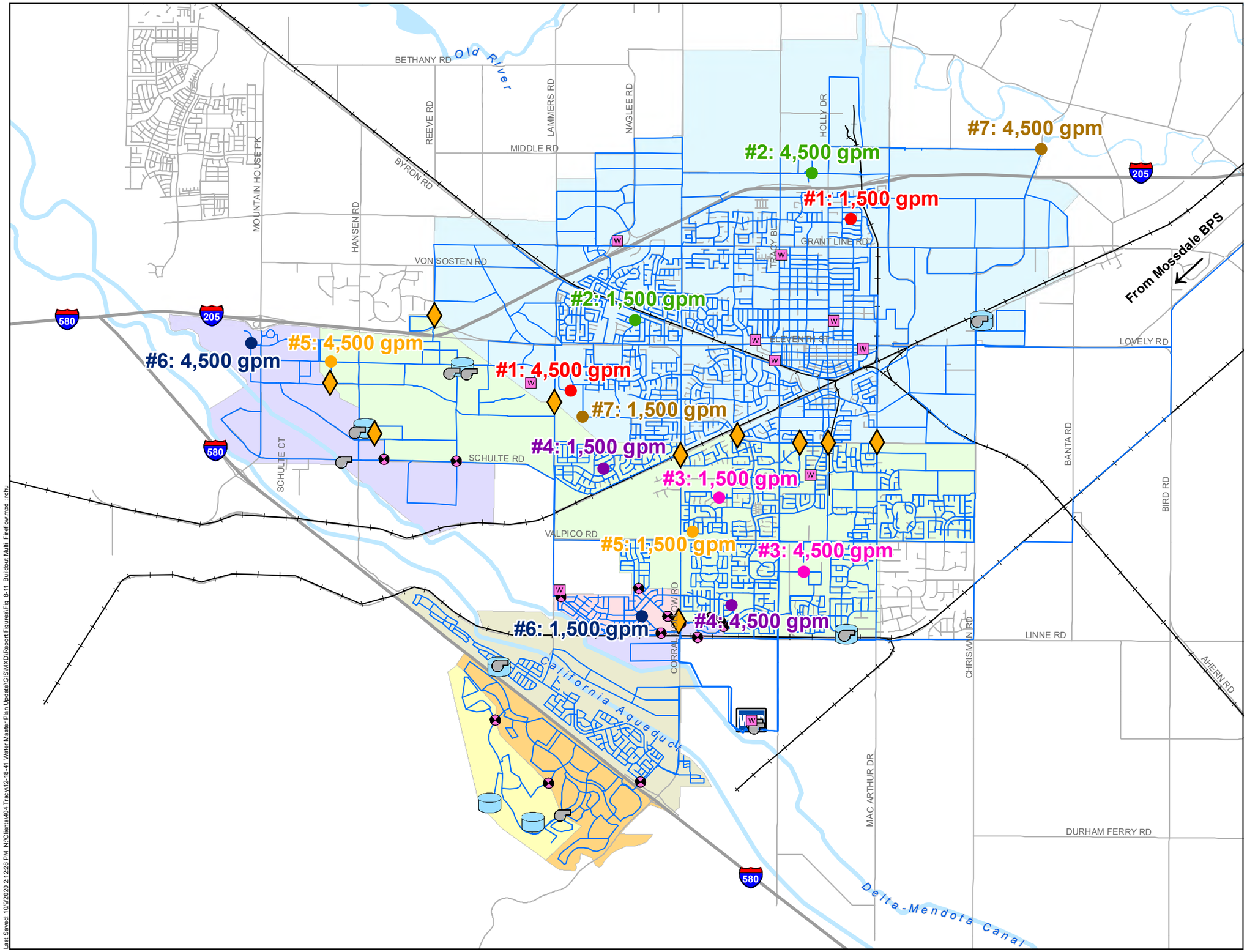

Symbology

Simultaneous Fire Flows

- Location #1
- Location #2
- Location #3
- Location #4
- Location #5
- Location #6
- Location #7
- Pressure Regulating Station
- Pressure Reducing Valve
- Booster Pump Station
- Groundwater Well
- Storage Tank
- John Jones Water Treatment Plant
- Pipeline

Pressure Zone

- Zone 1
- Zone 2
- Zone 3
- Ellis Reduced Zone
- Zone 4
- Zone 5
- Zone 6

Notes:

1. The City's hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.

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Figure 8-11

Buildout System Locations of Additional Simultaneous Fire Flow Simulations

City of Tracy
Water System Master Plan Update

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8.6 SUMMARY OF RECOMMENDED FUTURE POTABLE WATER SYSTEM IMPROVEMENTS

The recommended backbone potable water system improvements required to serve future potable water demands are summarized below and shown on Figure 8-12 and Figure 8-13. These future system improvements are triggered by additional demands from new development, unlike the improvements discussed in Chapter 7. It should be noted that these recommendations only identify facility improvements at a master plan level and do not necessarily include all required on-site infrastructure nor constitute design of improvements. Subsequent detailed design is required to determine the exact sizes and final locations of these proposed facility improvements.

The evaluation of the City's future water system is dependent on:

- Projected future development projects and land use data (refer to Chapter 3)
- Adopted water use factors (refer to Chapter 4)
- Adopted peaking factors (refer to Chapter 4)
- Characteristics and capabilities of existing water supply facilities (refer to Chapter 5)
- City water system performance criteria (refer to Chapter 6)

If any of these are significantly altered, the recommendations listed below may need to be reevaluated and revised.

It should also be noted that the future hydraulic model is not an "all pipes" model (i.e., not all smaller diameter pipelines are included); therefore, the hydraulic simulations performed as discussed above may not identify all necessary water system improvements. Consequently, it is recommended that further hydraulic evaluations be performed as additional details are provided for each future development project.

8.6.1 2025 System Improvements

The recommended backbone potable water system improvements required to serve 2025 potable water demands are summarized below. Planning and design for these improvements should be conducted so that these improvements are constructed and operational by 2025.

8.6.1.1 Pipelines

- To serve 2025 water demands, install approximately 73,020 linear feet of new pipelines ranging in diameter from 12 to 24 inches as shown on Figure 8-12.
- To serve 2025 water demands, install additional new pipelines of 10 inches in diameter or less within individual development projects; the length of small diameter pipelines needed to serve 2025 water demands is unknown, as not all 2025 development areas have detailed water system infrastructure plans prepared.
- To serve 2025 water demands, upsize approximately 1,390 linear feet of existing pipelines as shown on Figure 8-13.

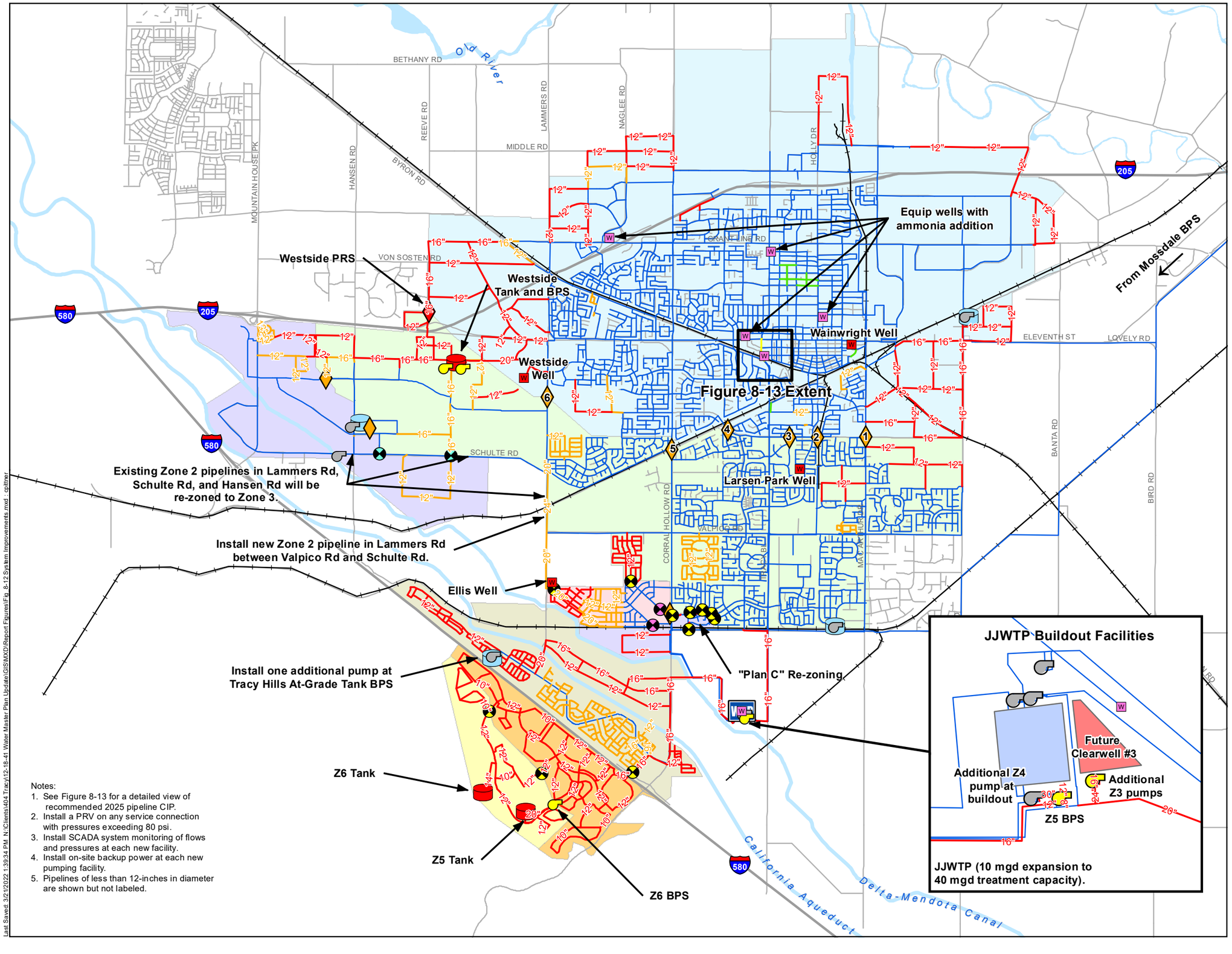

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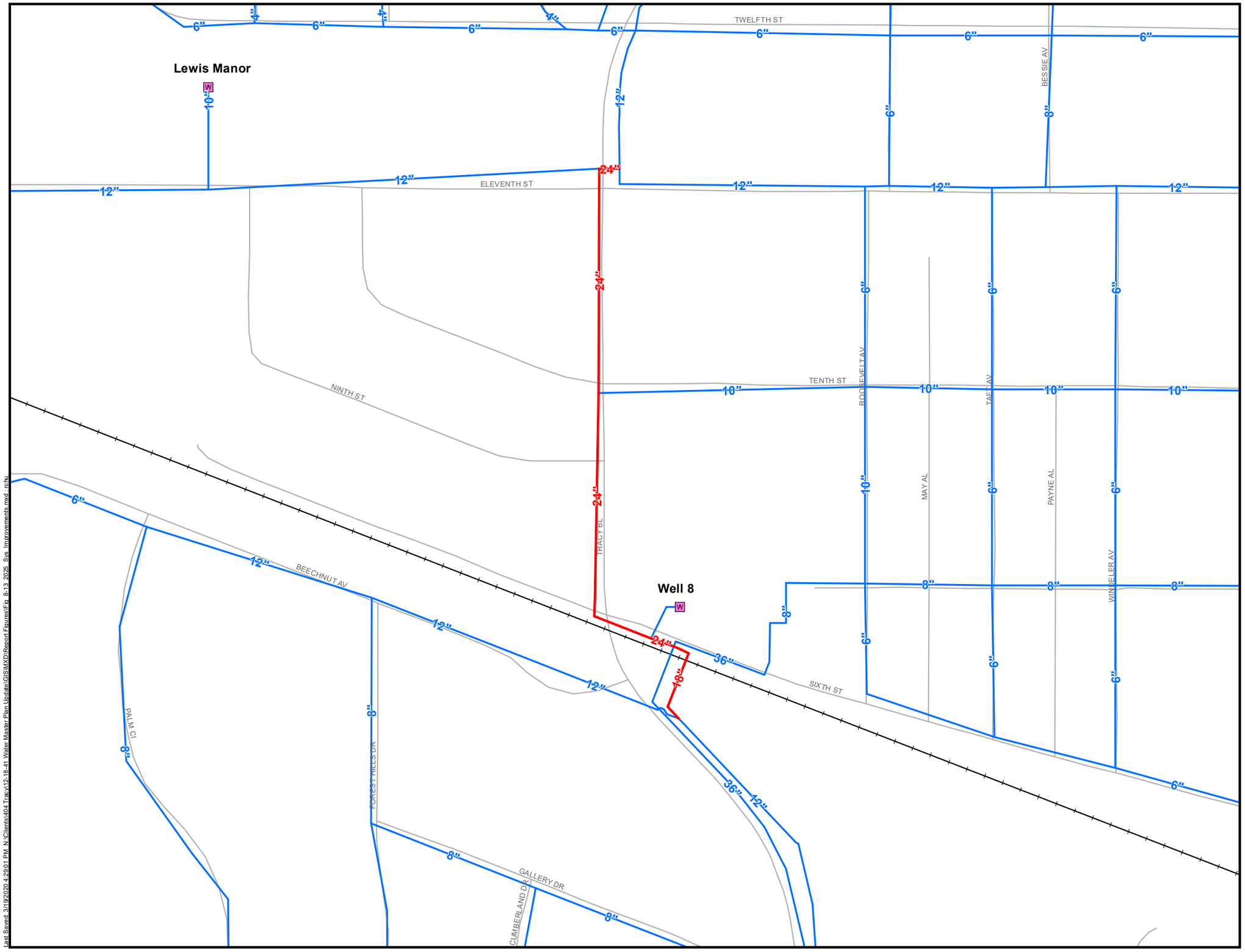
Figure 8-12

Proposed Future Water System Recommended Improvements

City of Tracy
Water System Master Plan Update



Symbology

- Recommended 2025 Improvement
- Existing Pipeline
- Groundwater Well

Notes:
1. See Figure 8-12 for the location of the recommended improvements.

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Figure 8-13

2025 System Recommended Pipeline CIP

City of Tracy
Water System Master Plan Update

8.6.1.2 Interconnections

- Install two new mainline PRVs before the transmission main in Schulte Road is re-zoned to Zone 3.
- Install an individual PRV on any water service connection with a static pressure exceeding 80 psi.

8.6.1.3 Re-Zoning

- Re-zone the existing transmission mains in Lammers Road, Schulte Road, and Hansen Road from Zone 2 to Zone 3 as described in Appendix D.

8.6.1.4 Groundwater Wells

- Provide ammonia addition for existing City wells (Lincoln Well, Lewis Manor Well, Park & Ride Well and Ball Park Well) (as noted below under Buildout System Improvements, all future wells are also recommended to be equipped with ammonia addition).
- A feasibility study is recommended to develop an implementation plan for future ASR expansion (see additional discussion in Chapter 5).

8.6.2 Buildout System Improvements

The recommended backbone potable water system improvements required to serve buildout potable water demands are summarized below.

8.6.2.1 Storage Facilities

Planning and design of these new storage facilities should be conducted so that the proposed facilities are constructed and operational in time to serve their respective service areas (e.g., Westside, Zone 5 or Zone 6). Because of the additional operational flexibility that Clearwell #3 would provide, it is recommended that Clearwell #3 be constructed as soon as possible. As noted above, no additional storage facilities are required by 2025, but it is recommended that Clearwell #3 be constructed by no later than 2030.

Note: Because the actual dimensions of each proposed storage facility have not been determined, the storage facility sizes below do not include dead and freeboard storage requirements, which will be determined during design.

- Westside Tank: Install a new storage tank with a minimum active storage capacity of 1.0 MG.
- JJWTP Clearwell #3: Install a new clearwell at the JJWTP with a minimum active storage capacity of 1.0 MG.
- Zone 5 Tank: Install a new storage tank with a minimum active storage capacity of 3.2 MG. Sizing of this tank should be confirmed before development of Zone 5 begins.

- Zone 6 Tank: Install a new storage tank with a minimum active storage capacity of 1.1 MG. Sizing of this tank should be confirmed before development of Zone 6 begins.

8.6.2.2 Groundwater Wells

Planning and design of these new groundwater wells should be phased so that the City's ASR Program can be expanded as needed to meet the City's water supply needs, particularly in dry years. As described in Chapter 5, a feasibility study for the expansion of the City's ASR Program is recommended, and is included above with the recommended 2025 System Improvements, to develop an implementation plan for ASR expansion.

- Westside ASR Well: Install a new ASR well with a minimum firm pumping capacity of 2,500 gpm and equipped with ammonia addition.
- Wainwright ASR Well: Install a new ASR well with a minimum firm pumping capacity of 2,500 gpm and equipped with ammonia addition.
- Larsen Park ASR Well: Install a new ASR well with a minimum firm pumping capacity of 2,500 gpm and equipped with ammonia addition.
- Ellis ASR Well: Install a new ASR well with a minimum firm pumping capacity of 1,000 gpm and equipped with ammonia addition.

8.6.2.3 Booster Pumping Facilities

Planning and design of these new booster pumping facilities should be coordinated with the construction of other related facilities (e.g., associated storage tanks) and the timing of new development. As of early 2022, the Zone 5 BPS design is complete.

- JJWTP: Increase the firm treated surface water pumping capacity at the JJWTP to meet buildout maximum day water demands.
  - Zone 3 BPS: Install additional Zone 3 booster pumps with a minimum pumping capacity of 1,500 gpm.
  - Zone 5 BPS: Install a new Zone 5 booster pump station with a minimum firm pumping capacity of 2,410 gpm.
- Zone 6 BPS: Install a new booster pump station with a minimum firm pumping capacity of 550 gpm (sizing of this pump station should be confirmed before development of Zone 6 begins).
- Westside Tank: Install a new Zone 1 booster pump station with a minimum firm pumping capacity of 4,500 gpm.
- Westside Tank: Install a new Zone 2 booster pump station with a minimum firm pumping capacity of 2,400 gpm.

8.6.2.4 Pipelines

Planning and design of these new pipelines should be coordinated with the timing of new development.

- To serve buildout water demands, install approximately 308,270 linear feet of new pipelines (in addition to the proposed 2025 pipelines) ranging in diameter from 12 to 30 inches as shown on Figure 8-12.
- To serve buildout water demands, install additional new pipelines of 10 inches in diameter or less within individual development projects; the length of small diameter pipelines needed to serve buildout water demands is unknown, as most buildout development areas do not have detailed water system infrastructure plans prepared.

8.6.2.5 Interconnections

Planning and design of these new interconnections should be coordinated with the timing of new development in the respective pressure zones.

- Install the following interconnections between pressure zones to provide supply during peak demands and/or emergency conditions:
  - Westside PRS (from Zone 2 into Zone 1)
  - Ellis PRV #3 (from Zone 3 into Ellis Reduced Zone)
  - Avenues PRV (from Ellis Reduced Zone into Zone 2)
  - Zone 4 PRV (from Zone 5 into Zone 4)
  - Two (2) Zone 5 PRVs (from Zone 6 into Zone 5)
  - Install six new mainline PRVs before the Plan C area is re-zoned to Zone 3 (to be funded through Plan C funds)
- Install an individual PRV on any water service connection with a static pressure exceeding 80 psi.

8.6.2.6 Re-Zoning

Planning and design of this rezoning should be coordinated with the timing of the new Zone 3 pipeline from the JJWTP.

- Re-zone the Plan C area from Zone 2 to Zone 3 (to be funded through Plan C funds)

8.6.2.7 SCADA System/Backup Power

Planning and design of the recommended SCADA system improvements and backup power should be prioritized and completed as soon as possible, as these improvements will improve operational flexibility and reliability.

- Install SCADA system monitoring of flows and pressures at PRS #1-#6 to provide operators with additional understanding and flexibility in system operations.

- Add remote operation of Well 8 from the SCADA system to provide additional operational flexibility.
- Install SCADA system monitoring of flows and pressures at each new water supply facility to provide operators with real-time system data and flexibility in system operations.
- Install on-site backup power to any proposed buildout system pumping facility to improve supply reliability.

8.6.2.8 JJWTP Expansion

A future additional 10 mgd expansion of the JJWTP (for a total treatment capacity of 40 mgd) is recommended to provide the City with additional water treatment capacity, as well as operational flexibility and reliability, if the use of groundwater supplies needs to be limited or if there is a supply outage from South County Water Supply Project. The expansion would also include a new administration/maintenance building to accommodate future staffing needs and maintenance activities.

It is recommended that the JJWTP expansion be constructed by no later than 2030, in coordination with the new JJWTP Clearwell #3.

8.6.2.9 Participation in Phase 2 Los Vaqueros Reservoir Expansion Project

As described in Chapter 5, the City's participation in the Phase 2 Los Vaqueros Reservoir Expansion Project would increase the City's water supply reliability by providing storage of supplies for use in dry years. The estimated cost for 5,000 acre-feet of storage for the City will be approximately $10 million plus an additional $1.5 million for implementation and will be shared by existing rate payers and new development. In October 2021, the Tracy City Council authorized staff to initiate the process to participate in the project and authorized the City Manager to execute the project activity agreement.

8.6.2.10 Water Master Plan Updates

Regular updates of this Citywide Water System Master Plan are recommended to evaluate potable water and recycled water infrastructure needs to reflect any changes in future development plans, water use trends and patterns, and water supply availability and reliability, as well as new regulations and operational needs as new potable water and recycled water system infrastructure is constructed. It is recommended that updates be prepared at least once every 10 years, or more often if changing conditions warrant more frequent updates. For purposes of this Citywide Water System Master Plan Update, three future updates are planned.

CHAPTER 9
Recycled Water System Evaluation

9.1 OVERVIEW

The purpose of this chapter is to describe the City's existing recycled water system and the recommended future recycled water system at buildout of the City's SOI. The recycled water infrastructure recommended in this chapter is based on the adopted water use and peaking factors described in Chapter 4 and system performance criteria described in Chapter 6 of this Citywide Water System Master Plan Update.

The City's existing WWTP on Holly Drive currently collects and treats wastewater to a Title 22 Disinfected Tertiary standard. The construction of a recycled water system to distribute this water to various non-potable use areas began in 2018; currently the only service connection is for the Legacy Fields sports complex. In the future, the City will extend the recycled water system and use recycled water to meet irrigation and other non-potable demands in existing service areas (thus offsetting some existing potable water use) and future service areas.

The topics discussed in this chapter include:

- Description of Existing Recycled Water System
- Existing Recycled Water System Demands
- Recommended Buildout Recycled Water System
- Recycled Water System Criteria
- Recycled Water System Evaluation Results
- Summary of Recommended Future Recycled Water System Improvements

To assist in the evaluation of the City's overall recycled water system at buildout, the recycled water infrastructure recommended in this chapter includes the infrastructure required to serve the Tracy Hills development and, for consistency, is based on the adopted water use, peaking factors, and system performance criteria described in previous chapters of this Citywide Water System Master Plan. Although the Tracy Hills development is located within separate and distinct recycled water pressures zones from the rest of the City, West Yost has included the Tracy Hills development in the future recycled water system evaluation because it will be served by pipelines, tanks, and booster pump stations in other pressure zones which need to be sized to account for the demands in Tracy Hills. Including the Tracy Hills development in the buildout hydraulic model evaluation ensures that the City's buildout recycled water system is integrated and sufficient to serve the recycled water demands of the entire City (including Tracy Hills). Because planning for future phases of Tracy Hills is subject to change, the sizing of any future water system improvements to serve Tracy Hills should be confirmed based on the latest development plans and associated water demand projections.

9.2 DESCRIPTION OF EXISTING RECYCLED WATER SYSTEM

This section provides a summary of the City's existing recycled water system facilities. Construction of the City's recycled water distribution system began in 2018. Currently, the recycled water distribution system consists of the Zone A booster pump station (Zone A BPS) at the City's Wastewater Treatment Plant, and approximately 7.6 miles of 30-inch diameter and 24-inch diameter transmission mains on the north and west side of the City, as shown on Figure 9-1. Additional details regarding each facility are presented below.

9.2.1 Wastewater Treatment Plant

The City's WWTP is located on Holly Drive, just north of the I-205 freeway as shown on Figure 9-1. The WWTP currently has a permitted average dry weather flow treatment capacity of 10.8 mgd. The WWTP treats domestic and industrial wastewater using a combination of primary clarification, an advanced activated sludge process with anoxic denitrification, tertiary filtration, and chlorination. The chlorinated effluent meets Title 22 requirements for recycled water use for landscape irrigation and other non-potable uses.

9.2.2 Booster Pump Stations

The City currently has one recycled water booster pump station, as shown on Figure 9-1. The Zone A BPS is located at the WWTP, and supplies water from the post-aeration basin to the recycled water distribution system. Table 9-1 presents a summary of the existing recycled water booster pump station with key characteristics such as design capacity and number of booster pumps.

Table 9-1. Existing Recycled Water Booster Pump Station

Booster Pump Station Name	Location	Year Installed	Pump 1, gpm	Pump 2, gpm	Pump 3, gpm	Pump 4, gpm	Pump 5, gpm	Rated Capacity[(a)], gpm	Firm Capacity[(b)], gpm	Firm Capacity[(b)], mgd
Zone A[(c)]	WWTP	2019	1,736	1,736	1,736	1,736	1,736	8,680	6,944	10.0

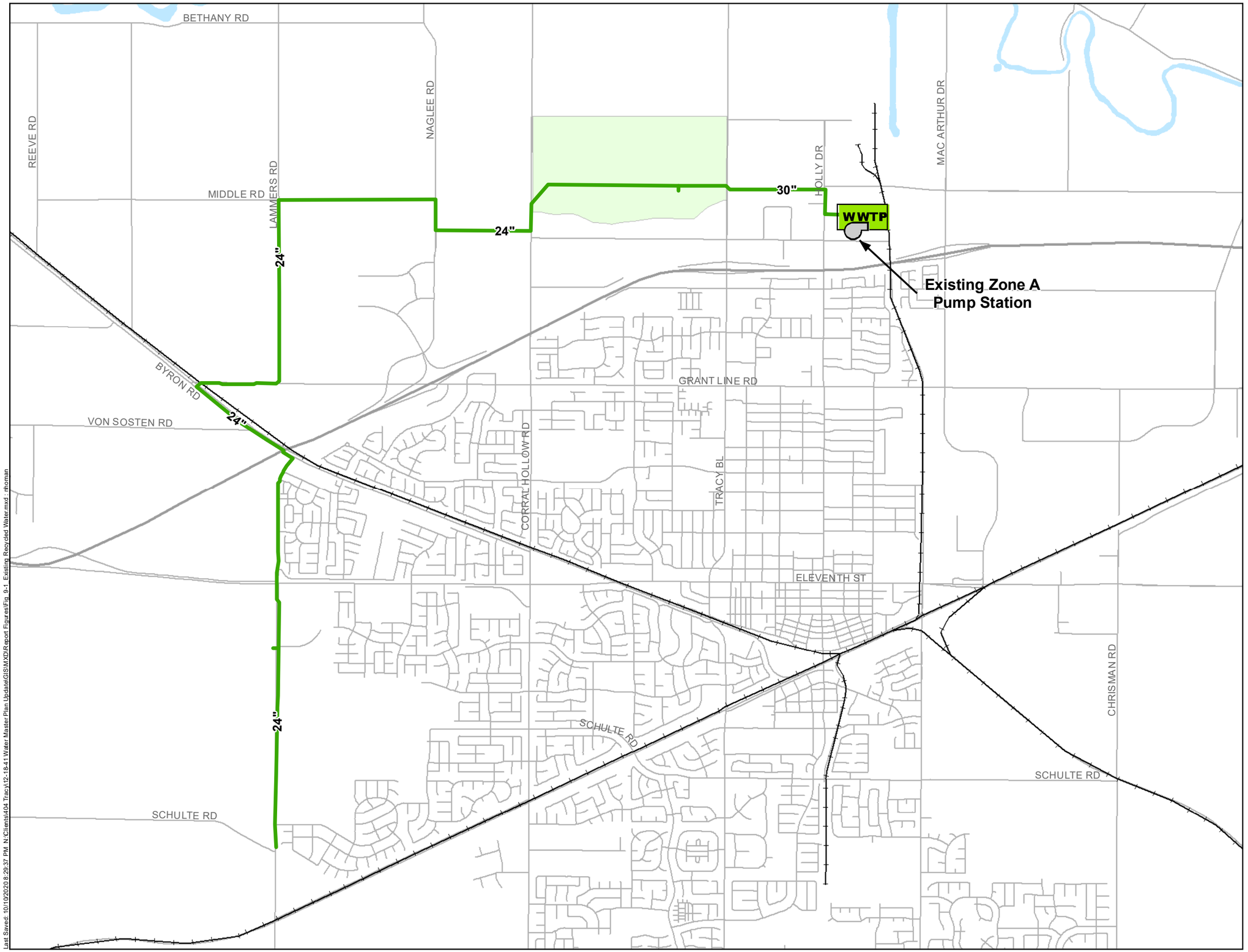
(a) Maximum pumping capacity of entire pump station.
(b) Assumes that the largest booster pump at the pump station is offline.
(c) Pumps are equipped with variable frequency drives.

9.2.3 Pressure Zone Boundaries

The City's existing recycled water system consists of a single pressure zone, Zone A. Pressure zone boundaries at buildout of the recycled water system are discussed in *Section 9.4.2 Pressure Zone Recommendations*.

9.2.4 Transmission and Distribution Pipelines

The City's existing recycled water transmission system pipeline network is shown on Figure 9-1. The only recycled water pipelines currently in service are 7.6 miles of 30-inch diameter and 24-inch diameter transmission mains from the WWTP west to Lammers Road and south to Kimball High School.



Last Saved: 10/19/2020 8:29:37 PM N:\Clients\404 Tracy\12-19-41 Water Master Plan Update\GIS\MXD\Report Figures\Fig. 9-1 Existing Recycled Water.mxd - rhoman

Notes:
1. The City's recycled water hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.
2. Existing recycled water pipelines which are not yet in service are not shown.

Figure 9-1

Existing Recycled Water System Facilities

City of Tracy
Water System Master Plan Update

Recycled water distribution pipelines have also been installed by developers in several future service areas, including Cordes Ranch, Ellis Specific Plan Phase 1, and Tracy Hills Phase 1. However, because no source of recycled water is currently available in these areas, these pipelines are currently connected to the potable water system via backflow prevention devices and are delivering potable water to serve irrigation demands. Once recycled water service is extended to these areas, the recycled water mains will be connected to the recycled water system and the temporary connections to the potable water system will be removed.

9.2.5 SCADA System

The Zone A BPS is integrated into the City's SCADA (Supervisory Control and Data Acquisition) system for the WWTP. This integration provides for remote operation and monitoring of the Zone A BPS, as well as automated shut down of the pump station if chlorinated effluent from the WWTP does not meet Title 22 standards at a given time.

9.3 EXISTING RECYCLED WATER DEMANDS

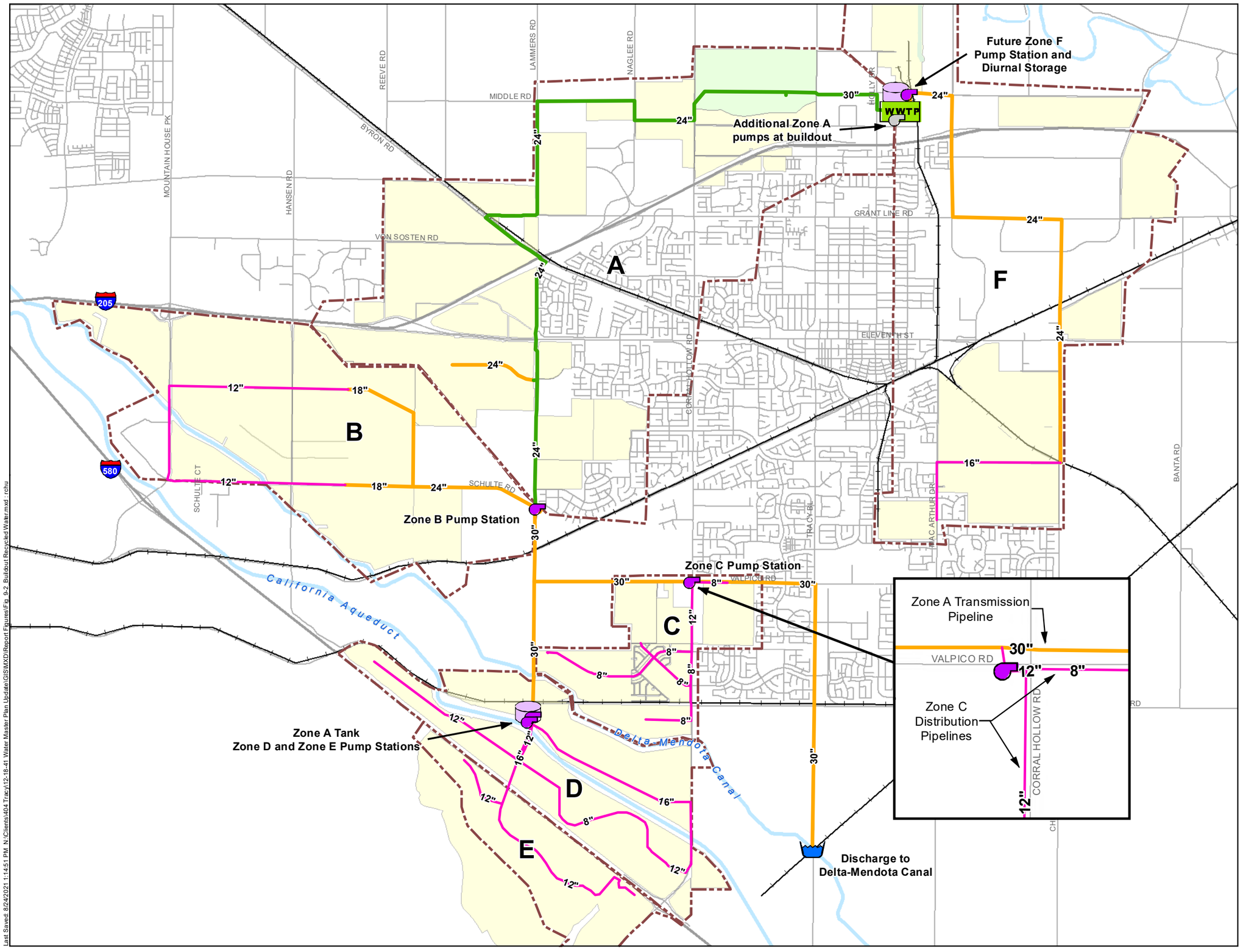
The City's only active recycled water service connection is the Legacy Fields sports complex.

9.4 RECOMMENDED BUILDOUT RECYCLED WATER SYSTEM

The City intends to expand the existing recycled water system to serve non-potable water demands to most future development areas, help offset some existing potable water irrigation demands, and reduce treated effluent discharges to Old River. One integrated recycled water system is proposed and will serve and distribute recycled water throughout the entire SOI.

In addition to serving non-potable water demands, the future recycled water system must also be capable of delivering recycled water to the DMC for the City's proposed Recycled Water Exchange Program with the USBR. As discussed in Chapter 5, this exchange agreement would allow the City's recycled water to be discharged to the DMC and a like amount of raw water to be diverted from the DMC by the City for treatment at the JJWTP for potable use. This exchange agreement is an essential part of the City's projected future water supply portfolio. Future recycled water system infrastructure was sized to account for the additional flow which must be conveyed through the recycled water system from the WWTP to the DMC. It should be noted that the quantity of recycled water required for the exchange agreement is assumed to be up to about 9,000 af/yr. This is higher than the exchange amount assumed in the City's 2020 UWMP and described in Chapter 4 (7,500 af/yr), and reflects an approximate upper bound for the recycled water exchange program. Subsequent revisions to the projected potable water demand and/or the water supply availability and reliability assumptions may change the required quantities and timing of the proposed Recycled Water Exchange Program.

Recommendations for the buildout recycled water system were developed based on previous studies of the recycled water system, projected recycled water demands, the requirements of the planned recycled water exchange program, and the recycled water system performance criteria. A hydraulic model was used to confirm that these recommendations meet the City's recycled water system performance criteria described in Chapter 6. The recommended buildout recycled water system is shown on Figure 9-2.



Notes:
1. Pressure Zones represent approximate boundaries.
2. The City's recycled water hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.
3. Existing recycled water pipelines which are not yet in service are shown as future pipelines.

Last Saved: 8/24/2021 1:14:51 PM N:\Clients\404 Tracy\12-18-41 Water Master Plan Update\GIS\MXD\Report Figures\Fig. 9-2. Buildout Recycled Water.mxd : rchu

Figure 9-2

Buildout Recycled Water System Facilities

City of Tracy
Water System Master Plan Update

9.4.1 Future Recycled Water Demand Areas

The demand areas to be served by the future recycled water system are shown on Figure 9-2. For this Citywide WSMP Update, the following assumptions were made regarding the areas served by the recycled water system:

- Most large development projects located on the west side of the City will be served by the recycled water system by 2025, except for Cordes Ranch, West Side Industrial, and Tracy Hills.
- Recycled water service will be extended to Cordes Ranch, West Side Industrial, and Tracy Hills by 2040; it is expected that this will occur after 2025, but much sooner than 2040.
- Future recycled water service areas on the east side of the City (East Side Industrial, Chrisman Road, UR 1, and Rocha), will be served by a separate recycled water transmission main which will not be constructed until after 2040.
- Recycled water service will not be extended to developments in the following areas due to the isolated locations and relatively small individual potential recycled water demands within them:
  - I-205 Corridor Specific Plan
  - Industrial Areas Specific Plan
  - Northeast Industrial Specific Plan
  - Berg Road Subdivision
  - Berg/Byron Remainder
  - Other small, approved projects (refer to Table 3-1, footnote (f) for the full list)
  - Miscellaneous Infill
- Only a small number of existing parks and irrigated areas located close to the recycled water transmission main alignments will be converted to recycled water service; it should be noted that the previously proposed Gateway Exchange Program, under which recycled water service would be extended to most existing parks and large irrigated areas in the City to offset potable water demands from the Gateway development (now called Westside), is no longer being considered.

9.4.2 Pressure Zone Recommendations

The proposed recycled water pressure zones developed in the 2012 WSMP mimicked the potable water distribution system pressure zones. However, the recent Recycled Water Optimization Evaluation[1] (Optimization Study) recommended adjustments to the proposed pressure zones to minimize parallel pipelines and reduce the cost of the system. The recycled water pressure zones proposed in this WSMP Update are generally consistent with those recommended in the Optimization Study:

- Zone A will extend west and south from the City's WWTP to Schulte Road and the western boundary of the Westside Specific Plan. The existing 30-inch diameter and 24-inch diameter transmission main on the north side of the City and in Lammers Road will serve Zone A.
- Zone B will extend west from the western boundary of Zone A, and will include Cordes Ranch, Westside Industrial Area, and portions of the Westside Specific Plan. It will be served by a 24-inch diameter transmission main in Schulte Road.
- Zone C will include the Ellis Specific Plan, Avenues, Tracy Village, UR 10, and SWP & Valpico service areas. Due to the relatively small demands from these areas and the compact nature of this pressure zone, no pipelines greater than 12-inch diameter are recommended to serve it.
- Zones D and E will be located southwest of the DMC and will exclusively serve Tracy Hills. Each pressure zone will be served by dedicated 12-inch and 16-inch diameter distribution mains. Because the elevation and configuration of the Tracy Hills development favors a pressure zone break where Interstate 5 crosses the property, the Tracy Hills pressure zones have not been adjusted from the pressure zones recommended in the 2000 Tracy Hills Master Plan.
- Zone F will extend east and south from the City's WWTP to include the recycled water service areas on the east side of the City. This pressure zone will be served by a 24-inch diameter and 16-inch diameter transmission main. This pressure zone was not included in the Optimization Study, which only considered the recycled water system for the west side of the City. The 2012 WSMP assumed that the east side developments would be served by the same pressure zone(s) as the west side developments. However, because the east side backbone transmission main is no longer planned to connect to the rest of the system, it is recommended that the east side developments be served by a separate pressure zone with a hydraulic grade selected to better serve the specific elevation range of the east side service area. This will require the construction of a separate booster pump station at the WWTP dedicated to serving Zone F.

The proposed ground elevation ranges and the modeled hydraulic grade ranges for each pressure zone are presented in Table 9-2.

[1] "Recycled Water Optimization Evaluation", CH2M Hill Engineers, Inc, January 2017.

Table 9-2. Recycled Water Distribution Pressure Zones			
Pressure Zone	Nominal Hydraulic Grade, ft	Expected Range of Service Elevations, ft	Static Pressure Range, psi
A	375	10 - 91	122 - 157
B	410	105 - 230	77 - 131
C	360	100 - 185	75 - 112
D	470	209 - 310	69 - 112
E	550	305 - 400	64 - 105
F	264	19 - 96	72 - 105
psi = pounds per square inch			

Ground elevations and hydraulic grades were chosen to provide a system pressure range of 60 psi to 100 psi where possible, as defined in the recycled water system evaluation criteria. The nominal hydraulic grades shown in Table 9-2 are based on the design head of existing pumps (Zone A), planned pumps (Zone B), or on the pump design head necessary to maintain a minimum of 60 psi service pressure within the pressure zone under peak hour conditions (all other zones). Nominal hydraulic grade was calculated at the pump discharge. Because of friction losses in the distribution system during operations, system pressure near the pump stations can exceed 100 psi. The highest expected pressure in the proposed recycled water system is 178 psi on the discharge side of the Zone A BPS.

9.4.3 Allocation of Future Recycled Water Demands

The projected recycled water demands were previously discussed in Chapter 4. The maximum day and peak hour peaking factors were also presented previously in Chapter 4 and are summarized below in Table 9-3.

Table 9-3. Recycled Water Demand Peaking Factors	
Parameter	Value
Maximum Month Demand, percent of annual demand[(a)]	17.6%
Maximum Day Peaking Factor[(b)]	6.4
Peak Hour Peaking Factor[(c)]	7.0
(a) Based on 2017 monthly potable water use for dedicated landscape irrigation accounts. (b) Multiply the average day demand times the peaking factor to obtain maximum day demand. Maximum Day Demand Peaking Factor = Maximum Month Demand (percent) / 30 days x 365 x (24/8). (c) Multiply the average day demand times the peaking factor to obtain peak hour demand. Assumed to be 110 percent of Maximum Day Demand, refer to Chapter 4.	

Projected buildout recycled water average day, maximum day, and peak hour demands (including existing demands) are summarized in Table 9-4. Additional detail of the projected average day recycled water demands at buildout for each future development project by pressure zone (not including existing demands) is provided in Table 9-5.

Table 9-4. Buildout Recycled Water Demands by Pressure Zone

Pressure Zone	Average Day Demand[a]		Maximum Day Demand[b]		Peak Hour Demand[c]	
	gpm	mgd	gpm	mgd	gpm	mgd
Zone A	1,534	2.2	9,818	14.1	10,739	15.5
Zone B	876	1.3	5,605	8.1	6,131	8.8
Zone C	242	0.3	1,547	2.2	1,692	2.4
Zone D	388	0.6	2,484	3.6	2,717	3.9
Zone E	264	0.4	1,690	2.4	1,848	2.7
Zone F	620	0.9	3,968	5.7	4,340	6.2
Total	**3,924**	**5.7**	**25,112**	**36.2**	**27,466**	**39.6**

(a) Equal to existing water demands plus projected buildout water demands presented in Table 4-16.
(b) Maximum day demand is 6.4 times the average day demand.
(c) Peak hour demand is 7.0 times the average day demand.

9.4.4 Recycled Water Exchange Program Seasonality

For purposes of this Citywide Water System Master Plan Update, it has been assumed that the future recycled water system would be designed to deliver up to about 9,000 af/yr of recycled water to the DMC as part of the City's planned recycled water exchange agreement with the USBR. This is more than the 7,500 af//yr assumed in the City's 2020 UWMP and described in Chapter 4 of this Citywide Water System Master Plan Update, but reflects an approximate upper bound for the recycled water exchange program. Because recycled water demands from City customers vary significantly with the season, the time of year in which exchange recycled water is discharged to the DMC has a significant effect on the sizing of recycled water system facilities. For example, the volume of water the system can discharge to the DMC during a maximum day demand condition in the summer will be significantly less than the volume the system can discharge to the DMC in the winter, when recycled water demands are low.

It is assumed that the City will be able to optimize the timing of recycled water discharge to the DMC so that the majority of the exchange takes place in off-peak months. During a maximum day demand condition in a single dry year at buildout, it was assumed that the recycled water system would only have to deliver 4.1 mgd to the DMC. In a single dry year, the recycled water system should be capable of delivering as much as 13.8 mgd to the DMC on a winter day with negligible recycled water demands from City customers.

Table 9-5. Summary of Buildout Average Day Recycled Water Demands by Development Project[a,b]

Project or Development Area	Zone A		Zone B		Zone C		Zone D		Zone E		Zone F		Total	
	gpm	percent of total	gpm	percent of total	gpm	percent of total	gpm	percent of total	gpm	percent of total	gpm	percent of total	gpm	percent of total
UR 5 (Bright)	49.51	3.37%		0.00%		0.00%		0.00%		0.00%		0.00%	49.51	1.28%
UR 7 (Bright/Castro)	44.52	3.03%		0.00%		0.00%		0.00%		0.00%		0.00%	44.52	1.15%
Rocking Horse	6.26	0.43%		0.00%		0.00%		0.00%		0.00%		0.00%	6.26	0.16%
Tracy Village		0.00%		0.00%	98.28	40.67%		0.00%		0.00%		0.00%	98.28	2.55%
UR 1		0.00%		0.00%		0.00%		0.00%		0.00%	263.48	42.47%	263.48	6.83%
Ellis		0.00%		0.00%	66.93	27.70%		0.00%		0.00%		0.00%	66.93	1.74%
Avenues		0.00%		0.00%	12.01	4.97%		0.00%		0.00%		0.00%	12.01	0.31%
UR 10		0.00%		0.00%	45.42	18.80%		0.00%		0.00%		0.00%	45.42	1.18%
Tracy Hills		0.00%		0.00%		0.00%	388.09	100.00%	264.08	100.00%		0.00%	652.18	16.91%
Westside	271.46	18.50%		0.00%		0.00%		0.00%		0.00%		0.00%	271.46	7.04%
Cordes Ranch		0.00%	600.42	68.56%		0.00%		0.00%		0.00%		0.00%	600.42	15.57%
UR 4 (Bright Triangle)	61.87	4.22%		0.00%		0.00%		0.00%		0.00%		0.00%	61.87	1.60%
UR 3 (Sandhu)	254.46	17.34%		0.00%		0.00%		0.00%		0.00%		0.00%	254.46	6.60%
I-205 Expansion	79.63	5.43%		0.00%		0.00%		0.00%		0.00%		0.00%	79.63	2.06%
West Side Industrial		0.00%	254.51	29.06%		0.00%		0.00%		0.00%		0.00%	254.51	6.60%
East Side Industrial		0.00%		0.00%		0.00%		0.00%		0.00%	144.09	23.23%	144.09	3.74%
Larch-Clover	159.91	10.90%		0.00%		0.00%		0.00%		0.00%		0.00%	159.91	4.15%
Chrisman Road		0.00%		0.00%		0.00%		0.00%		0.00%	44.25	7.13%	44.25	1.15%
Rocha		0.00%		0.00%		0.00%		0.00%		0.00%	28.89	4.66%	28.89	0.75%
SWC Valpico & Corral Hollow		0.00%		0.00%	19.00	7.86%		0.00%		0.00%		0.00%	19.00	0.49%
Dobler/Maibes	9.01	0.61%		0.00%		0.00%		0.00%		0.00%		0.00%	9.01	0.23%
Holly Sugar Industrial		0.00%		0.00%		0.00%		0.00%		0.00%	55.99	9.03%	55.99	1.45%
Tracy Combined Cycle Power Plant		0.00%	20.88	2.38%		0.00%		0.00%		0.00%		0.00%	20.88	0.54%
Legacy Fields	246.68	16.81%		0.00%		0.00%		0.00%		0.00%		0.00%	246.68	6.40%
Parks RW Conversion (west side)	283.94	19.35%		0.00%		0.00%		0.00%		0.00%		0.00%	283.94	7.36%
Parks RW Conversion (east side)		0.00%		0.00%		0.00%		0.00%		0.00%	83.69	13.49%	83.69	2.17%
Total	**1,467.24**	**100%**	**875.81**	**100%**	**241.64**	**100%**	**388.09**	**100%**	**264.08**	**100%**	**620.39**	**100%**	**3,857.26**	**100%**

(a) Water demands shown are for new development only and do not include existing recycled water demands. See Appendix A for detailed demand calculations by project or development area.
(b) Water demands shown include UAFW.

9.4.5 Seasonal and Diurnal Storage Facilities

The projected average monthly demands and available flow from the City's WWTP are summarized in Table 9-6. As shown in the table, there will be an excess amount of recycled water available from the Holly Drive WWTP in all months and therefore seasonal storage is not required.

Table 9-6. Projected Buildout Recycled Water Supply and Demand

Month	Available Wastewater Flow[(a)], af	Recycled Water Demand, af[(b)]	Exchange Program Discharge to DMC, af[(c)]	Remaining Amount, af[(d)]
January	1,501	70	1,154	277
February	1,356	44	1,186	127
March	1,501	50	1,074	378
April	1,453	213	886	355
May	1,501	515	776	210
June	1,453	910	519	24
July	1,501	1,103	376	22
August	1,501	935	447	119
September	1,453	1,112	322	19
October	1,501	793	537	171
November	1,453	437	778	238
December	1,501	148	895	458
Total	**17,676**	**6,329**	**8,947**	**2,400**

(a) Based on Average Dry Weather Flow value of 15.78 mgd received from Carollo by e-mail on June 9, 2020.
(b) Monthly recycled water demand distribution based on 2017 City irrigation water use pattern.
(c) Monthly discharge to DMC based on availability of wastewater and the capacity of the proposed recycled water system facilities.
(d) Remaining Amount = Available Wastewater Flow - (Recycled Water Demand + Exchange Program Discharge)

Diurnal storage tanks were sized based on the volume of storage needed to supply peak hour demands and to reduce the required size of recycled water pump stations and pipelines. It is recommended that the City construct a 5.7 MG recycled water storage tank just north of the California Aqueduct on Lammers Road. The location of this tank is consistent with that recommended in the Optimization Study. This tank will supply Zone A via gravity, and Zones D and E via pumping, during the 8-hour irrigation period. It is recommended that the City construct the Zone A Tank before other recycled water storage facilities. The Zone A Tank should meet the City's recycled water storage requirements through 2040.

An additional 2.6 MG of diurnal storage may be needed at the WWTP at buildout. This value may change depending on the actual WWTP effluent diurnal flow. It is recommended that the City re-evaluate the required diurnal storage at the WWTP by performing a diurnal flow study in 2040. Table 9-7 summarizes the recommended distribution of diurnal storage in the buildout recycled water system.

Table 9-7. Diurnal Storage Distribution	
Storage Location	Storage Volume, MG
Diurnal Storage at WWTP	2.6[(a)]
Zone A Tank	5.7
Total	**8.3**

(a) Volume may be reduced depending on Holly Drive WWTP effluent recycled water diurnal flow rate. May go to zero if low flow period exceeds combined Zones A and F maximum pumping rate.

9.4.6 Booster Pump Stations

As the recycled water system develops, additional booster pump stations will be required to move water from Zone A into higher pressure zones, and to pump water from the WWTP into Zone F. With the exception of the Zone C BPS, the locations of the recommended booster pump stations are based on the Optimization Study, which modified the booster pump station recommendations in the 2012 WSMP.

The Zone A BPS will require an additional 3,472 gpm of pumping capacity at buildout. It was assumed that this will be provided by two new pumps with characteristics similar to those of the existing pumps.

The recommended location of the Zone C BPS was moved from Lammers Road to the corner of Valpico Road and Corral Hollow Road. The Zone C BPS cannot be located on the west side of the Ellis Specific Plan, as the headloss through the existing and planned 8-inch diameter pipes in the Ellis would be too great to maintain 60 psi residual pressure in the majority of Zone C. Assuming that the DMC transmission pipeline will be constructed in Valpico Road and Tracy Boulevard (see *9.2.6 Recycled Water Pipeline Alignment* below), it is recommended that the Zone C BPS be located at the corner of Valpico Road and Corral Hollow Road so as to draw water from this transmission pipeline. If the Alternative B alignment is selected for the DMC transmission pipeline, the Zone C BPS could be constructed at the intersection of Corral Hollow Road and Linne Road instead. If the Alternative C alignment is selected for the DMC transmission pipeline, the Zone C BPS could be constructed in several locations, but additional Zone A or Zone C pipelines would need to be constructed to connect Zone C to the rest of the system.

The Tracy Hills Master Plan recommended that both the Zone D and Zone E booster pump stations be constructed adjacent to the Tracy Hills storage tank, instead of having the Zone E BPS constructed as a booster station in Zone D. West Yost concurs with this recommendation, and the logic behind this is three-fold. First, the distribution system is small enough so that the additional pipeline length is not substantial. Second, an emergency pressure reducing valve station was proposed so that some reduced flow could be delivered to Zone D through Zone E, if necessary. Third, having both pump stations at the same location makes it easier for the City to operate and maintain these pump stations.

A summary of the proposed booster pump station design characteristics is shown in Table 9-8.

Table 9-8. Recycled Water Distribution System Pump Station Design Criteria		
Pump Station	Design Flow Rate, gpm[a]	Design Total Dynamic Head, feet
Zone A	12,152[b]	362
Zone B	5,780[c]	181
Zone C	1,700[c]	125
Zone D	2,700[c]	225
Zone E	2,000[c]	305
Zone F	4,400[c]	250

(a) Total pump station capacity assumes all pumps at pump station are in service.
(b) Pump station capacity required to fill Zone A Tank and supply exchange water to Delta Mendota Canal during a maximum day. Assumes two new pumps with properties similar to existing pumps are installed by buildout.
(c) Based on peak hour demands.

These proposed booster pump stations should supply a minimum design pressure of 60 psi in all zones to meet the design criteria described in Chapter 6.

9.4.7 Recycled Water Pipeline Alignments

Where possible, future recycled water pipeline alignments were based on existing recycled water pipelines which have been constructed but are not yet in service, or on planned recycled water pipelines for near-term developments. The alignment of the future Zone A transmission pipeline in Lammers Road is consistent with the Optimization Study, as is the alignment of the Zone B transmission pipeline in Schulte Road. It is expected that the alignment of these pipelines when constructed will not differ significantly from Figure 9-2. However, the alignment of the DMC exchange program transmission pipeline and the Zone F transmission pipeline may vary from the alignments shown on Figure 9-2.

Three alignment alternatives were considered for the DMC exchange pipeline, as illustrated on Figure 9-3. It should be noted that all three alignments assume that the discharge of recycled water to the DMC will be required to occur downstream of the City's JJWTP intake per initial discussions with the SWRCB and the USBR. Alternative (shorter) pipeline alignments may be possible if the location for the discharge of recycled water to the DMC can be relocated to a location upstream of the City's JJWTP intake.

The three alignment alternatives are described as follows:

- The Alternative A pipeline would tie into the Zone A transmission pipeline in Lammers Road at the intersection of Lammers Road and Valpico Road. It would consist of approximately 23,700 feet of pipeline constructed in Valpico Road, Corral Hollow Road, Linne Road, and Tracy Boulevard. The Alternative A pipeline would be Zone A. Although Alternative A is the longest of the three alignment alternatives, the entire alignment for Alternative A is within existing streets.

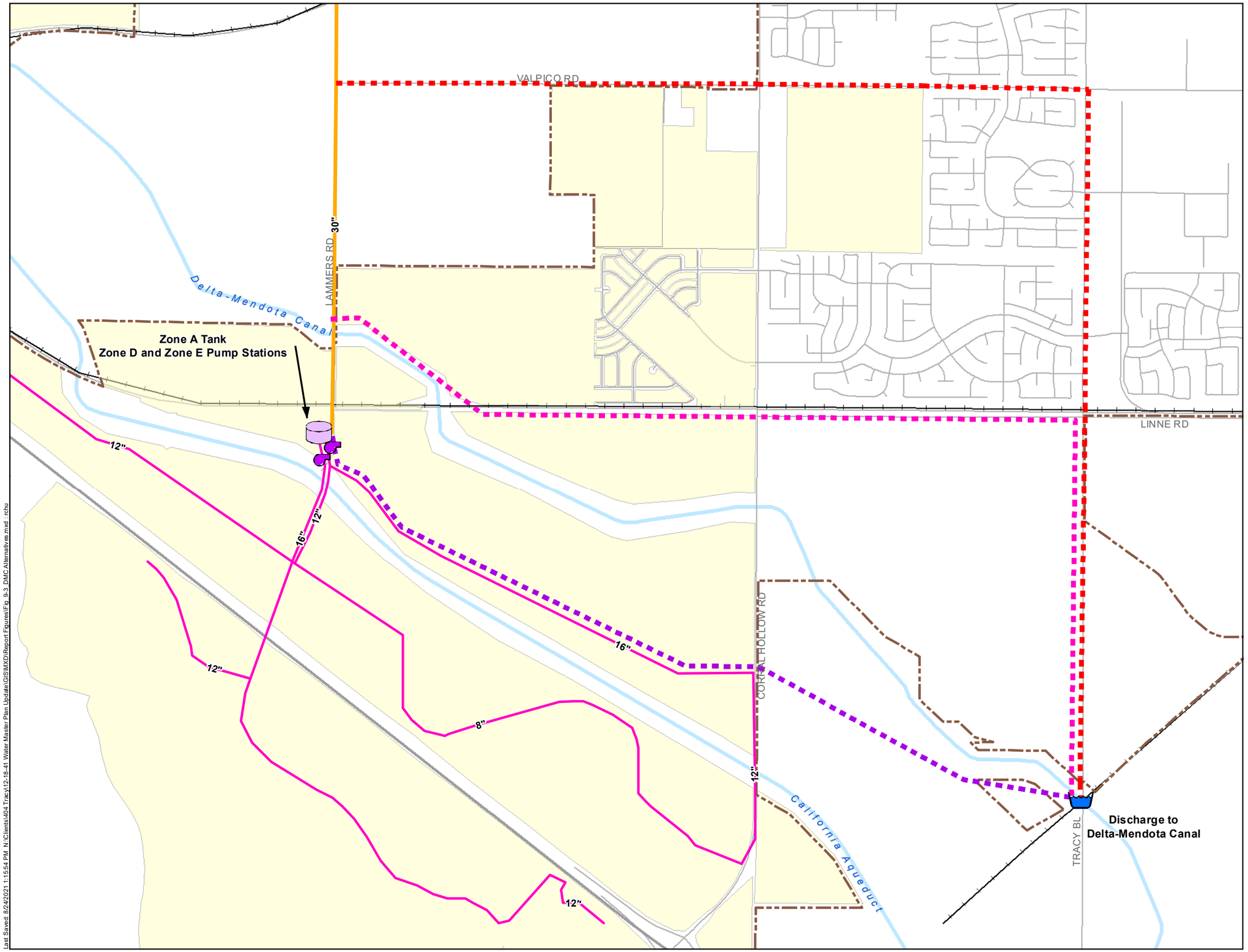
- The Alternative B pipeline would tie into the Zone A transmission pipeline in Lammers Road just north of the DMC, and would consist of approximately 19,100 feet of pipeline running along the south edge of the Ellis Specific Plan, in Linne Road, and in Tracy Boulevard. The Alternative B pipeline would be Zone A. Part of the alignment for Alternative B is along the south edge of the Ellis Specific Plan, not within an established right-of-way, and may require an easement.
- The Alternative C pipeline would be supplied directly from the Zone A reservoir, and would consist of approximately 14,200 feet of pipeline running through Tracy Hills Phase 5 and land currently used for mining. Alternative C may require a dedicated pump station to ensure sufficient head in the exchange pipeline for discharge to the DMC. Part of the alignment for Alternative C is not within an established right-of-way and passes through a quarry, which may require an easement and possibly difficult construction conditions.

For this WSMP Update, it was assumed that Alternative A will be selected as it follows existing street alignments and therefore would likely be the most straight-forward in terms of design and construction, although it is the longest of the three pipeline alignment alternatives. Because it is the longest alignment it is also the most conservative alternative for budgeting purposes.

Similarly, the alignment of the Zone F transmission pipeline depicted on Figure 9-2 was selected to provide a conservative cost estimate. It is recommended that detailed pipeline alignment alternative studies be conducted before either the DMC exchange program transmission pipeline or the Zone F transmission pipeline are constructed.

9.4.8 Recycled Water Pipeline Sizes

The proposed recycled water backbone distribution system pipelines range in size from a minimum of 8-inch diameter to a maximum of 30-inch diameter. A Hazen-Williams friction "C" factor of 130 was used in the hydraulic model. This "C" factor was used for PVC pipelines (16-inch diameter or smaller) and lined ductile iron or steel pipelines (24-inch diameter or larger). Pipeline diameters were based on those recommended in the optimization study, with adjustments to meet the system performance criteria outlined in Chapter 6.



Symbology

- Future Booster Pump Station
- Future Storage Tank
- Delta Mendota Canal Discharge Point
- Future Distribution Pipeline (Diameter ≤ 16 inches)
- Future Transmission Pipeline (Diameter > 16 inches)

Delta Mendota Canal Pipeline Alternatives

- A
- B
- C
- Future Recycled Water Use Area
- Sphere of Influence

Notes:
1. Future facilities for Zone C not shown on this figure, as the configuration of this zone is dependent on the Delta Mendota Canal pipeline alternative selected for construction.

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Figure 9-3

DMC Exchange Pipeline Alternatives

City of Tracy
Water System Master Plan Update

Last Saved: 8/24/2021 11:55:54 PM N:\Clients\404 Tracy\12-18-41 Water Master Plan Update\GIS\MXD\Report Figures\Fig. 9-3. DMC Alternatives.mxd : rchu

9.5 RECYCLED WATER SYSTEM CRITERIA

Evaluation of the proposed Citywide recycled water distribution system utilizes criteria that are different from the criteria used to evaluate the potable water system. The proposed evaluation criteria developed for the recycled water system are described in Chapter 6. In summary, because maximum day recycled water demands typically occur during approximately an eight hour per day period between 10:00 pm and 6:00 am (instead of the typical 24-hour period of the potable water system), and peak hour demands are only slightly greater than maximum day demands as described in Chapter 4, recycled water pipeline water velocity must be lower than in potable water systems to help reduce energy/power costs, thus lowering operational costs.

As described in Chapter 6, the desired recycled water system delivery pressure ranges from a minimum of 60 psi to a maximum of 100 psi. Recycled water pipeline water velocity must be less than 10 feet per second (fps) to avoid potential damage to pipelines, and velocity less than 6 fps is preferred. Pipeline velocities greater than 6 feet per second would cause excess friction pressure loss and would require larger pump station power requirements and greater pipeline pressure near the pump stations.

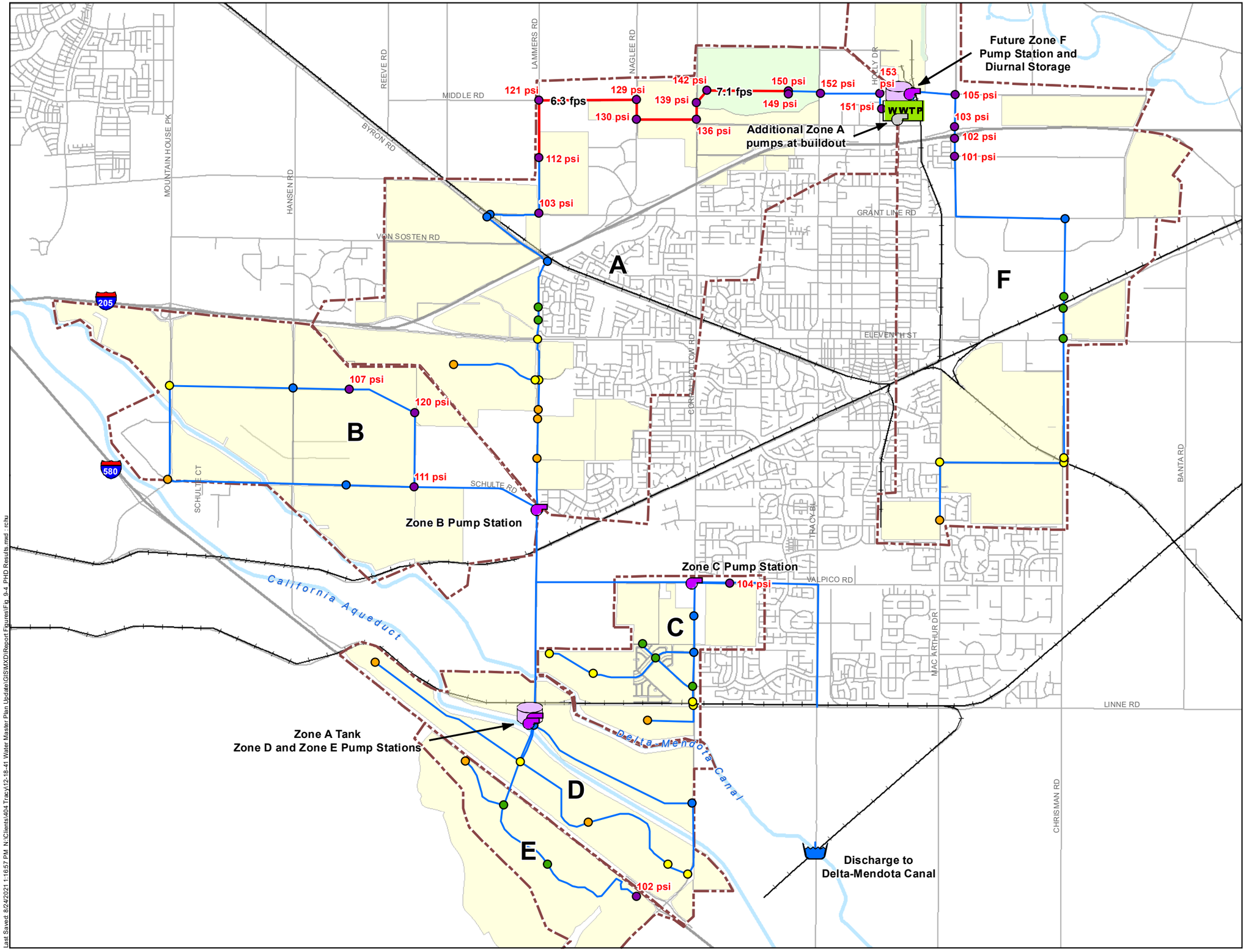
9.6 RECYCLED WATER SYSTEM EVALUATION RESULTS

Typical recycled water systems must deliver the greatest flow during a peak hour demand condition, which coincides with the middle of an assumed 8-hour irrigation period. However, due to the planned recycled water exchange program, in some portions of the City's planned recycled water system, the flow during the remaining 16 hours of the day (the "fill period") may exceed that of the peak hour. Therefore, the City's recycled water hydraulic model was used to evaluate the buildout recycled water system under peak hour demand and fill period conditions.

9.6.1 Peak Hour Demand Scenario

During a peak hour demand scenario, evaluation results indicate that the buildout recycled water system could adequately deliver peak hour demands to meet the City's minimum pressure criterion of 60 psi at all existing and future recycled water service locations as illustrated on Figure 9-4. It should be noted that many locations in the recycled water system will experience pressures greater than 100 psi during a peak hour demand condition; the pressures at these locations are labeled on Figure 9-4. Some locations in Zone A near the WWTP may experience pressures as high as 153 psi, during a peak hour demand condition and even higher pressures during tank fill periods as described below. Service connections in these areas should be fitted with individual PRVs as needed.

As illustrated on Figure 9-4, some of the existing Zone A transmission pipelines will experience velocities exceeding 6 fps during a peak hour demand condition. However, the velocity in these pipelines is well below the maximum allowable velocity of 10 fps, and therefore no mitigation is recommended.



Symbology

Peak Hour Pressure

- Less than 60 psi
- 60 psi to 70 psi
- 70 psi to 80 psi
- 80 psi to 90 psi
- 90 psi to 100 psi
- Greater than 100 psi

Pipeline Velocity

- Velocity ≤ 6 fps
- Velocity > 6 fps

Proposed Future Facilities

- Future Booster Pump Station
- Future Storage Tank
- Delta Mendota Canal Discharge Point

Existing System Facilities

- Existing Booster Pump Station
- WWTP Wastewater Treatment Plant
- Legacy Fields
- Future Recycled Water Use Area
- Recycled Water Pressure Zone

Notes:
1. Pressure Zones represent approximate boundaries.
2. The City's recycled water hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.
3. Pressures not shown for locations with no expected recycled water services.

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Figure 9-4

Buildout Recycled Water Peak Hour Demand

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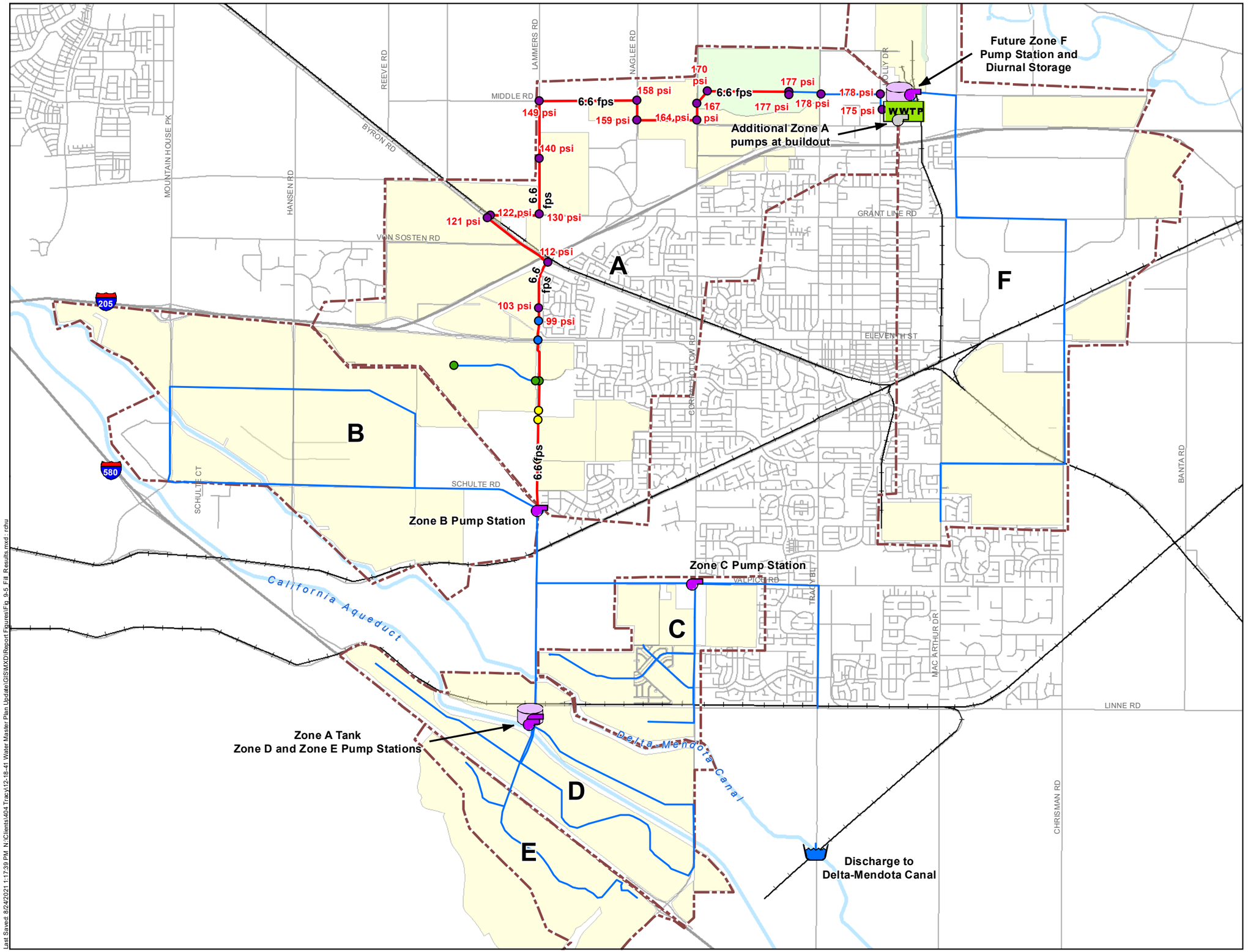
9.6.2 Fill Period Scenario

During a fill period on a maximum demand day, results indicate that the buildout recycled water system could adequately re-fill the Zone A Tank while supplying 4.1 mgd to the DMC for the recycled water exchange program. As shown on Figure 9-5, some locations in the recycled water system will experience pressures greater than 100 psi during a fill period; some locations in Zone A near the WWTP may experience pressures as high as 178 psi. The pressures at these locations are labeled on Figure 9-5. Service connections in these areas should be fitted with individual PRVs as needed.

The feasibility of operating the planned Zone B Pump Station as an in-line booster station to assist in refilling the tank and supplying the DMC during the maximum day fill period was investigated. If feasible, this would reduce the high pressures in Zone A near the WWTP. However, the planned capacity of the Zone B Pump Station is insufficient to supply the required flow and therefore cannot reduce the high pressures in Zone A.

As illustrated on Figure 9-5, some of the existing Zone A transmission pipelines will experience velocities exceeding 6 fps during a fill period. However, the velocity in these pipelines is well below the maximum allowable velocity of 10 fps, and therefore no mitigation is recommended.



Symbology

Zone A Pressure

- Less than 60 psi
- 60 psi to 70 psi
- 70 psi to 80 psi
- 80 psi to 90 psi
- 90 psi to 100 psi
- Greater than 100 psi

Pipeline Velocity

- Velocity ≤ 6 fps
- Velocity > 6 fps

Proposed Future Facilities

- Future Booster Pump Station
- Future Storage Tank
- Delta Mendota Canal Discharge Point

Existing System Facilities

- Existing Booster Pump Station
- WWTP Wastewater Treatment Plant
- Legacy Fields
- Future Recycled Water Use Area
- Recycled Water Pressure Zone

Notes:
1. Pressure Zones represent approximate boundaries.
2. The City's recycled water hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.
3. Pressures shown for Zone A service locations only.

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Figure 9-5

Buildout Recycled Water Fill Period

City of Tracy
Water System Master Plan Update

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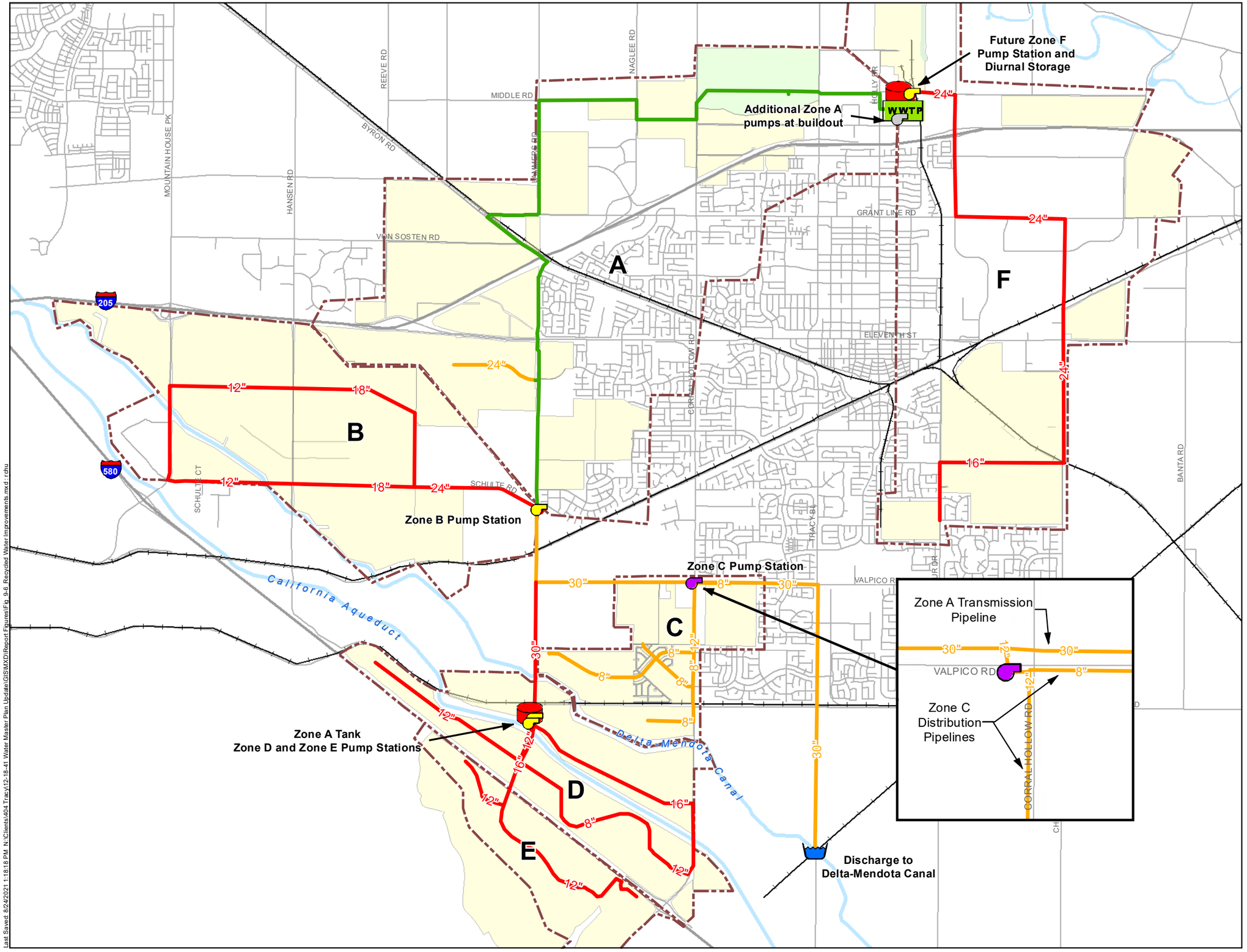
9.7 SUMMARY OF RECOMMENDED FUTURE RECYCLED WATER SYSTEM IMPROVEMENTS

The recommended backbone recycled water system improvements required to serve future recycled water demands and the recycled water exchange program are summarized below and illustrated on Figure 9-6. It should be noted that these recommendations only identify facility improvements at a master plan level and do not necessarily include all required on-site infrastructure nor constitute design of improvements. Subsequent detailed design is required to determine the exact sizes and final locations of these proposed facility improvements.

Because the City's recycled water program is still in its infancy, many planning factors used to size the system were based on industry averages or standard practice, due to the lack of data specific to the City of Tracy. As the recycled water system continues to expand and serve more customers, and as more data becomes available, the recommendations in this chapter should be periodically reviewed and revised to better fit the needs of the City's recycled water use profile.

It should also be noted that the future hydraulic model is not an "all pipes" model (i.e., not all smaller diameter pipelines are included); therefore, the hydraulic simulations performed as discussed above may not identify all necessary water system improvements. Consequently, it is recommended that further hydraulic evaluations be performed as additional details are provided for each future development project.



Symbology

Proposed Buildout Facilities

- Buildout Booster Pump Station
- Future Storage Tank
- Buildout System Pipeline

Proposed 2025 Facilities

- 2025 Booster Pump Station
- 2025 System Pipeline
- Delta Mendota Canal Discharge Point

Existing System Facilities

- Existing Booster Pump Station
- WWTP Wastewater Treatment Plant
- Existing Transmission Pipeline (Diameter >16 inches)
- Legacy Fields
- Future Recycled Water Use Area
- Recycled Water Pressure Zone

Notes:
1. Install a PRV on any service connection with peak hour or fill period pressures exceeding 100 psi.
2. Install SCADA system monitoring of flows and pressures at each new facility.

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Figure 9-6

Proposed Future Recycled Water System Improvements

City of Tracy
Water System Master Plan Update

Last Saved: 8/24/2021 1:18:18 PM N:\Clients\404 Tracy\12-18-41 Water Master Plan Update\GIS\MXD\Report Figures\Fig. 9-6 Recycled Water Improvements.mxd - rchu

9.7.1 2025 System Improvements

The recommended backbone recycled water system improvements required to serve 2025 recycled water demands are summarized below and shown on Figure 9-6. Planning and design for these improvements should be conducted so that these improvements can be constructed and operational by 2025.

9.7.1.1 Booster Pumping Facilities

- Zone C BPS: Install a new booster pump station with a minimum pumping capacity of 1,700 gpm.

9.7.1.2 Pipelines

- To serve 2025 recycled water demands, install approximately 33,810 linear feet of new pipelines ranging in diameter from 12 to 30 inches; included in these pipelines is the pipeline needed to discharge recycled water to the DMC as part of the recycled water exchange program (as described above, the exchange program is an essential part of the City's projected future water supply portfolio and should be implemented as soon as possible).
- To serve 2025 recycled water demands, install additional new pipelines of 16 inches in diameter or less within individual development projects; the total length of pipelines needed to serve 2025 recycled water demands is unknown, as not all 2025 development areas have detailed recycled water system infrastructure plans prepared.

9.7.1.3 Interconnections

- Install an individual PRV on any recycled water service connection with a peak hour or fill period pressure exceeding 100 psi.

9.7.1.4 SCADA System

- Install SCADA system monitoring of flows and pressures at each new water supply facility to provide operators with real-time system data and flexibility in system operations.

9.7.2 Buildout System Improvements

The recommended backbone recycled water system improvements required to serve buildout recycled water demands are summarized below and shown on Figure 9-6. Planning and design for these improvements should be conducted so that these improvements can be constructed and operational as soon as possible, as funding is available, so that recycled water supplies can be used to meet landscape irrigation and other non-potable water demands to minimize the use of potable water supplies for these uses.

9.7.2.1 Storage Facilities

Note: Because the actual dimensions of each proposed storage facility have not been determined, the storage facility sizes below do not include dead and freeboard storage requirements, which will be determined during design.

- Zone A Tank: Install a new storage tank with a minimum active storage capacity of 5.7 MG.
- WWTP Diurnal Storage: Install a new storage tank with a minimum active storage capacity of 2.3 MG; the need for this storage will depend on WWTP diurnal flow patterns, and it is recommended that the City re-evaluate the required diurnal storage at the WWTP by performing a diurnal flow study in 2040.

9.7.2.2 Booster Pumping Facilities

- Zone A BPS Expansion: Install additional Zone A booster pumps with a minimum pumping capacity of 3,472 gpm.
- Zone B BPS: Install a new booster pump station with a minimum pumping capacity of 5,780 gpm; note that it is expected this booster pump station will be constructed after 2025, but well before 2040.
- Zone D BPS: Install a new booster pump station with a minimum pumping capacity of 2,700 gpm.
- Zone E BPS: Install a new booster pump station with a minimum pumping capacity of 2,000 gpm.
- Zone F BPS: Install a new booster pump station with a minimum pumping capacity of 4,400 gpm.

9.7.2.3 Pipelines

- To serve buildout recycled water demands, install approximately 109,300 linear feet of new pipelines (in addition to the proposed 2025 pipelines) ranging in diameter from 12 to 30 inches.
- To serve buildout recycled water demands, install additional new pipelines of 16 inches in diameter or less within individual development projects; the total length of pipelines needed to serve buildout recycled water demands is unknown, as most buildout development areas do not have detailed recycled water system infrastructure plans prepared.

9.7.2.4 Interconnections

- Install an individual PRV on any recycled water service connection with a peak hour or fill period pressure exceeding 100 psi.

9.7.2.5 SCADA System

- Install SCADA system monitoring of flows and pressures at each new water supply facility to provide operators with real-time system data and flexibility in system operations.

CHAPTER 10
Recommended Capital Improvement Program

10.1 OVERVIEW

This chapter presents the recommended capital improvement program (CIP) for the City's existing and future potable water systems and proposed future recycled water system to support the City's projected future potable and recycled water demands, respectively. Recommended improvements to the existing and future potable water systems were described in Chapters 7 and 8, respectively. In addition, infrastructure recommendations for the proposed future recycled water system were described in Chapter 9. It should be noted that the recommended CIP only identifies improvements at a Master Plan level and does not necessarily include all required on-site infrastructure or constitute design of improvements. Subsequent detailed design is required to determine the exact sizes and locations of these proposed improvements.

This chapter provides a summary of the recommended capital improvement projects, along with estimates of probable construction costs. Probable construction cost estimates have been developed for each proposed improvement project, and will then allocated to existing rate payers and new development based on the need for and benefit provided by the proposed improvement. For example, the cost for a pipeline improvement to increase the fire flow availability in the existing potable water system will be allocated to existing rate payers, but a new pipeline required to serve buildout potable water demands will be allocated to new development. An additional analysis to evaluate the potential development impact fees that will be required to fund the buildout potable and recycled water system capital improvement costs will be provided in a separate memorandum.

Construction costs are presented in 2020 dollars and were developed based on bids from other municipal water facility design projects and standard cost estimating guides. Consistent with the 2012 WSMP, the total CIP cost includes mark-ups equal to 40 percent of the estimated base construction costs to allow for general contingency, design and planning, construction management, and program administration as listed below:

- General Contingency: 15 percent
- Design and Planning: 10 percent
- Construction Management: 10 percent
- Program Administration: 5 percent

For this Citywide Water System Master Plan Update, it is assumed that land for buildout potable and recycled water facilities, if required, will be acquired at $190,000 per acre. Costs for land acquisition will only be added to major facilities (e.g., tank sites), where a large parcel is required. Consequently, land acquisition costs do not include right-of-way acquisition costs for transmission and distribution mains. In addition, the proposed construction costs do not include costs for acquisition of additional surface water supplies, supply reliability, or for annual operation and maintenance. A complete description of the assumptions used in the development of the estimated probable construction costs is provided in Appendix E.

This CIP excludes non-backbone facilities that only serve a specific development area, as costs associated with those facilities will be borne solely by the corresponding developers. For example, while facilities to serve specific development areas were evaluated as part of the overall buildout potable and recycled water system operations, costs for facilities recommended for specific development areas are not included in the CIP. Costs for development-specific infrastructure will be evaluated in conjunction with separate planning efforts prepared for those developments.

This Citywide Water System Master Plan Update only includes costs for backbone system facilities with more widespread system benefit, henceforth known as program facilities. Costs for program facilities will be allocated to new developments proportionally based on projected demand. These cost allocations will be evaluated and presented in a separate report.

The following sections of this chapter describe the components of the potable and recycled water system capital improvement program developed for this Citywide Water System Master Plan Update:

- Recommended Potable Water System Capital Improvement Program
- Recommended Recycled Water System Capital Improvement Program
- Capital Improvement Program Implementation

10.2 RECOMMENDED POTABLE WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM

Summaries of the recommended capital improvement projects for the existing, 2025, and buildout potable water systems are presented below in *Section 10.2.1 Existing Potable Water System Improvements*, *Section 10.2.2 2025 Potable Water System Improvements*, and *Section 10.2.3 Buildout Potable Water System Improvements*, respectively. Each section contains a table with preliminary capital cost estimates for the recommended potable water system improvements for the corresponding time horizon. *Section 10.2.4 Water Treatment Plant Expansion Costs* discusses how the costs for the 2008 JJWTP expansion are to be allocated amongst future developments. All potable water system costs are summarized in *Section 10.2.5 Summary of Recommended Potable Water System CIP Costs*, which also discusses the proposed cost allocation between existing rate payers and new development.

10.2.1 Existing Potable Water System Improvements

Chapter 7 evaluated the ability of the City's existing potable water system to meet the recommended water system operational and design criteria described in Chapter 6. Based on the existing potable water system evaluation, improvements were recommended to eliminate existing system hydraulic capacity deficiencies, as listed in the following section. These improvements are recommended based on existing water system demands, and are not triggered by projected future water demands from new development. These improvements should be completed as soon as possible to eliminate existing system deficiencies.

- Pipeline Improvement[1]
  - — Replace the existing pipelines in 20th Street between Bessie Avenue and Parker Avenue, Wall Street between Lowell Avenue and 20th Street, Emerson Avenue between Bessie Avenue and Holly Drive, Court Drive between Whittier Avenue and Lowell Avenue, and Lowell Avenue between Parker Avenue and Holly Drive with approximately 6,000 linear feet (lf) of new 8-inch diameter pipelines.
  - — Install approximately 515 lf of 12-inch diameter pipeline in Ninth Street between School Street and Tenth Street.
  - — Replace approximately 485 lf of existing 4-inch diameter pipeline in Tracy Boulevard north of Mount Diablo Avenue with new 12-inch diameter pipeline. This improvement was previously recommended in the 2012 WSMP.

The locations of the recommended existing potable water system improvement projects are shown on Figure 10-1. Preliminary capital cost estimates for the recommended existing potable water system improvements are presented in Table 10-1.

It is also recommended that the City implement a renewal and replacement (R&R) program to proactively replace aging and deteriorating water pipelines before they fail. This Citywide Water System Master Plan Update does not include costs for replacement of aging infrastructure. Therefore, it is recommended that the City perform a separate study which evaluates the condition of existing water system assets and develops a prioritized list and annual budget for asset replacement based on age, material, failure history, and other parameters.

[1] The existing hydraulic model is not an "all pipes" model; therefore, the hydraulic simulations performed may not identify all necessary water system improvements. Consequently, it is recommended that City staff review older parts of the water system, where smaller diameter pipelines are typically found and consider possible upsizing of these pipelines, as the City plans for future pipeline renewal and replacement projects.

Table 10-1. Probable Construction Costs for Recommended Existing Potable Water System CIP[a]

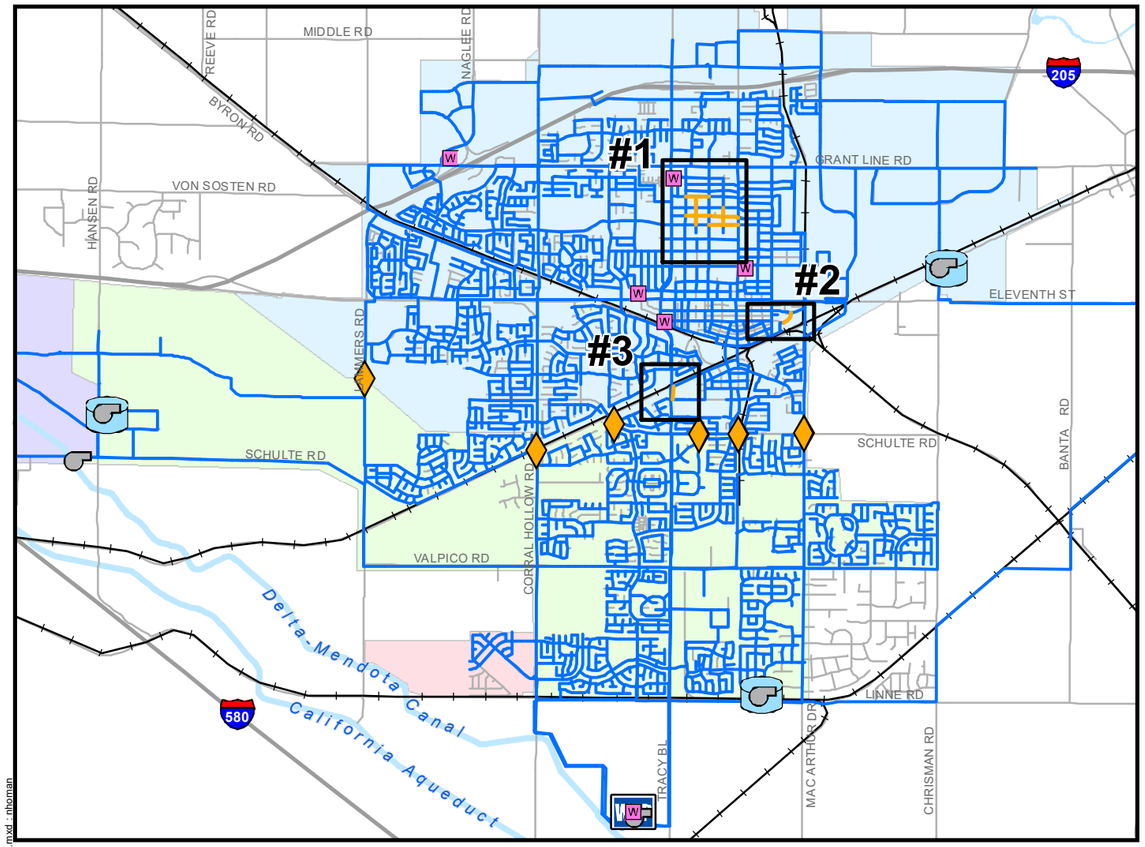
Improvement Type	Improvement Description	CIP ID	Quantity		Estimated Construction Cost, dollars[b]	CIP Cost, dollars (includes mark-ups)[c,d]
Pipeline Improvement	Replace existing pipelines in 20th Street between Bessie Avenue and Parker Avenue, Wall Street between Lowell Avenue and 20th Street, Emerson Avenue between Bessie Avenue and Holly Drive, Court Drive between Whittier Avenue and Lowell Avenue and Lowell Avenue between Parker Avenue and Holly Drive with 8-inch diameter pipe.	ECIP-PI-1	6,000	lf	1,140,000	1,596,000
Pipeline Improvement	Install 12-inch diameter pipe in Ninth Street between School Street and Tenth Street	ECIP-PI-2	515	lf	133,900	187,000
Pipeline Improvement	Replace existing 4-inch diameter pipes on Tracy Boulevard, between Fourth Street and Mt. Diablo Avenue with 12-inch diameter pipes	ECIP-PI-3	485	lf	126,100	177,000
					Total	**$ 1,960,000**

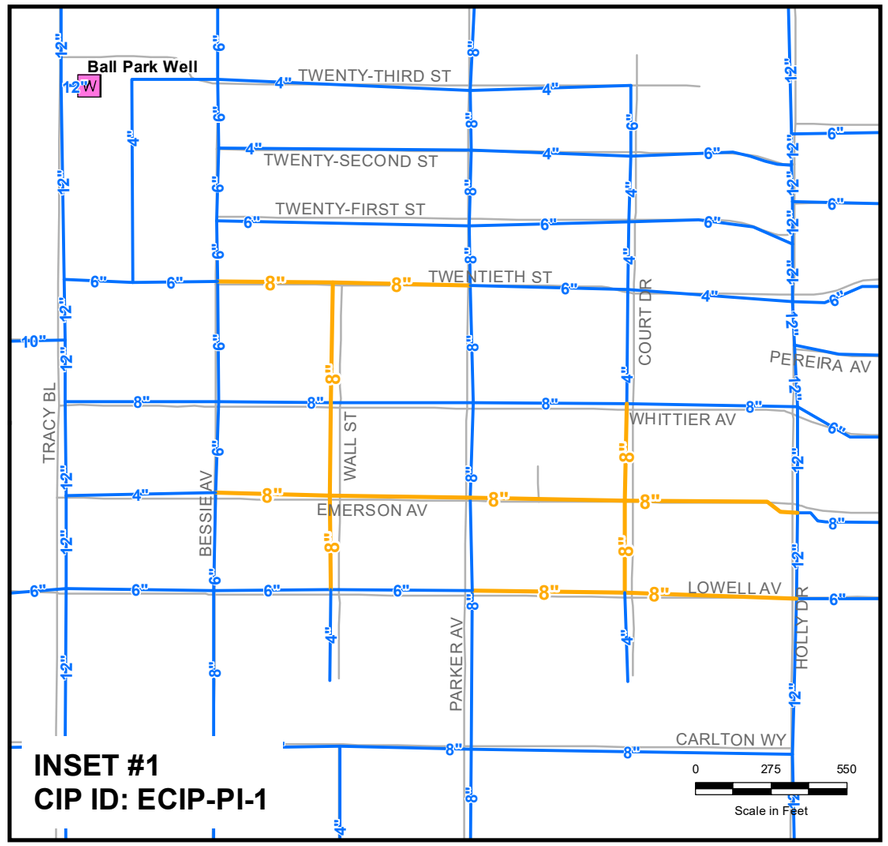
(a) Costs shown are presented in 2020 dollars.

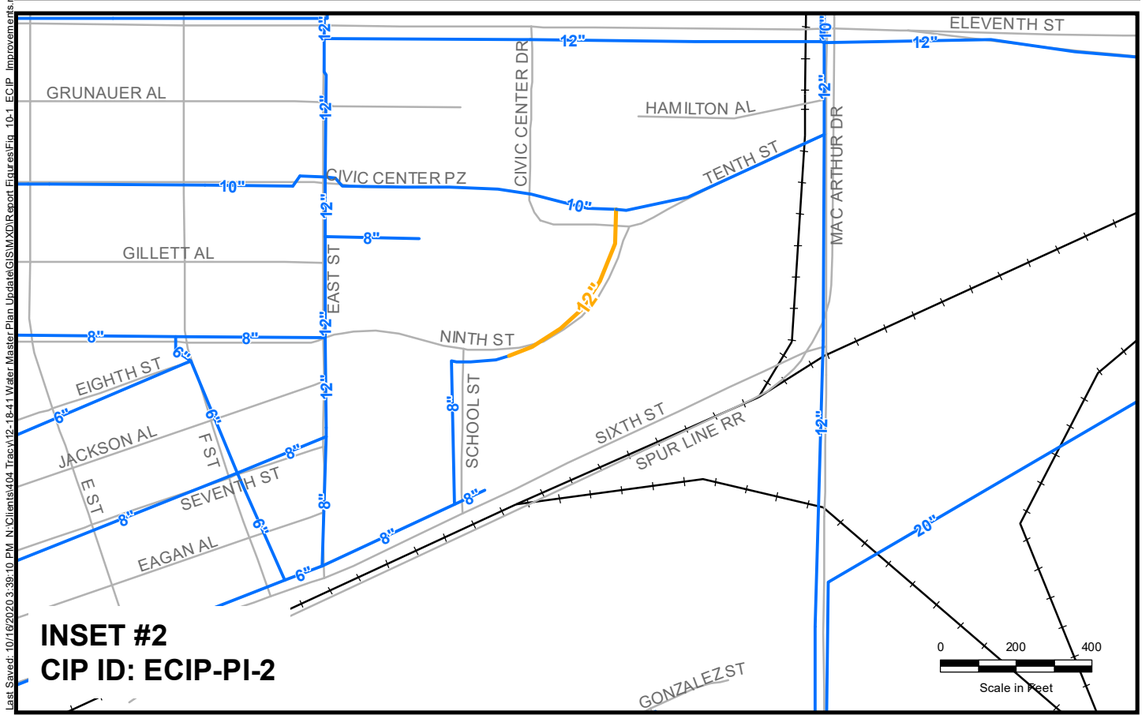
(b) Estimated construction costs do not reflect an adjustment to account for the current economic bidding climate.

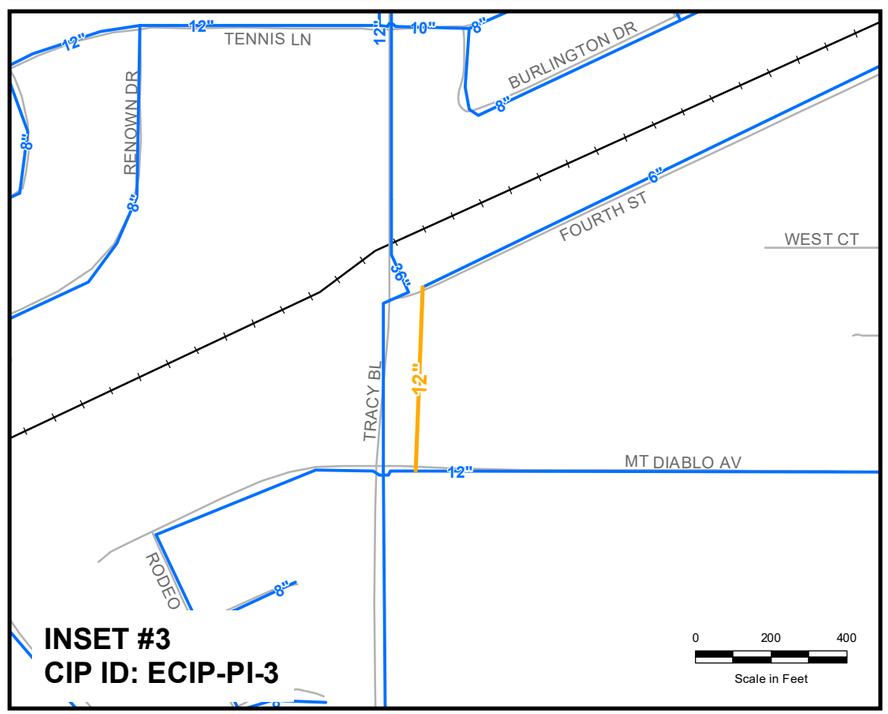
(c) Costs include mark-ups equal to 40 percent (General Contingency: 15 percent; Design and Planning: 10 percent; Construction Management: 10 percent; and Program Administration: 5 percent).

(d) Total rounded to nearest $1,000.









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Symbology

- Existing Pipeline
- Pipeline Improvement
- Pressure Regulating Station
- Booster Pump Station
- Groundwater Well
- Storage Tank
- WTP John Jones Water Treatment Plant

Pressure Zone

- Zone 1
- Zone 2
- Zone 3 (IPC/PPBP)
- Ellis Reduced Zone

Notes:
1. The City's existing hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.

Figure 10-1

Recommended Existing Potable Water System Improvements

City of Tracy
Water System Master Plan Update

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10.2.2 2025 Potable Water System Improvements

Chapter 8 summarized the evaluation of the City's 2025 potable water system and its ability to meet the recommended water system operational and design criteria described in Chapter 6. Based on the 2025 potable water system evaluation, the following backbone water system improvements were recommended to meet projected 2025 potable water demands. **Only program facilities are listed below; the complete list of recommended 2025 potable water system improvements (including non-program facilities) and their recommended timing can be found in Chapter 8.**

- Pipeline Improvements[2]
  - To serve 2025 potable water demands, replace existing pipelines in Sixth Street, Tracy Boulevard, and Eleventh Street with approximately 1,390 linear feet of new 18-inch and 24-inch diameter pipelines.
  - To serve 2025 potable water demands, jack and bore approximately 160 linear feet of new pipelines. This represents one (1) jack and bore installation.
- New Pipelines plus Jack and Bore
  - To serve 2025 potable water demands, install approximately 43,010 linear feet of new pipelines ranging in diameter from 12 to 24 inches.
  - To serve 2025 potable water demands, jack and bore approximately 1,050 linear feet of new pipelines. This represents four (4) distinct jack and bore installations.
- Interconnections
  - Install PRVs at Schulte Road and Bud Lyons Way and at Schulte Road and Pavillion Parkway before the transmission main in Schulte Road is re-zoned to Zone 3.
- Re-zoning
  - Re-zone the existing transmission mains in Lammers Road, Schulte Road, and Hansen Road from Zone 2 to Zone 3 as described in Appendix D. The capital costs of pipelines and other new facilities which need to be constructed prior to re-zoning are included in their respective categories. The capital cost of the re-zoning itself is assumed to be insignificant.
- Groundwater Wells
  - Provide ammonia addition for existing City wells (Lincoln Well, Lewis Manor Well, Park & Ride Well and Ball Park Well) (as noted below under Buildout System Improvements, all future wells are also recommended to be equipped with ammonia addition).
  - A feasibility study is recommended to develop an implementation plan for future ASR expansion (see additional discussion in Chapters 5 and 8).

[2] The buildout hydraulic model was developed as a backbone system and is not an "all pipes" model; therefore, the hydraulic simulations performed may not identify all necessary water system improvements. Consequently, it is recommended that further hydraulic evaluations be performed as additional details are provided for each future development project.

The locations of the recommended 2025 potable water system improvement projects are shown on Figure 10-2. Preliminary capital cost estimates for the recommended 2025 potable water system improvements are presented in Table 10-2. Detailed maps illustrating the proposed pipeline projects for the 2025 potable water system are provided in Appendix F.

10.2.3 Buildout Potable Water System Improvements

Chapter 8 also summarized the evaluation of the City's buildout potable water system and its ability to meet the recommended water system operational and design criteria described in Chapter 6. Based on the buildout potable water system evaluation, the following backbone water system improvements were recommended to meet projected buildout potable water demands. **Only program facilities are listed below; the complete list of recommended buildout potable water system improvements (including non-program facilities) and their recommended timing can be found in Chapter 8.**

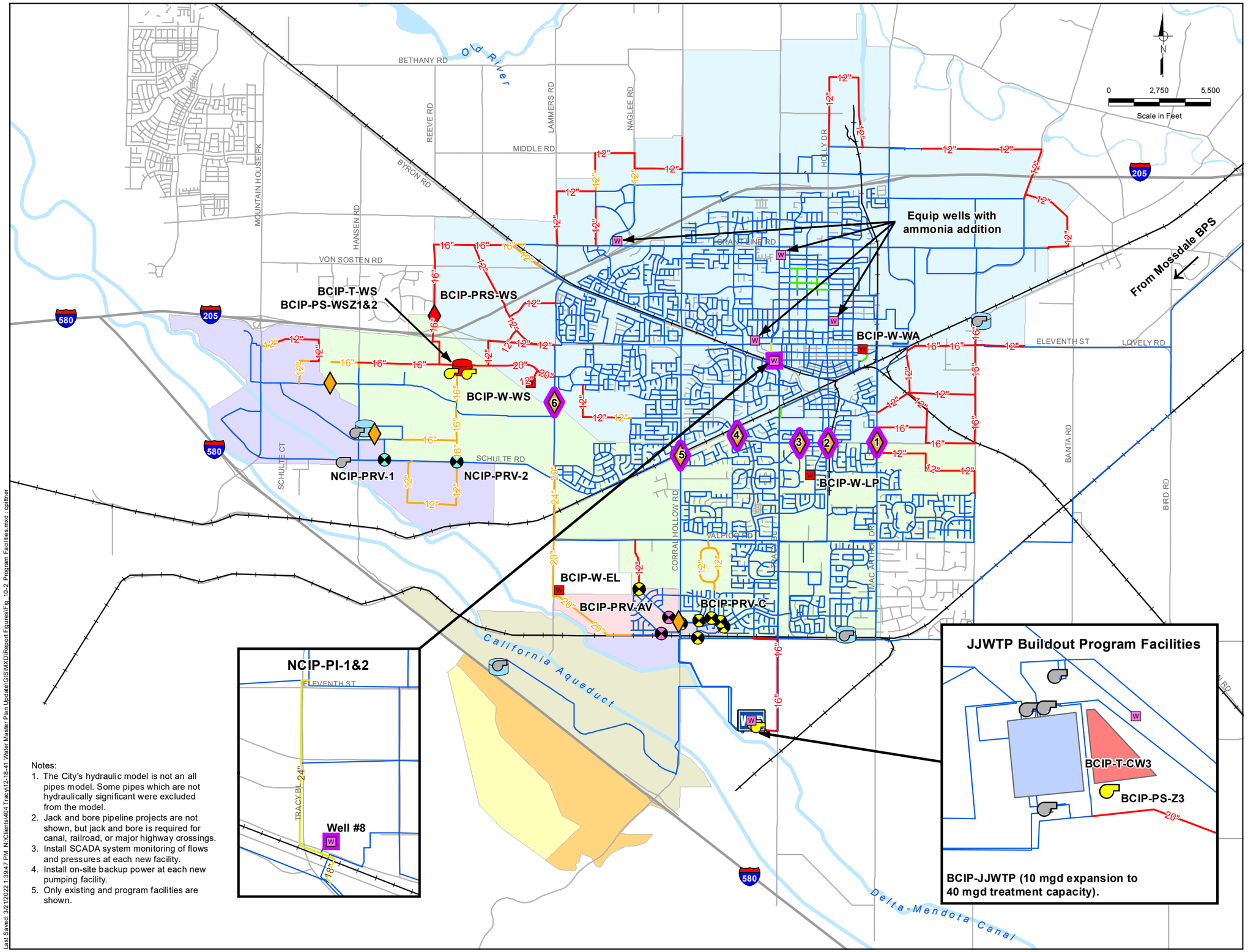
- Land Acquisition
  - To account for land acquisition costs, it was assumed that 1.5 acres will be required for each tank site.
  - To account for land acquisition costs, it was assumed that 0.25 acres will be required for each ASR well site.

- Storage Reservoir

  Note: Because the actual dimensions of each proposed storage tank have not been determined, the recommended storage facility sizes do not include dead and freeboard storage requirements, which will be determined during design.

  - To provide buildout water storage capacity, installation of the following storage facilities is recommended:
    - Westside Tank - 1.0 MG
    - Install a new clearwell at the JJWTP with a minimum active storage capacity of 1.0 MG to provide storage for Zone 3. It is assumed that the existing JJWTP site can accommodate this new clearwell (i.e., land acquisition is not necessary).

- Groundwater Well
  - To provide emergency and dry year water supply, installation of the following groundwater wells is recommended:
    - Westside - ASR well with a minimum firm pumping capacity of 2,500 gpm
    - Wainwright - ASR well with a minimum firm pumping capacity of 2,500 gpm
    - Larsen Park - ASR well with a minimum firm pumping capacity of 2,500 gpm
    - Ellis - ASR well with a minimum firm pumping capacity of 1,000 gpm
    - All new groundwater wells should be equipped with ammonia addition and backup power



Notes:
1. The City's hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.
2. Jack and bore pipeline projects are not shown, but jack and bore is required for canal, railroad, or major highway crossings.
3. Install SCADA system monitoring of flows and pressures at each new facility.
4. Install on-site backup power at each new pumping facility.
5. Only existing and program facilities are shown.

Symbology

Proposed Buildout Program Facilities
- Buildout Pressure Regulating Station
- Buildout Pressure Reducing Valve
- Buildout Booster Pump Station
- Buildout Groundwater Well
- Buildout Storage Tank
- Buildout System Pipeline
- SCADA System Improvement

Proposed 2025 Facilities
- 2025 Pressure Reducing Valve
- 2025 System Pipeline
- 2025 Pipeline CIP

Existing System Facilities
- Existing Pressure Regulating Station
- Existing Pressure Reducing Valve
- Existing Booster Pump Station
- Existing Groundwater Well
- Existing Storage Tank
- John Jones Water Treatment Plant
- Existing System Pipeline
- Proposed Existing System Pipeline CIP

Pressure Zone
- Zone 1
- Zone 2
- Zone 3
- Ellis Reduced Zone
- Zone 4
- Zone 5
- Zone 6

TRACY

WEST YOST ASSOCIATES

Figure 10-2

Recommended Future Potable Water System Program Improvements

City of Tracy
Water System Master Plan Update

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Table 10-2. Probable Construction Costs for Recommended 2025 Potable Water System CIP[a]

Improvement Type	Improvement Description	CIP ID	Quantity		Estimated Construction Cost, dollars[b]	CIP Cost, dollars (includes mark-ups)[c,d]
Shared City-side Facilities						
Pipeline Improvement	Replace existing 12-inch diameter pipeline crossing railroad track with 18-inch diameter pipe. Replace existing 12-inch diameter pipelines in Sixth Street, Tracy Boulevard, and Eleventh Street with 24-inch diameter pipe.	NCIP-PI-1	1,389	lf	627,574	879,000
Jack and Bore Improvement	18-inch diameter (24-inch casing)	NCIP-PI-2	159	lf	109,451	153,000
New Pipeline (Developed Area)	8-inch diameter	NCIP-PD-8	-	lf	-	-
New Pipeline (Developed Area)	10-inch diameter	NCIP-PD-10	-	lf	-	-
New Pipeline (Developed Area)	12-inch diameter	NCIP-PD-12	2,013	lf	523,453	733,000
New Pipeline (Developed Area)	14-inch diameter	NCIP-PD-14	-	lf	-	-
New Pipeline (Developed Area)	16-inch diameter	NCIP-PD-16	1,051	lf	351,924	493,000
New Pipeline (Developed Area)	18-inch diameter	NCIP-PD-18	-	lf	-	-
New Pipeline (Developed Area)	20-inch diameter	NCIP-PD-20	609	lf	243,594	341,000
New Pipeline (Developed Area)	24-inch diameter	NCIP-PD-24	3,426	lf	1,593,146	2,230,000
New Pipeline (Undeveloped Area)	8-inch diameter	NCIP-PU-8	-	lf	-	-
New Pipeline (Undeveloped Area)	10-inch diameter	NCIP-PU-10	-	lf	-	-
New Pipeline (Undeveloped Area)	12-inch diameter	NCIP-PU-12	18,666	lf	4,199,794	5,880,000
New Pipeline (Undeveloped Area)	14-inch diameter	NCIP-PU-14	-	lf	-	-
New Pipeline (Undeveloped Area)	16-inch diameter	NCIP-PU-16	9,270	lf	2,642,003	3,699,000
New Pipeline (Undeveloped Area)	18-inch diameter	NCIP-PU-18	-	lf	-	-
New Pipeline (Undeveloped Area)	20-inch diameter	NCIP-PU-20	7,975	lf	2,711,517	3,796,000
New Pipeline (Undeveloped Area)	24-inch diameter	NCIP-PU-24	-	lf	-	-
Jack and Bore	Boring and Receiving Pits	NCIP-JB-PIT	5	each	200,000	280,000
Jack and Bore	8-inch diameter (16-inch casing)	NCIP-JB-8	-	lf	-	-
Jack and Bore	12-inch diameter (21-inch casing)	NCIP-JB-12	-	lf	-	-
Jack and Bore	16-inch diameter (24-inch casing)	NCIP-JB-16	374	lf	258,046	361,000
Jack and Bore	18-inch diameter (24-inch casing)	NCIP-JB-18	-	lf	-	-
Jack and Bore	20-inch diameter (30-inch casing)	NCIP-JB-20	-	lf	-	-
Jack and Bore	24-inch diameter (36-inch casing)	NCIP-JB-24	677	lf	673,911	943,000
Interconnection	PRV at Schulte Road and Bud Lyons Way	NCIP-PRV-1	1	L.S.	125,000	175,000
Interconnection	PRV at Schulte Road and Pavillion Prkway	NCIP-PRV-2	1	L.S.	125,000	175,000
Groundwater Wells	Equip Lincoln Well, Park & Ride Well, Ball Park Well and Lewis Manor Well with ammonia addition	NCIP-GW-1	1	L.S.	-	1,500,000
ASR Expansion Study	Evaluate future ASR well sites and operational scenarios	NCIP-ASR	1	L.S.	-	350,000
					Total	**$ 21,988,000**

(a) Costs shown are presented in 2020 dollars.
(b) Estimated construction costs do not reflect an adjustment to account for the current economic bidding climate.
(c) Costs include mark-ups equal to 40 percent (General Contingency: 15 percent; Design and Planning: 10 percent; Construction Management: 10 percent; and Program Administration: 5 percent).
(d) Total rounded to nearest $1,000.

- Booster Pump Station[3]
  - To provide buildout water pumping capacity and to convey water from proposed partially buried storage reservoirs, installation of the following pumping facilities is recommended:
    - Zone 3 BPS (JJWTP) – Install additional Zone 3 booster pumps at the JJWTP with a minimum firm pumping capacity of 1,500 gpm
    - Westside Zone 1 Tank - Booster pump station with a minimum firm pumping capacity of 4,500 gpm
    - Westside Zone 2 Tank - Booster pump station with a minimum firm pumping capacity of 2,400 gpm
- New Pipeline plus Jack and Bore[4]
  - To serve buildout potable water demands, install approximately 131,280 linear feet of new pipelines (in addition to the proposed 2025 pipelines) ranging in diameter from 12 to 20 inches.
  - To serve buildout potable water demands, jack and bore approximately 2,750 linear feet of new pipelines. This represents eleven (11) distinct jack and bore installations.
- Interconnection
  - To provide supply during peak demands and/or emergency conditions between pressure zones, installation of the following pressure zone interconnections is recommended:
    - Westside PRS (from Zone 2 into Zone 1)
    - Avenues PRV (from Ellis Reduced Zone into Zone 2)
  - To provide adequate pressure to the Plan C area and prevent the accumulation of stagnant water in dead-end mains, installation of six (6) PRVs is recommended before the Plan C re-zoning occurs (to be funded with Plan C funding).

    Note: The estimated probable construction costs do not include installation of individual PRVs on water service connections with static pressures exceeding 80 psi, as these will be the responsibility of individual developer(s).
- Re-zoning
  - Re-zone the Plan C area from Zone 2 to Zone 3. The capital costs of pipelines and other new facilities which need to be constructed prior to re-zoning are included in their respective categories. The capital cost of the re-zoning itself is assumed to be insignificant.

[3] Cost based on the firm pumping capacity required.

[4] The buildout hydraulic model was developed as a backbone system and is not an "all pipes" model; therefore, the hydraulic simulations performed may not identify all necessary water system improvements. Consequently, it is recommended that further hydraulic evaluations be performed as additional details are provided for each future development project.

- SCADA System and Backup Power
  - Install SCADA system monitoring of flows and pressures at PRS #1-#6 to provide operators with additional understanding and flexibility in system operations.
  - Add remote operation of Well 8 from the SCADA system to provide additional operational flexibility.
  - Install SCADA system monitoring of flows and pressures at each new water supply facility to provide operators with real-time system data and flexibility in system operations. The capital cost for SCADA system installation is included in the cost for these facilities.
  - Install on-site backup power to any proposed buildout system pumping facility to improve supply reliability. The capital cost for backup power is included in the cost for new pump stations.
- JJWTP Expansion
  - A future additional 10 mgd expansion of the JJWTP (for a total treatment capacity of 40 mgd) is recommended to provide the City with additional water treatment capacity, as well as operational flexibility and reliability. The expansion would also include a new administration/maintenance building to accommodate future staffing needs and maintenance activities.
- Participation in Phase 2 Los Vaqueros Reservoir Expansion Project
  - The City's participation in the Phase 2 Los Vaqueros Reservoir Expansion Project would increase the City's water supply reliability by providing storage of supplies for use in dry years.
  - The estimated cost for 5,000 acre-feet of storage for the City will be approximately $10 million plus an additional $1.5 million for implementation and will be shared by existing rate payers and new development.
- Participation in the B.F. Sisk Dam Raise & Reservoir Expansion Project
  - The City's participation in the B.F. Sisk Dam Raise & Reservoir Expansion Project would increase the City's water supply reliability by providing storage of supplies for use in dry years.
  - The estimated cost for 5,000 acre-feet of storage for the City will be approximately $38 million and will be shared by existing rate payers and new development.
- Water Master Plan Updates
  - Regular updates of this Citywide Water System Master Plan are recommended to evaluate potable water and recycled water infrastructure needs to reflect any changes in future development plans, water use trends and patterns, and water supply availability and reliability, as well as new regulations and operational needs as new potable water and recycled water system infrastructure is constructed. It is recommended that updates be prepared at least once every 10 years, or more often if changing conditions warrant more frequent updates. For purposes of this Citywide Water System Master Plan Update, three future updates are planned.

The locations of the recommended buildout program facility improvements are shown on Figure 10-2. Preliminary capital cost estimates for the recommended buildout potable water system improvements are presented in Table 10-3. Detailed maps illustrating the proposed pipeline projects for the buildout potable water system are provided in Appendix F.

10.2.4 Water Treatment Plant Expansion Costs

In 2008, the JJWTP was expanded by 15 mgd to provide additional treatment capacity for future development. While some of this capacity is now utilized by the City's existing water users, it is estimated that 9 mgd of the expansion capacity is still available for future developments to use. To recoup the costs of constructing this remaining 9 mgd of treatment capacity, the City will include a charge for the JJWTP expansion capacity in the developer impact fees. The cost of the 2008 expansion was $45 million, or $3 million per mgd of capacity. Therefore, the remaining JJWTP expansion cost to be allocated amongst future developments is $27 million.

In addition, as discussed in Chapter 8, a future additional 10 mgd expansion of the JJWTP is recommended. The estimated construction cost is $4 million per mgd, or $40 million for the recommended 10 mgd expansion, plus an additional $12 million for a new administration/ maintenance building.

10.2.5 Summary of Recommended Potable Water System CIP Costs

Preliminary capital cost estimates for the recommended existing, 2025, and buildout potable water system improvements are presented in Tables 10-1, 10-2, and 10-3, respectively.

The total existing potable water system CIP cost estimate is $2.0 million, while the total 2025 and buildout potable water system CIP cost estimates (which include only program facilities) are $22.0 million and $211.9 million, respectively. The estimated probable construction costs do not include installation of individual PRVs on potable water service connections with static pressures exceeding 80 psi, as these will be the responsibility of individual developer. The remaining previous JJWTP expansion buy-in cost is $27.0 million.

The total CIP costs from Table 10-1 should be allocated to existing rate payers, while the total CIP costs from Table 10-2 and Table 10-3 and the previous JJWTP expansion buy-in cost should be allocated to new development; with the exception of the costs for the participation in the Phase 2 Los Vaqueros Reservoir Expansion Project which should be shared between existing rate payers and future development.

Table 10-3. Probable Construction Costs for Recommended Buildout Potable Water System CIP[a]

Improvement Type	Improvement Description	CIP ID	Quantity		Estimated Construction Cost, dollars[b]	CIP Cost, dollars (includes mark-ups)[c,d]
Shared City-side Facilities						
Land Acquisition[e]	Tank Sites	BCIP-LA-T	1	sites	-	285,000
Land Acquisition[f]	ASR Well Sites	BCIP-LA-W	4	sites	-	190,000
Storage Reservoir[g]	1.0 MG Clearwell No. 3 at JJWTP	BCIP-T-CW3	1	L.S.	3,008,250	4,212,000
Storage Reservoir[g]	1.0 MG Westside Tank	BCIP-T-WS	1	L.S.	3,008,250	4,212,000
Groundwater Well	2,500 gpm ASR Well in Westside	BCIP-W-WS	1	L.S.	3,900,000	5,460,000
Groundwater Well	2,500 gpm ASR Well in Wainwright	BCIP-W-WA	1	L.S.	3,900,000	5,460,000
Groundwater Well	2,500 gpm ASR Well in Larsen Park	BCIP-W-LP	1	L.S.	3,900,000	5,460,000
Groundwater Well	1,000 gpm ASR Well in Ellis	BCIP-W-EL	1	L.S.	2,500,000	3,500,000
Booster Pump Station[h]	2.16 mgd at Zone 3 Clearwell (JJWTP)	BCIP-PS-Z3	1	L.S.	1,554,755	2,177,000
Booster Pump Station[h]	6.48 mgd at Westside Zone 1 Tank	BCIP-PS-WSZ1	1	L.S.	2,263,735	3,169,000
Booster Pump Station[h]	3.46 mgd at Westside Zone 2 Tank	BCIP-PS-WSZ2	1	L.S.	1,767,450	2,474,000
New Pipeline (Developed Area)	8-inch diameter	BCIP-PD-8	11	lf	2,090	3,000
New Pipeline (Developed Area)	10-inch diameter	BCIP-PD-10	-	lf	-	-
New Pipeline (Developed Area)	12-inch diameter	BCIP-PD-12	-	lf	-	-
New Pipeline (Developed Area)	14-inch diameter	BCIP-PD-14	-	lf	-	-
New Pipeline (Developed Area)	16-inch diameter	BCIP-PD-16	11,349	lf	3,801,881	5,323,000
New Pipeline (Developed Area)	18-inch diameter	BCIP-PD-18	-	lf	-	-
New Pipeline (Developed Area)	20-inch diameter	BCIP-PD-20	1,132	lf	452,853	634,000
New Pipeline (Developed Area)	24-inch diameter	BCIP-PD-24	-	lf	-	-
New Pipeline (Undeveloped Area)	8-inch diameter	BCIP-PU-8	-	lf	-	-
New Pipeline (Undeveloped Area)	10-inch diameter	BCIP-PU-10	-	lf	-	-
New Pipeline (Undeveloped Area)	12-inch diameter	BCIP-PU-12	84,957	lf	19,115,431	26,762,000
New Pipeline (Undeveloped Area)	14-inch diameter	BCIP-PU-14	-	lf	-	-
New Pipeline (Undeveloped Area)	16-inch diameter	BCIP-PU-16	27,691	lf	7,891,999	11,049,000
New Pipeline (Undeveloped Area)	18-inch diameter	BCIP-PU-18	-	lf	-	-
New Pipeline (Undeveloped Area)	20-inch diameter	BCIP-PU-20	6,148	lf	2,090,151	2,926,000
New Pipeline (Undeveloped Area)	24-inch diameter	BCIP-PU-24	-	lf	-	-
Jack and Bore	Boring and Receiving Pits	BCIP-JB-PIT	11	each	440,000	616,000
Jack and Bore	8-inch diameter (16-inch casing)	BCIP-JB-8	-	lf	-	-
Jack and Bore	12-inch diameter (21-inch casing)	BCIP-JB-12	1,489	lf	885,921	1,240,000
Jack and Bore	16-inch diameter (24-inch casing)	BCIP-JB-16	1,257	lf	867,182	1,214,000
Jack and Bore	18-inch diameter (24-inch casing)	BCIP-JB-18	-	lf	-	-
Jack and Bore	20-inch diameter (30-inch casing)	BCIP-JB-20	-	lf	-	-
Jack and Bore	24-inch diameter (36-inch casing)	BCIP-JB-24	-	lf	-	-
Interconnection	Westside PRS (12-inch)	BCIP-PRS-WS	1	L.S.	250,000	350,000
Interconnection	Avenues PRV (12-inch)	BCIP-PRV-AV	1	L.S.	125,000	175,000
SCADA	Well No. 8	BCIP-S-W8	1	L.S.	125,000	175,000
SCADA	Pressure Regulating Station No. 1	BCIP-S-1	1	L.S.	125,000	175,000
SCADA	Pressure Regulating Station No. 2	BCIP-S-2	1	L.S.	125,000	175,000
SCADA	Pressure Regulating Station No. 3	BCIP-S-3	1	L.S.	125,000	175,000
SCADA	Pressure Regulating Station No. 4	BCIP-S-4	1	L.S.	125,000	175,000
SCADA	Pressure Regulating Station No. 5	BCIP-S-5	1	L.S.	125,000	175,000
SCADA	Pressure Regulating Station No. 6	BCIP-S-6	1	L.S.	125,000	175,000
JJWTP Expansion	Expand JJWTP from 30 mgd to 40 mgd and new administration/maintenance building	BCIP-JJWTP	1	L.S.	52,000,000	72,800,000
Participation in Phase 2 Los Vaqueros Reservoir Expansion Project[i]	5,000 acre-feet of storage for dry year use	BCIP-LVE	1	L.S.	11,500,000	11,500,000
Participation in B.F. Sisk Dam Raise & Reservoir Expansion Project[i]	5,000 acre-feet of storage for dry year use	BCIP-SISK	1	L.S.	38,000,000	38,000,000
Water Master Plan Updates	Future updates to Water Master Plan (three updates assumed @ $500,000 per update)	BCIP-WMP	3	each		1,500,000
					Total	**$ 211,916,000**

(a) Costs shown are presented in 2020 dollars.
(b) Estimated construction costs do not reflect an adjustment to account for the current economic bidding climate.
(c) Costs include mark-ups equal to 40 percent (General Contingency: 15 percent; Design and Planning: 10 percent; Construction Management: 10 percent; and Program Administration: 5 percent).
(d) Total rounded to nearest $1,000.
(e) Assumes each tank site is 1.5 acres. Cost includes Westside Tank site.
(f) Assumes each ASR well site is 0.25 acres. Cost includes Westside, Wainwright, Larsen Park, and Ellis ASR Well sites.
(g) Recommended volume based on active volume. Cost assumes the construction of a partially buried prestressed concrete tank.
(h) Recommended capacity based on firm pumping capacity.
(i) Cost for participation in Phase 2 Los Vaqueros Reservoir Expansion Project and B.F. Sisk Dam Raise & Reservoir Expansion Project to be shared by existing rate payers and new development.

10.3 RECOMMENDED RECYCLED WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM

A summary of the recommended capital improvement projects for the recycled water system is presented below in *Section 10.3.1 2025 Recycled Water System Improvements* and *Section 10.3.2 Buildout Recycled Water System Improvements*. Each section contains a table with preliminary capital cost estimates for the recommended recycled water system improvements. These costs are summarized in *Section 10.3.3 Summary of Recommended Recycled Water System CIP Costs*.

10.3.1 2025 Recycled Water System Improvements

Based on the recycled water system evaluation, the following backbone improvements were recommended to meet projected 2025 recycled water demands. **Only program facilities are listed below; the complete list of recommended 2025 recycled water system improvements (including non-program facilities) and their recommended timing can be found in Chapter 9.**

- Booster Pump Station[5]
  - To provide 2025 recycled water pumping capacity, installation of the following pumping facilities is recommended:
    - Zone C BPS - Booster pump station with a minimum pumping capacity of 1,700 gpm.
- New Pipeline plus Jack and Bore[6]
  - To serve 2025 recycled water demands, install approximately 11,370 linear feet of new pipelines ranging in diameter from 8 to 30 inches.
  - To serve 2025 recycled water demands, jack and bore approximately 590 linear feet of new pipelines. This represents 2 distinct jack and bore installations.
  - To deliver recycled water to the DMC as part of the City's planned recycled water exchange agreement with the USBR, install approximately 23,680 linear feet and jack and bore approximately 180 linear feet (in 1 installation) of new, 30-inch diameter pipeline. This assumes Alignment A as depicted on Figure 9-3 is constructed. A detailed alignment study should be conducted to determine the final alignment of the recycled water exchange pipeline. Actual length of the recycled water exchange pipeline may change considerably if a different alignment is selected. A separate line item for program implementation is also included for the City's planned recycled water exchange agreement to account for coordination and negotiations with the USBR and SWRCB which may require additional studies, legal review and assistance and staff and consultant time.

    Note: Within individual developments, additional new pipelines of 16-inch diameter and less will be required. The total length of pipelines needed to serve 2025 recycled water demands is unknown, as some development areas are still preparing recycled water system plans.

[5] Cost based on the firm pumping capacity required.

[6] The buildout hydraulic model was developed as a backbone system and is not an "all pipes" model; therefore, the hydraulic simulations performed may not identify all necessary recycled water system improvements. Consequently, it is recommended that further hydraulic evaluations be performed as additional details are provided for each future development project.

The locations of the recommended 2025 recycled water program facility improvements are shown on Figure 10-3. Preliminary capital cost estimates for the recommended 2025 recycled water system improvements are presented in Table 10-4. Detailed maps illustrating the proposed pipeline projects for the 2025 potable water system are provided in Appendix G.

10.3.2 Buildout Recycled Water System Improvements

As discussed in Chapter 9, the buildout recycled water system is expected to consist of one system that encompasses the entire SOI. Based on the buildout recycled water system evaluation, the following backbone recycled water system improvements were recommended to meet projected buildout recycled water demands. **Only program facilities are listed below; the complete list of recommended buildout recycled water system improvements (including non-program facilities) and their recommended timing can be found in Chapter 9.**

- Land Acquisition
  - To account for land acquisition costs, assume 1.5 acres will be required for each tank site.
- Storage Reservoir

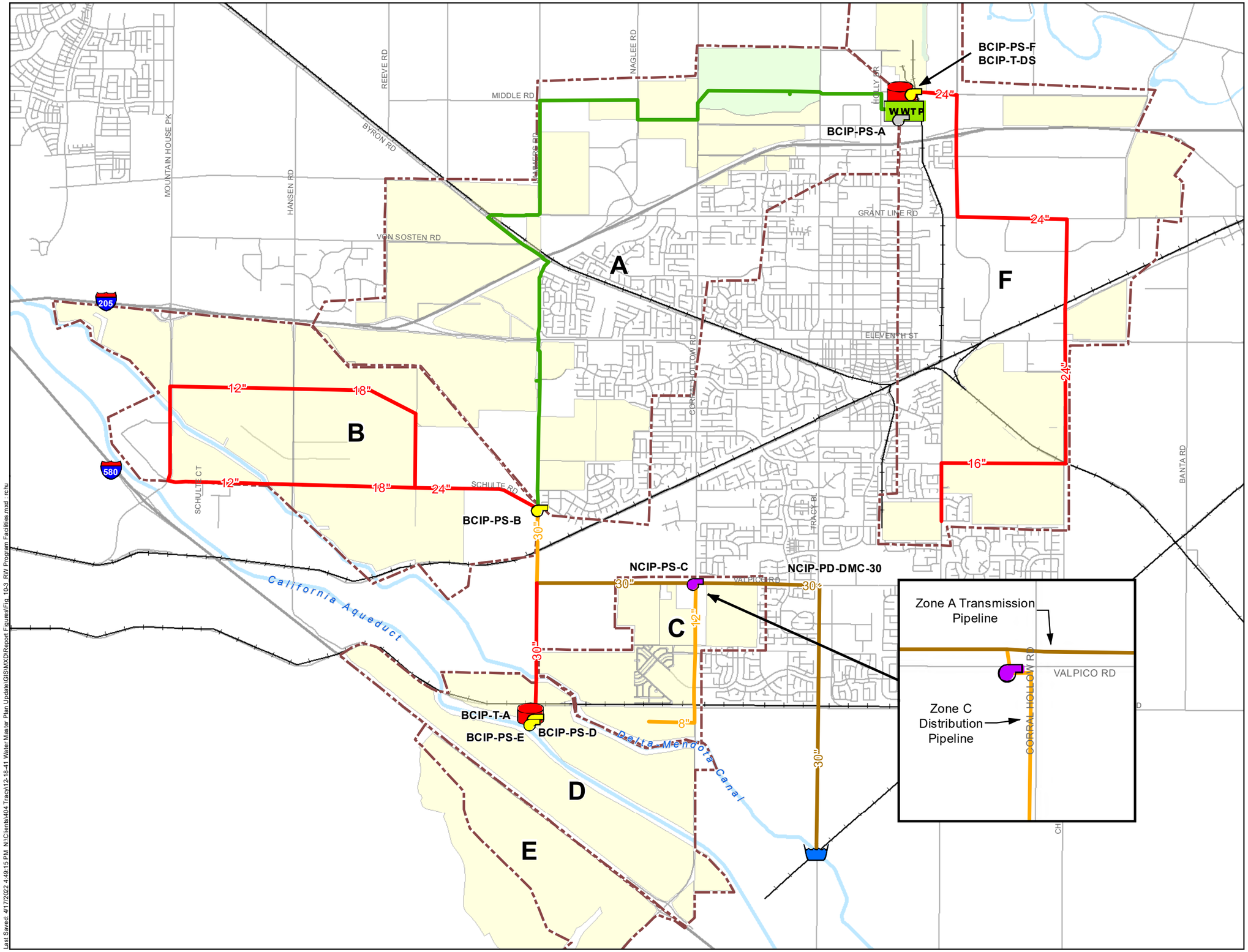
  Note: Because the actual dimensions of each proposed storage tank have not been determined, the recommended storage facility sizes do not include dead and freeboard storage requirements, which will be determined during design.

  - To provide buildout recycled water storage capacity, installation of the following storage facilities is recommended:
    - Zone A Tank – install an above ground, welded steel storage tank with a minimum active storage capacity of 5.7 MG
    - Install a diurnal storage tank at the WWTP with a minimum active storage capacity of 2.3 MG. It is assumed that the existing WWTP site can accommodate this new tank (i.e., land acquisition is not necessary). The need for this storage will depend on WWTP diurnal flow patterns, and it is recommended that the City re-evaluate the required diurnal storage at the WWTP by performing a diurnal flow study in 2040.
- Booster Pump Station
  - To provide buildout recycled water pumping capacity and to convey water from proposed partially buried storage reservoirs, installation of the following pumping facilities is recommended:
    - Zone A BPS Expansion – install additional booster pumps with a minimum pumping capacity of 3,472 gpm
    - Zone B BPS – Booster pump station with a minimum pumping capacity of 5,780 gpm
    - Zone D BPS – Booster pump station with a minimum pumping capacity of 2,700 gpm
    - Zone E BPS – Booster pump station with a minimum pumping capacity of 2,000 gpm
    - Zone F BPS – Booster pump station with a minimum pumping capacity of 4,400 gpm

Table 10-4. Probable Construction Costs for the Recommended 2025 Recycled Water System CIP[a]

Improvement Type	Improvement Description	CIP ID	Quantity		Estimated Construction Cost, dollars[b]	CIP Cost, dollars (includes mark-ups)[c,d]
Shared City-side Facilities						
Booster Pump Station	2.45 mgd for Zone C	NCIP-PS-C	1	L.S.	1,441,820	2,019,000
New Pipeline (Developed Area)	8-inch diameter	NCIP-PD-8	4,962	lf	868,372	1,216,000
New Pipeline (Developed Area)	10-inch diameter	NCIP-PD-10	-	lf	-	-
New Pipeline (Developed Area)	12-inch diameter	NCIP-PD-12	3,055	lf	778,900	1,090,000
New Pipeline (Developed Area)	14-inch diameter	NCIP-PD-14	-	lf	-	-
New Pipeline (Developed Area)	16-inch diameter	NCIP-PD-16	-	lf	-	-
New Pipeline (Developed Area)	18-inch diameter	NCIP-PD-18	-	lf	-	-
New Pipeline (Developed Area)	20-inch diameter	NCIP-PD-20	-	lf	-	-
New Pipeline (Developed Area)	24-inch diameter	NCIP-PD-24	131	lf	60,939	85,000
New Pipeline (Developed Area)	30-inch diameter	NCIP-PD-30	3,218	lf	1,818,131	2,545,000
New DMC Pipeline (Developed Area)	30-inch diameter	NCIP-PD-DMC-30	23,683	lf	13,380,877	18,733,000
New Pipeline (Undeveloped Area)	8-inch diameter	NCIP-PU-8	-	lf	-	-
New Pipeline (Undeveloped Area)	10-inch diameter	NCIP-PU-10	-	lf	-	-
New Pipeline (Undeveloped Area)	12-inch diameter	NCIP-PU-12	-	lf	-	-
New Pipeline (Undeveloped Area)	14-inch diameter	NCIP-PU-14	-	lf	-	-
New Pipeline (Undeveloped Area)	16-inch diameter	NCIP-PU-16	-	lf	-	-
New Pipeline (Undeveloped Area)	18-inch diameter	NCIP-PU-18	-	lf	-	-
New Pipeline (Undeveloped Area)	20-inch diameter	NCIP-PU-20	-	lf	-	-
New Pipeline (Undeveloped Area)	24-inch diameter	NCIP-PU-24	-	lf	-	-
New Pipeline (Undeveloped Area)	30-inch diameter	NCIP-PU-30	-	lf	-	-
Jack and Bore	Boring and Receiving Pits	NCIP-JB-PIT	2	each	80,000	112,000
Jack and Bore	8-inch diameter (16-inch casing)	NCIP-JB-8	154	lf	79,907	112,000
Jack and Bore	12-inch diameter (21-inch casing)	NCIP-JB-12	-	lf	-	-
Jack and Bore	16-inch diameter (24-inch casing)	NCIP-JB-16	-	lf	-	-
Jack and Bore	18-inch diameter (24-inch casing)	NCIP-JB-18	-	lf	-	-
Jack and Bore	20-inch diameter (30-inch casing)	NCIP-JB-20	-	lf	-	-
Jack and Bore	24-inch diameter (36-inch casing)	NCIP-JB-24	-	lf	-	-
Jack and Bore	30-inch diameter (42-inch casing)	NCIP-JB-30	434	lf	483,956	678,000
Jack and Bore (DMC Pipeline)	Boring and Receiving Pits	NCIP-JB-DMC-PIT	1	each	40,000	56,000
Jack and Bore (DMC Pipeline)	30-inch diameter (42-inch casing)	NCIP-JB-DMC-30	178	lf	198,418	278,000
Recycled Water Exchange Program Implementation	Additional studies, legal review and assistance, City staff and consultant time	NCIP-DMC	1	L.S.	1,000,000	1,000,000
					Total	**$ 27,924,000**

(a) Costs shown are presented in 2020 dollars.
(b) Estimated construction costs do not yet reflect an adjustment to account for the current economic bidding climate.
(c) Costs include mark-ups equal to 40 percent (General Contingency: 15 percent; Design and Planning: 10 percent; Construction Management: 10 percent; and Program Administration: 5 percent).
(d) Total rounded to nearest $1,000.



Symbology

Proposed Buildout Program Facilities

- Buildout Booster Pump Station
- Buidlout Storage Tank
- Buildout System Pipeline

Proposed 2025 Program Facilities

- 2025 Booster Pump Station
- 2025 System Pipeline
- Delta-Mendota Canal Pipeline
- Delta-Mendota Canal Discharge Point

Existing System Facilities

- Existing Booster Pump Station
- WWTP Wastewater Treatment Plant
- Existing System Pipeline
- Legacy Fields
- Future Recycled Water Use
- Recycled Water Pressure Zone

Notes:

1. The City's hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.
2. Jack and bore pipeline projects are not shown, but jack and bore is required for canal, railroad, or major highway crossings.
3. Install SCADA system monitoring of flows and pressures at each new facility.
4. Only existing and program facilities are shown.

TRACY

WEST YOST ASSOCIATES

Figure 10-3

Recommended Future Recycled Water System Program Improvements

City of Tracy
Water System Master Plan Update

Last Saved: 4/17/2022 4:49:15 PM N:\Clients\404 Tracy\12-18-41 Water Master Plan Update\GIS\MXD\Report Figures\Fig. 10-3 RW Program Facilities.mxd - rchu

- New Pipeline plus Jack and Bore[7]
  - To serve buildout recycled water demands, install approximately 71,550 linear feet of new pipelines (in addition to the proposed 2025 pipelines) ranging in diameter from 12 to 30 inches.
  - To serve buildout potable water demands, jack and bore approximately 1,590 linear feet of new pipelines. This represents 5 distinct jack and bore installations.

    Note: Within individual developments, additional new pipelines of 16-inch diameter and less will be required. The total length of pipelines needed to serve buildout recycled water demands is unknown, as some development areas are still preparing recycled water system plans.

- SCADA System
  - Install SCADA system monitoring of flows and pressures at each new water supply facility to provide operators with real-time system data and flexibility in system operations. The capital cost for SCADA system installation is included in the cost for these facilities.

The locations of these recommended buildout recycled water program facility improvements are shown on Figure 10-3. Preliminary capital cost estimates for the recommended buildout recycled water system improvements are presented in Table 10-5. Detailed maps illustrating the proposed pipeline projects for the buildout recycled water system are provided in Appendix G.

10.3.3 Summary of Recommended Recycled Water System CIP Costs

As discussed in Appendix E, unit construction costs for pipelines, booster pump stations, and storage tanks are essentially the same as for the potable water system. However, unit construction costs for recycled water system pipelines 8 inches and 12 inches in diameter are slightly less than for potable water pipelines, because the 8-inch and 12-inch diameter recycled water pipelines are assumed to be constructed from PVC instead of ductile iron.

Preliminary capital cost estimates for the recommended 2025 and buildout recycled water system are presented in Table 10-4 and Table 10-5, respectively. The estimated probable construction costs do not include installation of individual PRVs on recycled water service connections with peak hour or fill period pressures exceeding 100 psi, as these will be the responsibility of individual developer.

The total 2025 recycled water system CIP cost estimate is $27.9 million, while the total buildout recycled water system CIP cost estimate is $65.5 million. The total recommended recycled water system CIP cost estimate is $93.4 million. These costs only include program facilities.

[7] The buildout hydraulic model was developed as a backbone system and is not an "all pipes" model; therefore, the hydraulic simulations performed may not identify all necessary water system improvements. Consequently, it is recommended that further hydraulic evaluations be performed as additional details are provided for each future development project.

Table 10-5. Probable Construction Costs for the Recommended Buildout Recycled Water System CIP[a]

Improvement Type	Improvement Description	CIP ID	Quantity		Estimated Construction Cost, dollars[b]	CIP Cost, dollars (includes mark-ups)[c,d]
Shared City-side Facilities						
Land Acquisition[e]	Tank Sites	BCIP-LA-T	1	sites	-	285,000
Storage Reservoir[f]	5.7 MG Zone A Tank	BCIP-T-A	1	L.S.	5,809,500	8,133,000
Storage Reservoir[f]	2.3 MG WWTP Diurnal Storage Tank	BCIP-T-DS	1	L.S.	4,262,640	5,968,000
Booster Pump Station	5.00 mgd Zone A Expansion	BCIP-PS-A	1	L.S.	1,818,715	2,546,000
Booster Pump Station	6.34 mgd for Zone F	BCIP-PS-F	1	L.S.	2,016,095	2,823,000
Booster Pump Station	8.32 mgd for Zone B	BCIP-PS-B	1	L.S.	2,309,610	3,233,000
Booster Pump Station	3.89 mgd for Zone D	BCIP-PS-D	1	L.S.	1,654,515	2,316,000
Booster Pump Station	2.88 mgd for Zone E	BCIP-PS-E	1	L.S.	1,505,630	2,108,000
New Pipeline (Developed Area)	8-inch diameter	BCIP-PD-8	-	lf	-	-
New Pipeline (Developed Area)	10-inch diameter	BCIP-PD-10	-	lf	-	-
New Pipeline (Developed Area)	12-inch diameter	BCIP-PD-12	-	lf	-	-
New Pipeline (Developed Area)	14-inch diameter	BCIP-PD-14	-	lf	-	-
New Pipeline (Developed Area)	16-inch diameter	BCIP-PD-16	2,499	lf	837,072	1,172,000
New Pipeline (Developed Area)	18-inch diameter	BCIP-PD-18	-	lf	-	-
New Pipeline (Developed Area)	20-inch diameter	BCIP-PD-20	-	lf	-	-
New Pipeline (Developed Area)	24-inch diameter	BCIP-PD-24	21,852	lf	10,161,175	14,226,000
New Pipeline (Developed Area)	30-inch diameter	BCIP-PD-30	-	lf	-	-
New Pipeline (Undeveloped Area)	8-inch diameter	BCIP-PU-8	-	lf	-	-
New Pipeline (Undeveloped Area)	10-inch diameter	BCIP-PU-10	-	lf	-	-
New Pipeline (Undeveloped Area)	12-inch diameter	BCIP-PU-12	19,557	lf	4,302,643	6,024,000
New Pipeline (Undeveloped Area)	14-inch diameter	BCIP-PU-14	-	lf	-	-
New Pipeline (Undeveloped Area)	16-inch diameter	BCIP-PU-16	5,343	lf	1,522,836	2,132,000
New Pipeline (Undeveloped Area)	18-inch diameter	BCIP-PU-18	9,202	lf	2,898,523	4,058,000
New Pipeline (Undeveloped Area)	20-inch diameter	BCIP-PU-20	-	lf	-	-
New Pipeline (Undeveloped Area)	24-inch diameter	BCIP-PU-24	7,219	lf	2,851,449	3,992,000
New Pipeline (Undeveloped Area)	30-inch diameter	BCIP-PU-30	5,882	lf	2,823,234	3,953,000
Jack and Bore	Boring and Receiving Pits	BCIP-JB-PIT	5	each	200,000	280,000
Jack and Bore	8-inch diameter (16-inch casing)	BCIP-JB-8	-	lf	-	-
Jack and Bore	12-inch diameter (21-inch casing)	BCIP-JB-12	-	lf	-	-
Jack and Bore	16-inch diameter (24-inch casing)	BCIP-JB-16	-	lf	-	-
Jack and Bore	18-inch diameter (24-inch casing)	BCIP-JB-18	-	lf	-	-
Jack and Bore	20-inch diameter (30-inch casing)	BCIP-JB-20	-	lf	-	-
Jack and Bore	24-inch diameter (36-inch casing)	BCIP-JB-24	1,234	lf	1,227,805	1,719,000
Jack and Bore	30-inch diameter (42-inch casing)	BCIP-JB-30	359	lf	400,168	560,000
					Total	**$ 65,528,000**

(a) Costs shown are presented in 2020 dollars.
(b) Estimated construction costs do not yet reflect an adjustment to account for the current economic bidding climate.
(c) Costs include mark-ups equal to 40 percent (General Contingency: 15 percent; Design and Planning: 10 percent; Construction Management: 10 percent; and Program Administration: 5 percent).
(d) Total rounded to nearest $1,000.
(e) Assumes each tank site is 1.5 acres. Cost includes Zone A Tank site.
(f) Recommended volume based on active volume. Cost assumes the Zone A tank will be an aboveground welded steel tank, and the WWTP tank will be a partially buried prestressed concrete tank.

10.4 CAPITAL IMPROVEMENT PROGRAM TIMING AND TRIGGERS

As described in Chapters 7 and 8 for the potable water system and Chapter 9 for the recycled water system, the construction of the capital improvements for the future potable and recycled water systems should be coordinated with the proposed schedules of new development and/or other system needs to ensure that the required infrastructure will be in place to serve future customers when needed.

Triggers for capital improvements vary depending on the improvement type and the location of the specific improvement project. General guidelines are summarized as follows:

- Existing system pipeline improvements are triggered by existing fire flow deficiencies and should be addressed as soon as funding is available.
- Improvements that improve system operational flexibility and reliability should be prioritized. Examples of such improvements include the equipping of the City's existing wells with ammonia addition, the JJWTP expansion and construction of Clearwell #3 at the JJWTP, and implementation of SCADA system improvements and backup power provisions.
- Pipelines which extend potable water service to currently undeveloped areas are generally triggered by development of those areas. Hydraulic evaluations for specific developments should be conducted to confirm that the proposed pipelines to serve each development are adequate.
- The NCIP-PI-1 and NCIP-PI-2 projects are triggered by new development, which is expected to occur by 2025, and should be in service before 2025. Similarly, the infrastructure needed to re-zone the existing transmission mains in Lammers Road, Schulte Road, and Hansen Road from Zone 2 to Zone 3 should be constructed before 2025.
- New valve interconnections between pressure zones are triggered when the pipelines requiring the valve connections are constructed.
- Pump stations and tanks which serve a new pressure zone with no existing facilities, such as Zones 5 and 6 in the potable water system or Zones B through F in the recycled water system, are triggered when development of the new pressure zone begins.
- New pump stations and tanks which serve an existing pressure zone are triggered when total demands within that pressure zone nearly exceeds the capacity of existing facilities. The City should continue to monitor demands within the existing pressure zones and begin design and construction of new facilities in advance of demands exceeding existing capacity.

APPENDIX A

Land Use Assumptions and Projected Water Demands for New Developments

Table A-1. Land Uses with TAZ Estimates provided by City Planning Division

General Plan Planning Area/Common Name	TAZ	Total Acres	Adjusted Total Acres	Overall Density (Units per Gross Acre)	TAZ 2025	TAZ 2025	TAZ 2025	TAZ 2025	TAZ 2025	TAZ 2025	TAZ 2040	TAZ 2040	TAZ 2040	TAZ 2040	TAZ 2040	Taz 2040	TAZ 2040 to Buildout	TAZ 2040 to Buildout	TAZ Buildout	TAZ Buildout	TAZ Buildout	TAZ Buildout	Very Low Density (1.5 DU per acre typical)	Low Density (4.35 DU per acre typical)	Medium Density (9 DU per acre typical)	High Density SFD (13 DU per acre typical)	High Density Multi-Family (24 DU per acre typical)	Total Resid SF DU	Total Resid MF DU	Senior /Assisted Living		Institutional (Hospital and Medical Office)		Industrial Acres (0.5 FAR)	Retail/Commercial/ Office Acres
					SFDU	MFDU	Retail/Office Acres	Ind Acres	Institutional Acres	Sr Assist Liv Acres	SFDU	MFDU	Retail/Office Acres	Ind Acres	Institutional Acres	Sr Assist Liv Acres	SFDU	MFDU	Retail/Office Acres	Ind Acres	Institutional Acres	Sr. Assist Liv Acres	acres	acres	acres	acres	acres			units	acres	square footage	acres		
UR 5 (Bright) (1)	527	170	108	8.2							546								10					40	38	10	10	546	0		0		0	0	10
	789										100	240																100	240		0		0	0	0
UR 7 (Bright/Castro) (2)	792	112	107	5.7	150						456													40	48			606	0		0		0	0	0
Rocking Horse (3)	788	58	55	4.5	250																			55				250	0		0		0	0	0
Tracy Village (4)	535	135	130	4.6	400						200													130				600	0		0		0	0	0
UR1 (5)	515	780	780	3.8	50	50					200							169	20				380	300	65		25	250	219		0		0	0	20
	517																400											400	0		0		0	0	0
	613										200						260											460	0		0		0	0	0
	616																300											300	0		0		0	0	0
	617												10				200	200										200	200		0		0	0	10
	618				50	50					200	50					300											550	100		0		0	0	0
	659																200											200	0		0		0	0	0
Ellis (6)	529	321	185	4.1	43						132													178	7			175	0		0		0	0	0
	661											60																0	60		0		0	0	0
	662				43						132																	175	0		0		0	0	0
	663				43						132																	175	0		0		0	0	0
	664										176																	176	0		0		0	0	0
Avenues (8)	670	96	96	4.7							350													96				350	0		0		0	0	0
	599										103																	103	0		0		0	0	0
UR10 (9)	660	116	116	N/A																116								0	0		0		0	116	0
Tracy Hills (10)	573	2732	1845	3.3	200						100		7										81	876	342	8		300	0		0		0	0	9
	574																			27								0	0		0		0	27	0
	601																700			85								700	0		0		0	85	0
	682										600																	600	0		0		0	0	0
	683				200						150						100											450	0		0		0	0	0
	684										300																	300	0		0		0	0	0
	685										908						200											1,108	0		0		0	0	0
	686										500						500											1,000	0		0		0	0	0
	687										320																	320	0		0		0	0	0
	688										450																	450	0		0		0	0	0
	689				200						600																	800	0		0		0	0	0
	690				200						100																	300	0		0		0	0	0
	691													196														0	0		0		0	196	0
	692																500											500	0		0		0	0	0
	693				200						185		30															385	0		0		0	0	30
	1044										50																	50	0		0		0	0	0
Gateway (11)	794	535	454			75	8.5					302	34						34						50		17	0	377	1,557	0	688,000	0	0	120
	839									17						69												0	0		86		0	0	0
	840																											0	0		0		0	0	0
	843									12.5						50												0	0		63		0	0	0
	844						8				50		33						34									50	0		0		0	0	75
	845								20						60						50							0	0		0		130	0	0
	847				160						325																	485	0		0		0	0	0
	848				18					5	75					20												93	0		25		0	0	0
UR6 (Cordes Ranch) (12)	829	1730	971	N/A			5						40	150																	0		0	150	171
	830						5						20																		0		0	0	25
	831													50																	0		0	50	0
	832							50					54	50																	0		0	100	54
	833													110																	0		0	110	0
	834							20						20																	0		0	40	0
	835																		57												0		0	0	57

Table A-1. Land Uses with TAZ Estimates provided by City Planning Division

General Plan Planning Area/Common Name	TAZ	Total Acres	Adjusted Total Acres	Overall Density (Units per Gross Acre)	TAZ 2025	TAZ 2025	TAZ 2025	TAZ 2025	TAZ 2025	TAZ 2025	TAZ 2040	TAZ 2040	TAZ 2040	TAZ 2040	TAZ 2040	Taz 2040	TAZ 2040 to Buildout	TAZ 2040 to Buildout	TAZ Buildout	TAZ Buildout	TAZ Buildout	TAZ Buildout	Very Low Density (1.5 DU per acre typical)	Low Density (4.35 DU per acre typical)	Medium Density (9 DU per acre typical)	High Density SFD (13 DU per acre typical)	High Density Multi-Family (24 DU per acre typical)	Total Resid SF DU	Total Resid MF DU	Senior /Assisted Living		Institutional (Hospital and Medical Office)		Industrial Acres (0.5 FAR)	Retail/Commercial/ Office Acres
					SFDU	MFDU	Retail/Office Acres	Ind Acres	Institutional Acres	Sr Assist Liv Acres	SFDU	MFDU	Retail/Office Acres	Ind Acres	Institutional Acres	Sr Assist Liv Acres	SFDU	MFDU	Retail/Office Acres	Ind Acres	Institutional Acres	Sr. Assist Liv Acres	acres	acres	acres	acres	acres			units	acres	square footage	acres		
	836																														0		0	0	0
	837													50																		0		0	50	0
	838													74																		0		0	74	0
	840													143																		0		0	143	0
	841							50						143																		0		0	193	0
UR4 (Bright Triangle) (13)	795	190	162	5														816									34	0	816		0		0	0	43
	817																		22									0	0		0		0	0	22
	818																		22									0	0		0		0	0	22
	828																		80									0	0		0		0	0	80
UR3 (Catellus) (14)	819	700	700	0.1																66			40					0	0		0		0	66	40
	820																		40	66								0	0		0		0	66	40
	821																60			66								60	0		0		0	66	0
	822																			67								0	0		0		0	67	0
	823																			67								0	0		0		0	67	0
	824																		45	67								0	0		0		0	67	45
	825																			67								0	0		0		0	67	0
	1039																			69								0	0		0		0	69	0
I-205 Expansion (15)	525	172	172	10.2							257	180	50				257	180							42	50	30	514	360		0		0	0	50
	641										257	180					257	180										514	360		0		0	0	0
West Side Industrial (16)	528	487	485	N/A				120						240																	0		0	360	0
	842													200																	0		0	200	0
	851							45						45																	0		0	90	0
East Side Industrial (17)	510	370	368	N/A										220																	0		0	220	0
	511												5	69																	0		0	69	5
	627													74																	0		0	74	0
Larch Clover (18)	521	442	100	2.7																			250	40	40		12	0	0		0		0	0	0
	530																549											549	0		0		0	0	0
	554																											0	0		0		0	0	0
	638						10												80									0	0		0		0	0	90
	641																											0	0		0		0	0	0
	642																360	288	20									360	288		0		0	0	20
	656																											0	0		0		0	0	0
Chrisman Road (19)	647	116	113	N/A															13	100											0		0	100	13
Rocha (20)	810	91	91	8													296	431						68			23	296	431		0		0	0	0
Berg/Byron remainder (21)	796	56	44	9.3													26								39		5	26	0		0		0	0	0
	1040					72											275	60										275	132		0		0	0	0
	625																50											50	0		0		0	0	0
Berg Road Subdivision (22)	1040	10	10	7.1	71																				10			71	0		0		0	0	0
SWC Valpico and Corral Hollow (23)	671	65	65	4.3													282							65				282	0		0		0	0	0
Kagehiro (24)	534	47	10	5	62																			10				62	0		0		0	0	0
Dobler/ Maibes (25)	644	23	23	N/A									23																		0		0	0	23
Holly Sugar Industrial	518	160	143	N/A									18	125																	0		0	125	18
Between Holly Sugar and Arbor	636	111	100											50						50											0		0	100	0
Gabriel Estates	653																																		
San Marco	622																																		
	654																																		
Sterling Park	624																																		
Alden Meadows	791																																		
Presidio	623																																		
Placencia Fields/CalTrans	793																	30	1									0	30		0		0	0	1
Belconte	797																																		
Lyon Crossroads	625																																		

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					SFDU	MFDU	Retail/Office Acres	Ind Acres	Institutional Acres	Sr Assist Liv Acres	SFDU	MFDU	Retail/Office Acres	Ind Acres	Institutional Acres	Sr Assist Liv Acres	SFDU	MFDU	Retail/Office Acres	Ind Acres	Institutional Acres	Sr. Assist Liv Acres	acres	acres	acres	acres	acres			units	acres	square footage	acres		
Cintra Park	640																																	
Woodfield Estates	1042																																	
SWC Grant Line and Corral Hollow	639						1.06			2.73																				3		0	0	1
Bridle Creek, Laurelbrook	526																																	
Heartland / Chesapeake Bay	798																																	
West HS / Alegre Commons	556																																	
Summergate	555																																	
Arnaudo Village, Rebeiro	657																																	
East of Tracy Blvd, between I-205 & Grant Line (La Quinta)	553						87-room hotel																					0	0		0		0	0	0
The Classics, California Espirit, Mobile Home Park	537																																	
Garden Square + Shamrock	699																			4								0	0		0		0	4	0
Garden Square+ Brookview	1041																																	
Garden Square	696																																	
Mars Ct, Gandy Dancer area	816							4.8												18								0	0		0		0	23	0
Jim Tracey (vacant)	815												29															0	0		0		0	0	29
N. Side Valpico, inc. Tar pit	811																	442										0	442		0		0	0	0
NEI Amazon + Crate & Barrel North bldg.	649													15														0	0		0		0	15	0
US Cold, other Ind.	650																																	
Crate & Barrel South, Amazon Pkng	680													5														0	0		0		0	5	0
OSH, Seagate, United Grocers	635																																	
Various M-1 and M-2, SEC MacArthur and Grant Line	509																																	
Red Maple Village (west half)	814																																	
ISP (So. Side Valpico, b/t RR spur & Glenbriar)	589																																	
Heinz	694													11						11								0	0		0		0	22	0
Mission Court	612											200						210										0	410		0		0	0	0
Red Maple remainder	813												3					78										0	78		0		0	0	3
Sycamore Village (apts +SFDs)	652																																	
LDR	610																																	
Corral Hollow Estates (county)	603																																	
old residential	541																																	
old residential (Clover+more)	538																																	
South side GL, west of MA (GHC + res)	540																																	
LDR, Dr. Powers Park	557																																	
Old Res., Millenium	544																																	
Old Res, Lincoln Park-mostly built but includes NEC 11th & Central	545											12																0	12		0		0	0	0
S. Side old downtown, MDR, LDR, PUD	567																	20										0	20		0		0	0	0
Edgewood	597																																	
Edgewood	785																																	
Edgewood-res plus commercial site	784						2.4						8.5																	0		0	0	11
Edgewood, Brookview West	786																																	
Edgewood	787																																	
Edgewood	598																																	
Fairhaven, Victoria Greens, Harvest Glen, Glen Creek	596																																	
Murifield 8 & 9	607																																	
Murifield	608																																	
Parkside Estates, California Parkside, California Marquis	609																																	

Table A-1. Land Uses with TAZ Estimates provided by City Planning Division

General Plan Planning Area/Common Name	TAZ	Total Acres	Adjusted Total Acres	Overall Density (Units per Gross Acre)	TAZ 2025	TAZ 2025	TAZ 2025	TAZ 2025	TAZ 2025	TAZ 2025	TAZ 2040	TAZ 2040	TAZ 2040	TAZ 2040	TAZ 2040	Taz 2040	TAZ 2040 to Buildout	TAZ 2040 to Buildout	TAZ Buildout	TAZ Buildout	TAZ Buildout	TAZ Buildout	Very Low Density (1.5 DU per acre typical)	Low Density (4.35 DU per acre typical)	Medium Density (9 DU per acre typical)	High Density SFD (13 DU per acre typical)	High Density Multi-Family (24 DU per acre typical)	Total Resid SF DU	Total Resid MF DU	Senior /Assisted Living		Institutional (Hospital and Medical Office)		Industrial Acres (0.5 FAR)	Retail/Commercial/ Office Acres
					SFDU	MFDU	Retail/Office Acres	Ind Acres	Institutional Acres	Sr Assist Liv Acres	SFDU	MFDU	Retail/Office Acres	Ind Acres	Institutional Acres	Sr Assist Liv Acres	SFDU	MFDU	Retail/Office Acres	Ind Acres	Institutional Acres	Sr. Assist Liv Acres	acres	acres	acres	acres	acres			units	acres	square footage	acres		
Glenbriar, Pebblebrook	590																																	
County Residential	591																																	
Tiburon Village, Katerra Apts	812					264																						0			0		0	0	0
Larkspur Estates-14 units remaining	536				14																							14			0		0	0	0
Eastlake	614																																	
Elissagaray Ranch	615																																	
Country Vista (Yosemite Vista)	695																																	
Victoria Park	611																																	
Santana, Centennial	651																																	
Schulte Ranch, Quail Glen, Countrywood, Vintage Estates, Mt Oso	568																	50											50		0		0	0	0
Forest Glen, Mt. Diablo Estates	566																																	
Bowtie East, Quail Run, Pheasant Crossing 2, CA Cameo, CA Collections	565											See TOD/Valley Link Plan						See TOD/Valley Link Plan												0		0	0	0
Bowtie West, Ryland Junction	564											See TOD/Valley Link Plan						See TOD/Valley Link Plan												0		0	0	0
Tennis Vista, RR property	621																			9										0		0	9	0
Tennis Village, Harvest Ridge	620																																	
Westchester Green, Rancho Pacific, Alden Glen, Fox Hollow	560																																	
Harvest Landing, Quail Meadows, Corral Hollow Estates	619																																	
CBD	561																																	
N. side 11th, b/t Parker & Central	550																																	
City Hall, Creamery, downtown	559																																	
S. sidw GL, west of MA, Light Industrial, PUD	542												1.75																	0		0	0	2
Tracy High, GHC, Res	587																																	
West of Downtown	562																																	
GHC, MDC, MDR (N. of 11th, b/t Tracy & Parker)	551																																	
Commercial, MDR (99 cent store, affordable hsg.)	563																																	
LDR, MDR, GHC (N. of 11th, b/t Lincoln & Tracy)	558																																	
LDR (East, Acacia)	543																																	
HDR	549																																	
(Hospital) MDR, MDC, MO	548						5						5															0	0		0		0	0	10
HDR, PUD, GHC, MDR, MDC (E. of Holly, N. of G.L.)	539																	65										0	65		0		0	0	0
LDR, MDR, MDC (El Pescadero Park, S. side Clover)	552					20						20						60										0	100		0		0	0	0
s. side GL, b/t Parker &East	546											22																0	22		0		0	0	0
GHC, HDR, LDR, POM, MDR	547																																	
Highway Service, GHC (Kaiser, Arco)	655						5						5																	0		0	0	10
M-1, PUD, HS (N. of I-205, b/t Tracy & Holly)	637																			2										0		0	2	0
M-2	700																																	
Airport	593																		?	?										0		0	0	0
Redbridge	602																																	
I-205 Specific Plan (N. part of Harvest)	799												1																	0		0	0	1
I-205-Auto Plaza	808												3.7																	0		0	0	4
I-205-Auto Plaza	806																																	
I-205 CC-West Valley Mall+	643												20																	0		0	0	20

Table A-1. Land Uses with TAZ Estimates provided by City Planning Division

General Plan Planning Area/Common Name	TAZ	Total Acres	Adjusted Total Acres	Overall Density (Units per Gross Acre)	TAZ 2025	TAZ 2025	TAZ 2025	TAZ 2025	TAZ 2025	TAZ 2025	TAZ 2040	TAZ 2040	TAZ 2040	TAZ 2040	TAZ 2040	Taz 2040	TAZ 2040 to Buildout	TAZ 2040 to Buildout	TAZ Buildout	TAZ Buildout	TAZ Buildout	TAZ Buildout	Very Low Density (1.5 DU per acre typical)	Low Density (4.35 DU per acre typical)	Medium Density (9 DU per acre typical)	High Density SFD (13 DU per acre typical)	High Density Multi-Family (24 DU per acre typical)	Total Resid SF DU	Total Resid MF DU	Senior /Assisted Living		Institutional (Hospital and Medical Office)		Industrial Acres (0.5 FAR)	Retail/Commercial/ Office Acres
					SFDU	MFDU	Retail/Office Acres	Ind Acres	Institutional Acres	Sr Assist Liv Acres	SFDU	MFDU	Retail/Office Acres	Ind Acres	Institutional Acres	Sr Assist Liv Acres	SFDU	MFDU	Retail/Office Acres	Ind Acres	Institutional Acres	Sr. Assist Liv Acres	acres	acres	acres	acres	acres			units	acres	square footage	acres		
I-205-Home Depot, Winco	803																																	
I-205-NEC Naglee & GL	809																																	
I-205 Outlets & Surrounding	634						5 acre office +107 room hotel						13															0			0	0	13
NEI-Yellow freight & IPT 1	632																																	
NEI-Rados Haley	628													52														0			0	52	0
NEI-Home Depot, Ridgeline +	633							26																				0			0	26	0
NEI-IPT 2, FEMA +	631							75																				0			0	75	0
NEI-Seefried	629							71																				0			0	71	0
NEI Prologis, basin (NWC GL & Paradise)	677							12																				0			0	12	0
NEI-Majestic	648							75																				0			0	75	0
NEI-Barbosa, Animal Shelter, part of PacMed, Katerra	678													20														0			0	20	0
NEI-Kellogg, part of Katerra	514																																	
NEI-SSI, Best Buy, Prologis (Chabot Ct)	679																																	
Totals		**9825**	**7333**		**2354**	**531**					**8154**	**1266**	**413.95**	**2112**	**60**	**139**	**6072**	**3279**	**478**	**957**	**50**		**751**	**1,898**	**681**	**68**	**156**	**16,580**	**4,812**	**1,557**	**176**	**688,000**	**130**	**3,618**	**1,196**

Does not include units/acreage already built
Does not include schools
Gateway office and industrial is really called "business commercial" in the draft Specific Plan
Cordes Ranch has built 7.7 million square feet of industrial, and about 14-16 million square feet to go

* Tracy Hills MUBP is 50 acres retail, 50 acres office, 80 acres medium density residential
**Pursuant to Ellis DA Ellis receives 2,250 RGAs above the GMO Guidelines Category of F3, which are not yet assigned a location
Larch Clover Planning Ares is largely built out-only assuming 100 acres of land use change (to retail)
Office FAR is assumed at .45, and Retail is .30
Industrial FAR is assumed at .45
Purple=Built Out TAZ

Table A-2. 2025 Time Frame - Land Use Assumptions and Projected Water Demands for New Developments

Project or Development Area	Data Source(s)[a]	Parks Area Assumption[b]	Assumed Recycled Water Availability	Residential – Very Low Density						Residential – Low Density						Residential – Medium Density						
				Dwelling Units	*Total Acres*	Residential Acres	Assumed Park Acres	PW Demand, af/yr[c]	RW Demand, af/yr[d]	Dwelling Units	*Total Acres*	Residential Acres	Assumed Park Acres	PW Demand, af/yr[c]	RW Demand, af/yr[d]	Dwelling Units	*Total Acres*	Residential Acres	Assumed Park Acres	Assumed Other Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]
UR 5 (Bright)	TAZ Spreadsheet	✓	✓																			
UR 7 (Bright/Castro)	TAZ Spreadsheet	✓	✓							150	34.5	30.6	3.9	67.8	16.3							
Rocking Horse	Hydraulic Analysis TM		✓							226	56.7	56.7		102.2								
Tracy Village[f]	Hydraulic Analysis TM		✓							400	64.1	64.1		180.9								
UR 1	TAZ Spreadsheet	✓								50	11.5	10.2	1.3	28.3		50	5.6	4.1	0.6	0.8	21.3	
Ellis[g,h]	Hydraulic Analysis TM		✓							664	150.5	150.5		300.3								
Avenues	Hydraulic Analysis TM		✓																			
UR 10	TAZ Spreadsheet	✓	✓																			
Tracy Hills[i]	Hydraulic Analysis TM, TAZ Spreadsheet	✓								1,073	269.8	269.8		485.3		132	33.2	28.2		5.0	56.4	
Westside Ranch	Westside Draft Specific Plan	✓	✓																			
Cordes Ranch	Hydraulic Analysis TM, TAZ Spreadsheet	✓																				
UR 4 (Bright Triangle)	TAZ Spreadsheet	✓	✓																			
UR 3 (Catellus)	TAZ Spreadsheet	✓	✓																			
I-205 Expansion	TAZ Spreadsheet	✓	✓																			
West Side Industrial	TAZ Spreadsheet	✓																				
East Side Industrial	TAZ Spreadsheet	✓																				
Larch-Clover	TAZ Spreadsheet	✓	✓																			
Chrisman Road	TAZ Spreadsheet	✓																				
Rocha	TAZ Spreadsheet	✓																				
Berg/Byron Remainder	TAZ Spreadsheet	✓																				
Berg Road Subdivision	Hydraulic Analysis TM															71	9.9	8.4		1.5	27.2	
SWC Valpico & Corral Hollow	TAZ Spreadsheet	✓	✓																			
Kagehiro[g,j]	Email from City Planning Division									252	47.0	47.0		114.0								
Dobler/Maibes	TAZ Spreadsheet	✓	✓																			
Holly Sugar Industrial	TAZ Spreadsheet	✓	✓																			
Northeast Industrial Area	Hydraulic Analysis TM																					
Industrial Areas Specific Plan	TAZ Spreadsheet																					
I-205 Corridor Specific Plan	TAZ Spreadsheet																					
Home 2 Suites	Hydraulic Analysis TM																					
Sierra Hills	Hydraulic Analysis TM																					
Grant Line Road Apartments	Hydraulic Analysis TM																					
Aspire II	Hydraulic Analysis TM																					
Harvest	Hydraulic Analysis TM																					
321 E. Grant Line Rd Apartments	Hydraulic Analysis TM																					
Barcelona Infill	Hydraulic Analysis TM									51	10.2	10.2		23.1								
Mountain View	Tracy Municipal Services Review, June 2019																					
Tracy Combined Cycle Power Plant RW Conversion[k]	Hydraulic Analysis TM		✓																			
Legacy Fields[l]	Hydraulic Analysis TM		✓																			
Parks RW Conversion[m]	2017 Irrigation Meters		✓																			
Infill (misc.)	TAZ Spreadsheet									14	3.2	3.2		6.3								
	Total									**2,880**	**647**	**642**	**5**	**1,308**	**16**	**253**	**49**	**41**	**1**	**7**	**105**	

(a) Data Source abbreviations:
TAZ Spreadsheet - data from Land Uses with TAZ Estimates_06_23_2021_2025_2040_BU_Independent.xlsx spreadsheet received from the City Planning Division in June 2021 (Table A-1).
Hydraulic Analysis TM - data from a previously prepared hydraulic analysis technical memorandum prepared by either West Yost Associates or Blackwater Consulting Engineers, Inc.

(b) For selected projects and development areas, it was assumed that 11.2% of the total acres in very low, low, and medium density residential land uses will be developed as parks. These park acres are in addition to the identified parks in the Rocking Horse, Ellis, Avenues, Tracy Hills Phase 1, and Legacy Fields developments. If available, recycled water was used to meet park demands.

(c) Includes 9.6% Unaccounted-for Water (UAFW).

(d) Includes 5.0% UAFW.

(e) Assumes that 15 percent of total gross acres will be landscaped and irrigated. If available, recycled water was used to meet irrigated area demands.

(f) Miscellaneous potable water demands for Tracy Village are from existing residential units to be annexed as part of the Project. Miscellaneous recycled water demand for Tracy Village is to fill the lakes which will be constructed as part of the project.

(g) Projected land use data includes dwelling units and acreage developed by 2017.

(h) Land use data for Ellis includes dwelling units constructed by 2017. Miscellaneous potable water demand for Ellis represents projected demands for the Aquatic Center minus 2017 metered water use. The 2017 metered use was subtracted from the calculated water demands for the entire development to account for the portion of the development constructed by 2017.

(i) Land use data from hydraulic analysis TMs was used for Tracy Hills Phase 1. The parks acreage assumption was not applied to Tracy Hills Phase 1 because the available land use data specifically identified parks. The parks acreage assumption was applied to the remaining phases of Tracy Hills, which used land use data from the TAZ spreadsheet.

(j) Land use data for Kagehiro includes dwelling units constructed by 2017. Miscellaneous potable water demand for Kagehiro represents 2017 metered water use. The 2017 metered use was subtracted from the calculated water demands for the entire development to account for the portion of the development constructed by 2017.

(k) Demands for the Tracy Combined Cycle Power Plant Recycled Water Conversion are from City of Tracy Recycled Water Project - Projected Recycled Water Demands TM, West Yost Associates, October 11, 2016.

(l) It was assumed that 50 percent of the remaining Legacy Fields acreage (from City of Tracy Parks Master Plan, Table A-1, April 2013) will be developed by 2025. Projected near term demands for Legacy Fields are equal to 50 percent of projected Legacy Fields demands for the 2040 and buildout time frames.

(m) Represents the transfer of 2017 metered potable demands for selected existing parks and irrigated areas to recycled water demands. Projected recycled water demands for these areas are larger than existing potable water demands due to current potable water conservation practices. Refer to Chapter 9 for a full list of irrigated areas projected to be converted to recycled water use.

Table A-2. 2025 Time Frame - Land Use Assumptions and Projected Water Demands for New Developments

Project or Development Area	Residential – High Density						Residential – Very High Density						Commercial					Office				
	Dwelling Units	*Total Acres*	Residential Acres	Assumed Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]	Dwelling Units	*Total Acres*	Residential Acres	Assumed Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]	*Total Acres*	Commercial Acres	Assumed Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]	*Total Acres*	Office Acres	Assumed Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]
UR 5 (Bright)																						
UR 7 (Bright/Castro)																						
Rocking Horse																						
Tracy Village[f]													2.7	2.3	0.4	4.5	1.7					
UR 1	100	7.7	6.5	1.2	26.2																	
Ellis[g,h]																						
Avenues																						
UR 10																						
Tracy Hills[i]																						
Westside Ranch																						
Cordes Ranch													10.0	8.5	1.5	20.1						
UR 4 (Bright Triangle)																						
UR 3 (Catellus)																						
I-205 Expansion																						
West Side Industrial																						
East Side Industrial																						
Larch-Clover													10.0	8.5	1.5	16.9	6.3					
Chrisman Road																						
Rocha																						
Berg/Byron Remainder	72	5.0	4.3	0.8	18.7																	
Berg Road Subdivision																						
SWC Valpico & Corral Hollow																						
Kagehiro[g,j]																						
Dobler/Maibes																						
Holly Sugar Industrial																						
Northeast Industrial Area																						
Industrial Areas Specific Plan																						
I-205 Corridor Specific Plan																						
Home 2 Suites							110	2.6	2.2	0.4	18.5							0.6	0.5	0.1	1.1	
Sierra Hills	300	11.6	9.9	1.7	74.1																	
Grant Line Road Apartments	448	20.0	17.0	3.0	111.8																	
Aspire II	47	2.3	2.0	0.3	11.8																	
Harvest	300	17.9	15.2	2.7	76.6																	
321 E. Grant Line Rd Apartments	40	1.7	1.4	0.3	9.9																	
Barcelona Infill																						
Mountain View																						
Tracy Combined Cycle Power Plant RW Conversion[k]																						
Legacy Fields[l]																						
Parks RW Conversion[m]																						
Infill (misc.)	284	15.1	12.9	2.3	71.8								22.5	19.1	3.4	45.1						
Total	**1,591**	**81**	**69**	**12**	**401**		**110**	**3**	**2**	**0**	**18**		**45**	**38**	**7**	**87**	**8**	**1**	**1**	**0**	**1**	

(a) Data Source abbreviations:
TAZ Spreadsheet - data from Land Uses with TAZ Estimates_06_23_2021_2025_2040_BU_Independent.xlsx spreadsheet received from the City Planning Division in June 2021 (Table A-1).
Hydraulic Analysis TM - data from a previously prepared hydraulic analysis technical memorandum prepared by either West Yost Associates or Blackwater Consulting Engineers, Inc.

(b) For selected projects and development areas, it was assumed that 11.2% of the total acres in very low, low, and medium density residential land uses will be developed as parks. These park acres are in addition to the identified parks in the Rocking Horse, Ellis, Avenues, Tracy Hills Phase 1, and Legacy Fields developments. If available, recycled water was used to meet park demands.

(c) Includes 9.6% Unaccounted-for Water (UAFW).

(d) Includes 5.0% UAFW.

(e) Assumes that 15 percent of total gross acres will be landscaped and irrigated. If available, recycled water was used to meet irrigated area demands.

(f) Miscellaneous potable water demands for Tracy Village are from existing residential units to be annexed as part of the Project. Miscellaneous recycled water demand for Tracy Village is to fill the lakes which will be constructed as part of the project.

(g) Projected land use data includes dwelling units and acreage developed by 2017.

(h) Land use data for Ellis includes dwelling units constructed by 2017. Miscellaneous potable water demand for Ellis represents projected demands for the Aquatic Center minus 2017 metered water use. The 2017 metered use was subtracted from the calculated water demands for the entire development to account for the portion of the development constructed by 2017.

(i) Land use data from hydraulic analysis TMs was used for Tracy Hills Phase 1. The parks acreage assumption was not applied to Tracy Hills Phase 1 because the available land use data specifically identified parks. The parks acreage assumption was applied to the remaining phases of Tracy Hills, which used land use data from the TAZ spreadsheet.

(j) Land use data for Kagehiro includes dwelling units constructed by 2017. Miscellaneous potable water demand for Kagehiro represents 2017 metered water use. The 2017 metered use was subtracted from the calculated water demands for the entire development to account for the portion of the development constructed by 2017.

(k) Demands for the Tracy Combined Cycle Power Plant Recycled Water Conversion are from City of Tracy Recycled Water Project - Projected Recycled Water Demands TM, West Yost Associates, October 11, 2016.

(l) It was assumed that 50 percent of the remaining Legacy Fields acreage (from City of Tracy Parks Master Plan, Table A-1, April 2013) will be developed by 2025. Projected near term demands for Legacy Fields are equal to 50 percent of projected Legacy Fields demands for the 2040 and buildout time frames.

(m) Represents the transfer of 2017 metered potable demands for selected existing parks and irrigated areas to recycled water demands. Projected recycled water demands for these areas are larger than existing potable water demands due to current potable water conservation practices. Refer to Chapter 9 for a full list of irrigated areas projected to be converted to recycled water use.

Table A-2. 2025 Time Frame - Land Use Assumptions and Projected Water Demands for New Developments

Project or Development Area	Industrial					Institutional					Identified Parks			Misc. Water Demands		Total Dwelling Units	Total Area, acres	Total Potable Water Demand, af/yr	Total Recycled Water Demand, af/yr
	Total Acres	Industrial Acres	Assumed Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]	*Total Acres*	Institutional Acres	Assumed Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]	*Total Acres*	PW Demand, af/yr[c]	RW Demand, af/yr[d]	PW Demand, af/yr[c]	RW Demand, af/yr[d]				
UR 5 (Bright)																			
UR 7 (Bright/Castro)																150	34.5	67.8	16.3
Rocking Horse											2.4		10.1			226	59.1	102.2	10.1
Tracy Village[f]														17.7	126.1	400	66.8	203.1	127.8
UR 1																200	24.7	75.9	
Ellis[g,h]											11.2		47.2	-29		664	161.7	270.9	47.2
Avenues																			
UR 10																			
Tracy Hills[i]											11.4	50.4				1,205	314.3	592.1	
Westside Ranch																			
Cordes Ranch	429.7	365.2	64.5	660.7													439.7	680.8	
UR 4 (Bright Triangle)																			
UR 3 (Catellus)																			
I-205 Expansion																			
West Side Industrial	165.0	140.3	24.8	253.7													165.0	253.7	
East Side Industrial																			
Larch-Clover																	10.0	16.9	6.3
Chrisman Road																			
Rocha																			
Berg/Byron Remainder																72	5.0	18.7	
Berg Road Subdivision																71	9.9	27.2	
SWC Valpico & Corral Hollow																			
Kagehiro[g,j]														-24		252	47.0	89.8	
Dobler/Maibes																			
Holly Sugar Industrial																			
Northeast Industrial Area	259.0	220.2	38.9	398.2													259.0	398.2	
Industrial Areas Specific Plan	4.8	4.1	0.7	7.4													4.8	7.4	
I-205 Corridor Specific Plan																			
Home 2 Suites																110	3.2	19.6	
Sierra Hills																300	11.6	74.1	
Grant Line Road Apartments																448	20.0	111.8	
Aspire II																47	2.3	11.8	
Harvest																300	17.9	76.6	
321 E. Grant Line Rd Apartments																40	1.7	9.9	
Barcelona Infill																51	10.2	23.1	
Mountain View																			
Tracy Combined Cycle Power Plant RW Conversion[k]															33.7				33.7
Legacy Fields[l]											114.3	26.2	198.9				114.3	26.2	198.9
Parks RW Conversion[m]														-318	458.1			-318	458.1
Infill (misc.)						2.7	2.3	0.4	4.7							298	43.6	128.0	
Total	**859**	**730**	**129**	**1,320**		**3**	**2**	**0**	**5**		**139**	**77**	**256**	**-354**	**618**	**4,834**	**1,826**	**2,968**	**898**

(a) Data Source abbreviations:
TAZ Spreadsheet - data from Land Uses with TAZ Estimates_06_23_2021_2025_2040_BU_Independent.xlsx spreadsheet received from the City Planning Division in June 2021 (Table A-1).
Hydraulic Analysis TM - data from a previously prepared hydraulic analysis technical memorandum prepared by either West Yost Associates or Blackwater Consulting Engineers, Inc.

(b) For selected projects and development areas, it was assumed that 11.2% of the total acres in very low, low, and medium density residential land uses will be developed as parks. These park acres are in addition to the identified parks in the Rocking Horse, Ellis, Avenues, Tracy Hills Phase 1, and Legacy Fields developments. If available, recycled water was used to meet park demands.

(c) Includes 9.6% Unaccounted-for Water (UAFW).

(d) Includes 5.0% UAFW.

(e) Assumes that 15 percent of total gross acres will be landscaped and irrigated. If available, recycled water was used to meet irrigated area demands.

(f) Miscellaneous potable water demands for Tracy Village are from existing residential units to be annexed as part of the Project. Miscellaneous recycled water demand for Tracy Village is to fill the lakes which will be constructed as part of the project.

(g) Projected land use data includes dwelling units and acreage developed by 2017.

(h) Land use data for Ellis includes dwelling units constructed by 2017. Miscellaneous potable water demand for Ellis represents projected demands for the Aquatic Center minus 2017 metered water use. The 2017 metered use was subtracted from the calculated water demands for the entire development to account for the portion of the development constructed by 2017.

(i) Land use data from hydraulic analysis TMs was used for Tracy Hills Phase 1. The parks acreage assumption was not applied to Tracy Hills Phase 1 because the available land use data specifically identified parks. The parks acreage assumption was applied to the remaining phases of Tracy Hills, which used land use data from the TAZ spreadsheet.

(j) Land use data for Kagehiro includes dwelling units constructed by 2017. Miscellaneous potable water demand for Kagehiro represents 2017 metered water use. The 2017 metered use was subtracted from the calculated water demands for the entire development to account for the portion of the development constructed by 2017.

(k) Demands for the Tracy Combined Cycle Power Plant Recycled Water Conversion are from City of Tracy Recycled Water Project - Projected Recycled Water Demands TM, West Yost Associates, October 11, 2016.

(l) It was assumed that 50 percent of the remaining Legacy Fields acreage (from City of Tracy Parks Master Plan, Table A-1, April 2013) will be developed by 2025. Projected near term demands for Legacy Fields are equal to 50 percent of projected Legacy Fields demands for the 2040 and buildout time frames.

(m) Represents the transfer of 2017 metered potable demands for selected existing parks and irrigated areas to recycled water demands. Projected recycled water demands for these areas are larger than existing potable water demands due to current potable water conservation practices. Refer to Chapter 9 for a full list of irrigated areas projected to be converted to recycled water use.

Table A-3. 2040 Time Frame - Land Use Assumptions and Projected Water Demands for New Developments

Project or Development Area	Data Source(s)[a]	Parks Area Assumption[b]	Assumed Recycled Water Availability	Residential – Very Low Density						Residential – Low Density						Residential – Medium Density						
				Dwelling Units	*Total Acres*	Residential Acres	Assumed Park Acres	PW Demand, af/yr[c]	RW Demand, af/yr[d]	Dwelling Units	*Total Acres*	Residential Acres	Assumed Park Acres	PW Demand, af/yr[c]	RW Demand, af/yr[d]	Dwelling Units	*Total Acres*	Residential Acres	Assumed Park Acres	Assumed Other Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]
UR 5 (Bright)	TAZ Spreadsheet	✓	✓							174	40.0	35.5	4.5	78.7	18.9	342	38.1	28.1	4.3	5.7	111.9	42.0
UR 7 (Bright/Castro)	TAZ Spreadsheet	✓	✓							174	40.0	35.5	4.5	78.7	18.9	432	48.0	35.4	5.4	7.2	141.3	53.0
Rocking Horse	Hydraulic Analysis TM		✓							226	56.7	56.7		102.2								
Tracy Village[f]	Hydraulic Analysis TM		✓							600	96.2	96.2		271.4								
UR 1	TAZ Spreadsheet	✓								450	103.4	91.9	11.6	254.8		250	27.8	20.5	3.1	4.2	106.6	
Ellis[g,h]	Hydraulic Analysis TM		✓							958	213.5	213.5		433.3								
Avenues	Hydraulic Analysis TM		✓							480	90.4	90.4		217.1								
UR 10	TAZ Spreadsheet	✓	✓																			
Tracy Hills[i]	Hydraulic Analysis TM, TAZ Spreadsheet	✓	✓	100	66.7	59.2	7.5	53.2	31.4	3,111	737.1	695.7	41.4	1,407.0	174.3	1,841	232.4	180.3	17.2	34.9	602.2	219.3
Westside Ranch	Westside Draft Specific Plan	✓	✓													2,130	210.0	155.0	23.5	31.5	696.8	231.7
Cordes Ranch[j]	Hydraulic Analysis TM, TAZ Spreadsheet	✓	✓																			
UR 4 (Bright Triangle)	TAZ Spreadsheet	✓	✓																			
UR 3 (Catellus)	TAZ Spreadsheet	✓	✓																			
I-205 Expansion	TAZ Spreadsheet	✓	✓													378	42.0	31.0	4.7	6.3	123.7	46.3
West Side Industrial	TAZ Spreadsheet	✓	✓																			
East Side Industrial	TAZ Spreadsheet	✓																				
Larch-Clover	TAZ Spreadsheet	✓	✓																			
Chrisman Road	TAZ Spreadsheet	✓																				
Rocha	TAZ Spreadsheet	✓																				
Berg/Byron Remainder	TAZ Spreadsheet	✓																				
Berg Road Subdivision	Hydraulic Analysis TM															71	9.9	8.4		1.5	27.2	
SWC Valpico & Corral Hollow	TAZ Spreadsheet	✓	✓																			
Kagehiro[g,k]	Email from City Planning Division									252	47.0	47.0		114.0								
Dobler/Maibes	TAZ Spreadsheet	✓	✓																			
Holly Sugar Industrial	TAZ Spreadsheet	✓	✓																			
Northeast Industrial Area	Hydraulic Analysis TM																					
Industrial Areas Specific Plan	TAZ Spreadsheet																					
I-205 Corridor Specific Plan	TAZ Spreadsheet																					
Home 2 Suites	Hydraulic Analysis TM																					
Sierra Hills	Hydraulic Analysis TM																					
Grant Line Road Apartments	Hydraulic Analysis TM																					
Aspire II	Hydraulic Analysis TM																					
Harvest	Hydraulic Analysis TM																					
321 E. Grant Line Rd Apartments	Hydraulic Analysis TM																					
Barcelona Infill	Hydraulic Analysis TM									51	10.2	10.2		23.1								
Mountain View	Tracy Municipal Services Review, June 2019			165	156.0	156.0		87.7														
Tracy Combined Cycle Power Plant RW Conversion[l]	Hydraulic Analysis TM		✓																			
Legacy Fields[m]	Hydraulic Analysis TM		✓																			
Parks RW Conversion[n]	2017 Irrigation Meters		✓																			
Infill (misc.)	TAZ Spreadsheet									14	3.2	3.2		6.3								
			Total	**265**	**223**	**215**	**7**	**141**	**31**	**6,490**	**1,438**	**1,376**	**62**	**2,987**	**212**	**5,444**	**608**	**459**	**58**	**91**	**1,810**	**592**

(a) Data Source abbreviations:
TAZ Spreadsheet - data from Land Uses with TAZ Estimates_06_23_2021_2025_2040_BU_Independent.xlsx spreadsheet received from the City Planning Division in June 2021 (Table A-1).
Hydraulic Analysis TM - data from a previously prepared hydraulic analysis technical memorandum prepared by either West Yost Associates or Blackwater Consulting Engineers, Inc.

(b) For selected projects and development areas, it was assumed that 11.2% of the total acres in very low, low, and medium density residential land uses will be developed as parks. These park acres are in addition to the identified parks in the Rocking Horse, Ellis, Avenues, Tracy Hills Phase 1, and Legacy Fields developments. If available, recycled water was used to meet park demands.
(c) Includes 9.6% Unaccounted-for Water (UAFW).
(d) Includes 5.0% UAFW.
(e) Assumes that 15 percent of total gross acres will be landscaped and irrigated. If available, recycled water was used to meet irrigated area demands.
(f) Miscellaneous potable water demands for Tracy Village are from existing residential units to be annexed as part of the Project. Miscellaneous recycled water demand for Tracy Village is to fill the lakes which will be constructed as part of the project.
(g) Projected land use data includes dwelling units and acreage developed by 2017.
(h) Land use data for Ellis includes dwelling units constructed by 2017. Miscellaneous potable water demand for Ellis represents projected demands for the Aquatic Center minus 2017 metered water use. The 2017 metered use was subtracted from the calculated water demands for the entire development to account for the portion of the development constructed by 2017.
(i) Land use data from hydraulic analysis TMs was used for Tracy Hills Phase 1. The parks acreage assumption was not applied to Tracy Hills Phase 1 because the available land use data specifically identified parks. The parks acreage assumption was applied to the remaining phases of Tracy Hills, which used land use data from the TAZ spreadsheet.
(j) Miscellaneous water use for Cordes Ranch represents the transfer of 2017 metered potable irrigation demands to recycled water demands once recycled water service is extended to Cordes Ranch.
(k) Land use data for Kagehiro includes dwelling units constructed by 2017. Miscellaneous potable water demand for Kagehiro represents 2017 metered water use. The 2017 metered use was subtracted from the calculated water demands for the entire development to account for the portion of the development constructed by 2017.
(l) Demands for the Tracy Combined Cycle Power Plant Recycled Water Conversion are from City of Tracy Recycled Water Project - Projected Recycled Water Demands TM, West Yost Associates, October 11, 2016.
(m) Remaining Legacy Fields acreage to be developed is from the City of Tracy Parks Master Plan, Table A-1, April 2013. Projected demands for Legacy Fields are equal to total demands projected in the Water Supply Assessment for the Holly Sugar Sports Park (West Yost Associates, June 2009) minus the existing recycled water demand for Legacy Fields.
(n) Represents the transfer of 2017 metered potable demands for selected existing parks and irrigated areas to recycled water demands. Projected recycled water demands for these areas are larger than existing potable water demands due to current potable water conservation practices. Refer to Chapter 9 for a full list of irrigated areas projected to be converted to recycled water use.

Table A-3. 2040 Time Frame - Land Use Assumptions and Projected Water Demands for New Developments

	Residential – High Density						Residential – Very High Density						Commercial					Office				
Project or Development Area	Dwelling Units	*Total Acres*	Residential Acres	Assumed Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]	Dwelling Units	*Total Acres*	Residential Acres	Assumed Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]	*Total Acres*	Commercial Acres	Assumed Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]	*Total Acres*	Office Acres	Assumed Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]
UR 5 (Bright)	370	20.0	17.0	3.0	85.7	12.6																
UR 7 (Bright/Castro)																						
Rocking Horse																						
Tracy Village[f]													4.0	3.4	0.6	6.8	2.5					
UR 1	150	11.5	9.8	1.7	39.4								10.0	8.5	1.5	20.1						
Ellis[g,h]													14.8	12.6	2.2	25.0	9.3					
Avenues																						
UR 10																						
Tracy Hills[i]	125	7.0	6.0	1.1	29.0	4.4							40.6	34.5	6.1	68.7	25.6	45.5	38.7	6.8	64.2	28.7
Westside Ranch	414	26.0	22.1	3.9	95.9	16.4							149.0	126.7	22.4	252.2	94.1					
Cordes Ranch[j]													55.0	46.8	8.3	93.1	34.7	69.0	58.7	10.4	97.3	43.6
UR 4 (Bright Triangle)																						
UR 3 (Catellus)																						
I-205 Expansion	496	29.0	24.6	4.3	114.9	18.3							50.0	42.5	7.5	84.6	31.6					
West Side Industrial																						
East Side Industrial													5.0	4.3	0.8	10.0						
Larch-Clover													10.0	8.5	1.5	16.9	6.3					
Chrisman Road																						
Rocha																						
Berg/Byron Remainder	72	5.0	4.3	0.8	18.7																	
Berg Road Subdivision																						
SWC Valpico & Corral Hollow																						
Kagehiro[g,k]																						
Dobler/Maibes													23.0	19.6	3.5	38.9	14.5					
Holly Sugar Industrial													18.0	15.3	2.7	30.5	11.4					
Northeast Industrial Area																						
Industrial Areas Specific Plan													32.0	27.2	4.8	64.2						
I-205 Corridor Specific Plan													37.7	32.0	5.7	75.7						
Home 2 Suites							110	2.6	2.2	0.4	18.5							0.6	0.5	0.1	1.1	
Sierra Hills	300	11.6	9.9	1.7	74.1																	
Grant Line Road Apartments	448	20.0	17.0	3.0	111.8																	
Aspire II	47	2.3	2.0	0.3	11.8																	
Harvest	300	17.9	15.2	2.7	76.6																	
321 E. Grant Line Rd Apartments	40	1.7	1.4	0.3	9.9																	
Barcelona Infill																						
Mountain View																						
Tracy Combined Cycle Power Plant RW Conversion[l]																						
Legacy Fields[m]																						
Parks RW Conversion[n]																						
Infill (misc.)	538	28.7	24.4	4.3	136.1								99.4	84.5	14.9	199.6						
Total	**3,300**	**181**	**154**	**27**	**804**	**52**	**110**	**3**	**2**	**0**	**18**		**549**	**466**	**82**	**986**	**230**	**115**	**98**	**17**	**163**	**72**

(a) Data Source abbreviations:
TAZ Spreadsheet - data from Land Uses with TAZ Estimates_06_23_2021_2025_2040_BU_Independent.xlsx spreadsheet received from the City Planning Division in June 2021 (Table A-1).
Hydraulic Analysis TM - data from a previously prepared hydraulic analysis technical memorandum prepared by either West Yost Associates or Blackwater Consulting Engineers, Inc.

(b) For selected projects and development areas, it was assumed that 11.2% of the total acres in very low, low, and medium density residential land uses will be developed as parks. These park acres are in addition to the identified parks in the Rocking Horse, Ellis, Avenues, Tracy Hills Phase 1, and Legacy Fields developments. If available, recycled water was used to meet park demands.

(c) Includes 9.6% Unaccounted-for Water (UAFW).

(d) Includes 5.0% UAFW.

(e) Assumes that 15 percent of total gross acres will be landscaped and irrigated. If available, recycled water was used to meet irrigated area demands.

(f) Miscellaneous potable water demands for Tracy Village are from existing residential units to be annexed as part of the Project. Miscellaneous recycled water demand for Tracy Village is to fill the lakes which will be constructed as part of the project.

(g) Projected land use data includes dwelling units and acreage developed by 2017.

(h) Land use data for Ellis includes dwelling units constructed by 2017. Miscellaneous potable water demand for Ellis represents projected demands for the Aquatic Center minus 2017 metered water use. The 2017 metered use was subtracted from the calculated water demands for the entire development to account for the portion of the development constructed by 2017.

(i) Land use data from hydraulic analysis TMs was used for Tracy Hills Phase 1. The parks acreage assumption was not applied to Tracy Hills Phase 1 because the available land use data specifically identified parks. The parks acreage assumption was applied to the remaining phases of Tracy Hills, which used land use data from the TAZ spreadsheet.

(j) Miscellaneous water use for Cordes Ranch represents the transfer of 2017 metered potable irrigation demands to recycled water demands once recycled water service is extended to Cordes Ranch.

(k) Land use data for Kagehiro includes dwelling units constructed by 2017. Miscellaneous potable water demand for Kagehiro represents 2017 metered water use. The 2017 metered use was subtracted from the calculated water demands for the entire development to account for the portion of the development constructed by 2017.

(l) Demands for the Tracy Combined Cycle Power Plant Recycled Water Conversion are from City of Tracy Recycled Water Project - Projected Recycled Water Demands TM, West Yost Associates, October 11, 2016.

(m) Remaining Legacy Fields acreage to be developed is from the City of Tracy Parks Master Plan, Table A-1, April 2013. Projected demands for Legacy Fields are equal to total demands projected in the Water Supply Assessment for the Holly Sugar Sports Park (West Yost Associates, June 2009) minus the existing recycled water demand for Legacy Fields.

(n) Represents the transfer of 2017 metered potable demands for selected existing parks and irrigated areas to recycled water demands. Projected recycled water demands for these areas are larger than existing potable water demands due to current potable water conservation practices. Refer to Chapter 9 for a full list of irrigated areas projected to be converted to recycled water use.

Table A-3. 2040 Time Frame - Land Use Assumptions and Projected Water Demands for New Developments

	Industrial					Institutional					Identified Parks			Misc. Water Demands					
Project or Development Area	*Total Acres*	Industrial Acres	Assumed Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]	*Total Acres*	Institutional Acres	Assumed Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]	*Total Acres*	PW Demand, af/yr[c]	RW Demand, af/yr[d]	PW Demand, af/yr[c]	RW Demand, af/yr[d]	Total Dwelling Units	Total Area, acres	Total Potable Water Demand, af/yr	Total Recycled Water Demand, af/yr
UR 5 (Bright)																886	98.1	276.3	73.5
UR 7 (Bright/Castro)																606	88.0	220.0	71.8
Rocking Horse											2.4		10.1			226	59.1	102.2	10.1
Tracy Village[f]														17.7	156.0	600	100.2	295.8	158.5
UR 1																850	152.8	420.8	
Ellis[g,h]	28.8	24.5	4.3	35.2	18.2	16.0	13.6	2.4	22.6	10.1	16.7		70.3	-29		958	289.8	486.7	108.0
Avenues											4.6		19.4			480	95.0	217.1	19.4
UR 10																			
Tracy Hills[i]	196.0	166.6	29.4	239.6	123.8	18.6	15.8	2.8	26.2	11.7	27.9		117.5			5,177	1,371.7	2,490.1	736.9
Westside Ranch						150.0	127.5	22.5	211.6	94.7						2,544	535.0	1,256.4	436.9
Cordes Ranch[j]	1,219.7	1,036.7	183.0	1,490.9	770.3									-84	83.8		1,343.7	1,597.5	932.5
UR 4 (Bright Triangle)																			
UR 3 (Catellus)																			
I-205 Expansion																874	121.0	323.2	96.2
West Side Industrial	650.0	552.5	97.5	794.5	410.5												650.0	794.5	410.5
East Side Industrial	363.0	308.6	54.5	558.2													368.0	568.2	
Larch-Clover																	10.0	16.9	6.3
Chrisman Road																			
Rocha																			
Berg/Byron Remainder																72	5.0	18.7	
Berg Road Subdivision																71	9.9	27.2	
SWC Valpico & Corral Hollow																			
Kagehiro[g,k]														-24		252	47.0	89.8	
Dobler/Maibes																	23.0	38.9	14.5
Holly Sugar Industrial	125.0	106.3	18.8	152.8	78.9												143.0	183.3	90.3
Northeast Industrial Area	468.0	397.8	70.2	719.6													468.0	719.6	
Industrial Areas Specific Plan	4.8	4.1	0.7	7.4													36.8	71.6	
I-205 Corridor Specific Plan																	37.7	75.7	
Home 2 Suites																110	3.2	19.6	
Sierra Hills																300	11.6	74.1	
Grant Line Road Apartments																448	20.0	111.8	
Aspire II																47	2.3	11.8	
Harvest																300	17.9	76.6	
321 E. Grant Line Rd Apartments																40	1.7	9.9	
Barcelona Infill																51	10.2	23.1	
Mountain View																165	156.0	87.7	
Tracy Combined Cycle Power Plant RW Conversion[l]															33.7				33.7
Legacy Fields[m]											228.5	52.3	397.9				228.5	52.3	397.9
Parks RW Conversion[n]														-318	458.1			-318	458.1
Infill (misc.)	81.0	68.9	12.2	124.5		2.7	2.3	0.4	4.7							552	215.1	471.3	
Total	**3,136**	**2,666**	**470**	**4,123**	**1,402**	**187**	**159**	**28**	**265**	**117**	**280**	**52**	**615**	**-438**	**732**	**15,609**	**6,719**	**10,911**	**4,055**

(a) Data Source abbreviations:
TAZ Spreadsheet - data from Land Uses with TAZ Estimates_06_23_2021_2025_2040_BU_Independent.xlsx spreadsheet received from the City Planning Division in June 2021 (Table A-1).
Hydraulic Analysis TM - data from a previously prepared hydraulic analysis technical memorandum prepared by either West Yost Associates or Blackwater Consulting Engineers, Inc.

(b) For selected projects and development areas, it was assumed that 11.2% of the total acres in very low, low, and medium density residential land uses will be developed as parks. These park acres are in addition to the identified parks in the Rocking Horse, Ellis, Avenues, Tracy Hills Phase 1, and Legacy Fields developments. If available, recycled water was used to meet park demands.
(c) Includes 9.6% Unaccounted-for Water (UAFW).
(d) Includes 5.0% UAFW.
(e) Assumes that 15 percent of total gross acres will be landscaped and irrigated. If available, recycled water was used to meet irrigated area demands.
(f) Miscellaneous potable water demands for Tracy Village are from existing residential units to be annexed as part of the Project. Miscellaneous recycled water demand for Tracy Village is to fill the lakes which will be constructed as part of the project.
(g) Projected land use data includes dwelling units and acreage developed by 2017.
(h) Land use data for Ellis includes dwelling units constructed by 2017. Miscellaneous potable water demand for Ellis represents projected demands for the Aquatic Center minus 2017 metered water use. The 2017 metered use was subtracted from the calculated water demands for the entire development to account for the portion of the development constructed by 2017.
(i) Land use data from hydraulic analysis TMs was used for Tracy Hills Phase 1. The parks acreage assumption was not applied to Tracy Hills Phase 1 because the available land use data specifically identified parks. The parks acreage assumption was applied to the remaining phases of Tracy Hills, which used land use data from the TAZ spreadsheet.
(j) Miscellaneous water use for Cordes Ranch represents the transfer of 2017 metered potable irrigation demands to recycled water demands once recycled water service is extended to Cordes Ranch.
(k) Land use data for Kagehiro includes dwelling units constructed by 2017. Miscellaneous potable water demand for Kagehiro represents 2017 metered water use. The 2017 metered use was subtracted from the calculated water demands for the entire development to account for the portion of the development constructed by 2017.
(l) Demands for the Tracy Combined Cycle Power Plant Recycled Water Conversion are from City of Tracy Recycled Water Project - Projected Recycled Water Demands TM, West Yost Associates, October 11, 2016.
(m) Remaining Legacy Fields acreage to be developed is from the City of Tracy Parks Master Plan, Table A-1, April 2013. Projected demands for Legacy Fields are equal to total demands projected in the Water Supply Assessment for the Holly Sugar Sports Park (West Yost Associates, June 2009) minus the existing recycled water demand for Legacy Fields.
(n) Represents the transfer of 2017 metered potable demands for selected existing parks and irrigated areas to recycled water demands. Projected recycled water demands for these areas are larger than existing potable water demands due to current potable water conservation practices. Refer to Chapter 9 for a full list of irrigated areas projected to be converted to recycled water use.

Table A-4. Buildout Time Frame - Land Use Assumptions and Projected Water Demands for New Developments

Project or Development Area	Data Source(s)[a]	Parks Area Assumption[b]	Assumed Recycled Water Availability	Residential – Very Low Density						Residential – Low Density						Residential – Medium Density						
				Dwelling Units	*Total Acres*	Residential Acres	Assumed Park Acres	PW Demand, af/yr[c]	RW Demand, af/yr[d]	Dwelling Units	*Total Acres*	Residential Acres	Assumed Park Acres	PW Demand, af/yr[c]	RW Demand, af/yr[d]	Dwelling Units	*Total Acres*	Residential Acres	Assumed Park Acres	Assumed Other Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]
UR 5 (Bright)	TAZ Spreadsheet	✓	✓							174	40.0	35.5	4.5	78.7	18.9	342	38.1	28.1	4.3	5.7	111.9	42.0
UR 7 (Bright/Castro)	TAZ Spreadsheet	✓	✓							174	40.0	35.5	4.5	78.7	18.9	432	48.0	35.4	5.4	7.2	141.3	53.0
Rocking Horse	Hydraulic Analysis TM		✓							226	56.7	56.7		102.2								
Tracy Village[f]	Hydraulic Analysis TM		✓							600	96.2	96.2		271.4								
UR 1	TAZ Spreadsheet	✓	✓	570	380.0	337.4	42.6	303.0	179.2	1,255	288.5	256.2	32.3	567.6	136.1	535	59.4	43.9	6.7	8.9	175.0	65.6
Ellis[g,h]	Hydraulic Analysis TM		✓							958	213.5	213.5		433.3								
Avenues	Hydraulic Analysis TM		✓							480	90.4	90.4		217.1								
UR 10	TAZ Spreadsheet	✓	✓																			
Tracy Hills[i]	Hydraulic Analysis TM, TAZ Spreadsheet	✓	✓	122	81.3	72.2	9.1	64.9	38.4	3,439	812.5	762.7	49.8	1,555.4	209.9	3,491	415.7	315.6	37.8	62.4	1,142.0	421.6
Westside	Westside Draft Specific Plan	✓	✓													2,130	210.0	155.0	23.5	31.5	696.8	231.7
Cordes Ranch[j]	Hydraulic Analysis TM, TAZ Spreadsheet	✓	✓																			
UR 4 (Bright Triangle)	TAZ Spreadsheet	✓	✓																			
UR 3 (Sandhu)	TAZ Spreadsheet	✓	✓	60	40.0	35.5	4.5	31.9	18.9													
I-205 Expansion	TAZ Spreadsheet	✓	✓													378	42.0	31.0	4.7	6.3	123.7	46.3
West Side Industrial	TAZ Spreadsheet	✓	✓																			
East Side Industrial	TAZ Spreadsheet	✓	✓																			
Larch-Clover	TAZ Spreadsheet	✓	✓	375	250.0	222.0	28.0	199.3	117.9	174	40.0	35.5	4.5	78.7	18.9	360	40.0	29.5	4.5	6.0	117.8	44.1
Chrisman Road	TAZ Spreadsheet	✓	✓																			
Rocha	TAZ Spreadsheet	✓	✓							296	68.0	60.4	7.6	133.9	32.1							
Berg/Byron Remainder	TAZ Spreadsheet	✓														411	39.0	28.8	4.4	5.9	169.3	
Berg Road Subdivision	Hydraulic Analysis TM															71	9.9	8.4		1.5	27.2	
SWC Valpico & Corral Hollow	TAZ Spreadsheet	✓	✓							282	65.0	57.7	7.3	127.5	30.7							
Kagehiro[g,k]	Email from City Planning Division									252	47.0	47.0		114.0								
Dobler/Maibes	TAZ Spreadsheet	✓	✓																			
Holly Sugar Industrial	TAZ Spreadsheet	✓	✓																			
Northeast Industrial Area	Hydraulic Analysis TM																					
Industrial Areas Specific Plan	TAZ Spreadsheet																					
I-205 Corridor Specific Plan	TAZ Spreadsheet																					
Home 2 Suites	Hydraulic Analysis TM																					
Sierra Hills	Hydraulic Analysis TM																					
Grant Line Road Apartments	Hydraulic Analysis TM																					
Aspire II	Hydraulic Analysis TM																					
Harvest	Hydraulic Analysis TM																					
321 E. Grant Line Rd Apartments	Hydraulic Analysis TM																					
Barcelona Infill	Hydraulic Analysis TM									51	10.2	10.2		23.1								
Mountain View	Tracy Municipal Services Review, June 2019			165	156.0	156.0		87.7														
Tracy Combined Cycle Power Plant RW Conversion[l]	Hydraulic Analysis TM		✓																			
Legacy Fields[m]	Hydraulic Analysis TM		✓																			
Parks RW Conversion[n]	2017 Irrigation Meters		✓																			
Infill (misc.)	TAZ Spreadsheet									14	3.2	3.2		6.3								
			Total	**1,292**	**907**	**823**	**84**	**687**	**354**	**8,375**	**1,871**	**1,761**	**110**	**3,788**	**465**	**8,150**	**902**	**676**	**91**	**135**	**2,705**	**904**

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(b) For selected projects and development areas, it was assumed that 11.2% of the total acres in very low, low, and medium density residential land uses will be developed as parks. These park acres are in addition to the identified parks in the Rocking Horse, Ellis, Avenues, Tracy Hills Phase 1, and Legacy Fields developments. If available, recycled water was used to meet park demands.
(c) Includes 9.6% Unaccounted-for Water (UAFW).
(d) Includes 5.0% UAFW.
(e) Assumes that 15 percent of total gross acres will be landscaped and irrigated. If available, recycled water was used to meet irrigated area demands.
(f) Miscellaneous potable water demands for Tracy Village are from existing residential units to be annexed as part of the Project. Miscellaneous recycled water demand for Tracy Village is to fill the lakes which will be constructed as part of the project.
(g) Projected land use data includes dwelling units and acreage developed by 2017.
(h) Land use data for Ellis includes dwelling units constructed by 2017. Miscellaneous potable water demand for Ellis represents projected demands for the Aquatic Center minus 2017 metered water use. The 2017 metered use was subtracted from the calculated water demands for the entire development to account for the portion of the development constructed by 2017.
(i) Land use data from hydraulic analysis TMs was used for Tracy Hills Phase 1. The parks acreage assumption was not applied to Tracy Hills Phase 1 because the available land use data specifically identified parks. The parks acreage assumption was applied to the remaining phases of Tracy Hills, which used land use data from the TAZ spreadsheet.
(j) Miscellaneous water use for Cordes Ranch represents the transfer of 2017 metered potable irrigation demands to recycled water demands once recycled water service is extended to Cordes Ranch.
(k) Land use data for Kagehiro includes dwelling units constructed by 2017. Miscellaneous potable water demand for Kagehiro represents 2017 metered water use. The 2017 metered use was subtracted from the calculated water demands for the entire development to account for the portion of the development constructed by 2017.
(l) Demands for the Tracy Combined Cycle Power Plant Recycled Water Conversion are from City of Tracy Recycled Water Project - Projected Recycled Water Demands TM, West Yost Associates, October 11, 2016.
(m) Remaining Legacy Fields acreage to be developed is from the City of Tracy Parks Master Plan, Table A-1, April 2013. Projected demands for Legacy Fields are equal to total demands projected in the Water Supply Assessment for the Holly Sugar Sports Park (West Yost Associates, June 2009) minus the existing recycled water demand for Legacy Fields.
(n) Represents the transfer of 2017 metered potable demands for selected existing parks and irrigated areas to recycled water demands. Projected recycled water demands for these areas are larger than existing potable water demands due to current potable water conservation practices. Refer to Chapter 9 for a full list of irrigated areas projected to be converted to recycled water use.

Table A-4. Buildout Time Frame - Land Use Assumptions and Projected Water Demands for New Developments

	Residential – High Density						Residential – Very High Density						Commercial					Office				
Project or Development Area	Dwelling Units	*Total Acres*	Residential Acres	Assumed Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]	Dwelling Units	*Total Acres*	Residential Acres	Assumed Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]	*Total Acres*	Commercial Acres	Assumed Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]	*Total Acres*	Office Acres	Assumed Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]
UR 5 (Bright)	370	20.0	17.0	3.0	85.7	12.6							10.0	8.5	1.5	16.9	6.3					
UR 7 (Bright/Castro)																						
Rocking Horse																						
Tracy Village[f]													4.0	3.4	0.6	6.8	2.5					
UR 1	519	39.9	33.9	6.0	120.3	25.2							30.0	25.5	4.5	50.8	18.9					
Ellis[g,h]													14.8	12.6	2.2	25.0	9.3					
Avenues																						
UR 10																						
Tracy Hills[i]	125	7.0	6.0	1.1	29.0	4.4							40.6	34.5	6.1	68.7	25.6	45.5	38.7	6.8	64.2	28.7
Westside	414	26.0	22.1	3.9	95.9	16.4							149.0	126.7	22.4	252.2	94.1					
Cordes Ranch[i]													55.0	46.8	8.3	93.1	34.7	126.0	107.1	18.9	177.7	79.6
UR 4 (Bright Triangle)	816	34.0	28.9	5.1	189.1	21.5							80.0	68.0	12.0	135.4	50.5	44.0	37.4	6.6	62.1	27.8
UR 3 (Sandhu)													45.0	38.3	6.8	76.2	28.4	40.0	34.0	6.0	56.4	25.3
I-205 Expansion	1,370	80.0	68.0	12.0	317.4	50.5							50.0	42.5	7.5	84.6	31.6					
West Side Industrial																						
East Side Industrial													5.0	4.3	0.8	8.5	3.2					
Larch-Clover	288	12.0	10.2	1.8	66.7	7.6							110.0	93.5	16.5	186.2	69.5					
Chrisman Road													13.0	11.1	2.0	22.0	8.2					
Rocha	431	23.0	19.6	3.5	99.9	14.5																
Berg/Byron Remainder	72	5.0	4.3	0.8	18.7																	
Berg Road Subdivision																						
SWC Valpico & Corral Hollow																						
Kagehiro[g,k]																						
Dobler/Maibes													23.0	19.6	3.5	38.9	14.5					
Holly Sugar Industrial													18.0	15.3	2.7	30.5	11.4					
Northeast Industrial Area																						
Industrial Areas Specific Plan	520	27.7	23.6	4.2	131.5								32.0	27.2	4.8	64.2						
I-205 Corridor Specific Plan													37.7	32.0	5.7	75.7						
Home 2 Suites							110	2.6	2.2	0.4	18.5							0.6	0.5	0.1	1.1	
Sierra Hills	300	11.6	9.9	1.7	74.1																	
Grant Line Road Apartments	448	20.0	17.0	3.0	111.8																	
Aspire II	47	2.3	2.0	0.3	11.8																	
Harvest	300	17.9	15.2	2.7	76.6																	
321 E. Grant Line Rd Apartments	40	1.7	1.4	0.3	9.9																	
Barcelona Infill																						
Mountain View																						
Tracy Combined Cycle Power Plant RW Conversion[l]																						
Legacy Fields[m]																						
Parks RW Conversion[n]																						
Infill (misc.)	973	51.9	44.1	7.8	246.1								100.4	85.3	15.1	201.6						
Total	**7,033**	**380**	**323**	**57**	**1,685**	**153**	**110**	**3**	**2**	**0**	**18**		**818**	**695**	**123**	**1,437**	**409**	**256**	**218**	**38**	**361**	**161**

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(b) For selected projects and development areas, it was assumed that 11.2% of the total acres in very low, low, and medium density residential land uses will be developed as parks. These park acres are in addition to the identified parks in the Rocking Horse, Ellis, Avenues, Tracy Hills Phase 1, and Legacy Fields developments. If available, recycled water was used to meet park demands.

(c) Includes 9.6% Unaccounted-for Water (UAFW).

(d) Includes 5.0% UAFW.

(e) Assumes that 15 percent of total gross acres will be landscaped and irrigated. If available, recycled water was used to meet irrigated area demands.

(f) Miscellaneous potable water demands for Tracy Village are from existing residential units to be annexed as part of the Project. Miscellaneous recycled water demand for Tracy Village is to fill the lakes which will be constructed as part of the project.

(g) Projected land use data includes dwelling units and acreage developed by 2017.

(h) Land use data for Ellis includes dwelling units constructed by 2017. Miscellaneous potable water demand for Ellis represents projected demands for the Aquatic Center minus 2017 metered water use. The 2017 metered use was subtracted from the calculated water demands for the entire development to account for the portion of the development constructed by 2017.

(i) Land use data from hydraulic analysis TMs was used for Tracy Hills Phase 1. The parks acreage assumption was not applied to Tracy Hills Phase 1 because the available land use data specifically identified parks. The parks acreage assumption was applied to the remaining phases of Tracy Hills, which used land use data from the TAZ spreadsheet.

(j) Miscellaneous water use for Cordes Ranch represents the transfer of 2017 metered potable irrigation demands to recycled water demands once recycled water service is extended to Cordes Ranch.

(k) Land use data for Kagehiro includes dwelling units constructed by 2017. Miscellaneous potable water demand for Kagehiro represents 2017 metered water use. The 2017 metered use was subtracted from the calculated water demands for the entire development to account for the portion of the development constructed by 2017.

(l) Demands for the Tracy Combined Cycle Power Plant Recycled Water Conversion are from City of Tracy Recycled Water Project - Projected Recycled Water Demands TM, West Yost Associates, October 11, 2016.

(m) Remaining Legacy Fields acreage to be developed is from the City of Tracy Parks Master Plan, Table A-1, April 2013. Projected demands for Legacy Fields are equal to total demands projected in the Water Supply Assessment for the Holly Sugar Sports Park (West Yost Associates, June 2009) minus the existing recycled water demand for Legacy Fields.

(n) Represents the transfer of 2017 metered potable demands for selected existing parks and irrigated areas to recycled water demands. Projected recycled water demands for these areas are larger than existing potable water demands due to current potable water conservation practices. Refer to Chapter 9 for a full list of irrigated areas projected to be converted to recycled water use.

Table A-4. Buildout Time Frame - Land Use Assumptions and Projected Water Demands for New Developments

Project or Development Area	Industrial					Institutional					Identified Parks			Misc. Water Demands		Total Dwelling Units	Total Area, acres	Total Potable Water Demand, af/yr	Total Recycled Water Demand, af/yr
	Total Acres	Industrial Acres	Assumed Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]	*Total Acres*	Institutional Acres	Assumed Irrigated Acres[e]	PW Demand, af/yr[c]	RW Demand, af/yr[d]	*Total Acres*	PW Demand, af/yr[c]	RW Demand, af/yr[d]	PW Demand, af/yr[c]	RW Demand, af/yr[d]				
UR 5 (Bright)																886	108.1	293.2	79.9
UR 7 (Bright/Castro)																606	88.0	220.0	71.8
Rocking Horse											2.4		10.1			226	59.1	102.2	10.1
Tracy Village[f]														17.7	156.0	600	100.2	295.8	158.5
UR 1																2,879	797.9	1,216.6	425.0
Ellis[g,h]	28.8	24.5	4.3	35.2	18.2	16.0	13.6	2.4	22.6	10.1	16.7		70.3	7.1		958	289.8	523.2	108.0
Avenues											4.6		19.4			480	95.0	217.1	19.4
UR 10	116.0	98.6	17.4	141.8	73.3												116.0	141.8	73.3
Tracy Hills[i]	308.0	261.8	46.2	376.5	194.5	18.6	15.8	2.8	26.2	11.7	27.9		117.5			7,177	1,757.2	3,326.8	1,052.4
Westside						150.0	127.5	22.5	211.6	94.7						2,544	535.0	1,256.4	436.9
Cordes Ranch[j]	1,219.7	1,036.7	183.0	1,490.9	770.3									-84	83.8		1,400.7	1,677.9	968.5
UR 4 (Bright Triangle)																816	158.0	386.5	99.8
UR 3 (Sandhu)	535.0	454.8	80.3	654.0	337.9											60	660.0	818.4	410.4
I-205 Expansion																1,748	172.0	525.7	128.4
West Side Industrial	650.0	552.5	97.5	794.5	410.5												650.0	794.5	410.5
East Side Industrial	363.0	308.6	54.5	443.7	229.3												368.0	452.2	232.4
Larch-Clover																1,197	452.0	648.7	257.9
Chrisman Road	100.0	85.0	15.0	122.2	63.2												113.0	144.2	71.4
Rocha																727	91.0	233.7	46.6
Berg/Byron Remainder																483	44.0	188.0	
Berg Road Subdivision																71	9.9	27.2	
SWC Valpico & Corral Hollow																282	65.0	127.5	30.7
Kagehiro[g,k]														-24		252	47.0	89.8	
Dobler/Maibes																	23.0	38.9	14.5
Holly Sugar Industrial	125.0	106.3	18.8	152.8	78.9												143.0	183.3	90.3
Northeast Industrial Area	468.0	397.8	70.2	719.6													468.0	719.6	
Industrial Areas Specific Plan	26.8	22.8	4.0	41.2												520	86.5	237.0	
I-205 Corridor Specific Plan																	37.7	75.7	
Home 2 Suites																110	3.2	19.6	
Sierra Hills																300	11.6	74.1	
Grant Line Road Apartments																448	20.0	111.8	
Aspire II																47	2.3	11.8	
Harvest																300	17.9	76.6	
321 E. Grant Line Rd Apartments																40	1.7	9.9	
Barcelona Infill																51	10.2	23.1	
Mountain View																165	156.0	87.7	
Tracy Combined Cycle Power Plant RW Conversion[l]															33.7				33.7
Legacy Fields[m]											228.5	52.3	397.9				228.5	52.3	397.9
Parks RW Conversion[n]														-432	593.5			-432	593.5
Infill (misc.)	153.0	130.1	23.0	235.3		2.7	2.3	0.4	4.7							987	311.3	694.0	
Total	**4,093**	**3,479**	**614**	**5,208**	**2,176**	**187**	**159**	**28**	**265**	**117**	**280**	**52**	**615**	**-516**	**867**	**24,960**	**9,698**	**15,691**	**6,222**

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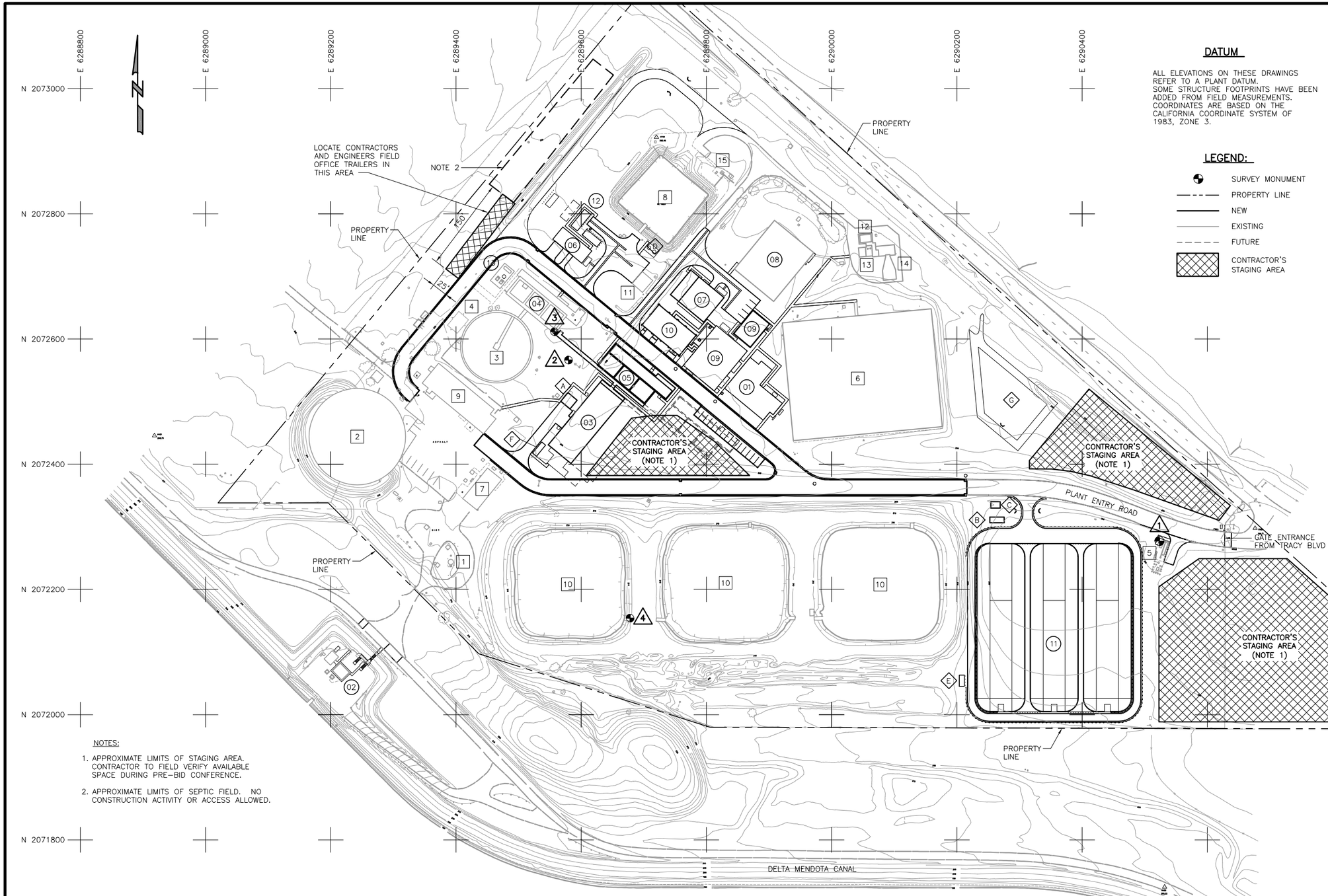
APPENDIX B

JJWTP Expansion Project

Site Plan, Process Schematic, and Hydraulic Profile



NOTES:

1. APPROXIMATE LIMITS OF STAGING AREA. CONTRACTOR TO FIELD VERIFY AVAILABLE SPACE DURING PRE-BID CONFERENCE.
2. APPROXIMATE LIMITS OF SEPTIC FIELD. NO CONSTRUCTION ACTIVITY OR ACCESS ALLOWED.

DATUM

ALL ELEVATIONS ON THESE DRAWINGS REFER TO A PLANT DATUM. SOME STRUCTURE FOOTPRINTS HAVE BEEN ADDED FROM FIELD MEASUREMENTS. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 3.

LEGEND:

- SURVEY MONUMENT
- PROPERTY LINE
- NEW
- EXISTING
- FUTURE
- CONTRACTOR'S STAGING AREA

SURVEY GRID MONUMENT DATA

NO	DESCRIPTION	COORDINATES	ELEVATION
1	BRASS DISK IN CONC SLAB	N 2072277.29 E 6290523.62	200.76
2	BRASS DISK IN CONC VAULT	N 2072566.47 E 6289579.75	204.54
3	BRASS DISK IN CONC SLAB	N 2072611.76 E 6289557.30	216.52
4	BRASS DISK IN CONC HEADWALL	N 2072154.17 E 6289678.10	211.72

NEW FACILITIES/MODIFICATIONS

- 01 OPERATIONS/CONTROL BUILDING
- 02 INFLUENT PUMP STATION MODIFICATIONS
- 03 FLOCCULATION / SEDIMENTATION SYSTEM
- 04 EXISTING FILTER NO.S 1 – 3 MODIFICATIONS
- 05 FILTERS NO.S 4 – 6
- 06 BLOWER AND ELECTRICAL DISTRIBUTION BUILDING
- 07 UV FACILITY / FILTER OVERFLOW STRUCTURE
- 08 EXISTING CLEARWELL NO.1 MODIFICATIONS
- 09 CHEMICAL BUILDING / CHLORINE SCRUBBER
- 10 CHEMICAL TANK FARM
- 11 BACKWASH WATER RECOVERY BASIN NO.1 – 3
- 12 TRANSFORMER/GENERATOR/FUEL TANK
- 13 HYDROPNEUMATIC TANK, AIR RECEIVER AND AIR BLOWER

YARD STRUCTURE

- A DRAIN PUMP STATION
- B BACKWASH WATER RECOVERY BASIN VALVE VAULT
- C BACKWASH WATER RECOVERY BASIN METER
- D HYDROPNEUMATIC TANK PAD
- E WASTE STREAM TREATMENT MCC PAD
- F FLOCCULATION / SEDIMENTATION MCC PAD
- G DETENTION POND

EXISTING FACILITIES

- 1 SURGE TOWER
- 2 EQUALIZATION TANK
- 3 REACTOR CLARIFIER
- 4 CONTROL METER VAULT
- 5 WELL NO.2
- 6 CLEARWELL NO.2
- 7 CHEMICAL FEED BUILDING
- 8 FTW RECOVERY POND *
- 9 CONTROL BUILDING
- 10 SLUDGE DRYING BED NO.1 – 3
- 11 SWITCHGEAR BUILDING
- 12 ZONE 1 BPS ELECTRICAL BUILDING
- 13 METER VAULT
- 15 WELL NO.1
- 14 ZONE 1 PUMP STATION
- * FACILITY RENAMED AFTER IMPROVEMENTS

A – GENERAL SITE PLAN
SCALE: 1"= 80'
FILE: 00G011

CONFORMED DOCUMENTS FOR CONSTRUCTION

REV	DATE	BY	DESCRIPTION

DESIGNED MAL
DRAWN DST
CHECKED WCL
DATE MAR 2005

DISCIPLINE ENGINEER: ** ORIGINAL STAMPED BY MATHEW AXEL LARSON **
PROJECT ENGINEER: ** ORIGINAL STAMPED BY SUZAN K. ENGLAND **
PARTNER: ** ORIGINAL STAMPED BY KENNETH WILKINS **

carollo engineers

CITY OF TRACY
JOHN JONES WTP – EXPANSION PROJECT
GENERAL
SITE PLAN

VERIFY SCALES
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0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

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DRAWING NO. G-12
SHEET NO. 12 OF 573

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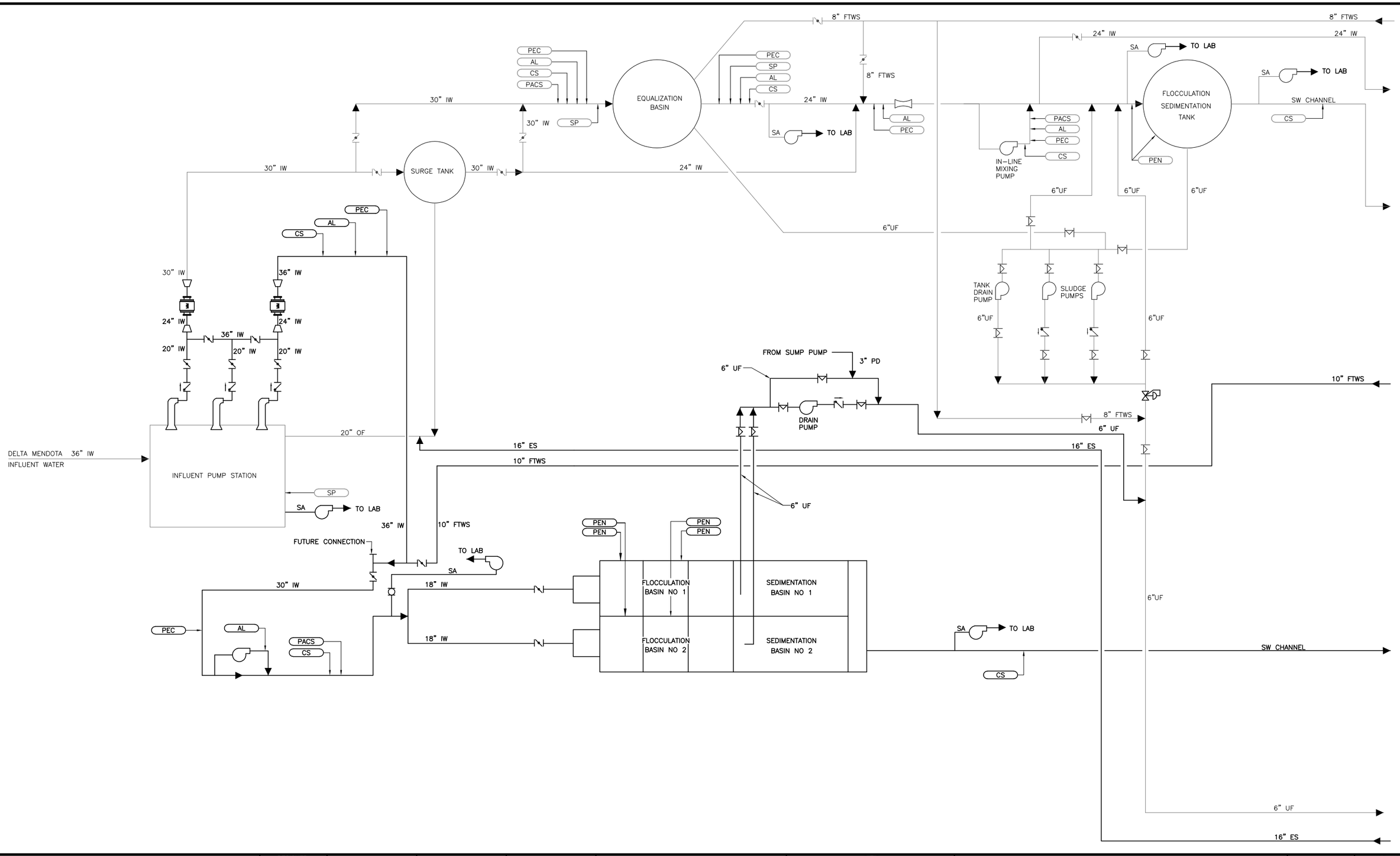

RECORD DRAWING

THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED IN PART ON INFORMATION PROVIDED BY OTHERS

THIS DRAWING WAS PREPARED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON AND IS NOT TO BE USED ELSEWHERE

DESIGNED	MAL
DRAWN	SJB
CHECKED	BTF
DATE	MAR 2005

DISCIPLINE ENGINEER

PROJECT ENGINEER

PARTNER

carollo engineers

CITY OF TRACY

JOHN JONES WTP – EXPANSION PROJECT

GENERAL

PROCESS SCHEMATIC
SHEET 1 OF 2

VERIFY SCALES
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JOB NO. 6458C

DRAWING NO. G-9

SHEET NO. 9 OF 573

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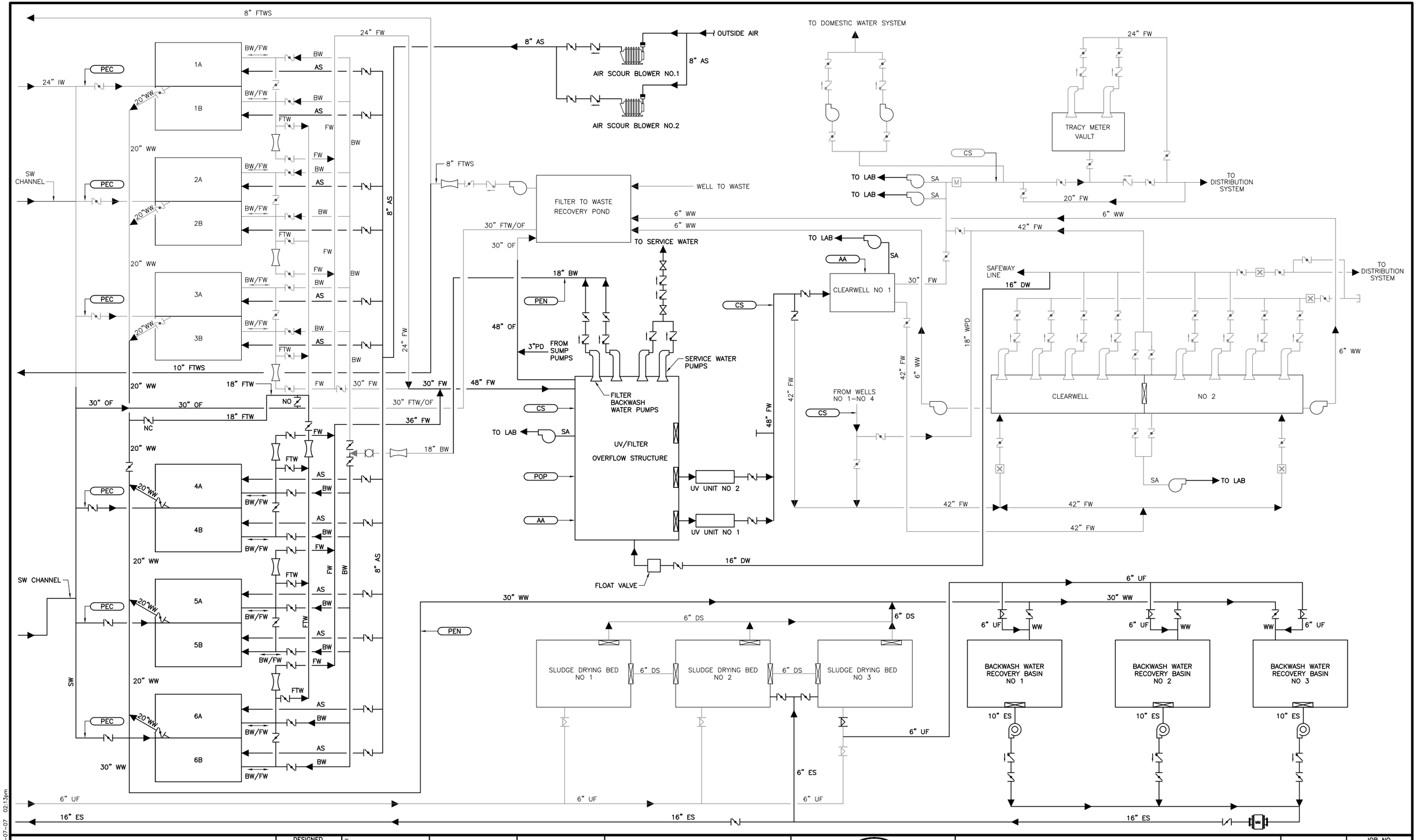

RECORD DRAWING

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THIS DRAWING WAS PREPARED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON AND IS NOT TO BE USED ELSEWHERE

DESIGNED	MAL
DRAWN	SJB
CHECKED	BTF
DATE	MAR 2005

DISCIPLINE ENGINEER

PROJECT ENGINEER

PARTNER

carollo engineers

CITY OF TRACY

JOHN JONES WTP – EXPANSION PROJECT

GENERAL

PROCESS SCHEMATIC
SHEET 2 OF 2

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 6458C

DRAWING NO. G–10

SHEET NO. 10 OF 573

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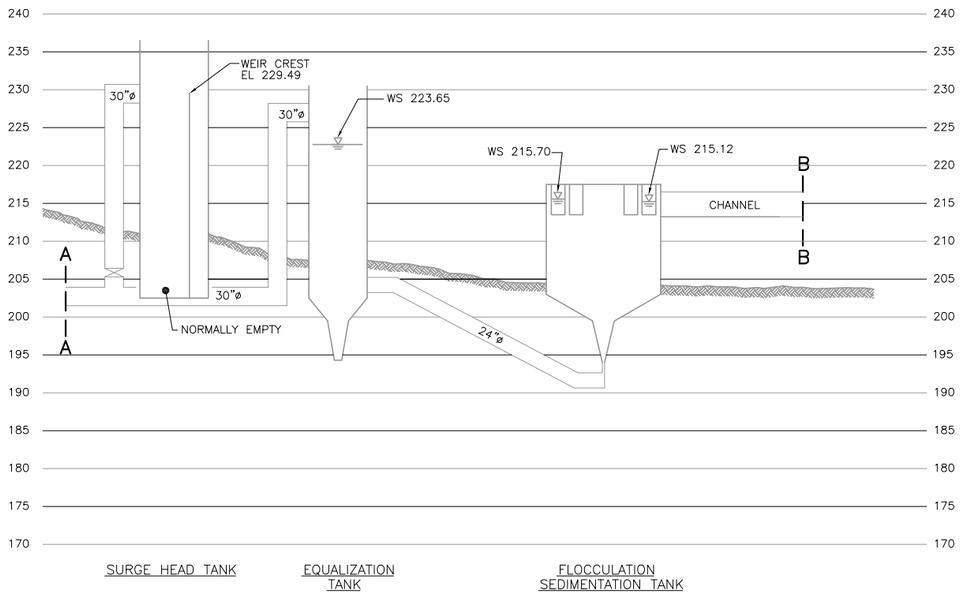

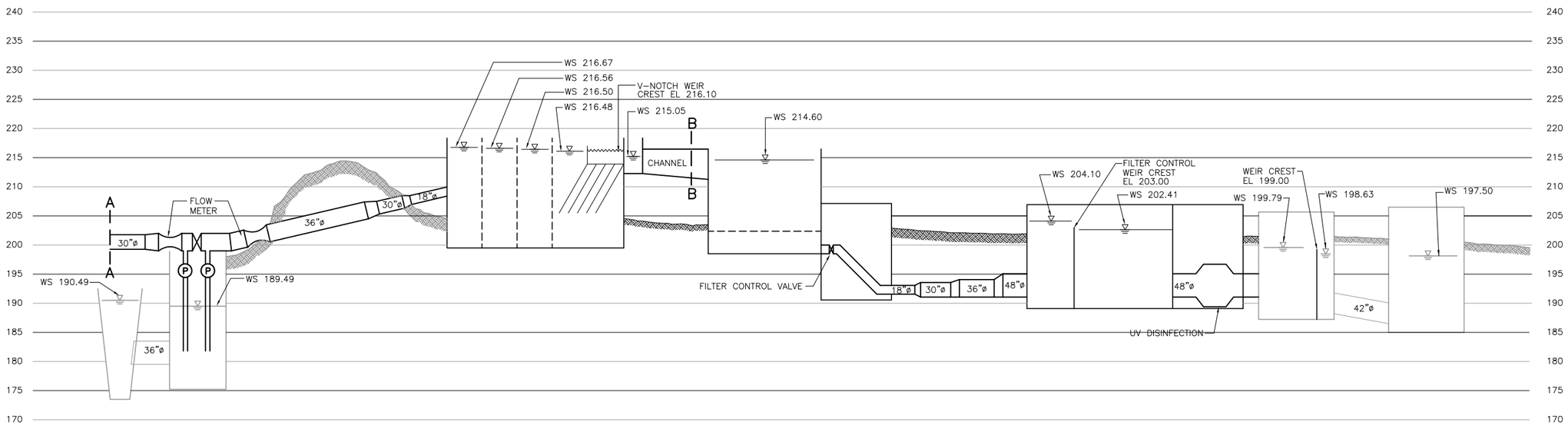

LEGEND

XXX — WATER SURFACE ELEVATION AT 30 MGD

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REV	DATE	BY	DESCRIPTION
			CONFORMED DOCUMENTS FOR CONSTRUCTION

DESIGNED MAL
DRAWN PGG
CHECKED AS
DATE MAR 2005

DISCIPLINE ENGINEER: ** ORIGINAL STAMPED BY MATHEW AXEL LARSON **
PROJECT ENGINEER: ** ORIGINAL STAMPED BY SUZAN K. ENGLAND **
PARTNER: ** ORIGINAL STAMPED BY KENNETH WILKINS **

carollo engineers

CITY OF TRACY
JOHN JONES WTP – EXPANSION PROJECT
GENERAL
HYDRAULIC PROFILE

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 — 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 6458C
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SHEET NO. 11 OF 573

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APPENDIX C

City of Tracy

Existing Potable Water System Hydraulic Grade Schematic

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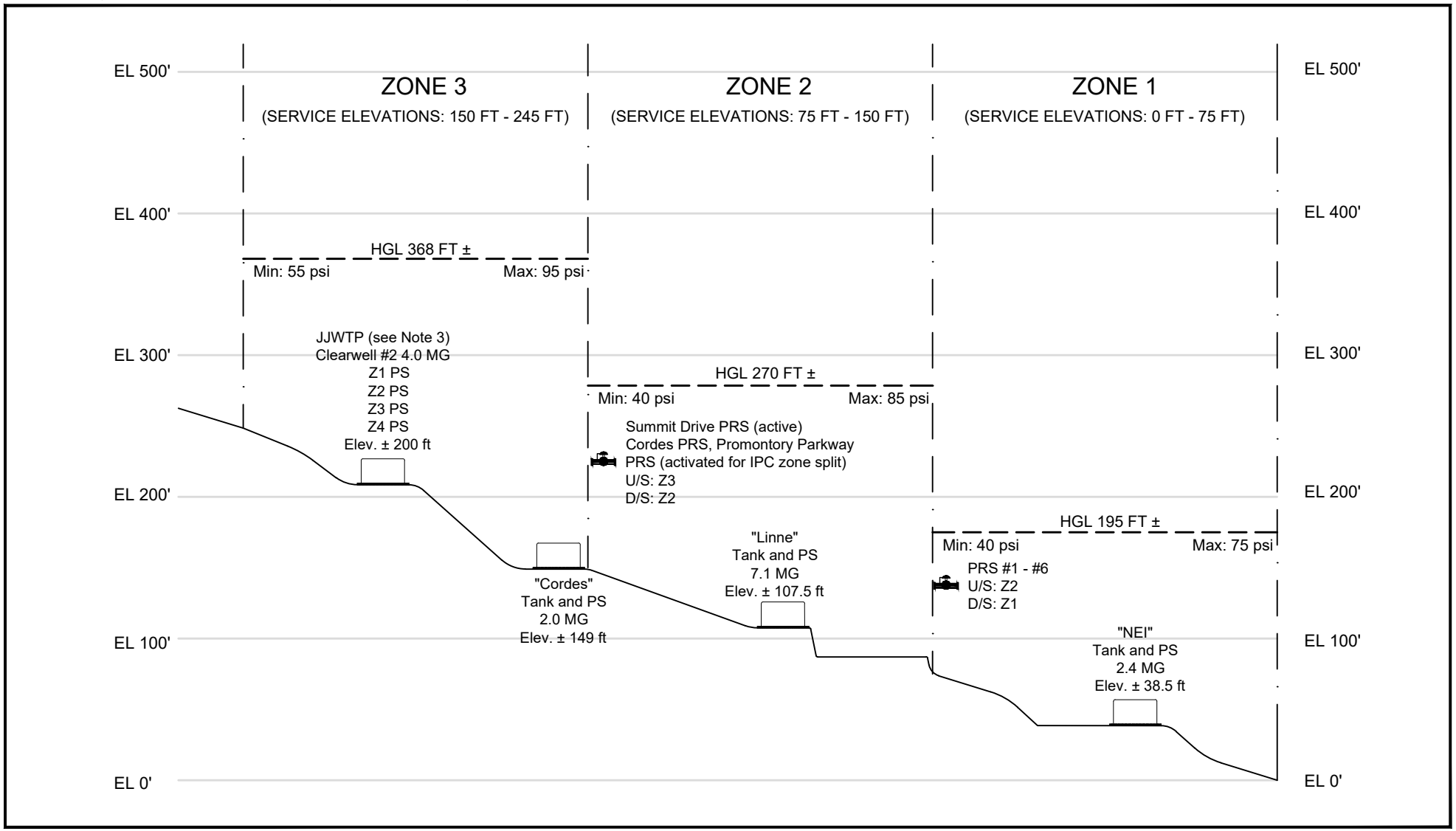

Notes:

1. Elevations on this figure are from various sources and should not be used for design purposes.
2. Horizontal spacing is for illustrative purposes and is not to scale.
3. JJWTP Facilities do not currently supply Zone 3 directly.
4. Ellis Reduced Zone (not shown) is served from Zone 3 via the Summit Drive PRV. It has a hydraulic grade of approximately 323 ft, and a service elevation range of 140 ft - 185 ft.
5. Last updated December 2019.

Appendix C

Existing Potable Water System
Hydraulic Grade Schematic

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City of Tracy
Water System
Master Plan Update

APPENDIX D

Lammers Road and Hood Way Design Recommendation Technical Memoranda

Note: The Technical Memoranda in this Appendix were written using the old pressure zone nomenclature. Please note that "City-side Pressure Zone 3" is now referred to as "Pressure Zone 3" using the updated pressure zone nomenclature discussed in Chapters 7 and 8.

WEST YOST ASSOCIATES

TECHNICAL MEMORANDUM

DATE: September 25, 2019

Project No.: 404-60-19-47
SENT VIA: EMAIL

TO: Zabih Zaca, City of Tracy

CC: Robert Armijo, City of Tracy
Paul Verma, City of Tracy
Al Gali, City of Tracy
Nanda Gottiparthy, SNG & Associates, Inc.

FROM: Nathaniel Homan, PE, RCE #89903
Jim Connell, PE, RCE #63052

REVIEWED BY: Amy Kwong, PE, RCE #73213

SUBJECT: Design Recommendations for Lammers Road Pipeline

In a technical memorandum (TM) prepared for the City of Tracy (City) titled *Hydraulic Evaluation of International Park of Commerce (IPC) Buildings 3, 4, and 12*, dated May 18, 2017 (May 2017 TM), West Yost Associates (West Yost) recommended that 3,440 lineal feet (lf) of 20-inch diameter Pressure Zone 2 (Zone 2) transmission main be constructed in Lammers Road between Valpico Road and Schulte Road in addition to the 3,025 lf of City-side Pressure Zone 3 (Zone 3) transmission main to be constructed in Lammers Road between the northwest corner of the Ellis Specific Plan development and Valpico Road. The purpose of this recommended Zone 2 pipeline improvement was to maintain the Zone 2 transmission main system after the existing 24-inch diameter Zone 2 transmission main in the above-mentioned section of Lammers Road is re-zoned to Zone 3. The key figures from the May 2017 TM are included for reference as Attachment 1.

This TM summarizes the findings and conclusions of West Yost's technical evaluation of four alternatives to the recommendations from the May 2017 TM:

- Alternative 1: Re-zone the existing 24-inch diameter Zone 2 transmission main in Lammers Road between Valpico Road and Schulte Road without any improvements. This alternative was previously evaluated in the May 2017 TM, but system conditions have changed with additional development. Therefore, this condition was re-evaluated to confirm if improvements are required.
- Alternative 2: Re-zone the existing 24-inch diameter Zone 2 transmission main in Lammers Road between Valpico Road and Schulte Road and construct a new Pressure Regulating Station (PRS) at the intersection of Lammers Road and Schulte Road to support Zone 2.

- Alternative 3: Construct a new Zone 3 transmission main in Lammers Road between Valpico Road and Schulte Road instead of re-zoning the existing transmission main.
- Alternative 4: Re-zone the existing 24-inch diameter Zone 2 transmission main in Lammers Road between Valpico Road and Schulte Road and construct a new Zone 2 transmission main in Lammers Road between Valpico Road and Schulte Road (similar to the recommendation from the May 2017 TM).

West Yost first performed hydraulic modeling[1] and reviewed plans and record drawings of the construction areas to determine which of the four alternatives are both hydraulically feasible and constructible. West Yost then compared the various alternatives and developed design recommendations for the preferred alternative. It should be noted that all evaluations performed for this TM assume that the improvements identified in the evaluation for Design Recommendations for Hood Way Pipeline have been completed.

This TM is submitted in accordance with West Yost's January 2019 Scope of Services. The following sections summarize our findings and conclusions:

- Alternative 1: No New Pipeline
- Alternative 2: New PRS (No New Pipeline)
- Alternative 3: New Zone 3 Pipeline
- Alternative 4: New Zone 2 Pipeline
- Comparison of Alternatives and Conclusions

ALTERNATIVE 1: NO NEW PIPELINE

In Alternative 1, no new infrastructure would be constructed in Lammers Road between Valpico Road and Schulte Road. The existing 24-inch diameter Zone 2 pipeline in Lammers Road south of Schulte Road would be re-zoned to Zone 3 by closing existing valves located at the intersection of Valpico Road and Lammers Road and at the intersection of Schulte Road and Lammers Road. A depiction of Alternative 1 is shown on Figure 1.

While Alternative 1 is much less expensive than constructing the additional pipeline recommended in the May 2017 TM, re-zoning the existing pipeline in Lammers Road without providing a new Zone 2 transmission line would significantly impact the ability of the Zone 2 system west of Corral Hollow Road to convey large quantities of water. Increased headloss in the water distribution

[1] Hydraulic modeling was performed using the City's developer hydraulic model, which includes all of the previously evaluated development projects that have been proposed and is separate from the 2012 Water System Master Plan model. It is assumed that the Cordes Tank and Booster Pump Station are operational and that the 16-inch diameter Zone 2 transmission main connection to Lammers Road is in service. Planning and modeling criteria used to evaluate the various alternatives are based on the system performance and operational criteria developed in the 2012 WSMP and are provided in Attachment 2 for reference.

pipelines due to the lack of a major transmission main would cause a decrease in pressure in this portion of the Zone 2 system. Additional consequences from Alternative 1 include the following:

1. PRS #6 would no longer provide supply to Zone 1 during a normal maximum day demand condition. This is because the Zone 2 pressure upstream of PRS #6 would fall below the pressure sustaining setting of 78 pounds per square inch (psi).
2. Zone 1 would not meet fire flow requirements at Kimball High School during a maximum day demand condition[2], as shown on Figure 2. This is because PRS #6 would no longer be available to support Zone 1 as discussed in Item 1 above.
3. Zone 2 would also not meet fire flow requirements in portions of the IPC during a maximum day demand condition, as shown on Figure 2. Some hydrants in the IPC are located at the highest elevations in Zone 2 and the decrease in Zone 2 pressure and reduced transmission capacity of the Zone 2 system would cause some locations in the IPC to be deficient in meeting fire flow requirements.
4. The existing 24-inch diameter pipeline in Valpico Road would become a dead-end and would experience a decrease in water quality.

Alternative 1 is not recommended because it results in fire flow deficiencies within Zone 1 and Zone 2 and water quality concerns in the existing 24-inch diameter pipeline in Valpico Road.

ALTERNATIVE 2: NEW PRS (NO NEW PIPELINE)

After evaluating Alternative 1, West Yost evaluated whether a new Zone 3 to Zone 2 PRS at the intersection of Lammers Road and Schulte Road would be a viable alternative to a new transmission pipeline (i.e. Alternatives 3 and 4) and alleviate the fire flow deficiencies in Zone 1 and Zone 2 that were observed in the Alternative 1 evaluation.

To resolve the fire flow deficiencies in Zone 1, the proposed Zone 3 to Zone 2 PRS would have to provide enough supply to sustain pressure in Zone 2 sufficiently to allow PRS #6 to open and support Zone 1. However, as stated above, the Zone 2 pressure upstream of PRS #6 would fall below the pressure sustaining setting of 78 psi during a normal maximum day demand condition if the Zone 2 transmission main in Lammers Road were re-zoned without constructing a new Zone 2 transmission main. Therefore, any PRS designed to alleviate the fire flow deficiencies in Zone 1 would have to provide sufficient flow from Zone 3 to Zone 2 continuously under normal operating conditions so that the pressure upstream of PRS #6 would remain above the pressure sustaining setting. However, operating the new Zone 3 to Zone 2 PRS in this manner would require at least 1,000 gallons per minute (gpm) of flow through the new PRS from Zone 3 to Zone 2 under a maximum day demand condition, which would significantly increase the demand on Zone 3 facilities that were not designed to accommodate this additional flow. Therefore, Alternative 2 is not recommended.

[2] Available fire flow simulations for the evaluated alternatives was performed during a maximum day demand condition while maintaining 30 psi residual system pressure.

ALTERNATIVE 3: NEW ZONE 3 PIPELINE

In Alternative 3, 3,240 lf of 24-inch diameter Zone 3 pipeline would be constructed in Lammers Road between Valpico Road and Schulte Road, while the existing 24-inch diameter Zone 2 pipeline in Lammers Road between Valpico Road and Schulte Road would continue to serve Zone 2. An existing valve at the intersection of Schulte Road and Lammers Road would be used to isolate the Zone 2 and Zone 3 transmission lines. The proposed Zone 3 pipeline south of Valpico Road would not connect to the existing pipelines at the intersection of Valpico Road and Lammers Road, but would instead connect to the recommended Zone 3 pipeline. Refer to Figure 3A for a depiction of Alternative 3. A detailed schematic of the connection to existing pipelines which would be required to construct Alternative 3 is shown on Figure 3B.

As part of Alternative 3, West Yost also evaluated the feasibility of constructing 830 lf of new 20-inch diameter Zone 2 pipeline to connect the existing 24-inch diameter Zone 2 pipeline at the intersection of Lammers Road and Schulte Road to the existing 20-inch diameter Zone 2 pipeline at the intersection of Lammers Road and Redbridge Road.

In the existing system, the 24-inch and 20-inch diameter transmission mains in Lammers Road are interrupted by 830 lf of 12-inch diameter pipeline through which large volumes of water must pass to reach PRS #6. Under a maximum day demand condition, the headloss in this 12-inch diameter pipeline exceeds 7 feet per 1,000 feet (ft/kft). While not critical to meeting existing fire flow requirements, the recommended 830 lf of 20-inch diameter pipeline would reduce the velocity and headloss and improve the Zone 2 backbone transmission system.

Refer to Figures 3C and 3D for detailed schematics of the connections to existing pipelines which would be required to construct Alternative 3 with the optional 830 lf of Zone 2 pipeline. It should be noted that surface features at the intersection of Lammers Road and Redbridge Road do not match those shown on the record drawings for that area as depicted on Figure 3D. The configuration of the existing pipelines in this area should be confirmed during design.

Zones 1 and 2 would meet fire flow requirements during a maximum day demand condition under Alternative 3, as shown on Figure 4. For the evaluation results shown on Figure 4, it was assumed that the optional 830 lf of Zone 2 pipeline would not be constructed for more conservative results. In summary, Alternative 3 is both hydraulically feasible and constructible.

ALTERNATIVE 4: NEW ZONE 2 PIPELINE

In Alternative 4, 3,240 lf of 24-inch diameter Zone 2 pipeline would be constructed in Lammers Road between Valpico Road and Schulte Road, while the existing 24-inch diameter Zone 2 pipeline in Lammers Road between Valpico Road and Schulte Road would be re-zoned to Zone 3. The proposed Zone 3 pipeline south of Valpico Road would connect to the existing pipelines at the intersection of Valpico Road and Lammers Road. An existing valve would be used to isolate the Zone 2 and Zone 3 transmission lines. Alternative 4 is similar to the recommendation presented in the May 2017 TM, and is shown on Figure 5A. Detailed schematics of the connections to existing pipelines which would be required to construct Alternative 4 are shown on Figures 5B and 5C.

As part of Alternative 4, West Yost also evaluated the feasibility of constructing 830 lf of new 20-inch diameter Zone 2 pipeline to connect the proposed 24-inch diameter Zone 2 pipeline to be constructed for Alternative 4 to the existing 20-inch diameter Zone 2 pipeline at the intersection of Lammers Road and Redbridge Road.

In the existing system, the 24-inch and 20-inch diameter transmission mains in Lammers Road are interrupted by 830 lf of 12-inch diameter pipeline through which large volumes of water must pass to reach PRS #6. Under a maximum day demand condition, the headloss in this 12-inch diameter pipeline exceeds 7 ft/kft. While not critical to meeting existing fire flow requirements, the recommended 830 lf of 20-inch diameter pipeline would reduce the velocity and headloss and improve the Zone 2 backbone transmission system.

Refer to Figures 5D and 5E for detailed schematics of the connections to existing pipelines which would be required to construct Alternative 4 with the optional 830 lf of Zone 2 pipeline. It should be noted that surface features at the intersection of Lammers Road and Redbridge Road do not match those shown on the record drawings for that area as depicted on Figure 5E. The configuration of the existing pipelines in this area should be confirmed during design.

As shown on Figure 6, Zones 1 and 2 would meet fire flow requirements during a maximum day demand condition under Alternative 4. For the evaluation results shown on Figure 6, it was assumed that the optional 830 lf of Zone 2 pipeline would not be constructed for more conservative results. In summary, Alternative 4 is both hydraulically feasible and constructible.

COMPARISON OF ALTERNATIVES AND CONCLUSIONS

Alternatives 1 and 2 do not meet the City's existing fire flow requirements and are therefore not hydraulically feasible. Therefore, West Yost does not recommend that the City proceed with either of these alternatives.

Alternatives 3 and 4, on the other hand, both meet existing fire flow requirements and are also constructible. Although Alternatives 3 and 4 are similar in many respects, West Yost recommends that the City construct Alternative 4 over Alternative 3 because it would avoid construction near the existing 8-inch diameter natural gas transmission main in the west side of Lammers Road. West Yost also recommends that the proposed 20-inch diameter Zone 2 pipeline between Schulte Road and Redbridge Road be constructed to improve Zone 2 transmission capacity.

It should be noted that the hydraulic analysis performed in this evaluation did not include buildout water system demands. In addition, the proposed alternative operations could potentially impact future developments such as Gateway and Westside Industrial, which are located in Zone 2, as they would no longer be able to connect directly to the existing 24-inch diameter pipeline in Schulte Road. The City's buildout water system hydraulic model is currently being updated by West Yost as part of the City's 2018 Water System Master Plan (WSMP). For the 2018 WSMP, West Yost will confirm whether Alternatives 3 and 4 are hydraulically feasible at buildout of the City's potable water system and also address any potential impacts to future developments. While it is likely that construction of either a new Zone 3 transmission pipeline (as in Alternative 3) or a new Zone 2 transmission pipeline (as in Alternative 4) will continue to be hydraulically feasible

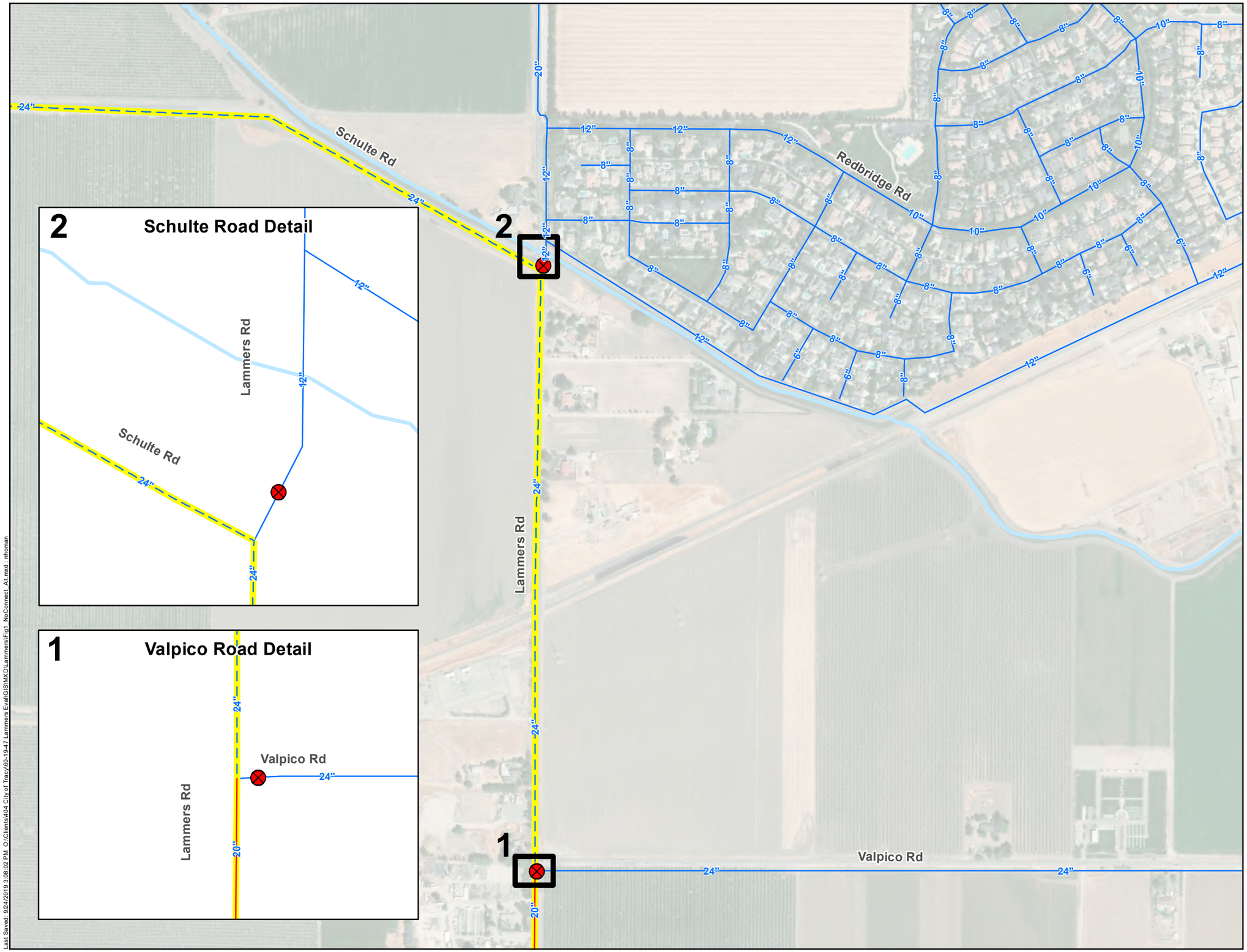
at buildout, the buildout analysis may determine that the new transmission pipeline should be of a larger diameter than is recommended in this evaluation.

In conclusion, West Yost currently recommends that the City construct the following infrastructure improvements in Lammers Road:

- 3,240 lf of new 24-inch diameter Zone 2 pipeline between Valpico Road and Schulte Road; and
- 830 lf of new 20-inch diameter Zone 2 pipeline from Schulte Road to Redbridge Road to improve existing deficiencies in the City's Zone 2 system. As noted above, the configuration of the existing pipelines in this area should be confirmed during design.

These recommendations should be confirmed using the buildout water system model as part of the 2018 WSMP.

No estimates of infrastructure costs were developed as part of this evaluation. The locations of existing pipelines and valves shown on the figures attached here-in should be confirmed prior to design. If existing pipelines or valves are not as shown on the reviewed plans and record drawings, additional evaluation of the feasibility of the recommended connections may be required.



Notes:
1. Details are not to scale.

Figure 1

Alternative 1
No New Pipeline from Valpico Road to Schulte Road

City of Tracy
Design Recommendations for
Lammers Road Pipeline

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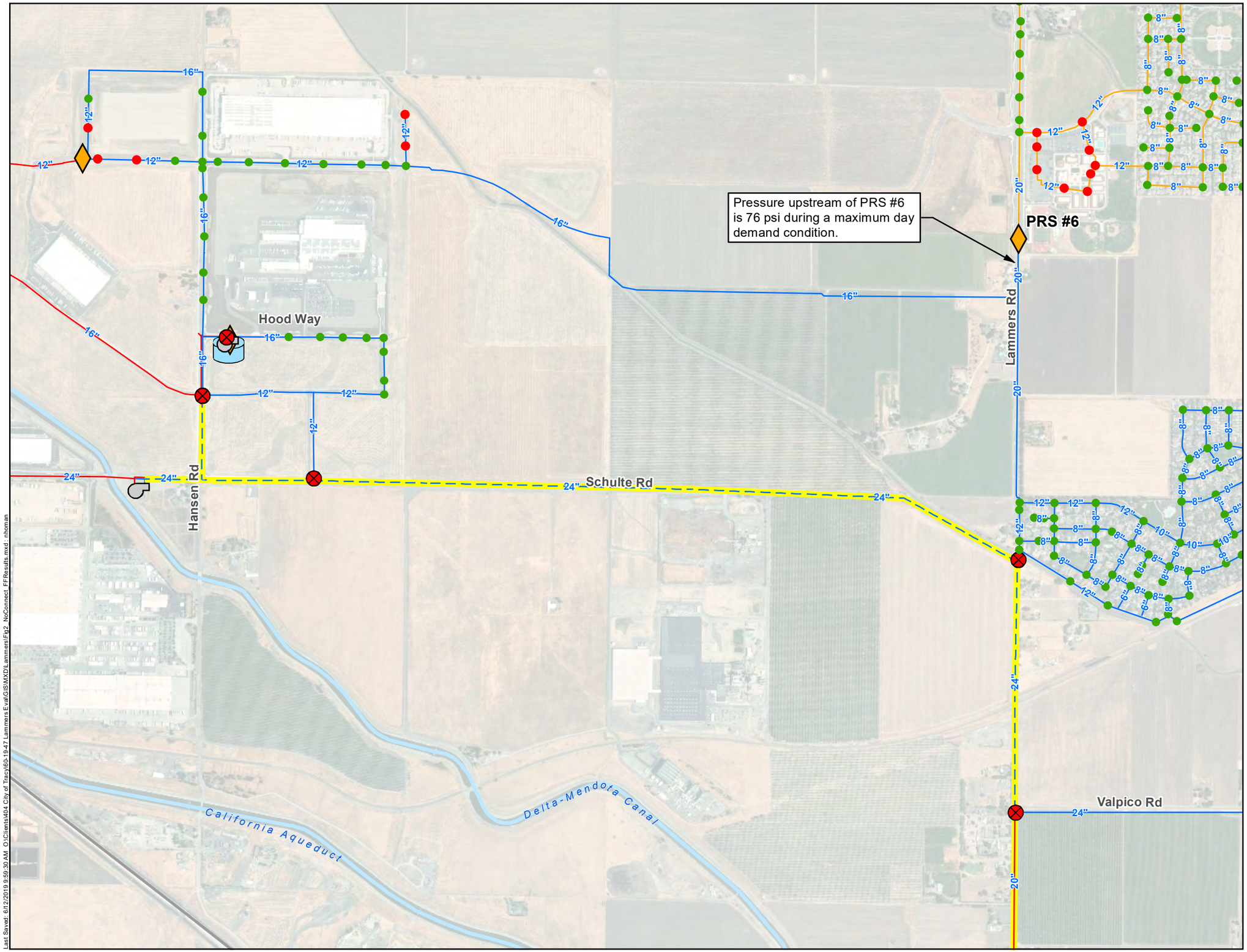

Available Fire Flow

- Does Not Meet Requirements
- Meets Requirements
- Closed Valve Due to Re-zoning
- Pressure Regulating Station
- Booster Pump Station
- Cordes Tank
- Proposed Zone 3 Pipeline
- Existing Pipeline to be Re-zoned to Zone 3

Existing Pipeline

- Zone 1
- Zone 2
- Zone 3

Notes:

1. Results assume that connections in Hood Way and Hansen Road are constructed as recommended in the Design Recommendations for Hood Way Pipeline annotated figures.
2. The available fire flow shown is the maximum flow available while maintaining 30 psi residual system pressure. Fire flow evaluation performed under maximum day demand conditions.

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Figure 2

Alternative 1
Available Fire Flow

City of Tracy
Design Recommendations for
Lammers Road Pipeline

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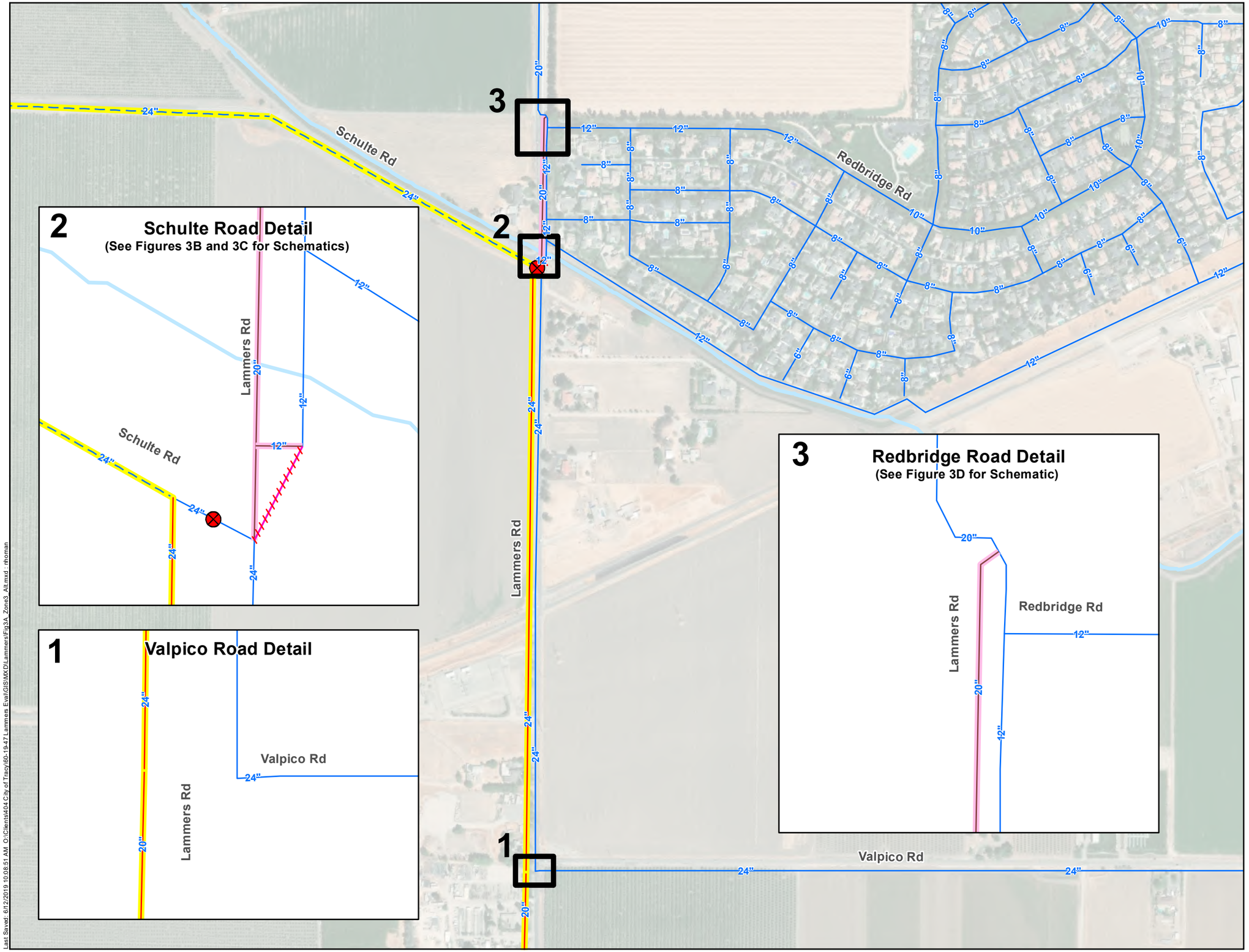

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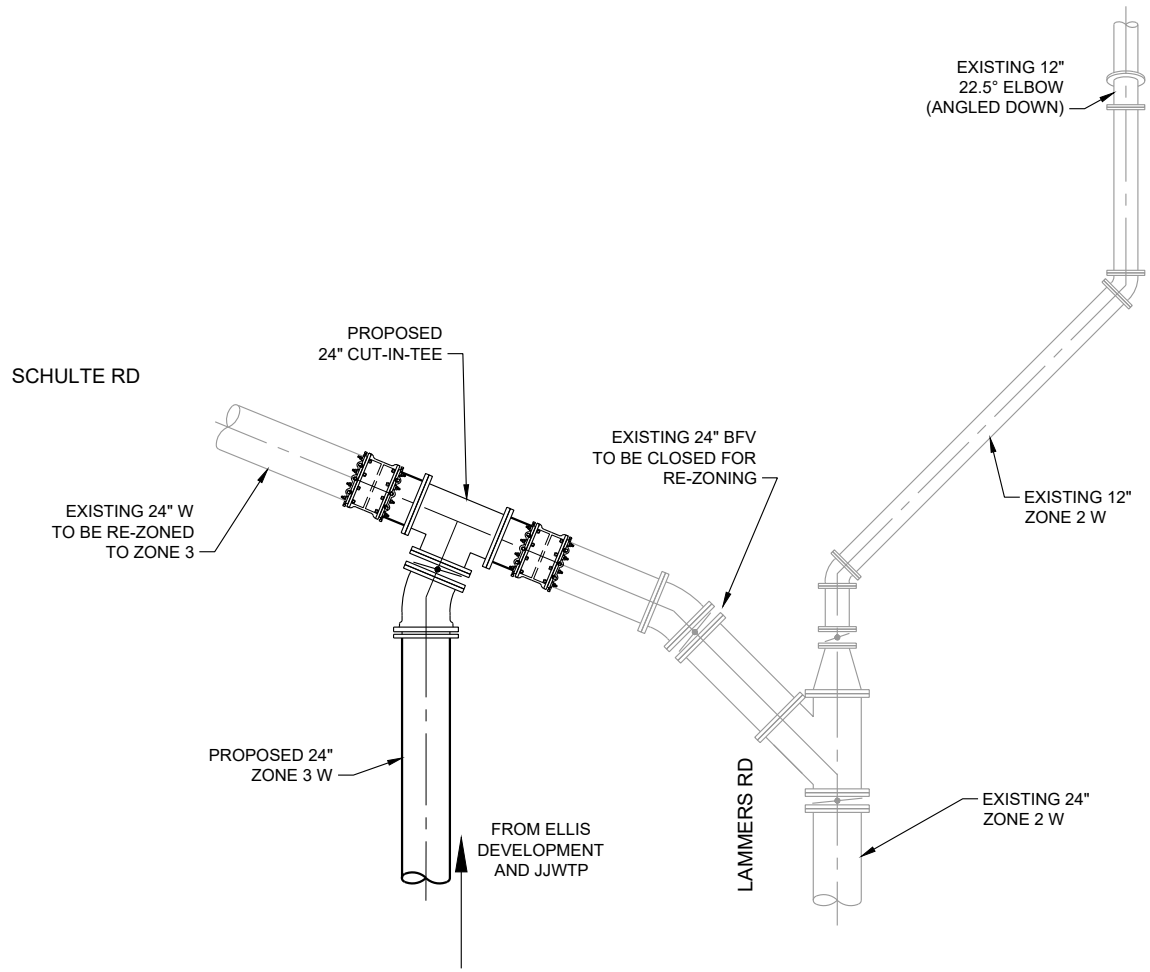
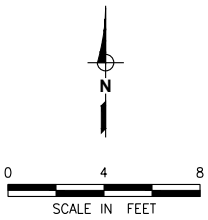
Figure 3A

Alternative 3
New Zone 3 Pipeline from Valpico Road to Schulte Road

City of Tracy
Design Recommendations for
Lammers Road Pipeline



Notes:
1. Schematic connection points are for illustrative purposes only for the conceptual understanding of the likely components involved in installing the recommended connections. These schematics are not to be used for construction purposes.



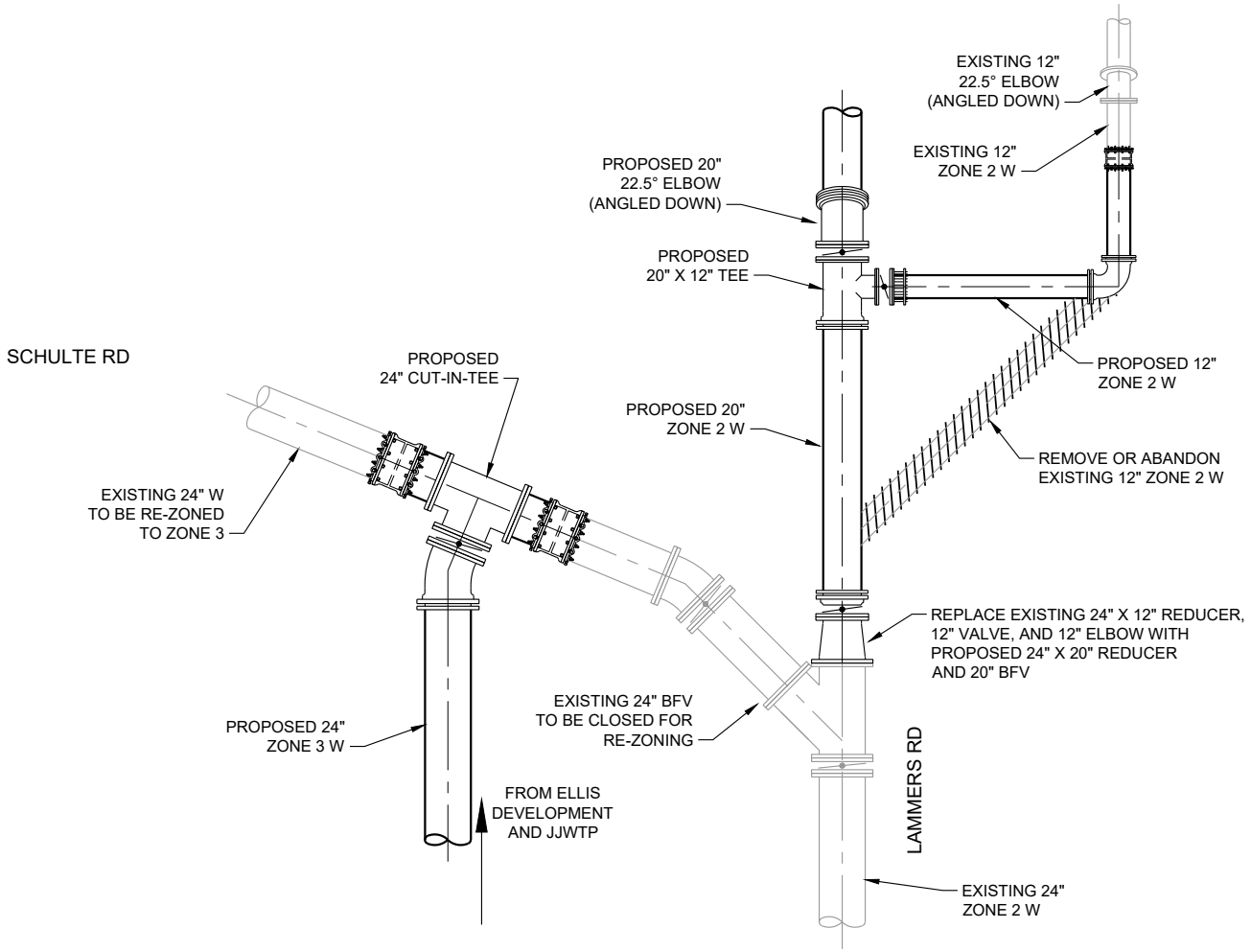
TRACY

WEST YOST ASSOCIATES

Figure 3B

Alternative 3
Schematic of Schulte Road and Lammers Road Connection

City of Tracy
Design Recommendations for
Lammers Road Pipeline



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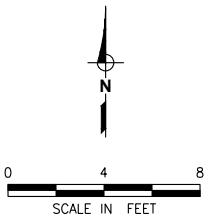

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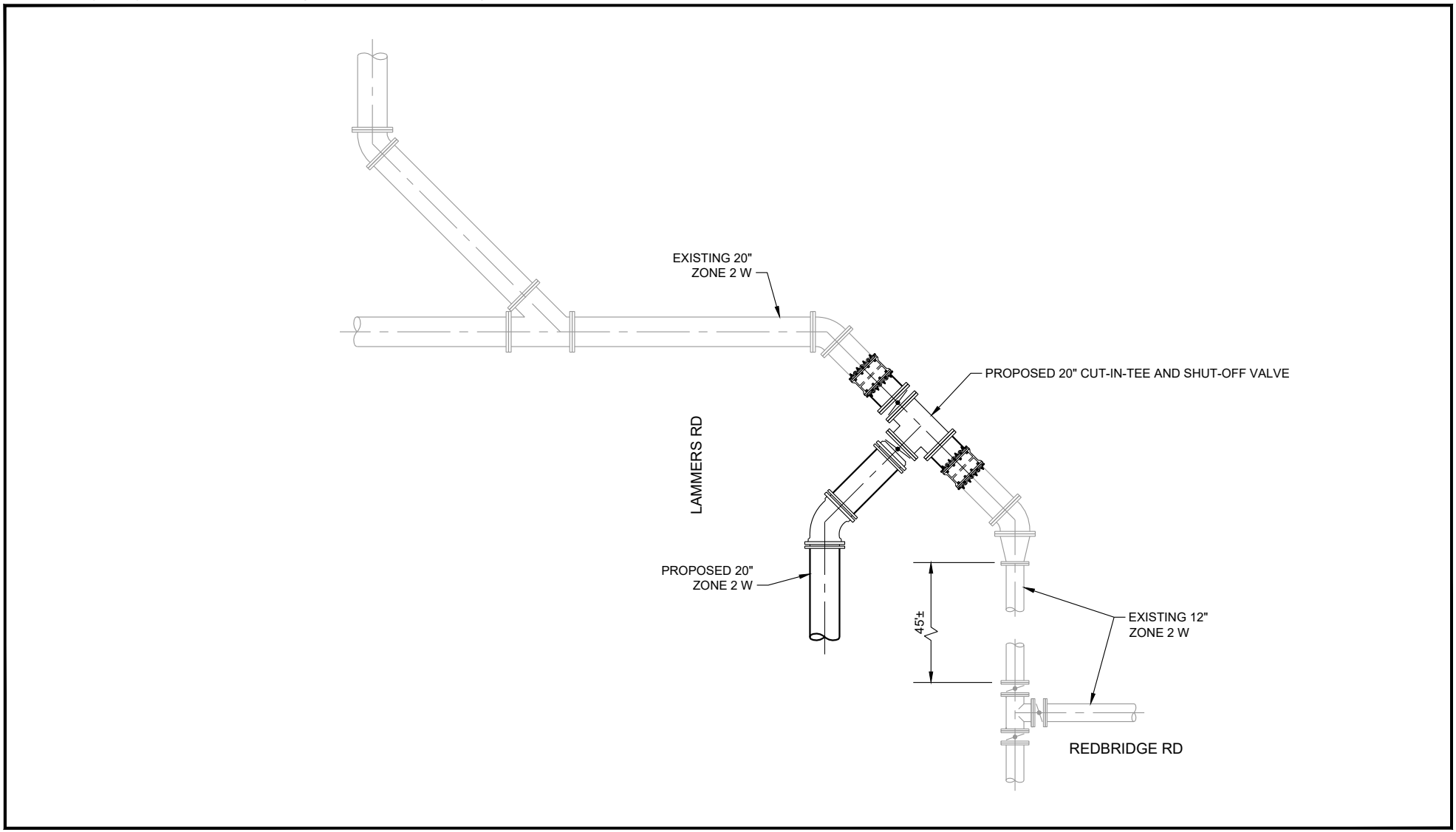
Figure 3C

Alternative 3
Schematic of Schulte Road and Lammers Road Connection with Optional Zone 2 Pipeline

City of Tracy
Design Recommendations for
Lammers Road Pipeline



Notes:
1. Schematic connection points are for illustrative purposes only for the conceptual understanding of the likely components involved in installing the recommended connections. These schematics are not to be used for construction purposes.
2. Existing pipelines presented in this schematic are based on available record drawings. Visible surface features near the intersection of Lammers Road and Redbridge Road do not match those shown on the record drawings. Configuration of existing pipelines in this area should be confirmed.

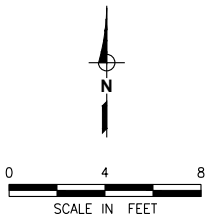


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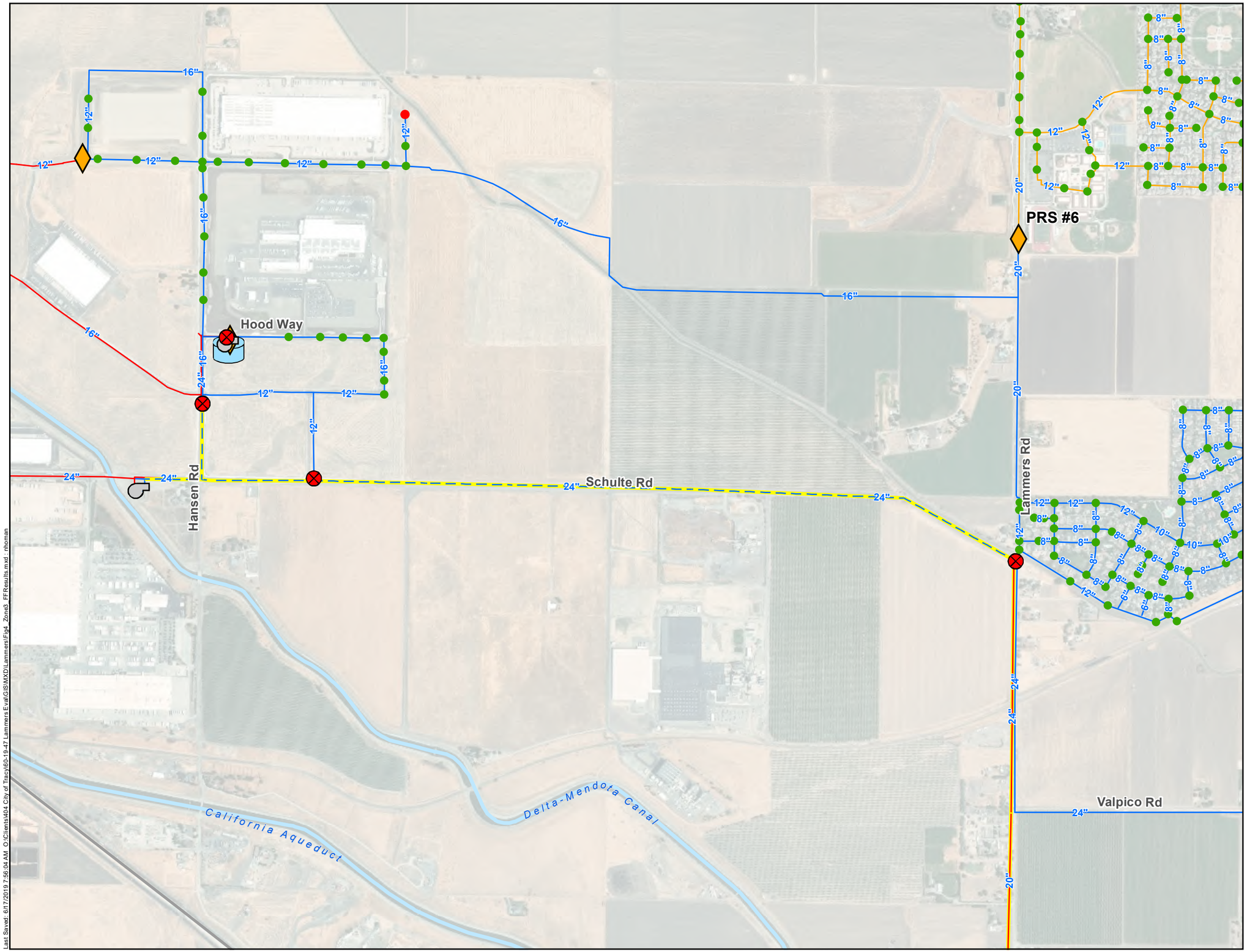
Figure 3D

Alternative 3
Schematic of Redbridge Road and Lammers Road Connection with Optional Zone 2 Pipeline

City of Tracy
Design Recommendations for
Lammers Road Pipeline



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Scale in Feet

Available Fire Flow

- Does Not Meet Requirements
- Meets Requirements
- Closed Valve Due to Re-zoning
- Pressure Regulating Station
- Booster Pump Station
- Cordes Tank
- Proposed Zone 3 Pipeline
- Existing Pipeline to be Re-zoned to Zone 3

Existing Pipeline

- Zone 1
- Zone 2
- Zone 3

Notes:

1. Results assume that connections in Hood Way and Hansen Road are constructed as recommended in the Design Recommendations for Hood Way Pipeline annotated figures.
2. Results assume that optional Zone 2 pipeline will not be constructed (see Figure 5A).
3. The available fire flow shown is the maximum flow available while maintaining 30 psi residual system pressure. Fire flow evaluation performed under maximum day demand conditions.

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Figure 4

Alternative 3
Available Fire Flow

City of Tracy
Design Recommendations for
Lammers Road Pipeline

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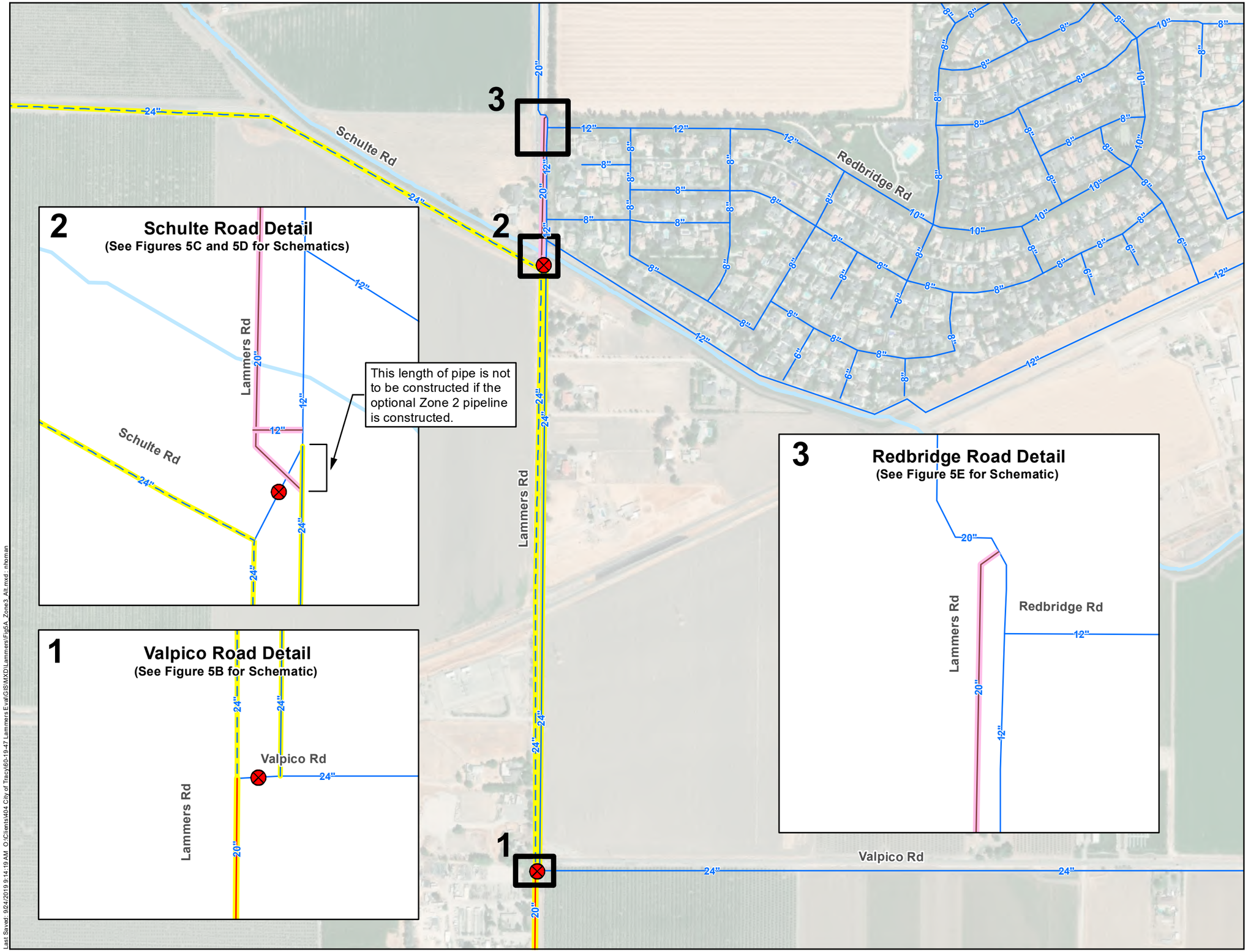

Notes:
1. Details are not to scale.

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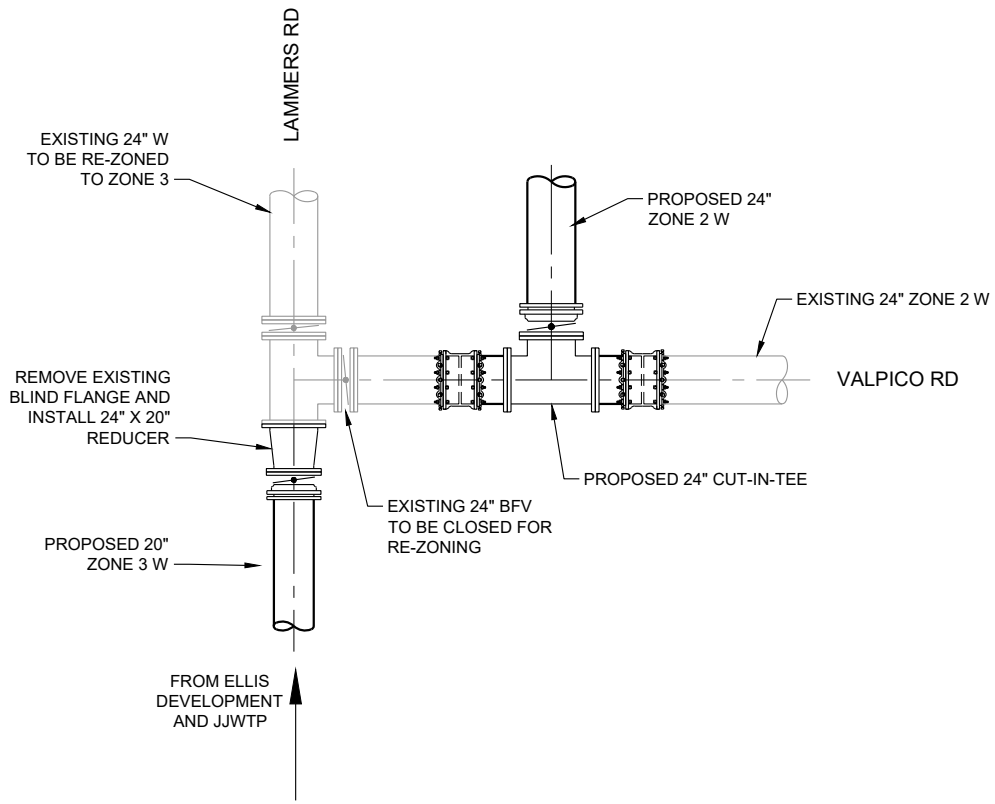
Figure 5A

Alternative 4
New Zone 2 Pipeline from Valpico Road to Schulte Road

City of Tracy
Design Recommendations for
Lammers Road Pipeline



Notes:
1. Schematic connection points are for illustrative purposes only for the conceptual understanding of the likely components involved in installing the recommended connections. These schematics are not to be used for construction purposes.

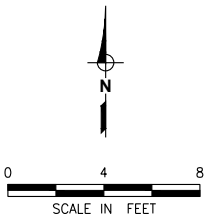


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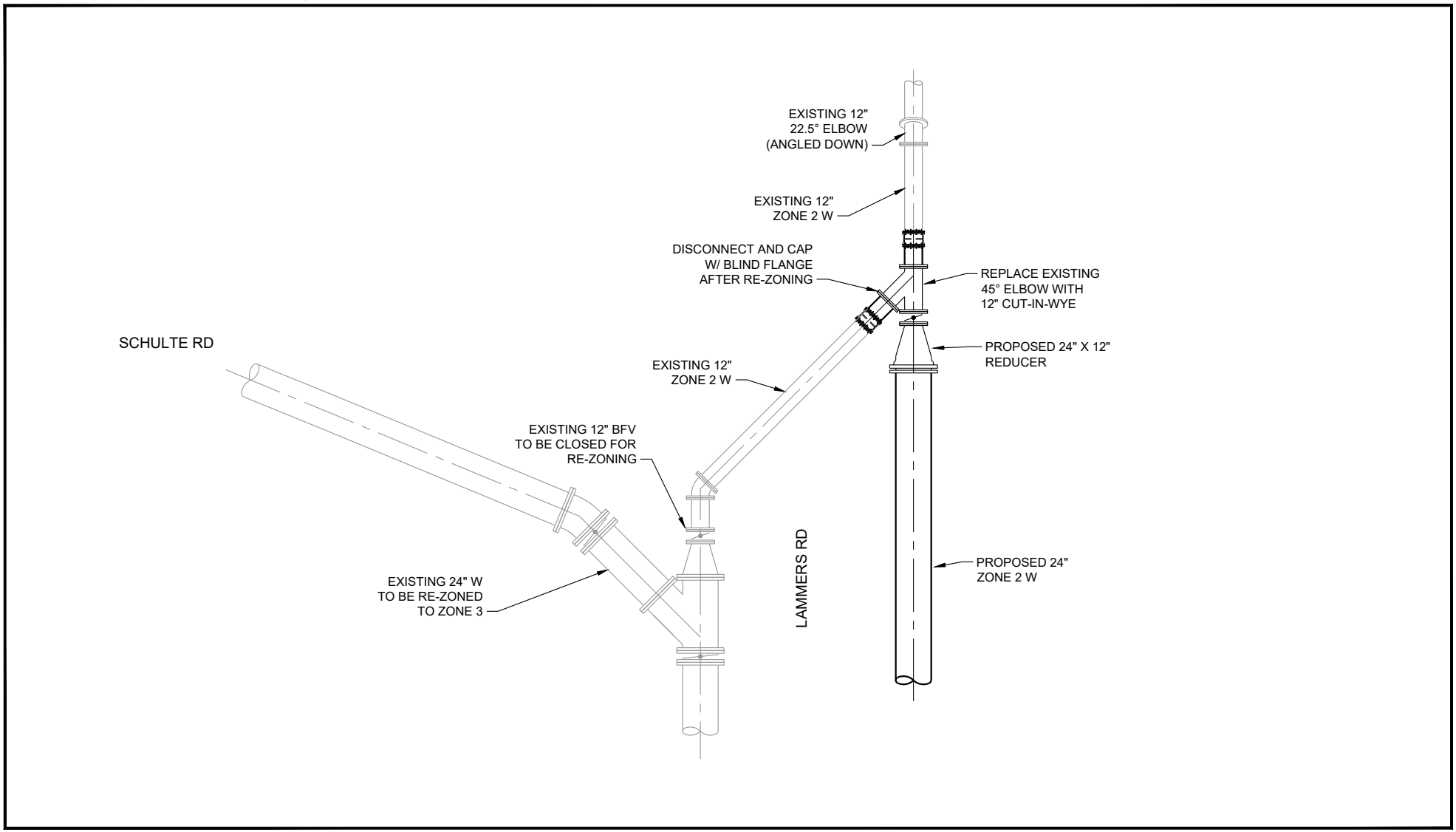
Figure 5B

Alternative 4
Schematic of Valpico Road and Lammers Road Connection

City of Tracy
Design Recommendations for
Lammers Road Pipeline



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1. Schematic connection points are for illustrative purposes only for the conceptual understanding of the likely components involved in installing the recommended connections. These schematics are not to be used for construction purposes.

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0 4 8
SCALE IN FEET

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Figure 5C

Alternative 4
Schematic of Schulte Road and Lammers Road Connection

City of Tracy
Design Recommendations for
Lammers Road Pipeline

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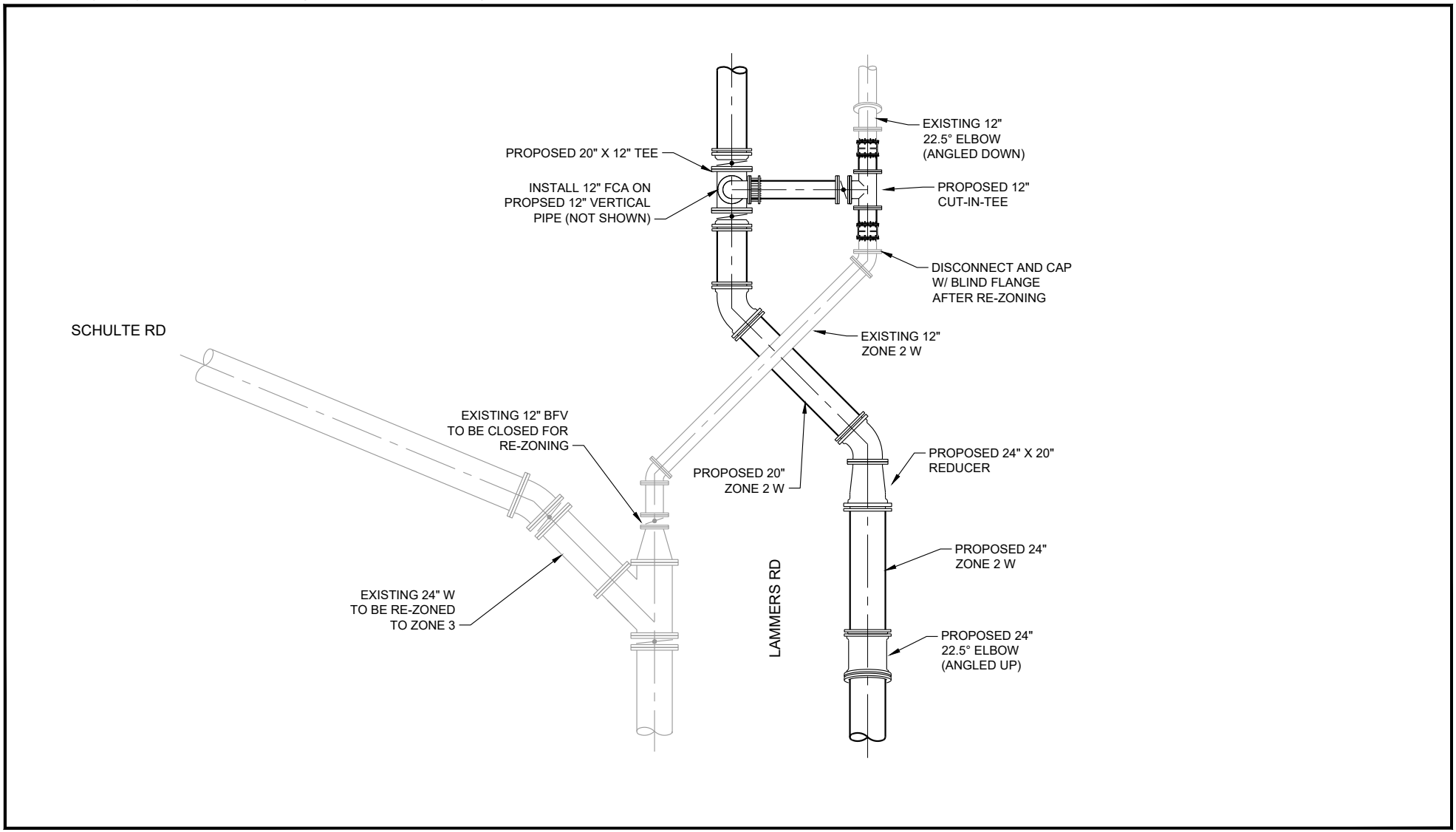

Notes:
1. Schematic connection points are for illustrative purposes only for the conceptual understanding of the likely components involved in installing the recommended connections. These schematics are not to be used for construction purposes.

N

0 4 8
SCALE IN FEET

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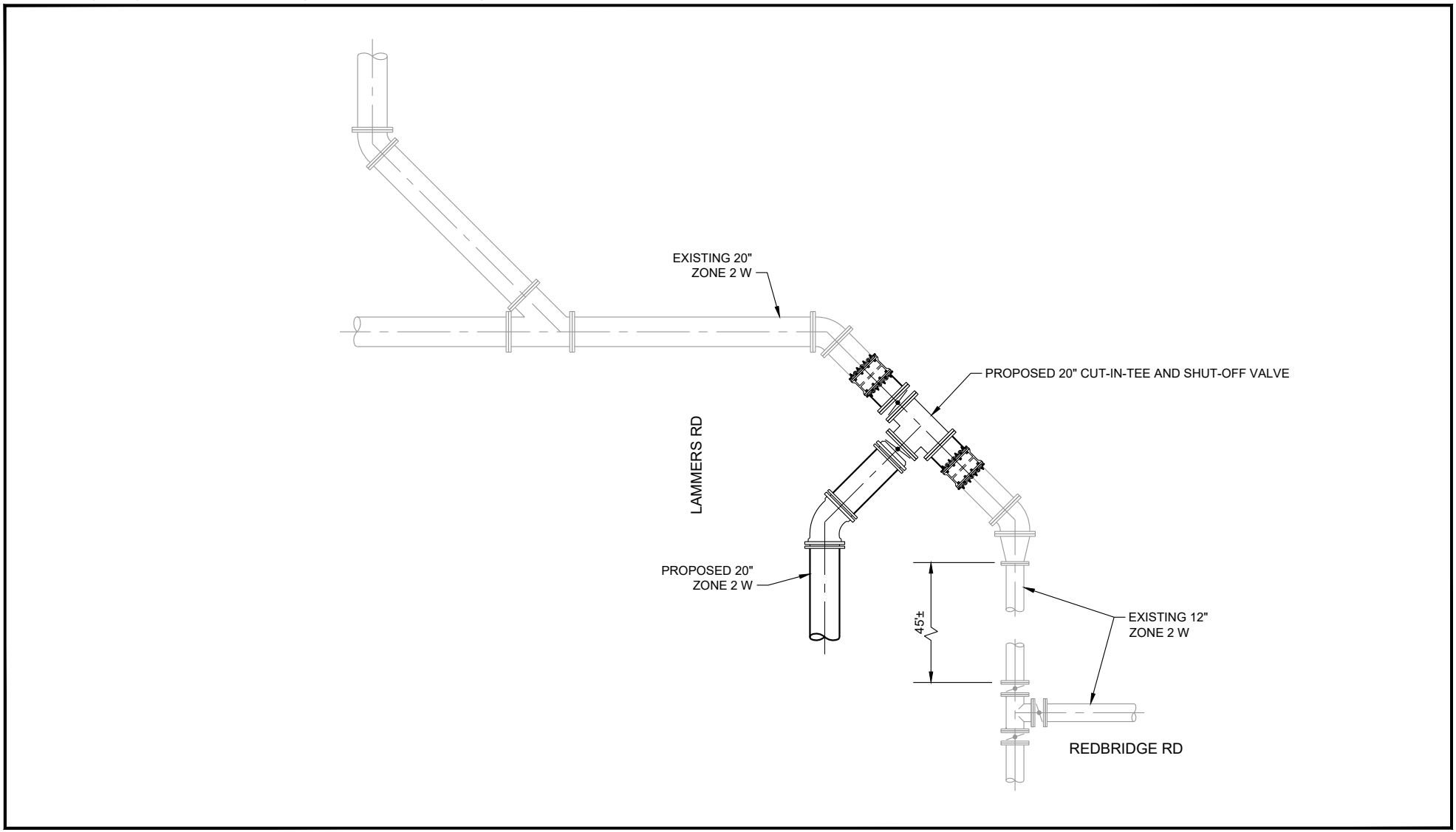
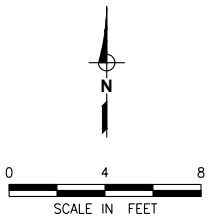
Figure 5D

Alternative 4
Schematic of Schulte Road and Lammers Road Connection with Optional Zone 2 Pipeline

City of Tracy
Design Recommendations for
Lammers Road Pipeline



Notes:
1. Schematic connection points are for illustrative purposes only for the conceptual understanding of the likely components involved in installing the recommended connections. These schematics are not to be used for construction purposes.
2. Existing pipelines presented in this schematic are based on available record drawings. Visible surface features near the intersection of Lammers Road and Redbridge Road do not match those shown on the record drawings. Configuration of existing pipelines in this area should be confirmed.



TRACY

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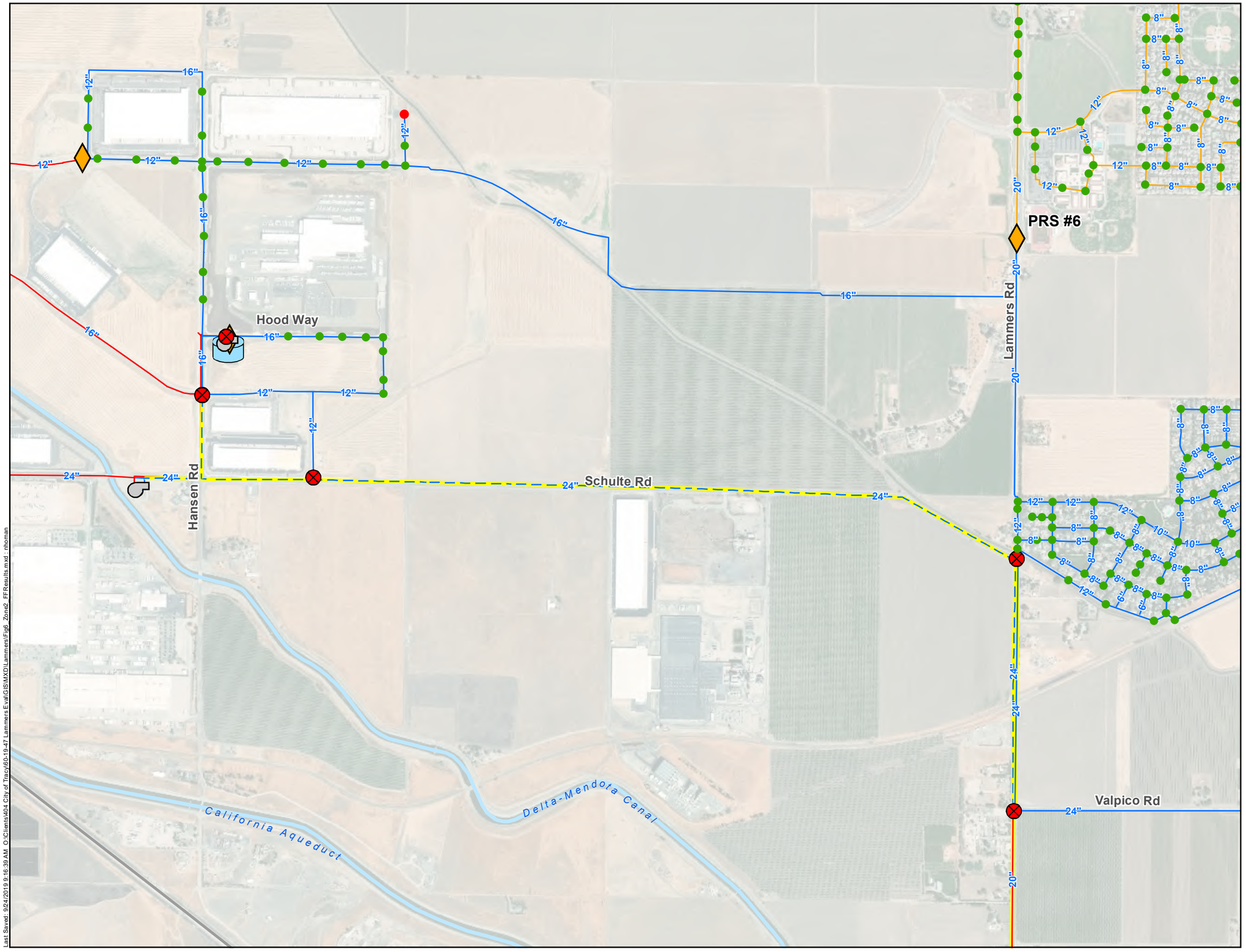
Figure 5E

Alternative 4
Schematic of Redbridge Road and Lammers Road Connection with Optional Zone 2 Pipeline

City of Tracy
Design Recommendations for
Lammers Road Pipeline



Notes:
1. Results assume that connections in Hood Way and Hansen Road are constructed as recommended in the Design Recommendations for Hood Way Pipeline annotated figures.
2. Results assume that optional Zone 2 pipeline will not be constructed (see Figure 5A).
3. The available fire flow shown is the maximum flow available while maintaining 30 psi residual system pressure. Fire flow evaluation performed under maximum day demand conditions.

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Figure 6

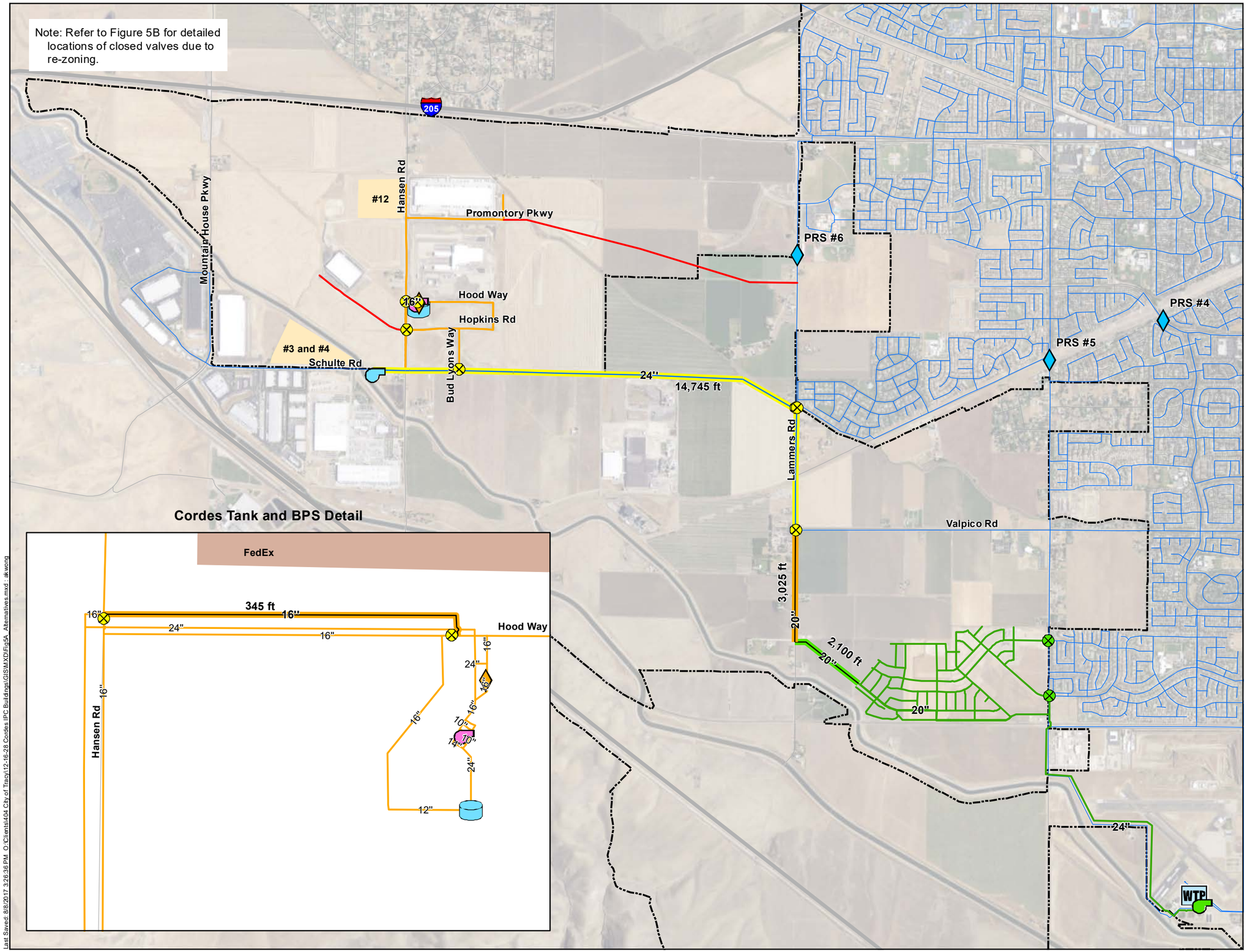
Alternative 4
Available Fire Flow

City of Tracy
Design Recommendations for
Lammers Road Pipeline

ATTACHMENT 1

Key Figures from Hydraulic Evaluation of
IPC Buildings 3, 4, and 12 TM, May 18, 2017

Note: Refer to Figure 5B for detailed locations of closed valves due to re-zoning.



Cordes Tank and BPS Detail

Symbology

- Closed Valve Due to Re-zoning
- Previously Proposed Check Valve
- Pressure Regulating Station #9
- Existing Pressure Regulating Station
- Cordes Booster Pump Station
- Existing Patterson Pass Booster Pump Station
- Previously Proposed Interim Booster Pump and Pressure Regulating Station
- Cordes Tank
- WTP John Jones Water Treatment Plant
- Pipeline Required for Alternative Operations (Ellis)
- Proposed Pipeline Required for Alternative Operations (IPC)
- Existing Pipeline to be Re-zoned
- Existing Pipeline
- Ellis Pipeline
- Cordes Phases 1 and 2 Pipeline
- Smuckers Pipeline
- Proposed Project
- City Limit

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Figure 5A

Proposed Alternative Operations

City of Tracy
Hydraulic Evaluation of
IPC Buildings 3, 4, and 12

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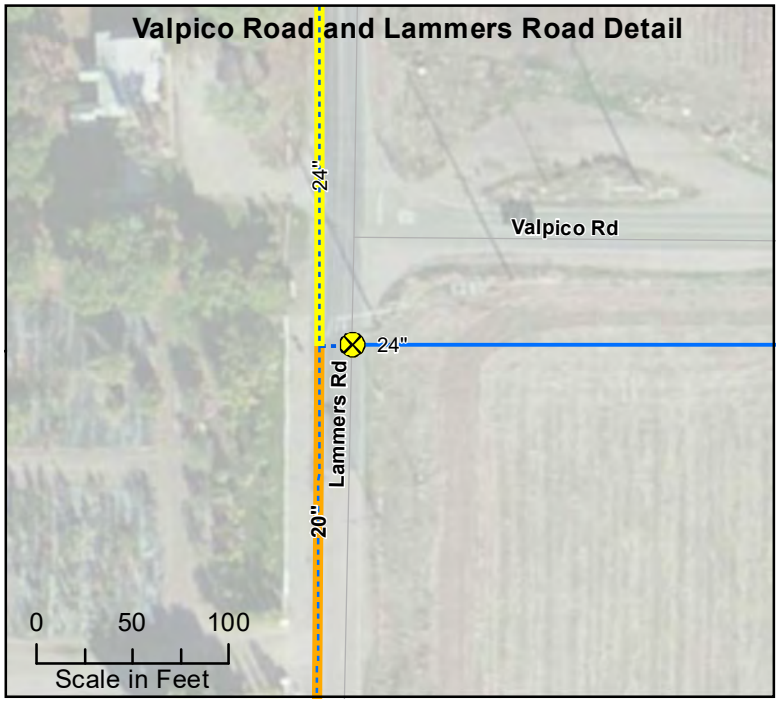

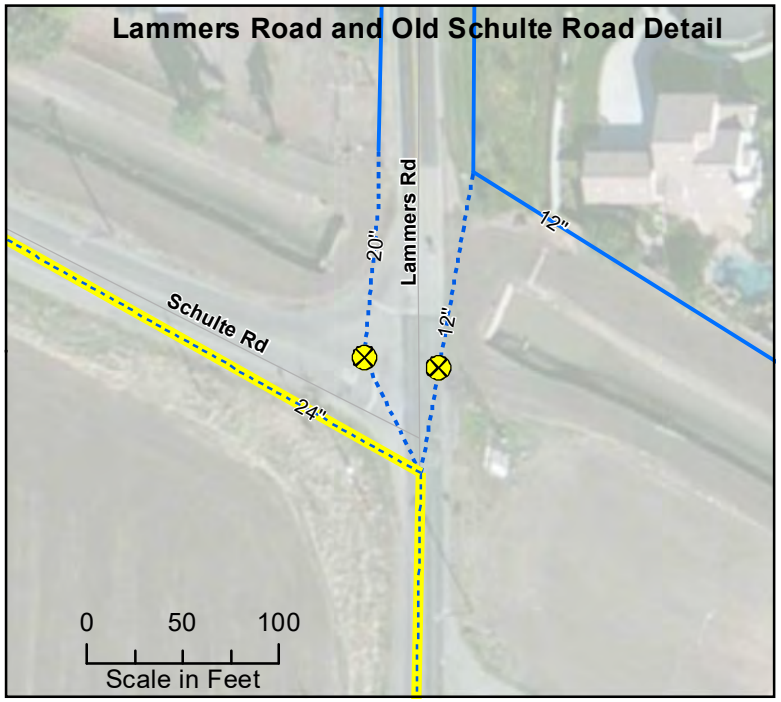

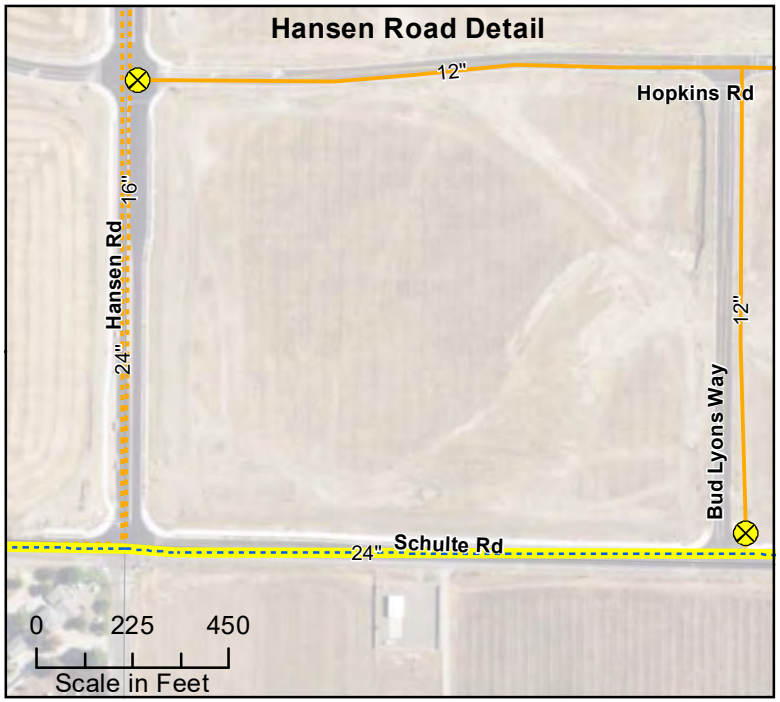

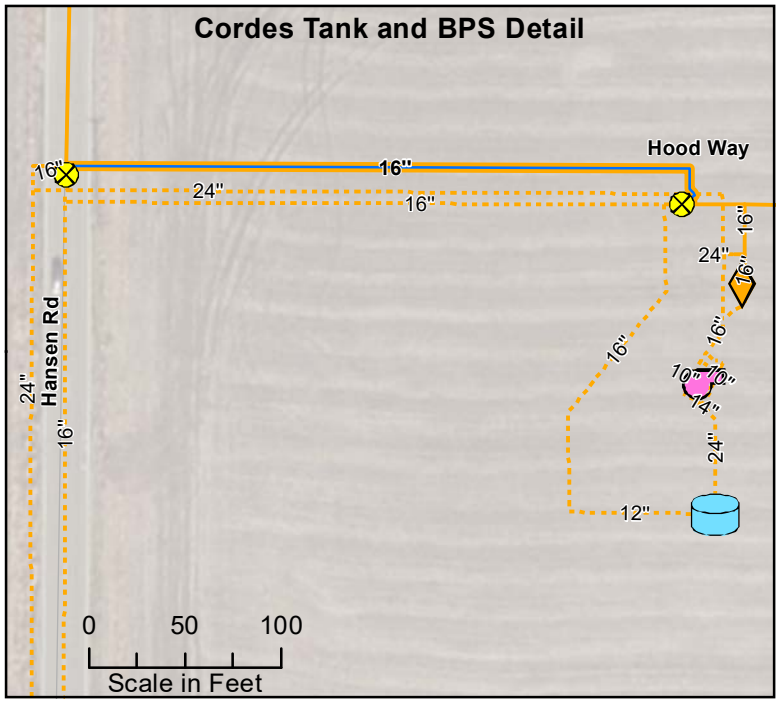

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Symbology

- Closed Valve Due to Re-zoning
- Pressure Regulating Station #9
- Cordes Booster Pump Station
- Existing Patterson Pass Booster Pump Station
- Cordes Tank
- Existing Pipeline to be Re-zoned
- Proposed Zone 3 Pipeline Required for Alternative Operations (IPC)
- Proposed Zone 2 Pipeline Required for Alternative Operations (IPC)

Existing Pipeline

- Zone 2
- Zone 3

Cordes Phases 1 and 2 Pipeline

- Zone 2
- Zone 3

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Figure 5B

Proposed Alternative Operations: Details for Closed Valves

City of Tracy
Hydraulic Evaluation of
IPC Buildings 3, 4, and 12

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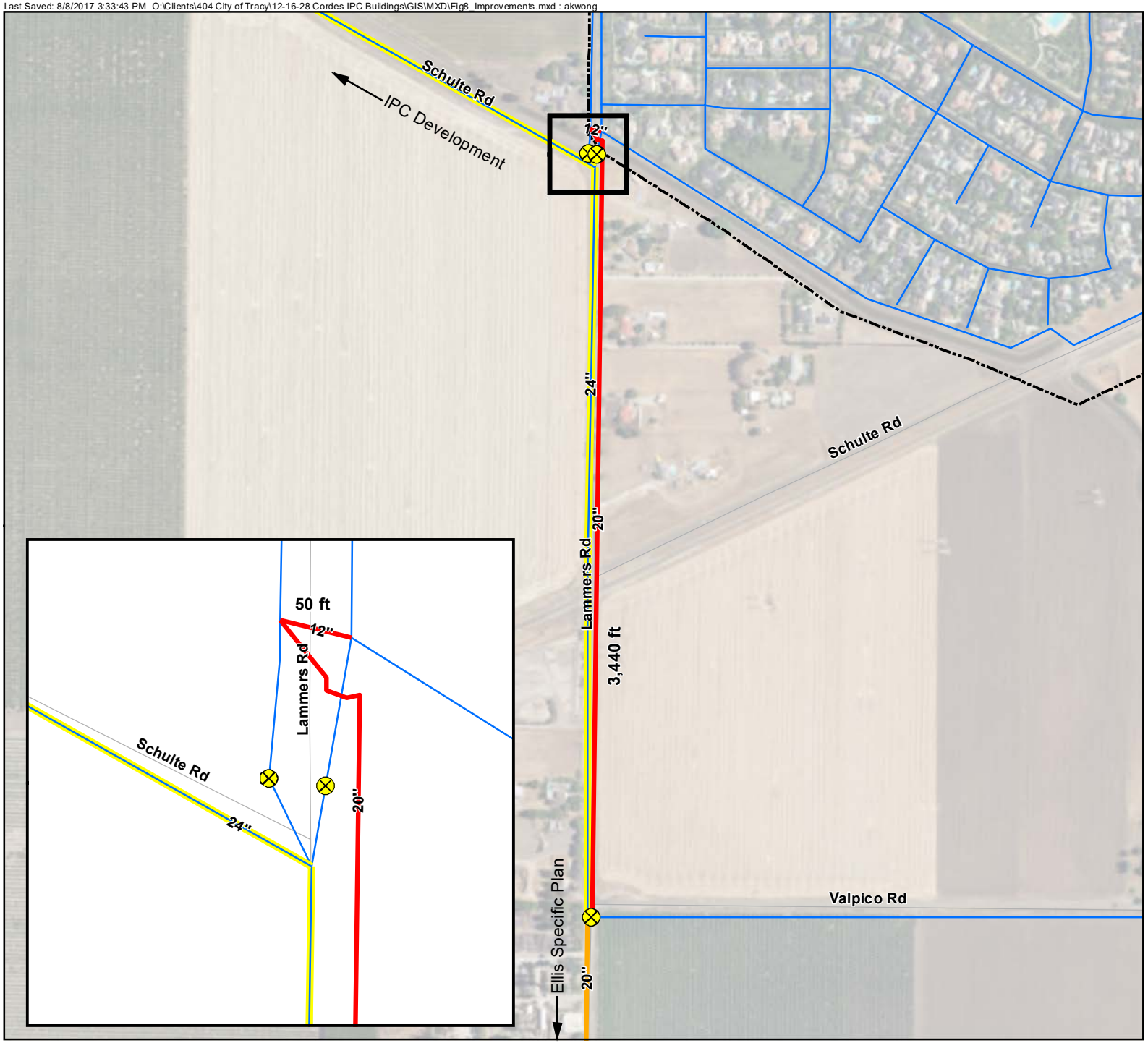

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Scale in Feet

Symbology

- Closed Valve Due to Re-zoning
- Recommended Pipeline
- Existing Pipeline to be Re-zoned
- Proposed Pipeline Required for Alternative Operatons (IPC)
- Existing Pipeline
- City Limit

TRACY

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Figure 8

Recommended Improvements for Proposed Alternative Operations

City of Tracy
Hydraulic Evaluation of
IPC Buildings 3, 4, and 12

ATTACHMENT 2

Planning and Modeling Criteria
(2012 Citywide Water System Master Plan)

Planning and modeling criteria used to evaluate the various alternatives are based on the system performance and operational criteria developed in the 2012 Citywide Water System Master Plan. The criteria used to evaluate the existing water system and the proposed pipelines for the various alternatives are listed as follows:

- Residual pressure at the flowing hydrant (during an assumed maximum day demand plus fire flow condition) and throughout the water system must be equal to or greater than 30 pounds per square inch (psi) during the simulated fire condition.
- Minimum allowable service pressure is 40 psi during all other non-fire demand conditions.
- Maximum allowable service pressure is 80 psi. A pressure reducing valve (PRV) will be required on all water services with a static pressure greater than 80 psi and should conform with the requirements from the Uniform Plumbing Code.
- Maximum allowable distribution pipeline velocity is 12 feet per second (fps) during the simulated fire flow demand condition.
- Maximum allowable transmission and distribution pipeline velocity is 6 fps and 8 fps, respectively, during a non-fire demand condition.
- Maximum allowable head loss rate is 10 feet per 1,000 feet (ft/kft) during the simulated fire demand condition.
- Maximum head losses in distribution system pipelines should be limited to 7 ft/kft during a non-fire demand condition.
- New and required pipelines will be modeled with a roughness coefficient (C-factor) of 130.
- Available fire flow demand must meet a minimum flow of 1,500 gallons per minute (gpm), 2,500 gpm, 3,500 gpm, or 4,500 gpm depending on land use during a maximum day demand condition. These required fire flow demands assume that buildings are sprinklered.
- The 2012 Master Plan hydraulic model of the City's water distribution system was used as the basis for evaluation.[1] However, the hydraulic model was updated to include the following major existing system improvements:
  - Improvements that have been recently constructed on South Lammers Road (20-inch diameter pipeline and pressure regulating station (PRS #6)); and
  - Proposed improvements on South MacArthur Drive (24-inch diameter pipeline).

[1] This hydraulic model was updated to include projected water demands from new developments such as Valpico and MacDonald Apartments, Sierra Hills (Aspire I) Apartments, Tiburon Village, Middlefield Drive Apartments and Self-Storage Facility, I-205 Parcels M1 and M2 and Infill Parcels 7 and 13, Grant Line Road Apartments, South Lammers Road Development, Aspire II Development, Pescadero IPT Development, first three buildings at Cordes Ranch, Ellis Specific Plan Phase 1A and Phase 1A Extension, Marriott TownePlace Suites, Larch Clover Interim Annexation, Ellis Specific Plan Phase 2 - The Gardens, IPC Buildings 3, 4, and 12, IPC Building 25, IPC Buildings 22, 23, and Thermo Fisher, Tracy Village Specific Plan, Avenues Specific Plan, IPC Buildings 9, 10, and 14, NEI Specific Plan, and Tracy Hills Phases 1A, 1B, and 1C. City staff also requested West Yost to incorporate the following developments, which were evaluated by Black Water Consulting Engineers, Inc. into the City's hydraulic model: Barcelona Infill, Berg Road Properties, Harvest Apartments, 321 E. Grant Line Apartments, Project Hawk/IPC, and Home 2 Suites.

WEST YOST ASSOCIATES

TECHNICAL MEMORANDUM

DATE: November 11, 2019

Project No.: 404-60-19-47
SENT VIA: EMAIL

TO: Zabih Zaca, City of Tracy

CC: Robert Armijo, City of Tracy
Paul Verma, City of Tracy
Al Gali, City of Tracy
Nanda Gottiparthy, SNG & Associates, Inc.

FROM: Nathaniel Homan, PE, RCE #89903
Jim Connell, PE, RCE #63052

REVIEWED BY: Amy Kwong, PE, RCE #73213

SUBJECT: Design Recommendations for Hood Way Pipeline

In a technical memorandum (TM) prepared for the City of Tracy (City) titled *Hydraulic Evaluation of International Park of Commerce (IPC) Buildings 3, 4, and 12*, dated May 18, 2017, West Yost Associates (West Yost) recommended that 345 lineal feet (lf) of 16-inch diameter City-side Pressure Zone 2 (Zone 2) transmission main be constructed in Hood Way. The purpose of this recommended pipeline improvement was to provide pipeline network looping for Zone 2 pipelines located in Hood Way and Hansen Road after portions of the existing Zone 2 transmission main system are re-zoned to City-side Pressure Zone 3 (Zone 3).

This TM summarizes the findings and conclusions of West Yost's technical evaluation of the feasibility of constructing two shorter 16-inch diameter connections in Hood Way and Hansen Road, in place of the previously recommended pipeline. The locations of the proposed connections are shown on Figure 1.

The proposed connection in Hood Way would consist of approximately 36 lf of 16-inch diameter pipeline connecting the existing 16-inch diameter Zone 2 Cordes Tank fill line with the existing 24-inch diameter Zone 3 Cordes Pump Station discharge line. A detailed schematic of this connection is shown on Figure 2. An existing 16-inch butterfly valve would be permanently closed to re-zone the Cordes Tank fill line to Zone 3.

The proposed connection in Hansen Road would consist of approximately 20 lf of 16-inch diameter pipeline connecting the existing 16-inch diameter Zone 2 pipeline and the existing 24-inch diameter Zone 3 pipeline in Hansen Road. A detailed schematic of this connection is shown on Figure 3. This connection would be placed approximately 135 ft south of the intersection of Hopkins Road and Hansen Road to take advantage of the existing butterfly valve on the 24-inch diameter pipeline. This existing butterfly valve would be used to isolate the 24-inch diameter

pipeline between Schulte Road and Hopkins Road so that the pipeline in Hopkins Road west of Hansen Road could continue to serve Zone 3 during construction. The existing butterfly valve would be re-opened after construction is completed. The proposed new butterfly valve, to be installed north of the proposed cut-in-tee on the 16-inch diameter pipeline, would be permanently closed to re-zone the 16-inch diameter pipeline south of the proposed connection to Zone 3.

These proposed connections have two advantages over the previously recommended pipeline:

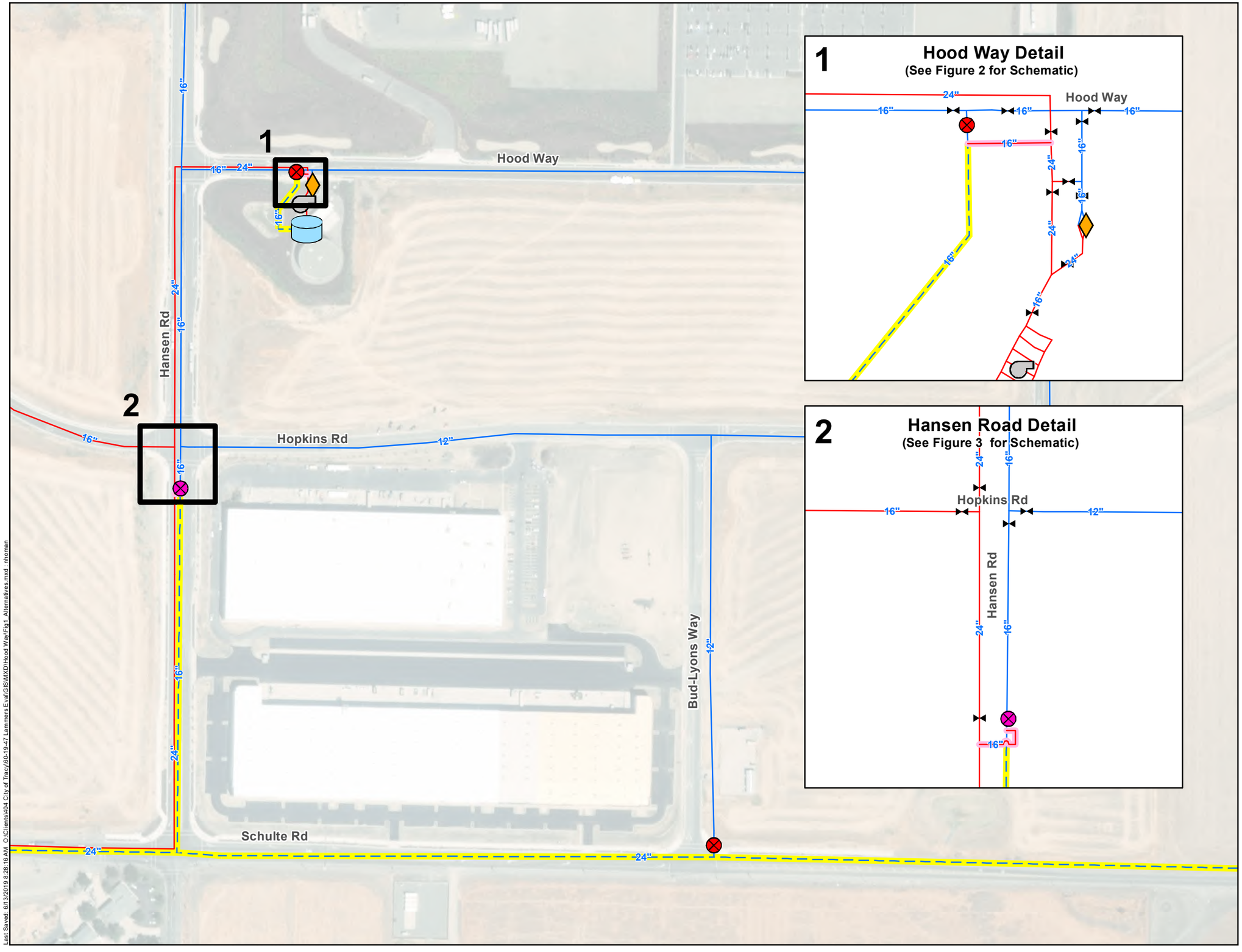
1. The total length of new pipeline required is 289 ft shorter than the previously recommended pipeline, making this alternative less expensive.
2. The proposed connections preserve the existing Zone 2 pipeline loop in Hansen Road, Hood Way, and Hopkins Road, unlike the alternative recommended in the May 2017 TM, which would break this loop by re-zoning the existing 16-inch diameter Zone 2 pipeline in Hansen Road between Hood Way and Hopkins Way to Zone 3.

After reviewing available plans and record drawings of the proposed construction areas, West Yost determined that the proposed connections are constructible. West Yost recommends the City construct the proposed connections instead of constructing the pipeline recommended in the May 2017 TM.

It should be noted that the re-zoning will close the valve at the southern end of the 12-inch diameter pipeline in Bud Lyons Way. This will create a long stretch of dead-end pipe and could potentially lead to water quality issues. Solutions to address these issues include:

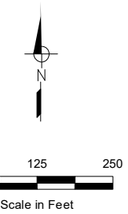
1. Placing the water service lateral for the future building located east of Bud-Lyons Way as close as possible to the southern end of Bud Lyons Way. The demands from the building would keep water flowing through the pipeline and prevent stagnant water from forming.
2. Abandoning the pipeline in Bud Lyons Way. This option is only feasible if this pipeline is not needed for future water service connections.
3. Implementing a program to regularly flush the pipeline using a hydrant or blow off valve near the southern end of Bud Lyons Way.

This TM is submitted in accordance with West Yost's January 2019 Scope of Services. No estimates of infrastructure costs were developed as part of this evaluation. The locations of existing pipelines and valves shown on the figures attached here-in should be confirmed prior to design. If existing pipelines or valves are not as shown on the reviewed plans and record drawings, additional evaluation of the feasibility of the recommended connections may be required.



1 Hood Way Detail
(See Figure 2 for Schematic)

2 Hansen Road Detail
(See Figure 3 for Schematic)



Closed Valve Due to Re-zoning

- Existing
- Proposed
- Other Existing Valve
- Cordes PRS #9
- Cordes Pump Station
- Cordes Tank
- Proposed Connection
- Existing Pipeline to be Re-zoned to Zone 3

Existing Pipeline

- Zone 2
- Zone 3

Notes:
1. Details are not to scale.

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Figure 1

Recommended Connections for Re-Zoning at Hood Way and Hansen Road

City of Tracy
Design Recommendations for
Hood Way Pipeline

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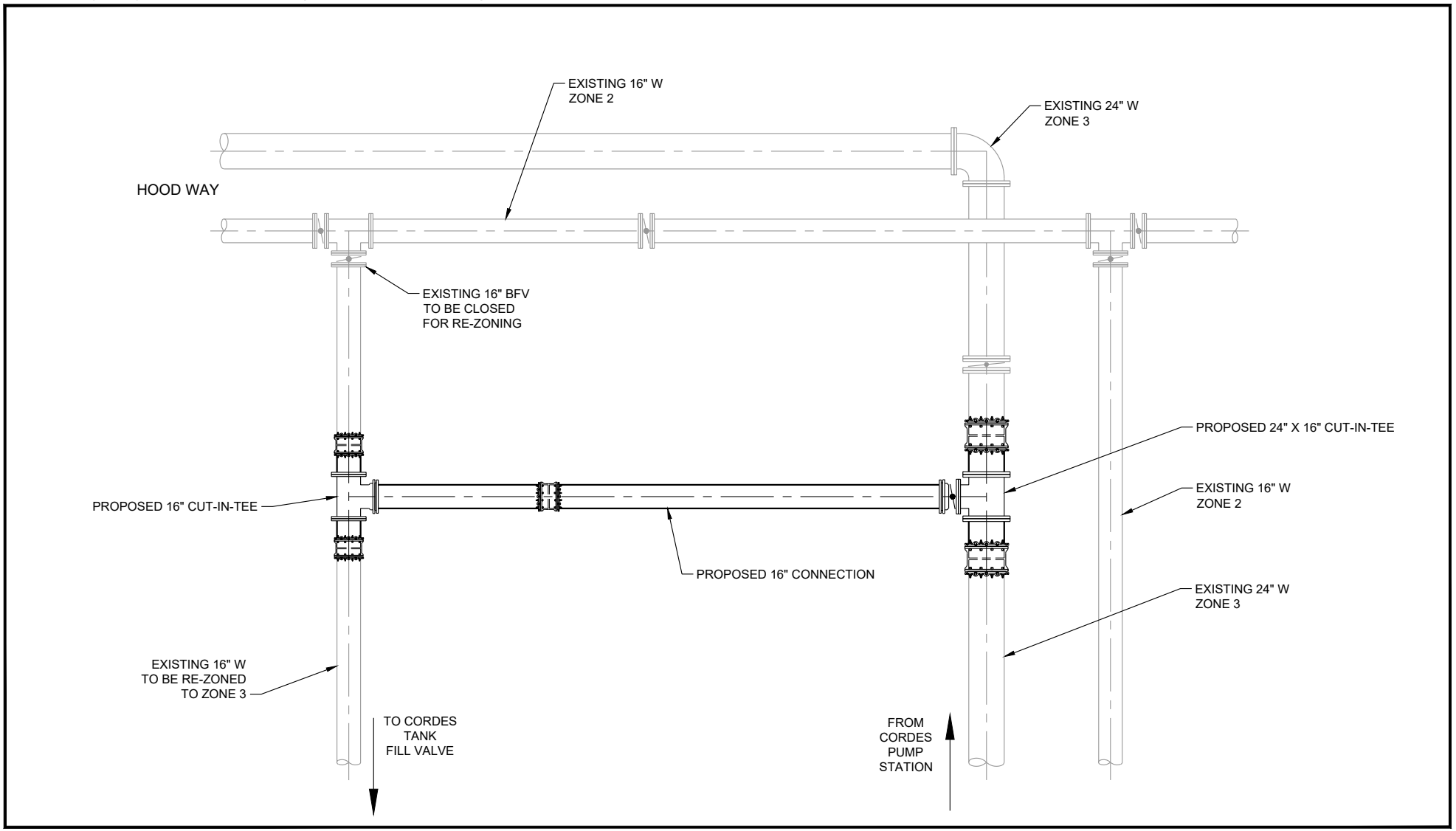

Notes:
1. Schematic connection points are for illustrative purposes only for the conceptual understanding of the likely components involved in installing the recommended connections. These schematics are not to be used for construction purposes.

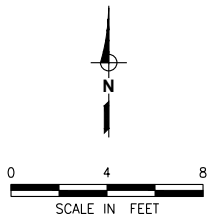

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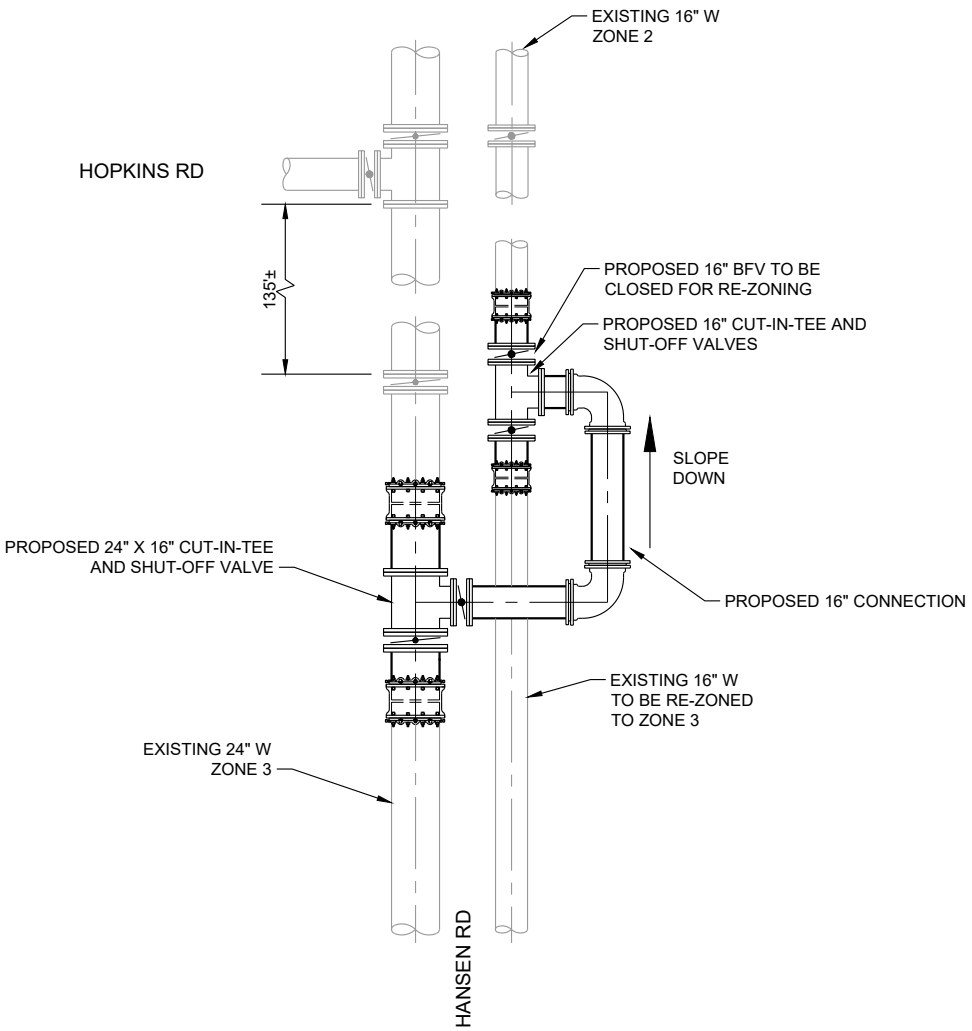
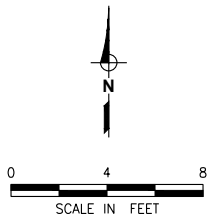
Figure 2

Schematic
Hood Way Connection

City of Tracy
Design Recommendations for
Hood Way Pipeline



Notes:
1. Schematic connection points are for illustrative purposes only for the conceptual understanding of the likely components involved in installing the recommended connections. These schematics are not to be used for construction purposes.



TRACY

WEST YOST ASSOCIATES

Figure 3

Schematic
Hansen Road Connection

City of Tracy
Design Recommendations for
Hood Way Pipeline

APPENDIX E
Cost Estimating Assumptions

This appendix details West Yost's assumptions for estimating probable construction costs for the recommended potable and recycled water system facilities. Construction costs were developed based on a combination of data supplied by manufacturers, published industry standard cost data and curves, construction costs for similar facilities built by the City and/or other public agencies, and construction costs previously estimated by West Yost for similar facilities with similar construction cost indexes.

The costs presented in this appendix are for construction only and do not include estimating or construction uncertainties (e.g., variations in final quantities) or cost estimates for engineering, legal services, environmental review, inspections, and/or contract administration. Some of these items are referred to as contingency costs or mark-ups and are addressed in the last section of this appendix. It should also be noted that the construction costs presented in this appendix represent capital infrastructure costs and do not include costs for purchase of additional surface water supplies, supply reliability, or operation and maintenance.

All estimated construction costs have been adjusted to reflect 2020 dollars and should be used for conceptual cost estimates only and be updated regularly. Construction costs presented in this appendix are not intended to represent the lowest prices in the industry for each type of construction; rather they are representative of average or typical construction costs. These planning-level construction cost estimates have been prepared for guidance in evaluating various facility improvement options and are intended only for budgetary purposes within the context of this master planning effort.

The following sections of this appendix describe the assumptions used to estimate the probable construction costs for the planning and design of recommended water system facilities for the City's potable and recycled water systems:

- Land Acquisition Costs
- Potable Water System Construction Costs
- Recycled Water System Construction Costs
- Contingency Costs or Mark-ups

E.1 LAND ACQUISITION COSTS

It is assumed that land for buildout potable and recycled water facilities will be acquired at $190,000 per acre. Costs for land acquisition will only be added to major facilities such as tank sites where a large parcel is required. Consequently, land acquisition costs do not include right-of-way acquisition costs for transmission and distribution mains.

E.2 POTABLE WATER SYSTEM CONSTRUCTION COSTS

The following sections present the construction cost estimates used to project probable construction costs for recommended water system facilities in the City's potable water system and are categorized by improvement project type.

E.2.1 Treated Water Storage Reservoirs

Table 1 summarizes the estimated construction costs for treated water storage reservoirs between the size range of 0.5 to 6.0 MG. These costs generally include the installation of the storage tank, site piping, earthwork, paving, instrumentation, and related sitework. These costs are representative of construction conducted under normal excavation and foundation conditions and would be significantly higher for special or difficult foundation requirements.

It is recommended that new potable water storage reservoirs be partially buried prestressed concrete tanks to minimize impacts to developable land. These reservoirs could be located beneath City parks, allowing other uses of the land above the proposed reservoirs.

Table 1. Construction Costs for Treated Water Storage Reservoirs[a]

Capacity, MG	Estimated Construction Cost, million dollars[b] Partially Buried Prestressed Concrete
0.5	2.5
1.0	3.0
2.0	4.0
3.0	4.9
4.0	5.9
5.0	6.9
6.0	7.8

(a) Based on 2020 dollars.
(b) Estimated construction costs do not reflect an adjustment to account for the current economic bidding climate.

E.2.2 Aquifer Storage and Recovery Production Wells

Aquifer Storage and Recovery (ASR) well construction consists of pilot hole drilling, water quality/soil sampling, pilot hole reaming, well construction, well development and providing the necessary housing, pump, motor, automatic control equipment (SCADA), discharge piping, and disinfection equipment. All new groundwater wells will be designed to allow for both injection and extraction of water supplies in conjunction with the City's proposed ASR Well Program.

Construction costs for new groundwater wells are estimated to be approximately $3,900,000 per well (assuming a well capacity of 2,500 gpm). For wells with a capacity of 1,000 gpm, estimated construction costs are approximately $2,500,000 per well. These estimates are based on recent bids for similarly sized wells and representative of construction conducted under normal drilling conditions. Costs would be significantly higher for special or difficult locations.

E.2.3 Treated Water Booster Pump Stations

Booster pump stations will be required at ground-level and below-grade reservoirs to lift water to the appropriate pressure zones. Estimated average construction costs for distribution pumping stations, as shown in Table 2, are based on enclosed stations with architectural and landscaping treatment suitable for residential areas. Booster pump station costs can vary considerably, depending on architectural design, pumping head, and pumping capacity. Therefore, these costs

presented below are representative of construction conducted under common or normal conditions and would be significantly higher for special or difficult conditions.

Booster pump station cost estimates include the installation of the booster pumps, site piping, earthwork, paving, a chemical feed system (hypochlorite), on-site backup/standby power generator, SCADA, and related sitework. Station designs will be based on the City's typical booster pump station configurations, which include 2 to 4 variable speed booster pumps installed in parallel to accommodate varying water demand conditions.

Table 2. Construction Costs for Treated Water Booster Pump Stations[a]

Firm Capacity[b], mgd	Estimated Construction Cost, million dollars[c]
0.5	1.3
1	1.4
2	1.5
3	1.7
5	2.0
10	2.8

(a) Based on 2020 dollars.
(b) Equal to the total pumping capacity with the largest pump out of service or on standby.
(c) Estimated construction costs do not reflect an adjustment to account for the current economic bidding climate.

E.2.4 Pipelines

Unit construction costs for potable water pipelines 8 through 36 inches in diameter are provided in Table 3. These unit costs are categorized by typical pipeline construction either in developed (e.g., in urban or suburban roads) or undeveloped (e.g., across open fields or in rural roads) areas and are representative of pipeline construction conducted under common or normal conditions. Special or difficult conditions would increase costs significantly.

The unit construction costs presented below generally include pipeline materials, trenching, placing and jointing pipe, valves, fittings, hydrants, service connections, placing imported pipe bedding, native backfill material, and partial asphalt pavement replacement, if required. However, the costs presented in Table 3 do not include jacking and boring pipe or constructing boring and receiving pits. It is assumed the total cost to construct one boring pit and one receiving pit is $40,000. Pipeline jack and bore costs are shown in Table 4 and should be added where required.

Table 3. Unit Construction Costs for Pipelines[a,b]		
Pipeline Diameter, inches	Unit Construction Cost, dollars/linear foot[c]	
	Developed Areas	Undeveloped Areas
8	190	160
10	220	185
12	260	225
14	300	255
16	335	285
18	370	315
20	400	340
24	465	395
30	565	480
36	660	560

(a) Based on 2020 dollars.
(b) Costs based on ductile iron cement-lined pipe.
(c) Estimated construction costs do not reflect an adjustment to account for the current economic bidding climate.

Table 4. Unit Construction Costs for Jack and Bore[a]	
Pipeline Size	Unit Construction Cost, dollars/linear foot[b,c]
8-inch pipe (16-inch casing)	520
12-inch pipe (21-inch casing)	595
16-inch pipe (24-inch casing)	690
20-inch pipe (30-inch casing)	845
24-inch pipe (36-inch casing)	995
30-inch pipe (42-inch casing)	1,115
54-inch pipe (66-inch casing)	1,700
Tunnel	3,540

(a) Based on 2020 dollars.
(b) Conductor pipe is not included in cost.
(c) Estimated construction costs do not reflect an adjustment to account for the current economic bidding climate.

E.2.5 Pressure Regulating Stations and Pressure Reducing Valves

Interconnections (i.e., pressure regulating station or pressure reducing valve) are required to provide water supply between pressure zones during peak demands and/or emergency conditions. The estimated construction cost for a pressure regulating station is $250,000, while construction of a pressure reducing valve is estimated at $125,000. These costs are representative of construction conducted under normal conditions and would be significantly higher for special or difficult conditions.

Construction cost estimates for a pressure regulating station include the installation of a 12-inch diameter control valve, a concrete utility vault, access hatches, site piping, earthwork, paving,

SCADA, and related sitework. Construction cost estimates for a pressure reducing valve include the same items as a pressure regulating station; however, since a pressure reducing valve is typically used for emergency conditions, it requires a less complicated control valve and does not include SCADA installation.

E.2.6 Backup Power Generators

On-site backup power generators are recommended so pumps can continue delivering water to the distribution system in the event of a power outage. These generators should be sized to meet the power demands of the pumps. The construction cost for a new on-site backup power generator is estimated to be approximately $250,000. This cost is representative of construction conducted under normal conditions and would be significantly higher for special or difficult conditions.

E.2.7 SCADA System Improvements

SCADA system improvements are recommended to provide operators with real-time system data and flexibility in system operations. The construction cost for the installation of SCADA monitoring is estimated to be $125,000. This cost is representative of construction conducted under normal conditions and would be significantly higher for special or difficult conditions. Any discrepancies or inaccurate data tags should also be corrected to provide accurate real-time system flow and pressure monitoring.

E.3 RECYCLED WATER SYSTEM CONSTRUCTION COSTS

The following sections present the construction cost estimates used to project probable construction costs for recommended recycled water system facilities and are categorized by improvement project type.

The construction cost estimates of the recycled water system are based on similar assumptions to the construction cost estimates of the potable water system.

E.3.1 Recycled Water Storage Reservoirs

For partially buried prestressed concrete tanks, estimated storage reservoir costs are the same for recycled water and potable water and are repeated in Table 5 for reference. Table 5 also includes estimated costs for above ground, welded steel storage reservoirs. Costs for both concrete and welded steel tanks generally include the installation of the storage tank, site piping, earthwork, paving, instrumentation, and related sitework. Estimates are representative of construction conducted under normal excavation and foundation conditions and would be significantly higher for special or difficult foundation requirements. It is assumed that the recommended Zone A Tank (refer to Chapter 9) will be an above ground welded steel storage reservoir, while the remaining recommended storage reservoir(s) for the recycled water system will be partially buried prestressed concrete tanks.

Table 5. Construction Costs for Recycled Water Storage Reservoirs[a]		
Capacity, MG	Estimated Construction Cost, million dollars[b]	
	Partially Buried Prestressed Concrete	Welded Steel
0.5	2.5	1.7
1.0	3.0	2.1
2.0	4.0	2.9
3.0	4.9	3.7
4.0	5.9	4.5
5.0	6.9	5.3
6.0	7.8	6.0

(a) Based on 2020 dollars.
(b) Estimated construction costs do not reflect an adjustment to account for the current economic bidding climate.

E.3.2 Recycled Water Booster Pump Stations

Additional recycled water booster pump stations will be required at the Holly Drive WWTP and other locations to lift recycled water to the appropriate pressure zones. Estimated average construction costs for distribution pumping stations, as shown in Table 6, are based on enclosed stations with architectural and landscaping treatment suitable for residential areas. Booster pump station costs can vary considerably, depending on factors such as architectural design, pumping head, and pumping capacity. Therefore, these costs presented below are representative of construction conducted under common or normal conditions and would be significantly higher for special or difficult conditions.

Costs presented in Table 6 are discounted 10 percent from the potable water booster pump station costs presented in Table 2. This is because: (1) recycled water booster pump stations do not need to deliver design flows using firm capacity, so one fewer pump is required; and (2) they do not require backup generators.

Recycled water booster pump station cost estimates include the installation of the booster pumps, site piping, earthwork, paving, SCADA, and related sitework. Station designs will be based on the City's typical booster pump station configurations, which include 2 to 4 variable speed booster pumps installed in parallel to accommodate varying water demand conditions.

Table 6. Construction Costs for Recycled Water Booster Pump Stations[a]	
Total Capacity, mgd	Estimated Construction Cost, million dollars[b]
0.5	1.2
1	1.2
2	1.4
3	1.5
5	1.8
10	2.6

(a) Based on 2020 dollars.
(b) Estimated construction costs do not reflect an adjustment to account for the current economic bidding climate.

E.3.3 Recycled Water Pipelines

Unit construction costs for recycled water pipelines 8 inches and 12 inches in diameter are slightly less than for potable water pipelines, because the 8-inch and 12-inch diameter recycled water pipeline material is assumed to be PVC instead of ductile iron. For recycled water pipelines 16 inches through 36 inches in diameter, the material is assumed to be ductile iron, so the unit construction costs for these larger diameter recycled water pipelines are the same as for the corresponding potable water pipelines. Estimated pipeline unit costs are provided in Table 7 and are categorized by typical pipeline construction either in developed (e.g., in urban or suburban roads) or undeveloped (e.g., across open fields or in rural roads) areas. These costs are representative of pipeline construction conducted under common or normal conditions and would be significantly higher for special or difficult conditions.

The unit construction costs presented below generally include pipeline materials, trenching, placing and jointing pipe, valves, fittings, hydrants, service connections, placing imported pipe bedding, native backfill material, and partial asphalt pavement replacement, if required. However, the costs presented in Table 7 do not include jacking and boring pipe or constructing boring and receiving pits. It is assumed the total cost to construct one boring pit and one receiving pit is $40,000. Pipeline jack and bore costs are shown in Table 8 and should be added where required.

Table 7. Unit Construction Costs for Recycled Water Pipelines[a,b]

Pipeline Diameter, inches	Unit Construction Cost, dollars/linear foot[c]	
	Developed Areas	Undeveloped Areas
8	175	150
12	255	220
16	335	285
24	465	395
36	660	560

(a) Based on 2020 dollars.
(b) Costs based on PVC pipe for 8-inch and 12-inch diameter and ductile iron cement-lined pipe for 16-inch diameter and larger.
(c) Estimated construction costs do not reflect an adjustment to account for the current economic bidding climate.

Table 8. Unit Construction Costs for Jack and Bore[a]	
Pipeline Size	Unit Construction Cost, dollars/linear foot[b,c]
8-inch pipe (16-inch casing)	520
12-inch pipe (21-inch casing)	595
16-inch pipe (24-inch casing)	690
20-inch pipe (30-inch casing)	845
24-inch pipe (36-inch casing)	995
30-inch pipe (42-inch casing)	1,115
54-inch pipe (66-inch casing)	1,700
Tunnel	3,540

(a) Based on 2020 dollars.
(b) Conductor pipe is not included in cost.
(c) Estimated construction costs do not reflect an adjustment to account for the current economic bidding climate.

E.4 CONTINGENCY COSTS OR MARK-UPS

Contingency costs or mark-ups must be reviewed on a case-by-case basis, because they will vary considerably with each construction project. However, to assist City staff with budgeting for these recommended water system facility improvements, standard mark-ups have been added to the planning budget as percentages of the estimated base construction cost.

Standard mark-ups are divided into four subcategories, totaling 40 percent:

- General Contingency: The construction costs presented above are representative of the construction of water system facilities under normal construction conditions and schedules; consequently, it is appropriate to allow for estimating and construction uncertainties unavoidably associated with conceptual project planning. Unexpected construction conditions, the need for unforeseen mechanical items, and variations in final quantities are only a few of the items that can increase project costs. An allowance of 15 percent of the base construction cost will be included to cover such project-related general contingencies.
- Design and Planning: Design and planning services associated with new facilities include preliminary investigations and reports, right-of-way acquisition, foundation explorations, preparation of drawings and specifications for construction, surveying and staking, sampling of testing material, and start-up services. The cost of these items may vary, but for the purpose of this study, it is assumed that engineering design and planning costs will equal 10 percent of the base construction cost.
- Construction Management: Construction management covers items such as contract management and inspection during construction. The cost of these items may vary, but for the purpose of this study, it is assumed that construction management costs will equal 10 percent of the base construction cost.

- Program Administration: Program administration covers items such as legal fees, environmental/CEQA compliance requirements, financing expenses, and interest during construction. The cost of these items may vary, but for the purpose of this study, it is assumed that program administration costs will equal 5 percent of the base construction cost.

An example application of these standard mark-ups to a project with an assumed base construction cost of $1.0 million is shown in Table 9. As shown, the total cost of all project construction contingencies (general contingency, design and planning, construction management, and program administration costs) is 40 percent of the base construction cost for each construction project.

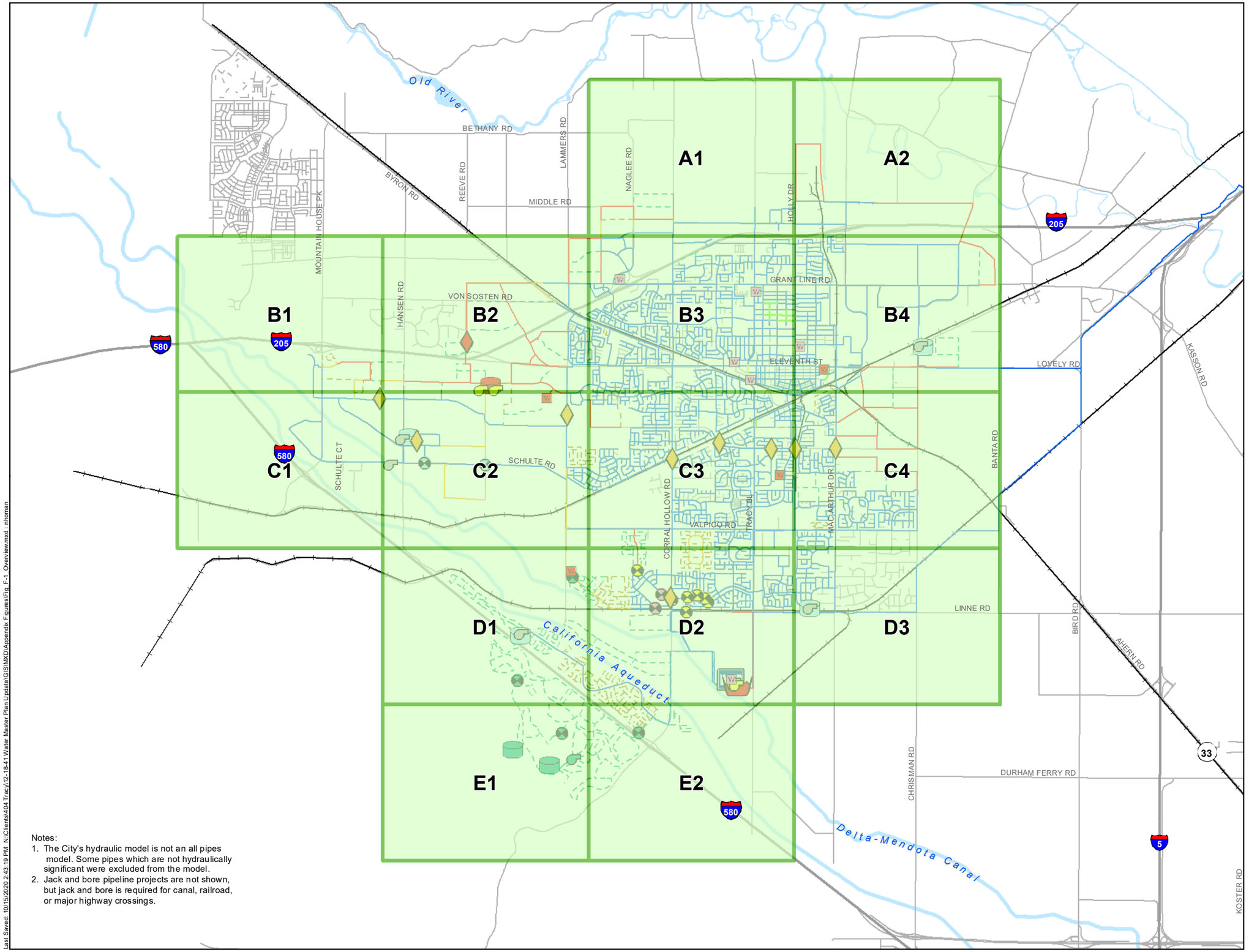
Table 9. Example Application of Mark-ups

Cost Component	Percent	Cost, dollars
Estimated Base Construction Cost before Mark-ups[(a)]		1,000,000
Mark-ups:		
General Contingency	15	150,000
Design and Planning	10	100,000
Construction Management	10	100,000
Program Administration	5	50,000
Estimated Total Project Cost		**$1,400,000**

(a) Assumed cost of an example project.

APPENDIX F

Proposed Future Potable Water System Facility Improvements



Notes:
1. The City's hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.
2. Jack and bore pipeline projects are not shown, but jack and bore is required for canal, railroad, or major highway crossings.

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Scale in Feet

Symbology

Proposed Buildout Program Facilities

- Buildout Pressure Regulating Station
- Buildout Pressure Reducing Valve
- Buildout Booster Pump Station
- Buildout Groundwater Well
- Buildout Storage Tank
- Proposed Buildout Clearwell
- Buildout System Pipeline

Proposed Buildout Non-Program (NP) Facilities

- Buildout NP Pressure Reducing Valve
- Buildout NP Booster Pump Station
- Buildout NP Storage Tank
- Buildout NP Pipeline

Proposed 2025 Program Facilities

- 2025 Pressure Reducing Valve
- 2025 System Pipeline
- 2025 Pipeline CIP

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

- Existing Pressure Regulating Station
- Existing Pressure Reducing Valve
- Existing Booster Pump Station
- Existing Groundwater Well
- Existing Storage Tank
- WTP John Jones Water Treatment Plant
- Existing System Pipeline
- Proposed Existing System Pipeline CIP

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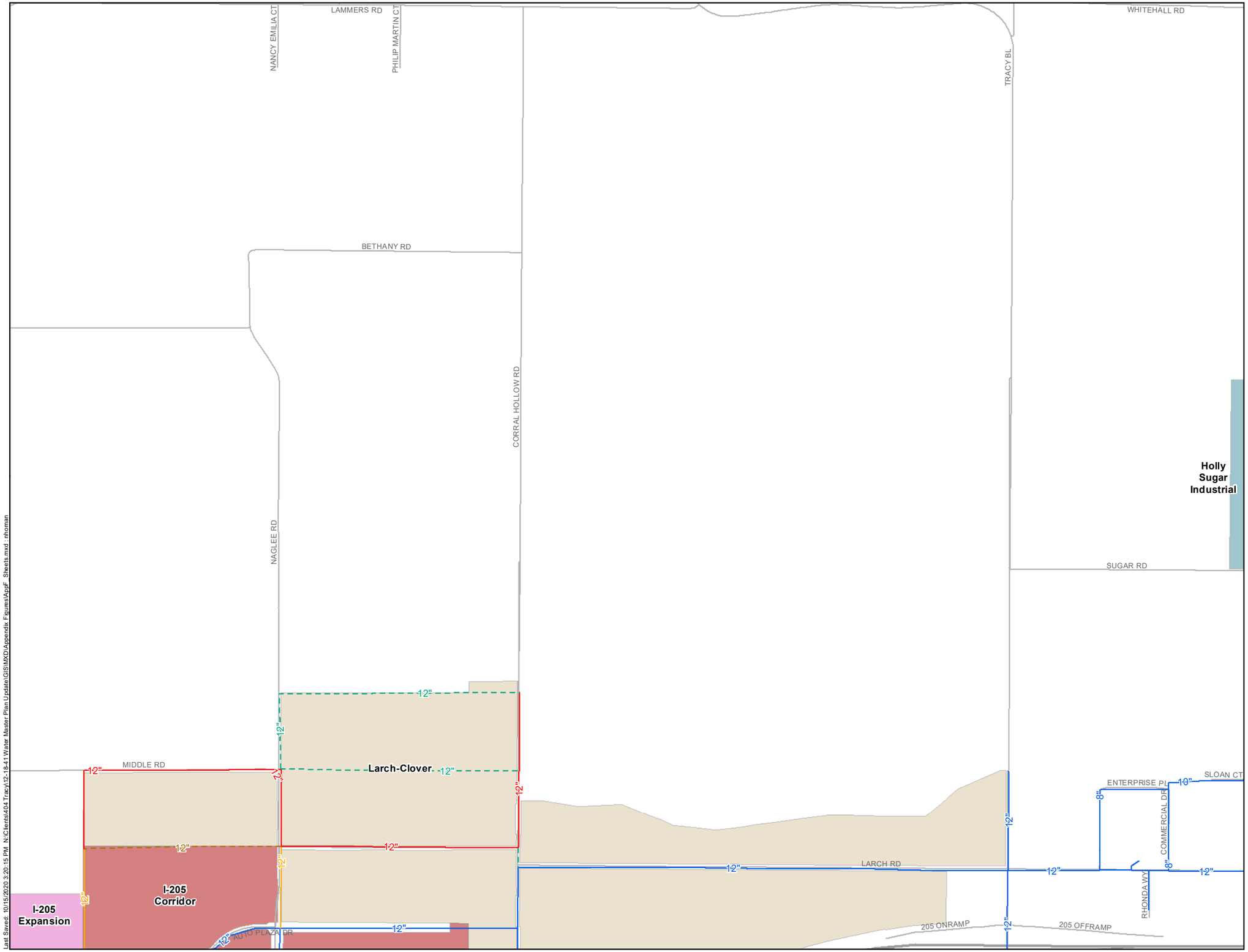
Figure F-1

Proposed Future Potable Water System Facility Improvements

City of Tracy
Water System Master Plan Update



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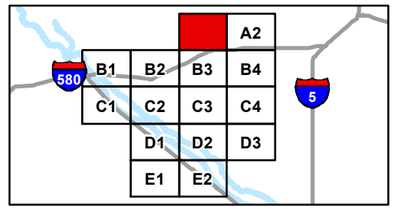

Proposed Buildout Program Facilities

- Buildout Pressure Regulating Station
- Buildout Pressure Reducing Valve
- Buildout Booster Pump Station
- Buildout Groundwater Well
- Buildout Storage Tank
- Proposed Buildout Clearwell
- Buildout System Pipeline

Proposed Buildout Non-Program (NP) Facilities

- Buildout NP Pressure Reducing Valve
- Buildout NP Booster Pump Station
- Buildout NP Storage Tank
- Buildout NP Pipeline

Proposed 2025 Program Facilities

- 2025 Pressure Reducing Valve
- 2025 System Pipeline
- 2025 Pipeline CIP

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

- Existing Pressure Regulating Station
- Existing Pressure Reducing Valve
- Existing Booster Pump Station
- Existing Groundwater Well
- Existing Storage Tank
- Existing System Pipeline
- Proposed Existing System Pipeline CIP

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Figure F-A1

City of Tracy
Water System Master Plan Update

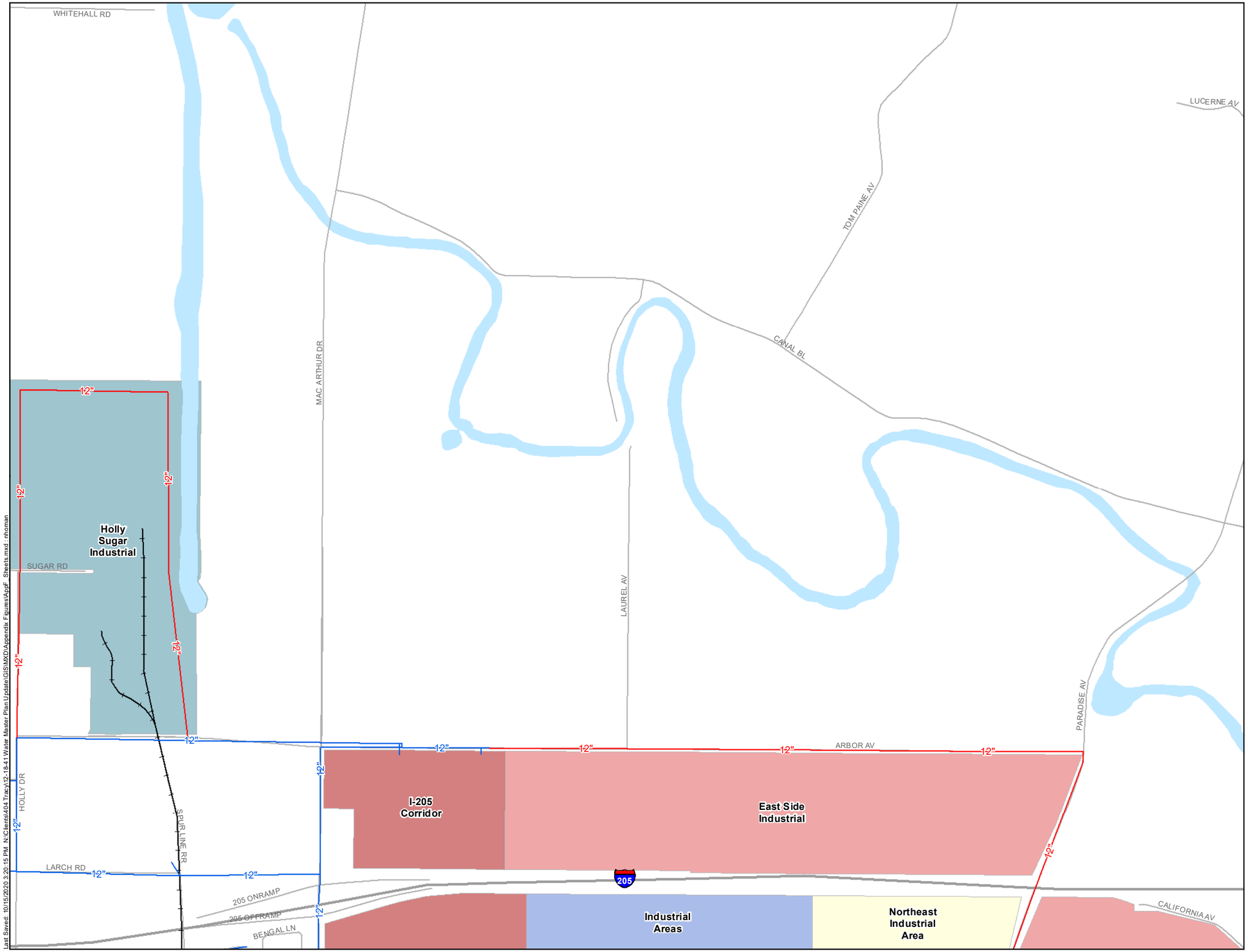

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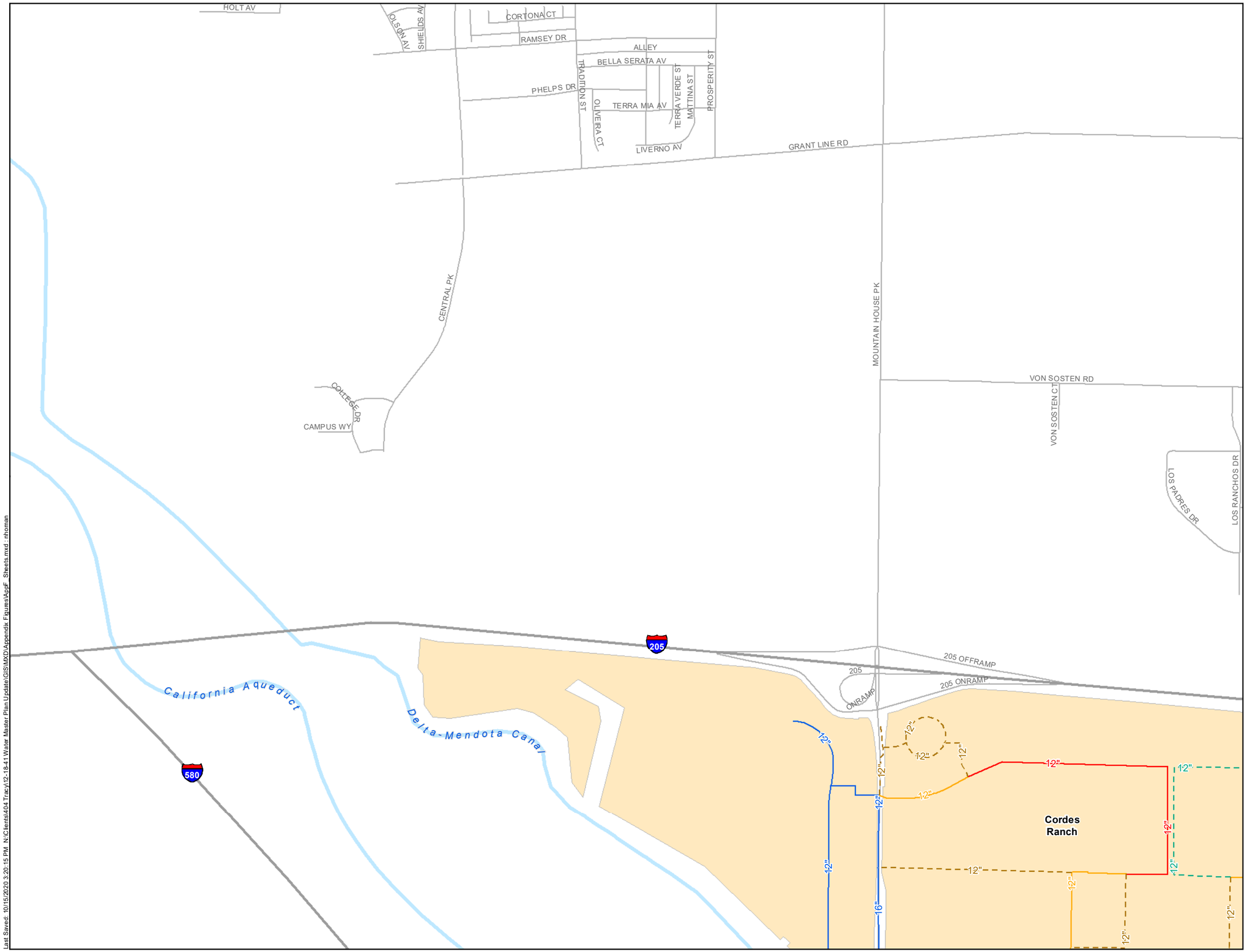
Figure F-A2

City of Tracy
Water System Master Plan Update



Proposed Buildout Program Facilities

- Buildout Pressure Regulating Station
- Buildout Pressure Reducing Valve
- Buildout Booster Pump Station
- Buildout Groundwater Well
- Buildout Storage Tank
- Proposed Buildout Clearwell
- Buildout System Pipeline

Proposed Buildout Non-Program (NP) Facilities

- Buildout NP Pressure Reducing Valve
- Buildout NP Booster Pump Station
- Buildout NP Storage Tank
- Buildout NP Pipeline

Proposed 2025 Program Facilities

- 2025 Pressure Reducing Valve
- 2025 System Pipeline
- 2025 Pipeline CIP

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

- Existing Pressure Regulating Station
- Existing Pressure Reducing Valve
- Existing Booster Pump Station
- Existing Groundwater Well
- Existing Storage Tank
- Existing System Pipeline
- Proposed Existing System Pipeline CIP

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Figure F-B1

City of Tracy
Water System Master Plan Update

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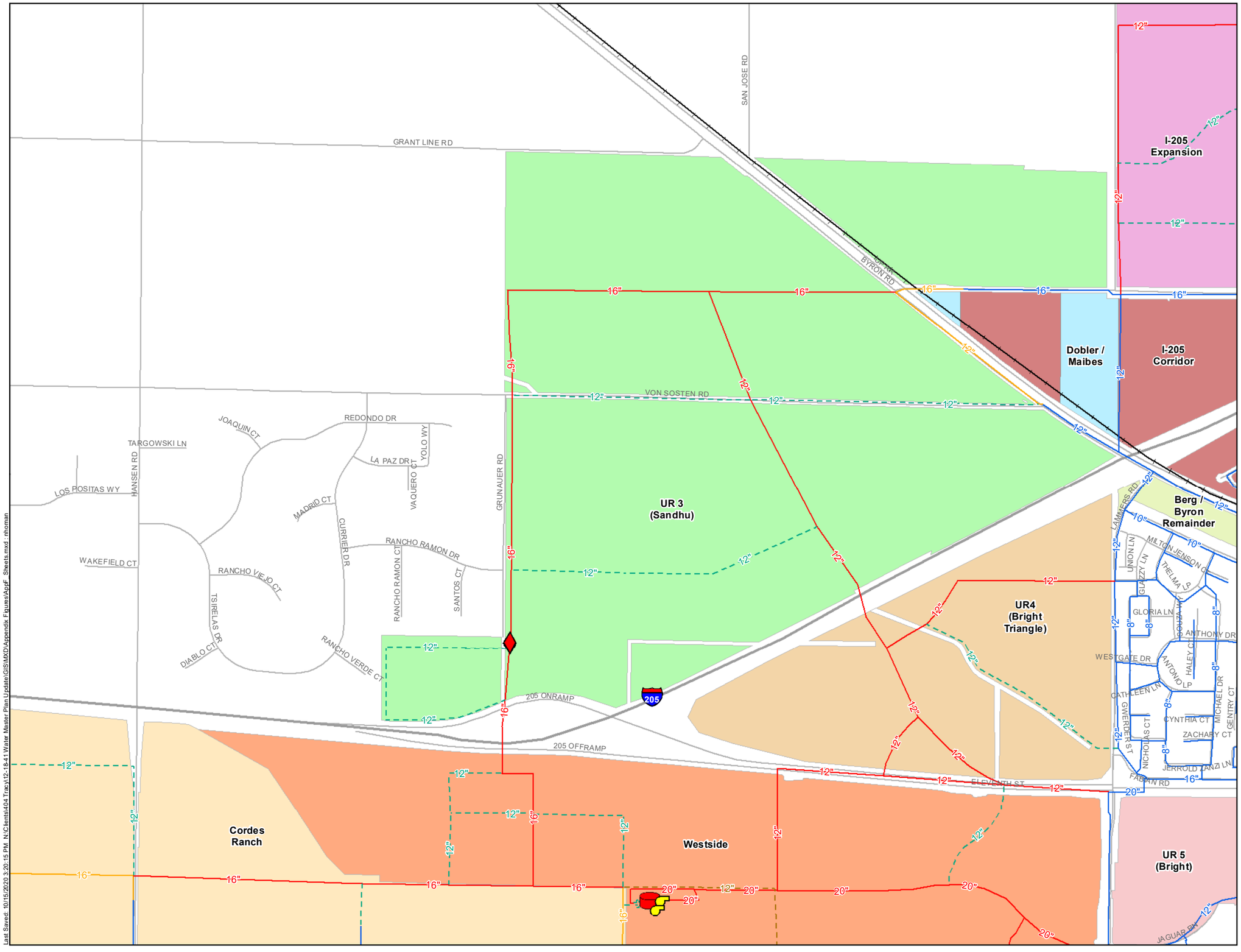

Proposed Buildout Program Facilities

- Buildout Pressure Regulating Station
- Buildout Pressure Reducing Valve
- Buildout Booster Pump Station
- Buildout Groundwater Well
- Buildout Storage Tank
- Proposed Buildout Clearwell
- Buildout System Pipeline

Proposed Buildout Non-Program (NP) Facilities

- Buildout NP Pressure Reducing Valve
- Buildout NP Booster Pump Station
- Buildout NP Storage Tank
- Buildout NP Pipeline

Proposed 2025 Program Facilities

- 2025 Pressure Reducing Valve
- 2025 System Pipeline
- 2025 Pipeline CIP

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

- Existing Pressure Regulating Station
- Existing Pressure Reducing Valve
- Existing Booster Pump Station
- Existing Groundwater Well
- Existing Storage Tank
- Existing System Pipeline
- Proposed Existing System Pipeline CIP

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Figure F-B2

City of Tracy
Water System Master Plan Update

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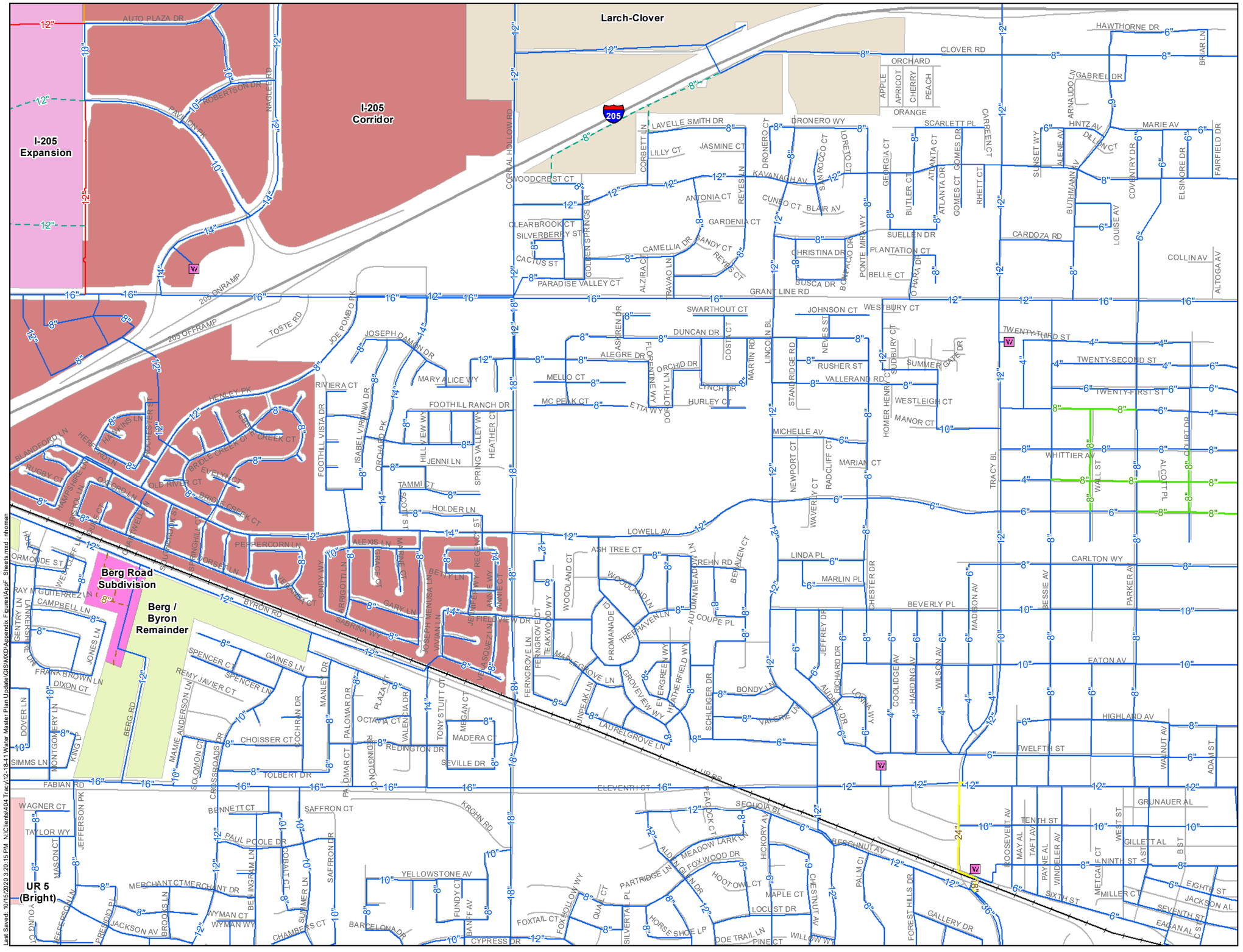

Proposed Buildout Program Facilities

- Buildout Pressure Regulating Station
- Buildout Pressure Reducing Valve
- Buildout Booster Pump Station
- Buildout Groundwater Well
- Buildout Storage Tank
- Proposed Buildout Clearwell
- Buildout System Pipeline

Proposed Buildout Non-Program (NP) Facilities

- Buildout NP Pressure Reducing Valve
- Buildout NP Booster Pump Station
- Buildout NP Storage Tank
- Buildout NP Pipeline

Proposed 2025 Program Facilities

- 2025 Pressure Reducing Valve
- 2025 System Pipeline
- 2025 Pipeline CIP

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

- Existing Pressure Regulating Station
- Existing Pressure Reducing Valve
- Existing Booster Pump Station
- Existing Groundwater Well
- Existing Storage Tank
- Existing System Pipeline
- Proposed Existing System Pipeline CIP

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Figure F-B3

City of Tracy
Water System Master Plan Update

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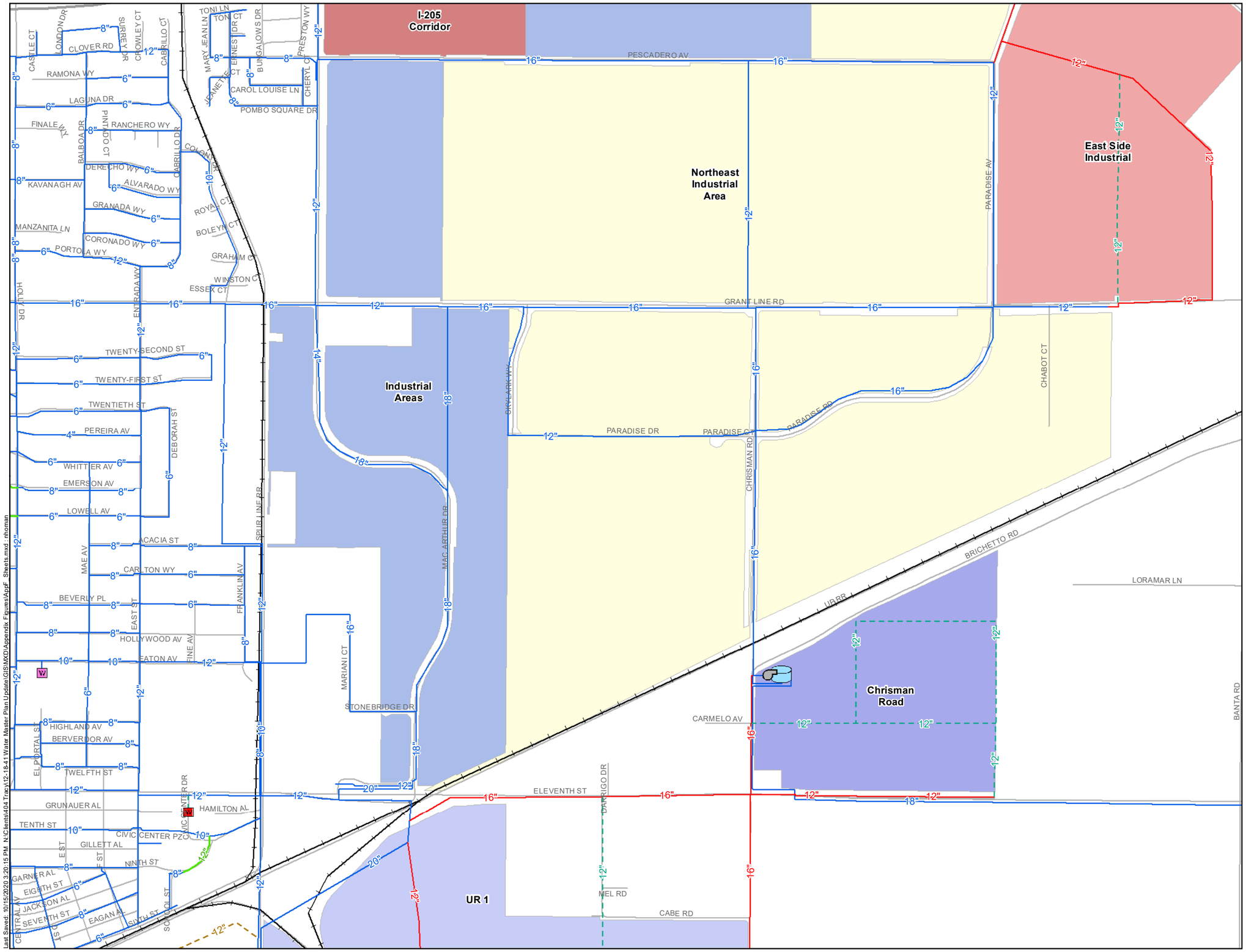

Proposed Buildout Program Facilities

- Buildout Pressure Regulating Station
- Buildout Pressure Reducing Valve
- Buildout Booster Pump Station
- Buildout Groundwater Well
- Buildout Storage Tank
- Proposed Buildout Clearwell
- Buildout System Pipeline

Proposed Buildout Non-Program (NP) Facilities

- Buildout NP Pressure Reducing Valve
- Buildout NP Booster Pump Station
- Buildout NP Storage Tank
- Buildout NP Pipeline

Proposed 2025 Program Facilities

- 2025 Pressure Reducing Valve
- 2025 System Pipeline
- 2025 Pipeline CIP

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

- Existing Pressure Regulating Station
- Existing Pressure Reducing Valve
- Existing Booster Pump Station
- Existing Groundwater Well
- Existing Storage Tank
- Existing System Pipeline
- Proposed Existing System Pipeline CIP

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Figure F-B4

City of Tracy
Water System Master Plan Update

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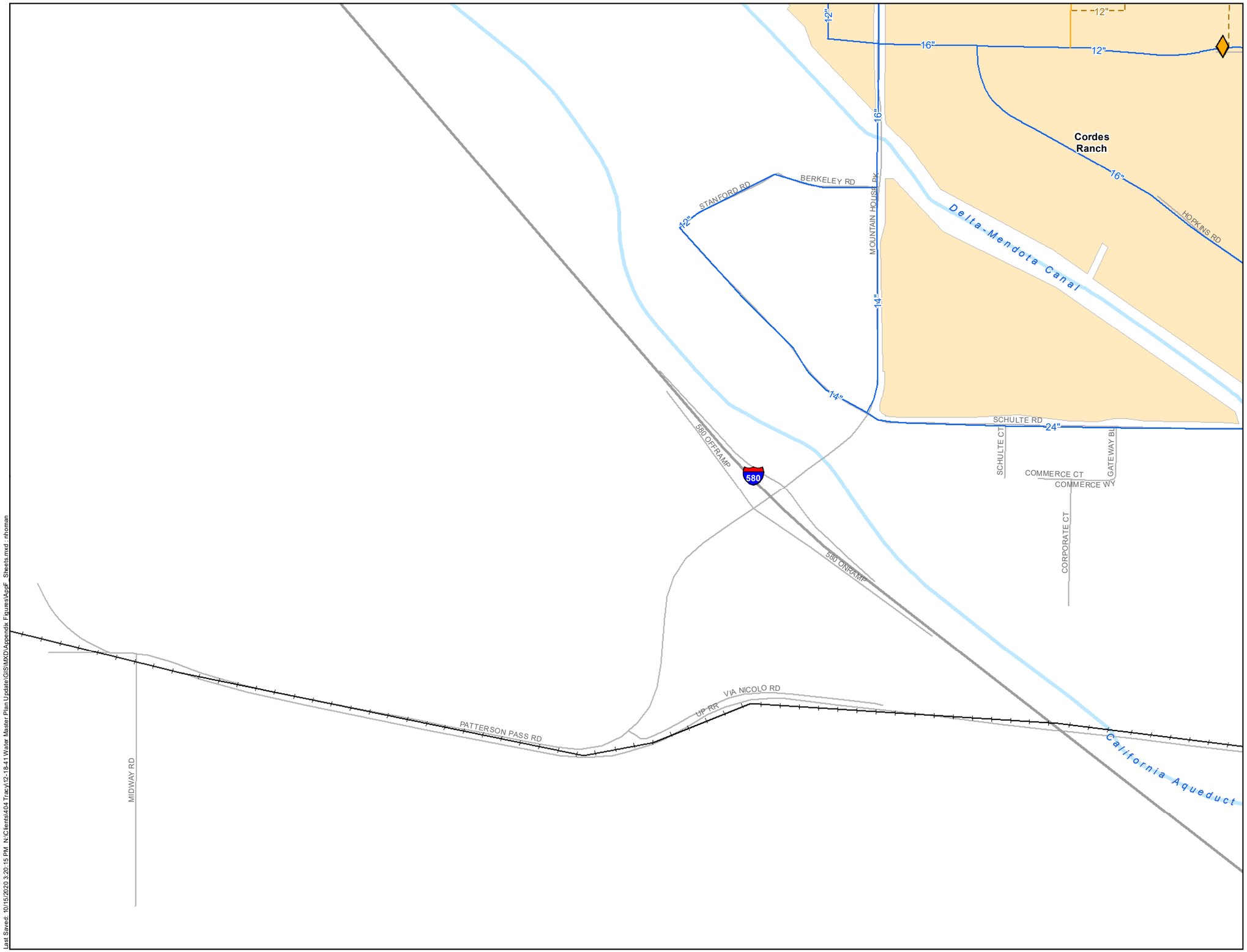

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	D1	D2	D3
	E1	E2	

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Proposed Buildout Program Facilities

- Buildout Pressure Regulating Station
- Buildout Pressure Reducing Valve
- Buildout Booster Pump Station
- Buildout Groundwater Well
- Buildout Storage Tank
- Proposed Buildout Clearwell
- Buildout System Pipeline

Proposed Buildout Non-Program (NP) Facilities

- Buildout NP Pressure Reducing Valve
- Buildout NP Booster Pump Station
- Buildout NP Storage Tank
- Buildout NP Pipeline

Proposed 2025 Program Facilities

- 2025 Pressure Reducing Valve
- 2025 System Pipeline
- 2025 Pipeline CIP

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

- Existing Pressure Regulating Station
- Existing Pressure Reducing Valve
- Existing Booster Pump Station
- Existing Groundwater Well
- Existing Storage Tank
- Existing System Pipeline
- Proposed Existing System Pipeline CIP

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Figure F-C1

City of Tracy
Water System Master Plan Update

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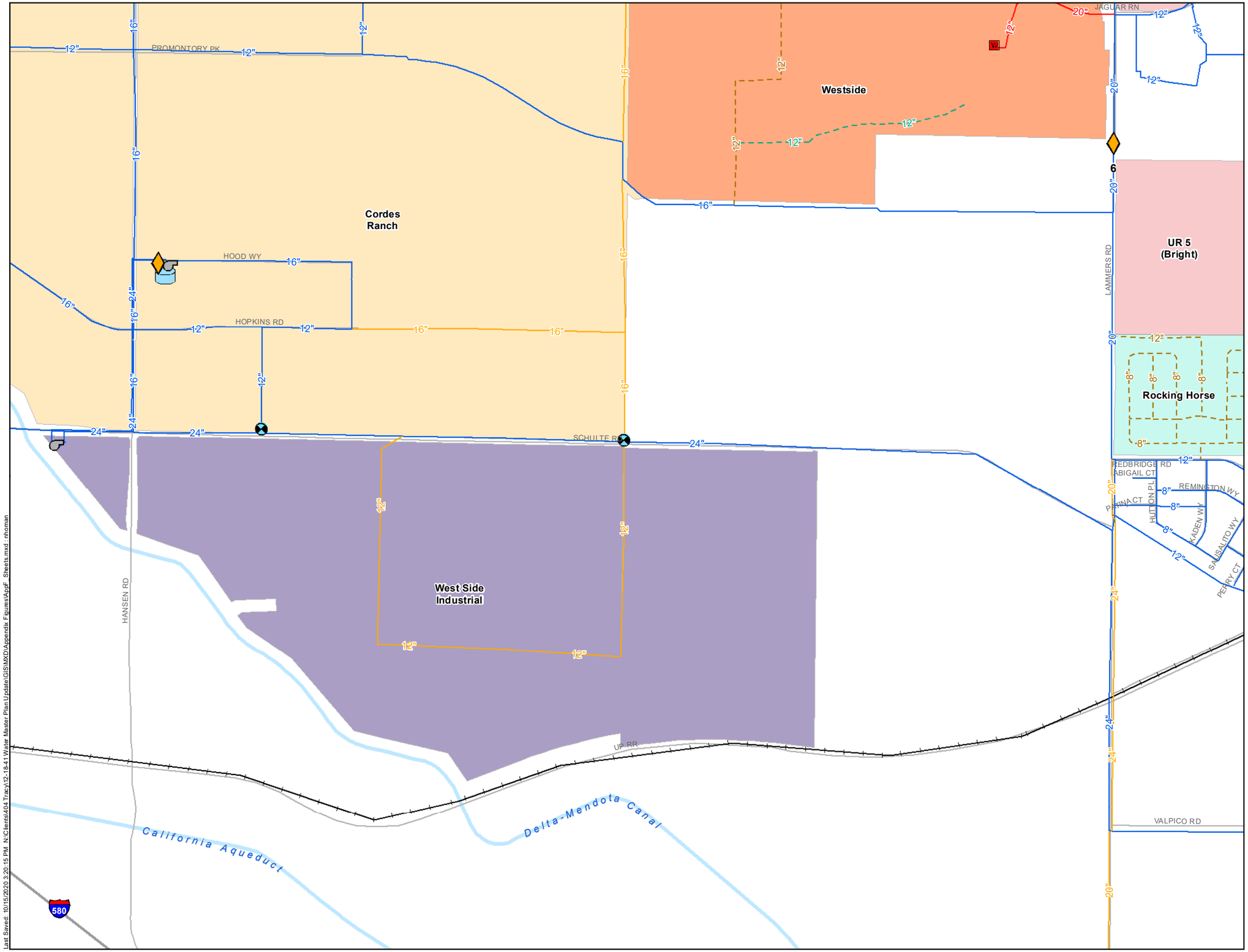

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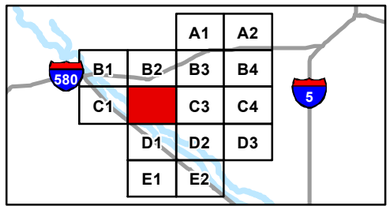

Proposed Buildout Program Facilities

- Buildout Pressure Regulating Station
- Buildout Pressure Reducing Valve
- Buildout Booster Pump Station
- Buildout Groundwater Well
- Buildout Storage Tank
- Proposed Buildout Clearwell
- Buildout System Pipeline

Proposed Buildout Non-Program (NP) Facilities

- Buildout NP Pressure Reducing Valve
- Buildout NP Booster Pump Station
- Buildout NP Storage Tank
- Buildout NP Pipeline

Proposed 2025 Program Facilities

- 2025 Pressure Reducing Valve
- 2025 System Pipeline
- 2025 Pipeline CIP

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

- Existing Pressure Regulating Station
- Existing Pressure Reducing Valve
- Existing Booster Pump Station
- Existing Groundwater Well
- Existing Storage Tank
- Existing System Pipeline
- Proposed Existing System Pipeline CIP

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Figure F-C2

City of Tracy
Water System Master Plan Update

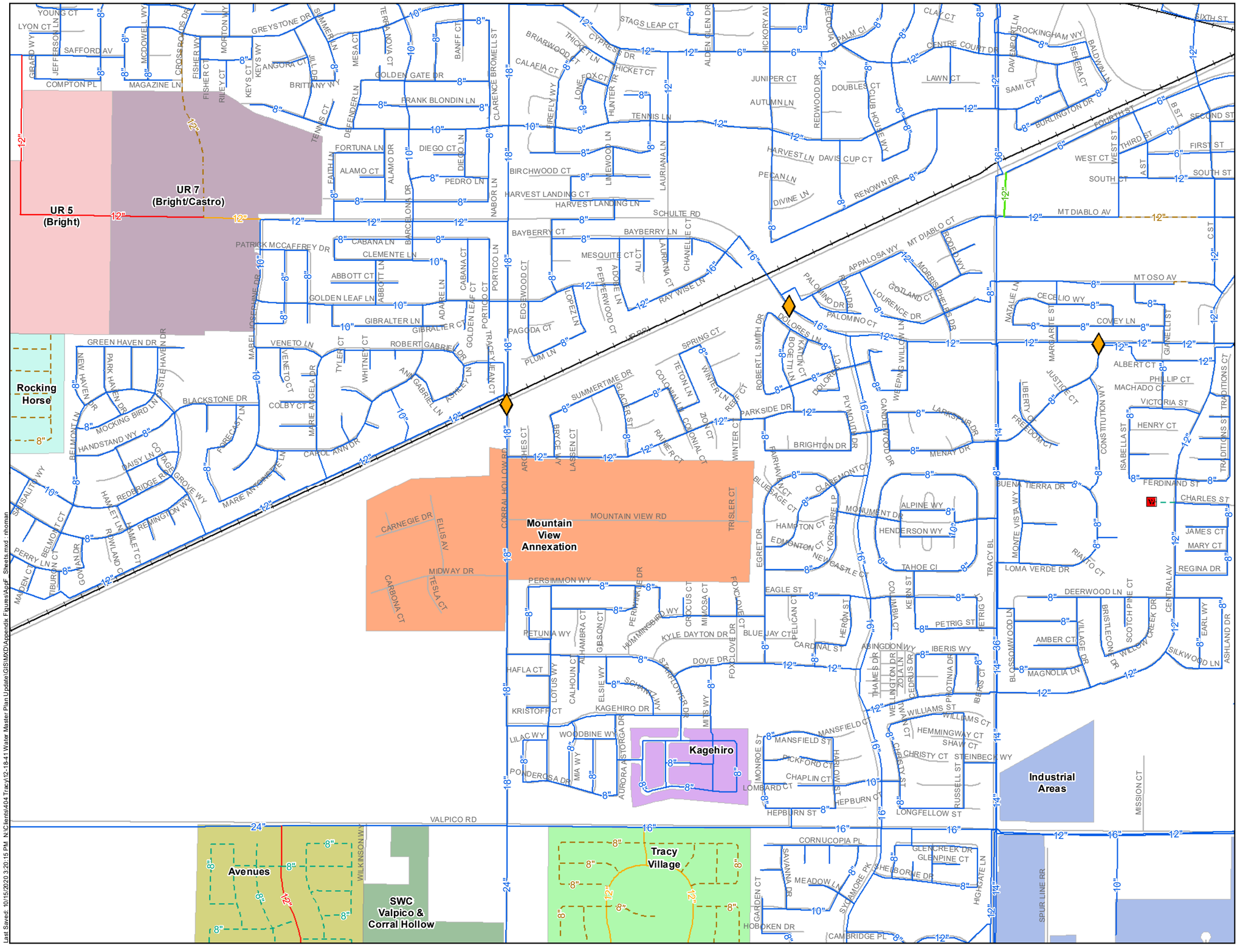
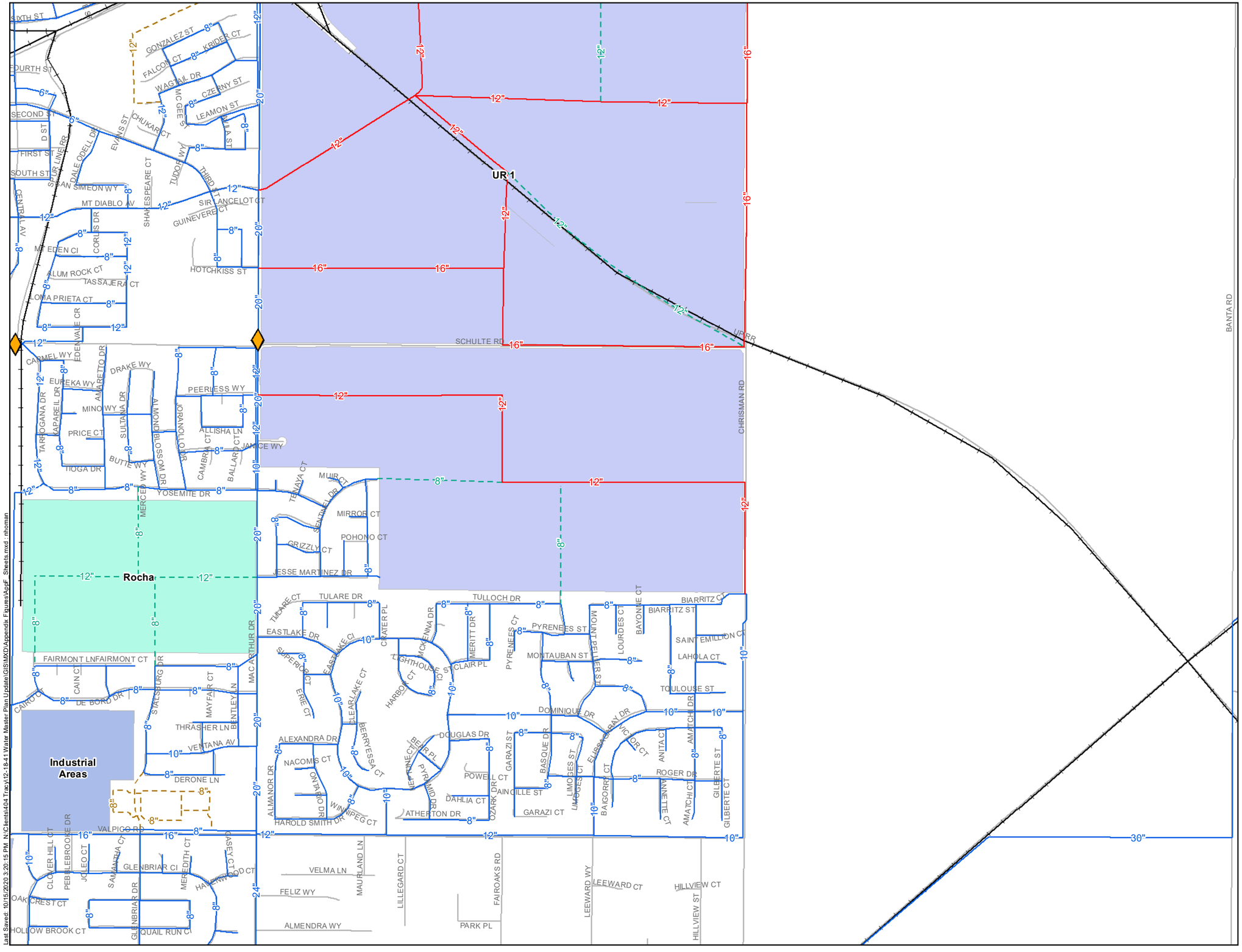


Figure F-C3

City of Tracy
Water System Master Plan Update



Proposed Buildout Program Facilities

- Buildout Pressure Regulating Station
- Buildout Pressure Reducing Valve
- Buildout Booster Pump Station
- Buildout Groundwater Well
- Buildout Storage Tank
- Proposed Buildout Clearwell
- Buildout System Pipeline

Proposed Buildout Non-Program (NP) Facilities

- Buildout NP Pressure Reducing Valve
- Buildout NP Booster Pump Station
- Buildout NP Storage Tank
- Buildout NP Pipeline

Proposed 2025 Program Facilities

- 2025 Pressure Reducing Valve
- 2025 System Pipeline
- 2025 Pipeline CIP

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

- Existing Pressure Regulating Station
- Existing Pressure Reducing Valve
- Existing Booster Pump Station
- Existing Groundwater Well
- Existing Storage Tank
- Existing System Pipeline
- Proposed Existing System Pipeline CIP

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Figure F-C4

City of Tracy
Water System Master Plan Update

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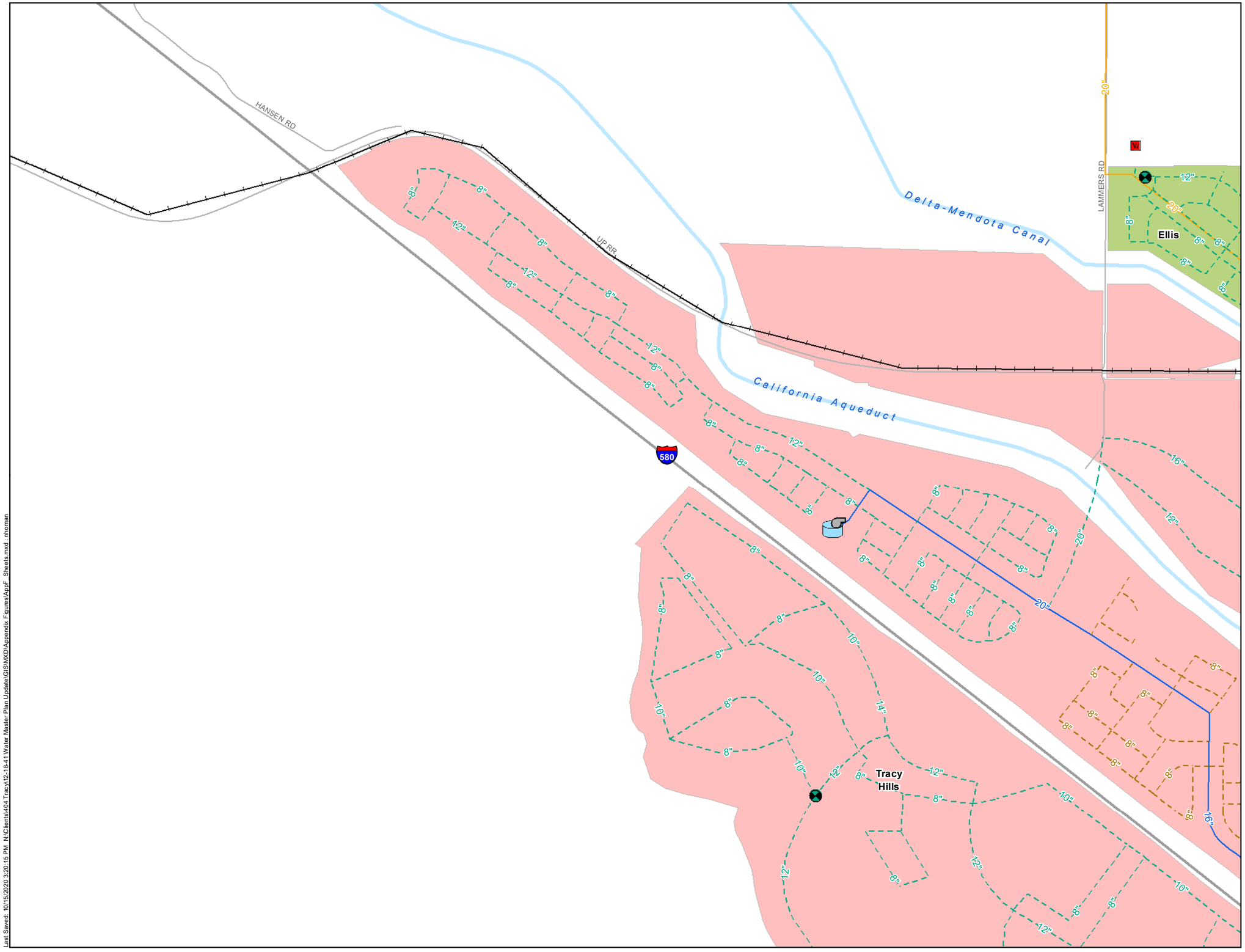

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	C1	C2	C3	C4
			D2	D3
		E1	E2

5

Proposed Buildout Program Facilities

- Buildout Pressure Regulating Station
- Buildout Pressure Reducing Valve
- Buildout Booster Pump Station
- Buildout Groundwater Well
- Buildout Storage Tank
- Proposed Buildout Clearwell
- Buildout System Pipeline

Proposed Buildout Non-Program (NP) Facilities

- Buildout NP Pressure Reducing Valve
- Buildout NP Booster Pump Station
- Buildout NP Storage Tank
- Buildout NP Pipeline

Proposed 2025 Program Facilities

- 2025 Pressure Reducing Valve
- 2025 System Pipeline
- 2025 Pipeline CIP

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

- Existing Pressure Regulating Station
- Existing Pressure Reducing Valve
- Existing Booster Pump Station
- Existing Groundwater Well
- Existing Storage Tank
- Existing System Pipeline
- Proposed Existing System Pipeline CIP

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Figure F-D1

City of Tracy
Water System Master Plan Update

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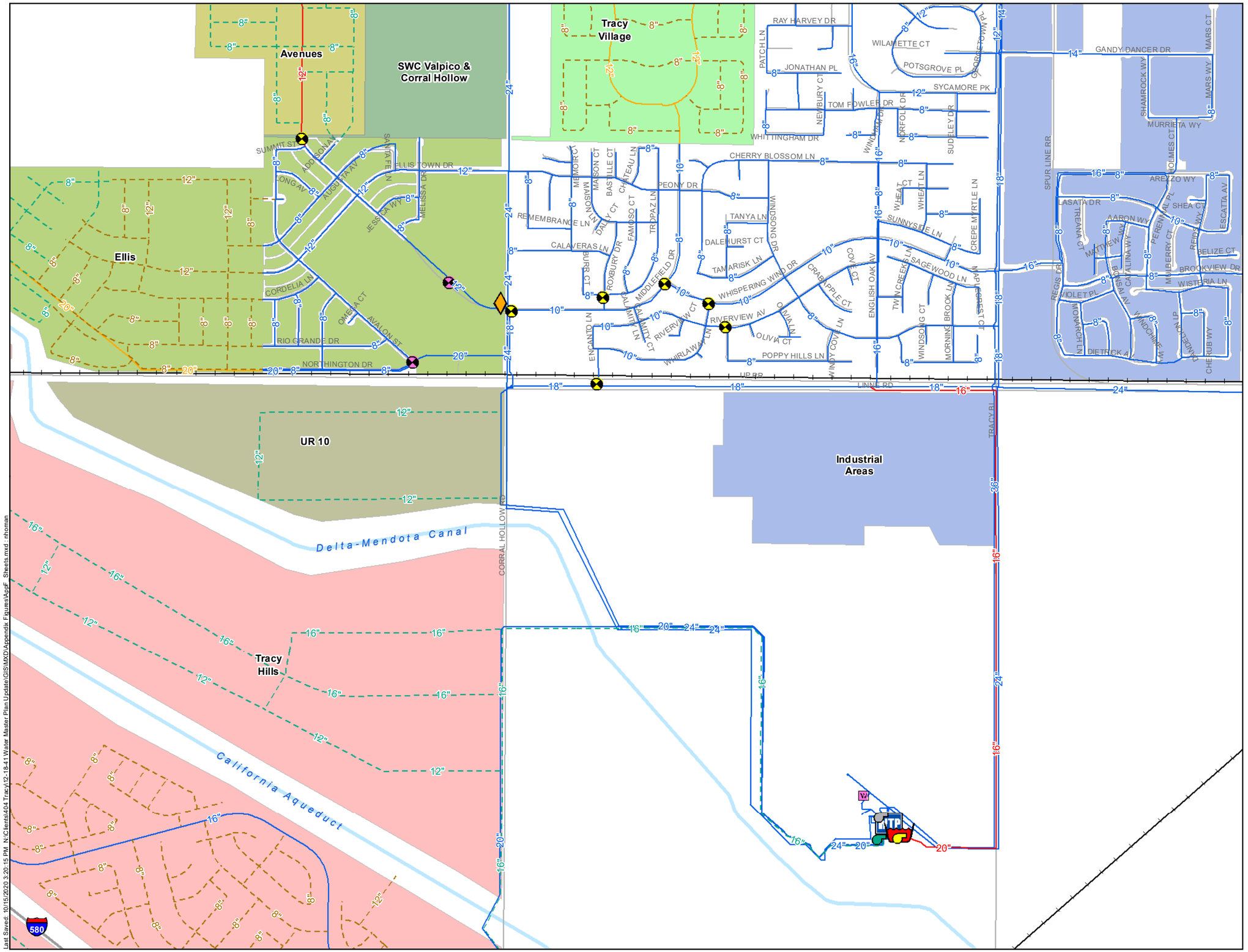

Proposed Buildout Program Facilities

- Buildout Pressure Regulating Station
- Buildout Pressure Reducing Valve
- Buildout Booster Pump Station
- Buildout Groundwater Well
- Buildout Storage Tank
- Proposed Buildout Clearwell
- Buildout System Pipeline

Proposed Buildout Non-Program (NP) Facilities

- Buildout NP Pressure Reducing Valve
- Buildout NP Booster Pump Station
- Buildout NP Storage Tank
- Buildout NP Pipeline

Proposed 2025 Program Facilities

- 2025 Pressure Reducing Valve
- 2025 System Pipeline
- 2025 Pipeline CIP

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

- Existing Pressure Regulating Station
- Existing Pressure Reducing Valve
- Existing Booster Pump Station
- Existing Groundwater Well
- Existing Storage Tank
- Existing System Pipeline
- Proposed Existing System Pipeline CIP

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Figure F-D2

City of Tracy
Water System Master Plan Update

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Proposed Buildout Program Facilities

- Buildout Pressure Regulating Station
- Buildout Pressure Reducing Valve
- Buildout Booster Pump Station
- Buildout Groundwater Well
- Buildout Storage Tank
- Proposed Buildout Clearwell
- Buildout System Pipeline

Proposed Buildout Non-Program (NP) Facilities

- Buildout NP Pressure Reducing Valve
- Buildout NP Booster Pump Station
- Buildout NP Storage Tank
- Buildout NP Pipeline

Proposed 2025 Program Facilities

- 2025 Pressure Reducing Valve
- 2025 System Pipeline
- 2025 Pipeline CIP

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

- Existing Pressure Regulating Station
- Existing Pressure Reducing Valve
- Existing Booster Pump Station
- Existing Groundwater Well
- Existing Storage Tank
- Existing System Pipeline
- Proposed Existing System Pipeline CIP

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Figure F-D3

City of Tracy
Water System Master Plan Update

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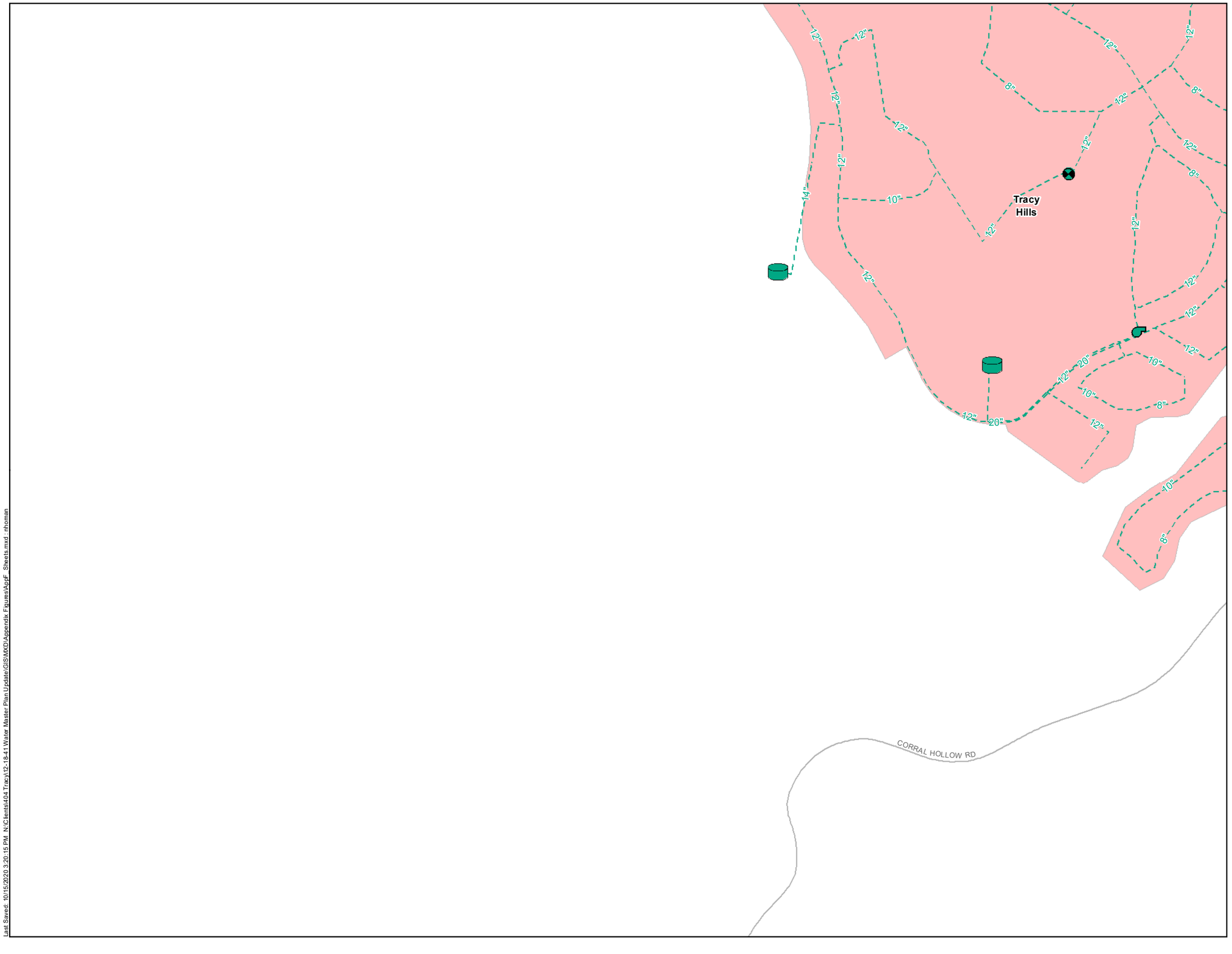

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Proposed Buildout Program Facilities

- Buildout Pressure Regulating Station
- Buildout Pressure Reducing Valve
- Buildout Booster Pump Station
- Buildout Groundwater Well
- Buildout Storage Tank
- Proposed Buildout Clearwell
- Buildout System Pipeline

Proposed Buildout Non-Program (NP) Facilities

- Buildout NP Pressure Reducing Valve
- Buildout NP Booster Pump Station
- Buildout NP Storage Tank
- Buildout NP Pipeline

Proposed 2025 Program Facilities

- 2025 Pressure Reducing Valve
- 2025 System Pipeline
- 2025 Pipeline CIP

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

- Existing Pressure Regulating Station
- Existing Pressure Reducing Valve
- Existing Booster Pump Station
- Existing Groundwater Well
- Existing Storage Tank
- Existing System Pipeline
- Proposed Existing System Pipeline CIP

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Figure F-E1

City of Tracy
Water System Master Plan Update

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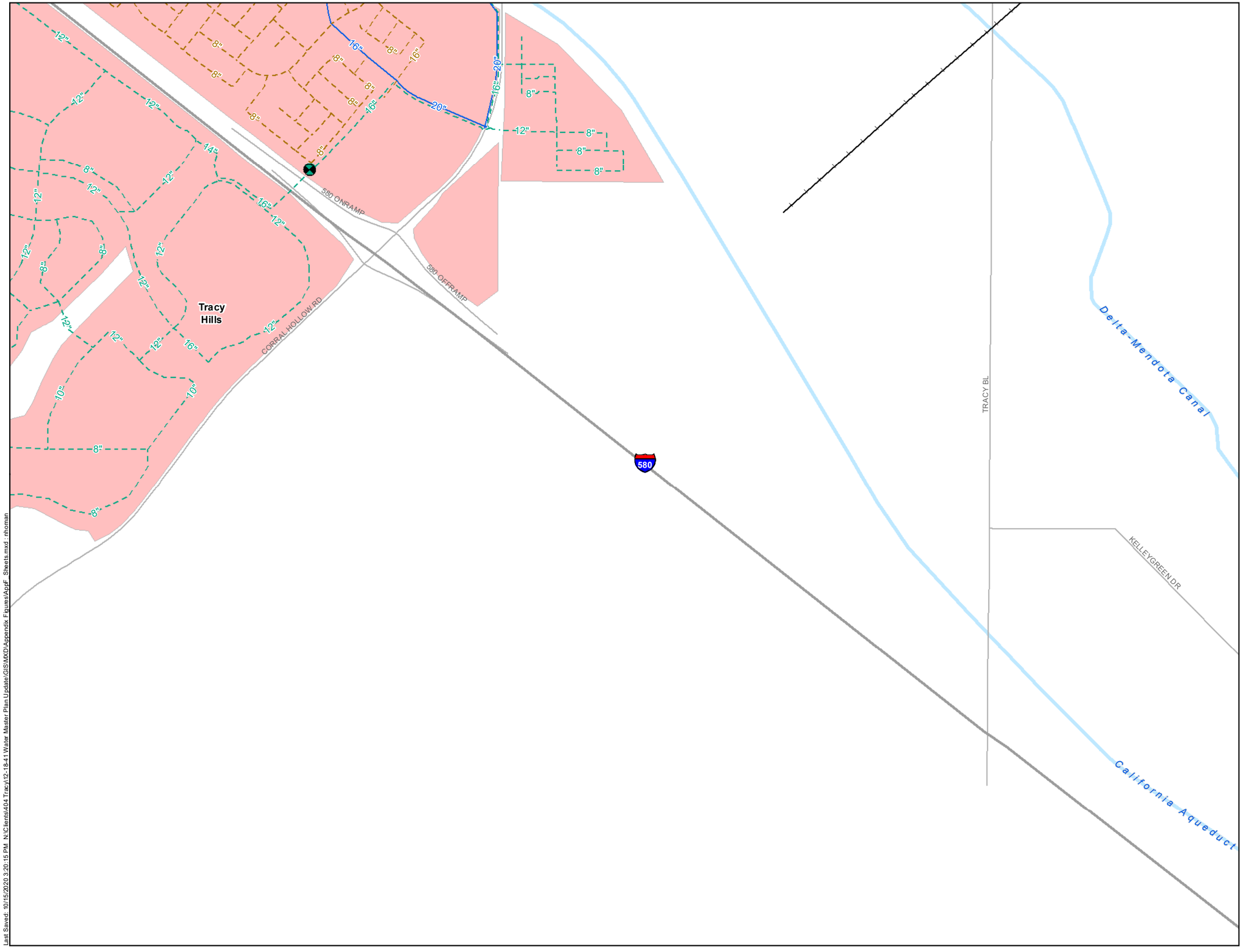

Proposed Buildout Program Facilities

- Buildout Pressure Regulating Station
- Buildout Pressure Reducing Valve
- Buildout Booster Pump Station
- Buildout Groundwater Well
- Buildout Storage Tank
- Proposed Buildout Clearwell
- Buildout System Pipeline

Proposed Buildout Non-Program (NP) Facilities

- Buildout NP Pressure Reducing Valve
- Buildout NP Booster Pump Station
- Buildout NP Storage Tank
- Buildout NP Pipeline

Proposed 2025 Program Facilities

- 2025 Pressure Reducing Valve
- 2025 System Pipeline
- 2025 Pipeline CIP

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

- Existing Pressure Regulating Station
- Existing Pressure Reducing Valve
- Existing Booster Pump Station
- Existing Groundwater Well
- Existing Storage Tank
- Existing System Pipeline
- Proposed Existing System Pipeline CIP

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Figure F-E2

City of Tracy
Water System Master Plan Update

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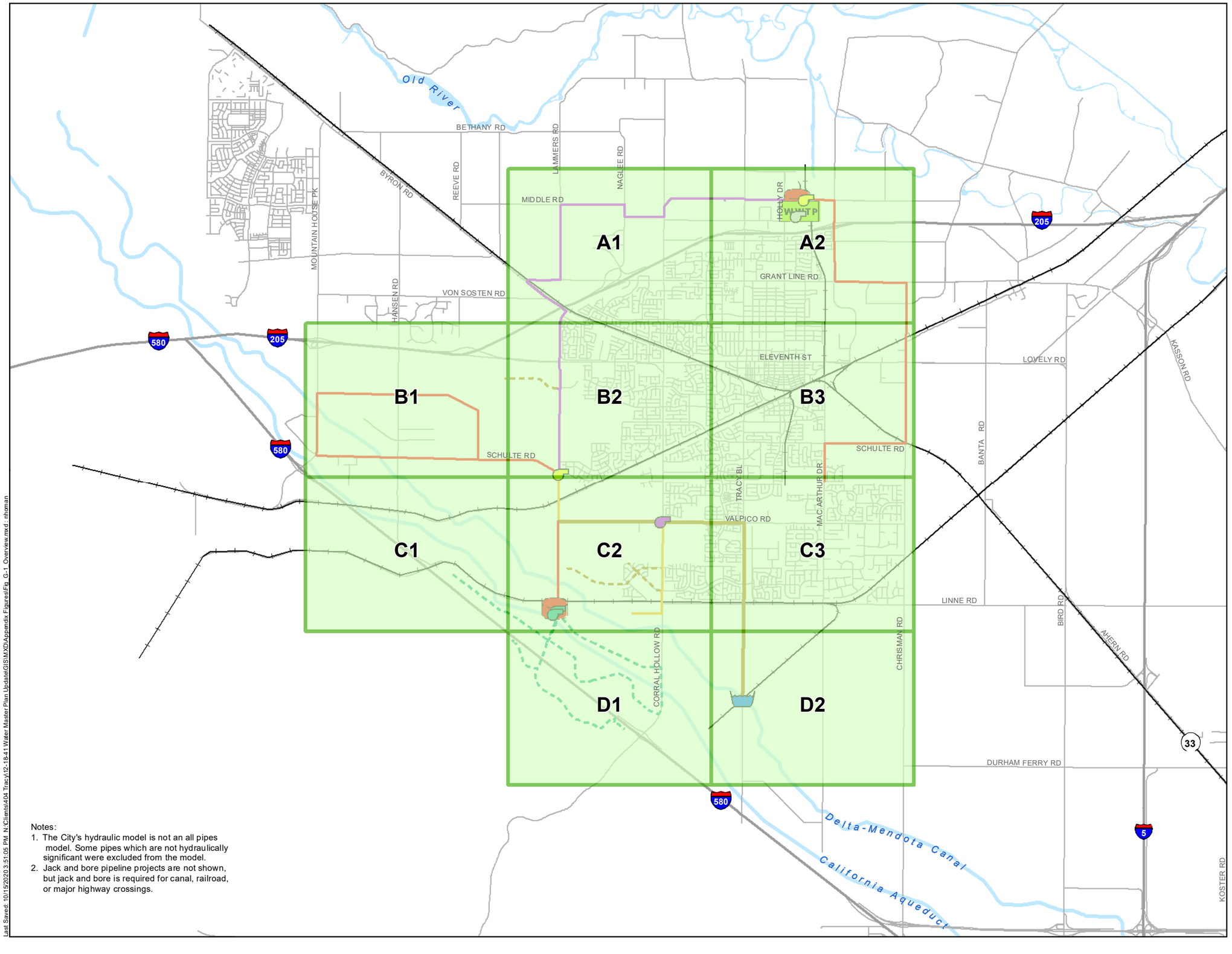
APPENDIX G

Proposed Future Recycled Water System Facility Improvements



Symbology

Proposed Buildout Program Facilities
- Buildout Booster Pump Station
- Buildout Storage Tank
- Buildout System Pipeline

Proposed Buildout Non-Program (NP) Facilities
- Buildout NP Booster Pump Station
- Buildout NP Pipeline

Proposed 2025 Program Facilities
- 2025 Booster Pump Station
- 2025 System Pipeline
- Delta-Mendota Canal Pipeline
- Delta-Mendota Canal Discharge Point

Proposed 2025 Non-Program Facilities
- 2025 Non-Program Pipeline

Existing System Facilities
- Existing Booster Pump Station
- WWTP Wastewater Treatment Plant
- Existing System Pipeline

Notes:
1. The City's hydraulic model is not an all pipes model. Some pipes which are not hydraulically significant were excluded from the model.
2. Jack and bore pipeline projects are not shown, but jack and bore is required for canal, railroad, or major highway crossings.

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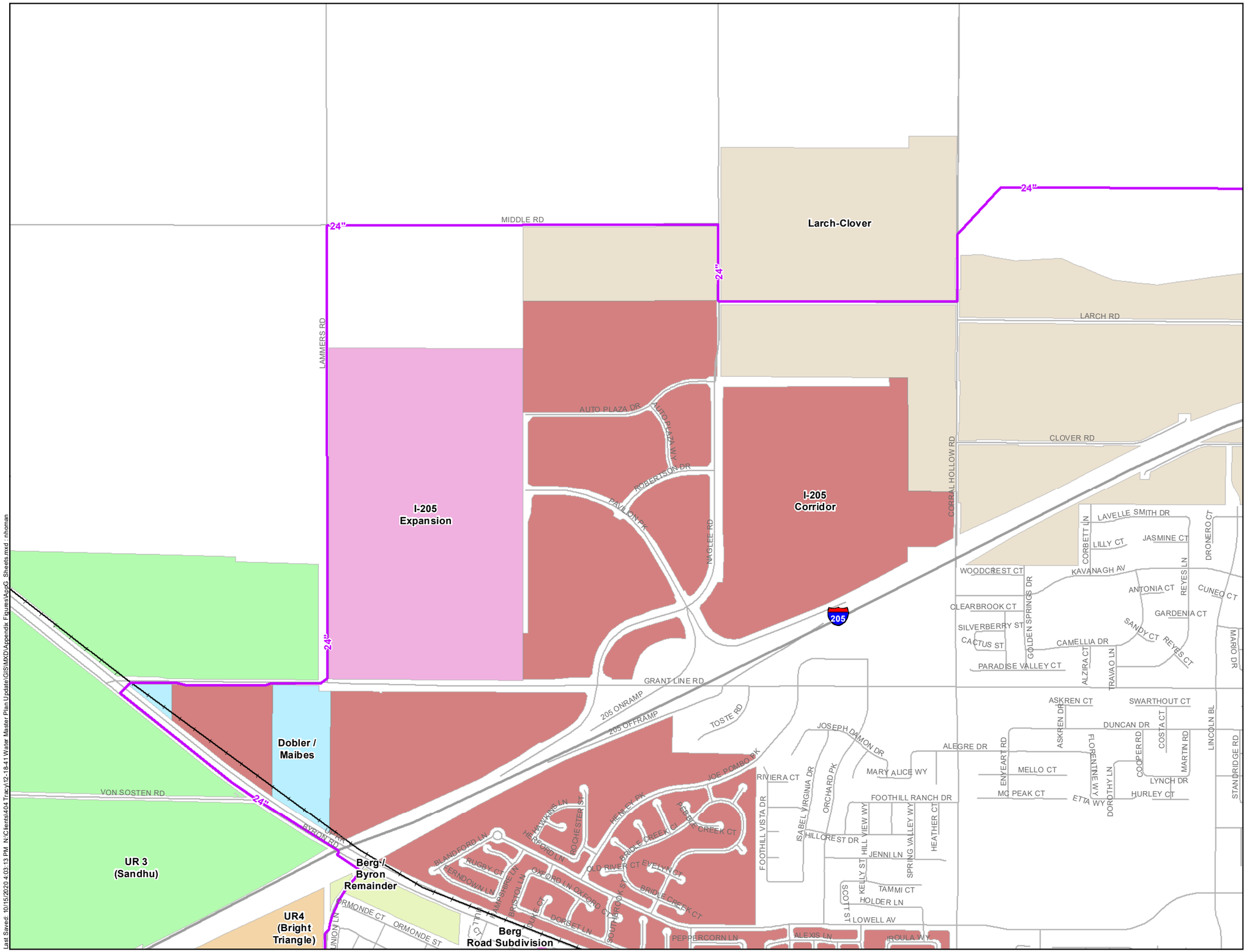
Figure G-1

Proposed Future Recycled Water System Facility Improvements

City of Tracy
Water System Master Plan Update



Symbology

Proposed Buildout Program Facilities

- Buildout Booster Pump Station
- Buildout Storage Tank
- Buildout System Pipeline

Proposed Buildout Non-Program (NP) Facilities

- Buildout NP Booster Pump Station
- Buildout NP Pipeline

Proposed 2025 Program Facilities

- 2025 Booster Pump Station
- 2025 System Pipeline
- Delta-Mendota Canal Pipeline
- Delta-Mendota Canal Discharge Point

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

- Existing Booster Pump Station
- WWTP Wastewater Treatment Plant
- Existing System Pipeline

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Figure G-A1

City of Tracy
Water System Master Plan Update

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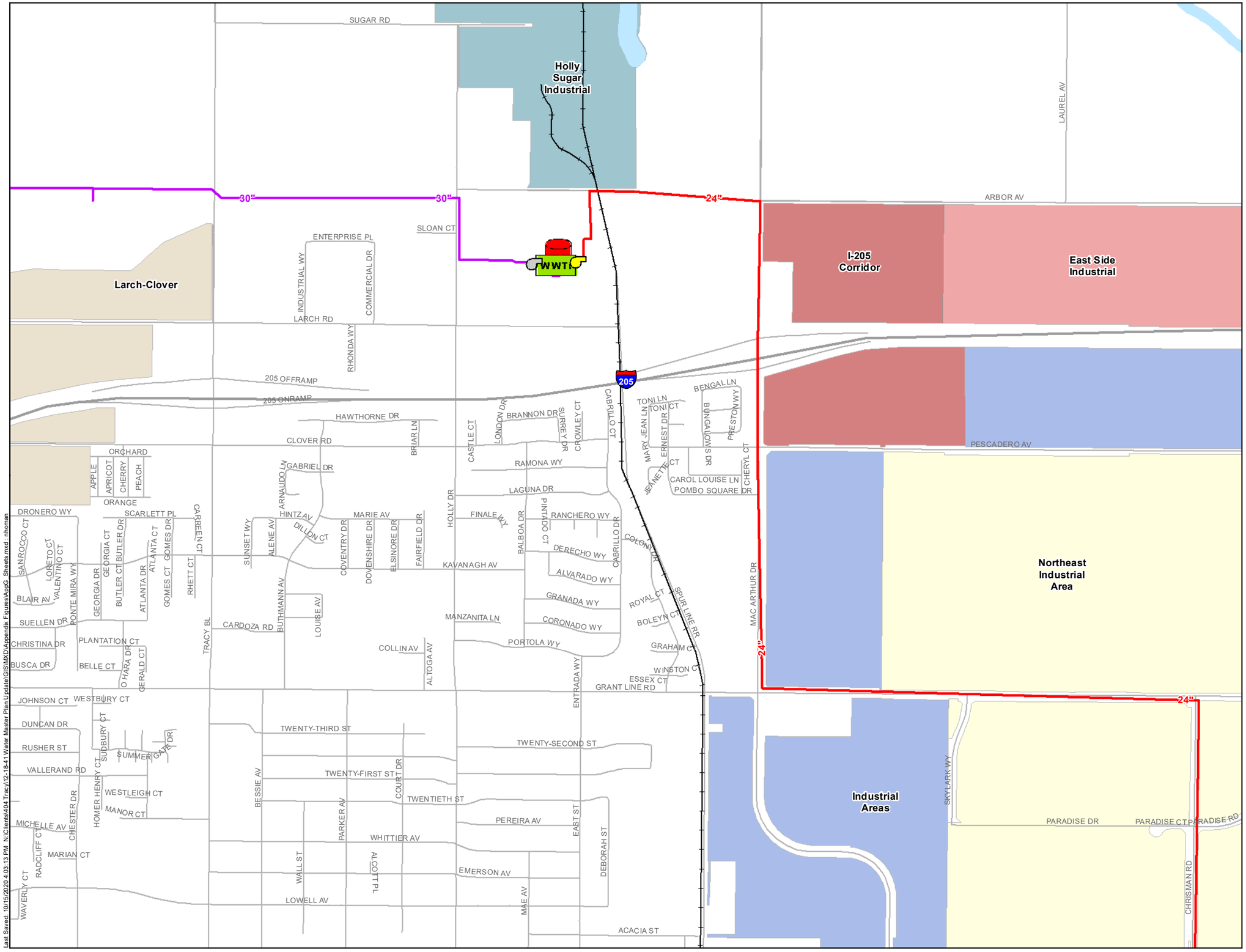

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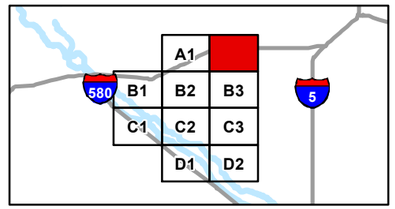

Symbology

Proposed Buildout Program Facilities

- Buildout Booster Pump Station
- Buildout Storage Tank
- Buildout System Pipeline

Proposed Buildout Non-Program (NP) Facilities

- Buildout NP Booster Pump Station
- Buildout NP Pipeline

Proposed 2025 Program Facilities

- 2025 Booster Pump Station
- 2025 System Pipeline
- Delta-Mendota Canal Pipeline
- Delta-Mendota Canal Discharge Point

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

- Existing Booster Pump Station
- WWTP Wastewater Treatment Plant
- Existing System Pipeline

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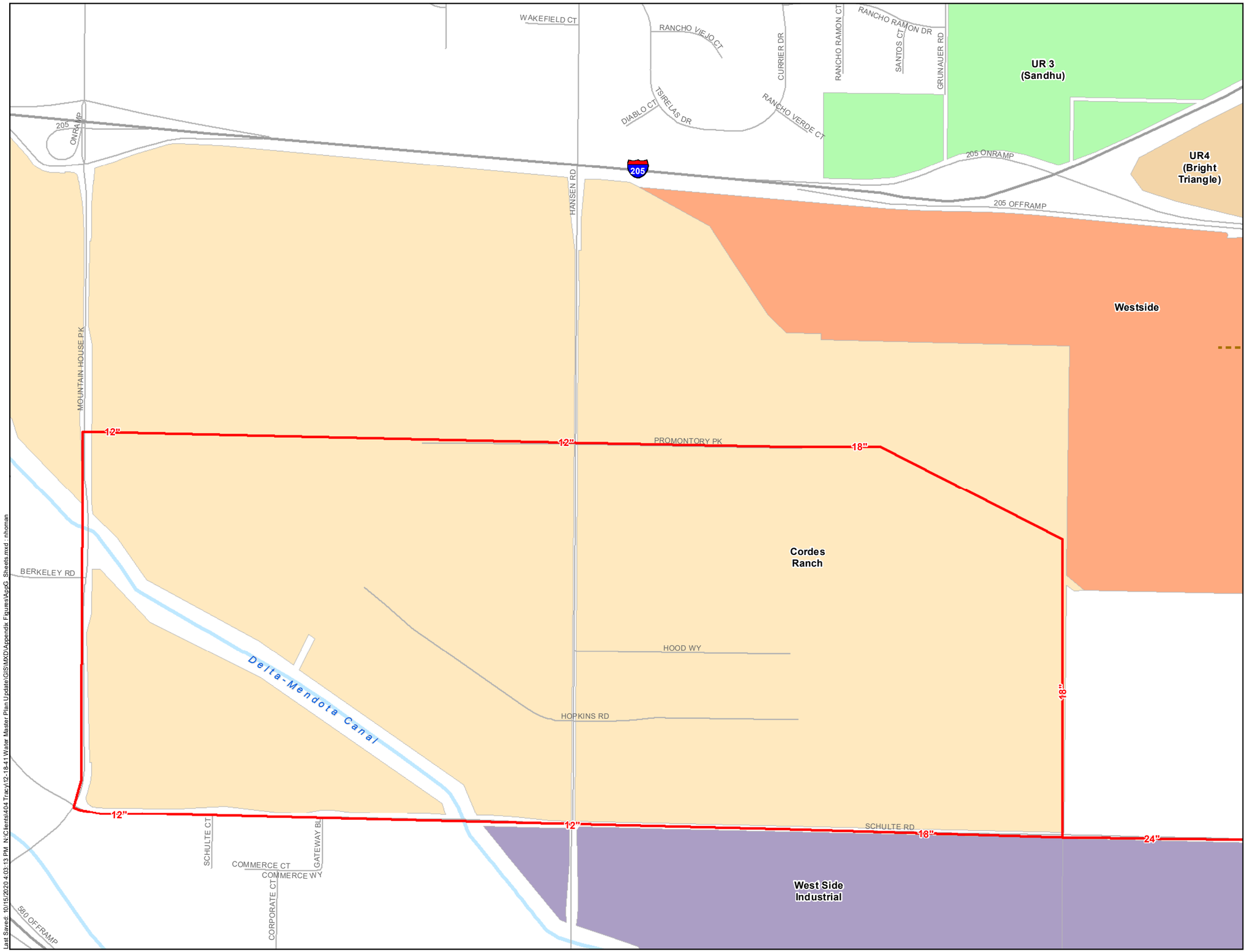
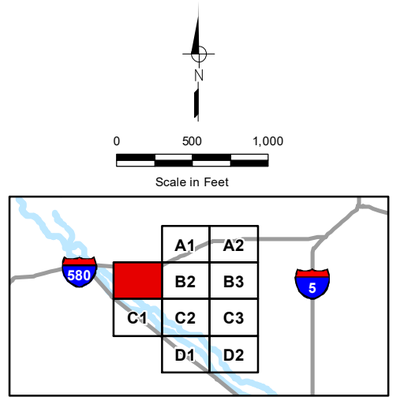
Figure G-A2

City of Tracy
Water System Master Plan Update





Symbology

Proposed Buildout Program Facilities

- Buildout Booster Pump Station
- Buildout Storage Tank
- Buildout System Pipeline

Proposed Buildout Non-Program (NP) Facilities

- Buildout NP Booster Pump Station
- Buildout NP Pipeline

Proposed 2025 Program Facilities

- 2025 Booster Pump Station
- 2025 System Pipeline
- Delta-Mendota Canal Pipeline
- Delta-Mendota Canal Discharge Point

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

- Existing Booster Pump Station
- WWTP Wastewater Treatment Plant
- Existing System Pipeline

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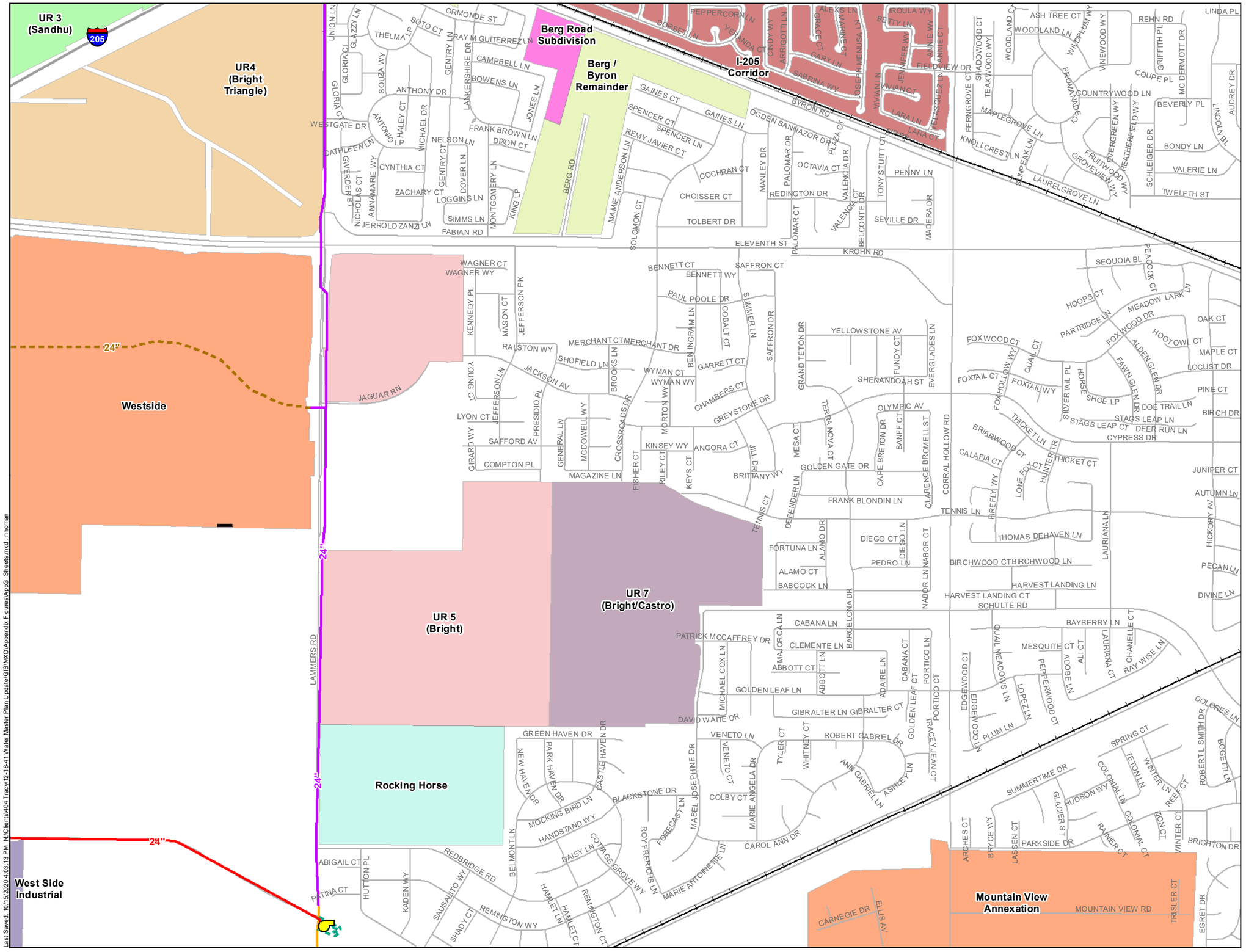
Figure G-B1

City of Tracy
Water System Master Plan Update



Symbology

Proposed Buildout Program Facilities

- Buildout Booster Pump Station
- Buildout Storage Tank
- Buildout System Pipeline

Proposed Buildout Non-Program (NP) Facilities

- Buildout NP Booster Pump Station
- Buildout NP Pipeline

Proposed 2025 Program Facilities

- 2025 Booster Pump Station
- 2025 System Pipeline
- Delta-Mendota Canal Pipeline
- Delta-Mendota Canal Discharge Point

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

- Existing Booster Pump Station
- WWTP Wastewater Treatment Plant
- Existing System Pipeline

Figure G-B2

City of Tracy
Water System Master Plan Update

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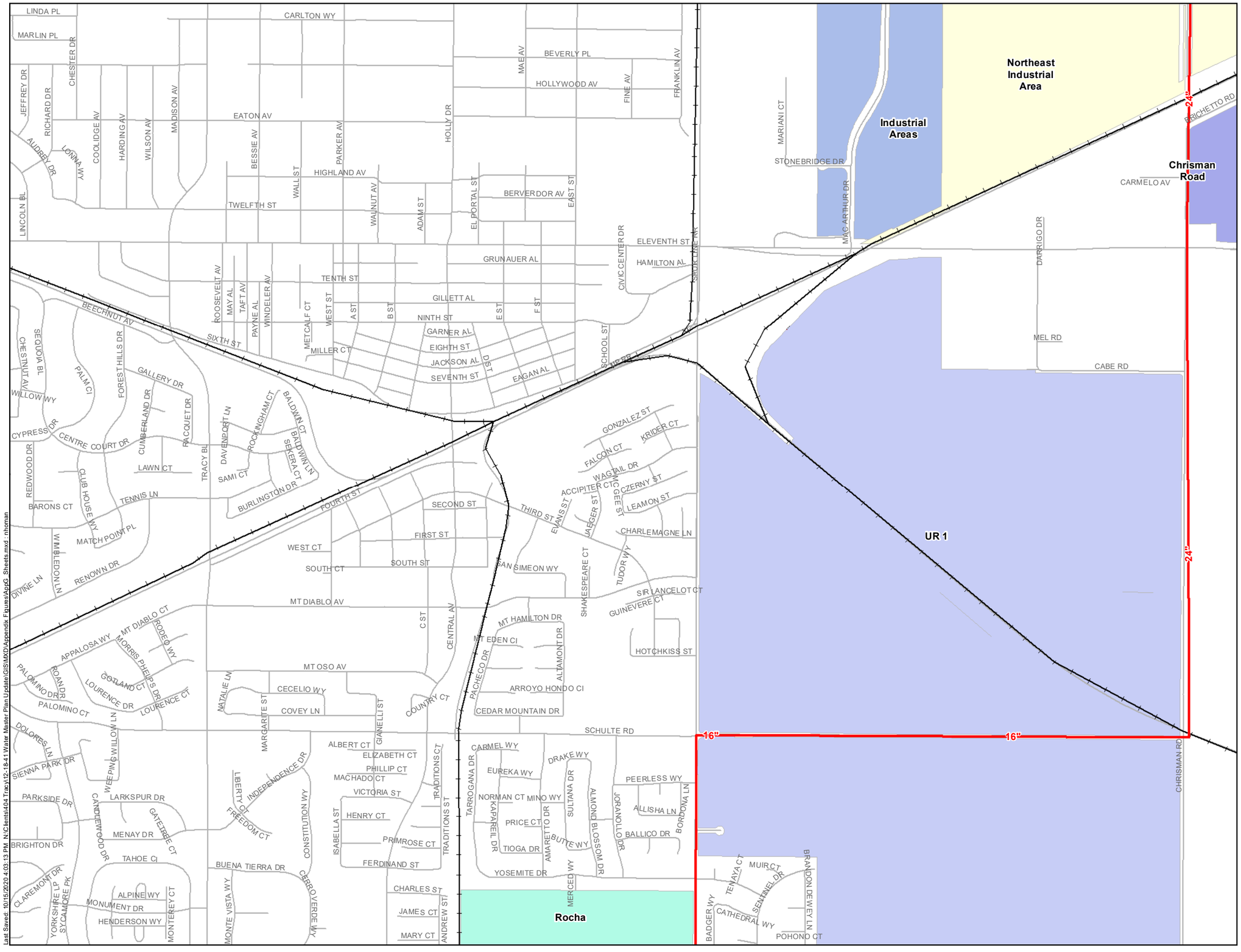

Symbology

Proposed Buildout Program Facilities

- Buildout Booster Pump Station
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Proposed Buildout Non-Program (NP) Facilities

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Proposed 2025 Non-Program Facilities

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Existing System Facilities

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- WWTP Wastewater Treatment Plant
- Existing System Pipeline

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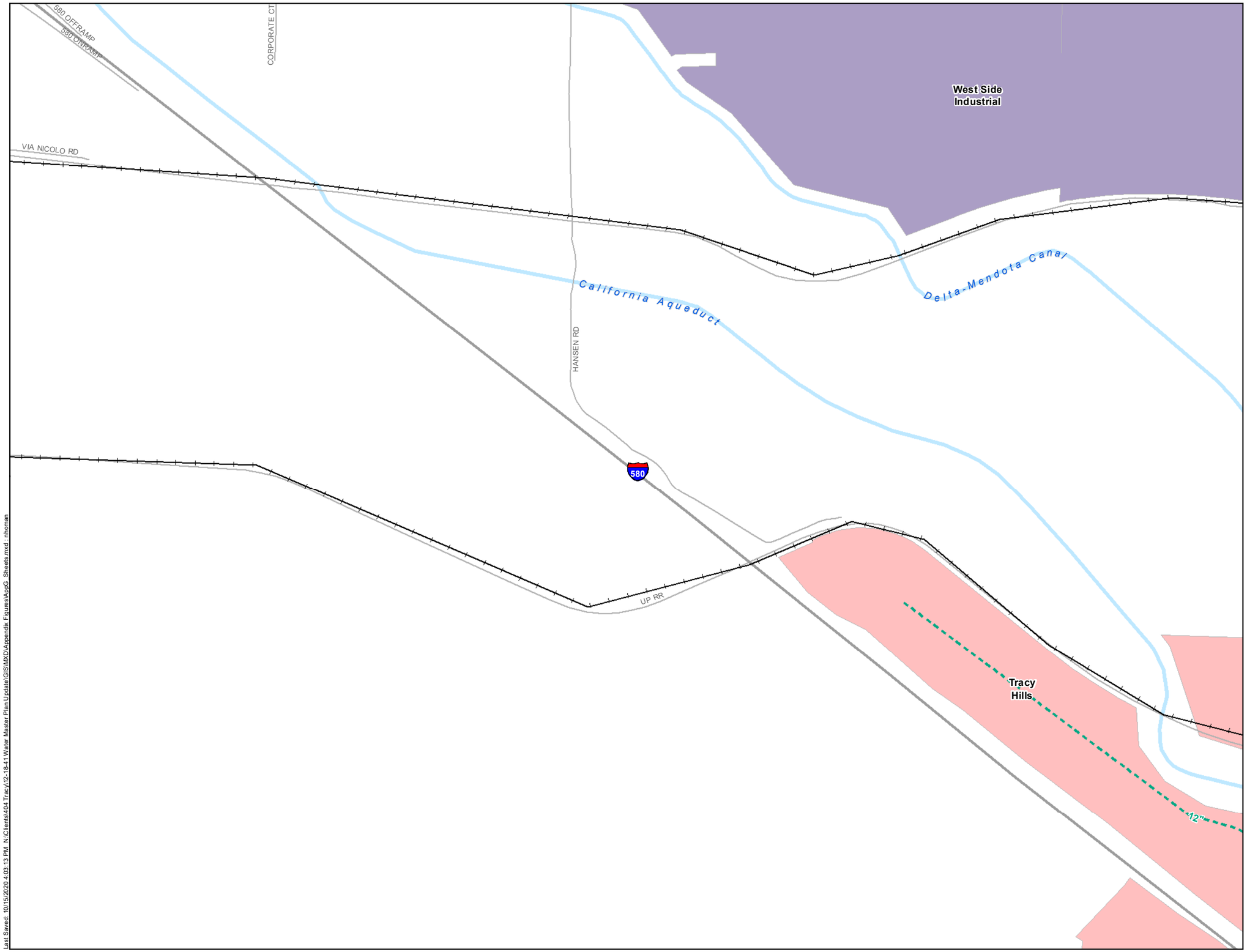
Figure G-B3

City of Tracy
Water System Master Plan Update



Symbology

Proposed Buildout Program Facilities

- Buildout Booster Pump Station
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Proposed Buildout Non-Program (NP) Facilities

- Buildout NP Booster Pump Station
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- Delta-Mendota Canal Discharge Point

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

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- WWTP Wastewater Treatment Plant
- Existing System Pipeline

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Figure G-C1

City of Tracy
Water System Master Plan Update

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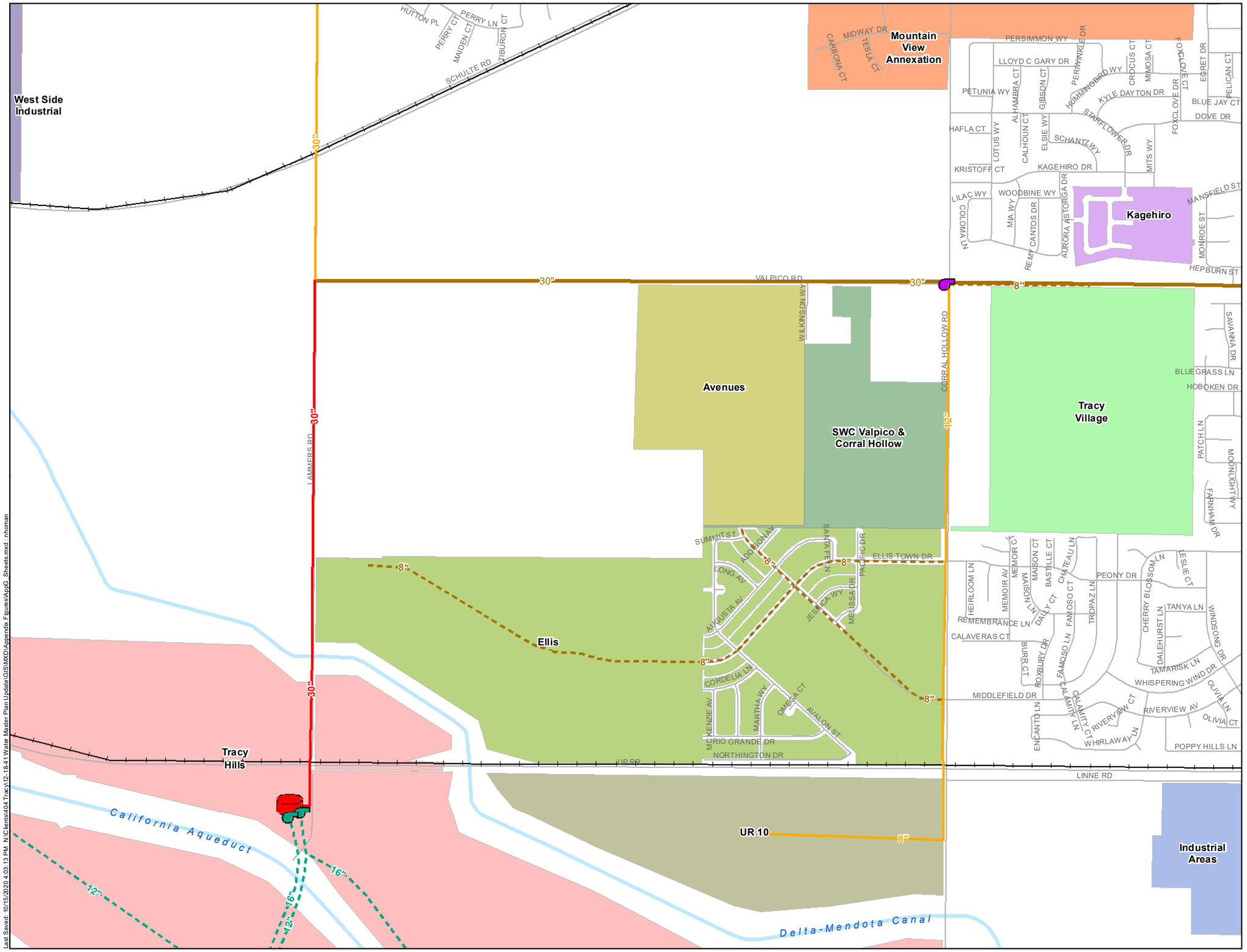

Symbology

Proposed Buildout Program Facilities

- Buildout Booster Pump Station
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Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

- Existing Booster Pump Station
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- Existing System Pipeline

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Figure G-C2

City of Tracy
Water System Master Plan Update

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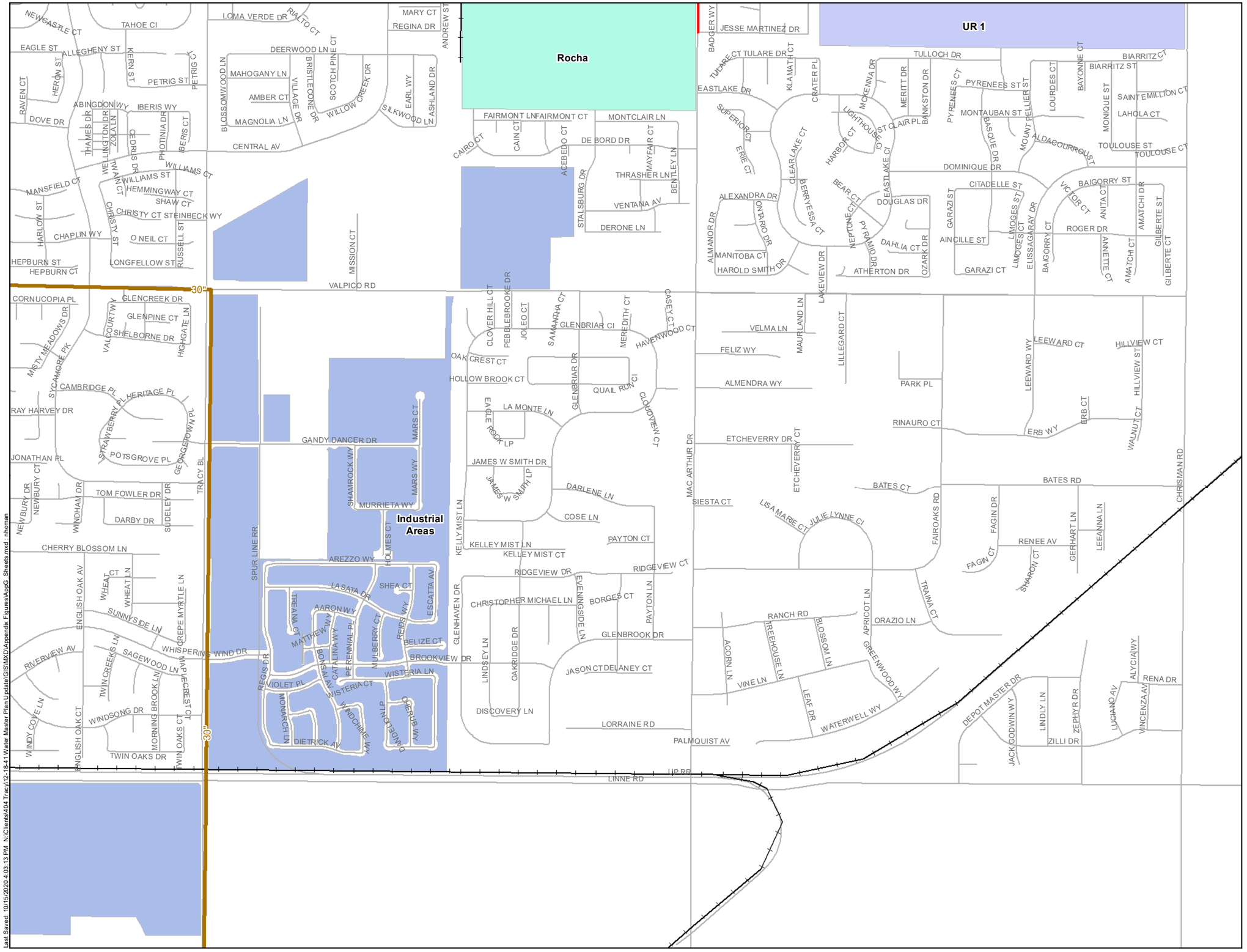

Symbology

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Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

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- WWTP Wastewater Treatment Plant
- Existing System Pipeline

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Figure G-C3

City of Tracy
Water System Master Plan Update

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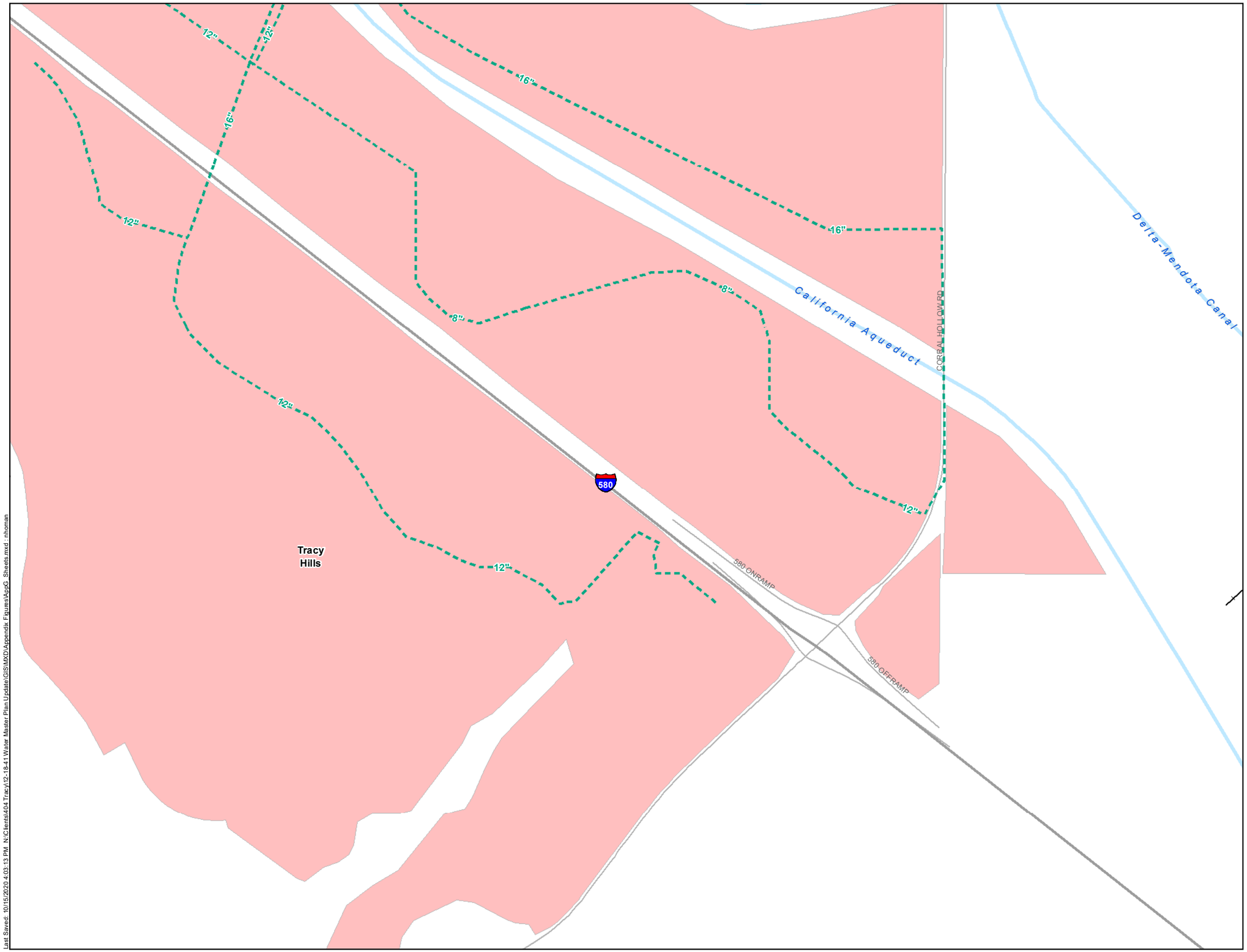

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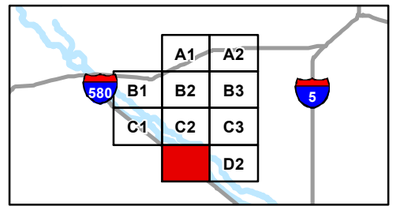

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Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

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TRACY

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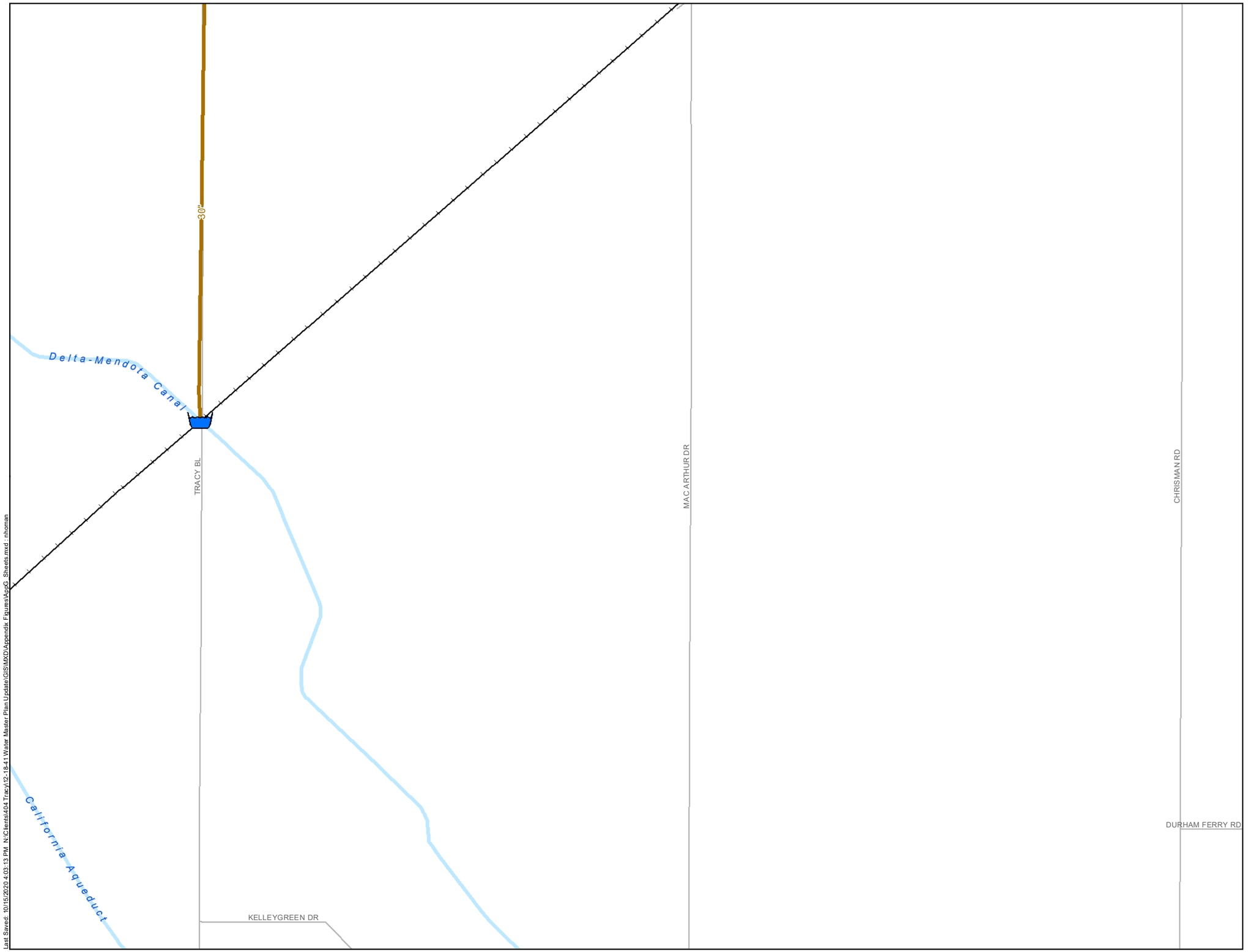
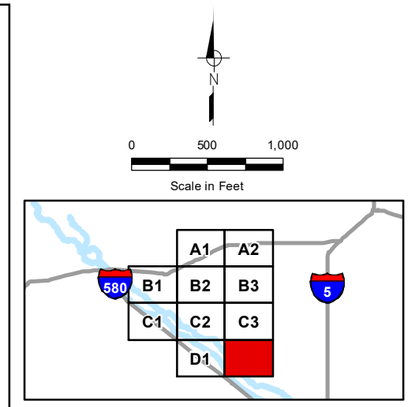
Figure G-D1

City of Tracy
Water System Master Plan Update





Symbology

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- Delta-Mendota Canal Discharge Point

Proposed 2025 Non-Program Facilities

- 2025 Non-Program Pipeline

Existing System Facilities

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- WWTP Wastewater Treatment Plant
- Existing System Pipeline

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Figure G-D2

City of Tracy
Water System Master Plan Update

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Attachment B

Citywide Public Safety Master Plan Update

City of Tracy, California

12/4/2023

Indigo | Hammond & Playle Architects, LLP
Bruce Playle, AIA Prescott Nichols, AIA

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ACKNOWLEDGEMENTS

The Citywide Public Safety Master Plan is a City of Tracy document. It has been prepared by INDIGO | Hammond & Playle Architects, LLP, in coordination with City leaders, staff and consultants listed here.

CITY COUNCIL

Nancy Young, Mayor

Eleassia Davis, Mayor Pro Tempore

Dan Arriola, Council Member

Matt Bedolla, Council Member

Dan Evans, Council Member

CITY STAFF

Sekou Millington, Chief of Police

Alex Neicu, Police Captain

Luis Mejia, Police Captain

Miguel Contreras, Police Lieutenant

Midori Lichtwardt, Interim City Manager

Koosun Kim, Assistant Director of Development Services/ City Engineer

Veronica Child, Management Analyst II – Development Services

Ilene Macintire, Senior Civil Engineer – Utilities Department

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SPECIAL THANKS

Alison Bouley, VP, Harris & Associates

Randall Bradley, Fire Chief, SSJCFA

David Bramell, Fire Chief, LMFD

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CONTENTS

EXECUTIVE SUMMARY 1
Citywide Public Safety Master Plan Update - Summary 2
South San Joaquin County Fire Authority 2
Tracy Operating Joint Powers Authority 2
Recommendations 2
Fire Facilities Citywide 2
Police Facilities Citywide 3
Public Safety Radio Communications Facilities 4
Cost Estimate Summary 5
Cost Attributions 5
Solar Nanogrid Cost Estimate Summary 5
METHODOLOGY 7
EVALUATION OF CURRENT CONDITIONS 9
Existing Staff Levels and Space Utilization 9
Evaluation of Existing Facilities 13
SPACE STANDARDS AND FUNCTIONAL FLOW 15
Recommendations for Operational Efficiency 15
Space & Facility Standards 17
STAFF AND SPACE NEED PROJECTIONS 19
Growth Factors & Staff Projection Table 19
Space Projection Tables 20
CITYWIDE PUBLIC SAFETY MASTER PLAN UPDATE 23
Fire Facilities Citywide 23
City Fire Administration Building 23
Tracy Rural Fire Protection District 24
2017 Standards of Cover Study 25
City Fire Station 97 25
Rural Fire District Station 94 26
South San Joaquin County Fire Authority 27
City Fire Station 91 27
Rural Fire District Station 93 28

City Fire Station 92 28
City Fire Station 96 29
Rural Fire District Station 95 29
City Fire Station 99 30
City Fire Training Facility 31
Police Facilities Citywide 33
1940 Police Building 33
1979 Police Building 33
1996 Police Building 34
1979 Police Building, cont. 35
City Animal Shelter 36
2013 Police Facilities Master Plan 37
2023 Police Facilities Master Plan Update 37
Civic Center Expansion of Police Building 38
Police Substation 39
North Annex Leased Building 42
Public Safety Radio Communications Facilities 43
COST 45
Estimate Summary 45
Public Safety Radio Communications Facilities 45
Facility Allocations 46
Land Acquistion Value 46
Site Development Cost 46
Building Construction Cost Inflation 46
FUNDING OPTIONS 47
Funding for Costs Attributable to Existing Development 47
Funding for Costs Attributable to New Development 49
DESIGN GUIDELINES 51
General Plan Land Use Guidelines 51
Civil Engineering and Construction Guidelines 51
Streetscape Design Guidelines 52
General Plan Community Character Urban Design Principles 52
Urban Design Guidelines 53

Architectural Design Guidelines 53
Sustainability Measures 54
Extended Survivability 55
Extended Survivability Defined 56
Benefits & Relation To Sustainability 57
Workplace Quality Improved 59
Energy-efficiency, LEED and Sustainability 59
Green House Gas Reduction 60
Net Zero-Energy Buildings (ZEB) Definition 60
Facility Design Recommendations 61
APPENDIX A – PUBLIC SAFETY STAFFING PROJECTIONS 65
Police Department Staffing Projections 65
Fire Department Staffing Projections 67
APPENDIX B – PUBLIC SAFETY SPACE PROJECTIONS 69
Police Department Space Projections 69
Fire Department Space Projections 77
APPENDIX C – PUBLIC SAFETY SPACE PROGRAM DISTRIBUTION TABLE 79
APPENDIX D – PUBLIC SAFETY FACILITY COST ESTIMATE 81
APPENDIX E – PUBLIC SAFETY SOLAR NANOGRID COST ESTIMATE 83
APPENDIX F – CIVIC CENTER PUBLIC SAFETY FACILITY SITE PLAN 85
APPENDIX G – POLICE SUBSTATION SITE PLAN 87
APPENDIX H – POLICE SUBSTATION CONCEPT FLOOR PLAN 89
APPENDIX J – GROWTH PROJECTION DATA 91

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TABLE OF FIGURES

Figure 1 – 2020 Zoning Map 1
Figure 2 – Civic Center Expansion of Police Headquarters 3
Figure 3 - Bird's Eye View of Proposed Public Safety Addition 3
Figure 4 - Proposed Police Substation 4
Figure 5 - Tracy with new 180-foot Transmitter Tower (Silke Communications) 4
Figure 6 - Public Safety Master Plan Cost Estimate Summary 5
Figure 7 - Estimated Solar Nanogrid Cost Summary 6
Figure 9 - City Organizational Chart 7
Figure 9 – 1995 Tracy Rural Fire Station 94, 16502 West Schulte Road (to be relocated) 9
Figure 10 – 1986 Tracy Fire Station 97, 595 West Central Ave (to be relocated) 9
Figure 11 - 1979 Tracy Police Building, 400 East 10th Street (to be demolished) 10
Figure 12 - Leased North Annex Space, 1325 North MacArthur Drive (to be let go) 10
Figure 13 - Summary of Existing Public Safety Staffing & Space 11
Figure 14 - Existing Public Safety Assessment 14
Figure 12 - Existing Police Department Site 14
Figure 16 – Existing Fire Dept Administration Site 14
Figure 17 – Police Department Relationship Diagram 16
Figure 18 - Public Safety Space Standards 17
Figure 19 - Population and Staffing 19
Figure 20 - Summary of Police Department Space Needs 20
Figure 21 - Summary Fire Department of Space Needs 21
Figure 22 – Existing Space Available and Space Need through Horizon 2040 and Buildout 21
Figure 23 – Map of Existing City Fire Facilities 23
Figure 24 – 1916 Tracy Fire Department Building, 835 Central Avenue (to be upgraded) 24
Figure 25 – Map of Existing Rural Fire District Stations 24
Figure 26 – 1986 Tracy Fire Station 97, 595 West Central Ave (to be relocated w/ expanded ladder truck bay) 25
Figure 27 – Map indicating locations of Proposed City Fire Facilities 26
Figure 28 - 2021 60.5-ft Ladder Truck requires Larger Facility 26
Figure 29 – 1995 Tracy Rural Fire Station 94, 16502 West Schulte Road (to be relocated) 26
Figure 30 – Map indicating approximate location of Relocated Station 94 27
Figure 31 – 2005 Tracy Fire Station 91, 1701 West 11th Street (to remain) 28
Figure 32 – 2006 Fire Station 93, 1400 W. Durham Ferry Road (to remain) 28
Figure 33 – 2014 Fire Station 92, 1035 East Grant Line Road (to remain) 29
Figure 34 – 2014 Tracy Fire Station 96, 1800 West Grant Line Road (to remain) 29
Figure 35 – 2021 Fire Station 95, 7151 Tracy Hills Drive 30
Figure 36 – 2022 Tracy Fire Training Apparatus at NEI Reservoir, 1399 S. Chrisman Rd (under construction) 31
Figure 37 – 1940 Tracy Hall of Justice (decommissioned) 33
Figure 38 - 1979 Tracy Police Building, 400 East 10th Street (to be demolished) 34
Figure 39 - 1996 Tracy Police Department, 1000 Civic Center Dr (to receive tenant improvement & addition) 34
Figure 40 – Map of Existing Police Facilities 35
Figure 41 – Back of 1979 Tracy Police Building, 400 East 10th Street (to be demolished) 35
Figure 42 – Map indication locations of Proposed Police Facilities 36
Figure 43 - 2015 Tracy Animal Shelter, 2375 Paradise Road (to receive addition) 36
Figure 44 - 2013 Civic Center Master Plan 37
Figure 45 - Bird's Eye View of Proposed Civic Center Expansion of Police Building and Site 38
Figure 46 – Civic Center Expansion of Police Building and Site (at Horizon Year 2040) 39
Figure 47 – Civic Center Expansion of Police Building and Site (at Horizon Year 2040) 40
Figure 48 – Conceptual Floor Plan Option 1 with typical Male & Female locker rooms. 41
Figure 49 – Conceptual Floor Plan Option 2 with an all-gender locker room. 41
Figure 50 - Leased North Annex Space, 1325 North MacArthur Drive (to be let go) 42
Figure 51 - Captain John J. Serpa Memorial Police Training Facility (to be upgraded and expanded) 42
Figure 52 – Tracy with new 180-foot Transmitter Tower (Silke Communications) 43
Figure 53 - Public Safety Master Plan Cost Estimate Summary 45

Figure 54 - Earthquake, Chile 55
Figure 55 – Viscous Damper Retrofit, Kent WA 56
Figure 56 – Code-Prescribed Earthquake-Resistance 56
Figure 57 – Steel Fuse Technology, Stanford & Northeastern Universities 56
Figure 58 – Replaceable steel fuses (in blue) contort to absorb seismic energy. 57
Figure 59 - Table of Extended Emergency Operations 57
Figure 60 – Emergency Generator with Shear Lugs Added to Seismic Skid Mount 58
Figure 61 - Earthquake Protected Police Building with Seismic Dampers & Daylighting, Vacaville, CA 58
Figure 62 - Green House Gas Mandate 59
Figure 63 - Net Zero-Energy Transportation Center, Vacaville, Ca. 61

EXECUTIVE SUMMARY

The City of Tracy initiated this Citywide Public Safety Master Plan (CPSMP) update to maintain a clear statement of community objectives for public safety, establish a vision of the future, and include strategies to achieve that vision. The CPSMP update promotes a future land use pattern that is consistent with the community's long-range goals.

The information and concepts presented in the CPSMP update are used to guide local decisions regarding public uses of land and the provision of public safety facilities and services. The Plan is long-range in its view and is intended to guide Police Department development in the City through Horizon Year 2040 and to guide Fire Department development through buildout of Tracy's sphere of influence.

This CPSMP update includes evaluation of current conditions; space standards and functional flow; staff and space need projections; alternative facility plans; and comparative cost estimations.

This CPSMP update is intended to be used as a guideline document for the identification of public safety facilities needed to serve future land development projects within the City's Sphere of Influence. This CPSMP update is also a guideline document for the identification of public safety upgrades needed to adapt existing spaces to new or expanded uses. Finally, this CPSMP update serves as a reference document for existing public safety facilities and their functional characteristics. Modifications and refinement to the public safety master plan represented herein may be considered by the City during the Specific Plan and development review process for new development. Any significant modifications to the elements of this CPSMP update should be approved by the City and will require that a formal "Supplement" be adopted by the City Council. The study area for this CPSMP update is the City's 42 square mile Sphere of Influence area (see Figure 1).

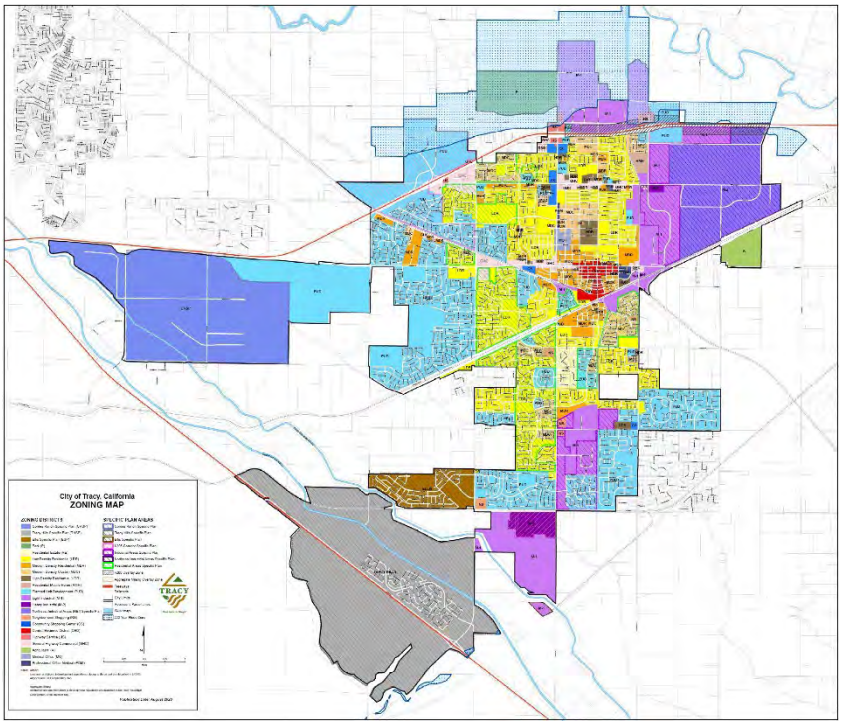

Figure 1 – 2020 Zoning Map

The combination of existing and proposed public safety facilities shall meet the needs to serve the City's Sphere of Influence area whether under Horizon Year 2040 land use conditions, in the case of the Police, or at buildout per the General Plan, in the case of the Fire Department. At Horizon Year 2040, Tracy will have approximately 141,000 residents. The growth assumptions in this Master Plan are based on data from September 2021, received from the City of Tracy. They don't include the growth assumed in the City of Tracy 6th cycle Housing Element.

Citywide Public Safety Master Plan Update - Summary

South San Joaquin County Fire Authority

In 1999, the City Fire Department and the Tracy Rural Fire District consolidated to form the South San Joaquin County Fire Authority (SSJCFA). The SSJCFA was created to provide fire protection services to the entire jurisdictional area of both the corporate City limits and surrounding rural community, including Banta, Lammersville, and Vernalis. Both Tracy Rural and the City of Tracy contract with the SSJCFA to receive fire protection services. The SSJCFA in turn contracts with the City of Tracy to provide employee and administrative services.

Tracy Operating Joint Powers Authority

In 2011, the Tracy Operating Joint Powers Authority (TOJPA) was formed to issue $13.7 million in public bonds. The bonds were issued to raise $770,000 to help finance the acquisition and construction of certain public capital improvements, which are intended to consist generally of police range facilities, a new fire station, an animal shelter, a Police CAD/RMS system, remodeling of the City's maintenance service yard including building renovation, way finding signage, park improvements and HVAC system upgrades. The TOJPA has already played a role in the construction of fire stations 92, 95, and 96 in addition to the animal shelter (phase 1), and ongoing training facility upgrades.

Recommendations

This public safety master plan continues to further the purpose of the TOJPA, by implementing the 2017 recommendations of the SSJCFA's Standards of Cover Study, proposing four new fire stations and the expansion of the Fire Training Facility. Further, by consensus of City leadership, this master plan proposes keeping the Police Department in the downtown civic center, adding a proposed substation to the southern service area of the City, and expanding the animal shelter. Lastly, this public safety master plan proposes implementation of the 2020 South San Joaquin County Fire Authority Radio System Overall Assessment's recommendations for short and long term upgrades.

Fire Facilities Citywide

Existing City Fire Department facilities to remain include the following:

- 1916 - 9,700 square foot Fire Administration building on a 0.6 acre site at 835 Central Avenue.
- 2005 - 7,400 square foot Fire Station 91 at 1701 West 11th Street.
- 2014 - 5,100 square foot Fire Station 92 1035 E. Grant Line Road.
- 2014 - 5,100 square foot Fire Station 96 1800 W. Grant Line Road.

New City Fire Department stations and facilities:

- Proposed relocated 7,750 square foot Fire Station 97 on a 2 acre site in the Valpico area. This Station includes an extra 700 square feet for an extended ladder truck bay.
- Proposed 9,900 square foot Fire Training Facility expansion on 5.13 acre site at 1399 S. Chrisman Rd.
- Proposed 7,070 square foot Fire Station 99 on a 0.9 acre site near Ellis.

Existing Rural Fire District Stations to remain include the following:

- 2006 - 6,200 square foot Fire Station 93 at 1400 W. Durham Ferry Road.
- 2021 - 7,100 square foot Fire Station 95 on 0.9 acre site at 7151 Tracy Hills Drive.

New Rural Fire District station:

- Proposed relocated 7,750 square foot Fire Station 94 on a 2 acre site in the Cordes Ranch area.

<u>Police Facilities Citywide</u>

Existing Police Department facilities, citywide, to remain include the following:

- 1996 - 27,600 square foot City of Tracy Police Facility on 2.7 acres at 1000 Civic Center Drive.
- 2015 - 9,700 square foot Animal Shelter on 2.2 acres at 2375 Paradise Road.
- 2,300 square foot Capt. John J. Serpa Memorial Training Facility on 2 acres at 6649 S. Tracy Blvd.

New City Police Department stations and facilities:

- Proposed 5,900 square foot Animal Shelter addition on City-owned land at 2375 Paradise Road.
- Proposed 19,800 square foot Public Safety Facility addition on 4.7 acres of City-owned Civic Center campus land at 1000 Civic Center Drive.
- Proposed 8,800 square foot South Tracy Substation on 2.2 acres to be purchased by City near Ellis, South Linne, and Tracy Hills developments.
- Proposed 12,900 expansion of Capt. John J. Serpa Memorial Training Facility on City-owned land at 6649 S. Tracy Blvd..

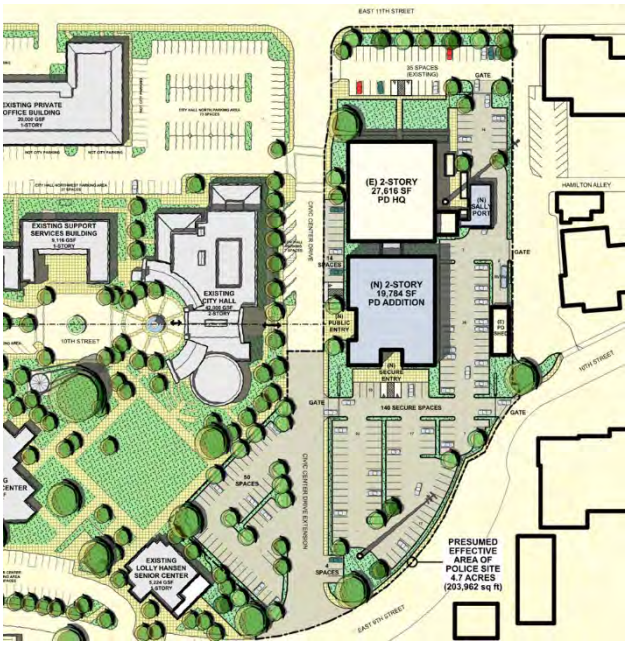

Figure 2 – Civic Center Expansion of Police Headquarters

The City's 2023 population is projected to exceed 100,000 people. The Police Department consists of 154 personnel, 99 of those sworn officers, for a ratio of 0.99 to this population.

The population of Tracy is expected to exceed 141,000 by Horizon Year 2040. The department will need to grow to 230 personnel to serve this population, with 152 of those sworn officers, for a ratio of 1.08.

Figure 3 - Bird's Eye View of Proposed Public Safety Addition

This 2023 Citywide Public Safety Master Plan Update supports the complete renovation of the 27,600 square foot Police Facility at 1000 Civic Center Drive; and, it further proposes to add on to this facility with a 2-acre expansion of the site and a 2-story addition of 19,784 square feet. The result: a new 47,400 square foot all-in-one Public Safety Center at City Hall on 4.7 acres.

This 2023 Citywide Public Safety Master Plan Update also supports the construction of a new 8,800 square foot Police Substation on 2.3 acres to be purchased by City near Ellis, South Linne, and Tracy Hills developments. This new site adds 94 parking spaces, with 74 of those inside a secure enclosure.

Figure 4 - Proposed Police Substation

This Substation along with the Public Safety Center renovation and addition will provide the Police Department with the building and site space it requires to serve the City through Horizon Year 2040.

For training facilities, this master plan supports the Police Department upgrading 900 square feet of the existing 2,300 square foot Capt. John J. Serpa Memorial Training Facility at 6649 S. Tracy Blvd and adding an additional 12,900 square feet of training facilities.

In addition to the above, small office space (approx. 323 SF) will be included for the Police at the proposed Multi-Gen Rec Center. See the concurrent Public Facilities Master Plan update for more information.

<u>Public Safety Radio Communications Facilities</u>

The City shall upgrade its communications infrastructure for P25 radio and microwave voter connectivity. All police and fire facilities to have SCD TAC 16 voted receivers, local radios, and microwave connections. The Police Department headquarters shall receive corresponding transmission upgrades.

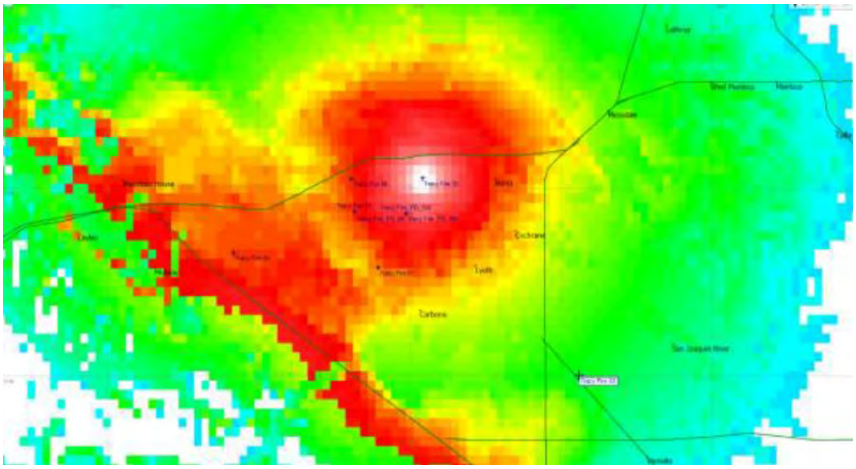

Figure 5 – Public Safety Radio Communications Systems Modeling

Cost Estimate Summary

The Public Safety Master Plan carries a total project development cost of approximately $130.8 million as shown below. Included are estimated 2023 direct construction bid day costs ($84.2 million), indirect and contingency costs ($29.5 million), vehicles and furnishings, fixtures, and equipment (FF&E, $13.9 million), and land acquisition ($3.7 million). See also Appendix D.

PLACE NAME	2023 Construction Bid Day Cost	35% Indirect & Contingency: 10% Design & Planning; 10% CM; 15% General Contingency	FF&E & Vehicles	Land Acquisition	2023 Total Project Cost
Fire Headquarters | Station "A"					
Fire Station 91					
Fire Station 92					
Fire Station 93					
~~Fire Station 94~~ (To Be Relocated. Property ownd by SCFA.)					
Fire Station 94 (Relocation - Cordes Ranch Area)	$6,942,300	$2,429,805	$2,600,000	$500,000	$12,472,000
Fire Station 95 (Tracy Hills Area)	$6,197,192	$2,169,017	$874,518	$192,837	$9,433,000
Fire Station 96					
~~Fire Station 97~~ (To Be Relocated. Sell property.)					*($451,350)*
Fire Station 97 (Relocation - Valpico) incl. Ladder Bay	$6,942,300	$2,429,805	$1,000,000	$500,000	$10,872,000
Fire Station 99 (Ellis Area)	$5,427,849	$1,899,747	$1,000,000	$233,012	$8,561,000
Fire Training Facility - Phases 2 & 3	$6,793,881	$2,377,858	$500,000	$0	$9,672,000
SUBTOTAL FIRE DEPARTMENT	**$32,303,500**	**$11,306,200**	**$5,974,500**	**$1,425,800**	**$50,558,700**
PD Remodel & Addition on Expanded Civic Center Site	$31,599,384	$11,059,784	$2,160,114	$0	$44,819,000
~~PD Annex~~ (1979 Police Station to be Demolished)					
~~PD North Annex~~ (Leased - to be let go)					
South Tracy Police Substation	$9,479,695	$3,317,893	$648,049	$1,760,000	$15,206,000
Police Department Training Facility	$4,887,202	$1,710,521	$36,098	$402,925	$7,037,000
Police Department Animal Shelter - Phase 2	$5,044,104	$1,765,436	$1,000,000	$0	$7,810,000
SUBTOTAL POLICE DEPARTMENT	**$51,010,400**	**$17,853,600**	**$3,844,300**	**$2,162,900**	**$74,872,000**
Public Safety Radio Communications Facilities	$862,240	$301,784	$4,067,185	$125,000	$5,356,000
SUBTOTAL COMMUNICATIONS FACILITIES	**$862,200**	**$301,784**	**$4,067,185**	**$125,000**	**$5,356,000**
TOTAL PUBLIC SAFETY FACILITIES (rounded)	**$84,177,000**	**$29,462,000**	**$13,886,000**	**$3,714,000**	**$130,790,000**

Figure 6 - Public Safety Master Plan Cost Estimate Summary

Cost Attributions

This study identifies and projects public safety facility needs for the City of Tracy and it estimates the total project costs for these facilities in current dollars. The City is providing a separate study to document the required nexus findings to implement a fee program. This study will establish a nexus between future development in Tracy, the public facilities that will serve those projects, and the impact fees that will fund those facilities. The purpose of this separate, concurrent study is to ensure that a rational nexus exists between future development in the area and the use and need of the proposed infrastructure.

Solar Nanogrid Cost Estimate Summary

Effective January 1, 2023, the 2022 California Energy Code has been mandated by the California Building Standards Commission for all California jurisdictions (including the City of Tracy) to begin enforcement thereof. This forthcoming edition of the energy code requires electrical solar systems on all new City office buildings, including, by and large, the proposed public safety facilities envisioned in this report.

Also, effective January 1, 2023, the 2022 California Energy Code will require battery storage systems for these building types. The storage of electrical energy allows for the use of electricity from the battery during high peak period demands for electricity, the time when such delivered energy is the most expensive. This, of course, will reduce the cost of energy consumption even further.

This combination of solar and battery storage scaled to individual buildings is referred to as a "Solar Nanogrid." Providing Solar Nanogrids for all proposed new public safety facilities and additions will cost an estimated $6.8 million per Figure 8 (below). The attributable costs, if this CEC measure is adopted, will be incorporated into the City's concurrent nexus study fee structure in addition to the Public Safety Master costs shown in Figure 6 (previous page). See Appendix E for full details.

KEY	PLACE NAME	Program Area	Loads		Rooftop Solar			Solar Carport (e)			
		New	Predicted (N) Facility Load	Predicted Maximum Battery Load	Rooftop Solar Maximum Capacity	Rooftop Solar Maximum Size	Estimated Rooftop Solar Cost @ $3K/kW	Needed Solar Carport Capacity	Needed Solar Carport Size	Needed Solar Carport System Size	Estimated Solar Carport Cost @ $3.4K/kW
94	Fire Station 94 (Reloc. Cordes Ranch Area) incl. Ladder Bay	7,750 sf	104 MWh/Yr	99 kW	70 MWh/Yr	74 kW	$222,000	34 MWh/Yr	3,800 sf	36 kW	$122,400
97	Fire Station 97 (Relocation - Valpico) incl. Ladder Bay	7,750 sf	104 MWh/Yr	99 kW	70 MWh/Yr	74 kW	$222,000	34 MWh/Yr	3,800 sf	36 kW	$122,400
99	Fire Station 99 (Ellis Area)	7,070 sf	95 MWh/Yr	90 kW	64 MWh/Yr	67 kW	$201,000	31 MWh/Yr	3,500 sf	33 kW	$112,200
T	Fire Training Facility - Phases 2 & 3	9,868 sf	132 MWh/Yr	126 kW	89 MWh/Yr	94 kW	$282,000	43 MWh/Yr	4,800 sf	46 kW	$156,400
	SUBTOTAL FIRE DEPARTMENT	**39,500 sf**	**435 MWh/Yr**	**414 kW**	**293 MWh/Yr**	**309 kW**	**$927,000**	**142 MWh/Yr**	**15,900 sf**	**151 kW**	**$513,400**
P	PD Remodel & Addition on Expanded Civic Center Site	19,809 sf	265 MWh/Yr	253 kW	89 MWh/Yr	94 kW	$282,000	176 MWh/Yr	19,600 sf	186 kW	$632,400
S	South Tracy Police Substation	8,794 sf	118 MWh/Yr	113 kW	79 MWh/Yr	84 kW	$252,000	39 MWh/Yr	4,300 sf	41 kW	$139,400
T	Police Department Training Facility	12,866 sf	173 MWh/Yr	165 kW	116 MWh/Yr	123 kW	$369,000	57 MWh/Yr	6,300 sf	60 kW	$204,000
D	Police Department Animal Shelter - Phase 2	5,900 sf	79 MWh/Yr	76 kW	53 MWh/Yr	56 kW	$168,000	26 MWh/Yr	2,900 sf	27 kW	$91,800
	SUBTOTAL POLICE DEPARTMENT	**47,400 sf**	**635 MWh/Yr**	**607 kW**	**337 MWh/Yr**	**357 kW**	**$1,071,000**	**298 MWh/Yr**	**33,100 sf**	**314 kW**	**$1,067,600**
	SUBTOTAL PUBLIC SAFETY FACILITIES	**87,300 sf**	**1,070 MWh/Yr**	**1,021 kW**	**630 MWh/Yr**	**666 kW**	**$1,998,000**	**440 MWh/Yr**	**49,000 sf**	**465 kW**	**$1,581,000**

(continued)

KEY	PLACE NAME	2020 Subtotal Solar Carport Cost	Annual Construction Input Inflation 2021 & 2022	2023 Subtotal Solar Carport Bid Day Cost	Battery		Annual Construction Input Inflation 2021 & 2022	2023 Subtotal Battery System Bid Day Cost	2023 Total Project Bid Day Cost for Solar and Battery Installation	35% Indirect & Contingency: 10% Design & Planning; 10% CM; 15% General Contingency	2023 Total Project Cost for Solar and Battery Installation
					Needed Code-Required 6-Hour Battery	Estimated Battery System Cost					
94	Fire Station 94 (Reloc. Cordes Ranch Area) incl. Ladder Bay	$122,400	26.8%	$155,203	0.30 MWh	$240,000	26.8%	$304,320	$459,523	$160,833	$620,356
97	Fire Station 97 (Relocation - Valpico) incl. Ladder Bay	$122,400	26.8%	$155,203	0.30 MWh	$240,000	26.8%	$304,320	$459,523	$160,833	$620,356
99	Fire Station 99 (Ellis Area)	$112,200	26.8%	$142,270	0.27 MWh	$216,000	26.8%	$273,888	$416,158	$145,655	$561,813
T	Fire Training Facility - Phases 2 & 3	$156,400	26.8%	$198,315	0.31 MWh	$248,000	26.8%	$314,464	$512,779	$179,473	$692,252
	SUBTOTAL FIRE DEPARTMENT	**$513,400**		**$651,000**	**1.18 MWh**	**$944,000**		**$1,197,000**	**$1,848,000**	**$646,800**	**$2,494,800**
P	PD Remodel & Addition on Expanded Civic Center Site	$632,400	26.8%	$801,883	0.76 MWh	$608,000	26.8%	$770,944	$1,572,827	$550,490	$2,123,317
S	South Tracy Police Substation	$139,400	26.8%	$176,759	0.34 MWh	$272,000	26.8%	$344,896	$521,655	$182,579	$704,235
T	Police Department Training Facility	$204,000	26.8%	$258,672	0.50 MWh	$400,000	26.8%	$507,200	$765,872	$268,055	$1,033,927
D	Police Department Animal Shelter - Phase 2	$91,800	26.8%	$116,402	0.23 MWh	$184,000	26.8%	$233,312	$349,714	$122,400	$472,114
	SUBTOTAL POLICE DEPARTMENT	**$1,067,600**		**$1,353,700**	**1.83 MWh**	**$1,464,000**		**$1,856,400**	**$3,210,100**	**$1,123,500**	**$4,333,600**
	TOTAL PUBLIC SAFETY FACILITIES (rounded)	**$1,581,000**	26.8%	**$2,005,000**	**3.01 MWh**	**$2,408,000**	26.8%	**$3,054,000**	**$5,059,000**	**$1,771,000**	**$6,829,000**

Figure 7 - Estimated Solar Nanogrid Cost Summary

METHODOLOGY

Beginning 2021, the master plan team led by INDIGO coordinated with City of Tracy personnel and its separate consultants to prepare an interim and now DRAFT REPORT for a Citywide Public Safety Master Plan (CPSMP update) which assesses current and future public safety building needs. Included in the CPSMP update are Police Department and Fire Department facilities. Problems, opportunities, and community assets were identified.

The consultant worked with a Facilities Committee formed by the City composed of leadership from the Fire Department, the Police Department, the City Engineer, and other City staff. Periodic meetings with this committee have been attended by this consultant.

The CPSMP update establishes division-by-division programmatic needs, basing projections on standards of service and the staffing of other cities that are geographically and demographically similar to the community at Horizon Year 2040. This comparison approach substantiates the space required for City operations by making adjustments on the basis of statistical procedures to enhance predictive accuracy. The CPSMP update is based on projections in the City's General Plan and detail in the Sphere of Influence as provided by the City. The CPSMP update takes full advantage of several pre-existing studies and development land use types which have been provided by the City. See Figure 9 for current City organization.

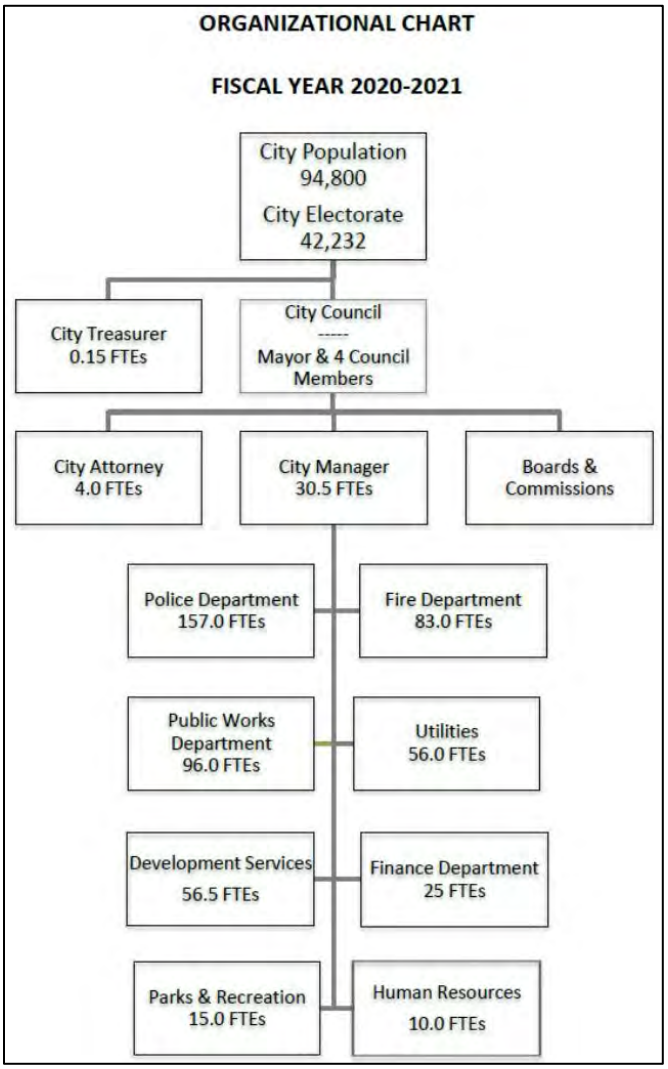

Figure 8 - City Organizational Chart

The scope of this report is subdivided into the following sections:

- EVALUATION OF CURRENT CONDITIONS
- SPACE STANDARDS AND FUNCTIONAL FLOW
- STAFF AND SPACE NEED PROJECTIONS
- MASTER PLAN
- COST
- FUNDING OPTIONS
- DESIGN GUIDELINES

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EVALUATION OF CURRENT CONDITIONS

Existing Staff Levels and Space Utilization

Generally, the City of Tracy's 240 FTE of public safety staff – out of 533 FTE total City staff - are located in public safety facilities adding up to 108,000 square feet in area. These facilities are organized in as efficient manner as possible, given significant space separation issues and building deficiencies confronting both Police and Fire. Of the 108,000 square feet, the following 35,200 square feet of existing facilities require replacement:

- In 1995, Station 94 was relocated to a 5,600 square foot facility at 16502 W. Schulte Road. The condition of this 26-year-old facility is poor. The station houses a 2003 Pierce/Saber type 1 pumper ALS unit staffed with three personnel and a 2016 HME type 3 engine. The station is located on a site adjacent to CAL FIRE Santa Clara Unit, Station 26.

Figure 9 – 1995 Tracy Rural Fire Station 94, 16502 West Schulte Road (to be relocated)

- In 1986, the City built the 3,000 square foot Fire Station 97 at 595 West Central Ave. The condition of this 35-year-old facility is fair, and more significantly it is 40% of the size the South San Joaquin County Fire Authority (SSJCFA) now needs. Station 97 currently houses a 2015 Spartan Hi-Tech, type 1 pumper and is also staffed with three personnel trained to the Advanced Life Support (ALS) level.

Figure 10 – 1986 Tracy Fire Station 97, 595 West Central Ave (to be relocated)

- In 1979, the Police Department moved into the newly built 9,800 square foot Tracy Public Safety Facility Building at 400 East 10th Street as part of the new Civic Center complex. This 1-story building

included cast-in-place concrete partition walls for the 2,400 square foot jail. The department at this time consisted of less than 30 personnel.

- The condition of this 44-year-old building is poor;
- The facility requires demolition due to lack of accessibility, lack of essential service compliance, and unsuitability for renovation due to concrete jail infrastructure;
- Demolition also facilitates Civic Center expansion in place of existing Police Department.

Figure 11 - 1979 Tracy Police Building, 400 East 10th Street (to be demolished)

- In 2019, the department leased a 16,800 square foot "North Annex" industrial space at 1325 N MacArthur Drive to serve as an offsite evidence facility. The facility is outfitted with evidence lockers, 3 large evidence vaults, a drying room, a property release room, space for evidence vehicles, and a car lift. The condition of this leased facility is excellent. However, any time evidence is separated from the main police building, including its sallyport and holding facilities, it creates a more challenging chain-of-custody environment for the department and separates the Evidence Technician from Records and Patrol personnel, potentially weakening esprit de corps. The existing 1,000 square foot Evidence space in the 1996 building is now potentially made redundant, but it is not easily adapted to other uses. Because this is a leased space, this master plan does not count the department's space use at 1325 N MacArthur Drive as "Existing Space" in its summary of attributable space.

Figure 12 - Leased North Annex Space, 1325 North MacArthur Drive (to be let go)

The end result of these needed adjustments to existing area is that 240 FTE of public safety staff are located in 73,100 square feet of existing space anticipated to remain in operation through Horizon Year 2040 and buildout. Figure 13 shows current staffing and space allocations organized by City departments and Figure 9 shows current City Organizational Chart.

Departments	Budget-listed Staff (FTE)	Existing Space to Remain (SF)
Police		39,600
Sworn	99	
Civilian	58	
Police Subtotal	157	39,600
Fire		
Certified Firefighters/ Fire Stations/ Training	77	9,700
Civilian/ Administration	6	23,800
Fire Subtotal	83	33,500
Public Safety Total	**240**	**73,100**

Figure 13 - Summary of Existing Public Safety Staffing & Space

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Evaluation of Existing Facilities

A very general assessment of existing facilities conditions was conducted, based on prior tours of the facilities, approximate age of the facilities, and review of photos. Detailed assessments of existing conditions, including roofing conditions, mechanical and electrical systems conditions, hazardous materials present, complete accessibility code compliance, etc., was not included in the scope of this study.

The three condition types identified are “good,” “fair,” and “poor,” as described below. These assessments indicate the physical condition of the facilities and are not intended to rate programmatic functionality of the uses within. See Figure 14 for a tabular list of all public safety within the scope of this study and an assessment of their condition.

Good Condition:

- The facility is in good or excellent condition;
- The facility has benefitted from ongoing maintenance;
- The facility’s key systems may be worn but utility is not impaired;
- Key building systems, such as roof, windows, mechanical, electrical, etc., are estimated to have an average minimum of 10-20 years of life remaining;
- Relatively few accessibility compliance issues are present.

Fair Condition:

- The facility is in fair condition;
- The facility has received intermittent maintenance;
- The facility’s key systems may be soiled or shopworn, rusted, deteriorated or damaged, with utility slightly impaired;
- Renovation or repair is expected in the near future;
- Key building systems, such as roof, windows, mechanical, electrical, etc., are estimated to have an average minimum of 5-15 years of life remaining;
- Accessibility compliance issues are present.

Poor Condition:

- The facility is in poor condition;
- The facility has received little or no maintenance;
- The facility’s key systems may be badly broken, soiled, mildewed, deteriorated or damaged with utility seriously impaired;
- Prompt renovation or repair is needed;
- Serious accessibility compliance issues may be present.

EXISTING PUBLIC SAFETY FACILITIES						
KEY	PLACE NAME	YEAR	CONDITION	ADDRESS	(E)	(E) to Remain
A	Fire Headquarters | Station "A"	1916	Good	835 Central Avenue	9,646 sf	9,646 sf
91	Fire Station 91	2005	Good	1701 West 11th Street	7,401 sf	7,401 sf
92	Fire Station 92	2014	Good	1035 E. Grant Line Road	5,136 sf	5,136 sf
93	Fire Station 93	2006	Good	1400 W. Durham Ferry Rd	6,147 sf	6,147 sf
~~94~~	~~*Fire Station 94 (To Be Relocated)*~~	*1995*	*Poor*	*16502 West Schulte Rd*	~~*5,552* sf~~	*0 sf*
96	Fire Station 96	2014	Good	1800 W. Grant Line Road	5,136 sf	5,136 sf
~~97~~	~~*Fire Station 97 (To Be Relocated)*~~	*1986*	*Fair*	*595 West Central Av.*	~~*3,009* sf~~	*0 sf*
					42,027 sf	33,466 sf
P	Police Department HQ	1996	Good	1000 Civic Center Dr.	27,616 sf	27,616 sf
I	~~*Police Department Annex - Investigations*~~	*1979*	*Poor*	*400 E. Tenth Street*	~~*9,800* sf~~	*0 sf*
A	~~*Police Department N. Annex - Leased Bldg*~~	*N/A*	*Excellent*	*1325 N. MacArthur Dr.*	~~*16,759* sf~~	*0 sf*
T	Police Department Training Facility	Varies	Fair	6649 S. Tracy Blvd.	2,296 sf	2,296 sf
D	Police Department Animal Shelter	2015	Excellent	2375 Paradise Rd.	9,692 sf	9,692 sf
					66,163 sf	39,604 sf
				TOTAL EXISTING PUBLIC SAFETY FACILITY SPACE	108,190 sf	**73,070** sf

Figure 14 - Existing Public Safety Assessment

Figure 16 – Existing Fire Dept Administration Site

Figure 15 - Existing Police Department Site

SPACE STANDARDS AND FUNCTIONAL FLOW

Recommendations for Operational Efficiency

As described above, the City of Tracy's 240 FTE of public safety staff are located in 73,100 square feet of existing space anticipated to remain in operation, along with all proposed modifications and additions, through Horizon Year 2040 and buildout. The current space needed for efficient operations shall be estimated and weighed against future needs in the City's concurrent nexus study. Meanwhile, this study recommends the following:

- Retain existing 16,800 square foot leased North Annex, housing Evidence, until permanent replacement co-located with Police Department for improved chain-of-custody and esprit de corps can be built.
- Begin 12,904 square foot expansion of Police Training Facility as soon as possible.
- Begin 9,900 square foot expansion of Fire Training Facility as soon as possible.

The end result of these needed adjustments to existing area is that 240 FTE of public safety staff will be located in 92,100 square feet of space.

The Figure 17 (below) shows the ideal relationships between departments within the Police Department.

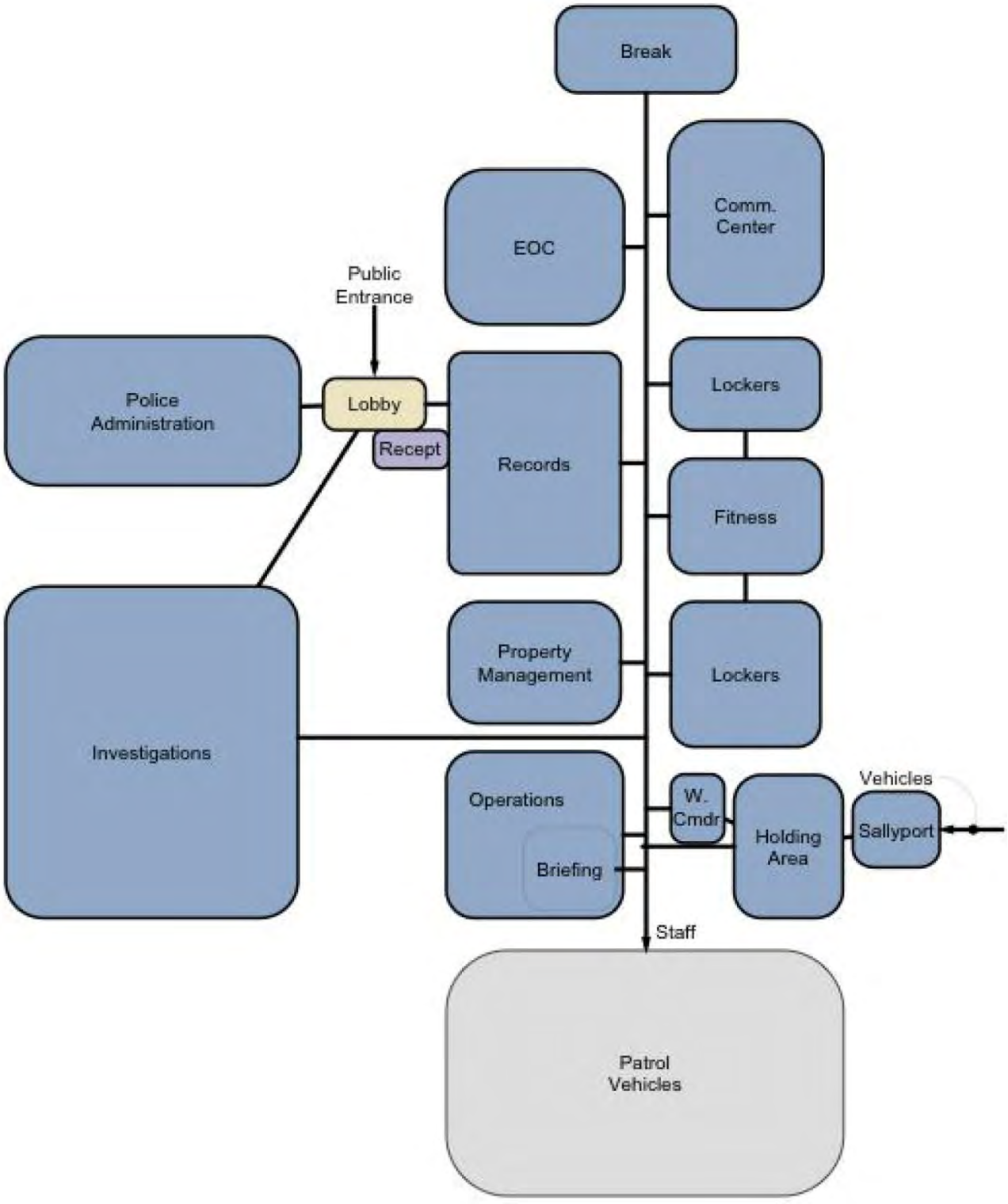

Figure 17 – Police Department Relationship Diagram

Space & Facility Standards

Space standards were informed by a combination of existing space and normal and customary space for similar functions in other jurisdictions. The 25-year-old Police Department building is a "relatively new" facility. While it has a number of deficiencies, the basic quality and space allocation of the facility as built is a good indicator of the size and quality of spaces the city intended for the employees of the Police Department. Most of the Police Department's space deficiencies relate to increased demand since completion of the building, so space standards are based on the original intent where it is clear from the original drawings. The space projections described in a section below provide adjustments for functions that expanded, displacing other functions.

Similarly, the relatively recent renovation of the Fire Administration Building provides a good indication of the intended provision for the administrative and office functions. The real growth issue for the Fire Department is the placement of new stations to cover growth areas of the city. Fire Station 95, under construction, will become the department's newest facility, representing the operational characteristics it wants for future stations. It is unnecessary to provide a line item breakdown of spaces for the purposes of this master plan, so the gross building area of Fire Station 95 is used as the model for each needed fire station. Figure 18 shows space standards for the CPSMP update.

Position	Net Sq. Ft.	Comment
Police Department		
Chief of Police	300	Existing
Captain	190	Existing
Lieutenant	190	Existing
Executive Assistant	160	Existing
Sergeant	105	Existing
Typical Enclosed Office	100	Existing
Typical Open Workstation	64	
Detective	24	
Copy/Supply Enclosed	100	
Copy/Supply Open Office	64	
Coffee Counter	20	
Fire Department		
Fire Chief	320	Existing
Division Chief	220	Existing
Fire Captain	120	
Typical Open Workstation	64	
Fire Station	7,100	Gross SF

Figure 18 - Public Safety Space Standards

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STAFF AND SPACE NEED PROJECTIONS

Staff projections provide an intermediate step in the development of an organization's space needs. There are a number of methods for projecting staffing at Horizon Year 2040 and buildout. The method used here is to project staffing based on the staffing of six other cities that are geographically and demographically similar to the City of Tracy's projected population for Horizon Year 2040, in the case of the Police Department, and buildout, in the case of the Fire Department. The growth assumptions in this Master Plan are based on data from September 2021, received from the City of Tracy. They don't include the growth assumed in the City of Tracy 6th cycle Housing Element.

Growth Factors & Staff Projection Table

The staff levels of the six cities, and current and required staff at Horizon Year 2040 and buildout for the City of Tracy are shown in Figure 19. These closely matched cities have a range of 92,000 to 160,000 residents. As would be expected, increases in city staff generally correspond to increases in population, ranging from a low of 1.02 sworn officers per 1,000 population in Vallejo and a low of 0.53 certified firefighters in Fairfield to a high of 1.18 sworn in Hayward and 0.89 certified in Vacaville.

		Police				Fire			
City	General Pop.	Sworn Officers	Sworn/ 1,000 Pop.	Civilian	Civilian / 1,000 Pop.	Cert. Fire-fighters	Cert./ 1,000 Pop.	Civilian	Civilian / 1,000 Pop.
Tracy 2023	**100,000**	**99.0**	**0.99**	**58.0**	**0.57**	**77**	**0.77**	**6**	**0.06**
Horizon Year 2040 / Buildout	**141,000 / General Plan**	**152.2**	**1.08**	**77.9**	**0.55**	**97.5**	**0.69**	**12**	**0.08**
Concord	129,300	154.0	1.19	57.0	0.44				
Fairfield	117,000	125.0	1.07	73.1	0.62	62	0.53	7	0.06
Hayward	160,300	189.0	1.18	119.5	0.75	130	0.81	24.4	0.15
Livermore	91,900	95.0	1.03	50.5	0.55	55.5	0.60	7	0.08
Vacaville	98,900	113.0	1.14	59.0	0.60	88	0.89	12	0.12
Vallejo	119,100	122.0	1.02	53.0	0.45	81	0.68	6	0.05

Figure 19 - Population and Staffing

On the Police side of the matched cities, the average ratio of staff per 1,000 population in each category comes to 1.11 sworn officers and 0.57 civilian employees. Tracy's current ratios are 0.99 sworn (89% of the average) and 0.57 civilian (100% average). Tracy's projected 2040 ratios are 1.08 sworn and 0.55 civilian (both 97% of the average).

On the Fire side of the matched cities, the average ratio of staff per 1,000 population in each category comes to 0.70 certified firefighters and 0.09 civilian employees. Tracy's current ratios are 0.77 certified (110% of the average) and 0.06 civilian (67% of the average). Tracy's projected buildout ratios are 0.69 sworn (99% of the average) and 0.08 civilian (both 89% of the average).

Staffing for firefighters was based on current staffing plus those needed for the additional fire stations needed to serve the community at buildout. The South San Joaquin County Fire Authority Standards of Cover study by Citygate Associates dated May, 2017 clearly considered all of the city's proposed expansion areas with an efficient distribution of stations, so assumptions regarding fire stations for the Public Safety Master Plan Update are consistent with those recommendations.

The Citygate study recommends four new fire stations for the entire fire authority. The average staffing of each existing station (not including the ladder company at Fire Station #91) is 3 fire captains, 3 fire engineers, 3 firefighters, and 0.3 fire reserves. This results in a small drop in the ratio of certified firefighters from 0.77 to 0.69 per 1,000 population. Inspection of the Citygate study and staffing patterns consistent with that seem to validate that the same level of service is provided at buildout as currently exists.

A table with current and Horizon Year 2040 and buildout staffing for public safety agencies is provided in Appendix A.

Space Projection Tables

Space projections were developed on a line item basis using the staffing projections, reviews of existing space and plans, and spaces that are normal and customary for public safety. Appendix B provides the spaces needed under the current budget and at Horizon Year 2040 and buildout. Subtotals of net space are provided for each department with estimates of "departmental" space, effectively equivalent to lease space in a commercial building with allowances for internal circulation, columns, etc. Gross building area is provided by use of an efficiency factor that provides allowances for exterior building walls, vertical circulation elements, primary circulation, public toilets, and mechanical rooms. The efficiency factor varies from 75% to 90% depending on type of facility.

	Building	Police															Subtotal w/ 33% Gross Circulation
		Admin	Field Operations	Community Services	Traffic	Code Enforcement	Support Services	Animal Services	Records	Dispatch	Shared Support	Investigations	Crime Scene	Holding	Ancillary Areas	Training	
P	PD Remodel & Addition	1,890 sf	1,331 sf	1,630 sf	764 sf	1,170 sf	410 sf		1,737 sf	1,220 sf	510 sf	3,770 sf	9,261 sf	1,890 sf	7,855 sf		47,425 sf
S	South Tracy Police Substation		1,839 sf		236 sf				463 sf				309 sf		3,765 sf		8,794 sf
T	PD Training Facility															11,400 sf	15,162 sf
D	PD Animal Shelter - Phase 2							15,592 sf									15,592 sf
	SUBTOTAL POLICE DEPARTMENT	**1,900 sf**	**3,200 sf**	**1,600 sf**	**1,000 sf**	**1,200 sf**	**400 sf**	**15,600 sf**	**2,200 sf**	**1,200 sf**	**500 sf**	**3,800 sf**	**9,600 sf**	**1,900 sf**	**11,600 sf**	**11,400 sf**	**87,000 sf**

Figure 20 - Summary of Police Department Space Needs

Building		Fire			Subtotal
		Admin	Training	Stations	
A	Fire Headquarters | Station "A"	9,646 sf			**9,646 sf**
91	Fire Station 91			7,401 sf	**7,401 sf**
92	Fire Station 92			5,136 sf	**5,136 sf**
93	Fire Station 93			6,147 sf	**6,147 sf**
94	Fire Station 94 (Reloc. Cordes Ranch Area) incl. Ladder Bay			7,750 sf	**7,750 sf**
95	Fire Station 95 (Tracy Hills Area)			7,070 sf	**7,070 sf**
96	Fire Station 96			5,136 sf	**5,136 sf**
97	Fire Station 97 (Relocation - Valpico) incl. Ladder Bay			7,750 sf	**7,750 sf**
99	Fire Station 99 (Ellis Area)			7,070 sf	**7,070 sf**
T	Fire Training Facility - Phases 2 & 3		9,868 sf		**9,868 sf**
	SUBTOTAL FIRE DEPARTMENT	**9,600 sf**	**9,900 sf**	**53,500 sf**	**73,000 sf**

Figure 21 - Summary Fire Department of Space Needs

KEY	PLACE NAME	Program Area			
		Existing	*Remodel*	New	2040/ Buildout
A	Fire Headquarters | Station "A"	9,646 sf			9,646 sf
91	Fire Station 91	7,401 sf			7,401 sf
92	Fire Station 92	5,136 sf			5,136 sf
93	Fire Station 93	6,147 sf			6,147 sf
~~94~~	~~Fire Station 94~~ (To Be Relocated. Land owned by SCFA.)	*5,552 sf*			
94	Fire Station 94 (Reloc. Cordes Ranch Area) incl. Ladder Bay			7,750 sf	7,750 sf
95	Fire Station 95 (Tracy Hills Area)			7,070 sf	7,070 sf
96	Fire Station 96	5,136 sf			5,136 sf
~~97~~	~~Fire Station 97~~ (To Be Relocated. Sell property.)	*3,009 sf*			
97	Fire Station 97 (Relocation - Valpico) incl. Ladder Bay			7,750 sf	7,750 sf
99	Fire Station 99 (Ellis Area)			7,070 sf	7,070 sf
T	Fire Training Facility - Phases 2 & 3			9,868 sf	9,868 sf
	SUBTOTAL FIRE DEPARTMENT	**33,500 sf**	***0 sf***	**39,500 sf**	**73,000 sf**
P	PD Remodel & Addition on Expanded Civic Center Site	27,616 sf	*27,616 sf*	19,809 sf	47,425 sf
I	~~PD Annex~~ (1979 Police Station to be Demolished)	*9,800 sf*			
A	~~PD North Annex~~ (Leased - to be let go)	*16,759 sf*			
S	South Tracy Police Substation			8,794 sf	8,794 sf
T	Police Department Training Facility	2,296 sf	*918 sf*	12,866 sf	15,162 sf
D	Police Department Animal Shelter - Phase 2	9,692 sf		5,900 sf	15,592 sf
	SUBTOTAL POLICE DEPARTMENT	**39,600 sf**	***28,500 sf***	**47,400 sf**	**87,000 sf**
RCT	Public Safety Radio Communications Facilities			400 sf	400 sf
	SUBTOTAL COMMUNICATIONS FACILITIES	**0 sf**	***0 sf***	**400 sf**	**400 sf**
	SUBTOTAL PUBLIC SAFETY FACILITIES	**73,100 sf**	***28,500 sf***	**87,300 sf**	**160,400 sf**

Figure 22 – Existing Space Available and Space Need through Horizon 2040 and Buildout

The scope of the proposed Police Department Headquarters and Training Facility remodels and additions includes renovation of the existing facilities to both provide for future development and to correct existing deficits. The percent of the cost attributable to growth can be determined by dividing the square footage related to future development by the square footage of the proposed renovation. The City's concurrent nexus study will provide estimates of the square footage related to future development for this purpose. The proposed Animal Shelter and South Tracy Substation additions include no anticipated renovation of existing facilities.

Fire administration does have some vacant offices, but the remodeled station used for the department's administrative offices also has old crew quarters that are under-utilized.

Additional fire stations are required to meet future increases in demand. The need for expanded training facilities is as much a strategic question of whether to use in-house or regional resources as it is a calculation of development-driven demand.

A related issue is the distribution of future fire stations to meet the needs of the incorporated and unincorporated areas. Based on Citygate's proposed locations for future fire stations 94, 95, 97, and 99; the service areas for each were determined by Harris & Associates and areas within each service area calculated separately for incorporated city, developed unincorporated area, and undeveloped unincorporated area.

Impact fees cannot charge for the future correction of current unmet needs. The City's concurrent nexus study will demonstrate that unmet needs have been excluded from the final impact fees.

CITYWIDE PUBLIC SAFETY MASTER PLAN UPDATE

The consensus public safety master plan continues to implement the 2017 recommendations of the Fire Department Standards of Cover Study and, by consensus of City leadership, keeps the Police Department in the downtown civic center. The consensus public safety master plan proposes implementation of the 2020 South San Joaquin County Fire Authority Radio System Overall Assessment's recommendations for short and long term upgrades.

Fire Facilities Citywide

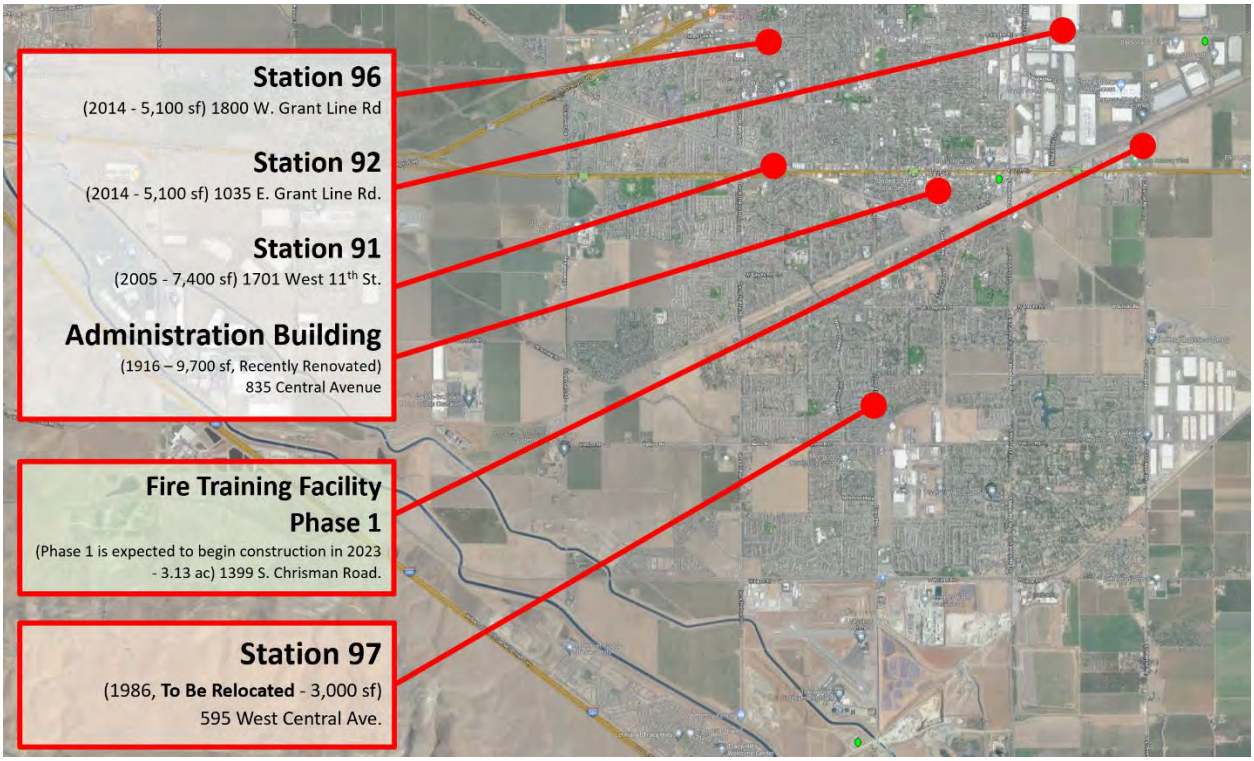

Figure 23 – Map of Existing City Fire Facilities

City Fire Administration Building

In 1916, the City passed a bond that provided for renovations of the Administration Building on a 0.6 acre site at 835 Central Avenue. This building also served as the City Hall and Jail until city offices were moved out in 1947. With the recent renovations completed, this landmark building continues to serve as the Fire Department's headquarters 106 years later and remains in good condition. The use of office spaces have changed since the previous master plan, including the South San Joaquin County Fire Authority's addition of a prevention bureau, and just more overall staff in general. These offices have displaced some existing Fire Training space, which will be relocated to the new Fire Training Facility site, currently under Phase 1 construction and to be expanded to 5.13 acres with classroom and office space during future Phase 2 & 3 renovations.

Figure 24 – 1916 Tracy Fire Department Building, 835 Central Avenue (to be upgraded)

Tracy Rural Fire Protection District

In 1945, the Tracy Rural Fire Protection District (TRFPD) was established to protect the greater Tracy region. This 200 square mile region is bounded (clockwise) by the Grant Line Canal to the north, the Paradise Cut to the northeast, the San Joaquin River to the east, the Stanislaus County line to the southeast, I-580 to the south, and the Alameda County line to the west. Per the 2017 Fire Department Standards of Cover Study, Rural Area first-due response time maximum is 11 minutes. This measure includes a 7:30-minute travel time. See below for TRFPD and City stations discussed in chronological order.

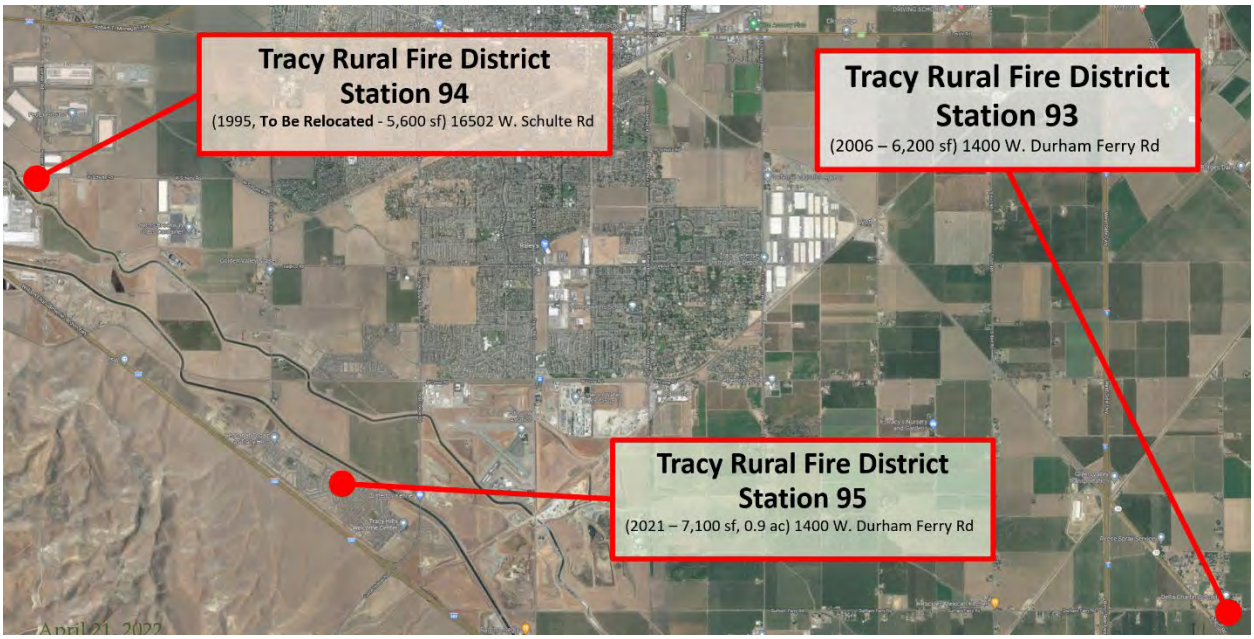

Figure 25 – Map of Existing Rural Fire District Stations

2017 Standards of Cover Study

The 2017 Fire Department Standards of Cover Study recommends an eight-station deployment to provide substantially improved first-due and multiple-unit coverage to serious emergencies in the growing urban areas. The Study also identified additional response time issues with the dispatch call handling. These issues have since been resolved as addressed by Fire Division Chief, David A. Bramell:

We have worked to speed up the dispatch process through Stockton Fire Dispatch taking the live caller directly from the Public Safety Answering Point (PSAP) instead of the live caller being questioned by AMR before sending it to Stockton. In 2019 (after the 2017 SOC study), our staff and particularly Chief Bradley, led an effort to introduce and change state legislation that provided a pathway to improve the dispatch process. The particulars of this legislation are found in Senate Bill 438.

City Fire Station 97

In 1986, the City built the 3,000 square foot Fire Station 97 at 595 West Central Ave. The condition of this 35-year-old facility is fair, and more significantly it is 40% of the size the South San Joaquin County Fire Authority (SSJCFA) now needs. Station 97 currently houses a 2015 Spartan Hi-Tech, type 1 pumper and is also staffed with three personnel trained to the Advanced Life Support (ALS) level.

Figure 26 – 1986 Tracy Fire Station 97, 595 West Central Ave (to be relocated w/ expanded ladder truck bay)

This master plan supports the relocation of Fire Station 97 to a new 7,750 square foot facility on a 2 acre site in the Valpico area. This proposed station will include an extra 700 square feet for an extended ladder truck bay. This plan proposes that the City sell that decommissioned property once the replacement station has been built.

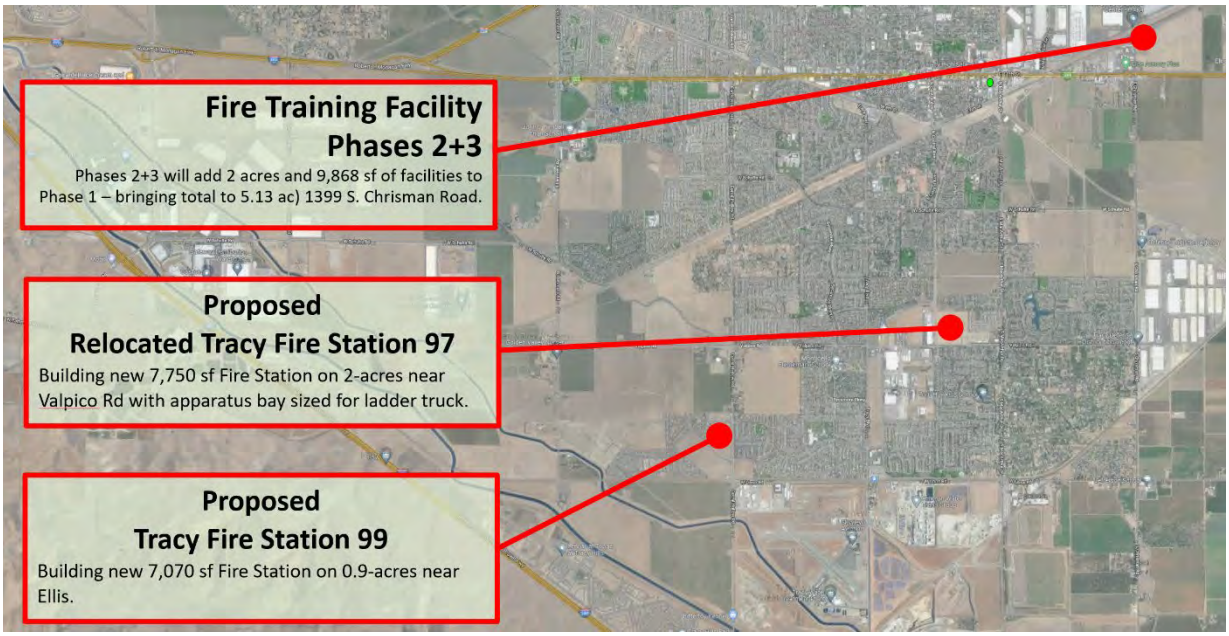

Figure 27 – Map indicating locations of Proposed City Fire Facilities

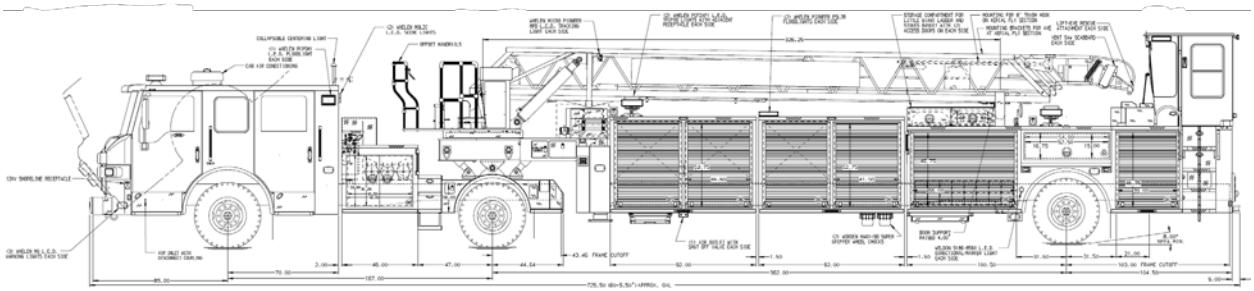

Figure 28 - 2021 60.5-ft Ladder Truck requires Larger Facility

Rural Fire District Station 94

In 1995, Station 94 was relocated to a 5,600 square foot facility at 16502 W. Schulte Road. The condition of this 26-year-old facility is poor. The station houses a 2003 Pierce/Saber type 1 pumper ALS unit staffed with three personnel and a 2016 HME type 3 engine. The station is located on a site adjacent to CAL FIRE Santa Clara Unit, Station 26.

Figure 29 – 1995 Tracy Rural Fire Station 94, 16502 West Schulte Road (to be relocated)

This master plan supports the relocation of Fire Station 94 to a new 7,750 square foot facility on a 2 acre site in the Cordes Ranch area, sized appropriately to incorporate a new ladder truck.

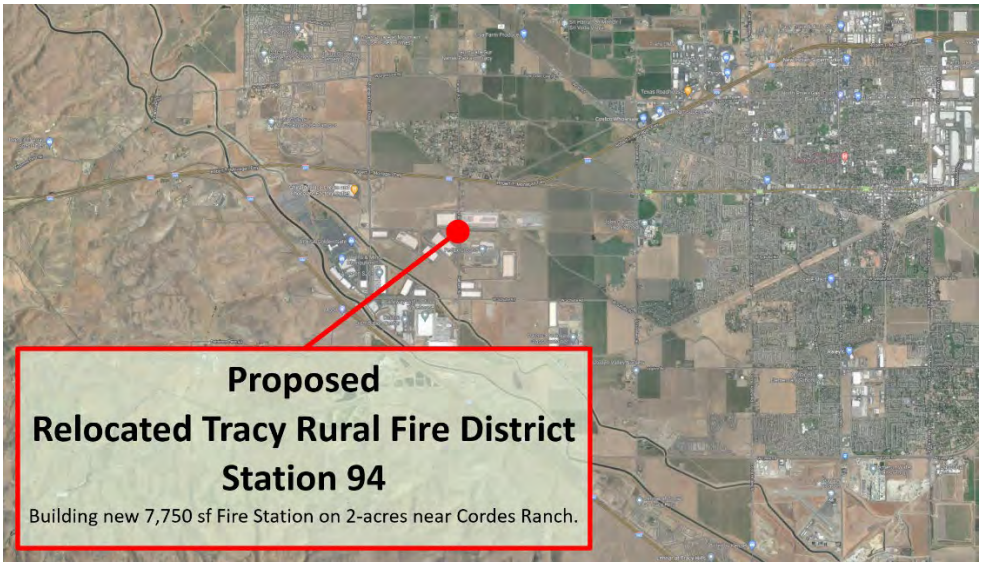

Figure 30 – Map indicating approximate location of Relocated Station 94

South San Joaquin County Fire Authority

In 1999, the City Fire Department and the Tracy Rural Fire District consolidated to form the South San Joaquin County Fire Authority (SSJCFA). The SSJCFA was created to provide fire protection services to the entire jurisdictional area of both the corporate City limits and surrounding rural community, including Banta, Lammersville, and Vernalis. Both Tracy Rural and the City of Tracy contract with the SSJCFA to receive fire protection services. The SSJCFA in turn contracts with the City of Tracy to provide employee and administrative services.

City Fire Station 91

In 2005, Tracy's Fire Station 91, dedicated "Eagan Station", was relocated from the downtown area to a new 7,400 square foot facility at 1701 West 11th Street. This met the recommendations of the 1998 Standards of Response Coverage report. Further review by Kirchhoff and Associates in 2008 confirmed that Station 91's new location would conform to the City's adoption of the NFPA 1710 Standard for 6.5 minutes total reflex response time. Station 91 is in good condition and it is the City's only "double house" station staffing both an engine and truck company. Staffed with three personnel, Engine 91 is a 2015 Spartan Hi-Tech type 1 pumper. Truck 91, a 2017 Pierce Tractor-Drawn Aerial, is also staffed with three personnel. A 2005 Pierce Kenworth Water Tender is also housed at Station 91. Both Engine 91 and Truck 91 are staffed to the Advanced Life Support (ALS) level.

Figure 31 – 2005 Tracy Fire Station 91, 1701 West 11th Street (to remain)

Rural Fire District Station 93

In 2006, Tracy Rural Fire District's Station 93 was relocated to a new 6,200 square foot facility at 1400 W. Durham Ferry Road. Station 93 houses a 2008 Pierce Saber type 1 pumper ALS unit staffed with three personnel. This facility is in good condition.

Figure 32 – 2006 Fire Station 93, 1400 W. Durham Ferry Road (to remain)

City Fire Station 92

In 2014, Tracy's Fire Station 92 and Fire Station 96 were relocated per the recommendations of the 2007 Standards of Cover Study. Both stations moved into identical new 5,100 square foot facilities.

Tracy's Fire Station 92 moved into the Northeast industrial area at 1035 E. Grant Line Road. Station 92 houses a 2015 Spartan Hi-Tech, type 1 pumper ALS unit staffed with three personnel and a 2008 HME, type 1 pumper from the California Office of Emergency Services (CalOES). Station 92 shall receive radio system upgrades – see Figure 20 for more information.

Figure 33 – 2014 Fire Station 92, 1035 East Grant Line Road (to remain)

City Fire Station 96

Tracy's Fire Station 96 moved closer to I-205 at 1800 W. Grant Line Road. Station 96 houses a 2009 Spartan HI-TECH type 1 pumper ALS unit staffed with three personnel. Station 96 also houses HazMat 42, a Type 2 Hazardous Materials response unit assigned from CalOES. The Fire Authority is one of only 12 local government agencies in the State of California to be assigned a fully-equipped Type 2 Hazardous Materials response vehicle from CalOES. The vehicle is available to respond to both local and statewide Hazardous Materials incidents. Personnel assigned to this station are certified Hazardous Materials Specialists.

Figure 34 – 2014 Tracy Fire Station 96, 1800 West Grant Line Road (to remain)

Tracy's Fire Station 92 and Fire Station 96 remain in good condition, but there are some functional issues as addressed by Fire Division Chief, David A. Bramell:

Neither floor plan included a public access bathroom (a citizen would have to walk through the station to use a restroom) and there is very limited space for the Captain to conduct a supervisory meeting in the office space (current Captain's office is within their bedroom).

Rural Fire District Station 95

Tracy Rural Fire District's Station 95, built in 2021, is a new 7,100 square foot facility at 7151 Tracy Hills Drive. Fire Station 95's plan addresses the aforementioned issues with Station 92 and Station 96. This facility is in accord with the 2017 Standards of Cover Study. This master plan supports the adoption of

Station 95 as the basis of design for future 7,100 square foot SSJCFA fire stations on similar 0.9 acre sites. Station 95 houses an ALS engine company staffed with three personnel.

Figure 35 – 2021 Fire Station 95, 7151 Tracy Hills Drive

City Fire Station 99

The Standards of Cover Study also recommends the construction of a new 7,100 square foot Tracy Fire Station 99 in the Ellis area, on 0.9 acres per this basis of design, bringing total fire station facilities to 52,800 square feet through buildout.

City Fire Training Facility

Finally, also in 2023, Phase 1 of a new Fire Training Facility is under construction at 1399 S. Chrisman Road. This facility represents a much needed upgrade, including training apparatus specifically designed for fire training. The existing 2,300 square foot Training Facility at 6649 S. Tracy Blvd, now the Capt. John J. Serpa Memorial Training Facility, once shared with Police, will similarly be upgraded for use solely by Police.

- Phase 1, funded prior to this study, consists of a fire training tower, site utilities, parking, and driveway on 3.13 acres.
- Phases 2+3, included in this study, consist of 2 acres of the following improvements:
    - Forty (40) person pre-manufactured classroom, two offices, clinical space, kitchenette, and restrooms
    - Additional Site Utilities (Electrical)
    - Rail Car props
    - Drafting pit
    - Above grade and below grade rescue props
    - Large apparatus and equipment storage facility
    - Connection to city wastewater and storm water systems

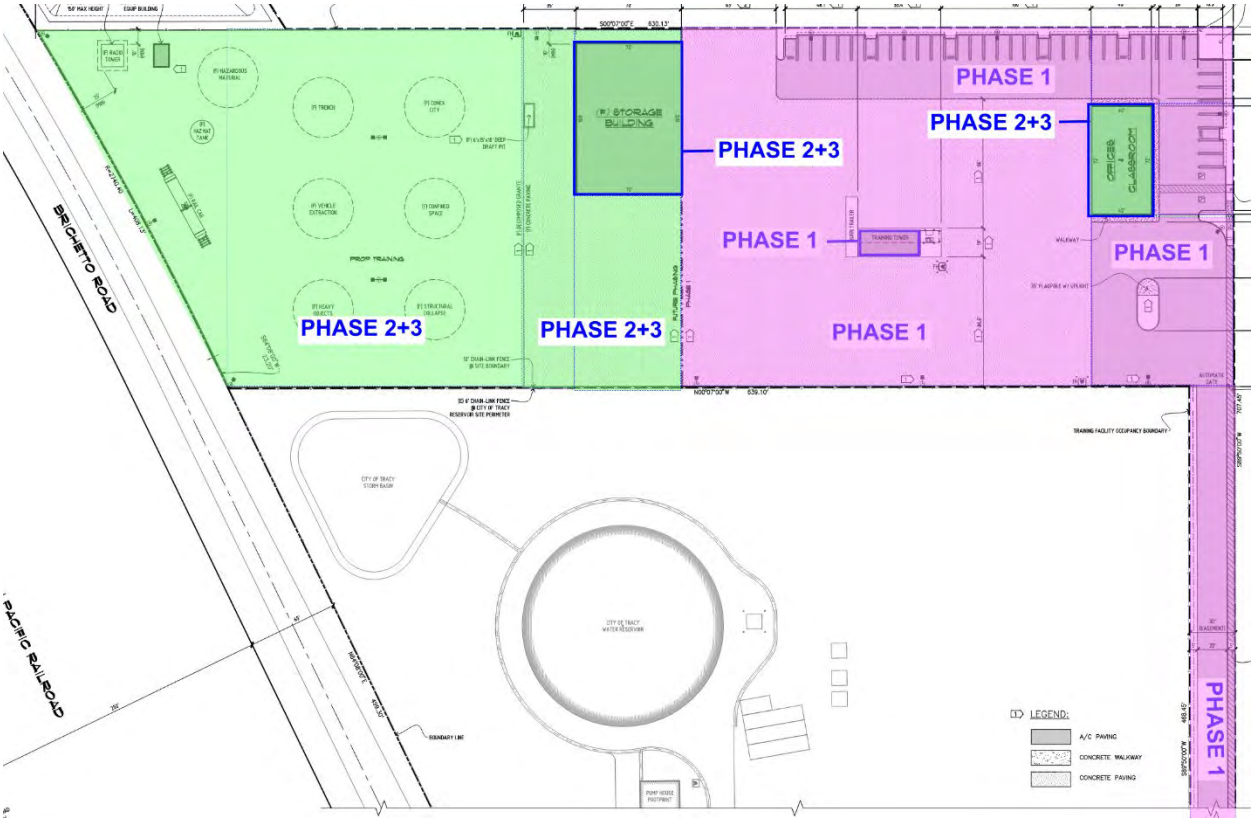

Figure 36 – 2022 Tracy Fire Training Apparatus at NEI Reservoir, 1399 S. Chrisman Rd (under construction)

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Police Facilities Citywide

1940 Police Building

In 1940, the City's first standalone Police station and jail was built on West 8th Street. The building is still standing to this day but is now a business office.

Figure 37 – 1940 Tracy Hall of Justice (decommissioned)

1979 Police Building

In 1979, the Police Department moved into the newly built 9,800 square foot Tracy Public Safety Facility Building at 400 East 10th Street as part of the new Civic Center complex. This 1-story building included cast-in-place concrete partition walls for the 2,400 square foot jail. The department at this time consisted of less than 30 personnel. The condition of this 42-year-old building is poor.

Figure 38 - 1979 Tracy Police Building, 400 East 10th Street (to be demolished)

1996 Police Building

In 1996, the Police Department relocated into the newly built 27,600 square foot City of Tracy Police Facility at 1000 Civic Center Drive. This 2-story building included a 1,000 square foot Evidence space, 1,000 square foot Holding Facility, and an 800 square foot Holding Facility Sallyport. The department at this time consisted of approximately 110 personnel. Tracy's population at the time was approximately 50,000 people. The condition of this 25-year-old building is good.

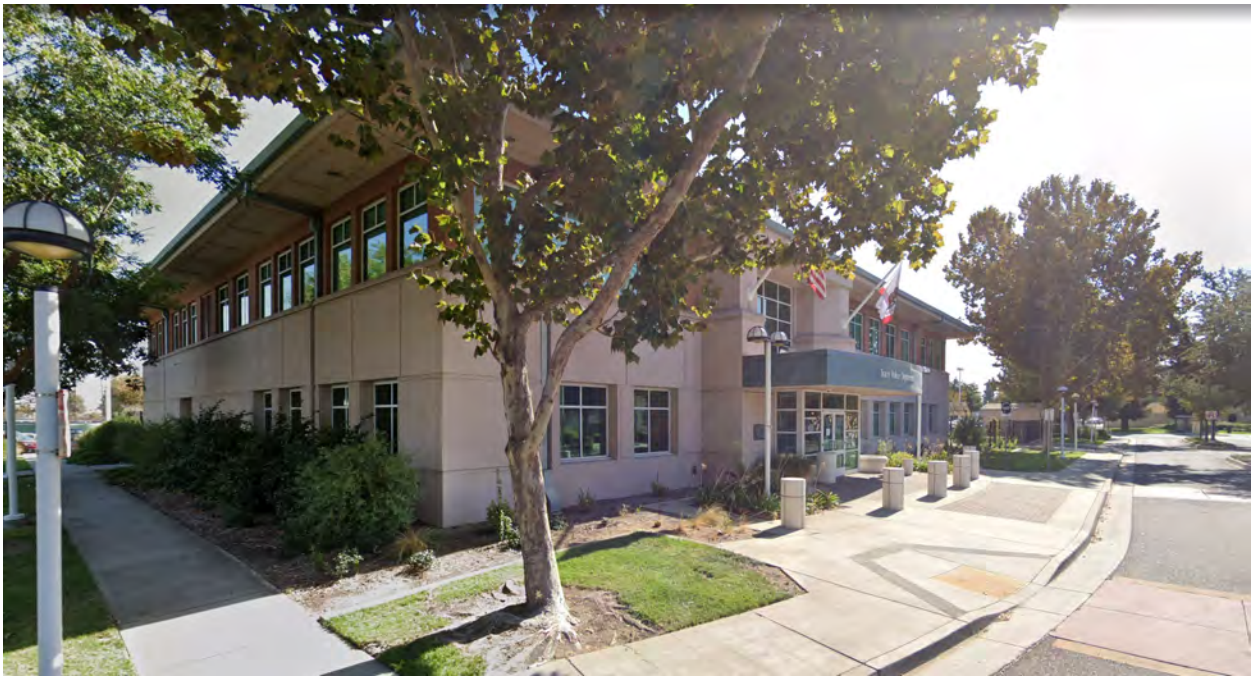


Figure 39 - 1996 Tracy Police Department, 1000 Civic Center Dr (to receive tenant improvement & addition)

Between 1996 and 2021, the Police Department repurposed space within their existing facility to accommodate population growth and the corresponding growth within the department. When repurposing and accommodating no longer proved sufficient, the department began to move some police functions into other facilities.

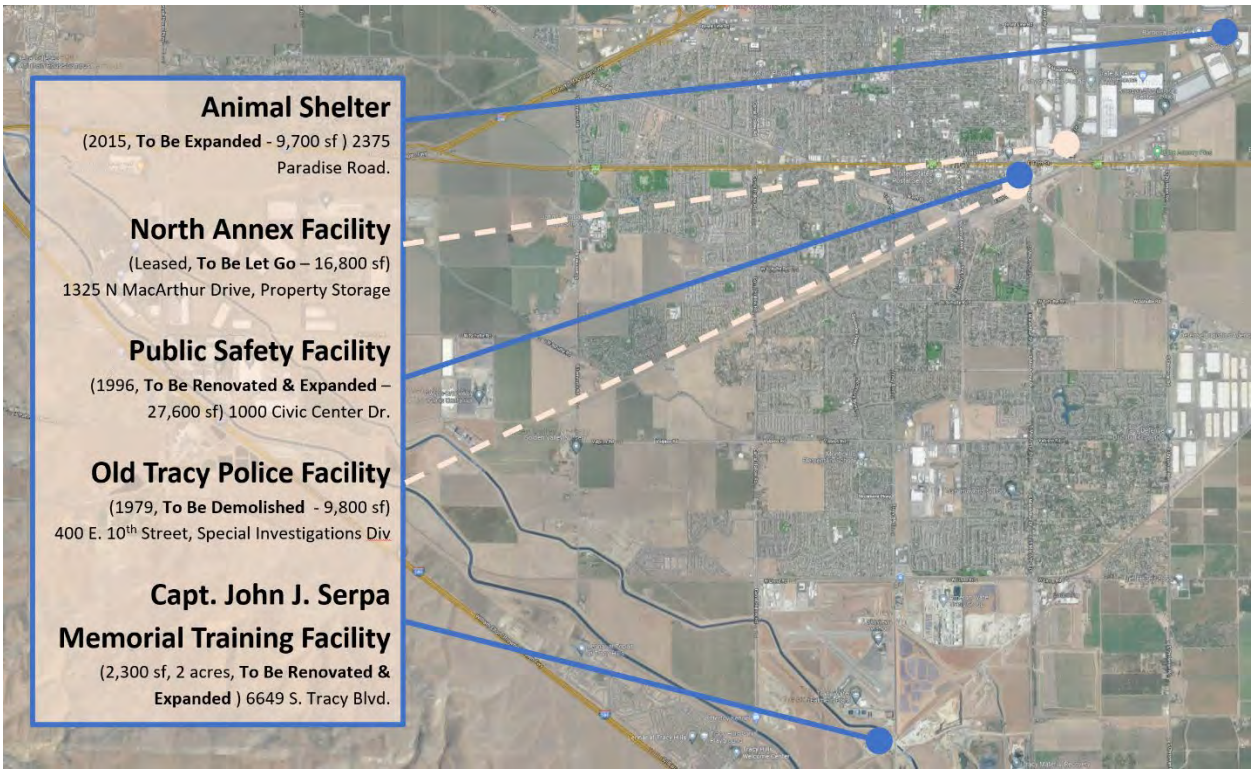


Figure 40 – Map of Existing Police Facilities

1979 Police Building, cont.

In 2012, the Police Department's Special Investigations Division returned to the 1979-era police building still standing at 400 E. 10th Street. This facility is inherently inadequate for meeting modern accessibility clearances and other code compliance standards. The concrete jail cell walls make renovations or any real use of that 2,400 square foot space impractical. In addition to the poor condition, space adaptation and non-compliance issues, separating detectives from the rest of the department potentially weakens esprit de corps. Because of these fundamental issues, this master plan does not count the department's space use at 400 E. 10th Street as "Existing Space" in its summary of attributable space and recommends its demolition.

Figure 41 – Back of 1979 Tracy Police Building, 400 East 10th Street (to be demolished)

City Animal Shelter

In 2015 the Police Department Animal Services Division moved into the newly built $3.8 million 6,000 square foot (9,700 square foot, including kennels) Animal Shelter at 2375 Paradise Road. The Animal Services Unit is comprised of nine employees consisting of a Supervisor, four Animal Services Officers, two Shelter Assistants, and two Administrative Assistants. Since Tracy had no animal shelter prior to 2015, this move did not alleviate the primary growth pressures impacting the 1996-era facility. The move did, however, expand the department's ability to serve the growing animal-loving population. The condition of this 6-year-old facility is excellent.

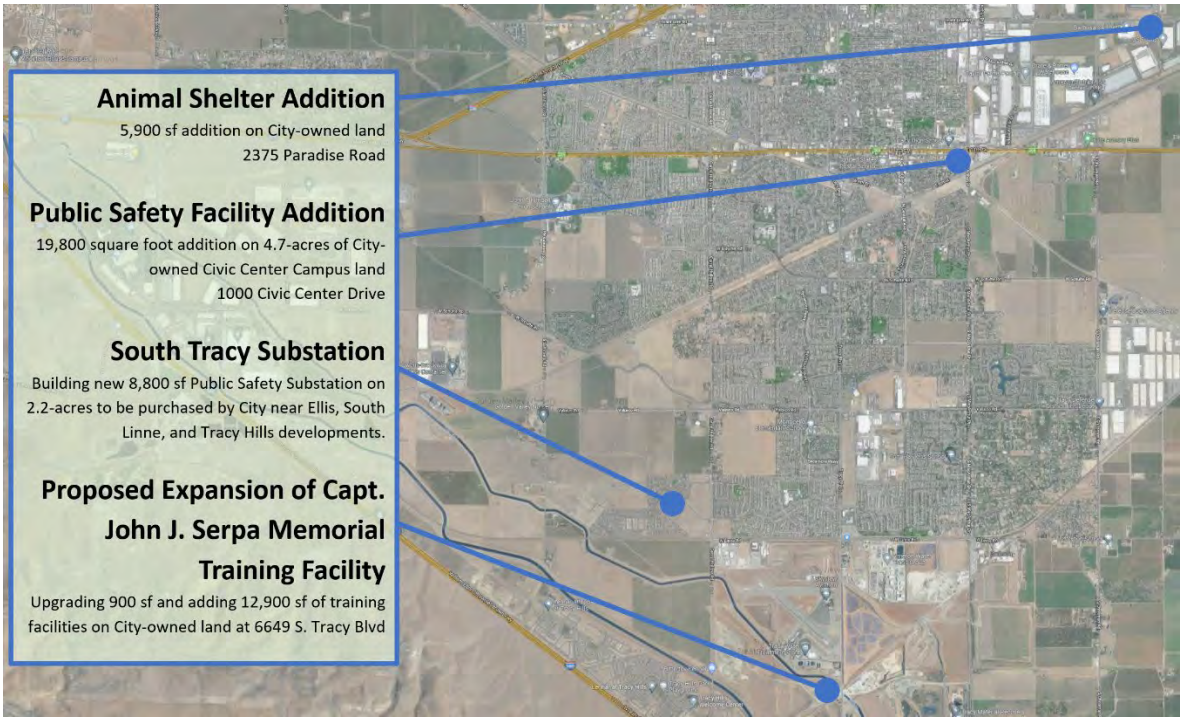


Figure 42 – Map indication locations of Proposed Police Facilities

This master plan supports the second phase addition of 5,900 square feet to the animal shelter to serve the City through Horizon Year 2040.

Figure 43 - 2015 Tracy Animal Shelter, 2375 Paradise Road (to receive addition)

2013 Police Facilities Master Plan

The prior 2013 Citywide Public Safety Master Plan proposed renovating the existing 25-year-old police building at 1000 Civic Center Drive to serve as a mixed use Downtown Police Substation, Emergency Operations Center, Dispatch Call Center, and IS Division office building. This plan also called for the construction of a 41,000 square foot Police Department Service Center on 4-6 acres along the 11th Street corridor to meeting the needs of a growing community through build out.

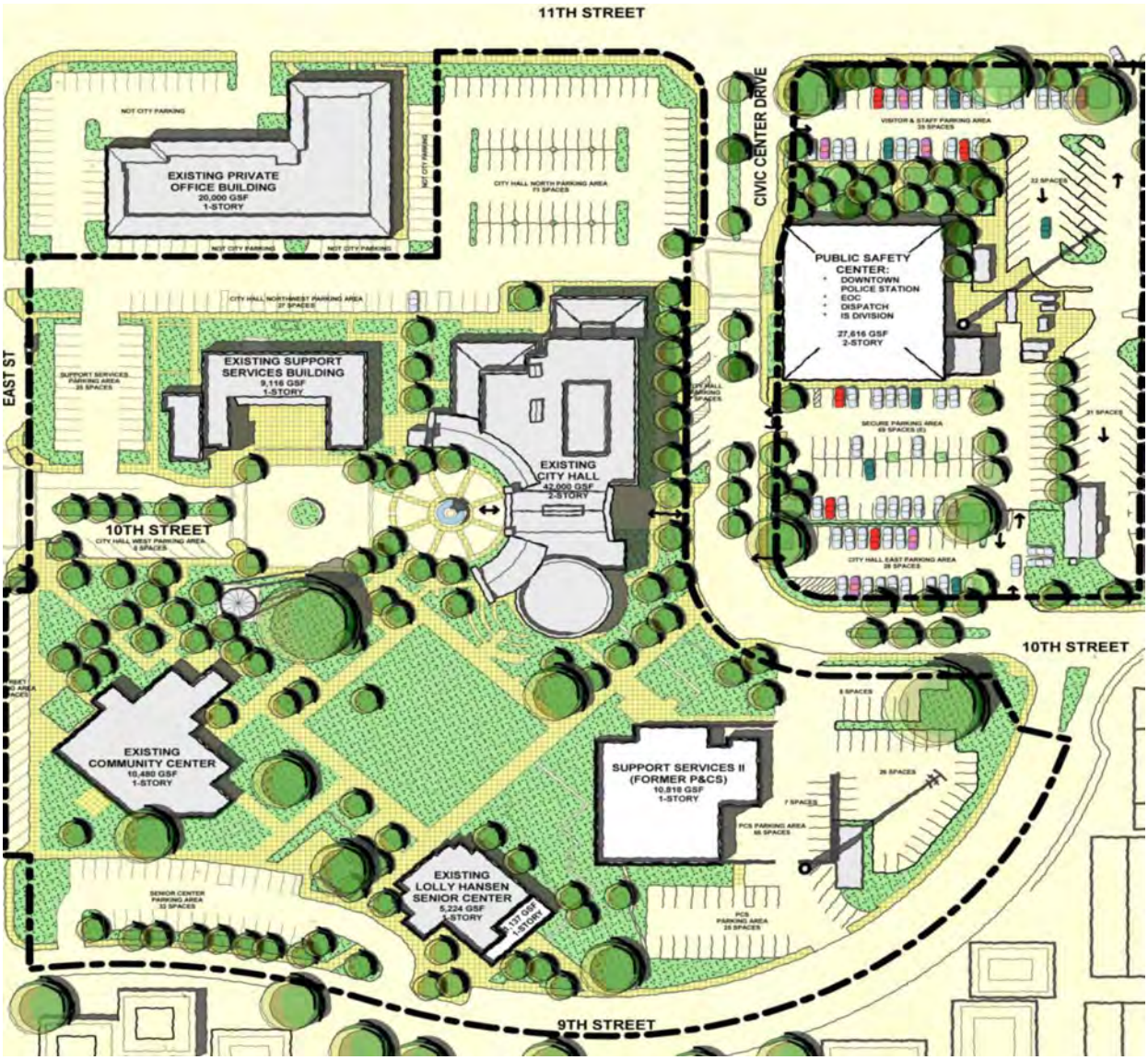


Figure 44 - 2013 Civic Center Master Plan

2023 Police Facilities Master Plan Update

Now, in 2023, the City's population has grown to approximately 95,000 people. The Police Department now consists of 154 personnel, 99 of those sworn officers, for a ratio of 1.03 to this population. The population of Tracy is expected to exceed 141,000 by Horizon Year 2040. The department will need to grow to 230 personnel to serve this population, with 152 of those sworn officers, for a ratio of 1.11. This need for 230 personnel is over twice the capacity of what the original 1996 facility was designed to accommodate, let alone the other ancillary spaces and functions needed to serve a growing population.

Having Investigations and Evidence Divisions operating out of separate facilities is not optimal with the deficiencies described in the preceding paragraphs above.

Civic Center Expansion of Police Building

This 2023 Citywide Public Safety Master Plan Update also supports the complete renovation of the 27,600 square foot Police Facility at 1000 Civic Center Drive; however, it further proposes to add to this facility in place with an expansion of the existing site. A 2-story addition of 19,784 square feet will result in a new 47,400 square foot all-in-one Civic Center Public Safety Facility at Horizon Year 2040. This requires the demolition of the nearby 1979-era police building and partial closure of 10th Street to expand the existing Police Department site at the Civic Center complex from 2.7 acres to 4.7 acres. In addition to providing room for the building expansion, a new vehicle sallyport and ancillary building, this site extension increases parking from 175 existing spaces, with 69 of those secure, up to 243 spaces, with 140 of those inside a secure enclosure. This renovation and addition will provide the Police Department with the building and site space it requires to serve the City through Horizon Year 2040.

Figure 45 - Bird's Eye View of Proposed Civic Center Expansion of Police Building and Site

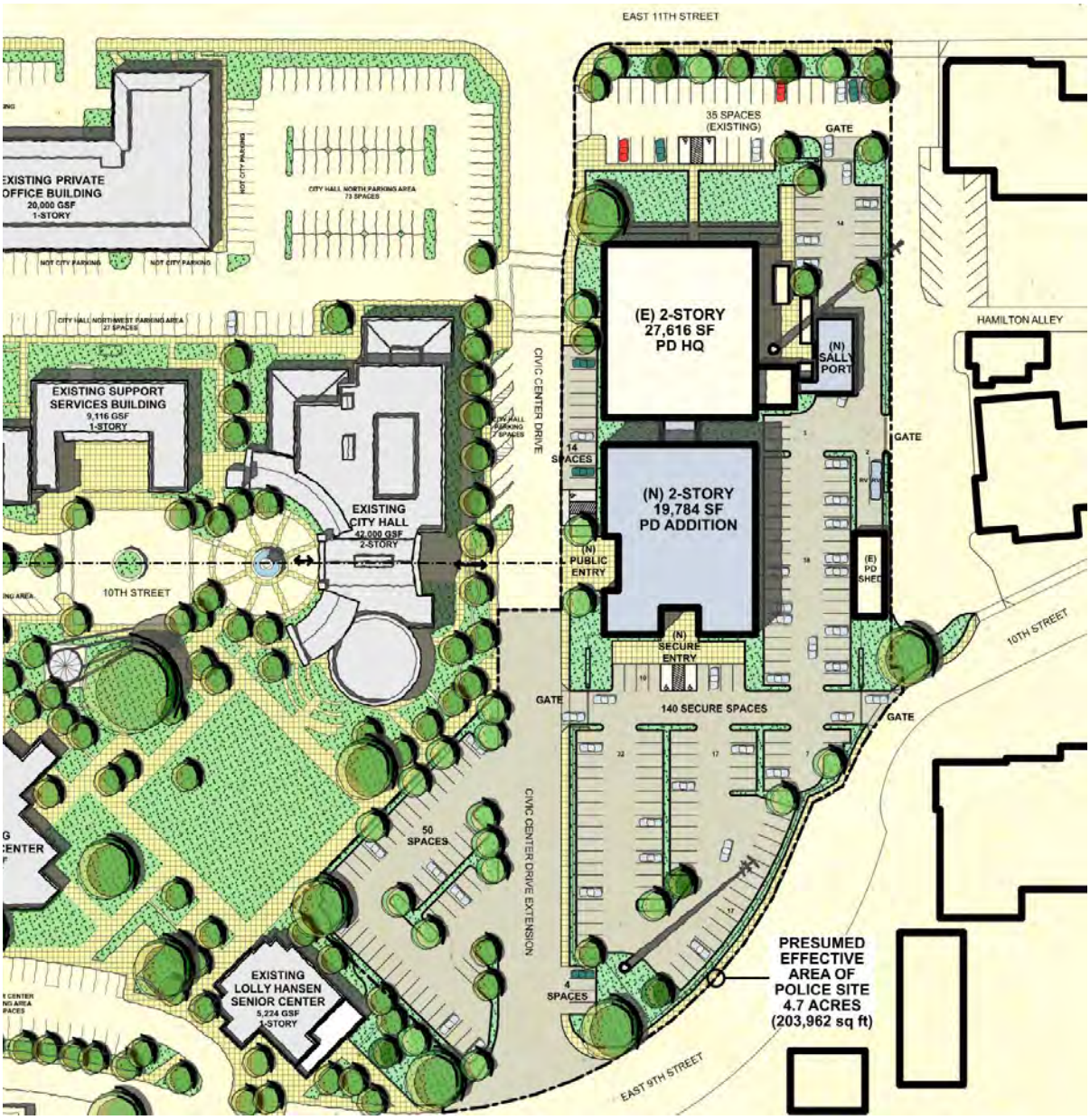


Figure 46 – Civic Center Expansion of Police Building and Site (at Horizon Year 2040)

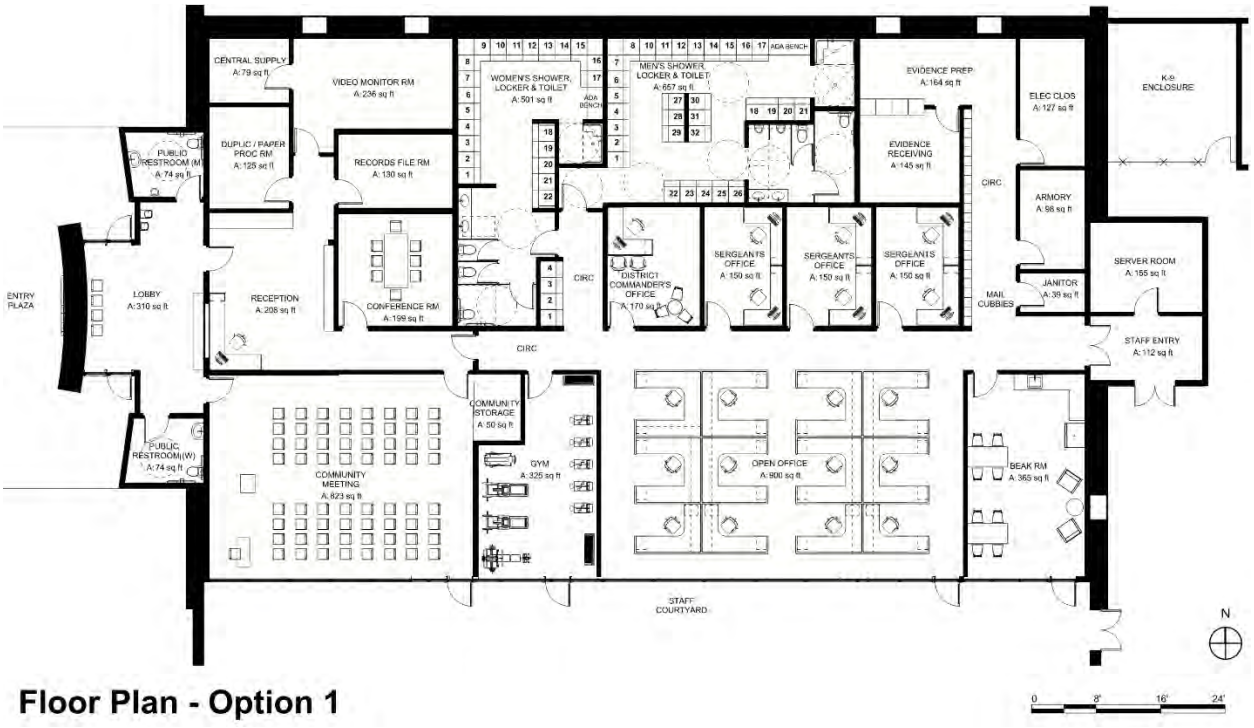
Police Substation

This 2023 Citywide Public Safety Master Plan Update also supports the construction of a new 8,800 square foot facility on 2.3 acres to be purchased by City near Ellis, South Linne, and Tracy Hills developments. This new site adds 94 parking spaces, with 74 of those inside a secure enclosure. With 20 visitor, 20 secure staff, and 54 secure police vehicle spaces, the substation site relieves some of the parking pressures on the Civic Center facility. The site further includes a covered space for an EOC "RV" Vehicle and covered motorcycle parking. This new substation will provide the Police Department with the building and site space it requires to serve the growing southern areas of the City through Horizon Year 2040.

Figure 47 – Civic Center Expansion of Police Building and Site (at Horizon Year 2040)

The following conceptual floor plan options for this facility provide open office space for twelve workstations and private office space for six sergeants workstations. The plans include a public lobby with restrooms and secure access to an 823 square foot Community Meeting room. The Community Meeting room, in turn, has access to a covered outdoor patio. For staff, across from lockers, is a 325 square foot Gym.

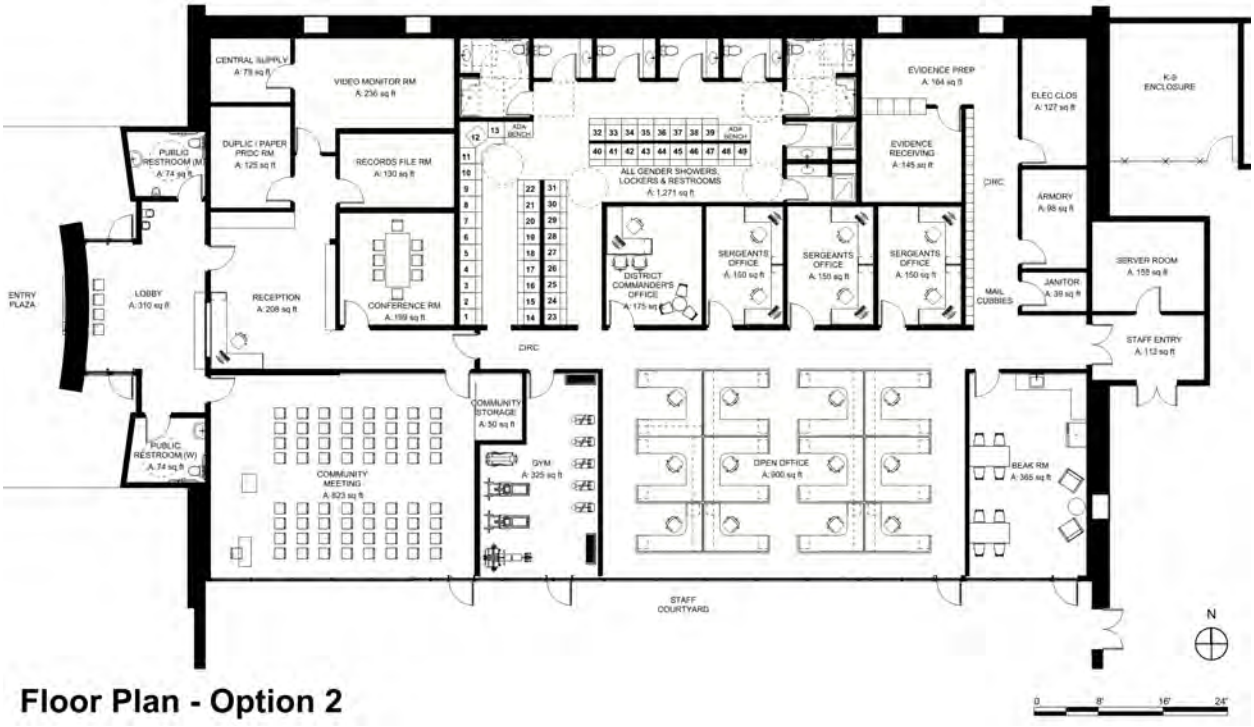
Where the options differ is in the locker room configuration. Option 1 (below) features a typical layout for separate men's and women's locker facilities with semi-private toilet rooms. Changing is assumed to take place in the locker area itself. The trade-off for the higher locker count in this Option (22 women, 32 men, 4 day lockers) is there's only space for 1 semi-private shower each. This Option is less flexible in that if more than 22 women or more than 32 men are posted to this Substation, some staff may miss out on having a full-size locker.



Floor Plan - Option 1

Figure 48 – Conceptual Floor Plan Option 1 with typical Male & Female locker rooms.

Conceptual floor plan Option 2 (below) features an all-gender locker room configuration, providing 49 lockers for any ratio of staff gender posted to this Substation. The locker room features 4 fully-private shower rooms, each with lavs, two of these rooms are fully-accessible and include toilets. In addition, the locker room features 4 fully-private toilet rooms, each with lavs. These 6 single-occupant rooms provide private changing space as well.



Floor Plan - Option 2

Figure 49 – Conceptual Floor Plan Option 2 with an all-gender locker room.

North Annex Leased Building

In 2019, the department leased a 16,800 square foot "North Annex" industrial space at 1325 N MacArthur Drive to serve as an offsite evidence facility. The facility is outfitted with evidence lockers, 3 large evidence vaults, a drying room, a property release room, space for evidence vehicles, and a car lift. The condition of this leased facility is excellent. However, any time evidence is separated from the main police building, including its sallyport and holding facilities, it creates a more challenging chain-of-custody environment for the department and separates the Evidence Technician from Records and Patrol personnel, potentially weakening esprit de corps. The existing 1,000 square foot Evidence spaces in the 1996 are now potentially made redundant and are specialized and not easily adapted to other uses. Because this is a leased space, this master plan does not count the department's space use at 1325 N MacArthur Drive as "Existing Space" in its summary of attributable space.

Figure 50 - Leased North Annex Space, 1325 North MacArthur Drive (to be let go)

For training facilities, this master plan supports the Police Department upgrading 900 square feet of the existing 2,300 square foot Capt. John J. Serpa Memorial Training Facility at 6649 S. Tracy Blvd and adding a much needed additional 12,900 square feet of training facilities. The Fire Department is currently constructing their own separate 8,100 square foot Fire Training Facility at 1399 S. Chrisman Road.

Figure 51 - Captain John J. Serpa Memorial Police Training Facility (to be upgraded and expanded)

Public Safety Radio Communications Facilities

As summarized in "South San Joaquin County Fire Authority (SSJCFA) Radio System Overall Assessment" (2020) by Silke Communications, the City shall upgrade its communications infrastructure as follows.

Future Radio System:

- Two channel, repeated VHF analog voted unicast system, digital (P25) ready, with remote monitoring capability.
- New subscriber radios shall be P25 capable with just software licensing upgrades.

Microwave network for voter connectivity:

- Microwave links to Station 91, 92, 93, 94, future 95, 96, current or future 97, Fire Training Facility, and Fire Administration.

Station Infrastructure:

All stations have SCD South, TAC 16 voted receivers, local radios and microwave connections.

- Station 91: tower upgrade to 100 feet depending on future Station locations to West
- Station 92: minimum 100 foot tower
- Station 93: minimum 150 foot tower
- Proposed Station 94: minimum 100 foot tower
- Recently Completed Station 95: minimum 100 foot tower
- Station 96: up to 100 foot tower depending on neighbors
- Proposed Station 97 or Fire Training Center: 180 foot tower that will become system hub
- All future Stations to have minimum 100 foot tower.

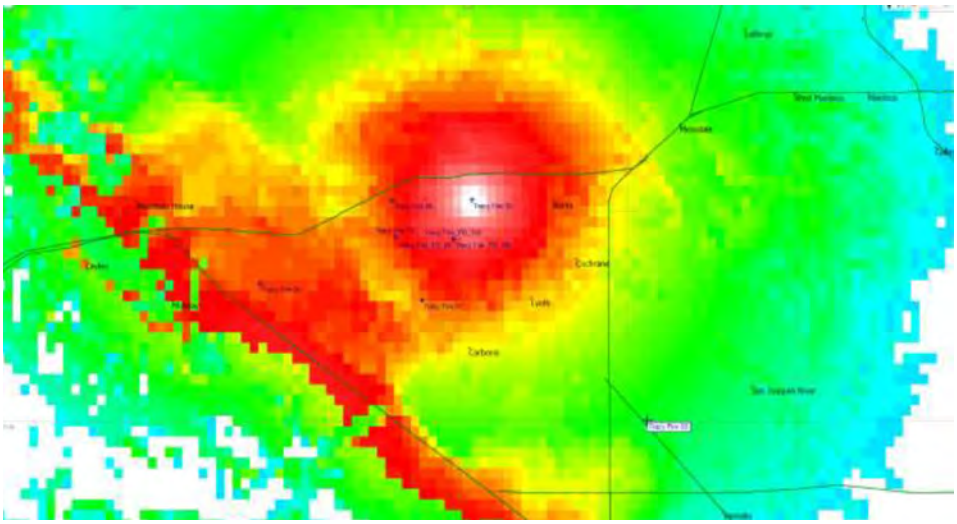


Figure 52 – Tracy Public Safety Radio Communications Systems Modeling

In addition, this master plan supports upgrades to the radio room at the 1996 Police Department Building, including replacing the voting hardware with new network enabled voters and improving the SCD and TAC 16 transmission system. These upgrades will provide the best near term radio system improvements for the least cost and least disruption. Also recommended is for the police to employ dual band portable and mobile (UHF/VHF) radios that will provide inter-operability with the Fire Department and other law enforcement agencies.

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COST

Estimate Summary

The Public Safety Master Plan carries a total project development cost of approximately $130.8 million as shown on Figure 53. Included are estimated construction costs ($84.2 million), indirect and contingency costs ($29.5 million), vehicles and furnishings, fixtures, and equipment (FF&E, $13.9 million), and land acquisition ($3.7 million). See also Appendix D.

PLACE NAME	2023 Construction Bid Day Cost	35% Indirect & Contingency: 10% Design & Planning; 10% CM; 15% General Contingency	FF&E & Vehicles	Land Acquisition	2023 Total Project Cost
Fire Headquarters | Station "A"					
Fire Station 91					
Fire Station 92					
Fire Station 93					
~~Fire Station 94~~ (To Be Relocated. Property ownd by SCFA.)					
Fire Station 94 (Relocation - Cordes Ranch Area)	$6,942,300	$2,429,805	$2,600,000	$500,000	$12,472,000
Fire Station 95 (Tracy Hills Area)	$6,197,192	$2,169,017	$874,518	$192,837	$9,433,000
Fire Station 96					
~~Fire Station 97~~ (To Be Relocated. Sell property.)					*($451,350)*
Fire Station 97 (Relocation - Valpico) incl. Ladder Bay	$6,942,300	$2,429,805	$1,000,000	$500,000	$10,872,000
Fire Station 99 (Ellis Area)	$5,427,849	$1,899,747	$1,000,000	$233,012	$8,561,000
Fire Training Facility - Phases 2 & 3	$6,793,881	$2,377,858	$500,000	$0	$9,672,000
SUBTOTAL FIRE DEPARTMENT	**$32,303,500**	**$11,306,200**	**$5,974,500**	**$1,425,800**	**$50,558,700**
PD Remodel & Addition on Expanded Civic Center Site	$31,599,384	$11,059,784	$2,160,114	$0	$44,819,000
~~PD Annex~~ (1979 Police Station to be Demolished)					
~~PD North Annex~~ (Leased - to be let go)					
South Tracy Police Substation	$9,479,695	$3,317,893	$648,049	$1,760,000	$15,206,000
Police Department Training Facility	$4,887,202	$1,710,521	$36,098	$402,925	$7,037,000
Police Department Animal Shelter - Phase 2	$5,044,104	$1,765,436	$1,000,000	$0	$7,810,000
SUBTOTAL POLICE DEPARTMENT	**$51,010,400**	**$17,853,600**	**$3,844,300**	**$2,162,900**	**$74,872,000**
Public Safety Radio Communications Facilities	$862,240	$301,784	$4,067,185	$125,000	$5,356,000
SUBTOTAL COMMUNICATIONS FACILITIES	**$862,200**	**$301,784**	**$4,067,185**	**$125,000**	**$5,356,000**
TOTAL PUBLIC SAFETY FACILITIES (rounded)	**$84,177,000**	**$29,462,000**	**$13,886,000**	**$3,714,000**	**$130,790,000**

Figure 53 - Public Safety Master Plan Cost Estimate Summary

<u>Public Safety Radio Communications Facilities</u>

The total project cost of the Public Safety Radio Communications Facilities have been estimated at approximately $5.4 million. See description on page 43 for more information about the system.

Facility Allocations

The City is conducting an independent analysis of the public safety impact fees necessary to cover the costs of the proposed new public safety buildings in the City of Tracy. This analysis includes a review of the facilities needs, and resulting building program and cost estimates, in this report. The purpose of this review shall be:

- to validate public safety facility improvement needs to support Horizon Year 2040 and buildout of the Tracy General Plan;
- to identify and segregate costs attributable to current deficiencies for existing development versus costs for facility expansion and upgrade requirements associated with new development; and
- to then provide an estimate of the impact fee burdens that would be placed on different categories of new development in accordance with their relative contribution to demand for the new or upgraded facilities, in order to fund the capital facilities program.

Land Acquistion Value

For the purposes of estimating land acquisition value, this report estimates $250,000 per acre. This unit cost derives from the Harris & Associates 2019 Public Safety Impact Fee Update. Notable exceptions to this unit cost (also deriving from the 2019 Fee Update):

- $402,925 for PD Training Facility land acquistion, and
- $1,760,000 for 2.2 acres of South Tracy Police Substation land acquistion.

Site Development Cost

For the purposes of estimating site development cost, this report estimates $800,000 per acre. This unit cost derives from cost data averaged from multiple comparable public safety projects. Notable exceptions to this unit cost are the following facility upgrades and additions not requiring comprehensive landscaping or parking additions:

- $275,000 per acre for FD Training Facility expansion,
- $250,000 per acre for PD Training Facility expansion,
- $200,000 per acre for PD Animal Shelter Phase 2 expansion, and
- $360,000 per acre for the Radio Communications Tower improvements.

Building Construction Cost Inflation

For the purposes of building construction cost, this report estimates an average 2023 Bid Day Unit Cost of $730 per square foot of combined remodel and new construction across all projects.

- Fire facility unit costs average $820 per square foot for all new construction.
- Police facility unit costs average $670 per square foot for approximately 38% remodel construction and 62% new construction.
- The Radio Communications Tower unit costs reflects much more dense construction necessities for its 400 square feet, with a unit cost of $2,160.

These unit costs derive from cost data averaged from multiple comparable public safety projects.

FUNDING OPTIONS

This study identifies and projects public safety facility needs for the City of Tracy and it estimates the total project costs for these facilities in current dollars. The City is providing a separate study, looking at all proposed master plan updates, examining the nexus of attributions of these costs, whether existing vs new development, or facilities serving populations inside the City limits vs those outside those limits.

Per above, the City of Tracy is conducting a concurrent study to document the required nexus findings to implement a fee program. This study will establish a nexus between future development in Tracy, the public facilities that will serve those projects, and the impact fees that will fund those facilities. The purpose of this separate, concurrent study is to ensure that a rational nexus exists between future development in the area and the use and need of the proposed infrastructure.

As outlined previously, the vast majority of Public Safety Master Plan costs are the responsibility of the City of Tracy. A small portion of the costs for fire protection facilities are attributable to existing rural (as opposed to newly developed) properties within the service areas of the proposed new fire facilities. After discussion of this matter with Tracy fire authorities, it was deemed prudent to leave it up to the City to negotiate any cost sharing with their rural neighbors.

Funding for Costs Attributable to Existing Development

The Public Safety Master Plan update provides the basis to identify the new facilities that are needed as the City grows as well as the cost of those facilities. The City of Tracy follows the principle that new development pays its fair share of costs for public facilities and services. Most, but not all, Public Safety Master Plan costs are attributable to new development, because without the increase in demand for City services created by new development, the City would have only limited need for new or expanded Public Safety facilities. However, the City still has the need to fund a portion of the Public Safety Master Plan costs that cannot be collected from new development. Following are a number of options that the City could consider for funding existing development's share of costs:

- **Existing Public Safety Facilities Impact Fee Fund Balance** – Funds previously collected from developments that have been completed (i.e., now part of the base of existing development) but not yet expended are likely to be the first source of funding to pay for existing development's share of required facilities. The City will need to confirm that funds are eligible to be spent on the improvements included in this Master Plan.
- **Funds Collected as Part of Development Agreements –** To the extent that the City has or will collect revenues from prior or future development agreements to help fund public benefits in general, or specific public safety improvements, the City may have the ability to utilize some of these funds to pay for existing development's share of costs. This will depend on the specific terms of individual development agreements. Similarly, if existing or future development agreements call for developers to provide in-kind contributions towards public safety improvements, this may help to offset some of the responsibility of existing development to help fund improvements.
- **Grants from Other Governmental or Charitable Sources** – The City may be able to gain access to grant funds from programs for which improvements included as part of this Master Plan would be permissible uses of funds. Such grant funds could help to pay for existing development's share of the improvements. This may include sources such as Community Development Block Grants from the U.S. Department of Housing and Urban Development and

public safety grants from agencies such as the U.S. Department of Homeland Security, and the Federal Emergency Management Agency. Some local, regional, or national charitable organizations may also offer grant funding opportunities from time to time.

- **Parcel Taxes, Assessment Districts and Other Funding Mechanisms Requiring Voter Approval** – If other funding mechanisms discussed above do not provide sufficient funding to cover existing development's share of costs for public safety improvements, the City could utilize funding from voter-approved revenue mechanisms to cover existing development's share. For example, in November 2016 the City Council and voters passed an additional ½ cent local sales tax (known as Measure V). This measure replaced a prior ½ cent sales tax measure that expired. The City began collecting the extra half-cent sales tax in April of 2017 for a term of 20 years. It is expected to generate approximately $9 million annually for the City's General Fund. Depending on other needs, the City could allocate portions of this annual revenue to help pay for existing development's share of public safety facilities costs. If Measure V funds are not available, or insufficient, the City could pursue voter approval to establish a new funding source that could involve new parcel taxes, special taxes, special assessments, or other mechanisms. The City would need to hold an election to allow the affected voters to decide if they wish to tax themselves in order to raise the necessary funds. If a new tax measure was property-based, new development areas that will pay impact fees or make contributions through development agreements, and other areas that have already contributed their fair share of costs through prior payment of impact fees or through development agreements could be exempted from paying the new levies.
- **Infrastructure Financing District** – With the abolition of California Redevelopment Agencies in 2011, cities lost a powerful tool to fund public facilities using property tax increment that otherwise would have accrued to various tax-receiving entities. To partially address the loss of Redevelopment Agency tax increment financing, the State enacted legislation to allow formation of Enhanced Infrastructure Financing Districts (EIFD) and Community Revitalization Investment Authorities (CRIA). Powers of these districts include tax increment financing, but they each have different authorized activities and carry different requirements for how they operate. An element that EIFDs and CRIAs share in common is that they are typically only able to access the tax increment that is directly controlled by the local jurisdiction (e.g., City of Tracy); thus, their ability to generate revenues is limited, particularly in areas where there will be limited new development, such as in existing developed parts of the City.
- **Bond Proceeds** – If the City has an ongoing source of annual revenues that it can dedicate to debt service payments, the City can issue different types of bonds in order to obtain funds to pay for "up front" costs and then repay the bonds over time. General Obligation bonds, which are backed by the City's full faith and credit, require voter approval. Other types of bonds, such as Mello-Roos Community Facility District bonds, or certificates of participation (COPs), which involve more limited security for repayments to bondholders may not require voter approval but have different legal requirements.
- **General Fund Allocations** – After other possible funding sources have been exhausted, the City Council will have the discretion to allocate General Fund monies to help pay for existing development's share of required new facilities, to fill remaining funding gaps. Through its annual budgeting process, the City Council would approve a transfer of money from the General

Fund to its General Projects Fund (#301) where the funds could then be allocated to support specific Public Safety capital projects. For example, this would be the mechanism to allocate a portion of Measure V funds towards Public Safety Master Plan projects.

Funding for Costs Attributable to New Development

New development may contribute its fair share of costs through any of the other funding mechanisms that have previously been mentioned. However, the most typical mechanisms to fund new development's share are:

- Development Impact Fees (i.e., Tracy Infrastructure Master Plan (TRIMP) fees)
- Mello-Roos Community Facilities Districts
- Special Assessment Districts
- Development Agreements (including provision of in-kind improvements, such as construction of new facilities, or provision of sites for new public facilities)

These funding mechanisms are typically established as part of the process of entitling new developments, so voter approvals are not typically necessary. In the case of development impact fees, the City will update the TRIMP fee program to reflect the updated Public Safety Master Plan and ensure that the appropriate level of funds is collected to pay for new development's share of the facilities costs, and to ensure that the City can then expend fee revenues collected through the TRIMP in accordance with an updated fee program.

When mechanisms other than development impact fees are used to pay for only a portion of new development's share of costs, credits can be given to reduce the amount of development impact fees that would otherwise be paid. In addition, sometimes developers provide more than their fair share of public improvements and agree to be repaid over time by impact fees that are paid by subsequent developers who benefit from the improvements.

In addition to development impact fees and the mechanisms listed above, private transaction fees are another mechanism that is being utilized more frequently in California and other states to collect funds from new development. A private transaction fee uses a private sale of real estate to trigger a contractual requirement that funds be paid for a certain purpose. For example, a private transaction fee could stipulate that a certain dollar amount be paid into a fund to pay for public safety improvements every time a home or commercial property is sold, within a specific area. If utilized in place of development impact fees, the City should be aware that private transaction fees may defer the ability to fund new public facilities, since impact fees are typically paid before homes are constructed, while private transaction fees might not be collected until homes are completed and sold to homebuyers.

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DESIGN GUIDELINES

In order to assure consistency with existing City guidelines, a review of relevant existing guidelines is shown here, supplemented with additional recommendations relevant to the CPSMP update.

General Plan Land Use Guidelines

The City's General Plan Land Use Element includes goals, objectives, policies and actions for all public facilities and specified private improvements:

- Establish a clearly defined urban form and city structure.
- Comprehensively plan for new development in the City's Sphere of Influence.
- Ensure that the public facilities such as schools, parks, and other community facilities are accessible and distributed evenly and efficiently throughout the City.
- Promote efficient residential development patterns and orderly expansion of residential areas to maximize the use of existing public services and infrastructure.
- Encourage development near transit stations including the multi-modal station in Downtown, and the Altamont Commuter Express (ACE) station or stations.
- Expand the City's cultural and arts facilities.
- Locate services and amenities within walking distance of neighborhoods.
- Target new uses for the Downtown to reinforce its role as the heart of the City.
- Establish the Downtown as the governmental and cultural focus for the City and the region.
- Ensure land use patterns that minimize conflicts between transportation corridors and neighboring uses.

See "City of Tracy General Plan" (2011).

Civil Engineering and Construction Guidelines

The City has previously commissioned a study that includes minimum standards for the design, construction, maintenance, repair, and alteration of all public facilities and specified private improvements:

- Roadways.
- Storm Drainage.
- Wastewater Facilities.
- Water Facilities.

See "City of Tracy Engineering Design & Construction Standards" (2020).

Streetscape Design Guidelines

Guidelines ensuring that the installed landscape enjoys a long lifespan, is aesthetically pleasing, with minimal maintenance and watering requirements. Tracy's Downtown has a compact, grid street system and serves as the historical heart of the City. There are numerous historical buildings that enhance the City's identity, walkable main streets with a diverse mix of uses, and a small town urban fabric. The City has previously commissioned a study that includes:

- Sound Wall Design.
- Planting Design.
- Irrigation Design.
- Side Streetscapes, Medians and Intersections.

See "City of Tracy Standard Plans" (2020).

General Plan Community Character Urban Design Principles

The City's General Plan Community Character Element includes urban design principles for all public facilities and specified private improvements:

- Human-scale Design.
- Focal Points.
- Edges.
- Visual Landmarks and Entryways.
- Building Siting to Hold Corners.
- Pedestrian Orientation.

See "City of Tracy General Plan" (2011).

Urban Design Guidelines[1]

- Parcel Geometries
- City buildings shall, with some exceptions, be oriented parallel to the existing public streets.
- Civic Center buildings south of 10th Street shall remain oriented 45 degrees to the other parcels in order to align with the existing diagonal walkways.
- Build-to Lines
- To create clearly defined public spaces, the City shall impose build-to lines.
- The goal is to have a minimum of 80% of each building conform to a typical build-to line.
- Pedestrian Plazas, Arcades and Entries
- Buildings shall be designed to enhance the definition and the quality of the plazas they face.
- Major pedestrian entries of civic buildings shall be from boulevards or major plazas.
- Entries shall be easy to find and inviting and shall be protected from the elements by covered arcades.
- Arcades shall be provided to unify civic buildings co-located on the same site and not separated by a vehicular way.
- Landmark Buildings
- All landmark buildings will have prominent roof forms developed from a three tiered hierarchy: major, secondary, and minor.
- Major landmarks shall be the tallest, rising significantly above the nearest roofs.
- The major landmarks are to be the most recognizable from afar and have the most memorable forms.
- The secondary landmarks shall be visibly distinct when seen from the vantage of the nearest public street or easement. These landmarks should not compete with the major landmarks.
- The minor landmarks are special buildings that should be architecturally distinct from, be easier to find, and be more inviting than the other non-landmark buildings.
- All other buildings shall have flat roofs with natural colored roof ballast.

Architectural Design Guidelines[2]

These guidelines have been developed to maintain a high quality appearance and to assure compatibility and harmony of all buildings. The guidelines are not intended to limit creative design or individuality. These guidelines shall apply unless an exceptional quality of design, materials, and contribution to the common character and public spaces can be demonstrated.

The architecture of Tracy's public buildings should promote a civic identity appropriate to the importance of the site. Each building should be reflective of the following:

[1] Adapted from Civic Center Urban Design Guidelines, Group 4, 1999
[2] Adapted from Civic Center Urban Design Guidelines, Group 4, 1999

- Be of enduring quality.
- Demonstrate design excellence.
- Unacceptable styles or themes
- Overtly historical.
- Mission or Spanish revival.
- Residential scale or imagery.
- Commercial or retail imagery.
- Corporate or office building style or imagery.
- Required Building Features
- Arcades.
- Varied building forms.
- Pedestrian scaled elements
- Articulated building “bases” at a pedestrian scale. Building bases should, at appropriate locations, be suitable as places to sit.
- Rhythm of windows and wall scaled to the walking pace of a pedestrian.
- Interesting elements and details to look at.
- Places to gather.
- Garden walls and trellises.
- Prominent roofs
- Visible from major boulevards and promenades.
- Material shall be metal, concrete, or concrete tile of a neutral shade.
- Articulated from the building mass.
- Flat roofs are not acceptable for landmark buildings.
- Materials and Finishes
- Stone, brick or concrete masonry
- Cast-in-place or precast concrete
- Cement Plaster
- Metal, concrete, or clay tile (flat profile) roofing for landmark buildings
- Parapet bordered, ballasted, membranes for flat roofs.
- Color Strategy
- Bright and sunny
- Light colors predominate
- Neutral shades on roofs and special wall surfaces
- Complimentary colors on accent features

Sustainability Measures

The City’s Sustainability Action Plan includes measures to achieve sustainability targets as applicable for all public facilities and specified private improvements:

- Green Building Ordinance
- Energy Efficiency in Site Planning and Design
- Energy Efficient Products
- Energy Efficient Retrofits for City Street Lights
- Solar Panel Installations on Municipal Facilities
- Energy Efficiency Settings for City Desktop Computers
- Reduced Parking Requirements
- Support for Bicycling
- Support for Transit
- Smart Growth, Urban Design and Planning
- Parking Cash-Out Programs for Employees
- Increased Use of Low Carbon Fueled Vehicles
- High-Density Infill Projects
- Non-Toxic Building Materials
- Green Building Training for City Staff
- Emerald Tracy Website
- San Joaquin Council of Governments Sustainable Communities Strategy

See "City of Tracy *Sustainability Action Plan*" (2011).

This study augments the above already published measures with the following regional-appropriate measures to achieve sustainability, including extending the survivability of facilities. These are recommended as design guidelines for the public facilities to be built resulting from this master plan.

Extended Survivability – Facilities built under the CPSMP update should be designed with extended survivability built-in. The recent earthquake & tsunami in Japan is yet another example of what happens in disasters when structures are not able to survive and remain in service. This was probably a 300-year event, but the probability of such events is often misunderstood and misused. This event could easily have happened today, here in California. While an ocean tsunami is not possible in Tracy, the area is certainly earthquake-prone. The USGS database shows that there is a 98.035% chance of a major earthquake within 50 kilometers of Tracy – well within the lifetime of Tracy's public buildings and representing a serious threat to the delivery of public services when they are needed most. This may be the City of Tracy's highest duty and responsibility - to serve the public during times of critical emergency. (See Figure 54.)

Figure 54 - Earthquake, Chile

To do so, the City must have facilities that have survived any predicted event and remain functional and can support emergency service delivery. Most planning and building design standards for earthquakes are based on the ability of a structure to withstand only a 100-year event. The earthquake and tsunami in Japan, Hurricane Katrina, and other major events demonstrate the need for facilities to remain useable post disaster for extended periods without electric power and other services. Designing for this is called the "*extended survivability*" design process.

Figure 55 – Viscous Damper Retrofit, Kent WA

Extended Survivability Defined - "*Extended Survivability*" is the ability of a facility to remain useable even when disaster has stricken and electric and other utilities are down for extended periods. As an urban planning and architectural design concept, it defines how a district or building is able to continue to operate even during a protracted outage of utility services such as electric power, natural gas, water and sewerage. As applied in California, it defines the ability to survive the maximum anticipated earthquake, forest fire, flood or other natural disaster, and to endure the prolonged power and other outages that may follow. At present, public safety facilities need only to comply with minimum building code requirements and provide for emergency power generation for a limited period of time, up to 72 hours. Largely unaddressed, however, is the long term functionality of the post-disaster facility. Examples of earthquake-resistant design are shown in Figure 55, Figure 56, Figure 57, and Figure 58.

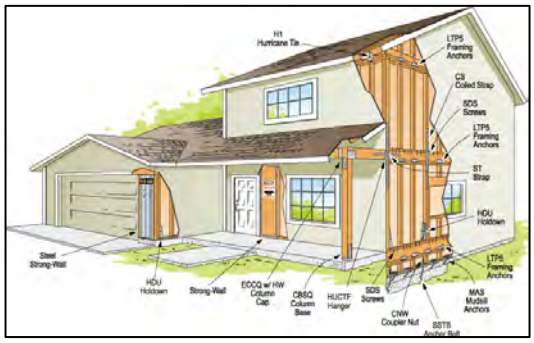

Figure 56 – Code-Prescribed Earthquake-Resistance

This is where extended survivability comes in. This is especially critical for Police and Fire essential services buildings which need to function after a disaster. Advances in earthquake engineering, energy conservation, and design with climate and onsite energy production have made this possible to achieve. However, it requires the adoption of a new architectural and engineering design paradigm. A major component of this paradigm is the use of sustainable and passive design with climate-adapted techniques.

Passive planning and design principles utilize the forces of nature to help ensure continued building functionality. Structural design techniques such as using "shock absorbers" in the frame to soften the blow of earthquake forces, allow the building to respond with minimal impact to structure and contents. (See Figure 61, p.58) Use of natural lighting from skylights and windows allows daytime building use without electric power for lighting.

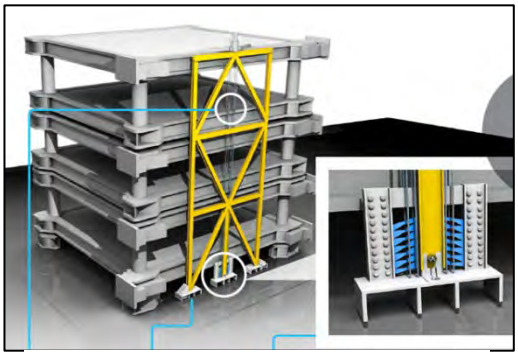

Figure 57 – Steel Fuse Technology, Stanford & Northeastern Universities

Natural ventilation and operable windows help ensure that the building can be used even when power or fuel supply for mechanical systems is compromised. Heating and cooling load avoidance strategies, passive solar design principles, and use of thermal mass to reduce indoor temperature fluctuation are all effective techniques. The reduced demand on emergency power generation resulting from the above listed strategies greatly extends the period of time when the building can remain operational. Finally, small photovoltaic electric systems can then maintain computer and critical communications functionality.

Benefits & Relation To Sustainability **-** The three main benefits of extended survivability in buildings are: 1) *extended emergency operations* are provided long after onset of an emergency, 2) *workplace quality* is dramatically improved and 3) *energy-efficiency* is improved substantially reducing energy costs and making LEED certification easier.

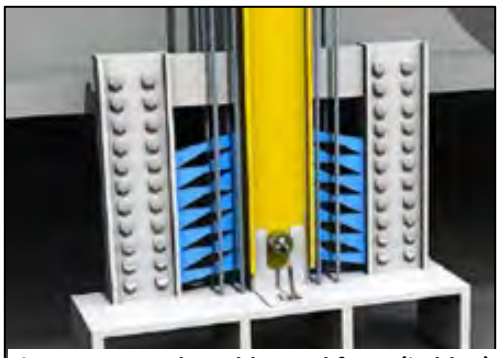

Figure 58 – Replaceable steel fuses (in blue) contort to absorb seismic energy.

Extended Emergency Operations - The first benefit is that services remain available in a post-emergency scenario and allow for continuous, operations long after the onset of an emergency event such as earthquake, flood, fire, etc. Services required for functionality, building envelope integrity, safety provisions, water and energy availability and the presence of light and air are all provided in a cascading arrangement depending on the extent and duration of emergency. (See Figure 59.)

OPERATION		NORMAL MODE	EMERGENCY MODE	EXTENDED SURVIVABILITY MODE
		normally available	<72 hr. post-event	>72 hr. post-event
		(N)	(E)	(ES)
FUNCTION	All functions fully operational	x		
	Most functions are operational	x	x	
	Critical functions are operational	x	x	x
ENVELOPE	Envelope is intact and fully functional	x		
	Envelope, if damaged, can be immediately occupied	x	x	
	Envelope, if damaged, operates in manual mode	x	x	x
	Envelope admits natural light and air for occupancy	x	x	x
SAFETY	Structure resists all normal and lateral loads	x		
	Structure may be damaged but is safe to occupy	x	x	
	Structure and utilities may be damaged but safe to oc	x	x	x
WATER	Water systems are fully available	x		
	Water supplied by City pressure or e-generator pumps	x	x	
	Water provided only by storage or solar pumps	x	x	x
ENERGY	Normal heating and cooling is available	x		
	Heating and cooling powered by e-generator	x	x	
	Passive heating and cooling, thermal mass	x	x	x
	Photovoltaic with battery backup	x	x	x
LIGHT & AIR	Mechanical ventilation fully available	x		
	Electric lighting fully available	x		
	Electric lighting available assist from e-generator	x	x	
	Natural ventilation with power assist from e-generator	x	x	
	Natural lighting available with battery nightlighting	x	x	x
	Natural ventilation available	x	x	x

Figure 59 - Table of Extended Emergency Operations

Normal (N) Mode operations provide for full serviceability. Emergency (E) Mode operation takes effect during the first 72 hours of an emergency and provides most services normally available, thanks in large part to the presence of emergency power generation with proper fuel supply. (See Figure 60.) Extended Survivability (ES) Mode provides for continued serviceability during protracted emergencies when the grid may be down for long periods of time, beyond the 72-hour duration fuel supply and when refueling may not be an option due to the nature of the emergency, for example in a major earthquake. In this mode of operation, unlimited and ongoing operations of critical systems are possible.

Figure 60 – Emergency Generator with Shear Lugs Added to Seismic Skid Mount

The traditional code-based design approach does not design with extended survivability in mind. Design to code-only assures life safety for typical structures so people can get out, but does not limit damage to the degree that the building can remain in use. After an earthquake, for example, buildings still standing must often undergo major rehabilitation or be completely replaced due to the prohibitive cost of repair. Extended survivability design protocol includes the use of high performance engineering methodologies instead of prescriptive code-based design techniques. (See Figure 61.)

Figure 61 - Earthquake Protected Police Building with Seismic Dampers & Daylighting, Vacaville, CA

Workplace Quality Improved - The second benefit of designing for extended survivability is that a much higher quality workplace environment results from the use of natural lighting and ventilation. Daylight provides building users with superior visual acuity, a sense of psychological well being, and dramatic energy savings. Extensive research has shown that naturally lit buildings which control the use of daylight for the benefit of the occupants improve worker satisfaction and productivity as well as reduce absenteeism. This is due to the superior quality of natural light, exposure to the diurnal cycle and the provision of exterior views which are all part of a daylighting strategy. Just as we bring daylight and air inside the building envelope, we understand the importance of bringing people to the outside of buildings. Shelter, good solar orientation, courtyards and covered walkways provide outdoor spaces which can be used year-round.

Energy-efficiency, LEED and Sustainability - The third benefit is that the planned absence of energy to run the building causes the designer to consider the climate of a region in its design, which in turn makes a building inherently more energy-efficient. Designing for the specifics of climate is the most powerful way to reduce energy consumption. By designing with natural systems instead of trying to override them, low-cost or even no-cost energy reduction gains are made. In simple terms, passive solar, thermal mass storage, natural lighting and ventilation and other low-cost sensible techniques are employed to reduce reliance on energy-intensive mechanized solutions.

Developing a strong, simple extended survivability rationale results in elegant building designs that harness natural forces with the latest in technology and, in the process, make buildings more easily certifiable in high-performance building programs such as LEED. The path to LEED, zero net-energy buildings and carbon neutrality becomes easier to follow under the extended survivability framework, helping Tracy meet those goals, as well as creating highly energy-efficient public facilities which are better, more productive work environments.

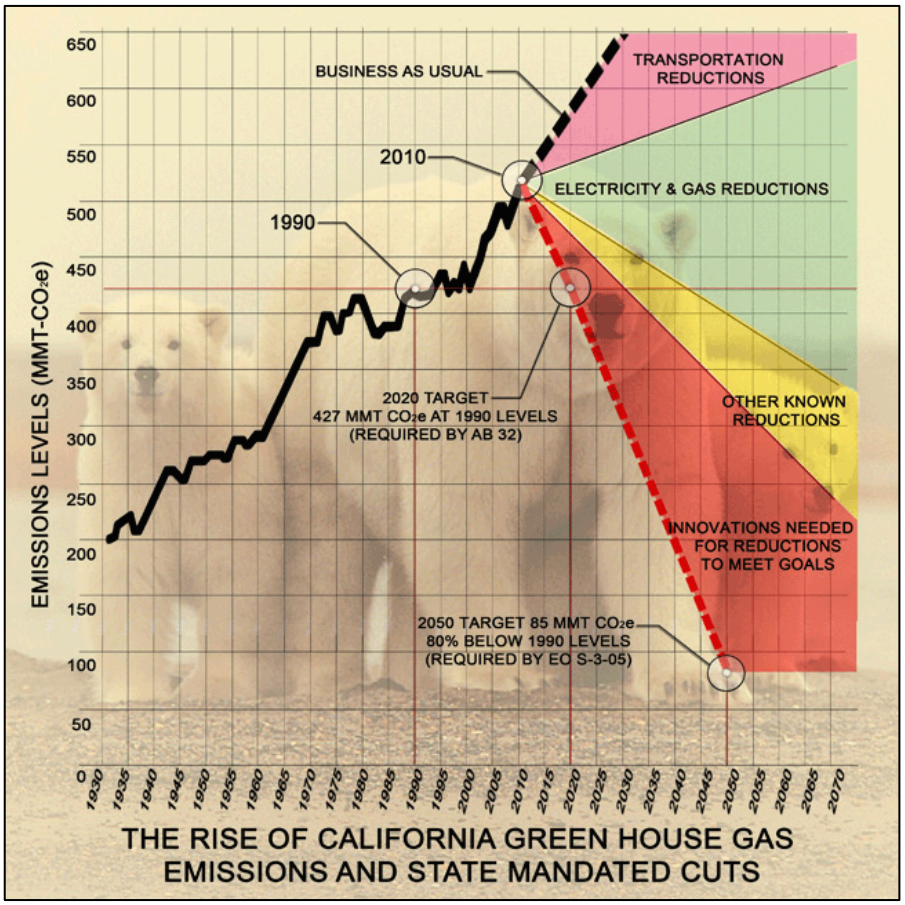

Figure 62 - Green House Gas Mandate

Green House Gas Reduction **-** Extended survivability and energy efficiency measures directly mitigate greenhouse gas (GHG) emissions, facilitating City of Tracy compliance with AB 32 and EO S-3-05. The GHG target from Tracy's Sustainability Action Plan is a 15 percent reduction in per capita emissions from the 2006 baseline of 11.6 metric tons of carbon dioxide equivalent. This target is adopted as a facility design guideline for the public facilities resulting from this CPSMP update.

Green house gases (GHG) trap heat in the atmosphere, causing the earth to warm. The scientific consensus on climate change is that the fossil fuel driven increase in CO2 emissions has caused a rapid increase in global average temperatures over the past one hundred years; this is particularly evident over the last five decades.

In response, California has enacted climate change legislation, most notably AB 32, which establishes climate change emissions reduction targets for the state. AB 32 requires GHG emissions to be reduced to 1990 levels by 2020 and EO S-3-05 would see emissions drop to preindustrial levels by 2050. General Plan update CEQA approvals offer the path to AB 32 compliance for Cities, with the State Attorney General providing ultimate oversight and enforcement.

Local governments have a unique ability to effect GHG mitigation by adopting Climate Action Plans (CAPs). When successfully amended to the General Plan, City and county CAPs provide a roadmap to reduce not only direct operational GHG emissions, but also influence the GHG footprints of citizens, industries, and businesses within their jurisdiction. Through visibility and purchasing power, local governments can set an example for households and businesses in their GHG-reduction practices. Nearly every local, county and state agency in California is acting to mitigate GHG emissions. (See Figure 62 and Figure 62)

Net Zero-Energy Buildings (ZEB) Definition - Net zero-energy buildings (ZEB), including their site, consume zero net energy and emit zero net carbon annually. The result is net zero energy costs, when averaged over a year, for the City.

Simplified ZEB Protocol - Designing for the specifics of climate is the most powerful way to reduce energy consumption and achieve zero-net energy buildings. By designing with natural systems instead of trying to override them, low-cost or even no-cost energy reduction gains are made. In simple terms, passive solar, thermal mass storage, natural lighting and ventilation and other low-cost sensible techniques are first employed. Once the basic building envelope has been optimized for the particular Central Valley climate zone for Tracy, efficient mechanical and electrical systems are used that support all facility uses such as lobbies, office, and training space. Total yearly energy demand is then calculated and converted to photovoltaic capacity in kW to offset this demand. (See Figure 63, p.61.)

ZEB and Life Cycle Cost - Choices at every stage - from standards and specifications to design and construction - are made based on efficacy of function, energy-efficiency, durability and cost. Cost is not only first cost but life cycle cost including maintenance, operations, recycling and replacement cost. Since total envelope and process loads are reduced to minimum, there is a corresponding reduction in the offset cost to achieve zero-net energy since less on-site renewable energy (e.g. photovoltaics) is required. This means less cost to installed KW capacity.

Figure 63 - Net Zero-Energy Transportation Center, Vacaville, Ca.

Facility Design Recommendations – A menu of key extended survivability and sustainability features, where appropriate, recommended for the buildings included in the CPSMP update, includes:

- **Photovoltaic power for critical needs** – Consider small-scale rooftop photovoltaics array to power critical emergency circuits, IT, radio, etc. Could be rooftop mounted or site racks.
- **Isolate and protect critical utilities** – Evaluate each building system for criticality including but not limited to radio, telecommunications, power, sanitary sewer, potable water, etc. Identify feasible measures which can be cost-effectively taken to harden against flooding, earthquake or other threat to be determined.
- **Design structures to "immediate-occupancy" level** – The new Police Department Service Center and Fire Stations will be designed to the highest structural level, that of immediate occupancy, which means that the structural frame and all building services will be available after a seismic event.
- **Use seismic dampening to improve survivability at same cost** – Consider use of viscous fluid dampers (VFD) or other structural dampening techniques to increase the resilience of the building frame under earthquake loads, improving survivability during and serviceability after an earthquake.
- **Use energy-efficient design to extend survivability and reduce utility bills –** A variety of measures such as east-west building orientation, use of thermal mass, high-efficiency mechanical strategies,

etc. will reduce energy consumption and extend the duration in which emergency power can be provided.

- **Use natural light and ventilation to improve workplace quality and extend survivability –** Use of natural lighting and ventilation provides for a high-quality workplace day-in and day-out, but also means that the building can be passively operated and inhabited when emergency power has been exhausted.
- **Make full use of daylighting** – Make full use of windows for daylight, use skylights at roof so that most of building can be naturally lit for use in emergency. Daylighting means that primary work spaces are provided with natural light from skylights and/ or high windows with light shelves, with the electric lighting system controlled by light sensors which automatically turn them off when there is sufficient natural light. 30% - 50% of the energy used by most buildings in the U.S. goes into lighting, a large share of that can be saved by a daylighting system.
- **Add window shading** – Use overhangs, solar screens and other devices to permit view out, yet reduce summer heat load, reduce air conditioning demand and extend duration of emergency generator power due to reduced rate of fuel consumption. Saves on utility bill, too.
- **Provide super-insulation** – Maximum insulation values are utilized. Wall insulation of up to R-40 is encouraged, twice the usual thermal resistance of a wall. Roof insulation values between R-30 and R-40 are desired. Consider alternative building technologies like using California's Central Valley's own straw bale as insulation for buildings which provides up to R-40 walls.
- **Increase thermal mass** – Heat storage capacity is maximized through the use of high specific heat and heat capacity materials such as concrete, masonry and even interior wallboard assemblies. Novel use of materials to increase thermal mass should be considered such as straw bale covered concrete exterior walls, concrete floor and concrete roof to name a few. The large heat storage capacity of these surfaces will moderate temperature swings in the building and reduce the demand for heating and cooling. The resulting "thermal flywheel" effect can be amplified through use of nighttime ventilation strategies to help "carry" the building through hot summer days with less mechanical cooling required.
- **Nighttime ventilation** – During the summer, when the night air is cool, buildings can be ventilated with outside air to cool the heavy mass of interior and exterior walls. A cool slab and heavy mass walls will help keep the building cool for much of the day. Thus, demand for mechanical refrigeration cooling can be greatly reduced in Tracy's hot climate.
- **Reflective cool roof** – Where re-roofing is required, use "cool roof" products. Roofs should be cool roof designs which reduce roof surface temperatures, reduce heat transmission into the building and reduce "heat island" effect.
- **Use natural ventilation** – Natural ventilation or mixed-ventilation delivery of outside air could be provided. Naturally ventilated air will flow from low vents to high vents.
- **High-efficiency mechanical systems** – Use high-efficiency mechanical systems which will reduce utility bills at same time as extending duration of emergency generator power due to reduced rate

of fuel consumption. Consider water-based systems in order to avoid the inherently less-efficient heat transfer provided by air-based systems.

- **Raise sites for minimum 100-year flood protection** – Public facility sites should be raised minimum 1' above base flood elevation (BFE) to protect against projected 100-year flood events. Consider berming to further protect against flooding.
- **Design two-story buildings** – This provides a second level retreat in case of severe flooding, helping ensure delivery of public services during emergencies. Also saves land. The resulting compact building design allows multiple departments to share one elevator, resulting in a resource-efficient and energy-efficient design.
- **Place critical functions on second floor** – In order to provide an area of retreat in case of flooding which exceeds the 100-year projection, place critical functions on second floor where flood water will not reach. Critical functions include the Emergency Operations Center (EOC), Dispatch/ Communications, other.
- **Elevate emergency generator and fuel supply** – Raise emergency power generator and its 72-hour fuel supply to be able to withstand any flooding risk, also includes transfer switch and emergency power panels. Space below to be used for storage and hardened against flooding.

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APPENDIX A – PUBLIC SAFETY STAFFING PROJECTIONS

Projected staffing for public safety agencies are shown in the table below. It should be emphasized that staffing projections are an intermediate step to determine needed facilities, and are not a basis for budgeting future positions.

Police Department Staffing Projections

	Current	2040	Comment
Police Department			
Office of the Chief			
Chief of Police	1.0	1.0	Sworn
Deputy Chief	0.0	1.0	Sworn
Professional Standards Officer	1.0	1.6	Sworn
Executive Assistant	1.0	1.0	Civilian
Bureau of Field Operations			
Captain	1.0	1.0	Sworn
Administrative Assistant	1.0	1.4	Civilian
Patrol Division			
Lieutenant	4.0	4.0	Sworn
Day Shift			
Sergeant	2.0	4.2	Sworn
Corporal	2.0	4.2	Sworn
Officer	12.0	19.1	Sworn
Community Service Officer	2.0	2.8	Civilian
Swing Shift			
Sergeant	2.0	4.2	Sworn
Corporal	2.0	4.1	Sworn
Officer	12.0	19.0	Sworn
Community Service Officer	2.0	2.8	Civilian
Night Shift			
Sergeant	2.0	3.6	Sworn
Corporal	2.0	3.6	Sworn
Officer	12.0	19.0	Sworn
Community Services Division			
Lieutenant	1.0	1.0	Sworn
Neighborhood Resource Unit			
Sergeant	1.0	2.0	Sworn
Corporal	1.0	2.0	Sworn
Officer	1.0	1.6	Sworn
School Resource Officer	3.0	4.7	Sworn
DARE Officer	1.0	1.6	Sworn
Crime Prevention Specialist	2.0	2.8	Civilian
Volunteers in Police Services	25.0	35.6	Unpaid Civilian
Traffic Safety Unit			
Sergeant	1.0	1.0	Sworn
Corporal	1.0	1.0	Sworn
Officer	3.0	4.7	Sworn
Traffic Interns	2.0	2.8	Unpaid Civilian

(table continued on following page)

Police Department Staffing (continued)			
Code Enforcement			
Community Preservation Manager	1.0	1.0	Civilian
Code Compliance Analyst	1.0	1.4	Civilian
Administrative Assistant II	1.0	1.4	Civilian
Building Inspector II	1.0	1.4	Civilian
Code Enforcement Officer	3.0	4.3	Civilian
Bureau of Support Serivces			
Police Support Operations Manager	1.0	1.0	Civilian
Police Support Services Technician	1.0	1.4	Civilian
Animal Services			
Supervisor	1.0	1.0	Civilian
Administrative Assistant II	2.0	2.8	Civilian
Animal Services Officer	4.0	5.7	Civilian
Animal Services Aide	2.0	2.8	Civilian
Records			
Records Unit Supervisor	1.0	1.0	Civilian
Police Records Assistants	7.0	10.1	Civilian
Dispatch			
Communications Unit Supervisor	1.0	1.0	Civilian
Lead Public Safety Dispatchers	4.0	4.0	Civilian
Public Safety Dispatchers	12.0	17.3	Civilian
Bureau of Investigations			
Captain	1.0	1.0	Sworn
Lieutenant	1.0	1.0	Sworn
Administrative Assistant II	1.0	1.4	Civilian
Crime Analyst	1.0	1.4	Civilian
General Investigations Unit			
Sergeant	1.0	2.7	Sworn
Corporal	1.0	2.7	Sworn
Detective	9.0	14.2	Sworn
Special Investigations			
Sergeant	1.0	1.0	Sworn
Corporal	1.0	1.0	Sworn
Detective	3.0	4.7	Sworn
Special Enforcement			
Sergeant	2.0	2.0	Sworn
Corporal	1.0	1.6	Sworn
Officer	6.0	9.5	Sworn
Crime Scene Unit			
Crime Scene Supervisor	1.0	1.0	Civilian
Crime Scene Technician	4.0	5.7	Civilian
Subtotal Sworn Officers	96.0	152.2	
Subtotal Civilians	58.0	77.9	
Police Department Budgeted Total	**154.0**	**230.1**	
Interns and Volunteers	27.0	38.4	
Police Department Occupant Total	**181.0**	**268.5**	

Fire Department Staffing Projections

Fire Department	Current	Buildout	
Fire Chief	1.0	1.0	Certified
Division Chief	2.0	2.0	Certified
EMS Manager	1.0	1.0	Civilian
Executive Assistant	1.0	1.0	Civilian
Fire Prevention Division			
Fire Marshal	1.0	1.0	Certified
Administrative Assistant II	1.0	2.0	Civilian
Fire Inspectors	3.0	4.5	Certified
Hazardous Materials Inspector	0.0	1.0	Civilian
Plans Check Examiner	1.0	2.0	Civilian
Building Permit Technician	1.0	2.0	Civilian
Fire Operations Division			
Battalion Chief	3.0	3.0	Certified
Administrative Assistant II	1.0	2.0	Civilian
Fire Captain	22.0	28.0	Certified
Fire Engineer	21.0	27.0	Certified
Firefighter	24.0	30.0	Certified
Fire Training Division			
Fire Captain	0.00	1.0	Certified
Administrative Assistant II	0.00	1.0	Civilian
Subtotal Certified Firefighters	77.0	97.50	
Subtotal Civilian	6.0	12.00	
Fire Department Budgeted Total	**83.00**	**109.50**	
Budgeted Separately: Fire Reserve	25.0	37.5	Certified
Fire Department Occupant Total	**108.00**	**147.00**	

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APPENDIX B – PUBLIC SAFETY SPACE PROJECTIONS

Police Department Space Projections

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Police Department						
Administration						
Chief of Police	300	1	300	1	300	
Deputy Chief	200	0	0	1	200	
Professional Standards Officer	120	1	120	2	240	
Executive Assistant	120	1	120	1	120	
Reception/Waiting	225	1	225	1	225	
Conference Room	230	1	230	1	230	
File Room	85	1	85	1	85	
Coffee Counter	20	1	20	1	20	
Supply	30	1	30	1	30	
Subtotal, Net Area			1,130		1,450	
Departmental Area (add 30%)			1,470		1,890	
Bureau of Field Operations						
Captain	160	1	160	1	160	
Administrative Assistant	64	1	64	1	64	1 @ Substation
Patrol Division						
Watch Commander's Office	140	1	140	0	0	1 @ Substation
Sergeants	150	1	150	0	0	1 @ Substation
Corporals	150	1	150	0	0	1 @ Substation
Community Service Officers	150	1	150	0	0	1 @ Substation
Patrol Ready Room	240	1	240	0	0	1 @ Substation
Conference Room	100	1	100	0	0	1 @ Substation
Report Area	24	4	96	0	0	6 @ Substation
Briefing Room	300	1	300	1	300	
Armory	100	1	100	1	100	
SWAT Armory	100	1	100	1	100	
Patrol War Bag Storage	—	1	20	1	20	Shelves with access zone
Files	—	0	160	1	160	See also Substation
Equipment Room	—	0	130	1	130	See also Substation
Mail Boxes	—	1	80	1	80	See also Substation
Subtotal, Net Area			2,140		1,114	
Departmental Area (add 30%)			2,780		1,331	58% Substation reduction
Community Services Division						
Lieutenant Office	160	1	160	1	160	
Neighborhood Resource Unit						
Sergeant Office	120	1	120	2	240	
Corporal	64	1	64	2	128	
Officer	64	1	64	2	128	
School Resource Officer	48	3	144	5	240	
DARE Officer	64	1	64	2	128	
Crime Prevention Specialist	64	2	128	3	192	
Convenience Copier/Printer	20	1	20	1	20	
Coffee Counter	20	1	20	1	20	
Subtotal, Net Area			784		1,256	
Departmental Area (add 30%)			1,020		1,630	

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Police Department						
Bureau of Field Operations, cont…						
Traffic Safety Unit						
Sergeant Office	120	1	120	1	120	
Corporal	64	1	64	1	64	
Officer	64	3	192	3	192	2 @ Substation
Traffic Interns	48	2	96	2	96	1 @ Substation
Equipment Room	80	1	80	1	80	
Convenience Copier/Printer	20	0	0	1	20	
Coffee Counter	20	1	20	1	20	
Subtotal, Net Area			572		592	
Departmental Area (add 30%)			740		764	24% Substation reduction
Code Enforcement						
Community Preservation Mgr	120	1	120	1	120	
Code Compliance Analyst	64	1	64	2	128	
Administrative Assistant II	64	1	64	2	128	
Building Inspector II	64	1	64	2	128	
Code Enforcement Officer	64	3	192	5	320	
Drawing Files	15	1	15	1	15	
Layout Table	20	1	20	1	20	
Convenience Copier/Printer	20	1	20	1	20	
Coffee Counter	20	1	20	1	20	
Subtotal, Net Area			579		899	
Departmental Area (add 30%)			750		1,170	
Total Bureau of Field Operations Net			5,205		5,311	
Departmental			6,760		6,785	

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Police Department						
Bureau of Support Services						
Police Support Operations Manager	190	1	190	1	190	
Police Support Services Technician	64	1	64	2	128	
Subtotal, Net Area			254		318	
Departmental Area (add 30%)			330		410	
Records						
Records Unit Supervisor	120	1	120	1	120	Shared between shifts
Police Record Assistants	64	7	448	9	576	2 @ Substation
Service Counter	50	1	50	1	50	
Fingerprint Livescan	25	1	25	1	25	
File Area	—	1	170	1	170	High density storage
Work Room	220	1	220	1	220	
Document Scanning	100	1	100	1	100	Also @ Substation
Storage	100	1	100	1	100	
Coffee Counter	20	1	20	1	20	
Subtotal, Net Area			1,253		1,381	
Departmental Area (add 30%)			1,630		1,737	21% Substation reduction

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Police Department						
Bureau of Support Services, cont…						
Dispatch						
Communications Supervisor	160	1	160	1	160	spare console in office
Communications Operator	115	6	690	10	1,150	
Lockers	—	1	42	1	63	
Storage	100	1	100	1	100	
Break Room	100	1	100	1	100	
Toilet	50	1	50	1	50	
Equipment Room	80	1	80	1	80	
Subtotal, Net Area			1,222		1,703	
Departmental Area (add 30%)			1,590		2,210	
Shared Support						
Conference Room	150	1	150	1	150	
Mail Room	100	1	100	1	100	
Mail Boxes	20	1	20	1	20	Alcove outside mail room
Shipping & Receiving	120	1	120	1	120	
Subtotal, Net Area			390		390	
Departmental Area (add 30%)			510		510	
Total Bureau of Support Services Net			3,119		3,792	
Departmental			4,060		4,867	

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Police Department						
Bureau of Investigations						
Captain	160	1	160	1	160	
Lieutenant	160	1	160	1	160	
Administrative Assistant II	64	1	64	2	128	
Crime Analyst	64	1	64	2	128	
General Investigations Unit						
Sergeant	120	1	120	3	360	
Corporal	64	1	64	3	192	
Detective	24	9	216	15	360	
Special Investigations						
Sergeant	120	1	120	1	120	
Corporal	64	1	64	1	64	
Detective	24	3	72	5	120	
Special Enforcement						
Sergeant	120	2	240	2	240	
Officer	24	6	144	10	240	
Shared Spaces						
Equipment Room	50	1	50	1	50	
Reception Counter	50	1	50	1	50	
Interview Room	50	3	150	4	200	
Conference Room	250	1	250	1	250	
Copy/Supply	80	1	80	1	80	with plotter
Subtotal, Net Area			2,068		2,902	
Departmental Area (add 30%)			2,690		3,770	

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Police Department						
Bureau of Investigations, cont…						
Crime Scene Unit						
Crime Scene Supervisor	120	1	120	1	120	
Crime Scene Technician	64	4	256	6	384	
Property Receiving & Staging						
Work Area	100	1	100	1	100	
Lockers	60	1	60	1	60	
Receiving & Processing Area	260	1	260	1	260	
Evidence Viewing	100	1	100	1	100	
Laboratory	90	4	360	6	540	
Computer Forensics	320	1	320	1	320	
Chemical Storage	100	1	100	1	100	
Equipment Storage	100	1	100	1	100	
Waste Area	80	1	80	1	80	
Property Room	—	1	3,600	1	5,200	All forms of prop storage
Subtotal, Net Area			5,456		7,364	
Departmental Area (add 30%)			7,090		9,261	3% Substation reduction
Temporary Holding Facility						
Vehicular Sallyport	430	1	430	1	430	
Pedestrian Sallyport	50	1	50	1	50	
Prebooking	100	1	100	1	100	
Identification	100	1	100	1	100	
Shower	50	1	50	1	50	
Property	100	1	100	1	100	
Holding Cell	60	5	300	8	480	
ADA Holding Cell	60	1	60	1	60	
Interview Room	80	1	80	1	80	
Subtotal, Net Area			1,270		1,450	
Departmental Area (add 30%)			1,650		1,890	
Total Bureau of Investigations Net			8,794		11,716	
Departmental			11,430		14,921	

Appendix B – Public Safety Space Projections, continued…

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Police Department						
Ancillary Areas						
Lobby	1,000	1	1,000	1	542	458 sq ft Lobby @ Substation
Probation Office	100	1	100	1	100	
Community/Conference Room	250	1	250	0	0	200 sq ft Conf @ Substation
Live Scan	70	1	70	1	70	
Interview Room	70	1	70	1	70	
Break Room	255	1	255	1	255	
Staff Lactation Room	70	1	70	1	70	
Fitness Room	860	1	860	1	535	325 sq ft Gym @ Substation
Men's Lockers	22	60	1,290	119	2,559	33 Lockers @ Substation
Women's Lockers	22	36	774	42	903	16 Lockers @ Substation
DOC	900	1	900	1	900	Former EOC
DOC Conference	300	1	300	1	300	
DOC Table & Chair Storage	145	1	145	1	145	
Computer Room	400	1	400	1	245	155 sq ft IT @ Substation
Subtotal, Net Area			6,484		6,694	
Departmental Area (add 30%)			8,430		7,855	32% Substation reduction
Emergency Operations Center						
EOC	1,000	0	0	1	1,000	
Conference	240	0	0	2	480	
Table & Chair Storage	150	0	0	1	150	
Intermediate Distribution Frame	80	0	0	1	80	
Subtotal, Net Area			0		1,710	
Departmental Area (add 30%)			0		2,220	
Summary for Police Department Total Needs						
Net Area			23,602		29,223	
Departmental Area			30,680		36,648	
Gross Area (add 30%)			40,800		47,400	

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Police Substation						
Public Spaces						
Lobby	310	0	0	1	310	
Public Toilets	74	0	0	2	148	
Community Meeting/ Briefing	823	0	0	1	823	
Community Room Storage	50	0	0	1	50	
Conference Room	200	0	0	1	200	
Secure Spaces						
Reception	208	0	0	1	208	
Kitchen/ Break Room	365	0	0	1	365	
Video Monitor Room	236	0	0	1	236	
Records Files	130	0	0	1	130	
Duplication/ Paper Processing Rm	125	0	0	1	125	
Central Supply	79	0	0	1	79	
Open Office Workstations	75	0	0	12	900	
District Commander's Office	175	0	0	1	175	
Sergeants Office Workstations	75	0	0	6	450	
Showers, Lockers, and Toilets	26	0	0	49	1,274	49+ Lockers
Gym	325	0	0	1	325	
Janitor Closet	39	0	0	1	39	
Evidence Prep	164	0	0	1	164	
Evidence Receiving	145	0	0	1	145	
Electrical Closet	127	0	0	1	127	
Armory	62	0	0	1	62	
Server Room	155	0	0	1	155	
Staff Entry	112	0	0	1	112	
Subtotal, Net Area			0		6,602	
Gross Area (+33%)			0		8,800	

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Animal Services (net subtotals)						
Public Areas			733		1,680	
Animal Areas			3,572		4,817	
Staff Areas			1,300		1,877	
Shelter Veterinary			0		644	
Subtotal, Net Area			5,605		9,018	
Departmental Area (add 30%)			7,287		11,723	
Gross Area (add 33%)			9,692	-	15,592	-

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Police Training						
Administrative						
Training Office	120	1	120	1	120	
Clerk	64	0	0	1	64	
Visiting Instructor	64	0	0	1	64	
Reception/Waiting	100	0	0	1	100	
Copy/Workroom	200	1	143	1	200	
Supplies Storage	100	1	72	1	100	
Instructional Areas						
Classroom	1,085	1	777	1	1,085	
Arrest & Control Activity Area	3,100	1	2,220	1	3,100	
Tactical Firearms Simulator	970	1	695	1	970	
Furniture Storage	150	1	107	1	150	
Supplies Storage	150	1	107	1	150	
Break Area	450	1	322	1	450	
Weight Room	900	1	645	1	900	
Men's Shower	818	1	586	1	818	
Women's Shower	502	1	360	1	502	
Subtotal, Net Area			6,170		8,773	
Departmental Area (add 30%)			8,021		11,400	
Training Total Gross Area (+33%)			10,694		15,200	

Function/Department		Current Area	Horizon 2040 Area	Comments
Police Building Totals				
Police Total Net Area		35,377	53,616	
Police Total Departmental Area		45,988	59,771	Substation is Gross Only
Police Total Gross Area		61,186	86,992	

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon Year 2040 No. Units	Horizon Year 2040 Net Area	Comments
Police Training						
Site Elements						
Firearms Training Range	1,378	1	1,378	1	1,378	
Storage Building	400	0	0	1	400	Pre-Engineered Bldg.
Site Vehicular Circulation	—	—	345	—	445	
Subtotal Training Site Elements			1,723		2,223	

Function/Department	Unit S.F.	Current No. Units	Horizon Year 2040 No. Units	Comments
Police Department Vehicles				
Administration				
Misc. Equipment UD		1	1	
Sedan		2	4	
SUV		3	5	
Off-Road EV		2	3	
Patrol Force				
Sedan		5	8	
SUV		37	62	
Pickup		3	5	
Community Services Division				
Sedan		1	2	
SUV		2	3	
Pickup		3	5	
Traffic				
Pickup		1	1	
Motorcycles		9	12	
Electric Motorcycle		2	3	
Car Trailer		3	4	
Speed Trailer		2	3	
Parking Enforcement				
Pickup		2	3	
Animal Services				
Pickup		2	3	
General Investigations				
Sedan		5	9	
SUV		4	7	
Undercover		1	2	
Special Enforcement				
SUV		2	3	
Property/Evidence				
Pickup		3	4	
SWAT				
Armored Personnel Carrier		1	1	
Van		1	1	
Generator		1	1	
Mobile Command Post				
KVM Switch		1	1	
Generator		1	1	
Police Vehicles Total		100	157	

Fire Department Space Projections

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Buildout No. Units	Buildout Net Area	Comments
Fire Department						
Administration						
Fire Chief	320	1	320	1	320	
Division Chief	220	2	440	2	440	
EMS Manager	190	1	190	1	190	
Executive Assistant	100	1	100	1	100	
Fire Prevention						
Fire Marshal	190	1	190	1	190	
Administrative Assistant II	64	1	64	2	128	
Fire Inspectors	64	3	192	5	320	
Hazardous Materials Inspector	64	0	0	1	64	
Plans Check Examiner	64	1	64	2	128	
Layout	32	1	32	1	32	
Fire Operations (Administrative)						
Battalion Chief	190	3	570	3	570	
Administrative Assistant II	64	1	64	2	128	
Fire Training Division						
Fire Captain	120	0	0	1	120	
Administrative Assistant II	64	0	0	1	64	
Shared Spaces						
Reception	100	1	100	1	100	
Conference Room	530	1	530	1	530	
Training Room	740	1	740	1	740	Becomes DOC in future
Copy Room	80	1	80	1	80	
Break Room	100	1	100	1	100	
Storage	20	1	20	1	20	
Equipment Storage	400	1	400	1	400	
Subtotal, Net Area			4,196		4,764	
Departmental Area (add 30%)			5,450		6,190	
Fire Admin Total Gross Area			7,270		8,250	
Note: at 9,646 gsf, existing Station "A" exceeds Horizon Year 2040 demand by 1,396 gsf.						
Operations						
Existing Fire Stations	—	5	29,372	4	23,820	without Stations A or 97
Fire Stations 94,95,and 99	7,070	0	0	3	21,210	
Fire Station 97	7,750	0		1	7,750	
Subtotal, Operations Gross Area			29,372		52,780	

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Buildout No. Units	Buildout Net Area	Comments
Fire Training						
Administrative						
Training Office	120	0	0	1	120	
Clerk	64	0	0	1	64	
Visiting Instructor	64	0	0	1	64	
Reception/Waiting	100	0	0	1	100	
Copy/Workroom	200	0	0	1	200	
Supplies Storage	100	0	0	1	100	
Instructional Areas						
Classroom	1,085	0	0	1	1,085	
Furniture Storage	150	0	0	1	150	
Supplies Storage	150	0	0	1	150	
Break Area	450	0	0	1	450	
Weight Room	900	0	0	1	900	
Men's Shower	818	0	0	1	818	
Women's Shower	502	0	0	1	502	
Subtotal, Net Area			0		4,703	
Departmental Area (add 30%)			0		6,114	
Training Total Gross Area			0		8,130	
Site Elements						
Drill /Burn Tower	9,000	0	0	1	9,000	
Drill/Burn Tower Apron	—	0	0	1	49,700	
Misc Training Apron	—	0	0	1	14,000	
Storage Building	400	0	0	1	400	Pre-Engineered Bldg.
Site Vehicular Circulation	—	—	0	—	18,275	
Subtotal Training Site Elements			0		91,375	

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Buildout No. Units	Buildout Net Area	Comments
Fire Department Vehicles						
Administration (SUVs)			9		9	
Fire Prevention (Light Pickups)			3		5	
Fire Training Division (SUV)			0		1	
Fire Operations						
SUV			2			
Mid Size Pickup			4		4	
Heavy Duty Pickup			1		1	
Engine			10		14	Ownership of new engines proportionate to each new station's service to city.
Ladder			1		2	
Water Tender			1		1	Additonal tender used primarily for unincorporated areas.
Hazmat Trailer			1		1	
Fire Vehicles Total			32		38	

APPENDIX C – PUBLIC SAFETY SPACE PROGRAM DISTRIBUTION TABLE

	Building	Shared	Fire			Police														Subtotal
		EOC	Admin	Training	Stations	Admin	Field Operations	Community Services	Traffic	Code Enforcement	Support Services	Animal Services	Records	Dispatch	Shared Support	Investigations	Crime Scene	Holding	Ancillary Areas	Training	w/ 33% Gross Circulation
A	Fire Headquarters	Station "A"																			
91	Fire Station 91		9,646 sf		7,401 sf																9,646 sf
92	Fire Station 92				5,136 sf																7,400 sf
93	Fire Station 93				6,147 sf																5,136 sf
94	Fire Station 94 (Reloc. Cordes Ranch Area) incl. Ladder Bay				7,750 sf																6,147 sf
95	Fire Station 95 (Tracy Hills Area)				7,070 sf																7,750 sf
96	Fire Station 96				5,136 sf																7,070 sf
97	Fire Station 97 (Relocation - Valpico) incl. Ladder Bay				7,750 sf																5,136 sf
99	Fire Station 99 (Ellis Area)				7,070 sf																7,750 sf
T	Fire Training Facility - Phases 2 & 3			9,868 sf																	7,070 sf
			9,600 sf	9,900 sf	53,500 sf																9,868 sf
P	PD Remodel & Addition on Expanded Civic Center Site	2,220 sf				1,890 sf	1,331 sf	1,630 sf	764 sf	1,170 sf	410 sf		1,737 sf	1,220 sf	510 sf	3,770 sf	9,261 sf	1,890 sf	7,855 sf		73,000 sf
S	South Tracy Police Substation						1,839 sf		236 sf				463 sf				309 sf		3,765 sf		47,425 sf
T	Police Department Training Facility																			11,400 sf	8,794 sf
D	Police Department Animal Shelter - Phase 2											15,592 sf									15,162 sf
	SUBTOTAL POLICE DEPARTMENT	2,220 sf				1,890 sf	3,200 sf	1,630 sf	1,000 sf	1,200 sf	400 sf	15,600 sf	2,200 sf	1,200 sf	500 sf	3,800 sf	9,600 sf	1,900 sf	11,600 sf	11,400 sf	15,592 sf
RCT	Public Safety Radio Communications Facilities	400 sf																			87,000 sf
	SUBTOTAL COMMUNICATIONS FACILITIES	400 sf																			400 sf
	SUBTOTAL PUBLIC FACILITIES	2,600 sf	9,600 sf	9,900 sf	53,500 sf	1,900 sf	3,200 sf	1,600 sf	1,000 sf	1,200 sf	400 sf	15,600 sf	2,200 sf	1,200 sf	500 sf	3,800 sf	9,600 sf	1,900 sf	11,600 sf	11,400 sf	160,400 sf

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APPENDIX D – PUBLIC SAFETY FACILITY COST ESTIMATE

KEY	PLACE NAME	Program Area			Site Development Cost			Remodel Cost			New Cost			2020 Direct Construction Bid Day Cost
		Existing	Remodel	New	2040	Site Area	Site Unit Cost	Subtotal	Remodel Area	Unit Cost	Subtotal	New Area	Unit Cost	Subtotal	
A	Fire Headquarters | Station "A"	9,646 sf			9,646 sf	0.6 ac									
91	Fire Station 91	7,401 sf			7,401 sf										
92	Fire Station 92	5,136 sf			5,136 sf										
93	Fire Station 93	6,147 sf			6,147 sf										
94	~~Fire Station 94~~ (To Be Relocated. Land owned by SCFA.)	5,552 sf													
94	Fire Station 94 (Reloc. Cordes Ranch Area) incl. Ladder Bay			7,750 sf	7,750 sf	2.0 ac	$800,000	$1,600,000				7,750 sf	$500	$3,875,000	$5,475,000
95	Fire Station 95 (Tracy Hills Area)			7,070 sf	7,070 sf	0.9 ac						7,070 sf			$4,887,376
96	Fire Station 96	5,136 sf			5,136 sf										
97	~~Fire Station 97~~ (To Be Relocated. Sell property.)	3,009 sf													
97	Fire Station 97 (Relocation - Valpico) incl. Ladder Bay			7,750 sf	7,750 sf	2.0 ac	$800,000	$1,600,000				7,750 sf	$500	$3,875,000	$5,475,000
99	Fire Station 99 (Ellis Area)			7,070 sf	7,070 sf	0.9 ac	$800,000	$745,638				7,070 sf	$500	$3,535,000	$4,280,638
T	Fire Training Facility - Phases 2 & 3			9,868 sf	9,868 sf	5.1 ac	$275,000	$1,410,750				9,868 sf	$400	$3,947,200	$5,357,950
	SUBTOTAL FIRE DEPARTMENT	**33,500 sf**	**0 sf**	**39,500 sf**	**73,000 sf**	**11.6 ac**	**$462,000**	**$5,356,400**	**0 sf**	**$0**	**$0**	**39,500 sf**	**$390**	**$15,232,200**	**$25,476,000**
P	PD Remodel & Addition on Expanded Civic Center Site	27,616 sf	27,616 sf	19,809 sf	47,425 sf	4.7 ac	$800,000	$3,760,000	27,616 sf	$300	$8,284,800	19,809 sf	$650	$12,875,850	$24,920,650
I	~~PD Annex~~ (1979 Police Station to be Demolished)	9,800 sf													
A	~~PD North Annex~~ (Leased - to be let go)	16,759 sf													
S	South Tracy Police Substation			8,794 sf	8,794 sf	2.2 ac	$800,000	$1,760,000				8,794 sf	$650	$5,716,100	$7,476,100
T	Police Department Training Facility	2,296 sf	918 sf	12,866 sf	15,162 sf	2.0 ac	$250,000	$500,000	918 sf	$150	$137,760	12,866 sf	$250	$3,216,500	$3,854,260
D	Police Department Animal Shelter - Phase 2	9,692 sf		5,900 sf	15,592 sf	2.2 ac	$200,000	$438,000				5,900 sf	$600	$3,540,000	$3,978,000
	SUBTOTAL POLICE DEPARTMENT	**39,600 sf**	**28,500 sf**	**47,400 sf**	**87,000 sf**	**11.1 ac**	**$582,300**	**$6,458,000**	**28,500 sf**	**$300**	**$8,422,600**	**47,400 sf**	**$530**	**$25,348,500**	**$40,229,000**
RCT	Public Safety Radio Communications Facilities	0 sf	0 sf	400 sf	400 sf	0.5 ac	$360,000	$180,000				400 sf	$1,250	$500,000	$680,000
	SUBTOTAL COMMUNICATIONS FACILITIES	**0 sf**	**0 sf**	**400 sf**	**400 sf**	**0.5 ac**	**$360,000**	**$180,000**				**400 sf**	**$1,250**	**$500,000**	**$680,000**
	SUBTOTAL PUBLIC SAFETY FACILITIES	**73,100 sf**	**28,500 sf**	**87,300 sf**	**160,400 sf**	**23.2 ac**	**$517,355**	**$11,994,400**	**28,500 sf**	**$296**	**$8,422,600**	**87,300 sf**	**$471**	**$41,080,700**	**$66,385,000**

(continued)

KEY	PLACE NAME	2020 Direct Construction Bid Day Cost	Annual Construction Input Inflation 2021 & 2022* (Construction Financial Management Association)	2023 Direct Construction Bid Day Cost	2023 Bid Day Unit Cost per SF	35% Indirect & Contingency: 10% Design & Planning; 10% CM; 15% General Contingency	Subtotal Direct + Indirect Cost	FF&E & Vehicles (f)	Land Acquisition (e)	2023 Total Project Cost	Other Funding Sources	Remaining Cost
A	Fire Headquarters | Station "A"											
91	Fire Station 91											
92	Fire Station 92											
93	Fire Station 93											
94	~~Fire Station 94~~ (To Be Relocated. Property ownd by SCFA.)											
94	Fire Station 94 (Reloc. Cordes Ranch Area) incl. Ladder Bay	$5,475,000	26.8%	$6,942,300	$900	$2,429,805	$9,372,000	$2,600,000	$500,000	$12,472,000	($1,000,000)	$11,472,000
95	Fire Station 95 (Tracy Hills Area)	$4,887,376	26.8%	$6,197,192	$880	$2,169,017	$8,366,000	$874,518	$192,837	$9,433,000	($1,511,450)	$7,921,550
96	Fire Station 96										($451,350)	($451,350)
97	~~Fire Station 97~~ (To Be Relocated. Sell property.)											
97	Fire Station 97 (Relocation - Valpico) incl. Ladder Bay	$5,475,000	26.8%	$6,942,300	$900	$2,429,805	$9,372,000	$1,000,000	$500,000	$10,872,000	($4,470,000)	$6,402,000
99	Fire Station 99 (Ellis Area)	$4,280,638	26.8%	$5,427,849	$770	$1,899,747	$7,328,000	$1,000,000	$233,012	$8,561,000	($825,332)	$7,735,668
T	Fire Training Facility - Phases 2 & 3	$5,357,950	26.8%	$6,793,881	$690	$2,377,858	$9,172,000	$500,000		$9,672,000	($2,600,000)	$7,072,000
	SUBTOTAL FIRE DEPARTMENT	**$25,476,000**	26.8%	**$32,303,500**	**$820**	**$11,306,200**	**$43,610,000**	**$5,974,500**	**$1,425,800**	**$50,558,700**	**($10,406,800)**	**$40,151,900**
P	PD Remodel & Addition on Expanded Civic Center Site	$24,920,650	26.8%	$31,599,384	$670	$11,059,784	$42,659,000	$2,160,114	$0	$44,819,000		$44,819,000
I	~~PD Annex~~ (1979 Police Station to be Demolished)											
A	~~PD North Annex~~ (Leased - to be let go)											
S	South Tracy Police Substation	$7,476,100	26.8%	$9,479,695	$1,080	$3,317,893	$12,798,000	$648,049	$1,760,000	$15,206,000		$15,206,000
T	Police Department Training Facility	$3,854,260	26.8%	$4,887,202	$350	$1,710,521	$6,598,000	$36,098	$402,925	$7,037,000		$7,037,000
D	Police Department Animal Shelter - Phase 2	$3,978,000	26.8%	$5,044,104	$850	$1,765,436	$6,810,000	$1,000,000	$0	$7,810,000		$7,810,000
	SUBTOTAL POLICE DEPARTMENT	**$40,229,000**		**$51,010,400**	**$670**	**$17,853,600**	**$68,865,000**	**$3,844,300**	**$2,162,900**	**$74,872,000**	**$0**	**$74,872,000**
RCT	Public Safety Radio Communications Facilities	$680,000	26.8%	$862,240	$2,160	$301,784	$1,164,000	$4,067,185	$125,000	$5,356,000	$0	$5,356,000
	SUBTOTAL COMMUNICATIONS FACILITIES	**$680,000**	26.8%	**$862,200**	**$2,160**	**$301,800**	**$1,164,000**	**$4,067,200**	**$125,000**	**$5,356,000**	**$0**	**$5,356,000**
	TOTAL PUBLIC SAFETY FACILITIES (rounded)	**$66,385,000**	26.8%	**$84,177,000**	**$730**	**$29,462,000**	**$113,639,000**	**$13,886,000**	**$3,714,000**	**$130,790,000**	**($10,407,000)**	**$120,380,000**

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APPENDIX E – PUBLIC SAFETY SOLAR NANOGRID COST ESTIMATE

KEY	PLACE NAME	Program Area	Loads		Rooftop Solar			Solar Carport (e)		
		New	Predicted (N) Facility Load	Predicted Maximum Battery Load	Rooftop Solar Maximum Capacity	Rooftop Solar Maximum Size	Estimated Rooftop Solar Cost @ $3K/kW	Needed Solar Carport Capacity	Needed Solar Carport Size	Needed Solar Carport System Size	Estimated Solar Carport Cost @ $3.4K/kW
94	Fire Station 94 (Reloc. Cordes Ranch Area) incl. Ladder Bay	7,750 sf	104 MWh/Yr	99 kW	70 MWh/Yr	74 kW	$222,000	34 MWh/Yr	3,800 sf	36 kW	$122,400
97	Fire Station 97 (Relocation - Valpico) incl. Ladder Bay	7,750 sf	104 MWh/Yr	99 kW	70 MWh/Yr	74 kW	$222,000	34 MWh/Yr	3,800 sf	36 kW	$122,400
99	Fire Station 99 (Ellis Area)	7,070 sf	95 MWh/Yr	90 kW	64 MWh/Yr	67 kW	$201,000	31 MWh/Yr	3,500 sf	33 kW	$112,200
T	Fire Training Facility - Phases 2 & 3	9,868 sf	132 MWh/Yr	126 kW	89 MWh/Yr	94 kW	$282,000	43 MWh/Yr	4,800 sf	46 kW	$156,400
	SUBTOTAL FIRE DEPARTMENT	**39,500 sf**	**435 MWh/Yr**	**414 kW**	**293 MWh/Yr**	**309 kW**	**$927,000**	**142 MWh/Yr**	**15,900 sf**	**151 kW**	**$513,400**
P	PD Remodel & Addition on Expanded Civic Center Site	19,809 sf	265 MWh/Yr	253 kW	89 MWh/Yr	94 kW	$282,000	176 MWh/Yr	19,600 sf	186 kW	$632,400
S	South Tracy Police Substation	8,794 sf	118 MWh/Yr	113 kW	79 MWh/Yr	84 kW	$252,000	39 MWh/Yr	4,300 sf	41 kW	$139,400
T	Police Department Training Facility	12,866 sf	173 MWh/Yr	165 kW	116 MWh/Yr	123 kW	$369,000	57 MWh/Yr	6,300 sf	60 kW	$204,000
D	Police Department Animal Shelter - Phase 2	5,900 sf	79 MWh/Yr	76 kW	53 MWh/Yr	56 kW	$168,000	26 MWh/Yr	2,900 sf	27 kW	$91,800
	SUBTOTAL POLICE DEPARTMENT	**47,400 sf**	**635 MWh/Yr**	**607 kW**	**337 MWh/Yr**	**357 kW**	**$1,071,000**	**298 MWh/Yr**	**33,100 sf**	**314 kW**	**$1,067,600**
	SUBTOTAL PUBLIC SAFETY FACILITIES	**87,300 sf**	**1,070 MWh/Yr**	**1,021 kW**	**630 MWh/Yr**	**666 kW**	**$1,998,000**	**440 MWh/Yr**	**49,000 sf**	**465 kW**	**$1,581,000**

(continued)

KEY	PLACE NAME	2020 Subtotal Solar Carport Cost	Annual Construction Input Inflation 2021 & 2022	2023 Subtotal Solar Carport Bid Day Cost	Battery		2023 Total Project Bid Day Cost for Solar and Battery Installation	35% Indirect & Contingency: 10% Design & Planning; 10% CM; 15% General Contingency	2023 Total Project Cost for Solar and Battery Installation
					Needed Code-Required 6-Hour Battery	Estimated Battery System Cost			
94	Fire Station 94 (Reloc. Cordes Ranch Area) incl. Ladder Bay	$122,400	26.8%	$155,203	0.30 MWh	$240,000	$459,523	$160,833	$620,356
97	Fire Station 97 (Relocation - Valpico) incl. Ladder Bay	$122,400	26.8%	$155,203	0.30 MWh	$240,000	$459,523	$160,833	$620,356
99	Fire Station 99 (Ellis Area)	$112,200	26.8%	$142,270	0.27 MWh	$216,000	$416,158	$145,655	$561,813
T	Fire Training Facility - Phases 2 & 3	$156,400	26.8%	$198,315	0.31 MWh	$248,000	$512,779	$179,473	$692,252
	SUBTOTAL FIRE DEPARTMENT	**$513,400**		**$651,000**	**1.18 MWh**	**$944,000**	**$1,848,000**	**$646,800**	**$2,494,800**
P	PD Remodel & Addition on Expanded Civic Center Site	$632,400	26.8%	$801,883	0.76 MWh	$608,000	$1,572,827	$550,490	$2,123,317
S	South Tracy Police Substation	$139,400	26.8%	$176,759	0.34 MWh	$272,000	$521,655	$182,579	$704,235
T	Police Department Training Facility	$204,000	26.8%	$258,672	0.50 MWh	$400,000	$765,872	$268,055	$1,033,927
D	Police Department Animal Shelter - Phase 2	$91,800	26.8%	$116,402	0.23 MWh	$184,000	$349,714	$122,400	$472,114
	SUBTOTAL POLICE DEPARTMENT	**$1,067,600**		**$1,353,700**	**1.83 MWh**	**$1,464,000**	**$3,210,100**	**$1,123,500**	**$4,333,600**
	TOTAL PUBLIC SAFETY FACILITIES (rounded)	**$1,581,000**	26.8%	**$2,005,000**	**3.01 MWh**	**$2,408,000**	**$5,059,000**	**$1,771,000**	**$6,829,000**

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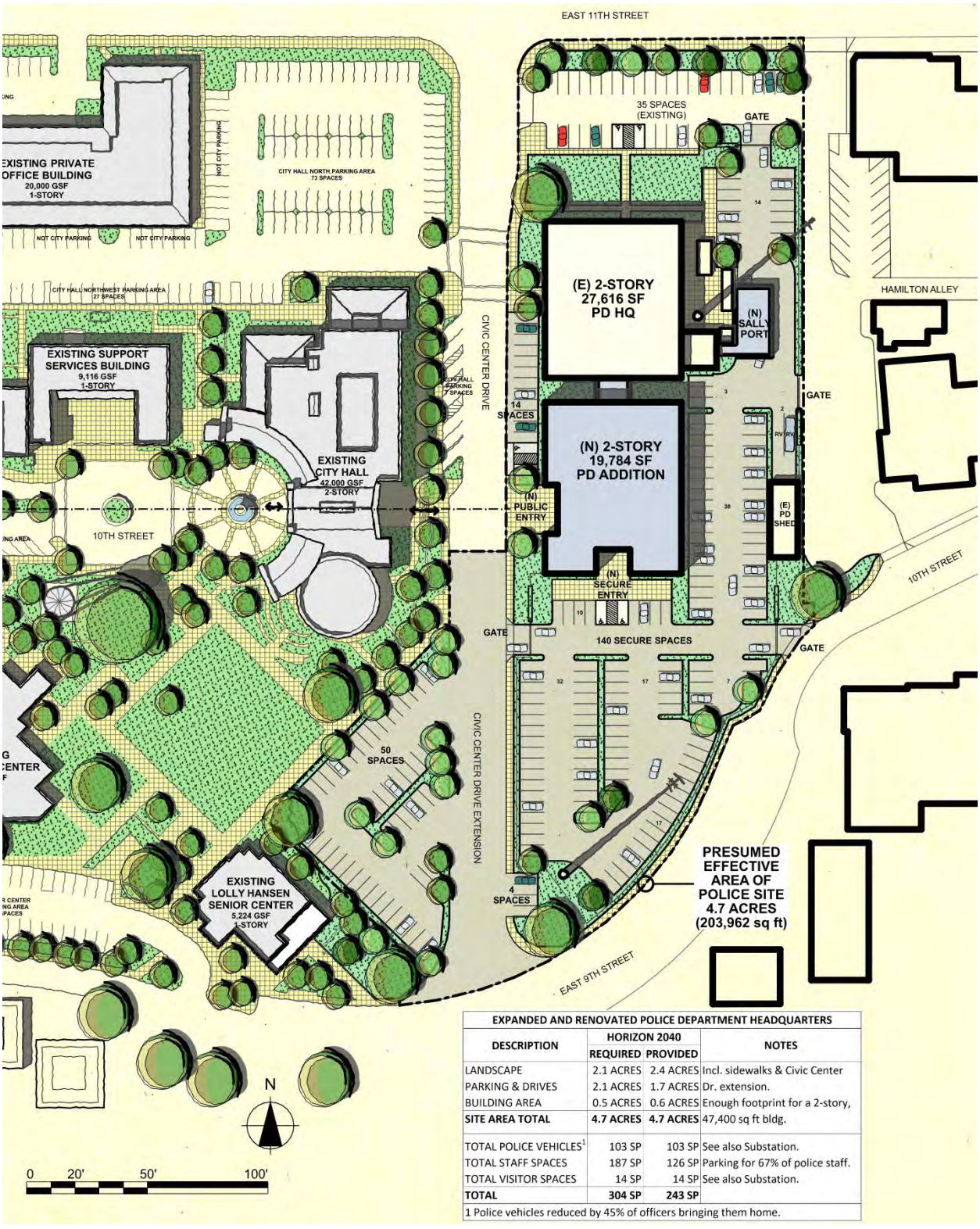
APPENDIX F – CIVIC CENTER PUBLIC SAFETY FACILITY SITE PLAN

Renovate existing 27,600 square foot building. Expand site to 4.7 acres on Civic Center campus by partially closing 10th Street and demolishing former 1979 Police Station. Add 19,784 square foot addition, expanded vehicle sally port, expanded secure parking, and expanded parking.



EXPANDED AND RENOVATED POLICE DEPARTMENT HEADQUARTERS			
DESCRIPTION	HORIZON 2040 REQUIRED	HORIZON 2040 PROVIDED	NOTES
LANDSCAPE	2.1 ACRES	2.4 ACRES	Incl. sidewalks & Civic Center
PARKING & DRIVES	2.1 ACRES	1.7 ACRES	Dr. extension.
BUILDING AREA	0.5 ACRES	0.6 ACRES	Enough footprint for a 2-story,
SITE AREA TOTAL	**4.7 ACRES**	**4.7 ACRES**	47,400 sq ft bldg.
TOTAL POLICE VEHICLES[1]	103 SP	103 SP	See also Substation.
TOTAL STAFF SPACES	187 SP	126 SP	Parking for 67% of police staff.
TOTAL VISITOR SPACES	14 SP	14 SP	See also Substation.
TOTAL	**304 SP**	**243 SP**	
1 Police vehicles reduced by 45% of officers bringing them home.			

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APPENDIX G – POLICE SUBSTATION SITE PLAN

Provide a new 8,800 square foot facility on 2.3 acres to be purchased by City near Ellis, South Linne, and Tracy Hills developments. With 20 visitor, 20 secure staff, and 54 secure police vehicle spaces, the substation site relieves some of the parking pressures on the Civic Center facility. The site further includes a covered space for an EOC "RV" Vehicle and covered motorcycle parking.

POLICE SUBSTATION		
DESCRIPTION	**HORIZON 2040**	**NOTES**
LANDSCAPE	1.0 ACRES	Incl. Sidewalks and Courtyard.
PARKING & DRIVES	1.1 ACRES	Equals 1-Story 8,800 SF Building
BUILDING AREA	0.2 ACRES	Footprint.
SITE AREA TOTAL	**2.3 ACRES**	
TOTAL POLICE VEHICLES	54 SP	Includes 20 "future" spaces as
TOTAL STAFF SPACES	20 SP	shown on site plan.
TOTAL VISITOR SPACES	20 SP	
TOTAL	**94 SP**	

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APPENDIX H – POLICE SUBSTATION CONCEPT FLOOR PLAN

The floor plan provides open office space for twelve workstations and private office space for six sergeants workstations. The plan includes a public lobby with restrooms and secure access to an 823 square foot Community Meeting room. The Community Meeting room, in turn, has access to a covered outdoor patio. For staff, across from lockers, is a 325 square foot Gym. For maximum flexibility in staffing, Option 2 below shows an all-gender version of the Locker room, with private changing rooms.

Floor Plan - Option 1

Floor Plan - Option 2

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APPENDIX J – GROWTH PROJECTION DATA

The growth assumptions in this Master Plan are based on data from September 2021, received from the City of Tracy. They don't include the growth assumed in the City of Tracy 6th cycle Housing Element.

Table 3-2. Projected Development by Time Frame within the City's Sphere of Influence[a]

Land Use Type	Total Projected New Development by 2025		Total Projected New Development by 2040[b]		Total Projected New Development at Buildout[c]	
	Dwelling Units	Gross Acres	Dwelling Units	Gross Acres	Dwelling Units	Gross Acres
Residential – Very Low Density[d]	-	-	265	223	1,292[e]	907
Residential – Low Density[d]	2,880	647	6,490	1,438	8,375	1,871
Residential – Medium Density[d]	253	49	5,444	608	8,150	902
Residential – High Density	1,591	81	3,300	181	7,033	380
Residential – Very High Density	110	3	110	3	110	3
Commercial	-	45	-	549	-	818
Office	-	1	-	115	-	256
Industrial	-	859	-	3,136	-	4,093
Institutional	-	3	-	187	-	187
Identified Parks[f]	-	139	-	280	-	280
Total	4,834	1,826	15,609	6,720	24,960	9,698

(a) Includes existing development constructed after 2017.

(b) Includes new development constructed within 2025 and 2040 time frames.

(c) Includes new development constructed within 2025, 2040, and Buildout time frames.

(d) For selected projects and development areas, it was assumed that 11.2% of the total gross acres in the very low, low, and medium density residential land use categories will develop as parks.

(e) Includes existing units from Mountain View Annexation.

(f) Includes park areas identified within the Rocking Horse, Ellis, Avenues, Tracy Hills Phase 1, and Legacy Fields developments.

To calculate population data, use 3.50 people per household for population projections, from CA Department of Finance Table E-5 Population and Housing Estimates for Cities, Counties and the State, 2011-2021 with 2010 Census Benchmark
https://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/

Attachment C

CITY OF TRACY

CITYWIDE PUBLIC FACILITIES MASTER PLAN UPDATE

December 2023

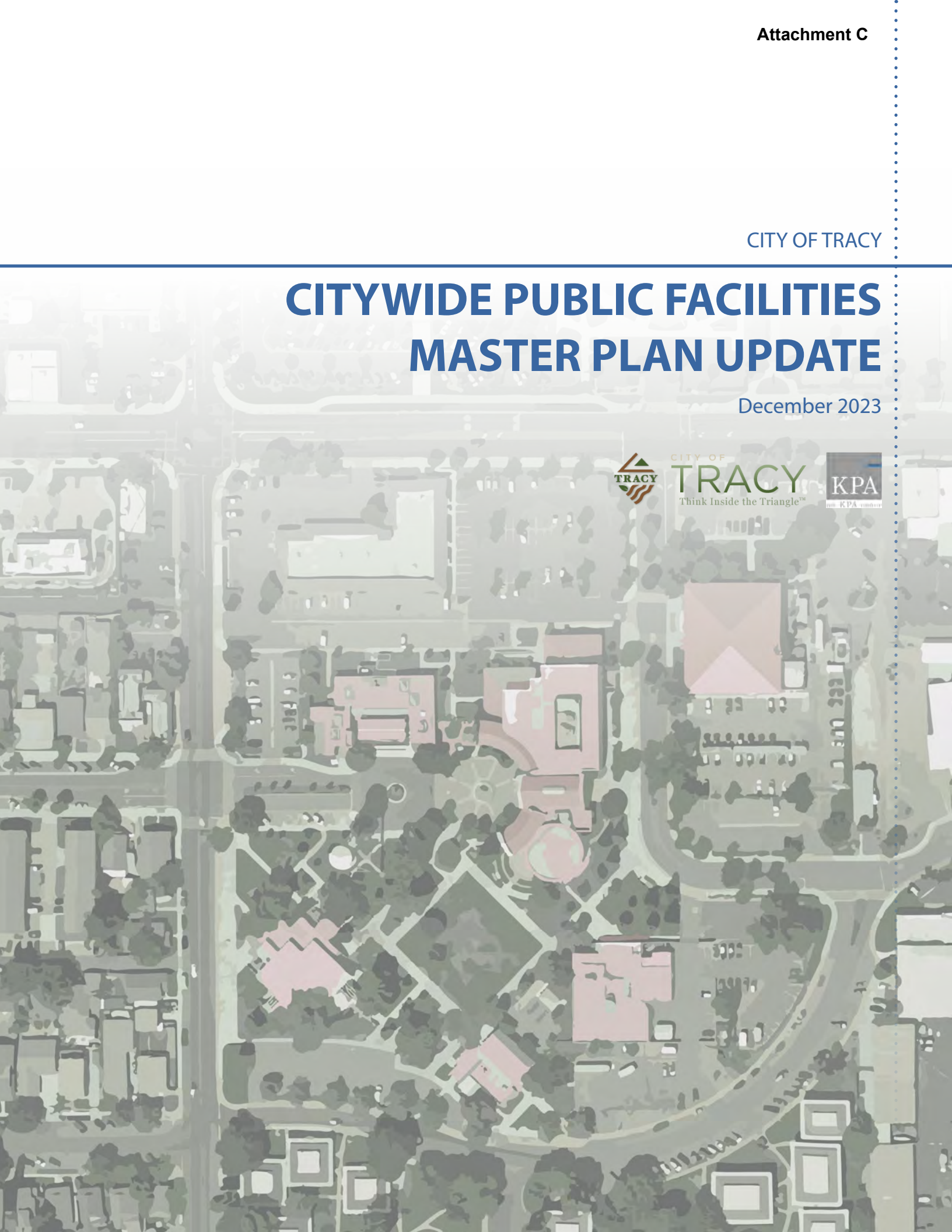


Table of Contents

I. EXECUTIVE SUMMARY 3

II. FACILITIES CONDITION ASSESSMENT 25

III. DEPARTMENTS - STAFF, SPACE ANALYSIS AND PROGRAMMING 353

IV. PROJECTS - NEW PROJECTS, RENOVATIONS, AND DEFERRED MAINTENANCE 395

V. SPACE STANDARDS AND GUIDELINES 425

VI. COST AND FUNDING OPTIONS 438

I. EXECUTIVE SUMMARY

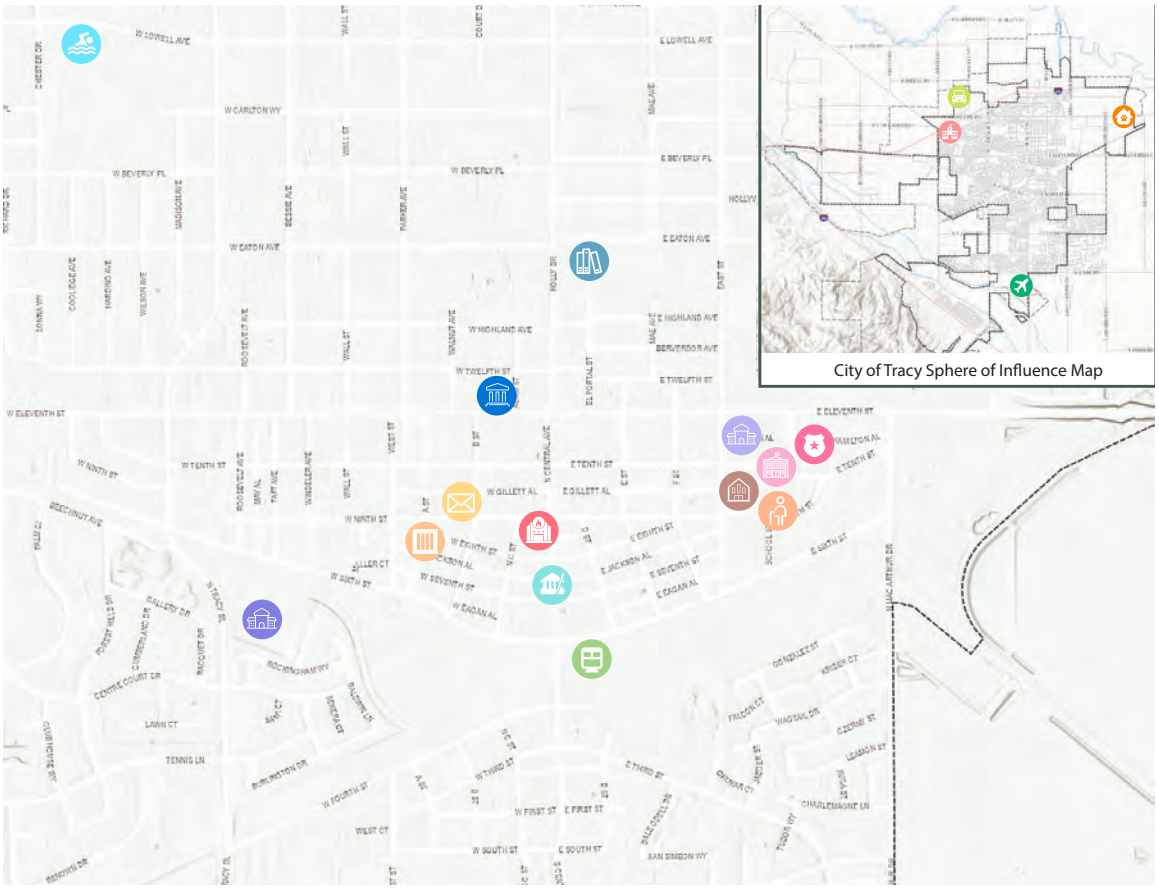
Executive Summary	**4**
Findings and Methods	**7**
Facilities & Projects Overview	**11**
Cost Estimating	**21**
Benefits, Risks & Implementation	**23**

Executive Summary

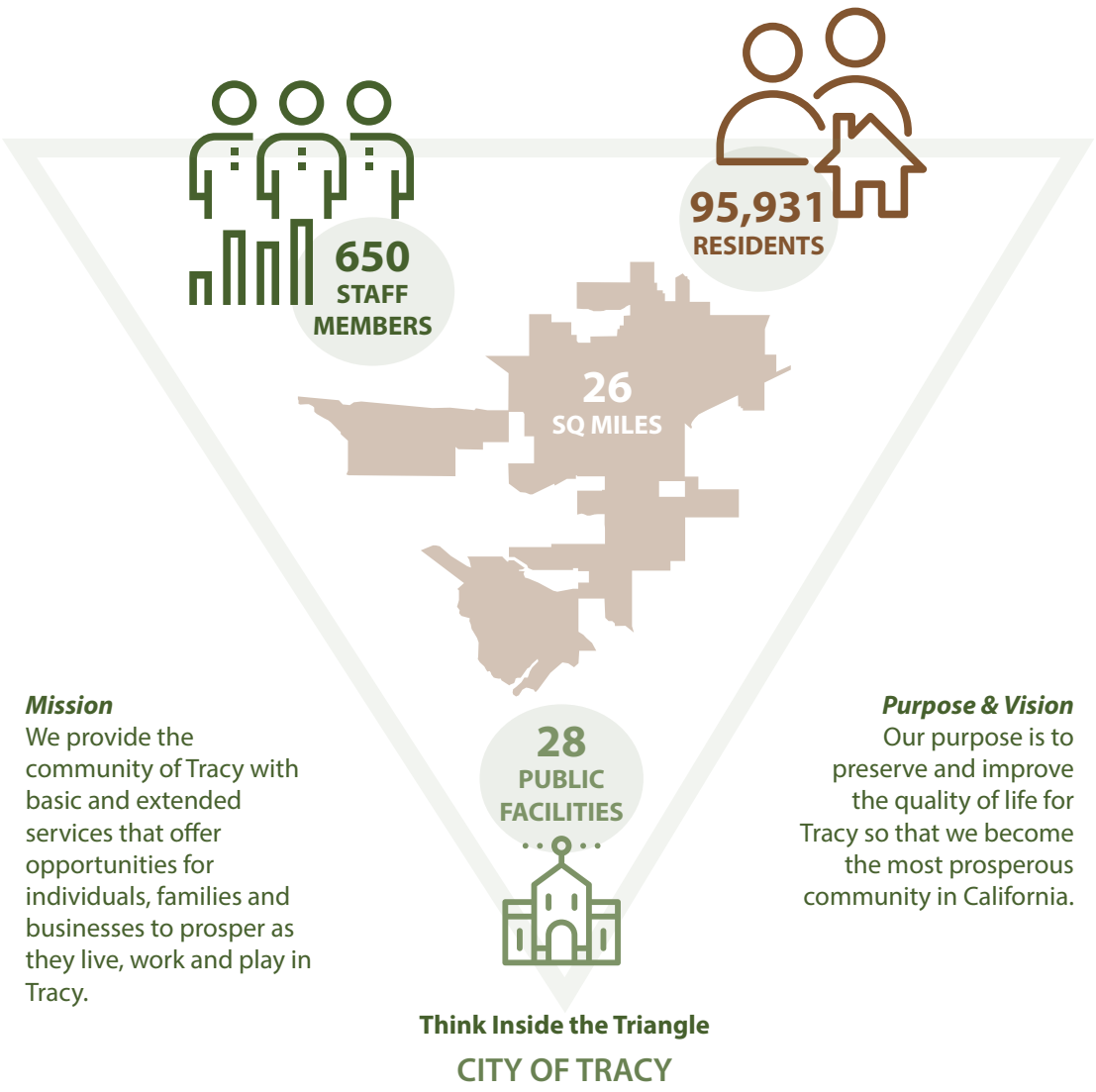
The City of Tracy (City) is updating all infrastructure master plans including an update to the 2013 Citywide Public Facilities Master Plan (CPFMP) to align current community objectives for public facilities with the City's overall planning goals and Capital Improvement expenditures. The Plan update builds upon the original goal of portraying clear objectives for public facilities and establishing a future vision and achievement strategies to implement improvements to public facilities. The information obtained from the Plan update as well as concepts presented within can act as a planning guide for the City of Tracy. The Plan will help guide decision-makers and inform the public about the City's future public facilities goals. The plan reaches 30 years into the future. Planning and expenditures focus on the next 20 years. Future updates to the Plan are recommended every five to ten years to ensure alignment of public facility goals and improvement expenditures with City of Tracy operational and community needs. The study area for this Plan update is the City of Tracy's 42-square mile Sphere of Influence (Figure below). Facilities and infrastructure operations of similar sized cities were studied for comparative efforts to Tracy's operations.

This Plan serves to inform community members of the benefits that focused expenditure on needed Capital Improvements and deferred maintenance solutions would bring to the City of Tracy. The Plan works to address short-term and long-term City goals and objectives for facility investments and future improvements. Assessments of current working conditions and needs of various City departments were compiled. The Facility Condition Assessments (FCA) provide documentation of current conditions of City-owned facilities that may be used for future planning. The existing City facilities will be able to serve the City for the next five to ten years or more, but without addressing deferred maintenance needs the condition of City-owned facilities will deteriorate resulting in increased repair and replacement costs. This Plan proposes large expenditure on prioritized projects from now until 2040. Current inflation trends indicate possible construction cost rise and the expense the City faces will only increase as time passes.

Additional recreational, community and event space is required to serve the expanding number of City residents. Employees require increased efficiency in work operations including better collaborative opportunities. Public and conferencing space is needed and desired. Recommendations outlined in this Plan allows the City's public facility needs to be realized. The proposed projects presented as solutions provide a future for the City that aligns with current community growth.



City of Tracy Sphere of Influence and Facility Map



Current conditions and needs related to City public facilities have been detailed throughout the CPFMP update. Focus is on maintaining public infrastructure and improving efficiencies. These major components include planning and review of staff and public spaces (Space Planning), conditions of existing facility components and repair needs (Facility Assessments and Deferred Maintenance Projects), and major capital expenditures that would improve the state of public facilities (CIP Projects). Planning, assessment and surveying processes related to these major components took into account Tracy's expanding Sphere of Influence with the focus of serving residents equally and interdependent of locations of residences within City limits.

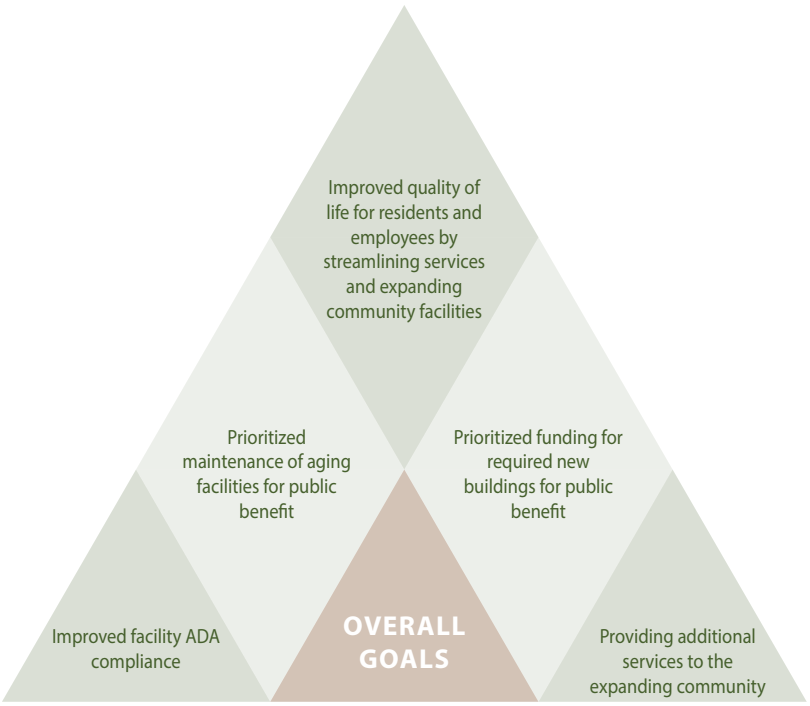
The updated Public Facilities Master Plan will be used as a guideline document for the improvement of City facilities. Future public facilities recommended to be constructed are shown in Projects, Section 4, and include a new Multi-Generational Recreational Center, Library, Bus Maintenance and Transit Facility, Aquatics Center and auxiliary Operations and Utilities Facility. The CPFMP also identifies changes to existing public facilities that will allow for improved work efficiencies and level of public service. The CPFMP works to identify current deficiencies related to existing public facilities and projects recommended to improve these facilities. Future City goals and direction will require modifications to the Public Facilities Master Plan as it is presented.

Order-of-magnitude cost estimates have been provided for Deferred Maintenance projects and Capital Improvement projects.

CPFMP Goals

The City seeks to align City facilities planning to growing needs of the community, improve resident services and improve work efficiencies. A 6-month analysis of the 28 major City facilities and airport facilities led to recommending specific projects to meet current and future needs. Analysis included physical facility condition inspections, discussions with City departments and staff and review of existing planning reports and documentation. The process involved identification of areas of facilities the City should renovate and new facilities that should be considered to align with future City growth. Co-location of departments and employees was identified. Cost projections for both Deferred Maintenance projects were estimated and project definition summaries prepared. Construction of new facilities was identified including locations and uses for new facilities and potential time frames for construction.

The information and concepts presented in the CPFMP are used to guide local decisions regarding public uses of land and the provision of public facilities and services. The CPFMP is long-range in its view and is intended to guide development in the City through build-out.

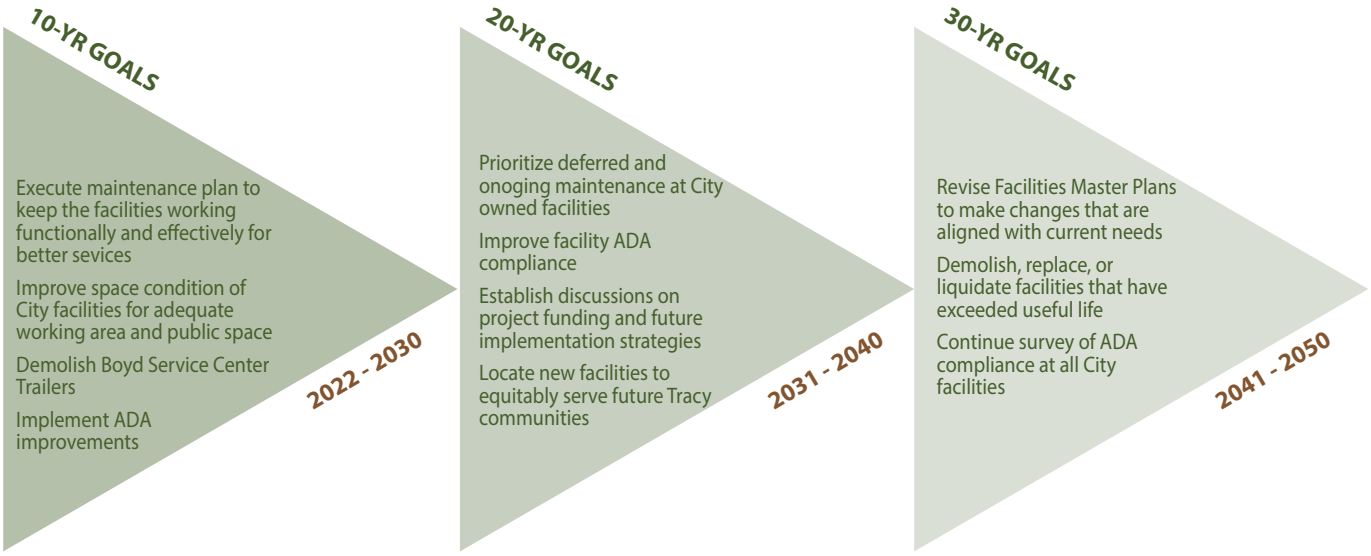


CPFMP Overall Goals

Scope of CPFMP

The CPFMP outlines future expenditure needed through Build-out. Public and economic benefits may be realized as planning is implemented to serve the expanding City footprint. The CPFMP was formulated through analysis of existing City facilities, department operations and needs, and improving public services based on needs related to growth.

Included in the CPFMP are City Hall, Support Services offices, Community Center, Senior Center, Parks & Community Services offices, Boyd Service Center, Library and other City facilities. Future facilities for Police, Fire, Parks and Utilities are covered in detail in separate master plans.



Breakdown of City of Tracy Goals

Findings & Methods

Findings - Facilities

- Highlighted Capital expenditure needs include additional community and recreational facilities and additional maintenance facilities.
- Additional meeting and conference spaces for both public meetings and internal staff discussions would benefit operations at most public facilities.
- Existing City facilities are in good condition for building age and require varying maintenance improvements. An ongoing maintenance program is recommended to maintain facility longevity.
- Workplace efficiency could be improved by reorganization of some departments and divisions into new or different buildings.
- Organized storage spaces will allow for more efficient access to data and particular historical documents.

Findings - Staffing and Space Utilization

In general, the City's 650 staff located in public facilities are organized in an efficient manner.

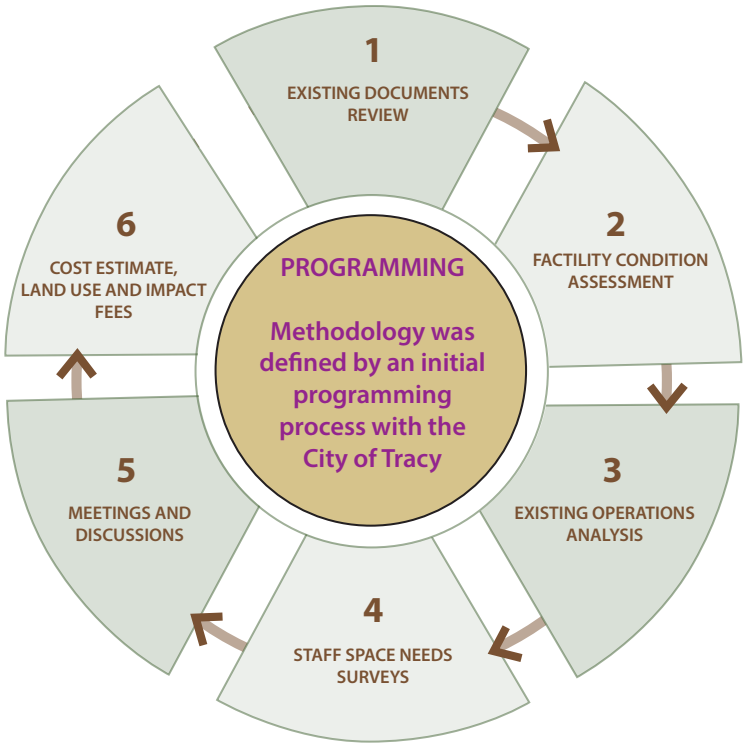
Most inefficiencies are related to space limitations at particular locations:

- IS has some storage and workspace located in the Police Department dispatch center rather than contiguous with its main operations.
- Much of the City's bulk storage needs are met by shipping containers at the Boyd Service Center rather than an appropriate warehouse facility.
- Engineering Services is divided between two adjacent buildings, adding to administrative burdens, reducing the effectiveness of using shared resources and counterproductive to the City's centralized approach to providing development services.
- Parks & Recreation service is divided among three facilities and the existing size of the spaces doesn't meet operational needs.
- Transit operations require an expanded vehicle maintenance and parking facility.
- The expanding Operations and Utilities service area requires an auxiliary facility at the southwest portion of the City.

Process / Methodology

The CPFMP update process involved many components, including:

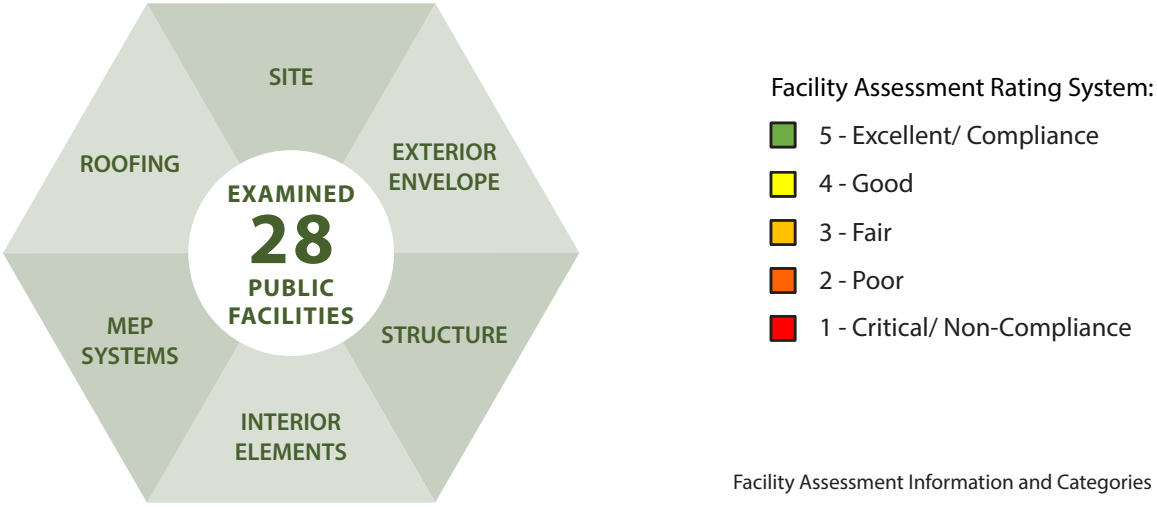
- Existing Documents Review
- Facility Condition Assessments
- Existing Operations Analysis
- Staff Space Needs Surveys
- Meetings and Discussions
- Cost Estimating
- Land Use and Impact Fees



Process and Methodology

Facility Condition Assessments

The facility condition assessment process involved analysis of 28 City of Tracy owned public facilities and discussions with maintenance staff for each of the assessed buildings. The assessment team visited each facility and documented the physical condition of building elements including site, exterior envelope, structure, interior elements, visual ADA compliance and mechanical, electrical and plumbing (MEP) systems. Building maintenance staff accompanied the assessment team during these observations and provided further information about specific building elements including those that could not be physically observed by the project team. Assessment reports for each of the facilities were prepared. A rating system was used to outline condition of each building element on a 5-point scale, with "1" designated to a component in critical condition and "5" designated to a component in excellent condition or newly installed. Each assessment report includes a building description supplying general building information such as year built and square footage (SF). A condition checklist outlining the ratings of assessed elements is included along with a condition summary of findings, a summary of recommendations and impacts of recommendations. A selection of photos taken during the assessment process are included in each assessment report.



Facility Assessment Information and Categories

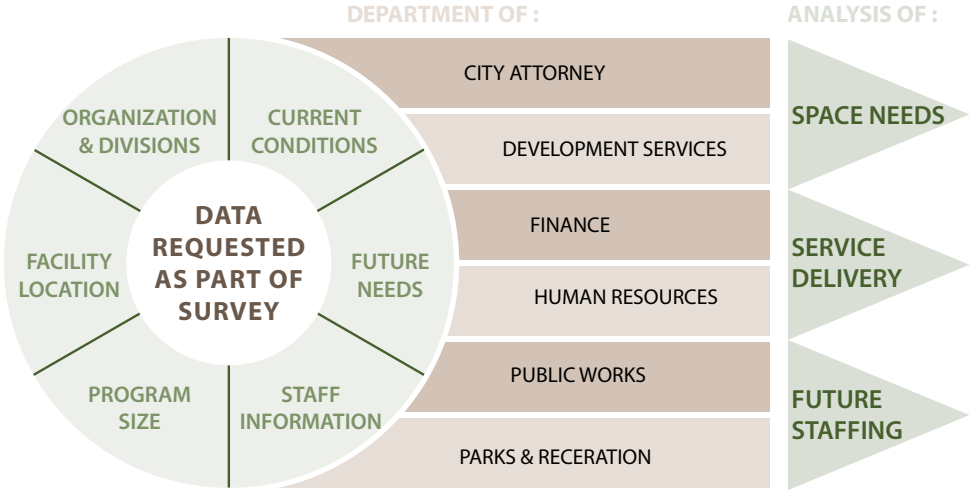
Existing Documents Review

Existing data pertaining to city operations and previous planning efforts were reviewed in order to obtain a better understanding of current facilities, department operations and required improvements. A selection of data, documents and studies reviewed includes:

- Citywide Public Facilities Master Plan, 2013
- Boyd Service Center Master Plan, 2008
- City of Tracy - Adopted Financial Plan
- City of Tracy - Land Use Information
- City of Tracy - Infrastructure Master Plans Development Areas Map
- City of Tracy - General Planning GIS data
- City of Tracy - Aquatic Center Concept Diagram
- City of Tracy - Construction plans of City facilities
- City of Tracy - Planned project programming data
- City of Tracy - Position Control Roster
- City of Tracy - Undeveloped Parcels Appraisals Report
- Staff Survey Responses

Staff Surveys

Staff surveys were conducted to obtain existing data and establish individual department projected growth needs. The survey responses helped to guide planning solutions. The staff surveys were conducted using questionnaires containing both multiple choice and open-ended questions for each department. These questions addressed specific aspects including: organization and divisions, staff information, facility locations and sizes, program sizes, current conditions and future needs. The completed department questionnaires were analyzed and summarized. Recommendations were developed for each department based on the surveys and interviews with administrative staff and department heads. Meetings were held with some department heads and section managers to clarify survey responses and department needs.



Staff Survey Process

Existing Operations and Planning Analysis

Multiple meetings with City leadership from Administration, Finance, Operations and Utilities (previously Public Works) and Development & Engineering Services were conducted to gain knowledge of existing City operation conditions and future needs. From the meetings and surveys, the CPFMP establishes department-by department programmatic needs, basing projections on the staffing of other cities that are geographically and demographically similar to the community now through Build-out. This comparison approach substantiates the space required for City operations by making adjustments on the basis of statistical procedures to enhance predictive accuracy.

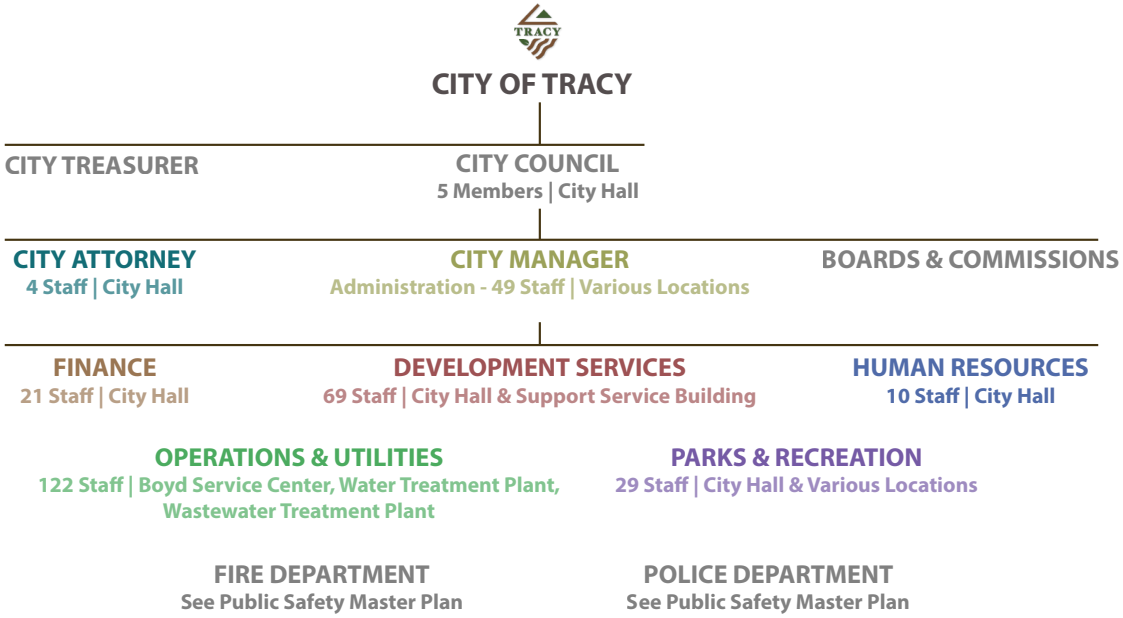
Note:

Operations and Utilities

(Previously separate departments of Public Works Department & Utility Department)

Effective July 2022

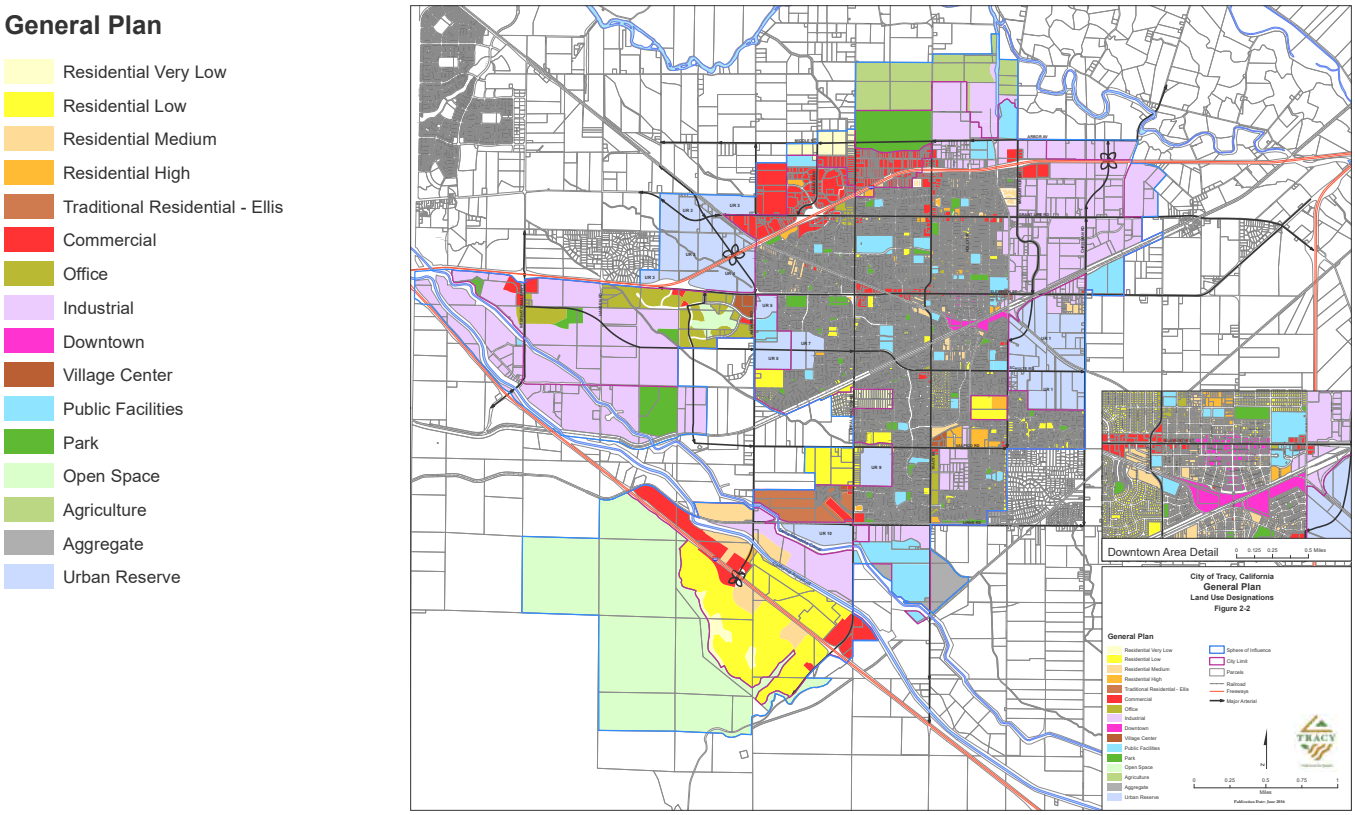
* Utilities Division was not considered as part of Public Facilities Master Plan Update



2023 Department Staffing Breakdown

Land Use and Impact Fees

An analysis of the impact fees on other City construction necessary to help cover costs of the proposed new public facility construction took place as part of the CPFMP update process. The City created a series of land use assumptions for existing planning areas as well as future planning areas within the Tracy Sphere of Influence. Throughout all of the planning areas, the City anticipates new single family residential units and multifamily units; acres of industrial, office and retail development; and other commercial development will be added to the City over the next 10 years and beyond. The map below designates 2021 land use type by areas within the City.



2021 Land Use Type by Area within Tracy

Meetings and Discussions

Meetings with City employees and stakeholders, including Department heads, were conducted throughout the Citywide Public Facility Master Plan update process. The solutions outlined in the CPFMP have been discussed with City Departments and other administrative staff. Department heads reviewed the progress and contributed input and comments during discussions and progress meetings attended. The Departments section of the report explains various departments that make up City staffing and highlights some of the physical and space needs for each of the City's departments.

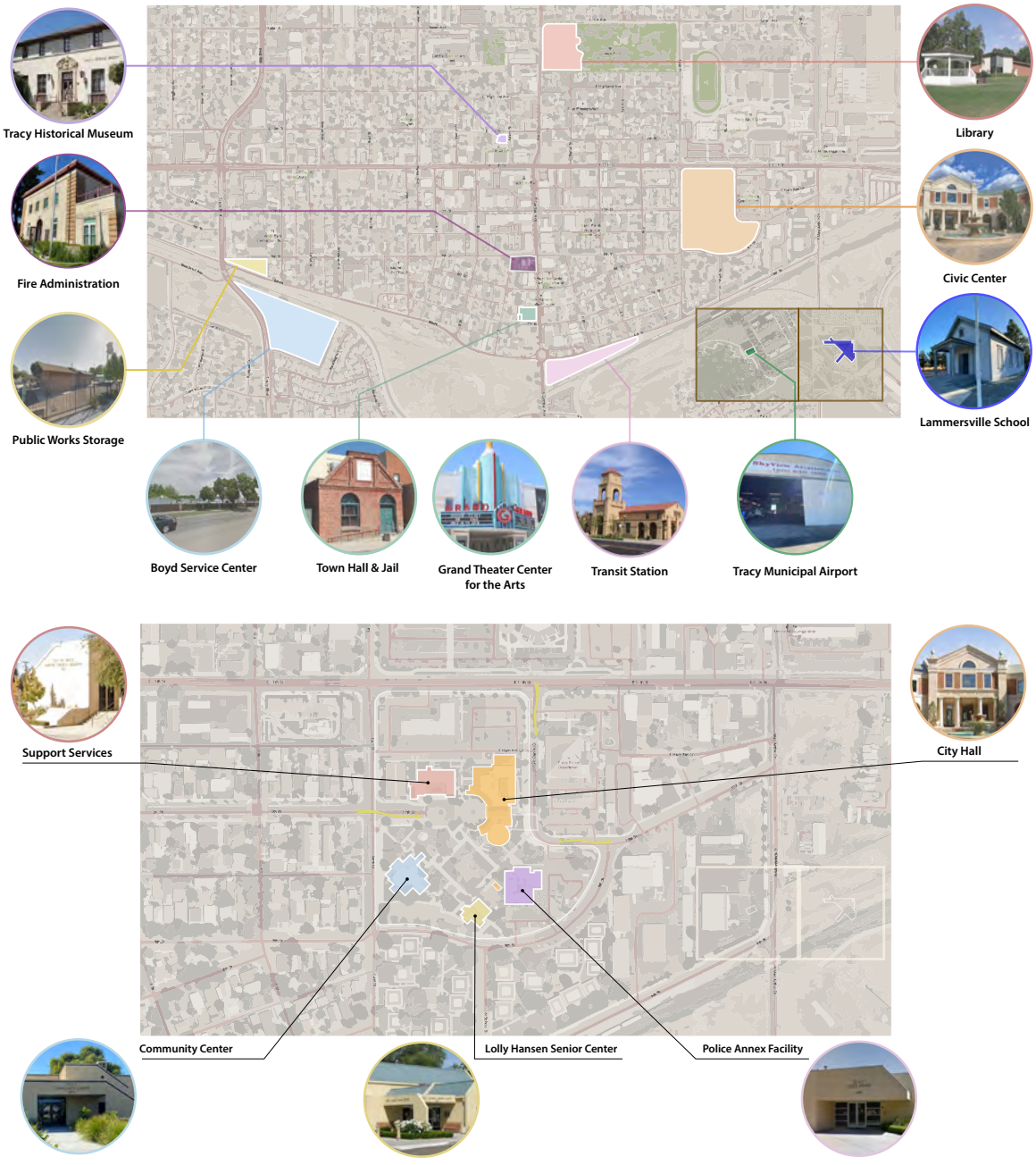
Recommendations

It is recommended that the City of Tracy invest a significant amount of resources through Build-out into new public facilities Capital Improvement Projects. Recommendations outlined on the following pages are built upon the City's general goals of co-location of like services and quality of public services improvement. City facilities are primarily located in the central and eastern portions of the City and additional facilities built along the western corridor will provide evenly distributed access to services for residents in those areas. Existing infrastructure must also be maintained. It is recommended to perform many deferred maintenance projects on existing facilities and infrastructure. Costs for new facilities, deferred maintenance, and existing facilities modernizations are explained on the following pages.

Facilities & Projects Overview

The City of Tracy serves more than 90,000 residents over 26 square miles. Services provided to the public include Public Safety services, Public Works including roadways and residential utilities, parks and recreation services, transportation services, and library facilities among various other municipal services. The City government provides these services with the help of over 650 staff members and from 28 owned facilities. The majority of City facilities services are located on the east side of Tracy, near the downtown and Civic Complex area. City services are centrally located to most of the City's population. Additional development on the western side of the City will need expanded City presence.

Facilities owned by the City are generally in fair condition. Current facilities serve the population well but differing levels of deterioration at City facilities are present due to aging construction. Employees from the same department would benefit from colocation of collaborating individuals into the same facilities. Workspace efficiencies may increase or otherwise see improvement due to colocation. Access to services for the public will be improved and organized with colocation efforts. Tracy continues to invest in a wide range of projects to provide ADA compliant facilities and services at various locations.



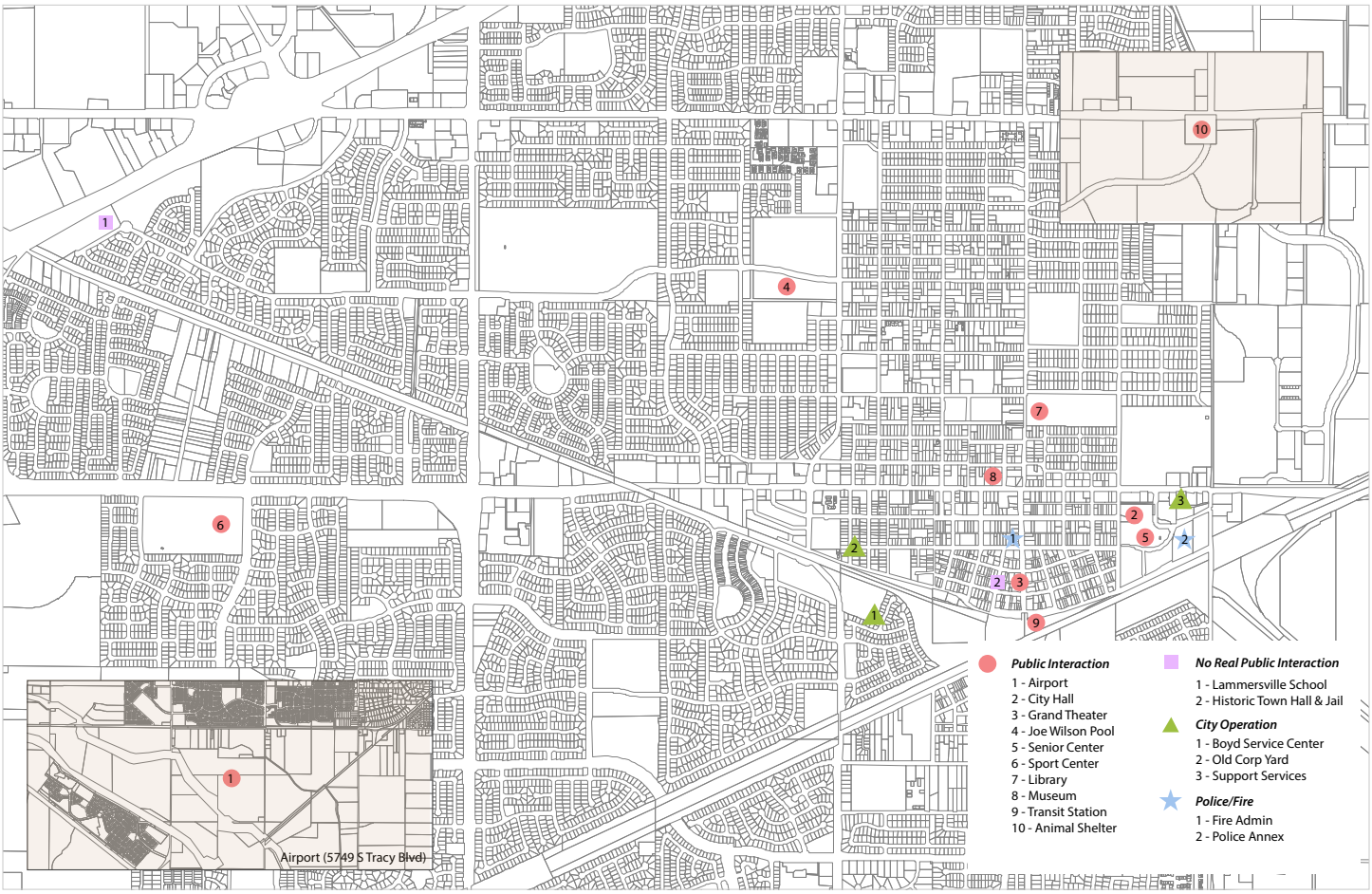
Civic Center Facilities and Locations of other City Facilities

Evaluation of Existing Facilities

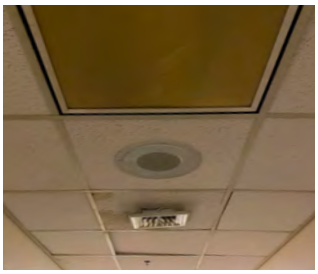
Existing public facilities are in fair to good condition overall. The City has some buildings that are approaching the end of their useful service life including airport facilities and Operations and Utilities shops. Most other public facilities contain remaining service life with deferred maintenance recommendations implemented. Employee distribution is inefficient for public service operations and is no longer efficient in terms of space use, expended efforts related to collaboration or energy use. Specific details related to facility condition are listed in each facility's individual assessment report. A general overview of items requiring improvement include the following:

- Some interior finishes and furnishings show evidence of their age and wear.
- Mechanical, electrical and plumbing (MEP) updates are required at some facilities.
- Most parking lots require resurfacing and new striping paint.
- Minor structural cracking is present at some facilities.

Residential development is expanding on the west side of Tracy. New residents desire access to all public facilities and services that are provided to existing residents. All owned City buildings require moderate improvements to maintain their value, operation and meet continuing public needs.



Locations of Facilities Assessed



Examples of common deficiencies observed:

Site

- Deteriorated parking paving and/or striping
- Areas lacking landscape upkeep
- Accessible Path of Travel deficiencies
- Cracked concrete sidewalks, pathways and curbing

Exterior Envelope

- Rotting, separating or otherwise deteriorating siding
- Dirty or broken exterior light fixtures
- Single pane windows are common, some with broken sliders or seals that allow for water and air intrusion
- Door seals nonexistent or deteriorated
- Failing exterior paint system
- Conduits that are rusted or otherwise degraded

Roof

- Drainage problems including undersized outlets, pooling water and rusted drain covers
- Roof rot and surface bubbling
- Plywood decking that deflects considerably
- Materials requiring abatement are present in the construction of some roof elements
- Lack of safety railings

Structure

- Cracks in drywall
- Warped wood

Interior Elements

- Carpet and other flooring that is discolored and past useful service life
- Scuffs and paint chipping on walls
- Energy intensive lighting fixtures
- Discolored or stained ceiling tiles
- Undersized work areas and inadequate storage space
- Outdated restroom finishes

MEP Systems

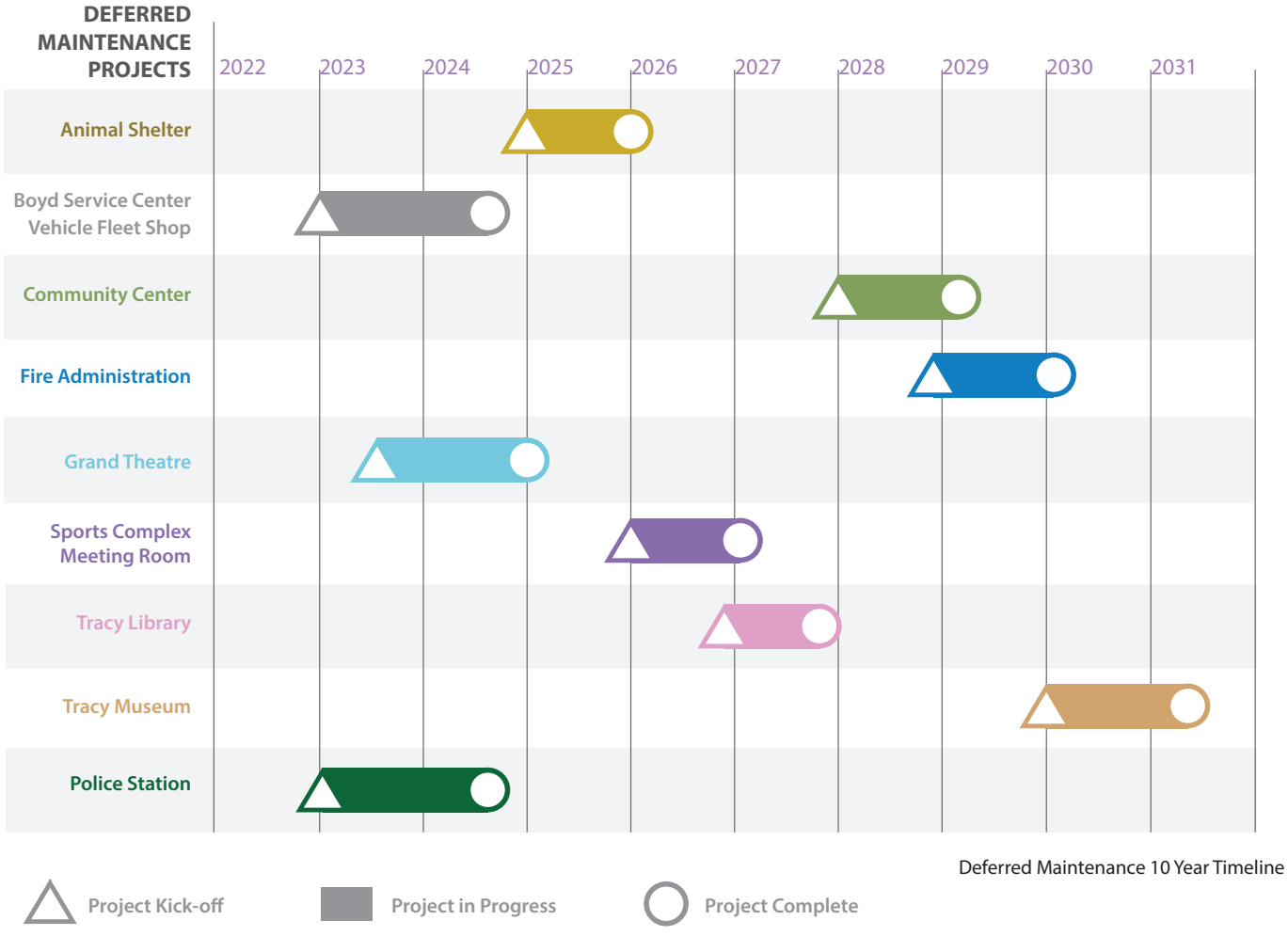
- Equipment components that have been off-line for an extended period of time
- Electrical service deficiencies
- Pneumatic HVAC systems
- Boilers and other equipment original to building construction
- Elevator modernizations required
- Undersized equipment for facility needs

Deferred Maintenance

A total investment across owned assets of $28.4 million is estimated to rectify deferred maintenance needs at public facilities. The facilities outlined below are recommended to be prioritized for deferred maintenance. An investment of $16.0 million will rectify deferred maintenance at the below facilities outlined for the initial Phase 1. This does not include any space renovation projects. An additional investment of $12.4 million in 2022 dollars will rectify the remainder of deferred maintenance needs at other public facilities planned for years 11-30, Phases 2 and 3. This expenditure should be supplemented with a detailed maintenance plan for funding and repair strategies for future deterioration. Additional investments related to accessibility compliance require future consideration. The City should continue to work towards accessibility compliance in a reasonable and timely manner.

No public safety concerns were identified as part of recommended building improvements. The City should renovate approximately 60% of the current owned facility inventory. The City should continue to maintain the other 40% of existing facilities.

A timeline for deferred maintenance projects recommended for the next 10 years is shown below.



Deferred Maintenance 10 Year Timeline

Existing Facilities and Deferred Maintenance

City Hall - City Hall requires interior renovations to better house city employees and serve the public. Space renovations focus on the public lobby area and spaces on the second level shared by departments including Development Services and the City Manager's Office. Deferred maintenance projects include HVAC equipment replacement; site improvements that tie into recommendations for other facilities at the Civic Center complex; foundation investigation; and minor ADA compliance projects. (See Page 29 for details.)

Support Services - Recommend replacement with a larger, multi-story administrative facility due to space needs for City of Tracy operations. Deferred maintenance projects at Support Services and the Support Services Trailer include: Interior renovations and restroom modernizations; mechanical, electrical and plumbing (MEP) improvements; site maintenance to pavement markings and landscape walls; emergency generator reconditioning; exterior improvements and roof maintenance at the trailer facility; and minor ADA compliance projects. (See Page 40 for details.)

Community Center - Deferred maintenance projects at the Community Center include: wall and door maintenance, roof improvements, site improvements, striping repair, landscaping, parking lot improvements, interior renovations and MEP maintenance and ADA compliance projects. The existing Community Center is recommended to undergo an expansion as part of a future Capital project for increased community space. (See Page 52 for details.)

Senior Center - The existing Senior Center is recommended to undergo an expansion as part of a future Capital project. Deferred maintenance projects at the Senior Center include site improvements, exterior maintenance, and light ADA projects. (See Page 64 for details.)

Police Annex - The existing Police Annex is not recommended to have workstations or internal spaces expanded but may be used as swing space for different departments upon implementation of the Public Facilities, Public Safety and Parks & Recreation Master Plans. Deferred maintenance projects at the Police Annex include: exterior renovations, interior renovations, MEP maintenance including boiler replacement, parking improvements, and ADA projects. (See Page 75 for details.)

Fire Administration - Space layout changes to the interior of the Fire Administration building may be proposed under the concurrent Public Safety Master Plan. Deferred maintenance projects at the Fire Administration include: painting and cleaning of exterior envelope, interior renovations, site maintenance, new boiler system and moderate ADA improvements. (See Page 87 for details.)

Transit Station - Space layout changes to the interior of the Transit Station are being provided under an ongoing project. Deferred maintenance projects at the Transit Station include site renovations and cleaning, exterior painting and door hardware, roofing improvements, water piping maintenance and ADA improvements to the site and restrooms. The Transit Center's interior renovation project is currently underway. (See Page 99 for details.)

Animal Shelter - An expansion of the Animal Shelter is proposed under the concurrent Public Safety Master Plan. Deferred maintenance projects at the Animal Shelter include; exterior painting, site resurfacing and landscape structure maintenance, roof access, interior renovations and minor ADA projects. The existing Animal Shelter is recommended to be renovated concurrently with the expansion. (See Page 110 for details.)

Tracy Library - The existing Tracy Library is not recommended for expansion. Deferred maintenance projects at the Tracy Library include; gutter and downspout maintenance, tile flooring replacement, site resurfacing, HVAC equipment replacement, and light arrangement of interior furniture to meet ADA. (See Page 121 for details.)

Joe Wilson Pool - The existing Joe Wilson Pool is not recommended to have workstations or internal spaces expanded. Deferred maintenance projects at the Joe Wilson Pool include; exterior maintenance, kitchen tile flooring replacement, locker room surfaces maintenance, and ADA compliance projects. (See Page 132 for details.)

Sports Complex Meeting room - Deferred maintenance projects at the Sports Complex Meeting Room include; exterior and door maintenance, interior renovations, MEP maintenance, site repavement, and ADA improvements. The existing Sports Complex is not recommended to have workstations or internal spaces expanded. (See Page 144 for details.)

Tracy Historical Museum - Deferred maintenance projects at the Tracy Historical Museum include; site improvements, exterior renovations, roof maintenance, interior renovations, leakage repair, and ADA improvements. The existing Tracy Historical Museum is not recommended to have workstations or internal spaces expanded. (See Page 155 for details.)

Grand Theatre Center for the Arts - Deferred maintenance projects at the Grand Theatre Center for the Arts include; structural investigation, interior renovations, new fire sprinklers, site and exterior renovations, and ADA improvements. The existing Grand Theatre is not recommended to have workstations or internal spaces expanded. (See Page 166 for details.)

Lammersville School - Deferred maintenance projects at the Lammersville School include; providing a parking lot, deteriorated wood renovations at exterior and site, the addition of handrails and ADA improvements. The existing Lammersville School is not recommended to have workstations or internal spaces expanded. (See Page 178 for details.)

Tracy Town Hall & Jail - Deferred maintenance projects at the Tracy Town Hall & Jail include structural investigation, site painting, exterior renovations, interior renovations, and ADA improvements. A study of the building condition is underway. (See Page 189 for details.)

Old Corp Yard - Deferred maintenance projects at the Old Corp Yard include; site repavement, roofing improvements and interior renovations. The Old Corp Yard is not recommended to have workstations or internal spaces expanded. (See Page 200 for details)

Boyd Service Center (Overall) - The Boyd Service Center is recommended to be expanded as part of a separate Capital project. Deferred maintenance projects at the Boyd Service Center include; site repavement and other improvements, shops renovations and modernizations.

Boyd Service Center (Administration - Building A) - Deferred maintenance projects at the Administration Building include; site repavement and other improvements, interior renovations and modernizations. The Administration Building at Boyd is recommended to be expanded as a Capital project. (See Page 211 for details.)

Boyd Service Center (Maintenance Shops - Building B) - The Renovated Maintenance Shops at Boyd are recommended to be supplemented with additional shops. Deferred maintenance projects at the renovated Maintenance Shops include; perimeter fencing improvements, site repavement and other improvements and light ADA renovations. (See Page 223 for details.)

Boyd Service Center (Maintenance Shops - Building C) - Deferred maintenance projects at the unrenovated Maintenance Shops include; exterior lighting fixtures and other renovations, interior renovations, leakage repair, site repavement and other improvements, equipment housings and ADA improvements. The Unrenovated Maintenance Shops at Boyd are recommended to be supplemented with additional shops. (See Page 233 for details.)

Boyd Service Center (Storage Warehouse - Building D) - Deferred maintenance projects at the Storage Warehouse include; exterior lighting fixtures, exterior renovations, site improvements, gutters and downspouts and ADA improvements related to interior stairs. The Storage Warehouse at Boyd is recommended to be supplemented with additional shops. (See Page 244 for details.)

Boyd Service Center (Fleet Shop - Building E) - Deferred maintenance projects at the Fleet Shop include; rooftop ventilation, structure repair, HVAC and exhaust improvements, interior renovations, site paving improvements, landscaping, exterior lighting and doors, and ADA improvements. The Fleet Shop at Boyd is recommended to be supplemented with additional shops. (See Page 255 for details.)

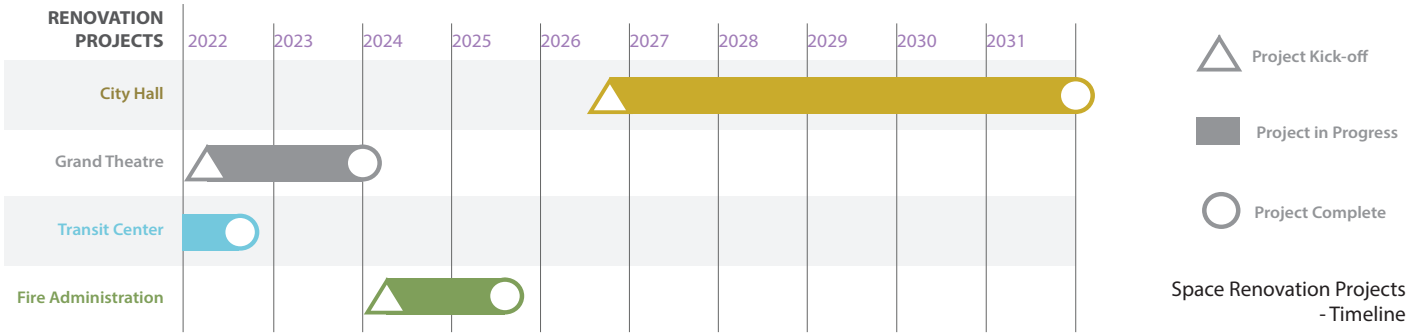
FACILITY	SITE	EXTERIOR	STRUCTURE	INTERIOR	MEP	CONDITION RATING
City Hall	4.3	3.8	4.2	4.4	3.9	4.1
Support Services Building	3.8	3.4	3.2	3.6	4.0	3.6
Community Center	4.3	3.6	3.6	3.2	3.0	3.5
Senior Center	4.0	3.6	3.7	4.5	4.1	4.0
Police Annex	3.5	3.3	3.3	3.7	3.2	3.4
Fire Administration	3.9	4.0	3.4	3.6	3.9	3.8
Police Station	3.4	3.6	3.8	3.1	2.7	3.3
Transit Station (New)	3.9	3.9	4.5	3.8	3.8	4.0
Animal Shelter	3.8	4.1	4.5	3.8	4.2	4.1
Tracy Library	3.3	3.0	3.8	3.6	3.6	3.5
Joe Wilson Pool	4.3	4.2	4.6	3.6	4.1	4.2
Sports Complex Meeting Room	3.1	3.3	2.6	3.8	3.7	3.3
Tracy Historical Museum	2.8	3.3	3.1	3.4	3.5	3.2
Grand Theatre	3.7	3.2	3.2	4.0	4.3	3.7
Lammersville School	2.6	2.3	3.1	3.5	3.7	3.1
Town Hall and Jail	3.6	2.5	2.0	3.3	3.0	2.9
Old Corp Yard	2.4	2.5	3.0	2.0	2.6	2.6
Boyd Service Center	3.6	3.5	3.3	3.4	3.4	3.5
Boyd Service Center Building A - Administration	3.4	3.5	3.3	3.7	3.4	3.5
Boyd Service Center Building B - Maintenance Shops (Renovated)	3.9	4.1	4.0	3.8	3.8	3.9
Boyd Service Center Building C - Maintenance Shops (Unrenovated)	3.0	2.8	3.0	2.8	2.9	2.9
Boyd Service Center Building D - Warehouse Building	3.6	3.5	3.3	3.2	3.4	3.5
Boyd Service Center Building E - Fleet Shop	2.6	2.8	2.6	2.2	3.1	2.7
Boyd Service Center Building - Old Transit Center Shops	3.4	3.2	3.3	3.5	3.2	3.3
Tracy Municipal Airport - 3 Seriers Hangers	3.5	3.1	3.3	3.3	3.9	3.4
Tracy Municipal Airport - 4 Seriers Hangers	3.5	3.4	3.8	3.3	3.9	3.6
Tracy Municipal Airport - B Seriers Hangers	3.7	4.1	3.8	4.0	3.1	3.7
Tracy Municipal Airport -F Seriers Hangers	3.0	2.7	2.8	3.0	2.1	2.7
Tracy Municipal Airport - G Seriers Hangers	3.0	2.7	2.8	3.0	2.1	2.7
Skyview Aviation	3.8	3.3	3.8	4.0	3.2	3.6

5 - Excellent/ Compliance 4 - Good 3 - Fair 2 - Poor 1 - Critical/ Non-Compliance

Deferred Maintenance - Condition Assessment Ratings

Renovation Projects

Owned assets will be renovated to improve facility conditions for the public and working environments for staff. Major renovations will take place within City Hall to better align spaces with City of Tracy departmental needs. Swing space for construction may be provided by surrounding Civic Center buildings that are vacated as part of Public Safety or Parks master plans. Phased construction is required for interior renovations projects. Renovations at interiors while occupied with staff will have to be phased over several years.



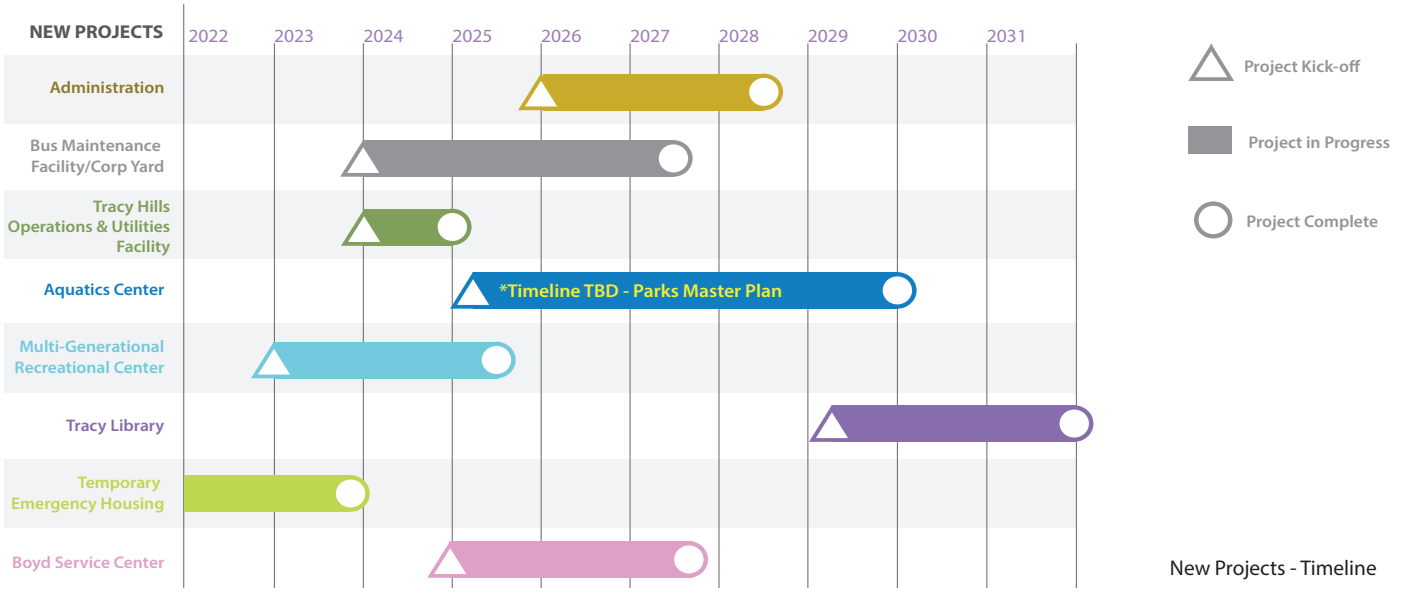
Space Renovation Projects - Timeline

New Projects - 10 year

Eight (8) new Capital Improvement Projects are recommended to be constructed over the next 10 years. City residents will be better served with increased departmental operations efficiency through planned new construction and facility remodels. Public facilities such as the Multi-Generational Recreation Center, Aquatics Center and Library will provide services for the expanding population in the City. Recommended new facilities include:

- An Aquatics Center with pools, water slides and other public use activities
- Temporary Emergency Housing facility on Arbor Avenue (currently under construction)
- A Multi-Generational Recreation Center
- A Bus Maintenance and Operations & Utilities Facility located adjacent to the current Boyd Service Center
- A new Operations and Utilities facility at Tracy Hills
- An additional Library
- A new Administration facility at the site of the current Support Services Building
- Major Expansion to the Boyd Service Center

Parking to accommodate the new construction will be provided at each of the respective planned new facilities.



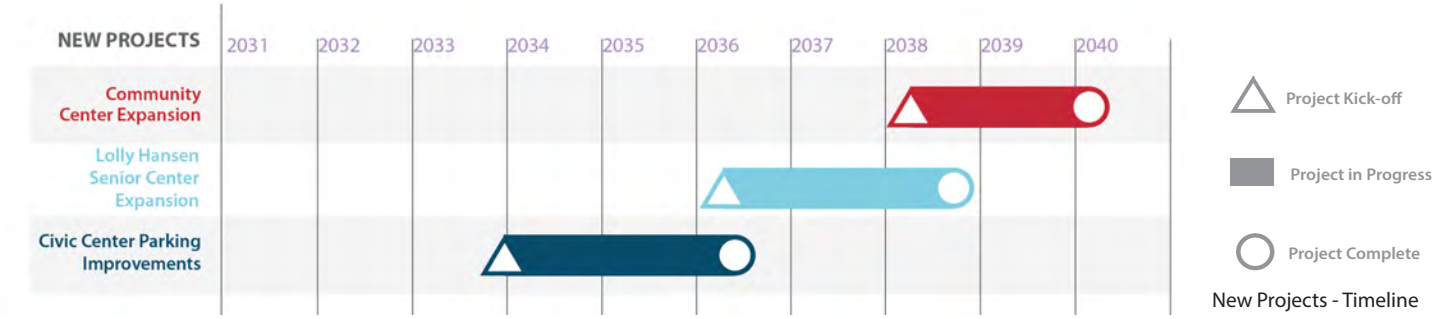
New Projects - Timeline

New Projects - 20 year

Three (3) additional new Capital Improvement Projects are recommended to be constructed over the next 20 years. These services will continue to serve Tracy's expanding population towards Build-out. Recommended construction over the next 20 years includes:

- An expansion and remodel to the Lolly Hansen Senior Center
- An expansion and remodel to the Community Center
- A new parking garage at the Civic Center

A timeline for 20 year facilities is shown below:



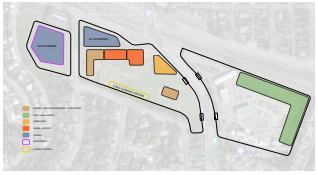
New Projects - Timeline

New Facilities

Aquatics Center - The Aquatics Center will supplement the Joe Wilson Pool as another recreational aquatic offering for the City of Tracy's community. The Aquatics Center will have various amenities including multiple pools, water slides and a lazy river. Further information regarding the Aquatics Center can be found in the Parks Master Plan.

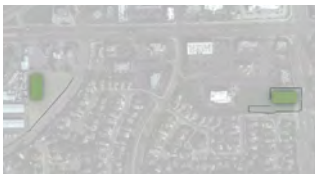
Temporary Emergency Housing - Construction of a new temporary emergency housing facility will allow the City to respond to increased levels of homelessness in the area in recent years. The temporary shelter is proposed to be located at a City-owned site east of the Waste Water Treatment facility. The first phase of the project will house 68 occupants.

Multi-Generational Recreational Center - The Multi-Generational Recreational Center will supplement the existing Community Center and Senior Center with increased City space for community recreation and gathering opportunities. Potential spaces to be programmed include a gymnasium multi-purpose rooms, tech offerings, educational kitchen, administrative space and support spaces. The facility is envisioned to be approximately 30,000 SF. Details can be found in the Parks Master Plan Update.



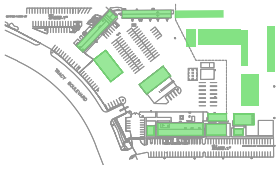
Transit Maintenance/Operations and Utilities Corporation Yard Supplement - This new facility will allow improved vehicle maintenance, storage, office and shops space for both Transit Division and Operations and Utilities. Potential functional spaces to be programmed include Bus Maintenance Bays, Transit office and training space, electric charging infrastructure for buses, bus wash, and parking for multiple buses. Operations and Utilities spaces may include new shops, offices, parking and support spaces. The new facility will supplement existing operators at the Tracy Transit Station and Boyd Service Center and is recommended to be located on an adjacent and purchasable site. An 18,000 SF new building is proposed.

Tracy Hills Operations and Utilities Annex - The Tracy Hills Operations and Utilities Annex site will provide parking and office space for one to two employees. This office space will be designed to be sharable and provide auxiliary work space and equipment storage areas to be utilized as necessary.



New Library - A new City of Tracy Library would supplement the existing library which is undersized to continue to provide library services to Tracy's expanding population. Potential program offerings at the new library include educational space and a teen center. This facility is recommended to be approximately 30,000 SF.

Administration Building - A new Administration building will allow for more organization and tailored workspaces for City staff currently split between the Support Services Building, Police Annex and Support Services Trailer. The Administration Building is recommended to be a minimum of 21,000 SF.



Boyd Service Center - A major expansion at the Boyd Service Center will allow for increased Operations and Utilities capacity to maintain Tracy streets, parks and facilities. It is recommended to expand facilities at Boyd with larger shop areas, increased warehouse space, and a modernized vehicle maintenance bay. Expansion to the Administration Building is also considered as a separate new CIP project.

Community Center - An expansion to the Community Center of 9,000 SF will allow for increased community meeting space at the Civic Center. This will allow the Community Center to continue to house many City functions and increase the type of functions that may be possible at the Community Center. The expansion will create an exterior plaza adjoining the Community Center and Senior Center

Lolly Hansen Senior Center - An expansion of the Lolly Hansen Senior Center of 5,000 SF will allow for increased gathering space for Tracy's senior population. The expanded space will allow for larger events and gatherings to take place. An exterior plaza will adjoin the Community Center.

Civic Center Parking Garage - The parking lot behind the Support Services Building will be used as a site for a new 2-story parking garage. This will increase available parking spaces at the Civic Center and allow for both residents and employees to find better parking opportunities at the Civic Center in light of the expanding population.

Further information regarding the Aquatics Center can be found in the Citywide Parks, Recreation and Trails Master Plan. The CPFMP Update does not envision any specific changes to the services currently provided at the Community Center, Senior Center, Grand Theatre, Joe Wilson Pool or Airport. The recommended new Administration Building will provide certain services to the public that are currently provided at City Hall or the Support Services Building.

Cost Estimating

The planning team projected the potential cost for each project. Projects are prioritized in 10-year and 20-year plans. The CPFMP Update contains cost and scheduling estimates for 1) CIP new construction projects, 2) deferred maintenance, and 3) CIP renovation projects. Each new design, renovation or deferred maintenance project includes a 15% General Contingency and 10% additional contingencies for Design and Construction Management. Implementing all new construction projects requires the City spend between $10 and $30 million annually.

CIP New Construction Projects:	$311,793,559
CIP Renovation Projects:	$20,815,000
Deferred Maintenance Projects:	$28,492,688
Total Estimate:	**$361,101,247**

Calculations for percentages of fee construction costs attributable to new development are shown below. Costs are included on the following page.

EXISTING POPULATION = 98,601
BUILD-OUT POPULATION = 174,750
GROWTH = 76,149
BUILD-OUT POP w EMPOLYEES =197,269

EQUATION 1

$$\frac{\left(\frac{\text{FACILITY SIZE AT BUILDOUT (SF)}}{\text{BUILDOUT POPULATION (\#)}}\right) \times \text{GROWTH POPULATION (\#)}}{\text{TOTAL NEW FACILITY BUILD (SF)}} = \text{PERCENTAGE ATTRIBUTABLE TO NEW DEVELOPMENT}$$

FACILITY NAME		PERCENTAGE ATTRIBUTABLE TO NEW DEVELOPMENT
ADMIN	FACILITY SIZE AT BUILD-OUT = 21,000 SF TOTAL NEW FACILITY BUILD = 21,000 SF EXISTING TOTAL FACILITY SIZE = 9,900 SF	38.6%
CC PARKING	FACILITY SIZE AT BUILD-OUT = 60,000 SF TOTAL NEW FACILITY BUILD = 60,000 SF EXISTING TOTAL FACILITY SIZE = 20,000 SF	40.6%
T HILLS OPS & UTIL	FACILITY SIZE AT BUILD-OUT = 400 SF TOTAL NEW FACILITY BUILD = 400 SF EXISTING TOTAL FACILITY SIZE = 0 SF	38.6%
BUS MAINTENANCE	FACILITY SIZE AT BUILD-OUT = 17,400 SF TOTAL NEW FACILITY BUILD = 17,400 SF EXISTING TOTAL FACILITY SIZE = 0 SF	38.6%
BOYD ADMINISTRATION	FACILITY SIZE AT BUILD-OUT = 8,991 SF TOTAL NEW FACILITY BUILD = 4,000 SF EXISTING TOTAL FACILITY SIZE = 4,991 SF	86.8%
BOYD OVERALL	FACILITY SIZE AT BUILD-OUT = 50,920 SF TOTAL NEW FACILITY BUILD = 25,460 SF EXISTING TOTAL FACILITY SIZE = 25,460 SF	77.2%

FACILITY NAME		PERCENTAGE ATTRIBUTABLE TO NEW DEVELOPMENT
COMMUNITY CENTER	FACILITY SIZE AT BUILD-OUT = 19,480 SF TOTAL NEW FACILITY BUILD = 9,000 SF EXISTING TOTAL FACILITY SIZE = 10,480 SF	94.3%
SENIOR CENTER	FACILITY SIZE AT BUILD-OUT = 10,224 SF TOTAL NEW FACILITY BUILD = 5,000 SF EXISTING TOTAL FACILITY SIZE = 5,224 SF	89.1%
LIBRARY	FACILITY SIZE AT BUILD-OUT = 47,000 SF TOTAL NEW FACILITY BUILD = 30,000 SF EXISTING TOTAL FACILITY SIZE = 17,000 SF	68.3%
MULTI GEN	FACILITY SIZE AT BUILD-OUT = 30,000 SF	100%
AQUATIC	FACILITY SIZE AT BUILD-OUT = 483,280 SF	100%
TEMPORARY EMERGENCY HOUSING PH.2	FACILITY SIZE AT BUILD-OUT = 9,596 SF TOTAL NEW FACILITY BUILD = 9,596 SF EXISTING TOTAL FACILITY SIZE = 0 SF	38.6%

Funding not attributable to new development is the responsibility of the City and will be provided through a combination of grant funds, general funds, and other funding opportunities. The growth assumptions in this Master Plan are based on data from September 2021, received from the City of Tracy. They don't include the growth assumed in the City of Tracy 6th cycle Housing Element.

Facility Name	CIP New Construction	CIP Renovation	Deferred Maintenance	Total
Administration Building	$ 24,242,550			$ 24,242,550
Animal Shelter **	$ 6,370,000	$ 5,750,000	$ 1,029,250	$ 6,779,250
Aquatics Center *	$ 62,688,368			$ 62,688,368
Bus Maintenance Facility/Corp Yard	$ 36,400,000			$ 36,400,000
City Hall		$ 4,025,000	$ 1,711,200	$ 5,736,200
Civic Center Parking Garage	$ 12,580,000			$ 12,580,000
Community Center	$ 9,500,000		$ 1,057,138	$ 10,557,137
Fire Administration		$ 1,840,000	$ 1,329,400	$ 3,169,400
Grand Theatre		$ 5,750,000	$ 3,266,000	$ 9,016,000
Joe Wilson Pool			$ 138,000	$ 138,000
Lammersville School			$ 624,450	$ 624,450
Multi-Generational Recreation Center *	$ 87,577,232			$ 87,577,232
Old Corp Yard			$ 276,000	$ 276,000
Police Annex		$ 3,450,000	$ 756,125	$ 4,206,125
Police Station **	$ 35,781,000		$ 1,242,000	$ 1,242,000
PD Training Facility **	$ 5,655,000			$ -
Senior Center	$ 5,500,001		$ 238,625	$ 5,738,626
Sport Complex			$ 553,150	$ 553,150
South Tracy PD Substation **	$ 12,507,000			$ -
Support Services Building			$ 1,242,000	$ 1,242,000
Temporary Emergency Housing (Phase 2)	$ 10,000,000			$ 10,000,000
Tracy Hills Ops & Utils Facility	$ 426,920			$ 426,920
Tracy Library (New)	$ 25,577,000			$ 25,577,000
Tracy Library (Existing)			$ 948,750	$ 948,750
Tracy Museum			$ 782,000	$ 782,000
Tracy Townhall & Jail			$ 293,250	$ 293,250
Tracy Transit Station (New)			$ 1,167,250	$ 1,167,250
Boyd Service Center				
Overall	$ 30,047,290			$ 30,047,290
Administration	$ 7,254,200		$ 258,750	$ 7,512,950
Maintenance Shops B - Renovated			$ 759,000	$ 759,000
Maintenance Shops C - Unrenovated			$ 971,750	$ 971,750
Warehouse Building D			$ 937,250	$ 937,250
Vehicle Fleet Shop E			$ 4,168,750	$ 4,168,750
Tracy Municipal Airport				
3 Series Hangars			$ 1,127,000	$ 1,127,000
4 Series Hangars			$ 862,500	$ 862,500
B Series Hangars			$ 202,975	$ 202,975
F Series Hangars			$ 894,125	$ 894,125
G Series Hangars			$ 284,625	$ 284,625
Skyview Aviation			$ 1,371,375	$ 1,371,375
TOTAL	**$ 311,793,559**	**$ 20,815,000**	**$ 28,492,688**	**$ 361,101,247**

* Total costs shown above include other identified funding sources of $53,007,854 for the Aquatics Center and $73,000,000 for the Multi-Generational Recreation Center.

** CIP new construction costs are included in the Public Safety Master Plan and **are not included** in the CPFMP total.

Benefits

New construction projects will provide additional facilities in the under-served areas of the City and expand facilities located at the Civic Center. New Administration Facility and Operations and Utilities improvements will allow for housing of the 650 City employees. Improvements allow for continuous operations beyond the next 10 years. The Civic Center complex will continue to house City Hall and administrative services and a new Administration Facility in place of the current Support Services Building that is tailored to meet department needs will improve administrative work efficiencies for departments. New public facilities will provide activities and services that align with the community growth and supplement existing public facilities such as the Joe Wilson Pool.

The consolidation of departments and construction of new public facilities will provide the following benefits:

- Improved recreational offerings
- Increased property values
- Increased parking capacity
- Enhanced curb appeal for Civic Center area
- Increased department workspace areas
- Higher use of City owned land

Potential Benefits Diagram

Risks

There are risks associated with large expenditure and change as outlined in the CPFMP. Current consideration of the recommendations in this report is required to include a broader range of alternative, solutions and implementation. Some possible risks include:

- Large expenditures may require alternate funding methodologies
- Changes in City operations may require adjustments to routines
- Future needs may require additional parking
- Increased traffic around newly constructed public facilities

Implementation

The Citywide Public Facilities Master Plan update defines the steps the City could take to improve conditions, operations and facility management of the city-owned facilities for public and staff. The CPFMP defines renovation and new construction projects the City could undertake in order to achieve goals and needs. Implementation of design and construction of the eight (8) new facility projects aligns with goals. Several medium and small improvement projects are also suggested to be undertaken over future years. The logistics and implementation of the proposed scale of these types of Capital Improvement Projects requires leadership of management and engagement of financial, legal, design and construction professionals.

Planning, Design and Construction Staffing

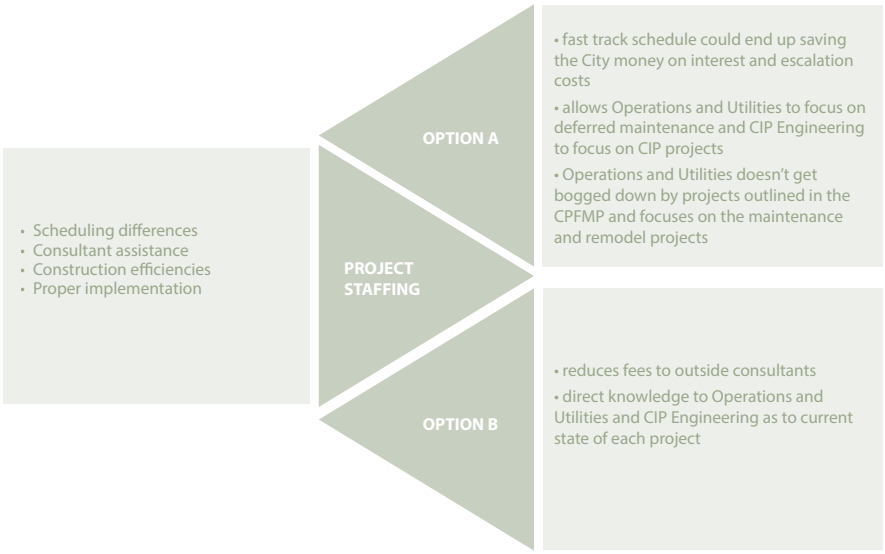
Additional staffing requirements will be necessary to implement the projects recommended as part of the CPFMP. The City will be hiring additional Operations and Utilities/CIP Engineering and project management staff to oversee the design and construction of new facilities. The City should consider hiring additional construction management consultants for individual large projects such as the new Aquatics Center, Administration Facility and Multi-Generational Recreational Center. Enhancing physical improvements with new construction sooner rather than later will reduce inflation costs and save the City millions of dollars.

Multiple options are proposed for leadership involvement for proper project implementation. One option involves hiring outside professional consultants specifically responsible for managing individual projects. Pros of this Option include:

- A fast track schedule which could end up saving the City money on interest and escalation costs
- Operations and Utilities, CIP Engineering and other staff can focus on other ongoing projects and remain as a resource to consultants
- Staff can remain focused on maintenance and remodel projects

Another option involves utilizing existing City of Tracy staff along with hiring additional Operations and Utilities, CIP Engineering and other staff. Pros of this option include:

- Reduces fees to outside consultants
- Operations and Utilities, CIP Engineering and other City staff have direct knowledge as to the current state of each project.



Staffing Considerations

Continued Planning and Development

The summary recommendations outline several major projects, renovation projects, deferred maintenance and ADA considerations that could be undertaken over the next decade. These initiatives, projects and recommendations require further research, analysis, planning, design, construction and activation to achieve the very broad goals outlined in this report.

Each project has unique planning hurdles and challenges that require further investigation to determine the best approach to accomplishing the project specifics. These projects provide unique benefits City residents and the staff that serves them. Other entities may join the City in planning efforts to further strengthen the many public and private opportunities that will arise from this one public improvement project.

Public Input

Public outreach will be conducted for the significant projects proposed. The future public outreach process will facilitate the direction and further define potential solutions outlined in the CPFMP. Meetings and workshops will be conducted by the City.

II. FACILITY CONDITION ASSESSMENTS

a. Facility Condition Assessments Reports **28**

City Hall	28
Support Services Building	39
Community Center	51
Senior Center	63
Police Annex	74
Fire Administration	86
Transit Station (New)	98
Animal Shelter	109
Tracy Library	120
Joe Wilson Pool	131
Sports Complex	143
Tracy Historical Museum	154
Grand Theatre Center for the Arts	165
Lammersville School	177
Town Hall and Jail	188
Old Corp Yard	199

Boyd Service Center Building A - Administration 210

Boyd Service Center Building B - Maintenance Shops (renovated) 222

Boyd Service Center Building C - Maintenance Shops (unrenovated) 232

Boyd Service Center Building D - Warehouse Building 243

Boyd Service Center Building E - Fleet Shop 254

Boyd Service Center - Old Transit Center Shops 265

Tracy Municipal Airport - 3 Series Hangars 275

Tracy Municipal Airport - 4 Series Hangars 286

Tracy Municipal Airport - B Series Hangars 297

Tracy Municipal Airport - F Series Hangars 308

Tracy Municipal Airport - G Series Hangars 319

Skyview Aviation 330

Police Station 341

FACILITY CONDITION ASSESSMENT

CITY HALL

Condition Summary - City Hall

Overall Rating **4.1**

Facility Condition

Site 4.3

The City Hall site is well-maintained and in good condition overall. Walkways, curbing and other pavings are minimally cracked with slight discoloration in areas. Publicly accessed features such as payment drop boxes contain chipping paint. Landscaping including that of the remainder of Civic Center Plaza is healthy and plentiful with multiple species of plants and trees. Lighting is present throughout the site. Parking lot striping throughout is faded.

Exterior Envelope 3.8

The stucco, masonry and stone paneling exterior portions of City Hall are all in good condition with minimal signs of deterioration to be expected with age, including slight fading of colors in areas and discoloration due to water runoff. Exterior sealants are deteriorated at foundation base and door bases. Roof surface has mechanical and drainage elements that are beginning to rust. Roof sealants are nearing the end of their useful service life.

Structure 4.2

The structure is in good visible condition and shows signs of normal wear and tear. Minimal cracking was present at building base near foundation.

Interior 4.4

Ceiling systems throughout City Hall including plaster and acoustic tiles are in good condition with a few instances of light staining on tiles. Flooring systems throughout are well-maintained. Carpeting has some visible wear in high traffic areas. Terrazzo at the entrance is well-polished and only cracked on one area noted. The interior is well-lit with multiple types of lighting including recessed can lighting and chandelier type fixtures. The Council Chambers room is well-appointed.

MEP Systems 3.9

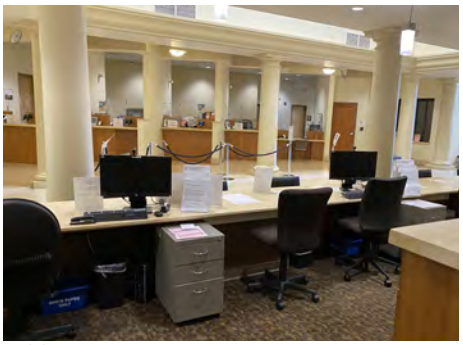
Although functional, rooftop mounted HVAC equipment would benefit from replacement. Pump equipment for HVAC water piping is beginning to rust as protective coating has flaked off in areas. No major electrical issues were reported and the building has adequate electrical supply. Boiler plate solder joints were bad when installed but a crimp fix has worked out for the time being. The solder joints should be monitored in the future.

ADA Compliance Needs Compliance

City Hall contains accessible parking spaces and generally accessible routes. Areas for improvement include the passenger loading zone near the fountain at the main entrance, various toilet room elements, cabinetry and furniture at areas throughout the building, and signage.

Recommendation Summary - City Hall

Exterior


Lobby

Interior

Recommendations

Site: No recommendations for improvement.

Exterior Envelope: It is recommended to reapply roof sealant to extend service life.

Structure: It is recommended to repair the minimal cracking at the base of building near foundation.

Interior: No recommendations for improvement.

MEP Systems: It is recommended that the rooftop mounted HVAC equipment be completely replaced.

ADA Compliance: Recommended actions include repainting passenger loading zone near the fountain at main entrance, relocating some toilet room elements to be ADA compliant, rearranging cabinetry and furniture throughout the building, and repainting the signage.

Impact of Recommended Works

Site: No impact of recommended works.

Exterior Envelope: Impact of exterior envelope recommendations are minor. One week will be required to reapply roof sealant.

Structure: Performing structural recommendations should have minor impact on the center; one week will be required to repair the minimal cracking.

Interior: No impact of recommended works.

MEP Systems: Replacement of HVAC equipment will require shutting HVAC systems down for two to three days.

ADA Compliance: Impacts of recommendations include temporary closing of the City Hall. Completion of these recommendations will result in increased accessibility within the building and toilet rooms. Three weeks will be required to complete these recommendations.

Facility Description - City Hall

Exterior

Interior

MEP

Building Description

The City Hall is a double story building that was constructed in 2007. The City Hall is located off of Civic Center drive and it surrounded by other public buildings. The building has a steel framed structure and the exterior is clad with painted stucco. Surrounding the hall are courtyard spaces and appropriate landscaping including trees and shrubbery. Within the same neighborhood, there is the City of Tracy Department, Lolly Hansen Senior Center, and the Tracy Community Center. Mechanical systems are rooftop mounted. Interior finishes adequately accommodate the building's needs and the range of activities that take place there.

Age

The City Hall building is 15 years old and was constructed in 2007.

Use of Building

The building is used in the following ways:

- Houses offices for local government officials
- Houses various City of Tracy Departments
- Public permitting and building processes

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
City Hall - Overall										**4.1**
1	**Site/ Civil/ Landscape**									**4.3**
	1.1	Fences/ Walls/ Gates								4.5
		A.	Perimeter Fencing						N/A	
		B.	Equipment Fencing		4					
		C.	Landscape Walls/ Piers / Structures	5						
		D.	Gates						N/A	
	1.2	Paving								4.0
		A.	Sidewalks/ Walkways/ Crosswalks	5						
		B.	Curbing		4					
		C.	Driveways/ Parking Pavement		4					
		D.	Striping/ Marking/ Speed Bumps			3				
		E.	Patios		4					
	1.3	Landscape								4.3
		A.	Ground Cover		4					
		B.	Trees	5						
		C.	Irrigation System		4					
	1.4	Site Features/ Fixtures/ Furniture/ Signage								4.7
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures		4					
		C.	Water Fixtures	5						
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility	5						
	1.5	Stormwater Management								4.0
	NOTES									

	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**3.8**
	2.1	Exterior Wall Finish								4.0
	2.2	Eaves and Fascias								4.0
	2.3	Doors/ Windows/ Louvers								4.0
		A.	Windows		4					
		B.	Louvers and Vents						N/A	
		C.	Exterior Doors & Hardware		4					
	2.4	Roofing								3.3
		A.	Roof Surface			3				
		B.	Roof Opening/ Skylight/ Penetrations			3				
		C.	Roof Equipment Curbing		4					
		D.	Leakage		4					
		E.	Ponding Water				2			
		F.	Roof Drainage			3				
		G.	Gutters / Downspouts						N/A	
		H.	Roof Vents		4					
	NOTES	2.4.E: Ponding water is observed around roof drainage.								
3	**Structure**									**4.2**
	3.1	Foundation/ Footing								4.0
	3.2	Columns								4.0
	3.3	Framing System								4.0
	3.4	Walls								5.0
	3.5	Lateral Force Resistance System								4.0
	3.6	Covered Walkway/Canopy								N/A
	3.7	Chimney								N/A
	NOTES									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**4.4**
	4.1	Ceilings								4.5
		A.	Suspended Ceiling (ACT)		4					
		B.	Gypsum Board						N/A	
		C.	Plaster	5						
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed						N/A	
	4.2	Flooring								3.6
		A.	Carpet		4					
		B.	Vinyl			3				
		C.	Tile			3				
		D.	Terrazzo/Wood		4					
		E.	Concrete		4					
	4.3	Interior Wall/Partition Finishes								4.0
	4.4	Interior Doors								5.0
	4.5	Stairs Condition								4.5
		A.	Stairs/ Landing	5						
		B.	Handrails		4					
	4.6	Toilet Condition								3.8
		A.	Toilet Accessories		4					
		B.	Toilet Partitions			3				
		C.	Water Closets		4					
		D.	Urinals		4					
		E.	Lavatorie /Sinks		4					
		F.	Counter						N/A	
		G.	Shower Compartments						N/A	
	4.7	Hazmat								5.0
	4.8	Room Capacity								5.0
	NOTES									

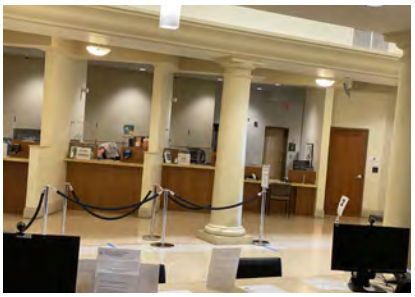
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.9**
	5.1	Mechanical Systems								3.6
		A.	HVAC		4					
		B.	Control System		4					
		C.	Chiller			3				
		D.	Cooling Towers						N/A	
		E.	Duct Work			3				
		F.	Ventilation\ Air Distribution		4					
		G.	Boilers						N/A	
	5.2	Electrical Systems								4.4
		A.	Transformer		4					
		B.	Switchgear		4					
		C.	Panelboards (Condition & Capacity)		4					
		D.	Devices (Switches & Receptacles)		4					
		E.	Interior Lighting Fixtures	5						
		F.	Conveying Systems	5						
		G.	Fire Alarm System	5						
	5.3	Voice and Data Systems								4.0
	5.4	Plumbing Systems								3.7
		A.	Plumbing Fixtures		4					
		B.	Water Distribution System/ Pipes			3				
		C.	Water Heaters		4					
	5.5	Gas Distribution Systems								N/A
	5.6	Fire Suppression System								4.0

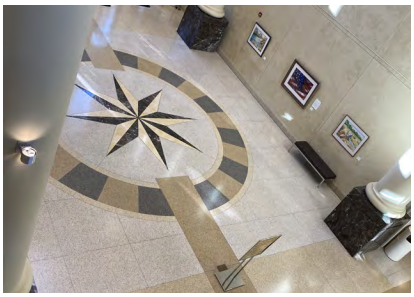
NOTES

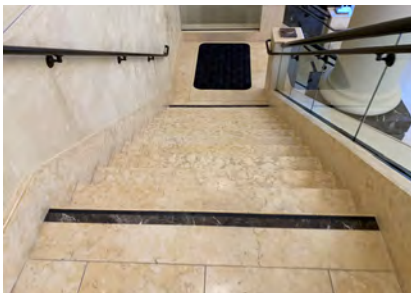
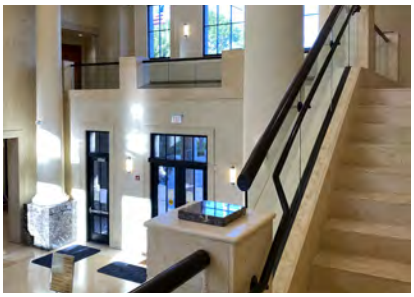
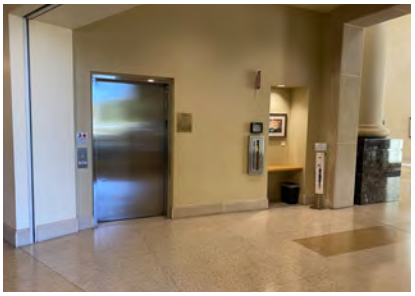
			System	Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones		NC	
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space	C		
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps	C		
		E.	Stairways	C		
		F.	Handrails		NC	
		G.	Elevators	C		
	6.3	Toilet				
		A.	Clearances/Accessible Stall	C		
		B.	Toilet Accessories	C		
		C.	Water Closets	C		
		D.	Urinals	C		
		E.	Lavatories/ Sinks	C		
		F.	Counters			N/A
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry		NC	
		B.	Furniture, Fixtures & Equipment - FF&E	C		
		C.	Signage		NC	
	N O T E S		6.1.B: Exiting passenger loading zone does not meet the ADA requirement. Restripe the loading zone and lettering to meet the ADA requirement. 6.2.F: Provide handrails and guardrails to site ramp if the slope is greater than 1:20. 6.4.A: Provide knee and toe clearance under kitchen sink, working surfaces, and front desk. 6.4.C: Provide signage on ADA toilet doors. Provide ADA compliant room signage with tactile text and Braille.			

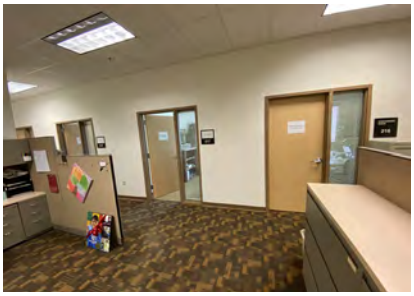
Photo Documentation | Exterior Overall

Photo Documentation | Interior Blow Ups







FACILITY CONDITION ASSESSMENT

SUPPORT SERVICES BUILDING

Condition Summary - Support Services Building

Overall Rating **3.6**

Facility Condition

Site 3.8

The Support Services building contains healthy landscaping with plants and many trees. Concrete paving is in good condition with condition similar to the remainder of the Civic Center site. Some chipping is present at corners of landscape walls near main entrance. Support Services Trailer is located on site and contains additional offices for city employees. Crosswalk striping near entrance to Support Services building is faded and lacking due to asphalt chipping. Green site lighting units throughout the Civic Center site contain some paint deterioration and generally require cleaning.

Exterior Envelope 3.4

Painted stucco siding of main facility is in similar condition as the remainder. Tin roof of Support Services Trailer is dirty with deteriorating rubber seals. Window grate screws at trailer are rusted. Exterior metal double doors leading to lobby are scratched at bases but operate smoothly. Built-up roof system is fair condition with deteriorated seams and bubbling surfaces in areas especially near rooftop drains. Drains themselves are blocked by a considerable amount of debris buildup. Staining due to water ponding is present in areas. Windows are believed to be single paned in most areas of the facility with tinting peeling off from lower interior covers of many glass surfaces.

Structure 3.2

Moderate cracking exists at CMU wall structure for emergency generator on site. No major structural deficiencies were visually observed.

Interior 3.6

Wood door frames contain light splitting in areas and wooden window sills contain various levels of condition with some dry and deteriorating. Square carpet tiles and rolled carpet both hide stains well due to their dark color but don't give the interior a welcoming appearance and contain fraying and stains upon close inspection. Restroom floor tile is in fair condition with surface wear and staining present. Restroom surfaces generally contain out-of-date materials. A large scuff is present in floor length mirror in male restroom. Linoleum tile flooring in main building and trailer is in fair condition with much scratching and some chipping at seam areas. Rectangular acoustic ceiling tiles in main lobby and workspace area contain minimal signs of staining. Acoustic ceiling system grid of Support Services Trailer appears out of plumb in areas with tiles not placed properly and components protruding at odd angles. Gate separating reception from staff area is in poor condition with chipping at edges and discoloration at top due to frequent operation. Some staining is present at lighting lenses at Support Services Trailer.

MEP Systems 4.0

Metal enclosures surround rooftop mounted MEP equipment are in good condition along with metal roof parapet. Main electrical service is served to the building through two 1000A Siemens switchboards manufactured in 2008. These should contain much remaining service life. Water heater was installed in 2006 and is likely nearing the end of its useful service life. Hinges on gate for access to transformer T-1198 are rusted. HF-125 extinguishing system is present for IT components with no reported use or problems. A Kohler diesel powered

Condition Summary - Support Services Building

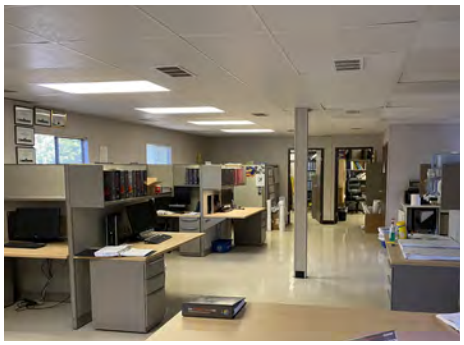
emergency generator is located on site and is in visually fair condition but interior engine components require cleaning.

ADA Compliance **Needs Compliance**

Interior break areas are not compliant due to counter height dimensions and lack of knee space.

Recommendation Summary - Support Services Building

Exterior


Interior

Kitchen

Recommendations

Site: Recommendations include repairing chipping at corners of landscape walls near main entrance, repairing asphalt chipping and repainting crosswalk striping, and cleaning green site lighting units.

Exterior Envelope: It is recommended to replace rubber seals of tin roof at Support Services Trailer, clean tin roof, replace window grate screws at trailer, repair multiple aspects of built up roofing system, clean drains of buildup, and reapplying tinting from lower interior covers of many glass surfaces.

Structure: Recommendations include repairing cracking at CMU wall structure for emergency generator.

Interior: Recommended actions include repairing light splitting on wood door frames, repairing wooden window sills of various issues, replacing square carpet tiles and rolled carpet to improve visual appearance, modernizing restroom surfaces, cleaning large scuff in floor length mirror in male restroom, and cleaning stains from restroom floor tile in general. Additionally it is recommended to realign acoustic ceiling system, replace gate separating reception from staff area, and clean lighting lenses at Support Services Trailer.

MEP Systems: Improvements should include replacing water heater soon, cleaning hinges on gate for access to transformer, and cleaning Kohler diesel powered emergency generator.

ADA Compliance: Recommendations include increasing counter height dimensions and providing knee space in break areas.

Impact of Recommended Works

Site: Impact of site recommendations are minor. One week will be required to repair chipping and crosswalk appearance.

Exterior Envelope: Impacts of recommendations include an improved physical and visual appearance and will improve the functionality of drains. Two weeks will be required to complete all recommendations.

Structure: Performing structural recommendations likely have minor impact on the building and it is thought that cracking can be repaired within one month.

Interior: Performing the interior recommendation will cause a temporary closing of areas of the Support Services building; completion of recommendations will result in heightened appearance of the building. Three weeks will be required for the completion of all recommendations.

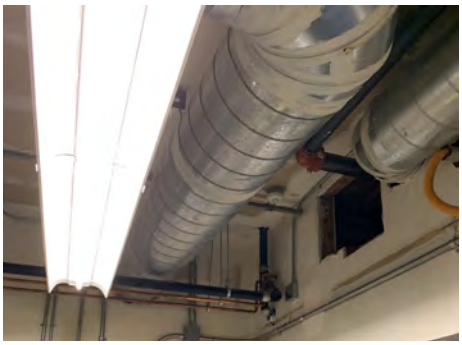
MEP Systems: Minimal impact on facility will occur upon completion of recommended MEP improvements.

ADA Compliance: Executing recommended improvements will result in ADA compliant break areas. Two weeks will be required to perform recommended actions.

Facility Description - Support Services Building

Exterior

Interior


MEP

Building Description

The Support Services Building is a single story building that was constructed in 1972. The building is located in the same block as the City Hall off of Civic Center Plaza. The building structure mainly consists of wood frame construction. The exterior of the Support Services Building is clad in a beige painted stucco and the Support Services Trailer is a per-manufactured facility clad in wood siding. The roofing of the trailer is made of a built up tin system. Exterior landscaping is mostly well kept and adds to the appearance of the building, allowing it to feel more welcoming. Mechanical systems for this building are housed both inside the building and on the roof.

The Support Services Building houses spaces for equipment and plenty of offices. Kitchenette and break areas are provided for employees. A reception area provides information and direction for building visitors.

Age

The Support Services Building is 50 years old and was constructed in 1972.

Use of Building

The building is used in the following ways:

- Houses various City of Tracy Departments
- Provides public assistance

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Support Services Building - Overall										**3.6**
1	**Site/ Civil/ Landscape**									**3.8**
	1.1	Fences/ Walls/ Gates								3.3
		A.	Perimeter Fencing						N/A	
		B.	Equipment Fencing			3				
		C.	Landscape Walls/ Piers / Structures		4					
		D.	Gates			3				
	1.2	Paving								3.8
		A.	Sidewalks/ Walkways/ Crosswalks		4					
		B.	Curbing		4					
		C.	Driveways/ Parking Pavement		4					
		D.	Striping/ Marking/ Speed Bumps			3				
		E.	Patios						N/A	
	1.3	Landscape								4.3
		A.	Ground Cover		4					
		B.	Trees	5						
		C.	Irrigation System		4					
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.5
		A.	Landscape Features/ Play Equipment		4					
		B.	Exterior Lighting Fixtures			3				
		C.	Water Fixtures			3				
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility		4					
	1.5	Stormwater Management								4.0
	N O T E S									

	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**3.4**
	2.1	Exterior Wall Finish								3.0
	2.2	Eaves and Fascias								3.0
	2.3	Doors/ Windows/ Louvers								4.0
		A.	Windows		4					
		B.	Louvers and Vents		4					
		C.	Exterior Doors & Hardware		4					
	2.4	Roofing								3.6
		A.	Roof Surface			3				
		B.	Roof Opening/ Skylight/ Penetrations		4					
		C.	Roof Equipment Curbing		4					
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage			3				
		G.	Gutters / Downspouts						N/A	
		H.	Roof Vents		4					
	NOTES									
3	**Structure**									**3.2**
	3.1	Foundation/ Footing								3.0
	3.2	Columns								4.0
	3.3	Framing System								3.0
	3.4	Walls								3.0
	3.5	Lateral Force Resistance System								3.0
	3.6	Covered Walkway/Canopy								N/A
	3.7	Chimney								N/A
	NOTES									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.6**
	4.1	Ceilings								4.0
		A.	Suspended Ceiling (ACT)		4					
		B.	Gypsum Board						N/A	
		C.	Plaster	5						
		D.	Wood			3				
		E.	Other						N/A	
		F.	Exposed						N/A	
	4.2	Flooring								3.7
		A.	Carpet	5						
		B.	Vinyl						N/A	
		C.	Tile			3				
		D.	Wood						N/A	
		E.	Concrete			3				
	4.3	Interior Wall/Partition Finishes								4.0
	4.4	Interior Doors								3.0
	4.5	Stairs Condition								N/A
		A.	Stairs/ Landing						N/A	
		B.	Handrails						N/A	
	4.6	Toilet Condition								3.2
		A.	Toilet Accessories			3				
		B.	Toilet Partitions			3				
		C.	Water Closets			3				
		D.	Urinals			3				
		E.	Lavatorie /Sinks			3				
		F.	Counter		4					
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	N O T E S									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**4.0**
	5.1	Mechanical Systems								3.0
		A.	HVAC			3				
		B.	Control System			3				
		C.	Chiller			3				
		D.	Cooling Towers						N/A	
		E.	Duct Work			3				
		F.	Ventilation\ Air Distribution			3				
		G.	Boilers						N/A	
	5.2	Electrical Systems								3.5
		A.	Transformer			3				
		B.	Switchgear		4					
		C.	Panelboards (Condition & Capacity)		4					
		D.	Devices (Switches & Receptacles)			3				
		E.	Interior Lighting Fixtures			3				
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System		4					
	5.3	Voice and Data Systems								5.0
	5.4	Plumbing Systems								3.3
		A.	Plumbing Fixtures			3				
		B.	Water Distribution System/ Pipes		4					
		C.	Water Heaters			3				
	5.5	Gas Distribution Systems								4.0
	5.6	Fire Suppression System								5.0
	NOTES									

System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones		NC	
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space		NC	
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps		NC	
		E.	Stairways			N/A
		F.	Handrails		NC	
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall	C		
		B.	Toilet Accessories		NC	
		C.	Water Closets		NC	
		D.	Urinals	C		
		E.	Lavatories/ Sinks		NC	
		F.	Counters	C		
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry		NC	
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	

N O T E S

6.1.B: Provide ADA compliant passenger loading zone with striping and tactile warnings.
6.2.A: Provide ADA compliant handrails at exterior ramp.
6.2.D: Provide ADA compliant ramp with landing.
6.2.F: Provide ADA compliant handrails and guardrails to exterior ramp and stair.
6.3.B: Provide ADA compliant toilet accessories.
6.3.C: Provide ADA compliant water closet placement.
6.3.E: Provide ADA compliant lavatory operation controls.
6.4.A: Provide knee and toe clearances under sink in breakroom and front desk.
6.4.B: Provide ADA compliant furniture, fixtures and equipment with accessible height and knee and toe clearance.
6.4.C: Provide ADA compliant room signage with tactile text and Braille. Provide ADA compliant toilet room signage.

Photo Documentation | Exterior Overall

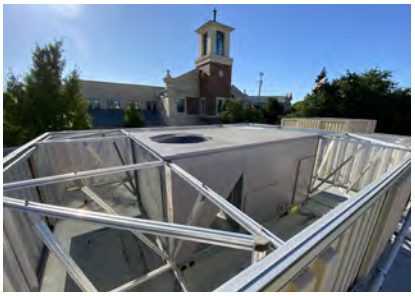
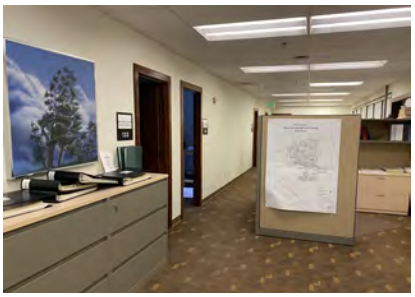
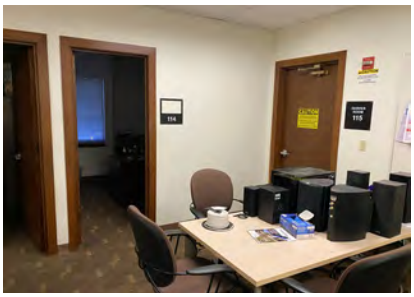
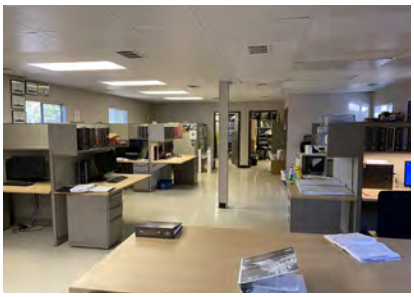
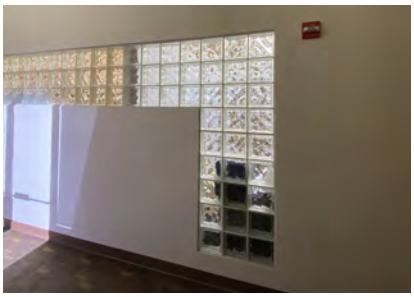
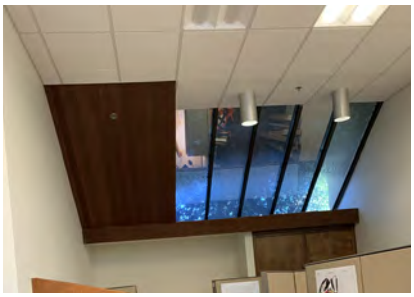
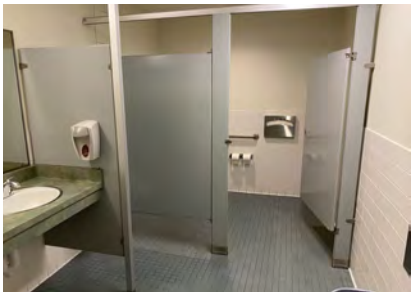


Photo Documentation | Interior Blow Ups



FACILITY CONDITION ASSESSMENT

COMMUNITY CENTER

Condition Summary - Community Center

Overall Rating **3.5**

Facility Condition

Site 4.3

Crosswalk near the Community Center and Police Sation contains faded yellow striping. Sidewalks directly adjacent to Community Center and other nearby Tracy facilities are in good condition with minimal signs of wear, especially with cracking sealant at areas between large concrete pours. Landscaping is generally healthy and green but somewhat overgrown onto sidewalk at double-door entrance to the Community Center. Exterior paint is in fair condition but beginning to fade and discolor in places. Lawn is generally healthy with some dry spots but an unfinished strip of dirt and rocks exists adjacent to lawn. Two large trees provide shade at portions of the facility. The Tracy Water Tower is visible from the site and is assessed under a separate report. Main parking lot of building entrance contains poor surface condition and striping that are in poor to fair condition at best. Asphalt pebbles have dislodged from surface and large cracking is present down center of the main vehicular path. Stall striping is faded. Black metal gates located around the site are in good condition with minimal signs of wear.

Exterior Envelope 3.6

The exterior of building at electrical room is damaged at the door and exterior wall. TPO roof surface is in fair condition with no major signs of deterioration or surface uprising, but is stained with worn surfaces especially at areas of maintenance use and water ponding. Peaked metal roof portions are faded from sun damage and starting to rust at where lower edges of roofing panels meet flashing. Double entrance doors at lobby are in generally good condition with light scratching at paint. Roof access ladder is mounted securely to wall in table and chair storage area. Some rooftop elements including exhaust fans contain rust. Roof drains are cracked. Windows are single pane and in good to fair condition with tinting that is not yet peeling but windows require cleaning. Exterior stucco is deteriorating at base of roof area and ground level and dirty areas under upper roof parapet.

Structure 3.6

Light cracking exists at foundation base around building structure.

Interior 3.2

The main Community Hall is in good condition with recently renovated elements including flooring. Ceiling acoustic tile surfaces are in visually good condition. Flooring tiles are missing at entrances to some storage areas nears the main hall with exposed flooring adhesive present. Wall paint is scuffed and peeling in these storage areas. In general, storage area for chairs and tables is unfinished with damaged flooring, wall and ceiling elements. Concrete flooring in conference areas is in fair condition with moderate scuffing and cracking but shines nicely with no significant deterioration. Scratches on other wall surfaces are present. Acoustic ceiling tile is outdated and discolored in the main hall space. Kitchen equipment has served the facility well with signs of wear such a deteriorated stove top burners. Stained grout is present at ceramic tile flooring in kitchen. Metal ceiling system at lobby is in good condition with minimal signs of wear which include paint chipping at edges. Lobby baseboards are torn in a few places. Components of snack serving window and room are unfinished at interior. Restroom tile flooring is stained in high use areas.

Condition Summary - Community Center

MEP Systems 3.0

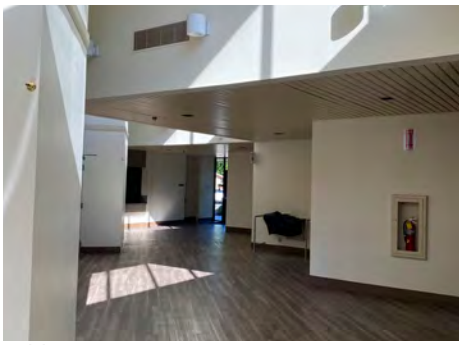
Floor vents have chipping paint and contain debris. Air supply vents are dirty and are causing staining on adjacent acoustic ceiling tile surfaces. Metal corner guards at exterior MEP area are dented with chipped paint at corners. Main electrical service is largely original to the building. Water heater has recently been replaced with years of remaining useful service life.

ADA Compliance Needs Compliance

No wheelchair access is available for storage area in main hall. Storage areas do not contain appropriate clear floor space. Painted ADA parking symbol and striping is beginning to fade.

Recommendation Summary - Community Center

Exterior


Lobby

Kitchen

Recommendations

Site: Recommendations include repainting yellow striping at crosswalk near Police Station, repairing cracks in sealant at areas between large concrete pours, trimming landscaping near double door entrance, landscaping unfinished strip of dirt, resurfacing main parking lot, repairing cracks and dislodged asphalt pebbles, and repainting and repairing parking stall striping.

Exterior Envelope: It is recommended to repair damage portions of wall and door, clean TPO roof surface at areas of maintenance use and water ponding, replace faded and rusting portions of peaked metal roof, clean rusted roof elements, repair roof drains, replace single paned windows, and repair exterior stucco at base of roof area and ground level.

Structure: Recommendations include repairing light cracking at foundation base and maintaining visual structural inspections.

Interior: Recommended actions include adding missing floor tiles at entrances to some storage areas, repainting walls in storage areas, generally renovating these areas to produce a more finished appearance, and fixing scratches on other wall surfaces. Additionally, recommendations include replacing acoustic ceiling tile, replacing stove top burners, cleaning grout at ceramic tile flooring in kitchen, repairing lobby baseboards, finishing components of snack serving window and room, and cleaning restroom tile flooring.

MEP Systems: Improvements should include cleaning and repainting floor vents, cleaning air supply vents, and repairing metal corners at exterior MEP area. Consider replacement of main electrical switchboard.

ADA Compliance: Recommendations include providing wheelchair access for storage area in main hall, clearing floor space in storage areas, and repainting ADA parking symbol and striping.

Impact of Recommended Works

Site: Impact of site recommendations will include disturbed access to the parking lot and entrance. One month will be required to repair paving, cracking, and trim landscaping.

Exterior Envelope: Impacts of recommendations will improve physical appearance of the Community Center building. Two months will be required to complete all recommendations.

Structure: Performing structural recommendations should have minor impact on the center; completion of the recommendations will result in increased visual structural integrity. One week will be required for structural improvements.

Interior: Performing the interior recommendations will result in the temporary closing of storage areas and kitchen. Portions of the Community Center may be closed off for light renovation. Two months will be required to clean and remodel interiors.

MEP Systems: Minor MEP repairs will have minor impact on building operations. Replacement of the electrical switchboard is a large expense and will require a three day shutdown of the building.

ADA Compliance: Performing the recommended improvements will result in improved accessibility to storage area in main hall and better appearance of parking lot. Three weeks will be required to perform all recommendations.

Facility Description - Community Center

Exterior

Interior

MEP

Building Description

The Community Center is a single story building that was constructed in 1979. The center is located in the Tracy Civic Center Complex near City Hall. The building has a structure consisting mainly of a wood frame construction. The exterior of the Community Center is clad in a beige painted stucco and is similarly painted to other Public Works buildings in the area. Landscaping surrounding the Community Center is appropriately maintained, healthy and serves the facility well. Space is present on site for gatherings and activities that may happen directly adjacent to the building. Floor finishes throughout the interior of the building vary to accommodate the wide range of activities that take place here.

The Community Center houses spaces and equipment for a variety of recreation and socializing activities all may age groups. There are educational, recreational and social events that can be accommodated by this building. Other public activities that take place in this space incorporate casual social and educational opportunities for the community's residences. Multiple offices in this building provide spaces for city employees directing the Community Center's programming. A reception area provides information and direction for building visitors.

Age

The Community Center is 43 years old and was constructed in 1979.

Use of Building

The building is used in the following ways:

- Provides spaces for recreational activities
- Promotes active learning and community involvement
- Used to house special events and community functions
- Rental space is available to the public

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Community Center - Overall										**3.5**
1	**Site/ Civil/ Landscape**									**4.3**
	1.1	Fences/ Walls/ Gates								4.0
		A.	Perimeter Fencing						N/A	
		B.	Equipment Fencing						N/A	
		C.	Landscape Walls/ Piers / Structures		4					
		D.	Gates		4					
	1.2	Paving								4.3
		A.	Sidewalks/ Walkways/ Crosswalks	5						
		B.	Curbing		4					
		C.	Driveways/ Parking Pavement		4					
		D.	Striping/ Marking/ Speed Bumps		4					
		E.	Patios							
	1.3	Landscape								4.7
		A.	Ground Cover		4					
		B.	Trees	5						
		C.	Irrigation System	5						
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.7
		A.	Landscape Features/ Play Equipment		4					
		B.	Exterior Lighting Fixtures		4					
		C.	Water Fixtures						N/A	
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility			3				
	1.5	Stormwater Management								5.0
	N O T E S									

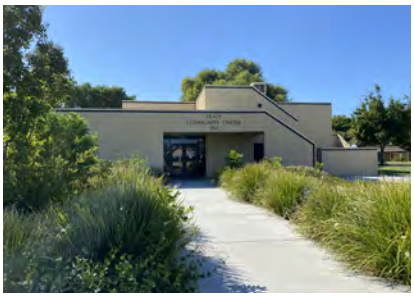
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**3.6**
	2.1	Exterior Wall Finish								4.0
	2.2	Eaves and Fascias								4.0
	2.3	Doors/ Windows/ Louvers								3.7
		A.	Windows	5						
		B.	Louvers and Vents			3				
		C.	Exterior Doors & Hardware			3				
	2.4	Roofing								2.6
		A.	Roof Surface			3				
		B.	Roof Opening/ Skylight/ Penetrations						N/A	
		C.	Roof Equipment Curbing			3				
		D.	Leakage			3				
		E.	Ponding Water			3				
		F.	Roof Drainage				2			
		G.	Gutters / Downspouts				2			
		H.	Roof Vents				2			
	N O T E S	2.4.F: Water staining exists on roof. Roof drainage units are damaged and requires replacement. 2.4.G: No downspout extensions are present from gutters hidden exterior wall surfaces, causing water to flow directly onto the exterior envelope of the building. Staining is caused at minimum. 2.4.H: Roof vents are deteriorated.									
3	**Structure**									**3.6**
	3.1	Foundation/ Footing								3.0
	3.2	Columns								4.0
	3.3	Framing System								3.0
	3.4	Walls								4.0
	3.5	Lateral Force Resistance System								3.0
	3.6	Covered Walkway/Canopy								4.0
	3.7	Chimney								4.0
	N O T E S									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.2**
	4.1	Ceilings								4.0
		A.	Suspended Ceiling (ACT)			3				
		B.	Gypsum Board						N/A	
		C.	Plaster	5						
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed						N/A	
	4.2	Flooring								2.8
		A.	Carpet			3				
		B.	Vinyl				2			
		C.	Tile			3				
		D.	Wood						N/A	
		E.	Concrete			3				
	4.3	Interior Wall/Partition Finishes								2.0
	4.4	Interior Doors								3.0
	4.5	Stairs Condition								3.5
		A.	Stairs/ Landing		4					
		B.	Handrails			3				
	4.6	Toilet Condition								3.7
		A.	Toilet Accessories		4					
		B.	Toilet Partitions		4					
		C.	Water Closets		4					
		D.	Urinals		4					
		E.	Lavatorie /Sinks			3				
		F.	Counter			3				
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	N O T E S	4.2.B: Vinyl tile flooring in storage rooms is severely deteriorated and worn with missing pieces and many scratches due to high use. Vinyl flooring in the group meeting room is scratched and worn. Vinyl flooring in office areas is discolored and approaching useful service life. 4.3: Wall finishes in storage rooms are severely deteriorated and worn. Wall finishes in multi-use activity room are worn.									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.0**
	5.1	Mechanical Systems								2.6
		A.	HVAC			3				
		B.	Control System				2			
		C.	Chiller			3				
		D.	Cooling Towers						N/A	
		E.	Duct Work			3				
		F.	Ventilation\ Air Distribution				2			
		G.	Boilers						N/A	
	5.2	Electrical Systems								3.0
		A.	Transformer			3				
		B.	Switchgear				2			
		C.	Panelboards (Condition & Capacity)				2			
		D.	Devices (Switches & Receptacles)			3				
		E.	Interior Lighting Fixtures		4					
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System		4					
	5.3	Voice and Data Systems								3.0
	5.4	Plumbing Systems								3.3
		A.	Plumbing Fixtures		4					
		B.	Water Distribution System/ Pipes			3				
		C.	Water Heaters			3				
	5.5	Gas Distribution Systems								3.0
	5.6	Fire Suppression System								N/A
	N O T E S	5.1.B: Control room is in a deteriorated state with debris and improperly stored elements. 5.1.F: HVAC floor diffusers need to be cleaned. 5.2.B: Switchgear is original to the building and likely approaching its useful service life. 5.2.C: Conduits and wires around the panelboard are disconnected and poorly arranged.									

System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones		NC	
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space	C		
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps			N/A
		E.	Stairways			N/A
		F.	Handrails			N/A
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall	C		
		B.	Toilet Accessories		NC	
		C.	Water Closets	C		
		D.	Urinals	C		
		E.	Lavatories/ Sinks	C		
		F.	Counters	C		
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry		NC	
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	
	NOTES	6.1.B: Exiting passenger loading zone does not meet the ADA requirement. Restripe the loading zone and lettering to meet the ADA code. 6.3.B: Provide ADA compliant toilet accessories. 6.4.A: Provide knee and toe clearance under working surface and front desk counters. 6.4.B: Provide ADA compliant furniture, fixtures and equipment with accessible height and knee and toe clearance. 6.4.C: Provide ADA compliant room signs with tactile text and Braille.				

Photo Documentation | Exterior Overall



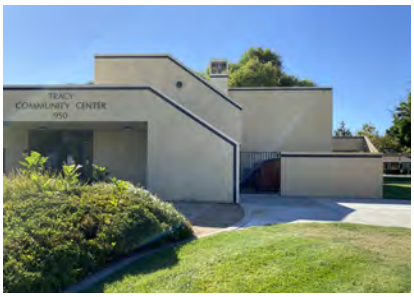
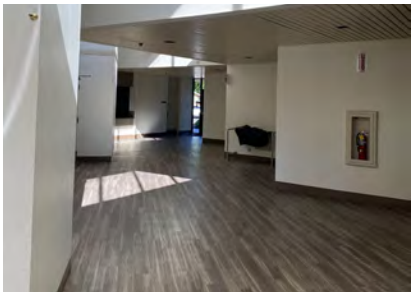
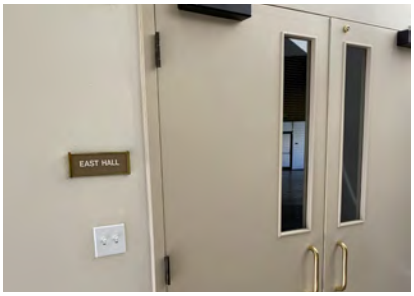
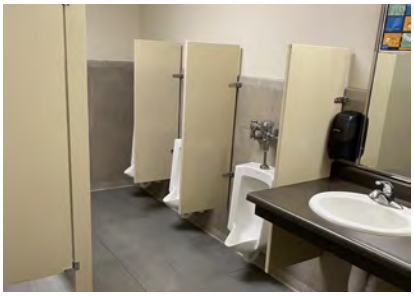


Photo Documentation | Interior Blow Ups





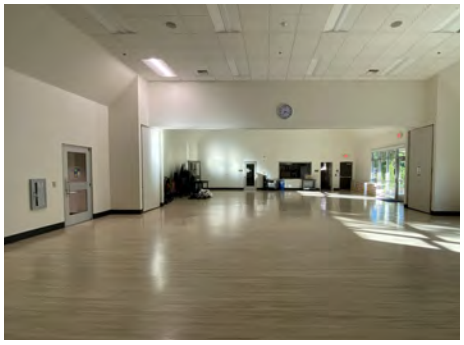


FACILITY CONDITION ASSESSMENT

SENIOR CENTER

Condition Summary - Senior Center

Overall Rating **4.0**



Facility Condition

Site 4.0

Landscaping at the Senior Center gives the facility and grounds a well-maintained and cared for appearance. There is fire service access adjacent to the facility with access to street lighting for maintenance. Sidewalks surround the facility with minimal pavement cracking. Bricks laid at the exterior patio require extensive cleaning in high traffic areas. Site gates and latch mechanisms work well.

Exterior Envelope 3.6

Painted stucco covering the majority of the facility's exterior is in good condition with minimal cracking or chipping. However, some cracking is present where painted stucco meets the foundation. Some exterior metal doors are scratched and/or dented. The rooftop-mounted hose works well for keeping the roof surface maintained and cleaned annually and should be considered for other city facilities. New flashings and gutters have been recently installed.

Structure 3.7

Slabs are in fair condition and show signs of normal wear and tear. No cracking was visible in interior walls and construction. Some cracking is present at the foundation in various places around the facility. Roof structure is in visibly good condition.

Interior 4.5

The lobby has been recently remodeled with new flooring, paint, furniture, and other elements. Lighting fixtures are largely LED throughout. Some rooms contain movable partitions to allow for a separation of one larger room into smaller rooms. Kitchen equipment and finishes are in good condition with much remaining service life. Acoustic ceiling tiles and flooring have recently been replaced and add to the facility's appearance.

MEP Systems 4.1

Electrical equipment is located in an exterior electrical room with direct access from the site. Electrical panels contain additional service life and switchboard is rated at 400 Amps. Fire alarm panel and controls are in good condition and located inside the facility. Maintenance reports changing the facility's RTU3 style air filter is a cumbersome process. A past electrical wiring issue has not resurfaced.

ADA Compliance Needs Compliance

Passenger loading zones require pavement markings to be made compliant. Some issues are present in interior restrooms related to mounting heights and locations for toilet accessories. Kitchen equipment and layout is non-compliant with ADA.

Recommendation Summary - Senior Center

Exterior

Lobby

Restroom

Recommendations

Site: It is recommended to extensively clean bricks located at exterior patio to improve physical appearance.

Exterior Envelope: Recommendations include repainting stucco where walls meet foundation, and replacing or fixing exterior metal doors where scratches and dents are present.

Structure: It is recommended to repair the cracking at foundation surrounding the Senior Center.

Interior: No recommendations for improvement.

MEP Systems: No recommendations for improvement.

ADA Compliance: Recommendations include repainting passenger loading zones, relocating toilet accessories to comply with mounting heights, replacing kitchen appliances and placing them in an ADA compliant layout.

Impact of Recommended Works

Site: Impact of site recommendations are minor. One week will be required to clean bricks.

Exterior Envelope: Executing recommended improvements will disturb some entry and exit access points to repair doors. Other recommendations will have minor impact. Two weeks will be required for all improvements.

Structure: Performing structural recommendations should have minor impact on the center. Two weeks should be required for structural improvements.

Interior: No impact of recommended works.

MEP Systems: No impact of recommended works.

ADA Compliance: Performing the recommended improvements may cause for temporary closing of the Senior Center. Completion of recommendations will result in increased accessibility within the restrooms and kitchen. Two weeks will be needed to repaint passenger loading zones, relocate toilet accessories, and replace kitchen appliances.

Facility Description - Senior Center

Exterior

Interior

MEP

Building Description

The Senior Center is a single story building that was constructed in 1987 and is located off of 9th Street. The building has a structure consisting of wood frame construction. The exterior of the Senior Center is clad with painted stucco with metal doors leading outside. The patio area in the back allows for socializing and activities to be held outdoors for the senior citizens. The site is immediately adjacent to additional outdoor recreation opportunities at the space between the Senior Center and Tracy Water Tower. There is pleasant landscaping toward the main entrance and leads to a recently refurbished interior.

The Senior Center houses spaces and equipment for a variety of recreation and socializing activities for seniors. There are many classes and activities that can be accommodated by this building. Multiple offices in this building provide spaces for city employees directing the Senior Center's programming. A reception area provides information and direction for building visitors.

Age

The Senior Center building is 35 years old and was constructed in 1987.

Use of Building

This building is used in the following ways:

- Houses activities and events for senior citizens
- Hosts various social activities such as a variety of classes and special events.
- Houses City of Tracy Department Offices

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Senior Center - Overall										**4.0**
1	**Site/ Civil/ Landscape**									**4.0**
	1.1	Fences/ Walls/ Gates								4.0
		A.	Perimeter Fencing		4					
		B.	Equipment Fencing						N/A	
		C.	Landscape Walls/ Piers / Structures		4					
		D.	Gates		4					
	1.2	Paving								3.6
		A.	Sidewalks/ Walkways/ Crosswalks		4					
		B.	Curbing		4					
		C.	Driveways/ Parking Pavement		4					
		D.	Striping/ Marking/ Speed Bumps			3				
		E.	Patios			3				
	1.3	Landscape								3.7
		A.	Ground Cover			3				
		B.	Trees		4					
		C.	Irrigation System		4					
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.8
		A.	Landscape Features/ Play Equipment		4					
		B.	Exterior Lighting Fixtures			3				
		C.	Water Fixtures						N/A	
		D.	Exterior Site Furniture		4					
		E.	Site Utility		4					
	1.5	Stormwater Management								5.0
	NOTES									

	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**3.6**
	2.1	Exterior Wall Finish								4.0
	2.2	Eaves and Fascias								3.0
	2.3	Doors/ Windows/ Louvers								4.0
		A.	Windows			3				
		B.	Louvers and Vents	5						
		C.	Exterior Doors & Hardware		4					
	2.4	Roofing								3.3
		A.	Roof Surface		4					
		B.	Roof Opening/ Skylight/ Penetrations						N/A	
		C.	Roof Equipment Curbing			3				
		D.	Leakage						N/A	
		E.	Ponding Water				2			
		F.	Roof Drainage			3				
		G.	Gutters / Downspouts		4					
		H.	Roof Vents		4					
	N O T E S	2.4.E: Ponding water is observed around roof drainage.								
3	**Structure**									**3.7**
	3.1	Foundation/ Footing								3.0
	3.2	Columns								4.0
	3.3	Framing System								4.0
	3.4	Walls								4.0
	3.5	Lateral Force Resistance System								3.0
	3.6	Covered Walkway/Canopy								N/A
	3.7	Chimney								4.0
	N O T E S									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**4.5**
	4.1	Ceilings								4.5
		A.	Suspended Ceiling (ACT)		4					
		B.	Gypsum Board						N/A	
		C.	Plaster	5						
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed						N/A	
	4.2	Flooring								4.0
		A.	Carpet						N/A	
		B.	Vinyl			3				
		C.	Tile	5						
		D.	Wood		4					
		E.	Concrete		4					
	4.3	Interior Wall/Partition Finishes								5.0
	4.4	Interior Doors								4.0
	4.5	Stairs Condition								N/A
		A.	Stairs/ Landing						N/A	
		B.	Handrails						N/A	
	4.6	Toilet Condition								4.8
		A.	Toilet Accessories	5						
		B.	Toilet Partitions		4					
		C.	Water Closets	5						
		D.	Urinals	5						
		E.	Lavatorie /Sinks	5						
		F.	Counter	5						
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	NOTES									

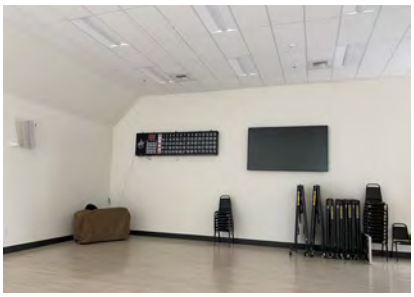
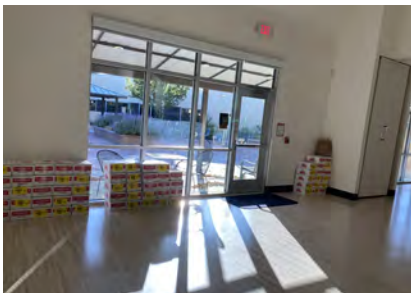
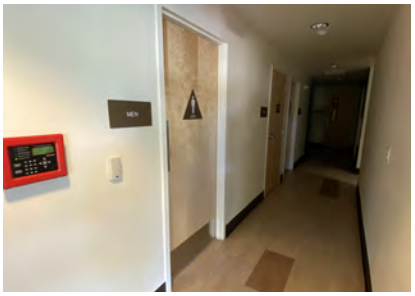
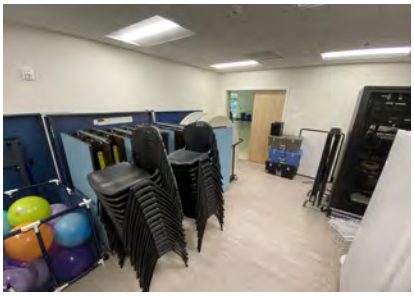
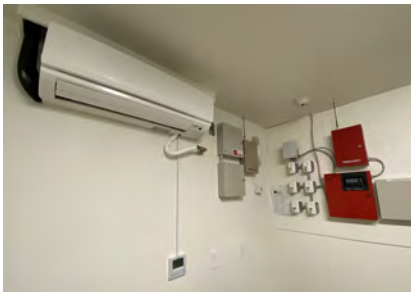
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**4.1**
	5.1	Mechanical Systems								4.0
		A.	HVAC		4					
		B.	Control System		4					
		C.	Chiller			3				
		D.	Cooling Towers						N/A	
		E.	Duct Work		4					
		F.	Ventilation\ Air Distribution	5						
		G.	Boilers						N/A	
	5.2	Electrical Systems								4.2
		A.	Transformer		4					
		B.	Switchgear			3				
		C.	Panelboards (Condition & Capacity)		4					
		D.	Devices (Switches & Receptacles)	5						
		E.	Interior Lighting Fixtures		4					
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System	5						
	5.3	Voice and Data Systems								4.0
	5.4	Plumbing Systems								4.7
		A.	Plumbing Fixtures	5						
		B.	Water Distribution System/ Pipes		4					
		C.	Water Heaters	5						
	5.5	Gas Distribution Systems								3.0
	5.6	Fire Suppression System								5.0

NOTES

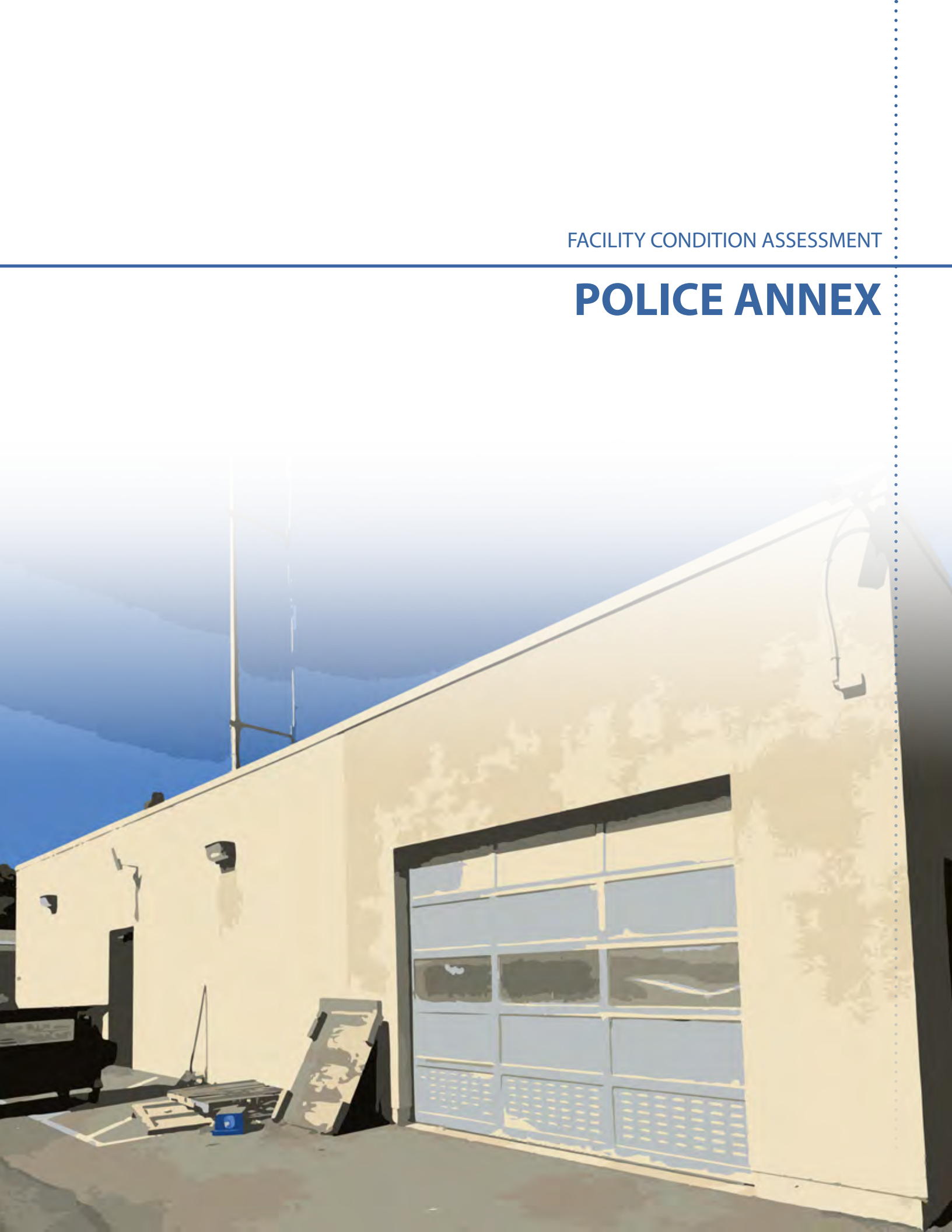
System				Condition		
				Compliance	Non-compliance	N/A
6	ADA Compliance					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones	C		
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space	C		
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps			N/A
		E.	Stairways			N/A
		F.	Handrails			N/A
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall	C		
		B.	Toilet Accessories	C		
		C.	Water Closets	C		
		D.	Urinals	C		
		E.	Lavatories/ Sinks	C		
		F.	Counters	C		
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry	C		
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	
	NOTES	6.4.A: Provide knee and toe clearances under kitchen sink, working surfaces, and front desk. 6.4.C: Provide ADA compliant signage for ADA toilet rooms. Provide ADA compliant room signs with tactile text and Braille.				

Photo Documentation | Exterior Overall

Photo Documentation | Interior Blow Ups

POLICE ANNEX



Condition Summary - Police Annex

Overall Rating **3.4**

Facility Condition

Site 3.5

Striping is faded at the rear gated parking area for police service vehicles. The electronic sliding gate has fair paint finish and a healthy chain but control box is faded. Asphalt is cracking in the center of this parking area. There is a ramp on-site near the Channel 26 side entrance. Site landscaping is in line with the remainder of the Tracy Civic Center complex and is overall in good condition.

Exterior Envelope 3.3

Painted concrete masonry exterior is faded and chipping in areas, especially where items are mounted on the exterior. Stucco is chipped and deteriorated in some areas. Mounted light fixtures contain discolored lenses and finish due to weathering and age. Exterior door sills contain no protection in many instances. Garage door opening to rear parking area is damaged with scratches and dents. Building signage is beginning to deteriorate and approaching its useful service life.

Structure 3.3

Cracking is present in concrete flooring of previous jail area alluding to settling and shifting of the building's structure. Additional cracking was observed in utility closet wall in jail area. Exposed ductwork in equipment room requires additional bracing.

Interior 3.7

The area of the facility that previously housed city jail space contains metal doors with scuffed paint finished and small dents. Lighting is lacking in this area and is currently one small recessed fixture per room. Ceiling stains are present in this area and require further investigation. Ceiling tiles are stained throughout the facility especially in conference areas. Wood doors have wear and are 20-min fire rated. Some door hinges have been replaced. Channel 26 room is somewhat crowded but in good condition overall. Carpeting is stained at the entrance to this area. Vinyl flooring in areas including kitchenette/break areas is scratched, bubbling, loose, or missing. At least one lighting fixture is hanging haphazardly below the ceiling system in kitchenette. Visible aspects of roof system are discolored and faded. Some restroom flooring tiles are cracked with stained grout. Lighting at public lobby near service center is severely lacking with standard incandescent bulbs in discolored and undersized recessed mounts. The roof was not accessible at the time of site visit.

MEP Systems 3.2

An out-of-service sink in the jail area is leaking. MEP room in this area has a boiler that appears to be original to the building that is also leaking and discolored. The building's fire suppression system was installed sometime after construction and appears to be in good condition with the exception of some sprinkler heads that are out of plumb with the ceiling system. Break items are stored in front of electrical panels. The main Westinghouse electrical panel is original to the building's construction and rated at 800 A. Some service life is remaining. The original phone system is still in the building, located in the IT room which is climate-controlled via wall-mounted AC units. Exterior fire sprinkler valve with gauges contains slight rusting at connection points and structural supports.

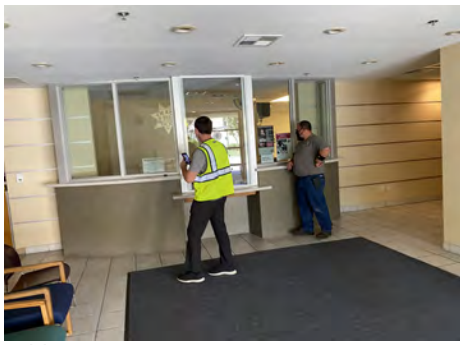
Condition Summary - Police Annex

ADA Compliance **Needs Compliance**

Kitchenettes throughout the Police Annex are non-compliant due to lack of counter knee space and other items. Restroom accessories are non-compliant in some instances. Clear floor space in certain areas of the building is limited due to storage of items.

Recommendation Summary - Police Annex

Exterior


Lobby

Break Room

Recommendations

Site: Recommendations include repainting striping in parking area for police service vehicles, repainting control box for electronic sliding gate, and repairing the cracking in the center of the rear parking area.

Exterior Envelope: It is recommended to repaint concrete masonry exterior, replace mounted light fixtures, provide protection for exterior door sills, replace garage door, and replace building signage.

Structure: Recommendations include repairing cracks in concrete floor and in utility closet wall in jail area and adding bracing to exposed ductwork.

Interior: Recommended actions include repairing and repainting metal doors in city jail space, adding lighting in same space, cleaning ceiling stains, and replacing ceiling tiles. In addition, carpeting should be cleaned, vinyl flooring should be replaced, lighting fixtures must be rehung, and lighting should be added in the public lobby with appropriate color and sizing.

MEP Systems: Improvements include replacing the sink in jail area, replacing boiler, re-plumbing some sprinkler heads, and replacing exterior sprinkler valves.

ADA Compliance: Recommendations include rebuilding kitchenettes to provide adequate knee space, relocating restroom accessories to be compliant, and clearing floor space to increase accessibility compliance.

Impact of Recommended Works

Site: Impacts of site recommendations include a disturbed access to the building for police service vehicles. Two weeks will be required to repaint all necessary areas and to repair cracking in asphalt.

Exterior Envelope: Impacts of recommendations include disturbed experience within the building; completion of the recommendations will take three weeks.

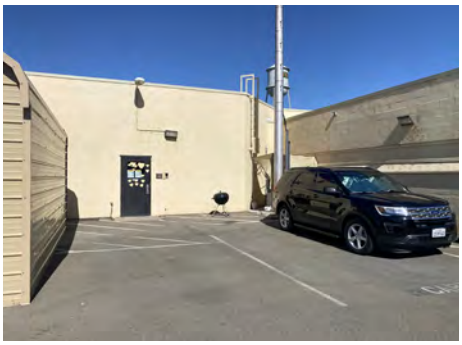
Structure: Performing structural recommendations should have fair impact on the building. One month will be required to complete structural recommendations and portions of the building may require closing when additional bracing installed.

Interior: Executing recommended improvements will include temporary closing of the Police Annex building. Four weeks will be required to remodel interior elements.

MEP Systems: Some additional design may be required for MEP improvements. HVAC systems may be shut down for a week period during renovations.

ADA Compliance: Performing the recommended improvements will have a fair impact on the building's operations. Three weeks will be required to replace counters, relocate accessories, and clear floor space.

Facility Description - Police Annex


Exterior

Interior

MEP

Building Description

The Police Annex is a single story building that was constructed in 1978. The Police Annex is located off of 10th St. and directly between Tracy City Hall and Lolly Hansen Senior Center. The building has a structure consisting of masonry with a wood roof. The exterior is painted concrete masonry and there is a parking lot located just being the building.

The building houses the City of Tracy Channel 26 television operations and additional Police Department operations that can not be housed in the main headquarters building. Previously, the Police Annex was used to house Parks and Community Services Offices.

Age

The Police Annex building is 44 years old and was constructed in 1978.

Use of Building

The building is used in the following ways:

- Houses office space for Police Department administrative functions
- Houses Channel 26 television storage and operations.

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Police Annex - Overall										**3.4**
1	**Site/ Civil/ Landscape**									**3.5**
	1.1	Fences/ Walls/ Gates								3.3
		A.	Perimeter Fencing		4					
		B.	Equipment Fencing						N/A	
		C.	Landscape Walls/ Piers / Structures			3				
		D.	Gates			3				
	1.2	Paving								3.3
		A.	Sidewalks/ Walkways/ Crosswalks		4					
		B.	Curbing			3				
		C.	Driveways/ Parking Pavement			3				
		D.	Striping/ Marking/ Speed Bumps			3				
		E.	Patios						N/A	
	1.3	Landscape								4.0
		A.	Ground Cover		4					
		B.	Trees		4					
		C.	Irrigation System		4					
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.0
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures			3				
		C.	Water Fixtures			3				
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility			3				
	1.5	Stormwater Management								4.0
	N O T E S									

	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**3.3**
	2.1	Exterior Wall Finish								3.0
	2.2	Eaves and Fascias								4.0
	2.3	Doors/ Windows/ Louvers								3.0
		A.	Windows		4					
		B.	Louvers and Vents			3				
		C.	Exterior Doors & Hardware				2			
	2.4	Roofing								3.2
		A.	Roof Surface		4					
		B.	Roof Opening/ Skylight/ Penetrations						N/A	
		C.	Roof Equipment Curbing			3				
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage			3				
		G.	Gutters / Downspouts			3				
		H.	Roof Vents			3				
	N O T E S	2.3.C: Exterior doors contain scratching and scuffing leading to rear parking area.								
3	**Structure**									**3.3**
	3.1	Foundation/ Footing								4.0
	3.2	Columns								3.0
	3.3	Framing System								4.0
	3.4	Walls								3.0
	3.5	Lateral Force Resistance System								3.0
	3.6	Covered Walkway/Canopy								3.0
	3.7	Chimney								N/A
	N O T E S									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.7**
	4.1	Ceilings								2.8
		A.	Suspended Ceiling (ACT)				2			
		B.	Gypsum Board			3				
		C.	Plaster				2			
		D.	Wood						N/A	
		E.	Other		4					
		F.	Exposed						N/A	
	4.2	Flooring								4.0
		A.	Carpet	5						
		B.	Vinyl						N/A	
		C.	Tile		4					
		D.	Wood						N/A	
		E.	Concrete			3				
	4.3	Interior Wall/Partition Finishes								3.0
	4.4	Interior Doors								4.0
	4.5	Stairs Condition								N/A
		A.	Stairs/ Landing						N/A	
		B.	Handrails						N/A	
	4.6	Toilet Condition								4.6
		A.	Toilet Accessories	5						
		B.	Toilet Partitions	5						
		C.	Water Closets			3				
		D.	Urinals						N/A	
		E.	Lavatorie /Sinks	5						
		F.	Counter	5						
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A

N O T E S

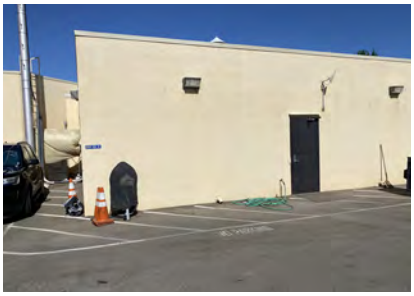
4.1.A: Acoustic ceiling tiles are damaged and stained in office portions of the building.

4.1.C: Plaster ceiling systems contain staining in areas and deterioration around ceiling mounted accessories.

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.2**
	5.1	Mechanical Systems								2.8
		A.	HVAC			3				
		B.	Control System			3				
		C.	Chiller			3				
		D.	Cooling Towers						N/A	
		E.	Duct Work			3				
		F.	Ventilation\ Air Distribution				2			
		G.	Boilers						N/A	
	5.2	Electrical Systems								2.8
		A.	Transformer			3				
		B.	Switchgear			3				
		C.	Panelboards (Condition & Capacity)			3				
		D.	Devices (Switches & Receptacles)			3				
		E.	Interior Lighting Fixtures				2			
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System			3				
	5.3	Voice and Data Systems								2.0
	5.4	Plumbing Systems								3.7
		A.	Plumbing Fixtures		4					
		B.	Water Distribution System/ Pipes			3				
		C.	Water Heaters		4					
	5.5	Gas Distribution Systems								4.0
	5.6	Fire Suppression System								4.0
	NOTES	5.1.F: Air diffusers and fans are worn and deteriorated and approaching their useful service life. 5.2.E: Lighting fixtures building-wide are damaged, broken and yellowed.								

System				Condition		
				Compliance	Non-compliance	N/A
6	ADA Compliance					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones			N/A
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space		NC	
		B.	Doors/ Doorways/Gates		NC	
		C.	Threshold	C		
		D.	Ramps	C		
		E.	Stairways	C		
		F.	Handrails		NC	
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall	C		
		B.	Toilet Accessories		NC	
		C.	Water Closets	C		
		D.	Urinals	C		
		E.	Lavatories/ Sinks	C		
		F.	Counters	C		
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry		NC	
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	
	NOTES	6.2.A: Remove obstacles on accessible routes for enough open space clearance. 6.2.B: Provide ADA compliant door push paddle to exit doors. 6.2.F: Provide ADA compliant handrails and guardrails to exterior ramp. 6.3.B: Provide ADA compliant toilet accessories. 6.4.A: Provide knee and toe clearances under working surfaces, and front desk. 6.4.B: Provide ADA compliant furniture, fixtures and equipment with accessible height and knee and toe clearances. 6.4.C: Provide ADA compliant room signage with tactile text and Braille. Provide ADA compliant toilet room signage.				

Photo Documentation | Exterior Overall



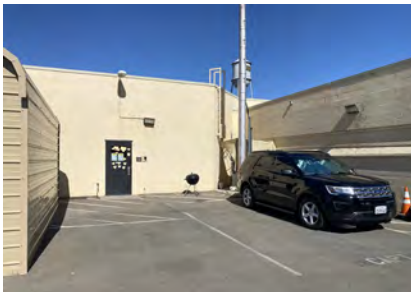
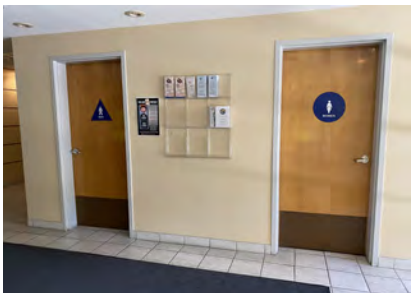
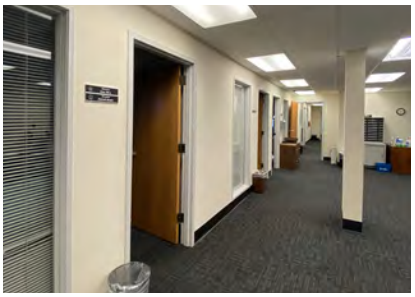
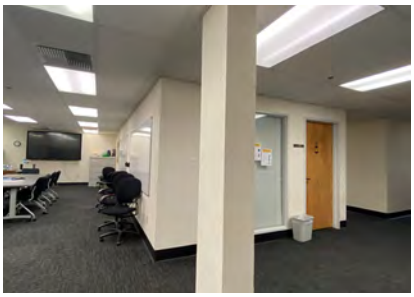
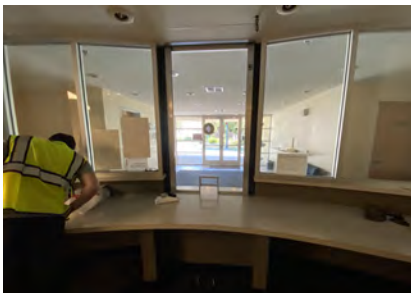
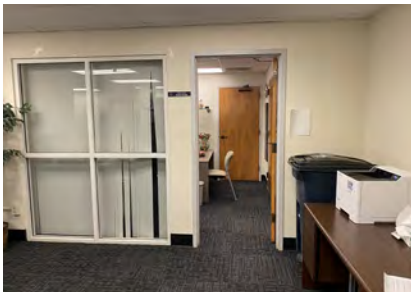
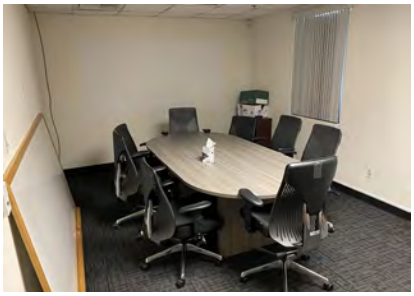
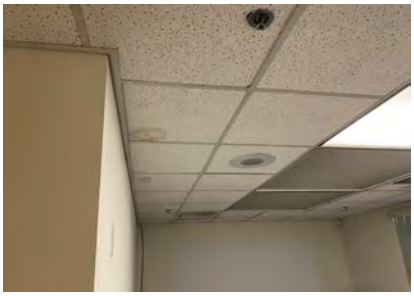


Photo Documentation | Interior Blow Ups



FACILITY CONDITION ASSESSMENT

FIRE ADMINISTRATION

Condition Summary - Fire Administration

Overall Rating **3.8**

Facility Condition

Site 3.9

Site elements are plenty and include parking, landscaping, site lighting similar to that used at the Civic Center and a flag pole. Sidewalks along central avenue include poured concrete and geometrically arranged masonry which adds to the facility's visual appearance. Railings near main public entrance contain worn and faded paint due to use and sun. Historical Tracy fireman statue is well-kept. Surrounding bench area would benefit from cleaning. Vegetation is healthy throughout. Sidewalk near main parking area is lightly discolored in areas. Parking lot paving contains stains but surface is not yet deteriorating at a quick rate. Parking lot striping is faded. Site signage is in good condition but dirty at exposed top surfaces. Wood fence near rear of building is weathered but in fairly good condition.

Exterior Envelope 4.0

Painted stucco exterior siding contains much cracking, mostly near ground surface but all throughout stucco surface including areas of cracking to roof parapet. Paint of various architectural components gives the facility a premium appearance but paint is starting to fade from exterior surfaces at most areas. Mounted gutters are in good condition with minimal denting and lack chipped paint. Mounted light fixtures contain faded housing and are adding to staining at stucco siding. Metal door are rear of building to parking lot is stained with faded paint and accessibility signage. Porch at second story overlooking Central Avenue requires cleaning at floor surface due to dirt and debris buildup. Skylight lenses are slightly dirty but tinting is holding up well. Garage door surfaces show no signs of deterioration. TPO roof surface is in good condition but stained and discolored in areas with light evidence of ponding water.

Structure 3.4

Cracking in stucco surfaces throughout exterior of facility suggests that shifting of the structure may be happening at a more frequent rate than is standard. Additional cracking is present at interior at interior CMU construction and at door frames of MEP room which alludes to stucco cracking being in the concrete wall structure rather than just stucco deterioration. Cracking is also present painted walls in garage area, especially around window. Large fire protection piping is appropriately braced to walls and ceiling structure. Cracking is present at concrete flooring of MEP area.

Interior 3.6

Carpeting and vinyl flooring surfaces of living area contain minimal signs of wear with light scuffs at kitchen floor. Can lighting is detaching at painted ceiling in living area. Paint is chipped at corners of walls in living area. Vinyl tile flooring is well-polished throughout main facility areas but staining is present at seams under drinking fountain and in a few other areas including near baseboards. Break room flooring contains excessive wear compared with the remainder of the facility's vinyl flooring. Painted wood baseboards are dirty and heavily scuffed. Rectangular acoustic ceiling tiles contain grid components that are out of plumb in areas. Restroom tile flooring and other surfaces are in good condition and holding up well to use. Lighting types vary throughout the facility but are generally a type of recessed rectangular fixture. These fixtures are in fair to good condition with some lenses loose or discolored. A large stain is present on a singular acoustic ceiling tile near office spaces by public entrance and reception. Some wear is present at wooden gate

Condition Summary - Fire Administration

separating lobby from staff area.

MEP Systems 3.9

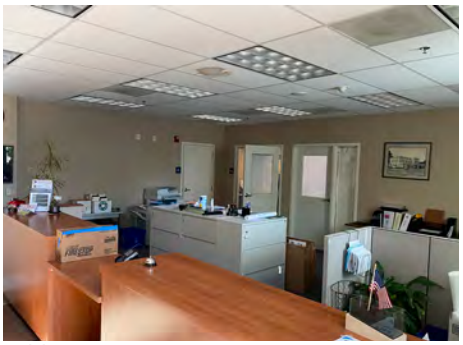
Weathering protection for piping to exterior boiler is missing at corner bend near rear entrance. Insulation for some piping components in MEP room is stained at multiple areas. Water piping is located over electrical equipment which violates the building code. Elevator components contain very minimal visual signs of wear, and interior cab components appear freshly installed. A rear garage area houses most of the facility's electrical components including main electrical switchboards, power maintaining system. The facility contains two State water heaters installed in 2005, likely with a moderate amount of remaining useful service life (3-5 years). Air handler and ductwork is in good condition.

ADA Compliance Needs Compliance

Clear floor space is lacking in some areas due to stored items. Handrails for interior stairs were added to be made compliant. Elements of break areas in living space and main facility are non-compliant.

Recommendation Summary - Fire Administration

Exterior


Lobby

Kitchen

Recommendations

Site: Recommendations include repainting railings near main public entrance, cleaning bench area, repainting parking lot striping, and cleaning site signage.

Exterior Envelope: It is recommended to repair cracking throughout exterior, repaint exterior surfaces in similar areas, repaint metal door at rear of building, clean floor surface of porch at second story, and clean TPO roof surface.

Structure: Recommendations include assessing structural integrity of building and repairing all cracking in various locations throughout the building.

Interior: Recommended actions include cleaning light scuffs at kitchen floor, reattaching can lighting at painted ceiling in living area, repainting wall corners in same area, cleaning stains at seams under drinking fountain and baseboards, replacing break room flooring, and cleaning painted wood baseboards. Additional recommendations include cleaning and tightening light fixtures lenses and replacing singular stained acoustic ceiling tile by reception area.

MEP Systems: Improvements should include adding weathering protection for piping, cleaning insulation for some piping components and relocating water piping. Provide fix to boiler system which may include new boiler for facility.

ADA Compliance: Recommendations include clearing floor space and relocating and repairing elements of break areas in living space and main facility.

Impact of Recommended Works

Site: Impact of site recommendations are minor. One week will be required to perform all recommendations.

Exterior Envelope: Impacts of recommendations will result in improved appearance of exterior. Two weeks will be required to complete all recommended actions.

Structure: Performing structural recommendations are important to ensure life safety of the facility.

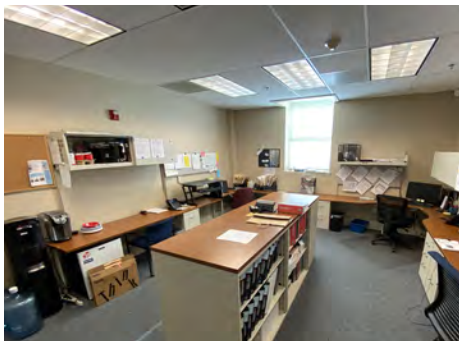
Interior: Performing the interior recommendations will improve the physical appearance of the interiors of the fire administration building and will improve experience of employees. Three weeks will be required to repair, clean, and repaint all necessary elements.

MEP Systems: One month will be required for minor MEP improvements. Assessing and providing proper fix to the heating and cooling systems may take longer depending on the selected solution.

ADA Compliance: Executing recommended improvements will increase accessibility within break areas. Two weeks will be required to clear break areas.

Facility Description - Fire Administration

Exterior


Interior

MEP

Building Description

The Fire Administration was originally a single story building that was constructed 1917 and is located on N Central Avenue. The building was remodeled in 2006 to add a second story. The building construction consists of a masonry structure and a wood roof. The exterior is clad with beige painted stucco and some exposed and painted masonry. Directly adjacent to the building is a parking lot designated for the employees of the Fire Administration building. The landscaping is appropriate and well maintained for the building use with site features paying homage to past City of Tracy firefighters. The balcony of the building allows for expansive views of the downtown area from the second floor.

The Fire Administration building houses spaces and equipment for offices and living quarters for on-duty firefighters. Multiple offices in this building provide spaces for employees directing department operations and daily tasks. There is a break room with a kitchenette for employees. Additionally, a classroom space is provided for classes and educational purposes. The classroom area doubles as a meeting location.

Age

The Fire Administration building is 105 years old and was constructed in 1917.

Use of Building

The building is used in the following ways:

- Houses offices for Fire Department staff
- Provides an administration facility for the Fire Department
- Houses living quarters for fire fighters

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Fire Administration - Overall										**3.8**
1	**Site/ Civil/ Landscape**									**3.9**
	1.1	Fences/ Walls/ Gates								3.5
		A.	Perimeter Fencing			3				
		B.	Equipment Fencing						N/A	
		C.	Landscape Walls/ Piers / Structures		4					
		D.	Gates						N/A	
	1.2	Paving								3.4
		A.	Sidewalks/ Walkways/ Crosswalks			3				
		B.	Curbing		4					
		C.	Driveways/ Parking Pavement		4					
		D.	Striping/ Marking/ Speed Bumps			3				
		E.	Patios			3				
	1.3	Landscape								4.3
		A.	Ground Cover		4					
		B.	Trees		4					
		C.	Irrigation System	5						
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.3
		A.	Landscape Features/ Play Equipment		4					
		B.	Exterior Lighting Fixtures			3				
		C.	Water Fixtures						N/A	
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility			3				
	1.5	Stormwater Management								5.0
	N O T E S									

			System	Condition: Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**4.0**
	2.1		Exterior Wall Finish							4.0
	2.2		Eaves and Fascias							5.0
	2.3		Doors/ Windows/ Louvers							3.5
		A.	Windows			3				
		B.	Louvers and Vents						N/A	
		C.	Exterior Doors & Hardware		4					
	2.4		Roofing							3.7
		A.	Roof Surface		4					
		B.	Roof Opening/ Skylight/ Penetrations	5						
		C.	Roof Equipment Curbing			3				
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage		4					
		G.	Gutters / Downspouts			3				
		H.	Roof Vents			3				
	N O T E S									
3	**Structure**									**3.4**
	3.1		Foundation/ Footing							3.0
	3.2		Columns							5.0
	3.3		Framing System							3.0
	3.4		Walls							3.0
	3.5		Lateral Force Resistance System							3.0
	3.6		Covered Walkway/Canopy							N/A
	3.7		Chimney							N/A
	N O T E S									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.6**
	4.1	Ceilings								3.3
		A.	Suspended Ceiling (ACT)			3				
		B.	Gypsum Board						N/A	
		C.	Plaster		4					
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed			3				
	4.2	Flooring								3.7
		A.	Carpet		4					
		B.	Vinyl						N/A	
		C.	Tile		4					
		D.	Wood						N/A	
		E.	Concrete			3				
	4.3	Interior Wall/Partition Finishes								3.0
	4.4	Interior Doors								3.0
	4.5	Stairs Condition								4.5
		A.	Stairs/ Landing		4					
		B.	Handrails	5						
	4.6	Toilet Condition								4.0
		A.	Toilet Accessories		4					
		B.	Toilet Partitions						N/A	
		C.	Water Closets						N/A	
		D.	Urinals						N/A	
		E.	Lavatorie /Sinks		4					
		F.	Counter						N/A	
		G.	Shower Compartments		4					
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	NOTES									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.9**
	5.1	Mechanical Systems								3.5
		A.	HVAC		4					
		B.	Control System	5						
		C.	Chiller			3				
		D.	Cooling Towers						N/A	
		E.	Duct Work		4					
		F.	Ventilation\ Air Distribution			3				
		G.	Boilers				2			
	5.2	Electrical Systems								4.0
		A.	Transformer		4					
		B.	Switchgear		4					
		C.	Panelboards (Condition & Capacity)		4					
		D.	Devices (Switches & Receptacles)	5						
		E.	Interior Lighting Fixtures			3				
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System		4					
	5.3	Voice and Data Systems								4.0
	5.4	Plumbing Systems								4.0
		A.	Plumbing Fixtures	5						
		B.	Water Distribution System/ Pipes		4					
		C.	Water Heaters			3				
	5.5	Gas Distribution Systems								4.0
	5.6	Fire Suppression System								4.0
	NOTES	5.1.G: Boiler located in the rear of the building has many issues with maintaining constant temperate as reported by maintenance staff.								

System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones		NC	
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space	C		
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps			N/A
		E.	Stairways		NC	
		F.	Handrails		NC	
		G.	Elevators		NC	
	6.3	Toilet				
		A.	Clearances/Accessible Stall	C		
		B.	Toilet Accessories		NC	
		C.	Water Closets	C		
		D.	Urinals	C		
		E.	Lavatories/ Sinks	C		
		F.	Counters	C		
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry		NC	
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	
	N O T E S	6.1.B: Existing passenger loading zone does not meet the ADA requirement. Restripe the loading zone and lettering to meet the ADA requirement. 6.2.E: Interior stair does not meet the ADA requirement. 6.2.F: Interior stair handrails and guard rails are not provided and do not meet the ADA requirement. 6.2.G: Elevator does not meet the ADA requirement. 6.3.B: Provide ADA compliant toilet accessories. 6.4.A: Provide knee and toe clearances under sink, working surfaces, and front desk counters. 6.4.B: Provide ADA compliant furniture, fixtures and equipment with accessible height and knee and toe clearances. 6.4.C: Provide ADA compliant exiting signage, ADA signage and room signage.				

Photo Documentation | Exterior Overall

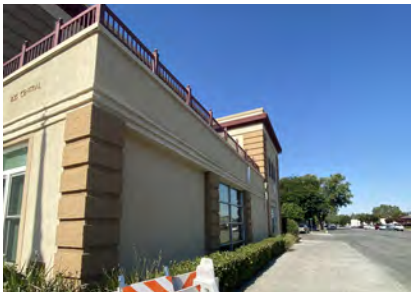
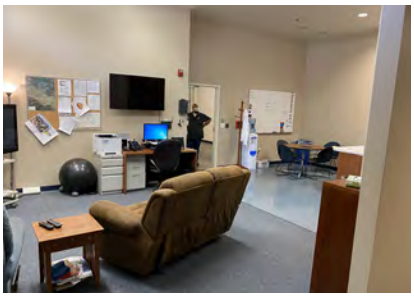
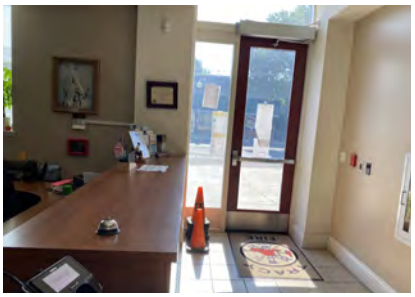
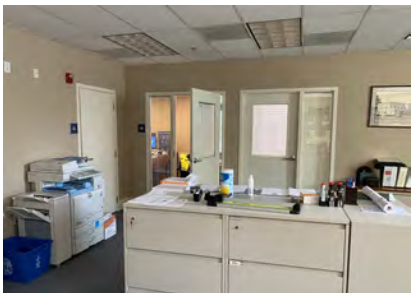
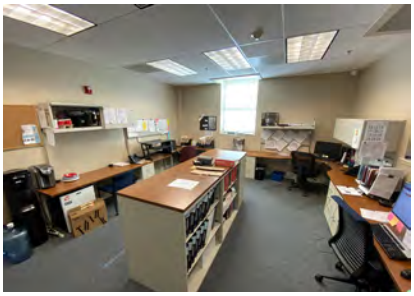
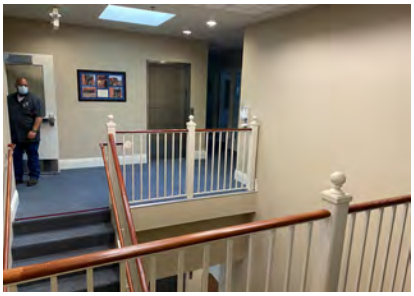
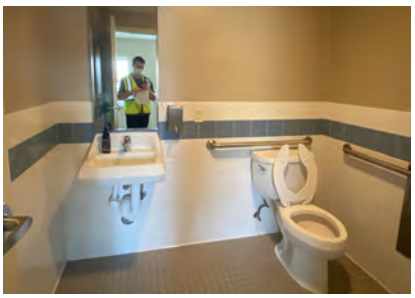
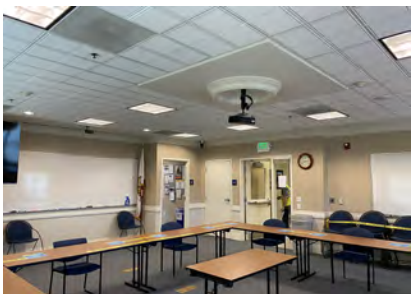


Photo Documentation | Interior Blow Ups



FACILITY CONDITION ASSESSMENT

TRACY TRANSIT STATION

Condition Summary - Tracy Transit Station (New)

Overall Rating **3.8**

Facility Condition

Site 3.9

Site signage and supports are in good condition. Parking pavement is cracked in many places with faded striping at both accessible and standard spaces. Concrete tile at site adds to the appearance but is cracked and dirty in high traffic areas. Landscaping serves the facility fairly but would benefit from improvement. Vandalism is present at landscaping planters and site elements. Paint is chipping from site garbage receptacles.

Exterior Envelope 3.7

Exterior window frames contain chipping paint in multiple areas. Water marks are present below window sills at the exterior of the facility. Minor cracking has observed at exterior wall structure. Clay tile flooring adjacent to exterior entrances is generally in good condition but dirty. Clay roof tiles are in good condition overall but some contain chipping. Exterior doors and hardware are past useful service life with lots of scuffs and scratches present. Roof drains at access platform require replacement.

Structure 4.0

Minimal cracking is present at interior tile flooring in lobby. No structural cracking was observed at walls. Roof structure is in sound condition as observed visually. Minimal cracking present at exterior finishes. Roof structure contains cracking at parapets.

Interior 3.8

Floor tile is cracked in places at the facility's interior including at the lobby. Other flooring elements are worn beyond standard service life including vinyl flooring in storage areas and carpeting in office areas. Velvet transition strips make audible cracking noise when walking over and may not be secure in places. Acoustic ceiling tile is in fair condition overall but multiple water marks were observed in office areas, hinting at the presence of plumbing system leakage. Leaks are present on ceiling system above the all-gender restroom in the office area. A movable partition exists between rooms 103 and 104. Restroom finishes are slightly outdated but otherwise holding up well.

MEP Systems 3.8

Evidence of plumbing system leaks are shown by damaged ceiling tiles and toilets are showing leakage at bases. Water piping is present over electrical equipment in Room 109, a code violation. HVAC system requires upgrade and renovation to meet needs. Mechanical equipment is largely located on a platform near the clock tower. Roof mounted A/C units serve the conference room area. An 800 Amp main switchboard serves the facility well and located in the same area with fire alarm and Internet server equipment.

ADA Compliance **Needs Compliance**

Truncated domes or other detectable warning are not provided appropriately at site and parking area. ADA parking stalls require flat pavement. Restroom signage is lacking in main hallway and some accessories are not compliant.

Recommendation Summary - Tracy Transit Station (New)

Exterior

Lobby

Bathroom

Recommendations

Site: Recommendations include repairing cracks in parking pavement, repainting markings throughout same area, repairing and cleaning concrete tile, cleaning all present vandalism, and repainting garbage receptacles.

Exterior Envelope: It is recommended to repaint exterior window frames, clean water marks bellow window sills, fill in cracking at exterior wall structure, clean clay tile flooring, repair chipped clay roof tiles, replace exterior doors and hardware and replace roof drains at access platform.

Structure: Recommendations include repairing cracking in the parapets at the roof structure.

Interior: Recommended actions include repairing minimal cracking at interior tile flooring in lobby, replacing vinyl flooring in storage areas, replacing carpeting in office areas, securing velvet transition strips, repairing all leaking in office area and all gender bathroom within ceiling system and modernizing restroom finishes.

MEP Systems: Improvements should include repairing plumbing system leaks within ceiling system, relocating water piping in Room 109 and renovating the HVAC system to meet needs.

ADA Compliance: It is recommended to provide appropriate truncated domes or other detectable warning at site and parking area, flatten ADA parking stalls, add restroom signage in main hallway and relocate restroom accessories to be compliant.

Impact of Recommended Works

Site: Impact of site recommendations include disturbed access to the site and station. Three weeks will be required to clean, repair, and repaint all necessary elements.

Exterior Envelope: Impacts of recommendations are fair and will require two weeks to complete executions. Completion of these recommendations will result in improved physical appearance.

Structure: Performing structural recommendations should have minor impact on the station. One week will required for structural improvements.

Interior: Performing the interior recommendations will cause temporary closing of the station. Four weeks will be required to replace necessary flooring, repair areas of leakage, and execute other minor repairs.

MEP Systems: Impacts may require portions of the Transit Station to be closed for renovations. HVAC system replacement will likely require outside design services.

ADA Compliance: Executing recommended improvements include impacts to access the site and station; completion of recommendations will result in increased accessibility in and around the building. Two weeks will be required to complete all recommendations.

Facility Description - Tracy Transit Station (New)

Exterior

Interior

MEP

Building Description

The Tracy Transit Station is a single story building that was constructed in 2010. The transit station is located on E. 6th Street. The structure of the building main consists of a wood frame construction. The exterior of the building is clad with a beige painted stucco and the entrance is designed in a mission style. Exterior spaces are equipped with benches for seating under trees that are appropriately placed for shading. Landscaping largely consists of trees and clay planters. The transit station provides 220 free parking spaces for users of public transportation.

The Tracy Transit Station houses spaces for offices and storage spaces for staff to use.

Age

The Tracy Transit Station is 12 years old and was constructed in 2010.

Use of Building

The building is used in the following ways:

- Serves as a bus hub for transportation on local, commuter, and long-distance bus services
- Provides Paratransit Service which is a door to door service available for ADA/Medicare passengers and Tracy residents age 65 and older.
- TRACER provides ADA Paratransit Service to visitors with disabilities who do not live in the City of Tracy service area
- Subsidized Taxi Service

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Tracy Transit Station (New) - Overall										**4.0**
1	**Site/ Civil/ Landscape**									**3.9**
	1.1	Fences/ Walls/ Gates								3.0
		A.	Perimeter Fencing			3				
		B.	Equipment Fencing						N/A	
		C.	Landscape Walls/ Piers / Structures			3				
		D.	Gates						N/A	
	1.2	Paving								3.5
		A.	Sidewalks/ Walkways/ Crosswalks		4					
		B.	Curbing		4					
		C.	Driveways/ Parking Pavement			3				
		D.	Striping/ Marking/ Speed Bumps			3				
		E.	Patios						N/A	
	1.3	Landscape								4.3
		A.	Ground Cover		4					
		B.	Trees		4					
		C.	Irrigation System	5						
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.8
		A.	Landscape Features/ Play Equipment			3				
		B.	Exterior Lighting Fixtures		4					
		C.	Water Fixtures						N/A	
		D.	Exterior Site Furniture			3				
		E.	Site Utility	5						
	1.5	Stormwater Management								5.0
	NOTES									

	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**3.9**
	2.1	Exterior Wall Finish								4.0
	2.2	Eaves and Fascias								4.0
	2.3	Doors/ Windows/ Louvers								4.0
		A.	Windows		4					
		B.	Louvers and Vents						N/A	
		C.	Exterior Doors & Hardware		4					
	2.4	Roofing								3.5
		A.	Roof Surface			3				
		B.	Roof Opening/ Skylight/ Penetrations						N/A	
		C.	Roof Equipment Curbing		4					
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage		4					
		G.	Gutters / Downspouts						N/A	
		H.	Roof Vents			3				
	N O T E S									
3	**Structure**									**4.5**
	3.1	Foundation/ Footing								5.0
	3.2	Columns								4.0
	3.3	Framing System								4.0
	3.4	Walls								5.0
	3.5	Lateral Force Resistance System								5.0
	3.6	Covered Walkway/Canopy								4.0
	3.7	Chimney								N/A
	N O T E S									

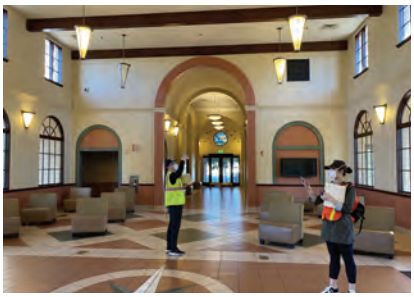
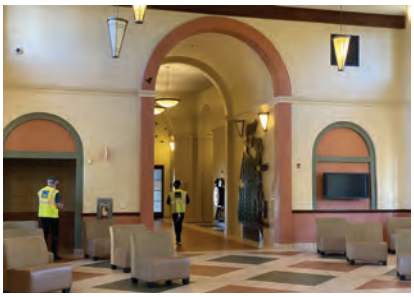
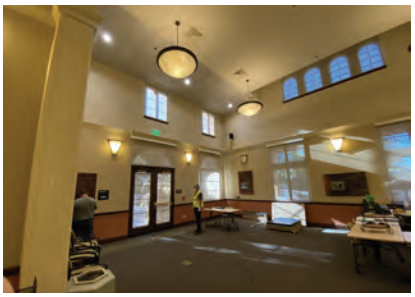
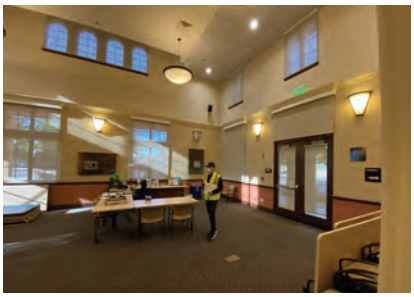
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.8**
	4.1	Ceilings								4.0
		A.	Suspended Ceiling (ACT)			3				
		B.	Gypsum Board						N/A	
		C.	Plaster	5						
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed						N/A	
	4.2	Flooring								3.0
		A.	Carpet			3				
		B.	Vinyl						N/A	
		C.	Tile			3				
		D.	Wood						N/A	
		E.	Concrete							
	4.3	Interior Wall/Partition Finishes								4.0
	4.4	Interior Doors								4.0
	4.5	Stairs Condition								N/A
		A.	Stairs/ Landing						N/A	
		B.	Handrails						N/A	
	4.6	Toilet Condition								4.2
		A.	Toilet Accessories		4					
		B.	Toilet Partitions		4					
		C.	Water Closets		4					
		D.	Urinals						N/A	
		E.	Lavatorie /Sinks	5						
		F.	Counter		4					
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	N O T E S									

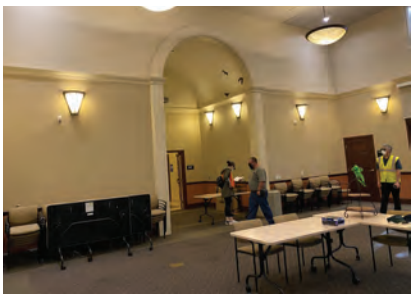
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.8**
	5.1	Mechanical Systems								4.0
		A.	HVAC		4					
		B.	Control System		4					
		C.	Chiller		4					
		D.	Cooling Towers						N/A	
		E.	Duct Work		4					
		F.	Ventilation\ Air Distribution		4					
		G.	Boilers						N/A	
	5.2	Electrical Systems								4.2
		A.	Transformer						N/A	
		B.	Switchgear		4					
		C.	Panelboards (Condition & Capacity)		4					
		D.	Devices (Switches & Receptacles)		4					
		E.	Interior Lighting Fixtures	5						
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System		4					
	5.3	Voice and Data Systems								
	5.4	Plumbing Systems								3.7
		A.	Plumbing Fixtures		4					
		B.	Water Distribution System/ Pipes		4					
		C.	Water Heaters			3				
	5.5	Gas Distribution Systems								3.0
	5.6	Fire Suppression System								4.0
	N O T E S									

System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones	C		
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space	C		
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps			N/A
		E.	Stairways			N/A
		F.	Handrails			N/A
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall	C		
		B.	Toilet Accessories	C		
		C.	Water Closets	C		
		D.	Urinals	C		
		E.	Lavatories/ Sinks	C		
		F.	Counters	C		
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry			N/A
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	
	NOTES	6.4.B: Provide ADA compliant furniture, fixtures and equipment with accessible height and knee and toe clearances. 6.4.C: Provide ADA compliant room station directional and restroom signage with tactile text and Braille.				

Photo Documentation | Exterior Overall

Photo Documentation | Interior Blow Ups



FACILITY CONDITION ASSESSMENT

ANIMAL SHELTER

Condition Summary - Animal Shelter

Overall Rating **4.1**

Facility Condition

Site 3.8

Site landscaping is in fairly good condition but some grass areas are dry and tanbark placement is uneven. A rodent problem was reported, likely due to the Animal Shelter's close proximity to surrounding fields. Painted areas of curbing are faded.

Exterior Envelope 4.1

The exterior of the Animal Shelter is in good condition overall. Multiple components are used for exterior façade elements and are holding up well. Some discoloration on exterior wall surfaces is present. Light cracking is present at top of exterior concrete security wall.

Structure 4.5

Light cracking is present at soffit of women's restroom. Equipment attachment and supports for laundry machines are not being utilized. Ductwork and cabling above ceiling appears to be appropriately braced.

Interior 3.8

Single door in lobby sometimes sticks and will not remain open or closed. Double doors in lobby area don't shut properly and requires significant effort to close and lock. The ground latch in this location requires maintenance and servicing. Stone flooring in lobby is in good condition. Concrete flooring is cracking in places in animal housing area. Terrazzo flooring around reception desk has slight wear. Guillotine doors break often at animal housing area and require frequent maintenance to pulley operation system. Flooring in laundry area is dirty and worn with rusting around laundry drainage. Grooming area flooring requires cleaning and holding area flooring is scratched. Window seats have come loose in multiple areas. Floor drainage in animal cleaning areas is in good condition. Attic contains no roof access. Sink wood is worn in "CAT ISO" area.

MEP Systems 4.2

HVAC units are located in the attic. Electrical room has its own A/C but it is not always utilized. Water heater was installed in 2004 and provides 800 BTU/hr, adequate service for the facility but should be replaced in the next decade. A climate controlled telecommunications area is approximately 10 degrees Fahrenheit cooler than the remainder of the facility. Two main electrical panels are rated at 208Y/120V 3 Ph 4W. Emergency lighting inverter is provided.

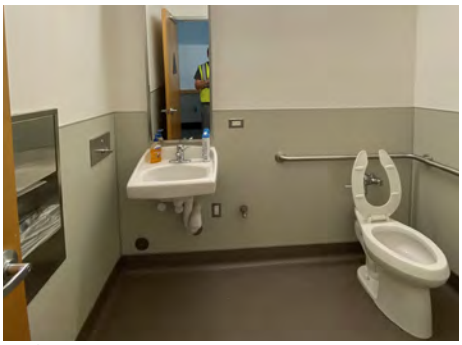
ADA Compliance Needs Compliance

Various elements of animal intake and housing operations aren't ADA compliant. Restrooms contain minor fixtures violations.

Recommendation Summary - Animal Shelter

Exterior

Lobby


Bathroom

Recommendations

Site: Recommendations include resurfacing tanbark areas, placing non-toxic traps to catch rodents, and repainting curbing.

Exterior Envelope: Resurface landscape walls and repaint exterior.

Structure: It is recommended to repair cracking at soffit of women's restroom and utilize non-structural seismic hold downs for laundry machines.

Interior: Interior spaces would benefit from repairing lobby single door to remain open and closed, replacing locking system on double doors in lobby, servicing the ground latch in lobby, and repairing cracks in concrete flooring in animal housing area. Additionally, it is recommended to replace guillotine doors, replace flooring in the laundry area, clean holding area flooring, tighten window seals, provide roof access for attic, and replace sink counter carpentry in "CAT ISO" area.

MEP Systems: No recommendations are required.

ADA Compliance: It is recommended to reconfigure various elements of animal intake and housing operations areas to be made compliant. Minor changes to restroom fixtures are required.

Impact of Recommended Works

Site: Impact of recommended site improvements are minor and won't have any affect on the shelter's operations. One week will be required to complete recommendations.

Exterior Envelope: Minor impact will be caused on shelter operations due to landscape wall resurfacing including decreased available parking. Two weeks will be required to complete recommendations.

Structure: Performing structural recommendations will have minor effects on building operations including a day or two of unavailable laundry facilities. One week will be required to complete recommendations including soffit repair.

Interior: Impact of recommended actions will require a temporary closing of the shelter. Completion of recommendations will improve physical appearance of the shelter and result in a better experience for staff and visitors. Maintenance staff could likely repair necessary components without the need for an outside design firm. One month will be required for the completion of all recommendations, but phasing is possible to minimize disruption to the shelter.

ADA Compliance: Executing recommended elements will increase accessibility at the animal intake area and in restrooms. Two weeks will be required to fulfill all recommendations. These may be improved as part of a larger interior renovation including interior items.

Facility Description - Animal Shelter

Exterior

Interior

MEP

Building Description

The Animal Shelter is a single story building and was constructed in 2015. Animal shelter staff provides education, protection and humane treatment towards underserved animals. As part of the Police Department, the Animal Services Unit operates out of the Animal Shelter and is responsible for enforcing City of Tracy municipal codes related to the well-being of animals within the City limits.

The facility's stucco exterior is painted in bright colors such as red, yellow, and blue, attracting customers and potential adopters. The landscaping has an appropriate amount of shrubbery and there is a large spanning grass area toward the back of the building.

The interior spaces house the animals that wait to be adopted; each bounding area has a passageway for them to easily access the outdoor spaces. With adequate lighting, the space functions well for all activities that take place such as training, investigating various claims, and testing for rabies and other diseases.

Age

The Animal Shelter is 7 years old and was constructed in 2015.

Use of Building

The Animal Shelter is used in the following ways:

- Provides education, protection, and humane treatment of animals
- Adoption center for animals to be claimed
- Licenses dogs to be owned within the City of Tracy
- Investigates reports of aggressive animals, suspected animal abuse, any welfare complaints, as well as enforces all Penal and Tracy Municipal codes.
- Tests for rabies and completes State-required quarantine procedures.

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Animal Shelter - Overall										**4.1**
1	**Site/ Civil/ Landscape**									**3.8**
	1.1	Fences/ Walls/ Gates								3.3
		A.	Perimeter Fencing		4					
		B.	Equipment Fencing			3				
		C.	Landscape Walls/ Piers / Structures				2			
		D.	Gates		4					
	1.2	Paving								4.0
		A.	Sidewalks/ Walkways/ Crosswalks	5						
		B.	Curbing		4					
		C.	Driveways/ Parking Pavement			3				
		D.	Striping/ Marking/ Speed Bumps		4					
		E.	Patios						N/A	
	1.3	Landscape								3.7
		A.	Ground Cover			3				
		B.	Trees		4					
		C.	Irrigation System		4					
	1.4	Site Features/ Fixtures/ Furniture/ Signage								4.2
		A.	Landscape Features/ Play Equipment		4					
		B.	Exterior Lighting Fixtures		4					
		C.	Water Fixtures	5						
		D.	Exterior Site Furniture		4					
		E.	Site Utility		4					
	1.5	Stormwater Management								4.0
	N O T E S	1.1.C: The large landscape wall in front of the facility has large surface cracking.								

	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**4.1**
	2.1	Exterior Wall Finish								4.0
	2.2	Eaves and Fascias								4.0
	2.3	Doors/ Windows/ Louvers								4.0
		A.	Windows	5						
		B.	Louvers and Vents		4					
		C.	Exterior Doors & Hardware			3				
	2.4	Roofing								4.3
		A.	Roof Surface		4					
		B.	Roof Opening/ Skylight/ Penetrations						N/A	
		C.	Roof Equipment Curbing						N/A	
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage	5						
		G.	Gutters / Downspouts		4					
		H.	Roof Vents		4					
	NOTES									
3	**Structure**									**4.5**
	3.1	Foundation/ Footing								4.0
	3.2	Columns								5.0
	3.3	Framing System								5.0
	3.4	Walls								5.0
	3.5	Lateral Force Resistance System								4.0
	3.6	Covered Walkway/Canopy								4.0
	3.7	Chimney								N/A
	NOTES									

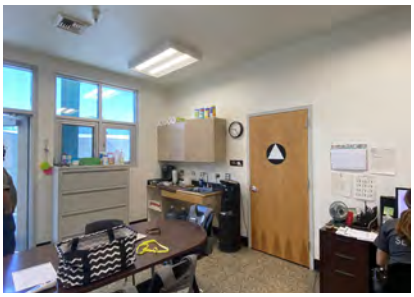
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.8**
	4.1	Ceilings								4.7
		A.	Suspended Ceiling (ACT)		4					
		B.	Gypsum Board						N/A	
		C.	Plaster	5						
		D.	Wood						N/A	
		E.	Other	5						
		F.	Exposed						N/A	
	4.2	Flooring								3.5
		A.	Carpet						N/A	
		B.	Vinyl						N/A	
		C.	Tile		4					
		D.	Wood						N/A	
		E.	Concrete			3				
	4.3	Interior Wall/Partition Finishes								4.0
	4.4	Interior Doors								3.0
	4.5	Stairs Condition								N/A
		A.	Stairs/ Landing						N/A	
		B.	Handrails						N/A	
	4.6	Toilet Condition								3.7
		A.	Toilet Accessories		4					
		B.	Toilet Partitions						N/A	
		C.	Water Closets			3				
		D.	Urinals						N/A	
		E.	Lavatorie /Sinks		4					
		F.	Counter						N/A	
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	NOTES									

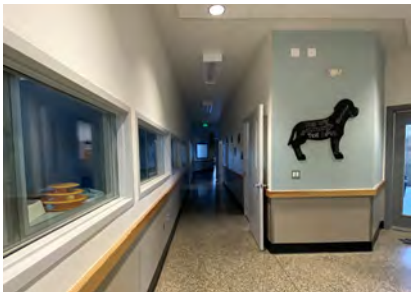
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**4.2**
	5.1	Mechanical Systems								4.4
		A.	HVAC		4					
		B.	Control System	5						
		C.	Chiller		4					
		D.	Cooling Towers						N/A	
		E.	Duct Work	5						
		F.	Ventilation\ Air Distribution		4					
		G.	Boilers						N/A	
	5.2	Electrical Systems								4.0
		A.	Transformer						N/A	
		B.	Switchgear			3				
		C.	Panelboards (Condition & Capacity)	5						
		D.	Devices (Switches & Receptacles)		4					
		E.	Interior Lighting Fixtures		4					
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System		4					
	5.3	Voice and Data Systems								4.0
	5.4	Plumbing Systems								4.0
		A.	Plumbing Fixtures		4					
		B.	Water Distribution System/ Pipes		4					
		C.	Water Heaters		4					
	5.5	Gas Distribution Systems								4.0
	5.6	Fire Suppression System								5.0
	N O T E S									

System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones	C		
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space	C		
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps	C		
		E.	Stairways			N/A
		F.	Handrails	C		
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall	C		
		B.	Toilet Accessories		NC	
		C.	Water Closets	C		
		D.	Urinals	C		
		E.	Lavatories/ Sinks	C		
		F.	Counters	C		
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry		NC	
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	
	NOTES	6.3.B: Provide ADA compliant toilet accessories. 6.4.A: Provide knee and toe clearance under working surfaces and front desk counter. 6.4.B: Provide ADA compliant furniture, fixtures and equipment with accessible height and knee and toe clearance. 6.4.C: Provide ADA compliant room signs with tactile text and Braille. Provide ADA compliant toilet room sign on door.				

Photo Documentation | Exterior Overall

Photo Documentation | Interior Blow Ups





FACILITY CONDITION ASSESSMENT

TRACY LIBRARY

Condition Summary - Tracy Library

Overall Rating **3.5**

Facility Condition

Site 3.3

Sidewalks on pathways around this building and from the adjacent parking lot have multiple cracks which in several cases span the entire width of the walkway. Ground cover towards the children's play area is eroded and showing dirt. Storm water drain near the children's play area is a potential tripping hazard. There is evidence of ponding water next to the building. Parking paving and striping are in good condition. Exterior lighting, site furniture and drinking fountains are in fair condition. Landscaping is appropriate for the site including many large trees. Further investigation of site utility is recommended due to aware of repeated plugged sewer line calls.

Exterior Envelope 3.0

The exterior of the Tracy Library is in fair condition. Masonry surface and eaves are dirty with eave sealants deteriorated. Roof shingles and rubber membranes are in good condition overall but are beginning to separate from adhered surface in areas and are stained due to water runoff from downspouts. Light cracking at roof connections to eaves is present. Gutters are not properly attached in areas and a missing downspout at the rear of the building was spotted.

Structure 3.8

The Tracy Library structure is good. Slabs are in fair condition and show signs of normal wear and tear. Interior beams and trusses are in good condition. Columns and walls are plumb and show normal signs of wear related to age.

Interior 3.6

Suspended ceiling tiles inside the Tracy Library show signs of deterioration with water stains only on some tiles and ceiling grid. The carpet flooring throughout the building contains multiple regions of staining but is in serviceable condition. Restroom tile flooring is outdated with stained sealant and vinyl tile in other areas of the building contains light scratching. There are signs of leakage under restroom sinks and at sink edges.

MEP Systems 3.6

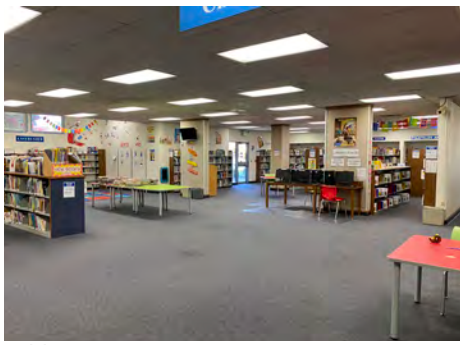
HVAC systems are fair with rooftop equipment nearing the end of useful service life within five years. An evaporation line running from one of the HVAC units on the roof is disconnected and lightly leaking. Some duct vents are minimally clogged or otherwise dirty. The water heater is relatively new and serves the facility well. Water plumbing lines in bathrooms are likely approaching end of useful service life.

ADA Compliance Needs Compliance

Passenger loading zones require the installation of tactile warnings or truncated domes to be made compliant. Restroom signage is not ADA compliant and some elements including arrangement of interior furniture are not compliant.

Recommendation Summary - Tracy Library

Exterior


Lobby

Bathroom

Recommendations

Site: Recommendations include repairing cracks in adjacent parking lot, repairing ground cover towards children's play area, fabricating a cover for the storm water drain near the children's play area, resurfacing area next to the building to avoid ponding, and replacing exterior lighting and drinking fountains.

Exterior Envelope: It is recommended to clean masonry surface, repair light cracking at roof connections to eaves, properly attach gutter, and add a downspout at the rear of the building.

Structure: No recommended actions are required.

Interior: Improvements should include cleaning some ceiling tiles, cleaning carpeted flooring throughout the building, replacing restroom tile flooring, replacing restroom sinks and repairing the leakage under restroom sinks.

MEP Systems: It is recommended to repair and reattach the evaporation line running from one of the HVAC units and clean duct vents. Rooftop mounted HVAC equipment should be replaced within the next five years.

ADA Compliance: It is recommended to rearrange interior furniture to me more compliant and install truncated domes at the front of the site at the passenger loading zone.

Impact of Recommended Works

Site: Impact of site recommendations with include the temporary closing of the children's play area. Three weeks will be required to complete all recommended actions.

Exterior Envelope: Impacts of recommended actions will improve the overall physical appearance of the building. Two weeks will be required to repair and add all necessary requirements.

Structure: No impact of recommended works.

Interior: Performing the interior recommendations will cause for a temporary closing of the library; completing the recommendations will result in improved physical appearance and safety of the library. Six weeks will be required to remodel interiors.

MEP Systems: Rooftop HVAC equipment repair and ductwork cleaning likely will likely take one week to complete. HVAC replacement likely requires an outside design consultant unless the City wishes to replace units in kind.

ADA Compliance: Interior rearrangement plan and action could take up to two weeks. Installing truncated domes at the site would be a small task able to be completed in one to two days but impact to the main entrance may take place at this time.

Facility Description - Tracy Library

Exterior

Interior

MEP

Building Description

The Tracy Library is a single story building that was constructed in 1961. The library is located off of E. Eaton Avenue and has a structure consisting of a wood frame. The exterior of the library has a masonry surface and the interior has suspended ceiling tiles and lighting fixtures. A welcoming entrance space guide citizens into the library and the interior areas are well-equipped for programs and activities that take place within the library. Activities offered include computer classes, literacy programs, the English Conversation Club and other book clubs.

Age

The Tracy Library building is 61 years old and was constructed in 1961.

Use of Building

The building is used in the following ways:

- Hosts various social activities and programs designed for every age and all citizens.
- Facilitates the borrowing and returning of books for free
- Offers online tutoring services

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Tracy Library - Overall										**3.5**
1	**Site/ Civil/ Landscape**									**3.3**
	1.1	Fences/ Walls/ Gates								2.7
		A.	Perimeter Fencing			3				
		B.	Equipment Fencing						N/A	
		C.	Landscape Walls/ Piers / Structures				2			
		D.	Gates			3				
	1.2	Paving								3.3
		A.	Sidewalks/ Walkways/ Crosswalks			3				
		B.	Curbing			3				
		C.	Driveways/ Parking Pavement			3				
		D.	Striping/ Marking/ Speed Bumps		4					
		E.	Patios						N/A	
	1.3	Landscape								3.7
		A.	Ground Cover			3				
		B.	Trees		4					
		C.	Irrigation System		4					
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.0
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures				2			
		C.	Water Fixtures						N/A	
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility		4					
	1.5	Stormwater Management								4.0
	N O T E S	1.1.C: Masonry landscape wall near main entrance is dirty and cracked in areas, especially where signage is attached. 1.4.B: Exterior lighting fixtures lack lenses and are generally lacking in number.								

	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**3.0**
	2.1	Exterior Wall Finish								3.0
	2.2	Eaves and Fascias								2.0
	2.3	Doors/ Windows/ Louvers								3.7
		A.	Windows		4					
		B.	Louvers and Vents			3				
		C.	Exterior Doors & Hardware		4					
	2.4	Roofing								3.3
		A.	Roof Surface			3				
		B.	Roof Opening/ Skylight/ Penetrations						N/A	
		C.	Roof Equipment Curbing		4					
		D.	Leakage			3				
		E.	Ponding Water		4					
		F.	Roof Drainage			3				
		G.	Gutters / Downspouts				2			
		H.	Roof Vents		4					
	N O T E S	2.4.G: Gutters are hanging at odd angles from building in some areas. Downspouts drain directly onto upper roof.								
3	**Structure**									**3.8**
	3.1	Foundation/ Footing								4.0
	3.2	Columns								4.0
	3.3	Framing System								3.0
	3.4	Walls								4.0
	3.5	Lateral Force Resistance System								4.0
	3.6	Covered Walkway/Canopy								N/A
	3.7	Chimney								N/A
	N O T E S									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.6**
	4.1	Ceilings								4.0
		A.	Suspended Ceiling (ACT)		4					
		B.	Gypsum Board						N/A	
		C.	Plaster		4					
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed						N/A	
	4.2	Flooring								3.0
		A.	Carpet			3				
		B.	Vinyl						N/A	
		C.	Tile			3				
		D.	Wood						N/A	
		E.	Concrete						N/A	
	4.3	Interior Wall/Partition Finishes								4.0
	4.4	Interior Doors								4.0
	4.5	Stairs Condition								N/A
		A.	Stairs/ Landing						N/A	
		B.	Handrails						N/A	
	4.6	Toilet Condition								3.2
		A.	Toilet Accessories		4					
		B.	Toilet Partitions			3				
		C.	Water Closets		4					
		D.	Urinals			3				
		E.	Lavatory /Sinks				2			
		F.	Counter			3				
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	NOTES	4.6.E: Lavatories at interior public restrooms are beyond their useful service life and deteriorated at edges of sink basins.								

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.6**
	5.1	Mechanical Systems								3.4
		A.	HVAC		4					
		B.	Control System			3				
		C.	Chiller			3				
		D.	Cooling Towers						N/A	
		E.	Duct Work		4					
		F.	Ventilation\ Air Distribution			3				
		G.	Boilers						N/A	
	5.2	Electrical Systems								3.5
		A.	Transformer		4					
		B.	Switchgear			3				
		C.	Panelboards (Condition & Capacity)			3				
		D.	Devices (Switches & Receptacles)			3				
		E.	Interior Lighting Fixtures		4					
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System		4					
	5.3	Voice and Data Systems								4.0
	5.4	Plumbing Systems								3.3
		A.	Plumbing Fixtures			3				
		B.	Water Distribution System/ Pipes			3				
		C.	Water Heaters		4					
	5.5	Gas Distribution Systems								N/A
	5.6	Fire Suppression System								N/A
	N O T E S									

System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones		NC	
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space	C		
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps			N/A
		E.	Stairways			N/A
		F.	Handrails			N/A
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall	C		
		B.	Toilet Accessories	C		
		C.	Water Closets	C		
		D.	Urinals	C		
		E.	Lavatories/ Sinks	C		
		F.	Counters	C		
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry		NC	
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	
	NOTES	6.1.B: Provide ADA compliant passenger loading zone with striping and tactile warnings. 6.4.A: Some elements of break area cabinetry are not ADA compliant. 6.4.B: Some interior furniture including arrangement of such items is not compliant. 6.4.C: Provide ADA compliant directional and toilet room restroom signage with tactile text and Braille.				

Photo Documentation | Exterior Overall

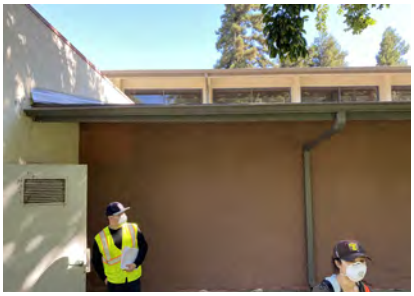
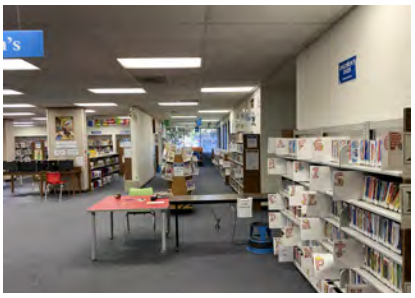
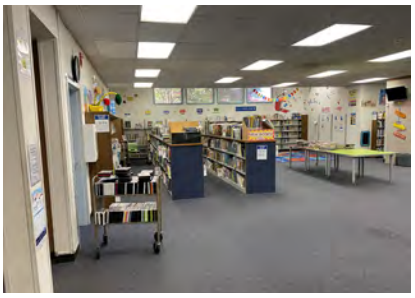
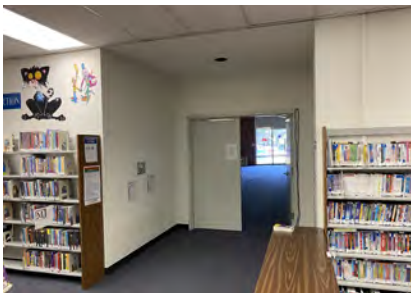
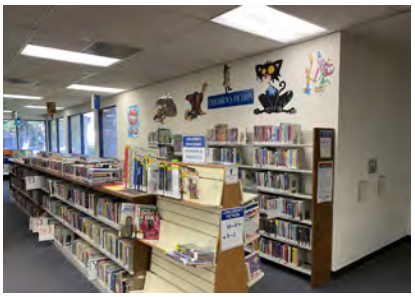
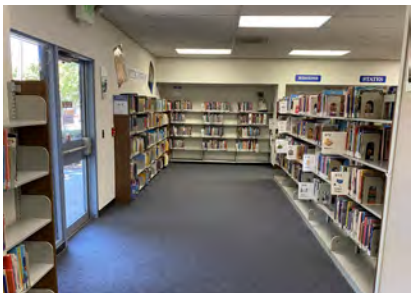
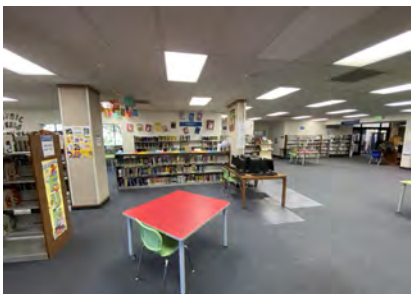


Photo Documentation | Interior Blow Ups

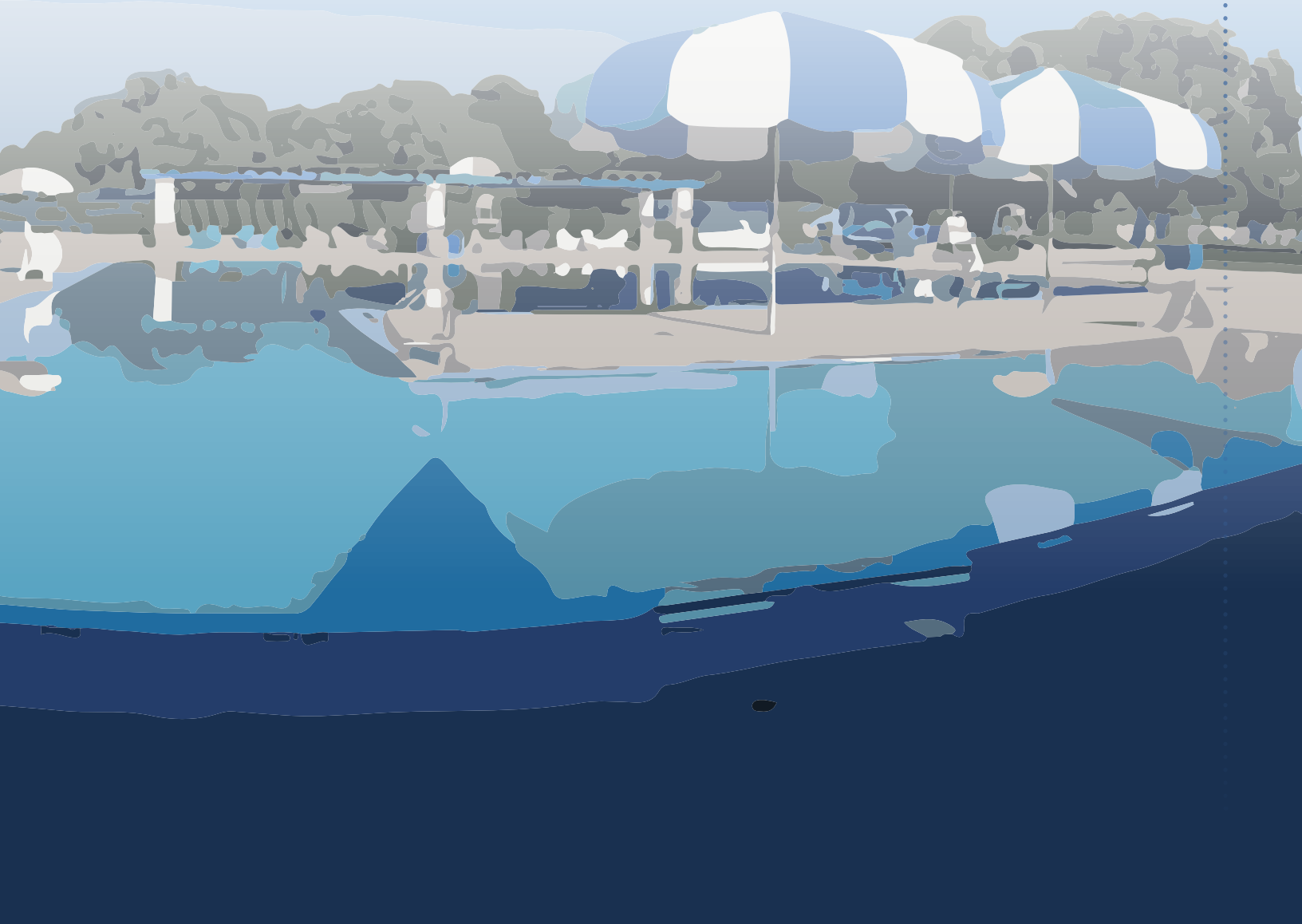









FACILITY CONDITION ASSESSMENT

JOE WILSON POOL



Condition Summary - Joe Wilson Pool

Overall Rating **4.2**

Facility Condition

Site 4.3

The Joe Wilson pool site is in good condition overall. Landscaping is present in the form of grass, shrubbery, and multiple on site trees that all appear healthy and appropriate for the site. A tall steel fence that is painted blue surrounds the pool areas and protects the area from unsupervised public access. The fence appears freshly painted and is in good condition, including associated gates and gate hardware. This gate is alarmed and acts as an emergency exit. Concrete at exterior patio surrounding pool area appears new with minimal staining in areas and a general lack of cracking. Site furniture in this location serves the facility well with shade structures covering the majority that are not yet faded or discolored. Parking lot striping is in good condition overall but beginning to fade in areas especially at ADA stalls. Various city utilities are accessible from hatches placed in the ground.

Exterior Envelope 4.2

Exterior tile wall finish is slightly stained at tile in areas but grout is holding up well and only discolored at areas where other items are mounted on the wall. Roof drainage includes gutters that are exposed only at the exterior fascia and are clogged with leaves in areas. Metal fascia at top of exterior walls is discolored with a finish and paint that is beginning to deteriorate at joints and flat surfaces. Exterior entrance to locker room doors are folding and aluminum and show no signs of wear. Signage is in good condition and serves the facility well, but requires substantial cleaning. Exterior windows are present at a small number of areas including the food service window at the kitchen.

Structure 4.6

Concrete black wall construction in pump house rooms is visually plumb with minimal signs of cracking at base of wall in areas. Exposed structural columns in locker room areas are visually sound. No other structural issues were observed.

Interior 3.6

Interior lighting is in good condition and largely LED tube lighting throughout. Brown tile flooring in kitchen area has stained grout in the center of the kitchen and in areas under heavy-use appliances. Ceiling kitchen is exposed corrugated metal with a clean painted finish. Kitchen appliances are largely stainless steel and contain significant remaining useful service life. Smooth wall finished in kitchen appears freshly painted with no cracking or staining. Locker room walls are finished in similar painted concrete blocks as pump room but are more stained and discolored at both block surfaces and grout. Ceiling systems in this location are similar to the kitchen but discolored and stained in areas likely due to moisture buildup from shower steam. Restrooms are finished in stainless steel and serve the facility well under heavy use. Epoxied flooring in restrooms and locker rooms is in good condition with minimal surface wear. Tile wainscot is similarly maintained with minimal staining. Roll up metal doors in lock room areas are well-maintained with no obvious visual signs of deterioration. Shower walls and flooring are finished in tile that appears to be holding up well. Minimal staining is present at shower floor tile and grout which is to be expected. The interior of locker rooms and showers has an area under the roof that is fully exposed to the outdoors, which greatly increases ventilation with no effect on privacy.

Condition Summary - Joe Wilson Pool

The reception area is located in the center of the facility and would benefit from a modernized lighting system.

MEP Systems 4.1

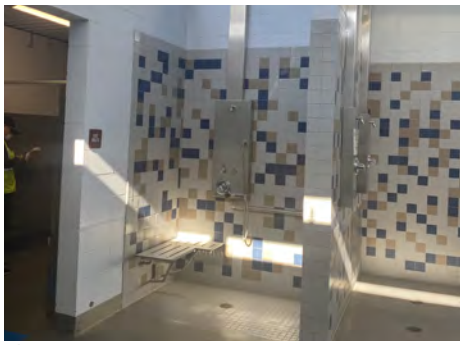
A large pump room houses all pool equipment in a controlled environment. Pool equipment is clearly labeled with system type and flow direction. The pump room also houses three (3) EKO systems water filler devices that are relatively new with much remaining service life. System controls are modern and largely digital. Items are stored in front of electrical panels. Large equipment such as the water filters and pool heater is appropriately mounted to the ground but some mounts are rusted and lacking vibration isolators. Copper piping for pool water systems is in good condition. Exterior mounted conduit is properly braced and appears new. Ductwork is exposed and properly braced. Main electrical panel is located at exterior site and contains much remaining service life.

ADA Compliance Needs Compliance

Clear floor space in pump room area is lacking. The exterior pool area site is largely ADA complaint with appropriate elements in like new condition. Sinks and soap dispensers in restroom areas are non-compliant.

Recommendation Summary - Joe Wilson Pool

Exterior


Shower

Kitchen

Recommendations

Site: Minimal recommendations for the pool facility include potentially repainting the ADA parking stalls.

Exterior Envelope: It is recommended to clean out gutters and to paint metal fascia and re-grout some exterior tile.

Structure: It is recommended to repair cracks at the base of wall in areas of pump room.

Interior: Recommendations include replacing tiling at kitchen flooring, repainting concrete blocks and grout in locker room walls and updating lighting system at reception.

MEP Systems: No recommendations for improvement.

ADA Compliance: It is recommended to provide a clear floor space in pump room.

Impact of Recommended Works

Site: Impact of site recommendations are minor. One week will be required to repaint the ADA parking stalls.

Exterior Envelope: Impacts of recommendations are minor. Two weeks will be required to clean gutters and recolor metal fascia and exterior tile.

Structure: Performing structural recommendations should have minor impact on the pool facility; one week will be required to repair cracks at base of wall areas.

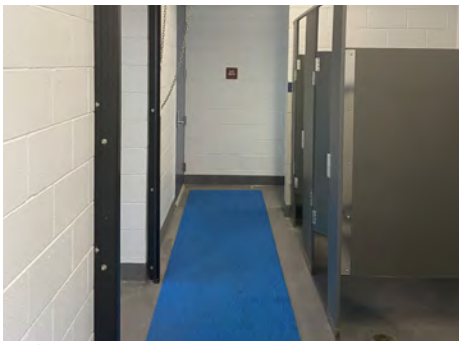
Interior: Executing recommended improvements should have some impact on the pool's operations, which may include temporary closing of the kitchen area. Locker rooms will not be usable during renovations to these areas.

MEP Systems: No impact of recommended works.

ADA Compliance: Performing the recommended improvements will have minimal impact on the pool's operations.

Facility Description - Joe Wilson Pool

Exterior


Bathroom

MEP

Building Description

The Joe Wilson Pool is a public facility that serves as a communal space for the City of Tracy. Located off of Lowell Avenue in Dr. Powers Park, the pool, locker room, and pump room is constructed with masonry structure with a wood roof. The exterior of the patio is clad with blue, gray, and white colored tile and provides an aesthetic physical appearance of the building. A well kept, blue steel fence surrounds the property and an exit gate is provided within. Exterior spaces are well equipped with appropriate furniture for the public to use and shade structures are provided for adequate UV protection.

The interior spaces hold the locker rooms and restroom stalls. This space is useful for users to safely store belongings and change in privacy. The metal doors for stalls, painted concrete blocks for walls, and tile help with the physical appearance.

Age

The Joe Wilson Pool is 11 years old and was constructed in 2011.

Use of Building

The building is used in the following ways:

- Swim lessons
- Water exercise classes
- Public recreation and lap swimming
- Special events

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Joe Wilson Pool - Overall										**4.2**
1	**Site/ Civil/ Landscape**									**4.3**
	1.1	Fences/ Walls/ Gates								5.0
		A.	Perimeter Fencing	5						
		B.	Equipment Fencing						N/A	
		C.	Landscape Walls/ Piers / Structures						N/A	
		D.	Gates	5						
	1.2	Paving								3.8
		A.	Sidewalks/ Walkways/ Crosswalks		4					
		B.	Curbing			3				
		C.	Driveways/ Parking Pavement		4					
		D.	Striping/ Marking/ Speed Bumps			3				
		E.	Patios	5						
	1.3	Landscape								3.7
		A.	Ground Cover			3				
		B.	Trees		4					
		C.	Irrigation System		4					
	1.4	Site Features/ Fixtures/ Furniture/ Signage								4.3
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures		4					
		C.	Water Fixtures		4					
		D.	Exterior Site Furniture		4					
		E.	Site Utility	5						
	1.5	Stormwater Management								5.0
	N O T E S									

	System			Condition: Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**4.2**
	2.1	Exterior Wall Finish								4.0
	2.2	Eaves and Fascias								4.0
	2.3	Doors/ Windows/ Louvers								4.0
		A.	Windows		4					
		B.	Louvers and Vents						N/A	
		C.	Exterior Doors & Hardware		4					
	2.4	Roofing								4.8
		A.	Roof Surface						N/A	
		B.	Roof Opening/ Skylight/ Penetrations	5						
		C.	Roof Equipment Curbing						N/A	
		D.	Leakage	5						
		E.	Ponding Water	5					N/A	
		F.	Roof Drainage		4					
		G.	Gutters / Downspouts						N/A	
		H.	Roof Vents						N/A	
	NOTES									
3	**Structure**									**4.6**
	3.1	Foundation/ Footing								5.0
	3.2	Columns								N/A
	3.3	Framing System								5.0
	3.4	Walls								5.0
	3.5	Lateral Force Resistance System								3.0
	3.6	Covered Walkway/Canopy								5.0
	3.7	Chimney								N/A
	NOTES									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.6**
	4.1	Ceilings								4.0
		A.	Suspended Ceiling (ACT)						N/A	
		B.	Gypsum Board						N/A	
		C.	Plaster						N/A	
		D.	Wood						N/A	
		E.	Other		4					
		F.	Exposed						N/A	
	4.2	Flooring								3.5
		A.	Carpet						N/A	
		B.	Vinyl						N/A	
		C.	Tile			3				
		D.	Wood						N/A	
		E.	Concrete		4					
	4.3	Interior Wall/Partition Finishes								3.0
	4.4	Interior Doors								4.0
	4.5	Stairs Condition								N/A
		A.	Stairs/ Landing						N/A	
		B.	Handrails						N/A	
	4.6	Toilet Condition								3.3
		A.	Toilet Accessories			3				
		B.	Toilet Partitions		4					
		C.	Water Closets			3				
		D.	Urinals			3				
		E.	Lavatorie /Sinks			3				
		F.	Counter						N/A	
		G.	Shower Compartments		4					
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	NOTES									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**4.1**
	5.1	Mechanical Systems								4.0
		A.	HVAC		4					
		B.	Control System		4					
		C.	Chiller		4					
		D.	Cooling Towers						N/A	
		E.	Duct Work		4					
		F.	Ventilation\ Air Distribution		4					
		G.	Boilers		4					
	5.2	Electrical Systems								4.2
		A.	Transformer	5						
		B.	Switchgear		4					
		C.	Panelboards (Condition & Capacity)		4					
		D.	Devices (Switches & Receptacles)		4					
		E.	Interior Lighting Fixtures			3				
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System	5						
	5.3	Voice and Data Systems								
	5.4	Plumbing Systems								4.0
		A.	Plumbing Fixtures		4					
		B.	Water Distribution System/ Pipes		4					
		C.	Water Heaters		4					
	5.5	Gas Distribution Systems								N/A
	5.6	Fire Suppression System								N/A
	NOTES									

System				Condition		
				Compliance	Non-compliance	N/A
6	ADA Compliance					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones			N/A
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space	C		
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps			N/A
		E.	Stairways			N/A
		F.	Handrails			N/A
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall	C		
		B.	Toilet Accessories	C		
		C.	Water Closets	C		
		D.	Urinals	C		
		E.	Lavatories/ Sinks	C		
		F.	Counters	C		
		G.	Shower Compartments	C		
	6.4	Building Elements				
		A.	Cabinetry	C		
		B.	Furniture, Fixtures & Equipment - FF&E	C		
		C.	Signage		NC	
	NOTES	6.4.C: Provide ADA compliant room signage with tactile text and Braille. Provide ADA compliant toilet room signage.				

Photo Documentation | Exterior Overall

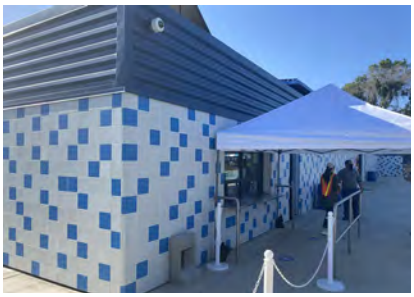
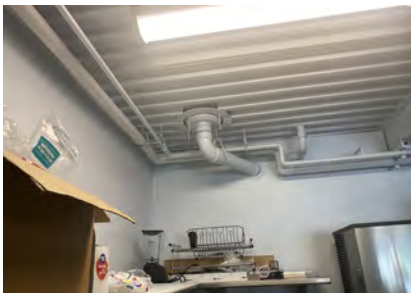
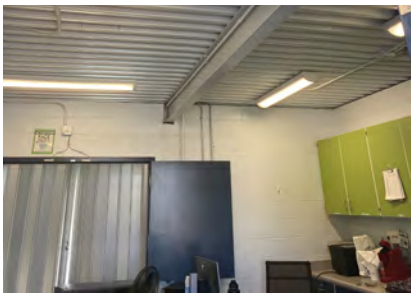
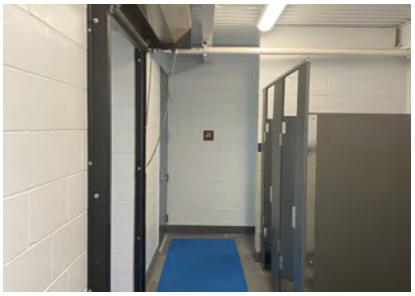
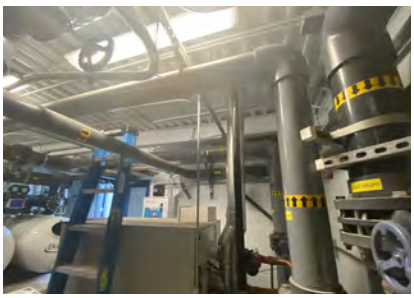


Photo Documentation | Interior Blow Ups





FACILITY CONDITION ASSESSMENT

SPORT COMPLEX

Condition Summary - Sport Complex Meeting Room

Overall Rating 3.3

Facility Condition

Site 3.1

Parking asphalt for the Tracy Sports Complex is stained and beginning to deteriorate. Striping and other pavement markings are faded and lacking in areas. Curb paint is in poor condition at curb bases and mostly scraped off from curbing. Small grass patch areas directly adjacent to the facility are dry in spots and also contain areas of no vegetation. Sidewalk adjacent to parking lot at street side has some significant cracking in areas. Black painted surface at short gate adjacent to the facility is discolored with rusting visible especially at the base and is also significantly damaged.

Exterior Envelope 3.3

Roof surface is in good condition but requires cleaning due to dirt and grime buildup. Awning have similar dirt buildup especially at areas near roof eaves. Concrete block siding is in fair condition with spotted chipping and cracking at all sides. Staining is also present at exterior siding. Aluminum entrance doors are in good condition with much remaining service life but lock sets are dirty and contain fading green paint and rusted hinges. Exterior-mounted lighting fixtures contain discolored housings and overly yellowed lenses. Aluminum window frames are discolored and worn. Gutter paint finish is fading but no major denting or attachment issues were observed besides cracked material leading gutter ends into grand drains. Sealants at door thresholds at main restrooms and generally around the building are cracked and deteriorating. Awning surfaces are worn on the undersides.

Structure 2.6

Minimal cracking was visible at some CMU blocks at the interior. Some moderate cracking is present at the base of foundation around building which suggests a shifting structure.

Interior 3.8

Interior vinyl tile flooring is nearing the end of its useful service life with lots of scuffing and discoloration throughout. Interior doors have worn surfaces. Ceiling system is in poor condition with acoustic tiles that are plumb and not yet discolored with signs of staining in utility closet. Light fixture housings are slightly discolored and stained in places. Interior CMU walls are discolored and would benefit from a repainting. Baseboard is not properly attached in places.

MEP Systems 3.7

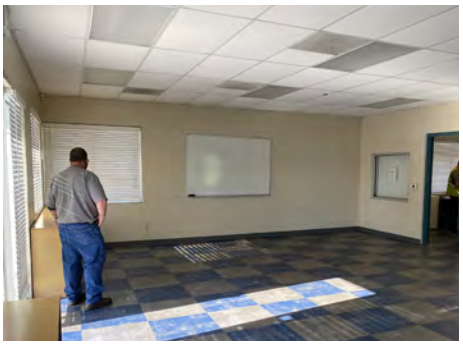
Plumbing for restrooms and the remainder of the facility is accessed via a small exterior room and is in good condition. Housing for exterior A/C unit is smashed and is rusting through areas of chipping paint. Electrical switchboards serving the facility contain appropriate capacity for the fields' significant amount of sports lighting.

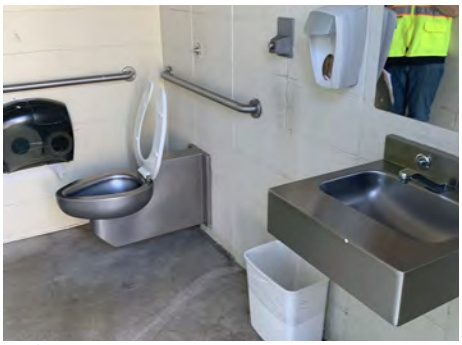
ADA Compliance Needs Compliance

Main restroom fixtures are largely non-compliant including toilet flush button. However, ADA compliant restrooms are located with exterior access at the rear of the facility adjacent to the fields. Accessibility signage at parking lot asphalt surface is worn beyond recognition.

Recommendation Summary - Sport Complex

Exterior


Interior


Bathroom

Recommendations

Site: Recommendations include repairing parking asphalt, repainting the striping, pavement markings and curb paint, re-seeding the grass, repairing the sidewalk adjacent to the parking lot, and repairing the black painted surface at short gate.

Exterior Envelope: It is recommended to clean the roof surface, fix small cracks and paint chipping, clean exterior siding, replace lock sets of aluminum entrance doors, and replace exterior-mounted lighting fixtures. Other recommended actions include resealing sealants at door thresholds at main restrooms and replacing awning surfaces.

Structure: Structural recommendations include repairing cracking at the base of foundation.

Interior: Improvements should include replacing interior vinyl tile flooring, resurfacing interior doors, replacing the ceiling tile system, repainting interior CMU walls, and reattaching baseboard in places where it is loose.

MEP Systems: It is recommended to replace the housing for exterior A/C unit.

ADA Compliance: Recommended actions include replacing and relocating main restroom fixtures and replacing accessibility signage at parking lot asphalt surface.

Impact of Recommended Works

Site: Impact of site recommendations include disturbed access to the building but will improve the physical appearance of the building. Two weeks will be required to complete all site recommendations.

Exterior Envelope: Impacts of recommendation include temporary closing of certain areas of the building and disturbed access to the building. Completion of these recommendations will require three weeks.

Structure: Performing structural recommendations will require one week to complete.

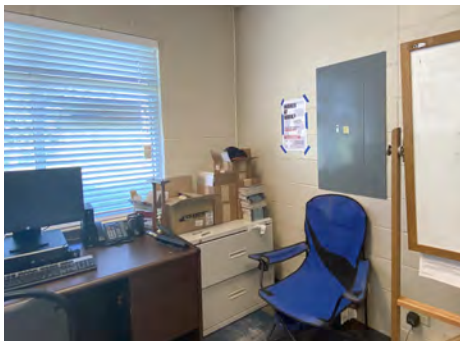
Interior: Executing recommended improvements will result in the temporary closing of the building; this will enhance the overall physical appearance. Two weeks will be required for the completion of all recommendations.

MEP Systems: Exterior housing for A/C unit is likely replaceable in one day with minor impact to facility operations.

ADA Compliance: Performing the recommended improvements will have a minor impact on the building's operations. One week will be required to replace fixtures and accessibility signage.

Facility Description - Sport Complex

Exterior


Interior

MEP

Building Description

The Tracy Sport Complex is a single story building with four lighted fields that was constructed in 2001. Within the sport complex, there is a two shade structure, a meeting and RR building, a maintenance shop, a concession and restroom, and a shade structure. The Sport Complex is located off of Crossroads Drive and is mainly surrounded by residential neighborhoods. The buildings have a structure that is consisting of steel, wood frame, and masonry. The exterior spaces are appropriate for any sports that are to be played here.

The concession and restroom is open to the public to purchase food and use. The maintenance shop has necessary tools for upkeep of the complex. The shading structure is well placed for the audience to watch the sports games.

Age

The Sport Complex building is 21 years old and was constructed in 2001.

Use of Building

The building is used in the following ways:

- Provides four lighted fields for various activities and sports
- Provides concessions for players and audience
- Provides space for family events and public rentals

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Sports Complex - Overall										**3.3**
1	**Site/ Civil/ Landscape**									**3.1**
	1.1	Fences/ Walls/ Gates								2.0
		A.	Perimeter Fencing					1		
		B.	Equipment Fencing				2			
		C.	Landscape Walls/ Piers / Structures						N/A	
		D.	Gates			3				
	1.2	Paving								3.3
		A.	Sidewalks/ Walkways/ Crosswalks		4					
		B.	Curbing			3				
		C.	Driveways/ Parking Pavement			3				
		D.	Striping/ Marking/ Speed Bumps			3				
		E.	Patios						N/A	
	1.3	Landscape								3.0
		A.	Ground Cover			3				
		B.	Trees			3				
		C.	Irrigation System			3				
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.0
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures				2			
		C.	Water Fixtures						N/A	
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility		4					
	1.5	Stormwater Management								4.0
	N O T E S	1.1.A: The perimeter fencing is damaged and bent. Rust is forming on exterior metal fence where paint has chipped. 1.1.B: The equipment fencing is rusted and damaged. 1.4.B: Exterior lighting fixtures are worn and deteriorated.								

	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**3.3**
	2.1	Exterior Wall Finish								2.0
	2.2	Eaves and Fascias								3.0
	2.3	Doors/ Windows/ Louvers								3.7
		A.	Windows		4					
		B.	Louvers and Vents		4					
		C.	Exterior Doors & Hardware			3				
	2.4	Roofing								4.5
		A.	Roof Surface	5						
		B.	Roof Opening/ Skylight/ Penetrations						N/A	
		C.	Roof Equipment Curbing						N/A	
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage	5						
		G.	Gutters / Downspouts		4					
		H.	Roof Vents		4					
	N O T E S									
3	**Structure**									**2.6**
	3.1	Foundation/ Footing								2.0
	3.2	Columns								4.0
	3.3	Framing System								3.0
	3.4	Walls								2.0
	3.5	Lateral Force Resistance System								2.0
	3.6	Covered Walkway/Canopy								N/A
	3.7	Chimney								N/A
	N O T E S	3.1: Cracking exists at exterior foundation curbing. 3.4: Minimal cracking present at interior CMU blocks. 3.5: Additional lateral force resistance system is not present and cracking points to shifting structure.								

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.8**
	4.1	Ceilings								3.0
		A.	Suspended Ceiling (ACT)				2			
		B.	Gypsum Board						N/A	
		C.	Plaster						N/A	
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed		4					
	4.2	Flooring								3.5
		A.	Carpet						N/A	
		B.	Vinyl						N/A	
		C.	Tile		4					
		D.	Wood						N/A	
		E.	Concrete			3				
	4.3	Interior Wall/Partition Finishes								4.0
	4.4	Interior Doors								5.0
	4.5	Stairs Condition								N/A
		A.	Stairs/ Landing						N/A	
		B.	Handrails						N/A	
	4.6	Toilet Condition								3.7
		A.	Toilet Accessories		4					
		B.	Toilet Partitions						N/A	
		C.	Water Closets			3				
		D.	Urinals						N/A	
		E.	Lavatorie /Sinks		4					
		F.	Counter						N/A	
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	N O T E S	4.1.A: Acoustic ceiling tiles are damaged and stained.								

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.7**
	5.1	Mechanical Systems								4.5
		A.	HVAC		4					
		B.	Control System	5						
		C.	Chiller						N/A	
		D.	Cooling Towers						N/A	
		E.	Duct Work	5						
		F.	Ventilation\ Air Distribution		4					
		G.	Boilers						N/A	
	5.2	Electrical Systems								3.0
		A.	Transformer						N/A	
		B.	Switchgear						N/A	
		C.	Panelboards (Condition & Capacity)			3				
		D.	Devices (Switches & Receptacles)			3				
		E.	Interior Lighting Fixtures			3				
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System						N/A	
	5.3	Voice and Data Systems								N/A
	5.4	Plumbing Systems								3.7
		A.	Plumbing Fixtures			3				
		B.	Water Distribution System/ Pipes		4					
		C.	Water Heaters		4					
	5.5	Gas Distribution Systems								N/A
	5.6	Fire Suppression System								N/A
	NOTES									

System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces		NC	
		B.	Passenger Loading Zones		NC	
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space	C		
		B.	Doors/ Doorways/Gates		NC	
		C.	Threshold	C		
		D.	Ramps			N/A
		E.	Stairways	C		
		F.	Handrails			N/A
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall	C		
		B.	Toilet Accessories		NC	
		C.	Water Closets		NC	
		D.	Urinals			N/A
		E.	Lavatories/ Sinks		NC	
		F.	Counters			N/A
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry		NC	
		B.	Furniture, Fixtures & Equipment - FF&E			N/A
		C.	Signage		NC	
	NOTES					

6.1.A: Exiting accessible parking spaces do not meet the ADA requirement. Restripe the ADA parking stalls to comply with ADA.
6.1.B: Exiting passenger loading zone does not meet the ADA requirement. Restripe the loading zone and lettering to meet the ADA requirement.
6.2.B: Provide ADA compliant door push paddle to exit doors.
6.3.B: Provide ADA compliant toilet accessories.
6.3.C: Provide ADA compliant water closet.
6.3.C: Provide ADA compliant urinal in men's toilet room.
6.3.E: Provide ADA compliant sink.
6.4.A: Provide knee and toe clearances under interior sink counter.
6.4.C: Provide ADA compliant room signage with tactile text and Braille. Provide ADA compliant toilet room signage.

Photo Documentation | Exterior Overall

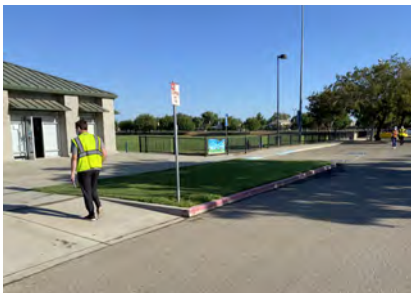
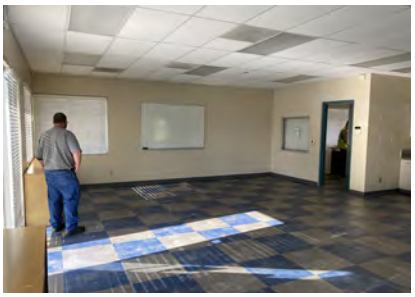
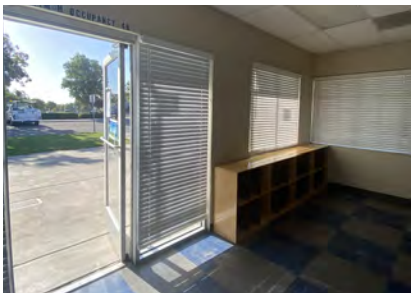
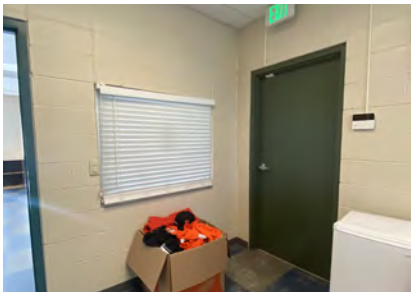


Photo Documentation | Interior Blow Ups







FACILITY CONDITION ASSESSMENT

TRACY HISTORICAL MUSEUM

Condition Summary - Tracy Historical Museum

Overall Rating **3.2**

Facility Condition

Site 2.8

Parking lot pavement is in fair condition with signs of light deterioration and striping that is beginning to fade. Landscaping is healthy overall but weeds are growing adjacent to parking lot fencing, some plants are dry and areas of open dirt are present. Major cracking is present at main entrance steps on Adam Street. Slight cracking is present at steps from rear parking area. A short sliding gate adds minimal security to the parking area and contains a rusted wheel mechanism. Exposed top of metal fencing at sliding gate is damaged in multiple areas. Flagpole is in good condition but requires cleaning. Curbing at Adam Street side of site is cracked and deteriorated and damage continues into street.

Exterior Envelope 3.3

Painted concrete exterior envelope is generally in fair condition with surface discoloration in areas and light cracking present. Paint chipping is present in window frames. Exterior lighting fixtures are outdated and dirty due to cobwebs and other debris. Stucco at exterior and stair siding requires intensive cleaning and in some cases new paint. Roof parapet is not flush in places and some clay roof tiles are loose, chipped or missing. The underside of the roof overhand requires new paint. Roof surface itself requires intensive cleaning and new sealant in areas. Skylight windows are single pane and serviceable from roof and contain rusted frames. Drainage elements are rusted and clogging evidence and ponding water are both present around drains. Entrance door at rear near parking lot requires replacement. Main entrance doors require replacement or new paint. Decorative window balconies are rusted in places and require new paint at minimum. Single pane windows are present.

Structure 3.1

Patched up cracking on the ceiling within small display room suggests structural issues. Large crack is present from door frame to ceiling in storage room. A major structural investigation should take place to assess the facility's structure. Other than cracking in places, no significant structural shifting was visibly present. However, an investigation should take place due to the facility's 1916 construction date.

Interior 3.4

Stains and discoloration on suspended ceiling tiles suggest leakage from the second floor. Tiling throughout museum is in good condition with signs of wear and discoloration. Wood flooring throughout main level of interior is scuffed, scratched and contains misaligned floorboards in places. Tile flooring near Holly Sugar display requires cleaning. Carpeting at second floor is in good condition but transition strips and tile grout around these ares require replacement. Elevator is in serviceable condition with remaining service life but sills require intensive cleaning. Finished in restrooms are in good condition.

MEP Systems 3.5

HVAC systems are in good condition. Leaking from restroom upstairs restroom should be repaired. Rooftop HVAC equipment is nearing the end of its useful service life and would benefit from replacement. Water lines going to AC units are rusted. Fire water access is provided on-site but access valves require painting and new signage due to rust and paint deterioration. Exit signage is required to be illuminated.

Condition Summary - Tracy Museum

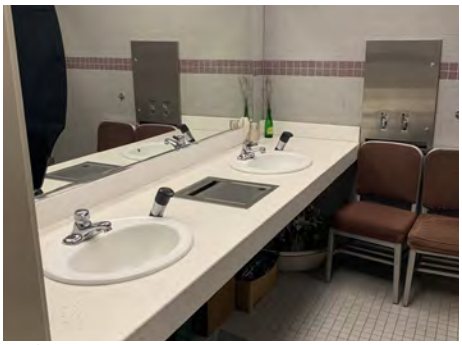
ADA Compliance **Needs Compliance**

Stair and ramp handrails at front and rear of building are not ADA compliant as handles are square and do not provide 12" flat surfaces at landings. Truncated domes are not present. General sidewalk slope is not ADA compliant. An elevator is present. Some issues are present related to accessibility due to lack of clear floor space. ADA compliant stall in men's restroom is being used as storage which hinders the 5' turnaround requirement. Paper towel dispenser is protruding. Marble Transition Strips are not compliant. Clear floor space is not provided under kitchenette sink. Interior stairway handrails are non-compliant. Upstairs restrooms are not ADA compliant and contain old fixtures and finishes.

Recommendation Summary - Tracy Museum

Exterior

Interior


Bathroom

Recommendations

Site: Recommendations include refining the landscaping, repaving and resurfacing the pavement of the road, and repairing the cracks at the concrete steps. Further recommendations include cleaning rusted wheel mechanism and repairing damaged top metal fencing at sliding gate.

Exterior Envelope: It is recommended to clean and paint exterior surface where discoloration and cracking is present. It is also recommended to repaint window frames and repair damage at roof.

Structure: Structural recommendations should include assessing structural integrity of roofing system and repairing any all cracks.

Interior: Improvements should include replacing stained ceiling tiles and repairing and cleaning wood flooring.

MEP Systems: Recommended actions include fixing leakage from second floor restroom.

ADA Compliance: It is recommended to resurface sidewalk slope and ramp toward entrance to comply with ADA code. Additions should include truncated domes.

Impact of Recommended Works

Site: Impact of site recommendations include disturbed access to the museum. Three weeks will be required to repave street, repair cracking at steps, and complete other recommendations.

Exterior Envelope: Impacts of recommendations are minor and will improve the physical appearance of the facility. One weeks will be required to clean and paint the exterior surface and window frames.

Structure: Performing structural recommendations should have minor impact on the museum's operations. Completion of the recommendations will result in increased structural integrity and will require two weeks to perform.

Interior: Executing recommended improvements will result in the temporary closing of the museum to complete flooring and ceiling tile recommendations. Two weeks will be required to remodel interiors.

ADA Compliance: Impact of ADA compliance recommendations will result in disturbed access to the museum. Two weeks will be required to complete all recommendations.

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Tracy Historical Museum - Overall										**3.2**
1	**Site/ Civil/ Landscape**									**2.8**
	1.1	Fences/ Walls/ Gates								3.0
		A.	Perimeter Fencing			3				
		B.	Equipment Fencing			3				
		C.	Landscape Walls/ Piers / Structures			3				
		D.	Gates			3				
	1.2	Paving								2.5
		A.	Sidewalks/ Walkways/ Crosswalks				2			
		B.	Curbing			3				
		C.	Driveways/ Parking Pavement				2			
		D.	Striping/ Marking/ Speed Bumps			3				
		E.	Patios						N/A	
	1.3	Landscape								2.7
		A.	Ground Cover				2			
		B.	Trees			3				
		C.	Irrigation System			3				
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.0
		A.	Landscape Features/ Play Equipment			3				
		B.	Exterior Lighting Fixtures			3				
		C.	Water Fixtures			3				
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility			3				
	1.5	Stormwater Management								3.0
	N O T E S	1.2.A: Cracking is present at entrance steps and throughout sidewalk. 1.2.C: Parking pavement is beginning to deteriorate and street pavement adjacent to the building contains much patching and cracking and requires refinishing. 1.3.A: Weeds are growing adjacent to parking lot fencing with some dry plant material and open dirt present.									

	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**3.3**
	2.1	Exterior Wall Finish								4.0
	2.2	Eaves and Fascias								3.0
	2.3	Doors/ Windows/ Louvers								3.3
		A.	Windows			3				
		B.	Louvers and Vents		4					
		C.	Exterior Doors & Hardware			3				
	2.4	Roofing								2.9
		A.	Roof Surface			3				
		B.	Roof Opening/ Skylight/ Penetrations			3				
		C.	Roof Equipment Curbing			3				
		D.	Leakage			3				
		E.	Ponding Water				2			
		F.	Roof Drainage				2			
		G.	Gutters / Downspouts			3				
		H.	Roof Vents		4					
	N O T E S	2.4.E: Ponding water is present at roof surface. 2.4.F: Components of roof drainage system are inhibited by clogs due to debris buildup.								
3	**Structure**									**3.1**
	3.1	Foundation/ Footing								3.0
	3.2	Columns								3.0
	3.3	Framing System								3.0
	3.4	Walls								3.0
	3.5	Lateral Force Resistance System								3.0
	3.6	Covered Walkway/Canopy								4.0
	3.7	Chimney								3.0
	N O T E S									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.4**
	4.1	Ceilings								3.0
		A.	Suspended Ceiling (ACT)			3				
		B.	Gypsum Board			3				
		C.	Plaster			3				
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed						N/A	
	4.2	Flooring								3.0
		A.	Carpet		4					
		B.	Vinyl						N/A	
		C.	Tile			3				
		D.	Wood				2			
		E.	Concrete						N/A	
	4.3	Interior Wall/Partition Finishes								4.0
	4.4	Interior Doors								3.0
	4.5	Stairs Condition								3.5
		A.	Stairs/ Landing			3				
		B.	Handrails		4					
	4.6	Toilet Condition								3.7
		A.	Toilet Accessories	5						
		B.	Toilet Partitions			3				
		C.	Water Closets			3				
		D.	Urinals		4					
		E.	Lavatorie /Sinks			3				
		F.	Counter		4					
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	N O T E S	4.2.D: Wood flooring is scuffed at the main level and contains misaligned floorboards.								

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.5**
	5.1	Mechanical Systems								3.2
		A.	HVAC			3				
		B.	Control System			3				
		C.	Chiller			3				
		D.	Cooling Towers						N/A	
		E.	Duct Work			3				
		F.	Ventilation\ Air Distribution		4					
		G.	Boilers						N/A	
	5.2	Electrical Systems								3.3
		A.	Transformer						N/A	
		B.	Switchgear						N/A	
		C.	Panelboards (Condition & Capacity)			3				
		D.	Devices (Switches & Receptacles)			3				
		E.	Interior Lighting Fixtures			3				
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System		4					
	5.3	Voice and Data Systems								4.0
	5.4	Plumbing Systems								2.7
		A.	Plumbing Fixtures			3				
		B.	Water Distribution System/ Pipes				2			
		C.	Water Heaters			3				
	5.5	Gas Distribution Systems								3.0
	5.6	Fire Suppression System								5.0
	NOTES	5.4.B: Water distribution system piping going to HVAC systems are rusted. Fire water access valves require painting due to rust.								

System				Condition		
				Compliance	Non-compliance	N/A
6	ADA Compliance					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones		NC	
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space		NC	
		B.	Doors/ Doorways/Gates		NC	
		C.	Threshold		NC	
		D.	Ramps		NC	
		E.	Stairways		NC	
		F.	Handrails		NC	
		G.	Elevators	C		
	6.3	Toilet				
		A.	Clearances/Accessible Stall	C		
		B.	Toilet Accessories		NC	
		C.	Water Closets	C		
		D.	Urinals	C		
		E.	Lavatories/ Sinks	C		
		F.	Counters	C		
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry		NC	
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	

N O T E S

6.1.B: Passenger loading zones are non-compliant. Truncated domes shall be provided at the end of sidewalk.
6.2.A: Remove obstacles on accessible routes for enough open space clearance.
6.2.C: Some interior thresholds are not compliant.
6.2.D.E.F: Provide ADA compliant handrails and guardrails to exterior ramp, stair, and interior stair.
6.3.B: Provide ADA compliant grab bars and accessories in the gender-neutral toilet room.
6.4.A: Provide knee and toe clearances under working surfaces, and front desk.
6.4.B: Provide ADA compliant furniture, fixtures and equipment with accessible height and knee and toe clearances.
6.4.C: Provide ADA compliant room signage with tactile text and Braille. Provide ADA compliant toilet room signage.

Photo Documentation | Exterior Overall

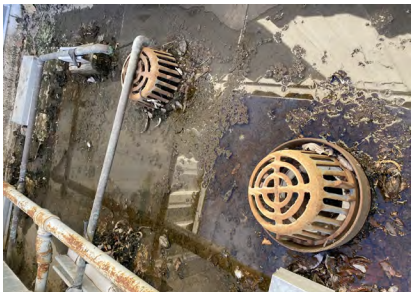
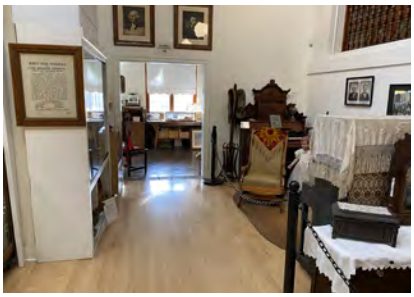
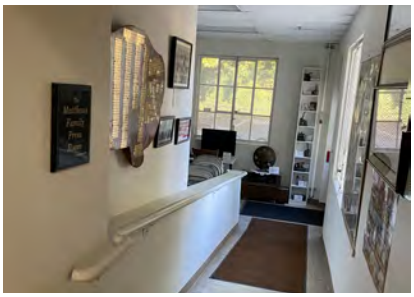
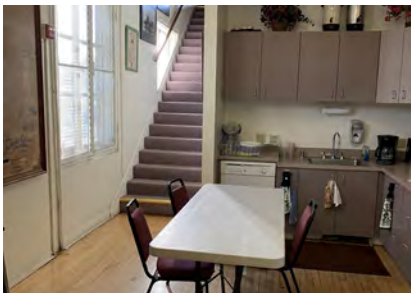
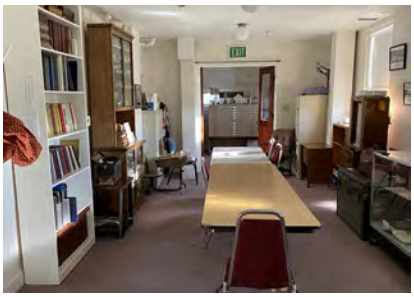
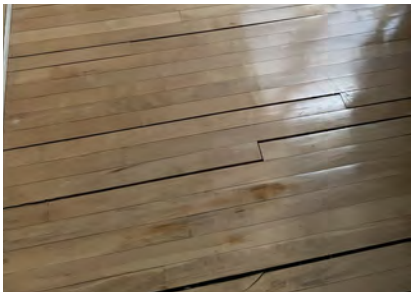


Photo Documentation | Interior Blow Ups

FACILITY CONDITION ASSESSMENT

GRAND THEATRE CENTER FOR THE ARTS

Condition Summary - Grand Theatre

Overall Rating **3.7**

Facility Condition

Site 3.7

The downtown area site serves the facility well. Some cracking is present at exterior site curbing and cracks at pavement exist throughout. Sidewalk surrounding the facility is finished in large tiles that are in good condition with minimal signs of staining or wear. The alleyway used for deliveries and production access contains surface paving in poor condition.

Exterior Envelope 3.2

Skylights are in poor condition due to failed seals and gaskets, but replacement is planned in a current capital improvement project. As part of the roof and skylights replacement project, interior soffit components will be investigated and repaired as required. Exterior paint is faded at downtown facing ones. Exterior signage is in fair condition but would benefit from modernization. Aluminum framed windows are present at the exterior. Exterior overhang near corner entrance has minimal signs of cracking. Exterior siding is constructed out of various materials due to the facility's long standing construction history and incorporation of surrounding buildings. Exterior lighting is generally lacking and outdated especially in places such as the roof parapet. Large metal door with access to and from the alley area is rusted and damaged at base. Rusted track fixings and components are present along with deteriorated rubber at the frame and track guides. Repair of exterior wall cracks and exterior painting is included as a current CIP item.

Structure 3.2

Large ductwork in MEP access areas near attic contain questionable seismic bracing. Some structural beams in attic/MEP access areas contain rust in a few locations and at bolt connections. Wood structure in this area is poorly constructed with nails splitting from wood and connection points. Moderate cracking is present at exposed concrete structure in office area. Concrete flooring of orchestra pit area is cracked. Objects hanging in the children's art room require additional lateral and longitudinal non-structural bracing.

Interior 4.0

Interior acoustic ceiling tiles are lightly stained with grids askew in some office areas. Lobby concrete flooring is in especially good condition with sealant providing a nice sheen. Carpeting in various areas of the building is lightly worn with service life remaining. Lighting fixtures vary considerably throughout the building's interior. Some are historic fixtures original to the building's construction and largely in restored condition. Paint throughout the interior varies in color and finish but serves the facility well. Some staining present at finish of second floor balcony visible from ground floor lobby. Wood flooring in the Dance Studio has a gloss finish applied annually and the central area of flooring is textured. Cracks are present at mirror panels at Dance Studio walls near areas where support bars are attached. Red velvet seats at the Historic Grand View Theatre are worn in multiple areas including seat cushions, seat backs and arm rests. Yellow paint on stair treads to orchestra pit area is fading. Some sound deadening material at the stage area is coming loose from wall attachment points. Carpeting in theater area is lightly worn. Flooring at Black Box theater is scuffed and contains a dull finish. Restroom VCT tile flooring is discolored and warped. Some staining on ceiling is present near ADA shower in restroom area. Temporary repairs to ceiling system in Gallery Workroom are visible and involve taped ceiling tiles. Grout in tile flooring in art

Condition Summary - Grand Theatre

store is stained in high traffic areas. Tile Restroom Floor at 2nd story contains stained grout. A significant crack exists from the Art Gallery to the Dance Studio in decorative flooring, and the same anomaly occurs at the main lobby near the foyer.

MEP Systems 4.3

An RCM fire sprinkler system located in the alleyway has faded dials and controls along with flaking paint and visible rust on associated conduit which is causing steams. The backflow preventer located in the alleyway appears aged and rusted. Main Thysen Krupp elevator system is in good condition with modern digital controls and is rated at 120/208 V. Interior wall-mounted electrical conduit shows no signs of deterioration. Electrical service is provided by a Dual section 1600A 208Y/120V main switchboard and another Dual Section 1000A 208Y/120V switchboard.

ADA Compliance Needs Compliance

Handrails throughout the lobby are non-compliant due to very minor dimensional violations. Truncated domes at the entrance to the facility are present at the downtown area leading to other areas of downtown. Some work areas are non-compliant due to storage spaces covering open floor space area.

Recommendation Summary - Grand Theatre

Exterior

Lobby

Bathroom

Recommendations

Site: Recommendations include repairing cracking at exterior site curbing, and re-surfacing alleyway.

Exterior Envelope: It is recommended to modernize exterior signage, add exterior lighting, and replace the large metal door at the alley area including track components.

Structure: Recommendations include adding bracing to large ductwork in MEP access areas, cleaning and protecting structural beams in the same areas, and reconstructing wood structure where needed. In the orchestra pit, it is recommended to repair cracking of concrete flooring and add lateral and longitudinal non-structural bracing.

Interior: Recommended actions include realigning ceiling tiles, replacing worn seats at the theater, reapplying sound deadening material at the stage area, maintaining the Studio Theater accordingly, replacing VCT tile in restroom, replacing ceiling tiles in Gallery Workroom and cleaning grout in tile flooring in the art store and restroom floor at the 2nd story.

MEP Systems: Improvements should include replacing RCM fire sprinkler system located in the alleyway and replacing the backflow preventer located in the same area.

ADA Compliance: Recommendations include making minor dimensional fixes to handrails throughout the lobby and clearing floor spaces in work areas.

Impact of Recommended Works

Site: Impact of site recommendations are minor. Three weeks will be required to repair curbing and re-surface alleyway.

Exterior Envelope: Impacts of recommendations include disturbed access from the alley area. Three weeks will be required for the completion of all repairs.

Structure: Performing structural recommendations will result in the temporary closing of the center. Four weeks will be required to reconstruct wood structure and add lateral and longitudinal bracing. Two weeks will be required for other minor repairs. Additional structural investigation and design time will be required.

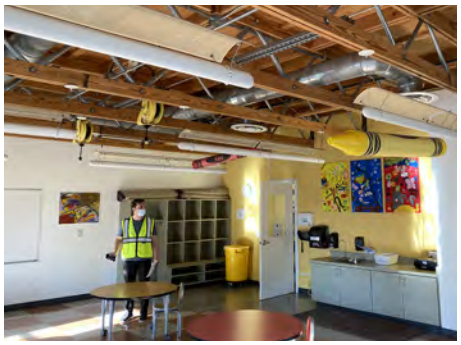
Interior: Performing the interior recommendations will have a moderate effect on theater operations; completion of the recommendations will result in a heightened physical appearance. Three weeks will be required to remodel interiors.

MEP Systems: Replacing deteriorated components of fire sprinkler system will require additional investigation and design considerations. The building may be closed for a short time for renovations to MEP systems depending on severity of chosen solutions.

ADA Compliance: Performing the recommended improvements will have a minor impact on the theater's operations. One week will be required to complete all recommendations.

Facility Description - Grand Theatre

Exterior


Interior

MEP

Building Description

The Historic Grand Theatre is a double story building constructed five historic buildings dated as early as 1922. The original facility opened in 1923 as a vaudeville theatre and was remodeled in 2008. The Grand Theatre Center for the Arts is located on the corner of N Central Ave and W 7th Street. The building has a mixed construction type built on a concrete slab-on-grade foundation. The exterior of the theatre is clad in large tiles painted with a tan color and the entrance is adorned with bright colors such as blue, red, and yellow. The entrance of the building has color tiles leading to the door and directly to the right of the building is an empty lot. Immediately adjacent to the Theatre is the Tracy Town Hall and Jail.

The Grand Theatre Center for the Arts houses spaces and equipment for a variety of recreation, socializing and performance activities. Floor finishes throughout the interior of the building vary to accommodate the wide range of activities that take place there. Multiple dressing rooms are provided for performers and there are gallery spaces for the public to enjoy the fine art exhibits. Other spaces provided are a dance studio, cafe, and large theater where main performances, concerts, and movie screenings happen.

Age

The Grand Theatre Center for the Arts is 15 years old and was constructed in 2007.

Use of Building

The building is used in the following ways:

- Hosts theatrical performances, movie screenings, and concerts.
- Provides spaces for an Arts Education Program, fine arts exhibitions, and other special events.
- Provides spaces for business meetings, trainings, and luncheons.
- Provides City Department offices

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Grand Theatre Center for the Arts - Overall										**3.7**
1	**Site/ Civil/ Landscape**									**3.7**
	1.1	Fences/ Walls/ Gates								3.5
		A.	Perimeter Fencing						N/A	
		B.	Equipment Fencing		4					
		C.	Landscape Walls/ Piers / Structures						N/A	
		D.	Gates			3				
	1.2	Paving								3.8
		A.	Sidewalks/ Walkways/ Crosswalks		4					
		B.	Curbing		4					
		C.	Driveways/ Parking Pavement			3				
		D.	Striping/ Marking/ Speed Bumps			3				
		E.	Patios	5						
	1.3	Landscape								N/A
		A.	Ground Cover						N/A	
		B.	Trees						N/A	
		C.	Irrigation System						N/A	
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.5
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures			3				
		C.	Water Fixtures			3				
		D.	Exterior Site Furniture	5						
		E.	Site Utility			3				
	1.5	Stormwater Management								4.0
	N O T E S									

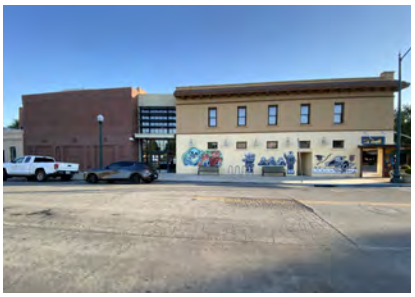
	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**3.2**
	2.1	Exterior Wall Finish								3.0
	2.2	Eaves and Fascias								3.0
	2.3	Doors/ Windows/ Louvers								3.7
		A.	Windows		4					
		B.	Louvers and Vents			3				
		C.	Exterior Doors & Hardware		4					
	2.4	Roofing								3.2
		A.	Roof Surface			3				
		B.	Roof Opening/ Skylight/ Penetrations		4					
		C.	Roof Equipment Curbing			3				
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage			3				
		G.	Gutters / Downspouts						N/A	
		H.	Roof Vents			3				
	N O T E S									
3	**Structure**									**3.2**
	3.1	Foundation/ Footing								3.0
	3.2	Columns								3.0
	3.3	Framing System								3.0
	3.4	Walls								3.0
	3.5	Lateral Force Resistance System								3.0
	3.6	Covered Walkway/Canopy								4.0
	3.7	Chimney								N/A
	N O T E S									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**4.0**
	4.1	Ceilings								3.7
		A.	Suspended Ceiling (ACT)			3				
		B.	Gypsum Board						N/A	
		C.	Plaster		4					
		D.	Wood		4					
		E.	Other						N/A	
		F.	Exposed						N/A	
	4.2	Flooring								3.8
		A.	Carpet		4					
		B.	Vinyl						N/A	
		C.	Tile		4					
		D.	Wood		4					
		E.	Concrete			3				
	4.3	Interior Wall/Partition Finishes								4.0
	4.4	Interior Doors								4.0
	4.5	Stairs Condition								3.5
		A.	Stairs/ Landing			3				
		B.	Handrails		4					
	4.6	Toilet Condition								4.8
		A.	Toilet Accessories		4					
		B.	Toilet Partitions	5						
		C.	Water Closets						N/A	
		D.	Urinals						N/A	
		E.	Lavatorie /Sinks	5						
		F.	Counter	5						
		G.	Shower Compartments	5						
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	NOTES									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**4.3**
	5.1	Mechanical Systems								4.0
		A.	HVAC		4					
		B.	Control System		4					
		C.	Chiller						N/A	
		D.	Cooling Towers						N/A	
		E.	Duct Work		4					
		F.	Ventilation\ Air Distribution		4					
		G.	Boilers						N/A	
	5.2	Electrical Systems								4.2
		A.	Transformer						N/A	
		B.	Switchgear		4					
		C.	Panelboards (Condition & Capacity)	5						
		D.	Devices (Switches & Receptacles)		4					
		E.	Interior Lighting Fixtures		4					
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System		4					
	5.3	Voice and Data Systems								5.0
	5.4	Plumbing Systems								4.5
		A.	Plumbing Fixtures		4					
		B.	Water Distribution System/ Pipes	5						
		C.	Water Heaters						N/A	
	5.5	Gas Distribution Systems								4.0
	5.6	Fire Suppression System								4.0
	N O T E S									

System				Condition		
				Compliance	Non-compliance	N/A
6	ADA Compliance					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones		NC	
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space	C		
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps			N/A
		E.	Stairways	C		
		F.	Handrails	C		
		G.	Elevators	C		
	6.3	Toilet				
		A.	Clearances/Accessible Stall	C		
		B.	Toilet Accessories	C		
		C.	Water Closets	C		
		D.	Urinals	C		
		E.	Lavatories/ Sinks	C		
		F.	Counters	C		
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry		NC	
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	
	NOTES	6.1.B: Exiting passenger loading zone does not meet the ADA requirement. Restripe the loading zone and lettering to meet the ADA requirement. 6.4.A: Provide knee and toe clearances under working surfaces, and front desk. 6.4.B: Provide ADA compliant furniture, fixtures and equipment with accessible height and knee and toe clearances. 6.4.C: Provide ADA compliant room signage with tactile text and Braille.				

Photo Documentation | Exterior Overall



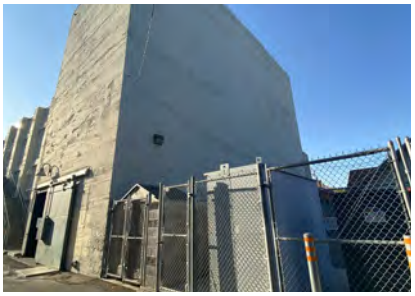
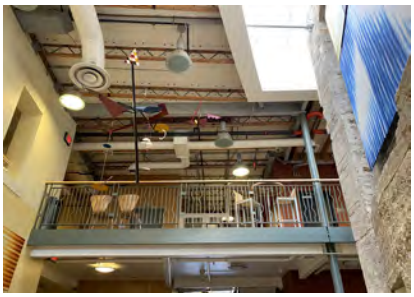
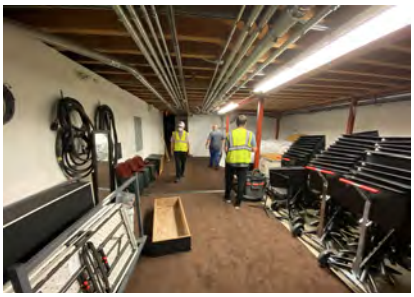
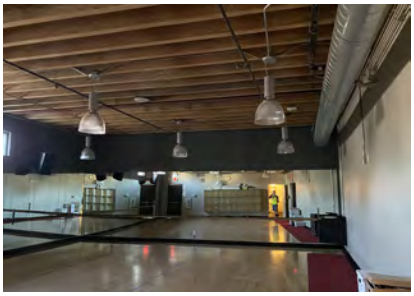
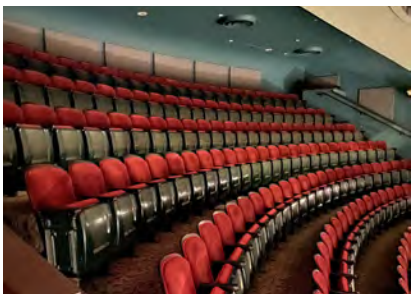


Photo Documentation | Interior Blow Ups





FACILITY CONDITION ASSESSMENT

LAMMERSVILLE SCHOOL

Condition Summary - Lammersville School

Overall Rating **3.1**

Facility Condition

Site 2.6

No parking to the Lammersville School is provided. Canopy posts at exterior sign contain rot at bases on both sides and paint is flaking from signage. Ground cover directly adjacent to the building consists of dirt and dry tan bark and would benefit from some renovation. Sidewalks contain minimal cracking.

Exterior Envelope 2.3

Wooden floorboards at porch and ramp are cracked and deteriorating in places. Evidence of wood rot is present at some areas along with excessive paint chipping on wooden boards and building wood siding. Wood paneling is missing at door frame base. The building requires complete repainting. Roof shingles are in poor condition and showing various levels of separation from roof surface and membrane. Gutters and downspouts are not provided.

Structure 3.1

Slight cracking at concrete surrounding foundation is present. Wood rot concerns exist. No other visible structural issues were observed.

Interior 3.5

Wood flooring at entrance (high traffic area) is scuffed and discolored. Historical elements showing the history of Lammersville School are largely present. The ceiling is finished in plaster and painted white. All lighting is wall mounted. Single pane vertically-sliding windows are found throughout.

MEP Systems 3.7

There is no restroom in the building. Electrical needs are met in the current use scenario.

ADA Compliance Needs Compliance

The facility is largely non-compliant due to lack of handrails at stairs and furniture that restricts path of travel. Mounting heights for interior accessories require adjustment. Wood ramp at rear of building appears to be ADA compliant but handrails require minor modification.

Recommendation Summary - Lammersville School

Exterior

Classroom

Patio

Recommendations

Site: Recommendations include the addition of a parking lot, replacing rotted canopy posts, repainting canopy post signage, and cleaning and maintaining the ground cover directly adjacent to the building.

Exterior Envelope: It is recommended to repair damaged wooden floorboards at porch and ramp, and repaint both the wooden board and the entire exterior envelope. Roof shingles should be replaced and gutters should be included.

Structure: Recommendations include repairing minor cracking in surrounding foundation.

Interior: Improvements include polishing wood flooring at entrance.

MEP Systems: No improvements are required.

ADA Compliance: Recommendations include the addition of handrails at stairs, moving furniture to allow an accessible path of travel, and adjusting mounting heights for interior accessories to meet compliance requirements.

Impact of Recommended Works

Site: Impact of recommendations will include, easier vehicular access to school and improved physical appearance. Three weeks will be required to provide paving, replace posts, repaint post signage, and cleaning surrounding landscape.

Exterior Envelope: Impacts of recommendations included temporary closing of the building and disturbed access to the building. Completion of these recommendations will result in improved access to the building, improved appearance of the school, decreased environmental damage through the roof, and a streamlined system for waste water disposal. Two weeks will be required to replace roofing deficiencies and two weeks will be required for other minor repairs.

Structure: Performing structural recommendations should have minor impact on the school; completion of the recommendations will result in increased structural integrity. Four weeks should be required for structural improvements.

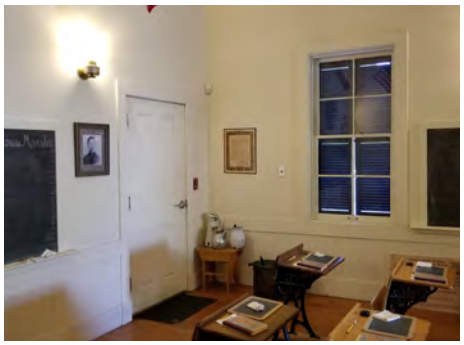
Interior: Performing the interior recommendations will cause a disturbed access to the school. One week will be required to polish flooring.

MEP Systems: There will be no impact of recommended works.

ADA Compliance: Impacts of recommended works include a disturbed access to the historical center, and a temporary closing for interior and site work. Four weeks will be required.

Facility Description - Lammersville School

Exterior


Interior

Entryway

Building Description

Lammersville School is a single story building that was constructed in 1870. The school is located on Blandford Lane directly adjacent to Clyde Bland Park. The building has a Class D wood frame for structure and is built on a concrete slab-on-grade foundation. The exterior of Lammersville School is clad with painted wood siding and shingles covering the roof. Exterior has some paving and minimal landscaping that allows for outdoor activities. Hardwood floor finishes are appropriate for the activities held in the space.

Lammersville Center houses a space for educational activities for grades kindergarten through eighth. This historical building attracts visitors to see the dated interiors and exterior.

Age

The Lammersville School building is 152 years old and was constructed in 1870.

Use of Building

The building is used in the following ways:

- Historical facility for the community of Tracy

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Lammersville School - Overall										**3.1**
1	**Site/ Civil/ Landscape**									**2.6**
	1.1	Fences/ Walls/ Gates								N/A
		A.	Perimeter Fencing						N/A	
		B.	Equipment Fencing						N/A	
		C.	Landscape Walls/ Piers / Structures						N/A	
		D.	Gates						N/A	
	1.2	Paving								2.5
		A.	Sidewalks/ Walkways/ Crosswalks			3				
		B.	Curbing						N/A	
		C.	Driveways/ Parking Pavement						N/A	
		D.	Striping/ Marking/ Speed Bumps						N/A	
		E.	Patios				2			
	1.3	Landscape								2.5
		A.	Ground Cover				2			
		B.	Trees			3				
		C.	Irrigation System						N/A	
	1.4	Site Features/ Fixtures/ Furniture/ Signage								2.5
		A.	Landscape Features/ Play Equipment			3				
		B.	Exterior Lighting Fixtures				2			
		C.	Water Fixtures						N/A	
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility						N/A	
	1.5	Stormwater Management								3.0
	N O T E S	1.2.E: Patio near building is paved but without furniture or other elements. 1.3.A: Ground cover or landscaping is missing in dirt areas directly adjacent to building and site. 1.4.B: Exterior lighting fixtures are modern LED photocell units but are lacking in numbers.								

	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**2.3**
	2.1	Exterior Wall Finish								2.0
	2.2	Eaves and Fascias								2.0
	2.3	Doors/ Windows/ Louvers								3.3
		A.	Windows			3				
		B.	Louvers and Vents			3				
		C.	Exterior Doors & Hardware		4					
	2.4	Roofing								2.0
		A.	Roof Surface				2			
		B.	Roof Opening/ Skylight/ Penetrations						N/A	
		C.	Roof Equipment Curbing						N/A	
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage						N/A	
		G.	Gutters / Downspouts						N/A	
		H.	Roof Vents						N/A	
	NOTES	2.4.A: Roof shingles are approaching their useful service life and are beginning to detach from building.								
3	**Structure**									**3.1**
	3.1	Foundation/ Footing								3.0
	3.2	Columns								3.0
	3.3	Framing System								3.0
	3.4	Walls								3.0
	3.5	Lateral Force Resistance System								3.0
	3.6	Covered Walkway/Canopy								3.0
	3.7	Chimney								4.0
	NOTES									

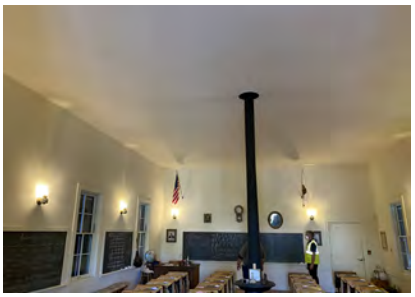
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.5**
	4.1	Ceilings								4.0
		A.	Suspended Ceiling (ACT)						N/A	
		B.	Gypsum Board		4					
		C.	Plaster						N/A	
		D.	Wood		4					
		E.	Other						N/A	
		F.	Exposed						N/A	
	4.2	Flooring								3.0
		A.	Carpet						N/A	
		B.	Vinyl						N/A	
		C.	Tile						N/A	
		D.	Wood			3				
		E.	Concrete						N/A	
	4.3	Interior Wall/Partition Finishes								4.0
	4.4	Interior Doors								4.0
	4.5	Stairs Condition								2.5
		A.	Stairs/ Landing				2			
		B.	Handrails			3				
	4.6	Toilet Condition								N/A
		A.	Toilet Accessories						N/A	
		B.	Toilet Partitions						N/A	
		C.	Water Closets						N/A	
		D.	Urinals						N/A	
		E.	Lavatorie /Sinks						N/A	
		F.	Counter						N/A	
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	N O T E S	4.5.A: Wood porch stairs at main entrance are out of plumb and contain faded and chipped paint.								

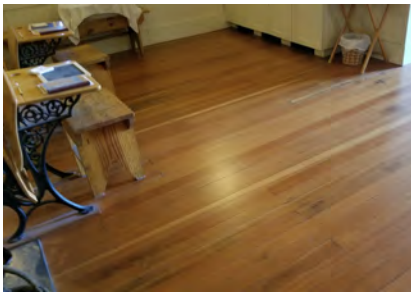
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.7**
	5.1	Mechanical Systems								N/A
		A.	HVAC						N/A	
		B.	Control System						N/A	
		C.	Chiller						N/A	
		D.	Cooling Towers						N/A	
		E.	Duct Work						N/A	
		F.	Ventilation\ Air Distribution						N/A	
		G.	Boilers						N/A	
	5.2	Electrical Systems								3.7
		A.	Transformer						N/A	
		B.	Switchgear						N/A	
		C.	Panelboards (Condition & Capacity)						N/A	
		D.	Devices (Switches & Receptacles)			3				
		E.	Interior Lighting Fixtures		4					
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System		4					
	5.3	Voice and Data Systems								N/A
	5.4	Plumbing Systems								N/A
		A.	Plumbing Fixtures						N/A	
		B.	Water Distribution System/ Pipes						N/A	
		C.	Water Heaters						N/A	
	5.5	Gas Distribution Systems								N/A
	5.6	Fire Suppression System								N/A
	N O T E S									

System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces	C		N/A
		B.	Passenger Loading Zones			N/A
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space		NC	
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps		NC	
		E.	Stairways		NC	
		F.	Handrails		NC	
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall			N/A
		B.	Toilet Accessories			N/A
		C.	Water Closets			N/A
		D.	Urinals			N/A
		E.	Lavatories/ Sinks			N/A
		F.	Counters			N/A
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry	C		
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage			N/A
	NOTES	6.2.A: Appropriate clear floor space is not maintained due to historical arrangement of desks. 6.2.D: Ramp handrails do not contain 12" flat landing surface at portions near building. 6.2.E: Stairways at front entrance require handrails. 6.2.F: Handrails at rear ramp do not contain 12" flat landing surface at portions near building. 6.4.B: Furniture at interior is not arranged in a compliant manner.				

Photo Documentation | Exterior Overall

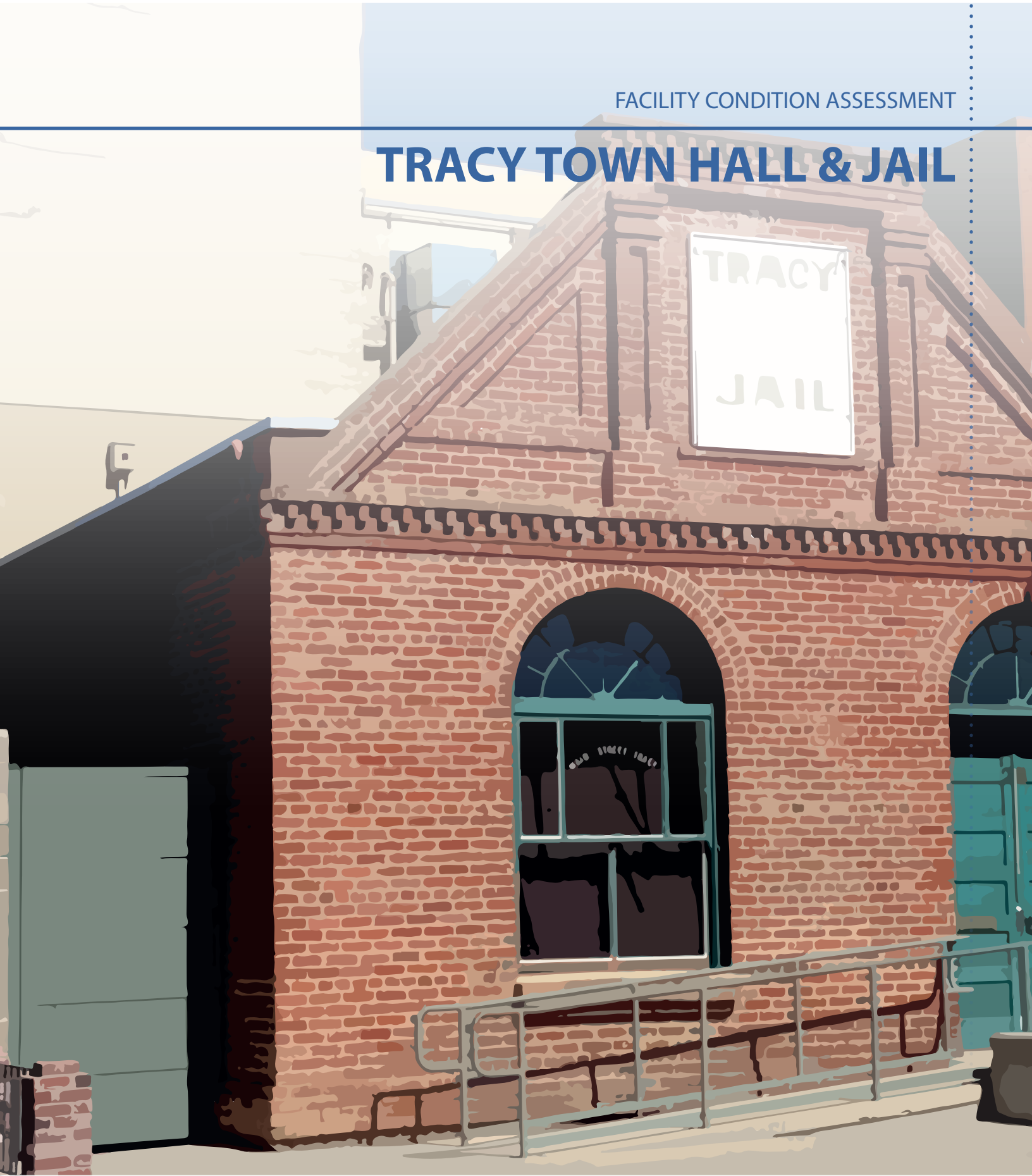
Photo Documentation | Interior Blow Ups





FACILITY CONDITION ASSESSMENT

TRACY TOWN HALL & JAIL



Condition Summary - Tracy Town Hall & Jail

Overall Rating **3.1**

Facility Condition

Site 3.6

Sidewalk surrounding the facility was recently renovated and is finished in large concrete tiles that are in good condition with minimal signs of staining or wear. The gate for side yard access is slightly discolored. Exterior lighting is lacking and site concrete is stained in places.

Exterior Envelope 2.5

The exterior masonry facade is in adequate condition for its age but shows signs of fading, crumbling and other deterioration. Along the bottom of the front, and concentrated on the right of the door is quite discolored and would benefit from cleaning and repainting. Tracy Town Hall and Jail sign is severely faded and rusting through in places. Most of the window frames need to be repaired or repainted. Exterior mounted alarm box is rusted.

Structure 2.7

Signs of structural settlement are present including cracking around window frames and around foundation. A large crack exists at the corner of the room and continues through the entire three-block wall. This is a known issue and investigation as to the cause has begun.

Interior 3.3

Hardwood floor finishes are worn throughout the building especially in high traffic areas. Wall and ceiling paint finishes are in good condition. Ceiling crack is present near the corner by the passageway to restroom. Furniture is in fair condition with light scratching on some surfaces. Finishes within restroom would benefit from modernization in general. Cabinets within the restroom do not have proper doors.

MEP Systems 3.4

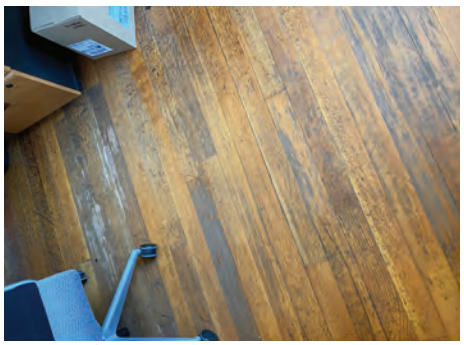
Located within the storage room, piping of hydraulic system is in good condition. A window-mounted A/C unit serves the facility in summer months.

ADA Compliance Needs Compliance

The entrance threshold is not ADA compliant. Various restroom fixtures and cabinetry is not compliant and must be relocated and/or replaced.

Recommendation Summary - Tracy Town Hall & Jail

Exterior


Interior Flooring

Interior

Recommendations

Site: Recommendations include finishing side fence area and adding exterior lighting.

Exterior Envelope: It is recommended to apply historical preservation measures to the exterior and renovate the sign. Replace window frames where required and paint others. It is also recommended to repair cracks on window sill.

Structure: No recommendations.

Interior: Improvements should include refinishing hardwood floors, repairing crack in ceiling, modernizing the whole restroom, and refinishing the storage room walls.

MEP Systems: No recommended actions.

ADA Compliance: It is recommended to improve the entrance threshold to increase accessibility into the building and relocate and replace various elements within the restroom.

Impact of Recommended Works

Site: Impact of recommendations are minor and will increase accessibility to the side of the building. One week is recommended to complete recommendations.

Exterior Envelope: Completing recommended actions will improve the physical and visual appearance of the Townhall and Jail. Two weeks will be required to repaint, repair, and replace all necessary elements.

Structure: No impact of recommended works.

Interior: Performing recommended actions will result in a temporary closing of the facility and disturbed access through the entrance. Four weeks will be required to complete all recommendations.

MEP Systems: No recommended actions.

ADA Compliance: Executing recommendations will increase accessibility into and within the building. Three weeks will be required to repair elements within the restroom and improve the threshold

Facility Description - Tracy Town Hall & Jail

Exterior

Interior

MEP

Building Description

The Tracy Town Hall and Old Jail House building is a single story building that was constructed in 1900. The Old Jail House is located on W. 7th Street. The site is immediately adjacent to the Grand Theatre. The building has a construction consisting of brick masonry with a wood roof. The exterior of the building is clad with bricks with painted wood accents on window frames. Exterior space is limited but serves the facility well, with a welcoming entrance. Floor finishes are largely hardwood, but remains generally appropriate to the building's use.

The small building once housed Tracy's Town Hall and its Jail. In addition, it used to house the local chapter of the Veterans of Foreign Wars. Now, it provides office spaces for The Grand Foundation. With a small partition at the entrance, the interior has an open floor plan which allows for easy communication and visuals throughout the building. Furniture communicates the use of the space; smaller desks indicate office areas and the large table indicates a meeting area.

Age

The Town Hall and Old Jail House building is 121 years old and was constructed in 1900.

Use of Building

The building is used in the following ways:

- Houses office spaces for The Grand Foundation

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Tracy Townhall & Jail - Overall										**2.9**
1	**Site/ Civil/ Landscape**									**3.6**
	1.1	Fences/ Walls/ Gates								4.0
		A.	Perimeter Fencing		4					
		B.	Equipment Fencing						N/A	
		C.	Landscape Walls/ Piers / Structures						N/A	
		D.	Gates		4					
	1.2	Paving								3.5
		A.	Sidewalks/ Walkways/ Crosswalks		4					
		B.	Curbing			3				
		C.	Driveways/ Parking Pavement						N/A	
		D.	Striping/ Marking/ Speed Bumps						N/A	
		E.	Patios						N/A	
	1.3	Landscape								N/A
		A.	Ground Cover						N/A	
		B.	Trees						N/A	
		C.	Irrigation System						N/A	
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.0
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures			3				
		C.	Water Fixtures						N/A	
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility						N/A	
	1.5	Stormwater Management								4.0
	N O T E S									

			System	Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**2.5**
	2.1		Exterior Wall Finish							2.0
	2.2		Eaves and Fascias							3.0
	2.3		Doors/ Windows/ Louvers							2.3
		A.	Windows			3				
		B.	Louvers and Vents				2			
		C.	Exterior Doors & Hardware				2			
	2.4		Roofing							2.5
		A.	Roof Surface			3				
		B.	Roof Opening/ Skylight/ Penetrations						N/A	
		C.	Roof Equipment Curbing						N/A	
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage						N/A	
		G.	Gutters / Downspouts				2			
		H.	Roof Vents						N/A	
	N O T E S		2.3.B: Window grates are rusted and otherwise deteriorating. 2.3.C: Exterior door at side area is in critical condition, but front doors are in good condition.							
3	**Structure**									**2.0**
	3.1		Foundation/ Footing							2.0
	3.2		Columns							N/A
	3.3		Framing System							N/A
	3.4		Walls							1.0
	3.5		Lateral Force Resistance System							3.0
	3.6		Covered Walkway/Canopy							N/A
	3.7		Chimney							N/A
	N O T E S		3.1: Light cracking is present around foundation and window frames. 3.4: Walls at interior contain cracks at corners and other areas which have expanded since time of assessment.							

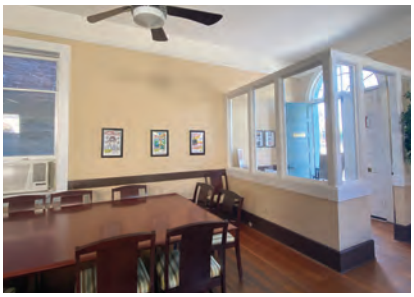
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.3**
	4.1	Ceilings								3.0
		A.	Suspended Ceiling (ACT)						N/A	
		B.	Gypsum Board		4					
		C.	Plaster						N/A	
		D.	Wood						N/A	
		E.	Other				2			
		F.	Exposed						N/A	
	4.2	Flooring								3.3
		A.	Carpet						N/A	
		B.	Vinyl						N/A	
		C.	Tile		4					
		D.	Wood			3				
		E.	Concrete			3				
	4.3	Interior Wall/Partition Finishes								3.0
	4.4	Interior Doors								3.0
	4.5	Stairs Condition								4.0
		A.	Stairs/ Landing		4					
		B.	Handrails		4					
	4.6	Toilet Condition								3.3
		A.	Toilet Accessories			3				
		B.	Toilet Partitions			3				
		C.	Water Closets						N/A	
		D.	Urinals						N/A	
		E.	Lavatorie /Sinks		4					
		F.	Counter			3				
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	N O T E S	4.1.E: Cracking is present at plaster ceiling near restrooms.								

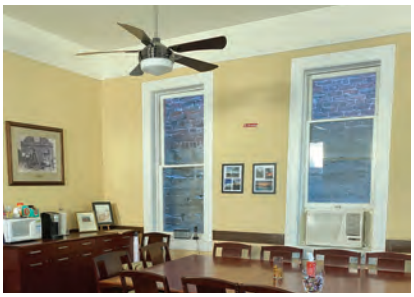
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.0**
	5.1	Mechanical Systems								N/A
		A.	HVAC						N/A	
		B.	Control System						N/A	
		C.	Chiller						N/A	
		D.	Cooling Towers						N/A	
		E.	Duct Work						N/A	
		F.	Ventilation\ Air Distribution						N/A	
		G.	Boilers						N/A	
	5.2	Electrical Systems								3.0
		A.	Transformer						N/A	
		B.	Switchgear						N/A	
		C.	Panelboards (Condition & Capacity)						N/A	
		D.	Devices (Switches & Receptacles)			3				
		E.	Interior Lighting Fixtures			3				
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System			3				
	5.3	Voice and Data Systems								N/A
	5.4	Plumbing Systems								3.0
		A.	Plumbing Fixtures			3				
		B.	Water Distribution System/ Pipes			3				
		C.	Water Heaters						N/A	
	5.5	Gas Distribution Systems								N/A
	5.6	Fire Suppression System								3.0
	N O T E S									

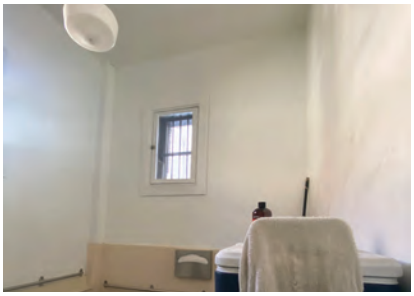
System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.				N/A
		B.	Passenger Loading Zones		NC	
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space		NC	
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps			N/A
		E.	Stairways			N/A
		F.	Handrails			N/A
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall		NC	
		B.	Toilet Accessories		NC	
		C.	Water Closets		NC	
		D.	Urinals		NC	
		E.	Lavatories/ Sinks		NC	
		F.	Counters		NC	
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry		NC	
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	
	NOTES	6.1.B: Passenger loading zones are not provided. 6.2.A: Remove obstacles on accessible routes for enough open space clearance. 6.3.A-F: Various dimensions related to toilet room and accessories are not compliant.				

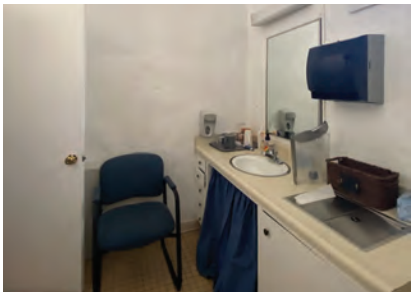
Photo Documentation | Exterior Overall

Photo Documentation | Interior Blow Ups



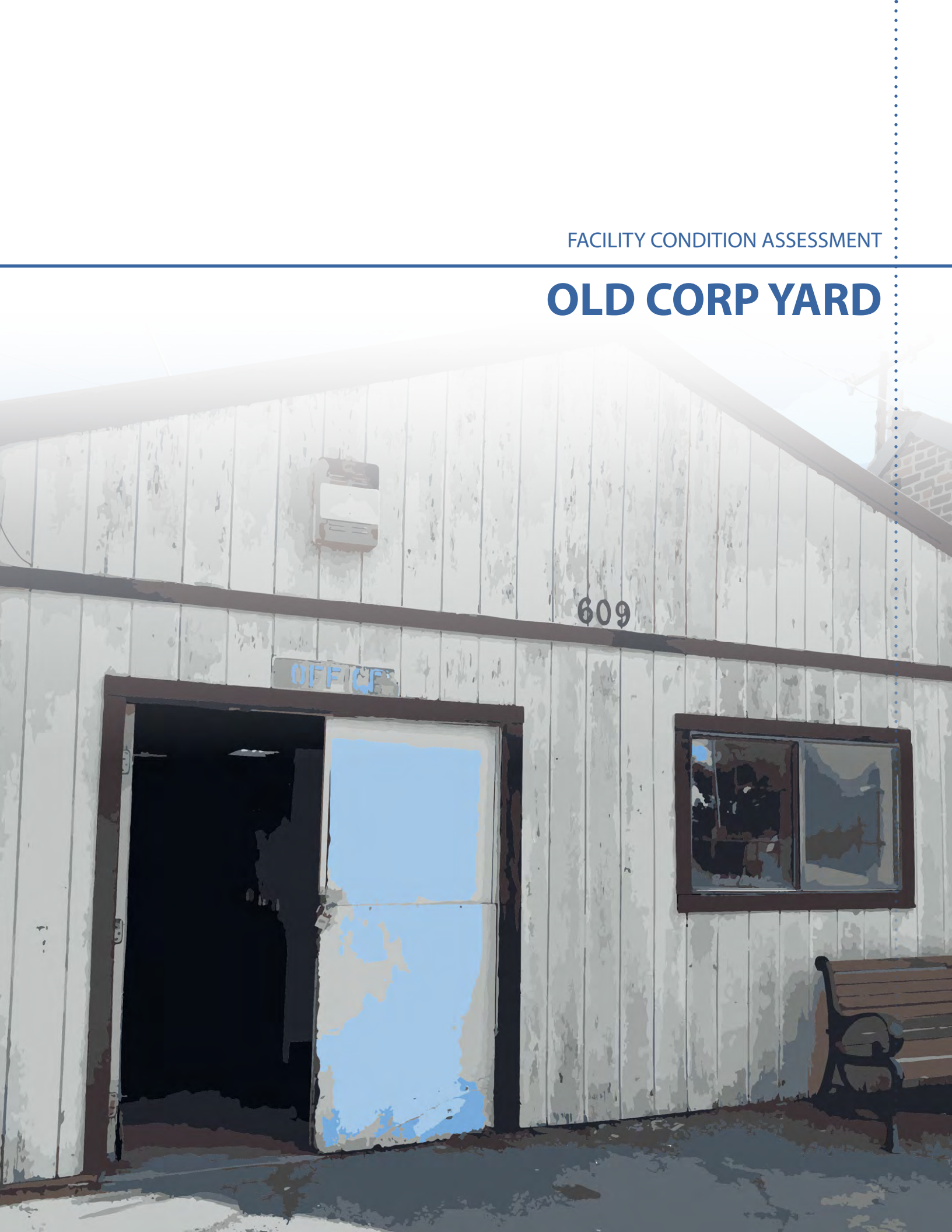






FACILITY CONDITION ASSESSMENT

OLD CORP YARD



Condition Summary - Old Corp Yard

Overall Rating **2.5**

Facility Condition

Site 2.4

There are multiple buildings on the Old Corp Yard's site including an office building and a maintenance building. Various aspects of the site are in differing states of condition. Pavement requires resurfacing with a deteriorated surface and large cracking throughout. A fenced-in area sits adjacent to the two facilities and contains cellular communications equipment rented from the city by cellular companies. This area has rust on structural elements and deteriorated pavement. A new pump house facility is located on the opposite end of the Old Corporation Yard's site adjacent to 6th Street and S. Tracy Boulevard. This facility is in visibly excellent condition and was excluded from condition assessments.

Exterior Envelope 2.3

The exterior of the maintenance building is historic masonry construction that is in fair condition for its age with slight chipping of bricks in places and grout that has cracked and deteriorated especially near the bottom of the structure. Entrance doors to the maintenance building are rotted wood and contain frames with paint chipping to the extreme. Windows are horizontally sliding and single pane and appear to be in fair condition and installed sometime after construction. The metal roof structure is slightly bent in places and contains no gutters although no leakage was reported. The exterior of the adjacent office building has painted wood siding that is chipping throughout. Exterior bolts and metal are rusting through paint coatings. Door hinges are rusted.

Structure 2.8

Exterior masonry at maintenance building shows visible signs of structural compromise including deteriorated grout and bricks. Aspects of the interior structure of the office building are exposed and beginning to rot in areas. A large crack is present in concrete flooring in the middle of the office building's interior.

Interior 2.2

The interior of the office facility contains rectangular ceiling tiles that are missing in areas and a grid system that is out of plumb. Some ceiling tiles are replaced with those that do not match the majority. Lighting is haphazardly arranged with differing methods of support. Concrete slab flooring serves the facility well but contains large chipping and cracks in areas.

MEP Systems 2.9

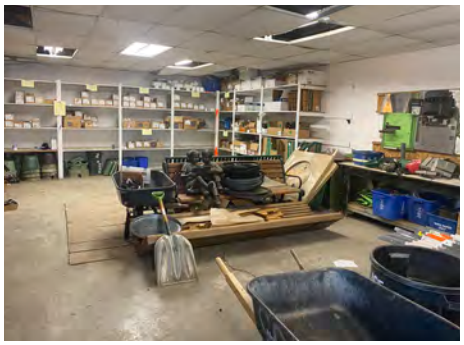
Exterior-mounted conduit and electrical equipment boxes at office building are rusted and bent in areas. Some electrical equipment appears to be out of service. Exposed wiring and conduit at office interior appears well-supported but many unorganized wires are found throughout exposed portions of the ceiling system. Exterior mounted lighting fixtures contain discolored lenses and housings but appear to be well mounted.

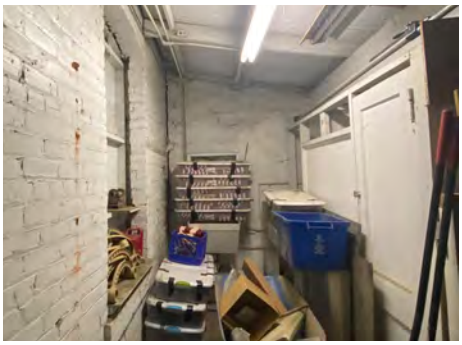
ADA Compliance Needs Compliance

The yard of the site doesn't contain ADA parking. The interior of the office facility does not contain clear floor space as there are many stored items in the center of pathways.

Recommendation Summary - Old Corp Yard

Exterior


Interior


Storage

Recommendations

Site: Recommendations include resurfacing the pavement throughout the site and improving structural elements that have rusted.

Exterior Envelope: Recommendations include replacing rotted wood entrance doors, adding gutters, improving the bent metal roofing structure, repainting the wood siding, and replacing rusted exterior bolts and door hinges.

Structure: Structural frame must be replaced and large crack in foundation must be repaired.

Interior: Grid system must be repaired to be in plumb and mismatched ceiling tiles must be replaced. Concrete slab must be repaired.

MEP Systems: Improvements should include replacing exterior-mounted conduit and electrical equipment, organizing wiring in interior of office, and cleaning exterior mounted lighting fixtures.

ADA Compliance: Provide clear floor space throughout the facilities.

Impact of Recommended Works

Site: Impact of site recommendations will improve the physical appearance and accessibility to the site. Four weeks will be required to complete recommendations.

Exterior Envelope: Impacts of recommendations include temporary closing of the center and disturbed access to the building. Four weeks will be required for all recommendations to be completed.

Structure: Performing structural recommendations will cause a temporary closing of the yard. Completion of the recommendations will result in increased structural integrity. Four weeks should be will be required for structural improvements.

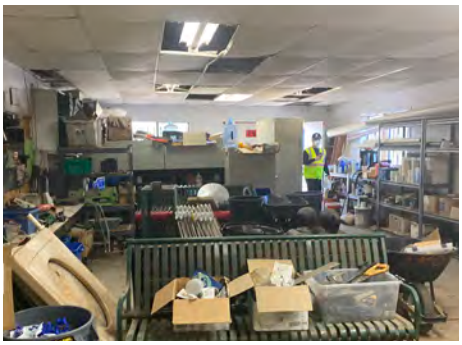
Interior: Executing recommended improvements will cause for a temporary closing of the yard. Three weeks will be required to complete interior recommendations.

ADA Compliance: No impact of recommended works.

Facility Description - Old Corp Yard

Exterior

Ceiling


Interior

Building Description

The Old Corporation Yard was utilized as the City's Public Works Yard before the construction of the Boyd Service Center. Facilities on the site include an office building and a masonry shop building. These spaces are utilized by Public Works staff but aren't locations of main offices. A new water pump facility is also on site as well as an enclosed yard that contains cellular communications towers. This enclosed yard is leased by communications companies from the City of Tracy.

Age

The Old Corporation Yard building is multiple decades old. Exact construction date is unknown but estimated to be prior to 1950.

Use of Yard

The Old Corporation Yard is used in the following ways:

- Auxiliary Public Works offices
- Cellular communications towers
- Water pump facility

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Old Corp Yard - Overall										**2.6**
1	**Site/ Civil/ Landscape**									**2.4**
	1.1	Fences/ Walls/ Gates								3.3
		A.	Perimeter Fencing		4					
		B.	Equipment Fencing			3				
		C.	Landscape Walls/ Piers / Structures			3				
		D.	Gates			3				
	1.2	Paving								2.0
		A.	Sidewalks/ Walkways/ Crosswalks						N/A	
		B.	Curbing						N/A	
		C.	Driveways/ Parking Pavement				2			
		D.	Striping/ Marking/ Speed Bumps						N/A	
		E.	Patios						N/A	
	1.3	Landscape								2.0
		A.	Ground Cover				2			
		B.	Trees						N/A	
		C.	Irrigation System						N/A	
	1.4	Site Features/ Fixtures/ Furniture/ Signage								2.5
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures				2			
		C.	Water Fixtures						N/A	
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility			3				
	1.5	Stormwater Management								2.0
	N O T E S	1.2.C: Site pavement is deteriorated and crumbling in areas with cracks present. 1.3.A: Ground cover surrounding facilities is composed of unkempt tanbark piles. 1.4.B: Exterior lighting fixtures are faded and some bulbs or lenses are missing.								

	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**2.5**
	2.1	Exterior Wall Finish								2.0
	2.2	Eaves and Fascias								3.0
	2.3	Doors/ Windows/ Louvers								1.5
		A.	Windows				2			
		B.	Louvers and Vents						N/A	
		C.	Exterior Doors & Hardware					1		
	2.4	Roofing								3.5
		A.	Roof Surface			3				
		B.	Roof Opening/ Skylight/ Penetrations						N/A	
		C.	Roof Equipment Curbing						N/A	
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage		4					
		G.	Gutters / Downspouts						N/A	
		H.	Roof Vents						N/A	
	N O T E S	2.3.A: Windows at office building are in very poor condition with deteriorated frames, tinting and sliding mechanism. 2.3.C: Exterior wood door at shops building show signs of rot and are out of plumb at bases. Metal doors to office facility are dented with rusted hinges and chipping paint.								
3	**Structure**									**3.0**
	3.1	Foundation/ Footing								2.0
	3.2	Columns								N/A
	3.3	Framing System								3.0
	3.4	Walls								3.0
	3.5	Lateral Force Resistance System								4.0
	3.6	Covered Walkway/Canopy								N/A
	3.7	Chimney								N/A
	N O T E S	3.1: Cracking present around facilities and at concrete flooring of office facility. Wood floor in shops facility is deteriorating and shakes when walked on.								

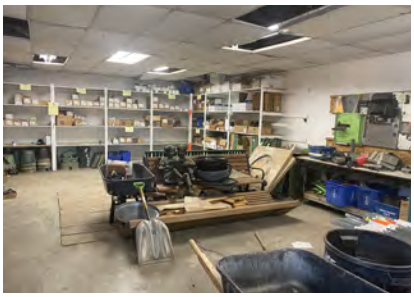
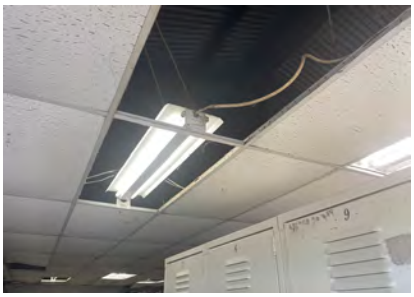
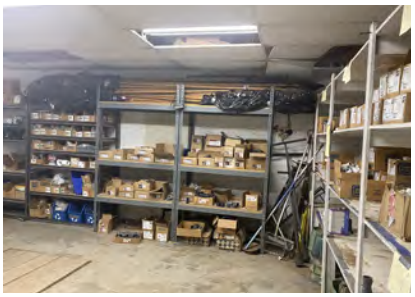
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**2.0**
	4.1	Ceilings								1.7
		A.	Suspended Ceiling (ACT)					1		
		B.	Gypsum Board						N/A	
		C.	Plaster						N/A	
		D.	Wood					1		
		E.	Other						N/A	
		F.	Exposed			3				
	4.2	Flooring								1.5
		A.	Carpet						N/A	
		B.	Vinyl						N/A	
		C.	Tile						N/A	
		D.	Wood					1		
		E.	Concrete				2			
	4.3	Interior Wall/Partition Finishes								3.0
	4.4	Interior Doors								2.0
	4.5	Stairs Condition								N/A
		A.	Stairs/ Landing						N/A	
		B.	Handrails						N/A	
	4.6	Toilet Condition								N/A
		A.	Toilet Accessories						N/A	
		B.	Toilet Partitions						N/A	
		C.	Water Closets						N/A	
		D.	Urinals						N/A	
		E.	Lavatorie /Sinks						N/A	
		F.	Counter						N/A	
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	NOTES	4.1.A: Suspended ceiling system in office building is missing tiles with grid out of plumb. 4.1.D: 2x4 boards making up wood ceiling system are out of plumb. Paint is missing from some boards. 4.2.E: Concrete flooring is cracked in places.								

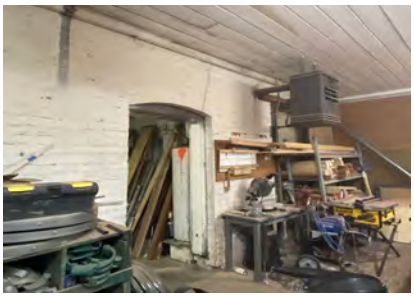
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Old Corp Yard - Overall										**2.6**
1	**Site/ Civil/ Landscape**									**2.4**
	1.1	Fences/ Walls/ Gates								3.3
		A.	Perimeter Fencing		4					
		B.	Equipment Fencing			3				
		C.	Landscape Walls/ Piers / Structures			3				
		D.	Gates			3				
	1.2	Paving								2.0
		A.	Sidewalks/ Walkways/ Crosswalks						N/A	
		B.	Curbing						N/A	
		C.	Driveways/ Parking Pavement				2			
		D.	Striping/ Marking/ Speed Bumps						N/A	
		E.	Patios						N/A	
	1.3	Landscape								2.0
		A.	Ground Cover				2			
		B.	Trees						N/A	
		C.	Irrigation System						N/A	
	1.4	Site Features/ Fixtures/ Furniture/ Signage								2.5
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures				2			
		C.	Water Fixtures						N/A	
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility			3				
	1.5	Stormwater Management								2.0
	N O T E S	1.2.C: Site pavement is deteriorated and crumbling in areas with cracks present. 1.3.A: Ground cover surrounding facilities is composed of unkempt tanbark piles. 1.4.B: Exterior lighting fixtures are faded and some bulbs or lenses are missing.								

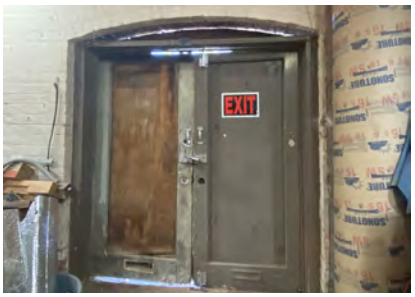
System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces			N/A
		B.	Passenger Loading Zones			N/A
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space		NC	
		B.	Doors/ Doorways/Gates			N/A
		C.	Threshold			N/A
		D.	Ramps			N/A
		E.	Stairways			N/A
		F.	Handrails			N/A
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall			N/A
		B.	Toilet Accessories			N/A
		C.	Water Closets			N/A
		D.	Urinals			N/A
		E.	Lavatories/ Sinks			N/A
		F.	Counters			N/A
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry			N/A
		B.	Furniture, Fixtures & Equipment - FF&E			N/A
		C.	Signage			N/A
	NOTES	6.2.A: Provide appropriate clear floor space throughout facilities.				

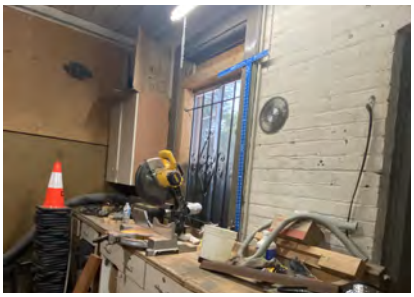
Photo Documentation | Exterior Overall

Photo Documentation | Interior Blow Ups







FACILITY CONDITION ASSESSMENT

BOYD SERVICE CENTER

BUILDING A - ADMINISTRATION

Condition Summary - Boyd Service Center

Building A - Administration

Overall Rating 3.5

Facility Condition

Site 3.4

Asphalt paving for the administration parking area is cracked in places especially around central drainage. Parking lot painting and staining in this area has been recently redone. Curbing around sidewalk and landscape elements contains light cracking and discoloration. Landscaping around the administration building is minimal but healthy.

Portable facilities near the Administration Building are surrounded by crushed rock with exposed dirt in areas. Rear fencing near portable trailers used for storage is dirty and determined in areas. Much debris is stored haphazardly on site near portable storage trailers.

Much of the site's surface is dirt and water ponding/mud accumulation is an issue during rainy months. Large LED lighting fixtures similar in specification to street lights provide illumination to a portion of the Boyd Service Center. Site striping and marking on paved areas is difficult to view because of both fading paint and dirt encroaching paved areas.

Exterior Envelope 3.5

The exterior envelope of the Administration Building at the Boyd Service Center is painted metal with a metal roof and finished interior. The siding of the Administration Building is in good condition. Siding at other buildings is in varied condition with some containing visibly faded paint and rust.

Steel ship containers used for storage for City of Tracy departments contain surfaces in various states of condition with some major rusting and deterioration occurring at some.

Painted wood siding and eaves of old Transit Facility located at Boyd site are flaking in places but roof structure is in visibly good condition. Painted metal siding of Building D is faded with scratching and siding attachment screws are rusted. Building B has been recently renovated with painted metal siding and a new metal roof.

Structure 3.3

Interior light fixtures and ceiling grid systems freely hung from the administration building ceiling may require additional non-structural seismic lateral and longitudinal support. Cracking exists at various concrete floors throughout facility buildings.

Interior 3.7

The interior of the administration building restroom facilities contain flooring, fixtures, wall tile and paint all in good condition. A minor issue in the main restroom is that the paper towel dispenser is separating from the painted wall surface and the paint surface is cracking at separation.

Concrete flooring of Building C is cracked and stained in places. Acoustic ceiling tile of this same building contains many stains from leaking plumbing. Storage inside Building D is well-arranged. Building E is used for vehicle maintenance and is slightly undersized for the City of Tracy with some equipment beyond its useful service life. Restroom flooring inside Building E is stained with tiles in various states of deterioration.

Condition Summary - Boyd Service Center

Building A - Administration

MEP Systems 3.4

Items are stored in front of fire alarm panels and circuit breakers in Electric/IT room. Some light scuffing is present at wood door surfaces to office suites.

A fueling station sits adjacent to the mechanizes shops and main Boyd entrance and is in operable condition. Pumps are out of date and fairly slow to operate with paint fading from pumps and fueling station. A GreenField NGV natural gas fueling system is also present on site. 800A main electrical service is located on-site.

ADA Compliance Needs Compliance

Braille is not provided at interior signage of administration building. Vehicle maintenance, Building E, contains a non-compliant second story loft area used for offices. Restroom in Building E is also non-compliant.

Recommendation Summary - Boyd Service Center

Building A - Administration

Recommendations

Site: It is recommended to repaint site striping and eventually repave site. Clear unnecessary items from site and rearrange storage areas.

Exterior Envelope: Paint exterior of shop and maintenance buildings that have faded or scratched paint surfaces.

Structure: Investigate cause of cracking and refinish flooring if desired. Install additional non-structural seismic supports to hanging lighting elements.

Interior: Refinish wall elements necessary in Administration Building restroom. Consider new shop space for vehicle maintenance.

MEP Systems: Investigate cause of leakage at acoustic ceiling tile at Building C interior. Remove items stored in front of fire alarm panels and circuit breakers.

ADA Compliance: Provide ADA compliant restroom location for vehicle maintenance shops as renovating restroom at vehicle maintenance shops is not feasible. Provide ADA compliant directional and room signage throughout Administration Building.

Impact of Recommended Works

Site: Site striping will cause major impact on the site and likely require vehicles and objects to be moved around during the process. Clearing unnecessary items from storage areas will require additional coordination with other City of Tracy Departments.

Exterior Envelope: Minor impact of recommended works to shop operations. Two weeks will be required to paint facilities.

Structure: Investigation as to cause of cracking may require an outside design consultant. Installation of non-structural seismic supports to hang lighting elements can be completed within a week with minimal impact to the facility.

Interior: Administration restrooms will likely be closed for one day for wall surface refinishing.

MEP Systems: Repair of issue causing leakage may require some impact to Building C operations.

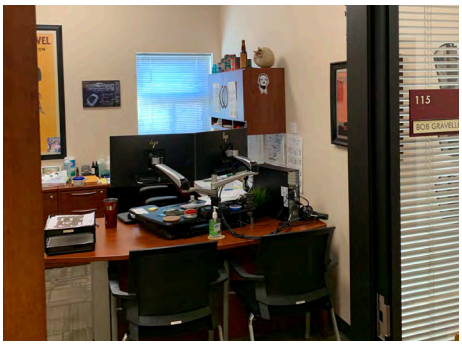
ADA Compliance: Providing ADA compliant signage will have a minimal impact on the facility. Renovating restroom at vehicle maintenance shops is not feasible.

Facility Description - Boyd Service Center

Building A - Administration

MEP

Exterior


Interior

Service Center Description

The Service Center complex contains several structures including the administration building, mechanical shops, welding shops, various sheds and storage structures. Although they were all built separately, this complex has been located in the City of Tracy since 1973 with major updates throughout the years including a Public Works administration facility built on the edge of the site in 2011. Parking and exterior storage throughout the compound provides for a variety of vehicles and other items to be stored and worked on.

The Administration Facility houses office space, conference space and restrooms for Public Works staff.

The Boyd Service Center houses offices and workspaces for city maintenance employees as well as lockers, shower rooms, break rooms and meeting areas.

Age

The Boyd Service Center is 49 years old and was constructed in 1973. The Administration Building is 11 years old and was constructed in 2011.

Use of Building

The building is used in the following ways:

- Provides maintenance services to vehicles and other mechanical systems
- Houses spaces for offices
- Provides storage for various items
- Provides a fueling station

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Boyd Services Center - Administration Bldg. - A										**3.5**
1	**Site/ Civil/ Landscape**									**3.4**
	1.1	Fences/ Walls/ Gates								3.0
		A.	Perimeter Fencing			3				
		B.	Equipment Fencing			3				
		C.	Landscape Walls/ Piers / Structures			3				
		D.	Gates			3				
	1.2	Paving								3.8
		A.	Sidewalks/ Walkways/ Crosswalks		4					
		B.	Curbing		4					
		C.	Driveways/ Parking Pavement			3				
		D.	Striping/ Marking/ Speed Bumps		4					
		E.	Patios						N/A	
	1.3	Landscape								3.0
		A.	Ground Cover			3				
		B.	Trees			3				
		C.	Irrigation System						N/A	
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.0
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures				2			
		C.	Water Fixtures			3				
		D.	Exterior Site Furniture			3				
		E.	Site Utility		4					
	1.5	Stormwater Management								4.0
	N O T E S	1.4.B: Exterior lighting fixtures are lacking.								

	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**3.5**
	2.1	Exterior Wall Finish								4.0
	2.2	Eaves and Fascias								3.0
	2.3	Doors/ Windows/ Louvers								3.3
		A.	Windows		4					
		B.	Louvers and Vents			3				
		C.	Exterior Doors & Hardware			3				
	2.4	Roofing								3.8
		A.	Roof Surface			3				
		B.	Roof Opening/ Skylight/ Penetrations		4					
		C.	Roof Equipment Curbing		4					
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage		4					
		G.	Gutters / Downspouts		4					
		H.	Roof Vents		4					
	NOTES									
3	**Structure**									**3.3**
	3.1	Foundation/ Footing								4.0
	3.2	Columns								3.0
	3.3	Framing System								3.0
	3.4	Walls								3.0
	3.5	Lateral Force Resistance System								3.0
	3.6	Covered Walkway/Canopy								4.0
	3.7	Chimney								N/A
	NOTES									

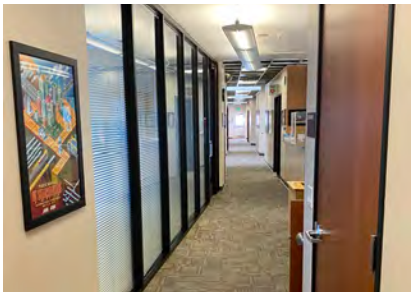
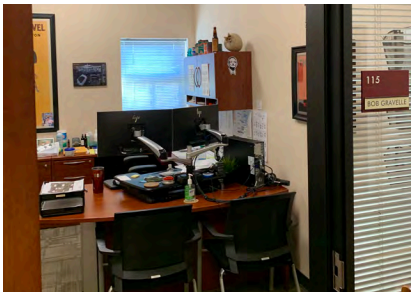
			System	Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.7**
	4.1	Ceilings								3.3
		A.	Suspended Ceiling (ACT)				2			
		B.	Gypsum Board						N/A	
		C.	Plaster		4					
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed		4					
	4.2	Flooring								3.5
		A.	Carpet		4					
		B.	Vinyl			3				
		C.	Tile						N/A	
		D.	Wood						N/A	
		E.	Concrete						N/A	
	4.3	Interior Wall/Partition Finishes								4.0
	4.4	Interior Doors								4.0
	4.5	Stairs Condition								4.0
		A.	Stairs/ Landing						N/A	
		B.	Handrails		4					
	4.6	Toilet Condition								3.3
		A.	Toilet Accessories			3				
		B.	Toilet Partitions			3				
		C.	Water Closets		4					
		D.	Urinals			3				
		E.	Lavatory /Sinks		4					
		F.	Counter			3				
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A

N O T E S	4.1.A: Some acoustic ceiling tiles are missing from ceiling grid system.

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.4**
	5.1	Mechanical Systems								3.6
		A.	HVAC		4					
		B.	Control System		4					
		C.	Chiller			3				
		D.	Cooling Towers						N/A	
		E.	Duct Work			3				
		F.	Ventilation\ Air Distribution		4					
		G.	Boilers						N/A	
	5.2	Electrical Systems								3.8
		A.	Transformer						N/A	
		B.	Switchgear		4					
		C.	Panelboards (Condition & Capacity)			3				
		D.	Devices (Switches & Receptacles)		4					
		E.	Interior Lighting Fixtures		4					
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System		4					
	5.3	Voice and Data Systems								3.0
	5.4	Plumbing Systems								3.0
		A.	Plumbing Fixtures			3				
		B.	Water Distribution System/ Pipes			3				
		C.	Water Heaters						N/A	
	5.5	Gas Distribution Systems								4.0
	5.6	Fire Suppression System								3.0
	N O T E S									

System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones	C		
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space	C		
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps			N/A
		E.	Stairways			N/A
		F.	Handrails			N/A
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall	C		
		B.	Toilet Accessories		NC	
		C.	Water Closets	C		
		D.	Urinals	C		
		E.	Lavatories/ Sinks	C		
		F.	Counters	C		
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry		NC	
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	
	NOTES	6.3.A: Restroom in vehicle maintenance shops is non-compliant due to clearance issues but administration restrooms contain compliant clearances. 6.3.B: Toilet accessories are not fully compliant. 6.4.A: Provide knee and toe clearance under working surfaces and front desk counters. 6.4.B: Provide ADA compliant furniture, fixtures and equipment with accessible height and knee and toe clearances. 6.4.C: Provide ADA compliant service center administration building directional and restroom signage with tactile text and Braille.				

Photo Documentation | Interior Blow Ups

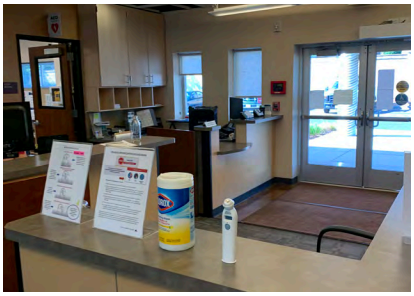


Photo Documentation | Exterior Overall

FACILITY CONDITION ASSESSMENT

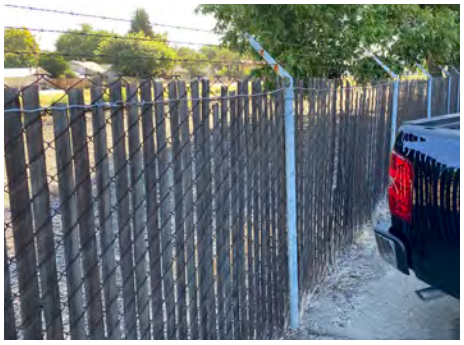
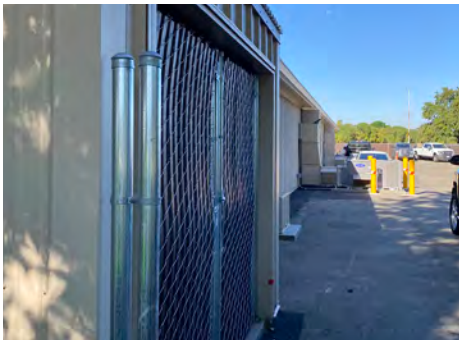
BOYD SERVICE CENTER

BUILDING B - MAINTENANCE SHOPS (RENOVATED)

Condition Summary - Boyd Service Center

Building B - Maintenance Shops Facility (renovated)

Overall Rating **3.9**

Facility Condition

Site 3.9

Asphalt paving for the Building B parking area is cracked in multiple places throughout. Heavier cracking is present closer to the building. Painted striping for parking stalls is generally faded throughout the parking area. Staining is apparent at parking stalls closest to brown gate on site. In the same area, there is a small accumulation of leaves and dirt. Landscaping is minimal but appropriate for the site. Fencing around the perimeter is nearing the end of its service life in some places.

Exterior Envelope 4.1

The exterior envelope of Building B is in good condition overall. Siding throughout buildings is in good condition and is freshly painted.

Structure 4.0

No visible structural deficiencies were observed.

Interior N/A

The Interior of Building B was not observed.

MEP Systems 3.8

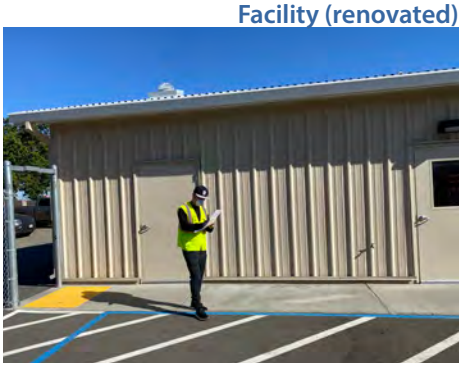
Mechanical and electrical systems are largely upgraded for Building B and should be maintained for adequate future use.

ADA Compliance Needs Compliance

Braille is not provided at interior signage of maintenance shops. Areas of painted accessibility parking stalls are faded in parking lot and need to be repainted.

Recommendation Summary - Boyd Service Center

Building B - Maintenance Shops Facility (renovated)



Recommendations

Site: It is recommended to repaint site striping and eventually repave site.

Exterior Envelope: Maintain clean exterior envelope.

Structure: No structural recommendations.

Interior: Maintain interior as fit for Building B operations.

MEP Systems: Maintain new MEP systems at Building B.

ADA Compliance: Provide ADA compliant parking lot striping and interior building signage.

Impact of Recommended Works

Site: Site striping will cause major impact on the site and likely require vehicles and objects to be moved around during the process.

Exterior Envelope: No impact of recommended works.

Structure: No impact of recommended works.

Interior: Any interior modifications likely impact work efficiencies at affected areas

MEP Systems: No impact of recommended works.

ADA Compliance: Providing ADA compliant signage will have a minimal impact on the facility.

Facility Description - Boyd Service Center

Building B - Maintenance Shops Facility (renovated)

Exterior

Interior

MEP

Service Center Description

The Service Center complex contains several structures including the administration building, mechanical shops, welding shops, various sheds and storage structures. Although they were all built separately, this complex has been located in the City of Tracy since 1973 with major updates throughout the years including a Public Works administration facility built on the edge of the site in 2011. Parking and exterior storage throughout the compound provides for a variety of vehicles and other items to be stored and worked on.

The Boyd Service Center houses offices and workspaces for City maintenance employees as well as lockers, shower rooms, break rooms and meeting areas.

Building B was recently renovated and acts as maintenance shops at the Boyd Service Center.

Age

The Boyd Service Center is 49 years old and was constructed in 1973.

Use of Building

The building is used in the following ways:

- Provides maintenance services to vehicles and other mechanical systems
- Houses spaces for offices
- Provides storage for various items
- Provides a fueling station

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Boyd Services Center - Maintenance Shops (renovated) - B										**3.9**
1	**Site/ Civil/ Landscape**									**3.9**
	1.1	Fences/ Walls/ Gates								4.0
		A.	Perimeter Fencing			3				
		B.	Equipment Fencing	5						
		C.	Landscape Walls/ Piers / Structures			3				
		D.	Gates	5						
	1.2	Paving								4.5
		A.	Sidewalks/ Walkways/ Crosswalks	5						
		B.	Curbing		4					
		C.	Driveways/ Parking Pavement		4					
		D.	Striping/ Marking/ Speed Bumps	5						
		E.	Patios						N/A	
	1.3	Landscape								4.0
		A.	Ground Cover						N/A	
		B.	Trees		4					
		C.	Irrigation System		4					
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.2
		A.	Landscape Features/ Play Equipment			3				
		B.	Exterior Lighting Fixtures			3				
		C.	Water Fixtures			3				
		D.	Exterior Site Furniture			3				
		E.	Site Utility		4					
	1.5	Stormwater Management								4.0
	N O T E S									

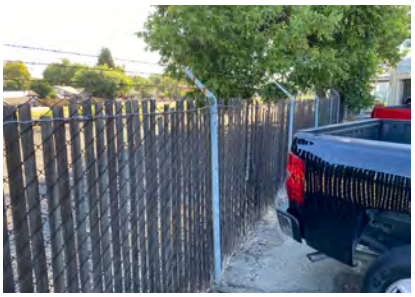
	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**4.1**
	2.1	Exterior Wall Finish								4.0
	2.2	Eaves and Fascias								3.0
	2.3	Doors/ Windows/ Louvers								5.0
		A.	Windows	5						
		B.	Louvers and Vents	5						
		C.	Exterior Doors & Hardware	5						
	2.4	Roofing								4.5
		A.	Roof Surface	5						
		B.	Roof Opening/ Skylight/ Penetrations						N/A	
		C.	Roof Equipment Curbing						N/A	
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage		4					
		G.	Gutters / Downspouts		4					
		H.	Roof Vents	5						
	NOTES									
3	**Structure**									**4.0**
	3.1	Foundation/ Footing								4.0
	3.2	Columns								4.0
	3.3	Framing System								4.0
	3.4	Walls								4.0
	3.5	Lateral Force Resistance System								4.0
	3.6	Covered Walkway/Canopy								4.0
	3.7	Chimney								N/A
	NOTES									

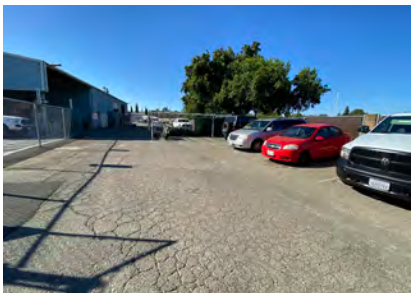
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.8**
	4.1	Ceilings								4.0
		A.	Suspended Ceiling (ACT)		4					
		B.	Gypsum Board						N/A	
		C.	Plaster		4					
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed		4					
	4.2	Flooring								4.0
		A.	Carpet		4					
		B.	Vinyl						N/A	
		C.	Tile		4					
		D.	Wood						N/A	
		E.	Concrete		4					
	4.3	Interior Wall/Partition Finishes								4.0
	4.4	Interior Doors								3.0
	4.5	Stairs Condition								N/A
		A.	Stairs/ Landing						N/A	
		B.	Handrails						N/A	
	4.6	Toilet Condition								4.0
		A.	Toilet Accessories		4					
		B.	Toilet Partitions		4					
		C.	Water Closets		4					
		D.	Urinals		4					
		E.	Lavatorie /Sinks		4					
		F.	Counter		4					
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	NOTES									

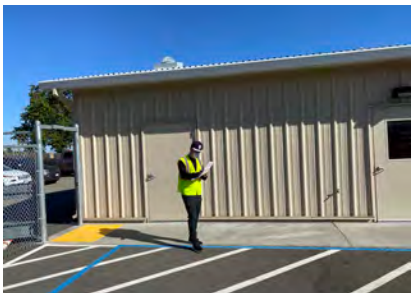
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.8**
	5.1	Mechanical Systems								4.0
		A.	HVAC		4					
		B.	Control System		4					
		C.	Chiller		4					
		D.	Cooling Towers						N/A	
		E.	Duct Work		4					
		F.	Ventilation\ Air Distribution		4					
		G.	Boilers						N/A	
	5.2	Electrical Systems								4.0
		A.	Transformer						N/A	
		B.	Switchgear						N/A	
		C.	Panelboards (Condition & Capacity)						N/A	
		D.	Devices (Switches & Receptacles)		4					
		E.	Interior Lighting Fixtures		4					
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System		4					
	5.3	Voice and Data Systems								3.0
	5.4	Plumbing Systems								4.0
		A.	Plumbing Fixtures		4					
		B.	Water Distribution System/ Pipes		4					
		C.	Water Heaters						N/A	
	5.5	Gas Distribution Systems								4.0
	5.6	Fire Suppression System								4.0
	N O T E S									

System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones	C		
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space	C		
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps			N/A
		E.	Stairways			N/A
		F.	Handrails			N/A
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall	C		
		B.	Toilet Accessories		NC	
		C.	Water Closets	C		
		D.	Urinals	C		
		E.	Lavatories/ Sinks	C		
		F.	Counters	C		
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry		NC	
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	
	NOTES	6.3.B: Toilet accessories are not fully compliant. 6.4.A: Provide knee and toe clearance under working surfaces and front desk counters. 6.4.B: Provide ADA compliant furniture, fixtures and equipment with accessible height and knee and toe clearances. 6.4.C: Provide ADA compliant shops and restroom signage with tactile text and Braille.				

Photo Documentation | Exterior Overall







FACILITY CONDITION ASSESSMENT

BOYD SERVICE CENTER

BUILDING C - MAINTENANCE SHOPS (UNRENOVATED)

Condition Summary - Boyd Service Center

Building C - Maintenance Shops Facility (unrenovated)

Overall Rating **2.9**

Facility Condition

Site 3.0

Asphalt paving has signs of cracking throughout the parking lot. Asphalt is discolored at garage door openings of the building. Striping is fading at parking stalls and other locations near the building. Paving is slightly uneven at the side of the building in two locations. Alley behind the maintenance shop is unpaved and is loosely used as an outdoor storage space. Objects and other debris are scattered throughout the area. The space is not easily accessible and could benefit from a repavement.

Exterior Envelope 2.8

In general, exterior envelopes of buildings at Boyd Service Center are painted metal buildings with metal roofs and interior steel structures. Siding of the maintenance shops is in fair condition and is fading slightly in some areas and slightly discolored in other areas. Door signage is significantly faded and must be redone. Doors are also discolored from dirt and dust. There is a decent amount of lighting present on the exterior side of the building but fixtures are outdated.

Structure 3.0

Interior light fixtures and ceiling grid systems freely hung from the maintenance shops ceiling may require additional non-structural seismic lateral and longitudinal support. Cracking exists at various locations of the concrete floor.

Interior 2.8

Concrete flooring of Building C is cracked and stained in places. Acoustic ceiling tile of this same building contains many stains from leaking plumbing. Some acoustic ceiling tiles have minor cracks, visible in the corner tile by the garage door. Tube light fixtures provide an appropriate amount of light into the interior spaces.

MEP Systems 2.9

Air vents and air conditioning units are located on the walls in the storage room, office space, and break room.

ADA Compliance Needs Compliance

Braille is not provided at exterior signage of maintenance shop. Storage space doesn't comply with ADA requirements regarding floor space.

Recommendation Summary - Boyd Service Center

Building C - Maintenance Shops Facility (unrenovated)

MEP

Exterior

Storage

Recommendations

Site: It is recommended to repaint site striping and eventually repave site. Clear unnecessary items from site and rearrange storage areas.

Exterior Envelope: Paint exterior of shop and maintenance buildings that have faded or scratched paint surfaces.

Structure: Investigate cause of cracking and refinish flooring if desired. Install additional non-structural seismic supports to hanging lighting elements.

Interior: Refinish wall elements necessary in administration building restroom. Consider new shop space for vehicle maintenance.

MEP Systems: Investigate cause of leakage at acoustic ceiling tile at Building C interior. Remove items stored in front of fire alarm panels and circuit breakers.

ADA Compliance: Provide ADA compliant restroom location for vehicle maintenance shops as renovating restroom at vehicle maintenance shops is not feasible. Provide ADA compliant directional and room signage throughout administration building.

Impact of Recommended Works

Site: Site pavement striping will cause major impact on the site and likely require vehicles and objects to be moved around during the process. Clearing unnecessary items from storage areas will require additional coordination with other City of Tracy Departments.

Exterior Envelope: Minor impact of recommended works to shop operations. Two weeks will be required to paint facilities.

Structure: Investigation as to cause of cracking may require an outside consultant. Installation of non-structural seismic supports to hung lighting elements can be completed within a week with minimal impact to the facility.

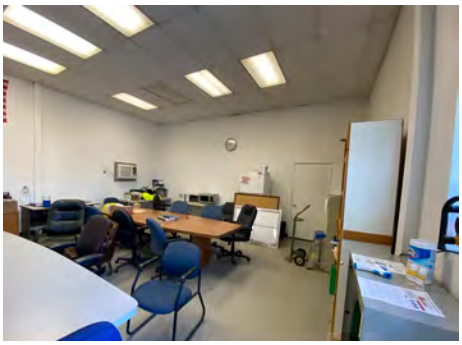
Interior: Administration restrooms will likely be closed for one day for wall surface refinishing.

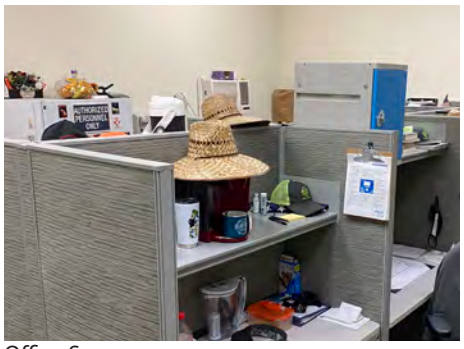
MEP Systems: Repair of issue causing leakage may require some impact to Building C operations.

ADA Compliance: Providing ADA compliant signage will have a minimal impact on the facility. Renovating restroom at vehicle maintenance shops is not feasible.

Facility Description - Boyd Service Center

Building C - Maintenance Shops Facility (unrenovated)


Interior



Office Space

Storage

Service Center Description

The Service Center complex contains several structures including the administration building, mechanical shops, welding shops, various sheds and storage structures. Although they were all built separately, this complex has been located in the City of Tracy since 1973 with major updates throughout the years including a Public Works administration facility built on the edge of the site in 2011. Parking and exterior storage throughout the compound provides for a variety of vehicles and other items to be stored and worked on.

The Boyd Service Center houses offices and workspaces for city maintenance employees as well as lockers, shower rooms, break rooms and meeting areas.

Building C is similar to Building B in that it is used as a maintenance shop for equipment, signage and other items. Building C remains unrenovated.

Age

The Boyd Service Center is 49 years old and was constructed in 1973.

Use of Building

The building is used in the following ways:

- Provides maintenance services to vehicles and other mechanical systems
- Houses spaces for offices
- Provides storage for various items
- Provides a fueling station

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Boyd Services Center - Maintenance Shops (unrenovated) - C										**2.9**
1	**Site/ Civil/ Landscape**									**3.0**
	1.1	Fences/ Walls/ Gates								2.5
		A.	Perimeter Fencing			3				
		B.	Equipment Fencing				2			
		C.	Landscape Walls/ Piers / Structures							N/A
		D.	Gates							N/A
	1.2	Paving								1.5
		A.	Sidewalks/ Walkways/ Crosswalks							N/A
		B.	Curbing							N/A
		C.	Driveways/ Parking Pavement				2			
		D.	Striping/ Marking/ Speed Bumps					1		
		E.	Patios						N/A	
	1.3	Landscape								4.0
		A.	Ground Cover						N/A	
		B.	Trees		4					
		C.	Irrigation System		4					
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.0
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures				2			
		C.	Water Fixtures			3				
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility		4					
	1.5	Stormwater Management								4.0
	N O T E S	1.1.B: Equipment housings in the rear area of Building C adjacent to site fence require maintenance. 1.2.C: Pavement surrounding Building C is deteriorating at the surface and cracked. 1.2.D: Striping and pavement markings surrounding Building C are almost fully deteriorated. 1.4.B: Exterior lighting fixtures are outdated with yellowed lenses, and lacking in quantity.									

	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**2.8**
	2.1	Exterior Wall Finish								2.0
	2.2	Eaves and Fascias								N/A
	2.3	Doors/ Windows/ Louvers								2.7
		A.	Windows			3				
		B.	Louvers and Vents			3				
		C.	Exterior Doors & Hardware				2			
	2.4	Roofing								3.6
		A.	Roof Surface			3				
		B.	Roof Opening/ Skylight/ Penetrations						N/A	
		C.	Roof Equipment Curbing		4					
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage		4					
		G.	Gutters / Downspouts			3				
		H.	Roof Vents		4					
	N O T E S	2.1: Exterior walls contain faded paint and rusted screws. 2.3.C: Exterior doors contain chipping paint around handles as well as deteriorated hinges.								
3	**Structure**									**3.0**
	3.1	Foundation/ Footing								3.0
	3.2	Columns								3.0
	3.3	Framing System								3.0
	3.4	Walls								3.0
	3.5	Lateral Force Resistance System								3.0
	3.6	Covered Walkway/Canopy								N/A
	3.7	Chimney								N/A
	N O T E S									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**2.8**
	4.1	Ceilings								2.0
		A.	Suspended Ceiling (ACT)				2			
		B.	Gypsum Board						N/A	
		C.	Plaster						N/A	
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed							
	4.2	Flooring								2.0
		A.	Carpet						N/A	
		B.	Vinyl						N/A	
		C.	Tile						N/A	
		D.	Wood						N/A	
		E.	Concrete				2			
	4.3	Interior Wall/Partition Finishes								4.0
	4.4	Interior Doors								3.0
	4.5	Stairs Condition								N/A
		A.	Stairs/ Landing						N/A	
		B.	Handrails						N/A	
	4.6	Toilet Condition								N/A
		A.	Toilet Accessories						N/A	
		B.	Toilet Partitions						N/A	
		C.	Water Closets						N/A	
		D.	Urinals						N/A	
		E.	Lavatorie /Sinks						N/A	
		F.	Counter						N/A	
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A

N O T E S

4.1.A: Suspended acoustic ceiling tile is stained in many places in Building C.

4.2.E: Concrete flooring is stained and cracked.

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**2.9**
	5.1	Mechanical Systems								2.5
		A.	HVAC				2			
		B.	Control System						N/A	
		C.	Chiller						N/A	
		D.	Cooling Towers						N/A	
		E.	Duct Work						N/A	
		F.	Ventilation\ Air Distribution			3				
		G.	Boilers						N/A	
	5.2	Electrical Systems								3.0
		A.	Transformer						N/A	
		B.	Switchgear						N/A	
		C.	Panelboards (Condition & Capacity)			3				
		D.	Devices (Switches & Receptacles)			3				
		E.	Interior Lighting Fixtures			3				
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System						N/A	
	5.3	Voice and Data Systems								3.0
	5.4	Plumbing Systems								3.0
		A.	Plumbing Fixtures			3				
		B.	Water Distribution System/ Pipes			3				
		C.	Water Heaters						N/A	
	5.5	Gas Distribution Systems								N/A
	5.6	Fire Suppression System								N/A
	NOTES	5.1.A: Air Conditioning is provided by wall or window mounted units.								

System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces			N/A
		B.	Passenger Loading Zones			N/A
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space		NC	
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps			N/A
		E.	Stairways			N/A
		F.	Handrails			N/A
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall			N/A
		B.	Toilet Accessories			N/A
		C.	Water Closets			N/A
		D.	Urinals			N/A
		E.	Lavatories/ Sinks			N/A
		F.	Counters			N/A
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry		NC	
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	
	NOTES	6.2.A: Provide clear floor space in some shop areas. 6.4.A: Provide knee and toe clearance under working surfaces and front desk counters. 6.4.B: Provide ADA compliant furniture, fixtures and equipment with accessible height and knee and toe clearances. 6.4.C: Provide ADA compliant service center administration building directional and restroom signage with tactile text and Braille.				

Photo Documentation | Exterior Overall

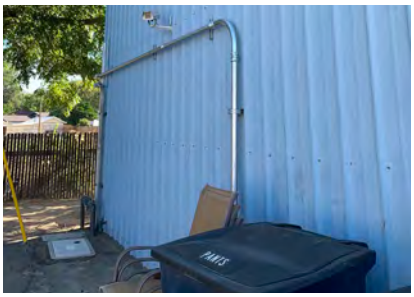
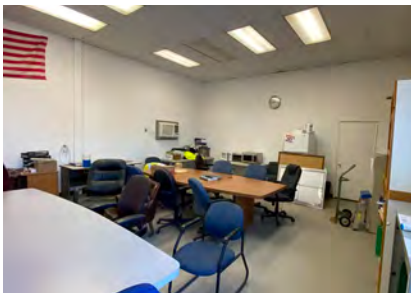
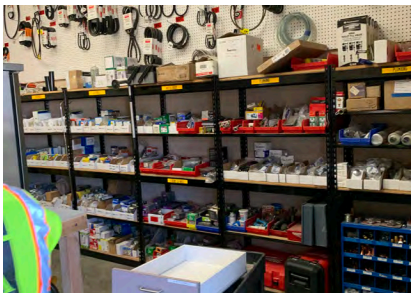
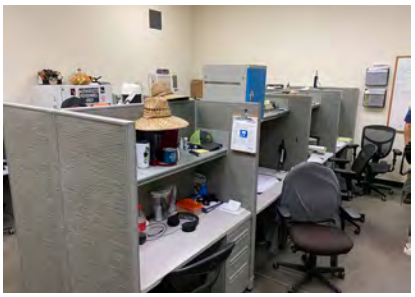
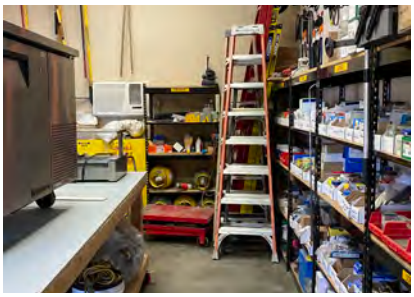
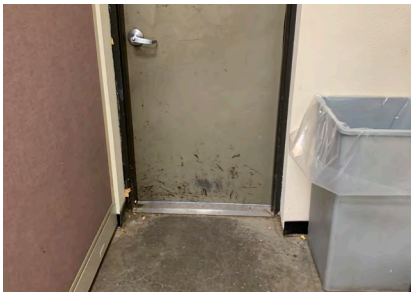
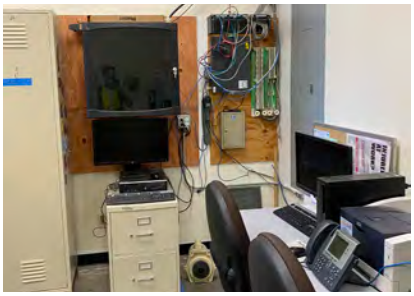
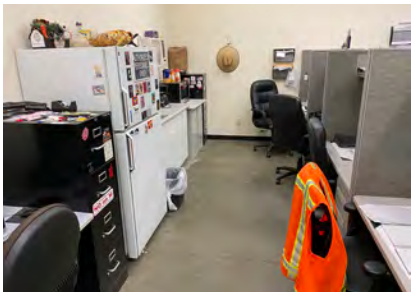


Photo Documentation | Interior Blow Ups



FACILITY CONDITION ASSESSMENT

BOYD SERVICE CENTER

BUILDING D - WAREHOUSE BUILDING

Condition Summary - Boyd Service Center

Building D - Warehouse Building

Overall Rating **3.5**

Facility Condition

Site 3.6

Asphalt paving around the Warehouse Building is cracked in places. No landscaping exists around this building. Site lighting is lacking at this area.

Exterior Envelope 3.5

Exterior siding and doors at Building D contain faded paint and rusted screws. Roofing is in relatively good condition with no signs of rust but drainage would benefit from the addition of gutters and downspouts. Exterior lighting fixtures are present only above entrance to storage warehouse.

Structure 3.3

The structure of Building D is in visibly good condition.

Interior 3.2

Entrance door at interior is very scuffed and dented especially at interior base. The remainder of the interior is generally well-organized and in fair condition.

MEP Systems 3.4

No major MEP deficiencies were observed.

ADA Compliance Needs Compliance

Interior stairwells at the Warehouse Building are not compliant. Other elements of the interior are not compliant.

Recommendation Summary - Boyd Service Center

Building D - Warehouse Building

Exterior

Interior

Interior

Recommendations

Site: It is recommended to repaint site striping and eventually repave site.

Exterior Envelope: Add new LED exterior lighting fixtures and wiring.

Structure: No structural recommendations.

Interior: Replace entrance door.

MEP Systems: No MEP recommendations.

ADA Compliance: Provide ADA compliant interior stair handrails.

Impact of Recommended Works

Site: Site striping will cause major impact on the site and likely require vehicles and objects to be moved around during the process.

Exterior Envelope: No impact of recommended works.

Structure: No impact of recommended works.

Interior: No impact of recommended works.

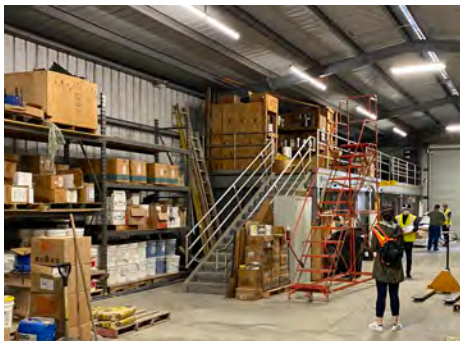
MEP Systems: No impact of recommended works.

ADA Compliance: Providing ADA compliant stairs will have an impact on the facility and may require reorganization of stored items during reconfiguration of stairs.

Facility Description - Boyd Service Center

Building D - Warehouse Buildings

MEP


Interior

Storage

Service Center Description

The Service Center complex contains several structures including the administration building, mechanical shops, welding shops, various sheds and storage structures. Although they were all built separately, this complex has been located in the City of Tracy since 1973 with major updates throughout the years including a Public Works administration facility built on the edge of the site in 2011. Parking and exterior storage throughout the compound provides for a variety of vehicles and other items to be stored and worked on.

The Boyd Service Center houses offices and workspaces for city maintenance employees as well as lockers, shower rooms, break rooms and meeting areas.

Building D is used as a large storage warehouse building for the Boyd Service Center.

Age

The Boyd Service Center is 49 years old and was constructed in 1973.

Use of Building

The building is used in the following ways:

- Provides maintenance services to vehicles and other mechanical systems
- Houses spaces for offices
- Provides storage for various items
- Provides a fueling station

			System	Condition						Rank
				Excellent	Good	Fair	Poor	Critical	N/A	
				5	4	3	2	1		
	Boyd Services Center - Warehouse Buildings - D									**3.1**
1	**Site/ Civil/ Landscape**									**2.7**
	1.1		Fences/ Walls/ Gates							N/A
		A.	Perimeter Fencing						N/A	
		B.	Equipment Fencing						N/A	
		C.	Landscape Walls/ Piers / Structures						N/A	
		D.	Gates						N/A	
	1.2		Paving							2.0
		A.	Sidewalks/ Walkways/ Crosswalks						N/A	
		B.	Curbing						N/A	
		C.	Driveways/ Parking Pavement				2			
		D.	Striping/ Marking/ Speed Bumps				2			
		E.	Patios						N/A	
	1.3		Landscape							N/A
		A.	Ground Cover						N/A	
		B.	Trees						N/A	
		C.	Irrigation System						N/A	
	1.4		Site Features/ Fixtures/ Furniture/ Signage							3.0
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures				2			
		C.	Water Fixtures						N/A	
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility		4					
	1.5		Stormwater Management							3.0
	N O T E S		1.2.C: Pavement surrounding the storage warehouse is deteriorating and cracked in places. 1.2.D: Vac-Con parking only area requires re-striping. 1.3.A-C: No landscaping exists directly adjacent to the storage warehouse. 1.4.B: Exterior lighting fixtures are present only above entrance to storage warehouse.							

	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**2.6**
	2.1	Exterior Wall Finish								2.0
	2.2	Eaves and Fascias								N/A
	2.3	Doors/ Windows/ Louvers								2.5
		A.	Windows							N/A
		B.	Louvers and Vents			3				
		C.	Exterior Doors & Hardware				2			
	2.4	Roofing								3.3
		A.	Roof Surface			3				
		B.	Roof Opening/ Skylight/ Penetrations		4					
		C.	Roof Equipment Curbing						N/A	
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage				2			
		G.	Gutters / Downspouts						N/A	
		H.	Roof Vents		4					
	NOTES	2.1: Exterior walls contain faded paint and rusted screws. 2.3.C: Exterior entrance door is very scuffed and dented especially at base. 2.4.F: Roof drainage would benefit from the addition of gutters and downspouts.								
3	**Structure**									**3.6**
	3.1	Foundation/ Footing								4.0
	3.2	Columns								3.0
	3.3	Framing System								4.0
	3.4	Walls								3.0
	3.5	Lateral Force Resistance System								4.0
	3.6	Covered Walkway/Canopy								N/A
	3.7	Chimney								N/A
	NOTES									

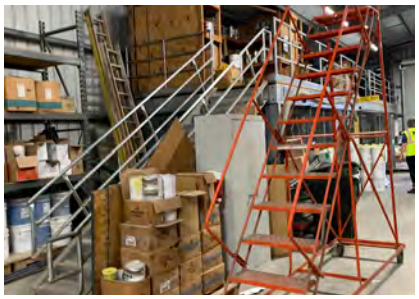
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.0**
	4.1	Ceilings								3.0
		A.	Suspended Ceiling (ACT)						N/A	
		B.	Gypsum Board						N/A	
		C.	Plaster						N/A	
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed			3				
	4.2	Flooring								3.0
		A.	Carpet						N/A	
		B.	Vinyl						N/A	
		C.	Tile						N/A	
		D.	Wood						N/A	
		E.	Concrete			3				
	4.3	Interior Wall/Partition Finishes								4.0
	4.4	Interior Doors								2.0
	4.5	Stairs Condition								3.0
		A.	Stairs/ Landing			3				
		B.	Handrails			3				
	4.6	Toilet Condition								N/A
		A.	Toilet Accessories						N/A	
		B.	Toilet Partitions						N/A	
		C.	Water Closets						N/A	
		D.	Urinals						N/A	
		E.	Lavatorie /Sinks						N/A	
		F.	Counter						N/A	
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	NOTES	4.4: Entrance door is very scuffed and dented especially at interior base.								

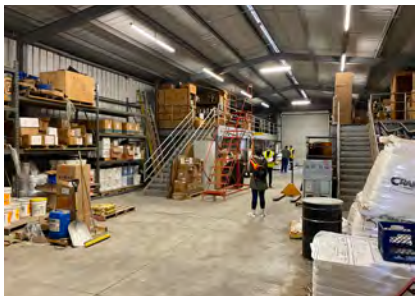
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.4**
	5.1	Mechanical Systems								4.0
		A.	HVAC						N/A	
		B.	Control System						N/A	
		C.	Chiller						N/A	
		D.	Cooling Towers						N/A	
		E.	Duct Work						N/A	
		F.	Ventilation\ Air Distribution		4					
		G.	Boilers						N/A	
	5.2	Electrical Systems								3.7
		A.	Transformer						N/A	
		B.	Switchgear						N/A	
		C.	Panelboards (Condition & Capacity)			3				
		D.	Devices (Switches & Receptacles)		4					
		E.	Interior Lighting Fixtures		4					
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System						N/A	
	5.3	Voice and Data Systems								3.0
	5.4	Plumbing Systems								3.0
		A.	Plumbing Fixtures			3				
		B.	Water Distribution System/ Pipes			3				
		C.	Water Heaters						N/A	
	5.5	Gas Distribution Systems								N/A
	5.6	Fire Suppression System								N/A
	NOTES									

System				Condition		
				Compliance	Non-compliance	N/A
6	ADA Compliance					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones	C		
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space	C		
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps			N/A
		E.	Stairways		NC	
		F.	Handrails		NC	
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall			N/A
		B.	Toilet Accessories			N/A
		C.	Water Closets			N/A
		D.	Urinals			N/A
		E.	Lavatories/ Sinks			N/A
		F.	Counters			N/A
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry			N/A
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	
	NOTES	6.2.E-F: Stairways and associated handrails at shop storage areas is not compliant. 6.4.B: Provide ADA compliant furniture, fixtures and equipment with accessible height and knee and toe clearances. 6.4.C: Provide ADA compliant storage warehouse directional signage with tactile text and Braille.				

Photo Documentation | Exterior Overall

Photo Documentation | Interior Blow Ups





FACILITY CONDITION ASSESSMENT

BOYD SERVICE CENTER

BUILDING E - FLEET SHOP

Condition Summary - Boyd Service Center

Building E - Fleet Shop

Overall Rating 3.5

Facility Condition

Site 3.6

Asphalt paving around the Vehicle Fleet Shop is cracked in places. No landscaping exists around this building. Site lighting is lacking at this area.

Exterior Envelope 3.5

Exterior siding of Building E contains faded paint and rusted bolts in areas. Overhead vehicle doors require replacement. Roofing is in fair condition. Exterior lighting is lacking

Structure 3.3

Exterior overhang area contains rusted structural elements.

Interior 3.4

The interior of Building E contains concrete flooring in fair condition with signs of wear and deterioration. Interior equipment related to vehicle maintenance is generally in good condition but undersized. Restroom flooring inside Building E is stained with tiles in various states of deterioration.

MEP Systems 3.4

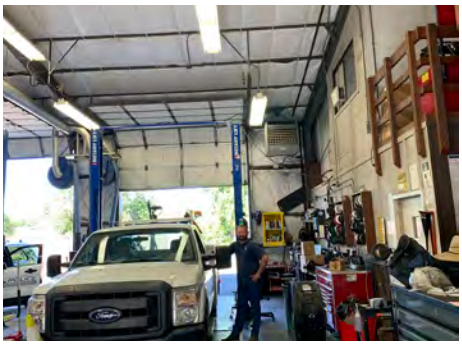
Exhaust and ventilation system requires improvement for operations. Interior lighting is lacking in places.

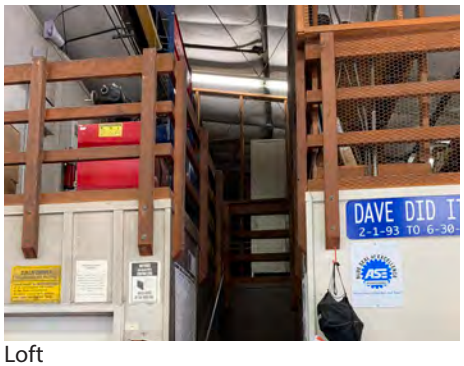
ADA Compliance Needs Compliance

Building E contains a non-compliant second story loft area used for offices. Restroom in Building E is also non-compliant.

Recommendation Summary - Boyd Service Center

Building E - Fleet Shop


Interior



Loft

Ceiling

Recommendations

Site: It is recommended to repaint site striping and eventually repave site. Provide additional landscaping at rear of fleet shop.

Exterior Envelope: Add new LED exterior lighting fixtures and wiring. Replace exterior roll up doors and man entrance door.

Structure: Replace rusted structural components of exterior exposed bay.

Interior: Repair concrete flooring and replace interior stair system with ADA compliant second story access.

MEP Systems: Replace rooftop mounted exhaust vents. Design new exhaust and ventilation system for building.

ADA Compliance: Provide ADA compliant restroom and interior stair handrails.

Impact of Recommended Works

Site: Site striping will cause major impact on the site and likely require vehicles and objects to be moved around during the process. Landscaping should be considered during CIP expansion project.

Exterior Envelope: Vehicles may not be able to access maintenance bay during day of door installation.

Structure: Exterior exposed bay may be required to be completely disassembled and reconstructed with new structural components.

Interior: Any interior modifications will impact vehicle maintenance work for an estimated 3 months. A temporary maintenance location may be required.

MEP Systems: Modifications to MEP systems will require similar impact as interior modifications.

ADA Compliance: Providing ADA compliant restroom will have a significant impact on the facility and may not be possible without expansion.

Facility Description - Boyd Service Center

Building E - Fleet Shop

Overhang

Interior

Ceiling System

Service Center Description

The Service Center complex contains several structures including the administration building, mechanical shops, welding shops, various sheds and storage structures. Although they were all built separately, this complex has been located in the City of Tracy since 1973 with major updates throughout the years including a Public Works administration facility built on the edge of the site in 2011. Parking and exterior storage throughout the compound provides for a variety of vehicles and other items to be stored and worked on.

The Boyd Service Center houses offices and workspaces for city maintenance employees as well as lockers, shower rooms, break rooms and meeting areas.

Building E acts as a Vehicle Fleet Shop where City of Tracy vehicles are maintained and serviced.

Age

The Boyd Service Center is 49 years old and was constructed in 1973.

Use of Building

The building is used in the following ways:

- Provides maintenance services to vehicles and other mechanical systems
- Houses spaces for offices
- Provides storage for various items
- Provides a fueling station

			System	Condition						Rank
				Excellent	Good	Fair	Poor	Critical	N/A	
				5	4	3	2	1		
	Boyd Services Center - Fleet Shop - E									**2.7**
1	**Site/ Civil/ Landscape**									**2.6**
	1.1		Fences/ Walls/ Gates							2.5
		A.	Perimeter Fencing			3				
		B.	Equipment Fencing				2			
		C.	Landscape Walls/ Piers / Structures						N/A	
		D.	Gates						N/A	
	1.2		Paving							2.0
		A.	Sidewalks/ Walkways/ Crosswalks						N/A	
		B.	Curbing						N/A	
		C.	Driveways/ Parking Pavement				2			
		D.	Striping/ Marking/ Speed Bumps				2			
		E.	Patios						N/A	
	1.3		Landscape							2.7
		A.	Ground Cover				2			
		B.	Trees			3				
		C.	Irrigation System			3				
	1.4		Site Features/ Fixtures/ Furniture/ Signage							2.7
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures					1		
		C.	Water Fixtures			3				
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility		4					
	1.5		Stormwater Management							3.0

N O T E S

1.1.B: Equipment structure contains rusted elements.
1.2.C: Pavement surrounding the vehicle maintenance shop is deteriorating and cracked in places.
1.2.D: Markings surrounding the vehicle maintenance shop require re-striping.
1.3.A: Ground cover behind the shop adjacent to site fence is lacking.
1.4.B: Exterior lighting fixtures are lacking at vehicle maintenance shop.

				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
	System			5	4	3	2	1		
2	**Exterior Envelope**									**2.8**
	2.1	Exterior Wall Finish								3.0
	2.2	Eaves and Fascias								N/A
	2.3	Doors/ Windows/ Louvers								2.5
		A.	Windows						N/A	
		B.	Louvers and Vents			3				
		C.	Exterior Doors & Hardware				2			
	2.4	Roofing								3.0
		A.	Roof Surface			3				
		B.	Roof Opening/ Skylight/ Penetrations						N/A	
		C.	Roof Equipment Curbing						N/A	
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage		4					
		G.	Gutters / Downspouts			3				
		H.	Roof Vents				2			
	N O T E S	2.3.C: Exterior roll up vehicle access doors are dirty and dented. Entrance doors contain light scuffing but are in better condition than other shop doors. 2.4.H: Roof vents including exhaust stacks are deteriorated and rusted.								
3	**Structure**									**2.6**
	3.1	Foundation/ Footing								3.0
	3.2	Columns								3.0
	3.3	Framing System								1.0
	3.4	Walls								3.0
	3.5	Lateral Force Resistance System								3.0
	3.6	Covered Walkway/Canopy								N/A
	3.7	Chimney								N/A
	N O T E S	3.3: Large amount of surface rust is present at exposed framing system in covered equipment storage area.								

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**2.2**
	4.1	Ceilings								2.7
		A.	Suspended Ceiling (ACT)							
		B.	Gypsum Board						N/A	
		C.	Plaster							
		D.	Wood				2			
		E.	Other			3				
		F.	Exposed			3				
	4.2	Flooring								2.0
		A.	Carpet						N/A	
		B.	Vinyl						N/A	
		C.	Tile						N/A	
		D.	Wood						N/A	
		E.	Concrete				2			
	4.3	Interior Wall/Partition Finishes								2.0
	4.4	Interior Doors								2.0
	4.5	Stairs Condition								1.5
		A.	Stairs/ Landing					1		
		B.	Handrails				2			
	4.6	Toilet Condition								3.0
		A.	Toilet Accessories			3				
		B.	Toilet Partitions						N/A	
		C.	Water Closets			3				
		D.	Urinals							
		E.	Lavatorie /Sinks			3			N/A	
		F.	Counter						N/A	
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A

NOTES

4.1.D: Exposed wood ceiling in lubrication storage area is covered in paint and not flush with walls.
4.2.E: Concrete flooring at shop contains major cracking and faded striping.
4.3: Interior walls are covered in grease and grime with areas of chipping or faded paint.
4.4: Interior doors are stuffed with fading paint.
4.5.A: Interior stairs are exposed wood with signs of rot and other deficiencies.
4.5.B: Interior stair handrails consist of an undersized metal pipe.

			System	Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.1**
	5.1	Mechanical Systems								2.3
		A.	HVAC				2			
		B.	Control System						N/A	
		C.	Chiller						N/A	
		D.	Cooling Towers						N/A	
		E.	Duct Work			3				
		F.	Ventilation\ Air Distribution				2			
		G.	Boilers						N/A	
	5.2	Electrical Systems								3.0
		A.	Transformer						N/A	
		B.	Switchgear			3				
		C.	Panelboards (Condition & Capacity)						N/A	
		D.	Devices (Switches & Receptacles)			3				
		E.	Interior Lighting Fixtures			3				
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System						N/A	
	5.3	Voice and Data Systems								3.0
	5.4	Plumbing Systems								3.0
		A.	Plumbing Fixtures			3				
		B.	Water Distribution System/ Pipes			3				
		C.	Water Heaters			3				
	5.5	Gas Distribution Systems								4.0
	5.6	Fire Suppression System								N/A
	N O T E S	5.1.A: Air Conditioning is provided by ceiling or wall-mounted units. Wall-mounted unit for upper level office is a typical window-mounted A/C unit. 5.1.F: Ventilation is lacking and floor fans must be used to maintain ventilation throughout.								

System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones	C		
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space		NC	
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps			N/A
		E.	Stairways		NC	
		F.	Handrails		NC	
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall		NC	
		B.	Toilet Accessories		NC	
		C.	Water Closets		NC	
		D.	Urinals			N/A
		E.	Lavatories/ Sinks		NC	
		F.	Counters			N/A
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry			N/A
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	
	NOTES	6.2.A: Clear floor space is not present throughout. 6.2.E-F: Stairways and associated handrails at shop storage areas is not compliant. 6.3.A, B, C, E: No aspects of restroom are compliant due to lack of space. 6.4.B: Provide ADA compliant furniture, fixtures and equipment with accessible height and knee and toe clearances. 6.4.C: Provide ADA compliant service center administration building directional and restroom signage with tactile text and Braille.				

Photo Documentation | Exterior Overall

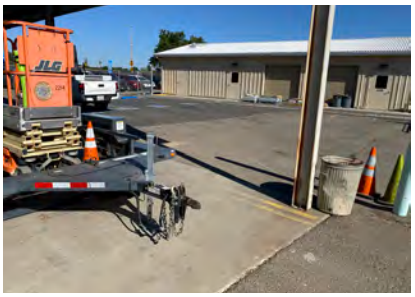
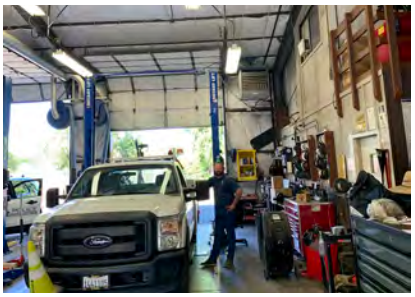
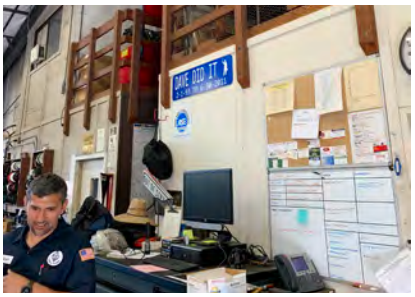
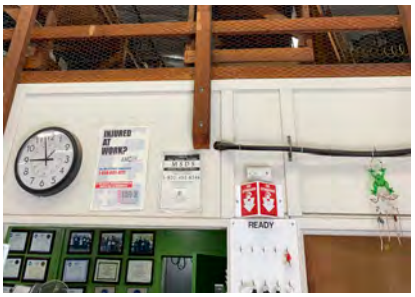
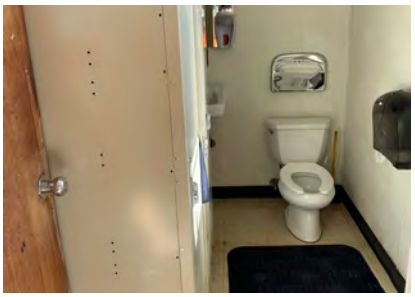


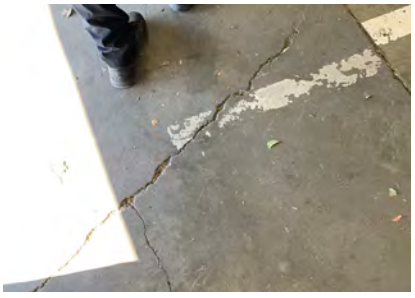
Photo Documentation | Interior Blow Ups











FACILITY CONDITION ASSESSMENT

BOYD SERVICE CENTER

BUILDING H - OLD TRANSIT CENTER STATION

Condition Summary - Boyd Service Center

Building H - Old Transit Center Station

Overall Rating 3.5

Facility Condition

Site 3.6

Asphalt paving for the administration parking area is cracked in places especially around central drainage. Parking lot painting and staining in this area has been recently redone. Curbing around sidewalk and landscape elements contains light cracking and discoloration. Landscaping around the administration building is minimal but healthy.

Portable facilities near the Administration Building are surrounded by crushed rock with exposed dirt in areas. Rear fencing near portable trailers used for storage is dirty and determined in areas. Much debris is stored haphazardly on site near portable storage trailers.

Much of the site's surface is dirt and water ponding/mud accumulation is an issue during rainy months. Large LED lighting fixtures similar in specification to street lights provide illumination to a portion of the Boyd Service Center. Site striping and marking on paved areas is difficult to view because of both fading paint and dirt encroaching paved areas.

Exterior Envelope 3.5

In general, exterior envelopes of buildings at Boyd Service Center are painted metal buildings with metal roofs and interior steel structures. Siding at some buildings is in good condition while others show signs of faded paint and rust.

Steel ship containers used for storage for various City of Tracy departments contain surfaces in various states of condition with some major rusting and deterioration occurring at some.

Painted wood siding and eaves of old Transit Facility located at Boyd site are flaking in places but roof structure is in visibly good condition. Painted metal siding of Building D is faded with scratching and siding attachment screws are rusted. Building B has been recently renovated with painted metal siding and a new metal roof.

Structure 3.3

Interior light fixtures and ceiling grid systems freely hung from the administration building ceiling may require additional non-structural seismic lateral and longitudinal support. Cracking exists at various concrete floors throughout facility buildings.

Interior 3.4

The interior of the administration building restroom facilities contain flooring, fixtures, wall tile and paint all in good condition. A minor issue in the main restroom is that the paper towel dispenser is separating from the painted wall surface and the paint surface is cracking at separation.

Concrete flooring of Building C is cracked and stained in places. Acoustic ceiling tile of this same building contains many stains from leaking plumbing. Storage inside Building D is well-arranged. Building E is used for vehicle maintenance and is slightly undersized for the City of Tracy with some equipment beyond its useful service life. Restroom flooring inside Building E is stained with tiles in various states of deterioration.

Condition Summary - Boyd Service Center

Building H - Old Transit Center Station

MEP Systems 3.4

Items are stored in front of fire alarm panels and circuit breakers in Electric/IT room. Some light scuffing is present at wood door surfaces to office suites.

A fueling station sits adjacent to the mechanizes shops and main Boyd entrance and is in operable condition. Pumps are out of date and fairly slow to operate with paint fading from pumps and fueling station. A GreenField NGV natural gas fueling system is also present on site. 800 A main electrical service is located on-site.

ADA Compliance Needs Compliance

Braille is not provided at interior signage of administration building. Vehicle maintenance, Building E, contains a non-compliant second story loft area used for offices. Restroom in Building E is also non-compliant.

Recommendation Summary - Boyd Service Center

Building H - Old Transit Center Station

Break Room

Break Room

Break Room Floor

Recommendations

Site: It is recommended to repaint site striping and eventually repave site. Clear unnecessary items from site and rearrange storage areas.

Exterior Envelope: Paint exterior of shop and maintenance buildings that have faded or scratched paint surfaces.

Structure: Investigate cause of cracking and refinish flooring if desired. Install additional non-structural seismic supports to hanging lighting elements.

Interior: Refinish wall elements necessary in administration building restroom. Consider new shop space for vehicle maintenance.

MEP Systems: Investigate cause of leakage at acoustic ceiling tile at Building C interior. Remove items stored in front of fire alarm panels and circuit breakers.

ADA Compliance: Provide ADA compliant restroom location for vehicle maintenance shops as renovating restroom at vehicle maintenance shops is not feasible. Provide ADA compliant directional and room signage throughout administration building.

Impact of Recommended Works

Site: Site striping will cause major impact on the site and likely require vehicles and objects to be moved around during the process. Clearing unnecessary items from storage areas will require additional coordination with other City of Tracy Departments.

Exterior Envelope: Minor impact of recommended works to shop operations. Two weeks will be required to paint facilities.

Structure: Investigation as to cause of cracking may require an outside design consultant. Installation of non-structural seismic supports to hung lighting elements can be completed within a week with minimal impact to the facility.

Interior: Administration restrooms will likely be closed for one day for wall surface refinishing.

MEP Systems: Repair of issue causing leakage may require some impact to Building C operations.

ADA Compliance: Providing ADA compliant signage will have a minimal impact on the facility. Renovating restroom at vehicle maintenance shops is not feasible.

Facility Description - Boyd Service Center

Building H - Old Transit Center Station

Gutter

Interior

Exterior

Service Center Description

The Service Center complex contains several structures including the administration building, mechanical shops, welding shops, various sheds and storage structures. Although they were all built separately, this complex has been located in the City of Tracy since 1973 with major updates throughout the years including a Public Works administration facility built on the edge of the site in 2011. Parking and exterior storage throughout the compound provides for a variety of vehicles and other items to be stored and worked on.

The Boyd Service Center houses offices and workspaces for city maintenance employees as well as lockers, shower rooms, break rooms and meeting areas.

The Old Transit Center Station is used as meeting and break space.

Age

The Boyd Service Center is 49 years old and was constructed in 1973.

Use of Building

The building is used in the following ways:

- Provides maintenance services to vehicles and other mechanical systems
- Houses spaces for offices
- Provides storage for various items
- Provides a fueling station

			System	Condition						Rank
				Excellent	Good	Fair	Poor	Critical	N/A	
				5	4	3	2	1		
	Boyd Services Center - Old Transit Center - H									**3.5**
1	**Site/ Civil/ Landscape**									**3.6**
	1.1		Fences/ Walls/ Gates							3.0
		A.	Perimeter Fencing			3				
		B.	Equipment Fencing			3				
		C.	Landscape Walls/ Piers / Structures			3				
		D.	Gates			3				
	1.2		Paving							3.8
		A.	Sidewalks/ Walkways/ Crosswalks		4					
		B.	Curbing		4					
		C.	Driveways/ Parking Pavement			3				
		D.	Striping/ Marking/ Speed Bumps		4					
		E.	Patios						N/A	
	1.3		Landscape							4.0
		A.	Ground Cover		4					
		B.	Trees		4					
		C.	Irrigation System		4					
	1.4		Site Features/ Fixtures/ Furniture/ Signage							3.2
		A.	Landscape Features/ Play Equipment			3				
		B.	Exterior Lighting Fixtures			3				
		C.	Water Fixtures			3				
		D.	Exterior Site Furniture			3				
		E.	Site Utility		4					
	1.5		Stormwater Management							4.0
	N O T E S									

			System	Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**3.5**
	2.1		Exterior Wall Finish							4.0
	2.2		Eaves and Fascias							3.0
	2.3		Doors/ Windows/ Louvers							3.3
		A.	Windows		4					
		B.	Louvers and Vents			3				
		C.	Exterior Doors & Hardware			3				
	2.4		Roofing							3.8
		A.	Roof Surface			3				
		B.	Roof Opening/ Skylight/ Penetrations		4					
		C.	Roof Equipment Curbing		4					
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage		4					
		G.	Gutters / Downspouts		4					
		H.	Roof Vents		4					
	N O T E S									
3	**Structure**									**3.3**
	3.1		Foundation/ Footing							4.0
	3.2		Columns							3.0
	3.3		Framing System							3.0
	3.4		Walls							3.0
	3.5		Lateral Force Resistance System							3.0
	3.6		Covered Walkway/Canopy							4.0
	3.7		Chimney							N/A
	N O T E S									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.5**
	4.1	Ceilings								4.0
		A.	Suspended Ceiling (ACT)						N/A	
		B.	Gypsum Board						N/A	
		C.	Plaster		4					
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed						N/A	
	4.2	Flooring								3.0
		A.	Carpet							
		B.	Vinyl			3				
		C.	Tile						N/A	
		D.	Wood						N/A	
		E.	Concrete						N/A	
	4.3	Interior Wall/Partition Finishes								4.0
	4.4	Interior Doors								3.0
	4.5	Stairs Condition								N/A
		A.	Stairs/ Landing		4				N/A	
		B.	Handrails		4				N/A	
	4.6	Toilet Condition								N/A
		A.	Toilet Accessories						N/A	
		B.	Toilet Partitions						N/A	
		C.	Water Closets						N/A	
		D.	Urinals						N/A	
		E.	Lavatorie /Sinks						N/A	
		F.	Counter						N/A	
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	NOTES									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.4**
	5.1	Mechanical Systems								3.8
		A.	HVAC		4					
		B.	Control System		4					
		C.	Chiller			3				
		D.	Cooling Towers						N/A	
		E.	Duct Work		4					
		F.	Ventilation\ Air Distribution		4					
		G.	Boilers						N/A	
	5.2	Electrical Systems								3.6
		A.	Transformer						N/A	
		B.	Switchgear		4					
		C.	Panelboards (Condition & Capacity)			3				
		D.	Devices (Switches & Receptacles)		4					
		E.	Interior Lighting Fixtures		4					
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System			3				
	5.3	Voice and Data Systems								3.0
	5.4	Plumbing Systems								3.0
		A.	Plumbing Fixtures			3				
		B.	Water Distribution System/ Pipes			3				
		C.	Water Heaters						N/A	
	5.5	Gas Distribution Systems								4.0
	5.6	Fire Suppression System								3.0
	N O T E S									

System				Condition		
				Compliance	Non-compliance	N/A
6	ADA Compliance					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones	C		
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space	C		
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps			N/A
		E.	Stairways			N/A
		F.	Handrails			N/A
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall			N/A
		B.	Toilet Accessories			N/A
		C.	Water Closets			N/A
		D.	Urinals			N/A
		E.	Lavatories/ Sinks			N/A
		F.	Counters			N/A
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry		NC	
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	
	NOTES	6.4.A: Provide knee and toe clearance under working surfaces and front desk counters. 6.4.B: Provide ADA compliant furniture, fixtures and equipment with accessible height and knee and toe clearances. 6.4.C: Provide ADA compliant service center administration building directional and restroom signage with tactile text and Braille.				

FACILITY CONDITION ASSESSMENT

3 SERIES HANGARS

Condition Summary - 3 Series Hangars

Overall Rating **3.4**

Facility Condition

Site 3.4

The 3 series hangars are located on site at the Tracy Municipal Airport. The Airport Operations office is located adjacent to the 3 series hangars and houses three airport employees.

Exterior Envelope 3.1

Light rusting is present a metal exterior panel edges. Gate tracks are rusted and often bent out of plumb. Waterproofing elements at bases of doors differ among hangars. Single pane windows are present at the Airport Operations office. The office paint is in good condition overall with no signs of chipping. Door frames are exposed wood with splitting and discoloration. Single plane window frames contain splitting wood frames and chipping paint throughout. Wood window sills are similarly deteriorating. Roof surface is rusted and out of plumb.

Structure 3.3

Exposed wood structure and trimming exists throughout with some signs of water damage. Foundation is in visibly sound condition. Some metal beams are slightly rusted and would benefit from a reapplication of protective coating.

Interior 3.3

Interior of the 3 series hangars largely consists of exposed redwood structure. Concrete flooring contains minimal cracking. Airport operations office has worn carpeting and contains an acoustic tile ceiling.

MEP Systems 3.9

Lighting controls are present at hangars. Vents have been created in the ceiling of Airport Operations office to reduce the popping noises due to wind. Electrical junction boxes containing circuit breakers are mounted to hangar exterior with exposed conduit in fair condition. Minimal rusting and deterioration is present at exposed conduit joints.

ADA Compliance Needs Compliance

The 3 series hangars are non-ADA compliant due to threshold concerns, locations of light switches and other elements. The Airport Operations office has non-compliant elements including furniture and counter items.

Recommendation Summary - 3 Series Hangars

Exterior

Office

Storage

Recommendations

Site: Perform site drainage improvements when repavement takes place.

Exterior Envelope: Repaint exterior envelope and signage identifying individual hangars.

Structure: Repair or replace rusted structural elements.

Interior: Finish drywall ceiling in office storage area.

MEP Systems: Install water line for use at 3 and 4 series hangars. Replace rusted conduit at exterior.

ADA Compliance: Perform a thorough ADA compliance study for Pilot's lounge and consider renovations at same time as interior renovations.

Impact of Recommended Works

Site: Hangars will require vacancy during site repavement process. This task may require outside design consultants when ready to be completed.

Exterior Envelope: Minor impact of recommended works may include hangars not accessible during painting. Two weeks will be required to repaint the facility and signage.

Structure: Moderate impact of recommended works. Components may have to be sourced or fabricated with portions of the facility closed during renovations.

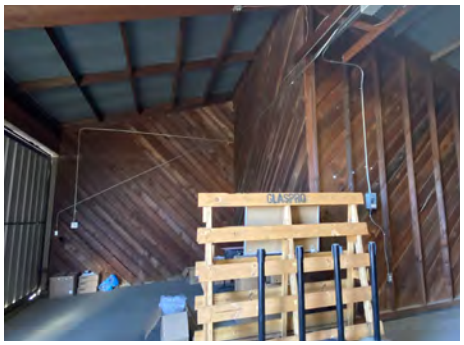
Interior: Moderate impact will require closure of the office storage area during renovations. One month will be required to finish drywall ceiling renovations.

MEP Systems: Water line should be installed during site repavement to minimize cost and disruptions. Rusted conduit components can be replaced in a couple of days.

ADA Compliance: ADA improvements may take an additional amount of time from standard interior renovations depending on scope and severity of work.

Facility Description - 3 Series Hangars

Exterior


Interior

MEP

Building Description

The 3 Series Hangars are metal buildings used to provide space to pilots from the Tracy Municipal Airport. The exterior siding and roof construction is metal with steel interior structural supports and a concrete foundation. The 4 Series Hangars are also used to house maintenance offices and storage space for the airport. Rental rates for the 3 Series hangars are in line with costs for the 4 Series hangars and are slightly lower than G-Series in pricing. Square footage of individual hangar spaces is approximately 820 SF.

Age

The 3-Series hangars are 47 years old and were constructed in 1975.

Use of Building

The building is used in the following ways:

- Houses storage space for airplanes and other aviation related items
- Houses maintenance storage and office space
- Houses some storage space for the Tracy Municipal Airport

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
3 Series Hangars - Overall										**3.4**
1	**Site/ Civil/ Landscape**									**3.5**
	1.1	Fences/ Walls/ Gates								4.0
		A.	Perimeter Fencing		4					
		B.	Equipment Fencing						N/A	
		C.	Landscape Walls/ Piers / Structures						N/A	
		D.	Gates		4					
	1.2	Paving								3.7
		A.	Sidewalks/ Walkways/ Crosswalks		4					
		B.	Curbing						N/A	
		C.	Driveways/ Parking Pavement			3				
		D.	Striping/ Marking/ Speed Bumps						N/A	
		E.	Patios		4					
	1.3	Landscape								N/A
		A.	Ground Cover						N/A	
		B.	Trees						N/A	
		C.	Irrigation System						N/A	
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.5
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures			3				
		C.	Water Fixtures						N/A	
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility		4					
	1.5	Stormwater Management								3.0
	N O T E S									

	System			Condition: Excellent (5)	Good (4)	Fair (3)	Poor (2)	Critical (1)	N/A	Rank
2	**Exterior Envelope**									**3.1**
	2.1	Exterior Wall Finish								3.0
	2.2	Eaves and Fascias								3.0
	2.3	Doors/ Windows/ Louvers								3.5
		A.	Windows			3				
		B.	Louvers and Vents						N/A	
		C.	Exterior Doors & Hardware		4					
	2.4	Roofing								3.0
		A.	Roof Surface				2			
		B.	Roof Opening/ Skylight/ Penetrations						N/A	
		C.	Roof Equipment Curbing						N/A	
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage		4					
		G.	Gutters / Downspouts						N/A	
		H.	Roof Vents						N/A	
	NOTES	2.4.A: Roof surface is rusted and out of plumb, and in visually worse condition than 4 Series Hangar roof.								
3	**Structure**									**3.3**
	3.1	Foundation/ Footing								3.0
	3.2	Columns								4.0
	3.3	Framing System								3.0
	3.4	Walls								3.0
	3.5	Lateral Force Resistance System								3.0
	3.6	Covered Walkway/Canopy								4.0
	3.7	Chimney								N/A
	NOTES									

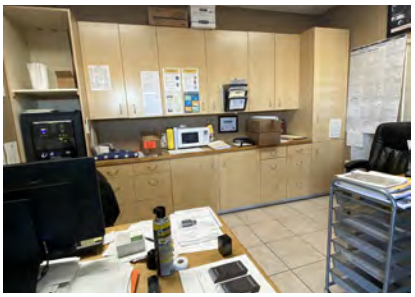
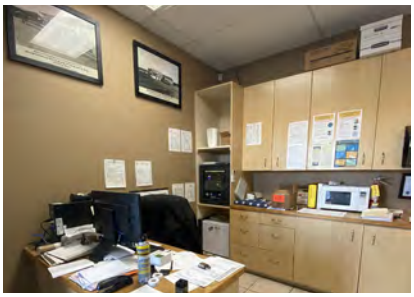
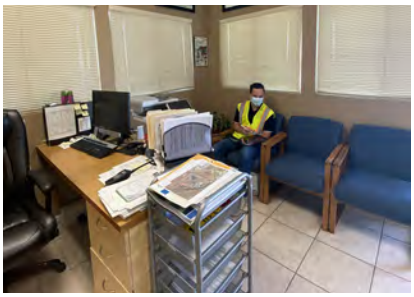
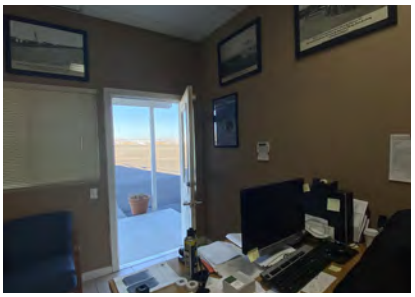
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.3**
	4.1	Ceilings								3.3
		A.	Suspended Ceiling (ACT)		4					
		B.	Gypsum Board				2			
		C.	Plaster						N/A	
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed		4					
	4.2	Flooring								3.5
		A.	Carpet						N/A	
		B.	Vinyl						N/A	
		C.	Tile		4					
		D.	Wood						N/A	
		E.	Concrete			3				
	4.3	Interior Wall/Partition Finishes								3.0
	4.4	Interior Doors								N/A
	4.5	Stairs Condition								N/A
		A.	Stairs/ Landing						N/A	
		B.	Handrails						N/A	
	4.6	Toilet Condition								N/A
		A.	Toilet Accessories						N/A	
		B.	Toilet Partitions						N/A	
		C.	Water Closets						N/A	
		D.	Urinals						N/A	
		E.	Lavatorie /Sinks						N/A	
		F.	Counter						N/A	
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	NOTES	4.1.B: Gypsum board ceiling is only half finished in office storage area of 3 Series Hangars, with exposed wood structure present.								

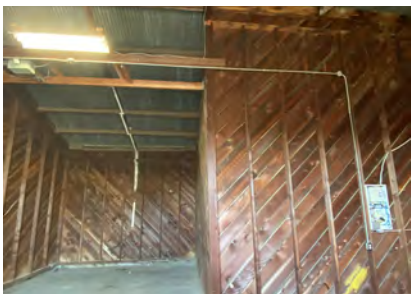
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.9**
	5.1	Mechanical Systems								4.3
		A.	HVAC		4					
		B.	Control System	5						
		C.	Chiller						N/A	
		D.	Cooling Towers						N/A	
		E.	Duct Work						N/A	
		F.	Ventilation\ Air Distribution		4					
		G.	Boilers						N/A	
	5.2	Electrical Systems								3.5
		A.	Transformer			3				
		B.	Switchgear						N/A	
		C.	Panelboards (Condition & Capacity)			3				
		D.	Devices (Switches & Receptacles)		4					
		E.	Interior Lighting Fixtures		4					
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System						N/A	
	5.3	Voice and Data Systems								4.0
	5.4	Plumbing Systems								N/A
		A.	Plumbing Fixtures						N/A	
		B.	Water Distribution System/ Pipes						N/A	
		C.	Water Heaters						N/A	
	5.5	Gas Distribution Systems								N/A
	5.6	Fire Suppression System								N/A
	N O T E S									

System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones		NC	
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space		NC	
		B.	Doors/ Doorways/Gates		NC	
		C.	Threshold		NC	
		D.	Ramps			N/A
		E.	Stairways			N/A
		F.	Handrails			N/A
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall			N/A
		B.	Toilet Accessories			N/A
		C.	Water Closets			N/A
		D.	Urinals			N/A
		E.	Lavatories/ Sinks			N/A
		F.	Counters			N/A
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry		NC	
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	
	NOTES	6.1.B: ADA compliant passenger loading zones do not exist for hangers. 6.2.A: Clear floor space is not provided at hangar interior. 6.2 B: Door operational controls are not ADA compliant. 6.2.C: Threshold at sliding door entrance to hangars is not ADA compliant. 6.4.A: Provide ADA compliant cabinetry. 6.4.B: Provide ADA compliant furniture, fixtures and equipment with accessible height and knee and toe clearances. 6.4.C: Provide ADA compliant hangar signage with tactile text and Braille.				

Photo Documentation | Exterior Overall

Photo Documentation | Interior Blow Ups



FACILITY CONDITION ASSESSMENT

4 SERIES HANGARS

Condition Summary - 4 Series Hangars

Overall Rating 3.6

Facility Condition

Site 3.5

Stormwater management between the 4 Series Hangars and Skyview Aviation would be improved with site slopes and drains, but drainage for the airfield overall is adequate. Water drainage from 4 Series Hangars heads north toward Skyview Aviation and grass area in runoff pits near the edge of airport property. A short security fence with the gate is located near the 4 Series Hangars and is in operable condition with much service life remaining. Site pavement contains large and lengthy cracking but contains remaining service life before repavement is necessary.

Exterior Envelope 3.4

The exterior metal siding contains chipping and worn paint throughout. Metal roof is in fair condition with no reports of frequent leaks. Painted signage identifying individual hangar numbers is faded and scuffed.

Structure 3.8

Main metal structural elements are quite rusty including the siding of sliding hangar doors and at steel structural framing in interiors. Walls are visually plumb.

Interior 3.3

The Pilot's Lounge is located in the 4 Series Hangars. Flooring in Pilot's Lounge is in poor condition with many gaps in the finish. Patched drywall is present at multiple locations. Interior lighting is fluorescent lacking and would benefit from an upgrade. Doors at the interior contain various types of locking mechanisms.

MEP Systems 3.9

An exterior mounted transformer rated at 208 Y/120 is located adjacent to the 4 Series Hangars that serves both the 3 and 4 series hangars. There is no water line available for use to the 4 series hangars. Conduits with junction boxes are mounted to both the exterior and interior structures and are in fair condition with some rusting present.

ADA Compliance Needs Compliance

The hangars are not ADA compliant for a number of reasons including threshold concerns and location of facility elements. The Pilot's Lounge is largely non-compliant due to various violations present in the small space.

Recommendation Summary - 4 Series Hangars

Exterior

Interior

Hangar

Recommendations

Site: Perform site drainage improvements when repavement takes place.

Exterior Envelope: Repaint exterior envelope and signage identifying individual hangars.

Structure: Repair or replace rusted structural elements.

Interior: Replace flooring in Pilot's lounge. Paint interior and repair drywall. Replace lighting fixtures in Pilot's lounge.

MEP Systems: Install water line for use at 3 and 4 Series Hangars. Replace rusted conduit at exterior.

ADA Compliance: Perform a thorough ADA compliance study for Pilot's lounge and consider renovations at same time as interior renovations.

Impact of Recommended Works

Site: Hangars will require vacancy during site repavement processes. This task may require outside design consultants when ready to be completed.

Exterior Envelope: Minor impact of recommended works may include hangars not accessible during painting. Two weeks will be required to repaint the facility and signage.

Structure: Moderate impact of recommended works. Components may have to be sourced or fabricated with portions of the facility closed during renovations.

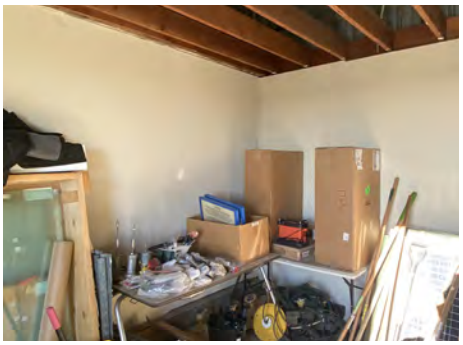
Interior: Moderate impact will require closure of the Pilot's lounge during renovations. Two weeks will be required for these renovations.

MEP Systems: Water line should be installed during site repavement to minimize cost and disruptions. Rusted conduit components can be replaced in a couple of days.

ADA Compliance: ADA improvements may take an additional amount of time from standard interior renovations depending on scope and severity of work.

Facility Description - 4 Series Hangars

Exterior


Interior

Electrical at Exterior

Building Description

The 4 Series Hangars are metal buildings used to rent out space to pilots from the Tracy Municipal Airport. The exterior siding and roof construction is metal with steel interior structural supports and a concrete foundation. The 4 Series Hangars are also used to house the Pilot's Lounge for the airport. Rental rates for the 4 Series hangars are in line with costs for the 3 Series hangars and are slightly lower than G-Series in pricing. Square footage of individual hangar spaces is approximately 820 SF.

Age

The 4-Series hangars are 47 years old and were constructed in 1975.

Use of Building

The building is used in the following ways:

- Houses storage space for airplanes and other aviation related items
- Houses Pilot's Lounge
- Houses some storage space for the Tracy Municipal Airport

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4 Series Hangers - Overall										**3.6**
1	**Site/ Civil/ Landscape**									**3.5**
	1.1	Fences/ Walls/ Gates								4.0
		A.	Perimeter Fencing		4					
		B.	Equipment Fencing						N/A	
		C.	Landscape Walls/ Piers / Structures						N/A	
		D.	Gates		4					
	1.2	Paving								3.7
		A.	Sidewalks/ Walkways/ Crosswalks		4					
		B.	Curbing						N/A	
		C.	Driveways/ Parking Pavement			3				
		D.	Striping/ Marking/ Speed Bumps						N/A	
		E.	Patios		4					
	1.3	Landscape								N/A
		A.	Ground Cover						N/A	
		B.	Trees						N/A	
		C.	Irrigation System						N/A	
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.5
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures			3				
		C.	Water Fixtures						N/A	
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility		4					
	1.5	Stormwater Management								3.0
	N O T E S									

	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**3.4**
	2.1	Exterior Wall Finish								3.0
	2.2	Eaves and Fascias								3.0
	2.3	Doors/ Windows/ Louvers								4.0
		A.	Windows		4					
		B.	Louvers and Vents						N/A	
		C.	Exterior Doors & Hardware		4					
	2.4	Roofing								3.5
		A.	Roof Surface			3				
		B.	Roof Opening/ Skylight/ Penetrations						N/A	
		C.	Roof Equipment Curbing						N/A	
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage		4					
		G.	Gutters / Downspouts						N/A	
		H.	Roof Vents						N/A	
	N O T E S									
3	**Structure**									**3.8**
	3.1	Foundation/ Footing								3.0
	3.2	Columns								4.0
	3.3	Framing System								4.0
	3.4	Walls								4.0
	3.5	Lateral Force Resistance System								4.0
	3.6	Covered Walkway/Canopy								4.0
	3.7	Chimney								N/A
	N O T E S									

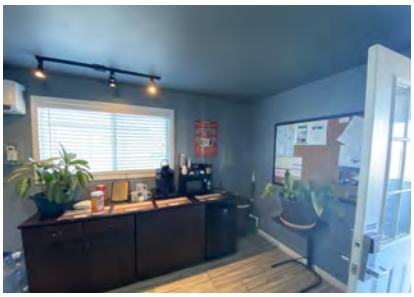
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.3**
	4.1	Ceilings								4.0
		A.	Suspended Ceiling (ACT)						N/A	
		B.	Gypsum Board		4					
		C.	Plaster						N/A	
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed		4					
	4.2	Flooring								3.0
		A.	Carpet						N/A	
		B.	Vinyl			3				
		C.	Tile						N/A	
		D.	Wood						N/A	
		E.	Concrete			3				
	4.3	Interior Wall/Partition Finishes								3.0
	4.4	Interior Doors								N/A
	4.5	Stairs Condition								N/A
		A.	Stairs/ Landing						N/A	
		B.	Handrails						N/A	
	4.6	Toilet Condition								N/A
		A.	Toilet Accessories						N/A	
		B.	Toilet Partitions						N/A	
		C.	Water Closets						N/A	
		D.	Urinals						N/A	
		E.	Lavatorie /Sinks						N/A	
		F.	Counter						N/A	
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	NOTES									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.9**
	5.1	Mechanical Systems								4.3
		A.	HVAC		4					
		B.	Control System	5						
		C.	Chiller						N/A	
		D.	Cooling Towers						N/A	
		E.	Duct Work						N/A	
		F.	Ventilation\ Air Distribution		4					
		G.	Boilers						N/A	
	5.2	Electrical Systems								3.3
		A.	Transformer			3				
		B.	Switchgear						N/A	
		C.	Panelboards (Condition & Capacity)			3				
		D.	Devices (Switches & Receptacles)			3				
		E.	Interior Lighting Fixtures		4					
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System						N/A	
	5.3	Voice and Data Systems								4.0
	5.4	Plumbing Systems								N/A
		A.	Plumbing Fixtures						N/A	
		B.	Water Distribution System/ Pipes						N/A	
		C.	Water Heaters						N/A	
	5.5	Gas Distribution Systems								N/A
	5.6	Fire Suppression System								N/A
	N O T E S									

System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones		NC	
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space		NC	
		B.	Doors/ Doorways/Gates		NC	
		C.	Threshold		NC	
		D.	Ramps			N/A
		E.	Stairways			N/A
		F.	Handrails			N/A
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall			N/A
		B.	Toilet Accessories			N/A
		C.	Water Closets			N/A
		D.	Urinals			N/A
		E.	Lavatories/ Sinks			N/A
		F.	Counters			N/A
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry		NC	
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	
	NOTES	6.1.B: ADA compliant passenger loading zones do not exist for hangers. 6.2.A: Clear floor space is not provided at hangar interior. 6.2 B: Door operational controls are not ADA compliant. 6.2.C: Threshold at sliding door entrance to hangars is not ADA compliant. 6.4.A: Provide ADA compliant cabinetry. 6.4.B: Provide ADA compliant furniture, fixtures and equipment with accessible height and knee and toe clearances. 6.4.C: Provide ADA compliant hangar signage with tactile text and Braille.				

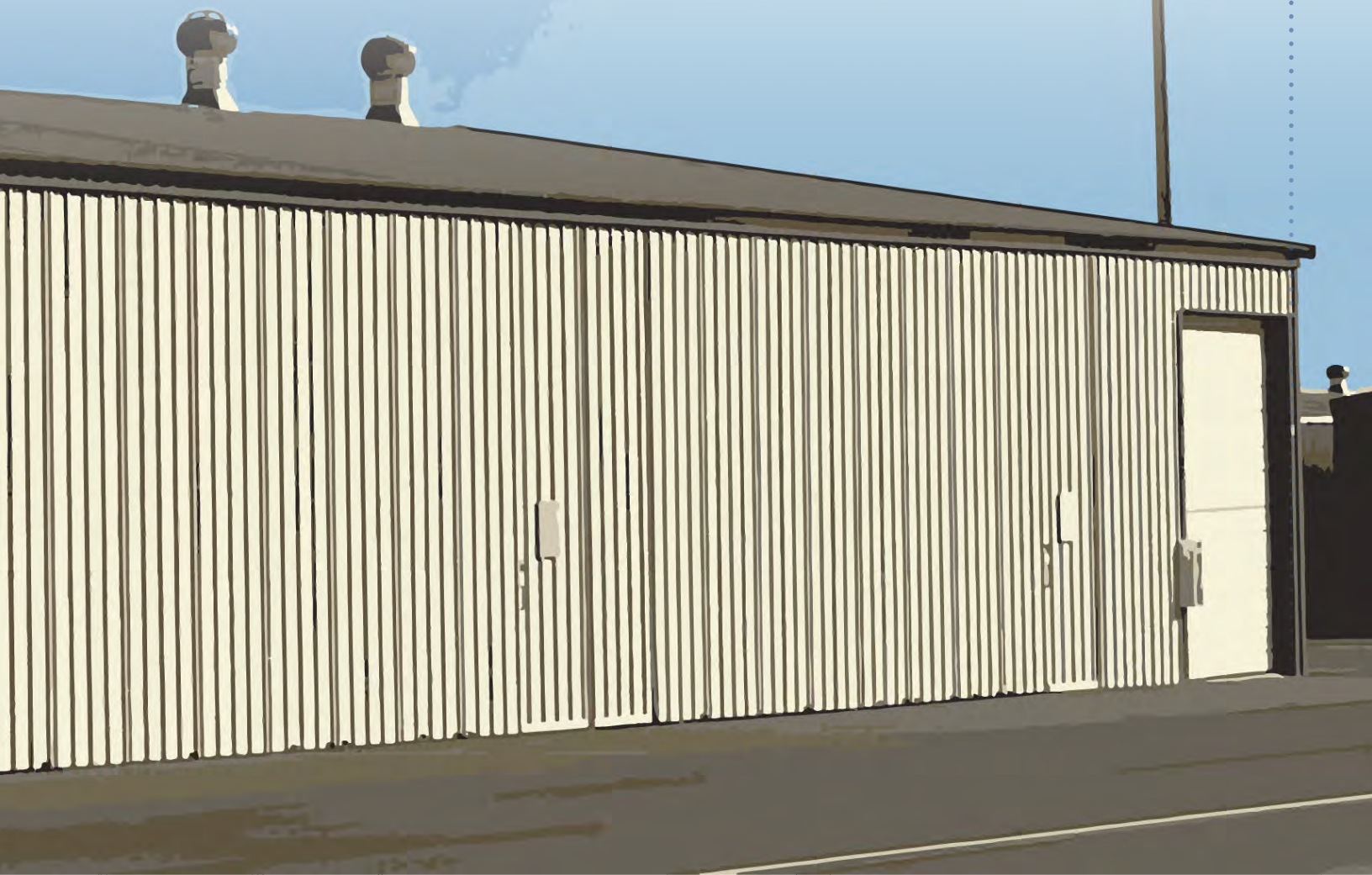
Photo Documentation | Exterior Overall

Photo Documentation | Interior Blow Ups



FACILITY CONDITION ASSESSMENT

B SERIES HANGARS



Condition Summary - B Series Hangars

Overall Rating **3.7**

Facility Condition

Site 3.7
Location of B-Series hangars is not ideal for airport maintenance staff as water drains toward the building that often causes tenants to construct makeshift elements to prevent water intrusion. The City must remove these elements at a later date.

Exterior Envelope 4.1
Exterior walls are in good condition and appear recently painted. Roof and mounted exhaust fans contain much remaining service life with no visual deficiencies observed or maintenance problems reported.

Structure 3.8
Steel framing and other interior structural elements appear to be structurally sound with much remaining service life. Some structural wood contains elements of rot, especially in shop area.

Interior 4.0
Staining from oil and other airplane engine fluids is present at interior concrete flooring.

MEP Systems 3.1
Housing for exterior ground-mounted 3-Ph transformer is rusted.

ADA Compliance Needs Compliance
Interior clear floor space is not present at many portions of the interior. Thresholds are present at sliding floor bottoms at entrances to individual hangars.

Recommendation Summary - B Series Hangars

Exterior

Hangar

MEP

Recommendations

Site: It is recommended to move sites for these hangars to be more accessible and useful.

Exterior Envelope: No recommended works necessary.

Structure: It is recommended to remove rot and replace structural elements in shop area.

Interior: Improvements should include cleaning stains on interior concrete flooring.

MEP Systems: Recommended actions include replacing rusted support elements from exterior ground-mounted 3-Phase transformer.

ADA Compliance: Recommendations include clearing floor space to increase accessibility.

Impact of Recommended Works

Site: Impact of site recommendations include temporarily closing of hangars to change sites.

Exterior Envelope: No impact of recommended works.

Structure: Performing structural recommendations will have minor impact on hangar operations. One week will be required to complete recommended actions.

Interior: Executing recommended improvements will have a minor impact on hangar usability; one week will be required to clean stains on flooring and some hangers may be required to be vacated.

MEP Systems: Electrical service to the hangers may require shutdown during replacement of supports.

ADA Compliance: Impact of recommendations will result in increased accessibility within hangars and will require one week to clear out floor space.

Facility Description - B Series Hangars

Exterior

Interior

MEP

Building Description

The B Series Hangars are metal buildings used to rent out space to pilots from the Tracy Municipal Airport. The exterior siding and roof construction is metal with steel interior structural supports and a concrete foundation. The B Series Hangars are the most costly hangars offered by the Airport as they are the largest in size and most up-to-date. The interior square footage of the B series hangars is approximately 1,310 SF.

Age

The B Series Hangars are 28 years old and were constructed in 1993.

Use of Building

The building is used in the following ways:

- Houses storage space for airplanes and other aviation related items
- Houses some storage space for the Tracy Municipal Airport

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
B Series Hangars - Overall										**3.7**
1	**Site/ Civil/ Landscape**									**3.7**
	1.1	Fences/ Walls/ Gates								N/A
		A.	Perimeter Fencing						N/A	
		B.	Equipment Fencing						N/A	
		C.	Landscape Walls/ Piers / Structures						N/A	
		D.	Gates						N/A	
	1.2	Paving								4.0
		A.	Sidewalks/ Walkways/ Crosswalks						N/A	
		B.	Curbing						N/A	
		C.	Driveways/ Parking Pavement		4					
		D.	Striping/ Marking/ Speed Bumps		4					
		E.	Patios						N/A	
	1.3	Landscape								N/A
		A.	Ground Cover						N/A	
		B.	Trees						N/A	
		C.	Irrigation System						N/A	
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.0
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures			3				
		C.	Water Fixtures						N/A	
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility			3				
	1.5	Stormwater Management								4.0
	NOTES									

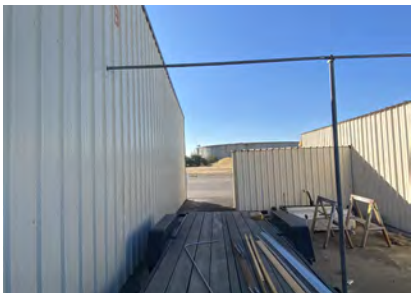
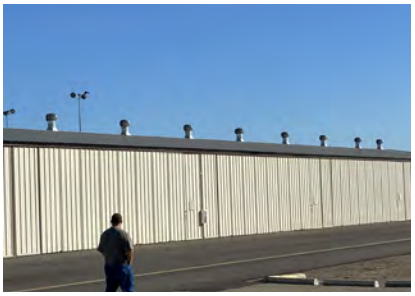
	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**4.1**
	2.1	Exterior Wall Finish								4.0
	2.2	Eaves and Fascias								4.0
	2.3	Doors/ Windows/ Louvers								4.0
		A.	Windows						N/A	
		B.	Louvers and Vents						N/A	
		C.	Exterior Doors & Hardware		4					
	2.4	Roofing								4.3
		A.	Roof Surface		4					
		B.	Roof Opening/ Skylight/ Penetrations						N/A	
		C.	Roof Equipment Curbing						N/A	
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage	5						
		G.	Gutters / Downspouts						N/A	
		H.	Roof Vents		4					
	NOTES									
3	**Structure**									**3.8**
	3.1	Foundation/ Footing								3.0
	3.2	Columns								4.0
	3.3	Framing System								4.0
	3.4	Walls								4.0
	3.5	Lateral Force Resistance System								4.0
	3.6	Covered Walkway/Canopy								N/A
	3.7	Chimney								N/A
	NOTES									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**4.0**
	4.1	Ceilings								5.0
		A.	Suspended Ceiling (ACT)						N/A	
		B.	Gypsum Board						N/A	
		C.	Plaster						N/A	
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed	5						
	4.2	Flooring								3.0
		A.	Carpet						N/A	
		B.	Vinyl						N/A	
		C.	Tile						N/A	
		D.	Wood						N/A	
		E.	Concrete			3				
	4.3	Interior Wall/Partition Finishes								4.0
	4.4	Interior Doors								N/A
	4.5	Stairs Condition								N/A
		A.	Stairs/ Landing						N/A	
		B.	Handrails						N/A	
	4.6	Toilet Condition								N/A
		A.	Toilet Accessories						N/A	
		B.	Toilet Partitions						N/A	
		C.	Water Closets						N/A	
		D.	Urinals						N/A	
		E.	Lavatorie /Sinks						N/A	
		F.	Counter						N/A	
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	NOTES									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.1**
	5.1	Mechanical Systems								3.0
		A.	HVAC						N/A	
		B.	Control System						N/A	
		C.	Chiller						N/A	
		D.	Cooling Towers						N/A	
		E.	Duct Work						N/A	
		F.	Ventilation\ Air Distribution			3				
		G.	Boilers						N/A	
	5.2	Electrical Systems								3.2
		A.	Transformer			3				
		B.	Switchgear			3				
		C.	Panelboards (Condition & Capacity)			3				
		D.	Devices (Switches & Receptacles)			3				
		E.	Interior Lighting Fixtures		4					
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System						N/A	
	5.3	Voice and Data Systems								N/A
	5.4	Plumbing Systems								N/A
		A.	Plumbing Fixtures						N/A	
		B.	Water Distribution System/ Pipes						N/A	
		C.	Water Heaters						N/A	
	5.5	Gas Distribution Systems								N/A
	5.6	Fire Suppression System								N/A
	N O T E S									

System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces		NC	
		B.	Passenger Loading Zones		NC	
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space	C		
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps			N/A
		E.	Stairways			N/A
		F.	Handrails			N/A
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall			N/A
		B.	Toilet Accessories			N/A
		C.	Water Closets			N/A
		D.	Urinals			N/A
		E.	Lavatories/ Sinks			N/A
		F.	Counters			N/A
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry			N/A
		B.	Furniture, Fixtures & Equipment - FF&E			N/A
		C.	Signage		NC	
	NOTES	6.1.A: ADA compliant parking spaces do not exist for hangers. 6.1.B: ADA compliant passenger loading zones do not exist for hangers. 6.4.C: Provide ADA compliant hangar signage with tactile text and Braille.				

Photo Documentation | Exterior Overall

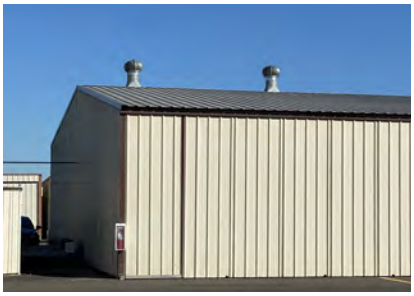
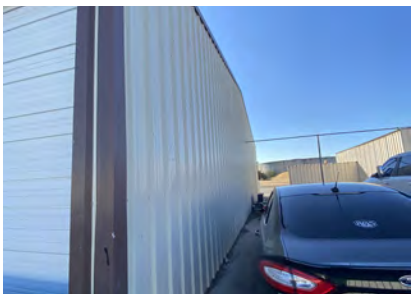
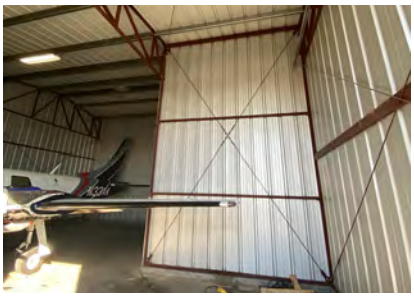
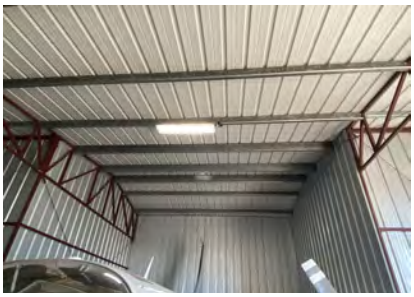
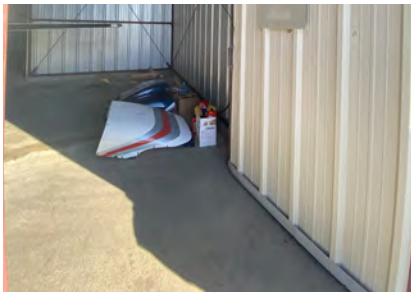



Photo Documentation | Interior Blow Ups







FACILITY CONDITION ASSESSMENT

F SERIES HANGARS

Condition Summary - F Series Hangars

Overall Rating **2.7**

Facility Condition

Site 3.0

Asphalt surrounding F-Series hangars is in good condition with minimal cracking and recent pavement striping. Site lighting is present but not directly adjacent to F-Series hangars. The transformer feeding all nearby hangars is located on the other side of the F-Series hangars adjacent to the G-Series hangars.

Exterior Envelope 2.7

Steel exterior of F-Series hangars is rusted in places especially at entrance thresholds and door components. Paint has chipped which has allowed rusting. Paint is faded and hangars are not uniform in color. Flat roofs are discolored and rusting at edges. Tow hitches used for transport of hangars appear rusted and should be further investigated prior to transport. Door latching system is worn and had to utilize at many doors.

Structure 2.8

Structure is rusting away at various locations, especially at door components. Replacement parts are unavailable and must be fabricated.

Interior 3.0

Some staining is present at interior asphalt floors. Minimal cracking is present in flooring. Interior lighting lenses are discolored.

MEP Systems 2.1

Interior lighting fixtures are present. Underground leaks are reported at all F-series hangars.

ADA Compliance Needs Compliance

Significant thresholds exist at entrances and throughout interiors of hangars which are part of door system.

Recommendation Summary - F Series Hangars

Exterior

Interior

Rubber Washer

Recommendations

Site: It is recommended to add photocell lighting fixtures directly adjacent to the hangar.

Exterior Envelope: Recommended actions include cleaning rusted areas of the hangar include entrance thresholds and door components, repainting the facade and making sure all hangars are painted in the same color, cleaning and painting flat roofs, potentially replacing tow hitches and replacing rusted door latching system.

Structure: It is recommended to order fabricated parts for rusted components throughout the hangar.

Interior: Recommendations include cleaning interior asphalt floors and interior lighting lenses.

MEP Systems: Improvements should include further investigation and repair to all underground leaks.

ADA Compliance: Recommendations include clearing floor space to increase accessibility and modifying door operations and threshold to be ADA compliant.

Impact of Recommended Works

Site: Impact of site recommendations are minor. One week will be required for the addition of lighting fixtures.

Exterior Envelope: Impacts of recommendations are moderate and may require hangars to be vacated. One month will be required after components are ordered.

Structure: Performing structural recommendations will require eight to twelve weeks to fabricate and apply to the hangars.

Interior: Performing the interior recommended improvements should have minor effects on the hangars operations. One week will be required to clean asphalt floors and lighting lenses.

MEP Systems: Impacts of leak investigation will vary upon findings and may be significant.

ADA Compliance: Impact of recommendations will result in increased accessibility within hangars and will require one week to clear out floor space. Changes to threshold will likely require more significant design and may be applied to a smaller number of hangers designated as accessible.

Facility Description - F Series Hangars

Exterior

Interior

Tow Hitch

Building Description

The F Series Hangars are metal buildings used to rent out space to pilots from the Tracy Municipal Airport. The exterior siding and roof construction is metal with steel interior structural supports and a concrete foundation. The F Series Hangars are the lowest priced hangars offered by the airport with interior square footage of approximately 690 SF.

Age

The F-Series hangars are 67 years old and were constructed in 1955.

Use of Building

The building is used in the following ways:

- Houses storage space for airplanes and other aviation related items
- Houses some storage space for the Tracy Municipal Airport

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
F Series Hangars - Overall										**2.7**
1	**Site/ Civil/ Landscape**									**3.0**
	1.1	Fences/ Walls/ Gates								N/A
		A.	Perimeter Fencing						N/A	
		B.	Equipment Fencing						N/A	
		C.	Landscape Walls/ Piers / Structures						N/A	
		D.	Gates						N/A	
	1.2	Paving								3.0
		A.	Sidewalks/ Walkways/ Crosswalks						N/A	
		B.	Curbing						N/A	
		C.	Driveways/ Parking Pavement			3				
		D.	Striping/ Marking/ Speed Bumps			3				
		E.	Patios						N/A	
	1.3	Landscape								N/A
		A.	Ground Cover						N/A	
		B.	Trees						N/A	
		C.	Irrigation System						N/A	
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.0
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures			3				
		C.	Water Fixtures						N/A	
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility			3				
	1.5	Stormwater Management								3.0
	NOTES									

			System	Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**2.7**
	2.1		Exterior Wall Finish							3.0
	2.2		Eaves and Fascias							2.0
	2.3		Doors/ Windows/ Louvers							3.0
		A.	Windows						N/A	
		B.	Louvers and Vents						N/A	
		C.	Exterior Doors & Hardware			3				
	2.4		Roofing							2.7
		A.	Roof Surface			3				
		B.	Roof Opening/ Skylight/ Penetrations						N/A	
		C.	Roof Equipment Curbing						N/A	
		D.	Leakage				2			
		E.	Ponding Water						N/A	
		F.	Roof Drainage			3				
		G.	Gutters / Downspouts						N/A	
		H.	Roof Vents						N/A	
	NOTES		2.4.D: Roofing leaks at various F series hangars during the rainy season.							
3	**Structure**									**2.8**
	3.1		Foundation/ Footing							2.0
	3.2		Columns							3.0
	3.3		Framing System							3.0
	3.4		Walls							3.0
	3.5		Lateral Force Resistance System							3.0
	3.6		Covered Walkway/Canopy							N/A
	3.7		Chimney							N/A
	NOTES									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.0**
	4.1	Ceilings								3.0
		A.	Suspended Ceiling (ACT)						N/A	
		B.	Gypsum Board						N/A	
		C.	Plaster						N/A	
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed			3				
	4.2	Flooring								3.0
		A.	Carpet						N/A	
		B.	Vinyl						N/A	
		C.	Tile						N/A	
		D.	Wood						N/A	
		E.	Concrete			3				
	4.3	Interior Wall/Partition Finishes								3.0
	4.4	Interior Doors								N/A
	4.5	Stairs Condition								N/A
		A.	Stairs/ Landing						N/A	
		B.	Handrails						N/A	
	4.6	Toilet Condition								N/A
		A.	Toilet Accessories						N/A	
		B.	Toilet Partitions						N/A	
		C.	Water Closets						N/A	
		D.	Urinals						N/A	
		E.	Lavatorie /Sinks						N/A	
		F.	Counter						N/A	
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	NOTES									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**2.1**
	5.1	Mechanical Systems								N/A
		A.	HVAC						N/A	
		B.	Control System						N/A	
		C.	Chiller						N/A	
		D.	Cooling Towers						N/A	
		E.	Duct Work						N/A	
		F.	Ventilation\ Air Distribution						N/A	
		G.	Boilers						N/A	
	5.2	Electrical Systems								3.2
		A.	Transformer			3				
		B.	Switchgear			3				
		C.	Panelboards (Condition & Capacity)			3				
		D.	Devices (Switches & Receptacles)			3				
		E.	Interior Lighting Fixtures		4					
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System						N/A	
	5.3	Voice and Data Systems								N/A
	5.4	Plumbing Systems								1.0
		A.	Plumbing Fixtures						N/A	
		B.	Water Distribution System/ Pipes					1		
		C.	Water Heaters						N/A	
	5.5	Gas Distribution Systems								N/A
	5.6	Fire Suppression System								N/A
	N O T E S	5.4.B: Water leakage has been reported underground and may allude to cracked or broken utility piping.								

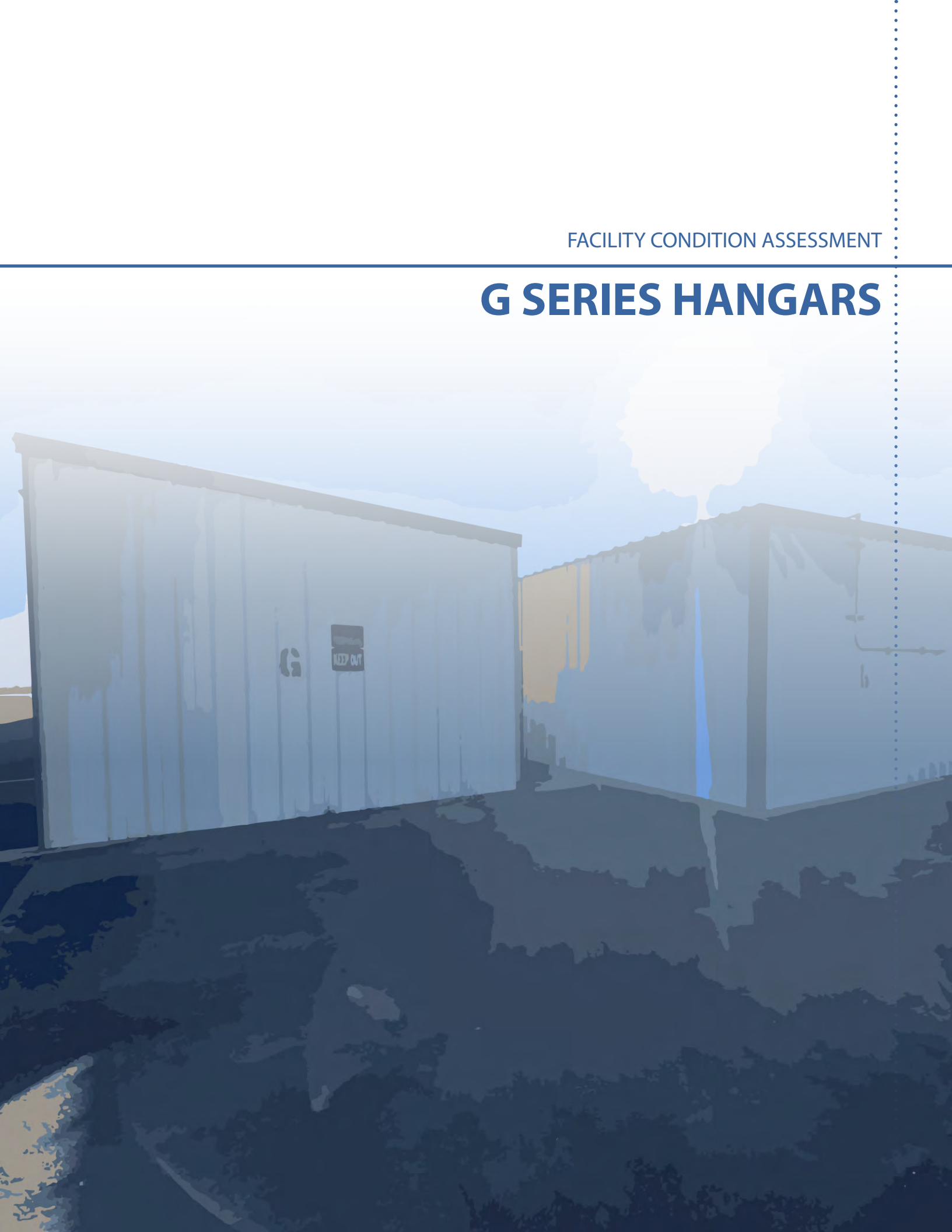
System				Condition		
				Compliance	Non-compliance	N/A
6	ADA Compliance					
	6.1	Site				
		A.	Accessible Parking Spaces		NC	
		B.	Passenger Loading Zones		NC	
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space		NC	
		B.	Doors/ Doorways/Gates		NC	
		C.	Threshold		NC	
		D.	Ramps			N/A
		E.	Stairways			N/A
		F.	Handrails			N/A
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall			N/A
		B.	Toilet Accessories			N/A
		C.	Water Closets			N/A
		D.	Urinals			N/A
		E.	Lavatories/ Sinks			N/A
		F.	Counters			N/A
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry			N/A
		B.	Furniture, Fixtures & Equipment - FF&E			N/A
		C.	Signage		NC	
	NOTES	6.1.A: ADA compliant parking spaces do not exist for hangers. 6.1.B: ADA compliant passenger loading zones do not exist for hangers. 6.2.A: Clear floor space is not provided at hangar interior. 6.2 B: Door operational controls are not ADA compliant. 6.2.C: Threshold at sliding door entrance to hangars is not ADA compliant. 6.4.C: Provide ADA compliant hangar signage with tactile text and Braille.				

Photo Documentation | Exterior Overall

Photo Documentation | Interior Blow Ups

FACILITY CONDITION ASSESSMENT

G SERIES HANGARS



Condition Summary - G Series Hangars

Overall Rating **3.6**

Facility Condition

Site 3.8

Main electrical service for the 4 adjacent hangars (B, F, D and E Series) and the G series hangars is located on site and runs adjacent to the hangars. Fire extinguishers are provided at approximately every third hangar. Large exterior lighting poles are present each containing a trio of lights with remaining service life. Site pavement is in good condition overall with minimal cracking or wear. Drainage grates are rusted.

Exterior Envelope 3.3

Mechanical issues are present at exterior sliding door tracks. Sheet metal is weakening and lots of play is required for doors to release friction and begin moving. These doors generally move about due to wind and temperature changes. Some weatherproofing at door bases is bent out of plumb.

Structure 3.8

Exterior structure is visibly worn and maintenance staff and tenants report many problems with door operation which alludes to structural deterioration.

Interior 4.0

Interior is painted and not yet faded. Much staining is present from airplane fluid leakage or overspill at concrete flooring.

MEP Systems 3.2

An adjacent electrical and mechanical pump area contains mostly PG&E owned components. One small transformer belongs to the airport that is located in this area.

ADA Compliance Needs Compliance

Door tracks act as thresholds that are not ADA compliant.

Recommendation Summary - G Series Hangars

Exterior

Hangar

Weather Protection

Recommendations

Site: No site recommendations.

Exterior Envelope: Recommendations include repairing mechanical issues within exterior sliding door tracks, reinforcing sheet metal, and repairing weatherproofing at door base to be in plumb.

Structure: No structural recommendations.

Interior: Improvements should include cleaning stains on interior concrete flooring.

MEP Systems: No MEP recommendations.

ADA Compliance: Recommendations include clearing floor space to increase accessibility and modifying door threshold to be ADA compliant.

Impact of Recommended Works

Site: No impact of recommended works.

Exterior Envelope: Impact of recommended actions include disturbed access to the hangar. One week will be required to complete recommendations.

Structure: No impact of recommended works.

Interior: Executing recommended improvements will have a minor impact on the hangars; one week will be required to clean stains on flooring and some hangers may be required to be vacated.

MEP Systems: No impact of recommended works.

ADA Compliance: Impact of recommendations will result in increased accessibility within hangars and will require one week to clear out floor space. Changes to threshold will likely require more significant design and may be applied to a smaller number of hangers designated as accessible.

Facility Description - G Series Hangars

Exterior

Interior

MEP

Building Description

The G Series Hangars are metal buildings used to rent out space to pilots from the Tracy Municipal Airport. The exterior siding and roof construction is metal with steel interior structural supports and a concrete foundation. The G Series Hangars are the moderately priced hangars with interior square footage of approximately 875 SF.

Age

The G Series Hangars are 29 years old and were constructed in 1993.

Use of Building

The building is used in the following ways:

- Houses storage space for airplanes and other aviation related items
- Houses some storage space for the Tracy Municipal Airport

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
G Series Hangars - Overall										**3.6**
1	**Site/ Civil/ Landscape**									**3.8**
	1.1	Fences/ Walls/ Gates								N/A
		A.	Perimeter Fencing						N/A	
		B.	Equipment Fencing						N/A	
		C.	Landscape Walls/ Piers / Structures						N/A	
		D.	Gates						N/A	
	1.2	Paving								4.0
		A.	Sidewalks/ Walkways/ Crosswalks						N/A	
		B.	Curbing						N/A	
		C.	Driveways/ Parking Pavement		4					
		D.	Striping/ Marking/ Speed Bumps		4					
		E.	Patios						N/A	
	1.3	Landscape								N/A
		A.	Ground Cover						N/A	
		B.	Trees						N/A	
		C.	Irrigation System						N/A	
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.5
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures			3				
		C.	Water Fixtures						N/A	
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility		4					
	1.5	Stormwater Management								4.0
	NOTES									

	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**3.3**
	2.1	Exterior Wall Finish								3.0
	2.2	Eaves and Fascias								3.0
	2.3	Doors/ Windows/ Louvers								3.0
		A.	Windows						N/A	
		B.	Louvers and Vents						N/A	
		C.	Exterior Doors & Hardware			3				
	2.4	Roofing								4.0
		A.	Roof Surface		4					
		B.	Roof Opening/ Skylight/ Penetrations		4					
		C.	Roof Equipment Curbing						N/A	
		D.	Leakage						N/A	
		E.	Ponding Water						N/A	
		F.	Roof Drainage						N/A	
		G.	Gutters / Downspouts						N/A	
		H.	Roof Vents						N/A	
	NOTES									
3	**Structure**									**3.8**
	3.1	Foundation/ Footing								3.0
	3.2	Columns								4.0
	3.3	Framing System								4.0
	3.4	Walls								4.0
	3.5	Lateral Force Resistance System								4.0
	3.6	Covered Walkway/Canopy								N/A
	3.7	Chimney								N/A
	NOTES									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**4.0**
	4.1	Ceilings								5.0
		A.	Suspended Ceiling (ACT)						N/A	
		B.	Gypsum Board						N/A	
		C.	Plaster						N/A	
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed	5						
	4.2	Flooring								3.0
		A.	Carpet						N/A	
		B.	Vinyl						N/A	
		C.	Tile						N/A	
		D.	Wood						N/A	
		E.	Concrete			3				
	4.3	Interior Wall/Partition Finishes								4.0
	4.4	Interior Doors								N/A
	4.5	Stairs Condition								N/A
		A.	Stairs/ Landing						N/A	
		B.	Handrails						N/A	
	4.6	Toilet Condition								N/A
		A.	Toilet Accessories						N/A	
		B.	Toilet Partitions						N/A	
		C.	Water Closets						N/A	
		D.	Urinals						N/A	
		E.	Lavatorie /Sinks						N/A	
		F.	Counter						N/A	
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	NOTES									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.2**
	5.1	Mechanical Systems								N/A
		A.	HVAC						N/A	
		B.	Control System						N/A	
		C.	Chiller						N/A	
		D.	Cooling Towers						N/A	
		E.	Duct Work						N/A	
		F.	Ventilation\ Air Distribution						N/A	
		G.	Boilers						N/A	
	5.2	Electrical Systems								3.2
		A.	Transformer			3				
		B.	Switchgear			3				
		C.	Panelboards (Condition & Capacity)			3				
		D.	Devices (Switches & Receptacles)			3				
		E.	Interior Lighting Fixtures		4					
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System						N/A	
	5.3	Voice and Data Systems								N/A
	5.4	Plumbing Systems								N/A
		A.	Plumbing Fixtures						N/A	
		B.	Water Distribution System/ Pipes						N/A	
		C.	Water Heaters						N/A	
	5.5	Gas Distribution Systems								N/A
	5.6	Fire Suppression System								N/A
	NOTES									

System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces		NC	
		B.	Passenger Loading Zones		NC	
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space		NC	
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold		NC	
		D.	Ramps			N/A
		E.	Stairways			N/A
		F.	Handrails			N/A
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall			N/A
		B.	Toilet Accessories			N/A
		C.	Water Closets			N/A
		D.	Urinals			N/A
		E.	Lavatories/ Sinks			N/A
		F.	Counters			N/A
		G.	Shower Compartments			N/A
	6.4	Building Elements				
		A.	Cabinetry			N/A
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	
	NOTES	6.1.A: ADA compliant parking spaces do not exist for hangers. 6.1.B: ADA compliant passenger loading zones do not exist for hangers. 6.2.A: Clear floor space is not provided at hangar interior. 6.2.C: Threshold at sliding door entrance to hangars is not ADA compliant. 6.4.C: Provide ADA compliant hangar signage with tactile text and Braille.				

Photo Documentation | Exterior Overall

Photo Documentation | Interior Blow Ups

FACILITY CONDITION ASSESSMENT

SKYVIEW AVIATION

Condition Summary - Skyview Aviation

Overall Rating **3.3**

Facility Condition

Site 3.3

A drain located adjacent to the main aircraft entrance to the hangar attempts to lessen water intrusion to the interior. Site drainage is reported to be less than ideal. Lettering is flaking off from exterior signage. An exterior transformer dedicated to fuel monitoring is located on site. Parking lot striping is faded throughout.

Exterior Envelope 2.6

The exterior metal siding is in fair condition with some areas rusted through with paint required. The roof has had reports of leaks over the last decade. Skylight panels are discolored and worn. The large sliding doors allowing aircrafts access o the hangar are on overly sized tracks that require excessive force to open and utilize.

Structure 3.3

Structural connections are in visibly fair condition, as they are rusty but contain intact protective coatings. Straps holding arch of structure at exterior must be tightened occasionally. Wood framing system contains rot in places due to water intrusion from leaking roof.

Interior 3.6

Some evidence of wood rot is present at hangar structure. Interior lighting is just adequate and could be modernized. Current tubes are fluorescent with some units out of discolored. Asphalt flooring is pitted in areas but generally works well for the operations of the facility. Flooring in administration and office areas differs throughout but is largely rolled carpeting in fair condition. Green carpet is original to the building. Previous mold issues present at interior asphalt has led to mildew prevention efforts. Windows are in good condition as double-paned glass has recently been installed. Ceilings are plaster in office areas and painted white. Hangar area has exposed wood and metal roof structure as ceiling.

MEP Systems 3.7

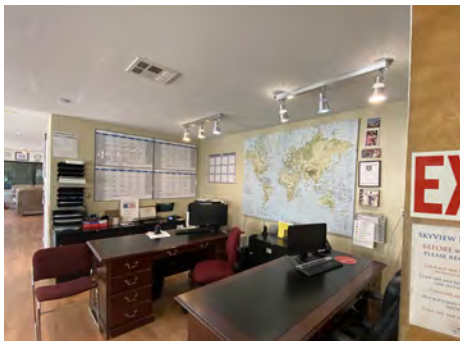
Heating and air conditioning equipment is largely located adjacent to the building in the parking lot. These units were intended to serve the office and administration areas but systems are no longer operational. Portable evaporative coolers are used in summer months.

ADA Compliance **Needs Compliance**

Interior restrooms are not ADA compliant due to a multitude of violations related to dimensions and other items. Accessible parking space requires re-striping.

Recommendation Summary - Skyview Aviation

Exterior


Interior

Hangar Door

Recommendations

Site: Recommendations include eventually altering site drainage so water flows away from the building and repainting parking lot stalls.

Exterior Envelope: Recommendations include repainting exterior metal siding, replacing roof, replaying skylight panels, and properly sizing tracks for large sliding doors.

Structure: It is recommended to tighten the straps holding arch of structure at exterior and perform additional structural investigation including gate tracks.

Interior: It is recommended to repair hangar structure, modernize interior lighting, and improving the flooring within the administration and office areas.

MEP Systems: It is recommended to replace out-of-service HVAC units located on-site near parking area.

ADA Compliance: It is recommended to replace and relocate many toilet accessories.

Impact of Recommended Works

Site: Impact of site recommendations will slightly disturb access to the facility. Drainage improvements will likely require significant expense and be part of future airport improvements.

Exterior Envelope: Impacts of recommendations are minor and will result in improved physical appearance. Two weeks will be required to complete all recommendations.

Structure: Performing structural investigation should have minor impact on the building's operations. Repair will likely require portions of the facility to close for up to six weeks.

Interior: Executing recommended improvements should have some impact on the building's operations; completion of improvements will take four weeks.

MEP Systems: Replacement of HVAC units should have minor impact on facility operations and take one week to complete.

ADA Compliance: Performing the recommended improvements will have a minor impact on the building's operations. Toilet rooms will be temporarily closed and one week will be required to make appropriate adjustments.

Facility Description - Skyview Aviation

Exterior

Interior

MEP

Building Description

Skyview Aviation is a single story building that was constructed in 1955. It is located off of South Tracy Boulevard and is surrounded by flat lands. This hangar is not located near other rented hangars offered by the airport.

Skyview Aviation houses appropriate space and equipment for the services the facility offers including flight school and aviation training programs. The machinery and tools that are required to successfully hold classes and provide other services are available. The center services all of Northern California and international customers.

Age

The Skyview Aviation building is 67 years old and was constructed in 1955.

Use of Building

The building is used in the following ways:

- Provides flight training classes for domestic and international students
- Provides maintenance services for aircrafts
- Assist with buying, selling, and advertising aircraft or parts
- Dismantle and containerize aircraft and ship worldwide

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Skyview Aviation - Overall										**3.2**
1	**Site/ Civil/ Landscape**									**3.3**
	1.1	Fences/ Walls/ Gates								4.0
		A.	Perimeter Fencing		4					
		B.	Equipment Fencing						N/A	
		C.	Landscape Walls/ Piers / Structures						N/A	
		D.	Gates		4					
	1.2	Paving								3.3
		A.	Sidewalks/ Walkways/ Crosswalks			3				
		B.	Curbing						N/A	
		C.	Driveways/ Parking Pavement		4					
		D.	Striping/ Marking/ Speed Bumps			3				
		E.	Patios			3				
	1.3	Landscape								N/A
		A.	Ground Cover						N/A	
		B.	Trees						N/A	
		C.	Irrigation System						N/A	
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.8
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures			3				
		C.	Water Fixtures		4					
		D.	Exterior Site Furniture			3				
		E.	Site Utility	5						
	1.5	Stormwater Management								2.0
	N O T E S									

	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**2.6**
	2.1	Exterior Wall Finish								3.0
	2.2	Eaves and Fascias								2.0
	2.3	Doors/ Windows/ Louvers								2.5
		A.	Windows			3				
		B.	Louvers and Vents						N/A	
		C.	Exterior Doors & Hardware				2			
	2.4	Roofing								2.8
		A.	Roof Surface			3				
		B.	Roof Opening/ Skylight/ Penetrations			3				
		C.	Roof Equipment Curbing						N/A	
		D.	Leakage					1		
		E.	Ponding Water						N/A	
		F.	Roof Drainage			3				
		G.	Gutters / Downspouts						N/A	
		H.	Roof Vents		4					
	N O T E S	2.3.C: Entrance door surface is scratched and painted and requires paint. Hangar doors do not operate appropriately and require a surprising amount of excessive force to open or close. 2.4.D: Leaks are reported at various areas of the roof throughout the rainy season.								
3	**C**									**3.2**
	3.1	Foundation/ Footing								3.0
	3.2	Columns								3.0
	3.3	Framing System								2.0
	3.4	Walls								4.0
	3.5	Lateral Force Resistance System								3.0
	3.6	Covered Walkway/Canopy								4.0
	3.7	Chimney								N/A
	N O T E S	3.3: Aspects of wood framing system contain rot due to water intrusion from leaking roof.								

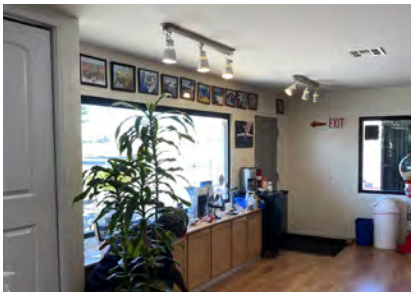
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.6**
	4.1	Ceilings								3.5
		A.	Suspended Ceiling (ACT)						N/A	
		B.	Gypsum Board		4					
		C.	Plaster						N/A	
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed			3				
	4.2	Flooring								3.7
		A.	Carpet		4					
		B.	Vinyl		4					
		C.	Tile						N/A	
		D.	Wood						N/A	
		E.	Concrete			3				
	4.3	Interior Wall/Partition Finishes								4.0
	4.4	Interior Doors								3.0
	4.5	Stairs Condition								N/A
		A.	Stairs/ Landing						N/A	
		B.	Handrails						N/A	
	4.6	Toilet Condition								4.0
		A.	Toilet Accessories		4					
		B.	Toilet Partitions						N/A	
		C.	Water Closets		4					
		D.	Urinals						N/A	
		E.	Lavatorie /Sinks		4					
		F.	Counter						N/A	
		G.	Shower Compartments						N/A	
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A
	NOTES									

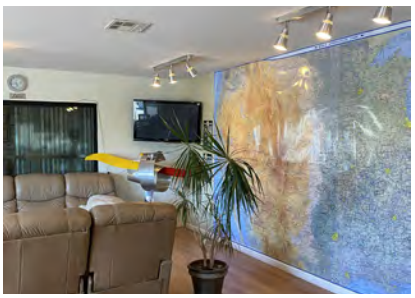
System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**3.6**
	5.1	Mechanical Systems								3.3
		A.	HVAC				2			
		B.	Control System		4					
		C.	Chiller						N/A	
		D.	Cooling Towers						N/A	
		E.	Duct Work		4					
		F.	Ventilation\ Air Distribution			3				
		G.	Boilers							
	5.2	Electrical Systems								3.5
		A.	Transformer			3				
		B.	Switchgear						N/A	
		C.	Panelboards (Condition & Capacity)		4					
		D.	Devices (Switches & Receptacles)			3				
		E.	Interior Lighting Fixtures		4					
		F.	Conveying Systems						N/A	
		G.	Fire Alarm System						N/A	
	5.3	Voice and Data Systems								4.0
	5.4	Plumbing Systems								3.7
		A.	Plumbing Fixtures		4					
		B.	Water Distribution System/ Pipes		4					
		C.	Water Heaters			3				
	5.5	Gas Distribution Systems								N/A
	5.6	Fire Suppression System								N/A
	NOTES	5.1.A: Exterior HVAC units located on-site near parking area are not in service. Office area contains HVAC service but other areas do not.								

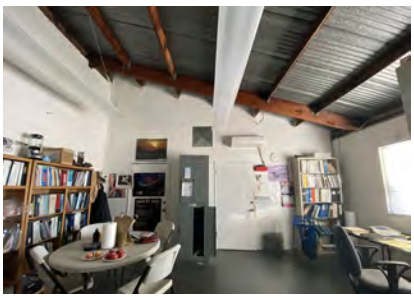
System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces	C		
		B.	Passenger Loading Zones			N/A
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space		NC	
		B.	Doors/ Doorways/Gates		NC	
		C.	Threshold		NC	
		D.	Ramps			N/A
		E.	Stairways			N/A
		F.	Handrails			N/A
		G.	Elevators			N/A
	6.3	Toilet				
		A.	Clearances/Accessible Stall		NC	
		B.	Toilet Accessories		NC	
		C.	Water Closets		NC	
		D.	Urinals		NC	
		E.	Lavatories/ Sinks		NC	
		F.	Counters		NC	
		G.	Shower Compartments		NC	
	6.4	Building Elements				
		A.	Cabinetry		NC	
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	
	NOTES	6.2.A: Walking surfaces and clear floor space throughout the facility are blocked with items and contains various thresholds. 6.2.B: Doors and gates contain non-compliant thresholds and side strike clearances. 6.2.C: Non-compliant thresholds are present throughout the facility and from hangar to airside space. 6.3.A-G: Interior restroom is not compliant due to multiple violations under multiple categories. 6.4.A: Provide knee and toe clearance under working surface and counters. 6.4.B: Provide ADA compliant furniture, fixtures and equipment with accessible height and knee and toe clearance. 6.4.C: Provide ADA compliant facility signage with tactile text and Braille.				

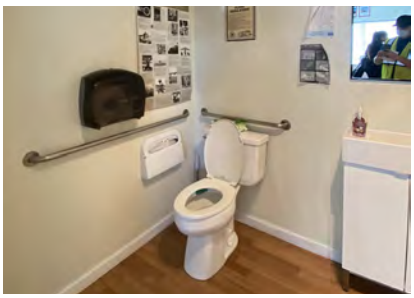
Photo Documentation | Exterior Overall

Photo Documentation | Interior Blow Ups









FACILITY CONDITION ASSESSMENT

POLICE STATION

Condition Summary - Tracy Police Department

Overall Rating **3.3**

Facility Condition

Site 3.4

Site elements include multiple parking lots, landscaping, HVAC system components and cellular communications antennae. Curbing and walkways around entrance contain tire markings and other stains and require cleaning. Parking pavement is in fair condition with striping deterioration and cracking in places. Solar panels in gated south police parking lot are in good condition with minimal wear. Gate to access south lot contains rust and worn track and motor housing. Site lighting poles are contain discolored lenses and require paint. Vegetation is mostly healthy but some areas of open dirt remain. Lawn is well-kept and appears healthy and green. Building signage is present but faded and undersized especially at parking lots and adjacent building areas.

Exterior Envelope 3.6

The metal roof has been recently replaced and is in very good condition. The roof does require cleaning due to dust buildup. Gutters and downspouts are in fair condition with some rusted elements and with paint in various states of fade depending on individual gutter orientation and amount of sun received. Flag poles mounted to the exterior structure are in good condition with light paint flaking at bases. Windows including applied tint coat contain much remaining service life. The facility has faded paint in areas and repainting should be considered.

Structure 3.8

Visual structural deficiencies include cracking present at concrete flooring throughout the building. No other visual structural deficiencies were observed.

Interior 3.1

Door seals don't exist at the bottoms of some exterior doors allowing water and dust to enter the building. Square carpet tile throughout the building has been recently replaced with no signs of wear or discoloration. Paint is scuffed on interior walls and doors throughout at various amounts. Acoustic ceiling tiles are mostly in good condition but some large stains exist and damage is present around some areas that required rework due to replacement of head pumps in ceiling system. Much scuffing exists at working surface counters throughout the facility. Wood doors and counters are especially scratched and scuffed. Elevator cab is dim and requires new lighting and has a dirty threshold. Paint is flaking at the ceiling of the large holding cell. Interior fire glass requires replacement.

MEP Systems 2.7

Electrical switchgear is in good condition with remaining useful service life. Issues with the closed loop water system include water-sourced heat pumps that are failing at a quick rate. In total, the facility has 38 units and 8 have already been replaced with all requiring replacement. A 1000-gallon emergency diesel generator allows power to the building for 7 to 10 days in the event of normal power loss. This generator may require servicing but has no reported issues. A new fire alarm system including fire panel, smoke detector heads and fire alarm lighting were

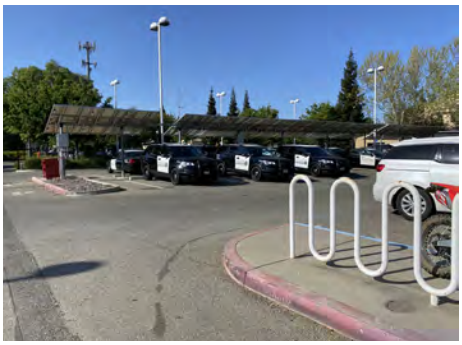
Condition Summary - Tracy Police Department

installed in 2021.

ADA Compliance **Needs Compliance**

Stairway handrails throughout the facility require 12" flat extensions at landings and at base. Drinking fountains are not ADA compliant due to protrusion. Locker room showers are not ADA compliant. Some compliance issues also exist related to ADA turnaround space at ADA stalls.

Recommendation Summary - Tracy Police Department


Exterior

Exterior

MEP

Recommendations

Site: Maintain solar panels as required. Pave and stripe parking lot areas. Maintain electronic locking gate at police lot accordingly. Provide new site lighting fixtures.

Exterior Envelope: Clean roof surface. Paint gutters and downspouts.

Structure: Continue to monitor state of building cracking and flooring cracking. Perform structural investigation if cracks continue to grow.

Interior: Provide door seals at bottoms of exterior doors that lack them, including in jail area. Paint interior walls throughout building. Replace stained ceiling tiles and investigate cause of staining.

MEP Systems: Investigate cause of ceiling tile stains, possibly from closed loop water system drainage pans located above ceiling. Provide new ceiling mounted heat pumps for same system. Maintain new fire alarm system as directed by manufacturer.

ADA Compliance: Provide ADA compliant stair handrails throughout the facility. Provide ADA compliant drinking fountains. Knee space is required below ADA counters. Break room modifications are required in areas. ADA parking stalls at police lot and public lots require revision including space for loading and new striping. ADA compliant showers are not provided in locker rooms.

Impact of Recommended Works

Site: Parking lot repavement will require relocation of police cars for the duration, estimated to be four weeks. New site lighting fixtures may require temporary barriers at entrance or around site areas with high foot traffic.

Exterior Envelope: Minimal impact to recommended works. Roof surface should be able to be cleaned in two days and gutters and downspouts painting will require a similar amount of time.

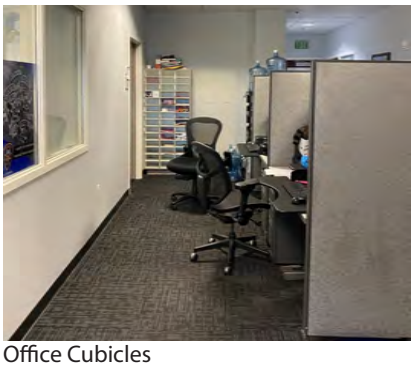
Structure: No impact of recommended works.

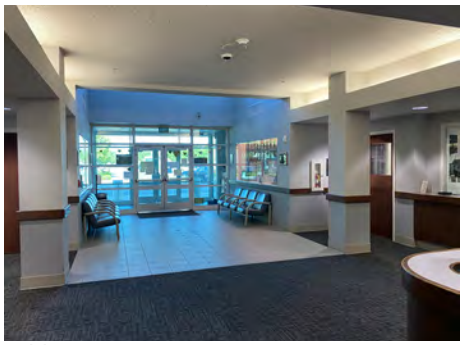
Interior: Some exterior doors including those at jail area may require additional security during installation of door seals. One week should be required to seal all doors lacking seals.

MEP Systems: Replacement of all ceiling mounted heat pumps is required to be completed in phases based on building location and staffing numbers. Some areas may be replaced more easily than others due to proximity around working areas, hallways, and other facility areas. Three months should be required to replace the 30 remaining heat pumps requiring replacement.

ADA Compliance: Facility stairways may require after-hours installation of new handrails. This should be completed in two to three days. Interior modifications related to ADA improvements require significant consideration and design and will take months to complete.

Facility Description - Tracy Police Department


Office Cubicles


Lobby

Locker Room

Building Description

The City of Tracy Police Department is a concrete and steel structured building located at the Civic Center Complex. The two-story facility is approximately 30,000 SF in area. There are multiple parking lots adjacent to the building including public parking lots on the north and south sides of the facility. A gated police lot separates the building from the public lot at the south side. Also housed in this facility is Tracy's Emergency Operations Center. The building is located at the Tracy Civic Center Complex and is directly across Civic Center Drive from City Hall.

Age

The Tracy Police Department is 28 years old and was constructed in 1994.

Use of Building

The building is used in the following ways:

- Main City of Tracy Police Station
- Houses storage space for evidence
- Houses emergency response communications center
- Houses City of Tracy Emergency Operations Center
- Houses Tracy Police radio communications equipment

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
Police Station - Overall										**3.3**
1	**Site/ Civil/ Landscape**									**3.4**
	1.1	Fences/ Walls/ Gates								3.3
		A.	Perimeter Fencing		4					
		B.	Equipment Fencing			3				
		C.	Landscape Walls/ Piers / Structures						N/A	
		D.	Gates			3				
	1.2	Paving								3.0
		A.	Sidewalks/ Walkways/ Crosswalks		4					
		B.	Curbing				2			
		C.	Driveways/ Parking Pavement			3				
		D.	Striping/ Marking/ Speed Bumps			3				
		E.	Patios						N/A	
	1.3	Landscape								3.7
		A.	Ground Cover			3				
		B.	Trees		4					
		C.	Irrigation System		4					
	1.4	Site Features/ Fixtures/ Furniture/ Signage								3.0
		A.	Landscape Features/ Play Equipment						N/A	
		B.	Exterior Lighting Fixtures				2			
		C.	Water Fixtures			3				
		D.	Exterior Site Furniture						N/A	
		E.	Site Utility		4					
	1.5	Stormwater Management								4.0
	N O T E S	1.2.B: Curbing adjacent to main entrance contains scuffing and tire marks. 1.4.B: Exterior lighting fixtures at the site are contain discolored lenses and are otherwise dirty.								

	System			Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
2	**Exterior Envelope**									**3.6**
	2.1	Exterior Wall Finish								3.0
	2.2	Eaves and Fascias								4.0
	2.3	Doors/ Windows/ Louvers								3.3
		A.	Windows		4					
		B.	Louvers and Vents			3				
		C.	Exterior Doors & Hardware			3				
	2.4	Roofing								4.0
		A.	Roof Surface		4					
		B.	Roof Opening/ Skylight/ Penetrations						N/A	
		C.	Roof Equipment Curbing						N/A	
		D.	Leakage	5						
		E.	Ponding Water						N/A	
		F.	Roof Drainage		4					
		G.	Gutters / Downspouts			3				
		H.	Roof Vents						N/A	
	N O T E S									
3	**Structure**									**3.8**
	3.1	Foundation/ Footing								3.0
	3.2	Columns								N/A
	3.3	Framing System								4.0
	3.4	Walls								4.0
	3.5	Lateral Force Resistance System								4.0
	3.6	Covered Walkway/Canopy								4.0
	3.7	Chimney								N/A
	N O T E S									

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
4	**Interior Elements**									**3.1**
	4.1	Ceilings								3.3
		A.	Suspended Ceiling (ACT)				2			
		B.	Gypsum Board		4					
		C.	Plaster		4					
		D.	Wood						N/A	
		E.	Other						N/A	
		F.	Exposed						N/A	
	4.2	Flooring								2.8
		A.	Carpet		4					
		B.	Vinyl				2			
		C.	Tile			3				
		D.	Wood						N/A	
		E.	Concrete				2			
	4.3	Interior Wall/Partition Finishes								3.0
	4.4	Interior Doors								2.0
	4.5	Stairs Condition								4.0
		A.	Stairs/ Landing		4					
		B.	Handrails		4					
	4.6	Toilet Condition								3.3
		A.	Toilet Accessories			3				
		B.	Toilet Partitions		4					
		C.	Water Closets		4					
		D.	Urinals		4					
		E.	Lavatorie /Sinks			3				
		F.	Counter			3				
		G.	Shower Compartments				2			
	4.7	Hazmat								N/A
	4.8	Room Capacity								N/A

N O T E S

4.1.A: A selection of suspended ceiling tiles contain signs of ceiling leakage.
4.2.B: Vinyl flooring throughout the facility is scuffed, scratched and misaligned in areas.
4.2.E: Concrete floors are cracked and deteriorating especially in jail area.
4.6.G: Shower compartments throughout the facility require updates.

System				Condition						
				Excellent	Good	Fair	Poor	Critical	N/A	Rank
				5	4	3	2	1		
5	**Mechanical, Electrical and Plumbing Systems**									**2.7**
	5.1	Mechanical Systems								2.2
		A.	HVAC					1		
		B.	Control System			3				
		C.	Chiller						N/A	
		D.	Cooling Towers						N/A	
		E.	Duct Work			3				
		F.	Ventilation\ Air Distribution				2			
		G.	Boilers				2			
	5.2	Electrical Systems								3.9
		A.	Transformer		4					
		B.	Switchgear		4					
		C.	Panelboards (Condition & Capacity)		4					
		D.	Devices (Switches & Receptacles)		4					
		E.	Interior Lighting Fixtures			3				
		F.	Conveying Systems			3				
		G.	Fire Alarm System	5						
	5.3	Voice and Data Systems								2.0
	5.4	Plumbing Systems								2.3
		A.	Plumbing Fixtures				2			
		B.	Water Distribution System/ Pipes				2			
		C.	Water Heaters			3				
	5.5	Gas Distribution Systems								N/A
	5.6	Fire Suppression System								3.0

N O T E S

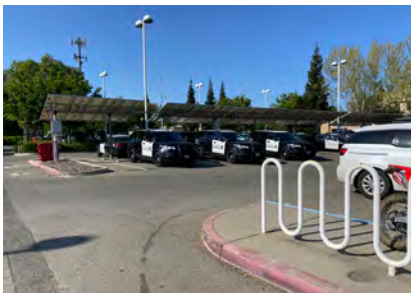
5.1.A: HVAC system contains ceiling-mounted heat pumps that are failing and must be replaced frequently.
5.1.F: Air return vents are dirty and central vacuum system is unused.
5.1.G: Boiler is original to the building and requires occasional maintenance.
5.4.A-B: There is a reported issue with sludge buildup in the plumbing system from hand washing and showers that requires clean out of the piping system occasionally.

System				Condition		
				Compliance	Non-compliance	N/A
6	**ADA Compliance**					
	6.1	Site				
		A.	Accessible Parking Spaces		NC	
		B.	Passenger Loading Zones			N/A
	6.2	Accessible Routes				
		A.	Walking Surfaces/Clear Floor Space		NC	
		B.	Doors/ Doorways/Gates	C		
		C.	Threshold	C		
		D.	Ramps			N/A
		E.	Stairways		NC	
		F.	Handrails		NC	
		G.	Elevators	C		
	6.3	Toilet				
		A.	Clearances/Accessible Stall		NC	
		B.	Toilet Accessories	C		
		C.	Water Closets	C		
		D.	Urinals	C		
		E.	Lavatories/ Sinks	C		
		F.	Counters	C		
		G.	Shower Compartments		NC	
	6.4	Building Elements				
		A.	Cabinetry		NC	
		B.	Furniture, Fixtures & Equipment - FF&E		NC	
		C.	Signage		NC	

N O T E S

6.1.A: Accessible parking spaces require loading zones, striping and/or truncated domes.
6.2.A: Remove obstacles on accessible routes for enough open space clearance.
6.2.C: Some interior thresholds are not compliant.
6.2.E-F: Interior stairs do not contain flat handrail surfaces at landings.
6.3.A: Proper ADA turnaround space is not provided in some accessible stalls.
6.3.G: Shower compartments in locker rooms do not contain turnaround spaces and have other violations.
6.4.A: Provide knee and toe clearances under working surfaces, and front desk.
6.4.B: Provide ADA compliant furniture, fixtures and equipment with accessible height and knee and toe clearances.
6.4.C: Provide ADA compliant room signage with tactile text and Braille. Provide ADA compliant toilet room signage.

Photo Documentation | Exterior Overall



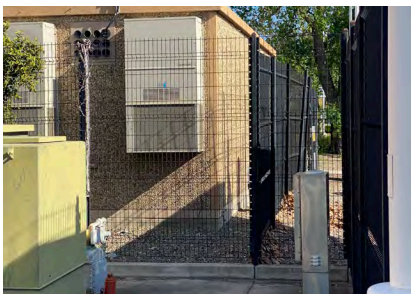
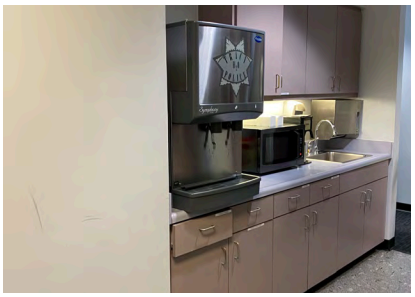
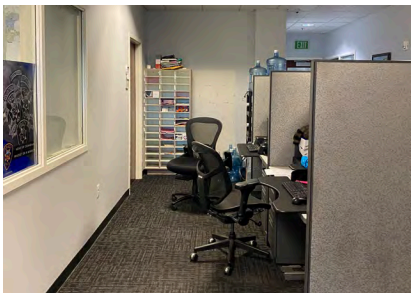
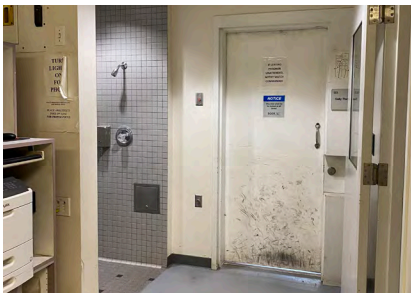
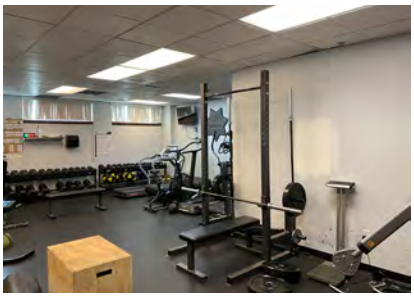
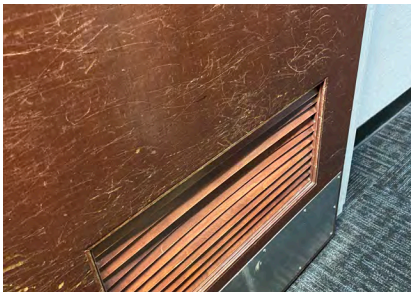
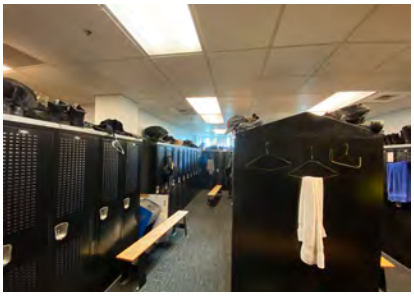
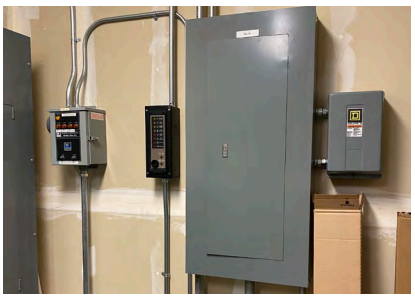
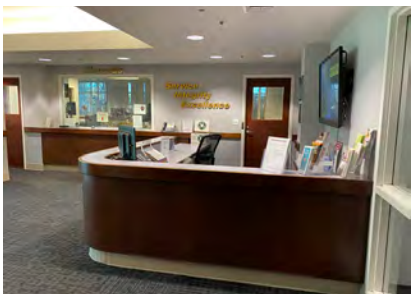


Photo Documentation | Interior Blow Ups



III. DEPARTMENTS - STAFF, SPACE ANALYSIS AND PROGRAMMING

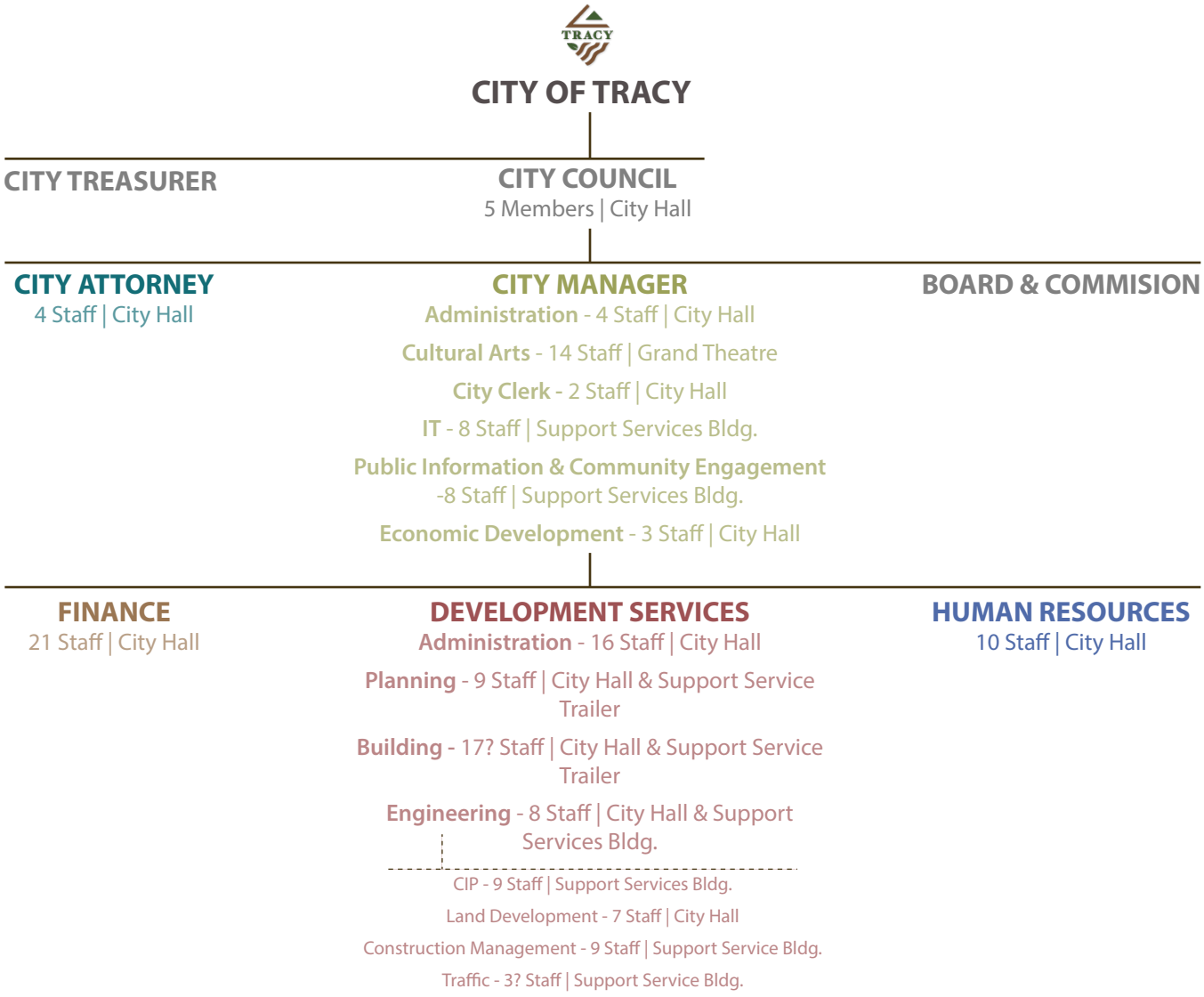
a. City of Tracy Organization Overview 354

b. Staff and Space Need Projections 357

c. Department Distribution by Facility 362

d. Department Information and Occupied Area 367

City Organizational Chart



Note: **Operations & Utilities** (Previously separate departments of Public Works Department & Utility Department - Effective July 2022

City Departments Overview

The chart below shows current and projected staffing and space allocations organized by City departments

Department	Staff		Current Facility			Planning	
Division	Existing Total	Future Total	Facility Name	Address	Space Size (SF)	Space Size (SF) Minimal	Comments / Location
City Attorney's Office	**4**	**4**			**2,075**	**2,075**	
	4	4	City Hall:	333 Civic Center Plaza	2,075	2,075	Maintain current space at City Hall
City Manger's Office	**51**	**57**			**7,494**	**7,308**	
Administration	14	14	City Hall	333 Civic Center Plaza	1,632	1,632	Remodel and rearrange existing space
Cultural Arts	14	15	The Grand Theatre	715 Central Ave.	1,206	1,400	Remodel existing space (especially Box Office)
Clerk	2	2	City Hall	333 Civic Center Plaza	373	373	Remodel and rearrange existing space
IT	8	10	Support Services Bldg.	325 Civic Center Plaza	1,748	1,800	Move to new Administration Building
Public Information & Community Engagement	10	12	City Hall & Police Annex	333 Civic Center Plaza	2,228	1,638	Maintain current locations at CMO's office and Police Annex
Economic Development	3	4	City Hall	333 Civic Center Plaza	307	465	Remodel and rearrange existing space
Development	**69**	**81**			**9,139**	**12,642**	
Administration	16	18	City Hall & Support Services Building	333 Civic Center Plaza	1,010	2,160	Remodel and rearrange existing space
Planning	9	10	City Hall & Support Service Trailer	333 Civic Center Plaza	1,657	1,875	Remodel and rearrange existing space. Move all to City Hall.
Building	16	17	City Hall & Support Service Trailer	333 Civic Center Plaza	1,984	1,932	Move to Administration Building
Engineering	28	36			4,488	6,675	
CIP	9	10	Support Services Bldg	325 Civic Center Plaza	1,651	2,500	Move to Administration Building
Land Development	7	9	City Hall	333 Civic Center Plaza	426	675	Move to Administration Building
Construction Mangement	9	14	Support Services Bldg	325 Civic Center Plaza	2,168	3,000	Move to Administration Building
Traffic	3	3	Support Services Bldg	325 Civic Center Plaza	243	500	Move to Administration Building

City Departments Overview (Continued)

Department	Staff		Current Facility			Planning	
Division	Existing Total	Future Total	Facility Name	Address	Space Size (SF)	Space Size (SF) Minimal	Comments / Location
Finance	**21**	**24**			**4,373**	**4,373**	
Finance	21	24	City Hall	333 Civic Center Plaza	4,373	4,373	Maintain current space at City Hall
Human Resources	**10**	**10**			**3,695**	**3,695**	
Human Resources	10	10	City Hall	333 Civic Center Plaza	3,695	3,695	Maintain current space at City Hall with light improvements
Operations & Utilities	**122**	**150**			**See Below**	**See Bleow**	
Operations & Utilities	122	150	Boyd Service Center & Water Operations Facilities	520 S Tracy Blvd; 3900 Holly Drive; 6649 S Tracy Blvd	Site: 331,200 sf Facilities: 29,900 sf	Site: 500,000 sf Facilities: 60,000 sf	Renovate Boyd Service Center. Build auxiliary facility to be shared with Transit. *Utilities Plan Not in Project
	11		Admin Office		6,000		
	4		Fleet Services		4,590		
	49		Maintenance Shop '1'		4,991		
	29		Maintenance Shop '2'		3,888		
Parks & Recreation	**18**	**22**			**3,116**	**7,350**	
Administration	2	2					
Airport	2	3	Tracy Airport	Durham Ferry Rd	800	0	Remodel existing space
Transit	3	4	Transit Station	50 E. 6th St	250	600	Transit Center Renovation Bus Maintenance & Storage Facility
Community & Recreation	10 (plus 46 part-time)	12 (plus 46 part-time)	City Hall, Senior Center & Community Center	333 Civic Center Plaza	2,066	6,750	Move all staff to new Admin Building
Parks Planning & Development	1	1					
Fire Department							**In a separate report**
Police Department							**In a separate report**

Staff and Space Need Projections

Staff projections provide an intermediate step in the development of an organization's space needs. There are a number of methods for projecting staffing at build out. The method used here is to project staffing based on the staffing of six other cities that are geographically and demographically similar to the community at Horizon Year 2040.

Growth Factors

The staff levels of the six cities, and current the City of Tracy are shown in chart below. As would be expected, increases in City staff generally correspond to increases in population, ranging from a low of 227 City staff in Hesperia to a high of 2,011 City staff in Santa Barbara. For Tracy, the proposed staffing from the FY 2020-21 draft budget and information gathered from staff survey were used as the baseline.

A line of best fit was calculated for the data (see figure below), and the slope and intercept of the line was used to project the overall number of staff at the build-out population:
Staff = 0.0013 X Population + 500

Tracy at Horizon Year 2040 population is projected to be 141,341. The formula projects a total of 683 staff at build-out. This projection will be used as reference only. The data gathered from each department overrules the number calculated by growth factor.

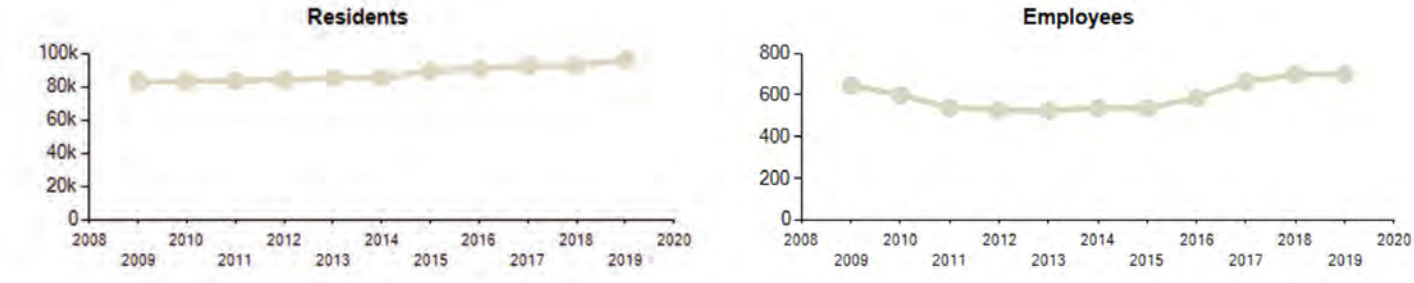


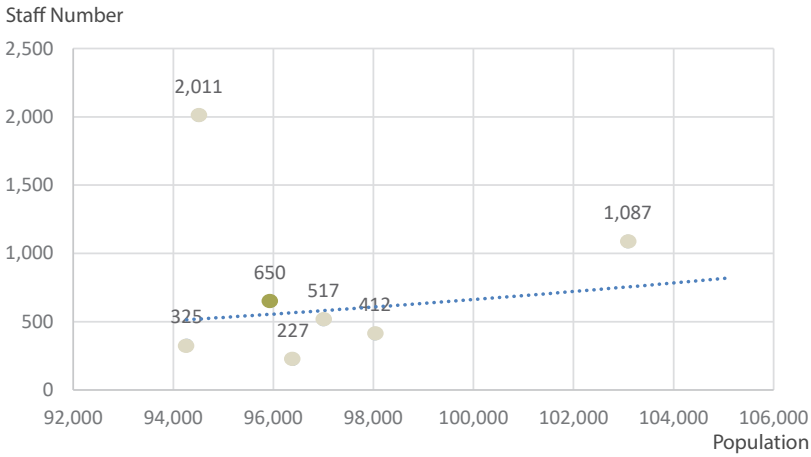
Figure 1 - Tracy Population and Staffing Trend - 2009 to 2019

City Staff Growth Projection

Space projections were developed on a line-item basis using the staffing projections, reviews of existing space and plans, and spaces that are normal and customary for public facilities. The need and space projections for library and aquatic facilities come from the results of other separately conducted studies.

Subtotals of gross space are provided for each department with estimates of "departmental" space, with allowances for internal circulation, columns, etc. Gross building area is provided by use of an efficiency factor that provides allowances for exterior building walls, vertical circulation elements, primary circulation, public toilets, and mechanical rooms. See section IV. Space Standards and Guideline, a. Space & Facility Standards for details.

City	Population	Staff Number
San Mateo	103,087	1,087
Compton	98,032	412
South Gate	97,003	517
Hesperia	96,393	227
Tracy	**95,931**	**650**
Mission Viejo	94,267	325
Santa Barbara	94,511	2,011



Department Staff and Space Needs Projection

A detailed comparison of each City department staffing in similar sized cities are provided next page. This figure is developed with reference to the organizational charts for each department. Each staff position was categorized as fixed or variable. Typically, upper management positions, such as the director, are fixed, in that a department would only have one director, regardless of the number of staff. Other positions, such as technicians, are variable in that the number of technicians would be likely to change over time as the population of the City increases. This estimate excludes police fire and utility departments, which were projected separately.

Department	Staff		Current Space Size (SF)	Planning Space Size (SF)
	Existing Total	Future Total		
City Attorney's Office	4	4	2,075	2,075
City Manager's Office	51	57	7,494	7,308
Development Services	69	81	9,139	12,642
Finance	21	24	4,373	4,373
Human Resources	10	10	3,695	3,695
Operations & Utilities	122	150	Site: 331,200 sf Facilities: 29,900 sf	Site: 500,000 sf Facilities: 60,000 sf
Parks & Recreation	18	22	3,116	7,350

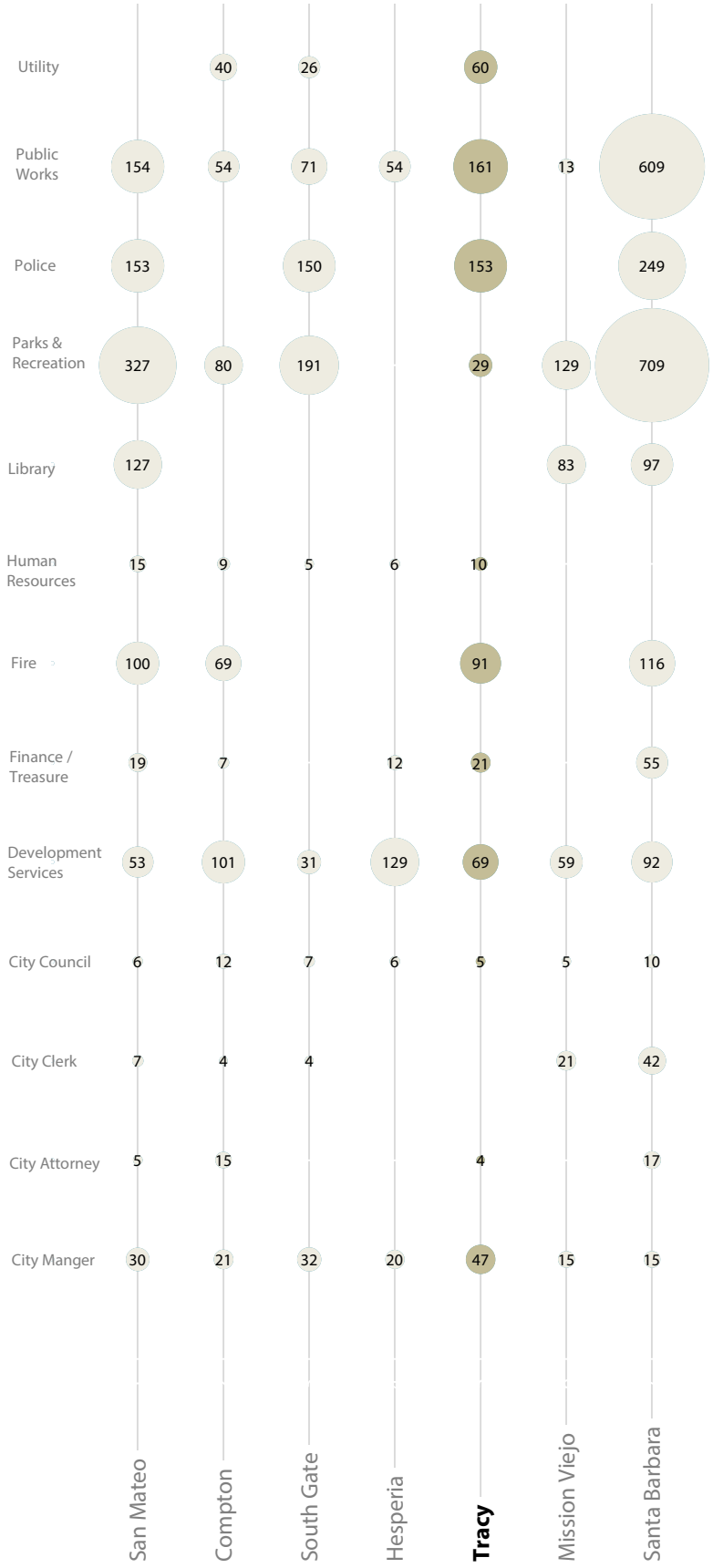
Figure 3 - Summary of Staff and Space Needs Projection

Finding from the "Similar Sized Cities Comparison - City Employees" and "Similar Sized Cities Comparison - Population and City Employees" are:

- Staffing in Tracy Park and Recreation department is relatively lacking in comparison with other similar sized cities.
- Tracy City Manger Department is larger than other similar sized cities.
- Tracy Development Service Department is relatively small comparing to other similar sized cities.

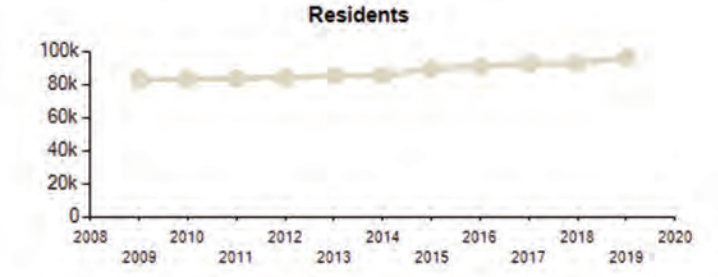
Similar Sized Cities Comparison - City Employees

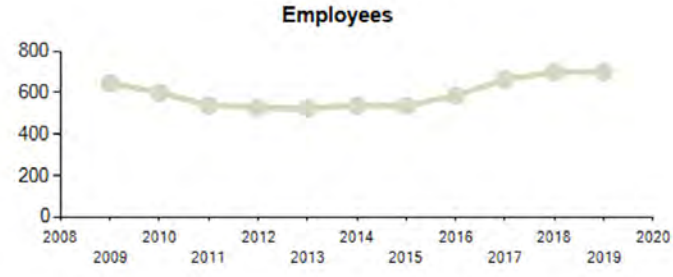
City		Pop.	County	Total	Utility	Public Works (Operations & Utilities)	Police	Parks & Recreation	Library	Human Resources	Fire	Finance / Treasure	Development Services	City Council	City Clerk	City Attorney	City Manger
City Employees by Department	San Mateo	103,087	San Mateo	1,087		154	244	327	127	15	100	19	53	6	7	5	30
	Compton	98,032	Los Angeles	412	40	54		80		9	69	7	101	12	4	15	21
	South Gate	97,003	Los Angeles	517	26	71	150	191		5			31	7	4		32
	Hesperia	96,393	San Bernardino	227		54				6		12	129	6			20
	Tracy	**95,931**	**San Joaquin**	**650**	**60**	**161**	**153**	**29**		**10**	**91**	**21**	**69**	**5**		**4**	**47**
	Mission Viejo	94,267	Orange	325		13		129	83				59	5	21		15
	Santa Barbara	94,511	Santa Barbara	2,011		609	249	709	97		116	55	92	10	42	17	15



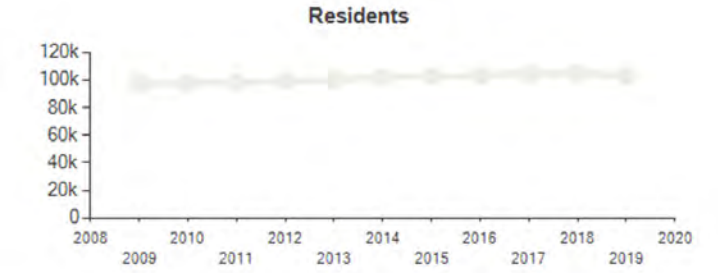
Similar Sized Cities Comparison - Population and City Employees

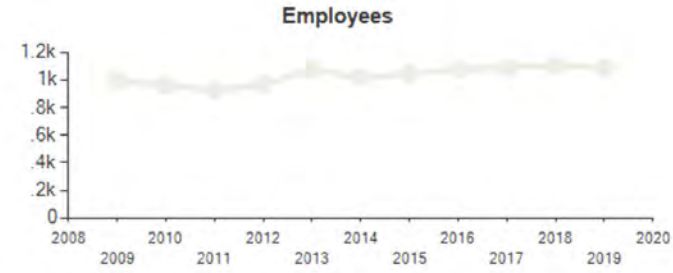
Tracy



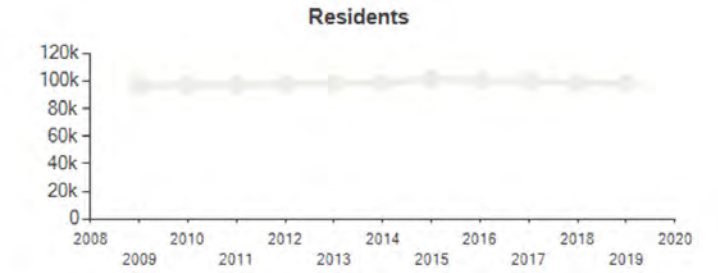


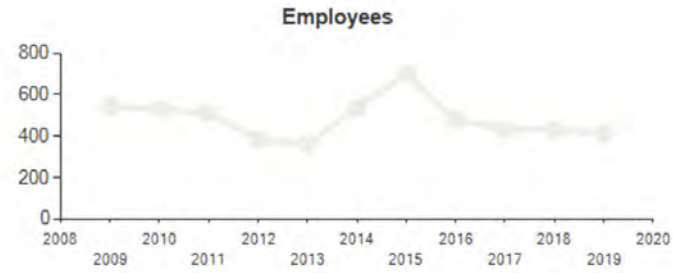
San Mateo



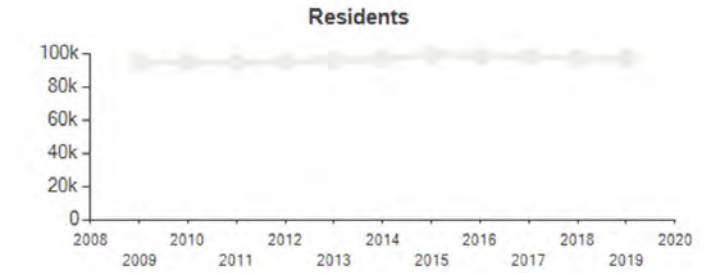


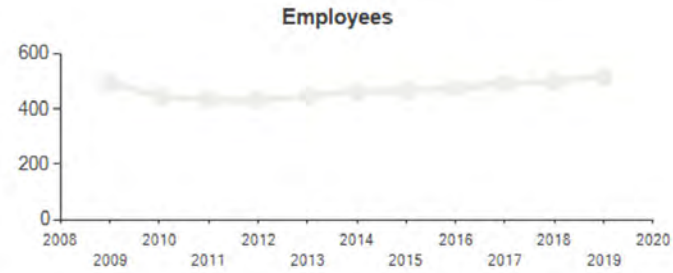
Compton





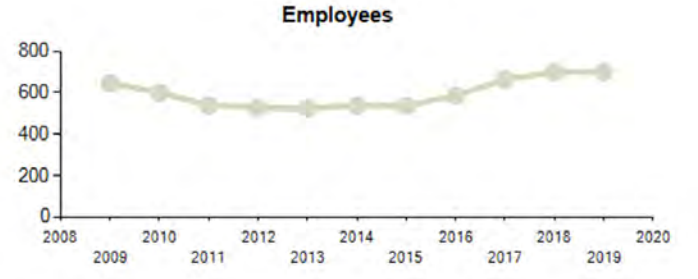
South Gate



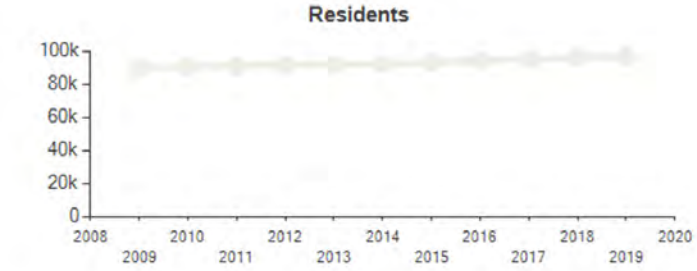


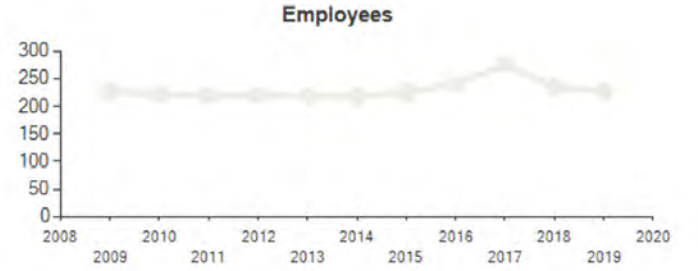
Similar Sized Cities Comparison - Population and City Employees (Continued)

Tracy

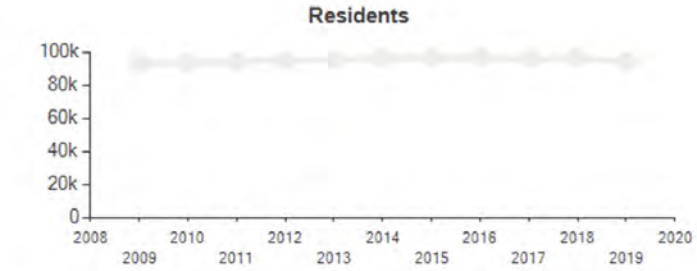


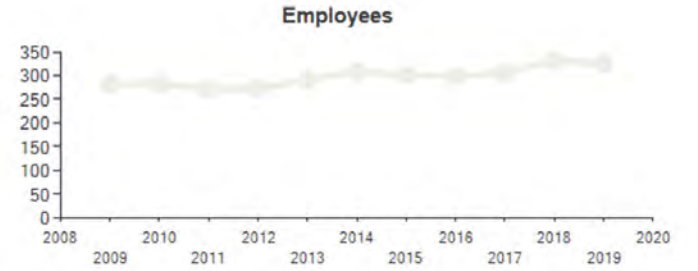
Hesperia



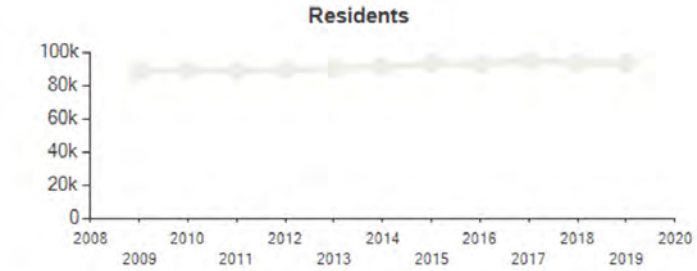


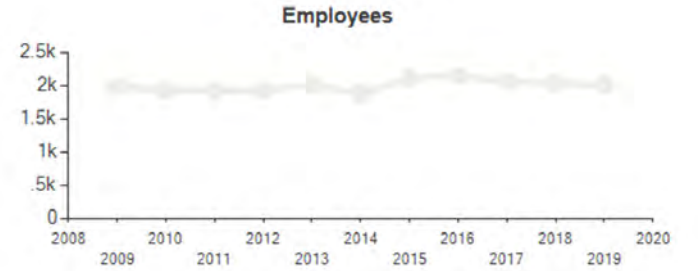
Mission Viejo





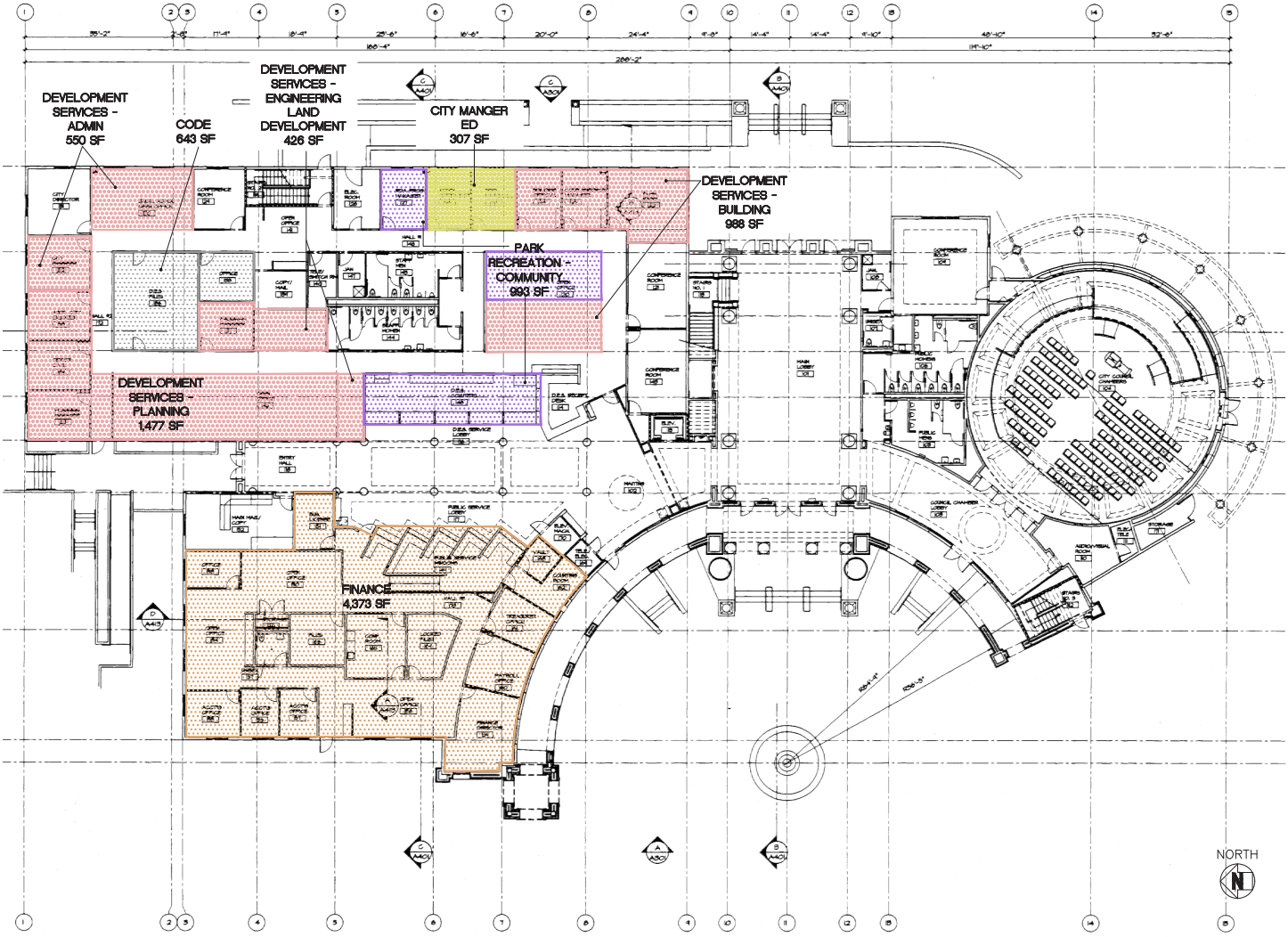
Santa Barbara





Summary of Existing Department Distribution by Facility

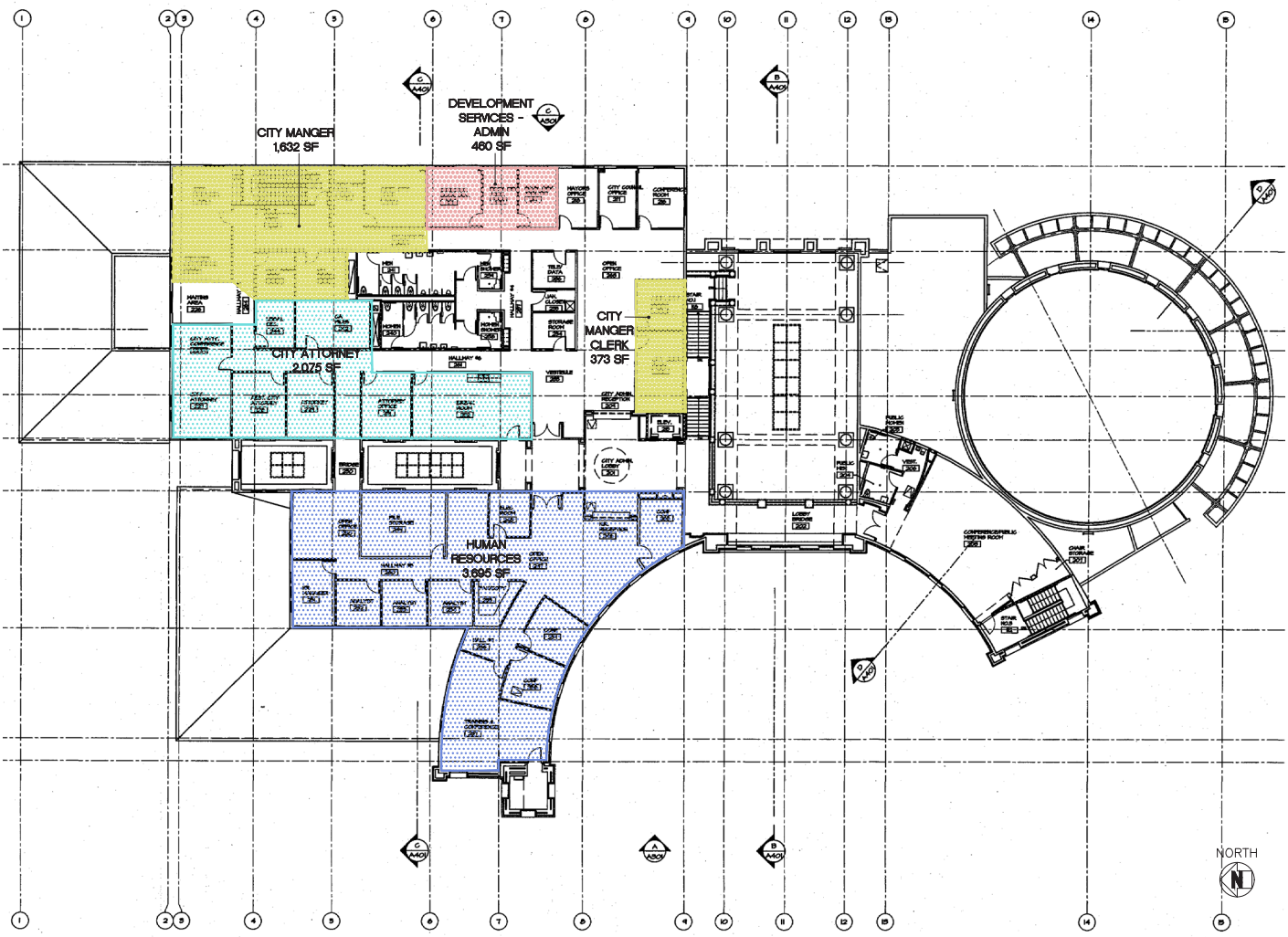
CITY HALL - LOWER FLOOR



Occupied Area by Development Services Department - Planning and Building Division	Gross Area: 3,015 sf
Occupied Area by City Manager Department - Economic Development Division	Gross Area: 307 sf
Occupied Area by Finance Department	Gross Area: 4,373 sf
Occupied Area by Parks and Recreation Department - Community and Recreation Division	Gross Area: 993 sf
Occupied Area by Police Department - Code Division	Gross Area: 643 sf

Summary of Existing Department Distribution

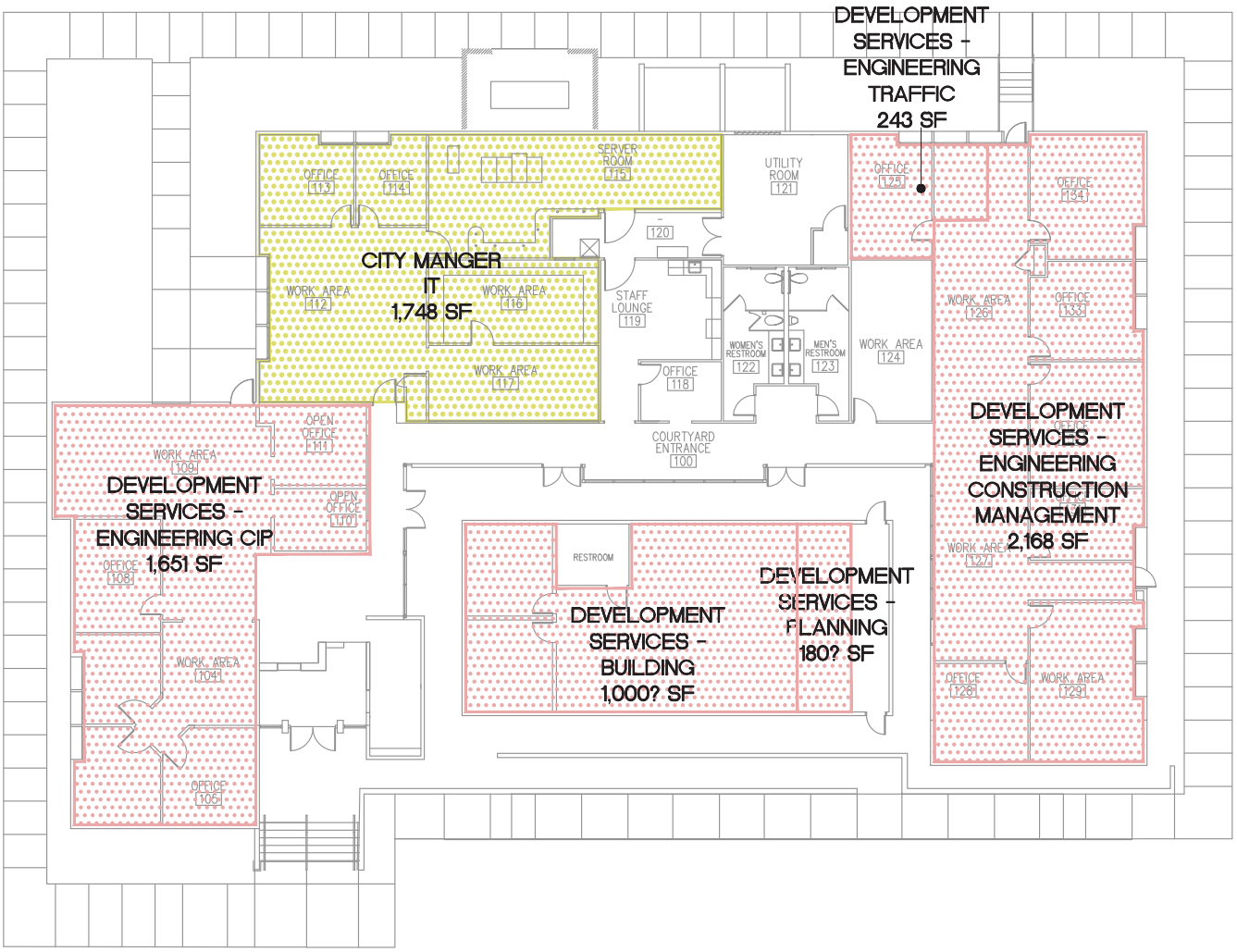
CITY HALL - UPPER FLOOR



Occupied Area by Development Department - Administration Division	Gross Area: 460 sf
Occupied Area by City Manager Department - Office and Clerk Division	Gross Area: 2,005 sf
Occupied Area by City Attorney Department	Gross Area: 2,075 sf
Occupied Area by Human Resources Department	Gross Area: 3,695 sf

Summary of Existing Department Distribution

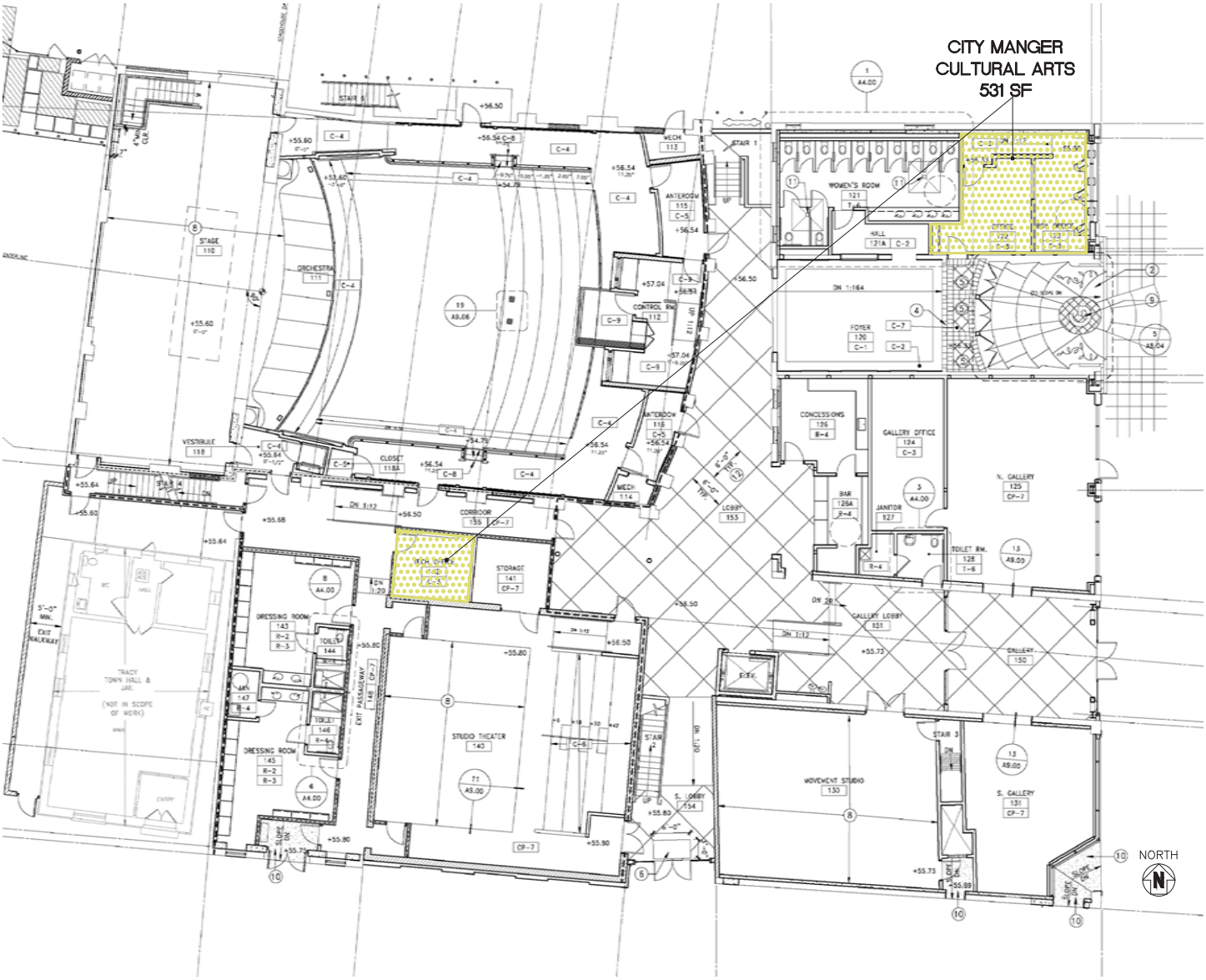
SUPPORT SERVICES BUILDING AND TRAILER



- Occupied Area by Development Services Department - CIP Engineering, Building, Planning, Traffic Engineering, and Construction Management Divisions — Gross Area: 5,246 sf
- Occupied Area by City Manager Department - IT Division — Gross Area: 1,748 sf

Summary of Existing Department Distribution

GRAND THEATRE - LOWER FLOOR

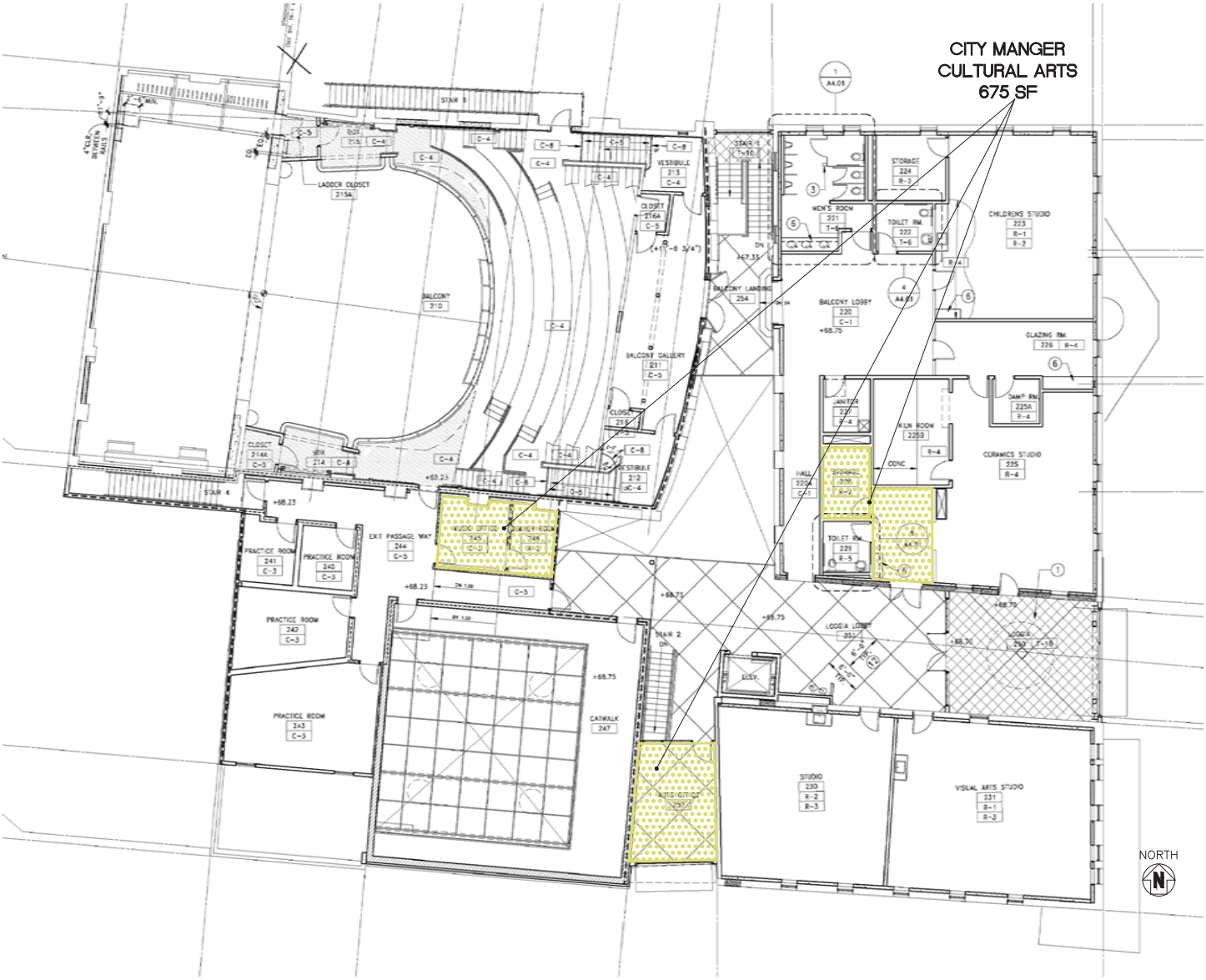


Occupied Area by City Manager Department - Cultural Arts Division

Gross Area: 531 sf

Summary of Existing Department Distribution

GRAND THEATRE - UPPER FLOOR



Occupied Area by City Manager Department - Cultural Arts Division

Gross Area: 675 sf

CITY ATTORNEY'S OFFICE

	Current			10 Year Plan		
Location	City Hall: 333 Civic Center Plaza			Maintain current space at City Hall		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	4	0	4	4	0	4
Area (SF)	2,075			2,075		
Public Interaction & Outreach:				No		

Major Needs

- Access to off-site storage areas would improve work efficiency
- Insufficient space for internal meetings

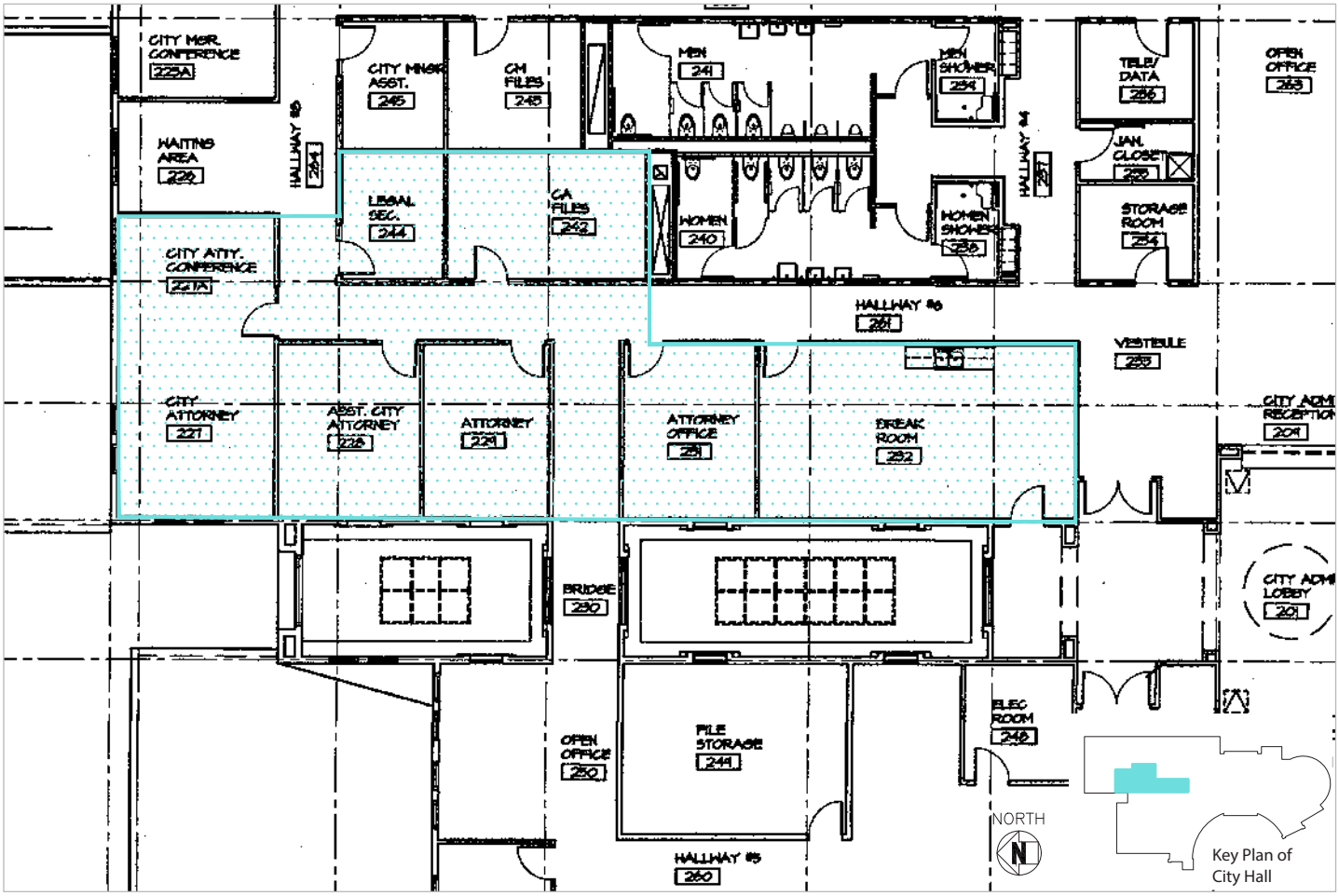
Department Description

Provides legal advice to the City Council, Commissions, Boards and City staff. Prepares and assists in preparation of legal documents and legal document review.

Department Location City Facilities Other Buildings

Current Location of City Attorney's Office - CITY HALL (UPPER FLOOR)

Occupied Area by Department



CITY MANAGER'S OFFICE - ADMINISTRATION

	Current			10 Year Plan		
Location	City Hall 333 Civic Center Plaza			Remodel and rearrange existing space		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	14	0	14	14	0	14
Area (SF)	1,632			1,632		
Public Interaction & Outreach:				No		

Major Needs

- Some unused/dormant space that could be better utilized
- Conference space inefficient, as well as public meeting space
- Existing conference room 216 is small

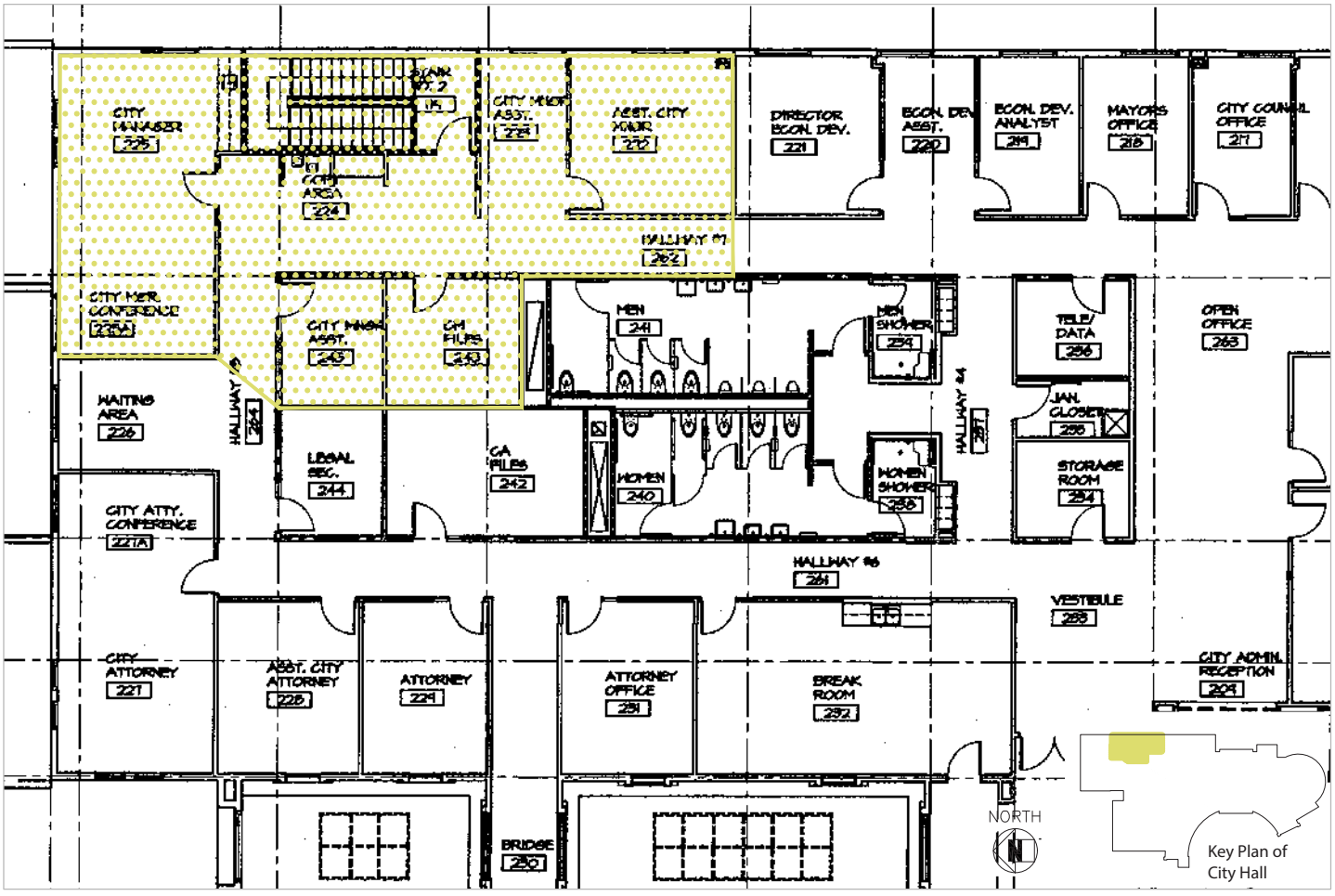
Department Description

Acts as the chief administrative officer for the City and is accountable to Tracy City Council. Responsible for appointing department heads.

Department Location City Facilities Other Buildings

Current Location of City Manager's Office - CITY HALL (UPPER FLOOR)

Occupied Area by Department



CITY MANAGER'S OFFICE - CULTURAL ARTS

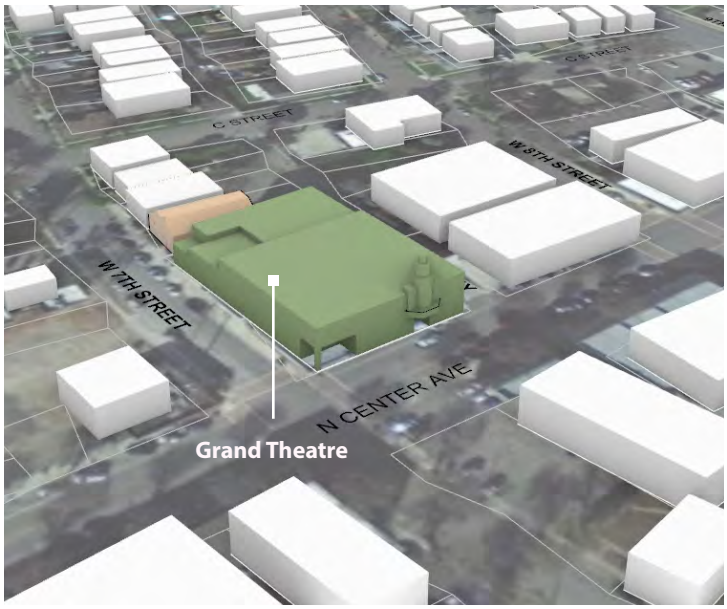
	Current			10 Year Plan		
Location	The Grand Theatre 715 Central Ave.			Remodel existing space (especially Box Office)		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	9	5	14	10	5	15
Area (SF)	1,206			1,400		
Public Interaction & Outreach:	Yes					

Major Needs

- Box Office remodel necessary
- Increased workspace area
- Office space for supervisor-level staff

Department Description

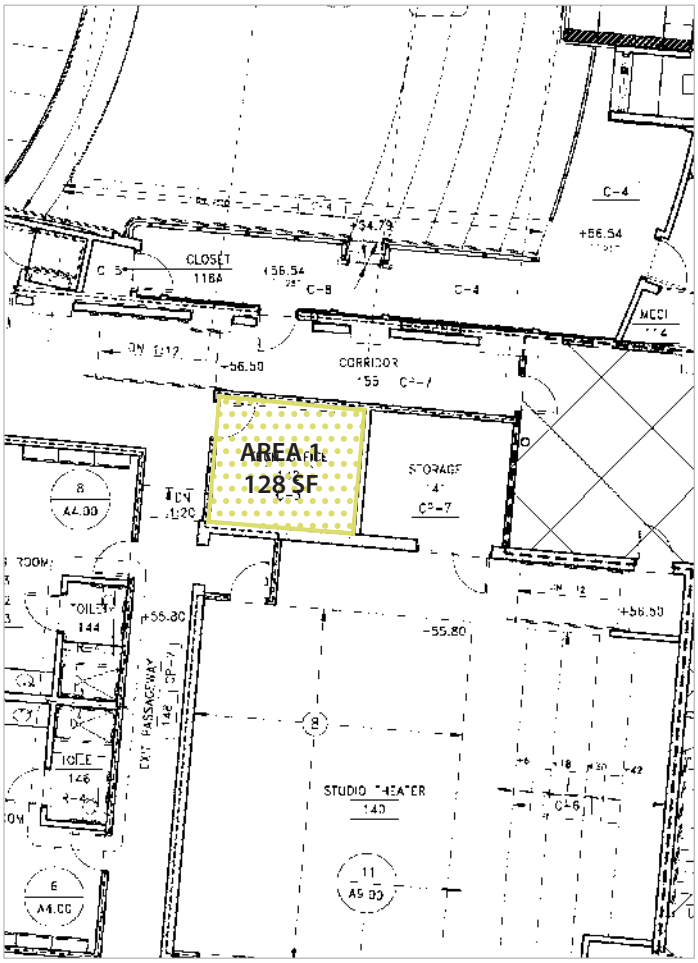
Responsible for preserving and cultivating the expression of the arts in Tracy. Represents all aspects of community arts including preservation. Maintains Civic Art Plan.

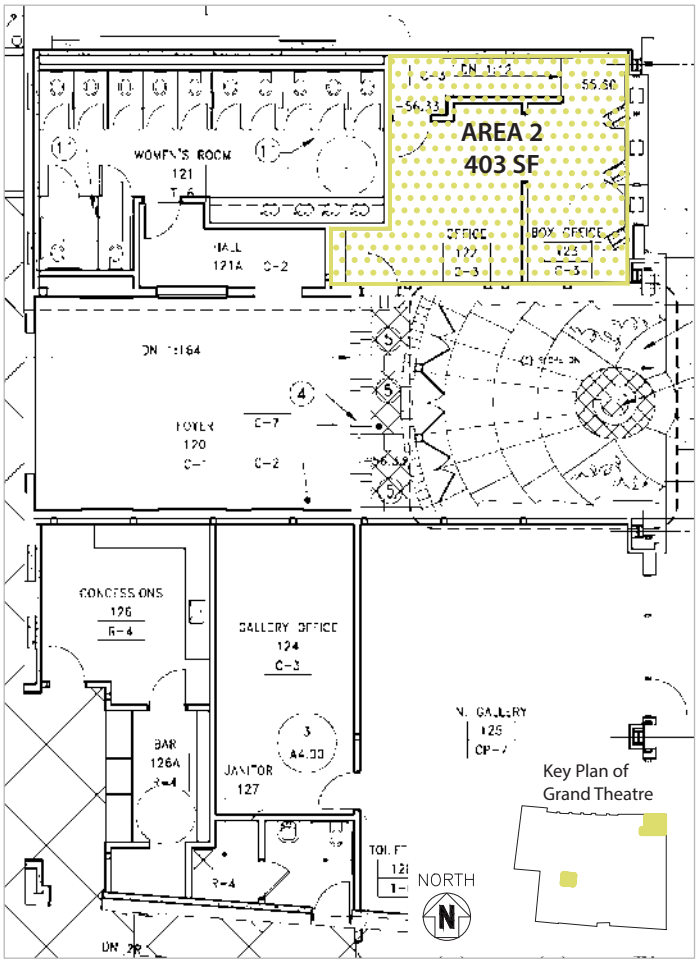


Department Location | City Facilities | Other Buildings

Current location of Cultural Arts Center - AREA 1 AND 2: GRAND THEATRE (FIRST FLOOR)

Occupied Area by Department





CITY MANAGER'S OFFICE - CULTURAL ARTS (CONTINUED)

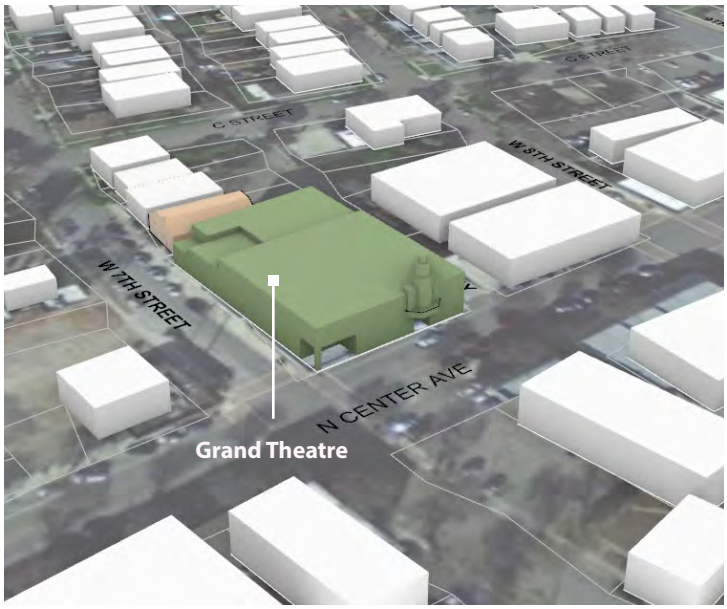
	Current			10 Year Plan		
Location	The Grand Theatre 715 Central Ave.			Remodel existing space (especially Box Office)		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	9	5	14	10	5	15
Area (SF)	1,206			1,400		
Public Interaction & Outreach:				Yes		

Major Needs

- Box Office remodel necessary
- Increased workspace area
- Office space for supervisor-level staff

Department Description

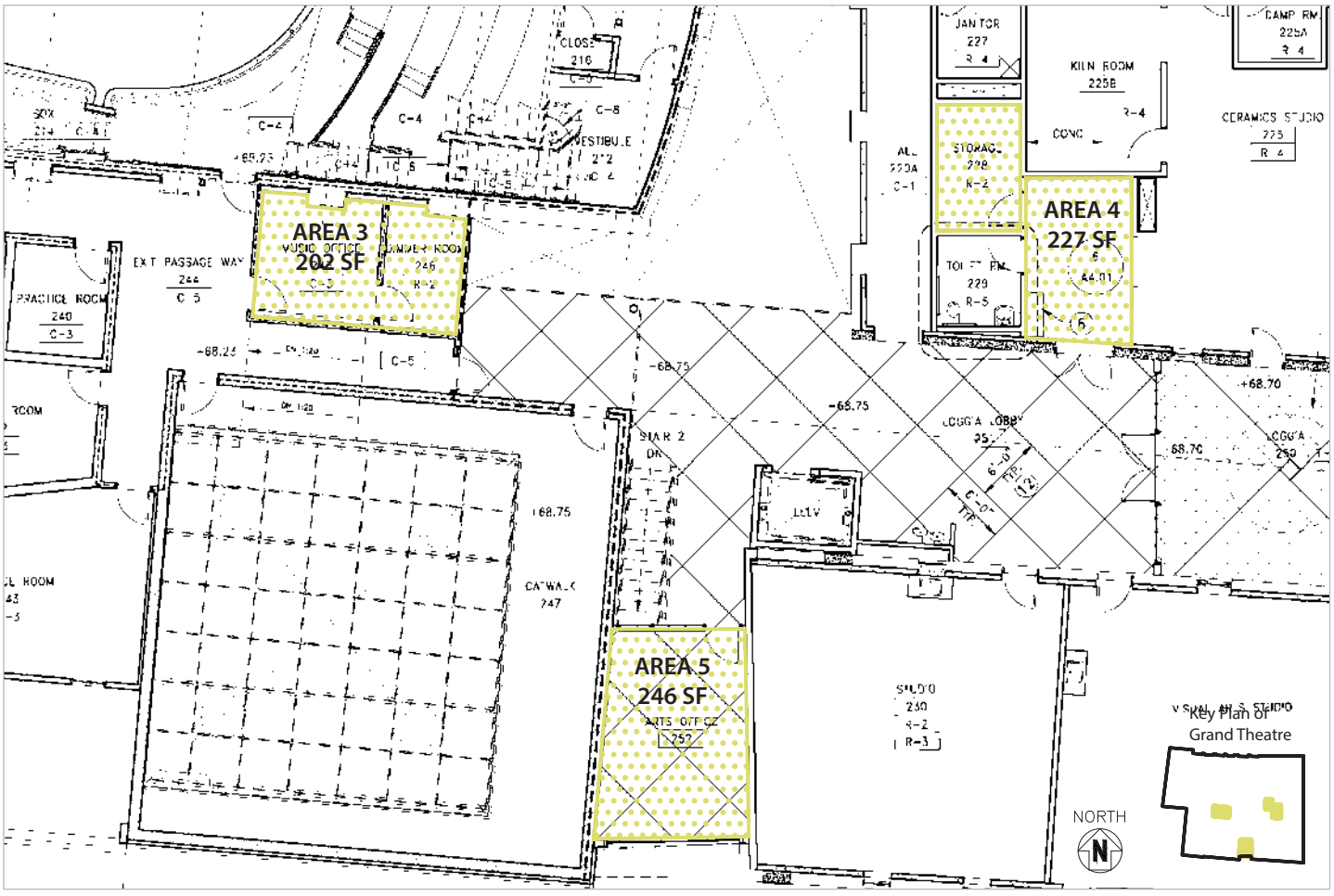
Responsible for preserving and cultivating the expression of the arts in Tracy. Represents all aspects of community arts including preservation. Maintains Civic Art Plan.



Department Location | City Facilities | Other Buildings

Current location of Cultural Arts Center - AREA 3, 4 & 5: GRAND THEATRE (SECOND FLOOR)

Occupied Area by Department



CITY MANAGER'S OFFICE - CLERK

	Current			10 Year Plan		
Location	City Hall 333 Civic Center Plaza			Remodel and rearrange existing space		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	2	0	2	2	0	2
Area (SF)	373			373		
Public Interaction & Outreach:	Rarely					

Major Needs

- Some unused/dormant space that could be better utilized
- Conference space inefficient, as well as public meeting space
- Existing conference room 216 is small

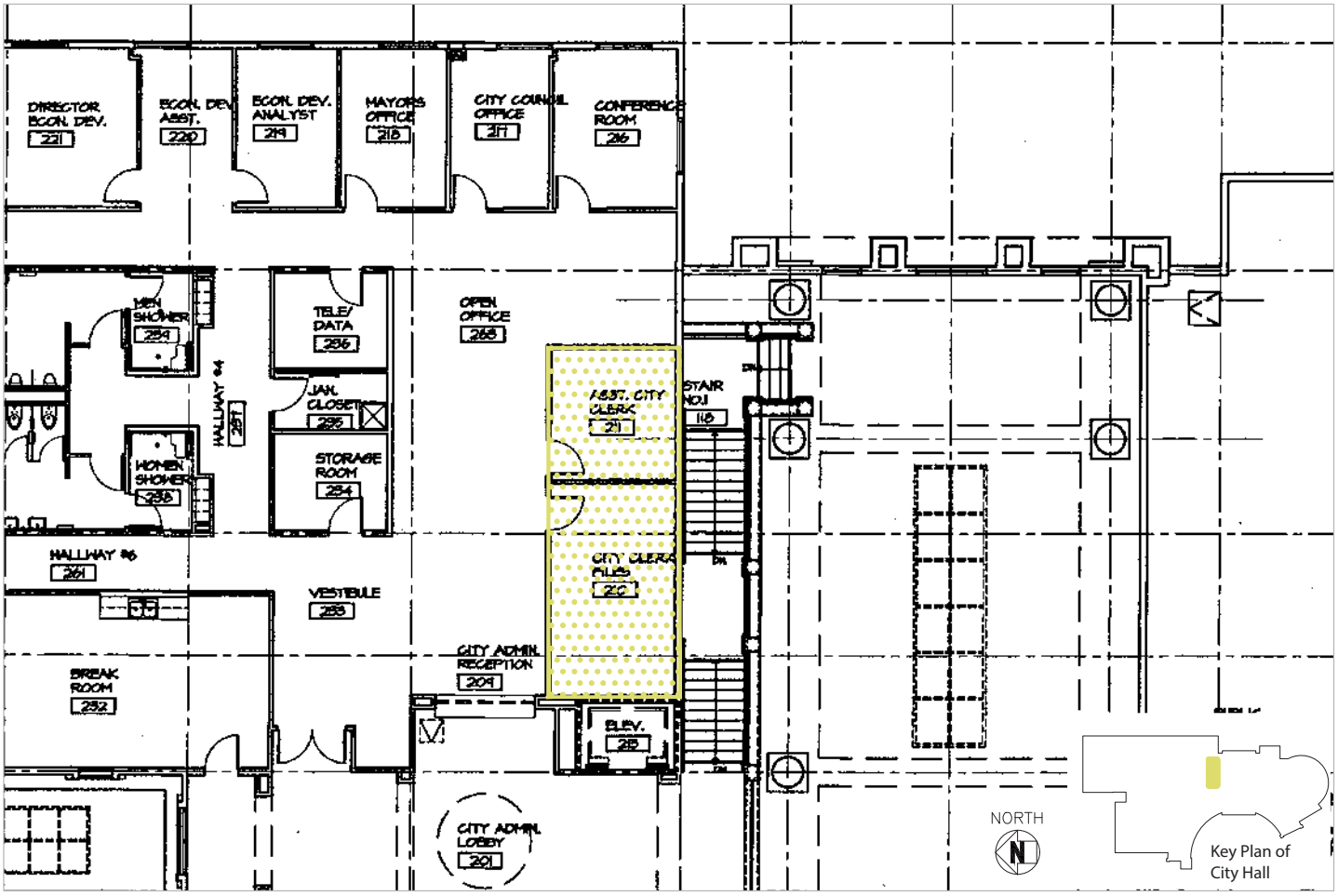
Department Description

Prepares City Council and other agency agendas and meeting minutes. Maintains Tracy's official records and administers City elections.

Department Location City Facilities Other Buildings

Current location of Clerk Division - CITY HALL (UPPER FLOOR)

Occupied Area by Department



CITY MANAGER'S OFFICE - IT

	Current			10 Year Plan		
Location	Support Services Bldg. 325 Civic Center Plaza			Move to new Administration Building		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	8	0	8	10	0	10
Area (SF)	1,748			1,800		
Public Interaction & Outreach:	Rarely					

Major Needs

- Telecommunication preferred for hiring additional staff

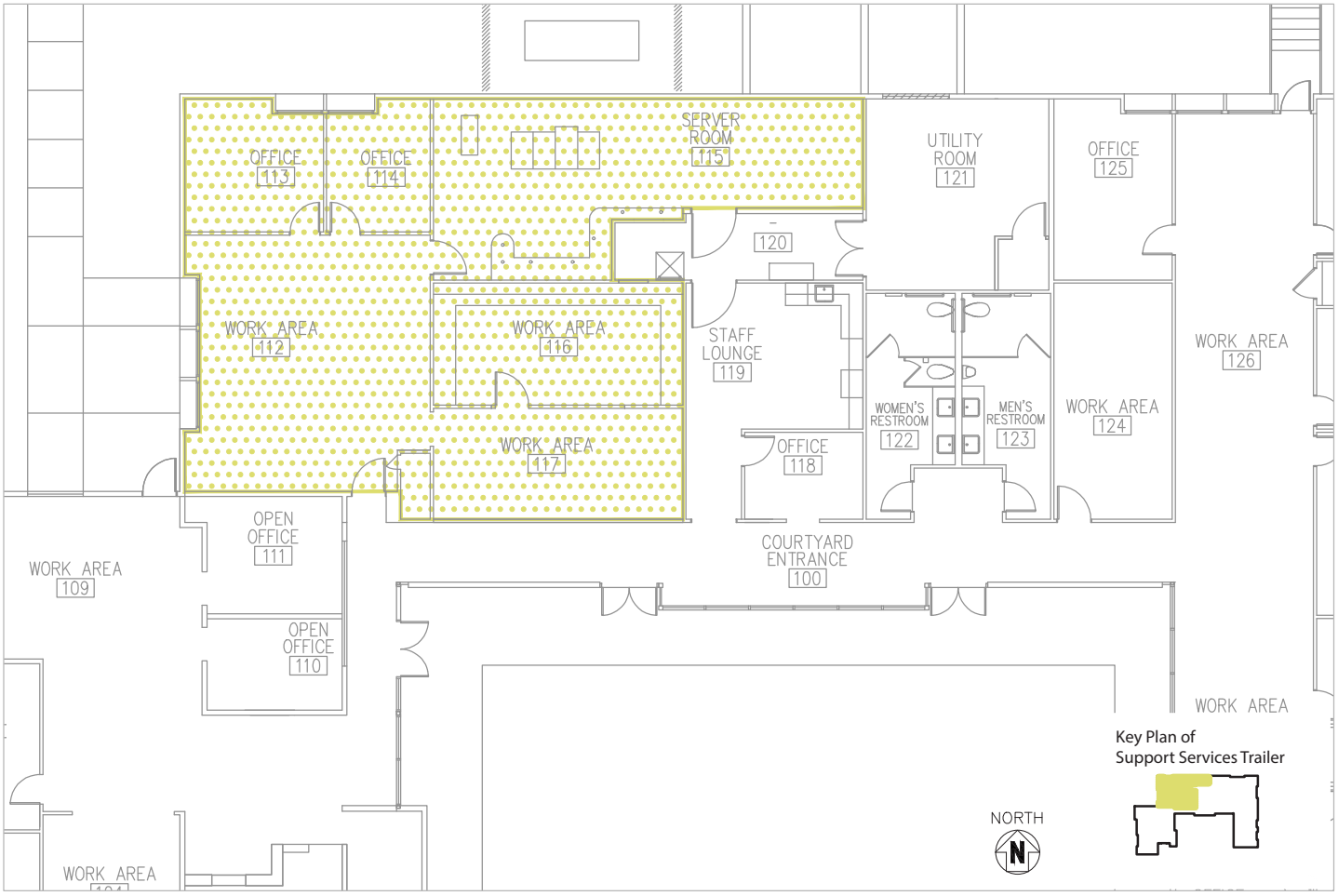
Department Description

Oversees and manages the City's Information Technology infrastructure. Ensures continued service of City websites and ensures employee technical needs are met.

Department Location City Facilities Other Buildings

Current location of IT Division - SUPPORT SERVICES BUILDING (GROUND LEVEL)

Occupied Area by Department



CITY MANAGER'S OFFICE - PUBLIC INFORMATION & COMMUNITY ENGAGEMENT

	Current			10 Year Plan		
Location	City Hall & Police Annex 333 Civic Center Plaza			Maintain current locations at CMO's office and Police Annex		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	4	6	10	5	7	12
Area (SF)	2,228			1,638		
Public Interaction & Outreach:	Yes					

Major Needs

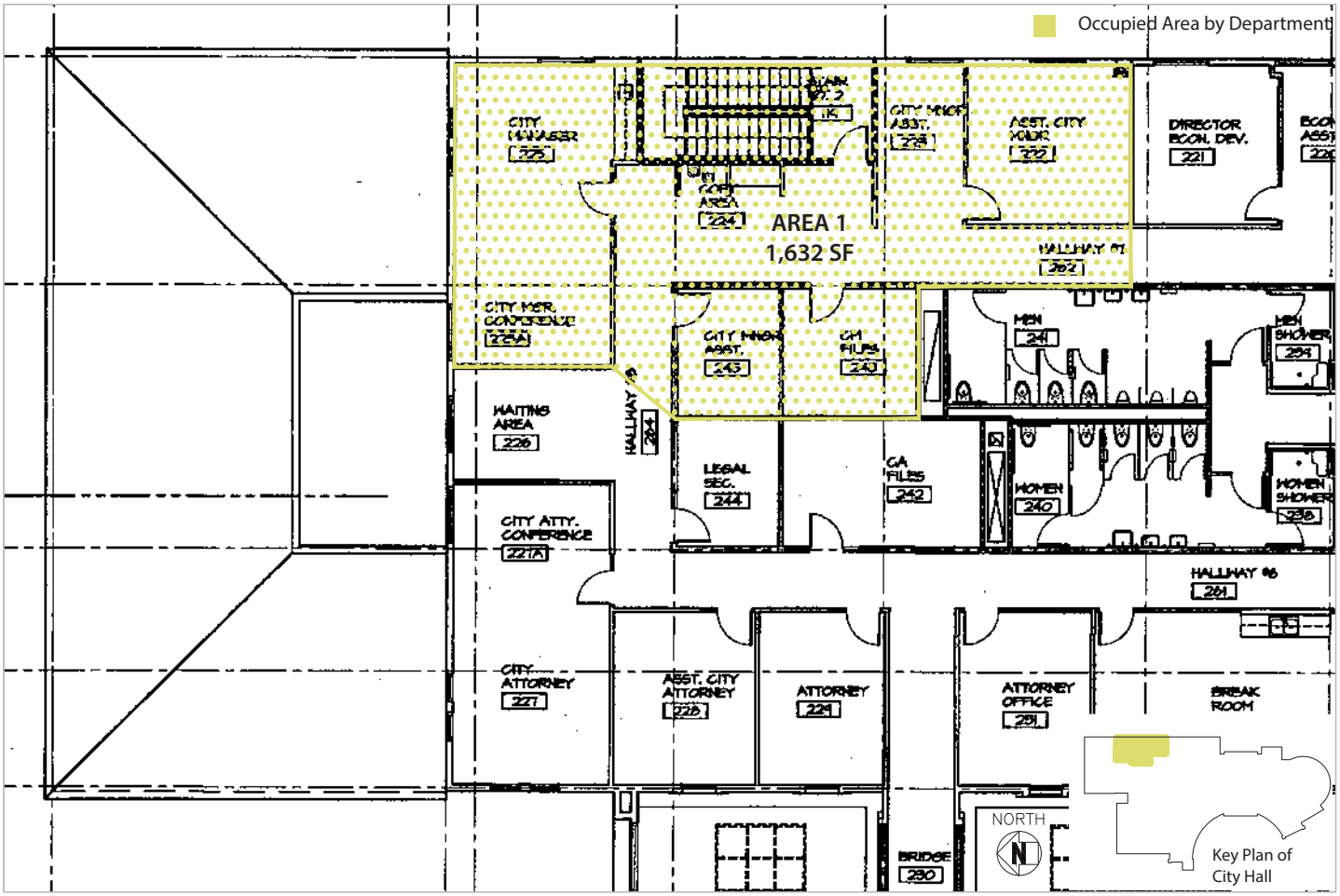
• Closer proximity of team employees without moving ATTCM (Assistant to the City Manager) & PIO (Public Information Officer) out of the CMO (City Manager's Office), and maintaining current CH 26 storage space.

Department Description

Operates and maintains Tracy local television Channel 26. Responsible for informing the public about current City projects, activities and operations.

Department Location City Facilities Other Buildings

Current location of Public Information and Community Engagement Division - AREA 1: CITY HALL (UPPER FLOOR)



CITY MANAGER'S OFFICE - PUBLIC INFORMATION & COMMUNITY ENGAGEMENT (CONTINUED)

	Current			10 Year Plan		
Location	City Hall & Police Annex 333 Civic Center Plaza			Maintain current locations at CMO's office and Police Annex		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	4	6	10	5	7	12
Area (SF)	2,228			1,638		
Public Interaction & Outreach:	Yes					

Major Needs

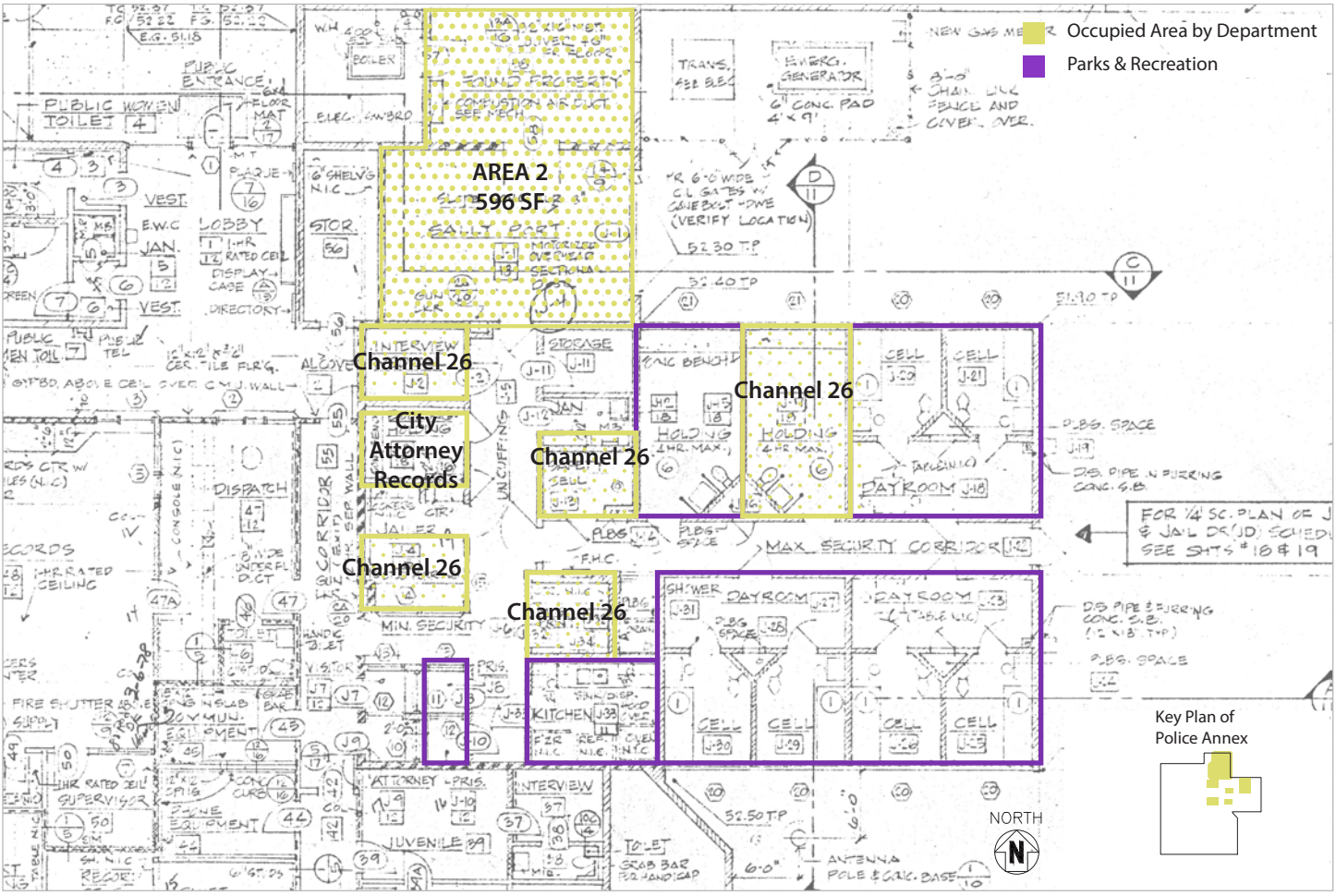
• Closer proximity of team employees without moving ATTCM (Assistant to the City Manager) & PIO (Public Information Officer) out of the CMO (City Manager's Office), and maintaining current CH 26 storage space.

Department Description

Operates and maintains Tracy local television Channel 26. Responsible for informing the public about current City projects, activities and operations.

Department Location City Facilities Other Buildings

Current location of Public Information and Community Engagement Division - AREA 2: POLICE ANNEX FLOOR PLAN



CITY MANAGER'S OFFICE - ECONOMIC DEVELOPMENT

	Current			10 Year Plan		
Location	City Hall 333 Civic Center Plaza			Remodel and rearrange existing space		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	2	1	3	3	1	4
Area (SF)	307			465		
Public Interaction & Outreach:				Yes		

Major Needs

- Replace exsiting desks
- Conference spaces are inefficient
- One more private office is needed

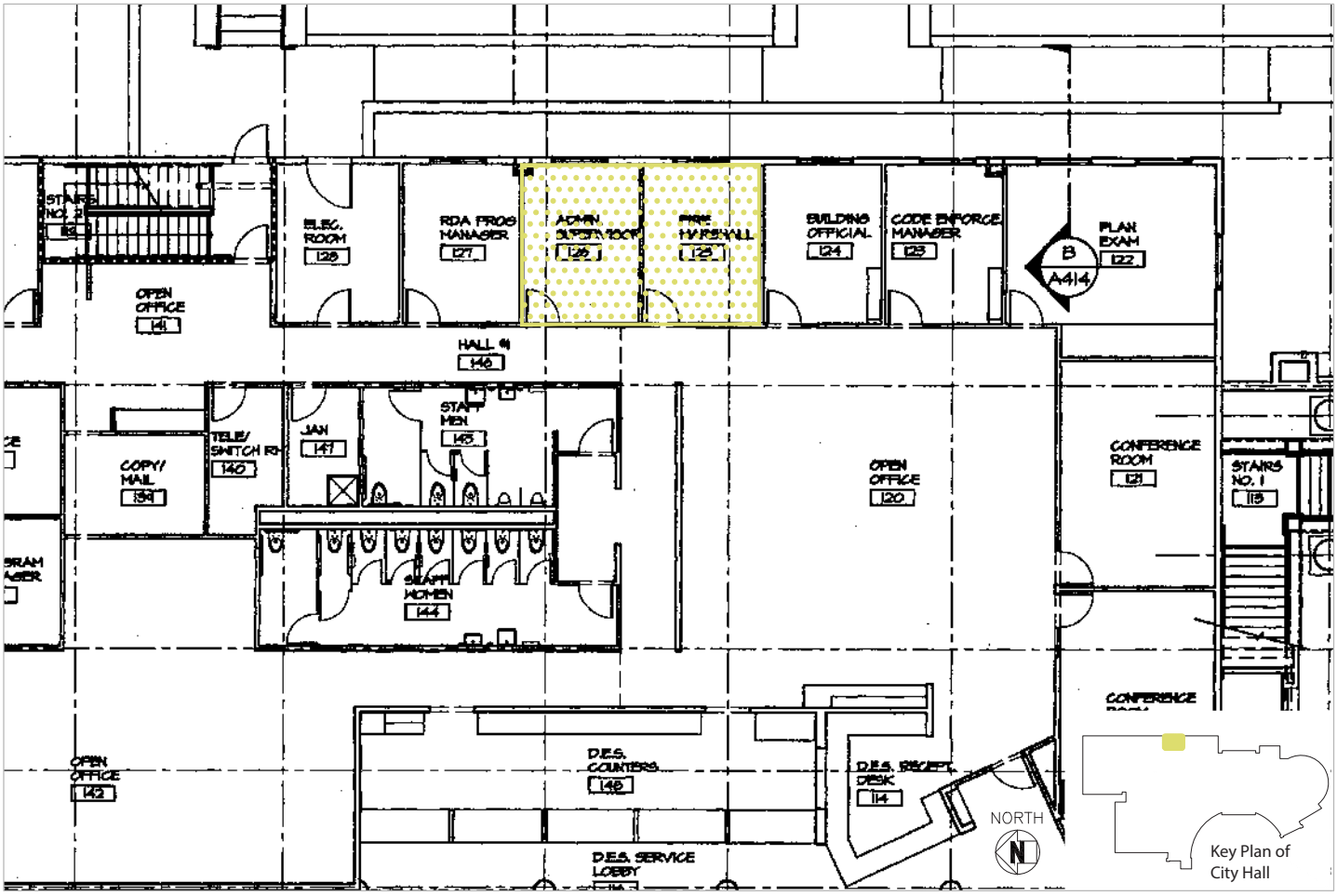
Department Description

Promotes and pursures commercial, industrial and office development within Tracy in order to create a diverse and sustainable economic base for the City.

Department Location City Facilities Other Buildings

Current location of Economic Development Division - CITY HALL (LOWER FLOOR)

Occupied Area by Department



DEVELOPMENT SERVICES - ADMINISTRATION

	Current			10 Year Plan		
Location	City Hall & Support Services Building 333 Civic Center Plaza			Remodel and rearrange existing space		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	16	0	16	18	0	18
Area (SF)	1,010 (City Hall) (City Hall Annex)			2,160		
Public Interaction & Outreach:	Yes					

Major Needs

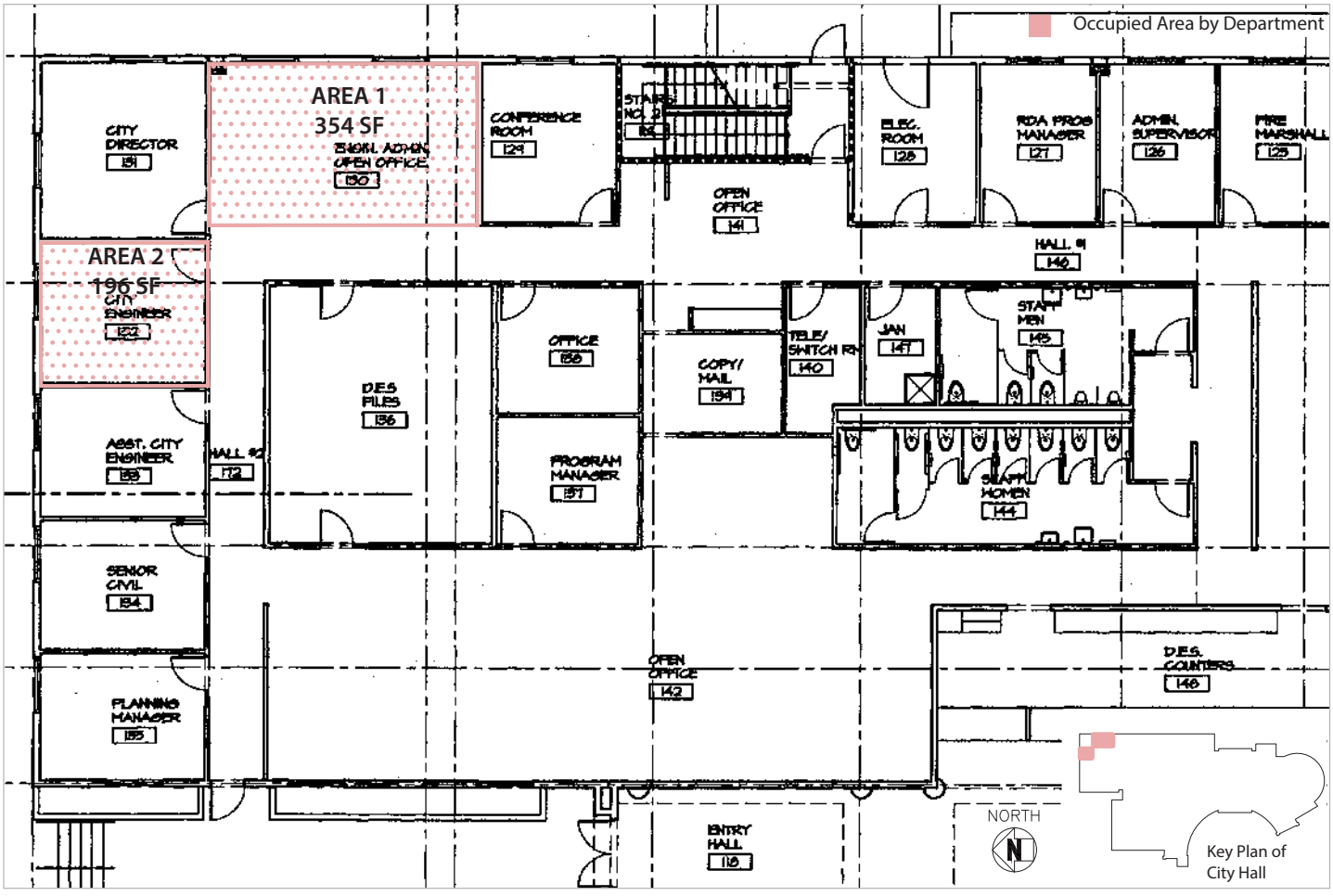
- Employees not efficient due to located in different buildings
- Inadequate meeting space for internal and public meetings
- Administrative support in City Hall has inadequate workspace

Department Description

Responsible for advancing the permitting processes within the City including working closely with building officials and planning staff.

Department Location City Facilities Other Buildings

Current location of Administration Division in Development Services - AREA 1 & 2: CITY HALL (LOWER FLOOR)



DEVELOPMENT SERVICES - ADMINISTRATION (CONTINUED)

	Current			10 Year Plan		
Location	City Hall & Support Services Building 333 Civic Center Plaza			Remodel and rearrange existing space		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	16	0	16	18	0	18
Area (SF)	1,010 (City Hall) (City Hall Annex)			2,160		
Public Interaction & Outreach:	Yes					

Major Needs

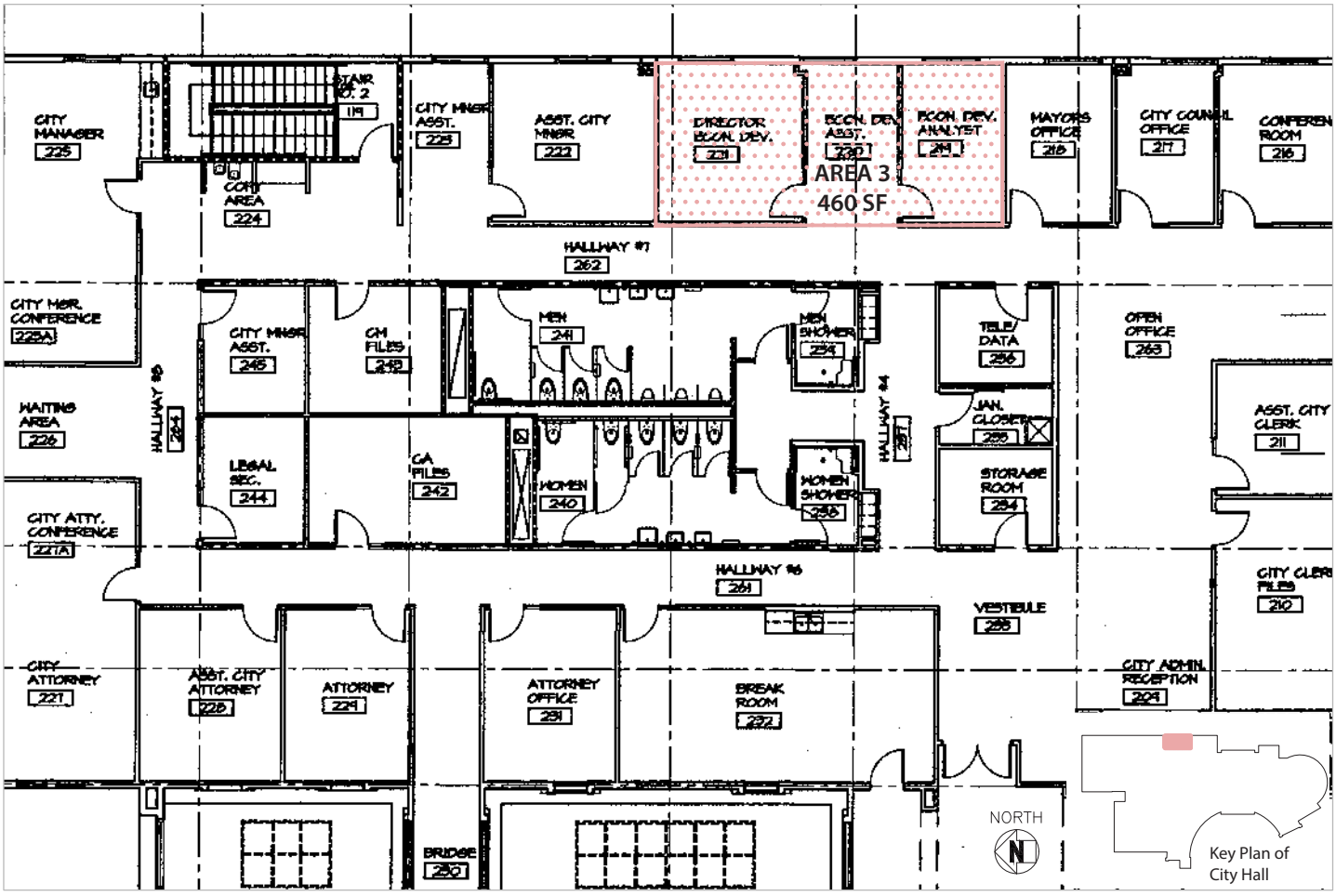
- Employees not efficient due to located in different buildings
- Inadequate meeting space for internal and public meetings
- Administrative support in City Hall has inadequate workspace

Department Description

Responsible for advancing the permitting processes within the City including working closely with building officials and planning staff.

Department Location City Facilities Other Buildings

Current location of Administration Division in Development Services - AREA 3: CITY HALL (UPPER FLOOR)



DEVELOPMENT SERVICES - PLANNING

	Current			10 Year Plan		
Location	City Hall & Support Service Trailer 333 Civic Center Plaza			Remodel and rearrange existing space. Move all to City Hall.		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	9	0	9	10	0	10
Area (SF)	1,657			1,875		
Public Interaction & Outreach:				No		

Major Needs

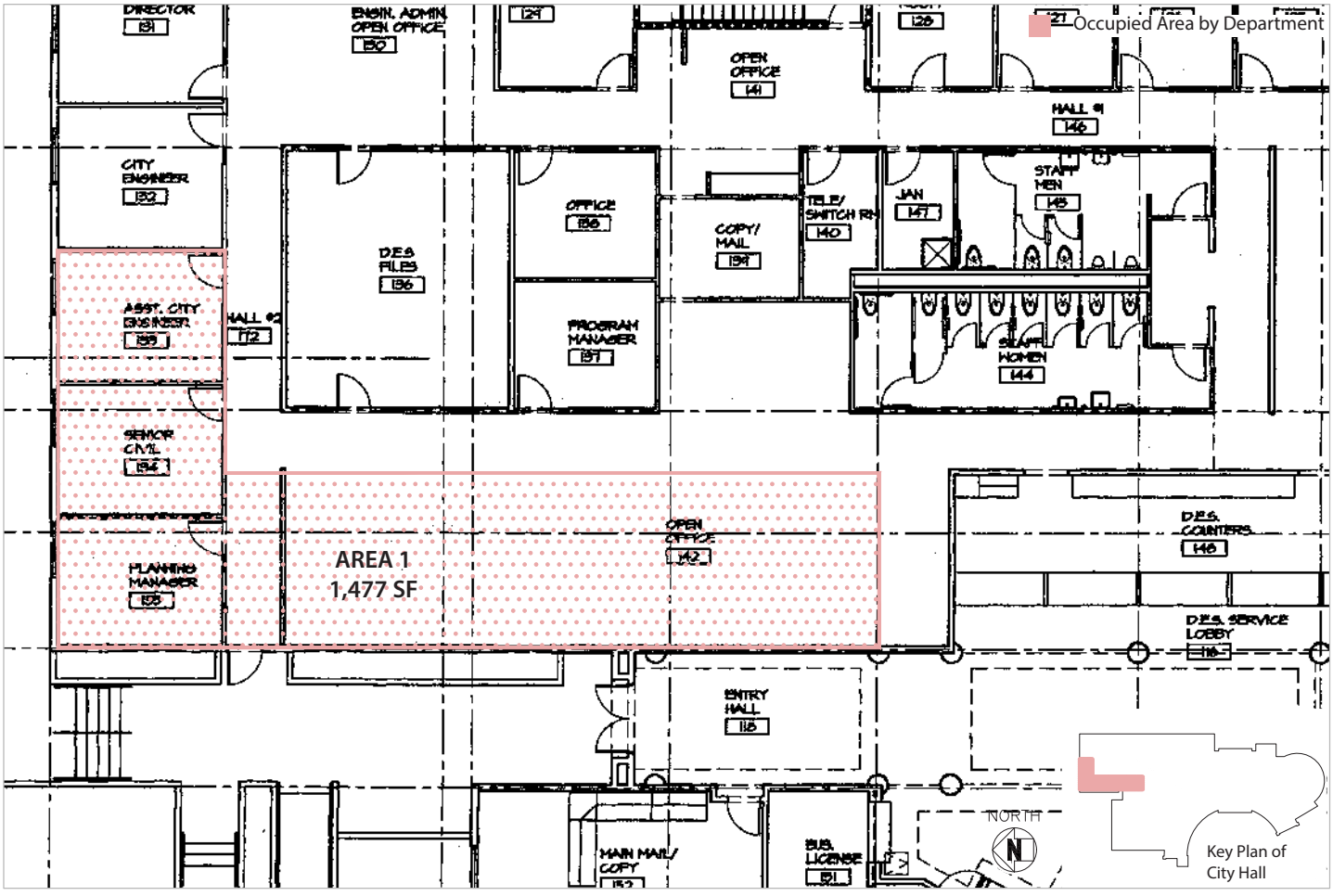
- One more office is needed
- A little more privacy would be helpful

Department Description

Responsible for implementing City policies that direct the physical development and community character of Tracy through the analysis and establishment of local plans, including project development and approvals.

Department Location City Facilities Other Buildings

Current location of Planning Division in Development Services - AREA 1: CITY HALL (LOWER FLOOR)



DEVELOPMENT SERVICES - PLANNING (CONTINUED)

	Current			10 Year Plan		
Location	City Hall & Support Service Trailer 333 Civic Center Plaza			Remodel and rearrange existing space. Move all to City Hall.		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	9	0	9	10	0	10
Area (SF)	1,657			1,875		
Public Interaction & Outreach:				No		

Major Needs

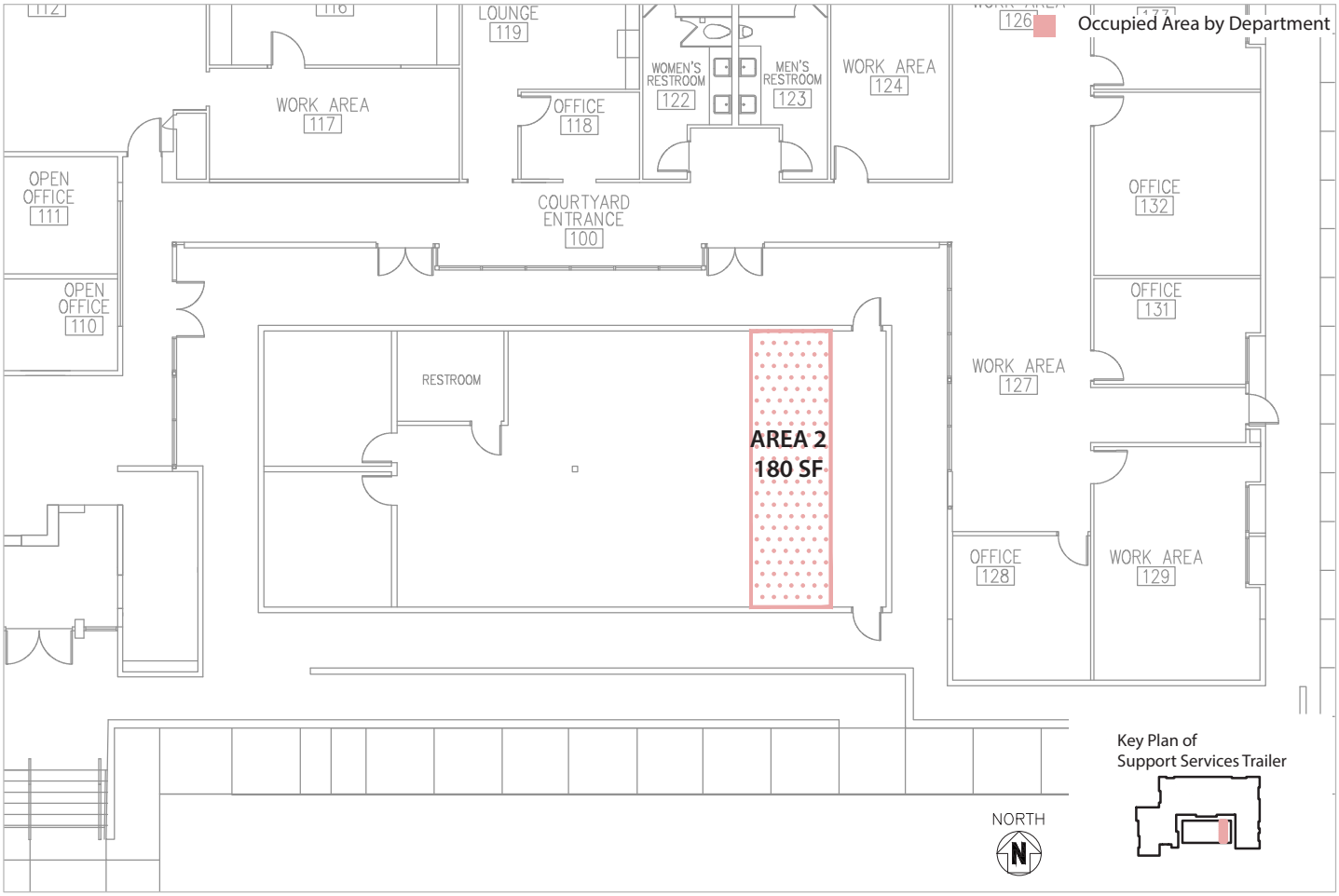
- One more office is needed
- A little more privacy would be helpful

Department Description

Responsible for implementing City policies that direct the physical development and community character of Tracy through the analysis and establishment of local plans, including project development and approvals.

Department Location City Facilities Other Buildings

Current location of Planning Division in Development Services - AREA 2: SUPPORT SERVICE TRAILER FLOOR PLAN



DEVELOPMENT SERVICES - BUILDING

	Current			10 Year Plan		
Location	City Hall & Support Service Trailer 333 Civic Center Plaza			Move to Administration Building		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	16	0	16	17	0	17
Area (SF)	1,984			1,932		
Public Interaction & Outreach:				No		

Major Needs

- City Hall space is too small
- Employees are not efficiently located
- Lacking meeting space for division

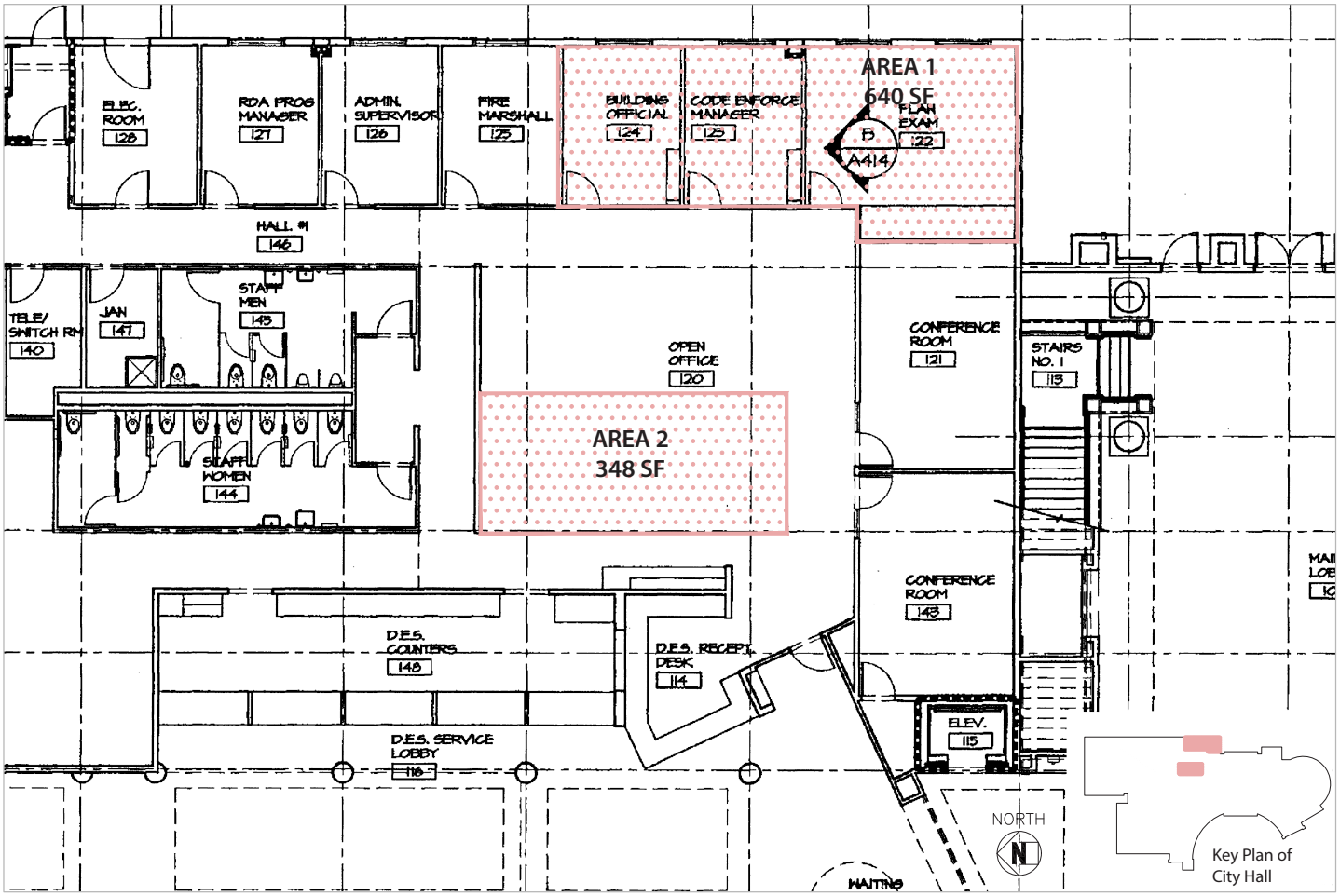
Department Description

Responsible for improving the safety of Tracy residents through increasing protection from life threatening hazards and reducing risks of property loss.

Department Location City Facilities Other Buildings

Current location of Development Services Building - AREA 1 & 2: CITY HALL (LOWER FLOOR)

Occupied Area by Department



DEVELOPMENT SERVICES - BUILDING (CONTINUED)

	Current			10 Year Plan		
Location	City Hall & Support Service Trailer 333 Civic Center Plaza			Move to Administration Building		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	16	0	16	17	0	17
Area (SF)	1,984			1,932		
Public Interaction & Outreach:				No		

Major Needs

- City Hall space is too small
- Employees are not efficiently located
- Lacking meeting space for division

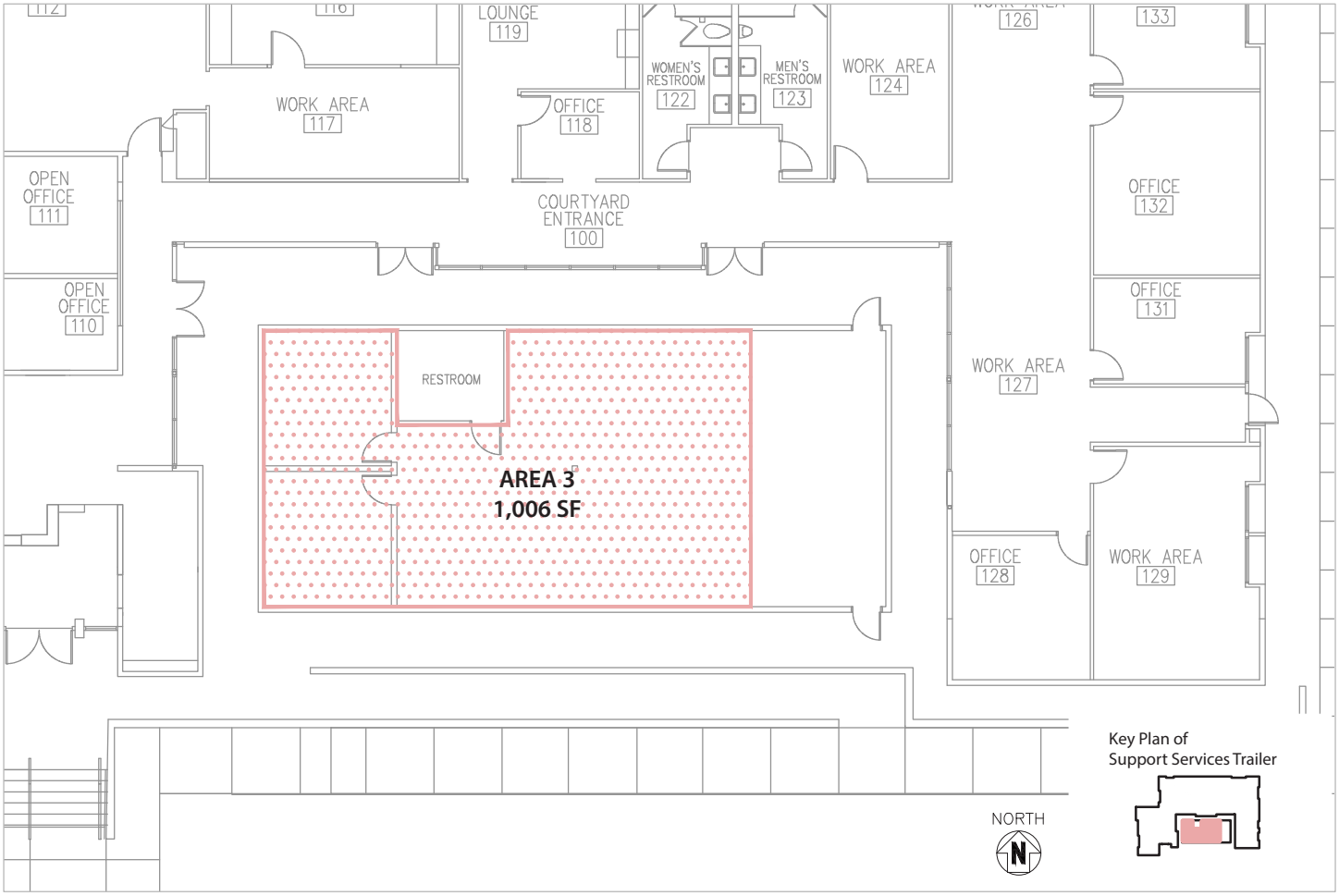
Department Description

Responsible for improving the safety of Tracy residents through increasing protection from life threatening hazards and reducing risks of property loss.

Department Location City Facilities Other Buildings

Current Location in Support Services Buildings - AREA 3: SUPPORT SERVICE TRAILER

Occupied Area by Department



DEVELOPMENT SERVICES - ENGINEERING CIP

	Current			10 Year Plan		
Location	Support Services Bldg 325 Civic Center Plaza			Move to Administration Building		
Number of Employees	Full-Time	Frozen	Total	Full-Time	Part-Time	Total
	6	3	9	10	0	10
Area (SF)	1,651			2,500		
Public Interaction & Outreach:	Rarely					

Major Needs

- Office space is not efficient, including inefficient storage
- More space for internal meetings is needed
- Potential candidate for relocation or new facility
- Vacancies in employee positions require fulfillment

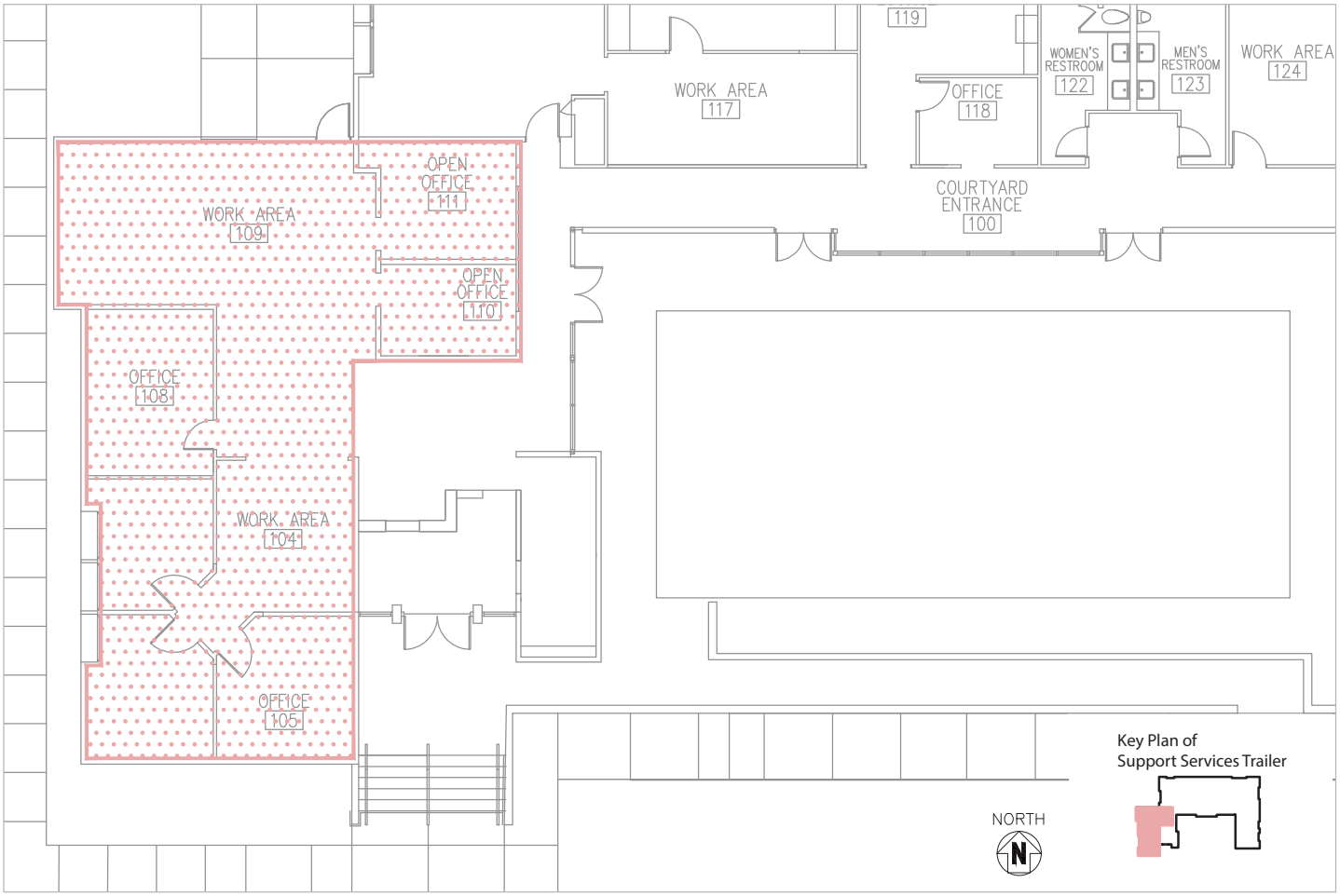
Department Description

Responsible for providing design and construction administration for all capital improvement programs and projects including streets, buildings, parks and utilities.

Department Location | City Facilities | Other Buildings

Current Location in Engineering CIP Division - SUPPORT SERVICE TRAILER

Occupied Area by Department



DEVELOPMENT SERVICES - ENGINEERING LAND DEVELOPMENT

	Current			10 Year Plan		
Location	City Hall 333 Civic Center Plaza			Move to Administration Building		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	7	0	7	9	0	9
Area (SF)	426			675		
Public Interaction & Outreach:	Yes					

Major Needs

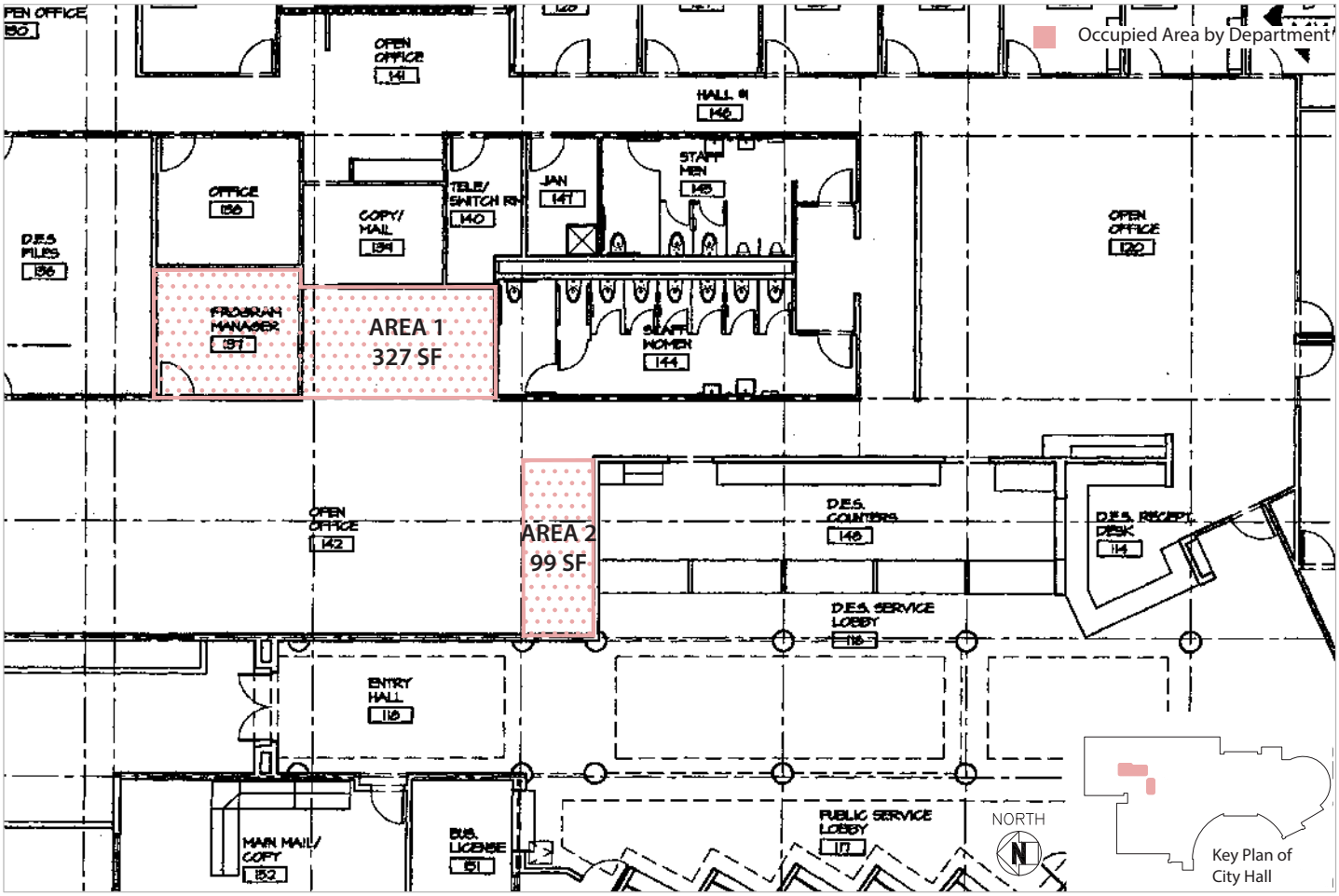
- Office space to accommodate additional two (2) staff
- Insufficient space for both internal and public meetings
- Maintain current combination of offices and open workspaces

Department Description

Provides review and permit processing services to the development community and public to ensure construction quality within established schedules.

Department Location | City Facilities | Other Buildings

Current Location of Engineering Land Development Division - AREA 1 & 2: CITY HALL (FLOOR PLAN)



DEVELOPMENT SERVICES - ENGINEERING CONSTRUCTION MANAGEMENT

	Current			10 Year Plan		
Location	Support Services Bldg 325 Civic Center Plaza			Move to Administration Building		
Number of Employees	Full-Time	Frozen	Total	Full-Time	Part-Time	Total
	6	3	9	10	4	14
Area (SF)	2,168			3,000		
Public Interaction & Outreach:	Yes					

Major Needs

- Insufficient space for public meetings
- Occupy existing open private office space

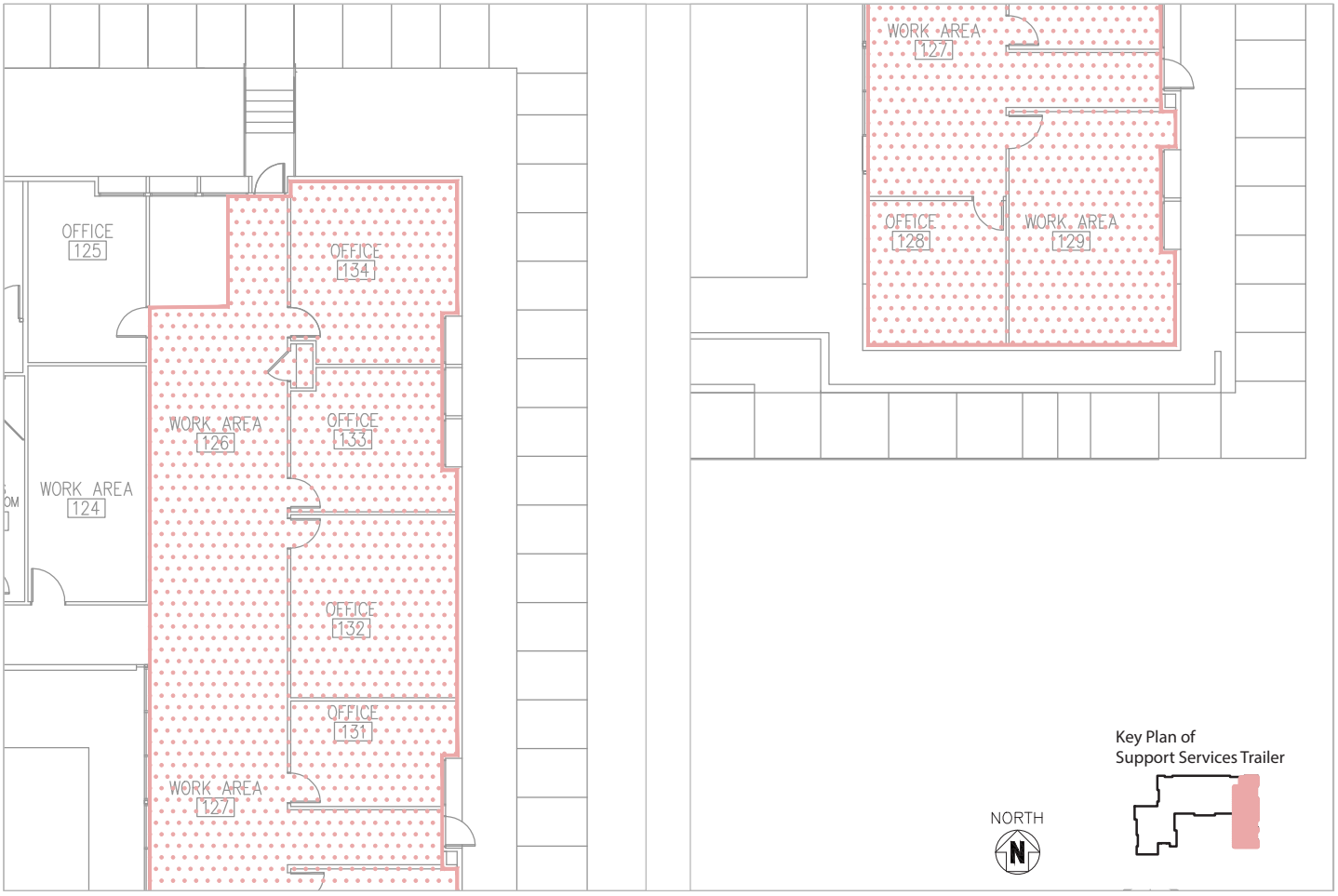
Department Description

Provides inspection of public works projects, private development projects and encroachment permits during construction to ensure plans are followed appropriately.

Department Location City Facilities Other Buildings

Current Location of Engineering Construction Management Division - SUPPORT SERVICE TRAILER

Occupied Area by Department



DEVELOPMENT SERVICES - ENGINEERING TRAFFIC

	Current			10 Year Plan		
Location	Support Services Bldg 325 Civic Center Plaza			Move to Administration Building		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	3	0	3	3	0	3
Area (SF)	243			500		
Public Interaction & Outreach:				No		

Major Needs

- No Survey received

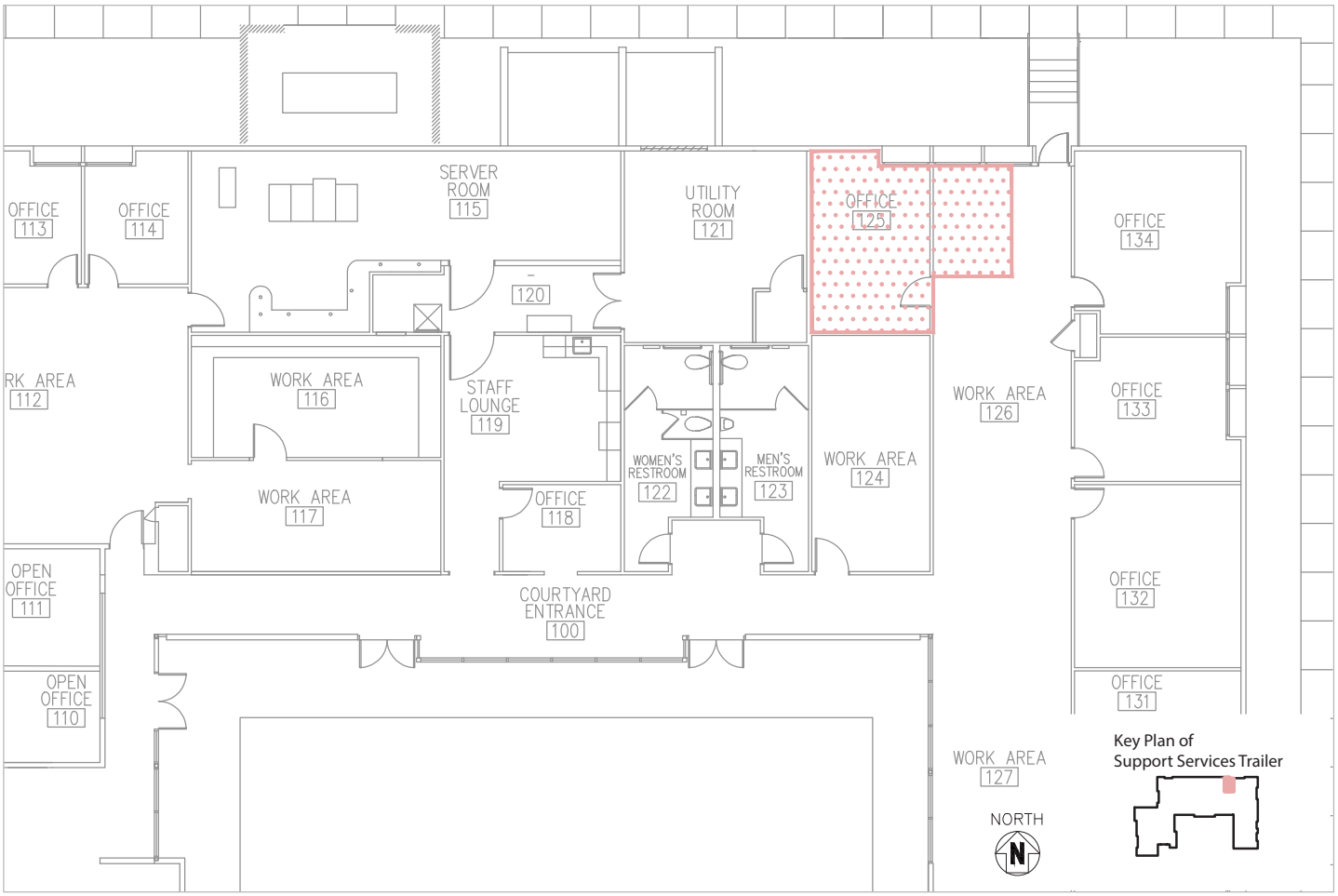
Department Description

Ensures the safety and mobility of the Tracy's roadway network. Responsible for traffic operations, pavement management and neighborhood traffic calming.

Department Location City Facilities Other Buildings

Current Location of Engineering Traffic Division - SUPPORT SERVICE TRAILER

Occupied Area by Department



FINANCE

	Current			10 Year Plan		
Location	City Hall 333 Civic Center Plaza			Maintain current space at City Hall		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	21	0	21	24	0	24
Area (SF)	4,373			4,373		
Public Interaction & Outreach:	Yes					

Major Needs

- Break room and restroom reconfiguration
- Improved customer visibility at front counter
- Additional meeting spaces, internal and public

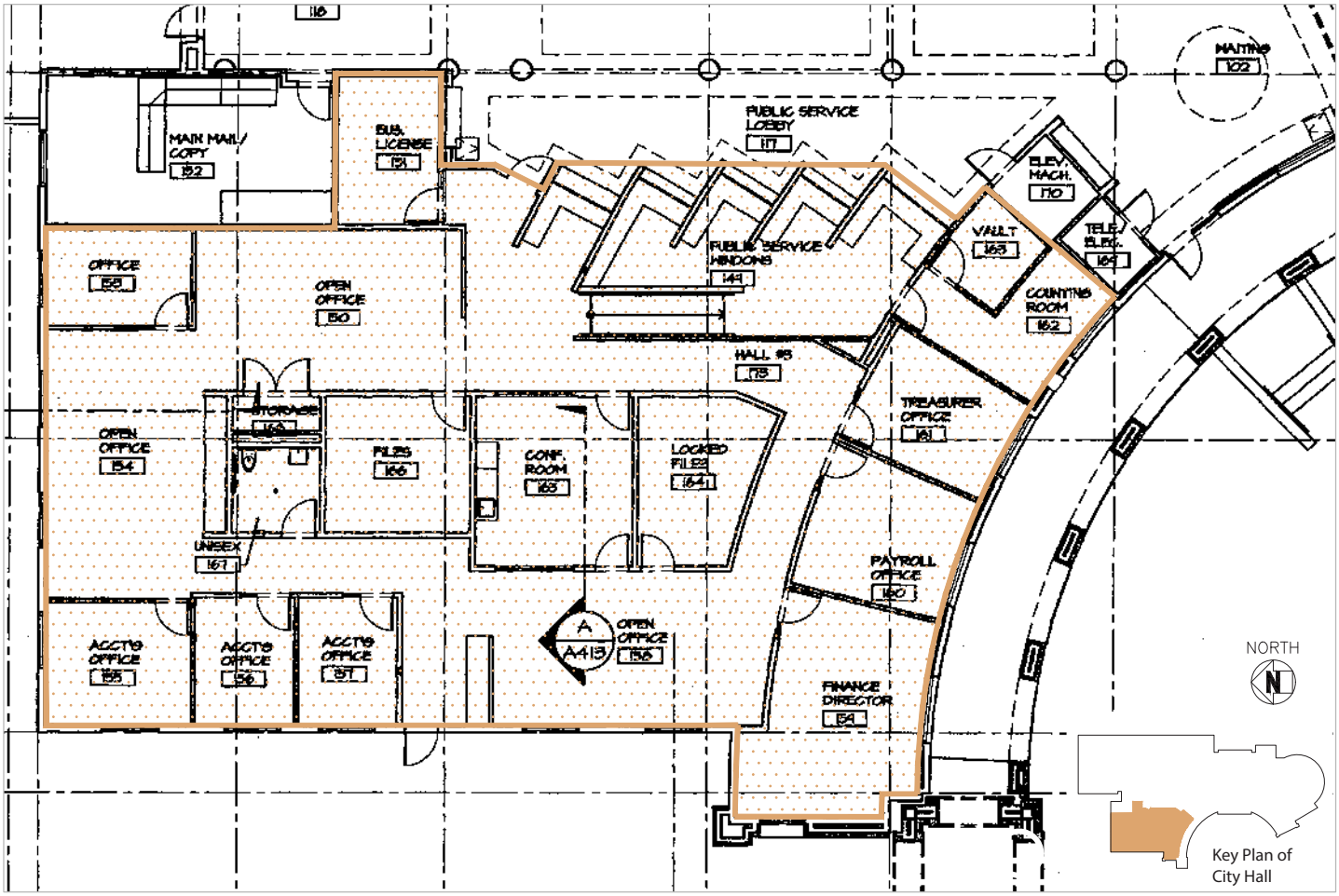
Department Description

Responsible for all aspects of City budget preparation and accounting, as well as utility billing and business licensing for City of Tracy operations.

Department Location City Facilities Other Buildings

Current Location of Finance - CITY HALL (LOWER FLOOR)

Occupied Area by Department



HUMAN RESOURCES

	Current			10 Year Plan		
Location	City Hall 333 Civic Center Plaza			Maintain current space at City Hall with light improvements		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	10	0	10	10	0	10
Area (SF)	3,695			3,695		
Public Interaction & Outreach:	Yes					

Major Needs

- Underutilized storage area and alternate workstation area
- HR has no requested improvements at this time

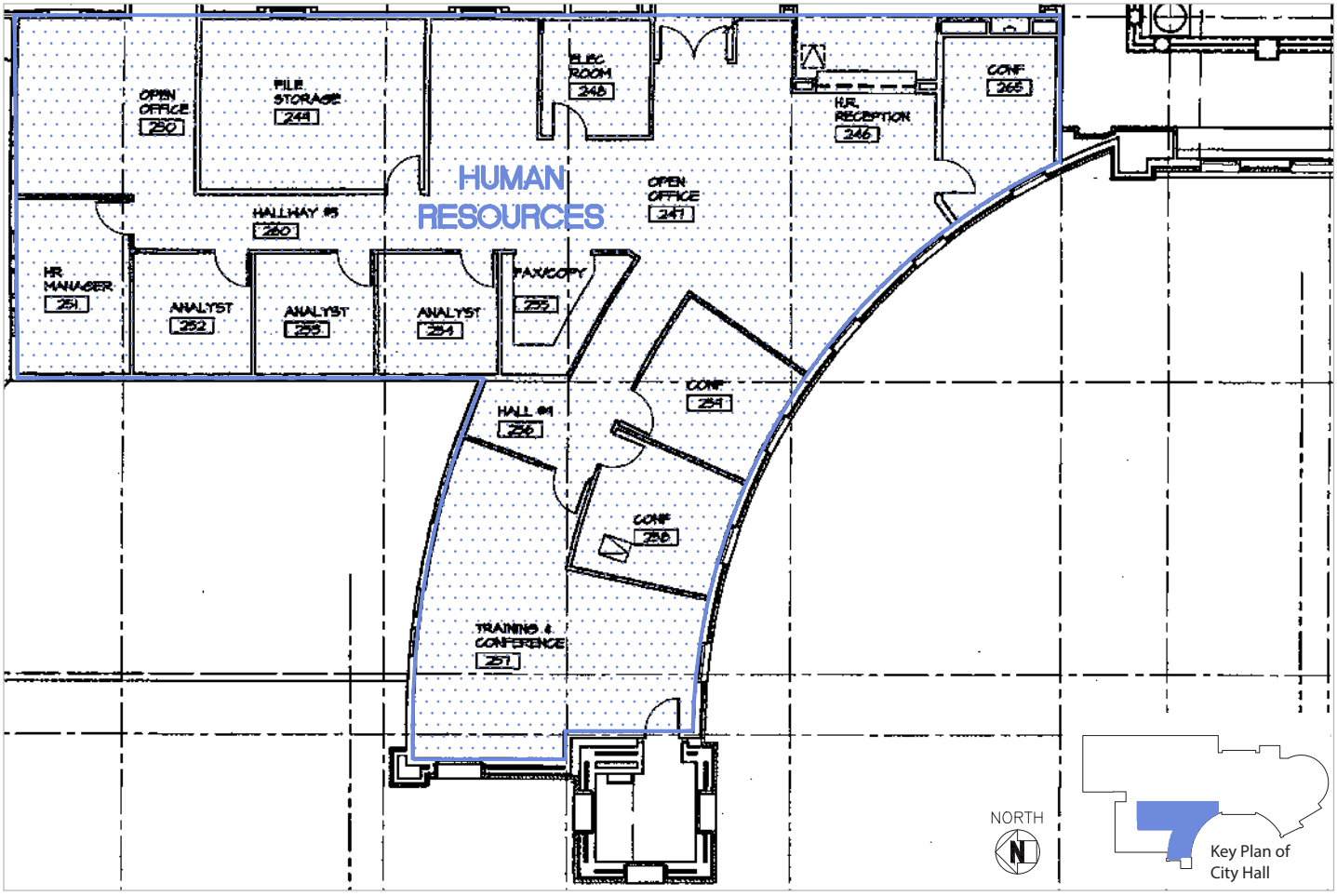
Department Description

Tasked with training and skills development of City staff as well as recruitment and hiring of employees for the City of Tracy.

Department Location | City Facilities | Other Buildings

Current Location of Human Resources Division - CITY HALL (UPPER FLOOR)

Occupied Area by Department



OPERATIONS & UTILITIES

	Current			10 Year Plan		
Location	Boyd Service Center & Water Operations Facilities 520 S Tracy Blvd; 3900 Holly Drive; 6649 S Tracy Blvd			Renovate Boyd Service Center. Build auxiliary facility to be shared with Transit. ***Utilities Plan Not in Project**		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	122	0	122	150	0	150
Area (SF)	Site: 331,200 sf Facilities: 29,900 sf			Site: 500,000 sf Facilities: 60,000 sf		
Public Interaction & Outreach:				Yes		

Major Needs

- Shops are too small and create inefficient work environments
- More meeting space needed, internal and public
- Space for vehicles and equipment is lacking considerably
- Accidents have happened due to space constraints
- Corporation yard site is far too small for the number of vehicles, equipment and materials needed for operations

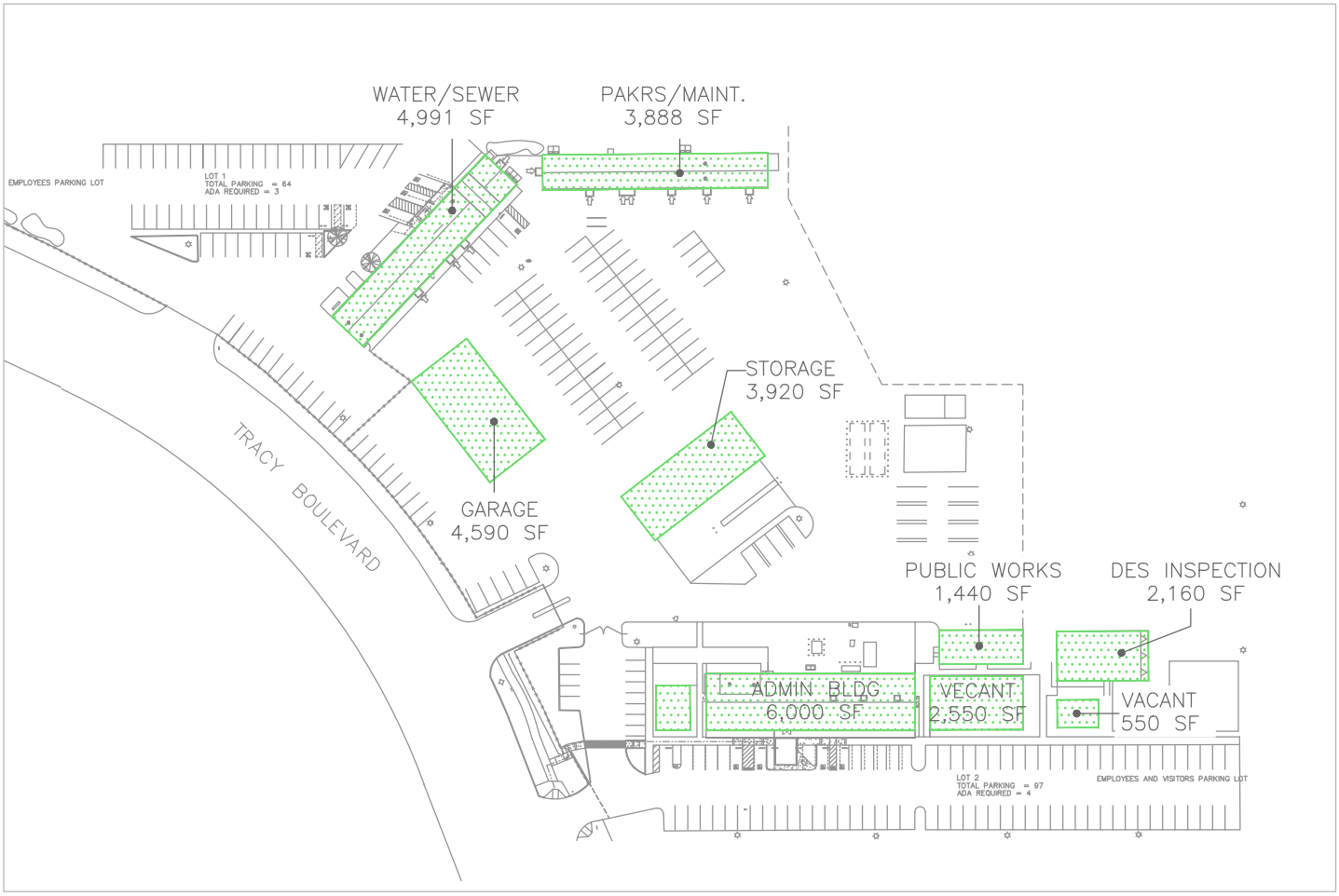
Department Description

Responsible for maintaining City infrastructure including public facilities and parks throughout Tracy. Also responsible for maintenance and oversight of the City's Water Treatment Plant and Wastewater Treatment Plant.

Department Location City Facilities Other Buildings

Current Location of Public Works - BOYD SERVICE CENTER SITE PLAN

Occupied Area by Department



PARK & RECREATION - AIRPORT

	Current			10 Year Plan		
Location	Tracy Airport Durham Ferry Rd			Remodel existing space		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	2	0	2	3	0	3
Area (SF)	800					
Public Interaction & Outreach:	Yes					

Major Needs

- Workspace too small
- Need separated workspace for each staff member (Right now 2 staff share a desk)

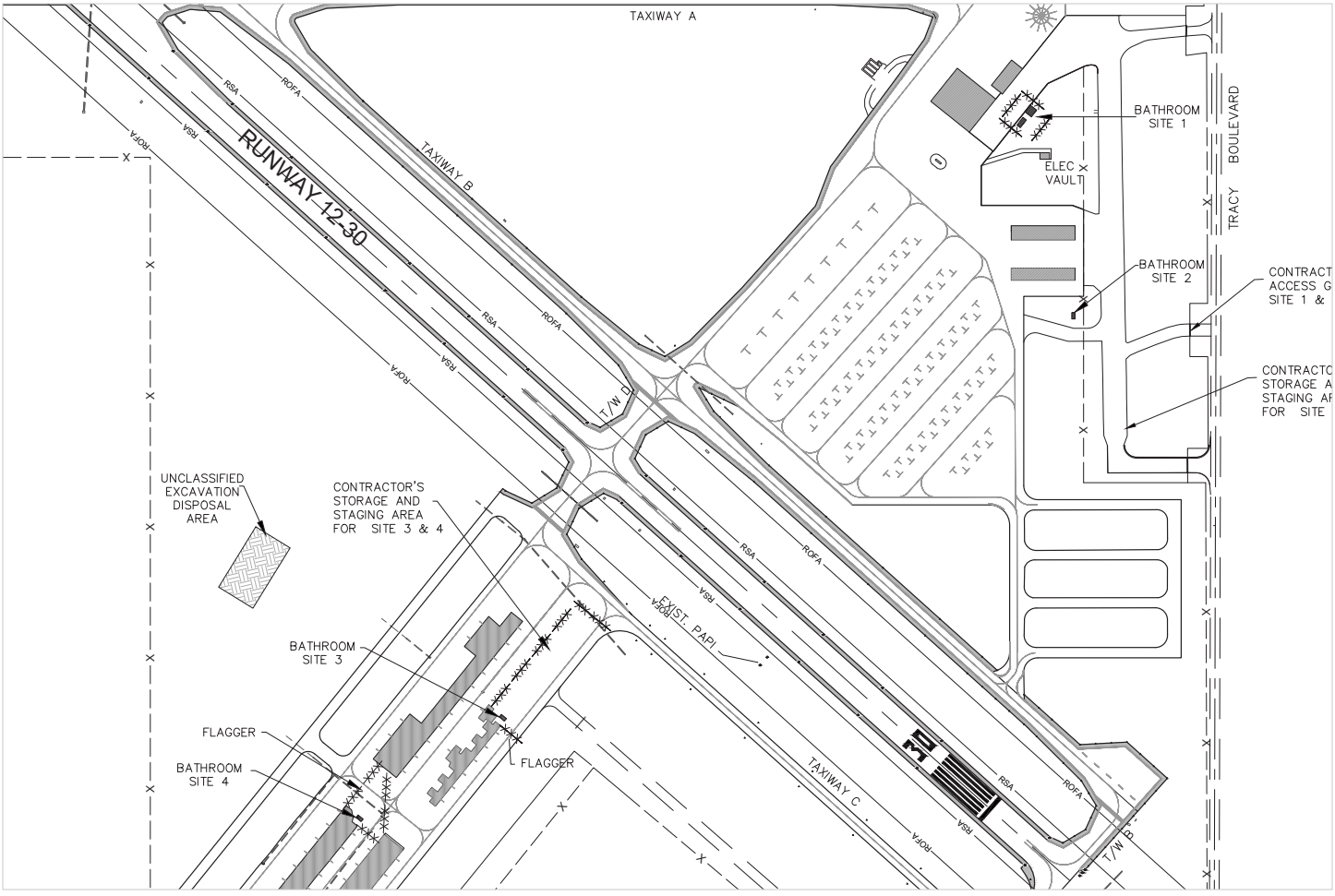
Department Description

Responsible for overseeing operations at the Tracy Municipal Airport including maintaining City-owned airplane hangars and the Tracy Municipal Airport site.

Department Location City Facilities Other Buildings

Current Location of Park & Recreation - TRACY AIRPORT SITE PLAN

Occupied Area by Department



PARK & RECREATION - TRANSIT

	Current			10 Year Plan		
Location	Transit Station 50 E. 6th St			Transit Center Renovation Bus Maintenance & Storage Facility		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	3		3	4		4
Area (SF)	250			600		
Public Interaction & Outreach:	●			Yes		

Major Needs

- Office space is over capacity, with workspaces too small
- Transit maintenance staff have no offices

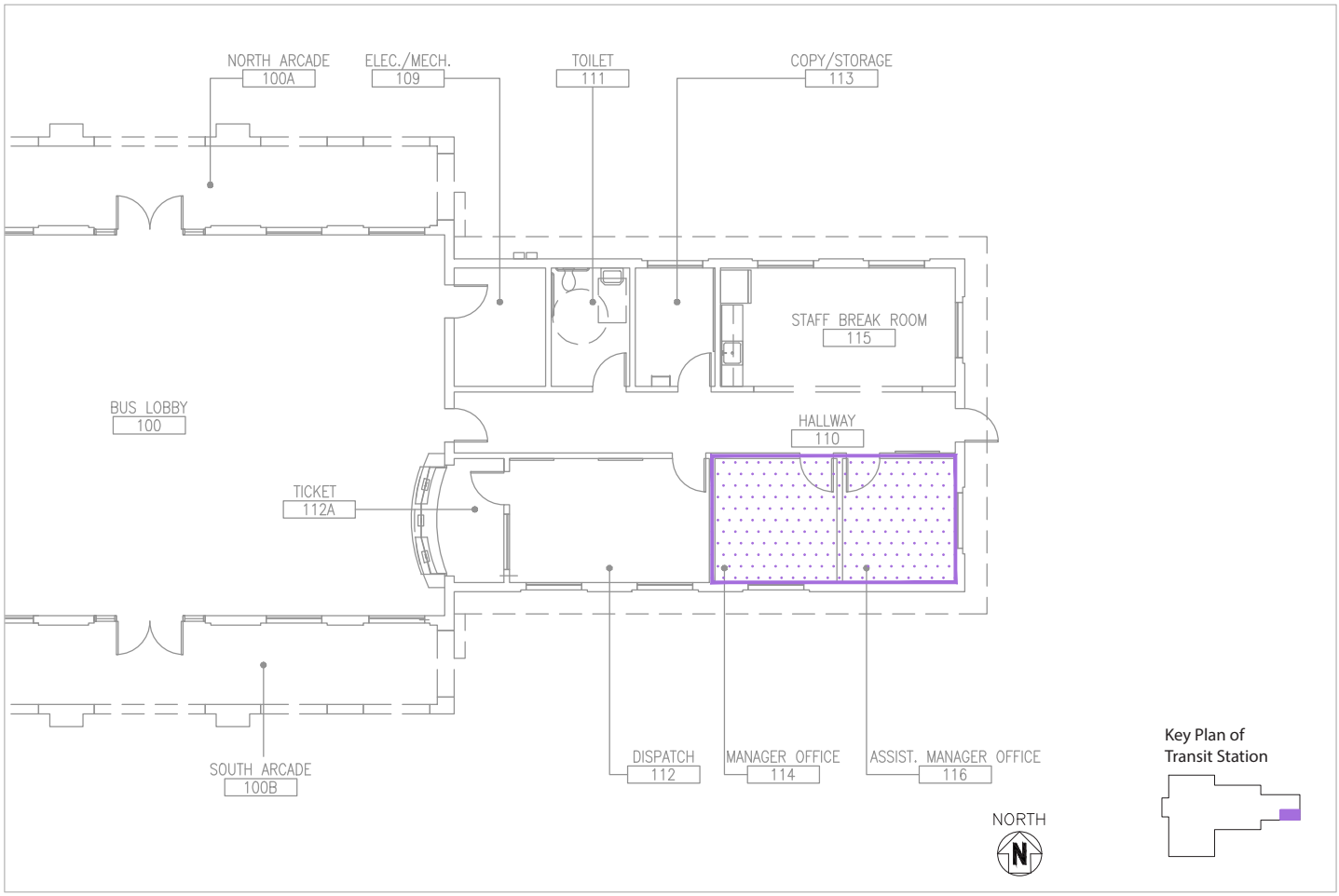
Department Description

Responsible for overseeing operations at the Transit Station including TRACER Bus Services. Ensures public transportation is well-maintained and serviceable.

Department Location City Facilities Other Buildings

Current Location of Transit Division in Park & Recreation - TRANSIT STATION

Occupied Area by Department



PARK & RECREATION - COMMUNITY & RECREATION

	Current			10 Year Plan		
Location	City Hall, Senior Center & Community Center 333 Civic Center Plaza			Move all staff to new Admin Building		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	10	46	56	12	46	58
Area (SF)	2,066			6,750		
Public Interaction & Outreach:	Yes					

Major Needs

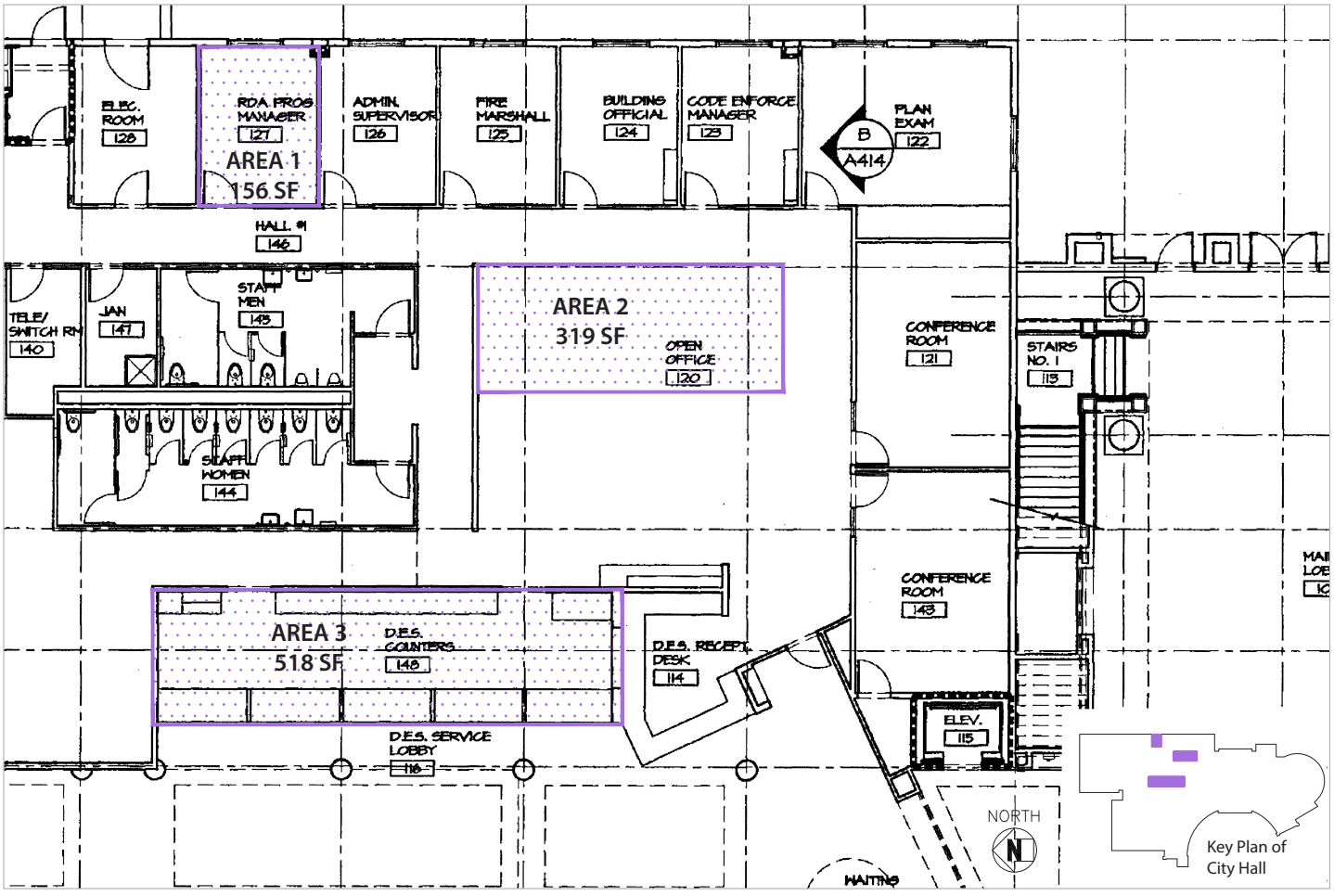
• Add few more spaces in City Hall for the 4 staff in the Community Center before Admin Building is built

Department Description

Responsible for maintaining Tracy Community facilities and activities led out of community facilities. Leads summer programs and Parks & Recreation class offerings.

Department Location City Facilities Other Buildings

Current Location of Community & Recreation Division - AREA 1, 2 & 3: CITY HALL (LOWER FLOOR) Occupied Area by Department



PARK & RECREATION - COMMUNITY & RECREATION (CONTINUED)

	Current			10 Year Plan		
Location	City Hall, Senior Center & Community Center 333 Civic Center Plaza			Move all staff to new Admin Building		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	10	46	56	12	46	58
Area (SF)	2,066			6,750		
Public Interaction & Outreach:	Yes					

Major Needs

• Add few more spaces in City Hall for the 4 staff in the Community Center before Admin Building is built

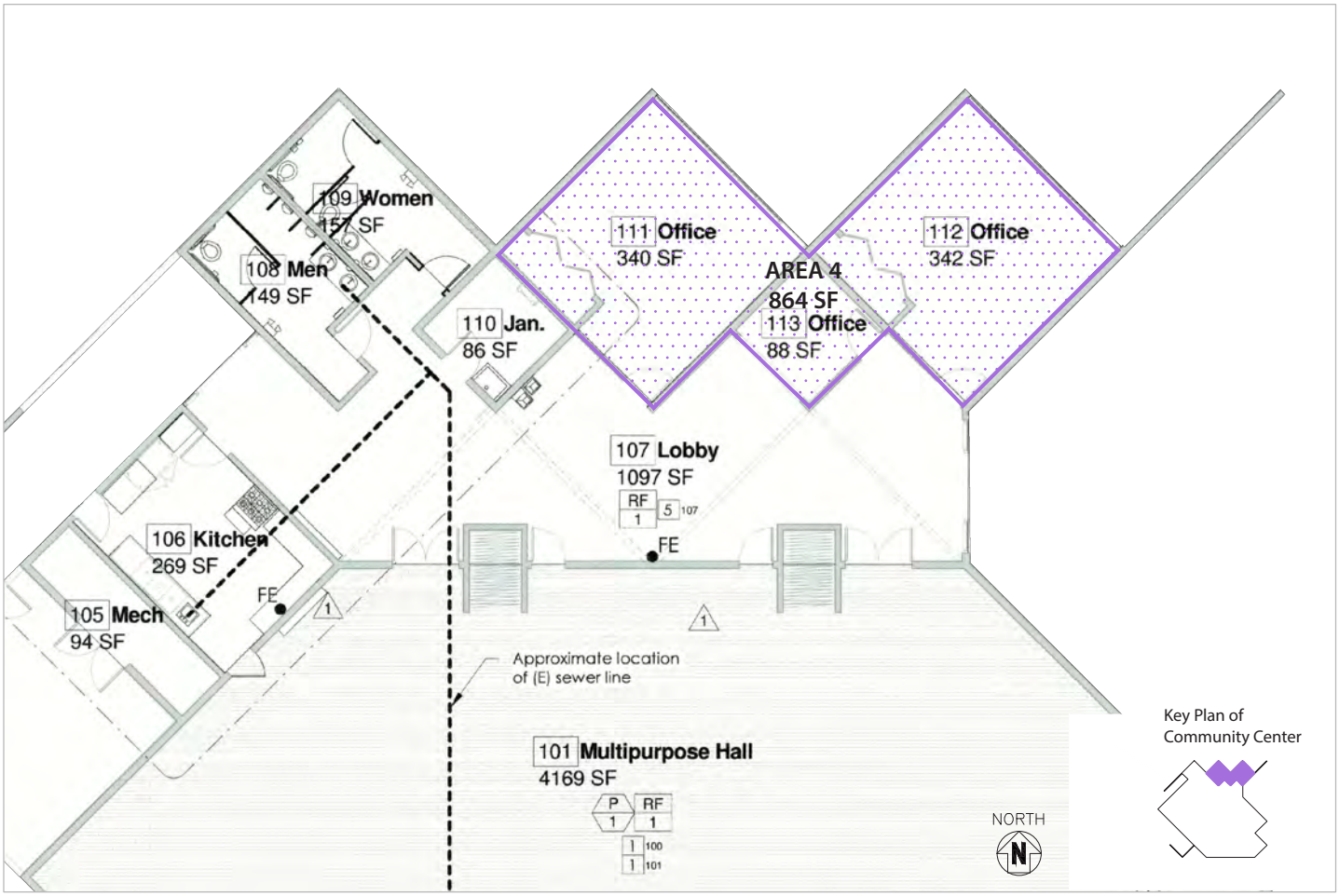
Department Description

Responsible for maintaining Tracy Community facilities and activities led out of community facilities. Leads summer programs and Parks & Recreation class offerings.

Department Location | City Facilities | Other Buildings

Current Location of Community & Recreation Division - AREA 4: COMMUNITY CENTER

Occupied Area by Department



PARK & RECREATION - COMMUNITY & RECREATION (CONTINUED)

	Current			10 Year Plan		
Location	City Hall, Senior Center & Community Center 333 Civic Center Plaza			Move all staff to new Admin Building		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	10	46	56	12	46	58
Area (SF)	2,066			6,750		
Public Interaction & Outreach:	Yes					

Major Needs

- Add few more spaces in City Hall for the 4 staff in the Community Center before Admin Building is built

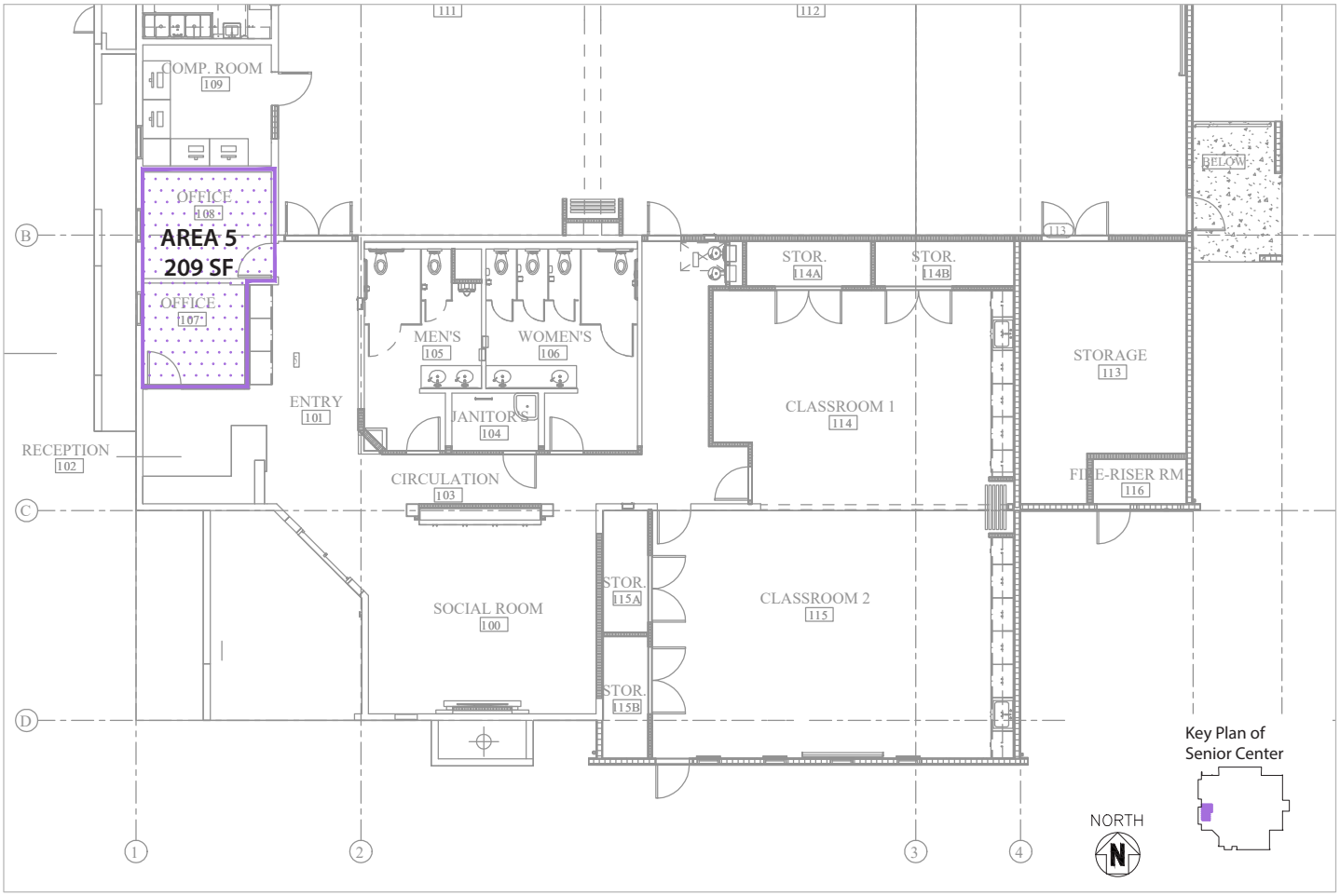
Department Description

Responsible for maintaining Tracy Community facilities and activities led out of community facilities. Leads summer programs and Parks & Recreation class offerings.

Department Location City Facilities Other Buildings

Current Location of Community & Recreation Division - AREA 5: SENIOR CENTER

Occupied Area by Department



POLICE DEPARTMENT - CODE

	Current			10 Year Plan		
Location	City Hall 333 Civic Center Plaza			Remain in City Hall until construction of New Police Facility		
Number of Employees	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
	7	0	7	9	0	9
Area (SF)	643			900		
Public Interaction & Outreach:				No		

Major Needs

- Increase wall space
- Tables to review large plans

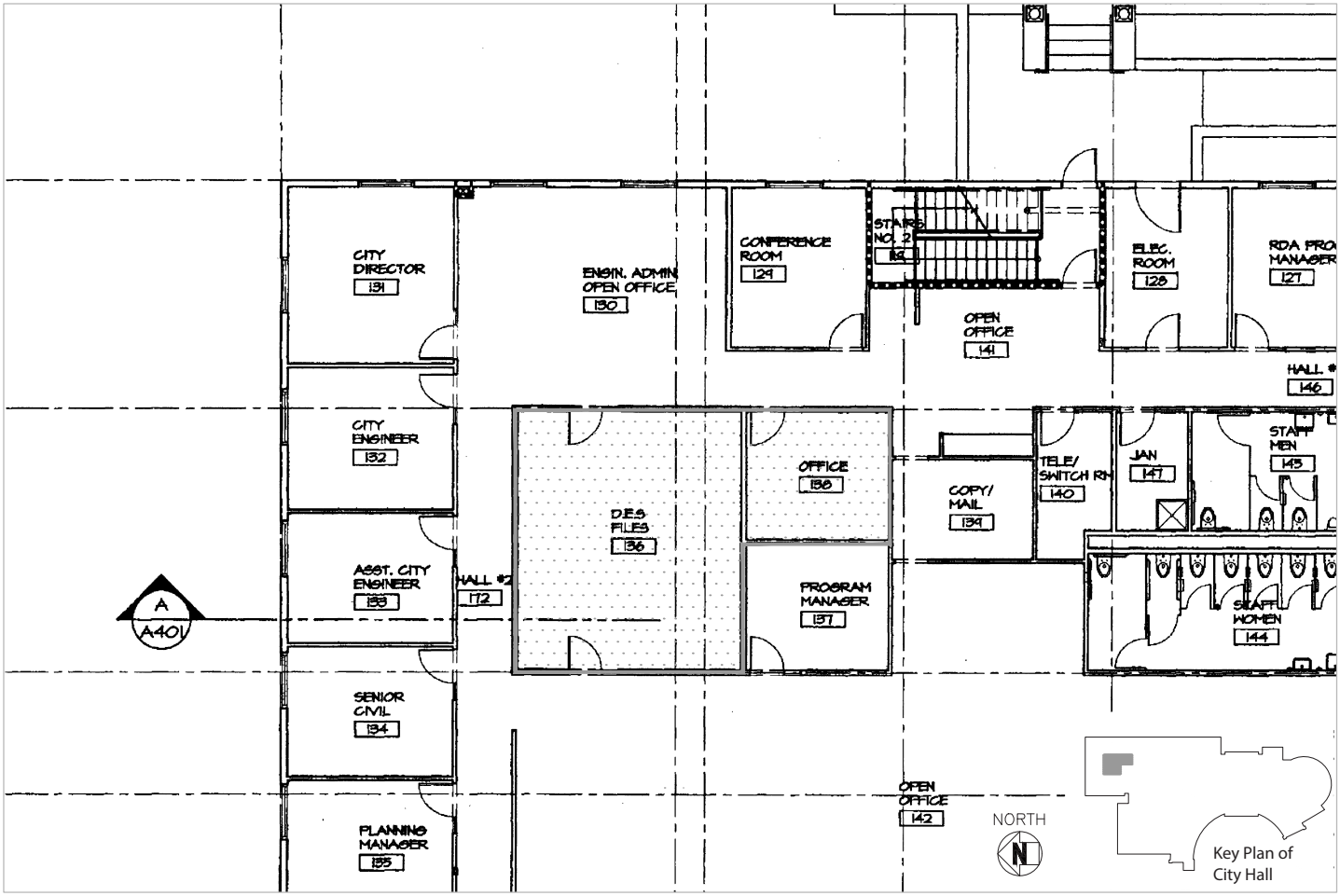
Department Description

Responsible for overseeing the enforcement of City codes and regulations. Communicates with public regarding code violations and resolving of violations.

Department Location City Facilities Other Buildings

Current Location of Code Division in Police Department - CITY HALL (LOWER FLOOR)

Occupied Area by Department



IV. PROJECTS - NEW PROJECTS, RENOVATIONS, AND DEFERRED MAINTENANCE

a. Comparisons to Cities of Similar Size 396

b. Findings and Summary for Facilities Needs Projection 397

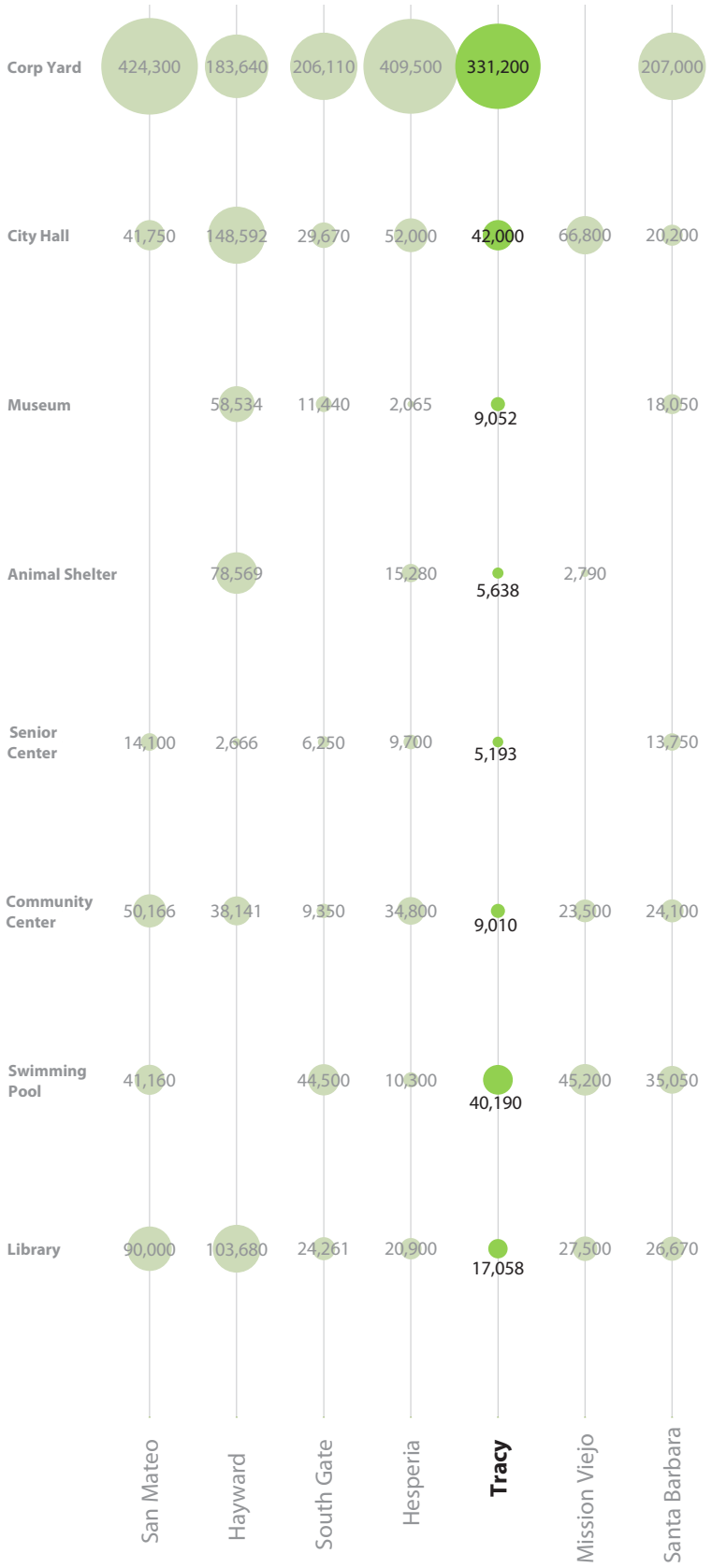
c. Proposed Projects - New 400

d. Proposed Projects - Renovations 412

e. Proposed Maintenance Schedule - Existing 418

Comparisons to Cities of Similar Size

		San Mateo	Hayward	South Gate	Hesperia	**Tracy**	Mission Viejo	Santa Barbara
City		San Mateo	Hayward	South Gate	Hesperia	**Tracy**	Mission Viejo	Santa Barbara
County		San Mateo	Alameda	Los Angeles	San Bernardino	**San Joaquin**	Orange	Santa Barbara
Population		103,087	158,817	97,003	96,393	**95,931**	94,267	94,511
* Government Facilities	# of Facilities	1	1	1	1	**1**		1
	Corp Yard (SF)	424,300	183,640	206,110	409,500	**331,200**	Unknown	207,000
	# of Facilities	1	1	1	1	**1**	1	1
	City Hall (SF)	41,750	148,592	29,670	52,000	**42,000**	66,800	20,200
Public Facilities	# of Facilities	0	1	1	1	**1**	0	1
	Museum (SF)	County Owned	58,534	11,440	2,065	**9,052**	County Owned	18,050
	# of Facilities	0	1	0	1	**1**	1	
	Animal Shelter (SF)	County Owned	78,569	County Owned	15,280	**5,638**	2,790	County Owned
	# of Facilities	1	1	1	1	**1**	1	1
	Senior Center (SF)	14,100	2,666	6,250	9,700	**5,193**	23,500	13,750
	# of Facilities	3	6	1	3	**1**		2
	Community Center (SF)	50,166	38,141	9,350	34,800	**9,010**		24,100
	# of Facilities	2	0	1	1	**1**	2	3
	Swimming Pool (SF)	41,160		44,500	10,300	**40,190**	45,200	35,050
	# of Facilities	1	1	2	1	**1**	1	1
	Library (SF)	90,000	103,680	24,261	20,900	**17,058**	27,500	26,670

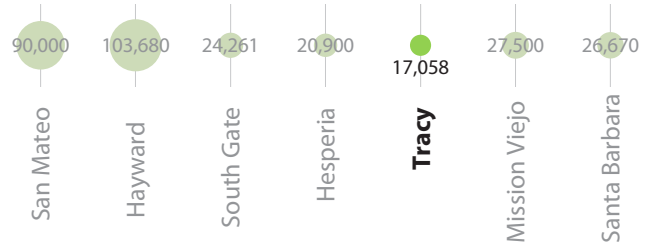


* Data obtained from public information and Google map

Findings and Summary for Facilities Needs Projection

Library

Facility Area Comparison:



Findings:
Existing Tracy Library is undersized and needs to be expanded for future population growth.

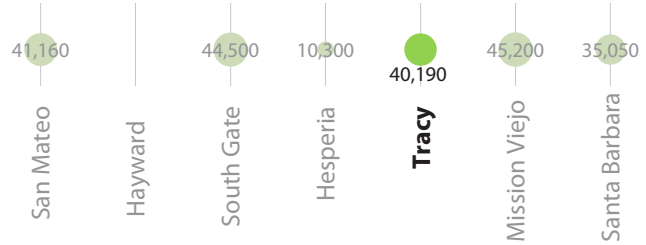
Recommendation:
Build a new City of Tracy Library at new location as an addition to the existing Tracy Library.

Proposed Action:
New Construction - New Tracy Library

Tracy's single library is smaller compared to other similarly sized cities. In addition to being undersized, the current library was constructed in the early 1960s with a moderate renovation in 1987. Improvements to the existing library would benefit the City if Tracy most in conjunction with the design and construction of a new library on the west portion of town. Additionally, the nearest libraries to the City of Tracy's library are the Mountain House Branch Library and Lathrop Branch Library, which are operated as one of 13 branches under the Stockon-San Joaquin County Public Library System along with the Tracy Library, but serve respective communities away from Tracy. Building a new library is recommended to serve the growing population of the City of Tracy.

Swimming Pool

Facility Area Comparison:



Findings:
Existing swimming pool has the proper size for the City but needs more space for water recreation activities for public access.

Recommendation:
Build a new Aquatic Center for additional water activities.

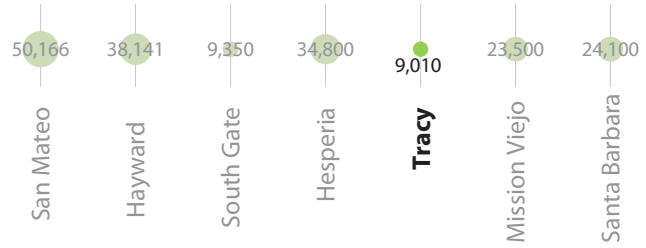
Proposed Action:
New Construction - New Tracy Aquatic Center

The Joe Wilson Pool is the City's main aquatic facility, located at Dr. Powers park. The swimming pool site is adequately sized compared to pool sites offered by other cities. However, amenities offered at Joe Wilson Pool are lacking in the sense that no gymnasium, waterslides or other publicly accessible water recreation is present other than lap pools. The existing pool site at the north portion of the City is recommended to be maintained for future service. A new Aquatic Center Facility that provides more of a recreational and family focus is recommended to be constructed in addition to continued operations of Joe Wilson Pool. This facility would best be located on the southwest portion of town near new family-style housing developments.

Findings and Summary for Facilities Needs Projection

Community Center & Senior Center

Facility Area Comparison:



Findings:
Existing Community Center and Senior Center are undersized and need to be expanded for future population growth.

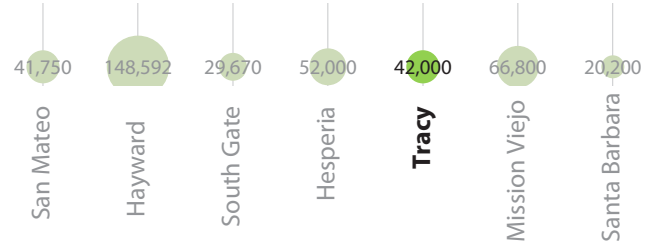
Recommendation:
Expand and renovate existing Community Center and Senior Center.

Proposed Action:
Expansion and renovation - Existing Community Center and Senior Center
New Construction - Multi-Generation Recreation Center

While the City of Tracy has significant community presence and interaction, both the Community Center and Senior Center are undersized compared to other similarly sized cities. The Community Center is roughly 1/3 of its ideal size. For Tracy Senior Center would ideally offer double the current floor space. Expansions of the existing facilities are recommended in conjunction with construction of the new Multi-Generation Center that will provide camaraderie and activities for residents and visitors of all ages.

Administration Facility

Facility Area Comparison:



Findings:
Existing City Hall has inadequate space for current administrative department needs and future staff growth.

Recommendation:
Build a new Administration Building for additional working areas at Civic Center adjacent to the existing City Hall.

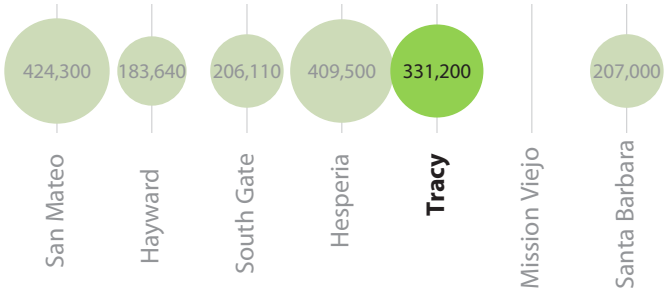
Proposed Action:
New Construction - New Tracy Administration Center

City Hall currently serves the City of Tracy adequately. The facility is composed of very high-quality finishes and departments comfortable in City Hall, such as Human Resources and Finance, will continue to remain comfortable after slight future renovations. Where the current City Hall is lacking in space for other administrative departments that are currently housed elsewhere or that will require significant future expansion. Current distribution of City administrative employees is between City Hall, the Social Services Building. Social Services Trailer and Police Annex Facility. Employees in Social Services Building and Trailer are partially located among one another and other departments who they interact with out of City Hall. It is recommended that the Social Services Building and Trailer be demolished to construct a new multi-story administration Building on that site. This would allow all administrative staff to relocate from Police Annex and S.S. Trailer to a more organized and cohesive work environment that has room for future additional employees. City Hall would remain housing administrative functions as best fits City needs.

Findings and Summary for Facilities Needs Projection

Corp Yard/Maintenance

Facility Area Comparison:



Findings:
The existing Tracy Corp Yard is undersized and has a limited room available for expansion. New site and new facilities are needed for work areas, shops and vehicle maintenance.

Recommendation:
Build a new Public Works Maintenance Facility at new location.

Proposed Action:
New Construction - New Bus Maintenance Facility

The Boyd Service Center site is comparably sized to those used by other cities. Where Boyd is lacking in the condition of shops and maintenance facilities used to keep the City's parks facilities and storage well-kept and maintained. Vehicle maintenance space is largely undersized for current needs and administrative facility site at Boyd contains little room for expansion. A purchasable site exists adjacent to and access Tracy Blvd. from the current Boyd Service Center which may be used for expansion. Tracy Transit Operations also require space to maintain their fleet of large buses and bus equipment. The purchasable site across from Boyd is recommended to be used as a joint Transit and Operations & Utilities Maintenance Facility, The joint facility would contain drive-through vehicle bays for buses and a dedicated public works vehicle maintenance area with administrative and office space for both departments. The construction of the new facility will allow Transit Operations easier access to maintenance office and conference space while the existing Boyd Service Center can be tailored for future improvements aligning with other Operations & Utilities needs.

Homeless Shelter

Findings:
New temporary housing or shelter is needed to address homelessness in City of Tracy and San Joaquin County.

Recommendation:
Build a new Temporary Housing for homeless.

Proposed Action:
New Construction - New Emergency Temporary Housing

Just like the surrounding community of Livermore, and Stockton, the City of Tracy is experiencing an increase in the number of homeless residents. A study referenced in the Tracy Press explains that current homeless residents in Tracy are almost double the 90 estimated residents homeless in 2017. The homelessness problem is large-scale when viewed from a County level, with an estimated 2,629 homeless individuals living in San Joaquin County in 2019. At the time of the study, over 1,500 of their individuals were unsheltered compared to less than 600 unsheltered individuals in 2017. Temporary homeless housing at the site of the wastewater treatment facility will allow shelter for residents who need and will benefit from it. The temporary housing will allow Tracy to understand trends and needs firsthand and will assist in the future development of a more permanent solution.

New Project - Administration Building

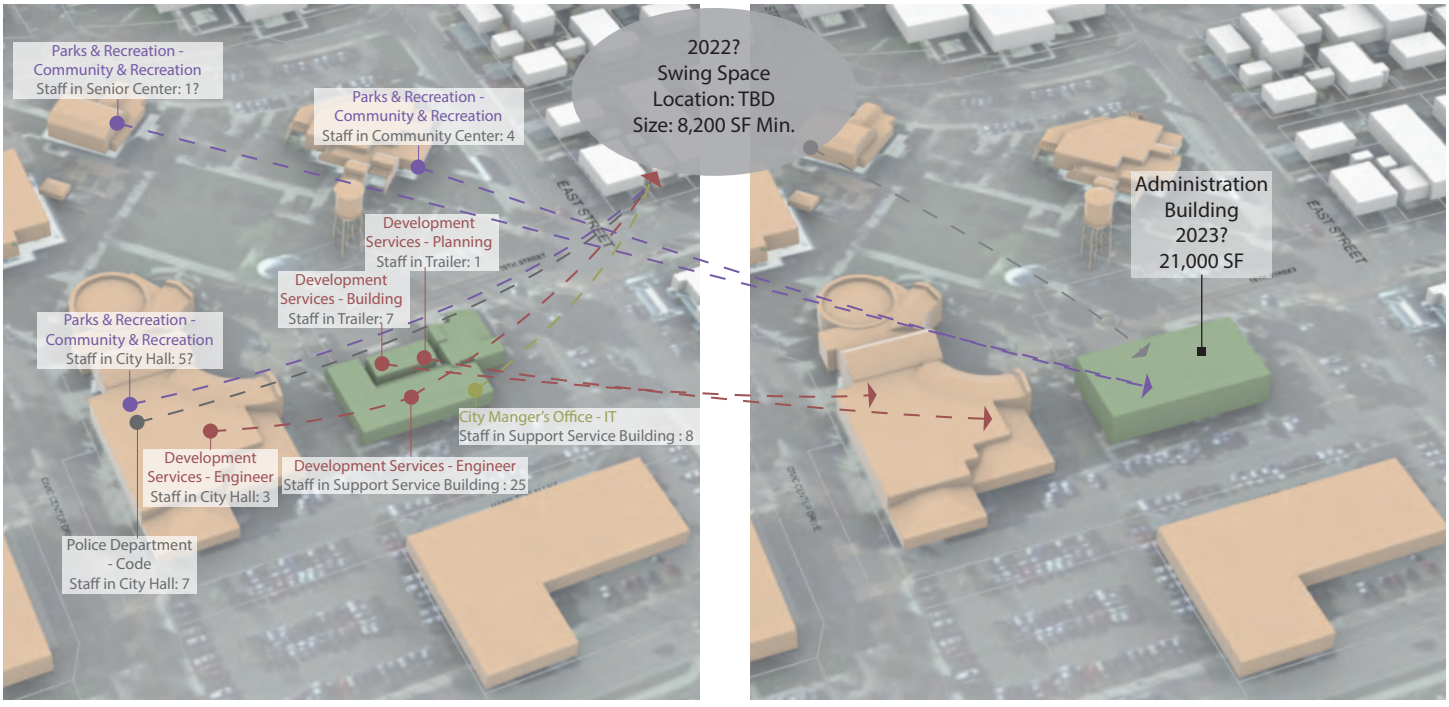
New Facilities Existing City Facilities Other Existing Buildings

Project Description
The new Administration building will allow for more organization and tailored workspaces for city staff currently split between the Social Services Building, Police Annex and Social Services Trailer.

Project Information	
Location	325 Civic Center Plaza
Site Size (SF)	20,000
Facility Size (SF)	21,000
Occupancy Capacity	84
Completion Date	2028
Estimated Cost	$24,242,550

Move-In Departments /Divisions			
Department	Current Location	Staff	Space
Development			
Engineering	City Hall & Support Services Bldg.	36	9,000
City Manager's Office			
Clerk	Support Services Bldg.	10	1,800
Parks & Recreation			
Community & Recreation	City Hall, Senior Center & Community Center	10	6,750
Police Department			
Code Enforcement	333 Civic Center Plaza	9	2250
Total		65	19800

Project Logistics



New Project - Bus Maintenance Facility / Corp Yard

Project Description

This new facility will allow improved vehicle maintenance, storage, office and shops space for both the Transit Division and Operations & Utilities. Potential items to be programmed include Bus Maintenance Bays, Transit office and training space, electric charging infrastructure for buses, bus wash, and parking for multiple buses. Operations & Utilities spaces may include new shops, offices, parking and support spaces. The new facility will supplement existing operators at the Tracy Transit Station and Boyd Service Center.

Project Information

Location	325 Civic Center Plaza
Site Size (SF)	9.9 Acres
Facility Size (SF)	17,400
Capacity	25 Employees
Completion Date	2027
Estimated Cost	$36,400,000

Move-In Departments /Divisions

	Current Location	Staff	Space (SF)
Parks & Recreation			
Transit	Transit Station	4	600
Operations & Utilities			
Operations & Utilities	Boyd Service Center	15	2,250

New Facilities Existing City Facilities Other Existing Buildings

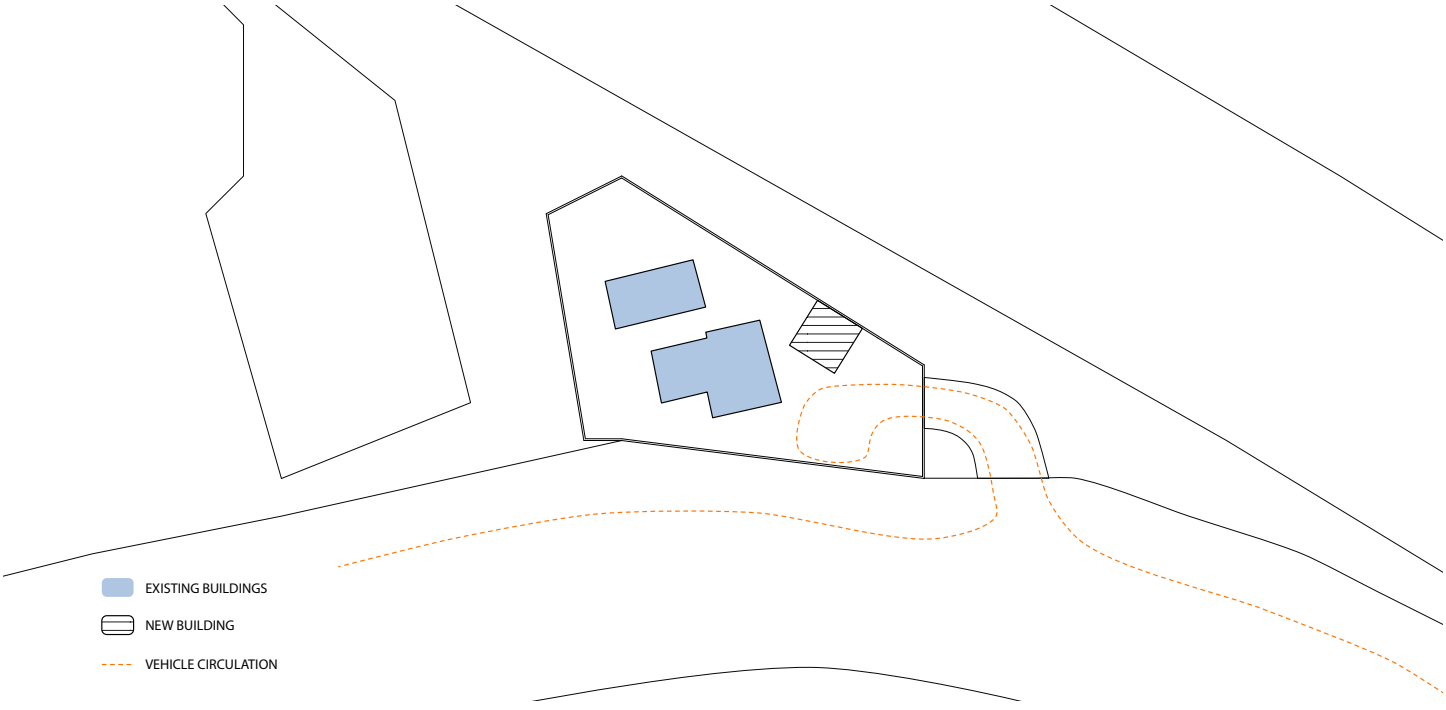
New Project - Tracy Hills Operations & Utilities Facility

New Facilities Existing City Facilities Other Existing Buildings

Project Description
The Tracy Hills Operations & Utilities Facility will provide parking and office space for one to two employees. This office space will be designed to be sharable with the ability to let staff sit down and work for short periods as necessary throughout the day.

Project Information	
Location	Tracy Hill
Site Size (SF)	9,500
Facility Size (SF)	400
Capacity	1-2 Employees
Completion Date	2025
Estimated Cost	$426,920

Move-In Departments /Divisions	Current Location	Staff	Space (SF)
Operations & Utilities			
Operations & Utilities	Boyd Service Center	1-2	400 SF



New Project - Aquatic Center

1. Competition Pool
2. Recreation Pool
3. Lazy River
4. Slides
5. Toddler Pool
6. Play Structure and Wet Deck
7. Future Expansion
8. Entrance Location
9. Food and Beverage
10. Support Facilities
11. Parking Lot
12. Drop-Off Location

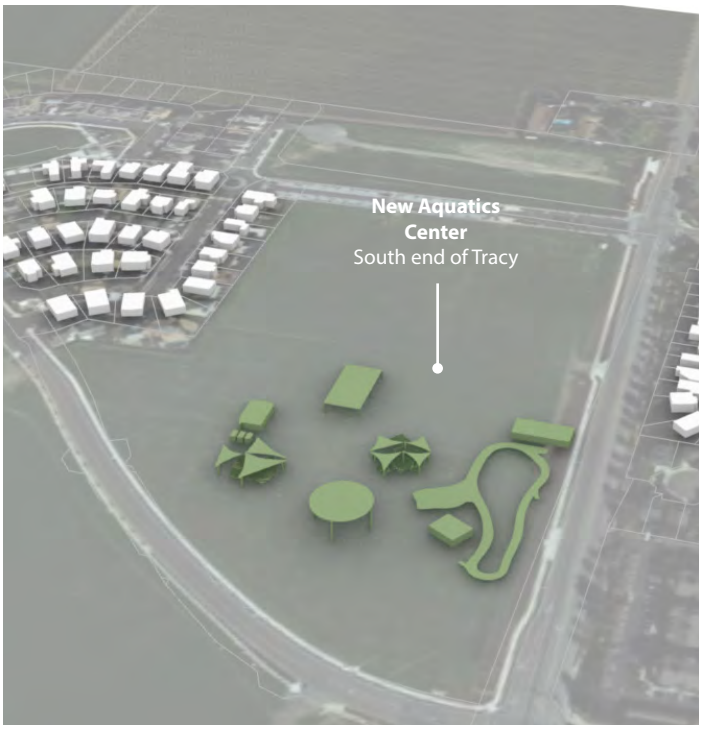
Project Description
The Aquatic Center will supplement the Joe Wilson Pool as another recreational aquatic offering for the City of Tracy's community. The aquatic center will have various items including multiple pools, waterslides and a lazy river. The space may have employees from the Parks & Recreation department.

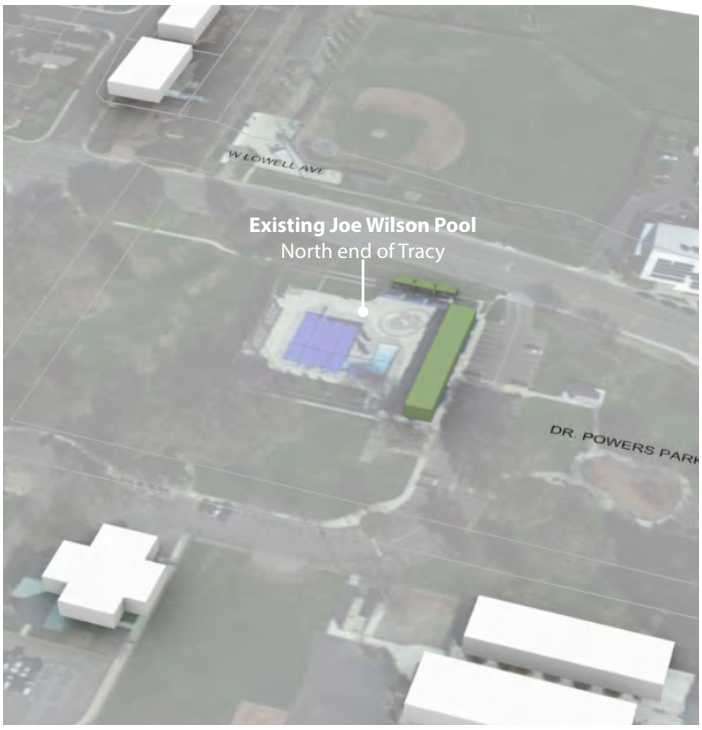
Project Information	
Location	Summit Drive & Corral Hollow Road
Site Size (SF)	480,000
Facility Size (SF)	Refer to Parks Master Plan
Capacity	Refer to Parks Master Plan
Completion Date	2030 (Refer to Parks Master Plan)
Estimated Cost	$62,688,368

Move-In Departments /Divisions			
	Current Location	Staff	Space (SF)
Parks & Reconstruction	Refer to Parks Master Plan		

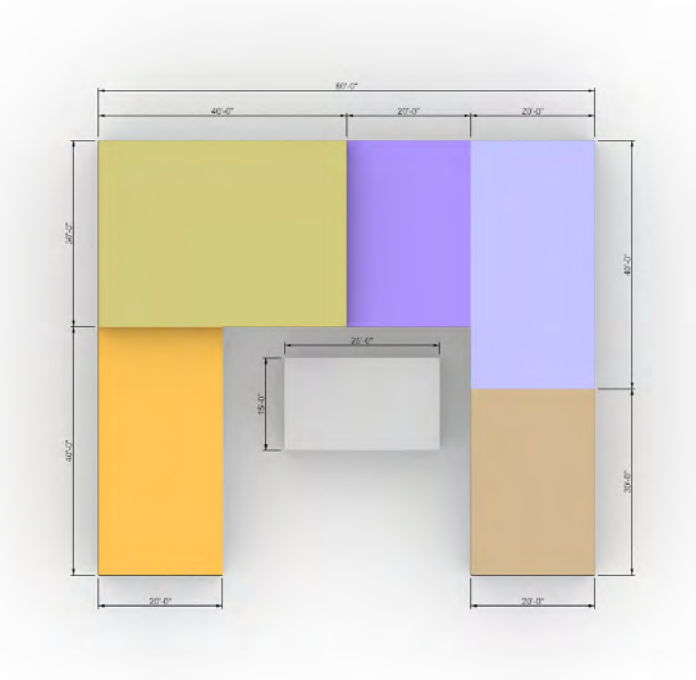
Project Location Relative to Existing Facility

New Facilities | Existing City Facilities | Other Existing Buildings





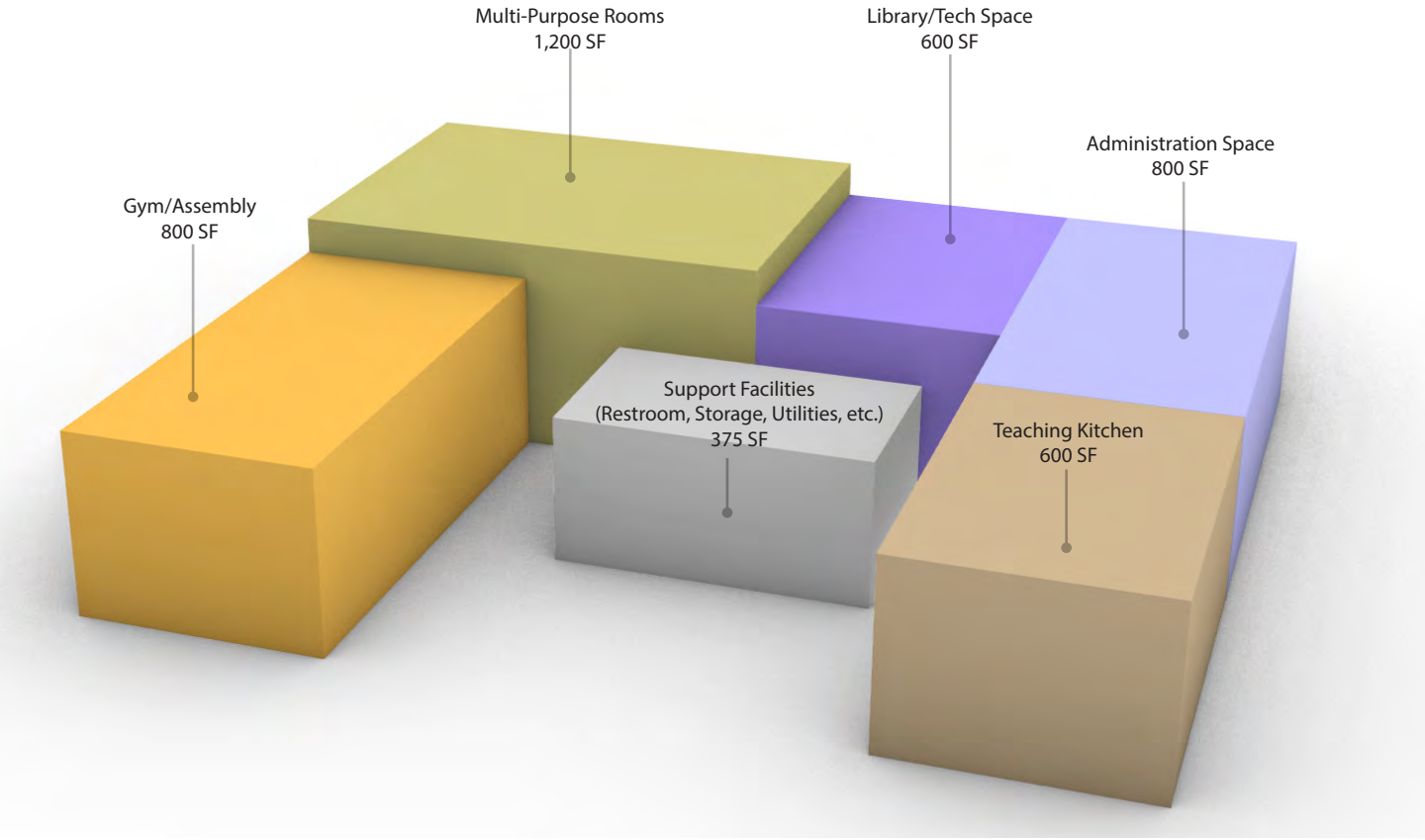
New Project - Multi-Generational Recreation Center



Project Description
The Multi-Generational Recreation Center will supplement the existing Community Center and Senior Center with increased City space for community recreation and gathering opportunities. Potential spaces to be programmed include a gymnasium multi-purpose rooms, tech offerings, educational kitchen, administrative space and support spaces.

Project Information	
Location	Refer to Parks Master Plan
Site Size (SF)	Refer to Parks Master Plan
Facility Size (SF)	52,637
Capacity	Refer to Parks Master Plan
Completion Date	2025 (Refer to Parks Master Plan)
Estimated Cost	$87,577,232

Move-In Departments /Divisions	Current Location	Staff	Space (SF)
Parks & Recreation			



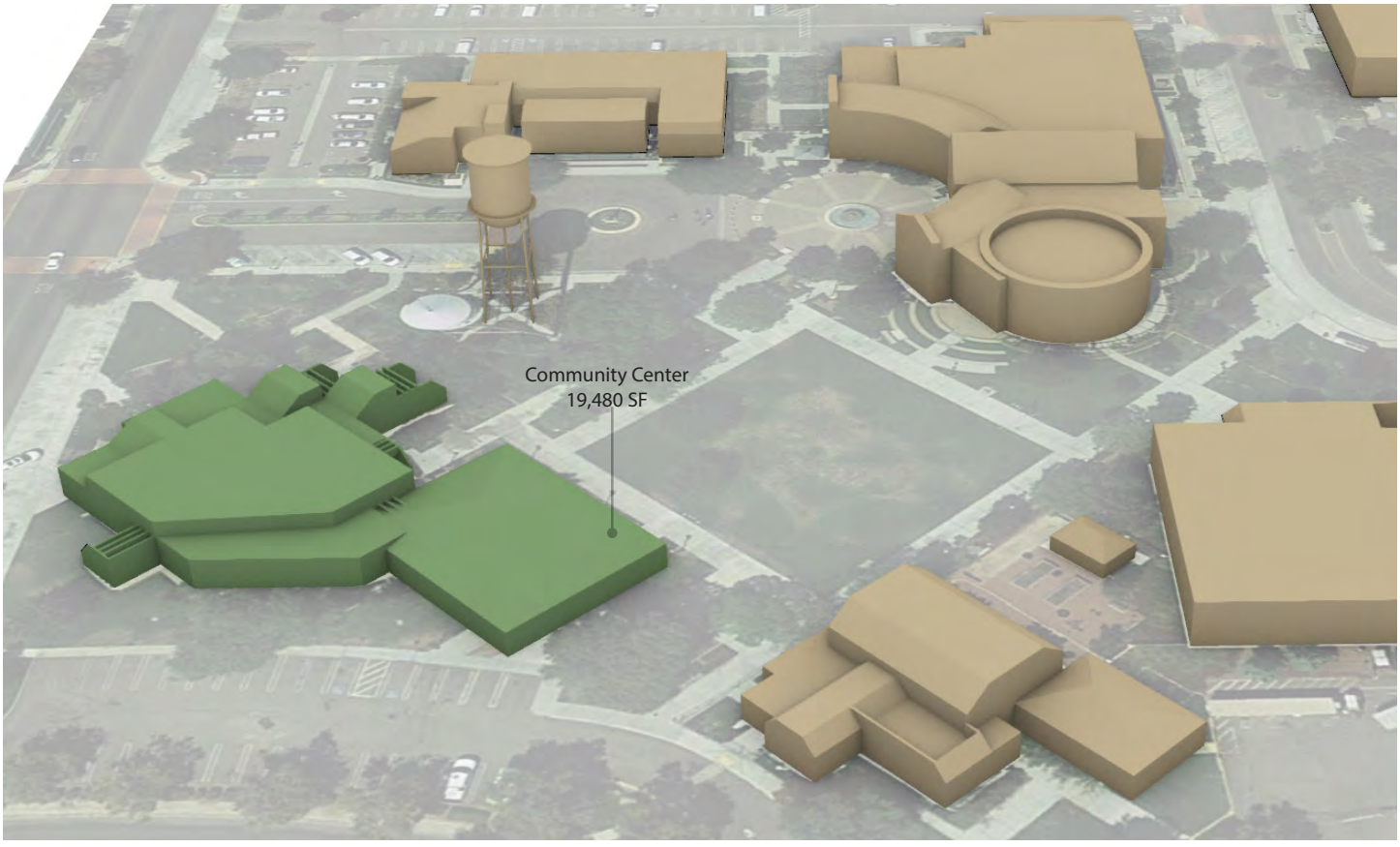
New Project - Community Center

New Facilities Existing City Facilities Other Existing Buildings

Project Description
The new Community-oriented Center will combine the existing Community Center and Senior Center for community services and public activities.

Project Information	
Location	Civic Center
Site Size (SF)	46,000
Facility Size (SF)	10,480 (Existing) + 4,000 (Upgrade) + 9,000 (New)
Capacity	City staff + public
Completion Date	2040
Estimated Cost	$9,500,000

Move-In Departments /Divisions	Current Location	Staff	Space (SF)
Parks & Recreation			



New Project - Civic Center Parking Garage

New Facilities Existing City Facilities Other Existing Buildings

Project Description
The new Parking Garage will provide additional parking stalls for civic center and surrounding neighborhoods.

Project Information	
Location	Civic Center
Site Size (SF)	34,000
Facility Size (SF)	20,000 x 3 levels
Capacity	Parking
Completion Date	2036
Estimated Cost	$12,580,000

Move-In Departments /Divisions			
	Current Location	Staff	Space (SF)

New Project - Tracy Library

Parcel Option 1 - Joe Pombo Pkwy (W Grant Line Rd & I205)
Parcel Option 2 - N Corral Hollow Rd (Near Grant Line Rd)

Parcel Option 3 - W Linne Rd & S Corral Hollow Rd

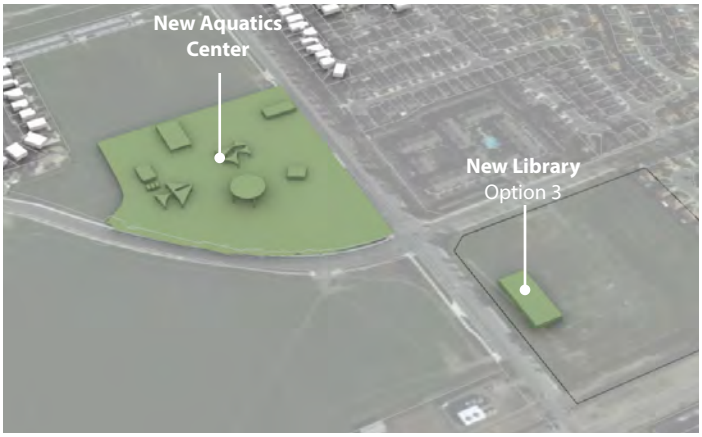
Project Description
A new City of Tracy library would supplement the existing library which is undersized to continue to provide library services to Tracy's expanding population. Potential program offerings at the new library include educational space and a teen center. Familiar library offerings would be provided.

Project Information	
Location	See parcel options on left side.
Site Size (SF)	TBD after parcel selection
Facility Size (SF)	20,000
Capacity	Public Use
Completion Date	2032
Estimated Cost	$25,577,000

Move-In Departments /Divisions	Current Location	Staff	Space (SF)
TBD			

New Facilities Existing City Facilities Other Existing Buildings

Option 1 - Joe Pombo Pkwy (W Grant Line Rd & I205)
Option 2 - N Corral Hollow Rd (Near Grant Line Rd)



Option 3 - W Linne Rd & S Corral Hollow Rd

New Project - Temporary Emergency Housing

Project Description
Construction of a temporary emergency housing shelter will allow the city to respond to increased levels of homelessness in the area in current years. The temporary shelter is proposed to be located on the site of the current Waste Waters Treatment facility. Numbers of residents to house will be decided upon further program analysis. Construction of this facility will allow the City of Tracy to form more accurate future predictions and provide better service related to the needs of the homeless community.

Project Information	
Location	370 Arbor Ave
Site Size (SF)	9,596
Facility Size (SF)	5,000-10,000
Capacity	TBD
Completion Date	Winter 2023
Estimated Cost	$10,000,000

Move-In Departments /Divisions			
	Current Location	Staff	Space (SF)

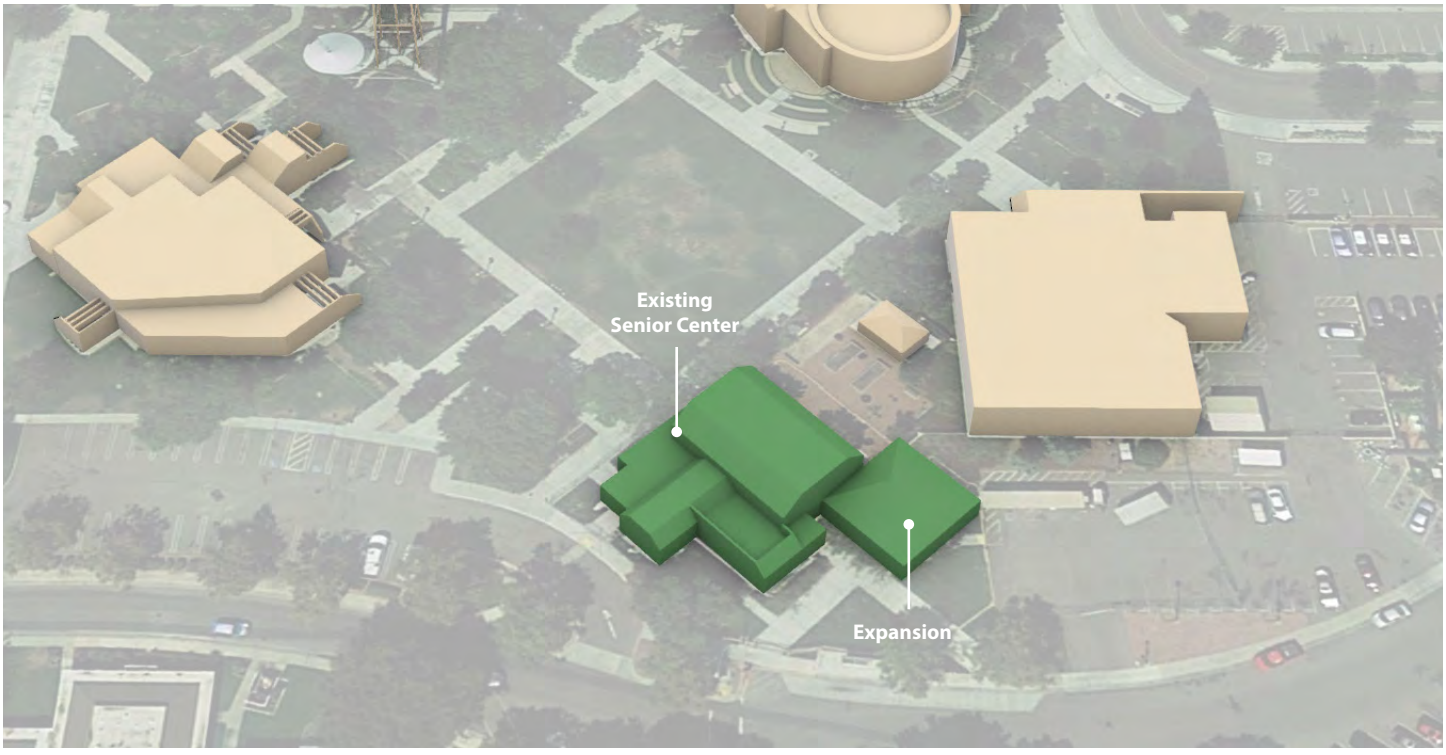
New Project - Senior Center

New Facilities Existing City Facilities Other Existing Buildings

Project Description
The Senior Center will be expanded to provide additional space for community gathering and events. The increased size of the Senior Center will allow Tracy to properly serve its senior population through buildout.

Project Information	
Location	Existing Senior Center
Site Size (SF)	Existing site
Facility Size (SF)	5,224 (Existing) + 1,000 (Upgrade) + 5,000 (New)
Capacity	Public Use (age 50+)
Completion Date	2038
Estimated Cost	$5,500,001

Move-In Departments /Divisions			
	Current Location	Staff	Space (SF)



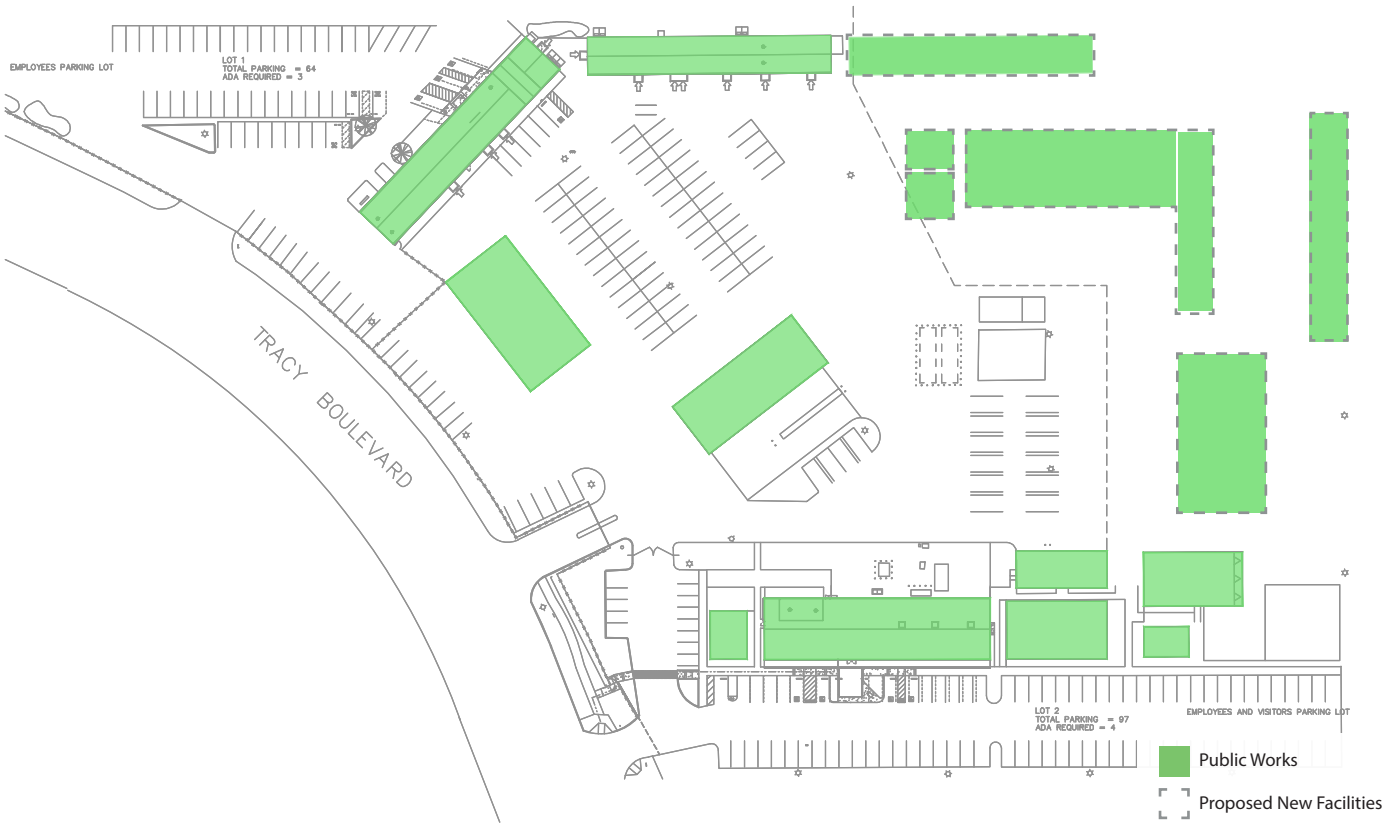
New Project - Boyd Service Center

Project Description
The Boyd Service Center renovation includes the expansion for additional Operations & Utilities facilities on the existing site. Those new facilities will serve the department to accommodate increasing number of staff in the future and provide adequate storage space.

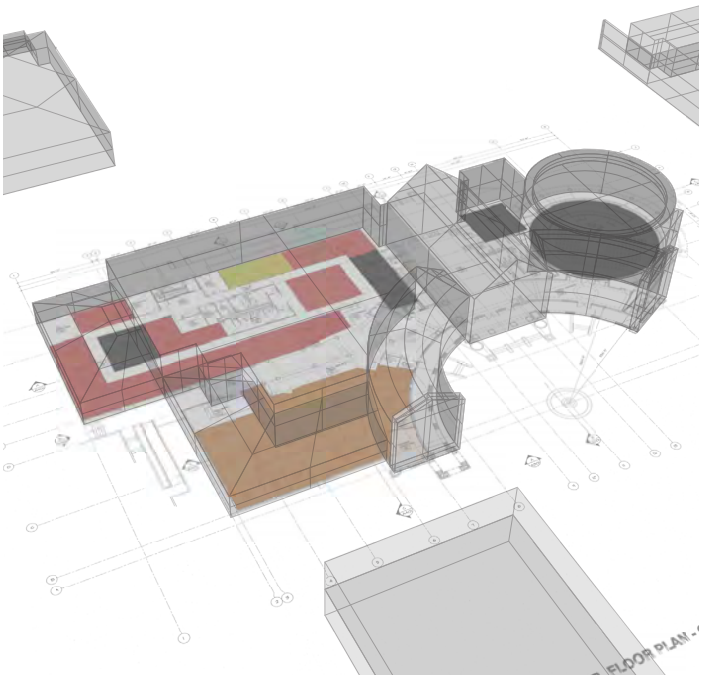
Project Information	
Location	Existing Byod Service Center
Site Size (SF)	Existing Site
Facility Size (SF)	28,370 (overall) + 2,500 (admin)
Capacity	Operations & Utilities staff
Completion Date	2027
Estimated Cost	$37,301,490

Move-In Departments /Divisions	Current Location	Staff	Space (SF)
Operations & Utilities			
Overall			28,370
Administartion			2,500

PROPOSED DIAGRAM - SITE PLAN



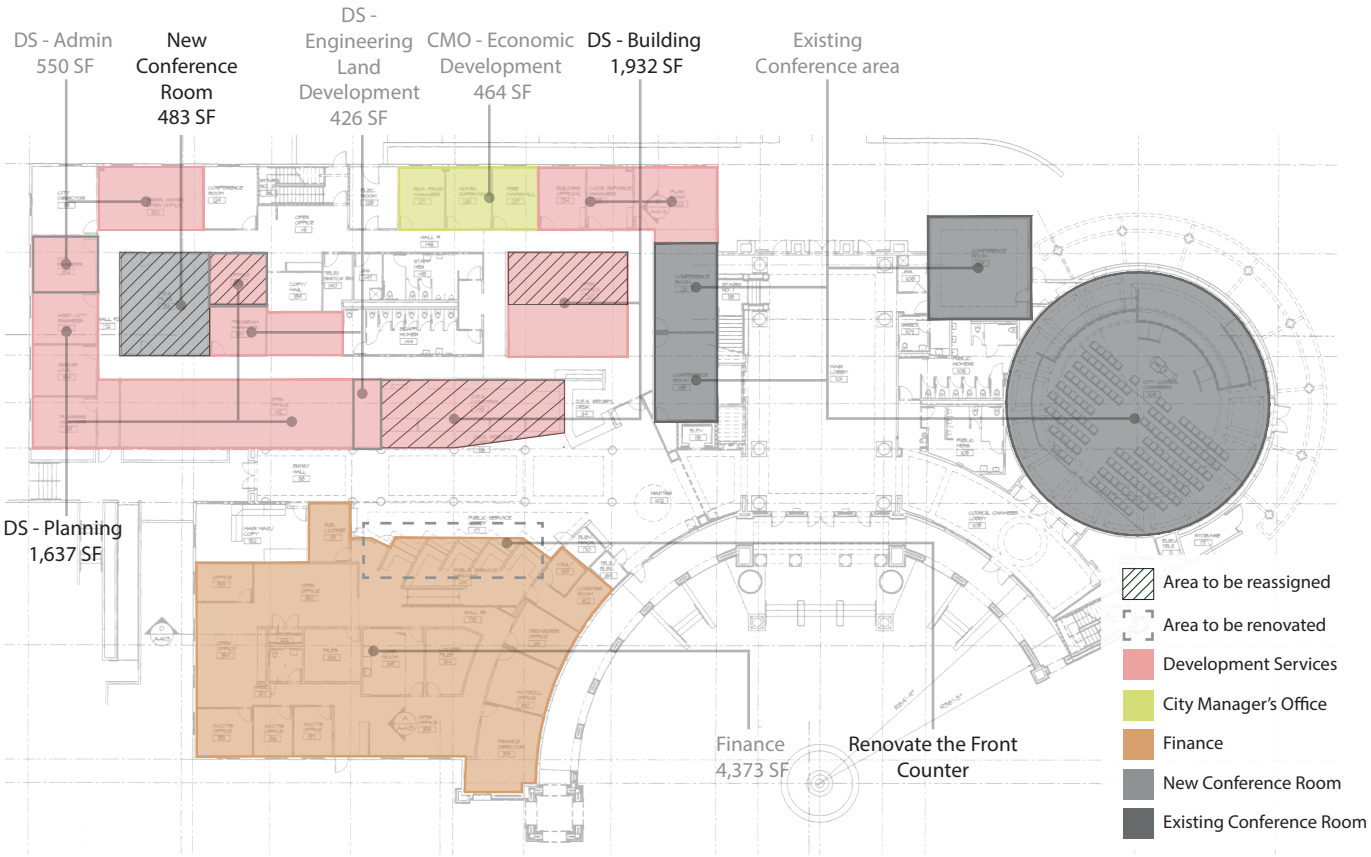
Renovation Project - City Hall



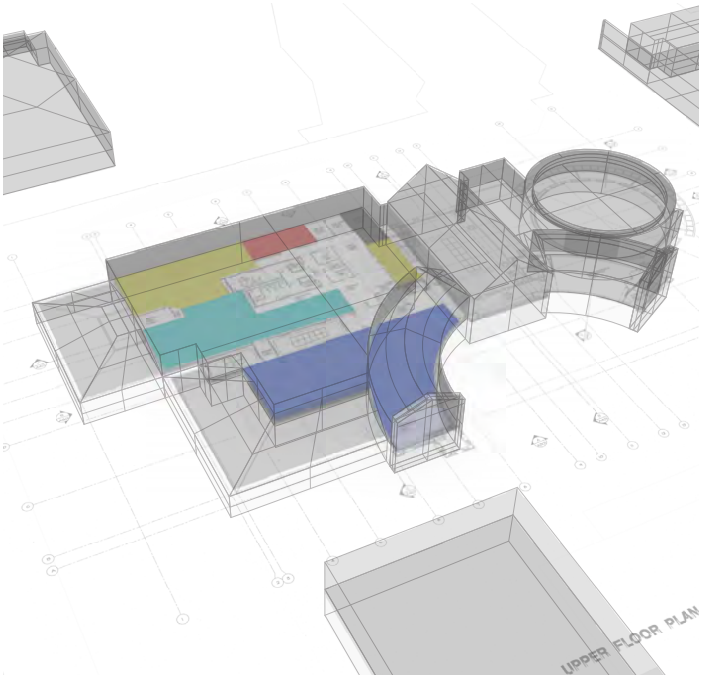
Project Description
The first floor renovation of City Hall would involve expansion of current employee workspaces for the Economic Development Division of the City Manager's Office. Building and Planning Divisions of Development services.

Department	Current Space in City Hall	Proposed Space	Notes
CMO Economic Development	307 SF	464 SF	
DS-Building	988 SF	1,932 SF	
DS-Planning	1,477 SF	1,637 SF	
New Conference Room		483 SF	

PROPOSED DIAGRAM - LOWER FLOOR



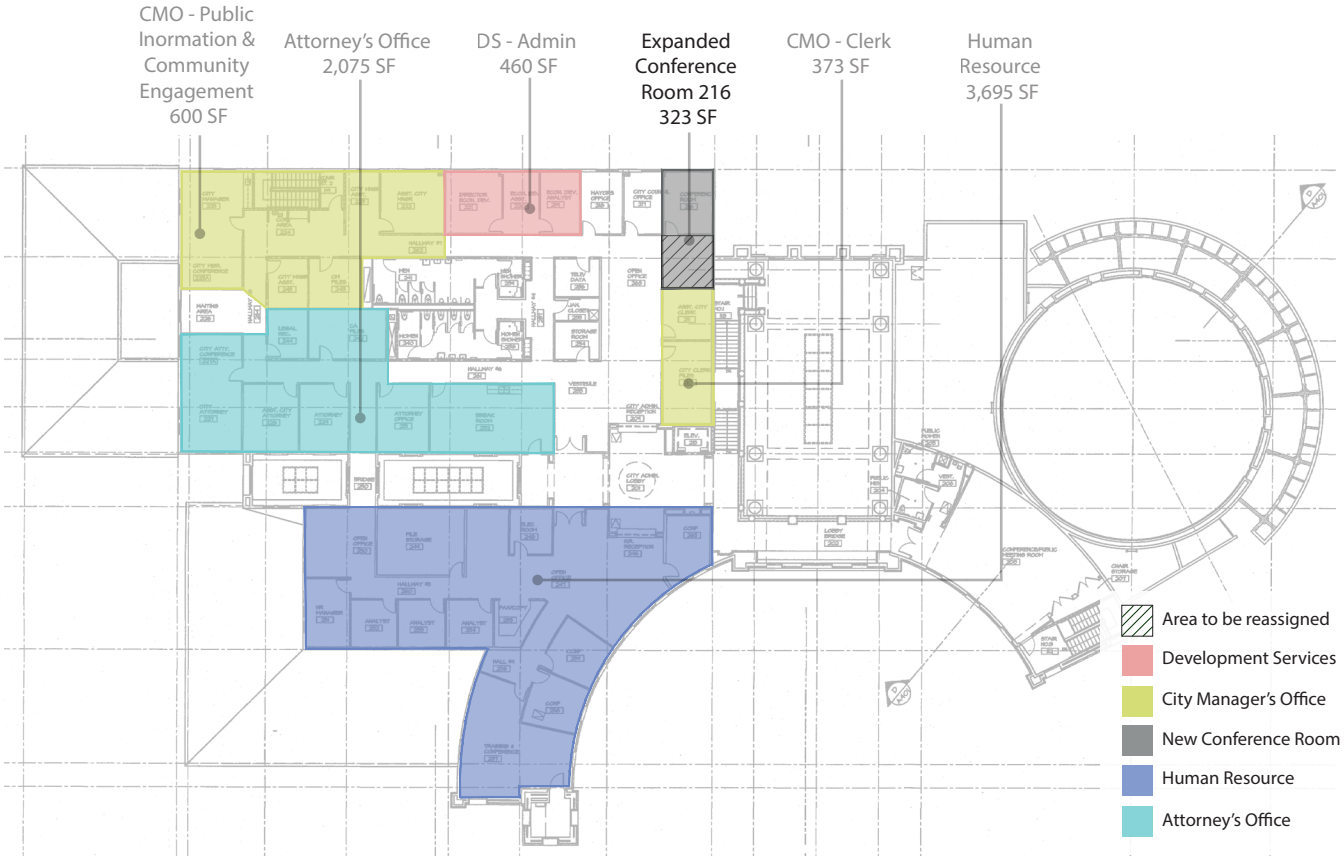
Renovation Project - City Hall



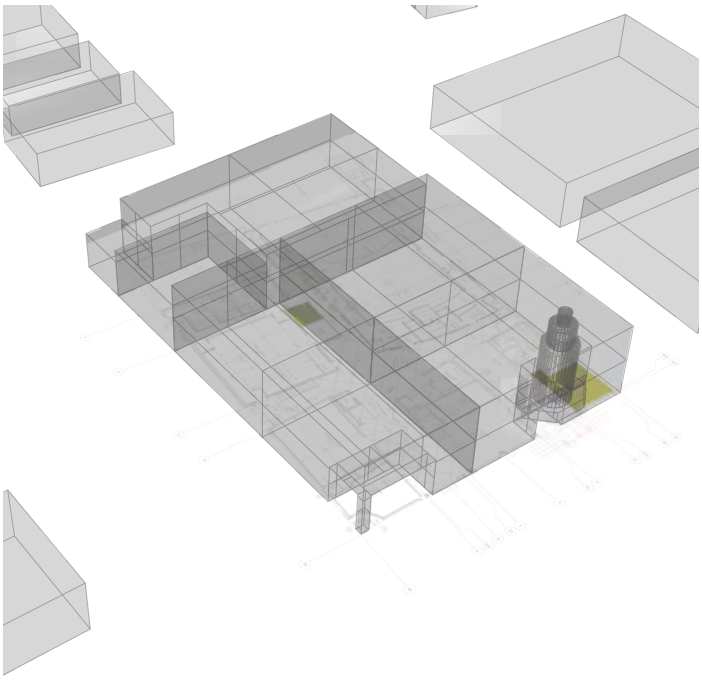
Project Description
The first floor renovation of City Hall would involve expansion of current employee workspaces for the Economic Development Division of the City Manager's Office. Building and Planning Divisions of Development services.

Department	Current Space in City Hall	Proposed Space	Notes
Conference Room 216	174 SF	323 SF	

PROPOSED DIAGRAM - UPPER FLOOR



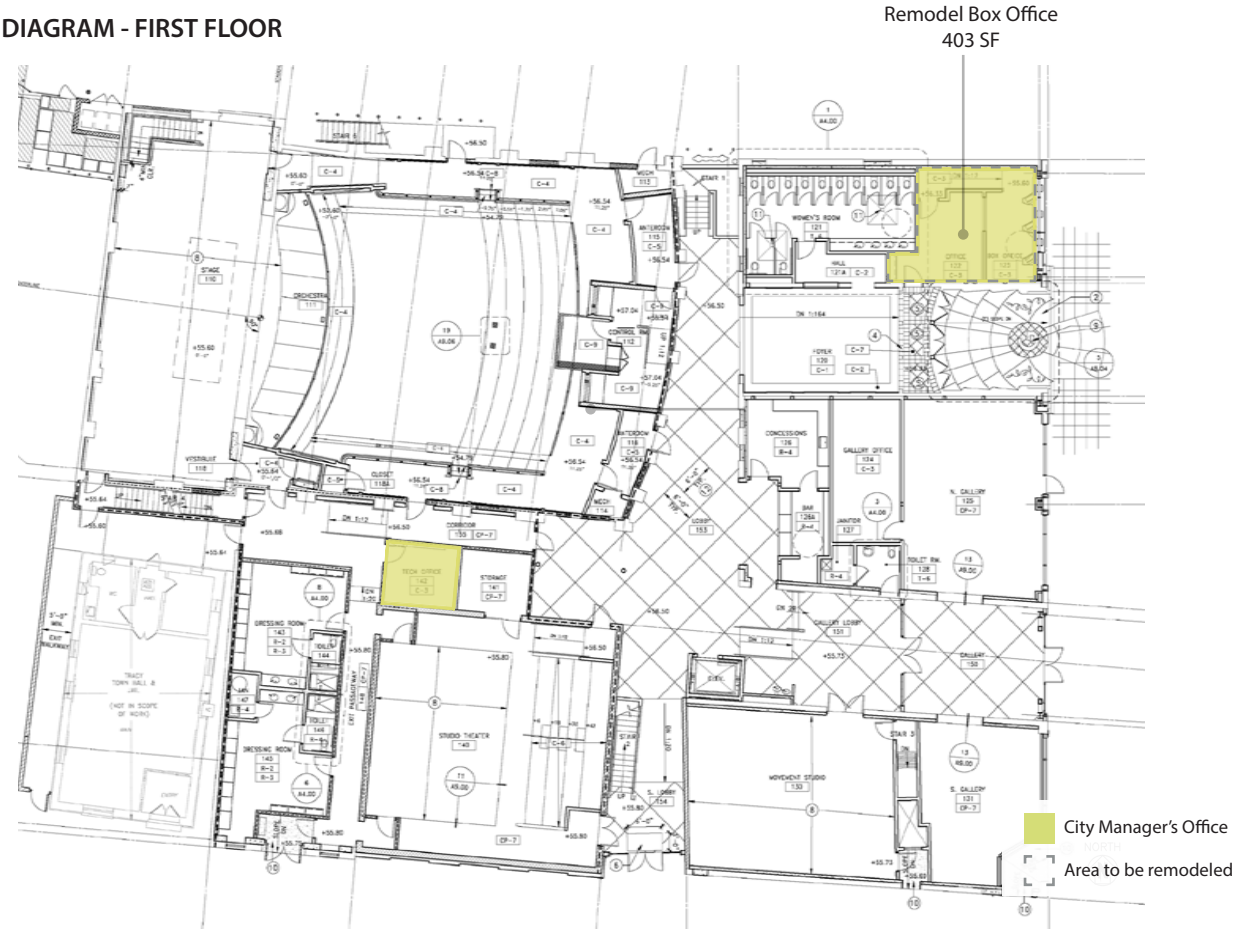
Renovation Project - Grand Theatre



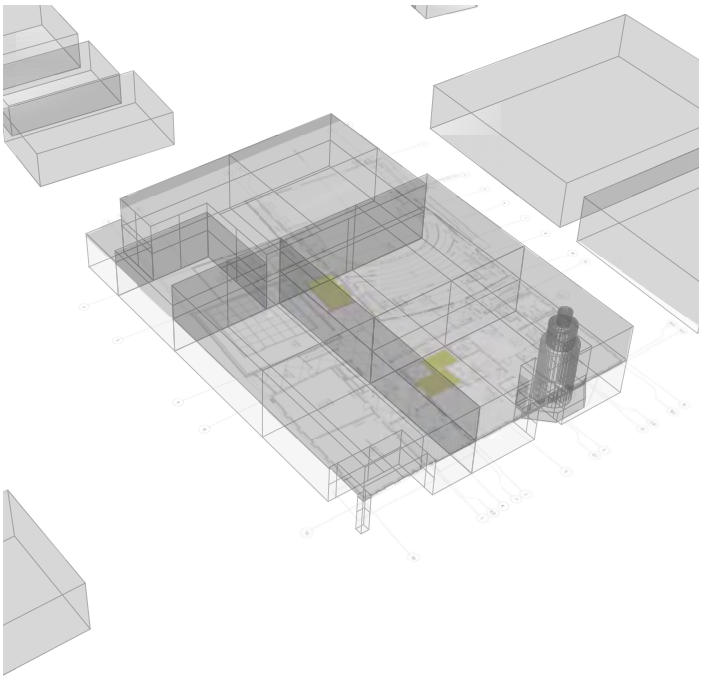
Project Description
The first floor improvements of Grand Theatre would involve the remodel of existing Box Office and the renovation of Tech Office.

Department	Current Space	Proposed Space	Notes
Culture Arts	403 SF	403 SF	Renovate Box Office

PROPOSED DIAGRAM - FIRST FLOOR



Renovation Project - Grand Theatre



Project Description
The second floor improvement of Grand Theatre would involve the renovation of music room, art room, dimmer room, and storage.

Department	Current Space	Proposed Space	Notes

PROPOSED DIAGRAM - SECOND FLOOR

Renovation Project - Animal Shelter

Project Description
Capital dedicated to expansion of Animal Shelter.

Department	Current Space	Proposed Space	Notes

Renovation Project - Police Annex

Project Description
Capital dedicated to future swing space renovations at the Police Annex facility. This facility will be used as swing space throughout the construction of the Police Department Headquarters expansion and renovation.

Department	Current Space	Proposed Space	Notes
Refer to Public Safety Master Plan			

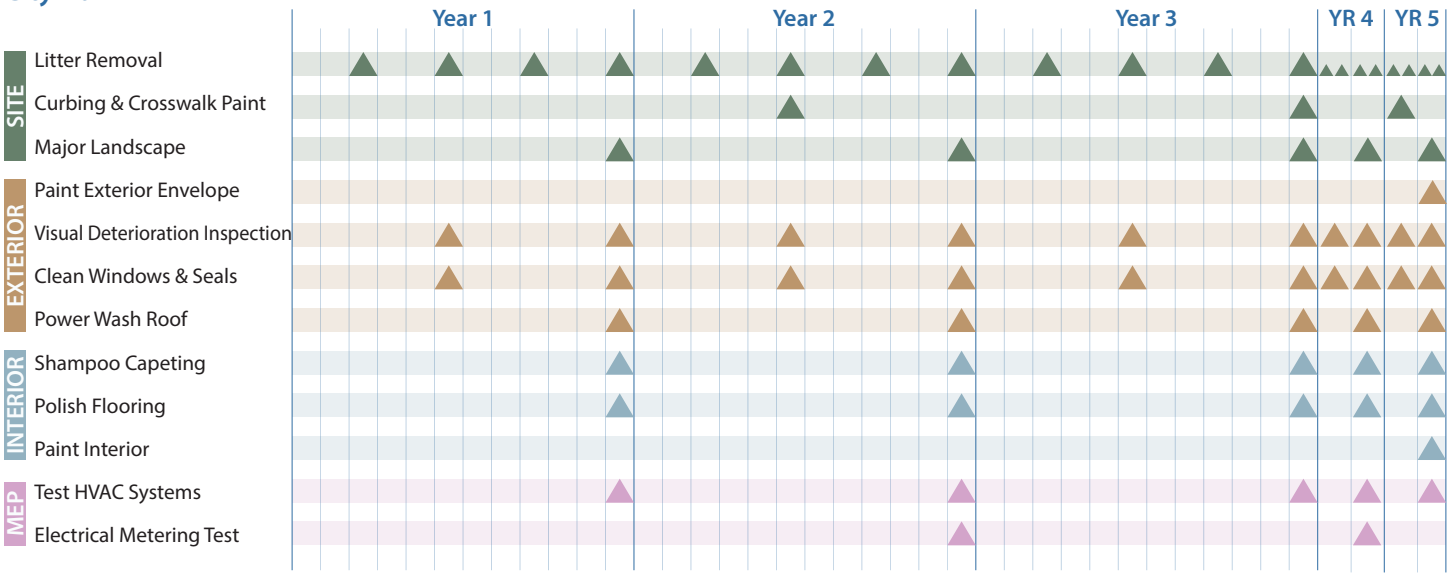
Renovation Project - Fire Administration

Project Description
Capital dedicated to interior renovations at the Fire Administration facility. More information can be found in the Public Safety Master Plan.

Department	Current Space	Proposed Space	Notes
Refer to Public Safety Master Plan			

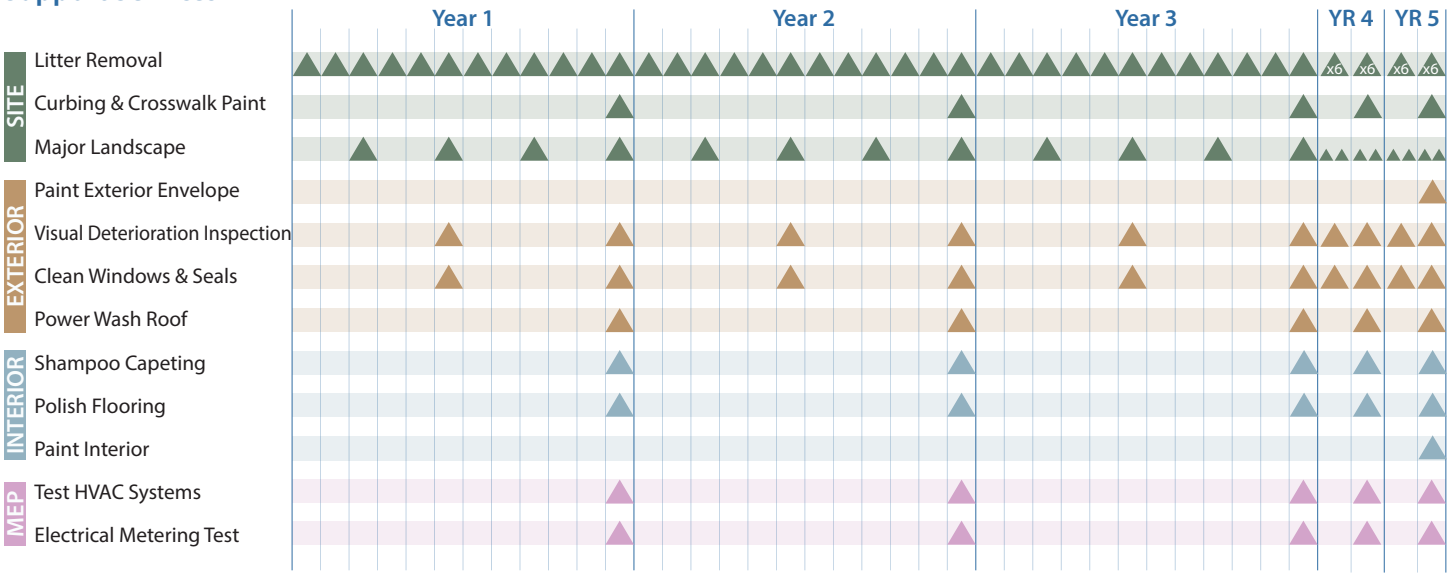
Proposed Maintenance Schedule - Existing Facilities

City Hall



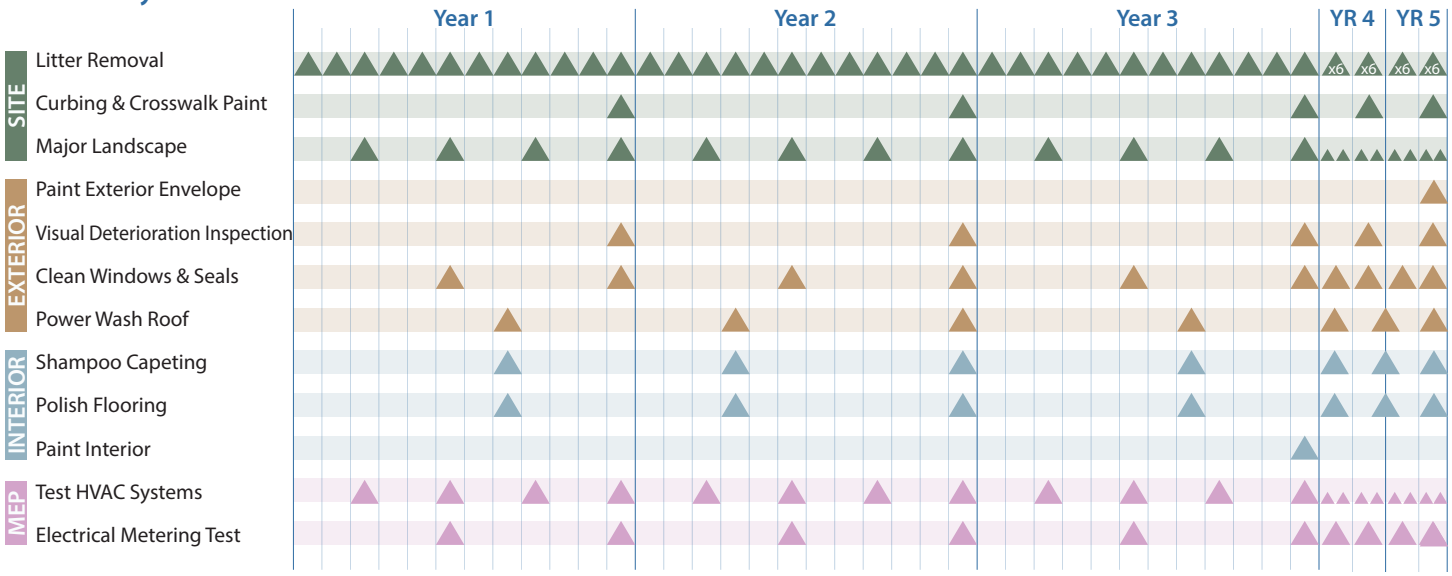
Notes:

Support Services



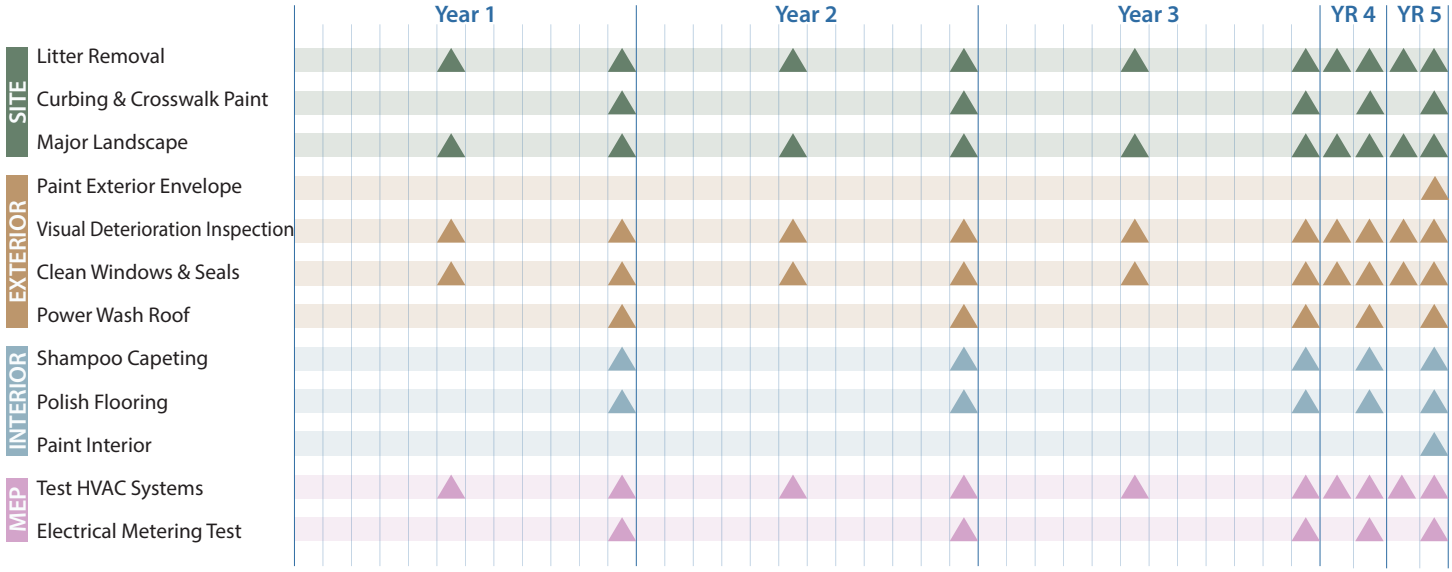
Notes:

Community Center



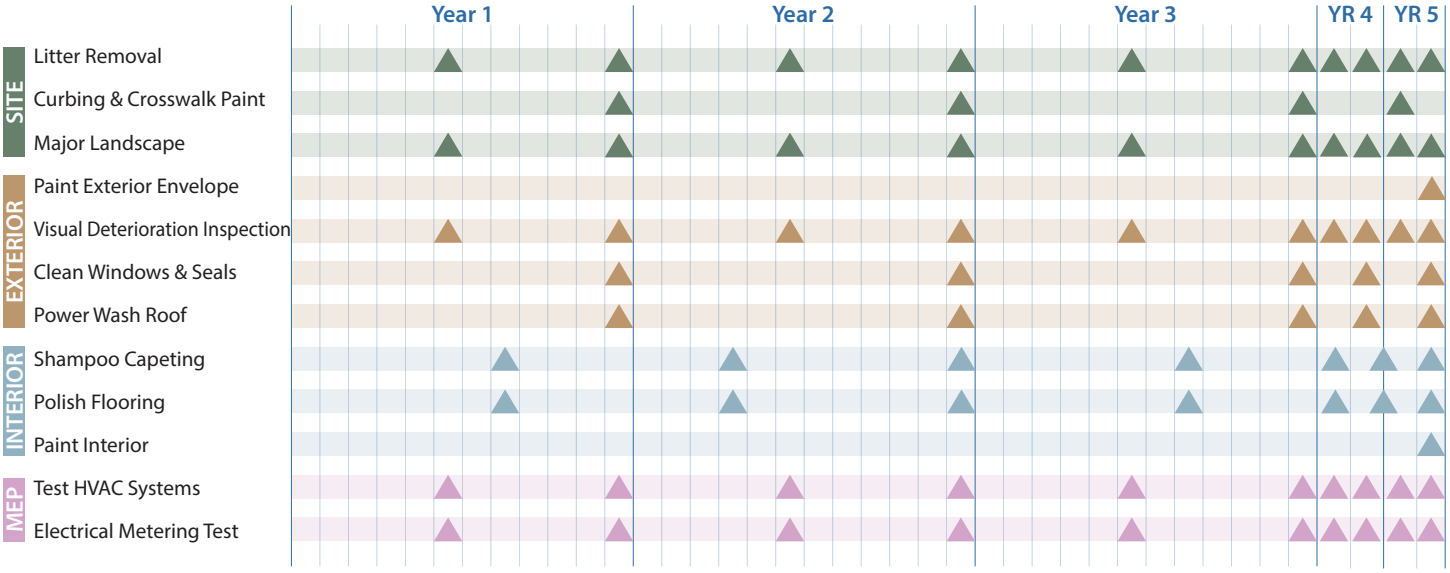
Notes:

Senior Center



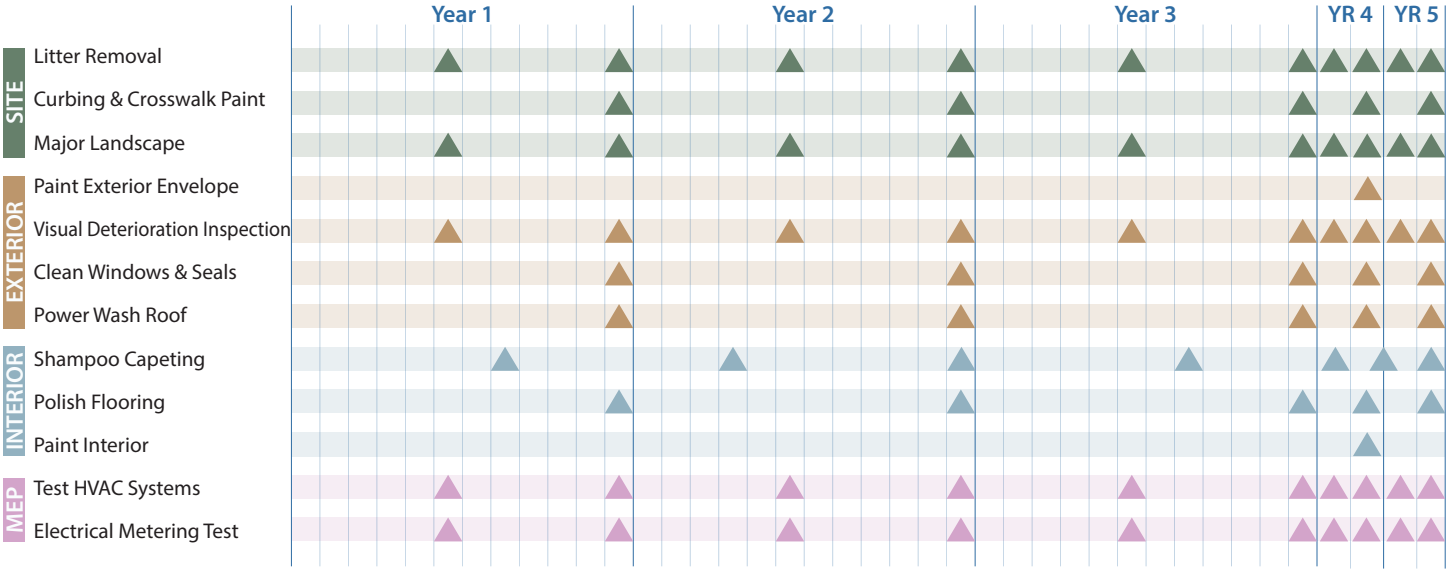
Notes:

Police Annex



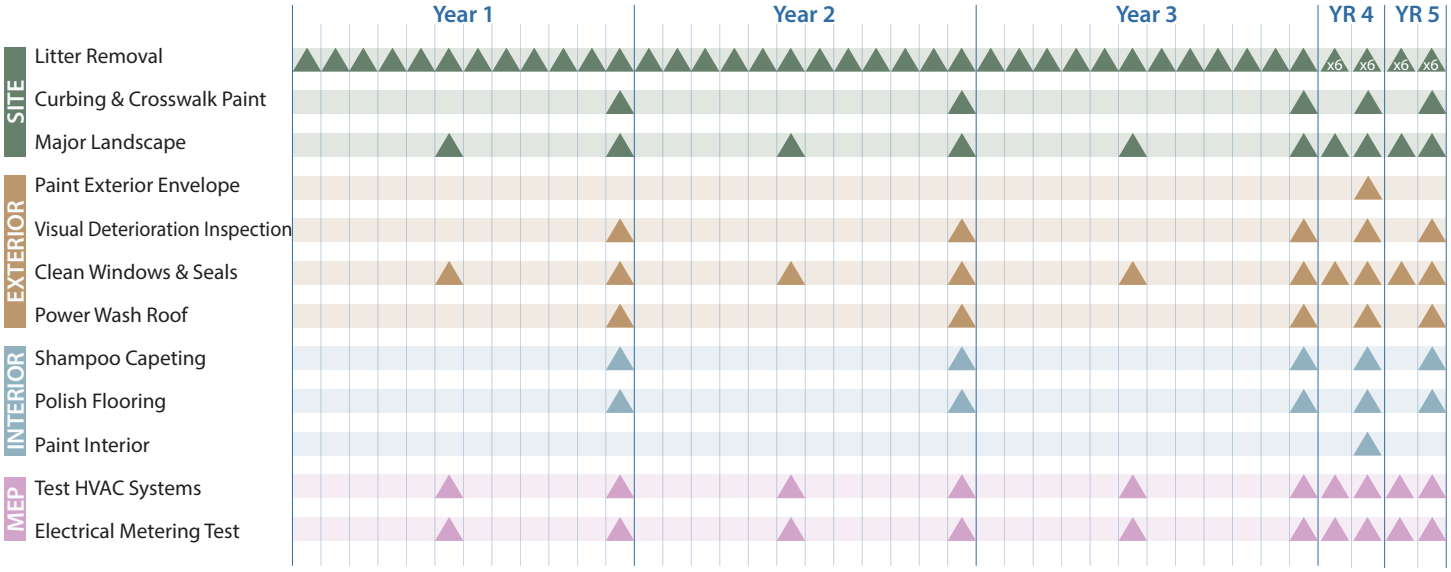
Notes:

Fire Admin



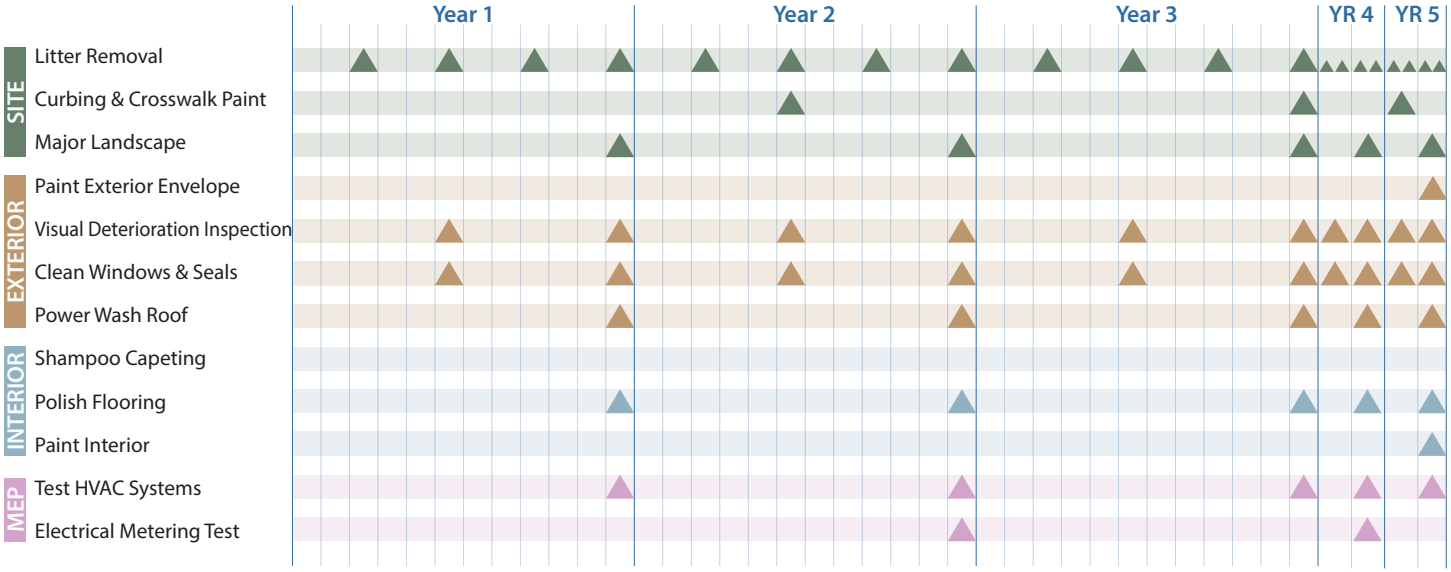
Notes:

Transit Center



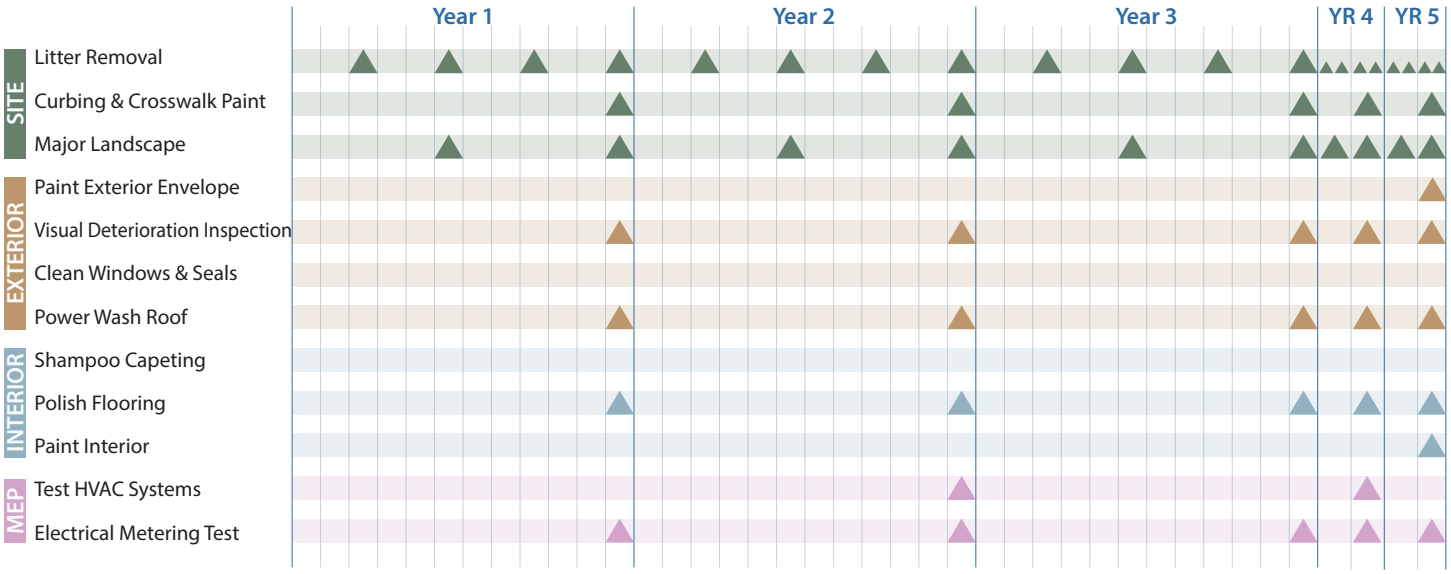
Notes:

Animal Shelter



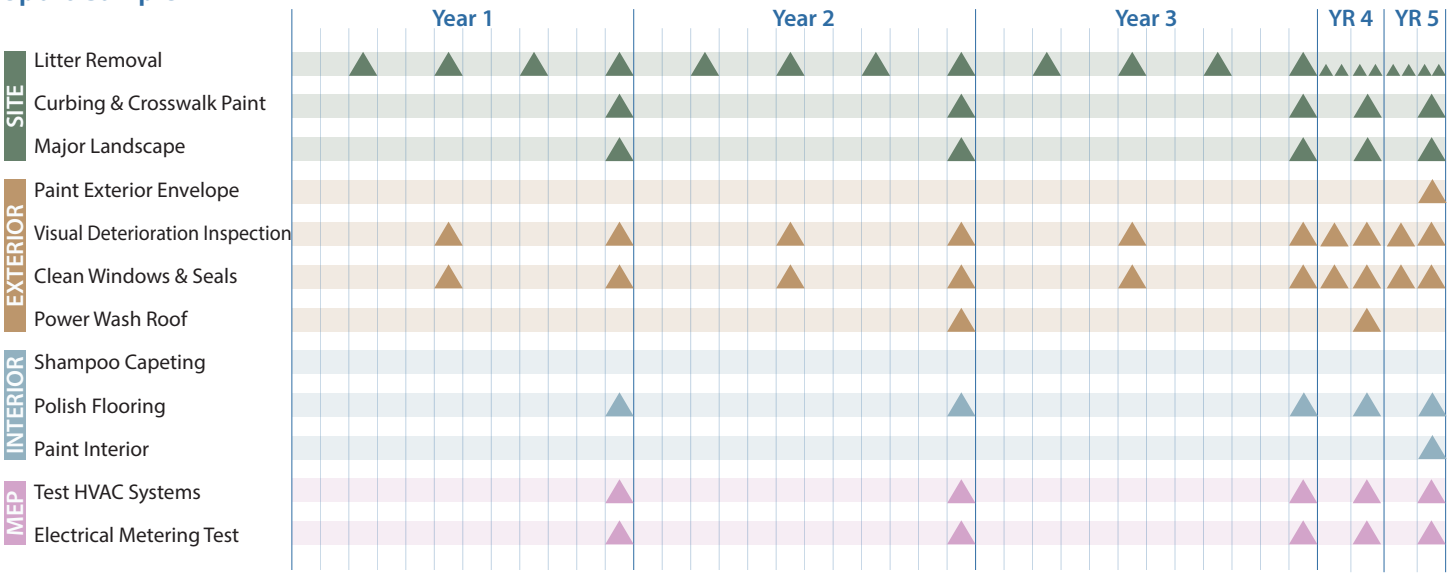
Notes:

Joe Wilson



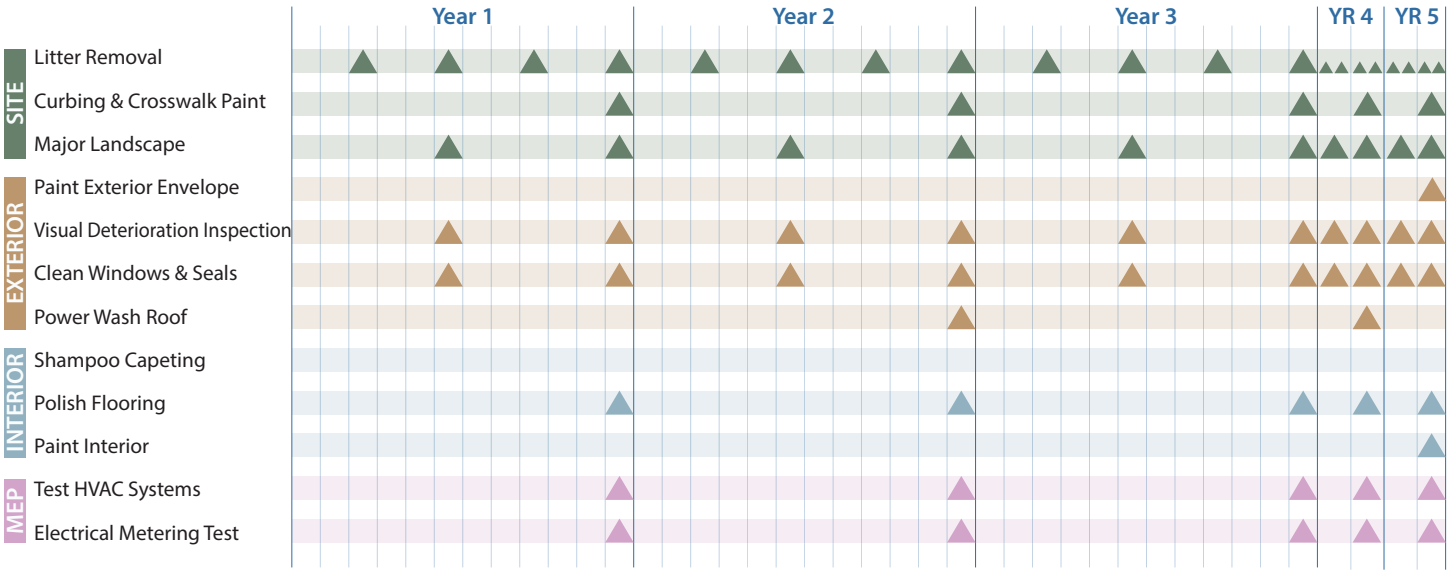
Notes:

Sport Complex



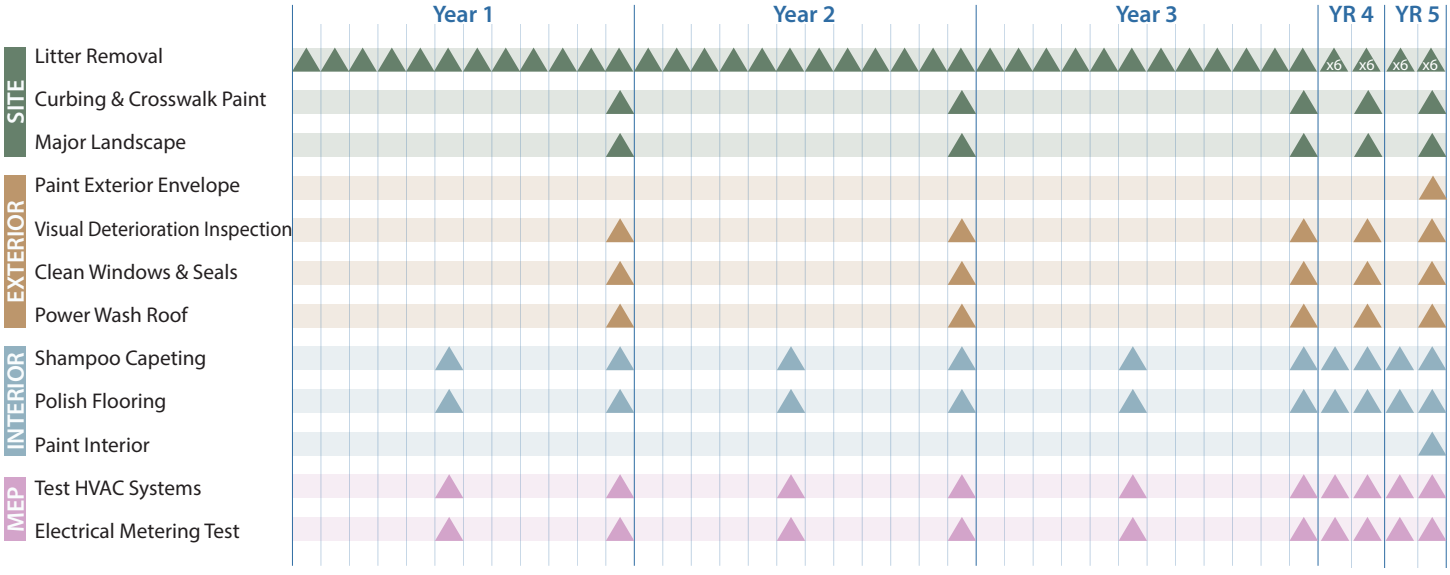
Notes:

Museum



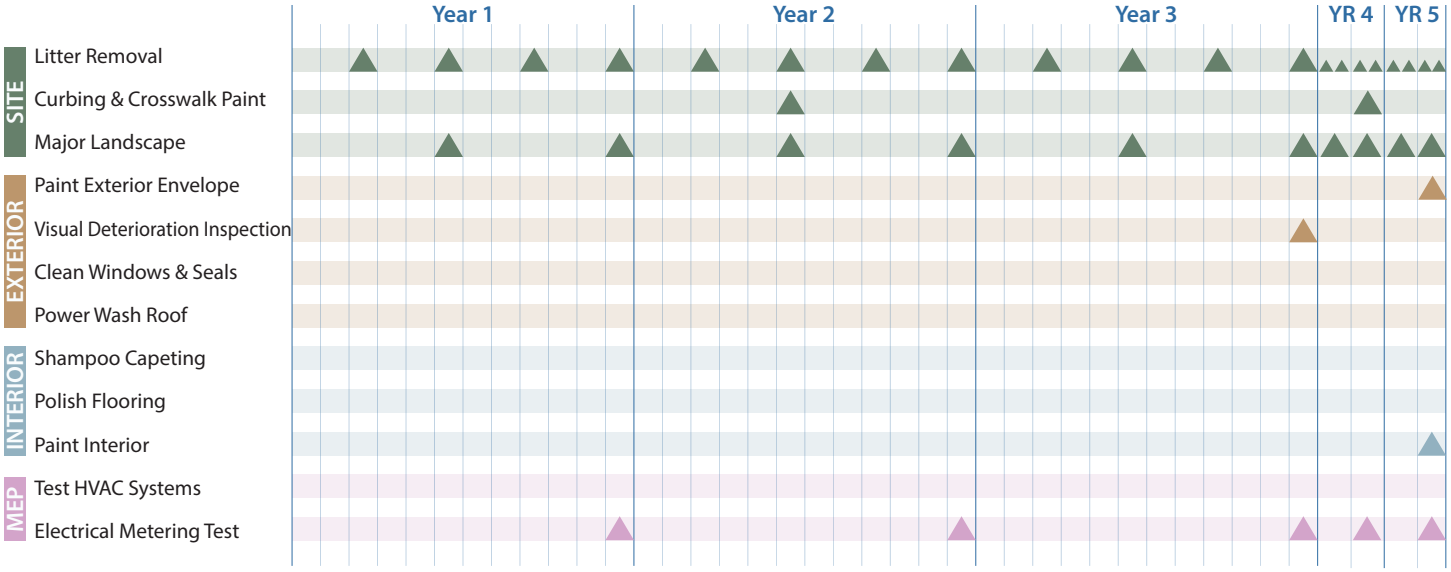
Notes:

Grand Theatre



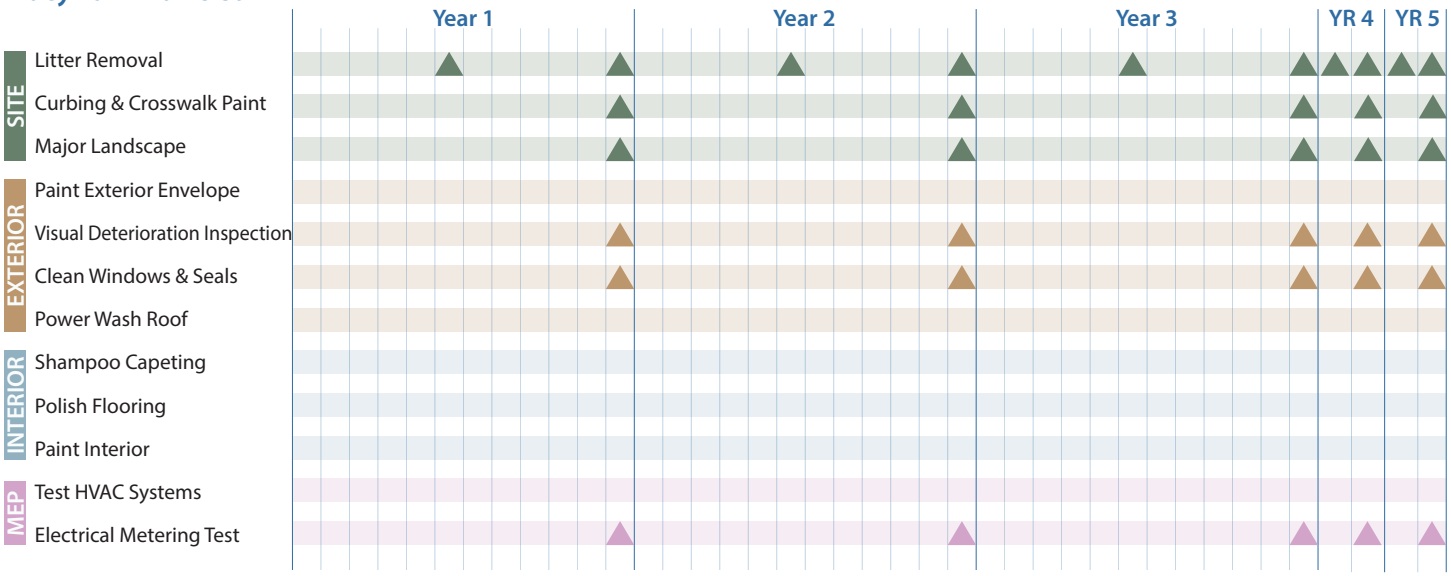
Notes:

Lammersville



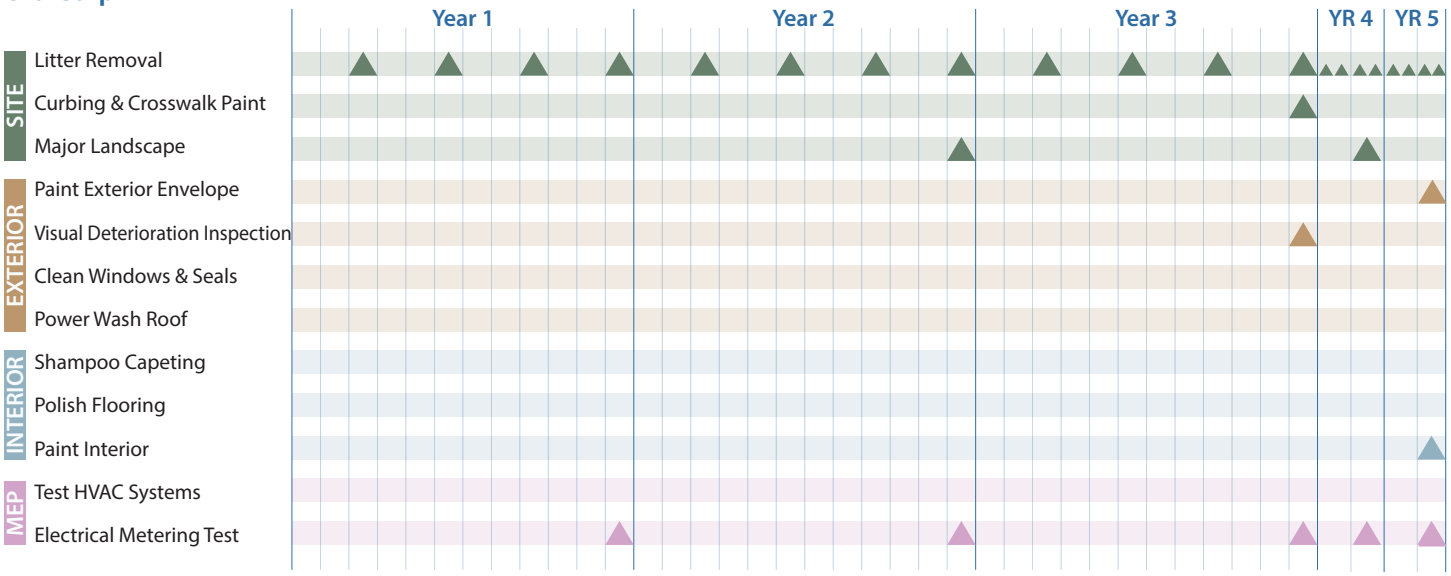
Notes:

Tracy Townhall & Jail



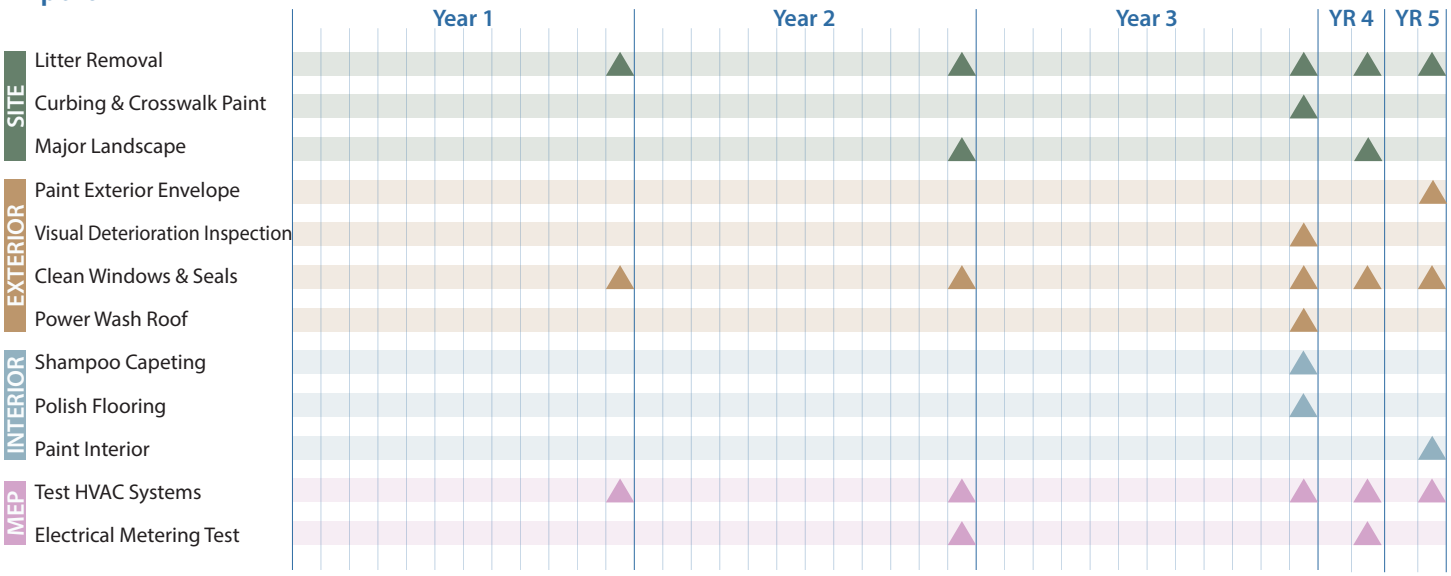
Notes:

Old Corp



Notes:

Airport



Notes:

V. SPACE STANDARDS AND GUIDELINES

a. Public Facilities Space Standards 426

b. City Design Guidelines Review 428

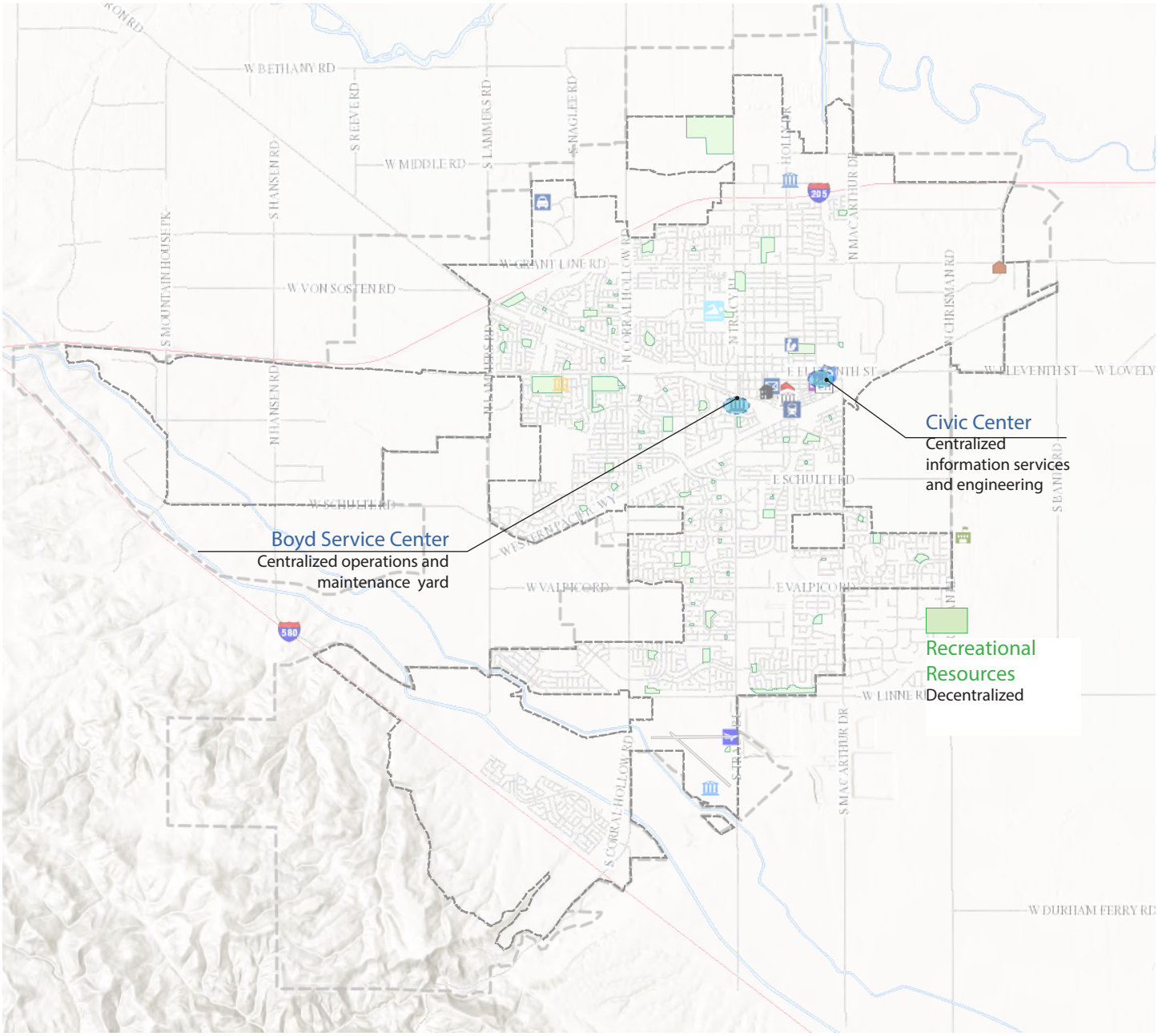
c. Facility Design Recommendations 431

d. Additional Considerations 434

Public Facilities Space Standards

RECOMMENDATIONS FOR OPERATIONAL EFFICIENCY

While the City of Tracy's public facilities are organized in an efficient manner in general, some benefits may be realized by centralizing functions related to information services, Operations and Utilities, and Engineering, and decentralizing recreational



resources.

The size of work areas in City Hall Plaza was used to anchor space standards for the current study. Staffing growth was projected by comparison to selected cities and was adjusted based on statistical procedures to enhance predictive accuracy. Space projections were developed on a line-item basis using the staffing projections, department surveys, reviews of existing space

and plans, and with reference to spaces that are normal and customary for public facilities.

SPACE & FACILITY STANDARDS

Space standards were informed by a combination of existing space and normal and customary space for similar functions in other jurisdictions. City Hall is a relatively new facility that shows a small number of specific deficiencies and many more surpluses related to staffing increase in response to population increase. Therefore, existing space utilization in City Hall was considered a good indicator of the size and quality of space the City of Tracy wants to provide to its employees. A few space types that are normal and customary in other jurisdictions have been included within space standards, largely based on other California cities that provide similar services and quality facilities for their employees.

Building Size

NSF is acronym for Net Square Footage, which describes the interior area of a room or the size of an open space. Unoccupied accessory areas such as corridors, stairways, ramps, toilet rooms, mechanical rooms and closets are not included in NSF.

BGSF is acronym for Building Gross Square Footage, which describes the total area within the exterior dimensions of a building. BGSF includes: the building's main circulation, such as corridors, stairs, and elevator, and other building support areas shared within the facility.

The amount of space required for circulation and other infrastructure is a variable, even when the desired NSF for a facility is known. The total area required for these spaces will be different for every architectural iteration and will change throughout the design process.

However, a rough estimate can be developed by considering the building's general operation and design. The BGSF includes all NSF and wall thicknesses of those spaces, plus an estimate of the additional area required for circulation and miscellaneous areas necessary for actual use of the space. This number is generated by multiplying an appropriate grossing factor to the NSF, based on the type of space being considered. A factor of 1.3 will be used to calculate the BGSF for the building programs.

Position/Type	Net Size
Offices	(Avg.) 227
Mayor, Council Member	140
City Manager	440
Asst. City Manager	220
City Attorney	420
Assistant City Attorney	210
Deputy City Attorney	190
DES Director	225
Department Director	165
Commissioner	140
Typical Professional Office	120
Cubicles (avg.)	(Avg.) 80
Executive Assistant	96
Typical Open Office Professional	96
Administrative Assistant	64
Typical Open Workstation	64
Conference Room	
Small Conference Room	300-500
Large Conference Room	75+25/person
Copy/Supply	(Avg.) 121
Copy/Supply with work table	200
Copy/Supply Enclosed	100
Copy/Supply Open Office	64
Breakroom	
Break Room w/ Kitchen	75+25/person
Coffee Counter	20

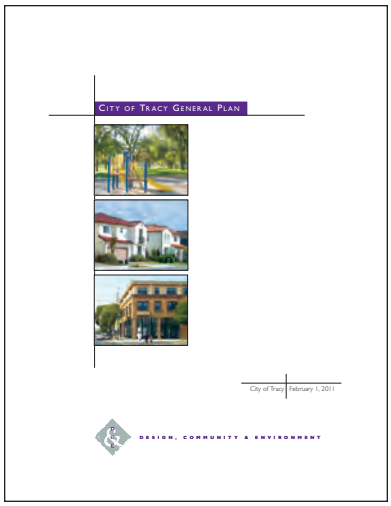
City Design Guidelines Review

In order to assure consistency with existing City guidelines, a review of relevant existing guidelines is shown here and supplemented with additional recommendations relevant to the CPFMP.

GENERAL PLAN

See "City of Tracy General Plan" (2011) and "Amendments to General Plan."

Land Use Guidelines



The City's General Plan Land Use Element includes goals, objectives, policies and actions for all public facilities and specified private improvements:

- A balanced and orderly pattern of growth in the City
  - Establish a clearly-defined urban form and city structure.
  - Comprehensively plan for new development in the City's Sphere of Influence.
  - Ensure that the public facilities such as schools, parks, and other community facilities are accessible and distributed evenly and efficiently throughout the City.
  - Promote efficient residential development patterns and orderly expansion of residential areas to maximize the use of existing public services and infrastructure.
  - Encourage development near transit stations including the multi-modal station in Downtown, and the Altamont Commuter Express (ACE) station or stations.
- Expanded economic opportunities in Tracy.
  - Balance residential development with jobs, retail growth and the ability to provide services.
  - Expand the City's retail base.
  - Expand the City's industrial base.
  - Ensure adequate land for office development.
- Expanded cultural opportunities to enrich quality of life of residents and visitors.
  - Expand the City's cultural and arts facilities.
  - Neighborhoods that support Tracy's small-town character.
  - Create a mix of housing types in neighborhoods.
  - Locate services and amenities within walking distance of neighborhoods.
- A physically, socially, and economically vibrant Downtown.
  - Target new uses for the Downtown to reinforce its role as the heart of the City.
  - Establish the Downtown as the governmental and cultural focus for the City and the region.
- Land development that mitigates its environmental, design and infrastructure impacts.
  - Minimize the impact of industrial development or aggregate mining on adjacent uses.
  - Ensure land use patterns that minimize conflicts between transportation corridors and neighboring uses.
  - Ensure that development near the Tracy Municipal Airport is compatible with airport uses and conforms to safety requirements.
- A citizenry that is involved in the City's planning process.
  - Provide opportunities for participation in the City's planning processes.
- No urbanization in unincorporated County areas as defined by this General Plan or the San Joaquin County General Plan, whichever is more restrictive, without annexation to the City, a pre-annexation agreement, or a letter of support from the City.
  - Participate proactively in land use decision making within Tracy's Planning Area in pursuit of the above-stated goal.
- Leadership in environmental, economic and social sustainability.
  - Undertake measures to reduce greenhouse gas emissions and improve the sustainability of actions by City government, residents and businesses in Tracy.

Community Character Urban Design Principles

The City's General Plan Community Character Element includes urban design principles for all public facilities and specified private improvements:

1. Human-Scale Design — At a neighborhood level and at a site or building design level
2. Focal Points — Focal points are locations that serve as meeting places where people gather.
3. Edges — Edges help to define space and in built environments they can be created by buildings or rows of trees.
4. Visual Landmarks and Entryways
5. Building Siting to Hold Corners
6. Pedestrian Orientation — Designing places that are pedestrian-oriented rather than automobile-oriented often contributes to creating a sense of place.

Public Facilities and Services

The City's General Plan Public Facilities And Services Element includes information and policy guidance for all public facilities and specified private improvements:

- Public buildings that are a source of civic pride for all residents.
  - Support the needs of the community through the construction and maintenance of public buildings, such as City Hall, community centers, libraries and additional Operations & Utilities facilities.
  - Provide sufficient library service to meet the informational, cultural and educational needs of the City of Tracy.

CIVIL ENGINEERING AND CONSTRUCTION GUIDELINES

See "City of Tracy Engineering Design & Construction Standards - Design Standards" (2020).

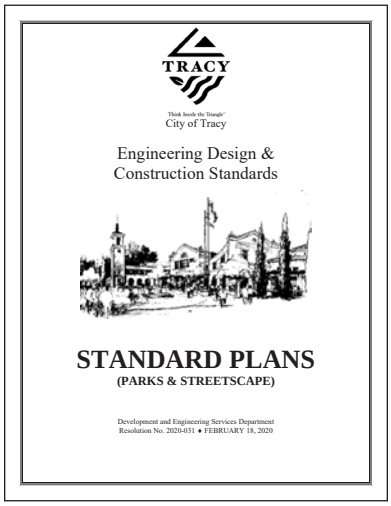
The City has previously commissioned a study that includes minimum standards for the design, construction, maintenance, repair, and alteration of all public facilities and specified private improvements:

- Street Design Standards
- Sanitary Sewer Design Standards
- Storm Drainage Design Standards
- Water Design Standards
- Reclaimed Water Standards
- Street Lighting
- Grading Design Standards
- Wall Design Standards
- Estimates For Bonding Purposes
- Demolitions And Abandonment Plan

PARK AND STREETSCAPE DESIGN GUIDELINES

See "City of Tracy Engineering Design & Construction Standards - Standard Plans (Parks & Streetscape" (2020).

Guidelines ensuring that the installed landscape enjoys a long lifespan, is aesthetically pleasing, with minimal maintenance and watering requirements. Tracy's Downtown has a compact, grid street system and serves as the historical heart of the City. There are numerous historical buildings that enhance the City's identity, walkable main streets with a diverse mix of uses, and a small-town urban fabric. The City has previously commissioned a study that includes:

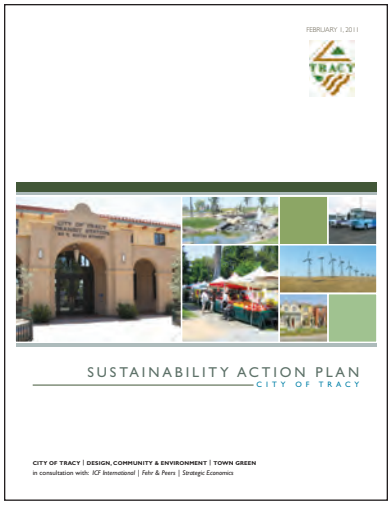


- Surfaces
- Walls And Fences
- Shade Structure
- Furnishings
- Sport Facilities
- Planting
- Irrigation
- Signage
- Lighting

SUSTAINABILITY MEASURES

See "City of Tracy Sustainability Action Plan" (2011).

The City's Sustainability Action Plan includes measures to achieve sustainability targets as applicable for all public facilities and specified private improvements:



- Green Building Ordinance
- Energy Efficiency in Site Planning and Design
- Green Building and Energy Efficiency Design and Education
- Energy Efficient Products and Retrofits
- Weatherization Assistance
- Financing for Energy Efficiency and Renewable Energy Projects
- Energy Efficient Retrofits for City Street Lights
- Solar Panel Installations on Municipal Facilities
- Energy Efficiency Settings for City Desktop Computers
- Reduced Parking Requirements
- Support for Bicycling
- Support for Transit
- Smart Growth, Urban Design and Planning
- Parking Cash-Out Programs for Employees
- Increased Use of Low Carbon Fueled Vehicles
- High-Density Infill Projects
- Non-Toxic Building Materials
- Green Building Training for City Staff
- Emerald Tracy Website
- San Joaquin Council of Governments Sustainable Communities Strategy

This study augments the above already published measures with the following regional-appropriate measures to achieve sustainability, including extending the survivability of facilities. These are recommended as facility design guidelines for the public facilities to be built resulting from this master plan.

City Design Guidelines Review

SURVIVABILITY AND SUSTAINABILITY

Facilities built under the CPFMP should be designed with extended survivability and sustainability built-in. The earthquake and tsunami in Japan and the power outage in Texas due to the winter storm are examples of what happens during disasters when structures are not able to survive and remain in service. These were probably a 300-year events, but the probability of such events is often misunderstood and misused. This event could easily have happened today, here in California. While an ocean tsunami is not possible in Tracy, the area is certainly earthquake-prone. The USGS database shows that there is a 98.035% chance of a major earthquake within 50 kilometers of Tracy – well within the lifetime of Tracy's public buildings and representing a serious threat to the delivery of public services when they are needed most. This may be the City of Tracy's highest duty and responsibility - to serve the public during times of critical emergency.

To do so, the City must have facilities that have survived any predicted event and remain functional and can support emergency service delivery. Most planning and building design standards for earthquakes are based on the ability of a structure to withstand only a 100-year event. The earthquake and tsunami in Japan, Hurricane Katrina, and other major events demonstrate the need for facilities to remain usable post disaster for extended periods without electric power and other services. Designing for this is called the "passive survivability." Passive survivability refers to a building's ability to maintain critical life-support conditions in the event of extended loss of power, heating fuel, or water. Relative to building performance, the idea is not to maintain temperatures within the ASHRAE-defined comfort zone of 68–81°F (20–27°C)—depending on the season and humidity—but to create buildings that will not threaten the lives of their occupants if power is lost.

As an urban planning and architectural design concept, passive survivability defines how a district or building is able to continue to operate even during a protracted outage of utility services such as electric power, natural gas, water and sewerage. As applied in California, it defines the ability to survive the maximum anticipated earthquake, wildfire, flood or other natural disaster, and to endure the prolonged power and other outages that may follow. At present, public safety facilities need only to comply with minimum building code requirements and provide for emergency power generation for a limited period of time, up to 72 hours.

As an industry, so often the focus is on cost and designing to meet the minimum standards rather than considering the longer-term impact of a building. This is where passive survivability comes in. Advances in earthquake engineering, energy conservation, and design with climate and onsite energy production have made this possible to achieve. However, it requires the adoption of a new architectural and engineering design paradigm. A major component of this paradigm is the use of sustainable and passive design with climate-adapted techniques.

Passive survivability can be achieved by incorporating the sustainable design features that have been so actively promoted by the green building community:

- Highly efficient thermal envelope
- Cooling-load avoidance strategies
- Capabilities for natural ventilation
- Passive-solar heating
- Natural daylighting

- Generating and storing photo-voltaic electricity
- Water storage
- Solar water heating

A menu of key extended survivability and sustainability features, where appropriate, recommended for the buildings included in the CPFMP includes:

- Solar Panel on roof – Consider small-scale rooftop solar panel to power critical emergency circuits, IT, radio, etc.
- Reflective cool roof – Where re-roofing is required, use "cool roof" products. Roofs should be cool roof designs which reduce roof surface temperatures, reduce heat transmission into the building and reduce "heat island" effect.
- Isolate and protect critical utilities – Evaluate each building system for criticality including but not limited to radio, telecommunications, power, sanitary sewer, potable water, etc. Identify feasible measures which can be cost-effectively taken to harden against flooding, earthquake or other threat to be determined.
- Design structures to "immediate-occupancy" level – So that it might function as a shelter, the new Community Recreation Building can be designed to the highest performance levels as per FEMA 356 A, that of immediate occupancy (IO), which means the post-earthquake damage state in which only very limited structural damage has occurred.
- Use seismic dampening to improve survivability at same cost – Consider use of viscous fluid dampers (VFD) or other structural damping techniques to increase the resilience of the building frame under earthquake loads, improving survivability during and serviceability after an earthquake.
- Use energy-efficient design to extend survivability and reduce utility bills – A variety of measures such as east-west building orientation, use of thermal mass, high-efficiency mechanical strategies, etc. will reduce energy consumption and extend the duration in which emergency power can be provided.
- Use natural light and ventilation to improve workplace quality and extend survivability – Use of natural lighting and ventilation provides for a high-quality workplace. It also means that the building can be passively operated and inhabited when emergency power has been exhausted. Primary work spaces to be provided with natural light from skylights and/ or high windows with light shelves, with the electric lighting system controlled by light sensors which automatically turn them off when there is sufficient natural light. Natural ventilation or mixed-ventilation delivery of outside air could be provided. Naturally ventilated air will flow from low vents to high vents.
- Overhang and sunshade devices – Use overhangs, solar screens and other devices to allow view out, yet reduce summer heat load and air conditioning demand saves on utility bills, too.
- Provide super-insulation – Wall insulation of up to R-40 is encouraged, twice the usual thermal resistance of a wall. Roof insulation values between R-30 and R-40 are desired. Consider alternative building technologies like using California's Central Valley's own straw bale as insulation for buildings which provides up to R-40 walls.
- Increase thermal mass – Heat storage capacity is maximized through the use of high specific heat and heat capacity materials such as concrete, masonry and even interior wallboard assemblies. Novel use of materials to increase thermal mass should be considered such as straw bale covered concrete exterior walls, concrete floor and concrete roof to name a few. The large heat storage capacity of these surfaces will moderate temperature swings in the building and reduce the demand for heating and cooling. The resulting "thermal flywheel" effect can be amplified through use of nighttime ventilation strategies to help "carry" the building through hot summer days with less mechanical cooling required.
- High-efficiency mechanical systems – Use high-efficiency mechanical systems which

Solar Panel on Roof
Solar panel reduce solar heat gain and supports energy demand

Electric Vehicle Charging Station
Supplies energy for recharging electric vehicles

Covered Drop-Off /Pick-Up Areas
Transprotation shelters provide shade and shelther from sun, wind weather

Stormwater Management Permeable Surfaces
Allows for movement of water and air around permeable surfaces

Noise and Wind Break
Evergreen trees surround building reduce the noise and provide wind break even in winter

Overhangs and Sun Shade Devices
Allow penetration of low winter sun, while blocking high summer sun

Sun Shading and Umbrella Devices
Outdoor seating area provides connection to nature

Bike Rack
Assures cyclists their bike is securely parked

will reduce utility bills at same time as extending duration of emergency generator power due to reduced rate of fuel consumption. Consider water-based systems in order to avoid the inherently less-efficient heat transfer provided by air-based systems.

- Raise sites for minimum 100-year flood protection – Public facility sites should be raised minimum 1' above base flood elevation (BFE) to protect against projected 100-year flood events. Consider berming to further protect against flooding.
- Place critical functions on higher level – In order to provide an area of retreat in case of flooding which exceeds the 100-year projection, place critical functions on a higher level where flood water will not reach. Critical functions include the Emergency Operations Center (EOC), Dispatch/ Communications, other.
- Elevate emergency generator and fuel supply – Raise emergency power generator and its 72-hour fuel supply to be able to withstand any flooding risk, also includes transfer switch and emergency power panels. Space below to be used for storage and hardened against flooding.

Sustainable Landscape Plant s

Plant with native, drought-tolerant plants helping to clean and filter rainwater

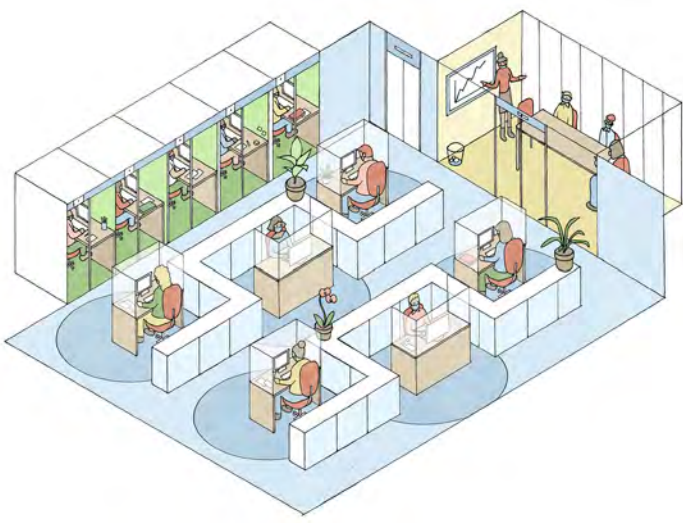
Emergency Backup Systems

Supports important electrical systems on loss of normal power supply

DURING AND POST COVID-19 BUILDING DESIGN

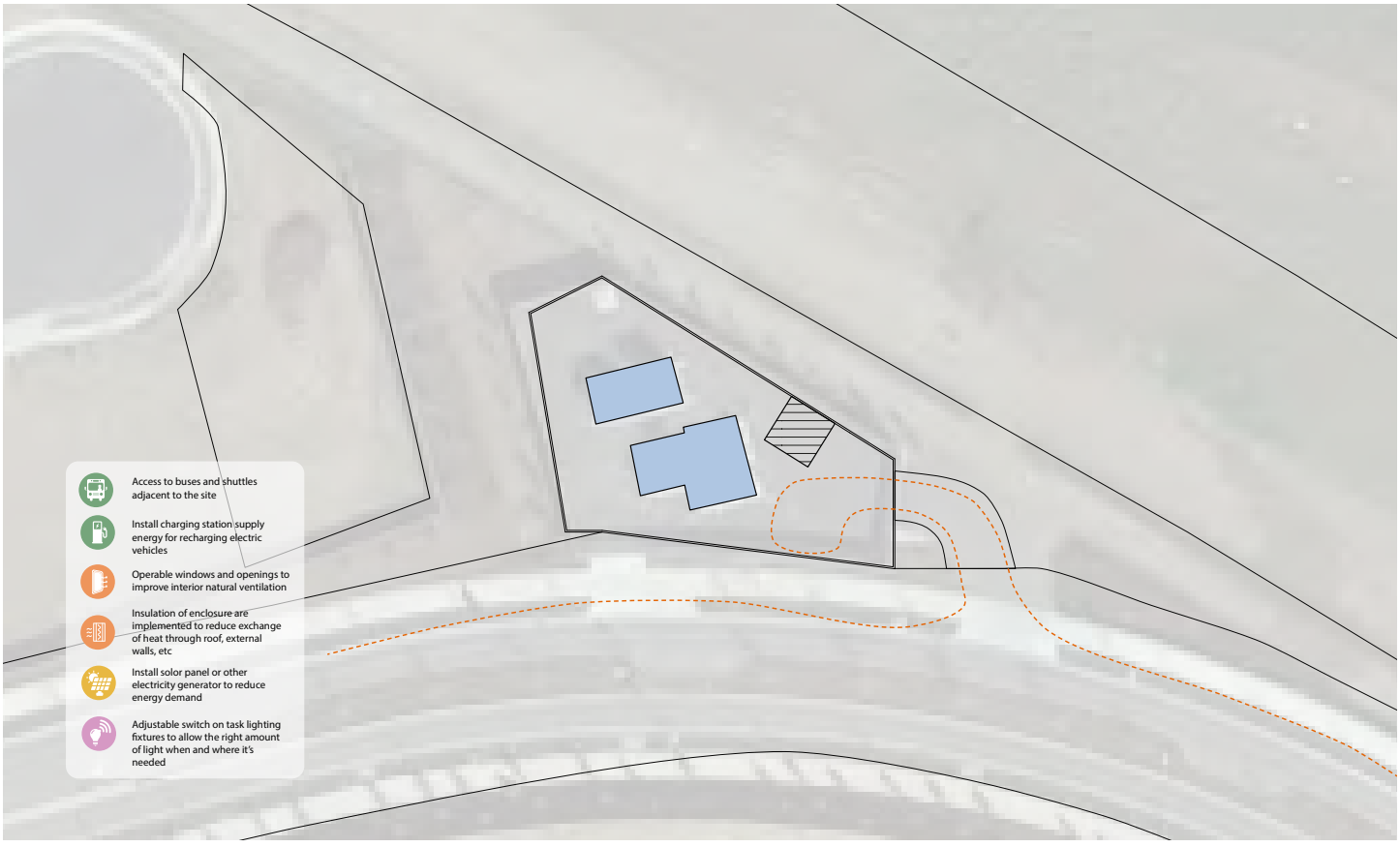
The impact of Covid-19 on every aspect of life is undeniable. As the pandemic began to spread throughout March 2020, Covid-related changes we are now seeing in building design. It's reasonable to think that concerns about future viruses might encourage the city to design with an eye toward that enable and encourage people to spread out.

- Reduce open offices.
- Spread workstations farther apart in open offices
- Utilize automation to mitigate contagion.
  - Automatic doors
  - Voice-activated elevators
  - Cellphone-controlled room entry
  - Hands-free light switches and temperature controls
- Specify antibacterial fabrics and finishes.
- Reduce the number of flat surfaces where germs can sit.
- Install ventilation systems that allow for removing potentially contaminated air from any given area.
- Upgrade air-filtration systems
- Considering lightweight architecture which are portable and easy to assemble to respond to disaster and crisis.
- Flexible building design



Illustrations by Emma Roulette
https://www.newyorker.com/culture/dept-of-design/how-the-coronavirus-will-reshape-architecture

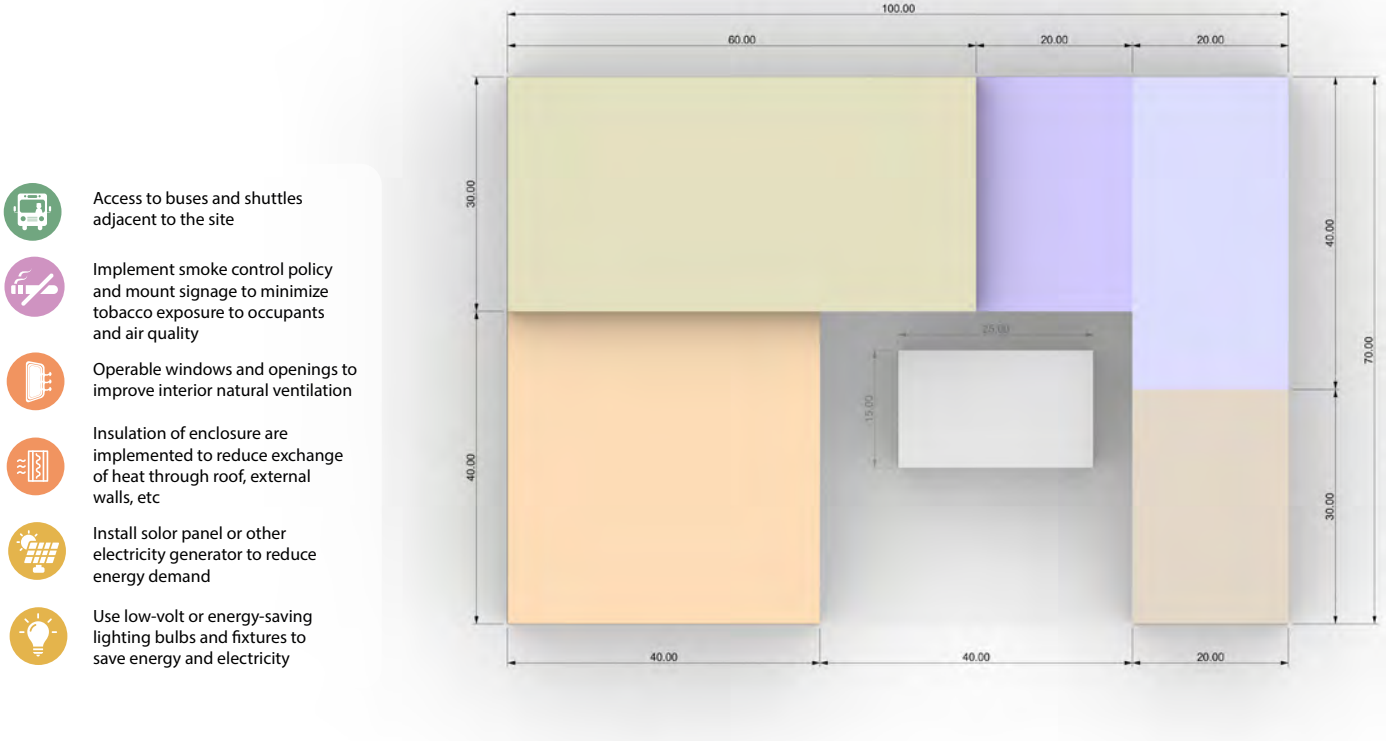
Additional Considerations - Administration Building and Tracy Hills Operations & Utilities Facility



Additional Considerations - Bus Maintenance Facility / Corp Yard

Additional Considerations - Aquatic Center and Temporary Homeless Shelter

Additional Considerations - Tracy Library and Multi-Generational Community Facility



VI. COST AND FUNDING OPTIONS

Cost Summary 439

Funding Options 442

Deferred Maintenance Cost Estimates 443

Cost Summary

SUMMARY

The proposed City Wide Public Facilities Master Plan Update carries project cost summaries, which includes:

NEW FACILITY PROJECTS

- Administration Building
- Bus Maintenance Facility/Corp Yard
- Tracy Hills Operations & Utilities Facility
- Aquatic Center
- Multi-Generational Recreation Center
- Tracy Library
- Temporary Housing

DEFERRED MAINTENANCE PROJECTS

- Animal Shelter
- Boyd Service Center Vehicle Fleet Shop
- Community Center
- Fire Administration
- Grand Theatre
- Tracy Sports Complex
- Tracy Library
- Tracy Museum

CAPITAL IMPROVEMENT PROJECTS

- Animal Shelter
- Boyd Service Center
- City Hall
- Community Center
- Fire Administration
- Grand Theatre
- Police Annex
- Senior Center
- Support Services Building
- Tracy Library
- Tracy Museum
- Tracy Transit Station (New)

The following renovation projects are not estimated but included as recommended projects for rearrangement of personnel.

RENOVATION PROJECTS

- City Hall Renovation
- Grand Theatre Renovation
- Boyd Service Center Renovation
- Airport Office Renovation

New Capital Projects

NEW FACILITIES

Attached below is a cost breakdown for new capital projects related to proposed new public facility buildings in the City of Tracy. This analysis is based on facilities needs and resulting building programs discussed as part of the Plan and contained in this report. The purpose of these preliminary order-of-magnitude cost estimates are to provide Tracy with a ballpark figure of construction costs for desired capital projects. The estimates include a 15% general contingency as well as a 10% design contingency and a 10% construction management contingency. Costs shown in this report are total costs, including all above contingencies, in 2021 dollars.

Building	Start Year	Proposed Area (Sqft)	Unit Cost per Sqft	Cost Estimate	Site Development	General Contingency (15%)	Design Contingency (10%)	Construction Management Contingency (10%)	FF&E & Vehicles	Land Acquisition	Other Identified Funding Sources	Total Cost to City of Tracy	Project Description
Administration Building	**2026**	21,000	$833	$17,493,000	$200,000	$2,653,950	$1,769,300	$1,769,300	$357,000			$24,242,550	The new Administration building will allow for more organization and tailored workspaces for city staff currently split between the Social Services Building, Police Annex and Social Services Trailer.
Bus Maintenance Facility/ Corp Yard	**2024**	17,400	$1,121	$19,500,000	$4,500,000	$3,600,000	$2,400,000	$2,400,000	$4,000,000			$36,400,000	This new facility will allow improved vehicle maintenance, storage, office and shops space for both the Transit Division and Public Works. Potential items to be programmed include Bus Maintenance Bays, Transit office and training space, electric charging infrastructure for buses, bus wash, and parking for multiple buses. Public Works spaces may include new shops, offices, parking and support spaces. The new facility will supplement existing operators at the Tracy Transit Station and Boyd Service Center.
Civic Center Parking Garage	**N/A**	60,000	$130	$7,800,000	$300,000	$1,215,000	$810,000	$810,000	$1,020,000	$625,000		$12,580,000	The new Parking Garage will provide additional parking stalls for civic center and surrounding neighborhoods.
Tracy Hills Operations and Utilities Facility	**2021**	400	$778	$311,200		$46,680	$31,120	$31,120	$6,800			$426,920	The Tracy Hills Operations & Utilities Annex site will provide parking and office space for one to two employees. This office space will be designed to be sharable with the ability to let staff sit down and work for short periods as necessary throughout the day.
Aquatic Center	**2025**	16,134	$2,394	$38,632,659	$7,600,000	$6,934,899	$4,623,266	$4,623,266	$274,278		($53,007,854)	$9,680,514	The Aquatic Center will supplement the Joe Wilson Pool as another recreational aquatic offering for the City of Tracy's community. The aquatic center will have various items including multiple pools, waterslides and a lazy river. The space may have employees from the Parks & Recreation department.

Building	Start Year	Proposed Area (Sqft)	Unit Cost per Sqft	Cost Estimate	Site Development	General Contingency (15%)	Design Contingency (10%)	Construction Management Contingency (10%)	FF&E & Vehicles	Land Acquisition	Other Identified Funding Sources	Total Cost to City of Tracy	Project Description
Multi-Generational Recreation Center	**2023**	52,637	$1,051	$55,305,357	$7,800,000	$9,465,804	$6,310,536	$6,310,536	$2,385,000		($73,000,000)	$14,577,232	The Multi-Generational Community Facility will supplement the existing Community Center and Senior Center with increased City space for community recreation and gathering opportunities. Potential spaces to be programmed include a gymnasium multi-purpose rooms, tech offerings, educational kitchen, administrative space and support spaces.
Community Center	**2036**	9,000	$739	$6,648,333	$225,000	$1,031,000	$687,333	$687,333	$221,000			$9,500,000	The new Community-oriented Center will combine the existing Community Center and Senior Center for community services and public activities.
Senior Center	**2038**	5,000	$760	$3,798,519	$200,000	$599,778	$399,852	$399,852	$102,000			$5,500,001	The Senior Center will be expanded to provide additional space for community gathering and events. The increased size of the Senior Center will allow Tracy to properly serve its senior population through buildout.
Tracy Library	**2029**	20,000	$840	$16,800,000	$1,425,000	$2,733,750	$1,822,500	$1,822,500	$340,000	$633,250		$25,577,000	A new City of Tracy library would supplement the existing library which is undersized to continue to provide library services to Tracy's expanding population. Potential program offerings at the new library include educational space and a teen center. Familiar library offerings would be provided.
Temporary Emergency Housing Ph 2	**2021**	9,596	$603	$5,786,569	$1,500,000	$1,092,985	$728,657	$728,657	$163,132			$10,000,000	Construction of a temporary homeless shelter will allow the city to respond to increased levels of homelessness in the area in current years. The temporary shelter is proposed to be located on the site of the current Waste Waters Treatment facility. Numbers of residents to house will be decided upon further program analysis. Construction of this facility will allow the City of Tracy to form more accurate future predictions and provide better service related to the needs of the homeless community.
Boyd Service Center													The Boyd Service Center renovation includes the expansion for additional Operations & Utilities facilities on the existing site. Those new facilities will serve Public Works to accommodate increasing number of staff in the future and provide adequate storage space.
Overall	**N/A**	28,370	$705	$20,000,000	$1,900,000	$3,285,000	$2,190,000	$2,190,000	$482,290			$30,047,290	
Administration	**N/A**	2,500	$2,060	$5,150,000	$129,150	$791,873	$527,915	$527,915	$127,347			$7,254,200	
TOTAL		**242,037**	**$12,013**	**$197,225,637**	**$25,779,150**	**$33,450,718**	**$22,300,479**	**$22,300,479**	**$9,478,847**	**$1,258,250**	**($126,007,854)**	**$185,785,705**	

Funding Options

The City of Tracy may consider a number of funding options to pay for the proposed public facilities. Following is an overview of options that may be available to the City, arranged according to whether costs are attributable to existing development or to new development.

FUNDING FOR COSTS ATTRIBUTABLE TO EXISTING DEVELOPMENT

The primary restriction on funding for the costs of facilities that are attributable to existing development is that these costs cannot be included in the calculation of impact fees that will be charged to new development. The following are a number of options that the City could consider:

The City's General Plan Land Use Element includes goals, objectives, policies and actions for all public facilities and specified private improvements:

- Existing Public Safety Facilities Impact Fee Fund Balance
  - Establish a clearly defined urban form and city structure.
  - Comprehensively plan for new development in the City's Sphere of Influence.
  - Ensure that the public facilities such as schools, parks, and other community facilities are accessible and distributed evenly and efficiently throughout the City.
  - Promote efficient residential development patterns and orderly expansion of residential areas to maximize the use of existing public services and infrastructure.
  - Encourage development near transit stations including the multi-modal station in Downtown, and the Altamont Commuter Express (ACE) station or stations.
- Funds Collected as Part of Development Agreements
  - Balance residential development with jobs, retail growth and the ability to provide services.
  - Expand the City's retail base.
  - Expand the City's industrial base.
  - Ensure adequate land for office development.
- Grants from Other Governmental or Charitable Sources
  - Expand the City's cultural and arts facilities.
- Parcel Taxes, Assessment Districts and Other Funding Mechanisms Requiring Voter Approval
  - Create a mix of housing types in neighborhoods.
  - Locate services and amenities within walking distance of neighborhoods.
- A physically, socially, and economically vibrant Downtown.
  - Target new uses for the Downtown to reinforce its role as the heart of the City.
  - Establish the Downtown as the governmental and cultural focus for the City and the region.
- Land development that mitigates its environmental, design and infrastructure impacts.
  - Minimize the impact of industrial development or aggregate mining on adjacent uses.
  - Ensure land use patterns that minimize conflicts between transportation corridors and neighboring uses.
  - Ensure that development near the Tracy Municipal Airport is compatible with airport uses and conforms to safety requirements.
- A citizenry that is involved in the City's planning process.
  - Provide opportunities for participation in the City's planning processes.
- No urbanization in unincorporated County areas as defined by this General Plan or the San Joaquin County General Plan, whichever is more restrictive, without annexation to the city, a pre-annexation agreement, or a letter of support from the City.
  - Participate proactively in land use decision making within Tracy's Planning Area in pursuit of the above-stated goal.
- Leadership in environmental, economic and social sustainability.
  - Undertake measures to reduce greenhouse gas emissions and improve the sustainability of actions by City government, residents and businesses in Tracy.

Deferred Maintenance Projects - 10 Years

EXISTING FACILITIES

Attached below is a cost breakdown for deferred maintenance projects related to proposed existing public facility buildings in the City of Tracy. This analysis is based on facilities needs and resulting building programs discussed as part of the Plan and contained in this report. The estimates include a 15% general contingency as well as a 10% design contingency and a 10% construction management contingency. All costs are in 2022 dollars and do not include escalation.

Building		Cost Estimate (Including 15% General Contingency)	Design Contingency (10%)	Construction Management Contingency (10%)	Total Cost
Animal Shelter		$1,029,250	$102,925	$102,925	$1,235,100
Boyd Service Center			**$709,550**	**$709,550**	**$8,514,600**
	Administration	$258,750	$25,875	$25,875	$310,500
	Maintenance Shops B	$759,000	$75,900	$75,900	$910,800
	Maintenance Shops C	$971,750	$97,175	$97,175	$1,166,100
	Warehouse D	$937,250	$93,725	$93,725	$1,124,700
	Vehicle Fleet Shop E	$4,168,750	$416,875	$416,875	$5,002,500
City Hall		$1,707,750	$170,775	$170,775	$2,049,300
Community Center		$1,057,138	$105,714	$105,714	$1,268,565
Fire Administration		$1,329,400	$132,940	$132,940	$1,595,280
Grand Theatre		$3,266,000	$326,600	$326,600	$3,919,200

Building		Cost Estimate (Including 15% General Contingency)	Design Contingency (10%)	Construction Management Contingency (10%)	Total Cost
Joe Wilson Pool		$138,000	$13,800	$13,800	$165,600
Lammersville School		$624,450	$62,445	$62,445	$749,340
Old Corp Yard		$276,000	$27,600	$27,600	$331,200
Police Annex		$756,125	$75,613	$75,613	$907,350
Police Station		$1,242,000	$124,200	$124,200	$1,490,400
Senior Center		$238,625	$23,863	$23,863	$286,350
Sports Complex Meeting Room		$553,150	$55,315	$55,315	$663,780
Support Services Building		$1,242,000	$124,200	$124,200	$1,490,400
Tracy Library		$948,750	$94,875	$94,875	$1,138,500
Tracy Municipal Airport					
	3 Series Hangars	$1,127,000	$112,700	$112,700	$1,352,400
	4 Series Hangars	$862,500	$86,250	$86,250	$1,035,000

Building		Cost Estimate (Including 15% General Contingency)	Design Contingency (10%)	Construction Management Contingency (10%)	Total Cost
	B Series Hangars	$202,975	$20,298	$20,298	$243,570
	F Series Hangars	$894,125	$89,413	$89,413	$1,072,950
	G Series Hangars	$284,625	$28,463	$28,463	$341,550
	Skyview Aviation	$1,371,375	$137,138	$137,138	$1,645,650
Tracy Historical Museum		$782,000	$78,200	$78,200	$938,400
Tracy Town Hall & Jail		$293,250	$29,325	$29,325	$351,900
Tracy Transit Station		$1,167,250	$116,725	$116,725	$1,400,700

Deferred Maintenance Project Cost - City Hall

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
City Hall									
	I	$15,000	$2,250	$17,250	Site paint		X		Painting of site elements including passenger loading zone near fountain at main entrance.
	I	$3,000	$450	$3,450	Repaint signage		X		Painting of facility signage.
			$0	$0	Exterior project (none)				
	I	$25,000	$3,750	$28,750	Reapply roof sealant		X		Clean roof and reapply sealant.
	I	$30,000	$4,500	$34,500	Foundation investigation	X			Investigation of cause of cracking around foundation at all buildings at Civic Center.
	I	$200,000	$30,000	$230,000	Foundation crack repair	X		X	Repair to minimal cracking at base of foundation at City Hall.
	MR	$85,000	$12,750	$97,750	HVAC study	X			HVAC study to identify proper needs for HVAC replacement.
	MR	$850,000	$127,500	$977,500	HVAC Equipment replacement	X		X	Replacement of rooftop mounted HVAC equipment.
	ADA	$30,000	$4,500	$34,500	Toilet ADA relocation	X		X	Relocation of some toilet room elements to be made ADA compliant.
	ADA	$250,000	$37,500	$287,500	Repaint signage		X		Rearrangement of cabinetry and furniture throuhgout the building to be made ADA compliant
	CIP	$3,500,000	$525,000	$4,025,000	CIP Space Renovation	X		X	Capital dedicated to interior space renovations at City Hall

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$1,711,200	$17,250	$0	$28,750	$264,500		$1,075,250	$322,000

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$1,075,250	$313,950	$322,000	$4,025,000	**$5,736,200**

Deferred Maintenance Project Cost - Support Services Building

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Support Services Building									
	I	$50,000	$7,500	$57,500	Site improvements	X			Repair chipping at landscape wall corners near main entrance. Repair asphalt chipping. Repaint crosswalk. Clean green site lighting units. Repair cracking at emergency generator CMU enclosure.
	I	$5,000	$750	$5,750	Trailer exterior maintenance		X		Replace window grate screws and clean lighting lenses at trailer.
	I	$15,000	$2,250	$17,250	Trailer roof maintenance		X		Replace rubber seals and clean tin roof.
	I	$60,000	$9,000	$69,000	Roof renovations	X		X	Repair multiple aspects of built-up roofing system. Clean drains of buildup.
	MR	$800,000	$120,000	$920,000	Interior remodel	X		X	Reapply window tint at interior. Replace wood door frames and window sills. Replace carpet tiles and rolled carpet. Modernize restroom surfaces, fixtures and finishes. Clean large scuff in floor length mirror in male restroom. Clean stains from restroom floor tile in general. Realign acoustic ceiling system. Replace gate separating reception from main staff area.
	I	$25,000	$3,750	$28,750	MEP improvements		X		
	ADA	$125,000	$18,750	$143,750	ADA improvements	X		X	Modify counter height dimensions and provide knee space in break areas to meet ADA.
	CIP		$0	$0	CIP Expansion Renovation	X		X	

Deferred Maintenance Project Cost - Support Services Building (Continued)

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$1,242,000	$57,500	$5,750	$86,250		$920,000	$28,750	$143,750

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$920,000	$178,250	$143,750	$0	**$1,242,000**

Deferred Maintenance Project Cost - Community Center

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Community Center									
	I	$5,000	$750	$5,750	Striping repair	X			Repaint yellow striping near Police Annex.
	I	$10,000	$1,500	$11,500	Site sealant repair		X		Repair cracks in sealant at areas between large concrete pours.
	I	$15,000	$2,250	$17,250	Landscape maintenance		X		Trim landscaping near double door entrance and landscape unfinished strip of dirt.
	MR	$175,000	$26,250	$201,250	Parking lot resurfacing	X			Resurface main parking lot.
	I	$20,000	$3,000	$23,000	Parking lot painting		X		Repaint parking lot striping
	I	$17,500	$2,625	$20,125	Wall and door maintenance		X	X	Repair damaged portions of walls and doors.
	MR	$100,000	$15,000	$115,000	Double pane windows	X		X	Replace single pane windows with double pane.
	I	$25,000	$3,750	$28,750	Exterior envelope repair		X		Repair exterior stucco at base of roof area and ground level.
	I	$50,000	$7,500	$57,500	Roof improvement project		X		Clean TPO roof surface at areas of high use and water ponding. Replace faded and rusting portions of peaked metal roof. Repair roof drains.
	I	$100,000	$15,000	$115,000	Foundation crack repair	X		X	Repair to minimal cracking at base of foundation at Community Center.
	I	$8,000	$1,200	$9,200	Floor tile addition		X		Add missing floor tiles at entrances to some building areas.
	I	$60,000	$9,000	$69,000	Interior finish improvements		X		Repaint walls in storage areas and fix scratches on other wall surfaces. Replace acoustic ceiling tile. Replace stovetop burners in kitchen and clean grout at ceramic tile. Repair lobby baseboards. Clean restroom tile flooring.
	I	$75,000	$11,250	$86,250	Snack service window	X			Finish components of snack service window and room.
	I	$25,000	$3,750	$28,750	Interior MEP maintenance		X		Clean and repaint floor vents. Clean air supply vents. Repair metal at exterior MEP area.
	MR	$225,000	$33,750	$258,750	Electrical switchboard	X		X	Replace main electrical switchboard.
	ADA	$2,250	$338	$2,588	Storage access		X		Provide wheelchair access for storage area in main hall.
	ADA	$3,000	$450	$3,450	Clear floor space		X		Clear floor space in storage areas.
	ADA	$3,500	$525	$4,025	ADA Parking repaint		X		Repaint ADA parking symbol and striping.

Deferred Maintenance Project Cost - Community Center (Continued)

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
	CIP		$0	$0	CIP Expansion Renovation	X		X	Capital dedicated to expansion of Community Center

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$1,057,138	$258,750	$163,875	$57,500	$115,000	$164,450	$287,500	$10,063

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$575,000	$472,075	$10,063	$0	**$1,057,138**

Deferred Maintenance Project Cost - Senior Center

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Senior Center									
	I	$7,500	$1,125	$8,625	Site maintenance		X		Clean bricks at exterior patio to improve physical appearance.
	I	$5,000	$750	$5,750	Site improvements		X		Repaint passenger loading zone striping.
	I	$20,000	$3,000	$23,000	Exterior maintenance		X		Repaint stucco where walls meet foundation. Replace exterior metal doors with scratches and dents.
	MR	$100,000	$15,000	$115,000	Structural Renovations				Repair cracking at foundation surrounding the Senior Center.
	ADA	$75,000	$11,250	$86,250	ADA improvements	X			Relocate toilet accessories for compliant mounting heights. Replacee kitchen appliances to meet ADA.
	CIP		$0	$0	CIP Expansion Renovation	X		X	

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$238,625	$14,375	$23,000		$115,000			$86,250

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$115,000	$37,375	$86,250	$0	**$238,625**

Deferred Maintenance Project Cost - Police Station

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Police Station									
	I	$140,000	$21,000	$161,000	Parking site improvements	X		X	Repave and restripe parking areas. Relocate Police cars for duration of parking lot improvements.
	I	$5,000	$750	$5,750	Roof cleaning		X		Clean roof surface. Repaint gutters and downspouts.
	I	$30,000	$4,500	$34,500	Structural investigation	X		X	Continue to monitor state of building cracking and flooring cracks. Perform structural investigation if cracks continue to grow.
	I	$40,000	$6,000	$46,000	Interior improvements	X		X	Provide door seals at bottoms of exterior doors that lack them including jail area. Paint interior walls throughout building. Replace stained ceiling tiles and investigate cause of staining.
	MR	$80,000	$12,000	$92,000	MEP Renovation Design	X		X	Design for replacement of failing heat exchanger units from closed water loop HVAC system.
	MR	$250,000	$37,500	$287,500	MEP Renovation Construction	X			Installation of new heat exchanger units for closed water loop HVAC system.
	ADA	$500,000	$75,000	$575,000	ADA Interior Improvements	X			Provide ADA compliant stair handrais and drinking fountains, as well as below counter space. Some interior renovations and room modifications including in break area are recommended. Provide ADA compliant locker room showers.
	ADA	$35,000	$5,250	$40,250	ADA Parking Improvements	X			Revise ADA parking stalls with new striping and loading areas.
	CIP	$33,000,000	$4,950,000	$37,950,000	CIP Expansion Renovation	X		X	Capital dedicated to expansion of the Police Station at the Civic Center site as described in the Public Safety Master Plan.

Deferred Maintenance Project Cost - Police Station (Continued)

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$1,242,000	$161,000		$5,750	$34,500	$46,000	$379,500	$615,250

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$379,500	$247,250	$615,250	$37,950,000	**$39,192,000**

Deferred Maintenance Project Cost - Police Annex

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Police Annex									
	I	$150,000	$22,500	$172,500	Parking site improvements	X		X	Repave lot, repaint striping and control box for electronic gate in police service vehicle parking area. Replace garage door.
	I	$50,000	$7,500	$57,500	Exterior renovations		X	X	Repaint concrete masonry exterior. Replace mounted light fixtures. Provide protection for exterior door sills.
	MR	$200,000	$30,000	$230,000	Interior renovations	X		X	Repair cracks in concrete flooring and utility closet wall in previous jail area. Repair and repaint metal doors, replace sink, and add lighting in same area. Remove ceiling stains and replace tiles. Clean carpeting and replace VCT flooring. Add lighting to public lobby area.
	I	$12,500	$1,875	$14,375	MEP maintenance		X		Add bracing to exposed ductwork.
	MR	$150,000	$22,500	$172,500	Boiler replacement	X		X	Replace boiler system.
	I	$75,000	$11,250	$86,250	Fire sprinkler renovations	X		X	Re-plumb some fire sprinkler heads and replace exterior sprinkler valves.
	ADA	$20,000	$3,000	$23,000	ADA improvements		X		Rebuild kitchenettes to provide adequate knee space.
	CIP	$3,000,000	$450,000	$3,450,000	CIP Space Renovation	X		X	Capital dedicated to future swing space renovations.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$756,125	$172,500	$57,500			$230,000	$273,125	$23,000

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$402,500	$330,625	$23,000	$3,450,000	**$4,206,125**

Deferred Maintenance Project Cost - Fire Administration

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Fire Administration									
	I	$4,000	$600	$4,600	Railing painting		X		Repaint railings near main public entrance.
	I	$7,500	$1,125	$8,625	Site Cleaning		X		Clean rest area with bench and site signage.
	I	$10,000	$1,500	$11,500	Parking lot painting		X		Repaint parking lot striping and symbols.
	I	$25,000	$3,750	$28,750	Exterior envelope painting		X		Repaint exterior envelope including metal door at rear of building.
	I	$1,000	$150	$1,150	Porch maintenance		X		Clean floor surface of porch at second story.
	I	$15,000	$2,250	$17,250	Roof maintenance		X		Power wash roof surface and provide new sealant where required.
	I	$75,000	$11,250	$86,250	Structural investigation	X			Investigate cause of cracking at interior and exterior locations.
	MR	$750,000	$112,500	$862,500	Structural repair	X		X	Repair cracking at interior and exterior of facility.
	I	$65,000	$9,750	$74,750	Interior renovations		X		Clean light floor scuffing at kitchen. Reattach lighting at painted ceiling in living area and provide protection to wall corners in same area. Clean stain at seams under drinking fountain and clean baseboards. Replace break room flooring. Clean and tighten light fixture lenses. Replace stained acoustic ceiling tile by reception.
	I	$3,500	$525	$4,025	MEP insulation		X		Add weatherproofing protection for exterior MEP piping.
	MR	$150,000	$22,500	$172,500	Boiler installation	X		X	Provide new boiler system.
	ADA	$50,000	$7,500	$57,500	ADA improvements		X	X	Clear floor space. Relocate and repair elements of break areas in living space and main facility.
	CIP	$1,600,000	$240,000	$1,840,000	CIP Interior Renovation	X		X	Capital dedicated to interior renovations outlined in the Public Safety Master Plan.

Deferred Maintenance Project Cost - Fire Administration (Continued)

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$1,329,400	$24,725	$29,900	$17,250	$948,750	$74,750	$176,525	$57,500

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$1,035,000	$236,900	$57,500	$1,840,000	**$3,169,400**

Deferred Maintenance Project Cost - Transit Station (New)

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Tracy Transit Station (New)									
	MR	$350,000	$52,500	$402,500	Site renovations	X		X	Repair cracks in parking pavement. Repaint markings throughout same area. Repair and clean concrete tile. Clean all present vandalism and repaint trash receptacles. Fill in cracking at exterior wall structures.
	I	$75,000	$11,250	$86,250	Exterior improvements		X		Repaint exterior window grames. Clean water marks below windowsills. Replace exterior doors and hardware.
	MR	$175,000	$26,250	$201,250	Roofing improvements	X		X	Repair chipped clay roof tiles. Replace roof drains at access platform. Repair cracking in parapets of roof structure.
	I	$100,000	$15,000	$115,000	Interior improvements		X		Clean clay tile flooring. Replace roof drains at access platform. Repair cracking in parapets at roof structure.
	I	$65,000	$9,750	$74,750	Leakage investigation	X		X	Investigate causes of leakage and repair all leaks in office area and all gender restroom. Repair other leaks within ceiling system.
	I	$50,000	$7,500	$57,500	Water piping relocation	X		X	Relocate water piping in Room 109
	I	$100,000	$15,000	$115,000	HVAC improvements	X		X	Renovate HVAC system to meet needs.
	ADA	$100,000	$15,000	$115,000	ADA improvements	X		X	Provide appropriate truncated domes or other detectable warning at site or parking area. Flatten ADA parking stalls. Add restroom signage in main hallway. Relocate restroom accessories to be compliant.
	CIP		$0	$0	CIP Expansion Renovation	X		X	

Deferred Maintenance Project Cost - Transit Station (New) (Continued)

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$1,167,250	$402,500	$86,250	$201,250		$115,000	$247,250	$115,000

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$603,750	$448,500	$115,000	$0	**$1,167,250**

Deferred Maintenance Project Cost - Animal Shelter

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Animal Shelter									
	I	$100,000	$15,000	$115,000	Site Resurfacing and Paint	X		X	Resurface tanbark areas, place non-toxic rodent traps, repaint curbing.
	I	$25,000	$3,750	$28,750	Landscape structure refinish		X		Resurface landscape walls and repaint.
	I	$15,000	$2,250	$17,250	Paint exterior		X		Paint exterior envelope.
	I	$45,000	$6,750	$51,750	Attic roof access	X			Provide roof access for attic.
	I	$40,000	$6,000	$46,000	Minor structural improvements	X			Repair cracking at soffit of women's restroom and utilize non-structural seismic hold downs for laundry equipment.
	MR	$125,000	$18,750	$143,750	Interior renovations	X			See Project AS -1
	MR	$350,000	$52,500	$402,500	Non-structural E support	X			Provide new HVAC system for the facility.
	ADA	$20,000	$3,000	$23,000	ADA Reconfiguration Design	X			Design for ADA Reconfiguration
	ADA	$175,000	$26,250	$201,250	ADA Reconfiguration Project	X		X	Reconfigure various elements restrooms to meet ADA, as well as animal intake and housing.
	CIP	$5,000,000	$750,000	$5,750,000	CIP Expansion Renovation	X		X	Capital dedicated to expansion of Animal Shelter.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$1,029,250	$143,750	$17,250	$51,750	$46,000	$143,750	$402,500	$224,250

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$546,250	$258,750	$224,250	$5,750,000	**$6,779,250**

Deferred Maintenance Project Cost - Tracy Library

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Tracy Library									
	MR	$300,000	$45,000	$345,000	Site renovations	X		X	Repave adjacent parking lot. Repair ground cover around children's play area. Resurface area by building to avoid ponding.
	I	$50,000	$7,500	$57,500	Exterior improvements		X		Properly attach gutters and add downspout at facility rear. Replace exterior lighting and drinking fountains. Clean masonry surface and paint exterior.
	I	$15,000	$2,250	$17,250	Roof inspection	X		X	Investigate light cracking at roof connections to eaves.
	I	$75,000	$11,250	$86,250	Interior renovations		X		Replace some ceiling tiles. Clean carpeting throughout. Replace restoom tile flooring. Replace restroom sinks. Repair leakage under restroom sinks.
	MR	$350,000	$52,500	$402,500	HVAC Equipment replacement	X		X	Replace rooftop mounted HVAC equipment.
	I	$20,000	$3,000	$23,000	MEP Maintenance		X		Repair and reattach loose plumbing lines from HVAC units.
	ADA	$15,000	$2,250	$17,250	ADA improvements		X	X	Rearrange interior furniture to meet ADA. Install truncated domes at front of site at passenger loading zone.
	CIP		$0	$0	CIP Expansion Renovation	X		X	Capital dedicated to XXXXXXXXX

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$948,750	$345,000	$57,500	$17,250		$86,250	$425,500	$17,250

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$747,500	$529,000	$17,250	$0	**$1,293,750**

Deferred Maintenance Project Cost - Joe Wilson Pool

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Lammersvile Historic Schoolhouse									
	MR	$250,000	$37,500	$287,500	Provide parking lot	X		X	Provide a dedicated parking lot.
	I	$40,000	$6,000	$46,000	Site renovations		X		Replace rotted canopy posts. Repaint canopy post signage. Clean and maintain adjacent ground cover.
	I	$60,000	$9,000	$69,000	Landscaping renovations	X			Renovate landscaping around schoolhouse.
	I	$90,000	$13,500	$103,500	Exterior renovations		X		Repair damaged wooden floorboards at porch and ramp. Repaint boards and exterior envelope. Replace roof shingles and gutters.
	I	$8,000	$1,200	$9,200	Structural investigation	X			Perform investigation related to minor cracking at exterior foundation.
	I	$75,000	$11,250	$86,250	Structural Renovations	X		X	Repair minor cracking surrounding foundation.
	I	$5,000	$750	$5,750	Interior renovations		X		Polish wood flooring at entrance.
	I	$5,000	$750	$5,750	Handrail addition		X		Install handrails at stairs.
	ADA	$10,000	$1,500	$11,500	ADA improvements		X		Move furniture to allow accessible path. Adjust mounting heights for interior accessories.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$624,450	$402,500	$103,500		$95,450	$11,500		$11,500

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$287,500	$325,450	$11,500	N/A	**$624,450**

Deferred Maintenance Project Cost - Sports Complex

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Sport Complex									
	MR	$250,000	$37,500	$287,500	Site renovations	X		X	Repave parking lot. Repaint striping, pavement parking and curb paint. Repaint adjacent sidewalk and short black gate.
	I	$8,000	$1,200	$9,200	Landscape improvements		X		Re-seed grass areas
	I	$40,000	$6,000	$46,000	Exterior maintenance		X		Clean roof surface. Paint chipped areas. Clean exterior siding. Replace exterior mounted lighting fixtures. Replace awning surfaces.
	I	$20,000	$3,000	$23,000	Door maintenance		X		Replace aluminum entrance doors including locksets. Reseal lsealants at door thresholds to main restrooms. Resurface interior doors.
	I	$8,000	$1,200	$9,200	Structural investigation	X			Investigate cause of foundation cracking and CMU siding cracking.
	I	$75,000	$11,250	$86,250	Structural improvements	X		X	Repair to cracking at foundation and exterior.
	I	$35,000	$5,250	$40,250	Interior renovations		X		Replace interior vinyl tile flooring. Replace ceiling tile system
	I	$5,000	$750	$5,750	MEP maintenance		X		Replace housing for exterior AC unit.
	ADA	$40,000	$6,000	$46,000	ADA improvements		X	X	Replace and relocate main restroom fixturues and replace accessibility signage at parking lot asphalt.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$553,150	$296,700	$69,000		$95,450	$40,250	$5,750	$46,000

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$287,500	$219,650	$46,000	N/A	**$553,150**

Deferred Maintenance Project Cost - Tracy Museum

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Tracy Museum									
	MR	$200,000	$30,000	$230,000	Site renovations	X		X	Refine landscaping. Repave and resurface adjacent portions of road. Repair cracking at concrete steps. Clean rusted wheel mechanicm and repair metal fencing at sliding gate.
	I	$150,000	$22,500	$172,500	Exterior renovations	X			Clean and paint exterior envelope including frames. Replace single pane windows with double paned glass.
	I	$35,000	$5,250	$40,250	Roof maintenance		X		Repair damage at roof
	I	$20,000	$3,000	$23,000	Roof structure	X		X	Assess structural integrity of roofing system and repair cracking.
	I	$100,000	$15,000	$115,000	Interior renovations	X			Replace stained ceiling tiles. Replace flooring at museum level.
	MR	$125,000	$18,750	$143,750	Plumbing system	X			Investigate and repair causes of leakage.
	ADA	$50,000	$7,500	$57,500	ADA improvements	X		X	Resurface sidewalk slope and ramp towards entrance. Install additional truncated domes.
	CIP		$0	$0	CIP Expansion Renovation	X		X	

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$782,000	$230,000	$172,500	$63,250		$115,000	$143,750	$57,500

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$373,750	$350,750	$57,500	$0	**$782,000**

Deferred Maintenance Project Cost - Grand Theatre

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Grand Theatre									
	I	$150,000	$22,500	$172,500	Site renovations	X		X	Repair cracking at exterior site curbing, and re-surface alleyway.
	MR	$350,000	$52,500	$402,500	Exterior renovations	X		X	Modernize exterior signage. Add exterior lighting. Replace the large metal door located at the alley area including track components.
	I	$130,000	$19,500	$149,500	Structural investigation	X			Perform structural investigation as to cracking.
	MR	$750,000	$112,500	$862,500	Structural maintenance	X		X	Protect exposed structure in mechanical areas. Reconstruct wood structure where needed. Repair cracking in concrete at office area. Repair cracking of concrete flooring in orchestra pit.
	MR	$1,000,000	$150,000	$1,150,000	Interior renovations	X		X	Realign ceiling tiles. Repace worn theatre seats. Reapply sound deadening material at stage. Refinish flooring at Black Box Theatre. Replace VCT at restroom floors. Replace ceiling tiles in gift shop. Clean grout at tile in art area and restroom at 2nd story.
	I	$60,000	$9,000	$69,000	MEP maintenance		X		Add lateral and longitudinal non-structual bracing to large ductwork in MEP access area. Replace backflow preventer in same area.
	MR	$300,000	$45,000	$345,000	New fire sprinklers	X		X	Replace RCM fire sprinkler system located in alleyway.
	ADA	$100,000	$15,000	$115,000	ADA improvements	X			Make minor dimensional fixes to handrails throughout lobby and clear floor spaces in work areas to meet ADA requirement.
	CIP	$5,000,000	$750,000	$5,750,000	CIP Space Renovation	X		X	Capital dedicated to rearrangement of interior office spaces aligning to future needs.

Deferred Maintenance Project Cost - Grand Theatre (Continued)

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Joe Wilson Pool									
	I	$25,000	$3,750	$28,750	Exterior maintenance		X		Clean out gutters and paint metal fascia and re-grout some exterior tiles.
	I	$15,000	$2,250	$17,250	Cracking investigation			X	Investigate cause of cracking. Repair not anticipated.
	I	$75,000	$11,250	$86,250	Interior renovations		X		Replace tiling at kitchen flooring. Update lighting system at reception. Repaint concrete blocks and grout in locker rooms.
	ADA	$5,000	$750	$5,750	ADA improvements		X		Repaint ADA parking stalls and symbols.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$3,266,000	$172,500	$402,500		$1,012,000	$1,150,000	$414,000	$115,000

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$2,760,000	$391,000	$115,000	$5,750,000	**$9,016,000**

Deferred Maintenance Project Cost - Lammersville School

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Old Corp Yard									
	I	$100,000	$15,000	$115,000	Repave Corporation Yard Site	X			
	UR&R		$0	$0	Exterior envelope improvements	X		X	Replace entrance doors on both facilities.
	I	$40,000	$6,000	$46,000	Roofing improvements				Provide new roof for both facilities.
	UR&R		$0	$0	Structural Repair - Design Only				
	I	$100,000	$15,000	$115,000	Interior Renovations	X		X	Renovate ACT ceiling tile system. Remove rust stains from interior walls and paint. Provide other modernizations as needed.
	ADA		$0	$0	ADA improvements		X		

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$276,000	$115,000	$0	$46,000	$0	$115,000		$0

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
N/A	$276,000	$0	N/A	**$276,000**

Deferred Maintenance Project Cost - Tracy Townhall & Jail

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Tracy Townhall & Jail									
	I	$5,000	$750	$5,750	Site renovations		X		Paint side gate and clean concrete.
	I	$120,000	$18,000	$138,000	Exterior renovations	X		X	Fill grout between bricks that are beginning to separate. Paint or repair discolored or chipped masonry. Replace window frames. Add exterior lighting.
	I	$100,000	$15,000	$115,000	Interior renovations	X		X	Refinish hardwood floors. Repair ceiling cracks. Modernize restroom. Refinish walls of storage area.
	ADA	$30,000	$4,500	$34,500	ADA improvements	X		X	Improve entrance threshold. Relocate and replace various restroom elements.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$293,250	$5,750	$138,000			$115,000		$34,500

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
N/A	$258,750	$34,500	N/A	**$293,250**

Deferred Maintenance Project Cost -Old Corp Yard

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Police Annex									
	I	$150,000	$22,500	$172,500	Parking site improvements	X		X	Repave lot, repaint striping and control box for electronic gate in police service vehicle parking area. Replace garage door.
	I	$50,000	$7,500	$57,500	Exterior renovations		X	X	Repaint concrete masonry exterior. Replace mounted light fixtures. Provide protection for exterior door sills.
	MR	$200,000	$30,000	$230,000	Interior renovations	X		X	Repair cracks in concrete flooring and utility closet wall in previous jail area. Repair and repaint metal doors, replace sink, and add lighting in same area. Remove ceiling stains and replace tiles. Clean carpeting and replace VCT flooring. Add lighting to public lobby area.
	I	$12,500	$1,875	$14,375	MEP maintenance		X		Add bracing to exposed ductwork.
	MR	$150,000	$22,500	$172,500	Boiler replacement	X		X	Replace boiler system.
	I	$75,000	$11,250	$86,250	Fire sprinkler renovations	X		X	Re-plumb some fire sprinkler heads and replace exterior sprinkler valves.
	ADA	$20,000	$3,000	$23,000	ADA improvements		X		Rebuild kitchenettes to provide adequate knee space.
	CIP	$3,000,000	$450,000	$3,450,000	CIP Space Renovation	X		X	Capital dedicated to future swing space renovations.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$756,125	$172,500	$57,500			$230,000	$273,125	$23,000

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$402,500	$330,625	$23,000	$3,450,000	**$4,206,125**

Deferred Maintenance Project Cost - Boyd Service Center

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Boyd Service Center - Overall									
	CIP	$20,000,000	$3,000,000	$23,000,000	CIP Expansion Renovation	X		X	Capital dedicated to reorganize Boyd Service Center site and expand with new shops.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$23,000,000	_	_	$23,000,000	**$46,000,000**

Deferred Maintenance Project Cost - Boyd Service Center A - Administration

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Boyd Service Center - Overall									
	CIP	$20,000,000	$3,000,000	$23,000,000	CIP Expansion Renovation	X		X	Capital dedicated to reorganize Boyd Service Center site and expand with new shops.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$23,000,000	_	_	$23,000,000	**$46,000,000**

Deferred Maintenance Project Cost - Boyd Service Center B - Maintenance Shops

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Boyd Service Center - Overall									
	CIP	$20,000,000	$3,000,000	$23,000,000	CIP Expansion Renovation	X		X	Capital dedicated to reorganize Boyd Service Center site and expand with new shops.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$23,000,000	_	_	$23,000,000	**$46,000,000**

Deferred Maintenance Project Cost - Boyd Service Center C - Maintenance Shops

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Boyd Service Center - Overall									
	CIP	$20,000,000	$3,000,000	$23,000,000	CIP Expansion Renovation	X		X	Capital dedicated to reorganize Boyd Service Center site and expand with new shops.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$23,000,000	_	_	$23,000,000	**$46,000,000**

Deferred Maintenance Project Cost - Boyd Service Center D - Warehouse Building

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Boyd Service Center - Overall									
	CIP	$20,000,000	$3,000,000	$23,000,000	CIP Expansion Renovation	X		X	Capital dedicated to reorganize Boyd Service Center site and expand with new shops.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$23,000,000	_	_	$23,000,000	**$46,000,000**

Deferred Maintenance Project Cost - Boyd Service Center E - Fleet Shop

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Boyd Service Center - Overall									
	CIP	$20,000,000	$3,000,000	$23,000,000	CIP Expansion Renovation	X		X	Capital dedicated to reorganize Boyd Service Center site and expand with new shops.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$23,000,000	_	_	$23,000,000	**$46,000,000**

Deferred Maintenance Project Cost - Boyd Service Center - Old Transit Center Shops

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Boyd Service Center - Overall									
	CIP	$20,000,000	$3,000,000	$23,000,000	CIP Expansion Renovation	X		X	Capital dedicated to reorganize Boyd Service Center site and expand with new shops.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$23,000,000	_	_	$23,000,000	**$46,000,000**

Deferred Maintenance Project Cost - 3 Series Hangars

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
3 Series Hangars									
	MR	$500,000	$75,000	$575,000	Site improvements	X		X	Resurface site pavement. Site drainage improvements.
	I	$10,000	$1,500	$11,500	Exterior envelope and signage		X		Paint exterior envelope and provide new signage.
	I	$75,000	$11,250	$86,250	Structural refinish	X		X	Refinish rusted structural elements.
	I	$10,000	$1,500	$11,500	Ceiling completion - Office		X		Provide completed acoustic ceiling tile system in airport office.
	MR	$250,000	$37,500	$287,500	Site water line (3 &4)	X			Provide a water line at site for 3 and 4 Series hangars.
	I	$15,000	$2,250	$17,250	Conduit replacement		X		Replace rusted conduit at exterior.
	ADA	$20,000	$3,000	$23,000	ADA Design	X			ADA Design for required improvements to Airport Office and Pilot's Lounge
	ADA	$100,000	$15,000	$115,000	ADA Project	X		X	ADA project for required improvements to Airport Office and Pilot's Lounge.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$1,127,000	$575,000	$11,500		$86,250	$11,500	$304,750	$138,000

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$862,500	$126,500	$138,000	N/A	**$1,127,000**

Deferred Maintenance Project Cost - 4 Series Hangars

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
4 Series Hangars									
	MR	$500,000	$75,000	$575,000	Site improvements	X		X	Resurface site pavement. Site drainage improvements.
	I	$10,000	$1,500	$11,500	Exterior envelope and signage		X		Paint exterior envelope and provide new signage.
	I	$75,000	$11,250	$86,250	Structural rusting refinish	X		X	Refinish rusted structural elements.
	I	$50,000	$7,500	$57,500	Pilot's Lounge Interior Renovations	X		X	Provide upgrade to Pilot's lounge interior.
	I	$15,000	$2,250	$17,250	Conduit replacement		X		Replace rusted conduit at exterior.
	ADA	$100,000	$15,000	$115,000	Pilot's Lounge ADA Project	X		X	ADA project for required improvements to Airport Office and Pilot's Lounge.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$862,500	$575,000	$11,500		$86,250	$57,500	$17,250	$115,000

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$75,000	$172,500	$115,000	N/A	**$362,500**

Deferred Maintenance Project Cost - B Series Hangars

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
B Series Hangars									
	I	$10,000	$1,500	$11,500	Structural rot investigation	X		X	Investigation of extent of structural rot and rehabilitation options.
	I	$100,000	$15,000	$115,000	Structural Rehab Design	X		X	Replacement of rotted structural elements.
	I	$7,500	$1,125	$8,625	Floor stain refinish		X		Clean stains on interior concrete flooring.
	I	$4,000	$600	$4,600	Non-structural E support		X		Replace rusted support elements from exterior ground mounted transformer.
	ADA	$50,000	$7,500	$57,500	Provide accessible parking	X		X	
	ADA	$5,000	$750	$5,750	Clear floor space		X	X	Clear floor space to meet ADA.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$202,975				$126,500	$8,625	$4,600	$63,250

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
N/A	$139,725	$63,250	N/A	**$202,975**

Deferred Maintenance Project Cost - F Series Hangars

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
F Series Hangars									
	I	$15,000	$2,250	$17,250	Repaint exterior		X		Repaint exterior façades in the same color.
	I	$10,000	$1,500	$11,500	Roofing maintenance		X		Clean and apply protection to flat roofs.
	I	$15,000	$2,250	$17,250	Structural Repair - Design Only	X			Design for rust repair for various elements.
	I	$100,000	$15,000	$115,000	Rust removal	X		X	Repair rusted areas of the hangar including entrance thresholds and door components.
	I	$15,000	$2,250	$17,250	Door latches		X	X	Replace rusted door latch system.
	I	$100,000	$15,000	$115,000	Parts fabrication	X		X	Order fabricated parts for rusted components throughout hangar including tow hitches.
	I	$7,500	$1,125	$8,625	Interior cleaning		X		Clean interior floors and interior lighting lenses.
	I	$5,000	$750	$5,750	Lighting fixture addition		X		Add photocell lighting fixtures directly to hangars.
	I	$35,000	$5,250	$40,250	Site utility and MEP investigation	X			Investigate cause of and repair for leaks.
	MR	$350,000	$52,500	$402,500	Site utility and MEP repair	X			Repair related to underground leaks.
	ADA	$125,000	$18,750	$143,750	ADA improvements	X			Clear floor space and modify door operations and threshold to meet ADA.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$894,125		$17,250	$11,500	$132,250	$140,875	$448,500	$143,750

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$402,500	$347,875	$143,750	N/A	**$894,125**

Deferred Maintenance Project Cost - G Series Hangars

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
G Series Hangars									
	I	$100,000	$15,000	$115,000	Sliding door repair	X		X	Repair mechanical issues with exterior sliding door tracks.
	I	$15,000	$2,250	$17,250	Weatherproofing maintenance		X		Repair weatherproofing at door bases to be plumb.
	I	$7,500	$1,125	$8,625	Floor stain refinish		X		Clear stains on interior concrete flooring.
	ADA	$125,000	$18,750	$143,750	ADA improvements	X		X	Clear floor space and modify door threshold to meet ADA requirements.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$284,625		$132,250			$8,625		$143,750

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
N/A	$140,875	$143,750	N/A	**$284,625**

Deferred Maintenance Project Cost - Skyview Aviation

Building	Priority	Base Cost	General Contingency (15%)	Escalated Cost w/ General Contingency	Project	CIP	Maintenance	Further Analysis	Additional Project Description
Skyview Aviation									
	MR	$500,000	$75,000	$575,000	Site improvements	X		X	Alter site drainage so water flows away from the building and repaint parking stalls.
	I	$17,500	$2,625	$20,125	Exterior renovations		X		Repaint exterior metal siding.
	I	$20,000	$3,000	$23,000	Door Tracks	X		X	Install properly sized tracks for large sliding doors.
	I	$85,000	$12,750	$97,750	Roof renovations	X			Replace roof and skylight panels.
	I	$15,000	$2,250	$17,250	Structural investigation	X			Investigate proper repair to unique structural deterioration.
	MR	$200,000	$30,000	$230,000	Structural Repair	X		X	Tighten straps holding arch of structure at exterior and perform additional structural investigation at gate tracks. Repair hangar structure.
	I	$80,000	$12,000	$92,000	Interior improvements	X		X	Modernize interior lighting. Provide new flooring for admin and office areas.
	MR	$150,000	$22,500	$172,500	MEP Renovations	X		X	Replace out of service HVAC units located on-site near parking.
	ADA	$125,000	$18,750	$143,750	ADA improvements	X	X	X	Replace and relocate many toilet accessories. Create new ADA compliant restroom.

Summary by Project Type

DEFFERED MAINTENANCE TOTAL	Site	Exterior Envelope	Roofing	Structure	Interior Elements	MEP systems	ADA
$1,371,375	$575,000	$43,125	$97,750	$247,250	$92,000	$172,500	$143,750

Summary by Priority

Major Renovations	Infrastructure Improvements	ADA Compliance	CIP	TOTAL
$977,500	$250,125	$143,750	N/A	**$1,371,375**

APPROVED AS TO FORM AND LEGALITY

_____
CITY ATTORNEY'S OFFICE

TRACY CITY COUNCIL

RESOLUTION 2024-_____

ADOPTING A RESOLUTION (1) APPROVING THE CITYWIDE WATER SYSTEM MASTER PLAN UPDATE, (2) APPROVING THE CITYWIDE PUBLIC SAFETY MASTER PLAN UPDATE, (3) APPROVING THE CITYWIDE PUBLIC FACILITIES MASTER PLAN UPDATE, AND (4) DETERMINING THAT THE UPDATES ARE EXEMPT FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT PURSUANT TO CEQA GUIDELINES SECTION 15183.

WHEREAS, the City's General Plan was adopted in 2011; and

WHEREAS, the City's existing Water Master Plans were approved in January 2013; and

WHEREAS, the City's existing Public Safety and Public Facilities Master Plans were approved in April 2013; and

WHEREAS, the City has incorporated many general plan amendments since the 2011 adoption and has seen a significant increase in residential and commercial development; and

WHEREAS, the Master Plan updates evaluate the infrastructure needed to support new development in the City of Tracy and determine the costs associated with the necessary infrastructure; and

WHEREAS, the Citywide Water System Master Plan (CWSMP) update provides an evaluation of the required backbone potable water and recycled water system facilities required to serve the City's existing and future needs; and

WHEREAS, the City of Tracy initiated the Citywide Public Safety Master Plan (CPSMP) update to maintain a clear statement of community objectives for public safety, establish a vision of the future, and include strategies to achieve that vision; the final draft of the CPSMP update promotes a future land use pattern that is consistent with the community's long-range goals; and

WHEREAS, the Citywide Public Facilities Master Plan (CPFMP) update provides a comprehensive update to the 2013 Citywide Public Facilities Master Plan by evaluating the condition of existing public facilities and determining current and future public facility needs; and

WHEREAS, there is no impact to the General Fund from approval of the Master Plan updates; the cost of completion of the updates was funded from program management fees collected through our development impact fee program; the cost of construction of the physical infrastructure listed in the Master Plan updates will be borne by the developments through

development impact fees or other funding mechanisms without any impact to the City's General Fund; and

WHEREAS, the existing development impact fees for the CWSMP, CPSMP, and CPFMP shall remain in effect until the City completes its updated cost of service analysis (Nexus Study) for the updates; it is anticipated that Council will consider the Nexus Study later in 2024; and

WHEREAS, the updates are exempt from the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines section 15183 Projects Consistent with a Community Plan, General Plan, or Zoning because all potentially significant effects have been analyzed adequately in the 2011 General Plan EIR (Environmental Impact Report) pursuant to applicable standards, and have been avoided or mitigated pursuant to the 2011 General Plan EIR, and there are no new significant environment effects or impacts resulting from these master plans that were not known or studied at the time of that EIR; in addition, this update is a policy document prepared to implement the objectives and actions identified in the General Plan and does not propose the immediate construction and operation of new facilities or infrastructure projects at this time. Consequently, the adoption of this update would not directly result in the construction and operation of infrastructure that could have negative environmental effects; the referenced environmental documentation is available for review on the City's website; now, therefore, be it

RESOLVED: That the City Council hereby finds and determines that the project is exempt from the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines Section 15183 because all potentially significant effects have been analyzed adequately in the 2011 General Plan EIR pursuant to applicable standards, and have been avoided or mitigated pursuant to the 2011 General Plan EIR, and there are no new significant environment effects or impacts resulting from this Master Plan that were not known or studied at the time of that EIR; and be it

FURTHER RESOLVED: That the City Council adopts the Citywide Water System Master Plan Update attached hereto as Attachment A; and be it

FURTHER RESOLVED: That the City Council adopts the Citywide Public Safety Master Plan Update attached hereto as Attachment B; and be it

FURTHER RESOLVED: That the City Council adopts the Citywide Public Facilities Master Plan Update attached hereto as Attachment C.

* * * * * * * * * * * * * *

The foregoing Resolution 2024-_____ was adopted by the Tracy City Council on the 16th day of April 2024 by the following vote:

AYES:	COUNCIL MEMBERS:
NOES:	COUNCIL MEMBERS:
ABSENT:	COUNCIL MEMBERS:
ABSTENTION:	COUNCIL MEMBERS:

_____
NANCY D. YOUNG
Mayor of the City of Tracy, California

ATTEST: _____
ADRIANNE RICHARDSON
City Clerk and Clerk of the Council of the
City of Tracy, California

ATTACHMENTS:

Attachment A – Citywide Water System Master Plan Update
Attachment B – Citywide Public Safety Master Plan Update
Attachment C – Citywide Public Facilities Master Plan Update

Master Plan Updates

Overview

April 16, 2024

Master Plan Updates

- Previous Master Plans were completed in 2012/2013
  - Water, Public Safety, Public Facilities
- Why Update?
  - The City has incorporated several General Plan amendments that identify existing and new areas of development within and around the existing City limits
  - The City has experienced significant residential and commercial development (Tracy Hills, Ellis, International Park of Commerce/Cordes Ranch)
- Evaluation of current City infrastructure and the new infrastructure needed to support new development. Determination of the costs associated with the new infrastructure.

TRACY

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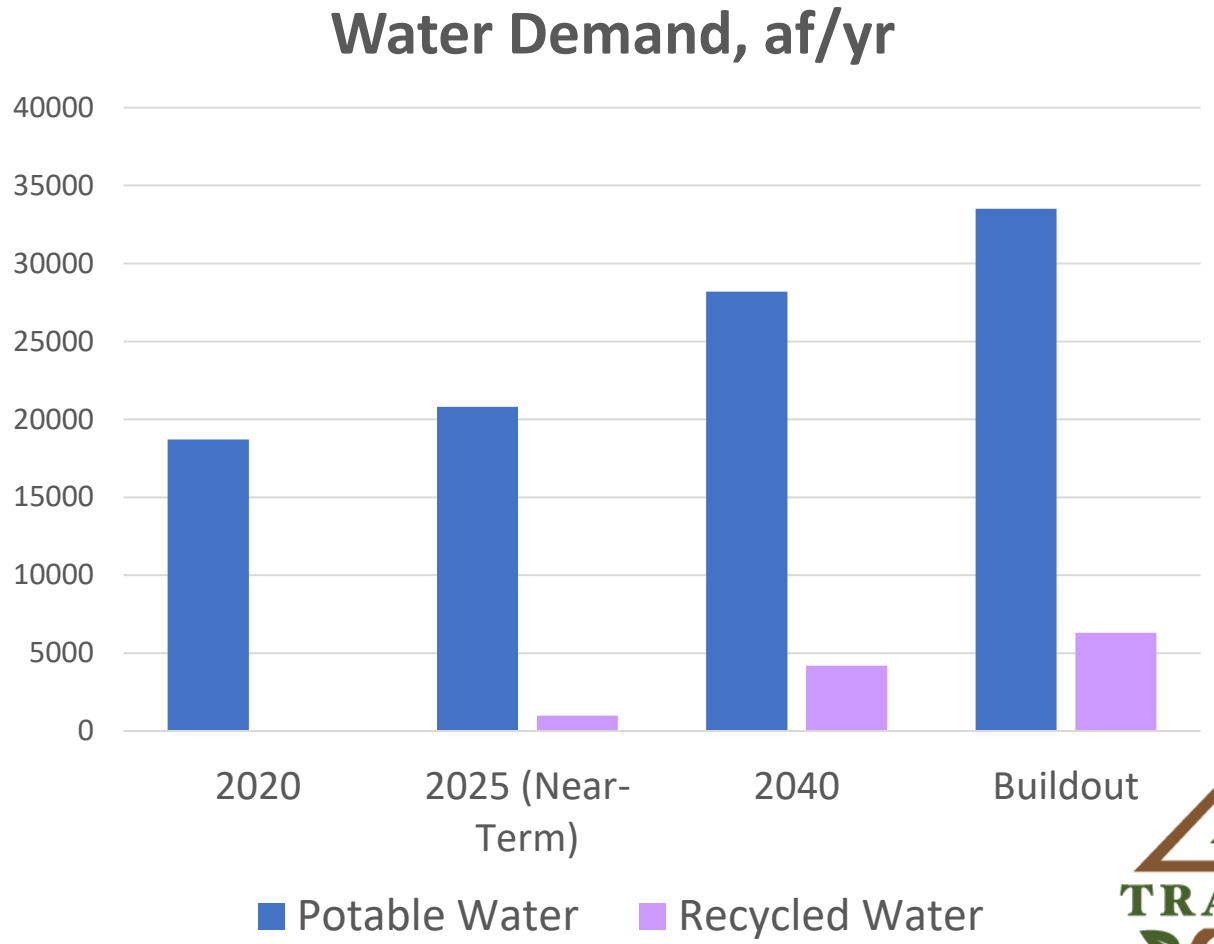
Water Master Plan Update

TRACY

Think Inside the Triangle™

Projected Water Demands

- 2012 Water Master Plan
  - Buildout Demand
    - Potable: 36,200 af/yr
    - Recycled: 7,500 af/yr
- 2023 Water Master Plan Update
  - Buildout Demand
    - Potable: 33,500 af/yr
    - Recycled: 6,300 af/yr



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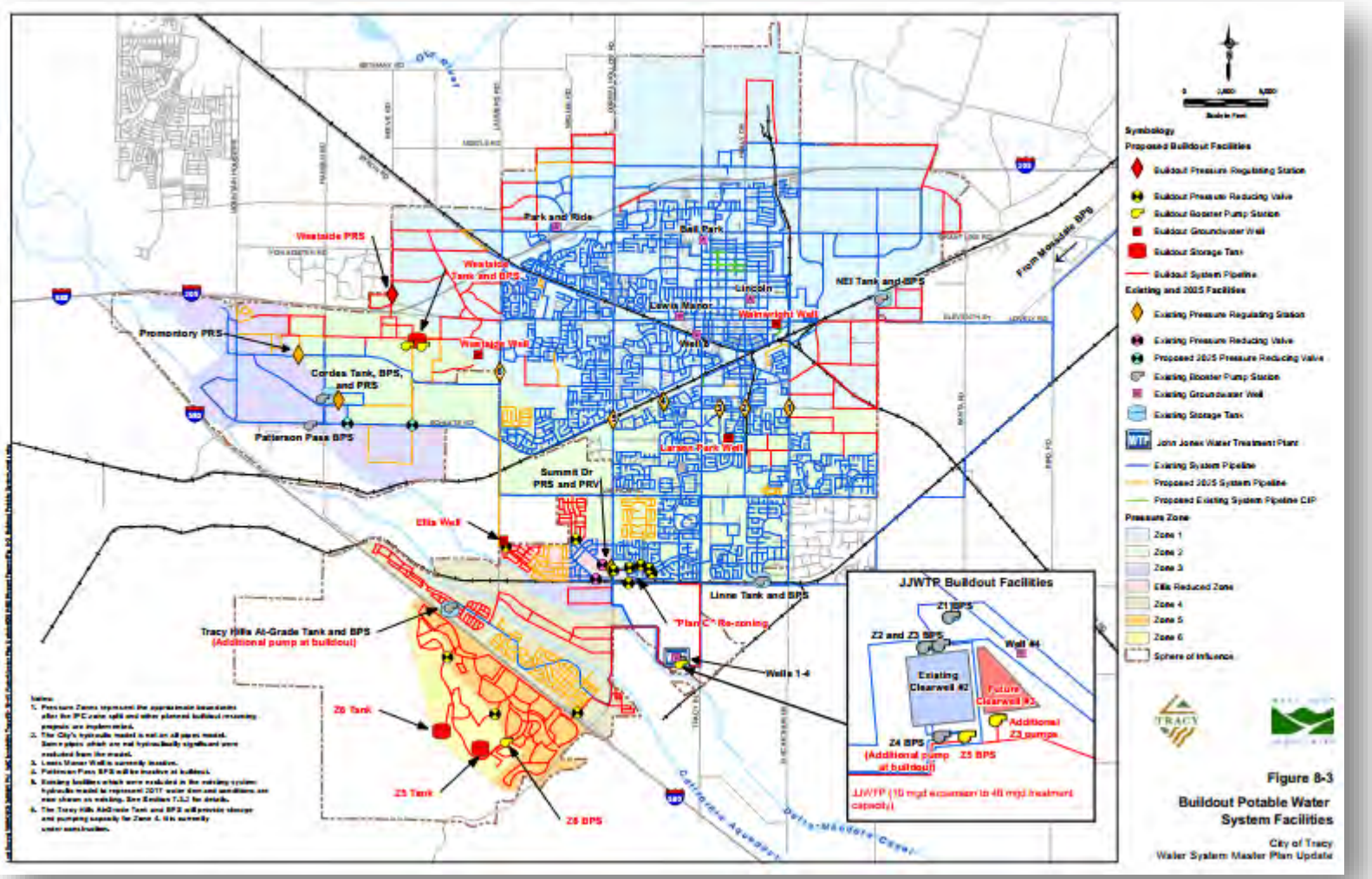
Recommended Potable Water System Improvements



- New Storage Tanks
- New ASR Wells
- New Transmission and Distribution Pipelines
- Expansion of John Jones Water Treatment Plant

Think Inside the Triangle™

Recommended Recycled Water System Improvements

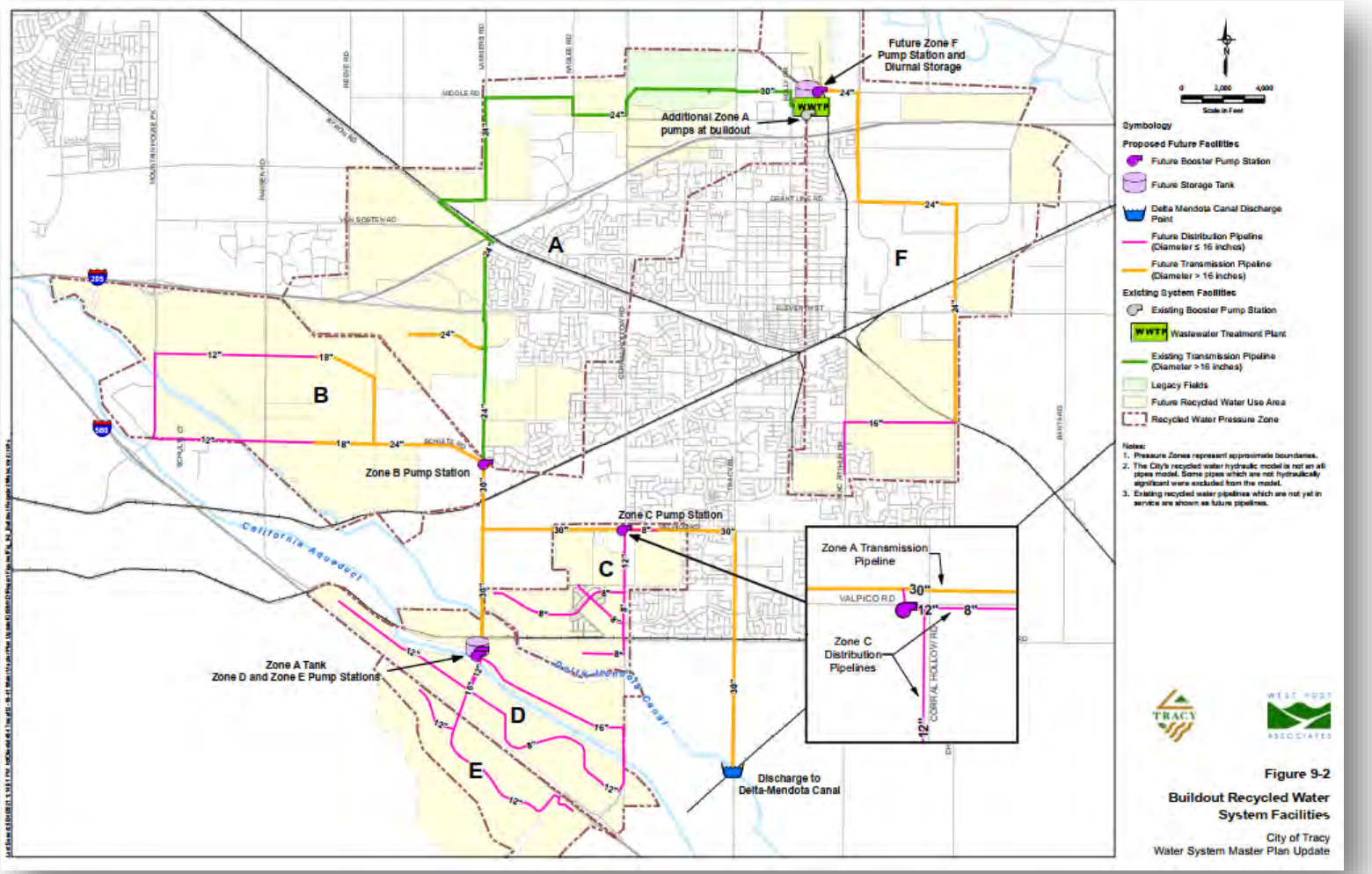


Figure 9-2
Buildout Recycled Water System Facilities
City of Tracy
Water System Master Plan Update

- Additional Pump Stations and Storage Tank
- Additional Transmission and Distribution Pipelines
- Discharge Pipeline to DMC for Exchange Program

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Summary of Water System Recommendations

- Potable Water System
  - Improvements to existing facilities to address existing deficiencies
  - New infrastructure to serve projected new development areas
- Recycled Water System
  - Focus on new infrastructure to serve projected new development areas
  - New infrastructure for recycled water exchange program
- Water Supply
  - Participation in Los Vaqueros Reservoir Expansion Project and B.F. Sisk Dam Raise & Reservoir Expansion Project for additional water storage
  - Expansion of John Jones Water Treatment Plant for additional water supply reliability and flexibility and future staffing needs
  - New ASR wells for storage of water in wet years for use in dry years
  - Update Water Master Plan as needed if water supply conditions change

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Public Safety Master Plan Update

April 16, 2024

TRACY

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Public Safety Master Plan

- Re-evaluate City of Tracy Public Safety Facilities and Response Capability, including
- Reassess “Current” Conditions. (Note: this Master Plan Update is not for maintenance.)
- Confirm Space Standards & Functional Flow.
- Update Staffing and space Need Projections.
- Compare Tracy to Peer Communities.
- Explore Alternative Facility Plans.
- Update Cost Estimates.
- Reassess Project Phasing Strategy.

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POLICE FACILITIES

TRACY

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To serve new development, this Master Plan Update identifies upgrades to the following existing Police Facilities:

- Public Safety Facility,
- John Serpa Training Facility, and
- Animal Shelter.

This Update also proposes the demolition of the Old Police Facility and letting go of the leased North Annex Facility.

Animal Shelter
(2015, **To Be Expanded** - 9,700 sf)
2375 Paradise Road.

North Annex Facility
(Leased, **To Be Let Go** – 16,800 sf)
1325 N MacArthur Drive, Property Storage

Public Safety Facility
(1996, **To Be Renovated & Expanded** – 27,600 sf) 1000 Civic Center Dr.

Old Tracy Police Facility
(1979, **To Be Demolished** - 9,800 sf)
400 E. 10th Street, Special Investigations Div

Capt. John J. Serpa Memorial Training Facility
(2,300 sf, 2 acres, **To Be Renovated & Expanded**) 6649 S. Tracy Blvd.

PROPOSED PD FACILITIES

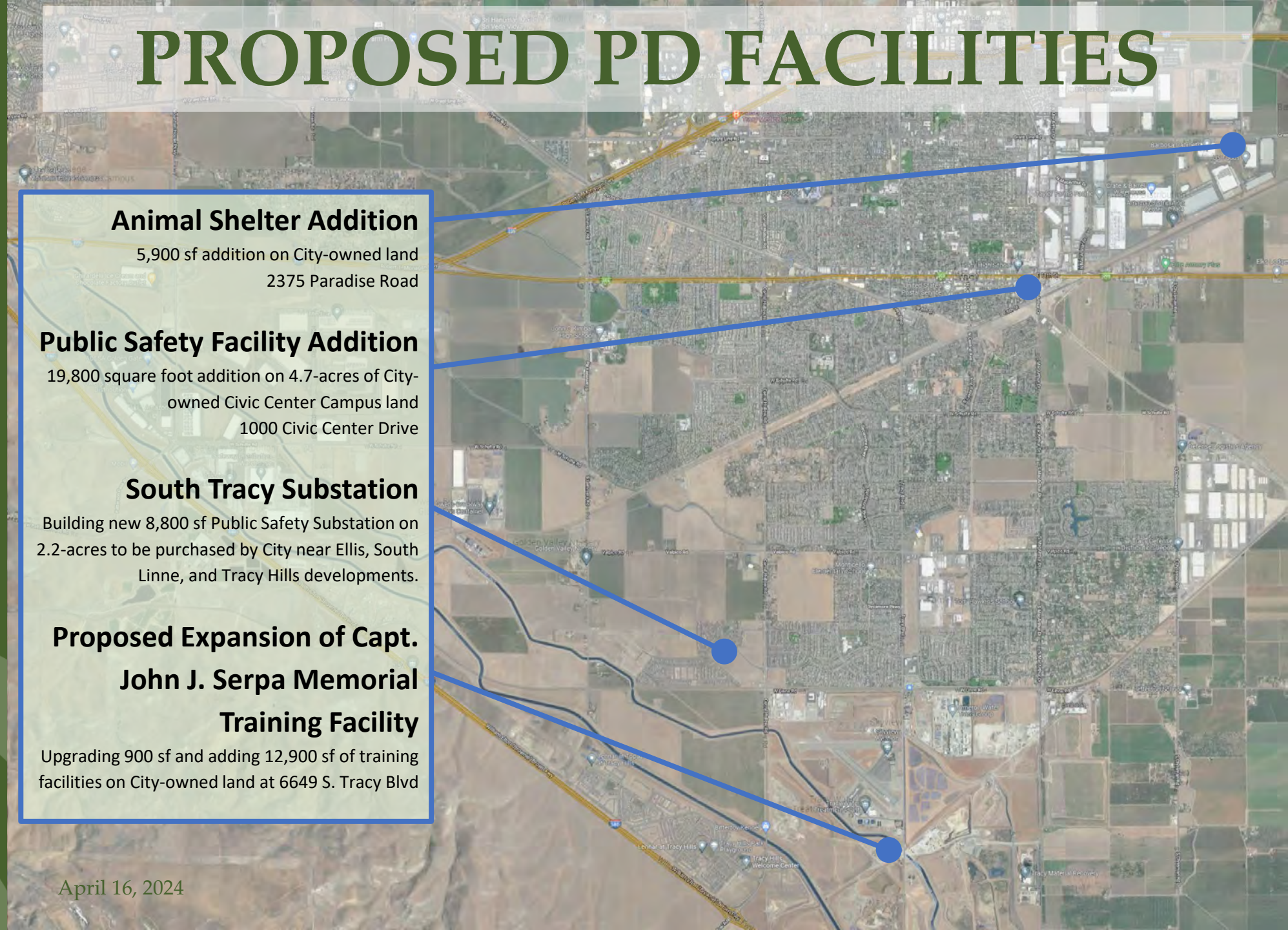
TRACY

Think Inside the Triangle™

To serve new development, this Master Plan Update identifies expansion of the following existing Police Facilities:

- Public Safety Facility,
- John Serpa Training Facility, and
- Animal Shelter.

This Update also proposes the addition of a new Substation to serve the south and west parts of town.



Animal Shelter Addition

5,900 sf addition on City-owned land
2375 Paradise Road

Public Safety Facility Addition

19,800 square foot addition on 4.7-acres of City-owned Civic Center Campus land
1000 Civic Center Drive

South Tracy Substation

Building new 8,800 sf Public Safety Substation on 2.2-acres to be purchased by City near Ellis, South Linne, and Tracy Hills developments.

Proposed Expansion of Capt. John J. Serpa Memorial Training Facility

Upgrading 900 sf and adding 12,900 sf of training facilities on City-owned land at 6649 S. Tracy Blvd

TRACY'S FIRE FACILITIES

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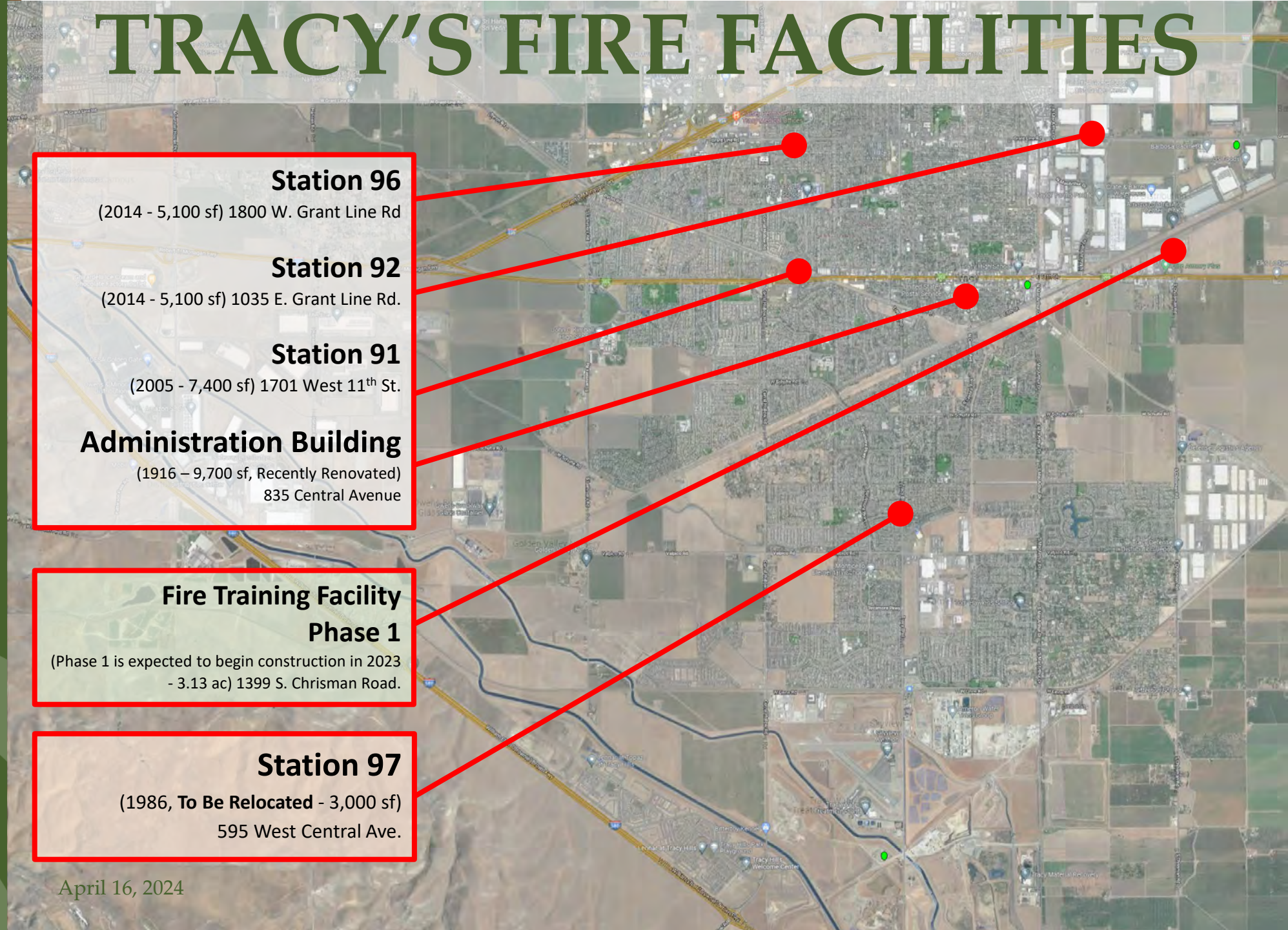
City Fire Stations 91, 92, and 96 shall continue to serve the north side of town.

Administration Building has recently been renovated.

Fire Training Facility Phase 1 is funded and expected to begin construction in 2023.

This Update relocates City Fire Station 97 to the south.



Station 96
(2014 - 5,100 sf) 1800 W. Grant Line Rd

Station 92
(2014 - 5,100 sf) 1035 E. Grant Line Rd.

Station 91
(2005 - 7,400 sf) 1701 West 11th St.

Administration Building
(1916 – 9,700 sf, Recently Renovated)
835 Central Avenue

Fire Training Facility Phase 1
(Phase 1 is expected to begin construction in 2023 - 3.13 ac) 1399 S. Chrisman Road.

Station 97
(1986, **To Be Relocated** - 3,000 sf)
595 West Central Ave.

April 16, 2024

PROPOSED TRACY FIRE FACILITIES

TRACY

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To serve new development in the south and west parts of town, this Master Plan Update identifies need for

- One new City Fire Station - #99
- One relocated City Fire Station - #97
- Fire Training Facility Phases 2+3 to expand the site to 5.13 acres and add offices, classroom, storage building, and training equipment.

Fire Training Facility Phases 2+3

Phases 2+3 will add 2 acres and 9,868 sf of facilities to Phase 1 – bringing total to 5.13 ac) 1399 S. Chrisman Road.

Proposed Relocated Tracy Fire Station 97

Building new 7,750 sf Fire Station on 2-acres near Valpico Rd with apparatus bay sized for ladder truck.

Proposed Tracy Fire Station 99

Building new 7,070 sf Fire Station on 0.9-acres near Ellis.

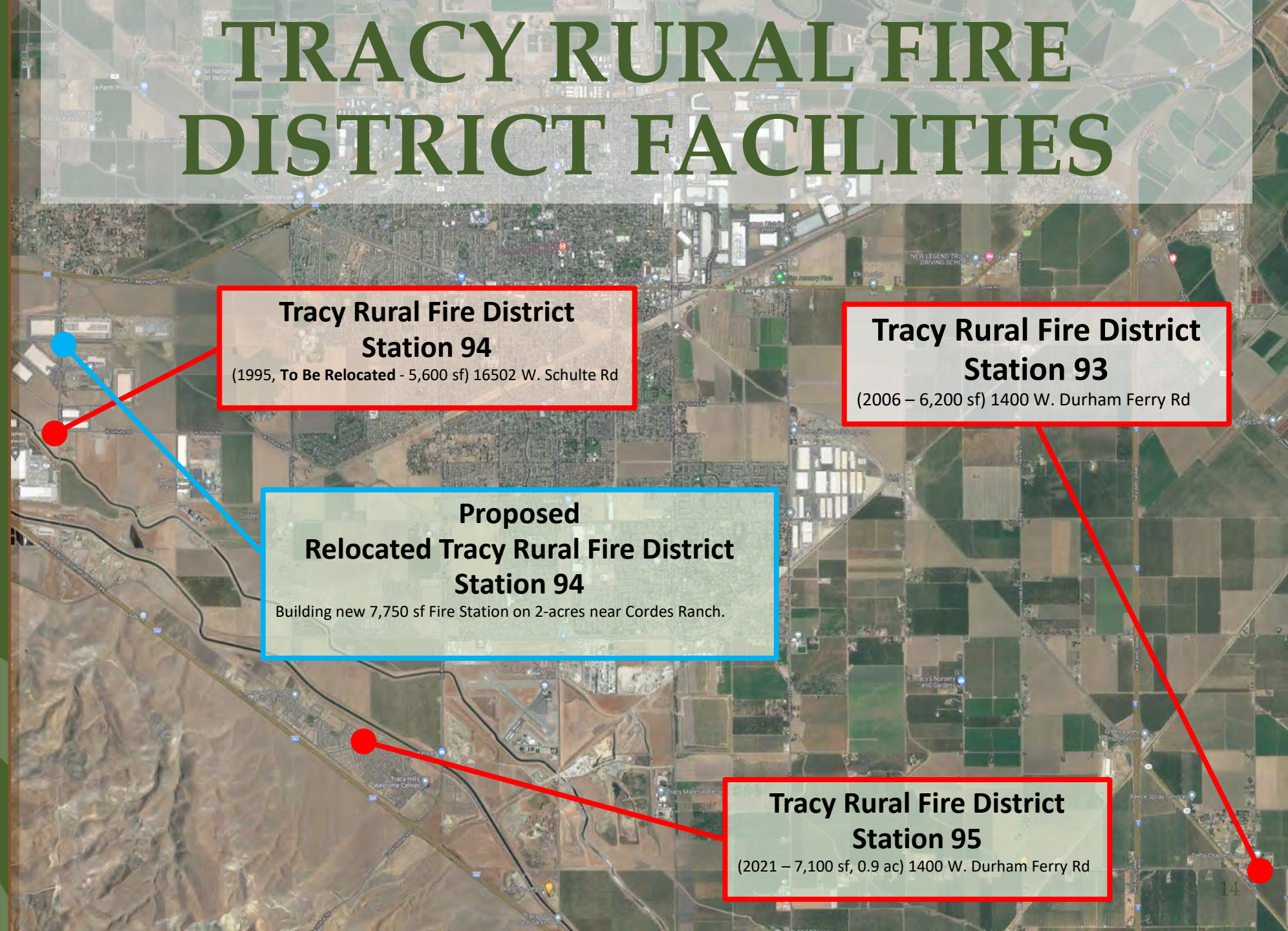
April 16, 2024

TRACY RURAL FIRE DISTRICT FACILITIES

Think Inside the Triangle™

To serve new development in the west part of rural Tracy, this Master Plan Update identifies need for

- Rural Fire District Station 94 to be relocated near Cordes Ranch with ladder truck capacity



Public Safety Costs

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Beginning 2023, all newly constructed buildings shall have a solar PV system installed. Here are the estimated additions.

- Fire: $2.5 million
- Police: $4.3 million
- Total: $6.8 million

- Fire: $50.6 million
- Police: $74.9 million
- Radio: $5.4 million
- Total: $130.8 million

KEY	PLACE NAME	2023 Total Project Cost
94	Fire Station 94 (Reloc. Cordes Ranch Area) incl. Ladder Bay	$12,472,000
95	Fire Station 95 (Tracy Hills Area)	$9,433,000
~~97~~	~~Fire Station 97~~ (To Be Relocated. Sell property.)	($451,350)
97	Fire Station 97 (Relocation - Valpico) incl. Ladder Bay	$10,872,000
99	Fire Station 99 (Ellis Area)	$8,561,000
T	Fire Training Facility - Phases 2 & 3	$9,672,000
	SUBTOTAL FIRE DEPARTMENT	**$50,558,650**
P	PD Remodel & Addition on Expanded Civic Center Site	$44,791,000
S	South Tracy Police Substation	$15,213,000
T	Police Department Training Facility	$7,053,000
D	Police Department Animal Shelter - Phase 2	$7,810,000
	SUBTOTAL POLICE DEPARTMENT	**$74,867,000**
RCT	Radio Communications Tower	$5,356,000
	SUBTOTAL COMMUNICATIONS FACILITIES	**$5,356,000**
	TOTAL PUBLIC SAFETY FACILITIES (rounded)	**$130,790,000**

Public Facilities Master Plan Update

TRACY

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Public Facilities Master Plan

- Align public facility goals with population growth
- Perform Facility Condition Assessments of public facilities
- Identify employee workspace needs
- Define future public facilities projects
- Define vision through Buildout for:
  - Civic Center
  - Boyd Service Center Corporation Yard

TRACY
Think Inside the Triangle™

Summary of Facilities Plan Recommendations

- Public Works Yard – Space Supplement
- Community Center – Requires Expansion
- Lolly Hansen Senior Center – Requires Expansion
- New Construction Projects
  - Aquatic Center
  - Multi-Generational Recreation Center
  - Administration Building at Civic Center
  - Library
  - Emergency Housing

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Master Plan Implementation

- Identify funding sources and obtain council approval for required funding for initial projects
- Set design schedules for major CIP projects
- Hire additional in-house staffing to align with growth of Tracy
- Hire additional in-house or consultant staffing to implement individual projects as needed
- Monitor design and construction of individual CIP projects to ensure on track and concurrent with planned projects
- Continue to update master plan every 9 to 12 years to ensure current needs and trends are incorporated
- Refine costs and budgeting during plan updates so that future accurate funding may be obtained

Cost Estimating

- Each new design, renovation or deferred maintenance project includes a 15% General Contingency and 10% additional contingencies for Design and Construction Management.

CIP New Construction Projects:	**$ 311,793,560**
CIP Renovation Projects:	**$ 20,815,000**
Deferred Maintenance Projects:	**$ 28,492,688**
Total Estimate:	**$ 361,101,248**

* Costs shown take into account other identified funding sources of $53,007,854 for the Aquatics Center and $73,000,000 for the Multi-Generational Recreation Center.

** CIP new construction costs are included in the Public Safety Master Plan and **are not included** in the CPFMP total.

TRACY
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Questions

TRACY

Think Inside the Triangle™

April 16, 2024

Agenda Item 3.B

RECOMMENDATION

Staff recommends that the City Council, by motion:

(1) Determine that the authorizing initial negotiation of a development agreement is categorically exempt from the California Environment Quality Act, pursuant to CEQA Guidelines Section 15061(b)(3);

(2) Authorize staff to negotiate a Development Agreement with the Tracy Alliance group, by and through Dermody Properties, related to property at the northeast corner of Grant Line and Paradise Roads.

EXECUTIVE SUMMARY

This agenda responds to a written request by the Tracy Alliance group to negotiate a Development Agreement (DA) with the City (attached hereto as Attachment A) for a proposed industrial development at Paradise and Grant Line Roads, south of I-205 adjacent to the City limits and the Northeast Industrial Area Specific Plan area. Dermody Properties is the party acting on behalf of the Tracy Alliance group. Pursuant to the City's DA procedures provided in Section I(F)(2) of the Tracy City Council Community Development Policy B-5, adopted by Resolution No. 2016-115 (see Attachment D) (DA Policy), a staff report, recommendation, and City Council authorization are required in order for the City to begin negotiations. Under the DA Policy, the City Council must determine "whether the applicant's proposed public benefits (beyond what is otherwise required for the project) warrant undertaking negotiations with the applicant."

BACKGROUND AND LEGISLATIVE HISTORY

Development agreements are contracts negotiated between project proponents and public agencies that govern land uses that may be allowed on a particular project and provide vested rights in the City's current development standards to project proponents. Government Code sections 65864-65869.5 authorize cities to enter into a DA, which the State law states is a means to "strengthen the public planning process, to encourage private participation in comprehensive long-range planning, and to reduce the economic costs of development."

Section I(B)(2) of the DA Policy requires ten (10) items for a complete application for a DA. Staff reviewed the application and confirmed that it met these requirements.

ANALYSIS

Request by Tracy Alliance to Negotiate a DA

Attachment A to the staff report is a letter from Dermody Properties requesting a DA and outlining the general category of public benefits proposed and the rationale for a DA.

The property that is the subject of this DA request is shown in Attachment B hereto. The site is located at the northeast corner of Grant Line and Paradise Roads (and adjacent to and south of I-205), contiguous with the City Limit line as well as the Northeast Industrial Specific Plan area. The project currently proposed is a modified version of the Tracy Alliance project that was

presented to City Council in November of 2023 for annexation and development that was not approved. This modified version of the project was submitted to address the concerns raised by some City Council Members, as well as the public and the Sierra Club. This version eliminates some of the development area closest to California Avenue and includes various design features, such as smaller buildings closest to the Banta community and draft designs for all the parcels involved. These changes (collectively, Enhanced Design Features) have allowed for a health risk assessment to be completed for the entirety of the site as a part of the upcoming environmental review process. A complete list of the proposed Enhanced Design Features is included in Attachment C.

In exchange for entering into a DA, the developer has offered the following possibilities for public benefit:

- Environmental fund focused on environmental projects
- Transportation-related improvements
- Park-related improvements
- Utility-related improvements (water and sewer facilities)

Per the DA Policy, the City Council "will consider the application and determine whether the proposed public benefits (beyond what is otherwise required for the project) warrant undertaking negotiations with the applicant."

Next Steps in the DA Process

Subject to City Council authorization, City staff would begin negotiating a DA with the Tracy Alliance Group. Once DA terms are finalized, the DA will be drafted and environmental review under the California Environmental Quality Act (CEQA) will be conducted for the draft DA together with the proposed development application, annexation, and specific plan amendment. The applications and the DA would then be placed on a noticed Planning Commission agenda for their consideration before returning to City Council for noticed hearings for final consideration.

FISCAL IMPACT

Should City Council authorize negotiations, the costs associated with negotiating and preparing a DA would be covered through a Cost Recovery Agreement.

Upon completing a draft DA, City staff will return with an expanded fiscal impact discussion, if any, of what the DA represents.

COORDINATION

This agenda item has not yet been reviewed by other departments or agencies, as it is only for Council to consider authorization of staff to initiate negotiation of a DA. Prior to any project consideration or environmental documentation moving forward for adoption, the project in its entirety will be reviewed by all the necessary departments, other public agencies, and the general public through the public hearing process.

CEQA DETERMINATION

Pursuant to CEQA Guidelines Section 15061(b)(3), the authorization to negotiate a DA is not a project under the California Environmental Quality Act and therefore no further action is required.

STRATEGIC PLAN

This agenda item is not related to the Council's Strategic Priorities.

ACTION REQUESTED OF THE CITY COUNCIL

Staff recommends that the City Council, by motion:

1) Determine that the authorizing initial negotiation of a development agreement is categorically exempt from the California Environment Quality Act, pursuant to CEQA Guidelines Section 15061(b)(3); and

2) Authorize staff to negotiate a Development Agreement with the Tracy Alliance group, by and through Dermody Properties, related to property at the northeast corner of Grant Line and Paradise Roads.

Prepared by: Victoria Lombardo, Senior Planner

Reviewed by: Scott Claar, Interim Assistant Director of Development Services
Sara Cowell, Finance Director
Bijal M. Patel, City Attorney
Karin Schnaider, Interim Director of Development Services / Assistant City Manager

Approved by: Midori Lichtwardt, City Manager

ATTACHMENTS

Attachment A – Letter from Dermody Properties requesting authorization to negotiate a DA
Attachment B – Location Map - Subject Property of DA request
Attachment C – List of proposed Enhanced Design Features
Attachment D – City Council Resolution No. 2016-115

DERMODY PROPERTIES

Dermody.com

February 9, 2024

Vicki Lombardo
City of Tracy, Planning Department
333 Civic Center Plaza
Tracy, California 95376

Email (Electronic Submittal): PlanningAdmin@CityofTracy.org

Re: Request for City Council to Authorize and Direct City Staff to Enter into Negotiations Regarding Development Agreement for the Modified Tracy Alliance – Northeast Business Park Project

Dear Planning Staff:

We are submitting a formal Application (electronically as required) to request the opportunity to negotiate a formal Development Agreement between the City and the subject property owners.

The site is adjacent to the City's Northeast Industrial Specific Plan (NEI Specific Plan). Our request includes annexation into the NEI Specific Plan. The site is also located within the City's Sphere of Influence ("SOI") and within the City's 10-year planning horizon.[1] It has been designated for "Industrial" uses by the City's General Plan since 1993.

The City of Tracy adopted Economic Development Strategic Plan, prepared by AECOM, describes the area as follows:

> "IV. AREA 6 Northeast Industrial
>
> This larger industrial district includes larger-format warehouses, all generally east of N. MacArthur Drive, with major distribution operations associated with Amazon, Crate & Barrel, Home Depot, and similar Fortune 500 companies. Leprino Foods is a consequential food manufacturer along the corridor and a former retail outlet mall has been repositioned for retail and office use; the site has visibility from I-205. North of I-205 along Larch Road, east of Holly Drive, is the City of Tracy Wastewater Treatment Plant. West of Holly Drive is a compact and dense business park, which supports a diverse set of service businesses, with highway-oriented commercial uses including hotels at key

[1] Accordingly, the Project Site (as defined below) constitutes a "qualified property" pursuant to City Council Resolution No. 2016-115 ("Local DA Procedures), Part 1, § E(2).

MAIN (775) 858.8080 TOLL FREE (800) 775.7483
FAX (775) 856.0831 5500 Equity Avenue, Reno, NV 89502

> interchanges. **The area is approaching build-out**, as development to the north of I-205 is constrained by flood plains (**Emphasis Added**)."

AECOM is correct, the Northeast Industrial Area attracts some of the largest employers in the United States and is nearly built-out. The subject site represents an opportunity for the City to increase its recurring revenues without encroaching upon the flood plain area north of I-205.

The proposed buildings within the modified Tracy Alliance – Northeast Business Park Project ("Modified Project") are designed to attract a mix of industrial and manufacturing uses. See Exhibit 1, Conceptual Site Plan which illustrates the mix of building sizes and orientations throughout both ownerships. You'll see the transition from large buildings located furthest away from the Community of Banta to the smallest buildings located closest to Banta.

A. Modified Project

In response to direction at the November 7, 2023, City Council meeting and an interest in modifying the interface of the project with neighboring parcels, the Project Applicants have altered the original project as shown in Exhibit 1 and detailed below:

1. We reduced the development site by 22.17 acres. This represents a 12% reduction in developed land.

2. We reduced the building area by 704,561 square feet. This represents a 21% reduction in building area.

3. We repositioned the building at the corner of Grant Line Road and Paradise Road so that drivers on Grant Line Road see the building façade rather than the truck court.

4. We increased the project separation from the nearest proposed building and the nearest home on California Avenue from 80-feet to 1,150-feet. This represents a 1,070-foot increase in separation between these 2 structures.

5. We established a 400-foot-deep restricted development area along the eastern property line, where no building will exceed 75,000 square feet in size and all truck courts and dock doors will be placed on the west side of the proposed buildings. Companies occupying smaller buildings are not truck intensive users. The buildings will function as a buffer between the project truck courts and the Community of Banta.

Other Project Related Benefits:

- With a Conceptual Site Plan identified for the Suvik Parcels, a detailed Human Health Risk Assessment can be performed.

- Assist in the facilitation of a future planned interchange at Paradise Road and I-205 through the reservation of land to allow for the planning and construction of the east bound on-ramp.

- Facilitate the installation of a community solar array if accepted into the Community Solar Program created under Assembly Bill 2316 (2023).

- Require tenants to utilize East Bay Community Energy (now called Ava Energy), a renewable source of energy.

- Facilitate future EV charging stations for HHD trucks and install EV charging stations for passenger vehicles more than the number required under applicable standards.

- Prohibit cold storage uses and the use of transport refrigeration units (TRUs).

- Incorporate LEED building standards.

- Incorporate numerous design elements to help ensure efficient traffic circulation patterns.

B. Modified Project Applications

In response to comments received at the November 7, 2023 City Council hearing that reflect a desire to have more clarity and definition as to the ultimate site plan, (1) the Tracy Alliance Group (Dermody Parcel) intends to submit a Development Review (DR) permit application and related tentative parcel map concurrently with the necessary legislative approvals (prezoning and NEI SP Amendment) for the City's consideration; and (2) Suvik, while not in a position to pursue a DR permit for this later phase, intends to submit a conceptual site plan that can be utilized by the City and its CEQA consultant to complete a health risk assessment now as part of the CEQA process for the Modified Project.

C. Request to Negotiate Development Agreement

Consistent with the direction provided at the City Council hearing on November 7, 2023 and our desire to have the opportunity to present the Modified Project for the City's consideration and pursuant to the City's Local Development Agreement Procedures, the Tracy Alliance Group, Dermody and Suvik (collectively, the "Modified Project Applicants") hereby confirm that we are amenable to entering into a statutory development agreement to ensure that the Enhanced Design Features, as detailed in Exhibit 2, are legally binding and fully enforceable by the City.

The negotiation of the development agreement will also afford the parties with the opportunity to explore other mutually beneficial arrangements related to the Tracy Alliance – Northeast Business Park Project in terms of additional community benefits beyond those that could otherwise be imposed thereon (consistent with the Local DA Procedures, Part 1, § (C). For example, in addition to the modifications to the project and the Enhanced Design Features, the Applicants would like the City of Tracy to consider a contribution to the general fund for items deemed appropriate by the City Council that would benefit the citizens of Tracy. To initiate the discussion, we've listed some areas for City Council consideration:

- Environmental Fund focused on environmental projects (Possibly utilizing the newly formed Environmental Sustainability Commission to identify relevant projects)

- Transportation Related Improvements
- Park Related Improvements
- Utility Related Improvements (water and sewer facilities)

We look forward to vetting details related to these or other mutually beneficial arrangements.

As you know, the City is authorized to enter into a development agreement under Government Code section 65864 *et seq*. and the City's Local DA Procedures.

As provided for in relevant part:

> "The purpose of a development agreement is to assure the developer certain vested rights to proceed with a development over time. In exchange, the developer proposes and the City accepts certain public benefits that would not otherwise be required for the project." (Local DA Procedures, Part 1, §(A).)

By this letter and pursuant to the City's Local DA Procedures, we are hereby requesting that the City Council authorize and direct the Planning Department staff to enter into negotiations with the Project Applicants for a development agreement pursuant to the terms and conditions set forth herein and as otherwise may be mutually agreed upon by the parties during this negotiation process and as may ultimately be considered by the City Council.

****

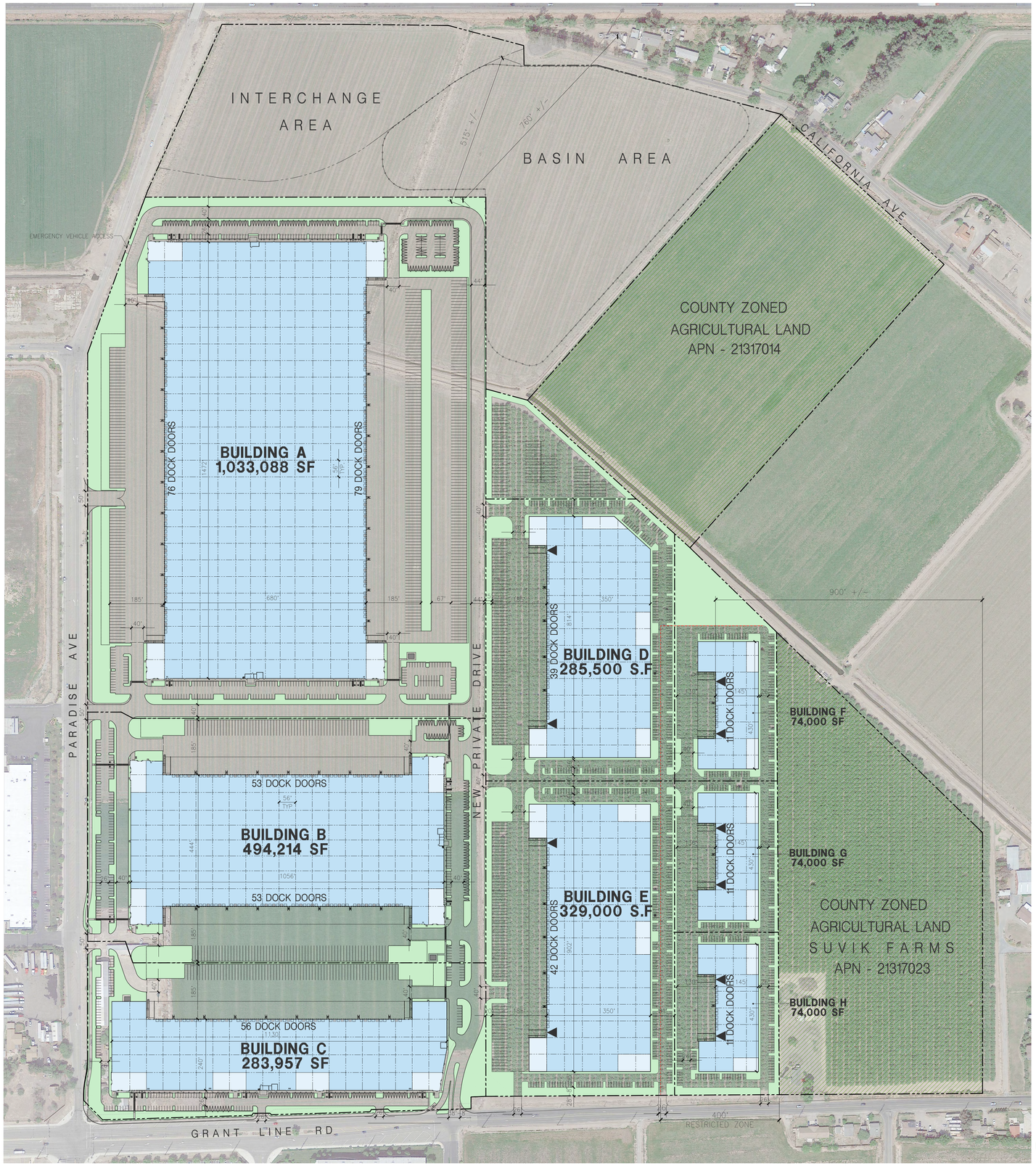
In conclusion, we very much appreciate your consideration of our request to commence negotiations for a development agreement. We remain committed to delivering a high quality, thoughtfully designed, state-of-the-art Business Park consistent with the City's long-time vision for this area and look forward to the opportunity to continue to work together collaboratively with the City in this regard.

Very truly yours,

George Condon
Partner, Dermody Properties

cc: Karin Schnaider, City of Tracy
Dr. Mahal, Suvik Farms LLC
Alicia Guerra, Buchalter

Attachment B



Legend

- POTENTIAL OFFICE
- WAREHOUSE
- LANDSCAPE
- ▼ DRIVE THRU DOOR

north

1" = 150'

0 150' 300' 450'

Conceptual Site Plan

Note: This is a conceptual plan. It is based on preliminary information which is not fully verified and may be incomplete. It is meant as a comparative aid in examining alternate development strategies and any quantities indicated are subject to revision as more reliable information becomes available.

Paradise Rd and Grant Line Rd

Tracy, CA

EXHIBIT 1

HPA architecture 43 Years

18831 Bardeen Ave. - Ste. #100
Irvine, CA 92612
(949) 863-1770
www.hparchs.com

Exhibit 2

Enhanced Design Features (EDFs)

EDF No. 1: Time Limitation for Off-Road Diesel-Powered Equipment During Construction

Each piece of off-road diesel-powered equipment used during project construction shall be prohibited from being in the "on" position for more than 10 hours per day.

EDF No. 2: Transit/Ridesharing Information for Construction Employees

Each applicant, in connection with the construction of the relevant specific individual development proposal, shall provide information on available transit and ridesharing programs and services to construction employees.

EDF No. 3: No Diesel-Powered Generators

Each applicant, prior to issuance of a building permit for vertical construction in connection with a specific individual development proposal, shall submit language to the City for inclusion in future lease provisions that reflects a prohibition of diesel-powered generators during normal project operation unless and until any additional required CEQA review is conducted.

EDF No. 4: No TRUs or Cold Storage Uses

Each applicant, prior to issuance of a building permit for vertical construction in connection with a specific individual development proposal, shall submit language to the City for inclusion in future lease provisions that reflects a prohibition of cold storage uses as well as the use of Transport Refrigerated Units (TRUs) during project operation unless and until any additional required CEQA review is conducted.

EDF No. 5: LEED Green Building Standards

Each applicant, in connection with the relevant specific individual development proposal, shall incorporate LEED green building standards.

EDF No. 6: On-Site Employee Food Options

During project operations, each building manager shall use diligent and good faith efforts to encourage at least two food truck vendors to serve project employees by inviting available vendors on-site on a regular basis.

EDF No. 7: Buffers

A. If a project building is less than 50,000 square feet, then a 10-foot-wide landscaping buffer shall be provided, measured from the subject building to the property line of

all adjacent sensitive receptors. Buffer areas shall include, at a minimum, a berm and/or solid decorative wall(s) totaling 10 feet or more in height, natural ground landscaping, and solid screen buffering trees, unless there is an existing solid building wall. Trees used for this purpose shall be evergreen, drought tolerant, minimum 36-inch box, and shall be spaced at 40 feet on center.

B. If a project building is 50,000 square feet or more, then a 20-foot-wide landscaping buffer shall be provided, measured from the subject building to the property line of all adjacent sensitive receptors. Buffer areas shall include, at a minimum, a berm and/or solid decorative wall(s) totaling 10 feet or more in height, natural ground landscaping, and solid screen buffering trees, unless there is an existing solid building wall. Trees used for this purpose shall be evergreen, drought tolerant, minimum 36-inch box, and shall be spaced at 40 feet on center.
C. Trees shall be installed in automobile parking areas to provide at least thirty five percent (35%) shade cover of parking areas within 15 years.
D. All landscaping shall be drought tolerant, and to the extent feasible, species with low biogenic emissions. Palm trees shall be prohibited.
E. All landscaping areas shall be properly irrigated for the life of the facility to reasonably allow for plants and trees to achieve and maintain anticipated growth, subject to applicable laws and regulations governing landscape irrigation.
F. Loading docks and truck entries shall be oriented away from abutting sensitive receptors, to the extent feasible. If a project building is more than 400,000 square feet, the subject building's loading docks shall be located a minimum of 300 feet away, measured from the property line of the sensitive receptor to the nearest dock door which does not exclusively serve electric, natural gas or hydrogen gas trucks using a direct straight-line method.
G. No building within four hundred (400) feet of the Suvik eastern property lines shall be larger than seventy-five thousand (75,000) square feet. Any dock doors serving the foregoing buildings on the Suvik Parcel shall be located on the western side of these buildings.

EDF No. 8: Signage and Traffic Patterns

A. Entry gates into the Project's loading dock/truck court area(s), as shown on plans submitted to City in connection with each individual development proposal's Development Review Permit process, shall be positioned such that there is seventy (70) feet or more of total available stacking depth inside the property line.
B. Onsite queuing for trucks shall, to the extent feasible, be located at least 100 feet from sensitive receptors.
C. Unless not feasible as a result of physical site constraints, truck entries shall be located on Collector Streets, and vehicle entries shall be designed to prevent truck access on streets that are not Collector Streets. (Collector Streets = Thru, Local, STAA Truck Routes).
D. Anti-idling signs indicating a 3-minute diesel truck engine idling restriction shall be posted along entrances to the project site and in the dock areas.
E. Prior to issuance of the certificate of occupancy for each building, the relevant facility operator shall establish and submit for approval to the Planning Director a Truck Routing Plan ("Truck Routing Plan") to and from the State Highway System based on the City's latest Truck Route Map.

F. Facility operators shall post signs in prominent locations inside and outside of each building indicating that off-site parking for any employee, truck, or other operation related vehicle is strictly prohibited.
G. Signs shall be installed at all truck exit driveways directing truck drivers to the truck route as indicated in the Truck Routing Plan and State Highway System.
H. If a project building is greater than 400,000 square feet, the subject building shall include a truck operator lounge equipped with clean and accessible amenities such as restrooms, vending machines, television, and air conditioning.

EDF No. 9: Alternative Energy

A. Each developer of an individual specific development proposal shall prepare the subject building structures to accommodate future solar panels pursuant to applicable Building Code requirements.
B. The office portion of a building's rooftop that is not covered with solar panels or other utilities shall be constructed with light colored roofing material with a solar reflective index of not less than 78.
C. As soon as reasonably practicable, after the State of California allows formal submittal of applications tied to the California's Community Solar Program, each developer shall apply for entry into California's Community Solar Program and provide evidence to the Community Development Director of such submittal. If allowed by law, after the Community Solar program sells 51% of its power to low-income residents in Tracy, the building owner or solar producer may allocate a percentage of the building's remaining Community Solar power to occupants of the subject buildings. If the formal submittal is denied by the State of California, one additional good faith effort to re-apply shall be attempted. If accepted or denied twice, this measure is considered satisfied as it relates to California's Community Solar program.
D. Each developer shall include a provision in each lease that requires each tenant to purchase clean power from East Bay Community Energy (now referred to as Ava Energy).
E. At least five percent (5%) of all passenger vehicle parking spaces shown on the subject specific individual development proposal shall be equipped with working Level 2 Quick charge EV charging stations installed and operational, prior to issuance of the certificate of occupancy for the subject building(s).
F. Each specific individual development proposal shall exceed the required number of Electric Vehicle charging stations per code by an additional 5%, if meeting the Tier 2 requirements. The increase shall be 10% if meeting the Tier 1 requirements.
G. Bicycle racks shall be provided in connection with each specific individual development proposal pursuant to applicable City requirements for warehouse uses by Table 30-714 of the Zoning and Development Code. The racks shall include electric plugs and shall be located as close as feasible to employee entrances.

EDF No. 10: Operation and Construction

A. Either a secondary electrical room shall be provided in each building, or the primary electrical room shall be sized twenty five percent (25%) larger than is required to satisfy the service requirements of the subject building or the electrical gear shall be

installed with the initial construction with twenty five percent (25%) excess demand capacity for the subject building.

B. Each building operator shall incorporate a recycling program pursuant to applicable City requirements. The following environmentally responsible practices shall be required during construction of each specific individual development proposal:
    1. The relevant applicant shall use reasonable and good faith efforts to deploy the highest rated CARB Tier technology that is reasonably available at the time of construction of the subject specific individual development proposal. Prior to building permit issuance for the subject proposal, the construction contractor shall submit an equipment list confirming the relevant equipment used is compliant with the highest CARB Tier reasonably available at the time of construction.
    2. Only electric-powered hand tools, forklifts, and pressure washers shall be used during construction.
    3. There shall be an area designed in the relevant construction site in connection with each specific individual development proposal where electric-powered construction vehicles and equipment can charge.
C. To facilitate the installation of future electric vehicle charging stations for heavy-heavy duty (HHD) trucks, in connection with each individual development proposal, the subject building improvement plans shall identify an area for future HHD truck charging stations and the subject developer shall install conduit from the power source to the identified area.
D. A Property Maintenance Program to address routine site maintenance during project operations (e.g., sweeping of truck/bay areas, litter removal, etc.) shall be submitted for review and approval by the Community Development Director or his/her designee prior to the issuance of the certificate of occupancy of each project building.
E. Prior to issuance of the certificate of occupancy for each project building, the relevant property owner shall provide the relevant facility operator with reasonably available information on any incentive programs relating to energy efficiency and shall require the relevant facility operator to enroll in the United States Environmental Protection Agency's SmartWay Program.

Attachment D

RESOLUTION 2016-115

REPEALING RESOLUTION 2004-368 AND ESTABLISHING REVISED PROCEDURES AND REQUIREMENTS FOR THE CONSIDERATION OF DEVELOPMENT AGREEMENTS

WHEREAS, On November 16, 2004, pursuant to authorization granted in Government Code sections 65864 et seq., the City Council adopted Resolution 2004-368, establishing procedures and requirements for consideration of development agreements, and

WHEREAS, On June 16, 2015, the City Council discussed the development agreement procedures at a regular meeting and directed staff to prepare amendments to the existing procedures and requirements, including provisions related to required public benefits, and

WHEREAS, The City Council wishes to revise the procedures and requirements for future applications;

NOW, THEREFORE, the City Council of the City of Tracy resolves as follows:

1. Resolution 2004-368 is repealed in its entirety.

2. The Procedures and Requirements for Consideration of Development Agreements, set forth in the attached Exhibit "A", are adopted.

* *

This Resolution 2016-115 was passed and adopted by the Tracy City Council on June 7, 2016, by the following vote:

AYES:	COUNCIL MEMBERS:	MITRACOS, VARGAS, YOUNG, RICKMAN, MACIEL
NOES:	COUNCIL MEMBERS:	NONE
ABSENT:	COUNCIL MEMBERS:	NONE
ABSTAIN:	COUNCIL MEMBERS:	NONE

MAYOR

ATTEST:

CITY CLERK

EXHIBIT “A”

REGULATIONS AND REQUIREMENTS FOR CONSIDERATION OF DEVELOPMENT AGREEMENTS

PART I, APPLICATION
- A. Authority for Adoption; Purpose; consistency with State Law
- B. Application
- C. Public Benefit
- D. Qualified Applicants
- E. Qualified Property
- F. Staff Review of Application

PART II, CONTENTS, HEARINGS, AND OFFICIAL ACTIONS
- G. Contents
- H. Notice of Hearings; Environmental Review
- I. Planning Commission
- J. City Council
- K. Ordinance Approving the Development Agreement

PART III, DEVELOPMENT RIGHTS; PERIODIC REVIEW
- L. Development Rights
- M. Periodic Review

PART I – APPLICATION

A. Authority for Adoption; Purpose; Consistency with State Law

These regulations are adopted under the authority of Government Code Sections 65864 et seq. The City’s consideration and approval of a development agreement is discretionary; there is no requirement to approve such an agreement. The purpose of a development agreement is to assure the developer certain vested rights to proceed with a development over time. In exchange, the developer proposes and the City accepts certain public benefits that would not otherwise be required for the project. In any conflict or interpretation issue between these provisions and requirements of state law, state law will control.

B. Application

1. An application for a development agreement must be submitted to the Development Services (“DS”) Department. The minimum requirements for the application and the information and data are set forth in Section B.2 below.

2. The application shall include, for each development agreement requested:

a. signatures of all property owner(s);

b. the proposed duration of the agreement (Gov’t. Code §65865.2.);

c. the proposed permitted uses, density or intensity of use, the maximum height and size of proposed buildings (Gov’t. Code §65865.2.);

d. proposed public benefit offered to the city as an incentive for consideration of the application, based on the examples set forth in Section C below;

e. a map drawn to scale showing the property and the property lines for the properties within 300 feet of the exterior boundary lines of the subject property. This includes the names of all the streets and of the assessor's parcel numbers (APNs) of each parcel shown on the map;

f. the names and mailing addresses as listed on the latest assessment roll of the owners of the property shown on the map;

g. the legal description, the assessor's parcel number(s), and the street address(es) of the subject property;

h. a list of other applications filed concurrently with the development agreement application;

i. a signed City cost recovery agreement, under which the developer agrees to pay for staff and City consultant time in reviewing and processing the application(s) (Gov’t. Code §; and

j. other information the DS Director considers necessary to process the application..

C. Additional Public Benefit

A development agreement shall obligate the developer to provide additional public benefits, beyond what is already required under existing codes and master plans, as the City may deem necessary or appropriate. The additional public benefits are in addition to any fees, exactions or conditions which the City otherwise requires of the applicant as a condition of project approval, (and may include those which otherwise would require compliance with the Mitigation Fee Act (Government code Section 66000 and following), if there were no development agreement. The additional public benefits may include, but are not limited to, the following (including monetary contributions to the City for these purposes):

1. Construction, installation, and/or ongoing maintenance of public facilities and/or public improvements (other than those required as a condition of approval of a project);

2. Construction or installation of a public facility or improvement on the CIP project list that:
   (a) benefits other property in addition to the subject property;
   (b) is in accordance with a schedule that requires completion of the infrastructure before it is needed for the project; and
   (c) is a condition of final map approval or the issuance of building permits for some or all components of the project.

   The developer’s cost may be subject to partial reimbursement over time as other properties develop;

3. Acquisition and/or transfer or dedication of land to the City (or other public agency) for public uses (other than as required as a condition of approval of a project); and

4. Other similar public benefits not specifically designated in this Policy.

D. Qualified Applicants

Only a qualified applicant may file an application to enter into a development agreement. A qualified applicant is a person who has legal or equitable interest in the real property which is the subject of the development agreement. The DS Director shall require an applicant to submit proof of his or her interest in the real property. The City may require an applicant or agent to submit a title report or other evidence to verify the applicant’s legal or equitable interests in the subject property.

E. Qualified Property

1. Within City limits. The property to be the subject of the development agreement shall be situated within the City limits and shall represent an appropriate parcel or parcels, as to ownership and parcel configuration, size and location, as determined by the DS Director, to assure the development of the property consistent with the policies, goals, standards and objectives of City’s General Plan, applicable specific plan, and City ordinances and policies pertaining to the property.

2. Outside City limits. Property not within the City limits but within the City’s sphere of influence may be the subject of a development agreement conditioned upon the annexation of the property to the City within a specified time.

For property not within the City limits and subject to an existing development agreement with the county, Government Code section 65863.5 will apply.

F. Preliminary Review of Application

1. The Staff will review the application and accept it for filing if it is complete and accurate.

2. For a completed application, Staff will prepare a report and recommendation to the City Council. The Council will consider the application and determine whether the proposed public benefits (beyond what is otherwise required for the project) warrant undertaking negotiations with the applicant. The Council shall either reject the request or authorize staff to negotiate and process the development agreement application.

PART II - HEARINGS AND OFFICIAL ACTIONS

G. Contents

1. General. In addition to the mandatory requirements of Government Code Section 65865.2, the development agreement must include the following:

a. the additional public benefit, as described in subsection C above.

b. a requirement that the applicant hold harmless, indemnify and defend the City from suits and actions arising in connection with the development agreement, to the satisfaction of the City Attorney.

c. that the City may impose a later condition if: (a) the condition is required to comply with state or federal law, or (b) a failure to do so would place the residents or the immediate community, or both, in a condition dangerous to their health or safety, or both. (Gov’t. Code §66498.1.)

d. The development agreement may be amended, or canceled in whole or in part, by mutual consent of the parties or their successors. Notice of intention to amend or cancel any portion of the agreement shall be given in the manner provided by Government Code section 65867. An amendment is subject to Section 65867.5, Findings of consistency. (Gov’t. Code §65868.)

2. Subdivision. If the development agreement includes a subdivision of 500 dwelling units or more, it may not be approved unless the agreement provides that any tentative map prepared for the subdivision comply with Government Code section 66473.7 regarding sufficient water supply. (Gov’t. Code §65867.5.)

H. Notice of Hearings; Environmental Review

1. Notice of hearings before the Planning Commission and the City Council to consider a development agreement shall be given in the manner provided in Government Code Section 65864 et seq.

2. The notice and public hearing on the development agreement may be combined with the notice and public hearing for an application for rezoning, development

review permit, subdivision map or other land use entitlement pertaining to the same property.

3. If a development agreement qualifies as a project under the California Environmental Quality Act and implementing regulations, it is subject to environmental review as required by applicable law.

I. Planning Commission

The Staff will submit the proposed development agreement to the Planning Commission for a public hearing when all of the necessary reports and recommendations are complete. The development agreement may be considered concurrently with other discretionary permits or approvals for the project.

The Planning Commission shall serve as the planning agency on applications as required by Government Code Section 65867, including determining its consistency with the General Plan, any applicable specific plan, city ordinances and regulations.

After the public hearing, the Planning Commission shall render its decision in the form of a resolution with written recommendation to the City Council. The report and recommendation shall include proposed findings as required by Section J (4) below.

J. City Council

1. After its public hearing, the City Council in the exercise of its legislative discretion shall determine whether or not to approve, modify or disapprove the development agreement.

2. Approval of a development agreement is a legislative act. Even if the findings set forth in subsection (4) below can be made, the City Council, in its sole discretion, may deny approval of the development agreement on the grounds that the development agreement is not in the public interest.

3. After the Planning Commission has made a recommendation to the City Council, the City Council’s action to modify the proposal may, but need not be, referred back to the Planning Commission for its review and recommendation, without the necessity for a further public hearing before the Planning Commission.

4. The Council shall not approve the development agreement unless it (a) includes all of the mandatory requirements of Government Code section 65865.2 and (b) the Council finds the agreement is consistent with the General Plan and any applicable specific plan (Gov’t. Code §65867.5.).

K. Ordinance Approving the Development Agreement

1. If the City Council approves the development agreement, it shall do so by the adoption of an ordinance setting forth the required findings and authorizing the Mayor to execute the development agreement.

2. After the ordinance approving the development agreement takes effect (30 days after adoption), the Mayor shall execute the development agreement on behalf of the City. The effective date of the development agreement is the effective date of the ordinance approving the agreement.

3. Within ten days after the City enters into a development agreement, the City Clerk shall record a copy with the County Recorder. (Gov’t. Code §65868.5.)

PART III- DEVELOPMENT RIGHTS; PERIODIC REVIEW

L. Development Rights.

The City’s regulations and official policies governing the permitted uses of land, density, design, improvement and constructions standards and specifications applicable to development of the property shall be those regulations and official policies in effect at the time of the agreement, unless otherwise provided in the development agreement. However:

1. the development agreement may not authorize regulations not permitted under the City’s zoning ordinance.

2. the City may impose a later condition if: (a) the condition is required to comply with state or federal law, or (b) a failure to do so would place the residents or the immediate community, or both, in a condition dangerous to their health or safety, or both. (Gov’t. Code §66498.1.)

3. in subsequent actions applicable to the property, a development agreement does not prevent the City from applying new regulations and policies which do not conflict with those in effect at the time of the agreement. (Gov’t. Code §65866.)

4. if state or federal laws or regulations enacted after a development agreement has been entered into prevent or preclude compliance with one or more provisions of the development agreement, those provisions shall be modified or suspended as may be necessary to comply with the state or federal laws or regulations. (Gov’t. Code §65869.5.)

M. Periodic Review

The DS Director shall on an annual basis and at any other time that the he or she determines to be appropriate, review the extent of good faith substantial compliance by the developer with the terms and conditions of the development agreement. The periodic review shall be limited in scope to compliance with the terms and conditions of the development agreement. The costs of

notice and related costs incurred by the City for the annual review shall be borne by the developer. Failure of the City to conduct a periodic review shall not constitute a waiver by the City of its rights to enforce the provisions of a development agreement, nor shall a developer have or assert any defense to such enforcement by reason of such failure to conduct a periodic review.