Appendix

A.1 – Traffic Counts
A.2 – Phase 1A Site Plan & Trip Generation
A.3 – Near Term (2025) + Phase 1A + KT (Homes and Retail) + South Retail Synchro Outputs
A.4 – Near Term (2025) + Phase 1A + KT (Homes and Retail) + South Retail Mitigated Synchro Outputs
A.5 – Near Term (2025) + Phase 1A + KT (Homes and Retail) + South Retail Mitigated Sidra Outputs
A.6 – Near Term (2025) + Phase 1A (MIT) Synchro Outputs
A.7 – Near Term (2025) + Phase 1A (MIT) Additional Mitigated Synchro Outputs
A.8 – Near Term (2025) + Phase 1A (MIT) Additional Mitigated Sidra Outputs
A.9 – Near Term (2025) + Phase 1A (MIT) + KT (Homes Only) Additional Mitigations Synchro Outputs
A.10 – Near Term (2025) + Phase 1A (MIT) + KT (Homes Only) Additional Mitigations Sidra Outputs
A.11 – Near Term (2025) + Phase 1A (MIT) + KT (Homes Only) Westbound Alternative Synchro Outputs
A.12 – Near Term (2025) + Phase 1A + KT (Homes and Retail) Synchro Outputs
A.13 – KT Tentative Map Redlines

A.1 - Traffic Counts

Prepared by National Data & Surveying Services

Corral Hollow Rd & I-580 EB Ramps

Peak Hour Turning Movement Count

ID: 19-08184-005
City: Tracy

Day: Thursday
Date: 04/11/2019

PEAK HOURS

AM	07:00 AM - 08:00 AM
NOON	NONE
PM	04:15 PM - 05:15 PM

COUNT PERIODS

AM	07:00 AM - 09:00 AM
NOON	NONE
PM	03:15 PM - 05:15 PM

SOUTHBOUND — Corral Hollow Rd

AM	0	315	71	0	125	AM
NOON	0	0	0	0	0	NOON
PM	0	16	97	0	453	PM

EASTBOUND — I-580 EB Ramps

AM	NOON	PM	
0	0	0	
0	0	0	0
117	0	234	0
2	0	5	1
4	0	3	1

WESTBOUND — I-580 EB Ramps

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
576	0	79	

NORTHBOUND — Corral Hollow Rd

PM	19	0	0	219	474	PM
NOON	0	0	0	0	0	NOON
AM	319	0	0	8	6	AM

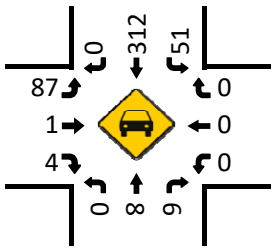
	0	1	0	0
	0	0	1	0

CONTROL

1-Way Stop (EB)

TEV	523 AM	0 NOON	1048 PM
PHF	0.83		0.95

Cars (AM)



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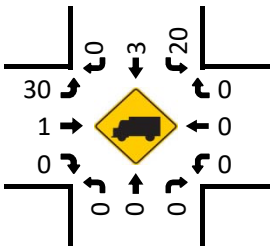
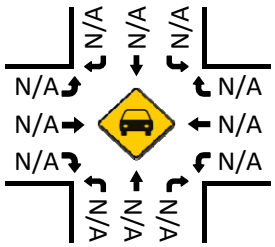
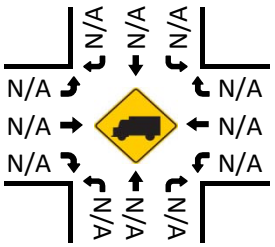


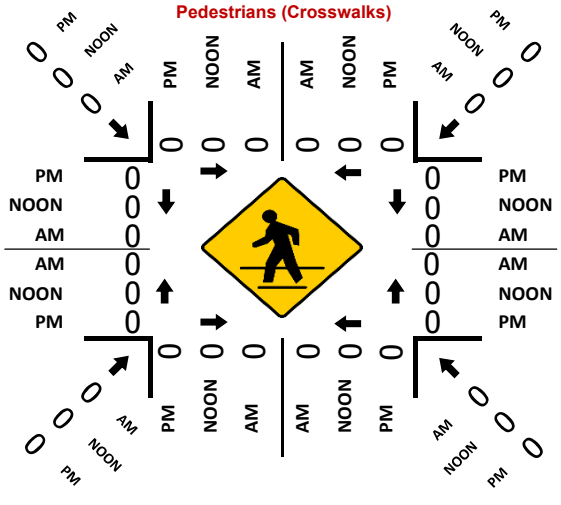
Cars (NOON)



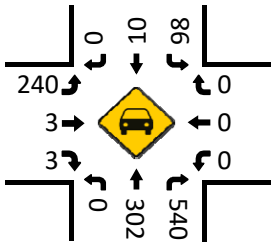
HT (NOON)



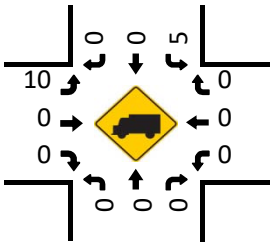
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Corral Hollow Rd & I-580 WB Ramps

Peak Hour Turning Movement Count

ID: 19-08184-006
City: Tracy

Day: Thursday
Date: 04/11/2019

PEAK HOURS	COUNT PERIODS
07:00 AM - 08:00 AM	07:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	03:15 PM - 05:15 PM

Corral Hollow Rd — SOUTHBOUND

AM	678	228	0	0	241	AM
NOON	0	0	0	0	0	NOON
PM	148	113	0	0	503	PM

I-580 WB Ramps — EASTBOUND

AM	NOON	PM	
681	0	160	⇦
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND — I-580 WB Ramps

PM	NOON	AM	
64	0	117	1
2	0	2	1
7	0	159	0
0	0	0	0
0	0	0	⇨
PM	NOON	AM	

CONTROL: 1-Way Stop (WB)

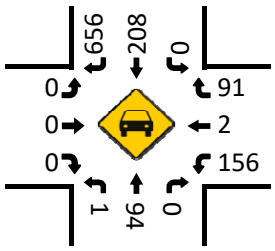
TEV	1309	0	783
	AM	NOON	PM
PHF	0.87		0.94

Corral Hollow Rd — NORTHBOUND

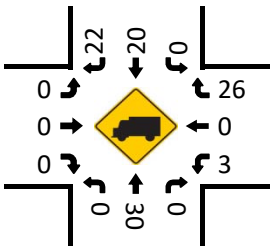
PM	120	0	10	439	0	PM
NOON	0	0	0	0	0	NOON
AM	387	0	1	124	0	AM

Turning movements: 0 1 0 0 | 0 0 1 0

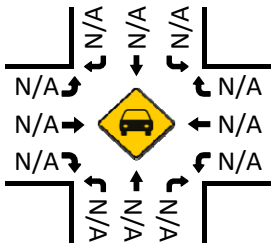
Cars (AM)



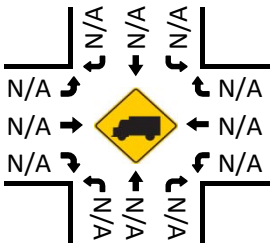
HT (AM)



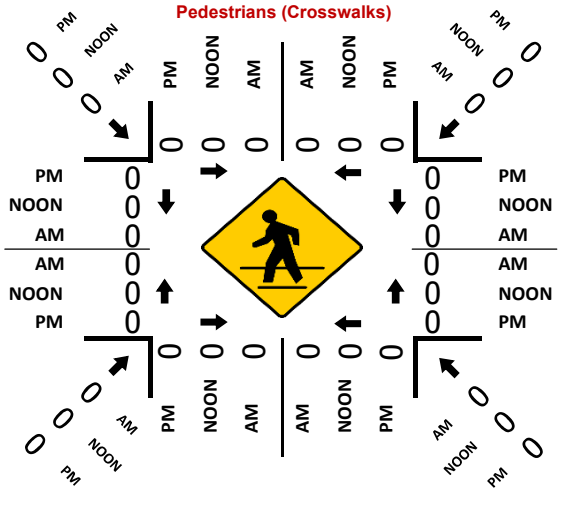
Cars (NOON)



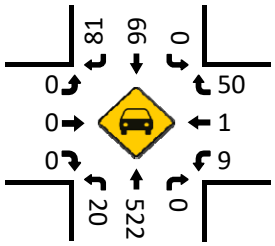
HT (NOON)



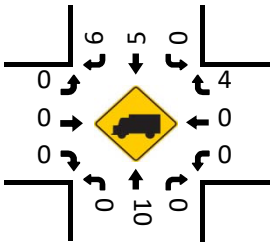
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Corral Hollow Rd & Linne Rd

Peak Hour Turning Movement Count

ID: 19-08184-008
City: Tracy

Day: Thursday
Date: 04/11/2019

PEAK HOURS

AM	07:00 AM - 08:00 AM
NOON	NONE
PM	04:00 PM - 05:00 PM

COUNT PERIODS

AM	07:00 AM - 09:00 AM
NOON	NONE
PM	03:15 PM - 05:15 PM

Corral Hollow Rd — SOUTHBOUND

AM	0	709	88	0	121	AM
NOON	0	0	0	0	0	NOON
PM	0	117	55	0	324	PM

Linne Rd — EASTBOUND

AM	NOON	PM	
0	0	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

Linne Rd — WESTBOUND

PM	NOON	AM	
57	0	39	0.5
0	0	0	0.5
103	0	246	0
0	0	0	0
336	0	156	
PM	NOON	AM	

Corral Hollow Rd — NORTHBOUND

PM	220	0	0	267	281	PM
NOON	0	0	0	0	0	NOON
AM	955	0	0	82	68	AM

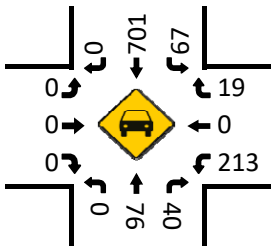
0	1	0	0	
0	0	1	0	

CONTROL

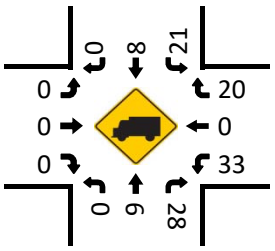
1-Way Stop (WB)

TEV	1232	0	880
	AM	NOON	PM
PHF	0.89		0.91

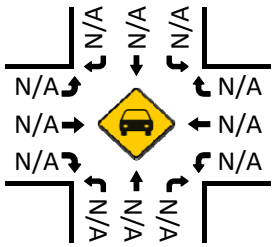
Cars (AM)



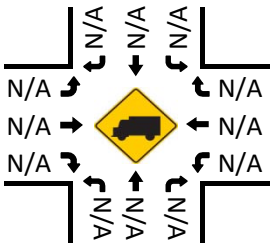
HT (AM)



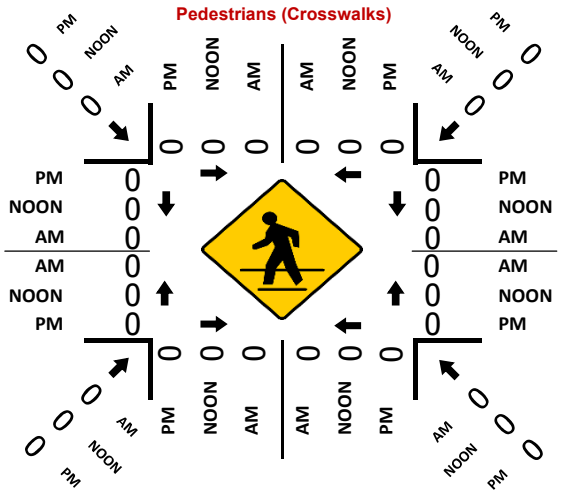
Cars (NOON)



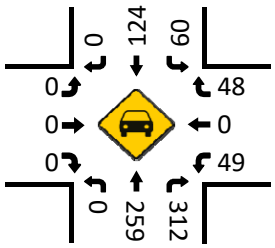
HT (NOON)



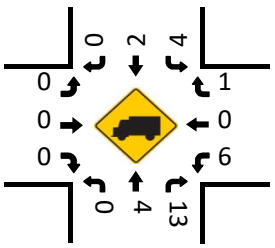
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)

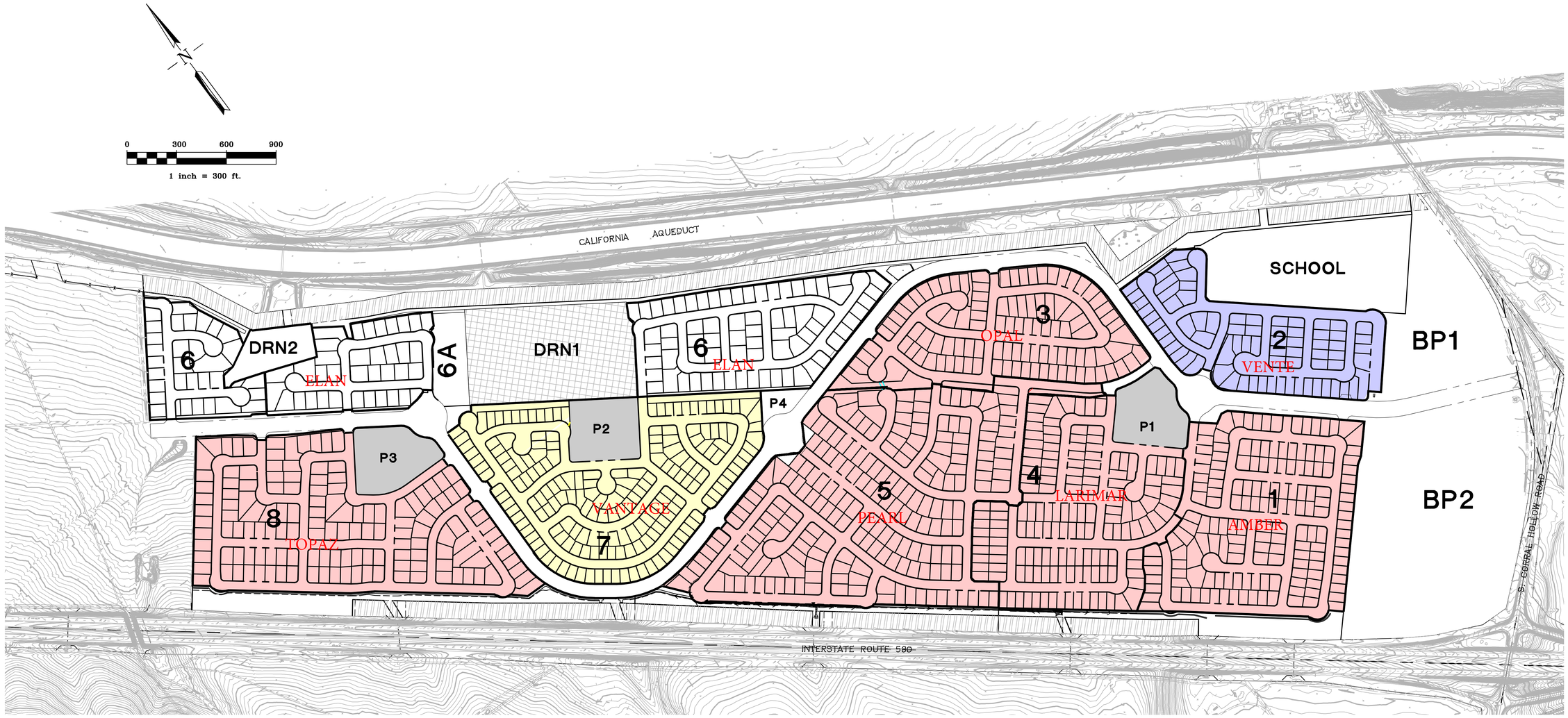


A.2 – Phase 1A Site Plan and Trip Generation

Trip Generation Rates[1]	ITE Land Use Code/Reference	Units	Weekday AM		Weekday PM	
			Rate	IN / OUT	Rate	IN / OUT
Low/Mid Density Residential & Residential Estate	Tracy Model	DU	0.55	25% / 75%	1.05	63% / 37%
Elementary School	ITE LU 520	Students	0.45	55% / 45%	0.15	49% / 51%
Middle School	ITE LU 522	Students	0.54	55% / 45%	0.16	49% / 51%
Trip Generation Rates	Units		Weekday AM		Weekday PM	
			Total	IN / OUT	Total	IN / OUT
Phase 1A (No Business Park)(Background)						
Low/Mid Density Residential & Residential Estate	1,137	DU	625	156 / 469	1,194	752 / 442
Gross Phase 1A Home Trips			**625**	**156 / 469**	**1,194**	**752 / 442**
Elementary School[2]	533	Students	240	132 / 108	80	40 / 40
Middle School[2]	267	Students	145	80 / 65	43	22 / 21
Gross Phase 1A School Trips[2]			**385**	**212 / 173**	**123**	**62 / 61**
Internal Capture Trips[3]						
Phase 1A (No Business Park)(Background)						
Internal Trip to School (Credit)			212	0 / 212	51	0 / 51
School to External Network			87	0 / 87	0	0 / 0
School Trips[3]			(125)	0 / (125)	(51)	0 / (51)
Total Phase 1A Internal Capture Trips			**(125)**	**0 / (125)**	**(51)**	**0 / (51)**
Primary Trips						
Phase 1A (No Business Park)(Background)						
Total Phase 1A Primary Trips			**500**	**156 / 344**	**1,143**	**752 / 391**

Notes

1. Rates from Tracy Hills Specific Plan Recirculated Draft Subsequent EIR (October, 2015)
2. School trips are shown for informational purposes only and do not generate new trips.
3. School internal capture trips represent trips that stay within Phase 1A and do not reach the external roadway network.



LOT SUMMARY			
NEIGHBORHOOD	ACRES	LOT COUNT	TYPICAL LOT SIZE
1	35.9	160	55'x90'
2	19.0	74	55'x100'
3	25.3	103	55'x100'
4	35.1	149	50'x100'
5	51.8	196	60'x100'
6	54.7	136	70'x100'
6A	2.7	6	70'X100'
7	36.3	182	50'x80'
8	48.0	139	65'x100'
TOTAL	317.1	1,145	–

NOTE: THE 6 UNITS IN VILLAGE 6A WILL BE USED AS A RETENTION BASIN, REDUCING THE OVERALL LOT COUNT TO 1,139.

LENNAR

LENNAR TOTAL ACRES: 219.6
LENNAR TOTAL LOT COUNT: 747

MERITAGE

LENNAR TOTAL ACRES: 36.3
LENNAR TOTAL LOT COUNT: 182

SHEA

LENNAR TOTAL ACRES: 19.0
LENNAR TOTAL LOT COUNT: 74

PARK SUMMARY		
PARK	ACRES	OWNER
P1	3.8	CITY
P2	3.6	CITY
P3	3.9	CITY
P4	0.8	HOA
TOTAL	12.1	–

OTHER LAND USES	
USE	ACRES
SPINE ROAD	23.2
CORRAL HOLLOW RD. ULT. R/W	1.3
SCHOOL	14.0
BP1 (NET)	13.2
BP2 (NET)	31.9
DRN1–FOR DRAINAGE	13.9
DRN2–FOR DRAINAGE	3.0
TOTAL	100.5

LEGEND:

- PUBLIC PARK (CITY OWNED & MAINTAINED)
- PUMP STATION (CITY OWNED & MAINTAINED)
- PROPOSED 20' UTILITY AND ACCESS EASEMENT (HOA OWNED & MAINTAINED PARCELS, CITY MAINTAINED UTILITIES)
- EXISTING CONSERVATION EASEMENT (HOA OWNED & MAINTAINED)
- IN TRACT OPEN SPACE (HOA OWNED & MAINTAINED)
- RETENTION BASIN (CITY OWNED & MAINTAINED)

NOTES
(1)ACCESS SHALL BE RELINQUISHED ALONG THE FOLLOWING PARCELS.
- A) BP1 & BP2 ALONG CORRAL HOLLOW ROAD
- B) INDIVIDUAL RESIDENTIAL LOTS THAT BACK TO THE SPINE ROAD
- C) INDIVIDUAL RESIDENTIAL LOTS ALONG SIDE YARD/PUBLIC ROADWAY

TRACT 3788
TRACY HILLS NEIGHBORHOOD PLAN

CITY OF TRACY, SAN JOAQUIN COUNTY, CALIFORNIA
FOR: INTEGRAL COMMUNITIES

RUGGERI-JENSEN-AZAR
ENGINEERS ▪ PLANNERS ▪ SURVEYORS
2541 WARREN DRIVE, SUITE 100 ROCKLIN, CA 95677
PHONE: (916) 630-8900 FAX: (916) 630-8909

DATE: MARCH 21, 2019 JOB NO. 121083

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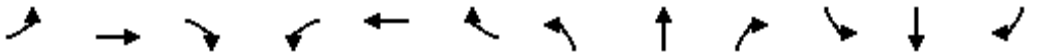
A.3 - Near Term (2025) Plus Phase 1A Plus KT (Homes and Retail) Plus South Retail Synchro Output Sheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	0	173	270	0	85	28	427	38	645	918	128
Future Volume (veh/h)	171	0	173	270	0	85	28	427	38	645	918	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	186	0	188	293	0	92	30	464	41	701	998	139
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	0	208	251	380	322	38	462	392	599	1050	890
Arrive On Green	0.07	0.00	0.13	0.14	0.00	0.20	0.02	0.25	0.25	0.34	0.56	0.56
Sat Flow, veh/h	3456	0	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	186	0	188	293	0	92	30	464	41	701	998	139
Grp Sat Flow(s),veh/h/ln	1728	0	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	7.9	0.0	17.4	20.9	0.0	7.3	2.5	36.7	3.0	49.9	74.5	6.3
Cycle Q Clear(g_c), s	7.9	0.0	17.4	20.9	0.0	7.3	2.5	36.7	3.0	49.9	74.5	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	0	208	251	380	322	38	462	392	599	1050	890
V/C Ratio(X)	0.78	0.00	0.90	1.17	0.00	0.29	0.78	1.00	0.10	1.17	0.95	0.16
Avail Cap(c_a), veh/h	419	0	224	251	380	322	48	462	392	599	1050	890
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.1	0.0	63.6	63.8	0.0	50.0	72.3	55.9	43.2	49.3	30.6	15.6
Incr Delay (d2), s/veh	5.6	0.0	33.8	110.2	0.0	0.5	47.5	42.8	0.1	93.9	17.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	8.9	17.1	0.0	2.9	1.6	22.2	1.2	36.9	35.6	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.6	0.0	97.4	174.0	0.0	50.5	119.8	98.7	43.3	143.2	47.7	15.7
LnGrp LOS	E	A	F	F	A	D	F	F	D	F	D	B
Approach Vol, veh/h		374			385			535			1838	
Approach Delay, s/veh		85.6			144.5			95.7			81.7	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	55.0	42.9	26.0	24.6	8.3	89.6	15.3	35.3
Change Period (Y+Rc), s	5.1	6.2	5.1	5.1	5.1	6.2	5.1	5.1
Max Green Setting (Gmax), s	49.9	36.7	20.9	21.0	4.0	82.6	18.0	23.9
Max Q Clear Time (g_c+I1), s	51.9	38.7	22.9	19.4	4.5	76.5	9.9	9.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.2	0.0	3.5	0.3	0.2

Intersection Summary	
HCM 6th Ctrl Delay	92.3
HCM 6th LOS	F

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	81	23	519	2	61	0	244	0	2	0	0	25
Future Vol, veh/h	81	23	519	2	61	0	244	0	2	0	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	81	23	519	2	61	0	244	0	2	0	0	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	61	0	0	542	0	0	263	250	23	511	769	61
Stage 1	-	-	-	-	-	-	185	185	-	65	65	-
Stage 2	-	-	-	-	-	-	78	65	-	446	704	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1542	-	-	1027	-	-	690	653	1054	473	332	1004
Stage 1	-	-	-	-	-	-	817	747	-	946	841	-
Stage 2	-	-	-	-	-	-	931	841	-	591	440	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1542	-	-	1027	-	-	630	598	1054	442	304	1004
Mov Cap-2 Maneuver	-	-	-	-	-	-	630	598	-	442	304	-
Stage 1	-	-	-	-	-	-	750	686	-	868	839	-
Stage 2	-	-	-	-	-	-	906	839	-	542	404	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.3	14.3	8.7
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	632	1542	-	-	1027	-	-	1004
HCM Lane V/C Ratio	0.389	0.053	-	-	0.002	-	-	0.025
HCM Control Delay (s)	14.3	7.5	-	-	8.5	-	-	8.7
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	1.8	0.2	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	11	30	0	0	33
Future Vol, veh/h	14	11	30	0	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	11	30	0	0	33

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	77	17	33	0	-	0
Stage 1	17	-	-	-	-	-
Stage 2	60	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	926	1062	1579	-	-	-
Stage 1	1006	-	-	-	-	-
Stage 2	963	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	908	1062	1579	-	-	-
Mov Cap-2 Maneuver	908	-	-	-	-	-
Stage 1	987	-	-	-	-	-
Stage 2	963	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	7.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1579	-	970	-	-
HCM Lane V/C Ratio	0.019	-	0.026	-	-
HCM Control Delay (s)	7.3	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

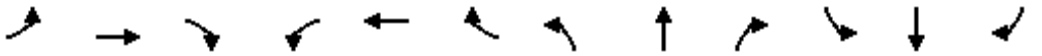
Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	1	1	0	5	0	5	0	0	0	0	4
Future Vol, veh/h	0	1	1	0	5	0	5	0	0	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1	1	0	5	0	5	0	0	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	5	0	0	2	0	0	9	7	2	7	7	5
Stage 1	-	-	-	-	-	-	2	2	-	5	5	-
Stage 2	-	-	-	-	-	-	7	5	-	2	2	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1616	-	-	1620	-	-	1010	888	1082	1013	888	1078
Stage 1	-	-	-	-	-	-	1021	894	-	1017	892	-
Stage 2	-	-	-	-	-	-	1015	892	-	1021	894	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1616	-	-	1620	-	-	1006	888	1082	1013	888	1078
Mov Cap-2 Maneuver	-	-	-	-	-	-	1006	888	-	1013	888	-
Stage 1	-	-	-	-	-	-	1021	894	-	1017	892	-
Stage 2	-	-	-	-	-	-	1011	892	-	1021	894	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	8.6	8.4
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1006	1616	-	-	1620	-	-	1078
HCM Lane V/C Ratio	0.005	-	-	-	-	-	-	0.004
HCM Control Delay (s)	8.6	0	-	-	0	-	-	8.4
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	76	55	126	20	503	268	1434	150	475	444	464
Future Volume (veh/h)	260	76	55	126	20	503	268	1434	150	475	444	464
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	283	83	60	137	22	547	291	1559	163	516	483	504
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	340	189	137	162	336	285	317	755	640	298	735	623
Arrive On Green	0.10	0.19	0.19	0.09	0.18	0.18	0.18	0.40	0.40	0.17	0.39	0.39
Sat Flow, veh/h	3456	1009	730	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	283	0	143	137	22	547	291	1559	163	516	483	504
Grp Sat Flow(s),veh/h/ln	1728	0	1739	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	11.5	0.0	10.4	10.8	1.4	25.7	22.9	57.7	9.8	23.9	30.2	40.4
Cycle Q Clear(g_c), s	11.5	0.0	10.4	10.8	1.4	25.7	22.9	57.7	9.8	23.9	30.2	40.4
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	340	0	326	162	336	285	317	755	640	298	735	623
V/C Ratio(X)	0.83	0.00	0.44	0.84	0.07	1.92	0.92	2.06	0.25	1.73	0.66	0.81
Avail Cap(c_a), veh/h	513	0	326	310	336	285	403	755	640	298	735	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.2	0.0	51.4	63.9	48.6	58.6	57.7	42.6	28.3	59.5	35.5	38.6
Incr Delay (d2), s/veh	7.1	0.0	0.9	11.2	0.1	426.1	22.4	483.3	0.2	343.0	2.1	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.0	4.6	5.4	0.7	44.0	12.0	126.6	3.8	38.9	13.6	16.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.3	0.0	52.3	75.2	48.7	484.7	80.1	525.9	28.5	402.5	37.6	46.4
LnGrp LOS	E	A	D	E	D	F	F	F	C	F	D	D
Approach Vol, veh/h		426			706			2013			1503	
Approach Delay, s/veh		64.3			391.6			421.2			165.8	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.0	63.9	18.1	31.9	30.5	62.4	19.2	30.8
Change Period (Y+Rc), s	5.1	6.2	5.1	5.1	5.1	6.2	5.1	5.1
Max Green Setting (Gmax), s	23.9	57.7	24.9	22.0	32.3	49.3	21.2	25.7
Max Q Clear Time (g_c+I1), s	25.9	59.7	12.8	12.4	24.9	42.4	13.5	27.7
Green Ext Time (p_c), s	0.0	0.0	0.2	0.4	0.5	2.7	0.6	0.0

Intersection Summary	
HCM 6th Ctrl Delay	301.4
HCM 6th LOS	F

Intersection	
Int Delay, s/veh	54.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	105	89	463	36	41	12	514	0	33	47	0	53
Future Vol, veh/h	105	89	463	36	41	12	514	0	33	47	0	53
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	105	89	463	36	41	12	514	0	33	47	0	53

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	53	0	0	552	0	0	445	424	89	666	881	47
Stage 1	-	-	-	-	-	-	299	299	-	119	119	-
Stage 2	-	-	-	-	-	-	146	125	-	547	762	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1553	-	-	1018	-	-	523	522	969	373	285	1022
Stage 1	-	-	-	-	-	-	710	666	-	885	797	-
Stage 2	-	-	-	-	-	-	857	792	-	521	414	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1553	-	-	1018	-	-	~ 444	450	969	322	246	1022
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 444	450	-	322	246	-
Stage 1	-	-	-	-	-	-	635	596	-	792	768	-
Stage 2	-	-	-	-	-	-	783	763	-	450	371	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	3.5	133.9	13.9
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	459	1553	-	-	1018	-	-	506
HCM Lane V/C Ratio	1.192	0.068	-	-	0.035	-	-	0.198
HCM Control Delay (s)	133.9	7.5	-	-	8.7	-	-	13.9
HCM Lane LOS	F	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	20.8	0.2	-	-	0.1	-	-	0.7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	85	84	44	0	0	45
Future Vol, veh/h	85	84	44	0	0	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	85	84	44	0	0	45

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	111	23	45	0	-	0
Stage 1	23	-	-	-	-	-
Stage 2	88	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	886	1054	1563	-	-	-
Stage 1	1000	-	-	-	-	-
Stage 2	935	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	861	1054	1563	-	-	-
Mov Cap-2 Maneuver	861	-	-	-	-	-
Stage 1	972	-	-	-	-	-
Stage 2	935	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	7.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1563	-	947	-	-
HCM Lane V/C Ratio	0.028	-	0.178	-	-
HCM Control Delay (s)	7.4	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

Intersection	
Int Delay, s/veh	4.1

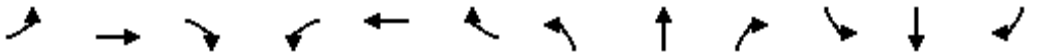
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	3	3	0	5	0	4	0	0	0	0	4
Future Vol, veh/h	3	3	3	0	5	0	4	0	0	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	3	3	0	5	0	4	0	0	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	5	0	0	6	0	0	18	16	5	16	17	5
Stage 1	-	-	-	-	-	-	11	11	-	5	5	-
Stage 2	-	-	-	-	-	-	7	5	-	11	12	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1616	-	-	1615	-	-	996	878	1078	999	877	1078
Stage 1	-	-	-	-	-	-	1010	886	-	1017	892	-
Stage 2	-	-	-	-	-	-	1015	892	-	1010	886	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1616	-	-	1615	-	-	991	876	1078	997	875	1078
Mov Cap-2 Maneuver	-	-	-	-	-	-	991	876	-	997	875	-
Stage 1	-	-	-	-	-	-	1008	884	-	1015	892	-
Stage 2	-	-	-	-	-	-	1011	892	-	1008	884	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.4	0	8.6	8.4
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	991	1616	-	-	1615	-	-	1078
HCM Lane V/C Ratio	0.004	0.002	-	-	-	-	-	0.004
HCM Control Delay (s)	8.6	7.2	0	-	0	-	-	8.4
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

A.4 - Near Term (2025) Plus Phase 1A Plus KT (Homes and Retail) Plus South Retail Mitigated Synchro Output Sheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	76	55	126	20	503	268	1434	150	475	444	464
Future Volume (veh/h)	260	76	55	126	20	503	268	1434	150	475	444	464
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	283	83	60	137	0	562	291	1559	163	516	483	504
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	336	153	111	160	0	946	345	1622	866	531	1814	963
Arrive On Green	0.10	0.15	0.15	0.09	0.00	0.14	0.10	0.46	0.46	0.15	0.51	0.51
Sat Flow, veh/h	3456	1009	730	1781	0	3170	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	283	0	143	137	0	562	291	1559	163	516	483	504
Grp Sat Flow(s),veh/h/ln	1728	0	1739	1781	0	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	11.7	0.0	11.0	11.0	0.0	21.0	12.0	61.7	7.5	21.6	11.2	26.6
Cycle Q Clear(g_c), s	11.7	0.0	11.0	11.0	0.0	21.0	12.0	61.7	7.5	21.6	11.2	26.6
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	336	0	264	160	0	946	345	1622	866	531	1814	963
V/C Ratio(X)	0.84	0.00	0.54	0.86	0.00	0.59	0.84	0.96	0.19	0.97	0.27	0.52
Avail Cap(c_a), veh/h	436	0	280	195	0	946	467	1638	873	531	1814	963
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.5	0.0	56.9	65.1	0.0	43.4	64.2	38.2	16.7	61.1	20.1	16.4
Incr Delay (d2), s/veh	11.2	0.0	1.8	25.6	0.0	1.0	10.1	14.0	0.1	31.9	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.0	5.0	6.1	0.0	8.7	5.6	28.3	2.8	11.5	4.5	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.7	0.0	58.7	90.7	0.0	44.5	74.4	52.2	16.8	93.0	20.2	16.9
LnGrp LOS	E	A	E	F	A	D	E	D	B	F	C	B
Approach Vol, veh/h		426			699			2013			1503	
Approach Delay, s/veh		70.0			53.5			52.6			44.1	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.4	72.5	18.1	27.2	19.6	80.3	19.2	26.1
Change Period (Y+Rc), s	5.1	6.2	5.1	5.1	5.1	6.2	5.1	5.1
Max Green Setting (Gmax), s	22.3	66.9	15.9	23.4	19.6	69.6	18.3	21.0
Max Q Clear Time (g_c+I1), s	23.6	63.7	13.0	13.0	14.0	28.6	13.7	23.0
Green Ext Time (p_c), s	0.0	2.6	0.1	0.5	0.5	5.2	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	51.6
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

A.5 - Near Term (2025) Plus Phase 1A 1A Plus KT (Homes and Retail) Plus South Retail Mitigated Sidra Output Sheets

LANE SUMMARY

Site: 101 [4. Street D & Commercial Dwy 3 & 4_PM]

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Commercial Dwy 4													
Lane 1[d]	596	1.0	1042	0.572	100	10.8	LOS B	5.1	129.4	Full	1600	0.0	0.0
Approach	596	1.0		0.572		10.8	LOS B	5.1	129.4				
East: Street D													
Lane 1[d]	97	1.0	681	0.142	100	6.9	LOS A	0.6	14.4	Full	1600	0.0	0.0
Approach	97	1.0		0.142		6.9	LOS A	0.6	14.4				
North: Commercial Dwy 3													
Lane 1[d]	110	1.0	704	0.156	100	6.8	LOS A	0.6	16.0	Full	1600	0.0	0.0
Approach	110	1.0		0.156		6.8	LOS A	0.6	16.0				
West: Street D													
Lane 1[d]	211	1.0	1278	0.165	100	4.2	LOS A	0.7	18.2	Full	1600	0.0	0.0
Lane 2	503	1.0	1339	0.376	100	6.2	LOS A	2.2	55.1	Full	1600	0.0	0.0
Approach	714	1.0		0.376		5.6	LOS A	2.2	55.1				
Intersection	1516	1.0		0.572		7.8	LOS A	5.1	129.4				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

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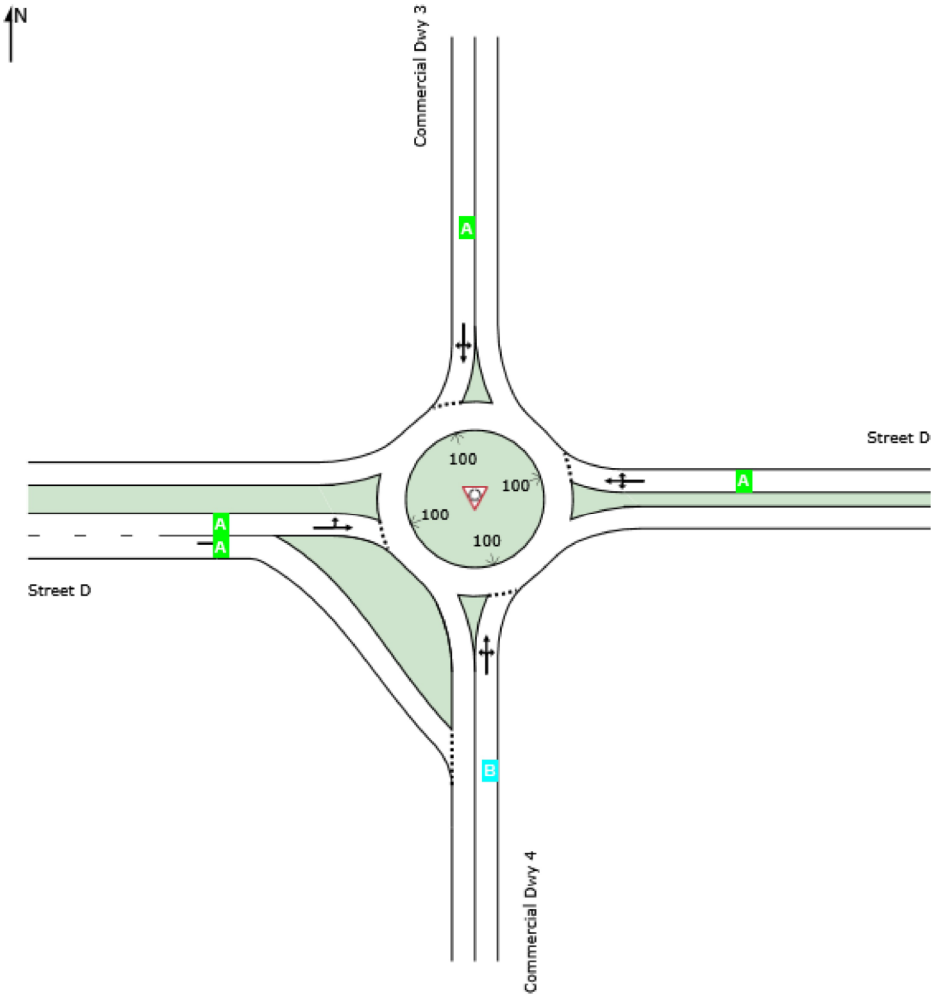
LANE LEVEL OF SERVICE

Lane Level of Service

Site: 101 [4. Street D & Commercial Dwy 3 & 4_PM]

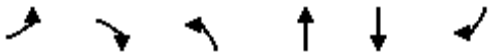
New Site
Site Category: (None)
Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	B	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

A.6 - Near Term (2025) Plus Phase 1A (MIT) Synchro Output Sheets



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	171	173	28	253	918	128
Future Volume (veh/h)	171	173	28	253	918	128
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	186	188	30	275	998	139
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	530	243	45	1287	1107	938
Arrive On Green	0.15	0.15	0.03	0.69	0.59	0.59
Sat Flow, veh/h	3456	1585	1781	1870	1870	1585
Grp Volume(v), veh/h	186	188	30	275	998	139
Grp Sat Flow(s),veh/h/ln	1728	1585	1781	1870	1870	1585
Q Serve(g_s), s	3.4	8.1	1.2	3.8	33.3	2.8
Cycle Q Clear(g_c), s	3.4	8.1	1.2	3.8	33.3	2.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	530	243	45	1287	1107	938
V/C Ratio(X)	0.35	0.77	0.67	0.21	0.90	0.15
Avail Cap(c_a), veh/h	872	400	100	1592	1353	1147
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.0	29.0	34.5	4.1	12.7	6.5
Incr Delay (d2), s/veh	0.4	5.2	15.9	0.1	7.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.4	0.7	0.8	11.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.4	34.2	50.4	4.1	20.3	6.6
LnGrp LOS	C	C	D	A	C	A
Approach Vol, veh/h	374			305	1137	
Approach Delay, s/veh	30.8			8.7	18.6	
Approach LOS	C			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		55.3		16.0	6.9	48.4
Change Period (Y+Rc), s		6.2		5.1	5.1	6.2
Max Green Setting (Gmax), s		60.7		18.0	4.0	51.6
Max Q Clear Time (g_c+I1), s		5.8		10.1	3.2	35.3
Green Ext Time (p_c), s		1.5		0.8	0.0	6.9

Intersection Summary		
HCM 6th Ctrl Delay		19.5
HCM 6th LOS		B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	8	10	0	0	0	0	14	12	104	322	0
Future Volume (veh/h)	143	8	10	0	0	0	0	14	12	104	322	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1159	1900				0	1900	1900	1885	1885	0
Adj Flow Rate, veh/h	172	10	0				0	17	14	125	388	0
Peak Hour Factor	0.83	0.83	0.83				0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	50	0				0	0	0	1	1	0
Cap, veh/h	201	12					0	85	70	151	469	0
Arrive On Green	0.19	0.19	0.00				0.00	0.09	0.09	0.33	0.33	0.00
Sat Flow, veh/h	1046	61	1610				0	964	794	454	1409	0
Grp Volume(v), veh/h	182	0	0				0	0	31	513	0	0
Grp Sat Flow(s),veh/h/ln	1107	0	1610				0	0	1757	1862	0	0
Q Serve(g_s), s	7.2	0.0	0.0				0.0	0.0	0.7	11.5	0.0	0.0
Cycle Q Clear(g_c), s	7.2	0.0	0.0				0.0	0.0	0.7	11.5	0.0	0.0
Prop In Lane	0.95		1.00				0.00		0.45	0.24		0.00
Lane Grp Cap(c), veh/h	212	0					0	0	155	620	0	0
V/C Ratio(X)	0.86	0.00					0.00	0.00	0.20	0.83	0.00	0.00
Avail Cap(c_a), veh/h	468	0					0	0	723	1022	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.7	0.0	0.0				0.0	0.0	19.1	13.9	0.0	0.0
Incr Delay (d2), s/veh	9.6	0.0	0.0				0.0	0.0	0.6	3.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.0				0.0	0.0	0.3	3.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.3	0.0	0.0				0.0	0.0	19.7	16.9	0.0	0.0
LnGrp LOS	C	A					A	A	B	B	A	A
Approach Vol, veh/h		182	A					31			513	
Approach Delay, s/veh		27.3						19.7			16.9	
Approach LOS		C						B			B	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	10.2	13.8	21.2
Change Period (Y+Rc), s	6.2	5.1	6.2
Max Green Setting (Gmax), s	18.6	19.1	24.8
Max Q Clear Time (g_c+I1), s	2.7	9.2	13.5
Green Ext Time (p_c), s	0.0	0.5	1.6

Intersection Summary	
HCM 6th Ctrl Delay	19.6
HCM 6th LOS	B

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	165	8	131	7	150	0	0	261	830
Future Vol, veh/h	0	0	0	165	8	131	7	150	0	0	261	830
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	2	0	22	0	24	0	0	9	3
Mvmt Flow	0	0	0	190	9	151	8	172	0	0	300	954

Major/Minor	Minor1			Major1			Major2			
Conflicting Flow All	965	1442	172	1254	0	-	-	-	0
Stage 1	188	188	-	-	-	-	-	-	-
Stage 2	777	1254	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.5	6.42	4.1	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4	3.498	2.2	-	-	-	-	-
Pot Cap-1 Maneuver	283	134	822	562	-	0	0	-	-
Stage 1	844	748	-	-	-	0	0	-	-
Stage 2	453	246	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	278	0	822	562	-	-	-	-	-
Mov Cap-2 Maneuver	278	0	-	-	-	-	-	-	-
Stage 1	830	0	-	-	-	-	-	-	-
Stage 2	453	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	30	0.5	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	562	-	278	822	-	-
HCM Lane V/C Ratio	0.014	-	0.715	0.183	-	-
HCM Control Delay (s)	11.5	0	44.8	10.4	-	-
HCM Lane LOS	B	A	E	B	-	-
HCM 95th %tile Q(veh)	0	-	5	0.7	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	310	45	171	168	94	791
Future Volume (veh/h)	310	45	171	168	94	791
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1796	1796	1885	1885
Adj Flow Rate, veh/h	348	51	192	189	106	889
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	7	7	1	1
Cap, veh/h	366	54	500	492	134	937
Arrive On Green	0.26	0.26	0.60	0.60	0.60	0.60
Sat Flow, veh/h	1393	204	831	818	147	1557
Grp Volume(v), veh/h	400	0	0	381	995	0
Grp Sat Flow(s),veh/h/ln	1601	0	0	1649	1704	0
Q Serve(g_s), s	21.7	0.0	0.0	10.6	38.9	0.0
Cycle Q Clear(g_c), s	21.7	0.0	0.0	10.6	49.5	0.0
Prop In Lane	0.87	0.13		0.50	0.11	
Lane Grp Cap(c), veh/h	420	0	0	992	1070	0
V/C Ratio(X)	0.95	0.00	0.00	0.38	0.93	0.00
Avail Cap(c_a), veh/h	420	0	0	1023	1102	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.0	0.0	0.0	9.1	17.0	0.0
Incr Delay (d2), s/veh	31.7	0.0	0.0	0.2	13.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	0.0	0.0	3.0	18.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	63.8	0.0	0.0	9.4	30.2	0.0
LnGrp LOS	E	A	A	A	C	A
Approach Vol, veh/h	400		381			995
Approach Delay, s/veh	63.8		9.4			30.2
Approach LOS	E		A			C

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		59.4			59.4	29.0
Change Period (Y+Rc), s		6.2			6.2	5.8
Max Green Setting (Gmax), s		54.8			54.8	23.2
Max Q Clear Time (g_c+I1), s		12.6			51.5	23.7
Green Ext Time (p_c), s		1.6			1.7	0.0

Intersection Summary	
HCM 6th Ctrl Delay	33.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	322	69	236	515	273	516
Future Volume (veh/h)	322	69	236	515	273	516
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	350	75	257	560	297	561
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	507	233	310	1244	760	644
Arrive On Green	0.15	0.15	0.17	0.67	0.41	0.41
Sat Flow, veh/h	3456	1585	1781	1870	1870	1585
Grp Volume(v), veh/h	350	75	257	560	297	561
Grp Sat Flow(s),veh/h/ln	1728	1585	1781	1870	1870	1585
Q Serve(g_s), s	5.8	2.5	8.4	8.6	6.7	19.6
Cycle Q Clear(g_c), s	5.8	2.5	8.4	8.6	6.7	19.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	507	233	310	1244	760	644
V/C Ratio(X)	0.69	0.32	0.83	0.45	0.39	0.87
Avail Cap(c_a), veh/h	971	445	412	1611	1020	865
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.4	23.0	24.0	4.8	12.6	16.4
Incr Delay (d2), s/veh	1.7	0.8	10.2	0.3	0.3	7.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.1	3.9	1.5	2.2	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.0	23.8	34.2	5.1	12.9	23.9
LnGrp LOS	C	C	C	A	B	C
Approach Vol, veh/h	425			817	858	
Approach Delay, s/veh	25.6			14.2	20.1	
Approach LOS	C			B	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		46.2		13.9	15.6	30.6
Change Period (Y+Rc), s		6.2		5.1	5.1	6.2
Max Green Setting (Gmax), s		51.8		16.9	13.9	32.8
Max Q Clear Time (g_c+I1), s		10.6		7.8	10.4	21.6
Green Ext Time (p_c), s		3.5		1.0	0.2	2.9

Intersection Summary		
HCM 6th Ctrl Delay		18.9
HCM 6th LOS		B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	432	11	9	0	0	0	0	221	480	120	29	0
Future Volume (veh/h)	432	11	9	0	0	0	0	221	480	120	29	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	455	12	0				0	233	505	126	31	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	501	13					0	240	519	166	41	0
Arrive On Green	0.28	0.28	0.00				0.00	0.45	0.45	0.11	0.11	0.00
Sat Flow, veh/h	1765	47	1610				0	534	1158	1466	361	0
Grp Volume(v), veh/h	467	0	0				0	0	738	157	0	0
Grp Sat Flow(s),veh/h/ln	1812	0	1610				0	0	1692	1827	0	0
Q Serve(g_s), s	19.4	0.0	0.0				0.0	0.0	33.3	6.5	0.0	0.0
Cycle Q Clear(g_c), s	19.4	0.0	0.0				0.0	0.0	33.3	6.5	0.0	0.0
Prop In Lane	0.97		1.00				0.00		0.68	0.80		0.00
Lane Grp Cap(c), veh/h	514	0					0	0	759	207	0	0
V/C Ratio(X)	0.91	0.00					0.00	0.00	0.97	0.76	0.00	0.00
Avail Cap(c_a), veh/h	581	0					0	0	759	422	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.9	0.0	0.0				0.0	0.0	21.0	33.5	0.0	0.0
Incr Delay (d2), s/veh	17.0	0.0	0.0				0.0	0.0	25.8	5.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	0.0	0.0				0.0	0.0	17.3	3.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.9	0.0	0.0				0.0	0.0	46.9	39.1	0.0	0.0
LnGrp LOS	D	A					A	A	D	D	A	A
Approach Vol, veh/h		467	A					738			157	
Approach Delay, s/veh		43.9						46.9			39.1	
Approach LOS		D						D			D	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	39.0	26.1	12.8
Change Period (Y+Rc), s	4.0	4.0	4.0
Max Green Setting (Gmax), s	35.0	25.0	18.0
Max Q Clear Time (g_c+I1), s	35.3	21.4	8.5
Green Ext Time (p_c), s	0.0	0.7	0.3

Intersection Summary	
HCM 6th Ctrl Delay	45.0
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	13	8	114	16	637	0	0	136	206
Future Vol, veh/h	0	0	0	13	8	114	16	637	0	0	136	206
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	8	0	2	0	0	4	8
Mvmt Flow	0	0	0	14	9	121	17	678	0	0	145	219

Major/Minor	Minor1			Major1			Major2			
Conflicting Flow All	967	1076	678	364	0	-	-	-	0
Stage 1	712	712	-	-	-	-	-	-	-
Stage 2	255	364	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.28	4.1	-	-	-	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.372	2.2	-	-	-	-	-
Pot Cap-1 Maneuver	284	221	442	1206	-	0	0	-	-
Stage 1	490	439	-	-	-	0	0	-	-
Stage 2	792	627	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	277	0	442	1206	-	-	-	-	-
Mov Cap-2 Maneuver	277	0	-	-	-	-	-	-	-
Stage 1	479	0	-	-	-	-	-	-	-
Stage 2	792	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.7	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1206	-	277	442	-	-
HCM Lane V/C Ratio	0.014	-	0.081	0.274	-	-
HCM Control Delay (s)	8	0	19.1	16.2	-	-
HCM Lane LOS	A	A	C	C	-	-
HCM 95th %tile Q(veh)	0	-	0.3	1.1	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	353	63	476	412	61	401
Future Volume (veh/h)	353	63	476	412	61	401
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1870	1870	1870	1870
Adj Flow Rate, veh/h	388	69	523	453	67	441
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	374	67	562	487	59	366
Arrive On Green	0.27	0.27	0.61	0.61	0.61	0.61
Sat Flow, veh/h	1376	245	925	801	31	601
Grp Volume(v), veh/h	458	0	0	976	508	0
Grp Sat Flow(s),veh/h/ln	1624	0	0	1726	632	0
Q Serve(g_s), s	27.2	0.0	0.0	51.0	9.8	0.0
Cycle Q Clear(g_c), s	27.2	0.0	0.0	51.0	60.8	0.0
Prop In Lane	0.85	0.15		0.46	0.13	
Lane Grp Cap(c), veh/h	442	0	0	1049	425	0
V/C Ratio(X)	1.04	0.00	0.00	0.93	1.20	0.00
Avail Cap(c_a), veh/h	442	0	0	1049	425	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	36.4	0.0	0.0	17.7	22.1	0.0
Incr Delay (d2), s/veh	52.6	0.0	0.0	14.0	108.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.4	0.0	0.0	20.0	17.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	89.0	0.0	0.0	31.7	130.9	0.0
LnGrp LOS	F	A	A	C	F	A
Approach Vol, veh/h	458		976			508
Approach Delay, s/veh	89.0		31.7			130.9
Approach LOS	F		C			F

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		67.0			67.0	33.0
Change Period (Y+Rc), s		6.2			6.2	5.8
Max Green Setting (Gmax), s		60.8			60.8	27.2
Max Q Clear Time (g_c+I1), s		53.0			62.8	29.2
Green Ext Time (p_c), s		3.2			0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	71.2
HCM 6th LOS	E

A.7 - Near Term (2025) Plus Phase 1A (MIT) Additional Mitigations Synchro Output Sheets

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	353	63	476	412	61	401
Future Volume (veh/h)	353	63	476	412	61	401
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1737	1870	1870	1841	1811	1870
Adj Flow Rate, veh/h	388	69	523	453	67	441
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	11	2	2	4	6	2
Cap, veh/h	479	459	776	647	282	776
Arrive On Green	0.29	0.29	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1654	1585	1870	1560	558	1870
Grp Volume(v), veh/h	388	69	523	453	67	441
Grp Sat Flow(s),veh/h/ln	1654	1585	1870	1560	558	1870
Q Serve(g_s), s	8.8	1.3	9.2	9.7	4.5	7.3
Cycle Q Clear(g_c), s	8.8	1.3	9.2	9.7	13.7	7.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	479	459	776	647	282	776
V/C Ratio(X)	0.81	0.15	0.67	0.70	0.24	0.57
Avail Cap(c_a), veh/h	700	671	957	798	336	957
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.4	10.7	9.7	9.8	15.2	9.1
Incr Delay (d2), s/veh	4.6	0.1	1.4	2.1	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.3	2.3	2.2	0.5	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.0	10.9	11.0	11.9	15.7	9.8
LnGrp LOS	B	B	B	B	B	A
Approach Vol, veh/h	457		976			508
Approach Delay, s/veh	16.9		11.4			10.5
Approach LOS	B		B			B

Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	23.1			23.1	17.6
Change Period (Y+Rc), s	6.2			6.2	5.8
Max Green Setting (Gmax), s	20.8			20.8	17.2
Max Q Clear Time (g_c+I1), s	11.7			15.7	10.8
Green Ext Time (p_c), s	2.9			1.1	1.0

Intersection Summary	
HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	353	63	476	412	61	401
Future Volume (veh/h)	353	63	476	412	61	401
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1737	1870	1870	1841	1811	1870
Adj Flow Rate, veh/h	388	69	523	453	67	441
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	11	2	2	4	6	2
Cap, veh/h	479	459	776	647	282	776
Arrive On Green	0.29	0.29	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1654	1585	1870	1560	558	1870
Grp Volume(v), veh/h	388	69	523	453	67	441
Grp Sat Flow(s),veh/h/ln	1654	1585	1870	1560	558	1870
Q Serve(g_s), s	8.8	1.3	9.2	9.7	4.5	7.3
Cycle Q Clear(g_c), s	8.8	1.3	9.2	9.7	13.7	7.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	479	459	776	647	282	776
V/C Ratio(X)	0.81	0.15	0.67	0.70	0.24	0.57
Avail Cap(c_a), veh/h	700	671	957	798	336	957
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.4	10.7	9.7	9.8	15.2	9.1
Incr Delay (d2), s/veh	4.6	0.1	1.4	2.1	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.3	2.3	2.2	0.5	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.0	10.9	11.0	11.9	15.7	9.8
LnGrp LOS	B	B	B	B	B	A
Approach Vol, veh/h	457		976			508
Approach Delay, s/veh	16.9		11.4			10.5
Approach LOS	B		B			B

Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	23.1			23.1	17.6
Change Period (Y+Rc), s	6.2			6.2	5.8
Max Green Setting (Gmax), s	20.8			20.8	17.2
Max Q Clear Time (g_c+I1), s	11.7			15.7	10.8
Green Ext Time (p_c), s	2.9			1.1	1.0

Intersection Summary	
HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

A.8 - Near Term (2025) Plus Phase 1A (MIT) Additional Mitigations Sidra Output Sheets

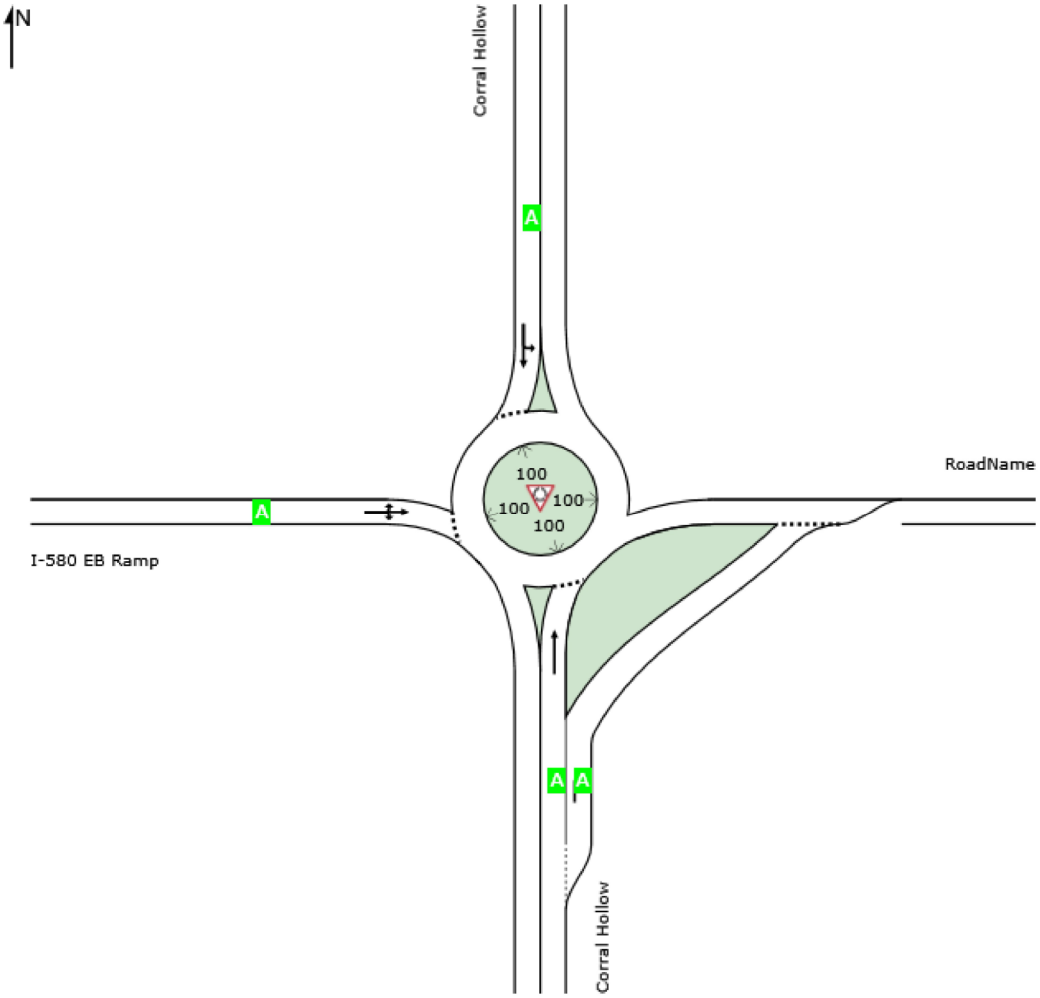
LANE LEVEL OF SERVICE

Lane Level of Service

Site: 101 [1. Corral Hollow & I-580 EB Ramps_AM]

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	South	North	West	
LOS	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

Site: 101 [1. Corral Hollow & I-580 EB Ramps_AM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Corral Hollow												
8	T1	17	0.0	0.017	3.8	LOS A	0.1	1.6	0.42	0.27	0.42	36.0
18	R2	14	0.0	0.012	3.1	LOS A	0.0	1.1	0.27	0.13	0.27	35.2
Approach		31	0.0	0.017	3.4	LOS A	0.1	1.6	0.35	0.20	0.35	35.6
North: Corral Hollow												
7	L2	125	28.0	0.400	7.2	LOS A	0.0	0.0	0.00	0.00	0.00	36.6
4	T1	388	1.0	0.400	6.5	LOS A	0.0	0.0	0.00	0.00	0.00	37.6
Approach		513	7.6	0.400	6.7	LOS A	0.0	0.0	0.00	0.00	0.00	37.3
West: I-580 EB Ramp												
5	L2	172	26.0	0.310	9.9	LOS A	1.1	33.3	0.61	0.60	0.61	30.1
2	T1	10	50.0	0.310	11.0	LOS B	1.1	33.3	0.61	0.60	0.61	30.0
12	R2	12	0.0	0.310	8.7	LOS A	1.1	33.3	0.61	0.60	0.61	29.9
Approach		194	25.6	0.310	9.9	LOS A	1.1	33.3	0.61	0.60	0.61	30.1
All Vehicles		739	12.0	0.400	7.4	LOS A	1.1	33.3	0.17	0.17	0.17	35.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

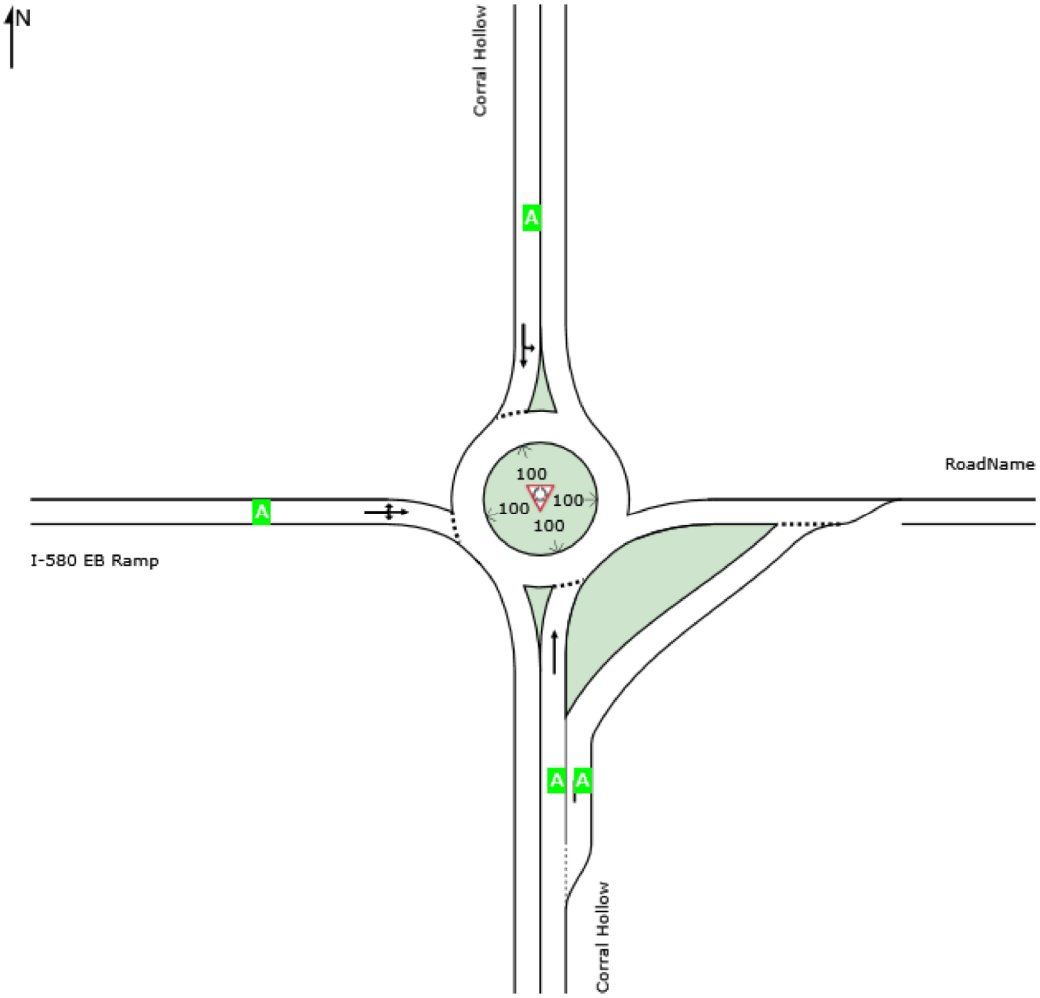
LANE LEVEL OF SERVICE

Lane Level of Service

Site: 101 [1. Corral Hollow & I-580 EB Ramps_PM]

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	South	North	West	
LOS	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

Site: 101 [1. Corral Hollow & I-580 EB Ramps_PM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Corral Hollow												
8	T1	233	0.0	0.287	7.7	LOS A	1.2	30.8	0.61	0.61	0.61	33.9
18	R2	505	0.0	0.406	6.9	LOS A	2.4	59.8	0.38	0.23	0.38	33.2
Approach		738	0.0	0.406	7.1	LOS A	2.4	59.8	0.45	0.35	0.45	33.4
North: Corral Hollow												
7	L2	126	5.0	0.118	3.7	LOS A	0.0	0.0	0.00	0.00	0.00	35.5
4	T1	31	0.0	0.118	3.6	LOS A	0.0	0.0	0.00	0.00	0.00	35.5
Approach		157	4.0	0.118	3.7	LOS A	0.0	0.0	0.00	0.00	0.00	35.5
West: I-580 EB Ramp												
5	L2	455	4.0	0.423	7.6	LOS A	2.5	65.6	0.44	0.29	0.44	31.4
2	T1	12	0.0	0.423	7.5	LOS A	2.5	65.6	0.44	0.29	0.44	31.5
12	R2	9	0.0	0.423	7.5	LOS A	2.5	65.6	0.44	0.29	0.44	30.7
Approach		476	3.8	0.423	7.6	LOS A	2.5	65.6	0.44	0.29	0.44	31.4
All Vehicles		1371	1.8	0.423	6.9	LOS A	2.5	65.6	0.39	0.29	0.39	32.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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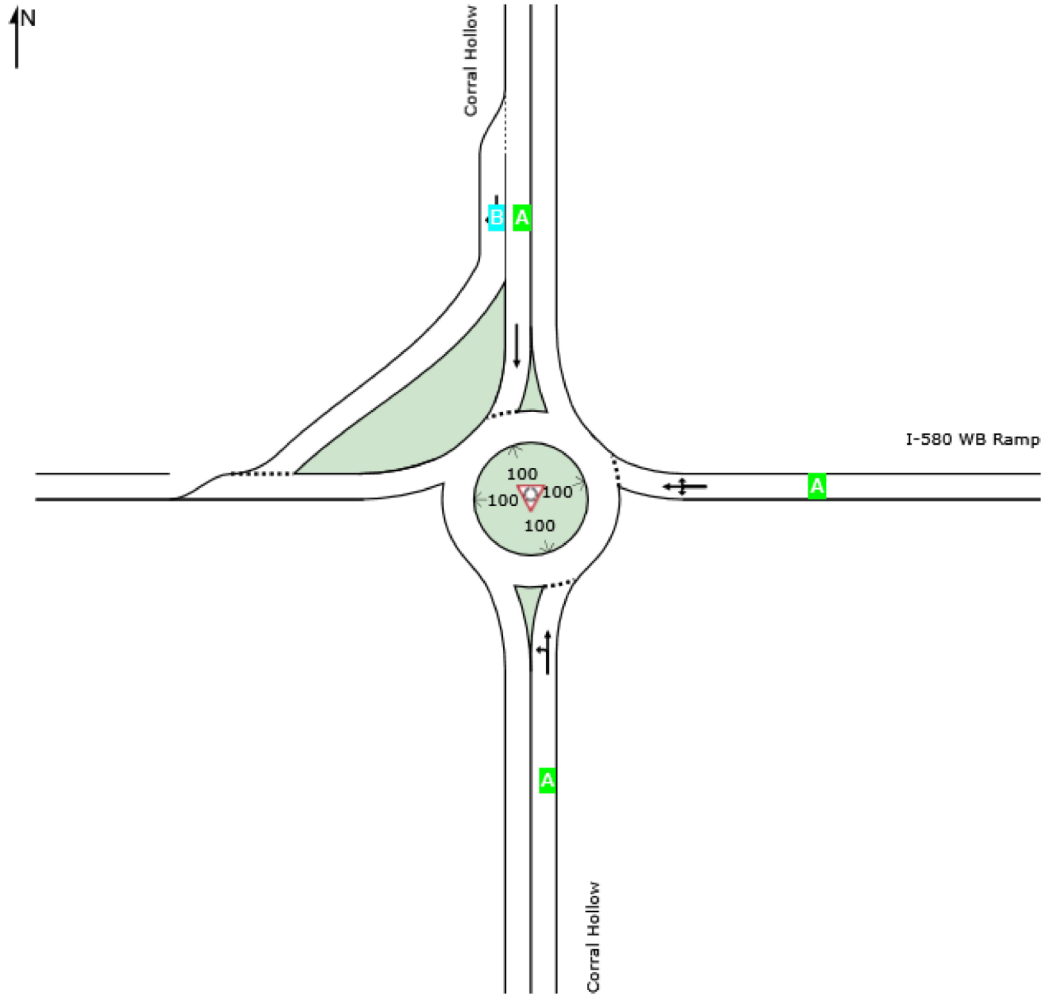
LANE LEVEL OF SERVICE

Lane Level of Service

Site: 101 [2. Corral Hollow & I-580 WB Ramps_AM]

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	South	East	North	
LOS	A	A	B	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

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MOVEMENT SUMMARY

Site: 101 [2. Corral Hollow & I-580 WB Ramps_AM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Corral Hollow												
3	L2	8	0.0	0.161	4.0	LOS A	0.0	0.0	0.00	0.00	0.00	38.2
8	T1	172	24.0	0.161	4.7	LOS A	0.0	0.0	0.00	0.00	0.00	37.6
Approach		180	22.9	0.161	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	37.6
East: I-580 WB Ramp												
1	L2	190	2.0	0.351	7.0	LOS A	1.7	46.8	0.45	0.33	0.45	32.4
6	T1	9	0.0	0.351	7.0	LOS A	1.7	46.8	0.45	0.33	0.45	32.4
16	R2	151	22.0	0.351	7.7	LOS A	1.7	46.8	0.45	0.33	0.45	31.1
Approach		349	10.6	0.351	7.3	LOS A	1.7	46.8	0.45	0.33	0.45	31.9
North: Corral Hollow												
4	T1	300	9.0	0.279	6.0	LOS A	1.2	32.8	0.38	0.26	0.38	34.6
14	R2	954	3.0	0.703	12.2	LOS B	8.0	204.8	0.22	0.06	0.22	30.7
Approach		1254	4.4	0.703	10.7	LOS B	8.0	204.8	0.26	0.11	0.26	31.6
All Vehicles		1784	7.5	0.703	9.4	LOS A	8.0	204.8	0.27	0.14	0.27	32.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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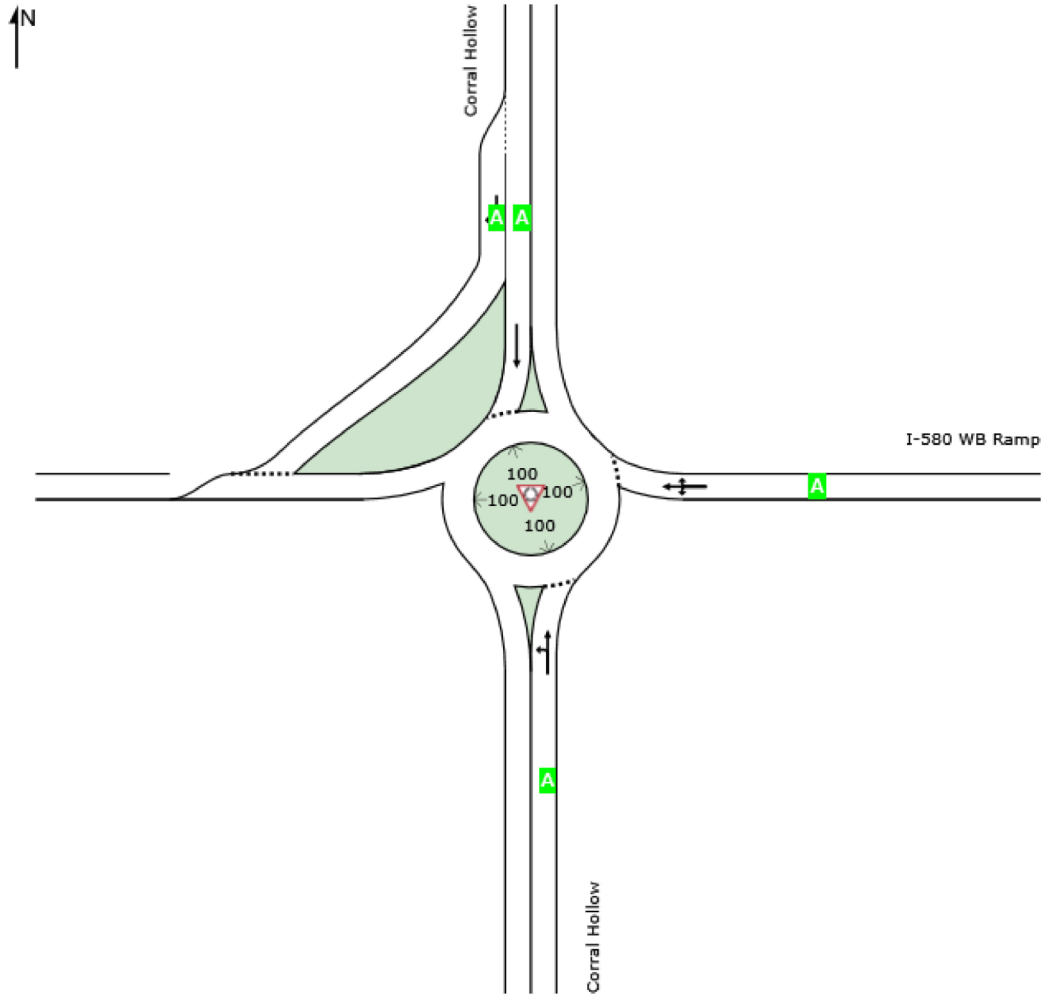
LANE LEVEL OF SERVICE

Lane Level of Service

Site: 101 [2. Corral Hollow & I-580 WB Ramps_PM]

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	South	East	North	
LOS	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

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MOVEMENT SUMMARY

Site: 101 [2. Corral Hollow & I-580 WB Ramps_PM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Corral Hollow												
3	L2	17	0.0	0.524	8.1	LOS A	0.0	0.0	0.00	0.00	0.00	38.3
8	T1	692	2.0	0.524	8.2	LOS A	0.0	0.0	0.00	0.00	0.00	38.1
Approach		710	2.0	0.524	8.2	LOS A	0.0	0.0	0.00	0.00	0.00	38.2
East: I-580 WB Ramp												
1	L2	14	0.0	0.237	8.4	LOS A	0.9	24.6	0.65	0.65	0.65	33.0
6	T1	9	0.0	0.237	8.4	LOS A	0.9	24.6	0.65	0.65	0.65	32.9
16	R2	124	8.0	0.237	8.9	LOS A	0.9	24.6	0.65	0.65	0.65	31.8
Approach		147	6.8	0.237	8.8	LOS A	0.9	24.6	0.65	0.65	0.65	32.0
North: Corral Hollow												
4	T1	148	4.0	0.112	3.6	LOS A	0.5	11.9	0.13	0.04	0.13	36.0
14	R2	224	8.0	0.174	4.3	LOS A	0.7	19.6	0.11	0.03	0.11	34.4
Approach		372	6.4	0.174	4.0	LOS A	0.7	19.6	0.12	0.04	0.12	35.0
All Vehicles		1228	3.9	0.524	7.0	LOS A	0.9	24.6	0.11	0.09	0.11	36.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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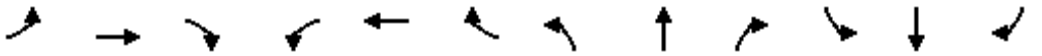
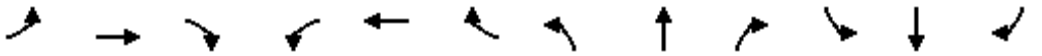
A.9 - Near Term (2025) Plus Phase 1A (MIT) Plus KT (Homes Only) Additional Mitigations Synchro Output Sheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	0	173	38	0	23	28	255	2	22	918	128
Future Volume (veh/h)	171	0	173	38	0	23	28	255	2	22	918	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	186	0	188	41	0	25	30	277	2	24	998	139
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	266	0	230	52	182	154	41	1098	930	35	1092	925
Arrive On Green	0.08	0.00	0.15	0.03	0.00	0.10	0.02	0.59	0.59	0.02	0.58	0.58
Sat Flow, veh/h	3456	0	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	186	0	188	41	0	25	30	277	2	24	998	139
Grp Sat Flow(s),veh/h/ln	1728	0	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	5.2	0.0	11.3	2.2	0.0	1.4	1.6	7.0	0.1	1.3	46.7	3.9
Cycle Q Clear(g_c), s	5.2	0.0	11.3	2.2	0.0	1.4	1.6	7.0	0.1	1.3	46.7	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	266	0	230	52	182	154	41	1098	930	35	1092	925
V/C Ratio(X)	0.70	0.00	0.82	0.79	0.00	0.16	0.74	0.25	0.00	0.69	0.91	0.15
Avail Cap(c_a), veh/h	634	0	488	160	400	339	73	1399	1186	111	1439	1220
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.2	0.0	40.7	47.3	0.0	40.6	47.7	9.8	8.4	47.8	18.2	9.3
Incr Delay (d2), s/veh	3.3	0.0	7.0	22.4	0.0	0.5	22.8	0.1	0.0	21.4	7.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	4.7	1.3	0.0	0.6	1.0	2.5	0.0	0.8	18.5	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.5	0.0	47.6	69.7	0.0	41.1	70.5	9.9	8.4	69.2	25.8	9.4
LnGrp LOS	D	A	D	E	A	D	E	A	A	E	C	A
Approach Vol, veh/h		374			66			309			1161	
Approach Delay, s/veh		47.5			58.9			15.8			24.8	
Approach LOS		D			E			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	63.8	8.0	19.3	7.3	63.5	12.7	14.6
Change Period (Y+Rc), s	5.1	6.2	5.1	5.1	5.1	6.2	5.1	5.1
Max Green Setting (Gmax), s	6.1	73.4	8.8	30.2	4.0	75.5	18.0	21.0
Max Q Clear Time (g_c+I1), s	3.3	9.0	4.2	13.3	3.6	48.7	7.2	3.4
Green Ext Time (p_c), s	0.0	1.5	0.0	1.0	0.0	8.5	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	29.0
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	8	10	0	0	0	0	14	12	110	322	0
Future Volume (veh/h)	146	8	10	0	0	0	0	14	12	110	322	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1159	1900				0	1900	1900	1885	1885	0
Adj Flow Rate, veh/h	176	10	0				0	17	14	133	388	0
Peak Hour Factor	0.83	0.83	0.83				0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	50	0				0	0	0	1	1	0
Cap, veh/h	205	12					0	165	140	160	466	0
Arrive On Green	0.20	0.20	0.00				0.00	0.09	0.09	0.34	0.34	0.00
Sat Flow, veh/h	1047	59	1610				0	1900	1610	475	1386	0
Grp Volume(v), veh/h	186	0	0				0	17	14	521	0	0
Grp Sat Flow(s),veh/h/ln	1107	0	1610				0	1900	1610	1861	0	0
Q Serve(g_s), s	7.5	0.0	0.0				0.0	0.4	0.4	11.9	0.0	0.0
Cycle Q Clear(g_c), s	7.5	0.0	0.0				0.0	0.4	0.4	11.9	0.0	0.0
Prop In Lane	0.95		1.00				0.00		1.00	0.26		0.00
Lane Grp Cap(c), veh/h	217	0					0	165	140	626	0	0
V/C Ratio(X)	0.86	0.00					0.00	0.10	0.10	0.83	0.00	0.00
Avail Cap(c_a), veh/h	460	0					0	761	645	1013	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.9	0.0	0.0				0.0	19.3	19.3	14.1	0.0	0.0
Incr Delay (d2), s/veh	9.4	0.0	0.0				0.0	0.3	0.3	3.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0				0.0	0.1	0.1	4.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.3	0.0	0.0				0.0	19.6	19.6	17.3	0.0	0.0
LnGrp LOS	C	A					A	B	B	B	A	A
Approach Vol, veh/h		186	A					31			521	
Approach Delay, s/veh		27.3						19.6			17.3	
Approach LOS		C						B			B	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		10.2		14.1		21.6						
Change Period (Y+Rc), s		6.2		5.1		6.2						
Max Green Setting (Gmax), s		18.4		19.1		25.0						
Max Q Clear Time (g_c+I1), s		2.4		9.5		13.9						
Green Ext Time (p_c), s		0.0		0.5		1.6						

Intersection Summary												
HCM 6th Ctrl Delay			19.9									
HCM 6th LOS			B									

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	165	8	132	7	153	0	0	267	862
Future Volume (veh/h)	0	0	0	165	8	132	7	153	0	0	267	862
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1574	1900	1574	1544	1544	0	0	1767	1856
Adj Flow Rate, veh/h				190	9	0	8	176	0	0	307	991
Peak Hour Factor				0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %				22	0	22	24	24	0	0	9	3
Cap, veh/h				253	12		89	1012	0	0	1221	1087
Arrive On Green				0.15	0.15	0.00	0.69	0.69	0.00	0.00	0.69	0.69
Sat Flow, veh/h				1731	82	1334	18	1464	0	0	1767	1572
Grp Volume(v), veh/h				199	0	0	184	0	0	0	307	991
Grp Sat Flow(s),veh/h/ln				1813	0	1334	1482	0	0	0	1767	1572
Q Serve(g_s), s				5.2	0.0	0.0	0.0	0.0	0.0	0.0	3.2	25.9
Cycle Q Clear(g_c), s				5.2	0.0	0.0	2.1	0.0	0.0	0.0	3.2	25.9
Prop In Lane				0.95		1.00	0.04		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				265	0		1101	0	0	0	1221	1087
V/C Ratio(X)				0.75	0.00		0.17	0.00	0.00	0.00	0.25	0.91
Avail Cap(c_a), veh/h				664	0		1101	0	0	0	1221	1087
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				20.1	0.0	0.0	2.7	0.0	0.0	0.0	2.8	6.3
Incr Delay (d2), s/veh				4.3	0.0	0.0	0.3	0.0	0.0	0.0	0.5	12.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.2	0.0	0.0	0.2	0.0	0.0	0.0	0.3	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.4	0.0	0.0	3.0	0.0	0.0	0.0	3.3	19.2
LnGrp LOS				C	A		A	A	A	A	A	B
Approach Vol, veh/h					199	A		184			1298	
Approach Delay, s/veh					24.4			3.0			15.5	
Approach LOS					C			A			B	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	38.0		38.0		11.2			
Change Period (Y+Rc), s	4.0		4.0		4.0			
Max Green Setting (Gmax), s	34.0		34.0		18.0			
Max Q Clear Time (g_c+I1), s	4.1		27.9		7.2			
Green Ext Time (p_c), s	0.7		3.5		0.5			

Intersection Summary		
HCM 6th Ctrl Delay		15.2
HCM 6th LOS		B

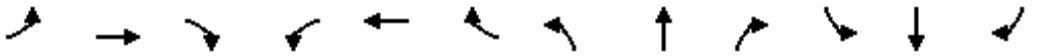
Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	320	45	188	189	94	803
Future Volume (veh/h)	320	45	188	189	94	803
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1707	1144	1796	1292	1544	1885
Adj Flow Rate, veh/h	360	51	211	212	106	902
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	13	51	7	41	24	1
Cap, veh/h	417	249	952	581	500	1000
Arrive On Green	0.26	0.26	0.53	0.53	0.53	0.53
Sat Flow, veh/h	1626	970	1796	1095	796	1885
Grp Volume(v), veh/h	360	51	211	212	106	902
Grp Sat Flow(s),veh/h/ln	1626	970	1796	1095	796	1885
Q Serve(g_s), s	11.9	2.3	3.5	6.3	4.6	24.2
Cycle Q Clear(g_c), s	11.9	2.3	3.5	6.3	8.1	24.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	417	249	952	581	500	1000
V/C Ratio(X)	0.86	0.21	0.22	0.37	0.21	0.90
Avail Cap(c_a), veh/h	497	296	1143	697	585	1200
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	16.4	7.0	7.7	9.2	11.9
Incr Delay (d2), s/veh	12.8	0.4	0.1	0.4	0.2	8.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.5	0.9	1.0	0.6	8.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.8	16.8	7.1	8.1	9.4	20.4
LnGrp LOS	C	B	A	A	A	C
Approach Vol, veh/h	411		423			1008
Approach Delay, s/veh	30.8		7.6			19.3
Approach LOS	C		A			B

Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	36.0			36.0	20.2
Change Period (Y+Rc), s	6.2			6.2	5.8
Max Green Setting (Gmax), s	35.8			35.8	17.2
Max Q Clear Time (g_c+I1), s	8.3			26.2	13.9
Green Ext Time (p_c), s	1.7			3.6	0.6

Intersection Summary	
HCM 6th Ctrl Delay	19.2
HCM 6th LOS	B



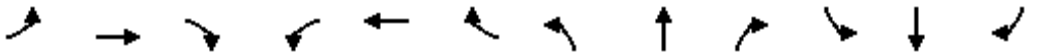
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	322	0	69	13	0	35	236	530	23	84	273	516
Future Volume (veh/h)	322	0	69	13	0	35	236	530	23	84	273	516
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	350	0	75	14	0	38	257	576	25	91	297	561
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	454	0	261	24	87	74	304	919	778	118	723	613
Arrive On Green	0.13	0.00	0.16	0.01	0.00	0.05	0.17	0.49	0.49	0.07	0.39	0.39
Sat Flow, veh/h	3456	0	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	350	0	75	14	0	38	257	576	25	91	297	561
Grp Sat Flow(s),veh/h/ln	1728	0	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	7.9	0.0	3.4	0.6	0.0	1.9	11.3	18.4	0.7	4.1	9.4	27.3
Cycle Q Clear(g_c), s	7.9	0.0	3.4	0.6	0.0	1.9	11.3	18.4	0.7	4.1	9.4	27.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	454	0	261	24	87	74	304	919	778	118	723	613
V/C Ratio(X)	0.77	0.00	0.29	0.59	0.00	0.52	0.85	0.63	0.03	0.77	0.41	0.92
Avail Cap(c_a), veh/h	720	0	662	88	484	410	547	1146	971	239	823	698
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.1	0.0	29.7	39.8	0.0	37.8	32.6	15.2	10.7	37.3	18.1	23.6
Incr Delay (d2), s/veh	2.8	0.0	0.6	21.1	0.0	5.5	6.4	0.7	0.0	10.3	0.4	15.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	1.3	0.4	0.0	0.8	5.0	6.6	0.2	2.0	3.6	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.9	0.0	30.3	60.9	0.0	43.3	39.0	15.9	10.7	47.6	18.5	39.3
LnGrp LOS	D	A	C	E	A	D	D	B	B	D	B	D
Approach Vol, veh/h		425			52			858			949	
Approach Delay, s/veh		35.7			48.0			22.7			33.6	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	46.0	6.2	18.4	18.9	37.6	15.8	8.9
Change Period (Y+Rc), s	5.1	6.2	5.1	5.1	5.1	6.2	5.1	5.1
Max Green Setting (Gmax), s	10.9	49.7	4.0	33.9	24.9	35.7	16.9	21.0
Max Q Clear Time (g_c+I1), s	6.1	20.4	2.6	5.4	13.3	29.3	9.9	3.9
Green Ext Time (p_c), s	0.1	3.6	0.0	0.4	0.5	2.1	0.7	0.1

Intersection Summary	
HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	463	11	9	0	0	0	0	221	480	123	29	0
Future Volume (veh/h)	463	11	9	0	0	0	0	221	480	123	29	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	487	12	0				0	233	505	129	31	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	562	14					0	631	535	189	45	0
Arrive On Green	0.32	0.32	0.00				0.00	0.33	0.33	0.13	0.13	0.00
Sat Flow, veh/h	1768	44	1610				0	1900	1610	1473	354	0
Grp Volume(v), veh/h	499	0	0				0	233	505	160	0	0
Grp Sat Flow(s),veh/h/ln	1812	0	1610				0	1900	1610	1826	0	0
Q Serve(g_s), s	14.0	0.0	0.0				0.0	5.1	16.5	4.5	0.0	0.0
Cycle Q Clear(g_c), s	14.0	0.0	0.0				0.0	5.1	16.5	4.5	0.0	0.0
Prop In Lane	0.98		1.00				0.00		1.00	0.81		0.00
Lane Grp Cap(c), veh/h	576	0					0	631	535	234	0	0
V/C Ratio(X)	0.87	0.00					0.00	0.37	0.94	0.68	0.00	0.00
Avail Cap(c_a), veh/h	736	0					0	631	535	607	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.4	0.0	0.0				0.0	13.8	17.6	22.6	0.0	0.0
Incr Delay (d2), s/veh	8.7	0.0	0.0				0.0	0.4	25.6	3.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	0.0	0.0				0.0	2.0	9.1	2.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.1	0.0	0.0				0.0	14.1	43.2	26.1	0.0	0.0
LnGrp LOS	C	A					A	B	D	C	A	A
Approach Vol, veh/h		499	A					738			160	
Approach Delay, s/veh		26.1						34.0			26.1	
Approach LOS		C						C			C	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		22.0		21.2		10.9						
Change Period (Y+Rc), s		4.0		4.0		4.0						
Max Green Setting (Gmax), s		18.0		22.0		18.0						
Max Q Clear Time (g_c+I1), s		18.5		16.0		6.5						
Green Ext Time (p_c), s		0.0		1.2		0.4						

Intersection Summary		
HCM 6th Ctrl Delay		30.3
HCM 6th LOS		C

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	13	8	121	16	668	0	0	139	216
Future Volume (veh/h)	0	0	0	13	8	121	16	668	0	0	139	216
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1781	1900	1781	1870	1870	0	0	1841	1781
Adj Flow Rate, veh/h				14	9	0	17	711	0	0	148	230
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				8	0	8	2	2	0	0	4	8
Cap, veh/h				27	17		203	1020	0	0	1019	836
Arrive On Green				0.02	0.02	0.00	0.55	0.55	0.00	0.00	0.55	0.55
Sat Flow, veh/h				1122	722	1510	16	1841	0	0	1841	1510
Grp Volume(v), veh/h				23	0	0	728	0	0	0	148	230
Grp Sat Flow(s),veh/h/ln				1844	0	1510	1857	0	0	0	1841	1510
Q Serve(g_s), s				0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.5
Cycle Q Clear(g_c), s				0.2	0.0	0.0	5.4	0.0	0.0	0.0	0.7	1.5
Prop In Lane				0.61		1.00	0.02		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				44	0		1223	0	0	0	1019	836
V/C Ratio(X)				0.52	0.00		0.60	0.00	0.00	0.00	0.15	0.28
Avail Cap(c_a), veh/h				1751	0		3013	0	0	0	2816	2310
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				9.1	0.0	0.0	3.1	0.0	0.0	0.0	2.1	2.2
Incr Delay (d2), s/veh				9.0	0.0	0.0	0.5	0.0	0.0	0.0	0.1	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				18.2	0.0	0.0	3.6	0.0	0.0	0.0	2.1	2.4
LnGrp LOS				B	A		A	A	A	A	A	A
Approach Vol, veh/h					23	A		728			378	
Approach Delay, s/veh					18.2			3.6			2.3	
Approach LOS					B			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	14.5		14.5		4.5			
Change Period (Y+Rc), s	4.0		4.0		4.0			
Max Green Setting (Gmax), s	29.0		29.0		18.0			
Max Q Clear Time (g_c+I1), s	7.4		3.5		2.2			
Green Ext Time (p_c), s	3.1		1.4		0.0			

Intersection Summary		
HCM 6th Ctrl Delay	3.4	
HCM 6th LOS	A	

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	392	63	512	435	61	446
Future Volume (veh/h)	392	63	512	435	61	446
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1737	1870	1870	1841	1811	1870
Adj Flow Rate, veh/h	431	69	563	478	67	490
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	11	2	2	4	6	2
Cap, veh/h	507	486	798	665	254	798
Arrive On Green	0.31	0.31	0.43	0.43	0.43	0.43
Sat Flow, veh/h	1654	1585	1870	1560	525	1870
Grp Volume(v), veh/h	431	69	563	478	67	490
Grp Sat Flow(s),veh/h/ln	1654	1585	1870	1560	525	1870
Q Serve(g_s), s	11.0	1.4	11.1	11.4	5.4	9.2
Cycle Q Clear(g_c), s	11.0	1.4	11.1	11.4	16.5	9.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	507	486	798	665	254	798
V/C Ratio(X)	0.85	0.14	0.71	0.72	0.26	0.61
Avail Cap(c_a), veh/h	633	606	865	721	273	865
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.6	11.3	10.6	10.7	17.4	10.0
Incr Delay (d2), s/veh	8.8	0.1	2.4	3.2	0.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.4	3.2	2.9	0.6	2.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.5	11.4	13.0	13.8	17.9	11.2
LnGrp LOS	C	B	B	B	B	B
Approach Vol, veh/h	500		1041			557
Approach Delay, s/veh	21.8		13.4			12.0
Approach LOS	C		B			B

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	25.4				25.4	19.6
Change Period (Y+Rc), s	6.2				6.2	5.8
Max Green Setting (Gmax), s	20.8				20.8	17.2
Max Q Clear Time (g_c+I1), s	13.4				18.5	13.0
Green Ext Time (p_c), s	2.8				0.7	0.8

Intersection Summary	
HCM 6th Ctrl Delay	15.0
HCM 6th LOS	B

A.10 - Near Term (2025) Plus Phase 1A (MIT) Plus KT (Homes Only) Additional Mitigations Sidra Output Sheets

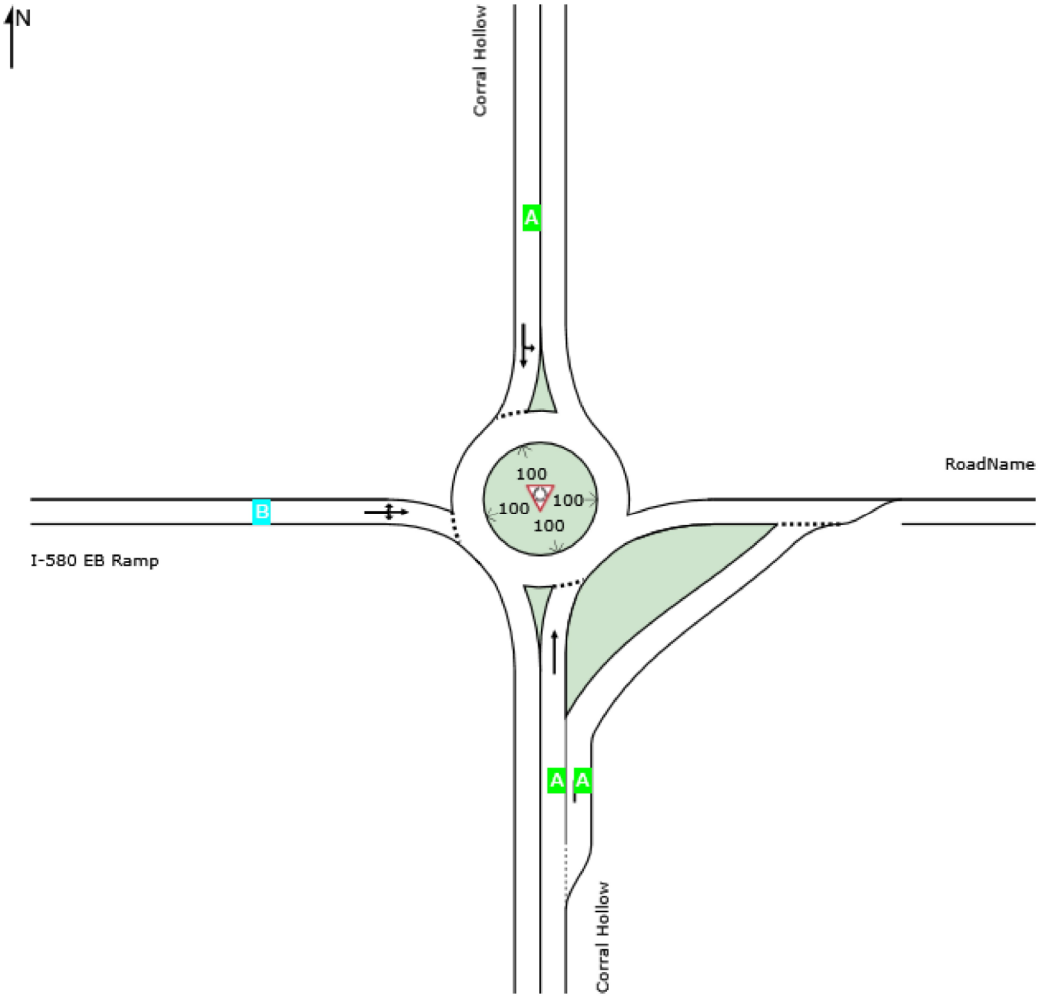
LANE LEVEL OF SERVICE

Lane Level of Service

Site: 101 [1. Corral Hollow & I-580 EB Ramps_AM]

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	South	North	West	
LOS	A	A	B	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

Site: 101 [1. Corral Hollow & I-580 EB Ramps_AM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Corral Hollow												
8	T1	17	0.0	0.017	3.8	LOS A	0.1	1.6	0.42	0.28	0.42	36.0
18	R2	14	0.0	0.012	3.1	LOS A	0.0	1.1	0.28	0.13	0.28	35.2
Approach		31	0.0	0.017	3.5	LOS A	0.1	1.6	0.36	0.21	0.36	35.6
North: Corral Hollow												
7	L2	133	28.0	0.407	7.3	LOS A	0.0	0.0	0.00	0.00	0.00	36.6
4	T1	388	1.0	0.407	6.6	LOS A	0.0	0.0	0.00	0.00	0.00	37.5
Approach		520	7.9	0.407	6.8	LOS A	0.0	0.0	0.00	0.00	0.00	37.3
West: I-580 EB Ramp												
5	L2	176	26.0	0.319	10.1	LOS B	1.1	34.3	0.61	0.61	0.61	30.0
2	T1	10	50.0	0.319	11.2	LOS B	1.1	34.3	0.61	0.61	0.61	29.9
12	R2	12	0.0	0.319	8.9	LOS A	1.1	34.3	0.61	0.61	0.61	29.8
Approach		198	25.6	0.319	10.1	LOS B	1.1	34.3	0.61	0.61	0.61	30.0
All Vehicles		749	12.2	0.407	7.5	LOS A	1.1	34.3	0.18	0.17	0.18	34.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

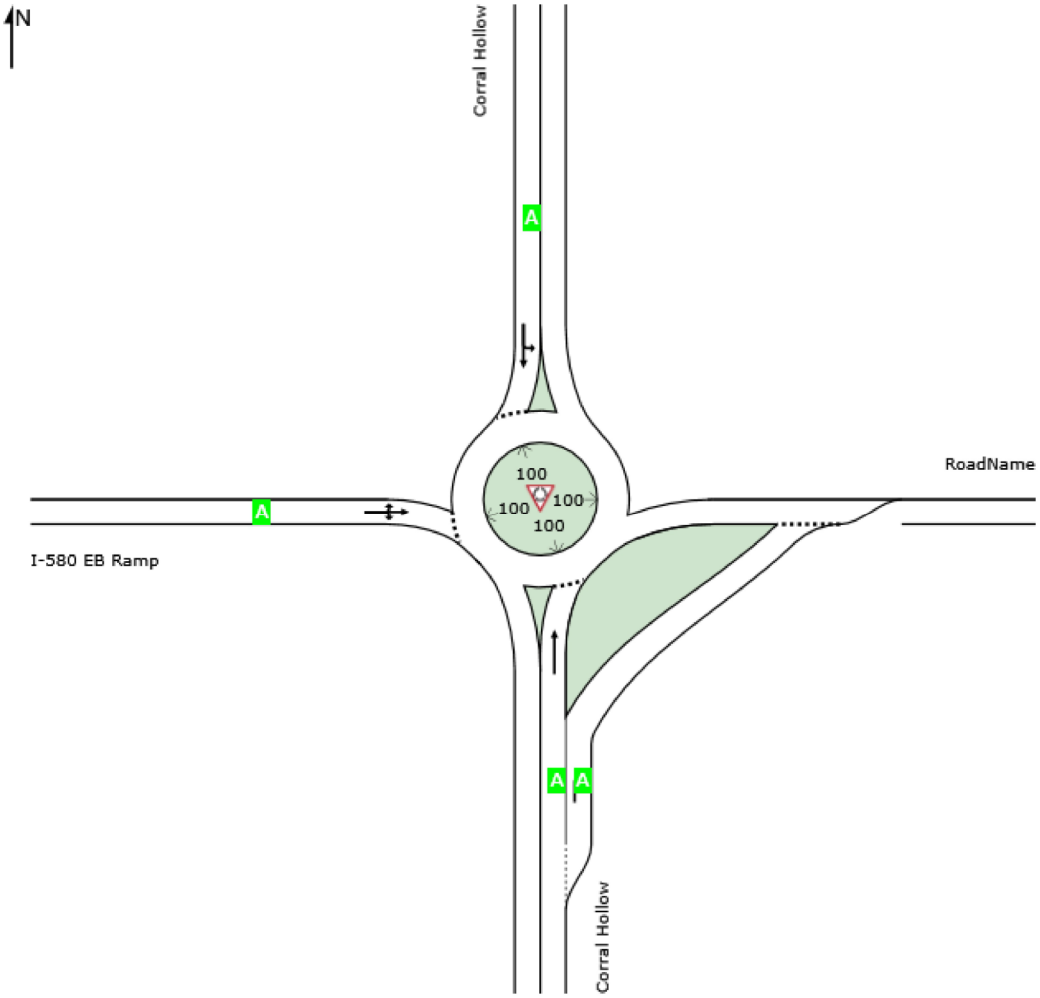
LANE LEVEL OF SERVICE

Lane Level of Service

Site: 101 [1. Corral Hollow & I-580 EB Ramps_PM]

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	South	North	West	
LOS	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

Site: 101 [1. Corral Hollow & I-580 EB Ramps_PM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Corral Hollow												
8	T1	233	0.0	0.297	8.0	LOS A	1.3	31.7	0.62	0.62	0.62	33.7
18	R2	505	0.0	0.407	6.9	LOS A	2.4	59.9	0.38	0.24	0.38	33.2
Approach		738	0.0	0.407	7.3	LOS A	2.4	59.9	0.46	0.36	0.46	33.4
North: Corral Hollow												
7	L2	129	5.0	0.121	3.7	LOS A	0.0	0.0	0.00	0.00	0.00	35.5
4	T1	31	0.0	0.121	3.6	LOS A	0.0	0.0	0.00	0.00	0.00	35.5
Approach		160	4.0	0.121	3.7	LOS A	0.0	0.0	0.00	0.00	0.00	35.5
West: I-580 EB Ramp												
5	L2	486	4.0	0.452	8.1	LOS A	2.8	72.7	0.46	0.31	0.46	31.2
2	T1	12	0.0	0.452	8.0	LOS A	2.8	72.7	0.46	0.31	0.46	31.3
12	R2	9	0.0	0.452	8.0	LOS A	2.8	72.7	0.46	0.31	0.46	30.5
Approach		507	3.8	0.452	8.1	LOS A	2.8	72.7	0.46	0.31	0.46	31.2
All Vehicles		1405	1.8	0.452	7.2	LOS A	2.8	72.7	0.41	0.30	0.41	32.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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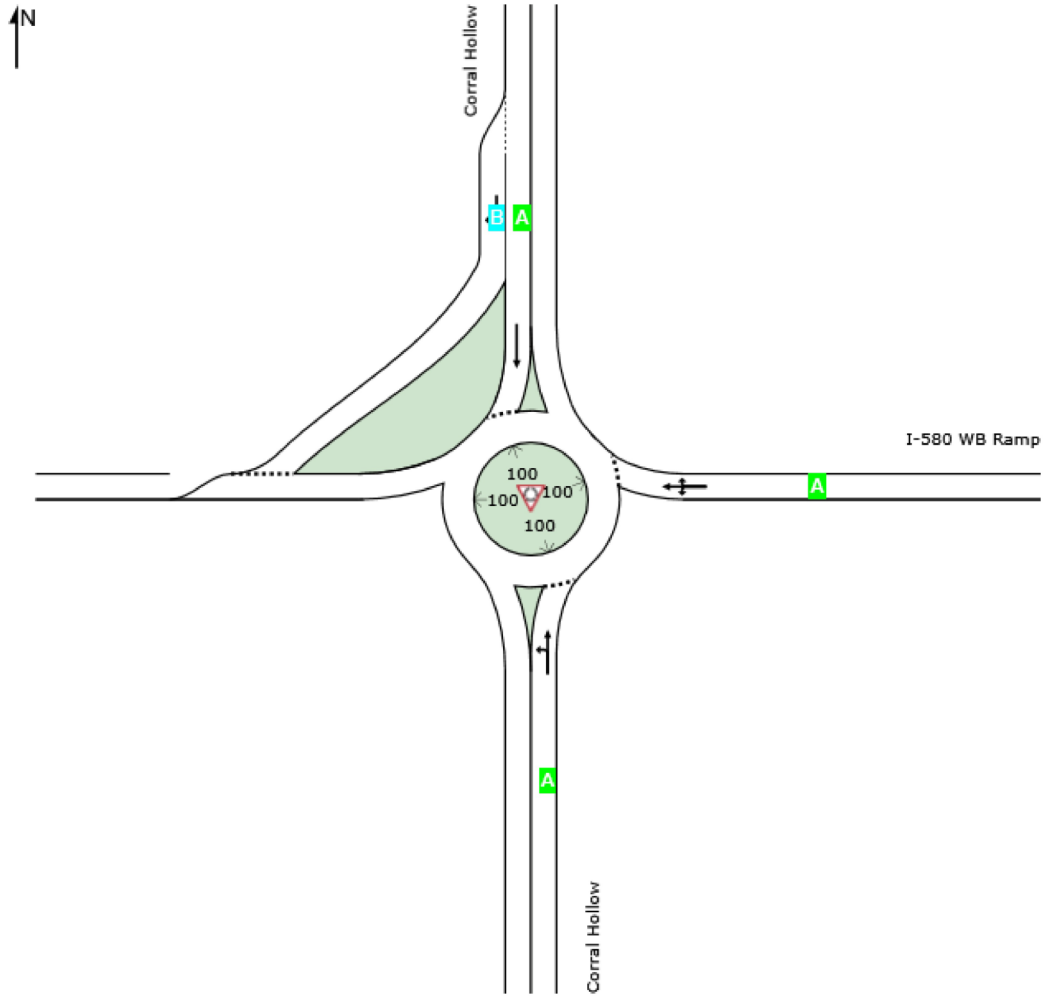
LANE LEVEL OF SERVICE

Lane Level of Service

Site: 101 [2. Corral Hollow & I-580 WB Ramps_AM]

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	South	East	North	
LOS	A	A	B	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

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MOVEMENT SUMMARY

Site: 101 [2. Corral Hollow & I-580 WB Ramps_AM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Corral Hollow												
3	L2	8	0.0	0.164	4.1	LOS A	0.0	0.0	0.00	0.00	0.00	38.2
8	T1	176	24.0	0.164	4.7	LOS A	0.0	0.0	0.00	0.00	0.00	37.6
Approach		184	23.0	0.164	4.7	LOS A	0.0	0.0	0.00	0.00	0.00	37.6
East: I-580 WB Ramp												
1	L2	190	2.0	0.354	7.1	LOS A	1.7	47.2	0.46	0.33	0.46	32.4
6	T1	9	0.0	0.354	7.0	LOS A	1.7	47.2	0.46	0.33	0.46	32.4
16	R2	152	22.0	0.354	7.8	LOS A	1.7	47.2	0.46	0.33	0.46	31.1
Approach		351	10.6	0.354	7.4	LOS A	1.7	47.2	0.46	0.33	0.46	31.8
North: Corral Hollow												
4	T1	307	9.0	0.285	6.1	LOS A	1.3	33.7	0.38	0.26	0.38	34.6
14	R2	991	3.0	0.730	13.1	LOS B	9.0	230.9	0.24	0.07	0.24	30.3
Approach		1298	4.4	0.730	11.4	LOS B	9.0	230.9	0.27	0.11	0.27	31.3
All Vehicles		1832	7.5	0.730	10.0	LOS A	9.0	230.9	0.28	0.14	0.28	31.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

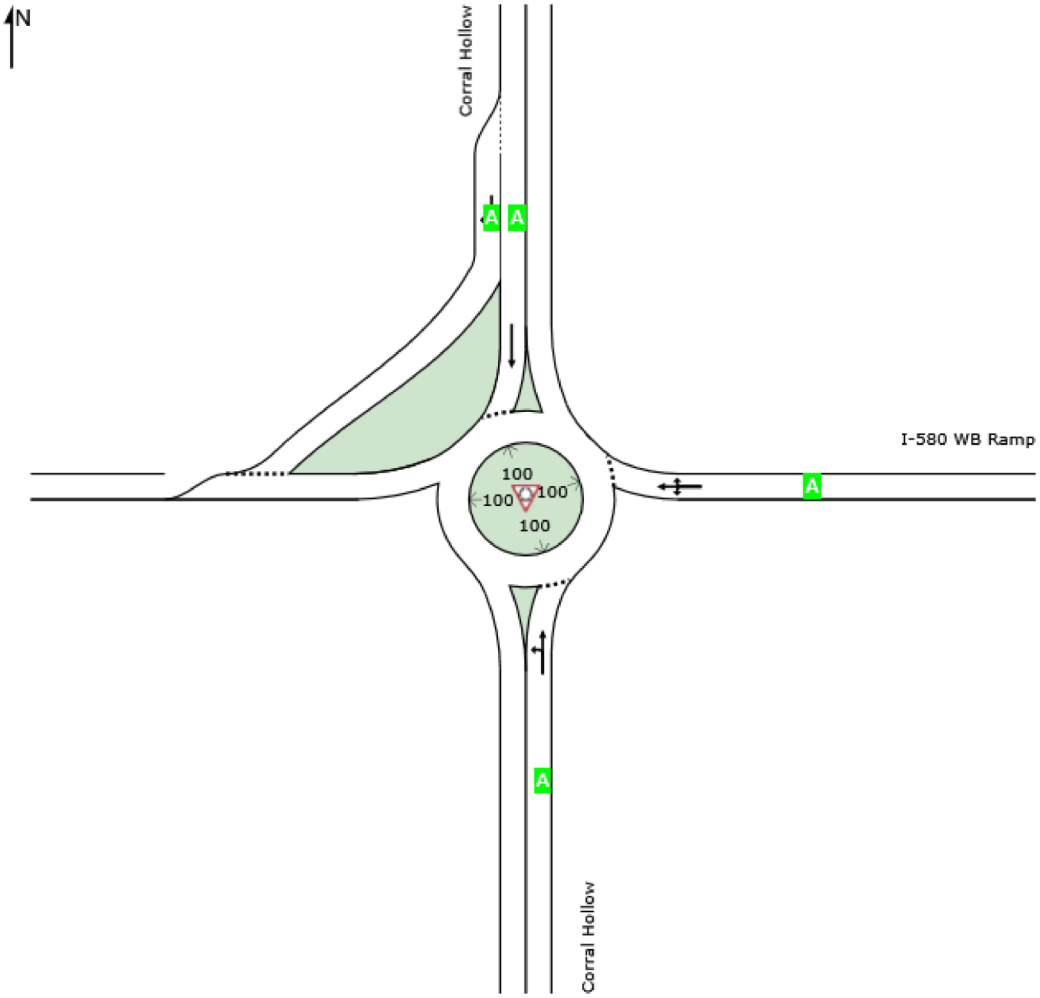
LANE LEVEL OF SERVICE

Lane Level of Service

Site: 101 [2. Corral Hollow & I-580 WB Ramps_PM]

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	South	East	North	
LOS	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

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MOVEMENT SUMMARY

Site: 101 [2. Corral Hollow & I-580 WB Ramps_PM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Corral Hollow												
3	L2	17	0.0	0.548	8.5	LOS A	0.0	0.0	0.00	0.00	0.00	38.3
8	T1	725	2.0	0.548	8.6	LOS A	0.0	0.0	0.00	0.00	0.00	38.2
Approach		742	2.0	0.548	8.6	LOS A	0.0	0.0	0.00	0.00	0.00	38.2
East: I-580 WB Ramp												
1	L2	14	0.0	0.259	9.0	LOS A	1.0	26.8	0.66	0.66	0.66	32.8
6	T1	9	0.0	0.259	9.0	LOS A	1.0	26.8	0.66	0.66	0.66	32.6
16	R2	132	8.0	0.259	9.5	LOS A	1.0	26.8	0.66	0.66	0.66	31.6
Approach		154	6.8	0.259	9.4	LOS A	1.0	26.8	0.66	0.66	0.66	31.7
North: Corral Hollow												
4	T1	151	4.0	0.115	3.7	LOS A	0.5	12.2	0.13	0.04	0.13	36.0
14	R2	235	8.0	0.183	4.3	LOS A	0.8	20.7	0.11	0.03	0.11	34.3
Approach		386	6.4	0.183	4.1	LOS A	0.8	20.7	0.12	0.04	0.12	35.0
All Vehicles		1283	3.9	0.548	7.3	LOS A	1.0	26.8	0.12	0.09	0.12	36.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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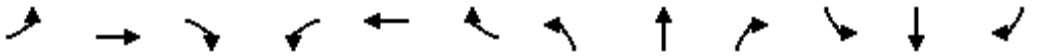
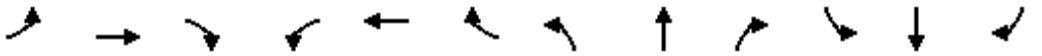
A.11 – Near Term (2025) Plus Phase 1A (MIT) Plus KT (Homes Only) Westbound Alternative



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	0	173	38	0	23	28	255	2	22	918	128
Future Volume (veh/h)	171	0	173	38	0	23	28	255	2	22	918	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	186	0	188	41	0	25	30	277	2	24	998	139
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	266	0	230	52	0	154	41	1098	930	35	1092	925
Arrive On Green	0.08	0.00	0.15	0.03	0.00	0.10	0.02	0.59	0.59	0.02	0.58	0.58
Sat Flow, veh/h	3456	0	1585	1781	0	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	186	0	188	41	0	25	30	277	2	24	998	139
Grp Sat Flow(s),veh/h/ln	1728	0	1585	1781	0	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	5.2	0.0	11.3	2.2	0.0	1.4	1.6	7.0	0.1	1.3	46.7	3.9
Cycle Q Clear(g_c), s	5.2	0.0	11.3	2.2	0.0	1.4	1.6	7.0	0.1	1.3	46.7	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	266	0	230	52	0	154	41	1098	930	35	1092	925
V/C Ratio(X)	0.70	0.00	0.82	0.79	0.00	0.16	0.74	0.25	0.00	0.69	0.91	0.15
Avail Cap(c_a), veh/h	634	0	488	160	0	339	73	1399	1186	111	1439	1220
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.2	0.0	40.7	47.3	0.0	40.6	47.7	9.8	8.4	47.8	18.2	9.3
Incr Delay (d2), s/veh	3.3	0.0	7.0	22.4	0.0	0.5	22.8	0.1	0.0	21.4	7.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	4.7	1.3	0.0	0.6	1.0	2.5	0.0	0.8	18.5	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.5	0.0	47.6	69.7	0.0	41.1	70.5	9.9	8.4	69.2	25.8	9.4
LnGrp LOS	D	A	D	E	A	D	E	A	A	E	C	A
Approach Vol, veh/h		374			66			309			1161	
Approach Delay, s/veh		47.5			58.9			15.8			24.8	
Approach LOS		D			E			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	63.8	8.0	19.3	7.3	63.5	12.7	14.6
Change Period (Y+Rc), s	5.1	6.2	5.1	5.1	5.1	6.2	5.1	5.1
Max Green Setting (Gmax), s	6.1	73.4	8.8	30.2	4.0	75.5	18.0	21.0
Max Q Clear Time (g_c+I1), s	3.3	9.0	4.2	13.3	3.6	48.7	7.2	3.4
Green Ext Time (p_c), s	0.0	1.5	0.0	1.0	0.0	8.5	0.4	0.1

Intersection Summary	
HCM 6th Ctrl Delay	29.0
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	322	0	69	13	0	35	236	530	23	84	273	516
Future Volume (veh/h)	322	0	69	13	0	35	236	530	23	84	273	516
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	350	0	75	14	0	38	257	576	25	91	297	561
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	473	0	278	24	0	83	200	823	697	117	735	623
Arrive On Green	0.14	0.00	0.18	0.01	0.00	0.05	0.11	0.44	0.44	0.07	0.39	0.39
Sat Flow, veh/h	3456	0	1585	1781	0	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	350	0	75	14	0	38	257	576	25	91	297	561
Grp Sat Flow(s),veh/h/ln	1728	0	1585	1781	0	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	6.8	0.0	2.9	0.5	0.0	1.6	7.9	17.5	0.6	3.5	8.1	23.4
Cycle Q Clear(g_c), s	6.8	0.0	2.9	0.5	0.0	1.6	7.9	17.5	0.6	3.5	8.1	23.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	473	0	278	24	0	83	200	823	697	117	735	623
V/C Ratio(X)	0.74	0.00	0.27	0.58	0.00	0.46	1.28	0.70	0.04	0.78	0.40	0.90
Avail Cap(c_a), veh/h	830	0	764	101	0	473	200	917	777	154	869	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	0.0	25.1	34.5	0.0	32.4	31.2	15.9	11.2	32.4	15.4	20.0
Incr Delay (d2), s/veh	2.3	0.0	0.5	19.9	0.0	3.9	160.6	2.1	0.0	16.6	0.4	12.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	1.1	0.4	0.0	0.7	12.0	6.4	0.2	1.9	2.9	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.5	0.0	25.6	54.4	0.0	36.3	191.8	18.0	11.2	49.0	15.8	32.8
LnGrp LOS	C	A	C	D	A	D	F	B	B	D	B	C
Approach Vol, veh/h		425			52			858			949	
Approach Delay, s/veh		30.4			41.2			69.9			29.0	
Approach LOS		C			D			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	37.2	6.1	17.4	13.0	33.9	14.7	8.8
Change Period (Y+Rc), s	5.1	6.2	5.1	5.1	5.1	6.2	5.1	5.1
Max Green Setting (Gmax), s	6.1	34.5	4.0	33.9	7.9	32.7	16.9	21.0
Max Q Clear Time (g_c+I1), s	5.5	19.5	2.5	4.9	9.9	25.4	8.8	3.6
Green Ext Time (p_c), s	0.0	2.9	0.0	0.4	0.0	2.3	0.8	0.1

Intersection Summary	
HCM 6th Ctrl Delay	44.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

A.12 – Near Term (2025) Plus Phase 1A (MIT) Plus KT (Homes and Retail) Synchro Outputs

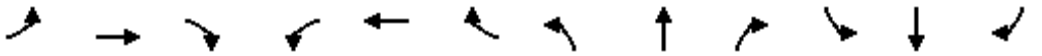
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	0	173	100	0	85	28	255	36	186	917	128
Future Volume (veh/h)	171	0	173	100	0	85	28	255	36	186	917	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	186	0	188	109	0	92	30	277	39	202	997	139
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	0	220	136	265	347	75	965	939	267	1069	1024
Arrive On Green	0.07	0.00	0.14	0.08	0.00	0.14	0.02	0.52	0.52	0.08	0.57	0.57
Sat Flow, veh/h	3456	0	1585	1781	1870	1585	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	186	0	188	109	0	92	30	277	39	202	997	139
Grp Sat Flow(s),veh/h/ln	1728	0	1585	1781	1870	1585	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	5.9	0.0	13.0	6.8	0.0	5.4	1.0	9.5	1.2	6.4	55.0	3.8
Cycle Q Clear(g_c), s	5.9	0.0	13.0	6.8	0.0	5.4	1.0	9.5	1.2	6.4	55.0	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	256	0	220	136	265	347	75	965	939	267	1069	1024
V/C Ratio(X)	0.73	0.00	0.85	0.80	0.00	0.27	0.40	0.29	0.04	0.76	0.93	0.14
Avail Cap(c_a), veh/h	553	0	323	255	349	419	123	1091	1046	427	1255	1181
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	0.0	47.3	51.1	0.0	36.4	54.3	15.5	9.6	50.8	22.1	7.7
Incr Delay (d2), s/veh	3.9	0.0	13.7	10.2	0.0	0.4	3.4	0.2	0.0	4.3	11.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	5.9	3.4	0.0	2.1	0.4	3.7	0.4	2.8	23.9	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.9	0.0	61.0	61.3	0.0	36.8	57.8	15.6	9.6	55.2	33.5	7.8
LnGrp LOS	D	A	E	E	A	D	E	B	A	E	C	A
Approach Vol, veh/h		374			201			346			1338	
Approach Delay, s/veh		58.0			50.1			18.6			34.1	
Approach LOS		E			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	64.3	13.7	20.7	7.5	70.5	13.4	21.0
Change Period (Y+Rc), s	5.1	6.2	5.1	5.1	5.1	6.2	5.1	5.1
Max Green Setting (Gmax), s	13.9	65.6	16.1	22.9	4.0	75.5	18.0	21.0
Max Q Clear Time (g_c+I1), s	8.4	11.5	8.8	15.0	3.0	57.0	7.9	7.4
Green Ext Time (p_c), s	0.3	1.6	0.1	0.6	0.0	7.3	0.4	0.2

Intersection Summary	
HCM 6th Ctrl Delay	37.1
HCM 6th LOS	D

2: CORRAL HOLLOW RD & TRACY HILLS DR/STREET D

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	306	20	65	9	20	254	230	488	150	144	246	502
Future Volume (veh/h)	306	20	65	9	20	254	230	488	150	144	246	502
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	333	22	71	10	22	276	250	530	163	157	267	546
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	439	119	384	18	352	405	294	659	575	232	626	732
Arrive On Green	0.13	0.31	0.31	0.01	0.19	0.19	0.09	0.35	0.35	0.07	0.33	0.33
Sat Flow, veh/h	3456	389	1255	1781	1870	1585	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	333	0	93	10	22	276	250	530	163	157	267	546
Grp Sat Flow(s),veh/h/ln	1728	0	1644	1781	1870	1585	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	7.6	0.0	3.4	0.5	0.8	12.7	5.8	20.8	5.9	3.6	9.0	23.0
Cycle Q Clear(g_c), s	7.6	0.0	3.4	0.5	0.8	12.7	5.8	20.8	5.9	3.6	9.0	23.0
Prop In Lane	1.00		0.76	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	439	0	502	18	352	405	294	659	575	232	626	732
V/C Ratio(X)	0.76	0.00	0.19	0.56	0.06	0.68	0.85	0.80	0.28	0.68	0.43	0.75
Avail Cap(c_a), veh/h	767	0	659	143	484	516	294	781	678	238	751	838
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	0.0	20.7	40.0	27.0	27.2	36.6	23.7	18.4	37.0	21.0	17.9
Incr Delay (d2), s/veh	2.7	0.0	0.2	25.2	0.1	2.5	20.5	5.2	0.3	7.2	0.5	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	1.3	0.3	0.3	4.8	3.1	9.0	2.1	1.6	3.6	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.9	0.0	20.9	65.2	27.1	29.8	57.1	29.0	18.6	44.2	21.4	21.1
LnGrp LOS	D	A	C	E	C	C	E	C	B	D	C	C
Approach Vol, veh/h		426			308			943			970	
Approach Delay, s/veh		33.4			30.7			34.6			24.9	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	34.8	5.9	29.9	12.0	33.3	15.4	20.4
Change Period (Y+Rc), s	5.1	6.2	5.1	5.1	5.1	6.2	5.1	5.1
Max Green Setting (Gmax), s	5.6	33.9	6.5	32.5	6.9	32.6	18.0	21.0
Max Q Clear Time (g_c+I1), s	5.6	22.8	2.5	5.4	7.8	25.0	9.6	14.7
Green Ext Time (p_c), s	0.0	2.7	0.0	0.5	0.0	2.2	0.8	0.6

Intersection Summary	
HCM 6th Ctrl Delay	30.4
HCM 6th LOS	C

A.13 – KT Tentative Map Redlines

VESTING TENTATIVE MAP - TRACT 4013

KT PROPERTY

CITY OF TRACY, COUNTY OF SAN JOAQUIN, CALIFORNIA

BASIS OF BEARING:

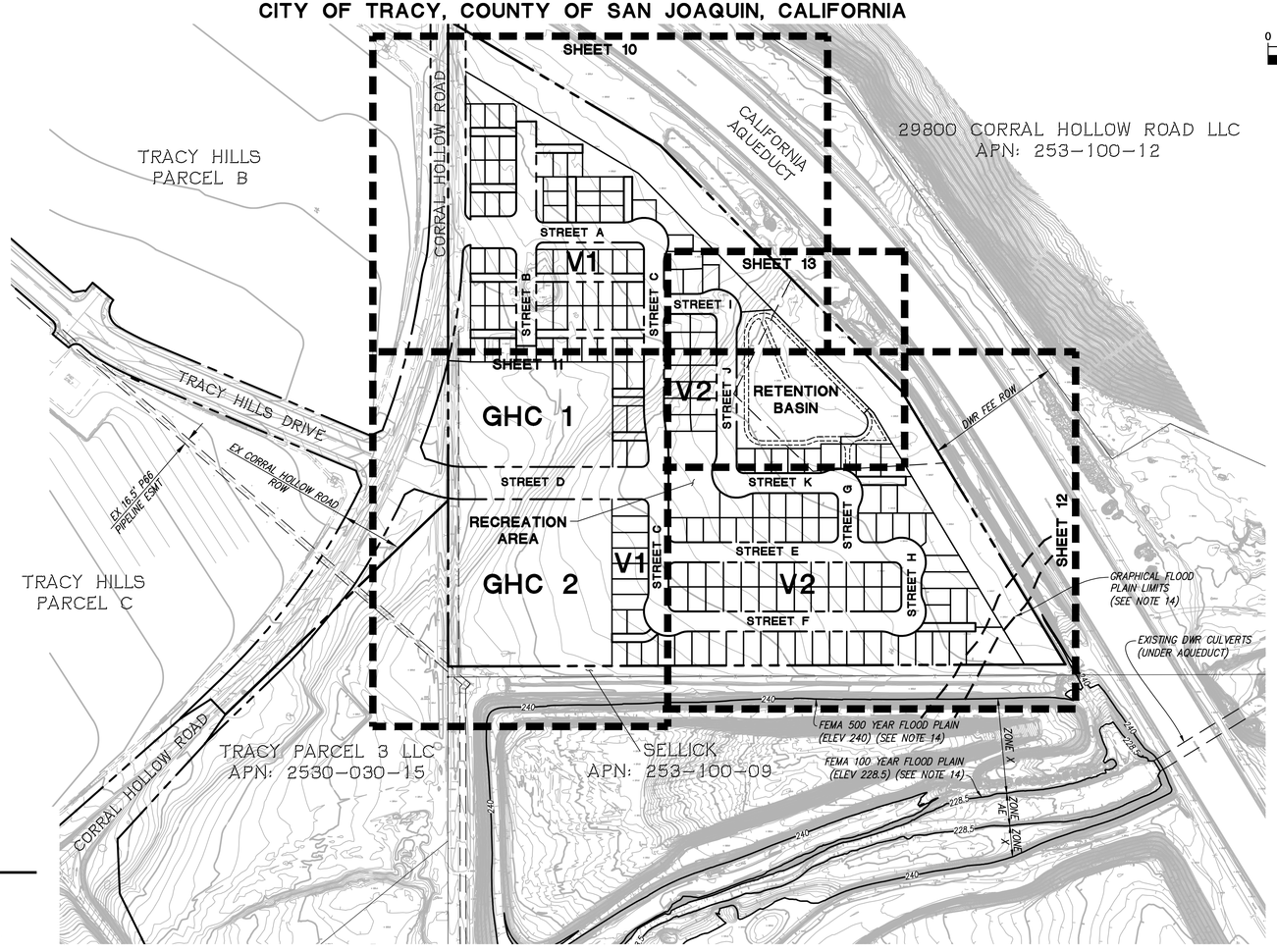
THE BEARING BETWEEN THE FOUND MONUMENTS IN CORRAL HOLLOW ROAD AT THE NORTHWEST CORNER AND THE WEST ¼ CORNER OF SECTION 17, T. 3 S., R. 5 E., TAKEN AS NORTH 00°25'03" EAST.

BENCHMARK:

BASIS OF ELEVATIONS:
PER GEOLOGIC CONTROL NETWORK RECORD OF SURVEY FOR CITY OF TRACY. RECORDED BOOK 36 PAGE 118 ELEVATION SHOWN ARE IN TERMS OF NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). BASED LOCALLY UPON ELEVATION FOR THE FOLLOWING BENCHMARKS AS PUBLISHED BY THE NATIONAL GEOLOGIC SURVEY:
PT. 3022 "L1259 1974" ELEV. 250.25'

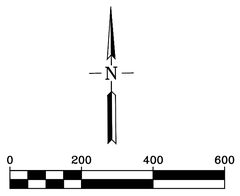
ABBREVIATIONS

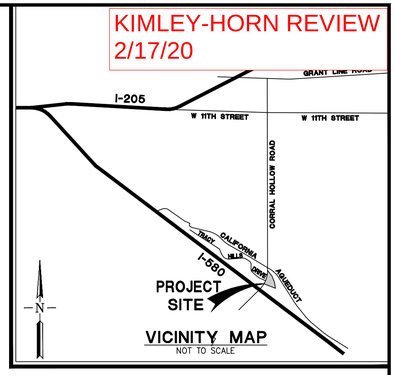
(#)	DENOTES SHEET NOTE NUMBER	JUT	JOINT UTILITY TRENCH
AB	AGGREGATE BASE	LP	LOW POINT
AC	ASPHALT CONCRETE	P	PAD ELEVATION
BLDG	BUILDING	PAE	PRIVATE ACCESS EASEMENT
C & G	CURB & GUTTER	PUE	PUBLIC UTILITY EASEMENT
CMP	CORRUGATED METAL PIPE	R	RADIUS
DG	DECOMPOSED GRANITE	RCW	RECLAIMED WATER
DRN	DRAINAGE OPEN SPACE	REC	RECREATIONAL
EX	EXISTING	RET	RETAINING WALL
FC	FACE OF CURB	ROW	RIGHT OF WAY
FSW	FRONT OF SIDEWALK	SD	STORM DRAIN
GB	GRADE BREAK	SS	SANITARY SEWER
HP	HIGH POINT	SSFM	SANITARY SEWER FORCE MAIN
		TC	TOP OF CURB
		W	WATER



LOCATION/INDEX MAP

SCALE: 1"=200'





LEGEND

PROPOSED	DESCRIPTION	EXISTING
	TRACT BOUNDARY	
	EASEMENT LINE	
	LOT LINE	
	RIGHT OF WAY	
	CENTER LINE	
	FLOW LINE	
12"SD	STORM DRAIN	EX 12"SD
8"SS	SANITARY SEWER	EX 12"SS
8"W	WATER	EX 8"W
8"RCW	RECLAIMED WATER	EX 8"RCW
	RETAINING WALL	
	SOUND WALL	
	DRAINAGE DITCH/SWALE	
	CURB & GUTTER	
	SIDEWALK	
	PAVED ACCESS ROAD/EVA	
	TRAIL	
	STORM WATER INLET	
	FIELD INLET	
	MANHOLE	
	FIRE HYDRANT	
	BLOWOFF RISER	
	GATE VALVE	
x x x	FENCE	x x x
	SLOPE	
130	CONTOUR ELEVATIONS	130
x 525.2	SPOT ELEVATION	×525.2
	MONUMENT	

SHEET INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	EXISTING CONDITION PLAN
3A	STREET SECTIONS AND DETAILS
3B	GRADING DETAILS
4	STORM DRAIN DETAILS
5	RESIDENTIAL LOT AREA SUMMARY
6	OWNERSHIP EXHIBIT
7	OVERALL SANITARY SEWER PLAN
8	OVERALL STORM DRAIN SYSTEM PLAN
9	OVERALL WATER SYSTEM & HYDRANT PLAN
10	VILLAGE 1
11	VILLAGE 1, GHC PARCEL 1 & GHC PARCEL 2
12	VILLAGE 2
13	RETENTION BASIN, RECREATION CENTER & PARK

GENERAL NOTES:

1. OWNER/DEVELOPER: KPMW INTEGRAL, LLC
672 W. 11TH STREET, SUITE 104
TRACY, CA 95376
CONTACT: JOHN PALMER

2. CIVIL ENGINEER: RUGGERI-JENSEN-AZAR
2541 WARREN DRIVE, SUITE 100
ROCKLIN, CA 95677
(916) 630-8900
CONTACT: CHRIS RUGGERI, RCE 60901

3. GEOTECHNICAL ENGINEER: ENGEO INCORPORATED
580 N. WILMA AVENUE, SUITE A
RIPON, CA 95366
(209) 835-0610
CONTACT: STEVE HARRIS, GE

4. ASSESSOR'S PARCEL NUMBERS: 253-100-150 & 253-100-16

5. LEGAL DESCRIPTION: PER FIRST AMERICAN TITLE PRELIMINARY REPORT ORDER NUMBER 0131-623114ala DATED: OCTOBER 3, 2018

REAL PROPERTY IN THE CITY OF TRACY, COUNTY OF SAN JOAQUIN, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

THAT CERTAIN PARCEL BEING A PORTION OF THE NORTHWEST ¼ OF SECTION 17, TOWNSHIP 3 SOUTH, RANGE 5 EAST, MOUNT DIABLO BASE AND MERIDAN, DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF THE NORTHWEST ¼ OF SAID SECTION 17; THENCE NORTH 0°24'05" EAST ALONG WESTERLY LINE OF SAID NORTHWEST ¼, BEING ALSO THE CENTER LINE OF CORRAL HOLLOW ROAD (60 FEET WIDE), 30.00 FEET TO THE POINT OF BEGINNING; THE FROM SAID POINT OF BEGINNING; NORTH 0°24'05" EAST ALONG THE AFOREMENTIONED WESTERLY LINE AND CENTER LINE, 1840.75 FEET TO A POINT ON THE SOUTHWESTERLY LINE OF SAID STATE OF CALIFORNIA AQUEDUCT; THENCE ALONG SAID SOUTHWESTERLY LINE OF SAID STATE OF CALIFORNIA AQUEDUCT THE FOLLOWING COURSES AND DISTANCES.

SOUTH 59°04'11" EAST, 702.86 FEET; SOUTH 44°03'00" EAST, 980.90 FEET; SOUTH 30°30'00" EAST, 907.37 FEET TO A POINT ON THE NORTHERLY LINE OF A 30 FOOT WIDE STATE OF CALIFORNIA DEPARTMENT OF WATER RESOURCES RIGHT OF WAY, THE SOUTHERLY LINE OF SAID RIGHT OF WAY BEING THE SOUTHERLY LINE OF THE NORTHWEST ¼ OF SAID SECTION 17; THENCE NORTH 89°45'34" WEST ALONG SAID NORTHERLY RIGHT OF WAY LINE, 1758.35 FEET TO THE POINT OF BEGINNING.

EXCEPT THEREFROM THAT PORTION OF SAID LAND SHOWN AS:

PARCEL "A", AS DESIGNATED ON THAT CERTAIN PARCEL MAP FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN JOAQUIN COUNTY, CALIFORNIA ON JUNE 5, 1981, IN VOL. 10 OF PARCEL MAPS, PAGE 64, BEING A PORTION OF THE NORTHWEST ¼ OF SECTION 17, TOWNSHIP 3 SOUTH, RANGE 5 EAST, MOUNT DIABLO BASE AND MERIDAN.

6. CURRENT USE: AGRICULTURAL/GRAZING
7. ZONING: TRACY HILLS SPECIFIC PLAN
8. GENERAL PLAN LAND USE DESIGNATION: GENERAL HIGHWAY COMMERCIAL (GHC-TH)
9. GROSS AREA: 45.1± ACRES
10. TOTAL PROPOSED RESIDENTIAL LOTS: 185 LOTS
11. UTILITIES:

WATER:	CITY OF TRACY
GAS & ELECTRIC:	PACIFIC GAS & ELECTRIC
SANITARY SEWER:	CITY OF TRACY
STORM DRAIN:	CITY OF TRACY
FIRE:	CITY OF TRACY
TELEPHONE:	AT&T
CABLE TV:	COMCAST

12. TOPOGRAPHY SHOWN IS BASED ON AN AERIAL TOPOGRAPHIC MAP PREPARED BY TETRATECH IN JANUARY 2013.
13. BOUNDARY AS SHOWN IS BASED ON A RESOLVED BOUNDARY PREPARED BY RUGGERI-JENSEN-AZAR IN JULY 2019.
14. PER FLOOD INSURANCE RATE (FIRM) MAP NUMBER 06077C0740F, EFFECTIVE DATE, OCTOBER 20, 2016, THE 100 YEAR FLOOD ELEVATION IS DEFINED AS 228.5. ALTHOUGH THE FIRM MAP SHOWS A GRAPHICAL ENCROACHMENT ONTO THE CORNER OF THIS PROJECT, ACTUAL ELEVATIONS SHOW NO SPECIAL FLOOD HAZARDS WITHIN THE PROPOSED DEVELOPMENT BASED ON ABOVE PUBLISHED ELEVATIONS AND EXISTING SITE TOPOGRAPHY.
15. THE DEVELOPER MAY FILE MULTIPLE FINAL MAPS AFTER TENTATIVE MAP APPROVAL.
16. IMPROVEMENTS SHOWN ON THIS VTM ARE SUBJECT TO REVISION IN FINAL DESIGN.

CITY ENGINEER'S STATEMENT

I HEREBY CERTIFY THAT THIS MAP HAS BEEN REVIEWED FOR COMPLIANCE WITH THE REQUIREMENTS OF THE TRACY MUNICIPAL CODE AND THE SUBDIVISION MAP ACT AS TO FORM AND CONTENT.

_____ _____
CITY ENGINEER DATE

PLANNING COMMISSION FILING CERTIFICATE

TENTATIVE MAP FILED THIS ____ DAY OF _____ 20___ IN THE OFFICE OF THE TRACY PLANNING COMMISSION, TRACY, CALIFORNIA. ACCOMPANIED WITH APPROPRIATE FILING FEES. THIS CERTIFICATE DOES NOT DEEM THIS APPLICATION COMPLETE.

CITY COUNCIL CERTIFICATE

I HEREBY CERTIFY THAT THE CITY COUNCIL OF TRACY HAS CONDITIONALLY APPROVED THIS TENTATIVE MAP _____ BY RESOLUTION NO. _____.

_____ _____ _____
CITY CLERK DATE

ENGINEER'S STATEMENT

THIS MAP WAS PREPARED BY RUGGERI-JENSEN-AZAR UNDER MY DIRECTION

_____ _____
CHRISTOPHER P. RUGGERI, RCE 60901 DATE

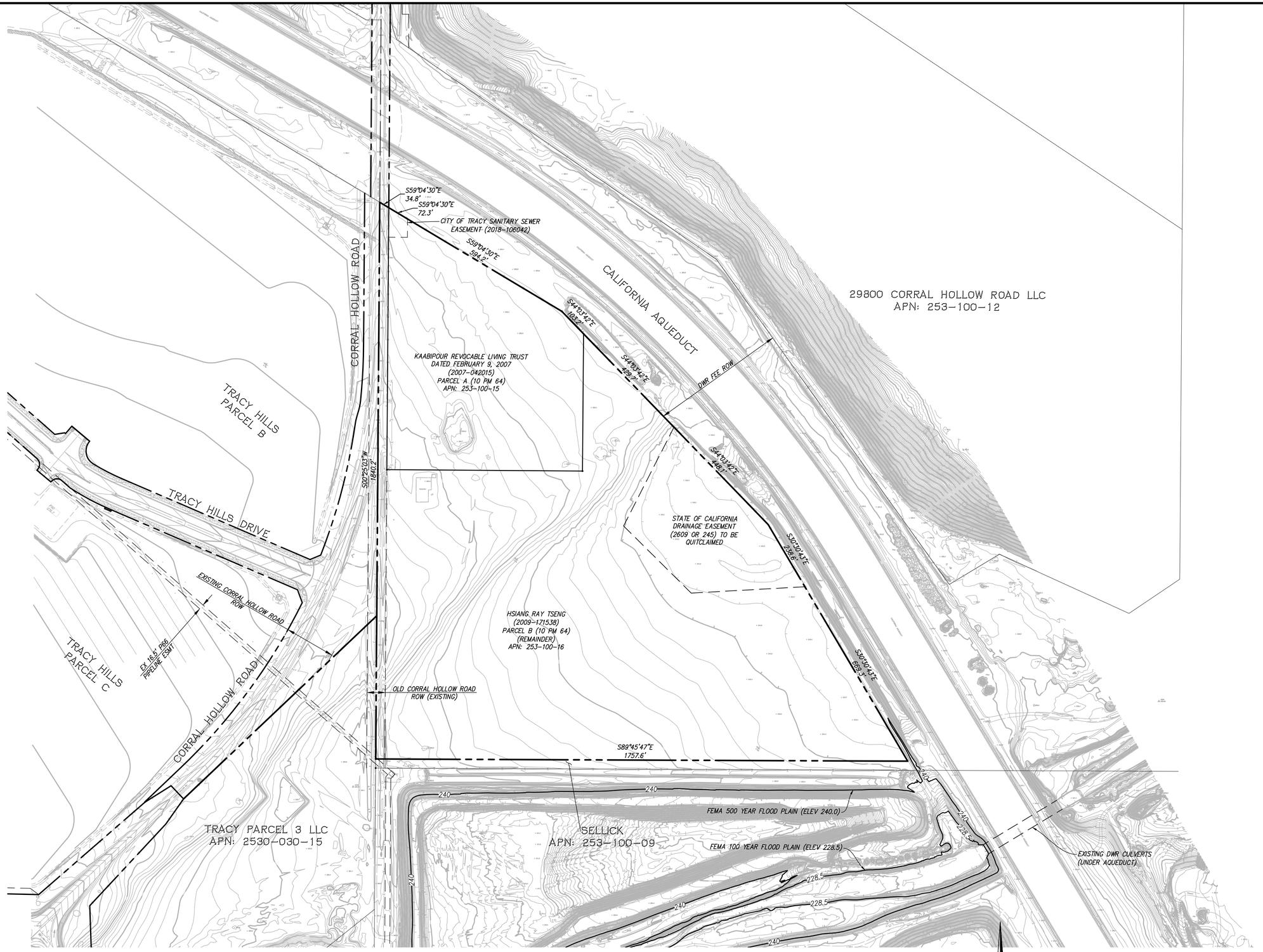
REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER P. RUGGERI
No. 60901
Exp. 12-31-20
CIVIL
STATE OF CALIFORNIA

OWNER/DEVELOPER

_____ _____
JOHN STANEK, TRACY PHASE 1B, LLC DATE

RJA
RUGGERI-JENSEN-AZAR
ENGINEERS ▪ PLANNERS ▪ SURVEYORS
2541 WARREN DRIVE, SUITE 200, ROCKLIN, CA 95677
PHONE: (916) 630-8900 FAX: (916) 630-8909

G:\2020\185023\MAP\01-TS-185023VTMJWC 2/5/2020 8:36:35 AM RYAN WHEELER



VESTING TENTATIVE MAP - TRACT 4013

EXISTING CONDITION PLAN

CITY OF TRACY, SAN JOAQUIN COUNTY, CALIFORNIA
FOR: INTEGRAL COMMUNITIES

N

0 150 300 450

1 inch = 150 ft.

RJA
RUGGERI-JENSEN-AZAR
ENGINEERS ▪ PLANNERS ▪ SURVEYORS
2541 WARREN DRIVE, SUITE 200, ROCKLIN, CA 95677
PHONE: (916) 630-8900 FAX: (916) 630-8909

DATE: FEBRUARY 4, 2020 JOB NO.: 185023 SHEET 2 OF 14

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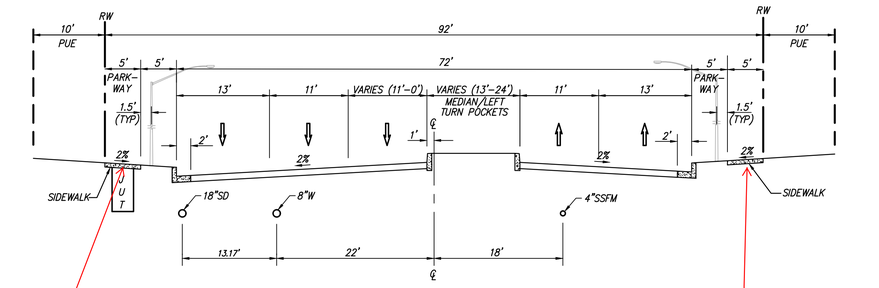
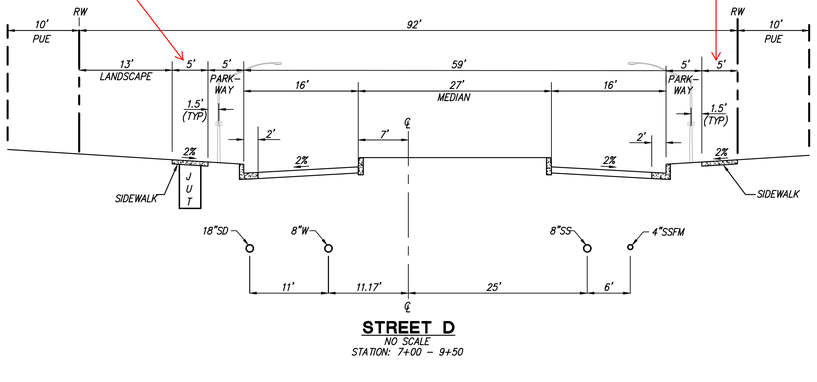


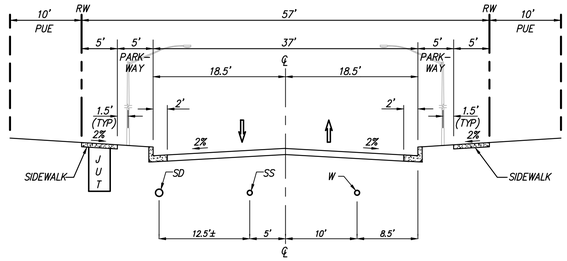
STREET D
NO SCALE
STATION: 2+75 – 7+00

PROVIDE 14' CLASS I BIKEWAY (INCL. SHOULDERS)

PROVIDE 12' CLASS I BIKEWAY (INCL. SHOULDERS)

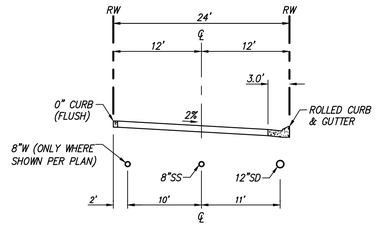


STREET D
NO SCALE
STATION: 7+00 – 9+50

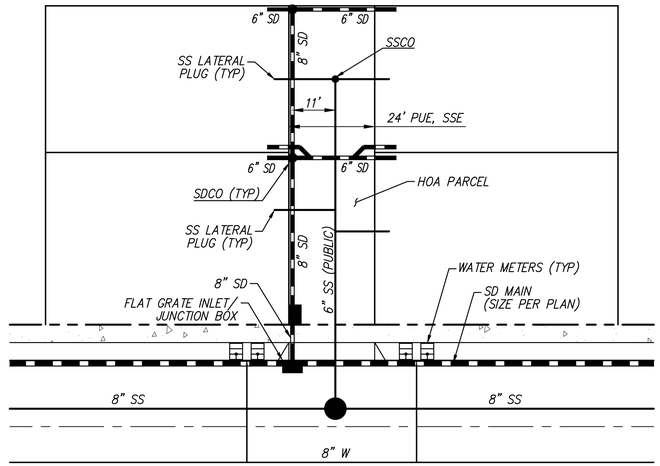


INTERNAL RESIDENTIAL STREET
NO SCALE

PROVIDE CROSS SECTION WITH TRAFFIC CALMING CHOKER, AS SHOWN ON STREET C.

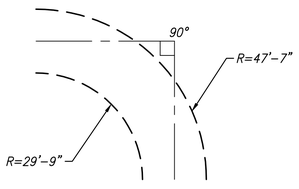


MOTORCOURT DETAIL
NO SCALE

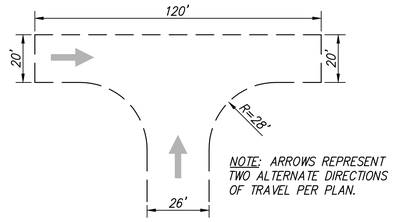


NOTES:
1. UTILITY CONFIGURATION IS CONSISTENT FOR LONGER MOTORCOURTS (WITH MORE LOTS)
2. WATER MAIN DOES NOT EXTEND INTO MOTORCOURTS THAT HAVE DEAD ENDS.

TYPICAL MOTORCOURT UTILITY LAYOUT
SCALE: 1"=20'



90° TURN DETAIL



HAMMERHEAD DETAIL

FIRE TRUCK TURN TEMPLATES

VESTING TENTATIVE MAP - TRACT 4013
STREET SECTIONS AND DETAILS

CITY OF TRACY, SAN JOAQUIN COUNTY, CALIFORNIA
FOR: INTEGRAL COMMUNITIES

RUGGERI-JENSEN-AZAR
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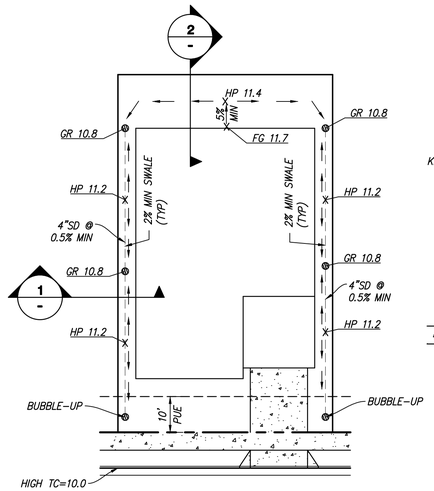
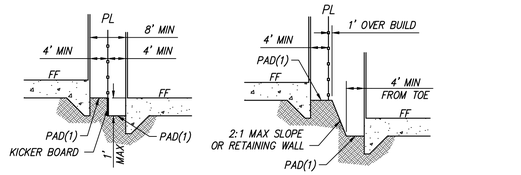
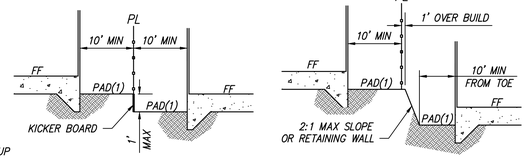
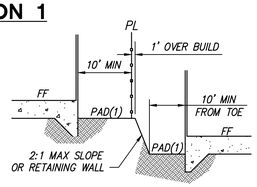




SECTION 1



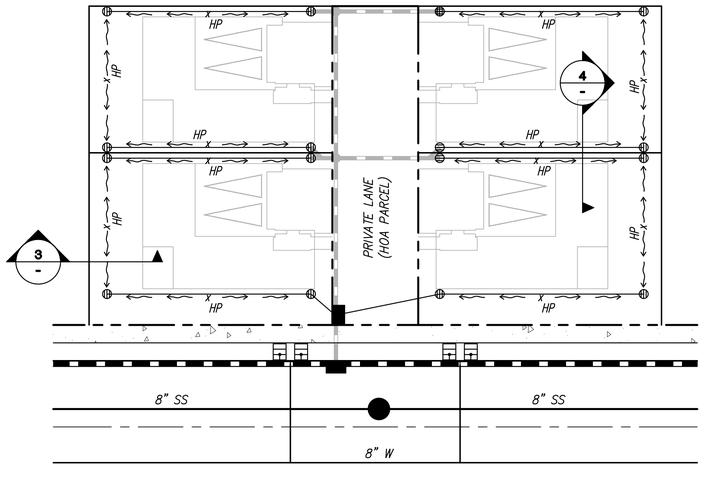


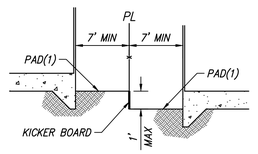
SECTION 2

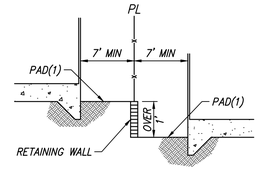
47'x70' TYPICAL LOT GRADING DETAIL

SCALE: 1"=20'

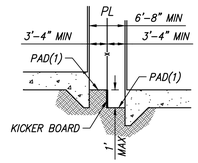
(1) SEE SWALE DETAIL HEREON

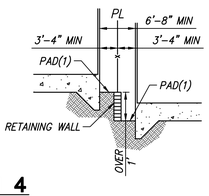






SECTION 3



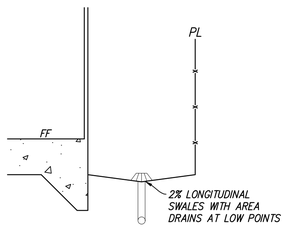


SECTION 4

41'x68' TYPICAL PRIVATE LANE GRADING DETAIL

SCALE: 1"=20'

(1) SEE SWALE DETAIL HEREON



SWALE DETAIL

NOT TO SCALE

NOTE: SWALES TO BE SHOWN ON PLOT PLANS

VESTING TENTATIVE MAP - TRACT 4013

STREET SECTIONS AND DETAILS

CITY OF TRACY, SAN JOAQUIN COUNTY, CALIFORNIA

FOR: INTEGRAL COMMUNITIES

RJA
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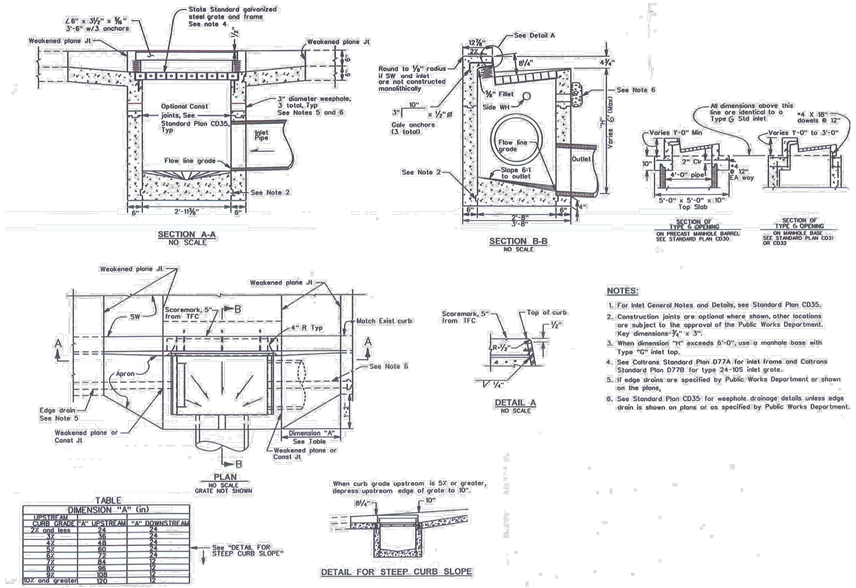
O:\JOB2016\185021\MAP\03B-ST-185023VNLDWG 1/31/2020 8:01:20 AM RYAN WHEELER



TABLE

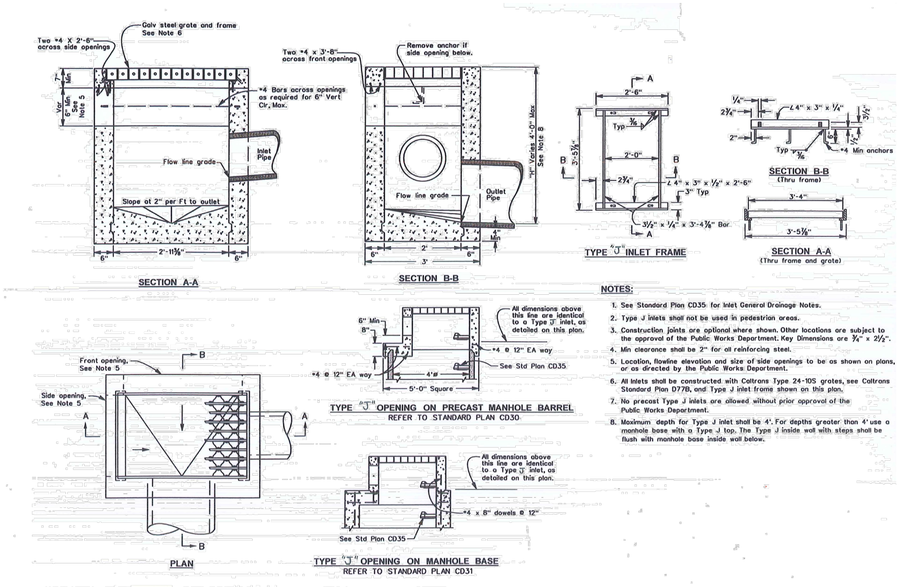
DIMENSION "A" (in)		
LONGITUDINAL CURB GRADE	"A" UPSTREAM	"A" DOWNSTREAM
2% and less	24	24
3%	36	24
4%	48	24
5%	60	24
6%	72	24
7%	84	12
8%	96	12
10% and greater	120	12

NOTES:

1. For Inlet General Notes and Details, see Standard Plan CD35.
2. Construction joints are optional where shown, other locations are subject to the approval of the Public Works Department. Key dimensions-¾" x 3".
3. When dimension "H" exceeds 6'-0", use a manhole base with Type "G" inlet top.
4. See Caltrans Standard Plan D77A for inlet frame and Caltrans Standard Plan D77B for type 24-105 inlet grate.
5. If edge drains are specified by Public Works Department or shown on the plans,
6. See Standard Plan CD35 for weephole drainage details unless edge drain is shown on plans or as specified by Public Works Department.

CD 27 - TYPE "G" INLET

NO SCALE



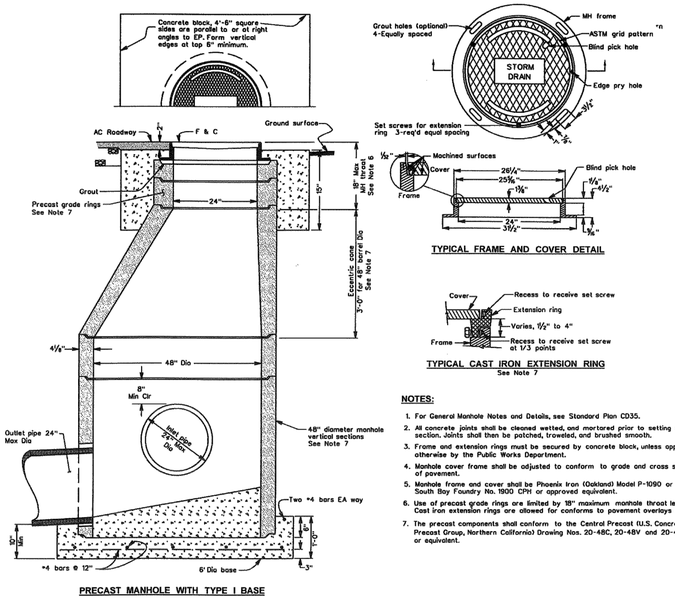
NOTES:

1. See Standard Plan CD35 for Inlet General Drainage Notes.
2. Type J inlets shall not be used in pedestrian areas.
3. Construction joints are optional where shown. Other locations are subject to the approval of the Public Works Department. Key dimensions are ¾" x 2½".
4. Min clearance shall be 2" for all reinforcing steel.
5. Location, flowline elevation and size of side openings to be as shown on plans, or as directed by the Public Works Department.
6. All inlets shall be constructed with Caltrans Type 24-105 grates, see Caltrans Standard Plan D77B, and Type J inlet frame shown on this plan.
7. No precast Type J inlets are allowed without prior approval of the Public Works Department.
8. Maximum depth for Type J inlet shall be 4'. For depths greater than 4' use a manhole base with a Type J top. The Type J inside wall with steps shall be flush with manhole base inside wall below.

CD 29 - TYPE "J" INLET

NO SCALE

STORM DRAIN DETAILS SHOWN FOR REFERENCE ONLY - SEE TRACY HILLS DESIGN GUIDELINES



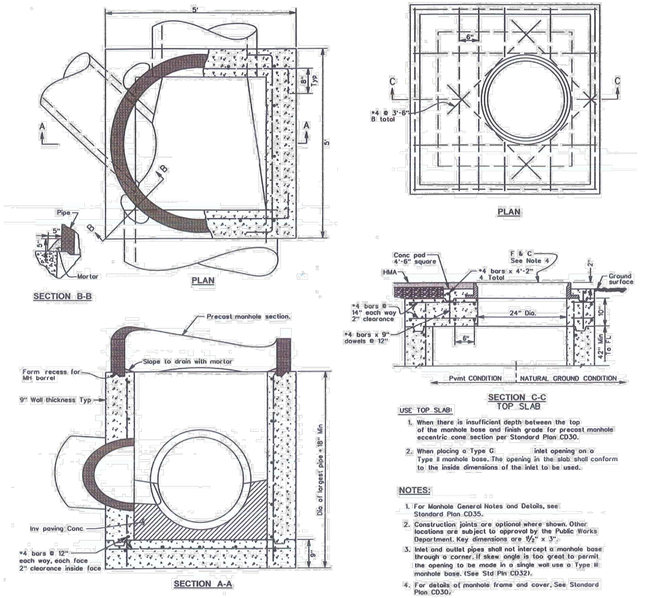
NOTES:

1. For General Manhole Notes and Details, see Standard Plan CD35.
2. All concrete joints shall be cleaned wetted, and mortared prior to setting next section. Joints shall then be patched, troweled, and brushed smooth.
3. Frame and extension rings must be secured by concrete block, unless approved otherwise by the Public Works Department.
4. Manhole cover frame shall be adjusted to conform to grade and cross slope of pavement.
5. Manhole frame and cover shall be Phoenix Iron (Oakland) Model P-1090 or South Bay Foundry No. 1900 CPH or approved equivalent.
6. Use of precast grade rings are limited by 18" maximum manhole throat length. Cast iron extension rings are allowed for conforms to pavement overlays only.
7. The precast components shall conform to the Central Precast (U.S. Concrete Precast Group, Northern California) Drawing Nos. 20-48C, 20-48V and 20-48 EC, or equivalent.

PRECAST MANHOLE WITH TYPE I BASE

CD 30 - TYPE I MANHOLE BASE

NO SCALE



USE TOP SLAB:

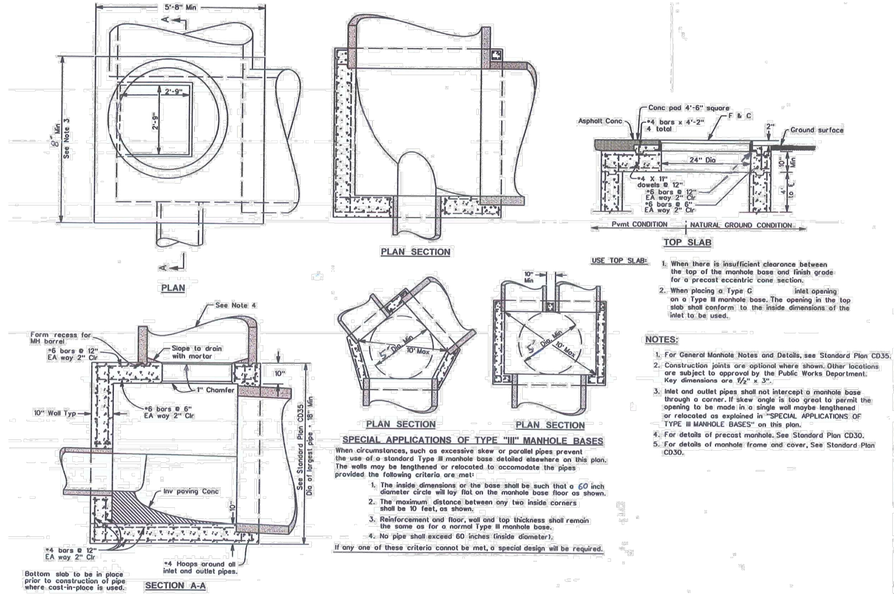
1. When there is insufficient depth between the top of the manhole base and finish grade for precast manhole eccentric cone section per Standard Plan CD30.
2. When placing a Type G inlet opening on a Type II manhole base. The opening in the slab shall conform to the inside dimensions of the inlet to be used.

NOTES:

1. For Manhole General Notes and Details, see Standard Plan CD35.
2. Construction joints are optional where shown. Other locations are subject to approval by the Public Works Department. Key dimensions are ¾" x 3".
3. Inlet and outlet pipes shall not intercept a manhole base through a corner. If skew angle is too great to permit the opening to be made in a single wall use a Type III manhole base. (See Std Pln CD32).
4. For details of manhole frame and cover, See Standard Plan CD30.

CD 31 - TYPE II MANHOLE BASE

NO SCALE



USE TOP SLAB:

1. When there is insufficient clearance between the top of the manhole base and finish grade for a precast eccentric cone section.
2. When placing a Type C inlet opening on a Type III manhole base. The opening in the top slab shall conform to the inside dimensions of the inlet to be used.

NOTES:

1. For General Manhole Notes and Details, see Standard Plan CD35.
2. Construction joints are optional where shown. Other locations are subject to approval by the Public Works Department. Key dimensions are ¾" x 3".
3. Inlet and outlet pipes shall not intercept a manhole base through a corner. If skew angle is too great to permit the opening to be made in a single wall maybe lengthened or relocated as explained in "SPECIAL APPLICATIONS OF TYPE III MANHOLE BASES" on this plan.
4. For details of precast manhole, See Standard Plan CD30.
5. For details of manhole frame and cover, See Standard Plan CD30.

SPECIAL APPLICATIONS OF TYPE "III" MANHOLE BASES

When circumstances, such as excessive skew or parallel pipes prevent the use of a standard Type III manhole base detailed elsewhere on this plan, the walls may be lengthened or relocated to accomodate the pipes provided the following criteria are met:

1. The inside dimensions of the base shall be such that a 60 inch diameter circle will lay flat on the manhole base floor as shown.
2. The maximum distance between any two inside corners shall be 10 feet, as shown.
3. Reinforcement and floor, wall and top thickness shall remain the same as for a normal Type III manhole base.
4. No pipe shall exceed 60 inches (inside diameter).

If any one of these criteria cannot be met, a special design will be required.

CD 32 - TYPE III MANHOLE BASE

NO SCALE

VESTING TENTATIVE MAP - TRACT 4013

STORM DRAIN DETAILS

CITY OF TRACY, SAN JOAQUIN COUNTY, CALIFORNIA
FOR: INTEGRAL COMMUNITIES

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O:\JOB2018\185023\TMAP\04-SET-185023-YNLDWG 1/30/2020 10:21:26 AM RYAN WHEELER

VILLAGE 1 41'X68'	
LOT #	AREA (SF)
1	3,663
2	3,264
3	2,788
4	2,788
5	2,788
6	2,788
7	3,264
8	3,326
9	2,836
10	2,831
11	3,264
12	2,788
13	2,924
14	3,240
15	2,788
16	2,788
17	2,788
18	2,788
19	3,264
20	3,264
21	2,788
22	2,788
23	2,788
24	2,788
25	3,178
26	3,370
27	2,952
28	2,952
29	2,788
30	2,788
31	3,264
32	3,264
33	2,788
34	2,788
35	2,788
36	2,788
37	3,264
38	3,288
39	2,808
40	2,808
41	3,003
42	3,003

VILLAGE 1 41'X68'	
LOT #	AREA (SF)
43	2,808
44	3,288
45	3,263
46	2,789
47	2,981
48	2,981
49	2,788
50	2,788
51	3,264
52	3,264
53	2,788
54	2,788
55	2,981
56	2,981
57	2,789
58	3,263
59	3,264
60	2,788
61	2,788
62	3,006
63	2,957
64	2,788
65	3,264
66	3,648
67	3,116
68	3,075
69	3,741
70	4,424
71	3,075
72	4,906
73	4,864
74	4,576
75	4,576
76	4,576
77	4,575
78	4,264
79	2,935
80	3,733
81	3,511
82	2,780
83	2,921

VILLAGE 2 47'X70'	
LOT #	AREA (SF)
1	3,355
2	5,470
3	3,764
4	3,903
5	3,447
6	3,814
7	3,814
8	3,525
9	3,525
10	3,525
11	3,525
12	3,525
13	3,525
14	3,525
15	3,525
16	3,525
17	3,523
18	3,454
19	3,454
20	3,554
21	3,290
22	3,290
23	3,290
24	3,297
25	4,261
26	6,522
27	5,634
28	6,967
29	3,760
30	4,557
31	4,230
32	3,809
33	3,353
34	3,984
35	7,352
36	5,162
37	6,959
38	3,754
39	3,720
40	4,637
41	7,091
42	13,987
43	4,582
44	4,589
45	4,596
46	4,221
47	4,429
48	4,702
49	4,710
50	4,717
51	4,725

VILLAGE 2 47'X70'	
LOT #	AREA (SF)
52	4,732
53	4,740
54	4,747
55	4,755
56	4,762
57	4,770
58	4,777
59	4,626
60	4,122
61	3,799
62	3,535
63	3,535
64	3,535
65	3,535
66	3,535
67	3,535
68	3,320
69	3,500
70	3,535
71	3,535
72	3,535
73	3,799
74	3,799
75	3,535
76	3,535
77	3,535
78	3,500
79	3,320
80	3,535
81	3,535
82	3,535
83	3,535
84	3,535
85	3,535
86	3,799
87	3,554
88	3,290
89	3,290
90	3,290
91	3,290
92	3,290
93	3,290
94	3,290
95	3,290
96	3,735
97	3,735
98	3,290
99	3,290
100	3,290
101	3,288
102	5,870

VESTING TENTATIVE MAP - TRACT 4013
RESIDENTIAL LOT AREA SUMMARY - 185 UNITS

CITY OF TRACY, SAN JOAQUIN COUNTY, CALIFORNIA
FOR: INTEGRAL COMMUNITIES

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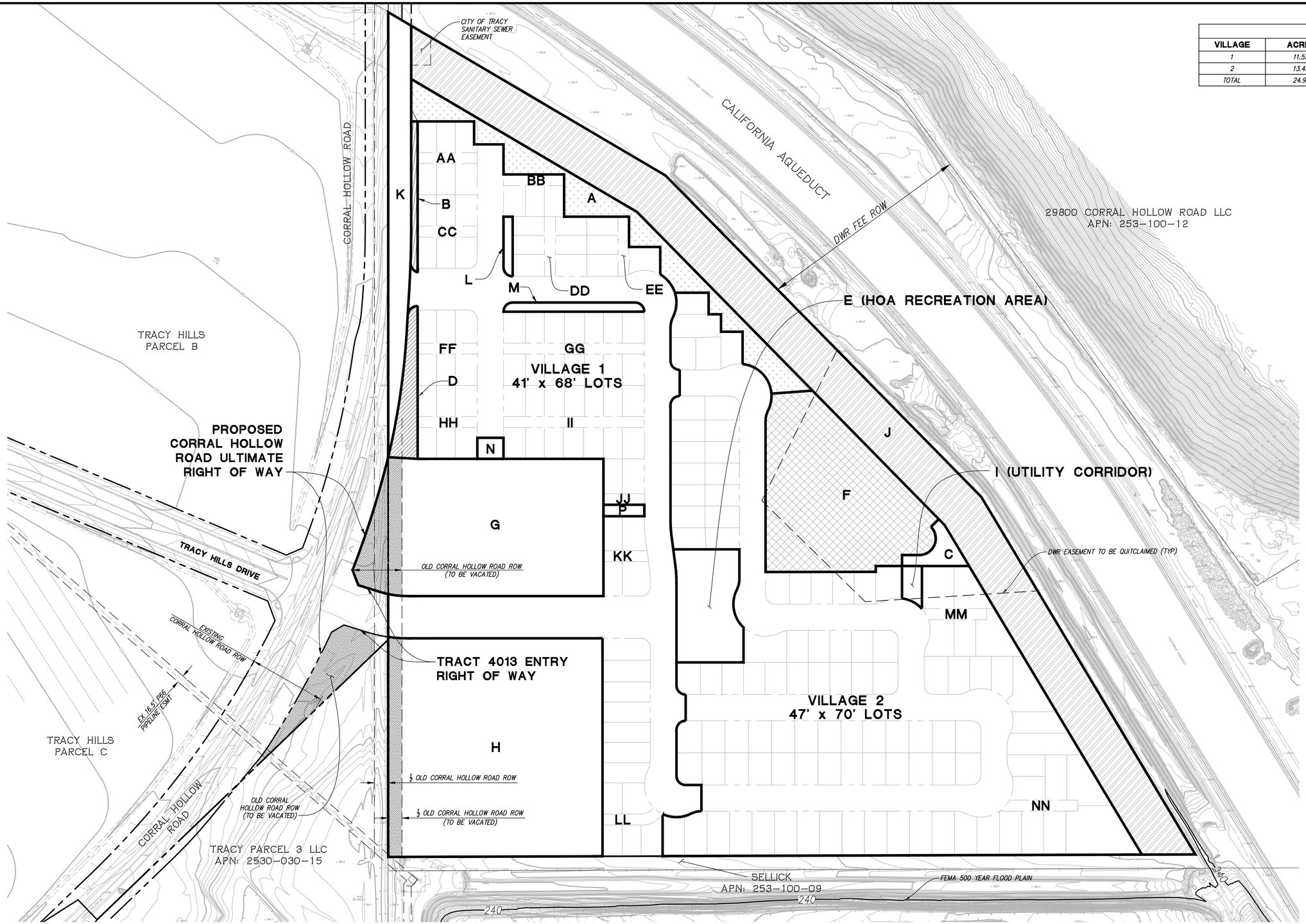
C:\JOBS\185\185023\MAP\QS-LOT AREA-185023VTM.DWG 2/5/2020 1:02:13 PM RYAN WHEELER



LOT SUMMARY			
VILLAGE	ACRES	LOT COUNT	TYPICAL LOT SIZE
1	11.53	83	41' X 68'
2	13.45	102	47' X 70'
TOTAL	24.98	185	--

PARCEL SUMMARY		
PARCEL	OWNER	ACRES
A	HOA	1.13
B	HOA	0.11
C	CITY	0.15
D	HOA	0.28
E	HOA	0.78
F	CITY	2.41
G	DEVELOPER	3.49
H	DEVELOPER	5.10
I	HOA	0.08
J	HOA	5.62
K	CITY	0.92
L	HOA	0.06
M	HOA	0.14
N	HOA	0.06
P	HOA	0.05
TOTAL		20.38

OTHER LAND USES		
PARCEL	USE	ACRES
C	LIFT STATION	0.15
F	RETENTION BASIN	2.41
G	COMMERCIAL	3.49
H	COMMERCIAL	5.10
I	UTILITY CORRIDOR	0.08
J	CONSERVATION EASEMENT	5.62
K	CORRAL HOLLOW ROAD ULTIMATE ROW	0.92
AA-NN	PRIVATE LANE	N/A

PARK SUMMARY		
PARCEL	OWNER	ACRES
A (LINEAR PARK)	HOA	1.13
E (HOA REC AREA)	HOA	0.78
P (LINEAR PARK)	HOA	0.05
TOTAL		1.96

LEGEND

- LINEAR PARK (HOA OWNED & MAINTAINED)
- PROPOSED 100' CONSERVATION EASEMENT (HOA OWNED & MAINTAINED)
- IN TRACT OPEN SPACE (HOA OWNED & MAINTAINED)
- RETENTION BASIN (CITY OWNED & MAINTAINED)
- EXISTING CORRAL HOLLOW ROAD ROW TO BE VACATED

N

0 100 200 300

1 inch = 100 ft.

VESTING TENTATIVE MAP - TRACT 4013
OWNERSHIP EXHIBIT

CITY OF TRACY, SAN JOAQUIN COUNTY, CALIFORNIA
FOR: INTEGRAL COMMUNITIES

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DATE: FEBRUARY 4, 2020 JOB NO.: 185023 SHEET 6 OF 14

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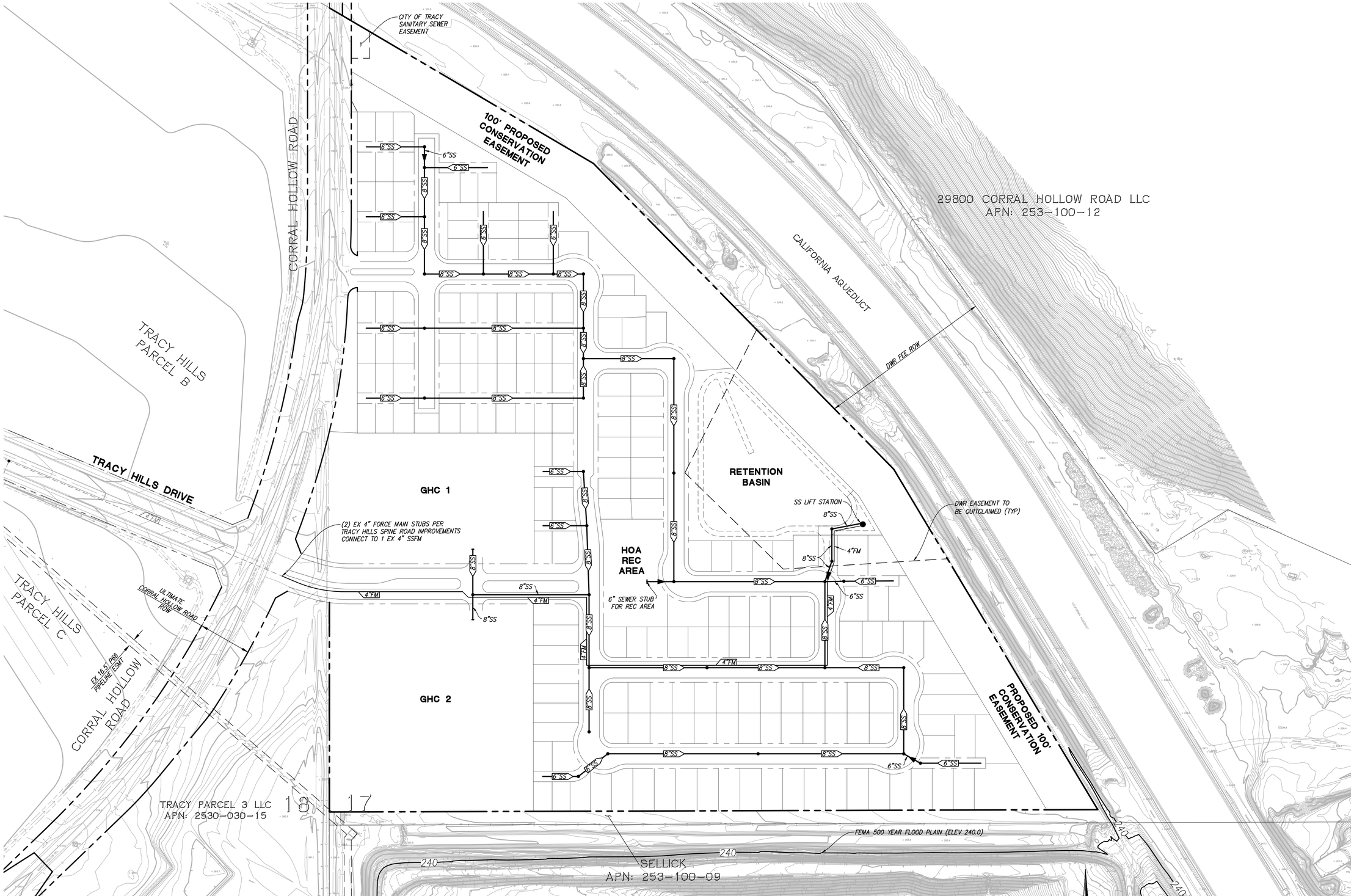


NOTES:
1. SANITARY SEWER SYSTEM LAYOUT SHOWN IN INDIVIDUAL VILLAGES IS SCHEMATIC. ULTIMATE DESIGN/LAYOUT TO BE APPROVED BY THE CITY AS PART OF IMPROVEMENT PLANS.

VESTING TENTATIVE MAP - TRACT 4013

OVERALL SANITARY SEWER PLAN

CITY OF TRACY, SAN JOAQUIN COUNTY, CALIFORNIA
FOR: INTEGRAL COMMUNITIES

N

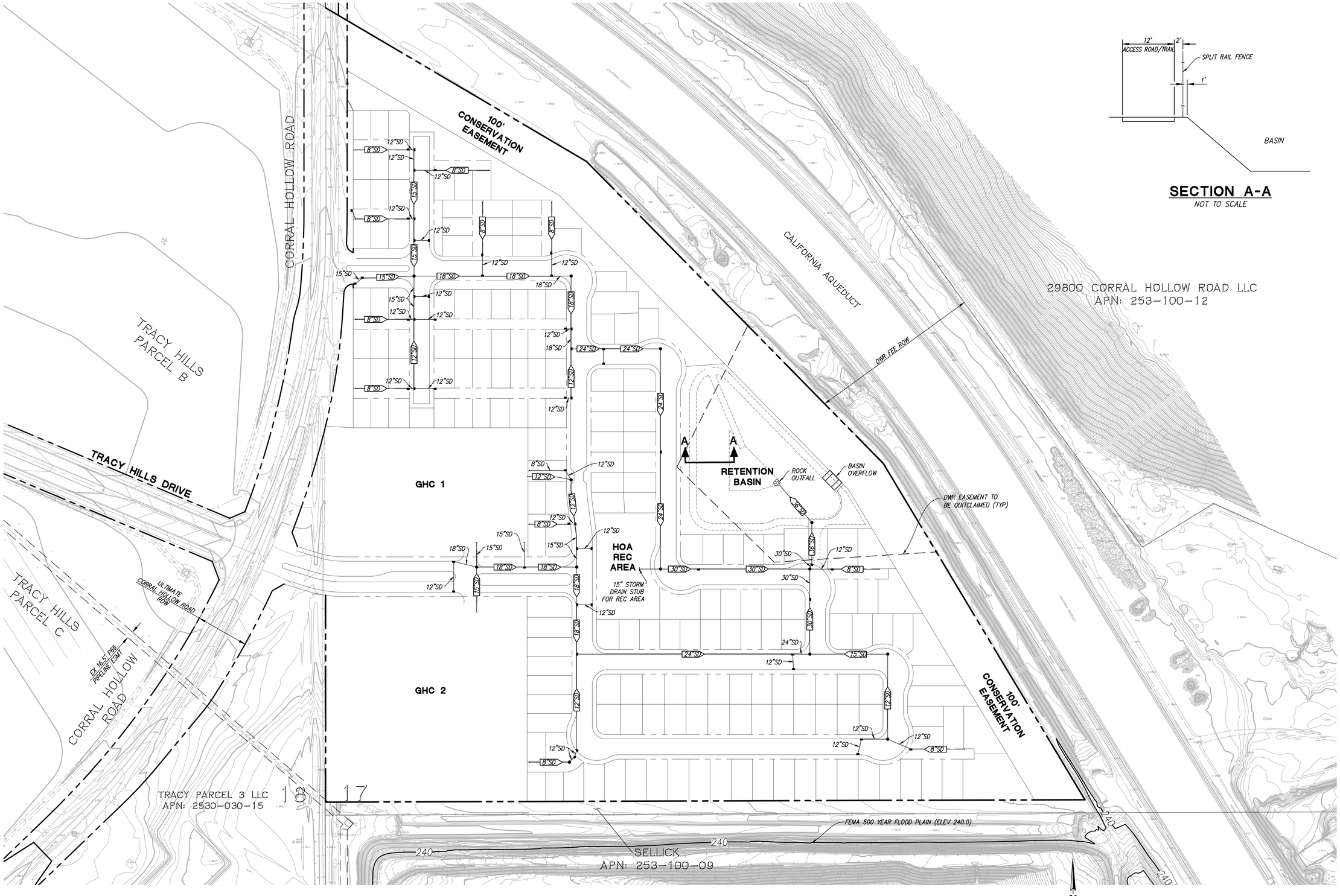
0 100 200 300

1 inch = 100 ft.

RJA
RUGGERI-JENSEN-AZAR
ENGINEERS ▪ PLANNERS ▪ SURVEYORS
2541 WARREN DRIVE, SUITE 200, ROCKLIN, CA 95677
PHONE: (916) 630-8900 FAX: (916) 630-8909

DATE: FEBRUARY 4, 2020 JOB NO.: 185023 SHEET 7 OF 14

C:\JOBS\185023\MAP\07-SS-185023VTM.DWG 2/5/2020 10:13:20 AM RYAN WHEELER



VESTING TENTATIVE MAP - TRACT 4013
OVERALL STORM DRAIN SYSTEM PLAN

CITY OF TRACY, SAN JOAQUIN COUNTY, CALIFORNIA
FOR: INTEGRAL COMMUNITIES

NOTES:
1. STORM DRAIN SYSTEM LAYOUT SHOWN IN INDIVIDUAL VILLAGES IS SCHEMATIC. ULTIMATE DESIGN/LAYOUT TO BE APPROVED BY THE CITY AS PART OF IMPROVEMENT PLANS.

N

0 100 200 300

1 inch = 100 ft.

RJA
RUGGERI-JENSEN-AZAR
ENGINEERS ▪ PLANNERS ▪ SURVEYORS
2541 WARREN DRIVE, SUITE 200, ROCKLIN, CA 95677
PHONE: (916) 630-8900 FAX: (916) 630-8909

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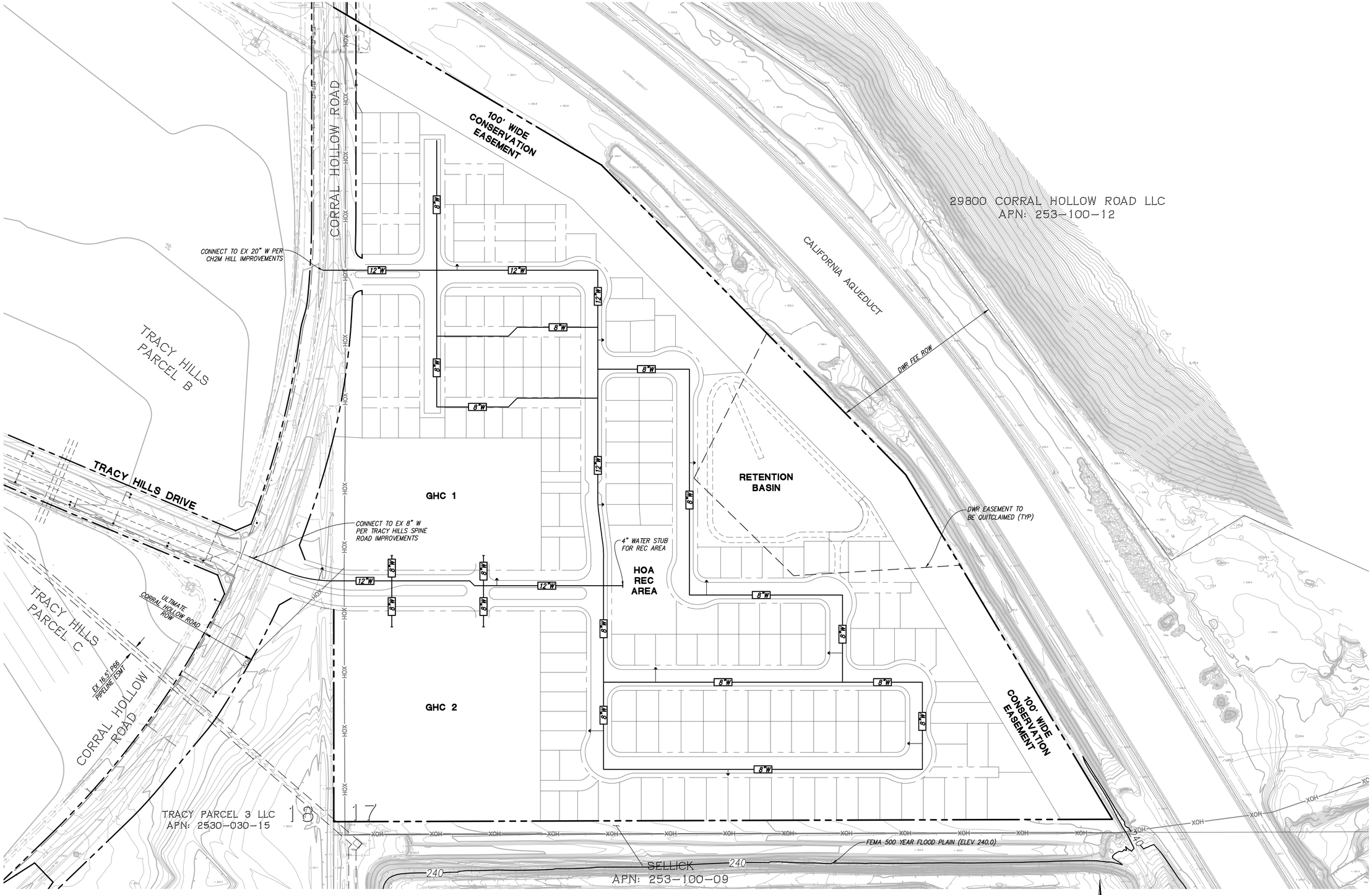

NOTES:

1. 3-WAY OR 4-WAY VALVES WILL BE INSTALLED ON WATER MAINS AT TEE OR CROSS INTERSECTIONS, RESPECTIVELY.
2. SYSTEM LAYOUT SHOWN IN INDIVIDUAL VILLAGES IS SCHEMATIC. ULTIMATE DESIGN/LAYOUT TO BE APPROVED BY THE CITY AS PART OF IMPROVEMENT PLANS.

VESTING TENTATIVE MAP - TRACT 4013
OVERALL WATER SYSTEM & HYDRANT PLAN

CITY OF TRACY, SAN JOAQUIN COUNTY, CALIFORNIA
FOR: INTEGRAL COMMUNITIES

N

0 100 200 300

1 inch = 100 ft.

RJA
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2541 WARREN DRIVE, SUITE 200, ROCKLIN, CA 95677
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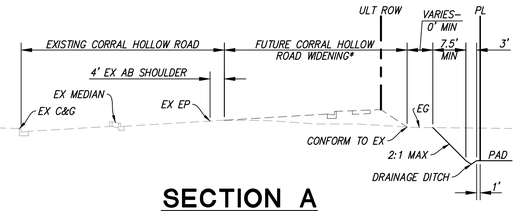
DATE: FEBRUARY 4, 2020 JOB NO.: 185023 SHEET 9 OF 14

G:\JOB2018\185023\MAP\09-#-185023VTMLDWG 2/5/2020 10:16:14 AM RYAN WHEELER

*PROJECT CONDITIONS WILL ADDRESS THE REQUIREMENTS FOR CONSTRUCTION OF CORRAL HOLLOW ROAD IMPROVEMENTS RELATIVE TO SCOPE & TIMING WITH RESPECT TO THE DEVELOPMENT OF THE KT PROPERTY



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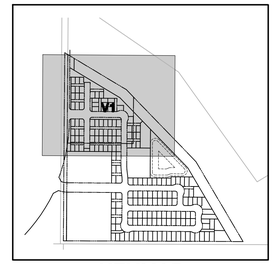

KEYMAP
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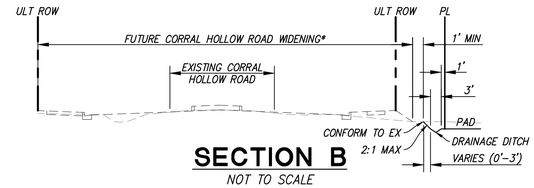

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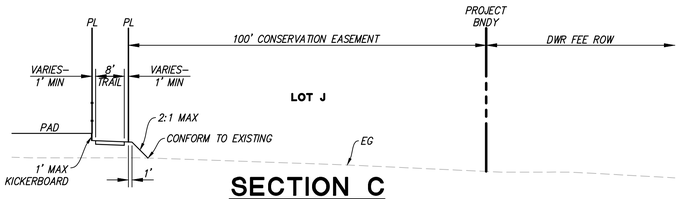

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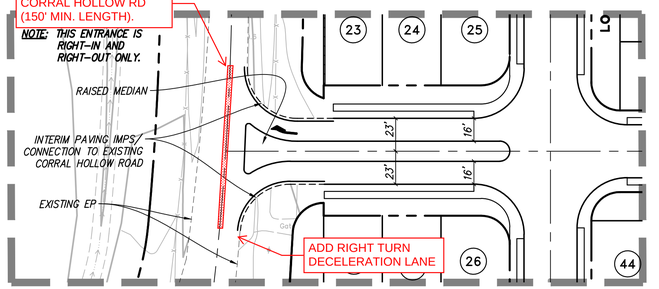
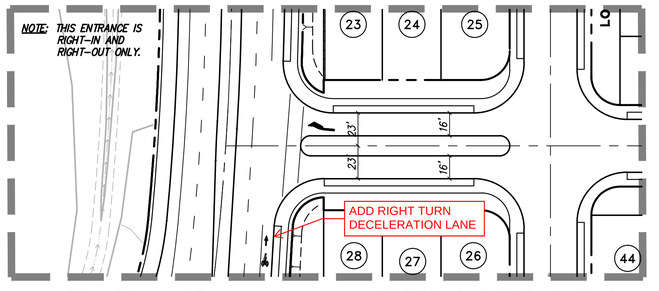


INTERIM CORRAL HOLLOW / STREET A INTERSECTION
NOT TO SCALE



ULTIMATE CORRAL HOLLOW / STREET A INTERSECTION
NOT TO SCALE

SEE RIGHT SIDE OF SHEET FOR INTERIM & ULTIMATE DETAILS

SEE SHEET 13

SEE SHEET 11

VESTING TENTATIVE MAP - TRACT 4013
VILLAGE 1

CITY OF TRACY, SAN JOAQUIN COUNTY, CALIFORNIA
FOR: INTEGRAL COMMUNITIES

0 50 100 150
1 inch = 50 ft.

RUGGERI-JENSEN-AZAR
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DATE: FEBRUARY 4, 2020 JOB NO.: 185023 SHEET 10 OF 14

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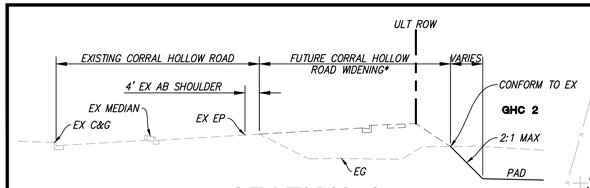


SECTION A

NOT TO SCALE

*PROJECT CONDITIONS WILL ADDRESS THE REQUIREMENTS FOR CONSTRUCTION OF CORRAL HOLLOW ROAD IMPROVEMENTS RELATIVE TO SCOPE & TIMING WITH RESPECT TO THE DEVELOPMENT OF THE KT PROPERTY

SEE SHEET 10

SEE SHEET 13

SEE SHEET 12

SEE RIGHT SIDE OF SHEET FOR INTERIM & ULTIMATE DETAILS

GHC 1

GHC 2

LOT N

LOT P

STREET C

STREET D

CORRAL HOLLOW ROAD

TRACY HILLS PARCEL C

TRACY PARCEL 3 LLC
APN: 2530-030-15

SELLICK
APN: 253-100-09

INTERIM IMPROVEMENTS/ CONNECTION TO EXISTING CORRAL HOLLOW ROAD

CONNECT TO EXISTING W

CONFORM TO EX EP

CONNECT TO EXISTING SSFM

TRAFFIC CALMING CHOKER

PROVIDE CROSS SECTION

SEE PREVIOUS TURNING TEMPLATE ANALYSIS AND REVISE CHOKER ACCORDINGLY.

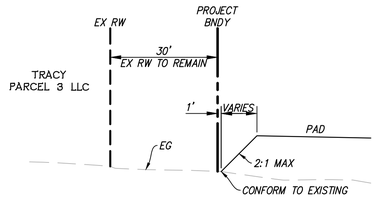
SHOW ROUNDABOUT LAYOUT

MODIFY RAISED MEDIAN TO ACCOMMODATE CROSSWALK

RIGHT LANE TO BE CONVERTED INTO SHARED THRU/RIGHT LANE

FEMA 500 YEAR FLOOD PLAIN (ELEV 240.0)

240



SECTION B

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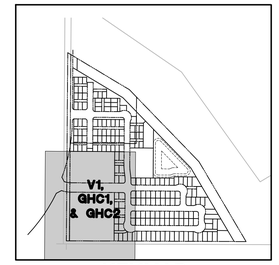

KEYMAP

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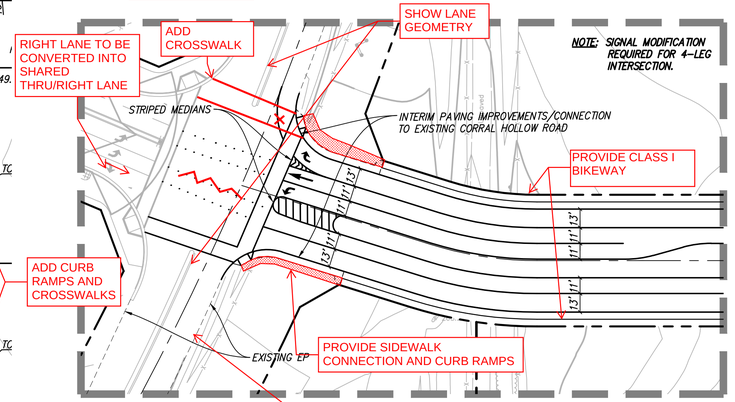
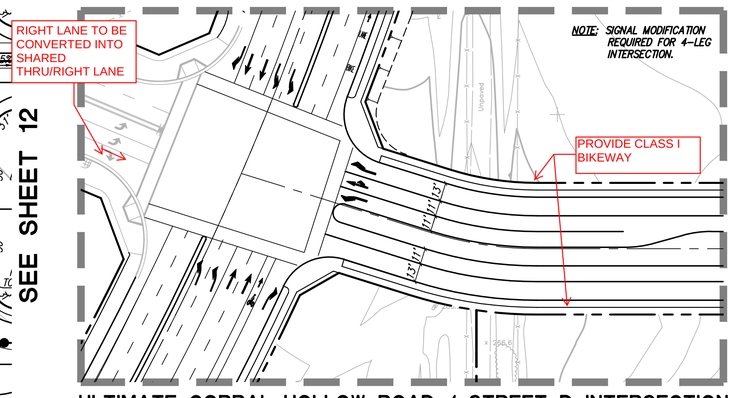


INTERIM CORRAL HOLLOW ROAD / STREET D INTERSECTION

NOT TO SCALE



ULTIMATE CORRAL HOLLOW ROAD / STREET D INTERSECTION

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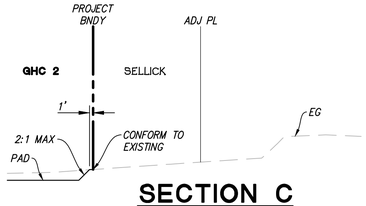

SECTION C

NOT TO SCALE

VESTING TENTATIVE MAP - TRACT 4013
VILLAGE 1, GHC PARCEL 1 & GHC PARCEL 2

CITY OF TRACY, SAN JOAQUIN COUNTY, CALIFORNIA
FOR: INTEGRAL COMMUNITIES

RJA
RUGGERI-JENSEN-AZAR
ENGINEERS • PLANNERS • SURVEYORS
2541 WARREN DRIVE, SUITE 200, ROCKLIN, CA 95677
PHONE: (916) 630-8900 FAX: (916) 630-8909

DATE: FEBRUARY 4, 2020 JOB NO.: 185023 SHEET 11 OF 14

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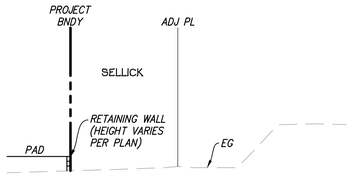

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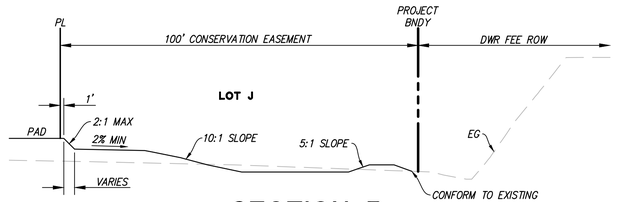

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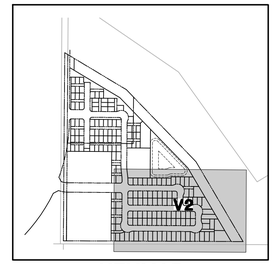


KEYMAP
NOT TO SCALE

SEE SHEET 13

SEE SHEET 11

PROVIDE MULTI-USE PATH THROUGH PARK TO CREATE CONNECTION BETWEEN STREET C/D, STREET I AND THE EAST TRAIL.

LOT E (HOA REC AREA)

12' ACCESS ROAD/TRAIL

SS LIFT STATION (LOT C)

STREET C

STREET K

STREET G

STREET E

STREET H

STREET F

LOT J

DWR FEE ROW

PROPOSED 100' CONSERVATION EASEMENT

CALIFORNIA AQUEDUCT

SELLICK
APN: 253-100-09

FEMA 500 YEAR FLOOD PLAIN (ELEV 240.0)

B 12

A 12

N

0 50 100 150

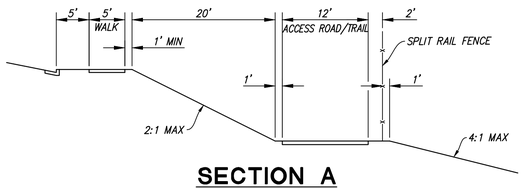
1 inch = 50 ft.

VESTING TENTATIVE MAP - TRACT 4013
VILLAGE 2

CITY OF TRACY, SAN JOAQUIN COUNTY, CALIFORNIA
FOR: INTEGRAL COMMUNITIES

RJA
RUGGERI-JENSEN-AZAR
ENGINEERS ▪ PLANNERS ▪ SURVEYORS
2541 WARREN DRIVE, SUITE 200, ROCKLIN, CA 95677
PHONE: (916) 630-8900 FAX: (916) 630-8909

G:\JOBS\185\185023\TMAP\V2-185023TMDWG 1/30/2020 10:19:44 AM RYAN WHEELER



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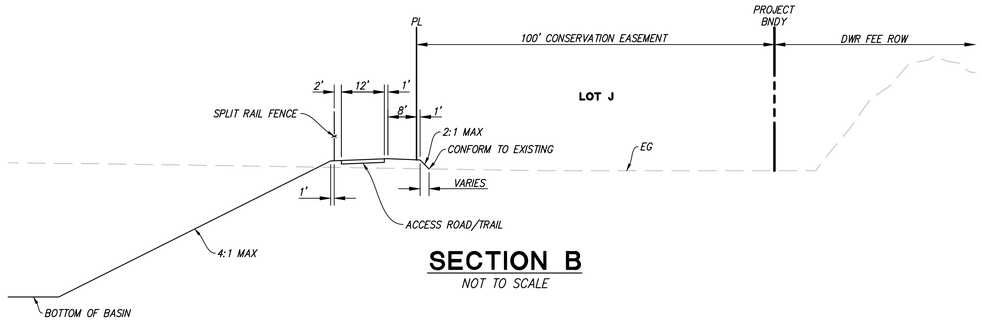

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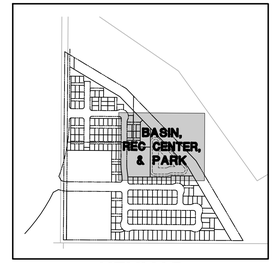

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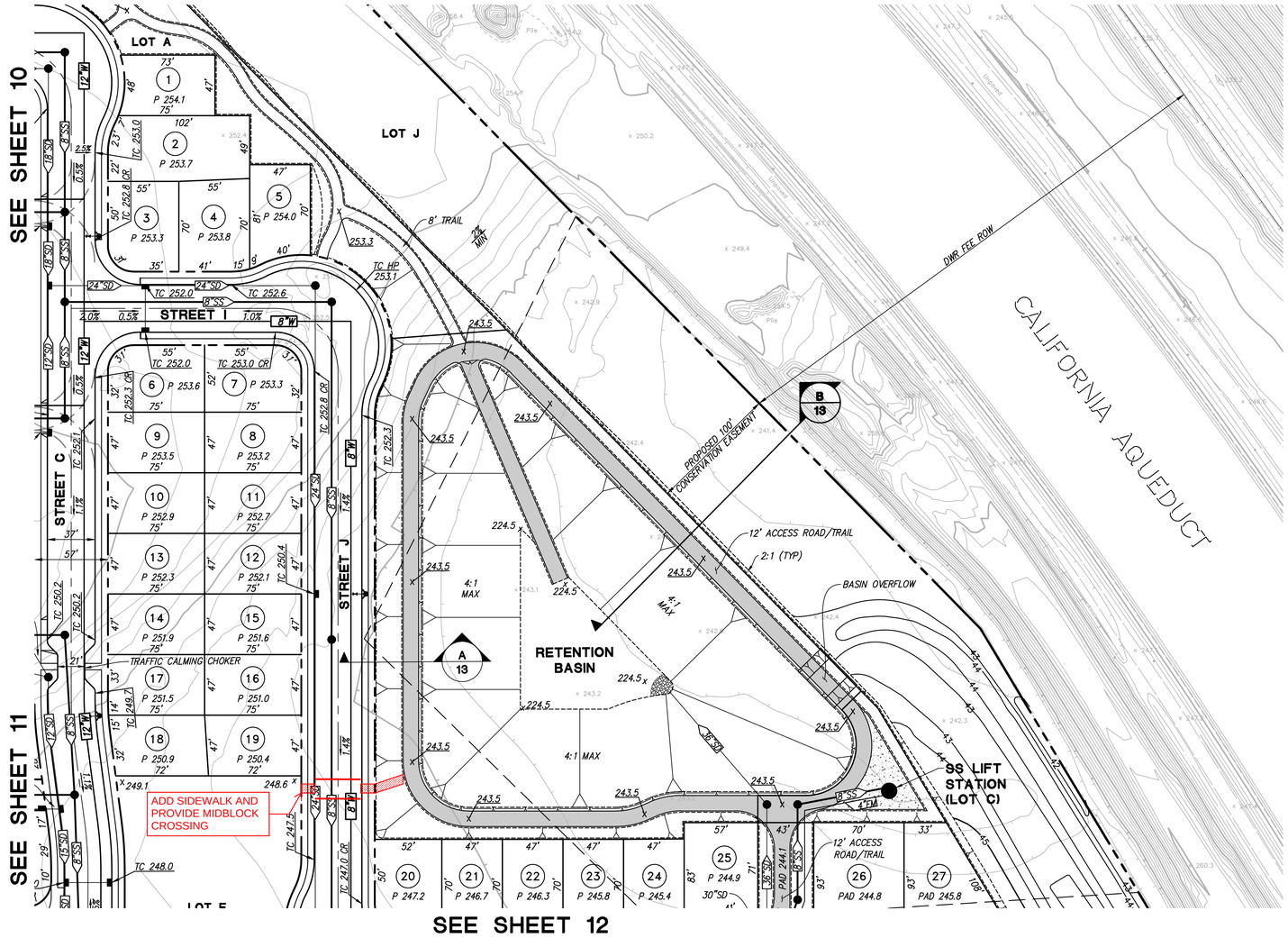

0 50 100 150

1 inch = 50 ft.

VESTING TENTATIVE MAP - TRACT 4013
RETENTION BASIN, RECREATION CENTER & PARK

CITY OF TRACY, SAN JOAQUIN COUNTY, CALIFORNIA
FOR: INTEGRAL COMMUNITIES

RUGGERI-JENSEN-AZAR
ENGINEERS ▪ PLANNERS ▪ SURVEYORS
2541 WARREN DRIVE, SUITE 200, ROCKLIN, CA 95677
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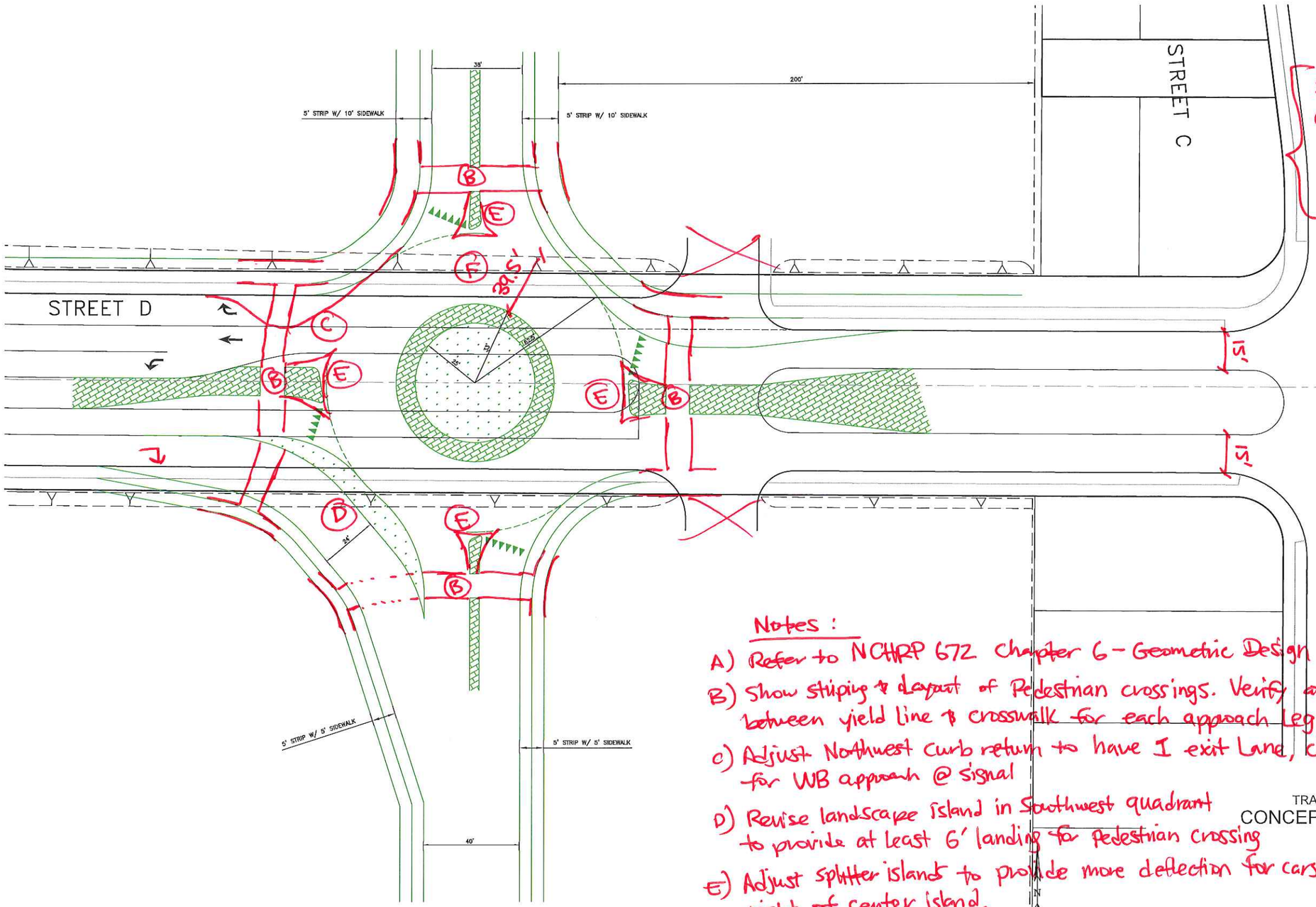
DATE: FEBRUARY 4, 2020 JOB NO.: 185023 SHEET 13 OF 14

© L:\2020\185023\MAP\13-PARK-185023VTM.DWG 1/22/2020 6:10:52 PM RYAN WHEELER

KIMLEY-HORN Dww 2/17/2020



ISD: 125'
Circulatory: 39.5'
Apron: 8'
Center Island: 66 R

Notes:

A) Refer to NCHRP 672 Chapter 6 - Geometric Design for design checks
B) Show striping & layout of Pedestrian crossings. Verify at least 1 car length between yield line & crosswalk for each approach leg.
C) Adjust Northwest curb return to have 1 exit Lane, create right turn pocket for WB approach @ signal
D) Revise landscape island in Southwest quadrant to provide at least 6' landing for Pedestrian crossing
E) Adjust splitter islands to provide more deflection for cars to follow right of center island.
F) Circulatory roadway width too wide. 39.5' ~ 3 lanes
↳ Enlarge center island with larger apron and narrow circulatory width to ~20-feet

0 20 40 60
SCALE IN FEET: 1" = 20'

TRACY HILLS KT PROJECT
CONCEPTUAL ROUNDABOUT
OPTION 2
TRACY, CALIFORNIA
FEBRUARY 13, 2020

RJA
RUGGERI-JENSEN-AZAR
ENGINEERS ■ PLANNERS ■ SURVEYORS
8055 CAMINO ARROYO GILROY, CA 95020
PHONE: (408) 848-0300 FAX: (408) 848-0302

JOB NUMBER: 185023 SHEET 1 OF 3

PLOT DATE: February 14, 2020
FILE PATH: \\GILAD5RV\Work\Jobs 18\185023 - Tracy RBT\Drawings\Prelim\Conceptual Layouts\Conceptual RAB-Option 2.dwg

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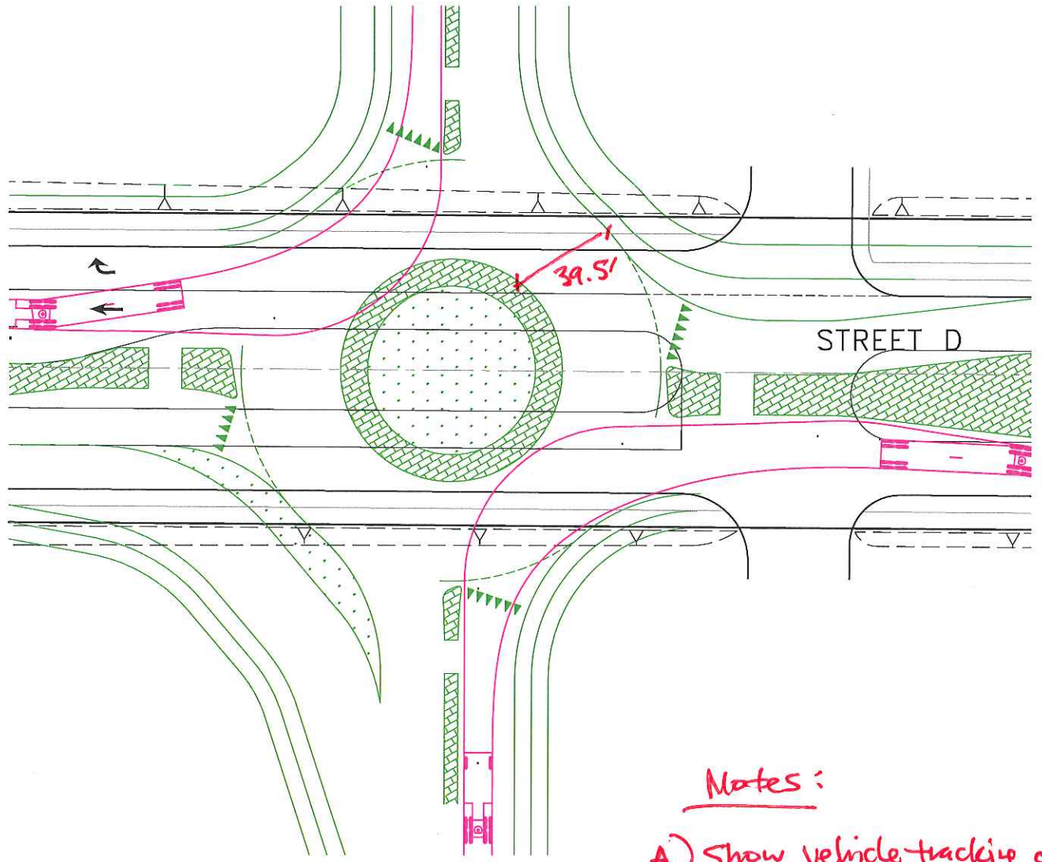
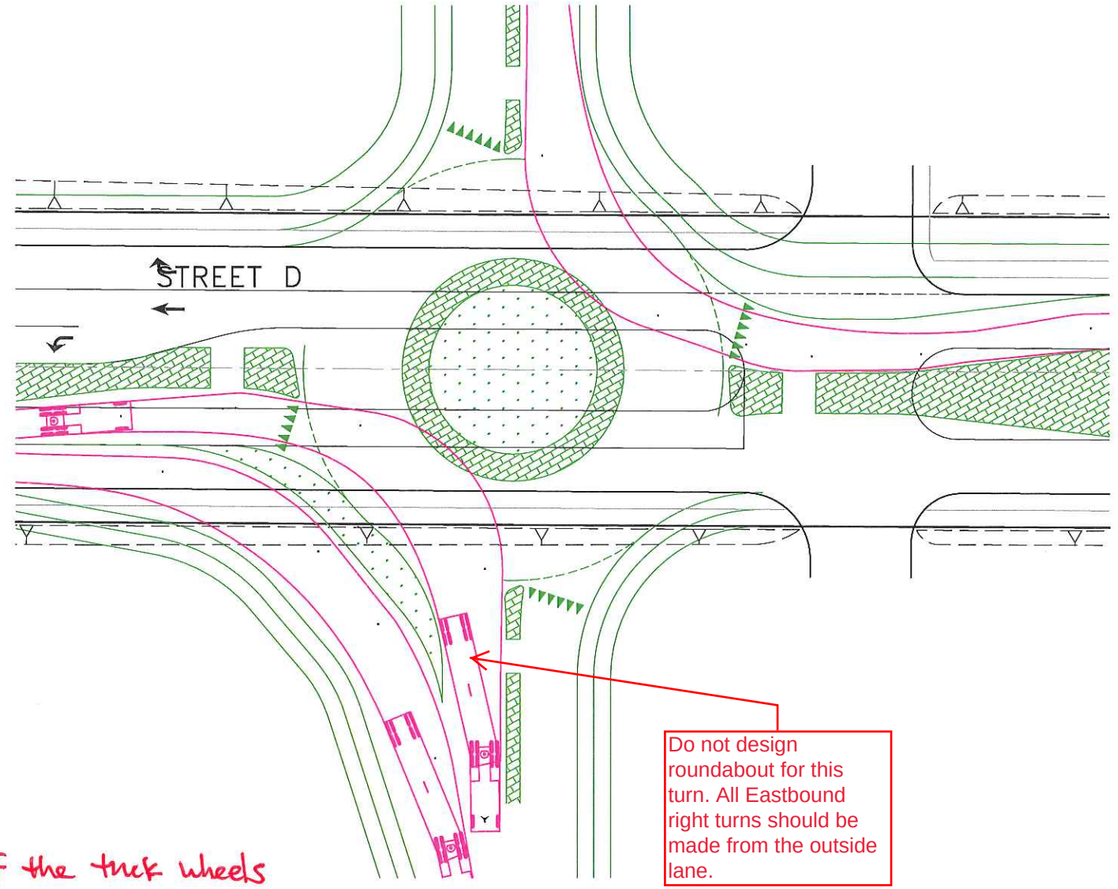
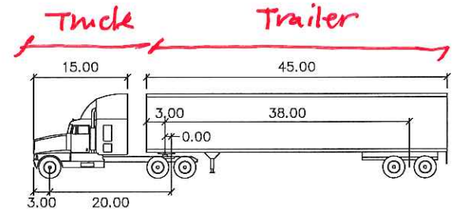




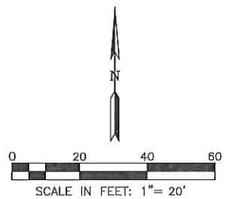
Notes:

A) Show vehicle tracking of the truck wheels
- Truck wheels should not encroach over curbs or center apron
- Trailer back wheels can encroach into apron



CA LEGAL–65 FT feet

Tractor Width	: 8.50	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 26.3
Tractor Track	: 8.50	Articulating Angle	: 70.0
Trailer Track	: 8.50		



TRACY HILLS KT PROJECT

TRUCK TURNING TEMPLATES

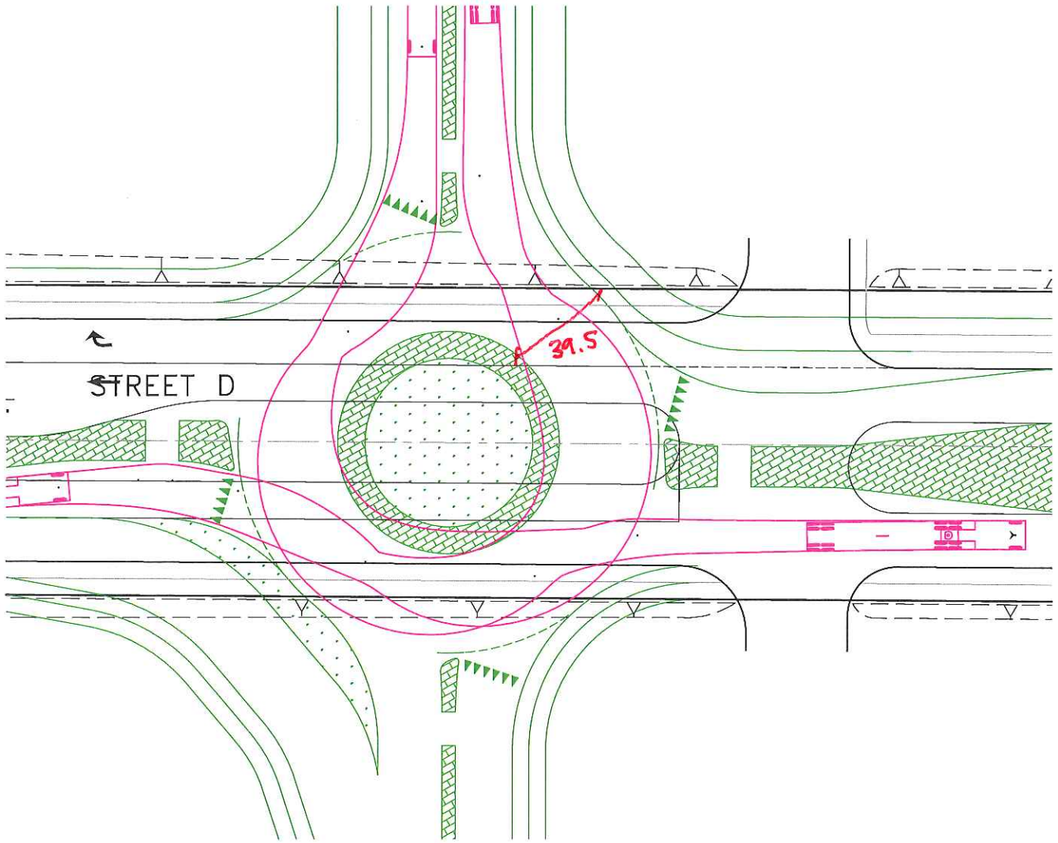
TRACY, CALIFORNIA

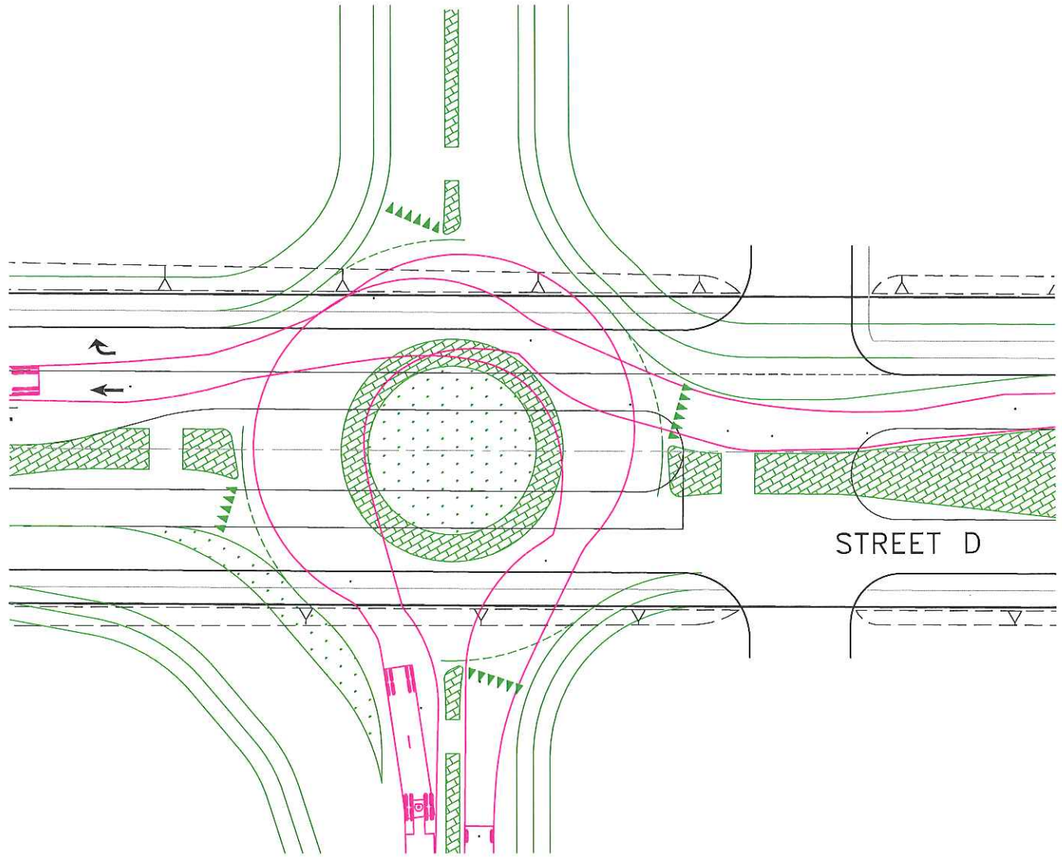
FEBRUARY 13, 2020

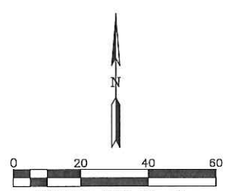
RUGGERI-JENSEN-AZAR
ENGINEERS ★ PLANNERS ★ SURVEYORS
8055 CAMINO ARROYO GILROY, CA 95020
PHONE: (408) 848-0300 FAX: (408) 848-0302

JOB NUMBER: 185023 SHEET 2 OF 3

PLOT DATE: February 14, 2020
FILE PATH: \\GILAG38V\Work\Jobs 18\185023 - Tracy RBT\Drawings\Prelim\Conceptual Layouts\Conceptual RAB-Option 2.dwg







SCALE IN FEET: 1"= 20'

TRACY HILLS KT PROJECT

TRUCK TURNING TEMPLATES

TRACY, CALIFORNIA

FEBRUARY 13, 2020

RJA
RUGGERI-JENSEN-AZAR
ENGINEERS ▪ PLANNERS ▪ SURVEYORS
8055 CAMINO ARROYO GILROY, CA 95020
PHONE: (408) 848-0300 FAX: (408) 848-0302

JOB NUMBER: 185023

PLOT DATE: February 14, 2020
FILE PATH: \\RJASRV\Work\Jobs 18\185023 - Tracy RBT\Drawings\Prelim\Conceptual Layouts\Conceptual RAB-Option 2.dwg