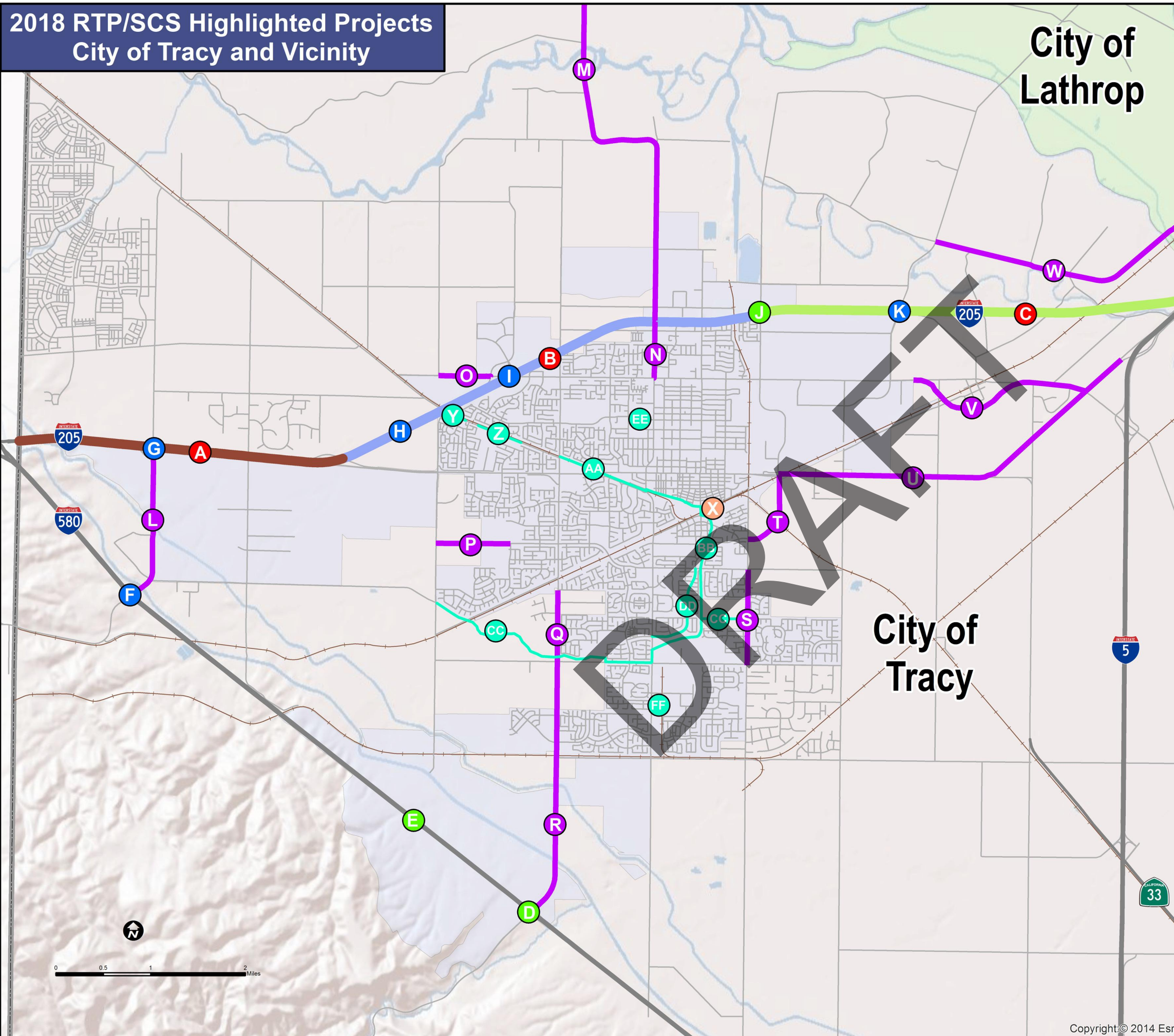




APPENDIX A
PLANNED IMPROVEMENTS IN RTP

DRAFT

2018 RTP/SCS Highlighted Projects City of Tracy and Vicinity



**City of
Lathrop**

**City of
Tracy**

Map Key	Project Name	Description	Project Limits
Mainline Highway			
A	I-205 HOV	Widen from 6 to 8 lanes (outside)	Alameda County Line to Eleventh St
B	I-205 HOV	Widen from 6 to 8 lanes (inside)	Eleventh Street to MacArthur Drive
C	I-205 HOV	Widen from 6 to 8 lanes (inside)	MacArthur Drive to I-5
Interchanges			
D	I-580 at Corral Hollow Road	Modify existing interchange - ENVIRONMENTAL ONLY	I-580 at Corral Hollow Road
E	I-580 at Lammers Road	Construction of new interchange - ENVIRONMENTAL ONLY	I-580 at Lammers Road
F	I-580 at International Pkwy / Patterson Pass Road	Reconstruct interchange	I-580 at International Pkwy / Patterson Pass Road
G	I-205 at Mountain House Pkwy / International Pkwy	Modification of existing interchange	I-205 at Mountain House Pkwy / International Pkwy
H	I-205/Lammers Rd/Eleventh St	Construct new interchange and widen Eleventh Street to 6-lanes	I-205 at new alignment of Eleventh Street / Lammers Road
I	I-205 at Grant Line Road	Modification of existing interchange	I-205 at Grant Line Road
J	I-205 at MacArthur Drive	Modification of existing interchange - ENVIRONMENTAL ONLY	I-205 at MacArthur Drive
K	I-205 at Chrisman Road	Phase 1: Construct new interchange east-west ramps	I-205 at Chrisman Road
Regional Roadways			
L	International Parkway	Widen from 2 to 4 lanes and reconstruct aqueduct bridges	I-205 to I-580
M	Tracy Boulevard	Passing lanes and channelization	I-205 to Howard Road
N	Tracy Boulevard	Widen from 4 lane minor arterial to 4 lane major arterial	I-205 to Eleventh Street
O	Grant Line Road	Widen from 5 to 6 lanes	Naglee Road to Lammers Road
P	Schulte Road	Extend 4 lane roadway	Faith Lane (San Marco Subdivision limits) to Lammers Road
Q	Corral Hollow Road	Widen from 2 to 4 lanes	Parkside Drive to Linne Road
R	Corral Hollow Road Widening	Widen 2 to 4 lanes including ROW and construction of two bridges	Linne Road to I-580
S	MacArthur Drive	Widen 2 to 4 lanes (Valpico Road to Schulte Road)	MacArthur Drive from Valpico Road to Schulte Road;
T	MacArthur Drive	Extend 4 lane roadway (Mt. Diablo Road to Eleventh Street)	Mt. Diablo Road to Eleventh Street
U	Eleventh Street	Improve roadway and intersections	Tracy City Limits to I-5
V	Grant Line Road Corridor Improvements	Realign roadway and widen from 2 to 4 lanes with operational improvements	Tracy City Limits to 11th Street
W	Golden Valley Parkway	Construct new roadway parallel to I-5, 4 lanes from Stewart Road to Paradise	Stewart Road to Paradise Road
Transit			
X	Tracy Multi-modal Center	Construct passenger rail platform and expand parking	Tracy Multi-modal Center
Active Transportation			
Y	Byron Road Trail	Construct Class I Bike Path	Lammers Road to west of Lankershire Road
Z	Byron Road Trail	Construct Class I Bike Path	East of Lankershire Road to west of Belconte Drive
AA	UPRR Trail	Construct Class I Bike Path	Corral Hollow Road to Central Ave
BB	UPRR Rail Trail	Construct Class I Bike Path	Central Avenue to Canal Trail
CC	Canal Trail	Construct Class I Bike Path	Lammers Road to MacArthur Drive
DD	Central Avenue Road Diet	Install center turn lane, Class II Bike Lanes, and sidewalks	Tracy Blvd to Schulte Road
EE	Lowell Ave Sidewalk Construction	Construct sidewalks	Chester Drive to W of Tracy Blvd
FF	Tracy Boulevard Sidewalks	Construct sidewalks	South of Valpico Road to north of Whispering Wind Drive



APPENDIX B

LEVEL OF SERVICE CALCULATION WORKSHEETS WITH CUT- THROUGH TRAFFIC AND NO PEAK SPREADING

DRAFT

Tracy Transportation Master Plan Update
1: International Pkwy & I-205 WB On-Ramp

Future 2042
Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖ ↗	↖	↗ ↘		↕	↗ ↘		↕	↗ ↘
Traffic Volume (veh/h)	0	0	0	70	0	10	0	1690	2410	0	1100	3440
Future Volume (veh/h)	0	0	0	70	0	10	0	1690	2410	0	1100	3440
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	No	No	No	No	No	No
Adj Sat Flow, veh/h/ln				1781	1781	1781	0	1781	1781	0	1781	1781
Adj Flow Rate, veh/h				70	0	0	0	1690	0	0	1100	0
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				8	8	8	0	8	8	0	8	8
Cap, veh/h				353	0	0	0	2876	0	0	5208	0
Arrive On Green				0.07	0.00	0.00	0.00	1.00	0.00	0.00	0.85	0.00
Sat Flow, veh/h				5090	0	3019	0	3474	2657	0	6378	1510
Grp Volume(v), veh/h				70	0	0	0	1690	0	0	1100	0
Grp Sat Flow(s),veh/h/ln				1697	0	1510	0	1692	1329	0	1532	1510
Q Serve(g_s), s				1.6	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0
Cycle Q Clear(g_c), s				1.6	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				353	0	0	0	2876	0	0	5208	0
V/C Ratio(X)				0.20	0.00	0.00	0.00	0.59	0.00	0.00	0.21	0.00
Avail Cap(c_a), veh/h				386	0	0	0	2876	0	0	5208	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.00	0.09	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				52.7	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0
Incr Delay (d2), s/veh				0.2	0.0	0.0	0.0	0.1	0.0	0.0	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				0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				52.9	0.0	0.0	0.0	0.1	0.0	0.0	1.7	0.0
LnGrp LOS				D	A	A	A	A	A	A	A	A
Approach Vol, veh/h					70	A		1690	A		1100	A
Approach Delay, s/veh					52.9			0.1			1.7	
Approach LOS					D			A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		107.7				107.7		12.3				
Change Period (Y+Rc), s		5.7				5.7		5.1				
Max Green Setting (Gmax), s		101.2				101.2		8.0				
Max Q Clear Time (g_c+I1), s		2.0				5.9		3.6				
Green Ext Time (p_c), s		11.5				5.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay	2.0
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Tracy Transportation Master Plan Update
 2: International Pkwy & I-205 EB Off-Ramp/I-205 EB On-Ramp

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1390	0	1180	0	0	0	0	2710	500	0	1160	20
Future Volume (veh/h)	1390	0	1180	0	0	0	0	2710	500	0	1160	20
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	1781	1781				0	1781	1781	0	1781	1781
Adj Flow Rate, veh/h	1757	0	787				0	2710	0	0	1160	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8				0	8	8	0	8	8
Cap, veh/h	1496	0	666				0	2282		0	2282	
Arrive On Green	0.44	0.00	0.44				0.00	0.47	0.00	0.00	0.47	0.00
Sat Flow, veh/h	3393	0	1510				0	5024	2657	0	5024	1510
Grp Volume(v), veh/h	1757	0	787				0	2710	0	0	1160	0
Grp Sat Flow(s),veh/h/ln	1697	0	1510				0	1621	1329	0	1621	1510
Q Serve(g_s), s	52.9	0.0	52.9				0.0	56.3	0.0	0.0	20.0	0.0
Cycle Q Clear(g_c), s	52.9	0.0	52.9				0.0	56.3	0.0	0.0	20.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1496	0	666				0	2282		0	2282	
V/C Ratio(X)	1.17	0.00	1.18				0.00	1.19		0.00	0.51	
Avail Cap(c_a), veh/h	1496	0	666				0	2282		0	2282	
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	1.00				0.00	1.00	0.00	0.00	0.99	0.00
Uniform Delay (d), s/veh	33.6	0.0	33.5				0.0	31.8	0.0	0.0	22.2	0.0
Incr Delay (d2), s/veh	86.0	0.0	97.0				0.0	89.2	0.0	0.0	0.8	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	38.9	0.0	36.7				0.0	39.1	0.0	0.0	7.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	119.5	0.0	130.5				0.0	121.0	0.0	0.0	23.0	0.0
LnGrp LOS	F	A	F				A	F		A	C	
Approach Vol, veh/h		2544						2710	A		1160	A
Approach Delay, s/veh		122.9						121.0			23.0	
Approach LOS		F						F			C	
Timer - Assigned Phs		2		4			6					
Phs Duration (G+Y+Rc), s		62.0		58.0			62.0					
Change Period (Y+Rc), s		5.7		5.1			5.7					
Max Green Setting (Gmax), s		56.3		52.9			56.3					
Max Q Clear Time (g_c+I1), s		58.3		54.9			22.0					
Green Ext Time (p_c), s		0.0		0.0			5.7					

Intersection Summary

HCM 6th Ctrl Delay	104.1
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Tracy Transportation Master Plan Update
 3: International Pkwy & Capital Parks Dr

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗	↗	↖	↗	↖
Traffic Volume (veh/h)	20	140	10	50	390	1000	260	1960	50	660	930	10
Future Volume (veh/h)	20	140	10	50	390	1000	260	1960	50	660	930	10
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	20	140	10	50	390	1000	260	1960	50	660	930	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	28	732	52	78	874	1196	598	1948	674	631	1165	386
Arrive On Green	0.02	0.23	0.23	0.05	0.26	0.26	0.71	0.80	0.80	0.19	0.24	0.24
Sat Flow, veh/h	1697	3206	227	1697	3385	2657	1697	4863	1510	3291	4863	1510
Grp Volume(v), veh/h	20	73	77	50	390	1000	260	1960	50	660	930	10
Grp Sat Flow(s),veh/h/ln	1697	1692	1741	1697	1692	1329	1697	1621	1510	1646	1621	1510
Q Serve(g_s), s	1.4	4.2	4.3	3.5	11.6	31.0	7.8	48.1	0.8	23.0	21.6	0.2
Cycle Q Clear(g_c), s	1.4	4.2	4.3	3.5	11.6	31.0	7.8	48.1	0.8	23.0	21.6	0.2
Prop In Lane	1.00		0.13	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	28	387	398	78	874	1196	598	1948	674	631	1165	386
V/C Ratio(X)	0.73	0.19	0.19	0.64	0.45	0.84	0.43	1.01	0.07	1.05	0.80	0.03
Avail Cap(c_a), veh/h	71	387	398	254	874	1196	598	1948	674	631	1540	503
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	0.77	0.77	0.77	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.8	37.3	37.4	56.2	37.3	29.1	12.6	11.9	6.2	48.5	42.9	14.1
Incr Delay (d2), s/veh	30.2	0.2	0.2	0.8	0.0	0.5	0.4	19.5	0.2	48.5	5.8	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	0.8	1.8	1.9	1.5	4.8	12.5	2.4	7.6	0.3	13.4	9.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.9	37.6	37.6	57.0	37.3	29.6	13.0	31.4	6.3	97.0	48.7	14.3
LnGrp LOS	F	D	D	E	D	C	B	F	A	F	D	B
Approach Vol, veh/h		170		1440		2270		1600				
Approach Delay, s/veh		43.6		32.7		28.7		68.4				
Approach LOS		D		C		C		E				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.0	52.1	9.5	31.4	46.3	32.7	5.9	35.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	23.0	45.0	18.0	18.0	30.0	38.0	5.0	31.0				
Max Q Clear Time (g_c+2p_c), s	25.0	50.1	5.5	6.3	9.8	23.6	3.4	33.0				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.5	0.7	5.2	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	41.8
HCM 6th LOS	D

Tracy Transportation Master Plan Update
4: International Pkwy & Promontory Pkwy

Future 2042
Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	60	110	110	330	580	280	610	220	10	870	10
Future Volume (veh/h)	10	60	110	110	330	580	280	610	220	10	870	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	60	110	110	330	580	280	610	220	10	870	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	20	416	352	133	534	453	396	1776	792	16	966	431
Arrive On Green	0.01	0.23	0.23	0.08	0.30	0.30	0.23	0.52	0.52	0.01	0.29	0.29
Sat Flow, veh/h	1697	1781	1510	1697	1781	1510	1697	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	10	60	110	110	330	580	280	610	220	10	870	10
Grp Sat Flow(s),veh/h/ln	1697	1781	1510	1697	1781	1510	1697	1692	1510	1697	1692	1510
Q Serve(g_s), s	0.7	3.2	7.2	7.7	19.1	36.0	18.2	12.5	7.7	0.7	29.7	0.4
Cycle Q Clear(g_c), s	0.7	3.2	7.2	7.7	19.1	36.0	18.2	12.5	7.7	0.7	29.7	0.4
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	20	416	352	133	534	453	396	1776	792	16	966	431
V/C Ratio(X)	0.50	0.14	0.31	0.83	0.62	1.28	0.71	0.34	0.28	0.62	0.90	0.02
Avail Cap(c_a), veh/h	71	450	381	141	534	453	396	1776	792	57	1049	468
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	1.00	1.00	0.12	0.12	0.12	0.57	0.57	0.57	0.81	0.81	0.81
Uniform Delay (d), s/veh	58.9	36.5	38.0	54.5	36.1	42.0	42.2	16.5	9.9	59.2	41.2	18.6
Incr Delay (d2), s/veh	17.9	0.2	0.5	4.7	0.3	128.4	3.3	0.3	0.5	28.0	11.0	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	0.4	1.4	2.7	3.4	8.0	29.0	7.7	4.6	3.1	0.4	13.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.8	36.7	38.5	59.2	36.3	170.4	45.5	16.8	10.4	87.2	52.2	18.6
LnGrp LOS	E	D	D	E	D	F	D	B	B	F	D	B
Approach Vol, veh/h		180			1020			1110			890	
Approach Delay, s/veh		40.0			115.0			22.8			52.2	
Approach LOS		D			F			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	33.8	40.0	13.4	32.7	5.1	68.7	6.1	40.0				
Change Period (Y+Rc), s	5.8	* 5.8	4.0	* 4.7	4.0	5.8	4.7	* 4				
Max Green Setting (Gmax), s	24.0	* 37	10.0	* 30	4.0	57.2	5.0	* 36				
Max Q Clear Time (g_c+Y), s	20.2	31.7	9.7	9.2	2.7	14.5	2.7	38.0				
Green Ext Time (p_c), s	0.3	2.6	0.0	0.6	0.0	5.1	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	61.4
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
 5: Mountain House Parkway/International Pkwy & Old Schulte Road

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↗↗↗	↑	↗	↘	↑↑	↗↗	↗↗	↑↑	↗
Traffic Volume (veh/h)	30	30	220	1140	80	290	70	820	600	100	920	30
Future Volume (veh/h)	30	30	220	1140	80	290	70	820	600	100	920	30
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	1125	1688	1406	938	1688	1406	1125	1688	1406	1125	1688	1406
Adj Flow Rate, veh/h	30	30	220	1140	80	290	70	820	600	100	920	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	69	157	187	935	675	552	69	875	1351	131	870	400
Arrive On Green	0.06	0.09	0.09	0.37	0.40	0.40	0.06	0.27	0.27	0.06	0.27	0.27
Sat Flow, veh/h	1072	1688	1192	2518	1688	1192	1072	3207	2098	2079	3207	1192
Grp Volume(v), veh/h	30	30	220	1140	80	290	70	820	600	100	920	30
Grp Sat Flow(s),veh/h/ln	1072	1688	1192	839	1688	1192	1072	1603	1049	1039	1603	1192
Q Serve(g_s), s	3.8	2.3	13.0	52.0	4.2	24.2	9.0	35.0	20.0	6.6	38.0	2.4
Cycle Q Clear(g_c), s	3.8	2.3	13.0	52.0	4.2	24.2	9.0	35.0	20.0	6.6	38.0	2.4
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	69	157	187	935	675	552	69	875	1351	131	870	400
V/C Ratio(X)	0.44	0.19	1.17	1.22	0.12	0.53	1.02	0.94	0.44	0.76	1.06	0.07
Avail Cap(c_a), veh/h	398	157	187	935	675	552	69	875	1351	134	870	400
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	1.00	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	63.1	58.6	59.0	44.0	26.5	26.7	65.5	49.7	12.4	64.6	51.0	31.7
Incr Delay (d2), s/veh	4.3	0.6	120.7	108.2	0.1	0.9	113.0	17.3	0.2	22.3	46.7	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	1.1	1.0	12.8	19.7	1.7	6.8	4.6	15.7	4.4	2.1	20.4	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	59.2	179.7	152.2	26.5	27.6	178.5	67.0	12.6	86.8	97.7	31.8
LnGrp LOS	E	E	F	F	C	C	F	E	B	F	F	C
Approach Vol, veh/h		280			1510			1490			1050	
Approach Delay, s/veh		154.7			121.6			50.4			94.8	
Approach LOS		F			F			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.8	45.2	59.0	20.0	16.0	45.0	16.0	63.0				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	3.0	38.0	52.0	13.0	9.0	38.0	52.0	13.0				
Max Q Clear Time (g_c+1), s	10.6	37.0	54.0	15.0	11.0	40.0	5.8	26.2				
Green Ext Time (p_c), s	0.0	0.7	0.0	0.0	0.0	0.0	0.1	0.0				

Intersection Summary

HCM 6th Ctrl Delay	92.7
HCM 6th LOS	F

Notes

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

Tracy Transportation Master Plan Update
 6: NB International Parkway & SB International Parkway

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑									↑↑	
Traffic Volume (veh/h)	0	1060	0	0	0	0	0	0	0	0	490	0
Future Volume (veh/h)	0	1060	0	0	0	0	0	0	0	0	490	0
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	
Adj Sat Flow, veh/h/ln	0	1781	0							0	1781	0
Adj Flow Rate, veh/h	0	1060	0							0	490	0
Peak Hour Factor	1.00	1.00	1.00							1.00	1.00	1.00
Percent Heavy Veh, %	0	8	0							0	8	0
Cap, veh/h	0	1698	0							0	946	0
Arrive On Green	0.00	0.50	0.00							0.00	0.28	0.00
Sat Flow, veh/h	0	3563	0							0	3563	0
Grp Volume(v), veh/h	0	1060	0							0	490	0
Grp Sat Flow(s),veh/h/ln	0	1692	0							0	1692	0
Q Serve(g_s), s	0.0	8.3	0.0							0.0	4.5	0.0
Cycle Q Clear(g_c), s	0.0	8.3	0.0							0.0	4.5	0.0
Prop In Lane	0.00		0.00							0.00		0.00
Lane Grp Cap(c), veh/h	0	1698	0							0	946	0
V/C Ratio(X)	0.00	0.62	0.00							0.00	0.52	0.00
Avail Cap(c_a), veh/h	0	2873	0							0	7508	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00							0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	6.6	0.0							0.0	11.1	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0							0.0	0.4	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	0.0	1.8	0.0							0.0	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.0	0.0							0.0	11.5	0.0
LnGrp LOS	A	A	A							A	B	A
Approach Vol, veh/h		1060									490	
Approach Delay, s/veh		7.0									11.5	
Approach LOS		A									B	
Timer - Assigned Phs		2									8	
Phs Duration (G+Y+Rc), s		22.3									14.2	
Change Period (Y+Rc), s		4.0									4.0	
Max Green Setting (Gmax), s		31.0									81.0	
Max Q Clear Time (g_c+I1), s		10.3									6.5	
Green Ext Time (p_c), s		8.0									3.8	
Intersection Summary												
HCM 6th Ctrl Delay			8.4									
HCM 6th LOS			A									

Tracy Transportation Master Plan Update
 7: NB International Parkway & SB International Parkway

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑						↑↑	
Traffic Volume (veh/h)	0	0	0	0	40	0	0	0	0	0	40	0
Future Volume (veh/h)	0	0	0	0	40	0	0	0	0	0	40	0
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		
Adj Sat Flow, veh/h/ln				0	1781	0				0	1781	0
Adj Flow Rate, veh/h				0	40	0				0	40	0
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				0	8	0				0	8	0
Cap, veh/h				0	1081	0				0	140	0
Arrive On Green				0.00	0.32	0.00				0.00	0.04	0.00
Sat Flow, veh/h				0	3563	0				0	3563	0
Grp Volume(v), veh/h				0	40	0				0	40	0
Grp Sat Flow(s),veh/h/ln				0	1692	0				0	1692	0
Q Serve(g_s), s				0.0	0.1	0.0				0.0	0.1	0.0
Cycle Q Clear(g_c), s				0.0	0.1	0.0				0.0	0.1	0.0
Prop In Lane				0.00		0.00				0.00		0.00
Lane Grp Cap(c), veh/h				0	1081	0				0	140	0
V/C Ratio(X)				0.00	0.04	0.00				0.00	0.28	0.00
Avail Cap(c_a), veh/h				0	15140	0				0	15140	0
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	0.00				0.00	1.00	0.00
Uniform Delay (d), s/veh				0.0	2.9	0.0				0.0	5.8	0.0
Incr Delay (d2), s/veh				0.0	0.0	0.0				0.0	1.1	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				0.0	0.0	0.0				0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	2.9	0.0				0.0	6.9	0.0
LnGrp LOS				A	A	A				A	A	A
Approach Vol, veh/h					40						40	
Approach Delay, s/veh					2.9						6.9	
Approach LOS					A						A	
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		8.0						4.5				
Change Period (Y+Rc), s		4.0						4.0				
Max Green Setting (Gmax), s		56.0						56.0				
Max Q Clear Time (g_c+I1), s		2.1						2.1				
Green Ext Time (p_c), s		0.2						0.2				
Intersection Summary												
HCM 6th Ctrl Delay					4.9							
HCM 6th LOS					A							

Tracy Transportation Master Plan Update
 8: Hansen Rd/Hansen Road & Capital Parks Dr

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	150	500	20	630	1670	10	150	140	320	20	530	450
Future Volume (veh/h)	150	500	20	630	1670	10	150	140	320	20	530	450
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	150	500	0	630	1670	10	150	140	0	20	530	450
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	141	1103		710	1551	716	137	550		28	505	554
Arrive On Green	0.08	0.33	0.00	0.22	0.46	0.46	0.04	0.31	0.00	0.02	0.28	0.28
Sat Flow, veh/h	1697	3385	1510	3291	3385	1510	3291	1781	1510	1697	1781	1510
Grp Volume(v), veh/h	150	500	0	630	1670	10	150	140	0	20	530	450
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1646	1692	1510	1646	1781	1510	1697	1781	1510
Q Serve(g_s), s	10.0	14.0	0.0	22.3	55.0	0.4	5.0	7.1	0.0	1.4	34.0	32.3
Cycle Q Clear(g_c), s	10.0	14.0	0.0	22.3	55.0	0.4	5.0	7.1	0.0	1.4	34.0	32.3
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	141	1103		710	1551	716	137	550		28	505	554
V/C Ratio(X)	1.06	0.45		0.89	1.08	0.01	1.09	0.25		0.73	1.05	0.81
Avail Cap(c_a), veh/h	141	1103		878	1551	716	137	550		71	505	554
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	32.0	0.0	45.7	32.5	16.7	57.5	31.1	0.0	58.8	43.0	34.3
Incr Delay (d2), s/veh	92.9	0.3	0.0	9.4	46.5	0.0	104.2	0.2	0.0	30.2	53.8	9.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	5.8	0.0	10.0	31.7	0.1	4.0	3.0	0.0	0.8	21.9	13.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	147.9	32.3	0.0	55.1	79.0	16.7	161.7	31.4	0.0	88.9	96.8	43.3
LnGrp LOS	F	C		E	F	B	F	C		F	F	D
Approach Vol, veh/h		650	A		2310			290	A		1000	
Approach Delay, s/veh		58.9			72.2			98.8			72.6	
Approach LOS		E			E			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	41.1	29.9	43.1	9.0	38.0	14.0	59.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	5.0	34.0	32.0	33.0	5.0	34.0	10.0	55.0				
Max Q Clear Time (g_c+1), s	13.4	9.1	24.3	16.0	7.0	36.0	12.0	57.0				
Green Ext Time (p_c), s	0.0	0.6	1.6	3.1	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	72.1
HCM 6th LOS	E

Notes

Unsignalized Delay for [NBR, 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)	70	140	10	390	1750	120	90	460	20	50	880	180
Future Volume (veh/h)	70	140	10	390	1750	120	90	460	20	50	880	180
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	70	140	10	390	1750	120	90	460	20	50	880	180
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	71	1017	453	413	1701	759	85	895	399	63	852	379
Arrive On Green	0.04	0.30	0.30	0.24	0.50	0.50	0.05	0.26	0.26	0.04	0.25	0.25
Sat Flow, veh/h	1697	3385	1508	1697	3385	1510	1697	3385	1508	1697	3385	1508
Grp Volume(v), veh/h	70	140	10	390	1750	120	90	460	20	50	880	180
Grp Sat Flow(s),veh/h/ln	1697	1692	1508	1697	1692	1510	1697	1692	1508	1697	1692	1508
Q Serve(g_s), s	4.9	3.6	0.6	27.1	60.3	5.2	6.0	13.9	1.2	3.5	30.2	12.2
Cycle Q Clear(g_c), s	4.9	3.6	0.6	27.1	60.3	5.2	6.0	13.9	1.2	3.5	30.2	12.2
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	71	1017	453	413	1701	759	85	895	399	63	852	379
V/C Ratio(X)	0.99	0.14	0.02	0.94	1.03	0.16	1.06	0.51	0.05	0.79	1.03	0.47
Avail Cap(c_a), veh/h	71	1017	453	424	1701	759	85	895	399	85	852	379
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	1.00	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	57.5	30.6	29.5	44.6	29.9	16.1	57.0	37.6	32.9	57.3	44.9	38.2
Incr Delay (d2), s/veh	103.5	0.1	0.0	29.5	29.6	0.1	115.3	0.5	0.1	29.3	39.7	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	1.5	0.2	14.3	29.2	1.7	5.2	5.6	0.4	2.0	16.9	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	161.0	30.7	29.6	74.1	59.4	16.2	172.3	38.1	33.0	86.6	84.6	39.1
LnGrp LOS	F	C	C	E	F	B	F	D	C	F	F	D
Approach Vol, veh/h		220			2260			570			1110	
Approach Delay, s/veh		72.1			59.7			59.1			77.3	
Approach LOS		E			E			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	33.2	40.8	8.5	37.5	9.0	65.0	10.0	36.0				
Change Period (Y+Rc), s	4.0	* 4.7	4.0	5.8	4.0	* 4.7	4.0	5.8				
Max Green Setting (Gmax), s	30.0	* 35	6.0	30.2	5.0	* 60	6.0	30.2				
Max Q Clear Time (g_c+29), s	29.1	5.6	5.5	15.9	6.9	62.3	8.0	32.2				
Green Ext Time (p_c), s	0.1	0.8	0.0	2.4	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	64.9
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
10: Hansen Rd & Old Schulte Road

Future 2042
Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖	↖	↑↑	↖
Traffic Volume (veh/h)	250	470	70	340	1090	240	370	610	70	10	480	680
Future Volume (veh/h)	250	470	70	340	1090	240	370	610	70	10	480	680
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	250	470	70	340	1090	240	370	610	70	10	480	680
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	305	593	429	748	1049	732	358	745	676	297	970	572
Arrive On Green	0.09	0.18	0.18	0.23	0.31	0.31	0.11	0.22	0.22	0.17	0.29	0.29
Sat Flow, veh/h	3291	3385	1510	3291	3385	1510	3291	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	250	470	70	340	1090	240	370	610	70	10	480	680
Grp Sat Flow(s),veh/h/ln	1646	1692	1510	1646	1692	1510	1646	1692	1510	1697	1692	1510
Q Serve(g_s), s	8.9	15.8	1.9	10.6	36.8	3.3	12.9	20.4	0.0	0.6	14.0	34.0
Cycle Q Clear(g_c), s	8.9	15.8	1.9	10.6	36.8	3.3	12.9	20.4	0.0	0.6	14.0	34.0
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	305	593	429	748	1049	732	358	745	676	297	970	572
V/C Ratio(X)	0.82	0.79	0.16	0.45	1.04	0.33	1.03	0.82	0.10	0.03	0.50	1.19
Avail Cap(c_a), veh/h	341	941	584	748	1049	732	358	1038	806	297	970	572
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	1.00	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	52.9	46.9	11.8	39.5	40.9	6.5	52.9	44.0	19.0	40.6	35.2	36.9
Incr Delay (d2), s/veh	13.4	3.4	0.3	0.4	38.3	0.4	56.7	4.4	0.1	0.0	0.6	101.3
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	4.1	6.7	0.8	4.2	20.2	1.6	8.0	8.7	1.1	0.2	5.7	31.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.3	50.3	12.1	39.9	79.3	6.9	109.6	48.5	19.1	40.7	35.8	138.1
LnGrp LOS	E	D	B	D	F	A	F	D	B	D	D	F
Approach Vol, veh/h		790			1670			1050			1170	
Approach Delay, s/veh		52.0			60.9			68.1			95.3	
Approach LOS		D			E			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	33.5	27.3	26.3	31.6	17.5	43.3	18.4	39.5				
Change Period (Y+Rc), s	6.5	6.5	5.5	5.5	6.5	6.5	5.5	5.5				
Max Green Setting (Gmax), s	10.5	33.0	10.5	36.4	12.3	36.8	12.9	34.0				
Max Q Clear Time (g_c+1/2g), s	11.6	17.8	2.6	22.4	10.9	38.8	14.9	36.0				
Green Ext Time (p_c), s	0.5	3.0	0.0	3.8	0.1	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	69.6
HCM 6th LOS	E

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)	10	740	40	760	1510	10	180	110	530	10	360	320
Future Volume (veh/h)	10	740	40	760	1510	10	180	110	530	10	360	320
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	740	40	760	1510	10	180	110	530	10	360	320
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	16	796	398	725	2827	892	170	860	1029	16	554	261
Arrive On Green	0.01	0.16	0.16	0.43	0.58	0.58	0.10	0.25	0.25	0.01	0.16	0.16
Sat Flow, veh/h	1697	4863	1510	1697	4863	1510	1697	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	10	740	40	760	1510	10	180	110	530	10	360	320
Grp Sat Flow(s),veh/h/ln	1697	1621	1510	1697	1621	1510	1697	1692	1510	1697	1692	1510
Q Serve(g_s), s	0.6	16.5	2.2	47.0	20.7	0.3	11.0	2.8	19.0	0.6	10.9	18.0
Cycle Q Clear(g_c), s	0.6	16.5	2.2	47.0	20.7	0.3	11.0	2.8	19.0	0.6	10.9	18.0
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	16	796	398	725	2827	892	170	860	1029	16	554	261
V/C Ratio(X)	0.62	0.93	0.10	1.05	0.53	0.01	1.06	0.13	0.52	0.62	0.65	1.22
Avail Cap(c_a), veh/h	278	796	398	725	2827	892	170	860	1029	62	554	261
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	1.00	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	54.3	45.4	30.6	31.5	14.0	9.3	49.5	31.6	8.6	54.3	43.1	45.5
Incr Delay (d2), s/veh	32.3	17.3	0.1	46.8	0.2	0.0	86.2	0.1	0.4	32.3	2.7	129.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	7.9	0.8	27.9	7.3	0.1	8.7	1.1	5.7	0.4	4.8	16.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.6	62.6	30.7	78.3	14.2	9.3	135.7	31.7	9.1	86.6	45.7	175.3
LnGrp LOS	F	E	C	F	B	A	F	C	A	F	D	F
Approach Vol, veh/h		790		2280		820		690				
Approach Delay, s/veh		61.3		35.5		39.9		106.4				
Approach LOS		E		D		D		F				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.1	31.9	51.0	22.0	15.0	22.0	5.1	67.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	25.0	47.0	18.0	11.0	18.0	18.0	47.0				
Max Q Clear Time (g_c+1), s	12.6	21.0	49.0	18.5	13.0	20.0	2.6	22.7				
Green Ext Time (p_c), s	0.0	1.1	0.0	0.0	0.0	0.0	0.0	12.8				
Intersection Summary												
HCM 6th Ctrl Delay				51.4								
HCM 6th LOS				D								

Tracy Transportation Master Plan Update
 12: Pavillion Pkwy & Promontory Pkwy/Pomontory Pkwy

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	130	130	10	620	1730	10	320	480	170	10	1240	490
Future Volume (veh/h)	130	130	10	620	1730	10	320	480	170	10	1240	490
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	130	130	10	620	1730	10	320	480	170	10	1240	490
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	99	747	522	700	1269	580	212	1435	961	16	1044	554
Arrive On Green	0.06	0.22	0.22	0.21	0.38	0.38	0.13	0.42	0.42	0.01	0.31	0.31
Sat Flow, veh/h	1697	3385	1510	3291	3385	1510	1697	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	130	130	10	620	1730	10	320	480	170	10	1240	490
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1646	1692	1510	1697	1692	1510	1697	1692	1510
Q Serve(g_s), s	7.0	3.7	0.5	21.9	45.0	0.5	15.0	11.4	5.5	0.7	37.0	36.5
Cycle Q Clear(g_c), s	7.0	3.7	0.5	21.9	45.0	0.5	15.0	11.4	5.5	0.7	37.0	36.5
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	99	747	522	700	1269	580	212	1435	961	16	1044	554
V/C Ratio(X)	1.31	0.17	0.02	0.89	1.36	0.02	1.51	0.33	0.18	0.62	1.19	0.89
Avail Cap(c_a), veh/h	99	747	522	878	1269	580	212	1435	961	57	1044	554
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	1.00	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	56.5	37.9	25.9	45.8	37.5	22.9	52.5	23.2	8.9	59.2	41.5	35.6
Incr Delay (d2), s/veh	196.0	0.1	0.0	9.1	168.5	0.0	251.9	0.1	0.1	33.6	94.4	15.8
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	8.4	1.6	0.2	9.8	47.9	0.2	21.2	4.6	1.8	0.5	28.9	15.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	252.5	38.0	25.9	54.9	206.0	22.9	304.4	23.3	9.0	92.8	135.9	51.4
LnGrp LOS	F	D	C	D	F	C	F	C	A	F	F	D
Approach Vol, veh/h		270			2360			970			1740	
Approach Delay, s/veh		140.8			165.5			113.5			111.9	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.1	54.9	29.5	30.5	19.0	41.0	11.0	49.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	48.0	32.0	20.0	15.0	37.0	7.0	45.0				
Max Q Clear Time (g_c+1/2), s	4.0	13.4	23.9	5.7	17.0	39.0	9.0	47.0				
Green Ext Time (p_c), s	0.0	4.2	1.6	0.6	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	137.4
HCM 6th LOS	F

Tracy Transportation Master Plan Update
 13: Pavillion Pkwy & Old Schulte Rd/Old Schulte Road

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗	↑↑		↖	↑↑	
Traffic Volume (veh/h)	350	100	30	140	1050	180	430	740	30	30	760	230
Future Volume (veh/h)	350	100	30	140	1050	180	430	740	30	30	760	230
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	350	100	30	140	1050	180	430	740	30	30	760	230
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	329	1010	451	172	1015	453	402	1547	63	280	768	232
Arrive On Green	0.10	0.30	0.30	0.10	0.30	0.30	0.12	0.47	0.47	0.30	0.30	0.30
Sat Flow, veh/h	3291	3385	1510	1697	3385	1510	3291	3315	134	666	2560	775
Grp Volume(v), veh/h	350	100	30	140	1050	180	430	378	392	30	502	488
Grp Sat Flow(s),veh/h/ln	1646	1692	1510	1697	1692	1510	1646	1692	1757	666	1692	1642
Q Serve(g_s), s	9.0	1.9	1.3	7.3	27.0	8.5	11.0	13.8	13.8	3.0	26.6	26.6
Cycle Q Clear(g_c), s	9.0	1.9	1.3	7.3	27.0	8.5	11.0	13.8	13.8	3.0	26.6	26.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.08	1.00		0.47
Lane Grp Cap(c), veh/h	329	1010	451	172	1015	453	402	790	820	280	508	493
V/C Ratio(X)	1.06	0.10	0.07	0.81	1.03	0.40	1.07	0.48	0.48	0.11	0.99	0.99
Avail Cap(c_a), veh/h	329	1010	451	283	1015	453	402	790	820	280	508	493
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	1.00	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	40.5	22.8	22.6	39.6	31.5	25.0	39.5	16.5	16.5	23.1	31.4	31.4
Incr Delay (d2), s/veh	67.4	0.0	0.1	8.9	37.4	0.6	64.4	0.5	0.4	0.2	37.2	37.8
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	6.5	0.7	0.4	3.3	15.4	2.9	8.0	5.2	5.4	0.5	15.7	15.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	107.9	22.9	22.7	48.5	68.9	25.6	103.9	16.9	16.9	23.3	68.5	69.1
LnGrp LOS	F	C	C	D	F	C	F	B	B	C	E	E
Approach Vol, veh/h		480			1370			1200			1020	
Approach Delay, s/veh		84.8			61.1			48.1			67.5	
Approach LOS		F			E			D			E	
Timer - Assigned Phs		2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s		46.0	13.1	30.9	15.0	31.0	13.0	31.0				
Change Period (Y+Rc), s		4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s		42.0	15.0	21.0	11.0	27.0	9.0	27.0				
Max Q Clear Time (g_c+1), s		15.8	9.3	3.9	13.0	28.6	11.0	29.0				
Green Ext Time (p_c), s		5.3	0.1	0.5	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay											61.7	
HCM 6th LOS											E	

Tracy Transportation Master Plan Update
 14: Pavillion Pkwy & Hansen Rd

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘↗	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	50	170	20	610	720	310	530	850	40	50	870	10
Future Volume (veh/h)	50	170	20	610	720	310	530	850	40	50	870	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	50	170	20	610	720	310	530	850	40	50	870	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	58	233	197	564	764	648	477	1198	534	79	865	386
Arrive On Green	0.03	0.13	0.13	0.33	0.43	0.43	0.14	0.35	0.35	0.05	0.26	0.26
Sat Flow, veh/h	1697	1781	1510	1697	1781	1510	3291	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	50	170	20	610	720	310	530	850	40	50	870	10
Grp Sat Flow(s),veh/h/ln	1697	1781	1510	1697	1781	1510	1646	1692	1510	1697	1692	1510
Q Serve(g_s), s	3.4	10.8	1.4	39.0	45.4	17.3	17.0	25.4	2.1	3.4	30.0	0.6
Cycle Q Clear(g_c), s	3.4	10.8	1.4	39.0	45.4	17.3	17.0	25.4	2.1	3.4	30.0	0.6
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	58	233	197	564	764	648	477	1198	534	79	865	386
V/C Ratio(X)	0.86	0.73	0.10	1.08	0.94	0.48	1.11	0.71	0.07	0.63	1.01	0.03
Avail Cap(c_a), veh/h	58	273	232	564	805	682	477	1198	534	260	865	386
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	1.00	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	56.4	49.0	44.9	39.2	32.1	24.1	50.2	32.7	25.2	55.0	43.7	32.7
Incr Delay (d2), s/veh	71.8	8.0	0.2	61.9	18.6	0.5	75.3	2.0	0.1	8.1	31.9	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	5.3	0.5	25.6	22.9	6.2	12.0	10.6	0.8	1.6	16.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	128.2	57.0	45.1	101.1	50.7	24.6	125.4	34.7	25.2	63.1	75.6	32.8
LnGrp LOS	F	E	D	F	D	C	F	C	C	E	F	C
Approach Vol, veh/h		240			1640			1420			930	
Approach Delay, s/veh		70.8			64.5			68.3			74.5	
Approach LOS		E			E			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	45.5	43.0	19.3	21.0	34.0	8.0	54.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	10.0	29.0	39.0	18.0	17.0	30.0	4.0	53.0				
Max Q Clear Time (g_c+I), s	15.4	27.4	41.0	12.8	19.0	32.0	5.4	47.4				
Green Ext Time (p_c), s	0.1	0.9	0.0	0.4	0.0	0.0	0.0	2.9				

Intersection Summary

HCM 6th Ctrl Delay	68.3
HCM 6th LOS	E

Tracy Transportation Master Plan Update
 15: Commerce Way & Capital Parks Dr

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖	↑↑↑	↖	↖	↑↑		↖	↑↑	↖↗
Traffic Volume (veh/h)	1040	520	10	10	2310	140	70	410	10	170	120	930
Future Volume (veh/h)	1040	520	10	10	2310	140	70	410	10	170	120	930
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	1040	520	10	10	2310	140	70	410	10	170	120	930
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	709	750	312	718	1760	761	89	481	12	242	787	1190
Arrive On Green	0.22	0.15	0.15	0.42	0.36	0.36	0.05	0.14	0.14	0.14	0.23	0.23
Sat Flow, veh/h	3291	4863	1510	1697	4863	1510	1697	3377	82	1697	3385	2657
Grp Volume(v), veh/h	1040	520	10	10	2310	140	70	205	215	170	120	930
Grp Sat Flow(s),veh/h/ln	1646	1621	1510	1697	1621	1510	1697	1692	1767	1697	1692	1329
Q Serve(g_s), s	25.0	11.8	0.2	0.4	42.0	3.0	4.7	13.7	13.8	11.1	3.3	27.0
Cycle Q Clear(g_c), s	25.0	11.8	0.2	0.4	42.0	3.0	4.7	13.7	13.8	11.1	3.3	27.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	709	750	312	718	1760	761	89	241	252	242	787	1190
V/C Ratio(X)	1.47	0.69	0.03	0.01	1.31	0.18	0.79	0.85	0.85	0.70	0.15	0.78
Avail Cap(c_a), veh/h	709	2640	898	718	1760	761	146	277	289	263	787	1190
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	1.00	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	45.5	46.5	16.4	19.4	37.0	6.0	54.4	48.6	48.6	47.4	35.4	27.2
Incr Delay (d2), s/veh	217.8	1.2	0.0	0.0	144.8	0.1	14.4	19.6	19.2	7.5	0.1	3.4
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	11.6	4.8	0.1	0.2	39.9	1.1	2.4	7.1	7.4	5.2	1.4	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	263.3	47.6	16.4	19.4	181.8	6.1	68.7	68.2	67.8	54.9	35.5	30.6
LnGrp LOS	F	D	B	B	F	A	E	E	E	D	D	C
Approach Vol, veh/h		1570			2460			490			1220	
Approach Delay, s/veh		190.3			171.2			68.1			34.5	
Approach LOS		F			F			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.5	20.5	53.1	21.9	10.1	31.0	29.0	46.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	19.0	19.0	4.0	63.0	10.0	27.0	25.0	42.0				
Max Q Clear Time (g_c+1/3), s	15.8	15.8	2.4	13.8	6.7	29.0	27.0	44.0				
Green Ext Time (p_c), s	0.2	0.8	0.0	4.2	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	138.6
HCM 6th LOS	F

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)	570	290	10	10	940	690	10	20	10	210	20	1780
Future Volume (veh/h)	570	290	10	10	940	690	10	20	10	210	20	1780
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	570	290	10	10	940	690	10	20	10	210	20	1780
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	718	1645	56	16	973	1031	353	75	35	1590	1044	1218
Arrive On Green	0.15	0.34	0.34	0.01	0.20	0.20	0.21	0.03	0.03	0.48	0.31	0.31
Sat Flow, veh/h	4784	4829	165	1697	4863	1510	1697	2247	1040	3291	3385	2657
Grp Volume(v), veh/h	570	194	106	10	940	690	10	15	15	210	20	1780
Grp Sat Flow(s),veh/h/ln	1595	1621	1752	1697	1621	1510	1697	1692	1594	1646	1692	1329
Q Serve(g_s), s	13.8	5.0	5.1	0.7	23.0	0.0	0.6	1.0	1.1	4.2	0.5	37.0
Cycle Q Clear(g_c), s	13.8	5.0	5.1	0.7	23.0	0.0	0.6	1.0	1.1	4.2	0.5	37.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.65	1.00		1.00
Lane Grp Cap(c), veh/h	718	1105	597	16	973	1031	353	56	53	1590	1044	1218
V/C Ratio(X)	0.79	0.18	0.18	0.62	0.97	0.67	0.03	0.26	0.29	0.13	0.02	1.46
Avail Cap(c_a), veh/h	1555	1594	861	57	973	1031	353	282	266	1590	1044	1218
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)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.44	0.44	0.44
Uniform Delay (d), s/veh	49.2	27.7	27.8	59.2	47.6	11.1	37.8	56.6	56.6	17.1	28.9	32.5
Incr Delay (d2), s/veh	1.9	0.1	0.1	33.6	21.1	1.7	0.0	10.9	13.2	0.0	0.0	209.6
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	5.6	2.0	2.2	0.5	11.1	10.3	0.2	0.6	0.6	1.6	0.2	45.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.1	27.8	27.9	92.8	68.7	12.8	37.9	67.4	69.8	17.1	28.9	242.1
LnGrp LOS	D	C	C	F	E	B	D	E	E	B	C	F
Approach Vol, veh/h		870		1640		40		2010				
Approach Delay, s/veh		43.1		45.3		60.9		216.4				
Approach LOS		D		D		E		F				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	62.0	8.0	5.1	44.9	29.0	41.0	22.0	28.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	21.0	20.0	4.0	59.0	4.0	37.0	39.0	24.0				
Max Q Clear Time (g_c+1), s	10.2	3.1	2.7	7.1	2.6	39.0	15.8	25.0				
Green Ext Time (p_c), s	0.6	0.1	0.0	2.1	0.0	0.0	2.2	0.0				

Intersection Summary

HCM 6th Ctrl Delay	120.5
HCM 6th LOS	F



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↑	↗	↙	↑
Traffic Volume (veh/h)	10	800	840	10	60	190
Future Volume (veh/h)	10	800	840	10	60	190
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	0	840	10	60	190
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	18		1096	929	84	1377
Arrive On Green	0.01	0.00	0.62	0.62	0.05	0.77
Sat Flow, veh/h	1697	1510	1781	1510	1697	1781
Grp Volume(v), veh/h	10	0	840	10	60	190
Grp Sat Flow(s),veh/h/ln	1697	1510	1781	1510	1697	1781
Q Serve(g_s), s	0.2	0.0	12.7	0.1	1.3	1.0
Cycle Q Clear(g_c), s	0.2	0.0	12.7	0.1	1.3	1.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	18		1096	929	84	1377
V/C Ratio(X)	0.56		0.77	0.01	0.71	0.14
Avail Cap(c_a), veh/h	825		2745	2326	1513	4526
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	18.2	0.0	5.2	2.8	17.3	1.1
Incr Delay (d2), s/veh	24.4	0.0	1.2	0.0	10.5	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	0.2	0.0	2.1	0.0	0.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.6	0.0	6.3	2.8	27.8	1.1
LnGrp LOS	D		A	A	C	A
Approach Vol, veh/h	10	A	850		250	
Approach Delay, s/veh	42.6		6.3		7.5	
Approach LOS	D		A		A	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.8	26.8			32.6	4.4
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	33.0	57.0			94.0	18.0
Max Q Clear Time (g_c+1), s	13.3	14.7			3.0	2.2
Green Ext Time (p_c), s	0.1	8.1			1.2	0.0

Intersection Summary

HCM 6th Ctrl Delay	6.9
HCM 6th LOS	A

Notes

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

Tracy Transportation Master Plan Update
 18: Pavillion Pkwy & Grant Line Rd

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	←←←		←	↑↑	↑↑	←
Traffic Volume (veh/h)	1260	90	390	10	70	1340
Future Volume (veh/h)	1260	90	390	10	70	1340
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	1344	0	390	10	70	1340
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	1481	659	425	1650	355	1920
Arrive On Green	0.44	0.00	0.25	0.49	0.20	0.20
Sat Flow, veh/h	3393	1510	1697	3474	1781	3019
Grp Volume(v), veh/h	1344	0	390	10	70	1340
Grp Sat Flow(s),veh/h/ln	1697	1510	1697	1692	1781	1510
Q Serve(g_s), s	38.9	0.0	23.6	0.2	3.5	21.0
Cycle Q Clear(g_c), s	38.9	0.0	23.6	0.2	3.5	21.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1481	659	425	1650	355	1920
V/C Ratio(X)	0.91	0.00	0.92	0.01	0.20	0.70
Avail Cap(c_a), veh/h	1739	774	531	1863	355	1920
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	27.7	0.0	38.5	13.9	35.2	10.8
Incr Delay (d2), s/veh	6.6	0.0	18.5	0.0	0.3	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	16.5	0.0	11.8	0.1	1.5	18.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.3	0.0	57.0	13.9	35.4	11.9
LnGrp LOS	C	A	E	B	D	B
Approach Vol, veh/h	1344			400	1410	
Approach Delay, s/veh	34.3			55.9	13.1	
Approach LOS	C			E	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		55.4		50.0	30.4	25.0
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		58.0		54.0	33.0	21.0
Max Q Clear Time (g_c+I1), s		2.2		40.9	25.6	23.0
Green Ext Time (p_c), s		0.0		5.1	0.8	0.0

Intersection Summary

HCM 6th Ctrl Delay	27.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Tracy Transportation Master Plan Update
 19: Pavillion Pkwy & Van Stosen Rd

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↗		↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	110	320	240	40	220	10	250	440	10	10	90	520
Future Volume (veh/h)	110	320	240	40	220	10	250	440	10	10	90	520
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	110	320	240	40	220	10	250	440	10	10	90	520
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	139	404	343	53	298	14	297	1669	744	17	1110	495
Arrive On Green	0.08	0.23	0.23	0.03	0.18	0.18	0.18	0.49	0.49	0.01	0.33	0.33
Sat Flow, veh/h	1697	1781	1510	1697	1691	77	1697	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	110	320	240	40	0	230	250	440	10	10	90	520
Grp Sat Flow(s),veh/h/ln	1697	1781	1510	1697	0	1768	1697	1692	1510	1697	1692	1510
Q Serve(g_s), s	4.3	11.4	9.8	1.6	0.0	8.3	9.6	5.1	0.2	0.4	1.2	22.0
Cycle Q Clear(g_c), s	4.3	11.4	9.8	1.6	0.0	8.3	9.6	5.1	0.2	0.4	1.2	22.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	139	404	343	53	0	312	297	1669	744	17	1110	495
V/C Ratio(X)	0.79	0.79	0.70	0.75	0.00	0.74	0.84	0.26	0.01	0.58	0.08	1.05
Avail Cap(c_a), veh/h	202	584	495	101	0	474	405	1715	765	101	1110	495
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	1.00	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	30.2	24.4	23.8	32.2	0.0	26.2	26.8	9.9	8.7	33.1	15.6	22.5
Incr Delay (d2), s/veh	12.4	4.7	2.6	19.0	0.0	3.4	11.1	0.1	0.0	27.4	0.0	54.3
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	2.1	5.0	3.5	0.9	0.0	3.6	4.6	1.7	0.1	0.3	0.4	14.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	29.1	26.4	51.2	0.0	29.6	37.9	10.0	8.7	60.5	15.6	76.8
LnGrp LOS	D	C	C	D	A	C	D	A	A	E	B	F
Approach Vol, veh/h		670			270			700			620	
Approach Delay, s/veh		30.4			32.8			19.9			67.7	
Approach LOS		C			C			B			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.7	37.1	6.1	19.2	15.8	26.0	9.5	15.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	34.0	4.0	22.0	16.0	22.0	8.0	18.0				
Max Q Clear Time (g_c+1), s	12.4	7.1	3.6	13.4	11.6	24.0	6.3	10.3				
Green Ext Time (p_c), s	0.0	3.1	0.0	1.9	0.3	0.0	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay											37.7	
HCM 6th LOS											D	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↗	↘↘↘	↑↑	↗	↘	↑	↗↗	↘↘	↑↑	↗
Traffic Volume (veh/h)	20	1110	140	1040	1310	350	10	350	1480	510	550	100
Future Volume (veh/h)	20	1110	140	1040	1310	350	10	350	1480	510	550	100
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	20	1110	140	1040	1310	0	10	350	0	510	550	100
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	28	1155	373	1195	1594		16	381		521	1227	547
Arrive On Green	0.02	0.24	0.24	0.25	0.47	0.00	0.01	0.21	0.00	0.16	0.36	0.36
Sat Flow, veh/h	1697	4863	1510	4784	3385	1510	1697	1781	2657	3291	3385	1510
Grp Volume(v), veh/h	20	1110	140	1040	1310	0	10	350	0	510	550	100
Grp Sat Flow(s),veh/h/ln	1697	1621	1510	1595	1692	1510	1697	1781	1329	1646	1692	1510
Q Serve(g_s), s	1.3	25.6	8.8	23.7	38.0	0.0	0.7	21.9	0.0	17.5	14.1	5.1
Cycle Q Clear(g_c), s	1.3	25.6	8.8	23.7	38.0	0.0	0.7	21.9	0.0	17.5	14.1	5.1
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	28	1155	373	1195	1594		16	381		521	1227	547
V/C Ratio(X)	0.72	0.96	0.38	0.87	0.82		0.62	0.92		0.98	0.45	0.18
Avail Cap(c_a), veh/h	60	1155	373	1389	1667		90	407		521	1227	547
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.7	42.8	35.5	40.9	26.0	0.0	56.1	43.7	0.0	47.7	27.6	24.7
Incr Delay (d2), s/veh	28.6	17.9	0.6	5.6	3.3	0.0	32.8	24.9	0.0	33.9	0.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	12.1	3.3	9.8	15.5	0.0	0.4	12.2	0.0	9.6	5.7	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.3	60.7	36.2	46.5	29.3	0.0	88.9	68.7	0.0	81.5	27.8	24.9
LnGrp LOS	F	E	D	D	C		F	E		F	C	C
Approach Vol, veh/h		1270			2350	A		360	A		1160	
Approach Delay, s/veh		58.4			36.9			69.2			51.2	
Approach LOS		E			D			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.0	28.3	32.4	31.0	5.1	45.2	5.9	57.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	10.0	26.0	33.0	27.0	6.0	38.0	4.0	56.0				
Max Q Clear Time (g_c+1/5), s	11.5	23.9	25.7	27.6	2.7	16.1	3.3	40.0				
Green Ext Time (p_c), s	0.0	0.4	2.7	0.0	0.0	4.1	0.0	8.8				

Intersection Summary

HCM 6th Ctrl Delay	47.7
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, WBR] 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)	230	10	20	10	60	780	10	830	10	300	930	500
Future Volume (veh/h)	230	10	20	10	60	780	10	830	10	300	930	500
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	230	10	20	10	60	780	10	830	10	300	930	500
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	274	679	590	17	409	539	17	1375	17	418	1920	840
Arrive On Green	0.16	0.38	0.38	0.01	0.23	0.23	0.01	0.28	0.28	0.13	0.39	0.39
Sat Flow, veh/h	1697	1781	1510	1697	1781	1510	1697	4953	60	3291	4863	1510
Grp Volume(v), veh/h	230	10	20	10	60	780	10	543	297	300	930	500
Grp Sat Flow(s),veh/h/ln	1697	1781	1510	1697	1781	1510	1697	1621	1771	1646	1621	1510
Q Serve(g_s), s	10.3	0.3	0.6	0.5	2.1	18.0	0.5	11.4	11.4	6.9	11.2	17.2
Cycle Q Clear(g_c), s	10.3	0.3	0.6	0.5	2.1	18.0	0.5	11.4	11.4	6.9	11.2	17.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	274	679	590	17	409	539	17	900	492	418	1920	840
V/C Ratio(X)	0.84	0.01	0.03	0.59	0.15	1.45	0.59	0.60	0.60	0.72	0.48	0.60
Avail Cap(c_a), veh/h	455	796	689	87	409	539	87	1076	588	1974	4283	1573
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(l)	1.00	1.00	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	31.9	15.1	14.7	38.6	24.1	25.2	38.6	24.6	24.6	32.9	17.7	11.5
Incr Delay (d2), s/veh	7.1	0.0	0.0	28.6	0.2	212.0	28.6	0.7	1.2	2.3	0.2	0.7
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	4.6	0.1	0.2	0.3	0.9	41.0	0.3	4.3	4.7	2.8	4.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.9	15.1	14.7	67.3	24.2	237.2	67.3	25.2	25.8	35.2	17.9	12.2
LnGrp LOS	D	B	B	E	C	F	E	C	C	D	B	B
Approach Vol, veh/h		260			850			850			1730	
Approach Delay, s/veh		36.2			220.2			25.9			19.3	
Approach LOS		D			F			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.0	25.8	4.8	33.9	4.8	34.9	16.6	22.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	47.0	26.0	4.0	35.0	4.0	69.0	21.0	18.0				
Max Q Clear Time (g_c+10), s	19.5	13.4	2.5	2.6	2.5	19.2	12.3	20.0				
Green Ext Time (p_c), s	1.1	4.5	0.0	0.1	0.0	11.7	0.4	0.0				

Intersection Summary

HCM 6th Ctrl Delay												68.3
HCM 6th LOS												E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑↑	↗	↖	↑↑↑	↗
Traffic Volume (veh/h)	20	60	260	20	110	160	10	660	10	10	800	150
Future Volume (veh/h)	20	60	260	20	110	160	10	660	10	10	800	150
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	20	60	260	20	110	160	10	660	10	10	800	150
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	34	79	342	34	178	258	18	1452	451	18	1452	451
Arrive On Green	0.02	0.27	0.27	0.02	0.27	0.27	0.01	0.30	0.30	0.01	0.30	0.30
Sat Flow, veh/h	1697	291	1263	1697	656	954	1697	4863	1510	1697	4863	1510
Grp Volume(v), veh/h	20	0	320	20	0	270	10	660	10	10	800	150
Grp Sat Flow(s),veh/h/ln1697	0	1554	1697	0	1610	1697	1621	1510	1697	1621	1510	1697
Q Serve(g_s), s	0.5	0.0	7.6	0.5	0.0	5.9	0.2	4.4	0.2	0.2	5.5	3.1
Cycle Q Clear(g_c), s	0.5	0.0	7.6	0.5	0.0	5.9	0.2	4.4	0.2	0.2	5.5	3.1
Prop In Lane	1.00		0.81	1.00		0.59	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	34	0	421	34	0	436	18	1452	451	18	1452	451
V/C Ratio(X)	0.59	0.00	0.76	0.59	0.00	0.62	0.56	0.45	0.02	0.56	0.55	0.33
Avail Cap(c_a), veh/h	170	0	699	170	0	724	170	2189	679	170	2189	679
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	19.4	0.0	13.4	19.4	0.0	12.8	19.7	11.4	9.9	19.7	11.8	10.9
Incr Delay (d2), s/veh	15.4	0.0	2.8	15.4	0.0	1.4	24.7	0.2	0.0	24.7	0.3	0.4
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/ln0.3	0.0	0.0	2.4	0.3	0.0	1.9	0.2	1.3	0.1	0.2	1.6	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.8	0.0	16.2	34.8	0.0	14.2	44.4	11.6	9.9	44.4	12.1	11.4
LnGrp LOS	C	A	B	C	A	B	D	B	A	D	B	B
Approach Vol, veh/h		340			290			680			960	
Approach Delay, s/veh		17.3			15.6			12.1			12.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.4	15.9	4.8	14.8	4.4	15.9	4.8	14.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	4.0	18.0	4.0	18.0	4.0	18.0				
Max Q Clear Time (g_c+1), s	12.2	6.4	2.5	9.6	2.2	7.5	2.5	7.9				
Green Ext Time (p_c), s	0.0	3.5	0.0	1.3	0.0	4.4	0.0	1.1				

Intersection Summary

HCM 6th Ctrl Delay	13.4
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖ ↗	↖	↗		↑ ↑	↖ ↗		↑ ↑ ↑	↖
Traffic Volume (veh/h)	0	0	0	70	0	10	0	660	2670	0	560	510
Future Volume (veh/h)	0	0	0	70	0	10	0	660	2670	0	560	510
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		No		No
Adj Sat Flow, veh/h/ln				1781	1781	1781	0	1781	1781	0	1781	1781
Adj Flow Rate, veh/h				70	0	10	0	660	2670	0	560	510
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				8	8	8	0	8	8	0	8	8
Cap, veh/h				174	0	52	0	3012	2365	0	4328	1344
Arrive On Green				0.03	0.00	0.03	0.00	0.89	0.89	0.00	0.89	0.89
Sat Flow, veh/h				5090	0	1510	0	3474	2657	0	5024	1510
Grp Volume(v), veh/h				70	0	10	0	660	2670	0	560	510
Grp Sat Flow(s),veh/h/ln				1697	0	1510	0	1692	1329	0	1621	1510
Q Serve(g_s), s				1.4	0.0	0.7	0.0	2.8	94.0	0.0	1.5	5.9
Cycle Q Clear(g_c), s				1.4	0.0	0.7	0.0	2.8	94.0	0.0	1.5	5.9
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				174	0	52	0	3012	2365	0	4328	1344
V/C Ratio(X)				0.40	0.00	0.19	0.00	0.22	1.13	0.00	0.13	0.38
Avail Cap(c_a), veh/h				867	0	257	0	3012	2365	0	4328	1344
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	1.00	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				49.9	0.0	49.6	0.0	0.8	5.8	0.0	0.7	1.0
Incr Delay (d2), s/veh				1.5	0.0	1.8	0.0	0.0	64.1	0.0	0.0	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				0.6	0.0	0.3	0.0	0.2	24.6	0.0	0.1	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				51.4	0.0	51.4	0.0	0.8	69.9	0.0	0.7	1.1
LnGrp LOS				D	A	D	A	A	F	A	A	A
Approach Vol, veh/h					80			3330			1070	
Approach Delay, s/veh					51.4			56.2			0.9	
Approach LOS					D			E			A	
Timer - Assigned Phs		2				6			8			
Phs Duration (G+Y+Rc), s		98.0				98.0			7.6			
Change Period (Y+Rc), s		4.0				4.0			4.0			
Max Green Setting (Gmax), s		94.0				94.0			18.0			
Max Q Clear Time (g_c+I1), s		96.0				7.9			3.4			
Green Ext Time (p_c), s		0.0				7.2			0.2			

Intersection Summary

HCM 6th Ctrl Delay	42.9
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↑↑↑	↗↗		↑↑↑	↗
Traffic Volume (veh/h)	30	0	1250	0	0	0	0	3290	1210	0	630	10
Future Volume (veh/h)	30	0	1250	0	0	0	0	3290	1210	0	630	10
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	1781	1781				0	1781	1781	0	1781	1781
Adj Flow Rate, veh/h	30	0	0				0	3290	1210	0	630	10
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8				0	8	8	0	8	8
Cap, veh/h	38	0					0	4430	2420	0	4430	1375
Arrive On Green	0.02	0.00	0.00				0.00	0.91	0.91	0.00	0.91	0.91
Sat Flow, veh/h	1697	0	1510				0	5024	2657	0	5024	1510
Grp Volume(v), veh/h	30	0	0				0	3290	1210	0	630	10
Grp Sat Flow(s),veh/h/ln	1697	0	1510				0	1621	1329	0	1621	1510
Q Serve(g_s), s	2.1	0.0	0.0				0.0	22.4	8.9	0.0	1.6	0.1
Cycle Q Clear(g_c), s	2.1	0.0	0.0				0.0	22.4	8.9	0.0	1.6	0.1
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	38	0					0	4430	2420	0	4430	1375
V/C Ratio(X)	0.79	0.00					0.00	0.74	0.50	0.00	0.14	0.01
Avail Cap(c_a), veh/h	792	0					0	4430	2420	0	4430	1375
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	0.09	0.09	0.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	0.0	0.0				0.0	1.5	0.9	0.0	0.5	0.5
Incr Delay (d2), s/veh	29.2	0.0	0.0				0.0	0.1	0.1	0.0	0.1	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	1.2	0.0	0.0				0.0	0.3	0.1	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.6	0.0	0.0				0.0	1.6	0.9	0.0	0.6	0.5
LnGrp LOS	F	A					A	A	A	A	A	A
Approach Vol, veh/h		30	A					4500			640	
Approach Delay, s/veh		87.6						1.4			0.6	
Approach LOS		F						A			A	
Timer - Assigned Phs		2		4			6					
Phs Duration (G+Y+Rc), s		113.3		6.7			113.3					
Change Period (Y+Rc), s		4.0		4.0			4.0					
Max Green Setting (Gmax), s		56.0		56.0			56.0					
Max Q Clear Time (g_c+I1), s		24.4		4.1			3.6					
Green Ext Time (p_c), s		31.2		0.1			5.2					

Intersection Summary

HCM 6th Ctrl Delay		1.8	
HCM 6th LOS		A	

Notes

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

Tracy Transportation Master Plan Update
 25: Lammers Ext/Lammers Extension & Commerce Way

Future 2042
 Timing Plan: AM Peak Hour



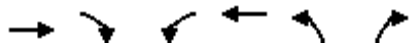
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔↔	↑	↗	↖	↕	↗	↖	↑↑↑	↗	↖	↕	↗↖
Traffic Volume (veh/h)	1590	10	10	10	1010	220	670	2700	10	30	1120	740
Future Volume (veh/h)	1590	10	10	10	1010	220	670	2700	10	30	1120	740
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	1590	10	0	10	1010	0	670	2700	10	30	1120	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	1116	59		792	903		494	2043	1208	110	1054	
Arrive On Green	0.23	0.03	0.00	0.47	0.27	0.00	0.15	0.33	0.33	0.01	0.07	0.00
Sat Flow, veh/h	4784	1781	1510	1697	3385	1510	3291	6128	1510	3291	4863	2657
Grp Volume(v), veh/h	1590	10	0	10	1010	0	670	2700	10	30	1120	0
Grp Sat Flow(s),veh/h/ln	1595	1781	1510	1697	1692	1510	1646	1532	1510	1646	1621	1329
Q Serve(g_s), s	28.0	0.7	0.0	0.4	32.0	0.0	18.0	40.0	0.0	1.1	26.0	0.0
Cycle Q Clear(g_c), s	28.0	0.7	0.0	0.4	32.0	0.0	18.0	40.0	0.0	1.1	26.0	0.0
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	1116	59		792	903		494	2043	1208	110	1054	
V/C Ratio(X)	1.42	0.17		0.01	1.12		1.36	1.32	0.01	0.27	1.06	
Avail Cap(c_a), veh/h	1116	831		792	903		494	2043	1208	110	1054	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.69	0.69	0.69	0.09	0.09	0.00
Uniform Delay (d), s/veh	46.0	56.4	0.0	17.2	44.0	0.0	51.0	40.0	2.4	57.9	55.7	0.0
Incr Delay (d2), s/veh	196.2	6.0	0.0	0.0	68.3	0.0	169.7	147.3	0.0	0.1	30.7	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	0.4	0.0	0.2	21.8	0.0	19.0	35.7	0.0	0.5	14.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	242.2	62.4	0.0	17.2	112.3	0.0	220.7	187.3	2.4	58.0	86.4	0.0
LnGrp LOS	F	E		B	F		F	F	A	E	F	
Approach Vol, veh/h	1600		A		1020		A	3380			1150	A
Approach Delay, s/veh	241.1				111.3			193.3			85.7	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	60.0	8.0	22.0	30.0	32.0	36.0	8.0	44.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	56.0	18.0	26.0	28.0	32.0	4.0	40.0				
Max Q Clear Time (g_c+1), s	12.4	2.7	20.0	28.0	30.0	34.0	3.1	42.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	175.0
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



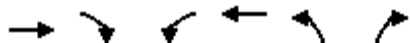
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑↑	↑↑↑	↑↑↑	↑
Traffic Volume (veh/h)	800	340	1730	2220	1150	390
Future Volume (veh/h)	800	340	1730	2220	1150	390
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	800	340	1730	2220	1155	385
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	901	774	1854	3714	1666	1079
Arrive On Green	0.25	0.25	0.39	0.61	0.33	0.33
Sat Flow, veh/h	5024	1510	4784	6378	5090	1510
Grp Volume(v), veh/h	800	340	1730	2220	1155	385
Grp Sat Flow(s),veh/h/ln	1621	1510	1595	1532	1697	1510
Q Serve(g_s), s	19.0	17.4	41.6	26.8	23.7	11.7
Cycle Q Clear(g_c), s	19.0	17.4	41.6	26.8	23.7	11.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	901	774	1854	3714	1666	1079
V/C Ratio(X)	0.89	0.44	0.93	0.60	0.69	0.36
Avail Cap(c_a), veh/h	932	783	1914	3830	1666	1079
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	1.00	1.00	0.82	0.82
Uniform Delay (d), s/veh	44.0	17.1	35.3	14.6	35.1	6.6
Incr Delay (d2), s/veh	1.1	0.0	8.9	0.2	2.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	9.7	16.8	8.4	10.0	3.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.1	17.1	44.2	14.8	37.1	7.3
LnGrp LOS	D	B	D	B	D	A
Approach Vol, veh/h	1140			3950	1540	
Approach Delay, s/veh	36.8			27.7	29.7	
Approach LOS	D			C	C	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		43.3	50.5	26.2		76.7
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s		37.0	48.0	23.0		75.0
Max Q Clear Time (g_c+I1), s		25.7	43.6	21.0		28.8
Green Ext Time (p_c), s		5.1	2.9	1.2		27.2

Intersection Summary

HCM 6th Ctrl Delay	29.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑↑	↵	↑↑↑	↵↵	↵
Traffic Volume (veh/h)	1730	1370	10	2020	680	20
Future Volume (veh/h)	1730	1370	10	2020	680	20
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	1730	1370	10	2020	680	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	2386	1304	18	2817	870	399
Arrive On Green	0.49	0.49	0.01	0.58	0.26	0.26
Sat Flow, veh/h	5024	2657	1697	5024	3291	1510
Grp Volume(v), veh/h	1730	1370	10	2020	680	20
Grp Sat Flow(s),veh/h/ln	1621	1329	1697	1621	1646	1510
Q Serve(g_s), s	14.4	25.1	0.3	15.3	9.8	0.5
Cycle Q Clear(g_c), s	14.4	25.1	0.3	15.3	9.8	0.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2386	1304	18	2817	870	399
V/C Ratio(X)	0.73	1.05	0.57	0.72	0.78	0.05
Avail Cap(c_a), veh/h	2386	1304	133	3138	1223	561
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	10.3	13.0	25.2	7.7	17.4	14.0
Incr Delay (d2), s/veh	1.1	39.4	25.8	0.7	2.2	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	1.1	12.7	0.2	3.8	3.5	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.4	52.5	51.0	8.5	19.6	14.1
LnGrp LOS	B	F	D	A	B	B
Approach Vol, veh/h	3100			2030	700	
Approach Delay, s/veh	29.6			8.7	19.5	
Approach LOS	C			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		17.5	4.5	29.1		33.6
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s		19.0	4.0	25.0		33.0
Max Q Clear Time (g_c+1), s		11.8	2.3	27.1		17.3
Green Ext Time (p_c), s		1.7	0.0	0.0		12.3
Intersection Summary						
HCM 6th Ctrl Delay			21.1			
HCM 6th LOS			C			

Tracy Transportation Master Plan Update
 29: S Lammers Rd & Pavillion Pkwy

Future 2042
 Timing Plan: AM Peak Hour



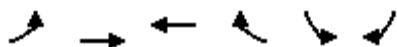
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑	↗	↖	↑↑		↖	↗		↖	↗	
Traffic Volume (veh/h)	10	1480	240	10	1570	10	30	30	10	40	70	470
Future Volume (veh/h)	10	1480	240	10	1570	10	30	30	10	40	70	470
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	1480	0	10	1570	10	30	30	10	40	70	470
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	17	1627		17	1658	11	79	372	124	49	59	397
Arrive On Green	0.01	0.48	0.00	0.01	0.48	0.48	0.02	0.29	0.29	0.03	0.30	0.30
Sat Flow, veh/h	1697	3385	1510	1697	3448	22	3291	1279	426	1697	200	1341
Grp Volume(v), veh/h	10	1480	0	10	770	810	30	0	40	40	0	540
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1697	1692	1777	1646	0	1705	1697	0	1540
Q Serve(g_s), s	0.5	34.1	0.0	0.5	36.6	36.7	0.8	0.0	1.4	2.0	0.0	25.0
Cycle Q Clear(g_c), s	0.5	34.1	0.0	0.5	36.6	36.7	0.8	0.0	1.4	2.0	0.0	25.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.25	1.00		0.87
Lane Grp Cap(c), veh/h	17	1627		17	814	855	79	0	496	49	0	456
V/C Ratio(X)	0.60	0.91		0.60	0.95	0.95	0.38	0.00	0.08	0.82	0.00	1.18
Avail Cap(c_a), veh/h	80	1643		80	821	863	156	0	496	121	0	456
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	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.6	20.2	0.0	41.6	20.9	20.9	40.6	0.0	21.7	40.8	0.0	29.7
Incr Delay (d2), s/veh	29.3	7.9	0.0	29.3	19.5	19.0	3.0	0.0	0.1	26.9	0.0	103.4
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	0.3	14.0	0.0	0.3	17.6	18.4	0.3	0.0	0.6	1.2	0.0	21.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.0	28.1	0.0	71.0	40.4	39.9	43.6	0.0	21.8	67.7	0.0	133.1
LnGrp LOS	E	C		E	D	D	D	A	C	E	A	F
Approach Vol, veh/h		1490	A		1590		70			580		
Approach Delay, s/veh		28.4			40.4		31.1			128.6		
Approach LOS		C			D		C			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.4	28.6	4.8	44.6	6.0	29.0	4.8	44.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	6.0	23.0	4.0	41.0	4.0	25.0	4.0	41.0				
Max Q Clear Time (g_c+14), s	14.0	3.4	2.5	36.1	2.8	27.0	2.5	38.7				
Green Ext Time (p_c), s	0.0	0.1	0.0	3.8	0.0	0.0	0.0	1.9				

Intersection Summary

HCM 6th Ctrl Delay	49.1
HCM 6th LOS	D

Notes

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



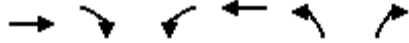
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		↶	↷		↶	↷	
Traffic Volume (veh/h)	10	1370	650	40	300	50	
Future Volume (veh/h)	10	1370	650	40	300	50	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	
Adj Flow Rate, veh/h	10	1370	650	40	300	50	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Percent Heavy Veh, %	8	8	8	8	8	8	
Cap, veh/h	0	1230	1146	71	332	55	
Arrive On Green	0.00	0.69	0.69	0.69	0.23	0.23	
Sat Flow, veh/h	0	1781	1661	102	1425	238	
Grp Volume(v), veh/h	0	1370	0	690	351	0	
Grp Sat Flow(s),veh/h/ln	0	1781	0	1763	1667	0	
Q Serve(g_s), s	0.0	72.0	0.0	20.8	21.3	0.0	
Cycle Q Clear(g_c), s	0.0	72.0	0.0	20.8	21.3	0.0	
Prop In Lane	0.00			0.06	0.85	0.14	
Lane Grp Cap(c), veh/h	0	1230	0	1217	389	0	
V/C Ratio(X)	0.00	1.11	0.00	0.57	0.90	0.00	
Avail Cap(c_a), veh/h	0	1230	0	1217	639	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	0.0	16.2	0.0	8.2	38.9	0.0	
Incr Delay (d2), s/veh	0.0	63.1	0.0	0.6	10.2	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	0.0	44.0	0.0	6.6	9.6	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	0.0	79.2	0.0	8.8	49.1	0.0	
LnGrp LOS	A	F	A	A	D	A	
Approach Vol, veh/h		1370	690		351		
Approach Delay, s/veh		79.2	8.8		49.1		
Approach LOS		E	A		D		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				76.0	28.3	0.0	76.0
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				72.0	40.0	4.0	64.0
Max Q Clear Time (g_c+1), s				74.0	23.3	0.0	22.8
Green Ext Time (p_c), s				0.0	1.0	0.0	5.2

Intersection Summary

HCM 6th Ctrl Delay	54.7
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘↗	↑	↘	↗
Traffic Volume (veh/h)	270	100	880	320	800	10
Future Volume (veh/h)	270	100	880	320	800	10
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	270	100	880	320	800	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	301	255	879	830	762	678
Arrive On Green	0.17	0.17	0.27	0.47	0.45	0.45
Sat Flow, veh/h	1781	1510	3291	1781	1697	1510
Grp Volume(v), veh/h	270	100	880	320	800	10
Grp Sat Flow(s),veh/h/ln	1781	1510	1646	1781	1697	1510
Q Serve(g_s), s	17.5	7.0	31.5	13.8	53.0	0.4
Cycle Q Clear(g_c), s	17.5	7.0	31.5	13.8	53.0	0.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	301	255	879	830	762	678
V/C Ratio(X)	0.90	0.39	1.00	0.39	1.05	0.01
Avail Cap(c_a), veh/h	332	282	879	868	762	678
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	48.0	43.6	43.2	20.5	32.5	18.0
Incr Delay (d2), s/veh	24.4	1.2	30.6	0.4	46.3	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	9.6	2.6	16.1	5.6	30.2	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	72.4	44.8	73.9	20.9	78.8	18.0
LnGrp LOS	E	D	F	C	F	B
Approach Vol, veh/h	370			1200	810	
Approach Delay, s/veh	64.9			59.7	78.0	
Approach LOS	E			E	E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.0		58.0	35.0	25.0
Change Period (Y+Rc), s		* 5		5.0	3.5	5.0
Max Green Setting (Gmax), s		* 58		53.0	31.5	22.0
Max Q Clear Time (g_c+I1), s		15.8		55.0	33.5	19.5
Green Ext Time (p_c), s		1.6		0.0	0.0	0.4

Intersection Summary

HCM 6th Ctrl Delay	66.8
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖
Traffic Volume (veh/h)	50	890	260	590	3100	310	770	550	150	20	120	80
Future Volume (veh/h)	50	890	260	590	3100	310	770	550	150	20	120	80
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	50	890	0	590	3100	0	770	550	0	20	120	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	231	2085		345	2307		417	799		190	565	
Arrive On Green	0.07	0.43	0.00	0.10	0.47	0.00	0.13	0.24	0.00	0.06	0.17	0.00
Sat Flow, veh/h	3291	4863	1510	3291	4863	1510	3291	3385	1510	3291	3385	1510
Grp Volume(v), veh/h	50	890	0	590	3100	0	770	550	0	20	120	0
Grp Sat Flow(s),veh/h/ln	1646	1621	1510	1646	1621	1510	1646	1692	1510	1646	1692	1510
Q Serve(g_s), s	1.3	11.7	0.0	9.6	43.4	0.0	11.6	13.6	0.0	0.5	2.8	0.0
Cycle Q Clear(g_c), s	1.3	11.7	0.0	9.6	43.4	0.0	11.6	13.6	0.0	0.5	2.8	0.0
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	231	2085		345	2307		417	799		190	565	
V/C Ratio(X)	0.22	0.43		1.71	1.34		1.85	0.69		0.11	0.21	
Avail Cap(c_a), veh/h	291	2174		345	2307		417	1609		367	1557	
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	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.2	18.3	0.0	40.9	24.0	0.0	39.9	31.9	0.0	40.9	32.9	0.0
Incr Delay (d2), s/veh	0.2	0.3	0.0	330.9	157.7	0.0	389.5	1.5	0.0	0.2	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.0	0.0	19.6	48.0	0.0	27.1	5.5	0.0	0.2	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.3	18.6	0.0	371.8	181.7	0.0	429.5	33.4	0.0	41.1	33.1	0.0
LnGrp LOS	D	B		F	F		F	C		D	C	
Approach Vol, veh/h		940	A		3690	A		1320	A		140	A
Approach Delay, s/veh		19.7			212.1			264.4			34.2	
Approach LOS		B			F			F			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.0	43.2	15.0	19.3	9.8	47.4	8.7	25.6				
Change Period (Y+Rc), s	6.5	6.1	5.5	6.1	5.5	6.1	5.5	6.1				
Max Green Setting (Gmax), s	5	38.8	9.5	40.0	6.0	41.3	8.1	41.4				
Max Q Clear Time (g_c+ll), s	6	13.7	13.6	4.8	3.3	45.4	2.5	15.6				
Green Ext Time (p_c), s	0.0	9.0	0.0	0.5	0.0	0.0	0.0	3.9				

Intersection Summary

HCM 6th Ctrl Delay	189.7
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Tracy Transportation Master Plan Update
 33: LAMMERS RD & Capital Parks Dr

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗↗	↘	↑	↗	↗↗	↑↑↑	↗	↘	↑↑↑	↗
Traffic Volume (veh/h)	150	100	490	10	760	110	1990	1210	10	30	340	610
Future Volume (veh/h)	150	100	490	10	760	110	1990	1210	10	30	340	610
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	150	100	490	10	760	110	1990	1210	10	30	340	610
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	170	959	1492	170	505	554	718	1621	654	141	1378	579
Arrive On Green	0.10	0.28	0.28	0.10	0.28	0.28	0.15	0.33	0.33	0.08	0.28	0.28
Sat Flow, veh/h	1697	3385	3442	1697	1781	1510	4784	4863	1510	1697	4863	1510
Grp Volume(v), veh/h	150	100	490	10	760	110	1990	1210	10	30	340	610
Grp Sat Flow(s),veh/h/ln	1697	1692	1147	1697	1781	1510	1595	1621	1510	1697	1621	1510
Q Serve(g_s), s	10.5	2.6	11.3	0.6	34.0	6.0	18.0	26.5	0.5	2.0	6.5	34.0
Cycle Q Clear(g_c), s	10.5	2.6	11.3	0.6	34.0	6.0	18.0	26.5	0.5	2.0	6.5	34.0
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	170	959	1492	170	505	554	718	1621	654	141	1378	579
V/C Ratio(X)	0.88	0.10	0.33	0.06	1.51	0.20	2.77	0.75	0.02	0.21	0.25	1.05
Avail Cap(c_a), veh/h	170	959	1492	382	505	554	718	1621	654	184	1378	579
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	1.00	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	53.3	31.8	22.5	48.9	43.0	26.0	51.0	35.5	19.4	51.3	33.1	37.0
Incr Delay (d2), s/veh	38.9	0.0	0.1	0.1	237.7	0.1	801.7	1.9	0.0	1.1	0.1	52.5
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	6.3	1.1	2.9	0.3	48.0	2.1	60.2	10.3	0.2	0.9	2.5	24.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.2	31.8	22.6	48.9	280.7	26.0	852.7	37.4	19.4	52.4	33.2	89.5
LnGrp LOS	F	C	C	D	F	C	F	D	B	D	C	F
Approach Vol, veh/h		740			880			3210			980	
Approach Delay, s/veh		38.0			246.3			542.8			68.8	
Approach LOS		D			F			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	40.0	22.0	40.0	18.0	40.0	16.0	46.0				
Change Period (Y+Rc), s	6.0	* 6	4.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	27.0	* 21	18.0	34.0	12.0	34.0	13.0	37.0				
Max Q Clear Time (g_c+1), s	12.6	13.3	20.0	36.0	12.5	36.0	4.0	28.5				
Green Ext Time (p_c), s	0.0	1.7	0.0	0.0	0.0	0.0	0.0	4.8				

Intersection Summary

HCM 6th Ctrl Delay	353.6
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
 34: Lammers Rd & Pomontory Pkwy

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑↑	↗	↘	↑↑↑	↗
Traffic Volume (veh/h)	10	100	40	60	1570	350	460	1830	10	120	660	20
Future Volume (veh/h)	10	100	40	60	1570	350	460	1830	10	120	660	20
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	100	40	60	1570	350	460	1830	10	120	660	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	16	1290	1014	76	1410	730	493	1818	632	113	729	241
Arrive On Green	0.01	0.38	0.38	0.04	0.42	0.42	0.58	0.75	0.75	0.07	0.15	0.15
Sat Flow, veh/h	1697	3385	1510	1697	3385	1510	1697	4863	1510	1697	4863	1510
Grp Volume(v), veh/h	10	100	40	60	1570	350	460	1830	10	120	660	20
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1697	1692	1510	1697	1621	1510	1697	1621	1510
Q Serve(g_s), s	0.7	2.3	0.3	4.2	50.0	14.7	29.8	44.9	0.2	8.0	16.0	0.2
Cycle Q Clear(g_c), s	0.7	2.3	0.3	4.2	50.0	14.7	29.8	44.9	0.2	8.0	16.0	0.2
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	16	1290	1014	76	1410	730	493	1818	632	113	729	241
V/C Ratio(X)	0.62	0.08	0.04	0.79	1.11	0.48	0.93	1.01	0.02	1.06	0.90	0.08
Avail Cap(c_a), veh/h	57	1290	1014	141	1410	730	493	1818	632	113	729	241
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	0.09	0.09	0.09	0.60	0.60	0.60	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.2	23.7	2.4	56.7	35.0	13.1	24.1	15.1	8.2	56.0	50.2	43.0
Incr Delay (d2), s/veh	33.3	0.0	0.0	1.7	52.1	0.0	17.4	17.9	0.0	101.9	16.8	0.7
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	0.5	0.9	0.1	1.8	30.2	4.9	10.6	9.3	0.1	6.5	7.4	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.5	23.7	2.5	58.4	87.1	13.1	41.4	33.0	8.2	157.9	67.0	43.6
LnGrp LOS	F	C	A	E	F	B	D	F	A	F	E	D
Approach Vol, veh/h		150			1980			2300			800	
Approach Delay, s/veh		22.6			73.1			34.6			80.0	
Approach LOS		C			E			C			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	42.0	48.9	9.4	49.7	38.9	22.0	5.1	54.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	42.0	42.0	10.0	44.0	32.0	18.0	4.0	50.0				
Max Q Clear Time (g_c+I1), s	46.9	46.9	6.2	4.3	31.8	18.0	2.7	52.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	55.8
HCM 6th LOS	E



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↑↑↑	↗	↙	↑↑↑
Traffic Volume (veh/h)	410	300	2000	110	40	720
Future Volume (veh/h)	410	300	2000	110	40	720
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	410	300	2000	110	40	720
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	484	431	2826	877	163	2826
Arrive On Green	0.29	0.29	0.39	0.39	1.00	1.00
Sat Flow, veh/h	1697	1510	5024	1510	184	5024
Grp Volume(v), veh/h	410	300	2000	110	40	720
Grp Sat Flow(s),veh/h/ln	1697	1510	1621	1510	184	1621
Q Serve(g_s), s	13.7	10.6	20.8	2.8	12.4	0.0
Cycle Q Clear(g_c), s	13.7	10.6	20.8	2.8	33.2	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	484	431	2826	877	163	2826
V/C Ratio(X)	0.85	0.70	0.71	0.13	0.25	0.25
Avail Cap(c_a), veh/h	622	554	2826	877	163	2826
HCM Platoon Ratio	1.00	1.00	0.67	0.67	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.72	0.72	0.62	0.62
Uniform Delay (d), s/veh	20.2	19.1	14.0	8.5	9.9	0.0
Incr Delay (d2), s/veh	8.5	2.6	1.1	0.2	2.2	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	6.0	3.7	7.9	0.8	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.7	21.8	15.1	8.7	12.1	0.1
LnGrp LOS	C	C	B	A	B	A
Approach Vol, veh/h	710		2110			760
Approach Delay, s/veh	25.7		14.8			0.8
Approach LOS	C		B			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		38.9			38.9	21.1
Change Period (Y+Rc), s		4.0			4.0	4.0
Max Green Setting (Gmax), s		30.0			30.0	22.0
Max Q Clear Time (g_c+I1), s		22.8			35.2	15.7
Green Ext Time (p_c), s		6.3			0.0	1.5
Intersection Summary						
HCM 6th Ctrl Delay			14.0			
HCM 6th LOS			B			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘		↑↑↑	↗	↘	↑↑↑
Traffic Volume (veh/h)	60	180	2090	20	20	1100
Future Volume (veh/h)	60	180	2090	20	20	1100
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	60	180	2090	20	20	1100
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	72	216	2107	654	306	3308
Arrive On Green	0.19	0.19	0.43	0.43	0.36	1.00
Sat Flow, veh/h	387	1160	5024	1510	1697	5024
Grp Volume(v), veh/h	241	0	2090	20	20	1100
Grp Sat Flow(s),veh/h/ln	1553	0	1621	1510	1697	1621
Q Serve(g_s), s	9.0	0.0	25.6	0.5	0.5	0.0
Cycle Q Clear(g_c), s	9.0	0.0	25.6	0.5	0.5	0.0
Prop In Lane	0.25	0.75		1.00	1.00	
Lane Grp Cap(c), veh/h	290	0	2107	654	306	3308
V/C Ratio(X)	0.83	0.00	0.99	0.03	0.07	0.33
Avail Cap(c_a), veh/h	466	0	2107	654	306	3308
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.84	0.84	0.89	0.89
Uniform Delay (d), s/veh	23.5	0.0	16.9	9.8	15.9	0.0
Incr Delay (d2), s/veh	6.9	0.0	16.1	0.1	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.0	10.3	0.1	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.4	0.0	33.0	9.8	16.0	0.2
LnGrp LOS	C	A	C	A	B	A
Approach Vol, veh/h	241		2110			1120
Approach Delay, s/veh	30.4		32.8			0.5
Approach LOS	C		C			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	4.8	30.0			44.8	15.2
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	4.0	26.0			34.0	18.0
Max Q Clear Time (g_c+1), s	12.5	27.6			2.0	11.0
Green Ext Time (p_c), s	0.0	0.0			8.5	0.4

Intersection Summary

HCM 6th Ctrl Delay	22.2
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)	110	30	1040	2000	670	460
Future Volume (veh/h)	110	30	1040	2000	670	460
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	110	30	1040	2000	670	460
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	153	136	1585	3870	1251	388
Arrive On Green	0.09	0.09	0.48	0.80	0.26	0.26
Sat Flow, veh/h	1697	1510	3291	5024	5024	1510
Grp Volume(v), veh/h	110	30	1040	2000	670	460
Grp Sat Flow(s),veh/h/ln	1697	1510	1646	1621	1621	1510
Q Serve(g_s), s	4.4	1.3	16.8	10.0	8.3	18.0
Cycle Q Clear(g_c), s	4.4	1.3	16.8	10.0	8.3	18.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	153	136	1585	3870	1251	388
V/C Ratio(X)	0.72	0.22	0.66	0.52	0.54	1.18
Avail Cap(c_a), veh/h	436	388	1585	3870	1251	388
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.50	0.50	0.93	0.93
Uniform Delay (d), s/veh	31.0	29.6	13.8	2.5	22.4	26.0
Incr Delay (d2), s/veh	6.3	0.8	0.5	0.2	1.5	105.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.1	5.0	0.5	3.0	17.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.3	30.4	14.3	2.7	23.9	131.1
LnGrp LOS	D	C	B	A	C	F
Approach Vol, veh/h	140			3040	1130	
Approach Delay, s/veh	35.8			6.7	67.6	
Approach LOS	D			A	E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		59.7		10.3	37.7	22.0
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		44.0		18.0	22.0	18.0
Max Q Clear Time (g_c+I1), s		12.0		6.4	18.8	20.0
Green Ext Time (p_c), s		13.9		0.3	1.6	0.0
Intersection Summary						
HCM 6th Ctrl Delay			23.6			
HCM 6th LOS			C			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↑↑	↗	↘	↑↑↑
Traffic Volume (veh/h)	70	70	2970	50	10	690
Future Volume (veh/h)	70	70	2970	50	10	690
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	70	70	2970	50	10	690
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	86	86	3025	939	232	3905
Arrive On Green	0.11	0.11	0.62	0.62	0.14	0.80
Sat Flow, veh/h	794	794	5024	1510	1697	5024
Grp Volume(v), veh/h	141	0	2970	50	10	690
Grp Sat Flow(s),veh/h/ln	1599	0	1621	1510	1697	1621
Q Serve(g_s), s	7.8	0.0	53.4	1.2	0.5	2.9
Cycle Q Clear(g_c), s	7.8	0.0	53.4	1.2	0.5	2.9
Prop In Lane	0.50	0.50		1.00	1.00	
Lane Grp Cap(c), veh/h	173	0	3025	939	232	3905
V/C Ratio(X)	0.82	0.00	0.98	0.05	0.04	0.18
Avail Cap(c_a), veh/h	320	0	3026	939	232	3905
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.09	0.09	0.93	0.93
Uniform Delay (d), s/veh	39.3	0.0	16.5	6.6	33.8	2.0
Incr Delay (d2), s/veh	9.0	0.0	2.3	0.0	0.1	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	8.3	0.0	15.7	0.3	0.2	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.2	0.0	18.8	6.7	33.8	2.1
LnGrp LOS	D	A	B	A	C	A
Approach Vol, veh/h	141		3020			700
Approach Delay, s/veh	48.2		18.6			2.6
Approach LOS	D		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	66.3	60.0			76.3	13.7
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	4.0	56.0			64.0	18.0
Max Q Clear Time (g_c+1/2), s	12.5	55.4			4.9	9.8
Green Ext Time (p_c), s	0.0	0.6			3.4	0.3

Intersection Summary

HCM 6th Ctrl Delay	16.8
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Tracy Transportation Master Plan Update
 39: Lammers Road & Valpico Road

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘	↑↑↑	↗	↘	↑↑↑	↗
Traffic Volume (veh/h)	10	60	10	20	700	640	70	2380	10	20	710	40
Future Volume (veh/h)	10	60	10	20	700	640	70	2380	10	20	710	40
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	60	10	20	700	640	70	2380	10	20	710	40
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	16	551	974	57	594	615	570	2188	730	125	915	298
Arrive On Green	0.01	0.31	0.31	0.03	0.33	0.33	0.67	0.90	0.90	0.07	0.19	0.19
Sat Flow, veh/h	1697	1781	1510	1697	1781	1510	1697	4863	1510	1697	4863	1510
Grp Volume(v), veh/h	10	60	10	20	700	640	70	2380	10	20	710	40
Grp Sat Flow(s),veh/h/ln	1697	1781	1510	1697	1781	1510	1697	1621	1510	1697	1621	1510
Q Serve(g_s), s	0.7	2.9	0.1	1.4	40.0	40.0	1.8	54.0	0.1	1.3	16.7	1.5
Cycle Q Clear(g_c), s	0.7	2.9	0.1	1.4	40.0	40.0	1.8	54.0	0.1	1.3	16.7	1.5
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	16	551	974	57	594	615	570	2188	730	125	915	298
V/C Ratio(X)	0.62	0.11	0.01	0.35	1.18	1.04	0.12	1.09	0.01	0.16	0.78	0.13
Avail Cap(c_a), veh/h	57	551	974	254	594	615	570	2188	730	125	2026	643
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.24	0.24	0.24	0.57	0.57	0.57	0.98	0.98	0.98
Uniform Delay (d), s/veh	59.2	29.6	3.2	56.7	40.0	35.6	13.4	6.0	1.4	52.1	46.3	39.7
Incr Delay (d2), s/veh	33.6	0.1	0.0	0.9	85.0	29.6	0.1	44.5	0.0	0.6	6.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.3	0.0	0.6	31.2	18.8	0.7	11.3	0.0	0.6	7.2	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.8	29.7	3.2	57.6	125.0	65.2	13.4	50.5	1.4	52.7	52.6	40.6
LnGrp LOS	F	C	A	E	F	F	B	F	A	D	D	D
Approach Vol, veh/h		80			1360			2460			770	
Approach Delay, s/veh		34.3			95.9			49.3			52.0	
Approach LOS		C			F			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.9	58.0	8.0	41.1	44.3	26.6	5.1	44.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	60.0	54.0	18.0	26.0	10.0	50.0	4.0	40.0				
Max Q Clear Time (g_c+1/3), s	13.3	56.0	3.4	4.9	3.8	18.7	2.7	42.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.1	3.9	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	63.0
HCM 6th LOS	E



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↑↑	↗	↘	↑↑↑
Traffic Volume (veh/h)	10	410	2040	10	10	720
Future Volume (veh/h)	10	410	2040	10	10	720
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	410	2040	10	10	720
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	9	369	2308	716	128	2999
Arrive On Green	0.25	0.25	0.47	0.47	0.15	1.00
Sat Flow, veh/h	36	1475	5024	1510	1697	5024
Grp Volume(v), veh/h	421	0	2040	10	10	720
Grp Sat Flow(s),veh/h/ln	1514	0	1621	1510	1697	1621
Q Serve(g_s), s	15.0	0.0	22.8	0.1	0.3	0.0
Cycle Q Clear(g_c), s	15.0	0.0	22.8	0.1	0.3	0.0
Prop In Lane	0.02	0.97		1.00	1.00	
Lane Grp Cap(c), veh/h	379	0	2308	716	128	2999
V/C Ratio(X)	1.11	0.00	0.88	0.01	0.08	0.24
Avail Cap(c_a), veh/h	379	0	2351	730	128	2999
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	0.73	0.00	1.00	1.00	0.86	0.86
Uniform Delay (d), s/veh	22.5	0.0	14.3	0.6	23.7	0.0
Incr Delay (d2), s/veh	74.0	0.0	5.4	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	0.0	7.2	0.1	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	96.5	0.0	19.7	0.6	23.9	0.2
LnGrp LOS	F	A	B	A	C	A
Approach Vol, veh/h	421		2050			730
Approach Delay, s/veh	96.5		19.6			0.5
Approach LOS	F		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.5	32.5			41.0	19.0
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	4.0	29.0			37.0	15.0
Max Q Clear Time (g_c+1/3), s	12.3	24.8			2.0	17.0
Green Ext Time (p_c), s	0.0	3.7			5.1	0.0

Intersection Summary

HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Tracy Transportation Master Plan Update
 41: Lammers Road/Lammers Rd & Hansen Rd/Ellis Town Dr

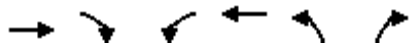
Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘	↑↑↑	↗	↘	↑↑↑	↗
Traffic Volume (veh/h)	10	40	160	40	320	160	520	1880	10	60	670	10
Future Volume (veh/h)	10	40	160	40	320	160	520	1880	10	60	670	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	40	160	40	320	160	520	1880	10	60	670	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	17	237	201	140	367	311	689	2627	815	75	880	13
Arrive On Green	0.01	0.13	0.13	0.08	0.21	0.21	0.41	0.54	0.54	0.04	0.18	0.18
Sat Flow, veh/h	1697	1781	1510	1697	1781	1510	1697	4863	1510	1697	4937	74
Grp Volume(v), veh/h	10	40	160	40	320	160	520	1880	10	60	440	240
Grp Sat Flow(s),veh/h/ln	1697	1781	1510	1697	1781	1510	1697	1621	1510	1697	1621	1768
Q Serve(g_s), s	0.5	1.6	8.2	1.8	13.9	6.2	21.0	23.2	0.1	2.8	10.3	10.3
Cycle Q Clear(g_c), s	0.5	1.6	8.2	1.8	13.9	6.2	21.0	23.2	0.1	2.8	10.3	10.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	17	237	201	140	367	311	689	2627	815	75	578	315
V/C Ratio(X)	0.59	0.17	0.80	0.28	0.87	0.52	0.76	0.72	0.01	0.80	0.76	0.76
Avail Cap(c_a), veh/h	85	401	340	140	401	340	689	2627	815	106	729	398
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	1.00	1.00	1.00	1.00	1.00	0.14	0.14	0.14	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.4	30.8	33.6	34.5	30.8	18.9	20.4	13.8	3.1	37.9	31.2	31.3
Incr Delay (d2), s/veh	28.8	0.3	7.1	1.1	17.7	1.3	0.7	0.2	0.0	24.1	9.1	15.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.7	3.3	0.8	7.6	2.7	7.4	6.9	0.1	1.6	4.5	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.2	31.1	40.7	35.6	48.4	20.2	21.0	14.0	3.1	62.0	40.3	47.2
LnGrp LOS	E	C	D	D	D	C	C	B	A	E	D	D
Approach Vol, veh/h		210			520			2410			740	
Approach Delay, s/veh		40.2			38.8			15.5			44.3	
Approach LOS		D			D			B			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	47.2	10.6	14.6	36.5	18.3	4.8	20.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	5.0	37.0	4.0	18.0	24.0	18.0	4.0	18.0				
Max Q Clear Time (g_c+I), s	14.8	25.2	3.8	10.2	23.0	12.3	2.5	15.9				
Green Ext Time (p_c), s	0.0	8.8	0.0	0.4	0.2	1.9	0.0	0.5				

Intersection Summary

HCM 6th Ctrl Delay	25.4
HCM 6th LOS	C



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Volume (veh/h)	450	10	10	1510	240	10
Future Volume (veh/h)	450	10	10	1510	240	10
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	450	10	10	1510	240	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	1517	676	17	1777	580	516
Arrive On Green	0.45	0.45	0.01	0.52	0.34	0.34
Sat Flow, veh/h	3474	1510	1697	3474	1697	1510
Grp Volume(v), veh/h	450	10	10	1510	240	10
Grp Sat Flow(s),veh/h/ln	1692	1510	1697	1692	1697	1510
Q Serve(g_s), s	5.1	0.2	0.4	23.0	6.5	0.3
Cycle Q Clear(g_c), s	5.1	0.2	0.4	23.0	6.5	0.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1517	676	17	1777	580	516
V/C Ratio(X)	0.30	0.01	0.58	0.85	0.41	0.02
Avail Cap(c_a), veh/h	1517	676	113	1918	580	516
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	9.2	29.6	12.2	15.1	13.1
Incr Delay (d2), s/veh	0.1	0.0	26.7	3.6	2.2	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	1.7	0.1	0.3	7.8	2.6	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.6	9.2	56.2	15.9	17.3	13.2
LnGrp LOS	B	A	E	B	B	B
Approach Vol, veh/h	460			1520	250	
Approach Delay, s/veh	10.6			16.1	17.2	
Approach LOS	B			B	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		24.5	4.6	30.9		35.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s		18.0	4.0	26.0		34.0
Max Q Clear Time (g_c+I1), s		8.5	2.4	7.1		25.0
Green Ext Time (p_c), s		0.5	0.0	2.9		6.5
Intersection Summary						
HCM 6th Ctrl Delay			15.1			
HCM 6th LOS			B			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	←←←←		↑↑↑↑	←	←	↑↑↑↑
Traffic Volume (veh/h)	1370	380	2020	290	160	700
Future Volume (veh/h)	1370	380	2020	290	160	700
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	1167	598	2020	290	160	700
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	1188	528	2091	649	170	2772
Arrive On Green	0.35	0.35	0.43	0.43	0.10	0.57
Sat Flow, veh/h	3393	1510	5024	1510	1697	5024
Grp Volume(v), veh/h	1167	598	2020	290	160	700
Grp Sat Flow(s),veh/h/ln	1697	1510	1621	1510	1697	1621
Q Serve(g_s), s	34.1	35.0	40.5	13.6	9.4	7.2
Cycle Q Clear(g_c), s	34.1	35.0	40.5	13.6	9.4	7.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	1188	528	2091	649	170	2772
V/C Ratio(X)	0.98	1.13	0.97	0.45	0.94	0.25
Avail Cap(c_a), veh/h	1188	528	2091	649	170	2772
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.58	0.58	0.26	0.26	0.87	0.87
Uniform Delay (d), s/veh	32.2	32.5	27.8	20.1	44.7	10.8
Incr Delay (d2), s/veh	15.9	73.1	4.8	0.6	48.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.1	23.1	15.1	4.5	6.1	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.1	105.6	32.6	20.7	93.0	11.0
LnGrp LOS	D	F	C	C	F	B
Approach Vol, veh/h	1765		2310			860
Approach Delay, s/veh	67.6		31.1			26.2
Approach LOS	E		C			C
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	4.0	47.0			61.0	39.0
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	4.0	43.0			57.0	35.0
Max Q Clear Time (g_c+I1), s	4.0	42.5			9.2	37.0
Green Ext Time (p_c), s	0.0	0.5			5.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	43.3
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘	↑↑	↗	↘↗	↑↑	↗
Traffic Volume (veh/h)	270	10	110	190	10	720	10	1330	80	320	1730	30
Future Volume (veh/h)	270	10	110	190	10	720	10	1330	80	320	1730	30
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	270	10	110	190	10	720	10	1330	80	320	1730	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	269	135	129	318	187	766	16	1422	917	603	2010	1136
Arrive On Green	0.16	0.08	0.08	0.19	0.10	0.10	0.01	0.56	0.56	0.18	0.59	0.59
Sat Flow, veh/h	1697	1781	1510	1697	1781	2657	1697	3385	1510	3291	3385	1510
Grp Volume(v), veh/h	270	10	110	190	10	720	10	1330	80	320	1730	30
Grp Sat Flow(s),veh/h/ln	1697	1781	1510	1697	1781	1329	1697	1692	1510	1646	1692	1510
Q Serve(g_s), s	19.0	0.6	6.9	12.3	0.6	8.5	0.7	43.6	0.0	10.6	50.9	0.6
Cycle Q Clear(g_c), s	19.0	0.6	6.9	12.3	0.6	8.5	0.7	43.6	0.0	10.6	50.9	0.6
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	269	135	129	318	187	766	16	1422	917	603	2010	1136
V/C Ratio(X)	1.01	0.07	0.85	0.60	0.05	0.94	0.62	0.94	0.09	0.53	0.86	0.03
Avail Cap(c_a), veh/h	269	297	266	318	267	885	57	1495	950	603	2010	1136
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.73	0.73	0.73	0.46	0.46	0.46
Uniform Delay (d), s/veh	50.5	51.5	36.8	44.6	48.3	20.0	59.0	25.0	7.3	44.3	20.2	3.8
Incr Delay (d2), s/veh	56.2	0.2	14.5	3.1	0.1	16.3	25.5	9.9	0.1	0.4	2.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.2	0.3	3.1	5.4	0.3	7.8	0.4	15.8	0.7	4.2	18.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	106.7	51.8	51.2	47.7	48.5	36.3	84.6	34.9	7.5	44.8	22.7	3.8
LnGrp LOS	F	D	D	D	D	D	F	C	A	D	C	A
Approach Vol, veh/h		390			920			1420			2080	
Approach Delay, s/veh		89.7			38.8			33.7			25.8	
Approach LOS		F			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	36.0	54.4	26.5	13.1	5.1	75.3	23.0	16.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	14.0	53.0	17.0	20.0	4.0	63.0	19.0	18.0				
Max Q Clear Time (g_c+1/2g), s	11.0	45.6	14.3	8.9	2.7	52.9	21.0	10.5				
Green Ext Time (p_c), s	0.2	4.9	0.1	0.2	0.0	7.5	0.0	2.0				
Intersection Summary												
HCM 6th Ctrl Delay											35.8	
HCM 6th LOS											D	

Tracy Transportation Master Plan Update
 45: Lammers Rd & I-580 WB On-Ramp/I-580 WB Off-Ramp

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↗	↖	↕			↕	↗
Traffic Volume (veh/h)	0	0	0	10	0	630	120	780	0	0	470	1540
Future Volume (veh/h)	0	0	0	10	0	630	120	780	0	0	470	1540
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		No		
Adj Sat Flow, veh/h/ln				1781	1781	1781	1781	1781	0	0	1781	1781
Adj Flow Rate, veh/h				10	0	630	120	780	0	0	470	1540
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				8	8	8	8	8	0	0	8	8
Cap, veh/h				566	0	503	127	2031	0	0	1664	1306
Arrive On Green				0.33	0.00	0.33	0.08	0.60	0.00	0.00	0.82	0.82
Sat Flow, veh/h				1697	0	1510	1697	3474	0	0	3474	2657
Grp Volume(v), veh/h				10	0	630	120	780	0	0	470	1540
Grp Sat Flow(s),veh/h/ln				1697	0	1510	1697	1692	0	0	1692	1329
Q Serve(g_s), s				0.5	0.0	40.0	8.4	14.4	0.0	0.0	3.9	59.0
Cycle Q Clear(g_c), s				0.5	0.0	40.0	8.4	14.4	0.0	0.0	3.9	59.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				566	0	503	127	2031	0	0	1664	1306
V/C Ratio(X)				0.02	0.00	1.25	0.94	0.38	0.00	0.00	0.28	1.18
Avail Cap(c_a), veh/h				566	0	503	127	2031	0	0	1664	1306
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67
Upstream Filter(I)				1.00	0.00	1.00	0.68	0.68	0.00	0.00	0.54	0.54
Uniform Delay (d), s/veh				26.8	0.0	40.0	55.2	12.5	0.0	0.0	5.8	10.7
Incr Delay (d2), s/veh				0.0	0.0	129.0	49.5	0.4	0.0	0.0	0.2	85.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.2	0.0	32.6	5.3	5.1	0.0	0.0	1.2	19.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				26.8	0.0	169.0	104.7	12.9	0.0	0.0	6.0	95.8
LnGrp LOS				C	A	F	F	B	A	A	A	F
Approach Vol, veh/h					640			900			2010	
Approach Delay, s/veh					166.8			25.1			74.8	
Approach LOS					F			C			E	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		76.0			13.0	63.0		44.0				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		72.0			9.0	59.0		40.0				
Max Q Clear Time (g_c+I1), s		16.4			10.4	61.0		42.0				
Green Ext Time (p_c), s		5.8			0.0	0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	78.8
HCM 6th LOS	E

Notes

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

Tracy Transportation Master Plan Update
 46: Lammers Rd & I-580 EB Off-Ramp/I-580 EB On-Ramp

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	0	30	0	0	0	0	800	60	350	120	0
Future Volume (veh/h)	100	0	30	0	0	0	0	800	60	350	120	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	1781	1781	1781				0	1781	1781	1781	1781	0
Adj Flow Rate, veh/h	100	0	30				0	800	60	350	120	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8				0	8	8	8	8	0
Cap, veh/h	267	0	119				0	1116	84	433	2405	0
Arrive On Green	0.08	0.00	0.08				0.00	0.35	0.35	0.26	0.71	0.00
Sat Flow, veh/h	3393	0	1510				0	3280	239	1697	3474	0
Grp Volume(v), veh/h	100	0	30				0	424	436	350	120	0
Grp Sat Flow(s),veh/h/ln	1697	0	1510				0	1692	1738	1697	1692	0
Q Serve(g_s), s	1.1	0.0	0.7				0.0	8.3	8.3	7.3	0.4	0.0
Cycle Q Clear(g_c), s	1.1	0.0	0.7				0.0	8.3	8.3	7.3	0.4	0.0
Prop In Lane	1.00		1.00				0.00		0.14	1.00		0.00
Lane Grp Cap(c), veh/h	267	0	119				0	592	608	433	2405	0
V/C Ratio(X)	0.37	0.00	0.25				0.00	0.72	0.72	0.81	0.05	0.00
Avail Cap(c_a), veh/h	2594	0	1154				0	803	825	716	3390	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	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.6	0.0	16.4				0.0	10.7	10.7	13.2	1.6	0.0
Incr Delay (d2), s/veh	0.9	0.0	1.1				0.0	2.0	1.9	3.6	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	0.4	0.0	0.2				0.0	2.2	2.2	2.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.5	0.0	17.5				0.0	12.7	12.6	16.9	1.7	0.0
LnGrp LOS	B	A	B				A	B	B	B	A	A
Approach Vol, veh/h		130						860			470	
Approach Delay, s/veh		17.5						12.7			13.0	
Approach LOS		B						B			B	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	13.7	17.3	7.0	31.0								
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0								
Max Green Setting (Gmax), s	16.0	18.0	29.0	38.0								
Max Q Clear Time (g_c+I), s	19.3	10.3	3.1	2.4								
Green Ext Time (p_c), s	0.6	3.0	0.4	0.7								

Intersection Summary

HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection						
Int Delay, s/veh	7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↔	↔	
Traffic Vol, veh/h	10	310	240	10	130	220
Future Vol, veh/h	10	310	240	10	130	220
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, %	8	8	8	8	8	8
Mvmt Flow	10	310	240	10	130	220
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	730	240	350	0	-	0
Stage 1	240	-	-	-	-	-
Stage 2	490	-	-	-	-	-
Critical Hdwy	6.48	6.28	4.18	-	-	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	2.272	-	-	-
Pot Cap-1 Maneuver	381	784	1176	-	-	-
Stage 1	786	-	-	-	-	-
Stage 2	604	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	303	784	1176	-	-	-
Mov Cap-2 Maneuver	303	-	-	-	-	-
Stage 1	625	-	-	-	-	-
Stage 2	604	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	13.4	8.5	0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1176	-	747	-	-	
HCM Lane V/C Ratio	0.204	-	0.428	-	-	
HCM Control Delay (s)	8.8	0	13.4	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.8	-	2.2	-	-	

Tracy Transportation Master Plan Update
48: Naglee Rd & Auto Plaza Dr

Future 2042
Timing Plan: AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	240	10	1560	1100	10	10	10	10	10	730	440
Future Volume (veh/h)	10	240	10	1560	1100	10	10	10	10	10	730	440
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	240	10	1560	1100	10	10	10	10	10	730	440
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	16	325	159	1650	1989	902	16	824	1124	16	824	382
Arrive On Green	0.01	0.10	0.10	0.50	0.59	0.59	0.01	0.24	0.24	0.01	0.24	0.24
Sat Flow, veh/h	1697	3385	1510	3291	3385	1510	1697	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	10	240	10	1560	1100	10	10	10	10	10	730	440
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1646	1692	1510	1697	1692	1510	1697	1692	1510
Q Serve(g_s), s	0.6	7.4	0.6	48.0	21.2	0.3	0.6	0.2	0.2	0.6	22.2	26.0
Cycle Q Clear(g_c), s	0.6	7.4	0.6	48.0	21.2	0.3	0.6	0.2	0.2	0.6	22.2	26.0
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	16	325	159	1650	1989	902	16	824	1124	16	824	382
V/C Ratio(X)	0.61	0.74	0.06	0.95	0.55	0.01	0.61	0.01	0.01	0.61	0.89	1.15
Avail Cap(c_a), veh/h	365	570	269	1726	1989	902	64	824	1124	64	824	382
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	1.00	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	52.7	47.0	43.0	25.3	13.5	8.7	52.7	30.7	3.5	52.7	39.0	39.9
Incr Delay (d2), s/veh	31.9	3.3	0.2	11.1	0.3	0.0	31.9	0.0	0.0	31.9	11.4	94.3
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	0.4	3.2	0.2	19.9	7.5	0.1	0.4	0.1	0.0	0.4	10.3	19.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.6	50.3	43.2	36.4	13.8	8.7	84.6	30.7	3.5	84.6	50.4	134.1
LnGrp LOS	F	D	D	D	B	A	F	C	A	F	D	F
Approach Vol, veh/h		260			2670			30			1180	
Approach Delay, s/veh		51.3			27.0			39.6			81.9	
Approach LOS		D			C			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	30.0	57.5	14.3	5.0	30.0	5.0	66.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	26.0	56.0	18.0	4.0	26.0	23.0	51.0				
Max Q Clear Time (g_c+I1), s	2.6	2.2	50.0	9.4	2.6	28.0	2.6	23.2				
Green Ext Time (p_c), s	0.0	0.0	3.5	0.9	0.0	0.0	0.0	9.1				
Intersection Summary												
HCM 6th Ctrl Delay			44.2									
HCM 6th LOS			D									

Tracy Transportation Master Plan Update
 49: I-205 WB Ramps/Pavilion Pkwy & Naglee Rd

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↑↑↑			↖↖↖	↑	↖	↖	↑	↖
Traffic Volume (veh/h)	40	10	3580	1240	400	60	40	60	10	10	1190	70
Future Volume (veh/h)	40	10	3580	1240	400	60	40	60	10	10	1190	70
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	40	10	3580	1240	400	60	40	60	10	10	1190	70
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	87	1503	728	86	2005	294	172	639	626	19	595	558
Arrive On Green	0.03	0.44	0.44	0.05	0.47	0.46	0.04	0.36	0.36	0.01	0.33	0.33
Sat Flow, veh/h	3291	3385	1510	1697	4283	628	4784	1781	1510	1697	1781	1510
Grp Volume(v), veh/h	40	10	3580	1240	301	159	40	60	10	10	1190	70
Grp Sat Flow(s),veh/h/ln	1646	1692	1510	1697	1621	1668	1595	1781	1510	1697	1781	1510
Q Serve(g_s), s	1.4	0.2	52.5	6.0	6.4	6.7	1.0	2.6	0.5	0.7	39.5	3.6
Cycle Q Clear(g_c), s	1.4	0.2	52.5	6.0	6.4	6.7	1.0	2.6	0.5	0.7	39.5	3.6
Prop In Lane	1.00		1.00	1.00		0.38	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	87	1503	728	86	1518	781	172	639	626	19	595	558
V/C Ratio(X)	0.46	0.01	4.91	14.40	0.20	0.20	0.23	0.09	0.02	0.53	2.00	0.13
Avail Cap(c_a), veh/h	122	1503	728	86	1518	781	243	639	626	60	595	558
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	1.00	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	56.7	18.3	30.6	56.1	18.4	18.6	55.4	25.2	20.4	58.2	39.4	24.6
Incr Delay (d2), s/veh	3.7	0.0	176.8	60.5	4.6	0.1	0.1	0.8	0.1	0.0	20.9	455.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.1	376.6	147.3	2.4	2.6	0.4	1.1	0.2	0.4	91.7	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.5	18.3	1795.4	6110.7	18.5	18.7	56.2	25.2	20.4	79.1	495.3	24.7
LnGrp LOS	E	B	F	F	B	B	E	C	C	E	F	C
Approach Vol, veh/h		3630			1700			110			1270	
Approach Delay, s/veh		1771.4			4462.3			36.1			466.1	
Approach LOS		F			F			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	56.5	8.3	43.5	7.1	59.4	5.3	46.4				
Change Period (Y+Rc), s	4.7	4.9	4.6	5.3	*4.2	4.9	*4.2	5.3				
Max Green Setting (Gmax), s	15.3	51.6	5.4	38.2	*4.2	53.2	*4	40.0				
Max Q Clear Time (g_c+10), s	10.0	54.5	3.0	41.5	3.4	8.7	2.7	4.6				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay	2177.6
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↑↑↑ ↗			↖	↗		↖	↑	↗
Traffic Volume (veh/h)	110	3610	10	10	440	80	10	10	10	20	10	90
Future Volume (veh/h)	110	3610	10	10	440	80	10	10	10	20	10	90
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	110	3610	10	10	440	80	10	10	10	20	10	90
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	148	3118	9	33	2305	409	33	103	103	59	252	346
Arrive On Green	0.09	0.62	0.62	0.02	0.55	0.55	0.02	0.13	0.13	0.03	0.14	0.14
Sat Flow, veh/h	1697	5007	14	1697	4154	737	1697	817	817	1697	1781	1510
Grp Volume(v), veh/h	110	2336	1284	10	341	179	10	0	20	20	10	90
Grp Sat Flow(s),veh/h/ln	1697	1621	1779	1697	1621	1649	1697	0	1634	1697	1781	1510
Q Serve(g_s), s	5.8	57.0	57.0	0.5	4.8	5.0	0.5	0.0	1.0	1.1	0.4	4.5
Cycle Q Clear(g_c), s	5.8	57.0	57.0	0.5	4.8	5.0	0.5	0.0	1.0	1.1	0.4	4.5
Prop In Lane	1.00		0.01	1.00		0.45	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	148	2019	1108	33	1799	915	33	0	206	59	252	346
V/C Ratio(X)	0.74	1.16	1.16	0.30	0.19	0.20	0.30	0.00	0.10	0.34	0.04	0.26
Avail Cap(c_a), veh/h	293	2019	1108	148	1799	915	148	0	518	148	564	610
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.8	17.3	17.3	44.3	10.1	10.2	44.3	0.0	35.4	43.1	33.9	28.9
Incr Delay (d2), s/veh	2.7	76.8	81.9	1.8	0.1	0.1	1.8	0.0	0.1	1.2	0.0	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	2.5	38.9	44.3	0.2	1.6	1.7	0.2	0.0	0.4	0.5	0.2	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.5	94.1	99.1	46.1	10.2	10.3	46.1	0.0	35.5	44.4	34.0	29.1
LnGrp LOS	D	F	F	D	B	B	D	A	D	D	C	C
Approach Vol, veh/h		3730			530			30			120	
Approach Delay, s/veh		94.3			10.9			39.0			32.0	
Approach LOS		F			B			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.3	61.5	6.3	17.5	12.5	55.3	7.7	16.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.0	57.0	8.0	29.0	15.8	49.2	8.0	29.0				
Max Q Clear Time (g_c+1), s	12.5	59.0	2.5	6.5	7.8	7.0	3.1	3.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	4.4	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	82.2
HCM 6th LOS	F

Notes

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

Tracy Transportation Master Plan Update
 51: I-205 WB On Ramp/Naglee Rd & Grant Line Rd

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖		↑↑↑	↖				↖	↖	↖
Traffic Volume (veh/h)	170	800	1200	0	890	3550	0	0	0	100	350	80
Future Volume (veh/h)	170	800	1200	0	890	3550	0	0	0	100	350	80
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	1781	1781	0	1781	1781				1781	1781	1781
Adj Flow Rate, veh/h	170	800	1200	0	890	0				100	350	80
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	0	8	8				8	8	8
Cap, veh/h	256	2209	985	0	2534					420	441	499
Arrive On Green	0.08	0.65	0.65	0.00	0.52	0.00				0.25	0.25	0.25
Sat Flow, veh/h	3291	3385	1510	0	5024	1510				1697	1781	1510
Grp Volume(v), veh/h	170	800	1200	0	890	0				100	350	80
Grp Sat Flow(s),veh/h/ln	1646	1692	1510	0	1621	1510				1697	1781	1510
Q Serve(g_s), s	3.7	8.0	48.4	0.0	8.0	0.0				3.5	13.6	2.8
Cycle Q Clear(g_c), s	3.7	8.0	48.4	0.0	8.0	0.0				3.5	13.6	2.8
Prop In Lane	1.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	256	2209	985	0	2534					420	441	499
V/C Ratio(X)	0.66	0.36	1.22	0.00	0.35					0.24	0.79	0.16
Avail Cap(c_a), veh/h	275	2209	985	0	2534					897	942	924
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	1.00	1.00	0.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	5.9	12.9	0.0	10.4	0.0				22.3	26.1	17.5
Incr Delay (d2), s/veh	5.4	0.2	107.3	0.0	0.2	0.0				0.3	3.3	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
%ile BackOfQ(50%),veh/ln	1.6	2.1	40.2	0.0	2.4	0.0				1.3	5.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.6	6.1	120.2	0.0	10.6	0.0				22.6	29.4	17.7
LnGrp LOS	D	A	F	A	B					C	C	B
Approach Vol, veh/h		2170			890	A					530	
Approach Delay, s/veh		71.8			10.6						26.4	
Approach LOS		E			B						C	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		52.4		21.8	9.8	42.6						
Change Period (Y+Rc), s		5.3		4.0	* 4.2	5.3						
Max Green Setting (Gmax), s		47.1		38.6	* 6	36.9						
Max Q Clear Time (g_c+I1), s		50.4		15.6	5.7	10.0						
Green Ext Time (p_c), s		0.0		2.1	0.0	10.2						

Intersection Summary

HCM 6th Ctrl Delay	49.9
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

DRAFT



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑↑	↗	↘		↗			
Traffic Volume (veh/h)	680	230	0	0	4280	10	160	0	850	0	0	0
Future Volume (veh/h)	680	230	0	0	4280	10	160	0	850	0	0	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	1781	1781	0	0	1781	1781	1781	0	1781			
Adj Flow Rate, veh/h	680	230	0	0	4280	0	160	0	850			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	8	8	0	0	8	8	8	0	8			
Cap, veh/h	283	2056	0	0	1982		553	0	492			
Arrive On Green	0.17	0.61	0.00	0.00	0.41	0.00	0.33	0.00	0.33			
Sat Flow, veh/h	1697	3474	0	0	5024	1510	1697	0	1510			
Grp Volume(v), veh/h	680	230	0	0	4280	0	160	0	850			
Grp Sat Flow(s),veh/h/ln	1697	1692	0	0	1621	1510	1697	0	1510			
Q Serve(g_s), s	20.0	3.4	0.0	0.0	48.9	0.0	8.4	0.0	39.1			
Cycle Q Clear(g_c), s	20.0	3.4	0.0	0.0	48.9	0.0	8.4	0.0	39.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	283	2056	0	0	1982		553	0	492			
V/C Ratio(X)	2.40	0.11	0.00	0.00	2.16		0.29	0.00	1.73			
Avail Cap(c_a), veh/h	283	2056	0	0	1982		553	0	492			
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	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	50.0	9.9	0.0	0.0	35.6	0.0	30.1	0.0	40.4			
Incr Delay (d2), s/veh	642.9	0.0	0.0	0.0	523.5	0.0	0.8	0.0	336.0			
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	58.8	1.2	0.0	0.0	114.4	0.0	3.6	0.0	60.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	692.9	10.0	0.0	0.0	559.1	0.0	30.9	0.0	376.5			
LnGrp LOS	F	A	A	A	F		C	A	F			
Approach Vol, veh/h		910			4280	A		1010				
Approach Delay, s/veh		520.3			559.1			321.8				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		76.9			24.0	52.9		43.1				
Change Period (Y+Rc), s		5.3			* 4.2	5.3		4.2				
Max Green Setting (Gmax), s		71.6			* 20	47.6		38.9				
Max Q Clear Time (g_c+1), s		5.4			22.0	50.9		41.1				
Green Ext Time (p_c), s		1.6			0.0	0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	514.7
HCM 6th LOS	F

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
- Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Tracy Transportation Master Plan Update
 53: Crossroads Dr & Eleventh St

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑↑	↗	↖	↑	↗	↖	↗	↖
Traffic Volume (veh/h)	40	1020	70	30	3780	40	550	160	270	60	20	70
Future Volume (veh/h)	40	1020	70	30	3780	40	550	160	270	60	20	70
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	40	1020	70	30	3780	40	550	160	270	60	20	70
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	92	2254	700	78	2211	686	263	379	321	112	43	151
Arrive On Green	0.05	0.46	0.46	0.05	0.45	0.45	0.16	0.21	0.21	0.07	0.12	0.12
Sat Flow, veh/h	1697	4863	1510	1697	4863	1510	1697	1781	1510	1697	347	1215
Grp Volume(v), veh/h	40	1020	70	30	3780	40	550	160	270	60	0	90
Grp Sat Flow(s),veh/h/ln	1697	1621	1510	1697	1621	1510	1697	1781	1510	1697	0	1563
Q Serve(g_s), s	2.2	13.8	2.5	1.7	44.0	1.4	15.0	7.5	16.6	3.3	0.0	5.2
Cycle Q Clear(g_c), s	2.2	13.8	2.5	1.7	44.0	1.4	15.0	7.5	16.6	3.3	0.0	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	92	2254	700	78	2211	686	263	379	321	112	0	194
V/C Ratio(X)	0.43	0.45	0.10	0.39	1.71	0.06	2.09	0.42	0.84	0.53	0.00	0.46
Avail Cap(c_a), veh/h	149	2254	700	149	2211	686	263	679	576	177	0	517
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.3	17.6	14.6	44.9	26.4	14.8	40.9	32.9	36.5	43.7	0.0	39.4
Incr Delay (d2), s/veh	1.2	0.2	0.1	1.2	321.2	0.0	503.9	0.7	5.9	1.5	0.0	1.3
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	0.9	4.7	0.8	0.7	80.8	0.5	42.9	3.3	6.5	1.4	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.5	17.8	14.7	46.0	347.6	14.8	544.8	33.7	42.4	45.2	0.0	40.7
LnGrp LOS	D	B	B	D	F	B	F	C	D	D	A	D
Approach Vol, veh/h		1130			3850			980				150
Approach Delay, s/veh		18.6			341.8			322.9				42.5
Approach LOS		B			F			F				D
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	50.3	20.0	17.0	10.3	49.5	11.4	25.6				
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0				
Max Green Setting (Gmax), s	3.5	44.0	15.0	32.0	8.5	44.0	10.1	36.9				
Max Q Clear Time (g_c+1), s	13.7	15.8	17.0	7.2	4.2	46.0	5.3	18.6				
Green Ext Time (p_c), s	0.0	10.9	0.0	0.4	0.0	0.0	0.0	1.7				

Intersection Summary

HCM 6th Ctrl Delay	271.6
HCM 6th LOS	F

Notes

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

Tracy Transportation Master Plan Update
 54: Cross Roads Dr & Pomontory Pkwy/New Schulte Rd

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	↖
Traffic Volume (veh/h)	80	240	30	320	1490	230	380	290	10	20	80	80
Future Volume (veh/h)	80	240	30	320	1490	230	380	290	10	20	80	80
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	80	240	30	320	1490	230	380	290	10	20	80	80
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	101	1053	130	139	1089	166	174	381	13	33	248	210
Arrive On Green	0.06	0.35	0.35	0.08	0.37	0.37	0.10	0.22	0.22	0.02	0.14	0.14
Sat Flow, veh/h	1697	3032	375	1697	2946	448	1697	1712	59	1697	1781	1510
Grp Volume(v), veh/h	80	133	137	320	846	874	380	0	300	20	80	80
Grp Sat Flow(s),veh/h/ln	1697	1692	1714	1697	1692	1701	1697	0	1771	1697	1781	1510
Q Serve(g_s), s	2.3	2.7	2.8	4.0	18.0	18.0	5.0	0.0	7.7	0.6	2.0	2.3
Cycle Q Clear(g_c), s	2.3	2.7	2.8	4.0	18.0	18.0	5.0	0.0	7.7	0.6	2.0	2.3
Prop In Lane	1.00		0.22	1.00		0.26	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	101	588	595	139	626	629	174	0	394	33	248	210
V/C Ratio(X)	0.79	0.23	0.23	2.30	1.35	1.39	2.18	0.00	0.76	0.61	0.32	0.38
Avail Cap(c_a), veh/h	697	1182	1197	139	626	629	174	0	691	592	1134	961
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.6	11.3	11.3	22.3	15.3	15.3	21.8	0.0	17.7	23.7	18.9	19.0
Incr Delay (d2), s/veh	12.6	0.2	0.2	605.2	169.0	185.0	550.0	0.0	3.1	16.5	0.7	1.1
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	1.2	0.9	0.9	24.8	34.7	37.7	28.4	0.0	3.0	0.4	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.2	11.4	11.5	627.6	184.4	200.4	571.8	0.0	20.8	40.2	19.6	20.2
LnGrp LOS	D	B	B	F	F	F	F	A	C	D	B	C
Approach Vol, veh/h		350		2040			680			180		
Approach Delay, s/veh		16.9		260.8			328.7			22.2		
Approach LOS		B		F			F			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.9	14.8	8.0	20.9	9.0	10.8	6.9	22.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	19.0	19.0	4.0	34.0	5.0	31.0	20.0	18.0				
Max Q Clear Time (g_c+1/2), s	9.7	9.7	6.0	4.8	7.0	4.3	4.3	20.0				
Green Ext Time (p_c), s	0.0	1.1	0.0	1.5	0.0	0.6	0.1	0.0				

Intersection Summary

HCM 6th Ctrl Delay	235.5
HCM 6th LOS	F



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	630	790	700	170	310	50
Future Volume (veh/h)	630	790	700	170	310	50
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	630	790	700	170	310	50
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	679	604	1760	785	311	1760
Arrive On Green	0.40	0.40	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1697	1510	3474	1510	606	3474
Grp Volume(v), veh/h	630	790	700	170	310	50
Grp Sat Flow(s),veh/h/ln	1697	1510	1692	1510	606	1692
Q Serve(g_s), s	35.4	40.0	12.5	6.1	39.5	0.7
Cycle Q Clear(g_c), s	35.4	40.0	12.5	6.1	52.0	0.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	679	604	1760	785	311	1760
V/C Ratio(X)	0.93	1.31	0.40	0.22	1.00	0.03
Avail Cap(c_a), veh/h	679	604	1760	785	311	1760
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	28.6	30.0	14.5	13.0	34.8	11.7
Incr Delay (d2), s/veh	19.1	150.4	0.1	0.1	49.7	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	7.6	39.3	4.5	2.0	11.9	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	47.8	180.4	14.7	13.1	84.5	11.7
LnGrp LOS	D	F	B	B	F	B
Approach Vol, veh/h	1420		870			360
Approach Delay, s/veh	121.5		14.4			74.4
Approach LOS	F		B			E
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		56.0			56.0	44.0
Change Period (Y+Rc), s		4.0			4.0	4.0
Max Green Setting (Gmax), s		52.0			52.0	40.0
Max Q Clear Time (g_c+I1), s		14.5			54.0	42.0
Green Ext Time (p_c), s		6.1			0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			79.9			
HCM 6th LOS			E			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	190	60	2040	680	50	630
Future Volume (veh/h)	190	60	2040	680	50	630
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	190	60	2040	680	50	630
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	222	1108	1984	2701	540	439
Arrive On Green	0.13	0.13	0.60	0.80	0.16	0.16
Sat Flow, veh/h	1697	1510	3291	3474	3474	1510
Grp Volume(v), veh/h	190	60	2040	680	50	630
Grp Sat Flow(s),veh/h/ln	1697	1510	1646	1692	1692	1510
Q Serve(g_s), s	12.4	1.2	68.0	5.7	1.4	18.0
Cycle Q Clear(g_c), s	12.4	1.2	68.0	5.7	1.4	18.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	222	1108	1984	2701	540	439
V/C Ratio(X)	0.85	0.05	1.03	0.25	0.09	1.44
Avail Cap(c_a), veh/h	331	1205	1984	2701	540	439
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	47.9	4.2	22.4	2.9	40.4	40.0
Incr Delay (d2), s/veh	13.1	0.0	27.7	0.0	0.1	208.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	2.4	31.0	1.4	0.6	48.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	61.1	4.2	50.1	2.9	40.5	248.7
LnGrp LOS	E	A	F	A	D	F
Approach Vol, veh/h	250			2720	680	
Approach Delay, s/veh	47.4			38.3	233.3	
Approach LOS	D			D	F	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		94.0		18.8	72.0	22.0
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		90.0		22.0	68.0	18.0
Max Q Clear Time (g_c+I1), s		7.7		14.4	70.0	20.0
Green Ext Time (p_c), s		5.4		0.4	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			75.3			
HCM 6th LOS			E			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↗	↘↗	↑↑	↗	↘↗↗	↑↑	↗	↘↗↗	↑↑	↗
Traffic Volume (veh/h)	250	680	160	100	1540	570	1330	1130	10	80	210	50
Future Volume (veh/h)	250	680	160	100	1540	570	1330	1130	10	80	210	50
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	250	680	0	100	1540	570	1330	1130	10	80	210	50
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	141	1828		266	1265	632	1271	1124	623	375	490	294
Arrive On Green	0.08	0.38	0.00	0.08	0.37	0.36	0.27	0.33	0.33	0.08	0.14	0.13
Sat Flow, veh/h	1697	4863	1510	3291	3385	1510	4784	3385	1510	4784	3385	1510
Grp Volume(v), veh/h	250	680	0	100	1540	570	1330	1130	10	80	210	50
Grp Sat Flow(s),veh/h/ln	1697	1621	1510	1646	1692	1510	1595	1692	1510	1595	1692	1510
Q Serve(g_s), s	10.0	12.2	0.0	3.5	45.0	42.5	32.0	40.0	0.5	1.9	6.8	3.3
Cycle Q Clear(g_c), s	10.0	12.2	0.0	3.5	45.0	42.5	32.0	40.0	0.5	1.9	6.8	3.3
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	141	1828		266	1265	632	1271	1124	623	375	490	294
V/C Ratio(X)	1.77	0.37		0.38	1.22	0.90	1.05	1.01	0.02	0.21	0.43	0.17
Avail Cap(c_a), veh/h	141	1828		301	1265	632	1271	1124	623	437	984	514
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.2	27.3	0.0	52.5	37.7	32.7	44.2	40.2	20.9	52.0	47.0	40.4
Incr Delay (d2), s/veh	375.8	0.1	0.0	0.9	105.4	16.1	38.3	28.1	0.0	0.3	0.6	0.3
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	18.9	4.6	0.0	1.4	36.3	17.6	16.7	20.4	0.2	0.8	2.9	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	431.1	27.4	0.0	53.4	143.2	48.8	82.5	68.4	20.9	52.3	47.5	40.7
LnGrp LOS	F	C		D	F	D	F	F	C	D	D	D
Approach Vol, veh/h		930	A		2210			2470			340	
Approach Delay, s/veh		135.9			114.8			75.8			47.7	
Approach LOS		F			F			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	33.4	44.0	13.7	49.3	36.0	21.4	14.0	49.0				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	38.0	38.0	9.0	40.0	30.0	33.0	8.0	43.0				
Max Q Clear Time (g_c+1), s	42.0	42.0	5.5	14.2	34.0	8.8	12.0	47.0				
Green Ext Time (p_c), s	0.1	0.0	0.1	3.3	0.0	1.1	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	98.0
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Tracy Transportation Master Plan Update
58: CORRAL HOLLOW RD & Eleventh St/ELEVENTH ST.

Future 2042
Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	230	840	290	40	2300	440	410	2120	80	130	320	1150
Future Volume (veh/h)	230	840	290	40	2300	440	410	2120	80	130	320	1150
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	230	840	0	40	2300	440	410	2120	80	130	320	1150
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	302	1839		237	1743	642	219	1783	662	219	1783	692
Arrive On Green	0.09	0.38	0.00	0.07	0.36	0.36	0.07	0.37	0.37	0.07	0.37	0.37
Sat Flow, veh/h	3291	4863	1510	3291	4863	1510	3291	4863	1510	3291	4863	1510
Grp Volume(v), veh/h	230	840	0	40	2300	440	410	2120	80	130	320	1150
Grp Sat Flow(s),veh/h/ln	1646	1621	1510	1646	1621	1510	1646	1621	1510	1646	1621	1510
Q Serve(g_s), s	8.2	15.6	0.0	1.4	43.0	28.4	8.0	44.0	3.8	4.6	5.4	44.0
Cycle Q Clear(g_c), s	8.2	15.6	0.0	1.4	43.0	28.4	8.0	44.0	3.8	4.6	5.4	44.0
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	302	1839		237	1743	642	219	1783	662	219	1783	692
V/C Ratio(X)	0.76	0.46		0.17	1.32	0.69	1.87	1.19	0.12	0.59	0.18	1.66
Avail Cap(c_a), veh/h	302	1839		302	1743	642	219	1783	662	219	1783	692
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	28.1	0.0	52.3	38.5	28.0	56.0	38.0	20.0	54.4	25.8	32.5
Incr Delay (d2), s/veh	10.9	0.2	0.0	0.3	148.1	3.0	407.7	90.9	0.1	6.5	0.0	304.3
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	3.8	5.8	0.0	0.6	40.0	10.4	15.7	31.7	1.3	2.1	2.0	77.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.1	28.2	0.0	52.7	186.6	31.0	463.7	128.9	20.1	60.9	25.8	336.8
LnGrp LOS	E	C		D	F	C	F	F	C	E	C	F
Approach Vol, veh/h		1070	A		2780		2610			1600		
Approach Delay, s/veh		35.9			160.0		178.2			252.2		
Approach LOS		D			F		F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.6	49.4	11.0	48.0	14.0	47.0	11.0	48.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	41.0	41.0	6.0	42.0	9.0	41.0	6.0	42.0				
Max Q Clear Time (g_c+1/4), s	17.6	17.6	6.6	46.0	10.2	45.0	10.0	46.0				
Green Ext Time (p_c), s	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	167.7
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Tracy Transportation Master Plan Update
 59: CORRAL HOLLOW RD & New Schulte Rd/NEW SCHULTE ROAD

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↑↑↑		↘	↑↑	↗
Traffic Volume (veh/h)	10	150	60	20	1450	500	150	1930	30	240	430	280
Future Volume (veh/h)	10	150	60	20	1450	500	150	1930	30	240	430	280
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	150	60	20	1450	500	150	1930	30	240	430	280
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	24	1355	689	42	1031	336	95	1749	27	185	1149	535
Arrive On Green	0.01	0.40	0.40	0.02	0.41	0.41	0.06	0.35	0.35	0.06	0.35	0.35
Sat Flow, veh/h	1697	3385	1510	1697	2510	817	1697	4933	77	3291	3242	1510
Grp Volume(v), veh/h	10	150	60	20	950	1000	150	1268	692	240	430	280
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1697	1692	1634	1697	1621	1768	1646	1621	1510
Q Serve(g_s), s	0.7	3.2	2.6	1.3	47.5	47.5	6.5	41.0	41.0	6.5	11.4	17.0
Cycle Q Clear(g_c), s	0.7	3.2	2.6	1.3	47.5	47.5	6.5	41.0	41.0	6.5	11.4	17.0
Prop In Lane	1.00		1.00	1.00		0.50	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	24	1355	689	42	695	671	95	1149	627	185	1149	535
V/C Ratio(X)	0.41	0.11	0.09	0.48	1.37	1.49	1.57	1.10	1.10	1.30	0.37	0.52
Avail Cap(c_a), veh/h	88	1390	705	88	695	671	95	1149	627	185	1149	535
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	1.00	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	56.5	21.8	17.8	55.7	34.1	34.1	54.6	37.3	37.3	54.6	27.8	29.6
Incr Delay (d2), s/veh	4.1	0.0	0.1	3.1	174.2	228.2	302.1	59.5	67.9	167.7	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.3	0.9	0.6	52.0	60.3	10.7	25.0	28.7	6.9	4.3	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.7	21.8	17.8	58.8	208.2	262.3	356.7	96.8	105.2	222.3	28.0	30.5
LnGrp LOS	E	C	B	E	F	F	F	F	F	F	C	C
Approach Vol, veh/h		220			1970			2110			950	
Approach Delay, s/veh		22.5			234.2			118.1			77.8	
Approach LOS		C			F			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.3	51.3	11.0	46.0	6.1	52.5	11.0	46.0				
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0				
Max Green Setting (Gmax), s	0.0	47.5	6.5	41.0	6.0	47.5	6.5	41.0				
Max Q Clear Time (g_c+1), s	0.0	5.2	8.5	43.0	2.7	49.5	8.5	19.0				
Green Ext Time (p_c), s	0.0	0.9	0.0	0.0	0.0	0.0	0.0	3.2				

Intersection Summary

HCM 6th Ctrl Delay	150.3
HCM 6th LOS	F

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)	10	70	10	50	940	510	30	1150	10	30	300	30
Future Volume (veh/h)	10	70	10	50	940	510	30	1150	10	30	300	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	70	10	50	940	510	30	1150	10	30	300	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	16	1169	163	63	897	476	38	1169	10	119	1312	585
Arrive On Green	0.01	0.39	0.39	0.04	0.42	0.42	0.02	0.34	0.34	0.07	0.39	0.39
Sat Flow, veh/h	1697	2977	416	1697	2136	1134	1697	3439	30	1697	3385	1510
Grp Volume(v), veh/h	10	39	41	50	740	710	30	566	594	30	300	30
Grp Sat Flow(s),veh/h/ln	1697	1692	1700	1697	1692	1577	1697	1692	1776	1697	1692	1510
Q Serve(g_s), s	0.6	1.4	1.5	2.9	42.0	42.0	1.8	33.2	33.2	1.7	6.0	1.1
Cycle Q Clear(g_c), s	0.6	1.4	1.5	2.9	42.0	42.0	1.8	33.2	33.2	1.7	6.0	1.1
Prop In Lane	1.00		0.24	1.00		0.72	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	16	664	668	63	711	663	38	575	604	119	1312	585
V/C Ratio(X)	0.61	0.06	0.06	0.79	1.04	1.07	0.78	0.98	0.98	0.25	0.23	0.05
Avail Cap(c_a), veh/h	68	664	668	119	711	663	102	575	604	119	1312	585
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	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	18.9	18.9	47.8	29.0	29.0	48.6	32.7	32.7	44.0	20.6	13.9
Incr Delay (d2), s/veh	31.1	0.0	0.0	19.7	45.1	55.6	26.6	32.4	31.6	1.1	0.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.6	0.6	1.6	24.8	25.1	1.0	17.7	18.5	0.7	2.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.4	18.9	18.9	67.5	74.1	84.6	75.2	65.1	64.3	45.1	21.0	14.1
LnGrp LOS	F	B	B	E	F	F	E	E	E	D	C	B
Approach Vol, veh/h		90		1500		1190		360				
Approach Delay, s/veh		25.8		78.8		65.0		22.4				
Approach LOS		C		E		E		C				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	38.0	7.7	43.3	6.3	42.8	5.0	46.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	34.0	7.0	39.0	6.0	32.0	4.0	42.0				
Max Q Clear Time (g_c+1/3), s	1.0	35.2	4.9	3.5	3.8	8.0	2.6	44.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.0	1.4	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	65.6
HCM 6th LOS	E



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↑↑	↑↑	↖
Traffic Volume (veh/h)	40	10	380	1150	340	10
Future Volume (veh/h)	40	10	380	1150	340	10
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	40	10	380	1150	340	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	72	64	807	2564	615	274
Arrive On Green	0.04	0.04	0.48	0.76	0.18	0.18
Sat Flow, veh/h	1697	1510	1697	3474	3474	1510
Grp Volume(v), veh/h	40	10	380	1150	340	10
Grp Sat Flow(s),veh/h/ln	1697	1510	1697	1692	1692	1510
Q Serve(g_s), s	0.9	0.3	6.1	5.0	3.7	0.2
Cycle Q Clear(g_c), s	0.9	0.3	6.1	5.0	3.7	0.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	72	64	807	2564	615	274
V/C Ratio(X)	0.55	0.16	0.47	0.45	0.55	0.04
Avail Cap(c_a), veh/h	212	189	807	2564	1608	717
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	0.97	0.97
Uniform Delay (d), s/veh	18.8	18.5	7.1	1.8	14.9	6.7
Incr Delay (d2), s/veh	6.4	1.1	0.4	0.6	3.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.2	1.2	0.2	1.3	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.2	19.6	7.5	2.4	18.3	6.9
LnGrp LOS	C	B	A	A	B	A
Approach Vol, veh/h	50			1530	350	
Approach Delay, s/veh	24.1			3.6	18.0	
Approach LOS	C			A	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		34.3		5.7	23.0	11.3
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		27.0		5.0	4.0	19.0
Max Q Clear Time (g_c+I1), s		7.0		2.9	8.1	5.7
Green Ext Time (p_c), s		7.8		0.0	0.0	1.6
Intersection Summary						
HCM 6th Ctrl Delay			6.8			
HCM 6th LOS			A			

Tracy Transportation Master Plan Update
62: Corral Hollow Rd & Ellis Town Dr/Peony Dr

Future 2042
Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕	↕	↖	↗	↖
Traffic Volume (veh/h)	50	50	10	40	90	350	40	1150	10	50	290	10
Future Volume (veh/h)	50	50	10	40	90	350	40	1150	10	50	290	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	50	50	10	40	90	350	40	1150	10	50	290	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	83	466	93	73	101	393	73	1241	553	83	1261	562
Arrive On Green	0.05	0.32	0.32	0.04	0.32	0.32	0.04	0.37	0.37	0.05	0.37	0.37
Sat Flow, veh/h	1697	1441	288	1697	319	1240	1697	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	50	0	60	40	0	440	40	1150	10	50	290	10
Grp Sat Flow(s),veh/h/ln	1697	0	1730	1697	0	1558	1697	1692	1510	1697	1692	1510
Q Serve(g_s), s	2.4	0.0	2.1	2.0	0.0	22.7	2.0	27.5	0.4	2.4	5.0	0.4
Cycle Q Clear(g_c), s	2.4	0.0	2.1	2.0	0.0	22.7	2.0	27.5	0.4	2.4	5.0	0.4
Prop In Lane	1.00		0.17	1.00		0.80	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	83	0	559	73	0	495	73	1241	553	83	1261	562
V/C Ratio(X)	0.60	0.00	0.11	0.55	0.00	0.89	0.55	0.93	0.02	0.60	0.23	0.02
Avail Cap(c_a), veh/h	121	0	696	121	0	627	121	1258	561	121	1261	562
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	39.3	0.0	20.0	39.6	0.0	27.4	39.6	25.7	17.1	39.3	18.2	16.7
Incr Delay (d2), s/veh	6.8	0.0	0.1	6.2	0.0	12.5	6.2	11.9	0.0	6.8	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.8	0.9	0.0	9.9	0.9	11.9	0.1	1.1	1.8	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.1	0.0	20.1	45.8	0.0	39.9	45.8	37.5	17.1	46.1	18.3	16.8
LnGrp LOS	D	A	C	D	A	D	D	D	B	D	B	B
Approach Vol, veh/h		110			480			1200			350	
Approach Delay, s/veh		31.9			40.4			37.6			22.2	
Approach LOS		C			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.1	36.8	7.7	31.9	7.7	37.3	8.1	31.4				
Change Period (Y+Rc), s	4.0	* 5.8	4.0	4.6	4.0	5.8	4.0	4.6				
Max Green Setting (Gmax), s	34.0	* 31	6.0	34.0	6.0	30.6	6.0	34.0				
Max Q Clear Time (g_c+1/4), s	14.4	29.5	4.0	4.1	4.0	7.0	4.4	24.7				
Green Ext Time (p_c), s	0.0	1.4	0.0	0.3	0.0	2.4	0.0	2.1				

Intersection Summary

HCM 6th Ctrl Delay	35.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
63: Corral Hollow Rd & Summit Dr/Middlefield Dr

Future 2042
Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↖	↖	↑↑	↖
Traffic Volume (veh/h)	10	20	30	280	90	10	400	1180	40	10	330	10
Future Volume (veh/h)	10	20	30	280	90	10	400	1180	40	10	330	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	20	30	280	90	10	400	1180	40	10	330	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	25	56	83	319	409	45	440	1526	680	25	764	341
Arrive On Green	0.01	0.09	0.09	0.19	0.26	0.26	0.26	0.45	0.45	0.01	0.23	0.23
Sat Flow, veh/h	1697	643	965	1697	1575	175	1697	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	10	0	50	280	0	100	400	1180	40	10	330	10
Grp Sat Flow(s),veh/h/ln1697		0	1608	1697	0	1750	1697	1692	1510	1697	1692	1510
Q Serve(g_s), s	0.5	0.0	2.3	12.6	0.0	3.5	18.0	23.1	1.2	0.5	6.6	0.4
Cycle Q Clear(g_c), s	0.5	0.0	2.3	12.6	0.0	3.5	18.0	23.1	1.2	0.5	6.6	0.4
Prop In Lane	1.00		0.60	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	25	0	139	319	0	454	440	1526	680	25	764	341
V/C Ratio(X)	0.39	0.00	0.36	0.88	0.00	0.22	0.91	0.77	0.06	0.39	0.43	0.03
Avail Cap(c_a), veh/h	130	0	676	367	0	980	497	1879	838	130	1211	540
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	38.3	0.0	33.8	31.0	0.0	22.8	28.2	18.2	12.2	38.3	26.1	23.7
Incr Delay (d2), s/veh	9.6	0.0	1.6	18.8	0.0	0.2	19.4	1.9	0.1	9.6	0.6	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln0.3	0.0	0.0	1.0	6.6	0.0	1.4	9.0	8.0	0.4	0.2	2.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.9	0.0	35.4	49.8	0.0	23.1	47.6	20.1	12.2	47.9	26.6	23.8
LnGrp LOS	D	A	D	D	A	C	D	C	B	D	C	C
Approach Vol, veh/h		60			380			1620			350	
Approach Delay, s/veh		37.5			42.8			26.7			27.2	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s6.7	41.2	18.8	11.9	24.4	23.5	5.2	25.5					
Change Period (Y+Rc), s 5.5	5.8	4.0	5.1	4.0	5.8	4.0	5.1					
Max Green Setting (Gmax), s 6.0	43.6	17.0	33.0	23.0	28.1	6.0	44.0					
Max Q Clear Time (g_c+1), s 12.5	25.1	14.6	4.3	20.0	8.6	2.5	5.5					
Green Ext Time (p_c), s 0.0	10.3	0.2	0.2	0.4	2.6	0.0	0.5					

Intersection Summary

HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
64: Corral Hollow Rd & W. Linne Rd

Future 2042
Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↗	↖	↖	↗	↗
Traffic Volume (veh/h)	60	390	10	300	1250	820	10	730	540	100	270	260
Future Volume (veh/h)	60	390	10	300	1250	820	10	730	540	100	270	260
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	60	390	10	300	1250	820	10	730	0	100	270	260
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	73	1488	38	365	1723	768	16	815		117	508	453
Arrive On Green	0.04	0.44	0.44	0.11	0.51	0.51	0.01	0.24	0.00	0.07	0.30	0.30
Sat Flow, veh/h	1697	3372	86	3291	3385	1510	1697	3385	1510	1697	1692	1510
Grp Volume(v), veh/h	60	195	205	300	1250	820	10	730	0	100	270	260
Grp Sat Flow(s),veh/h/ln	1697	1692	1766	1646	1692	1510	1697	1692	1510	1697	1692	1510
Q Serve(g_s), s	4.1	8.5	8.5	10.3	33.3	59.0	0.7	24.2	0.0	6.8	15.4	16.9
Cycle Q Clear(g_c), s	4.1	8.5	8.5	10.3	33.3	59.0	0.7	24.2	0.0	6.8	15.4	16.9
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	73	747	779	365	1723	768	16	815		117	508	453
V/C Ratio(X)	0.82	0.26	0.26	0.82	0.73	1.07	0.62	0.90		0.85	0.53	0.57
Avail Cap(c_a), veh/h	73	747	779	483	1723	768	59	934		117	526	469
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	20.5	20.5	50.4	22.2	28.5	57.2	42.6	0.0	53.4	33.8	34.3
Incr Delay (d2), s/veh	49.8	0.2	0.2	8.4	1.6	51.9	33.0	10.2	0.0	42.2	0.9	1.6
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	2.7	3.2	3.3	4.5	12.3	29.9	0.4	10.8	0.0	4.2	6.2	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.8	20.6	20.6	58.8	23.7	80.3	90.2	52.8	0.0	95.6	34.7	35.9
LnGrp LOS	F	C	C	E	C	F	F	D		F	C	D
Approach Vol, veh/h		460			2370			740	A		630	
Approach Delay, s/veh		31.6			47.7			53.3			44.9	
Approach LOS		C			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	31.9	16.9	55.1	5.1	38.8	9.0	63.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	3.0	32.0	17.0	47.0	4.0	36.0	5.0	59.0				
Max Q Clear Time (g_c+1), s	10.8	26.2	12.3	10.5	2.7	18.9	6.1	61.0				
Green Ext Time (p_c), s	0.0	1.7	0.5	2.1	0.0	1.9	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	46.5
HCM 6th LOS	D

Notes

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



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘	↗	↘	↑↑	↑↑	↗
Traffic Volume (veh/h)	10	10	240	1260	560	10
Future Volume (veh/h)	10	10	240	1260	560	10
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	10	240	1260	560	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	35	31	314	2266	1116	498
Arrive On Green	0.02	0.02	0.18	0.67	0.33	0.33
Sat Flow, veh/h	1697	1510	1697	3474	3474	1510
Grp Volume(v), veh/h	10	10	240	1260	560	10
Grp Sat Flow(s),veh/h/ln	1697	1510	1697	1692	1692	1510
Q Serve(g_s), s	0.1	0.2	3.5	5.1	3.4	0.1
Cycle Q Clear(g_c), s	0.1	0.2	3.5	5.1	3.4	0.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	35	31	314	2266	1116	498
V/C Ratio(X)	0.28	0.32	0.76	0.56	0.50	0.02
Avail Cap(c_a), veh/h	1182	1052	788	4456	2359	1052
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	12.5	12.5	10.0	2.2	7.0	5.8
Incr Delay (d2), s/veh	4.3	5.7	3.9	0.2	0.4	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	0.1	0.0	0.9	0.1	0.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.8	18.2	13.9	2.5	7.3	5.9
LnGrp LOS	B	B	B	A	A	A
Approach Vol, veh/h	20			1500	570	
Approach Delay, s/veh	17.5			4.3	7.3	
Approach LOS	B			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		21.3		4.5	8.8	12.5
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0		18.0	12.0	18.0
Max Q Clear Time (g_c+I1), s		7.1		2.2	5.5	5.4
Green Ext Time (p_c), s		9.6		0.0	0.3	3.1
Intersection Summary						
HCM 6th Ctrl Delay			5.2			
HCM 6th LOS			A			

Tracy Transportation Master Plan Update
 66: CORRAL HOLLOW RD & Tracy Hills Dr/KT Access

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↘		↖	↘	↗	↖↗	↕	↗	↖↗	↕	↗
Traffic Volume (veh/h)	240	110	110	110	70	210	280	1060	170	260	170	150
Future Volume (veh/h)	240	110	110	110	70	210	280	1060	170	260	170	150
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	240	110	110	110	175	140	280	1060	170	260	170	150
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	385	133	133	138	226	192	1472	1122	500	812	443	198
Arrive On Green	0.12	0.16	0.16	0.08	0.13	0.13	0.45	0.33	0.33	0.25	0.13	0.13
Sat Flow, veh/h	3291	817	817	1697	1781	1510	3291	3385	1510	3291	3385	1510
Grp Volume(v), veh/h	240	0	220	110	175	140	280	1060	170	260	170	150
Grp Sat Flow(s),veh/h/ln	1646	0	1634	1697	1781	1510	1646	1692	1510	1646	1692	1510
Q Serve(g_s), s	6.3	0.0	11.7	5.7	8.6	8.0	4.6	27.4	7.6	5.8	4.1	8.6
Cycle Q Clear(g_c), s	6.3	0.0	11.7	5.7	8.6	8.0	4.6	27.4	7.6	5.8	4.1	8.6
Prop In Lane	1.00		0.50	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	385	0	266	138	226	192	1472	1122	500	812	443	198
V/C Ratio(X)	0.62	0.00	0.83	0.80	0.77	0.73	0.19	0.94	0.34	0.32	0.38	0.76
Avail Cap(c_a), veh/h	658	0	436	226	356	302	1472	1128	503	812	940	419
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	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	0.0	36.5	40.6	38.0	37.8	15.0	29.3	22.7	27.7	35.8	37.7
Incr Delay (d2), s/veh	1.7	0.0	6.7	10.0	5.5	5.2	0.0	2.3	0.2	0.2	2.5	23.5
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	2.6	0.0	5.1	2.8	4.1	3.2	1.5	10.3	2.7	2.1	1.8	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.5	0.0	43.2	50.6	43.6	43.0	15.0	31.5	22.8	27.9	38.3	61.3
LnGrp LOS	D	A	D	D	D	D	B	C	C	C	D	E
Approach Vol, veh/h		460			425			1510			580	
Approach Delay, s/veh		41.3			45.2			27.5			39.6	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.2	33.8	11.3	18.6	44.3	15.8	14.5	15.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	30.0	30.0	12.0	24.0	13.0	25.0	18.0	18.0				
Max Q Clear Time (g_c+1), s	29.4	29.4	7.7	13.7	6.6	10.6	8.3	10.6				
Green Ext Time (p_c), s	0.0	0.4	0.1	0.9	0.5	1.2	0.6	0.9				

Intersection Summary

HCM 6th Ctrl Delay	34.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Tracy Transportation Master Plan Update
 67: Corral Hollow Rd & I-580 WB On Ramp/I-580 WB Off Ramp

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations						↕	↕	↕	↕		↕	↕
Traffic Volume (veh/h)	0	0	0	10	0	1360	10	150	0	0	240	140
Future Volume (veh/h)	0	0	0	10	0	1360	10	150	0	0	240	140
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				No
Adj Sat Flow, veh/h/ln				1781	1781	1781	1781	1781	0	0	1781	1781
Adj Flow Rate, veh/h				10	0	0	10	150	0	0	240	140
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				8	8	8	8	8	0	0	8	8
Cap, veh/h				16	0		1319	3127	0	0	383	171
Arrive On Green				0.01	0.00	0.00	0.78	0.92	0.00	0.00	0.11	0.11
Sat Flow, veh/h				1697	0	1510	1697	3474	0	0	3474	1510
Grp Volume(v), veh/h				10	0	0	10	150	0	0	240	140
Grp Sat Flow(s),veh/h/ln				1697	0	1510	1697	1692	0	0	1692	1510
Q Serve(g_s), s				0.7	0.0	0.0	0.2	0.4	0.0	0.0	8.1	10.9
Cycle Q Clear(g_c), s				0.7	0.0	0.0	0.2	0.4	0.0	0.0	8.1	10.9
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				16	0		1319	3127	0	0	383	171
V/C Ratio(X)				0.62	0.00		0.01	0.05	0.00	0.00	0.63	0.82
Avail Cap(c_a), veh/h				1216	0		1319	3127	0	0	508	226
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	0.99	0.99	0.00	0.00	0.95	0.95
Uniform Delay (d), s/veh				59.2	0.0	0.0	3.0	0.4	0.0	0.0	50.8	52.0
Incr Delay (d2), s/veh				33.6	0.0	0.0	0.0	0.0	0.0	0.0	7.2	32.3
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				0.5	0.0	0.0	0.0	0.0	0.0	0.0	3.7	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				92.8	0.0	0.0	3.0	0.4	0.0	0.0	57.9	84.3
LnGrp LOS				F	A		A	A	A	A	E	F
Approach Vol, veh/h					10	A		160			380	
Approach Delay, s/veh					92.8			0.6			67.7	
Approach LOS					F			A			E	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		114.9			97.3	17.6		5.1				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		26.0			4.0	18.0		86.0				
Max Q Clear Time (g_c+I1), s		2.4			2.2	12.9		2.7				
Green Ext Time (p_c), s		0.5			0.0	0.7		0.0				

Intersection Summary

HCM 6th Ctrl Delay	48.6
HCM 6th LOS	D

Notes

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

Tracy Transportation Master Plan Update
 68: Corral Hollow Rd & 580 EB Off Ramp/580 EB On Ramp

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗						↑↑	↖	↖	↑↑	
Traffic Volume (veh/h)	60	0	10	0	0	0	0	100	20	210	40	0
Future Volume (veh/h)	60	0	10	0	0	0	0	100	20	210	40	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	1781	1781	1781				0	1781	1781	1781	1781	0
Adj Flow Rate, veh/h	60	0	10				0	100	20	210	40	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8				0	8	8	8	8	0
Cap, veh/h	82	0	73				0	2264	1010	253	2920	0
Arrive On Green	0.05	0.00	0.05				0.00	0.67	0.67	0.15	0.86	0.00
Sat Flow, veh/h	1697	0	1510				0	3474	1510	1697	3474	0
Grp Volume(v), veh/h	60	0	10				0	100	20	210	40	0
Grp Sat Flow(s),veh/h/ln	1697	0	1510				0	1692	1510	1697	1692	0
Q Serve(g_s), s	3.1	0.0	0.6				0.0	0.9	0.4	10.8	0.1	0.0
Cycle Q Clear(g_c), s	3.1	0.0	0.6				0.0	0.9	0.4	10.8	0.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	82	0	73				0	2264	1010	253	2920	0
V/C Ratio(X)	0.73	0.00	0.14				0.00	0.04	0.02	0.83	0.01	0.00
Avail Cap(c_a), veh/h	377	0	335				0	2264	1010	660	2920	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	1.00				0.00	0.99	0.99	0.88	0.88	0.00
Uniform Delay (d), s/veh	42.2	0.0	41.0				0.0	5.1	5.0	37.2	0.9	0.0
Incr Delay (d2), s/veh	11.6	0.0	0.8				0.0	0.0	0.0	6.1	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	1.6	0.0	0.2				0.0	0.2	0.1	4.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	0.0	41.8				0.0	5.1	5.0	43.2	0.9	0.0
LnGrp LOS	D	A	D				A	A	A	D	A	A
Approach Vol, veh/h		70						120			250	
Approach Delay, s/veh		52.1						5.1			36.5	
Approach LOS		D						A			D	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	17.4	64.2	8.4	81.6								
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0								
Max Green Setting (Gmax), s	35.0	23.0	20.0	62.0								
Max Q Clear Time (g_c+1/2), s	11.8	2.9	5.1	2.1								
Green Ext Time (p_c), s	0.7	0.4	0.1	0.1								
Intersection Summary												
HCM 6th Ctrl Delay			30.4									
HCM 6th LOS			C									



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	100	10	10	30	20	20
Future Volume (veh/h)	100	10	10	30	20	20
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	100	10	10	30	20	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	160	142	18	816	399	338
Arrive On Green	0.09	0.09	0.01	0.46	0.22	0.22
Sat Flow, veh/h	1697	1510	1697	1781	1781	1510
Grp Volume(v), veh/h	100	10	10	30	20	20
Grp Sat Flow(s),veh/h/ln	1697	1510	1697	1781	1781	1510
Q Serve(g_s), s	1.0	0.1	0.1	0.2	0.2	0.2
Cycle Q Clear(g_c), s	1.0	0.1	0.1	0.2	0.2	0.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	160	142	18	816	399	338
V/C Ratio(X)	0.63	0.07	0.54	0.04	0.05	0.06
Avail Cap(c_a), veh/h	1803	1605	475	2790	1893	1605
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	7.8	7.4	8.8	2.7	5.4	5.5
Incr Delay (d2), s/veh	4.0	0.2	22.7	0.0	0.1	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	0.3	0.1	0.1	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.8	7.6	31.5	2.7	5.5	5.5
LnGrp LOS	B	A	C	A	A	A
Approach Vol, veh/h	110			40	40	
Approach Delay, s/veh	11.4			9.9	5.5	
Approach LOS	B			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		12.2		5.7	4.2	8.0
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		28.0		19.0	5.0	19.0
Max Q Clear Time (g_c+I1), s		2.2		3.0	2.1	2.2
Green Ext Time (p_c), s		0.1		0.2	0.0	0.1
Intersection Summary						
HCM 6th Ctrl Delay			9.8			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	3.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	110	60	30	20	50	530
Future Vol, veh/h	110	60	30	20	50	530
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, %	8	8	8	8	8	8
Mvmt Flow	110	60	30	20	50	530
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	670	40	0	0	50	0
Stage 1	40	-	-	-	-	-
Stage 2	630	-	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.18	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.272	-
Pot Cap-1 Maneuver	413	1014	-	-	1519	-
Stage 1	967	-	-	-	-	-
Stage 2	520	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	394	1014	-	-	1519	-
Mov Cap-2 Maneuver	394	-	-	-	-	-
Stage 1	967	-	-	-	-	-
Stage 2	496	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	15.8	0	0.6			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	502	1519		
HCM Lane V/C Ratio	-	-	0.339	0.033		
HCM Control Delay (s)	-	-	15.8	7.5		
HCM Lane LOS	-	-	C	A		
HCM 95th %tile Q(veh)	-	-	1.5	0.1		

Tracy Transportation Master Plan Update
71: Tracy Blvd & W. Larch Rd

Future 2042
Timing Plan: AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	70	700	750	730	10	1060	40	140	40	200	400
Future Volume (veh/h)	10	70	700	750	730	10	1060	40	140	40	200	400
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	70	0	750	730	10	1060	40	140	40	200	400
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	64	132		768	794	354	1463	1006	1205	50	267	283
Arrive On Green	0.04	0.04	0.00	0.23	0.23	0.23	0.44	0.56	0.56	0.03	0.15	0.15
Sat Flow, veh/h	1697	3385	1510	3291	3385	1510	3291	1781	1510	1697	1781	1510
Grp Volume(v), veh/h	10	70	0	750	730	10	1060	40	140	40	200	400
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1646	1692	1510	1646	1781	1510	1697	1781	1510
Q Serve(g_s), s	0.7	2.4	0.0	27.2	25.3	0.5	31.7	1.2	2.5	2.8	12.9	18.0
Cycle Q Clear(g_c), s	0.7	2.4	0.0	27.2	25.3	0.5	31.7	1.2	2.5	2.8	12.9	18.0
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	64	132		768	794	354	1463	1006	1205	50	267	283
V/C Ratio(X)	0.16	0.53		0.98	0.92	0.03	0.72	0.04	0.12	0.80	0.75	1.41
Avail Cap(c_a), veh/h	240	508		768	818	365	1463	1006	1205	99	267	283
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)	0.58	0.58	0.00	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.9	56.6	0.0	45.7	44.8	27.0	27.3	11.6	2.7	57.9	48.8	48.7
Incr Delay (d2), s/veh	0.7	1.9	0.0	26.7	15.2	0.0	0.2	0.0	0.0	24.1	17.4	204.7
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	0.3	1.1	0.0	14.0	12.3	0.2	12.3	0.5	0.6	1.5	7.0	22.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.5	58.5	0.0	72.3	60.0	27.1	27.5	11.6	2.7	81.9	66.2	253.4
LnGrp LOS	E	E		E	E	C	C	B	A	F	E	F
Approach Vol, veh/h		80	A		1490			1240			640	
Approach Delay, s/veh		58.3			66.0			24.2			184.2	
Approach LOS		E			E			C			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	71.8	32.0	8.7	57.3	22.0	8.5	32.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	7.0	51.0	28.0	18.0	40.0	18.0	17.0	29.0				
Max Q Clear Time (g_c+I1), s	4.8	4.5	29.2	4.4	33.7	20.0	2.7	27.3				
Green Ext Time (p_c), s	0.0	0.7	0.0	0.2	2.5	0.0	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay			72.7									
HCM 6th LOS			E									
Notes												
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.												

Tracy Transportation Master Plan Update
 72: Tracy Blvd & I-205 WB On-Ramp/I-205 WB Off-Ramp

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↗	↖	↖	↖	↖		↗	↗
Traffic Volume (veh/h)	0	0	0	480	0	1130	2210	100	0	0	760	880
Future Volume (veh/h)	0	0	0	480	0	1130	2210	100	0	0	760	880
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		No		
Adj Sat Flow, veh/h/ln				1781	1781	1781	1781	1781	0	0	1781	1781
Adj Flow Rate, veh/h				480	0	0	2210	100	0	0	760	880
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				8	8	8	8	8	0	0	8	8
Cap, veh/h				598	0		1317	1349	0	0	1096	477
Arrive On Green				0.18	0.00	0.00	0.40	0.76	0.00	0.00	0.54	0.53
Sat Flow, veh/h				3393	0	1510	3291	1781	0	0	3474	1510
Grp Volume(v), veh/h				480	0	0	2210	100	0	0	760	880
Grp Sat Flow(s),veh/h/ln				1697	0	1510	1646	1781	0	0	1692	1510
Q Serve(g_s), s				16.3	0.0	0.0	48.0	1.7	0.0	0.0	19.8	38.0
Cycle Q Clear(g_c), s				16.3	0.0	0.0	48.0	1.7	0.0	0.0	19.8	38.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				598	0		1317	1349	0	0	1096	477
V/C Ratio(X)				0.80	0.00		1.68	0.07	0.00	0.00	0.69	1.84
Avail Cap(c_a), veh/h				763	0		1317	1349	0	0	1096	477
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67
Upstream Filter(I)				1.00	0.00	0.00	0.09	0.09	0.00	0.00	0.33	0.33
Uniform Delay (d), s/veh				47.4	0.0	0.0	36.0	3.8	0.0	0.0	23.2	28.3
Incr Delay (d2), s/veh				5.6	0.0	0.0	305.7	0.0	0.0	0.0	1.2	382.0
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				7.3	0.0	0.0	74.4	0.5	0.0	0.0	6.6	61.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				53.0	0.0	0.0	341.7	3.8	0.0	0.0	24.4	410.3
LnGrp LOS				D	A		F	A	A	A	C	F
Approach Vol, veh/h				480		A		2310			1640	
Approach Delay, s/veh				53.0				327.0			231.5	
Approach LOS				D				F			F	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		94.9			52.0	42.9		25.1				
Change Period (Y+Rc), s		4.9			4.0	4.9		4.9				
Max Green Setting (Gmax), s		84.1			48.0	32.1		26.1				
Max Q Clear Time (g_c+I1), s		3.7			50.0	40.0		18.3				
Green Ext Time (p_c), s		0.4			0.0	0.0		2.0				

Intersection Summary

HCM 6th Ctrl Delay	262.0
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Tracy Transportation Master Plan Update
 73: Tracy Blvd & I-205 EB Off-Ramp/I-205 EB On-Ramp

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕	↗	↖	↕	
Traffic Volume (veh/h)	90	0	170	0	0	0	0	2220	80	610	640	0
Future Volume (veh/h)	90	0	170	0	0	0	0	2220	80	610	640	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	1781	1781	1781				0	1781	1781	1781	1781	0
Adj Flow Rate, veh/h	90	0	170				0	2220	80	610	640	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8				0	8	8	8	8	0
Cap, veh/h	237	0	199				0	1708	750	427	2678	0
Arrive On Green	0.14	0.00	0.13				0.00	0.50	0.50	0.25	0.79	0.00
Sat Flow, veh/h	1697	0	1510				0	3474	1510	1697	3474	0
Grp Volume(v), veh/h	90	0	170				0	2220	80	610	640	0
Grp Sat Flow(s),veh/h/ln	1697	0	1510				0	1692	1510	1697	1692	0
Q Serve(g_s), s	5.6	0.0	12.7				0.0	58.1	3.2	29.0	5.6	0.0
Cycle Q Clear(g_c), s	5.6	0.0	12.7				0.0	58.1	3.2	29.0	5.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	237	0	199				0	1708	750	427	2678	0
V/C Ratio(X)	0.38	0.00	0.86				0.00	1.30	0.11	1.43	0.24	0.00
Avail Cap(c_a), veh/h	308	0	262				0	1708	750	427	2678	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	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.0	0.0	48.9				0.0	28.5	15.4	43.1	3.1	0.0
Incr Delay (d2), s/veh	1.0	0.0	18.7				0.0	139.4	0.1	205.6	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	2.4	0.0	5.8				0.0	55.0	1.1	36.3	1.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	0.0	67.6				0.0	168.0	15.5	248.7	3.1	0.0
LnGrp LOS	D	A	E				A	F	B	F	A	A
Approach Vol, veh/h		260						2300			1250	
Approach Delay, s/veh		60.1						162.7			123.0	
Approach LOS		E						F			F	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	33.0	62.1	20.1	95.1								
Change Period (Y+Rc), s	4.0	4.9	4.9	4.9								
Max Green Setting (Gmax), s	29.0	57.2	20.0	90.2								
Max Q Clear Time (g_c+D1), s	41.0	60.1	14.7	7.6								
Green Ext Time (p_c), s	0.0	0.0	0.5	3.2								

Intersection Summary

HCM 6th Ctrl Delay	142.6
HCM 6th LOS	F

Tracy Transportation Master Plan Update
74: Tracy Blvd & GRANT LINE RD

Future 2042
Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	500	60	190	1350	210	160	1080	10	30	230	280
Future Volume (veh/h)	120	500	60	190	1350	210	160	1080	10	30	230	280
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	120	500	60	190	1350	210	160	1080	10	30	230	280
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	120	1195	143	224	1334	205	156	1017	9	71	424	378
Arrive On Green	0.07	0.39	0.39	0.13	0.45	0.45	0.09	0.30	0.29	0.04	0.25	0.24
Sat Flow, veh/h	1697	3044	364	1697	2939	453	1697	3436	32	1697	1692	1510
Grp Volume(v), veh/h	120	277	283	190	772	788	160	532	558	30	230	280
Grp Sat Flow(s),veh/h/ln	1697	1692	1716	1697	1692	1700	1697	1692	1776	1697	1692	1510
Q Serve(g_s), s	8.5	14.3	14.4	13.1	54.4	54.4	11.0	35.5	35.5	2.1	14.1	20.6
Cycle Q Clear(g_c), s	8.5	14.3	14.4	13.1	54.4	54.4	11.0	35.5	35.5	2.1	14.1	20.6
Prop In Lane	1.00		0.21	1.00		0.27	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	120	665	674	224	768	771	156	501	525	71	424	378
V/C Ratio(X)	1.00	0.42	0.42	0.85	1.01	1.02	1.03	1.06	1.06	0.42	0.54	0.74
Avail Cap(c_a), veh/h	120	665	674	322	768	771	156	501	525	113	465	415
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	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	55.7	26.5	26.5	50.9	32.8	32.8	54.5	42.2	42.3	56.0	39.0	41.9
Incr Delay (d2), s/veh	81.6	1.9	1.9	1.0	11.0	11.0	16.0	80.0	57.8	56.9	1.4	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	6.0	6.1	5.5	23.2	24.5	8.1	22.5	23.5	0.9	5.9	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	137.3	28.4	28.5	51.9	43.8	48.8	134.5	100.1	99.1	57.4	40.0	47.9
LnGrp LOS	F	C	C	D	F	F	F	F	F	E	D	D
Approach Vol, veh/h		680			1750			1250			540	
Approach Delay, s/veh		47.6			46.9			104.1			45.1	
Approach LOS		D			D			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	39.5	19.8	51.1	15.0	34.1	12.5	58.4				
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5				
Max Green Setting (Gmax), s	30.0	34.5	22.3	36.7	10.5	32.0	8.0	51.0				
Max Q Clear Time (g_c+14), s	14.5	37.5	15.1	16.4	13.0	22.6	10.5	56.4				
Green Ext Time (p_c), s	0.0	0.0	0.2	2.1	0.0	1.6	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	63.7
HCM 6th LOS	E

Notes

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

Tracy Transportation Master Plan Update
75: TRACY BLVD & ELEVENTH ST.

Future 2042
Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖
Traffic Volume (veh/h)	180	690	150	40	1670	10	390	930	60	10	140	220
Future Volume (veh/h)	180	690	150	40	1670	10	390	930	60	10	140	220
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	180	690	150	40	1670	10	390	930	60	10	140	220
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	258	1640	731	194	1574	702	329	1040	464	91	795	355
Arrive On Green	0.08	0.48	0.48	0.06	0.47	0.47	0.10	0.31	0.31	0.03	0.23	0.23
Sat Flow, veh/h	3291	3385	1510	3291	3385	1510	3291	3385	1510	3291	3385	1510
Grp Volume(v), veh/h	180	690	150	40	1670	10	390	930	60	10	140	220
Grp Sat Flow(s),veh/h/ln	1646	1692	1510	1646	1692	1510	1646	1692	1510	1646	1692	1510
Q Serve(g_s), s	6.1	15.2	6.5	1.3	53.5	0.4	11.5	30.2	3.3	0.3	3.8	15.0
Cycle Q Clear(g_c), s	6.1	15.2	6.5	1.3	53.5	0.4	11.5	30.2	3.3	0.3	3.8	15.0
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	258	1640	731	194	1574	702	329	1040	464	91	795	355
V/C Ratio(X)	0.70	0.42	0.21	0.21	1.06	0.01	1.18	0.89	0.13	0.11	0.18	0.62
Avail Cap(c_a), veh/h	258	1640	731	258	1574	702	329	1104	492	258	1030	459
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	1.00	1.00	1.00	1.00	1.00	0.43	0.43	0.43	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.7	19.2	17.0	51.6	30.8	16.6	51.7	38.0	28.7	54.5	35.1	39.4
Incr Delay (d2), s/veh	6.9	0.8	0.6	0.2	40.8	0.0	96.2	4.1	0.0	0.2	0.0	0.7
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	6.1	2.3	0.6	29.8	0.1	9.1	12.8	1.2	0.1	1.6	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.6	20.0	17.6	51.7	71.6	16.6	148.0	42.2	28.8	54.7	35.1	40.1
LnGrp LOS	E	B	B	D	F	B	F	D	C	D	D	D
Approach Vol, veh/h		1020			1720			1380			370	
Approach Delay, s/veh		26.4			70.8			71.5			38.6	
Approach LOS		C			E			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.3	59.2	15.0	30.5	12.5	57.0	6.7	38.8				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5				
Max Green Setting (Gmax), s	10.3	43.5	10.5	33.0	8.0	43.5	8.0	35.5				
Max Q Clear Time (g_c+1), s	13.3	17.2	13.5	17.0	8.1	55.5	2.3	32.2				
Green Ext Time (p_c), s	0.0	3.3	0.0	0.8	0.0	0.0	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay	58.3
HCM 6th LOS	E

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)	10	10	10	280	10	210	10	1120	50	70	190	10
Future Volume (veh/h)	10	10	10	280	10	210	10	1120	50	70	190	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	10	10	280	10	210	10	1120	0	70	190	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	206	202	178	355	10	219	33	1233		180	1493	78
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.02	0.36	0.00	0.11	0.46	0.46
Sat Flow, veh/h	414	549	482	793	28	594	1697	3474	0	1697	3272	171
Grp Volume(v), veh/h	30	0	0	500	0	0	10	1120	0	70	98	102
Grp Sat Flow(s),veh/h/ln1445		0	0	1415	0	0	1697	1692	0	1697	1692	1751
Q Serve(g_s), s	0.0	0.0	0.0	30.0	0.0	0.0	0.5	28.3	0.0	3.5	3.0	3.0
Cycle Q Clear(g_c), s	1.0	0.0	0.0	31.0	0.0	0.0	0.5	28.3	0.0	3.5	3.0	3.0
Prop In Lane	0.33		0.33	0.56		0.42	1.00		0.00	1.00		0.10
Lane Grp Cap(c), veh/h	586	0	0	584	0	0	33	1233		180	772	799
V/C Ratio(X)	0.05	0.00	0.00	0.86	0.00	0.00	0.30	0.91		0.39	0.13	0.13
Avail Cap(c_a), veh/h	591	0	0	589	0	0	153	1286		180	772	799
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	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.99	0.99	0.99
Uniform Delay (d), s/veh	18.3	0.0	0.0	27.6	0.0	0.0	43.5	27.2	0.0	37.5	14.1	14.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	11.6	0.0	0.0	1.8	11.3	0.0	0.5	0.3	0.3
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/ln0.4	0.0	0.0	0.0	11.9	0.0	0.0	0.2	12.6	0.0	1.4	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	0.0	0.0	39.2	0.0	0.0	45.3	38.5	0.0	38.0	14.5	14.5
LnGrp LOS	B	A	A	D	A	A	D	D		D	B	B
Approach Vol, veh/h		30		500			1130		A		270	
Approach Delay, s/veh		18.3		39.2			38.5				20.6	
Approach LOS		B		D			D				C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	34.5	37.8		37.7	6.3	46.1		37.7				
Change Period (Y+Rc), s	5.0	* 5		4.5	4.5	5.0		4.5				
Max Green Setting (Gmax), s	33.3	* 34		33.5	8.1	34.4		33.5				
Max Q Clear Time (g_c+1/5), s	15.5	30.3		3.0	2.5	5.0		33.0				
Green Ext Time (p_c), s	0.0	2.5		0.1	0.0	1.1		0.2				

Intersection Summary

HCM 6th Ctrl Delay	35.9
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR] 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)	60	10	10	240	10	400	10	1450	10	10	140	20
Future Volume (veh/h)	60	10	10	240	10	400	10	1450	10	10	140	20
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	60	10	10	240	10	400	10	1450	10	10	140	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	256	42	24	556	17	473	730	1800	12	208	1556	219
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	404	134	77	1312	55	1510	1168	3446	24	346	2980	419
Grp Volume(v), veh/h	80	0	0	250	0	400	10	712	748	10	78	82
Grp Sat Flow(s),veh/h/ln	615	0	0	1367	0	1510	1168	1692	1777	346	1692	1706
Q Serve(g_s), s	2.2	0.0	0.0	0.0	0.0	12.1	0.2	16.9	16.9	1.2	1.1	1.2
Cycle Q Clear(g_c), s	9.6	0.0	0.0	7.4	0.0	12.1	1.4	16.9	16.9	18.1	1.1	1.2
Prop In Lane	0.75		0.12	0.96		1.00	1.00		0.01	1.00		0.25
Lane Grp Cap(c), veh/h	322	0	0	573	0	473	730	884	928	208	884	891
V/C Ratio(X)	0.25	0.00	0.00	0.44	0.00	0.84	0.01	0.81	0.81	0.05	0.09	0.09
Avail Cap(c_a), veh/h	380	0	0	648	0	558	815	1007	1057	234	1007	1015
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.6	0.0	0.0	14.0	0.0	15.6	6.2	9.6	9.6	17.1	5.8	5.8
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.5	0.0	10.1	0.0	4.3	4.2	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	2.1	0.0	4.9	0.0	5.2	5.4	0.1	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.0	0.0	0.0	14.5	0.0	25.7	6.2	13.9	13.8	17.2	5.9	5.9
LnGrp LOS	B	A	A	B	A	C	A	B	B	B	A	A
Approach Vol, veh/h		80			650			1470			170	
Approach Delay, s/veh		16.0			21.4			13.8			6.5	
Approach LOS		B			C			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		29.5		19.3		29.5		19.3				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		29.0		18.0		29.0		18.0				
Max Q Clear Time (g_c+1), s		18.9		11.6		20.1		14.1				
Green Ext Time (p_c), s		6.5		0.2		0.6		1.2				
Intersection Summary												
HCM 6th Ctrl Delay				15.4								
HCM 6th LOS				B								

Tracy Transportation Master Plan Update
78: TRACY BLVD & SCHULTE ROAD

Future 2042
Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗		↖	↖↗	↖	↖	↖↗	↖
Traffic Volume (veh/h)	120	200	190	10	1120	390	50	890	30	20	130	260
Future Volume (veh/h)	120	200	190	10	1120	390	50	890	30	20	130	260
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	120	200	190	10	1120	390	50	890	30	20	130	260
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	141	853	761	58	1127	385	63	915	408	42	872	389
Arrive On Green	0.08	0.50	0.50	0.03	0.46	0.46	0.04	0.27	0.27	0.02	0.26	0.26
Sat Flow, veh/h	1697	1692	1510	1697	2475	846	1697	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	120	200	190	10	759	751	50	890	30	20	130	260
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1697	1692	1629	1697	1692	1510	1697	1692	1510
Q Serve(g_s), s	8.2	7.8	8.3	0.7	51.8	53.2	3.4	30.4	1.7	1.4	3.5	18.0
Cycle Q Clear(g_c), s	8.2	7.8	8.3	0.7	51.8	53.2	3.4	30.4	1.7	1.4	3.5	18.0
Prop In Lane	1.00		1.00	1.00		0.52	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	141	853	761	58	770	742	63	915	408	42	872	389
V/C Ratio(X)	0.85	0.23	0.25	0.17	0.99	1.01	0.79	0.97	0.07	0.48	0.15	0.67
Avail Cap(c_a), veh/h	141	853	761	450	770	742	93	915	408	87	904	403
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	1.00	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	52.9	16.3	16.4	54.8	31.5	31.8	55.8	42.2	31.7	56.3	33.5	38.9
Incr Delay (d2), s/veh	35.1	0.1	0.2	0.5	28.8	36.1	14.1	23.2	0.1	3.2	0.1	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	2.9	2.8	0.3	25.9	27.0	1.7	15.4	0.6	0.6	1.4	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.0	16.4	16.6	55.3	60.2	67.9	70.0	65.4	31.8	59.4	33.6	42.9
LnGrp LOS	F	B	B	E	E	F	E	E	C	E	C	D
Approach Vol, veh/h		510			1520			970			410	
Approach Delay, s/veh		33.3			64.0			64.6			40.8	
Approach LOS		C			E			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.2	58.7	7.4	36.6	8.5	64.4	8.8	35.1				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.0	4.5	5.5	4.5	5.0				
Max Green Setting (Gmax), s	31.2	53.2	6.0	31.6	31.0	31.9	6.4	31.2				
Max Q Clear Time (g_c+110), s	11.0	55.2	3.4	32.4	2.7	10.3	5.4	20.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.5	0.0	1.3				

Intersection Summary

HCM 6th Ctrl Delay	56.8
HCM 6th LOS	E

Notes

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

Tracy Transportation Master Plan Update
79: TRACY BLVD & Central Ave

Future 2042
Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕		↖	↗	
Traffic Volume (veh/h)	50	50	10	170	310	70	20	670	210	20	290	30
Future Volume (veh/h)	50	50	10	170	310	70	20	670	210	20	290	30
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	50	50	10	170	310	70	20	670	210	20	290	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	127	298	60	209	360	81	64	861	270	64	1052	108
Arrive On Green	0.07	0.21	0.21	0.12	0.26	0.26	0.04	0.34	0.34	0.04	0.34	0.34
Sat Flow, veh/h	1697	1441	288	1697	1407	318	1697	2536	795	1697	3099	318
Grp Volume(v), veh/h	50	0	60	170	0	380	20	447	433	20	157	163
Grp Sat Flow(s),veh/h/ln1697	0	1730	1697	0	1724	1697	1692	1638	1697	1692	1724	
Q Serve(g_s), s	1.7	0.0	1.8	6.0	0.0	13.0	0.7	14.6	14.6	0.7	4.2	4.2
Cycle Q Clear(g_c), s	1.7	0.0	1.8	6.0	0.0	13.0	0.7	14.6	14.6	0.7	4.2	4.2
Prop In Lane	1.00		0.17	1.00		0.18	1.00		0.48	1.00		0.18
Lane Grp Cap(c), veh/h	127	0	358	209	0	441	64	575	556	64	575	585
V/C Ratio(X)	0.39	0.00	0.17	0.81	0.00	0.86	0.31	0.78	0.78	0.31	0.27	0.28
Avail Cap(c_a), veh/h	220	0	787	317	0	882	220	660	639	234	674	686
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	27.2	0.0	20.0	26.3	0.0	21.9	28.8	18.2	18.3	28.8	14.8	14.8
Incr Delay (d2), s/veh	0.7	0.0	0.1	5.1	0.0	2.0	1.0	6.1	6.4	1.0	0.4	0.4
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/ln0.7	0.0	0.0	0.7	2.6	0.0	5.0	0.3	5.8	5.7	0.3	1.4	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.9	0.0	20.1	31.4	0.0	23.8	29.9	24.4	24.6	29.9	15.2	15.3
LnGrp LOS	C	A	C	C	A	C	C	C	C	C	B	B
Approach Vol, veh/h		110			550			900			340	
Approach Delay, s/veh		23.7			26.2			24.6			16.1	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s6.8	25.4	12.1	17.2	6.8	25.4	9.1	20.2					
Change Period (Y+Rc), s 4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5					
Max Green Setting (Gmax), s 8.5	24.0	11.5	28.0	8.0	24.5	8.0	31.5					
Max Q Clear Time (g_c+1), s 12.5	16.6	8.0	3.8	2.7	6.2	3.7	15.0					
Green Ext Time (p_c), s	0.0	4.3	0.0	0.1	0.0	2.6	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay	23.5
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)	130	60	40	130	1070	160	70	600	50	140	310	20
Future Volume (veh/h)	130	60	40	130	1070	160	70	600	50	140	310	20
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	130	60	40	130	1070	160	70	600	50	140	310	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	159	757	462	282	1240	553	125	770	343	171	822	53
Arrive On Green	0.09	0.37	0.37	0.09	0.37	0.37	0.07	0.23	0.23	0.10	0.25	0.25
Sat Flow, veh/h	1697	2019	1233	3291	3385	1510	1697	3385	1510	1697	3229	207
Grp Volume(v), veh/h	130	49	51	130	1070	160	70	600	50	140	162	168
Grp Sat Flow(s),veh/h/ln	1697	1692	1560	1646	1692	1510	1697	1692	1510	1697	1692	1744
Q Serve(g_s), s	6.7	1.7	1.9	3.4	26.3	6.7	3.6	14.9	2.4	7.3	7.1	7.1
Cycle Q Clear(g_c), s	6.7	1.7	1.9	3.4	26.3	6.7	3.6	14.9	2.4	7.3	7.1	7.1
Prop In Lane	1.00		0.79	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	159	634	584	282	1240	553	125	770	343	171	431	444
V/C Ratio(X)	0.82	0.08	0.09	0.46	0.86	0.29	0.56	0.78	0.15	0.82	0.38	0.38
Avail Cap(c_a), veh/h	219	765	705	293	1395	622	151	1407	627	285	837	863
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	1.00	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	39.9	18.1	18.1	39.1	26.3	20.2	40.2	32.6	27.7	39.6	27.6	27.6
Incr Delay (d2), s/veh	11.1	0.1	0.1	0.4	5.5	0.3	1.5	2.1	0.2	3.7	0.7	0.6
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	3.2	0.6	0.7	1.3	10.7	2.3	1.5	5.9	0.8	3.1	2.8	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.0	18.1	18.2	39.5	31.8	20.5	41.6	34.7	27.9	43.3	28.2	28.3
LnGrp LOS	D	B	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		230		1360		720		470				
Approach Delay, s/veh		36.7		31.2		34.9		32.7				
Approach LOS		D		C		C		C				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.5	25.4	12.2	38.6	11.1	27.8	12.9	37.9				
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0				
Max Green Setting (Gmax), s	15.1	37.3	8.0	40.6	8.0	44.4	11.6	37.0				
Max Q Clear Time (g_c+1/3), s	19.3	16.9	5.4	3.9	5.6	9.1	8.7	28.3				
Green Ext Time (p_c), s	0.1	3.5	0.0	0.4	0.0	1.6	0.0	4.6				

Intersection Summary

HCM 6th Ctrl Delay	32.9
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
 81: TRACY BLVD & Whispering Wind Dr

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↗		↖	↗	
Traffic Volume (veh/h)	110	30	30	300	200	180	10	520	70	80	270	120
Future Volume (veh/h)	110	30	30	300	200	180	10	520	70	80	270	120
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	110	30	30	300	200	180	10	520	70	80	270	120
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	161	136	136	206	344	292	26	800	107	137	764	330
Arrive On Green	0.09	0.17	0.17	0.12	0.19	0.19	0.02	0.27	0.27	0.08	0.33	0.33
Sat Flow, veh/h	1697	817	817	1697	1781	1510	1697	2999	402	1697	2300	995
Grp Volume(v), veh/h	110	0	60	300	200	180	10	293	297	80	197	193
Grp Sat Flow(s),veh/h/ln1697	0	1634	1697	1781	1510	1697	1692	1709	1697	1692	1602	1602
Q Serve(g_s), s	3.1	0.0	1.6	6.0	5.0	5.4	0.3	7.6	7.6	2.2	4.3	4.5
Cycle Q Clear(g_c), s	3.1	0.0	1.6	6.0	5.0	5.4	0.3	7.6	7.6	2.2	4.3	4.5
Prop In Lane	1.00		0.50	1.00		1.00	1.00		0.24	1.00		0.62
Lane Grp Cap(c), veh/h	161	0	272	206	344	292	26	451	456	137	562	532
V/C Ratio(X)	0.69	0.00	0.22	1.46	0.58	0.62	0.38	0.65	0.65	0.58	0.35	0.36
Avail Cap(c_a), veh/h	206	0	993	206	1082	917	206	898	906	337	1028	973
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	21.7	0.0	17.8	21.7	18.1	18.2	24.1	16.1	16.1	21.9	12.5	12.5
Incr Delay (d2), s/veh	3.4	0.0	0.5	230.0	1.9	2.6	3.3	1.9	1.9	1.5	0.4	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/ln1.3	0.0	0.6	15.3	2.0	1.9	0.1	2.5	2.6	0.8	1.3	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.0	0.0	18.3	251.7	20.0	20.8	27.4	17.9	18.0	23.3	12.9	13.0
LnGrp LOS	C	A	B	F	B	C	C	B	B	C	B	B
Approach Vol, veh/h		170			680			600			470	
Approach Delay, s/veh		22.7			122.4			18.1			14.7	
Approach LOS		C			F			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s8.5	17.7	10.5	12.7	5.3	20.9	9.2	14.0					
Change Period (Y+Rc), s 4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5					
Max Green Setting (Gmax), s 26.2	26.2	6.0	30.0	6.0	30.0	6.0	30.0					
Max Q Clear Time (g_c+14.2)	9.6	8.0	3.6	2.3	6.5	5.1	7.4					
Green Ext Time (p_c), s 0.0	3.5	0.0	0.3	0.0	2.5	0.0	2.2					

Intersection Summary

HCM 6th Ctrl Delay	54.6
HCM 6th LOS	D

Notes

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

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	10	10	590	10	10	580
Future Vol, veh/h	10	10	590	10	10	580
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	-	-	-	120	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	10	10	590	10	10	580
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	905	300	0	0	600	0
Stage 1	595	-	-	-	-	-
Stage 2	310	-	-	-	-	-
Critical Hdwy	6.96	7.06	-	-	4.26	-
Critical Hdwy Stg 1	5.96	-	-	-	-	-
Critical Hdwy Stg 2	5.96	-	-	-	-	-
Follow-up Hdwy	3.58	3.38	-	-	2.28	-
Pot Cap-1 Maneuver	265	679	-	-	933	-
Stage 1	497	-	-	-	-	-
Stage 2	699	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	262	679	-	-	933	-
Mov Cap-2 Maneuver	262	-	-	-	-	-
Stage 1	497	-	-	-	-	-
Stage 2	691	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	15.1	0	0.2			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	378	933		
HCM Lane V/C Ratio	-	-	0.053	0.011		
HCM Control Delay (s)	-	-	15.1	8.9		
HCM Lane LOS	-	-	C	A		
HCM 95th %tile Q(veh)	-	-	0.2	0		

Tracy Transportation Master Plan Update
83: TRACY BLVD & LINNE

Future 2042
Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↔		↔	↕↕	↔		↕↕		↔	↕	↔
Traffic Volume (veh/h)	450	540	20	30	1900	150	10	20	20	110	20	480
Future Volume (veh/h)	450	540	20	30	1900	150	10	20	20	110	20	480
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	450	540	20	30	1900	150	10	20	20	110	20	480
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	439	2119	78	37	1777	881	62	109	89	99	431	566
Arrive On Green	0.13	0.64	0.64	0.02	0.52	0.52	0.15	0.15	0.15	0.06	0.24	0.24
Sat Flow, veh/h	3291	3329	123	1697	3385	1510	170	724	596	1697	1781	1510
Grp Volume(v), veh/h	450	274	286	30	1900	150	50	0	0	110	20	480
Grp Sat Flow(s),veh/h/ln	1646	1692	1759	1697	1692	1510	1490	0	0	1697	1781	1510
Q Serve(g_s), s	16.0	8.4	8.5	2.1	63.0	5.5	0.0	0.0	0.0	7.0	1.0	29.0
Cycle Q Clear(g_c), s	16.0	8.4	8.5	2.1	63.0	5.5	3.2	0.0	0.0	7.0	1.0	29.0
Prop In Lane	1.00		0.07	1.00		1.00	0.20		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	439	1077	1120	37	1777	881	259	0	0	99	431	566
V/C Ratio(X)	1.03	0.25	0.26	0.81	1.07	0.17	0.19	0.00	0.00	1.11	0.05	0.85
Avail Cap(c_a), veh/h	439	1077	1120	85	1777	881	259	0	0	99	431	566
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	9.5	9.5	58.5	28.5	11.6	44.7	0.0	0.0	56.5	34.9	34.4
Incr Delay (d2), s/veh	49.6	0.1	0.1	33.2	42.6	0.1	0.4	0.0	0.0	123.7	0.0	11.5
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	9.4	2.8	3.0	1.2	33.5	1.7	1.3	0.0	0.0	6.4	0.5	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.6	9.6	9.6	91.7	71.1	11.7	45.1	0.0	0.0	180.2	34.9	45.9
LnGrp LOS	F	A	A	F	F	B	D	A	A	F	C	D
Approach Vol, veh/h		1010			2080			50				610
Approach Delay, s/veh		50.6			67.1			45.1				69.8
Approach LOS		D			E			D				E
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	11.0	22.0	6.6	80.4		33.0	20.0	67.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s	7.0	18.0	6.0	73.0		29.0	16.0	63.0				
Max Q Clear Time (g_c+I1), s	9.0	5.2	4.1	10.5		31.0	18.0	65.0				
Green Ext Time (p_c), s	0.0	0.1	0.0	2.2		0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	62.8
HCM 6th LOS	E

Notes

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

Tracy Transportation Master Plan Update
 84: CENTRAL AVE/Holly Dr & ELEVENTH ST.

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗		↖	↖		↖	↖	↖
Traffic Volume (veh/h)	10	630	80	30	1610	10	130	560	40	10	60	10
Future Volume (veh/h)	10	630	80	30	1610	10	130	560	40	10	60	10
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	630	80	30	1610	10	130	560	40	10	60	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	91	1518	192	37	1606	10	156	527	38	16	425	360
Arrive On Green	0.05	0.50	0.50	0.02	0.47	0.47	0.09	0.32	0.32	0.01	0.24	0.24
Sat Flow, veh/h	1697	3022	383	1697	3449	21	1697	1643	117	1697	1781	1510
Grp Volume(v), veh/h	10	352	358	30	790	830	130	0	600	10	60	10
Grp Sat Flow(s),veh/h/ln	1697	1692	1712	1697	1692	1778	1697	0	1760	1697	1781	1510
Q Serve(g_s), s	0.7	15.7	15.8	2.1	55.9	55.9	9.0	0.0	38.5	0.7	3.2	0.6
Cycle Q Clear(g_c), s	0.7	15.7	15.8	2.1	55.9	55.9	9.0	0.0	38.5	0.7	3.2	0.6
Prop In Lane	1.00		0.22	1.00		0.01	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	91	850	860	37	788	828	156	0	565	16	425	360
V/C Ratio(X)	0.11	0.41	0.42	0.82	1.00	1.00	0.83	0.00	1.06	0.62	0.14	0.03
Avail Cap(c_a), veh/h	91	850	860	85	788	828	247	0	565	58	425	360
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	1.00	1.00	0.36	0.36	0.36	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.0	18.8	18.8	58.5	32.0	32.1	53.6	0.0	40.8	59.2	36.0	35.0
Incr Delay (d2), s/veh	0.2	1.5	1.5	5.8	19.6	19.4	6.8	0.0	55.5	13.8	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	6.5	6.6	1.0	26.3	27.6	4.1	0.0	25.1	0.4	1.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.2	20.3	20.3	64.3	51.7	51.5	60.4	0.0	96.3	73.0	36.1	35.0
LnGrp LOS	D	C	C	E	F	F	E	A	F	E	D	D
Approach Vol, veh/h		720		1650		730		80				
Approach Delay, s/veh		20.7		51.8		89.9		40.6				
Approach LOS		C		D		F		D				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	60.4	15.5	33.1	6.6	64.8	5.6	43.0				
Change Period (Y+Rc), s	4.5	* 4.5	4.5	4.5	4.0	4.5	4.5	4.5				
Max Green Setting (Gmax), s	1.0	* 56	17.5	25.1	6.0	53.9	4.1	38.5				
Max Q Clear Time (g_c+1/2), s	1.0	57.9	11.0	5.2	4.1	17.8	2.7	40.5				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.1	0.0	3.2	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	53.2
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
 85: CENTRAL AVE & SCHULTE ROAD

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗		↖	↖		↖	↖	
Traffic Volume (veh/h)	60	210	10	180	1470	250	10	170	100	10	180	20
Future Volume (veh/h)	60	210	10	180	1470	250	10	170	100	10	180	20
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	60	210	10	180	1470	250	10	170	100	10	180	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	87	1605	76	212	1630	272	25	198	116	25	296	33
Arrive On Green	0.05	0.49	0.49	0.12	0.56	0.56	0.01	0.19	0.19	0.01	0.19	0.19
Sat Flow, veh/h	1697	3290	156	1697	2901	485	1697	1052	619	1697	1575	175
Grp Volume(v), veh/h	60	108	112	180	847	873	10	0	270	10	0	200
Grp Sat Flow(s),veh/h/ln	1697	1692	1753	1697	1692	1694	1697	0	1670	1697	0	1750
Q Serve(g_s), s	3.2	3.2	3.2	9.6	40.5	43.0	0.5	0.0	14.4	0.5	0.0	9.7
Cycle Q Clear(g_c), s	3.2	3.2	3.2	9.6	40.5	43.0	0.5	0.0	14.4	0.5	0.0	9.7
Prop In Lane	1.00		0.09	1.00		0.29	1.00		0.37	1.00		0.10
Lane Grp Cap(c), veh/h	87	826	856	212	951	952	25	0	314	25	0	329
V/C Ratio(X)	0.69	0.13	0.13	0.85	0.89	0.92	0.40	0.00	0.86	0.40	0.00	0.61
Avail Cap(c_a), veh/h	110	826	856	386	1007	1008	110	0	473	110	0	495
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.1	12.9	12.9	39.5	17.7	18.3	45.0	0.0	36.3	45.0	0.0	34.3
Incr Delay (d2), s/veh	7.1	0.1	0.1	3.6	9.8	12.6	3.8	0.0	10.9	3.8	0.0	2.2
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	1.5	1.1	1.2	4.1	16.0	17.6	0.3	0.0	6.7	0.3	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.2	13.0	13.0	43.2	27.6	30.9	48.8	0.0	47.2	48.8	0.0	36.5
LnGrp LOS	D	B	B	D	C	C	D	A	D	D	A	D
Approach Vol, veh/h		280		1900		280		210				
Approach Delay, s/veh		21.0		30.6		47.2		37.1				
Approach LOS		C		C		D		D				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.7	56.3	5.4	21.9	15.5	49.5	5.4	21.9				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.0	4.5	4.0	4.5				
Max Green Setting (Gmax), s	6.0	54.9	6.0	26.1	21.0	39.9	6.0	26.1				
Max Q Clear Time (g_c+1/2), s	15.2	45.0	2.5	11.7	11.6	5.2	2.5	16.4				
Green Ext Time (p_c), s	0.0	6.8	0.0	0.8	0.1	1.0	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay				31.8								
HCM 6th LOS				C								

Tracy Transportation Master Plan Update
86: MACARTHUR DRIVE (N) & Arbor Ave

Future 2042
Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↖	↗	↖	↗
Traffic Volume (veh/h)	10	60	10	540	380	10	80	10	350	80	750	710
Future Volume (veh/h)	10	60	10	540	380	10	80	10	350	80	750	710
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	60	10	540	380	10	80	10	350	80	750	710
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	16	89	15	532	628	17	63	748	634	101	788	668
Arrive On Green	0.01	0.06	0.06	0.31	0.36	0.36	0.04	0.42	0.42	0.06	0.44	0.44
Sat Flow, veh/h	1697	1489	248	1697	1728	45	1697	1781	1510	1697	1781	1510
Grp Volume(v), veh/h	10	0	70	540	0	390	80	10	350	80	750	710
Grp Sat Flow(s),veh/h/ln	1697	0	1737	1697	0	1773	1697	1781	1510	1697	1781	1510
Q Serve(g_s), s	0.6	0.0	4.3	34.0	0.0	19.5	4.0	0.4	19.0	5.0	44.0	48.0
Cycle Q Clear(g_c), s	0.6	0.0	4.3	34.0	0.0	19.5	4.0	0.4	19.0	5.0	44.0	48.0
Prop In Lane	1.00		0.14	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	16	0	103	532	0	645	63	748	634	101	788	668
V/C Ratio(X)	0.61	0.00	0.68	1.02	0.00	0.61	1.28	0.01	0.55	0.79	0.95	1.06
Avail Cap(c_a), veh/h	63	0	288	532	0	785	63	748	634	188	788	668
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	53.5	0.0	50.0	37.2	0.0	28.2	52.2	18.4	23.8	50.3	29.1	30.2
Incr Delay (d2), s/veh	32.1	0.0	7.5	42.9	0.0	0.9	205.8	0.0	1.0	12.8	21.0	52.7
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	0.4	0.0	2.1	20.0	0.0	8.2	5.2	0.1	6.7	2.5	22.0	26.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.6	0.0	57.5	80.2	0.0	29.1	258.0	18.4	24.8	63.1	50.1	82.9
LnGrp LOS	F	A	E	F	A	C	F	B	C	E	D	F
Approach Vol, veh/h		80			930			440			1540	
Approach Delay, s/veh		61.0			58.7			67.1			65.9	
Approach LOS		E			E			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	40.5	49.5	38.0	10.5	8.0	52.0	5.0	43.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	40.0	40.0	34.0	18.0	4.0	48.0	4.0	48.0				
Max Q Clear Time (g_c+1), s	21.0	21.0	36.0	6.3	6.0	50.0	2.6	21.5				
Green Ext Time (p_c), s	0.1	1.2	0.0	0.2	0.0	0.0	0.0	2.4				

Intersection Summary

HCM 6th Ctrl Delay	63.7
HCM 6th LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖ ↗	↖ ↗		↖ ↗	↑			↖ ↗	↖ ↗
Traffic Volume (veh/h)	0	0	0	660	30	260	1710	190	0	0	180	1100
Future Volume (veh/h)	0	0	0	660	30	260	1710	190	0	0	180	1100
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		No		
Adj Sat Flow, veh/h/ln				1781	1781	1781	1781	1781	0	0	1781	1781
Adj Flow Rate, veh/h				475	289	260	1710	190	0	0	0	1220
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				8	8	8	8	8	0	0	8	8
Cap, veh/h				379	193	174	1237	1248	0	0	506	858
Arrive On Green				0.22	0.22	0.22	0.38	0.70	0.00	0.00	0.00	0.28
Sat Flow, veh/h				1697	864	777	3291	1781	0	0	1781	3019
Grp Volume(v), veh/h				475	0	549	1710	190	0	0	0	1220
Grp Sat Flow(s),veh/h/ln				1697	0	1642	1646	1781	0	0	1781	1510
Q Serve(g_s), s				26.8	0.0	26.8	45.1	4.3	0.0	0.0	0.0	34.1
Cycle Q Clear(g_c), s				26.8	0.0	26.8	45.1	4.3	0.0	0.0	0.0	34.1
Prop In Lane				1.00		0.47	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				379	0	367	1237	1248	0	0	506	858
V/C Ratio(X)				1.25	0.00	1.50	1.38	0.15	0.00	0.00	0.00	1.42
Avail Cap(c_a), veh/h				379	0	367	1237	1248	0	0	506	858
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	1.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				46.6	0.0	46.6	37.5	6.0	0.0	0.0	0.0	42.9
Incr Delay (d2), s/veh				134.1	0.0	237.8	177.2	0.0	0.0	0.0	0.0	196.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				25.2	0.0	35.0	47.7	1.4	0.0	0.0	0.0	35.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				180.7	0.0	284.4	214.6	6.0	0.0	0.0	0.0	239.6
LnGrp LOS				F	A	F	F	A	A	A	A	F
Approach Vol, veh/h				1024				1900			1220	
Approach Delay, s/veh				236.3				193.8			239.6	
Approach LOS				F				F			F	
Timer - Assigned Phs		2		5	6		8					
Phs Duration (G+Y+Rc), s		89.0		50.0	39.0		31.0					
Change Period (Y+Rc), s		4.9		4.9	4.9		4.2					
Max Green Setting (Gmax), s		84.1		45.1	34.1		26.8					
Max Q Clear Time (g_c+I1), s		6.3		47.1	36.1		28.8					
Green Ext Time (p_c), s		0.4		0.0	0.0		0.0					

Intersection Summary

HCM 6th Ctrl Delay	217.8
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘		↗					↑↑	↗	↘	↑	
Traffic Volume (veh/h)	110	0	290	0	0	0	0	1800	10	10	840	0
Future Volume (veh/h)	110	0	290	0	0	0	0	1800	10	10	840	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		No	
Adj Sat Flow, veh/h/ln	1781	0	1781				0	1781	1781	1781	1781	0
Adj Flow Rate, veh/h	110	0	290				0	1800	10	10	840	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	0	8				0	8	8	8	8	0
Cap, veh/h	370	0	329				0	1990	888	21	1169	0
Arrive On Green	0.22	0.00	0.22				0.00	0.59	0.59	0.01	0.66	0.00
Sat Flow, veh/h	1697	0	1510				0	3474	1510	1697	1781	0
Grp Volume(v), veh/h	110	0	290				0	1800	10	10	840	0
Grp Sat Flow(s),veh/h/ln	1697	0	1510				0	1692	1510	1697	1781	0
Q Serve(g_s), s	3.9	0.0	13.4				0.0	33.8	0.2	0.4	22.1	0.0
Cycle Q Clear(g_c), s	3.9	0.0	13.4				0.0	33.8	0.2	0.4	22.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	370	0	329				0	1990	888	21	1169	0
V/C Ratio(X)	0.30	0.00	0.88				0.00	0.90	0.01	0.47	0.72	0.00
Avail Cap(c_a), veh/h	423	0	377				0	2060	919	118	1306	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	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.6	0.0	27.3				0.0	13.1	6.2	35.4	8.1	0.0
Incr Delay (d2), s/veh	0.2	0.0	17.7				0.0	6.2	0.0	15.1	2.0	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	1.5	0.0	6.1				0.0	11.2	0.1	0.3	6.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	0.0	45.0				0.0	19.3	6.2	50.5	10.0	0.0
LnGrp LOS	C	A	D				A	B	A	D	B	A
Approach Vol, veh/h		400						1810			850	
Approach Delay, s/veh		39.1						19.2			10.5	
Approach LOS		D						B			B	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	4.9	47.3	19.9	52.2								
Change Period (Y+Rc), s	4.0	4.9	* 4.2	4.9								
Max Green Setting (Gmax), s	5.0	43.9	* 18	52.9								
Max Q Clear Time (g_c+I), s	12.4	35.8	15.4	24.1								
Green Ext Time (p_c), s	0.0	6.7	0.3	7.1								

Intersection Summary

HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
 89: MACARTHUR DRIVE (N) & PESCADERO AVE

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↗	↖	↗	↗	↖
Traffic Volume (veh/h)	190	20	60	330	10	590	20	1040	120	260	820	50
Future Volume (veh/h)	190	20	60	330	10	590	20	1040	120	260	820	50
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	190	20	60	330	10	590	20	1040	120	260	820	50
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	216	105	315	316	583	629	55	1012	733	294	1204	729
Arrive On Green	0.13	0.27	0.27	0.19	0.33	0.33	0.03	0.30	0.30	0.09	0.36	0.36
Sat Flow, veh/h	1697	392	1177	1697	1781	1510	1697	3385	1510	3291	3385	1510
Grp Volume(v), veh/h	190	0	80	330	10	590	20	1040	120	260	820	50
Grp Sat Flow(s),veh/h/ln	1697	0	1570	1697	1781	1510	1697	1692	1510	1646	1692	1510
Q Serve(g_s), s	12.9	0.0	4.6	21.9	0.4	38.4	1.4	35.1	5.2	9.2	24.2	2.1
Cycle Q Clear(g_c), s	12.9	0.0	4.6	21.9	0.4	38.4	1.4	35.1	5.2	9.2	24.2	2.1
Prop In Lane	1.00		0.75	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	216	0	420	316	583	629	55	1012	733	294	1204	729
V/C Ratio(X)	0.88	0.00	0.19	1.04	0.02	0.94	0.36	1.03	0.16	0.88	0.68	0.07
Avail Cap(c_a), veh/h	253	0	454	316	583	629	116	1012	733	294	1204	729
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	50.4	0.0	33.2	47.8	26.7	32.8	55.6	41.2	16.9	52.9	32.2	16.2
Incr Delay (d2), s/veh	23.4	0.0	0.2	62.2	0.0	21.7	1.5	35.6	0.1	24.7	1.8	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	6.9	0.0	1.8	14.6	0.2	19.2	0.6	19.1	1.8	4.7	9.8	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.8	0.0	33.4	110.0	26.7	54.5	57.1	76.8	17.0	77.6	33.9	16.3
LnGrp LOS	E	A	C	F	C	D	E	F	B	E	C	B
Approach Vol, veh/h		270			930			1180			1130	
Approach Delay, s/veh		61.8			73.9			70.4			43.2	
Approach LOS		E			E			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	40.1	26.4	35.9	8.3	46.8	19.4	42.9				
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5				
Max Green Setting (Gmax), s	10.5	35.1	21.9	34.0	8.0	37.6	17.5	38.4				
Max Q Clear Time (g_c+I1), s	11.2	37.1	23.9	6.6	3.4	26.2	14.9	40.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.0	5.4	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	61.9
HCM 6th LOS	E

Notes

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

Tracy Transportation Master Plan Update
 90: MACARTHUR DRIVE (N) & GRANT LINE RD

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖	↖	↖↗		↖	↖↗	↖
Traffic Volume (veh/h)	100	650	40	350	2100	550	40	550	80	100	540	560
Future Volume (veh/h)	100	650	40	350	2100	550	40	550	80	100	540	560
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	100	650	40	350	2100	550	40	550	80	100	540	560
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	86	958	59	358	1544	765	63	799	116	86	958	427
Arrive On Green	0.05	0.30	0.30	0.21	0.46	0.46	0.04	0.27	0.27	0.05	0.28	0.28
Sat Flow, veh/h	1697	3239	199	1697	3385	1510	1697	2966	430	1697	3385	1510
Grp Volume(v), veh/h	100	339	351	350	2100	550	40	313	317	100	540	560
Grp Sat Flow(s),veh/h/ln	1697	1692	1746	1697	1692	1510	1697	1692	1704	1697	1692	1510
Q Serve(g_s), s	6.0	20.9	21.0	24.3	54.0	33.5	2.8	19.6	19.8	6.0	16.1	33.5
Cycle Q Clear(g_c), s	6.0	20.9	21.0	24.3	54.0	33.5	2.8	19.6	19.8	6.0	16.1	33.5
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	86	500	516	358	1544	765	63	456	459	86	958	427
V/C Ratio(X)	1.16	0.68	0.68	0.98	1.36	0.72	0.64	0.69	0.69	1.16	0.56	1.31
Avail Cap(c_a), veh/h	86	500	516	358	1544	765	86	479	482	86	958	427
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	1.00	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	56.2	36.7	36.8	46.4	32.2	22.7	56.2	38.8	38.8	56.2	36.2	42.4
Incr Delay (d2), s/veh	147.6	4.4	4.3	41.1	166.4	3.8	3.9	4.7	4.8	147.6	1.1	155.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	9.2	9.5	14.2	57.0	12.3	1.2	8.7	8.8	6.1	6.8	30.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	203.8	41.1	41.0	87.5	198.6	26.4	60.1	43.5	43.6	203.8	37.3	198.3
LnGrp LOS	F	D	D	F	F	C	E	D	D	F	D	F
Approach Vol, veh/h		790		3000				670		1200		
Approach Delay, s/veh		61.7		154.1				44.6		126.3		
Approach LOS		E		F				D		F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	37.4	30.0	40.0	9.4	39.0	11.0	59.0				
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0				
Max Green Setting (Gmax), s	3.0	33.5	25.0	35.0	6.0	33.5	6.0	54.0				
Max Q Clear Time (g_c+1/3), s	1.0	21.8	26.3	23.0	4.8	35.5	8.0	56.0				
Green Ext Time (p_c), s	0.0	3.6	0.0	4.0	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	122.3
HCM 6th LOS	F

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)	60	770	10	210	2270	310	60	470	10	70	360	250
Future Volume (veh/h)	60	770	10	210	2270	310	60	470	10	70	360	250
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	60	770	10	210	2270	310	60	470	10	70	360	250
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	103	1520	678	242	1781	795	61	689	15	89	422	289
Arrive On Green	0.06	0.45	0.45	0.14	0.53	0.53	0.04	0.20	0.20	0.05	0.22	0.22
Sat Flow, veh/h	1697	3385	1510	1697	3385	1510	1697	3389	72	1697	1923	1314
Grp Volume(v), veh/h	60	770	10	210	2270	310	60	234	246	70	316	294
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1697	1692	1510	1697	1692	1768	1697	1692	1545
Q Serve(g_s), s	3.8	18.0	0.4	13.5	58.5	13.6	3.9	14.2	14.3	4.5	19.9	20.4
Cycle Q Clear(g_c), s	3.8	18.0	0.4	13.5	58.5	13.6	3.9	14.2	14.3	4.5	19.9	20.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		0.85
Lane Grp Cap(c), veh/h	103	1520	678	242	1781	795	61	344	359	89	372	339
V/C Ratio(X)	0.58	0.51	0.01	0.87	1.27	0.39	0.98	0.68	0.68	0.79	0.85	0.87
Avail Cap(c_a), veh/h	122	1520	678	382	1781	795	61	396	414	153	487	445
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	1.00	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	50.8	21.8	17.0	46.6	26.3	15.7	53.5	41.0	41.0	52.1	41.6	41.8
Incr Delay (d2), s/veh	1.9	0.3	0.0	12.1	128.0	0.3	108.8	2.8	2.7	14.1	8.6	10.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	7.0	0.1	6.4	53.3	4.6	3.5	6.2	6.5	2.3	9.2	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.8	22.1	17.0	58.7	154.3	16.0	162.4	43.7	43.6	66.2	50.3	52.7
LnGrp LOS	D	C	B	E	F	B	F	D	D	E	D	D
Approach Vol, veh/h		840			2790			540			680	
Approach Delay, s/veh		24.2			131.7			56.9			53.0	
Approach LOS		C			F			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.8	54.4	8.0	28.9	11.2	63.0	9.8	27.1				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.5	4.5	4.0	4.5				
Max Green Setting (Gmax), s	25.0	42.0	4.0	32.0	8.0	58.5	10.0	26.0				
Max Q Clear Time (g_c+1/5), s	11.5	20.0	5.9	22.4	5.8	60.5	6.5	16.3				
Green Ext Time (p_c), s	0.4	3.7	0.0	2.0	0.0	0.0	0.0	1.4				

Intersection Summary

HCM 6th Ctrl Delay	93.7
HCM 6th LOS	F

Notes

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

Tracy Transportation Master Plan Update
 92: MACARTHUR (S) & ELEVENTH ST.

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙	↑↑			↖	↗		↕	
Traffic Volume (veh/h)	0	680	10	400	2180	0	10	0	160	0	0	0
Future Volume (veh/h)	0	680	10	400	2180	0	10	0	160	0	0	0
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	0	680	0	400	2180	0	10	0	160	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	3	1367		445	2486	0	219	0	195	0	3	0
Arrive On Green	0.00	0.40	0.00	0.26	0.73	0.00	0.13	0.00	0.13	0.00	0.00	0.00
Sat Flow, veh/h	1697	3385	1510	1697	3474	0	1697	0	1510	0	1781	0
Grp Volume(v), veh/h	0	680	0	400	2180	0	10	0	160	0	0	0
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1697	1692	0	1697	0	1510	0	1781	0
Q Serve(g_s), s	0.0	9.9	0.0	15.0	31.7	0.0	0.3	0.0	6.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	9.9	0.0	15.0	31.7	0.0	0.3	0.0	6.8	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	3	1367		445	2486	0	219	0	195	0	3	0
V/C Ratio(X)	0.00	0.50		0.90	0.88	0.00	0.05	0.00	0.82	0.00	0.00	0.00
Avail Cap(c_a), veh/h	180	1825		717	2897	0	270	0	240	0	621	0
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)	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	14.7	0.0	23.5	6.5	0.0	25.2	0.0	28.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	5.9	3.0	0.0	0.1	0.0	16.7	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.6	0.0	6.2	6.5	0.0	0.1	0.0	3.2	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	15.0	0.0	29.4	9.5	0.0	25.3	0.0	44.7	0.0	0.0	0.0
LnGrp LOS	A	B		C	A	A	C	A	D	A	A	A
Approach Vol, veh/h		680	A		2580			170				0
Approach Delay, s/veh		15.0			12.6			43.6				0.0
Approach LOS		B			B			D				
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	31.8	31.2		0.0	0.0	53.0		13.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.9	35.6		23.0	7.0	56.5		10.5				
Max Q Clear Time (g_c+11), s	11.9	11.9		0.0	0.0	33.7		8.8				
Green Ext Time (p_c), s	0.3	3.5		0.0	0.0	14.8		0.1				

Intersection Summary

HCM 6th Ctrl Delay	14.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	3.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	160	10	10	10	10	400
Future Vol, veh/h	160	10	10	10	10	400
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, %	8	8	8	8	8	8
Mvmt Flow	160	10	10	10	10	400
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	240	210	410	0	0	
Stage 1	210	-	-	-	-	
Stage 2	30	-	-	-	-	
Critical Hdwy	6.48	6.28	4.18	-	-	
Critical Hdwy Stg 1	5.48	-	-	-	-	
Critical Hdwy Stg 2	5.48	-	-	-	-	
Follow-up Hdwy	3.572	3.372	2.272	-	-	
Pot Cap-1 Maneuver	735	815	1117	-	-	
Stage 1	811	-	-	-	-	
Stage 2	977	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	728	815	1117	-	-	
Mov Cap-2 Maneuver	728	-	-	-	-	
Stage 1	804	-	-	-	-	
Stage 2	977	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	11.4	4.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1117	-	733	-	-	
HCM Lane V/C Ratio	0.009	-	0.232	-	-	
HCM Control Delay (s)	8.3	0	11.4	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.9	-	-	

Tracy Transportation Master Plan Update
 94: MACARTHUR (S) & E. Mt. Diablo Ave/MacArthur Dr

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑	↗	↖	↗	
Traffic Volume (veh/h)	10	110	10	240	580	560	360	400	200	10	90	10
Future Volume (veh/h)	10	110	10	240	580	560	360	400	200	10	90	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	110	10	240	580	560	360	400	200	10	90	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	16	679	62	274	478	462	319	456	386	16	122	14
Arrive On Green	0.01	0.42	0.42	0.16	0.57	0.57	0.19	0.26	0.26	0.01	0.08	0.08
Sat Flow, veh/h	1697	1609	146	1697	833	804	1697	1781	1510	1697	1575	175
Grp Volume(v), veh/h	10	0	120	240	0	1140	360	400	200	10	0	100
Grp Sat Flow(s),veh/h/ln	1697	0	1755	1697	0	1637	1697	1781	1510	1697	0	1750
Q Serve(g_s), s	0.6	0.0	4.5	14.7	0.0	61.0	20.0	22.9	12.1	0.6	0.0	5.9
Cycle Q Clear(g_c), s	0.6	0.0	4.5	14.7	0.0	61.0	20.0	22.9	12.1	0.6	0.0	5.9
Prop In Lane	1.00		0.08	1.00		0.49	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	16	0	741	274	0	940	319	456	386	16	0	135
V/C Ratio(X)	0.61	0.00	0.16	0.88	0.00	1.21	1.13	0.88	0.52	0.61	0.00	0.74
Avail Cap(c_a), veh/h	64	0	741	431	0	940	319	587	497	64	0	313
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	0.00	1.00
Uniform Delay (d), s/veh	52.4	0.0	19.0	43.5	0.0	22.6	43.1	37.9	33.9	52.4	0.0	48.0
Incr Delay (d2), s/veh	31.9	0.0	0.1	11.7	0.0	105.8	89.2	11.7	1.1	31.9	0.0	7.6
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	0.4	0.0	1.9	7.0	0.0	49.0	16.0	11.1	4.5	0.4	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.3	0.0	19.1	55.2	0.0	128.4	132.3	49.6	35.0	84.3	0.0	55.6
LnGrp LOS	F	A	B	E	A	F	F	D	C	F	A	E
Approach Vol, veh/h		130			1380			960			110	
Approach Delay, s/veh		24.1			115.6			77.6			58.2	
Approach LOS		C			F			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	31.2	21.2	48.9	24.0	12.2	5.0	65.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	35.0	27.0	38.0	20.0	19.0	4.0	61.0				
Max Q Clear Time (g_c+I1), s	2.6	24.9	16.7	6.5	22.0	7.9	2.6	63.0				
Green Ext Time (p_c), s	0.0	2.2	0.5	0.7	0.0	0.3	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				94.4								
HCM 6th LOS				F								

Tracy Transportation Master Plan Update
 95: MACARTHUR (S) & SCHULTE ROAD

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	250	40	50	1500	260	170	680	40	70	200	70
Future Volume (veh/h)	20	250	40	50	1500	260	170	680	40	70	200	70
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	20	250	40	50	1500	260	170	680	40	70	200	70
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	30	1299	580	139	1541	687	245	781	46	119	604	205
Arrive On Green	0.02	0.38	0.38	0.08	0.46	0.46	0.07	0.24	0.24	0.07	0.24	0.24
Sat Flow, veh/h	1697	3385	1510	1697	3385	1510	3291	3248	191	1697	2480	842
Grp Volume(v), veh/h	20	250	40	50	1500	260	170	354	366	70	134	136
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1697	1692	1510	1646	1692	1747	1697	1692	1630
Q Serve(g_s), s	1.0	4.2	1.4	2.4	37.1	9.7	4.3	17.2	17.2	3.4	5.6	5.9
Cycle Q Clear(g_c), s	1.0	4.2	1.4	2.4	37.1	9.7	4.3	17.2	17.2	3.4	5.6	5.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.52
Lane Grp Cap(c), veh/h	30	1299	580	139	1541	687	245	407	420	119	412	397
V/C Ratio(X)	0.67	0.19	0.07	0.36	0.97	0.38	0.70	0.87	0.87	0.59	0.33	0.34
Avail Cap(c_a), veh/h	79	1382	616	141	1541	687	347	455	470	119	412	397
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	1.00	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	41.7	17.5	16.7	37.1	22.8	15.3	38.6	31.2	31.2	38.5	26.6	26.7
Incr Delay (d2), s/veh	22.5	0.1	0.1	1.9	17.0	0.4	3.5	15.6	15.4	5.1	0.6	0.6
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	0.6	1.5	0.5	1.0	16.6	3.1	1.8	8.4	8.6	1.5	2.2	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.2	17.6	16.7	39.0	39.8	15.7	42.1	46.8	46.6	43.6	27.1	27.3
LnGrp LOS	E	B	B	D	D	B	D	D	D	D	C	C
Approach Vol, veh/h		310			1810			890			340	
Approach Delay, s/veh		20.5			36.3			45.8			30.6	
Approach LOS		C			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.6	37.7	10.6	25.6	5.5	43.8	10.4	25.8				
Change Period (Y+Rc), s	4.6	4.9	4.6	* 5	4.0	* 4.9	4.0	5.0				
Max Green Setting (Gmax), s	34.9	6.0	* 23	4.0	* 39	9.0	20.5					
Max Q Clear Time (g_c+1/4), s	14.4	6.2	5.4	19.2	3.0	39.1	6.3	7.9				
Green Ext Time (p_c), s	0.0	1.5	0.0	1.4	0.0	0.0	0.2	1.0				

Intersection Summary

HCM 6th Ctrl Delay	36.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	110	10	30	800	50	100	320	70	40	220	460
Future Volume (veh/h)	60	110	10	30	800	50	100	320	70	40	220	460
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	60	110	10	30	800	50	100	320	70	40	220	460
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	87	818	693	72	747	47	124	405	89	84	468	396
Arrive On Green	0.05	0.46	0.46	0.04	0.45	0.45	0.07	0.29	0.29	0.05	0.26	0.26
Sat Flow, veh/h	1697	1781	1510	1697	1659	104	1697	1416	310	1697	1781	1510
Grp Volume(v), veh/h	60	110	10	30	0	850	100	0	390	40	220	460
Grp Sat Flow(s),veh/h/ln	1697	1781	1510	1697	0	1763	1697	0	1726	1697	1781	1510
Q Serve(g_s), s	4.1	4.2	0.4	2.0	0.0	53.2	6.9	0.0	24.6	2.7	12.3	31.0
Cycle Q Clear(g_c), s	4.1	4.2	0.4	2.0	0.0	53.2	6.9	0.0	24.6	2.7	12.3	31.0
Prop In Lane	1.00		1.00	1.00		0.06	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	87	818	693	72	0	794	124	0	494	84	468	396
V/C Ratio(X)	0.69	0.13	0.01	0.42	0.00	1.07	0.80	0.00	0.79	0.48	0.47	1.16
Avail Cap(c_a), veh/h	103	818	693	115	0	794	135	0	494	115	468	396
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	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	18.4	17.4	55.1	0.0	32.4	53.9	0.0	38.8	54.6	36.6	43.5
Incr Delay (d2), s/veh	10.0	0.1	0.0	1.4	0.0	52.4	24.3	0.0	8.4	1.6	0.7	96.8
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	2.0	1.7	0.1	0.9	0.0	32.8	3.7	0.0	11.3	1.2	5.3	21.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.1	18.5	17.4	56.5	0.0	84.9	78.1	0.0	47.2	56.2	37.4	140.3
LnGrp LOS	E	B	B	E	A	F	E	A	D	E	D	F
Approach Vol, veh/h	180		880				490		720			
Approach Delay, s/veh	34.0		83.9				53.5		104.2			
Approach LOS	C		F				D		F			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	59.2	13.3	36.0	10.6	58.2	10.4	38.8				
Change Period (Y+Rc), s	4.6	5.0	4.6	5.0	4.6	5.0	4.6	5.0				
Max Green Setting (Gmax), s	30.0	52.4	9.4	31.0	7.2	53.2	8.0	32.4				
Max Q Clear Time (g_c+14), s	14.0	6.2	8.9	33.0	6.1	55.2	4.7	26.6				
Green Ext Time (p_c), s	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay	79.8
HCM 6th LOS	E

Notes

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

Tracy Transportation Master Plan Update
 97: Seefried Dwy/Pescadero Ave & Chrisman Road/Chrisman Rd

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↗		↘	↗	
Traffic Volume (veh/h)	320	770	10	10	2240	910	10	10	10	210	20	30
Future Volume (veh/h)	320	770	10	10	2240	910	10	10	10	210	20	30
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	320	770	10	10	2240	910	10	10	10	210	20	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	261	2376	1074	16	1888	987	16	31	31	163	80	121
Arrive On Green	0.15	0.70	0.70	0.01	0.56	0.56	0.01	0.04	0.04	0.10	0.12	0.12
Sat Flow, veh/h	1697	3385	1510	1697	3385	1510	1697	817	817	1697	643	965
Grp Volume(v), veh/h	320	770	10	10	2240	910	10	0	20	210	0	50
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1697	1692	1510	1697	0	1634	1697	0	1608
Q Serve(g_s), s	16.0	9.1	0.2	0.6	58.0	54.6	0.6	0.0	1.2	10.0	0.0	2.9
Cycle Q Clear(g_c), s	16.0	9.1	0.2	0.6	58.0	54.6	0.6	0.0	1.2	10.0	0.0	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		0.60
Lane Grp Cap(c), veh/h	261	2376	1074	16	1888	987	16	0	63	163	0	201
V/C Ratio(X)	1.23	0.32	0.01	0.61	1.19	0.92	0.61	0.00	0.32	1.29	0.00	0.25
Avail Cap(c_a), veh/h	261	2376	1074	65	1888	987	65	0	314	163	0	402
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.0	6.0	4.4	51.3	23.0	15.7	51.3	0.0	48.7	47.0	0.0	41.1
Incr Delay (d2), s/veh	130.8	0.1	0.0	31.6	89.7	13.6	31.6	0.0	2.9	167.4	0.0	0.6
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	15.9	2.5	0.0	0.4	43.1	18.5	0.4	0.0	0.6	11.8	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	174.8	6.1	4.4	82.9	112.7	29.3	82.9	0.0	51.5	214.4	0.0	41.7
LnGrp LOS	F	A	A	F	F	C	F	A	D	F	A	D
Approach Vol, veh/h		1100			3160			30			260	
Approach Delay, s/veh		55.1			88.6			62.0			181.2	
Approach LOS		E			F			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.0	8.0	5.0	77.0	5.0	17.0	20.0	62.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	10.0	20.0	4.0	70.0	4.0	26.0	16.0	58.0				
Max Q Clear Time (g_c+1/2g), s	11.0	3.2	2.6	11.1	2.6	4.9	18.0	60.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	5.7	0.0	0.2	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	85.6
HCM 6th LOS	F

Tracy Transportation Master Plan Update
 98: Chrisman Rd/Chrisman Road & Grant Line Rd

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑		↔↔	↑↑	↔	↔	↑↑	↔	↔	↑↑	↔
Traffic Volume (veh/h)	510	310	10	980	830	240	80	340	10	10	610	1660
Future Volume (veh/h)	510	310	10	980	830	240	80	340	10	10	610	1660
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	510	310	10	980	830	240	80	340	10	10	610	1660
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	573	1186	38	614	872	403	108	1230	830	16	1383	879
Arrive On Green	0.17	0.24	0.24	0.19	0.26	0.26	0.36	0.36	0.36	0.01	0.41	0.41
Sat Flow, veh/h	3291	4841	155	3291	3385	1510	157	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	510	207	113	980	830	240	80	340	10	10	610	1660
Grp Sat Flow(s),veh/h/ln	1646	1621	1754	1646	1692	1510	157	1692	1510	1697	1692	1510
Q Serve(g_s), s	17.1	5.8	5.9	21.0	27.2	15.6	31.4	8.0	0.3	0.7	14.6	46.0
Cycle Q Clear(g_c), s	17.1	5.8	5.9	21.0	27.2	15.6	40.9	8.0	0.3	0.7	14.6	46.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	573	794	430	614	872	403	108	1230	830	16	1383	879
V/C Ratio(X)	0.89	0.26	0.26	1.60	0.95	0.60	0.74	0.28	0.01	0.62	0.44	1.89
Avail Cap(c_a), veh/h	702	922	498	614	872	403	108	1230	830	60	1383	879
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	1.00	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	45.5	34.3	34.3	45.8	41.1	35.9	47.7	25.4	11.5	55.5	24.0	23.5
Incr Delay (d2), s/veh	10.5	0.1	0.1	275.9	19.6	1.7	21.4	0.0	0.0	32.6	0.2	403.7
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	7.6	2.2	2.4	31.8	13.2	5.8	2.9	3.1	0.1	0.4	5.6	119.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.0	34.3	34.4	321.7	60.7	37.6	69.1	25.4	11.5	88.2	24.2	427.2
LnGrp LOS	E	C	C	F	E	D	E	C	B	F	C	F
Approach Vol, veh/h		830			2050			430			2280	
Approach Delay, s/veh		47.6			182.8			33.2			317.9	
Approach LOS		D			F			C			F	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	37.0	33.6		52.0	25.6	35.0	5.1	46.9				
Change Period (Y+Rc), s	6.0	6.0		* 6	6.0	6.0	4.0	6.0				
Max Green Setting (Gmax), s	21.0	32.0		* 46	24.0	29.0	4.0	36.0				
Max Q Clear Time (g_c+Yc), s	23.0	7.9		48.0	19.1	29.2	2.7	42.9				
Green Ext Time (p_c), s	0.0	0.7		0.0	0.5	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	206.3
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↔	↔↔	↑↑	↔	↔	↑↑	↔	↔	↑↑	↔
Traffic Volume (veh/h)	160	700	10	1310	1680	300	10	180	460	10	1590	1230
Future Volume (veh/h)	160	700	10	1310	1680	300	10	180	460	10	1590	1230
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	160	700	10	1310	1680	300	10	180	0	10	1590	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	273	621	277	933	1299	579	60	1297		460	1297	
Arrive On Green	0.08	0.18	0.18	0.28	0.38	0.38	0.38	0.38	0.00	0.38	0.38	0.00
Sat Flow, veh/h	3291	3385	1510	3291	3385	1510	306	3385	1510	1147	3385	1510
Grp Volume(v), veh/h	160	700	10	1310	1680	300	10	180	0	10	1590	0
Grp Sat Flow(s),veh/h/ln	1646	1692	1510	1646	1692	1510	306	1692	1510	1147	1692	1510
Q Serve(g_s), s	5.6	22.0	0.7	34.0	46.0	18.3	0.0	4.2	0.0	0.7	46.0	0.0
Cycle Q Clear(g_c), s	5.6	22.0	0.7	34.0	46.0	18.3	46.0	4.2	0.0	4.8	46.0	0.0
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	273	621	277	933	1299	579	60	1297		460	1297	
V/C Ratio(X)	0.59	1.13	0.04	1.40	1.29	0.52	0.17	0.14		0.02	1.23	
Avail Cap(c_a), veh/h	274	621	277	933	1299	579	60	1297		460	1297	
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	53.0	49.0	40.3	43.0	37.0	28.4	60.0	24.1	0.0	25.7	37.0	0.0
Incr Delay (d2), s/veh	5.0	76.8	0.1	188.6	137.9	1.6	4.7	0.2	0.0	0.1	108.5	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	15.6	0.2	37.4	42.3	6.4	0.4	1.6	0.0	0.2	37.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.1	125.8	40.4	231.6	174.9	30.0	64.7	24.3	0.0	25.7	145.5	0.0
LnGrp LOS	E	F	D	F	F	C	E	C		C	F	
Approach Vol, veh/h		870			3290			190	A		1600	A
Approach Delay, s/veh		112.4			184.3			26.4			144.8	
Approach LOS		F			F			C			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	40.0	28.0		52.0	16.0	52.0		52.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	34.0	22.0		46.0	10.0	46.0		46.0				
Max Q Clear Time (g_c+Rc), s	30.0	24.0		48.0	7.6	48.0		48.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.2	0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	158.1
HCM 6th LOS	F

Notes

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



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	230	110	580	420	940	1120
Future Volume (veh/h)	230	110	580	420	940	1120
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	230	110	580	420	940	1120
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	265	786	619	2607	1247	1394
Arrive On Green	0.16	0.16	0.36	0.77	0.37	0.37
Sat Flow, veh/h	1697	1510	1697	3474	3474	2657
Grp Volume(v), veh/h	230	110	580	420	940	1120
Grp Sat Flow(s),veh/h/ln	1697	1510	1697	1692	1692	1329
Q Serve(g_s), s	14.3	4.1	35.8	3.5	26.3	37.6
Cycle Q Clear(g_c), s	14.3	4.1	35.8	3.5	26.3	37.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	265	786	619	2607	1247	1394
V/C Ratio(X)	0.87	0.14	0.94	0.16	0.75	0.80
Avail Cap(c_a), veh/h	329	843	736	2841	1249	1395
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	44.7	13.4	33.2	3.3	29.9	21.2
Incr Delay (d2), s/veh	18.2	0.1	17.8	0.0	2.6	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.0	16.8	0.8	10.5	15.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	62.8	13.5	51.0	3.3	32.6	24.7
LnGrp LOS	E	B	D	A	C	C
Approach Vol, veh/h	340			1000	2060	
Approach Delay, s/veh	46.9			31.0	28.3	
Approach LOS	D			C	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		87.5		20.9	43.5	43.9
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		91.0		21.0	47.0	40.0
Max Q Clear Time (g_c+I1), s		5.5		16.3	37.8	39.6
Green Ext Time (p_c), s		1.9		0.6	1.8	0.4
Intersection Summary						
HCM 6th Ctrl Delay			30.9			
HCM 6th LOS			C			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖	↗	↖	↗		↖	↗	↖
Traffic Volume (veh/h)	160	20	60	10	10	30	620	820	10	40	470	160
Future Volume (veh/h)	160	20	60	10	10	30	620	820	10	40	470	160
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	160	20	60	10	10	0	620	820	10	40	470	160
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	282	52	157	129	106		643	2638	32	526	2607	1163
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.00	0.77	0.77	0.77	0.77	0.77	0.77
Sat Flow, veh/h	1338	392	1177	480	794	1510	758	3425	42	629	3385	1510
Grp Volume(v), veh/h	160	0	80	20	0	0	620	405	425	40	470	160
Grp Sat Flow(s),veh/h/ln	1338	0	1570	1274	0	1510	758	1692	1774	629	1692	1510
Q Serve(g_s), s	4.7	0.0	3.9	0.0	0.0	0.0	60.9	6.0	6.0	1.7	3.1	2.3
Cycle Q Clear(g_c), s	8.6	0.0	3.9	3.9	0.0	0.0	64.0	6.0	6.0	7.7	3.1	2.3
Prop In Lane	1.00		0.75	0.50		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	282	0	210	235	0		643	1303	1366	526	2607	1163
V/C Ratio(X)	0.57	0.00	0.38	0.09	0.00		0.96	0.31	0.31	0.08	0.18	0.14
Avail Cap(c_a), veh/h	393	0	340	358	0		643	1303	1366	526	2607	1163
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	0.0	32.9	31.6	0.0	0.0	14.2	2.9	2.9	4.1	2.5	2.5
Incr Delay (d2), s/veh	1.8	0.0	1.1	0.2	0.0	0.0	26.9	0.1	0.1	0.1	0.0	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	3.1	0.0	1.5	0.4	0.0	0.0	13.7	1.0	1.0	0.2	0.5	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.5	0.0	34.0	31.7	0.0	0.0	41.1	3.0	3.0	4.1	2.6	2.5
LnGrp LOS	D	A	C	C	A		D	A	A	A	A	A
Approach Vol, veh/h		240			20	A		1450			670	
Approach Delay, s/veh		35.7			31.7			19.3			2.7	
Approach LOS		D			C			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		68.0		15.1		68.0		15.1				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		64.0		18.0		64.0		18.0				
Max Q Clear Time (g_c+I1), s		66.0		10.6		9.7		5.9				
Green Ext Time (p_c), s		0.0		0.5		3.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				16.4								
HCM 6th LOS				B								
Notes												
Unsignalized Delay for [WBR] 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)	20	160	10	2450	890	10	90	260	470	10	2110	320
Future Volume (veh/h)	20	160	10	2450	890	10	90	260	470	10	2110	320
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	20	160	10	2450	890	10	90	260	470	10	2110	320
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	376	190	12	1179	630	7	160	1302	1974	16	1459	625
Arrive On Green	0.11	0.11	0.11	0.36	0.36	0.36	0.16	0.64	0.64	0.01	0.30	0.30
Sat Flow, veh/h	3291	1659	104	3291	1758	20	1697	3385	2657	1697	4863	1510
Grp Volume(v), veh/h	20	0	170	2450	0	900	90	260	470	10	2110	320
Grp Sat Flow(s),veh/h/ln	1646	0	1763	1646	0	1778	1697	1692	1329	1697	1621	1510
Q Serve(g_s), s	0.6	0.0	11.3	43.0	0.0	43.0	5.9	3.8	0.7	0.7	36.0	5.2
Cycle Q Clear(g_c), s	0.6	0.0	11.3	43.0	0.0	43.0	5.9	3.8	0.7	0.7	36.0	5.2
Prop In Lane	1.00		0.06	1.00		0.01	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	376	0	201	1179	0	637	160	1302	1974	16	1459	625
V/C Ratio(X)	0.05	0.00	0.84	2.08	0.00	1.41	0.56	0.20	0.24	0.62	1.45	0.51
Avail Cap(c_a), veh/h	521	0	279	1179	0	637	160	1302	1974	85	1459	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.00	0.89	1.00	0.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.4	0.0	52.1	38.5	0.0	38.5	48.3	13.9	0.9	59.2	42.0	26.1
Incr Delay (d2), s/veh	0.1	0.0	13.9	487.7	0.0	194.9	4.4	0.3	0.3	33.6	204.7	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	5.7	96.9	0.0	52.8	2.5	1.4	0.4	0.4	41.2	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.4	0.0	66.0	526.2	0.0	233.4	52.7	14.2	1.2	92.8	246.7	29.1
LnGrp LOS	D	A	E	F	A	F	D	B	A	F	F	C
Approach Vol, veh/h		190		3350			820			2440		
Approach Delay, s/veh		64.1		447.5			11.0			217.5		
Approach LOS		E		F			B			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.1	50.2	47.0	17.7	15.3	40.0	17.7	47.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	36.0	36.0	43.0	19.0	6.0	36.0	19.0	43.0				
Max Q Clear Time (g_c+1/2), s	12.5	5.8	45.0	13.3	7.9	38.0	2.6	45.0				
Green Ext Time (p_c), s	0.0	3.5	0.0	0.4	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	301.7
HCM 6th LOS	F

Tracy Transportation Master Plan Update
 103: Paradise Rd & I-205 WB On-Ramp/I-205 WB-Off Ramp

Future 2042
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖ ↗	↖	↗		↑ ↑ ↑	↗		↑ ↑	↗ ↘
Traffic Volume (veh/h)	0	0	0	1690	0	100	0	710	30	0	3160	1410
Future Volume (veh/h)	0	0	0	1690	0	100	0	710	30	0	3160	1410
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		No		No
Adj Sat Flow, veh/h/ln				1781	1781	1781	0	1781	1781	0	1781	1781
Adj Flow Rate, veh/h				1690	0	100	0	710	30	0	3160	1410
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				8	8	8	0	8	8	0	8	8
Cap, veh/h				1400	0	415	0	3202	1409	0	2228	1749
Arrive On Green				0.28	0.00	0.28	0.00	0.66	0.66	0.00	0.88	0.88
Sat Flow, veh/h				5090	0	1510	0	5024	1510	0	3474	2657
Grp Volume(v), veh/h				1690	0	100	0	710	30	0	3160	1410
Grp Sat Flow(s),veh/h/ln				1697	0	1510	0	1621	1510	0	1692	1329
Q Serve(g_s), s				33.0	0.0	6.2	0.0	7.0	0.2	0.0	79.0	26.9
Cycle Q Clear(g_c), s				33.0	0.0	6.2	0.0	7.0	0.2	0.0	79.0	26.9
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1400	0	415	0	3202	1409	0	2228	1749
V/C Ratio(X)				1.21	0.00	0.24	0.00	0.22	0.02	0.00	1.42	0.81
Avail Cap(c_a), veh/h				1400	0	415	0	3202	1409	0	2228	1749
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33
Upstream Filter(I)				1.00	0.00	1.00	0.00	0.94	0.94	0.00	0.09	0.09
Uniform Delay (d), s/veh				43.5	0.0	33.8	0.0	8.2	0.3	0.0	7.5	4.2
Incr Delay (d2), s/veh				100.3	0.0	0.3	0.0	0.2	0.0	0.0	188.4	0.4
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				26.7	0.0	2.3	0.0	2.1	0.0	0.0	62.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				143.8	0.0	34.1	0.0	8.4	0.3	0.0	195.9	4.6
LnGrp LOS				F	A	C	A	A	A	A	F	A
Approach Vol, veh/h					1790			740			4570	
Approach Delay, s/veh					137.7			8.0			136.9	
Approach LOS					F			A			F	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		83.0				83.0		37.0				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		79.0				79.0		33.0				
Max Q Clear Time (g_c+I1), s		9.0				81.0		35.0				
Green Ext Time (p_c), s		5.1				0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	123.6
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

Tracy Transportation Master Plan Update
 104: Paradise Rd & I-205 EB Off-Ramp/I-205 EB On-Ramp

Future 2042
 Timing Plan: AM Peak Hour



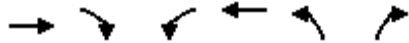
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖	↖	↖↖					↑↑↑	↖↖	↖	↑↑↑	
Traffic Volume (veh/h)	440	0	10	0	0	0	0	300	700	10	4840	0
Future Volume (veh/h)	440	0	10	0	0	0	0	300	700	10	4840	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	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	1781	1781	1781				0	1781	1781	1781	1781	0
Adj Flow Rate, veh/h	440	0	10				0	300	700	10	4840	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8				0	8	8	8	8	0
Cap, veh/h	554	0	328				0	3802	2077	16	4010	0
Arrive On Green	0.11	0.00	0.11				0.00	0.78	0.78	0.01	0.55	0.00
Sat Flow, veh/h	5090	0	3019				0	5024	2657	1697	5024	0
Grp Volume(v), veh/h	440	0	10				0	300	700	10	4840	0
Grp Sat Flow(s),veh/h/ln	1697	0	1510				0	1621	1329	1697	1621	0
Q Serve(g_s), s	10.1	0.0	0.4				0.0	1.7	9.4	0.7	98.9	0.0
Cycle Q Clear(g_c), s	10.1	0.0	0.4				0.0	1.7	9.4	0.7	98.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	554	0	328				0	3802	2077	16	4010	0
V/C Ratio(X)	0.79	0.00	0.03				0.00	0.08	0.34	0.62	1.21	0.00
Avail Cap(c_a), veh/h	763	0	453				0	3802	2077	57	4010	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.67	0.67	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.72	0.72	0.09	0.09	0.00
Uniform Delay (d), s/veh	52.2	0.0	47.8				0.0	3.0	3.9	59.4	26.9	0.0
Incr Delay (d2), s/veh	4.0	0.0	0.0				0.0	0.0	0.3	3.5	93.4	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	4.5	0.0	0.1				0.0	0.4	1.7	0.3	72.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.2	0.0	47.9				0.0	3.1	4.2	63.0	120.2	0.0
LnGrp LOS	E	A	D				A	A	A	E	F	A
Approach Vol, veh/h		450						1000			4850	
Approach Delay, s/veh		56.0						3.9			120.1	
Approach LOS		E						A			F	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	5.1	97.8	17.1	102.9								
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0								
Max Green Setting (Gmax), s	4.0	86.0	18.0	94.0								
Max Q Clear Time (g_c+I), s	4.0	11.4	12.1	100.9								
Green Ext Time (p_c), s	0.0	5.3	0.9	0.0								

Intersection Summary

HCM 6th Ctrl Delay	97.1
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑		↘↘	↑↑↑	↘	↘↘↘
Traffic Volume (veh/h)	910	60	1790	3050	100	90
Future Volume (veh/h)	910	60	1790	3050	100	90
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	910	60	1790	3050	100	90
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	1155	75	1712	3524	332	673
Arrive On Green	0.16	0.16	0.52	0.72	0.20	0.20
Sat Flow, veh/h	7353	456	3291	5024	1697	3442
Grp Volume(v), veh/h	746	224	1790	3050	100	90
Grp Sat Flow(s),veh/h/ln	1443	1699	1646	1621	1697	1147
Q Serve(g_s), s	12.4	12.7	52.0	46.3	5.0	2.2
Cycle Q Clear(g_c), s	12.4	12.7	52.0	46.3	5.0	2.2
Prop In Lane		0.27	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	950	280	1712	3524	332	673
V/C Ratio(X)	0.79	0.80	1.05	0.87	0.30	0.13
Avail Cap(c_a), veh/h	1039	306	1712	3599	332	673
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.09	0.09	0.99	0.99
Uniform Delay (d), s/veh	40.1	40.2	24.0	10.2	34.4	33.2
Incr Delay (d2), s/veh	3.1	10.9	22.6	0.2	2.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	5.9	22.8	11.2	2.2	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.2	51.1	46.6	10.4	36.7	33.6
LnGrp LOS	D	D	F	B	D	C
Approach Vol, veh/h	970			4840	190	
Approach Delay, s/veh	45.0			23.8	35.3	
Approach LOS	D			C	D	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		23.5	56.0	20.5		76.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s		18.0	52.0	18.0		74.0
Max Q Clear Time (g_c+1), s		7.0	54.0	14.7		48.3
Green Ext Time (p_c), s		0.4	0.0	1.8		23.6
Intersection Summary						
HCM 6th Ctrl Delay			27.6			
HCM 6th LOS			C			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	310	10	450	820	140	10	10	50	30	380	1220
Future Volume (veh/h)	10	310	10	450	820	140	10	10	50	30	380	1220
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	310	10	450	820	140	10	10	50	30	380	1220
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	17	515	245	497	1473	694	17	75	374	41	542	835
Arrive On Green	0.01	0.15	0.15	0.29	0.44	0.44	0.01	0.29	0.29	0.02	0.30	0.30
Sat Flow, veh/h	1697	3385	1510	1697	3385	1510	1697	258	1291	1697	1781	2657
Grp Volume(v), veh/h	10	310	10	450	820	140	10	0	60	30	380	1220
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1697	1692	1510	1697	0	1549	1697	1781	1329
Q Serve(g_s), s	0.5	6.7	0.4	20.1	14.3	4.4	0.5	0.0	2.3	1.4	14.9	24.0
Cycle Q Clear(g_c), s	0.5	6.7	0.4	20.1	14.3	4.4	0.5	0.0	2.3	1.4	14.9	24.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.83	1.00		1.00
Lane Grp Cap(c), veh/h	17	515	245	497	1473	694	17	0	449	41	542	835
V/C Ratio(X)	0.59	0.60	0.04	0.91	0.56	0.20	0.59	0.00	0.13	0.72	0.70	1.46
Avail Cap(c_a), veh/h	645	1587	723	667	1630	764	86	0	449	129	542	835
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	31.2	27.9	26.8	16.6	12.7	38.9	0.0	20.7	38.2	24.3	27.1
Incr Delay (d2), s/veh	28.7	0.4	0.0	13.0	0.1	0.1	28.7	0.0	0.0	21.0	3.4	214.4
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	0.3	2.6	0.2	9.1	4.8	1.3	0.3	0.0	0.8	0.8	6.3	32.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.6	31.7	27.9	39.8	16.7	12.8	67.6	0.0	20.8	59.3	27.7	241.4
LnGrp LOS	E	C	C	D	B	B	E	A	C	E	C	F
Approach Vol, veh/h		330		1410		70		1630				
Approach Delay, s/veh		32.6		23.7		27.4		188.3				
Approach LOS		C		C		C		F				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.1	18.0	5.9	27.9	4.8	40.3	4.8	29.0				
Change Period (Y+Rc), s	4.0	6.0	4.0	5.0	4.0	6.0	4.0	5.0				
Max Green Setting (Gmax), s	31.0	37.0	6.0	22.0	30.0	38.0	4.0	24.0				
Max Q Clear Time (g_c+Q), s	20.1	8.7	3.4	4.3	2.5	16.3	2.5	26.0				
Green Ext Time (p_c), s	1.0	1.2	0.0	0.1	0.0	3.7	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	102.6
HCM 6th LOS	F

DRAFT

Tracy Transportation Master Plan Update
1: International Pkwy & I-205 WB On-Ramp

Future 2042
Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔↔	↔	↔↔		↑↑	↔↔		↑↑↑↑	↔
Traffic Volume (veh/h)	0	0	0	530	0	10	0	3080	990	0	390	1180
Future Volume (veh/h)	0	0	0	530	0	10	0	3080	990	0	390	1180
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	1781	1781	0	1781	1781	0	1781	1781
Adj Flow Rate, veh/h				530	0	0	0	3080	0	0	390	0
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				8	8	8	0	8	8	0	8	8
Cap, veh/h				551	0	0	0	2744	0	0	4969	0
Arrive On Green				0.11	0.00	0.00	0.00	1.00	0.00	0.00	0.81	0.00
Sat Flow, veh/h				5090	0	3019	0	3474	2657	0	6378	1510
Grp Volume(v), veh/h				530	0	0	0	3080	0	0	390	0
Grp Sat Flow(s),veh/h/ln				1697	0	1510	0	1692	1329	0	1532	1510
Q Serve(g_s), s				12.4	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0
Cycle Q Clear(g_c), s				12.4	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				551	0	0	0	2744	0	0	4969	0
V/C Ratio(X)				0.96	0.00	0.00	0.00	1.12	0.00	0.00	0.08	0.00
Avail Cap(c_a), veh/h				551	0	0	0	2744	0	0	4969	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.00	0.09	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				53.2	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0
Incr Delay (d2), s/veh				28.6	0.0	0.0	0.0	55.6	0.0	0.0	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				6.6	0.0	0.0	0.0	21.2	0.0	0.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				81.8	0.0	0.0	0.0	55.6	0.0	0.0	2.3	0.0
LnGrp LOS				F	A		A	F		A	A	
Approach Vol, veh/h					530	A		3080	A		390	A
Approach Delay, s/veh					81.8			55.6			2.3	
Approach LOS					F			E			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		103.0				103.0		17.0				
Change Period (Y+Rc), s		5.7				5.7		5.1				
Max Green Setting (Gmax), s		97.3				97.3		11.9				
Max Q Clear Time (g_c+I1), s		2.0				3.5		14.4				
Green Ext Time (p_c), s		57.5				1.6		0.0				

Intersection Summary

HCM 6th Ctrl Delay	53.8
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Tracy Transportation Master Plan Update
 2: International Pkwy & I-205 EB Off-Ramp/I-205 EB On-Ramp

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2200	0	2060	0	0	0	0	1870	10	0	910	10
Future Volume (veh/h)	2200	0	2060	0	0	0	0	1870	10	0	910	10
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	1781	1781				0	1781	1781	0	1781	1781
Adj Flow Rate, veh/h	2841	0	1373				0	1870	0	0	910	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8				0	8	8	0	8	8
Cap, veh/h	1835	0	816				0	1795		0	1795	
Arrive On Green	0.54	0.00	0.54				0.00	0.37	0.00	0.00	0.37	0.00
Sat Flow, veh/h	3393	0	1510				0	5024	2657	0	5024	1510
Grp Volume(v), veh/h	2841	0	1373				0	1870	0	0	910	0
Grp Sat Flow(s),veh/h/ln	1697	0	1510				0	1621	1329	0	1621	1510
Q Serve(g_s), s	64.9	0.0	64.9				0.0	44.3	0.0	0.0	17.4	0.0
Cycle Q Clear(g_c), s	64.9	0.0	64.9				0.0	44.3	0.0	0.0	17.4	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1835	0	816				0	1795		0	1795	
V/C Ratio(X)	1.55	0.00	1.68				0.00	1.04		0.00	0.51	
Avail Cap(c_a), veh/h	1835	0	816				0	1795		0	1795	
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	1.00				0.00	1.00	0.00	0.00	0.81	0.00
Uniform Delay (d), s/veh	27.5	0.0	27.5				0.0	37.8	0.0	0.0	29.4	0.0
Incr Delay (d2), s/veh	249.4	0.0	312.1				0.0	33.0	0.0	0.0	0.8	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	88.4	0.0	92.8				0.0	22.0	0.0	0.0	6.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	276.9	0.0	339.6				0.0	70.8	0.0	0.0	30.2	0.0
LnGrp LOS	F	A	F				A	F		A	C	
Approach Vol, veh/h	4214						1870		A	910		A
Approach Delay, s/veh	297.4						70.8			30.2		
Approach LOS	F						E			C		
Timer - Assigned Phs	2		4		6							
Phs Duration (G+Y+Rc), s	50.0		70.0		50.0							
Change Period (Y+Rc), s	5.7		5.1		5.7							
Max Green Setting (Gmax), s	44.3		64.9		44.3							
Max Q Clear Time (g_c+I1), s	46.3		66.9		19.4							
Green Ext Time (p_c), s	0.0		0.0		4.0							

Intersection Summary

HCM 6th Ctrl Delay	202.0
HCM 6th LOS	F

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Tracy Transportation Master Plan Update
3: International Pkwy & Capital Parks Dr

Future 2042
Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗		↘	↗	↗	↘	↗	↗	↘	↗	↘
Traffic Volume (veh/h)	20	420	50	40	90	420	10	780	40	730	1660	10
Future Volume (veh/h)	20	420	50	40	90	420	10	780	40	730	1660	10
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	20	420	50	40	90	420	10	780	40	730	1660	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	28	496	59	68	632	496	419	2027	629	813	2027	629
Arrive On Green	0.02	0.16	0.16	0.04	0.19	0.19	0.08	0.14	0.14	0.25	0.42	0.42
Sat Flow, veh/h	1697	3048	361	1697	3385	2657	1697	4863	1510	3291	4863	1510
Grp Volume(v), veh/h	20	232	238	40	90	420	10	780	40	730	1660	10
Grp Sat Flow(s),veh/h/ln	1697	1692	1716	1697	1692	1329	1697	1621	1510	1646	1621	1510
Q Serve(g_s), s	1.4	16.0	16.2	2.8	2.7	18.3	0.7	17.5	2.8	25.8	36.3	0.4
Cycle Q Clear(g_c), s	1.4	16.0	16.2	2.8	2.7	18.3	0.7	17.5	2.8	25.8	36.3	0.4
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	28	275	279	68	632	496	419	2027	629	813	2027	629
V/C Ratio(X)	0.73	0.84	0.85	0.59	0.14	0.85	0.02	0.38	0.06	0.90	0.82	0.02
Avail Cap(c_a), veh/h	71	324	329	254	1015	797	419	2027	629	987	2391	742
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.94	0.94	0.94	0.62	0.62	0.62	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.8	48.8	48.8	56.6	40.8	47.1	41.8	37.7	31.4	43.7	31.0	15.1
Incr Delay (d2), s/veh	30.2	15.9	16.7	7.3	0.1	4.6	0.0	0.3	0.1	9.6	3.8	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	7.9	8.2	1.3	1.1	6.4	0.3	7.6	1.0	11.2	14.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.9	64.7	65.5	63.9	40.9	51.7	41.8	38.1	31.5	53.3	34.8	15.2
LnGrp LOS	F	E	E	E	D	D	D	D	C	D	C	B
Approach Vol, veh/h		490			550			830			2400	
Approach Delay, s/veh		66.1			50.8			37.8			40.3	
Approach LOS		E			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	33.6	54.0	8.8	23.5	33.6	54.0	5.9	26.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	30.0	27.0	18.0	23.0	4.0	59.0	5.0	36.0				
Max Q Clear Time (g_c+Y), s	27.8	19.5	4.8	18.2	2.7	38.3	3.4	20.3				
Green Ext Time (p_c), s	1.9	3.0	0.0	1.2	0.0	11.8	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay											44.2	
HCM 6th LOS											D	

Tracy Transportation Master Plan Update
4: International Pkwy & Promontory Pkwy

Future 2042
Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↘	↘	↗	↘	↘	↗	↗	↘	↗	↘
Traffic Volume (veh/h)	10	270	270	140	50	10	110	770	70	340	660	10
Future Volume (veh/h)	10	270	270	140	50	10	110	770	70	340	660	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	270	270	140	50	10	110	770	70	340	660	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	432	363	307	165	82	70	489	1111	496	368	819	365
Arrive On Green	0.25	0.20	0.20	0.10	0.05	0.05	0.29	0.33	0.33	0.07	0.08	0.08
Sat Flow, veh/h	1697	1781	1510	1697	1781	1510	1697	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	10	270	270	140	50	10	110	770	70	340	660	10
Grp Sat Flow(s),veh/h/ln	1697	1781	1510	1697	1781	1510	1697	1692	1510	1697	1692	1510
Q Serve(g_s), s	0.5	17.1	20.8	9.7	3.3	0.8	5.9	23.7	1.9	23.9	23.0	0.6
Cycle Q Clear(g_c), s	0.5	17.1	20.8	9.7	3.3	0.8	5.9	23.7	1.9	23.9	23.0	0.6
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	432	363	307	165	82	70	489	1111	496	368	819	365
V/C Ratio(X)	0.02	0.74	0.88	0.85	0.61	0.14	0.22	0.69	0.14	0.92	0.81	0.03
Avail Cap(c_a), veh/h	432	445	377	170	560	474	489	1111	496	382	1255	560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.61	0.61	0.61	0.83	0.83	0.83
Uniform Delay (d), s/veh	33.5	44.9	46.4	53.3	56.2	55.0	32.5	35.0	6.8	54.7	52.4	24.6
Incr Delay (d2), s/veh	0.0	5.3	17.8	30.9	7.1	0.9	0.1	2.2	0.4	24.0	7.0	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	0.2	8.1	9.1	5.5	1.6	0.3	2.4	9.7	1.4	13.3	11.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.6	50.2	64.1	84.2	63.3	55.9	32.6	37.2	7.2	78.7	59.5	24.8
LnGrp LOS	C	D	E	F	E	E	C	D	A	E	E	C
Approach Vol, veh/h		550			200			950			1010	
Approach Delay, s/veh		56.7			77.6			34.5			65.6	
Approach LOS		E			E			C			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	40.4	34.8	15.6	29.1	30.0	45.2	35.2	9.5				
Change Period (Y+Rc), s	5.8	* 5.8	4.0	* 4.7	4.0	5.8	4.7	* 4				
Max Green Setting (Gmax), s	15.0	* 45	12.0	* 30	27.0	32.5	5.0	* 38				
Max Q Clear Time (g_c+1), s	17.5	25.0	11.7	22.8	25.9	25.7	2.5	5.3				
Green Ext Time (p_c), s	0.1	4.0	0.0	1.6	0.1	2.8	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay	53.8
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
 5: Mountain House Parkway/International Pkwy & Old Schulte Road

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↗↗↗	↑	↗	↘	↑↑	↗↗	↗↗	↑↑	↗
Traffic Volume (veh/h)	50	50	80	520	40	70	130	830	1080	190	880	30
Future Volume (veh/h)	50	50	80	520	40	70	130	830	1080	190	880	30
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	1125	1688	1406	938	1688	1406	1125	1688	1406	1125	1688	1406
Adj Flow Rate, veh/h	50	50	80	520	40	70	130	830	1080	190	880	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	79	132	181	586	400	371	79	1236	1297	153	1236	548
Arrive On Green	0.07	0.08	0.08	0.23	0.24	0.24	0.07	0.39	0.39	0.07	0.39	0.39
Sat Flow, veh/h	1072	1688	1192	2518	1688	1192	1072	3207	2098	2079	3207	1192
Grp Volume(v), veh/h	50	50	80	520	40	70	130	830	1080	190	880	30
Grp Sat Flow(s),veh/h/ln	1072	1688	1192	839	1688	1192	1072	1603	1049	1039	1603	1192
Q Serve(g_s), s	5.5	3.4	7.4	24.3	2.3	5.2	9.0	26.2	47.0	9.0	28.3	1.7
Cycle Q Clear(g_c), s	5.5	3.4	7.4	24.3	2.3	5.2	9.0	26.2	47.0	9.0	28.3	1.7
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	79	132	181	586	400	371	79	1236	1297	153	1236	548
V/C Ratio(X)	0.63	0.38	0.44	0.89	0.10	0.19	1.64	0.67	0.83	1.24	0.71	0.05
Avail Cap(c_a), veh/h	79	222	244	826	651	548	79	1236	1297	153	1236	548
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	1.00	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	54.8	53.4	47.0	45.2	36.3	30.7	56.5	31.0	18.3	56.5	31.7	18.3
Incr Delay (d2), s/veh	15.1	1.8	1.7	8.6	0.1	0.2	339.1	1.4	4.8	150.5	1.9	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	1.5	2.2	5.4	0.9	1.5	9.8	9.9	11.3	5.5	10.8	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.0	55.2	48.7	53.8	36.4	31.0	395.5	32.5	23.1	207.0	33.7	18.3
LnGrp LOS	E	E	D	D	D	C	F	C	C	F	C	B
Approach Vol, veh/h		180			630			2040			1100	
Approach Delay, s/veh		56.4			50.2			50.6			63.2	
Approach LOS		E			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.0	54.0	35.4	16.5	16.0	54.0	16.0	35.9				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	6.0	47.0	40.0	16.0	9.0	47.0	9.0	47.0				
Max Q Clear Time (g_c+I1), s	6.0	49.0	26.3	9.4	11.0	30.3	7.5	7.2				
Green Ext Time (p_c), s	0.0	0.0	2.0	0.2	0.0	3.9	0.0	0.5				

Intersection Summary

HCM 6th Ctrl Delay	54.3
HCM 6th LOS	D

Notes

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

Tracy Transportation Master Plan Update
 6: NB International Parkway & SB International Parkway

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑									↑↑	
Traffic Volume (veh/h)	0	1470	0	0	0	0	0	0	0	0	360	0
Future Volume (veh/h)	0	1470	0	0	0	0	0	0	0	0	360	0
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	
Adj Sat Flow, veh/h/ln	0	1781	0							0	1781	0
Adj Flow Rate, veh/h	0	1470	0							0	360	0
Peak Hour Factor	1.00	1.00	1.00							1.00	1.00	1.00
Percent Heavy Veh, %	0	8	0							0	8	0
Cap, veh/h	0	1781	0							0	770	0
Arrive On Green	0.00	0.53	0.00							0.00	0.23	0.00
Sat Flow, veh/h	0	3563	0							0	3563	0
Grp Volume(v), veh/h	0	1470	0							0	360	0
Grp Sat Flow(s),veh/h/ln	0	1692	0							0	1692	0
Q Serve(g_s), s	0.0	11.8	0.0							0.0	3.0	0.0
Cycle Q Clear(g_c), s	0.0	11.8	0.0							0.0	3.0	0.0
Prop In Lane	0.00		0.00							0.00		0.00
Lane Grp Cap(c), veh/h	0	1781	0							0	770	0
V/C Ratio(X)	0.00	0.83	0.00							0.00	0.47	0.00
Avail Cap(c_a), veh/h	0	1876	0							0	9797	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00							0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	6.4	0.0							0.0	10.8	0.0
Incr Delay (d2), s/veh	0.0	3.0	0.0							0.0	0.4	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	0.0	2.5	0.0							0.0	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.5	0.0							0.0	11.3	0.0
LnGrp LOS	A	A	A							A	B	A
Approach Vol, veh/h		1470									360	
Approach Delay, s/veh		9.5									11.3	
Approach LOS		A									B	
Timer - Assigned Phs		2									8	
Phs Duration (G+Y+Rc), s		21.1									11.4	
Change Period (Y+Rc), s		4.0									4.0	
Max Green Setting (Gmax), s		18.0									94.0	
Max Q Clear Time (g_c+I1), s		13.8									5.0	
Green Ext Time (p_c), s		3.3									2.7	
Intersection Summary												
HCM 6th Ctrl Delay			9.8									
HCM 6th LOS			A									

Tracy Transportation Master Plan Update
 7: NB International Parkway & SB International Parkway

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑						↑↑	
Traffic Volume (veh/h)	0	0	0	0	20	0	0	0	0	0	30	0
Future Volume (veh/h)	0	0	0	0	20	0	0	0	0	0	30	0
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		
Adj Sat Flow, veh/h/ln				0	1781	0				0	1781	0
Adj Flow Rate, veh/h				0	20	0				0	30	0
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				0	8	0				0	8	0
Cap, veh/h				0	1093	0				0	107	0
Arrive On Green				0.00	0.32	0.00				0.00	0.03	0.00
Sat Flow, veh/h				0	3563	0				0	3563	0
Grp Volume(v), veh/h				0	20	0				0	30	0
Grp Sat Flow(s),veh/h/ln				0	1692	0				0	1692	0
Q Serve(g_s), s				0.0	0.0	0.0				0.0	0.1	0.0
Cycle Q Clear(g_c), s				0.0	0.0	0.0				0.0	0.1	0.0
Prop In Lane				0.00		0.00				0.00		0.00
Lane Grp Cap(c), veh/h				0	1093	0				0	107	0
V/C Ratio(X)				0.00	0.02	0.00				0.00	0.28	0.00
Avail Cap(c_a), veh/h				0	4916	0				0	25674	0
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	0.00				0.00	1.00	0.00
Uniform Delay (d), s/veh				0.0	2.9	0.0				0.0	5.9	0.0
Incr Delay (d2), s/veh				0.0	0.0	0.0				0.0	1.4	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				0.0	0.0	0.0				0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	2.9	0.0				0.0	7.3	0.0
LnGrp LOS				A	A	A				A	A	A
Approach Vol, veh/h					20						30	
Approach Delay, s/veh					2.9						7.3	
Approach LOS					A						A	
Timer - Assigned Phs		2							8			
Phs Duration (G+Y+Rc), s		8.0							4.4			
Change Period (Y+Rc), s		4.0							4.0			
Max Green Setting (Gmax), s		18.0							94.0			
Max Q Clear Time (g_c+I1), s		2.0							2.1			
Green Ext Time (p_c), s		0.0							0.2			
Intersection Summary												
HCM 6th Ctrl Delay					5.5							
HCM 6th LOS					A							

Tracy Transportation Master Plan Update
 8: Hansen Rd/Hansen Road & Capital Parks Dr

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	260	1380	90	240	450	40	20	490	270	10	160	60
Future Volume (veh/h)	260	1380	90	240	450	40	20	490	270	10	160	60
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	260	1380	0	240	450	40	20	490	0	10	160	60
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	294	1533		297	1251	572	55	533		16	521	703
Arrive On Green	0.17	0.45	0.00	0.09	0.37	0.37	0.02	0.30	0.00	0.01	0.29	0.29
Sat Flow, veh/h	1697	3385	1510	3291	3385	1510	3291	1781	1510	1697	1781	1510
Grp Volume(v), veh/h	260	1380	0	240	450	40	20	490	0	10	160	60
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1646	1692	1510	1646	1781	1510	1697	1781	1510
Q Serve(g_s), s	16.2	40.7	0.0	7.7	10.5	1.8	0.6	28.7	0.0	0.6	7.5	2.4
Cycle Q Clear(g_c), s	16.2	40.7	0.0	7.7	10.5	1.8	0.6	28.7	0.0	0.6	7.5	2.4
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	294	1533		297	1251	572	55	533		16	521	703
V/C Ratio(X)	0.88	0.90		0.81	0.36	0.07	0.36	0.92		0.61	0.31	0.09
Avail Cap(c_a), veh/h	471	1628		304	1251	572	122	626		63	626	793
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.6	27.3	0.0	48.3	24.8	21.4	52.6	36.6	0.0	53.3	29.7	16.1
Incr Delay (d2), s/veh	11.3	7.0	0.0	14.6	0.2	0.1	4.0	17.1	0.0	32.1	0.3	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	7.7	17.3	0.0	3.8	4.2	0.7	0.3	14.4	0.0	0.4	3.2	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.9	34.3	0.0	62.9	25.0	21.5	56.6	53.7	0.0	85.4	30.1	16.1
LnGrp LOS	D	C		E	C	C	E	D		F	C	B
Approach Vol, veh/h		1640	A		730			510	A		230	
Approach Delay, s/veh		37.6			37.2			53.8			28.8	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	36.4	13.8	52.9	5.8	35.6	22.8	43.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	38.0	10.0	52.0	4.0	38.0	30.0	32.0				
Max Q Clear Time (g_c+1), s	12.6	30.7	9.7	42.7	2.6	9.5	18.2	12.5				
Green Ext Time (p_c), s	0.0	1.6	0.0	6.2	0.0	1.0	0.6	3.0				

Intersection Summary

HCM 6th Ctrl Delay	39.5
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, 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)	110	1180	60	10	100	30	10	590	300	80	410	10
Future Volume (veh/h)	110	1180	60	10	100	30	10	590	300	80	410	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	110	1180	60	10	100	30	10	590	300	80	410	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	140	1491	664	21	1254	559	21	878	391	102	1040	463
Arrive On Green	0.08	0.44	0.44	0.01	0.37	0.37	0.01	0.26	0.26	0.06	0.31	0.31
Sat Flow, veh/h	1697	3385	1509	1697	3385	1510	1697	3385	1508	1697	3385	1508
Grp Volume(v), veh/h	110	1180	60	10	100	30	10	590	300	80	410	10
Grp Sat Flow(s),veh/h/ln	1697	1692	1509	1697	1692	1510	1697	1692	1508	1697	1692	1508
Q Serve(g_s), s	5.2	24.3	1.9	0.5	1.6	1.0	0.5	12.7	14.9	3.8	7.8	0.4
Cycle Q Clear(g_c), s	5.2	24.3	1.9	0.5	1.6	1.0	0.5	12.7	14.9	3.8	7.8	0.4
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	140	1491	664	21	1254	559	21	878	391	102	1040	463
V/C Ratio(X)	0.79	0.79	0.09	0.47	0.08	0.05	0.47	0.67	0.77	0.78	0.39	0.02
Avail Cap(c_a), veh/h	313	2262	1008	104	1845	823	104	1258	560	251	1549	690
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	1.00	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	36.6	19.5	13.3	39.9	16.6	16.4	39.9	27.0	27.8	37.7	22.2	19.6
Incr Delay (d2), s/veh	9.4	1.1	0.1	15.6	0.0	0.0	15.6	0.9	4.0	12.3	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	8.5	0.6	0.3	0.6	0.3	0.3	4.8	5.4	1.8	2.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	20.7	13.3	55.5	16.6	16.5	55.5	27.9	31.8	50.0	22.4	19.7
LnGrp LOS	D	C	B	E	B	B	E	C	C	D	C	B
Approach Vol, veh/h		1350			140			900			500	
Approach Delay, s/veh		22.4			19.4			29.5			26.8	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	40.5	8.9	26.9	10.7	34.8	5.0	30.8				
Change Period (Y+Rc), s	4.0	* 4.7	4.0	5.8	4.0	* 4.7	4.0	5.8				
Max Green Setting (Gmax), s	5.0	* 54	12.0	30.2	15.0	* 44	5.0	37.2				
Max Q Clear Time (g_c+1), s	12.5	26.3	5.8	16.9	7.2	3.6	2.5	9.8				
Green Ext Time (p_c), s	0.0	9.4	0.1	3.9	0.1	0.7	0.0	2.5				

Intersection Summary

HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
10: Hansen Rd & Old Schulte Road

Future 2042
Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖	↖	↑↑	↖
Traffic Volume (veh/h)	490	990	250	80	370	10	60	310	210	130	430	240
Future Volume (veh/h)	490	990	250	80	370	10	60	310	210	130	430	240
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	490	990	250	80	370	10	60	310	210	130	430	240
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	583	1268	684	286	963	576	257	583	392	164	647	556
Arrive On Green	0.18	0.37	0.37	0.09	0.28	0.28	0.08	0.17	0.17	0.10	0.19	0.19
Sat Flow, veh/h	3291	3385	1510	3291	3385	1510	3291	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	490	990	250	80	370	10	60	310	210	130	430	240
Grp Sat Flow(s),veh/h/ln	1646	1692	1510	1646	1692	1510	1646	1692	1510	1697	1692	1510
Q Serve(g_s), s	12.8	23.1	9.7	2.0	7.8	0.4	1.5	7.4	10.7	6.7	10.5	10.6
Cycle Q Clear(g_c), s	12.8	23.1	9.7	2.0	7.8	0.4	1.5	7.4	10.7	6.7	10.5	10.6
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	583	1268	684	286	963	576	257	583	392	164	647	556
V/C Ratio(X)	0.84	0.78	0.37	0.28	0.38	0.02	0.23	0.53	0.54	0.79	0.66	0.43
Avail Cap(c_a), veh/h	720	1662	859	336	1267	712	336	983	570	327	1290	843
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	1.00	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	35.5	24.6	16.0	38.1	25.6	17.2	38.6	33.6	28.4	39.4	33.4	21.2
Incr Delay (d2), s/veh	7.3	2.2	0.5	0.5	0.4	0.0	0.5	1.1	1.6	8.2	1.7	0.8
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	8.7	3.1	0.8	3.0	0.1	0.6	3.0	3.8	3.0	4.2	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.8	26.8	16.5	38.6	26.0	17.2	39.1	34.7	30.0	47.6	35.1	21.9
LnGrp LOS	D	C	B	D	C	B	D	C	C	D	D	C
Approach Vol, veh/h		1730			460			580			800	
Approach Delay, s/veh		29.9			28.0			33.5			33.2	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.3	39.9	14.1	20.9	22.3	31.9	12.5	22.5				
Change Period (Y+Rc), s	6.5	6.5	5.5	5.5	6.5	6.5	5.5	5.5				
Max Green Setting (Gmax), s	43.8	17.2	25.9	19.5	33.4	9.1	34.0					
Max Q Clear Time (g_c+1/4), s	25.1	8.7	12.7	14.8	9.8	3.5	12.6					
Green Ext Time (p_c), s	0.1	8.4	0.2	2.7	1.0	2.4	0.1	4.3				

Intersection Summary

HCM 6th Ctrl Delay	30.9
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)	10	1260	210	460	690	10	20	100	670	10	20	10
Future Volume (veh/h)	10	1260	210	460	690	10	20	100	670	10	20	10
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	1260	210	460	690	10	20	100	670	10	20	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	17	1558	510	502	2951	931	29	687	753	17	661	310
Arrive On Green	0.01	0.32	0.32	0.30	0.61	0.61	0.02	0.20	0.20	0.01	0.20	0.20
Sat Flow, veh/h	1697	4863	1510	1697	4863	1510	1697	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	10	1260	210	460	690	10	20	100	670	10	20	10
Grp Sat Flow(s),veh/h/ln	1697	1621	1510	1697	1621	1510	1697	1692	1510	1697	1692	1510
Q Serve(g_s), s	0.5	22.3	10.0	24.5	6.1	0.2	1.1	2.3	19.0	0.5	0.4	0.5
Cycle Q Clear(g_c), s	0.5	22.3	10.0	24.5	6.1	0.2	1.1	2.3	19.0	0.5	0.4	0.5
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	17	1558	510	502	2951	931	29	687	753	17	661	310
V/C Ratio(X)	0.60	0.81	0.41	0.92	0.23	0.01	0.68	0.15	0.89	0.60	0.03	0.03
Avail Cap(c_a), veh/h	72	1713	558	688	3479	1095	72	687	753	72	687	321
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	1.00	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	46.2	29.2	23.9	31.8	8.4	6.9	45.8	30.7	21.1	46.2	30.5	29.8
Incr Delay (d2), s/veh	30.4	2.8	0.5	13.7	0.0	0.0	24.1	0.1	12.7	30.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	8.8	3.6	11.6	2.0	0.1	0.7	0.9	14.9	0.4	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.6	32.0	24.4	45.5	8.5	6.9	69.9	30.8	33.8	76.6	30.5	29.8
LnGrp LOS	E	C	C	D	A	A	E	C	C	E	C	C
Approach Vol, veh/h		1480		1160		790		40				
Approach Delay, s/veh		31.2		23.2		34.3		41.9				
Approach LOS		C		C		C		D				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.9	23.0	31.7	34.0	5.6	22.3	4.9	60.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	19.0	19.0	38.0	33.0	4.0	19.0	4.0	67.0				
Max Q Clear Time (g_c+1), s	12.5	21.0	26.5	24.3	3.1	2.5	2.5	8.1				
Green Ext Time (p_c), s	0.0	0.0	1.2	5.8	0.0	0.1	0.0	5.8				

Intersection Summary

HCM 6th Ctrl Delay	29.3
HCM 6th LOS	C

Tracy Transportation Master Plan Update
 12: Pavillion Pkwy & Promontory Pkwy/Pomontory Pkwy

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	1300	160	270	110	10	10	900	410	10	420	60
Future Volume (veh/h)	180	1300	160	270	110	10	10	900	410	10	420	60
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	180	1300	160	270	110	10	10	900	410	10	420	60
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	211	1468	655	331	1387	619	16	1047	467	16	1047	467
Arrive On Green	0.12	0.43	0.43	0.10	0.41	0.41	0.01	0.31	0.31	0.01	0.31	0.31
Sat Flow, veh/h	1697	3385	1510	3291	3385	1510	1697	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	180	1300	160	270	110	10	10	900	410	10	420	60
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1646	1692	1510	1697	1692	1510	1697	1692	1510
Q Serve(g_s), s	11.3	38.5	7.3	8.8	2.2	0.4	0.6	27.3	28.1	0.6	10.7	3.1
Cycle Q Clear(g_c), s	11.3	38.5	7.3	8.8	2.2	0.4	0.6	27.3	28.1	0.6	10.7	3.1
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	211	1468	655	331	1387	619	16	1047	467	16	1047	467
V/C Ratio(X)	0.85	0.89	0.24	0.82	0.08	0.02	0.61	0.86	0.88	0.61	0.40	0.13
Avail Cap(c_a), veh/h	342	1582	706	392	1387	619	62	1117	498	62	1117	498
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	1.00	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	46.8	28.4	19.6	48.1	19.6	19.1	53.8	35.4	35.7	53.8	29.7	27.1
Incr Delay (d2), s/veh	10.9	6.1	0.2	10.8	0.0	0.0	32.2	6.6	15.6	32.2	0.2	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	5.4	16.3	2.6	4.1	0.9	0.2	0.4	12.0	12.2	0.4	4.4	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.6	34.5	19.8	58.9	19.7	19.1	86.0	42.1	51.3	86.0	30.0	27.2
LnGrp LOS	E	C	B	E	B	B	F	D	D	F	C	C
Approach Vol, veh/h		1640			390			1320			490	
Approach Delay, s/veh		35.6			46.8			45.3			30.8	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	37.8	15.0	51.3	5.0	37.8	17.6	48.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	36.0	13.0	51.0	4.0	36.0	22.0	42.0				
Max Q Clear Time (g_c+1), s	12.6	30.1	10.8	40.5	2.6	12.7	13.3	4.2				
Green Ext Time (p_c), s	0.0	3.7	0.2	6.8	0.0	3.0	0.3	0.7				

Intersection Summary

HCM 6th Ctrl Delay	39.5
HCM 6th LOS	D

Tracy Transportation Master Plan Update
 13: Pavillion Pkwy & Old Schulte Rd/Old Schulte Road

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↖	↑↑	↗	↔↔	↑↑		↖	↑↑	
Traffic Volume (veh/h)	380	690	240	70	100	30	20	340	160	280	490	270
Future Volume (veh/h)	380	690	240	70	100	30	20	340	160	280	490	270
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	380	690	240	70	100	30	20	340	160	280	490	270
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	477	909	405	87	593	264	62	1107	511	455	867	476
Arrive On Green	0.14	0.27	0.27	0.05	0.18	0.18	0.02	0.49	0.49	0.41	0.41	0.41
Sat Flow, veh/h	3291	3385	1510	1697	3385	1510	3291	2249	1038	855	2109	1157
Grp Volume(v), veh/h	380	690	240	70	100	30	20	254	246	280	393	367
Grp Sat Flow(s),veh/h/ln	1646	1692	1510	1697	1692	1510	1646	1692	1595	855	1692	1573
Q Serve(g_s), s	7.1	12.0	8.8	2.6	1.6	1.1	0.4	5.7	5.9	18.7	11.4	11.5
Cycle Q Clear(g_c), s	7.1	12.0	8.8	2.6	1.6	1.1	0.4	5.7	5.9	19.4	11.4	11.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.65	1.00		0.74
Lane Grp Cap(c), veh/h	477	909	405	87	593	264	62	833	785	455	696	647
V/C Ratio(X)	0.80	0.76	0.59	0.80	0.17	0.11	0.32	0.31	0.31	0.62	0.56	0.57
Avail Cap(c_a), veh/h	514	1164	519	159	952	425	206	1058	997	531	846	787
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	1.00	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	26.5	21.5	20.4	30.0	22.4	22.2	31.0	9.7	9.7	17.1	14.4	14.5
Incr Delay (d2), s/veh	8.1	2.2	1.4	15.4	0.1	0.2	3.0	0.2	0.2	1.6	0.7	0.8
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	3.0	4.4	0.2	1.3	0.6	0.4	0.2	1.9	1.8	3.4	4.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	23.7	21.7	45.4	22.6	22.4	34.0	9.9	10.0	18.7	15.2	15.3
LnGrp LOS	C	C	C	D	C	C	C	A	A	B	B	B
Approach Vol, veh/h		1310			200			520			1040	
Approach Delay, s/veh		26.5			30.5			10.9			16.2	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s		35.5	7.3	21.2	5.2	30.3	13.3	15.2				
Change Period (Y+Rc), s		4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s		40.0	6.0	22.0	4.0	32.0	10.0	18.0				
Max Q Clear Time (g_c+I1), s		7.9	4.6	14.0	2.4	21.4	9.1	3.6				
Green Ext Time (p_c), s		3.4	0.0	3.2	0.0	4.9	0.1	0.4				
Intersection Summary												
HCM 6th Ctrl Delay											20.6	
HCM 6th LOS											C	

Tracy Transportation Master Plan Update
 14: Pavillion Pkwy & Hansen Rd

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘↗	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	10	560	350	110	120	20	90	490	620	100	710	10
Future Volume (veh/h)	10	560	350	110	120	20	90	490	620	100	710	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	560	350	110	120	20	90	490	620	100	710	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	16	606	514	135	731	619	141	1197	534	132	1315	587
Arrive On Green	0.01	0.34	0.34	0.08	0.41	0.41	0.04	0.35	0.35	0.08	0.39	0.39
Sat Flow, veh/h	1697	1781	1510	1697	1781	1510	3291	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	10	560	350	110	120	20	90	490	620	100	710	10
Grp Sat Flow(s),veh/h/ln	1697	1781	1510	1697	1781	1510	1646	1692	1510	1697	1692	1510
Q Serve(g_s), s	0.6	32.5	21.4	6.9	4.6	0.9	2.9	11.8	38.0	6.2	17.4	0.4
Cycle Q Clear(g_c), s	0.6	32.5	21.4	6.9	4.6	0.9	2.9	11.8	38.0	6.2	17.4	0.4
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	16	606	514	135	731	619	141	1197	534	132	1315	587
V/C Ratio(X)	0.61	0.92	0.68	0.82	0.16	0.03	0.64	0.41	1.16	0.76	0.54	0.02
Avail Cap(c_a), veh/h	63	647	548	142	731	619	214	1197	534	284	1544	688
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	1.00	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	53.0	34.1	30.4	48.7	20.0	18.9	50.6	26.2	34.7	48.6	25.4	20.2
Incr Delay (d2), s/veh	32.0	18.5	3.2	28.6	0.1	0.0	4.8	0.2	91.8	8.6	0.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	16.8	8.1	4.0	1.9	0.3	1.3	4.7	27.2	2.9	7.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.0	52.6	33.6	77.3	20.1	19.0	55.4	26.5	126.5	57.1	25.8	20.2
LnGrp LOS	F	D	C	E	C	B	E	C	F	E	C	C
Approach Vol, veh/h		920			250			1200			820	
Approach Delay, s/veh		45.7			45.2			80.3			29.5	
Approach LOS		D			D			F			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.4	42.0	12.5	40.6	8.6	45.8	5.0	48.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	38.0	9.0	39.0	7.0	49.0	4.0	44.0				
Max Q Clear Time (g_c+1), s	19.2	40.0	8.9	34.5	4.9	19.4	2.6	6.6				
Green Ext Time (p_c), s	0.1	0.0	0.0	2.1	0.0	5.6	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay	54.5
HCM 6th LOS	D

Tracy Transportation Master Plan Update
 15: Commerce Way & Capital Parks Dr

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔	↑↑↑	↔	↔	↑↑		↔	↑↑	↔↔
Traffic Volume (veh/h)	520	1720	10	10	390	180	10	110	10	70	190	920
Future Volume (veh/h)	520	1720	10	10	390	180	10	110	10	70	190	920
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	520	1720	10	10	390	180	10	110	10	70	190	920
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	638	2093	665	17	1198	475	17	868	78	116	1133	1404
Arrive On Green	0.19	0.43	0.43	0.01	0.25	0.25	0.01	0.28	0.28	0.07	0.33	0.33
Sat Flow, veh/h	3291	4863	1510	1697	4863	1510	1697	3141	282	1697	3385	2657
Grp Volume(v), veh/h	520	1720	10	10	390	180	10	59	61	70	190	920
Grp Sat Flow(s),veh/h/ln	1646	1621	1510	1697	1621	1510	1697	1692	1731	1697	1692	1329
Q Serve(g_s), s	11.3	23.2	0.3	0.4	4.9	6.9	0.4	1.9	2.0	3.0	2.9	18.6
Cycle Q Clear(g_c), s	11.3	23.2	0.3	0.4	4.9	6.9	0.4	1.9	2.0	3.0	2.9	18.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	638	2093	665	17	1198	475	17	468	478	116	1133	1404
V/C Ratio(X)	0.81	0.82	0.02	0.59	0.33	0.38	0.59	0.13	0.13	0.60	0.17	0.66
Avail Cap(c_a), veh/h	885	2222	705	91	1198	475	91	468	478	410	1456	1658
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	1.00	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	28.7	18.7	11.7	36.7	23.0	19.8	36.7	20.2	20.2	33.7	17.5	12.7
Incr Delay (d2), s/veh	4.2	2.5	0.0	28.2	0.2	0.5	28.2	0.1	0.1	5.0	0.1	0.7
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	4.6	8.4	0.1	0.3	1.8	2.4	0.3	0.7	0.8	1.4	1.1	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	21.2	11.7	64.9	23.1	20.3	64.9	20.3	20.3	38.6	17.5	13.4
LnGrp LOS	C	C	B	E	C	C	E	C	C	D	B	B
Approach Vol, veh/h		2250			580			130			1180	
Approach Delay, s/veh		23.8			23.0			23.7			15.5	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	24.6	4.7	36.0	4.7	28.9	18.4	22.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	4.0	34.0	4.0	32.0	20.0	18.0				
Max Q Clear Time (g_c+1/3), s	15.0	4.0	2.4	25.2	2.4	20.6	13.3	8.9				
Green Ext Time (p_c), s	0.1	0.4	0.0	6.8	0.0	4.3	1.2	2.2				

Intersection Summary

HCM 6th Ctrl Delay	21.3
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖↖	↑↑↑		↖	↑↑↑	↖	↖	↑↑		↖↖	↑↑	↖↖
Traffic Volume (veh/h)	1560	410	10	10	180	200	10	10	10	1020	20	500
Future Volume (veh/h)	1560	410	10	10	180	200	10	10	10	1020	20	500
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	1560	410	10	10	180	200	10	10	10	1020	20	500
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	1356	1653	40	16	314	830	809	57	49	1598	143	865
Arrive On Green	0.28	0.34	0.34	0.01	0.06	0.06	0.48	0.03	0.03	0.49	0.04	0.04
Sat Flow, veh/h	4784	4884	119	1697	4863	1510	1697	1725	1482	3291	3385	2657
Grp Volume(v), veh/h	1560	272	148	10	180	200	10	10	10	1020	20	500
Grp Sat Flow(s),veh/h/ln	1595	1621	1760	1697	1621	1510	1697	1692	1515	1646	1692	1329
Q Serve(g_s), s	34.0	7.3	7.3	0.7	4.3	0.0	0.4	0.7	0.8	27.7	0.7	0.0
Cycle Q Clear(g_c), s	34.0	7.3	7.3	0.7	4.3	0.0	0.4	0.7	0.8	27.7	0.7	0.0
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.98	1.00		1.00
Lane Grp Cap(c), veh/h	1356	1097	596	16	314	830	809	56	50	1598	143	865
V/C Ratio(X)	1.15	0.25	0.25	0.62	0.57	0.24	0.01	0.17	0.20	0.64	0.14	0.58
Avail Cap(c_a), veh/h	1356	1297	704	57	729	959	809	268	240	1598	1354	1816
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)	0.70	0.70	0.70	1.00	1.00	1.00	1.00	1.00	1.00	0.22	0.22	0.22
Uniform Delay (d), s/veh	43.0	28.7	28.7	59.2	54.5	14.0	16.5	56.4	56.4	23.0	55.4	33.6
Incr Delay (d2), s/veh	74.3	0.1	0.2	33.6	1.6	0.1	0.0	6.6	8.8	0.2	0.1	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	22.6	2.9	3.1	0.5	1.8	2.8	0.1	0.4	0.4	10.6	0.3	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	117.3	28.7	28.8	92.8	56.2	14.2	16.5	63.0	65.3	23.2	55.5	33.8
LnGrp LOS	F	C	C	F	E	B	B	E	E	C	E	C
Approach Vol, veh/h		1980			390			30			1540	
Approach Delay, s/veh		98.5			35.6			48.3			27.1	
Approach LOS		F			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	62.3	8.0	5.1	44.6	61.2	9.1	38.0	11.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	33.0	19.0	4.0	48.0	4.0	48.0	34.0	18.0				
Max Q Clear Time (g_c+29), s	29.5	2.8	2.7	9.3	2.4	2.7	36.0	6.3				
Green Ext Time (p_c), s	1.5	0.0	0.0	2.9	0.0	2.4	0.0	1.4				

Intersection Summary

HCM 6th Ctrl Delay	64.0
HCM 6th LOS	E



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↑	↗	↙	↑
Traffic Volume (veh/h)	10	130	120	10	620	640
Future Volume (veh/h)	10	130	120	10	620	640
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	0	120	10	620	640
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	18		258	218	768	1297
Arrive On Green	0.01	0.00	0.14	0.14	0.45	0.73
Sat Flow, veh/h	1697	1510	1781	1510	1697	1781
Grp Volume(v), veh/h	10	0	120	10	620	640
Grp Sat Flow(s),veh/h/ln	1697	1510	1781	1510	1697	1781
Q Serve(g_s), s	0.2	0.0	1.9	0.2	9.6	4.7
Cycle Q Clear(g_c), s	0.2	0.0	1.9	0.2	9.6	4.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	18		258	218	768	1297
V/C Ratio(X)	0.55		0.47	0.05	0.81	0.49
Avail Cap(c_a), veh/h	997		1222	1035	3823	5468
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	15.1	0.0	12.0	11.3	7.2	1.8
Incr Delay (d2), s/veh	23.8	0.0	1.3	0.1	2.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.7	0.0	2.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.9	0.0	13.3	11.4	9.3	2.1
LnGrp LOS	D		B	B	A	A
Approach Vol, veh/h	10	A	130		1260	
Approach Delay, s/veh	38.9		13.2		5.6	
Approach LOS	D		B		A	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	17.9	8.4			26.3	4.3
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	69.6	21.0			94.0	18.0
Max Q Clear Time (g_c+I1), s	11.6	3.9			6.7	2.2
Green Ext Time (p_c), s	2.3	0.5			5.3	0.0

Intersection Summary

HCM 6th Ctrl Delay		6.6
HCM 6th LOS		A

Notes

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

Tracy Transportation Master Plan Update
 18: Pavillion Pkwy & Grant Line Rd

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	TTT		T	TT	TTT	T
Traffic Volume (veh/h)	1140	50	40	10	30	840
Future Volume (veh/h)	1140	50	40	10	30	840
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	1187	0	40	10	30	840
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	1561	695	59	1239	435	2127
Arrive On Green	0.46	0.00	0.03	0.37	0.24	0.24
Sat Flow, veh/h	3393	1510	1697	3474	1781	3019
Grp Volume(v), veh/h	1187	0	40	10	30	840
Grp Sat Flow(s),veh/h/ln	1697	1510	1697	1692	1781	1510
Q Serve(g_s), s	13.4	0.0	1.1	0.1	0.6	5.2
Cycle Q Clear(g_c), s	13.4	0.0	1.1	0.1	0.6	5.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1561	695	59	1239	435	2127
V/C Ratio(X)	0.76	0.00	0.68	0.01	0.07	0.39
Avail Cap(c_a), veh/h	5161	2296	332	3089	1122	3292
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	10.3	0.0	22.0	9.3	13.4	2.8
Incr Delay (d2), s/veh	0.8	0.0	12.7	0.0	0.1	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	3.8	0.0	0.6	0.0	0.2	4.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.1	0.0	34.7	9.3	13.4	2.9
LnGrp LOS	B	A	C	A	B	A
Approach Vol, veh/h	1187			50	870	
Approach Delay, s/veh	11.1			29.6	3.3	
Approach LOS	B			C	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		20.9		25.2	5.6	15.2
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		42.0		70.0	9.0	29.0
Max Q Clear Time (g_c+I1), s		2.1		15.4	3.1	7.2
Green Ext Time (p_c), s		0.0		5.8	0.0	4.0

Intersection Summary

HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↗		↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	330	250	60	10	40	10	140	40	10	10	40	40
Future Volume (veh/h)	330	250	60	10	40	10	140	40	10	10	40	40
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	330	250	60	10	40	10	140	40	10	10	40	40
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	420	611	518	18	146	36	178	686	306	18	367	163
Arrive On Green	0.25	0.34	0.34	0.01	0.11	0.11	0.11	0.20	0.20	0.01	0.11	0.11
Sat Flow, veh/h	1697	1781	1510	1697	1376	344	1697	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	330	250	60	10	0	50	140	40	10	10	40	40
Grp Sat Flow(s),veh/h/ln	1697	1781	1510	1697	0	1720	1697	1692	1510	1697	1692	1510
Q Serve(g_s), s	6.7	4.0	1.0	0.2	0.0	1.0	3.0	0.4	0.2	0.2	0.4	0.9
Cycle Q Clear(g_c), s	6.7	4.0	1.0	0.2	0.0	1.0	3.0	0.4	0.2	0.2	0.4	0.9
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	420	611	518	18	0	182	178	686	306	18	367	163
V/C Ratio(X)	0.79	0.41	0.12	0.56	0.00	0.27	0.79	0.06	0.03	0.56	0.11	0.24
Avail Cap(c_a), veh/h	873	1592	1349	184	0	838	413	2108	940	184	1649	736
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	1.00	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	13.0	9.3	8.3	18.2	0.0	15.2	16.1	11.9	11.8	18.2	14.9	15.1
Incr Delay (d2), s/veh	3.3	0.4	0.1	24.4	0.0	0.8	7.4	0.0	0.0	24.4	0.1	0.8
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	2.4	1.2	0.3	0.2	0.0	0.4	1.3	0.1	0.1	0.2	0.1	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.3	9.7	8.4	42.6	0.0	16.0	23.5	11.9	11.9	42.6	15.0	15.9
LnGrp LOS	B	A	A	D	A	B	C	B	B	D	B	B
Approach Vol, veh/h		640			60			190			90	
Approach Delay, s/veh		13.0			20.4			20.5			18.4	
Approach LOS		B			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.4	11.5	4.4	16.7	7.9	8.0	13.1	7.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	23.0	4.0	33.0	9.0	18.0	19.0	18.0				
Max Q Clear Time (g_c+1), s	1.0	2.4	2.2	6.0	5.0	2.9	8.7	3.0				
Green Ext Time (p_c), s	0.0	0.2	0.0	1.7	0.1	0.2	0.8	0.1				

Intersection Summary

HCM 6th Ctrl Delay	15.4
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↗	↘↘↘	↑↑	↗	↘	↑	↗↗	↘↘	↑↑	↗
Traffic Volume (veh/h)	30	990	120	230	630	360	230	420	870	220	330	10
Future Volume (veh/h)	30	990	120	230	630	360	230	420	870	220	330	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	30	990	120	230	630	0	230	420	0	220	330	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	43	1494	464	378	1222		281	514		320	745	332
Arrive On Green	0.03	0.31	0.31	0.08	0.36	0.00	0.17	0.29	0.00	0.10	0.22	0.22
Sat Flow, veh/h	1697	4863	1510	4784	3385	1510	1697	1781	2657	3291	3385	1510
Grp Volume(v), veh/h	30	990	120	230	630	0	230	420	0	220	330	10
Grp Sat Flow(s),veh/h/ln	1697	1621	1510	1595	1692	1510	1697	1781	1329	1646	1692	1510
Q Serve(g_s), s	1.2	12.4	4.2	3.3	10.3	0.0	9.2	15.4	0.0	4.5	5.9	0.4
Cycle Q Clear(g_c), s	1.2	12.4	4.2	3.3	10.3	0.0	9.2	15.4	0.0	4.5	5.9	0.4
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	43	1494	464	378	1222		281	514		320	745	332
V/C Ratio(X)	0.70	0.66	0.26	0.61	0.52		0.82	0.82		0.69	0.44	0.03
Avail Cap(c_a), veh/h	145	2217	688	682	1736		653	1243		610	1688	753
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	21.2	18.3	31.3	17.6	0.0	28.3	23.2	0.0	30.7	23.6	21.5
Incr Delay (d2), s/veh	18.7	0.5	0.3	1.6	0.3	0.0	5.8	3.2	0.0	2.6	0.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.5	1.4	1.3	3.8	0.0	4.0	6.5	0.0	1.8	2.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.6	21.7	18.6	32.9	18.0	0.0	34.1	26.5	0.0	33.3	24.1	21.5
LnGrp LOS	D	C	B	C	B		C	C		C	C	C
Approach Vol, veh/h		1140			860	A		650	A		560	
Approach Delay, s/veh		22.2			21.9			29.2			27.6	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	24.3	9.5	25.6	15.6	19.5	5.8	29.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	13.0	49.0	10.0	32.0	27.0	35.0	6.0	36.0				
Max Q Clear Time (g_c+1), s	10.5	17.4	5.3	14.4	11.2	7.9	3.2	12.3				
Green Ext Time (p_c), s	0.4	2.9	0.3	7.1	0.6	2.3	0.0	4.5				

Intersection Summary

HCM 6th Ctrl Delay	24.5
HCM 6th LOS	C

Notes

Unsignalized Delay for [NBR, WBR] 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)	330	10	10	10	10	290	10	900	10	500	170	10
Future Volume (veh/h)	330	10	10	10	10	290	10	900	10	500	170	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	330	10	10	10	10	290	10	900	10	500	170	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	468	641	559	574	641	839	17	1362	15	645	2240	695
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.01	0.27	0.27	0.20	0.46	0.46
Sat Flow, veh/h	1028	1781	1510	1326	1781	1510	1697	4959	55	3291	4863	1510
Grp Volume(v), veh/h	330	10	10	10	10	290	10	588	322	500	170	10
Grp Sat Flow(s),veh/h/ln	1028	1781	1510	1326	1781	1510	1697	1621	1772	1646	1621	1510
Q Serve(g_s), s	21.6	0.3	0.3	0.3	0.3	7.5	0.4	11.4	11.4	10.2	1.4	0.3
Cycle Q Clear(g_c), s	21.8	0.3	0.3	0.6	0.3	7.5	0.4	11.4	11.4	10.2	1.4	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	468	641	559	574	641	839	17	890	486	645	2240	695
V/C Ratio(X)	0.71	0.02	0.02	0.02	0.02	0.35	0.58	0.66	0.66	0.77	0.08	0.01
Avail Cap(c_a), veh/h	780	1182	1017	976	1182	1297	96	1510	825	1301	3913	1215
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	1.00	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	21.6	14.6	14.1	14.8	14.6	8.6	34.9	22.8	22.8	27.0	10.7	10.4
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.0	0.0	0.2	27.8	0.8	1.5	2.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.1	0.1	0.1	0.1	2.2	0.3	4.2	4.7	4.0	0.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	14.6	14.2	14.8	14.6	8.9	62.7	23.6	24.3	29.0	10.7	10.4
LnGrp LOS	C	B	B	B	B	A	E	C	C	C	B	B
Approach Vol, veh/h		350			310			920			680	
Approach Delay, s/veh		23.0			9.3			24.3			24.2	
Approach LOS		C			A			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.9	23.5		29.5	4.7	36.6		29.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	20.0	33.0		47.0	4.0	57.0		47.0				
Max Q Clear Time (g_c+1/2), s	11.2	13.4		23.8	2.4	3.4		9.5				
Green Ext Time (p_c), s	1.7	6.0		1.7	0.0	1.3		1.1				

Intersection Summary

HCM 6th Ctrl Delay	22.0
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑↑	↗	↖	↑↑↑	↗
Traffic Volume (veh/h)	190	60	10	10	20	10	30	720	10	10	170	10
Future Volume (veh/h)	190	60	10	10	20	10	30	720	10	10	170	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	190	60	10	10	20	10	30	720	10	10	170	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	207	281	47	18	86	43	49	1473	457	18	1382	429
Arrive On Green	0.12	0.19	0.19	0.01	0.08	0.08	0.03	0.30	0.30	0.01	0.28	0.28
Sat Flow, veh/h	1697	1489	248	1697	1120	560	1697	4863	1510	1697	4863	1510
Grp Volume(v), veh/h	190	0	70	10	0	30	30	720	10	10	170	10
Grp Sat Flow(s),veh/h/ln	1697	0	1737	1697	0	1681	1697	1621	1510	1697	1621	1510
Q Serve(g_s), s	3.6	0.0	1.1	0.2	0.0	0.6	0.6	4.0	0.2	0.2	0.9	0.2
Cycle Q Clear(g_c), s	3.6	0.0	1.1	0.2	0.0	0.6	0.6	4.0	0.2	0.2	0.9	0.2
Prop In Lane	1.00		0.14	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	0	327	18	0	130	49	1473	457	18	1382	429
V/C Ratio(X)	0.92	0.00	0.21	0.56	0.00	0.23	0.61	0.49	0.02	0.56	0.12	0.02
Avail Cap(c_a), veh/h	207	0	953	207	0	922	207	2667	828	207	2667	828
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	14.2	0.0	11.3	16.2	0.0	14.2	15.7	9.4	8.0	16.2	8.7	8.5
Incr Delay (d2), s/veh	40.7	0.0	0.3	24.0	0.0	0.9	11.4	0.3	0.0	24.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.4	0.2	0.0	0.2	0.3	1.0	0.0	0.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.9	0.0	11.6	40.2	0.0	15.1	27.1	9.6	8.0	40.2	8.8	8.5
LnGrp LOS	D	A	B	D	A	B	C	A	A	D	A	A
Approach Vol, veh/h		260			40			760			190	
Approach Delay, s/veh		43.3			21.4			10.3			10.4	
Approach LOS		D			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.3	13.9	4.3	10.2	5.0	13.3	8.0	6.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	4.0	18.0	4.0	18.0	4.0	18.0				
Max Q Clear Time (g_c+1), s	12.2	6.0	2.2	3.1	2.6	2.9	5.6	2.6				
Green Ext Time (p_c), s	0.0	4.0	0.0	0.2	0.0	0.9	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

Tracy Transportation Master Plan Update
 23: Lammers Extension & I-205 WB On-Ramp/I-205 WB Off-Ramp

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖ ↗	↖	↗		↑ ↑	↖ ↗		↑ ↑ ↑	↖
Traffic Volume (veh/h)	0	0	0	1050	0	10	0	740	1150	0	160	10
Future Volume (veh/h)	0	0	0	1050	0	10	0	740	1150	0	160	10
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		No		
Adj Sat Flow, veh/h/ln				1781	1781	1781	0	1781	1781	0	1781	1781
Adj Flow Rate, veh/h				1050	0	10	0	740	1150	0	160	10
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				8	8	8	0	8	8	0	8	8
Cap, veh/h				1475	0	437	0	1985	1558	0	2852	885
Arrive On Green				0.29	0.00	0.29	0.00	0.59	0.59	0.00	0.59	0.59
Sat Flow, veh/h				5090	0	1510	0	3474	2657	0	5024	1510
Grp Volume(v), veh/h				1050	0	10	0	740	1150	0	160	10
Grp Sat Flow(s),veh/h/ln				1697	0	1510	0	1692	1329	0	1621	1510
Q Serve(g_s), s				11.9	0.0	0.3	0.0	7.5	20.4	0.0	0.9	0.2
Cycle Q Clear(g_c), s				11.9	0.0	0.3	0.0	7.5	20.4	0.0	0.9	0.2
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1475	0	437	0	1985	1558	0	2852	885
V/C Ratio(X)				0.71	0.00	0.02	0.00	0.37	0.74	0.00	0.06	0.01
Avail Cap(c_a), veh/h				3780	0	1121	0	3352	2631	0	4816	1495
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	1.00	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				20.5	0.0	16.4	0.0	7.1	9.7	0.0	5.7	5.6
Incr Delay (d2), s/veh				0.6	0.0	0.0	0.0	0.1	0.7	0.0	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				4.4	0.0	0.1	0.0	2.2	4.7	0.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				21.2	0.0	16.4	0.0	7.2	10.4	0.0	5.7	5.6
LnGrp LOS				C	A	B	A	A	B	A	A	A
Approach Vol, veh/h					1060			1890			170	
Approach Delay, s/veh					21.1			9.2			5.7	
Approach LOS					C			A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		41.9				41.9		22.7				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		64.0				64.0		48.0				
Max Q Clear Time (g_c+I1), s		22.4				2.9		13.9				
Green Ext Time (p_c), s		15.5				1.2		4.8				

Intersection Summary

HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↑↑↑	↗↗		↑↑↑	↗
Traffic Volume (veh/h)	260	0	2250	0	0	0	0	1630	10	0	1210	10
Future Volume (veh/h)	260	0	2250	0	0	0	0	1630	10	0	1210	10
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	1781	1781				0	1781	1781	0	1781	1781
Adj Flow Rate, veh/h	260	0	0				0	1630	10	0	1210	10
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8				0	8	8	0	8	8
Cap, veh/h	305	0					0	3664	2002	0	3664	1137
Arrive On Green	0.18	0.00	0.00				0.00	0.75	0.75	0.00	0.75	0.75
Sat Flow, veh/h	1697	0	1510				0	5024	2657	0	5024	1510
Grp Volume(v), veh/h	260	0	0				0	1630	10	0	1210	10
Grp Sat Flow(s),veh/h/ln	1697	0	1510				0	1621	1329	0	1621	1510
Q Serve(g_s), s	17.8	0.0	0.0				0.0	14.9	0.1	0.0	9.8	0.2
Cycle Q Clear(g_c), s	17.8	0.0	0.0				0.0	14.9	0.1	0.0	9.8	0.2
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	305	0					0	3664	2002	0	3664	1137
V/C Ratio(X)	0.85	0.00					0.00	0.44	0.00	0.00	0.33	0.01
Avail Cap(c_a), veh/h	1145	0					0	3664	2002	0	3664	1137
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	0.73	0.73	0.00	0.92	0.92
Uniform Delay (d), s/veh	47.7	0.0	0.0				0.0	5.5	3.7	0.0	4.9	3.7
Incr Delay (d2), s/veh	6.7	0.0	0.0				0.0	0.3	0.0	0.0	0.2	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	8.1	0.0	0.0				0.0	4.4	0.0	0.0	2.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.3	0.0	0.0				0.0	5.8	3.7	0.0	5.1	3.7
LnGrp LOS	D	A					A	A	A	A	A	A
Approach Vol, veh/h		260	A					1640			1220	
Approach Delay, s/veh		54.3						5.8			5.1	
Approach LOS		D						A			A	
Timer - Assigned Phs		2		4			6					
Phs Duration (G+Y+Rc), s		94.4		25.6			94.4					
Change Period (Y+Rc), s		4.0		4.0			4.0					
Max Green Setting (Gmax), s		31.0		81.0			31.0					
Max Q Clear Time (g_c+I1), s		16.9		19.8			11.8					
Green Ext Time (p_c), s		9.6		1.8			8.8					
Intersection Summary												
HCM 6th Ctrl Delay				9.5								
HCM 6th LOS				A								
Notes												
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.												

Tracy Transportation Master Plan Update
 25: Lammers Ext/Lammers Extension & Commerce Way

Future 2042
 Timing Plan: PM Peak Hour



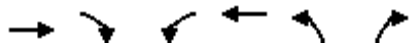
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔↔	↑	↗	↖	↑↑	↗	↖↖	↑↑↑	↗	↖↖	↑↑↑	↗↗
Traffic Volume (veh/h)	680	400	420	10	10	30	10	940	10	130	2070	1260
Future Volume (veh/h)	680	400	420	10	10	30	10	940	10	130	2070	1260
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	680	400	0	10	10	0	10	940	10	130	2070	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	1767	437		267	113		31	1383	578	784	2211	
Arrive On Green	0.37	0.25	0.00	0.16	0.03	0.00	0.01	0.23	0.23	0.24	0.45	0.00
Sat Flow, veh/h	4784	1781	1510	1697	3385	1510	3291	6128	1510	3291	4863	2657
Grp Volume(v), veh/h	680	400	0	10	10	0	10	940	10	130	2070	0
Grp Sat Flow(s),veh/h/ln	1595	1781	1510	1697	1692	1510	1646	1532	1510	1646	1621	1329
Q Serve(g_s), s	12.5	26.2	0.0	0.6	0.3	0.0	0.4	16.8	0.0	3.8	48.5	0.0
Cycle Q Clear(g_c), s	12.5	26.2	0.0	0.6	0.3	0.0	0.4	16.8	0.0	3.8	48.5	0.0
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	1767	437		267	113		31	1383	578	784	2211	
V/C Ratio(X)	0.38	0.92		0.04	0.09		0.32	0.68	0.02	0.17	0.94	
Avail Cap(c_a), veh/h	1767	505		267	508		302	2911	955	784	2229	
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	1.00	0.00	1.00	1.00	0.00	0.94	0.94	0.94	0.09	0.09	0.00
Uniform Delay (d), s/veh	27.8	44.1	0.0	42.8	56.2	0.0	59.1	42.5	23.0	36.2	31.1	0.0
Incr Delay (d2), s/veh	0.1	26.4	0.0	0.1	0.3	0.0	5.5	0.6	0.0	0.0	0.9	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.8	14.7	0.0	0.3	0.2	0.0	0.2	6.4	0.2	1.5	18.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	70.5	0.0	42.9	56.6	0.0	64.5	43.0	23.0	36.3	32.0	0.0
LnGrp LOS	C	E		D	E		E	D	C	D	C	
Approach Vol, veh/h		1080	A		20	A		960			2200	A
Approach Delay, s/veh		43.7			49.7			43.1			32.3	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.9	33.4	5.1	58.5	48.3	8.0	32.6	31.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	34.0	11.0	55.0	20.0	18.0	9.0	57.0				
Max Q Clear Time (g_c+1), s	12.6	28.2	2.4	50.5	14.5	2.3	5.8	18.8				
Green Ext Time (p_c), s	0.0	1.2	0.0	4.0	1.4	0.0	0.1	8.3				

Intersection Summary

HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

Notes

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



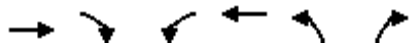
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑↑	↑↑↑	↑↑↑	↑
Traffic Volume (veh/h)	1230	1250	430	650	300	1520
Future Volume (veh/h)	1230	1250	430	650	300	1520
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	1230	1250	430	650	300	1520
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	1175	1189	538	2375	1852	1988
Arrive On Green	0.16	0.16	0.11	0.39	0.55	0.55
Sat Flow, veh/h	5024	1510	4784	6378	3393	3019
Grp Volume(v), veh/h	1230	1250	430	650	300	1520
Grp Sat Flow(s),veh/h/ln	1621	1510	1595	1532	1697	1510
Q Serve(g_s), s	29.0	29.0	10.5	8.7	5.3	41.6
Cycle Q Clear(g_c), s	29.0	29.0	10.5	8.7	5.3	41.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1175	1189	538	2375	1852	1988
V/C Ratio(X)	1.05	1.05	0.80	0.27	0.16	0.76
Avail Cap(c_a), veh/h	1175	1189	797	2707	1852	1988
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.45	0.45	1.00	1.00	0.40	0.40
Uniform Delay (d), s/veh	50.3	6.4	51.9	25.2	13.6	14.1
Incr Delay (d2), s/veh	31.3	32.9	3.5	0.1	0.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	47.6	4.3	3.1	2.0	12.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	81.6	39.3	55.5	25.2	13.7	15.3
LnGrp LOS	F	F	E	C	B	B
Approach Vol, veh/h	2480			1080	1820	
Approach Delay, s/veh	60.3			37.3	15.0	
Approach LOS	E			D	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		69.5	17.5	33.0		50.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s		59.0	20.0	29.0		53.0
Max Q Clear Time (g_c+I1), s		43.6	12.5	31.0		10.7
Green Ext Time (p_c), s		8.1	1.0	0.0		4.6

Intersection Summary

HCM 6th Ctrl Delay	40.4
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑↑	↑	↑↑↑	↑↑	↑
Traffic Volume (veh/h)	1550	530	10	760	450	10
Future Volume (veh/h)	1550	530	10	760	450	10
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	1550	530	10	760	450	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	2498	1365	18	2993	664	304
Arrive On Green	0.51	0.51	0.01	0.62	0.20	0.20
Sat Flow, veh/h	5024	2657	1697	5024	3291	1510
Grp Volume(v), veh/h	1550	530	10	760	450	10
Grp Sat Flow(s),veh/h/ln	1621	1329	1697	1621	1646	1510
Q Serve(g_s), s	10.0	5.3	0.3	3.1	5.5	0.2
Cycle Q Clear(g_c), s	10.0	5.3	0.3	3.1	5.5	0.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2498	1365	18	2993	664	304
V/C Ratio(X)	0.62	0.39	0.56	0.25	0.68	0.03
Avail Cap(c_a), veh/h	2890	1579	155	3779	1354	621
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	7.6	6.5	21.6	3.8	16.2	14.0
Incr Delay (d2), s/veh	0.3	0.2	25.1	0.0	1.2	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	2.4	1.0	0.2	0.6	1.9	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.9	6.6	46.6	3.9	17.4	14.1
LnGrp LOS	A	A	D	A	B	B
Approach Vol, veh/h	2080			770	460	
Approach Delay, s/veh	7.6			4.4	17.3	
Approach LOS	A			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		12.8	4.5	26.5		30.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s		18.0	4.0	26.0		34.0
Max Q Clear Time (g_c+I1), s		7.5	2.3	12.0		5.1
Green Ext Time (p_c), s		1.3	0.0	10.5		6.0
Intersection Summary						
HCM 6th Ctrl Delay			8.2			
HCM 6th LOS			A			

Tracy Transportation Master Plan Update
 29: S Lammers Rd & Pavillion Pkwy

Future 2042
 Timing Plan: PM Peak Hour



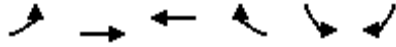
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑	↗	↖	↑↑		↖↗	↖		↖	↗	
Traffic Volume (veh/h)	260	1260	60	10	730	10	30	10	10	10	10	10
Future Volume (veh/h)	260	1260	60	10	730	10	30	10	10	10	10	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	260	1260	0	10	730	10	30	10	10	10	10	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	330	1870		18	1260	17	90	81	81	18	67	67
Arrive On Green	0.19	0.55	0.00	0.01	0.37	0.37	0.03	0.10	0.10	0.01	0.08	0.08
Sat Flow, veh/h	1697	3385	1510	1697	3419	47	3291	817	817	1697	817	817
Grp Volume(v), veh/h	260	1260	0	10	361	379	30	0	20	10	0	20
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1697	1692	1773	1646	0	1634	1697	0	1634
Q Serve(g_s), s	7.1	13.0	0.0	0.3	8.4	8.4	0.4	0.0	0.5	0.3	0.0	0.6
Cycle Q Clear(g_c), s	7.1	13.0	0.0	0.3	8.4	8.4	0.4	0.0	0.5	0.3	0.0	0.6
Prop In Lane	1.00		1.00	1.00		0.03	1.00		0.50	1.00		0.50
Lane Grp Cap(c), veh/h	330	1870		18	624	653	90	0	162	18	0	134
V/C Ratio(X)	0.79	0.67		0.57	0.58	0.58	0.33	0.00	0.12	0.57	0.00	0.15
Avail Cap(c_a), veh/h	834	3260		139	936	981	270	0	636	139	0	636
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	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.7	7.8	0.0	24.0	12.4	12.4	23.3	0.0	20.1	24.0	0.0	20.8
Incr Delay (d2), s/veh	4.2	0.4	0.0	25.6	0.9	0.8	2.1	0.0	0.3	25.6	0.0	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	2.9	3.3	0.0	0.2	2.8	2.9	0.2	0.0	0.2	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	8.2	0.0	49.6	13.2	13.2	25.4	0.0	20.4	49.6	0.0	21.3
LnGrp LOS	C	A		D	B	B	C	A	C	D	A	C
Approach Vol, veh/h		1520	A		750		50				30	
Approach Delay, s/veh		10.7			13.7		23.4				30.8	
Approach LOS		B			B		C				C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.5	8.8	4.5	31.0	5.3	8.0	13.5	22.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	19.0	4.0	47.0	4.0	19.0	24.0	27.0				
Max Q Clear Time (g_c+1), s	12.3	2.5	2.3	15.0	2.4	2.6	9.1	10.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	12.0	0.0	0.0	0.7	4.3				

Intersection Summary

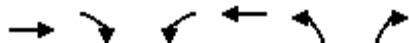
HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B

Notes

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



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		↶	↷		↶	↷	
Traffic Volume (veh/h)	10	520	450	30	30	10	
Future Volume (veh/h)	10	520	450	30	30	10	
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	1781	1781	1781	1781	1781	1781	
Adj Flow Rate, veh/h	10	520	450	30	30	10	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Percent Heavy Veh, %	8	8	8	8	8	8	
Cap, veh/h	0	830	769	51	215	72	
Arrive On Green	0.00	0.47	0.47	0.47	0.18	0.18	
Sat Flow, veh/h	0	1781	1652	110	1206	402	
Grp Volume(v), veh/h	0	520	0	480	41	0	
Grp Sat Flow(s),veh/h/ln	0	1781	0	1762	1649	0	
Q Serve(g_s), s	0.0	4.9	0.0	4.5	0.5	0.0	
Cycle Q Clear(g_c), s	0.0	4.9	0.0	4.5	0.5	0.0	
Prop In Lane	0.00			0.06	0.73	0.24	
Lane Grp Cap(c), veh/h	0	830	0	821	294	0	
V/C Ratio(X)	0.00	0.63	0.00	0.58	0.14	0.00	
Avail Cap(c_a), veh/h	0	6978	0	6273	1761	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	0.0	4.5	0.0	4.4	7.8	0.0	
Incr Delay (d2), s/veh	0.0	0.8	0.0	0.7	0.2	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	0.0	0.2	0.0	0.2	0.1	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	0.0	5.3	0.0	5.1	8.0	0.0	
LnGrp LOS	A	A	A	A	A	A	
Approach Vol, veh/h		520	480		41		
Approach Delay, s/veh		5.3	5.1		8.0		
Approach LOS		A	A		A		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				14.5	8.0	0.0	14.5
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				88.0	24.0	4.0	80.0
Max Q Clear Time (g_c+I1), s				6.9	2.5	0.0	6.5
Green Ext Time (p_c), s				3.5	0.1	0.0	3.2
Intersection Summary							
HCM 6th Ctrl Delay			5.3				
HCM 6th LOS			A				
Notes							
User approved volume balancing among the lanes for turning movement.							



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖↗	↑	↖	↗
Traffic Volume (veh/h)	340	230	10	170	140	430
Future Volume (veh/h)	340	230	10	170	140	430
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	340	230	10	170	140	430
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	501	424	192	739	626	557
Arrive On Green	0.28	0.28	0.06	0.42	0.37	0.37
Sat Flow, veh/h	1781	1510	3291	1781	1697	1510
Grp Volume(v), veh/h	340	230	10	170	140	430
Grp Sat Flow(s),veh/h/ln	1781	1510	1646	1781	1697	1510
Q Serve(g_s), s	7.9	6.0	0.1	2.9	2.6	11.6
Cycle Q Clear(g_c), s	7.9	6.0	0.1	2.9	2.6	11.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	501	424	192	739	626	557
V/C Ratio(X)	0.68	0.54	0.05	0.23	0.22	0.77
Avail Cap(c_a), veh/h	1962	1663	320	2289	1869	1663
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	14.8	14.1	20.6	8.8	10.0	12.9
Incr Delay (d2), s/veh	2.0	1.3	0.0	0.2	0.2	2.8
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	1.8	0.0	0.8	0.8	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.7	15.4	20.6	8.9	10.3	15.7
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	570			180	570	
Approach Delay, s/veh	16.2			9.6	14.3	
Approach LOS	B			A	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		24.2		22.1	6.2	18.0
Change Period (Y+Rc), s		* 5		5.0	3.5	5.0
Max Green Setting (Gmax), s		* 60		51.0	4.5	51.0
Max Q Clear Time (g_c+I1), s		4.9		13.6	2.1	9.9
Green Ext Time (p_c), s		0.8		3.5	0.0	3.2

Intersection Summary

HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖
Traffic Volume (veh/h)	120	2580	60	230	840	10	200	150	140	20	200	40
Future Volume (veh/h)	120	2580	60	230	840	10	200	150	140	20	200	40
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	120	2580	0	230	840	0	200	150	0	20	200	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	295	2463		308	2538		346	536		196	381	
Arrive On Green	0.09	0.51	0.00	0.09	0.52	0.00	0.11	0.16	0.00	0.06	0.11	0.00
Sat Flow, veh/h	3291	4863	1510	3291	4863	1510	3291	3385	1510	3291	3385	1510
Grp Volume(v), veh/h	120	2580	0	230	840	0	200	150	0	20	200	0
Grp Sat Flow(s),veh/h/ln	1646	1621	1510	1646	1621	1510	1646	1692	1510	1646	1692	1510
Q Serve(g_s), s	3.0	43.9	0.0	5.9	8.7	0.0	5.0	3.4	0.0	0.5	4.8	0.0
Cycle Q Clear(g_c), s	3.0	43.9	0.0	5.9	8.7	0.0	5.0	3.4	0.0	0.5	4.8	0.0
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	295	2463		308	2538		346	536		196	381	
V/C Ratio(X)	0.41	1.05		0.75	0.33		0.58	0.28		0.10	0.52	
Avail Cap(c_a), veh/h	342	2463		308	2538		384	1644		384	1644	
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	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.3	21.4	0.0	38.3	12.0	0.0	37.0	32.1	0.0	38.6	36.3	0.0
Incr Delay (d2), s/veh	0.3	32.1	0.0	8.6	0.2	0.0	0.8	0.4	0.0	0.2	1.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	21.2	0.0	2.6	2.7	0.0	2.0	1.4	0.0	0.2	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	53.5	0.0	46.9	12.1	0.0	37.8	32.5	0.0	38.8	37.4	0.0
LnGrp LOS	D	F		D	B		D	C		D	D	
Approach Vol, veh/h		2700	A		1070	A		350	A		220	A
Approach Delay, s/veh		52.8			19.6			35.5			37.5	
Approach LOS		D			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.5	47.9	12.5	13.8	11.2	49.2	8.6	17.7				
Change Period (Y+Rc), s	6.5	6.1	5.5	6.1	5.5	6.1	5.5	6.1				
Max Green Setting (Gmax), s	41.8	41.8	8.0	40.0	6.9	41.9	8.0	40.0				
Max Q Clear Time (g_c+1), s	45.9	45.9	7.0	6.8	5.0	10.7	2.5	5.4				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.8	0.0	9.1	0.0	1.0				

Intersection Summary

HCM 6th Ctrl Delay	42.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [NBR, EBR, WBR, SBR] 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)	150	490	1710	10	90	20	380	320	10	20	240	230
Future Volume (veh/h)	150	490	1710	10	90	20	380	320	10	20	240	230
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	150	490	1710	10	90	20	380	320	10	20	240	230
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	204	897	1305	245	515	618	545	879	491	204	1028	501
Arrive On Green	0.12	0.27	0.27	0.14	0.29	0.29	0.11	0.18	0.18	0.12	0.21	0.21
Sat Flow, veh/h	1697	3385	3442	1697	1781	1510	4784	4863	1510	1697	4863	1510
Grp Volume(v), veh/h	150	490	1710	10	90	20	380	320	10	20	240	230
Grp Sat Flow(s),veh/h/ln	1697	1692	1147	1697	1781	1510	1595	1621	1510	1697	1621	1510
Q Serve(g_s), s	7.1	10.3	22.0	0.4	3.1	0.7	6.3	4.8	0.4	0.9	3.4	10.0
Cycle Q Clear(g_c), s	7.1	10.3	22.0	0.4	3.1	0.7	6.3	4.8	0.4	0.9	3.4	10.0
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	204	897	1305	245	515	618	545	879	491	204	1028	501
V/C Ratio(X)	0.73	0.55	1.31	0.04	0.17	0.03	0.70	0.36	0.02	0.10	0.23	0.46
Avail Cap(c_a), veh/h	368	897	1305	511	580	673	1211	2403	964	204	1876	764
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	1.00	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	35.2	26.2	25.8	30.6	22.1	14.7	35.4	29.8	19.0	32.5	27.1	21.8
Incr Delay (d2), s/veh	7.1	0.7	145.2	0.0	0.1	0.0	1.6	0.3	0.0	0.3	0.1	0.8
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	3.2	4.0	25.1	0.2	1.3	0.2	2.4	1.8	0.1	0.4	1.2	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	26.9	171.0	30.6	22.2	14.7	37.0	30.1	19.0	32.8	27.3	22.6
LnGrp LOS	D	C	F	C	C	B	D	C	B	C	C	C
Approach Vol, veh/h		2350			120			710			490	
Approach Delay, s/veh		132.7			21.6			33.6			25.3	
Approach LOS		F			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	28.0	13.5	23.5	16.0	30.0	16.0	21.0				
Change Period (Y+Rc), s	6.0	* 6	4.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	25.0	* 22	21.0	32.0	18.0	27.0	10.0	41.0				
Max Q Clear Time (g_c+1), s	12.4	24.0	8.3	12.0	9.1	5.1	2.9	6.8				
Green Ext Time (p_c), s	0.0	0.0	1.1	2.6	0.4	0.3	0.0	2.1				

Intersection Summary

HCM 6th Ctrl Delay	95.6
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
 34: Lammers Rd & Pomontory Pkwy

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑↑	↗	↘	↑↑↑	↗
Traffic Volume (veh/h)	10	1230	340	100	80	130	40	540	180	80	1230	10
Future Volume (veh/h)	10	1230	340	100	80	130	40	540	180	80	1230	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	1230	340	100	80	130	40	540	180	80	1230	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	700	1355	759	122	202	179	174	1630	615	100	1420	1064
Arrive On Green	0.41	0.40	0.40	0.07	0.06	0.06	0.20	0.67	0.67	0.06	0.29	0.29
Sat Flow, veh/h	1697	3385	1510	1697	3385	1510	1697	4863	1510	1697	4863	1510
Grp Volume(v), veh/h	10	1230	340	100	80	130	40	540	180	80	1230	10
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1697	1692	1510	1697	1621	1510	1697	1621	1510
Q Serve(g_s), s	0.4	41.1	3.7	7.0	2.7	4.2	2.4	5.6	5.5	5.6	28.8	0.0
Cycle Q Clear(g_c), s	0.4	41.1	3.7	7.0	2.7	4.2	2.4	5.6	5.5	5.6	28.8	0.0
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	700	1355	759	122	202	179	174	1630	615	100	1420	1064
V/C Ratio(X)	0.01	0.91	0.45	0.82	0.40	0.73	0.23	0.33	0.29	0.80	0.87	0.01
Avail Cap(c_a), veh/h	700	1410	784	127	1551	781	174	1630	615	170	1540	1101
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.49	0.49	0.49	0.91	0.91	0.91	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	33.9	9.1	54.9	54.4	22.0	43.8	14.1	11.3	55.7	40.3	5.3
Incr Delay (d2), s/veh	0.0	4.6	0.2	29.3	1.2	5.0	0.7	0.5	1.2	13.2	7.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	17.4	3.5	4.0	1.2	2.0	1.0	1.9	1.8	2.7	12.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	38.5	9.3	84.2	55.5	27.0	44.4	14.6	12.5	68.9	47.6	5.3
LnGrp LOS	C	D	A	F	E	C	D	B	B	E	D	A
Approach Vol, veh/h		1580			310			760			1320	
Approach Delay, s/veh		32.1			52.8			15.7			48.5	
Approach LOS		C			D			B			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	44.2	12.7	52.0	16.3	39.0	53.5	11.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	12.0	33.0	9.0	50.0	7.0	38.0	4.0	55.0				
Max Q Clear Time (g_c+1), s	17.6	7.6	9.0	43.1	4.4	30.8	2.4	6.2				
Green Ext Time (p_c), s	0.1	4.6	0.0	4.9	0.0	4.3	0.0	1.0				

Intersection Summary

HCM 6th Ctrl Delay	36.0
HCM 6th LOS	D



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶	↶	↑↑↑	↶	↶	↑↑↑
Traffic Volume (veh/h)	70	40	710	430	130	1530
Future Volume (veh/h)	70	40	710	430	130	1530
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	70	40	710	430	130	1530
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	110	98	3900	1211	497	3900
Arrive On Green	0.06	0.06	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1697	1510	5024	1510	470	5024
Grp Volume(v), veh/h	70	40	710	430	130	1530
Grp Sat Flow(s),veh/h/ln	1697	1510	1621	1510	470	1621
Q Serve(g_s), s	2.4	1.5	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.4	1.5	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	110	98	3900	1211	497	3900
V/C Ratio(X)	0.64	0.41	0.18	0.36	0.26	0.39
Avail Cap(c_a), veh/h	509	453	3900	1211	497	3900
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.93	0.93	0.60	0.60
Uniform Delay (d), s/veh	27.4	27.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	6.0	2.7	0.1	0.8	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.6	0.0	0.3	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.4	29.7	0.1	0.8	0.8	0.2
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	110		1140			1660
Approach Delay, s/veh	32.0		0.3			0.2
Approach LOS	C		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		52.1			52.1	7.9
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		2.0			2.0	4.4
Green Ext Time (p_c), s		7.7			15.8	0.2
Intersection Summary						
HCM 6th Ctrl Delay			1.5			
HCM 6th LOS			A			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↑↑	↔	↔	↑↑↑
Traffic Volume (veh/h)	40	70	1090	50	140	1460
Future Volume (veh/h)	40	70	1090	50	140	1460
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	40	70	1090	50	140	1460
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	51	89	1422	441	710	3781
Arrive On Green	0.09	0.09	0.29	0.29	0.84	1.00
Sat Flow, veh/h	567	993	5024	1510	1697	5024
Grp Volume(v), veh/h	111	0	1090	50	140	1460
Grp Sat Flow(s),veh/h/ln	574	0	1621	1510	1697	1621
Q Serve(g_s), s	4.1	0.0	12.3	1.5	1.0	0.0
Cycle Q Clear(g_c), s	4.1	0.0	12.3	1.5	1.0	0.0
Prop In Lane	0.36	0.63		1.00	1.00	
Lane Grp Cap(c), veh/h	140	0	1422	441	710	3781
V/C Ratio(X)	0.79	0.00	0.77	0.11	0.20	0.39
Avail Cap(c_a), veh/h	472	0	1621	503	710	3781
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.81	0.81	0.92	0.92
Uniform Delay (d), s/veh	26.8	0.0	19.4	15.5	2.9	0.0
Incr Delay (d2), s/veh	9.5	0.0	3.3	0.4	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	4.3	0.5	0.3	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.3	0.0	22.6	16.0	3.0	0.3
LnGrp LOS	D	A	C	B	A	A
Approach Vol, veh/h	111		1140			1600
Approach Delay, s/veh	36.3		22.3			0.5
Approach LOS	D		C			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	29.1	21.5			50.7	9.3
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	10.0	20.0			34.0	18.0
Max Q Clear Time (g_c+1), s	13.0	14.3			2.0	6.1
Green Ext Time (p_c), s	0.2	3.3			12.4	0.2

Intersection Summary

HCM 6th Ctrl Delay	10.6
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Tracy Transportation Master Plan Update
 37: Lammers Road & Old Schulte Road

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖↗	↑↑↑	↑↑↑	↗
Traffic Volume (veh/h)	610	610	20	540	1430	170
Future Volume (veh/h)	610	610	20	540	1430	170
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	610	610	20	540	1430	170
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	705	627	229	2245	1608	499
Arrive On Green	0.42	0.42	0.07	0.46	0.33	0.33
Sat Flow, veh/h	1697	1510	3291	5024	5024	1510
Grp Volume(v), veh/h	610	610	20	540	1430	170
Grp Sat Flow(s),veh/h/ln	1697	1510	1646	1621	1621	1510
Q Serve(g_s), s	21.3	25.8	0.4	4.4	18.1	5.5
Cycle Q Clear(g_c), s	21.3	25.8	0.4	4.4	18.1	5.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	705	627	229	2245	1608	499
V/C Ratio(X)	0.87	0.97	0.09	0.24	0.89	0.34
Avail Cap(c_a), veh/h	705	627	229	2245	1646	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.99	0.99	0.93	0.93
Uniform Delay (d), s/veh	17.3	18.6	28.3	10.6	20.6	16.4
Incr Delay (d2), s/veh	11.0	29.1	0.2	0.3	7.3	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	22.5	0.1	1.3	6.9	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.3	47.7	28.5	10.9	27.9	18.1
LnGrp LOS	C	D	C	B	C	B
Approach Vol, veh/h	1220			560	1600	
Approach Delay, s/veh	38.0			11.5	26.9	
Approach LOS	D			B	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		34.0		31.0	8.5	25.5
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0		27.0	4.0	22.0
Max Q Clear Time (g_c+I1), s		6.4		27.8	2.4	20.1
Green Ext Time (p_c), s		2.4		0.0	0.0	1.4
Intersection Summary						
HCM 6th Ctrl Delay			28.4			
HCM 6th LOS			C			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙		↑↑↑	↗	↘	↑↑↑
Traffic Volume (veh/h)	50	10	550	70	20	2010
Future Volume (veh/h)	50	10	550	70	20	2010
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	50	10	550	70	20	2010
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	64	13	786	244	1117	4204
Arrive On Green	0.05	0.05	0.16	0.16	0.66	0.86
Sat Flow, veh/h	1364	273	5024	1510	1697	5024
Grp Volume(v), veh/h	61	0	550	70	20	2010
Grp Sat Flow(s),veh/h/ln	1664	0	1621	1510	1697	1621
Q Serve(g_s), s	3.3	0.0	9.6	3.7	0.4	8.6
Cycle Q Clear(g_c), s	3.3	0.0	9.6	3.7	0.4	8.6
Prop In Lane	0.82	0.16		1.00	1.00	
Lane Grp Cap(c), veh/h	78	0	786	244	1117	4204
V/C Ratio(X)	0.78	0.00	0.70	0.29	0.02	0.48
Avail Cap(c_a), veh/h	351	0	2810	872	1117	4204
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.88	0.88	0.58	0.58
Uniform Delay (d), s/veh	42.4	0.0	35.7	33.2	5.3	1.4
Incr Delay (d2), s/veh	15.7	0.0	4.5	2.6	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	3.9	1.5	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	58.1	0.0	40.2	35.8	5.3	1.6
LnGrp LOS	E	A	D	D	A	A
Approach Vol, veh/h	61		620			2030
Approach Delay, s/veh	58.1		39.7			1.7
Approach LOS	E		D			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	63.2	18.5			81.8	8.2
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	7.0	52.0			63.0	19.0
Max Q Clear Time (g_c+1/4), s	12.4	11.6			10.6	5.3
Green Ext Time (p_c), s	0.0	2.9			16.3	0.1

Intersection Summary

HCM 6th Ctrl Delay		11.6
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘	↑↑↑	↗	↘	↑↑↑	↗
Traffic Volume (veh/h)	40	580	10	10	120	10	10	580	10	300	1760	10
Future Volume (veh/h)	40	580	10	10	120	10	10	580	10	300	1760	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	40	580	10	10	120	10	10	580	10	300	1760	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	443	564	705	56	158	699	255	692	265	635	1783	948
Arrive On Green	0.26	0.32	0.32	0.03	0.09	0.09	0.30	0.28	0.28	0.37	0.37	0.37
Sat Flow, veh/h	1697	1781	1510	1697	1781	1510	1697	4863	1510	1697	4863	1510
Grp Volume(v), veh/h	40	580	10	10	120	10	10	580	10	300	1760	10
Grp Sat Flow(s),veh/h/ln	1697	1781	1510	1697	1781	1510	1697	1621	1510	1697	1621	1510
Q Serve(g_s), s	2.1	38.0	0.1	0.7	7.9	0.0	0.5	13.4	0.2	16.1	43.1	0.0
Cycle Q Clear(g_c), s	2.1	38.0	0.1	0.7	7.9	0.0	0.5	13.4	0.2	16.1	43.1	0.0
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	443	564	705	56	158	699	255	692	265	635	1783	948
V/C Ratio(X)	0.09	1.03	0.01	0.18	0.76	0.01	0.04	0.84	0.04	0.47	0.99	0.01
Avail Cap(c_a), veh/h	443	564	705	254	727	1182	255	892	327	635	1783	948
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	0.99	0.99	0.99	0.87	0.87	0.87
Uniform Delay (d), s/veh	33.5	41.0	9.9	56.4	53.4	17.4	35.9	41.6	14.5	28.5	37.7	8.4
Incr Delay (d2), s/veh	0.1	45.3	0.0	1.4	7.2	0.0	0.1	11.5	0.3	0.5	17.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	23.5	0.1	0.3	3.9	0.2	0.2	5.3	0.1	6.6	19.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.6	86.3	9.9	57.9	60.6	17.4	35.9	53.1	14.8	29.0	54.8	8.4
LnGrp LOS	C	F	A	E	E	B	D	D	B	C	D	A
Approach Vol, veh/h		630			140			600			2070	
Approach Delay, s/veh		81.7			57.3			52.2			50.8	
Approach LOS		F			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	48.9	21.1	8.0	42.0	22.0	48.0	35.4	14.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	26.0	22.0	18.0	38.0	4.0	44.0	7.0	49.0				
Max Q Clear Time (g_c+10), s	11.0	15.4	2.7	40.0	2.5	45.1	4.1	9.9				
Green Ext Time (p_c), s	0.8	1.6	0.0	0.0	0.0	0.0	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	57.0
HCM 6th LOS	E

Tracy Transportation Master Plan Update
 40: Lammers Road/Lammers Rd & Samuel James Way

Future 2042
 Timing Plan: PM Peak Hour



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	RT		TTT	RT	RT	TTT
Traffic Volume (veh/h)	10	10	580	10	230	1530
Future Volume (veh/h)	10	10	580	10	230	1530
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	10	580	10	230	1530
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	15	15	945	293	994	4119
Arrive On Green	0.02	0.02	0.19	0.19	1.00	1.00
Sat Flow, veh/h	765	765	5024	1510	1697	5024
Grp Volume(v), veh/h	21	0	580	10	230	1530
Grp Sat Flow(s),veh/h/ln1606	0	1621	1510	1697	1621	
Q Serve(g_s), s	0.8	0.0	6.5	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.8	0.0	6.5	0.3	0.0	0.0
Prop In Lane	0.48	0.48		1.00	1.00	
Lane Grp Cap(c), veh/h	32	0	945	293	994	4119
V/C Ratio(X)	0.66	0.00	0.61	0.03	0.23	0.37
Avail Cap(c_a), veh/h	134	0	1864	579	994	4119
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.53	0.53
Uniform Delay (d), s/veh	29.2	0.0	22.1	12.9	0.0	0.0
Incr Delay (d2), s/veh	21.3	0.0	3.0	0.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln0.5	0.0	0.0	2.4	0.1	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.5	0.0	25.1	13.1	0.1	0.1
LnGrp LOS	D	A	C	B	A	A
Approach Vol, veh/h	21		590		1760	
Approach Delay, s/veh	50.5		24.9		0.1	
Approach LOS	D		C		A	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	39.2	15.7			54.8	5.2
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	20.0	23.0			47.0	5.0
Max Q Clear Time (g_c+1), s	12.0	8.5			2.0	2.8
Green Ext Time (p_c), s	0.6	3.1			14.8	0.0

Intersection Summary

HCM 6th Ctrl Delay	6.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Tracy Transportation Master Plan Update
 41: Lammers Road/Lammers Rd & Hansen Rd/Ellis Town Dr

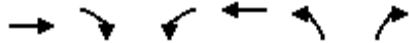
Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘	↑↑↑	↗	↘	↑↑↑	↗
Traffic Volume (veh/h)	10	190	450	10	40	60	80	530	40	260	1270	10
Future Volume (veh/h)	10	190	450	10	40	60	80	530	40	260	1270	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	190	450	10	40	60	80	530	40	260	1270	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	388	490	415	17	100	85	335	1642	510	301	1580	12
Arrive On Green	0.23	0.28	0.28	0.01	0.06	0.06	0.20	0.34	0.34	0.18	0.32	0.32
Sat Flow, veh/h	1697	1781	1510	1697	1781	1510	1697	4863	1510	1697	4977	39
Grp Volume(v), veh/h	10	190	450	10	40	60	80	530	40	260	827	453
Grp Sat Flow(s),veh/h/ln	1697	1781	1510	1697	1781	1510	1697	1621	1510	1697	1621	1774
Q Serve(g_s), s	0.4	6.9	22.0	0.5	1.7	2.2	3.2	6.5	1.2	11.9	18.7	18.7
Cycle Q Clear(g_c), s	0.4	6.9	22.0	0.5	1.7	2.2	3.2	6.5	1.2	11.9	18.7	18.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	388	490	415	17	100	85	335	1642	510	301	1029	563
V/C Ratio(X)	0.03	0.39	1.08	0.59	0.40	0.71	0.24	0.32	0.08	0.86	0.80	0.80
Avail Cap(c_a), veh/h	388	490	415	85	490	415	335	1642	510	403	1175	643
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	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	23.5	29.0	39.4	36.4	18.5	27.0	19.7	12.5	32.0	25.0	25.0
Incr Delay (d2), s/veh	0.0	0.5	68.6	28.8	2.6	10.2	0.4	0.5	0.3	13.7	6.7	11.6
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	0.1	2.9	15.5	0.3	0.8	1.4	1.2	2.3	0.5	5.7	7.4	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.0	24.0	97.6	68.2	39.0	28.7	27.4	20.2	12.8	45.7	31.7	36.6
LnGrp LOS	C	C	F	E	D	C	C	C	B	D	C	D
Approach Vol, veh/h		650			110			650			1540	
Approach Delay, s/veh		75.0			36.0			20.6			35.5	
Approach LOS		E			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.2	31.0	4.8	26.0	19.8	29.4	22.3	8.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	19.0	19.0	4.0	22.0	9.0	29.0	4.0	22.0				
Max Q Clear Time (g_c+I1), s	8.5	8.5	2.5	24.0	5.2	20.7	2.4	4.2				
Green Ext Time (p_c), s	0.3	2.5	0.0	0.0	0.0	4.7	0.0	0.3				

Intersection Summary

HCM 6th Ctrl Delay	40.9
HCM 6th LOS	D



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Volume (veh/h)	1170	10	10	330	10	10
Future Volume (veh/h)	1170	10	10	330	10	10
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	1170	10	10	330	10	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	1367	610	17	1628	654	582
Arrive On Green	0.40	0.40	0.01	0.48	0.39	0.39
Sat Flow, veh/h	3474	1510	1697	3474	1697	1510
Grp Volume(v), veh/h	1170	10	10	330	10	10
Grp Sat Flow(s),veh/h/ln	1692	1510	1697	1692	1697	1510
Q Serve(g_s), s	18.9	0.2	0.4	3.4	0.2	0.2
Cycle Q Clear(g_c), s	18.9	0.2	0.4	3.4	0.2	0.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1367	610	17	1628	654	582
V/C Ratio(X)	0.86	0.02	0.58	0.20	0.02	0.02
Avail Cap(c_a), veh/h	1467	654	113	1918	654	582
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.48	0.48	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	10.7	29.6	9.0	11.4	11.4
Incr Delay (d2), s/veh	2.5	0.0	26.7	0.1	0.0	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	6.8	0.1	0.3	1.1	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.7	10.7	56.2	9.0	11.4	11.4
LnGrp LOS	B	B	E	A	B	B
Approach Vol, veh/h	1180			340	20	
Approach Delay, s/veh	18.7			10.4	11.4	
Approach LOS	B			B	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		27.1	4.6	28.2		32.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s		18.0	4.0	26.0		34.0
Max Q Clear Time (g_c+1), s		2.2	2.4	20.9		5.4
Green Ext Time (p_c), s		0.0	0.0	3.3		2.3
Intersection Summary						
HCM 6th Ctrl Delay			16.8			
HCM 6th LOS			B			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	←←←←		↑↑↑↑	←	←	↑↑↑↑
Traffic Volume (veh/h)	240	90	560	920	260	1470
Future Volume (veh/h)	240	90	560	920	260	1470
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	220	111	560	920	260	1470
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	337	150	2961	919	292	3992
Arrive On Green	0.10	0.10	0.61	0.61	0.17	0.82
Sat Flow, veh/h	3393	1510	5024	1510	1697	5024
Grp Volume(v), veh/h	220	111	560	920	260	1470
Grp Sat Flow(s),veh/h/ln	1697	1510	1621	1510	1697	1621
Q Serve(g_s), s	6.2	7.1	5.1	60.9	15.0	7.8
Cycle Q Clear(g_c), s	6.2	7.1	5.1	60.9	15.0	7.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	337	150	2961	919	292	3992
V/C Ratio(X)	0.65	0.74	0.19	1.00	0.89	0.37
Avail Cap(c_a), veh/h	611	272	2961	919	339	3992
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.78	0.78	0.81	0.81
Uniform Delay (d), s/veh	43.4	43.8	8.6	19.6	40.5	2.3
Incr Delay (d2), s/veh	2.1	6.9	0.1	26.4	18.8	0.2
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	2.9	1.6	24.0	7.5	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.5	50.7	8.8	46.0	59.3	2.5
LnGrp LOS	D	D	A	F	E	A
Approach Vol, veh/h	331		1480			1730
Approach Delay, s/veh	47.3		31.9			11.0
Approach LOS	D		C			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	21.2	64.9			86.1	13.9
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	20.0	50.0			74.0	18.0
Max Q Clear Time (g_c+11), s	11.0	62.9			9.8	9.1
Green Ext Time (p_c), s	0.2	0.0			14.7	0.8

Intersection Summary

HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	10	20	100	10	270	80	1170	160	630	890	190
Future Volume (veh/h)	40	10	20	100	10	270	80	1170	160	630	890	190
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	40	10	20	100	10	270	80	1170	160	630	890	190
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	50	65	145	123	142	1193	101	1273	678	1215	2322	1080
Arrive On Green	0.03	0.04	0.04	0.07	0.08	0.08	0.06	0.38	0.38	0.37	0.69	0.69
Sat Flow, veh/h	1697	1781	1510	1697	1781	2657	1697	3385	1510	3291	3385	1510
Grp Volume(v), veh/h	40	10	20	100	10	270	80	1170	160	630	890	190
Grp Sat Flow(s),veh/h/ln	1697	1781	1510	1697	1781	1329	1697	1692	1510	1646	1692	1510
Q Serve(g_s), s	2.6	0.6	1.1	6.4	0.6	0.8	5.1	36.3	0.0	16.4	12.3	4.5
Cycle Q Clear(g_c), s	2.6	0.6	1.1	6.4	0.6	0.8	5.1	36.3	0.0	16.4	12.3	4.5
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	50	65	145	123	142	1193	101	1273	678	1215	2322	1080
V/C Ratio(X)	0.80	0.15	0.14	0.81	0.07	0.23	0.79	0.92	0.24	0.52	0.38	0.18
Avail Cap(c_a), veh/h	108	292	337	139	324	1464	170	1323	700	1215	2322	1080
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	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86	0.91	0.91	0.91
Uniform Delay (d), s/veh	53.1	51.4	29.7	50.2	46.8	10.7	51.1	32.7	18.7	27.1	7.4	5.1
Incr Delay (d2), s/veh	24.6	1.1	0.4	26.6	0.2	0.1	11.3	10.7	0.7	0.4	0.4	0.3
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	1.4	0.3	0.5	3.6	0.3	1.5	2.4	15.7	2.6	6.2	3.8	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.7	52.5	30.2	76.9	47.1	10.8	62.4	43.4	19.4	27.4	7.8	5.4
LnGrp LOS	E	D	C	E	D	B	E	D	B	C	A	A
Approach Vol, veh/h		70			380			1410			1710	
Approach Delay, s/veh		60.5			29.1			41.7			14.8	
Approach LOS		E			C			D			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	44.6	45.4	12.0	8.0	10.5	79.5	7.2	12.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	24.0	43.0	9.0	18.0	11.0	56.0	7.0	20.0				
Max Q Clear Time (g_c+110), s	110.4	38.3	8.4	3.1	7.1	14.3	4.6	2.8				
Green Ext Time (p_c), s	1.2	3.1	0.0	0.0	0.0	7.6	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay											27.8	
HCM 6th LOS											C	

Tracy Transportation Master Plan Update
 45: Lammers Rd & I-580 WB On-Ramp/I-580 WB Off-Ramp

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↗	↖	↑↑			↑↑	↗↖
Traffic Volume (veh/h)	0	0	0	30	0	220	50	1180	0	0	810	200
Future Volume (veh/h)	0	0	0	30	0	220	50	1180	0	0	810	200
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		No		
Adj Sat Flow, veh/h/ln				1781	1781	1781	1781	1781	0	0	1781	1781
Adj Flow Rate, veh/h				30	0	220	50	1180	0	0	810	200
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				8	8	8	8	8	0	0	8	8
Cap, veh/h				281	0	250	746	2599	0	0	999	784
Arrive On Green				0.17	0.00	0.17	0.44	0.77	0.00	0.00	0.30	0.30
Sat Flow, veh/h				1697	0	1510	1697	3474	0	0	3474	2657
Grp Volume(v), veh/h				30	0	220	50	1180	0	0	810	200
Grp Sat Flow(s),veh/h/ln				1697	0	1510	1697	1692	0	0	1692	1329
Q Serve(g_s), s				1.8	0.0	17.1	2.0	14.9	0.0	0.0	26.6	6.9
Cycle Q Clear(g_c), s				1.8	0.0	17.1	2.0	14.9	0.0	0.0	26.6	6.9
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				281	0	250	746	2599	0	0	999	784
V/C Ratio(X)				0.11	0.00	0.88	0.07	0.45	0.00	0.00	0.81	0.26
Avail Cap(c_a), veh/h				481	0	428	746	2599	0	0	1721	1351
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	1.00	0.67	0.67	0.00	0.00	0.92	0.92
Uniform Delay (d), s/veh				42.6	0.0	48.9	19.4	5.0	0.0	0.0	39.2	32.2
Incr Delay (d2), s/veh				0.2	0.0	10.6	0.0	0.4	0.0	0.0	6.6	0.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.8	0.0	7.2	0.8	3.9	0.0	0.0	11.5	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				42.7	0.0	59.6	19.4	5.3	0.0	0.0	45.8	33.0
LnGrp LOS				D	A	E	B	A	A	A	D	C
Approach Vol, veh/h					250			1230			1010	
Approach Delay, s/veh					57.6			5.9			43.3	
Approach LOS					E			A			D	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		96.2			56.8	39.4		23.8				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		78.0			13.0	61.0		34.0				
Max Q Clear Time (g_c+I1), s		16.9			4.0	28.6		19.1				
Green Ext Time (p_c), s		10.6			0.0	6.8		0.8				
Intersection Summary												
HCM 6th Ctrl Delay											26.2	
HCM 6th LOS											C	

Tracy Transportation Master Plan Update
 46: Lammers Rd & I-580 EB Off-Ramp/I-580 EB On-Ramp

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1060	0	110	0	0	0	0	180	10	300	540	0
Future Volume (veh/h)	1060	0	110	0	0	0	0	180	10	300	540	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	1781	1781	1781				0	1781	1781	1781	1781	0
Adj Flow Rate, veh/h	1060	0	110				0	180	10	300	540	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8				0	8	8	8	8	0
Cap, veh/h	1386	0	617				0	363	20	369	1409	0
Arrive On Green	0.41	0.00	0.41				0.00	0.11	0.11	0.22	0.42	0.00
Sat Flow, veh/h	3393	0	1510				0	3350	180	1697	3474	0
Grp Volume(v), veh/h	1060	0	110				0	93	97	300	540	0
Grp Sat Flow(s),veh/h/ln	1697	0	1510				0	1692	1749	1697	1692	0
Q Serve(g_s), s	12.3	0.0	2.1				0.0	2.4	2.4	7.7	5.1	0.0
Cycle Q Clear(g_c), s	12.3	0.0	2.1				0.0	2.4	2.4	7.7	5.1	0.0
Prop In Lane	1.00		1.00				0.00		0.10	1.00		0.00
Lane Grp Cap(c), veh/h	1386	0	617				0	188	195	369	1409	0
V/C Ratio(X)	0.76	0.00	0.18				0.00	0.49	0.50	0.81	0.38	0.00
Avail Cap(c_a), veh/h	2156	0	959				0	667	690	595	2818	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	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.6	0.0	8.6				0.0	19.1	19.1	17.0	9.3	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.1				0.0	2.0	2.0	4.5	0.2	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	3.7	0.0	0.6				0.0	0.9	0.9	2.8	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.5	0.0	8.7				0.0	21.1	21.1	21.5	9.4	0.0
LnGrp LOS	B	A	A				A	C	C	C	A	A
Approach Vol, veh/h		1170						190			840	
Approach Delay, s/veh		12.2						21.1			13.7	
Approach LOS		B						C			B	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	13.9	9.1	22.6	23.0								
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0								
Max Green Setting (Gmax), s	16.0	18.0	29.0	38.0								
Max Q Clear Time (g_c+I), s	19.7	4.4	14.3	7.1								
Green Ext Time (p_c), s	0.5	0.7	4.4	3.5								

Intersection Summary

HCM 6th Ctrl Delay	13.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection						
Int Delay, s/veh	7.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	10	210	40	20	10	10
Future Vol, veh/h	10	210	40	20	10	10
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, %	8	8	8	8	8	8
Mvmt Flow	10	210	40	20	10	10
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	115	15	20	0	0	
Stage 1	15	-	-	-	-	
Stage 2	100	-	-	-	-	
Critical Hdwy	6.48	6.28	4.18	-	-	
Critical Hdwy Stg 1	5.48	-	-	-	-	
Critical Hdwy Stg 2	5.48	-	-	-	-	
Follow-up Hdwy	3.572	3.372	2.272	-	-	
Pot Cap-1 Maneuver	867	1047	1558	-	-	
Stage 1	992	-	-	-	-	
Stage 2	909	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	844	1047	1558	-	-	
Mov Cap-2 Maneuver	844	-	-	-	-	
Stage 1	966	-	-	-	-	
Stage 2	909	-	-	-	-	
Approach	EB	NB	SB			
HCM Control Delay, s	9.4	4.9	0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1558	-	1036	-	-	
HCM Lane V/C Ratio	0.026	-	0.212	-	-	
HCM Control Delay (s)	7.4	0	9.4	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-	

Tracy Transportation Master Plan Update
48: Naglee Rd & Auto Plaza Dr

Future 2042
Timing Plan: PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	290	770	10	30	240	10	10	170	490	10	10	10
Future Volume (veh/h)	290	770	10	30	240	10	10	170	490	10	10	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	290	770	10	30	240	10	10	170	490	10	10	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	348	1060	488	89	458	220	18	1160	558	18	1160	827
Arrive On Green	0.20	0.31	0.31	0.03	0.14	0.14	0.01	0.34	0.34	0.01	0.34	0.34
Sat Flow, veh/h	1697	3385	1510	3291	3385	1510	1697	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	290	770	10	30	240	10	10	170	490	10	10	10
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1646	1692	1510	1697	1692	1510	1697	1692	1510
Q Serve(g_s), s	8.5	10.5	0.2	0.5	3.4	0.3	0.3	1.8	15.8	0.3	0.1	0.2
Cycle Q Clear(g_c), s	8.5	10.5	0.2	0.5	3.4	0.3	0.3	1.8	15.8	0.3	0.1	0.2
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	348	1060	488	89	458	220	18	1160	558	18	1160	827
V/C Ratio(X)	0.83	0.73	0.02	0.34	0.52	0.05	0.57	0.15	0.88	0.57	0.01	0.01
Avail Cap(c_a), veh/h	456	1493	682	568	1168	537	130	1168	562	130	1168	830
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	1.00	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	19.9	15.9	12.0	24.9	21.0	19.2	25.7	11.9	15.3	25.7	11.3	5.4
Incr Delay (d2), s/veh	9.9	1.1	0.0	2.2	0.9	0.1	25.9	0.1	14.6	25.9	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	3.6	0.1	0.2	1.3	0.1	0.2	0.6	6.6	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	17.0	12.0	27.1	21.9	19.2	51.6	11.9	30.0	51.6	11.3	5.4
LnGrp LOS	C	B	B	C	C	B	D	B	C	D	B	A
Approach Vol, veh/h		1070			280			670				30
Approach Delay, s/veh		20.4			22.4			25.7				22.8
Approach LOS		C			C			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.5	21.9	5.4	20.3	4.5	21.9	14.7	11.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	18.0	9.0	23.0	4.0	18.0	14.0	18.0				
Max Q Clear Time (g_c+I1), s	2.3	17.8	2.5	12.5	2.3	2.2	10.5	5.4				
Green Ext Time (p_c), s	0.0	0.1	0.0	3.8	0.0	0.0	0.3	1.1				
Intersection Summary												
HCM 6th Ctrl Delay				22.4								
HCM 6th LOS				C								

Tracy Transportation Master Plan Update
 49: I-205 WB Ramps/Pavilion Pkwy & Naglee Rd

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↑↑↑			↖↖↖	↑	↖	↖	↑	↖
Traffic Volume (veh/h)	40	120	830	120	20	10	140	500	10	70	50	20
Future Volume (veh/h)	40	120	830	120	20	10	140	500	10	70	50	20
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	40	120	830	120	20	10	140	500	10	70	50	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	89	1505	762	104	1594	689	274	552	568	74	528	503
Arrive On Green	0.03	0.44	0.44	0.06	0.48	0.47	0.06	0.31	0.31	0.04	0.30	0.30
Sat Flow, veh/h	3291	3385	1510	1697	3327	1438	4784	1781	1510	1697	1781	1510
Grp Volume(v), veh/h	40	120	830	120	19	11	140	500	10	70	50	20
Grp Sat Flow(s),veh/h/ln	1646	1692	1510	1697	1621	1523	1595	1781	1510	1697	1781	1510
Q Serve(g_s), s	1.4	2.3	50.7	7.0	0.4	0.4	3.2	30.7	0.5	4.7	2.3	1.0
Cycle Q Clear(g_c), s	1.4	2.3	50.7	7.0	0.4	0.4	3.2	30.7	0.5	4.7	2.3	1.0
Prop In Lane	1.00		1.00	1.00		0.94	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	89	1505	762	104	1553	729	274	552	568	74	528	503
V/C Ratio(X)	0.45	0.08	1.09	1.15	0.01	0.01	0.51	0.91	0.02	0.94	0.09	0.04
Avail Cap(c_a), veh/h	124	1505	762	104	1553	729	1469	645	647	74	528	503
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	1.00	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	54.6	18.2	28.2	53.5	15.6	15.8	52.2	37.8	22.3	54.4	29.0	25.7
Incr Delay (d2), s/veh	3.5	0.0	59.8	134.9	0.0	0.0	1.8	15.0	0.0	84.0	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.9	32.0	6.9	0.1	0.1	1.3	15.3	0.2	3.7	1.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.2	18.3	88.0	188.4	15.6	15.8	54.0	52.8	22.3	138.4	29.1	25.7
LnGrp LOS	E	B	F	F	B	B	D	D	C	F	C	C
Approach Vol, veh/h		990			150			650			140	
Approach Delay, s/veh		78.3			153.9			52.5			83.3	
Approach LOS		E			F			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	54.7	10.5	37.8	7.1	58.6	9.0	39.3				
Change Period (Y+Rc), s	4.7	4.9	4.6	5.3	*4.2	4.9	*4.2	5.3				
Max Green Setting (Gmax), s	10.3	49.8	34.4	10.0	*4.1	52.5	*4.8	40.0				
Max Q Clear Time (g_c+1/3), s	19.0	52.7	5.2	4.3	3.4	2.4	6.7	32.7				
Green Ext Time (p_c), s	0.0	0.0	0.8	0.1	0.0	0.1	0.0	1.3				

Intersection Summary

HCM 6th Ctrl Delay	75.9
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↑↑↑ ↗			↖	↗		↖	↗	↖
Traffic Volume (veh/h)	60	950	50	80	130	40	20	10	10	40	10	110
Future Volume (veh/h)	60	950	50	80	130	40	20	10	10	40	10	110
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	60	950	50	80	130	40	20	10	10	40	10	110
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	226	1660	87	167	1187	339	64	152	152	110	380	322
Arrive On Green	0.13	0.35	0.35	0.10	0.32	0.32	0.04	0.19	0.19	0.06	0.21	0.21
Sat Flow, veh/h	1697	4730	249	1697	3759	1072	1697	817	817	1697	1781	1510
Grp Volume(v), veh/h	60	651	349	80	111	59	20	0	20	40	10	110
Grp Sat Flow(s),veh/h/ln	1697	1621	1737	1697	1621	1588	1697	0	1634	1697	1781	1510
Q Serve(g_s), s	1.9	9.8	9.8	2.7	1.5	1.6	0.7	0.0	0.6	1.4	0.3	3.7
Cycle Q Clear(g_c), s	1.9	9.8	9.8	2.7	1.5	1.6	0.7	0.0	0.6	1.4	0.3	3.7
Prop In Lane	1.00		0.14	1.00		0.67	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	226	1138	609	167	1024	502	64	0	304	110	380	322
V/C Ratio(X)	0.27	0.57	0.57	0.48	0.11	0.12	0.31	0.00	0.07	0.36	0.03	0.34
Avail Cap(c_a), veh/h	382	2404	1288	467	2566	1257	269	0	831	297	935	792
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	15.8	15.8	25.6	14.5	14.6	28.1	0.0	20.1	26.9	18.7	20.0
Incr Delay (d2), s/veh	0.2	0.5	1.0	0.8	0.1	0.1	1.0	0.0	0.0	0.7	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.2	3.6	1.0	0.5	0.5	0.3	0.0	0.2	0.5	0.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	16.4	16.9	26.4	14.6	14.7	29.1	0.0	20.2	27.6	18.7	20.3
LnGrp LOS	C	B	B	C	B	B	C	A	C	C	B	C
Approach Vol, veh/h	1060				250		40				160	
Approach Delay, s/veh	16.9				18.4		24.6				22.0	
Approach LOS	B				B		C				C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.4	25.6	6.8	17.3	12.5	23.4	8.4	15.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	44.5	9.5	31.5	13.5	47.5	10.5	30.5				
Max Q Clear Time (g_c+1/4), s	11.8	11.8	2.7	5.7	3.9	3.6	3.4	2.6				
Green Ext Time (p_c), s	0.0	9.2	0.0	0.0	0.0	1.3	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	17.9
HCM 6th LOS	B

Notes

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

Tracy Transportation Master Plan Update
 51: I-205 WB On Ramp/Naglee Rd & Grant Line Rd

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↑ ↑	↖		↑ ↑ ↑	↖				↖	↖	↖
Traffic Volume (veh/h)	50	610	180	0	680	960	0	0	0	80	30	140
Future Volume (veh/h)	50	610	180	0	680	960	0	0	0	80	30	140
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	1781	1781	0	1781	1781				1781	1781	1781
Adj Flow Rate, veh/h	50	610	180	0	680	0				55	65	140
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	0	8	8				8	8	8
Cap, veh/h	202	2061	919	0	2087					292	306	370
Arrive On Green	0.06	0.61	0.61	0.00	0.43	0.00				0.17	0.17	0.17
Sat Flow, veh/h	3291	3385	1510	0	5024	1510				1697	1781	1510
Grp Volume(v), veh/h	50	610	180	0	680	0				55	65	140
Grp Sat Flow(s),veh/h/ln	1646	1692	1510	0	1621	1510				1697	1781	1510
Q Serve(g_s), s	0.5	2.9	1.8	0.0	3.1	0.0				0.9	1.1	2.6
Cycle Q Clear(g_c), s	0.5	2.9	1.8	0.0	3.1	0.0				0.9	1.1	2.6
Prop In Lane	1.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	202	2061	919	0	2087					292	306	370
V/C Ratio(X)	0.25	0.30	0.20	0.00	0.33					0.19	0.21	0.38
Avail Cap(c_a), veh/h	585	5011	2235	0	5759					3144	3302	2909
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	1.00	1.00	0.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	15.1	3.2	2.9	0.0	6.4	0.0				12.0	12.0	10.6
Incr Delay (d2), s/veh	0.6	0.2	0.3	0.0	0.2	0.0				0.3	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.2	0.1	0.0	0.6	0.0				0.3	0.3	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.7	3.3	3.2	0.0	6.6	0.0				12.3	12.4	11.2
LnGrp LOS	B	A	A	A	A					B	B	B
Approach Vol, veh/h		840			680	A					260	
Approach Delay, s/veh		4.1			6.6						11.7	
Approach LOS		A			A						B	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		24.6		9.2	6.1	18.5						
Change Period (Y+Rc), s		5.3		4.0	* 4.2	5.3						
Max Green Setting (Gmax), s		48.7		62.0	* 5.8	38.7						
Max Q Clear Time (g_c+I1), s		4.9		4.6	2.5	5.1						
Green Ext Time (p_c), s		10.1		1.1	0.0	8.1						

Intersection Summary

HCM 6th Ctrl Delay	6.2
HCM 6th LOS	A

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

DRAFT



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑↑	↗	↘		↗			
Traffic Volume (veh/h)	10	670	0	0	1030	10	610	0	2610	0	0	0
Future Volume (veh/h)	10	670	0	0	1030	10	610	0	2610	0	0	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	1781	1781	0	0	1781	1781	1781	0	1781			
Adj Flow Rate, veh/h	10	670	0	0	1030	0	610	0	2610			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	8	8	0	0	8	8	8	0	8			
Cap, veh/h	31	881	0	0	1007		1140	0	1014			
Arrive On Green	0.02	0.26	0.00	0.00	0.21	0.00	0.67	0.00	0.67			
Sat Flow, veh/h	1697	3474	0	0	5024	1510	1697	0	1510			
Grp Volume(v), veh/h	10	670	0	0	1030	0	610	0	2610			
Grp Sat Flow(s),veh/h/ln	1697	1692	0	0	1621	1510	1697	0	1510			
Q Serve(g_s), s	0.7	21.0	0.0	0.0	23.8	0.0	21.2	0.0	77.2			
Cycle Q Clear(g_c), s	0.7	21.0	0.0	0.0	23.8	0.0	21.2	0.0	77.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	31	881	0	0	1007		1140	0	1014			
V/C Ratio(X)	0.32	0.76	0.00	0.00	1.02		0.54	0.00	2.57			
Avail Cap(c_a), veh/h	106	1031	0	0	1007		1140	0	1014			
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	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	55.7	39.2	0.0	0.0	45.6	0.0	9.7	0.0	18.9			
Incr Delay (d2), s/veh	15.5	3.2	0.0	0.0	34.2	0.0	0.5	0.0	710.9			
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	0.4	8.9	0.0	0.0	12.5	0.0	7.4	0.0	223.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.2	42.4	0.0	0.0	79.8	0.0	10.2	0.0	729.8			
LnGrp LOS	E	D	A	A	F		B	A	F			
Approach Vol, veh/h		680			1030	A		3220				
Approach Delay, s/veh		42.9			79.8			593.4				
Approach LOS		D			E			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		33.9			6.1	27.8		81.0				
Change Period (Y+Rc), s		5.3			* 4.2	5.3		4.0				
Max Green Setting (Gmax), s		33.7			* 7	22.5		77.0				
Max Q Clear Time (g_c+1), s		23.0			2.7	25.8		79.2				
Green Ext Time (p_c), s		3.3			0.0	0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	410.2
HCM 6th LOS	F

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
- Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Tracy Transportation Master Plan Update
53: Crossroads Dr & Eleventh St

Future 2042
Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑↑	↗	↖	↑	↗	↖	↗	↖
Traffic Volume (veh/h)	20	2680	270	260	1020	30	60	10	20	20	30	40
Future Volume (veh/h)	20	2680	270	260	1020	30	60	10	20	20	30	40
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	20	2680	270	260	1020	30	60	10	20	20	30	40
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	58	2295	713	226	2777	862	112	267	226	58	82	109
Arrive On Green	0.03	0.47	0.47	0.13	0.57	0.57	0.07	0.15	0.15	0.03	0.12	0.12
Sat Flow, veh/h	1697	4863	1510	1697	4863	1510	1697	1781	1510	1697	692	923
Grp Volume(v), veh/h	20	2680	270	260	1020	30	60	10	20	20	0	70
Grp Sat Flow(s),veh/h/ln	1697	1621	1510	1697	1621	1510	1697	1781	1510	1697	0	1615
Q Serve(g_s), s	1.1	46.0	11.2	13.0	11.1	0.8	3.3	0.5	1.1	1.1	0.0	3.9
Cycle Q Clear(g_c), s	1.1	46.0	11.2	13.0	11.1	0.8	3.3	0.5	1.1	1.1	0.0	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.57
Lane Grp Cap(c), veh/h	58	2295	713	226	2777	862	112	267	226	58	0	191
V/C Ratio(X)	0.34	1.17	0.38	1.15	0.37	0.03	0.54	0.04	0.09	0.34	0.00	0.37
Avail Cap(c_a), veh/h	148	2295	713	226	2777	862	148	585	496	148	0	530
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	46.0	25.7	16.5	42.2	11.3	9.1	44.1	35.4	35.7	46.0	0.0	39.6
Incr Delay (d2), s/veh	1.3	80.5	0.5	105.8	0.1	0.0	1.5	0.1	0.2	1.3	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	32.6	3.8	11.8	3.5	0.3	1.4	0.2	0.4	0.5	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.3	106.2	17.0	148.1	11.5	9.2	45.6	35.5	35.9	47.3	0.0	40.5
LnGrp LOS	D	F	B	F	B	A	D	D	D	D	A	D
Approach Vol, veh/h		2970			1310			90				90
Approach Delay, s/veh		97.7			38.5			42.3				42.0
Approach LOS		F			D			D				D
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	51.5	11.4	16.5	8.3	61.2	8.3	19.6				
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0				
Max Green Setting (Gmax), s	13.0	46.0	8.5	32.0	8.5	50.5	8.5	32.0				
Max Q Clear Time (g_c+1/5), s	11.0	48.0	5.3	5.9	3.1	13.1	3.1	3.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.0	11.8	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	78.1
HCM 6th LOS	E

Notes

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

Tracy Transportation Master Plan Update
 54: Cross Roads Dr & Pomontory Pkwy/New Schulte Rd

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	880	240	10	260	10	30	40	320	270	160	70
Future Volume (veh/h)	320	880	240	10	260	10	30	40	320	270	160	70
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	320	880	240	10	260	10	30	40	320	270	160	70
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	359	1002	273	17	598	23	41	40	317	308	693	588
Arrive On Green	0.21	0.38	0.38	0.01	0.18	0.18	0.02	0.23	0.23	0.18	0.39	0.39
Sat Flow, veh/h	1697	2629	716	1697	3323	127	1697	171	1365	1697	1781	1510
Grp Volume(v), veh/h	320	566	554	10	132	138	30	0	360	270	160	70
Grp Sat Flow(s),veh/h/ln	1697	1692	1653	1697	1692	1759	1697	0	1536	1697	1781	1510
Q Serve(g_s), s	15.0	25.5	25.5	0.5	5.7	5.7	1.4	0.0	19.0	12.7	4.9	2.4
Cycle Q Clear(g_c), s	15.0	25.5	25.5	0.5	5.7	5.7	1.4	0.0	19.0	12.7	4.9	2.4
Prop In Lane	1.00		0.43	1.00		0.07	1.00		0.89	1.00		1.00
Lane Grp Cap(c), veh/h	359	645	630	17	304	316	41	0	356	308	693	588
V/C Ratio(X)	0.89	0.88	0.88	0.59	0.43	0.44	0.73	0.00	1.01	0.88	0.23	0.12
Avail Cap(c_a), veh/h	415	703	686	83	372	387	104	0	356	352	693	588
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	23.6	23.6	40.4	29.9	29.9	39.7	0.0	31.4	32.6	16.8	16.0
Incr Delay (d2), s/veh	19.2	11.5	11.9	29.0	1.0	0.9	21.9	0.0	50.2	19.6	0.2	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	7.8	11.4	11.2	0.3	2.3	2.4	0.8	0.0	11.6	6.7	1.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	35.1	35.5	69.4	30.8	30.8	61.6	0.0	81.6	52.2	16.9	16.1
LnGrp LOS	D	D	D	E	C	C	E	A	F	D	B	B
Approach Vol, veh/h		1440			280			390			500	
Approach Delay, s/veh		38.7			32.2			80.1			35.9	
Approach LOS		D			C			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.8	23.0	4.8	35.2	6.0	35.9	21.3	18.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	19.0	4.0	34.0	5.0	31.0	20.0	18.0					
Max Q Clear Time (g_c+1/4), s	21.0	2.5	27.5	3.4	6.9	17.0	7.7					
Green Ext Time (p_c), s	0.2	0.0	0.0	3.7	0.0	1.0	0.3	1.0				
Intersection Summary												
HCM 6th Ctrl Delay				43.6								
HCM 6th LOS				D								



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	160	40	210	700	570	100
Future Volume (veh/h)	160	40	210	700	570	100
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	160	40	210	700	570	100
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	211	188	2546	1136	541	2546
Arrive On Green	0.12	0.12	0.75	0.75	0.75	0.75
Sat Flow, veh/h	1697	1510	3474	1510	584	3474
Grp Volume(v), veh/h	160	40	210	700	570	100
Grp Sat Flow(s),veh/h/ln	1697	1510	1692	1510	584	1692
Q Serve(g_s), s	5.9	1.5	1.1	13.9	47.8	0.5
Cycle Q Clear(g_c), s	5.9	1.5	1.1	13.9	48.9	0.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	211	188	2546	1136	541	2546
V/C Ratio(X)	0.76	0.21	0.08	0.62	1.05	0.04
Avail Cap(c_a), veh/h	470	418	2546	1136	541	2546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.49	0.49	1.00	1.00
Uniform Delay (d), s/veh	27.5	25.6	2.1	3.7	13.5	2.1
Incr Delay (d2), s/veh	3.8	0.4	0.0	1.2	53.9	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	2.5	0.6	0.2	2.2	16.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.3	26.0	2.2	5.0	67.4	2.1
LnGrp LOS	C	C	A	A	F	A
Approach Vol, veh/h	200		910			670
Approach Delay, s/veh	30.2		4.3			57.6
Approach LOS	C		A			E
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		52.9			52.9	12.1
Change Period (Y+Rc), s		4.0			4.0	4.0
Max Green Setting (Gmax), s		39.0			39.0	18.0
Max Q Clear Time (g_c+I1), s		15.9			50.9	7.9
Green Ext Time (p_c), s		4.4			0.0	0.4
Intersection Summary						
HCM 6th Ctrl Delay			27.3			
HCM 6th LOS			C			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	870	400	50	40	50	220
Future Volume (veh/h)	870	400	50	40	50	220
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	870	400	50	40	50	220
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	1000	951	135	808	378	1058
Arrive On Green	0.59	0.59	0.04	0.24	0.11	0.11
Sat Flow, veh/h	1697	1510	3291	3474	3474	1510
Grp Volume(v), veh/h	870	400	50	40	50	220
Grp Sat Flow(s),veh/h/ln	1697	1510	1646	1692	1692	1510
Q Serve(g_s), s	20.1	6.2	0.7	0.4	0.6	2.4
Cycle Q Clear(g_c), s	20.1	6.2	0.7	0.4	0.6	2.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1000	951	135	808	378	1058
V/C Ratio(X)	0.87	0.42	0.37	0.05	0.13	0.21
Avail Cap(c_a), veh/h	1678	1555	283	1892	1310	1474
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	8.1	4.3	21.7	13.6	18.6	2.4
Incr Delay (d2), s/veh	2.8	0.3	1.7	0.0	0.2	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	4.7	0.1	0.3	0.1	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.9	4.6	23.4	13.7	18.8	2.5
LnGrp LOS	B	A	C	B	B	A
Approach Vol, veh/h	1270			90	270	
Approach Delay, s/veh	8.9			19.1	5.5	
Approach LOS	A			B	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		15.1		31.4	5.9	9.2
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		26.0		46.0	4.0	18.0
Max Q Clear Time (g_c+I1), s		2.4		22.1	2.7	4.4
Green Ext Time (p_c), s		0.1		5.3	0.0	0.8
Intersection Summary						
HCM 6th Ctrl Delay			8.9			
HCM 6th LOS			A			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑	↗
Traffic Volume (veh/h)	110	1030	1330	10	630	60	230	270	60	260	340	120
Future Volume (veh/h)	110	1030	1330	10	630	60	230	270	60	260	340	120
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	110	1030	0	10	630	60	230	270	60	260	340	120
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	233	1764		169	936	556	730	628	357	734	630	395
Arrive On Green	0.14	0.36	0.00	0.05	0.28	0.25	0.15	0.19	0.19	0.15	0.19	0.16
Sat Flow, veh/h	1697	4863	1510	3291	3385	1510	4784	3385	1510	4784	3385	1510
Grp Volume(v), veh/h	110	1030	0	10	630	60	230	270	60	260	340	120
Grp Sat Flow(s),veh/h/ln	1697	1621	1510	1646	1692	1510	1595	1692	1510	1595	1692	1510
Q Serve(g_s), s	3.9	11.1	0.0	0.2	10.7	1.7	2.8	4.6	2.0	3.1	5.9	4.1
Cycle Q Clear(g_c), s	3.9	11.1	0.0	0.2	10.7	1.7	2.8	4.6	2.0	3.1	5.9	4.1
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	233	1764		169	936	556	730	628	357	734	630	395
V/C Ratio(X)	0.47	0.58		0.06	0.67	0.11	0.32	0.43	0.17	0.35	0.54	0.30
Avail Cap(c_a), veh/h	288	3081		509	2092	1071	1183	2197	1057	813	1935	977
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	16.7	0.0	29.2	20.8	13.5	24.4	23.3	19.6	24.5	23.8	19.2
Incr Delay (d2), s/veh	1.5	0.3	0.0	0.1	0.8	0.1	0.2	0.5	0.2	0.3	0.7	0.4
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	1.5	3.6	0.0	0.1	3.8	0.5	1.0	1.7	0.7	1.1	2.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	17.0	0.0	29.4	21.7	13.5	24.7	23.8	19.9	24.8	24.5	19.6
LnGrp LOS	C	B		C	C	B	C	C	B	C	C	B
Approach Vol, veh/h		1140	A		700			560			720	
Approach Delay, s/veh		18.0			21.1			23.7			23.8	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.9	16.0	7.3	27.5	13.9	16.1	12.9	21.9				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	40.0	40.0	8.0	39.0	14.0	35.0	9.0	38.0				
Max Q Clear Time (g_c+1/4), s	6.6	6.6	2.2	13.1	4.8	7.9	5.9	12.7				
Green Ext Time (p_c), s	0.4	1.4	0.0	5.3	0.6	2.1	0.1	3.2				

Intersection Summary

HCM 6th Ctrl Delay			21.0									
HCM 6th LOS			C									

Notes

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

Tracy Transportation Master Plan Update
58: CORRAL HOLLOW RD & Eleventh St/ELEVENTH ST.

Future 2042
Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	880	1590	260	40	740	100	220	370	20	220	1480	350
Future Volume (veh/h)	880	1590	260	40	740	100	220	370	20	220	1480	350
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	880	1590	0	40	740	100	220	370	20	220	1480	350
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	343	1791		243	1643	615	314	1786	666	228	1660	672
Arrive On Green	0.10	0.37	0.00	0.07	0.34	0.34	0.10	0.37	0.37	0.07	0.34	0.34
Sat Flow, veh/h	3291	4863	1510	3291	4863	1510	3291	4863	1510	3291	4863	1510
Grp Volume(v), veh/h	880	1590	0	40	740	100	220	370	20	220	1480	350
Grp Sat Flow(s),veh/h/ln	1646	1621	1510	1646	1621	1510	1646	1621	1510	1646	1621	1510
Q Serve(g_s), s	12.0	35.4	0.0	1.3	13.7	4.8	7.5	6.0	0.9	7.7	33.2	19.3
Cycle Q Clear(g_c), s	12.0	35.4	0.0	1.3	13.7	4.8	7.5	6.0	0.9	7.7	33.2	19.3
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	343	1791		243	1643	615	314	1786	666	228	1660	672
V/C Ratio(X)	2.57	0.89		0.16	0.45	0.16	0.70	0.21	0.03	0.96	0.89	0.52
Avail Cap(c_a), veh/h	343	1856		314	1814	668	314	1814	674	228	1687	681
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.7	34.2	0.0	50.1	29.8	21.7	50.6	25.0	18.3	53.5	36.0	23.1
Incr Delay (d2), s/veh	714.6	5.6	0.0	0.3	0.2	0.1	6.8	0.1	0.0	49.7	6.4	0.7
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	38.8	14.0	0.0	0.5	5.2	1.7	3.3	2.3	0.3	4.7	13.6	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	766.3	39.8	0.0	50.4	30.0	21.8	57.3	25.0	18.3	103.2	42.3	23.8
LnGrp LOS	F	D		D	C	C	E	C	B	F	D	C
Approach Vol, veh/h		2470	A		880			610			2050	
Approach Delay, s/veh		298.6			30.0			36.5			45.7	
Approach LOS		F			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.5	46.5	11.0	46.4	15.0	43.0	14.0	43.4				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	42.0	42.0	6.0	41.0	10.0	41.0	9.0	38.0				
Max Q Clear Time (g_c+1), s	13.3	37.4	9.7	8.0	14.0	15.7	9.5	35.2				
Green Ext Time (p_c), s	0.0	3.1	0.0	1.8	0.0	4.0	0.0	2.1				

Intersection Summary

HCM 6th Ctrl Delay		146.4										
HCM 6th LOS			F									

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Tracy Transportation Master Plan Update
 59: CORRAL HOLLOW RD & New Schulte Rd/NEW SCHULTE ROAD

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1160	120	20	160	270	40	320	20	230	1320	40
Future Volume (veh/h)	40	1160	120	20	160	270	40	320	20	230	1320	40
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	40	1160	120	20	160	270	40	320	20	230	1320	40
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	70	1351	603	44	650	580	70	1320	82	301	1611	49
Arrive On Green	0.04	0.40	0.40	0.03	0.38	0.38	0.04	0.28	0.28	0.09	0.33	0.33
Sat Flow, veh/h	1697	3385	1510	1697	1692	1510	1697	4682	289	3291	4850	147
Grp Volume(v), veh/h	40	1160	120	20	160	270	40	220	120	230	882	478
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1697	1692	1510	1697	1621	1729	1646	1621	1755
Q Serve(g_s), s	2.2	29.5	4.9	1.1	6.1	12.7	2.2	4.9	5.0	6.4	23.6	23.6
Cycle Q Clear(g_c), s	2.2	29.5	4.9	1.1	6.1	12.7	2.2	4.9	5.0	6.4	23.6	23.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		0.08
Lane Grp Cap(c), veh/h	70	1351	603	44	650	580	70	914	487	301	1077	583
V/C Ratio(X)	0.57	0.86	0.20	0.45	0.25	0.47	0.57	0.24	0.25	0.76	0.82	0.82
Avail Cap(c_a), veh/h	131	1722	768	108	838	747	108	1117	596	506	1409	763
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	1.00	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	44.4	25.9	18.5	45.3	19.8	21.8	44.4	26.1	26.1	41.9	28.9	28.9
Incr Delay (d2), s/veh	2.7	3.7	0.2	2.7	0.1	0.2	2.7	0.1	0.3	1.5	3.0	5.4
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	0	11.8	1.6	0.5	2.3	4.2	0.9	1.8	2.0	2.6	9.0	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.1	29.6	18.7	48.0	19.8	22.0	47.1	26.2	26.4	43.4	31.9	34.4
LnGrp LOS	D	C	B	D	B	C	D	C	C	D	C	C
Approach Vol, veh/h		1320			450			380			1590	
Approach Delay, s/veh		29.2			22.4			28.5			34.3	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.9	42.7	13.1	31.6	8.4	41.2	8.4	36.3				
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0				
Max Green Setting (Gmax), s	48.0	48.0	14.5	32.5	7.3	46.7	6.0	41.0				
Max Q Clear Time (g_c+1), s	13.5	31.5	8.4	7.0	4.2	14.7	4.2	25.6				
Green Ext Time (p_c), s	0.0	6.1	0.2	1.4	0.0	1.0	0.0	5.8				

Intersection Summary

HCM 6th Ctrl Delay	30.5
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
 60: Corral Hollow Rd & Valpico Rd/VALPICO RD.

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	670	130	20	100	30	10	210	30	270	920	30
Future Volume (veh/h)	90	670	130	20	100	30	10	210	30	270	920	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	90	670	130	20	100	30	10	210	30	270	920	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	379	759	147	29	163	47	16	285	40	777	1841	821
Arrive On Green	0.22	0.27	0.27	0.02	0.06	0.06	0.01	0.10	0.10	0.46	0.54	0.54
Sat Flow, veh/h	1697	2820	547	1697	2591	748	1697	2979	420	1697	3385	1510
Grp Volume(v), veh/h	90	402	398	20	64	66	10	118	122	270	920	30
Grp Sat Flow(s),veh/h/ln	1697	1692	1675	1697	1692	1647	1697	1692	1706	1697	1692	1510
Q Serve(g_s), s	4.4	22.7	22.8	1.2	3.7	3.9	0.6	6.8	7.0	10.3	17.0	0.3
Cycle Q Clear(g_c), s	4.4	22.7	22.8	1.2	3.7	3.9	0.6	6.8	7.0	10.3	17.0	0.3
Prop In Lane	1.00		0.33	1.00		0.45	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	379	456	451	29	107	104	16	162	163	777	1841	821
V/C Ratio(X)	0.24	0.88	0.88	0.69	0.60	0.64	0.61	0.73	0.75	0.35	0.50	0.04
Avail Cap(c_a), veh/h	379	542	536	85	423	412	68	355	358	777	1841	821
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)	0.48	0.48	0.48	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	35.0	35.0	48.9	45.6	45.7	49.3	43.9	44.0	17.5	14.3	1.2
Incr Delay (d2), s/veh	0.2	7.4	7.6	25.5	5.3	6.3	31.1	24.7	26.3	0.3	1.0	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	1.8	10.0	9.9	0.7	1.7	1.8	0.4	3.8	4.0	3.8	6.1	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.0	42.4	42.6	74.3	50.9	52.1	80.4	68.7	70.3	17.7	15.2	1.3
LnGrp LOS	C	D	D	E	D	D	F	E	E	B	B	A
Approach Vol, veh/h		890			150			250			1220	
Approach Delay, s/veh		41.4			54.6			70.0			15.5	
Approach LOS		D			D			E			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	49.8	13.6	5.7	30.9	5.0	58.4	26.3	10.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	26.0	21.0	5.0	32.0	4.0	43.0	12.0	25.0				
Max Q Clear Time (g_c+1/2), s	11.3	9.0	3.2	24.8	2.6	19.0	6.4	5.9				
Green Ext Time (p_c), s	0.8	0.6	0.0	2.1	0.0	4.7	0.1	0.4				

Intersection Summary

HCM 6th Ctrl Delay	32.4
HCM 6th LOS	C



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘	↗	↘	↑↑	↑↑	↘
Traffic Volume (veh/h)	10	180	10	230	1040	30
Future Volume (veh/h)	10	180	10	230	1040	30
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	180	10	230	1040	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	212	189	294	2285	1359	606
Arrive On Green	0.13	0.13	0.17	0.68	0.40	0.40
Sat Flow, veh/h	1697	1510	1697	3474	3474	1510
Grp Volume(v), veh/h	10	180	10	230	1040	30
Grp Sat Flow(s),veh/h/ln	1697	1510	1697	1692	1692	1510
Q Serve(g_s), s	0.2	4.7	0.2	0.9	10.6	0.2
Cycle Q Clear(g_c), s	0.2	4.7	0.2	0.9	10.6	0.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	212	189	294	2285	1359	606
V/C Ratio(X)	0.05	0.95	0.03	0.10	0.77	0.05
Avail Cap(c_a), veh/h	212	189	294	2285	1608	717
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.78	0.78	1.00	1.00	0.88	0.88
Uniform Delay (d), s/veh	15.4	17.4	13.7	2.3	10.3	1.5
Incr Delay (d2), s/veh	0.1	45.0	0.0	0.1	3.7	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	0.1	6.1	0.1	0.0	3.0	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.5	62.4	13.8	2.4	14.0	1.7
LnGrp LOS	B	E	B	A	B	A
Approach Vol, veh/h	190			240	1070	
Approach Delay, s/veh	59.9			2.8	13.7	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		31.0		9.0	10.9	20.1
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		27.0		5.0	4.0	19.0
Max Q Clear Time (g_c+I1), s		2.9		6.7	2.2	12.6
Green Ext Time (p_c), s		1.3		0.0	0.0	3.4
Intersection Summary						
HCM 6th Ctrl Delay			17.8			
HCM 6th LOS			B			

Tracy Transportation Master Plan Update
62: Corral Hollow Rd & Ellis Town Dr/Peony Dr

Future 2042
Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	10	10	10	20	10	60	10	170	60	290	890	40
Future Volume (veh/h)	10	10	10	20	10	60	10	170	60	290	890	40
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	10	10	20	10	60	10	170	60	290	890	40
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	27	91	91	50	28	166	27	814	363	345	1448	646
Arrive On Green	0.02	0.11	0.11	0.03	0.13	0.13	0.02	0.24	0.24	0.20	0.43	0.43
Sat Flow, veh/h	1697	817	817	1697	220	1323	1697	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	10	0	20	20	0	70	10	170	60	290	890	40
Grp Sat Flow(s),veh/h/ln1697	0	1634	1697	0	1543	1697	1692	1510	1697	1692	1510	1510
Q Serve(g_s), s	0.3	0.0	0.5	0.5	0.0	1.8	0.3	1.8	1.4	7.3	9.0	0.7
Cycle Q Clear(g_c), s	0.3	0.0	0.5	0.5	0.0	1.8	0.3	1.8	1.4	7.3	9.0	0.7
Prop In Lane	1.00		0.50	1.00		0.86	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	27	0	183	50	0	194	27	814	363	345	1448	646
V/C Ratio(X)	0.38	0.00	0.11	0.40	0.00	0.36	0.38	0.21	0.17	0.84	0.61	0.06
Avail Cap(c_a), veh/h	230	0	1254	230	0	1184	230	2169	967	345	2337	1042
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	21.6	0.0	17.7	21.1	0.0	17.7	21.6	13.5	13.3	17.0	9.8	7.5
Incr Delay (d2), s/veh	8.5	0.0	0.3	5.1	0.0	1.1	8.5	0.2	0.3	16.9	0.6	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/ln0.2	0.0	0.0	0.2	0.3	0.0	0.7	0.1	0.5	0.4	3.8	2.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	0.0	18.0	26.2	0.0	18.9	30.1	13.6	13.6	33.9	10.5	7.5
LnGrp LOS	C	A	B	C	A	B	C	B	B	C	B	A
Approach Vol, veh/h		30			90			240			1220	
Approach Delay, s/veh		22.0			20.5			14.3			15.9	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	16.5	5.3	9.6	4.7	24.8	4.7	10.2				
Change Period (Y+Rc), s	4.0	* 5.8	4.0	4.6	4.0	5.8	4.0	4.6				
Max Green Setting (Gmax), s	30.0	* 28	6.0	34.0	6.0	30.6	6.0	34.0				
Max Q Clear Time (g_c+1), s	19.3	3.8	2.5	2.5	2.3	11.0	2.3	3.8				
Green Ext Time (p_c), s	0.0	1.6	0.0	0.1	0.0	7.9	0.0	0.4				

Intersection Summary

HCM 6th Ctrl Delay	16.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
63: Corral Hollow Rd & Summit Dr/Middlefield Dr

Future 2042
Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	10	40	290	30	20	10	20	220	90	40	870	10
Future Volume (veh/h)	10	40	290	30	20	10	20	220	90	40	870	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	40	290	30	20	10	20	220	90	40	870	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	26	49	358	65	323	161	47	1165	519	80	1306	582
Arrive On Green	0.02	0.26	0.26	0.04	0.29	0.29	0.03	0.34	0.34	0.05	0.39	0.39
Sat Flow, veh/h	1697	186	1352	1697	1120	560	1697	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	10	0	330	30	0	30	20	220	90	40	870	10
Grp Sat Flow(s),veh/h/ln1697	0	1538	1697	0	1681	1697	1692	1510	1697	1692	1510	1697
Q Serve(g_s), s	0.4	0.0	13.4	1.2	0.0	0.9	0.8	3.0	2.8	1.5	14.2	0.3
Cycle Q Clear(g_c), s	0.4	0.0	13.4	1.2	0.0	0.9	0.8	3.0	2.8	1.5	14.2	0.3
Prop In Lane	1.00		0.88	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	26	0	407	65	0	484	47	1165	519	80	1306	582
V/C Ratio(X)	0.39	0.00	0.81	0.46	0.00	0.06	0.42	0.19	0.17	0.50	0.67	0.02
Avail Cap(c_a), veh/h	153	0	850	153	0	929	153	2445	1090	216	2647	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	32.6	0.0	23.0	31.4	0.0	17.2	31.9	15.4	15.3	31.0	16.9	12.7
Incr Delay (d2), s/veh	9.2	0.0	3.9	5.0	0.0	0.1	5.9	0.1	0.2	4.8	0.8	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln0.2	0.0	0.0	5.0	0.5	0.0	0.3	0.4	1.0	0.9	0.7	4.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.8	0.0	26.9	36.4	0.0	17.3	37.8	15.5	15.5	35.8	17.8	12.7
LnGrp LOS	D	A	C	D	A	B	D	B	B	D	B	B
Approach Vol, veh/h		340			60			330			920	
Approach Delay, s/veh		27.3			26.9			16.8			18.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s8.6	28.8	6.6	22.8	5.9	31.5	5.0	24.3					
Change Period (Y+Rc), s 5.5	5.8	4.0	5.1	4.0	5.8	4.0	5.1					
Max Green Setting (Gmax), s 48.2	48.2	6.0	36.9	6.0	52.2	6.0	36.9					
Max Q Clear Time (g_c+1), s 5.0	5.0	3.2	15.4	2.8	16.2	2.4	2.9					
Green Ext Time (p_c), s 0.0	0.0	2.5	0.0	2.3	0.0	9.6	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	20.3
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
64: Corral Hollow Rd & W. Linne Rd

Future 2042
Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	1030	10	240	290	40	10	150	170	640	500	40
Future Volume (veh/h)	140	1030	10	240	290	40	10	150	170	640	500	40
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	140	1030	10	240	290	40	10	150	0	640	500	40
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	169	1076	10	273	1005	448	16	221		663	1417	113
Arrive On Green	0.10	0.31	0.31	0.08	0.30	0.30	0.01	0.07	0.00	0.39	0.45	0.45
Sat Flow, veh/h	1697	3434	33	3291	3385	1510	1697	3385	1510	1697	3175	253
Grp Volume(v), veh/h	140	508	532	240	290	40	10	150	0	640	266	274
Grp Sat Flow(s),veh/h/ln	1697	1692	1775	1646	1692	1510	1697	1692	1510	1697	1692	1736
Q Serve(g_s), s	8.8	31.9	31.9	7.8	7.1	2.1	0.6	4.7	0.0	40.0	11.2	11.2
Cycle Q Clear(g_c), s	8.8	31.9	31.9	7.8	7.1	2.1	0.6	4.7	0.0	40.0	11.2	11.2
Prop In Lane	1.00		0.02	1.00		1.00	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	169	530	556	273	1005	448	16	221		663	755	775
V/C Ratio(X)	0.83	0.96	0.96	0.88	0.29	0.09	0.61	0.68		0.97	0.35	0.35
Avail Cap(c_a), veh/h	266	531	557	273	1005	448	63	562		673	890	913
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.9	36.5	36.5	49.1	29.3	27.5	53.5	49.5	0.0	32.3	19.7	19.7
Incr Delay (d2), s/veh	11.6	28.5	27.6	26.0	0.2	0.1	32.1	3.6	0.0	26.1	0.3	0.3
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	4.1	16.4	17.1	4.1	2.8	0.7	0.4	2.0	0.0	20.0	4.2	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.5	64.9	64.1	75.1	29.4	27.6	85.6	53.2	0.0	58.4	20.0	20.0
LnGrp LOS	E	E	E	E	C	C	F	D		E	B	B
Approach Vol, veh/h		1180			570			160	A		1180	
Approach Delay, s/veh		63.9			48.5			55.2			40.8	
Approach LOS		E			D			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	46.3	11.1	13.0	38.0	5.0	52.4	14.8	36.2				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	43.0	18.0	9.0	34.0	4.0	57.0	17.0	26.0				
Max Q Clear Time (g_c+Rc), s	42.0	6.7	9.8	33.9	2.6	13.2	10.8	9.1				
Green Ext Time (p_c), s	0.3	0.4	0.0	0.1	0.0	2.1	0.2	1.6				

Intersection Summary

HCM 6th Ctrl Delay	51.8
HCM 6th LOS	D

Notes

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



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘	↗	↘	↑↑	↑↑	↘
Traffic Volume (veh/h)	10	10	10	320	730	10
Future Volume (veh/h)	10	10	10	320	730	10
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	10	10	320	730	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	35	32	18	2127	1497	668
Arrive On Green	0.02	0.02	0.01	0.63	0.44	0.44
Sat Flow, veh/h	1697	1510	1697	3474	3474	1510
Grp Volume(v), veh/h	10	10	10	320	730	10
Grp Sat Flow(s),veh/h/ln	1697	1510	1697	1692	1692	1510
Q Serve(g_s), s	0.1	0.1	0.1	0.9	3.5	0.1
Cycle Q Clear(g_c), s	0.1	0.1	0.1	0.9	3.5	0.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	35	32	18	2127	1497	668
V/C Ratio(X)	0.28	0.32	0.55	0.15	0.49	0.01
Avail Cap(c_a), veh/h	1338	1191	297	4302	3115	1390
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	11.0	11.0	11.2	1.7	4.5	3.6
Incr Delay (d2), s/veh	4.3	5.6	23.1	0.0	0.2	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	0.1	0.0	0.1	0.0	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.3	16.6	34.4	1.8	4.8	3.6
LnGrp LOS	B	B	C	A	A	A
Approach Vol, veh/h	20			330	740	
Approach Delay, s/veh	16.0			2.8	4.8	
Approach LOS	B			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		18.3		4.5	4.2	14.1
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		29.0		18.0	4.0	21.0
Max Q Clear Time (g_c+I1), s		2.9		2.1	2.1	5.5
Green Ext Time (p_c), s		1.8		0.0	0.0	4.6
Intersection Summary						
HCM 6th Ctrl Delay			4.4			
HCM 6th LOS			A			

Tracy Transportation Master Plan Update
 66: CORRAL HOLLOW RD & Tracy Hills Dr/KT Access

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔		↔	↔	↔	↔↔	↔↔	↔	↔↔	↔↔	↔
Traffic Volume (veh/h)	90	90	230	200	90	160	70	80	100	180	430	150
Future Volume (veh/h)	90	90	230	200	90	160	70	80	100	180	430	150
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	90	90	230	200	142	125	70	80	100	180	430	150
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	842	102	262	242	210	178	793	329	147	1041	583	260
Arrive On Green	0.26	0.23	0.23	0.14	0.12	0.12	0.24	0.10	0.10	0.32	0.17	0.17
Sat Flow, veh/h	3291	444	1134	1697	1781	1510	3291	3385	1510	3291	3385	1510
Grp Volume(v), veh/h	90	0	320	200	142	125	70	80	100	180	430	150
Grp Sat Flow(s),veh/h/ln	1646	0	1577	1697	1781	1510	1646	1692	1510	1646	1692	1510
Q Serve(g_s), s	1.6	0.0	14.7	8.6	5.7	6.0	1.2	1.6	4.8	3.0	9.0	6.8
Cycle Q Clear(g_c), s	1.6	0.0	14.7	8.6	5.7	6.0	1.2	1.6	4.8	3.0	9.0	6.8
Prop In Lane	1.00		0.72	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	842	0	364	242	210	178	793	329	147	1041	583	260
V/C Ratio(X)	0.11	0.00	0.88	0.83	0.68	0.70	0.09	0.24	0.68	0.17	0.74	0.58
Avail Cap(c_a), veh/h	842	0	421	362	428	362	793	812	362	1041	857	382
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	21.4	0.0	27.8	31.3	31.7	31.8	22.1	31.3	32.7	18.6	29.4	28.5
Incr Delay (d2), s/veh	0.1	0.0	17.0	9.5	3.8	5.0	0.0	1.8	22.7	0.1	8.1	9.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	7.1	4.1	2.6	2.4	0.4	0.7	2.7	1.0	4.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.4	0.0	44.8	40.7	35.5	36.8	22.1	33.1	55.5	18.6	37.6	37.6
LnGrp LOS	C	A	D	D	D	D	C	C	E	B	D	D
Approach Vol, veh/h		410			467			250			760	
Approach Delay, s/veh		39.7			38.1			39.0			33.1	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.7	11.3	14.7	21.3	22.1	16.9	23.2	12.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	5.0	18.0	16.0	20.0	4.0	19.0	18.0	18.0				
Max Q Clear Time (g_c+1/3), s	15.0	6.8	10.6	16.7	3.2	11.0	3.6	8.0				
Green Ext Time (p_c), s	0.0	0.5	0.3	0.6	0.0	1.9	0.2	0.9				

Intersection Summary

HCM 6th Ctrl Delay	36.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Tracy Transportation Master Plan Update
 67: Corral Hollow Rd & I-580 WB On Ramp/I-580 WB Off Ramp

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations						↕	↕	↕	↕		↕	↕
Traffic Volume (veh/h)	0	0	0	10	0	140	10	110	0	0	760	90
Future Volume (veh/h)	0	0	0	10	0	140	10	110	0	0	760	90
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	1781	1781	1781	1781	0	0	1781	1781
Adj Flow Rate, veh/h				10	0	0	10	110	0	0	760	90
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				8	8	8	8	8	0	0	8	8
Cap, veh/h				16	0	1064	3127	0	0	892	398	
Arrive On Green				0.01	0.00	0.00	0.63	0.92	0.00	0.00	0.26	0.26
Sat Flow, veh/h				1697	0	1510	1697	3474	0	0	3474	1510
Grp Volume(v), veh/h				10	0	0	10	110	0	0	760	90
Grp Sat Flow(s),veh/h/ln				1697	0	1510	1697	1692	0	0	1692	1510
Q Serve(g_s), s				0.7	0.0	0.0	0.3	0.3	0.0	0.0	25.6	5.6
Cycle Q Clear(g_c), s				0.7	0.0	0.0	0.3	0.3	0.0	0.0	25.6	5.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				16	0	1064	3127	0	0	892	398	
V/C Ratio(X)				0.62	0.00		0.01	0.04	0.00	0.00	0.85	0.23
Avail Cap(c_a), veh/h				438	0	1064	3127	0	0	1946	868	
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	0.96	0.96	0.00	0.00	0.90	0.90
Uniform Delay (d), s/veh				59.2	0.0	0.0	8.4	0.4	0.0	0.0	42.0	34.6
Incr Delay (d2), s/veh				33.6	0.0	0.0	0.0	0.0	0.0	0.0	9.2	1.2
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				0.5	0.0	0.0	0.1	0.0	0.0	0.0	11.3	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				92.8	0.0	0.0	8.4	0.4	0.0	0.0	51.1	35.8
LnGrp LOS				F	A		A	A	A	A	D	D
Approach Vol, veh/h					10	A		120			850	
Approach Delay, s/veh					92.8			1.0			49.5	
Approach LOS					F			A			D	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		114.9			79.2	35.6		5.1				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		81.0			8.0	69.0		31.0				
Max Q Clear Time (g_c+I1), s		2.3			2.3	27.6		2.7				
Green Ext Time (p_c), s		0.4			0.0	4.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	44.0
HCM 6th LOS	D

Notes

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

Tracy Transportation Master Plan Update
 68: Corral Hollow Rd & 580 EB Off Ramp/580 EB On Ramp

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗						↑↑	↖	↖	↑↑	
Traffic Volume (veh/h)	80	30	10	0	0	0	0	40	20	700	80	0
Future Volume (veh/h)	80	30	10	0	0	0	0	40	20	700	80	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	1781	1781	1781				0	1781	1781	1781	1781	0
Adj Flow Rate, veh/h	80	30	10				0	40	20	700	80	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8				0	8	8	8	8	0
Cap, veh/h	115	87	29				0	1234	550	737	2854	0
Arrive On Green	0.07	0.07	0.07				0.00	0.36	0.36	0.43	0.84	0.00
Sat Flow, veh/h	1697	1279	426				0	3474	1510	1697	3474	0
Grp Volume(v), veh/h	80	0	40				0	40	20	700	80	0
Grp Sat Flow(s),veh/h/ln	1697	0	1705				0	1692	1510	1697	1692	0
Q Serve(g_s), s	4.2	0.0	2.0				0.0	0.7	0.8	35.8	0.3	0.0
Cycle Q Clear(g_c), s	4.2	0.0	2.0				0.0	0.7	0.8	35.8	0.3	0.0
Prop In Lane	1.00		0.25				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	115	0	116				0	1234	550	737	2854	0
V/C Ratio(X)	0.70	0.00	0.35				0.00	0.03	0.04	0.95	0.03	0.00
Avail Cap(c_a), veh/h	339	0	341				0	1234	550	792	2854	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	1.00				0.00	1.00	1.00	0.83	0.83	0.00
Uniform Delay (d), s/veh	41.0	0.0	40.0				0.0	18.4	18.4	24.5	1.1	0.0
Incr Delay (d2), s/veh	7.3	0.0	1.8				0.0	0.0	0.1	17.7	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	9	0.0	0.9				0.0	0.3	0.3	16.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.4	0.0	41.8				0.0	18.4	18.5	42.2	1.1	0.0
LnGrp LOS	D	A	D				A	B	B	D	A	A
Approach Vol, veh/h		120						60			780	
Approach Delay, s/veh		46.2						18.5			38.0	
Approach LOS		D						B			D	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	43.1	36.8	10.1	79.9								
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0								
Max Green Setting (Gmax), s	42.0	18.0	18.0	64.0								
Max Q Clear Time (g_c+R), s	47.8	2.8	6.2	2.3								
Green Ext Time (p_c), s	1.3	0.1	0.3	0.3								
Intersection Summary												
HCM 6th Ctrl Delay			37.8									
HCM 6th LOS			D									



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	40	10	10	20	20	60
Future Volume (veh/h)	40	10	10	20	20	60
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	40	10	10	20	20	60
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	84	75	18	856	418	355
Arrive On Green	0.05	0.05	0.01	0.48	0.23	0.23
Sat Flow, veh/h	1697	1510	1697	1781	1781	1510
Grp Volume(v), veh/h	40	10	10	20	20	60
Grp Sat Flow(s),veh/h/ln	1697	1510	1697	1781	1781	1510
Q Serve(g_s), s	0.4	0.1	0.1	0.1	0.1	0.5
Cycle Q Clear(g_c), s	0.4	0.1	0.1	0.1	0.1	0.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	84	75	18	856	418	355
V/C Ratio(X)	0.48	0.13	0.54	0.02	0.05	0.17
Avail Cap(c_a), veh/h	1794	1596	399	3034	2197	1862
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	7.9	7.7	8.4	2.3	5.0	5.2
Incr Delay (d2), s/veh	4.1	0.8	22.6	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	0.0	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.0	8.5	31.0	2.3	5.1	5.4
LnGrp LOS	B	A	C	A	A	A
Approach Vol, veh/h	50			30	80	
Approach Delay, s/veh	11.3			11.9	5.3	
Approach LOS	B			B	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		12.2		4.8	4.2	8.0
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		29.0		18.0	4.0	21.0
Max Q Clear Time (g_c+I1), s		2.1		2.4	2.1	2.5
Green Ext Time (p_c), s		0.0		0.1	0.0	0.2
Intersection Summary						
HCM 6th Ctrl Delay			8.4			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	1.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	10	20	390	20	30	20
Future Vol, veh/h	10	20	390	20	30	20
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, %	8	8	8	8	8	8
Mvmt Flow	10	20	390	20	30	20
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	480	400	0	0	410	0
Stage 1	400	-	-	-	-	-
Stage 2	80	-	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.18	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.272	-
Pot Cap-1 Maneuver	534	637	-	-	1117	-
Stage 1	664	-	-	-	-	-
Stage 2	928	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	520	637	-	-	1117	-
Mov Cap-2 Maneuver	520	-	-	-	-	-
Stage 1	664	-	-	-	-	-
Stage 2	903	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	11.4	0	5			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	593	1117		
HCM Lane V/C Ratio	-	-	0.051	0.027		
HCM Control Delay (s)	-	-	11.4	8.3		
HCM Lane LOS	-	-	B	A		
HCM 95th %tile Q(veh)	-	-	0.2	0.1		

Tracy Transportation Master Plan Update
71: Tracy Blvd & W. Larch Rd

Future 2042
Timing Plan: PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	600	810	70	40	30	550	280	320	10	20	10
Future Volume (veh/h)	100	600	810	70	40	30	550	280	320	10	20	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	100	600	0	70	40	30	550	280	320	10	20	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	352	709		113	125	56	1939	1092	978	16	59	363
Arrive On Green	0.21	0.21	0.00	0.03	0.04	0.04	0.98	1.00	1.00	0.01	0.03	0.03
Sat Flow, veh/h	1697	3385	1510	3291	3385	1510	3291	1781	1510	1697	1781	1510
Grp Volume(v), veh/h	100	600	0	70	40	30	550	280	320	10	20	10
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1646	1692	1510	1646	1781	1510	1697	1781	1510
Q Serve(g_s), s	6.0	20.4	0.0	2.5	1.4	2.2	0.4	0.0	0.0	0.7	1.3	0.0
Cycle Q Clear(g_c), s	6.0	20.4	0.0	2.5	1.4	2.2	0.4	0.0	0.0	0.7	1.3	0.0
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	352	709		113	125	56	1939	1092	978	16	59	363
V/C Ratio(X)	0.28	0.85		0.62	0.32	0.54	0.28	0.26	0.33	0.62	0.34	0.03
Avail Cap(c_a), veh/h	352	874		274	762	340	1939	1092	978	57	297	565
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.00	1.00	1.00	1.00	0.64	0.64	0.64	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	45.6	0.0	57.1	56.3	48.2	0.4	0.0	0.0	59.2	56.7	34.8
Incr Delay (d2), s/veh	0.3	5.0	0.0	5.4	1.5	7.9	0.1	0.4	0.6	33.6	14.7	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	2.6	9.1	0.0	1.1	0.6	1.0	0.1	0.1	0.2	0.5	0.8	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.4	50.6	0.0	62.5	57.8	56.1	0.4	0.4	0.6	92.8	71.4	35.0
LnGrp LOS	D	D		E	E	E	A	A	A	F	E	C
Approach Vol, veh/h		700	A		140			1150				40
Approach Delay, s/veh		49.1			59.8			0.5			67.6	
Approach LOS		D			E			A			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.1	77.6	8.1	29.2	74.7	8.0	28.9	8.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	59.0	10.0	31.0	43.0	20.0	14.0	27.0				
Max Q Clear Time (g_c+I1), s	2.7	2.0	4.5	22.4	2.4	3.3	8.0	4.2				
Green Ext Time (p_c), s	0.0	3.1	0.1	2.7	2.2	0.1	0.1	0.3				

Intersection Summary

HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
 72: Tracy Blvd & I-205 WB On-Ramp/I-205 WB Off-Ramp

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↶	↷	↶	↶	↶			↷	↷
Traffic Volume (veh/h)	0	0	0	30	0	520	190	630	0	0	870	40
Future Volume (veh/h)	0	0	0	30	0	520	190	630	0	0	870	40
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		No		
Adj Sat Flow, veh/h/ln				1781	1781	1781	1781	1781	0	0	1781	1781
Adj Flow Rate, veh/h				30	0	0	190	630	0	0	870	40
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				8	8	8	8	8	0	0	8	8
Cap, veh/h				115	0		249	1602	0	0	2605	120
Arrive On Green				0.03	0.00	0.00	0.08	0.90	0.00	0.00	1.00	1.00
Sat Flow, veh/h				3393	0	1510	3291	1781	0	0	3384	151
Grp Volume(v), veh/h				30	0	0	190	630	0	0	447	463
Grp Sat Flow(s),veh/h/ln				1697	0	1510	1646	1781	0	0	1692	1754
Q Serve(g_s), s				1.0	0.0	0.0	6.8	6.6	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				1.0	0.0	0.0	6.8	6.6	0.0	0.0	0.0	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.09
Lane Grp Cap(c), veh/h				115	0		249	1602	0	0	1338	1387
V/C Ratio(X)				0.26	0.00		0.76	0.39	0.00	0.00	0.33	0.33
Avail Cap(c_a), veh/h				1386	0		329	1602	0	0	1338	1387
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	0.00	0.80	0.80	0.00	0.00	0.65	0.65
Uniform Delay (d), s/veh				56.5	0.0	0.0	54.4	0.9	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				1.7	0.0	0.0	6.9	0.6	0.0	0.0	0.4	0.4
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				0.5	0.0	0.0	3.0	0.5	0.0	0.0	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				58.2	0.0	0.0	61.4	1.5	0.0	0.0	0.4	0.4
LnGrp LOS				E	A		E	A	A	A	A	A
Approach Vol, veh/h					30	A		820			910	
Approach Delay, s/veh					58.2			15.4			0.4	
Approach LOS					E			B			A	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		111.9			13.1	98.9		8.1				
Change Period (Y+Rc), s		4.9			4.0	4.9		4.9				
Max Green Setting (Gmax), s		62.1			12.0	46.1		48.1				
Max Q Clear Time (g_c+I1), s		8.6			8.8	2.0		3.0				
Green Ext Time (p_c), s		3.0			0.3	4.4		0.2				

Intersection Summary

HCM 6th Ctrl Delay	8.4
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Tracy Transportation Master Plan Update
 73: Tracy Blvd & I-205 EB Off-Ramp/I-205 EB On-Ramp

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕	↗	↘	↕	
Traffic Volume (veh/h)	570	0	2040	0	0	0	0	240	140	850	50	0
Future Volume (veh/h)	570	0	2040	0	0	0	0	240	140	850	50	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	1781	1781	1781				0	1781	1781	1781	1781	0
Adj Flow Rate, veh/h	570	0	2040				0	240	140	850	50	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8				0	8	8	8	8	0
Cap, veh/h	825	0	722				0	423	177	480	1500	0
Arrive On Green	0.49	0.00	0.48				0.00	0.12	0.12	0.28	0.44	0.00
Sat Flow, veh/h	1697	0	1510				0	3474	1510	1697	3474	0
Grp Volume(v), veh/h	570	0	2040				0	240	140	850	50	0
Grp Sat Flow(s),veh/h/ln	1697	0	1510				0	1692	1510	1697	1692	0
Q Serve(g_s), s	29.4	0.0	54.1				0.0	7.6	10.2	32.0	0.9	0.0
Cycle Q Clear(g_c), s	29.4	0.0	54.1				0.0	7.6	10.2	32.0	0.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	825	0	722				0	423	177	480	1500	0
V/C Ratio(X)	0.69	0.00	2.83				0.00	0.57	0.79	1.77	0.03	0.00
Avail Cap(c_a), veh/h	825	0	722				0	628	268	480	1705	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	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.5	0.0	29.5				0.0	46.6	48.6	40.6	17.8	0.0
Incr Delay (d2), s/veh	2.5	0.0	825.5				0.0	1.2	8.9	355.5	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	11.8	0.0	183.9				0.0	3.2	4.2	60.4	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.0	0.0	855.0				0.0	47.8	57.5	396.1	17.8	0.0
LnGrp LOS	C	A	F				A	D	E	F	B	A
Approach Vol, veh/h		2610						380			900	
Approach Delay, s/veh		673.8						51.4			375.1	
Approach LOS		F						D			F	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	36.0	18.1	59.0	54.1								
Change Period (Y+Rc), s	4.0	4.9	4.9	4.9								
Max Green Setting (Gmax), s	32.0	20.1	54.1	56.1								
Max Q Clear Time (g_c+Rc), s	34.0	12.2	56.1	2.9								
Green Ext Time (p_c), s	0.0	1.0	0.0	0.2								

Intersection Summary

HCM 6th Ctrl Delay		543.9	
HCM 6th LOS		F	

Tracy Transportation Master Plan Update
74: Tracy Blvd & GRANT LINE RD

Future 2042
Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	860	10	10	400	10	110	80	10	110	1040	110
Future Volume (veh/h)	40	860	10	10	400	10	110	80	10	110	1040	110
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	40	860	10	10	400	10	110	80	10	110	1040	110
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	90	1365	16	39	1242	31	140	1098	135	134	1120	118
Arrive On Green	0.05	0.40	0.39	0.02	0.37	0.36	0.08	0.36	0.35	0.08	0.36	0.35
Sat Flow, veh/h	1697	3427	40	1697	3374	84	1697	3034	373	1697	3089	326
Grp Volume(v), veh/h	40	425	445	10	200	210	110	44	46	110	570	580
Grp Sat Flow(s),veh/h/ln	1697	1692	1774	1697	1692	1766	1697	1692	1714	1697	1692	1723
Q Serve(g_s), s	2.7	24.2	24.2	0.7	10.2	10.2	7.6	2.0	2.1	7.7	38.8	38.9
Cycle Q Clear(g_c), s	2.7	24.2	24.2	0.7	10.2	10.2	7.6	2.0	2.1	7.7	38.8	38.9
Prop In Lane	1.00		0.02	1.00		0.05	1.00		0.22	1.00		0.19
Lane Grp Cap(c), veh/h	90	674	707	39	623	650	140	613	621	134	614	625
V/C Ratio(X)	0.44	0.63	0.63	0.26	0.32	0.32	0.78	0.07	0.07	0.82	0.93	0.93
Avail Cap(c_a), veh/h	122	674	707	122	623	650	170	613	621	225	635	646
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	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	55.1	29.0	29.0	57.6	27.2	27.2	54.0	25.1	25.2	54.4	36.7	36.8
Incr Delay (d2), s/veh	1.3	4.4	4.2	1.2	1.3	1.2	14.4	0.0	0.1	0.4	2.6	2.6
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	1.2	10.3	10.8	0.3	4.3	4.4	3.8	0.8	0.9	3.3	16.0	16.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.3	33.4	33.2	58.8	28.5	28.4	68.4	25.1	25.2	54.8	39.4	39.5
LnGrp LOS	E	C	C	E	C	C	E	C	C	D	D	D
Approach Vol, veh/h		910			420			200			1260	
Approach Delay, s/veh		34.3			29.2			48.9			40.8	
Approach LOS		C			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.0	47.4	6.8	51.8	13.9	47.5	10.4	48.2				
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5				
Max Green Setting (Gmax), s	15.9	39.6	8.1	37.9	11.5	44.0	8.1	37.9				
Max Q Clear Time (g_c+1), s	19.7	4.1	2.7	26.2	9.6	40.9	4.7	12.2				
Green Ext Time (p_c), s	0.1	0.3	0.0	2.9	0.0	1.6	0.0	1.5				

Intersection Summary

HCM 6th Ctrl Delay	37.5
HCM 6th LOS	D

Notes

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

Tracy Transportation Master Plan Update
75: TRACY BLVD & ELEVENTH ST.

Future 2042
Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖
Traffic Volume (veh/h)	50	1220	370	40	610	10	170	80	10	10	620	140
Future Volume (veh/h)	50	1220	370	40	610	10	170	80	10	10	620	140
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	50	1220	370	40	610	10	170	80	10	10	620	140
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	211	1752	781	194	1734	773	257	928	414	91	758	338
Arrive On Green	0.06	0.52	0.52	0.06	0.51	0.51	0.08	0.27	0.27	0.03	0.22	0.22
Sat Flow, veh/h	3291	3385	1510	3291	3385	1510	3291	3385	1510	3291	3385	1510
Grp Volume(v), veh/h	50	1220	370	40	610	10	170	80	10	10	620	140
Grp Sat Flow(s),veh/h/ln	1646	1692	1510	1646	1692	1510	1646	1692	1510	1646	1692	1510
Q Serve(g_s), s	1.7	31.3	18.0	1.3	12.3	0.4	5.8	2.0	0.6	0.3	20.0	9.1
Cycle Q Clear(g_c), s	1.7	31.3	18.0	1.3	12.3	0.4	5.8	2.0	0.6	0.3	20.0	9.1
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	211	1752	781	194	1734	773	257	928	414	91	758	338
V/C Ratio(X)	0.24	0.70	0.47	0.21	0.35	0.01	0.66	0.09	0.02	0.11	0.82	0.41
Avail Cap(c_a), veh/h	258	1752	781	258	1734	773	258	1030	459	258	1030	459
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	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.1	20.9	17.7	51.6	16.7	13.8	51.5	31.0	30.5	54.5	42.4	38.2
Incr Delay (d2), s/veh	0.2	2.3	2.1	0.2	0.6	0.0	4.9	0.0	0.0	0.2	2.8	0.3
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	0.7	12.5	6.5	0.6	4.9	0.1	2.5	0.8	0.2	0.1	8.5	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.3	23.2	19.8	51.7	17.2	13.8	56.5	31.1	30.5	54.7	45.2	38.5
LnGrp LOS	D	C	B	D	B	B	E	C	C	D	D	D
Approach Vol, veh/h		1640			660			260			770	
Approach Delay, s/veh		23.3			19.3			47.7			44.1	
Approach LOS		C			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.3	63.0	12.5	29.2	10.9	62.4	6.7	35.0				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5				
Max Green Setting (Gmax), s	30.3	46.0	8.0	33.0	8.0	46.0	8.0	33.0				
Max Q Clear Time (g_c+1/3), s	13.3	33.3	7.8	22.0	3.7	14.3	2.3	4.0				
Green Ext Time (p_c), s	0.0	5.7	0.0	1.7	0.0	2.4	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay	29.2
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)	10	10	20	20	10	70	10	150	110	320	680	10
Future Volume (veh/h)	10	10	20	20	10	70	10	150	110	320	680	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	10	20	20	10	70	10	150	0	320	680	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	70	51	71	66	22	93	33	376		1087	2518	37
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.02	0.11	0.00	0.64	0.74	0.74
Sat Flow, veh/h	227	589	816	203	253	1063	1697	3474	0	1697	3415	50
Grp Volume(v), veh/h	40	0	0	100	0	0	10	150	0	320	337	353
Grp Sat Flow(s),veh/h/ln	1632	0	0	1518	0	0	1697	1692	0	1697	1692	1772
Q Serve(g_s), s	0.0	0.0	0.0	3.2	0.0	0.0	0.5	3.7	0.0	7.5	5.9	5.9
Cycle Q Clear(g_c), s	2.1	0.0	0.0	5.7	0.0	0.0	0.5	3.7	0.0	7.5	5.9	5.9
Prop In Lane	0.25		0.50	0.20		0.70	1.00		0.00	1.00		0.03
Lane Grp Cap(c), veh/h	192	0	0	181	0	0	33	376		1087	1248	1307
V/C Ratio(X)	0.21	0.00	0.00	0.55	0.00	0.00	0.30	0.40		0.29	0.27	0.27
Avail Cap(c_a), veh/h	468	0	0	456	0	0	160	790		1087	1248	1307
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	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.75	0.75	0.75
Uniform Delay (d), s/veh	38.4	0.0	0.0	40.1	0.0	0.0	43.5	37.2	0.0	7.2	3.9	3.9
Incr Delay (d2), s/veh	0.2	0.0	0.0	2.0	0.0	0.0	1.8	3.1	0.0	0.0	0.4	0.4
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	0.8	0.0	0.0	2.2	0.0	0.0	0.2	1.7	0.0	2.3	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.6	0.0	0.0	42.0	0.0	0.0	45.3	40.3	0.0	7.2	4.3	4.3
LnGrp LOS	D	A	A	D	A	A	D	D		A	A	A
Approach Vol, veh/h		40			100			160	A		1010	
Approach Delay, s/veh		38.6			42.0			40.7			5.2	
Approach LOS		D			D			D			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	62.6	15.0		12.4	6.3	71.4		12.4				
Change Period (Y+Rc), s	5.0	* 5		4.5	4.5	5.0		4.5				
Max Green Setting (Gmax), s	30.5	* 21		24.5	8.5	43.0		24.5				
Max Q Clear Time (g_c+I), s	19.5	5.7		4.1	2.5	7.9		7.7				
Green Ext Time (p_c), s	0.1	0.7		0.1	0.0	4.6		0.4				

Intersection Summary

HCM 6th Ctrl Delay	13.4
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR] 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)	40	10	20	10	10	10	30	110	20	520	840	130
Future Volume (veh/h)	40	10	20	10	10	10	30	110	20	520	840	130
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	40	10	20	10	10	10	30	110	20	520	840	130
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	240	13	26	242	64	114	527	1895	337	1014	1938	300
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	700	175	350	844	844	1510	552	2872	510	1200	2937	455
Grp Volume(v), veh/h	70	0	0	20	0	10	30	64	66	520	484	486
Grp Sat Flow(s),veh/h/ln	1224	0	0	1689	0	1510	552	1692	1690	1200	1692	1700
Q Serve(g_s), s	1.5	0.0	0.0	0.0	0.0	0.2	0.8	0.4	0.4	8.2	4.1	4.1
Cycle Q Clear(g_c), s	1.8	0.0	0.0	0.3	0.0	0.2	4.9	0.4	0.4	8.6	4.1	4.1
Prop In Lane	0.57		0.29	0.50		1.00	1.00		0.30	1.00		0.27
Lane Grp Cap(c), veh/h	280	0	0	306	0	114	527	1117	1115	1014	1117	1121
V/C Ratio(X)	0.25	0.00	0.00	0.07	0.00	0.09	0.06	0.06	0.06	0.51	0.43	0.43
Avail Cap(c_a), veh/h	1022	0	0	1093	0	899	784	1904	1901	1572	1904	1912
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.9	0.0	0.0	13.1	0.0	13.0	3.6	1.8	1.8	3.3	2.4	2.4
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.0	0.3	0.0	0.0	0.0	0.4	0.3	0.3
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	0.4	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.4	0.0	0.0	13.2	0.0	13.3	3.7	1.8	1.8	3.7	2.7	2.7
LnGrp LOS	B	A	A	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		70			30			160			1490	
Approach Delay, s/veh		14.4			13.2			2.2			3.1	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.9		6.3		23.9		6.3				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		34.0		18.0		34.0		18.0				
Max Q Clear Time (g_c+I1), s		6.9		3.8		10.6		2.3				
Green Ext Time (p_c), s		1.0		0.2		9.3		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				3.6								
HCM 6th LOS				A								

Tracy Transportation Master Plan Update
78: TRACY BLVD & SCHULTE ROAD

Future 2042
Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗		↖	↖↗	↖	↖	↖↗	↖
Traffic Volume (veh/h)	50	1060	60	20	190	10	180	90	10	160	570	80
Future Volume (veh/h)	50	1060	60	20	190	10	180	90	10	160	570	80
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	50	1060	60	20	190	10	180	90	10	160	570	80
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	61	1224	69	96	1297	68	108	671	299	157	767	342
Arrive On Green	0.04	0.38	0.38	0.06	0.40	0.40	0.06	0.20	0.20	0.09	0.23	0.23
Sat Flow, veh/h	1697	3256	184	1697	3272	171	1697	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	50	551	569	20	98	102	180	90	10	160	570	80
Grp Sat Flow(s),veh/h/ln	1697	1692	1748	1697	1692	1751	1697	1692	1510	1697	1692	1510
Q Serve(g_s), s	2.1	21.2	21.2	0.8	2.6	2.6	4.5	1.5	0.4	6.5	11.0	3.0
Cycle Q Clear(g_c), s	2.1	21.2	21.2	0.8	2.6	2.6	4.5	1.5	0.4	6.5	11.0	3.0
Prop In Lane	1.00		0.11	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	61	636	657	96	671	694	108	671	299	157	767	342
V/C Ratio(X)	0.82	0.87	0.87	0.21	0.15	0.15	1.66	0.13	0.03	1.02	0.74	0.23
Avail Cap(c_a), veh/h	227	757	782	747	1277	1321	108	1515	676	157	1611	719
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	1.00	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	33.7	20.3	20.3	31.7	13.6	13.6	32.9	23.2	22.8	31.9	25.3	22.2
Incr Delay (d2), s/veh	9.4	9.1	8.9	0.4	0.1	0.1	333.9	0.1	0.0	77.6	1.4	0.3
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	0.0	8.9	9.1	0.3	0.9	0.9	11.8	0.6	0.1	5.9	4.3	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	29.4	29.2	32.1	13.7	13.7	366.8	23.3	22.8	109.5	26.8	22.6
LnGrp LOS	D	C	C	C	B	B	F	C	C	F	C	C
Approach Vol, veh/h		1170			220			280			810	
Approach Delay, s/veh		29.9			15.4			244.1			42.7	
Approach LOS		C			B			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.0	33.4	11.0	19.0	8.5	32.0	9.0	21.0				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.0	4.5	5.5	4.5	5.0				
Max Green Setting (Gmax), s	4.5	53.1	6.5	31.5	31.0	31.5	4.5	33.5				
Max Q Clear Time (g_c+14), s	4.5	4.6	8.5	3.5	2.8	23.2	6.5	13.0				
Green Ext Time (p_c), s	0.0	0.7	0.0	0.4	0.0	3.2	0.0	2.9				

Intersection Summary

HCM 6th Ctrl Delay	57.0
HCM 6th LOS	E

Notes

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

Tracy Transportation Master Plan Update
79: TRACY BLVD & Central Ave

Future 2042
Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕		↖	↗	
Traffic Volume (veh/h)	10	50	10	130	20	20	10	240	200	90	420	30
Future Volume (veh/h)	10	50	10	130	20	20	10	240	200	90	420	30
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	50	10	130	20	20	10	240	200	90	420	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	35	226	45	227	220	220	35	421	337	194	1054	75
Arrive On Green	0.02	0.16	0.16	0.13	0.27	0.27	0.02	0.24	0.24	0.11	0.33	0.33
Sat Flow, veh/h	1697	1441	288	1697	817	817	1697	1788	1429	1697	3205	228
Grp Volume(v), veh/h	10	0	60	130	0	40	10	227	213	90	221	229
Grp Sat Flow(s),veh/h/ln1697		0	1730	1697	0	1634	1697	1692	1524	1697	1692	1740
Q Serve(g_s), s	0.3	0.0	1.5	3.6	0.0	0.9	0.3	5.9	6.2	2.5	5.0	5.1
Cycle Q Clear(g_c), s	0.3	0.0	1.5	3.6	0.0	0.9	0.3	5.9	6.2	2.5	5.0	5.1
Prop In Lane	1.00		0.17	1.00		0.50	1.00		0.94	1.00		0.13
Lane Grp Cap(c), veh/h	35	0	271	227	0	441	35	399	359	194	557	573
V/C Ratio(X)	0.28	0.00	0.22	0.57	0.00	0.09	0.28	0.57	0.59	0.46	0.40	0.40
Avail Cap(c_a), veh/h	271	0	969	390	0	1030	271	812	732	288	829	853
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	24.1	0.0	18.4	20.3	0.0	13.7	24.1	16.9	17.0	20.7	12.9	13.0
Incr Delay (d2), s/veh	1.6	0.0	0.2	0.8	0.0	0.0	1.6	2.2	2.7	0.6	0.8	0.8
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	0.1	0.0	0.6	1.3	0.0	0.3	0.1	2.1	2.1	0.9	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	0.0	18.6	21.2	0.0	13.7	25.7	19.0	19.7	21.4	13.7	13.7
LnGrp LOS	C	A	B	C	A	B	C	B	B	C	B	B
Approach Vol, veh/h		70			170			450			540	
Approach Delay, s/veh		19.6			19.4			19.5			15.0	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.2	16.3	11.2	12.3	5.5	20.9	5.5	18.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	24.0	11.5	28.0	8.0	24.5	8.0	31.5				
Max Q Clear Time (g_c+1), s	14.5	8.2	5.6	3.5	2.3	7.1	2.3	2.9				
Green Ext Time (p_c), s	0.0	3.6	0.0	0.1	0.0	3.7	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

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)	160	600	60	30	60	120	20	160	40	210	250	90
Future Volume (veh/h)	160	600	60	30	60	120	20	160	40	210	250	90
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	160	600	60	30	60	120	20	160	40	210	250	90
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	212	854	85	173	684	305	64	684	305	255	773	271
Arrive On Green	0.13	0.27	0.27	0.05	0.20	0.20	0.04	0.20	0.20	0.15	0.31	0.31
Sat Flow, veh/h	1697	3108	310	3291	3385	1510	1697	3385	1510	1697	2457	862
Grp Volume(v), veh/h	160	326	334	30	60	120	20	160	40	210	170	170
Grp Sat Flow(s),veh/h/ln	1697	1692	1726	1646	1692	1510	1697	1692	1510	1697	1692	1626
Q Serve(g_s), s	5.4	10.3	10.3	0.5	0.9	4.1	0.7	2.3	1.3	7.1	4.5	4.7
Cycle Q Clear(g_c), s	5.4	10.3	10.3	0.5	0.9	4.1	0.7	2.3	1.3	7.1	4.5	4.7
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		0.53
Lane Grp Cap(c), veh/h	212	465	474	173	684	305	64	684	305	255	533	512
V/C Ratio(X)	0.75	0.70	0.70	0.17	0.09	0.39	0.31	0.23	0.13	0.82	0.32	0.33
Avail Cap(c_a), veh/h	332	1158	1180	444	2110	941	229	2127	949	432	1266	1216
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	1.00	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	25.1	19.3	19.4	26.9	19.2	20.5	27.8	19.8	19.4	24.4	15.5	15.6
Incr Delay (d2), s/veh	2.0	2.3	2.3	0.2	0.1	1.0	1.0	0.2	0.2	2.5	0.4	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	2.1	3.8	3.9	0.2	0.3	1.4	0.3	0.8	0.4	2.7	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	21.7	21.7	27.1	19.3	21.5	28.8	20.0	19.6	27.0	15.9	16.0
LnGrp LOS	C	C	C	C	B	C	C	C	B	C	B	B
Approach Vol, veh/h		820			210			220			550	
Approach Delay, s/veh		22.7			21.7			20.8			20.2	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.4	17.0	7.6	21.3	6.7	23.7	11.9	17.0				
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0				
Max Green Setting (Gmax), s	15.1	37.3	8.0	40.6	8.0	44.4	11.6	37.0				
Max Q Clear Time (g_c+1), s	19.1	4.3	2.5	12.3	2.7	6.7	7.4	6.1				
Green Ext Time (p_c), s	0.1	1.0	0.0	3.4	0.0	1.7	0.0	0.9				

Intersection Summary

HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
 81: TRACY BLVD & Whispering Wind Dr

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	10	30	10	50	20	60	10	130	190	120	170	70
Future Volume (veh/h)	10	30	10	50	20	60	10	130	190	120	170	70
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	30	10	50	20	60	10	130	190	120	170	70
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	27	152	51	110	300	254	27	371	331	194	752	298
Arrive On Green	0.02	0.12	0.12	0.07	0.17	0.17	0.02	0.22	0.22	0.11	0.32	0.32
Sat Flow, veh/h	1697	1279	426	1697	1781	1510	1697	1692	1510	1697	2368	937
Grp Volume(v), veh/h	10	0	40	50	20	60	10	130	190	120	120	120
Grp Sat Flow(s),veh/h/ln1697		0	1705	1697	1781	1510	1697	1692	1510	1697	1692	1613
Q Serve(g_s), s	0.2	0.0	0.8	1.1	0.4	1.3	0.2	2.4	4.2	2.5	1.9	2.1
Cycle Q Clear(g_c), s	0.2	0.0	0.8	1.1	0.4	1.3	0.2	2.4	4.2	2.5	1.9	2.1
Prop In Lane	1.00		0.25	1.00		1.00	1.00		1.00	1.00		0.58
Lane Grp Cap(c), veh/h	27	0	203	110	300	254	27	371	331	194	537	512
V/C Ratio(X)	0.37	0.00	0.20	0.45	0.07	0.24	0.37	0.35	0.57	0.62	0.22	0.24
Avail Cap(c_a), veh/h	273	0	1371	273	1433	1214	273	1189	1060	446	1361	1297
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	18.2	0.0	14.8	16.8	13.1	13.4	18.2	12.3	13.0	15.7	9.3	9.4
Incr Delay (d2), s/veh	3.1	0.0	0.6	1.1	0.1	0.6	3.1	0.7	1.9	1.2	0.2	0.3
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/ln0.1	0.0	0.0	0.3	0.4	0.1	0.4	0.1	0.7	1.2	0.8	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.3	0.0	15.4	17.9	13.2	14.0	21.3	13.0	14.9	16.9	9.6	9.7
LnGrp LOS	C	A	B	B	B	B	C	B	B	B	A	A
Approach Vol, veh/h		50			130			330			360	
Approach Delay, s/veh		16.6			15.4			14.4			12.1	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s8.8	12.7	6.9	8.9	5.1	16.3	5.1	10.8					
Change Period (Y+Rc), s 4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5					
Max Green Setting (Gmax), s 9.8	26.2	6.0	30.0	6.0	30.0	6.0	30.0					
Max Q Clear Time (g_c+14.5)	6.2	3.1	2.8	2.2	4.1	2.2	3.3					
Green Ext Time (p_c), s 0.0	2.0	0.0	0.2	0.0	1.5	0.0	0.3					

Intersection Summary

HCM 6th Ctrl Delay	13.7
HCM 6th LOS	B

Notes

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

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	10	10	320	10	10	220
Future Vol, veh/h	10	10	320	10	10	220
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	-	-	-	120	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	10	10	320	10	10	220
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	455	165	0	0	330	0
Stage 1	325	-	-	-	-	-
Stage 2	130	-	-	-	-	-
Critical Hdwy	6.96	7.06	-	-	4.26	-
Critical Hdwy Stg 1	5.96	-	-	-	-	-
Critical Hdwy Stg 2	5.96	-	-	-	-	-
Follow-up Hdwy	3.58	3.38	-	-	2.28	-
Pot Cap-1 Maneuver	519	832	-	-	1184	-
Stage 1	687	-	-	-	-	-
Stage 2	864	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	515	832	-	-	1184	-
Mov Cap-2 Maneuver	515	-	-	-	-	-
Stage 1	687	-	-	-	-	-
Stage 2	857	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10.8	0	0.4			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	636	1184		
HCM Lane V/C Ratio	-	-	0.031	0.008		
HCM Control Delay (s)	-	-	10.8	8.1		
HCM Lane LOS	-	-	B	A		
HCM 95th %tile Q(veh)	-	-	0.1	0		

Tracy Transportation Master Plan Update
83: TRACY BLVD & LINNE

Future 2042
Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↔		↔	↕↕	↔		↕↕		↔	↕	↔
Traffic Volume (veh/h)	270	1570	10	10	350	60	10	10	30	40	10	190
Future Volume (veh/h)	270	1570	10	10	350	60	10	10	30	40	10	190
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	270	1570	10	10	350	60	10	10	30	40	10	190
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	416	1915	12	18	1488	664	103	31	72	58	346	293
Arrive On Green	0.13	0.56	0.56	0.01	0.44	0.44	0.08	0.08	0.08	0.03	0.19	0.19
Sat Flow, veh/h	3291	3448	22	1697	3385	1510	210	390	899	1697	1781	1510
Grp Volume(v), veh/h	270	770	810	10	350	60	50	0	0	40	10	190
Grp Sat Flow(s),veh/h/ln	1646	1692	1777	1697	1692	1510	1498	0	0	1697	1781	1510
Q Serve(g_s), s	3.9	18.6	18.6	0.3	3.2	1.2	0.4	0.0	0.0	1.2	0.2	5.8
Cycle Q Clear(g_c), s	3.9	18.6	18.6	0.3	3.2	1.2	1.5	0.0	0.0	1.2	0.2	5.8
Prop In Lane	1.00		0.01	1.00		1.00	0.20		0.60	1.00		1.00
Lane Grp Cap(c), veh/h	416	940	987	18	1488	664	206	0	0	58	346	293
V/C Ratio(X)	0.65	0.82	0.82	0.57	0.24	0.09	0.24	0.00	0.00	0.69	0.03	0.65
Avail Cap(c_a), veh/h	790	1286	1351	136	2031	906	614	0	0	136	926	785
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	9.1	9.1	24.6	8.8	8.2	21.8	0.0	0.0	23.9	16.3	18.6
Incr Delay (d2), s/veh	1.7	3.1	3.0	25.7	0.1	0.1	0.6	0.0	0.0	13.7	0.0	2.4
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	1.4	4.5	4.7	0.2	0.8	0.3	0.5	0.0	0.0	0.7	0.1	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	12.2	12.1	50.3	8.8	8.2	22.4	0.0	0.0	37.6	16.4	21.0
LnGrp LOS	C	B	B	D	A	A	C	A	A	D	B	C
Approach Vol, veh/h		1850			420			50			240	
Approach Delay, s/veh		13.6			9.7			22.4			23.6	
Approach LOS		B			A			C			C	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	5.7	8.0	4.5	31.8		13.7	10.3	26.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	18.0	4.0	38.0		26.0	12.0	30.0				
Max Q Clear Time (g_c+I1), s	3.2	3.5	2.3	20.6		7.8	5.9	5.2				
Green Ext Time (p_c), s	0.0	0.1	0.0	7.2		0.8	0.6	1.7				

Intersection Summary

HCM 6th Ctrl Delay	14.1
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	1190	30	70	560	10	80	30	20	10	370	10
Future Volume (veh/h)	10	1190	30	70	560	10	80	30	20	10	370	10
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	1190	30	70	560	10	80	30	20	10	370	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	523	1600	40	75	697	12	101	276	184	17	405	343
Arrive On Green	0.31	0.47	0.47	0.04	0.20	0.20	0.06	0.28	0.28	0.01	0.23	0.23
Sat Flow, veh/h	1697	3373	85	1697	3402	61	1697	997	665	1697	1781	1510
Grp Volume(v), veh/h	10	597	623	70	278	292	80	0	50	10	370	10
Grp Sat Flow(s),veh/h/ln	1697	1692	1766	1697	1692	1771	1697	0	1662	1697	1781	1510
Q Serve(g_s), s	0.4	25.8	25.8	3.7	14.1	14.1	4.2	0.0	2.0	0.5	18.2	0.5
Cycle Q Clear(g_c), s	0.4	25.8	25.8	3.7	14.1	14.1	4.2	0.0	2.0	0.5	18.2	0.5
Prop In Lane	1.00		0.05	1.00		0.03	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	523	803	838	75	347	363	101	0	460	17	405	343
V/C Ratio(X)	0.02	0.74	0.74	0.93	0.80	0.80	0.79	0.00	0.11	0.60	0.91	0.03
Avail Cap(c_a), veh/h	523	803	838	75	743	777	123	0	462	75	445	377
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	1.00	1.00	0.97	0.97	0.97	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	19.2	19.2	42.9	34.1	34.1	41.8	0.0	24.2	44.4	33.9	27.0
Incr Delay (d2), s/veh	0.0	6.2	5.9	76.9	17.2	16.7	20.2	0.0	0.0	12.1	21.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	10.8	11.3	3.1	7.3	7.6	2.3	0.0	0.8	0.3	10.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.7	25.4	25.2	119.8	51.3	50.7	62.0	0.0	24.3	56.5	54.9	27.1
LnGrp LOS	C	C	C	F	D	D	E	A	C	E	D	C
Approach Vol, veh/h		1230			640			130			390	
Approach Delay, s/veh		25.2			58.5			47.5			54.2	
Approach LOS		C			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	32.3	22.9	9.9	25.0	8.0	47.2	5.4	29.4				
Change Period (Y+Rc), s	4.5	* 4.5	4.5	4.5	4.0	4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.0	* 40	6.5	22.5	4.0	39.5	4.0	25.0				
Max Q Clear Time (g_c+1), s	12.4	16.1	6.2	20.2	5.7	27.8	2.5	4.0				
Green Ext Time (p_c), s	0.0	2.3	0.0	0.2	0.0	4.6	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	40.1
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
 85: CENTRAL AVE & SCHULTE ROAD

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	40	1180	10	60	190	10	10	60	110	30	70	40
Future Volume (veh/h)	40	1180	10	60	190	10	10	60	110	30	70	40
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	40	1180	10	60	190	10	10	60	110	30	70	40
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	84	1511	13	111	1488	78	26	84	154	68	185	106
Arrive On Green	0.05	0.44	0.44	0.07	0.45	0.45	0.02	0.15	0.15	0.04	0.17	0.17
Sat Flow, veh/h	1697	3439	29	1697	3272	171	1697	563	1032	1697	1064	608
Grp Volume(v), veh/h	40	581	609	60	98	102	10	0	170	30	0	110
Grp Sat Flow(s),veh/h/ln	1697	1692	1776	1697	1692	1751	1697	0	1596	1697	0	1672
Q Serve(g_s), s	1.3	16.3	16.3	1.9	1.9	1.9	0.3	0.0	5.6	1.0	0.0	3.2
Cycle Q Clear(g_c), s	1.3	16.3	16.3	1.9	1.9	1.9	0.3	0.0	5.6	1.0	0.0	3.2
Prop In Lane	1.00		0.02	1.00		0.10	1.00		0.65	1.00		0.36
Lane Grp Cap(c), veh/h	84	744	780	111	770	796	26	0	238	68	0	291
V/C Ratio(X)	0.47	0.78	0.78	0.54	0.13	0.13	0.38	0.00	0.71	0.44	0.00	0.38
Avail Cap(c_a), veh/h	183	1064	1116	183	1064	1100	183	0	750	183	0	786
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.7	13.3	13.3	25.1	8.8	8.8	27.1	0.0	22.5	26.0	0.0	20.3
Incr Delay (d2), s/veh	1.5	2.8	2.6	1.5	0.1	0.1	3.4	0.0	4.8	1.7	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	5.3	5.5	0.7	0.5	0.6	0.1	0.0	2.3	0.4	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	16.0	15.9	26.7	8.8	8.8	30.4	0.0	27.2	27.7	0.0	21.3
LnGrp LOS	C	B	B	C	A	A	C	A	C	C	A	C
Approach Vol, veh/h		1230		260		180		140				
Approach Delay, s/veh		16.3		13.0		27.4		22.6				
Approach LOS		B		B		C		C				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.8	29.8	4.9	14.1	7.6	28.9	6.2	12.8				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.0	4.5	4.0	4.5				
Max Green Setting (Gmax), s	34.9	34.9	6.0	26.1	6.0	34.9	6.0	26.1				
Max Q Clear Time (g_c+1), s	13.3	3.9	2.3	5.2	3.9	18.3	3.0	7.6				
Green Ext Time (p_c), s	0.0	0.9	0.0	0.4	0.0	6.1	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↖	↗	↖	↗
Traffic Volume (veh/h)	670	90	50	230	30	20	10	430	590	10	10	10
Future Volume (veh/h)	670	90	50	230	30	20	10	430	590	10	10	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	670	90	50	230	30	20	10	430	590	10	10	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	815	604	335	729	559	373	525	566	480	162	566	480
Arrive On Green	0.56	0.56	0.56	0.56	0.56	0.56	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1290	1076	598	1189	997	665	1326	1781	1510	527	1781	1510
Grp Volume(v), veh/h	670	0	140	230	0	50	10	430	590	10	10	10
Grp Sat Flow(s),veh/h/ln	1290	0	1674	1189	0	1662	1326	1781	1510	527	1781	1510
Q Serve(g_s), s	32.3	0.0	2.6	7.6	0.0	0.9	0.3	14.3	21.0	1.2	0.3	0.3
Cycle Q Clear(g_c), s	33.2	0.0	2.6	10.2	0.0	0.9	0.6	14.3	21.0	15.5	0.3	0.3
Prop In Lane	1.00		0.36	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	815	0	939	729	0	932	525	566	480	162	566	480
V/C Ratio(X)	0.82	0.00	0.15	0.32	0.00	0.05	0.02	0.76	1.23	0.06	0.02	0.02
Avail Cap(c_a), veh/h	892	0	1039	799	0	1031	525	566	480	162	566	480
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	14.1	0.0	6.9	9.4	0.0	6.6	15.7	20.3	22.5	27.2	15.5	15.5
Incr Delay (d2), s/veh	5.8	0.0	0.1	0.2	0.0	0.0	0.0	5.9	120.6	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	0.0	0.8	1.7	0.0	0.3	0.1	6.1	22.5	0.1	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.9	0.0	7.0	9.6	0.0	6.6	15.7	26.2	143.1	27.4	15.5	15.5
LnGrp LOS	B	A	A	A	A	A	B	C	F	C	B	B
Approach Vol, veh/h		810			280			1030			30	
Approach Delay, s/veh		17.6			9.1			93.1			19.5	
Approach LOS		B			A			F			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.0		41.1		25.0		41.1				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		21.0		41.0		21.0		41.0				
Max Q Clear Time (g_c+1), s		23.0		35.2		17.5		12.2				
Green Ext Time (p_c), s		0.0		1.9		0.0		1.1				
Intersection Summary												
HCM 6th Ctrl Delay				52.7								
HCM 6th LOS				D								



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	10	70	10	360	1010	0	0	220	70
Future Volume (veh/h)	0	0	0	10	70	10	360	1010	0	0	220	70
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		No		
Adj Sat Flow, veh/h/ln				1781	1781	1781	1781	1781	0	0	1781	1781
Adj Flow Rate, veh/h				10	70	10	360	1010	0	0	220	70
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				8	8	8	8	8	0	0	8	8
Cap, veh/h				17	116	17	621	1128	0	0	522	442
Arrive On Green				0.09	0.09	0.09	0.19	0.63	0.00	0.00	0.29	0.29
Sat Flow, veh/h				193	1351	193	3291	1781	0	0	1781	1510
Grp Volume(v), veh/h				90	0	0	360	1010	0	0	220	70
Grp Sat Flow(s),veh/h/ln				1737	0	0	1646	1781	0	0	1781	1510
Q Serve(g_s), s				1.6	0.0	0.0	3.2	15.5	0.0	0.0	3.2	1.1
Cycle Q Clear(g_c), s				1.6	0.0	0.0	3.2	15.5	0.0	0.0	3.2	1.1
Prop In Lane				0.11		0.11	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				149	0	0	621	1128	0	0	522	442
V/C Ratio(X)				0.60	0.00	0.00	0.58	0.90	0.00	0.00	0.42	0.16
Avail Cap(c_a), veh/h				687	0	0	2247	5399	0	0	3913	3316
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	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				14.3	0.0	0.0	12.0	5.0	0.0	0.0	9.2	8.5
Incr Delay (d2), s/veh				1.5	0.0	0.0	0.6	1.1	0.0	0.0	0.2	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
%ile BackOfQ(50%),veh/ln				0.5	0.0	0.0	0.9	0.3	0.0	0.0	0.8	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				15.7	0.0	0.0	12.6	6.1	0.0	0.0	9.4	8.5
LnGrp LOS				B	A	A	B	A	A	A	A	A
Approach Vol, veh/h					90			1370			290	
Approach Delay, s/veh					15.7			7.8			9.2	
Approach LOS					B			A			A	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		25.4			11.0	14.4		7.0				
Change Period (Y+Rc), s		4.9			4.9	4.9		4.2				
Max Green Setting (Gmax), s		98.1			22.1	71.1		12.8				
Max Q Clear Time (g_c+I1), s		17.5			5.2	5.2		3.6				
Green Ext Time (p_c), s		3.0			1.1	0.3		0.1				

Intersection Summary

HCM 6th Ctrl Delay	8.4
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↗					↑↑	↗	↖	↑	
Traffic Volume (veh/h)	960	0	1400	0	0	0	0	410	220	100	120	0
Future Volume (veh/h)	960	0	1400	0	0	0	0	410	220	100	120	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	1781	0	1781				0	1781	1781	1781	1781	0
Adj Flow Rate, veh/h	960	0	1400				0	410	220	100	120	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	0	8				0	8	8	8	8	0
Cap, veh/h	1162	0	1034				0	553	246	71	425	0
Arrive On Green	0.69	0.00	0.69				0.00	0.16	0.16	0.04	0.24	0.00
Sat Flow, veh/h	1697	0	1510				0	3474	1510	1697	1781	0
Grp Volume(v), veh/h	960	0	1400				0	410	220	100	120	0
Grp Sat Flow(s),veh/h/ln	1697	0	1510				0	1692	1510	1697	1781	0
Q Serve(g_s), s	49.0	0.0	81.8				0.0	13.8	17.0	5.0	6.6	0.0
Cycle Q Clear(g_c), s	49.0	0.0	81.8				0.0	13.8	17.0	5.0	6.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1162	0	1034				0	553	246	71	425	0
V/C Ratio(X)	0.83	0.00	1.35				0.00	0.74	0.89	1.41	0.28	0.00
Avail Cap(c_a), veh/h	1162	0	1034				0	570	254	71	434	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	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.6	0.0	18.8				0.0	47.6	48.9	57.2	37.1	0.0
Incr Delay (d2), s/veh	4.7	0.0	165.5				0.0	5.5	30.4	248.0	0.5	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	17.7	0.0	71.6				0.0	6.1	8.4	7.0	2.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	0.0	184.3				0.0	53.0	79.3	305.2	37.6	0.0
LnGrp LOS	B	A	F				A	D	E	F	D	A
Approach Vol, veh/h		2360						630			220	
Approach Delay, s/veh		116.8						62.2			159.3	
Approach LOS		F						E			F	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	9.0	24.4	86.0	33.4								
Change Period (Y+Rc), s	4.0	4.9	* 4.2	4.9								
Max Green Setting (Gmax), s	5.0	20.1	* 82	29.1								
Max Q Clear Time (g_c+17), s	19.0	19.0	83.8	8.6								
Green Ext Time (p_c), s	0.0	0.4	0.0	0.5								

Intersection Summary

HCM 6th Ctrl Delay	109.0
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
 89: MACARTHUR DRIVE (N) & PESCADERO AVE

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↗	↖	↖	↗	↖
Traffic Volume (veh/h)	50	10	20	80	20	170	50	410	130	610	790	120
Future Volume (veh/h)	50	10	20	80	20	170	50	410	130	610	790	120
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	50	10	20	80	20	170	50	410	130	610	790	120
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	123	95	191	158	357	303	123	767	342	726	1268	566
Arrive On Green	0.07	0.18	0.18	0.09	0.20	0.20	0.07	0.23	0.23	0.22	0.37	0.37
Sat Flow, veh/h	1697	530	1060	1697	1781	1510	1697	3385	1510	3291	3385	1510
Grp Volume(v), veh/h	50	0	30	80	20	170	50	410	130	610	790	120
Grp Sat Flow(s),veh/h/ln1697	0	1591	1697	1781	1510	1697	1692	1510	1646	1692	1510	1510
Q Serve(g_s), s	1.9	0.0	1.0	3.0	0.6	6.7	1.9	7.1	4.8	11.7	12.6	3.6
Cycle Q Clear(g_c), s	1.9	0.0	1.0	3.0	0.6	6.7	1.9	7.1	4.8	11.7	12.6	3.6
Prop In Lane	1.00		0.67	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	123	0	286	158	357	303	123	767	342	726	1268	566
V/C Ratio(X)	0.41	0.00	0.10	0.51	0.06	0.56	0.41	0.53	0.38	0.84	0.62	0.21
Avail Cap(c_a), veh/h	205	0	817	205	915	776	233	1432	639	1069	2066	922
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	29.3	0.0	22.7	28.6	21.4	23.8	29.3	22.5	21.7	24.7	16.9	14.1
Incr Delay (d2), s/veh	0.8	0.0	0.2	0.9	0.0	0.6	0.8	0.8	1.0	2.6	0.7	0.3
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/ln0.8	0.0	0.4	1.2	0.2	2.3	0.7	2.6	1.7	4.4	4.3	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	0.0	22.8	29.5	21.4	24.4	30.1	23.3	22.6	27.3	17.6	14.3
LnGrp LOS	C	A	C	C	C	C	C	C	C	C	B	B
Approach Vol, veh/h		80			270			590			1520	
Approach Delay, s/veh		27.4			25.7			23.8			21.2	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.1	20.0	10.7	16.4	9.3	29.8	9.3	17.8				
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5				
Max Green Setting (Gmax), s	21.5	28.0	8.0	34.0	9.1	40.4	8.0	34.0				
Max Q Clear Time (g_c+1/3), s	11.7	9.1	5.0	3.0	3.9	14.6	3.9	8.7				
Green Ext Time (p_c), s	0.9	4.0	0.0	0.1	0.0	8.6	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	22.5
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
 90: MACARTHUR DRIVE (N) & GRANT LINE RD

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖	↖	↖↗		↖	↖↗	↖
Traffic Volume (veh/h)	290	1480	20	70	450	130	40	160	90	530	310	60
Future Volume (veh/h)	290	1480	20	70	450	130	40	160	90	530	310	60
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	290	1480	20	70	450	130	40	160	90	530	310	60
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	211	1414	19	89	1158	829	69	245	131	351	951	424
Arrive On Green	0.12	0.41	0.41	0.05	0.34	0.34	0.04	0.12	0.12	0.21	0.28	0.28
Sat Flow, veh/h	1697	3419	46	1697	3385	1510	1697	2131	1138	1697	3385	1510
Grp Volume(v), veh/h	290	732	768	70	450	130	40	125	125	530	310	60
Grp Sat Flow(s),veh/h/ln	1697	1692	1773	1697	1692	1510	1697	1692	1577	1697	1692	1510
Q Serve(g_s), s	12.0	40.0	40.0	3.9	9.8	4.1	2.2	6.8	7.3	20.0	7.0	2.9
Cycle Q Clear(g_c), s	12.0	40.0	40.0	3.9	9.8	4.1	2.2	6.8	7.3	20.0	7.0	2.9
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.72	1.00		1.00
Lane Grp Cap(c), veh/h	211	700	733	89	1158	829	69	195	181	351	951	424
V/C Ratio(X)	1.38	1.05	1.05	0.78	0.39	0.16	0.58	0.64	0.69	1.51	0.33	0.14
Avail Cap(c_a), veh/h	211	700	733	105	1190	843	123	586	546	351	1627	726
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	1.00	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	42.4	28.4	28.4	45.3	24.1	10.8	45.6	40.9	41.1	38.4	27.5	26.0
Incr Delay (d2), s/veh	196.8	46.6	46.2	22.8	0.4	0.1	2.8	6.0	7.7	244.0	0.3	0.3
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	16.5	24.4	25.5	2.2	3.9	1.3	1.0	3.1	3.2	31.9	2.8	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	239.2	74.9	74.6	68.1	24.5	10.9	48.4	46.9	48.8	282.4	27.9	26.3
LnGrp LOS	F	F	F	E	C	B	D	D	D	F	C	C
Approach Vol, veh/h		1790			650			290			900	
Approach Delay, s/veh		101.4			26.5			47.9			177.6	
Approach LOS		F			C			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	25.0	16.6	10.1	45.0	9.0	32.7	17.0	38.1				
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0				
Max Green Setting (Gmax), s	20.0	33.5	6.0	40.0	7.0	46.5	12.0	34.0				
Max Q Clear Time (g_c+Q), s	20.0	9.3	5.9	42.0	4.2	9.0	14.0	11.8				
Green Ext Time (p_c), s	0.0	1.8	0.0	0.0	0.0	3.2	0.0	4.7				

Intersection Summary

HCM 6th Ctrl Delay	102.6
HCM 6th LOS	F

Notes

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

Tracy Transportation Master Plan Update
 91: ELEVENTH ST. & MACARTHUR DRIVE

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1790	10	10	690	80	10	70	10	270	250	40
Future Volume (veh/h)	40	1790	10	10	690	80	10	70	10	270	250	40
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	40	1790	10	10	690	80	10	70	10	270	250	40
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	88	1901	848	16	1743	777	16	276	39	303	766	121
Arrive On Green	0.05	0.56	0.56	0.01	0.51	0.51	0.01	0.09	0.09	0.18	0.26	0.26
Sat Flow, veh/h	1697	3385	1510	1697	3385	1510	1697	2981	417	1697	2928	462
Grp Volume(v), veh/h	40	1790	10	10	690	80	10	39	41	270	143	147
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1697	1692	1510	1697	1692	1706	1697	1692	1698
Q Serve(g_s), s	2.5	53.1	0.3	0.6	13.4	2.9	0.6	2.3	2.4	16.8	7.4	7.6
Cycle Q Clear(g_c), s	2.5	53.1	0.3	0.6	13.4	2.9	0.6	2.3	2.4	16.8	7.4	7.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		0.27
Lane Grp Cap(c), veh/h	88	1901	848	16	1743	777	16	157	158	303	443	444
V/C Ratio(X)	0.46	0.94	0.01	0.61	0.40	0.10	0.61	0.25	0.26	0.89	0.32	0.33
Avail Cap(c_a), veh/h	126	1975	881	63	1834	818	63	188	190	377	502	503
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	1.00	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	49.7	22.0	10.4	53.3	16.0	13.4	53.3	45.5	45.5	43.3	32.2	32.2
Incr Delay (d2), s/veh	1.4	9.5	0.0	32.1	0.1	0.1	32.1	0.3	0.3	19.3	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	21.6	0.1	0.4	5.0	1.0	0.4	1.0	1.0	8.7	3.1	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.1	31.5	10.4	85.3	16.1	13.5	85.3	45.8	45.9	62.6	32.3	32.4
LnGrp LOS	D	C	B	F	B	B	F	D	D	E	C	C
Approach Vol, veh/h		1840			780			90			560	
Approach Delay, s/veh		31.9			16.7			50.2			47.0	
Approach LOS		C			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	65.2	5.0	32.7	10.1	60.1	23.3	14.5				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.5	4.5	4.0	4.5				
Max Green Setting (Gmax), s	4.0	63.0	4.0	32.0	8.0	58.5	24.0	12.0				
Max Q Clear Time (g_c+1), s	1.6	55.1	2.6	9.6	4.5	15.4	18.8	4.4				
Green Ext Time (p_c), s	0.0	5.5	0.0	1.1	0.0	3.9	0.5	0.1				

Intersection Summary

HCM 6th Ctrl Delay	31.3
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
 92: MACARTHUR (S) & ELEVENTH ST.

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1540	10	90	640	0	10	0	300	0	0	0
Future Volume (veh/h)	0	1540	10	90	640	0	10	0	300	0	0	0
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	0	1540	0	90	640	0	10	0	300	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	2	1802		113	2225	0	384	0	341	0	2	0
Arrive On Green	0.00	0.53	0.00	0.07	0.66	0.00	0.23	0.00	0.23	0.00	0.00	0.00
Sat Flow, veh/h	1697	3385	1510	1697	3474	0	1697	0	1510	0	1781	0
Grp Volume(v), veh/h	0	1540	0	90	640	0	10	0	300	0	0	0
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1697	1692	0	1697	0	1510	0	1781	0
Q Serve(g_s), s	0.0	30.2	0.0	4.0	6.2	0.0	0.4	0.0	14.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	30.2	0.0	4.0	6.2	0.0	0.4	0.0	14.8	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	2	1802		113	2225	0	384	0	341	0	2	0
V/C Ratio(X)	0.00	0.85		0.79	0.29	0.00	0.03	0.00	0.88	0.00	0.00	0.00
Avail Cap(c_a), veh/h	132	2233		143	2255	0	494	0	439	0	507	0
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)	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	15.5	0.0	35.5	5.6	0.0	23.3	0.0	28.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.9	0.0	16.6	0.1	0.0	0.0	0.0	15.0	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.2	0.0	2.1	1.7	0.0	0.1	0.0	6.5	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	18.4	0.0	52.1	5.7	0.0	23.3	0.0	43.9	0.0	0.0	0.0
LnGrp LOS	A	B		D	A	A	C	A	D	A	A	A
Approach Vol, veh/h		1540	A		730			310				0
Approach Delay, s/veh		18.4			11.4			43.3				0.0
Approach LOS		B			B			D				
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.7	45.7		0.0	0.0	55.3		22.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5	51.0		22.0	6.0	51.5		22.5				
Max Q Clear Time (g_c+1), s	10.0	32.2		0.0	0.0	8.2		16.8				
Green Ext Time (p_c), s	0.0	9.0		0.0	0.0	3.2		0.7				

Intersection Summary

HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	8.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	300	10	10	10	10	90
Future Vol, veh/h	300	10	10	10	10	90
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, %	8	8	8	8	8	8
Mvmt Flow	300	10	10	10	10	90
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	85	55	100	0	0	
Stage 1	55	-	-	-	-	
Stage 2	30	-	-	-	-	
Critical Hdwy	6.48	6.28	4.18	-	-	
Critical Hdwy Stg 1	5.48	-	-	-	-	
Critical Hdwy Stg 2	5.48	-	-	-	-	
Follow-up Hdwy	3.572	3.372	2.272	-	-	
Pot Cap-1 Maneuver	902	995	1456	-	-	
Stage 1	952	-	-	-	-	
Stage 2	977	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	896	995	1456	-	-	
Mov Cap-2 Maneuver	896	-	-	-	-	
Stage 1	945	-	-	-	-	
Stage 2	977	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	11.1	3.7		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1456	-	899	-	-	
HCM Lane V/C Ratio	0.007	-	0.345	-	-	
HCM Control Delay (s)	7.5	0	11.1	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	1.5	-	-	

Tracy Transportation Master Plan Update
 94: MACARTHUR (S) & E. Mt. Diablo Ave/MacArthur Dr

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑	↗	↖	↗	
Traffic Volume (veh/h)	10	510	80	70	70	10	10	70	80	90	530	10
Future Volume (veh/h)	10	510	80	70	70	10	10	70	80	90	530	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	10	510	80	70	70	10	10	70	80	90	530	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	17	586	92	88	659	94	17	520	440	115	609	11
Arrive On Green	0.01	0.39	0.39	0.05	0.43	0.43	0.01	0.29	0.29	0.07	0.35	0.35
Sat Flow, veh/h	1697	1503	236	1697	1524	218	1697	1781	1510	1697	1743	33
Grp Volume(v), veh/h	10	0	590	70	0	80	10	70	80	90	0	540
Grp Sat Flow(s),veh/h/ln	1697	0	1739	1697	0	1742	1697	1781	1510	1697	0	1776
Q Serve(g_s), s	0.5	0.0	25.3	3.3	0.0	2.2	0.5	2.3	3.2	4.2	0.0	22.9
Cycle Q Clear(g_c), s	0.5	0.0	25.3	3.3	0.0	2.2	0.5	2.3	3.2	4.2	0.0	22.9
Prop In Lane	1.00		0.14	1.00		0.13	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	17	0	678	88	0	753	17	520	440	115	0	621
V/C Ratio(X)	0.59	0.00	0.87	0.79	0.00	0.11	0.59	0.13	0.18	0.78	0.00	0.87
Avail Cap(c_a), veh/h	84	0	1013	147	0	1079	84	817	692	273	0	1012
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	0.00	1.00
Uniform Delay (d), s/veh	39.8	0.0	22.7	37.8	0.0	13.6	39.8	21.1	21.4	37.0	0.0	24.5
Incr Delay (d2), s/veh	28.9	0.0	5.6	14.5	0.0	0.1	28.9	0.1	0.2	11.0	0.0	4.8
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	0.3	0.0	10.9	1.7	0.0	0.8	0.3	0.9	1.1	2.0	0.0	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.7	0.0	28.3	52.3	0.0	13.7	68.7	21.2	21.6	48.0	0.0	29.4
LnGrp LOS	E	A	C	D	A	B	E	C	C	D	A	C
Approach Vol, veh/h		600			150			160			630	
Approach Delay, s/veh		29.0			31.7			24.3			32.0	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	27.5	8.2	35.5	4.8	32.2	4.8	38.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	13.0	37.0	7.0	47.0	4.0	46.0	4.0	50.0				
Max Q Clear Time (g_c+I1), s	6.2	5.2	5.3	27.3	2.5	24.9	2.5	4.2				
Green Ext Time (p_c), s	0.1	0.6	0.0	4.2	0.0	3.3	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay				30.0								
HCM 6th LOS				C								

Tracy Transportation Master Plan Update
 95: MACARTHUR (S) & SCHULTE ROAD

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1030	120	20	160	50	60	70	50	240	420	10
Future Volume (veh/h)	40	1030	120	20	160	50	60	70	50	240	420	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	40	1030	120	20	160	50	60	70	50	240	420	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	53	1222	545	174	1493	666	131	173	113	284	759	18
Arrive On Green	0.03	0.36	0.36	0.10	0.44	0.44	0.04	0.09	0.09	0.17	0.22	0.22
Sat Flow, veh/h	1697	3385	1510	1697	3385	1510	3291	1962	1281	1697	3379	80
Grp Volume(v), veh/h	40	1030	120	20	160	50	60	59	61	240	210	220
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1697	1692	1510	1646	1692	1551	1697	1692	1767
Q Serve(g_s), s	1.6	19.0	3.8	0.7	1.9	1.3	1.2	2.3	2.5	9.3	7.5	7.5
Cycle Q Clear(g_c), s	1.6	19.0	3.8	0.7	1.9	1.3	1.2	2.3	2.5	9.3	7.5	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.83	1.00		0.05
Lane Grp Cap(c), veh/h	53	1222	545	174	1493	666	131	149	137	284	380	397
V/C Ratio(X)	0.76	0.84	0.22	0.12	0.11	0.08	0.46	0.40	0.44	0.85	0.55	0.55
Avail Cap(c_a), veh/h	150	1374	613	175	1493	666	242	573	525	334	794	829
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	1.00	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	32.7	19.9	15.1	27.7	11.1	11.0	31.9	29.3	29.4	27.4	23.3	23.3
Incr Delay (d2), s/veh	19.3	4.7	0.2	0.4	0.0	0.1	2.5	2.1	2.7	13.9	1.5	1.5
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	0.9	7.3	1.2	0.3	0.6	0.4	0.5	0.9	1.0	4.6	2.9	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.0	24.6	15.3	28.1	11.2	11.0	34.4	31.3	32.1	41.3	24.8	24.8
LnGrp LOS	D	C	B	C	B	B	C	C	C	D	C	C
Approach Vol, veh/h		1190			230			180			670	
Approach Delay, s/veh		24.6			12.6			32.6			30.7	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.6	29.4	16.0	11.0	6.1	34.9	6.7	20.3				
Change Period (Y+Rc), s	4.6	4.9	4.6	* 5	4.0	* 4.9	4.0	5.0				
Max Green Setting (Gmax), s	27.6	13.4	* 23	6.0	* 30	5.0	31.9					
Max Q Clear Time (g_c+1/2), s	21.0	11.3	4.5	3.6	3.9	3.2	9.5					
Green Ext Time (p_c), s	0.0	3.5	0.1	0.4	0.0	1.0	0.0	2.0				

Intersection Summary

HCM 6th Ctrl Delay	25.8
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↗		↖	↗		↖	↑	↗
Traffic Volume (veh/h)	210	490	90	50	100	20	10	130	50	70	130	30
Future Volume (veh/h)	210	490	90	50	100	20	10	130	50	70	130	30
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	210	490	90	50	100	20	10	130	50	70	130	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	256	588	499	132	371	74	39	181	70	162	392	332
Arrive On Green	0.15	0.33	0.33	0.08	0.26	0.26	0.02	0.15	0.15	0.10	0.22	0.22
Sat Flow, veh/h	1697	1781	1510	1697	1441	288	1697	1225	471	1697	1781	1510
Grp Volume(v), veh/h	210	490	90	50	0	120	10	0	180	70	130	30
Grp Sat Flow(s),veh/h/ln	1697	1781	1510	1697	0	1730	1697	0	1697	1697	1781	1510
Q Serve(g_s), s	6.6	14.0	2.3	1.5	0.0	3.0	0.3	0.0	5.6	2.1	3.4	0.9
Cycle Q Clear(g_c), s	6.6	14.0	2.3	1.5	0.0	3.0	0.3	0.0	5.6	2.1	3.4	0.9
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.28	1.00		1.00
Lane Grp Cap(c), veh/h	256	588	499	132	0	445	39	0	251	162	392	332
V/C Ratio(X)	0.82	0.83	0.18	0.38	0.00	0.27	0.25	0.00	0.72	0.43	0.33	0.09
Avail Cap(c_a), veh/h	290	1061	899	247	0	986	277	0	924	308	1003	850
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	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.7	17.0	13.1	24.1	0.0	16.3	26.4	0.0	22.4	23.5	18.1	17.1
Incr Delay (d2), s/veh	13.7	3.2	0.2	0.7	0.0	0.3	1.2	0.0	3.8	0.7	0.5	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	8.3	5.2	0.7	0.6	0.0	1.1	0.1	0.0	2.2	0.8	1.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	20.2	13.3	24.8	0.0	16.6	27.7	0.0	26.2	24.2	18.6	17.2
LnGrp LOS	D	C	B	C	A	B	C	A	C	C	B	B
Approach Vol, veh/h		790			170			190			230	
Approach Delay, s/veh		23.7			19.0			26.3			20.1	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	23.2	5.9	17.1	12.9	19.2	9.9	13.1				
Change Period (Y+Rc), s	4.6	5.0	4.6	5.0	4.6	5.0	4.6	5.0				
Max Green Setting (Gmax), s	30.0	32.8	9.0	31.0	9.4	31.4	10.0	30.0				
Max Q Clear Time (g_c+1), s	13.5	16.0	2.3	5.4	8.6	5.0	4.1	7.6				
Green Ext Time (p_c), s	0.0	2.2	0.0	0.5	0.0	0.4	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
 97: Seefried Dwy/Pescadero Ave & Chrisman Road/Chrisman Rd

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↗		↘	↗	
Traffic Volume (veh/h)	20	1450	10	10	500	190	10	20	10	860	10	100
Future Volume (veh/h)	20	1450	10	10	500	190	10	20	10	860	10	100
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	20	1450	10	10	500	190	10	20	10	860	10	100
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	29	1294	592	16	1270	1188	16	44	22	699	61	614
Arrive On Green	0.02	0.38	0.38	0.01	0.38	0.38	0.01	0.04	0.04	0.41	0.44	0.44
Sat Flow, veh/h	1697	3385	1510	1697	3385	1510	1697	1120	560	1697	139	1392
Grp Volume(v), veh/h	20	1450	10	10	500	190	10	0	30	860	0	110
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1697	1692	1510	1697	0	1681	1697	0	1531
Q Serve(g_s), s	1.2	39.0	0.4	0.6	11.0	3.1	0.6	0.0	1.8	42.0	0.0	4.4
Cycle Q Clear(g_c), s	1.2	39.0	0.4	0.6	11.0	3.1	0.6	0.0	1.8	42.0	0.0	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		0.91
Lane Grp Cap(c), veh/h	29	1294	592	16	1270	1188	16	0	66	699	0	676
V/C Ratio(X)	0.69	1.12	0.02	0.61	0.39	0.16	0.61	0.00	0.46	1.23	0.00	0.16
Avail Cap(c_a), veh/h	83	1294	592	67	1270	1188	67	0	313	699	0	856
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	49.9	31.5	19.0	50.3	23.4	2.6	50.3	0.0	47.9	30.0	0.0	17.1
Incr Delay (d2), s/veh	25.9	64.9	0.0	31.3	0.2	0.1	31.3	0.0	4.8	116.2	0.0	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	0.7	26.3	0.1	0.4	4.2	0.6	0.4	0.0	0.8	38.9	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.8	96.4	19.0	81.6	23.6	2.7	81.6	0.0	52.8	146.2	0.0	17.3
LnGrp LOS	E	F	B	F	C	A	F	A	D	F	A	B
Approach Vol, veh/h		1480			700			40			970	
Approach Delay, s/veh		95.6			18.7			60.0			131.5	
Approach LOS		F			B			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	46.0	8.0	5.0	43.0	5.0	49.0	5.7	42.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	42.0	19.0	4.0	39.0	4.0	57.0	5.0	38.0				
Max Q Clear Time (g_c+Y+Rc), s	44.0	3.8	2.6	41.0	2.6	6.4	3.2	13.0				
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.0	0.7	0.0	3.8				

Intersection Summary

HCM 6th Ctrl Delay	89.2
HCM 6th LOS	F

Tracy Transportation Master Plan Update
 98: Chrisman Rd/Chrisman Road & Grant Line Rd

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↑ ↑		↖ ↗	↑ ↑	↖	↖	↑ ↑	↖	↖	↑ ↑	↖
Traffic Volume (veh/h)	590	1170	40	10	300	10	10	880	270	50	200	350
Future Volume (veh/h)	590	1170	40	10	300	10	10	880	270	50	200	350
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		No		No
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	590	1170	40	10	300	10	10	880	270	50	200	350
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	691	1661	57	82	538	240	343	1026	457	62	1328	592
Arrive On Green	0.21	0.34	0.34	0.03	0.16	0.16	0.30	0.30	0.30	0.04	0.39	0.39
Sat Flow, veh/h	3291	4829	165	3291	3385	1510	817	3385	1510	1697	3385	1510
Grp Volume(v), veh/h	590	785	425	10	300	10	10	880	270	50	200	350
Grp Sat Flow(s),veh/h/ln	1646	1621	1752	1646	1692	1510	817	1692	1510	1697	1692	1510
Q Serve(g_s), s	13.0	15.8	15.8	0.2	6.2	0.4	0.7	18.5	11.5	2.2	2.9	13.8
Cycle Q Clear(g_c), s	13.0	15.8	15.8	0.2	6.2	0.4	0.7	18.5	11.5	2.2	2.9	13.8
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	691	1115	603	82	538	240	343	1026	457	62	1328	592
V/C Ratio(X)	0.85	0.70	0.70	0.12	0.56	0.04	0.03	0.86	0.59	0.81	0.15	0.59
Avail Cap(c_a), veh/h	1004	1375	743	436	853	380	485	1615	720	112	2109	941
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	1.00	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	28.7	21.4	21.4	36.0	29.3	26.8	18.6	24.8	22.3	36.1	14.8	18.1
Incr Delay (d2), s/veh	3.5	0.8	1.5	0.6	0.3	0.0	0.0	1.7	0.5	21.8	0.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	5.4	5.9	0.1	2.3	0.1	0.1	6.9	3.8	1.2	1.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.2	22.2	22.9	36.6	29.6	26.9	18.6	26.4	22.8	57.9	14.9	19.1
LnGrp LOS	C	C	C	D	C	C	B	C	C	E	B	B
Approach Vol, veh/h		1800			320			1160			600	
Approach Delay, s/veh		25.6			29.7			25.5			20.9	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	32.0		35.6	21.8	18.0	6.7	28.9				
Change Period (Y+Rc), s	6.0	6.0		* 6	6.0	6.0	4.0	6.0				
Max Green Setting (Gmax), s	10.0	32.0		* 47	23.0	19.0	5.0	36.0				
Max Q Clear Time (g_c+1/2), s	10.0	17.8		15.8	15.0	8.2	4.2	20.5				
Green Ext Time (p_c), s	0.0	2.8		2.4	0.8	0.6	0.0	2.4				

Intersection Summary

HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖	↑↑	↖	↖	↑↑	↖
Traffic Volume (veh/h)	1000	1060	10	350	650	10	10	1090	920	430	100	110
Future Volume (veh/h)	1000	1060	10	350	650	10	10	1090	920	430	100	110
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	1000	1060	10	350	650	10	10	1090	0	430	100	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	549	790	352	219	451	201	721	1862		226	1862	
Arrive On Green	0.17	0.23	0.23	0.07	0.13	0.13	0.55	0.55	0.00	0.55	0.55	0.00
Sat Flow, veh/h	3291	3385	1510	3291	3385	1510	1233	3385	1510	493	3385	1510
Grp Volume(v), veh/h	1000	1060	10	350	650	10	10	1090	0	430	100	0
Grp Sat Flow(s),veh/h/ln	1646	1692	1510	1646	1692	1510	1233	1692	1510	493	1692	1510
Q Serve(g_s), s	20.0	28.0	0.6	8.0	16.0	0.7	0.5	25.7	0.0	40.3	1.6	0.0
Cycle Q Clear(g_c), s	20.0	28.0	0.6	8.0	16.0	0.7	2.1	25.7	0.0	66.0	1.6	0.0
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	549	790	352	219	451	201	721	1862		226	1862	
V/C Ratio(X)	1.82	1.34	0.03	1.60	1.44	0.05	0.01	0.59		1.91	0.05	
Avail Cap(c_a), veh/h	549	790	352	219	451	201	721	1862		226	1862	
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.0	46.0	35.5	56.0	52.0	45.4	13.0	17.9	0.0	45.2	12.5	0.0
Incr Delay (d2), s/veh	377.4	162.4	0.1	288.2	210.4	0.2	0.0	1.1	0.0	423.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh	36.7	29.1	0.2	12.0	19.7	0.3	0.1	9.5	0.0	33.4	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	427.4	208.4	35.6	344.2	262.4	45.6	13.0	19.0	0.0	468.6	12.6	0.0
LnGrp LOS	F	F	D	F	F	D	B	B		F	B	
Approach Vol, veh/h		2070			1010			1100	A		530	A
Approach Delay, s/veh		313.4			288.6			19.0			382.6	
Approach LOS		F			F			B			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	34.0	34.0		72.0	26.0	22.0		72.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	30.0	28.0		66.0	20.0	16.0		66.0				
Max Q Clear Time (g_c+110), s	30.0	30.0		68.0	22.0	18.0		27.7				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		18.5				

Intersection Summary

HCM 6th Ctrl Delay	247.1
HCM 6th LOS	F

Notes

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



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	960	360	100	470	330	130
Future Volume (veh/h)	960	360	100	470	330	130
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	960	360	100	470	330	130
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	1046	930	126	920	479	376
Arrive On Green	0.62	0.62	0.07	0.27	0.14	0.14
Sat Flow, veh/h	1697	1510	1697	3474	3474	2657
Grp Volume(v), veh/h	960	360	100	470	330	130
Grp Sat Flow(s),veh/h/ln	1697	1510	1697	1692	1692	1329
Q Serve(g_s), s	35.7	8.6	4.1	8.4	6.6	3.2
Cycle Q Clear(g_c), s	35.7	8.6	4.1	8.4	6.6	3.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1046	930	126	920	479	376
V/C Ratio(X)	0.92	0.39	0.79	0.51	0.69	0.35
Avail Cap(c_a), veh/h	1259	1120	143	1374	900	707
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	12.1	6.9	32.5	22.0	29.2	27.7
Incr Delay (d2), s/veh	9.6	0.3	23.5	0.4	1.8	0.5
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	2.4	3.0	2.6	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.7	7.2	56.0	22.4	30.9	28.2
LnGrp LOS	C	A	E	C	C	C
Approach Vol, veh/h	1320			570	460	
Approach Delay, s/veh	17.8			28.3	30.2	
Approach LOS	B			C	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		23.4		48.0	9.3	14.1
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		29.0		53.0	6.0	19.0
Max Q Clear Time (g_c+I1), s		10.4		37.7	6.1	8.6
Green Ext Time (p_c), s		1.9		6.3	0.0	1.5
Intersection Summary						
HCM 6th Ctrl Delay			22.7			
HCM 6th LOS			C			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖	↗	↖	↗		↖	↗	↖
Traffic Volume (veh/h)	230	10	420	40	40	110	30	200	10	20	570	120
Future Volume (veh/h)	230	10	420	40	40	110	30	200	10	20	570	120
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	230	10	420	40	40	0	30	200	10	20	570	120
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	760	14	585	294	222		388	1013	50	561	1045	466
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.00	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1302	35	1480	237	563	1510	717	3281	163	1116	3385	1510
Grp Volume(v), veh/h	230	0	430	80	0	0	30	103	107	20	570	120
Grp Sat Flow(s),veh/h/ln	1302	0	1515	800	0	1510	717	1692	1752	1116	1692	1510
Q Serve(g_s), s	0.0	0.0	6.5	0.3	0.0	0.0	1.0	1.2	1.2	0.4	3.8	1.6
Cycle Q Clear(g_c), s	3.8	0.0	6.5	6.8	0.0	0.0	4.8	1.2	1.2	1.6	3.8	1.6
Prop In Lane	1.00		0.98	0.50		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	760	0	599	516	0		388	523	541	561	1045	466
V/C Ratio(X)	0.30	0.00	0.72	0.16	0.00		0.08	0.20	0.20	0.04	0.55	0.26
Avail Cap(c_a), veh/h	1162	0	1066	888	0		644	1128	1167	960	2255	1006
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.1	0.0	6.9	5.6	0.0	0.0	9.7	6.9	6.9	7.5	7.8	7.0
Incr Delay (d2), s/veh	0.2	0.0	1.6	0.1	0.0	0.0	0.1	0.2	0.2	0.0	0.4	0.3
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	0.3	0.0	0.9	0.2	0.0	0.0	0.1	0.2	0.2	0.0	0.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.3	0.0	8.5	5.7	0.0	0.0	9.8	7.1	7.1	7.5	8.2	7.3
LnGrp LOS	A	A	A	A	A		A	A	A	A	A	A
Approach Vol, veh/h		660			80	A		240			710	
Approach Delay, s/veh		7.8			5.7			7.4			8.0	
Approach LOS		A			A			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		12.3		14.7		12.3		14.7				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		18.0		19.0		18.0		19.0				
Max Q Clear Time (g_c+I1), s		6.8		8.5		5.8		8.8				
Green Ext Time (p_c), s		0.7		2.2		2.6		0.2				

Intersection Summary

HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] 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)	580	310	70	530	70	10	70	1160	1820	10	390	30
Future Volume (veh/h)	580	310	70	530	70	10	70	1160	1820	10	390	30
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	580	310	70	530	70	10	70	1160	1820	10	390	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	1027	267	60	623	103	15	579	1526	1701	16	580	651
Arrive On Green	0.31	0.19	0.19	0.19	0.07	0.07	0.34	0.45	0.45	0.01	0.12	0.12
Sat Flow, veh/h	3291	1407	318	3291	1524	218	1697	3385	2657	1697	4863	1510
Grp Volume(v), veh/h	580	0	380	530	0	80	70	1160	1820	10	390	30
Grp Sat Flow(s),veh/h/ln	1646	0	1724	1646	0	1742	1697	1692	1329	1697	1621	1510
Q Serve(g_s), s	14.7	0.0	19.0	15.6	0.0	4.5	2.8	28.6	30.9	0.6	7.7	0.0
Cycle Q Clear(g_c), s	14.7	0.0	19.0	15.6	0.0	4.5	2.8	28.6	30.9	0.6	7.7	0.0
Prop In Lane	1.00		0.18	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1027	0	328	623	0	117	579	1526	1701	16	580	651
V/C Ratio(X)	0.56	0.00	1.16	0.85	0.00	0.68	0.12	0.76	1.07	0.61	0.67	0.05
Avail Cap(c_a), veh/h	1027	0	328	856	0	331	579	1526	1701	68	1410	909
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)	0.79	0.00	0.79	1.00	0.00	1.00	0.41	0.41	0.41	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	0.0	40.5	39.2	0.0	45.6	22.6	22.9	9.4	49.3	42.2	16.5
Incr Delay (d2), s/veh	0.6	0.0	95.6	6.1	0.0	6.8	0.0	1.5	37.0	31.1	6.1	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	5.7	0.0	16.5	6.7	0.0	2.2	1.1	10.5	13.3	0.4	3.2	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	0.0	136.1	45.2	0.0	52.4	22.7	24.4	46.4	80.4	48.3	16.6
LnGrp LOS	C	A	F	D	A	D	C	C	F	F	D	B
Approach Vol, veh/h		960		610			3050			430		
Approach Delay, s/veh		71.6		46.2			37.5			46.8		
Approach LOS		E		D			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	49.1	22.9	23.0	38.1	15.9	35.2	10.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	35.0	26.0	19.0	10.0	29.0	26.0	19.0				
Max Q Clear Time (g_c+1), s	12.6	32.9	17.6	21.0	4.8	9.7	16.7	6.5				
Green Ext Time (p_c), s	0.0	2.0	1.4	0.0	0.0	2.2	1.6	0.2				

Intersection Summary

HCM 6th Ctrl Delay	45.8
HCM 6th LOS	D

Tracy Transportation Master Plan Update
 103: Paradise Rd & I-205 WB On-Ramp/I-205 WB-Off Ramp

Future 2042
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖ ↗	↖	↗		↑ ↑ ↑	↗		↑ ↑	↖ ↗
Traffic Volume (veh/h)	0	0	0	440	0	70	0	2970	10	0	320	670
Future Volume (veh/h)	0	0	0	440	0	70	0	2970	10	0	320	670
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		No		No
Adj Sat Flow, veh/h/ln				1781	1781	1781	0	1781	1781	0	1781	1781
Adj Flow Rate, veh/h				440	0	70	0	2970	10	0	320	670
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				8	8	8	0	8	8	0	8	8
Cap, veh/h				653	0	194	0	3720	1155	0	2589	2033
Arrive On Green				0.13	0.00	0.13	0.00	0.76	0.76	0.00	0.76	0.76
Sat Flow, veh/h				5090	0	1510	0	5024	1510	0	3474	2657
Grp Volume(v), veh/h				440	0	70	0	2970	10	0	320	670
Grp Sat Flow(s),veh/h/ln				1697	0	1510	0	1621	1510	0	1692	1329
Q Serve(g_s), s				6.2	0.0	3.2	0.0	27.6	0.1	0.0	1.8	5.9
Cycle Q Clear(g_c), s				6.2	0.0	3.2	0.0	27.6	0.1	0.0	1.8	5.9
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				653	0	194	0	3720	1155	0	2589	2033
V/C Ratio(X)				0.67	0.00	0.36	0.00	0.80	0.01	0.00	0.12	0.33
Avail Cap(c_a), veh/h				1222	0	362	0	3720	1155	0	2589	2033
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	1.00	0.00	0.39	0.39	0.00	0.83	0.83
Uniform Delay (d), s/veh				31.2	0.0	29.9	0.0	5.3	2.1	0.0	2.3	2.8
Incr Delay (d2), s/veh				1.2	0.0	1.1	0.0	0.7	0.0	0.0	0.1	0.4
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				2.5	0.0	1.2	0.0	3.1	0.0	0.0	0.3	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				32.4	0.0	31.0	0.0	6.1	2.1	0.0	2.4	3.1
LnGrp LOS				C	A	C	A	A	A	A	A	A
Approach Vol, veh/h					510			2980			990	
Approach Delay, s/veh					32.2			6.0			2.9	
Approach LOS					C			A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		61.4				61.4		13.6				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		49.0				49.0		18.0				
Max Q Clear Time (g_c+I1), s		29.6				7.9		8.2				
Green Ext Time (p_c), s		17.8				5.4		1.4				

Intersection Summary

HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Tracy Transportation Master Plan Update
 104: Paradise Rd & I-205 EB Off-Ramp/I-205 EB On-Ramp

Future 2042
 Timing Plan: PM Peak Hour



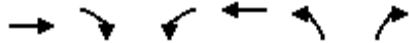
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↖	↗ ↘					↑ ↑ ↑	↖ ↗	↖	↑ ↑ ↑	
Traffic Volume (veh/h)	600	0	20	0	0	0	0	2380	1180	60	690	0
Future Volume (veh/h)	600	0	20	0	0	0	0	2380	1180	60	690	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				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	1781	1781	1781				0	1781	1781	1781	1781	0
Adj Flow Rate, veh/h	600	0	20				0	2380	1180	60	690	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8				0	8	8	8	8	0
Cap, veh/h	835	0	495				0	3019	1649	74	3510	0
Arrive On Green	0.16	0.00	0.16				0.00	0.62	0.62	0.04	0.72	0.00
Sat Flow, veh/h	5090	0	3019				0	5024	2657	1697	5024	0
Grp Volume(v), veh/h	600	0	20				0	2380	1180	60	690	0
Grp Sat Flow(s),veh/h/ln	1697	0	1510				0	1621	1329	1697	1621	0
Q Serve(g_s), s	7.8	0.0	0.4				0.0	25.4	21.2	2.5	3.2	0.0
Cycle Q Clear(g_c), s	7.8	0.0	0.4				0.0	25.4	21.2	2.5	3.2	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	835	0	495				0	3019	1649	74	3510	0
V/C Ratio(X)	0.72	0.00	0.04				0.00	0.79	0.72	0.81	0.20	0.00
Avail Cap(c_a), veh/h	1309	0	776				0	3019	1649	97	3510	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	1.00				0.00	0.42	0.42	0.95	0.95	0.00
Uniform Delay (d), s/veh	27.7	0.0	24.6				0.0	9.9	9.1	33.2	3.2	0.0
Incr Delay (d2), s/veh	1.2	0.0	0.0				0.0	0.9	1.1	29.0	0.1	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	3.1	0.0	0.1				0.0	5.9	4.1	1.5	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.9	0.0	24.7				0.0	10.8	10.2	62.2	3.3	0.0
LnGrp LOS	C	A	C				A	B	B	E	A	A
Approach Vol, veh/h		620						3560			750	
Approach Delay, s/veh		28.8						10.6			8.0	
Approach LOS		C						B			A	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	7.1	47.5	15.5	54.5								
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0								
Max Green Setting (Gmax), s	4.0	36.0	18.0	44.0								
Max Q Clear Time (g_c+I), s	4.5	27.4	9.8	5.2								
Green Ext Time (p_c), s	0.0	8.2	1.7	5.1								

Intersection Summary

HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑		↘↘	↑↑↑	↘	↘↘↘
Traffic Volume (veh/h)	2270	40	70	640	50	1290
Future Volume (veh/h)	2270	40	70	640	50	1290
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	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	2270	40	70	640	50	1290
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8
Cap, veh/h	2547	45	157	2260	661	1342
Arrive On Green	0.34	0.34	0.05	0.46	0.39	0.39
Sat Flow, veh/h	7738	130	3291	5024	1697	3442
Grp Volume(v), veh/h	1771	539	70	640	50	1290
Grp Sat Flow(s),veh/h/ln	1443	1758	1646	1621	1697	1147
Q Serve(g_s), s	16.0	16.0	1.1	4.5	1.0	20.1
Cycle Q Clear(g_c), s	16.0	16.0	1.1	4.5	1.0	20.1
Prop In Lane		0.07	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1987	605	157	2260	661	1342
V/C Ratio(X)	0.89	0.89	0.45	0.28	0.08	0.96
Avail Cap(c_a), veh/h	1994	607	239	2387	661	1342
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.98	0.98	0.09	0.09
Uniform Delay (d), s/veh	17.1	17.1	25.5	9.1	10.5	16.4
Incr Delay (d2), s/veh	0.5	1.7	1.9	0.1	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	5.3	0.4	1.1	0.3	4.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.6	18.8	27.4	9.1	10.6	19.0
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	2310			710	1340	
Approach Delay, s/veh	17.9			10.9	18.7	
Approach LOS	B			B	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		25.4	6.6	22.9		29.6
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s		20.0	4.0	19.0		27.0
Max Q Clear Time (g_c+I1), s		22.1	3.1	18.0		6.5
Green Ext Time (p_c), s		0.0	0.0	1.0		3.9
Intersection Summary						
HCM 6th Ctrl Delay			17.0			
HCM 6th LOS			B			

Tracy Transportation Master Plan Update
106: PARADISE RD & GRANT LINE RD

Future 2042
Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	750	740	10	30	300	30	10	410	80	60	10	10
Future Volume (veh/h)	750	740	10	30	300	30	10	410	80	60	10	10
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	750	740	10	30	300	30	10	410	80	60	10	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	696	1700	758	37	385	172	16	378	74	63	515	768
Arrive On Green	0.41	0.50	0.50	0.02	0.11	0.11	0.01	0.26	0.26	0.04	0.29	0.29
Sat Flow, veh/h	1697	3385	1510	1697	3385	1510	1697	1448	283	1697	1781	2657
Grp Volume(v), veh/h	750	740	10	30	300	30	10	0	490	60	10	10
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1697	1692	1510	1697	0	1731	1697	1781	1329
Q Serve(g_s), s	44.0	14.9	0.4	1.9	9.2	1.9	0.6	0.0	28.0	3.8	0.4	0.3
Cycle Q Clear(g_c), s	44.0	14.9	0.4	1.9	9.2	1.9	0.6	0.0	28.0	3.8	0.4	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	696	1700	758	37	385	172	16	0	452	63	515	768
V/C Ratio(X)	1.08	0.44	0.01	0.80	0.78	0.17	0.61	0.00	1.08	0.95	0.02	0.01
Avail Cap(c_a), veh/h	696	1989	887	95	789	352	63	0	452	63	515	768
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	17.0	13.4	52.2	46.2	42.9	52.9	0.0	39.6	51.5	27.3	27.2
Incr Delay (d2), s/veh	56.8	0.1	0.0	31.2	1.3	0.2	32.0	0.0	66.9	94.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.5	5.3	0.1	1.1	3.8	0.7	0.4	0.0	20.0	3.2	0.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.4	17.1	13.4	83.4	47.5	43.1	84.9	0.0	106.5	145.9	27.3	27.2
LnGrp LOS	F	B	B	F	D	D	F	A	F	F	C	C
Approach Vol, veh/h		1500			360			500			80	
Approach Delay, s/veh		52.7			50.1			106.1			116.3	
Approach LOS		D			D			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.4	59.8	8.0	33.0	48.0	18.2	5.0	36.0				
Change Period (Y+Rc), s	4.0	6.0	4.0	5.0	4.0	6.0	4.0	5.0				
Max Green Setting (Gmax), s	6.0	63.0	4.0	28.0	44.0	25.0	4.0	28.0				
Max Q Clear Time (g_c+1), s	13.5	16.9	5.8	30.0	46.0	11.2	2.6	2.4				
Green Ext Time (p_c), s	0.0	3.3	0.0	0.0	0.0	1.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	65.3
HCM 6th LOS	E

DRAFT

LANE SUMMARY

Site: 101 [AM Peak Hour (Site Folder: General)]

Intersection 107 Eleventh & Grant Line

Site Category: (None)

Roundabout

Lane Use and Performance													
	DEMAND FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
	[Total veh/h	HV %						[Veh	Dist] ft				
South: Eleventh St													
Lane 1 ^d	669	3.0	985	0.679	100	14.4	LOS B	8.8	225.3	Full	1600	0.0	0.0
Lane 2	255	3.0	985	0.258	38 ⁶	6.2	LOS A	1.1	28.6	Full	1600	0.0	0.0
Lane 3	348	3.0	1626	0.214	31 ⁵	7.4	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	1272	3.0		0.679		10.8	LOS B	8.8	225.3				
East: Kasson Rd													
Lane 1 ^d	2283	3.0	585	3.904	100	1328.0	LOS F	552.7	14149.8	Full	1600	0.0	100.0
Approach	2283	3.0		3.904		1328.0	LOS F	552.7	14149.8				
North: Eleventh St													
Lane 1	1000	3.0	760	1.316	100	169.5	LOS F	94.3	2413.0	Full	1600	0.0	18.9
Lane 2 ^d	1000	3.0	760	1.316	100	170.7	LOS F	94.3	2413.0	Full	1600	0.0	18.9
Approach	2000	3.0		1.316		170.1	LOS F	94.3	2413.0				
West: W. Grant Line Rd													
Lane 1 ^d	489	3.0	341	1.435	100	244.0	LOS F	54.4	1392.7	Full	1600	0.0	1.0
Approach	489	3.0		1.435		244.0	LOS F	54.4	1392.7				
Intersection	6043	3.0		3.904		579.9	LOS F	552.7	14149.8				

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.

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁵ Lane under-utilisation found by the program

⁶ Lane under-utilisation due to downstream effects

^d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Eleventh St											
Mov. From S To Exit:	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	W	N	E								
Lane 1	54	615	-	669	3.0	985	0.679	100	NA	NA	
Lane 2	-	255	-	255	3.0	985	0.258	38 ⁶	NA	NA	
Lane 3	-	-	348	348	3.0	1626	0.214	31 ⁵	NA	NA	
Approach	54	870	348	1272	3.0		0.679				

East: Kasson Rd										
Mov.	L2	T1	R2	Total	%HV					
From E To Exit:	S	W	N			Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1228	1043	11	2283	3.0	585	3.904	100	NA	NA
Approach	1228	1043	11	2283	3.0		3.904			
North: Eleventh St										
Mov.	L2	T1	R2	Total	%HV					
From N To Exit:	E	S	W			Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	11	989	-	1000	3.0	760	1.316	100	NA	NA
Lane 2	-	707	293	1000	3.0	760	1.316	100	NA	NA
Approach	11	1696	293	2000	3.0		1.316			
West: W. Grant Line Rd										
Mov.	L2	T1	R2	Total	%HV					
From W To Exit:	N	E	S			Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	76	402	11	489	3.0	341	1.435	100	NA	NA
Approach	76	402	11	489	3.0		1.435			
Total		%HV Deg.Satn (v/c)								
Intersection	6043	3.0	3.904							

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

- 5 Lane under-utilisation found by the program
- 6 Lane under-utilisation due to downstream effects

Merge Analysis												
	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
South Exit: Eleventh St Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
East Exit: Kasson Rd Merge Type: Priority												
Exit Short Lane	2	200	0.0	8	9	3.00	2.00	280	1792	0.156	2.0	3.2
Merge Lane	1	-	100.0	Merge Lane is not Opposed			8	1800	0.005	0.0	0.0	
East Exit: Kasson Rd Merge Type: Priority												
Exit Short Lane	3	200	0.0	280	289	3.00	2.00	348	1532	0.227	2.4	4.2
Merge Lane	2	200	100.0	Merge Lane is not Opposed			280	1800	0.156	0.0	0.0	
North Exit: Eleventh St Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
West Exit: W. Grant Line Rd Merge Type: Priority												
Exit Short Lane	2	200	0.0	54	56	3.00	2.00	490	1745	0.281	2.1	4.3
Merge Lane	1	-	100.0	Merge Lane is not Opposed			54	1800	0.030	0.0	0.0	

Lane 1	391	337	11	739	3.0	461	1.603	100	NA	NA
Approach	391	337	11	739	3.0		1.603			
North: Eleventh St										
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.
From N						Cap.	Satn	Util.	SL Ov.	Lane
To Exit:	E	S	W			veh/h	v/c	%	%	No.
Lane 1	11	370	-	380	3.0	879	0.433	100	NA	NA
Lane 2	-	326	54	380	3.0	879	0.433	100	NA	NA
Approach	11	696	54	761	3.0		0.433			
West: W. Grant Line Rd										
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.
From W						Cap.	Satn	Util.	SL Ov.	Lane
To Exit:	N	E	S			veh/h	v/c	%	%	No.
Lane 1	359	609	11	978	3.0	596	1.643	100	NA	NA
Approach	359	609	11	978	3.0		1.643			
Total %HV Deg.Satn (v/c)										
Intersection	4522	3.0		1.643						

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

- 5 Lane under-utilisation found by the program
- 6 Lane under-utilisation due to downstream effects

Merge Analysis												
	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: Eleventh St Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
East Exit: Kasson Rd Merge Type: Priority												
Exit Short Lane	2	200	0.0	11	11	3.00	2.00	371	1789	0.207	2.0	3.6
Merge Lane	1	-	100.0	Merge Lane is not Opposed				11	1800	0.006	0.0	0.0
East Exit: Kasson Rd Merge Type: Priority												
Exit Short Lane	3	200	0.0	371	382	3.00	2.00	1000	1453	0.688	2.5	11.2
Merge Lane	2	200	100.0	Merge Lane is not Opposed				371	1800	0.206	0.0	0.0
North Exit: Eleventh St Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
West Exit: W. Grant Line Rd Merge Type: Priority												
Exit Short Lane	2	200	0.0	11	11	3.00	2.00	265	1789	0.148	2.0	3.1
Merge Lane	1	-	100.0	Merge Lane is not Opposed				11	1800	0.006	0.0	0.0



APPENDIX C

LEVEL OF SERVICE CALCULATION WORKSHEETS WITHOUT CUT-THROUGH TRAFFIC AND PEAK SPREADING

DRAFT

Tracy 2020 TMP
1: International Pkwy & I-205 WB On-Ramp

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕↕	↕	↕↕			↕↕↕	↕
Traffic Volume (veh/h)	0	0	0	564	323	178	8	167	0	0	647	656
Future Volume (veh/h)	0	0	0	564	323	178	8	167	0	0	647	656
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				1678	1678	1678	1678	1678	0	0	1678	1678
Adj Flow Rate, veh/h				620	355	196	9	184	0	0	711	721
Peak Hour Factor				0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %				15	15	15	15	15	0	0	15	15
Cap, veh/h				417	239	1008	29	1507	0	0	1846	573
Arrive On Green				0.42	0.40	0.40	0.02	0.47	0.00	0.00	0.40	0.40
Sat Flow, veh/h				1034	592	2502	1598	3272	0	0	4731	1422
Grp Volume(v), veh/h				975	0	196	9	184	0	0	711	721
Grp Sat Flow(s),veh/h/ln				1626	0	1251	1598	1594	0	0	1527	1422
Q Serve(g_s), s				35.0	0.0	4.4	0.5	2.8	0.0	0.0	9.5	35.0
Cycle Q Clear(g_c), s				35.0	0.0	4.4	0.5	2.8	0.0	0.0	9.5	35.0
Prop In Lane				0.64		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				655	0	1008	29	1507	0	0	1846	573
V/C Ratio(X)				1.49	0.00	0.19	0.31	0.12	0.00	0.00	0.39	1.26
Avail Cap(c_a), veh/h				655	0	1008	644	1507	0	0	1846	573
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	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				25.6	0.0	16.8	42.1	12.8	0.0	0.0	18.3	25.9
Incr Delay (d2), s/veh				227.7	0.0	0.1	2.3	0.0	0.0	0.0	0.0	130.0
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				53.7	0.0	1.2	0.2	0.9	0.0	0.0	3.0	31.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				253.3	0.0	16.9	44.4	12.8	0.0	0.0	18.4	156.0
LnGrp LOS				F	A	B	D	B	A	A	B	F
Approach Vol, veh/h					1171			193			1432	
Approach Delay, s/veh					213.7			14.3			87.6	
Approach LOS					F			B			F	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		46.8			6.1	40.7		40.1				
Change Period (Y+Rc), s		5.7			4.5	5.7		5.1				
Max Green Setting (Gmax), s		35.0			35.0	35.0		35.0				
Max Q Clear Time (g_c+I1), s		4.8			2.5	37.0		37.0				
Green Ext Time (p_c), s		0.7			0.0	0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				135.4								
HCM 6th LOS				F								

Tracy 2020 TMP
 2: International Pkwy & I-205 EB Off-Ramp/I-205 EB On-Ramp

Existing
 Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↖	↗					↑↑	↗		↑↑	
Traffic Volume (veh/h)	48	0	28	0	0	0	0	127	154	0	1056	0
Future Volume (veh/h)	48	0	28	0	0	0	0	127	154	0	1056	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	1678	1678	1678				0	1678	1678	0	1678	0
Adj Flow Rate, veh/h	51	0	29				0	134	162	0	1112	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, %	15	15	15				0	15	15	0	15	0
Cap, veh/h	415	0	185				0	1618	722	0	1618	0
Arrive On Green	0.13	0.00	0.13				0.00	0.51	0.51	0.00	0.51	0.00
Sat Flow, veh/h	3196	0	1422				0	3272	1422	0	3355	0
Grp Volume(v), veh/h	51	0	29				0	134	162	0	1112	0
Grp Sat Flow(s),veh/h/ln	1598	0	1422				0	1594	1422	0	1594	0
Q Serve(g_s), s	0.4	0.0	0.5				0.0	0.6	1.9	0.0	7.9	0.0
Cycle Q Clear(g_c), s	0.4	0.0	0.5				0.0	0.6	1.9	0.0	7.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	415	0	185				0	1618	722	0	1618	0
V/C Ratio(X)	0.12	0.00	0.16				0.00	0.08	0.22	0.00	0.69	0.00
Avail Cap(c_a), veh/h	3753	0	1670				0	3743	1670	0	3743	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	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	11.5	0.0	11.5				0.0	3.8	4.1	0.0	5.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1				0.0	0.0	0.1	0.0	0.2	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	0.1	0.0	0.1				0.0	0.0	0.1	0.0	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.5	0.0	11.7				0.0	3.8	4.1	0.0	5.7	0.0
LnGrp LOS	B	A	B				A	A	A	A	A	A
Approach Vol, veh/h	80						296			1112		
Approach Delay, s/veh	11.6						4.0			5.7		
Approach LOS	B						A			A		
Timer - Assigned Phs	2		4		6							
Phs Duration (G+Y+Rc), s	20.8		9.0		20.8							
Change Period (Y+Rc), s	5.7		5.1		5.7							
Max Green Setting (Gmax), s	35.0		35.0		35.0							
Max Q Clear Time (g_c+I1), s	3.9		2.5		9.9							
Green Ext Time (p_c), s	0.7		0.0		5.3							

Intersection Summary

HCM 6th Ctrl Delay	5.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Tracy 2020 TMP
4: International Pkwy & Promontory Pkwy

Existing
Timing Plan: AM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↑	↑	↗
Traffic Volume (veh/h)	2	2	4	294	854	14
Future Volume (veh/h)	2	2	4	294	854	14
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	1678	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	2	2	4	323	938	15
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	15	15	15	15	15	15
Cap, veh/h	9	8	9	1278	1110	940
Arrive On Green	0.01	0.01	0.01	0.76	0.66	0.66
Sat Flow, veh/h	1598	1422	1598	1678	1678	1422
Grp Volume(v), veh/h	2	2	4	323	938	15
Grp Sat Flow(s),veh/h/ln	1598	1422	1598	1678	1678	1422
Q Serve(g_s), s	0.1	0.1	0.1	2.4	18.1	0.2
Cycle Q Clear(g_c), s	0.1	0.1	0.1	2.4	18.1	0.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	9	8	9	1278	1110	940
V/C Ratio(X)	0.23	0.26	0.46	0.25	0.85	0.02
Avail Cap(c_a), veh/h	759	675	759	1594	1594	1351
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	20.8	20.9	20.9	1.5	5.5	2.4
Incr Delay (d2), s/veh	13.0	16.8	33.7	0.1	3.0	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	0.0	0.1	0.1	0.0	3.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.8	37.6	54.6	1.6	8.5	2.4
LnGrp LOS	C	D	D	A	A	A
Approach Vol, veh/h	4			327	953	
Approach Delay, s/veh	35.7			2.2	8.4	
Approach LOS	D			A	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	4.2	33.6		4.2		37.9
Change Period (Y+Rc), s	4.0	5.8		4.0		5.8
Max Green Setting (Gmax), s	20.0	40.0		20.0		40.0
Max Q Clear Time (g_c+I), s	12.1	20.1		2.1		4.4
Green Ext Time (p_c), s	0.0	7.8		0.0		2.1
Intersection Summary						
HCM 6th Ctrl Delay			6.9			
HCM 6th LOS			A			

Tracy 2020 TMP
5: Mountain House Parkway/International Pkwy & Old Schulte Road

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙↗	↑	↗	↙	↑↑	↗	↙↗	↑↑	↗
Traffic Volume (veh/h)	29	22	219	676	74	152	66	106	180	105	860	27
Future Volume (veh/h)	29	22	219	676	74	152	66	106	180	105	860	27
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	1060	1589	1678	1060	1589	1324	1060	1589	1678	1060	1589	1678
Adj Flow Rate, veh/h	31	24	235	727	80	163	71	114	194	113	925	29
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	15	15	15	15	15	15	15	15	15	15	15	15
Cap, veh/h	71	471	221	611	633	529	80	724	339	144	707	332
Arrive On Green	0.07	0.16	0.16	0.31	0.40	0.40	0.08	0.24	0.24	0.07	0.23	0.23
Sat Flow, veh/h	1009	3020	1416	1958	1589	1121	1009	3020	1416	1958	3020	1416
Grp Volume(v), veh/h	31	24	235	727	80	163	71	114	194	113	925	29
Grp Sat Flow(s),veh/h/ln	1009	1510	1416	979	1589	1121	1009	1510	1416	979	1510	1416
Q Serve(g_s), s	3.8	0.9	20.0	40.0	4.1	11.5	8.9	3.8	15.5	7.3	30.0	2.1
Cycle Q Clear(g_c), s	3.8	0.9	20.0	40.0	4.1	11.5	8.9	3.8	15.5	7.3	30.0	2.1
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	71	471	221	611	633	529	80	724	339	144	707	332
V/C Ratio(X)	0.44	0.05	1.06	1.19	0.13	0.31	0.89	0.16	0.57	0.78	1.31	0.09
Avail Cap(c_a), veh/h	158	471	221	611	633	529	158	825	387	382	707	332
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	1.00	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	57.1	46.0	54.1	44.1	24.4	20.9	58.4	38.5	42.9	58.4	49.1	38.4
Incr Delay (d2), s/veh	4.2	0.0	78.2	100.9	0.1	0.3	25.9	0.1	1.5	9.0	148.8	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	0.0	0.3	11.7	17.9	1.5	3.0	2.8	1.4	5.4	1.9	25.5	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.3	46.0	132.2	145.0	24.5	21.3	84.3	38.6	44.5	67.3	197.8	38.5
LnGrp LOS	E	D	F	F	C	C	F	D	D	E	F	D
Approach Vol, veh/h		290			970			379			1067	
Approach Delay, s/veh		117.5			114.2			50.2			179.7	
Approach LOS		F			F			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.4	37.7	47.0	27.0	17.1	37.0	16.0	58.0				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	25.0	35.0	40.0	20.0	20.0	30.0	20.0	20.0				
Max Q Clear Time (g_c+1), s	19.3	17.5	42.0	22.0	10.9	32.0	5.8	13.5				
Green Ext Time (p_c), s	0.3	1.1	0.0	0.0	0.1	0.0	0.0	0.5				

Intersection Summary

HCM 6th Ctrl Delay	131.4
HCM 6th LOS	F

Notes

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

Tracy 2020 TMP
6: International Pkwy & I-580 WB Off-Ramp

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕		↕			↕	↕
Traffic Volume (veh/h)	0	0	0	381	1	269	2	92	0	0	958	827
Future Volume (veh/h)	0	0	0	381	1	269	2	92	0	0	958	827
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		No		
Adj Sat Flow, veh/h/ln				1678	1678	1678	1678	1678	0	0	1678	1678
Adj Flow Rate, veh/h				410	1	0	2	99	0	0	1030	889
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				15	15	15	15	15	0	0	15	15
Cap, veh/h				731	2		2	118	0	0	624	529
Arrive On Green				0.46	0.46	0.00	0.07	0.07	0.00	0.00	0.37	0.37
Sat Flow, veh/h				1594	4	1422	33	1643	0	0	1678	1422
Grp Volume(v), veh/h				411	0	0	101	0	0	0	1030	889
Grp Sat Flow(s),veh/h/ln				1598	0	1422	1676	0	0	0	1678	1422
Q Serve(g_s), s				31.9	0.0	0.0	10.1	0.0	0.0	0.0	63.2	63.2
Cycle Q Clear(g_c), s				31.9	0.0	0.0	10.1	0.0	0.0	0.0	63.2	63.2
Prop In Lane				1.00		1.00	0.02		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				733	0		120	0	0	0	624	529
V/C Ratio(X)				0.56	0.00		0.84	0.00	0.00	0.00	1.65	1.68
Avail Cap(c_a), veh/h				733	0		288	0	0	0	624	529
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	0.99	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				33.6	0.0	0.0	78.0	0.0	0.0	0.0	53.4	53.4
Incr Delay (d2), s/veh				3.1	0.0	0.0	5.8	0.0	0.0	0.0	300.3	315.0
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				13.1	0.0	0.0	4.5	0.0	0.0	0.0	77.9	68.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				36.7	0.0	0.0	83.8	0.0	0.0	0.0	353.7	368.4
LnGrp LOS				D	A		F	A	A	A	F	F
Approach Vol, veh/h				411		A		101			1919	
Approach Delay, s/veh				36.7				83.8			360.5	
Approach LOS				D				F			F	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		18.0				69.0		83.0				
Change Period (Y+Rc), s		5.8				5.8		5.1				
Max Green Setting (Gmax), s		29.2				63.2		60.9				
Max Q Clear Time (g_c+I1), s		12.1				65.2		33.9				
Green Ext Time (p_c), s		0.1				0.0		0.4				

Intersection Summary

HCM 6th Ctrl Delay	294.3
HCM 6th LOS	F

Notes

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

Tracy 2020 TMP
7: International Pkwy & I-580 EB Off-Ramp

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕	↗		↕	
Traffic Volume (veh/h)	85	2	14	0	0	0	0	12	11	108	1230	0
Future Volume (veh/h)	85	2	14	0	0	0	0	12	11	108	1230	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	1678	1678	1678				0	1678	1678	1678	1678	0
Adj Flow Rate, veh/h	91	2	0				0	13	12	116	1323	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	15	15	15				0	15	15	15	15	0
Cap, veh/h	107	2					0	172	146	98	1122	0
Arrive On Green	0.07	0.07	0.00				0.00	0.10	0.10	0.73	0.73	0.00
Sat Flow, veh/h	1565	34	1422				0	1678	1422	135	1536	0
Grp Volume(v), veh/h	93	0	0				0	13	12	1439	0	0
Grp Sat Flow(s),veh/h/ln	1599	0	1422				0	1678	1422	1671	0	0
Q Serve(g_s), s	9.8	0.0	0.0				0.0	1.2	1.3	124.2	0.0	0.0
Cycle Q Clear(g_c), s	9.8	0.0	0.0				0.0	1.2	1.3	124.2	0.0	0.0
Prop In Lane	0.98		1.00				0.00		1.00	0.08		0.00
Lane Grp Cap(c), veh/h	110	0					0	172	146	1221	0	0
V/C Ratio(X)	0.85	0.00					0.00	0.08	0.08	1.18	0.00	0.00
Avail Cap(c_a), veh/h	215	0					0	172	146	1221	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	0.09	0.00	0.00
Uniform Delay (d), s/veh	78.3	0.0	0.0				0.0	69.0	69.1	22.9	0.0	0.0
Incr Delay (d2), s/veh	6.6	0.0	0.0				0.0	0.1	0.1	81.3	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	4.2	0.0	0.0				0.0	0.5	0.5	69.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.9	0.0	0.0				0.0	69.1	69.1	104.2	0.0	0.0
LnGrp LOS	F	A	A				A	E	E	F	A	A
Approach Vol, veh/h		93	A					25			1439	
Approach Delay, s/veh		84.9						69.1			104.2	
Approach LOS		F						E			F	
Timer - Assigned Phs		2		4			6					
Phs Duration (G+Y+Rc), s		23.2		16.8			130.0					
Change Period (Y+Rc), s		5.8		5.1			5.8					
Max Green Setting (Gmax), s		6.2		22.9			124.2					
Max Q Clear Time (g_c+1), s		3.3		11.8			126.2					
Green Ext Time (p_c), s		0.0		0.0			0.0					

Intersection Summary

HCM 6th Ctrl Delay	102.5
HCM 6th LOS	F

Notes

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

Intersection

Intersection Delay, s/veh 8.1
 Intersection LOS A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑		↑			↑
Traffic Vol, veh/h	0	0	60	0	0	182
Future Vol, veh/h	0	0	60	0	0	182
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	10	10	10	10	10	10
Mvmt Flow	0	0	65	0	0	198
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left NB			WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right SB		WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	0	7.6	8.3
HCM LOS	-	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	0%
Vol Thru, %	100%	100%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	60	0	182
LT Vol	0	0	0
Through Vol	60	0	182
RT Vol	0	0	0
Lane Flow Rate	65	0	198
Geometry Grp	1	1	1
Degree of Util (X)	0.076	0	0.226
Departure Headway (Hd)	4.217	4.649	4.118
Convergence, Y/N	Yes	Yes	Yes
Cap	847	0	874
Service Time	2.258	2.649	2.133
HCM Lane V/C Ratio	0.077	0	0.227
HCM Control Delay	7.6	7.6	8.3
HCM Lane LOS	A	N	A
HCM 95th-tile Q	0.2	0	0.9

Tracy 2020 TMP
 9: Iron Horse Parkway/Hansen Rd & Promontory Pkwy

Existing
 Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	2	0	10	11	4	6	21	52	14	43	121	18
Future Volume (veh/h)	2	0	10	11	4	6	21	52	14	43	121	18
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	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	2	0	11	12	5	7	24	59	16	49	138	20
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	5	623	278	26	666	297	49	829	370	89	908	405
Arrive On Green	0.00	0.00	0.19	0.02	0.20	0.20	0.03	0.25	0.25	0.05	0.27	0.27
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	2	0	11	12	5	7	24	59	16	49	138	20
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	0.0	0.0	0.2	0.3	0.0	0.1	0.5	0.5	0.3	1.1	1.2	0.4
Cycle Q Clear(g_c), s	0.0	0.0	0.2	0.3	0.0	0.1	0.5	0.5	0.3	1.1	1.2	0.4
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	5	623	278	26	666	297	49	829	370	89	908	405
V/C Ratio(X)	0.44	0.00	0.04	0.46	0.01	0.02	0.49	0.07	0.04	0.55	0.15	0.05
Avail Cap(c_a), veh/h	892	3561	1588	892	3561	1588	892	3561	1588	892	3561	1588
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	18.6	0.0	12.4	18.2	12.0	12.0	17.9	10.7	10.7	17.3	10.3	10.0
Incr Delay (d2), s/veh	54.0	0.0	0.1	12.0	0.0	0.0	7.3	0.0	0.0	5.2	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	0.2	0.0	0.0	0.3	0.1	0.1	0.4	0.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.7	0.0	12.5	30.3	12.0	12.0	25.2	10.8	10.7	22.5	10.4	10.1
LnGrp LOS	E	A	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		13			24			99			207	
Approach Delay, s/veh		21.8			21.1			14.2			13.2	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.6	11.7	6.0	15.1	4.1	12.2	5.1	16.0				
Change Period (Y+Rc), s	4.0	* 4.7	4.0	5.8	4.0	* 4.7	4.0	5.8				
Max Green Setting (Gmax), s	20.0	* 40	20.0	40.0	20.0	* 40	20.0	40.0				
Max Q Clear Time (g_c+1), s	12.3	2.2	3.1	2.5	2.0	2.1	2.5	3.2				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.9				

Intersection Summary

HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy 2020 TMP
 10: Old Schulte Road/Old Schulte Rd & Iron Horse Parkway

Existing
 Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘	↗		↘	↑	↗
Traffic Volume (veh/h)	55	57	19	8	497	35	15	5	10	39	9	112
Future Volume (veh/h)	55	57	19	8	497	35	15	5	10	39	9	112
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	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	71	73	24	10	637	45	19	6	13	50	12	144
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	15	15	15	15	15	15	15	15	15	15	15	15
Cap, veh/h	142	812	689	36	701	594	62	58	125	120	266	225
Arrive On Green	0.09	0.48	0.48	0.02	0.42	0.42	0.04	0.12	0.12	0.08	0.16	0.16
Sat Flow, veh/h	1598	1678	1422	1598	1678	1422	1598	472	1022	1598	1678	1422
Grp Volume(v), veh/h	71	73	24	10	637	45	19	0	19	50	12	144
Grp Sat Flow(s),veh/h/ln	1598	1678	1422	1598	1678	1422	1598	0	1494	1598	1678	1422
Q Serve(g_s), s	3.4	1.9	0.7	0.5	28.8	1.5	0.9	0.0	0.9	2.4	0.5	7.7
Cycle Q Clear(g_c), s	3.4	1.9	0.7	0.5	28.8	1.5	0.9	0.0	0.9	2.4	0.5	7.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.68	1.00		1.00
Lane Grp Cap(c), veh/h	142	812	689	36	701	594	62	0	182	120	266	225
V/C Ratio(X)	0.50	0.09	0.03	0.28	0.91	0.08	0.31	0.00	0.10	0.42	0.05	0.64
Avail Cap(c_a), veh/h	296	829	702	296	829	702	296	0	277	296	311	263
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	11.3	11.0	38.9	22.1	14.2	37.9	0.0	31.6	35.8	28.9	31.9
Incr Delay (d2), s/veh	2.7	0.1	0.0	4.2	13.1	0.1	2.8	0.0	0.4	2.3	0.1	5.1
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	1.4	0.6	0.2	0.2	12.4	0.5	0.4	0.0	0.3	1.0	0.2	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.9	11.3	11.0	43.1	35.2	14.2	40.6	0.0	32.0	38.1	29.0	37.0
LnGrp LOS	D	B	B	D	D	B	D	A	C	D	C	D
Approach Vol, veh/h	168			692			38			206		
Approach Delay, s/veh	22.5			34.0			36.3			36.8		
Approach LOS	C			C			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	45.7	11.6	15.4	13.7	40.4	8.6	18.3				
Change Period (Y+Rc), s	6.5	6.5	5.5	5.5	6.5	6.5	5.5	5.5				
Max Green Setting (Gmax), s	15.0	40.0	15.0	15.0	15.0	40.0	15.0	15.0				
Max Q Clear Time (g_c+1), s	12.5	3.9	4.4	2.9	5.4	30.8	2.9	9.7				
Green Ext Time (p_c), s	0.0	0.5	0.1	0.0	0.1	3.0	0.0	0.3				

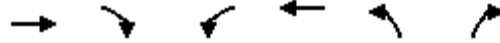
Intersection Summary

HCM 6th Ctrl Delay	32.8
HCM 6th LOS	C

Notes

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

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Vol, veh/h	10	498	742	23	22	39
Future Vol, veh/h	10	498	742	23	22	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	11	541	807	25	24	42
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	832	0	-	0	1383	820
Stage 1	-	-	-	-	820	-
Stage 2	-	-	-	-	563	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	796	-	-	-	158	373
Stage 1	-	-	-	-	431	-
Stage 2	-	-	-	-	568	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	796	-	-	-	155	373
Mov Cap-2 Maneuver	-	-	-	-	155	-
Stage 1	-	-	-	-	422	-
Stage 2	-	-	-	-	568	-
Approach	EB	WB	SB			
HCM Control Delay, s	0.2	0	24.8			
HCM LOS			C			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	796	-	-	-	247	
HCM Lane V/C Ratio	0.014	-	-	-	0.268	
HCM Control Delay (s)	9.6	0	-	-	24.8	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	1.1	



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↩		↩	↩	↩	↩
Traffic Volume (veh/h)	130	131	49	603	260	28
Future Volume (veh/h)	130	131	49	603	260	28
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	1856	1856	1856	1856	1900	1900
Adj Flow Rate, veh/h	141	142	53	655	283	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	0	0
Cap, veh/h	233	235	151	854	400	42
Arrive On Green	0.27	0.27	0.09	0.46	0.25	0.25
Sat Flow, veh/h	848	854	1767	1856	1574	167
Grp Volume(v), veh/h	0	283	53	655	314	0
Grp Sat Flow(s),veh/h/ln	0	1702	1767	1856	1747	0
Q Serve(g_s), s	0.0	5.1	1.0	10.3	5.7	0.0
Cycle Q Clear(g_c), s	0.0	5.1	1.0	10.3	5.7	0.0
Prop In Lane		0.50	1.00		0.90	0.10
Lane Grp Cap(c), veh/h	0	468	151	854	444	0
V/C Ratio(X)	0.00	0.60	0.35	0.77	0.71	0.00
Avail Cap(c_a), veh/h	0	1918	857	2118	1993	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	11.1	15.1	7.9	11.9	0.0
Incr Delay (d2), s/veh	0.0	1.5	0.5	1.8	2.5	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	0.0	1.5	0.3	2.4	1.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	12.6	15.6	9.7	14.4	0.0
LnGrp LOS	A	B	B	A	B	A
Approach Vol, veh/h	283			708	314	
Approach Delay, s/veh	12.6			10.1	14.4	
Approach LOS	B			B	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		21.1		13.9	6.5	14.6
Change Period (Y+Rc), s		* 5		5.0	3.5	5.0
Max Green Setting (Gmax), s		* 40		40.0	17.0	39.5
Max Q Clear Time (g_c+I1), s		12.3		7.7	3.0	7.1
Green Ext Time (p_c), s		3.8		1.6	0.0	1.5

Intersection Summary

HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy 2020 TMP
32: LAMMERS RD & ELEVENTH ST.

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖
Traffic Volume (veh/h)	9	235	87	712	429	64	38	127	141	88	248	81
Future Volume (veh/h)	9	235	87	712	429	64	38	127	141	88	248	81
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	10	255	0	774	466	0	41	138	0	96	270	0
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	171	1178		798	2187		288	471		481	670	
Arrive On Green	0.05	0.23	0.00	0.23	0.43	0.00	0.08	0.13	0.00	0.14	0.19	0.00
Sat Flow, veh/h	3428	5066	1572	3428	5066	1572	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	10	255	0	774	466	0	41	138	0	96	270	0
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1714	1689	1572	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	0.2	2.5	0.0	13.6	3.5	0.0	0.7	2.1	0.0	1.5	4.1	0.0
Cycle Q Clear(g_c), s	0.2	2.5	0.0	13.6	3.5	0.0	0.7	2.1	0.0	1.5	4.1	0.0
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	171	1178		798	2187		288	471		481	670	
V/C Ratio(X)	0.06	0.22		0.97	0.21		0.14	0.29		0.20	0.40	
Avail Cap(c_a), veh/h	967	4355		798	4355		967	820		798	820	
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	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.4	18.8	0.0	23.0	10.8	0.0	25.7	23.7	0.0	23.0	21.5	0.0
Incr Delay (d2), s/veh	0.1	0.2	0.0	24.6	0.1	0.0	0.1	0.5	0.0	0.2	0.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.9	0.0	7.4	1.0	0.0	0.3	0.9	0.0	0.6	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.5	19.0	0.0	47.6	10.9	0.0	25.8	24.2	0.0	23.2	21.9	0.0
LnGrp LOS	C	B		D	B		C	C		C	C	
Approach Vol, veh/h		265	A		1240	A		179	A		366	A
Approach Delay, s/veh		19.3			33.8			24.5			22.3	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.5	18.1	8.5	15.5	6.4	30.2	11.9	12.1				
Change Period (Y+Rc), s	6.5	6.1	5.5	6.1	5.5	6.1	5.5	6.1				
Max Green Setting (Gmax), s	12.0	50.0	15.0	12.0	15.0	50.0	12.0	12.0				
Max Q Clear Time (g_c+1/3), s	11.6	4.5	2.7	6.1	2.2	5.5	3.5	4.1				
Green Ext Time (p_c), s	0.0	2.5	0.0	0.5	0.0	4.9	0.2	0.4				

Intersection Summary

HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	↖↗	↖	↑↑↑	↖	↖↗	↑↑	
Traffic Volume (veh/h)	46	62	348	84	436	432	
Future Volume (veh/h)	46	62	348	84	436	432	
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	1856	1856	1856	1856	1856	1856	
Adj Flow Rate, veh/h	50	67	378	91	474	470	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	3	3	3	3	3	3	
Cap, veh/h	632	290	1413	439	692	2089	
Arrive On Green	0.18	0.18	0.28	0.28	0.20	0.59	
Sat Flow, veh/h	3428	1572	5233	1572	3428	3618	
Grp Volume(v), veh/h	50	67	378	91	474	470	
Grp Sat Flow(s),veh/h/ln	1714	1572	1689	1572	1714	1763	
Q Serve(g_s), s	0.6	2.0	3.1	2.4	6.9	3.4	
Cycle Q Clear(g_c), s	0.6	2.0	3.1	2.4	6.9	3.4	
Prop In Lane	1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	632	290	1413	439	692	2089	
V/C Ratio(X)	0.08	0.23	0.27	0.21	0.68	0.23	
Avail Cap(c_a), veh/h	1594	731	3298	1024	1275	2098	
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	18.2	18.7	15.1	14.8	19.9	5.2	
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.2	1.7	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	0.2	1.8	1.0	0.7	2.5	0.7	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	18.2	18.8	15.2	15.1	21.6	5.2	
LnGrp LOS	B	B	B	B	C	A	
Approach Vol, veh/h	117		469			944	
Approach Delay, s/veh	18.5		15.2			13.4	
Approach LOS	B		B			B	
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				37.9	15.9	16.9	21.0
Change Period (Y+Rc), s				6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s				32.0	25.0	20.0	35.0
Max Q Clear Time (g_c+1), s				5.4	4.0	8.9	5.1
Green Ext Time (p_c), s				3.5	0.2	2.0	2.7
Intersection Summary							
HCM 6th Ctrl Delay			14.4				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	5.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T		T	T
Traffic Vol, veh/h	54	180	590	17	19	410
Future Vol, veh/h	54	180	590	17	19	410
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	-	-	-	320	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	59	180	590	17	19	410
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1047	599	0	0	607	0
Stage 1	599	-	-	-	-	-
Stage 2	448	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	252	500	-	-	966	-
Stage 1	547	-	-	-	-	-
Stage 2	642	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	247	500	-	-	966	-
Mov Cap-2 Maneuver	247	-	-	-	-	-
Stage 1	547	-	-	-	-	-
Stage 2	629	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	26.6	0	0.4			
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	399	966		
HCM Lane V/C Ratio	-	-	0.598	0.02		
HCM Control Delay (s)	-	-	26.6	8.8		
HCM Lane LOS	-	-	D	A		
HCM 95th %tile Q(veh)	-	-	3.8	0.1		

Intersection	
Intersection Delay, s/veh	41.3
Intersection LOS	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	37	76	226	393	308	214
Future Vol, veh/h	37	76	226	393	308	214
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	42	85	254	442	346	240
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	11.6	58.6	27.3
HCM LOS	B	F	D

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	37%	33%	0%
Vol Thru, %	63%	0%	59%
Vol Right, %	0%	67%	41%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	619	113	522
LT Vol	226	37	0
Through Vol	393	0	308
RT Vol	0	76	214
Lane Flow Rate	696	127	587
Geometry Grp	1	1	1
Degree of Util (X)	1.007	0.231	0.824
Departure Headway (Hd)	5.212	6.552	5.055
Convergence, Y/N	Yes	Yes	Yes
Cap	696	546	716
Service Time	3.248	4.614	3.095
HCM Lane V/C Ratio	1	0.233	0.82
HCM Control Delay	58.6	11.6	27.3
HCM Lane LOS	F	B	D
HCM 95th-tile Q	16.4	0.9	8.9

Intersection						
Int Delay, s/veh	5.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	2	279	349	1	85	299
Future Vol, veh/h	2	279	349	1	85	299
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	86	86	86	86	86	86
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2	324	406	1	99	348
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	953	407	0	0	407	0
Stage 1	407	-	-	-	-	-
Stage 2	546	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	286	642	-	-	1146	-
Stage 1	670	-	-	-	-	-
Stage 2	578	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	255	642	-	-	1146	-
Mov Cap-2 Maneuver	255	-	-	-	-	-
Stage 1	670	-	-	-	-	-
Stage 2	516	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	16.5	0	1.9			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	635	1146		
HCM Lane V/C Ratio	-	-	0.515	0.086		
HCM Control Delay (s)	-	-	16.5	8.4		
HCM Lane LOS	-	-	C	A		
HCM 95th %tile Q(veh)	-	-	3	0.3		

Intersection												
Int Delay, s/veh	9.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕				↕			↕	
Traffic Vol, veh/h	0	0	0	6	0	347	0	4	8	290	9	0
Future Vol, veh/h	0	0	0	6	0	347	0	4	8	290	9	0
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	-	-	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	84	100	84	100	84	84	84	84	100
Heavy Vehicles, %	0	0	0	3	0	3	9	3	3	3	3	0
Mvmt Flow	0	0	0	7	0	413	0	5	10	345	11	0
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	918	716	11	711	-	10	-	0	0	15	0	0
Stage 1	701	701	-	10	-	-	-	-	-	-	-	-
Stage 2	217	15	-	701	-	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.13	-	6.23	-	-	-	4.13	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.527	-	3.327	-	-	-	2.227	-	-
Pot Cap-1 Maneuver	254	358	1076	347	0	1068	0	-	-	1596	-	-
Stage 1	433	444	-	1008	0	-	0	-	-	-	-	-
Stage 2	790	887	-	428	0	-	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	130	280	1076	289	-	1068	-	-	-	1596	-	-
Mov Cap-2 Maneuver	130	280	-	289	-	-	-	-	-	-	-	-
Stage 1	433	348	-	1008	-	-	-	-	-	-	-	-
Stage 2	484	887	-	335	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			11			0			7.6		
HCM LOS	A			B								
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	-	-	-	1021	1596	-	-					
HCM Lane V/C Ratio	-	-	-	0.412	0.216	-	-					
HCM Control Delay (s)	-	-	0	11	7.9	0	-					
HCM Lane LOS	-	-	A	B	A	A	-					
HCM 95th %tile Q(veh)	-	-	-	2	0.8	-	-					

Intersection						
Int Delay, s/veh	6.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	✕			↔	↔	
Traffic Vol, veh/h	0	25	377	111	0	9
Future Vol, veh/h	0	25	377	111	0	9
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	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	28	419	123	0	10
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	966	5	10	0	0	
Stage 1	5	-	-	-	-	
Stage 2	961	-	-	-	-	
Critical Hdwy	6.43	6.23	4.13	-	-	
Critical Hdwy Stg 1	5.43	-	-	-	-	
Critical Hdwy Stg 2	5.43	-	-	-	-	
Follow-up Hdwy	3.527	3.327	2.227	-	-	
Pot Cap-1 Maneuver	281	1075	1603	-	-	
Stage 1	1016	-	-	-	-	
Stage 2	370	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	202	1075	1603	-	-	
Mov Cap-2 Maneuver	202	-	-	-	-	
Stage 1	731	-	-	-	-	
Stage 2	370	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	8.4	6.2		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1603	-	1075	-	-	
HCM Lane V/C Ratio	0.261	-	0.026	-	-	
HCM Control Delay (s)	8	0	8.4	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	1.1	-	0.1	-	-	

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	15	8	25	1	37	7	61	58	2	12	66	59
Future Vol, veh/h	15	8	25	1	37	7	61	58	2	12	66	59
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	180	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	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, %	7	0	12	0	3	20	5	0	0	0	0	0
Mvmt Flow	16	9	27	1	39	7	65	62	2	13	70	63
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	309	322	67	259	352	32	133	0	0	64	0	0
Stage 1	128	128	-	193	193	-	-	-	-	-	-	-
Stage 2	181	194	-	66	159	-	-	-	-	-	-	-
Critical Hdwy	7.64	6.5	7.14	7.5	6.56	7.3	4.2	-	-	4.1	-	-
Critical Hdwy Stg 1	6.64	5.5	-	6.5	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.64	5.5	-	6.5	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.57	4	3.42	3.5	4.03	3.5	2.25	-	-	2.2	-	-
Pot Cap-1 Maneuver	608	599	951	678	569	979	1428	-	-	1551	-	-
Stage 1	848	794	-	796	737	-	-	-	-	-	-	-
Stage 2	789	744	-	943	763	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	547	566	951	624	538	979	1428	-	-	1551	-	-
Mov Cap-2 Maneuver	547	566	-	624	538	-	-	-	-	-	-	-
Stage 1	809	787	-	759	703	-	-	-	-	-	-	-
Stage 2	706	710	-	899	756	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	10.5			11.8			3.9			0.6		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1428	-	-	707	580	1551	-	-				
HCM Lane V/C Ratio	0.045	-	-	0.072	0.083	0.008	-	-				
HCM Control Delay (s)	7.6	-	-	10.5	11.8	7.3	0	-				
HCM Lane LOS	A	-	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.3	0	-	-				

Tracy 2020 TMP
49: I-205 WB Off Ramp/Pavilion Pkwy & Naglee Rd

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↕	↖	↖	↕↖↗		↖↗	↕	↖	↖	↕	↖
Traffic Volume (veh/h)	14	33	9	2	33	0	1152	31	341	8	4	20
Future Volume (veh/h)	14	33	9	2	33	0	1152	31	341	8	4	20
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	15	36	10	2	36	0	1252	34	371	9	4	22
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	64	356	159	26	493	0	1700	2043	911	23	179	152
Arrive On Green	0.02	0.10	0.10	0.01	0.10	0.00	0.50	0.58	0.58	0.01	0.10	0.10
Sat Flow, veh/h	3428	3526	1572	1767	5233	0	3428	3526	1572	1767	1856	1572
Grp Volume(v), veh/h	15	36	10	2	36	0	1252	34	371	9	4	22
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1689	0	1714	1763	1572	1767	1856	1572
Q Serve(g_s), s	0.2	0.5	0.3	0.1	0.4	0.0	15.9	0.2	7.1	0.3	0.1	0.7
Cycle Q Clear(g_c), s	0.2	0.5	0.3	0.1	0.4	0.0	15.9	0.2	7.1	0.3	0.1	0.7
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	64	356	159	26	493	0	1700	2043	911	23	179	152
V/C Ratio(X)	0.24	0.10	0.06	0.08	0.07	0.00	0.74	0.02	0.41	0.39	0.02	0.14
Avail Cap(c_a), veh/h	1513	2372	1058	1118	3408	0	2538	2655	1184	619	687	582
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	22.4	22.3	26.6	22.5	0.0	11.0	4.9	6.3	26.9	22.4	22.7
Incr Delay (d2), s/veh	1.9	0.1	0.1	1.5	0.1	0.0	0.8	0.0	0.3	10.5	0.0	0.4
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	0.1	0.2	0.1	0.0	0.1	0.0	4.7	0.1	1.7	0.2	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	22.5	22.5	28.1	22.6	0.0	11.7	4.9	6.6	37.4	22.5	23.1
LnGrp LOS	C	C	C	C	C	A	B	A	A	D	C	C
Approach Vol, veh/h		61			38			1657				35
Approach Delay, s/veh		24.0			22.9			10.5				26.7
Approach LOS		C			C			B				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.8	9.5	31.2	9.3	5.0	9.3	4.7	35.8				
Change Period (Y+Rc), s	* 4.7	4.9	4.6	5.3	* 4.2	4.9	* 4.2	5.3				
Max Green Setting (Gmax), s	* 34	36.0	40.0	19.0	* 24	36.0	* 19	40.0				
Max Q Clear Time (g_c+I1), s	2.1	2.5	17.9	2.7	2.2	2.4	2.3	9.1				
Green Ext Time (p_c), s	0.0	0.1	8.7	0.0	0.0	0.1	0.0	1.9				

Intersection Summary

HCM 6th Ctrl Delay	11.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↑↑↑ ↗			↖	↗		↖	↑	↗
Traffic Volume (veh/h)	62	226	4	6	985	37	1	0	0	4	0	28
Future Volume (veh/h)	62	226	4	6	985	37	1	0	0	4	0	28
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	67	246	4	7	1071	40	1	0	0	4	0	30
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	276	2782	45	26	2008	75	4	155	0	15	167	141
Arrive On Green	0.16	0.54	0.54	0.01	0.40	0.40	0.00	0.00	0.00	0.01	0.00	0.09
Sat Flow, veh/h	1767	5134	83	1767	5012	187	1767	1856	0	1767	1856	1572
Grp Volume(v), veh/h	67	161	89	7	721	390	1	0	0	4	0	30
Grp Sat Flow(s),veh/h/ln	1767	1689	1841	1767	1689	1822	1767	1856	0	1767	1856	1572
Q Serve(g_s), s	1.7	1.2	1.2	0.2	8.3	8.4	0.0	0.0	0.0	0.1	0.0	0.9
Cycle Q Clear(g_c), s	1.7	1.2	1.2	0.2	8.3	8.4	0.0	0.0	0.0	0.1	0.0	0.9
Prop In Lane	1.00		0.05	1.00		0.10	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	276	1830	997	26	1353	730	4	155	0	15	167	141
V/C Ratio(X)	0.24	0.09	0.09	0.27	0.53	0.53	0.26	0.00	0.00	0.26	0.00	0.21
Avail Cap(c_a), veh/h	690	2636	1437	517	2636	1422	690	543	0	517	543	460
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.0	5.6	5.6	25.0	11.7	11.7	25.5	0.0	0.0	25.2	0.0	21.6
Incr Delay (d2), s/veh	0.2	0.0	0.0	2.0	0.4	0.7	12.3	0.0	0.0	3.3	0.0	0.3
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	0.6	0.3	0.3	0.1	2.6	2.8	0.0	0.0	0.0	0.1	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.1	5.7	5.7	27.0	12.1	12.4	37.8	0.0	0.0	28.6	0.0	21.9
LnGrp LOS	B	A	A	C	B	B	D	A	A	C	A	C
Approach Vol, veh/h		317			1118			1			34	
Approach Delay, s/veh		8.5			12.3			37.8			22.7	
Approach LOS		A			B			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.3	32.3	4.6	9.1	12.5	25.0	4.9	8.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	15.0	40.0	20.0	15.0	20.0	40.0	15.0	15.0				
Max Q Clear Time (g_c+1), s	12.2	3.2	2.0	2.9	3.7	10.4	2.1	0.0				
Green Ext Time (p_c), s	0.0	1.9	0.0	0.0	0.0	10.2	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B

Notes

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

Tracy 2020 TMP
51: I-205 WB On Ramp/Naglee Rd & Grant Line Rd

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↑ ↑	↖		↑ ↑ ↑	↖				↖	↖	↖
Traffic Volume (veh/h)	107	472	54	0	463	185	0	0	0	245	123	546
Future Volume (veh/h)	107	472	54	0	463	185	0	0	0	245	123	546
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	1856	1856	1856	0	1856	1856				1856	1856	1856
Adj Flow Rate, veh/h	116	513	59	0	503	0				200	226	593
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	0	3	3				3	3	3
Cap, veh/h	269	1398	623	0	1246					812	853	723
Arrive On Green	0.08	0.40	0.40	0.00	0.25	0.00				0.46	0.46	0.46
Sat Flow, veh/h	3428	3526	1572	0	5233	1572				1767	1856	1572
Grp Volume(v), veh/h	116	513	59	0	503	0				200	226	593
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	0	1689	1572				1767	1856	1572
Q Serve(g_s), s	1.8	5.7	1.3	0.0	4.6	0.0				3.8	4.2	18.2
Cycle Q Clear(g_c), s	1.8	5.7	1.3	0.0	4.6	0.0				3.8	4.2	18.2
Prop In Lane	1.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	269	1398	623	0	1246					812	853	723
V/C Ratio(X)	0.43	0.37	0.09	0.00	0.40					0.25	0.27	0.82
Avail Cap(c_a), veh/h	1863	2747	1225	0	3947					1291	1356	1149
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	1.00	1.00	0.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	24.4	11.8	10.5	0.0	17.5	0.0				9.2	9.2	13.0
Incr Delay (d2), s/veh	1.1	0.4	0.2	0.0	0.5	0.0				0.2	0.2	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.9	0.4	0.0	1.6	0.0				1.2	1.4	14.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	12.2	10.7	0.0	18.1	0.0				9.3	9.4	15.7
LnGrp LOS	C	B	B	A	B					A	A	B
Approach Vol, veh/h		688			503	A					1019	
Approach Delay, s/veh		14.3			18.1						13.0	
Approach LOS		B			B						B	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		26.0		29.5	8.4	17.7						
Change Period (Y+Rc), s		5.3		4.6	* 4.2	5.3						
Max Green Setting (Gmax), s		42.0		40.0	* 30	42.0						
Max Q Clear Time (g_c+I1), s		7.7		20.2	3.8	6.6						
Green Ext Time (p_c), s		6.5		4.8	0.4	5.7						

Intersection Summary

HCM 6th Ctrl Delay	14.6
HCM 6th LOS	B

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

DRAFT

Tracy 2020 TMP
 52: I-205 EAST OFF RAMP/I-205 EAST & Grant Line Rd

Existing
 Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑↑		↘			↘		
Traffic Volume (veh/h)	433	284	0	1	613	166	34	81	93	0	0	1
Future Volume (veh/h)	433	284	0	1	613	166	34	81	93	0	0	1
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	1856	1856	0	1856	1856	1856	1856	1856	1856			
Adj Flow Rate, veh/h	471	309	0	1	666	180	37	88	101			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	3	3	0	3	3	3	3	3	3			
Cap, veh/h	605	2472	0	51	1167	310	305	0	272			
Arrive On Green	0.34	0.70	0.00	0.28	0.30	0.28	0.17	0.17	0.17			
Sat Flow, veh/h	1767	3618	0	1	3868	1027	1767	0	1572			
Grp Volume(v), veh/h	471	309	0	319	264	264	37	0	101			
Grp Sat Flow(s),veh/h/ln	1767	1763	0	1855	1537	1504	1767	0	1572			
Q Serve(g_s), s	16.9	2.0	0.0	0.0	10.2	10.6	1.2	0.0	4.0			
Cycle Q Clear(g_c), s	16.9	2.0	0.0	10.4	10.2	10.6	1.2	0.0	4.0			
Prop In Lane	1.00		0.00	0.00		0.68	1.00		1.00			
Lane Grp Cap(c), veh/h	605	2472	0	577	464	454	305	0	272			
V/C Ratio(X)	0.78	0.13	0.00	0.55	0.57	0.58	0.12	0.00	0.37			
Avail Cap(c_a), veh/h	1082	3562	0	1233	1008	986	431	0	383			
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	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	20.8	3.5	0.0	20.8	20.8	21.3	24.7	0.0	25.8			
Incr Delay (d2), s/veh	5.9	0.0	0.0	1.2	1.6	1.7	0.2	0.0	0.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.1	0.4	0.0	4.3	3.5	3.6	0.5	0.0	1.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	3.5	0.0	22.0	22.3	22.9	24.8	0.0	26.6			
LnGrp LOS	C	A	A	C	C	C	C	A	C			
Approach Vol, veh/h		780			847			138				
Approach Delay, s/veh		17.5			22.4			26.2				
Approach LOS		B			C			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		53.5			28.2	25.3		17.1				
Change Period (Y+Rc), s		5.3			* 4.2	5.3		5.1				
Max Green Setting (Gmax), s		70.0			* 43	45.0		17.0				
Max Q Clear Time (g_c+I1), s		4.0			18.9	12.6		6.0				
Green Ext Time (p_c), s		2.2			5.1	5.8		0.3				

Intersection Summary

HCM 6th Ctrl Delay	20.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy 2020 TMP
53: Crossroads Dr & Eleventh St

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑↑	↗	↖	↑	↗	↖	↗	↖
Traffic Volume (veh/h)	1	489	21	32	942	24	322	23	105	116	16	72
Future Volume (veh/h)	1	489	21	32	942	24	322	23	105	116	16	72
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	1	532	23	35	1024	26	350	25	114	126	17	78
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	4	1390	432	99	1664	516	374	514	436	183	49	224
Arrive On Green	0.00	0.27	0.27	0.06	0.33	0.33	0.21	0.28	0.28	0.10	0.17	0.17
Sat Flow, veh/h	1767	5066	1572	1767	5066	1572	1767	1856	1572	1767	289	1327
Grp Volume(v), veh/h	1	532	23	35	1024	26	350	25	114	126	0	95
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	1767	1689	1572	1767	1856	1572	1767	0	1617
Q Serve(g_s), s	0.0	6.0	0.8	1.4	12.1	0.8	13.8	0.7	4.0	4.9	0.0	3.7
Cycle Q Clear(g_c), s	0.0	6.0	0.8	1.4	12.1	0.8	13.8	0.7	4.0	4.9	0.0	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.82
Lane Grp Cap(c), veh/h	4	1390	432	99	1664	516	374	514	436	183	0	273
V/C Ratio(X)	0.26	0.38	0.05	0.35	0.62	0.05	0.94	0.05	0.26	0.69	0.00	0.35
Avail Cap(c_a), veh/h	374	2499	776	374	2499	776	374	514	436	374	0	342
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.3	20.9	19.0	32.2	20.1	16.3	27.5	18.8	20.0	30.7	0.0	26.0
Incr Delay (d2), s/veh	12.4	0.2	0.1	0.8	0.5	0.1	30.5	0.0	0.3	1.7	0.0	0.6
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	0.0	2.2	0.3	0.6	4.2	0.3	8.6	0.3	1.4	2.1	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.7	21.1	19.0	33.0	20.6	16.3	58.0	18.8	20.3	32.4	0.0	26.6
LnGrp LOS	D	C	B	C	C	B	E	B	C	C	A	C
Approach Vol, veh/h		556			1085			489			221	
Approach Delay, s/veh		21.1			20.9			47.2			29.9	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	25.0	20.0	17.0	5.2	28.8	12.3	24.7				
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0				
Max Green Setting (Gmax), s	15.0	35.0	15.0	15.0	15.0	35.0	15.0	15.0				
Max Q Clear Time (g_c+1), s	13.4	8.0	15.8	5.7	2.0	14.1	6.9	6.0				
Green Ext Time (p_c), s	0.0	5.0	0.0	0.2	0.0	9.2	0.1	0.3				

Intersection Summary

HCM 6th Ctrl Delay	27.2
HCM 6th LOS	C

Notes

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

Intersection						
Int Delay, s/veh	3.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	74	1	18	51	5	48
Future Vol, veh/h	74	1	18	51	5	48
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	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	82	1	20	57	6	53
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	114	49	0	0	77	0
Stage 1	49	-	-	-	-	-
Stage 2	65	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	880	1017	-	-	1515	-
Stage 1	971	-	-	-	-	-
Stage 2	955	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	876	1017	-	-	1515	-
Mov Cap-2 Maneuver	876	-	-	-	-	-
Stage 1	971	-	-	-	-	-
Stage 2	951	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	9.5	0	0.7			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	878	1515		
HCM Lane V/C Ratio	-	-	0.095	0.004		
HCM Control Delay (s)	-	-	9.5	7.4		
HCM Lane LOS	-	-	A	A		
HCM 95th %tile Q(veh)	-	-	0.3	0		

Tracy 2020 TMP
57: Corral Hollow Rd & Grant Line Rd

Existing
Timing Plan: AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	180	98	79	471	102	316	150	77	37	78	69
Future Volume (veh/h)	32	180	98	79	471	102	316	150	77	37	78	69
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	35	196	0	86	512	111	343	163	84	40	85	0
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	170	1166		486	796	172	892	841	375	350	570	
Arrive On Green	0.10	0.23	0.00	0.14	0.28	0.24	0.18	0.24	0.24	0.10	0.16	0.00
Sat Flow, veh/h	1767	5066	1572	3428	2884	622	4983	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	35	196	0	86	312	311	343	163	84	40	85	0
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	1714	1763	1744	1661	1763	1572	1714	1763	1572
Q Serve(g_s), s	1.0	1.7	0.0	1.2	8.7	8.8	3.4	2.1	2.4	0.6	1.2	0.0
Cycle Q Clear(g_c), s	1.0	1.7	0.0	1.2	8.7	8.8	3.4	2.1	2.4	0.6	1.2	0.0
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	1166		486	486	481	892	841	375	350	570	
V/C Ratio(X)	0.21	0.17		0.18	0.64	0.65	0.38	0.19	0.22	0.11	0.15	
Avail Cap(c_a), veh/h	857	4278		1663	1489	1472	2865	2977	1328	1663	2977	
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.2	17.2	0.0	21.0	17.7	18.1	20.1	16.9	17.0	22.7	20.0	0.0
Incr Delay (d2), s/veh	0.6	0.1	0.0	0.2	1.4	1.5	0.3	0.1	0.3	0.1	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.6	0.0	0.4	3.2	3.2	1.2	0.7	0.8	0.2	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	17.2	0.0	21.2	19.2	19.6	20.4	17.0	17.3	22.8	20.2	0.0
LnGrp LOS	C	B		C	B	B	C	B	B	C	C	
Approach Vol, veh/h		231	A		709			590			125	A
Approach Delay, s/veh		18.2			19.6			19.0			21.0	
Approach LOS		B			B			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	17.3	11.9	16.8	14.0	13.0	9.3	19.4				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	25.0	45.0	25.0	45.0	30.0	45.0	25.0	45.0				
Max Q Clear Time (g_c+I1), s	2.6	4.4	3.2	3.7	5.4	3.2	3.0	10.8				
Green Ext Time (p_c), s	0.1	1.1	0.3	0.9	1.6	0.3	0.1	2.5				

Intersection Summary

HCM 6th Ctrl Delay	19.3
HCM 6th LOS	B

Notes

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

Tracy 2020 TMP
58: CORRAL HOLLOW RD & Eleventh St/ELEVENTH ST.

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖
Traffic Volume (veh/h)	125	562	208	78	459	162	349	519	155	248	254	176
Future Volume (veh/h)	125	562	208	78	459	162	349	519	155	248	254	176
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	136	611	0	85	499	176	379	564	168	270	276	191
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	288	843		279	829	257	478	1894	845	368	1781	794
Arrive On Green	0.08	0.17	0.00	0.08	0.16	0.16	0.14	0.54	0.54	0.11	0.51	0.51
Sat Flow, veh/h	3428	5066	1572	3428	5066	1572	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	136	611	0	85	499	176	379	564	168	270	276	191
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1714	1689	1572	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	4.9	14.9	0.0	3.0	11.9	13.7	13.9	11.5	7.2	9.9	5.5	8.9
Cycle Q Clear(g_c), s	4.9	14.9	0.0	3.0	11.9	13.7	13.9	11.5	7.2	9.9	5.5	8.9
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	288	843		279	829	257	478	1894	845	368	1781	794
V/C Ratio(X)	0.47	0.72		0.30	0.60	0.68	0.79	0.30	0.20	0.73	0.15	0.24
Avail Cap(c_a), veh/h	343	1715		343	1715	532	501	1894	845	369	1781	794
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)	0.95	0.95	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	56.8	51.4	0.0	56.2	50.4	51.2	54.1	16.6	15.6	56.2	17.3	18.1
Incr Delay (d2), s/veh	1.1	1.1	0.0	0.6	0.7	3.2	8.2	0.4	0.5	8.3	0.2	0.7
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	2.1	6.2	0.0	1.3	5.0	5.5	6.5	4.6	2.6	4.7	2.2	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.9	52.5	0.0	56.9	51.1	54.4	62.4	17.0	16.1	64.5	17.4	18.8
LnGrp LOS	E	D		E	D	D	E	B	B	E	B	B
Approach Vol, veh/h		747	A		760			1111			737	
Approach Delay, s/veh		53.5			52.5			32.3			35.0	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.6	25.6	16.9	73.8	13.9	25.3	21.1	69.7				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	42.0	42.0	12.0	43.0	11.0	42.0	17.0	38.0				
Max Q Clear Time (g_c+1/3), s	16.9	16.9	11.9	13.5	6.9	15.7	15.9	10.9				
Green Ext Time (p_c), s	0.1	2.8	0.0	3.4	0.2	3.0	0.2	2.0				

Intersection Summary

HCM 6th Ctrl Delay	42.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Tracy 2020 TMP
59: CORRAL HOLLOW RD & NEW SCHULTE ROAD

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	57	39	146	131	339	39	372	33	216	201	93
Future Volume (veh/h)	95	57	39	146	131	339	39	372	33	216	201	93
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	103	62	42	159	142	368	42	404	36	235	218	101
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	155	841	375	202	467	417	92	597	53	373	566	253
Arrive On Green	0.09	0.24	0.24	0.11	0.27	0.27	0.05	0.18	0.18	0.11	0.24	0.24
Sat Flow, veh/h	1767	3526	1572	1767	1763	1572	1767	3275	291	3428	2368	1059
Grp Volume(v), veh/h	103	62	42	159	142	368	42	217	223	235	160	159
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1803	1714	1763	1665
Q Serve(g_s), s	3.0	0.7	1.1	4.7	3.4	12.0	1.2	6.1	6.2	3.5	4.1	4.3
Cycle Q Clear(g_c), s	3.0	0.7	1.1	4.7	3.4	12.0	1.2	6.1	6.2	3.5	4.1	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		0.64
Lane Grp Cap(c), veh/h	155	841	375	202	467	417	92	322	329	373	422	398
V/C Ratio(X)	0.66	0.07	0.11	0.79	0.30	0.88	0.46	0.67	0.68	0.63	0.38	0.40
Avail Cap(c_a), veh/h	496	990	441	496	495	441	496	990	1012	1604	990	935
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	1.00	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	23.6	15.8	15.9	23.0	15.7	18.8	24.6	20.4	20.4	22.8	17.0	17.1
Incr Delay (d2), s/veh	1.8	0.0	0.1	2.5	0.1	17.0	1.3	2.5	2.5	0.7	0.6	0.6
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	1.2	0.3	0.4	1.9	1.2	5.6	0.5	2.4	2.5	1.3	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.4	15.8	16.0	25.6	15.8	35.8	25.9	22.8	22.8	23.4	17.6	17.7
LnGrp LOS	C	B	B	C	B	D	C	C	C	C	B	B
Approach Vol, veh/h		207			669			482			554	
Approach Delay, s/veh		20.6			29.2			23.1			20.1	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	17.8	10.3	14.7	9.2	19.2	7.3	17.8				
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0				
Max Green Setting (Gmax), s	15.0	15.0	25.0	30.0	15.0	15.0	15.0	30.0				
Max Q Clear Time (g_c+1), s	10.7	3.1	5.5	8.2	5.0	14.0	3.2	6.3				
Green Ext Time (p_c), s	0.1	0.2	0.4	1.6	0.0	0.2	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay	24.1
HCM 6th LOS	C

Notes

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

Intersection												
Intersection Delay, s/veh	74.2											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	150	154	177	150	63	134	184	37	64	299	11
Future Vol, veh/h	8	150	154	177	150	63	134	184	37	64	299	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	13	0	18	0	3	2	7	11	0	2	6	0
Mvmt Flow	8	158	162	186	158	66	141	194	39	67	315	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	51	88	72.8	80.6
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	38%	3%	45%	17%
Vol Thru, %	52%	48%	38%	80%
Vol Right, %	10%	49%	16%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	355	312	390	374
LT Vol	134	8	177	64
Through Vol	184	150	150	299
RT Vol	37	154	63	11
Lane Flow Rate	374	328	411	394
Geometry Grp	1	1	1	1
Degree of Util (X)	0.976	0.864	1.039	1.01
Departure Headway (Hd)	9.695	9.784	9.388	9.524
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	377	374	390	386
Service Time	7.695	7.784	7.388	7.524
HCM Lane V/C Ratio	0.992	0.877	1.054	1.021
HCM Control Delay	72.8	51	88	80.6
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	11.1	8.2	13.2	12.2

Tracy 2020 TMP
62: Corral Hollow Rd & Ellis Town Dr/Peony Dr

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	↖
Traffic Volume (veh/h)	1	0	2	23	0	142	3	168	4	60	460	19
Future Volume (veh/h)	1	0	2	23	0	142	3	168	4	60	460	19
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	1	0	2	25	0	154	3	183	4	65	500	21
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	5	0	233	65	0	287	9	916	20	138	1173	523
Arrive On Green	0.00	0.00	0.15	0.04	0.00	0.18	0.00	0.26	0.26	0.08	0.33	0.33
Sat Flow, veh/h	1767	0	1572	1767	0	1572	1767	3528	77	1767	3526	1572
Grp Volume(v), veh/h	1	0	2	25	0	154	3	91	96	65	500	21
Grp Sat Flow(s),veh/h/ln1767	0	1572	1767	0	1572	1767	1763	1842	1767	1763	1572	
Q Serve(g_s), s	0.0	0.0	0.0	0.5	0.0	3.4	0.1	1.6	1.6	1.4	4.2	0.3
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.5	0.0	3.4	0.1	1.6	1.6	1.4	4.2	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	5	0	233	65	0	287	9	458	478	138	1173	523
V/C Ratio(X)	0.22	0.00	0.01	0.39	0.00	0.54	0.34	0.20	0.20	0.47	0.43	0.04
Avail Cap(c_a), veh/h	1377	0	1225	1377	0	1225	1377	2289	2391	1377	4578	2042
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	19.2	0.0	14.0	18.1	0.0	14.3	19.1	11.1	11.1	17.0	10.0	8.7
Incr Delay (d2), s/veh	22.2	0.0	0.0	3.7	0.0	1.6	21.9	0.3	0.3	2.5	0.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.3	0.0	1.2	0.1	0.5	0.5	0.5	1.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.4	0.0	14.0	21.9	0.0	15.8	41.0	11.4	11.4	19.5	10.3	8.7
LnGrp LOS	D	A	B	C	A	B	D	B	B	B	B	A
Approach Vol, veh/h	3			179			190			586		
Approach Delay, s/veh	23.1			16.7			11.9			11.3		
Approach LOS	C			B			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s7.0	15.8	5.4	10.3	4.2	18.6	4.1	11.6					
Change Period (Y+Rc), s 4.0	* 5.8	4.0	4.6	4.0	5.8	4.0	4.6					
Max Green Setting (Gmax), s 30.0	* 50	30.0	30.0	30.0	50.0	30.0	30.0					
Max Q Clear Time (g_c+1), s 13.4	3.6	2.5	2.0	2.1	6.2	2.0	5.4					
Green Ext Time (p_c), s 0.1	1.5	0.0	0.0	0.0	5.0	0.0	1.0					

Intersection Summary

HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy 2020 TMP
63: Corral Hollow Rd & Summit Dr/Middlefield Dr

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	↖
Traffic Volume (veh/h)	0	3	49	374	4	17	7	105	9	3	595	7
Future Volume (veh/h)	0	3	49	374	4	17	7	105	9	3	595	7
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		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1589	1589	1900	1870	1900
Adj Flow Rate, veh/h	0	3	50	382	4	17	7	107	9	3	607	7
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	21	21	0	2	0
Cap, veh/h	3	7	117	443	119	507	20	1084	90	9	747	643
Arrive On Green	0.00	0.08	0.08	0.24	0.38	0.38	0.01	0.38	0.38	0.00	0.40	0.40
Sat Flow, veh/h	1810	92	1532	1810	316	1342	1810	2821	235	1810	1870	1610
Grp Volume(v), veh/h	0	0	53	382	0	21	7	57	59	3	607	7
Grp Sat Flow(s),veh/h/ln	1810	0	1624	1810	0	1658	1810	1509	1547	1810	1870	1610
Q Serve(g_s), s	0.0	0.0	2.2	14.2	0.0	0.6	0.3	1.7	1.7	0.1	20.3	0.2
Cycle Q Clear(g_c), s	0.0	0.0	2.2	14.2	0.0	0.6	0.3	1.7	1.7	0.1	20.3	0.2
Prop In Lane	1.00		0.94	1.00		0.81	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	3	0	124	443	0	626	20	580	594	9	747	643
V/C Ratio(X)	0.00	0.00	0.43	0.86	0.00	0.03	0.35	0.10	0.10	0.34	0.81	0.01
Avail Cap(c_a), veh/h	773	0	693	773	0	708	773	1074	1101	773	1331	1146
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)	0.00	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	0.0	0.0	31.0	25.4	0.0	13.8	34.5	13.8	13.9	34.8	18.8	12.7
Incr Delay (d2), s/veh	0.0	0.0	2.3	5.1	0.0	0.0	10.5	0.1	0.1	21.4	3.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.9	6.3	0.0	0.2	0.2	0.5	0.5	0.1	8.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	33.3	30.5	0.0	13.8	45.0	14.0	14.0	56.2	21.9	12.7
LnGrp LOS	A	A	C	C	A	B	D	B	B	E	C	B
Approach Vol, veh/h		53		403				123			617	
Approach Delay, s/veh		33.3		29.6				15.7			21.9	
Approach LOS		C		C				B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.8	32.8	21.2	10.4	4.8	33.9	0.0	31.6				
Change Period (Y+Rc), s	5.5	5.8	4.0	5.1	4.0	5.8	4.0	5.1				
Max Green Setting (Gmax), s	30.0	50.0	30.0	30.0	30.0	50.0	30.0	30.0				
Max Q Clear Time (g_c+1/2), s	12.5	3.7	16.2	4.2	2.3	22.3	0.0	2.6				
Green Ext Time (p_c), s	0.0	0.9	1.0	0.2	0.0	5.8	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	24.4
HCM 6th LOS	C

Notes

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

Intersection						
Int Delay, s/veh	125.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	246	39	82	68	108	860
Future Vol, veh/h	246	39	82	68	108	860
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	89	89	89	89	89	89
Heavy Vehicles, %	13	51	7	41	24	1
Mvmt Flow	276	44	92	76	121	966
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1338	130	0	0	168	0
Stage 1	130	-	-	-	-	-
Stage 2	1208	-	-	-	-	-
Critical Hdwy	6.53	6.71	-	-	4.34	-
Critical Hdwy Stg 1	5.53	-	-	-	-	-
Critical Hdwy Stg 2	5.53	-	-	-	-	-
Follow-up Hdwy	3.617	3.759	-	-	2.416	-
Pot Cap-1 Maneuver	~ 160	804	-	-	1287	-
Stage 1	870	-	-	-	-	-
Stage 2	~ 269	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	~ 128	804	-	-	1287	-
Mov Cap-2 Maneuver	~ 128	-	-	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	~ 214	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	\$ 615.7	0	0.9			
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	145	1287	-	
HCM Lane V/C Ratio	-	-	2.208	0.094	-	
HCM Control Delay (s)	-	-	\$ 615.7	8.1	0	
HCM Lane LOS	-	-	F	A	A	
HCM 95th %tile Q(veh)	-	-	26.4	0.3	-	
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

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	0	0	0	159	2	117	1	124	0	0	228	678
Future Vol, veh/h	0	0	0	159	2	117	1	124	0	0	228	678
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	-	-	-	-	-	20	-	-	-	-	-	-
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	183	2	134	1	143	0	0	262	779
Major/Minor	Minor1			Major1			Major2					
Conflicting Flow All				797	1186	143	1041	0	-	-	-	0
Stage 1				145	145	-	-	-	-	-	-	-
Stage 2				652	1041	-	-	-	-	-	-	-
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				356	190	854	676	-	0	0	-	-
Stage 1				882	781	-	-	-	0	0	-	-
Stage 2				518	310	-	-	-	0	0	-	-
Platoon blocked, %				-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver				355	0	854	676	-	-	-	-	-
Mov Cap-2 Maneuver				355	0	-	-	-	-	-	-	-
Stage 1				880	0	-	-	-	-	-	-	-
Stage 2				518	0	-	-	-	-	-	-	-
Approach	WB			NB			SB					
HCM Control Delay, s				19.1			0.1			0		
HCM LOS				C								
Minor Lane/Major Mvmt	NBL	NBTWBLn1	WBLn2	SBT	SBR							
Capacity (veh/h)	676	-	355	854	-	-						
HCM Lane V/C Ratio	0.002	-	0.521	0.157	-	-						
HCM Control Delay (s)	10.3	0	25.7	10	-	-						
HCM Lane LOS	B	A	D	B	-	-						
HCM 95th %tile Q(veh)	0	-	2.9	0.6	-	-						

Intersection												
Int Delay, s/veh	5.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔					↔			↔	
Traffic Vol, veh/h	117	2	4	0	0	0	0	8	6	71	316	0
Future Vol, veh/h	117	2	4	0	0	0	0	8	6	71	316	0
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	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	40	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	26	50	0	0	0	0	0	0	0	28	1	0
Mvmt Flow	141	2	5	0	0	0	0	10	7	86	381	0
Major/Minor	Minor2			Major1			Major2					
Conflicting Flow All	567	570	381	-	-	-	0	0	17	0	0	0
Stage 1	553	553	-	-	-	-	-	-	-	-	-	-
Stage 2	14	17	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	6.66	7	6.2	-	-	-	-	-	4.38	-	-	-
Critical Hdwy Stg 1	5.66	6	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.66	6	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.734	4.45	3.3	-	-	-	-	-	2.452	-	-	-
Pot Cap-1 Maneuver	447	372	671	-	-	-	0	-	-	1446	-	0
Stage 1	531	444	-	-	-	-	0	-	-	-	-	0
Stage 2	950	795	-	-	-	-	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	413	0	671	-	-	-	-	-	-	1446	-	-
Mov Cap-2 Maneuver	413	0	-	-	-	-	-	-	-	-	-	-
Stage 1	531	0	-	-	-	-	-	-	-	-	-	-
Stage 2	879	0	-	-	-	-	-	-	-	-	-	-
Approach	EB			NB			SB					
HCM Control Delay, s	18			0			1.4					
HCM LOS	C											
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT						
Capacity (veh/h)	-	-	413	671	1446	-						
HCM Lane V/C Ratio	-	-	0.347	0.007	0.059	-						
HCM Control Delay (s)	-	-	18.3	10.4	7.6	0						
HCM Lane LOS	-	-	C	B	A	A						
HCM 95th %tile Q(veh)	-	-	1.5	0	0.2	-						

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑			↑
Traffic Vol, veh/h	7	8	132	14	31	251
Future Vol, veh/h	7	8	132	14	31	251
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	90	90	90	90	90	90
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	8	9	147	16	34	279
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	502	155	0	0	163	0
Stage 1	155	-	-	-	-	-
Stage 2	347	-	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.18	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.272	-
Pot Cap-1 Maneuver	518	875	-	-	1380	-
Stage 1	859	-	-	-	-	-
Stage 2	702	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	503	875	-	-	1380	-
Mov Cap-2 Maneuver	503	-	-	-	-	-
Stage 1	859	-	-	-	-	-
Stage 2	682	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10.7	0	0.8			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	650	1380		
HCM Lane V/C Ratio	-	-	0.026	0.025		
HCM Control Delay (s)	-	-	10.7	7.7		
HCM Lane LOS	-	-	B	A		
HCM 95th %tile Q(veh)	-	-	0.1	0.1		

Intersection	
Intersection Delay, s/veh	12.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕	↕	↕	↕	
Traffic Vol, veh/h	7	67	32	50	26	16	43	152	199	30	226	5
Future Vol, veh/h	7	67	32	50	26	16	43	152	199	30	226	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	3	3	3	8	3	8	3	8	8	8	8	3
Mvmt Flow	8	74	36	56	29	18	48	169	221	33	251	6
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	2	1
HCM Control Delay	11.6	11.4	11.3	14.2
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	7%	66%	0%	100%	0%
Vol Thru, %	0%	100%	0%	63%	34%	0%	0%	98%
Vol Right, %	0%	0%	100%	30%	0%	100%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	43	152	199	106	76	16	30	231
LT Vol	43	0	0	7	50	0	30	0
Through Vol	0	152	0	67	26	0	0	226
RT Vol	0	0	199	32	0	16	0	5
Lane Flow Rate	48	169	221	118	84	18	33	257
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.089	0.295	0.342	0.224	0.176	0.031	0.065	0.462
Departure Headway (Hd)	6.698	6.278	5.57	6.85	7.491	6.363	6.994	6.473
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	534	571	643	522	477	559	511	554
Service Time	4.456	4.036	3.328	4.625	5.27	4.142	4.755	4.233
HCM Lane V/C Ratio	0.09	0.296	0.344	0.226	0.176	0.032	0.065	0.464
HCM Control Delay	10.1	11.7	11.2	11.6	11.9	9.3	10.2	14.7
HCM Lane LOS	B	B	B	B	B	A	B	B
HCM 95th-tile Q	0.3	1.2	1.5	0.9	0.6	0.1	0.2	2.4

Tracy 2020 TMP
72: TRACY BLVD & 205 WB ramps

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕		↖	↗			↕	
Traffic Volume (veh/h)	0	0	0	729	82	219	153	158	0	0	277	48
Future Volume (veh/h)	0	0	0	729	82	219	153	158	0	0	277	48
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		No		
Adj Sat Flow, veh/h/ln				1900	1856	1900	1856	1781	0	0	1781	1781
Adj Flow Rate, veh/h				792	89	238	166	172	0	0	301	52
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	3	0	3	8	0	0	8	8
Cap, veh/h				636	72	191	221	1280	0	0	585	100
Arrive On Green				0.52	0.52	0.51	0.12	0.38	0.00	0.00	0.20	0.19
Sat Flow, veh/h				1223	137	368	1767	3474	0	0	2980	494
Grp Volume(v), veh/h				1119	0	0	166	172	0	0	175	178
Grp Sat Flow(s),veh/h/ln				1728	0	0	1767	1692	0	0	1692	1693
Q Serve(g_s), s				40.9	0.0	0.0	7.1	2.6	0.0	0.0	7.2	7.4
Cycle Q Clear(g_c), s				40.9	0.0	0.0	7.1	2.6	0.0	0.0	7.2	7.4
Prop In Lane				0.71		0.21	1.00		0.00	0.00		0.29
Lane Grp Cap(c), veh/h				899	0	0	221	1280	0	0	342	342
V/C Ratio(X)				1.24	0.00	0.00	0.75	0.13	0.00	0.00	0.51	0.52
Avail Cap(c_a), veh/h				899	0	0	562	1976	0	0	988	988
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	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				19.0	0.0	0.0	33.2	16.0	0.0	0.0	27.9	28.1
Incr Delay (d2), s/veh				119.5	0.0	0.0	6.7	0.0	0.0	0.0	1.2	1.2
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				43.7	0.0	0.0	3.3	1.0	0.0	0.0	2.9	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				138.5	0.0	0.0	39.9	16.1	0.0	0.0	29.1	29.3
LnGrp LOS				F	A	A	D	B	A	A	C	C
Approach Vol, veh/h				1119			338			353		
Approach Delay, s/veh				138.5			27.8			29.2		
Approach LOS				F			C			C		
Timer - Assigned Phs		2		5	6		8					
Phs Duration (G+Y+Rc), s		33.7		13.8	19.9		44.9					
Change Period (Y+Rc), s		4.9		4.0	4.9		4.9					
Max Green Setting (Gmax), s		45.0		25.0	45.0		40.0					
Max Q Clear Time (g_c+I1), s		4.6		9.1	9.4		42.9					
Green Ext Time (p_c), s		0.8		0.7	1.4		0.0					
Intersection Summary												
HCM 6th Ctrl Delay				96.5								
HCM 6th LOS				F								

Tracy 2020 TMP
73: TRACY BLVD & 205 EB Ramps

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Volume (veh/h)	59	123	67	0	0	0	0	252	356	247	759	0
Future Volume (veh/h)	59	123	67	0	0	0	0	252	356	247	759	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	1856	1900				0	1856	1856	1781	1856	0
Adj Flow Rate, veh/h	64	134	73				0	274	387	268	825	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	3	0				0	3	3	8	3	0
Cap, veh/h	90	188	103				0	593	529	353	2200	0
Arrive On Green	0.22	0.22	0.20				0.00	0.34	0.32	0.21	0.62	0.00
Sat Flow, veh/h	413	865	471				0	1856	1572	1697	3618	0
Grp Volume(v), veh/h	271	0	0				0	274	387	268	825	0
Grp Sat Flow(s),veh/h/ln1750		0	0				0	1763	1572	1697	1763	0
Q Serve(g_s), s	7.3	0.0	0.0				0.0	6.2	11.0	7.5	5.8	0.0
Cycle Q Clear(g_c), s	7.3	0.0	0.0				0.0	6.2	11.0	7.5	5.8	0.0
Prop In Lane	0.24		0.27				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	381	0	0				0	593	529	353	2200	0
V/C Ratio(X)	0.71	0.00	0.00				0.00	0.46	0.73	0.76	0.38	0.00
Avail Cap(c_a), veh/h	1245	0	0				0	1603	1430	840	3206	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	1.00	0.00
Uniform Delay (d), s/veh	18.4	0.0	0.0				0.0	13.2	15.2	18.8	4.7	0.0
Incr Delay (d2), s/veh	2.5	0.0	0.0				0.0	0.6	2.0	4.4	0.1	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	2.8	0.0	0.0				0.0	2.1	3.6	3.0	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	0.0	0.0				0.0	13.7	17.1	23.2	4.8	0.0
LnGrp LOS	C	A	A				A	B	B	C	A	A
Approach Vol, veh/h		271						661			1093	
Approach Delay, s/veh		20.9						15.7			9.3	
Approach LOS		C						B			A	
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	14.5	21.0		15.0			35.5					
Change Period (Y+Rc), s	4.0	4.9		4.9			4.9					
Max Green Setting (Gmax), s	25.0	45.0		35.0			45.0					
Max Q Clear Time (g_c+I), s	19.5	13.0		9.3			7.8					
Green Ext Time (p_c), s	1.3	3.0		1.1			4.3					

Intersection Summary

HCM 6th Ctrl Delay			12.9									
HCM 6th LOS			B									

Tracy 2020 TMP
74: TRACY BLVD & GRANT LINE RD

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	268	81	95	316	49	67	331	79	162	417	178
Future Volume (veh/h)	123	268	81	95	316	49	67	331	79	162	417	178
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	134	291	88	103	343	53	73	360	86	176	453	193
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	167	1341	398	135	1478	226	115	483	114	204	543	229
Arrive On Green	0.09	0.50	0.50	0.08	0.48	0.48	0.06	0.17	0.16	0.12	0.22	0.22
Sat Flow, veh/h	1767	2680	795	1767	3065	469	1767	2830	668	1767	2414	1020
Grp Volume(v), veh/h	134	189	190	103	196	200	73	223	223	176	330	316
Grp Sat Flow(s),veh/h/ln	1767	1763	1712	1767	1763	1771	1767	1763	1735	1767	1763	1672
Q Serve(g_s), s	8.9	7.2	7.5	6.9	7.8	7.9	4.8	14.4	14.7	11.7	21.4	21.7
Cycle Q Clear(g_c), s	8.9	7.2	7.5	6.9	7.8	7.9	4.8	14.4	14.7	11.7	21.4	21.7
Prop In Lane	1.00		0.46	1.00		0.26	1.00		0.38	1.00		0.61
Lane Grp Cap(c), veh/h	167	882	857	135	850	854	115	301	296	204	396	376
V/C Ratio(X)	0.80	0.21	0.22	0.76	0.23	0.23	0.64	0.74	0.75	0.86	0.83	0.84
Avail Cap(c_a), veh/h	199	882	857	258	850	854	265	551	542	258	551	522
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)	0.67	0.67	0.67	0.81	0.81	0.81	0.82	0.82	0.82	0.92	0.92	0.92
Uniform Delay (d), s/veh	53.2	16.8	16.9	54.4	18.1	18.2	54.7	47.3	47.6	52.2	44.3	44.8
Incr Delay (d2), s/veh	10.5	0.4	0.4	2.7	0.5	0.5	1.8	3.0	3.2	16.9	7.0	8.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	2.9	2.9	3.1	3.2	3.3	2.2	6.5	6.6	6.1	10.0	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.8	17.2	17.3	57.1	18.6	18.7	56.5	50.2	50.8	69.1	51.3	52.8
LnGrp LOS	E	B	B	E	B	B	E	D	D	E	D	D
Approach Vol, veh/h		513			499			519			822	
Approach Delay, s/veh		29.4			26.6			51.3			55.7	
Approach LOS		C			C			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.3	24.5	13.2	64.1	11.8	31.0	15.3	61.9				
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5				
Max Green Setting (Gmax), s	17.5	36.5	17.0	30.5	17.5	36.5	13.0	34.5				
Max Q Clear Time (g_c+ll), s	16.7	16.7	8.9	9.5	6.8	23.7	10.9	9.9				
Green Ext Time (p_c), s	0.1	1.7	0.1	1.4	0.1	2.3	0.0	1.4				

Intersection Summary

HCM 6th Ctrl Delay	42.8
HCM 6th LOS	D

Notes

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

Tracy 2020 TMP
75: TRACY BLVD & ELEVENTH ST.

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖
Traffic Volume (veh/h)	124	780	116	147	430	75	147	575	293	58	223	103
Future Volume (veh/h)	124	780	116	147	430	75	147	575	293	58	223	103
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	135	848	126	160	467	82	160	625	318	63	242	112
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	276	1675	747	279	1677	748	279	865	386	244	829	370
Arrive On Green	0.08	0.48	0.48	0.08	0.48	0.48	0.08	0.25	0.25	0.07	0.24	0.24
Sat Flow, veh/h	3428	3526	1572	3428	3526	1572	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	135	848	126	160	467	82	160	625	318	63	242	112
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1714	1763	1572	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	4.1	18.3	5.0	4.9	8.8	3.2	4.9	17.9	21.0	1.9	6.2	6.5
Cycle Q Clear(g_c), s	4.1	18.3	5.0	4.9	8.8	3.2	4.9	17.9	21.0	1.9	6.2	6.5
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	276	1675	747	279	1677	748	279	865	386	244	829	370
V/C Ratio(X)	0.49	0.51	0.17	0.57	0.28	0.11	0.57	0.72	0.82	0.26	0.29	0.30
Avail Cap(c_a), veh/h	514	1675	747	514	1677	748	670	1074	479	514	913	407
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)	0.53	0.53	0.53	1.00	1.00	1.00	0.82	0.82	0.82	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	20.0	16.5	48.7	17.4	16.0	48.7	38.1	39.3	48.3	34.5	34.6
Incr Delay (d2), s/veh	0.3	0.6	0.3	0.7	0.4	0.3	0.6	1.0	6.4	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	7.5	1.8	2.1	3.6	1.2	2.1	7.7	8.6	0.8	2.6	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.7	20.5	16.7	49.4	17.8	16.3	49.3	39.1	45.6	48.5	34.6	34.8
LnGrp LOS	D	C	B	D	B	B	D	D	D	D	C	C
Approach Vol, veh/h		1109			709			1103			417	
Approach Delay, s/veh		23.5			24.8			42.5			36.8	
Approach LOS		C			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.4	55.8	12.4	29.4	12.4	55.8	11.3	30.5				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5				
Max Green Setting (Gmax), s	15.5	27.5	20.5	26.5	15.5	27.5	15.5	31.5				
Max Q Clear Time (g_c+10), s	10.5	20.3	6.9	8.5	6.1	10.8	3.9	23.0				
Green Ext Time (p_c), s	0.2	2.4	0.3	0.8	0.2	1.8	0.1	1.9				

Intersection Summary

HCM 6th Ctrl Delay	31.7
HCM 6th LOS	C

Notes

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

HCM 6th Edition methodology does not support clustered intersections.

DRAFT

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	58	0	7	33	0	40	0	970	122	52	362	12
Future Vol, veh/h	58	0	7	33	0	40	0	970	122	52	362	12
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	63	0	8	36	0	43	0	1054	133	57	393	13
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1041	1701	203	1432	1641	594	406	0	0	1187	0	0
Stage 1	514	514	-	1121	1121	-	-	-	-	-	-	-
Stage 2	527	1187	-	311	520	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	183	90	801	94	98	446	1142	-	-	578	-	-
Stage 1	509	531	-	218	278	-	-	-	-	-	-	-
Stage 2	500	258	-	671	528	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	153	81	801	86	88	446	1142	-	-	578	-	-
Mov Cap-2 Maneuver	153	81	-	86	88	-	-	-	-	-	-	-
Stage 1	509	478	-	218	278	-	-	-	-	-	-	-
Stage 2	451	258	-	599	476	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	41.2		50.9			0			1.5			
HCM LOS	E		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1142	-	-	168	154	578	-	-				
HCM Lane V/C Ratio	-	-	-	0.421	0.515	0.098	-	-				
HCM Control Delay (s)	0	-	-	41.2	50.9	11.9	-	-				
HCM Lane LOS	A	-	-	E	F	B	-	-				
HCM 95th %tile Q(veh)	0	-	-	1.9	2.5	0.3	-	-				

Tracy 2020 TMP
78: TRACY BLVD & SCHULTE ROAD

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↗	↖	↗	↗
Traffic Volume (veh/h)	247	267	80	90	289	76	163	810	134	28	308	45
Future Volume (veh/h)	247	267	80	90	289	76	163	810	134	28	308	45
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	268	290	87	98	314	83	177	880	146	30	335	49
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	318	672	198	159	444	115	222	950	424	71	649	289
Arrive On Green	0.18	0.25	0.25	0.09	0.16	0.16	0.13	0.27	0.27	0.04	0.18	0.18
Sat Flow, veh/h	1767	2686	790	1767	2768	720	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	268	188	189	98	198	199	177	880	146	30	335	49
Grp Sat Flow(s),veh/h/ln	1767	1763	1713	1767	1763	1726	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	8.2	5.0	5.2	3.0	5.9	6.1	5.4	13.5	4.2	0.9	4.8	1.5
Cycle Q Clear(g_c), s	8.2	5.0	5.2	3.0	5.9	6.1	5.4	13.5	4.2	0.9	4.8	1.5
Prop In Lane	1.00		0.46	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	318	441	429	159	283	277	222	950	424	71	649	289
V/C Ratio(X)	0.84	0.43	0.44	0.62	0.70	0.72	0.80	0.93	0.34	0.42	0.52	0.17
Avail Cap(c_a), veh/h	333	459	446	333	459	450	333	950	424	333	950	424
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	1.00	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	22.1	17.5	17.6	24.4	22.1	22.2	23.7	19.8	16.4	26.1	20.5	19.1
Incr Delay (d2), s/veh	15.9	0.7	0.7	1.4	3.2	3.5	4.2	14.6	0.5	1.5	0.6	0.3
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	4.4	1.8	1.8	1.2	2.4	2.4	2.3	6.7	1.4	0.4	1.8	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	18.2	18.3	25.9	25.3	25.7	27.9	34.4	16.9	27.6	21.1	19.4
LnGrp LOS	D	B	B	C	C	C	C	C	B	C	C	B
Approach Vol, veh/h		645			495			1203				414
Approach Delay, s/veh		26.4			25.5			31.3				21.4
Approach LOS		C			C			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.5	14.4	6.7	20.0	9.5	19.4	11.5	15.2				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.0	4.5	5.5	4.5	5.0				
Max Green Setting (Gmax), s	10.5	14.5	10.5	15.0	10.5	14.5	10.5	15.0				
Max Q Clear Time (g_c+I1), s	10.2	8.1	2.9	15.5	5.0	7.2	7.4	6.8				
Green Ext Time (p_c), s	0.0	0.8	0.0	0.0	0.0	0.9	0.0	1.1				

Intersection Summary

HCM 6th Ctrl Delay	27.6
HCM 6th LOS	C

Notes

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

Tracy 2020 TMP
79: TRACY BLVD & Central Ave

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	137	53	64	16	55	23	993	272	14	384	30
Future Volume (veh/h)	49	137	53	64	16	55	23	993	272	14	384	30
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	53	149	58	70	17	60	25	1079	296	15	417	33
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	134	196	76	156	60	211	79	1236	336	52	1442	114
Arrive On Green	0.08	0.15	0.15	0.09	0.17	0.17	0.04	0.45	0.45	0.03	0.44	0.44
Sat Flow, veh/h	1767	1272	495	1767	359	1268	1767	2739	745	1767	3310	261
Grp Volume(v), veh/h	53	0	207	70	0	77	25	691	684	15	221	229
Grp Sat Flow(s),veh/h/ln	1767	0	1766	1767	0	1627	1767	1763	1721	1767	1763	1809
Q Serve(g_s), s	1.9	0.0	7.3	2.4	0.0	2.7	0.9	23.0	23.5	0.5	5.3	5.3
Cycle Q Clear(g_c), s	1.9	0.0	7.3	2.4	0.0	2.7	0.9	23.0	23.5	0.5	5.3	5.3
Prop In Lane	1.00		0.28	1.00		0.78	1.00		0.43	1.00		0.14
Lane Grp Cap(c), veh/h	134	0	272	156	0	271	79	795	777	52	768	788
V/C Ratio(X)	0.40	0.00	0.76	0.45	0.00	0.28	0.32	0.87	0.88	0.29	0.29	0.29
Avail Cap(c_a), veh/h	409	0	272	218	0	271	409	815	796	218	815	836
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	28.6	0.0	26.3	28.1	0.0	23.7	30.0	16.1	16.2	30.8	11.8	11.8
Incr Delay (d2), s/veh	0.7	0.0	10.8	0.7	0.0	0.2	0.8	10.4	11.5	1.1	0.4	0.3
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	0.8	0.0	3.7	1.0	0.0	1.0	0.4	9.8	9.9	0.2	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	0.0	37.1	28.8	0.0	23.9	30.9	26.4	27.7	32.0	12.2	12.2
LnGrp LOS	C	A	D	C	A	C	C	C	C	C	B	B
Approach Vol, veh/h		260			147			1400			465	
Approach Delay, s/veh		35.5			26.2			27.2			12.8	
Approach LOS		D			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.4	33.8	10.2	14.5	7.4	32.8	9.4	15.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	30.0	30.0	8.0	10.0	15.0	30.0	15.0	10.0				
Max Q Clear Time (g_c+1), s	12.5	25.5	4.4	9.3	2.9	7.3	3.9	4.7				
Green Ext Time (p_c), s	0.0	3.8	0.0	0.0	0.0	4.1	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	25.1
HCM 6th LOS	C

Notes

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

Tracy 2020 TMP
80: TRACY BLVD & VALPICO RD.

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	230	118	216	289	293	138	552	105	173	405	95
Future Volume (veh/h)	104	230	118	216	289	293	138	552	105	173	405	95
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		No		No
Adj Sat Flow, veh/h/ln	1885	1885	1885	1870	1870	1870	1900	1885	1826	1870	1856	1856
Adj Flow Rate, veh/h	114	253	130	237	318	322	152	607	115	190	445	104
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	1	1	2	2	2	0	1	5	2	3	3
Cap, veh/h	183	578	288	391	927	413	196	846	365	232	733	170
Arrive On Green	0.10	0.25	0.25	0.11	0.26	0.26	0.11	0.24	0.24	0.13	0.26	0.26
Sat Flow, veh/h	1795	2316	1153	3456	3554	1585	1810	3582	1547	1781	2841	659
Grp Volume(v), veh/h	114	194	189	237	318	322	152	607	115	190	275	274
Grp Sat Flow(s),veh/h/ln	1795	1791	1678	1728	1777	1585	1810	1791	1547	1781	1763	1737
Q Serve(g_s), s	4.3	6.4	6.7	4.6	5.1	13.2	5.7	10.9	4.3	7.3	9.6	9.7
Cycle Q Clear(g_c), s	4.3	6.4	6.7	4.6	5.1	13.2	5.7	10.9	4.3	7.3	9.6	9.7
Prop In Lane	1.00		0.69	1.00		1.00	1.00		1.00	1.00		0.38
Lane Grp Cap(c), veh/h	183	447	419	391	927	413	196	846	365	232	455	448
V/C Ratio(X)	0.62	0.43	0.45	0.61	0.34	0.78	0.78	0.72	0.31	0.82	0.60	0.61
Avail Cap(c_a), veh/h	384	767	718	740	1521	678	387	1533	662	381	755	743
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	1.00	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	30.2	22.1	22.2	29.6	21.0	24.0	30.4	24.6	22.1	29.7	22.8	22.9
Incr Delay (d2), s/veh	1.3	0.8	0.9	0.6	0.3	3.9	2.5	1.4	0.6	2.7	1.6	1.6
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	1.8	2.5	2.5	1.8	2.0	4.9	2.4	4.3	1.5	3.1	3.8	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.5	22.9	23.2	30.2	21.3	27.9	32.9	26.0	22.7	32.4	24.4	24.5
LnGrp LOS	C	C	C	C	C	C	C	C	C	C	C	C
Approach Vol, veh/h		497			877			874			739	
Approach Delay, s/veh		25.0			26.1			26.8			26.5	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.6	21.6	12.4	22.5	12.1	23.1	11.6	23.3				
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0				
Max Green Setting (Gmax), s	15.0	30.0	15.0	30.0	15.0	30.0	15.0	30.0				
Max Q Clear Time (g_c+1), s	19.3	12.9	6.6	8.7	7.7	11.7	6.3	15.2				
Green Ext Time (p_c), s	0.1	3.6	0.2	1.8	0.1	2.5	0.0	3.1				

Intersection Summary

HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Notes

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

Tracy 2020 TMP
81: TRACY BLVD & Whispering Wind Dr

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↗		↖	↗	
Traffic Volume (veh/h)	447	26	33	37	101	260	80	219	18	79	409	220
Future Volume (veh/h)	447	26	33	37	101	260	80	219	18	79	409	220
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	486	28	36	40	110	283	87	238	20	86	445	239
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	357	272	349	80	394	334	119	912	76	119	614	327
Arrive On Green	0.20	0.37	0.37	0.05	0.21	0.21	0.07	0.28	0.28	0.07	0.28	0.28
Sat Flow, veh/h	1767	737	948	1767	1856	1572	1767	3294	275	1767	2222	1184
Grp Volume(v), veh/h	486	0	64	40	110	283	87	126	132	86	352	332
Grp Sat Flow(s),veh/h/ln	1767	0	1685	1767	1856	1572	1767	1763	1806	1767	1763	1642
Q Serve(g_s), s	15.0	0.0	1.9	1.6	3.7	12.8	3.6	4.2	4.2	3.5	13.4	13.6
Cycle Q Clear(g_c), s	15.0	0.0	1.9	1.6	3.7	12.8	3.6	4.2	4.2	3.5	13.4	13.6
Prop In Lane	1.00		0.56	1.00		1.00	1.00		0.15	1.00		0.72
Lane Grp Cap(c), veh/h	357	0	621	80	394	334	119	488	500	119	487	454
V/C Ratio(X)	1.36	0.00	0.10	0.50	0.28	0.85	0.73	0.26	0.26	0.73	0.72	0.73
Avail Cap(c_a), veh/h	357	0	621	357	499	423	357	949	972	357	949	884
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	29.7	0.0	15.4	34.6	24.5	28.1	34.0	20.9	21.0	34.0	24.3	24.4
Incr Delay (d2), s/veh	180.3	0.0	0.1	1.8	0.5	13.0	3.2	0.3	0.3	3.1	2.5	2.7
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	23.9	0.0	0.7	0.7	1.6	5.8	1.5	1.6	1.7	1.5	5.3	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	209.9	0.0	15.5	36.4	25.0	41.1	37.2	21.3	21.3	37.1	26.8	27.1
LnGrp LOS	F	A	B	D	C	D	D	C	C	D	C	C
Approach Vol, veh/h		550			433			345			770	
Approach Delay, s/veh		187.3			36.6			25.3			28.1	
Approach LOS		F			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	25.1	7.9	31.9	9.5	25.0	19.5	20.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	15.0	40.0	15.0	20.0	15.0	40.0	15.0	20.0				
Max Q Clear Time (g_c+I), s	15.5	6.2	3.6	3.9	5.6	15.6	17.0	14.8				
Green Ext Time (p_c), s	0.0	1.7	0.0	0.3	0.0	4.9	0.0	0.9				

Intersection Summary

HCM 6th Ctrl Delay	71.1
HCM 6th LOS	E

Notes

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

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT		T	TT
Traffic Vol, veh/h	20	7	152	33	136	461
Future Vol, veh/h	20	7	152	33	136	461
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	-	-	-	120	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	22	8	169	37	151	512
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	746	103	0	0	206	0
Stage 1	188	-	-	-	-	-
Stage 2	558	-	-	-	-	-
Critical Hdwy	6.86	6.96	-	-	4.16	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	-	-	2.23	-
Pot Cap-1 Maneuver	347	929	-	-	1355	-
Stage 1	822	-	-	-	-	-
Stage 2	534	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	308	929	-	-	1355	-
Mov Cap-2 Maneuver	308	-	-	-	-	-
Stage 1	822	-	-	-	-	-
Stage 2	475	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	15.5	0		1.8		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	373	1355	-	
HCM Lane V/C Ratio	-	-	0.08	0.112	-	
HCM Control Delay (s)	-	-	15.5	8	-	
HCM Lane LOS	-	-	C	A	-	
HCM 95th %tile Q(veh)	-	-	0.3	0.4	-	

Intersection	
Intersection Delay, s/veh	41.1
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	43	96	5	14	362	109	3	35	10	295	12	203
Future Vol, veh/h	43	96	5	14	362	109	3	35	10	295	12	203
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	47	104	5	15	393	118	3	38	11	321	13	221
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.5	43	11.5	49.8
HCM LOS	B	E	B	E

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	30%	3%	58%
Vol Thru, %	73%	67%	75%	2%
Vol Right, %	21%	3%	22%	40%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	48	144	485	510
LT Vol	3	43	14	295
Through Vol	35	96	362	12
RT Vol	10	5	109	203
Lane Flow Rate	52	157	527	554
Geometry Grp	1	1	1	1
Degree of Util (X)	0.108	0.312	0.907	0.946
Departure Headway (Hd)	7.482	7.173	6.196	6.146
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	476	499	585	588
Service Time	5.578	5.25	4.249	4.197
HCM Lane V/C Ratio	0.109	0.315	0.901	0.942
HCM Control Delay	11.5	13.5	43	49.8
HCM Lane LOS	B	B	E	E
HCM 95th-tile Q	0.4	1.3	11	12.5

Tracy 2020 TMP
84: CENTRAL AVE/Holly Dr & ELEVENTH ST.

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	715	67	94	557	49	57	362	114	41	89	66
Future Volume (veh/h)	253	715	67	94	557	49	57	362	114	41	89	66
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	275	777	73	102	605	53	62	393	124	45	97	72
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	654	1686	158	128	707	62	80	301	95	58	381	323
Arrive On Green	0.37	0.52	0.52	0.07	0.22	0.22	0.05	0.22	0.22	0.03	0.21	0.21
Sat Flow, veh/h	1767	3257	306	1767	3280	287	1767	1352	427	1767	1856	1572
Grp Volume(v), veh/h	275	420	430	102	325	333	62	0	517	45	97	72
Grp Sat Flow(s),veh/h/ln	1767	1763	1800	1767	1763	1804	1767	0	1779	1767	1856	1572
Q Serve(g_s), s	12.8	16.6	16.6	6.2	19.5	19.6	3.8	0.0	24.5	2.8	4.8	4.2
Cycle Q Clear(g_c), s	12.8	16.6	16.6	6.2	19.5	19.6	3.8	0.0	24.5	2.8	4.8	4.2
Prop In Lane	1.00		0.17	1.00		0.16	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	654	912	932	128	380	389	80	0	396	58	381	323
V/C Ratio(X)	0.42	0.46	0.46	0.80	0.85	0.86	0.77	0.00	1.30	0.78	0.25	0.22
Avail Cap(c_a), veh/h	654	912	932	249	521	533	273	0	396	281	413	350
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	1.00	1.00	0.76	0.76	0.76	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.9	16.8	16.8	50.2	41.5	41.5	51.9	0.0	42.8	52.8	36.6	36.4
Incr Delay (d2), s/veh	0.2	1.7	1.6	3.2	16.8	16.8	5.8	0.0	154.5	8.1	0.1	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	5.4	7.0	7.1	2.9	10.2	10.4	1.8	0.0	27.6	1.4	2.2	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.0	18.5	18.5	53.5	58.3	58.3	57.7	0.0	197.3	60.9	36.8	36.5
LnGrp LOS	C	B	B	D	E	E	E	A	F	E	D	D
Approach Vol, veh/h		1125			760			579			214	
Approach Delay, s/veh		20.3			57.6			182.3			41.7	
Approach LOS		C			E			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	45.2	28.2	9.5	27.1	12.0	61.4	7.6	29.0				
Change Period (Y+Rc), s	4.5	* 4.5	4.5	4.5	4.0	4.5	4.0	4.5				
Max Green Setting (Gmax), s	18.5	* 33	17.0	24.5	15.5	35.5	17.5	24.5				
Max Q Clear Time (g_c+1/4), s	14.8	21.6	5.8	6.8	8.2	18.6	4.8	26.5				
Green Ext Time (p_c), s	0.2	2.2	0.1	0.3	0.1	3.5	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	67.7
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy 2020 TMP
85: CENTRAL AVE & SCHULTE ROAD

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	196	267	29	29	362	120	20	415	67	16	79	61
Future Volume (veh/h)	196	267	29	29	362	120	20	415	67	16	79	61
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	213	290	32	32	393	130	22	451	73	17	86	66
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	259	1022	112	73	558	182	54	528	85	43	324	249
Arrive On Green	0.15	0.32	0.32	0.04	0.21	0.21	0.03	0.34	0.34	0.02	0.33	0.33
Sat Flow, veh/h	1767	3205	351	1767	2611	853	1767	1558	252	1767	974	747
Grp Volume(v), veh/h	213	158	164	32	264	259	22	0	524	17	0	152
Grp Sat Flow(s),veh/h/ln	1767	1763	1792	1767	1763	1702	1767	0	1810	1767	0	1721
Q Serve(g_s), s	7.2	4.1	4.2	1.1	8.5	8.7	0.8	0.0	16.6	0.6	0.0	4.0
Cycle Q Clear(g_c), s	7.2	4.1	4.2	1.1	8.5	8.7	0.8	0.0	16.6	0.6	0.0	4.0
Prop In Lane	1.00		0.20	1.00		0.50	1.00		0.14	1.00		0.43
Lane Grp Cap(c), veh/h	259	562	572	73	377	364	54	0	613	43	0	573
V/C Ratio(X)	0.82	0.28	0.29	0.44	0.70	0.71	0.41	0.00	0.85	0.39	0.00	0.27
Avail Cap(c_a), veh/h	431	860	875	230	860	831	431	0	883	431	0	840
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.5	15.7	15.7	28.8	22.3	22.4	29.3	0.0	18.9	29.5	0.0	15.0
Incr Delay (d2), s/veh	2.5	0.3	0.3	1.6	2.8	3.1	1.8	0.0	6.3	2.1	0.0	0.3
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	2.9	1.5	1.5	0.5	3.4	3.4	0.3	0.0	7.3	0.3	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	16.0	16.0	30.3	25.2	25.5	31.1	0.0	25.2	31.6	0.0	15.3
LnGrp LOS	C	B	B	C	C	C	C	A	C	C	A	B
Approach Vol, veh/h		535			555			546			169	
Approach Delay, s/veh		20.8			25.6			25.4			16.9	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	17.6	5.9	25.0	6.5	24.1	5.5	25.3				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.0	4.5	4.0	4.5				
Max Green Setting (Gmax), s	15.0	30.0	15.0	30.0	8.0	30.0	15.0	30.0				
Max Q Clear Time (g_c+1), s	19.2	10.7	2.8	6.0	3.1	6.2	2.6	18.6				
Green Ext Time (p_c), s	0.0	2.5	0.0	0.7	0.0	1.4	0.0	2.3				

Intersection Summary

HCM 6th Ctrl Delay	23.3
HCM 6th LOS	C

Intersection												
Intersection Delay, s/veh	7.4											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	16	50	13	13	1	42	5	13	0	40	4
Future Vol, veh/h	2	16	50	13	13	1	42	5	13	0	40	4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	3	8	8	8	8	3	8	3	8	3	3	3
Mvmt Flow	2	18	56	14	14	1	47	6	14	0	44	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.1	7.6	7.7	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	70%	3%	48%	0%
Vol Thru, %	8%	24%	48%	91%
Vol Right, %	22%	74%	4%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	68	27	44
LT Vol	42	2	13	0
Through Vol	5	16	13	40
RT Vol	13	50	1	4
Lane Flow Rate	67	76	30	49
Geometry Grp	1	1	1	1
Degree of Util (X)	0.079	0.078	0.036	0.056
Departure Headway (Hd)	4.267	3.737	4.368	4.131
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	835	947	811	860
Service Time	2.317	1.808	2.442	2.188
HCM Lane V/C Ratio	0.08	0.08	0.037	0.057
HCM Control Delay	7.7	7.1	7.6	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.3	0.1	0.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕		↖	↑			↗	
Traffic Volume (veh/h)	0	0	0	557	50	35	175	25	0	0	84	21
Future Volume (veh/h)	0	0	0	557	50	35	175	25	0	0	84	21
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	1856	1900	1678	1781	0	0	1781	1781
Adj Flow Rate, veh/h				619	56	39	194	28	0	0	93	23
Peak Hour Factor				0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %				0	3	0	15	8	0	0	8	8
Cap, veh/h				688	62	43	249	647	0	0	148	37
Arrive On Green				0.45	0.45	0.45	0.16	0.36	0.00	0.00	0.11	0.11
Sat Flow, veh/h				1527	138	96	1598	1781	0	0	1379	341
Grp Volume(v), veh/h				714	0	0	194	28	0	0	0	116
Grp Sat Flow(s),veh/h/ln				1762	0	0	1598	1781	0	0	0	1720
Q Serve(g_s), s				18.3	0.0	0.0	5.7	0.5	0.0	0.0	0.0	3.2
Cycle Q Clear(g_c), s				18.3	0.0	0.0	5.7	0.5	0.0	0.0	0.0	3.2
Prop In Lane				0.87		0.05	1.00		0.00	0.00		0.20
Lane Grp Cap(c), veh/h				794	0	0	249	647	0	0	0	185
V/C Ratio(X)				0.90	0.00	0.00	0.78	0.04	0.00	0.00	0.00	0.63
Avail Cap(c_a), veh/h				1260	0	0	980	910	0	0	0	879
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	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				12.4	0.0	0.0	19.8	10.1	0.0	0.0	0.0	20.9
Incr Delay (d2), s/veh				3.8	0.0	0.0	3.9	0.0	0.0	0.0	0.0	1.3
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				6.1	0.0	0.0	2.1	0.2	0.0	0.0	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				16.2	0.0	0.0	23.7	10.1	0.0	0.0	0.0	22.2
LnGrp LOS				B	A	A	C	B	A	A	A	C
Approach Vol, veh/h					714			222				116
Approach Delay, s/veh					16.2			22.0				22.2
Approach LOS					B			C				C
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		22.7			12.5	10.2		26.2				
Change Period (Y+Rc), s		4.9			4.9	4.9		4.2				
Max Green Setting (Gmax), s		25.0			30.0	25.0		35.0				
Max Q Clear Time (g_c+I1), s		2.5			7.7	5.2		20.3				
Green Ext Time (p_c), s		0.0			0.5	0.1		1.7				
Intersection Summary												
HCM 6th Ctrl Delay												18.1
HCM 6th LOS												B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↑	↗	↘	↑	
Traffic Volume (veh/h)	17	52	285	0	0	0	0	183	422	36	615	0
Future Volume (veh/h)	17	52	285	0	0	0	0	183	422	36	615	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	1856	1900				0	1678	1678	1781	1678	0
Adj Flow Rate, veh/h	18	57	310				0	199	459	39	668	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	3	0				0	15	15	8	15	0
Cap, veh/h	21	67	364				0	702	595	71	905	0
Arrive On Green	0.28	0.28	0.28				0.00	0.42	0.42	0.04	0.54	0.00
Sat Flow, veh/h	76	239	1302				0	1678	1422	1697	1678	0
Grp Volume(v), veh/h	385	0	0				0	199	459	39	668	0
Grp Sat Flow(s),veh/h/ln	1617	0	0				0	1678	1422	1697	1678	0
Q Serve(g_s), s	11.3	0.0	0.0				0.0	3.9	14.0	1.1	15.3	0.0
Cycle Q Clear(g_c), s	11.3	0.0	0.0				0.0	3.9	14.0	1.1	15.3	0.0
Prop In Lane	0.05		0.81				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	452	0	0				0	702	595	71	905	0
V/C Ratio(X)	0.85	0.00	0.00				0.00	0.28	0.77	0.55	0.74	0.00
Avail Cap(c_a), veh/h	804	0	0				0	1834	1555	506	1834	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	1.00	0.00
Uniform Delay (d), s/veh	17.1	0.0	0.0				0.0	9.7	12.6	23.6	8.9	0.0
Incr Delay (d2), s/veh	1.8	0.0	0.0				0.0	0.3	3.1	6.5	1.7	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	3.7	0.0	0.0				0.0	1.1	3.7	0.5	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.9	0.0	0.0				0.0	10.0	15.6	30.1	10.6	0.0
LnGrp LOS	B	A	A				A	A	B	C	B	A
Approach Vol, veh/h		385						658			707	
Approach Delay, s/veh		18.9						13.9			11.6	
Approach LOS		B						B			B	
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	6.1	25.9		18.3			32.0					
Change Period (Y+Rc), s	4.0	4.9		* 4.2			4.9					
Max Green Setting (Gmax), s	15.0	55.0		* 25			55.0					
Max Q Clear Time (g_c+I), s	13.1	16.0		13.3			17.3					
Green Ext Time (p_c), s	0.1	5.1		0.8			5.3					

Intersection Summary

HCM 6th Ctrl Delay	14.1
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy 2020 TMP
89: MACARTHUR DRIVE (N) & PESCADERO AVE

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↖↗		↖↗	↖↗	↖
Traffic Volume (veh/h)	7	0	29	46	1	118	12	420	51	183	712	5
Future Volume (veh/h)	7	0	29	46	1	118	12	420	51	183	712	5
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	1856	1856	1856	1678	1856	1678	1856	1678	1678	1678	1678	1856
Adj Flow Rate, veh/h	8	0	32	50	1	128	13	457	55	199	774	5
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, %	3	3	3	15	3	15	3	15	15	15	15	3
Cap, veh/h	30	0	310	123	477	366	46	759	91	419	1191	587
Arrive On Green	0.02	0.00	0.20	0.08	0.26	0.26	0.03	0.26	0.26	0.14	0.37	0.37
Sat Flow, veh/h	1767	0	1572	1598	1856	1422	1767	2866	343	3100	3188	1572
Grp Volume(v), veh/h	8	0	32	50	1	128	13	253	259	199	774	5
Grp Sat Flow(s),veh/h/ln1767	0	1572	1598	1856	1422	1767	1594	1616	1550	1594	1572	
Q Serve(g_s), s	0.3	0.0	0.9	1.7	0.0	4.2	0.4	7.9	7.9	3.4	11.4	0.1
Cycle Q Clear(g_c), s	0.3	0.0	0.9	1.7	0.0	4.2	0.4	7.9	7.9	3.4	11.4	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	30	0	310	123	477	366	46	422	428	419	1191	587
V/C Ratio(X)	0.27	0.00	0.10	0.41	0.00	0.35	0.28	0.60	0.61	0.48	0.65	0.01
Avail Cap(c_a), veh/h	249	0	943	423	1113	853	468	703	713	820	1406	694
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	27.5	0.0	18.7	24.9	15.6	17.2	27.1	18.2	18.2	22.7	14.7	11.2
Incr Delay (d2), s/veh	1.8	0.0	0.1	0.8	0.0	0.2	1.2	2.0	2.0	0.3	1.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln0.1	0.0	0.0	0.3	0.6	0.0	1.2	0.2	2.7	2.8	1.1	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	0.0	18.8	25.7	15.6	17.4	28.3	20.2	20.2	23.0	15.7	11.2
LnGrp LOS	C	A	B	C	B	B	C	C	C	C	B	B
Approach Vol, veh/h		40			179			525			978	
Approach Delay, s/veh		20.9			19.7			20.4			17.2	
Approach LOS		C			B			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.2	20.0	8.9	15.7	6.0	26.2	5.4	19.1				
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5				
Max Green Setting (Gmax), s	15.0	25.0	15.0	34.0	15.0	25.0	8.0	34.0				
Max Q Clear Time (g_c+1), s	15.4	9.9	3.7	2.9	2.4	13.4	2.3	6.2				
Green Ext Time (p_c), s	0.2	3.5	0.0	0.1	0.0	5.1	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	18.5
HCM 6th LOS	B

Notes

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

Tracy 2020 TMP
 90: MACARTHUR DRIVE (N) & GRANT LINE RD

Existing
 Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	259	243	48	20	257	106	27	128	14	210	309	426
Future Volume (veh/h)	259	243	48	20	257	106	27	128	14	210	309	426
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		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1678	1870	1870	1870	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	282	264	52	22	279	115	29	139	15	228	336	463
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	15	2	2	2	15	15	15	15	15
Cap, veh/h	320	946	184	46	416	167	64	669	71	262	571	510
Arrive On Green	0.18	0.32	0.32	0.03	0.17	0.17	0.04	0.23	0.23	0.16	0.36	0.36
Sat Flow, veh/h	1781	2968	576	1598	2473	995	1781	2906	310	1598	1594	1422
Grp Volume(v), veh/h	282	156	160	22	198	196	29	75	79	228	336	463
Grp Sat Flow(s),veh/h/ln	1781	1777	1767	1598	1777	1691	1781	1594	1622	1598	1594	1422
Q Serve(g_s), s	12.3	5.2	5.4	1.1	8.3	8.6	1.3	3.0	3.1	11.1	13.6	24.6
Cycle Q Clear(g_c), s	12.3	5.2	5.4	1.1	8.3	8.6	1.3	3.0	3.1	11.1	13.6	24.6
Prop In Lane	1.00		0.33	1.00		0.59	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	320	566	563	46	299	285	64	367	373	262	571	510
V/C Ratio(X)	0.88	0.28	0.28	0.47	0.66	0.69	0.46	0.21	0.21	0.87	0.59	0.91
Avail Cap(c_a), veh/h	336	671	667	302	671	639	336	602	613	302	602	537
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	1.00	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	31.8	20.2	20.3	38.0	30.9	31.1	37.5	24.7	24.7	32.4	20.7	24.2
Incr Delay (d2), s/veh	21.1	0.4	0.5	2.8	4.3	5.0	1.9	0.5	0.5	19.1	2.0	19.6
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	7.0	2.2	2.2	0.4	3.8	3.8	0.6	1.2	1.2	5.5	5.1	10.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.9	20.7	20.7	40.7	35.2	36.0	39.4	25.2	25.2	51.5	22.7	43.9
LnGrp LOS	D	C	C	D	D	D	D	C	C	D	C	D
Approach Vol, veh/h		598			416			183			1027	
Approach Delay, s/veh		35.9			35.9			27.4			38.7	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	23.8	7.3	30.3	7.8	34.0	19.3	18.4				
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0				
Max Green Setting (Gmax), s	15.0	30.0	15.0	30.0	15.0	30.0	15.0	30.0				
Max Q Clear Time (g_c+I1), s	11.0	5.1	3.1	7.4	3.3	26.6	14.3	10.6				
Green Ext Time (p_c), s	0.1	1.0	0.0	2.2	0.0	1.9	0.0	2.7				

Intersection Summary

HCM 6th Ctrl Delay	36.5
HCM 6th LOS	D

Notes

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

Tracy 2020 TMP
91: ELEVENTH ST. & MACARTHUR DRIVE

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	542	0	0	1074	125	5	5	5	96	0	54
Future Volume (veh/h)	18	542	0	0	1074	125	5	5	5	96	0	54
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			
Adj Sat Flow, veh/h/ln	1678	1856	1856	0	1678	1678	1856	1856	1856	1856	1856	1678
Adj Flow Rate, veh/h	20	589	0	0	1167	136	5	5	5	104	0	59
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, %	15	3	3	0	15	15	3	3	3	3	3	15
Cap, veh/h	62	2212	0	0	1580	705	160	142	102	412	0	266
Arrive On Green	0.04	0.63	0.00	0.00	0.50	0.50	0.19	0.19	0.19	0.19	0.00	0.19
Sat Flow, veh/h	1598	3618	0	0	3272	1422	327	759	543	1408	0	1422
Grp Volume(v), veh/h	20	589	0	0	1167	136	15	0	0	104	0	59
Grp Sat Flow(s),veh/h/ln	1598	1763	0	0	1594	1422	1630	0	0	1408	0	1422
Q Serve(g_s), s	0.6	3.6	0.0	0.0	14.1	2.6	0.0	0.0	0.0	2.7	0.0	1.7
Cycle Q Clear(g_c), s	0.6	3.6	0.0	0.0	14.1	2.6	0.3	0.0	0.0	3.1	0.0	1.7
Prop In Lane	1.00		0.00	0.00		1.00	0.33		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	62	2212	0	0	1580	705	404	0	0	412	0	266
V/C Ratio(X)	0.32	0.27	0.00	0.00	0.74	0.19	0.04	0.00	0.00	0.25	0.00	0.22
Avail Cap(c_a), veh/h	987	3631	0	0	3283	1464	915	0	0	1156	0	1025
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	1.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.7	4.0	0.0	0.0	9.7	6.8	16.2	0.0	0.0	17.3	0.0	16.7
Incr Delay (d2), s/veh	1.1	0.1	0.0	0.0	0.7	0.1	0.0	0.0	0.0	0.1	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.7	0.0	0.0	3.5	0.6	0.1	0.0	0.0	0.9	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	4.1	0.0	0.0	10.4	7.0	16.2	0.0	0.0	17.4	0.0	16.9
LnGrp LOS	C	A	A	A	B	A	B	A	A	B	A	B
Approach Vol, veh/h	609				1303				15		163	
Approach Delay, s/veh	4.8				10.1				16.2		17.2	
Approach LOS	A				B				B		B	
Timer - Assigned Phs	2		4		5		6		8			
Phs Duration (G+Y+Rc), s	35.0		13.6		6.4		28.6		13.6			
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5		4.5			
Max Green Setting (Gmax), s	50.0		35.0		30.0		50.0		25.0			
Max Q Clear Time (g_c+11), s	5.6		5.1		2.6		16.1		2.3			
Green Ext Time (p_c), s	2.9		0.5		0.0		7.9		0.0			

Intersection Summary

HCM 6th Ctrl Delay	9.1
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	321	42	203	900	0	904	0	269	0	0	0
Future Volume (veh/h)	0	321	42	203	900	0	904	0	269	0	0	0
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	0	349	0	221	978	0	983	0	292	0	0	0
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	3	531		269	1322	0	850	0	756	0	3	0
Arrive On Green	0.00	0.15	0.00	0.15	0.38	0.00	0.48	0.00	0.48	0.00	0.00	0.00
Sat Flow, veh/h	1767	3526	1572	1767	3618	0	1767	0	1572	0	1856	0
Grp Volume(v), veh/h	0	349	0	221	978	0	983	0	292	0	0	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	0	1767	0	1572	0	1856	0
Q Serve(g_s), s	0.0	5.8	0.0	7.6	15.0	0.0	30.0	0.0	7.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	5.8	0.0	7.6	15.0	0.0	30.0	0.0	7.4	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	3	531		269	1322	0	850	0	756	0	3	0
V/C Ratio(X)	0.00	0.66		0.82	0.74	0.00	1.16	0.00	0.39	0.00	0.00	0.00
Avail Cap(c_a), veh/h	566	1695		566	1695	0	850	0	756	0	892	0
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)	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	25.0	0.0	25.6	16.9	0.0	16.2	0.0	10.3	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.4	0.0	2.4	1.3	0.0	83.8	0.0	0.3	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.4	0.0	3.1	5.5	0.0	29.5	0.0	2.2	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	26.4	0.0	28.0	18.2	0.0	100.0	0.0	10.7	0.0	0.0	0.0
LnGrp LOS	A	C		C	B	A	F	A	B	A	A	A
Approach Vol, veh/h		349	A		1199			1275				0
Approach Delay, s/veh		26.4			20.0			79.6				0.0
Approach LOS		C			B			E				
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.0	13.9		0.0	0.0	27.9		34.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	20.0	30.0		30.0	20.0	30.0		30.0				
Max Q Clear Time (g_c+1), s	19.6	7.8		0.0	0.0	17.0		32.0				
Green Ext Time (p_c), s	0.1	1.6		0.0	0.0	4.1		0.0				

Intersection Summary

HCM 6th Ctrl Delay	47.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	8.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	60	35	104	1143	138	77
Future Vol, veh/h	60	35	104	1143	138	77
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	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	65	38	113	1242	150	84
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1660	192	234	0	0	
Stage 1	192	-	-	-	-	
Stage 2	1468	-	-	-	-	
Critical Hdwy	6.43	6.23	4.13	-	-	
Critical Hdwy Stg 1	5.43	-	-	-	-	
Critical Hdwy Stg 2	5.43	-	-	-	-	
Follow-up Hdwy	3.527	3.327	2.227	-	-	
Pot Cap-1 Maneuver	107	847	1328	-	-	
Stage 1	838	-	-	-	-	
Stage 2	210	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	78	847	1328	-	-	
Mov Cap-2 Maneuver	78	-	-	-	-	
Stage 1	608	-	-	-	-	
Stage 2	210	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	123	0.7		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1328	-	117	-	-	
HCM Lane V/C Ratio	0.085	-	0.883	-	-	
HCM Control Delay (s)	8	0	123	-	-	
HCM Lane LOS	A	A	F	-	-	
HCM 95th %tile Q(veh)	0.3	-	5.4	-	-	

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	19	31	934	127	30
Future Vol, veh/h	22	19	31	934	127	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	24	21	34	1015	138	33
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1238	155	171	0	-	0
Stage 1	155	-	-	-	-	-
Stage 2	1083	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	193	888	1400	-	-	-
Stage 1	871	-	-	-	-	-
Stage 2	323	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	182	888	1400	-	-	-
Mov Cap-2 Maneuver	182	-	-	-	-	-
Stage 1	822	-	-	-	-	-
Stage 2	323	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	19.2	0.2	0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1400	-	182	888	-	-
HCM Lane V/C Ratio	0.024	-	0.131	0.023	-	-
HCM Control Delay (s)	7.6	0	27.8	9.2	-	-
HCM Lane LOS	A	A	D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	0.1	-	-

Tracy 2020 TMP
95: MACARTHUR (S) & SCHULTE ROAD

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↖	↗	↖	↗		↖	↗	
Traffic Volume (veh/h)	182	194	29	47	171	40	94	849	11	5	112	18
Future Volume (veh/h)	182	194	29	47	171	40	94	849	11	5	112	18
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	198	213	32	51	186	43	102	923	12	5	122	20
Peak Hour Factor	0.92	0.91	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	183	197	330	63	229	250	130	512	7	147	451	74
Arrive On Green	0.21	0.21	0.21	0.16	0.16	0.16	0.07	0.28	0.28	0.08	0.29	0.29
Sat Flow, veh/h	873	939	1572	395	1441	1572	1767	1828	24	1767	1555	255
Grp Volume(v), veh/h	411	0	32	237	0	43	102	0	935	5	0	142
Grp Sat Flow(s),veh/h/ln	1812	0	1572	1836	0	1572	1767	0	1851	1767	0	1810
Q Serve(g_s), s	15.0	0.0	1.2	8.9	0.0	1.7	4.1	0.0	20.0	0.2	0.0	4.3
Cycle Q Clear(g_c), s	15.0	0.0	1.2	8.9	0.0	1.7	4.1	0.0	20.0	0.2	0.0	4.3
Prop In Lane	0.48		1.00	0.22		1.00	1.00		0.01	1.00		0.14
Lane Grp Cap(c), veh/h	381	0	330	291	0	250	130	0	519	147	0	525
V/C Ratio(X)	1.08	0.00	0.10	0.81	0.00	0.17	0.78	0.00	1.80	0.03	0.00	0.27
Avail Cap(c_a), veh/h	381	0	330	386	0	330	248	0	519	371	0	525
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.2	0.0	22.7	29.0	0.0	26.0	32.5	0.0	25.7	30.1	0.0	19.5
Incr Delay (d2), s/veh	69.1	0.0	0.2	10.3	0.0	0.4	3.8	0.0	368.9	0.0	0.0	0.3
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	13.2	0.0	0.4	4.5	0.0	0.6	1.8	0.0	61.0	0.1	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	97.2	0.0	22.9	39.3	0.0	26.4	36.3	0.0	394.6	30.1	0.0	19.9
LnGrp LOS	F	A	C	D	A	C	D	A	F	C	A	B
Approach Vol, veh/h		443			280			1037				147
Approach Delay, s/veh		91.9			37.3			359.3				20.2
Approach LOS		F			D			F				C
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		19.9	10.6	25.0		15.9	9.9	25.7				
Change Period (Y+Rc), s		4.9	4.6	* 5		4.6	4.6	5.0				
Max Green Setting (Gmax), s		15.0	15.0	* 20		15.0	10.0	20.0				
Max Q Clear Time (g_c+I1), s		17.0	2.2	22.0		10.9	6.1	6.3				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.5	0.0	0.4				

Intersection Summary

HCM 6th Ctrl Delay	223.8
HCM 6th LOS	F

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	↖
Traffic Volume (veh/h)	247	288	23	47	312	33	55	200	84	54	72	153
Future Volume (veh/h)	247	288	23	47	312	33	55	200	84	54	72	153
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		No		No
Adj Sat Flow, veh/h/ln	1796	1870	1870	1900	1870	1870	1841	1826	1826	1900	1826	1826
Adj Flow Rate, veh/h	268	313	25	51	339	36	60	217	91	59	78	166
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, %	7	2	2	0	2	2	4	5	5	0	5	5
Cap, veh/h	313	590	47	132	391	42	158	265	111	144	376	319
Arrive On Green	0.18	0.35	0.35	0.07	0.24	0.24	0.09	0.22	0.22	0.08	0.21	0.21
Sat Flow, veh/h	1711	1709	137	1810	1662	177	1753	1221	512	1810	1826	1547
Grp Volume(v), veh/h	268	0	338	51	0	375	60	0	308	59	78	166
Grp Sat Flow(s),veh/h/ln	1711	0	1846	1810	0	1839	1753	0	1734	1810	1826	1547
Q Serve(g_s), s	10.2	0.0	9.9	1.8	0.0	13.2	2.2	0.0	11.4	2.1	2.4	6.4
Cycle Q Clear(g_c), s	10.2	0.0	9.9	1.8	0.0	13.2	2.2	0.0	11.4	2.1	2.4	6.4
Prop In Lane	1.00		0.07	1.00		0.10	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	313	0	637	132	0	433	158	0	376	144	376	319
V/C Ratio(X)	0.86	0.00	0.53	0.39	0.00	0.87	0.38	0.00	0.82	0.41	0.21	0.52
Avail Cap(c_a), veh/h	382	0	637	404	0	547	391	0	1031	404	543	460
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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	0.0	17.6	29.7	0.0	24.7	28.8	0.0	25.1	29.4	22.1	23.7
Incr Delay (d2), s/veh	13.0	0.0	0.8	0.7	0.0	11.5	0.6	0.0	4.5	0.7	0.3	1.3
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	4.9	0.0	3.8	0.8	0.0	6.5	0.9	0.0	4.7	0.9	1.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	0.0	18.5	30.4	0.0	36.2	29.4	0.0	29.5	30.1	22.4	25.1
LnGrp LOS	D	A	B	C	A	D	C	A	C	C	C	C
Approach Vol, veh/h		606			426			368			303	
Approach Delay, s/veh		27.8			35.5			29.5			25.4	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	28.2	10.7	18.9	16.9	20.8	9.9	19.6				
Change Period (Y+Rc), s	4.6	5.0	4.6	5.0	4.6	5.0	4.6	5.0				
Max Green Setting (Gmax), s	15.0	20.0	15.0	20.0	15.0	20.0	15.0	40.0				
Max Q Clear Time (g_c+1), s	13.8	11.9	4.2	8.4	12.2	15.2	4.1	13.4				
Green Ext Time (p_c), s	0.0	0.8	0.1	0.7	0.2	0.7	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay	29.7
HCM 6th LOS	C

Notes

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

HCM 6th Edition cannot analyze u-turn movements.

DRAFT



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	369	59	287	682	31	448	29	487	20	21	21
Future Volume (veh/h)	108	369	59	287	682	31	448	29	487	20	21	21
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		No		No
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	117	401	64	312	741	34	487	32	0	22	23	0
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, %	15	15	15	15	15	15	15	15	15	15	15	15
Cap, veh/h	176	687	307	349	1031	460	508	28		325	315	
Arrive On Green	0.11	0.22	0.22	0.22	0.32	0.32	0.35	0.35	0.00	0.35	0.35	0.00
Sat Flow, veh/h	1598	3188	1422	1598	3188	1422	1203	79	1422	739	890	1422
Grp Volume(v), veh/h	117	401	64	312	741	34	519	0	0	45	0	0
Grp Sat Flow(s),veh/h/ln	1598	1594	1422	1598	1594	1422	1282	0	1422	1629	0	1422
Q Serve(g_s), s	6.0	9.6	3.1	16.1	17.4	1.4	28.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.0	9.6	3.1	16.1	17.4	1.4	30.0	0.0	0.0	1.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.94		1.00	0.49		1.00
Lane Grp Cap(c), veh/h	176	687	307	349	1031	460	536	0		640	0	
V/C Ratio(X)	0.66	0.58	0.21	0.89	0.72	0.07	0.97	0.00		0.07	0.00	
Avail Cap(c_a), veh/h	942	1880	839	377	1880	839	536	0		640	0	
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	36.2	29.8	27.3	32.2	25.3	19.9	29.1	0.0	0.0	18.2	0.0	0.0
Incr Delay (d2), s/veh	8.8	1.7	0.7	23.8	2.0	0.1	31.5	0.0	0.0	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	3.6	1.1	7.9	6.0	0.4	14.8	0.0	0.0	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	31.5	28.0	56.0	27.3	20.0	60.6	0.0	0.0	18.4	0.0	0.0
LnGrp LOS	D	C	C	E	C	C	E	A		B	A	
Approach Vol, veh/h		582			1087			519	A		45	A
Approach Delay, s/veh		33.8			35.3			60.6			18.4	
Approach LOS		C			D			E			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.5	24.3		36.0	15.4	33.4		36.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	20.0	50.0		30.0	50.0	50.0		30.0				
Max Q Clear Time (g_c+110), s	11.6	11.6		3.5	8.0	19.4		32.0				
Green Ext Time (p_c), s	0.4	4.7		0.3	1.0	8.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	40.5
HCM 6th LOS	D

Notes

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

Intersection						
Int Delay, s/veh	51.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔	↑	↑	
Traffic Vol, veh/h	162	26	120	883	286	117
Future Vol, veh/h	162	26	120	883	286	117
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	-	190	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	176	28	130	960	311	127
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1595	375	438	0	0	
Stage 1	375	-	-	-	-	
Stage 2	1220	-	-	-	-	
Critical Hdwy	6.43	6.23	4.13	-	-	
Critical Hdwy Stg 1	5.43	-	-	-	-	
Critical Hdwy Stg 2	5.43	-	-	-	-	
Follow-up Hdwy	3.527	3.327	2.227	-	-	
Pot Cap-1 Maneuver	~ 117	669	1117	-	-	
Stage 1	693	-	-	-	-	
Stage 2	278	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	~ 103	669	1117	-	-	
Mov Cap-2 Maneuver	~ 103	-	-	-	-	
Stage 1	613	-	-	-	-	
Stage 2	278	-	-	-	-	
Approach	EB	NB	SB			
HCM Control Delay, s	\$ 432.7	1	0			
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1117	-	117	-	-	
HCM Lane V/C Ratio	0.117	-	1.747	-	-	
HCM Control Delay (s)	8.6	-	\$ 432.7	-	-	
HCM Lane LOS	A	-	F	-	-	
HCM 95th %tile Q(veh)	0.4	-	15.8	-	-	
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Intersection	
Intersection Delay, s/veh	26.5
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕	↕	↕		↕	↕	↕
Traffic Vol, veh/h	279	18	98	3	9	29	73	132	3	34	79	166
Future Vol, veh/h	279	18	98	3	9	29	73	132	3	34	79	166
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	3	3	3	3	3	3	3	8	3	3	8	3
Mvmt Flow	399	26	140	4	13	41	104	189	4	49	113	237
Number of Lanes	0	1	1	0	1	1	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay	41.6	11.9	16.1	14.9
HCM LOS	E	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	94%	0%	25%	0%	100%	0%	0%
Vol Thru, %	0%	98%	6%	0%	75%	0%	0%	100%	0%
Vol Right, %	0%	2%	0%	100%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	135	297	98	12	29	34	79	166
LT Vol	73	0	279	0	3	0	34	0	0
Through Vol	0	132	18	0	9	0	0	79	0
RT Vol	0	3	0	98	0	29	0	0	166
Lane Flow Rate	104	193	424	140	17	41	49	113	237
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.249	0.436	0.916	0.256	0.043	0.094	0.113	0.25	0.472
Departure Headway (Hd)	8.586	8.143	7.768	6.583	9.013	8.163	8.402	7.976	7.172
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	418	442	467	545	396	437	426	449	500
Service Time	6.35	5.906	5.52	4.335	6.796	5.945	6.163	5.738	4.934
HCM Lane V/C Ratio	0.249	0.437	0.908	0.257	0.043	0.094	0.115	0.252	0.474
HCM Control Delay	14.2	17.1	51.5	11.6	12.2	11.8	12.2	13.4	16.2
HCM Lane LOS	B	C	F	B	B	B	B	B	C
HCM 95th-tile Q	1	2.2	10.4	1	0.1	0.3	0.4	1	2.5

Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↔	↔	
Traffic Vol, veh/h	4	23	16	16	14	9
Future Vol, veh/h	4	23	16	16	14	9
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	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	4	26	18	18	16	10
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	75	21	26	0	0	
Stage 1	21	-	-	-	-	
Stage 2	54	-	-	-	-	
Critical Hdwy	6.43	6.23	4.13	-	-	
Critical Hdwy Stg 1	5.43	-	-	-	-	
Critical Hdwy Stg 2	5.43	-	-	-	-	
Follow-up Hdwy	3.527	3.327	2.227	-	-	
Pot Cap-1 Maneuver	926	1054	1582	-	-	
Stage 1	999	-	-	-	-	
Stage 2	966	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	916	1054	1582	-	-	
Mov Cap-2 Maneuver	916	-	-	-	-	
Stage 1	988	-	-	-	-	
Stage 2	966	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	8.6	3.7		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1582	-	1031	-	-	
HCM Lane V/C Ratio	0.011	-	0.029	-	-	
HCM Control Delay (s)	7.3	0	8.6	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↖	↗
Traffic Vol, veh/h	3	36	55	28	17	1
Future Vol, veh/h	3	36	55	28	17	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	15	15	15	15	15	15
Mvmt Flow	3	40	61	31	19	1
Number of Lanes	1	1	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	7.4	8.3	7.9
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	94%
Vol Right, %	0%	0%	0%	100%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	55	28	3	36	18
LT Vol	55	0	3	0	0
Through Vol	0	28	0	0	17
RT Vol	0	0	0	36	1
Lane Flow Rate	61	31	3	40	20
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.091	0.042	0.005	0.048	0.026
Departure Headway (Hd)	5.342	4.841	5.557	4.355	4.666
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	671	739	648	827	761
Service Time	3.074	2.574	3.257	2.055	2.735
HCM Lane V/C Ratio	0.091	0.042	0.005	0.048	0.026
HCM Control Delay	8.6	7.8	8.3	7.3	7.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.3	0.1	0	0.2	0.1

Tracy 2020 TMP
106: PARADISE RD & GRANT LINE RD

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑			↕			↕	
Traffic Volume (veh/h)	19	205	39	239	473	209	17	20	11	100	11	5
Future Volume (veh/h)	19	205	39	239	473	209	17	20	11	100	11	5
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	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	21	223	42	260	514	227	18	22	12	109	12	5
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, %	15	15	15	15	15	15	15	15	15	15	15	15
Cap, veh/h	61	527	235	299	678	298	91	111	60	228	25	10
Arrive On Green	0.04	0.17	0.17	0.19	0.31	0.31	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1598	3188	1422	1598	2154	947	548	670	366	1382	152	63
Grp Volume(v), veh/h	21	223	42	260	380	361	52	0	0	126	0	0
Grp Sat Flow(s),veh/h/ln	1598	1594	1422	1598	1594	1507	1584	0	0	1597	0	0
Q Serve(g_s), s	0.9	4.6	1.8	11.5	15.6	15.7	2.1	0.0	0.0	5.2	0.0	0.0
Cycle Q Clear(g_c), s	0.9	4.6	1.8	11.5	15.6	15.7	2.1	0.0	0.0	5.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.63	0.35		0.23	0.87		0.04
Lane Grp Cap(c), veh/h	61	527	235	299	501	474	262	0	0	264	0	0
V/C Ratio(X)	0.35	0.42	0.18	0.87	0.76	0.76	0.20	0.00	0.00	0.48	0.00	0.00
Avail Cap(c_a), veh/h	880	1756	783	440	501	474	807	0	0	880	0	0
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	34.0	27.2	26.1	28.6	22.4	22.4	26.2	0.0	0.0	27.5	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.2	0.1	8.6	5.9	6.4	0.1	0.0	0.0	0.5	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.6	0.6	4.7	5.9	5.7	0.7	0.0	0.0	1.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.3	27.4	26.2	37.2	28.3	28.9	26.3	0.0	0.0	28.0	0.0	0.0
LnGrp LOS	D	C	C	D	C	C	C	A	A	C	A	A
Approach Vol, veh/h		286			1001			52			126	
Approach Delay, s/veh		27.8			30.8			26.3			28.0	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.6	18.0		18.0	8.8	28.8		17.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		5.0				
Max Green Setting (Gmax), s	20.0	40.0		37.0	40.0	22.0		40.0				
Max Q Clear Time (g_c+I), s	11.5	6.6		4.1	2.9	17.7		7.2				
Green Ext Time (p_c), s	0.2	0.9		0.1	0.0	1.2		0.4				

Intersection Summary

HCM 6th Ctrl Delay	29.8
HCM 6th LOS	C

DRAFT

Tracy 2020 TMP
76: TRACY BLVD & W 6th St

Existing
Timing Plan: AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	4	0	72	0	35	0	1033	212	45	367	0
Future Volume (vph)	0	4	0	72	0	35	0	1033	212	45	367	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			5.0		4.5	5.0	
Lane Util. Factor		1.00			1.00			0.95		1.00	0.95	
Frt		1.00			0.96			0.97		1.00	1.00	
Flt Protected		1.00			0.97			1.00		0.95	1.00	
Satd. Flow (prot)		1845			1706			3415		1752	3505	
Flt Permitted		1.00			0.80			1.00		0.95	1.00	
Satd. Flow (perm)		1845			1404			3415		1752	3505	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	4	0	78	0	38	0	1123	230	49	399	0
RTOR Reduction (vph)	0	0	0	0	103	0	0	7	0	0	0	0
Lane Group Flow (vph)	0	4	0	0	13	0	0	1346	0	49	399	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type		NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		10.4			10.4			78.9		6.7	90.1	
Effective Green, g (s)		10.4			10.4			78.9		6.7	90.1	
Actuated g/C Ratio		0.09			0.09			0.72		0.06	0.82	
Clearance Time (s)		4.5			4.5			5.0		4.5	5.0	
Vehicle Extension (s)		2.0			2.5			3.0		1.0	3.0	
Lane Grp Cap (vph)		174			132			2449		106	2870	
v/s Ratio Prot		0.00						c0.39		c0.03	0.11	
v/s Ratio Perm					c0.01							
v/c Ratio		0.02			0.10			0.55		0.46	0.14	
Uniform Delay, d1		45.2			45.5			7.3		49.9	2.0	
Progression Factor		1.00			1.00			1.00		1.37	1.17	
Incremental Delay, d2		0.0			0.2			0.9		1.1	0.1	
Delay (s)		45.2			45.7			8.2		69.3	2.5	
Level of Service		D			D			A		E	A	
Approach Delay (s)		45.2			45.7			8.2			9.8	
Approach LOS		D			D			A			A	
Intersection Summary												
HCM 2000 Control Delay			10.9									B
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			110.0							18.5		
Intersection Capacity Utilization			58.1%									B
Analysis Period (min)			15									
c Critical Lane Group												



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↑↑↑		↔	↑↑↑	↔	↔
Traffic Volume (vph)	0	217	77	90	367	18	6
Future Volume (vph)	0	217	77	90	367	18	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0	6.0	6.0
Lane Util. Factor		0.91		1.00	0.91	1.00	1.00
Frt		0.96		1.00	1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)		4333		1570	4510	1570	1404
Flt Permitted		1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)		4333		1570	4510	1570	1404
Peak-hour factor, PHF	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	0	271	96	112	459	22	8
RTOR Reduction (vph)	0	58	0	0	0	0	8
Lane Group Flow (vph)	0	309	0	113	459	23	0
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	15%
Turn Type	Prot	NA		Prot	NA	Prot	Perm
Protected Phases	5	2		1	6	8	
Permitted Phases							8
Actuated Green, G (s)		17.4		8.0	31.4	0.8	0.8
Effective Green, g (s)		17.4		8.0	31.4	0.8	0.8
Actuated g/C Ratio		0.39		0.18	0.71	0.02	0.02
Clearance Time (s)		6.0		6.0	6.0	6.0	6.0
Vehicle Extension (s)		2.0		3.0	2.0	1.0	1.0
Lane Grp Cap (vph)		1705		284	3203	28	25
v/s Ratio Prot		c0.07		c0.07	0.10	c0.01	
v/s Ratio Perm							0.00
v/c Ratio		0.18		0.40	0.14	0.82	0.01
Uniform Delay, d1		8.7		16.0	2.1	21.6	21.3
Progression Factor		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		0.0		0.9	0.0	92.8	0.0
Delay (s)		8.8		16.9	2.1	114.4	21.3
Level of Service		A		B	A	F	C
Approach Delay (s)		8.8			5.0	90.4	
Approach LOS		A			A	F	

Intersection Summary			
HCM 2000 Control Delay	9.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	44.2	Sum of lost time (s)	18.0
Intersection Capacity Utilization	43.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Tracy 2020 TMP
1: International Pkwy & I-205 WB On-Ramp

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↗↘	↖	↕↕			↕↕↕	↖
Traffic Volume (veh/h)	0	0	0	205	4	301	18	271	0	0	401	34
Future Volume (veh/h)	0	0	0	205	4	301	18	271	0	0	401	34
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				1678	1678	1678	1678	1678	0	0	1678	1678
Adj Flow Rate, veh/h				223	4	327	20	295	0	0	436	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				15	15	15	15	15	0	0	15	15
Cap, veh/h				360	6	574	64	1531	0	0	1462	
Arrive On Green				0.26	0.23	0.23	0.04	0.48	0.00	0.00	0.32	0.00
Sat Flow, veh/h				1571	28	2502	1598	3272	0	0	4731	1422
Grp Volume(v), veh/h				227	0	327	20	295	0	0	436	0
Grp Sat Flow(s),veh/h/ln				1599	0	1251	1598	1594	0	0	1527	1422
Q Serve(g_s), s				4.7	0.0	4.3	0.5	2.0	0.0	0.0	2.7	0.0
Cycle Q Clear(g_c), s				4.7	0.0	4.3	0.5	2.0	0.0	0.0	2.7	0.0
Prop In Lane				0.98		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				367	0	574	64	1531	0	0	1462	
V/C Ratio(X)				0.62	0.00	0.57	0.31	0.19	0.00	0.00	0.30	
Avail Cap(c_a), veh/h				1071	0	1676	709	3798	0	0	2870	
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	1.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				12.4	0.0	12.7	17.3	5.5	0.0	0.0	9.5	0.0
Incr Delay (d2), s/veh				1.0	0.0	0.5	1.0	0.0	0.0	0.0	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				1.4	0.0	1.0	0.2	0.4	0.0	0.0	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				13.4	0.0	13.3	18.4	5.6	0.0	0.0	9.6	0.0
LnGrp LOS				B	A	B	B	A	A	A	A	
Approach Vol, veh/h					554			315			436	A
Approach Delay, s/veh					13.3			6.4			9.6	
Approach LOS					B			A			A	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		23.6			6.0	17.6		13.6				
Change Period (Y+Rc), s		5.7			4.5	5.7		5.1				
Max Green Setting (Gmax), s		44.3			16.5	23.3		24.9				
Max Q Clear Time (g_c+I1), s		4.0			2.5	4.7		6.7				
Green Ext Time (p_c), s		1.4			0.0	1.9		1.9				

Intersection Summary

HCM 6th Ctrl Delay	10.4
HCM 6th LOS	B

Notes

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

Tracy 2020 TMP
 2: International Pkwy & I-205 EB Off-Ramp/I-205 EB On-Ramp

Existing
 Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↖	↗					↑↑	↗		↑↑	
Traffic Volume (veh/h)	112	1	28	0	0	0	0	177	512	0	328	0
Future Volume (veh/h)	112	1	28	0	0	0	0	177	512	0	328	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		No	
Adj Sat Flow, veh/h/ln	1678	1678	1678				0	1678	1678	0	1678	0
Adj Flow Rate, veh/h	125	0	31				0	197	569	0	364	0
Peak Hour Factor	0.90	0.90	0.90				0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	15	15	15				0	15	15	0	15	0
Cap, veh/h	358	0	159				0	2322	1036	0	2322	0
Arrive On Green	0.11	0.00	0.11				0.00	0.73	0.73	0.00	0.73	0.00
Sat Flow, veh/h	3196	0	1422				0	3272	1422	0	3355	0
Grp Volume(v), veh/h	125	0	31				0	197	569	0	364	0
Grp Sat Flow(s),veh/h/ln	1598	0	1422				0	1594	1422	0	1594	0
Q Serve(g_s), s	2.4	0.0	1.3				0.0	1.2	12.3	0.0	2.4	0.0
Cycle Q Clear(g_c), s	2.4	0.0	1.3				0.0	1.2	12.3	0.0	2.4	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	358	0	159				0	2322	1036	0	2322	0
V/C Ratio(X)	0.35	0.00	0.19				0.00	0.08	0.55	0.00	0.16	0.00
Avail Cap(c_a), veh/h	940	0	418				0	2322	1036	0	2322	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	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	27.8	0.0	27.3				0.0	2.7	4.2	0.0	2.8	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.2				0.0	0.1	2.1	0.0	0.1	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	0.9	0.0	0.4				0.0	0.3	2.7	0.0	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	0.0	27.5				0.0	2.7	6.3	0.0	3.0	0.0
LnGrp LOS	C	A	C				A	A	A	A	A	A
Approach Vol, veh/h		156						766			364	
Approach Delay, s/veh		27.9						5.3			3.0	
Approach LOS		C						A			A	
Timer - Assigned Phs		2		4			6					
Phs Duration (G+Y+Rc), s		55.0		12.7			55.0					
Change Period (Y+Rc), s		5.7		5.1			5.7					
Max Green Setting (Gmax), s		49.3		19.9			49.3					
Max Q Clear Time (g_c+I1), s		14.3		4.4			4.4					
Green Ext Time (p_c), s		2.1		0.0			1.7					

Intersection Summary

HCM 6th Ctrl Delay	7.4
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Tracy 2020 TMP
4: International Pkwy & Promontory Pkwy

Existing
Timing Plan: PM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	16	3	0	656	350	2
Future Volume (veh/h)	16	3	0	656	350	2
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	1678	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	18	3	0	745	398	2
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	15	15	15	15	15	15
Cap, veh/h	43	38	6	1027	1027	871
Arrive On Green	0.03	0.03	0.00	0.61	0.61	0.61
Sat Flow, veh/h	1598	1422	1598	1678	1678	1422
Grp Volume(v), veh/h	18	3	0	745	398	2
Grp Sat Flow(s),veh/h/ln	1598	1422	1598	1678	1678	1422
Q Serve(g_s), s	0.3	0.1	0.0	8.4	3.3	0.0
Cycle Q Clear(g_c), s	0.3	0.1	0.0	8.4	3.3	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	43	38	6	1027	1027	871
V/C Ratio(X)	0.42	0.08	0.00	0.73	0.39	0.00
Avail Cap(c_a), veh/h	1176	1046	1176	2469	2469	2093
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	12.9	0.0	3.7	2.7	2.0
Incr Delay (d2), s/veh	6.3	0.9	0.0	1.0	0.2	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	0.2	0.0	0.0	0.3	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.3	13.8	0.0	4.7	2.9	2.0
LnGrp LOS	B	B	A	A	A	A
Approach Vol, veh/h	21			745	400	
Approach Delay, s/veh	18.5			4.7	2.9	
Approach LOS	B			A	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	0.0	22.4		4.7		22.4
Change Period (Y+Rc), s	4.0	5.8		4.0		5.8
Max Green Setting (Gmax), s	20.0	40.0		20.0		40.0
Max Q Clear Time (g_c+I), s	10.0	5.3		2.3		10.4
Green Ext Time (p_c), s	0.0	2.7		0.0		6.2
Intersection Summary						
HCM 6th Ctrl Delay			4.3			
HCM 6th LOS			A			

Tracy 2020 TMP
 5: Mountain House Parkway/International Pkwy & Old Schulte Road

Existing
 Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑	↗	↘	↑↑	↗	↘↗	↑↑	↗
Traffic Volume (veh/h)	45	43	77	507	36	141	121	733	396	118	785	23
Future Volume (veh/h)	45	43	77	507	36	141	121	733	396	118	785	23
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	1060	1589	1324	883	1589	1324	1060	1589	1324	1060	1589	1324
Adj Flow Rate, veh/h	51	48	87	570	40	158	136	824	445	133	882	26
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	15	15	15	15	15	15	15	15	15	15	15	15
Cap, veh/h	64	276	102	445	477	337	138	1094	407	162	932	347
Arrive On Green	0.06	0.09	0.09	0.27	0.30	0.30	0.14	0.36	0.36	0.08	0.31	0.31
Sat Flow, veh/h	1009	3020	1122	1631	1589	1122	1009	3020	1122	1958	3020	1122
Grp Volume(v), veh/h	51	48	87	570	40	158	136	824	445	133	882	26
Grp Sat Flow(s),veh/h/ln	1009	1510	1122	816	1589	1122	1009	1510	1122	979	1510	1122
Q Serve(g_s), s	7.3	2.2	11.2	40.0	2.7	16.8	19.7	35.1	53.1	9.8	41.8	2.4
Cycle Q Clear(g_c), s	7.3	2.2	11.2	40.0	2.7	16.8	19.7	35.1	53.1	9.8	41.8	2.4
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	64	276	102	445	477	337	138	1094	407	162	932	347
V/C Ratio(X)	0.79	0.17	0.85	1.28	0.08	0.47	0.99	0.75	1.09	0.82	0.95	0.08
Avail Cap(c_a), veh/h	138	412	153	445	509	360	138	1094	407	334	968	360
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	1.00	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	67.7	61.5	65.6	53.3	36.8	41.8	63.2	41.0	46.8	66.2	49.5	35.9
Incr Delay (d2), s/veh	19.0	0.3	23.7	142.8	0.1	1.0	73.0	3.0	72.5	9.7	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	2.2	0.8	3.8	16.8	1.0	4.7	7.9	13.5	22.5	2.7	18.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.7	61.8	89.3	196.2	36.9	42.8	136.2	44.0	119.3	75.9	66.6	36.0
LnGrp LOS	F	E	F	F	D	D	F	D	F	E	E	D
Approach Vol, veh/h		186			768			1405			1041	
Approach Delay, s/veh		81.5			156.3			76.8			67.0	
Approach LOS		F			F			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.2	60.1	47.0	20.4	27.0	52.3	16.4	51.0				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	25.0	47.0	40.0	20.0	20.0	47.0	20.0	47.0				
Max Q Clear Time (g_c+I1), s	11.8	55.1	42.0	13.2	21.7	43.8	9.3	18.8				
Green Ext Time (p_c), s	0.4	0.0	0.0	0.2	0.0	1.5	0.1	0.8				

Intersection Summary

HCM 6th Ctrl Delay	92.0
HCM 6th LOS	F

Notes

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

Tracy 2020 TMP
6: International Pkwy & I-580 WB Off-Ramp

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations						↕	↕	↕			↕	↕
Traffic Volume (veh/h)	0	0	0	5	0	199	10	806	0	0	787	276
Future Volume (veh/h)	0	0	0	5	0	199	10	806	0	0	787	276
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		No		No
Adj Sat Flow, veh/h/ln				1678	1678	1678	1678	1678	0	0	1678	1678
Adj Flow Rate, veh/h				5	0	0	11	848	0	0	828	291
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				15	15	15	15	15	0	0	15	15
Cap, veh/h				12	0		12	916	0	0	572	485
Arrive On Green				0.01	0.00	0.00	0.55	0.55	0.00	0.00	0.34	0.34
Sat Flow, veh/h				1598	0	1422	21	1655	0	0	1678	1422
Grp Volume(v), veh/h				5	0	0	859	0	0	0	828	291
Grp Sat Flow(s),veh/h/ln				1598	0	1422	1677	0	0	0	1678	1422
Q Serve(g_s), s				0.5	0.0	0.0	79.8	0.0	0.0	0.0	58.0	28.8
Cycle Q Clear(g_c), s				0.5	0.0	0.0	79.8	0.0	0.0	0.0	58.0	28.8
Prop In Lane				1.00		1.00	0.01		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				12	0		927	0	0	0	572	485
V/C Ratio(X)				0.42	0.00		0.93	0.00	0.00	0.00	1.45	0.60
Avail Cap(c_a), veh/h				124	0		927	0	0	0	572	485
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	0.09	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				84.0	0.0	0.0	34.8	0.0	0.0	0.0	56.0	46.4
Incr Delay (d2), s/veh				22.0	0.0	0.0	2.1	0.0	0.0	0.0	210.7	4.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.3	0.0	0.0	32.6	0.0	0.0	0.0	58.0	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				106.0	0.0	0.0	36.9	0.0	0.0	0.0	266.7	50.9
LnGrp LOS				F	A		D	A	A	A	F	D
Approach Vol, veh/h					5	A		859			1119	
Approach Delay, s/veh					106.0			36.9			210.6	
Approach LOS					F			D			F	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		99.8				63.8		6.4				
Change Period (Y+Rc), s		5.8				5.8		5.1				
Max Green Setting (Gmax), s		82.1				58.0		13.2				
Max Q Clear Time (g_c+I1), s		81.8				60.0		2.5				
Green Ext Time (p_c), s		0.2				0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	135.1
HCM 6th LOS	F

Notes

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

Tracy 2020 TMP
7: International Pkwy & I-580 EB Off-Ramp

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕	↗		↕	
Traffic Volume (veh/h)	135	4	66	0	0	0	0	730	433	741	43	0
Future Volume (veh/h)	135	4	66	0	0	0	0	730	433	741	43	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			No
Adj Sat Flow, veh/h/ln	1678	1678	1678				0	1678	1678	1678	1678	0
Adj Flow Rate, veh/h	144	4	0				0	777	461	788	46	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	15	15	15				0	15	15	15	15	0
Cap, veh/h	165	5					0	713	605	561	33	0
Arrive On Green	0.11	0.11	0.00				0.00	0.43	0.43	0.37	0.37	0.00
Sat Flow, veh/h	1557	43	1422				0	1678	1422	1514	88	0
Grp Volume(v), veh/h	148	0	0				0	777	461	834	0	0
Grp Sat Flow(s),veh/h/ln1600	0	1422					0	1678	1422	1602	0	0
Q Serve(g_s), s	15.5	0.0	0.0				0.0	72.3	46.9	63.0	0.0	0.0
Cycle Q Clear(g_c), s	15.5	0.0	0.0				0.0	72.3	46.9	63.0	0.0	0.0
Prop In Lane	0.97		1.00				0.00		1.00	0.94		0.00
Lane Grp Cap(c), veh/h	169	0					0	713	605	594	0	0
V/C Ratio(X)	0.87	0.00					0.00	1.09	0.76	1.40	0.00	0.00
Avail Cap(c_a), veh/h	303	0					0	713	605	594	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	0.09	0.00	0.00
Uniform Delay (d), s/veh	74.9	0.0	0.0				0.0	48.9	41.6	53.5	0.0	0.0
Incr Delay (d2), s/veh	15.1	0.0	0.0				0.0	60.5	8.8	183.1	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	7.1	0.0	0.0				0.0	42.1	18.0	55.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.0	0.0	0.0				0.0	109.4	50.4	236.6	0.0	0.0
LnGrp LOS	F	A					A	F	D	F	A	A
Approach Vol, veh/h		148	A					1238			834	
Approach Delay, s/veh		90.0						87.4			236.6	
Approach LOS		F						F			F	
Timer - Assigned Phs		2		4			6					
Phs Duration (G+Y+Rc), s		78.1		23.1			68.8					
Change Period (Y+Rc), s		5.8		5.1			5.8					
Max Green Setting (Gmax), s		58.1		32.2			63.0					
Max Q Clear Time (g_c+I1), s		74.3		17.5			65.0					
Green Ext Time (p_c), s		0.0		0.5			0.0					

Intersection Summary

HCM 6th Ctrl Delay	143.6
HCM 6th LOS	F

Notes

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

Intersection

Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑			↑
Traffic Vol, veh/h	0	0	137	0	0	53
Future Vol, veh/h	0	0	137	0	0	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	10	10	10	10	10	10
Mvmt Flow	0	0	149	0	0	58
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left NB			WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right SB		WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	0	8	7.5
HCM LOS	-	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	0%
Vol Thru, %	100%	100%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	137	0	53
LT Vol	0	0	0
Through Vol	137	0	53
RT Vol	0	0	0
Lane Flow Rate	149	0	58
Geometry Grp	1	1	1
Degree of Util (X)	0.17	0	0.067
Departure Headway (Hd)	4.113	4.526	4.18
Convergence, Y/N	Yes	Yes	Yes
Cap	874	0	855
Service Time	2.126	2.526	2.212
HCM Lane V/C Ratio	0.17	0	0.068
HCM Control Delay	8	7.5	7.5
HCM Lane LOS	A	N	A
HCM 95th-tile Q	0.6	0	0.2

Tracy 2020 TMP
 9: Iron Horse Parkway/Hansen Rd & Promontory Pkwy

Existing
 Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	34	0	30	19	0	27	4	76	14	19	28	6
Future Volume (veh/h)	34	0	30	19	0	27	4	76	14	19	28	6
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	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	50	0	44	28	0	40	6	112	21	28	41	9
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	90	367	311	56	332	281	13	779	347	56	864	385
Arrive On Green	0.05	0.00	0.21	0.03	0.00	0.19	0.01	0.23	0.23	0.03	0.26	0.26
Sat Flow, veh/h	1668	1752	1482	1668	1752	1485	1668	3328	1482	1668	3328	1482
Grp Volume(v), veh/h	50	0	44	28	0	40	6	112	21	28	41	9
Grp Sat Flow(s),veh/h/ln	1668	1752	1482	1668	1752	1485	1668	1664	1482	1668	1664	1482
Q Serve(g_s), s	1.1	0.0	0.9	0.6	0.0	0.8	0.1	1.0	0.4	0.6	0.3	0.2
Cycle Q Clear(g_c), s	1.1	0.0	0.9	0.6	0.0	0.8	0.1	1.0	0.4	0.6	0.3	0.2
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	90	367	311	56	332	281	13	779	347	56	864	385
V/C Ratio(X)	0.55	0.00	0.14	0.50	0.00	0.14	0.45	0.14	0.06	0.50	0.05	0.02
Avail Cap(c_a), veh/h	882	1852	1567	882	1852	1570	882	3519	1567	882	3519	1567
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	17.5	0.0	12.2	18.0	0.0	12.8	18.7	11.5	11.3	18.0	10.5	10.4
Incr Delay (d2), s/veh	5.2	0.0	0.2	6.7	0.0	0.2	21.3	0.1	0.1	6.7	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.3	0.3	0.0	0.2	0.1	0.3	0.1	0.3	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.7	0.0	12.4	24.6	0.0	13.0	40.0	11.6	11.3	24.6	10.5	10.5
LnGrp LOS	C	A	B	C	A	B	D	B	B	C	B	B
Approach Vol, veh/h		94			68			139			78	
Approach Delay, s/veh		17.9			17.8			12.8			15.6	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.3	12.6	5.3	14.7	6.0	11.9	4.3	15.6				
Change Period (Y+Rc), s	4.0	* 4.7	4.0	5.8	4.0	* 4.7	4.0	5.8				
Max Green Setting (Gmax), s	20.0	* 40	20.0	40.0	20.0	* 40	20.0	40.0				
Max Q Clear Time (g_c+1), s	12.6	2.9	2.6	3.0	3.1	2.8	2.1	2.3				
Green Ext Time (p_c), s	0.0	0.1	0.0	0.8	0.1	0.1	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay	15.5
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy 2020 TMP
10: Old Schulte Road & Iron Horse Parkway

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	370	26	8	69	17	20	6	15	41	2	64
Future Volume (veh/h)	92	370	26	8	69	17	20	6	15	41	2	64
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		No		No
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	110	440	31	10	82	20	24	7	18	49	2	76
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	15	15	15	15	15	15	15	15	15	15	15	15
Cap, veh/h	207	546	463	37	368	312	80	63	161	136	312	264
Arrive On Green	0.13	0.33	0.33	0.02	0.22	0.22	0.05	0.15	0.15	0.08	0.19	0.19
Sat Flow, veh/h	1598	1678	1422	1598	1678	1422	1598	416	1069	1598	1678	1422
Grp Volume(v), veh/h	110	440	31	10	82	20	24	0	25	49	2	76
Grp Sat Flow(s),veh/h/ln	1598	1678	1422	1598	1678	1422	1598	0	1485	1598	1678	1422
Q Serve(g_s), s	3.7	13.8	0.9	0.4	2.3	0.6	0.8	0.0	0.8	1.7	0.1	2.7
Cycle Q Clear(g_c), s	3.7	13.8	0.9	0.4	2.3	0.6	0.8	0.0	0.8	1.7	0.1	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.72	1.00		1.00
Lane Grp Cap(c), veh/h	207	546	463	37	368	312	80	0	224	136	312	264
V/C Ratio(X)	0.53	0.81	0.07	0.27	0.22	0.06	0.30	0.00	0.11	0.36	0.01	0.29
Avail Cap(c_a), veh/h	415	1163	986	415	1163	986	415	0	386	415	436	370
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	17.8	13.4	27.7	18.5	17.8	26.4	0.0	21.2	24.9	19.1	20.2
Incr Delay (d2), s/veh	2.1	4.0	0.1	3.9	0.4	0.1	2.1	0.0	0.3	1.6	0.0	0.8
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	1.3	4.9	0.3	0.2	0.8	0.2	0.3	0.0	0.3	0.7	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.6	21.8	13.5	31.6	18.9	18.0	28.5	0.0	21.5	26.5	19.2	21.0
LnGrp LOS	C	C	B	C	B	B	C	A	C	C	B	C
Approach Vol, veh/h		581			112			49			127	
Approach Delay, s/veh		22.1			19.9			24.9			23.1	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.8	25.3	10.4	14.2	14.0	19.1	8.4	16.2				
Change Period (Y+Rc), s	6.5	6.5	5.5	5.5	6.5	6.5	5.5	5.5				
Max Green Setting (Gmax), s	15.0	40.0	15.0	15.0	15.0	40.0	15.0	15.0				
Max Q Clear Time (g_c+1), s	12.4	15.8	3.7	2.8	5.7	4.3	2.8	4.7				
Green Ext Time (p_c), s	0.0	2.9	0.1	0.0	0.2	0.5	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay	22.1
HCM 6th LOS	C

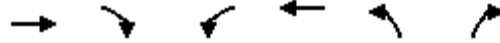
Notes

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

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	33	877	922	49	26	9
Future Vol, veh/h	33	877	922	49	26	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	36	953	1002	53	28	10
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	1055	0	-	0	2054	1029
Stage 1	-	-	-	-	1029	-
Stage 2	-	-	-	-	1025	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	656	-	-	-	60	283
Stage 1	-	-	-	-	343	-
Stage 2	-	-	-	-	345	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	656	-	-	-	53	283
Mov Cap-2 Maneuver	-	-	-	-	53	-
Stage 1	-	-	-	-	303	-
Stage 2	-	-	-	-	345	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.4	0		113.8		
HCM LOS			F			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	656	-	-	-	67	
HCM Lane V/C Ratio	0.055	-	-	-	0.568	
HCM Control Delay (s)	10.8	0	-	-	113.8	
HCM Lane LOS	B	A	-	-	F	
HCM 95th %tile Q(veh)	0.2	-	-	-	2.4	

Tracy 2020 TMP
31: Lammers Rd & Byron Rd/ Byron Rd

Existing
Timing Plan: PM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→		←	→	↔	
Traffic Volume (veh/h)	366	260	34	288	329	95
Future Volume (veh/h)	366	260	34	288	329	95
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	1856	1856	1856	1856	1900	1900
Adj Flow Rate, veh/h	398	283	37	313	358	103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	0	0
Cap, veh/h	444	316	87	1002	420	121
Arrive On Green	0.44	0.44	0.05	0.54	0.32	0.32
Sat Flow, veh/h	1009	717	1767	1856	1333	383
Grp Volume(v), veh/h	0	681	37	313	462	0
Grp Sat Flow(s),veh/h/ln	0	1726	1767	1856	1720	0
Q Serve(g_s), s	0.0	25.2	1.4	6.5	17.4	0.0
Cycle Q Clear(g_c), s	0.0	25.2	1.4	6.5	17.4	0.0
Prop In Lane		0.42	1.00		0.77	0.22
Lane Grp Cap(c), veh/h	0	760	87	1002	542	0
V/C Ratio(X)	0.00	0.90	0.42	0.31	0.85	0.00
Avail Cap(c_a), veh/h	0	986	434	1073	995	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	17.9	31.9	8.8	22.2	0.0
Incr Delay (d2), s/veh	0.0	9.2	1.2	0.2	4.7	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	0.0	10.3	0.6	2.1	6.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	27.1	33.1	9.0	26.8	0.0
LnGrp LOS	A	C	C	A	C	A
Approach Vol, veh/h	681			350	462	
Approach Delay, s/veh	27.1			11.6	26.8	
Approach LOS	C			B	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		42.4		26.8	6.9	35.5
Change Period (Y+Rc), s		* 5		5.0	3.5	5.0
Max Green Setting (Gmax), s		* 40		40.0	17.0	39.5
Max Q Clear Time (g_c+I1), s		8.5		19.4	3.4	27.2
Green Ext Time (p_c), s		1.5		2.4	0.0	3.2
Intersection Summary						
HCM 6th Ctrl Delay			23.4			
HCM 6th LOS			C			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑	↔	↔↔	↑↑	↔
Traffic Volume (veh/h)	131	820	156	167	299	100	42	253	778	89	176	28
Future Volume (veh/h)	131	820	156	167	299	100	42	253	778	89	176	28
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	142	891	0	182	325	0	46	275	0	97	191	0
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	401	1815		413	1911		288	515		458	689	
Arrive On Green	0.12	0.36	0.00	0.12	0.38	0.00	0.08	0.15	0.00	0.13	0.20	0.00
Sat Flow, veh/h	3428	5066	1572	3428	5066	1572	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	142	891	0	182	325	0	46	275	0	97	191	0
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1714	1689	1572	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	2.5	9.0	0.0	3.2	2.8	0.0	0.8	4.7	0.0	1.6	3.0	0.0
Cycle Q Clear(g_c), s	2.5	9.0	0.0	3.2	2.8	0.0	0.8	4.7	0.0	1.6	3.0	0.0
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	401	1815		413	1911		288	515		458	689	
V/C Ratio(X)	0.35	0.49		0.44	0.17		0.16	0.53		0.21	0.28	
Avail Cap(c_a), veh/h	897	4036		739	4036		897	760		739	760	
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	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.6	16.3	0.0	26.7	13.6	0.0	27.8	25.9	0.0	25.3	22.4	0.0
Incr Delay (d2), s/veh	0.2	0.4	0.0	0.3	0.1	0.0	0.1	1.2	0.0	0.2	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	3.0	0.0	1.2	0.9	0.0	0.3	1.9	0.0	0.6	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	16.8	0.0	27.0	13.6	0.0	27.9	27.1	0.0	25.5	22.6	0.0
LnGrp LOS	C	B		C	B		C	C		C	C	
Approach Vol, veh/h		1033	A		507	A		321	A		288	A
Approach Delay, s/veh		18.2			18.4			27.2			23.6	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.3	27.4	8.9	16.8	11.0	28.7	12.1	13.6				
Change Period (Y+Rc), s	6.5	6.1	5.5	6.1	5.5	6.1	5.5	6.1				
Max Green Setting (Gmax), s	12.0	50.0	15.0	12.0	15.0	50.0	12.0	12.0				
Max Q Clear Time (g_c+1), s	11.2	11.0	2.8	5.0	4.5	4.8	3.6	6.7				
Green Ext Time (p_c), s	0.2	10.4	0.0	0.4	0.2	3.3	0.2	0.7				

Intersection Summary

HCM 6th Ctrl Delay	20.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	↙↘	↗	↕↕↕	↙	↙↘	↕↕	
Traffic Volume (veh/h)	108	385	363	19	115	384	
Future Volume (veh/h)	108	385	363	19	115	384	
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	1856	1856	1856	1856	1856	1856	
Adj Flow Rate, veh/h	117	418	395	21	125	417	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	3	3	3	3	3	3	
Cap, veh/h	1022	469	1240	385	559	1784	
Arrive On Green	0.30	0.30	0.24	0.24	0.16	0.51	
Sat Flow, veh/h	3428	1572	5233	1572	3428	3618	
Grp Volume(v), veh/h	117	418	395	21	125	417	
Grp Sat Flow(s),veh/h/ln	1714	1572	1689	1572	1714	1763	
Q Serve(g_s), s	1.5	15.6	3.9	0.6	1.9	4.1	
Cycle Q Clear(g_c), s	1.5	15.6	3.9	0.6	1.9	4.1	
Prop In Lane	1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	1022	469	1240	385	559	1784	
V/C Ratio(X)	0.11	0.89	0.32	0.05	0.22	0.23	
Avail Cap(c_a), veh/h	1399	642	2894	898	1119	1841	
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	15.6	20.6	18.9	17.7	22.3	8.5	
Incr Delay (d2), s/veh	0.0	9.5	0.1	0.1	0.3	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	0.5	13.3	1.3	0.2	0.7	1.2	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	15.6	30.0	19.1	17.8	22.5	8.6	
LnGrp LOS	B	C	B	B	C	A	
Approach Vol, veh/h	535		416			542	
Approach Delay, s/veh	26.9		19.0			11.8	
Approach LOS	C		B			B	
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			37.0		24.3	16.0	21.0
Change Period (Y+Rc), s			6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s			32.0		25.0	20.0	35.0
Max Q Clear Time (g_c+I1), s			6.1		17.6	3.9	5.9
Green Ext Time (p_c), s			3.0		0.7	0.5	2.6
Intersection Summary							
HCM 6th Ctrl Delay			19.2				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	2.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T		Y	T
Traffic Vol, veh/h	38	64	312	46	134	432
Future Vol, veh/h	38	64	312	46	134	432
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	-	-	-	320	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	41	64	312	46	134	432
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1035	335	0	0	358	0
Stage 1	335	-	-	-	-	-
Stage 2	700	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	256	705	-	-	1195	-
Stage 1	722	-	-	-	-	-
Stage 2	491	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	227	705	-	-	1195	-
Mov Cap-2 Maneuver	227	-	-	-	-	-
Stage 1	722	-	-	-	-	-
Stage 2	436	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	17.8	0	2			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	386	1195		
HCM Lane V/C Ratio	-	-	0.273	0.112		
HCM Control Delay (s)	-	-	17.8	8.4		
HCM Lane LOS	-	-	C	A		
HCM 95th %tile Q(veh)	-	-	1.1	0.4		

Intersection	
Intersection Delay, s/veh	17
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	164	302	73	194	199	20
Future Vol, veh/h	164	302	73	194	199	20
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	180	332	80	213	219	22
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	20.8	14.1	12.5
HCM LOS	C	B	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	27%	35%	0%
Vol Thru, %	73%	0%	91%
Vol Right, %	0%	65%	9%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	267	466	219
LT Vol	73	164	0
Through Vol	194	0	199
RT Vol	0	302	20
Lane Flow Rate	293	512	241
Geometry Grp	1	1	1
Degree of Util (X)	0.474	0.729	0.388
Departure Headway (Hd)	5.814	5.123	5.798
Convergence, Y/N	Yes	Yes	Yes
Cap	616	702	618
Service Time	3.872	3.17	3.859
HCM Lane V/C Ratio	0.476	0.729	0.39
HCM Control Delay	14.1	20.8	12.5
HCM Lane LOS	B	C	B
HCM 95th-tile Q	2.5	6.4	1.8

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	5	48	195	0	155	349
Future Vol, veh/h	5	48	195	0	155	349
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	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	53	217	0	172	388
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	949	217	0	0	217	0
Stage 1	217	-	-	-	-	-
Stage 2	732	-	-	-	-	-
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	289	823	-	-	1353	-
Stage 1	819	-	-	-	-	-
Stage 2	476	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	242	823	-	-	1353	-
Mov Cap-2 Maneuver	242	-	-	-	-	-
Stage 1	819	-	-	-	-	-
Stage 2	399	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10.9	0	2.5			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	671	1353		
HCM Lane V/C Ratio	-	-	0.088	0.127		
HCM Control Delay (s)	-	-	10.9	8		
HCM Lane LOS	-	-	B	A		
HCM 95th %tile Q(veh)	-	-	0.3	0.4		

Intersection												
Int Delay, s/veh	7.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	4	0	178	0	8	24	344	12	0
Future Vol, veh/h	0	0	0	4	0	178	0	8	24	344	12	0
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	4	0	200	0	9	27	387	13	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	910	823	13	810	810	23	-	0	0	36	0	0
Stage 1	787	787	-	23	23	-	-	-	-	-	-	-
Stage 2	123	36	-	787	787	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	-	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	255	309	1067	298	314	1054	0	-	-	1575	-	0
Stage 1	385	403	-	995	876	-	0	-	-	-	-	0
Stage 2	881	865	-	385	403	-	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	167	232	1067	241	236	1054	-	-	-	1575	-	-
Mov Cap-2 Maneuver	167	232	-	241	236	-	-	-	-	-	-	-
Stage 1	385	303	-	995	876	-	-	-	-	-	-	-
Stage 2	714	865	-	290	303	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0		9.6			0			7.8			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT						
Capacity (veh/h)	-	-	-	981	1575	-						
HCM Lane V/C Ratio	-	-	-	0.208	0.245	-						
HCM Control Delay (s)	-	-	0	9.6	8	0						
HCM Lane LOS	-	-	A	A	A	A						
HCM 95th %tile Q(veh)	-	-	-	0.8	1	-						

Intersection						
Int Delay, s/veh	3.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			Y	Y	
Traffic Vol, veh/h	29	56	108	146	119	0
Future Vol, veh/h	29	56	108	146	119	0
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	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	32	62	120	162	132	0
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	534	132	132	0	-	0
Stage 1	132	-	-	-	-	-
Stage 2	402	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	505	915	1447	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	673	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	459	915	1447	-	-	-
Mov Cap-2 Maneuver	459	-	-	-	-	-
Stage 1	811	-	-	-	-	-
Stage 2	673	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	11.1	3.3	0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1447	-	683	-	-	
HCM Lane V/C Ratio	0.083	-	0.138	-	-	
HCM Control Delay (s)	7.7	0	11.1	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.3	-	0.5	-	-	

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	67	25	43	3	24	13	56	191	4	20	102	32
Future Vol, veh/h	67	25	43	3	24	13	56	191	4	20	102	32
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	180	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	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, %	7	0	12	0	3	20	5	0	0	0	0	0
Mvmt Flow	71	27	46	3	26	14	60	203	4	21	109	34
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	403	495	72	435	510	104	143	0	0	207	0	0
Stage 1	168	168	-	325	325	-	-	-	-	-	-	-
Stage 2	235	327	-	110	185	-	-	-	-	-	-	-
Critical Hdwy	7.64	6.5	7.14	7.5	6.56	7.3	4.2	-	-	4.1	-	-
Critical Hdwy Stg 1	6.64	5.5	-	6.5	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.64	5.5	-	6.5	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.57	4	3.42	3.5	4.03	3.5	2.25	-	-	2.2	-	-
Pot Cap-1 Maneuver	520	479	944	510	463	876	1416	-	-	1376	-	-
Stage 1	803	763	-	667	645	-	-	-	-	-	-	-
Stage 2	733	651	-	889	743	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	467	451	944	443	436	876	1416	-	-	1376	-	-
Mov Cap-2 Maneuver	467	451	-	443	436	-	-	-	-	-	-	-
Stage 1	769	750	-	639	618	-	-	-	-	-	-	-
Stage 2	662	624	-	802	730	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	13.8			12.5			1.7			1		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1416	-	-	552	522	1376	-	-				
HCM Lane V/C Ratio	0.042	-	-	0.26	0.082	0.015	-	-				
HCM Control Delay (s)	7.7	-	-	13.8	12.5	7.7	0	-				
HCM Lane LOS	A	-	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	1	0.3	0	-	-				

Tracy 2020 TMP
49: I-205 WB Off Ramp/Pavilion Pkwy & Naglee Rd

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↕	↖	↖	↕↕↕		↖↗	↕	↖	↖	↕	↖
Traffic Volume (veh/h)	130	294	33	13	277	9	730	116	89	21	12	101
Future Volume (veh/h)	130	294	33	13	277	9	730	116	89	21	12	101
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	141	320	36	14	301	10	793	126	97	23	13	110
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	274	655	292	49	671	22	1188	1604	715	45	248	210
Arrive On Green	0.08	0.19	0.19	0.03	0.13	0.12	0.35	0.45	0.45	0.03	0.13	0.13
Sat Flow, veh/h	3428	3526	1572	1767	5037	166	3428	3526	1572	1767	1856	1572
Grp Volume(v), veh/h	141	320	36	14	201	110	793	126	97	23	13	110
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1689	1826	1714	1763	1572	1767	1856	1572
Q Serve(g_s), s	2.1	4.2	1.0	0.4	2.9	2.9	10.3	1.1	1.9	0.7	0.3	3.4
Cycle Q Clear(g_c), s	2.1	4.2	1.0	0.4	2.9	2.9	10.3	1.1	1.9	0.7	0.3	3.4
Prop In Lane	1.00		1.00	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	274	655	292	49	450	243	1188	1604	715	45	248	210
V/C Ratio(X)	0.51	0.49	0.12	0.29	0.45	0.45	0.67	0.08	0.14	0.51	0.05	0.52
Avail Cap(c_a), veh/h	1588	2490	1111	1174	2386	1290	2665	2787	1243	650	721	611
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	1.00	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	23.1	19.0	17.7	24.9	20.9	20.9	14.5	8.1	8.3	25.1	19.7	21.1
Incr Delay (d2), s/veh	1.5	0.5	0.2	3.9	0.6	1.2	0.8	0.0	0.1	8.6	0.1	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.6	0.3	0.2	1.1	1.2	3.4	0.3	0.5	0.4	0.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.5	19.6	17.9	28.8	21.5	22.1	15.3	8.1	8.4	33.7	19.8	23.1
LnGrp LOS	C	B	B	C	C	C	B	A	A	C	B	C
Approach Vol, veh/h		497			325			1016				146
Approach Delay, s/veh		20.8			22.0			13.7				24.5
Approach LOS		C			C			B				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.4	13.7	22.1	11.0	8.2	11.0	5.3	27.8				
Change Period (Y+Rc), s	* 4.7	4.9	4.6	5.3	* 4.2	4.9	* 4.2	5.3				
Max Green Setting (Gmax), s	* 34	36.0	40.0	19.0	* 24	36.0	* 19	40.0				
Max Q Clear Time (g_c+I1), s	2.4	6.2	12.3	5.4	4.1	4.9	2.7	3.9				
Green Ext Time (p_c), s	0.0	1.4	5.2	0.3	0.5	1.2	0.0	1.0				

Intersection Summary

HCM 6th Ctrl Delay	17.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy 2020 TMP
50: Park-n-Ride & Naglee Rd

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑			↑	↑		↑	↑	↑
Traffic Volume (veh/h)	230	422	50	71	937	116	20	3	7	55	8	113
Future Volume (veh/h)	230	422	50	71	937	116	20	3	7	55	8	113
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	250	459	54	77	1018	126	22	3	8	60	9	123
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	293	1975	229	153	1598	197	70	71	190	137	366	310
Arrive On Green	0.17	0.43	0.43	0.09	0.35	0.35	0.04	0.16	0.16	0.08	0.20	0.20
Sat Flow, veh/h	1767	4604	533	1767	4567	564	1767	447	1193	1767	1856	1572
Grp Volume(v), veh/h	250	335	178	77	752	392	22	0	11	60	9	123
Grp Sat Flow(s),veh/h/ln	1767	1689	1760	1767	1689	1754	1767	0	1641	1767	1856	1572
Q Serve(g_s), s	10.0	4.6	4.7	3.0	13.5	13.6	0.9	0.0	0.4	2.4	0.3	5.0
Cycle Q Clear(g_c), s	10.0	4.6	4.7	3.0	13.5	13.6	0.9	0.0	0.4	2.4	0.3	5.0
Prop In Lane	1.00		0.30	1.00		0.32	1.00		0.73	1.00		1.00
Lane Grp Cap(c), veh/h	293	1449	755	153	1182	614	70	0	261	137	366	310
V/C Ratio(X)	0.85	0.23	0.24	0.50	0.64	0.64	0.32	0.00	0.04	0.44	0.02	0.40
Avail Cap(c_a), veh/h	486	1859	968	365	1859	965	486	0	339	365	383	325
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.4	13.2	13.2	31.7	19.8	19.8	33.9	0.0	25.9	32.0	23.5	25.4
Incr Delay (d2), s/veh	3.6	0.1	0.2	0.9	0.7	1.3	0.9	0.0	0.0	0.8	0.0	0.3
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	4.3	1.6	1.7	1.3	5.0	5.3	0.4	0.0	0.2	1.0	0.1	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	13.2	13.4	32.6	20.5	21.1	34.9	0.0	25.9	32.8	23.6	25.7
LnGrp LOS	C	B	B	C	C	C	C	A	C	C	C	C
Approach Vol, veh/h		763			1221			33			192	
Approach Delay, s/veh		19.8			21.4			31.9			27.8	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	35.7	7.4	18.8	16.6	29.9	10.1	16.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	15.0	40.0	20.0	15.0	20.0	40.0	15.0	15.0				
Max Q Clear Time (g_c+1), s	15.0	6.7	2.9	7.0	12.0	15.6	4.4	2.4				
Green Ext Time (p_c), s	0.0	4.2	0.0	0.0	0.1	9.8	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

Notes

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

Tracy 2020 TMP
 51: I-205 WB On Ramp/Naglee Rd & Grant Line Rd

Existing
 Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗		↑↑↑	↗				↗	↖	↗
Traffic Volume (veh/h)	280	1069	46	0	844	422	0	0	0	561	96	541
Future Volume (veh/h)	280	1069	46	0	844	422	0	0	0	561	96	541
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	1856	1856	1856	0	1856	1856				1856	1856	1856
Adj Flow Rate, veh/h	304	1162	50	0	917	0				684	0	588
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	0	3	3				3	3	3
Cap, veh/h	429	1706	761	0	1582					1495	0	665
Arrive On Green	0.13	0.48	0.48	0.00	0.31	0.00				0.42	0.00	0.42
Sat Flow, veh/h	3428	3526	1572	0	5233	1572				3534	0	1572
Grp Volume(v), veh/h	304	1162	50	0	917	0				684	0	588
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	0	1689	1572				1767	0	1572
Q Serve(g_s), s	7.3	21.8	1.5	0.0	13.1	0.0				11.9	0.0	29.6
Cycle Q Clear(g_c), s	7.3	21.8	1.5	0.0	13.1	0.0				11.9	0.0	29.6
Prop In Lane	1.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	429	1706	761	0	1582					1495	0	665
V/C Ratio(X)	0.71	0.68	0.07	0.00	0.58					0.46	0.00	0.88
Avail Cap(c_a), veh/h	1205	1776	792	0	2552					1670	0	743
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	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	36.1	17.1	11.8	0.0	24.8	0.0				17.7	0.0	22.9
Incr Delay (d2), s/veh	2.2	1.5	0.1	0.0	0.8	0.0				0.2	0.0	11.4
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	8.1	8.1	0.5	0.0	5.0	0.0				4.6	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.2	18.6	11.9	0.0	25.7	0.0				18.0	0.0	34.3
LnGrp LOS	D	B	B	A	C					B	A	C
Approach Vol, veh/h		1516			917	A					1272	
Approach Delay, s/veh		22.3			25.7						25.5	
Approach LOS		C			C						C	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		45.6		40.3	14.8	30.8						
Change Period (Y+Rc), s		5.3		4.6	* 4.2	5.3						
Max Green Setting (Gmax), s		42.0		40.0	* 30	42.0						
Max Q Clear Time (g_c+I1), s		23.8		31.6	9.3	15.1						
Green Ext Time (p_c), s		11.3		4.1	1.3	10.5						

Intersection Summary

HCM 6th Ctrl Delay	24.2
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

DRAFT

Tracy 2020 TMP
52: I-205 EAST OFF RAMP/I-205 EAST & Grant Line Rd

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑↑		↘		↗			
Traffic Volume (veh/h)	634	996	0	4	1110	184	156	129	435	0	0	0
Future Volume (veh/h)	634	996	0	4	1110	184	156	129	435	0	0	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	1856	1856	0	1856	1856	1856	1856	1856	1856			
Adj Flow Rate, veh/h	689	1083	0	4	1207	200	170	140	473			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	3	3	0	3	3	3	3	3	3			
Cap, veh/h	673	2715	0	33	1502	248	268	0	238			
Arrive On Green	0.38	0.77	0.00	0.34	0.35	0.34	0.15	0.15	0.15			
Sat Flow, veh/h	1767	3618	0	3	4242	701	1767	0	1572			
Grp Volume(v), veh/h	689	1083	0	527	438	446	170	0	473			
Grp Sat Flow(s),veh/h/ln	1767	1763	0	1847	1537	1562	1767	0	1572			
Q Serve(g_s), s	43.2	11.6	0.0	0.0	29.2	29.3	10.2	0.0	17.2			
Cycle Q Clear(g_c), s	43.2	11.6	0.0	29.5	29.2	29.3	10.2	0.0	17.2			
Prop In Lane	1.00		0.00	0.01		0.45	1.00		1.00			
Lane Grp Cap(c), veh/h	673	2715	0	665	544	553	268	0	238			
V/C Ratio(X)	1.02	0.40	0.00	0.79	0.81	0.81	0.63	0.00	1.98			
Avail Cap(c_a), veh/h	673	2715	0	763	627	637	268	0	238			
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	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.1	4.3	0.0	33.2	33.1	33.4	45.2	0.0	48.1			
Incr Delay (d2), s/veh	41.0	0.1	0.0	5.6	7.4	7.3	4.8	0.0	457.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh	25.2	3.1	0.0	13.9	11.5	11.8	4.8	0.0	37.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.1	4.5	0.0	38.8	40.5	40.7	50.0	0.0	506.0			
LnGrp LOS	F	A	A	D	D	D	D	A	F			
Approach Vol, veh/h		1772			1411			643				
Approach Delay, s/veh		32.3			39.9			385.4				
Approach LOS		C			D			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		91.4			47.2	44.2		22.1				
Change Period (Y+Rc), s		5.3			* 4.2	5.3		5.1				
Max Green Setting (Gmax), s		70.0			* 43	45.0		17.0				
Max Q Clear Time (g_c+1), s		13.6			45.2	31.5		19.2				
Green Ext Time (p_c), s		10.3			0.0	7.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay	94.5
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy 2020 TMP
53: Crossroads Dr & Eleventh St

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑↑	↗	↖	↑	↗	↖	↗	↖
Traffic Volume (veh/h)	21	1437	130	64	645	92	91	0	86	77	31	16
Future Volume (veh/h)	21	1437	130	64	645	92	91	0	86	77	31	16
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	23	1562	141	70	701	100	99	0	93	84	34	17
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	71	2091	649	142	2293	712	160	293	248	152	179	89
Arrive On Green	0.04	0.41	0.41	0.08	0.45	0.45	0.09	0.00	0.16	0.09	0.15	0.15
Sat Flow, veh/h	1767	5066	1572	1767	5066	1572	1767	1856	1572	1767	1167	584
Grp Volume(v), veh/h	23	1562	141	70	701	100	99	0	93	84	0	51
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	1767	1689	1572	1767	1856	1572	1767	0	1751
Q Serve(g_s), s	1.0	20.4	4.5	3.0	6.8	2.9	4.2	0.0	4.1	3.6	0.0	2.0
Cycle Q Clear(g_c), s	1.0	20.4	4.5	3.0	6.8	2.9	4.2	0.0	4.1	3.6	0.0	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	71	2091	649	142	2293	712	160	293	248	152	0	268
V/C Ratio(X)	0.32	0.75	0.22	0.49	0.31	0.14	0.62	0.00	0.38	0.55	0.00	0.19
Avail Cap(c_a), veh/h	341	2278	707	341	2293	712	341	358	303	341	0	337
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.3	19.4	14.7	34.3	13.5	12.5	34.1	0.0	29.4	34.1	0.0	28.8
Incr Delay (d2), s/veh	1.0	1.4	0.2	1.0	0.1	0.1	1.4	0.0	0.9	1.2	0.0	0.3
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	0.4	7.2	1.5	1.2	2.3	1.0	1.8	0.0	1.6	1.5	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	20.8	15.0	35.3	13.6	12.6	35.5	0.0	30.3	35.3	0.0	29.0
LnGrp LOS	D	C	B	D	B	B	D	A	C	D	A	C
Approach Vol, veh/h		1726			871			192			135	
Approach Delay, s/veh		20.6			15.3			33.0			32.9	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	37.6	12.1	16.9	8.1	40.7	11.7	17.3				
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0				
Max Green Setting (Gmax), s	15.0	35.0	15.0	15.0	15.0	35.0	15.0	15.0				
Max Q Clear Time (g_c+1), s	15.0	22.4	6.2	4.0	3.0	8.8	5.6	6.1				
Green Ext Time (p_c), s	0.0	9.7	0.0	0.1	0.0	7.2	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	20.4
HCM 6th LOS	C

Notes

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

Intersection						
Int Delay, s/veh	2.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	65	2	86	93	3	28
Future Vol, veh/h	65	2	86	93	3	28
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	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	72	2	96	103	3	31
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	185	148	0	0	199	0
Stage 1	148	-	-	-	-	-
Stage 2	37	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	802	896	-	-	1367	-
Stage 1	877	-	-	-	-	-
Stage 2	983	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	800	896	-	-	1367	-
Mov Cap-2 Maneuver	800	-	-	-	-	-
Stage 1	877	-	-	-	-	-
Stage 2	981	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	9.9	0	0.7			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	803	1367		
HCM Lane V/C Ratio	-	-	0.093	0.002		
HCM Control Delay (s)	-	-	9.9	7.6		
HCM Lane LOS	-	-	A	A		
HCM 95th %tile Q(veh)	-	-	0.3	0		

Tracy 2020 TMP
57: Corral Hollow Rd & Grant Line Rd

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↗	↘↗	↑↓		↘↗	↑↑	↗	↘↗	↑↑	↗
Traffic Volume (veh/h)	110	679	538	168	568	115	467	276	127	121	288	115
Future Volume (veh/h)	110	679	538	168	568	115	467	276	127	121	288	115
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	120	738	0	183	617	125	508	300	138	132	313	0
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	234	1443		482	856	173	918	737	329	463	564	
Arrive On Green	0.13	0.28	0.00	0.14	0.29	0.26	0.18	0.21	0.21	0.14	0.16	0.00
Sat Flow, veh/h	1767	5066	1572	3428	2921	591	4983	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	120	738	0	183	372	370	508	300	138	132	313	0
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	1714	1763	1749	1661	1763	1572	1714	1763	1572
Q Serve(g_s), s	4.4	8.5	0.0	3.4	13.1	13.2	6.4	5.1	5.3	2.4	5.7	0.0
Cycle Q Clear(g_c), s	4.4	8.5	0.0	3.4	13.1	13.2	6.4	5.1	5.3	2.4	5.7	0.0
Prop In Lane	1.00		1.00	1.00		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	234	1443		482	516	512	918	737	329	463	564	
V/C Ratio(X)	0.51	0.51		0.38	0.72	0.72	0.55	0.41	0.42	0.29	0.56	
Avail Cap(c_a), veh/h	687	3429		1333	1193	1184	2297	2387	1065	1333	2387	
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.0	20.8	0.0	27.1	22.0	22.3	25.7	23.7	23.8	27.0	26.9	0.0
Incr Delay (d2), s/veh	1.7	0.3	0.0	0.5	1.9	1.9	0.5	0.4	0.9	0.3	0.9	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.0	0.0	1.3	5.1	5.2	2.4	2.0	1.9	1.0	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.7	21.1	0.0	27.6	23.9	24.3	26.3	24.1	24.7	27.3	27.7	0.0
LnGrp LOS	C	C		C	C	C	C	C	C	C	C	
Approach Vol, veh/h		858	A		925			946			445	A
Approach Delay, s/veh		22.3			24.8			25.3			27.6	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.4	18.5	13.8	23.8	16.8	15.1	13.2	24.3				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	25.0	45.0	25.0	45.0	30.0	45.0	25.0	45.0				
Max Q Clear Time (g_c+I1), s	4.4	7.3	5.4	10.5	8.4	7.7	6.4	15.2				
Green Ext Time (p_c), s	0.5	1.9	0.7	3.7	2.4	1.4	0.3	3.1				

Intersection Summary

HCM 6th Ctrl Delay			24.7									
HCM 6th LOS			C									

Notes

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

Tracy 2020 TMP
58: CORRAL HOLLOW RD & Eleventh St/ELEVENTH ST.

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖
Traffic Volume (veh/h)	272	869	548	233	528	259	192	565	139	402	667	144
Future Volume (veh/h)	272	869	548	233	528	259	192	565	139	402	667	144
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	296	945	0	253	574	282	209	614	151	437	725	157
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	343	1204		343	1204	374	319	1576	703	369	1627	726
Arrive On Green	0.10	0.24	0.00	0.10	0.24	0.24	0.09	0.45	0.45	0.11	0.46	0.46
Sat Flow, veh/h	3428	5066	1572	3428	5066	1572	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	296	945	0	253	574	282	209	614	151	437	725	157
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1714	1689	1572	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	11.1	22.7	0.0	9.3	12.7	21.7	7.7	15.2	7.6	14.0	18.1	7.8
Cycle Q Clear(g_c), s	11.1	22.7	0.0	9.3	12.7	21.7	7.7	15.2	7.6	14.0	18.1	7.8
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	343	1204		343	1204	374	319	1576	703	369	1627	726
V/C Ratio(X)	0.86	0.78		0.74	0.48	0.75	0.65	0.39	0.21	1.18	0.45	0.22
Avail Cap(c_a), veh/h	343	1715		343	1715	532	501	1576	703	369	1627	726
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)	0.81	0.81	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	57.6	46.4	0.0	56.8	42.6	46.0	56.9	24.1	22.0	58.0	23.7	20.9
Incr Delay (d2), s/veh	16.6	1.3	0.0	8.1	0.3	3.8	2.3	0.7	0.7	105.3	0.8	0.6
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	5.5	9.4	0.0	4.3	5.2	8.7	3.4	6.3	2.9	11.4	7.5	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.3	47.7	0.0	65.0	42.9	49.8	59.2	24.8	22.7	163.3	24.5	21.6
LnGrp LOS	E	D		E	D	D	E	C	C	F	C	C
Approach Vol, veh/h		1241	A		1109			974			1319	
Approach Delay, s/veh		54.1			49.7			31.9			70.2	
Approach LOS		D			D			C			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.0	34.9	17.0	62.1	16.0	34.9	15.1	64.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	6.0	42.0	12.0	43.0	11.0	42.0	17.0	38.0				
Max Q Clear Time (g_c+ll), s	6.0	24.7	16.0	17.2	13.1	23.7	9.7	20.1				
Green Ext Time (p_c), s	0.0	4.2	0.0	3.5	0.0	3.7	0.5	3.9				

Intersection Summary

HCM 6th Ctrl Delay	52.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Tracy 2020 TMP
59: CORRAL HOLLOW RD & NEW SCHULTE ROAD

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↑↑		↗	↑↑	↘
Traffic Volume (veh/h)	97	112	35	122	107	302	17	361	113	416	670	72
Future Volume (veh/h)	97	112	35	122	107	302	17	361	113	416	670	72
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	105	122	38	133	116	328	18	392	123	452	728	78
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	144	778	347	170	415	370	46	539	167	586	1120	120
Arrive On Green	0.08	0.22	0.22	0.10	0.24	0.24	0.03	0.20	0.20	0.17	0.35	0.35
Sat Flow, veh/h	1767	3526	1572	1767	1763	1572	1767	2649	821	3428	3212	344
Grp Volume(v), veh/h	105	122	38	133	116	328	18	259	256	452	399	407
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1708	1714	1763	1794
Q Serve(g_s), s	3.6	1.7	1.2	4.5	3.3	12.4	0.6	8.5	8.6	7.7	11.7	11.8
Cycle Q Clear(g_c), s	3.6	1.7	1.2	4.5	3.3	12.4	0.6	8.5	8.6	7.7	11.7	11.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.48	1.00		0.19
Lane Grp Cap(c), veh/h	144	778	347	170	415	370	46	359	348	586	615	625
V/C Ratio(X)	0.73	0.16	0.11	0.78	0.28	0.89	0.39	0.72	0.74	0.77	0.65	0.65
Avail Cap(c_a), veh/h	431	859	383	431	430	383	431	859	833	1393	859	874
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	1.00	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	27.6	19.4	19.1	27.2	19.3	22.7	29.5	22.9	22.9	24.4	16.9	16.9
Incr Delay (d2), s/veh	2.7	0.1	0.1	3.0	0.1	20.0	2.0	2.8	3.0	0.8	1.2	1.1
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	1.5	0.7	0.4	1.9	1.2	6.1	0.3	3.4	3.4	2.9	4.2	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.3	19.4	19.3	30.2	19.4	42.7	31.5	25.6	26.0	25.2	18.0	18.0
LnGrp LOS	C	B	B	C	B	D	C	C	C	C	B	B
Approach Vol, veh/h		265			577			533			1258	
Approach Delay, s/veh		23.7			35.1			26.0			20.6	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.4	18.6	15.0	17.5	9.5	19.5	6.1	26.5				
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0				
Max Green Setting (Gmax), s	15.0	15.0	25.0	30.0	15.0	15.0	15.0	30.0				
Max Q Clear Time (g_c+1), s	10.5	3.7	9.7	10.6	5.6	14.4	2.6	13.8				
Green Ext Time (p_c), s	0.1	0.4	0.8	1.9	0.0	0.1	0.0	3.0				

Intersection Summary

HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

Notes

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

Intersection												
Intersection Delay, s/veh	81.2											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	282	99	58	157	77	82	254	65	132	201	28
Future Vol, veh/h	35	282	99	58	157	77	82	254	65	132	201	28
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	13	0	18	0	3	2	7	11	0	2	6	0
Mvmt Flow	37	297	104	61	165	81	86	267	68	139	212	29
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	107.3	42.2	94.2	68.2
HCM LOS	F	E	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	8%	20%	37%
Vol Thru, %	63%	68%	54%	56%
Vol Right, %	16%	24%	26%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	401	416	292	361
LT Vol	82	35	58	132
Through Vol	254	282	157	201
RT Vol	65	99	77	28
Lane Flow Rate	422	438	307	380
Geometry Grp	1	1	1	1
Degree of Util (X)	1.059	1.102	0.794	0.956
Departure Headway (Hd)	9.465	9.378	9.98	9.72
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	388	390	366	376
Service Time	7.465	7.378	7.98	7.72
HCM Lane V/C Ratio	1.088	1.123	0.839	1.011
HCM Control Delay	94.2	107.3	42.2	68.2
HCM Lane LOS	F	F	E	F
HCM 95th-tile Q	13.8	15.3	6.7	10.5

Tracy 2020 TMP
62: Corral Hollow Rd & Ellis Town Dr/Peony Dr

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	↖
Traffic Volume (veh/h)	8	0	1	4	0	97	0	287	13	92	222	3
Future Volume (veh/h)	8	0	1	4	0	97	0	287	13	92	222	3
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	9	0	1	4	0	105	0	312	14	100	241	3
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	25	0	212	12	0	200	5	914	41	183	1677	748
Arrive On Green	0.01	0.00	0.13	0.01	0.00	0.13	0.00	0.27	0.27	0.10	0.48	0.48
Sat Flow, veh/h	1767	0	1572	1767	0	1572	1767	3437	154	1767	3526	1572
Grp Volume(v), veh/h	9	0	1	4	0	105	0	160	166	100	241	3
Grp Sat Flow(s),veh/h/ln	1767	0	1572	1767	0	1572	1767	1763	1828	1767	1763	1572
Q Serve(g_s), s	0.2	0.0	0.0	0.1	0.0	2.3	0.0	2.7	2.8	2.0	1.4	0.0
Cycle Q Clear(g_c), s	0.2	0.0	0.0	0.1	0.0	2.3	0.0	2.7	2.8	2.0	1.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	25	0	212	12	0	200	5	469	486	183	1677	748
V/C Ratio(X)	0.36	0.00	0.00	0.35	0.00	0.53	0.00	0.34	0.34	0.55	0.14	0.00
Avail Cap(c_a), veh/h	1410	0	1254	1410	0	1254	1410	2344	2430	1410	4687	2091
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	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.4	0.0	14.1	18.6	0.0	15.4	0.0	11.1	11.1	16.0	5.5	5.2
Incr Delay (d2), s/veh	8.3	0.0	0.0	16.9	0.0	2.1	0.0	0.6	0.6	2.5	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.1	0.0	0.8	0.0	0.8	0.8	0.7	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	0.0	14.1	35.5	0.0	17.5	0.0	11.8	11.7	18.6	5.6	5.2
LnGrp LOS	C	A	B	D	A	B	A	B	B	B	A	A
Approach Vol, veh/h		10			109			326			344	
Approach Delay, s/veh		25.4			18.1			11.7			9.4	
Approach LOS		C			B			B			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	15.8	4.2	9.7	0.0	23.7	4.5	9.4				
Change Period (Y+Rc), s	4.0	* 5.8	4.0	4.6	4.0	5.8	4.0	4.6				
Max Green Setting (Gmax), s	30.0	* 50	30.0	30.0	30.0	50.0	30.0	30.0				
Max Q Clear Time (g_c+14), s	14.0	4.8	2.1	2.0	0.0	3.4	2.2	4.3				
Green Ext Time (p_c), s	0.2	2.7	0.0	0.0	0.0	2.2	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy 2020 TMP
63: Corral Hollow Rd & Summit Dr/Middlefield Dr

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	3	5	9	25	7	46	30	270	92	55	160	2
Future Volume (veh/h)	3	5	9	25	7	46	30	270	92	55	160	2
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		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1589	1589	1900	1870	1900
Adj Flow Rate, veh/h	3	5	9	26	7	47	31	276	94	56	163	2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	21	21	0	2	0
Cap, veh/h	9	59	106	69	28	186	80	581	194	127	612	527
Arrive On Green	0.00	0.10	0.10	0.04	0.13	0.13	0.04	0.26	0.26	0.07	0.33	0.33
Sat Flow, veh/h	1810	608	1095	1810	213	1430	1810	2224	741	1810	1870	1610
Grp Volume(v), veh/h	3	0	14	26	0	54	31	185	185	56	163	2
Grp Sat Flow(s),veh/h/ln	1810	0	1703	1810	0	1643	1810	1509	1455	1810	1870	1610
Q Serve(g_s), s	0.1	0.0	0.3	0.5	0.0	1.1	0.6	4.0	4.1	1.1	2.5	0.0
Cycle Q Clear(g_c), s	0.1	0.0	0.3	0.5	0.0	1.1	0.6	4.0	4.1	1.1	2.5	0.0
Prop In Lane	1.00		0.64	1.00		0.87	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	9	0	165	69	0	213	80	395	381	127	612	527
V/C Ratio(X)	0.34	0.00	0.08	0.38	0.00	0.25	0.39	0.47	0.49	0.44	0.27	0.00
Avail Cap(c_a), veh/h	1419	0	1336	1419	0	1288	1419	1973	1903	1419	2445	2105
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	19.0	0.0	15.7	18.0	0.0	15.0	17.8	11.9	11.9	17.1	9.5	8.7
Incr Delay (d2), s/veh	20.7	0.0	0.2	3.4	0.0	0.6	3.1	1.2	1.4	2.4	0.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	0.3	0.0	0.4	0.3	1.0	1.0	0.4	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.7	0.0	15.9	21.4	0.0	15.6	20.9	13.1	13.3	19.4	9.8	8.7
LnGrp LOS	D	A	B	C	A	B	C	B	B	B	A	A
Approach Vol, veh/h		17			80			401			221	
Approach Delay, s/veh		20.1			17.5			13.8			12.2	
Approach LOS		C			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.2	15.8	5.4	8.8	5.7	18.3	4.2	10.1				
Change Period (Y+Rc), s	5.5	5.8	4.0	5.1	4.0	5.8	4.0	5.1				
Max Green Setting (Gmax), s	30.0	50.0	30.0	30.0	30.0	50.0	30.0	30.0				
Max Q Clear Time (g_c+1), s	13.1	6.1	2.5	2.3	2.6	4.5	2.1	3.1				
Green Ext Time (p_c), s	0.1	3.2	0.0	0.0	0.0	1.3	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

Notes

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

Intersection						
Int Delay, s/veh	5.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	103	69	323	281	62	132
Future Vol, veh/h	103	69	323	281	62	132
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	89	89	89	89	89	89
Heavy Vehicles, %	13	51	7	41	24	1
Mvmt Flow	116	78	363	316	70	148
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	809	521	0	0	679	0
Stage 1	521	-	-	-	-	-
Stage 2	288	-	-	-	-	-
Critical Hdwy	6.53	6.71	-	-	4.34	-
Critical Hdwy Stg 1	5.53	-	-	-	-	-
Critical Hdwy Stg 2	5.53	-	-	-	-	-
Follow-up Hdwy	3.617	3.759	-	-	2.416	-
Pot Cap-1 Maneuver	335	470	-	-	818	-
Stage 1	574	-	-	-	-	-
Stage 2	736	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	304	470	-	-	818	-
Mov Cap-2 Maneuver	304	-	-	-	-	-
Stage 1	574	-	-	-	-	-
Stage 2	668	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	26.7	0	3.1			
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	354	818		
HCM Lane V/C Ratio	-	-	0.546	0.085		
HCM Control Delay (s)	-	-	26.7	9.8		
HCM Lane LOS	-	-	D	A		
HCM 95th %tile Q(veh)	-	-	3.1	0.3		

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	7	2	64	10	443	0	0	113	148
Future Vol, veh/h	0	0	0	7	2	64	10	443	0	0	113	148
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	-	-	-	-	-	20	-	-	-	-	-	-
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	8	2	74	11	509	0	0	130	170
Major/Minor	Minor1			Major1			Major2					
Conflicting Flow All				746	831	509	300	0	-	-	-	0
Stage 1				531	531	-	-	-	-	-	-	-
Stage 2				215	300	-	-	-	-	-	-	-
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				381	307	526	1273	-	0	0	-	-
Stage 1				590	529	-	-	-	0	0	-	-
Stage 2				821	669	-	-	-	0	0	-	-
Platoon blocked, %				-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver				376	0	526	1273	-	-	-	-	-
Mov Cap-2 Maneuver				376	0	-	-	-	-	-	-	-
Stage 1				583	0	-	-	-	-	-	-	-
Stage 2				821	0	-	-	-	-	-	-	-
Approach	WB			NB			SB					
HCM Control Delay, s				13.2			0.2			0		
HCM LOS				B								
Minor Lane/Major Mvmt	NBL	NBTWBLn1	WBLn2	SBT	SBR							
Capacity (veh/h)	1273	-	376	526	-	-						
HCM Lane V/C Ratio	0.009	-	0.028	0.14	-	-						
HCM Control Delay (s)	7.9	0	14.8	13	-	-						
HCM Lane LOS	A	A	B	B	-	-						
HCM 95th %tile Q(veh)	0	-	0.1	0.5	-	-						

Intersection												
Int Delay, s/veh	31.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗					↖			↖	
Traffic Vol, veh/h	234	5	3	0	0	0	0	219	474	103	17	0
Future Vol, veh/h	234	5	3	0	0	0	0	219	474	103	17	0
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	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	40	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	26	50	0	0	0	0	0	0	0	28	1	0
Mvmt Flow	282	6	4	0	0	0	0	264	571	124	20	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	818	1103	20	-	0	0	835	0	0
Stage 1	268	268	-	-	-	-	-	-	-
Stage 2	550	835	-	-	-	-	-	-	-
Critical Hdwy	6.66	7	6.2	-	-	-	4.38	-	-
Critical Hdwy Stg 1	5.66	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.66	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.734	4.45	3.3	-	-	-	2.452	-	-
Pot Cap-1 Maneuver	315	174	1064	0	-	-	697	-	0
Stage 1	725	608	-	0	-	-	-	-	0
Stage 2	533	323	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	~ 258	0	1064	-	-	-	697	-	-
Mov Cap-2 Maneuver	~ 258	0	-	-	-	-	-	-	-
Stage 1	725	0	-	-	-	-	-	-	-
Stage 2	437	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	131.3	0	9.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	258	1064	697	-
HCM Lane V/C Ratio	-	-	1.116	0.003	0.178	-
HCM Control Delay (s)	-	-	132.8	8.4	11.3	0
HCM Lane LOS	-	-	F	A	B	A
HCM 95th %tile Q(veh)	-	-	12.4	0	0.6	-

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

Intersection						
Int Delay, s/veh	2.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑			↑
Traffic Vol, veh/h	27	89	563	19	42	89
Future Vol, veh/h	27	89	563	19	42	89
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	90	90	90	90	90	90
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	30	99	626	21	47	99
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	830	637	0	0	647	0
Stage 1	637	-	-	-	-	-
Stage 2	193	-	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.18	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.272	-
Pot Cap-1 Maneuver	332	467	-	-	911	-
Stage 1	516	-	-	-	-	-
Stage 2	826	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	314	467	-	-	911	-
Mov Cap-2 Maneuver	314	-	-	-	-	-
Stage 1	516	-	-	-	-	-
Stage 2	781	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	17.4	0	2.9			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	419	911		
HCM Lane V/C Ratio	-	-	0.308	0.051		
HCM Control Delay (s)	-	-	17.4	9.2		
HCM Lane LOS	-	-	C	A		
HCM 95th %tile Q(veh)	-	-	1.3	0.2		

Intersection	
Intersection Delay, s/veh	70.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕	↕	↕	↕	
Traffic Vol, veh/h	22	161	107	180	78	57	60	476	167	8	126	8
Future Vol, veh/h	22	161	107	180	78	57	60	476	167	8	126	8
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	3	3	3	8	3	8	3	8	8	8	8	3
Mvmt Flow	24	179	119	200	87	63	67	529	186	9	140	9
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	2	1
HCM Control Delay	38.8	32.6	110	19.9
HCM LOS	E	D	F	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	8%	70%	0%	100%	0%
Vol Thru, %	0%	100%	0%	56%	30%	0%	0%	94%
Vol Right, %	0%	0%	100%	37%	0%	100%	0%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	476	167	290	258	57	8	134
LT Vol	60	0	0	22	180	0	8	0
Through Vol	0	476	0	161	78	0	0	126
RT Vol	0	0	167	107	0	57	0	8
Lane Flow Rate	67	529	186	322	287	63	9	149
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.165	1.246	0.4	0.786	0.747	0.145	0.026	0.406
Departure Headway (Hd)	8.911	8.482	7.758	9.33	9.962	8.788	11.052	10.478
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	401	428	462	390	367	410	326	345
Service Time	6.689	6.259	5.535	7.03	7.662	6.488	8.752	8.178
HCM Lane V/C Ratio	0.167	1.236	0.403	0.826	0.782	0.154	0.028	0.432
HCM Control Delay	13.5	155.3	15.7	38.8	36.9	13	14	20.2
HCM Lane LOS	B	F	C	E	E	B	B	C
HCM 95th-tile Q	0.6	21.9	1.9	6.7	5.9	0.5	0.1	1.9

Tracy 2020 TMP
72: TRACY BLVD & 205 WB ramps

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕		↕	↕			↕	↕
Traffic Volume (veh/h)	0	0	0	455	80	90	249	602	0	0	389	70
Future Volume (veh/h)	0	0	0	455	80	90	249	602	0	0	389	70
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				No
Adj Sat Flow, veh/h/ln				1900	1856	1900	1856	1781	0	0	1781	1781
Adj Flow Rate, veh/h				495	87	98	271	654	0	0	423	76
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	3	0	3	8	0	0	8	8
Cap, veh/h				563	99	111	333	1528	0	0	604	108
Arrive On Green				0.44	0.44	0.43	0.19	0.45	0.00	0.00	0.21	0.20
Sat Flow, veh/h				1271	223	252	1767	3474	0	0	2959	512
Grp Volume(v), veh/h				680	0	0	271	654	0	0	248	251
Grp Sat Flow(s),veh/h/ln				1747	0	0	1767	1692	0	0	1692	1689
Q Serve(g_s), s				26.9	0.0	0.0	11.1	9.9	0.0	0.0	10.3	10.4
Cycle Q Clear(g_c), s				26.9	0.0	0.0	11.1	9.9	0.0	0.0	10.3	10.4
Prop In Lane				0.73		0.14	1.00		0.00	0.00		0.30
Lane Grp Cap(c), veh/h				773	0	0	333	1528	0	0	356	355
V/C Ratio(X)				0.88	0.00	0.00	0.81	0.43	0.00	0.00	0.70	0.71
Avail Cap(c_a), veh/h				945	0	0	585	2056	0	0	1028	1026
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	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				19.3	0.0	0.0	29.4	14.1	0.0	0.0	27.6	27.8
Incr Delay (d2), s/veh				8.9	0.0	0.0	6.4	0.2	0.0	0.0	2.5	2.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.5	0.0	0.0	5.0	3.4	0.0	0.0	4.2	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				28.2	0.0	0.0	35.8	14.3	0.0	0.0	30.1	30.4
LnGrp LOS				C	A	A	D	B	A	A	C	C
Approach Vol, veh/h				680			925				499	
Approach Delay, s/veh				28.2			20.6				30.2	
Approach LOS				C			C				C	
Timer - Assigned Phs		2		5	6		8					
Phs Duration (G+Y+Rc), s		38.1		18.2	19.9		37.4					
Change Period (Y+Rc), s		4.9		4.0	4.9		4.9					
Max Green Setting (Gmax), s		45.0		25.0	45.0		40.0					
Max Q Clear Time (g_c+I1), s		11.9		13.1	12.4		28.9					
Green Ext Time (p_c), s		3.2		1.1	2.1		3.7					
Intersection Summary												
HCM 6th Ctrl Delay				25.3								
HCM 6th LOS				C								

Tracy 2020 TMP
73: TRACY BLVD & 205 EB Ramps

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Volume (veh/h)	391	248	197	0	0	0	0	460	412	273	571	0
Future Volume (veh/h)	391	248	197	0	0	0	0	460	412	273	571	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	1856	1900				0	1856	1856	1781	1856	0
Adj Flow Rate, veh/h	425	270	214				0	500	448	297	621	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	3	0				0	3	3	8	3	0
Cap, veh/h	286	182	144				0	588	525	335	2010	0
Arrive On Green	0.35	0.35	0.34				0.00	0.33	0.32	0.20	0.57	0.00
Sat Flow, veh/h	814	517	410				0	1856	1572	1697	3618	0
Grp Volume(v), veh/h	909	0	0				0	500	448	297	621	0
Grp Sat Flow(s),veh/h/ln	1741	0	0				0	1763	1572	1697	1763	0
Q Serve(g_s), s	35.9	0.0	0.0				0.0	26.9	27.2	17.4	9.4	0.0
Cycle Q Clear(g_c), s	35.9	0.0	0.0				0.0	26.9	27.2	17.4	9.4	0.0
Prop In Lane	0.47		0.24				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	612	0	0				0	588	525	335	2010	0
V/C Ratio(X)	1.49	0.00	0.00				0.00	0.85	0.85	0.89	0.31	0.00
Avail Cap(c_a), veh/h	612	0	0				0	792	707	415	2010	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	1.00	0.00
Uniform Delay (d), s/veh	33.2	0.0	0.0				0.0	31.7	32.2	39.9	11.5	0.0
Incr Delay (d2), s/veh	227.0	0.0	0.0				0.0	6.7	7.7	18.4	0.1	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	53.1	0.0	0.0				0.0	12.1	11.1	8.8	3.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	260.2	0.0	0.0				0.0	38.3	39.8	58.3	11.5	0.0
LnGrp LOS	F	A	A				A	D	D	E	B	A
Approach Vol, veh/h		909						948			918	
Approach Delay, s/veh		260.2						39.0			26.7	
Approach LOS		F						D			C	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	24.2	38.1	39.9	62.2								
Change Period (Y+Rc), s	4.0	4.9	4.9	4.9								
Max Green Setting (Gmax), s	25.0	45.0	35.0	45.0								
Max Q Clear Time (g_c+1), s	19.4	29.2	37.9	11.4								
Green Ext Time (p_c), s	0.8	4.0	0.0	3.0								

Intersection Summary

HCM 6th Ctrl Delay		107.4										
HCM 6th LOS		F										

Tracy 2020 TMP
74: TRACY BLVD & GRANT LINE RD

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗		↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	201	595	162	120	438	107	231	665	217	151	466	92
Future Volume (veh/h)	201	595	162	120	438	107	231	665	217	151	466	92
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	218	647	176	130	476	116	251	723	236	164	507	100
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	255	1060	288	166	948	230	286	677	221	194	622	122
Arrive On Green	0.14	0.39	0.38	0.09	0.34	0.33	0.16	0.26	0.25	0.11	0.21	0.20
Sat Flow, veh/h	1767	2740	744	1767	2814	681	1767	2612	853	1767	2938	577
Grp Volume(v), veh/h	218	416	407	130	297	295	251	488	471	164	303	304
Grp Sat Flow(s),veh/h/ln	1767	1763	1722	1767	1763	1733	1767	1763	1702	1767	1763	1752
Q Serve(g_s), s	13.2	20.8	20.9	7.9	14.8	15.0	15.3	28.5	28.5	10.0	18.0	18.2
Cycle Q Clear(g_c), s	13.2	20.8	20.9	7.9	14.8	15.0	15.3	28.5	28.5	10.0	18.0	18.2
Prop In Lane	1.00		0.43	1.00		0.39	1.00		0.50	1.00		0.33
Lane Grp Cap(c), veh/h	255	682	666	166	594	584	286	457	441	194	373	371
V/C Ratio(X)	0.86	0.61	0.61	0.78	0.50	0.51	0.88	1.07	1.07	0.85	0.81	0.82
Avail Cap(c_a), veh/h	297	682	666	297	594	584	289	457	441	281	457	454
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)	0.67	0.67	0.67	0.78	0.78	0.78	0.82	0.82	0.82	0.96	0.96	0.96
Uniform Delay (d), s/veh	46.0	27.1	27.2	48.7	29.1	29.2	45.1	40.7	41.0	48.0	41.3	41.5
Incr Delay (d2), s/veh	12.1	2.7	2.8	2.4	2.3	2.4	20.6	57.7	58.3	9.9	8.6	9.1
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	6.5	8.9	8.8	3.5	6.4	6.4	8.2	19.3	18.8	4.9	8.6	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.1	29.8	30.0	51.1	31.4	31.7	65.7	98.4	99.3	58.0	49.8	50.6
LnGrp LOS	E	C	C	D	C	C	E	F	F	E	D	D
Approach Vol, veh/h		1041			722			1210			771	
Approach Delay, s/veh		35.8			35.1			92.0			51.9	
Approach LOS		D			D			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.6	32.5	14.4	46.6	21.8	27.3	19.9	41.1				
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5				
Max Green Setting (Gmax), s	17.5	27.5	18.0	28.5	17.5	27.5	18.0	18.0				
Max Q Clear Time (g_c+1/2g), s	11.0	30.5	9.9	22.9	17.3	20.2	15.2	17.0				
Green Ext Time (p_c), s	0.1	0.0	0.1	1.8	0.0	1.5	0.1	0.3				

Intersection Summary

HCM 6th Ctrl Delay	57.1
HCM 6th LOS	E

Notes

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

Tracy 2020 TMP
75: TRACY BLVD & ELEVENTH ST.

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖
Traffic Volume (veh/h)	231	738	269	359	771	152	231	543	173	139	637	183
Future Volume (veh/h)	231	738	269	359	771	152	231	543	173	139	637	183
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	251	802	292	390	838	165	251	590	188	151	692	199
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	350	1416	632	487	1556	694	340	875	390	278	811	362
Arrive On Green	0.10	0.40	0.40	0.14	0.44	0.44	0.20	0.50	0.50	0.08	0.23	0.23
Sat Flow, veh/h	3428	3526	1572	3428	3526	1572	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	251	802	292	390	838	165	251	590	188	151	692	199
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1714	1763	1572	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	7.8	19.4	15.0	12.1	19.2	7.2	7.6	13.9	8.7	4.7	20.7	12.3
Cycle Q Clear(g_c), s	7.8	19.4	15.0	12.1	19.2	7.2	7.6	13.9	8.7	4.7	20.7	12.3
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	350	1416	632	487	1556	694	340	875	390	278	811	362
V/C Ratio(X)	0.72	0.57	0.46	0.80	0.54	0.24	0.74	0.67	0.48	0.54	0.85	0.55
Avail Cap(c_a), veh/h	608	1416	632	608	1556	694	530	875	390	530	849	379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.53	0.53	0.53	1.00	1.00	1.00	0.76	0.76	0.76	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	25.5	24.2	45.7	22.5	19.2	42.7	24.4	23.0	48.6	40.6	37.3
Incr Delay (d2), s/veh	0.5	0.9	1.3	4.8	1.3	0.8	0.9	1.3	0.3	0.6	7.6	0.8
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	8.3	8.2	5.7	5.5	8.1	2.7	3.0	4.6	2.7	2.0	9.7	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.4	26.4	25.5	50.5	23.9	20.0	43.6	25.6	23.3	49.2	48.2	38.1
LnGrp LOS	D	C	C	D	C	B	D	C	C	D	D	D
Approach Vol, veh/h		1345			1393			1029			1042	
Approach Delay, s/veh		30.3			30.9			29.6			46.4	
Approach LOS		C			C			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.1	47.7	14.4	28.8	14.7	52.1	12.4	30.8				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5				
Max Green Setting (Gmax), s	18.5	31.0	16.0	24.5	18.5	31.0	16.0	24.5				
Max Q Clear Time (g_c+1/4), s	14.1	21.4	9.6	22.7	9.8	21.2	6.7	15.9				
Green Ext Time (p_c), s	0.5	3.2	0.4	0.6	0.4	3.0	0.2	1.6				

Intersection Summary

HCM 6th Ctrl Delay	33.8
HCM 6th LOS	C

Notes

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

HCM 6th Edition methodology does not support clustered intersections.

DRAFT

Intersection												
Int Delay, s/veh	26.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	40	0	13	90	0	75	21	710	80	29	1038	121
Future Vol, veh/h	40	0	13	90	0	75	21	710	80	29	1038	121
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	43	0	14	98	0	82	23	772	87	32	1128	132
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1690	2163	630	1490	2186	430	1260	0	0	859	0	0
Stage 1	1258	1258	-	862	862	-	-	-	-	-	-	-
Stage 2	432	905	-	628	1324	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	60	46	422	~85	45	571	542	-	-	772	-	-
Stage 1	179	239	-	314	368	-	-	-	-	-	-	-
Stage 2	569	351	-	435	222	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	48	42	422	~77	41	571	542	-	-	772	-	-
Mov Cap-2 Maneuver	48	42	-	~77	41	-	-	-	-	-	-	-
Stage 1	171	229	-	301	353	-	-	-	-	-	-	-
Stage 2	467	336	-	403	213	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	210.4		289.2			0.3			0.2			
HCM LOS	F		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	542	-	-	61	127	772	-	-				
HCM Lane V/C Ratio	0.042	-	-	0.944	1.412	0.041	-	-				
HCM Control Delay (s)	11.9	-	-	210.4	289.2	9.9	-	-				
HCM Lane LOS	B	-	-	F	F	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	4.4	12.1	0.1	-	-				
Notes												
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon												

Tracy 2020 TMP
78: TRACY BLVD & SCHULTE ROAD

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘		↗	↗↘	↗	↗	↗↘	↗
Traffic Volume (veh/h)	202	325	131	163	334	72	151	517	60	78	827	205
Future Volume (veh/h)	202	325	131	163	334	72	151	517	60	78	827	205
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	220	353	142	177	363	78	164	562	65	85	899	223
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	266	462	183	230	483	103	205	1013	452	133	868	387
Arrive On Green	0.15	0.19	0.19	0.13	0.17	0.17	0.12	0.29	0.29	0.08	0.25	0.25
Sat Flow, veh/h	1767	2467	976	1767	2893	615	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	220	251	244	177	220	221	164	562	65	85	899	223
Grp Sat Flow(s),veh/h/ln	1767	1763	1680	1767	1763	1745	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	7.4	8.2	8.4	5.9	7.2	7.4	5.5	8.2	1.9	2.8	15.0	7.6
Cycle Q Clear(g_c), s	7.4	8.2	8.4	5.9	7.2	7.4	5.5	8.2	1.9	2.8	15.0	7.6
Prop In Lane	1.00		0.58	1.00		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	266	330	315	230	295	292	205	1013	452	133	868	387
V/C Ratio(X)	0.83	0.76	0.78	0.77	0.75	0.76	0.80	0.55	0.14	0.64	1.04	0.58
Avail Cap(c_a), veh/h	305	420	400	305	420	415	305	1013	452	305	868	387
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	1.00	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	25.1	23.5	23.5	25.6	24.1	24.2	26.2	18.4	16.1	27.4	23.0	20.2
Incr Delay (d2), s/veh	13.6	6.0	7.3	5.7	4.4	5.0	5.0	0.7	0.1	1.9	40.1	2.1
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	3.8	3.6	3.6	2.6	3.1	3.1	2.4	3.1	0.6	1.2	10.4	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.7	29.5	30.8	31.3	28.5	29.2	31.2	19.1	16.3	29.3	63.1	22.3
LnGrp LOS	D	C	C	C	C	C	C	B	B	C	F	C
Approach Vol, veh/h		715			618			791			1207	
Approach Delay, s/veh		32.8			29.5			21.4			53.2	
Approach LOS		C			C			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.7	15.7	9.1	22.5	12.4	16.9	11.6	20.0				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.0	4.5	5.5	4.5	5.0				
Max Green Setting (Gmax), s	10.5	14.5	10.5	15.0	10.5	14.5	10.5	15.0				
Max Q Clear Time (g_c+I1), s	9.4	9.4	4.8	10.2	7.9	10.4	7.5	17.0				
Green Ext Time (p_c), s	0.0	0.8	0.0	1.3	0.0	0.8	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	36.8
HCM 6th LOS	D

Notes

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

Tracy 2020 TMP
79: TRACY BLVD & Central Ave

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕		↖	↗	
Traffic Volume (veh/h)	45	60	39	306	105	115	39	612	117	45	825	82
Future Volume (veh/h)	45	60	39	306	105	115	39	612	117	45	825	82
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	49	65	42	333	114	125	42	665	127	49	897	89
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	128	163	105	219	166	182	116	1097	209	128	1225	122
Arrive On Green	0.07	0.15	0.15	0.12	0.21	0.21	0.07	0.37	0.37	0.07	0.38	0.38
Sat Flow, veh/h	1767	1053	680	1767	809	887	1767	2953	563	1767	3239	321
Grp Volume(v), veh/h	49	0	107	333	0	239	42	397	395	49	488	498
Grp Sat Flow(s),veh/h/ln	1767	0	1733	1767	0	1696	1767	1763	1754	1767	1763	1798
Q Serve(g_s), s	1.7	0.0	3.6	8.0	0.0	8.4	1.5	11.8	11.8	1.7	15.4	15.4
Cycle Q Clear(g_c), s	1.7	0.0	3.6	8.0	0.0	8.4	1.5	11.8	11.8	1.7	15.4	15.4
Prop In Lane	1.00		0.39	1.00		0.52	1.00		0.32	1.00		0.18
Lane Grp Cap(c), veh/h	128	0	268	219	0	349	116	654	651	128	667	680
V/C Ratio(X)	0.38	0.00	0.40	1.52	0.00	0.69	0.36	0.61	0.61	0.38	0.73	0.73
Avail Cap(c_a), veh/h	410	0	268	219	0	349	410	817	813	219	817	834
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	28.6	0.0	24.6	28.3	0.0	23.8	28.9	16.5	16.5	28.6	17.3	17.3
Incr Delay (d2), s/veh	0.7	0.0	0.4	257.7	0.0	4.6	0.7	1.6	1.6	0.7	3.5	3.5
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	0.7	0.0	1.4	18.8	0.0	3.6	0.6	4.4	4.3	0.7	6.0	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	0.0	25.0	286.0	0.0	28.3	29.6	18.1	18.1	29.3	20.8	20.8
LnGrp LOS	C	A	C	F	A	C	C	B	B	C	C	C
Approach Vol, veh/h		156			572			834			1035	
Approach Delay, s/veh		26.4			178.3			18.6			21.2	
Approach LOS		C			F			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	28.5	12.5	14.5	8.7	29.0	9.2	17.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	30.0	30.0	8.0	10.0	15.0	30.0	15.0	10.0				
Max Q Clear Time (g_c+1), s	13.8	13.8	10.0	5.6	3.5	17.4	3.7	10.4				
Green Ext Time (p_c), s	0.0	6.7	0.0	0.1	0.0	7.1	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	55.3
HCM 6th LOS	E

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)	135	293	70	170	202	142	130	578	111	184	309	67
Future Volume (veh/h)	135	293	70	170	202	142	130	578	111	184	309	67
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		No		No
Adj Sat Flow, veh/h/ln	1885	1885	1885	1870	1870	1870	1900	1885	1826	1870	1856	1856
Adj Flow Rate, veh/h	148	322	77	187	222	156	143	635	122	202	340	74
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	1	1	2	2	2	0	1	5	2	3	3
Cap, veh/h	209	542	128	418	686	306	209	907	392	247	798	172
Arrive On Green	0.12	0.19	0.19	0.12	0.19	0.19	0.12	0.25	0.25	0.14	0.28	0.28
Sat Flow, veh/h	1795	2876	678	3456	3554	1585	1810	3582	1547	1781	2886	621
Grp Volume(v), veh/h	148	199	200	187	222	156	143	635	122	202	206	208
Grp Sat Flow(s),veh/h/ln	1795	1791	1763	1728	1777	1585	1810	1791	1547	1781	1763	1744
Q Serve(g_s), s	5.1	6.5	6.6	3.2	3.4	5.6	4.8	10.2	4.1	7.0	6.1	6.2
Cycle Q Clear(g_c), s	5.1	6.5	6.6	3.2	3.4	5.6	4.8	10.2	4.1	7.0	6.1	6.2
Prop In Lane	1.00		0.38	1.00		1.00	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	209	337	332	418	686	306	209	907	392	247	488	482
V/C Ratio(X)	0.71	0.59	0.60	0.45	0.32	0.51	0.68	0.70	0.31	0.82	0.42	0.43
Avail Cap(c_a), veh/h	423	844	831	814	1674	747	426	1687	729	420	830	821
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	1.00	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	27.1	23.6	23.7	26.0	22.1	23.0	27.0	21.6	19.3	26.6	18.9	18.9
Incr Delay (d2), s/veh	1.6	2.0	2.1	0.3	0.3	1.6	1.5	1.2	0.5	2.5	0.7	0.7
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	2.1	2.6	2.7	1.2	1.3	2.0	2.0	3.9	1.4	2.9	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.7	25.6	25.8	26.3	22.4	24.6	28.5	22.8	19.8	29.1	19.6	19.7
LnGrp LOS	C	C	C	C	C	C	C	C	B	C	B	B
Approach Vol, veh/h		547			565			900			616	
Approach Delay, s/veh		26.5			24.3			23.3			22.7	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.3	21.1	12.2	17.0	11.9	22.6	11.9	17.3				
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0				
Max Green Setting (Gmax), s	15.0	30.0	15.0	30.0	15.0	30.0	15.0	30.0				
Max Q Clear Time (g_c+1), s	19.0	12.2	5.2	8.6	6.8	8.2	7.1	7.6				
Green Ext Time (p_c), s	0.1	3.9	0.1	1.8	0.1	1.9	0.1	1.9				

Intersection Summary

HCM 6th Ctrl Delay	24.0
HCM 6th LOS	C

Notes

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

Tracy 2020 TMP
81: TRACY BLVD & Whispering Wind Dr

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↗		↖	↗	
Traffic Volume (veh/h)	258	86	34	16	56	151	47	332	80	281	219	329
Future Volume (veh/h)	258	86	34	16	56	151	47	332	80	281	219	329
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	280	93	37	17	61	164	51	361	87	305	238	358
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	325	381	152	43	264	224	98	558	133	350	599	535
Arrive On Green	0.18	0.30	0.30	0.02	0.14	0.14	0.06	0.20	0.20	0.20	0.34	0.34
Sat Flow, veh/h	1767	1263	502	1767	1856	1572	1767	2825	673	1767	1763	1572
Grp Volume(v), veh/h	280	0	130	17	61	164	51	224	224	305	238	358
Grp Sat Flow(s),veh/h/ln	1767	0	1765	1767	1856	1572	1767	1763	1734	1767	1763	1572
Q Serve(g_s), s	10.0	0.0	3.6	0.6	1.9	6.5	1.8	7.6	7.7	10.8	6.7	12.6
Cycle Q Clear(g_c), s	10.0	0.0	3.6	0.6	1.9	6.5	1.8	7.6	7.7	10.8	6.7	12.6
Prop In Lane	1.00		0.28	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	325	0	533	43	264	224	98	348	343	350	599	535
V/C Ratio(X)	0.86	0.00	0.24	0.39	0.23	0.73	0.52	0.64	0.65	0.87	0.40	0.67
Avail Cap(c_a), veh/h	409	0	545	409	573	485	409	1088	1071	409	1088	971
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	25.6	0.0	17.0	31.1	24.6	26.6	29.7	23.9	23.9	25.2	16.3	18.3
Incr Delay (d2), s/veh	12.0	0.0	0.3	2.2	0.5	5.5	1.6	2.4	2.5	14.8	0.5	1.8
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	0.0	0.0	1.4	0.3	0.8	0.3	0.7	3.0	3.0	5.4	2.4	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	0.0	17.3	33.3	25.2	32.1	31.3	26.3	26.5	40.0	16.8	20.0
LnGrp LOS	D	A	B	C	C	C	C	C	C	D	B	C
Approach Vol, veh/h		410			242			499			901	
Approach Delay, s/veh		31.2			30.4			26.9			25.9	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.3	17.3	6.1	24.1	8.1	26.5	16.4	13.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	40.0	40.0	15.0	20.0	15.0	40.0	15.0	20.0				
Max Q Clear Time (g_c+I), s	9.7	9.7	2.6	5.6	3.8	14.6	12.0	8.5				
Green Ext Time (p_c), s	0.0	3.1	0.0	0.6	0.0	4.4	0.1	0.8				

Intersection Summary

HCM 6th Ctrl Delay	27.7
HCM 6th LOS	C

Notes

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

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	15	27	421	42	3	194
Future Vol, veh/h	15	27	421	42	3	194
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	-	-	-	120	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	17	30	468	47	3	216
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	606	258	0	0	515	0
Stage 1	492	-	-	-	-	-
Stage 2	114	-	-	-	-	-
Critical Hdwy	6.86	6.96	-	-	4.16	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	-	-	2.23	-
Pot Cap-1 Maneuver	426	738	-	-	1040	-
Stage 1	577	-	-	-	-	-
Stage 2	895	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	425	738	-	-	1040	-
Mov Cap-2 Maneuver	425	-	-	-	-	-
Stage 1	577	-	-	-	-	-
Stage 2	892	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	11.7	0	0.1			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	584	1040	-	
HCM Lane V/C Ratio	-	-	0.08	0.003	-	
HCM Control Delay (s)	-	-	11.7	8.5	-	
HCM Lane LOS	-	-	B	A	-	
HCM 95th %tile Q(veh)	-	-	0.3	0	-	

Intersection	
Intersection Delay, s/veh	27.6
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	272	285	10	7	48	116	6	39	21	133	36	52
Future Vol, veh/h	272	285	10	7	48	116	6	39	21	133	36	52
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	296	310	11	8	52	126	7	42	23	145	39	57
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	40	10.8	10.6	13.7
HCM LOS	E	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	48%	4%	60%
Vol Thru, %	59%	50%	28%	16%
Vol Right, %	32%	2%	68%	24%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	66	567	171	221
LT Vol	6	272	7	133
Through Vol	39	285	48	36
RT Vol	21	10	116	52
Lane Flow Rate	72	616	186	240
Geometry Grp	1	1	1	1
Degree of Util (X)	0.132	0.914	0.285	0.416
Departure Headway (Hd)	6.613	5.336	5.523	6.23
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	545	678	645	574
Service Time	4.613	3.395	3.609	4.313
HCM Lane V/C Ratio	0.132	0.909	0.288	0.418
HCM Control Delay	10.6	40	10.8	13.7
HCM Lane LOS	B	E	B	B
HCM 95th-tile Q	0.5	12	1.2	2

Tracy 2020 TMP
84: CENTRAL AVE/Holly Dr & ELEVENTH ST.

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗		↖	↖		↖	↖	↖
Traffic Volume (veh/h)	201	751	88	165	892	97	119	237	71	115	264	160
Future Volume (veh/h)	201	751	88	165	892	97	119	237	71	115	264	160
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	218	816	96	179	970	105	129	258	77	125	287	174
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	454	1366	161	208	919	99	158	283	85	153	379	321
Arrive On Green	0.26	0.43	0.43	0.12	0.29	0.29	0.09	0.21	0.21	0.09	0.20	0.20
Sat Flow, veh/h	1767	3177	374	1767	3209	347	1767	1372	410	1767	1856	1572
Grp Volume(v), veh/h	218	453	459	179	533	542	129	0	335	125	287	174
Grp Sat Flow(s),veh/h/ln	1767	1763	1788	1767	1763	1793	1767	0	1782	1767	1856	1572
Q Serve(g_s), s	11.5	21.7	21.7	10.9	31.5	31.5	7.9	0.0	20.2	7.6	16.0	10.9
Cycle Q Clear(g_c), s	11.5	21.7	21.7	10.9	31.5	31.5	7.9	0.0	20.2	7.6	16.0	10.9
Prop In Lane	1.00		0.21	1.00		0.19	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	454	758	769	208	505	513	158	0	368	153	379	321
V/C Ratio(X)	0.48	0.60	0.60	0.86	1.06	1.06	0.82	0.00	0.91	0.82	0.76	0.54
Avail Cap(c_a), veh/h	454	758	769	249	505	513	257	0	478	257	498	422
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	1.00	1.00	0.99	0.99	0.99	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	24.1	24.1	47.6	39.3	39.3	49.2	0.0	42.7	49.4	41.2	39.2
Incr Delay (d2), s/veh	0.3	3.5	3.4	19.3	55.3	55.1	4.1	0.0	16.1	4.0	3.2	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	5.0	9.6	9.7	5.9	21.1	21.5	3.6	0.0	10.5	3.5	7.6	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	27.5	27.5	66.9	94.6	94.3	53.3	0.0	58.7	53.3	44.4	39.7
LnGrp LOS	C	C	C	E	F	F	D	A	E	D	D	D
Approach Vol, veh/h		1130			1254			464			586	
Approach Delay, s/veh		28.9			90.5			57.2			44.9	
Approach LOS		C			F			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	32.8	36.0	14.3	26.9	17.0	51.8	14.0	27.2				
Change Period (Y+Rc), s	4.5	* 4.5	4.5	4.5	4.0	4.5	4.5	4.5				
Max Green Setting (Gmax), s	15.5	* 32	16.0	29.5	15.5	31.0	16.0	29.5				
Max Q Clear Time (g_c+1/3), s	11.5	33.5	9.9	18.0	12.9	23.7	9.6	22.2				
Green Ext Time (p_c), s	0.1	0.0	0.1	0.9	0.1	2.5	0.1	0.5				

Intersection Summary

HCM 6th Ctrl Delay	58.0
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy 2020 TMP
85: CENTRAL AVE & SCHULTE ROAD

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	115	303	45	74	311	58	63	176	95	189	381	193
Future Volume (veh/h)	115	303	45	74	311	58	63	176	95	189	381	193
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	125	329	49	80	338	63	68	191	103	205	414	210
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	159	577	85	128	504	93	118	369	199	250	465	236
Arrive On Green	0.09	0.19	0.19	0.07	0.17	0.17	0.07	0.33	0.33	0.14	0.40	0.40
Sat Flow, veh/h	1767	3082	455	1767	2972	548	1767	1134	612	1767	1161	589
Grp Volume(v), veh/h	125	187	191	80	199	202	68	0	294	205	0	624
Grp Sat Flow(s),veh/h/ln	1767	1763	1774	1767	1763	1757	1767	0	1745	1767	0	1750
Q Serve(g_s), s	4.3	6.0	6.1	2.7	6.6	6.7	2.3	0.0	8.5	7.0	0.0	20.7
Cycle Q Clear(g_c), s	4.3	6.0	6.1	2.7	6.6	6.7	2.3	0.0	8.5	7.0	0.0	20.7
Prop In Lane	1.00		0.26	1.00		0.31	1.00		0.35	1.00		0.34
Lane Grp Cap(c), veh/h	159	330	332	128	299	298	118	0	568	250	0	700
V/C Ratio(X)	0.78	0.57	0.58	0.63	0.67	0.68	0.58	0.00	0.52	0.82	0.00	0.89
Avail Cap(c_a), veh/h	426	851	856	227	851	848	426	0	842	426	0	844
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.7	23.0	23.0	28.0	24.2	24.2	28.2	0.0	17.0	25.9	0.0	17.4
Incr Delay (d2), s/veh	3.2	1.8	1.9	1.9	3.1	3.3	1.7	0.0	0.9	2.5	0.0	10.6
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	1.8	2.4	2.5	1.1	2.7	2.8	1.0	0.0	3.2	2.9	0.0	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	24.8	24.9	29.9	27.2	27.5	29.8	0.0	17.9	28.4	0.0	28.0
LnGrp LOS	C	C	C	C	C	C	C	A	B	C	A	C
Approach Vol, veh/h		503			481			362			829	
Approach Delay, s/veh		26.3			27.8			20.1			28.1	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	15.0	8.1	29.4	8.5	16.1	12.8	24.7				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.0	4.5	4.0	4.5				
Max Green Setting (Gmax), s	15.0	30.0	15.0	30.0	8.0	30.0	15.0	30.0				
Max Q Clear Time (g_c+I), s	10.3	8.7	4.3	22.7	4.7	8.1	9.0	10.5				
Green Ext Time (p_c), s	0.0	1.8	0.0	2.2	0.0	1.7	0.1	1.4				

Intersection Summary

HCM 6th Ctrl Delay	26.3
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	38	119	14	24	1	76	12	32	1	28	2
Future Vol, veh/h	7	38	119	14	24	1	76	12	32	1	28	2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	3	8	8	8	8	3	8	3	8	3	3	3
Mvmt Flow	8	42	132	16	27	1	84	13	36	1	31	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	8	8.5	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	63%	4%	36%	3%
Vol Thru, %	10%	23%	62%	90%
Vol Right, %	27%	73%	3%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	120	164	39	31
LT Vol	76	7	14	1
Through Vol	12	38	24	28
RT Vol	32	119	1	2
Lane Flow Rate	133	182	43	34
Geometry Grp	1	1	1	1
Degree of Util (X)	0.168	0.201	0.056	0.044
Departure Headway (Hd)	4.526	3.973	4.674	4.558
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	795	906	768	787
Service Time	2.541	1.985	2.691	2.575
HCM Lane V/C Ratio	0.167	0.201	0.056	0.043
HCM Control Delay	8.5	8	8	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.7	0.2	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕		↖	↗			↘	↙
Traffic Volume (veh/h)	0	0	0	314	25	51	358	73	0	0	146	15
Future Volume (veh/h)	0	0	0	314	25	51	358	73	0	0	146	15
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	1856	1900	1678	1781	0	0	1781	1781
Adj Flow Rate, veh/h				349	28	57	398	81	0	0	162	17
Peak Hour Factor				0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %				0	3	0	15	8	0	0	8	8
Cap, veh/h				410	33	67	470	944	0	0	222	23
Arrive On Green				0.29	0.29	0.29	0.29	0.53	0.00	0.00	0.14	0.14
Sat Flow, veh/h				1403	113	229	1598	1781	0	0	1585	166
Grp Volume(v), veh/h				434	0	0	398	81	0	0	0	179
Grp Sat Flow(s),veh/h/ln				1744	0	0	1598	1781	0	0	0	1751
Q Serve(g_s), s				12.0	0.0	0.0	12.0	1.1	0.0	0.0	0.0	5.0
Cycle Q Clear(g_c), s				12.0	0.0	0.0	12.0	1.1	0.0	0.0	0.0	5.0
Prop In Lane				0.80		0.13	1.00		0.00	0.00		0.09
Lane Grp Cap(c), veh/h				510	0	0	470	944	0	0	0	245
V/C Ratio(X)				0.85	0.00	0.00	0.85	0.09	0.00	0.00	0.00	0.73
Avail Cap(c_a), veh/h				1194	0	0	937	944	0	0	0	856
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	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				17.1	0.0	0.0	17.0	5.9	0.0	0.0	0.0	21.1
Incr Delay (d2), s/veh				1.6	0.0	0.0	3.2	0.0	0.0	0.0	0.0	1.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.2	0.0	0.0	4.0	0.3	0.0	0.0	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				18.6	0.0	0.0	20.2	5.9	0.0	0.0	0.0	22.6
LnGrp LOS				B	A	A	C	A	A	A	A	C
Approach Vol, veh/h				434			479				179	
Approach Delay, s/veh				18.6			17.8				22.6	
Approach LOS				B			B				C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		32.0			19.9	12.1		19.1				
Change Period (Y+Rc), s		4.9			4.9	4.9		4.2				
Max Green Setting (Gmax), s		25.0			30.0	25.0		35.0				
Max Q Clear Time (g_c+I1), s		3.1			14.0	7.0		14.0				
Green Ext Time (p_c), s		0.1			1.1	0.1		1.0				

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)	61	159	293	0	0	0	0	370	681	82	378	0
Future Volume (veh/h)	61	159	293	0	0	0	0	370	681	82	378	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	1856	1900				0	1678	1678	1781	1678	0
Adj Flow Rate, veh/h	66	173	318				0	402	740	89	411	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	3	0				0	15	15	8	15	0
Cap, veh/h	51	133	244				0	914	774	113	1094	0
Arrive On Green	0.25	0.25	0.25				0.00	0.54	0.54	0.07	0.65	0.00
Sat Flow, veh/h	198	520	956				0	1678	1422	1697	1678	0
Grp Volume(v), veh/h	557	0	0				0	402	740	89	411	0
Grp Sat Flow(s),veh/h/ln	1674	0	0				0	1678	1422	1697	1678	0
Q Serve(g_s), s	25.0	0.0	0.0				0.0	14.1	48.5	5.1	11.1	0.0
Cycle Q Clear(g_c), s	25.0	0.0	0.0				0.0	14.1	48.5	5.1	11.1	0.0
Prop In Lane	0.12		0.57				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	427	0	0				0	914	774	113	1094	0
V/C Ratio(X)	1.31	0.00	0.00				0.00	0.44	0.96	0.78	0.38	0.00
Avail Cap(c_a), veh/h	427	0	0				0	941	797	259	1094	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	1.00	0.00
Uniform Delay (d), s/veh	36.5	0.0	0.0				0.0	13.4	21.2	45.1	7.9	0.0
Incr Delay (d2), s/veh	153.6	0.0	0.0				0.0	0.5	21.6	11.2	0.3	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	28.0	0.0	0.0				0.0	4.9	18.6	2.4	3.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	190.2	0.0	0.0				0.0	13.8	42.8	56.2	8.2	0.0
LnGrp LOS	F	A	A				A	B	D	E	A	A
Approach Vol, veh/h		557						1142			500	
Approach Delay, s/veh		190.2						32.6			16.7	
Approach LOS		F						C			B	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	10.6	58.3	29.2	68.9								
Change Period (Y+Rc), s	4.0	4.9	* 4.2	4.9								
Max Green Setting (Gmax), s	15.0	55.0	* 25	55.0								
Max Q Clear Time (g_c+1), s	17.1	50.5	27.0	13.1								
Green Ext Time (p_c), s	0.1	2.9	0.0	2.8								

Intersection Summary

HCM 6th Ctrl Delay	68.9
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy 2020 TMP
89: MACARTHUR DRIVE (N) & PESCADERO AVE

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↗		↖	↗	↖
Traffic Volume (veh/h)	6	1	13	95	5	211	41	718	203	202	450	19
Future Volume (veh/h)	6	1	13	95	5	211	41	718	203	202	450	19
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1678	1856	1678	1856	1678	1678	1678	1678	1856
Adj Flow Rate, veh/h	7	1	14	103	5	229	45	780	221	220	489	21
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, %	3	3	3	15	3	15	3	15	15	15	15	3
Cap, veh/h	26	18	254	159	475	364	118	860	244	351	1266	625
Arrive On Green	0.01	0.17	0.17	0.10	0.26	0.26	0.07	0.35	0.35	0.11	0.40	0.40
Sat Flow, veh/h	1767	106	1483	1598	1856	1422	1767	2452	695	3100	3188	1572
Grp Volume(v), veh/h	7	0	15	103	5	229	45	507	494	220	489	21
Grp Sat Flow(s),veh/h/ln1767	0	1589	1598	1856	1422	1767	1594	1553	1550	1594	1572	
Q Serve(g_s), s	0.3	0.0	0.6	4.3	0.1	9.9	1.7	21.1	21.1	4.7	7.6	0.6
Cycle Q Clear(g_c), s	0.3	0.0	0.6	4.3	0.1	9.9	1.7	21.1	21.1	4.7	7.6	0.6
Prop In Lane	1.00		0.93	1.00		1.00	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	26	0	272	159	475	364	118	559	545	351	1266	625
V/C Ratio(X)	0.27	0.00	0.06	0.65	0.01	0.63	0.38	0.91	0.91	0.63	0.39	0.03
Avail Cap(c_a), veh/h	203	0	776	344	906	694	381	572	557	668	1266	625
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	33.9	0.0	24.1	30.2	19.3	23.0	31.1	21.5	21.5	29.5	14.9	12.8
Incr Delay (d2), s/veh	2.1	0.0	0.1	1.7	0.0	0.7	0.8	18.4	18.8	0.7	0.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln0.1	0.0	0.0	0.2	1.6	0.1	3.1	0.7	9.7	9.5	1.7	2.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.0	0.0	24.2	31.9	19.3	23.7	31.9	39.9	40.3	30.2	15.2	12.9
LnGrp LOS	D	A	C	C	B	C	C	D	D	C	B	B
Approach Vol, veh/h		22			337			1046			730	
Approach Delay, s/veh		28.0			26.1			39.8			19.7	
Approach LOS		C			C			D			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.4	29.4	11.4	16.4	9.1	32.7	5.5	22.3				
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5				
Max Green Setting (Gmax), s	15.0	25.0	15.0	34.0	15.0	25.0	8.0	34.0				
Max Q Clear Time (g_c+1), s	10.7	23.1	6.3	2.6	3.7	9.6	2.3	11.9				
Green Ext Time (p_c), s	0.3	1.3	0.0	0.0	0.0	3.7	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	30.6
HCM 6th LOS	C

Notes

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

Tracy 2020 TMP
 90: MACARTHUR DRIVE (N) & GRANT LINE RD

Existing
 Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	397	380	59	20	244	144	44	415	32	138	183	242
Future Volume (veh/h)	397	380	59	20	244	144	44	415	32	138	183	242
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		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1678	1870	1870	1870	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	432	413	64	22	265	157	48	451	35	150	199	263
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	15	2	2	2	15	15	15	15	15
Cap, veh/h	366	1117	172	47	404	232	91	639	49	183	440	393
Arrive On Green	0.21	0.36	0.36	0.03	0.19	0.19	0.05	0.21	0.21	0.11	0.28	0.28
Sat Flow, veh/h	1781	3087	475	1598	2175	1248	1781	2998	232	1598	1594	1422
Grp Volume(v), veh/h	432	237	240	22	215	207	48	239	247	150	199	263
Grp Sat Flow(s),veh/h/ln	1781	1777	1785	1598	1777	1646	1781	1594	1636	1598	1594	1422
Q Serve(g_s), s	15.0	7.1	7.2	1.0	8.2	8.5	1.9	10.1	10.2	6.7	7.5	12.0
Cycle Q Clear(g_c), s	15.0	7.1	7.2	1.0	8.2	8.5	1.9	10.1	10.2	6.7	7.5	12.0
Prop In Lane	1.00		0.27	1.00		0.76	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	366	643	646	47	330	305	91	340	349	183	440	393
V/C Ratio(X)	1.18	0.37	0.37	0.47	0.65	0.68	0.53	0.70	0.71	0.82	0.45	0.67
Avail Cap(c_a), veh/h	366	731	734	329	731	677	366	656	673	329	656	585
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	1.00	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	29.0	17.1	17.2	34.8	27.5	27.7	33.7	26.6	26.6	31.6	21.8	23.4
Incr Delay (d2), s/veh	105.2	0.6	0.6	2.6	3.7	4.5	1.7	4.5	4.5	3.5	1.2	3.4
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	16.8	2.8	2.9	0.4	3.7	3.6	0.8	4.1	4.2	2.7	2.8	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	134.2	17.7	17.8	37.4	31.2	32.1	35.5	31.1	31.1	35.0	23.1	26.8
LnGrp LOS	F	B	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		909			444			534			612	
Approach Delay, s/veh		73.1			31.9			31.5			27.6	
Approach LOS		E			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.3	21.0	7.2	31.4	8.7	25.6	20.0	18.5				
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0				
Max Green Setting (Gmax), s	15.0	30.0	15.0	30.0	15.0	30.0	15.0	30.0				
Max Q Clear Time (g_c+1), s	10.5	12.2	3.0	9.2	3.9	14.0	17.0	10.5				
Green Ext Time (p_c), s	0.1	3.3	0.0	3.4	0.0	3.2	0.0	3.0				

Intersection Summary

HCM 6th Ctrl Delay	45.7
HCM 6th LOS	D

Notes

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

Tracy 2020 TMP
 91: ELEVENTH ST. & MACARTHUR DRIVE

Existing
 Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	821	0	0	446	92	0	0	0	169	0	129
Future Volume (veh/h)	133	821	0	0	446	92	0	0	0	169	0	129
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		No		No	
Adj Sat Flow, veh/h/ln	1678	1856	1856	0	1678	1678	1856	1856	1856	1856	1856	1678
Adj Flow Rate, veh/h	145	892	0	0	485	100	0	0	0	184	0	140
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, %	15	3	3	0	15	15	3	3	3	3	3	15
Cap, veh/h	174	2640	0	0	1891	843	0	292	0	297	0	224
Arrive On Green	0.11	0.75	0.00	0.00	0.59	0.59	0.00	0.00	0.00	0.16	0.00	0.16
Sat Flow, veh/h	1598	3618	0	0	3272	1422	0	1856	0	1406	0	1422
Grp Volume(v), veh/h	145	892	0	0	485	100	0	0	0	184	0	140
Grp Sat Flow(s),veh/h/ln	1598	3618	0	0	3272	1422	0	1856	0	1406	0	1422
Q Serve(g_s), s	8.5	8.2	0.0	0.0	7.0	3.0	0.0	0.0	0.0	12.2	0.0	8.8
Cycle Q Clear(g_c), s	8.5	8.2	0.0	0.0	7.0	3.0	0.0	0.0	0.0	12.2	0.0	8.8
Prop In Lane	1.00		0.00	0.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	2640	0	0	1891	843	0	292	0	297	0	224
V/C Ratio(X)	0.84	0.34	0.00	0.00	0.26	0.12	0.00	0.00	0.00	0.62	0.00	0.63
Avail Cap(c_a), veh/h	258	2640	0	0	1891	843	0	551	0	492	0	422
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	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.9	4.1	0.0	0.0	9.4	8.5	0.0	0.0	0.0	39.2	0.0	37.8
Incr Delay (d2), s/veh	9.1	0.3	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.8	0.0	1.1
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	2.3	0.0	0.0	2.3	0.9	0.0	0.0	0.0	4.3	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.0	4.4	0.0	0.0	9.7	8.8	0.0	0.0	0.0	40.0	0.0	38.9
LnGrp LOS	D	A	A	A	A	A	A	A	A	D	A	D
Approach Vol, veh/h	1037				585		0				324	
Approach Delay, s/veh	10.9				9.5		0.0				39.5	
Approach LOS	B				A						D	
Timer - Assigned Phs	2		4		5		6				8	
Phs Duration (G+Y+Rc), s	76.4		19.6		14.9		61.4				19.6	
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5				4.5	
Max Green Setting (Gmax), s	58.5		28.5		15.5		38.5				28.5	
Max Q Clear Time (g_c+I1), s	10.2		14.2		10.5		9.0				0.0	
Green Ext Time (p_c), s	4.8		1.0		0.1		2.8				0.0	

Intersection Summary

HCM 6th Ctrl Delay	15.3
HCM 6th LOS	B

Notes

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

Tracy 2020 TMP
92: MACARTHUR (S) & ELEVENTH ST.

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙	↑↑			↖	↗		↕	
Traffic Volume (veh/h)	0	864	355	202	388	0	122	0	280	0	0	0
Future Volume (veh/h)	0	864	355	202	388	0	122	0	280	0	0	0
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	0	939	0	220	422	0	133	0	304	0	0	0
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	3	1238		272	2067	0	444	0	395	0	3	0
Arrive On Green	0.00	0.35	0.00	0.15	0.59	0.00	0.25	0.00	0.25	0.00	0.00	0.00
Sat Flow, veh/h	1767	3526	1572	1767	3618	0	1767	0	1572	0	1856	0
Grp Volume(v), veh/h	0	939	0	220	422	0	133	0	304	0	0	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	0	1767	0	1572	0	1856	0
Q Serve(g_s), s	0.0	13.0	0.0	6.7	3.1	0.0	3.4	0.0	9.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	13.0	0.0	6.7	3.1	0.0	3.4	0.0	9.9	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	3	1238		272	2067	0	444	0	395	0	3	0
V/C Ratio(X)	0.00	0.76		0.81	0.20	0.00	0.30	0.00	0.77	0.00	0.00	0.00
Avail Cap(c_a), veh/h	639	1911		639	2067	0	958	0	852	0	1006	0
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)	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	15.9	0.0	22.6	5.4	0.0	16.8	0.0	19.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.0	0.0	2.2	0.0	0.0	0.4	0.0	3.2	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.9	0.0	2.7	0.8	0.0	1.3	0.0	3.5	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.9	0.0	24.8	5.4	0.0	17.2	0.0	22.4	0.0	0.0	0.0
LnGrp LOS	A	B		C	A	A	B	A	C	A	A	A
Approach Vol, veh/h		939	A		642			437				0
Approach Delay, s/veh		16.9			12.1			20.8				0.0
Approach LOS		B			B			C				
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	23.9		0.0	0.0	36.9		18.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	20.0	30.0		30.0	20.0	30.0		30.0				
Max Q Clear Time (g_c+1), s	10.7	15.0		0.0	0.0	5.1		11.9				
Green Ext Time (p_c), s	0.1	4.4		0.0	0.0	1.9		2.0				

Intersection Summary

HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	8.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	71	143	104	329	505	82
Future Vol, veh/h	71	143	104	329	505	82
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	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	77	155	113	358	549	89
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1178	594	638	0	0	
Stage 1	594	-	-	-	-	
Stage 2	584	-	-	-	-	
Critical Hdwy	6.43	6.23	4.13	-	-	
Critical Hdwy Stg 1	5.43	-	-	-	-	
Critical Hdwy Stg 2	5.43	-	-	-	-	
Follow-up Hdwy	3.527	3.327	2.227	-	-	
Pot Cap-1 Maneuver	210	503	941	-	-	
Stage 1	550	-	-	-	-	
Stage 2	555	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	179	503	941	-	-	
Mov Cap-2 Maneuver	179	-	-	-	-	
Stage 1	468	-	-	-	-	
Stage 2	555	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	43.1	2.2		0		
HCM LOS	E					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	941	-	314	-	-	
HCM Lane V/C Ratio	0.12	-	0.741	-	-	
HCM Control Delay (s)	9.3	0	43.1	-	-	
HCM Lane LOS	A	A	E	-	-	
HCM 95th %tile Q(veh)	0.4	-	5.5	-	-	

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↶	↷		↶	↷	
Traffic Vol, veh/h	5	59	15	323	454	101
Future Vol, veh/h	5	59	15	323	454	101
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	5	64	16	351	493	110
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	931	548	603	0	-	0
Stage 1	548	-	-	-	-	-
Stage 2	383	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	295	534	970	-	-	-
Stage 1	577	-	-	-	-	-
Stage 2	687	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	289	534	970	-	-	-
Mov Cap-2 Maneuver	289	-	-	-	-	-
Stage 1	565	-	-	-	-	-
Stage 2	687	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	13.1	0.4	0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	970	-	289	534	-	-
HCM Lane V/C Ratio	0.017	-	0.019	0.12	-	-
HCM Control Delay (s)	8.8	0	17.7	12.7	-	-
HCM Lane LOS	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0.4	-	-

Tracy 2020 TMP
95: MACARTHUR (S) & SCHULTE ROAD

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕	↕	↕		↕	↕	
Traffic Volume (veh/h)	66	147	225	60	255	64	87	274	39	14	503	53
Future Volume (veh/h)	66	147	225	60	255	64	87	274	39	14	503	53
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	72	162	245	65	277	70	95	298	42	15	547	58
Peak Hour Factor	0.92	0.91	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	104	234	291	72	307	325	124	419	59	146	454	48
Arrive On Green	0.19	0.19	0.19	0.21	0.21	0.21	0.07	0.26	0.26	0.08	0.28	0.28
Sat Flow, veh/h	562	1265	1572	349	1489	1572	1767	1591	224	1767	1649	175
Grp Volume(v), veh/h	234	0	245	342	0	70	95	0	340	15	0	605
Grp Sat Flow(s),veh/h/ln	1827	0	1572	1838	0	1572	1767	0	1815	1767	0	1824
Q Serve(g_s), s	8.7	0.0	10.9	13.2	0.0	2.7	3.8	0.0	12.3	0.6	0.0	20.0
Cycle Q Clear(g_c), s	8.7	0.0	10.9	13.2	0.0	2.7	3.8	0.0	12.3	0.6	0.0	20.0
Prop In Lane	0.31		1.00	0.19		1.00	1.00		0.12	1.00		0.10
Lane Grp Cap(c), veh/h	338	0	291	379	0	325	124	0	477	146	0	502
V/C Ratio(X)	0.69	0.00	0.84	0.90	0.00	0.22	0.76	0.00	0.71	0.10	0.00	1.21
Avail Cap(c_a), veh/h	377	0	325	379	0	325	243	0	500	365	0	502
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.7	0.0	28.6	28.1	0.0	24.0	33.2	0.0	24.3	30.8	0.0	26.3
Incr Delay (d2), s/veh	5.0	0.0	16.9	24.1	0.0	0.4	3.6	0.0	4.7	0.1	0.0	110.1
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	4.0	0.0	5.2	7.9	0.0	1.0	1.7	0.0	5.5	0.2	0.0	23.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.7	0.0	45.5	52.2	0.0	24.4	36.8	0.0	29.0	31.0	0.0	136.4
LnGrp LOS	C	A	D	D	A	C	D	A	C	C	A	F
Approach Vol, veh/h		479			412			435			620	
Approach Delay, s/veh		39.2			47.4			30.7			133.8	
Approach LOS		D			D			C			F	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.4	10.6	24.1		19.6	9.7	25.0				
Change Period (Y+Rc), s		4.9	4.6	* 5		4.6	4.6	5.0				
Max Green Setting (Gmax), s		15.0	15.0	* 20		15.0	10.0	20.0				
Max Q Clear Time (g_c+I1), s		12.9	2.6	14.3		15.2	5.8	22.0				
Green Ext Time (p_c), s		0.5	0.0	0.8		0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	69.2
HCM 6th LOS	E

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy 2020 TMP
96: MACARTHUR (S) & VALPICO RD.

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	194	320	55	63	260	69	39	105	46	70	158	227
Future Volume (veh/h)	194	320	55	63	260	69	39	105	46	70	158	227
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	1796	1870	1870	1900	1870	1870	1841	1826	1826	1900	1826	1826
Adj Flow Rate, veh/h	211	348	60	68	283	75	42	114	50	76	172	247
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, %	7	2	2	0	2	2	4	5	5	0	5	5
Cap, veh/h	260	463	80	166	338	90	134	222	97	176	375	318
Arrive On Green	0.15	0.30	0.30	0.09	0.24	0.24	0.08	0.18	0.18	0.10	0.21	0.21
Sat Flow, veh/h	1711	1554	268	1810	1425	378	1753	1203	528	1810	1826	1547
Grp Volume(v), veh/h	211	0	408	68	0	358	42	0	164	76	172	247
Grp Sat Flow(s),veh/h/ln	1711	0	1822	1810	0	1802	1753	0	1731	1810	1826	1547
Q Serve(g_s), s	7.0	0.0	11.8	2.1	0.0	11.0	1.3	0.0	5.0	2.3	4.8	8.8
Cycle Q Clear(g_c), s	7.0	0.0	11.8	2.1	0.0	11.0	1.3	0.0	5.0	2.3	4.8	8.8
Prop In Lane	1.00		0.15	1.00		0.21	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	260	0	543	166	0	428	134	0	319	176	375	318
V/C Ratio(X)	0.81	0.00	0.75	0.41	0.00	0.84	0.31	0.00	0.51	0.43	0.46	0.78
Avail Cap(c_a), veh/h	440	0	625	465	0	618	451	0	1187	465	626	530
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(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	0.0	18.5	25.0	0.0	21.2	25.5	0.0	21.4	24.8	20.3	21.9
Incr Delay (d2), s/veh	2.3	0.0	4.4	0.6	0.0	6.8	0.5	0.0	1.3	0.6	0.9	4.1
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	4.9	0.8	0.0	4.8	0.5	0.0	1.9	0.9	1.9	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	0.0	23.0	25.6	0.0	27.9	26.0	0.0	22.7	25.4	21.2	26.0
LnGrp LOS	C	A	C	C	A	C	C	A	C	C	C	C
Approach Vol, veh/h		619			426			206			495	
Approach Delay, s/veh		24.1			27.6			23.4			24.3	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	22.4	9.0	17.0	13.5	18.8	10.3	15.8				
Change Period (Y+Rc), s	4.6	5.0	4.6	5.0	4.6	5.0	4.6	5.0				
Max Green Setting (Gmax), s	15.0	20.0	15.0	20.0	15.0	20.0	15.0	40.0				
Max Q Clear Time (g_c+1/4), s	14.1	13.8	3.3	10.8	9.0	13.0	4.3	7.0				
Green Ext Time (p_c), s	0.1	0.9	0.0	1.2	0.2	0.8	0.1	0.6				

Intersection Summary

HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

Notes

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

HCM 6th Edition cannot analyze u-turn movements.

DRAFT



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	767	148	392	421	37	62	43	414	34	27	54
Future Volume (veh/h)	62	767	148	392	421	37	62	43	414	34	27	54
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		No		No
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	67	834	161	426	458	40	67	47	0	37	29	0
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, %	15	15	15	15	15	15	15	15	15	15	15	15
Cap, veh/h	157	1231	549	410	1736	774	168	90		161	103	
Arrive On Green	0.10	0.39	0.39	0.26	0.54	0.54	0.13	0.13	0.00	0.13	0.13	0.00
Sat Flow, veh/h	1598	3188	1422	1598	3188	1422	749	714	1422	708	819	1422
Grp Volume(v), veh/h	67	834	161	426	458	40	114	0	0	66	0	0
Grp Sat Flow(s),veh/h/ln	1598	1594	1422	1598	1594	1422	1464	0	1422	1527	0	1422
Q Serve(g_s), s	3.1	16.9	6.1	20.0	5.9	1.0	2.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.1	16.9	6.1	20.0	5.9	1.0	5.5	0.0	0.0	2.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.59		1.00	0.56		1.00
Lane Grp Cap(c), veh/h	157	1231	549	410	1736	774	258	0		264	0	
V/C Ratio(X)	0.43	0.68	0.29	1.04	0.26	0.05	0.44	0.00		0.25	0.00	
Avail Cap(c_a), veh/h	1026	2047	913	410	2047	913	618	0		624	0	
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	33.0	19.9	16.5	28.9	9.4	8.3	32.0	0.0	0.0	31.0	0.0	0.0
Incr Delay (d2), s/veh	3.9	1.4	0.6	54.6	0.2	0.1	4.3	0.0	0.0	1.8	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.7	1.9	12.9	1.6	0.3	2.2	0.0	0.0	1.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.9	21.3	17.2	83.5	9.6	8.4	36.3	0.0	0.0	32.7	0.0	0.0
LnGrp LOS	D	C	B	F	A	A	D	A		C	A	
Approach Vol, veh/h		1062			924			114	A		66	A
Approach Delay, s/veh		21.6			43.6			36.3			32.7	
Approach LOS		C			D			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	36.0	36.1		15.8	13.7	48.4		15.8				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	20.0	50.0		30.0	50.0	50.0		30.0				
Max Q Clear Time (g_c+20), s	20.0	18.9		4.8	5.1	7.9		7.5				
Green Ext Time (p_c), s	0.0	11.1		0.5	0.5	5.0		1.0				

Intersection Summary

HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C

Notes

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

Intersection						
Int Delay, s/veh	79.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		Y	↑	↑	
Traffic Vol, veh/h	133	68	168	673	544	201
Future Vol, veh/h	133	68	168	673	544	201
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	-	190	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	145	74	183	732	591	218
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1798	700	809	0	0	
Stage 1	700	-	-	-	-	
Stage 2	1098	-	-	-	-	
Critical Hdwy	6.43	6.23	4.13	-	-	
Critical Hdwy Stg 1	5.43	-	-	-	-	
Critical Hdwy Stg 2	5.43	-	-	-	-	
Follow-up Hdwy	3.527	3.327	2.227	-	-	
Pot Cap-1 Maneuver	~ 87	438	812	-	-	
Stage 1	491	-	-	-	-	
Stage 2	318	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	~ 67	438	812	-	-	
Mov Cap-2 Maneuver	~ 67	-	-	-	-	
Stage 1	381	-	-	-	-	
Stage 2	318	-	-	-	-	
Approach	EB	NB	SB			
HCM Control Delay, s	700.2	2.1	0			
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	812	-	94	-	-	
HCM Lane V/C Ratio	0.225	-	2.324	-	-	
HCM Control Delay (s)	10.7	-	700.2	-	-	
HCM Lane LOS	B	-	F	-	-	
HCM 95th %tile Q(veh)	0.9	-	19.7	-	-	
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Intersection	
Intersection Delay, s/veh	17.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↖	↗	↖	↗		↖	↗	↖
Traffic Vol, veh/h	184	3	98	34	31	107	101	116	2	13	108	144
Future Vol, veh/h	184	3	98	34	31	107	101	116	2	13	108	144
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	3	3	3	3	3	3	3	8	3	3	8	3
Mvmt Flow	263	4	140	49	44	153	144	166	3	19	154	206
Number of Lanes	0	1	1	0	1	1	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay	21.3	14.5	16.7	15.8
HCM LOS	C	B	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	98%	0%	52%	0%	100%	0%	0%
Vol Thru, %	0%	98%	2%	0%	48%	0%	0%	100%	0%
Vol Right, %	0%	2%	0%	100%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	101	118	187	98	65	107	13	108	144
LT Vol	101	0	184	0	34	0	13	0	0
Through Vol	0	116	3	0	31	0	0	108	0
RT Vol	0	2	0	98	0	107	0	0	144
Lane Flow Rate	144	169	267	140	93	153	19	154	206
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.358	0.398	0.641	0.288	0.23	0.337	0.046	0.361	0.436
Departure Headway (Hd)	8.94	8.5	8.637	7.418	8.915	7.927	8.858	8.431	7.623
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	403	423	419	486	403	454	406	429	473
Service Time	6.692	6.251	6.355	5.137	6.667	5.679	6.578	6.151	5.343
HCM Lane V/C Ratio	0.357	0.4	0.637	0.288	0.231	0.337	0.047	0.359	0.436
HCM Control Delay	16.6	16.8	25.6	13.1	14.3	14.7	12	15.8	16.1
HCM Lane LOS	C	C	D	B	B	B	B	C	C
HCM 95th-tile Q	1.6	1.9	4.3	1.2	0.9	1.5	0.1	1.6	2.2

Intersection						
Int Delay, s/veh	5.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	11	29	46	30	6	10
Future Vol, veh/h	11	29	46	30	6	10
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	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	12	32	51	33	7	11
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	148	13	18	0	0	
Stage 1	13	-	-	-	-	
Stage 2	135	-	-	-	-	
Critical Hdwy	6.43	6.23	4.13	-	-	
Critical Hdwy Stg 1	5.43	-	-	-	-	
Critical Hdwy Stg 2	5.43	-	-	-	-	
Follow-up Hdwy	3.527	3.327	2.227	-	-	
Pot Cap-1 Maneuver	842	1064	1592	-	-	
Stage 1	1007	-	-	-	-	
Stage 2	889	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	814	1064	1592	-	-	
Mov Cap-2 Maneuver	814	-	-	-	-	
Stage 1	974	-	-	-	-	
Stage 2	889	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	8.8	4.4		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1592	-	981	-	-	
HCM Lane V/C Ratio	0.032	-	0.045	-	-	
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

Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔	↔	↔	↑	↔	
Traffic Vol, veh/h	2	58	48	20	25	7
Future Vol, veh/h	2	58	48	20	25	7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	15	15	15	15	15	15
Mvmt Flow	2	64	53	22	28	8
Number of Lanes	1	1	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	7.4	8.4	7.9
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	78%
Vol Right, %	0%	0%	0%	100%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	48	20	2	58	32
LT Vol	48	0	2	0	0
Through Vol	0	20	0	0	25
RT Vol	0	0	0	58	7
Lane Flow Rate	53	22	2	64	36
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.08	0.03	0.003	0.078	0.045
Departure Headway (Hd)	5.39	4.889	5.55	4.348	4.596
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	662	729	649	829	770
Service Time	3.141	2.64	3.25	2.048	2.675
HCM Lane V/C Ratio	0.08	0.03	0.003	0.077	0.047
HCM Control Delay	8.6	7.8	8.3	7.4	7.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.3	0.1	0	0.3	0.1

Tracy 2020 TMP
106: PARADISE RD & GRANT LINE RD

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	541	8	143	400	52	13	4	253	208	3	2
Future Volume (veh/h)	5	541	8	143	400	52	13	4	253	208	3	2
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		No		No
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	5	588	9	155	435	57	14	4	275	226	3	2
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, %	15	15	15	15	15	15	15	15	15	15	15	15
Cap, veh/h	17	714	319	186	935	122	16	5	312	268	4	2
Arrive On Green	0.01	0.22	0.22	0.12	0.33	0.33	0.23	0.23	0.23	0.17	0.17	0.17
Sat Flow, veh/h	1598	3188	1422	1598	2835	370	68	20	1344	1563	21	14
Grp Volume(v), veh/h	5	588	9	155	243	249	293	0	0	231	0	0
Grp Sat Flow(s),veh/h/ln	1598	1594	1422	1598	1594	1611	1432	0	0	1597	0	0
Q Serve(g_s), s	0.3	15.8	0.4	8.5	10.8	11.0	17.7	0.0	0.0	12.6	0.0	0.0
Cycle Q Clear(g_c), s	0.3	15.8	0.4	8.5	10.8	11.0	17.7	0.0	0.0	12.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.23	0.05		0.94	0.98		0.01
Lane Grp Cap(c), veh/h	17	714	319	186	526	531	333	0	0	274	0	0
V/C Ratio(X)	0.30	0.82	0.03	0.84	0.46	0.47	0.88	0.00	0.00	0.84	0.00	0.00
Avail Cap(c_a), veh/h	712	1420	633	356	526	531	590	0	0	712	0	0
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.1	33.1	27.2	38.8	23.8	23.8	33.3	0.0	0.0	36.0	0.0	0.0
Incr Delay (d2), s/veh	3.7	0.9	0.0	3.7	0.2	0.2	3.0	0.0	0.0	2.8	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	5.8	0.1	3.4	3.8	3.9	6.2	0.0	0.0	4.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.8	34.1	27.2	42.6	24.0	24.1	36.3	0.0	0.0	38.8	0.0	0.0
LnGrp LOS	D	C	C	D	C	C	D	A	A	D	A	A
Approach Vol, veh/h		602			647			293			231	
Approach Delay, s/veh		34.1			28.5			36.3			38.8	
Approach LOS		C			C			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.4	26.1		26.9	6.9	35.6		20.4				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		5.0				
Max Green Setting (Gmax), s	20.0	40.0		37.0	40.0	22.0		40.0				
Max Q Clear Time (g_c+10), s	11.0	17.8		19.7	2.3	13.0		14.6				
Green Ext Time (p_c), s	0.1	2.4		1.1	0.0	1.2		0.8				

Intersection Summary

HCM 6th Ctrl Delay	33.0
HCM 6th LOS	C

DRAFT

Tracy 2020 TMP
76: TRACY BLVD & W 6th St

Existing
Timing Plan: PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	5	15	207	8	117	4	817	110	67	1094	4
Future Volume (vph)	0	5	15	207	8	117	4	817	110	67	1094	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	5.0		4.5	5.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.90			0.95		1.00	0.98		1.00	1.00	
Flt Protected		1.00			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1655			1704		1752	3442		1752	3503	
Flt Permitted		1.00			0.80		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1655			1402		1752	3442		1752	3503	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	5	16	225	9	127	4	888	120	73	1189	4
RTOR Reduction (vph)	0	14	0	0	18	0	0	8	0	0	0	0
Lane Group Flow (vph)	0	7	0	0	343	0	4	1000	0	73	1193	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type		NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		14.5			35.1		1.6	44.7		16.2	59.3	
Effective Green, g (s)		14.5			35.1		1.6	44.7		16.2	59.3	
Actuated g/C Ratio		0.13			0.32		0.01	0.41		0.15	0.54	
Clearance Time (s)		4.5			4.5		4.5	5.0		4.5	5.0	
Vehicle Extension (s)		2.0			2.5		1.0	3.0		1.0	3.0	
Lane Grp Cap (vph)		218			447		25	1398		258	1888	
v/s Ratio Prot		0.00					0.00	c0.29		0.04	c0.34	
v/s Ratio Perm					c0.24							
v/c Ratio		0.03			0.77		0.16	0.72		0.28	0.63	
Uniform Delay, d1		41.6			33.8		53.5	27.3		41.7	17.7	
Progression Factor		1.00			1.00		1.00	1.00		1.58	2.25	
Incremental Delay, d2		0.0			7.4		1.1	3.2		0.2	1.2	
Delay (s)		41.7			41.1		54.6	30.5		65.9	41.1	
Level of Service		D			D		D	C		E	D	
Approach Delay (s)		41.7			41.1			30.6			42.5	
Approach LOS		D			D			C			D	
Intersection Summary												
HCM 2000 Control Delay			37.8				HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.77									
Actuated Cycle Length (s)			110.0				Sum of lost time (s)			18.5		
Intersection Capacity Utilization			74.4%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↑↑↑		↔	↑↑↑	↔	↔
Traffic Volume (vph)	0	477	39	68	307	96	37
Future Volume (vph)	0	477	39	68	307	96	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0	6.0	6.0
Lane Util. Factor		0.91		1.00	0.91	1.00	1.00
Frt		0.99		1.00	1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)		4459		1570	4510	1570	1404
Flt Permitted		1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)		4459		1570	4510	1570	1404
Peak-hour factor, PHF	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	0	596	49	85	384	120	46
RTOR Reduction (vph)	0	13	0	0	0	0	41
Lane Group Flow (vph)	0	632	0	85	384	120	5
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	15%
Turn Type	Prot	NA		Prot	NA	Prot	Perm
Protected Phases	5	2		1	6	8	
Permitted Phases							8
Actuated Green, G (s)		15.5		5.5	27.0	5.2	5.2
Effective Green, g (s)		15.5		5.5	27.0	5.2	5.2
Actuated g/C Ratio		0.35		0.12	0.61	0.12	0.12
Clearance Time (s)		6.0		6.0	6.0	6.0	6.0
Vehicle Extension (s)		2.0		3.0	2.0	1.0	1.0
Lane Grp Cap (vph)		1563		195	2754	184	165
v/s Ratio Prot		c0.14		c0.05	0.09	c0.08	
v/s Ratio Perm							0.00
v/c Ratio		0.40		0.44	0.14	0.65	0.03
Uniform Delay, d1		10.9		17.9	3.7	18.6	17.3
Progression Factor		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		0.1		1.6	0.0	6.2	0.0
Delay (s)		10.9		19.5	3.7	24.8	17.3
Level of Service		B		B	A	C	B
Approach Delay (s)		10.9			6.5	22.7	
Approach LOS		B			A	C	

Intersection Summary

HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	44.2	Sum of lost time (s)	18.0
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Tracy Transportation Master Plan Update
1: International Pkwy & I-205 WB On-Ramp

Future 2042
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔↔	↔	↔↔		↑↑	↔↔		↑↑↑↑	↔
Traffic Volume (veh/h)	0	0	0	1020	0	217	0	755	74	0	971	1240
Future Volume (veh/h)	0	0	0	1020	0	217	0	755	74	0	971	1240
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				1678	1678	1678	0	1678	1678	0	1678	1678
Adj Flow Rate, veh/h				1020	0	0	0	755	0	0	971	0
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				15	15	15	0	15	15	0	15	15
Cap, veh/h				1324	0	0	0	1866	0	0	3378	0
Arrive On Green				0.28	0.00	0.00	0.00	0.19	0.00	0.00	0.59	0.00
Sat Flow, veh/h				4793	0	2844	0	3272	2502	0	6006	1422
Grp Volume(v), veh/h				1020	0	0	0	755	0	0	971	0
Grp Sat Flow(s),veh/h/ln				1598	0	1422	0	1594	1251	0	1443	1422
Q Serve(g_s), s				13.7	0.0	0.0	0.0	14.5	0.0	0.0	5.9	0.0
Cycle Q Clear(g_c), s				13.7	0.0	0.0	0.0	14.5	0.0	0.0	5.9	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1324	0	0	0	1866	0	0	3378	0
V/C Ratio(X)				0.77	0.00	0.00	0.00	0.40	0.00	0.00	0.29	0.00
Avail Cap(c_a), veh/h				2191	0	0	0	1866	0	0	3378	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.00	0.91	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				23.3	0.0	0.0	0.0	17.6	0.0	0.0	7.2	0.0
Incr Delay (d2), s/veh				0.6	0.0	0.0	0.0	0.6	0.0	0.0	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				4.6	0.0	0.0	0.0	6.1	0.0	0.0	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				23.9	0.0	0.0	0.0	18.2	0.0	0.0	7.3	0.0
LnGrp LOS				C	A	A	A	B	A	A	A	A
Approach Vol, veh/h					1020	A		755	A		971	A
Approach Delay, s/veh					23.9			18.2			7.3	
Approach LOS					C			B			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		46.7				46.7		23.3				
Change Period (Y+Rc), s		5.7				5.7		5.1				
Max Green Setting (Gmax), s		28.3				28.3		30.9				
Max Q Clear Time (g_c+I1), s		16.5				7.9		15.7				
Green Ext Time (p_c), s		2.6				4.2		2.5				

Intersection Summary

HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Tracy Transportation Master Plan Update
 2: International Pkwy & I-205 EB Off-Ramp/I-205 EB On-Ramp

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	485	0	294	0	0	0	0	346	385	0	1837	155
Future Volume (veh/h)	485	0	294	0	0	0	0	346	385	0	1837	155
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	1678	1678	1678				0	1678	1678	0	1678	1678
Adj Flow Rate, veh/h	576	0	196				0	346	0	0	1837	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	15	15	15				0	15	15	0	15	15
Cap, veh/h	657	0	292				0	2932		0	2932	
Arrive On Green	0.21	0.00	0.21				0.00	0.64	0.00	0.00	0.64	0.00
Sat Flow, veh/h	3196	0	1422				0	4731	2502	0	4731	1422
Grp Volume(v), veh/h	576	0	196				0	346	0	0	1837	0
Grp Sat Flow(s),veh/h/ln	1598	0	1422				0	1527	1251	0	1527	1422
Q Serve(g_s), s	12.2	0.0	8.9				0.0	2.1	0.0	0.0	16.9	0.0
Cycle Q Clear(g_c), s	12.2	0.0	8.9				0.0	2.1	0.0	0.0	16.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	657	0	292				0	2932		0	2932	
V/C Ratio(X)	0.88	0.00	0.67				0.00	0.12		0.00	0.63	
Avail Cap(c_a), veh/h	1000	0	445				0	2932		0	2932	
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	1.00				0.00	1.00	0.00	0.00	0.87	0.00
Uniform Delay (d), s/veh	26.9	0.0	25.6				0.0	4.9	0.0	0.0	7.6	0.0
Incr Delay (d2), s/veh	4.0	0.0	1.0				0.0	0.1	0.0	0.0	0.9	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	4.8	0.0	2.9				0.0	0.5	0.0	0.0	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	0.0	26.6				0.0	5.0	0.0	0.0	8.5	0.0
LnGrp LOS	C	A	C				A	A		A	A	
Approach Vol, veh/h		772						346	A		1837	A
Approach Delay, s/veh		29.8						5.0			8.5	
Approach LOS		C						A			A	
Timer - Assigned Phs		2		4			6					
Phs Duration (G+Y+Rc), s		50.5		19.5			50.5					
Change Period (Y+Rc), s		5.7		5.1			5.7					
Max Green Setting (Gmax), s		37.3		21.9			37.3					
Max Q Clear Time (g_c+I1), s		4.1		14.2			18.9					
Green Ext Time (p_c), s		1.4		0.2			8.9					

Intersection Summary

HCM 6th Ctrl Delay	13.6
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Tracy Transportation Master Plan Update
3: International Pkwy & Capital Parks Dr

Future 2042
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖	↖	↖↗	↖	↖	↖↗	↖
Traffic Volume (veh/h)	25	21	25	25	333	290	25	398	25	400	1341	20
Future Volume (veh/h)	25	21	25	25	333	290	25	398	25	400	1341	20
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	1678	1870	1678	1870	1678	1678	1678	1678	1870
Adj Flow Rate, veh/h	25	21	25	25	333	290	25	398	25	400	1341	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	15	2	15	2	15	15	15	15	2
Cap, veh/h	39	102	91	359	925	370	39	684	305	437	1486	739
Arrive On Green	0.02	0.06	0.06	0.22	0.26	0.26	0.02	0.21	0.21	0.27	0.47	0.47
Sat Flow, veh/h	1781	1777	1585	1598	3554	1422	1781	3188	1422	1598	3188	1585
Grp Volume(v), veh/h	25	21	25	25	333	290	25	398	25	400	1341	20
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1598	1777	1422	1781	1594	1422	1598	1594	1585
Q Serve(g_s), s	1.0	0.8	1.1	0.9	5.3	13.2	1.0	7.8	0.6	16.9	27.0	0.4
Cycle Q Clear(g_c), s	1.0	0.8	1.1	0.9	5.3	13.2	1.0	7.8	0.6	16.9	27.0	0.4
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	39	102	91	359	925	370	39	684	305	437	1486	739
V/C Ratio(X)	0.64	0.21	0.27	0.07	0.36	0.78	0.64	0.58	0.08	0.92	0.90	0.03
Avail Cap(c_a), veh/h	128	459	410	413	1581	633	102	824	367	459	1556	774
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	1.00	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	33.8	31.3	31.4	21.3	21.0	23.9	33.8	24.6	7.0	24.5	17.1	5.6
Incr Delay (d2), s/veh	15.9	1.0	1.6	0.1	0.2	3.7	15.9	0.8	0.1	22.4	7.5	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.4	0.4	0.3	2.1	4.5	0.6	2.7	0.3	8.3	9.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.7	32.3	33.1	21.3	21.3	27.6	49.7	25.3	7.2	46.9	24.7	5.6
LnGrp LOS	D	C	C	C	C	C	D	C	A	D	C	A
Approach Vol, veh/h		71			648			448			1761	
Approach Delay, s/veh		38.7			24.1			25.7			29.5	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.1	18.9	19.7	8.0	5.5	36.5	5.5	22.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	20.0	18.0	18.0	18.0	4.0	34.0	5.0	31.0				
Max Q Clear Time (g_c+110), s	11.0	9.8	2.9	3.1	3.0	29.0	3.0	15.2				
Green Ext Time (p_c), s	0.2	1.5	0.0	0.1	0.0	3.5	0.0	2.9				
Intersection Summary												
HCM 6th Ctrl Delay											27.9	
HCM 6th LOS											C	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	33	29	485	25	20	143	394	189	319	1002	20
Future Volume (veh/h)	20	33	29	485	25	20	143	394	189	319	1002	20
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	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	20	33	29	485	25	20	143	394	189	319	1002	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	15	15	15	15	15	15	15	15	15	15	15	15
Cap, veh/h	470	71	60	473	74	62	171	565	252	463	1148	512
Arrive On Green	0.29	0.04	0.04	0.30	0.04	0.04	0.11	0.18	0.18	0.29	0.36	0.36
Sat Flow, veh/h	1598	1678	1422	1598	1678	1422	1598	3188	1422	1598	3188	1422
Grp Volume(v), veh/h	20	33	29	485	25	20	143	394	189	319	1002	20
Grp Sat Flow(s),veh/h/ln	1598	1678	1422	1598	1678	1422	1598	1594	1422	1598	1594	1422
Q Serve(g_s), s	0.8	1.8	1.1	27.0	1.3	1.2	8.0	10.6	11.5	16.2	26.8	0.3
Cycle Q Clear(g_c), s	0.8	1.8	1.1	27.0	1.3	1.2	8.0	10.6	11.5	16.2	26.8	0.3
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	470	71	60	473	74	62	171	565	252	463	1148	512
V/C Ratio(X)	0.04	0.47	0.48	1.03	0.34	0.32	0.84	0.70	0.75	0.69	0.87	0.04
Avail Cap(c_a), veh/h	470	331	280	473	717	608	175	1020	455	463	1300	580
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	1.00	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	23.0	42.7	15.7	32.1	42.3	42.3	40.0	35.2	35.6	28.8	27.2	2.6
Incr Delay (d2), s/veh	0.0	4.7	6.0	48.1	2.7	2.9	28.1	1.6	4.4	4.3	6.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.8	0.7	15.9	0.6	0.5	4.3	4.0	4.1	6.3	10.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.1	47.4	21.7	80.2	45.0	45.2	68.0	36.8	40.1	33.1	33.5	2.6
LnGrp LOS	C	D	C	F	D	D	E	D	D	C	C	A
Approach Vol, veh/h		82			530			726			1341	
Approach Delay, s/veh		32.4			77.2			43.8			32.9	
Approach LOS		C			E			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	33.7	38.7	31.0	7.8	30.4	22.0	30.8	8.0				
Change Period (Y+Rc), s	4.0	5.8	4.0	4.0	4.0	5.8	4.0	4.0				
Max Green Setting (Gmax), s	10.0	37.2	27.0	18.0	18.0	29.2	6.0	39.0				
Max Q Clear Time (g_c+I1), s	10.0	28.8	29.0	3.8	18.2	13.5	2.8	3.3				
Green Ext Time (p_c), s	0.0	4.1	0.0	0.1	0.0	2.7	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	44.6
HCM 6th LOS	D

Tracy Transportation Master Plan Update
 5: Mountain House Parkway/International Pkwy & Old Schulte Road

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘↗	↑	↗	↘	↑↑	↗↘	↘↗	↑↑	↗
Traffic Volume (veh/h)	32	20	219	698	42	162	130	398	546	109	1221	25
Future Volume (veh/h)	32	20	219	698	42	162	130	398	546	109	1221	25
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	1060	1589	1324	883	1589	1324	1060	1589	1324	1060	1589	1324
Adj Flow Rate, veh/h	32	20	219	698	42	162	130	398	546	109	1221	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	15	15	15	15	15	15	15	15	15	15	15	15
Cap, veh/h	61	302	311	308	505	434	89	1098	1092	134	1040	455
Arrive On Green	0.06	0.19	0.19	0.19	0.32	0.32	0.09	0.36	0.36	0.07	0.34	0.34
Sat Flow, veh/h	1009	1589	1122	1631	1589	1122	1009	3020	1976	1958	3020	1122
Grp Volume(v), veh/h	32	20	219	698	42	162	130	398	546	109	1221	25
Grp Sat Flow(s),veh/h/ln	1009	1589	1122	816	1589	1122	1009	1510	988	979	1510	1122
Q Serve(g_s), s	4.6	1.5	25.9	28.0	2.7	15.3	13.0	14.3	25.3	8.1	51.0	2.0
Cycle Q Clear(g_c), s	4.6	1.5	25.9	28.0	2.7	15.3	13.0	14.3	25.3	8.1	51.0	2.0
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	61	302	311	308	505	434	89	1098	1092	134	1040	455
V/C Ratio(X)	0.52	0.07	0.70	2.26	0.08	0.37	1.47	0.36	0.50	0.81	1.17	0.05
Avail Cap(c_a), veh/h	68	322	326	308	515	441	89	1098	1092	185	1040	455
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	1.00	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	67.5	49.2	48.0	60.0	35.4	32.6	67.5	34.5	20.5	68.1	48.5	26.8
Incr Delay (d2), s/veh	6.7	0.1	6.3	578.6	0.1	0.5	261.7	0.2	0.4	17.3	88.7	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.6	7.7	30.5	1.1	4.2	9.7	5.2	5.7	2.3	31.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.2	49.3	54.4	638.6	35.4	33.1	329.2	34.7	20.8	85.4	137.2	26.8
LnGrp LOS	E	D	D	F	D	C	F	C	C	F	F	C
Approach Vol, veh/h		271			902			1074			1355	
Approach Delay, s/veh		56.3			501.8			63.3			131.0	
Approach LOS		E			F			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.1	60.9	35.0	35.1	20.0	58.0	16.0	54.1				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	14.0	50.0	28.0	30.0	13.0	51.0	10.0	48.0				
Max Q Clear Time (g_c+I1), s	11.0	27.3	30.0	27.9	15.0	53.0	6.6	17.3				
Green Ext Time (p_c), s	0.1	4.7	0.0	0.2	0.0	0.0	0.0	0.9				

Intersection Summary

HCM 6th Ctrl Delay	198.1
HCM 6th LOS	F

Notes

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

6: SB Mountain House Parkway & NB Mountain House Parkway Performance by movement

Movement	EBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.9	3.9	4.8
Total Del/Veh (s)	18.7	13.3	14.0
Vehicles Entered	171	1058	1229
Vehicles Exited	169	1057	1226
Hourly Exit Rate	169	1057	1226
Input Volume	181	1051	1232
% of Volume	93	101	100
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

603: I-580 WB Off Ramp & NB Mountain House Parkway Performance by movement

Movement	EBL	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.2	2.4	2.6
Total Del/Veh (s)	4.0	9.7	8.8
Vehicles Entered	169	879	1048
Vehicles Exited	170	882	1052
Hourly Exit Rate	170	882	1052
Input Volume	181	893	1074
% of Volume	94	99	98
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

607: SB Mountain House Parkway & I-580 WB Off Ramp Performance by movement

Movement	WBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	5.7	1.9	7.6
Total Del/Veh (s)	25.5	6.4	14.7
Vehicles Entered	803	1057	1860
Vehicles Exited	800	1055	1855
Hourly Exit Rate	800	1055	1855
Input Volume	794	1051	1845
% of Volume	101	100	101
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Zone Performance

Denied Delay (hr)	0.0
Denied Del/Veh (s)	
Total Delay (hr)	15.0
Total Del/Veh (s)	13.0
Vehicles Entered	4151
Vehicles Exited	4151
Hourly Exit Rate	4151
Input Volume	4151
% of Volume	100
Denied Entry Before	0
Denied Entry After	0

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7: NB Mountain House Parkway & SB Mountain House Parkway Performance by movement

Movement	WBT	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	4.5	0.1	4.5
Total Del/Veh (s)	12.4	10.4	12.4
Vehicles Entered	1287	19	1306
Vehicles Exited	1290	19	1309
Hourly Exit Rate	1290	19	1309
Input Volume	1259	25	1284
% of Volume	102	76	102
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

701: NB Mountain House Parkway & I-580 EB Off Ramp Performance by movement

Movement	EBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.3	0.1	0.4
Total Del/Veh (s)	6.7	11.2	7.2
Vehicles Entered	180	19	199
Vehicles Exited	181	19	200
Hourly Exit Rate	181	19	200
Input Volume	181	25	206
% of Volume	100	76	97
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

705: SB Mountain House Parkway & I-580 EB Off Ramp Performance by movement

Movement	WBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	2.5	0.1	2.6
Total Del/Veh (s)	6.9	16.6	7.1
Vehicles Entered	1290	25	1315
Vehicles Exited	1285	25	1310
Hourly Exit Rate	1285	25	1310
Input Volume	1259	25	1284
% of Volume	102	100	102
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Zone Performance

Denied Delay (hr)	0.0
Denied Del/Veh (s)	
Total Delay (hr)	7.5
Total Del/Veh (s)	9.7
Vehicles Entered	2774
Vehicles Exited	2774
Hourly Exit Rate	2774
Input Volume	2774
% of Volume	100
Denied Entry Before	0
Denied Entry After	0

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Tracy Transportation Master Plan Update
 8: Hansen Rd/Hansen Road & Capital Parks Dr

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙↗	↑↑		↙	↑	↗	↙	↗	
Traffic Volume (veh/h)	25	396	25	300	459	25	21	32	232	25	266	169
Future Volume (veh/h)	25	396	25	300	459	25	21	32	232	25	266	169
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	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	25	396	25	300	459	25	21	32	232	25	266	169
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	40	667	298	298	862	47	34	553	469	40	320	203
Arrive On Green	0.02	0.20	0.20	0.09	0.27	0.27	0.02	0.32	0.32	0.02	0.32	0.32
Sat Flow, veh/h	1668	3328	1485	3237	3210	174	1668	1752	1485	1668	1001	636
Grp Volume(v), veh/h	25	396	25	300	237	247	21	32	232	25	0	435
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1618	1664	1720	1668	1752	1485	1668	0	1637
Q Serve(g_s), s	0.6	4.7	0.6	4.0	5.3	5.3	0.5	0.6	5.5	0.6	0.0	10.7
Cycle Q Clear(g_c), s	0.6	4.7	0.6	4.0	5.3	5.3	0.5	0.6	5.5	0.6	0.0	10.7
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	1.00		0.39
Lane Grp Cap(c), veh/h	40	667	298	298	447	462	34	553	469	40	0	523
V/C Ratio(X)	0.63	0.59	0.08	1.01	0.53	0.53	0.61	0.06	0.49	0.63	0.00	0.83
Avail Cap(c_a), veh/h	153	1377	614	298	689	712	153	725	614	153	0	678
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.0	15.8	14.1	19.7	13.6	13.6	21.1	10.4	12.1	21.0	0.0	13.7
Incr Delay (d2), s/veh	14.9	0.8	0.1	54.2	1.0	1.0	16.2	0.0	0.8	14.9	0.0	6.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.6	0.2	3.6	1.8	1.8	0.3	0.2	1.6	0.4	0.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.9	16.6	14.3	73.9	14.6	14.5	37.4	10.4	12.9	35.9	0.0	20.6
LnGrp LOS	D	B	B	F	B	B	D	B	B	D	A	C
Approach Vol, veh/h		446			784			285			460	
Approach Delay, s/veh		17.6			37.3			14.4			21.4	
Approach LOS		B			D			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	17.7	8.0	12.7	4.9	17.9	5.0	15.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	4.0	18.0	4.0	18.0	4.0	18.0				
Max Q Clear Time (g_c+1), s	12.6	7.5	6.0	6.7	2.5	12.7	2.6	7.3				
Green Ext Time (p_c), s	0.0	0.6	0.0	2.0	0.0	1.2	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay												25.8
HCM 6th LOS												C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	382	134	180	239	137	150	175	78	146	285	161
Future Volume (veh/h)	25	382	134	180	239	137	150	175	78	146	285	161
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		No		No
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	25	382	134	180	239	137	150	175	78	146	285	161
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	49	658	293	225	1011	451	189	669	298	184	659	294
Arrive On Green	0.03	0.20	0.20	0.14	0.30	0.30	0.11	0.20	0.20	0.11	0.20	0.20
Sat Flow, veh/h	1668	3328	1482	1668	3328	1485	1668	3328	1482	1668	3328	1482
Grp Volume(v), veh/h	25	382	134	180	239	137	150	175	78	146	285	161
Grp Sat Flow(s),veh/h/ln	1668	1664	1482	1668	1664	1485	1668	1664	1482	1668	1664	1482
Q Serve(g_s), s	0.8	5.4	4.1	5.4	2.8	3.7	4.6	2.3	2.3	4.4	3.9	5.1
Cycle Q Clear(g_c), s	0.8	5.4	4.1	5.4	2.8	3.7	4.6	2.3	2.3	4.4	3.9	5.1
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	49	658	293	225	1011	451	189	669	298	184	659	294
V/C Ratio(X)	0.51	0.58	0.46	0.80	0.24	0.30	0.80	0.26	0.26	0.79	0.43	0.55
Avail Cap(c_a), veh/h	161	2018	899	353	2402	1072	289	1922	856	289	1922	856
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	1.00	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	24.9	18.9	18.4	21.8	13.6	13.9	22.5	17.5	17.5	22.5	18.3	18.7
Incr Delay (d2), s/veh	8.2	0.8	1.1	6.8	0.1	0.4	8.4	0.2	0.5	7.8	0.4	1.6
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	0.4	1.8	1.3	2.2	0.8	1.0	2.0	0.8	0.7	1.9	1.3	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	19.7	19.5	28.6	13.7	14.3	30.8	17.7	18.0	30.4	18.7	20.3
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	C
Approach Vol, veh/h		541			556			403			592	
Approach Delay, s/veh		20.3			18.7			22.6			22.0	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	15.0	9.7	16.2	5.5	20.5	9.9	16.1				
Change Period (Y+Rc), s	4.0	* 4.7	4.0	5.8	4.0	* 4.7	4.0	5.8				
Max Green Setting (Gmax), s	3.0	* 32	9.0	30.0	5.0	* 38	9.0	30.0				
Max Q Clear Time (g_c+1), s	4.5	7.4	6.4	4.3	2.8	5.7	6.6	7.1				
Green Ext Time (p_c), s	0.1	2.7	0.1	1.2	0.0	1.9	0.1	2.1				

Intersection Summary

HCM 6th Ctrl Delay	20.8
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑		↘	↑	↗
Traffic Volume (veh/h)	178	321	176	65	471	105	121	120	63	75	320	204
Future Volume (veh/h)	178	321	176	65	471	105	121	120	63	75	320	204
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	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	178	321	176	65	471	105	121	120	63	75	320	204
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	15	15	15	15	15	15	15	15	15	15	15	15
Cap, veh/h	198	787	351	141	673	300	173	534	264	150	409	346
Arrive On Green	0.12	0.25	0.25	0.09	0.21	0.21	0.11	0.26	0.26	0.09	0.24	0.24
Sat Flow, veh/h	1598	3188	1422	1598	3188	1422	1598	2064	1023	1598	1678	1422
Grp Volume(v), veh/h	178	321	176	65	471	105	121	91	92	75	320	204
Grp Sat Flow(s),veh/h/ln	1598	1594	1422	1598	1594	1422	1598	1594	1494	1598	1678	1422
Q Serve(g_s), s	8.4	6.5	8.2	3.0	10.5	4.8	5.6	3.4	3.7	3.4	13.7	9.7
Cycle Q Clear(g_c), s	8.4	6.5	8.2	3.0	10.5	4.8	5.6	3.4	3.7	3.4	13.7	9.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.69	1.00		1.00
Lane Grp Cap(c), veh/h	198	787	351	141	673	300	173	412	386	150	409	346
V/C Ratio(X)	0.90	0.41	0.50	0.46	0.70	0.35	0.70	0.22	0.24	0.50	0.78	0.59
Avail Cap(c_a), veh/h	198	1343	599	223	1393	621	188	657	616	238	744	630
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	1.00	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	33.1	24.2	24.8	33.2	28.0	25.8	33.0	22.4	22.5	33.0	27.1	25.6
Incr Delay (d2), s/veh	37.4	0.5	1.6	2.4	1.9	1.0	9.9	0.4	0.4	2.6	4.7	2.3
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	5.1	2.3	2.7	1.2	3.8	1.6	2.5	1.2	1.2	1.3	5.5	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.5	24.7	26.4	35.6	29.9	26.8	42.9	22.7	22.9	35.6	31.8	27.9
LnGrp LOS	E	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		675			641			304			599	
Approach Delay, s/veh		37.2			30.0			30.8			30.9	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.2	25.4	12.7	25.3	16.0	22.7	13.8	24.2				
Change Period (Y+Rc), s	6.5	6.5	5.5	5.5	6.5	6.5	5.5	5.5				
Max Green Setting (Gmax), s	10.7	32.3	11.4	31.6	9.5	33.5	9.0	34.0				
Max Q Clear Time (g_c+1/3), s	10.2	10.2	5.4	5.7	10.4	12.5	7.6	15.7				
Green Ext Time (p_c), s	0.1	3.2	0.1	1.0	0.0	3.7	0.0	3.0				

Intersection Summary

HCM 6th Ctrl Delay	32.5
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)	50	575	25	502	603	70	25	125	229	20	192	154
Future Volume (veh/h)	50	575	25	502	603	70	25	125	229	20	192	154
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		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	50	575	25	502	603	70	25	125	229	20	192	154
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	878	392	639	1389	620	42	376	319	35	368	312
Arrive On Green	0.04	0.25	0.25	0.18	0.39	0.39	0.02	0.20	0.20	0.02	0.20	0.20
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	50	575	25	502	603	70	25	125	229	20	192	154
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	1.3	6.7	0.6	6.4	5.7	1.3	0.6	2.6	6.2	0.5	4.2	4.0
Cycle Q Clear(g_c), s	1.3	6.7	0.6	6.4	5.7	1.3	0.6	2.6	6.2	0.5	4.2	4.0
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	73	878	392	639	1389	620	42	376	319	35	368	312
V/C Ratio(X)	0.68	0.65	0.06	0.79	0.43	0.11	0.59	0.33	0.72	0.57	0.52	0.49
Avail Cap(c_a), veh/h	232	1389	620	675	1621	723	155	731	620	155	731	620
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	1.00	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	21.8	15.6	13.3	17.9	10.3	8.9	22.3	15.8	17.2	22.4	16.6	16.5
Incr Delay (d2), s/veh	10.7	0.8	0.1	5.8	0.2	0.1	12.4	0.5	3.0	13.9	1.1	1.2
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	0.7	2.4	0.2	2.7	1.8	0.4	0.4	1.0	2.2	0.3	1.7	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.5	16.4	13.3	23.7	10.5	9.0	34.7	16.3	20.2	36.3	17.7	17.7
LnGrp LOS	C	B	B	C	B	A	C	B	C	D	B	B
Approach Vol, veh/h		650			1175			379			366	
Approach Delay, s/veh		17.5			16.1			19.9			18.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.9	13.3	12.5	15.4	5.1	13.1	5.9	22.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	9.0	18.0	4.0	18.0	6.0	21.0				
Max Q Clear Time (g_c+1), s	12.5	8.2	8.4	8.7	2.6	6.2	3.3	7.7				
Green Ext Time (p_c), s	0.0	1.0	0.1	2.7	0.0	1.2	0.0	3.6				

Intersection Summary

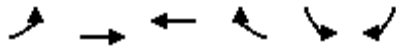
HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B

Tracy Transportation Master Plan Update
 13: Pavillion Pkwy & Old Schulte Rd/Old Schulte Road

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	25	350	25	25	376	31	31	42	25	55	26	166
Future Volume (veh/h)	25	350	25	25	376	31	31	42	25	55	26	166
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		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	25	350	25	25	376	31	31	42	25	55	26	166
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	44	519	37	44	513	42	53	602	510	444	327	277
Arrive On Green	0.02	0.30	0.30	0.02	0.30	0.30	0.03	0.32	0.32	0.17	0.17	0.17
Sat Flow, veh/h	1781	1725	123	1781	1705	141	1781	1870	1585	1334	1870	1585
Grp Volume(v), veh/h	25	0	375	25	0	407	31	42	25	55	26	166
Grp Sat Flow(s),veh/h/ln	1781	0	1848	1781	0	1845	1781	1870	1585	1334	1870	1585
Q Serve(g_s), s	0.5	0.0	6.1	0.5	0.0	6.7	0.6	0.5	0.4	1.2	0.4	3.3
Cycle Q Clear(g_c), s	0.5	0.0	6.1	0.5	0.0	6.7	0.6	0.5	0.4	1.2	0.4	3.3
Prop In Lane	1.00		0.07	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	44	0	556	44	0	555	53	602	510	444	327	277
V/C Ratio(X)	0.57	0.00	0.67	0.57	0.00	0.73	0.58	0.07	0.05	0.12	0.08	0.60
Avail Cap(c_a), veh/h	209	0	977	209	0	975	209	1428	1210	917	989	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(l)	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	16.4	0.0	10.4	16.4	0.0	10.7	16.3	8.0	8.0	12.1	11.8	13.0
Incr Delay (d2), s/veh	11.0	0.0	1.4	11.0	0.0	1.9	9.7	0.0	0.0	0.1	0.1	2.1
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	0.3	0.0	1.7	0.3	0.0	1.9	0.3	0.2	0.1	0.3	0.1	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.4	0.0	11.9	27.4	0.0	12.6	26.0	8.1	8.0	12.2	11.9	15.0
LnGrp LOS	C	A	B	C	A	B	C	A	A	B	B	B
Approach Vol, veh/h		400			432			98			247	
Approach Delay, s/veh		12.8			13.4			13.7			14.1	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s		15.0	4.8	14.2	5.0	9.9	4.8	14.2				
Change Period (Y+Rc), s		4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s		26.0	4.0	18.0	4.0	18.0	4.0	18.0				
Max Q Clear Time (g_c+1), s		2.5	2.5	8.1	2.6	5.3	2.5	8.7				
Green Ext Time (p_c), s		0.2	0.0	1.4	0.0	0.7	0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay												13.4
HCM 6th LOS												B



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	20	541	407	71	25	25	
Future Volume (veh/h)	20	541	407	71	25	25	
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	20	541	407	71	25	25	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	37	1039	599	105	264	235	
Arrive On Green	0.02	0.56	0.39	0.39	0.15	0.15	
Sat Flow, veh/h	1781	1870	1551	271	1781	1585	
Grp Volume(v), veh/h	20	541	0	478	25	25	
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1822	1781	1585	
Q Serve(g_s), s	0.3	4.9	0.0	5.9	0.3	0.4	
Cycle Q Clear(g_c), s	0.3	4.9	0.0	5.9	0.3	0.4	
Prop In Lane	1.00			0.15	1.00	1.00	
Lane Grp Cap(c), veh/h	37	1039	0	704	264	235	
V/C Ratio(X)	0.54	0.52	0.00	0.68	0.09	0.11	
Avail Cap(c_a), veh/h	264	2010	0	1418	1188	1057	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	13.1	3.8	0.0	6.9	9.9	9.9	
Incr Delay (d2), s/veh	11.9	0.4	0.0	1.2	0.2	0.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.2	0.4	0.0	1.3	0.1	0.4	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	25.0	4.2	0.0	8.0	10.1	10.1	
LnGrp LOS	C	A	A	A	B	B	
Approach Vol, veh/h		561	478		50		
Approach Delay, s/veh		4.9	8.0		10.1		
Approach LOS		A	A		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				19.0	8.0	4.6	14.4
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				29.0	18.0	4.0	21.0
Max Q Clear Time (g_c+1), s				6.9	2.4	2.3	7.9
Green Ext Time (p_c), s				3.6	0.1	0.0	2.5
Intersection Summary							
HCM 6th Ctrl Delay			6.5				
HCM 6th LOS			A				

Tracy Transportation Master Plan Update
 15: Commerce Way & Capital Parks Dr

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↖↗		↖	↖↗	↖	↖	↖↗		↖	↖↗	↖
Traffic Volume (veh/h)	409	361	25	25	493	214	25	198	25	25	160	658
Future Volume (veh/h)	409	361	25	25	493	214	25	198	25	25	160	658
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	409	361	25	25	493	214	25	198	25	25	160	658
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	545	1189	82	42	775	346	42	766	95	137	550	933
Arrive On Green	0.16	0.35	0.35	0.02	0.22	0.22	0.02	0.24	0.24	0.08	0.29	0.29
Sat Flow, veh/h	3456	3373	233	1781	3554	1585	1781	3179	396	1781	1870	3170
Grp Volume(v), veh/h	409	189	197	25	493	214	25	110	113	25	160	658
Grp Sat Flow(s),veh/h/ln	1728	1777	1828	1781	1777	1585	1781	1777	1799	1781	1870	1585
Q Serve(g_s), s	5.9	4.0	4.1	0.7	6.6	6.4	0.7	2.6	2.7	0.7	3.4	9.6
Cycle Q Clear(g_c), s	5.9	4.0	4.1	0.7	6.6	6.4	0.7	2.6	2.7	0.7	3.4	9.6
Prop In Lane	1.00		0.13	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	545	626	645	42	775	346	42	428	433	137	550	933
V/C Ratio(X)	0.75	0.30	0.30	0.60	0.64	0.62	0.60	0.26	0.26	0.18	0.29	0.71
Avail Cap(c_a), veh/h	662	783	806	171	1226	547	171	613	620	614	1111	1883
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	1.00	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	21.0	12.2	12.3	25.2	18.5	18.4	25.2	16.0	16.0	22.6	14.2	16.4
Incr Delay (d2), s/veh	3.9	0.3	0.3	13.2	0.9	1.8	13.2	0.3	0.3	0.6	0.3	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	1.4	1.5	0.4	2.5	2.3	0.4	1.0	1.0	0.3	1.3	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.9	12.5	12.5	38.5	19.4	20.2	38.5	16.3	16.4	23.2	14.5	17.4
LnGrp LOS	C	B	B	D	B	C	D	B	B	C	B	B
Approach Vol, veh/h	795		732				248		843			
Approach Delay, s/veh	18.9		20.3				18.6		17.0			
Approach LOS	B		C				B		B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	16.6	5.2	22.4	5.2	19.4	12.2	15.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	5.0	23.0	5.0	31.0	10.0	18.0				
Max Q Clear Time (g_c+1), s	12.7	4.7	2.7	6.1	2.7	11.6	7.9	8.6				
Green Ext Time (p_c), s	0.0	1.0	0.0	2.0	0.0	3.7	0.3	2.8				
Intersection Summary												
HCM 6th Ctrl Delay			18.6									
HCM 6th LOS			B									
Notes												
User approved volume balancing among the lanes for turning movement.												

Tracy Transportation Master Plan Update
 16: Road M & Capital Parks Dr

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑		↖	↑↑	↖	↖	↖		↖	↑	↖
Traffic Volume (veh/h)	107	283	20	20	165	400	20	25	25	154	25	548
Future Volume (veh/h)	107	283	20	20	165	400	20	25	25	154	25	548
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		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	107	283	20	20	165	400	20	25	25	154	25	548
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	1066	75	34	997	445	34	243	243	214	721	611
Arrive On Green	0.05	0.32	0.32	0.02	0.28	0.28	0.02	0.28	0.28	0.12	0.39	0.39
Sat Flow, veh/h	3456	3368	237	1781	3554	1585	1781	858	858	1781	1870	1585
Grp Volume(v), veh/h	107	149	154	20	165	400	20	0	50	154	25	548
Grp Sat Flow(s),veh/h/ln	1728	1777	1828	1781	1777	1585	1781	0	1716	1781	1870	1585
Q Serve(g_s), s	1.9	3.8	3.9	0.7	2.2	14.9	0.7	0.0	1.3	5.1	0.5	19.9
Cycle Q Clear(g_c), s	1.9	3.8	3.9	0.7	2.2	14.9	0.7	0.0	1.3	5.1	0.5	19.9
Prop In Lane	1.00		0.13	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	189	562	578	34	997	445	34	0	487	214	721	611
V/C Ratio(X)	0.57	0.26	0.27	0.60	0.17	0.90	0.60	0.00	0.10	0.72	0.03	0.90
Avail Cap(c_a), veh/h	281	562	578	116	1042	465	116	0	503	522	975	826
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	15.7	15.7	29.9	16.7	21.3	29.9	0.0	16.2	26.0	11.8	17.7
Incr Delay (d2), s/veh	2.7	0.2	0.2	15.8	0.1	19.7	15.8	0.0	0.1	4.5	0.0	10.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.5	1.5	0.4	0.8	7.5	0.4	0.0	0.5	2.3	0.2	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.0	15.9	15.9	45.7	16.7	40.9	45.7	0.0	16.3	30.5	11.8	27.7
LnGrp LOS	C	B	B	D	B	D	D	A	B	C	B	C
Approach Vol, veh/h		410			585			70			727	
Approach Delay, s/veh		19.8			34.3			24.7			27.8	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	21.4	5.2	23.4	5.2	27.7	7.4	21.2				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	4.0	19.0	4.0	32.0	5.0	18.0				
Max Q Clear Time (g_c+1), s	3.3	3.3	2.7	5.9	2.7	21.9	3.9	16.9				
Green Ext Time (p_c), s	0.3	0.1	0.0	1.4	0.0	1.7	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay												28.0
HCM 6th LOS												C



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↑	↗	↙	↑
Traffic Volume (veh/h)	20	166	311	20	197	369
Future Volume (veh/h)	20	166	311	20	197	369
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	20	166	311	20	197	369
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	256	228	510	432	254	1051
Arrive On Green	0.14	0.14	0.27	0.27	0.14	0.56
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	20	166	311	20	197	369
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	0.3	2.7	3.9	0.3	2.9	2.9
Cycle Q Clear(g_c), s	0.3	2.7	3.9	0.3	2.9	2.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	256	228	510	432	254	1051
V/C Ratio(X)	0.08	0.73	0.61	0.05	0.78	0.35
Avail Cap(c_a), veh/h	1179	1049	1238	1049	459	1995
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	10.1	11.1	8.6	7.3	11.2	3.2
Incr Delay (d2), s/veh	0.1	4.4	1.2	0.0	5.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.9	1.1	0.1	1.2	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.2	15.6	9.8	7.3	16.3	3.4
LnGrp LOS	B	B	A	A	B	A
Approach Vol, veh/h	186		331			566
Approach Delay, s/veh	15.0		9.7			7.9
Approach LOS	B		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.9	11.4			19.3	7.9
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	18.0				29.0	18.0
Max Q Clear Time (g_c+14), s	5.9				4.9	4.7
Green Ext Time (p_c), s	0.1	1.5			2.3	0.4
Intersection Summary						
HCM 6th Ctrl Delay			9.7			
HCM 6th LOS			A			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	388	107	25	250	450	381
Future Volume (veh/h)	388	107	25	250	450	381
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	388	107	25	250	450	381
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	509	453	44	926	675	572
Arrive On Green	0.29	0.29	0.02	0.49	0.36	0.36
Sat Flow, veh/h	1781	1585	1781	1870	1870	1585
Grp Volume(v), veh/h	388	107	25	250	450	381
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1870	1870	1585
Q Serve(g_s), s	7.3	1.9	0.5	2.8	7.4	7.4
Cycle Q Clear(g_c), s	7.3	1.9	0.5	2.8	7.4	7.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	509	453	44	926	675	572
V/C Ratio(X)	0.76	0.24	0.57	0.27	0.67	0.67
Avail Cap(c_a), veh/h	975	868	195	1639	1229	1041
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	11.9	10.0	17.6	5.4	9.8	9.8
Incr Delay (d2), s/veh	2.4	0.3	11.2	0.2	1.1	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	0.3	0.7	2.4	2.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.3	10.2	28.9	5.5	11.0	11.2
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	495			275	831	
Approach Delay, s/veh	13.4			7.7	11.1	
Approach LOS	B			A	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		22.1		14.4	4.9	17.2
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		32.0		20.0	4.0	24.0
Max Q Clear Time (g_c+I1), s		4.8		9.3	2.5	9.4
Green Ext Time (p_c), s		1.5		1.3	0.0	3.8
Intersection Summary						
HCM 6th Ctrl Delay			11.2			
HCM 6th LOS			B			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	26	25	51	20	80	20	76	229	25	20	400	25
Future Volume (veh/h)	26	25	51	20	80	20	76	229	25	20	400	25
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	26	25	51	20	80	20	76	229	25	20	400	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	60	123	36	150	38	109	652	552	36	575	487
Arrive On Green	0.03	0.11	0.11	0.02	0.10	0.10	0.06	0.35	0.35	0.02	0.31	0.31
Sat Flow, veh/h	1781	549	1120	1781	1444	361	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	26	0	76	20	0	100	76	229	25	20	400	25
Grp Sat Flow(s),veh/h/ln	1781	0	1669	1781	0	1805	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.5	0.0	1.4	0.4	0.0	1.7	1.3	2.9	0.3	0.4	6.0	0.4
Cycle Q Clear(g_c), s	0.5	0.0	1.4	0.4	0.0	1.7	1.3	2.9	0.3	0.4	6.0	0.4
Prop In Lane	1.00		0.67	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	46	0	183	36	0	188	109	652	552	36	575	487
V/C Ratio(X)	0.57	0.00	0.42	0.55	0.00	0.53	0.69	0.35	0.05	0.55	0.70	0.05
Avail Cap(c_a), veh/h	223	0	941	223	0	1018	223	1055	894	223	1055	894
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	15.4	0.0	13.3	15.5	0.0	13.6	14.7	7.7	6.9	15.5	9.7	7.8
Incr Delay (d2), s/veh	10.5	0.0	1.5	12.4	0.0	2.3	7.7	0.3	0.0	12.4	1.5	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.5	0.2	0.0	0.7	0.7	0.8	0.1	0.2	1.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.8	0.0	14.8	27.9	0.0	15.9	22.3	8.0	6.9	27.9	11.3	7.8
LnGrp LOS	C	A	B	C	A	B	C	A	A	C	B	A
Approach Vol, veh/h		102			120			330			445	
Approach Delay, s/veh		17.6			17.9			11.3			11.8	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.6	15.1	4.6	7.5	6.0	13.8	4.8	7.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	4.0	18.0	4.0	18.0	4.0	18.0				
Max Q Clear Time (g_c+1), s	12.4	4.9	2.4	3.4	3.3	8.0	2.5	3.7				
Green Ext Time (p_c), s	0.0	1.1	0.0	0.3	0.0	1.8	0.0	0.4				

Intersection Summary

HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	524	102	125	750	350	23	59	139	219	156	25
Future Volume (veh/h)	20	524	102	125	750	350	23	59	139	219	156	25
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	20	524	102	125	750	350	23	59	139	219	156	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	33	640	542	273	891	755	224	188	159	267	233	197
Arrive On Green	0.02	0.34	0.34	0.15	0.48	0.48	0.13	0.10	0.10	0.15	0.12	0.12
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	20	524	102	125	750	350	23	59	139	219	156	25
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.7	16.1	2.8	4.0	22.1	4.4	0.7	1.8	3.7	7.5	5.0	0.9
Cycle Q Clear(g_c), s	0.7	16.1	2.8	4.0	22.1	4.4	0.7	1.8	3.7	7.5	5.0	0.9
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	33	640	542	273	891	755	224	188	159	267	233	197
V/C Ratio(X)	0.60	0.82	0.19	0.46	0.84	0.46	0.10	0.31	0.87	0.82	0.67	0.13
Avail Cap(c_a), veh/h	113	1010	856	273	1159	982	224	565	478	340	773	655
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	1.00	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	30.6	18.9	14.6	24.3	14.4	2.5	24.4	26.3	13.2	25.9	26.3	24.5
Incr Delay (d2), s/veh	16.0	3.0	0.2	1.2	4.5	0.4	0.2	0.9	13.6	11.8	3.3	0.3
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	0.4	6.8	1.0	1.7	9.0	2.4	0.3	0.8	2.5	3.9	2.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.6	21.9	14.7	25.5	18.9	2.9	24.6	27.2	26.8	37.8	29.6	24.8
LnGrp LOS	D	C	B	C	B	A	C	C	C	D	C	C
Approach Vol, veh/h		646			1225			221			400	
Approach Delay, s/veh		21.6			15.0			26.7			33.8	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.4	10.3	13.7	25.5	11.9	11.8	5.2	34.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	12.0	19.0	9.0	34.0	5.0	26.0	4.0	39.0				
Max Q Clear Time (g_c+1), s	19.5	5.7	6.0	18.1	2.7	7.0	2.7	24.1				
Green Ext Time (p_c), s	0.2	0.6	0.1	3.4	0.0	0.8	0.0	5.9				

Intersection Summary

HCM 6th Ctrl Delay	20.8
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	20	20	25	20	111	20	25	20	235	93	25
Future Volume (veh/h)	20	20	20	25	20	111	20	25	20	235	93	25
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	20	20	20	25	20	111	20	25	20	235	93	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	463	243	206	476	243	206	37	324	274	316	617	523
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.02	0.17	0.17	0.18	0.33	0.33
Sat Flow, veh/h	1259	1870	1585	1367	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	20	20	20	25	20	111	20	25	20	235	93	25
Grp Sat Flow(s),veh/h/ln	1259	1870	1585	1367	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.3	0.2	0.3	0.4	0.2	1.5	0.3	0.3	0.2	2.9	0.8	0.2
Cycle Q Clear(g_c), s	0.5	0.2	0.3	0.6	0.2	1.5	0.3	0.3	0.2	2.9	0.8	0.2
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	463	243	206	476	243	206	37	324	274	316	617	523
V/C Ratio(X)	0.04	0.08	0.10	0.05	0.08	0.54	0.54	0.08	0.07	0.74	0.15	0.05
Avail Cap(c_a), veh/h	1281	1457	1235	1364	1457	1235	308	1457	1235	925	2105	1784
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	1.00	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	9.1	8.8	8.9	9.1	8.8	9.4	11.2	8.0	8.0	9.0	5.5	5.3
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.0	0.1	2.2	11.6	0.1	0.1	3.4	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.1	0.1	0.1	0.4	0.2	0.1	0.1	0.9	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.1	9.0	9.1	9.1	9.0	11.6	22.8	8.1	8.1	12.4	5.6	5.3
LnGrp LOS	A	A	A	A	A	B	C	A	A	B	A	A
Approach Vol, veh/h		60			156			65			353	
Approach Delay, s/veh		9.1			10.9			12.6			10.1	
Approach LOS		A			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	8.0		7.0	4.5	11.6		7.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	12.0	18.0		18.0	4.0	26.0		18.0				
Max Q Clear Time (g_c+1), s	14.5	2.3		2.5	2.3	2.8		3.5				
Green Ext Time (p_c), s	0.4	0.1		0.1	0.0	0.5		0.4				
Intersection Summary												
HCM 6th Ctrl Delay											10.5	
HCM 6th LOS											B	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	25	21	334	20	20	83	25	25	20	106	20
Future Volume (veh/h)	20	25	21	334	20	20	83	25	25	20	106	20
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	20	25	21	334	20	20	83	25	25	20	106	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	36	142	120	430	555	471	115	321	272	36	238	202
Arrive On Green	0.02	0.08	0.08	0.24	0.30	0.30	0.06	0.17	0.17	0.02	0.13	0.13
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	20	25	21	334	20	20	83	25	25	20	106	20
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.4	0.4	0.4	5.7	0.2	0.3	1.5	0.4	0.4	0.4	1.7	0.4
Cycle Q Clear(g_c), s	0.4	0.4	0.4	5.7	0.2	0.3	1.5	0.4	0.4	0.4	1.7	0.4
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	36	142	120	430	555	471	115	321	272	36	238	202
V/C Ratio(X)	0.55	0.18	0.18	0.78	0.04	0.04	0.72	0.08	0.09	0.55	0.45	0.10
Avail Cap(c_a), veh/h	219	1032	875	765	1606	1361	219	1032	875	219	1032	875
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	1.00	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	15.8	14.1	14.1	11.5	8.1	8.2	15.0	11.3	11.4	15.8	13.2	12.6
Incr Delay (d2), s/veh	12.5	0.6	0.7	3.0	0.0	0.0	8.1	0.1	0.1	12.5	1.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.2	0.1	2.0	0.1	0.1	0.7	0.1	0.1	0.2	0.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.3	14.7	14.8	14.6	8.2	8.2	23.0	11.4	11.5	28.3	14.5	12.8
LnGrp LOS	C	B	B	B	A	A	C	B	B	C	B	B
Approach Vol, veh/h	66		374				133		146			
Approach Delay, s/veh	18.9		13.9				18.7		16.1			
Approach LOS	B		B				B		B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.7	9.6	11.9	6.5	6.1	8.2	4.7	13.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	14.0	18.0	4.0	18.0	4.0	28.0				
Max Q Clear Time (g_c+1), s	12.4	2.4	7.7	2.4	3.5	3.7	2.4	2.3				
Green Ext Time (p_c), s	0.0	0.1	0.6	0.1	0.0	0.4	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	15.7
HCM 6th LOS	B

Tracy Transportation Master Plan Update
 23: Lammers Extension & I-205 WB On-Ramp/I-205 WB Off-Ramp

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↗ ↘	↖	↗		↑↑	↗ ↘		↑↑↑	↗
Traffic Volume (veh/h)	0	0	0	1491	0	91	0	25	1825	0	25	446
Future Volume (veh/h)	0	0	0	1491	0	91	0	25	1825	0	25	446
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		No		
Adj Sat Flow, veh/h/ln				1870	1870	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				1491	0	0	0	25	1825	0	25	446
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				1952	0		0	1850	2471	0	2658	825
Arrive On Green				0.37	0.00	0.00	0.00	0.52	0.52	0.00	0.52	0.52
Sat Flow, veh/h				5344	0	1585	0	3647	2790	0	5274	1585
Grp Volume(v), veh/h				1491	0	0	0	25	1825	0	25	446
Grp Sat Flow(s),veh/h/ln				1781	0	1585	0	1777	1395	0	1702	1585
Q Serve(g_s), s				17.2	0.0	0.0	0.0	0.2	15.1	0.0	0.2	13.1
Cycle Q Clear(g_c), s				17.2	0.0	0.0	0.0	0.2	15.1	0.0	0.2	13.1
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1952	0		0	1850	2471	0	2658	825
V/C Ratio(X)				0.76	0.00		0.00	0.01	0.74	0.00	0.01	0.54
Avail Cap(c_a), veh/h				2825	0		0	1850	2471	0	2658	825
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	0.57	0.57	0.00	0.88	0.88
Uniform Delay (d), s/veh				19.6	0.0	0.0	0.0	8.1	1.3	0.0	8.1	11.2
Incr Delay (d2), s/veh				0.8	0.0	0.0	0.0	0.0	1.2	0.0	0.0	2.2
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				6.7	0.0	0.0	0.0	0.1	0.4	0.0	0.1	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.3	0.0	0.0	0.0	8.1	2.5	0.0	8.1	13.4
LnGrp LOS				C	A		A	A	A	A	A	B
Approach Vol, veh/h				1491		A		1850			471	
Approach Delay, s/veh				20.3				2.6			13.2	
Approach LOS				C				A			B	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		40.4				40.4		29.6				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		25.0				25.0		37.0				
Max Q Clear Time (g_c+I1), s		17.1				15.1		19.2				
Green Ext Time (p_c), s		5.4				1.3		6.4				

Intersection Summary

HCM 6th Ctrl Delay	10.8
HCM 6th LOS	B

Notes

- User approved volume balancing among the lanes for turning movement.
- Unsignalized Delay for [WBR] 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)	25	0	580	0	0	0	0	1826	714	0	1554	20
Future Volume (veh/h)	25	0	580	0	0	0	0	1826	714	0	1554	20
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	1870	1870	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	25	0	0				0	1826	714	0	1554	20
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2				0	2	2	0	2	2
Cap, veh/h	39	0					0	4410	2409	0	4410	1369
Arrive On Green	0.02	0.00	0.00				0.00	0.86	0.86	0.00	0.29	0.29
Sat Flow, veh/h	1781	0	1585				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	25	0	0				0	1826	714	0	1554	20
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1395	0	1702	1585
Q Serve(g_s), s	1.0	0.0	0.0				0.0	5.3	3.3	0.0	16.9	0.6
Cycle Q Clear(g_c), s	1.0	0.0	0.0				0.0	5.3	3.3	0.0	16.9	0.6
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	39	0					0	4410	2409	0	4410	1369
V/C Ratio(X)	0.64	0.00					0.00	0.41	0.30	0.00	0.35	0.01
Avail Cap(c_a), veh/h	789	0					0	4410	2409	0	4410	1369
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.68	0.68	0.00	0.92	0.92
Uniform Delay (d), s/veh	34.0	0.0	0.0				0.0	1.0	0.9	0.0	9.5	3.6
Incr Delay (d2), s/veh	15.9	0.0	0.0				0.0	0.2	0.2	0.0	0.2	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	0.6	0.0	0.0				0.0	0.1	0.1	0.0	6.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.9	0.0	0.0				0.0	1.2	1.1	0.0	9.7	3.7
LnGrp LOS	D	A					A	A	A	A	A	A
Approach Vol, veh/h		25	A					2540			1574	
Approach Delay, s/veh		49.9						1.2			9.6	
Approach LOS		D						A			A	
Timer - Assigned Phs		2		4			6					
Phs Duration (G+Y+Rc), s		64.5		5.5			64.5					
Change Period (Y+Rc), s		4.0		4.0			4.0					
Max Green Setting (Gmax), s		31.0		31.0			31.0					
Max Q Clear Time (g_c+I1), s		7.3		3.0			18.9					
Green Ext Time (p_c), s		18.3		0.1			8.2					

Intersection Summary

HCM 6th Ctrl Delay	4.7
HCM 6th LOS	A

Notes

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

Tracy Transportation Master Plan Update
 25: Lammers Ext/Lammers Extension & Commerce Way

Future 2042
 AM Peak Hour



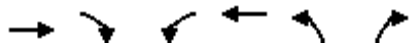
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔↔	↑	↗	↖	↑	↗	↖	↑↑↑	↗	↖	↑↑↑	↗↗
Traffic Volume (veh/h)	857	25	25	20	25	59	20	1700	100	25	792	1341
Future Volume (veh/h)	857	25	25	20	25	59	20	1700	100	25	792	1341
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	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	857	25	0	20	25	0	20	1700	100	25	792	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	933	107		750	547		144	1746	430	39	1085	
Arrive On Green	0.19	0.06	0.00	0.42	0.29	0.00	0.08	0.27	0.27	0.03	0.28	0.00
Sat Flow, veh/h	5023	1870	1585	1781	1870	1585	1781	6434	1585	1781	5106	2790
Grp Volume(v), veh/h	857	25	0	20	25	0	20	1700	100	25	792	0
Grp Sat Flow(s),veh/h/ln	1674	1870	1585	1781	1870	1585	1781	1609	1585	1781	1702	1395
Q Serve(g_s), s	11.7	0.9	0.0	0.5	0.7	0.0	0.7	18.3	0.9	1.0	9.8	0.0
Cycle Q Clear(g_c), s	11.7	0.9	0.0	0.5	0.7	0.0	0.7	18.3	0.9	1.0	9.8	0.0
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	933	107		750	547		144	1746	430	39	1085	
V/C Ratio(X)	0.92	0.23		0.03	0.05		0.14	0.97	0.23	0.64	0.73	
Avail Cap(c_a), veh/h	933	721		750	547		144	1746	430	102	1386	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.94	0.94	0.94	0.64	0.64	0.00
Uniform Delay (d), s/veh	28.0	31.5	0.0	11.9	17.8	0.0	29.9	25.3	1.4	33.7	23.3	0.0
Incr Delay (d2), s/veh	13.8	5.1	0.0	0.0	0.0	0.0	0.4	15.1	0.3	10.5	0.9	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	0.5	0.0	0.2	0.3	0.0	0.3	8.3	1.2	0.5	3.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.8	36.6	0.0	11.9	17.8	0.0	30.3	40.3	1.7	44.2	24.2	0.0
LnGrp LOS	D	D		B	B		C	D	A	D	C	
Approach Vol, veh/h		882	A		45	A		1820			817	A
Approach Delay, s/veh		41.6			15.2			38.1			24.8	
Approach LOS		D			B			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	33.5	8.0	9.7	18.9	17.0	24.5	5.5	23.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	27.0	4.0	19.0	13.0	18.0	4.0	19.0				
Max Q Clear Time (g_c+1), s	12.5	2.9	2.7	11.8	13.7	2.7	3.0	20.3				
Green Ext Time (p_c), s	0.0	0.1	0.0	3.1	0.0	0.0	0.0	0.0				

Intersection Summary

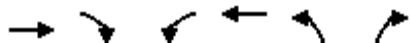
HCM 6th Ctrl Delay	35.6
HCM 6th LOS	D

Notes

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



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↵	↑↑↑	↵↵↵	↑
Traffic Volume (veh/h)	378	444	381	1400	435	83
Future Volume (veh/h)	378	444	381	1400	435	83
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	378	444	381	1400	435	83
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3088	959	506	3891	1411	445
Arrive On Green	1.00	1.00	0.60	0.60	0.28	0.28
Sat Flow, veh/h	5274	1585	666	6696	5023	1585
Grp Volume(v), veh/h	378	444	381	1400	435	83
Grp Sat Flow(s),veh/h/ln	1702	1585	666	1609	1674	1585
Q Serve(g_s), s	0.0	0.0	37.0	7.7	4.8	2.8
Cycle Q Clear(g_c), s	0.0	0.0	37.0	7.7	4.8	2.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3088	959	506	3891	1411	445
V/C Ratio(X)	0.12	0.46	0.75	0.36	0.31	0.19
Avail Cap(c_a), veh/h	3137	974	512	3952	1411	445
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.83	0.83	0.85	0.85
Uniform Delay (d), s/veh	0.0	0.0	12.8	7.0	19.8	19.1
Incr Delay (d2), s/veh	0.0	0.3	5.2	0.0	0.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	4.4	1.9	1.8	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.3	18.0	7.0	20.3	19.9
LnGrp LOS	A	A	B	A	C	B
Approach Vol, veh/h	822			1781	518	
Approach Delay, s/veh	0.2			9.4	20.2	
Approach LOS	A			A	C	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		23.7		46.3		46.3
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		19.0		43.0		43.0
Max Q Clear Time (g_c+I1), s		6.8		2.0		39.0
Green Ext Time (p_c), s		1.6		4.2		3.3
Intersection Summary						
HCM 6th Ctrl Delay			8.8			
HCM 6th LOS			A			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	146	737	25	515	842	20
Future Volume (veh/h)	146	737	25	515	842	20
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	146	737	25	515	842	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	488	1225	41	658	912	811
Arrive On Green	0.26	0.26	0.02	0.35	0.51	0.51
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	146	737	25	515	842	20
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	3.7	11.6	0.8	14.5	25.7	0.4
Cycle Q Clear(g_c), s	3.7	11.6	0.8	14.5	25.7	0.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	488	1225	41	658	912	811
V/C Ratio(X)	0.30	0.60	0.62	0.78	0.92	0.02
Avail Cap(c_a), veh/h	573	1297	121	828	1092	972
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	17.4	2.8	28.4	17.0	13.3	7.1
Incr Delay (d2), s/veh	0.3	0.7	14.1	3.8	11.5	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	1.5	10.1	0.5	6.2	11.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.7	3.5	42.6	20.9	24.8	7.1
LnGrp LOS	B	A	D	C	C	A
Approach Vol, veh/h	883			540	862	
Approach Delay, s/veh	5.9			21.9	24.3	
Approach LOS	A			C	C	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		34.1	5.3	19.3		24.7
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s		36.0	4.0	18.0		26.0
Max Q Clear Time (g_c+1), s		27.7	2.8	13.6		16.5
Green Ext Time (p_c), s		2.3	0.0	1.7		2.3
Intersection Summary						
HCM 6th Ctrl Delay			16.6			
HCM 6th LOS			B			

Tracy Transportation Master Plan Update
 29: S Lammers Rd & Pavillion Pkwy

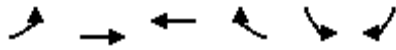
Future 2042
 AM Peak Hour



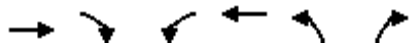
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	118	25	20	376	20	17	20	20	25	20	138
Future Volume (veh/h)	25	118	25	20	376	20	17	20	20	25	20	138
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	25	118	25	20	376	20	17	20	20	25	20	138
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	44	552	468	36	543	460	31	141	141	44	35	243
Arrive On Green	0.02	0.29	0.29	0.02	0.29	0.29	0.02	0.16	0.16	0.02	0.17	0.17
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	858	858	1781	205	1412
Grp Volume(v), veh/h	25	118	25	20	376	20	17	0	40	25	0	158
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	0	1716	1781	0	1616
Q Serve(g_s), s	0.4	1.5	0.4	0.4	5.8	0.3	0.3	0.0	0.6	0.4	0.0	2.9
Cycle Q Clear(g_c), s	0.4	1.5	0.4	0.4	5.8	0.3	0.3	0.0	0.6	0.4	0.0	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		0.87
Lane Grp Cap(c), veh/h	44	552	468	36	543	460	31	0	282	44	0	278
V/C Ratio(X)	0.56	0.21	0.05	0.55	0.69	0.04	0.54	0.00	0.14	0.56	0.00	0.57
Avail Cap(c_a), veh/h	221	1042	883	221	1042	883	221	0	956	221	0	901
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.6	8.6	8.2	15.7	10.2	8.2	15.7	0.0	11.5	15.6	0.0	12.3
Incr Delay (d2), s/veh	10.8	0.2	0.0	12.5	1.6	0.0	14.0	0.0	0.2	10.8	0.0	1.8
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	0.3	0.5	0.1	0.2	1.9	0.1	0.2	0.0	0.2	0.3	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.3	8.8	8.2	28.1	11.8	8.3	29.7	0.0	11.8	26.3	0.0	14.1
LnGrp LOS	C	A	A	C	B	A	C	A	B	C	A	B
Approach Vol, veh/h		168			416			57				183
Approach Delay, s/veh		11.3			12.4			17.1				15.8
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.8	9.3	4.7	13.5	4.6	9.6	4.8	13.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	4.0	18.0	4.0	18.0	4.0	18.0				
Max Q Clear Time (g_c+1), s	12.4	2.6	2.4	3.5	2.3	4.9	2.4	7.8				
Green Ext Time (p_c), s	0.0	0.1	0.0	0.5	0.0	0.7	0.0	1.7				

Intersection Summary

HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑	↗	↘	↗
Traffic Volume (veh/h)	25	894	971	23	58	58
Future Volume (veh/h)	25	894	971	23	58	58
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	25	894	971	23	58	58
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	474	1766	1766	788	294	262
Arrive On Green	0.50	0.50	0.50	0.50	0.17	0.17
Sat Flow, veh/h	562	3618	3618	1572	1767	1572
Grp Volume(v), veh/h	25	894	971	23	58	58
Grp Sat Flow(s),veh/h/ln	562	1763	1763	1572	1767	1572
Q Serve(g_s), s	0.8	4.1	4.6	0.2	0.7	0.8
Cycle Q Clear(g_c), s	5.3	4.1	4.6	0.2	0.7	0.8
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	474	1766	1766	788	294	262
V/C Ratio(X)	0.05	0.51	0.55	0.03	0.20	0.22
Avail Cap(c_a), veh/h	637	2786	2786	1243	1323	1177
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	6.0	4.0	4.1	3.0	8.6	8.7
Incr Delay (d2), s/veh	0.0	0.2	0.3	0.0	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	0.0	0.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.0	4.2	4.4	3.1	9.0	9.1
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		919	994		116	
Approach Delay, s/veh		4.3	4.4		9.0	
Approach LOS		A	A		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				16.0	8.0	16.0
Change Period (Y+Rc), s				4.0	4.0	4.0
Max Green Setting (Gmax), s				19.0	18.0	19.0
Max Q Clear Time (g_c+11), s				7.3	2.8	6.6
Green Ext Time (p_c), s				4.7	0.2	5.2
Intersection Summary						
HCM 6th Ctrl Delay			4.6			
HCM 6th LOS			A			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Volume (veh/h)	225	225	41	878	354	20
Future Volume (veh/h)	225	225	41	878	354	20
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	225	225	41	878	354	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	755	640	112	1005	448	398
Arrive On Green	0.41	0.41	0.06	0.54	0.25	0.25
Sat Flow, veh/h	1856	1572	1767	1856	1767	1572
Grp Volume(v), veh/h	225	225	41	878	354	20
Grp Sat Flow(s),veh/h/ln	1856	1572	1767	1856	1767	1572
Q Serve(g_s), s	4.0	4.8	1.1	20.1	9.1	0.5
Cycle Q Clear(g_c), s	4.0	4.8	1.1	20.1	9.1	0.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	755	640	112	1005	448	398
V/C Ratio(X)	0.30	0.35	0.37	0.87	0.79	0.05
Avail Cap(c_a), veh/h	939	796	210	1311	760	677
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	9.8	10.0	21.9	9.7	17.0	13.8
Incr Delay (d2), s/veh	0.3	0.4	0.7	5.7	3.8	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	1.3	1.3	0.4	6.4	3.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.0	10.4	22.7	15.5	20.8	13.8
LnGrp LOS	B	B	C	B	C	B
Approach Vol, veh/h	450			919	374	
Approach Delay, s/veh	10.2			15.8	20.5	
Approach LOS	B			B	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		31.5		17.4	6.6	24.9
Change Period (Y+Rc), s		* 5		5.0	3.5	5.0
Max Green Setting (Gmax), s		* 35		21.0	5.8	24.7
Max Q Clear Time (g_c+I1), s		22.1		11.1	3.1	6.8
Green Ext Time (p_c), s		4.4		1.3	0.0	2.1

Intersection Summary

HCM 6th Ctrl Delay	15.3
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖
Traffic Volume (veh/h)	26	439	0	152	1300	25	324	43	29	25	99	134
Future Volume (veh/h)	26	439	0	152	1300	25	324	43	29	25	99	134
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	26	439	0	152	1300	0	324	43	0	25	99	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	228	1855		404	2192		534	699		263	420	
Arrive On Green	0.07	0.37	0.00	0.12	0.43	0.00	0.16	0.20	0.00	0.08	0.12	0.00
Sat Flow, veh/h	3428	5066	1572	3428	5066	1572	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	26	439	0	152	1300	0	324	43	0	25	99	0
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1714	1689	1572	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	0.5	3.9	0.0	2.7	12.8	0.0	5.8	0.6	0.0	0.4	1.7	0.0
Cycle Q Clear(g_c), s	0.5	3.9	0.0	2.7	12.8	0.0	5.8	0.6	0.0	0.4	1.7	0.0
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	228	1855		404	2192		534	699		263	420	
V/C Ratio(X)	0.11	0.24		0.38	0.59		0.61	0.06		0.10	0.24	
Avail Cap(c_a), veh/h	424	2704		424	2782		732	2474		528	2264	
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	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.8	14.4	0.0	26.7	14.2	0.0	25.8	21.3	0.0	28.2	26.2	0.0
Incr Delay (d2), s/veh	0.1	0.1	0.0	0.2	0.6	0.0	0.4	0.1	0.0	0.2	0.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.3	0.0	1.0	4.0	0.0	2.2	0.3	0.0	0.2	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.9	14.6	0.0	26.9	14.7	0.0	26.2	21.4	0.0	28.3	26.5	0.0
LnGrp LOS	C	B		C	B		C	C		C	C	
Approach Vol, veh/h		465	A		1452	A		367	A		124	A
Approach Delay, s/veh		15.4			16.0			25.6			26.8	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.1	28.0	13.6	11.8	7.8	32.4	8.4	17.0				
Change Period (Y+Rc), s	6.5	6.1	5.5	6.1	5.5	6.1	5.5	6.1				
Max Green Setting (Gmax), s	32.9	32.9	11.9	40.0	6.0	33.9	8.0	43.9				
Max Q Clear Time (g_c+1/3), s	14.7	5.9	7.8	3.7	2.5	14.8	2.4	2.6				
Green Ext Time (p_c), s	0.0	4.1	0.4	0.4	0.0	11.4	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay	17.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [NBR, EBR, WBR, SBR] 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)	25	130	238	33	204	9	380	379	11	1	84	158
Future Volume (veh/h)	25	130	238	33	204	9	380	379	11	1	84	158
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	25	130	238	33	204	9	380	379	11	1	84	158
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	459	342	289	549	390	331	545	1017	316	459	888	697
Arrive On Green	0.13	0.18	0.18	0.16	0.21	0.21	0.11	0.20	0.20	0.13	0.25	0.25
Sat Flow, veh/h	3428	1856	1572	3428	1856	1572	4983	5066	1572	3428	3526	2768
Grp Volume(v), veh/h	25	130	238	33	204	9	380	379	11	1	84	158
Grp Sat Flow(s),veh/h/ln	1714	1856	1572	1714	1856	1572	1661	1689	1572	1714	1763	1384
Q Serve(g_s), s	0.5	4.6	10.9	0.6	7.3	0.3	5.5	4.8	0.4	0.0	1.4	3.4
Cycle Q Clear(g_c), s	0.5	4.6	10.9	0.6	7.3	0.3	5.5	4.8	0.4	0.0	1.4	3.4
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	459	342	289	549	390	331	545	1017	316	459	888	697
V/C Ratio(X)	0.05	0.38	0.82	0.06	0.52	0.03	0.70	0.37	0.03	0.00	0.09	0.23
Avail Cap(c_a), veh/h	459	497	421	1147	820	695	867	2238	695	459	1510	1185
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	1.00	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	28.2	26.7	29.3	26.6	26.2	23.4	32.1	25.8	24.0	28.0	21.4	22.2
Incr Delay (d2), s/veh	0.1	0.7	8.3	0.0	0.4	0.0	1.6	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.0	4.4	0.2	3.1	0.1	2.1	1.8	0.1	0.0	0.5	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.3	27.4	37.6	26.6	26.6	23.4	33.7	26.0	24.1	28.0	21.5	22.4
LnGrp LOS	C	C	D	C	C	C	C	C	C	C	C	C
Approach Vol, veh/h		393			246			770			243	
Approach Delay, s/veh		33.7			26.5			29.8			22.1	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	19.8	12.2	24.8	16.0	21.7	16.0	21.0				
Change Period (Y+Rc), s	6.0	* 6	4.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	25.0	* 20	13.0	32.0	10.0	33.0	10.0	33.0				
Max Q Clear Time (g_c+1), s	12.6	12.9	7.5	5.4	2.5	9.3	2.0	6.8				
Green Ext Time (p_c), s	0.0	0.9	0.7	1.3	0.0	0.7	0.0	2.4				

Intersection Summary

HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
 34: Lammers Rd & Pomontory Pkwy

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	53	25	99	355	208	192	263	57	70	184	25
Future Volume (veh/h)	20	53	25	99	355	208	192	263	57	70	184	25
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	20	53	25	99	355	208	192	263	57	70	184	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	36	431	365	124	523	443	247	743	332	99	448	200
Arrive On Green	0.02	0.23	0.23	0.07	0.28	0.28	0.14	0.21	0.21	0.06	0.13	0.13
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	20	53	25	99	355	208	192	263	57	70	184	25
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.4	0.8	0.5	2.0	6.2	4.0	3.8	2.3	1.1	1.4	1.8	0.5
Cycle Q Clear(g_c), s	0.4	0.8	0.5	2.0	6.2	4.0	3.8	2.3	1.1	1.4	1.8	0.5
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	36	431	365	124	523	443	247	743	332	99	448	200
V/C Ratio(X)	0.56	0.12	0.07	0.80	0.68	0.47	0.78	0.35	0.17	0.71	0.41	0.13
Avail Cap(c_a), veh/h	194	916	777	194	916	777	388	2031	906	291	1838	820
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	1.00	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	17.8	11.2	11.1	16.8	11.8	11.0	15.3	12.4	11.9	17.1	14.8	14.3
Incr Delay (d2), s/veh	12.9	0.1	0.1	12.0	1.6	0.8	5.2	0.3	0.2	8.9	0.6	0.3
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	0.3	0.3	0.1	1.1	2.2	1.2	1.6	0.8	0.3	0.7	0.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	11.3	11.1	28.8	13.3	11.7	20.5	12.7	12.2	25.9	15.4	14.5
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		98			662			512			279	
Approach Delay, s/veh		15.2			15.1			15.6			18.0	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.0	11.7	6.6	12.5	9.1	8.6	4.7	14.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	6.0	21.0	4.0	18.0	8.0	19.0	4.0	18.0				
Max Q Clear Time (g_c+1), s	13.4	4.3	4.0	2.8	5.8	3.8	2.4	8.2				
Green Ext Time (p_c), s	0.0	1.6	0.0	0.2	0.1	0.9	0.0	2.1				

Intersection Summary

HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↑↑	↗	↙	↑↑
Traffic Volume (veh/h)	225	28	483	28	25	282
Future Volume (veh/h)	225	28	483	28	25	282
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	225	28	483	28	25	282
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	335	298	1315	587	638	1315
Arrive On Green	0.19	0.19	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1781	1585	3647	1585	889	3647
Grp Volume(v), veh/h	225	28	483	28	25	282
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	889	1777
Q Serve(g_s), s	2.1	0.3	1.8	0.2	0.4	1.0
Cycle Q Clear(g_c), s	2.1	0.3	1.8	0.2	2.2	1.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	335	298	1315	587	638	1315
V/C Ratio(X)	0.67	0.09	0.37	0.05	0.04	0.21
Avail Cap(c_a), veh/h	1770	1575	3728	1663	1242	3728
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	6.8	6.1	4.2	3.7	5.0	3.9
Incr Delay (d2), s/veh	2.3	0.1	0.2	0.0	0.0	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	0.5	0.0	0.1	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.2	6.2	4.3	3.7	5.0	4.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	253		511			307
Approach Delay, s/veh	8.8		4.3			4.1
Approach LOS	A		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		10.7			10.7	7.4
Change Period (Y+Rc), s		4.0			4.0	4.0
Max Green Setting (Gmax), s		19.0			19.0	18.0
Max Q Clear Time (g_c+I1), s		3.8			4.2	4.1
Green Ext Time (p_c), s		2.9			1.5	0.6
Intersection Summary						
HCM 6th Ctrl Delay			5.3			
HCM 6th LOS			A			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	100	166	734	21	25	420
Future Volume (veh/h)	100	166	734	21	25	420
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	100	166	734	21	25	420
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	245	218	920	410	759	2635
Arrive On Green	0.14	0.14	0.52	0.52	0.43	0.75
Sat Flow, veh/h	1767	1572	3618	1572	1767	3618
Grp Volume(v), veh/h	100	166	734	21	25	420
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1572	1767	1763
Q Serve(g_s), s	3.6	7.1	11.9	0.5	0.6	2.4
Cycle Q Clear(g_c), s	3.6	7.1	11.9	0.5	0.6	2.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	245	218	920	410	759	2635
V/C Ratio(X)	0.41	0.76	0.80	0.05	0.03	0.16
Avail Cap(c_a), veh/h	530	472	1561	696	759	2635
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.99	0.99	0.97	0.97
Uniform Delay (d), s/veh	27.5	29.0	15.2	12.5	11.6	2.5
Incr Delay (d2), s/veh	1.1	5.5	7.1	0.2	0.0	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	1.5	2.9	3.9	0.2	0.2	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.6	34.5	22.3	12.7	11.6	2.7
LnGrp LOS	C	C	C	B	B	A
Approach Vol, veh/h	266		755			445
Approach Delay, s/veh	32.3		22.1			3.2
Approach LOS	C		C			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	34.0	22.3			56.3	13.7
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	31.0	31.0			41.0	21.0
Max Q Clear Time (g_c+1), s	12.6	13.9			4.4	9.1
Green Ext Time (p_c), s	0.0	4.3			2.7	0.6

Intersection Summary

HCM 6th Ctrl Delay		18.2	
HCM 6th LOS		B	



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	34	82	264	558	396	176
Future Volume (veh/h)	34	82	264	558	396	176
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	34	82	264	558	396	176
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	132	118	308	2884	2065	921
Arrive On Green	0.07	0.07	0.35	1.00	1.00	1.00
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	34	82	264	558	396	176
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	1.3	3.5	9.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.3	3.5	9.6	0.0	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	132	118	308	2884	2065	921
V/C Ratio(X)	0.26	0.70	0.86	0.19	0.19	0.19
Avail Cap(c_a), veh/h	458	408	483	2884	2065	921
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.94	0.94	0.99	0.99
Uniform Delay (d), s/veh	30.6	31.6	22.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.0	7.2	8.3	0.1	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.3	3.7	0.1	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.6	38.8	30.4	0.1	0.2	0.5
LnGrp LOS	C	D	C	A	A	A
Approach Vol, veh/h	116			822	572	
Approach Delay, s/veh	36.7			9.9	0.3	
Approach LOS	D			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.8		9.2	16.1	44.7
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		44.0		18.0	19.0	21.0
Max Q Clear Time (g_c+I1), s		2.0		5.5	11.6	2.0
Green Ext Time (p_c), s		2.5		0.3	0.6	2.3
Intersection Summary						
HCM 6th Ctrl Delay			8.3			
HCM 6th LOS			A			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↑↑	↗	↙	↑↑
Traffic Volume (veh/h)	36	282	537	22	64	459
Future Volume (veh/h)	36	282	537	22	64	459
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	36	282	537	22	64	459
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	377	336	2395	1068	627	2395
Arrive On Green	0.21	0.21	0.67	0.67	1.00	1.00
Sat Flow, veh/h	1781	1585	3647	1585	850	3647
Grp Volume(v), veh/h	36	282	537	22	64	459
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	850	1777
Q Serve(g_s), s	1.1	11.9	4.1	0.3	0.5	0.0
Cycle Q Clear(g_c), s	1.1	11.9	4.1	0.3	4.6	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	377	336	2395	1068	627	2395
V/C Ratio(X)	0.10	0.84	0.22	0.02	0.10	0.19
Avail Cap(c_a), veh/h	789	702	2395	1068	627	2395
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.98	0.98	0.98	0.98
Uniform Delay (d), s/veh	22.2	26.5	4.4	3.8	0.2	0.0
Incr Delay (d2), s/veh	0.1	5.6	0.2	0.0	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	4.6	1.0	0.1	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.3	32.1	4.6	3.8	0.5	0.2
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	318		559			523
Approach Delay, s/veh	31.0		4.6			0.2
Approach LOS	C		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		51.2			51.2	18.8
Change Period (Y+Rc), s		4.0			4.0	4.0
Max Green Setting (Gmax), s		31.0			31.0	31.0
Max Q Clear Time (g_c+11), s		6.1			6.6	13.9
Green Ext Time (p_c), s		3.4			3.2	0.9

Intersection Summary

HCM 6th Ctrl Delay	8.9
HCM 6th LOS	A

Notes

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

Tracy Transportation Master Plan Update
 39: Lammers Road & Valpico Road

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	43	20	142	145	65	25	444	20	25	212	20
Future Volume (veh/h)	20	43	20	142	145	65	25	444	20	25	212	20
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	20	43	20	142	145	65	25	444	20	25	212	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	36	214	181	254	443	375	44	801	357	44	801	357
Arrive On Green	0.02	0.11	0.11	0.14	0.24	0.24	0.02	0.23	0.23	0.02	0.23	0.23
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	20	43	20	142	145	65	25	444	20	25	212	20
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.4	0.7	0.4	2.4	2.1	1.1	0.5	3.6	0.3	0.5	1.6	0.3
Cycle Q Clear(g_c), s	0.4	0.7	0.4	2.4	2.1	1.1	0.5	3.6	0.3	0.5	1.6	0.3
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	36	214	181	254	443	375	44	801	357	44	801	357
V/C Ratio(X)	0.55	0.20	0.11	0.56	0.33	0.17	0.56	0.55	0.06	0.56	0.26	0.06
Avail Cap(c_a), veh/h	219	1037	879	988	1844	1563	274	1971	879	274	1971	879
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	1.00	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	15.8	13.0	12.9	13.0	10.3	9.9	15.7	11.1	9.9	15.7	10.4	9.9
Incr Delay (d2), s/veh	12.5	0.5	0.3	1.9	0.4	0.2	10.8	0.6	0.1	10.8	0.2	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	0.2	0.3	0.1	0.9	0.7	0.3	0.3	1.1	0.1	0.3	0.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.2	13.5	13.2	14.9	10.7	10.1	26.4	11.7	9.9	26.4	10.5	9.9
LnGrp LOS	C	B	B	B	B	B	C	B	A	C	B	A
Approach Vol, veh/h		83			352			489			257	
Approach Delay, s/veh		17.0			12.3			12.4			12.0	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.8	11.3	8.6	7.7	4.8	11.3	4.7	11.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	5.0	18.0	18.0	18.0	5.0	18.0	4.0	32.0				
Max Q Clear Time (g_c+1), s	12.5	5.6	4.4	2.7	2.5	3.6	2.4	4.1				
Green Ext Time (p_c), s	0.0	1.7	0.4	0.2	0.0	0.8	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay											12.6	
HCM 6th LOS											B	



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↑↑	↗	↙	↑↑
Traffic Volume (veh/h)	82	25	429	25	20	314
Future Volume (veh/h)	82	25	429	25	20	314
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	82	25	429	25	20	314
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	159	141	1071	478	37	1843
Arrive On Green	0.09	0.09	0.30	0.30	0.02	0.52
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	82	25	429	25	20	314
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777
Q Serve(g_s), s	0.9	0.3	2.0	0.2	0.2	1.0
Cycle Q Clear(g_c), s	0.9	0.3	2.0	0.2	0.2	1.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	159	141	1071	478	37	1843
V/C Ratio(X)	0.52	0.18	0.40	0.05	0.53	0.17
Avail Cap(c_a), veh/h	524	466	3137	1399	349	4531
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	8.9	8.6	5.7	5.1	9.9	2.6
Incr Delay (d2), s/veh	2.6	0.6	0.2	0.0	11.3	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	0.3	0.1	0.1	0.0	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.5	9.2	5.9	5.1	21.2	2.6
LnGrp LOS	B	A	A	A	C	A
Approach Vol, veh/h	107		454			334
Approach Delay, s/veh	10.9		5.9			3.7
Approach LOS	B		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	4.4	10.1			14.6	5.8
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	18.0	18.0			26.0	6.0
Max Q Clear Time (g_c+1), s	4.0	4.0			3.0	2.9
Green Ext Time (p_c), s	0.0	2.2			1.8	0.1
Intersection Summary						
HCM 6th Ctrl Delay			5.7			
HCM 6th LOS			A			

Tracy Transportation Master Plan Update
 41: Lammers Road/Lammers Rd & Hansen Rd/Ellis Town Dr

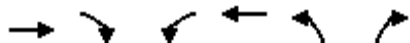
Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	20	25	69	129	80	25	234	412	28	25	387	20
Future Volume (veh/h)	20	25	69	129	80	25	234	412	28	25	387	20
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	20	25	69	129	80	25	234	412	28	25	387	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	36	182	154	165	318	269	302	1240	553	44	724	323
Arrive On Green	0.02	0.10	0.10	0.09	0.17	0.17	0.17	0.35	0.35	0.02	0.20	0.20
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	20	25	69	129	80	25	234	412	28	25	387	20
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.4	0.4	1.5	2.6	1.4	0.5	4.6	3.1	0.4	0.5	3.6	0.4
Cycle Q Clear(g_c), s	0.4	0.4	1.5	2.6	1.4	0.5	4.6	3.1	0.4	0.5	3.6	0.4
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	36	182	154	165	318	269	302	1240	553	44	724	323
V/C Ratio(X)	0.56	0.14	0.45	0.78	0.25	0.09	0.77	0.33	0.05	0.57	0.53	0.06
Avail Cap(c_a), veh/h	194	919	779	292	1021	865	535	2521	1125	194	1843	822
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	1.00	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	17.8	15.1	15.6	16.3	13.2	12.8	14.5	8.8	7.9	17.7	13.0	11.8
Incr Delay (d2), s/veh	12.9	0.3	2.0	7.9	0.4	0.1	4.2	0.2	0.0	11.3	0.6	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	0.3	0.2	0.5	1.2	0.5	0.2	1.7	0.7	0.1	0.3	1.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	15.5	17.6	24.1	13.6	13.0	18.8	8.9	7.9	28.9	13.7	11.8
LnGrp LOS	C	B	B	C	B	B	B	A	A	C	B	B
Approach Vol, veh/h		114			234			674			432	
Approach Delay, s/veh		19.4			19.4			12.3			14.5	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.9	16.8	7.4	7.6	10.2	11.5	4.7	10.2				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	1.0	26.0	6.0	18.0	11.0	19.0	4.0	20.0				
Max Q Clear Time (g_c+1), s	12.5	5.1	4.6	3.5	6.6	5.6	2.4	3.4				
Green Ext Time (p_c), s	0.0	2.4	0.0	0.2	0.3	1.9	0.0	0.4				

Intersection Summary

HCM 6th Ctrl Delay	14.6
HCM 6th LOS	B



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵	↑↑	↵	↑
Traffic Volume (veh/h)	245	114	153	481	20	20
Future Volume (veh/h)	245	114	153	481	20	20
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	245	114	153	481	20	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	426	190	196	1019	1067	949
Arrive On Green	0.12	0.12	0.11	0.29	0.60	0.60
Sat Flow, veh/h	3647	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	245	114	153	481	20	20
Grp Sat Flow(s),veh/h/ln1777		1585	1781	1777	1781	1585
Q Serve(g_s), s	4.6	4.8	5.9	7.8	0.3	0.4
Cycle Q Clear(g_c), s	4.6	4.8	5.9	7.8	0.3	0.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	426	190	196	1019	1067	949
V/C Ratio(X)	0.58	0.60	0.78	0.47	0.02	0.02
Avail Cap(c_a), veh/h	1066	476	433	2132	1067	949
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	29.2	30.3	20.6	5.7	5.7
Incr Delay (d2), s/veh	1.1	2.8	6.7	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln1.9		1.9	2.8	3.1	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.3	32.0	37.0	20.9	5.7	5.7
LnGrp LOS	C	C	D	C	A	A
Approach Vol, veh/h	359			634	40	
Approach Delay, s/veh	30.8			24.8	5.7	
Approach LOS	C			C	A	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		45.9	11.7	12.4		24.1
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s		20.0	17.0	21.0		42.0
Max Q Clear Time (g_c+11), s		2.4	7.9	6.8		9.8
Green Ext Time (p_c), s		0.1	0.2	1.6		3.5
Intersection Summary						
HCM 6th Ctrl Delay			26.2			
HCM 6th LOS			C			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	433	21	653	226	128	658
Future Volume (veh/h)	433	21	653	226	128	658
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	433	21	653	226	128	658
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	491	437	871	389	548	2167
Arrive On Green	0.28	0.28	0.08	0.08	0.31	0.61
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	433	21	653	226	128	658
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777
Q Serve(g_s), s	16.3	0.7	12.6	9.6	3.8	6.2
Cycle Q Clear(g_c), s	16.3	0.7	12.6	9.6	3.8	6.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	491	437	871	389	548	2167
V/C Ratio(X)	0.88	0.05	0.75	0.58	0.23	0.30
Avail Cap(c_a), veh/h	687	611	1066	476	548	2167
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.91	0.91	0.91	0.91
Uniform Delay (d), s/veh	24.3	18.6	30.1	28.7	18.1	6.5
Incr Delay (d2), s/veh	9.2	0.0	5.4	5.7	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	0.2	6.3	4.3	1.4	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.4	18.6	35.4	34.4	18.3	6.9
LnGrp LOS	C	B	D	C	B	A
Approach Vol, veh/h	454		879			786
Approach Delay, s/veh	32.7		35.2			8.7
Approach LOS	C		D			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	25.5	21.2			46.7	23.3
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	10.0	21.0			35.0	27.0
Max Q Clear Time (g_c+I), s	15.8	14.6			8.2	18.3
Green Ext Time (p_c), s	0.1	2.6			4.3	1.0
Intersection Summary						
HCM 6th Ctrl Delay			24.8			
HCM 6th LOS			C			

Tracy Transportation Master Plan Update
 44: Lammers Rd & Tracy Hills Dr

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘	↑↑	↗	↗	↑↑	↗
Traffic Volume (veh/h)	43	25	175	224	25	113	44	736	95	106	1003	25
Future Volume (veh/h)	43	25	175	224	25	113	44	736	95	106	1003	25
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	43	25	175	224	25	113	44	736	95	106	1003	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	175	148	254	382	569	414	1721	768	175	1075	480
Arrive On Green	0.03	0.09	0.09	0.14	0.20	0.20	0.23	0.48	0.48	0.10	0.61	0.61
Sat Flow, veh/h	1781	1870	1585	1781	1870	2790	1781	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	43	25	175	224	25	113	44	736	95	106	1003	25
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1395	1781	1777	1585	1728	1777	1585
Q Serve(g_s), s	1.7	0.9	4.0	8.6	0.8	2.4	1.4	9.4	2.3	2.1	17.9	0.4
Cycle Q Clear(g_c), s	1.7	0.9	4.0	8.6	0.8	2.4	1.4	9.4	2.3	2.1	17.9	0.4
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	58	175	148	254	382	569	414	1721	768	175	1075	480
V/C Ratio(X)	0.75	0.14	1.18	0.88	0.07	0.20	0.11	0.43	0.12	0.61	0.93	0.05
Avail Cap(c_a), veh/h	127	481	408	254	615	917	414	1721	768	197	1117	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	33.6	29.1	12.1	29.4	22.5	23.1	21.1	11.7	9.9	30.8	13.2	6.1
Incr Delay (d2), s/veh	17.2	0.4	95.3	27.8	0.1	0.2	0.1	0.8	0.3	3.6	13.6	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	6.2	5.5	0.3	0.8	0.5	3.2	0.8	0.9	5.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.8	29.5	107.4	57.3	22.5	23.3	21.3	12.5	10.2	34.4	26.8	6.2
LnGrp LOS	D	C	F	E	C	C	C	B	B	C	C	A
Approach Vol, veh/h		243			362			875			1134	
Approach Delay, s/veh		89.4			44.3			12.7			27.1	
Approach LOS		F			D			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	37.9	14.0	10.6	20.3	25.2	6.3	18.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	22.0	10.0	18.0	4.0	22.0	5.0	23.0				
Max Q Clear Time (g_c+14), s	11.4	11.4	10.6	6.0	3.4	19.9	3.7	4.4				
Green Ext Time (p_c), s	0.0	3.6	0.0	0.5	0.0	1.3	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay											30.4	
HCM 6th LOS											C	

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	25	50	111	20	25
Future Vol, veh/h	20	25	50	111	20	25
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, %	3	3	3	3	3	3
Mvmt Flow	20	25	50	111	20	25
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	244	33	45	0	0	
Stage 1	33	-	-	-	-	
Stage 2	211	-	-	-	-	
Critical Hdwy	6.43	6.23	4.13	-	-	
Critical Hdwy Stg 1	5.43	-	-	-	-	
Critical Hdwy Stg 2	5.43	-	-	-	-	
Follow-up Hdwy	3.527	3.327	2.227	-	-	
Pot Cap-1 Maneuver	742	1038	1557	-	-	
Stage 1	987	-	-	-	-	
Stage 2	822	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	717	1038	1557	-	-	
Mov Cap-2 Maneuver	717	-	-	-	-	
Stage 1	953	-	-	-	-	
Stage 2	822	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	9.4	2.3		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1557	-	866	-	-	
HCM Lane V/C Ratio	0.032	-	0.052	-	-	
HCM Control Delay (s)	7.4	0	9.4	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-	

Intersection												
Int Delay, s/veh	15.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	25	25	36	37	304	44	68	46	25	25	100	27
Future Vol, veh/h	25	25	36	37	304	44	68	46	25	25	100	27
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	180	-	-	-	-	-
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, %	7	0	12	0	3	20	5	0	0	0	0	0
Mvmt Flow	25	25	36	37	304	44	68	46	25	25	100	27

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	475	371	64	308	372	36	127	0	0	71	0	0
Stage 1	164	164	-	195	195	-	-	-	-	-	-	-
Stage 2	311	207	-	113	177	-	-	-	-	-	-	-
Critical Hdwy	7.64	6.5	7.14	7.5	6.56	7.3	4.2	-	-	4.1	-	-
Critical Hdwy Stg 1	6.64	5.5	-	6.5	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.64	5.5	-	6.5	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.57	4	3.42	3.5	4.03	3.5	2.25	-	-	2.2	-	-
Pot Cap-1 Maneuver	461	562	956	627	554	973	1435	-	-	1542	-	-
Stage 1	807	766	-	794	736	-	-	-	-	-	-	-
Stage 2	660	734	-	886	749	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	225	527	956	554	519	973	1435	-	-	1542	-	-
Mov Cap-2 Maneuver	225	527	-	554	519	-	-	-	-	-	-	-
Stage 1	769	753	-	757	701	-	-	-	-	-	-	-
Stage 2	340	700	-	810	736	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.2	25.2	3.7	1.2
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1435	-	-	438	552	1542	-	-
HCM Lane V/C Ratio	0.047	-	-	0.196	0.697	0.016	-	-
HCM Control Delay (s)	7.6	-	-	15.2	25.2	7.4	0	-
HCM Lane LOS	A	-	-	C	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	5.5	0	-	-

Tracy Transportation Master Plan Update
 49: I-205 WB Off Ramp/Pavilion Pkwy & Naglee Rd

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↗	↗	↗	↗↗↗		↗↗	↗↗	↗	↗	↗	↗
Traffic Volume (veh/h)	30	25	40	82	80	20	1150	256	354	25	104	34
Future Volume (veh/h)	30	25	40	82	80	20	1150	256	354	25	104	34
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	30	25	40	82	80	20	1150	256	354	25	104	34
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	52	389	173	124	620	145	1533	1866	832	46	200	170
Arrive On Green	0.03	0.11	0.11	0.07	0.15	0.14	0.45	0.53	0.53	0.03	0.11	0.11
Sat Flow, veh/h	1767	3526	1572	1767	4103	958	3428	3526	1572	1767	1856	1572
Grp Volume(v), veh/h	30	25	40	82	65	35	1150	256	354	25	104	34
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1689	1683	1714	1763	1572	1767	1856	1572
Q Serve(g_s), s	1.0	0.4	1.4	2.7	1.0	1.1	16.9	2.2	8.3	0.8	3.2	1.2
Cycle Q Clear(g_c), s	1.0	0.4	1.4	2.7	1.0	1.1	16.9	2.2	8.3	0.8	3.2	1.2
Prop In Lane	1.00		1.00	1.00		0.57	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	52	389	173	124	510	254	1533	1866	832	46	200	170
V/C Ratio(X)	0.58	0.06	0.23	0.66	0.13	0.14	0.75	0.14	0.43	0.54	0.52	0.20
Avail Cap(c_a), veh/h	184	2929	1306	184	2806	1398	2265	2411	1075	175	227	192
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	1.00	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	29.0	24.1	24.6	27.4	22.2	22.5	13.9	7.2	8.7	29.1	25.5	24.6
Incr Delay (d2), s/veh	9.6	0.1	0.6	7.0	0.1	0.2	1.0	0.0	0.3	9.7	2.1	0.6
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	0.5	0.2	0.5	1.3	0.4	0.4	5.6	0.7	2.3	0.4	1.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.7	24.2	25.2	34.4	22.3	22.7	14.9	7.3	9.0	38.8	27.6	25.2
LnGrp LOS	D	C	C	C	C	C	B	A	A	D	C	C
Approach Vol, veh/h		95			182			1760				163
Approach Delay, s/veh		29.2			27.9			12.6				28.8
Approach LOS		C			C			B				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	10.7	31.1	10.5	5.8	13.1	5.6	36.0				
Change Period (Y+Rc), s	* 4.7	4.9	4.6	5.3	* 4.2	4.9	* 4.2	5.3				
Max Green Setting (Gmax), s	* 5.6	49.4	39.4	6.1	* 6.1	49.4	* 5.8	40.1				
Max Q Clear Time (g_c+I1), s	4.7	3.4	18.9	5.2	3.0	3.1	2.8	10.3				
Green Ext Time (p_c), s	0.0	0.2	7.6	0.0	0.0	0.4	0.0	2.9				

Intersection Summary

HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔ ↑↑↑			↔ ↑↑↑			↔ ↑	↔		↔ ↑	↑	↔
Traffic Volume (veh/h)	47	154	92	25	1200	56	25	20	20	85	20	269
Future Volume (veh/h)	47	154	92	25	1200	56	25	20	20	85	20	269
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	47	154	92	25	1200	56	25	20	20	85	20	269
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	211	1396	650	78	1678	78	78	152	152	168	425	360
Arrive On Green	0.12	0.41	0.41	0.04	0.34	0.34	0.04	0.18	0.18	0.09	0.23	0.23
Sat Flow, veh/h	1767	3377	1572	1767	4960	231	1767	851	851	1767	1856	1572
Grp Volume(v), veh/h	47	154	92	25	817	439	25	0	40	85	20	269
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	1767	1689	1814	1767	0	1702	1767	1856	1572
Q Serve(g_s), s	1.6	1.9	2.4	0.9	14.1	14.2	0.9	0.0	1.3	3.1	0.6	10.7
Cycle Q Clear(g_c), s	1.6	1.9	2.4	0.9	14.1	14.2	0.9	0.0	1.3	3.1	0.6	10.7
Prop In Lane	1.00		1.00	1.00		0.13	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	211	1396	650	78	1143	614	78	0	304	168	425	360
V/C Ratio(X)	0.22	0.11	0.14	0.32	0.71	0.72	0.32	0.00	0.13	0.51	0.05	0.75
Avail Cap(c_a), veh/h	211	1396	650	211	1355	728	211	0	737	214	806	683
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.7	12.1	12.2	31.0	19.3	19.4	31.0	0.0	23.1	28.8	20.1	24.0
Incr Delay (d2), s/veh	0.2	0.0	0.1	0.9	1.6	3.0	0.9	0.0	0.1	0.9	0.0	1.2
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	0.7	0.6	0.8	0.4	5.2	5.8	0.4	0.0	0.5	1.3	0.2	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.9	12.1	12.4	31.9	21.0	22.3	31.9	0.0	23.2	29.7	20.1	25.2
LnGrp LOS	C	B	B	C	C	C	C	A	C	C	C	C
Approach Vol, veh/h		293			1281			65			374	
Approach Delay, s/veh		14.6			21.6			26.6			25.9	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	32.2	7.5	19.9	12.5	27.2	10.9	16.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	26.9	26.9	8.0	29.1	8.0	26.9	8.1	29.0				
Max Q Clear Time (g_c+1/3), s	4.4	4.4	2.9	12.7	3.6	16.2	5.1	3.3				
Green Ext Time (p_c), s	0.0	1.7	0.0	0.1	0.0	6.5	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
 51: I-205 WB On Ramp/Naglee Rd & Grant Line Rd

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	741	167	0	655	166	0	0	0	600	193	600
Future Volume (veh/h)	129	741	167	0	655	166	0	0	0	600	193	600
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	1856	1856	1856	0	1856	1856				1856	1856	1856
Adj Flow Rate, veh/h	129	741	167	0	655	0				396	478	600
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	0	3	3				3	3	3
Cap, veh/h	169	2131	661	0	1341					812	852	722
Arrive On Green	0.10	0.42	0.42	0.00	0.26	0.00				0.46	0.46	0.46
Sat Flow, veh/h	1767	5066	1572	0	5233	1572				1767	1856	1572
Grp Volume(v), veh/h	129	741	167	0	655	0				396	478	600
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	0	1689	1572				1767	1856	1572
Q Serve(g_s), s	4.7	6.6	4.6	0.0	7.3	0.0				10.4	12.5	22.2
Cycle Q Clear(g_c), s	4.7	6.6	4.6	0.0	7.3	0.0				10.4	12.5	22.2
Prop In Lane	1.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	169	2131	661	0	1341					812	852	722
V/C Ratio(X)	0.76	0.35	0.25	0.00	0.49					0.49	0.56	0.83
Avail Cap(c_a), veh/h	239	3756	1166	0	2768					997	1047	888
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	1.00	1.00	0.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	29.4	13.1	12.5	0.0	20.7	0.0				12.6	13.1	15.7
Incr Delay (d2), s/veh	8.8	0.2	0.5	0.0	0.7	0.0				0.5	0.6	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	2.2	1.5	0.0	2.7	0.0				3.6	4.6	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	13.3	13.0	0.0	21.4	0.0				13.0	13.7	21.4
LnGrp LOS	D	B	B	A	C					B	B	C
Approach Vol, veh/h		1037			655	A					1474	
Approach Delay, s/veh		16.4			21.4						16.6	
Approach LOS		B			C						B	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		32.0		34.6	10.4	21.6						
Change Period (Y+Rc), s		5.3		4.6	* 4.2	5.3						
Max Green Setting (Gmax), s		48.1		37.0	* 8.8	35.1						
Max Q Clear Time (g_c+I1), s		8.6		24.2	6.7	9.3						
Green Ext Time (p_c), s		11.7		5.8	0.1	7.1						

Intersection Summary

HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
 52: I-205 EAST OFF RAMP/I-205 EAST & Grant Line Rd

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↑↑↑	↑	↑		↑			
Traffic Volume (veh/h)	0	516	800	0	747	47	210	0	90	0	0	0
Future Volume (veh/h)	0	516	800	0	747	47	210	0	90	0	0	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	0	1856	1856	0	1856	1856	1856	0	1856			
Adj Flow Rate, veh/h	0	516	0	0	747	0	210	0	0			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	0	3	3	0	3	3	3	0	3			
Cap, veh/h	0	2255		0	3240		223	0				
Arrive On Green	0.00	0.64	0.00	0.00	0.64	0.00	0.13	0.00	0.00			
Sat Flow, veh/h	0	3618	1572	0	5233	1572	1767	0	1572			
Grp Volume(v), veh/h	0	516	0	0	747	0	210	0	0			
Grp Sat Flow(s),veh/h/ln	0	1763	1572	0	1689	1572	1767	0	1572			
Q Serve(g_s), s	0.0	2.1	0.0	0.0	2.1	0.0	3.9	0.0	0.0			
Cycle Q Clear(g_c), s	0.0	2.1	0.0	0.0	2.1	0.0	3.9	0.0	0.0			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2255		0	3240		223	0				
V/C Ratio(X)	0.00	0.23		0.00	0.23		0.94	0.00				
Avail Cap(c_a), veh/h	0	2954		0	4244		223	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)	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	0.0	2.5	0.0	0.0	2.5	0.0	14.4	0.0	0.0			
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.1	0.0	44.3	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	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	2.6	0.0	0.0	2.6	0.0	58.7	0.0	0.0			
LnGrp LOS	A	A		A	A		E	A				
Approach Vol, veh/h		516	A		747	A		210	A			
Approach Delay, s/veh		2.6			2.6			58.7				
Approach LOS		A			A			E				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		25.3				25.3		8.0				
Change Period (Y+Rc), s		5.3				5.3		4.0				
Max Green Setting (Gmax), s		26.6				26.6		4.0				
Max Q Clear Time (g_c+I1), s		4.1				4.1		5.9				
Green Ext Time (p_c), s		3.4				5.3		0.0				

Intersection Summary

HCM 6th Ctrl Delay	10.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [NBR, EBR, WBR] 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)	25	483	28	58	1296	25	362	22	121	113	21	71
Future Volume (veh/h)	25	483	28	58	1296	25	362	22	121	113	21	71
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	25	483	28	58	1296	25	362	22	121	113	21	71
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	75	1494	464	128	1645	511	399	527	447	163	56	189
Arrive On Green	0.04	0.29	0.29	0.07	0.32	0.32	0.23	0.28	0.28	0.09	0.15	0.15
Sat Flow, veh/h	1767	5066	1572	1767	5066	1572	1767	1856	1572	1767	372	1257
Grp Volume(v), veh/h	25	483	28	58	1296	25	362	22	121	113	0	92
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	1767	1689	1572	1767	1856	1572	1767	0	1629
Q Serve(g_s), s	1.1	5.9	1.0	2.5	18.6	0.9	15.9	0.7	4.8	5.0	0.0	4.1
Cycle Q Clear(g_c), s	1.1	5.9	1.0	2.5	18.6	0.9	15.9	0.7	4.8	5.0	0.0	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.77
Lane Grp Cap(c), veh/h	75	1494	464	128	1645	511	399	527	447	163	0	245
V/C Ratio(X)	0.33	0.32	0.06	0.45	0.79	0.05	0.91	0.04	0.27	0.70	0.00	0.38
Avail Cap(c_a), veh/h	188	1775	551	188	1775	551	464	913	773	303	0	652
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.1	22.0	20.2	35.5	24.5	18.5	30.1	20.7	22.2	35.2	0.0	30.6
Incr Delay (d2), s/veh	0.9	0.2	0.1	0.9	2.5	0.1	18.1	0.0	0.3	2.0	0.0	0.7
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	0.5	2.2	0.4	1.1	7.0	0.3	8.4	0.3	1.7	2.2	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	22.1	20.3	36.5	27.0	18.6	48.2	20.8	22.5	37.2	0.0	31.3
LnGrp LOS	D	C	C	D	C	B	D	C	C	D	A	C
Approach Vol, veh/h		536			1379			505			205	
Approach Delay, s/veh		22.8			27.2			40.9			34.5	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	29.1	23.1	17.0	8.4	31.4	12.3	27.7				
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0				
Max Green Setting (Gmax), s	10.5	28.0	21.0	32.0	8.5	28.0	13.7	39.3				
Max Q Clear Time (g_c+1), s	14.5	7.9	17.9	6.1	3.1	20.6	7.0	6.8				
Green Ext Time (p_c), s	0.0	4.1	0.1	0.4	0.0	5.4	0.0	0.5				

Intersection Summary

HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
 54: Cross Roads Dr & Pomontory Pkwy/New Schulte Rd

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↗	↘	↘	↗	↘
Traffic Volume (veh/h)	25	141	25	25	510	25	25	25	25	25	25	50
Future Volume (veh/h)	25	141	25	25	510	25	25	25	25	25	25	50
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	25	141	25	25	510	25	25	25	25	25	25	50
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	45	987	440	45	987	440	45	115	115	45	75	150
Arrive On Green	0.03	0.28	0.28	0.03	0.28	0.28	0.03	0.13	0.13	0.03	0.13	0.13
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	858	858	1781	557	1113
Grp Volume(v), veh/h	25	141	25	25	510	25	25	0	50	25	0	75
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1716	1781	0	1670
Q Serve(g_s), s	0.4	0.9	0.3	0.4	3.6	0.3	0.4	0.0	0.8	0.4	0.0	1.2
Cycle Q Clear(g_c), s	0.4	0.9	0.3	0.4	3.6	0.3	0.4	0.0	0.8	0.4	0.0	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		0.67
Lane Grp Cap(c), veh/h	45	987	440	45	987	440	45	0	231	45	0	225
V/C Ratio(X)	0.56	0.14	0.06	0.56	0.52	0.06	0.56	0.00	0.22	0.56	0.00	0.33
Avail Cap(c_a), veh/h	239	2150	959	239	2150	959	239	0	1038	239	0	1010
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.3	8.1	7.9	14.3	9.1	7.9	14.3	0.0	11.5	14.3	0.0	11.7
Incr Delay (d2), s/veh	10.5	0.1	0.1	10.5	0.4	0.1	10.5	0.0	0.5	10.5	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.1	0.3	0.9	0.1	0.3	0.0	0.2	0.3	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.8	8.1	7.9	24.8	9.5	7.9	24.8	0.0	11.9	24.8	0.0	12.5
LnGrp LOS	C	A	A	C	A	A	C	A	B	C	A	B
Approach Vol, veh/h		191			560			75			100	
Approach Delay, s/veh		10.3			10.1			16.2			15.6	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.7	8.0	4.7	12.3	4.7	8.0	4.7	12.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	4.0	18.0	4.0	18.0	4.0	18.0				
Max Q Clear Time (g_c+1), s	12.4	2.8	2.4	2.9	2.4	3.2	2.4	5.6				
Green Ext Time (p_c), s	0.0	0.1	0.0	0.7	0.0	0.2	0.0	2.7				

Intersection Summary

HCM 6th Ctrl Delay	11.2
HCM 6th LOS	B

Intersection						
Int Delay, s/veh	7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	204	25	25	55	25	47
Future Vol, veh/h	204	25	25	55	25	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	204	25	25	55	25	47
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	150	53	0	0	80	0
Stage 1	53	-	-	-	-	-
Stage 2	97	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	840	1012	-	-	1512	-
Stage 1	967	-	-	-	-	-
Stage 2	924	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	826	1012	-	-	1512	-
Mov Cap-2 Maneuver	826	-	-	-	-	-
Stage 1	967	-	-	-	-	-
Stage 2	908	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10.9	0	2.6			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	843	1512		
HCM Lane V/C Ratio	-	-	0.272	0.017		
HCM Control Delay (s)	-	-	10.9	7.4		
HCM Lane LOS	-	-	B	A		
HCM 95th %tile Q(veh)	-	-	1.1	0.1		

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘	↗	↘	↗	↗	↘
Traffic Vol, veh/h	76	22	154	36	78	346
Future Vol, veh/h	76	22	154	36	78	346
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	100	100	-	-	100
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	76	22	154	36	78	346
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	422	78	424	0	0	
Stage 1	78	-	-	-	-	
Stage 2	344	-	-	-	-	
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	588	983	1135	-	-	
Stage 1	945	-	-	-	-	
Stage 2	718	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	508	983	1135	-	-	
Mov Cap-2 Maneuver	508	-	-	-	-	
Stage 1	816	-	-	-	-	
Stage 2	718	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	12.3	7		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1135	-	508	983	-	-
HCM Lane V/C Ratio	0.136	-	0.15	0.022	-	-
HCM Control Delay (s)	8.7	-	13.3	8.7	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.5	-	0.5	0.1	-	-

Tracy Transportation Master Plan Update
57: Corral Hollow Rd & Grant Line Rd

Future 2042
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗↗	↘	↑↑		↗↗	↑↑	↗	↗↗	↑↑	↗
Traffic Volume (veh/h)	45	187	105	71	505	118	332	167	69	38	80	86
Future Volume (veh/h)	45	187	105	71	505	118	332	167	69	38	80	86
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	45	187	105	71	505	118	332	167	69	38	80	86
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	189	884	694	231	779	181	878	834	372	339	562	195
Arrive On Green	0.11	0.25	0.25	0.13	0.27	0.24	0.18	0.24	0.24	0.10	0.16	0.12
Sat Flow, veh/h	1767	3526	2768	1767	2839	660	4983	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	45	187	105	71	313	310	332	167	69	38	80	86
Grp Sat Flow(s),veh/h/ln	1767	1763	1384	1767	1763	1737	1661	1763	1572	1714	1763	1572
Q Serve(g_s), s	1.3	2.4	1.7	2.1	8.8	9.0	3.3	2.1	2.0	0.6	1.1	2.9
Cycle Q Clear(g_c), s	1.3	2.4	1.7	2.1	8.8	9.0	3.3	2.1	2.0	0.6	1.1	2.9
Prop In Lane	1.00		1.00	1.00		0.38	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	884	694	231	483	476	878	834	372	339	562	195
V/C Ratio(X)	0.24	0.21	0.15	0.31	0.65	0.65	0.38	0.20	0.19	0.11	0.14	0.44
Avail Cap(c_a), veh/h	313	2558	2008	313	1279	1260	1147	2683	1197	607	2496	1057
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	1.00	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	23.1	16.7	16.5	22.3	18.1	18.5	20.5	17.3	17.2	23.2	20.4	22.9
Incr Delay (d2), s/veh	0.6	0.1	0.1	0.7	1.5	1.5	0.3	0.1	0.2	0.1	0.1	1.6
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	0.5	0.8	0.5	0.8	3.3	3.3	1.2	0.8	0.6	0.2	0.4	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	16.9	16.6	23.0	19.5	20.0	20.8	17.4	17.5	23.3	20.5	24.5
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	C	C
Approach Vol, veh/h		337			694			568			204	
Approach Delay, s/veh		17.7			20.1			19.4			22.7	
Approach LOS		B			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	17.4	11.4	18.2	14.0	13.0	10.1	19.5				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	8.0	41.0	8.0	39.0	11.0	38.0	8.0	39.0				
Max Q Clear Time (g_c+I1), s	2.6	4.1	4.1	4.4	5.3	4.9	3.3	11.0				
Green Ext Time (p_c), s	0.0	1.0	0.0	1.3	0.7	0.7	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay											19.7	
HCM 6th LOS											B	

Tracy Transportation Master Plan Update
 58: CORRAL HOLLOW RD & Eleventh St/ELEVENTH ST.

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	149	564	200	71	650	176	436	481	128	273	269	301
Future Volume (veh/h)	149	564	200	71	650	176	436	481	128	273	269	301
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	149	564	0	71	650	176	436	481	128	273	269	301
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	497	1248		417	1130	351	603	1601	497	424	1337	415
Arrive On Green	0.14	0.25	0.00	0.12	0.22	0.22	0.18	0.32	0.32	0.12	0.26	0.26
Sat Flow, veh/h	3428	5066	1572	3428	5066	1572	3428	5066	1572	3428	5066	1572
Grp Volume(v), veh/h	149	564	0	71	650	176	436	481	128	273	269	301
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1714	1689	1572	1714	1689	1572	1714	1689	1572
Q Serve(g_s), s	2.8	6.9	0.0	1.4	8.3	7.1	8.7	5.2	4.4	5.5	3.0	12.7
Cycle Q Clear(g_c), s	2.8	6.9	0.0	1.4	8.3	7.1	8.7	5.2	4.4	5.5	3.0	12.7
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	497	1248		417	1130	351	603	1601	497	424	1337	415
V/C Ratio(X)	0.30	0.45		0.17	0.58	0.50	0.72	0.30	0.26	0.64	0.20	0.73
Avail Cap(c_a), veh/h	518	2991		518	2991	928	612	2991	928	424	2713	842
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.8	23.3	0.0	28.7	25.2	24.8	28.3	18.8	18.5	30.4	20.8	24.4
Incr Delay (d2), s/veh	0.3	0.3	0.0	0.2	0.5	1.1	4.2	0.1	0.3	4.6	0.1	2.4
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	1.1	2.5	0.0	0.5	3.1	2.6	3.7	1.9	1.5	2.4	1.1	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.2	23.5	0.0	28.9	25.7	25.9	32.5	18.9	18.8	35.0	20.9	26.8
LnGrp LOS	C	C		C	C	C	C	B	B	D	C	C
Approach Vol, veh/h		713	A		897			1045			843	
Approach Delay, s/veh		24.5			26.0			24.6			27.6	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.9	21.9	12.0	27.0	13.6	20.2	15.8	23.2				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	41.0	41.0	7.0	41.0	9.0	41.0	11.0	37.0				
Max Q Clear Time (g_c+1), s	13.4	8.9	7.5	7.2	4.8	10.3	10.7	14.7				
Green Ext Time (p_c), s	0.1	2.6	0.0	2.9	0.2	3.9	0.1	2.5				

Intersection Summary

HCM 6th Ctrl Delay	25.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Tracy Transportation Master Plan Update
 59: CORRAL HOLLOW RD & New Schulte Rd/NEW SCHULTE ROAD

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	80	48	193	312	408	72	334	38	204	167	140
Future Volume (veh/h)	107	80	48	193	312	408	72	334	38	204	167	140
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	107	80	48	193	312	408	72	334	38	204	167	140
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	154	916	409	240	544	485	128	508	57	354	357	280
Arrive On Green	0.09	0.26	0.26	0.14	0.31	0.31	0.07	0.16	0.16	0.10	0.19	0.19
Sat Flow, veh/h	1767	3526	1572	1767	1763	1572	1767	3193	361	3428	1878	1475
Grp Volume(v), veh/h	107	80	48	193	312	408	72	183	189	204	156	151
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1791	1714	1763	1590
Q Serve(g_s), s	3.3	1.0	1.3	5.9	8.3	13.5	2.2	5.4	5.5	3.2	4.4	4.7
Cycle Q Clear(g_c), s	3.3	1.0	1.3	5.9	8.3	13.5	2.2	5.4	5.5	3.2	4.4	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		0.93
Lane Grp Cap(c), veh/h	154	916	409	240	544	485	128	280	285	354	335	302
V/C Ratio(X)	0.69	0.09	0.12	0.80	0.57	0.84	0.56	0.65	0.66	0.58	0.47	0.50
Avail Cap(c_a), veh/h	254	2283	1018	413	1300	1160	191	1100	1118	759	1300	1173
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	1.00	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	24.7	15.6	15.7	23.3	16.1	17.9	24.9	21.9	22.0	23.8	20.0	20.2
Incr Delay (d2), s/veh	2.1	0.0	0.1	2.4	0.4	1.5	1.4	2.6	2.6	0.6	1.0	1.3
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	1.3	0.3	0.4	2.3	2.8	4.3	0.9	2.2	2.2	1.2	1.7	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	15.6	15.8	25.7	16.5	19.5	26.4	24.5	24.6	24.3	21.0	21.4
LnGrp LOS	C	B	B	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		235			913			444			511	
Approach Delay, s/veh		20.7			19.8			24.9			22.5	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.1	19.5	10.2	13.8	9.4	22.2	8.5	15.6				
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0				
Max Green Setting (Gmax), s	13.0	36.0	12.3	34.7	8.0	41.0	6.0	41.0				
Max Q Clear Time (g_c+1), s	17.5	3.3	5.2	7.5	5.3	15.5	4.2	6.7				
Green Ext Time (p_c), s	0.1	0.5	0.2	1.4	0.0	1.7	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay	21.6
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)	12	149	151	231	192	98	120	199	36	72	334	14
Future Volume (veh/h)	12	149	151	231	192	98	120	199	36	72	334	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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		No		No
Adj Sat Flow, veh/h/ln	1707	1900	1633	1900	1856	1870	1796	1737	1900	1870	1811	1900
Adj Flow Rate, veh/h	12	149	151	231	192	98	120	199	36	72	334	14
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	13	0	18	0	3	2	7	11	0	2	6	0
Cap, veh/h	20	296	260	294	719	352	150	569	101	99	590	276
Arrive On Green	0.01	0.16	0.16	0.16	0.31	0.31	0.09	0.20	0.20	0.06	0.17	0.17
Sat Flow, veh/h	1626	1805	1589	1810	2294	1122	1711	2800	498	1781	3441	1610
Grp Volume(v), veh/h	12	149	151	231	146	144	120	116	119	72	334	14
Grp Sat Flow(s),veh/h/ln	1626	1805	1589	1810	1763	1653	1711	1650	1647	1781	1721	1610
Q Serve(g_s), s	0.3	2.9	3.4	4.7	2.4	2.5	2.7	2.3	2.4	1.5	3.4	0.3
Cycle Q Clear(g_c), s	0.3	2.9	3.4	4.7	2.4	2.5	2.7	2.3	2.4	1.5	3.4	0.3
Prop In Lane	1.00		1.00	1.00		0.68	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	20	296	260	294	553	519	150	335	335	99	590	276
V/C Ratio(X)	0.59	0.50	0.58	0.79	0.26	0.28	0.80	0.35	0.36	0.72	0.57	0.05
Avail Cap(c_a), veh/h	169	843	742	375	1006	944	222	770	769	231	1607	752
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	1.00	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	18.9	14.7	14.9	15.5	9.9	10.0	17.3	13.2	13.2	17.9	14.7	13.4
Incr Delay (d2), s/veh	24.3	1.3	2.0	8.2	0.3	0.3	12.0	0.6	0.6	9.6	0.9	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	0.2	1.1	1.1	2.2	0.7	0.7	1.3	0.7	0.7	0.8	1.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.2	16.0	16.9	23.7	10.2	10.2	29.2	13.8	13.8	27.5	15.5	13.4
LnGrp LOS	D	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		312		521			355			420		
Approach Delay, s/veh		17.5		16.2			19.0			17.5		
Approach LOS		B		B			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.1	11.8	10.3	10.3	7.4	10.6	4.5	16.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	5.0	18.0	8.0	18.0	5.0	18.0	4.0	22.0				
Max Q Clear Time (g_c+1), s	13.5	4.4	6.7	5.4	4.7	5.4	2.3	4.5				
Green Ext Time (p_c), s	0.0	0.6	0.1	0.9	0.0	1.2	0.0	1.0				

Intersection Summary

HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	25	25	25	208	383	25
Future Volume (veh/h)	25	25	25	208	383	25
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	25	25	25	208	383	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	87	77	46	1893	1057	471
Arrive On Green	0.05	0.05	0.03	0.53	0.30	0.30
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	25	25	25	208	383	25
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	0.3	0.3	0.3	0.6	1.6	0.2
Cycle Q Clear(g_c), s	0.3	0.3	0.3	0.6	1.6	0.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	87	77	46	1893	1057	471
V/C Ratio(X)	0.29	0.32	0.54	0.11	0.36	0.05
Avail Cap(c_a), veh/h	373	332	373	5206	3719	1659
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	8.8	8.8	9.2	2.2	5.3	4.8
Incr Delay (d2), s/veh	1.8	2.4	9.4	0.0	0.2	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	0.1	0.1	0.2	0.0	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.6	11.2	18.6	2.2	5.5	4.8
LnGrp LOS	B	B	B	A	A	A
Approach Vol, veh/h	50			233	408	
Approach Delay, s/veh	10.9			4.0	5.5	
Approach LOS	B			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		14.2		4.9	4.5	9.7
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		28.0		4.0	4.0	20.0
Max Q Clear Time (g_c+I1), s		2.6		2.3	2.3	3.6
Green Ext Time (p_c), s		1.1		0.0	0.0	2.1
Intersection Summary						
HCM 6th Ctrl Delay			5.4			
HCM 6th LOS			A			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	20	25	84	20	157	25	153	25	72	546	15
Future Volume (veh/h)	25	20	25	84	20	157	25	153	25	72	546	15
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	1856	1856	1870	1856	1856	1870	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	25	20	25	84	20	157	25	153	25	72	546	15
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	2	3	3	2	3	3	3	3	3	3
Cap, veh/h	64	117	146	157	38	296	64	854	381	143	1011	451
Arrive On Green	0.04	0.16	0.16	0.09	0.21	0.21	0.04	0.24	0.24	0.08	0.29	0.29
Sat Flow, veh/h	1767	750	937	1767	181	1419	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	25	0	45	84	0	177	25	153	25	72	546	15
Grp Sat Flow(s),veh/h/ln	1767	0	1687	1767	0	1600	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	0.6	0.0	1.0	1.9	0.0	4.2	0.6	1.5	0.5	1.7	5.6	0.3
Cycle Q Clear(g_c), s	0.6	0.0	1.0	1.9	0.0	4.2	0.6	1.5	0.5	1.7	5.6	0.3
Prop In Lane	1.00		0.56	1.00		0.89	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	64	0	263	157	0	333	64	854	381	143	1011	451
V/C Ratio(X)	0.39	0.00	0.17	0.54	0.00	0.53	0.39	0.18	0.07	0.50	0.54	0.03
Avail Cap(c_a), veh/h	249	0	1348	332	0	1354	249	2354	1050	291	2371	1057
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	20.0	0.0	15.6	18.5	0.0	15.0	20.0	12.8	12.4	18.7	12.8	10.9
Incr Delay (d2), s/veh	3.9	0.0	0.3	2.8	0.0	1.3	3.9	0.1	0.1	2.7	0.6	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.4	0.8	0.0	1.4	0.3	0.4	0.2	0.7	1.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.9	0.0	15.9	21.4	0.0	16.3	23.9	12.9	12.5	21.5	13.4	11.0
LnGrp LOS	C	A	B	C	A	B	C	B	B	C	B	B
Approach Vol, veh/h		70			261			203			633	
Approach Delay, s/veh		18.8			17.9			14.2			14.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	16.1	7.8	11.2	5.5	18.0	5.5	13.5				
Change Period (Y+Rc), s	4.0	* 5.8	4.0	4.6	4.0	5.8	4.0	4.6				
Max Green Setting (Gmax), s	3.0	* 28	8.0	34.0	6.0	28.6	6.0	36.0				
Max Q Clear Time (g_c+1/3), s	3.5	3.5	3.9	3.0	2.6	7.6	2.6	6.2				
Green Ext Time (p_c), s	0.0	1.3	0.1	0.2	0.0	4.6	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay	15.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
63: Corral Hollow Rd & Summit Dr/Middlefield Dr

Future 2042
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↔		↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	20	25	67	482	25	25	25	110	20	25	727	25
Future Volume (veh/h)	20	25	67	482	25	25	25	110	20	25	727	25
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	1900	1900	1900	1900	1900	1900	1900	1589	1900	1900	1870	1900
Adj Flow Rate, veh/h	20	25	67	523	0	0	25	110	20	25	727	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	21	0	0	2	0
Cap, veh/h	52	48	129	670	497	0	63	895	477	63	1152	522
Arrive On Green	0.03	0.11	0.11	0.19	0.00	0.00	0.03	0.30	0.30	0.03	0.32	0.32
Sat Flow, veh/h	1810	456	1223	3619	1900	0	1810	3019	1610	1810	3554	1610
Grp Volume(v), veh/h	20	0	92	523	0	0	25	110	20	25	727	25
Grp Sat Flow(s),veh/h/ln	1810	0	1680	1810	1900	0	1810	1509	1610	1810	1777	1610
Q Serve(g_s), s	0.6	0.0	2.8	7.4	0.0	0.0	0.7	1.4	0.5	0.7	9.4	0.6
Cycle Q Clear(g_c), s	0.6	0.0	2.8	7.4	0.0	0.0	0.7	1.4	0.5	0.7	9.4	0.6
Prop In Lane	1.00		0.73	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	52	0	177	670	497	0	63	895	477	63	1152	522
V/C Ratio(X)	0.38	0.00	0.52	0.78	0.00	0.00	0.40	0.12	0.04	0.40	0.63	0.05
Avail Cap(c_a), veh/h	201	0	1028	805	1374	0	201	1601	854	201	1983	899
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	0.0	22.8	20.9	0.0	0.0	25.5	13.9	13.5	25.5	15.5	12.5
Incr Delay (d2), s/veh	4.6	0.0	2.3	4.1	0.0	0.0	4.0	0.1	0.1	4.0	0.8	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	0.3	0.0	1.2	3.2	0.0	0.0	0.3	0.4	0.2	0.3	3.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.3	0.0	25.2	25.1	0.0	0.0	29.5	13.9	13.6	29.5	16.3	12.6
LnGrp LOS	C	A	C	C	A	A	C	B	B	C	B	B
Approach Vol, veh/h		112		523			155			777		
Approach Delay, s/veh		26.1		25.1			16.4			16.6		
Approach LOS		C		C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	21.8	14.0	10.8	5.9	23.3	5.6	19.2				
Change Period (Y+Rc), s	5.5	5.8	4.0	5.1	4.0	5.8	4.0	5.1				
Max Green Setting (Gmax), s	6.0	28.6	12.0	33.0	6.0	30.1	6.0	39.0				
Max Q Clear Time (g_c+1/2), s	12.5	3.4	9.4	4.8	2.7	11.4	2.6	0.0				
Green Ext Time (p_c), s	0.0	0.9	0.6	0.5	0.0	6.1	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	20.1
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖↗	↖↗		↖	↖↗	↖	↖	↖↗	
Traffic Volume (veh/h)	80	164	20	452	494	115	35	111	202	25	515	311
Future Volume (veh/h)	80	164	20	452	494	115	35	111	202	25	515	311
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		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1707	1870	1144	1870	1796	1292	1544	1885	1870
Adj Flow Rate, veh/h	80	164	20	452	494	115	35	111	202	25	515	311
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	13	2	51	2	7	41	24	1	2
Cap, veh/h	101	406	49	580	729	169	56	1068	343	35	656	395
Arrive On Green	0.06	0.13	0.13	0.18	0.25	0.25	0.03	0.31	0.31	0.02	0.31	0.31
Sat Flow, veh/h	1781	3194	384	3155	2865	663	1781	3413	1095	1471	2149	1294
Grp Volume(v), veh/h	80	90	94	452	305	304	35	111	202	25	429	397
Grp Sat Flow(s),veh/h/ln	1781	1777	1801	1577	1777	1751	1781	1706	1095	1471	1791	1652
Q Serve(g_s), s	2.0	2.1	2.2	6.2	7.0	7.1	0.9	1.0	7.1	0.8	9.9	10.0
Cycle Q Clear(g_c), s	2.0	2.1	2.2	6.2	7.0	7.1	0.9	1.0	7.1	0.8	9.9	10.0
Prop In Lane	1.00		0.21	1.00		0.38	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	101	226	229	580	452	445	56	1068	343	35	547	505
V/C Ratio(X)	0.79	0.40	0.41	0.78	0.68	0.68	0.63	0.10	0.59	0.71	0.78	0.79
Avail Cap(c_a), veh/h	274	704	713	625	782	771	157	1352	434	129	709	654
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	1.00	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	21.2	18.2	18.3	17.7	15.3	15.3	21.7	11.1	13.1	22.0	14.4	14.4
Incr Delay (d2), s/veh	12.9	1.1	1.2	5.8	1.8	1.8	10.9	0.0	1.6	23.4	4.4	4.8
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	0.0	0.8	0.8	2.2	2.3	2.3	0.5	0.3	1.4	0.4	3.6	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	19.4	19.4	23.5	17.0	17.1	32.6	11.1	14.8	45.4	18.8	19.2
LnGrp LOS	C	B	B	C	B	B	C	B	B	D	B	B
Approach Vol, veh/h		264		1061			348			851		
Approach Delay, s/veh		23.9		19.8			15.4			19.8		
Approach LOS		C		B			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.1	18.2	12.4	9.8	5.4	17.9	6.6	15.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	9.0	18.0	4.0	18.0	7.0	20.0				
Max Q Clear Time (g_c+1), s	12.8	9.1	8.2	4.2	2.9	12.0	4.0	9.1				
Green Ext Time (p_c), s	0.0	0.8	0.2	0.6	0.0	1.9	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				19.6								
HCM 6th LOS				B								



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	59	140	72	254	991	29
Future Volume (veh/h)	59	140	72	254	991	29
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	59	140	72	254	991	29
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	237	211	104	2216	1576	703
Arrive On Green	0.13	0.13	0.06	0.62	0.44	0.44
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	59	140	72	254	991	29
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	1.0	2.8	1.3	1.0	7.1	0.3
Cycle Q Clear(g_c), s	1.0	2.8	1.3	1.0	7.1	0.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	237	211	104	2216	1576	703
V/C Ratio(X)	0.25	0.66	0.69	0.11	0.63	0.04
Avail Cap(c_a), veh/h	974	867	216	3130	2267	1011
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	12.8	13.6	15.2	2.5	7.1	5.2
Incr Delay (d2), s/veh	0.5	3.5	7.8	0.0	0.4	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	0.3	0.2	0.6	0.0	1.6	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.3	17.1	23.0	2.5	7.5	5.2
LnGrp LOS	B	B	C	A	A	A
Approach Vol, veh/h	199			326	1020	
Approach Delay, s/veh	16.0			7.1	7.4	
Approach LOS	B			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		24.5		8.4	5.9	18.6
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		29.0		18.0	4.0	21.0
Max Q Clear Time (g_c+I1), s		3.0		4.8	3.3	9.1
Green Ext Time (p_c), s		1.4		0.5	0.0	5.5
Intersection Summary						
HCM 6th Ctrl Delay			8.4			
HCM 6th LOS			A			

Tracy Transportation Master Plan Update
 66: CORRAL HOLLOW RD & Tracy Hills Dr/KT Access

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↗		↖	↗	↖	↖↗	↖↗	↖	↖↗	↖↗	↖
Traffic Volume (veh/h)	68	20	307	113	26	80	108	213	129	112	977	47
Future Volume (veh/h)	68	20	307	113	26	80	108	213	129	112	977	47
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		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	68	20	307	113	66	53	108	213	129	112	977	47
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	907	25	381	147	137	116	193	1209	539	195	1211	540
Arrive On Green	0.26	0.25	0.25	0.08	0.07	0.07	0.06	0.34	0.34	0.06	0.34	0.34
Sat Flow, veh/h	3456	98	1502	1781	1870	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	68	0	327	113	66	53	108	213	129	112	977	47
Grp Sat Flow(s),veh/h/ln1728		0	1600	1781	1870	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.9	0.0	11.5	3.7	2.0	1.5	1.8	2.5	2.4	1.9	15.0	1.2
Cycle Q Clear(g_c), s	0.9	0.0	11.5	3.7	2.0	1.5	1.8	2.5	2.4	1.9	15.0	1.2
Prop In Lane	1.00		0.94	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	907	0	405	147	137	116	193	1209	539	195	1211	540
V/C Ratio(X)	0.07	0.00	0.81	0.77	0.48	0.46	0.56	0.18	0.24	0.57	0.81	0.09
Avail Cap(c_a), veh/h	1040	0	669	328	563	477	231	1307	583	347	1426	636
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	16.6	0.0	21.0	26.9	26.6	16.8	27.5	13.9	6.4	27.5	17.9	13.4
Incr Delay (d2), s/veh	0.0	0.0	3.8	8.2	2.6	2.8	2.5	0.1	0.2	2.6	3.0	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/ln0.3	0.0	0.0	4.4	1.8	1.0	0.8	0.7	0.8	1.2	0.8	5.3	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	0.0	24.8	35.0	29.2	19.5	30.1	13.9	6.6	30.2	21.0	13.5
LnGrp LOS	B	A	C	D	C	B	C	B	A	C	C	B
Approach Vol, veh/h		395			232			450			1136	
Approach Delay, s/veh		23.4			29.8			15.7			21.6	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s7.4	24.3	8.9	19.2	7.3	24.4	19.7	8.4					
Change Period (Y+Rc), s 4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Max Green Setting (Gmax), s 22.0	22.0	11.0	25.0	4.0	24.0	18.0	18.0					
Max Q Clear Time (g_c+13), s 4.5	4.5	5.7	13.5	3.8	17.0	2.9	4.0					
Green Ext Time (p_c), s 0.1	0.1	1.4	0.1	1.7	0.0	3.4	0.1	0.4				

Intersection Summary

HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Tracy Transportation Master Plan Update
 67: Corral Hollow Rd & I-580 WB On Ramp/I-580 WB Off Ramp

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations						↕	↕	↕	↕		↕	↕
Traffic Volume (veh/h)	0	0	0	266	0	52	61	374	0	0	121	1383
Future Volume (veh/h)	0	0	0	266	0	52	61	374	0	0	121	1383
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		No		
Adj Sat Flow, veh/h/ln				1870	1900	1574	1900	1544	0	0	1767	1856
Adj Flow Rate, veh/h				266	0	0	61	374	0	0	121	0
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				2	0	22	0	24	0	0	9	3
Cap, veh/h				299	0		1184	1165	0	0	202	
Arrive On Green				0.17	0.00	0.00	0.65	0.75	0.00	0.00	0.06	0.00
Sat Flow, veh/h				1810	0	1334	1810	1544	0	0	3445	1572
Grp Volume(v), veh/h				266	0	0	61	374	0	0	121	0
Grp Sat Flow(s),veh/h/ln				1810	0	1334	1810	1544	0	0	1678	1572
Q Serve(g_s), s				14.4	0.0	0.0	1.2	7.8	0.0	0.0	3.5	0.0
Cycle Q Clear(g_c), s				14.4	0.0	0.0	1.2	7.8	0.0	0.0	3.5	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				299	0		1184	1165	0	0	202	
V/C Ratio(X)				0.89	0.00		0.05	0.32	0.00	0.00	0.60	
Avail Cap(c_a), veh/h				326	0		1184	1165	0	0	2215	
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	0.97	0.97	0.00	0.00	0.68	0.00
Uniform Delay (d), s/veh				40.8	0.0	0.0	6.2	4.0	0.0	0.0	45.8	0.0
Incr Delay (d2), s/veh				23.3	0.0	0.0	0.0	0.7	0.0	0.0	8.7	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				8.2	0.0	0.0	0.4	1.7	0.0	0.0	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				64.2	0.0	0.0	6.2	4.7	0.0	0.0	54.5	0.0
LnGrp LOS				E	A		A	A	A	A	D	
Approach Vol, veh/h				266		A		435			121	A
Approach Delay, s/veh				64.2				4.9			54.5	
Approach LOS				E				A			D	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		79.5			69.5	10.0		20.5				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		74.0			4.0	66.0		18.0				
Max Q Clear Time (g_c+I1), s		9.8			3.2	5.5		16.4				
Green Ext Time (p_c), s		1.4			0.0	0.5		0.2				

Intersection Summary

HCM 6th Ctrl Delay	31.4
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
 68: Corral Hollow Rd & 580 EB Off Ramp/580 EB On Ramp

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗						↑↑	↖	↗	↑	
Traffic Volume (veh/h)	159	0	25	0	0	0	0	292	44	34	353	0
Future Volume (veh/h)	159	0	25	0	0	0	0	292	44	34	353	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	1515	1159	1900				0	1900	1900	1485	1885	0
Adj Flow Rate, veh/h	159	0	25				0	292	44	34	353	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	26	50	0				0	0	0	28	1	0
Cap, veh/h	201	0	137				0	2390	1066	39	1408	0
Arrive On Green	0.14	0.00	0.14				0.00	0.66	0.66	0.03	0.75	0.00
Sat Flow, veh/h	1443	0	982				0	3705	1610	1414	1885	0
Grp Volume(v), veh/h	159	0	25				0	292	44	34	353	0
Grp Sat Flow(s),veh/h/ln	1443	0	982				0	1805	1610	1414	1885	0
Q Serve(g_s), s	7.5	0.0	1.6				0.0	2.1	0.7	1.7	4.1	0.0
Cycle Q Clear(g_c), s	7.5	0.0	1.6				0.0	2.1	0.7	1.7	4.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	201	0	137				0	2390	1066	39	1408	0
V/C Ratio(X)	0.79	0.00	0.18				0.00	0.12	0.04	0.87	0.25	0.00
Avail Cap(c_a), veh/h	474	0	323				0	2390	1066	202	1408	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	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.2	0.0	26.6				0.0	4.4	4.1	33.9	2.8	0.0
Incr Delay (d2), s/veh	6.9	0.0	0.6				0.0	0.1	0.1	39.6	0.4	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	2.8	0.0	0.4				0.0	0.5	0.1	1.0	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.1	0.0	27.3				0.0	4.5	4.2	73.5	3.2	0.0
LnGrp LOS	D	A	C				A	A	A	E	A	A
Approach Vol, veh/h		184						336			387	
Approach Delay, s/veh		34.9						4.4			9.4	
Approach LOS		C						A			A	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	5.9	50.3	13.7	56.3								
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0								
Max Green Setting (Gmax), s	10.0	25.0	23.0	39.0								
Max Q Clear Time (g_c+1), s	13.5	4.1	9.5	6.1								
Green Ext Time (p_c), s	0.0	1.3	0.5	1.3								

Intersection Summary

HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	25	132	22	23	316
Future Vol, veh/h	25	25	132	22	23	316
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, %	8	8	8	8	8	8
Mvmt Flow	25	25	132	22	23	316
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	505	143	0	0	154	0
Stage 1	143	-	-	-	-	-
Stage 2	362	-	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.18	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.272	-
Pot Cap-1 Maneuver	516	889	-	-	1391	-
Stage 1	870	-	-	-	-	-
Stage 2	691	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	506	889	-	-	1391	-
Mov Cap-2 Maneuver	506	-	-	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	677	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	11.1	0	0.5			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	645	1391		
HCM Lane V/C Ratio	-	-	0.078	0.017		
HCM Control Delay (s)	-	-	11.1	7.6		
HCM Lane LOS	-	-	B	A		
HCM 95th %tile Q(veh)	-	-	0.3	0.1		

Tracy Transportation Master Plan Update
71: Tracy Blvd & W. Larch Rd

Future 2042
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↗		↖	↑↗		↖	↗	
Traffic Volume (veh/h)	25	65	36	34	72	25	263	161	257	33	259	26
Future Volume (veh/h)	25	65	36	34	72	25	263	161	257	33	259	26
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	1856	1856	1856	1781	1856	1781	1856	1781	1781	1781	1781	1856
Adj Flow Rate, veh/h	25	65	36	34	72	25	263	161	257	33	259	26
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	8	3	8	3	8	8	8	8	3
Cap, veh/h	39	148	125	47	112	39	830	1078	962	46	310	31
Arrive On Green	0.02	0.08	0.08	0.03	0.09	0.09	0.78	1.00	1.00	0.03	0.19	0.19
Sat Flow, veh/h	1767	1856	1572	1697	1316	457	1767	1692	1510	1697	1593	160
Grp Volume(v), veh/h	25	65	36	34	0	97	263	161	257	33	0	285
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1697	0	1773	1767	1692	1510	1697	0	1753
Q Serve(g_s), s	1.0	2.3	0.6	1.4	0.0	3.7	3.0	0.0	0.0	1.4	0.0	10.9
Cycle Q Clear(g_c), s	1.0	2.3	0.6	1.4	0.0	3.7	3.0	0.0	0.0	1.4	0.0	10.9
Prop In Lane	1.00		1.00	1.00		0.26	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	39	148	125	47	0	151	830	1078	962	46	0	341
V/C Ratio(X)	0.64	0.44	0.29	0.72	0.00	0.64	0.32	0.15	0.27	0.72	0.00	0.84
Avail Cap(c_a), veh/h	101	477	404	97	0	456	830	1078	962	121	0	451
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.89	0.89	0.89	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.0	30.7	4.1	33.8	0.0	31.0	4.3	0.0	0.0	33.8	0.0	27.1
Incr Delay (d2), s/veh	16.4	2.1	1.2	19.0	0.0	4.5	0.2	0.3	0.6	18.8	0.0	20.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.1	0.6	0.8	0.0	1.7	0.9	0.1	0.2	0.8	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.3	32.8	5.3	52.7	0.0	35.5	4.5	0.3	0.6	52.6	0.0	48.0
LnGrp LOS	D	C	A	D	A	D	A	A	A	D	A	D
Approach Vol, veh/h		126			131			681			318	
Approach Delay, s/veh		28.4			39.9			2.0			48.5	
Approach LOS		C			D			A			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	48.6	5.9	9.6	36.9	17.6	5.5	10.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	5.0	27.0	4.0	18.0	14.0	18.0	4.0	18.0				
Max Q Clear Time (g_c+I1), s	3.4	2.0	3.4	4.3	5.0	12.9	3.0	5.7				
Green Ext Time (p_c), s	0.0	2.8	0.0	0.3	0.5	0.7	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay				20.4								
HCM 6th LOS				C								

Tracy Transportation Master Plan Update
 72: Tracy Blvd & I-205 WB On-Ramp/I-205 WB Off-Ramp

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↖	↖	↖↗	↖			↗↖	
Traffic Volume (veh/h)	0	0	0	701	0	449	120	216	0	0	305	67
Future Volume (veh/h)	0	0	0	701	0	449	120	216	0	0	305	67
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				1856	1856	1781	1856	1781	0	0	1781	1781
Adj Flow Rate, veh/h				701	0	449	120	216	0	0	305	67
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				3	3	8	3	8	0	0	8	8
Cap, veh/h				1318	0	544	245	914	0	0	1063	230
Arrive On Green				0.37	0.00	0.36	0.14	1.00	0.00	0.00	0.77	0.74
Sat Flow, veh/h				3534	0	1510	3428	1781	0	0	2856	599
Grp Volume(v), veh/h				701	0	449	120	216	0	0	185	187
Grp Sat Flow(s),veh/h/ln				1767	0	1510	1714	1781	0	0	1692	1674
Q Serve(g_s), s				10.9	0.0	19.0	2.3	0.0	0.0	0.0	2.3	2.4
Cycle Q Clear(g_c), s				10.9	0.0	19.0	2.3	0.0	0.0	0.0	2.3	2.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				1318	0	544	245	914	0	0	650	643
V/C Ratio(X)				0.53	0.00	0.83	0.49	0.24	0.00	0.00	0.28	0.29
Avail Cap(c_a), veh/h				1464	0	606	245	914	0	0	650	643
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.95	0.95	0.00	0.00	0.96	0.96
Uniform Delay (d), s/veh				17.2	0.0	20.4	28.8	0.0	0.0	0.0	5.3	5.5
Incr Delay (d2), s/veh				0.5	0.0	9.0	1.9	0.6	0.0	0.0	1.1	1.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.0	0.0	7.3	0.9	0.1	0.0	0.0	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				17.6	0.0	29.4	30.7	0.6	0.0	0.0	6.3	6.6
LnGrp LOS				B	A	C	C	A	A	A	A	A
Approach Vol, veh/h					1150			336			372	
Approach Delay, s/veh					22.2			11.4			6.4	
Approach LOS					C			B			A	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		39.9			9.0	30.9		30.1				
Change Period (Y+Rc), s		4.9			4.0	4.9		4.9				
Max Green Setting (Gmax), s		32.1			5.0	23.1		28.1				
Max Q Clear Time (g_c+11), s		2.0			4.3	4.4		21.0				
Green Ext Time (p_c), s		0.8			0.0	1.4		4.2				

Intersection Summary

HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Tracy Transportation Master Plan Update
 73: Tracy Blvd & I-205 EB Off-Ramp/I-205 EB On-Ramp

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕			↗	↕
Traffic Volume (veh/h)	62	0	70	0	0	0	0	251	357	246	761	0
Future Volume (veh/h)	62	0	70	0	0	0	0	251	357	246	761	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			No
Adj Sat Flow, veh/h/ln	1781	1856	1856				0	1856	1856	1781	1856	0
Adj Flow Rate, veh/h	62	0	70				0	251	357	246	761	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	3	3				0	3	3	8	3	0
Cap, veh/h	149	0	112				0	464	414	795	2826	0
Arrive On Green	0.08	0.00	0.07				0.00	0.26	0.25	0.31	0.54	0.00
Sat Flow, veh/h	1767	0	1572				0	1856	1572	1697	3618	0
Grp Volume(v), veh/h	62	0	70				0	251	357	246	761	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572				0	1763	1572	1697	1763	0
Q Serve(g_s), s	2.3	0.0	3.0				0.0	8.6	15.2	7.7	8.2	0.0
Cycle Q Clear(g_c), s	2.3	0.0	3.0				0.0	8.6	15.2	7.7	8.2	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	149	0	112				0	464	414	795	2826	0
V/C Ratio(X)	0.42	0.00	0.63				0.00	0.54	0.86	0.31	0.27	0.00
Avail Cap(c_a), veh/h	528	0	449				0	481	429	795	2826	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.67	0.67	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.86	0.86	0.90	0.90	0.00
Uniform Delay (d), s/veh	30.4	0.0	31.6				0.0	22.2	25.0	15.4	5.1	0.0
Incr Delay (d2), s/veh	1.9	0.0	5.6				0.0	3.9	18.2	0.3	0.2	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	0.0	0.0	1.3				0.0	3.8	7.4	2.9	1.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.3	0.0	37.2				0.0	26.0	43.2	15.7	5.3	0.0
LnGrp LOS	C	A	D				A	C	D	B	A	A
Approach Vol, veh/h		132						608			1007	
Approach Delay, s/veh		34.9						36.1			7.8	
Approach LOS		C						D			A	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	37.7	22.4	9.9	60.1								
Change Period (Y+Rc), s	4.9	* 4.9	4.9	4.9								
Max Green Setting (Gmax), s	18.0	* 18	20.0	40.2								
Max Q Clear Time (g_c+I), s	19.7	17.2	5.0	10.2								
Green Ext Time (p_c), s	0.8	0.3	0.4	3.8								

Intersection Summary

HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
74: Tracy Blvd & GRANT LINE RD

Future 2042
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	268	81	95	316	49	67	331	79	162	417	178
Future Volume (veh/h)	123	268	81	95	316	49	67	331	79	162	417	178
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	123	268	81	95	316	49	67	331	79	162	417	178
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	240	565	167	218	607	93	184	616	145	242	627	265
Arrive On Green	0.14	0.21	0.20	0.12	0.20	0.19	0.10	0.22	0.20	0.14	0.26	0.24
Sat Flow, veh/h	1767	2682	794	1767	3064	470	1767	2832	667	1767	2415	1020
Grp Volume(v), veh/h	123	174	175	95	180	185	67	204	206	162	303	292
Grp Sat Flow(s),veh/h/ln	1767	1763	1713	1767	1763	1771	1767	1763	1736	1767	1763	1672
Q Serve(g_s), s	3.4	4.6	4.8	2.6	4.8	4.9	1.9	5.4	5.6	4.6	8.1	8.3
Cycle Q Clear(g_c), s	3.4	4.6	4.8	2.6	4.8	4.9	1.9	5.4	5.6	4.6	8.1	8.3
Prop In Lane	1.00		0.46	1.00		0.27	1.00		0.38	1.00		0.61
Lane Grp Cap(c), veh/h	240	372	361	218	349	351	184	383	377	242	458	434
V/C Ratio(X)	0.51	0.47	0.48	0.44	0.52	0.53	0.36	0.53	0.55	0.67	0.66	0.67
Avail Cap(c_a), veh/h	284	1082	1051	284	1082	1087	314	1098	1081	317	1118	1061
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	1.00	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	21.3	18.3	18.5	21.5	19.0	19.1	22.1	18.3	18.6	21.7	17.5	17.9
Incr Delay (d2), s/veh	0.6	0.9	1.0	0.5	1.2	1.2	0.4	1.2	1.2	1.5	1.6	1.8
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	1.3	1.7	1.7	1.0	1.8	1.9	0.7	2.1	2.1	1.8	3.1	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.9	19.2	19.5	22.0	20.1	20.3	22.5	19.5	19.8	23.2	19.2	19.7
LnGrp LOS	C	B	B	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		472			460			477			757	
Approach Delay, s/veh		20.0			20.6			20.1			20.2	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.8	15.5	10.5	15.2	9.5	17.8	11.2	14.5				
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5				
Max Green Setting (Gmax), s	32.0	32.0	8.0	32.0	8.9	32.6	8.0	32.0				
Max Q Clear Time (g_c+10), s	10.6	7.6	4.6	6.8	3.9	10.3	5.4	6.9				
Green Ext Time (p_c), s	0.1	1.6	0.0	1.3	0.0	2.4	0.0	1.3				

Intersection Summary

HCM 6th Ctrl Delay	20.2
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)	130	790	122	153	576	80	190	564	285	56	210	127
Future Volume (veh/h)	130	790	122	153	576	80	190	564	285	56	210	127
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	130	790	122	153	576	80	190	564	285	56	210	127
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	426	1095	488	439	1108	494	451	911	406	317	773	345
Arrive On Green	0.12	0.31	0.31	0.13	0.31	0.31	0.13	0.26	0.26	0.09	0.22	0.22
Sat Flow, veh/h	3428	3526	1572	3428	3526	1572	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	130	790	122	153	576	80	190	564	285	56	210	127
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1714	1763	1572	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	2.3	13.2	3.9	2.7	8.9	2.4	3.4	9.4	10.9	1.0	3.3	4.6
Cycle Q Clear(g_c), s	2.3	13.2	3.9	2.7	8.9	2.4	3.4	9.4	10.9	1.0	3.3	4.6
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	426	1095	488	439	1108	494	451	911	406	317	773	345
V/C Ratio(X)	0.30	0.72	0.25	0.35	0.52	0.16	0.42	0.62	0.70	0.18	0.27	0.37
Avail Cap(c_a), veh/h	464	1907	851	469	1912	853	562	1955	872	464	1854	827
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	1.00	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	26.5	20.4	17.1	26.5	18.7	16.5	26.6	21.8	22.4	27.9	21.6	22.1
Incr Delay (d2), s/veh	0.1	0.7	0.2	0.2	0.3	0.1	0.2	0.3	0.8	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.1	1.3	1.1	3.4	0.8	1.3	3.6	3.8	0.4	1.3	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	21.1	17.3	26.7	19.0	16.6	26.8	22.0	23.2	28.0	21.6	22.3
LnGrp LOS	C	C	B	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1042			809			1039			393	
Approach Delay, s/veh		21.3			20.2			23.2			22.8	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	2.0	24.2	12.3	18.1	11.8	24.4	9.7	20.7				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5				
Max Green Setting (Gmax), s	3.0	34.0	9.9	33.0	8.0	34.1	8.0	34.9				
Max Q Clear Time (g_c+14), s	1.0	15.2	5.4	6.6	4.3	10.9	3.0	12.9				
Green Ext Time (p_c), s	0.1	3.4	0.2	0.8	0.1	2.4	0.0	2.3				

Intersection Summary

HCM 6th Ctrl Delay	21.8
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)	20	25	25	76	20	35	20	1033	216	42	384	20
Future Volume (veh/h)	20	25	25	76	20	35	20	1033	216	42	384	20
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	20	25	25	76	20	35	20	1033	0	42	384	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	148	134	98	248	67	68	70	1522		129	1625	84
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.04	0.43	0.00	0.07	0.48	0.48
Sat Flow, veh/h	259	804	591	716	404	408	1767	3618	0	1767	3409	177
Grp Volume(v), veh/h	70	0	0	131	0	0	20	1033	0	42	198	206
Grp Sat Flow(s),veh/h/ln	1654	0	0	1529	0	0	1767	1763	0	1767	1763	1824
Q Serve(g_s), s	0.0	0.0	0.0	1.7	0.0	0.0	0.5	10.4	0.0	1.0	2.9	2.9
Cycle Q Clear(g_c), s	1.5	0.0	0.0	3.3	0.0	0.0	0.5	10.4	0.0	1.0	2.9	2.9
Prop In Lane	0.29		0.36	0.58		0.27	1.00		0.00	1.00		0.10
Lane Grp Cap(c), veh/h	380	0	0	383	0	0	70	1522		129	840	869
V/C Ratio(X)	0.18	0.00	0.00	0.34	0.00	0.00	0.29	0.68		0.33	0.24	0.24
Avail Cap(c_a), veh/h	982	0	0	940	0	0	325	2306		325	1153	1193
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	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.0	0.0	0.0	16.6	0.0	0.0	20.6	10.1	0.0	19.4	6.8	6.8
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.4	0.0	0.0	0.8	0.5	0.0	0.5	0.1	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	0.5	0.0	0.0	1.1	0.0	0.0	0.2	2.9	0.0	0.4	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.0	0.0	0.0	17.0	0.0	0.0	21.4	10.6	0.0	19.9	6.9	6.9
LnGrp LOS	B	A	A	B	A	A	C	B		B	A	A
Approach Vol, veh/h		70			131			1053	A		446	
Approach Delay, s/veh		16.0			17.0			10.8			8.2	
Approach LOS		B			B			B			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	24.0		11.8	6.2	26.0		11.8				
Change Period (Y+Rc), s	5.0	* 5		4.5	4.5	5.0		4.5				
Max Green Setting (Gmax), s	29.0	* 29		24.1	8.1	28.8		24.1				
Max Q Clear Time (g_c+1/3), s	12.4			3.5	2.5	4.9		5.3				
Green Ext Time (p_c), s	0.0	6.6		0.2	0.0	2.3		0.5				

Intersection Summary

HCM 6th Ctrl Delay	10.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection

Int Delay, s/veh 3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	59	20	25	40	20	48	20	971	121	55	359	12
Future Vol, veh/h	59	20	25	40	20	48	20	971	121	55	359	12
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	120	-	-
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	59	20	25	40	20	48	20	971	121	55	359	12

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1011	1607	186	1372	1553	546	371	0	0	1092	0	0
Stage 1	475	475	-	1072	1072	-	-	-	-	-	-	-
Stage 2	536	1132	-	300	481	-	-	-	-	-	-	-
Critical Hdwy	5	5	5	5	5	5	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	395	207	909	276	218	645	1177	-	-	629	-	-
Stage 1	537	553	-	234	293	-	-	-	-	-	-	-
Stage 2	494	274	-	681	550	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	311	186	909	227	196	645	1177	-	-	629	-	-
Mov Cap-2 Maneuver	311	186	-	227	196	-	-	-	-	-	-	-
Stage 1	528	505	-	230	288	-	-	-	-	-	-	-
Stage 2	418	269	-	580	502	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.6	23	0.1	1.5
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1177	-	-	320	306	629	-	-
HCM Lane V/C Ratio	0.017	-	-	0.325	0.353	0.087	-	-
HCM Control Delay (s)	8.1	-	-	21.6	23	11.3	-	-
HCM Lane LOS	A	-	-	C	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.4	1.5	0.3	-	-

Tracy Transportation Master Plan Update
78: TRACY BLVD & SCHULTE ROAD

Future 2042
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘		↗	↗↘	↗	↗	↗↘	↗
Traffic Volume (veh/h)	248	292	79	103	431	92	208	794	149	36	297	63
Future Volume (veh/h)	248	292	79	103	431	92	208	794	149	36	297	63
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	248	292	79	103	431	92	208	794	149	36	297	63
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	295	772	205	155	582	123	172	1044	466	77	855	382
Arrive On Green	0.17	0.28	0.28	0.09	0.20	0.20	0.10	0.30	0.30	0.04	0.24	0.24
Sat Flow, veh/h	1767	2754	732	1767	2895	613	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	248	185	186	103	261	262	208	794	149	36	297	63
Grp Sat Flow(s),veh/h/ln	1767	1763	1724	1767	1763	1745	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	9.1	5.6	5.8	3.8	9.3	9.4	6.5	13.7	4.9	1.3	4.7	2.1
Cycle Q Clear(g_c), s	9.1	5.6	5.8	3.8	9.3	9.4	6.5	13.7	4.9	1.3	4.7	2.1
Prop In Lane	1.00		0.42	1.00		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	295	494	483	155	354	351	172	1044	466	77	855	382
V/C Ratio(X)	0.84	0.37	0.38	0.67	0.74	0.75	1.21	0.76	0.32	0.47	0.35	0.17
Avail Cap(c_a), veh/h	720	845	826	821	945	936	172	1663	742	159	1637	730
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	1.00	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	26.9	19.3	19.4	29.5	25.0	25.1	30.1	21.3	18.3	31.2	20.9	19.9
Incr Delay (d2), s/veh	2.5	0.5	0.5	1.8	3.0	3.2	135.9	1.2	0.4	1.6	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	2.1	2.2	1.6	3.8	3.8	9.1	5.3	1.7	0.6	1.8	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.4	19.8	19.9	31.4	28.0	28.3	166.0	22.5	18.7	32.8	21.1	20.1
LnGrp LOS	C	B	B	C	C	C	F	C	B	C	C	C
Approach Vol, veh/h		619			626			1151			396	
Approach Delay, s/veh		23.7			28.7			47.9			22.0	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.6	18.9	7.4	24.8	10.3	24.2	11.0	21.2				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.0	4.5	5.5	4.5	5.0				
Max Green Setting (Gmax), s	27.2	35.8	6.0	31.5	31.0	32.0	6.5	31.0				
Max Q Clear Time (g_c+I1), s	11.1	11.4	3.3	15.7	5.8	7.8	8.5	6.7				
Green Ext Time (p_c), s	0.2	2.0	0.0	4.1	0.1	1.4	0.0	1.5				

Intersection Summary

HCM 6th Ctrl Delay	34.6
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)	47	131	62	93	25	67	27	983	278	25	392	24
Future Volume (veh/h)	47	131	62	93	25	67	27	983	278	25	392	24
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	47	131	62	93	25	67	27	983	278	25	392	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	121	169	80	168	75	202	82	1258	354	78	1554	95
Arrive On Green	0.07	0.14	0.14	0.10	0.17	0.17	0.05	0.46	0.46	0.04	0.46	0.46
Sat Flow, veh/h	1767	1191	563	1767	446	1195	1767	2716	765	1767	3375	206
Grp Volume(v), veh/h	47	0	193	93	0	92	27	637	624	25	204	212
Grp Sat Flow(s),veh/h/ln	1767	0	1754	1767	0	1640	1767	1763	1718	1767	1763	1818
Q Serve(g_s), s	1.8	0.0	7.5	3.5	0.0	3.5	1.0	21.4	21.6	1.0	5.0	5.0
Cycle Q Clear(g_c), s	1.8	0.0	7.5	3.5	0.0	3.5	1.0	21.4	21.6	1.0	5.0	5.0
Prop In Lane	1.00		0.32	1.00		0.73	1.00		0.45	1.00		0.11
Lane Grp Cap(c), veh/h	121	0	249	168	0	277	82	817	796	78	812	838
V/C Ratio(X)	0.39	0.00	0.78	0.55	0.00	0.33	0.33	0.78	0.78	0.32	0.25	0.25
Avail Cap(c_a), veh/h	203	0	715	218	0	683	203	914	891	203	914	943
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	31.4	0.0	29.1	30.4	0.0	25.8	32.5	15.9	15.9	32.6	11.6	11.6
Incr Delay (d2), s/veh	0.8	0.0	2.0	1.1	0.0	0.3	0.8	4.6	4.9	0.9	0.3	0.3
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	0.8	0.0	3.1	1.5	0.0	1.3	0.4	8.2	8.1	0.4	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	0.0	31.1	31.5	0.0	26.0	33.3	20.5	20.8	33.5	11.9	11.9
LnGrp LOS	C	A	C	C	A	C	C	C	C	C	B	B
Approach Vol, veh/h		240			185			1288			441	
Approach Delay, s/veh		31.3			28.8			20.9			13.1	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	37.1	11.2	14.5	7.8	36.9	9.3	16.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	36.5	36.5	8.7	28.7	8.1	36.5	8.1	29.3				
Max Q Clear Time (g_c+1), s	13.0	23.6	5.5	9.5	3.0	7.0	3.8	5.5				
Green Ext Time (p_c), s	0.0	9.0	0.0	0.4	0.0	4.1	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay	21.1
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)	96	222	139	258	277	269	155	584	121	167	470	91
Future Volume (veh/h)	96	222	139	258	277	269	155	584	121	167	470	91
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		No		No
Adj Sat Flow, veh/h/ln	1885	1885	1885	1870	1870	1870	1900	1885	1826	1870	1856	1900
Adj Flow Rate, veh/h	96	222	139	258	277	269	155	584	121	167	470	91
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	2	2	2	0	1	5	2	3	0
Cap, veh/h	185	459	276	432	837	373	214	866	374	213	718	138
Arrive On Green	0.10	0.21	0.21	0.12	0.24	0.24	0.12	0.24	0.24	0.12	0.24	0.24
Sat Flow, veh/h	1795	2151	1292	3456	3554	1585	1810	3582	1547	1781	2949	568
Grp Volume(v), veh/h	96	183	178	258	277	269	155	584	121	167	280	281
Grp Sat Flow(s),veh/h/ln	1795	1791	1653	1728	1777	1585	1810	1791	1547	1781	1763	1753
Q Serve(g_s), s	3.2	5.7	6.0	4.5	4.1	9.9	5.2	9.4	4.1	5.8	9.0	9.1
Cycle Q Clear(g_c), s	3.2	5.7	6.0	4.5	4.1	9.9	5.2	9.4	4.1	5.8	9.0	9.1
Prop In Lane	1.00		0.78	1.00		1.00	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	185	382	353	432	837	373	214	866	374	213	429	427
V/C Ratio(X)	0.52	0.48	0.50	0.60	0.33	0.72	0.73	0.67	0.32	0.78	0.65	0.66
Avail Cap(c_a), veh/h	227	1047	966	437	2077	926	243	2121	916	239	1044	1038
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	1.00	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	26.9	21.8	21.9	26.2	20.1	22.3	26.9	21.7	19.7	27.1	21.5	21.6
Incr Delay (d2), s/veh	0.8	1.1	1.3	1.5	0.3	3.2	7.0	1.1	0.6	12.1	2.0	2.1
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	1.3	2.3	2.2	1.8	1.5	3.6	2.4	3.5	1.4	3.0	3.6	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.7	22.9	23.3	27.7	20.4	25.5	34.0	22.9	20.3	39.2	23.6	23.7
LnGrp LOS	C	C	C	C	C	C	C	C	C	D	C	C
Approach Vol, veh/h		457			804			860			728	
Approach Delay, s/veh		24.1			24.4			24.5			27.2	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.1	20.3	12.4	18.5	12.0	20.4	11.0	19.9				
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0				
Max Green Setting (Gmax), s	37.5	37.5	8.0	37.0	8.5	37.5	8.0	37.0				
Max Q Clear Time (g_c+1), s	11.4	11.4	6.5	8.0	7.2	11.1	5.2	11.9				
Green Ext Time (p_c), s	0.0	4.0	0.1	1.8	0.0	2.8	0.0	3.0				

Intersection Summary

HCM 6th Ctrl Delay	25.1
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
 81: TRACY BLVD & Whispering Wind Dr

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↗		↖	↗	
Traffic Volume (veh/h)	435	36	35	42	95	276	96	297	34	122	489	221
Future Volume (veh/h)	435	36	35	42	95	276	96	297	34	122	489	221
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	435	36	35	42	95	276	96	297	34	122	489	221
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	423	350	340	80	392	332	122	795	90	141	614	276
Arrive On Green	0.24	0.41	0.41	0.05	0.21	0.21	0.07	0.25	0.25	0.08	0.26	0.26
Sat Flow, veh/h	1767	864	840	1767	1856	1572	1767	3191	362	1767	2364	1063
Grp Volume(v), veh/h	435	0	71	42	95	276	96	163	168	122	364	346
Grp Sat Flow(s),veh/h/ln	1767	0	1704	1767	1856	1572	1767	1763	1790	1767	1763	1664
Q Serve(g_s), s	19.5	0.0	2.1	1.9	3.5	13.7	4.4	6.2	6.3	5.6	15.7	15.8
Cycle Q Clear(g_c), s	19.5	0.0	2.1	1.9	3.5	13.7	4.4	6.2	6.3	5.6	15.7	15.8
Prop In Lane	1.00		0.49	1.00		1.00	1.00		0.20	1.00		0.64
Lane Grp Cap(c), veh/h	423	0	691	80	392	332	122	439	446	141	458	432
V/C Ratio(X)	1.03	0.00	0.10	0.53	0.24	0.83	0.79	0.37	0.38	0.87	0.79	0.80
Avail Cap(c_a), veh/h	423	0	874	145	660	559	130	584	593	141	595	561
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	31.0	0.0	15.0	38.1	26.7	30.8	37.3	25.3	25.4	37.1	28.1	28.2
Incr Delay (d2), s/veh	51.4	0.0	0.1	2.0	0.4	6.4	22.7	0.6	0.6	38.1	6.1	6.7
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	4.0	0.0	0.8	0.9	1.5	5.6	2.5	2.5	2.6	3.8	6.8	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.4	0.0	15.1	40.1	27.1	37.2	60.0	26.0	26.0	75.2	34.2	34.9
LnGrp LOS	F	A	B	D	C	D	E	C	C	E	C	C
Approach Vol, veh/h		506			413			427			832	
Approach Delay, s/veh		73.0			35.2			33.6			40.5	
Approach LOS		E			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	24.8	8.2	37.5	10.1	25.7	24.0	21.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	0.5	27.0	6.7	41.8	6.0	27.5	19.5	29.0				
Max Q Clear Time (g_c+1), s	0.5	8.3	3.9	4.1	6.4	17.8	21.5	15.7				
Green Ext Time (p_c), s	0.0	1.9	0.0	0.5	0.0	3.3	0.0	1.5				

Intersection Summary

HCM 6th Ctrl Delay	45.7
HCM 6th LOS	D

Notes

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

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↕		↘	↕
Traffic Vol, veh/h	21	25	260	44	125	554
Future Vol, veh/h	21	25	260	44	125	554
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	100	-	-	120	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	21	25	260	44	125	554

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	809	152	0	0	304
Stage 1	282	-	-	-	-
Stage 2	527	-	-	-	-
Critical Hdwy	6.86	6.96	-	-	4.16
Critical Hdwy Stg 1	5.86	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-
Follow-up Hdwy	3.53	3.33	-	-	2.23
Pot Cap-1 Maneuver	316	864	-	-	1246
Stage 1	738	-	-	-	-
Stage 2	554	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	284	864	-	-	1246
Mov Cap-2 Maneuver	284	-	-	-	-
Stage 1	738	-	-	-	-
Stage 2	499	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.6	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	284	864	1246	-
HCM Lane V/C Ratio	-	-	0.074	0.029	0.1	-
HCM Control Delay (s)	-	-	18.7	9.3	8.2	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.1	0.3	-

Tracy Transportation Master Plan Update
 83: TRACY BLVD & LINNE

Future 2042
 AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	269	25	25	726	122	25	36	25	238	25	355
Future Volume (veh/h)	146	269	25	25	726	122	25	36	25	238	25	355
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	146	269	25	25	726	122	25	36	25	238	25	355
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	728	1314	121	606	1216	204	364	348	242	653	36	506
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1251	3263	301	1077	3020	507	995	1020	708	1331	105	1484
Grp Volume(v), veh/h	146	144	150	25	424	424	25	0	61	238	0	380
Grp Sat Flow(s),veh/h/ln	625	1763	1801	1077	1763	1764	995	0	1728	1331	0	1588
Q Serve(g_s), s	3.2	1.7	1.7	0.5	5.9	5.9	0.7	0.0	0.8	4.6	0.0	6.5
Cycle Q Clear(g_c), s	9.2	1.7	1.7	2.2	5.9	5.9	7.2	0.0	0.8	5.4	0.0	6.5
Prop In Lane	1.00		0.17	1.00		0.29	1.00		0.41	1.00		0.93
Lane Grp Cap(c), veh/h	728	710	725	606	710	710	364	0	590	653	0	542
V/C Ratio(X)	0.20	0.20	0.21	0.04	0.60	0.60	0.07	0.00	0.10	0.36	0.00	0.70
Avail Cap(c_a), veh/h	945	1016	1038	793	1016	1017	630	0	1051	1008	0	966
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.9	6.1	6.1	6.8	7.3	7.3	12.0	0.0	7.0	8.9	0.0	8.9
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.0	0.8	0.8	0.1	0.0	0.1	0.3	0.0	1.7
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	0.3	0.3	0.3	0.1	1.1	1.1	0.1	0.0	0.2	0.9	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.1	6.2	6.2	6.8	8.1	8.1	12.1	0.0	7.1	9.2	0.0	10.6
LnGrp LOS	B	A	A	A	A	A	B	A	A	A	A	B
Approach Vol, veh/h		440			873			86				618
Approach Delay, s/veh		7.8			8.1			8.6				10.0
Approach LOS		A			A			A				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		14.7		16.6		14.7		16.6				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		19.0		18.0		19.0		18.0				
Max Q Clear Time (g_c+I1), s		9.2		11.2		8.5		7.9				
Green Ext Time (p_c), s		0.2		1.4		2.2		2.7				
Intersection Summary												
HCM 6th Ctrl Delay				8.7								
HCM 6th LOS				A								

Tracy Transportation Master Plan Update
 84: CENTRAL AVE/Holly Dr & ELEVENTH ST.

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	714	85	124	640	55	64	358	117	39	97	63
Future Volume (veh/h)	251	714	85	124	640	55	64	358	117	39	97	63
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	251	714	85	124	640	55	64	358	117	39	97	63
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	297	1054	125	158	809	69	81	397	130	54	521	441
Arrive On Green	0.17	0.33	0.33	0.09	0.25	0.25	0.05	0.30	0.30	0.03	0.28	0.28
Sat Flow, veh/h	1767	3173	377	1767	3286	282	1767	1339	438	1767	1856	1572
Grp Volume(v), veh/h	251	396	403	124	343	352	64	0	475	39	97	63
Grp Sat Flow(s),veh/h/ln	1767	1763	1788	1767	1763	1805	1767	0	1777	1767	1856	1572
Q Serve(g_s), s	9.6	13.5	13.5	4.8	12.7	12.7	2.5	0.0	17.8	1.5	2.8	2.1
Cycle Q Clear(g_c), s	9.6	13.5	13.5	4.8	12.7	12.7	2.5	0.0	17.8	1.5	2.8	2.1
Prop In Lane	1.00		0.21	1.00		0.16	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	297	585	594	158	434	444	81	0	526	54	521	441
V/C Ratio(X)	0.85	0.68	0.68	0.79	0.79	0.79	0.79	0.00	0.90	0.72	0.19	0.14
Avail Cap(c_a), veh/h	382	835	847	229	683	699	206	0	678	104	601	509
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	20.0	20.0	31.0	24.5	24.5	32.8	0.0	23.5	33.4	19.0	18.7
Incr Delay (d2), s/veh	10.7	1.4	1.4	6.2	3.3	3.3	6.1	0.0	11.3	6.7	0.1	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	4.7	5.3	5.4	2.2	5.4	5.5	1.2	0.0	8.6	0.7	1.1	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.7	21.4	21.4	37.2	27.8	27.8	38.9	0.0	34.8	40.1	19.0	18.8
LnGrp LOS	D	C	C	D	C	C	D	A	C	D	B	B
Approach Vol, veh/h		1050			819			539			199	
Approach Delay, s/veh		25.5			29.2			35.3			23.1	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.2	21.6	7.7	24.0	10.2	27.6	6.6	25.1				
Change Period (Y+Rc), s	4.5	* 4.5	4.5	4.5	4.0	4.5	4.5	4.5				
Max Green Setting (Gmax), s	15.0	* 27	8.1	22.5	9.0	32.9	4.1	26.5				
Max Q Clear Time (g_c+I1), s	11.6	14.7	4.5	4.8	6.8	15.5	3.5	19.8				
Green Ext Time (p_c), s	0.2	2.4	0.0	0.3	0.0	3.3	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
 85: CENTRAL AVE & SCHULTE ROAD

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗		↖	↖		↖	↖	
Traffic Volume (veh/h)	193	302	34	34	476	127	30	411	80	20	72	71
Future Volume (veh/h)	193	302	34	34	476	127	30	411	80	20	72	71
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	193	302	34	34	476	127	30	411	80	20	72	71
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	213	1005	112	77	654	173	70	484	94	50	265	262
Arrive On Green	0.12	0.31	0.31	0.04	0.24	0.24	0.04	0.32	0.32	0.03	0.31	0.31
Sat Flow, veh/h	1767	3197	357	1767	2756	731	1767	1509	294	1767	858	846
Grp Volume(v), veh/h	193	165	171	34	303	300	30	0	491	20	0	143
Grp Sat Flow(s),veh/h/ln	1767	1763	1791	1767	1763	1724	1767	0	1803	1767	0	1703
Q Serve(g_s), s	6.3	4.1	4.2	1.1	9.2	9.3	1.0	0.0	14.8	0.6	0.0	3.7
Cycle Q Clear(g_c), s	6.3	4.1	4.2	1.1	9.2	9.3	1.0	0.0	14.8	0.6	0.0	3.7
Prop In Lane	1.00		0.20	1.00		0.42	1.00		0.16	1.00		0.50
Lane Grp Cap(c), veh/h	213	554	563	77	419	409	70	0	578	50	0	527
V/C Ratio(X)	0.91	0.30	0.30	0.44	0.72	0.73	0.43	0.00	0.85	0.40	0.00	0.27
Avail Cap(c_a), veh/h	213	759	771	183	729	713	183	0	807	183	0	763
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.2	15.1	15.1	27.1	20.4	20.4	27.2	0.0	18.4	27.7	0.0	15.1
Incr Delay (d2), s/veh	36.2	0.4	0.4	1.5	2.9	3.1	1.5	0.0	6.7	1.9	0.0	0.3
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	4.5	1.5	1.5	0.4	3.6	3.6	0.4	0.0	6.5	0.3	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.4	15.4	15.4	28.5	23.3	23.5	28.8	0.0	25.1	29.6	0.0	15.4
LnGrp LOS	E	B	B	C	C	C	C	A	C	C	A	B
Approach Vol, veh/h		529			637			521			163	
Approach Delay, s/veh		32.2			23.7			25.3			17.2	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	18.3	6.3	22.5	6.5	22.8	5.7	23.1				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.0	4.5	4.0	4.5				
Max Green Setting (Gmax), s	3.0	24.0	6.0	26.0	6.0	25.0	6.0	26.0				
Max Q Clear Time (g_c+1/3), s	1.0	11.3	3.0	5.7	3.1	6.2	2.6	16.8				
Green Ext Time (p_c), s	0.0	2.5	0.0	0.6	0.0	1.4	0.0	1.9				

Intersection Summary

HCM 6th Ctrl Delay	26.0
HCM 6th LOS	C

Intersection

Intersection Delay, s/veh 9.7
 Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	25	53	25	25	25	25	29	25	106	20	266	29
Future Vol, veh/h	25	53	25	25	25	25	29	25	106	20	266	29
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	8	8	8	8	3	8	3	8	3	3	3
Mvmt Flow	25	53	25	25	25	25	29	25	106	20	266	29
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.9	8.8	8.7	10.6
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	24%	33%	6%
Vol Thru, %	16%	51%	33%	84%
Vol Right, %	66%	24%	33%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	160	103	75	315
LT Vol	29	25	25	20
Through Vol	25	53	25	266
RT Vol	106	25	25	29
Lane Flow Rate	160	103	75	315
Geometry Grp	1	1	1	1
Degree of Util (X)	0.199	0.144	0.107	0.397
Departure Headway (Hd)	4.485	5.032	5.122	4.538
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	797	709	695	791
Service Time	2.534	3.092	3.185	2.58
HCM Lane V/C Ratio	0.201	0.145	0.108	0.398
HCM Control Delay	8.7	8.9	8.8	10.6
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.7	0.5	0.4	1.9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕		↕	↑			↕	
Traffic Volume (veh/h)	0	0	0	791	0	82	232	56	0	0	283	78
Future Volume (veh/h)	0	0	0	791	0	82	232	56	0	0	283	78
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				No
Adj Sat Flow, veh/h/ln				1678	1856	1781	1678	1781	0	0	1781	1781
Adj Flow Rate, veh/h				791	0	82	232	56	0	0	283	78
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				15	3	8	15	8	0	0	8	8
Cap, veh/h				743	0	77	335	728	0	0	315	87
Arrive On Green				0.47	0.00	0.47	0.11	0.41	0.00	0.00	0.23	0.23
Sat Flow, veh/h				1583	0	164	3100	1781	0	0	1344	370
Grp Volume(v), veh/h				873	0	0	232	56	0	0	0	361
Grp Sat Flow(s),veh/h/ln				1747	0	0	1550	1781	0	0	0	1715
Q Serve(g_s), s				35.0	0.0	0.0	5.4	1.4	0.0	0.0	0.0	15.2
Cycle Q Clear(g_c), s				35.0	0.0	0.0	5.4	1.4	0.0	0.0	0.0	15.2
Prop In Lane				0.91		0.09	1.00		0.00	0.00		0.22
Lane Grp Cap(c), veh/h				820	0	0	335	728	0	0	0	402
V/C Ratio(X)				1.06	0.00	0.00	0.69	0.08	0.00	0.00	0.00	0.90
Avail Cap(c_a), veh/h				820	0	0	1247	728	0	0	0	575
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	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				19.8	0.0	0.0	32.0	13.5	0.0	0.0	0.0	27.7
Incr Delay (d2), s/veh				50.1	0.0	0.0	1.9	0.0	0.0	0.0	0.0	10.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				23.6	0.0	0.0	2.0	0.5	0.0	0.0	0.0	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				69.8	0.0	0.0	34.0	13.5	0.0	0.0	0.0	37.8
LnGrp LOS				F	A	A	C	B	A	A	A	D
Approach Vol, veh/h						873		288				361
Approach Delay, s/veh						69.8		30.0				37.8
Approach LOS						E		C				D
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		35.4			13.0	22.4		39.2				
Change Period (Y+Rc), s		4.9			4.9	4.9		4.2				
Max Green Setting (Gmax), s		25.0			30.0	25.0		35.0				
Max Q Clear Time (g_c+I1), s		3.4			7.4	17.2		37.0				
Green Ext Time (p_c), s		0.1			0.8	0.3		0.0				
Intersection Summary												
HCM 6th Ctrl Delay												54.7
HCM 6th LOS												D

Tracy Transportation Master Plan Update
 88: MACARTHUR DRIVE (N) & I-205 EAST OFF RAMP/I-205 EAST ON RAMP

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↑↑	↑	↘	↑↑	
Traffic Volume (veh/h)	52	0	315	0	0	0	0	204	400	126	957	0
Future Volume (veh/h)	52	0	315	0	0	0	0	204	400	126	957	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	1781	1856	1678				0	1678	1678	1781	1678	0
Adj Flow Rate, veh/h	52	0	315				0	204	400	126	957	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	3	15				0	15	15	8	15	0
Cap, veh/h	61	0	371				0	1198	534	164	1756	0
Arrive On Green	0.27	0.00	0.27				0.00	0.38	0.38	0.10	0.55	0.00
Sat Flow, veh/h	226	0	1371				0	3272	1422	1697	3272	0
Grp Volume(v), veh/h	367	0	0				0	204	400	126	957	0
Grp Sat Flow(s),veh/h/ln	1597	0	0				0	1594	1422	1697	1594	0
Q Serve(g_s), s	11.1	0.0	0.0				0.0	2.2	12.5	3.7	9.8	0.0
Cycle Q Clear(g_c), s	11.1	0.0	0.0				0.0	2.2	12.5	3.7	9.8	0.0
Prop In Lane	0.14		0.86				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	432	0	0				0	1198	534	164	1756	0
V/C Ratio(X)	0.85	0.00	0.00				0.00	0.17	0.75	0.77	0.54	0.00
Avail Cap(c_a), veh/h	783	0	0				0	3438	1534	499	3438	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	1.00	0.00
Uniform Delay (d), s/veh	17.6	0.0	0.0				0.0	10.6	13.8	22.5	7.3	0.0
Incr Delay (d2), s/veh	1.8	0.0	0.0				0.0	0.1	3.0	7.3	0.4	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	3.7	0.0	0.0				0.0	0.6	3.5	1.6	2.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.4	0.0	0.0				0.0	10.7	16.8	29.7	7.7	0.0
LnGrp LOS	B	A	A				A	B	B	C	A	A
Approach Vol, veh/h		367						604			1083	
Approach Delay, s/veh		19.4						14.8			10.3	
Approach LOS		B						B			B	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	8.9	24.1	18.0	33.0								
Change Period (Y+Rc), s	4.0	4.9	* 4.2	4.9								
Max Green Setting (Gmax), s	15.0	55.0	* 25	55.0								
Max Q Clear Time (g_c+I), s	15.7	14.5	13.1	11.8								
Green Ext Time (p_c), s	0.2	4.7	0.8	8.5								

Intersection Summary

HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
 89: MACARTHUR DRIVE (N) & PESCADERO AVE

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	20	34	43	25	123	25	413	64	268	900	25
Future Volume (veh/h)	25	20	34	43	25	123	25	413	64	268	900	25
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	1856	1856	1856	1678	1856	1678	1856	1678	1678	1678	1678	1856
Adj Flow Rate, veh/h	25	20	34	43	25	123	25	413	64	268	900	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	15	3	15	3	15	15	15	15	3
Cap, veh/h	80	119	203	109	401	307	80	841	129	404	1239	611
Arrive On Green	0.05	0.19	0.19	0.07	0.22	0.22	0.05	0.30	0.30	0.13	0.39	0.39
Sat Flow, veh/h	1767	617	1049	1598	1856	1422	1767	2769	426	3100	3188	1572
Grp Volume(v), veh/h	25	0	54	43	25	123	25	237	240	268	900	25
Grp Sat Flow(s),veh/h/ln	1767	0	1667	1598	1856	1422	1767	1594	1601	1550	1594	1572
Q Serve(g_s), s	0.8	0.0	1.6	1.6	0.7	4.5	0.8	7.4	7.5	5.0	14.6	0.6
Cycle Q Clear(g_c), s	0.8	0.0	1.6	1.6	0.7	4.5	0.8	7.4	7.5	5.0	14.6	0.6
Prop In Lane	1.00		0.63	1.00		1.00	1.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	80	0	322	109	401	307	80	484	486	404	1239	611
V/C Ratio(X)	0.31	0.00	0.17	0.40	0.06	0.40	0.31	0.49	0.49	0.66	0.73	0.04
Avail Cap(c_a), veh/h	233	0	933	211	1039	796	233	761	765	536	1654	816
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	28.1	0.0	20.4	27.1	18.9	20.4	28.1	17.3	17.3	25.1	15.8	11.5
Incr Delay (d2), s/veh	0.8	0.0	0.2	0.9	0.0	0.3	0.8	1.1	1.1	0.7	1.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.6	0.6	0.3	1.4	0.3	2.5	2.5	1.7	4.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.9	0.0	20.7	28.0	18.9	20.7	28.9	18.4	18.4	25.8	17.2	11.6
LnGrp LOS	C	A	C	C	B	C	C	B	B	C	B	B
Approach Vol, veh/h		79			191			502			1193	
Approach Delay, s/veh		23.3			22.1			18.9			19.0	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.4	23.4	8.6	16.2	7.3	28.6	7.3	17.6				
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5				
Max Green Setting (Gmax), s	10.5	29.0	8.0	34.0	8.0	31.5	8.0	34.0				
Max Q Clear Time (g_c+1), s	17.0	9.5	3.6	3.6	2.8	16.6	2.8	6.5				
Green Ext Time (p_c), s	0.2	3.6	0.0	0.3	0.0	7.0	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

Notes

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

Tracy Transportation Master Plan Update
 90: MACARTHUR DRIVE (N) & GRANT LINE RD

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	237	250	63	27	277	100	39	160	22	198	348	399
Future Volume (veh/h)	237	250	63	27	277	100	39	160	22	198	348	399
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		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1678	1870	1678	1870	1678	1678	1678	1678	1870
Adj Flow Rate, veh/h	237	250	63	27	277	100	39	160	22	198	348	399
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	15	2	15	2	15	15	15	15	2
Cap, veh/h	279	751	186	56	513	205	81	736	100	234	576	514
Arrive On Green	0.16	0.27	0.27	0.03	0.14	0.14	0.05	0.26	0.26	0.15	0.36	0.36
Sat Flow, veh/h	1781	2824	698	1598	3554	1422	1781	2821	382	1598	1594	1422
Grp Volume(v), veh/h	237	155	158	27	277	100	39	89	93	198	348	399
Grp Sat Flow(s),veh/h/ln	1781	1777	1745	1598	1777	1422	1781	1594	1609	1598	1594	1422
Q Serve(g_s), s	9.1	4.9	5.1	1.2	5.1	4.5	1.5	3.1	3.2	8.5	12.5	17.5
Cycle Q Clear(g_c), s	9.1	4.9	5.1	1.2	5.1	4.5	1.5	3.1	3.2	8.5	12.5	17.5
Prop In Lane	1.00		0.40	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	279	473	464	56	513	205	81	416	420	234	576	514
V/C Ratio(X)	0.85	0.33	0.34	0.48	0.54	0.49	0.48	0.21	0.22	0.85	0.60	0.78
Avail Cap(c_a), veh/h	304	987	969	137	1670	668	152	760	767	250	874	779
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	1.00	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	28.8	20.7	20.8	33.3	27.9	27.7	32.7	20.3	20.4	29.2	18.3	19.9
Incr Delay (d2), s/veh	17.2	0.7	0.7	2.4	1.5	3.1	1.6	0.4	0.5	20.3	1.7	4.5
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	0.0	2.0	2.1	0.5	2.2	1.7	0.7	1.1	1.2	4.4	4.5	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	21.4	21.5	35.7	29.4	30.7	34.3	20.8	20.8	49.5	20.1	24.4
LnGrp LOS	D	C	C	D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		550			404			221			945	
Approach Delay, s/veh		32.0			30.1			23.2			28.1	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.3	23.8	7.5	23.7	8.2	30.9	16.0	15.1				
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0				
Max Green Setting (Gmax), s	33.5	6.0	39.0	6.0	38.5	12.0	33.0					
Max Q Clear Time (g_c+fl), s	5.2	3.2	7.1	3.5	19.5	11.1	7.1					
Green Ext Time (p_c), s	0.0	1.3	0.0	2.4	0.0	5.9	0.0	3.1				

Intersection Summary

HCM 6th Ctrl Delay	29.0
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
 91: ELEVENTH ST. & MACARTHUR DRIVE

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	522	25	20	1054	135	162	526	126	103	25	77
Future Volume (veh/h)	72	522	25	20	1054	135	162	526	126	103	25	77
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	1678	1856	1856	1856	1678	1678	1856	1856	1856	1678	1856	1678
Adj Flow Rate, veh/h	72	522	25	20	1054	135	162	526	126	103	25	77
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	15	3	3	3	15	15	3	3	3	15	3	15
Cap, veh/h	132	1564	698	32	1187	530	164	653	156	130	387	345
Arrive On Green	0.08	0.44	0.44	0.02	0.37	0.37	0.09	0.23	0.23	0.08	0.22	0.22
Sat Flow, veh/h	1598	3526	1572	1767	3188	1422	1767	2824	673	1598	1763	1572
Grp Volume(v), veh/h	72	522	25	20	1054	135	162	327	325	103	25	77
Grp Sat Flow(s),veh/h/ln	1598	1763	1572	1767	1594	1422	1767	1763	1734	1598	1763	1572
Q Serve(g_s), s	3.3	7.3	0.7	0.8	23.4	5.0	6.9	13.2	13.3	4.8	0.8	3.0
Cycle Q Clear(g_c), s	3.3	7.3	0.7	0.8	23.4	5.0	6.9	13.2	13.3	4.8	0.8	3.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	132	1564	698	32	1187	530	164	408	401	130	387	345
V/C Ratio(X)	0.55	0.33	0.04	0.62	0.89	0.25	0.99	0.80	0.81	0.79	0.06	0.22
Avail Cap(c_a), veh/h	170	1591	710	117	1291	576	164	608	599	276	749	668
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	1.00	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	33.2	13.7	11.8	36.7	22.2	16.4	34.1	27.3	27.4	34.0	23.3	24.1
Incr Delay (d2), s/veh	1.3	0.1	0.0	18.1	7.4	0.3	66.1	2.6	2.9	10.4	0.0	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	1.3	2.6	0.2	0.5	9.1	1.6	5.9	5.6	5.6	2.2	0.3	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	13.8	11.9	54.8	29.6	16.6	100.2	30.0	30.3	44.4	23.3	24.2
LnGrp LOS	C	B	B	D	C	B	F	C	C	D	C	C
Approach Vol, veh/h		619			1209			814			205	
Approach Delay, s/veh		16.1			28.6			44.1			34.2	
Approach LOS		B			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.4	37.9	11.0	21.0	10.7	32.6	10.1	21.9				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.5	4.5	4.0	4.5				
Max Green Setting (Gmax), s	5.0	34.0	7.0	32.0	8.0	30.5	13.0	26.0				
Max Q Clear Time (g_c+1), s	12.8	9.3	8.9	5.0	5.3	25.4	6.8	15.3				
Green Ext Time (p_c), s	0.0	2.5	0.0	0.4	0.0	2.7	0.1	2.1				

Intersection Summary

HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
 92: MACARTHUR (S) & ELEVENTH ST.

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	322	43	202	906	5	200	5	268	5	5	5
Future Volume (veh/h)	5	322	43	202	906	5	200	5	268	5	5	5
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	5	322	0	202	906	5	200	5	268	5	5	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	194	1061		249	1194	7	357	9	325	13	13	13
Arrive On Green	0.11	0.30	0.00	0.14	0.33	0.33	0.21	0.21	0.21	0.02	0.02	0.02
Sat Flow, veh/h	1767	3526	1572	1767	3595	20	1726	43	1572	574	574	574
Grp Volume(v), veh/h	5	322	0	202	444	467	205	0	268	15	0	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1852	1769	0	1572	1723	0	0
Q Serve(g_s), s	0.1	3.8	0.0	6.1	12.3	12.3	5.7	0.0	8.9	0.5	0.0	0.0
Cycle Q Clear(g_c), s	0.1	3.8	0.0	6.1	12.3	12.3	5.7	0.0	8.9	0.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	0.98		1.00	0.33		0.33
Lane Grp Cap(c), veh/h	194	1061		249	585	615	366	0	325	39	0	0
V/C Ratio(X)	0.03	0.30		0.81	0.76	0.76	0.56	0.00	0.82	0.39	0.00	0.00
Avail Cap(c_a), veh/h	194	2191		275	1176	1236	404	0	359	693	0	0
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	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.7	14.7	0.0	22.8	16.3	16.3	19.5	0.0	20.7	26.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	13.8	2.1	2.0	1.4	0.0	13.3	6.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.4	0.0	3.2	4.5	4.7	2.2	0.0	4.1	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.8	14.9	0.0	36.6	18.4	18.3	20.9	0.0	34.1	32.7	0.0	0.0
LnGrp LOS	C	B		D	B	B	C	A	C	C	A	A
Approach Vol, veh/h		327	A		1113			473			15	
Approach Delay, s/veh		15.0			21.6			28.4			32.7	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.2	21.0		5.7	10.5	22.7		15.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	30.5	34.0		22.0	6.0	36.5		12.5				
Max Q Clear Time (g_c+1), s	10.5	5.8		2.5	2.1	14.3		10.9				
Green Ext Time (p_c), s	0.0	1.5		0.0	0.0	3.9		0.4				

Intersection Summary

HCM 6th Ctrl Delay	22.2
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	LT			LT	LT	
Traffic Vol, veh/h	60	5	5	5	5	77
Future Vol, veh/h	60	5	5	5	5	77
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, %	3	3	3	3	3	3
Mvmt Flow	60	5	5	5	5	77
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	59	44	82	0	0	
Stage 1	44	-	-	-	-	
Stage 2	15	-	-	-	-	
Critical Hdwy	6.43	6.23	4.13	-	-	
Critical Hdwy Stg 1	5.43	-	-	-	-	
Critical Hdwy Stg 2	5.43	-	-	-	-	
Follow-up Hdwy	3.527	3.327	2.227	-	-	
Pot Cap-1 Maneuver	945	1023	1509	-	-	
Stage 1	976	-	-	-	-	
Stage 2	1005	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	942	1023	1509	-	-	
Mov Cap-2 Maneuver	942	-	-	-	-	
Stage 1	973	-	-	-	-	
Stage 2	1005	-	-	-	-	
Approach	EB	NB	SB			
HCM Control Delay, s	9.1	3.7	0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1509	-	948	-	-	
HCM Lane V/C Ratio	0.003	-	0.069	-	-	
HCM Control Delay (s)	7.4	0	9.1	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

Tracy Transportation Master Plan Update
 94: MACARTHUR (S) & E. Mt. Diablo Ave/MacArthur Dr

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↗	↖	↗	↗
Traffic Volume (veh/h)	30	74	24	23	41	25	35	50	900	25	122	33
Future Volume (veh/h)	30	74	24	23	41	25	35	50	900	25	122	33
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	1856	1870	1856	1870	1870	1870	1856	1856	1870	1870	1856	1856
Adj Flow Rate, veh/h	30	74	24	23	41	25	35	50	900	25	122	33
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	2	3	2	2	2	3	3	2	2	3	3
Cap, veh/h	50	133	43	40	101	61	57	840	753	43	625	169
Arrive On Green	0.03	0.10	0.10	0.02	0.09	0.09	0.03	0.45	0.45	0.02	0.44	0.44
Sat Flow, veh/h	1767	1353	439	1781	1088	663	1767	1856	1585	1781	1407	380
Grp Volume(v), veh/h	30	0	98	23	0	66	35	50	900	25	0	155
Grp Sat Flow(s),veh/h/ln	1767	0	1791	1781	0	1751	1767	1856	1585	1781	0	1787
Q Serve(g_s), s	0.7	0.0	2.1	0.5	0.0	1.4	0.8	0.6	18.0	0.6	0.0	2.1
Cycle Q Clear(g_c), s	0.7	0.0	2.1	0.5	0.0	1.4	0.8	0.6	18.0	0.6	0.0	2.1
Prop In Lane	1.00		0.24	1.00		0.38	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	50	0	176	40	0	162	57	840	753	43	0	794
V/C Ratio(X)	0.60	0.00	0.56	0.57	0.00	0.41	0.61	0.06	1.20	0.58	0.00	0.20
Avail Cap(c_a), veh/h	178	0	811	179	0	792	178	840	753	179	0	809
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	0.00	1.00
Uniform Delay (d), s/veh	19.1	0.0	17.1	19.3	0.0	17.0	19.0	6.1	10.4	19.2	0.0	6.7
Incr Delay (d2), s/veh	10.9	0.0	2.7	12.2	0.0	1.6	10.3	0.0	100.6	11.6	0.0	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	0.4	0.0	0.9	0.3	0.0	0.6	0.4	0.1	25.2	0.3	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	0.0	19.8	31.4	0.0	18.7	29.3	6.2	111.1	30.8	0.0	6.8
LnGrp LOS	C	A	B	C	A	B	C	A	F	C	A	A
Approach Vol, veh/h		128			89			985				180
Approach Delay, s/veh		22.2			22.0			102.8				10.2
Approach LOS		C			C			F				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	22.0	4.9	7.9	5.3	21.7	5.1	7.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	18.0	4.0	18.0	4.0	18.0	4.0	18.0				
Max Q Clear Time (g_c+I1), s	2.6	20.0	2.5	4.1	2.8	4.1	2.7	3.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.0	0.6	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay				78.1								
HCM 6th LOS				E								

Tracy Transportation Master Plan Update
 95: MACARTHUR (S) & SCHULTE ROAD

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗		↖	↗		↖	↗	↘
Traffic Volume (veh/h)	231	191	45	38	198	29	155	811	25	25	106	28
Future Volume (veh/h)	231	191	45	38	198	29	155	811	25	25	106	28
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	231	191	45	38	198	29	155	811	25	25	106	28
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	283	372	316	196	255	37	196	1016	31	167	527	447
Arrive On Green	0.16	0.20	0.20	0.11	0.16	0.16	0.11	0.29	0.29	0.09	0.28	0.28
Sat Flow, veh/h	1767	1856	1572	1767	1582	232	1767	3491	108	1767	1856	1572
Grp Volume(v), veh/h	231	191	45	38	0	227	155	409	427	25	106	28
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	0	1814	1767	1763	1836	1767	1856	1572
Q Serve(g_s), s	8.0	5.8	1.5	1.2	0.0	7.6	5.4	13.5	13.5	0.8	2.7	0.8
Cycle Q Clear(g_c), s	8.0	5.8	1.5	1.2	0.0	7.6	5.4	13.5	13.5	0.8	2.7	0.8
Prop In Lane	1.00		1.00	1.00		0.13	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	283	372	316	196	0	292	196	513	535	167	527	447
V/C Ratio(X)	0.82	0.51	0.14	0.19	0.00	0.78	0.79	0.80	0.80	0.15	0.20	0.06
Avail Cap(c_a), veh/h	392	703	595	196	0	511	280	673	701	168	606	513
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	1.00	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	25.6	22.5	20.8	25.5	0.0	25.4	27.3	20.7	20.7	26.2	17.2	16.5
Incr Delay (d2), s/veh	9.1	1.3	0.2	0.6	0.0	5.3	9.4	5.5	5.3	0.2	0.2	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	2.4	0.5	0.5	0.0	3.4	2.6	5.6	5.8	0.3	1.1	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.8	23.8	21.0	26.1	0.0	30.7	36.7	26.2	26.0	26.4	17.4	16.5
LnGrp LOS	C	C	C	C	A	C	D	C	C	C	B	B
Approach Vol, veh/h		467			265			991			159	
Approach Delay, s/veh		28.9			30.0			27.7			18.6	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.6	17.6	10.6	23.4	14.1	15.1	11.0	22.9				
Change Period (Y+Rc), s	4.6	4.9	4.6	* 5	4.0	* 4.9	4.0	5.0				
Max Green Setting (Gmax), s	23.9	6.0	* 24	14.0	* 18	10.0	20.6					
Max Q Clear Time (g_c+1), s	7.8	2.8	15.5	10.0	9.6	7.4	4.7					
Green Ext Time (p_c), s	0.0	0.9	0.0	2.8	0.3	0.6	0.4					

Intersection Summary

HCM 6th Ctrl Delay	27.6
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	246	291	21	57	360	48	50	203	87	63	70	146
Future Volume (veh/h)	246	291	21	57	360	48	50	203	87	63	70	146
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		No		No
Adj Sat Flow, veh/h/ln	1796	1870	1900	1900	1870	1900	1841	1826	1900	1900	1826	1826
Adj Flow Rate, veh/h	246	291	21	57	360	48	50	203	87	63	70	146
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	7	2	0	0	2	0	4	5	0	0	5	5
Cap, veh/h	250	571	41	144	427	57	145	251	107	152	380	322
Arrive On Green	0.15	0.33	0.33	0.08	0.26	0.26	0.08	0.21	0.21	0.08	0.21	0.21
Sat Flow, veh/h	1711	1724	124	1810	1616	215	1753	1213	520	1810	1826	1547
Grp Volume(v), veh/h	246	0	312	57	0	408	50	0	290	63	70	146
Grp Sat Flow(s),veh/h/ln	1711	0	1848	1810	0	1832	1753	0	1732	1810	1826	1547
Q Serve(g_s), s	9.2	0.0	8.7	1.9	0.0	13.5	1.7	0.0	10.2	2.1	2.0	5.3
Cycle Q Clear(g_c), s	9.2	0.0	8.7	1.9	0.0	13.5	1.7	0.0	10.2	2.1	2.0	5.3
Prop In Lane	1.00		0.07	1.00		0.12	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	250	0	612	144	0	484	145	0	358	152	380	322
V/C Ratio(X)	0.98	0.00	0.51	0.40	0.00	0.84	0.34	0.00	0.81	0.41	0.18	0.45
Avail Cap(c_a), veh/h	250	0	926	242	0	895	246	0	836	253	881	747
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(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	0.0	17.3	28.1	0.0	22.4	27.8	0.0	24.3	27.9	21.0	22.3
Incr Delay (d2), s/veh	51.8	0.0	0.7	0.7	0.0	4.1	0.5	0.0	4.4	0.7	0.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	0.0	3.3	0.8	0.0	5.7	0.7	0.0	4.2	0.9	0.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.2	0.0	18.0	28.8	0.0	26.5	28.4	0.0	28.7	28.6	21.2	23.3
LnGrp LOS	E	A	B	C	A	C	C	A	C	C	C	C
Approach Vol, veh/h		558			465			340			279	
Approach Delay, s/veh		44.9			26.7			28.6			23.9	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	26.3	9.9	18.4	14.0	22.0	10.0	18.3				
Change Period (Y+Rc), s	4.6	5.0	4.6	5.0	4.6	5.0	4.6	5.0				
Max Green Setting (Gmax), s	32.2	32.2	9.0	31.0	9.4	31.4	9.0	31.0				
Max Q Clear Time (g_c+1), s	10.7	10.7	3.7	7.3	11.2	15.5	4.1	12.2				
Green Ext Time (p_c), s	0.0	1.1	0.0	0.8	0.0	1.4	0.0	1.0				

Intersection Summary

HCM 6th Ctrl Delay	32.8
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
 97: Seefried Dwy/Pescadero Ave & Chrisman Road/Chrisman Rd

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑	↗	↘	↗	↘
Traffic Volume (veh/h)	25	468	20	20	900	147	20	20	20	45	20	25
Future Volume (veh/h)	25	468	20	20	900	147	20	20	20	45	20	25
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	25	468	20	20	900	147	20	20	20	45	20	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	39	1097	489	33	1084	483	33	353	353	59	322	402
Arrive On Green	0.02	0.31	0.31	0.02	0.41	0.41	0.02	0.41	0.41	0.03	0.43	0.43
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	858	858	1781	756	945
Grp Volume(v), veh/h	25	468	20	20	900	147	20	0	40	45	0	45
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1716	1781	0	1700
Q Serve(g_s), s	1.0	7.3	0.6	0.8	15.9	3.5	0.8	0.0	1.0	1.8	0.0	1.1
Cycle Q Clear(g_c), s	1.0	7.3	0.6	0.8	15.9	3.5	0.8	0.0	1.0	1.8	0.0	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		0.56
Lane Grp Cap(c), veh/h	39	1097	489	33	1084	483	33	0	705	59	0	724
V/C Ratio(X)	0.64	0.43	0.04	0.61	0.83	0.30	0.61	0.00	0.06	0.76	0.00	0.06
Avail Cap(c_a), veh/h	102	1269	566	102	1269	566	102	0	705	153	0	724
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	0.77	0.77	0.77	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.0	19.3	16.9	33.9	19.2	9.8	34.1	0.0	12.4	33.6	0.0	11.8
Incr Delay (d2), s/veh	14.5	0.2	0.0	13.3	3.3	0.3	16.9	0.0	0.2	17.7	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.7	0.2	0.4	5.4	1.4	0.5	0.0	0.4	1.0	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.4	19.5	17.0	47.2	22.4	10.1	51.0	0.0	12.6	51.2	0.0	12.0
LnGrp LOS	D	B	B	D	C	B	D	A	B	D	A	B
Approach Vol, veh/h		513			1067			60				90
Approach Delay, s/veh		20.8			21.2			25.4				31.6
Approach LOS		C			C			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.3	32.8	5.3	25.6	5.3	33.8	5.5	25.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	6.0	19.0	4.0	25.0	4.0	21.0	4.0	25.0				
Max Q Clear Time (g_c+1), s	13.8	3.0	2.8	9.3	2.8	3.1	3.0	17.9				
Green Ext Time (p_c), s	0.0	0.1	0.0	2.5	0.0	0.1	0.0	3.5				
Intersection Summary												
HCM 6th Ctrl Delay												21.8
HCM 6th LOS												C

Tracy Transportation Master Plan Update
 98: Chrisman Rd/Chrisman Road & Grant Line Rd

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙	↑↑		↙	↑↑	↗	↙	↑↑	↗
Traffic Volume (veh/h)	147	325	25	20	500	20	40	340	20	20	550	350
Future Volume (veh/h)	147	325	25	20	500	20	40	340	20	20	550	350
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		No		No
Adj Sat Flow, veh/h/ln	1870	1678	1678	1678	1678	1870	1678	1870	1678	1870	1870	1870
Adj Flow Rate, veh/h	147	325	25	20	500	20	40	340	20	20	550	350
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	15	15	15	15	2	15	2	15	2	2	2
Cap, veh/h	233	963	430	77	686	27	241	812	325	34	1140	508
Arrive On Green	0.13	0.30	0.30	0.05	0.22	0.22	0.23	0.23	0.23	0.02	0.32	0.32
Sat Flow, veh/h	1781	3188	1422	1598	3124	125	555	3554	1422	1781	3554	1585
Grp Volume(v), veh/h	147	325	25	20	255	265	40	340	20	20	550	350
Grp Sat Flow(s),veh/h/ln	1781	1594	1422	1598	1594	1655	555	1777	1422	1781	1777	1585
Q Serve(g_s), s	4.3	4.3	0.7	0.7	8.1	8.1	3.4	4.5	0.6	0.6	6.8	10.5
Cycle Q Clear(g_c), s	4.3	4.3	0.7	0.7	8.1	8.1	5.2	4.5	0.6	0.6	6.8	10.5
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	233	963	430	77	350	363	241	812	325	34	1140	508
V/C Ratio(X)	0.63	0.34	0.06	0.26	0.73	0.73	0.17	0.42	0.06	0.59	0.48	0.69
Avail Cap(c_a), veh/h	521	1866	832	292	758	787	479	2340	936	163	3055	1362
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	1.00	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	22.5	14.8	13.6	25.1	19.8	19.8	19.0	18.0	16.5	26.6	14.9	16.2
Incr Delay (d2), s/veh	1.1	0.1	0.0	1.8	1.1	1.1	0.1	0.1	0.0	14.9	0.3	1.7
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	1.6	1.3	0.2	0.3	2.6	2.7	0.4	1.6	0.2	0.4	2.2	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	14.9	13.6	26.9	20.9	20.9	19.1	18.1	16.5	41.5	15.2	17.9
LnGrp LOS	C	B	B	C	C	C	B	B	B	D	B	B
Approach Vol, veh/h		497			540			400			920	
Approach Delay, s/veh		17.4			21.1			18.1			16.8	
Approach LOS		B			C			B			B	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.6	22.5		23.5	13.1	18.0	5.0	18.5				
Change Period (Y+Rc), s	6.0	6.0		* 6	6.0	6.0	4.0	6.0				
Max Green Setting (Gmax), s	10.0	32.0		* 47	16.0	26.0	5.0	36.0				
Max Q Clear Time (g_c+1/2), s	12.5	6.3		12.5	6.3	10.1	2.6	7.2				
Green Ext Time (p_c), s	0.0	0.8		5.0	0.1	0.9	0.0	1.0				

Intersection Summary

HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖	↑↑	↖	↖	↑↑	↖
Traffic Volume (veh/h)	287	224	46	328	584	128	418	428	497	155	199	149
Future Volume (veh/h)	287	224	46	328	584	128	418	428	497	155	199	149
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		No		No
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	287	224	46	328	584	128	418	428	497	155	199	149
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	15	15	15	15	15	15	15	15	15	15	15	15
Cap, veh/h	304	527	235	398	624	278	438	1195	533	185	691	308
Arrive On Green	0.10	0.17	0.17	0.13	0.20	0.20	0.27	0.37	0.37	0.12	0.22	0.22
Sat Flow, veh/h	3100	3188	1422	3100	3188	1422	1598	3188	1422	1598	3188	1422
Grp Volume(v), veh/h	287	224	46	328	584	128	418	428	497	155	199	149
Grp Sat Flow(s),veh/h/ln	1550	1594	1422	1550	1594	1422	1598	1594	1422	1598	1594	1422
Q Serve(g_s), s	9.4	6.4	2.9	10.5	18.4	8.1	26.3	9.9	34.3	9.7	5.3	9.4
Cycle Q Clear(g_c), s	9.4	6.4	2.9	10.5	18.4	8.1	26.3	9.9	34.3	9.7	5.3	9.4
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	304	527	235	398	624	278	438	1195	533	185	691	308
V/C Ratio(X)	0.95	0.43	0.20	0.82	0.94	0.46	0.95	0.36	0.93	0.84	0.29	0.48
Avail Cap(c_a), veh/h	304	527	235	455	624	278	438	1217	543	297	936	418
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	1.00	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	45.8	38.3	36.8	43.4	40.4	36.3	36.4	23.0	30.7	44.2	33.4	35.0
Incr Delay (d2), s/veh	38.0	1.2	0.9	12.7	22.1	2.5	31.5	0.7	24.7	10.9	0.8	4.2
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	5.1	2.5	1.0	4.5	8.6	2.9	13.5	3.6	14.5	4.3	2.1	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.8	39.4	37.6	56.1	62.5	38.8	67.9	23.7	55.4	55.1	34.2	39.2
LnGrp LOS	F	D	D	E	E	D	E	C	E	E	C	D
Approach Vol, veh/h		557		1040		1343		503				
Approach Delay, s/veh		62.2		57.6		49.2		42.1				
Approach LOS		E		E		D		D				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.1	22.9	32.0	28.1	16.0	26.0	15.8	44.3				
Change Period (Y+Rc), s	6.0	6.0	4.0	6.0	6.0	6.0	4.0	6.0				
Max Green Setting (Gmax), s	15.0	15.0	28.0	30.0	10.0	20.0	19.0	39.0				
Max Q Clear Time (g_c+1/2), s	11.5	8.4	28.3	11.4	11.4	20.4	11.7	36.3				
Green Ext Time (p_c), s	0.6	1.1	0.0	3.7	0.0	0.0	0.3	2.0				

Intersection Summary

HCM 6th Ctrl Delay	52.8
HCM 6th LOS	D



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	166	24	86	942	460	157
Future Volume (veh/h)	166	24	86	942	460	157
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	166	24	86	942	460	157
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	247	220	129	1852	1005	448
Arrive On Green	0.14	0.14	0.07	0.53	0.28	0.28
Sat Flow, veh/h	1767	1572	1767	3618	3618	1572
Grp Volume(v), veh/h	166	24	86	942	460	157
Grp Sat Flow(s),veh/h/ln	1767	1572	1767	1763	1763	1572
Q Serve(g_s), s	2.1	0.3	1.1	4.1	2.6	1.9
Cycle Q Clear(g_c), s	2.1	0.3	1.1	4.1	2.6	1.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	247	220	129	1852	1005	448
V/C Ratio(X)	0.67	0.11	0.67	0.51	0.46	0.35
Avail Cap(c_a), veh/h	1332	1185	518	4280	2657	1185
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	9.8	9.0	10.8	3.7	7.0	6.8
Incr Delay (d2), s/veh	3.1	0.2	5.9	0.2	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.3	0.4	0.1	0.4	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.9	9.2	16.7	3.9	7.4	7.3
LnGrp LOS	B	A	B	A	A	A
Approach Vol, veh/h	190			1028	617	
Approach Delay, s/veh	12.4			5.0	7.3	
Approach LOS	B			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		16.5		7.3	5.7	10.8
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		29.0		18.0	7.0	18.0
Max Q Clear Time (g_c+I1), s		6.1		4.1	3.1	4.6
Green Ext Time (p_c), s		4.5		0.5	0.1	2.2
Intersection Summary						
HCM 6th Ctrl Delay			6.5			
HCM 6th LOS			A			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖	↗	↖	↗		↖	↗	↖
Traffic Volume (veh/h)	287	25	126	25	25	32	80	227	25	41	229	245
Future Volume (veh/h)	287	25	126	25	25	32	80	227	25	41	229	245
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	1856	1856	1856	1856	1856	1856	1856	1781	1856	1856	1781	1856
Adj Flow Rate, veh/h	287	25	126	25	25	0	80	227	25	41	229	245
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	8	3	3	8	3
Cap, veh/h	768	83	421	418	324		531	504	55	560	569	502
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.00	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1375	267	1346	542	1036	1572	913	1577	174	1119	1781	1572
Grp Volume(v), veh/h	287	0	151	50	0	0	80	0	252	41	229	245
Grp Sat Flow(s),veh/h/ln	1375	0	1613	1578	0	1572	913	0	1750	1119	1781	1572
Q Serve(g_s), s	3.4	0.0	1.5	0.0	0.0	0.0	1.6	0.0	2.5	0.7	2.2	2.7
Cycle Q Clear(g_c), s	3.8	0.0	1.5	0.4	0.0	0.0	3.8	0.0	2.5	3.1	2.2	2.7
Prop In Lane	1.00		0.83	0.50		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	768	0	504	742	0		531	0	559	560	569	502
V/C Ratio(X)	0.37	0.00	0.30	0.07	0.00		0.15	0.00	0.45	0.07	0.40	0.49
Avail Cap(c_a), veh/h	1477	0	1335	1502	0		1037	0	1529	1181	1557	1374
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.4	0.0	5.7	5.3	0.0	0.0	7.3	0.0	5.9	7.1	5.8	6.0
Incr Delay (d2), s/veh	0.3	0.0	0.3	0.0	0.0	0.0	0.1	0.0	0.6	0.1	0.5	0.7
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	0.3	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.2	0.1	0.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.7	0.0	6.0	5.3	0.0	0.0	7.4	0.0	6.5	7.2	6.2	6.7
LnGrp LOS	A	A	A	A	A		A	A	A	A	A	A
Approach Vol, veh/h		438			50	A		332			515	
Approach Delay, s/veh		6.5			5.3			6.7			6.5	
Approach LOS		A			A			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		10.9		10.8		10.9		10.8				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		19.0		18.0		19.0		18.0				
Max Q Clear Time (g_c+I1), s		5.8		5.8		5.1		2.4				
Green Ext Time (p_c), s		1.1		1.4		1.8		0.1				

Intersection Summary

HCM 6th Ctrl Delay	6.5
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] 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)	25	25	65	656	153	20	155	150	186	20	779	82
Future Volume (veh/h)	25	25	65	656	153	20	155	150	186	20	779	82
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		No		No
Adj Sat Flow, veh/h/ln	1856	1870	1856	1870	1870	1870	1856	1856	1870	1870	1856	1856
Adj Flow Rate, veh/h	25	25	65	656	153	20	155	150	186	20	779	82
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	2	3	2	2	2	3	3	2	2	3	3
Cap, veh/h	271	44	115	846	424	55	175	1139	901	35	1233	383
Arrive On Green	0.08	0.10	0.10	0.24	0.26	0.26	0.10	0.32	0.32	0.02	0.24	0.24
Sat Flow, veh/h	3428	460	1195	3456	1620	212	1767	3526	2790	1781	5066	1572
Grp Volume(v), veh/h	25	0	90	656	0	173	155	150	186	20	779	82
Grp Sat Flow(s),veh/h/ln	1714	0	1655	1728	0	1832	1767	1763	1395	1781	1689	1572
Q Serve(g_s), s	0.3	0.0	2.6	8.9	0.0	3.9	4.4	1.5	2.4	0.6	6.9	2.1
Cycle Q Clear(g_c), s	0.3	0.0	2.6	8.9	0.0	3.9	4.4	1.5	2.4	0.6	6.9	2.1
Prop In Lane	1.00		0.72	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	271	0	159	846	0	479	175	1139	901	35	1233	383
V/C Ratio(X)	0.09	0.00	0.57	0.78	0.00	0.36	0.89	0.13	0.21	0.58	0.63	0.21
Avail Cap(c_a), veh/h	1221	0	622	1163	0	653	175	1326	1049	141	1805	560
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	21.6	0.0	21.8	17.8	0.0	15.2	22.5	12.1	12.4	24.6	17.1	15.3
Incr Delay (d2), s/veh	0.1	0.0	3.1	2.3	0.0	0.5	37.9	0.1	0.1	14.4	0.5	0.3
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	0.1	0.0	1.0	3.4	0.0	1.5	3.3	0.5	0.7	0.3	2.2	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.7	0.0	25.0	20.1	0.0	15.7	60.3	12.1	12.5	39.0	17.6	15.5
LnGrp LOS	C	A	C	C	A	B	E	B	B	D	B	B
Approach Vol, veh/h		115		829			491			881		
Approach Delay, s/veh		24.3		19.1			27.5			17.9		
Approach LOS		C		B			C			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	20.3	16.4	8.9	9.0	16.3	8.0	17.2				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	1.0	19.0	17.0	19.0	5.0	18.0	18.0	18.0				
Max Q Clear Time (g_c+1), s	1.0	4.4	10.9	4.6	6.4	8.9	2.3	5.9				
Green Ext Time (p_c), s	0.0	1.3	1.4	0.3	0.0	3.4	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	20.7
HCM 6th LOS	C

Tracy Transportation Master Plan Update
 103: Paradise Rd & I-205 WB On-Ramp/I-205 WB-Off Ramp

Future 2042
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖ ↗	↖	↗		↑ ↑ ↑	↗		↑ ↑	↖ ↗
Traffic Volume (veh/h)	0	0	0	688	0	154	0	336	78	0	270	1228
Future Volume (veh/h)	0	0	0	688	0	154	0	336	78	0	270	1228
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		No		No
Adj Sat Flow, veh/h/ln				1870	1870	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				688	0	154	0	336	78	0	270	1228
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				999	0	296	0	3568	1108	0	2483	1949
Arrive On Green				0.19	0.00	0.19	0.00	1.00	1.00	0.00	0.70	0.70
Sat Flow, veh/h				5344	0	1585	0	5274	1585	0	3647	2790
Grp Volume(v), veh/h				688	0	154	0	336	78	0	270	1228
Grp Sat Flow(s),veh/h/ln				1781	0	1585	0	1702	1585	0	1777	1395
Q Serve(g_s), s				8.4	0.0	6.1	0.0	0.0	0.0	0.0	1.7	16.6
Cycle Q Clear(g_c), s				8.4	0.0	6.1	0.0	0.0	0.0	0.0	1.7	16.6
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				999	0	296	0	3568	1108	0	2483	1949
V/C Ratio(X)				0.69	0.00	0.52	0.00	0.09	0.07	0.00	0.11	0.63
Avail Cap(c_a), veh/h				1680	0	498	0	3568	1108	0	2483	1949
HCM Platoon Ratio				1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.73	0.73
Uniform Delay (d), s/veh				26.6	0.0	25.6	0.0	0.0	0.0	0.0	3.4	5.7
Incr Delay (d2), s/veh				0.9	0.0	1.4	0.0	0.1	0.1	0.0	0.1	1.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.5	0.0	2.3	0.0	0.0	0.0	0.0	0.4	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				27.4	0.0	27.0	0.0	0.1	0.1	0.0	3.5	6.8
LnGrp LOS				C	A	C	A	A	A	A	A	A
Approach Vol, veh/h						842		414			1498	
Approach Delay, s/veh						27.3		0.1			6.2	
Approach LOS						C		A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		52.9				52.9		17.1				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		40.0				40.0		22.0				
Max Q Clear Time (g_c+I1), s		2.0				18.6		10.4				
Green Ext Time (p_c), s		2.3				7.8		2.7				

Intersection Summary

HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Tracy Transportation Master Plan Update
 104: Paradise Rd & I-205 EB Off-Ramp/I-205 EB On-Ramp

Future 2042
 AM Peak Hour



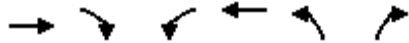
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↖	↗ ↘					↑ ↑ ↑	↗ ↘	↖ ↗	↑ ↑ ↑	
Traffic Volume (veh/h)	254	0	120	0	0	0	0	161	457	64	894	0
Future Volume (veh/h)	254	0	120	0	0	0	0	161	457	64	894	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				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	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	254	0	120				0	161	457	64	894	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	489	0	290				0	1107	605	927	4056	0
Arrive On Green	0.09	0.00	0.09				0.00	0.22	0.22	0.17	0.26	0.00
Sat Flow, veh/h	5344	0	3170				0	5274	2790	1781	5274	0
Grp Volume(v), veh/h	254	0	120				0	161	457	64	894	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1395	1781	1702	0
Q Serve(g_s), s	3.2	0.0	2.5				0.0	1.8	10.7	2.1	9.6	0.0
Cycle Q Clear(g_c), s	3.2	0.0	2.5				0.0	1.8	10.7	2.1	9.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	489	0	290				0	1107	605	927	4056	0
V/C Ratio(X)	0.52	0.00	0.41				0.00	0.15	0.76	0.07	0.22	0.00
Avail Cap(c_a), veh/h	1527	0	906				0	2042	1116	927	4056	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.93	0.93	0.93	0.93	0.00
Uniform Delay (d), s/veh	30.3	0.0	30.0				0.0	22.2	25.7	14.8	8.9	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.9				0.0	0.3	8.0	0.0	0.1	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	4	0.0	1.0				0.0	0.7	3.8	0.7	1.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.2	0.0	31.0				0.0	22.4	33.7	14.8	9.0	0.0
LnGrp LOS	C	A	C				A	C	C	B	A	A
Approach Vol, veh/h		374						618			958	
Approach Delay, s/veh		31.1						30.7			9.4	
Approach LOS		C						C			A	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	40.4	19.2	10.4	59.6								
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0								
Max Green Setting (Gmax), s	10.0	28.0	20.0	42.0								
Max Q Clear Time (g_c+I), s	14.1	12.7	5.2	11.6								
Green Ext Time (p_c), s	0.0	2.4	1.2	6.7								

Intersection Summary

HCM 6th Ctrl Delay	20.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑		↔↔	↑↑↑		↔↔↔
Traffic Volume (veh/h)	561	25	96	1000	25	70
Future Volume (veh/h)	561	25	96	1000	25	70
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	561	25	96	1000	25	70
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1456	64	168	1526	1045	2121
Arrive On Green	0.19	0.19	0.05	0.30	0.59	0.59
Sat Flow, veh/h	7895	331	3456	5274	1781	3614
Grp Volume(v), veh/h	449	137	96	1000	25	70
Grp Sat Flow(s),veh/h/ln	1515	1811	1728	1702	1781	1205
Q Serve(g_s), s	4.5	4.6	1.9	12.0	0.4	0.6
Cycle Q Clear(g_c), s	4.5	4.6	1.9	12.0	0.4	0.6
Prop In Lane		0.18	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1170	350	168	1526	1045	2121
V/C Ratio(X)	0.38	0.39	0.57	0.66	0.02	0.03
Avail Cap(c_a), veh/h	2078	621	543	2845	1045	2121
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.96	0.96	0.98	0.98
Uniform Delay (d), s/veh	24.6	24.6	32.6	21.4	6.1	6.1
Incr Delay (d2), s/veh	0.2	0.7	2.9	0.5	0.0	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	1.5	1.9	0.8	4.2	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.8	25.3	35.5	21.9	6.1	6.1
LnGrp LOS	C	C	D	C	A	A
Approach Vol, veh/h	586			1096	95	
Approach Delay, s/veh	24.9			23.1	6.1	
Approach LOS	C			C	A	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		45.1	7.4	17.5		24.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s		23.0	11.0	24.0		39.0
Max Q Clear Time (g_c+I1), s		2.6	3.9	6.6		14.0
Green Ext Time (p_c), s		0.3	0.1	3.2		7.0
Intersection Summary						
HCM 6th Ctrl Delay			22.8			
HCM 6th LOS			C			

Tracy Transportation Master Plan Update
106: PARADISE RD & GRANT LINE RD

Future 2042
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	300	48	226	487	206	25	21	25	118	25	25
Future Volume (veh/h)	24	300	48	226	487	206	25	21	25	118	25	25
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		No		No
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	24	300	48	226	487	206	25	21	25	118	25	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	15	15	15	15	15	15	15	15	15	15	15	15
Cap, veh/h	36	722	322	181	1011	451	37	158	188	121	467	396
Arrive On Green	0.02	0.23	0.23	0.11	0.32	0.32	0.02	0.23	0.23	0.08	0.28	0.28
Sat Flow, veh/h	1598	3188	1422	1598	3188	1422	1598	698	831	1598	1678	1422
Grp Volume(v), veh/h	24	300	48	226	487	206	25	0	46	118	25	25
Grp Sat Flow(s),veh/h/ln	1598	1594	1422	1598	1594	1422	1598	0	1528	1598	1678	1422
Q Serve(g_s), s	0.8	4.3	1.4	6.0	6.5	6.1	0.8	0.0	1.3	3.9	0.6	0.7
Cycle Q Clear(g_c), s	0.8	4.3	1.4	6.0	6.5	6.1	0.8	0.0	1.3	3.9	0.6	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.54	1.00		1.00
Lane Grp Cap(c), veh/h	36	722	322	181	1011	451	37	0	346	121	467	396
V/C Ratio(X)	0.67	0.42	0.15	1.25	0.48	0.46	0.67	0.00	0.13	0.98	0.05	0.06
Avail Cap(c_a), veh/h	181	2285	1019	181	2285	1019	121	0	519	121	570	483
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	17.5	16.4	23.5	14.6	14.4	25.7	0.0	16.4	24.5	14.0	14.0
Incr Delay (d2), s/veh	19.4	0.1	0.1	149.6	0.1	0.3	19.1	0.0	0.1	75.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.3	0.4	9.5	1.9	1.6	0.5	0.0	0.4	3.8	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	17.6	16.5	173.1	14.7	14.7	44.8	0.0	16.4	99.5	14.0	14.1
LnGrp LOS	D	B	B	F	B	B	D	A	B	F	B	B
Approach Vol, veh/h		372		919		71		168				
Approach Delay, s/veh		19.3		53.7		26.4		74.0				
Approach LOS		B		D		C		E				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	18.0	8.0	17.0	5.2	22.8	5.2	19.8				
Change Period (Y+Rc), s	4.0	6.0	4.0	5.0	4.0	6.0	4.0	5.0				
Max Green Setting (Gmax), s	38.0	38.0	4.0	18.0	6.0	38.0	4.0	18.0				
Max Q Clear Time (g_c+1), s	6.3	6.3	5.9	3.3	2.8	8.5	2.8	2.7				
Green Ext Time (p_c), s	0.0	1.2	0.0	0.1	0.0	2.3	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	46.3
HCM 6th LOS	D

Tracy Transportation Master Plan Update
1: International Pkwy & I-205 WB On-Ramp

Future 2042
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔↔	↔	↔↔		↑↑	↔↔		↑↑↑↑	↔
Traffic Volume (veh/h)	0	0	0	268	0	371	0	1166	410	0	807	344
Future Volume (veh/h)	0	0	0	268	0	371	0	1166	410	0	807	344
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				1678	1678	1678	0	1678	1678	0	1678	1678
Adj Flow Rate, veh/h				268	0	0	0	1166	0	0	807	0
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				15	15	15	0	15	15	0	15	15
Cap, veh/h				854	0	0	0	2001	0	0	3624	0
Arrive On Green				0.18	0.00	0.00	0.00	0.21	0.00	0.00	0.63	0.00
Sat Flow, veh/h				4793	0	2844	0	3272	2502	0	6006	1422
Grp Volume(v), veh/h				268	0	0	0	1166	0	0	807	0
Grp Sat Flow(s),veh/h/ln				1598	0	1422	0	1594	1251	0	1443	1422
Q Serve(g_s), s				2.4	0.0	0.0	0.0	16.5	0.0	0.0	3.0	0.0
Cycle Q Clear(g_c), s				2.4	0.0	0.0	0.0	16.5	0.0	0.0	3.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				854	0	0	0	2001	0	0	3624	0
V/C Ratio(X)				0.31	0.00	0.00	0.00	0.58	0.00	0.00	0.22	0.00
Avail Cap(c_a), veh/h				1246	0	0	0	2001	0	0	3624	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.00	0.77	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				17.9	0.0	0.0	0.0	13.9	0.0	0.0	4.0	0.0
Incr Delay (d2), s/veh				0.1	0.0	0.0	0.0	1.0	0.0	0.0	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				0.7	0.0	0.0	0.0	6.8	0.0	0.0	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				18.0	0.0	0.0	0.0	14.9	0.0	0.0	4.0	0.0
LnGrp LOS				B	A		A	B		A	A	
Approach Vol, veh/h					268	A		1166	A		807	A
Approach Delay, s/veh					18.0			14.9			4.0	
Approach LOS					B			B			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		37.1				37.1		12.9				
Change Period (Y+Rc), s		5.7				5.7		5.1				
Max Green Setting (Gmax), s		27.3				27.3		11.9				
Max Q Clear Time (g_c+I1), s		18.5				5.0		4.4				
Green Ext Time (p_c), s		3.6				3.5		0.4				

Intersection Summary

HCM 6th Ctrl Delay	11.3
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Tracy Transportation Master Plan Update
 2: International Pkwy & I-205 EB Off-Ramp/I-205 EB On-Ramp

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1014	0	259	0	0	0	0	564	1258	0	799	20
Future Volume (veh/h)	1014	0	259	0	0	0	0	564	1258	0	799	20
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		No	
Adj Sat Flow, veh/h/ln	1678	1678	1678				0	1678	1678	0	1678	1678
Adj Flow Rate, veh/h	1095	0	173				0	564	0	0	799	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	15	15	15				0	15	15	0	15	15
Cap, veh/h	1186	0	527				0	1892		0	1892	
Arrive On Green	0.37	0.00	0.37				0.00	0.41	0.00	0.00	0.41	0.00
Sat Flow, veh/h	3196	0	1422				0	4731	2502	0	4731	1422
Grp Volume(v), veh/h	1095	0	173				0	564	0	0	799	0
Grp Sat Flow(s),veh/h/ln	1598	0	1422				0	1527	1251	0	1527	1422
Q Serve(g_s), s	16.4	0.0	4.4				0.0	4.1	0.0	0.0	6.2	0.0
Cycle Q Clear(g_c), s	16.4	0.0	4.4				0.0	4.1	0.0	0.0	6.2	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1186	0	527				0	1892		0	1892	
V/C Ratio(X)	0.92	0.00	0.33				0.00	0.30		0.00	0.42	
Avail Cap(c_a), veh/h	1272	0	566				0	1892		0	1892	
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	1.00				0.00	1.00	0.00	0.00	0.98	0.00
Uniform Delay (d), s/veh	15.0	0.0	11.3				0.0	9.8	0.0	0.0	10.4	0.0
Incr Delay (d2), s/veh	10.5	0.0	0.1				0.0	0.4	0.0	0.0	0.7	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	6.6	0.0	1.2				0.0	1.1	0.0	0.0	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	0.0	11.4				0.0	10.2	0.0	0.0	11.1	0.0
LnGrp LOS	C	A	B				A	B		A	B	
Approach Vol, veh/h		1268						564	A		799	A
Approach Delay, s/veh		23.6						10.2			11.1	
Approach LOS		C						B			B	
Timer - Assigned Phs		2		4			6					
Phs Duration (G+Y+Rc), s		26.4		23.6			26.4					
Change Period (Y+Rc), s		5.7		5.1			5.7					
Max Green Setting (Gmax), s		19.3		19.9			19.3					
Max Q Clear Time (g_c+I1), s		6.1		18.4			8.2					
Green Ext Time (p_c), s		2.0		0.2			2.7					

Intersection Summary

HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Tracy Transportation Master Plan Update
 3: International Pkwy & Capital Parks Dr

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖	↖	↖↗	↖	↖	↖↗	↖
Traffic Volume (veh/h)	25	70	25	21	59	251	25	882	25	261	637	20
Future Volume (veh/h)	25	70	25	21	59	251	25	882	25	261	637	20
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	1678	1870	1678	1870	1678	1678	1678	1678	1870
Adj Flow Rate, veh/h	25	70	25	21	59	251	25	882	25	261	637	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	15	2	15	2	15	15	15	15	2
Cap, veh/h	36	132	45	64	251	752	892	927	470	733	792	426
Arrive On Green	0.02	0.05	0.05	0.04	0.07	0.07	1.00	0.58	0.58	0.46	0.25	0.25
Sat Flow, veh/h	1781	2602	885	1598	3554	1422	1781	3188	1422	1598	3188	1585
Grp Volume(v), veh/h	25	47	48	21	59	251	25	882	25	261	637	20
Grp Sat Flow(s),veh/h/ln	1781	1777	1711	1598	1777	1422	1781	1594	1422	1598	1594	1585
Q Serve(g_s), s	1.4	2.6	2.8	1.3	1.6	1.3	0.0	25.9	0.0	10.6	18.8	0.1
Cycle Q Clear(g_c), s	1.4	2.6	2.8	1.3	1.6	1.3	0.0	25.9	0.0	10.6	18.8	0.1
Prop In Lane	1.00		0.52	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	36	90	87	64	251	752	892	927	470	733	792	426
V/C Ratio(X)	0.70	0.52	0.56	0.33	0.23	0.33	0.03	0.95	0.05	0.36	0.80	0.05
Avail Cap(c_a), veh/h	89	320	308	288	1102	1093	892	956	483	733	1371	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	0.84	0.84	0.84	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.7	46.3	46.4	46.7	43.9	6.9	0.0	20.3	13.4	17.5	35.3	15.4
Incr Delay (d2), s/veh	22.0	4.5	5.5	2.9	0.5	0.3	0.0	17.7	0.2	0.3	8.5	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.2	1.3	0.6	0.7	2.0	0.0	7.3	0.3	3.6	7.8	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.7	50.8	51.8	49.6	44.4	7.1	0.0	38.0	13.5	17.8	43.8	15.6
LnGrp LOS	E	D	D	D	D	A	A	D	B	B	D	B
Approach Vol, veh/h		120			331			932			918	
Approach Delay, s/veh		55.4			16.4			36.3			35.8	
Approach LOS		E			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	49.9	33.1	8.0	9.1	54.1	28.8	6.0	11.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	30.0	18.0	18.0	5.0	43.0	5.0	31.0				
Max Q Clear Time (g_c+1/2), s	12.6	27.9	3.3	4.8	2.0	20.8	3.4	3.6				
Green Ext Time (p_c), s	0.4	1.1	0.0	0.3	0.0	4.1	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay											34.2	
HCM 6th LOS											C	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	20	66	106	159	22	20	127	865	83	100	607	20
Future Volume (veh/h)	20	66	106	159	22	20	127	865	83	100	607	20
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	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	20	66	106	159	22	20	127	865	83	100	607	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	15	15	15	15	15	15	15	15	15	15	15	15
Cap, veh/h	225	106	90	188	67	57	154	1005	448	492	1736	774
Arrive On Green	0.14	0.06	0.06	0.12	0.04	0.04	0.10	0.32	0.32	0.62	1.00	1.00
Sat Flow, veh/h	1598	1678	1422	1598	1678	1422	1598	3188	1422	1598	3188	1422
Grp Volume(v), veh/h	20	66	106	159	22	20	127	865	83	100	607	20
Grp Sat Flow(s),veh/h/ln	1598	1678	1422	1598	1678	1422	1598	1594	1422	1598	1594	1422
Q Serve(g_s), s	1.1	3.8	3.6	9.8	1.3	1.1	7.8	25.5	4.2	2.7	0.0	0.0
Cycle Q Clear(g_c), s	1.1	3.8	3.6	9.8	1.3	1.1	7.8	25.5	4.2	2.7	0.0	0.0
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	225	106	90	188	67	57	154	1005	448	492	1736	774
V/C Ratio(X)	0.09	0.62	1.18	0.85	0.33	0.35	0.82	0.86	0.19	0.20	0.35	0.03
Avail Cap(c_a), veh/h	225	302	256	256	470	398	256	1186	529	492	1736	774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	37.4	45.7	15.0	43.2	46.7	31.1	44.3	32.2	24.9	13.8	0.0	0.0
Incr Delay (d2), s/veh	0.2	5.8	102.0	17.3	2.8	3.7	10.4	9.6	0.9	0.2	0.5	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	0.4	1.8	4.6	4.6	0.6	0.5	3.4	10.5	1.5	0.9	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.5	51.5	117.1	60.5	49.5	34.8	54.8	41.8	25.8	14.0	0.5	0.1
LnGrp LOS	D	D	F	E	D	C	D	D	C	B	A	A
Approach Vol, veh/h		192			201			1075			727	
Approach Delay, s/veh		86.2			56.7			42.1			2.4	
Approach LOS		F			E			D			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.6	60.3	15.8	10.3	36.6	37.3	18.1	8.0				
Change Period (Y+Rc), s	4.0	5.8	4.0	4.0	5.8	* 5.8	4.0	4.0				
Max Green Setting (Gmax), s	10.0	32.2	16.0	18.0	11.0	* 37	6.0	28.0				
Max Q Clear Time (g_c+1), s	19.8	2.0	11.8	5.8	4.7	27.5	3.1	3.3				
Green Ext Time (p_c), s	0.1	4.1	0.1	0.5	0.1	4.0	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
 5: Mountain House Parkway/International Pkwy & Old Schulte Road

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	36	90	693	35	148	124	835	415	107	1012	22
Future Volume (veh/h)	42	36	90	693	35	148	124	835	415	107	1012	22
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	1060	1589	1324	883	1589	1324	1060	1589	1324	1060	1589	1324
Adj Flow Rate, veh/h	42	36	90	693	35	148	124	835	415	107	1012	22
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	15	15	15	15	15	15	15	15	15	15	15	15
Cap, veh/h	66	138	212	416	439	386	103	1168	1268	133	1064	469
Arrive On Green	0.07	0.09	0.09	0.25	0.28	0.28	0.10	0.39	0.39	0.07	0.35	0.35
Sat Flow, veh/h	1009	1589	1122	1631	1589	1122	1009	3020	1976	1958	3020	1122
Grp Volume(v), veh/h	42	36	90	693	35	148	124	835	415	107	1012	22
Grp Sat Flow(s),veh/h/ln	1009	1589	1122	816	1589	1122	1009	1510	988	979	1510	1122
Q Serve(g_s), s	5.6	2.9	9.7	35.0	2.2	13.7	14.0	32.2	13.1	7.4	44.8	1.6
Cycle Q Clear(g_c), s	5.6	2.9	9.7	35.0	2.2	13.7	14.0	32.2	13.1	7.4	44.8	1.6
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	66	138	212	416	439	386	103	1168	1268	133	1064	469
V/C Ratio(X)	0.63	0.26	0.43	1.67	0.08	0.38	1.20	0.72	0.33	0.81	0.95	0.05
Avail Cap(c_a), veh/h	74	266	303	416	556	469	103	1168	1268	171	1100	482
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	1.00	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	62.5	58.6	49.1	51.1	36.8	34.0	61.6	35.7	11.2	63.1	43.3	23.7
Incr Delay (d2), s/veh	14.3	1.0	1.4	310.1	0.1	0.6	153.8	2.1	0.1	19.0	16.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.2	2.8	24.9	0.9	3.7	7.9	11.8	2.7	2.2	18.5	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.8	59.6	50.5	361.2	36.9	34.7	215.4	37.8	11.3	82.1	59.7	23.7
LnGrp LOS	E	E	D	F	D	C	F	D	B	F	E	C
Approach Vol, veh/h	168			876			1374			1141		
Approach Delay, s/veh	59.0			293.1			45.8			61.1		
Approach LOS	E			F			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	66.3	60.1	42.0	18.9	21.0	55.4	16.0	44.9				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	12.0	52.0	35.0	23.0	14.0	50.0	10.0	48.0				
Max Q Clear Time (g_c+1), s	19.4	34.2	37.0	11.7	16.0	46.8	7.6	15.7				
Green Ext Time (p_c), s	0.1	5.9	0.0	0.3	0.0	1.6	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay	112.2
HCM 6th LOS	F

Notes

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

6: SB Mountain House Parkway & NB Mountain House Parkway Performance by movement

Movement	EBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.4	1.8	2.2
Total Del/Veh (s)	7.9	9.6	9.3
Vehicles Entered	181	678	859
Vehicles Exited	180	678	858
Hourly Exit Rate	180	678	858
Input Volume	181	679	860
% of Volume	99	100	100
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

603: I-580 WB Off Ramp & NB Mountain House Parkway Performance by movement

Movement	EBL	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.2	2.5	2.7
Total Del/Veh (s)	4.2	9.9	9.0
Vehicles Entered	180	891	1071
Vehicles Exited	179	895	1074
Hourly Exit Rate	179	895	1074
Input Volume	181	893	1074
% of Volume	99	100	100
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

607: SB Mountain House Parkway & I-580 WB Off Ramp Performance by movement

Movement	WBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	2.4	1.4	3.8
Total Del/Veh (s)	12.4	7.2	9.8
Vehicles Entered	693	678	1371
Vehicles Exited	695	677	1372
Hourly Exit Rate	695	677	1372
Input Volume	672	679	1351
% of Volume	103	100	102
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Zone Performance

Denied Delay (hr)	0.0
Denied Del/Veh (s)	
Total Delay (hr)	8.7
Total Del/Veh (s)	9.5
Vehicles Entered	3285
Vehicles Exited	3285
Hourly Exit Rate	3285
Input Volume	3285
% of Volume	100
Denied Entry Before	0
Denied Entry After	0

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7: NB Mountain House Parkway & SB Mountain House Parkway Performance by movement

Movement	WBT	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	4.4	0.0	4.4
Total Del/Veh (s)	11.9	9.0	11.9
Vehicles Entered	1303	20	1323
Vehicles Exited	1310	20	1330
Hourly Exit Rate	1310	20	1330
Input Volume	1259	25	1284
% of Volume	104	80	104
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

701: NB Mountain House Parkway & I-580 EB Off Ramp Performance by movement

Movement	EBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.2	0.0	0.2
Total Del/Veh (s)	6.9	4.0	6.4
Vehicles Entered	84	20	104
Vehicles Exited	83	20	103
Hourly Exit Rate	83	20	103
Input Volume	91	25	116
% of Volume	91	80	89
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

705: SB Mountain House Parkway & I-580 EB Off Ramp Performance by movement

Movement	WBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	4.7	0.0	4.8
Total Del/Veh (s)	12.9	8.0	12.9
Vehicles Entered	1310	21	1331
Vehicles Exited	1319	21	1340
Hourly Exit Rate	1319	21	1340
Input Volume	1259	25	1284
% of Volume	105	84	104
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Zone Performance

Denied Delay (hr)	0.0
Denied Del/Veh (s)	
Total Delay (hr)	9.4
Total Del/Veh (s)	12.6
Vehicles Entered	2684
Vehicles Exited	2684
Hourly Exit Rate	2684
Input Volume	2684
% of Volume	100
Denied Entry Before	0
Denied Entry After	0

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Tracy Transportation Master Plan Update
8: Hansen Rd/Hansen Road & Capital Parks Dr

Future 2042
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑		↘	↑	↗	↘	↗	
Traffic Volume (veh/h)	96	398	25	317	137	27	25	259	323	25	23	25
Future Volume (veh/h)	96	398	25	317	137	27	25	259	323	25	23	25
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	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	96	398	25	317	137	27	25	259	323	25	23	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	337	713	318	340	326	63	259	413	350	41	81	88
Arrive On Green	0.20	0.21	0.21	0.11	0.12	0.12	0.16	0.24	0.24	0.02	0.11	0.11
Sat Flow, veh/h	1668	3328	1485	3237	2783	536	1668	1752	1485	1668	767	834
Grp Volume(v), veh/h	96	398	25	317	81	83	25	259	323	25	0	48
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1618	1664	1655	1668	1752	1485	1668	0	1602
Q Serve(g_s), s	1.9	4.1	0.5	3.7	1.7	1.8	0.5	5.0	4.7	0.6	0.0	1.1
Cycle Q Clear(g_c), s	1.9	4.1	0.5	3.7	1.7	1.8	0.5	5.0	4.7	0.6	0.0	1.1
Prop In Lane	1.00		1.00	1.00		0.32	1.00		1.00	1.00		0.52
Lane Grp Cap(c), veh/h	337	713	318	340	195	194	259	413	350	41	0	168
V/C Ratio(X)	0.28	0.56	0.08	0.93	0.41	0.43	0.10	0.63	0.92	0.61	0.00	0.29
Avail Cap(c_a), veh/h	337	1574	702	340	787	783	259	829	702	175	0	758
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.9	13.3	12.0	16.9	15.6	15.6	13.8	13.0	4.9	18.4	0.0	15.7
Incr Delay (d2), s/veh	0.5	0.7	0.1	31.7	1.4	1.5	0.2	1.6	10.2	14.0	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.3	0.1	2.7	0.6	0.6	0.1	1.5	2.8	0.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.3	14.0	12.1	48.6	17.0	17.1	13.9	14.6	15.1	32.4	0.0	16.6
LnGrp LOS	B	B	B	D	B	B	B	B	B	C	A	B
Approach Vol, veh/h		519			481			607				73
Approach Delay, s/veh		13.8			37.9			14.8				22.0
Approach LOS		B			D			B				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.9	13.0	8.0	12.2	9.9	8.0	11.7	8.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	4.0	18.0	4.0	18.0	4.0	18.0				
Max Q Clear Time (g_c+1), s	12.6	7.0	5.7	6.1	2.5	3.1	3.9	3.8				
Green Ext Time (p_c), s	0.0	1.9	0.0	2.1	0.0	0.1	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	21.4
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	75	20	140	73	20	49	29	130	277	184	56	22
Future Volume (veh/h)	75	20	140	73	20	49	29	130	277	184	56	22
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	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	75	20	140	73	20	49	29	130	277	184	56	22
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	110	495	220	108	540	241	56	709	316	229	1180	526
Arrive On Green	0.07	0.15	0.15	0.06	0.16	0.16	0.03	0.21	0.21	0.14	0.35	0.35
Sat Flow, veh/h	1668	3328	1482	1668	3328	1485	1668	3328	1482	1668	3328	1483
Grp Volume(v), veh/h	75	20	140	73	20	49	29	130	277	184	56	22
Grp Sat Flow(s),veh/h/ln	1668	1664	1482	1668	1664	1485	1668	1664	1482	1668	1664	1483
Q Serve(g_s), s	2.1	0.2	4.3	2.1	0.2	1.4	0.8	1.5	5.7	5.1	0.5	0.3
Cycle Q Clear(g_c), s	2.1	0.2	4.3	2.1	0.2	1.4	0.8	1.5	5.7	5.1	0.5	0.3
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	110	495	220	108	540	241	56	709	316	229	1180	526
V/C Ratio(X)	0.68	0.04	0.64	0.68	0.04	0.20	0.52	0.18	0.88	0.80	0.05	0.04
Avail Cap(c_a), veh/h	173	2246	1000	346	2592	1156	208	2073	923	312	2281	1016
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	1.00	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	22.0	17.6	19.3	22.0	17.0	17.5	22.9	15.5	7.9	20.1	10.2	3.2
Incr Delay (d2), s/veh	7.3	0.0	3.0	7.2	0.0	0.4	7.3	0.1	7.7	10.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.1	1.4	0.9	0.1	0.4	0.4	0.5	2.8	2.3	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	17.6	22.3	29.2	17.0	17.9	30.2	15.6	15.6	30.4	10.2	3.2
LnGrp LOS	C	B	C	C	B	B	C	B	B	C	B	A
Approach Vol, veh/h		235			142			436			262	
Approach Delay, s/veh		24.1			23.6			16.6			23.8	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.8	11.9	12.4	16.1	7.2	12.5	5.6	22.9				
Change Period (Y+Rc), s	4.7	* 4.7	5.8	* 5.8	4.0	* 4.7	4.0	5.8				
Max Green Setting (Gmax), s	30	* 33	9.0	* 30	5.0	* 38	6.0	33.0				
Max Q Clear Time (g_c+1/4), s	14	6.3	7.1	7.7	4.1	3.4	2.8	2.5				
Green Ext Time (p_c), s	0.1	0.5	0.1	1.6	0.0	0.2	0.0	0.3				

Intersection Summary

HCM 6th Ctrl Delay	20.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑		↘	↑	↗
Traffic Volume (veh/h)	145	215	128	73	25	48	52	164	151	233	98	94
Future Volume (veh/h)	145	215	128	73	25	48	52	164	151	233	98	94
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		No		No
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	145	215	128	73	25	48	52	164	151	233	98	94
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	15	15	15	15	15	15	15	15	15	15	15	15
Cap, veh/h	202	661	295	160	578	258	134	245	211	286	413	350
Arrive On Green	0.13	0.21	0.21	0.10	0.18	0.18	0.08	0.15	0.15	0.18	0.25	0.25
Sat Flow, veh/h	1598	3188	1422	1598	3188	1422	1598	1625	1396	1598	1678	1422
Grp Volume(v), veh/h	145	215	128	73	25	48	52	161	154	233	98	94
Grp Sat Flow(s),veh/h/ln	1598	1594	1422	1598	1594	1422	1598	1594	1427	1598	1678	1422
Q Serve(g_s), s	5.8	3.8	5.2	2.9	0.4	1.9	2.0	6.3	6.8	9.3	3.1	3.5
Cycle Q Clear(g_c), s	5.8	3.8	5.2	2.9	0.4	1.9	2.0	6.3	6.8	9.3	3.1	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Lane Grp Cap(c), veh/h	202	661	295	160	578	258	134	241	215	286	413	350
V/C Ratio(X)	0.72	0.33	0.43	0.45	0.04	0.19	0.39	0.67	0.72	0.82	0.24	0.27
Avail Cap(c_a), veh/h	229	1531	683	270	1613	719	217	388	347	649	861	730
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	1.00	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	27.8	22.3	22.9	28.1	22.4	23.0	28.7	26.5	26.8	26.1	20.0	20.1
Incr Delay (d2), s/veh	9.0	0.4	1.4	2.0	0.0	0.5	1.8	4.5	6.2	5.6	0.4	0.6
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	2.5	1.3	1.7	1.1	0.1	0.6	0.8	2.5	2.5	3.6	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.7	22.7	24.3	30.1	22.4	23.5	30.6	31.0	33.0	31.8	20.4	20.7
LnGrp LOS	D	C	C	C	C	C	C	C	C	C	C	C
Approach Vol, veh/h		488			146			367			425	
Approach Delay, s/veh		27.3			26.6			31.8			26.7	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.1	20.2	17.3	15.5	14.9	18.5	11.0	21.8				
Change Period (Y+Rc), s	6.5	6.5	5.5	5.5	6.5	6.5	5.5	5.5				
Max Green Setting (Gmax), s	1.8	31.8	26.9	16.1	9.5	33.5	9.0	34.0				
Max Q Clear Time (g_c+14), s	14.9	7.2	11.3	8.8	7.8	3.9	4.0	5.5				
Green Ext Time (p_c), s	0.1	2.1	0.7	1.0	0.1	0.4	0.0	1.1				

Intersection Summary

HCM 6th Ctrl Delay	28.2
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)	119	690	33	128	462	20	25	106	458	20	25	20
Future Volume (veh/h)	119	690	33	128	462	20	25	106	458	20	25	20
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	119	690	33	128	462	20	25	106	458	20	25	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	960	428	229	913	407	42	609	516	35	601	510
Arrive On Green	0.08	0.27	0.27	0.07	0.26	0.26	0.02	0.33	0.33	0.02	0.32	0.32
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	119	690	33	128	462	20	25	106	458	20	25	20
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	3.3	8.8	0.8	1.8	5.6	0.5	0.7	2.0	13.8	0.6	0.5	0.4
Cycle Q Clear(g_c), s	3.3	8.8	0.8	1.8	5.6	0.5	0.7	2.0	13.8	0.6	0.5	0.4
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	142	960	428	229	913	407	42	609	516	35	601	510
V/C Ratio(X)	0.84	0.72	0.08	0.56	0.51	0.05	0.60	0.17	0.89	0.58	0.04	0.04
Avail Cap(c_a), veh/h	142	1274	568	275	1274	568	142	670	568	142	670	568
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	1.00	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	22.8	16.6	13.7	22.7	15.9	14.0	24.3	12.1	16.1	24.4	11.7	11.7
Incr Delay (d2), s/veh	33.7	1.3	0.1	2.1	0.4	0.0	12.9	0.1	14.8	14.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	3.3	0.3	0.7	2.0	0.2	0.4	0.8	6.3	0.4	0.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.5	17.9	13.7	24.9	16.4	14.1	37.2	12.2	30.9	38.8	11.7	11.7
LnGrp LOS	E	B	B	C	B	B	D	B	C	D	B	B
Approach Vol, veh/h		842			610			589			65	
Approach Delay, s/veh		23.2			18.1			27.8			20.1	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	20.4	7.3	17.6	5.2	20.2	8.0	16.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	4.0	18.0	4.0	18.0	4.0	18.0				
Max Q Clear Time (g_c+1), s	12.6	15.8	3.8	10.8	2.7	2.5	5.3	7.6				
Green Ext Time (p_c), s	0.0	0.6	0.0	2.7	0.0	0.1	0.0	2.3				

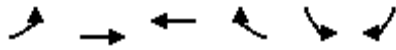
Intersection Summary												
HCM 6th Ctrl Delay											22.9	
HCM 6th LOS											C	

Tracy Transportation Master Plan Update
 13: Pavillion Pkwy & Old Schulte Rd/Old Schulte Road

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	147	389	21	20	228	56	25	25	20	57	25	20
Future Volume (veh/h)	147	389	21	20	228	56	25	25	20	57	25	20
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		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	147	389	21	20	228	56	25	25	20	57	25	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	186	568	31	36	347	85	44	519	440	399	236	200
Arrive On Green	0.10	0.32	0.32	0.02	0.24	0.24	0.02	0.28	0.28	0.13	0.13	0.13
Sat Flow, veh/h	1781	1758	95	1781	1450	356	1781	1870	1585	1361	1870	1585
Grp Volume(v), veh/h	147	0	410	20	0	284	25	25	20	57	25	20
Grp Sat Flow(s),veh/h/ln	1781	0	1853	1781	0	1806	1781	1870	1585	1361	1870	1585
Q Serve(g_s), s	2.6	0.0	6.1	0.4	0.0	4.5	0.4	0.3	0.3	1.2	0.4	0.4
Cycle Q Clear(g_c), s	2.6	0.0	6.1	0.4	0.0	4.5	0.4	0.3	0.3	1.2	0.4	0.4
Prop In Lane	1.00		0.05	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	186	0	599	36	0	432	44	519	440	399	236	200
V/C Ratio(X)	0.79	0.00	0.68	0.55	0.00	0.66	0.56	0.05	0.05	0.14	0.11	0.10
Avail Cap(c_a), veh/h	225	0	1053	225	0	1026	225	1535	1301	1001	1063	901
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	13.8	0.0	9.3	15.4	0.0	10.9	15.3	8.4	8.4	12.6	12.3	12.2
Incr Delay (d2), s/veh	14.5	0.0	1.4	12.4	0.0	1.7	10.7	0.0	0.0	0.2	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4	0.0	1.5	0.2	0.0	1.3	0.3	0.1	0.1	0.3	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	0.0	10.7	27.8	0.0	12.6	26.0	8.4	8.4	12.8	12.4	12.5
LnGrp LOS	C	A	B	C	A	B	C	A	A	B	B	B
Approach Vol, veh/h		557			304			70			102	
Approach Delay, s/veh		15.4			13.6			14.7			12.6	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s		12.8	4.6	14.2	4.8	8.0	7.3	11.6				
Change Period (Y+Rc), s		4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s		26.0	4.0	18.0	4.0	18.0	4.0	18.0				
Max Q Clear Time (g_c+I1), s		2.3	2.4	8.1	2.4	3.2	4.6	6.5				
Green Ext Time (p_c), s		0.1	0.0	1.6	0.0	0.2	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay											14.5	
HCM 6th LOS											B	



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	20	380	130	27	36	20	
Future Volume (veh/h)	20	380	130	27	36	20	
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	20	380	130	27	36	20	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	37	773	295	61	349	310	
Arrive On Green	0.02	0.41	0.20	0.20	0.20	0.20	
Sat Flow, veh/h	1781	1870	1502	312	1781	1585	
Grp Volume(v), veh/h	20	380	0	157	36	20	
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1814	1781	1585	
Q Serve(g_s), s	0.2	3.1	0.0	1.6	0.3	0.2	
Cycle Q Clear(g_c), s	0.2	3.1	0.0	1.6	0.3	0.2	
Prop In Lane	1.00			0.17	1.00	1.00	
Lane Grp Cap(c), veh/h	37	773	0	356	349	310	
V/C Ratio(X)	0.53	0.49	0.00	0.44	0.10	0.06	
Avail Cap(c_a), veh/h	349	2379	0	1597	1830	1628	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	9.9	4.4	0.0	7.2	6.7	6.7	
Incr Delay (d2), s/veh	11.3	0.5	0.0	0.9	0.1	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	0.2	0.3	0.0	0.4	0.1	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	21.2	4.9	0.0	8.1	6.9	6.8	
LnGrp LOS	C	A	A	A	A	A	
Approach Vol, veh/h		400	157		56		
Approach Delay, s/veh		5.7	8.1		6.8		
Approach LOS		A	A		A		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				12.4	8.0	4.4	8.0
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				26.0	21.0	4.0	18.0
Max Q Clear Time (g_c+11), s				5.1	2.3	2.2	3.6
Green Ext Time (p_c), s				2.3	0.1	0.0	0.7
Intersection Summary							
HCM 6th Ctrl Delay			6.4				
HCM 6th LOS			A				

Tracy Transportation Master Plan Update
 15: Commerce Way & Capital Parks Dr

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↖ ↗		↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗
Traffic Volume (veh/h)	1010	268	25	25	234	40	25	210	25	246	194	435
Future Volume (veh/h)	1010	268	25	25	234	40	25	210	25	246	194	435
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		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	1010	268	25	25	234	40	25	210	25	246	194	435
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1124	1378	128	41	414	185	41	363	43	310	494	838
Arrive On Green	0.33	0.42	0.42	0.02	0.12	0.12	0.02	0.11	0.11	0.17	0.26	0.26
Sat Flow, veh/h	3456	3288	304	1781	3554	1585	1781	3203	377	1781	1870	3170
Grp Volume(v), veh/h	1010	144	149	25	234	40	25	115	120	246	194	435
Grp Sat Flow(s),veh/h/ln	1728	1777	1816	1781	1777	1585	1781	1777	1803	1781	1870	1585
Q Serve(g_s), s	16.4	3.0	3.1	0.8	3.7	1.4	0.8	3.6	3.7	7.8	5.0	6.9
Cycle Q Clear(g_c), s	16.4	3.0	3.1	0.8	3.7	1.4	0.8	3.6	3.7	7.8	5.0	6.9
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	1124	745	761	41	414	185	41	201	204	310	494	838
V/C Ratio(X)	0.90	0.19	0.20	0.62	0.57	0.22	0.62	0.57	0.59	0.79	0.39	0.52
Avail Cap(c_a), veh/h	1171	993	1015	151	1084	483	151	542	550	543	982	1665
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	1.00	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	19.0	10.8	10.9	28.6	24.7	23.6	28.6	24.8	24.9	23.4	17.8	18.5
Incr Delay (d2), s/veh	9.3	0.1	0.1	14.2	1.2	0.6	14.2	2.6	2.6	4.6	0.5	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	7.3	1.1	1.1	0.5	1.5	0.5	0.5	1.6	1.6	3.4	2.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.2	11.0	11.0	42.8	25.9	24.2	42.8	27.4	27.5	28.0	18.3	19.0
LnGrp LOS	C	B	B	D	C	C	D	C	C	C	B	B
Approach Vol, veh/h		1303			299			260			875	
Approach Delay, s/veh		24.4			27.1			28.9			21.4	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.3	10.7	5.3	28.7	5.3	19.6	23.2	10.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	5.0	33.0	5.0	31.0	20.0	18.0				
Max Q Clear Time (g_c+1), s	19.8	5.7	2.8	5.1	2.8	8.9	18.4	5.7				
Green Ext Time (p_c), s	0.4	1.0	0.0	1.7	0.0	2.9	0.8	1.2				

Intersection Summary

HCM 6th Ctrl Delay	24.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Tracy Transportation Master Plan Update
 16: Road M & Capital Parks Dr

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↑		↖	↑	↗	↖	↗		↖	↑	↗
Traffic Volume (veh/h)	392	133	20	25	118	202	20	25	20	341	25	147
Future Volume (veh/h)	392	133	20	25	118	202	20	25	20	341	25	147
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		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	392	133	20	25	118	202	20	25	20	341	25	147
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	547	985	145	42	649	289	35	81	65	422	564	478
Arrive On Green	0.16	0.32	0.32	0.02	0.18	0.18	0.02	0.08	0.08	0.24	0.30	0.30
Sat Flow, veh/h	3456	3106	459	1781	3554	1585	1781	962	770	1781	1870	1585
Grp Volume(v), veh/h	392	75	78	25	118	202	20	0	45	341	25	147
Grp Sat Flow(s),veh/h/ln	1728	1777	1788	1781	1777	1585	1781	0	1732	1781	1870	1585
Q Serve(g_s), s	5.1	1.4	1.5	0.7	1.3	5.7	0.5	0.0	1.2	8.6	0.4	1.8
Cycle Q Clear(g_c), s	5.1	1.4	1.5	0.7	1.3	5.7	0.5	0.0	1.2	8.6	0.4	1.8
Prop In Lane	1.00		0.26	1.00		1.00	1.00		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	547	564	567	42	649	289	35	0	146	422	564	478
V/C Ratio(X)	0.72	0.13	0.14	0.59	0.18	0.70	0.57	0.00	0.31	0.81	0.04	0.31
Avail Cap(c_a), veh/h	730	863	869	188	1351	603	151	0	658	677	1264	1071
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	11.5	11.5	22.9	16.4	18.1	23.0	0.0	20.4	17.1	11.7	3.6
Incr Delay (d2), s/veh	2.2	0.1	0.1	12.6	0.1	3.0	14.1	0.0	1.2	3.8	0.0	0.4
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	2.0	0.5	0.5	0.4	0.5	2.1	0.3	0.0	0.5	3.5	0.2	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.2	11.6	11.6	35.4	16.5	21.2	37.1	0.0	21.5	20.9	11.7	4.0
LnGrp LOS	C	B	B	D	B	C	D	A	C	C	B	A
Approach Vol, veh/h		545			345			65			513	
Approach Delay, s/veh		18.5			20.6			26.3			15.6	
Approach LOS		B			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.2	8.0	5.1	19.0	4.9	18.3	11.5	12.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	5.0	23.0	4.0	32.0	10.0	18.0				
Max Q Clear Time (g_c+110), s	11.0	3.2	2.7	3.5	2.5	3.8	7.1	7.7				
Green Ext Time (p_c), s	0.7	0.1	0.0	0.7	0.0	0.6	0.4	1.0				

Intersection Summary

HCM 6th Ctrl Delay	18.3
HCM 6th LOS	B



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	120	20	123	298
Future Volume (veh/h)	0	0	120	20	123	298
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	0	0	120	20	123	298
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	13	12	555	470	195	1315
Arrive On Green	0.00	0.00	0.30	0.30	0.11	0.70
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	0	0	120	20	123	298
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	0.0	0.0	0.6	0.1	0.9	0.8
Cycle Q Clear(g_c), s	0.0	0.0	0.6	0.1	0.9	0.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	13	12	555	470	195	1315
V/C Ratio(X)	0.00	0.00	0.22	0.04	0.63	0.23
Avail Cap(c_a), veh/h	2379	2117	2498	2117	925	4025
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	3.6	3.4	5.7	0.7
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.0	3.3	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	0.0	0.0	0.0	0.0	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.0	3.8	3.4	9.1	0.8
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	0		140			421
Approach Delay, s/veh	0.0		3.7			3.2
Approach LOS			A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.5	8.0			13.5	0.0
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	18.0				29.0	18.0
Max Q Clear Time (g_c+1/2), s	2.6				2.8	0.0
Green Ext Time (p_c), s	0.1	0.5			1.8	0.0
Intersection Summary						
HCM 6th Ctrl Delay			3.3			
HCM 6th LOS			A			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	485	36	73	91	25	343
Future Volume (veh/h)	485	36	73	91	25	343
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	485	36	73	91	25	343
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	597	532	102	835	523	444
Arrive On Green	0.34	0.34	0.06	0.45	0.28	0.28
Sat Flow, veh/h	1781	1585	1781	1870	1870	1585
Grp Volume(v), veh/h	485	36	73	91	25	343
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1870	1870	1585
Q Serve(g_s), s	9.1	0.6	1.5	1.0	0.4	7.3
Cycle Q Clear(g_c), s	9.1	0.6	1.5	1.0	0.4	7.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	597	532	102	835	523	444
V/C Ratio(X)	0.81	0.07	0.72	0.11	0.05	0.77
Avail Cap(c_a), veh/h	972	865	194	1378	970	822
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	11.1	8.3	17.0	5.9	9.6	12.1
Incr Delay (d2), s/veh	2.7	0.1	9.0	0.1	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	0.0	0.8	0.3	0.1	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.8	8.3	26.0	6.0	9.7	15.0
LnGrp LOS	B	A	C	A	A	B
Approach Vol, veh/h	521			164	368	
Approach Delay, s/veh	13.5			14.9	14.7	
Approach LOS	B			B	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		20.4		16.3	6.1	14.3
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		27.0		20.0	4.0	19.0
Max Q Clear Time (g_c+I1), s		3.0		11.1	3.5	9.3
Green Ext Time (p_c), s		0.4		1.2	0.0	1.0
Intersection Summary						
HCM 6th Ctrl Delay			14.1			
HCM 6th LOS			B			

Tracy Transportation Master Plan Update
 19: Pavillion Pkwy & Van Stosen Rd

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	78	25	35	20	25	20	37	86	20	20	37	20
Future Volume (veh/h)	78	25	35	20	25	20	37	86	20	20	37	20
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		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	78	25	35	20	25	20	37	86	20	20	37	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	119	98	137	37	89	72	65	330	279	37	301	255
Arrive On Green	0.07	0.14	0.14	0.02	0.09	0.09	0.04	0.18	0.18	0.02	0.16	0.16
Sat Flow, veh/h	1781	705	987	1781	962	770	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	78	0	60	20	0	45	37	86	20	20	37	20
Grp Sat Flow(s),veh/h/ln	1781	0	1693	1781	0	1732	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	1.1	0.0	0.8	0.3	0.0	0.6	0.5	1.0	0.3	0.3	0.4	0.3
Cycle Q Clear(g_c), s	1.1	0.0	0.8	0.3	0.0	0.6	0.5	1.0	0.3	0.3	0.4	0.3
Prop In Lane	1.00		0.58	1.00		0.44	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	119	0	236	37	0	161	65	330	279	37	301	255
V/C Ratio(X)	0.65	0.00	0.25	0.54	0.00	0.28	0.57	0.26	0.07	0.54	0.12	0.08
Avail Cap(c_a), veh/h	286	0	1224	286	0	1253	286	1353	1147	286	1353	1147
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	11.3	0.0	9.6	12.1	0.0	10.5	11.8	8.8	8.6	12.1	8.9	8.9
Incr Delay (d2), s/veh	5.9	0.0	0.6	11.7	0.0	0.9	7.8	0.4	0.1	11.7	0.2	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	0.5	0.0	0.2	0.2	0.0	0.2	0.3	0.3	0.1	0.2	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.3	0.0	10.1	23.8	0.0	11.4	19.6	9.3	8.7	23.8	9.1	9.0
LnGrp LOS	B	A	B	C	A	B	B	A	A	C	A	A
Approach Vol, veh/h		138			65			143			77	
Approach Delay, s/veh		14.2			15.2			11.8			12.9	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.5	8.4	4.5	7.5	4.9	8.0	5.7	6.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	4.0	18.0	4.0	18.0	4.0	18.0				
Max Q Clear Time (g_c+1), s	12.3	3.0	2.3	2.8	2.5	2.4	3.1	2.6				
Green Ext Time (p_c), s	0.0	0.4	0.0	0.2	0.0	0.1	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Tracy Transportation Master Plan Update
 20: Lammers Extension & Pavillion Pkwy

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	20	501	71	65	248	239	94	134	117	279	86	20
Future Volume (veh/h)	20	501	71	65	248	239	94	134	117	279	86	20
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		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	20	501	71	65	248	239	94	134	117	279	86	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	309	608	515	84	372	315	121	236	200	340	466	395
Arrive On Green	0.17	0.33	0.33	0.05	0.20	0.20	0.07	0.13	0.13	0.19	0.25	0.25
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	20	501	71	65	248	239	94	134	117	279	86	20
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.5	12.7	1.6	1.9	6.3	4.2	2.7	3.5	3.6	7.7	1.9	0.3
Cycle Q Clear(g_c), s	0.5	12.7	1.6	1.9	6.3	4.2	2.7	3.5	3.6	7.7	1.9	0.3
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	309	608	515	84	372	315	121	236	200	340	466	395
V/C Ratio(X)	0.06	0.82	0.14	0.78	0.67	0.76	0.78	0.57	0.58	0.82	0.18	0.05
Avail Cap(c_a), veh/h	309	799	677	138	799	677	311	727	616	450	872	739
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	1.00	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	17.8	16.0	12.3	24.3	19.0	6.3	23.6	21.2	21.2	20.0	15.2	4.7
Incr Delay (d2), s/veh	0.1	5.4	0.1	14.1	2.1	3.7	10.1	2.1	2.7	8.8	0.2	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	0.2	5.5	0.5	1.1	2.7	2.5	1.4	1.5	1.4	3.7	0.7	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.9	21.4	12.4	38.4	21.1	10.0	33.7	23.3	23.9	28.8	15.4	4.7
LnGrp LOS	B	C	B	D	C	B	C	C	C	C	B	A
Approach Vol, veh/h		592			552			345			385	
Approach Delay, s/veh		20.2			18.3			26.3			24.6	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.8	10.5	6.4	20.7	7.5	16.8	12.9	14.2				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	13.0	20.0	4.0	22.0	9.0	24.0	4.0	22.0				
Max Q Clear Time (g_c+1), s	19.5	5.6	3.9	14.7	4.7	3.9	2.5	8.3				
Green Ext Time (p_c), s	0.3	0.9	0.0	2.0	0.1	0.4	0.0	1.9				

Intersection Summary

HCM 6th Ctrl Delay	21.7
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	20	20	20	20	20	227	20	109	20	199	24	20
Future Volume (veh/h)	20	20	20	20	20	227	20	109	20	199	24	20
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	20	20	20	20	20	227	20	109	20	199	24	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	523	403	342	571	403	342	37	299	254	257	530	449
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.02	0.16	0.16	0.14	0.28	0.28
Sat Flow, veh/h	1133	1870	1585	1367	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	20	20	20	20	20	227	20	109	20	199	24	20
Grp Sat Flow(s),veh/h/ln	1133	1870	1585	1367	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.4	0.2	0.3	0.3	0.2	3.3	0.3	1.3	0.3	2.7	0.2	0.2
Cycle Q Clear(g_c), s	0.6	0.2	0.3	0.5	0.2	3.3	0.3	1.3	0.3	2.7	0.2	0.2
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	523	403	342	571	403	342	37	299	254	257	530	449
V/C Ratio(X)	0.04	0.05	0.06	0.04	0.05	0.66	0.54	0.36	0.08	0.77	0.05	0.04
Avail Cap(c_a), veh/h	1095	1347	1142	1261	1347	1142	285	1347	1142	499	1572	1332
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	1.00	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	8.0	7.8	7.8	8.0	7.8	9.0	12.1	9.4	8.9	10.3	6.5	6.5
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	0.1	2.2	11.7	0.7	0.1	5.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.1	0.1	0.1	0.9	0.2	0.4	0.1	1.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.0	7.8	7.9	8.0	7.8	11.2	23.9	10.1	9.1	15.3	6.5	6.5
LnGrp LOS	A	A	A	A	A	B	C	B	A	B	A	A
Approach Vol, veh/h		60			267			149			243	
Approach Delay, s/veh		7.9			10.7			11.8			13.7	
Approach LOS		A			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	8.0		9.4	4.5	11.1		9.4				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	18.0	18.0		18.0	4.0	21.0		18.0				
Max Q Clear Time (g_c+1), s	3.3	3.3		2.6	2.3	2.2		5.3				
Green Ext Time (p_c), s	0.1	0.5		0.1	0.0	0.1		0.7				

Intersection Summary

HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	25	25	20	25	20	25	112	32	20	24	20
Future Volume (veh/h)	20	25	25	20	25	20	25	112	32	20	24	20
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	20	25	25	20	25	20	25	112	32	20	24	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	37	169	143	37	169	143	46	332	281	37	323	274
Arrive On Green	0.02	0.09	0.09	0.02	0.09	0.09	0.03	0.18	0.18	0.02	0.17	0.17
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	20	25	25	20	25	20	25	112	32	20	24	20
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.2	0.4	0.3	0.2	0.2
Cycle Q Clear(g_c), s	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.2	0.4	0.3	0.2	0.2
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	37	169	143	37	169	143	46	332	281	37	323	274
V/C Ratio(X)	0.54	0.15	0.17	0.54	0.15	0.14	0.55	0.34	0.11	0.54	0.07	0.07
Avail Cap(c_a), veh/h	308	1453	1231	308	1453	1231	308	1453	1231	308	1453	1231
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	1.00	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	11.2	9.7	9.7	11.2	9.7	9.7	11.2	8.3	8.0	11.2	8.0	8.0
Incr Delay (d2), s/veh	11.6	0.4	0.6	11.6	0.4	0.4	9.8	0.6	0.2	11.6	0.1	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	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.3	0.1	0.2	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.8	10.1	10.3	22.8	10.1	10.2	21.0	8.9	8.2	22.8	8.1	8.1
LnGrp LOS	C	B	B	C	B	B	C	A	A	C	A	A
Approach Vol, veh/h	70			65			169			64		
Approach Delay, s/veh	13.8			14.0			10.6			12.7		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.5	8.1	4.5	6.1	4.6	8.0	4.5	6.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	4.0	18.0	4.0	18.0	4.0	18.0				
Max Q Clear Time (g_c+1), s	3.2	3.2	2.3	2.3	2.3	2.2	2.3	2.3				
Green Ext Time (p_c), s	0.0	0.5	0.0	0.1	0.0	0.1	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B

Tracy Transportation Master Plan Update
 23: Lammers Extension & I-205 WB On-Ramp/I-205 WB Off-Ramp

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖ ↗	↖	↗		↖ ↗	↖ ↗		↖ ↗ ↘	↗
Traffic Volume (veh/h)	0	0	0	760	0	25	0	147	760	0	25	25
Future Volume (veh/h)	0	0	0	760	0	25	0	147	760	0	25	25
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		No		
Adj Sat Flow, veh/h/ln				1870	1870	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				760	0	0	0	147	760	0	25	25
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				1177	0		0	2202	2343	0	3165	982
Arrive On Green				0.22	0.00	0.00	0.00	0.20	0.20	0.00	0.62	0.62
Sat Flow, veh/h				5344	0	1585	0	3647	2790	0	5274	1585
Grp Volume(v), veh/h				760	0	0	0	147	760	0	25	25
Grp Sat Flow(s),veh/h/ln				1781	0	1585	0	1777	1395	0	1702	1585
Q Serve(g_s), s				6.5	0.0	0.0	0.0	1.7	5.0	0.0	0.1	0.3
Cycle Q Clear(g_c), s				6.5	0.0	0.0	0.0	1.7	5.0	0.0	0.1	0.3
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1177	0		0	2202	2343	0	3165	982
V/C Ratio(X)				0.65	0.00		0.00	0.07	0.32	0.00	0.01	0.03
Avail Cap(c_a), veh/h				2244	0		0	2202	2343	0	3165	982
HCM Platoon Ratio				1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.00	0.50	0.50	0.00	1.00	1.00
Uniform Delay (d), s/veh				17.7	0.0	0.0	0.0	8.2	2.2	0.0	3.6	3.7
Incr Delay (d2), s/veh				0.6	0.0	0.0	0.0	0.0	0.2	0.0	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				2.4	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				18.3	0.0	0.0	0.0	8.3	2.4	0.0	3.6	3.7
LnGrp LOS				B	A		A	A	A	A	A	A
Approach Vol, veh/h					760	A		907			50	
Approach Delay, s/veh					18.3			3.3			3.7	
Approach LOS					B			A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		35.0				35.0		15.0				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		21.0				21.0		21.0				
Max Q Clear Time (g_c+I1), s		7.0				2.3		8.5				
Green Ext Time (p_c), s		3.8				0.1		2.5				

Intersection Summary

HCM 6th Ctrl Delay	10.0
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Tracy Transportation Master Plan Update
 24: Lammers Extension & I-205 EB Off Ramp/I-205 EB On Ramp

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↑↑↑	↗↗		↑↑↑	↗
Traffic Volume (veh/h)	60	0	1673	0	0	0	0	854	1878	0	770	20
Future Volume (veh/h)	60	0	1673	0	0	0	0	854	1878	0	770	20
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	1870	1870	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	60	0	0				0	854	1878	0	770	20
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2				0	2	2	0	2	2
Cap, veh/h	82	0					0	4462	2438	0	4462	1385
Arrive On Green	0.05	0.00	0.00				0.00	0.87	0.87	0.00	0.29	0.29
Sat Flow, veh/h	1781	0	1585				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	60	0	0				0	854	1878	0	770	20
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1395	0	1702	1585
Q Serve(g_s), s	3.3	0.0	0.0				0.0	2.5	26.0	0.0	11.3	0.9
Cycle Q Clear(g_c), s	3.3	0.0	0.0				0.0	2.5	26.0	0.0	11.3	0.9
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	82	0					0	4462	2438	0	4462	1385
V/C Ratio(X)	0.73	0.00					0.00	0.19	0.77	0.00	0.17	0.01
Avail Cap(c_a), veh/h	1265	0					0	4462	2438	0	4462	1385
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.58	0.58	0.00	0.98	0.98
Uniform Delay (d), s/veh	47.1	0.0	0.0				0.0	1.0	2.4	0.0	8.5	4.8
Incr Delay (d2), s/veh	11.7	0.0	0.0				0.0	0.1	1.4	0.0	0.1	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	1.7	0.0	0.0				0.0	0.2	2.3	0.0	5.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.8	0.0	0.0				0.0	1.0	3.8	0.0	8.6	4.8
LnGrp LOS	E	A					A	A	A	A	A	A
Approach Vol, veh/h		60	A					2732			790	
Approach Delay, s/veh		58.8						3.0			8.5	
Approach LOS		E						A			A	
Timer - Assigned Phs		2		4			6					
Phs Duration (G+Y+Rc), s		91.4		8.6			91.4					
Change Period (Y+Rc), s		4.0		4.0			4.0					
Max Green Setting (Gmax), s		21.0		71.0			21.0					
Max Q Clear Time (g_c+I1), s		28.0		5.3			13.3					
Green Ext Time (p_c), s		0.0		0.4			3.2					

Intersection Summary

HCM 6th Ctrl Delay	5.1
HCM 6th LOS	A

Notes

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

Tracy Transportation Master Plan Update
 25: Lammers Ext/Lammers Extension & Commerce Way

Future 2042
 PM Peak Hour



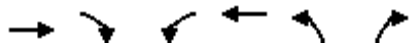
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔↔	↑	↔	↔	↑	↔	↔	↑↑↑	↔	↔	↑↑↑	↔↔
Traffic Volume (veh/h)	1688	25	20	20	25	25	25	1003	20	136	1918	899
Future Volume (veh/h)	1688	25	20	20	25	25	25	1003	20	136	1918	899
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	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	1688	25	0	20	25	0	25	1003	20	136	1918	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1866	68		662	68		35	2266	558	166	2176	
Arrive On Green	0.37	0.04	0.00	0.37	0.04	0.00	0.02	0.35	0.35	0.09	0.43	0.00
Sat Flow, veh/h	5023	1870	1585	1781	1870	1585	1781	6434	1585	1781	5106	2790
Grp Volume(v), veh/h	1688	25	0	20	25	0	25	1003	20	136	1918	0
Grp Sat Flow(s),veh/h/ln	1674	1870	1585	1781	1870	1585	1781	1609	1585	1781	1702	1395
Q Serve(g_s), s	34.8	1.4	0.0	0.8	1.4	0.0	1.5	13.1	0.3	8.2	37.7	0.0
Cycle Q Clear(g_c), s	34.8	1.4	0.0	0.8	1.4	0.0	1.5	13.1	0.3	8.2	37.7	0.0
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	1866	68		662	68		35	2266	558	166	2176	
V/C Ratio(X)	0.90	0.37		0.03	0.37		0.72	0.44	0.04	0.82	0.88	
Avail Cap(c_a), veh/h	1976	975		662	325		65	2266	558	293	2242	
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	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.5	51.4	0.0	21.8	51.4	0.0	53.3	27.2	2.3	48.6	28.8	0.0
Incr Delay (d2), s/veh	6.2	3.2	0.0	0.0	3.2	0.0	24.3	0.1	0.0	9.4	4.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.8	0.7	0.0	0.3	0.7	0.0	0.9	5.0	0.3	4.1	15.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.7	54.6	0.0	21.9	54.6	0.0	77.6	27.3	2.3	58.0	33.2	0.0
LnGrp LOS	D	D		C	D		E	C	A	E	C	
Approach Vol, veh/h		1713	A		45	A		1048			2054	A
Approach Delay, s/veh		38.9			40.1			28.0			34.9	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	44.6	8.0	6.1	50.6	44.6	8.0	14.2	42.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	57.0	57.0	4.0	48.0	43.0	19.0	18.0	34.0				
Max Q Clear Time (g_c+1), s	12.8	3.4	3.5	39.7	36.8	3.4	10.2	15.1				
Green Ext Time (p_c), s	0.0	0.1	0.0	6.8	3.8	0.0	0.2	7.1				

Intersection Summary

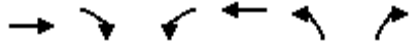
HCM 6th Ctrl Delay	34.9
HCM 6th LOS	C

Notes

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



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↵	↑↑↑	↵↵↵	↑
Traffic Volume (veh/h)	1423	515	161	478	529	183
Future Volume (veh/h)	1423	515	161	478	529	183
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	1423	515	161	478	529	183
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3730	1158	241	4701	810	256
Arrive On Green	0.73	0.73	0.73	0.73	0.16	0.16
Sat Flow, veh/h	5274	1585	229	6696	5023	1585
Grp Volume(v), veh/h	1423	515	161	478	529	183
Grp Sat Flow(s),veh/h/ln	1702	1585	229	1609	1674	1585
Q Serve(g_s), s	7.7	9.6	46.3	1.6	7.3	8.1
Cycle Q Clear(g_c), s	7.7	9.6	54.0	1.6	7.3	8.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3730	1158	241	4701	810	256
V/C Ratio(X)	0.38	0.44	0.67	0.10	0.65	0.72
Avail Cap(c_a), veh/h	3730	1158	241	4701	1223	386
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	3.7	4.0	16.3	2.9	29.1	29.4
Incr Delay (d2), s/veh	0.1	0.3	6.9	0.0	0.9	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.6	2.7	0.3	2.9	3.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.8	4.2	23.3	2.9	30.0	33.1
LnGrp LOS	A	A	C	A	C	C
Approach Vol, veh/h	1938			639	712	
Approach Delay, s/veh	3.9			8.0	30.8	
Approach LOS	A			A	C	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		15.9		58.0		58.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		18.0		54.0		54.0
Max Q Clear Time (g_c+I1), s		10.1		11.6		56.0
Green Ext Time (p_c), s		1.8		16.8		0.0
Intersection Summary						
HCM 6th Ctrl Delay			10.5			
HCM 6th LOS			B			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Volume (veh/h)	347	552	20	432	121	20
Future Volume (veh/h)	347	552	20	432	121	20
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	347	552	20	432	121	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	855	725	36	1134	243	216
Arrive On Green	0.46	0.46	0.02	0.61	0.14	0.14
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	347	552	20	432	121	20
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	3.8	9.0	0.3	3.7	2.0	0.3
Cycle Q Clear(g_c), s	3.8	9.0	0.3	3.7	2.0	0.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	855	725	36	1134	243	216
V/C Ratio(X)	0.41	0.76	0.55	0.38	0.50	0.09
Avail Cap(c_a), veh/h	1263	1070	229	1744	1031	917
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	5.6	7.0	15.1	3.1	12.4	11.7
Incr Delay (d2), s/veh	0.3	1.9	12.3	0.2	1.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.9	0.2	0.4	0.7	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.9	8.9	27.4	3.3	14.0	11.9
LnGrp LOS	A	A	C	A	B	B
Approach Vol, veh/h	899			452	141	
Approach Delay, s/veh	7.8			4.4	13.7	
Approach LOS	A			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		8.2	4.6	18.2		22.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s		18.0	4.0	21.0		29.0
Max Q Clear Time (g_c+1), s		4.0	2.3	11.0		5.7
Green Ext Time (p_c), s		0.3	0.0	3.2		2.8
Intersection Summary						
HCM 6th Ctrl Delay			7.3			
HCM 6th LOS			A			

Tracy Transportation Master Plan Update
29: S Lammers Rd & Pavillion Pkwy

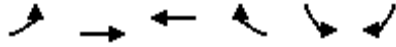
Future 2042
PM Peak Hour



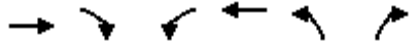
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	279	50	20	413	20	25	20	20	20	20	25
Future Volume (veh/h)	25	279	50	20	413	20	25	20	20	20	20	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	25	279	50	20	413	20	25	20	20	20	20	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	44	599	507	36	590	500	44	113	113	36	96	120
Arrive On Green	0.02	0.32	0.32	0.02	0.32	0.32	0.02	0.13	0.13	0.02	0.13	0.13
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	858	858	1781	756	945
Grp Volume(v), veh/h	25	279	50	20	413	20	25	0	40	20	0	45
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	0	1716	1781	0	1700
Q Serve(g_s), s	0.4	3.8	0.7	0.4	6.1	0.3	0.4	0.0	0.7	0.4	0.0	0.7
Cycle Q Clear(g_c), s	0.4	3.8	0.7	0.4	6.1	0.3	0.4	0.0	0.7	0.4	0.0	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		0.56
Lane Grp Cap(c), veh/h	44	599	507	36	590	500	44	0	226	36	0	216
V/C Ratio(X)	0.56	0.47	0.10	0.55	0.70	0.04	0.56	0.00	0.18	0.55	0.00	0.21
Avail Cap(c_a), veh/h	226	1068	905	226	1068	905	226	0	980	226	0	971
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.2	8.6	7.5	15.3	9.5	7.5	15.2	0.0	12.2	15.3	0.0	12.3
Incr Delay (d2), s/veh	10.7	0.6	0.1	12.4	1.5	0.0	10.7	0.0	0.4	12.4	0.0	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	0.3	1.1	0.2	0.2	1.9	0.1	0.3	0.0	0.2	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.9	9.1	7.6	27.7	11.0	7.5	25.9	0.0	12.5	27.7	0.0	12.8
LnGrp LOS	C	A	A	C	B	A	C	A	B	C	A	B
Approach Vol, veh/h	354		453				65		65			
Approach Delay, s/veh	10.1		11.6				17.7		17.4			
Approach LOS	B		B				B		B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.6	8.1	4.6	14.1	4.8	8.0	4.8	13.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	4.0	18.0	4.0	18.0	4.0	18.0				
Max Q Clear Time (g_c+1), s	12.4	2.7	2.4	5.8	2.4	2.7	2.4	8.1				
Green Ext Time (p_c), s	0.0	0.1	0.0	1.4	0.0	0.1	0.0	1.8				

Intersection Summary

HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑	↗	↘	↗
Traffic Volume (veh/h)	39	1307	1023	45	43	25
Future Volume (veh/h)	39	1307	1023	45	43	25
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	39	1307	1023	45	43	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	467	2080	2080	928	242	215
Arrive On Green	0.59	0.59	0.59	0.59	0.14	0.14
Sat Flow, veh/h	524	3618	3618	1572	1767	1572
Grp Volume(v), veh/h	39	1307	1023	45	43	25
Grp Sat Flow(s),veh/h/ln	524	1763	1763	1572	1767	1572
Q Serve(g_s), s	1.4	7.1	4.9	0.4	0.6	0.4
Cycle Q Clear(g_c), s	6.3	7.1	4.9	0.4	0.6	0.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	467	2080	2080	928	242	215
V/C Ratio(X)	0.08	0.63	0.49	0.05	0.18	0.12
Avail Cap(c_a), veh/h	588	2891	2891	1289	1087	967
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	5.3	3.9	3.5	2.5	11.2	11.1
Incr Delay (d2), s/veh	0.1	0.3	0.2	0.0	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.1	0.0	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.4	4.2	3.6	2.6	11.5	11.3
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h		1346	1068		68	
Approach Delay, s/veh		4.3	3.6		11.5	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				21.3	8.0	21.3
Change Period (Y+Rc), s				4.0	4.0	4.0
Max Green Setting (Gmax), s				24.0	18.0	24.0
Max Q Clear Time (g_c+11), s				9.1	2.6	6.9
Green Ext Time (p_c), s				8.2	0.1	6.6
Intersection Summary						
HCM 6th Ctrl Delay			4.2			
HCM 6th LOS			A			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Volume (veh/h)	504	322	29	380	438	84
Future Volume (veh/h)	504	322	29	380	438	84
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	504	322	29	380	438	84
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	646	547	111	898	542	482
Arrive On Green	0.35	0.35	0.06	0.48	0.31	0.31
Sat Flow, veh/h	1856	1572	1767	1856	1767	1572
Grp Volume(v), veh/h	504	322	29	380	438	84
Grp Sat Flow(s),veh/h/ln	1856	1572	1767	1856	1767	1572
Q Serve(g_s), s	11.6	8.0	0.7	6.3	10.9	1.9
Cycle Q Clear(g_c), s	11.6	8.0	0.7	6.3	10.9	1.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	646	547	111	898	542	482
V/C Ratio(X)	0.78	0.59	0.26	0.42	0.81	0.17
Avail Cap(c_a), veh/h	875	741	111	1147	778	692
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	13.9	12.8	21.3	8.0	15.3	12.1
Incr Delay (d2), s/veh	3.6	1.2	0.5	0.4	4.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	2.3	0.3	1.8	4.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.5	14.0	21.8	8.4	20.0	12.3
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	826			409	522	
Approach Delay, s/veh	16.1			9.3	18.7	
Approach LOS	B			A	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		28.1		19.6	6.5	21.6
Change Period (Y+Rc), s		* 5		5.0	3.5	5.0
Max Green Setting (Gmax), s		* 30		21.0	3.0	22.5
Max Q Clear Time (g_c+I1), s		8.3		12.9	2.7	13.6
Green Ext Time (p_c), s		1.8		1.7	0.0	3.0

Intersection Summary

HCM 6th Ctrl Delay	15.3
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑	↔	↔↔	↑↑	↔
Traffic Volume (veh/h)	104	981	373	50	605	25	20	125	122	25	77	34
Future Volume (veh/h)	104	981	373	50	605	25	20	125	122	25	77	34
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	104	981	0	50	605	0	20	125	0	25	77	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	422	2019		327	1968		227	497		286	558	
Arrive On Green	0.12	0.40	0.00	0.10	0.39	0.00	0.07	0.14	0.00	0.08	0.16	0.00
Sat Flow, veh/h	3428	5066	1572	3428	5066	1572	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	104	981	0	50	605	0	20	125	0	25	77	0
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1714	1689	1572	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	1.5	8.1	0.0	0.8	4.7	0.0	0.3	1.8	0.0	0.4	1.1	0.0
Cycle Q Clear(g_c), s	1.5	8.1	0.0	0.8	4.7	0.0	0.3	1.8	0.0	0.4	1.1	0.0
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	422	2019		327	1968		227	497		286	558	
V/C Ratio(X)	0.25	0.49		0.15	0.31		0.09	0.25		0.09	0.14	
Avail Cap(c_a), veh/h	526	3467		526	3557		526	2645		617	2740	
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	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.2	12.6	0.0	23.3	11.9	0.0	24.6	21.5	0.0	23.7	20.3	0.0
Incr Delay (d2), s/veh	0.1	0.4	0.0	0.1	0.2	0.0	0.1	0.4	0.0	0.1	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.4	0.0	0.3	1.4	0.0	0.1	0.7	0.0	0.1	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.4	13.0	0.0	23.4	12.1	0.0	24.7	21.8	0.0	23.9	20.4	0.0
LnGrp LOS	C	B		C	B		C	C		C	C	
Approach Vol, veh/h		1085	A		655	A		145	A		102	A
Approach Delay, s/veh		13.9			13.0			22.2			21.3	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	26.4	7.1	12.9	10.3	25.8	8.1	11.9				
Change Period (Y+Rc), s	6.5	6.1	5.5	6.1	5.5	6.1	5.5	6.1				
Max Green Setting (Gmax), s	40.5	36.3	6.5	41.5	6.5	37.3	8.0	40.0				
Max Q Clear Time (g_c+1/8), s	12.8	10.1	2.3	3.1	3.5	6.7	2.4	3.8				
Green Ext Time (p_c), s	0.0	10.2	0.0	0.3	0.0	6.2	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay	14.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Tracy Transportation Master Plan Update
33: Lammers Rd & Capital Parks Dr

Future 2042
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖↗	↑	↖	↖↗↘	↑↑↑	↖	↖↗	↑↑	↖↗
Traffic Volume (veh/h)	54	222	445	329	40	290	228	555	106	136	772	22
Future Volume (veh/h)	54	222	445	329	40	290	228	555	106	136	772	22
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	54	222	445	329	40	290	228	555	106	136	772	22
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	397	472	400	476	515	436	349	1082	336	397	995	781
Arrive On Green	0.12	0.25	0.25	0.14	0.28	0.28	0.07	0.21	0.21	0.12	0.28	0.28
Sat Flow, veh/h	3428	1856	1572	3428	1856	1572	4983	5066	1572	3428	3526	2768
Grp Volume(v), veh/h	54	222	445	329	40	290	228	555	106	136	772	22
Grp Sat Flow(s),veh/h/ln	1714	1856	1572	1714	1856	1572	1661	1689	1572	1714	1763	1384
Q Serve(g_s), s	1.2	8.8	22.0	7.9	1.4	14.1	3.9	8.4	4.9	3.2	17.4	0.5
Cycle Q Clear(g_c), s	1.2	8.8	22.0	7.9	1.4	14.1	3.9	8.4	4.9	3.2	17.4	0.5
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	397	472	400	476	515	436	349	1082	336	397	995	781
V/C Ratio(X)	0.14	0.47	1.11	0.69	0.08	0.66	0.65	0.51	0.32	0.34	0.78	0.03
Avail Cap(c_a), veh/h	397	472	400	991	751	637	519	1816	564	397	1386	1088
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	1.00	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	34.4	27.3	32.2	35.5	23.1	27.7	39.2	30.0	28.7	35.2	28.5	22.4
Incr Delay (d2), s/veh	0.2	0.7	79.0	0.7	0.0	0.7	2.1	0.4	0.5	0.7	2.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.8	16.5	3.2	0.6	5.0	1.6	3.2	1.8	1.3	7.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	28.0	111.2	36.1	23.1	28.3	41.3	30.4	29.2	35.9	30.6	22.5
LnGrp LOS	C	C	F	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		721			659			889			930	
Approach Delay, s/veh		79.9			31.9			33.0			31.2	
Approach LOS		E			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	28.0	10.1	30.4	16.0	30.0	16.0	24.5				
Change Period (Y+Rc), s	6.0	* 6	4.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	25.0	* 22	9.0	34.0	10.0	35.0	10.0	31.0				
Max Q Clear Time (g_c+19.5), s	19.5	24.0	5.9	19.4	3.2	16.1	5.2	10.4				
Green Ext Time (p_c), s	0.5	0.0	0.2	5.0	0.1	0.6	0.2	3.7				

Intersection Summary

HCM 6th Ctrl Delay	42.8
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
 34: Lammers Rd & Pomontory Pkwy

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	25	294	150	134	65	95	25	333	116	247	296	20
Future Volume (veh/h)	25	294	150	134	65	95	25	333	116	247	296	20
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	25	294	150	134	65	95	25	333	116	247	296	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	42	412	349	171	548	464	42	611	272	307	1140	508
Arrive On Green	0.02	0.22	0.22	0.10	0.29	0.29	0.02	0.17	0.17	0.17	0.32	0.32
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	25	294	150	134	65	95	25	333	116	247	296	20
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.7	6.9	3.8	3.5	1.2	2.1	0.7	4.0	3.1	6.3	2.9	0.4
Cycle Q Clear(g_c), s	0.7	6.9	3.8	3.5	1.2	2.1	0.7	4.0	3.1	6.3	2.9	0.4
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	42	412	349	171	548	464	42	611	272	307	1140	508
V/C Ratio(X)	0.59	0.71	0.43	0.78	0.12	0.20	0.59	0.55	0.43	0.80	0.26	0.04
Avail Cap(c_a), veh/h	151	714	605	227	793	672	151	1431	638	415	1959	874
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	1.00	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	22.8	17.0	15.8	20.8	12.2	12.5	22.8	17.8	17.5	18.8	11.9	11.0
Incr Delay (d2), s/veh	12.5	2.3	0.8	12.1	0.1	0.2	12.5	0.8	1.1	8.0	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.8	1.3	1.9	0.4	0.7	0.4	1.5	1.1	2.8	0.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.3	19.3	16.7	32.9	12.3	12.8	35.3	18.6	18.5	26.8	12.0	11.1
LnGrp LOS	D	B	B	C	B	B	D	B	B	C	B	B
Approach Vol, veh/h		469			294			474			563	
Approach Delay, s/veh		19.3			21.8			19.5			18.4	
Approach LOS		B			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.1	12.1	8.5	14.4	5.1	19.1	5.1	17.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	19.0	19.0	6.0	18.0	4.0	26.0	4.0	20.0				
Max Q Clear Time (g_c+1/3), s	6.0	6.0	5.5	8.9	2.7	4.9	2.7	4.1				
Green Ext Time (p_c), s	0.2	2.1	0.0	1.5	0.0	1.7	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay											19.5	
HCM 6th LOS											B	



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	48	25	438	159	82	516
Future Volume (veh/h)	48	25	438	159	82	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	48	25	438	159	82	516
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	123	109	1609	718	739	1609
Arrive On Green	0.07	0.07	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1781	1585	3647	1585	821	3647
Grp Volume(v), veh/h	48	25	438	159	82	516
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	821	1777
Q Serve(g_s), s	0.4	0.2	1.3	1.0	1.2	1.6
Cycle Q Clear(g_c), s	0.4	0.2	1.3	1.0	2.4	1.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	123	109	1609	718	739	1609
V/C Ratio(X)	0.39	0.23	0.27	0.22	0.11	0.32
Avail Cap(c_a), veh/h	1917	1706	4037	1801	1300	4037
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	7.5	7.4	2.9	2.8	3.6	2.9
Incr Delay (d2), s/veh	2.0	1.1	0.1	0.2	0.1	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	0.1	0.1	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.5	8.4	2.9	2.9	3.7	3.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	73		597			598
Approach Delay, s/veh	9.1		2.9			3.1
Approach LOS	A		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		11.6			11.6	5.2
Change Period (Y+Rc), s		4.0			4.0	4.0
Max Green Setting (Gmax), s		19.0			19.0	18.0
Max Q Clear Time (g_c+I1), s		3.3			4.4	2.4
Green Ext Time (p_c), s		3.1			3.1	0.1
Intersection Summary						
HCM 6th Ctrl Delay			3.4			
HCM 6th LOS			A			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↑↑	↗	↙	↑↑
Traffic Volume (veh/h)	46	58	465	68	112	551
Future Volume (veh/h)	46	58	465	68	112	551
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	46	58	465	68	112	551
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	98	87	597	266	1158	3049
Arrive On Green	0.06	0.06	0.34	0.34	0.66	0.86
Sat Flow, veh/h	1767	1572	3618	1572	1767	3618
Grp Volume(v), veh/h	46	58	465	68	112	551
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1572	1767	1763
Q Serve(g_s), s	2.5	3.6	11.8	3.1	2.3	2.5
Cycle Q Clear(g_c), s	2.5	3.6	11.8	3.1	2.3	2.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	98	87	597	266	1158	3049
V/C Ratio(X)	0.47	0.67	0.78	0.26	0.10	0.18
Avail Cap(c_a), veh/h	406	362	1410	629	1158	3049
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.96	0.96	0.99	0.99
Uniform Delay (d), s/veh	45.8	46.3	31.4	28.5	6.3	1.1
Incr Delay (d2), s/veh	3.5	8.5	9.3	2.2	0.0	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	1.2	1.6	4.8	1.3	0.7	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.3	54.9	40.7	30.7	6.4	1.2
LnGrp LOS	D	D	D	C	A	A
Approach Vol, veh/h	104		533			663
Approach Delay, s/veh	52.4		39.5			2.1
Approach LOS	D		D			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	69.6	20.9			90.5	9.5
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	25.0	40.0			69.0	23.0
Max Q Clear Time (g_c+14), s	14.3	13.8			4.5	5.6
Green Ext Time (p_c), s	0.2	3.1			3.7	0.2
Intersection Summary						
HCM 6th Ctrl Delay			21.4			
HCM 6th LOS			C			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	198	269	67	342	324	27
Future Volume (veh/h)	198	269	67	342	324	27
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	198	269	67	342	324	27
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	359	319	992	2554	433	193
Arrive On Green	0.20	0.20	0.56	0.72	0.12	0.12
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	198	269	67	342	324	27
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	10.0	16.3	1.7	3.0	8.8	1.5
Cycle Q Clear(g_c), s	10.0	16.3	1.7	3.0	8.8	1.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	359	319	992	2554	433	193
V/C Ratio(X)	0.55	0.84	0.07	0.13	0.75	0.14
Avail Cap(c_a), veh/h	695	618	992	2554	1137	507
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	0.99	0.99
Uniform Delay (d), s/veh	35.9	38.4	10.2	4.4	42.4	39.2
Incr Delay (d2), s/veh	1.3	6.0	0.0	0.1	11.1	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	14.0	0.6	0.8	4.4	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.2	44.4	10.2	4.5	53.6	40.7
LnGrp LOS	D	D	B	A	D	D
Approach Vol, veh/h	467			409	351	
Approach Delay, s/veh	41.4			5.4	52.6	
Approach LOS	D			A	D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		75.9		24.1	59.7	16.2
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		53.0		39.0	17.0	32.0
Max Q Clear Time (g_c+I1), s		5.0		18.3	3.7	10.8
Green Ext Time (p_c), s		1.5		1.8	0.1	1.4
Intersection Summary						
HCM 6th Ctrl Delay			32.6			
HCM 6th LOS			C			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↑↑	↗	↙	↑↑
Traffic Volume (veh/h)	39	25	371	20	155	493
Future Volume (veh/h)	39	25	371	20	155	493
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	39	25	371	20	155	493
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	109	97	1678	748	828	1678
Arrive On Green	0.06	0.06	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1781	1585	3647	1585	993	3647
Grp Volume(v), veh/h	39	25	371	20	155	493
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	993	1777
Q Serve(g_s), s	0.4	0.3	1.1	0.1	1.9	1.5
Cycle Q Clear(g_c), s	0.4	0.3	1.1	0.1	2.9	1.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	109	97	1678	748	828	1678
V/C Ratio(X)	0.36	0.26	0.22	0.03	0.19	0.29
Avail Cap(c_a), veh/h	1870	1664	3938	1756	1459	3938
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	7.7	7.7	2.7	2.4	3.5	2.8
Incr Delay (d2), s/veh	2.0	1.4	0.1	0.0	0.1	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	0.1	0.1	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.7	9.1	2.7	2.4	3.6	2.9
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	64		391			648
Approach Delay, s/veh	9.4		2.7			3.1
Approach LOS	A		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		12.1			12.1	5.1
Change Period (Y+Rc), s		4.0			4.0	4.0
Max Green Setting (Gmax), s		19.0			19.0	18.0
Max Q Clear Time (g_c+I1), s		3.1			4.9	2.4
Green Ext Time (p_c), s		2.0			3.2	0.1

Intersection Summary

HCM 6th Ctrl Delay	3.3
HCM 6th LOS	A

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)	25	63	54	20	36	25	25	399	25	77	450	25
Future Volume (veh/h)	25	63	54	20	36	25	25	399	25	77	450	25
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	25	63	54	20	36	25	25	399	25	77	450	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	45	203	172	139	302	256	45	775	346	112	910	406
Arrive On Green	0.03	0.11	0.11	0.08	0.16	0.16	0.03	0.22	0.22	0.06	0.26	0.26
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	25	63	54	20	36	25	25	399	25	77	450	25
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.4	0.9	0.9	0.3	0.5	0.4	0.4	3.0	0.4	1.3	3.2	0.4
Cycle Q Clear(g_c), s	0.4	0.9	0.9	0.3	0.5	0.4	0.4	3.0	0.4	1.3	3.2	0.4
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	45	203	172	139	302	256	45	775	346	112	910	406
V/C Ratio(X)	0.56	0.31	0.31	0.14	0.12	0.10	0.56	0.51	0.07	0.69	0.49	0.06
Avail Cap(c_a), veh/h	296	1120	949	1066	1928	1634	296	2127	949	296	2127	949
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(l)	1.00	1.00	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	14.5	12.4	12.4	12.9	10.8	10.7	14.5	10.4	9.3	13.8	9.5	8.5
Incr Delay (d2), s/veh	10.5	0.9	1.0	0.5	0.2	0.2	10.5	0.5	0.1	7.2	0.4	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	0.3	0.3	0.3	0.1	0.2	0.1	0.3	0.9	0.1	0.6	0.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.0	13.2	13.4	13.4	10.9	10.9	25.0	10.9	9.4	21.0	9.9	8.5
LnGrp LOS	C	B	B	B	B	B	C	B	A	C	A	A
Approach Vol, veh/h		142			81			449			552	
Approach Delay, s/veh		15.4			11.5			11.6			11.4	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	10.6	6.3	7.3	4.8	11.7	4.8	8.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	5.0	18.0	18.0	18.0	5.0	18.0	5.0	31.0				
Max Q Clear Time (g_c+1), s	13.3	5.0	2.3	2.9	2.4	5.2	2.4	2.5				
Green Ext Time (p_c), s	0.0	1.6	0.0	0.4	0.0	1.8	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay											11.9	
HCM 6th LOS											B	



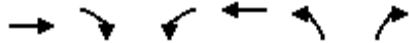
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↘	↑↑	↘	↙	↑↑
Traffic Volume (veh/h)	21	20	378	102	20	506
Future Volume (veh/h)	21	20	378	102	20	506
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	20	378	102	20	506
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	73	65	1092	487	38	1914
Arrive On Green	0.04	0.04	0.31	0.31	0.02	0.54
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	21	20	378	102	20	506
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777
Q Serve(g_s), s	0.2	0.2	1.6	0.9	0.2	1.5
Cycle Q Clear(g_c), s	0.2	0.2	1.6	0.9	0.2	1.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	73	65	1092	487	38	1914
V/C Ratio(X)	0.29	0.31	0.35	0.21	0.53	0.26
Avail Cap(c_a), veh/h	374	333	3735	1666	374	5229
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	8.9	8.9	5.1	4.9	9.2	2.4
Incr Delay (d2), s/veh	2.1	2.6	0.2	0.2	11.2	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	0.1	0.1	0.0	0.1	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.0	11.5	5.3	5.1	20.4	2.4
LnGrp LOS	B	B	A	A	C	A
Approach Vol, veh/h	41		480			526
Approach Delay, s/veh	11.2		5.3			3.1
Approach LOS	B		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	4.4	9.8			14.2	4.8
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	4.0	20.0			28.0	4.0
Max Q Clear Time (g_c+1/2), s	11.2	3.6			3.5	2.2
Green Ext Time (p_c), s	0.0	2.3			3.1	0.0
Intersection Summary						
HCM 6th Ctrl Delay			4.4			
HCM 6th LOS			A			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	55	245	39	22	25	98	459	132	46	481	20
Future Volume (veh/h)	20	55	245	39	22	25	98	459	132	46	481	20
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	20	55	245	39	22	25	98	459	132	46	481	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	36	404	342	64	433	367	123	943	421	73	842	376
Arrive On Green	0.02	0.22	0.22	0.04	0.23	0.23	0.07	0.27	0.27	0.04	0.24	0.24
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	20	55	245	39	22	25	98	459	132	46	481	20
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.4	0.9	5.2	0.8	0.3	0.4	2.0	3.9	2.4	0.9	4.3	0.4
Cycle Q Clear(g_c), s	0.4	0.9	5.2	0.8	0.3	0.4	2.0	3.9	2.4	0.9	4.3	0.4
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	36	404	342	64	433	367	123	943	421	73	842	376
V/C Ratio(X)	0.56	0.14	0.72	0.61	0.05	0.07	0.79	0.49	0.31	0.63	0.57	0.05
Avail Cap(c_a), veh/h	197	930	788	197	930	788	197	1767	788	197	1767	788
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(l)	1.00	1.00	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	17.6	11.5	13.2	17.2	10.8	10.9	16.6	11.2	10.7	17.1	12.2	10.7
Incr Delay (d2), s/veh	12.9	0.2	2.8	9.1	0.0	0.1	10.9	0.4	0.4	8.7	0.6	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	0.3	0.3	1.7	0.4	0.1	0.1	1.0	1.1	0.7	0.5	1.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.4	11.6	16.0	26.3	10.9	10.9	27.5	11.6	11.1	25.8	12.8	10.7
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		320			86			689			547	
Approach Delay, s/veh		16.1			17.9			13.8			13.8	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.5	13.6	5.3	11.8	6.5	12.6	4.7	12.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	4.0	18.0	4.0	18.0	4.0	18.0				
Max Q Clear Time (g_c+1), s	12.9	5.9	2.8	7.2	4.0	6.3	2.4	2.4				
Green Ext Time (p_c), s	0.0	2.5	0.0	0.8	0.0	2.3	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵	↑↑	↵	↑
Traffic Volume (veh/h)	761	53	20	424	96	90
Future Volume (veh/h)	761	53	20	424	96	90
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	761	53	20	424	96	90
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1410	629	37	2001	259	231
Arrive On Green	0.40	0.40	0.02	0.56	0.15	0.15
Sat Flow, veh/h	3647	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	761	53	20	424	96	90
Grp Sat Flow(s),veh/h/ln1777	1585	1781	1777	1781	1585	
Q Serve(g_s), s	4.5	0.6	0.3	1.6	1.3	1.4
Cycle Q Clear(g_c), s	4.5	0.6	0.3	1.6	1.3	1.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1410	629	37	2001	259	231
V/C Ratio(X)	0.54	0.08	0.54	0.21	0.37	0.39
Avail Cap(c_a), veh/h	2458	1096	259	3493	1297	1154
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	6.4	5.2	13.3	3.0	10.6	10.6
Incr Delay (d2), s/veh	0.3	0.1	12.0	0.1	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln0.9	0.1	0.2	0.1	0.4	0.4	
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.7	5.2	25.3	3.0	11.5	11.7
LnGrp LOS	A	A	C	A	B	B
Approach Vol, veh/h	814			444	186	
Approach Delay, s/veh	6.6			4.0	11.6	
Approach LOS	A			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		8.0	4.6	14.9		19.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s		20.0	4.0	19.0		27.0
Max Q Clear Time (g_c+1), s		3.4	2.3	6.5		3.6
Green Ext Time (p_c), s		0.5	0.0	4.4		2.8
Intersection Summary						
HCM 6th Ctrl Delay			6.4			
HCM 6th LOS			A			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↑↑	↗	↙	↑↑
Traffic Volume (veh/h)	432	81	763	693	33	704
Future Volume (veh/h)	432	81	763	693	33	704
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	432	81	763	693	33	704
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	517	460	1510	674	53	1918
Arrive On Green	0.29	0.29	0.42	0.42	0.03	0.54
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	432	81	763	693	33	704
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777
Q Serve(g_s), s	10.7	1.8	7.4	20.0	0.9	5.4
Cycle Q Clear(g_c), s	10.7	1.8	7.4	20.0	0.9	5.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	517	460	1510	674	53	1918
V/C Ratio(X)	0.84	0.18	0.51	1.03	0.62	0.37
Avail Cap(c_a), veh/h	719	640	1510	674	151	2114
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	15.6	12.5	9.9	13.5	22.6	6.2
Incr Delay (d2), s/veh	6.1	0.2	0.3	42.3	11.3	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	4.5	0.6	2.0	12.5	0.5	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.8	12.7	10.2	55.8	33.9	6.3
LnGrp LOS	C	B	B	F	C	A
Approach Vol, veh/h	513		1456			737
Approach Delay, s/veh	20.3		31.9			7.6
Approach LOS	C		C			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.4	24.0			29.4	17.7
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	4.0	20.0			28.0	19.0
Max Q Clear Time (g_c+1/3), s	12.9	22.0			7.4	12.7
Green Ext Time (p_c), s	0.0	0.0			4.3	1.0
Intersection Summary						
HCM 6th Ctrl Delay			23.1			
HCM 6th LOS			C			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	25	60	169	32	154	198	1204	220	139	975	40
Future Volume (veh/h)	23	25	60	169	32	154	198	1204	220	139	975	40
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	23	25	60	169	32	154	198	1204	220	139	975	40
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	38	142	120	213	326	486	247	1571	701	230	1316	587
Arrive On Green	0.02	0.08	0.08	0.12	0.17	0.17	0.14	0.44	0.44	0.07	0.37	0.37
Sat Flow, veh/h	1781	1870	1585	1781	1870	2790	1781	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	23	25	60	169	32	154	198	1204	220	139	975	40
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1395	1781	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.7	0.7	2.0	5.0	0.8	2.6	5.8	15.5	4.9	2.1	12.9	0.9
Cycle Q Clear(g_c), s	0.7	0.7	2.0	5.0	0.8	2.6	5.8	15.5	4.9	2.1	12.9	0.9
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	38	142	120	213	326	486	247	1571	701	230	1316	587
V/C Ratio(X)	0.60	0.18	0.50	0.79	0.10	0.32	0.80	0.77	0.31	0.60	0.74	0.07
Avail Cap(c_a), veh/h	132	622	527	263	760	1133	296	1903	849	255	1575	703
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	1.00	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	26.3	23.4	24.0	23.2	18.8	19.5	22.6	12.7	9.8	24.6	14.8	11.0
Incr Delay (d2), s/veh	13.9	0.6	3.2	12.4	0.1	0.4	12.5	1.6	0.3	3.3	1.6	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.3	0.8	2.7	0.3	0.8	2.9	4.7	1.5	0.9	4.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.2	24.0	27.2	35.6	18.9	19.9	35.2	14.3	10.0	27.9	16.3	11.1
LnGrp LOS	D	C	C	D	B	B	D	B	B	C	B	B
Approach Vol, veh/h		108			355			1622			1154	
Approach Delay, s/veh		29.2			27.3			16.3			17.6	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	27.9	10.5	8.1	11.5	24.1	5.2	13.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	29.0	8.0	18.0	9.0	24.0	4.0	22.0				
Max Q Clear Time (g_c+14), s	14.5	17.5	7.0	4.0	7.8	14.9	2.7	4.6				
Green Ext Time (p_c), s	0.0	6.5	0.0	0.2	0.1	4.2	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay	18.4
HCM 6th LOS	B

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	29	56	57	77	119	20
Future Vol, veh/h	29	56	57	77	119	20
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, %	3	3	3	3	3	3
Mvmt Flow	29	56	57	77	119	20
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	320	129	139	0	0	
Stage 1	129	-	-	-	-	
Stage 2	191	-	-	-	-	
Critical Hdwy	6.43	6.23	4.13	-	-	
Critical Hdwy Stg 1	5.43	-	-	-	-	
Critical Hdwy Stg 2	5.43	-	-	-	-	
Follow-up Hdwy	3.527	3.327	2.227	-	-	
Pot Cap-1 Maneuver	671	918	1438	-	-	
Stage 1	894	-	-	-	-	
Stage 2	839	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	643	918	1438	-	-	
Mov Cap-2 Maneuver	643	-	-	-	-	
Stage 1	857	-	-	-	-	
Stage 2	839	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	10	3.2		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1438	-	801	-	-	
HCM Lane V/C Ratio	0.04	-	0.106	-	-	
HCM Control Delay (s)	7.6	0	10	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-	

Intersection												
Int Delay, s/veh	15.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	106	144	74	25	34	25	102	156	25	50	73	45
Future Vol, veh/h	106	144	74	25	34	25	102	156	25	50	73	45
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	180	-	-	-	-	-
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, %	7	0	12	0	3	20	5	0	0	0	0	0
Mvmt Flow	106	144	74	25	34	25	102	156	25	50	73	45

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	495	581	59	582	591	91	118	0	0	181	0	0
Stage 1	196	196	-	373	373	-	-	-	-	-	-	-
Stage 2	299	385	-	209	218	-	-	-	-	-	-	-
Critical Hdwy	7.64	6.5	7.14	7.5	6.56	7.3	4.2	-	-	4.1	-	-
Critical Hdwy Stg 1	6.64	5.5	-	6.5	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.64	5.5	-	6.5	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.57	4	3.42	3.5	4.03	3.5	2.25	-	-	2.2	-	-
Pot Cap-1 Maneuver	446	428	963	401	416	894	1446	-	-	1407	-	-
Stage 1	773	742	-	625	614	-	-	-	-	-	-	-
Stage 2	671	614	-	779	719	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	371	383	963	242	372	894	1446	-	-	1407	-	-
Mov Cap-2 Maneuver	371	383	-	242	372	-	-	-	-	-	-	-
Stage 1	718	714	-	581	570	-	-	-	-	-	-	-
Stage 2	570	570	-	552	692	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	33	17.3	2.8	2.3
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1446	-	-	439	377	1407	-	-
HCM Lane V/C Ratio	0.071	-	-	0.738	0.223	0.036	-	-
HCM Control Delay (s)	7.7	-	-	33	17.3	7.7	0.1	-
HCM Lane LOS	A	-	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	6	0.8	0.1	-	-

Tracy Transportation Master Plan Update
 49: I-205 WB Off Ramp/Pavilion Pkwy & Naglee Rd

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑↑		↘↗	↑↑	↗	↘	↑	↗
Traffic Volume (veh/h)	165	262	43	24	269	25	696	188	104	38	29	143
Future Volume (veh/h)	165	262	43	24	269	25	696	188	104	38	29	143
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	165	262	43	24	269	25	696	188	104	38	29	143
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	215	504	225	201	596	54	1009	1487	663	63	279	237
Arrive On Green	0.12	0.14	0.14	0.11	0.13	0.11	0.29	0.42	0.42	0.04	0.15	0.15
Sat Flow, veh/h	1767	3526	1572	1767	4724	431	3428	3526	1572	1767	1856	1572
Grp Volume(v), veh/h	165	262	43	24	191	103	696	188	104	38	29	143
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1689	1778	1714	1763	1572	1767	1856	1572
Q Serve(g_s), s	5.1	3.8	1.3	0.7	2.9	3.0	10.1	1.8	1.1	1.2	0.8	4.8
Cycle Q Clear(g_c), s	5.1	3.8	1.3	0.7	2.9	3.0	10.1	1.8	1.1	1.2	0.8	4.8
Prop In Lane	1.00		1.00	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	215	504	225	201	426	224	1009	1487	663	63	279	237
V/C Ratio(X)	0.77	0.52	0.19	0.12	0.45	0.46	0.69	0.13	0.16	0.61	0.10	0.60
Avail Cap(c_a), veh/h	284	3317	1479	201	2990	1574	1772	2604	1162	133	551	467
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	1.00	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	23.8	22.2	21.1	22.3	22.6	22.8	17.5	9.9	2.3	26.6	20.5	22.2
Incr Delay (d2), s/veh	8.7	0.8	0.4	0.3	0.7	1.3	1.0	0.0	0.1	9.1	0.2	2.5
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	2.4	1.5	0.5	0.3	1.1	1.2	3.6	0.6	0.6	0.6	0.3	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.5	22.9	21.5	22.6	23.3	24.1	18.5	9.9	2.4	35.7	20.7	24.7
LnGrp LOS	C	C	C	C	C	C	B	A	A	D	C	C
Approach Vol, veh/h		470			318			988				210
Approach Delay, s/veh		26.2			23.5			15.2				26.1
Approach LOS		C			C			B				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.4	12.0	21.1	12.4	11.3	11.0	6.0	27.6				
Change Period (Y+Rc), s	4.7	* 4.9	5.3	* 5.3	4.7	* 4.9	* 4.2	5.3				
Max Green Setting (Gmax), s	5.2	* 5.2	28.3	* 15	8.8	* 4.9	* 4	40.0				
Max Q Clear Time (g_c+I1), s	2.7	5.8	12.1	6.8	7.1	5.0	3.2	3.8				
Green Ext Time (p_c), s	0.0	1.2	3.8	0.4	0.1	1.1	0.0	1.3				

Intersection Summary

HCM 6th Ctrl Delay	20.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↑↑↑ ↗			↖	↗		↖	↗	↖
Traffic Volume (veh/h)	239	364	113	181	827	140	102	21	42	78	29	141
Future Volume (veh/h)	239	364	113	181	827	140	102	21	42	78	29	141
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	239	364	113	181	827	140	102	21	42	78	29	141
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	270	567	168	846	2060	347	133	69	137	125	223	189
Arrive On Green	0.15	0.15	0.15	0.48	0.47	0.47	0.08	0.12	0.12	0.07	0.12	0.12
Sat Flow, veh/h	1767	3875	1150	1767	4366	734	1767	552	1104	1767	1856	1572
Grp Volume(v), veh/h	239	315	162	181	639	328	102	0	63	78	29	141
Grp Sat Flow(s),veh/h/ln	1767	1689	1649	1767	1689	1723	1767	0	1657	1767	1856	1572
Q Serve(g_s), s	13.2	8.8	9.3	6.0	12.3	12.4	5.7	0.0	3.5	4.3	1.4	8.7
Cycle Q Clear(g_c), s	13.2	8.8	9.3	6.0	12.3	12.4	5.7	0.0	3.5	4.3	1.4	8.7
Prop In Lane	1.00		0.70	1.00		0.43	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	270	494	241	846	1594	813	133	0	206	125	223	189
V/C Ratio(X)	0.88	0.64	0.67	0.21	0.40	0.40	0.77	0.00	0.31	0.62	0.13	0.75
Avail Cap(c_a), veh/h	316	1013	495	846	1594	813	157	0	495	141	538	456
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)	0.85	0.85	0.85	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	40.2	40.4	15.2	17.2	17.2	45.4	0.0	39.8	45.2	39.3	42.5
Incr Delay (d2), s/veh	17.8	5.3	12.0	0.0	0.8	1.5	13.9	0.0	0.3	4.1	0.1	2.2
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	7.0	3.9	4.5	2.3	4.7	5.0	3.0	0.0	1.4	2.0	0.6	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	45.5	52.4	15.2	17.9	18.7	59.2	0.0	40.2	49.2	39.4	44.8
LnGrp LOS	E	D	D	B	B	B	E	A	D	D	D	D
Approach Vol, veh/h		716		1148				165		248		
Approach Delay, s/veh		51.7		17.7				52.0		45.5		
Approach LOS		D		B				D		D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	52.3	19.1	12.0	16.5	19.8	51.7	11.6	16.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	14.1	30.0	8.9	29.0	17.9	26.2	8.0	29.9				
Max Q Clear Time (g_c+1/3), s	11.0	11.3	7.7	10.7	15.2	14.4	6.3	5.5				
Green Ext Time (p_c), s	0.0	3.3	0.0	0.1	0.0	5.5	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	33.9
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
 51: I-205 WB On Ramp/Naglee Rd & Grant Line Rd

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗		↑↑↑	↗				↖	↖	↗
Traffic Volume (veh/h)	363	1377	144	0	1005	363	0	0	0	441	174	583
Future Volume (veh/h)	363	1377	144	0	1005	363	0	0	0	441	174	583
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	1856	1856	1856	0	1856	1856				1856	1856	1856
Adj Flow Rate, veh/h	363	1377	144	0	1005	0				308	361	583
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	0	3	3				3	3	3
Cap, veh/h	247	2756	855	0	1844					664	698	591
Arrive On Green	0.14	0.54	0.54	0.00	0.36	0.00				0.38	0.38	0.38
Sat Flow, veh/h	1767	5066	1572	0	5233	1572				1767	1856	1572
Grp Volume(v), veh/h	363	1377	144	0	1005	0				308	361	583
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	0	1689	1572				1767	1856	1572
Q Serve(g_s), s	14.0	17.0	4.6	0.0	15.7	0.0				13.2	15.1	36.8
Cycle Q Clear(g_c), s	14.0	17.0	4.6	0.0	15.7	0.0				13.2	15.1	36.8
Prop In Lane	1.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	247	2756	855	0	1844					664	698	591
V/C Ratio(X)	1.47	0.50	0.17	0.00	0.55					0.46	0.52	0.99
Avail Cap(c_a), veh/h	247	2756	855	0	1844					664	698	591
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	1.00	1.00	0.00	0.90	0.00				0.89	0.89	0.89
Uniform Delay (d), s/veh	43.0	14.3	11.4	0.0	25.2	0.0				23.6	24.2	30.9
Incr Delay (d2), s/veh	231.0	0.7	0.4	0.0	1.0	0.0				0.4	0.6	31.3
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	11.8	6.0	1.6	0.0	6.2	0.0				5.4	6.5	31.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	274.0	14.9	11.9	0.0	26.3	0.0				24.0	24.8	62.2
LnGrp LOS	F	B	B	A	C					C	C	E
Approach Vol, veh/h		1884			1005	A					1252	
Approach Delay, s/veh		64.6			26.3						42.0	
Approach LOS		E			C						D	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		58.4		41.6	18.0	40.4						
Change Period (Y+Rc), s		5.3		4.6	* 4.2	5.3						
Max Green Setting (Gmax), s		53.1		37.0	* 14	35.1						
Max Q Clear Time (g_c+I1), s		19.0		38.8	16.0	17.7						
Green Ext Time (p_c), s		20.6		0.0	0.0	9.1						

Intersection Summary

HCM 6th Ctrl Delay	48.5
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
 52: I-205 EAST OFF RAMP/I-205 EAST & Grant Line Rd

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↑↑↑	↑	↑		↑			
Traffic Volume (veh/h)	0	1029	733	0	1153	148	215	0	402	0	0	0
Future Volume (veh/h)	0	1029	733	0	1153	148	215	0	402	0	0	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	0	1856	1856	0	1856	1856	1856	0	1856			
Adj Flow Rate, veh/h	0	1029	0	0	1153	0	215	0	0			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	0	3	3	0	3	3	3	0	3			
Cap, veh/h	0	2123		0	3051		313	0				
Arrive On Green	0.00	0.60	0.00	0.00	0.60	0.00	0.18	0.00	0.00			
Sat Flow, veh/h	0	3618	1572	0	5233	1572	1767	0	1572			
Grp Volume(v), veh/h	0	1029	0	0	1153	0	215	0	0			
Grp Sat Flow(s),veh/h/ln	0	1763	1572	0	1689	1572	1767	0	1572			
Q Serve(g_s), s	0.0	5.8	0.0	0.0	4.1	0.0	4.0	0.0	0.0			
Cycle Q Clear(g_c), s	0.0	5.8	0.0	0.0	4.1	0.0	4.0	0.0	0.0			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2123		0	3051		313	0				
V/C Ratio(X)	0.00	0.48		0.00	0.38		0.69	0.00				
Avail Cap(c_a), veh/h	0	2781		0	3996		1964	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)	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	0.0	4.0	0.0	0.0	3.6	0.0	13.6	0.0	0.0			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.1	0.0	2.7	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	0.0	0.5	0.0	0.0	0.3	0.0	1.5	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.2	0.0	0.0	3.7	0.0	16.3	0.0	0.0			
LnGrp LOS	A	A		A	A		B	A				
Approach Vol, veh/h		1029	A		1153	A		215	A			
Approach Delay, s/veh		4.2			3.7			16.3				
Approach LOS		A			A			B				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		25.3				25.3		10.1				
Change Period (Y+Rc), s		5.3				5.3		4.0				
Max Green Setting (Gmax), s		26.6				26.6		39.1				
Max Q Clear Time (g_c+I1), s		7.8				6.1		6.0				
Green Ext Time (p_c), s		7.1				8.3		0.9				

Intersection Summary

HCM 6th Ctrl Delay	5.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [NBR, EBR, WBR] 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)	22	1704	151	79	634	91	103	20	116	78	33	25
Future Volume (veh/h)	22	1704	151	79	634	91	103	20	116	78	33	25
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	22	1704	151	79	634	91	103	20	116	78	33	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	69	1995	619	151	2229	692	165	308	261	150	154	117
Arrive On Green	0.04	0.39	0.39	0.09	0.44	0.44	0.09	0.17	0.17	0.09	0.16	0.16
Sat Flow, veh/h	1767	5066	1572	1767	5066	1572	1767	1856	1572	1767	980	742
Grp Volume(v), veh/h	22	1704	151	79	634	91	103	20	116	78	0	58
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	1767	1689	1572	1767	1856	1572	1767	0	1722
Q Serve(g_s), s	0.9	23.3	4.9	3.3	6.1	2.6	4.3	0.7	5.0	3.2	0.0	2.2
Cycle Q Clear(g_c), s	0.9	23.3	4.9	3.3	6.1	2.6	4.3	0.7	5.0	3.2	0.0	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	69	1995	619	151	2229	692	165	308	261	150	0	271
V/C Ratio(X)	0.32	0.85	0.24	0.52	0.28	0.13	0.62	0.06	0.44	0.52	0.00	0.21
Avail Cap(c_a), veh/h	198	2035	632	198	2229	692	198	782	663	198	0	726
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.5	21.0	15.4	33.2	13.6	12.6	33.1	26.7	28.5	33.3	0.0	27.9
Incr Delay (d2), s/veh	1.0	3.9	0.3	1.0	0.1	0.1	2.1	0.1	1.2	1.0	0.0	0.3
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	0.4	8.6	1.7	1.3	2.0	0.9	1.8	0.3	1.9	1.4	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.5	24.9	15.7	34.3	13.7	12.8	35.3	26.8	29.7	34.3	0.0	28.2
LnGrp LOS	D	C	B	C	B	B	D	C	C	C	A	C
Approach Vol, veh/h		1877			804			239				136
Approach Delay, s/veh		24.3			15.6			31.9				31.7
Approach LOS		C			B			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.5	35.4	12.1	17.0	8.0	38.9	11.5	17.6				
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0				
Max Green Setting (Gmax), s	30.5	30.5	8.5	32.0	8.5	30.5	8.5	32.0				
Max Q Clear Time (g_c+1/3), s	11.3	25.3	6.3	4.2	2.9	8.1	5.2	7.0				
Green Ext Time (p_c), s	0.0	4.6	0.0	0.2	0.0	6.1	0.0	0.4				

Intersection Summary

HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
 54: Cross Roads Dr & Pomontory Pkwy/New Schulte Rd

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑	↗	↘	↗	↘
Traffic Volume (veh/h)	114	374	54	25	237	25	25	25	47	33	30	29
Future Volume (veh/h)	114	374	54	25	237	25	25	25	47	33	30	29
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	114	374	54	25	237	25	25	25	47	33	30	29
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	831	371	45	623	278	45	82	155	58	130	126
Arrive On Green	0.08	0.23	0.23	0.03	0.18	0.18	0.03	0.14	0.14	0.03	0.15	0.15
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	581	1093	1781	874	845
Grp Volume(v), veh/h	114	374	54	25	237	25	25	0	72	33	0	59
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1674	1781	0	1718
Q Serve(g_s), s	1.8	2.5	0.8	0.4	1.7	0.4	0.4	0.0	1.1	0.5	0.0	0.9
Cycle Q Clear(g_c), s	1.8	2.5	0.8	0.4	1.7	0.4	0.4	0.0	1.1	0.5	0.0	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.65	1.00		0.49
Lane Grp Cap(c), veh/h	149	831	371	45	623	278	45	0	237	58	0	256
V/C Ratio(X)	0.76	0.45	0.15	0.56	0.38	0.09	0.56	0.00	0.30	0.57	0.00	0.23
Avail Cap(c_a), veh/h	252	2266	1011	252	2266	1011	252	0	1067	252	0	1096
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.7	9.3	8.6	13.6	10.3	9.8	13.6	0.0	10.9	13.5	0.0	10.6
Incr Delay (d2), s/veh	7.9	0.4	0.2	10.3	0.4	0.1	10.3	0.0	0.7	8.7	0.0	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	0.8	0.7	0.2	0.2	0.5	0.1	0.2	0.0	0.3	0.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	9.6	8.8	23.9	10.7	9.9	23.9	0.0	11.6	22.2	0.0	11.0
LnGrp LOS	C	A	A	C	B	A	C	A	B	C	A	B
Approach Vol, veh/h		542			287			97				92
Approach Delay, s/veh		11.8			11.8			14.8				15.0
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.9	8.0	4.7	10.6	4.7	8.2	6.4	8.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	4.0	18.0	4.0	18.0	4.0	18.0				
Max Q Clear Time (g_c+1), s	12.5	3.1	2.4	4.5	2.4	2.9	3.8	3.7				
Green Ext Time (p_c), s	0.0	0.2	0.0	2.1	0.0	0.2	0.0	1.2				
Intersection Summary												
HCM 6th Ctrl Delay			12.4									
HCM 6th LOS			B									

Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘		↑			↙
Traffic Vol, veh/h	94	25	126	136	25	41
Future Vol, veh/h	94	25	126	136	25	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	94	25	126	136	25	41
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	285	194	0	0	262	0
Stage 1	194	-	-	-	-	-
Stage 2	91	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	703	845	-	-	1296	-
Stage 1	836	-	-	-	-	-
Stage 2	930	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	689	845	-	-	1296	-
Mov Cap-2 Maneuver	689	-	-	-	-	-
Stage 1	836	-	-	-	-	-
Stage 2	911	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	11	0	3			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	717	1296		
HCM Lane V/C Ratio	-	-	0.166	0.019		
HCM Control Delay (s)	-	-	11	7.8		
HCM Lane LOS	-	-	B	A		
HCM 95th %tile Q(veh)	-	-	0.6	0.1		

Intersection						
Int Delay, s/veh	6.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↙	↗	↙	↗	↗	↙
Traffic Vol, veh/h	242	74	40	82	25	109
Future Vol, veh/h	242	74	40	82	25	109
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	100	100	-	-	100
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	242	74	40	82	25	109

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	187	25	134	0	-	0
Stage 1	25	-	-	-	-	-
Stage 2	162	-	-	-	-	-
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	802	1051	1451	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	867	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	780	1051	1451	-	-	-
Mov Cap-2 Maneuver	780	-	-	-	-	-
Stage 1	970	-	-	-	-	-
Stage 2	867	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11	2.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1451	-	780	1051	-	-
HCM Lane V/C Ratio	0.028	-	0.31	0.07	-	-
HCM Control Delay (s)	7.6	-	11.7	8.7	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	1.3	0.2	-	-

Tracy Transportation Master Plan Update
 57: Corral Hollow Rd & Grant Line Rd

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗↗	↘	↑↑		↗↗	↑↑	↗	↗↗	↑↑	↗
Traffic Volume (veh/h)	122	676	538	167	569	122	464	285	128	123	289	117
Future Volume (veh/h)	122	676	538	167	569	122	464	285	128	123	289	117
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	122	676	538	167	569	122	464	285	128	123	289	117
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	233	1109	871	255	944	202	775	638	284	453	555	203
Arrive On Green	0.13	0.31	0.31	0.14	0.33	0.30	0.16	0.18	0.18	0.13	0.16	0.13
Sat Flow, veh/h	1767	3526	2768	1767	2889	618	4983	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	122	676	538	167	346	345	464	285	128	123	289	117
Grp Sat Flow(s),veh/h/ln	1767	1763	1384	1767	1763	1744	1661	1763	1572	1714	1763	1572
Q Serve(g_s), s	4.5	11.4	11.6	6.3	11.5	11.7	6.1	5.1	5.1	2.3	5.3	4.9
Cycle Q Clear(g_c), s	4.5	11.4	11.6	6.3	11.5	11.7	6.1	5.1	5.1	2.3	5.3	4.9
Prop In Lane	1.00		1.00	1.00		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	233	1109	871	255	576	570	775	638	284	453	555	203
V/C Ratio(X)	0.52	0.61	0.62	0.66	0.60	0.60	0.60	0.45	0.45	0.27	0.52	0.58
Avail Cap(c_a), veh/h	378	2061	1618	353	1005	995	995	1960	874	489	1759	740
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	1.00	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	28.4	20.4	20.5	28.4	19.8	20.1	27.6	25.6	25.6	27.4	27.1	28.7
Incr Delay (d2), s/veh	1.8	0.5	0.7	2.8	1.0	1.0	0.7	0.5	1.1	0.3	0.8	2.6
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	1.9	4.3	3.4	2.7	4.4	4.4	2.3	2.0	1.8	0.9	2.1	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.2	20.9	21.2	31.2	20.8	21.2	28.3	26.1	26.7	27.7	27.9	31.3
LnGrp LOS	C	C	C	C	C	C	C	C	C	C	C	C
Approach Vol, veh/h		1336			858			877			529	
Approach Delay, s/veh		21.9			23.0			27.4			28.6	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.3	16.7	14.1	26.1	14.9	15.0	13.3	26.9				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	8.0	37.0	12.0	39.0	12.0	33.0	13.0	38.0				
Max Q Clear Time (g_c+1), s	4.3	7.1	8.3	13.6	8.1	7.3	6.5	13.7				
Green Ext Time (p_c), s	0.1	1.8	0.2	6.5	0.8	1.8	0.2	2.8				

Intersection Summary			
HCM 6th Ctrl Delay		24.5	
HCM 6th LOS		C	

Tracy Transportation Master Plan Update
58: CORRAL HOLLOW RD & Eleventh St/ELEVENTH ST.

Future 2042
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	334	1045	633	220	542	258	198	562	137	409	649	156
Future Volume (veh/h)	334	1045	633	220	542	258	198	562	137	409	649	156
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	334	1045	0	220	542	258	198	562	137	409	649	156
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	532	1571		527	1563	485	388	1069	332	436	1141	354
Arrive On Green	0.16	0.31	0.00	0.15	0.31	0.31	0.11	0.21	0.21	0.13	0.23	0.23
Sat Flow, veh/h	3428	5066	1572	3428	5066	1572	3428	5066	1572	3428	5066	1572
Grp Volume(v), veh/h	334	1045	0	220	542	258	198	562	137	409	649	156
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1714	1689	1572	1714	1689	1572	1714	1689	1572
Q Serve(g_s), s	6.5	12.7	0.0	4.1	5.9	9.6	3.8	7.0	5.3	8.4	8.1	6.0
Cycle Q Clear(g_c), s	6.5	12.7	0.0	4.1	5.9	9.6	3.8	7.0	5.3	8.4	8.1	6.0
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	532	1571		527	1563	485	388	1069	332	436	1141	354
V/C Ratio(X)	0.63	0.67		0.42	0.35	0.53	0.51	0.53	0.41	0.94	0.57	0.44
Avail Cap(c_a), veh/h	533	3079		533	3079	956	582	3079	956	436	2864	889
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	21.2	0.0	27.1	18.9	20.2	29.5	24.8	24.1	30.6	24.4	23.6
Incr Delay (d2), s/veh	2.3	0.5	0.0	0.5	0.1	0.9	1.0	0.4	0.8	28.7	0.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	4.5	0.0	1.6	2.0	3.3	1.5	2.6	1.9	4.9	3.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.3	21.7	0.0	27.6	19.1	21.1	30.6	25.2	24.9	59.3	24.8	24.4
LnGrp LOS	C	C		C	B	C	C	C	C	E	C	C
Approach Vol, veh/h		1379	A		1020			897			1214	
Approach Delay, s/veh		23.8			21.4			26.3			36.4	
Approach LOS		C			C			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.9	25.9	12.0	18.9	14.0	25.8	11.0	19.9				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	41.0	41.0	7.0	41.0	9.0	41.0	10.0	38.0				
Max Q Clear Time (g_c+1/3), s	14.7	14.7	10.4	9.0	8.5	11.6	5.8	10.1				
Green Ext Time (p_c), s	0.2	5.3	0.0	3.3	0.1	3.7	0.3	3.9				

Intersection Summary

HCM 6th Ctrl Delay		27.1										
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.
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)	173	257	74	125	157	259	28	330	134	429	630	99
Future Volume (veh/h)	173	257	74	125	157	259	28	330	134	429	630	99
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	173	257	74	125	157	259	28	330	134	429	630	99
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	215	836	373	160	363	324	66	469	187	556	964	151
Arrive On Green	0.12	0.24	0.24	0.09	0.21	0.21	0.04	0.19	0.19	0.16	0.32	0.32
Sat Flow, veh/h	1767	3526	1572	1767	1763	1572	1767	2461	981	3428	3053	479
Grp Volume(v), veh/h	173	257	74	125	157	259	28	235	229	429	363	366
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1679	1714	1763	1769
Q Serve(g_s), s	5.7	3.6	2.2	4.1	4.6	9.3	0.9	7.4	7.6	7.1	10.6	10.6
Cycle Q Clear(g_c), s	5.7	3.6	2.2	4.1	4.6	9.3	0.9	7.4	7.6	7.1	10.6	10.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.58	1.00		0.27
Lane Grp Cap(c), veh/h	215	836	373	160	363	324	66	336	320	556	557	559
V/C Ratio(X)	0.81	0.31	0.20	0.78	0.43	0.80	0.42	0.70	0.72	0.77	0.65	0.65
Avail Cap(c_a), veh/h	223	2211	986	348	1230	1097	178	913	869	934	1215	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	1.00	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	25.4	18.7	18.2	26.5	20.6	22.5	28.0	22.5	22.6	23.9	17.5	17.6
Incr Delay (d2), s/veh	17.1	0.2	0.3	3.1	0.3	1.7	1.6	2.6	3.0	0.9	1.3	1.3
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	1.3	0.7	1.7	1.7	3.2	0.4	3.0	2.9	2.6	3.8	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.5	18.9	18.4	29.6	20.9	24.2	29.6	25.1	25.6	24.7	18.8	18.9
LnGrp LOS	D	B	B	C	C	C	C	C	C	C	B	B
Approach Vol, veh/h		504			541			492			1158	
Approach Delay, s/veh		26.9			24.5			25.6			21.0	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	19.1	14.2	16.3	11.7	17.2	6.7	23.8				
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0				
Max Green Setting (Gmax), s	37.3	37.3	16.2	30.8	7.5	41.5	6.0	41.0				
Max Q Clear Time (g_c+1/3), s	5.6	5.6	9.1	9.6	7.7	11.3	2.9	12.6				
Green Ext Time (p_c), s	0.0	1.5	0.5	1.7	0.0	0.9	0.0	3.0				

Intersection Summary

HCM 6th Ctrl Delay	23.7
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)	35	288	93	57	156	79	86	263	74	159	219	33
Future Volume (veh/h)	35	288	93	57	156	79	86	263	74	159	219	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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		No		No
Adj Sat Flow, veh/h/ln	1707	1900	1633	1900	1856	1870	1796	1737	1900	1870	1811	1900
Adj Flow Rate, veh/h	35	288	93	57	156	79	86	263	74	159	219	33
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	13	0	18	0	3	2	7	11	0	2	6	0
Cap, veh/h	54	515	163	88	478	231	111	466	129	202	794	371
Arrive On Green	0.03	0.19	0.19	0.05	0.21	0.21	0.07	0.18	0.18	0.11	0.23	0.23
Sat Flow, veh/h	1626	2689	850	1810	2306	1112	1711	2556	705	1781	3441	1610
Grp Volume(v), veh/h	35	191	190	57	117	118	86	168	169	159	219	33
Grp Sat Flow(s),veh/h/ln	1626	1805	1734	1810	1763	1655	1711	1650	1610	1781	1721	1610
Q Serve(g_s), s	0.7	3.3	3.4	1.1	2.0	2.1	1.7	3.2	3.3	3.0	1.8	0.6
Cycle Q Clear(g_c), s	0.7	3.3	3.4	1.1	2.0	2.1	1.7	3.2	3.3	3.0	1.8	0.6
Prop In Lane	1.00		0.49	1.00		0.67	1.00		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	54	346	332	88	365	343	111	301	294	202	794	371
V/C Ratio(X)	0.65	0.55	0.57	0.65	0.32	0.34	0.77	0.56	0.58	0.79	0.28	0.09
Avail Cap(c_a), veh/h	189	942	905	210	920	864	198	861	840	207	1796	840
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	1.00	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	16.5	12.6	12.7	16.1	11.6	11.7	15.9	12.8	12.9	14.9	10.9	10.4
Incr Delay (d2), s/veh	12.5	1.4	1.5	7.7	0.5	0.6	10.7	1.6	1.8	17.8	0.2	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	0.4	1.1	1.1	0.5	0.6	0.6	0.8	0.9	1.0	1.9	0.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.0	14.0	14.2	23.8	12.1	12.3	26.6	14.4	14.7	32.7	11.1	10.5
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		416		292		423		411				
Approach Delay, s/veh		15.4		14.4		17.0		19.4				
Approach LOS		B		B		B		B				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	10.3	5.7	10.6	6.2	12.0	5.1	11.2				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	4.0	18.0	4.0	18.0	4.0	18.0				
Max Q Clear Time (g_c+1), s	15.0	5.3	3.1	5.4	3.7	3.8	2.7	4.1				
Green Ext Time (p_c), s	0.0	1.0	0.0	1.2	0.0	0.8	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay				16.7								
HCM 6th LOS				B								



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	25	25	25	380	211	25
Future Volume (veh/h)	25	25	25	380	211	25
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	25	25	25	380	211	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	88	78	47	1736	821	366
Arrive On Green	0.05	0.05	0.03	0.49	0.23	0.23
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	25	25	25	380	211	25
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	0.2	0.3	0.2	1.1	0.8	0.2
Cycle Q Clear(g_c), s	0.2	0.3	0.2	1.1	0.8	0.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	88	78	47	1736	821	366
V/C Ratio(X)	0.28	0.32	0.54	0.22	0.26	0.07
Avail Cap(c_a), veh/h	412	366	412	5749	4106	1832
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	7.9	7.9	8.3	2.5	5.4	5.2
Incr Delay (d2), s/veh	1.7	2.3	9.2	0.1	0.2	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	0.1	0.1	0.1	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.7	10.3	17.6	2.6	5.6	5.3
LnGrp LOS	A	B	B	A	A	A
Approach Vol, veh/h	50			405	236	
Approach Delay, s/veh	10.0			3.5	5.6	
Approach LOS	A			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		12.5		4.9	4.5	8.0
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		28.0		4.0	4.0	20.0
Max Q Clear Time (g_c+I1), s		3.1		2.3	2.2	2.8
Green Ext Time (p_c), s		2.2		0.0	0.0	1.1
Intersection Summary						
HCM 6th Ctrl Delay			4.7			
HCM 6th LOS			A			

Tracy Transportation Master Plan Update
62: Corral Hollow Rd & Ellis Town Dr/Peony Dr

Future 2042
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↗	↖	↗	↖
Traffic Volume (veh/h)	25	20	25	40	20	94	20	341	103	81	236	25
Future Volume (veh/h)	25	20	25	40	20	94	20	341	103	81	236	25
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	1856	1856	1870	1856	1856	1870	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	25	20	25	40	20	94	20	341	103	81	236	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	2	3	3	2	3	3	3	3	3	3
Cap, veh/h	53	52	65	87	27	126	1019	2258	1007	104	369	165
Arrive On Green	0.03	0.07	0.07	0.05	0.09	0.09	0.77	0.85	0.85	0.06	0.10	0.10
Sat Flow, veh/h	1767	750	937	1767	283	1332	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	25	0	45	40	0	114	20	341	103	81	236	25
Grp Sat Flow(s),veh/h/ln	1767	0	1687	1767	0	1616	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	1.4	0.0	2.6	2.2	0.0	6.9	0.3	1.6	0.6	4.5	6.4	1.2
Cycle Q Clear(g_c), s	1.4	0.0	2.6	2.2	0.0	6.9	0.3	1.6	0.6	4.5	6.4	1.2
Prop In Lane	1.00		0.56	1.00		0.82	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	53	0	117	87	0	153	1019	2258	1007	104	369	165
V/C Ratio(X)	0.47	0.00	0.38	0.46	0.00	0.74	0.02	0.15	0.10	0.78	0.64	0.15
Avail Cap(c_a), veh/h	106	0	574	106	0	549	1019	2258	1007	177	1255	560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.7	0.0	44.5	46.2	0.0	44.1	5.0	2.8	1.0	46.4	43.0	29.9
Incr Delay (d2), s/veh	6.4	0.0	2.0	3.7	0.0	6.9	0.0	0.1	0.2	11.9	8.2	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.1	1.1	0.0	3.1	0.1	0.5	0.4	2.3	3.1	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.1	0.0	46.5	50.0	0.0	51.0	5.0	2.9	1.2	58.3	51.2	31.9
LnGrp LOS	D	A	D	D	A	D	A	A	A	E	D	C
Approach Vol, veh/h		70			154			464			342	
Approach Delay, s/veh		49.2			50.7			2.6			51.5	
Approach LOS		D			D			A			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	69.0	9.5	11.6	62.6	16.3	7.0	14.1				
Change Period (Y+Rc), s	4.0	5.0	4.6	* 4.6	5.0	* 5.8	4.0	4.6				
Max Green Setting (Gmax), s	10.0	32.4	6.0	* 34	6.0	* 36	6.0	34.0				
Max Q Clear Time (g_c+10), s	10.5	3.6	4.2	4.6	2.3	8.4	3.4	8.9				
Green Ext Time (p_c), s	0.0	3.5	0.0	0.2	0.0	2.1	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
63: Corral Hollow Rd & Summit Dr/Middlefield Dr

Future 2042
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	25	23	33	25	49	40	401	164	62	191	25
Future Volume (veh/h)	25	25	23	33	25	49	40	401	164	62	191	25
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	1900	1900	1900	1900	1900	1900	1900	1589	1900	1900	1870	1900
Adj Flow Rate, veh/h	25	25	23	33	25	49	40	401	164	62	191	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	21	0	0	2	0
Cap, veh/h	65	63	58	65	40	78	1070	528	282	934	355	161
Arrive On Green	0.04	0.07	0.07	0.04	0.07	0.07	1.00	0.35	0.35	0.17	0.03	0.03
Sat Flow, veh/h	1810	911	838	1810	574	1124	1810	3019	1610	1810	3554	1610
Grp Volume(v), veh/h	25	0	48	33	0	74	40	401	164	62	191	25
Grp Sat Flow(s),veh/h/ln	1810	0	1749	1810	0	1698	1810	1509	1610	1810	1777	1610
Q Serve(g_s), s	1.4	0.0	2.6	1.8	0.0	4.2	0.0	11.8	8.3	2.9	5.3	1.5
Cycle Q Clear(g_c), s	1.4	0.0	2.6	1.8	0.0	4.2	0.0	11.8	8.3	2.9	5.3	1.5
Prop In Lane	1.00		0.48	1.00		0.66	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	65	0	120	65	0	117	1070	528	282	934	355	161
V/C Ratio(X)	0.39	0.00	0.40	0.51	0.00	0.63	0.04	0.76	0.58	0.07	0.54	0.16
Avail Cap(c_a), veh/h	109	0	612	109	0	594	1070	897	478	934	1212	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	0.0	44.6	47.3	0.0	45.3	0.0	30.7	29.5	21.3	46.1	44.2
Incr Delay (d2), s/veh	3.7	0.0	2.1	6.0	0.0	5.5	0.0	8.5	7.3	0.0	5.7	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.2	0.9	0.0	1.9	0.0	4.0	3.4	1.1	2.6	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.9	0.0	46.7	53.3	0.0	50.8	0.0	39.1	36.8	21.3	51.8	46.3
LnGrp LOS	D	A	D	D	A	D	A	D	D	C	D	D
Approach Vol, veh/h		73			107			605			278	
Approach Delay, s/veh		48.1			51.6			35.9			44.5	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	57.1	23.3	7.6	12.0	64.6	15.8	7.6	12.0				
Change Period (Y+Rc), s	5.5	5.8	4.0	5.1	5.5	* 5.8	4.0	5.1				
Max Green Setting (Gmax), s	30.9	29.7	6.0	35.0	6.0	* 34	6.0	35.0				
Max Q Clear Time (g_c+14), s	14.9	13.8	3.8	4.6	2.0	7.3	3.4	6.2				
Green Ext Time (p_c), s	0.0	3.7	0.0	0.2	0.0	1.6	0.0	0.4				

Intersection Summary

HCM 6th Ctrl Delay	40.6
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
64: Corral Hollow Rd & W. Linne Rd

Future 2042
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	275	464	20	182	291	25	40	531	605	49	118	133
Future Volume (veh/h)	275	464	20	182	291	25	40	531	605	49	118	133
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	1707	1870	1144	1870	1796	1292	1544	1885	1870
Adj Flow Rate, veh/h	275	464	20	182	291	25	40	531	605	49	118	133
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	13	2	51	2	7	41	24	1	2
Cap, veh/h	316	726	31	278	398	34	54	1046	432	269	822	733
Arrive On Green	0.18	0.21	0.21	0.09	0.12	0.12	0.03	0.31	0.31	0.18	0.46	0.46
Sat Flow, veh/h	1781	3471	149	3155	3314	283	1781	3413	1095	1471	1791	1598
Grp Volume(v), veh/h	275	237	247	182	155	161	40	531	605	49	118	133
Grp Sat Flow(s),veh/h/ln	1781	1777	1843	1577	1777	1819	1781	1706	1095	1471	1791	1598
Q Serve(g_s), s	11.3	9.1	9.2	4.2	6.3	6.4	1.7	9.6	17.8	2.1	2.9	3.7
Cycle Q Clear(g_c), s	11.3	9.1	9.2	4.2	6.3	6.4	1.7	9.6	17.8	2.1	2.9	3.7
Prop In Lane	1.00		0.08	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	316	372	386	278	214	219	54	1046	432	269	822	733
V/C Ratio(X)	0.87	0.64	0.64	0.65	0.73	0.74	0.74	0.51	1.40	0.18	0.14	0.18
Avail Cap(c_a), veh/h	333	372	386	883	308	315	95	1229	491	269	822	733
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	1.00	1.00	0.99	0.99	0.99	0.91	0.91	0.91	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	27.1	27.1	33.1	31.8	31.8	36.1	21.4	11.0	25.9	11.7	12.0
Incr Delay (d2), s/veh	20.7	3.6	3.5	2.6	4.7	5.0	16.8	1.6	192.3	0.3	0.4	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	6.2	3.8	4.0	1.6	2.7	2.9	0.9	3.6	25.8	0.7	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.8	30.7	30.6	35.7	36.5	36.9	52.9	23.0	203.3	26.2	12.1	12.5
LnGrp LOS	D	C	C	D	D	D	D	C	F	C	B	B
Approach Vol, veh/h		759			498			1176			300	
Approach Delay, s/veh		37.9			36.3			116.7			14.6	
Approach LOS		D			D			F			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.7	27.0	10.6	19.7	6.3	38.4	17.3	13.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	5.0	27.0	21.0	6.0	4.0	28.0	14.0	13.0				
Max Q Clear Time (g_c+I1), s	4.1	19.8	6.2	11.2	3.7	5.7	13.3	8.4				
Green Ext Time (p_c), s	0.0	3.2	0.6	0.0	0.0	0.9	0.1	0.6				
Intersection Summary												
HCM 6th Ctrl Delay				69.0								
HCM 6th LOS				E								
Notes												
User approved pedestrian interval to be less than phase max green.												



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	68	98	51	1055	238	62
Future Volume (veh/h)	68	98	51	1055	238	62
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	68	98	51	1055	238	62
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	198	176	85	1987	1231	549
Arrive On Green	0.11	0.11	0.05	0.56	0.35	0.35
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	68	98	51	1055	238	62
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	0.9	1.4	0.7	4.5	1.1	0.6
Cycle Q Clear(g_c), s	0.9	1.4	0.7	4.5	1.1	0.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	198	176	85	1987	1231	549
V/C Ratio(X)	0.34	0.56	0.60	0.53	0.19	0.11
Avail Cap(c_a), veh/h	1322	1176	367	4248	2930	1307
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	10.0	10.2	11.3	3.4	5.6	5.4
Incr Delay (d2), s/veh	1.0	2.7	6.5	0.2	0.1	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	0.3	1.4	0.3	0.1	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.0	13.0	17.8	3.6	5.6	5.5
LnGrp LOS	B	B	B	A	A	A
Approach Vol, veh/h	166			1106	300	
Approach Delay, s/veh	12.2			4.2	5.6	
Approach LOS	B			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		17.6		6.7	5.2	12.4
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		29.0		18.0	5.0	20.0
Max Q Clear Time (g_c+I1), s		6.5		3.4	2.7	3.1
Green Ext Time (p_c), s		7.1		0.4	0.0	1.5
Intersection Summary						
HCM 6th Ctrl Delay			5.3			
HCM 6th LOS			A			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔		↔	↔	↔	↔↔	↔↔	↔	↔↔	↔↔	↔
Traffic Volume (veh/h)	68	34	42	120	51	131	351	963	125	110	158	67
Future Volume (veh/h)	68	34	42	120	51	131	351	963	125	110	158	67
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		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	68	34	42	120	111	91	351	963	125	110	158	67
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	140	51	63	150	206	175	2129	1195	533	1220	260	116
Arrive On Green	0.04	0.07	0.07	0.08	0.11	0.11	0.20	0.11	0.11	0.35	0.07	0.07
Sat Flow, veh/h	3456	761	940	1781	1870	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	68	0	76	120	111	91	351	963	125	110	158	67
Grp Sat Flow(s),veh/h/ln	1728	0	1701	1781	1870	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	1.9	0.0	4.4	6.6	5.6	2.8	8.4	26.5	5.4	2.1	4.3	3.6
Cycle Q Clear(g_c), s	1.9	0.0	4.4	6.6	5.6	2.8	8.4	26.5	5.4	2.1	4.3	3.6
Prop In Lane	1.00		0.55	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	140	0	113	150	206	175	2129	1195	533	1220	260	116
V/C Ratio(X)	0.49	0.00	0.67	0.80	0.54	0.52	0.16	0.81	0.23	0.09	0.61	0.58
Avail Cap(c_a), veh/h	622	0	391	232	337	285	2129	1457	650	1220	1137	507
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.24	0.24	0.24	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	0.0	45.6	45.0	42.1	11.1	18.6	41.3	18.5	21.6	44.9	33.9
Incr Delay (d2), s/veh	2.6	0.0	6.7	10.6	2.2	2.4	0.0	1.5	0.2	0.0	10.1	19.2
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	0.9	0.0	2.1	3.4	2.7	2.2	3.2	12.6	2.9	0.8	2.2	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.6	0.0	52.3	55.6	44.3	13.5	18.6	42.7	18.8	21.6	55.0	53.1
LnGrp LOS	D	A	D	E	D	B	B	D	B	C	E	D
Approach Vol, veh/h		144			322			1439			335	
Approach Delay, s/veh		51.0			39.8			34.8			43.7	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	39.3	37.6	12.4	10.7	65.6	11.3	8.1	15.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	41.0	13.0	23.0	16.0	32.0	18.0	18.0					
Max Q Clear Time (g_c+1/4), s	28.5	8.6	6.4	10.4	6.3	3.9	7.6					
Green Ext Time (p_c), s	0.1	5.2	0.1	0.3	0.6	1.0	0.1	0.6				

Intersection Summary

HCM 6th Ctrl Delay	37.9
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Tracy Transportation Master Plan Update
67: Corral Hollow Rd & I-580 WB On Ramp/I-580 WB Off Ramp

Future 2042
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕			↕	↕
Traffic Volume (veh/h)	0	0	0	28	0	32	102	1237	0	0	214	140
Future Volume (veh/h)	0	0	0	28	0	32	102	1237	0	0	214	140
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		No		
Adj Sat Flow, veh/h/ln				1870	1900	1574	1900	1544	0	0	1767	1856
Adj Flow Rate, veh/h				28	0	0	102	1237	0	0	214	0
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				2	0	22	0	24	0	0	9	3
Cap, veh/h				39	0		130	1387	0	0	2641	
Arrive On Green				0.02	0.00	0.00	0.10	1.00	0.00	0.00	1.00	0.00
Sat Flow, veh/h				1810	0	1334	1810	1544	0	0	3445	1572
Grp Volume(v), veh/h				28	0	0	102	1237	0	0	214	0
Grp Sat Flow(s),veh/h/ln				1810	0	1334	1810	1544	0	0	1678	1572
Q Serve(g_s), s				1.5	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				1.5	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				39	0		130	1387	0	0	2641	
V/C Ratio(X)				0.72	0.00		0.79	0.89	0.00	0.00	0.08	
Avail Cap(c_a), veh/h				326	0		217	1387	0	0	2641	
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	0.00	0.17	0.17	0.00	0.00	0.96	0.00
Uniform Delay (d), s/veh				48.6	0.0	0.0	44.5	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				21.4	0.0	0.0	1.9	1.8	0.0	0.0	0.1	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				0.9	0.0	0.0	2.4	0.7	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				70.0	0.0	0.0	46.3	1.8	0.0	0.0	0.1	0.0
LnGrp LOS				E	A		D	A	A	A	A	
Approach Vol, veh/h					28	A		1339			214	A
Approach Delay, s/veh					70.0			5.1			0.1	
Approach LOS					E			A			A	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		93.8			11.2	82.7		6.2				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		74.0			12.0	58.0		18.0				
Max Q Clear Time (g_c+I1), s		2.0			7.5	2.0		3.5				
Green Ext Time (p_c), s		10.1			0.1	0.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay	5.6
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR, SBR] 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)	984	0	78	0	0	0	0	367	588	98	128	0
Future Volume (veh/h)	984	0	78	0	0	0	0	367	588	98	128	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	1515	1159	1900				0	1900	1900	1485	1885	0
Adj Flow Rate, veh/h	984	0	78				0	367	588	98	128	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	26	50	0				0	0	0	28	1	0
Cap, veh/h	909	0	619				0	650	290	99	547	0
Arrive On Green	0.63	0.00	0.63				0.00	0.18	0.18	0.02	0.10	0.00
Sat Flow, veh/h	1443	0	982				0	3705	1610	1414	1885	0
Grp Volume(v), veh/h	984	0	78				0	367	588	98	128	0
Grp Sat Flow(s),veh/h/ln	1443	0	982				0	1805	1610	1414	1885	0
Q Serve(g_s), s	63.0	0.0	3.2				0.0	9.3	18.0	6.9	6.3	0.0
Cycle Q Clear(g_c), s	63.0	0.0	3.2				0.0	9.3	18.0	6.9	6.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	909	0	619				0	650	290	99	547	0
V/C Ratio(X)	1.08	0.00	0.13				0.00	0.56	2.03	0.99	0.23	0.00
Avail Cap(c_a), veh/h	909	0	619				0	650	290	99	547	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.5	0.0	7.4				0.0	37.4	41.0	48.8	34.9	0.0
Incr Delay (d2), s/veh	54.8	0.0	0.1				0.0	3.5	474.9	87.0	1.0	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	11.4	0.0	0.6				0.0	4.2	44.9	4.8	3.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.3	0.0	7.5				0.0	41.0	515.9	135.8	35.9	0.0
LnGrp LOS	F	A	A				A	D	F	F	D	A
Approach Vol, veh/h		1062						955			226	
Approach Delay, s/veh		68.5						333.4			79.3	
Approach LOS		E						F			E	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	11.0	22.0	67.0	33.0								
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0								
Max Green Setting (Gmax), s	18.0	18.0	63.0	29.0								
Max Q Clear Time (g_c+1/3), s	19.5	20.0	65.0	8.3								
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3								
Intersection Summary												
HCM 6th Ctrl Delay			182.4									
HCM 6th LOS			F									

Intersection						
Int Delay, s/veh	2.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	86	611	27	38	93
Future Vol, veh/h	30	86	611	27	38	93
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, %	8	8	8	8	8	8
Mvmt Flow	30	86	611	27	38	93
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	794	625	0	0	638	0
Stage 1	625	-	-	-	-	-
Stage 2	169	-	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.18	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.272	-
Pot Cap-1 Maneuver	349	474	-	-	918	-
Stage 1	522	-	-	-	-	-
Stage 2	846	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	334	474	-	-	918	-
Mov Cap-2 Maneuver	334	-	-	-	-	-
Stage 1	522	-	-	-	-	-
Stage 2	809	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	16.5	0	2.6			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	428	918	-	
HCM Lane V/C Ratio	-	-	0.271	0.041	-	
HCM Control Delay (s)	-	-	16.5	9.1	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	1.1	0.1	-	

Tracy Transportation Master Plan Update
71: Tracy Blvd & W. Larch Rd

Future 2042
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↗		↖	↑↗		↖	↗	
Traffic Volume (veh/h)	23	147	240	350	74	50	79	528	183	25	152	25
Future Volume (veh/h)	23	147	240	350	74	50	79	528	183	25	152	25
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	1856	1856	1856	1781	1856	1781	1856	1781	1781	1781	1781	1856
Adj Flow Rate, veh/h	23	147	240	350	74	50	79	528	183	25	152	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	8	3	8	3	8	8	8	8	3
Cap, veh/h	33	318	269	387	393	266	555	1038	358	34	188	31
Arrive On Green	0.02	0.17	0.17	0.23	0.38	0.38	0.63	0.84	0.84	0.02	0.13	0.13
Sat Flow, veh/h	1767	1856	1572	1697	1032	698	1767	2469	852	1697	1492	245
Grp Volume(v), veh/h	23	147	240	350	0	124	79	361	350	25	0	177
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1697	0	1730	1767	1692	1628	1697	0	1737
Q Serve(g_s), s	1.3	7.1	14.9	20.1	0.0	4.8	1.8	5.9	6.0	1.5	0.0	9.9
Cycle Q Clear(g_c), s	1.3	7.1	14.9	20.1	0.0	4.8	1.8	5.9	6.0	1.5	0.0	9.9
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.52	1.00		0.14
Lane Grp Cap(c), veh/h	33	318	269	387	0	659	555	711	684	34	0	219
V/C Ratio(X)	0.69	0.46	0.89	0.90	0.00	0.19	0.14	0.51	0.51	0.74	0.00	0.81
Avail Cap(c_a), veh/h	88	334	283	526	0	761	555	711	684	68	0	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.88	0.88	0.88	1.00	0.00	1.00
Uniform Delay (d), s/veh	48.8	37.3	40.5	37.5	0.0	20.7	13.1	5.1	5.1	48.7	0.0	42.5
Incr Delay (d2), s/veh	22.3	1.0	26.9	15.3	0.0	0.1	0.1	2.3	2.4	26.1	0.0	26.5
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	0.8	3.3	7.8	9.9	0.0	2.0	0.7	1.8	1.8	0.9	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.1	38.3	67.4	52.8	0.0	20.8	13.2	7.4	7.5	74.9	0.0	69.0
LnGrp LOS	E	D	E	D	A	C	B	A	A	E	A	E
Approach Vol, veh/h		410			474			790			202	
Approach Delay, s/veh		57.2			44.4			8.0			69.7	
Approach LOS		E			D			A			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.0	46.0	26.8	21.1	35.4	16.6	5.9	42.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	31.0	31.0	18.0	10.0	25.0	5.0	44.0				
Max Q Clear Time (g_c+I1), s	3.5	8.0	22.1	16.9	3.8	11.9	3.3	6.8				
Green Ext Time (p_c), s	0.0	4.8	0.8	0.2	0.1	0.7	0.0	0.8				
Intersection Summary												
HCM 6th Ctrl Delay				34.6								
HCM 6th LOS				C								

Tracy Transportation Master Plan Update
 72: Tracy Blvd & I-205 WB On-Ramp/I-205 WB Off-Ramp

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↗	↖	↖	↖	↖		↖	↖
Traffic Volume (veh/h)	0	0	0	387	0	122	279	637	0	0	499	155
Future Volume (veh/h)	0	0	0	387	0	122	279	637	0	0	499	155
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		No		
Adj Sat Flow, veh/h/ln				1856	1856	1781	1856	1781	0	0	1781	1781
Adj Flow Rate, veh/h				387	0	122	279	637	0	0	499	155
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				3	3	8	3	8	0	0	8	8
Cap, veh/h				574	0	232	1634	1350	0	0	591	183
Arrive On Green				0.16	0.00	0.15	0.95	1.00	0.00	0.00	0.46	0.45
Sat Flow, veh/h				3534	0	1510	3428	1781	0	0	2635	786
Grp Volume(v), veh/h				387	0	122	279	637	0	0	331	323
Grp Sat Flow(s),veh/h/ln				1767	0	1510	1714	1781	0	0	1692	1640
Q Serve(g_s), s				10.3	0.0	7.4	0.5	0.0	0.0	0.0	17.2	17.5
Cycle Q Clear(g_c), s				10.3	0.0	7.4	0.5	0.0	0.0	0.0	17.2	17.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.48
Lane Grp Cap(c), veh/h				574	0	232	1634	1350	0	0	393	381
V/C Ratio(X)				0.67	0.00	0.53	0.17	0.47	0.00	0.00	0.84	0.85
Avail Cap(c_a), veh/h				1025	0	424	1634	1350	0	0	728	705
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.69	0.69	0.00	0.00	0.74	0.74
Uniform Delay (d), s/veh				39.4	0.0	39.0	1.2	0.0	0.0	0.0	25.2	25.7
Incr Delay (d2), s/veh				2.0	0.0	2.6	0.0	0.8	0.0	0.0	14.9	15.9
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				4.5	0.0	2.9	0.2	0.3	0.0	0.0	6.6	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				41.4	0.0	41.6	1.3	0.8	0.0	0.0	40.1	41.6
LnGrp LOS				D	A	D	A	A	A	A	D	D
Approach Vol, veh/h					509			916			654	
Approach Delay, s/veh					41.4			1.0			40.8	
Approach LOS					D			A			D	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		79.8			52.5	27.2		20.2				
Change Period (Y+Rc), s		4.9			4.9	* 4.9		4.9				
Max Green Setting (Gmax), s		62.1			16.0	* 42		28.1				
Max Q Clear Time (g_c+I1), s		2.0			2.5	19.5		12.3				
Green Ext Time (p_c), s		3.1			1.3	2.8		3.0				

Intersection Summary

HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
 73: Tracy Blvd & I-205 EB Off-Ramp/I-205 EB On-Ramp

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕↗		↗	↕↕	
Traffic Volume (veh/h)	424	0	189	0	0	0	0	493	403	286	580	0
Future Volume (veh/h)	424	0	189	0	0	0	0	493	403	286	580	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	1781	1856	1856				0	1856	1856	1781	1856	0
Adj Flow Rate, veh/h	424	0	189				0	493	403	286	580	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	3	3				0	3	3	8	3	0
Cap, veh/h	487	0	419				0	758	619	327	2272	0
Arrive On Green	0.28	0.00	0.27				0.00	0.41	0.40	0.06	0.21	0.00
Sat Flow, veh/h	1767	0	1572				0	1935	1505	1697	3618	0
Grp Volume(v), veh/h	424	0	189				0	472	424	286	580	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572				0	1763	1585	1697	1763	0
Q Serve(g_s), s	22.9	0.0	10.0				0.0	21.5	21.7	16.7	13.7	0.0
Cycle Q Clear(g_c), s	22.9	0.0	10.0				0.0	21.5	21.7	16.7	13.7	0.0
Prop In Lane	1.00		1.00				0.00		0.95	1.00		0.00
Lane Grp Cap(c), veh/h	487	0	419				0	725	652	327	2272	0
V/C Ratio(X)	0.87	0.00	0.45				0.00	0.65	0.65	0.87	0.26	0.00
Avail Cap(c_a), veh/h	601	0	520				0	725	652	390	2272	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.47	0.47	0.91	0.91	0.00
Uniform Delay (d), s/veh	34.5	0.0	30.6				0.0	23.6	24.0	45.6	19.4	0.0
Incr Delay (d2), s/veh	11.3	0.0	0.8				0.0	2.1	2.4	16.6	0.2	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	1.0	0.0	3.8				0.0	9.0	8.2	9.1	6.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	0.0	31.3				0.0	25.8	26.4	62.2	19.6	0.0
LnGrp LOS	D	A	C				A	C	C	E	B	A
Approach Vol, veh/h		613						896			866	
Approach Delay, s/veh		41.3						26.1			33.7	
Approach LOS		D						C			C	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	23.3	45.2	31.5	68.5								
Change Period (Y+Rc), s	4.0	4.9	4.9	4.9								
Max Green Setting (Gmax), s	23.3	30.1	33.1	57.1								
Max Q Clear Time (g_c+110), s	110.7	23.7	24.9	15.7								
Green Ext Time (p_c), s	0.6	2.3	1.8	2.8								

Intersection Summary

HCM 6th Ctrl Delay	32.8
HCM 6th LOS	C

Tracy Transportation Master Plan Update
74: Tracy Blvd & GRANT LINE RD

Future 2042
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑		↖	↑↑		↖	↑↑		↖	↑↑	
Traffic Volume (veh/h)	201	595	162	120	438	107	231	665	217	151	466	92
Future Volume (veh/h)	201	595	162	120	438	107	231	665	217	151	466	92
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	201	595	162	120	438	107	231	665	217	151	466	92
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	249	742	202	177	647	157	281	820	267	188	786	154
Arrive On Green	0.14	0.27	0.26	0.10	0.23	0.22	0.16	0.31	0.30	0.11	0.27	0.25
Sat Flow, veh/h	1767	2740	744	1767	2814	682	1767	2613	852	1767	2938	577
Grp Volume(v), veh/h	201	382	375	120	273	272	231	449	433	151	278	280
Grp Sat Flow(s),veh/h/ln	1767	1763	1722	1767	1763	1733	1767	1763	1702	1767	1763	1752
Q Serve(g_s), s	8.7	16.0	16.0	5.2	11.2	11.3	10.0	18.5	18.6	6.6	10.9	11.0
Cycle Q Clear(g_c), s	8.7	16.0	16.0	5.2	11.2	11.3	10.0	18.5	18.6	6.6	10.9	11.0
Prop In Lane	1.00		0.43	1.00		0.39	1.00		0.50	1.00		0.33
Lane Grp Cap(c), veh/h	249	477	466	177	405	399	281	553	534	188	472	469
V/C Ratio(X)	0.81	0.80	0.80	0.68	0.67	0.68	0.82	0.81	0.81	0.80	0.59	0.60
Avail Cap(c_a), veh/h	291	781	763	246	736	724	335	765	739	295	736	732
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	1.00	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	32.9	26.8	27.0	34.3	27.7	27.9	32.2	24.9	25.2	34.5	25.2	25.4
Incr Delay (d2), s/veh	11.4	3.2	3.3	1.7	2.0	2.1	11.2	4.6	4.8	3.8	1.2	1.2
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	4.3	6.6	6.5	2.2	4.6	4.6	5.0	7.9	7.7	2.9	4.4	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.3	30.0	30.2	36.0	29.7	29.9	43.4	29.6	30.0	38.3	26.3	26.6
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		958			665			1113			709	
Approach Delay, s/veh		33.1			30.9			32.6			29.0	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.9	28.8	11.9	25.4	16.5	25.1	15.2	22.2				
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5				
Max Green Setting (Gmax), s	13.2	33.3	10.5	34.5	14.5	32.0	12.5	32.5				
Max Q Clear Time (g_c+1), s	10.6	20.6	7.2	18.0	12.0	13.0	10.7	13.3				
Green Ext Time (p_c), s	0.1	3.2	0.1	2.9	0.1	2.1	0.1	2.0				

Intersection Summary

HCM 6th Ctrl Delay	31.7
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)	235	842	272	364	774	158	229	533	196	157	630	182
Future Volume (veh/h)	235	842	272	364	774	158	229	533	196	157	630	182
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	235	842	272	364	774	158	229	533	196	157	630	182
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	378	1101	491	480	1249	557	378	899	401	370	847	378
Arrive On Green	0.11	0.31	0.31	0.14	0.35	0.35	0.11	0.25	0.25	0.11	0.24	0.24
Sat Flow, veh/h	3428	3526	1572	3428	3526	1572	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	235	842	272	364	774	158	229	533	196	157	630	182
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1714	1763	1572	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	5.3	17.5	11.7	8.3	14.7	5.9	5.2	10.8	5.3	3.5	13.4	5.5
Cycle Q Clear(g_c), s	5.3	17.5	11.7	8.3	14.7	5.9	5.2	10.8	5.3	3.5	13.4	5.5
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	378	1101	491	480	1249	557	378	899	401	370	847	378
V/C Ratio(X)	0.62	0.76	0.55	0.76	0.62	0.28	0.61	0.59	0.49	0.42	0.74	0.48
Avail Cap(c_a), veh/h	418	1524	680	502	1611	718	380	1520	678	380	1520	678
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	1.00	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	34.5	25.2	23.2	33.6	21.7	18.8	34.4	26.6	9.7	33.9	28.5	12.1
Incr Delay (d2), s/veh	1.5	1.3	0.7	5.5	0.4	0.2	1.9	0.2	0.3	0.3	0.5	0.4
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	2.2	7.2	4.2	3.7	5.9	2.0	2.2	4.3	2.9	1.4	5.4	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.0	26.5	23.9	39.1	22.1	19.0	36.4	26.8	10.0	34.1	29.0	12.5
LnGrp LOS	D	C	C	D	C	B	D	C	B	C	C	B
Approach Vol, veh/h		1349			1296			958			969	
Approach Delay, s/veh		27.7			26.5			25.7			26.7	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.9	28.9	13.5	23.0	12.5	32.3	12.3	24.2				
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5				
Max Green Setting (Gmax), s	10.5	* 33	8.0	* 33	8.9	35.1	8.0	33.0				
Max Q Clear Time (g_c+I1), s	10.5	19.5	7.2	15.4	7.3	16.7	5.5	12.8				
Green Ext Time (p_c), s	0.1	3.8	0.1	2.1	0.1	3.5	0.1	1.9				

Intersection Summary

HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Volume (veh/h)	20	25	25	219	25	109	25	839	116	58	1000	25
Future Volume (veh/h)	20	25	25	219	25	109	25	839	116	58	1000	25
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	20	25	25	219	25	109	25	839	0	58	1000	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	185	218	173	369	42	132	83	1172		156	1350	34
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.05	0.33	0.00	0.09	0.38	0.38
Sat Flow, veh/h	321	755	598	871	147	455	1767	3618	0	1767	3515	88
Grp Volume(v), veh/h	70	0	0	353	0	0	25	839	0	58	502	523
Grp Sat Flow(s),veh/h/ln1674	0	0	1472	0	0	1767	1763	0	1767	1763	1840	
Q Serve(g_s), s	0.0	0.0	0.0	9.6	0.0	0.0	0.7	10.4	0.0	1.5	12.3	12.3
Cycle Q Clear(g_c), s	1.5	0.0	0.0	11.1	0.0	0.0	0.7	10.4	0.0	1.5	12.3	12.3
Prop In Lane	0.29		0.36	0.62		0.31	1.00		0.00	1.00		0.05
Lane Grp Cap(c), veh/h	577	0	0	543	0	0	83	1172		156	677	706
V/C Ratio(X)	0.12	0.00	0.00	0.65	0.00	0.00	0.30	0.72		0.37	0.74	0.74
Avail Cap(c_a), veh/h	885	0	0	830	0	0	282	1648		286	828	864
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	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.2	0.0	0.0	16.4	0.0	0.0	23.1	14.6	0.0	21.5	13.3	13.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.0	0.0	0.0	0.7	0.9	0.0	0.5	2.8	2.7
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/ln0.5	0.0	0.0	3.4	0.0	0.0	0.3	3.5	0.0	0.6	4.4	4.5	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.2	0.0	0.0	17.4	0.0	0.0	23.8	15.5	0.0	22.0	16.1	16.0
LnGrp LOS	B	A	A	B	A	A	C	B		C	B	B
Approach Vol, veh/h		70			353			864	A		1083	
Approach Delay, s/veh		13.2			17.4			15.8			16.4	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s9.4	21.6			19.0	6.8	24.2		19.0				
Change Period (Y+Rc), s 5.0	* 5			4.5	4.5	5.0		4.5				
Max Green Setting (Gmax), s	* 23			24.5	8.0	23.5		24.5				
Max Q Clear Time (g_c+1), s	12.4			3.5	2.7	14.3		13.1				
Green Ext Time (p_c), s	0.0	4.2		0.2	0.0	4.3		1.4				

Intersection Summary

HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection												
Int Delay, s/veh	4.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	40	20	25	90	20	75	21	710	80	29	1038	121
Future Vol, veh/h	40	20	25	90	20	75	21	710	80	29	1038	121
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	120	-	-
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	40	20	25	90	20	75	21	710	80	29	1038	121

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	1564	1989	580	1379	2009	395	1159	0	0	790	0	0
Stage 1	1157	1157	-	792	792	-	-	-	-	-	-	-
Stage 2	407	832	-	587	1217	-	-	-	-	-	-	-
Critical Hdwy	5	5	5	5	5	5	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	227	141	624	274	138	746	593	-	-	819	-	-
Stage 1	207	267	-	346	396	-	-	-	-	-	-	-
Stage 2	589	380	-	460	250	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	170	131	624	220	128	746	593	-	-	819	-	-
Mov Cap-2 Maneuver	170	131	-	220	128	-	-	-	-	-	-	-
Stage 1	200	258	-	334	382	-	-	-	-	-	-	-
Stage 2	484	367	-	393	241	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	35.9	40.4	0.3	0.2
HCM LOS	E	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	593	-	-	199	278	819	-	-
HCM Lane V/C Ratio	0.035	-	-	0.427	0.665	0.035	-	-
HCM Control Delay (s)	11.3	-	-	35.9	40.4	9.6	-	-
HCM Lane LOS	B	-	-	E	E	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	2	4.3	0.1	-	-

Tracy Transportation Master Plan Update
78: TRACY BLVD & SCHULTE ROAD

Future 2042
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕		↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	246	447	170	184	372	80	157	501	70	87	818	206
Future Volume (veh/h)	246	447	170	184	372	80	157	501	70	87	818	206
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	246	447	170	184	372	80	157	501	70	87	818	206
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	288	565	213	228	555	118	173	1143	510	117	1030	460
Arrive On Green	0.16	0.23	0.23	0.13	0.19	0.19	0.10	0.32	0.32	0.07	0.29	0.29
Sat Flow, veh/h	1767	2504	944	1767	2892	615	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	246	314	303	184	225	227	157	501	70	87	818	206
Grp Sat Flow(s),veh/h/ln	1767	1763	1686	1767	1763	1745	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	10.4	12.8	13.0	7.7	9.1	9.2	6.7	8.6	2.4	3.7	16.4	8.2
Cycle Q Clear(g_c), s	10.4	12.8	13.0	7.7	9.1	9.2	6.7	8.6	2.4	3.7	16.4	8.2
Prop In Lane	1.00		0.56	1.00		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	288	398	381	228	338	335	173	1143	510	117	1030	460
V/C Ratio(X)	0.85	0.79	0.80	0.81	0.67	0.68	0.91	0.44	0.14	0.75	0.79	0.45
Avail Cap(c_a), veh/h	624	726	694	716	818	810	173	1456	649	148	1405	627
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	1.00	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	31.1	27.9	28.0	32.4	28.6	28.7	34.2	20.4	18.3	35.1	25.0	22.1
Incr Delay (d2), s/veh	2.8	3.5	3.9	2.6	2.3	2.4	41.8	0.3	0.1	10.1	2.3	0.7
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	4.4	5.4	5.3	3.3	3.8	3.8	4.8	3.3	0.8	1.9	6.7	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	31.4	31.8	34.9	30.9	31.1	75.9	20.6	18.4	45.2	27.2	22.7
LnGrp LOS	C	C	C	C	C	C	E	C	B	D	C	C
Approach Vol, veh/h		863			636			728				1111
Approach Delay, s/veh		32.3			32.1			32.3				27.8
Approach LOS		C			C			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	20.2	9.6	29.8	14.4	22.8	12.0	27.4				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.0	4.5	5.5	4.5	5.0				
Max Green Setting (Gmax), s	27.0	35.5	6.4	31.6	31.0	31.5	7.5	30.5				
Max Q Clear Time (g_c+I1), s	12.4	11.2	5.7	10.6	9.7	15.0	8.7	18.4				
Green Ext Time (p_c), s	0.2	1.7	0.0	2.5	0.1	2.3	0.0	4.0				

Intersection Summary

HCM 6th Ctrl Delay	30.8
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)	41	68	37	311	104	117	43	614	145	57	822	80
Future Volume (veh/h)	41	68	37	311	104	117	43	614	145	57	822	80
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	41	68	37	311	104	117	43	614	145	57	822	80
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	113	171	93	335	221	249	117	868	205	139	1035	101
Arrive On Green	0.06	0.15	0.15	0.19	0.28	0.28	0.07	0.31	0.31	0.08	0.32	0.32
Sat Flow, veh/h	1767	1130	615	1767	797	897	1767	2831	667	1767	3246	316
Grp Volume(v), veh/h	41	0	105	311	0	221	43	382	377	57	446	456
Grp Sat Flow(s),veh/h/ln	1767	0	1745	1767	0	1694	1767	1763	1735	1767	1763	1799
Q Serve(g_s), s	1.5	0.0	3.6	11.4	0.0	7.1	1.5	12.6	12.7	2.0	15.2	15.2
Cycle Q Clear(g_c), s	1.5	0.0	3.6	11.4	0.0	7.1	1.5	12.6	12.7	2.0	15.2	15.2
Prop In Lane	1.00		0.35	1.00		0.53	1.00		0.38	1.00		0.18
Lane Grp Cap(c), veh/h	113	0	265	335	0	470	117	540	532	139	562	574
V/C Ratio(X)	0.36	0.00	0.40	0.93	0.00	0.47	0.37	0.71	0.71	0.41	0.79	0.79
Avail Cap(c_a), veh/h	215	0	742	335	0	836	215	629	619	215	629	642
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	29.5	0.0	25.2	26.2	0.0	19.8	29.4	20.2	20.2	28.9	20.4	20.4
Incr Delay (d2), s/veh	0.7	0.0	0.4	30.6	0.0	0.3	0.7	3.9	4.1	0.7	7.3	7.1
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	0.6	0.0	1.4	7.4	0.0	2.7	0.6	5.1	5.1	0.8	6.6	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.2	0.0	25.6	56.8	0.0	20.0	30.1	24.2	24.3	29.6	27.7	27.6
LnGrp LOS	C	A	C	E	A	C	C	C	C	C	C	C
Approach Vol, veh/h		146			532			802			959	
Approach Delay, s/veh		26.9			41.5			24.5			27.8	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	24.7	17.0	14.5	8.9	25.5	8.7	22.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	30.0	23.5	12.5	28.0	8.0	23.5	8.0	32.5				
Max Q Clear Time (g_c+14), s	14.0	14.7	13.4	5.6	3.5	17.2	3.5	9.1				
Green Ext Time (p_c), s	0.0	4.3	0.0	0.2	0.0	3.8	0.0	0.5				

Intersection Summary

HCM 6th Ctrl Delay	29.7
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)	115	290	95	220	180	116	172	671	155	154	351	55
Future Volume (veh/h)	115	290	95	220	180	116	172	671	155	154	351	55
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		No		No
Adj Sat Flow, veh/h/ln	1885	1885	1885	1870	1870	1870	1900	1885	1826	1870	1856	1900
Adj Flow Rate, veh/h	115	290	95	220	180	116	172	671	155	154	351	55
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	2	2	2	0	1	5	2	3	0
Cap, veh/h	196	502	161	425	719	320	216	978	423	209	828	129
Arrive On Green	0.11	0.19	0.19	0.12	0.20	0.20	0.12	0.27	0.27	0.12	0.27	0.27
Sat Flow, veh/h	1795	2666	856	3456	3554	1585	1810	3582	1547	1781	3058	475
Grp Volume(v), veh/h	115	193	192	220	180	116	172	671	155	154	201	205
Grp Sat Flow(s),veh/h/ln	1795	1791	1731	1728	1777	1585	1810	1791	1547	1781	1763	1770
Q Serve(g_s), s	3.9	6.2	6.5	3.8	2.7	4.0	5.9	10.7	5.2	5.3	6.0	6.1
Cycle Q Clear(g_c), s	3.9	6.2	6.5	3.8	2.7	4.0	5.9	10.7	5.2	5.3	6.0	6.1
Prop In Lane	1.00		0.49	1.00		1.00	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	196	337	326	425	719	320	216	978	423	209	477	479
V/C Ratio(X)	0.59	0.57	0.59	0.52	0.25	0.36	0.79	0.69	0.37	0.74	0.42	0.43
Avail Cap(c_a), veh/h	225	1040	1005	434	2064	920	241	2108	911	238	1038	1042
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	1.00	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	27.0	23.5	23.6	26.2	21.4	21.9	27.3	20.7	18.7	27.2	19.1	19.2
Incr Delay (d2), s/veh	1.3	1.8	2.0	0.4	0.2	0.8	13.3	1.0	0.6	8.0	0.7	0.7
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	1.6	2.6	2.6	1.5	1.0	1.4	3.1	4.0	1.7	2.5	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.3	25.4	25.7	26.6	21.6	22.7	40.6	21.8	19.3	35.1	19.8	19.9
LnGrp LOS	C	C	C	C	C	C	D	C	B	D	B	B
Approach Vol, veh/h		500			516			998			560	
Approach Delay, s/veh		26.1			24.0			24.6			24.1	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	22.4	12.3	17.0	12.1	22.3	11.5	17.9				
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0				
Max Green Setting (Gmax), s	37.5	37.5	8.0	37.0	8.5	37.5	8.0	37.0				
Max Q Clear Time (g_c+1), s	12.7	12.7	5.8	8.5	7.9	8.1	5.9	6.0				
Green Ext Time (p_c), s	0.0	4.7	0.1	1.9	0.0	2.0	0.0	1.6				

Intersection Summary

HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
81: TRACY BLVD & Whispering Wind Dr

Future 2042
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	268	79	51	31	63	200	57	472	100	278	351	313
Future Volume (veh/h)	268	79	51	31	63	200	57	472	100	278	351	313
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	268	79	51	31	63	200	57	472	100	278	351	313
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	309	318	205	68	308	261	101	652	137	319	619	544
Arrive On Green	0.17	0.30	0.30	0.04	0.17	0.17	0.06	0.23	0.23	0.18	0.35	0.35
Sat Flow, veh/h	1767	1053	680	1767	1856	1572	1767	2898	610	1767	1777	1561
Grp Volume(v), veh/h	268	0	130	31	63	200	57	286	286	278	348	316
Grp Sat Flow(s),veh/h/ln	1767	0	1733	1767	1856	1572	1767	1763	1746	1767	1763	1575
Q Serve(g_s), s	10.5	0.0	4.0	1.2	2.1	8.6	2.2	10.6	10.8	10.9	11.4	11.6
Cycle Q Clear(g_c), s	10.5	0.0	4.0	1.2	2.1	8.6	2.2	10.6	10.8	10.9	11.4	11.6
Prop In Lane	1.00		0.39	1.00		1.00	1.00		0.35	1.00		0.99
Lane Grp Cap(c), veh/h	309	0	523	68	308	261	101	397	393	319	615	549
V/C Ratio(X)	0.87	0.00	0.25	0.45	0.20	0.77	0.57	0.72	0.73	0.87	0.57	0.58
Avail Cap(c_a), veh/h	311	0	865	152	758	643	222	671	664	336	785	701
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	28.5	0.0	18.7	33.4	25.6	28.3	32.6	25.4	25.5	28.3	18.8	18.8
Incr Delay (d2), s/veh	21.0	0.0	0.3	1.7	0.4	5.6	1.8	3.0	3.1	19.5	1.0	1.2
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	6.0	0.0	1.6	0.5	0.9	3.5	0.9	4.3	4.3	5.9	4.2	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.5	0.0	19.0	35.1	25.9	33.9	34.4	28.4	28.6	47.7	19.8	20.0
LnGrp LOS	D	A	B	D	C	C	C	C	C	D	B	B
Approach Vol, veh/h		398			294			629			942	
Approach Delay, s/veh		39.5			32.3			29.0			28.1	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.3	20.5	7.2	25.9	8.5	29.2	16.9	16.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	27.0	6.1	35.4	8.9	31.6	12.5	29.0				
Max Q Clear Time (g_c+1/2g), s	12.9	12.8	3.2	6.0	4.2	13.6	12.5	10.6				
Green Ext Time (p_c), s	0.0	3.2	0.0	0.9	0.0	4.4	0.0	1.1				



























Intersection Summary

HCM 6th Ctrl Delay	30.9
HCM 6th LOS	C

Notes

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

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↕		↙	↕
Traffic Vol, veh/h	25	23	589	41	25	362
Future Vol, veh/h	25	23	589	41	25	362
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	100	-	-	120	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	25	23	589	41	25	362
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	841	315	0	0	630	0
Stage 1	610	-	-	-	-	-
Stage 2	231	-	-	-	-	-
Critical Hdwy	6.86	6.96	-	-	4.16	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	-	-	2.23	-
Pot Cap-1 Maneuver	302	678	-	-	942	-
Stage 1	502	-	-	-	-	-
Stage 2	782	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	294	678	-	-	942	-
Mov Cap-2 Maneuver	294	-	-	-	-	-
Stage 1	502	-	-	-	-	-
Stage 2	761	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	14.6	0	0.6			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	294	678	942	-
HCM Lane V/C Ratio	-	-	0.085	0.034	0.027	-
HCM Control Delay (s)	-	-	18.4	10.5	8.9	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0.1	0.1	-

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 			 		
Traffic Volume (veh/h)	470	655	22	25	235	109	25	28	23	145	28	219
Future Volume (veh/h)	470	655	22	25	235	109	25	28	23	145	28	219
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	470	655	22	25	235	109	25	28	23	145	28	219
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1303	1594	53	508	1083	486	393	242	199	571	47	365
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1995	3480	117	756	2365	1062	1124	942	774	1343	181	1419
Grp Volume(v), veh/h	470	332	345	25	173	171	25	0	51	145	0	247
Grp Sat Flow(s),veh/h/ln	998	1763	1835	756	1763	1664	1124	0	1716	1343	0	1600
Q Serve(g_s), s	5.2	3.5	3.5	0.6	1.7	1.7	0.6	0.0	0.6	2.6	0.0	3.8
Cycle Q Clear(g_c), s	7.0	3.5	3.5	4.2	1.7	1.7	4.4	0.0	0.6	3.2	0.0	3.8
Prop In Lane	1.00		0.06	1.00		0.64	1.00		0.45	1.00		0.89
Lane Grp Cap(c), veh/h	1303	807	840	508	807	762	393	0	441	571	0	412
V/C Ratio(X)	0.36	0.41	0.41	0.05	0.21	0.22	0.06	0.00	0.12	0.25	0.00	0.60
Avail Cap(c_a), veh/h	1668	1130	1176	646	1130	1067	865	0	1161	1135	0	1083
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.7	5.1	5.1	6.5	4.6	4.6	11.1	0.0	8.0	9.2	0.0	9.2
Incr Delay (d2), s/veh	0.2	0.3	0.3	0.0	0.1	0.1	0.1	0.0	0.1	0.2	0.0	1.4
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	0.4	0.3	0.4	0.0	0.2	0.2	0.1	0.0	0.2	0.5	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.9	5.4	5.4	6.5	4.7	4.7	11.1	0.0	8.1	9.5	0.0	10.6
LnGrp LOS	A	A	A	A	A	A	B	A	A	A	A	B
Approach Vol, veh/h		1147			369			76				392
Approach Delay, s/veh		6.0			4.8			9.1				10.2
Approach LOS		A			A			A				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.2		16.9		11.2		16.9				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		19.0		18.0		19.0		18.0				
Max Q Clear Time (g_c+I1), s		6.4		9.0		5.8		6.2				
Green Ext Time (p_c), s		0.2		3.9		1.4		1.1				
Intersection Summary												
HCM 6th Ctrl Delay				6.7								
HCM 6th LOS				A								



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	↖
Traffic Volume (veh/h)	196	816	100	174	890	90	143	258	86	114	270	156
Future Volume (veh/h)	196	816	100	174	890	90	143	258	86	114	270	156
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	196	816	100	174	890	90	143	258	86	114	270	156
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	235	1092	134	212	1053	106	178	293	98	145	373	316
Arrive On Green	0.13	0.35	0.35	0.12	0.33	0.33	0.10	0.22	0.22	0.08	0.20	0.20
Sat Flow, veh/h	1767	3161	387	1767	3233	327	1767	1332	444	1767	1856	1572
Grp Volume(v), veh/h	196	455	461	174	485	495	143	0	344	114	270	156
Grp Sat Flow(s),veh/h/ln	1767	1763	1786	1767	1763	1797	1767	0	1776	1767	1856	1572
Q Serve(g_s), s	8.1	17.1	17.1	7.2	19.3	19.3	6.0	0.0	14.1	4.8	10.2	6.6
Cycle Q Clear(g_c), s	8.1	17.1	17.1	7.2	19.3	19.3	6.0	0.0	14.1	4.8	10.2	6.6
Prop In Lane	1.00		0.22	1.00		0.18	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	235	609	617	212	574	585	178	0	390	145	373	316
V/C Ratio(X)	0.83	0.75	0.75	0.82	0.85	0.85	0.80	0.00	0.88	0.79	0.72	0.49
Avail Cap(c_a), veh/h	259	750	760	235	727	741	223	0	515	204	518	439
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	21.7	21.7	32.3	23.6	23.6	33.1	0.0	28.4	33.9	28.1	26.6
Incr Delay (d2), s/veh	17.3	3.3	3.2	16.9	7.4	7.3	12.2	0.0	11.0	7.9	1.5	0.4
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	4.5	7.2	7.3	4.0	8.7	8.8	3.1	0.0	6.9	2.3	4.5	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.1	25.0	24.9	49.2	31.0	30.9	45.2	0.0	39.4	41.7	29.6	27.1
LnGrp LOS	D	C	C	D	C	C	D	A	D	D	C	C
Approach Vol, veh/h		1112			1154			487			540	
Approach Delay, s/veh		29.2			33.7			41.1			31.4	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.5	29.0	12.1	19.6	13.0	30.5	10.7	21.0				
Change Period (Y+Rc), s	4.5	* 4.5	4.5	4.5	4.0	4.5	4.5	4.5				
Max Green Setting (Gmax), s	31	* 31	9.5	21.0	10.0	32.0	8.7	21.8				
Max Q Clear Time (g_c+I1), s	21.3	21.3	8.0	12.2	9.2	19.1	6.8	16.1				
Green Ext Time (p_c), s	0.0	3.2	0.0	0.7	0.0	3.4	0.0	0.4				

Intersection Summary

HCM 6th Ctrl Delay	32.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	397	56	84	355	61	69	164	108	204	364	195
Future Volume (veh/h)	127	397	56	84	355	61	69	164	108	204	364	195
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		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	127	397	56	84	355	61	69	164	108	204	364	195
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	161	591	83	136	530	90	123	309	203	250	418	224
Arrive On Green	0.09	0.19	0.19	0.08	0.18	0.18	0.07	0.30	0.30	0.14	0.37	0.37
Sat Flow, veh/h	1767	3105	435	1767	3013	513	1767	1044	688	1767	1137	609
Grp Volume(v), veh/h	127	224	229	84	206	210	69	0	272	204	0	559
Grp Sat Flow(s),veh/h/ln	1767	1763	1777	1767	1763	1763	1767	0	1732	1767	0	1746
Q Serve(g_s), s	4.0	6.8	6.9	2.7	6.3	6.4	2.2	0.0	7.6	6.4	0.0	17.1
Cycle Q Clear(g_c), s	4.0	6.8	6.9	2.7	6.3	6.4	2.2	0.0	7.6	6.4	0.0	17.1
Prop In Lane	1.00		0.24	1.00		0.29	1.00		0.40	1.00		0.35
Lane Grp Cap(c), veh/h	161	335	338	136	310	310	123	0	512	250	0	642
V/C Ratio(X)	0.79	0.67	0.68	0.62	0.66	0.68	0.56	0.00	0.53	0.82	0.00	0.87
Avail Cap(c_a), veh/h	184	735	741	184	735	735	184	0	692	307	0	819
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.6	21.6	21.7	25.7	22.1	22.2	25.9	0.0	16.9	24.0	0.0	16.9
Incr Delay (d2), s/veh	15.2	2.8	2.8	1.7	2.9	3.1	1.5	0.0	1.0	10.8	0.0	8.7
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	2.2	2.7	2.8	1.1	2.6	2.6	0.9	0.0	2.9	3.3	0.0	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	24.4	24.5	27.4	25.1	25.3	27.4	0.0	18.0	34.8	0.0	25.7
LnGrp LOS	D	C	C	C	C	C	C	A	B	C	A	C
Approach Vol, veh/h		580			500			341			763	
Approach Delay, s/veh		28.0			25.5			19.9			28.1	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	14.6	8.0	25.7	8.4	15.5	12.1	21.5				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.0	4.5	4.0	4.5				
Max Green Setting (Gmax), s	30.0	24.0	6.0	27.0	6.0	24.0	10.0	23.0				
Max Q Clear Time (g_c+1), s	10.0	8.4	4.2	19.1	4.7	8.9	8.4	9.6				
Green Ext Time (p_c), s	0.0	1.7	0.0	2.0	0.0	1.9	0.0	1.1				

Intersection Summary

HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Intersection												
Intersection Delay, s/veh	8.3											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	21	38	104	35	49	25	52	35	32	25	27	25
Future Vol, veh/h	21	38	104	35	49	25	52	35	32	25	27	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	3	8	8	8	8	3	8	3	8	3	3	3
Mvmt Flow	21	38	104	35	49	25	52	35	32	25	27	25
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.2	8.4	8.5	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	44%	13%	32%	32%
Vol Thru, %	29%	23%	45%	35%
Vol Right, %	27%	64%	23%	32%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	119	163	109	77
LT Vol	52	21	35	25
Through Vol	35	38	49	27
RT Vol	32	104	25	25
Lane Flow Rate	119	163	109	77
Geometry Grp	1	1	1	1
Degree of Util (X)	0.154	0.189	0.139	0.098
Departure Headway (Hd)	4.658	4.184	4.601	4.57
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	770	857	779	784
Service Time	2.685	2.209	2.627	2.599
HCM Lane V/C Ratio	0.155	0.19	0.14	0.098
HCM Control Delay	8.5	8.2	8.4	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.7	0.5	0.3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕		↕	↑			↕	
Traffic Volume (veh/h)	0	0	0	312	0	69	436	55	0	0	148	39
Future Volume (veh/h)	0	0	0	312	0	69	436	55	0	0	148	39
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			No	
Adj Sat Flow, veh/h/ln				1678	1856	1781	1678	1781	0	0	1781	1781
Adj Flow Rate, veh/h				312	0	69	436	55	0	0	148	39
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				15	3	8	15	8	0	0	8	8
Cap, veh/h				387	0	86	669	885	0	0	214	56
Arrive On Green				0.27	0.00	0.27	0.22	0.50	0.00	0.00	0.16	0.16
Sat Flow, veh/h				1415	0	313	3100	1781	0	0	1359	358
Grp Volume(v), veh/h				381	0	0	436	55	0	0	0	187
Grp Sat Flow(s),veh/h/ln				1728	0	0	1550	1781	0	0	0	1717
Q Serve(g_s), s				8.1	0.0	0.0	5.1	0.6	0.0	0.0	0.0	4.1
Cycle Q Clear(g_c), s				8.1	0.0	0.0	5.1	0.6	0.0	0.0	0.0	4.1
Prop In Lane				0.82		0.18	1.00		0.00	0.00		0.21
Lane Grp Cap(c), veh/h				473	0	0	669	885	0	0	0	271
V/C Ratio(X)				0.81	0.00	0.00	0.65	0.06	0.00	0.00	0.00	0.69
Avail Cap(c_a), veh/h				1525	0	0	2344	1123	0	0	0	1082
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	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				13.4	0.0	0.0	14.2	5.2	0.0	0.0	0.0	15.8
Incr Delay (d2), s/veh				1.2	0.0	0.0	0.8	0.0	0.0	0.0	0.0	1.2
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				2.6	0.0	0.0	1.4	0.1	0.0	0.0	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				14.7	0.0	0.0	15.0	5.2	0.0	0.0	0.0	17.0
LnGrp LOS				B	A	A	B	A	A	A	A	B
Approach Vol, veh/h				381			491				187	
Approach Delay, s/veh				14.7			13.9				17.0	
Approach LOS				B			B				B	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		24.6			13.5	11.1		15.1				
Change Period (Y+Rc), s		4.9			4.9	4.9		4.2				
Max Green Setting (Gmax), s		25.0			30.0	25.0		35.0				
Max Q Clear Time (g_c+I1), s		2.6			7.1	6.1		10.1				
Green Ext Time (p_c), s		0.1			1.5	0.2		0.9				

Intersection Summary

HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↑↑	↑	↘	↑↑	
Traffic Volume (veh/h)	88	0	374	0	0	0	0	406	726	87	374	0
Future Volume (veh/h)	88	0	374	0	0	0	0	406	726	87	374	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			No
Adj Sat Flow, veh/h/ln	1781	1856	1678				0	1678	1678	1781	1678	0
Adj Flow Rate, veh/h	88	0	374				0	406	726	87	374	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	3	15				0	15	15	8	15	0
Cap, veh/h	79	0	336				0	1725	769	111	2066	0
Arrive On Green	0.26	0.00	0.26				0.00	0.54	0.54	0.07	0.65	0.00
Sat Flow, veh/h	306	0	1300				0	3272	1422	1697	3272	0
Grp Volume(v), veh/h	462	0	0				0	406	726	87	374	0
Grp Sat Flow(s),veh/h/ln	1606	0	0				0	1594	1422	1697	1594	0
Q Serve(g_s), s	25.0	0.0	0.0				0.0	6.5	46.4	4.9	4.5	0.0
Cycle Q Clear(g_c), s	25.0	0.0	0.0				0.0	6.5	46.4	4.9	4.5	0.0
Prop In Lane	0.19		0.81				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	415	0	0				0	1725	769	111	2066	0
V/C Ratio(X)	1.11	0.00	0.00				0.00	0.24	0.94	0.78	0.18	0.00
Avail Cap(c_a), veh/h	415	0	0				0	1810	807	263	2066	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	1.00	0.00
Uniform Delay (d), s/veh	35.9	0.0	0.0				0.0	11.7	20.8	44.6	6.8	0.0
Incr Delay (d2), s/veh	79.1	0.0	0.0				0.0	0.1	19.2	11.3	0.1	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	18.5	0.0	0.0				0.0	2.1	17.5	2.3	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	115.0	0.0	0.0				0.0	11.8	40.0	55.9	6.9	0.0
LnGrp LOS	F	A	A				A	B	D	E	A	A
Approach Vol, veh/h		462						1132			461	
Approach Delay, s/veh		115.0						29.9			16.1	
Approach LOS		F						C			B	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	10.3	57.3	29.2	67.7								
Change Period (Y+Rc), s	4.0	4.9	* 4.2	4.9								
Max Green Setting (Gmax), s	15.0	55.0	* 25	55.0								
Max Q Clear Time (g_c+I), s	10.9	48.4	27.0	6.5								
Green Ext Time (p_c), s	0.1	4.1	0.0	2.7								

Intersection Summary

HCM 6th Ctrl Delay	45.9
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Tracy Transportation Master Plan Update
 89: MACARTHUR DRIVE (N) & PESCADERO AVE

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↗		↖	↗	↖
Traffic Volume (veh/h)	25	25	25	124	25	305	38	703	244	246	416	25
Future Volume (veh/h)	25	25	25	124	25	305	38	703	244	246	416	25
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	1856	1856	1856	1678	1856	1678	1856	1678	1678	1678	1678	1856
Adj Flow Rate, veh/h	25	25	25	124	25	305	38	703	244	246	416	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	15	3	15	3	15	15	15	15	3
Cap, veh/h	77	155	155	159	442	338	103	840	292	332	1309	646
Arrive On Green	0.04	0.18	0.18	0.10	0.24	0.24	0.06	0.36	0.36	0.11	0.41	0.41
Sat Flow, veh/h	1767	851	851	1598	1856	1422	1767	2321	806	3100	3188	1572
Grp Volume(v), veh/h	25	0	50	124	25	305	38	483	464	246	416	25
Grp Sat Flow(s),veh/h/ln	1767	0	1702	1598	1856	1422	1767	1594	1533	1550	1594	1572
Q Serve(g_s), s	1.0	0.0	1.8	5.6	0.8	15.4	1.5	20.6	20.6	5.7	6.6	0.7
Cycle Q Clear(g_c), s	1.0	0.0	1.8	5.6	0.8	15.4	1.5	20.6	20.6	5.7	6.6	0.7
Prop In Lane	1.00		0.50	1.00		1.00	1.00		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	77	0	310	159	442	338	103	577	555	332	1309	646
V/C Ratio(X)	0.33	0.00	0.16	0.78	0.06	0.90	0.37	0.84	0.84	0.74	0.32	0.04
Avail Cap(c_a), veh/h	191	0	780	185	866	663	191	647	622	368	1328	655
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	34.4	0.0	25.6	32.6	21.8	27.4	33.6	21.7	21.7	32.1	14.8	13.1
Incr Delay (d2), s/veh	0.9	0.0	0.2	13.8	0.0	3.6	0.8	9.2	9.6	5.8	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.8	2.7	0.3	5.2	0.6	8.3	8.0	2.3	2.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.3	0.0	25.8	46.4	21.8	31.0	34.4	30.9	31.2	37.9	15.0	13.1
LnGrp LOS	D	A	C	D	C	C	C	C	C	D	B	B
Approach Vol, veh/h		75			454			985			687	
Approach Delay, s/veh		29.0			34.7			31.2			23.1	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.4	31.9	11.9	18.0	8.8	35.5	7.7	22.2				
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0	4.5	4.5				
Max Green Setting (Gmax), s	30.1	30.1	8.6	34.0	8.0	30.9	8.0	34.6				
Max Q Clear Time (g_c+1), s	22.6	22.6	7.6	3.8	3.5	8.6	3.0	17.4				
Green Ext Time (p_c), s	0.1	4.3	0.0	0.2	0.0	3.7	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay	29.3
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
 90: MACARTHUR DRIVE (N) & GRANT LINE RD

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	384	387	86	27	254	138	52	434	38	125	227	225
Future Volume (veh/h)	384	387	86	27	254	138	52	434	38	125	227	225
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		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1678	1870	1678	1870	1678	1678	1678	1678	1870
Adj Flow Rate, veh/h	384	387	86	27	254	138	52	434	38	125	227	225
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	15	2	15	2	15	15	15	15	2
Cap, veh/h	428	1066	234	56	577	231	96	631	55	154	406	362
Arrive On Green	0.24	0.37	0.37	0.03	0.16	0.16	0.05	0.21	0.21	0.10	0.25	0.25
Sat Flow, veh/h	1781	2895	637	1598	3554	1422	1781	2966	259	1598	1594	1422
Grp Volume(v), veh/h	384	236	237	27	254	138	52	232	240	125	227	225
Grp Sat Flow(s),veh/h/ln	1781	1777	1756	1598	1777	1422	1781	1594	1631	1598	1594	1422
Q Serve(g_s), s	14.8	6.9	7.0	1.2	4.6	6.4	2.0	9.6	9.6	5.5	8.8	10.0
Cycle Q Clear(g_c), s	14.8	6.9	7.0	1.2	4.6	6.4	2.0	9.6	9.6	5.5	8.8	10.0
Prop In Lane	1.00		0.36	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	428	654	646	56	577	231	96	339	347	154	406	362
V/C Ratio(X)	0.90	0.36	0.37	0.48	0.44	0.60	0.54	0.69	0.69	0.81	0.56	0.62
Avail Cap(c_a), veh/h	601	1274	1259	135	1649	660	225	751	768	202	751	670
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	1.00	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	26.1	16.4	16.4	33.7	26.9	27.6	32.8	25.8	25.8	31.5	23.0	23.5
Incr Delay (d2), s/veh	10.0	0.6	0.6	2.4	0.9	4.2	1.7	4.2	4.2	13.1	2.1	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	2.7	2.7	0.5	1.9	0.3	0.9	3.8	4.0	2.6	3.4	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.2	17.0	17.0	36.1	27.8	31.8	34.5	30.0	30.0	44.7	25.1	26.4
LnGrp LOS	D	B	B	D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		857			419			524			577	
Approach Delay, s/veh		25.6			29.6			30.4			29.9	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.8	20.6	7.5	31.2	8.9	23.6	22.1	16.5				
Change Period (Y+Rc), s	5.0	5.5	5.0	5.0	5.0	5.5	5.0	5.0				
Max Green Setting (Gmax), s	33.5	33.5	6.0	51.0	9.0	33.5	24.0	33.0				
Max Q Clear Time (g_c+1), s	11.6	11.6	3.2	9.0	4.0	12.0	16.8	8.4				
Green Ext Time (p_c), s	0.0	3.5	0.0	4.0	0.0	3.5	0.3	3.1				

Intersection Summary

HCM 6th Ctrl Delay	28.4
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
 91: ELEVENTH ST. & MACARTHUR DRIVE

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	773	310	150	264	94	114	172	50	217	159	161
Future Volume (veh/h)	131	773	310	150	264	94	114	172	50	217	159	161
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	1678	1856	1856	1856	1678	1678	1856	1856	1856	1678	1856	1678
Adj Flow Rate, veh/h	131	773	310	150	264	94	114	172	50	217	159	161
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	15	3	3	3	15	15	3	3	3	15	3	15
Cap, veh/h	189	1054	470	147	815	363	118	451	127	270	474	423
Arrive On Green	0.12	0.30	0.30	0.08	0.26	0.26	0.07	0.17	0.17	0.17	0.27	0.27
Sat Flow, veh/h	1598	3526	1572	1767	3188	1422	1767	2714	766	1598	1763	1572
Grp Volume(v), veh/h	131	773	310	150	264	94	114	110	112	217	159	161
Grp Sat Flow(s),veh/h/ln	1598	1763	1572	1767	1594	1422	1767	1763	1718	1598	1763	1572
Q Serve(g_s), s	4.7	11.8	10.4	5.0	4.0	3.2	3.9	3.3	3.5	7.9	4.4	5.0
Cycle Q Clear(g_c), s	4.7	11.8	10.4	5.0	4.0	3.2	3.9	3.3	3.5	7.9	4.4	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	189	1054	470	147	815	363	118	293	286	270	474	423
V/C Ratio(X)	0.69	0.73	0.66	1.02	0.32	0.26	0.97	0.38	0.39	0.80	0.34	0.38
Avail Cap(c_a), veh/h	276	1582	706	147	1118	499	118	469	457	531	938	836
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	1.00	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	25.5	18.9	18.4	27.6	18.2	17.8	28.0	22.3	22.4	24.0	17.7	17.9
Incr Delay (d2), s/veh	1.7	1.0	1.6	80.0	0.2	0.4	73.4	0.3	0.3	5.5	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	4.4	3.6	5.2	1.4	1.0	3.9	1.3	1.3	3.2	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	19.9	20.0	107.5	18.4	18.2	101.4	22.6	22.7	29.5	17.8	18.1
LnGrp LOS	C	B	C	F	B	B	F	C	C	C	B	B
Approach Vol, veh/h		1214			508			336			537	
Approach Delay, s/veh		20.7			44.7			49.4			22.6	
Approach LOS		C			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	22.5	8.0	20.7	11.6	19.9	14.2	14.5				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.5	4.5	4.0	4.5				
Max Green Setting (Gmax), s	5.0	27.0	4.0	32.0	10.4	21.1	20.0	16.0				
Max Q Clear Time (g_c+1), s	17.0	13.8	5.9	7.0	6.7	6.0	9.9	5.5				
Green Ext Time (p_c), s	0.0	4.1	0.0	1.4	0.1	1.4	0.6	0.6				

Intersection Summary

HCM 6th Ctrl Delay	29.5
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)	5	1164	55	52	488	5	122	5	280	5	5	5
Future Volume (veh/h)	5	1164	55	52	488	5	122	5	280	5	5	5
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	5	1164	0	52	488	5	122	5	280	5	5	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	174	1452		102	1326	14	362	15	335	13	13	13
Arrive On Green	0.10	0.41	0.00	0.06	0.37	0.37	0.21	0.21	0.21	0.02	0.02	0.02
Sat Flow, veh/h	1767	3526	1572	1767	3575	37	1701	70	1572	574	574	574
Grp Volume(v), veh/h	5	1164	0	52	241	252	127	0	280	15	0	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1849	1771	0	1572	1723	0	0
Q Serve(g_s), s	0.2	17.7	0.0	1.7	6.1	6.1	3.7	0.0	10.4	0.5	0.0	0.0
Cycle Q Clear(g_c), s	0.2	17.7	0.0	1.7	6.1	6.1	3.7	0.0	10.4	0.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.96		1.00	0.33		0.33
Lane Grp Cap(c), veh/h	174	1452		102	654	686	377	0	335	38	0	0
V/C Ratio(X)	0.03	0.80		0.51	0.37	0.37	0.34	0.00	0.84	0.39	0.00	0.00
Avail Cap(c_a), veh/h	174	1938		174	969	1016	450	0	400	622	0	0
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	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.8	15.7	0.0	27.9	14.0	14.0	20.3	0.0	23.0	29.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	0.0	1.5	0.3	0.3	0.5	0.0	12.4	6.5	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	6.7	0.0	0.7	2.2	2.3	1.5	0.0	4.6	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.9	17.6	0.0	29.3	14.3	14.3	20.8	0.0	35.4	35.9	0.0	0.0
LnGrp LOS	C	B		C	B	B	C	A	D	D	A	A
Approach Vol, veh/h		1169	A		545			407			15	
Approach Delay, s/veh		17.6			15.7			30.8			35.9	
Approach LOS		B			B			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	29.6		5.8	10.5	27.1		17.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	33.5	33.5		22.0	6.0	33.5		15.5				
Max Q Clear Time (g_c+1), s	19.7	19.7		2.5	2.2	8.1		12.4				
Green Ext Time (p_c), s	0.0	5.4		0.0	0.0	1.9		0.6				

Intersection Summary

HCM 6th Ctrl Delay	19.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	6.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	191	23	54	79	25	112
Future Vol, veh/h	191	23	54	79	25	112
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, %	3	3	3	3	3	3
Mvmt Flow	191	23	54	79	25	112
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	268	81	137	0	0	
Stage 1	81	-	-	-	-	
Stage 2	187	-	-	-	-	
Critical Hdwy	6.43	6.23	4.13	-	-	
Critical Hdwy Stg 1	5.43	-	-	-	-	
Critical Hdwy Stg 2	5.43	-	-	-	-	
Follow-up Hdwy	3.527	3.327	2.227	-	-	
Pot Cap-1 Maneuver	719	976	1441	-	-	
Stage 1	940	-	-	-	-	
Stage 2	843	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	691	976	1441	-	-	
Mov Cap-2 Maneuver	691	-	-	-	-	
Stage 1	903	-	-	-	-	
Stage 2	843	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	12.2	3.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1441	-	713	-	-	
HCM Lane V/C Ratio	0.037	-	0.3	-	-	
HCM Control Delay (s)	7.6	0	12.2	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	1.3	-	-	

Tracy Transportation Master Plan Update
 94: MACARTHUR (S) & E. Mt. Diablo Ave/MacArthur Dr

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↗	↖	↗	↖
Traffic Volume (veh/h)	25	41	72	377	86	53	25	46	338	25	118	64
Future Volume (veh/h)	25	41	72	377	86	53	25	46	338	25	118	64
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	1856	1870	1856	1870	1870	1870	1856	1856	1870	1870	1856	1856
Adj Flow Rate, veh/h	25	41	72	377	86	53	25	46	338	25	118	64
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	2	3	2	2	2	3	3	2	2	3	3
Cap, veh/h	42	69	122	447	369	227	42	485	415	42	296	161
Arrive On Green	0.02	0.11	0.11	0.25	0.34	0.34	0.02	0.26	0.26	0.02	0.26	0.26
Sat Flow, veh/h	1767	609	1069	1781	1083	667	1767	1856	1585	1781	1131	614
Grp Volume(v), veh/h	25	0	113	377	0	139	25	46	338	25	0	182
Grp Sat Flow(s),veh/h/ln	1767	0	1678	1781	0	1750	1767	1856	1585	1781	0	1745
Q Serve(g_s), s	0.6	0.0	2.9	9.2	0.0	2.6	0.6	0.9	9.2	0.6	0.0	3.9
Cycle Q Clear(g_c), s	0.6	0.0	2.9	9.2	0.0	2.6	0.6	0.9	9.2	0.6	0.0	3.9
Prop In Lane	1.00		0.64	1.00		0.38	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	42	0	191	447	0	597	42	485	415	42	0	457
V/C Ratio(X)	0.59	0.00	0.59	0.84	0.00	0.23	0.59	0.09	0.82	0.59	0.00	0.40
Avail Cap(c_a), veh/h	155	0	661	545	0	1072	155	730	624	156	0	687
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	0.00	1.00
Uniform Delay (d), s/veh	22.1	0.0	19.2	16.3	0.0	10.8	22.1	12.8	15.8	22.1	0.0	13.9
Incr Delay (d2), s/veh	12.7	0.0	2.9	9.9	0.0	0.2	12.7	0.1	5.1	12.4	0.0	0.6
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	0.4	0.0	1.2	4.4	0.0	0.9	0.4	0.3	3.4	0.4	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.8	0.0	22.1	26.1	0.0	11.0	34.8	12.9	20.9	34.5	0.0	14.5
LnGrp LOS	C	A	C	C	A	B	C	B	C	C	A	B
Approach Vol, veh/h		138			516			409				207
Approach Delay, s/veh		24.4			22.1			20.9				16.9
Approach LOS		C			C			C				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.1	16.0	15.5	9.2	5.1	16.0	5.1	19.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	18.0	14.0	18.0	4.0	18.0	4.0	28.0				
Max Q Clear Time (g_c+I1), s	2.6	11.2	11.2	4.9	2.6	5.9	2.6	4.6				
Green Ext Time (p_c), s	0.0	0.8	0.4	0.4	0.0	0.7	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay				21.1								
HCM 6th LOS				C								



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	155	279	53	268	59	101	265	34	25	483	69
Future Volume (veh/h)	94	155	279	53	268	59	101	265	34	25	483	69
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	94	155	279	53	268	59	101	265	34	25	483	69
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	121	415	351	194	404	89	130	859	109	166	563	477
Arrive On Green	0.07	0.22	0.22	0.11	0.27	0.27	0.07	0.27	0.27	0.09	0.30	0.30
Sat Flow, veh/h	1767	1856	1572	1767	1473	324	1767	3147	400	1767	1856	1572
Grp Volume(v), veh/h	94	155	279	53	0	327	101	147	152	25	483	69
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	0	1797	1767	1763	1784	1767	1856	1572
Q Serve(g_s), s	3.3	4.5	10.7	1.8	0.0	10.3	3.6	4.2	4.3	0.8	15.6	2.0
Cycle Q Clear(g_c), s	3.3	4.5	10.7	1.8	0.0	10.3	3.6	4.2	4.3	0.8	15.6	2.0
Prop In Lane	1.00		1.00	1.00		0.18	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	121	415	351	194	0	493	130	481	487	166	563	477
V/C Ratio(X)	0.78	0.37	0.79	0.27	0.00	0.66	0.78	0.31	0.31	0.15	0.86	0.14
Avail Cap(c_a), veh/h	194	655	555	194	0	660	194	705	713	166	728	617
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	1.00	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	21.0	23.4	26.0	0.0	20.5	29.0	18.4	18.4	26.5	20.9	16.2
Incr Delay (d2), s/veh	10.3	0.7	5.0	0.9	0.0	1.9	11.0	0.4	0.4	0.2	8.6	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.8	4.0	0.7	0.0	4.1	1.8	1.6	1.6	0.3	7.2	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.5	21.7	28.3	27.0	0.0	22.4	40.0	18.8	18.8	26.7	29.5	16.4
LnGrp LOS	D	C	C	C	A	C	D	B	B	C	C	B
Approach Vol, veh/h		528			380			400			577	
Approach Delay, s/veh		28.4			23.0			24.2			27.8	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.6	19.1	10.6	22.4	8.4	22.4	8.7	24.3				
Change Period (Y+Rc), s	4.6	4.9	4.6	* 5	4.0	* 4.9	4.0	5.0				
Max Green Setting (Gmax), s	22.5	6.0	* 26	7.0	* 23	7.0	25.0					
Max Q Clear Time (g_c+1), s	12.7	2.8	6.3	5.3	12.3	5.6	17.6					
Green Ext Time (p_c), s	0.0	1.6	0.0	1.3	0.0	1.2	0.0	1.7				

Intersection Summary

HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	368	54	67	262	75	39	103	55	89	155	225
Future Volume (veh/h)	190	368	54	67	262	75	39	103	55	89	155	225
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		No		No
Adj Sat Flow, veh/h/ln	1796	1870	1900	1900	1870	1900	1841	1826	1900	1900	1826	1826
Adj Flow Rate, veh/h	190	368	54	67	262	75	39	103	55	89	155	225
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	7	2	0	0	2	0	4	5	0	0	5	5
Cap, veh/h	235	448	66	169	332	95	129	185	99	196	365	309
Arrive On Green	0.14	0.28	0.28	0.09	0.24	0.24	0.07	0.16	0.16	0.11	0.20	0.20
Sat Flow, veh/h	1711	1594	234	1810	1398	400	1753	1120	598	1810	1826	1547
Grp Volume(v), veh/h	190	0	422	67	0	337	39	0	158	89	155	225
Grp Sat Flow(s),veh/h/ln	1711	0	1828	1810	0	1798	1753	0	1718	1810	1826	1547
Q Serve(g_s), s	5.9	0.0	11.8	1.9	0.0	9.6	1.1	0.0	4.6	2.5	4.1	7.4
Cycle Q Clear(g_c), s	5.9	0.0	11.8	1.9	0.0	9.6	1.1	0.0	4.6	2.5	4.1	7.4
Prop In Lane	1.00		0.13	1.00		0.22	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	235	0	514	169	0	427	129	0	283	196	365	309
V/C Ratio(X)	0.81	0.00	0.82	0.40	0.00	0.79	0.30	0.00	0.56	0.45	0.42	0.73
Avail Cap(c_a), veh/h	295	0	1096	269	0	1035	289	0	932	345	1037	879
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(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.8	0.0	18.3	23.3	0.0	19.5	23.9	0.0	21.0	22.8	19.1	20.4
Incr Delay (d2), s/veh	10.0	0.0	3.3	0.6	0.0	3.3	0.5	0.0	1.7	0.6	0.8	3.3
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	4.6	0.7	0.0	3.8	0.4	0.0	1.8	1.0	1.6	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	0.0	21.7	23.8	0.0	22.8	24.4	0.0	22.7	23.4	19.9	23.7
LnGrp LOS	C	A	C	C	A	C	C	A	C	C	B	C
Approach Vol, veh/h		612			404			197			469	
Approach Delay, s/veh		25.1			23.0			23.0			22.4	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	20.3	8.6	15.9	12.1	18.0	10.5	14.0				
Change Period (Y+Rc), s	4.6	5.0	4.6	5.0	4.6	5.0	4.6	5.0				
Max Green Setting (Gmax), s	32.7	32.7	9.0	31.0	9.4	31.4	10.4	29.6				
Max Q Clear Time (g_c+1), s	13.8	13.8	3.1	9.4	7.9	11.6	4.5	6.6				
Green Ext Time (p_c), s	0.0	1.6	0.0	1.5	0.1	1.2	0.1	0.5				

Intersection Summary

HCM 6th Ctrl Delay	23.6
HCM 6th LOS	C

Notes

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

Tracy Transportation Master Plan Update
 97: Seefried Dwy/Pescadero Ave & Chrisman Road/Chrisman Rd

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	748	20	20	359	52	20	20	20	125	20	25
Future Volume (veh/h)	25	748	20	20	359	52	20	20	20	125	20	25
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	25	748	20	20	359	52	20	20	20	125	20	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	240	925	413	30	506	226	30	407	407	156	412	515
Arrive On Green	0.13	0.26	0.26	0.01	0.05	0.05	0.02	0.47	0.47	0.09	0.55	0.55
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	858	858	1781	756	945
Grp Volume(v), veh/h	25	748	20	20	359	52	20	0	40	125	0	45
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1716	1781	0	1700
Q Serve(g_s), s	1.2	19.7	0.9	1.1	10.0	2.5	1.1	0.0	1.3	6.9	0.0	1.2
Cycle Q Clear(g_c), s	1.2	19.7	0.9	1.1	10.0	2.5	1.1	0.0	1.3	6.9	0.0	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		0.56
Lane Grp Cap(c), veh/h	240	925	413	30	506	226	30	0	815	156	0	928
V/C Ratio(X)	0.10	0.81	0.05	0.66	0.71	0.23	0.66	0.00	0.05	0.80	0.00	0.05
Avail Cap(c_a), veh/h	240	1350	602	125	1350	602	125	0	815	303	0	928
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	0.95	0.95	0.95	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.9	34.6	27.7	49.4	45.6	27.4	48.9	0.0	14.1	44.7	0.0	10.6
Incr Delay (d2), s/veh	0.1	1.8	0.0	20.7	1.8	0.5	21.6	0.0	0.1	9.0	0.0	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	0.5	8.3	0.3	0.7	4.7	1.2	0.7	0.0	0.5	3.4	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	36.4	27.7	70.1	47.4	27.9	70.5	0.0	14.2	53.8	0.0	10.7
LnGrp LOS	D	D	C	E	D	C	E	A	B	D	A	B
Approach Vol, veh/h		793			431			60			170	
Approach Delay, s/veh		36.3			46.1			33.0			42.4	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.8	51.5	5.7	30.0	5.7	58.5	17.5	18.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	17.0	22.0	7.0	38.0	7.0	32.0	7.0	38.0				
Max Q Clear Time (g_c+1), s	10.0	3.3	3.1	21.7	3.1	3.2	3.2	12.0				
Green Ext Time (p_c), s	0.2	0.1	0.0	4.3	0.0	0.2	0.0	2.3				

Intersection Summary

HCM 6th Ctrl Delay	39.7
HCM 6th LOS	D

Tracy Transportation Master Plan Update
 98: Chrisman Rd/Chrisman Road & Grant Line Rd

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	270	68	69	20	123	20	25	484	20	20	256	125
Future Volume (veh/h)	270	68	69	20	123	20	25	484	20	20	256	125
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		No		No
Adj Sat Flow, veh/h/ln	1870	1678	1678	1678	1678	1870	1678	1870	1678	1870	1870	1870
Adj Flow Rate, veh/h	270	68	69	20	123	20	25	484	20	20	256	125
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	15	15	15	15	2	15	2	15	2	2	2
Cap, veh/h	327	1096	489	76	573	91	312	739	296	34	1053	470
Arrive On Green	0.18	0.34	0.34	0.05	0.21	0.21	0.21	0.21	0.21	0.02	0.30	0.30
Sat Flow, veh/h	1781	3188	1422	1598	2754	439	899	3554	1422	1781	3554	1585
Grp Volume(v), veh/h	270	68	69	20	70	73	25	484	20	20	256	125
Grp Sat Flow(s),veh/h/ln	1781	1594	1422	1598	1594	1599	899	1777	1422	1781	1777	1585
Q Serve(g_s), s	8.4	0.8	1.9	0.7	2.1	2.2	1.3	7.2	0.7	0.6	3.2	3.5
Cycle Q Clear(g_c), s	8.4	0.8	1.9	0.7	2.1	2.2	1.3	7.2	0.7	0.6	3.2	3.5
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	327	1096	489	76	332	333	312	739	296	34	1053	470
V/C Ratio(X)	0.83	0.06	0.14	0.26	0.21	0.22	0.08	0.65	0.07	0.59	0.24	0.27
Avail Cap(c_a), veh/h	772	1824	813	277	497	499	686	2218	887	124	2834	1264
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	1.00	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	22.7	12.7	13.0	26.5	18.9	19.0	18.6	20.9	18.3	28.1	15.4	15.5
Incr Delay (d2), s/veh	2.0	0.0	0.0	1.8	0.1	0.1	0.0	0.4	0.0	15.3	0.1	0.3
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	8.2	0.2	0.5	0.3	0.7	0.7	0.2	2.7	0.2	0.4	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	12.7	13.1	28.3	19.0	19.1	18.6	21.3	18.4	43.4	15.5	15.8
LnGrp LOS	C	B	B	C	B	B	B	C	B	D	B	B
Approach Vol, veh/h		407			163			529			401	
Approach Delay, s/veh		20.7			20.2			21.1			17.0	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	25.8		23.1	16.6	18.0	5.1	18.0				
Change Period (Y+Rc), s	6.0	6.0		* 6	6.0	6.0	4.0	6.0				
Max Green Setting (Gmax), s	10.0	33.0		* 46	25.0	18.0	4.0	36.0				
Max Q Clear Time (g_c+1/2), s	12.5	3.9		5.5	10.4	4.2	2.6	9.2				
Green Ext Time (p_c), s	0.0	0.3		2.0	0.3	0.2	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay	19.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↔	↔↔	↑↑	↔	↔	↑↑	↔	↔	↑↑	↔
Traffic Volume (veh/h)	276	621	107	363	297	213	44	229	408	186	132	196
Future Volume (veh/h)	276	621	107	363	297	213	44	229	408	186	132	196
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		No		No
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	276	621	107	363	297	213	44	229	408	186	132	196
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	15	15	15	15	15	15	15	15	15	15	15	15
Cap, veh/h	398	615	274	359	575	256	52	861	384	221	1198	534
Arrive On Green	0.13	0.19	0.19	0.12	0.18	0.18	0.03	0.27	0.27	0.14	0.38	0.38
Sat Flow, veh/h	3100	3188	1422	3100	3188	1422	1598	3188	1422	1598	3188	1422
Grp Volume(v), veh/h	276	621	107	363	297	213	44	229	408	186	132	196
Grp Sat Flow(s),veh/h/ln	1550	1594	1422	1550	1594	1422	1598	1594	1422	1598	1594	1422
Q Serve(g_s), s	6.6	15.0	5.1	9.0	6.5	11.2	2.1	4.4	21.0	8.8	2.1	7.8
Cycle Q Clear(g_c), s	6.6	15.0	5.1	9.0	6.5	11.2	2.1	4.4	21.0	8.8	2.1	7.8
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	398	615	274	359	575	256	52	861	384	221	1198	534
V/C Ratio(X)	0.69	1.01	0.39	1.01	0.52	0.83	0.85	0.27	1.06	0.84	0.11	0.37
Avail Cap(c_a), veh/h	399	615	274	359	575	256	82	861	384	267	1230	548
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	1.00	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	32.4	31.4	27.4	34.4	28.8	30.7	37.4	22.3	28.4	32.7	15.8	17.6
Incr Delay (d2), s/veh	6.6	38.8	1.9	50.5	1.6	21.9	34.3	0.6	63.5	18.0	0.1	1.5
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	2.7	8.6	1.7	5.6	2.4	5.1	1.3	1.6	13.2	4.4	0.7	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.0	70.2	29.3	84.9	30.4	52.6	71.8	22.9	91.9	50.7	15.9	19.1
LnGrp LOS	D	F	C	F	C	D	E	C	F	D	B	B
Approach Vol, veh/h		1004			873			681			514	
Approach Delay, s/veh		57.3			58.5			67.4			29.7	
Approach LOS		E			E			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	21.0	6.5	35.2	16.0	20.0	14.8	27.0				
Change Period (Y+Rc), s	6.0	6.0	4.0	6.0	6.0	6.0	4.0	6.0				
Max Green Setting (Gmax), s	15.0	15.0	4.0	30.0	10.0	14.0	13.0	21.0				
Max Q Clear Time (g_c+I1), s	17.0	17.0	4.1	9.8	8.6	13.2	10.8	23.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	3.6	0.3	0.3	0.1	0.0				

Intersection Summary

HCM 6th Ctrl Delay				55.2								
HCM 6th LOS				E								



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	142	66	169	807	595	200
Future Volume (veh/h)	142	66	169	807	595	200
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	142	66	169	807	595	200
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	239	213	218	2041	1103	492
Arrive On Green	0.14	0.14	0.12	0.58	0.31	0.31
Sat Flow, veh/h	1767	1572	1767	3618	3618	1572
Grp Volume(v), veh/h	142	66	169	807	595	200
Grp Sat Flow(s),veh/h/ln	1767	1572	1767	1763	1763	1572
Q Serve(g_s), s	2.1	1.1	2.6	3.5	3.9	2.8
Cycle Q Clear(g_c), s	2.1	1.1	2.6	3.5	3.9	2.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	239	213	218	2041	1103	492
V/C Ratio(X)	0.59	0.31	0.78	0.40	0.54	0.41
Avail Cap(c_a), veh/h	1136	1011	442	3652	2267	1011
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	11.4	10.9	11.9	3.2	7.9	7.6
Incr Delay (d2), s/veh	2.4	0.8	5.9	0.1	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.0	1.0	0.0	0.7	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.7	11.7	17.8	3.3	8.4	8.1
LnGrp LOS	B	B	B	A	A	A
Approach Vol, veh/h	208			976	795	
Approach Delay, s/veh	13.1			5.8	8.3	
Approach LOS	B			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		20.2		7.8	7.4	12.8
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		29.0		18.0	7.0	18.0
Max Q Clear Time (g_c+I1), s		5.5		4.1	4.6	5.9
Green Ext Time (p_c), s		3.7		0.6	0.1	2.9
Intersection Summary						
HCM 6th Ctrl Delay				7.6		
HCM 6th LOS				A		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖	↗	↖	↗		↖	↗	↖
Traffic Volume (veh/h)	287	25	119	33	20	131	73	178	25	25	226	183
Future Volume (veh/h)	287	25	119	33	20	131	73	178	25	25	226	183
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	1856	1856	1856	1856	1856	1856	1856	1781	1856	1856	1781	1856
Adj Flow Rate, veh/h	287	25	119	33	20	0	73	178	25	25	226	183
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	8	3	3	8	3
Cap, veh/h	796	85	404	491	229		551	469	66	604	547	483
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.00	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1381	280	1335	681	758	1572	969	1528	215	1170	1781	1572
Grp Volume(v), veh/h	287	0	144	53	0	0	73	0	203	25	226	183
Grp Sat Flow(s),veh/h/ln	1381	0	1615	1439	0	1572	969	0	1743	1170	1781	1572
Q Serve(g_s), s	1.8	0.0	1.4	0.0	0.0	0.0	1.3	0.0	1.9	0.4	2.1	1.9
Cycle Q Clear(g_c), s	3.3	0.0	1.4	1.4	0.0	0.0	3.4	0.0	1.9	2.2	2.1	1.9
Prop In Lane	1.00		0.83	0.62		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	796	0	489	721	0		551	0	535	604	547	483
V/C Ratio(X)	0.36	0.00	0.29	0.07	0.00		0.13	0.00	0.38	0.04	0.41	0.38
Avail Cap(c_a), veh/h	1590	0	1418	1533	0		1151	0	1615	1328	1651	1457
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.0	0.0	5.5	5.1	0.0	0.0	7.0	0.0	5.6	6.4	5.6	5.6
Incr Delay (d2), s/veh	0.3	0.0	0.3	0.0	0.0	0.0	0.1	0.0	0.4	0.0	0.5	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	0.2	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.2	0.0	0.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.3	0.0	5.8	5.2	0.0	0.0	7.1	0.0	6.0	6.5	6.1	6.1
LnGrp LOS	A	A	A	A	A		A	A	A	A	A	A
Approach Vol, veh/h		431			53	A		276			434	
Approach Delay, s/veh		6.1			5.2			6.3			6.1	
Approach LOS		A			A			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		10.3		10.2		10.3		10.2				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		19.0		18.0		19.0		18.0				
Max Q Clear Time (g_c+1), s		5.4		5.3		4.2		3.4				
Green Ext Time (p_c), s		0.9		1.4		1.5		0.1				

Intersection Summary

HCM 6th Ctrl Delay	6.1
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] 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)	68	69	206	241	25	20	75	834	663	20	246	25
Future Volume (veh/h)	68	69	206	241	25	20	75	834	663	20	246	25
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		No		No
Adj Sat Flow, veh/h/ln	1856	1870	1856	1870	1870	1870	1856	1856	1870	1870	1856	1856
Adj Flow Rate, veh/h	68	69	206	241	25	20	75	834	663	20	246	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	2	3	2	2	2	3	3	2	2	3	3
Cap, veh/h	805	79	234	317	45	36	842	1909	1510	30	415	129
Arrive On Green	0.23	0.19	0.19	0.09	0.05	0.05	0.95	1.00	1.00	0.02	0.08	0.08
Sat Flow, veh/h	3428	414	1235	3456	962	770	1767	3526	2790	1781	5066	1572
Grp Volume(v), veh/h	68	0	275	241	0	45	75	834	663	20	246	25
Grp Sat Flow(s),veh/h/ln	1714	0	1648	1728	0	1732	1767	1763	1395	1781	1689	1572
Q Serve(g_s), s	1.5	0.0	16.2	6.8	0.0	2.5	0.2	0.0	0.0	1.1	4.7	1.5
Cycle Q Clear(g_c), s	1.5	0.0	16.2	6.8	0.0	2.5	0.2	0.0	0.0	1.1	4.7	1.5
Prop In Lane	1.00		0.75	1.00		0.44	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	805	0	313	317	0	81	842	1909	1510	30	415	129
V/C Ratio(X)	0.08	0.00	0.88	0.76	0.00	0.56	0.09	0.44	0.44	0.66	0.59	0.19
Avail Cap(c_a), veh/h	805	0	396	484	0	346	842	1909	1510	89	1824	566
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.9	0.0	39.4	44.4	0.0	46.7	1.2	0.0	0.0	48.9	44.3	42.8
Incr Delay (d2), s/veh	0.0	0.0	16.7	3.8	0.0	5.9	0.0	0.7	0.9	21.6	6.1	3.3
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	0.6	0.0	7.9	3.1	0.0	1.2	0.1	0.2	0.2	0.7	2.1	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.9	0.0	56.1	48.1	0.0	52.5	1.3	0.7	0.9	70.5	50.4	46.1
LnGrp LOS	C	A	E	D	A	D	A	A	A	E	D	D
Approach Vol, veh/h		343			286			1572			291	
Approach Delay, s/veh		50.9			48.8			0.8			51.4	
Approach LOS		D			D			A			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.7	58.1	13.2	23.0	51.7	12.2	27.5	8.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	5.0	41.0	14.0	24.0	10.0	36.0	18.0	20.0				
Max Q Clear Time (g_c+1), s	1.5	2.0	8.8	18.2	2.2	6.7	3.5	4.5				
Green Ext Time (p_c), s	0.0	10.0	0.4	0.8	0.1	1.5	0.1	0.1				

Intersection Summary

HCM 6th Ctrl Delay	19.1
HCM 6th LOS	B

Tracy Transportation Master Plan Update
 103: Paradise Rd & I-205 WB On-Ramp/I-205 WB-Off Ramp

Future 2042
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖ ↗	↖	↗		↑ ↑ ↑	↗		↑ ↑	↖ ↗
Traffic Volume (veh/h)	0	0	0	329	0	76	22	1460	20	0	302	391
Future Volume (veh/h)	0	0	0	329	0	76	22	1460	20	0	302	391
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		No		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				329	0	76	22	1460	20	0	302	391
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				498	0	148	68	4031	1311	0	2939	2307
Arrive On Green				0.09	0.00	0.09	1.00	1.00	1.00	0.00	1.00	1.00
Sat Flow, veh/h				5344	0	1585	37	4875	1585	0	3647	2790
Grp Volume(v), veh/h				329	0	76	548	934	20	0	302	391
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1815	1549	1585	0	1777	1395
Q Serve(g_s), s				5.9	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				5.9	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane				1.00		1.00	0.04		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				498	0	148	1538	2561	1311	0	2939	2307
V/C Ratio(X)				0.66	0.00	0.51	0.36	0.36	0.02	0.00	0.10	0.17
Avail Cap(c_a), veh/h				1336	0	396	1538	2561	1311	0	2939	2307
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.67	1.67
Upstream Filter(I)				1.00	0.00	1.00	0.90	0.90	0.90	0.00	0.95	0.95
Uniform Delay (d), s/veh				43.8	0.0	43.2	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				1.5	0.0	2.8	0.6	0.4	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				2.7	0.0	1.9	0.2	0.1	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.3	0.0	46.0	0.6	0.4	0.0	0.0	0.1	0.2
LnGrp LOS				D	A	D	A	A	A	A	A	A
Approach Vol, veh/h					405			1502			693	
Approach Delay, s/veh					45.4			0.4			0.1	
Approach LOS					D			A			A	
Timer - Assigned Phs		2			6			8				
Phs Duration (G+Y+Rc), s		86.7			86.7			13.3				
Change Period (Y+Rc), s		4.0			4.0			4.0				
Max Green Setting (Gmax), s		67.0			67.0			25.0				
Max Q Clear Time (g_c+I1), s		2.0			2.0			7.9				
Green Ext Time (p_c), s		13.1			3.7			1.4				

Intersection Summary

HCM 6th Ctrl Delay	7.4
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Tracy Transportation Master Plan Update
 104: Paradise Rd & I-205 EB Off-Ramp/I-205 EB On-Ramp

Future 2042
 PM Peak Hour



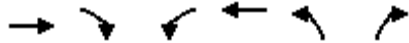
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↖	↗ ↘					↑ ↑ ↑	↗ ↘	↖ ↗	↑ ↑ ↑	
Traffic Volume (veh/h)	1305	0	106	0	0	0	0	171	867	185	445	0
Future Volume (veh/h)	1305	0	106	0	0	0	0	171	867	185	445	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				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	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	1305	0	106				0	171	867	185	445	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1610	0	955				0	2316	1265	223	3159	0
Arrive On Green	0.30	0.00	0.30				0.00	0.45	0.45	0.04	0.20	0.00
Sat Flow, veh/h	5344	0	3170				0	5274	2790	1781	5274	0
Grp Volume(v), veh/h	1305	0	106				0	171	867	185	445	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1395	1781	1702	0
Q Serve(g_s), s	22.6	0.0	2.4				0.0	1.9	24.6	10.3	7.1	0.0
Cycle Q Clear(g_c), s	22.6	0.0	2.4				0.0	1.9	24.6	10.3	7.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1610	0	955				0	2316	1265	223	3159	0
V/C Ratio(X)	0.81	0.00	0.11				0.00	0.07	0.69	0.83	0.14	0.00
Avail Cap(c_a), veh/h	2138	0	1268				0	2316	1265	356	3159	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.85	0.85	0.97	0.97	0.00
Uniform Delay (d), s/veh	32.3	0.0	25.3				0.0	15.4	21.7	46.9	18.0	0.0
Incr Delay (d2), s/veh	1.8	0.0	0.1				0.0	0.1	2.6	8.5	0.1	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	0.8	0.0	0.9				0.0	0.7	7.6	5.3	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	0.0	25.3				0.0	15.5	24.2	55.4	18.1	0.0
LnGrp LOS	C	A	C				A	B	C	E	B	A
Approach Vol, veh/h		1411						1038			630	
Approach Delay, s/veh		33.5						22.8			29.0	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	16.5	49.4	34.1	65.9								
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0								
Max Green Setting (Gmax), s	20.0	28.0	40.0	52.0								
Max Q Clear Time (g_c+1/2), s	11.3	26.6	24.6	9.1								
Green Ext Time (p_c), s	0.3	0.7	5.5	3.1								

Intersection Summary

HCM 6th Ctrl Delay	29.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑		↔↔	↑↑↑	↔	↔↔↔
Traffic Volume (veh/h)	747	58	122	535	25	174
Future Volume (veh/h)	747	58	122	535	25	174
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	747	58	122	535	25	174
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1232	94	189	1347	1169	2371
Arrive On Green	0.17	0.17	0.11	0.53	0.66	0.66
Sat Flow, veh/h	7632	554	3456	5274	1781	3614
Grp Volume(v), veh/h	620	185	122	535	25	174
Grp Sat Flow(s),veh/h/ln	1515	1771	1728	1702	1781	1205
Q Serve(g_s), s	9.5	9.7	3.4	6.3	0.5	1.7
Cycle Q Clear(g_c), s	9.5	9.7	3.4	6.3	0.5	1.7
Prop In Lane		0.31	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1026	300	189	1347	1169	2371
V/C Ratio(X)	0.60	0.62	0.65	0.40	0.02	0.07
Avail Cap(c_a), veh/h	2303	673	657	3115	1169	2371
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.60	0.60	0.99	0.99	0.90	0.90
Uniform Delay (d), s/veh	38.4	38.5	43.6	18.9	6.0	6.2
Incr Delay (d2), s/veh	0.3	1.3	3.7	0.2	0.0	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	3.4	4.1	1.4	2.1	0.2	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.8	39.8	47.3	19.1	6.0	6.3
LnGrp LOS	D	D	D	B	A	A
Approach Vol, veh/h	805			657	199	
Approach Delay, s/veh	39.0			24.3	6.2	
Approach LOS	D			C	A	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		69.6	9.5	20.9		30.4
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s		31.0	19.0	38.0		61.0
Max Q Clear Time (g_c+I1), s		3.7	5.4	11.7		8.3
Green Ext Time (p_c), s		0.7	0.3	5.2		3.7
Intersection Summary						
HCM 6th Ctrl Delay			29.3			
HCM 6th LOS			C			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	523	20	121	372	105	26	21	230	284	25	25
Future Volume (veh/h)	24	523	20	121	372	105	26	21	230	284	25	25
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		No		No
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	24	523	20	121	372	105	26	21	230	284	25	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	15	15	15	15	15	15	15	15	15	15	15	15
Cap, veh/h	34	688	307	144	907	405	37	25	270	325	646	547
Arrive On Green	0.02	0.22	0.22	0.09	0.28	0.28	0.02	0.20	0.20	0.20	0.38	0.38
Sat Flow, veh/h	1598	3188	1422	1598	3188	1422	1598	120	1320	1598	1678	1422
Grp Volume(v), veh/h	24	523	20	121	372	105	26	0	251	284	25	25
Grp Sat Flow(s),veh/h/ln	1598	1594	1422	1598	1594	1422	1598	0	1440	1598	1678	1422
Q Serve(g_s), s	1.0	10.2	0.7	5.0	6.3	3.8	1.1	0.0	11.2	11.4	0.6	0.7
Cycle Q Clear(g_c), s	1.0	10.2	0.7	5.0	6.3	3.8	1.1	0.0	11.2	11.4	0.6	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.92	1.00		1.00
Lane Grp Cap(c), veh/h	34	688	307	144	907	405	37	0	294	325	646	547
V/C Ratio(X)	0.70	0.76	0.07	0.84	0.41	0.26	0.71	0.00	0.85	0.87	0.04	0.05
Avail Cap(c_a), veh/h	144	1775	792	144	1775	792	144	0	390	361	682	578
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.3	24.4	20.7	29.7	19.2	18.4	32.2	0.0	25.5	25.6	12.8	12.8
Incr Delay (d2), s/veh	22.3	0.7	0.0	33.2	0.1	0.1	22.1	0.0	10.5	19.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.5	0.2	3.1	2.0	1.1	0.6	0.0	4.4	5.6	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.6	25.1	20.8	62.9	19.4	18.5	54.4	0.0	35.9	44.8	12.8	12.8
LnGrp LOS	D	C	C	E	B	B	D	A	D	D	B	B
Approach Vol, veh/h		567			598			277			334	
Approach Delay, s/veh		26.2			28.0			37.7			40.0	
Approach LOS		C			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	20.3	17.5	18.6	5.4	24.9	5.5	30.6				
Change Period (Y+Rc), s	4.0	6.0	4.0	5.0	4.0	6.0	4.0	5.0				
Max Green Setting (Gmax), s	30.0	37.0	15.0	18.0	6.0	37.0	6.0	27.0				
Max Q Clear Time (g_c+1), s	12.2	12.2	13.4	13.2	3.0	8.3	3.1	2.7				
Green Ext Time (p_c), s	0.0	2.1	0.1	0.4	0.0	1.6	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay											31.2	
HCM 6th LOS											C	

LANE SUMMARY

 Site: 101 [Intersection 107 - Grant Line/Kasson & Eleventh_AM]

New Site
Site Category: (None)
Roundabout

Lane Use and Performance													
	Demand Flows			Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue		Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
	Total veh/h	HV %	Cap. veh/h					Veh	Dist ft				
South: Eleventh St													
Lane 1 ^d	750	3.0	1092	0.687	100	13.6	LOS B	9.9	253.0	Full	1600	0.0	0.0
Lane 2	285	3.0	1092	0.261	38 ⁶	5.8	LOS A	1.2	30.4	Full	1600	0.0	0.0
Lane 3	28	3.0	1626	0.017	3 ⁵	0.0	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	1063	3.0		0.687		11.2	LOS B	9.9	253.0				
East: Kasson Rd													
Lane 1 ^d	268	3.0	509	0.528	100	17.4	LOS C	2.7	68.4	Full	1600	0.0	0.0
Approach	268	3.0		0.528		17.4	LOS C	2.7	68.4				
North: Eleventh St													
Lane 1	829	3.0	955	0.868	100	26.9	LOS D	21.6	552.8	Full	1600	0.0	0.0
Lane 2 ^d	829	3.0	955	0.868	100	26.9	LOS D	21.6	552.8	Full	1600	0.0	0.0
Approach	1658	3.0		0.868		26.9	LOS D	21.6	552.8				
West: W. Grant Line Rd													
Lane 1 ^d	261	3.0	514	0.508	100	16.5	LOS C	2.5	64.2	Full	1600	0.0	0.0
Approach	261	3.0		0.508		16.5	LOS C	2.5	64.2				
Intersection	3250	3.0		0.868		20.1	LOS C	21.6	552.8				

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.

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.

- ⁵ Lane under-utilisation found by the program
- ⁶ Lane under-utilisation due to downstream effects
- ^d Dominant lane on roundabout approach

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Project: K:\SJC_TPTO\City of Tracy\097008018 - Tracy TMP 2019\05 Design & Analysis\Sidra\Existing\Intersection 107 - Eleventh & Grant Line.sip8

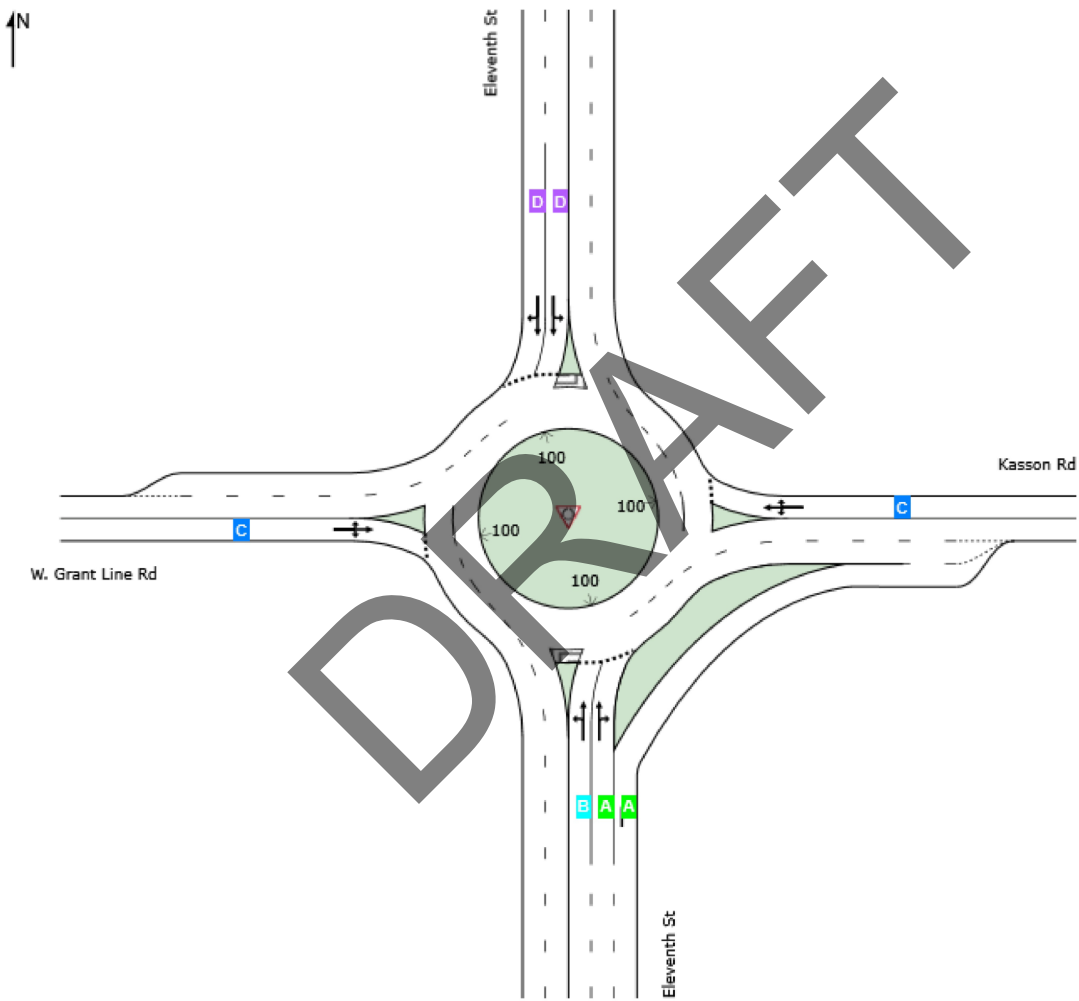
LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [Intersection 107 - Grant Line/Kasson & Eleventh_AM]**

New Site
 Site Category: (None)
 Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	B	C	D	C	C



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 [Intersection 107 - Grant Line/Kasson & Eleventh_AM]

New Site
 Site Category: (None)
 Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Eleventh St												
3	L2	124	3.0	0.687	13.6	LOS B	9.9	253.0	0.71	0.76	1.09	30.9
8	T1	911	3.0	0.687	11.2	LOS B	9.9	253.0	0.62	0.61	0.88	31.9
18	R2	28	3.0	0.017	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	37.1
Approach		1063	3.0	0.687	11.2	LOS B	9.9	253.0	0.61	0.61	0.88	31.9
East: Kasson Rd												
1	L2	66	3.0	0.528	17.4	LOS C	2.7	68.4	0.78	0.92	1.27	29.2
6	T1	201	3.0	0.528	17.4	LOS C	2.7	68.4	0.78	0.92	1.27	29.1
16	R2	1	3.0	0.528	17.4	LOS C	2.7	68.4	0.78	0.92	1.27	28.4
Approach		268	3.0	0.528	17.4	LOS C	2.7	68.4	0.78	0.92	1.27	29.2
North: Eleventh St												
7	L2	1	3.0	0.868	26.9	LOS D	21.6	552.8	1.00	1.59	2.51	26.4
4	T1	1060	3.0	0.868	26.9	LOS D	21.6	552.8	1.00	1.59	2.51	26.3
14	R2	597	3.0	0.868	26.9	LOS D	21.6	552.8	1.00	1.59	2.51	25.6
Approach		1658	3.0	0.868	26.9	LOS D	21.6	552.8	1.00	1.59	2.51	26.1
West: W. Grant Line Rd												
5	L2	104	3.0	0.508	16.5	LOS C	2.5	64.2	0.77	0.90	1.22	29.2
2	T1	143	3.0	0.508	16.5	LOS C	2.5	64.2	0.77	0.90	1.22	29.1
12	R2	13	3.0	0.508	16.5	LOS C	2.5	64.2	0.77	0.90	1.22	28.4
Approach		261	3.0	0.508	16.5	LOS C	2.5	64.2	0.77	0.90	1.22	29.1
All Vehicles		3250	3.0	0.868	20.1	LOS C	21.6	552.8	0.84	1.16	1.77	28.3

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.

LANE SUMMARY

 Site: 101 [Intersection 107 - Grant Line/Kasson & Eleventh_PM]

New Site
Site Category: (None)
Roundabout

Lane Use and Performance													
	Demand Flows			Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	Cap. veh/h	v/c	%	sec		Veh	Dist ft		ft	%	%
South: Eleventh St													
Lane 1 ^d	920	3.0	864	1.065	100	70.8	LOS F	48.8	1249.7	Full	1600	0.0	0.0
Lane 2	350	3.0	864	0.405	38 ⁶	9.0	LOS A	2.1	53.2	Full	1600	0.0	0.0
Lane 3	132	3.0	1626	0.081	8 ⁵	0.0	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	1401	3.0		1.065		48.7	LOS E	48.8	1249.7				
East: Kasson Rd													
Lane 1 ^d	143	3.0	358	0.400	100	18.6	LOS C	1.5	39.3	Full	1600	0.0	0.0
Approach	143	3.0		0.400		18.6	LOS C	1.5	39.3				
North: Eleventh St													
Lane 1	711	3.0	1102	0.646	100	12.3	LOS B	7.6	194.4	Full	1600	0.0	0.0
Lane 2 ^d	711	3.0	1102	0.646	100	12.3	LOS B	7.6	194.4	Full	1600	0.0	0.0
Approach	1423	3.0		0.646		12.3	LOS B	7.6	194.4				
West: W. Grant Line Rd													
Lane 1 ^d	971	3.0	573	1.695	100	338.5	LOS F	136.9	3504.9	Full	1600	0.0	38.4
Approach	971	3.0		1.695		338.5	LOS F	136.9	3504.9				
Intersection	3938	3.0		1.695		105.9	LOS F	136.9	3504.9				

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.

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.

- 5 Lane under-utilisation found by the program
- 6 Lane under-utilisation due to downstream effects
- d Dominant lane on roundabout approach

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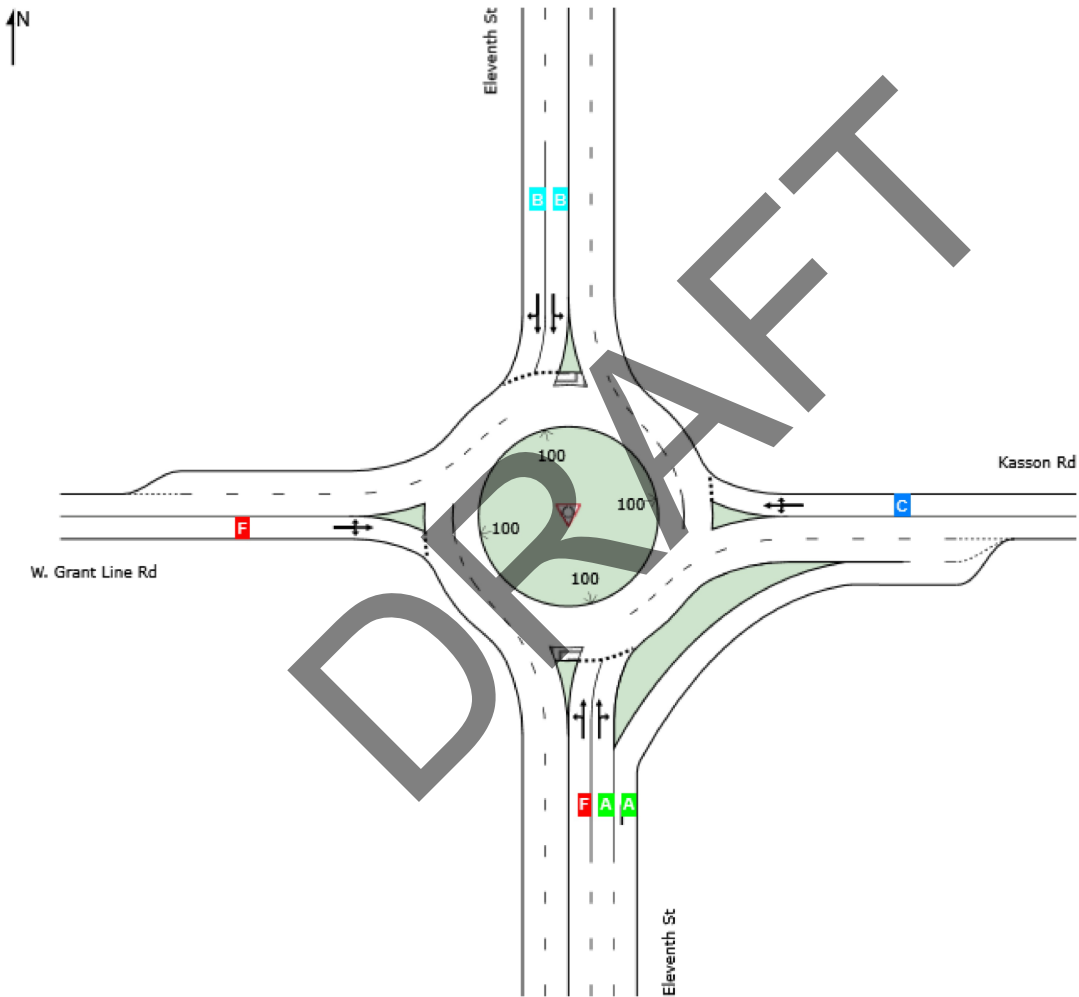
LANE LEVEL OF SERVICE

Lane Level of Service

Site: 101 [Intersection 107 - Grant Line/Kasson & Eleventh_PM]

New Site
 Site Category: (None)
 Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	E	C	B	F	F



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 [Intersection 107 - Grant Line/Kasson & Eleventh_PM]

New Site
 Site Category: (None)
 Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Eleventh St												
3	L2	105	3.0	1.065	70.8	LOS F	48.8	1249.7	1.00	2.66	5.41	17.5
8	T1	1164	3.0	1.065	52.2	LOS F	48.8	1249.7	0.89	2.05	3.99	20.3
18	R2	132	3.0	0.081	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	37.1
Approach		1401	3.0	1.065	48.7	LOS E	48.8	1249.7	0.81	1.91	3.72	20.9
East: Kasson Rd												
1	L2	29	3.0	0.400	18.6	LOS C	1.5	39.3	0.83	0.91	1.15	28.8
6	T1	113	3.0	0.400	18.6	LOS C	1.5	39.3	0.83	0.91	1.15	28.8
16	R2	1	3.0	0.400	18.6	LOS C	1.5	39.3	0.83	0.91	1.15	28.0
Approach		143	3.0	0.400	18.6	LOS C	1.5	39.3	0.83	0.91	1.15	28.8
North: Eleventh St												
7	L2	1	3.0	0.646	12.3	LOS B	7.6	194.4	0.66	0.64	0.90	31.8
4	T1	973	3.0	0.646	12.3	LOS B	7.6	194.4	0.66	0.64	0.90	31.7
14	R2	449	3.0	0.646	12.3	LOS B	7.6	194.4	0.66	0.64	0.90	30.7
Approach		1423	3.0	0.646	12.3	LOS B	7.6	194.4	0.66	0.64	0.90	31.4
West: W. Grant Line Rd												
5	L2	577	3.0	1.695	338.5	LOS F	136.9	3504.9	1.00	5.94	17.66	5.8
2	T1	259	3.0	1.695	338.5	LOS F	136.9	3504.9	1.00	5.94	17.66	5.7
12	R2	135	3.0	1.695	338.5	LOS F	136.9	3504.9	1.00	5.94	17.66	5.7
Approach		971	3.0	1.695	338.5	LOS F	136.9	3504.9	1.00	5.94	17.66	5.7
All Vehicles		3938	3.0	1.695	105.9	LOS F	136.9	3504.9	0.80	2.41	6.05	13.7

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 SUMMARY

 Site: 101 [AM Peak Hour (Site Folder: General)]

Int 12 Promontory Pkwy and Pavillion Pkwy
 Site Category: (None)
 Roundabout

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total veh/h	HV %						[Veh	Dist]				
South: Pavillion Pkwy													
Lane 1 ^d	129	3.0	924	0.140	100	5.2	LOS A	0.5	14.0	Full	1600	0.0	0.0
Lane 2	35	3.0	924	0.038	27 ⁵	4.2	LOS A	0.1	3.5	Short	200	0.0	NA
Approach	164	3.0		0.140		5.0	LOS A	0.5	14.0				
East: Promontory Pkwy													
Lane 1 ^d	812	3.0	999	0.812	100	21.1	LOS C	19.6	501.2	Full	1600	0.0	0.0
Approach	812	3.0		0.812		21.1	LOS C	19.6	501.2				
North: Pavillion Pkwy													
Lane 1 ^d	411	3.0	644	0.638	100	18.1	LOS C	4.8	122.0	Full	1600	0.0	0.0
Lane 2	341	3.0	1626	0.210	33 ⁵	0.1	LOS A	0.0	0.0	Short	200	0.0	NA
Approach	752	3.0		0.638		9.9	LOS A	4.8	122.0				
West: Promontory Pkwy													
Lane 1 ^d	432	3.0	630	0.686	100	20.7	LOS C	6.1	155.4	Full	1600	0.0	0.0
Approach	432	3.0		0.686		20.7	LOS C	6.1	155.4				
Intersection	2160	3.0		0.812		15.9	LOS C	19.6	501.2				

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.

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁵ Lane under-utilisation found by the program

^d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Pavillion Pkwy											
Mov.	L2	T1	R2	Total	%HV	Cap.	Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
From S	W	N	E			veh/h	v/c	%	%		
To Exit:											
Lane 1	25	104	-	129	3.0	924	0.140	100	NA	NA	
Lane 2	-	-	35	35	3.0	924	0.038	27 ⁵	0.0	1	
Approach	25	104	35	164	3.0		0.140				
East: Promontory Pkwy											
Mov.	L2	T1	R2	Total	%HV	Cap.	Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
From E						veh/h	v/c	%	%		

To Exit:	S	W	N			veh/h	v/c	%	%	No.
Lane 1	307	480	25	812	3.0	999	0.812	100	NA	NA
Approach	307	480	25	812	3.0		0.812			
North: Pavillion Pkwy										
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
From N To Exit:	E	S	W			Cap. veh/h	v/c	%	%	
Lane 1	20	391	-	411	3.0	644	0.638	100	NA	NA
Lane 2	-	-	341	341	3.0	1626	0.210	33 ⁵	0.0	1
Approach	20	391	341	752	3.0		0.638			
West: Promontory Pkwy										
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
From W To Exit:	N	E	S			Cap. veh/h	v/c	%	%	
Lane 1	150	257	25	432	3.0	630	0.686	100	NA	NA
Approach	150	257	25	432	3.0		0.686			
Total %HV Deg.Satn (v/c)										
Intersection	2160	3.0		0.812						

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

5 Lane under-utilisation found by the program

Merge Analysis												
	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
South Exit: Pavillion Pkwy Merge Type: Not Applied												
Full Length Lane	1											
East Exit: Promontory Pkwy Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											
North Exit: Pavillion Pkwy Merge Type: Not Applied												
Full Length Lane	1											
West Exit: Promontory Pkwy Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											

LANE LEVEL OF SERVICE

Lane Level of Service

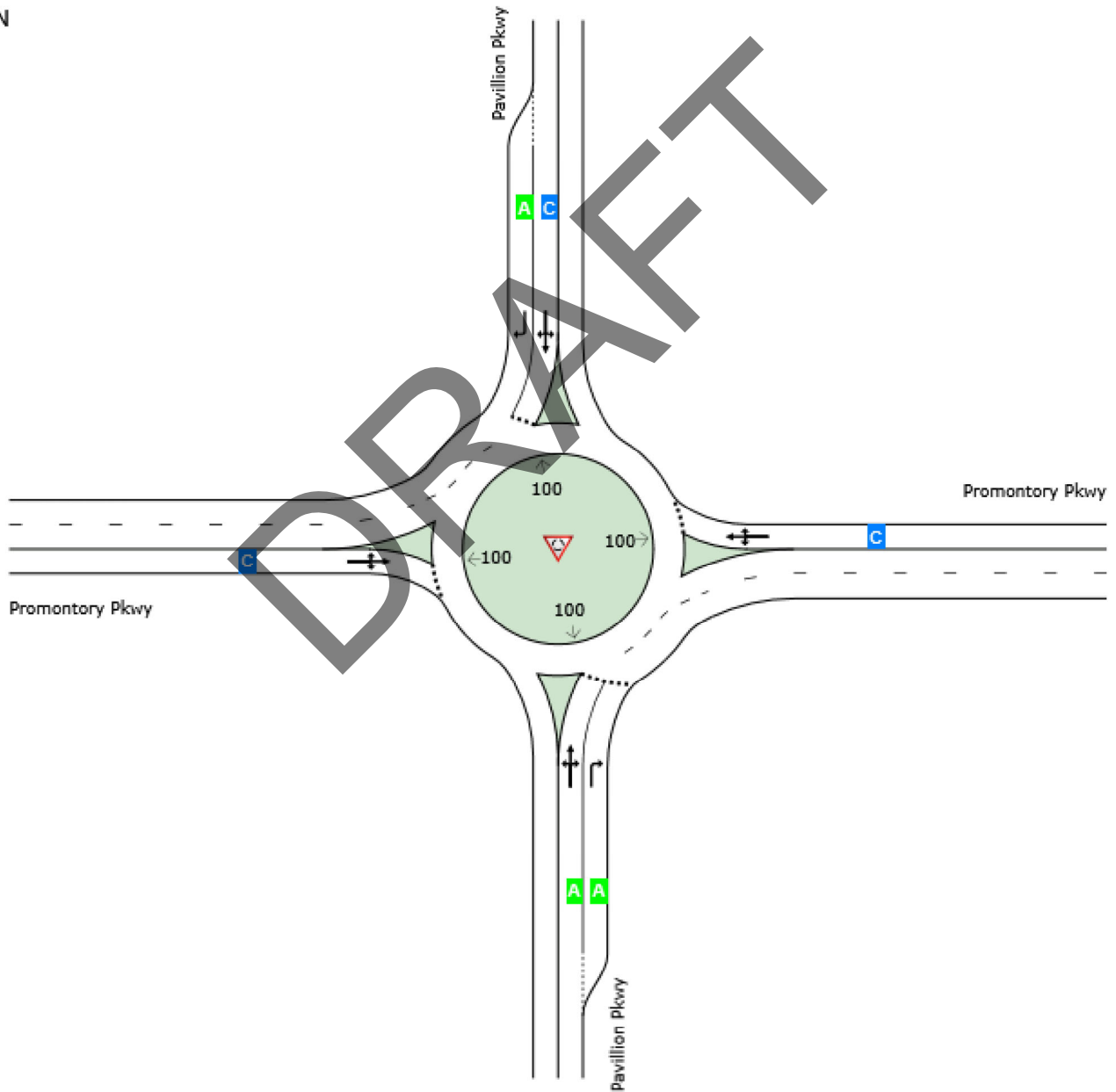
 Site: 101 [AM Peak Hour (Site Folder: General)]

Int 12 Promontory Pkwy and Pavillion Pkwy

Site Category: (None)

Roundabout

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



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).
Delay Model: HCM Delay Formula (Geometric Delay is not included).

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DRAFT

MOVEMENT SUMMARY

 Site: 101 [AM Peak Hour (Site Folder: General)]

Int 12 Promontory Pkwy and Pavillion Pkwy
 Site Category: (None)
 Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] ft				
South: Pavillion Pkwy														
3	L2	25	3.0	25	3.0	0.140	5.2	LOS A	0.5	14.0	0.48	0.40	0.48	34.7
8	T1	104	3.0	104	3.0	0.140	5.2	LOS A	0.5	14.0	0.48	0.40	0.48	34.6
18	R2	35	3.0	35	3.0	0.038	4.2	LOS A	0.1	3.5	0.45	0.33	0.45	34.4
Approach		164	3.0	164	3.0	0.140	5.0	LOS A	0.5	14.0	0.47	0.38	0.47	34.6
East: Promontory Pkwy														
1	L2	307	3.0	307	3.0	0.812	21.1	LOS C	19.6	501.2	0.94	1.25	1.90	27.7
6	T1	480	3.0	480	3.0	0.812	21.1	LOS C	19.6	501.2	0.94	1.25	1.90	27.6
16	R2	25	3.0	25	3.0	0.812	21.1	LOS C	19.6	501.2	0.94	1.25	1.90	26.9
Approach		812	3.0	812	3.0	0.812	21.1	LOS C	19.6	501.2	0.94	1.25	1.90	27.6
North: Pavillion Pkwy														
7	L2	20	3.0	20	3.0	0.638	18.1	LOS C	4.8	122.0	0.80	1.02	1.48	29.3
4	T1	391	3.0	391	3.0	0.638	18.1	LOS C	4.8	122.0	0.80	1.02	1.48	29.3
14	R2	341	3.0	341	3.0	0.210	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	36.8
Approach		752	3.0	752	3.0	0.638	9.9	LOS A	4.8	122.0	0.44	0.56	0.81	32.2
West: Promontory Pkwy														
5	L2	150	3.0	150	3.0	0.686	20.7	LOS C	6.1	155.4	0.85	1.11	1.64	27.9
2	T1	257	3.0	257	3.0	0.686	20.7	LOS C	6.1	155.4	0.85	1.11	1.64	27.8
12	R2	25	3.0	25	3.0	0.686	20.7	LOS C	6.1	155.4	0.85	1.11	1.64	27.1
Approach		432	3.0	432	3.0	0.686	20.7	LOS C	6.1	155.4	0.85	1.11	1.64	27.8
All Vehicles		2160	3.0	2160	3.0	0.812	15.9	LOS C	19.6	501.2	0.71	0.92	1.36	29.5

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

LANE SUMMARY

 Site: 101 [PM Peak Hour (Site Folder: General)]

Int 12 Promontory Pkwy and Pavillion Pkwy
 Site Category: (None)
 Roundabout

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total veh/h	HV %]						[Veh	Dist]				
South: Pavillion Pkwy													
Lane 1 ^d	505	3.0	772	0.654	100	16.3	LOS C	6.0	152.9	Full	1600	0.0	0.0
Lane 2	256	3.0	772	0.331	51 ⁵	8.6	LOS A	1.4	36.2	Short	200	0.0	NA
Approach	761	3.0		0.654		13.7	LOS B	6.0	152.9				
East: Promontory Pkwy													
Lane 1 ^d	147	3.0	627	0.235	100	8.7	LOS A	1.0	24.4	Full	1600	0.0	0.0
Approach	147	3.0		0.235		8.7	LOS A	1.0	24.4				
North: Pavillion Pkwy													
Lane 1 ^d	145	3.0	1201	0.121	100	4.0	LOS A	0.5	12.7	Full	1600	0.0	0.0
Lane 2	38	3.0	1626	0.023	19 ⁵	0.0	LOS A	0.0	0.0	Short	200	0.0	NA
Approach	183	3.0		0.121		3.2	LOS A	0.5	12.7				
West: Promontory Pkwy													
Lane 1 ^d	618	3.0	1081	0.572	100	10.5	LOS B	4.1	104.6	Full	1600	0.0	0.0
Approach	618	3.0		0.572		10.5	LOS B	4.1	104.6				
Intersection	1709	3.0		0.654		11.0	LOS B	6.0	152.9				

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.

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁵ Lane under-utilisation found by the program

^d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Pavillion Pkwy											
Mov.	L2	T1	R2	Total	%HV						
From S						Cap.	Deg.	Lane	Prob.	Ov.	
To Exit:	W	N	E			veh/h	v/c	Util.	SL Ov.	Lane	No.
Lane 1	25	480	-	505	3.0	772	0.654	100	NA	NA	
Lane 2	-	-	256	256	3.0	772	0.331	51 ⁵	0.0	1	
Approach	25	480	256	761	3.0		0.654				
East: Promontory Pkwy											
Mov.	L2	T1	R2	Total	%HV						
From E						Cap.	Deg.	Lane	Prob.	Ov.	Lane

To Exit:	S	W	N			veh/h	v/c	%	%	No.
Lane 1	59	63	25	147	3.0	627	0.235	100	NA	NA
Approach	59	63	25	147	3.0		0.235			
North: Pavillion Pkwy										
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
From N To Exit:	E	S	W			Cap. veh/h	v/c	%	%	
Lane 1	25	120	-	145	3.0	1201	0.121	100	NA	NA
Lane 2	-	-	38	38	3.0	1626	0.023	19 ⁵	0.0	1
Approach	25	120	38	183	3.0		0.121			
West: Promontory Pkwy										
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
From W To Exit:	N	E	S			Cap. veh/h	v/c	%	%	
Lane 1	218	375	25	618	3.0	1081	0.572	100	NA	NA
Approach	218	375	25	618	3.0		0.572			
Total %HV Deg.Satn (v/c)										
Intersection	1709	3.0		0.654						

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

5 Lane under-utilisation found by the program

Merge Analysis												
	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
South Exit: Pavillion Pkwy Merge Type: Not Applied												
Full Length Lane	1		Merge Analysis not applied.									
East Exit: Promontory Pkwy Merge Type: Not Applied												
Full Length Lane	1		Merge Analysis not applied.									
Full Length Lane	2		Merge Analysis not applied.									
North Exit: Pavillion Pkwy Merge Type: Not Applied												
Full Length Lane	1		Merge Analysis not applied.									
West Exit: Promontory Pkwy Merge Type: Not Applied												
Full Length Lane	1		Merge Analysis not applied.									
Full Length Lane	2		Merge Analysis not applied.									

LANE LEVEL OF SERVICE

Lane Level of Service

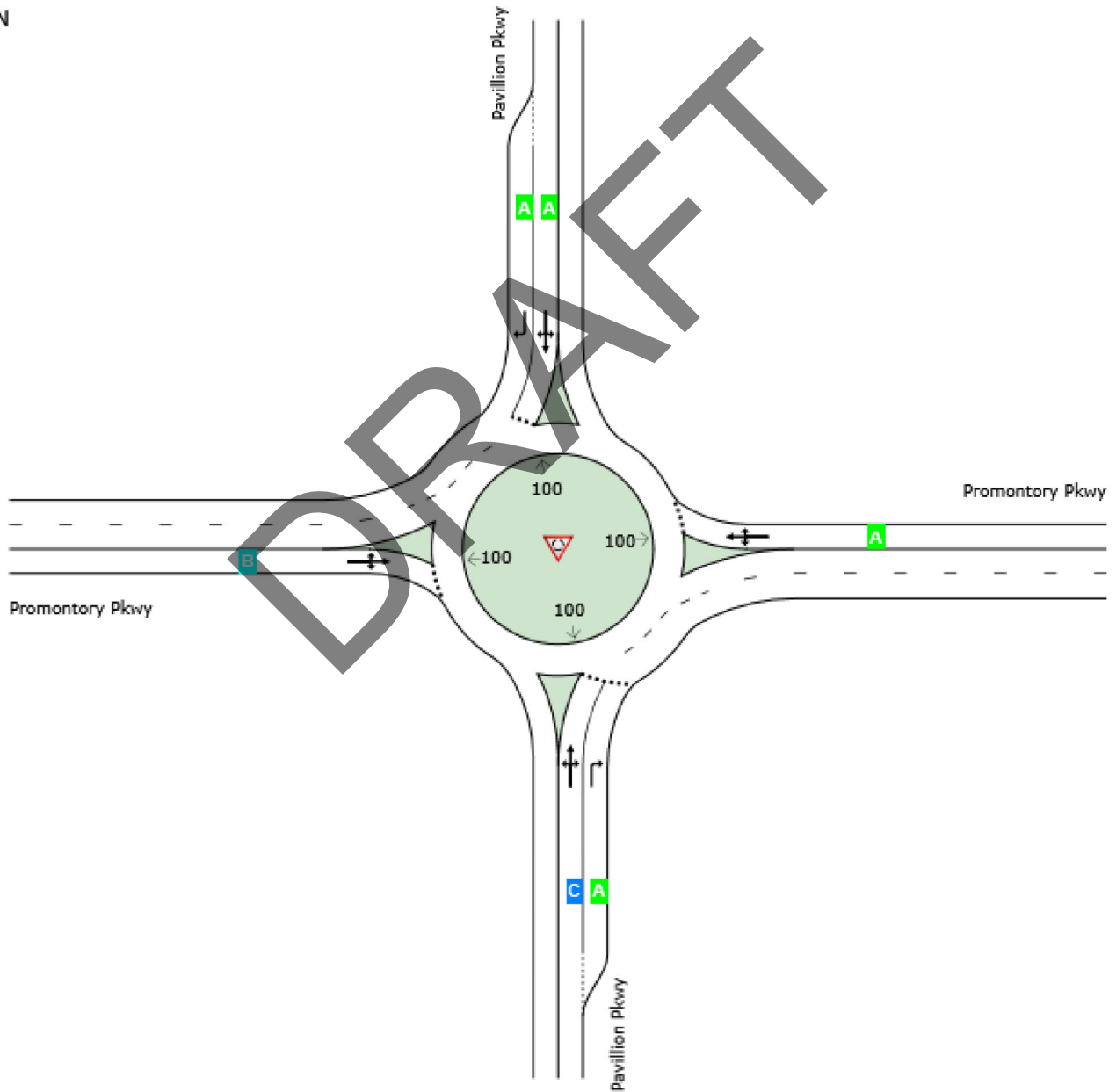
 Site: 101 [PM Peak Hour (Site Folder: General)]

Int 12 Promontory Pkwy and Pavillion Pkwy

Site Category: (None)

Roundabout

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



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).
Delay Model: HCM Delay Formula (Geometric Delay is not included).

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MOVEMENT SUMMARY

 Site: 101 [PM Peak Hour (Site Folder: General)]

Int 12 Promontory Pkwy and Pavillion Pkwy
 Site Category: (None)
 Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] ft				
South: Pavillion Pkwy														
3	L2	25	3.0	25	3.0	0.654	16.3	LOS C	6.0	152.9	0.80	1.03	1.46	30.0
8	T1	480	3.0	480	3.0	0.654	16.3	LOS C	6.0	152.9	0.80	1.03	1.46	29.9
18	R2	256	3.0	256	3.0	0.331	8.6	LOS A	1.4	36.2	0.63	0.63	0.63	32.2
Approach		761	3.0	761	3.0	0.654	13.7	LOS B	6.0	152.9	0.74	0.89	1.18	30.7
East: Promontory Pkwy														
1	L2	59	3.0	59	3.0	0.235	8.7	LOS A	1.0	24.4	0.65	0.65	0.65	32.4
6	T1	63	3.0	63	3.0	0.235	8.7	LOS A	1.0	24.4	0.65	0.65	0.65	32.4
16	R2	25	3.0	25	3.0	0.235	8.7	LOS A	1.0	24.4	0.65	0.65	0.65	31.5
Approach		147	3.0	147	3.0	0.235	8.7	LOS A	1.0	24.4	0.65	0.65	0.65	32.2
North: Pavillion Pkwy														
7	L2	25	3.0	25	3.0	0.121	4.0	LOS A	0.5	12.7	0.28	0.16	0.28	35.4
4	T1	120	3.0	120	3.0	0.121	4.0	LOS A	0.5	12.7	0.28	0.16	0.28	35.3
14	R2	38	3.0	38	3.0	0.023	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	36.8
Approach		183	3.0	183	3.0	0.121	3.2	LOS A	0.5	12.7	0.22	0.12	0.22	35.6
West: Promontory Pkwy														
5	L2	218	3.0	218	3.0	0.572	10.5	LOS B	4.1	104.6	0.60	0.44	0.60	31.7
2	T1	375	3.0	375	3.0	0.572	10.5	LOS B	4.1	104.6	0.60	0.44	0.60	31.7
12	R2	25	3.0	25	3.0	0.572	10.5	LOS B	4.1	104.6	0.60	0.44	0.60	30.8
Approach		618	3.0	618	3.0	0.572	10.5	LOS B	4.1	104.6	0.60	0.44	0.60	31.6
All Vehicles		1709	3.0	1709	3.0	0.654	11.0	LOS B	6.0	152.9	0.62	0.63	0.82	31.6

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

LANE SUMMARY

 Site: 101 [AM Peak Hour (Site Folder: General)]

Intersection 45 Lammers Rd & I-580 WB Ramps

Site Category: (None)

Roundabout

Lane Use and Performance													
	DEMAND FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
	[Total veh/h]	[HV] %						[Veh]	[Dist] ft				
South: Lammers Rd													
Lane 1	482	3.0	1311	0.367	100	6.2	LOS A	0.0	0.0	Full	1600	0.0	0.0
Lane 2 ^d	506	3.0	1379	0.367	100	6.0	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	988	3.0		0.367		6.1	LOS A	0.0	0.0				
East: I-580 WB Off Ramp													
Lane 1	170	3.0	514	0.332	100	12.1	LOS B	1.3	34.1	Full	1600	0.0	0.0
Lane 2 ^d	193	3.0	580	0.332	100	10.9	LOS B	1.3	34.0	Full	1600	0.0	0.0
Approach	363	3.0		0.332		11.5	LOS B	1.3	34.1				
North: Lammers Rd													
Lane 1 ^d	801	3.0	909	0.881	100	29.4	LOS D	20.1	515.1	Full	1600	0.0	0.0
Lane 2	545	3.0	1626	0.335	38 ⁶	13.0	LOS B	0.0	0.0	Short	200	0.0	NA
Approach	1346	3.0		0.881		22.8	LOS C	20.1	515.1				
Intersection	2697	3.0		0.881		15.1	LOS C	20.1	515.1				

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁶ Lane under-utilisation due to downstream effects

^d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)										
South: Lammers Rd										
Mov.	L2	T1	Total	%HV						
From S					Cap.	Deg.	Lane	Prob.	Ov.	
To Exit:	W	N			veh/h	v/c	Util.	SL Ov.	Lane	No.
							%	%		
Lane 1	450	32	482	3.0	1311	0.367	100	NA	NA	
Lane 2	-	506	506	3.0	1379	0.367	100	NA	NA	
Approach	450	538	988	3.0		0.367				
East: I-580 WB Off Ramp										
Mov.	L2	R2	Total	%HV						
From E					Cap.	Deg.	Lane	Prob.	Ov.	
To Exit:	S	N			veh/h	v/c	Util.	SL Ov.	Lane	No.
							%	%		
Lane 1	26	144	170	3.0	514	0.332	100	NA	NA	

Lane 2	-	193	193	3.0	580	0.332	100	NA	NA
Approach	26	337	363	3.0		0.332			
North: Lammers Rd									
Mov.	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
From N To Exit:	S	W			veh/h	v/c	%	%	
Lane 1	77	724	801	3.0	909	0.881	100	NA	NA
Lane 2	-	545	545	3.0	1626	0.335	38 ⁶	0.0	1
Approach	77	1269	1346	3.0		0.881			
Total %HV Deg.Satn (v/c)									
Intersection	2697	3.0		0.881					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

6 Lane under-utilisation due to downstream effects

Merge Analysis												
	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
South Exit: Lammers Rd												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
North Exit: Lammers Rd												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
West Exit: I-580 WB On Ramp												
Merge Type: Priority												
Exit Short Lane	2	200	0.0	1174	1209	3.00	2.00	545	902	0.604	4.0	12.9
Merge Lane	1	-	100.0	Merge Lane is not Opposed			1174	1800	0.652	0.0	0.0	

LANE LEVEL OF SERVICE

Lane Level of Service

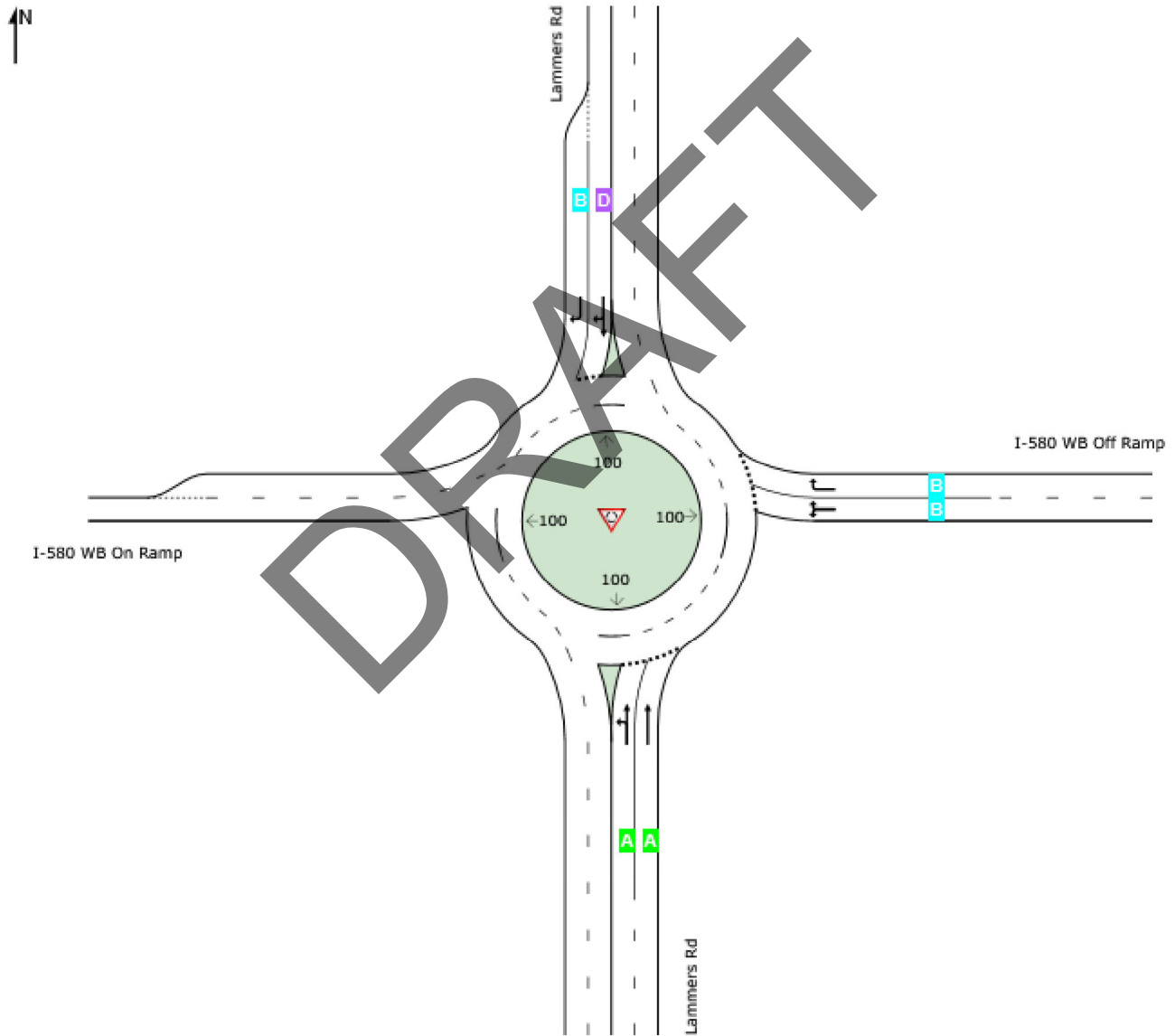
 Site: 101 [AM Peak Hour (Site Folder: General)]

Intersection 45 Lammers Rd & I-580 WB Ramps

Site Category: (None)

Roundabout

	Approaches			Intersection
	South	East	North	
LOS	A	B	C	C



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).
Delay Model: HCM Delay Formula (Geometric Delay is not included).

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DRAFT

MOVEMENT SUMMARY

 Site: 101 [AM Peak Hour (Site Folder: General)]

Intersection 45 Lammers Rd & I-580 WB Ramps

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] ft				
South: Lammers Rd														
3	L2	450	3.0	450	3.0	0.367	6.2	LOS A	0.0	0.0	0.00	0.00	0.00	35.3
8	T1	538	3.0	538	3.0	0.367	6.0	LOS A	0.0	0.0	0.00	0.00	0.00	38.0
Approach		988	3.0	988	3.0	0.367	6.1	LOS A	0.0	0.0	0.00	0.00	0.00	36.7
East: I-580 WB Off Ramp														
1	L2	26	3.0	26	3.0	0.332	12.1	LOS B	1.3	34.1	0.70	0.74	0.84	31.4
16	R2	337	3.0	337	3.0	0.332	11.4	LOS B	1.3	34.1	0.68	0.73	0.83	30.8
Approach		363	3.0	363	3.0	0.332	11.5	LOS B	1.3	34.1	0.68	0.73	0.83	30.9
North: Lammers Rd														
4	T1	77	3.0	77	3.0	0.844	29.4	LOS D	20.1	515.1	0.99	1.66	2.74	25.4
14	R2	1269	3.0	1269	3.0	0.844	22.3	LOS C	20.1	515.1	0.57	0.95	1.56	28.8
Approach		1346	3.0	1346	3.0	0.844	22.8	LOS C	20.1	515.1	0.59	0.99	1.63	28.6
All Vehicles		2697	3.0	2697	3.0	0.844	15.1	LOS C	20.1	515.1	0.39	0.59	0.92	31.5

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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 Project: K:\SJC_TPTO\City of Tracy\097008018 - Tracy TMP 2019\05 Design & Analysis\Sidra\Cumulative\Intersection 45 - Lammers & I-580 WB Ramps.sip9

LANE SUMMARY

 Site: 101 [PM Peak Hour (Site Folder: General)]

Intersection 45 Lammers Rd & I-580 WB Ramps

Site Category: (None)

Roundabout

Lane Use and Performance													
	DEMAND FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
	[Total veh/h	HV] %						[Veh	Dist] ft				
South: Lammers Rd													
Lane 1	769	3.0	1311	0.587	100	9.5	LOS A	0.0	0.0	Full	1600	0.0	0.0
Lane 2 ^d	809	3.0	1379	0.587	100	9.2	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	1578	3.0		0.587		9.3	LOS A	0.0	0.0				
East: I-580 WB Off Ramp													
Lane 1	42	3.0	294	0.144	100	15.0	LOS C	0.4	11.4	Full	1600	0.0	0.0
Lane 2 ^d	50	3.0	346	0.144	100	12.9	LOS B	0.4	11.4	Full	1600	0.0	0.0
Approach	92	3.0		0.144		13.8	LOS B	0.4	11.4				
North: Lammers Rd													
Lane 1 ^d	788	3.0	1170	0.673	100	12.5	LOS B	7.4	189.8	Full	1600	0.0	0.0
Lane 2	416	3.0	1626	0.256	38 ⁶	5.3	LOS A	0.0	0.0	Short	200	0.0	NA
Approach	1204	3.0		0.673		10.0	LOS B	7.4	189.8				
Intersection	2874	3.0		0.673		9.8	LOS A	7.4	189.8				

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.

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁶ Lane under-utilisation due to downstream effects

^d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)										
South: Lammers Rd										
Mov.	L2	T1	Total	%HV	Cap.	Deg.	Lane	Prob.	Ov.	
From S					veh/h	Satn	Util.	SL	Ov.	Lane
To Exit:	W	N				v/c	%	%		No.
Lane 1	162	607	769	3.0	1311	0.587	100	NA	NA	
Lane 2	-	809	809	3.0	1379	0.587	100	NA	NA	
Approach	162	1416	1578	3.0		0.587				
East: I-580 WB Off Ramp										
Mov.	L2	R2	Total	%HV	Cap.	Deg.	Lane	Prob.	Ov.	
From E					veh/h	Satn	Util.	SL	Ov.	Lane
To Exit:	S	N				v/c	%	%		No.
Lane 1	25	17	42	3.0	294	0.144	100	NA	NA	

Lane 2	-	50	50	3.0	346	0.144	100	NA	NA
Approach	25	67	92	3.0		0.144			
North: Lammers Rd									
Mov.	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
From N To Exit:	S	W			veh/h	v/c	%	%	
Lane 1	502	286	788	3.0	1170	0.673	100	NA	NA
Lane 2	-	416	416	3.0	1626	0.256	38 ⁶	0.0	1
Approach	502	702	1204	3.0		0.673			
Total %HV Deg.Satn (v/c)									
Intersection	2874	3.0		0.673					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

6 Lane under-utilisation due to downstream effects

Merge Analysis													
	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec		
South Exit: Lammers Rd													
Merge Type: Not Applied													
	Full Length Lane	1	Merge Analysis not applied.										
	Full Length Lane	2	Merge Analysis not applied.										
North Exit: Lammers Rd													
Merge Type: Not Applied													
	Full Length Lane	1	Merge Analysis not applied.										
	Full Length Lane	2	Merge Analysis not applied.										
West Exit: I-580 WB On Ramp													
Merge Type: Priority													
	Exit Short Lane	2	200	0.0	448	461	3.00	2.00	416	1389	0.300	2.6	5.2
	Merge Lane	1	-	100.0	Merge Lane is not Opposed			448	1800	0.249	0.0	0.0	

LANE LEVEL OF SERVICE

Lane Level of Service

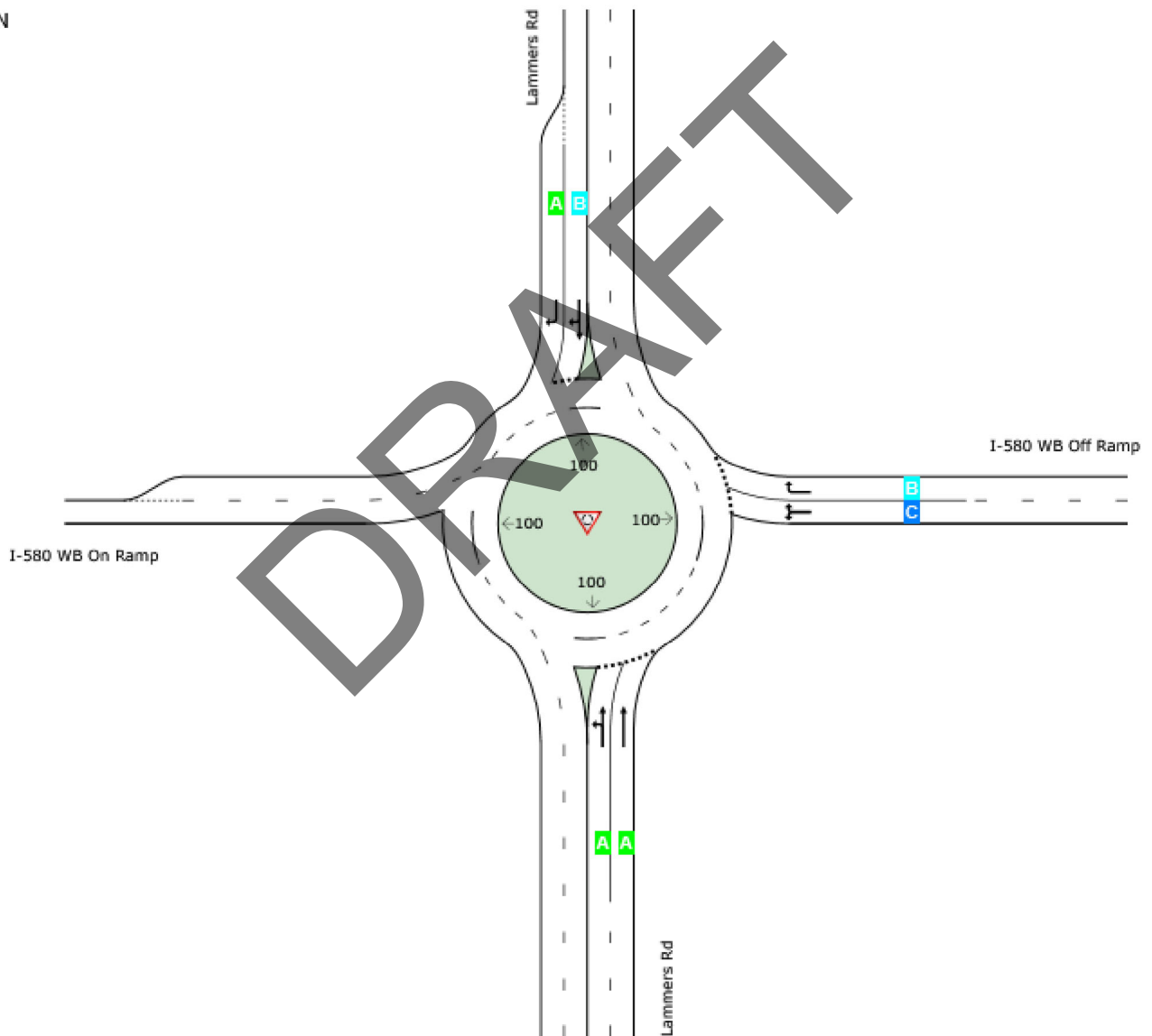
 **Site: 101 [PM Peak Hour (Site Folder: General)]**

Intersection 45 Lammers Rd & I-580 WB Ramps

Site Category: (None)

Roundabout

	Approaches			Intersection
	South	East	North	
LOS	A	B	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).
Delay Model: HCM Delay Formula (Geometric Delay is not included).

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DRAFT

MOVEMENT SUMMARY

 Site: 101 [PM Peak Hour (Site Folder: General)]

Intersection 45 Lammers Rd & I-580 WB Ramps

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] ft				
South: Lammers Rd														
3	L2	162	3.0	162	3.0	0.587	9.5	LOS A	0.0	0.0	0.00	0.00	0.00	37.6
8	T1	1416	3.0	1416	3.0	0.587	9.3	LOS A	0.0	0.0	0.00	0.00	0.00	37.9
Approach		1578	3.0	1578	3.0	0.587	9.3	LOS A	0.0	0.0	0.00	0.00	0.00	37.9
East: I-580 WB Off Ramp														
1	L2	25	3.0	25	3.0	0.144	15.0	LOS C	0.4	11.4	0.80	0.80	0.80	29.3
16	R2	67	3.0	67	3.0	0.144	13.4	LOS B	0.4	11.4	0.78	0.78	0.78	29.8
Approach		92	3.0	92	3.0	0.144	13.8	LOS B	0.4	11.4	0.79	0.79	0.79	29.7
North: Lammers Rd														
4	T1	502	3.0	502	3.0	0.673	12.5	LOS B	7.4	189.8	0.60	0.51	0.74	31.5
14	R2	702	3.0	702	3.0	0.673	8.2	LOS A	7.4	189.8	0.25	0.21	0.30	33.9
Approach		1204	3.0	1204	3.0	0.673	10.0	LOS B	7.4	189.8	0.40	0.33	0.48	32.9
All Vehicles		2874	3.0	2874	3.0	0.673	9.8	LOS A	7.4	189.8	0.19	0.16	0.23	35.3

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Lane 1	27	39	66	3.0	1379	0.048	100	NA	NA
Lane 2	-	66	66	3.0	1379	0.048	100	NA	NA
Approach	27	104	132	3.0		0.048			
West: I-580 Off Ramp									
Mov.	L2	R2	Total	%HV					
From W To Exit:	N	S			Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	218	-	218	3.0	1157	0.188	100	NA	NA
Lane 2	231	-	231	3.0	1229	0.188	100	NA	NA
Lane 3	-	234	234	3.0	1626	0.144	76 ⁵	0.0	2
Approach	449	234	683	3.0		0.188			
Total %HV Deg.Satn (v/c)									
Intersection	1333	3.0		0.294					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

5 Lane under-utilisation found by the program

Merge Analysis												
	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
South Exit: Lammers Rd Merge Type: Not Applied												
	Full Length Lane	1	Merge Analysis not applied.									
	Full Length Lane	2	Merge Analysis not applied.									
East Exit: I-580 On Ramp Merge Type: Not Applied												
	Full Length Lane	1	Merge Analysis not applied.									
North Exit: Lammers Rd Merge Type: Not Applied												
	Full Length Lane	1	Merge Analysis not applied.									
	Full Length Lane	2	Merge Analysis not applied.									

LANE LEVEL OF SERVICE

Lane Level of Service

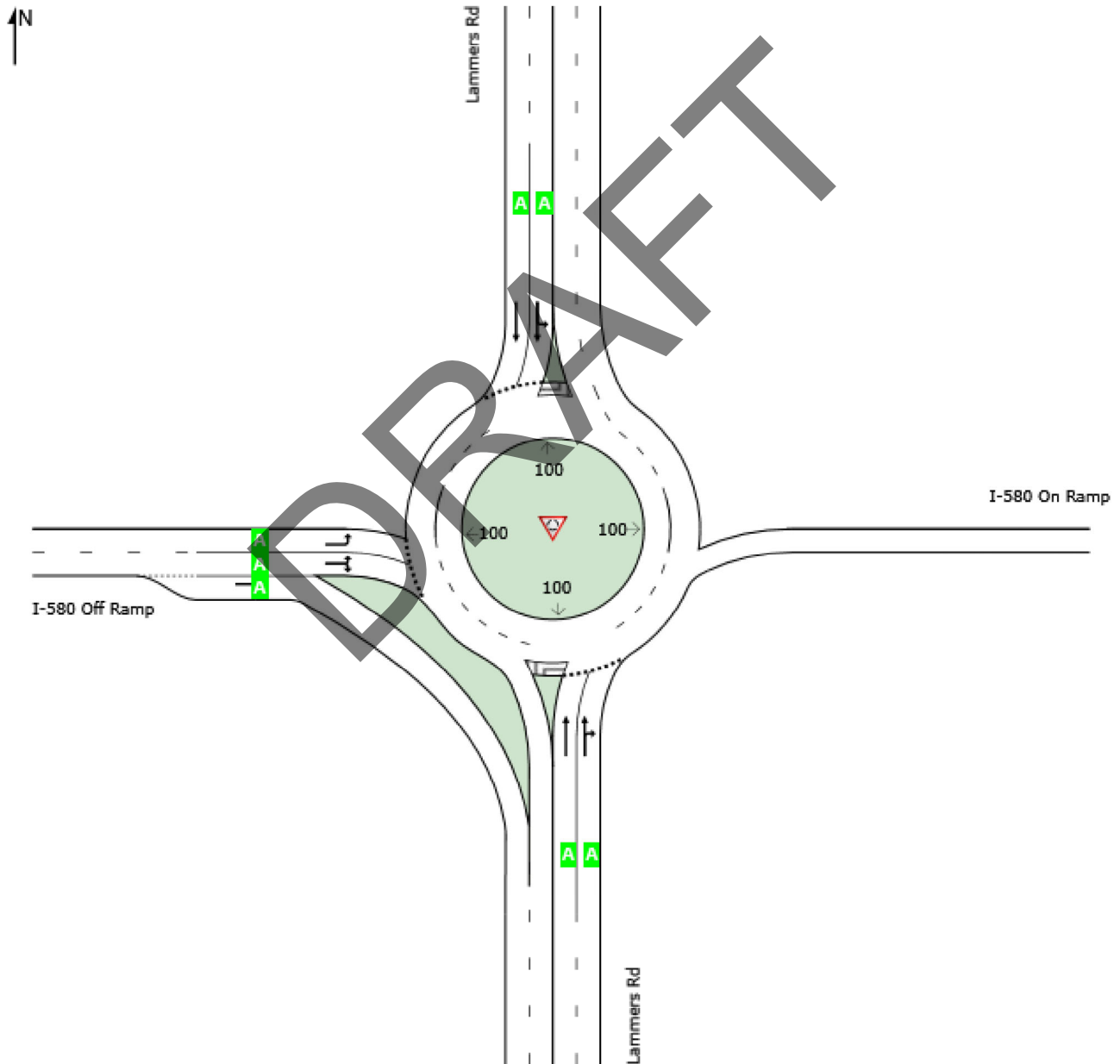
 **Site: 101 [AM Peak Hour (Site Folder: General)]**

Intersection 46 Lammers Rd & i-580 EB Ramps

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).

Delay Model: HCM Delay Formula (Geometric Delay is not included).

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DRAFT

MOVEMENT SUMMARY

Site: 101 [AM Peak Hour (Site Folder: General)]

Intersection 46 Lammers Rd & i-580 EB Ramps

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] ft				
South: Lammers Rd														
8	T1	452	3.0	491	3.0	0.294	7.2	LOS A	1.3	32.6	0.56	0.52	0.56	34.1
18	R2	25	3.0	27	3.0	0.294	7.2	LOS A	1.3	32.6	0.56	0.52	0.56	33.0
Approach		477	3.0	518	3.0	0.294	7.2	LOS A	1.3	32.6	0.56	0.52	0.56	34.0
North: Lammers Rd														
7	L2	25	3.0	27	3.0	0.048	3.0	LOS A	0.0	0.0	0.00	0.00	0.00	36.9
4	T1	96	3.0	104	3.0	0.048	3.0	LOS A	0.0	0.0	0.00	0.00	0.00	37.7
Approach		121	3.0	132	3.0	0.048	3.0	LOS A	0.0	0.0	0.00	0.00	0.00	37.5
West: I-580 Off Ramp														
5	L2	413	3.0	449	3.0	0.188	4.7	LOS A	0.8	20.4	0.27	0.15	0.27	32.8
12	R2	215	3.0	234	3.0	0.144	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	37.1
Approach		628	3.0	683	3.0	0.188	3.1	LOS A	0.8	20.4	0.18	0.10	0.18	34.1
All Vehicles		1226	3.0	1333	3.0	0.294	4.7	LOS A	1.3	32.6	0.31	0.25	0.31	34.4

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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LANE SUMMARY

 Site: 101 [PM Peak Hour (Site Folder: General)]

Intersection 46 Lammers Rd & i-580 EB Ramps

Site Category: (None)

Roundabout

Lane Use and Performance													
	DEMAND FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
	[Total veh/h	HV %						[Veh	Dist] ft				
South: Lammers Rd													
Lane 1	121	3.0	261	0.465	100	27.6	LOS D	1.8	44.9	Full	1600	0.0	0.0
Lane 2 ^d	144	3.0	310	0.465	100	23.6	LOS C	1.8	45.9	Full	1600	0.0	0.0
Approach	265	3.0		0.465		25.4	LOS D	1.8	45.9				
North: Lammers Rd													
Lane 1 ^d	307	3.0	1379	0.223	100	4.5	LOS A	0.0	0.0	Full	1600	0.0	0.0
Lane 2	200	3.0	1311	0.153	69 ⁵	4.0	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	507	3.0		0.223		4.3	LOS A	0.0	0.0				
West: I-580 Off Ramp													
Lane 1	669	3.0	811	0.825	100	25.7	LOS D	13.8	353.2	Full	1600	0.0	0.0
Lane 2 ^d	729	3.0	884	0.825	100	24.1	LOS C	14.4	368.5	Full	1600	0.0	0.0
Lane 3	440	3.0	1626	0.271	33 ⁵	0.1	LOS A	0.0	0.0	Short	500	0.0	NA
Approach	1838	3.0		0.825		19.0	LOS C	14.4	368.5				
Intersection	2610	3.0		0.825		16.7	LOS C	14.4	368.5				

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁵ Lane under-utilisation found by the program

^d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)										
South: Lammers Rd										
Mov.	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL	Ov.	Ov.
From S					Cap.	v/c	%	%	Lane	Lane
To Exit:	N	E			veh/h				No.	
Lane 1	121	-	121	3.0	261	0.465	100	NA	NA	
Lane 2	114	30	144	3.0	310	0.465	100	NA	NA	
Approach	235	30	265	3.0		0.465				
North: Lammers Rd										
Mov.	L2	T1	Total	%HV		Deg. Satn	Lane Util.	Prob. SL	Ov.	Ov.
From N					Cap.	v/c	%	%	Lane	Lane
To Exit:	E	S			veh/h				No.	

Lane 1	307	-	307	3.0	1379	0.223	100	NA	NA
Lane 2	-	200	200	3.0	1311	0.153	69 ⁵	NA	NA
Approach	307	200	507	3.0		0.223			
West: I-580 Off Ramp									
Mov.	L2	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
From W To Exit:	N	S			Cap. veh/h	v/c	%	%	
Lane 1	669	-	669	3.0	811	0.825	100	NA	NA
Lane 2	729	-	729	3.0	884	0.825	100	NA	NA
Lane 3	-	440	440	3.0	1626	0.271	33 ⁵	0.0	2
Approach	1398	440	1838	3.0		0.825			
Total %HV Deg.Satn (v/c)									
Intersection	2610	3.0		0.825					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

5 Lane under-utilisation found by the program

Merge Analysis												
	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
South Exit: Lammers Rd												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
East Exit: I-580 On Ramp												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: Lammers Rd												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										

LANE LEVEL OF SERVICE

Lane Level of Service

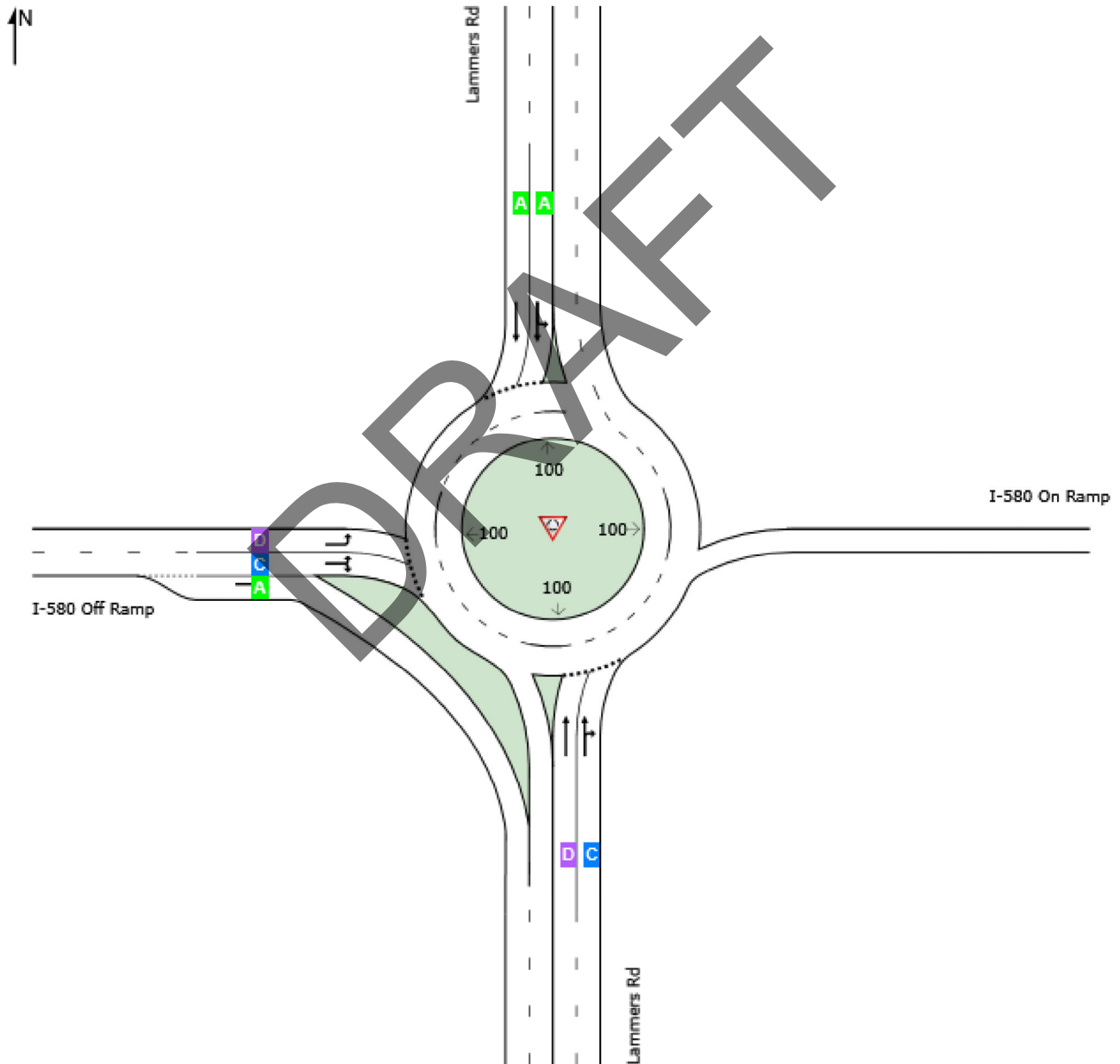
 Site: 101 [PM Peak Hour (Site Folder: General)]

Intersection 46 Lammers Rd & i-580 EB Ramps

Site Category: (None)

Roundabout

	Approaches			Intersection
	South	North	West	
LOS	D	A	C	C



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).

Delay Model: HCM Delay Formula (Geometric Delay is not included).

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DRAFT

MOVEMENT SUMMARY

Site: 101 [PM Peak Hour (Site Folder: General)]

Intersection 46 Lammers Rd & i-580 EB Ramps

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] ft				
South: Lammers Rd														
8	T1	235	3.0	235	3.0	0.465	25.7	LOS D	1.8	45.9	0.87	0.98	1.30	26.7
18	R2	30	3.0	30	3.0	0.465	23.6	LOS C	1.8	45.9	0.86	0.97	1.29	26.7
Approach		265	3.0	265	3.0	0.465	25.4	LOS D	1.8	45.9	0.87	0.98	1.30	26.7
North: Lammers Rd														
7	L2	307	3.0	307	3.0	0.223	4.5	LOS A	0.0	0.0	0.00	0.00	0.00	35.1
4	T1	200	3.0	200	3.0	0.153	4.0	LOS A	0.0	0.0	0.00	0.00	0.00	38.2
Approach		507	3.0	507	3.0	0.223	4.3	LOS A	0.0	0.0	0.00	0.00	0.00	36.2
West: I-580 Off Ramp														
5	L2	1398	3.0	1398	3.0	0.825	24.9	LOS C	14.4	368.5	0.92	1.42	2.26	25.6
12	R2	440	3.0	440	3.0	0.271	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	37.0
Approach		1838	3.0	1838	3.0	0.825	19.0	LOS C	14.4	368.5	0.70	1.08	1.72	27.5
All Vehicles		2610	3.0	2610	3.0	0.825	16.7	LOS C	14.4	368.5	0.58	0.86	1.34	28.8

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

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 [AM Peak Hour (Site Folder: General)]**

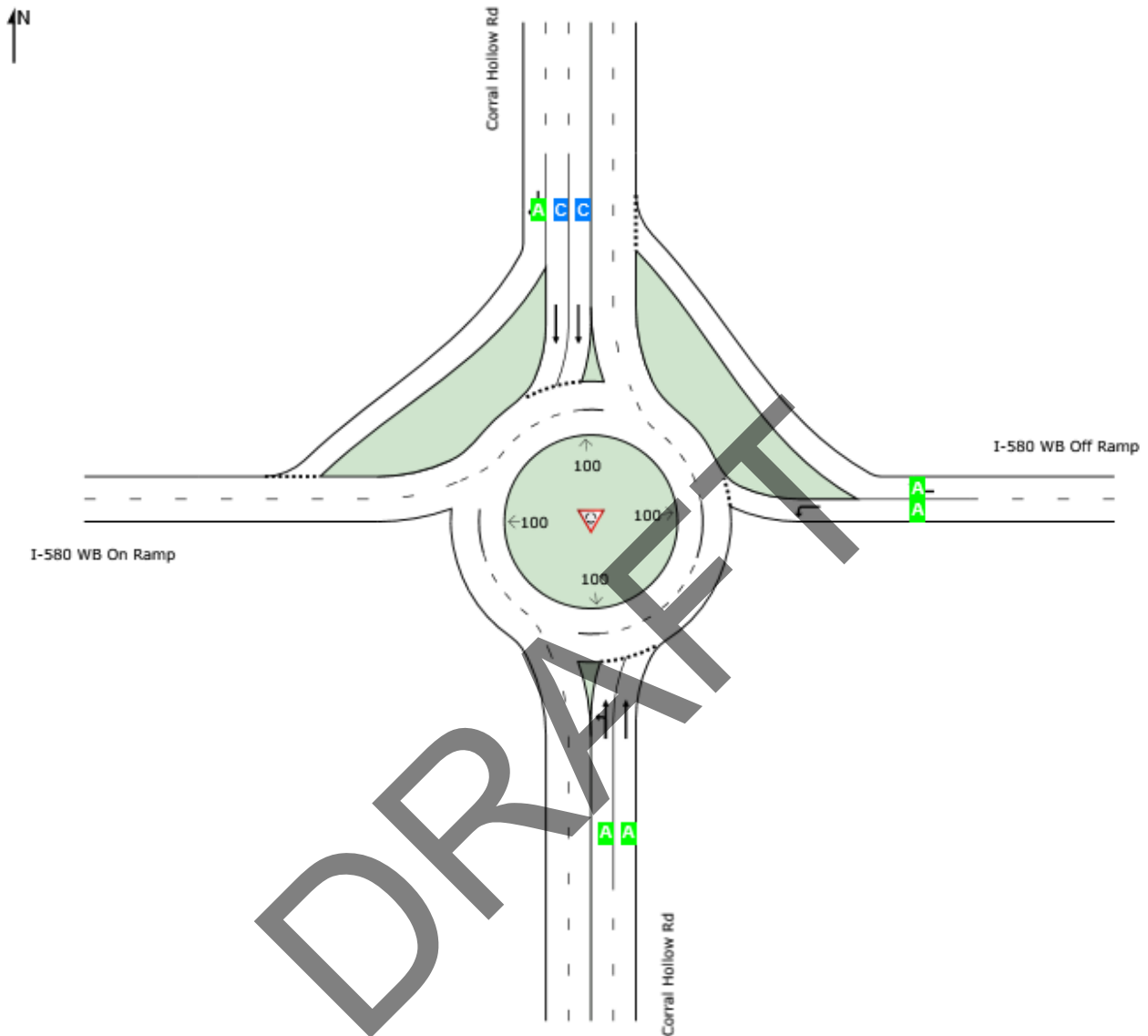
Intersection 67 Corral Hollow & I-580 WB Ramps

Site Category: (None)

Roundabout

	Approaches			Intersection
	South	East	North	
LOS	A	A	C	B

DRAFT



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).
 Delay Model: HCM Delay Formula (Geometric Delay is not included).

LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [PM Peak Hour (Site Folder: General)]**

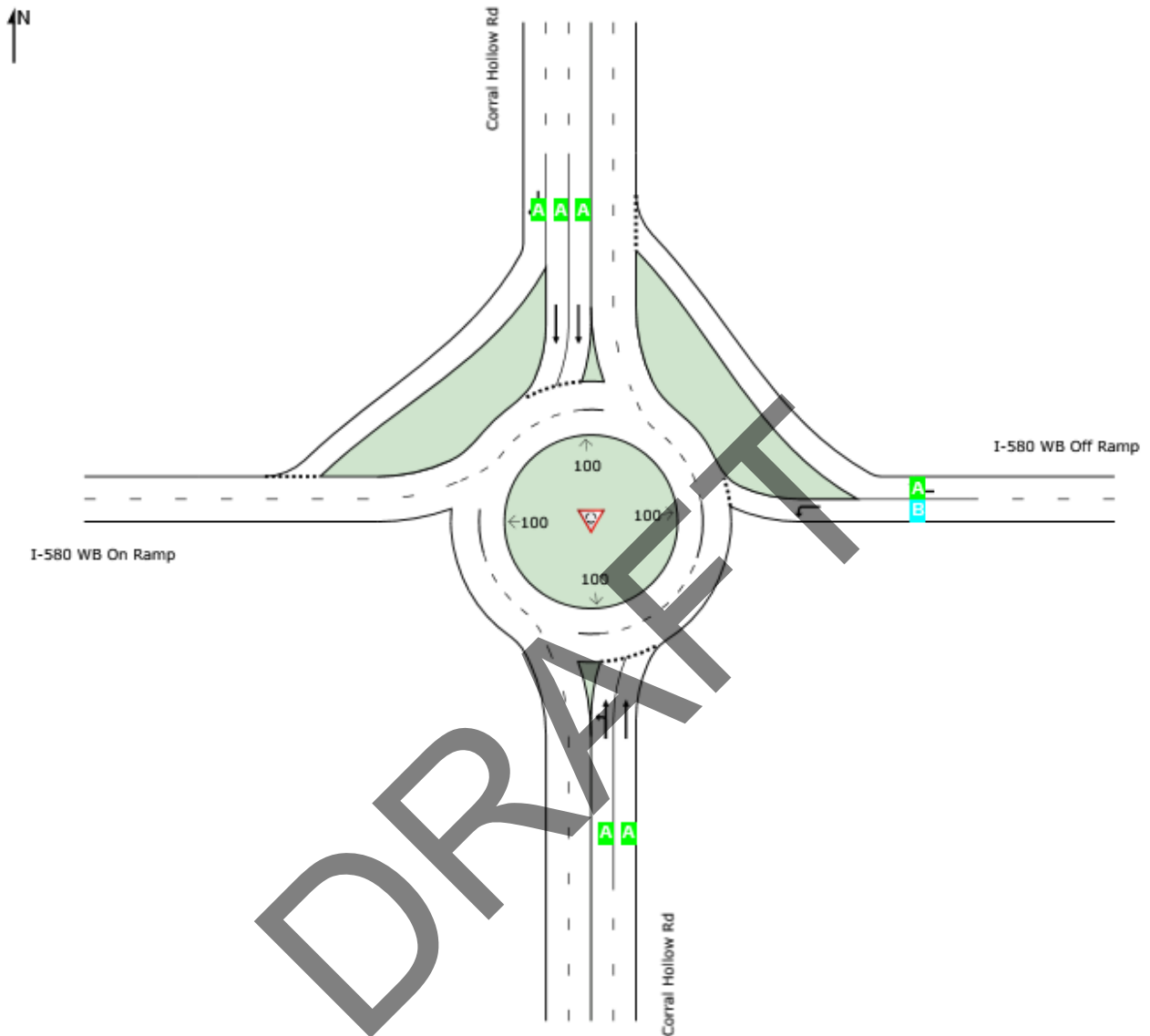
Intersection 67 Corral Hollow & I-580 WB Ramps

Site Category: (None)

Roundabout

	Approaches			Intersection
	South	East	North	
LOS	A	B	A	A

DRAFT



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).
 Delay Model: HCM Delay Formula (Geometric Delay is not included).

LANE SUMMARY

Site: 101 [AM Peak Hour (Site Folder: General)]

Intersection 67 Corral Hollow & I-580 WB Ramps
 Site Category: (None)
 Roundabout

Lane Use and Performance													
	DEMAND FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
	[Total veh/h	HV %						[Veh	Dist] ft				
South: Corral Hollow Rd													
Lane 1	230	3.0	1311	0.176	100	4.2	LOSA	0.0	0.0	Full	1600	0.0	0.0
Lane 2 ^d	242	3.0	1379	0.176	100	4.0	LOSA	0.0	0.0	Full	1600	0.0	0.0
Approach	473	3.0		0.176		4.1	LOSA	0.0	0.0				
East: I-580 WB Off Ramp													
Lane 1 ^d	289	3.0	911	0.317	100	7.4	LOSA	1.3	34.2	Full	1600	0.0	0.0
Lane 2	57	3.0	966	0.059	100	4.3	LOSA	0.2	5.3	Full	1600	0.0	0.0
Approach	346	3.0		0.317		6.9	LOSA	1.3	34.2				
North: Corral Hollow Rd													
Lane 1	723	3.0	936	0.773	100	19.4	LOS C	13.6	348.7	Full	1600	0.0	0.0
Lane 2 ^d	780	3.0	1010	0.773	100	18.4	LOS C	14.0	358.6	Full	1600	0.0	0.0
Lane 3	132	3.0	1301	0.101	100	3.6	LOSA	0.4	9.9	Full	1600	0.0	0.0
Approach	1635	3.0		0.773		17.6	LOS C	14.0	358.6				
Intersection	2453	3.0		0.773		13.5	LOS B	14.0	358.6				

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.
 Delay Model: HCM Delay Formula (Geometric Delay is not included).
 Queue Model: HCM Queue Formula.
 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

Approach Lane Flows (veh/h)										
South: Corral Hollow Rd										
Mov.	L2	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
From S To Exit:	W	N								
Lane 1	66	164	230	3.0	1311	0.176	100	NA	NA	
Lane 2	-	242	242	3.0	1379	0.176	100	NA	NA	
Approach	66	407	473	3.0		0.176				
East: I-580 WB Off Ramp										
Mov.	L2	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
From E To Exit:	S	N								
Lane 1	289	-	289	3.0	911	0.317	100	NA	NA	
Lane 2	-	57	57	3.0	966	0.059	100	NA	NA	
Approach	289	57	346	3.0		0.317				
North: Corral Hollow Rd										

Mov. From N To Exit:	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
	S	W							
Lane 1	723	-	723	3.0	936	0.773	100	NA	NA
Lane 2	780	-	780	3.0	1010	0.773	100	NA	NA
Lane 3	-	132	132	3.0	1301	0.101	100	NA	NA
Approach	1503	132	1635	3.0		0.773			
Total %HV Deg. Satn (v/c)									
Intersection	2453	3.0		0.773					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis												
	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane % veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
South Exit: Corral Hollow Rd Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
North Exit: Corral Hollow Rd Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
West Exit: I-580 WB On Ramp Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										

LANE SUMMARY

Site: 101 [PM Peak Hour (Site Folder: General)]

Intersection 67 Corral Hollow & I-580 WB Ramps
 Site Category: (None)
 Roundabout

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]						[Veh	Dist]				
	veh/h	%	veh/h	v/c	%	sec			ft	ft	%	%	
South: Corral Hollow Rd													
Lane 1	709	3.0	1311	0.541	100	8.6	LOSA	0.0	0.0	Full	1600	0.0	0.0
Lane 2 ^d	746	3.0	1379	0.541	100	8.4	LOSA	0.0	0.0	Full	1600	0.0	0.0
Approach	1455	3.0		0.541		8.5	LOSA	0.0	0.0				
East: I-580 WB Off Ramp													
Lane 1 ^d	30	3.0	386	0.079	100	10.5	LOS B	0.2	6.2	Full	1600	0.0	0.0
Lane 2	35	3.0	425	0.082	100	9.6	LOSA	0.3	6.6	Full	1600	0.0	0.0
Approach	65	3.0		0.082		10.1	LOS B	0.3	6.6				
North: Corral Hollow Rd													
Lane 1	74	3.0	1146	0.064	100	3.7	LOSA	0.2	6.2	Full	1600	0.0	0.0
Lane 2 ^d	78	3.0	1218	0.064	100	3.5	LOSA	0.2	6.0	Full	1600	0.0	0.0
Lane 3	233	3.0	1251	0.186	100	4.5	LOSA	0.8	19.7	Full	1600	0.0	0.0
Approach	385	3.0		0.186		4.1	LOSA	0.8	19.7				
Intersection	1905	3.0		0.541		7.7	LOSA	0.8	19.7				

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.
 Delay Model: HCM Delay Formula (Geometric Delay is not included).
 Queue Model: HCM Queue Formula.
 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

Approach Lane Flows (veh/h)										
South: Corral Hollow Rd										
Mov.	L2	T1	Total	%HV	Cap.	Deg.	Lane	Prob.	Ov.	Ov.
From S					veh/h	Satn	Util.	SL	Ov.	Lane
To Exit:	W	N				v/c	%	%	%	No.
Lane 1	111	598	709	3.0	1311	0.541	100	NA	NA	NA
Lane 2	-	746	746	3.0	1379	0.541	100	NA	NA	NA
Approach	111	1345	1455	3.0		0.541				
East: I-580 WB Off Ramp										
Mov.	L2	R2	Total	%HV	Cap.	Deg.	Lane	Prob.	Ov.	Ov.
From E					veh/h	Satn	Util.	SL	Ov.	Lane
To Exit:	S	N				v/c	%	%	%	No.
Lane 1	30	-	30	3.0	386	0.079	100	NA	NA	NA
Lane 2	-	35	35	3.0	425	0.082	100	NA	NA	NA
Approach	30	35	65	3.0		0.082				
North: Corral Hollow Rd										

Mov. From N To Exit:	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
	S	W							
Lane 1	74	-	74	3.0	1146	0.064	100	NA	NA
Lane 2	78	-	78	3.0	1218	0.064	100	NA	NA
Lane 3	-	233	233	3.0	1251	0.186	100	NA	NA
Approach	152	233	385	3.0		0.186			
Total %HV Deg. Satn (v/c)									
Intersection	1905	3.0		0.541					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis												
	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane % veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
South Exit: Corral Hollow Rd Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											
North Exit: Corral Hollow Rd Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											
West Exit: I-580 WB On Ramp Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											

MOVEMENT SUMMARY

Site: 101 [AM Peak Hour (Site Folder: General)]

Intersection 67 Corral Hollow & I-580 WB Ramps

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
South: Corral Hollow Rd														
3	L2	61	3.0	66	3.0	0.176	4.2	LOS A	0.0	0.0	0.00	0.00	0.00	37.3
8	T1	374	3.0	407	3.0	0.176	4.1	LOS A	0.0	0.0	0.00	0.00	0.00	37.8
Approach		435	3.0	473	3.0	0.176	4.1	LOS A	0.0	0.0	0.00	0.00	0.00	37.7
East: I-580 WB Off Ramp														
1	L2	266	3.0	289	3.0	0.317	7.4	LOS A	1.3	34.2	0.54	0.51	0.54	31.6
16	R2	52	3.0	57	3.0	0.059	4.3	LOS A	0.2	5.3	0.42	0.32	0.42	34.6
Approach		318	3.0	346	3.0	0.317	6.9	LOS A	1.3	34.2	0.52	0.48	0.52	32.0
North: Corral Hollow Rd														
4	T1	1383	3.0	1503	3.0	0.773	18.9	LOS C	14.0	358.6	0.84	1.17	1.74	29.1
14	R2	121	3.0	132	3.0	0.101	3.6	LOS A	0.4	9.9	0.16	0.07	0.16	34.8
Approach		1504	3.0	1635	3.0	0.773	17.6	LOS C	14.0	358.6	0.79	1.08	1.62	29.4
All Vehicles		2257	3.0	2453	3.0	0.773	13.5	LOS B	14.0	358.6	0.60	0.79	1.15	31.1

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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 Project: K:\SJC_TPTO\City of Tracy\097008018 - Tracy TMP 2019\05 Design & Analysis\Sidra\Cumulative\Intersection 67 - Corral Hollow & I-580 WB Ramps.sip9

MOVEMENT SUMMARY

Site: 101 [PM Peak Hour (Site Folder: General)]

Intersection 67 Corral Hollow & I-580 WB Ramps

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
South: Corral Hollow Rd														
3	L2	102	3.0	111	3.0	0.541	8.6	LOS A	0.0	0.0	0.00	0.00	0.00	37.8
8	T1	1237	3.0	1345	3.0	0.541	8.5	LOS A	0.0	0.0	0.00	0.00	0.00	38.0
Approach		1339	3.0	1455	3.0	0.541	8.5	LOS A	0.0	0.0	0.00	0.00	0.00	38.0
East: I-580 WB Off Ramp														
1	L2	28	3.0	30	3.0	0.079	10.5	LOS B	0.2	6.2	0.74	0.74	0.74	30.3
16	R2	32	3.0	35	3.0	0.082	9.6	LOS A	0.3	6.6	0.71	0.71	0.71	31.9
Approach		60	3.0	65	3.0	0.082	10.1	LOS B	0.3	6.6	0.72	0.72	0.72	31.1
North: Corral Hollow Rd														
4	T1	140	3.0	152	3.0	0.064	3.6	LOS A	0.2	6.2	0.25	0.13	0.25	36.1
14	R2	214	3.0	233	3.0	0.186	4.5	LOS A	0.8	19.7	0.24	0.13	0.24	34.3
Approach		354	3.0	385	3.0	0.186	4.1	LOS A	0.8	19.7	0.24	0.13	0.24	35.0
All Vehicles		1753	3.0	1905	3.0	0.541	7.7	LOS A	0.8	19.7	0.07	0.05	0.07	37.1

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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LANE SUMMARY

 Site: 101 [AM Peak Hour (Site Folder: General)]

Intersection 68 Corral Hollow & I-580 EB ramps

Site Category: (None)

Roundabout

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total veh/h	HV %						[Veh	Dist]				
	veh/h	%	veh/h	v/c	%	sec			ft		ft	%	%
South: Corral Hollow Rd													
Lane 1	153	3.0	1074	0.143	100	4.6	LOS A	0.6	14.5	Full	1600	0.0	0.0
Lane 2 ^d	164	3.0	1147	0.143	100	4.4	LOS A	0.6	14.2	Full	1600	0.0	0.0
Lane 3	48	3.0	1626	0.029	100	0.0	LOS A	0.0	0.0	Short	200	0.0	NA
Approach	365	3.0		0.143		3.9	LOS A	0.6	14.5				
North: Corral Hollow Rd													
Lane 1	205	3.0	1311	0.156	100	4.0	LOS A	0.0	0.0	Full	1600	0.0	0.0
Lane 2 ^d	216	3.0	1379	0.156	100	3.9	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	421	3.0		0.156		4.0	LOS A	0.0	0.0				
West: I-580 EB Off Ramp													
Lane 1	83	3.0	880	0.094	100	5.0	LOS A	0.3	8.8	Full	1600	0.0	0.0
Lane 2 ^d	90	3.0	954	0.094	100	4.6	LOS A	0.3	8.7	Full	1600	0.0	0.0
Lane 3	27	3.0	985	0.028	100	3.9	LOS A	0.1	2.4	Short	200	0.0	NA
Approach	200	3.0		0.094		4.7	LOS A	0.3	8.8				
Intersection	986	3.0		0.156		4.1	LOS A	0.6	14.5				

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

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

Approach Lane Flows (veh/h)										
South: Corral Hollow Rd										
Mov.	T1	R2	Total	%HV	Cap.	Deg.	Lane	Prob.	Ov.	
From S					veh/h	Satn	Util.	SL	Lane	
To Exit:	N	E				v/c	%	%	No.	
Lane 1	153	-	153	3.0	1074	0.143	100	NA	NA	
Lane 2	164	-	164	3.0	1147	0.143	100	NA	NA	
Lane 3	-	48	48	3.0	1626	0.029	100	0.0	2	
Approach	317	48	365	3.0		0.143				
North: Corral Hollow Rd										
Mov.	L2	T1	Total	%HV	Cap.	Deg.	Lane	Prob.	Ov.	
From N					veh/h	Satn	Util.	SL	Lane	
						v/c	%	%	No.	

To Exit:	E	S								
Lane 1	37	168	205	3.0	1311	0.156	100	NA	NA	
Lane 2	-	216	216	3.0	1379	0.156	100	NA	NA	
Approach	37	384	421	3.0	0.156					
West: I-580 EB Off Ramp										
Mov.	L2	R2	Total	%HV	Cap.	Deg.	Lane	Prob.	Ov.	
From W					veh/h	Satn	Util.	SL	Lane	
To Exit:	N	S			v/c	%	%	No.		
Lane 1	83	-	83	3.0	880	0.094	100	NA	NA	
Lane 2	90	-	90	3.0	954	0.094	100	NA	NA	
Lane 3	-	27	27	3.0	985	0.028	100	0.0	2	
Approach	173	27	200	3.0	0.094					
Total %HV Deg.Satn (v/c)										
Intersection	986	3.0	0.156							

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis												
	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane % veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
South Exit: Corral Hollow Rd												
Merge Type: Not Applied												
	Full Length Lane	1	Merge Analysis not applied.									
	Full Length Lane	2	Merge Analysis not applied.									
East Exit: I-580 EB On Ramp												
Merge Type: Not Applied												
	Full Length Lane	1	Merge Analysis not applied.									
	Full Length Lane	2	Merge Analysis not applied.									
North Exit: Corral Hollow Rd												
Merge Type: Not Applied												
	Full Length Lane	1	Merge Analysis not applied.									
	Full Length Lane	2	Merge Analysis not applied.									

LANE LEVEL OF SERVICE

Lane Level of Service

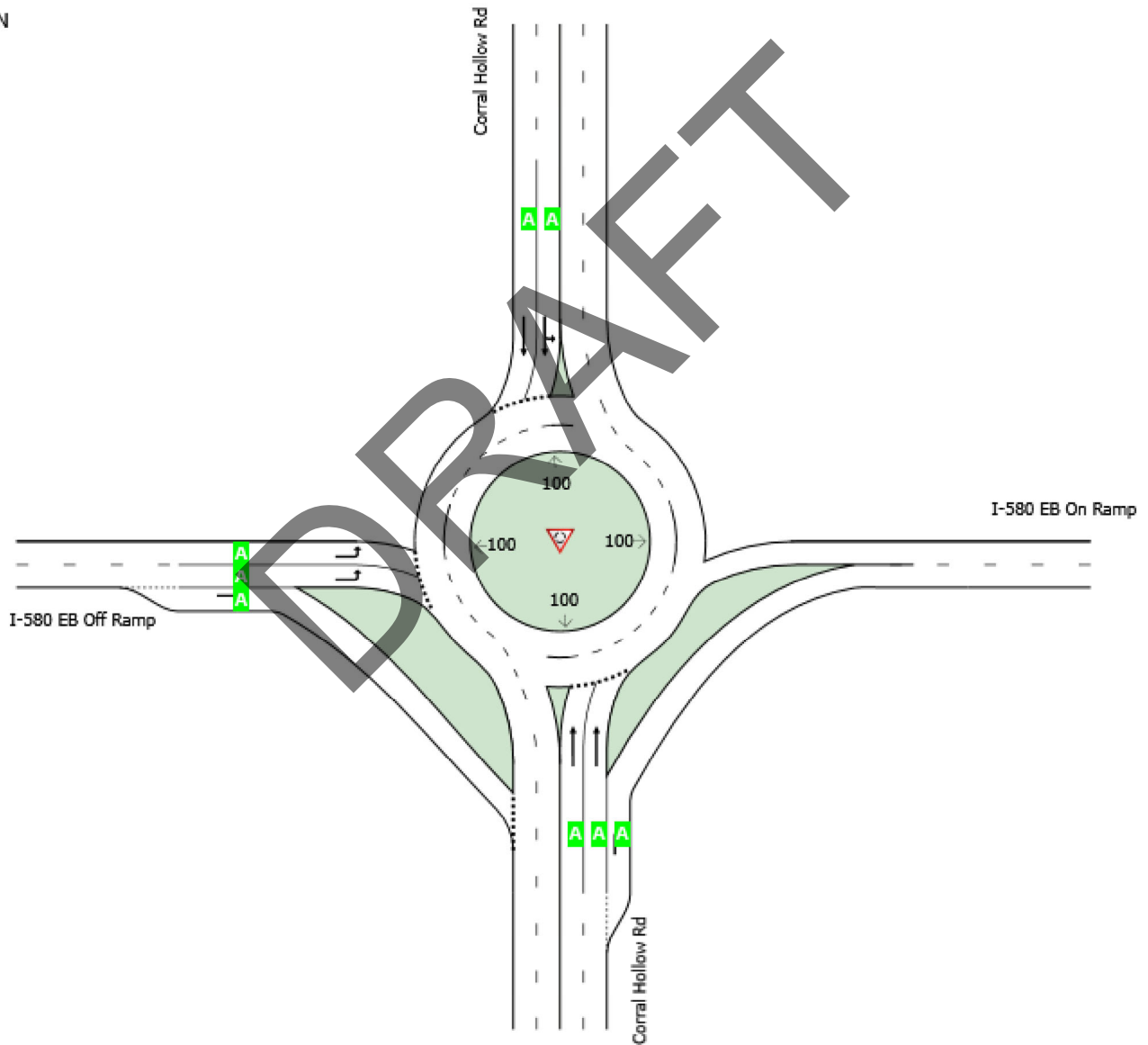
 Site: 101 [AM Peak Hour (Site Folder: General)]

Intersection 68 Corral Hollow & I-580 EB ramps

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).
Delay Model: HCM Delay Formula (Geometric Delay is not included).

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EB Ramps.sip9

DRAFT

MOVEMENT SUMMARY

 **Site: 101 [AM Peak Hour (Site Folder: General)]**

Intersection 68 Corral Hollow & I-580 EB ramps

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] ft				
South: Corral Hollow Rd														
8	T1	292	3.0	317	3.0	0.143	4.5	LOS A	0.6	14.5	0.33	0.22	0.33	35.6
18	R2	44	3.0	48	3.0	0.029	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	37.1
Approach		336	3.0	365	3.0	0.143	3.9	LOS A	0.6	14.5	0.29	0.19	0.29	35.8
North: Corral Hollow Rd														
7	L2	34	3.0	37	3.0	0.156	4.0	LOS A	0.0	0.0	0.00	0.00	0.00	37.7
4	T1	353	3.0	384	3.0	0.156	3.9	LOS A	0.0	0.0	0.00	0.00	0.00	37.9
Approach		387	3.0	421	3.0	0.156	4.0	LOS A	0.0	0.0	0.00	0.00	0.00	37.9
West: I-580 EB Off Ramp														
5	L2	159	3.0	173	3.0	0.094	4.8	LOS A	0.3	8.8	0.45	0.36	0.45	32.7
12	R2	25	3.0	27	3.0	0.028	3.9	LOS A	0.1	2.4	0.40	0.27	0.40	34.6
Approach		184	3.0	200	3.0	0.094	4.7	LOS A	0.3	8.8	0.44	0.35	0.44	33.0
All Vehicles		907	3.0	986	3.0	0.156	4.1	LOS A	0.6	14.5	0.20	0.14	0.20	36.0

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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LANE SUMMARY

 Site: 101 [PM Peak Hour (Site Folder: General)]

Intersection 68 Corral Hollow & I-580 EB ramps

Site Category: (None)

Roundabout

Lane Use and Performance													
	DEMAND FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
	[Total veh/h	HV %						[Veh	Dist] ft				
South: Corral Hollow Rd													
Lane 1	186	3.0	430	0.432	100	16.8	LOS C	1.9	47.9	Full	1600	0.0	0.0
Lane 2 ^d	213	3.0	492	0.432	100	14.9	LOS B	1.9	48.6	Full	1600	0.0	0.0
Lane 3	639	3.0	1626	0.393	100	0.1	LOS A	0.0	0.0	Short	200	0.0	NA
Approach	1038	3.0		0.432		6.2	LOS A	1.9	48.6				
North: Corral Hollow Rd													
Lane 1	120	3.0	1311	0.091	100	3.5	LOS A	0.0	0.0	Full	1600	0.0	0.0
Lane 2 ^d	126	3.0	1379	0.091	100	3.3	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	246	3.0		0.091		3.4	LOS A	0.0	0.0				
West: I-580 EB Off Ramp													
Lane 1	517	3.0	1038	0.497	100	9.3	LOS A	2.8	72.4	Full	1600	0.0	0.0
Lane 2 ^d	553	3.0	1112	0.497	100	8.9	LOS A	2.8	71.4	Full	1600	0.0	0.0
Lane 3	85	3.0	1221	0.069	100	3.5	LOS A	0.3	6.5	Short	200	0.0	NA
Approach	1154	3.0		0.497		8.7	LOS A	2.8	72.4				
Intersection	2438	3.0		0.497		7.0	LOS A	2.8	72.4				

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

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

Approach Lane Flows (veh/h)										
South: Corral Hollow Rd										
Mov.	T1	R2	Total	%HV	Cap.	Deg.	Lane	Prob.	Ov.	
From S					veh/h	Satn	Util.	SL	Lane	
To Exit:	N	E				v/c	%	%	No.	
Lane 1	186	-	186	3.0	430	0.432	100	NA	NA	
Lane 2	213	-	213	3.0	492	0.432	100	NA	NA	
Lane 3	-	639	639	3.0	1626	0.393	100	0.0	2	
Approach	399	639	1038	3.0		0.432				
North: Corral Hollow Rd										
Mov.	L2	T1	Total	%HV	Cap.	Deg.	Lane	Prob.	Ov.	
From N					veh/h	Satn	Util.	SL	Lane	
						v/c	%	%	No.	

To Exit:	E	S								
Lane 1	107	13	120	3.0	1311	0.091	100	NA	NA	
Lane 2	-	126	126	3.0	1379	0.091	100	NA	NA	
Approach	107	139	246	3.0	0.091					
West: I-580 EB Off Ramp										
Mov.	L2	R2	Total	%HV	Cap.	Deg.	Lane	Prob.	Ov.	
From W To Exit:	N	S			veh/h	Satn v/c	Util. %	SL Ov. %	Lane No.	
Lane 1	517	-	517	3.0	1038	0.497	100	NA	NA	
Lane 2	553	-	553	3.0	1112	0.497	100	NA	NA	
Lane 3	-	85	85	3.0	1221	0.069	100	0.0	2	
Approach	1070	85	1154	3.0	0.497					
Total %HV Deg.Satn (v/c)										
Intersection	2438	3.0	0.497							

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis												
	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane % veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
South Exit: Corral Hollow Rd												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
East Exit: I-580 EB On Ramp												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
North Exit: Corral Hollow Rd												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										

LANE LEVEL OF SERVICE

Lane Level of Service

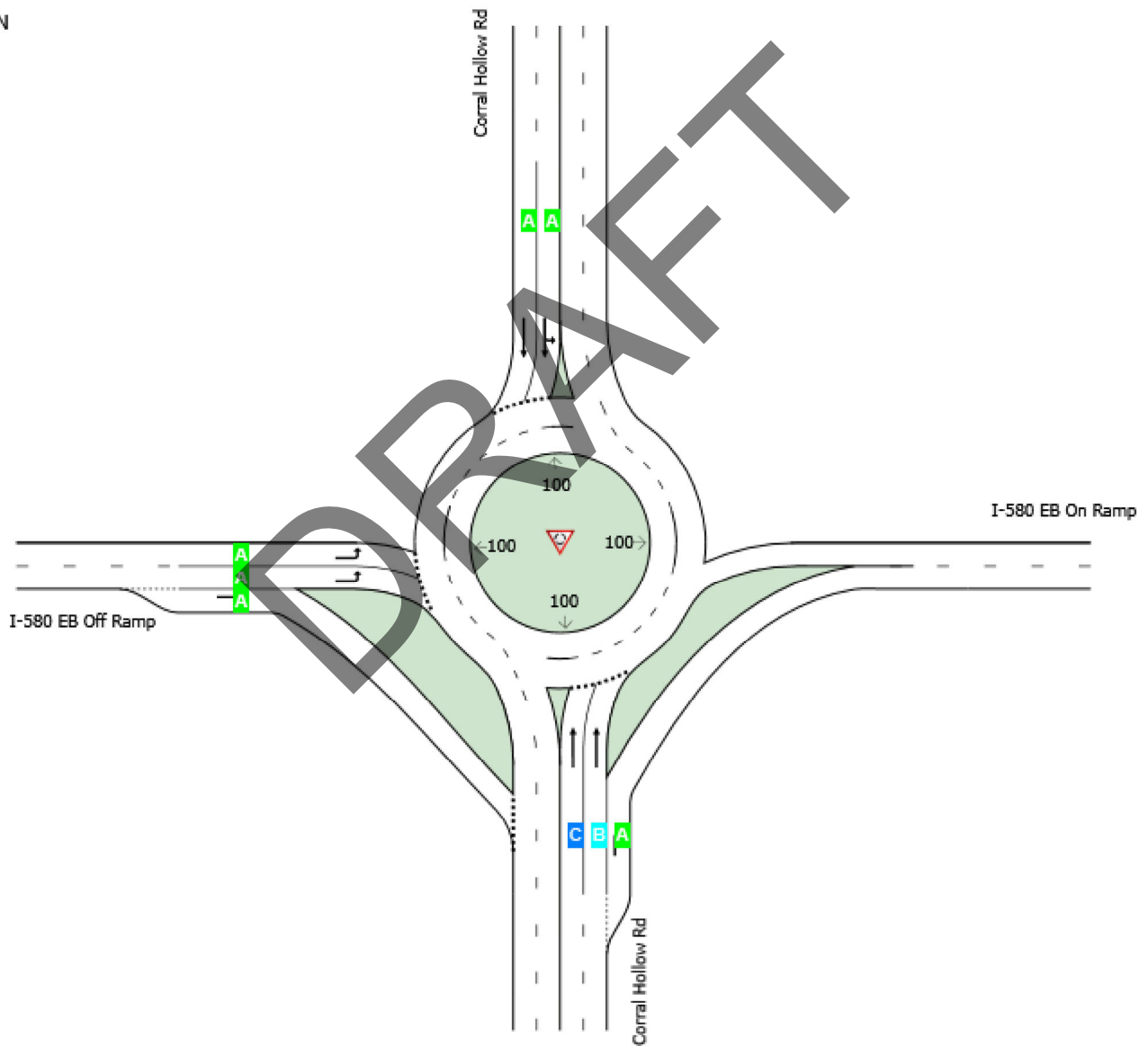
 Site: 101 [PM Peak Hour (Site Folder: General)]

Intersection 68 Corral Hollow & I-580 EB ramps

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).
Delay Model: HCM Delay Formula (Geometric Delay is not included).

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EB Ramps.sip9

DRAFT

MOVEMENT SUMMARY

 Site: 101 [PM Peak Hour (Site Folder: General)]

Intersection 68 Corral Hollow & I-580 EB ramps
 Site Category: (None)
 Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] ft				
South: Corral Hollow Rd														
8	T1	367	3.0	399	3.0	0.432	15.8	LOS C	1.9	48.6	0.77	0.86	1.11	30.2
18	R2	588	3.0	639	3.0	0.393	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	37.0
Approach		955	3.0	1038	3.0	0.432	6.2	LOS A	1.9	48.6	0.29	0.33	0.43	34.0
North: Corral Hollow Rd														
7	L2	98	3.0	107	3.0	0.091	3.5	LOS A	0.0	0.0	0.00	0.00	0.00	35.4
4	T1	128	3.0	139	3.0	0.091	3.3	LOS A	0.0	0.0	0.00	0.00	0.00	37.9
Approach		226	3.0	246	3.0	0.091	3.4	LOS A	0.0	0.0	0.00	0.00	0.00	36.8
West: I-580 EB Off Ramp														
5	L2	984	3.0	1070	3.0	0.497	9.1	LOS A	2.8	72.4	0.52	0.41	0.52	30.9
12	R2	78	3.0	85	3.0	0.069	3.5	LOS A	0.3	6.5	0.24	0.13	0.24	34.8
Approach		1062	3.0	1154	3.0	0.497	8.7	LOS A	2.8	72.4	0.50	0.39	0.50	31.1
All Vehicles		2243	3.0	2438	3.0	0.497	7.0	LOS A	2.8	72.4	0.36	0.32	0.42	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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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LANE SUMMARY

 Site: 101 [AM Peak Hour (Site Folder: General)]

Intersection 69 Corral Hollow & Lammers Rd
 Site Category: (None)
 Roundabout

Lane Use and Performance													
	DEMAND FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
	[Total veh/h]	[HV] %						[Veh]	[Dist] ft				
South: Corral Hollow Rd													
Lane 1	24	3.0	935	0.025	100	4.1	LOS A	0.1	2.3	Full	1600	0.0	0.0
Lane 2 ^d	25	3.0	1009	0.025	100	3.8	LOS A	0.1	2.2	Full	1600	0.0	0.0
Approach	49	3.0		0.025		3.9	LOS A	0.1	2.3				
North: Corral Hollow Rd													
Lane 1 ^d	357	3.0	1351	0.264	100	4.9	LOS A	1.3	33.7	Full	1600	0.0	0.0
Lane 2	45	3.0	1351	0.033	13 ⁵	2.9	LOS A	0.1	3.3	Full	1600	0.0	0.0
Approach	401	3.0		0.264		4.7	LOS A	1.3	33.7				
West: Lammers Rd													
Lane 1	189	3.0	987	0.192	100	5.5	LOS A	0.8	20.3	Full	1600	0.0	0.0
Lane 2 ^d	189	3.0	987	0.192	100	5.5	LOS A	0.8	20.3	Full	1600	0.0	0.0
Approach	378	3.0		0.192		5.5	LOS A	0.8	20.3				
Intersection	828	3.0		0.264		5.0	LOS A	1.3	33.7				

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁵ Lane under-utilisation found by the program

^d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)										
South: Corral Hollow Rd										
Mov.	L2	T1	Total	%HV						
From S					Cap.	Deg.	Lane	Prob.	Ov.	
To Exit:	W	N			veh/h	v/c	Util.	SL Ov.	Lane	No.
							%	%		
Lane 1	22	2	24	3.0	935	0.025	100	NA	NA	
Lane 2	-	25	25	3.0	1009	0.025	100	NA	NA	
Approach	22	27	49	3.0		0.025				
North: Corral Hollow Rd										
Mov.	T1	R2	Total	%HV						
From N					Cap.	Deg.	Lane	Prob.	Ov.	
To Exit:	S	W			veh/h	v/c	Util.	SL Ov.	Lane	No.
							%	%		
Lane 1	357	-	357	3.0	1351	0.264	100	NA	NA	

Lane 2	-	45	45	3.0	1351	0.033	13 ⁵	NA	NA
Approach	357	45	401	3.0		0.264			
West: Lammers Rd									
Mov.	L2	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
From W To Exit:	N	S			veh/h	v/c	%	%	
Lane 1	189	-	189	3.0	987	0.192	100	NA	NA
Lane 2	167	22	189	3.0	987	0.192	100	NA	NA
Approach	357	22	378	3.0		0.192			
Total %HV Deg.Satn (v/c)									
Intersection	828	3.0		0.264					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

5 Lane under-utilisation found by the program

Merge Analysis												
	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
South Exit: Corral Hollow Rd												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: Corral Hollow Rd												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
West Exit: Lammers Rd												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										

LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [AM Peak Hour (Site Folder: General)]**

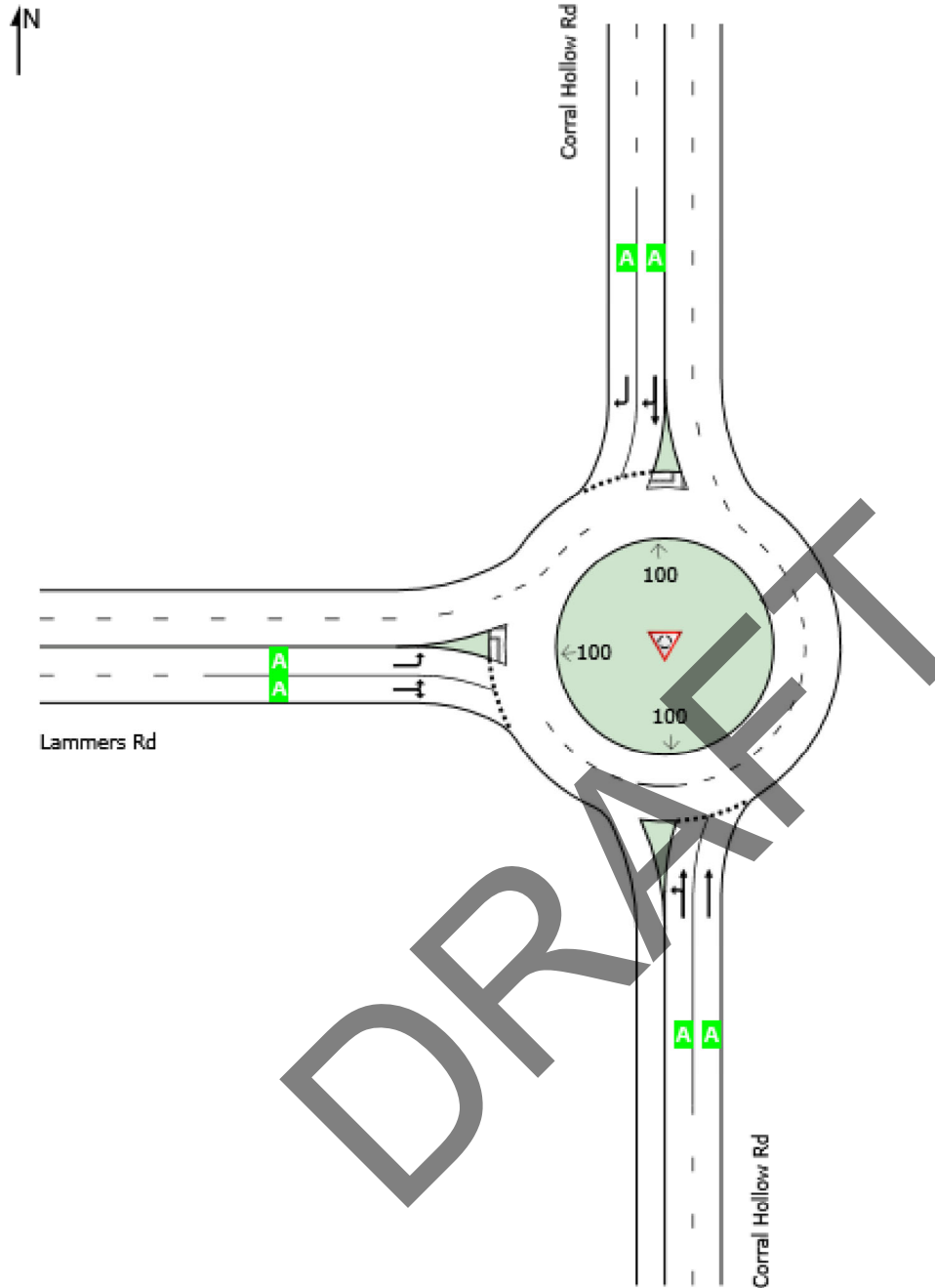
Intersection 69 Corral Hollow & Lammers Rd

Site Category: (None)

Roundabout

	Approaches			Intersection
	South	North	West	
LOS	A	A	A	A

DRAFT



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).

Delay Model: HCM Delay Formula (Geometric Delay is not included).

MOVEMENT SUMMARY

Site: 101 [AM Peak Hour (Site Folder: General)]

Intersection 69 Corral Hollow & Lammers Rd
 Site Category: (None)
 Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] ft				
South: Corral Hollow Rd														
3	L2	20	3.0	22	3.0	0.025	4.1	LOS A	0.1	2.3	0.40	0.27	0.40	33.3
8	T1	25	3.0	27	3.0	0.025	3.8	LOS A	0.1	2.3	0.39	0.25	0.39	35.8
Approach		45	3.0	49	3.0	0.025	3.9	LOS A	0.1	2.3	0.39	0.26	0.39	34.6
North: Corral Hollow Rd														
4	T1	328	3.0	357	3.0	0.264	4.9	LOS A	1.3	33.7	0.11	0.03	0.11	35.3
14	R2	41	3.0	45	3.0	0.033	2.9	LOS A	0.1	3.3	0.09	0.02	0.09	35.1
Approach		369	3.0	401	3.0	0.264	4.7	LOS A	1.3	33.7	0.11	0.03	0.11	35.3
West: Lammers Rd														
5	L2	328	3.0	357	3.0	0.192	5.5	LOS A	0.8	20.3	0.46	0.37	0.46	32.6
12	R2	20	3.0	22	3.0	0.192	5.5	LOS A	0.8	20.3	0.46	0.37	0.46	31.7
Approach		348	3.0	378	3.0	0.192	5.5	LOS A	0.8	20.3	0.46	0.37	0.46	32.5
All Vehicles		762	3.0	828	3.0	0.264	5.0	LOS A	1.3	33.7	0.29	0.20	0.29	33.9

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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LANE SUMMARY

 Site: 101 [PM Peak Hour (Site Folder: General)]

Intersection 69 Corral Hollow & Lammers Rd
 Site Category: (None)
 Roundabout

Lane Use and Performance													
	DEMAND FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
	[Total veh/h]	[HV] %						[Veh]	[Dist] ft				
South: Corral Hollow Rd													
Lane 1	24	3.0	1101	0.021	100	3.4	LOS A	0.1	2.0	Full	1600	0.0	0.0
Lane 2 ^d	25	3.0	1174	0.021	100	3.2	LOS A	0.1	1.9	Full	1600	0.0	0.0
Approach	49	3.0		0.021		3.3	LOS A	0.1	2.0				
North: Corral Hollow Rd													
Lane 1 ^d	236	3.0	1351	0.175	100	4.1	LOS A	0.8	20.0	Full	1600	0.0	0.0
Lane 2	120	3.0	1351	0.089	51 ⁵	3.4	LOS A	0.4	9.2	Full	1600	0.0	0.0
Approach	355	3.0		0.175		3.9	LOS A	0.8	20.0				
West: Lammers Rd													
Lane 1	103	3.0	1105	0.093	100	4.1	LOS A	0.4	9.3	Full	1600	0.0	0.0
Lane 2 ^d	103	3.0	1105	0.093	100	4.1	LOS A	0.4	9.3	Full	1600	0.0	0.0
Approach	205	3.0		0.093		4.1	LOS A	0.4	9.3				
Intersection	610	3.0		0.175		3.9	LOS A	0.8	20.0				

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.

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁵ Lane under-utilisation found by the program

^d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)										
South: Corral Hollow Rd										
Mov.	L2	T1	Total	%HV						
From S					Cap.	Deg.	Lane	Prob.	Ov.	
To Exit:	W	N			veh/h	v/c	Util.	SL Ov.	Lane	
							%	%	No.	
Lane 1	22	2	24	3.0	1101	0.021	100	NA	NA	
Lane 2	-	25	25	3.0	1174	0.021	100	NA	NA	
Approach	22	27	49	3.0		0.021				
North: Corral Hollow Rd										
Mov.	T1	R2	Total	%HV						
From N					Cap.	Deg.	Lane	Prob.	Ov.	
To Exit:	S	W			veh/h	v/c	Util.	SL Ov.	Lane	
							%	%	No.	
Lane 1	236	-	236	3.0	1351	0.175	100	NA	NA	

Lane 2	-	120	120	3.0	1351	0.089	51 ⁵	NA	NA
Approach	236	120	355	3.0		0.175			
West: Lammers Rd									
Mov.	L2	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
From W To Exit:	N	S			veh/h	v/c	%	%	
Lane 1	103	-	103	3.0	1105	0.093	100	NA	NA
Lane 2	81	22	103	3.0	1105	0.093	100	NA	NA
Approach	184	22	205	3.0		0.093			
Total %HV Deg.Satn (v/c)									
Intersection	610	3.0		0.175					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

5 Lane under-utilisation found by the program

Merge Analysis												
	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
South Exit: Corral Hollow Rd Merge Type: Not Applied												
	Full Length Lane	1	Merge Analysis not applied.									
North Exit: Corral Hollow Rd Merge Type: Not Applied												
	Full Length Lane	1	Merge Analysis not applied.									
	Full Length Lane	2	Merge Analysis not applied.									
West Exit: Lammers Rd Merge Type: Not Applied												
	Full Length Lane	1	Merge Analysis not applied.									
	Full Length Lane	2	Merge Analysis not applied.									

LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [PM Peak Hour (Site Folder: General)]**

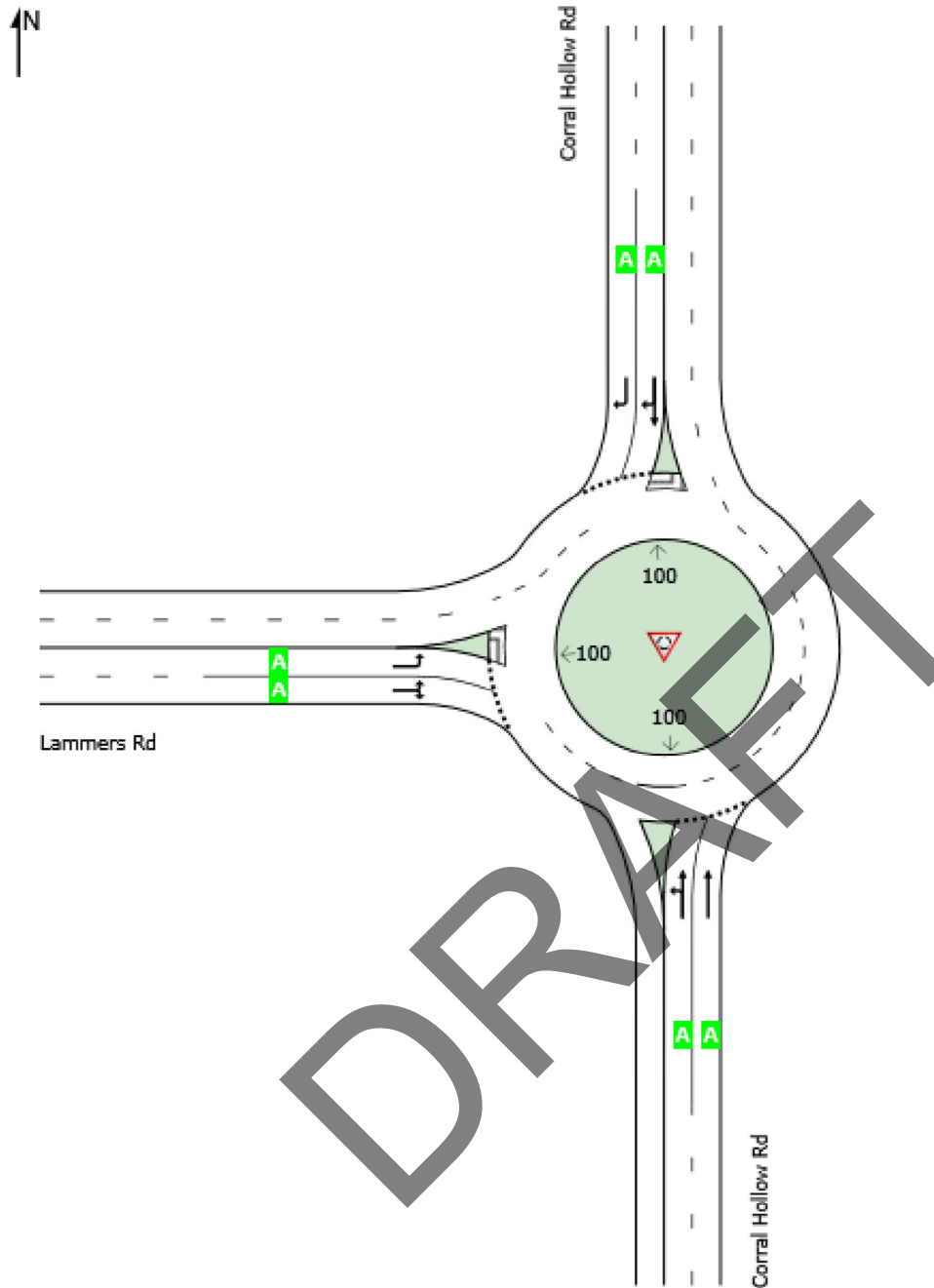
Intersection 69 Corral Hollow & Lammers Rd

Site Category: (None)

Roundabout

	Approaches			Intersection
	South	North	West	
LOS	A	A	A	A

DRAFT



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).

Delay Model: HCM Delay Formula (Geometric Delay is not included).

MOVEMENT SUMMARY

Site: 101 [PM Peak Hour (Site Folder: General)]

Intersection 69 Corral Hollow & Lammers Rd
 Site Category: (None)
 Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] ft				
South: Corral Hollow Rd														
3	L2	20	3.0	22	3.0	0.021	3.4	LOS A	0.1	2.0	0.29	0.15	0.29	33.6
8	T1	25	3.0	27	3.0	0.021	3.3	LOS A	0.1	2.0	0.27	0.14	0.27	36.0
Approach		45	3.0	49	3.0	0.021	3.3	LOS A	0.1	2.0	0.28	0.14	0.28	34.9
North: Corral Hollow Rd														
4	T1	217	3.0	236	3.0	0.175	4.1	LOS A	0.8	20.0	0.10	0.03	0.10	35.8
14	R2	110	3.0	120	3.0	0.089	3.4	LOS A	0.4	9.2	0.09	0.02	0.09	34.9
Approach		327	3.0	355	3.0	0.175	3.9	LOS A	0.8	20.0	0.10	0.03	0.10	35.5
West: Lammers Rd														
5	L2	169	3.0	184	3.0	0.093	4.1	LOS A	0.4	9.3	0.35	0.23	0.35	33.3
12	R2	20	3.0	22	3.0	0.093	4.1	LOS A	0.4	9.3	0.35	0.23	0.35	32.5
Approach		189	3.0	205	3.0	0.093	4.1	LOS A	0.4	9.3	0.35	0.23	0.35	33.2
All Vehicles		561	3.0	610	3.0	0.175	3.9	LOS A	0.8	20.0	0.20	0.10	0.20	34.6

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: K:\SJC_TPTO\City of Tracy\097008018 - Tracy TMP 2019\05 Design & Analysis\Sidra\Cumulative\Intersection 69 - Corral Hollow & Lammers.sip9

LANE SUMMARY

Site: 101 [AM Peak Hour (Site Folder: General)]

Intersection 107 Eleventh & Grant Line
 Site Category: (None)
 Roundabout

Lane Use and Performance													
	DEMAND FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
	[Total veh/h	HV %						[Veh	Dist] ft				
South: Eleventh St													
Lane 1 ^d	750	3.0	1066	0.704	100	14.5	LOS B	10.9	277.8	Full	1600	0.0	0.0
Lane 2	285	3.0	1066	0.268	38 ⁶	5.9	LOS A	1.2	31.1	Full	1600	0.0	0.0
Lane 3	30	3.0	1626	0.019	3 ⁵	4.9	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	1066	3.0		0.704		11.9	LOS B	10.9	277.8				
East: Kasson Rd													
Lane 1 ^d	290	3.0	509	0.571	100	23.4	LOS C	3.1	78.6	Full	1600	0.0	0.0
Approach	290	3.0		0.571		23.4	LOS C	3.1	78.6				
North: Eleventh St													
Lane 1	840	3.0	954	0.880	100	28.4	LOS D	23.0	590.0	Full	1600	0.0	0.0
Lane 2 ^d	840	3.0	954	0.880	100	33.0	LOS D	23.0	590.0	Full	1600	0.0	0.0
Approach	1680	3.0		0.880		30.7	LOS D	23.0	590.0				
West: W. Grant Line Rd													
Lane 1 ^d	274	3.0	503	0.544	100	19.5	LOS C	2.8	71.7	Full	1600	0.0	0.0
Approach	274	3.0		0.544		19.5	LOS C	2.8	71.7				
Intersection	3311	3.0		0.880		23.1	LOS C	23.0	590.0				

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.

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁵ Lane under-utilisation found by the program

⁶ Lane under-utilisation due to downstream effects

^d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Eleventh St											
Mov. From S To Exit:	L2			T1			R2			Total	%HV
	W	N	E	W	N	E	W	N	E		
	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL %	Ov. %	Ov. Lane No.					
Lane 1	124	0.704	100	NA	NA	NA					
Lane 2	-	0.268	38 ⁶	NA	NA	NA					
Lane 3	-	0.019	3 ⁵	NA	NA	NA					
Approach	124	0.704									

East: Kasson Rd											
Mov.	L2	T1	R2	Total	%HV						
From E To Exit:	S	W	N			Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	67	201	22	290	3.0	509	0.571	100	NA	NA	
Approach	67	201	22	290	3.0		0.571				
North: Eleventh St											
Mov.	L2	T1	R2	Total	%HV						
From N To Exit:	E	S	W			Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	27	813	-	840	3.0	954	0.880	100	NA	NA	
Lane 2	-	243	597	840	3.0	954	0.880	100	NA	NA	
Approach	27	1057	597	1680	3.0		0.880				
West: W. Grant Line Rd											
Mov.	L2	T1	R2	Total	%HV						
From W To Exit:	N	E	S			Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	103	143	27	274	3.0	503	0.544	100	NA	NA	
Approach	103	143	27	274	3.0		0.544				
Total		%HV Deg.Satn (v/c)									
Intersection	3311	3.0		0.880							

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

- 5 Lane under-utilisation found by the program
- 6 Lane under-utilisation due to downstream effects

Merge Analysis														
	Exit Lane Number	Short Lane Length ft	Percent Oppng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec			
South Exit: Eleventh St Merge Type: Not Applied														
	Full Length Lane	1	Merge Analysis not applied.											
	Full Length Lane	2	Merge Analysis not applied.											
East Exit: Kasson Rd Merge Type: Priority														
	Exit Short Lane	2	200	0.0	27	28	3.00	2.00	143	1772	0.081	2.0	2.6	
	Merge Lane	1	-	100.0	Merge Lane is not Opposed			27	1800	0.015	0.0	0.0		
East Exit: Kasson Rd Merge Type: Priority														
	Exit Short Lane	3	200	0.0	143	148	3.00	2.00	30	1658	0.018	2.2	2.3	
	Merge Lane	2	200	100.0	Merge Lane is not Opposed			143	1800	0.080	0.0	0.0		
North Exit: Eleventh St Merge Type: Not Applied														
	Full Length Lane	1	Merge Analysis not applied.											
	Full Length Lane	2	Merge Analysis not applied.											
West Exit: W. Grant Line Rd Merge Type: Priority														
	Exit Short Lane	2	200	0.0	124	128	3.00	2.00	798	1676	0.476	2.1	6.5	
	Merge Lane	1	-	100.0	Merge Lane is not Opposed			124	1800	0.069	0.0	0.0		

DRAFT

LANE LEVEL OF SERVICE

Lane Level of Service

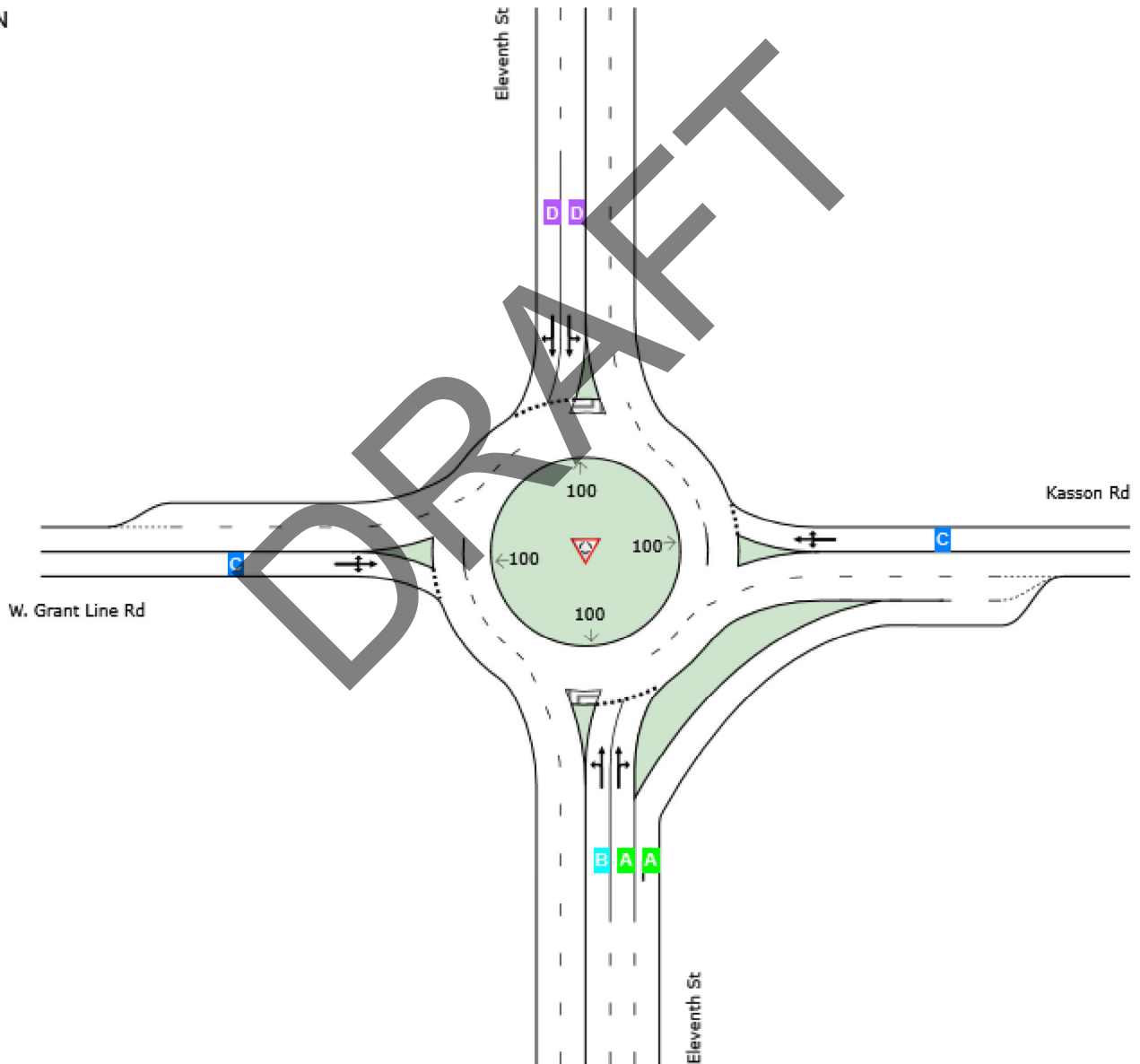
 Site: 101 [AM Peak Hour (Site Folder: General)]

Intersection 107 Eleventh & Grant Line

Site Category: (None)

Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	B	C	D	C	C



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).

Delay Model: HCM Delay Formula (Geometric Delay is not included).

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DRAFT

MOVEMENT SUMMARY

 Site: 101 [AM Peak Hour (Site Folder: General)]

Intersection 107 Eleventh & Grant Line

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] ft				
South: Eleventh St														
3	L2	114	3.0	124	3.0	0.704	14.5	LOS B	10.9	277.8	0.74	0.85	1.23	30.5
8	T1	839	3.0	912	3.0	0.704	11.8	LOS B	10.9	277.8	0.65	0.69	0.98	31.7
18	R2	28	3.0	30	3.0	0.019	4.9	LOS A	0.0	0.0	0.00	0.00	0.00	37.1
Approach		981	3.0	1066	3.0	0.704	11.9	LOS B	10.9	277.8	0.64	0.69	0.99	31.6
East: Kasson Rd														
1	L2	62	3.0	67	3.0	0.571	18.9	LOS C	3.1	78.6	0.79	0.96	1.37	28.7
6	T1	185	3.0	201	3.0	0.571	25.4	LOS D	3.1	78.6	0.79	0.96	1.37	28.6
16	R2	20	3.0	22	3.0	0.571	18.9	LOS C	3.1	78.6	0.79	0.96	1.37	27.9
Approach		267	3.0	290	3.0	0.571	23.4	LOS C	3.1	78.6	0.79	0.96	1.37	28.6
North: Eleventh St														
7	L2	25	3.0	27	3.0	0.844	28.4	LOS D	23.0	590.0	1.00	1.64	2.62	25.9
4	T1	972	3.0	1057	3.0	0.844	28.4	LOS D	23.0	590.0	1.00	1.64	2.62	25.9
14	R2	549	3.0	597	3.0	0.844	34.8	LOS D	23.0	590.0	1.00	1.64	2.62	25.1
Approach		1546	3.0	1680	3.0	0.844	30.7	LOS D	23.0	590.0	1.00	1.64	2.62	25.6
West: W. Grant Line Rd														
5	L2	95	3.0	103	3.0	0.544	18.1	LOS C	2.8	71.7	0.79	0.94	1.31	28.7
2	T1	132	3.0	143	3.0	0.544	20.7	LOS C	2.8	71.7	0.79	0.94	1.31	28.6
12	R2	25	3.0	27	3.0	0.544	18.1	LOS C	2.8	71.7	0.79	0.94	1.31	27.9
Approach		252	3.0	274	3.0	0.544	19.5	LOS C	2.8	71.7	0.79	0.94	1.31	28.6
All Vehicles		3046	3.0	3311	3.0	0.844	23.1	LOS C	23.0	590.0	0.85	1.21	1.87	27.8

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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LANE SUMMARY

Site: 101 [PM Peak Hour (Site Folder: General)]

Intersection 107 Eleventh & Grant Line
 Site Category: (None)
 Roundabout

Lane Use and Performance													
	DEMAND FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
	[Total veh/h	HV %						[Veh	Dist] ft				
South: Eleventh St													
Lane 1 ^d	920	3.0	852	1.080	100	76.0	LOS F	50.9	1303.4	Full	1600	0.0	0.0
Lane 2	350	3.0	852	0.411	38 ⁶	9.2	LOS A	2.2	55.0	Full	1600	0.0	0.0
Lane 3	132	3.0	1626	0.081	7 ⁵	5.4	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	1401	3.0		1.080		52.7	LOS F	50.9	1303.4				
East: Kasson Rd													
Lane 1 ^d	170	3.0	365	0.465	100	23.7	LOS C	1.9	48.8	Full	1600	0.0	0.0
Approach	170	3.0		0.465		23.7	LOS C	1.9	48.8				
North: Eleventh St													
Lane 1	724	3.0	1103	0.657	100	12.6	LOS B	8.1	208.6	Full	1600	0.0	0.0
Lane 2 ^d	724	3.0	1103	0.657	100	15.5	LOS C	8.1	208.6	Full	1600	0.0	0.0
Approach	1449	3.0		0.657		14.1	LOS B	8.1	208.6				
West: W. Grant Line Rd													
Lane 1 ^d	971	3.0	560	1.734	100	356.9	LOS F	140.8	3603.6	Full	1600	0.0	40.5
Approach	971	3.0		1.734		356.9	LOS F	140.8	3603.6				
Intersection	3990	3.0		1.734		111.4	LOS F	140.8	3603.6				

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁵ Lane under-utilisation found by the program

⁶ Lane under-utilisation due to downstream effects

^d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Eleventh St											
Mov. From S To Exit:	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL %	Ov. Lane No.	
	W	N	E								
Lane 1	105	814	-	920	3.0	852	1.080	100	NA	NA	
Lane 2	-	350	-	350	3.0	852	0.411	38 ⁶	NA	NA	
Lane 3	-	-	132	132	3.0	1626	0.081	7 ⁵	NA	NA	
Approach	105	1164	132	1401	3.0		1.080				

East: Kasson Rd											
Mov.	L2	T1	R2	Total	%HV						
From E To Exit:	S	W	N			Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	29	113	27	170	3.0	365	0.465	100	NA	NA	
Approach	29	113	27	170	3.0		0.465				
North: Eleventh St											
Mov.	L2	T1	R2	Total	%HV						
From N To Exit:	E	S	W			Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	27	697	-	724	3.0	1103	0.657	100	NA	NA	
Lane 2	-	276	449	724	3.0	1103	0.657	100	NA	NA	
Approach	27	973	449	1449	3.0		0.657				
West: W. Grant Line Rd											
Mov.	L2	T1	R2	Total	%HV						
From W To Exit:	N	E	S			Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	577	259	135	971	3.0	560	1.734	100	NA	NA	
Approach	577	259	135	971	3.0		1.734				
Total		%HV Deg.Satn (v/c)									
Intersection	3990	3.0		1.734							

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

- 5 Lane under-utilisation found by the program
- 6 Lane under-utilisation due to downstream effects

Merge Analysis													
	Exit Lane Number	Short Lane Length ft	Percent Oppng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec		
South Exit: Eleventh St Merge Type: Not Applied													
Full Length Lane	1	Merge Analysis not applied.											
Full Length Lane	2	Merge Analysis not applied.											
East Exit: Kasson Rd Merge Type: Priority													
Exit Short Lane	2	200	0.0	27	28	3.00	2.00	149	1772	0.084	2.0	2.6	
Merge Lane	1	-	100.0	Merge Lane is not Opposed			27	1800	0.015	0.0	0.0		
East Exit: Kasson Rd Merge Type: Priority													
Exit Short Lane	3	200	0.0	149	154	3.00	2.00	132	1652	0.080	2.2	2.8	
Merge Lane	2	200	100.0	Merge Lane is not Opposed			149	1800	0.083	0.0	0.0		
North Exit: Eleventh St Merge Type: Not Applied													
Full Length Lane	1	Merge Analysis not applied.											
Full Length Lane	2	Merge Analysis not applied.											
West Exit: W. Grant Line Rd Merge Type: Priority													
Exit Short Lane	2	200	0.0	98	101	3.00	2.00	562	1702	0.330	2.1	4.8	
Merge Lane	1	-	100.0	Merge Lane is not Opposed			98	1800	0.054	0.0	0.0		

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LANE LEVEL OF SERVICE

Lane Level of Service

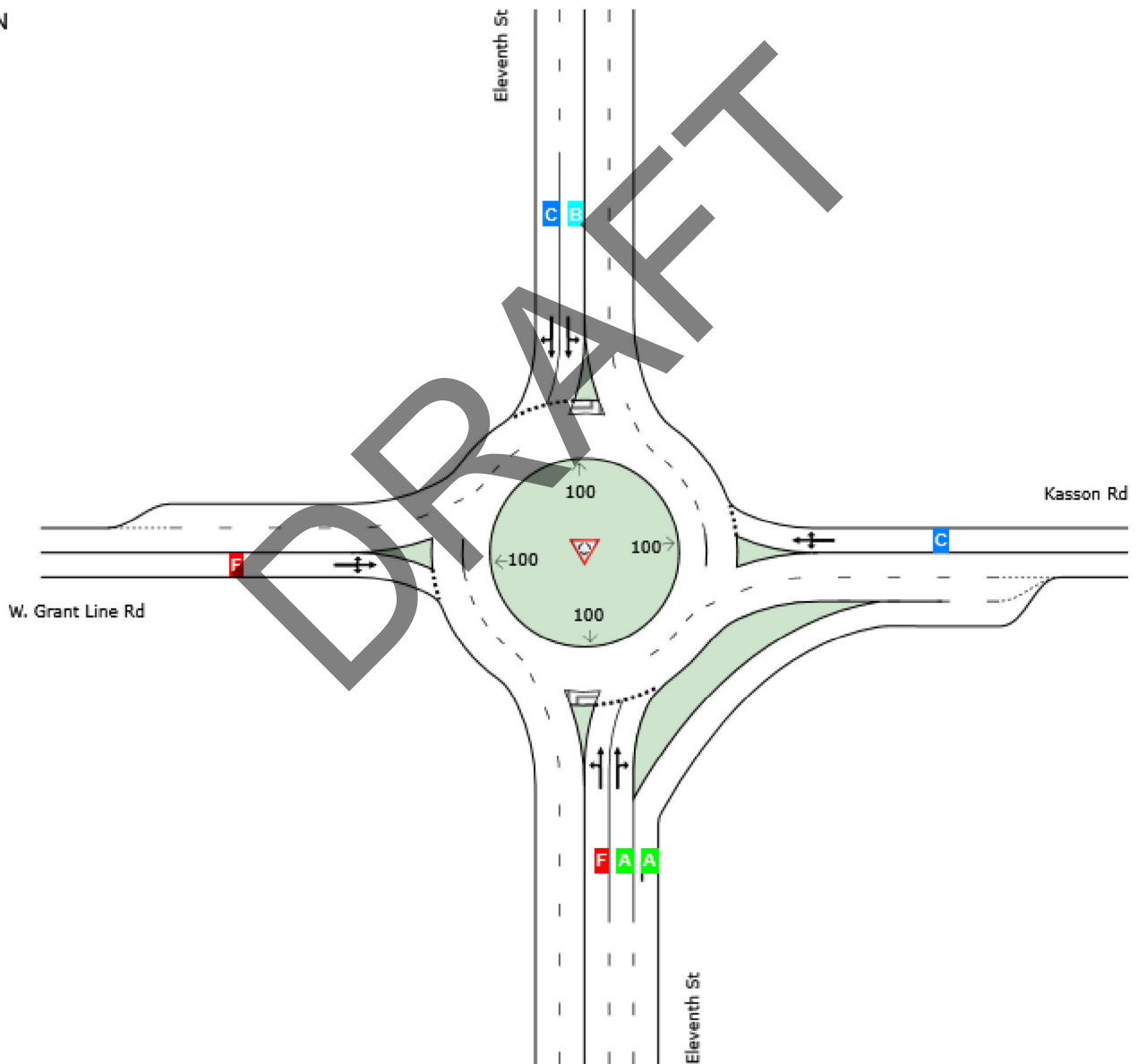
 Site: 101 [PM Peak Hour (Site Folder: General)]

Intersection 107 Eleventh & Grant Line

Site Category: (None)

Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	F	C	B	F	F



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).

Delay Model: HCM Delay Formula (Geometric Delay is not included).

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DRAFT

MOVEMENT SUMMARY

 Site: 101 [PM Peak Hour (Site Folder: General)]

Intersection 107 Eleventh & Grant Line

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] ft				
South: Eleventh St														
3	L2	97	3.0	105	3.0	1.080	76.0	LOS F	50.9	1303.4	1.00	2.77	5.74	16.8
8	T1	1071	3.0	1164	3.0	1.080	55.9	LOS F	50.9	1303.4	0.89	2.13	4.23	19.7
18	R2	121	3.0	132	3.0	0.081	5.4	LOS A	0.0	0.0	0.00	0.00	0.00	37.1
Approach		1289	3.0	1401	3.0	1.080	52.7	LOS F	50.9	1303.4	0.81	1.98	3.95	20.3
East: Kasson Rd														
1	L2	27	3.0	29	3.0	0.465	20.5	LOS C	1.9	48.8	0.84	0.95	1.26	28.2
6	T1	104	3.0	113	3.0	0.465	25.3	LOS D	1.9	48.8	0.84	0.95	1.26	28.1
16	R2	25	3.0	27	3.0	0.465	20.5	LOS C	1.9	48.8	0.84	0.95	1.26	27.4
Approach		156	3.0	170	3.0	0.465	23.7	LOS C	1.9	48.8	0.84	0.95	1.26	28.0
North: Eleventh St														
7	L2	25	3.0	27	3.0	0.657	12.6	LOS B	8.1	208.6	0.67	0.66	0.94	31.6
4	T1	895	3.0	973	3.0	0.657	12.6	LOS B	8.1	208.6	0.67	0.66	0.94	31.5
14	R2	413	3.0	449	3.0	0.657	17.4	LOS C	8.1	208.6	0.67	0.66	0.94	30.6
Approach		1333	3.0	1449	3.0	0.657	14.1	LOS B	8.1	208.6	0.67	0.66	0.94	31.2
West: W. Grant Line Rd														
5	L2	531	3.0	577	3.0	1.734	356.2	LOS F	140.8	3603.6	1.00	6.02	18.09	5.5
2	T1	238	3.0	259	3.0	1.734	358.8	LOS F	140.8	3603.6	1.00	6.02	18.09	5.5
12	R2	124	3.0	135	3.0	1.734	356.2	LOS F	140.8	3603.6	1.00	6.02	18.09	5.5
Approach		893	3.0	971	3.0	1.734	356.9	LOS F	140.8	3603.6	1.00	6.02	18.09	5.5
All Vehicles		3671	3.0	3990	3.0	1.734	111.4	LOS F	140.8	3603.6	0.81	2.44	6.18	13.3

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.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: KIMLEY-HORN & ASSOCIATES INC | Licence: NETWORK / Enterprise | Processed: Thursday, September 2, 2021 8:55:07 AM

Project: K:\SJC_TPTO\City of Tracy\097008018 - Tracy TMP 2019\05 Design & Analysis\Sidra\Cumulative\Intersection 107 - Eleventh & Grant Line.sip9



APPENDIX D

TRACY TRAVEL DEMAND MODEL TRIP: ASSIGNMENT

PLANNING AREAS 2042 SELECT ZONE PLOTS

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APPENDIX E

ELLIS SPECIFIC PLAN CROSS SECTIONS

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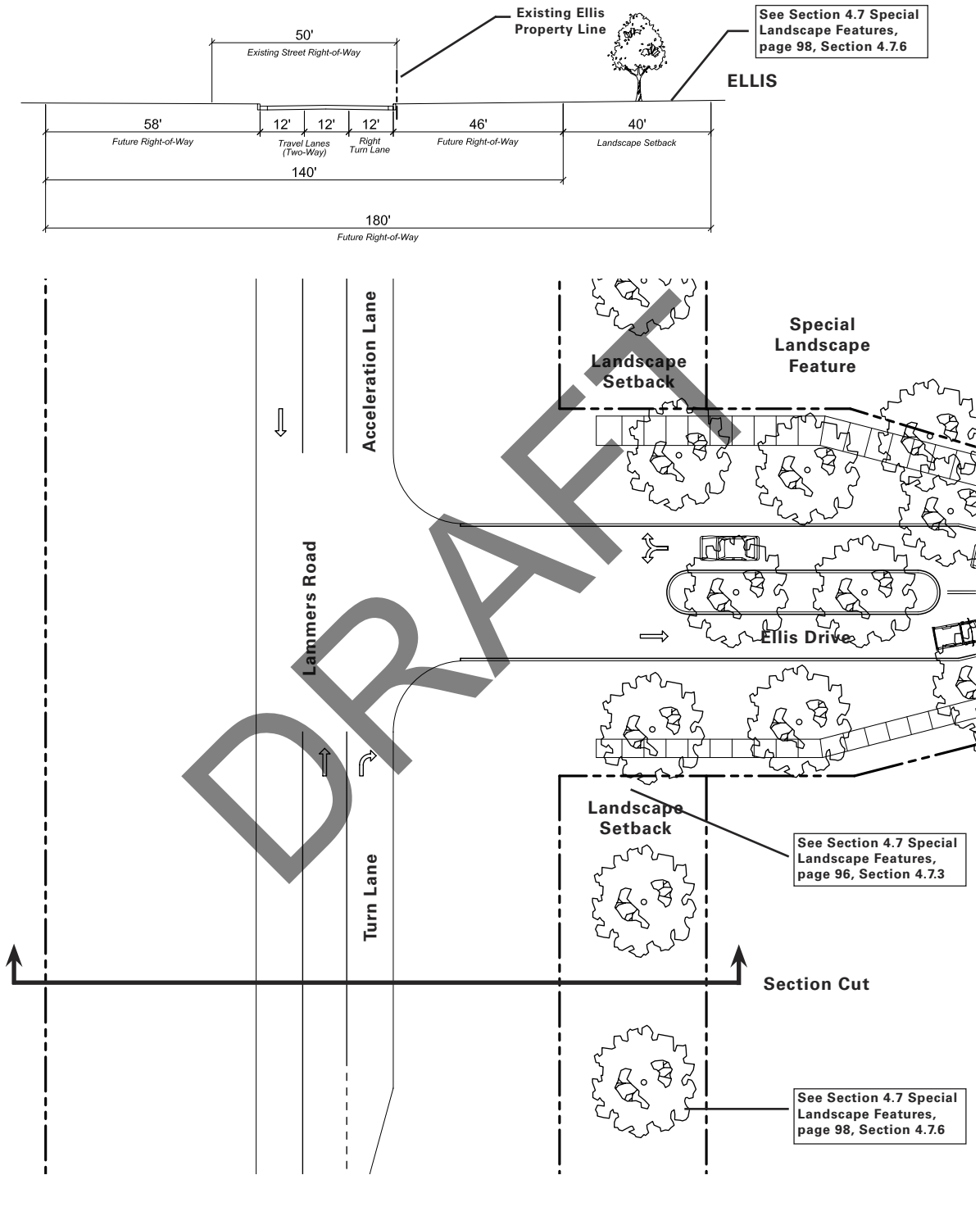


FIGURE 4.15 Existing Section and Plan: Regional Arterial – Lammers Road, Designation A (Cross-section at the time of connection of Ellis Drive to Lammers Road)

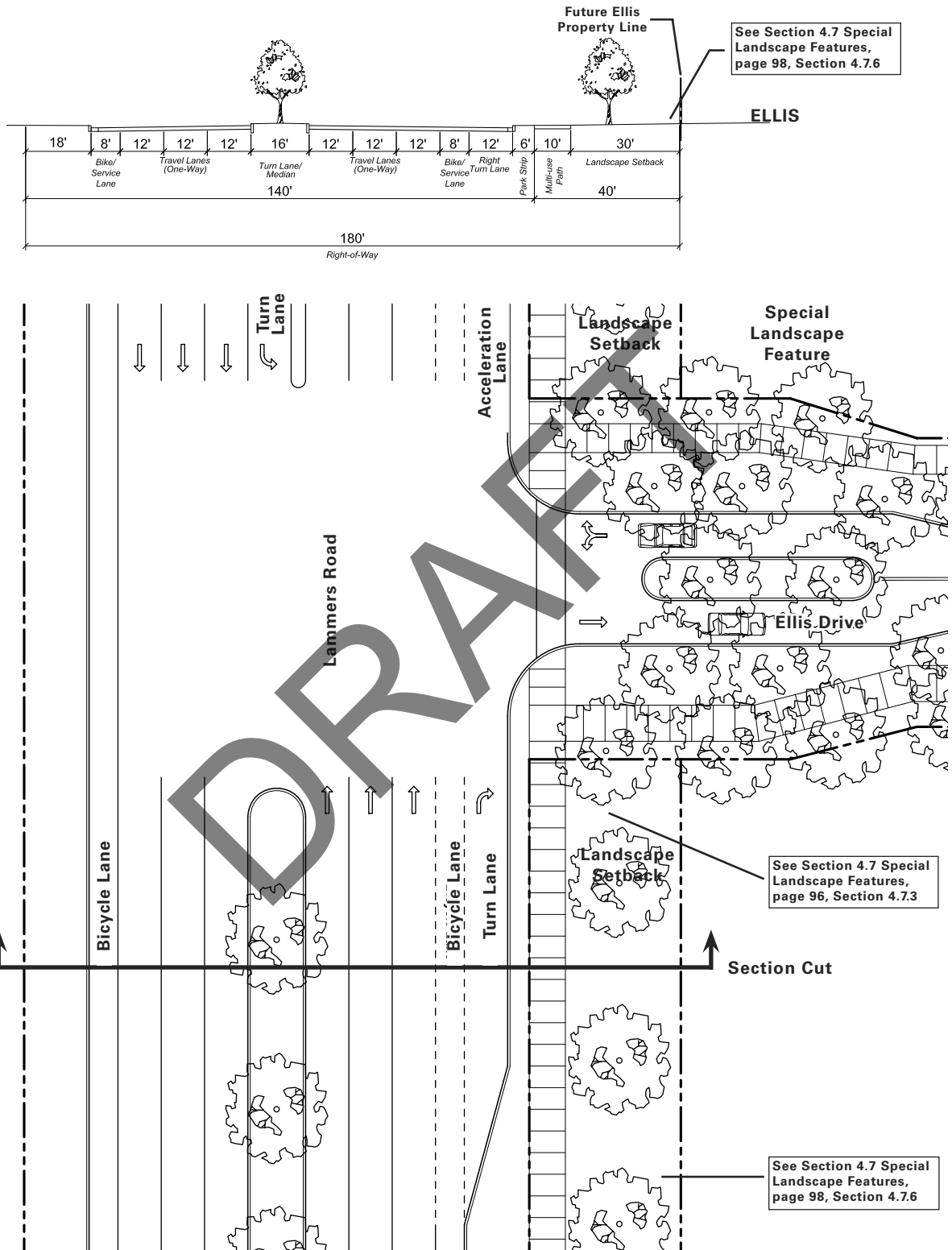


FIGURE 4.17 Build-out Section and Plan: Regional Arterial – Lammers Road, Designation A (Final Build-out)

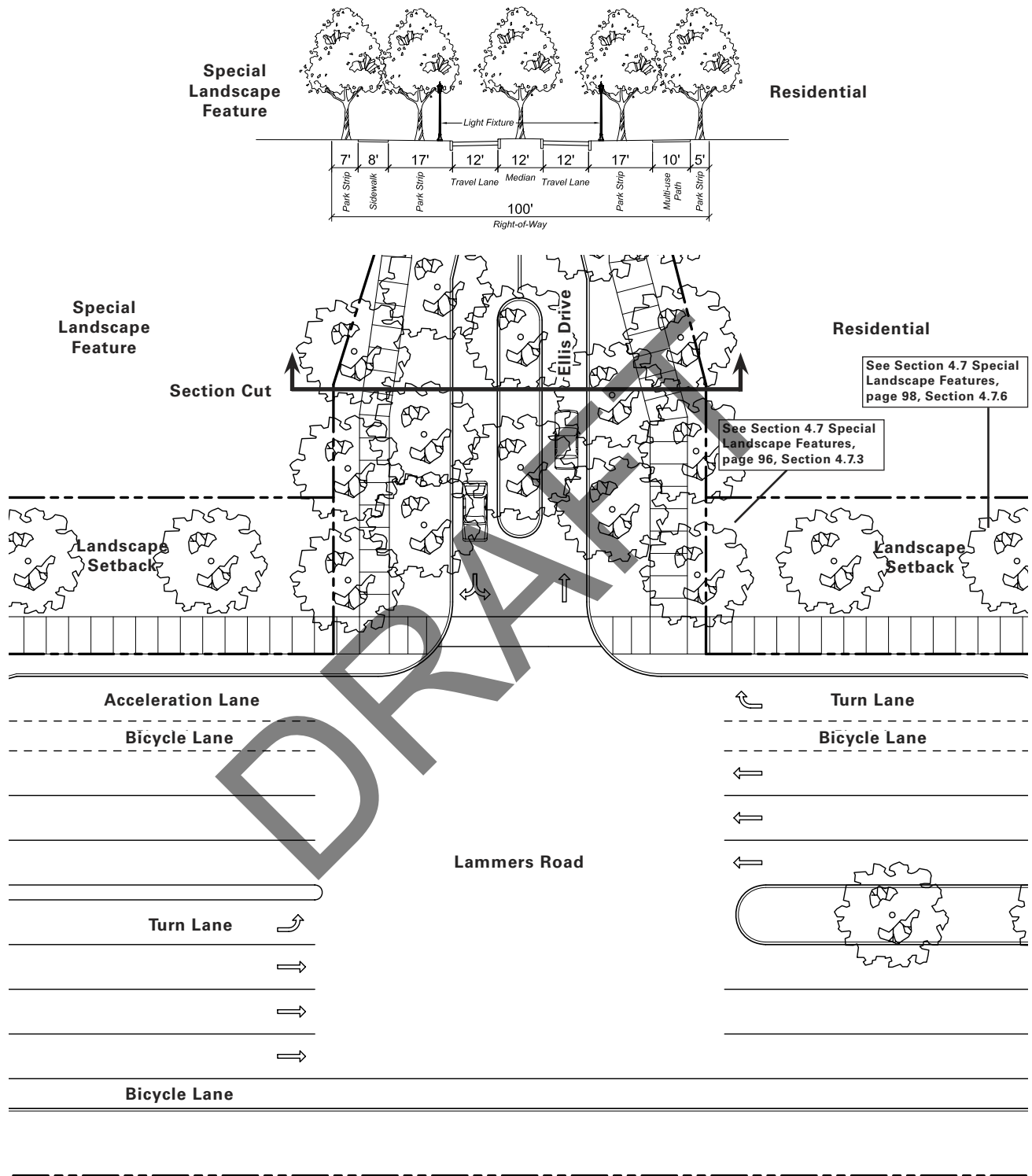


FIGURE 4.19 Proposed Section and Plan: Entry Street A



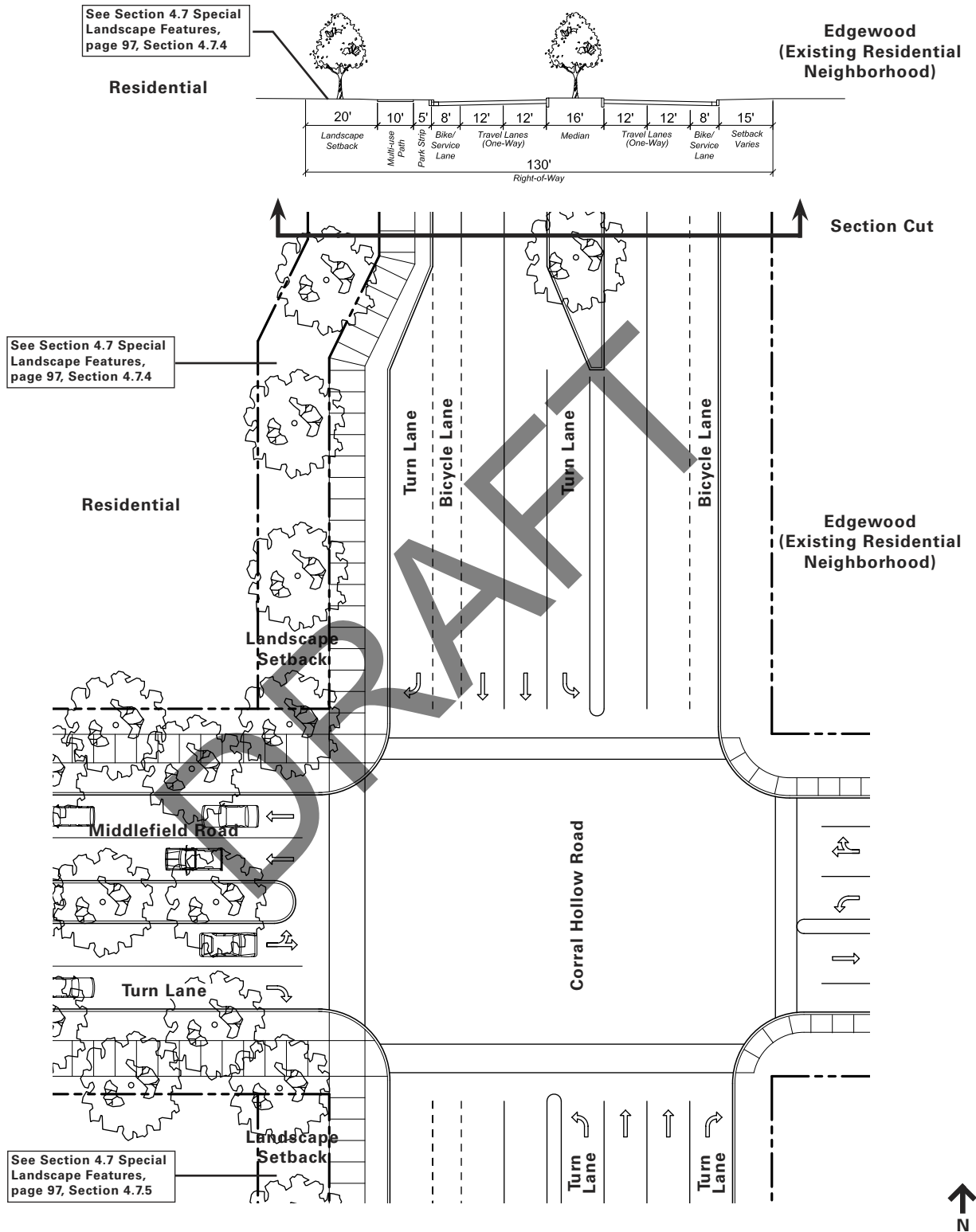


FIGURE 4.21 Interim Section and Plan: Regional Arterial – Corral Hollow Road, Designation B (Interim Condition)

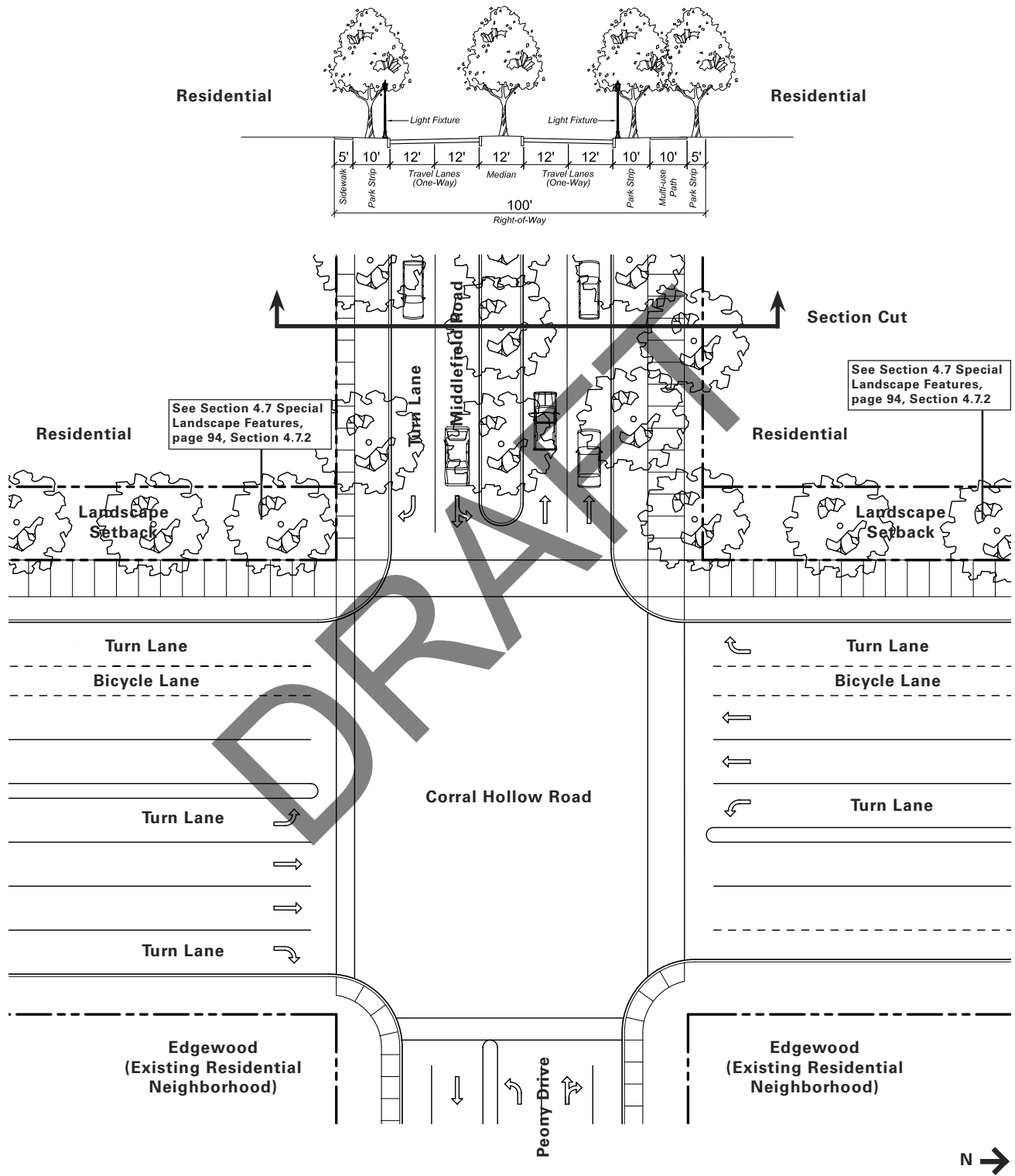


FIGURE 4.25 Proposed Section and Plan: Entry Street B

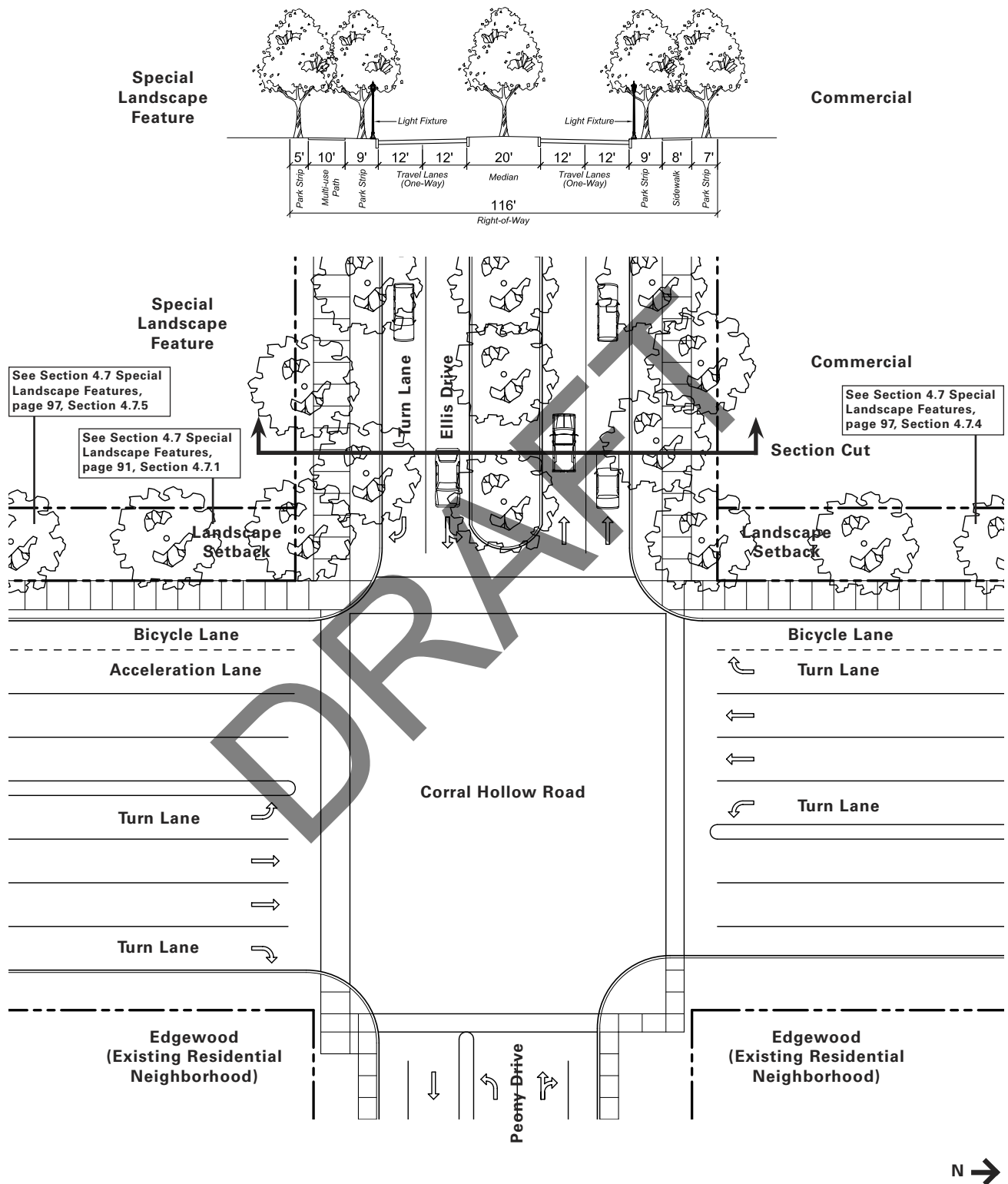


FIGURE 4.27 Proposed Section and Plan: Entry Street C (Ellis Drive)

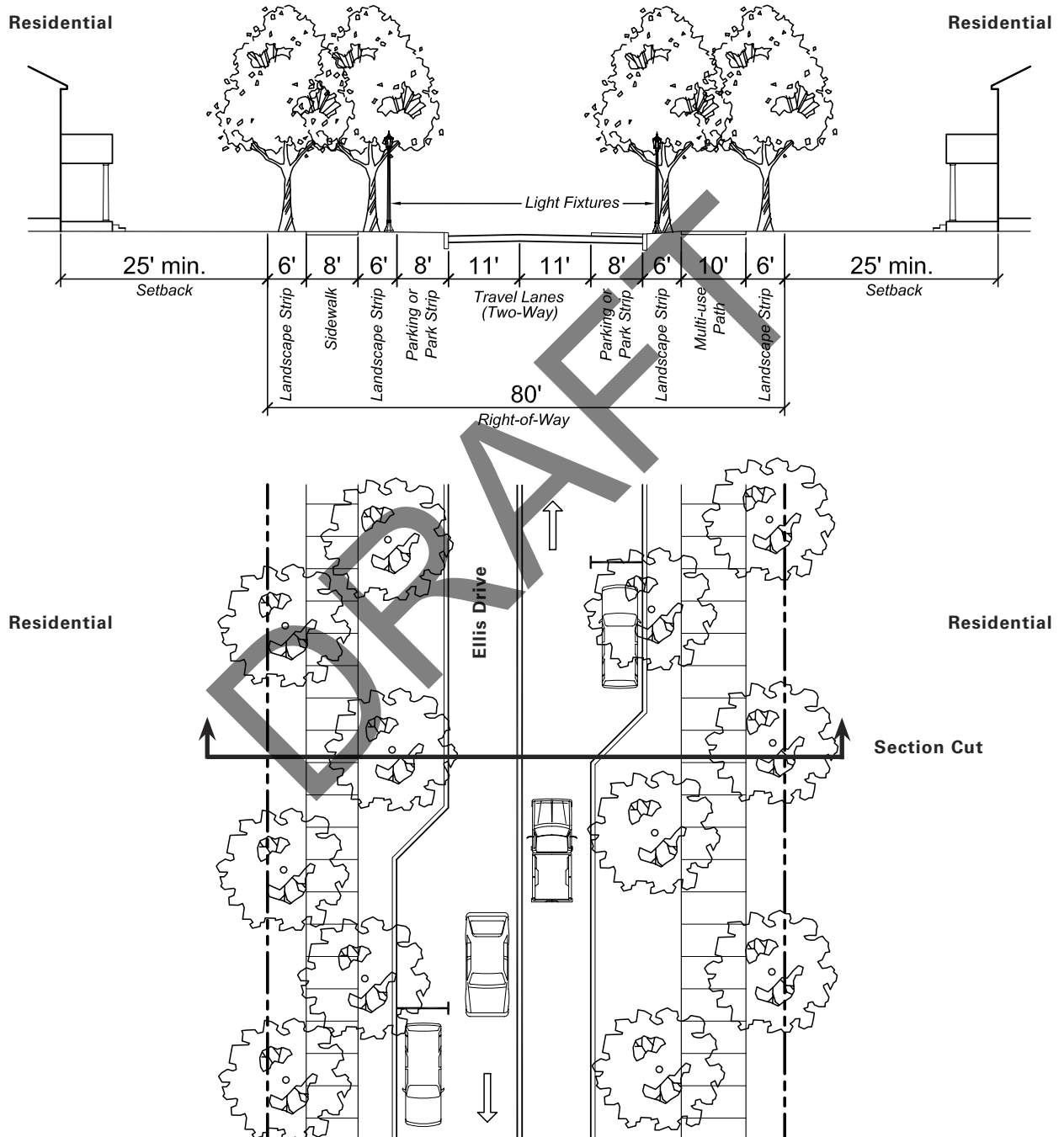


FIGURE 4.29 Proposed Section and Plan: Community Street A

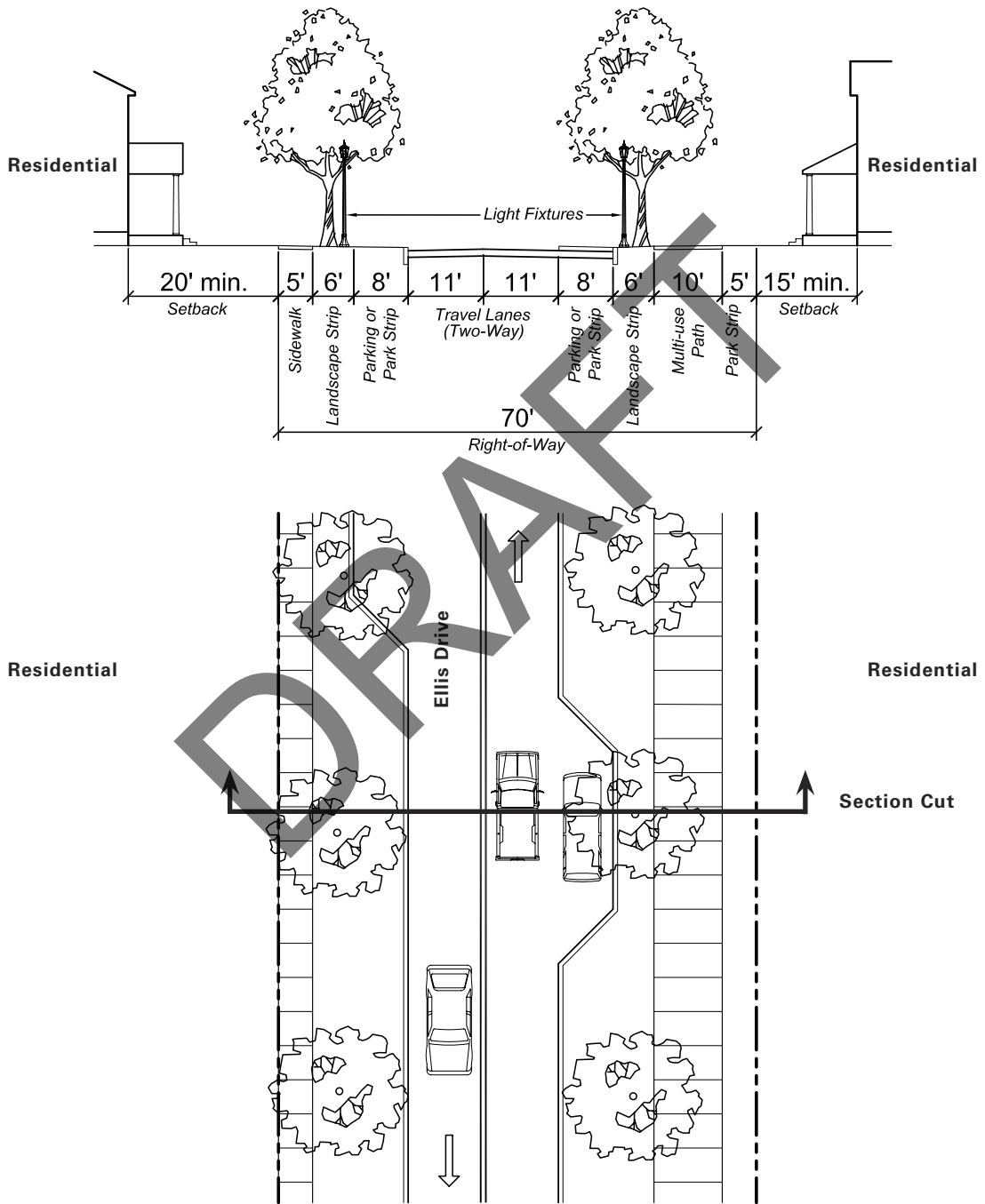


FIGURE 4.31 Proposed Section and Plan: Community Street B

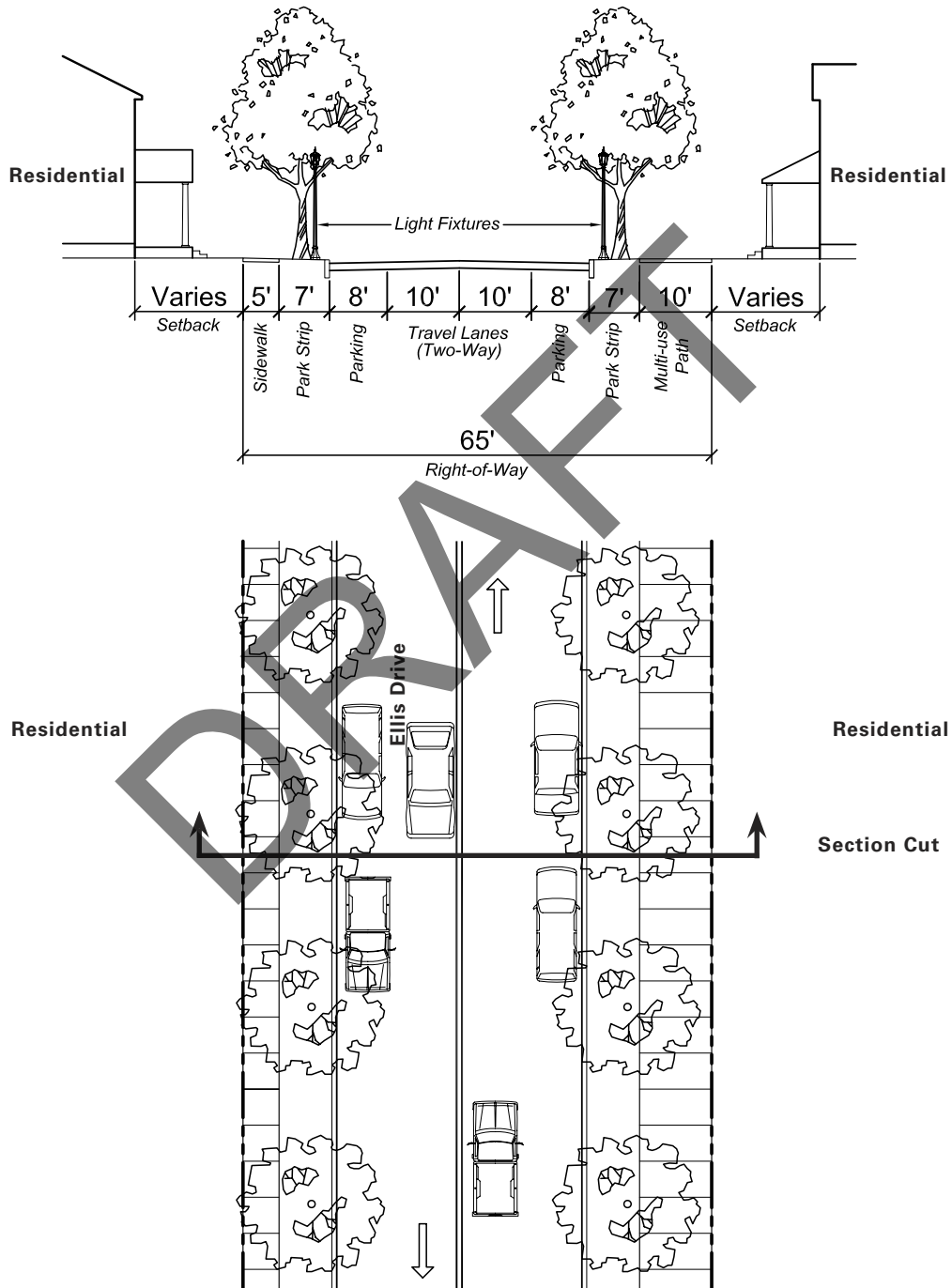


FIGURE 4.33 Proposed Section and Plan: Community Street C

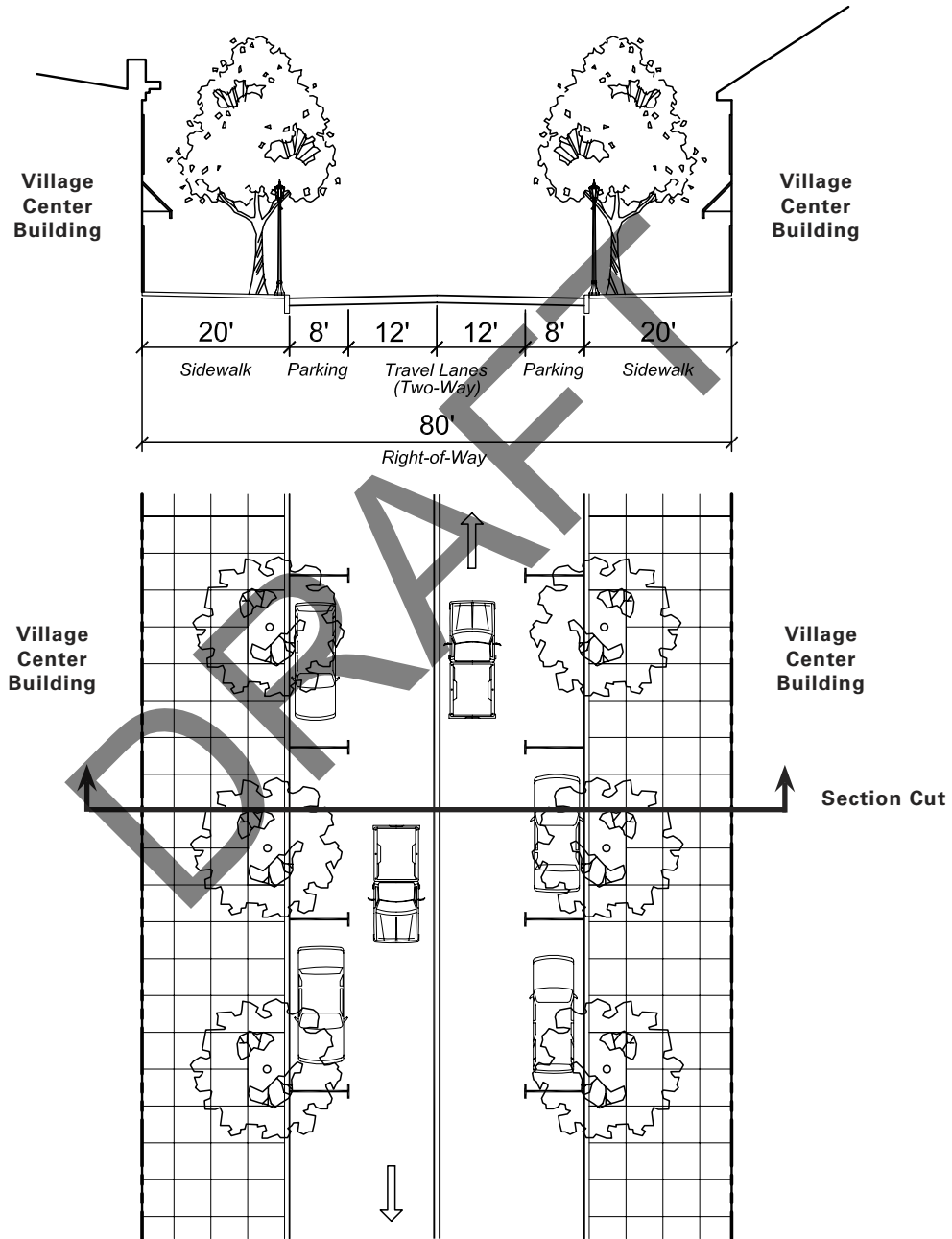


FIGURE 4.35 Proposed Section and Plan: Village Center Street A

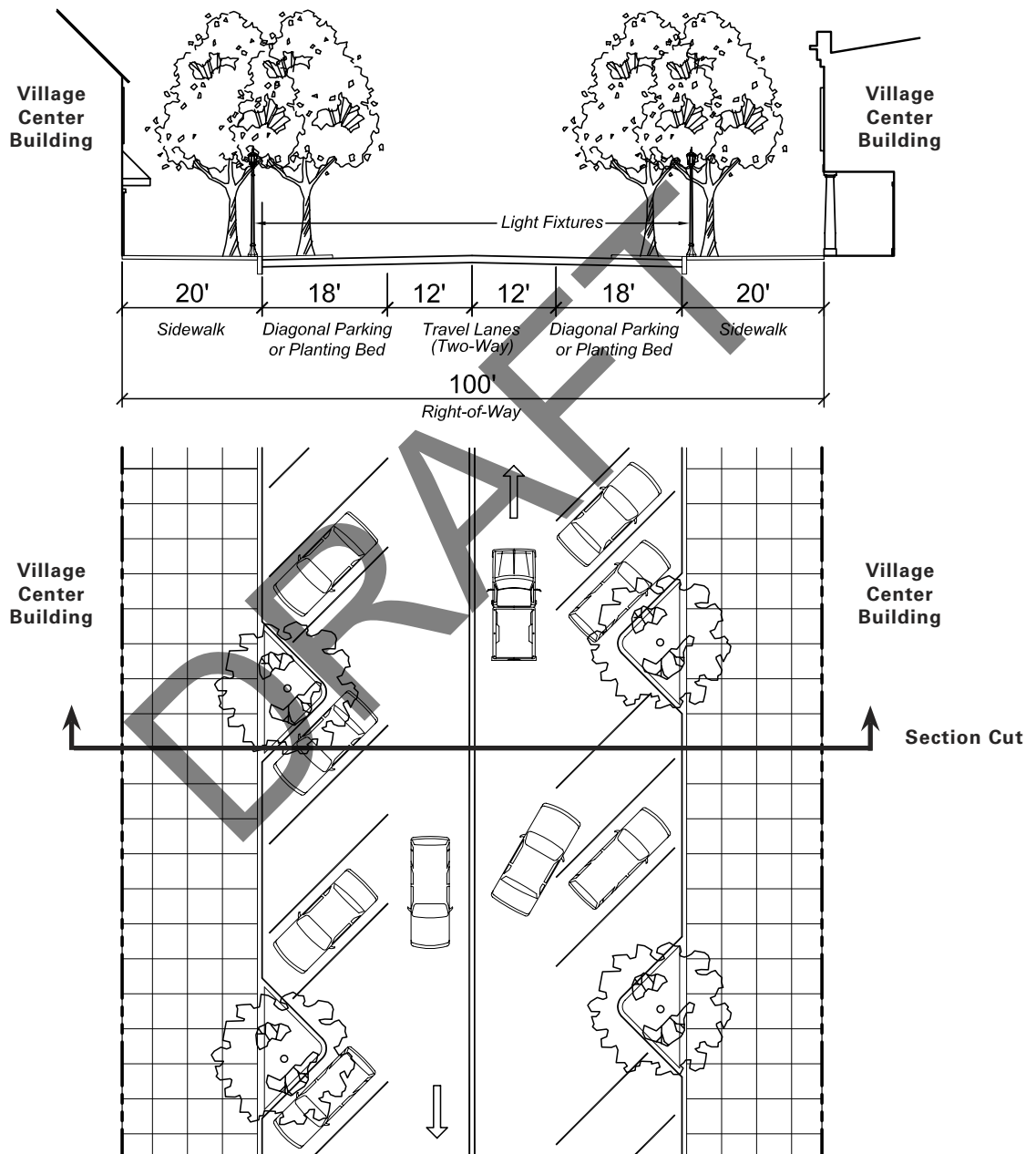


FIGURE 4.37 Proposed Section and Plan: Village Center Street A (Alternate)

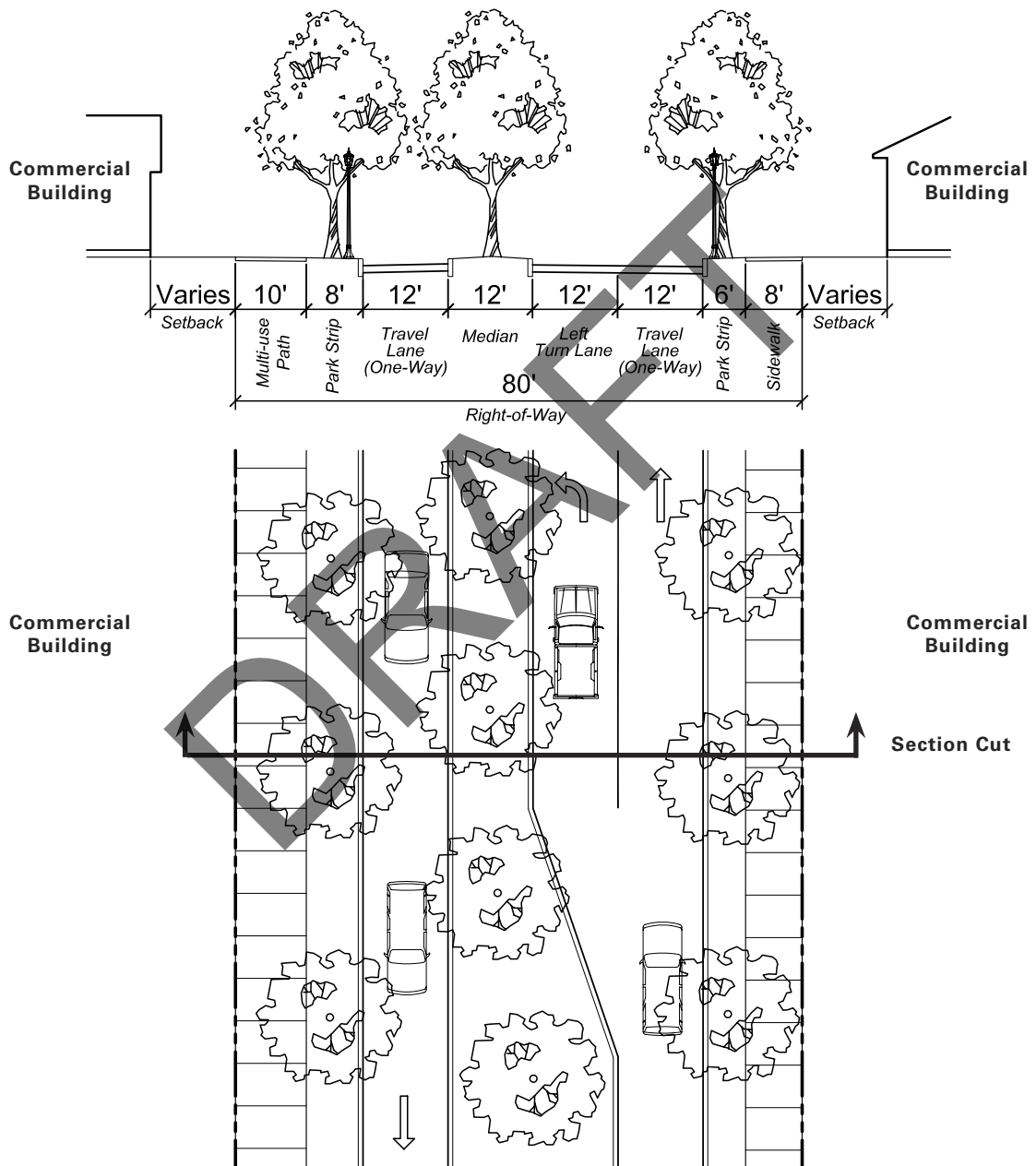


FIGURE 4.39 Proposed Section and Plan: Village Center Street B

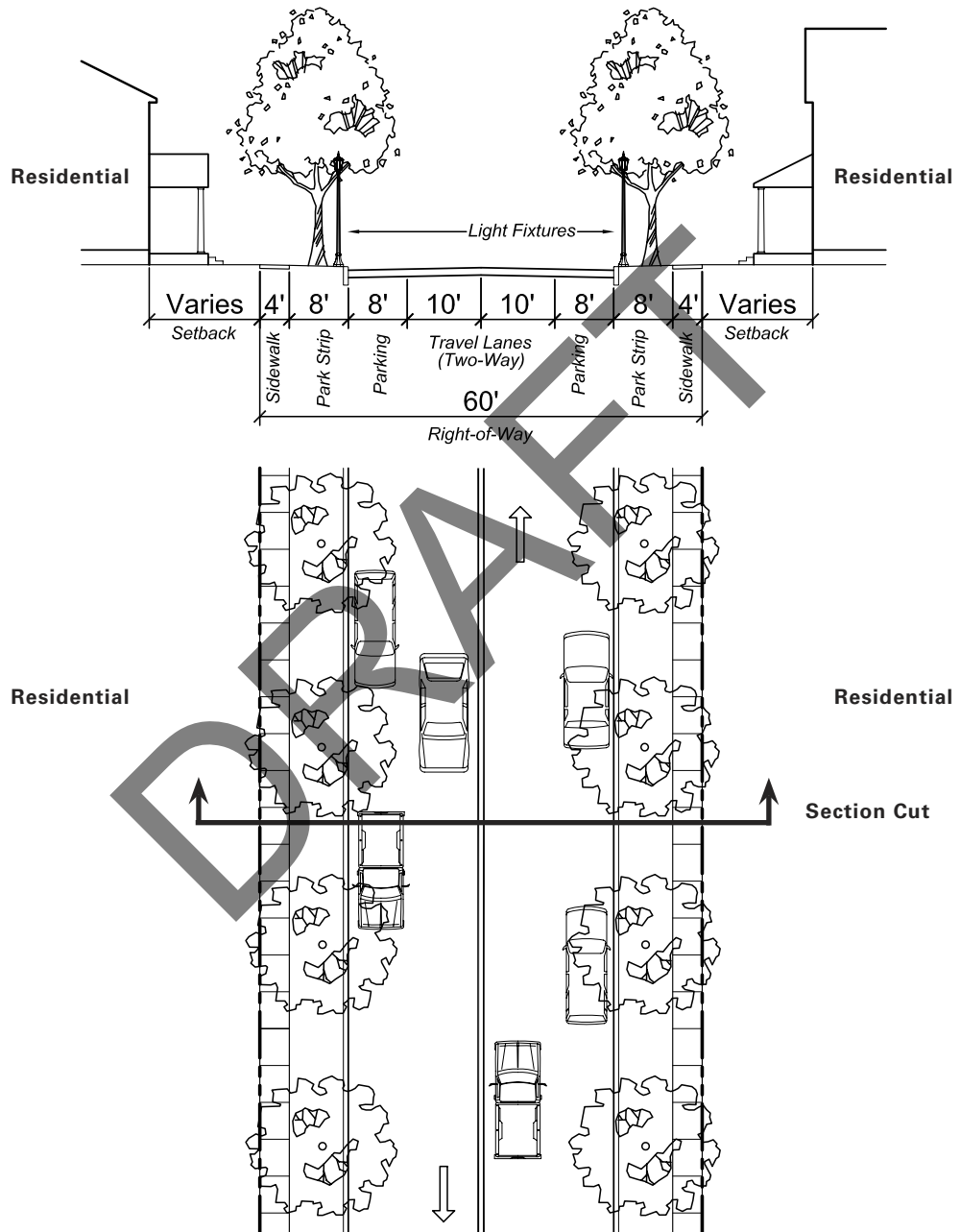


FIGURE 4.41 Proposed Section and Plan: Neighborhood Street A

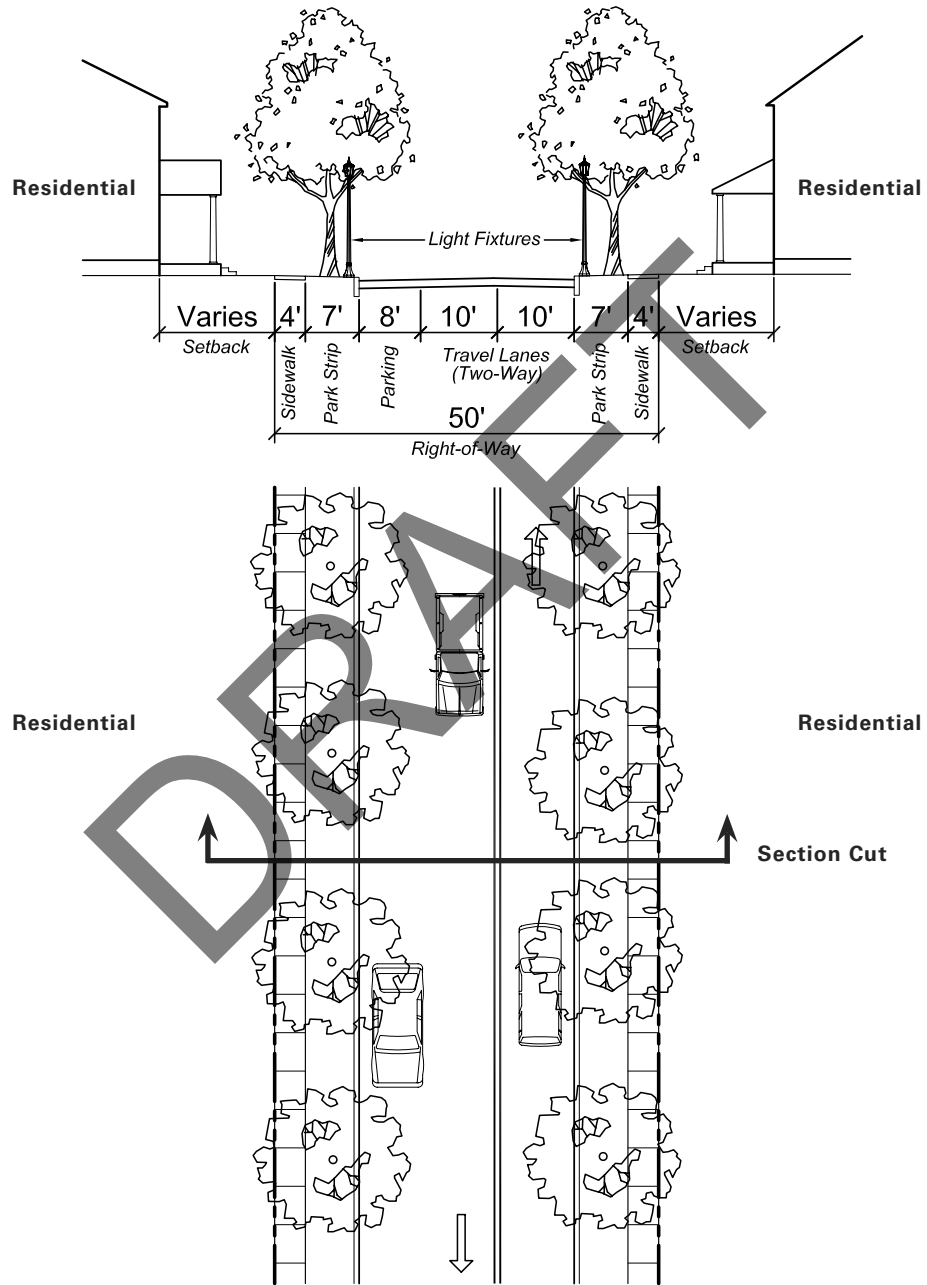


FIGURE 4.43 Proposed Section and Plan: Neighborhood Street B

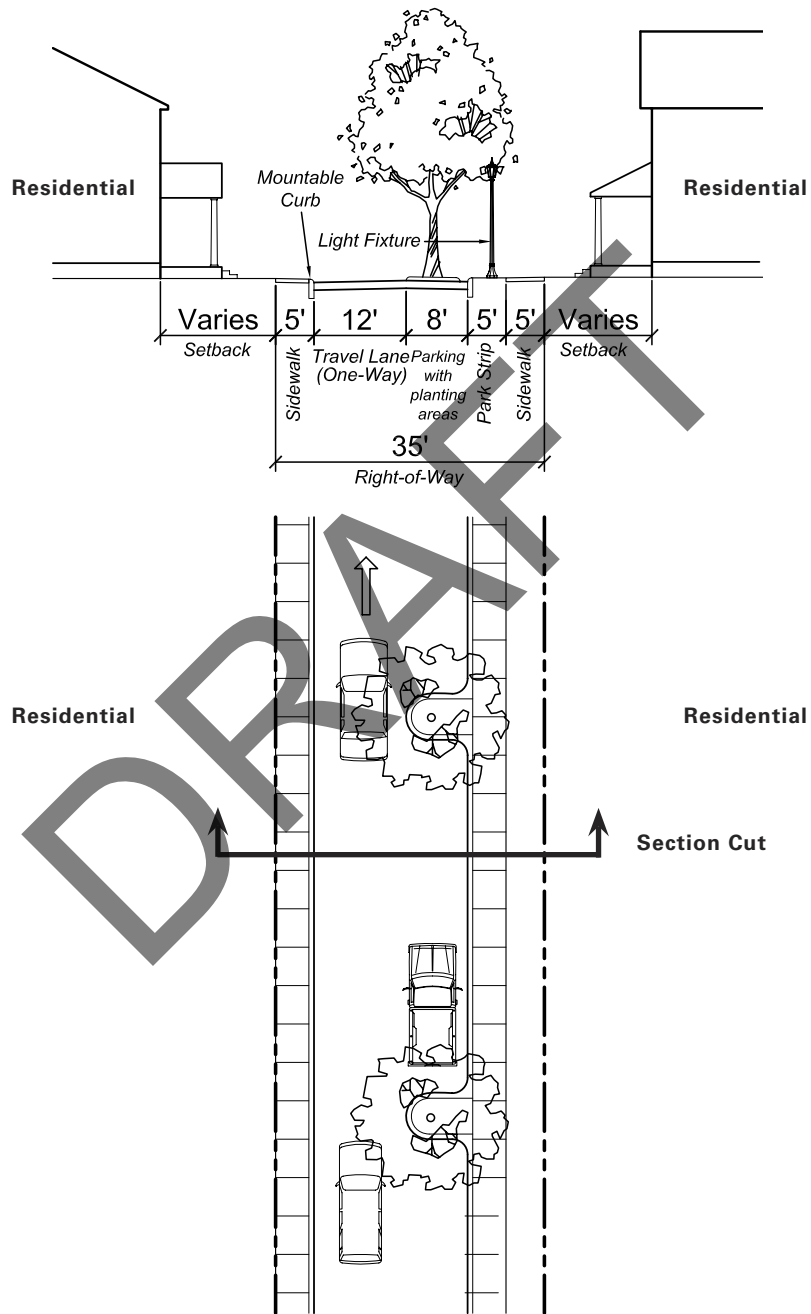


FIGURE 4.45 Proposed Section and Plan: Neighborhood Street C

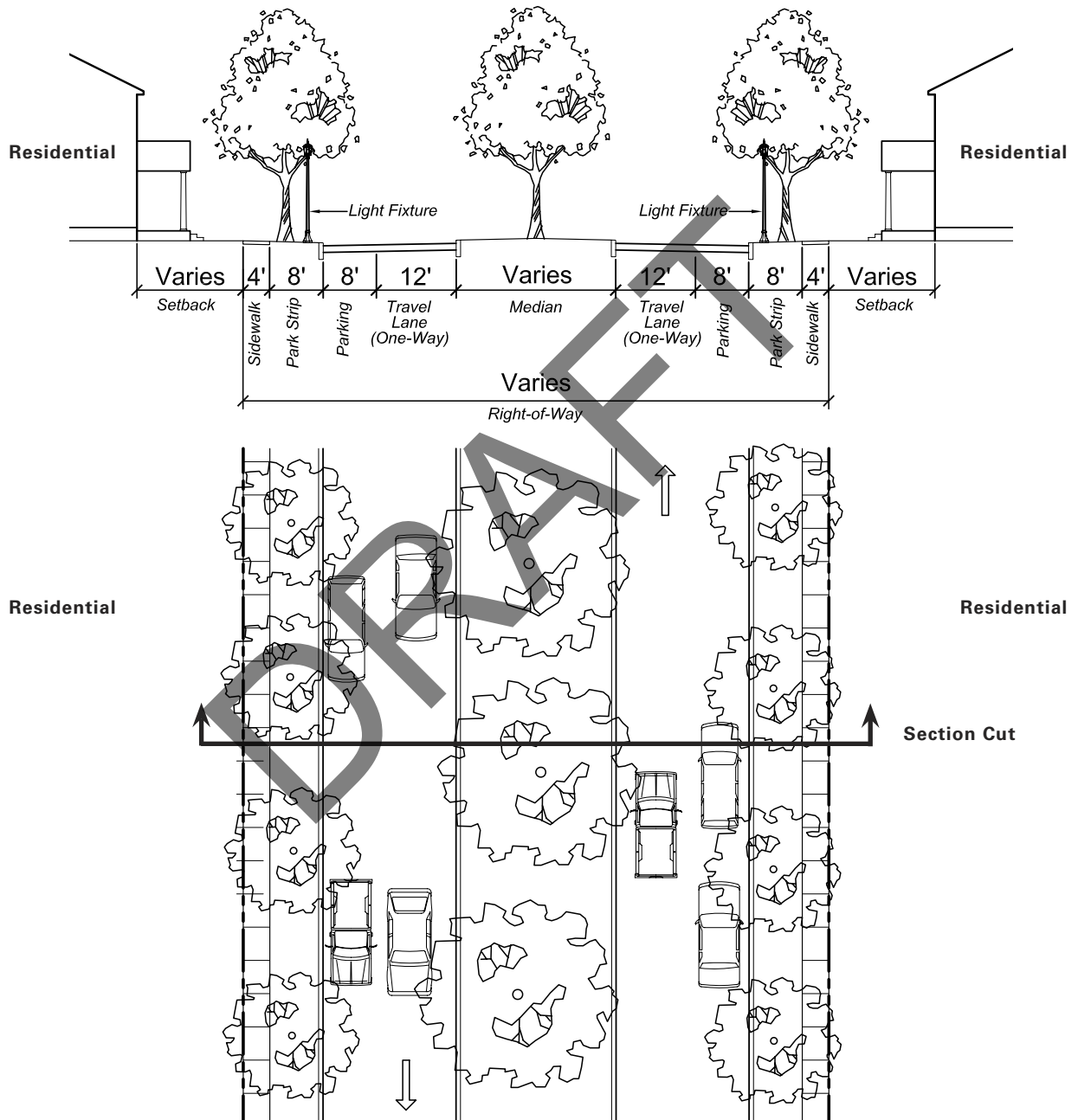


FIGURE 4.47 Proposed Section and Plan: Neighborhood Street D

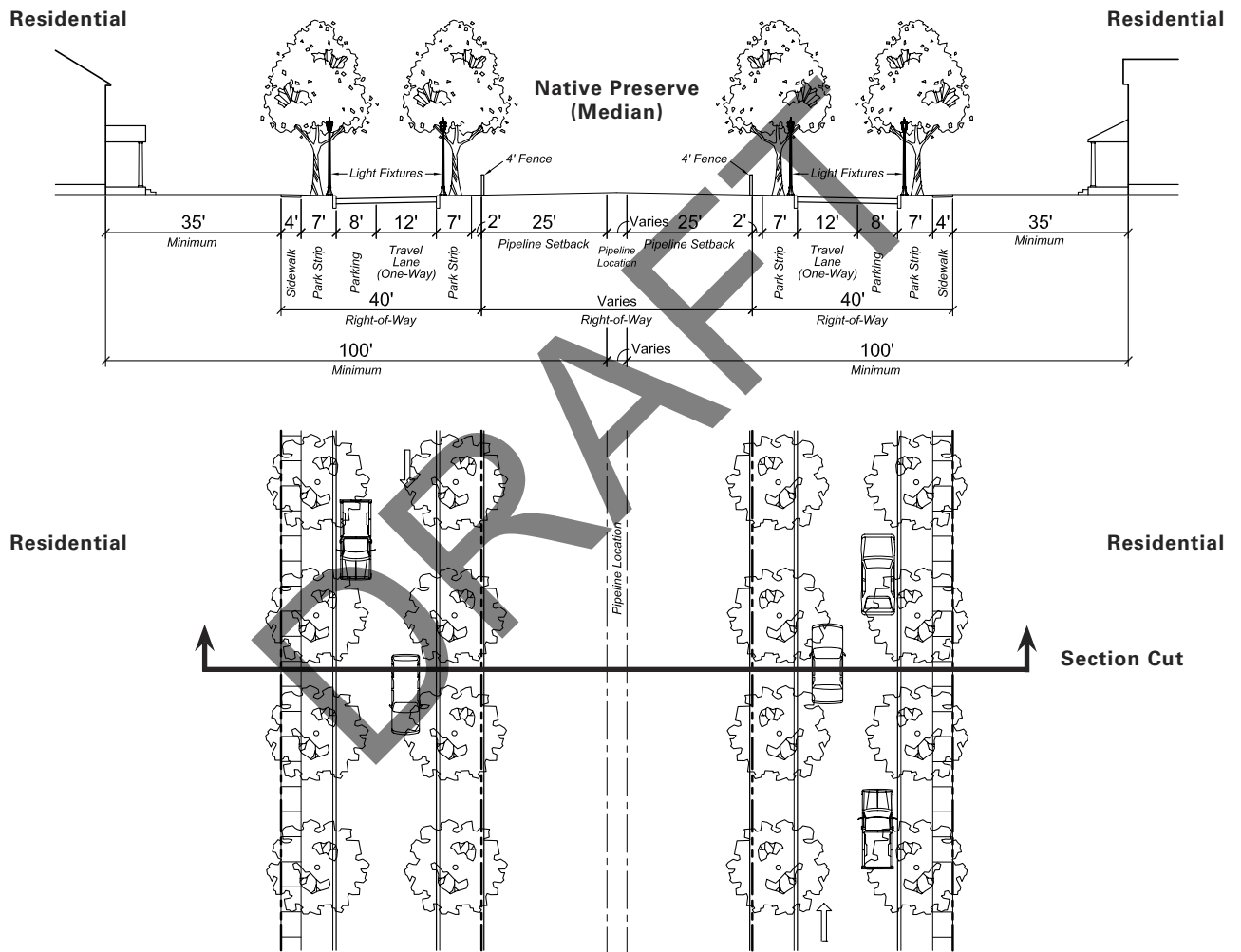


FIGURE 4.49 Proposed Section and Plan: Neighborhood Street E

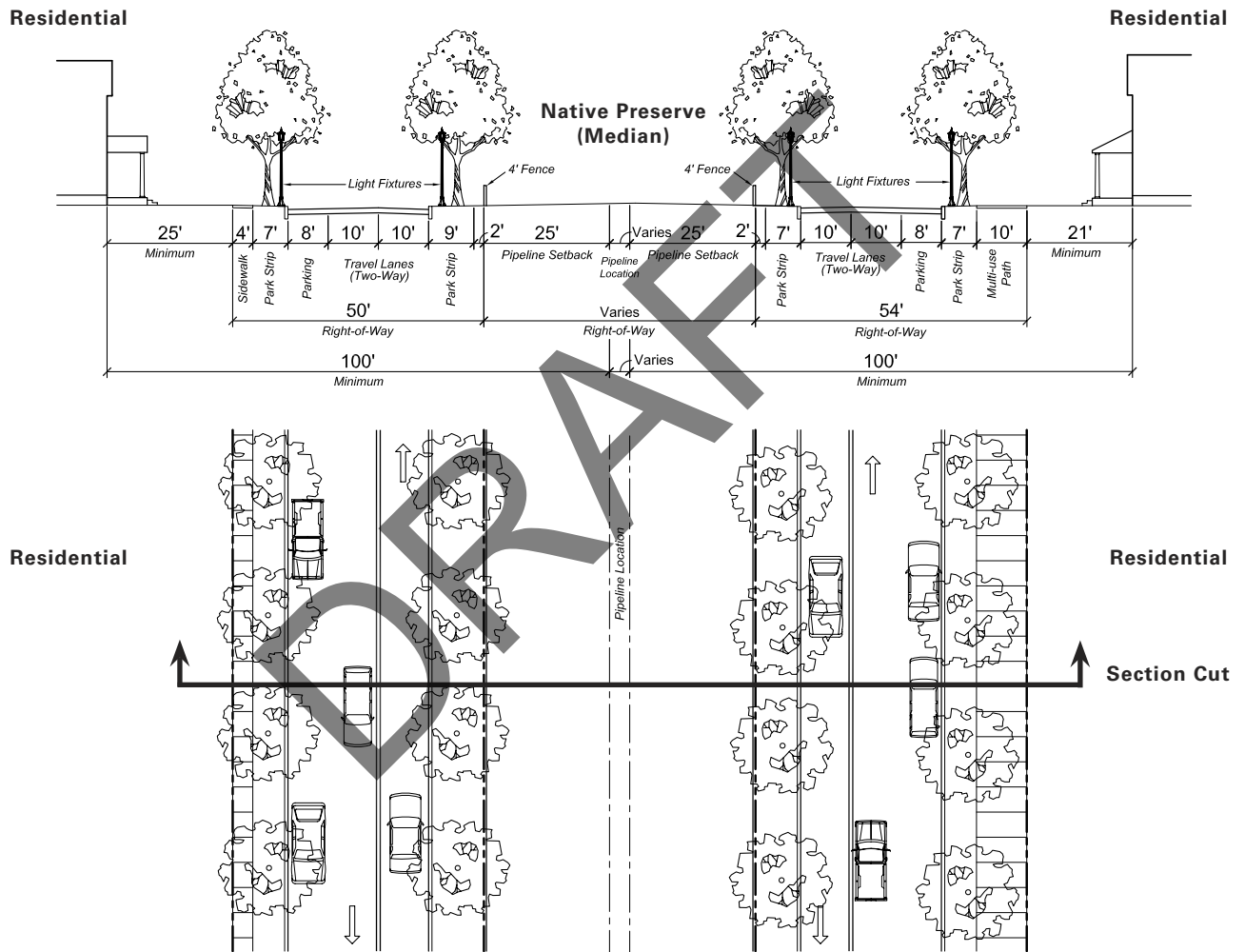


FIGURE 4.51 Proposed Section and Plan: Neighborhood Street F

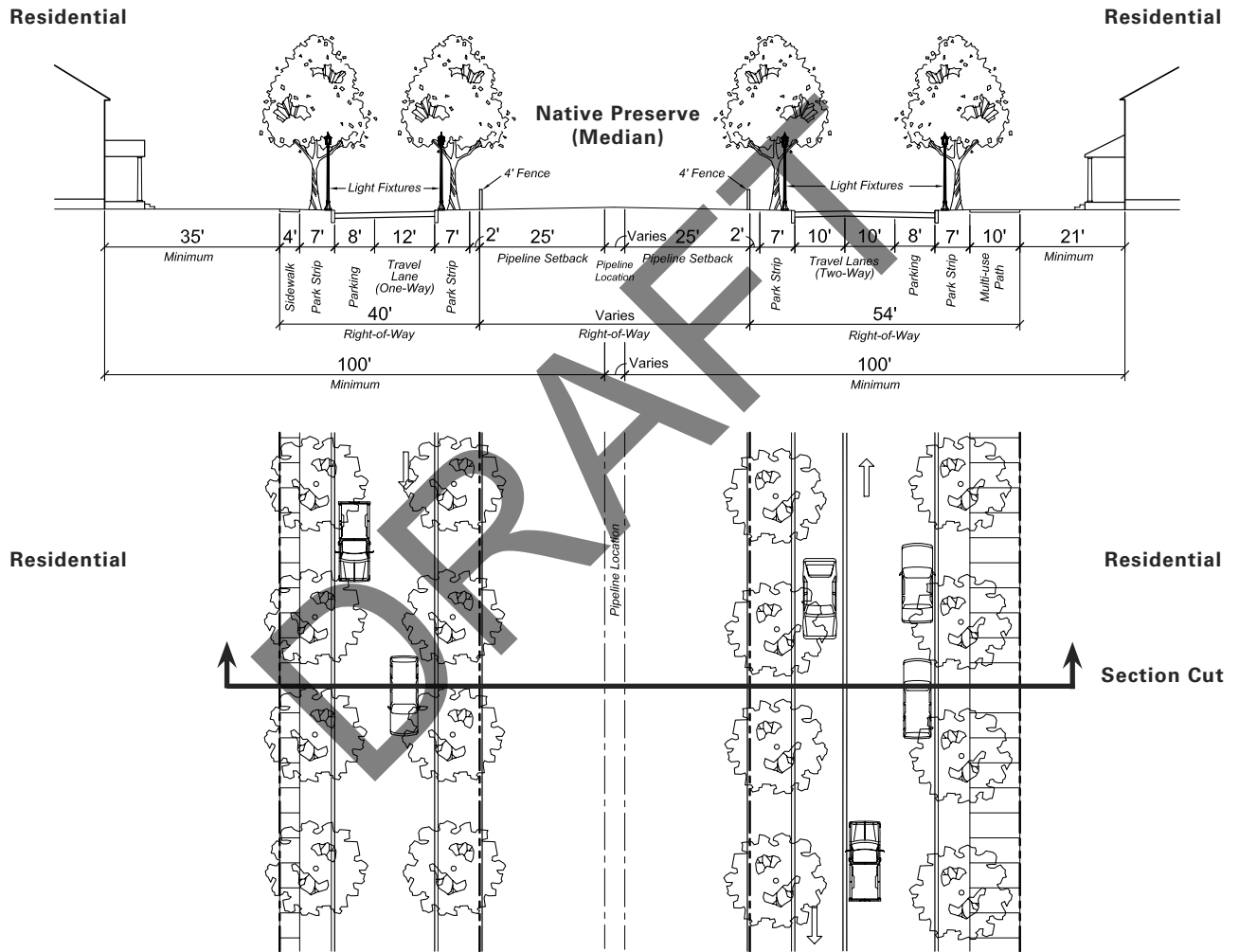


FIGURE 4.53 Proposed Section and Plan: Neighborhood Street G

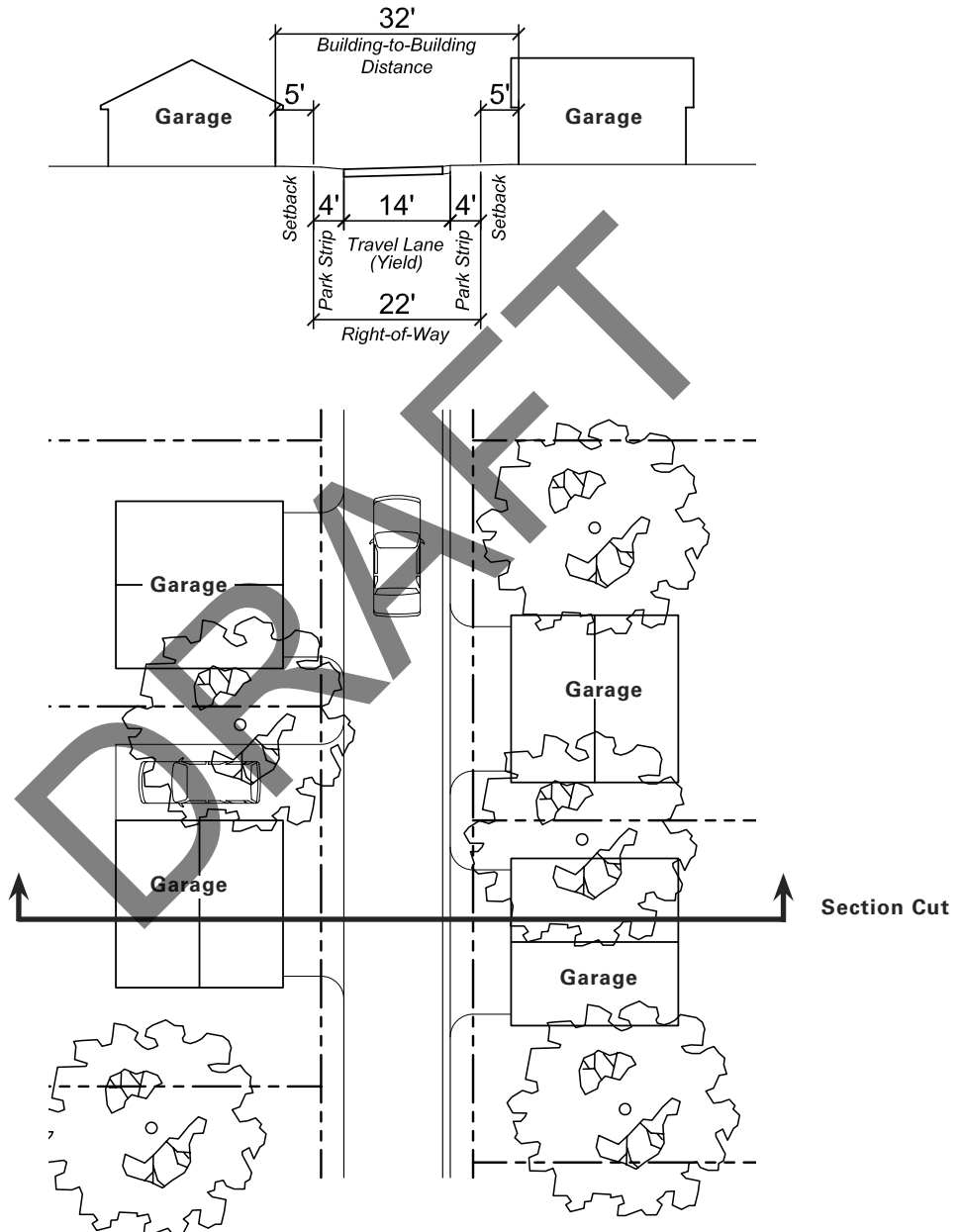


FIGURE 4.55 Proposed Section and Plan: Lane A



APPENDIX F

ROUNABOUT CONCEPTUAL SKETCHES

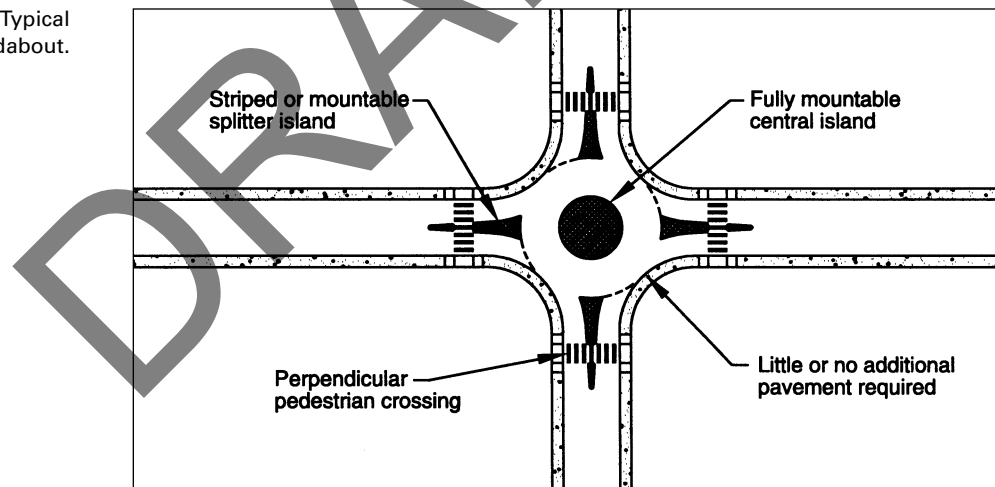
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1.6.2 Mini-roundabouts

Mini-roundabouts can be useful in low-speed urban environments with right-of-way constraints.

Mini-roundabouts are small roundabouts used in low-speed urban environments, with average operating speeds of 60km/h (35mph) or less. Exhibit 1-8 provides an example of a typical mini-roundabout. They can be useful in low-speed urban environments in cases where conventional roundabout design is precluded by right-of-way constraints. In retrofit applications, mini-roundabouts are relatively inexpensive because they typically require minimal additional pavement at the intersecting roads—for example, minor widening at the corner curbs. They are mostly recommended when there is insufficient right-of-way for an urban compact roundabout. Because they are small, mini-roundabouts are perceived as pedestrian-friendly with short crossing distances and very low vehicle speeds on approaches and exits. The mini-roundabout is designed to accommodate passenger cars without requiring them to drive over the central island. To maintain its perceived compactness and low speed characteristics, the yield lines are positioned just outside of the swept path of the largest expected vehicle. However, the central island is mountable, and larger vehicles may cross over the central island, but not to the left of it. Speed control around the mountable central island should be provided in the design by requiring horizontal deflection. Capacity for this type of roundabout is expected to be similar to that of the compact urban roundabout. The recommended design of these roundabouts is based on the German method, with some influence from the United Kingdom.

Exhibit 1-8. Typical mini-roundabout.



1.6.3 Urban compact roundabouts

Like mini-roundabouts, urban compact roundabouts are intended to be pedestrian- and bicyclist-friendly because their perpendicular approach legs require very low vehicle speeds to make a distinct right turn into and out of the circulatory roadway. All legs have single-lane entries. However, the urban compact treatment meets all the design requirements of effective roundabouts. The principal objective of this design is to enable pedestrians to have safe and effective use of the intersection. Capacity should not be a critical issue for this type of roundabout to be considered. The geometric design includes raised splitter islands that incorporate at-grade pedestrian storage areas, and a nonmountable central island. There is usually an apron surrounding the nonmountable part of the compact central island to accommodate large vehicles. The recommended design of these roundabouts is similar to those in Germany and other northern European countries. Exhibit 1-9 provides an example of a typical urban compact roundabout.

Urban compact roundabouts are intended to be pedestrian-friendly; capacity should not be a critical issue when considering this type.

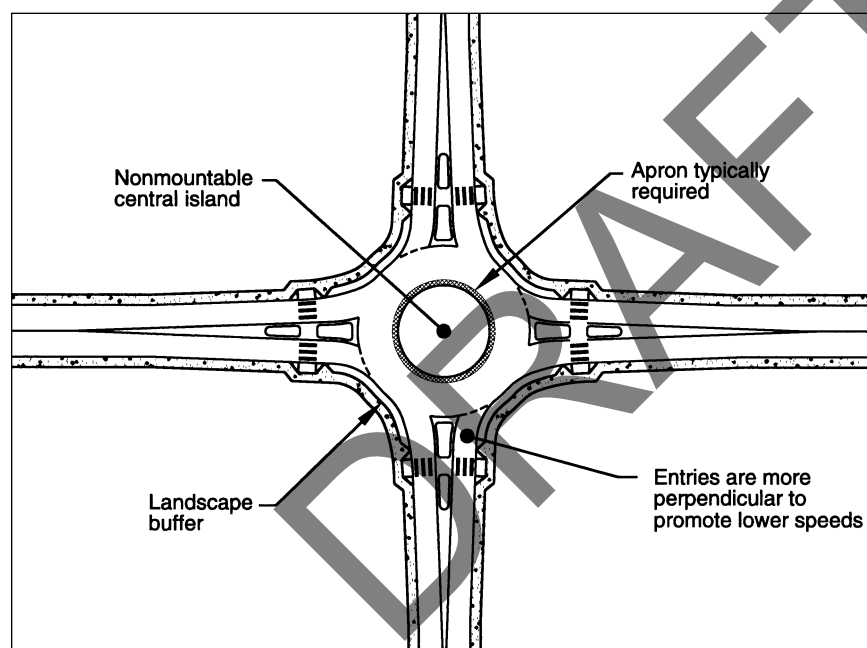


Exhibit 1-9. Typical urban compact roundabout.

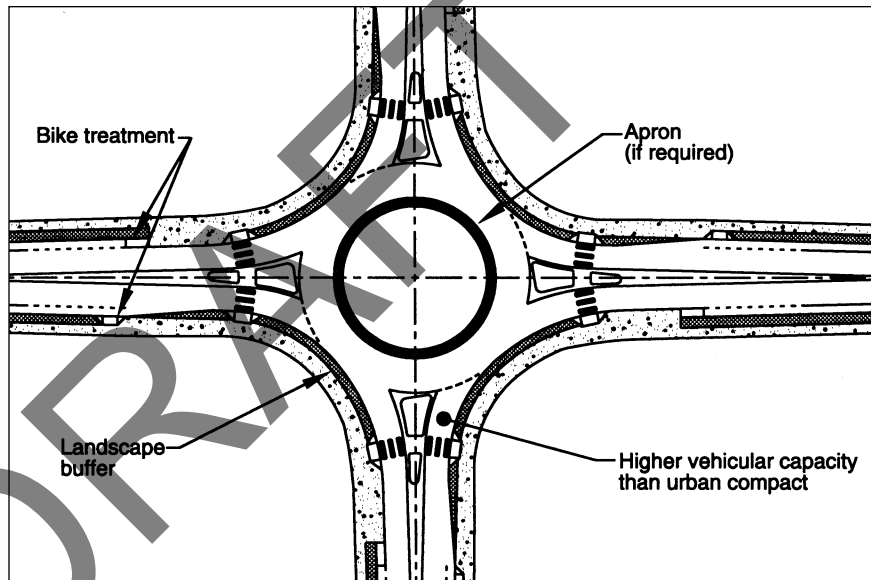
1.6.4 Urban single-lane roundabouts

Urban single-lane roundabouts have slightly higher speeds and capacities than urban compact roundabouts.

The design focuses on consistent entering and exiting speeds.

This type of roundabout is characterized as having a single lane entry at all legs and one circulatory lane. Exhibit 1-10 provides an example of a typical urban single-lane roundabout. They are distinguished from urban compact roundabouts by their larger inscribed circle diameters and more tangential entries and exits, resulting in higher capacities. Their design allows slightly higher speeds at the entry, on the circulatory roadway, and at the exit. Notwithstanding the larger inscribed circle diameters than compact roundabouts, the speed ranges recommended in this guide are somewhat lower than those used in other countries, in order to enhance safety for bicycles and pedestrians. The roundabout design is focused on achieving consistent entering and circulating vehicle speeds. The geometric design includes raised splitter islands, a nonmountable central island, and preferably, no apron. The design of these roundabouts is similar to those in Australia, France, and the United Kingdom.

Exhibit 1-10. Typical urban single-lane roundabout.



1.6.5 Urban double-lane roundabouts

Urban double-lane roundabouts include all roundabouts in urban areas that have at least one entry with two lanes. They include roundabouts with entries on one or more approaches that flare from one to two lanes. These require wider circulatory roadways to accommodate more than one vehicle traveling side by side. Exhibit 1-11 provides an example of a typical urban multilane roundabout. The speeds at the entry, on the circulatory roadway, and at the exit are similar to those for the urban single-lane roundabouts. Again, it is important that the vehicular speeds be consistent throughout the roundabout. The geometric design will include raised splitter islands, no truck apron, a nonmountable central island, and appropriate horizontal deflection.

Alternate routes may be provided for bicyclists who choose to bypass the roundabout. Bicycle and pedestrian pathways must be clearly delineated with sidewalk construction and landscaping to direct users to the appropriate crossing locations and alignment. Urban double-lane roundabouts located in areas with high pedestrian or bicycle volumes may have special design recommendations such as those provided in Chapters 6 and 7. The design of these roundabouts is based on the methods used in the United Kingdom, with influences from Australia and France.

The urban double-lane roundabout category includes roundabouts with one or more entries that flare from one to two lanes.

See Chapters 6 and 7 for special design considerations for pedestrians and bicycles.

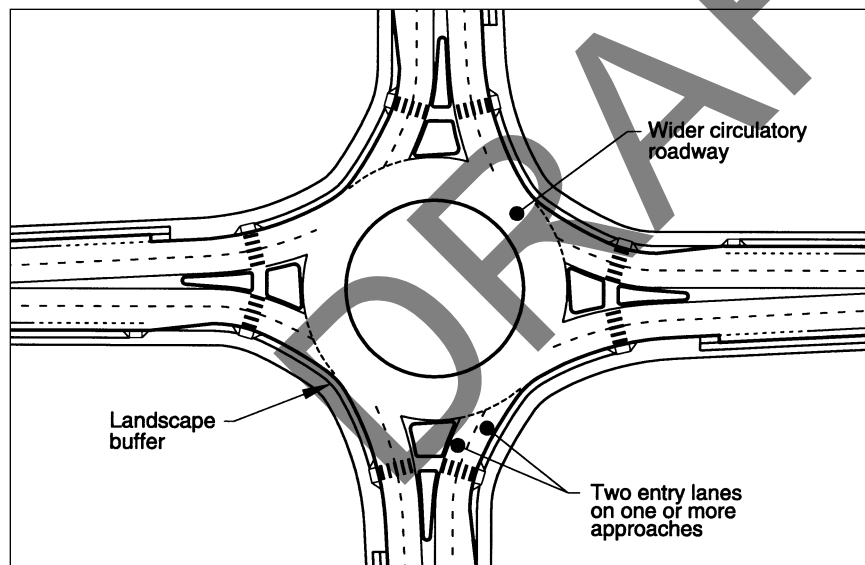


Exhibit 1-11. Typical urban double-lane roundabout.

1.6.6 Rural single-lane roundabouts

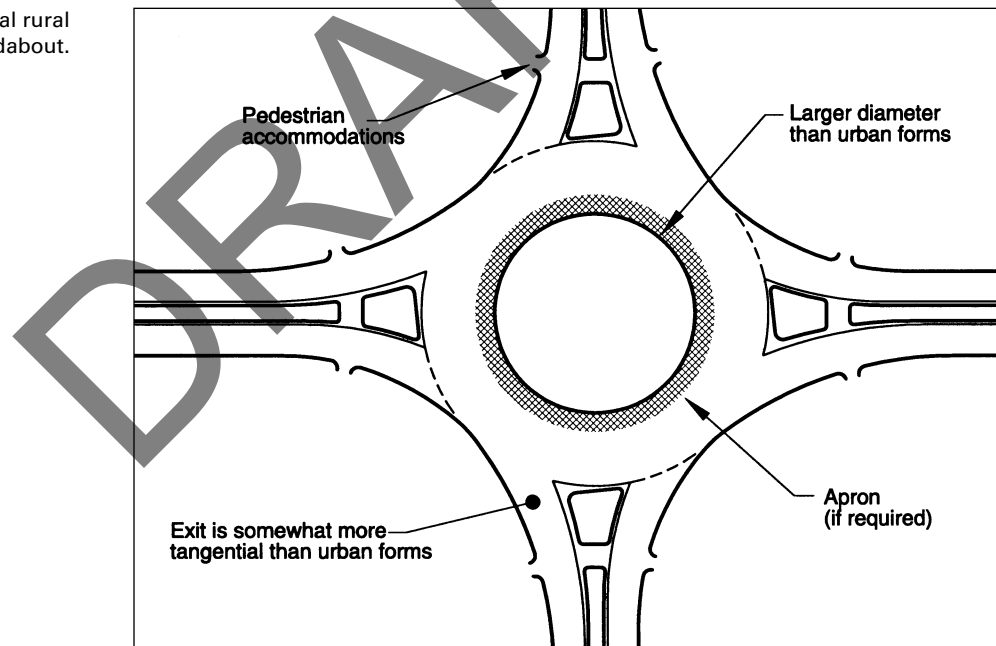
Because of their higher approach speeds, rural single-lane roundabouts require supplementary geometric and traffic control device treatments on the approaches.

Rural single-lane roundabouts generally have high average approach speeds in the range of 80 to 100 km/h (50 to 60 mph). They require supplementary geometric and traffic control device treatments on approaches to encourage drivers to slow to an appropriate speed before entering the roundabout. Rural roundabouts may have larger diameters than urban roundabouts to allow slightly higher speeds at the entries, on the circulatory roadway, and at the exits. This is possible if few pedestrians are expected at these intersections, currently and in future. There is preferably no apron because their larger diameters should accommodate larger vehicles. Supplemental geometric design elements include extended and raised splitter islands, a nonmountable central island, and adequate horizontal deflection. The design of these roundabouts is based primarily on the methods used by Australia, France, and the United Kingdom. Exhibit 1-12 provides an example of a typical rural single-lane roundabout.

Rural roundabouts that may become part of an urbanized area should include urban roundabout design features.

Rural roundabouts that may one day become part of an urbanized area should be designed as urban roundabouts, with slower speeds and pedestrian treatments. However, in the interim, they should be designed with supplementary approach and entry features to achieve safe speed reduction.

Exhibit 1-12. Typical rural single-lane roundabout.



1.6.7 Rural double-lane roundabouts

Rural double-lane roundabouts have speed characteristics similar to rural single-lane roundabouts with average approach speeds in the range of 80 to 100 km/h (50 to 60 mph). They differ in having two entry lanes, or entries flared from one to two lanes, on one or more approaches. Consequently, many of the characteristics and design features of rural double-lane roundabouts mirror those of their urban counterparts. The main design differences are designs with higher entry speeds and larger diameters, and recommended supplementary approach treatments. The design of these roundabouts is based on the methods used by the United Kingdom, Australia, and France. Exhibit 1-13 provides an example of a typical rural double-lane roundabout. Rural roundabouts that may one day become part of an urbanized area should be designed for slower speeds, with design details that fully accommodate pedestrians and bicyclists. However, in the interim they should be designed with approach and entry features to achieve safe speed reduction.

Rural double-lane roundabouts have higher entry speeds and larger diameters than their urban counterparts.

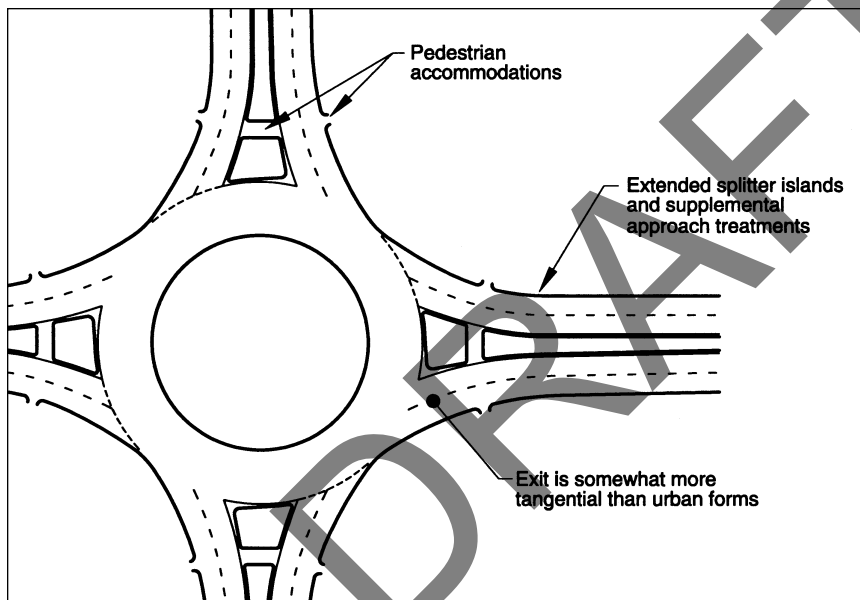


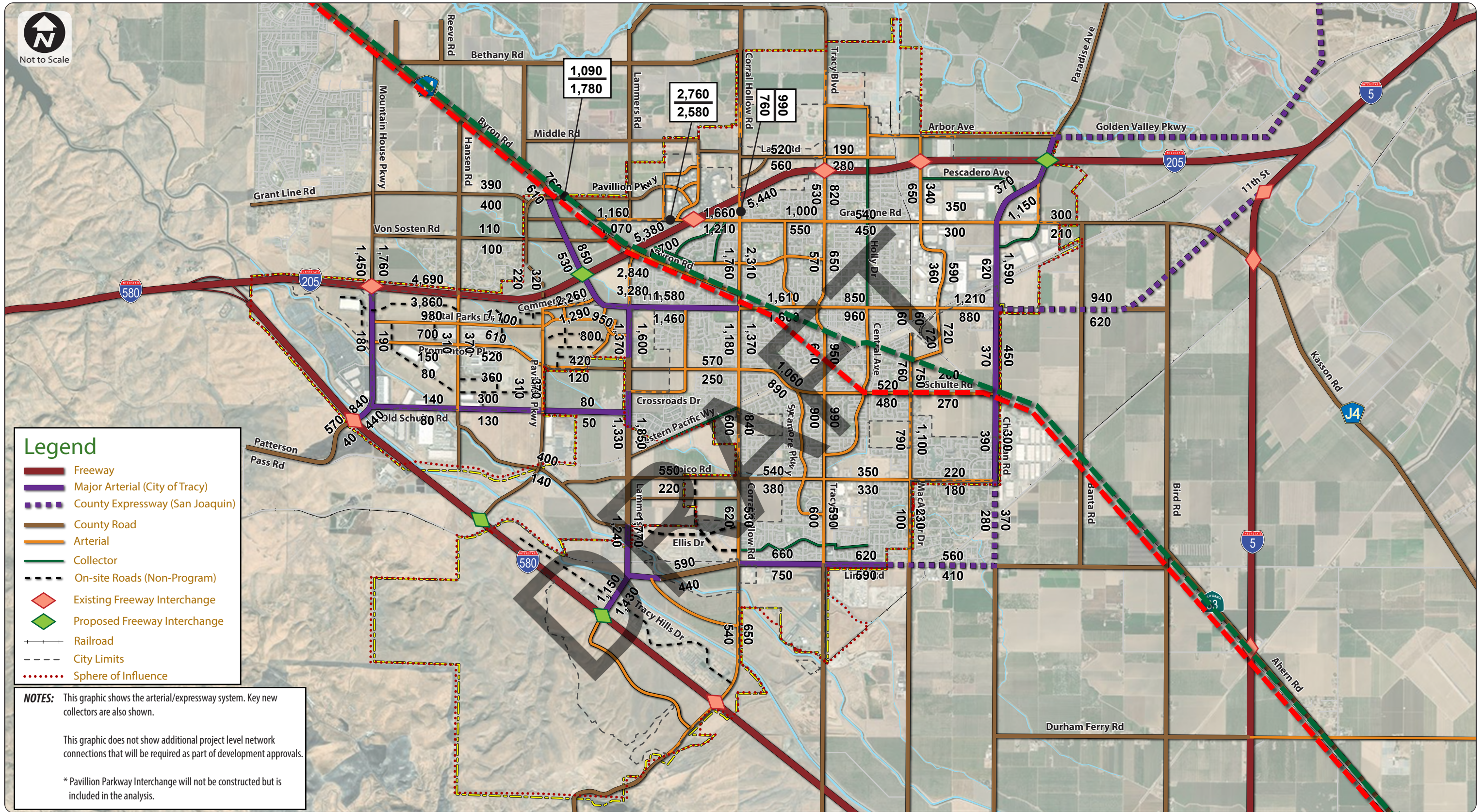
Exhibit 1-13. Typical rural double-lane roundabout.



APPENDIX G

HISTORICAL PIPELINE ROW LOCATIONS

DRAFT



Source: ESRI, Kimley-Horn



- Historical Old Valley Pipeline (OVP)
- Historical Tidewater Associated Oil Company (TAOC) Pipeline

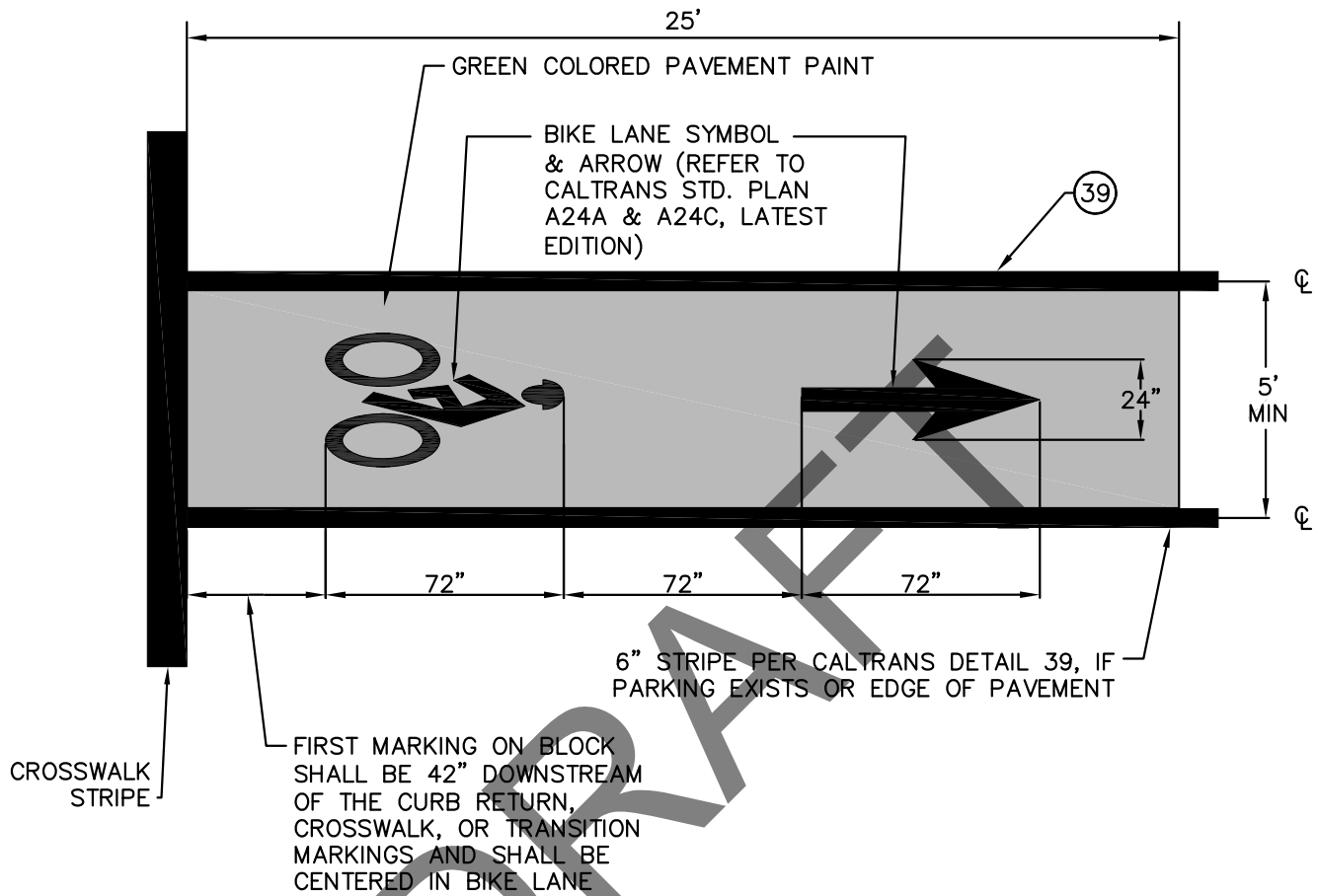
Appendix G: Historical Pipeline Rights-of-Way



APPENDIX H

CITY OF TRACY BIKEWAY AND BIKE PARKING STANDARDS

DRAFT



NOTES

1. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.
2. LONGITUDINAL SPACING MEASURED FROM THE BASE OF EACH MARKING.
3. LOCATE MARKINGS AT 250' MAXIMUM SPACINGS IN EACH BLOCK.
4. ALL GREEN PAVEMENT PAINT TO BE CYCLE GRIP MMAX GREEN MMA OR APPROVED EQUAL.

CITY OF TRACY



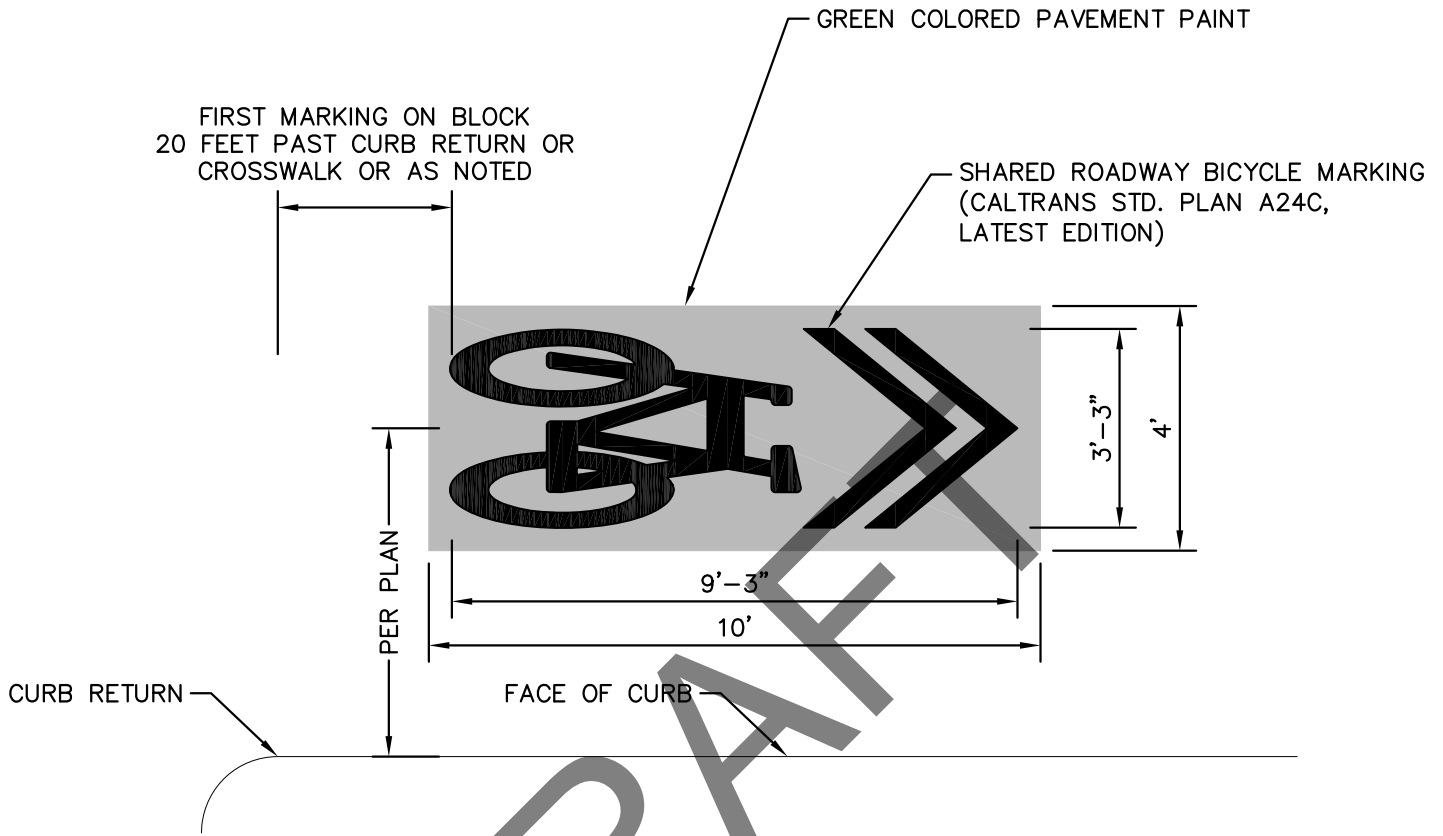
REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev: Edgar T.	Rev:

STANDARD PLAN NO.

147

SHEET 1 OF 14

CLASS II BICYCLE LANE MARKING DETAIL

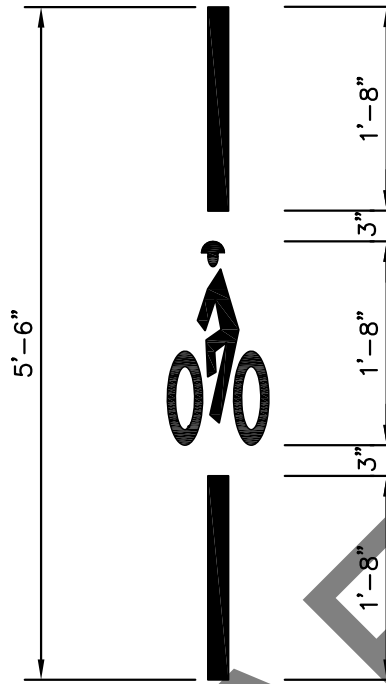


NOTES

1. LEAVE AT LEAST 10' SPACING FROM WORD LEGENDS, LANE ASSIGNMENT ARROWS, OTHER MARKINGS, AND SPEED HUMPS IN THE SAME LANE OF TRAVEL.
2. DISTANCE BETWEEN SHARROWS IS MEASURED FROM BASE OF MARKING TO BASE OF MARKING.
3. PLACE A MINIMUM OF TWO SHARROW MARKINGS ON EACH BLOCK.
4. SHARED LANE MARKINGS USED TO BRIDGE DISCONTINUOUS BICYCLE FACILITIES OR ALONG BUSIER STREETS SHOULD BE PLACED MORE FREQUENTLY (50' TO 100' SPACINGS) THAN ALONG LOW TRAFFIC BICYCLE ROUTES (UP TO 250' SPACINGS).
5. ALL GREEN PAVEMENT PAINT TO BE CYCLE GRIP MMAX GREEN MMA OR APPROVED EQUAL.

CITY OF TRACY

	REVIEWED BY: <i>Robert Armijo</i> CITY ENGINEER <i>RCE 63173</i>	STANDARD PLAN NO. 147	SHEET 2 OF 14
	Res No. 2020-031	DATE: February 18, 2020	SHARED ROADWAY BICYCLE MARKING
	Prepared By: Leisser M.	Checked By: Thomas W.	
	Rev: Edgar T.	Rev:	



BICYCLE LOOP DETECTOR SYMBOL
 (REFER TO CALTRANS STD. PLAN
 A24C, LATEST EDITION)

NOTES

1. THE BICYCLE DETECTOR PAVEMENT MARKING (SYMBOL) SHALL BE USED AT ALL ACTUATED TRAFFIC SIGNAL APPROACHES THAT ARE CAPABLE OF DETECTING BICYCLES.
2. A SYMBOL SHALL BE INSTALLED IN THE RIGHT-MOST LANE SERVING THE BICYCLIST'S DESTINATION, INCLUDING LEFT TURN LANES, THROUGH LANES, AND BIKE LANES.
3. THE LEADING EDGE OF THE SYMBOL SHALL BE INSTALLED ONE FOOT BEHIND THE LIMIT LINE (OR CROSSWALK).
4. CENTER THE SYMBOL IN LANE (ALIGNED WITH THE LANE ASSIGNMENT ARROW).

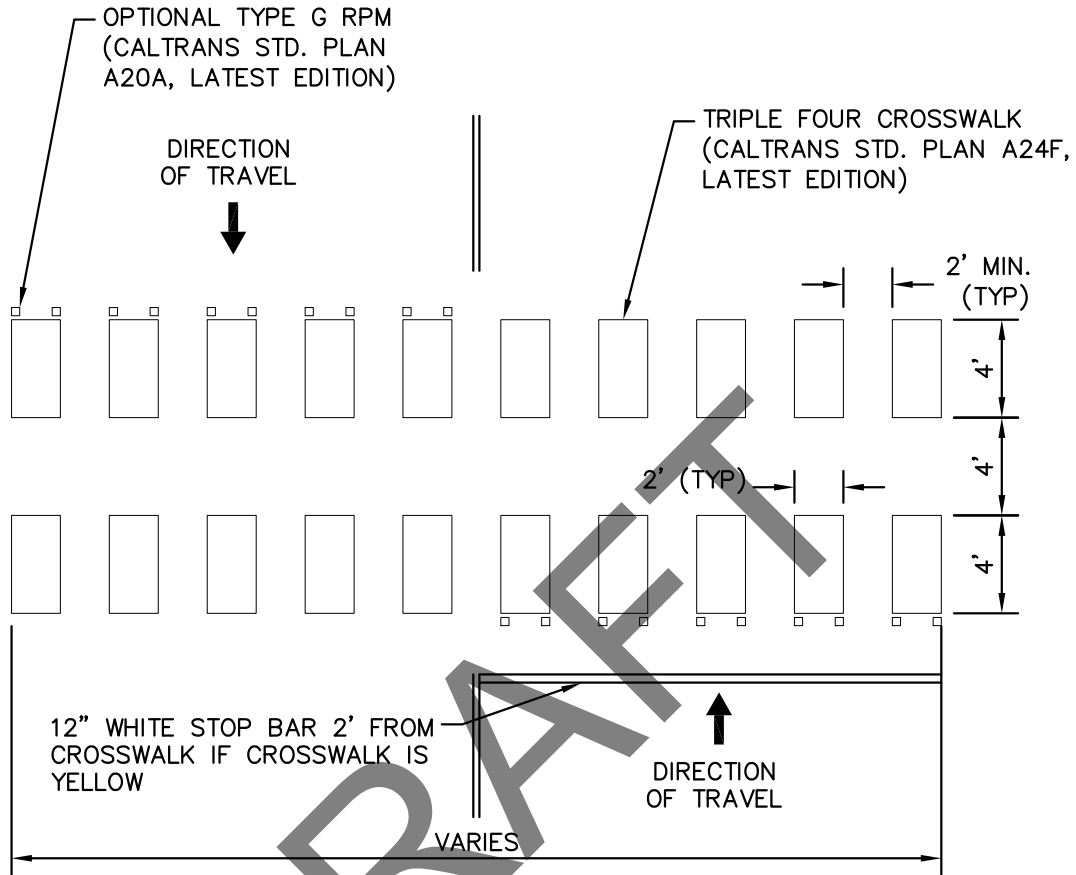
CITY OF TRACY



REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev: Edgar T.	Rev:

STANDARD PLAN NO. **147** SHEET 3 OF 14

BICYCLE DETECTOR PAVEMENT MARKING



NOTES

1. SPACES BETWEEN MARKINGS SHALL BE PLACED IN WHEEL TRACKS OF EACH LANE.
2. ALL CROSSWALK MARKINGS SHALL BE WHITE EXCEPT THOSE NEAR SCHOOLS MAY BE YELLOW, REFER TO THE CA MUTCD.
3. TWO RAISED PAVEMENT MARKERS (RPM) SHOULD BE PLACED NEXT TO EACH STRIPE ON THE APPROACH SIDE OF THE CROSSWALK.
4. TRIPLE FOUR CROSSWALK TO BE INSTALLED AS SPECIFIED BY THE ENGINEER.

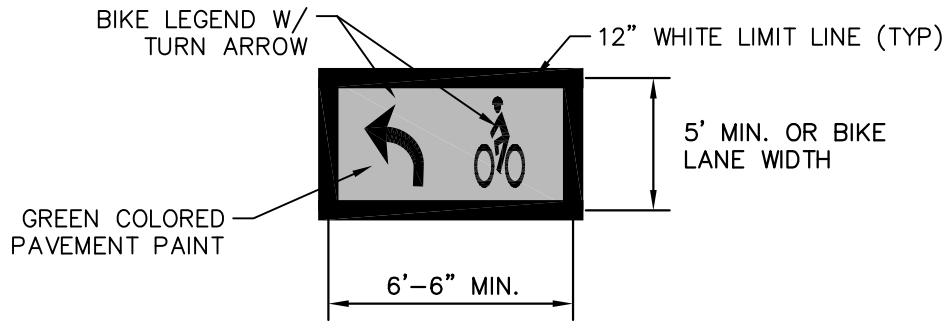
CITY OF TRACY



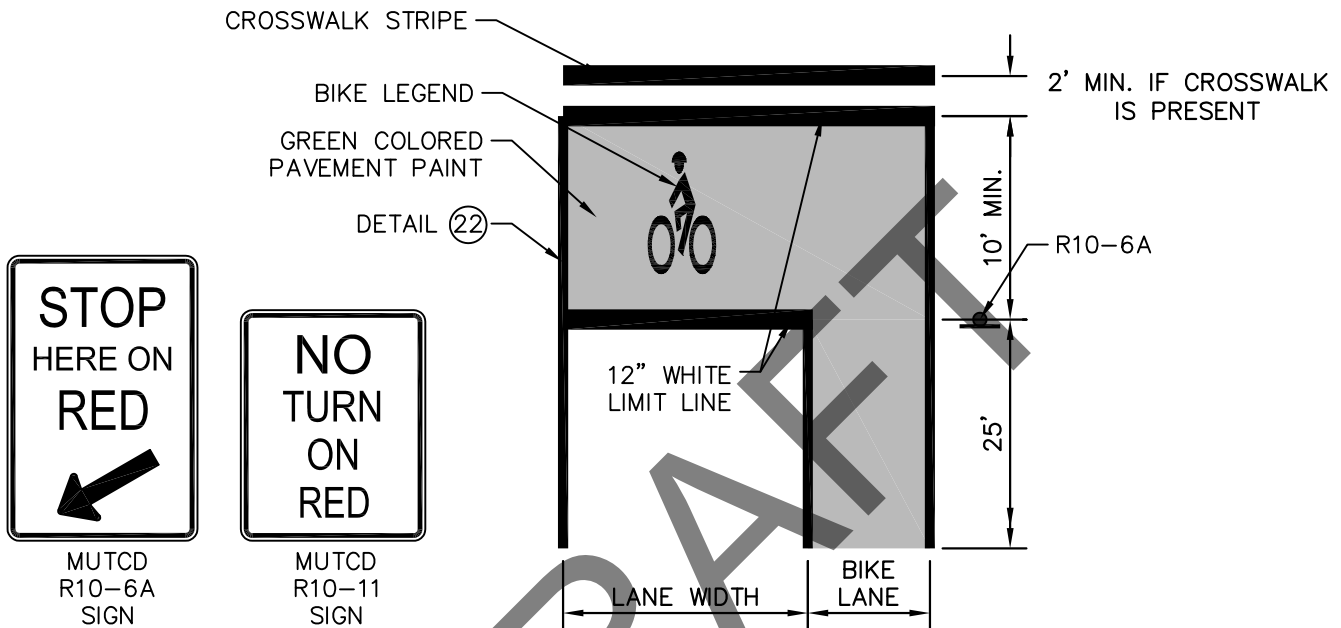
REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev: Edgar T.	Rev:

STANDARD PLAN NO. **147** SHEET 4 OF 14

TRIPLE FOUR CROSSWALK



TWO-STAGE LEFT-TURN QUEUE BOX




THROUGH MOVEMENT QUEUE BOX

NOTES

1. "NO RIGHT-TURN ON RED" RESTRICTION SHALL BE IMPLEMENTED WITH THE APPLICATION OF THROUGH MOVEMENT QUEUE BOX WHEN THERE IS NO DEDICATED RIGHT-TURN LANE ADJACENT TO THE CURRENT LANE.
2. FOR BIKE LEGEND AND TURN ARROW, REFER TO CALTRANS STD. PLANS A24B AND A24C, LATEST EDITION.
3. TWO-STAGE LEFT-TURN QUEUE BOX PAVEMENT MARKINGS SHALL BE PLACED CENTERED VERTICALLY AND EVENLY SPACED HORIZONTALLY WITHIN THE BOX.
4. THROUGH MOVEMENT QUEUE BOX PAVEMENT MARKINGS SHALL BE CENTERED VERTICALLY BETWEEN THE TWO LIMIT LINES AND CENTERED HORIZONTALLY ON THE LANE CENTERLINE.
5. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20A AND A20D, LATEST EDITION.
6. MUTCD R10-6A AND R10-11 SIGNS SHALL BE POSITIONED PER CA MUTCD GUIDELINES.
7. ALL GREEN PAVEMENT PAINT TO BE CYCLE GRIP MMAX OR APPROVED EQUAL.
8. BIKE BOX DETAIL SHALL NOT BE IMPLEMENTED WITHOUT PRIOR APPROVAL FROM THE CITY ENGINEER.

CITY OF TRACY

 <p>Think Inside the Triangle™</p>	REVIEWED BY: <i>Robert Armijo</i> CITY ENGINEER <i>RCE 63173</i>	STANDARD PLAN NO. 147	147 SHEET 5 OF 14	
	Res No. 2020-031	DATE: February 18, 2020	BIKE BOX DETAILS	
	Prepared By: Leisser M.	Checked By: Thomas W.		
	Rev: Edgar T.	Rev:		

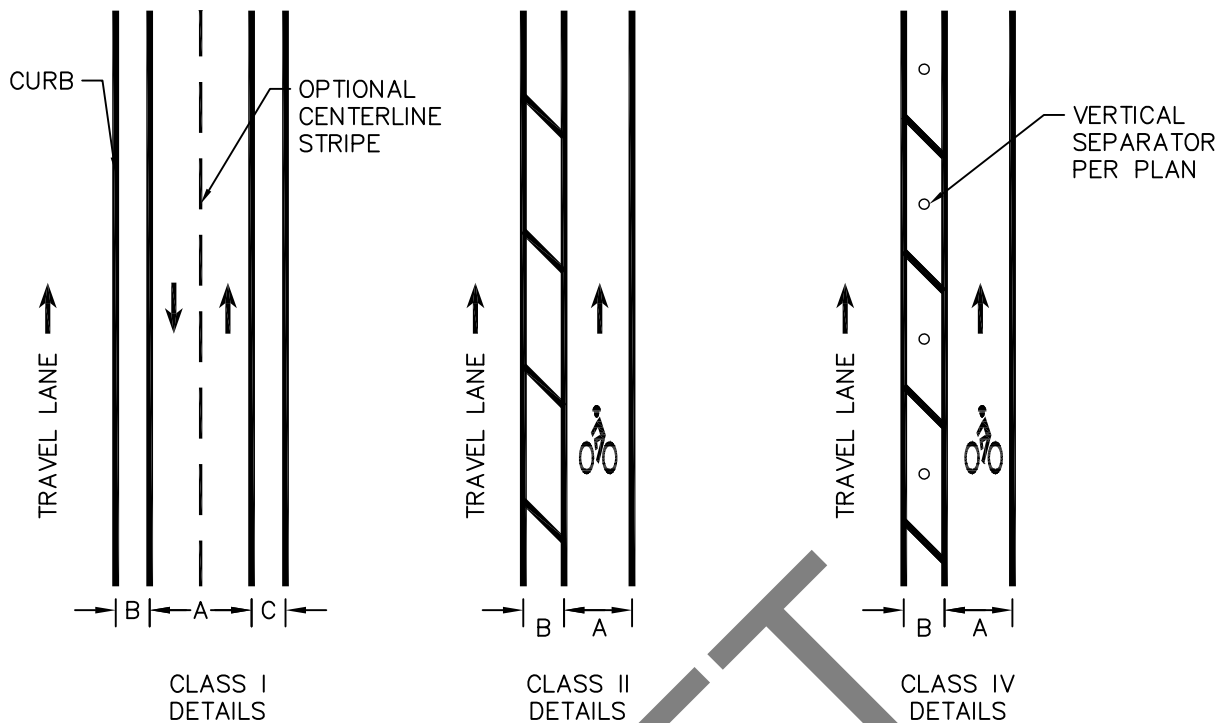



TABLE 1

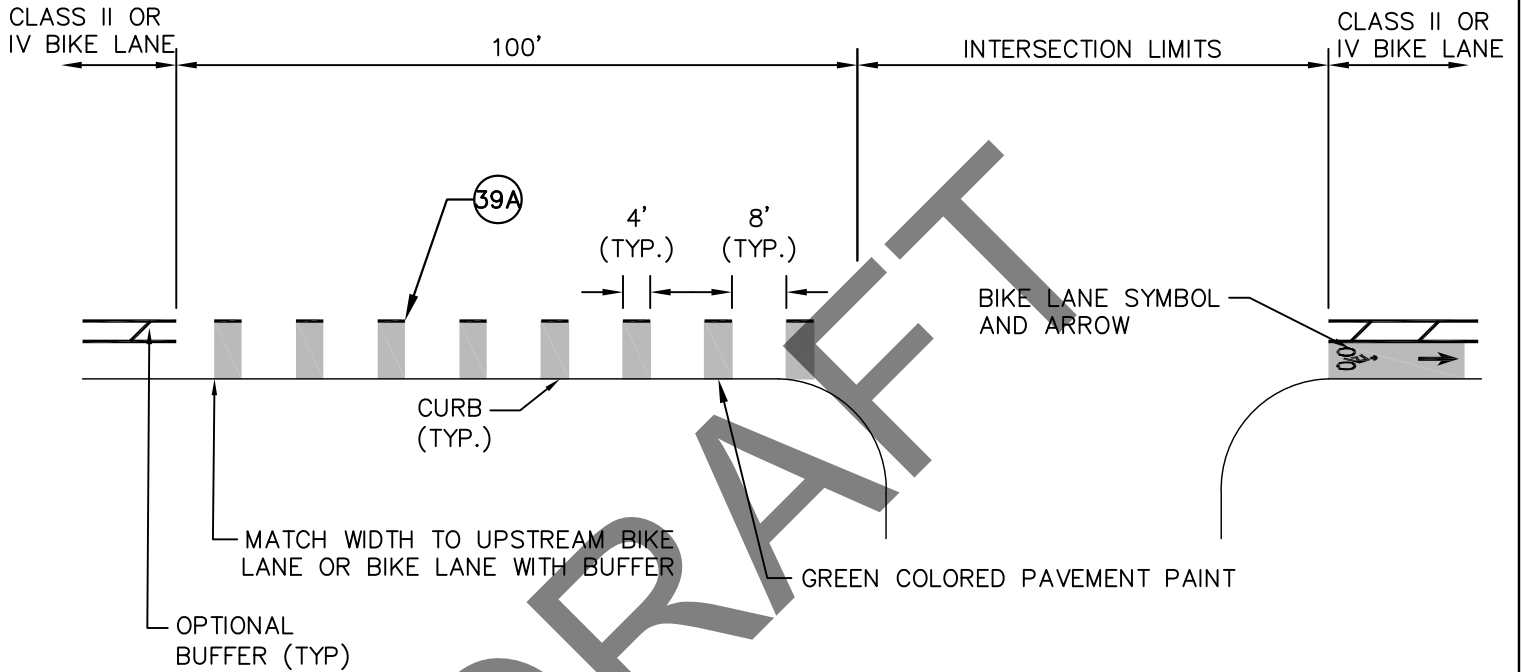
CLASS	WIDTH (A)		TRAVEL LANE BUFFER (B)		NON TRAVEL LANE BUFFER (C)	
	MINIMUM WIDTH	RECOMMENDED WIDTH	MINIMUM BUFFER WIDTH	RECOMMENDED BUFFER WIDTH	MINIMUM BUFFER WIDTH	RECOMMENDED BUFFER WIDTH
I	8'	10'	2'	5'	2'	5'
II	5'	7'	NONE	3'	N/A	N/A
III	N/A	N/A	N/A	N/A	N/A	N/A
IV	5'	7'	2'	3'	N/A	N/A

NOTES

1. SEE TABLE 1 FOR DIMENSIONS.
2. DIAGONAL CROSSHATCH MARKINGS SHALL BE USED IN BUFFERS 2-4 FEET WIDE.
3. NO MARKINGS SHALL BE USED IN BUFFERS LESS THAN 2 FEET.
4. CHEVRONS SHALL BE USED IN BUFFERS GREATER THAN 4 FEET.
5. FOR BIKE LANE SYMBOL AND ARROW SPACING, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.
6. CLASS II MINIMUM WIDTH MAY BE REDUCED TO 4 FEET IF NOT ADJACENT TO CURB OR OTHER VERTICAL APPURTENANCES.
7. FOR CLASS IV BIKE LANES ADJACENT TO PARKING A MINIMUM BUFFER WIDTH OF 3 FEET SHALL BE USED.

CITY OF TRACY

 <p>TRACY Think Inside the Triangle™</p>	REVIEWED BY: <i>Robert Armijo</i> CITY ENGINEER RCE 63173	STANDARD PLAN NO. 147	147 SHEET 6 OF 14	
	Res No. 2020-031	DATE: February 18, 2020	CLASS I, II, III, IV WIDTHS	
	Prepared By: Leisser M.	Checked By: Thomas W.		
	Rev: Edgar T.	Rev:		



NOTES

1. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.
2. FOR BIKE LANE SYMBOL AND ARROW, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.
3. FOR CLASS II OR IV BIKE LANE DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 6 OF 14.

CITY OF TRACY



REVIEWED BY: Robert Armijo
 CITY ENGINEER RCE 63173

STANDARD
 PLAN
 NO.

147

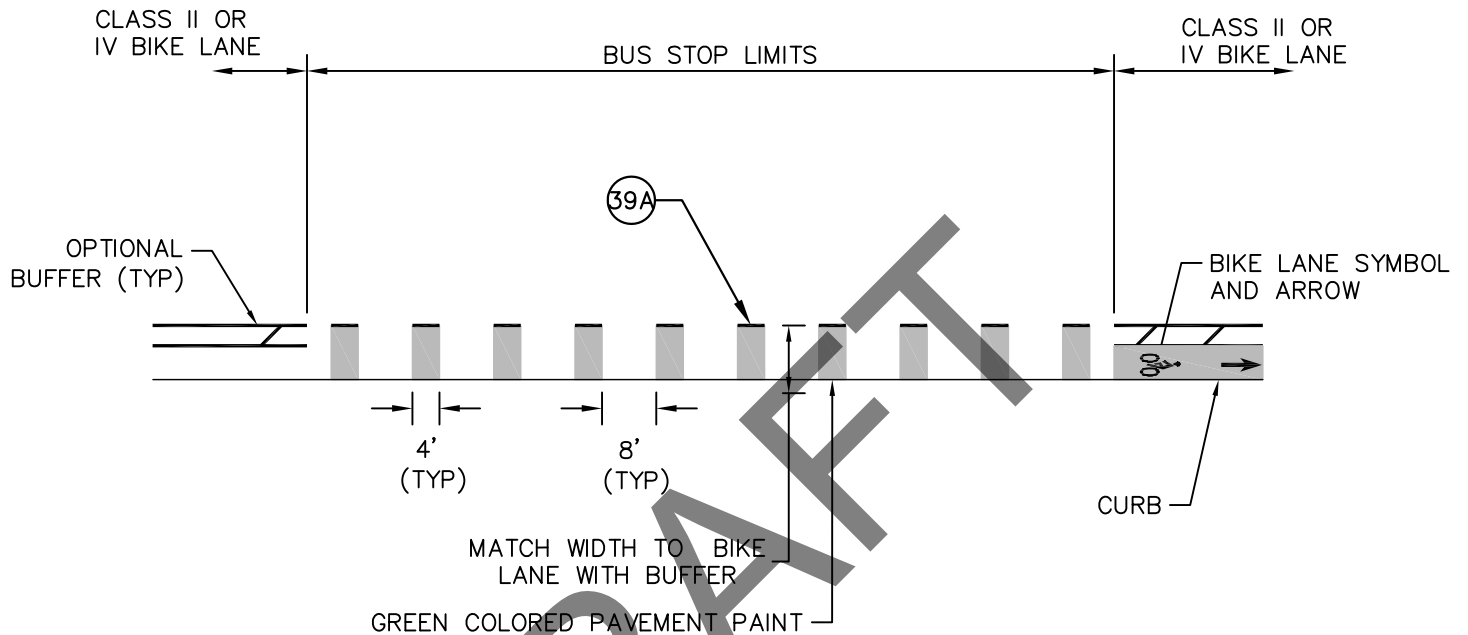
SHEET 7 OF 14

Res No. 2020-031 DATE: February 18, 2020

Prepared By: Leisser M. Checked By: Thomas W.

Rev: Edgar T. Rev:

**BIKE LANE
 AT INTERSECTION**



NOTES

1. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.
2. FOR BIKE LANE SYMBOL AND ARROW, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.
3. FOR CLASS II AND IV BIKE LANE DETAILS, SEE CITY OF TRACY STD PLAN NO. 147 SHEET 6 OF 14.

CITY OF TRACY



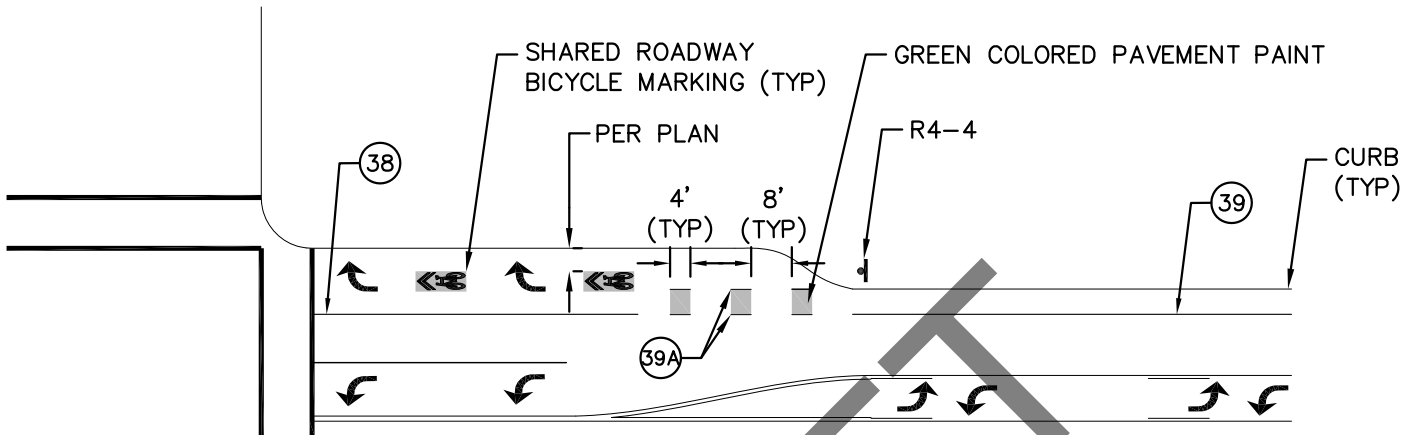
REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev: Edgar T.	Rev:

STANDARD
PLAN
NO.

147

SHEET 8 OF 14

**BIKE LANE
AT BUS STOP**



NOTES

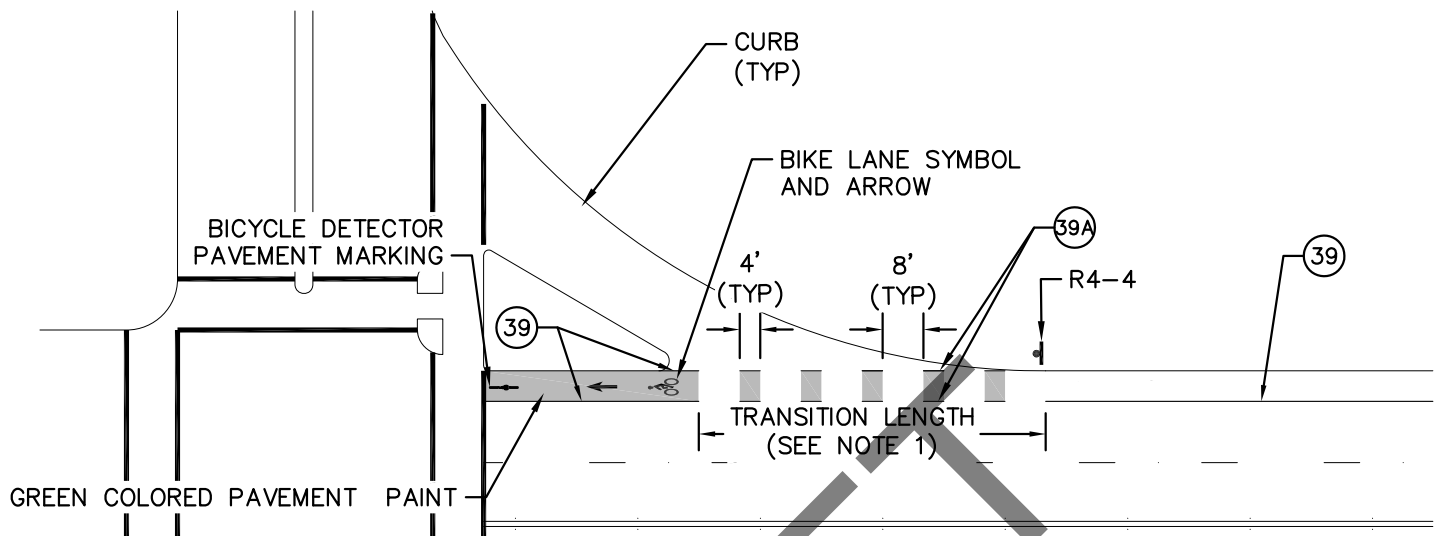
1. THIS TREATMENT USES GREEN BACKED SHARROWS AND RIGHT-TURN ARROWS TO MARK THE MIXING ZONE. THE MARKINGS SHALL BE CENTERED IN THE CHANNELIZED LANE. THE SHARROWS ARE TO BE SPACED EVENLY BETWEEN EACH RIGHT-TURN ARROW. SHARROW SHALL BE PLACED AT BEGINNING OF RIGHT TURN LANE.
2. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.
3. FOR SHARED ROADWAY BICYCLE MARKING DETAIL, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 2 OF 14.
4. FOR CLASS II OR IV BIKE LANE DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 6 OF 14.



MUTCD R4-4 SIGN

CITY OF TRACY

	REVIEWED BY: <i>Robert Armijo</i> CITY ENGINEER <i>RCE 63173</i>	STANDARD PLAN NO. 147 SHEET 9 OF 14
	Res No. 2020-031	DATE: February 18, 2020
	Prepared By: Leisser M.	Checked By: Thomas W.
	Rev: Edgar T.	Rev:
SHARED BIKE/ RIGHT-TURN LANE		



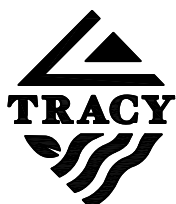
NOTES

1. TRANSITION LENGTH IS DETERMINED BY ROADWAY GEOMETRY.
2. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.
4. FOR BIKE LANE SYMBOL AND ARROW, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.
5. FOR BICYCLE DETECTOR PAVEMENT MARKING, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 3 OF 14.
6. FOR CLASS II OR IV BIKE LANE DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 6 OF 14.



MUTCD R4-4 SIGN

CITY OF TRACY



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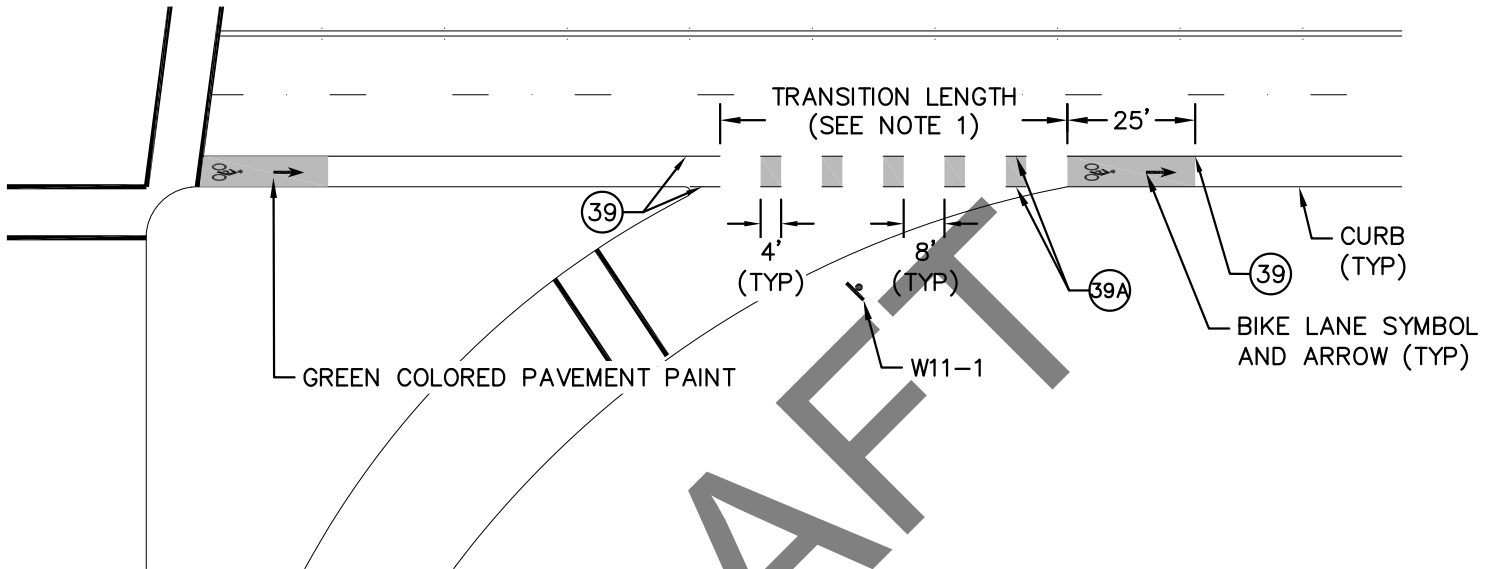
REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev: Edgar T.	Rev:

STANDARD
PLAN
NO.

147

SHEET 10 OF 14

**SLIP TURN
UPSTREAM**



NOTES

1. TRANSITION LENGTH IS DETERMINED BY ROADWAY GEOMETRY.
2. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.
3. FOR BIKE SYMBOL AND ARROW DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.
4. FOR CLASS II OR IV BIKE LANE DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 6 OF 14.



MUTCD W11-1 SIGN

CITY OF TRACY



Think Inside the Triangle™

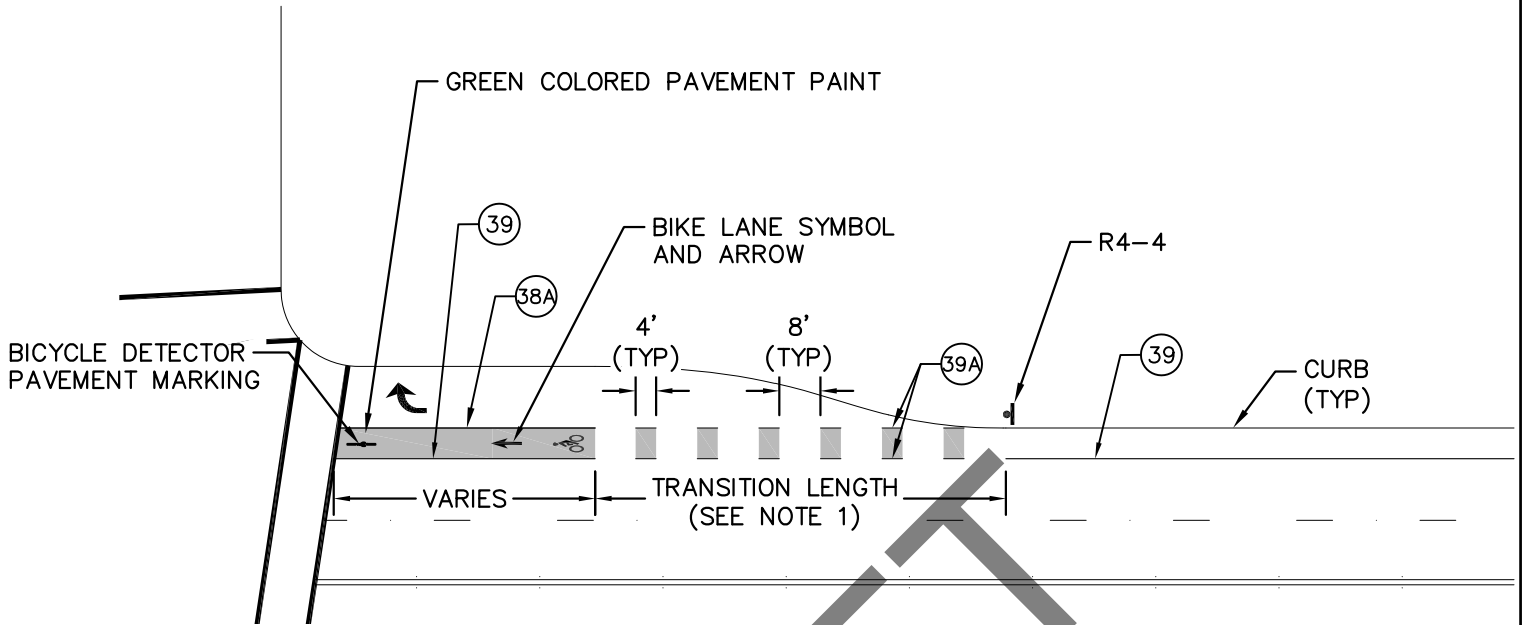
REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev: Edgar T.	Rev:

STANDARD
PLAN
NO.

147

SHEET 11 OF 14

**SLIP TURN
DOWNSTREAM**



NOTES

1. TRANSITION LENGTH TO MATCH BAY TAPER LENGTH (60 FEET MINIMUM).
2. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.
4. FOR BIKE LANE SYMBOL AND ARROW, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.
5. FOR BICYCLE DETECTOR PAVEMENT MARKING, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 3 OF 14.
6. FOR CLASS II AND IV BIKE LANE DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 6 OF 14.



MUTCD R4-4 SIGN

CITY OF TRACY



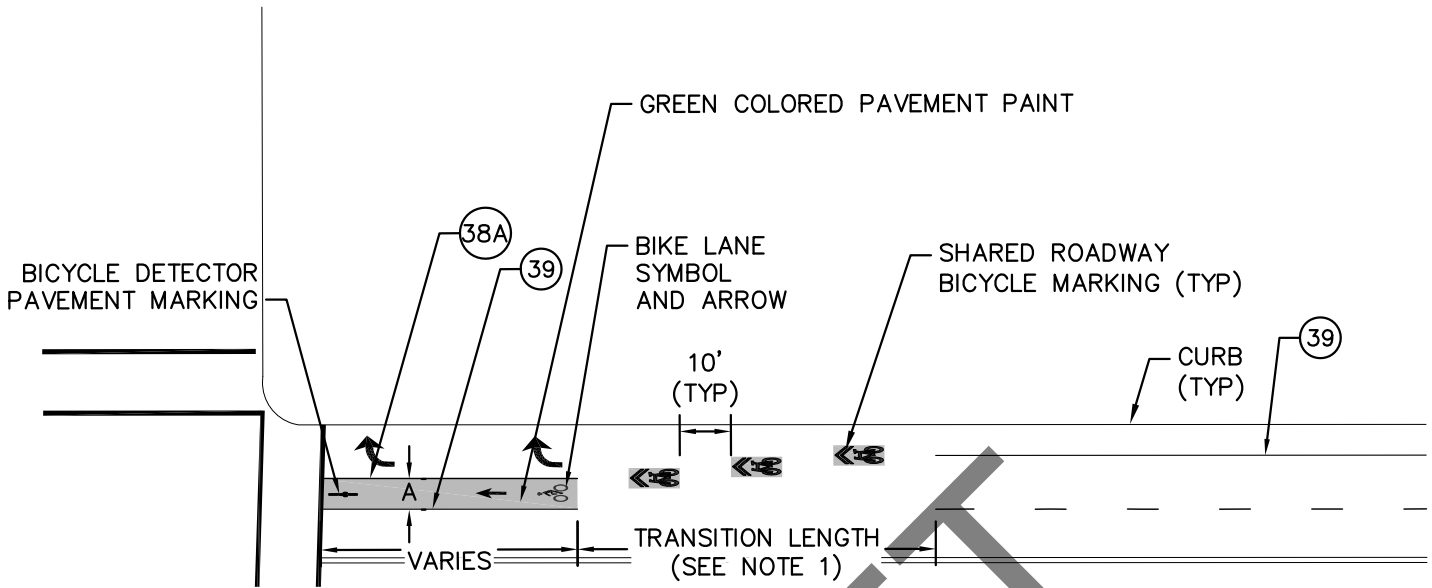
REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev: Edgar T.	Rev:

STANDARD PLAN NO.

147

SHEET 12 OF 14

TURN POCKET



NOTES

1. THIS TREATMENT USES GREEN BACKED SHARROWS TO MARK THE MIXING ZONE. THE FIRST SHARROW SHOULD BE CENTERED ON THE RIGHT EDGE OF THE UPSTREAM TRAVEL LANE. THE LAST SHOULD BE CENTERED ON THE LEFT EDGE OF THE RIGHT TURN LANE. THE SHARROWS IN BETWEEN SHOULD SHIFT EVENLY TO THE LEFT. THE TYPICAL TRANSITION LENGTH IS 12 X A (70' AS SHOWN).
2. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.
4. FOR BIKE LANE SYMBOL AND ARROW, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.
5. FOR SHARED ROADWAY BICYCLE MARKING SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 2 OF 14.
6. FOR BICYCLE DETECTOR PAVEMENT MARKING, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 3 OF 14.
7. FOR CLASS II AND IV BIKE LANE DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 6 OF 14.

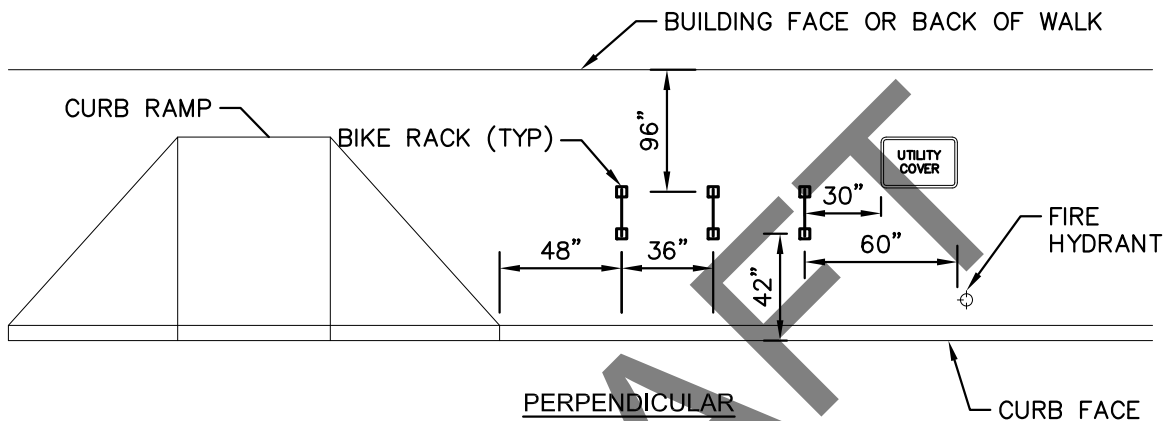
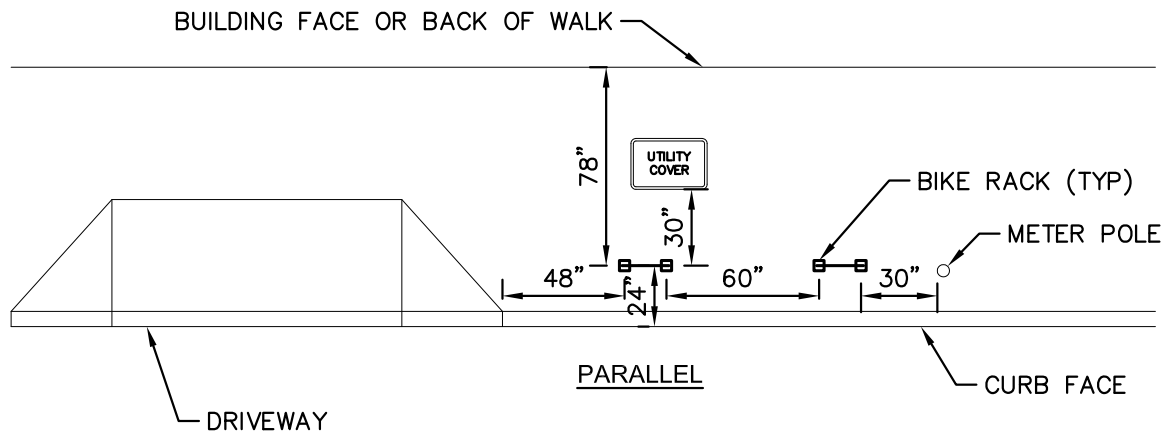
CITY OF TRACY



REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev: Edgar T.	Rev:

STANDARD PLAN NO. **147** SHEET 13 OF 14

RIGHT TURN ONLY TRAP LANE



MINIMUM SETBACK DISTANCE	OBSTRUCTION TYPE
24" (PARALLEL), 42" (PERPENDICULAR)	CURB FACE, BUILDING FACE (IF RACK IS SITED ADJACENT)
30"	LIGHT POLE, NEWSPAPER RACK, SIGN POLE, USPS MAILBOX, TREE WELL, STREET FURNITURE, TRASH CAN, SURFACE HARDWARE (PG&E, CABLE GRATES, ETC.)
48"	CURB RAMP, CROSSWALK, WHITE/YELLOW LOADING ZONE, STORM DRAIN INLET, BLUE ZONE (DISABLED PARKING), DRIVEWAY
60"	FIRE HYDRANT

NOTES

1. ALL DIMENSIONS ARE MINIMUMS AND SHOULD BE EXCEEDED WHERE POSSIBLE, DEPENDING ON SITE-SPECIFIC CONDITIONS.
2. ALL SETBACK DISTANCES ARE MEASURED FROM THE CENTER OF THE RACK FLANGE, TO THE LEADING EDGE OF OBSTRUCTION.
3. FOR CLASS II RACKS, SEE CITY OF TRACY PARKS AND STREETScape STD. D4.5.1.

CITY OF TRACY



Think Inside the Triangle™

REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev: Edgar T.	Rev:

STANDARD
PLAN
NO.

147

SHEET 14 OF 14

CLASS II BIKE RACK LAYOUT



APPENDIX I

VMT BANKING PROJECT COST ESTIMATES

DRAFT

City of Tracy TMP
Estimate of Conceptual Project Costs
A. Legacy Fields Bicycle Connection
From Legacy Fields to Rail Trail



Date Prepared: September 2, 2021

Item	Unit	Quantity	Unit Cost	Total Cost	Notes	
Tracy Blvd (Legacy Fields to Larch Rd)						
1	Remove Asphalt	LF	1,350	\$25	\$33,800	Removal of existing trail
2	Remove Concrete (Sidewalk)	LF	1,000	\$75	\$75,000	Removal of existing sidewalk east of Tracy Blvd
3	Trail (14' Width)	LF	1,350	\$280	\$378,000	Includes additional amenities along the trail. Spans just south of the existing ped crossing to Legacy Fields.
4	Class I Path (12' Width)	SF	5,400	\$25	\$135,000	Concrete Path
5	Buffer Striping	LF	2,000	\$2	\$3,000	Buffer for new Class II south of the pedestrian crossing
W. Larch Rd (Tracy Blvd to Holly Dr)						
6	Sharrow Markings	EA	27	\$10	\$300	Spaced at 100' each marking
Holly Rd (Larch Rd to Rail Trail)						
7	Sharrow Markings	EA	38	\$10	\$400	Spaced at 100' each marking
N. Tracy Blvd, 10th St, & East St						
8	Sharrow Markings	EA	45	\$10	\$500	Spaced at 100' each marking
SUB-TOTAL MAJOR CONSTRUCTION ITEMS				\$626,000	Notes	
Utility Work	% of sub-total major construction items		8.0%	\$50,100		
Landscaping	% of sub-total major construction items		8.0%	\$50,100		
Erosion Control	% of sub-total major construction items		6.0%	\$37,600		
Drainage	% of sub-total major construction items		5.0%	\$31,300		
Traffic Control / Detour	% of sub-total major construction items		5.0%	\$31,300		
Traffic - Signage & Striping	% of sub-total major construction items		3.0%	\$18,800		
Mobilization	% of sub-total major construction items		8.0%	\$50,100		
Misc. - Lighting/Commercial Signs	% of sub-total major construction items		5.0%	\$31,300		
Minor Contract Revisions	% of sub-total major construction items		5.0%	\$31,300		
SUB-TOTAL CONSTRUCTION COSTS				\$957,900	Notes	
Design Engineering	% of sub-total construction costs		15.0%	\$143,700		
Construction Management/Materials Testing	% of sub-total construction costs		15.0%	\$143,700		
SUB-TOTAL DESIGN AND PROJECT ADMIN				\$287,400		
SUB-TOTAL				\$1,245,300	Notes	
Contingency (40%)	% of sub-total		40.0%	\$498,200		
Total Project Cost Estimate (2020 Cost Rounded up to the Nearest \$10,000)				\$1,750,000		

Opinion of Probable Construction Costs

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

It should be noted that the provided cost estimation excludes Right of Way acquisition costs that may be required for these improvements to be implemented.

City of Tracy TMP

Estimate of Conceptual Project Costs

B. Rail Trail & Class I Gap Closure

From Lammers Rd to Central Ave



Date Prepared: September 2, 2021

Item	Unit	Quantity	Unit Cost	Total Cost	Notes
Byron Rd (Gap Closure)					
1 Class I Path (12' Width)	SF	36,000	\$25	\$900,000	Concrete Path
Rail Trail (Lammers Rd to Corral Hollow Rd)					
2 Rail Trail (14' Width)	LF	6,750	\$280	\$1,890,000	Includes additional amenities along the trail
3 Fencing	LF	6,750	\$40	\$270,000	Chainlink fence
Rail Trail (Corral Hollow Rd to Central Ave)					
4 Rail Trail (14' Width)	LF	8,400	\$280	\$2,352,000	Includes additional amenities along the trail
5 Rail Trail Crossing Intersection Improvements	EA	4	\$250,000	\$1,000,000	Byron & Corral Hollow, 11th St , Tracy Blvd, & Central Ave
6 Fencing	LF	8,400	\$40	\$336,000	Chainlink fence
SUB-TOTAL MAJOR CONSTRUCTION ITEMS				\$6,748,000	Notes
Utility Work	% of sub-total major construction items		8.0%	\$539,900	
Landscaping	% of sub-total major construction items		8.0%	\$539,900	
Erosion Control	% of sub-total major construction items		6.0%	\$404,900	
Drainage	% of sub-total major construction items		5.0%	\$337,400	
Traffic Control / Detour	% of sub-total major construction items		5.0%	\$337,400	
Traffic - Signage & Striping	% of sub-total major construction items		3.0%	\$202,500	
Mobilization	% of sub-total major construction items		8.0%	\$539,900	
Misc. - Lighting/Commercial Signs	% of sub-total major construction items		5.0%	\$337,400	
Minor Contract Revisions	% of sub-total major construction items		5.0%	\$337,400	
SUB-TOTAL CONSTRUCTION COSTS				\$10,324,700	Notes
Design Engineering	% of sub-total construction costs		15.0%	\$1,548,800	
Construction Management/Materials Testing	% of sub-total construction costs		15.0%	\$1,548,800	
SUB-TOTAL DESIGN AND PROJECT ADMIN				\$3,097,600	
SUB-TOTAL				\$13,422,300	Notes
Contingency (40%)	% of sub-total		40.0%	\$5,369,000	
Total Project Cost Estimate (2020 Cost Rounded up to the Nearest \$10,000)				\$18,800,000	

Opinion of Probable Construction Costs

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It should be noted that the provided cost estimation excludes Right of Way acquisition costs that may be required for these improvements to be implemented.

City of Tracy TMP
Estimate of Conceptual Project Costs
C. Rail Trail
From Lammers Rd to MacArthur Dr



Date Prepared: **September 2, 2021**

Item	Unit	Quantity	Unit Cost	Total Cost	Notes
1 Rail Trail (14' Width)	LF	19,200	\$280	\$5,376,000	Includes additional amenities along the trail.
2 Rail Trail Crossing Intersection Improvements	EA	4	\$1,000,000	\$4,000,000	Byron & Corral Hollow, 11th St, Tracy Blvd, & Central Ave
3 Fencing	LF	19,200	\$40	\$768,000	Chainlink fence
SUB-TOTAL MAJOR CONSTRUCTION ITEMS				\$10,144,000	Notes
Utility Work	% of sub-total major construction items		8.0%	\$811,600	
Landscaping	% of sub-total major construction items		8.0%	\$811,600	
Erosion Control	% of sub-total major construction items		6.0%	\$608,700	
Drainage	% of sub-total major construction items		5.0%	\$507,200	
Traffic Control / Detour	% of sub-total major construction items		5.0%	\$507,200	
Traffic - Signage & Striping	% of sub-total major construction items		3.0%	\$304,400	
Mobilization	% of sub-total major construction items		8.0%	\$811,600	
Misc. - Lighting/Commercial Signs	% of sub-total major construction items		5.0%	\$507,200	
Minor Contract Revisions	% of sub-total major construction items		5.0%	\$507,200	
SUB-TOTAL CONSTRUCTION COSTS				\$15,520,700	Notes
Design Engineering	% of sub-total construction costs		15.0%	\$2,328,200	
Construction Management/Materials Testing	% of sub-total construction costs		15.0%	\$2,328,200	
SUB-TOTAL DESIGN AND PROJECT ADMIN				\$4,656,400	
SUB-TOTAL				\$20,177,100	Notes
Contingency (40%)	% of sub-total		40.0%	\$8,070,900	
Total Project Cost Estimate (2020 Cost Rounded up to the Nearest \$10,000)				\$28,250,000	

Opinion of Probable Construction Costs

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

It should be noted that the provided cost estimation excludes Right of Way acquisition costs that may be required for these improvements to be implemented.

<p style="text-align: center;">City of Tracy TMP</p> <p style="text-align: center;">Estimate of Conceptual Project Costs</p> <p style="text-align: center;">D. WSID Cannel Trail</p> <p style="text-align: center;">From Lammers Rd to Chrisman</p>					<p style="text-align: right;">Kimley»Horn</p>	
					Date Prepared:	September 2, 2021
Item	Unit	Quantity	Unit Cost	Total Cost	Notes	
Canal Trail (Lammers Rd to Valpico Rd)						
1	Canal Trail (14' Width)	LF	10,900	\$280	\$3,052,000	Includes additional amenities along the trail.
2	Canal Trail Crossing Intersection Improvements	EA	2	\$250,000	\$500,000	Western Pacific Way, Corral Hollow
3	Fencing	LF	10,900	\$40	\$436,000	Chainlink fence
4	Privacy Fence	LF	10,900	\$80	\$872,000	Sound Wall?
Valpico Rd (Canal to Tracy Blvd)						
5	Remove Concrete (Sidewalk)	LF	2,600	\$75	\$195,000	Assume removal of entire existing sidewalk width
6	Class I Path (12' Width)	SF	31,200	\$25	\$780,000	Concrete Path
7	Intersection Crossing Upgrades (Unsignalized Intersections)	EA	1	\$10,000	\$10,000	ADA intersection improvements
8	Intersection Crossing Upgrades (Signalized Intersections)	EA	1	\$250,000	\$250,000	ADA intersection improvements with potential signal pole relocations
Tracy Blvd (Valpico Rd to Canal)						
9	Remove Concrete (Sidewalk)	LF	550	\$75	\$41,300	Assume removal of entire existing sidewalk width
10	Class I Path (12' Width)	SF	6,600	\$25	\$165,000	Concrete Path
Canal Trail (Tracy Blvd to MacArthur Dr)						
10	Canal Trail (14' Width)	LF	6,450	\$280	\$1,806,000	Includes additional amenities along the trail.
11	Canal Trail Rail Crossing	EA	1	\$250,000	\$250,000	Rail Crossing
12	Fencing	LF	6,450	\$40	\$258,000	Chainlink fence
13	Privacy Fence	LF	6,450	\$80	\$516,000	Sound Wall?
MacArthur Dr (Canal to Eastlake Dr)						
14	Remove Concrete (Sidewalk)	LF	550	\$75	\$41,300	Assume removal of entire existing sidewalk width
15	Class I Path (12' Width)	SF	6,600	\$25	\$165,000	Concrete Path
16	Intersection Crossing Upgrades (Unsignalized Intersections)	EA	1	\$10,000	\$10,000	ADA intersection improvements
17	Intersection Crossing Upgrades (Signalized Intersections)	EA	1	\$250,000	\$250,000	ADA intersection improvements with potential signal pole relocations
Eastlake (MacArthur to Joseph Tiago Park)						
17	Remove Concrete (Sidewalk)	LF	1,550	\$75	\$116,300	Assume removal of entire existing sidewalk width
18	Class I Path (12' Width)	SF	18,600	\$25	\$465,000	Concrete Path
19	Intersection Crossing Upgrades (Unsignalized Intersections)	EA	4	\$10,000	\$40,000	ADA intersection improvements
Joseph Tiago Park (Eastlake to Canal)						
20	Trail (14' Width)	LF	550	\$280	\$154,000	Includes additional amenities along the trail.
Canal Trail (Joseph Tiago Park to Chrisman Rd)						
20	Canal Trail (14' Width)	LF	3,800	\$280	\$1,064,000	Includes additional amenities along the trail.
21	Intersection Crossing Upgrades (Unsignalized Intersections)	EA	1	\$10,000	\$10,000	ADA intersection improvements
22	Fencing	LF	3,800	\$40	\$152,000	Chainlink fence
23	Privacy Fence	LF	3,800	\$80	\$304,000	Sound Wall?
SUB-TOTAL MAJOR CONSTRUCTION ITEMS					\$11,902,900	Notes
Utility Work	% of sub-total major construction items		8.0%	\$952,300		
Landscaping	% of sub-total major construction items		8.0%	\$952,300		
Erosion Control	% of sub-total major construction items		6.0%	\$714,200		
Drainage	% of sub-total major construction items		5.0%	\$595,200		
Traffic Control / Detour	% of sub-total major construction items		5.0%	\$595,200		
Traffic - Signage & Striping	% of sub-total major construction items		3.0%	\$357,100		
Mobilization	% of sub-total major construction items		8.0%	\$952,300		
Misc. - Lighting/Commercial Signs	% of sub-total major construction items		5.0%	\$595,200		
Minor Contract Revisions	% of sub-total major construction items		5.0%	\$595,200		
SUB-TOTAL CONSTRUCTION COSTS					\$18,211,900	Notes
Design Engineering	% of sub-total construction costs		15.0%	\$2,731,800		
Construction Management/Materials Testing	% of sub-total construction costs		15.0%	\$2,731,800		
SUB-TOTAL DESIGN AND PROJECT ADMIN					\$5,463,600	
SUB-TOTAL					\$23,675,500	Notes
Contingency (40%)	% of sub-total		40.0%	\$9,470,200		
Total Project Cost Estimate (2020 Cost Rounded up to the Nearest \$10,000)					\$33,150,000	
Opinion of Probable Construction Costs						
<p>The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.</p>						
<p>It should be noted that the provided cost estimation excludes Right of Way acquisition costs that may be required for these improvements to be implemented.</p>						

City of Tracy TMP

Estimate of Conceptual Project Costs

E. Rail Trail

WSID Canal Trail to MacArthur



Date Prepared: **September 2, 2021**

Item	Unit	Quantity	Unit Cost	Total Cost	Notes
1 Rail Trail (14' Width)	LF	6,100	\$280	\$1,708,000	Includes additional amenities along the trail.
2 Rail Trail Crossing Intersection Improvements	EA	3	\$250,000	\$750,000	East Schulte, E. Mt Diablo, 3rd St
3 Fencing	LF	6,100	\$40	\$244,000	Chainlink fence

SUB-TOTAL MAJOR CONSTRUCTION ITEMS				\$2,702,000	Notes
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Utility Work	% of sub-total major construction items	8.0%	\$216,200	
Landscaping	% of sub-total major construction items	8.0%	\$216,200	
Erosion Control	% of sub-total major construction items	6.0%	\$162,200	
Drainage	% of sub-total major construction items	5.0%	\$135,100	
Traffic Control / Detour	% of sub-total major construction items	5.0%	\$135,100	
Traffic - Signage & Striping	% of sub-total major construction items	3.0%	\$81,100	
Mobilization	% of sub-total major construction items	8.0%	\$216,200	
Misc. - Lighting/Commercial Signs	% of sub-total major construction items	5.0%	\$135,100	
Minor Contract Revisions	% of sub-total major construction items	5.0%	\$135,100	

SUB-TOTAL CONSTRUCTION COSTS				\$4,134,300	Notes
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Design Engineering	% of sub-total construction costs	15.0%	\$620,200	
Construction Management/Materials Testing	% of sub-total construction costs	15.0%	\$620,200	

SUB-TOTAL DESIGN AND PROJECT ADMIN				\$1,240,400	
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SUB-TOTAL				\$5,374,700	Notes
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Contingency (40%)	% of sub-total	40.0%	\$2,149,900	
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Total Project Cost Estimate (2020 Cost Rounded up to the Nearest \$10,000)				\$7,530,000
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Opinion of Probable Construction Costs

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It should be noted that the provided cost estimation excludes Right of Way acquisition costs that may be required for these improvements to be implemented.

City of Tracy TMP

Estimate of Conceptual Project Costs

F. Existing Class I Improvements

Lammers Rd, 11th St, Corral Hollow Rd, Cypress St, Larriana Ln, Schulte Rd, & Sycamore Pkwy



Date Prepared: September 2, 2021

Item	Unit	Quantity	Unit Cost	Total Cost	Notes
Lammers Rd (Redbridge to Kimball High School)					
1 Remove Asphalt	LF	3,000	\$25	\$75,000	Removal of existing trail
2 Trail (14' Width)	LF	3,000	\$280	\$840,000	Includes additional amenities along the trail.
W. 11th Street (Gap Closure and Intersection Upgrades)					
3 Remove Concrete (Sidewalk)	LF	1,350	\$75	\$101,300	Removal of existing sidewalk
4 Class I Path (12' Width)	SF	16,200	\$25	\$405,000	Concrete Path to tie in with existing Class I facility
5 Intersection Crossing Upgrades (Unsignalized Intersections)	EA	2	\$10,000	\$20,000	ADA intersection improvements
6 Intersection Crossing Upgrades (Signalized Intersections)	EA	1	\$250,000	\$250,000	ADA intersection improvements with potential signal pole relocations
Corral Hollow Rd (W. 11th St to Cypress Dr)					
7 Class I Path (12' Width)	SF	19,200	\$25	\$480,000	Concrete Path
8 Intersection Crossing Upgrades (Unsignalized Intersections)	EA	3	\$10,000	\$30,000	ADA intersection improvements
Cypress Dr (Corral Hollow Rd to Larriana Ln)					
9 Remove Asphalt	LF	1,850	\$25	\$46,300	Removal of existing trail
10 Trail (14' Width)	LF	1,850	\$280	\$518,000	Includes additional amenities along the trail.
11 Intersection Crossing Upgrades (Unsignalized Intersections)	EA	2	\$10,000	\$20,000	ADA intersection improvements
Larriana Ln (Cypress Dr to W. Schulte Rd)					
12 Remove Asphalt	LF	1,800	\$25	\$45,000	Removal of existing trail
13 Trail (14' Width)	LF	1,800	\$280	\$504,000	Includes additional amenities along the trail.
14 Intersection Crossing Upgrades (Unsignalized Intersections)	EA	1	\$10,000	\$10,000	ADA intersection improvements
W. Schulte Rd (Corral Hollow Rd to Sycamore Pkwy)					
15 Remove Asphalt	LF	550	\$25	\$13,800	Removal of existing trail
16 Trail (14' Width)	LF	550	\$280	\$154,000	Includes additional amenities along the trail.
17 Intersection Crossing Upgrades (Signalized Intersections)	EA	1	\$250,000	\$250,000	ADA intersection improvements with potential signal pole relocations
18 Pedestrian Rail Crossings	EA	1	\$250,000	\$250,000	ADA intersection improvements
Sycamore Pkwy (W. Schulte Rd to Windham Ct)					
19 Remove Asphalt	LF	9,100	\$25	\$227,500	Removal of existing trail
20 Trail (14' Width)	LF	9,100	\$280	\$2,548,000	Includes additional amenities along the trail.
21 Intersection Crossing Upgrades (Unsignalized Intersections)	EA	9	\$10,000	\$90,000	ADA intersection improvements with potential signal pole relocations
22 Prefab Bridges	EA	2	\$250,000	\$500,000	Prefab bridges to/from the Edgar Thoming Park
SUB-TOTAL MAJOR CONSTRUCTION ITEMS				\$7,377,900	Notes
Utility Work	% of sub-total major construction items		8.0%	\$590,300	
Landscaping	% of sub-total major construction items		8.0%	\$590,300	
Erosion Control	% of sub-total major construction items		6.0%	\$442,700	
Drainage	% of sub-total major construction items		5.0%	\$368,900	
Traffic Control / Detour	% of sub-total major construction items		10.0%	\$737,800	
Traffic - Signage & Striping	% of sub-total major construction items		3.0%	\$221,400	
Mobilization	% of sub-total major construction items		10.0%	\$737,800	
Misc. - Lighting/Commercial Signs	% of sub-total major construction items		10.0%	\$737,800	
Minor Contract Revisions	% of sub-total major construction items		5.0%	\$368,900	
SUB-TOTAL CONSTRUCTION COSTS				\$12,173,800	Notes
Design Engineering	% of sub-total construction costs		15.0%	\$1,826,100	
Construction Management/Materials Testing	% of sub-total construction costs		15.0%	\$1,826,100	
SUB-TOTAL DESIGN AND PROJECT ADMIN				\$3,652,200	
SUB-TOTAL				\$15,826,000	Notes
Contingency (40%)	% of sub-total		40.0%	\$6,330,400	
Total Project Cost Estimate (2020 Cost Rounded up to the Nearest \$10,000)				\$22,160,000	
Opinion of Probable Construction Costs					
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<p>It should be noted that the provided cost estimation excludes Right of Way acquisition costs that may be required for these improvements to be implemented.</p>					

City of Tracy TMP
Estimate of Conceptual Project Costs
G. Class I Bike Path Extension
From Sycamore to ACE Station



Date Prepared: **September 2, 2021**

Item	Unit	Quantity	Unit Cost	Total Cost	Notes
Tracy Blvd (Sycamore Pkwy to Ace Station)					
1 Remove Concrete (Sidewalk)	LF	2,250	\$75	\$168,800	Assume removal of entire existing sidewalk width 5' sidewalk
2 Class I Path (12' Width)	SF	37,200	\$25	\$930,000	Concrete Path
3 Intersection Crossing Upgrades (Unsignalized Intersections)	EA	3	\$10,000	\$30,000	ADA intersection improvements
4 Intersection Crossing Upgrades (Signalized Intersections)	EA	1	\$250,000	\$250,000	ADA intersection improvements with potential signal pole relocations
SUB-TOTAL MAJOR CONSTRUCTION ITEMS				\$1,378,800	Notes
Utility Work	% of sub-total major construction items		8.0%	\$110,400	
Landscaping	% of sub-total major construction items		8.0%	\$110,400	
Erosion Control	% of sub-total major construction items		6.0%	\$82,800	
Drainage	% of sub-total major construction items		5.0%	\$69,000	
Traffic Control / Detour	% of sub-total major construction items		5.0%	\$69,000	
Traffic - Signage & Striping	% of sub-total major construction items		3.0%	\$41,400	
Mobilization	% of sub-total major construction items		8.0%	\$110,400	
Misc. - Lighting/Commercial Signs	% of sub-total major construction items		5.0%	\$69,000	
Minor Contract Revisions	% of sub-total major construction items		5.0%	\$69,000	
SUB-TOTAL CONSTRUCTION COSTS				\$2,110,200	Notes
Design Engineering	% of sub-total construction costs		15.0%	\$316,600	
Construction Management/Materials Testing	% of sub-total construction costs		15.0%	\$316,600	
SUB-TOTAL DESIGN AND PROJECT ADMIN				\$633,200	
SUB-TOTAL				\$2,743,400	Notes
Contingency (40%)	% of sub-total		40.0%	\$1,097,400	
Total Project Cost Estimate (2020 Cost Rounded up to the Nearest \$10,000)					\$3,850,000

Opinion of Probable Construction Costs

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City of Tracy TMP
Estimate of Conceptual Project Costs
H. Safe Routes to School
From Sycamore to ACE Station



Date Prepared: **September 2, 2021**

Item	Unit	Quantity	Unit Cost	Total Cost	Notes
Kavanagh Ave					
1 Sharrow Markings	EA	68	\$10	\$700	Spaced at 100' each marking excluding section with Class II facility
Lowell Ave					
2 Sharrow Markings	EA	52	\$10	\$500	Spaced at 100' each marking
Eaton Ave					
3 Sharrow Markings	EA	51	\$10	\$500	Spaced at 100' each marking
Mt. Diablo & 3rd St					
4 Sharrow Markings	EA	45	\$10	\$500	Spaced at 100' each marking
SUB-TOTAL MAJOR CONSTRUCTION ITEMS				\$2,200	Notes
Utility Work	% of sub-total major construction items		8.0%	\$200	
Landscaping	% of sub-total major construction items		8.0%	\$200	
Erosion Control	% of sub-total major construction items		6.0%	\$200	
Drainage	% of sub-total major construction items		5.0%	\$200	
Traffic Control / Detour	% of sub-total major construction items		5.0%	\$200	
Traffic - Signage & Striping	% of sub-total major construction items		3.0%	\$100	
Mobilization	% of sub-total major construction items		8.0%	\$200	
Misc. - Lighting/Commercial Signs	% of sub-total major construction items		5.0%	\$200	
Minor Contract Revisions	% of sub-total major construction items		5.0%	\$200	
SUB-TOTAL CONSTRUCTION COSTS				\$3,900	Notes
Design Engineering	% of sub-total construction costs		15.0%	\$600	
Construction Management/Materials Testing	% of sub-total construction costs		15.0%	\$600	
SUB-TOTAL DESIGN AND PROJECT ADMIN				\$1,200	
SUB-TOTAL				\$5,100	Notes
Contingency (40%)	% of sub-total		40.0%	\$2,100	
Total Project Cost Estimate (2020 Cost Rounded up to the Nearest \$10,000)					\$10,000
Opinion of Probable Construction Costs					
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City of Tracy TMP

Estimate of Conceptual Project Costs

I. Corral Hollow Rd Gap Closure

From North of Western Pkwy to south of the Rail Crossing



Date Prepared: September 2, 2021

	Item	Unit	Quantity	Unit Cost	Total Cost	Notes
1	Minor Concrete (Sidewalk)	LF	1,000	\$100	\$100,000	Assume Full Proposed Sidewalk Width Per Section
2	Pedestrian Rail Crossings	EA	4	\$250,000	\$1,000,000	
SUB-TOTAL MAJOR CONSTRUCTION ITEMS					\$1,100,000	Notes
Utility Work	% of sub-total major construction items			8.0%	\$88,000	
Landscaping	% of sub-total major construction items			8.0%	\$88,000	
Erosion Control	% of sub-total major construction items			6.0%	\$66,000	
Drainage	% of sub-total major construction items			5.0%	\$55,000	
Traffic Control / Detour	% of sub-total major construction items			5.0%	\$55,000	
Traffic - Signage & Striping	% of sub-total major construction items			3.0%	\$33,000	
Mobilization	% of sub-total major construction items			8.0%	\$88,000	
Misc. - Lighting/Commercial Signs	% of sub-total major construction items			5.0%	\$55,000	
Minor Contract Revisions	% of sub-total major construction items			5.0%	\$55,000	
SUB-TOTAL CONSTRUCTION COSTS					\$1,683,000	Notes
Design Engineering	% of sub-total construction costs			15.0%	\$252,500	
Construction Management/Materials Testing	% of sub-total construction costs			15.0%	\$252,500	
SUB-TOTAL DESIGN AND PROJECT ADMIN					\$505,000	
SUB-TOTAL					\$2,188,000	Notes
Contingency (40%)	% of sub-total			40.0%	\$875,200	
Total Project Cost Estimate (2020 Cost Rounded up to the Nearest \$10,000)					\$3,070,000	
Opinion of Probable Construction Costs						
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City of Tracy TMP

Estimate of Conceptual Project Costs

J. Schulte Rd Gap Closure

From North of the Rail Crossing to South of the Rail Crossing



Date Prepared: **September 2, 2021**

Item	Unit	Quantity	Unit Cost	Total Cost	Notes
1 Minor Concrete (Sidewalk)	LF	450	\$100	\$45,000	Assume Full Proposed Sidewalk Width Per Section
2 Pedestrian Rail Crossings	EA	2	\$250,000	\$500,000	
SUB-TOTAL MAJOR CONSTRUCTION ITEMS				\$545,000	Notes
Utility Work	% of sub-total major construction items		8.0%	\$43,600	
Landscaping	% of sub-total major construction items		8.0%	\$43,600	
Erosion Control	% of sub-total major construction items		6.0%	\$32,700	
Drainage	% of sub-total major construction items		5.0%	\$27,300	
Traffic Control / Detour	% of sub-total major construction items		5.0%	\$27,300	
Traffic - Signage & Striping	% of sub-total major construction items		3.0%	\$16,400	
Mobilization	% of sub-total major construction items		8.0%	\$43,600	
Misc. - Lighting/Commercial Signs	% of sub-total major construction items		5.0%	\$27,300	
Minor Contract Revisions	% of sub-total major construction items		5.0%	\$27,300	
SUB-TOTAL CONSTRUCTION COSTS				\$834,100	Notes
Design Engineering	% of sub-total construction costs		15.0%	\$125,200	
Construction Management/Materials Testing	% of sub-total construction costs		15.0%	\$125,200	
SUB-TOTAL DESIGN AND PROJECT ADMIN				\$250,400	
SUB-TOTAL				\$1,084,500	Notes
Contingency (40%)	% of sub-total		40.0%	\$433,800	
Total Project Cost Estimate (2020 Cost Rounded up to the Nearest \$10,000)				\$1,520,000	
Opinion of Probable Construction Costs					
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City of Tracy TMP

Estimate of Conceptual Project Costs

K. MacArthur Dr Gap Closure

From North of the Rail Crossing to South of the Rail Crossing



Date Prepared: September 2, 2021

Item	Unit	Quantity	Unit Cost	Total Cost	Notes
1 Minor Concrete (Curb and Gutter)	LF	800	\$115	\$92,000	Includes Sawcut and 1' Wide HMA Plug
2 Minor Concrete (Sidewalk)	LF	800	\$100	\$80,000	Assume Full Proposed Sidewalk Width Per Section
3 Pedestrian Rail Crossings	EA	2	\$250,000	\$500,000	
SUB-TOTAL MAJOR CONSTRUCTION ITEMS				\$672,000	Notes
Utility Work	% of sub-total major construction items		8.0%	\$53,800	
Landscaping	% of sub-total major construction items		8.0%	\$53,800	
Erosion Control	% of sub-total major construction items		6.0%	\$40,400	
Drainage	% of sub-total major construction items		5.0%	\$33,600	
Traffic Control / Detour	% of sub-total major construction items		5.0%	\$33,600	
Traffic - Signage & Striping	% of sub-total major construction items		3.0%	\$20,200	
Mobilization	% of sub-total major construction items		8.0%	\$53,800	
Misc. - Lighting/Commercial Signs	% of sub-total major construction items		5.0%	\$33,600	
Minor Contract Revisions	% of sub-total major construction items		5.0%	\$33,600	
SUB-TOTAL CONSTRUCTION COSTS				\$1,028,400	Notes
Design Engineering	% of sub-total construction costs		15.0%	\$154,300	
Construction Management/Materials Testing	% of sub-total construction costs		15.0%	\$154,300	
SUB-TOTAL DESIGN AND PROJECT ADMIN				\$308,600	
SUB-TOTAL				\$1,337,000	Notes
Contingency (40%)	% of sub-total		40.0%	\$534,800	
Total Project Cost Estimate (2020 Cost Rounded up to the Nearest \$10,000)					\$1,880,000
Opinion of Probable Construction Costs					
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City of Tracy TMP

Estimate of Conceptual Project Costs

L. Eleventh St Sidewalk Gap Closure

From the Rail Overcrossing to Chrisman Road



Date Prepared: **September 2, 2021**

Item	Unit	Quantity	Unit Cost	Total Cost	Notes
1 Minor Concrete (Curb and Gutter)	LF	4,040	\$115	\$464,600	Includes Sawcut and 1' Wide HMA Plug
2 Minor Concrete (Sidewalk)	LF	4,040	\$100	\$404,000	Assume Full Proposed Sidewalk Width Per Section
3 Intersection Crossing Upgrades (Unsignalized Intersections)	EA	20	\$10,000	\$200,000	ADA intersection improvements

SUB-TOTAL MAJOR CONSTRUCTION ITEMS				\$1,068,600	Notes
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Utility Work	% of sub-total major construction items		8.0%	\$85,500	
Landscaping	% of sub-total major construction items		8.0%	\$85,500	
Erosion Control	% of sub-total major construction items		6.0%	\$64,200	
Drainage	% of sub-total major construction items		5.0%	\$53,500	
Traffic Control / Detour	% of sub-total major construction items		5.0%	\$53,500	
Traffic - Signage & Striping	% of sub-total major construction items		3.0%	\$32,100	
Mobilization	% of sub-total major construction items		8.0%	\$85,500	
Misc. - Lighting/Commercial Signs	% of sub-total major construction items		5.0%	\$53,500	
Minor Contract Revisions	% of sub-total major construction items		5.0%	\$53,500	

SUB-TOTAL CONSTRUCTION COSTS				\$1,635,400	Notes
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Design Engineering	% of sub-total construction costs		15.0%	\$245,400	
Construction Management/Materials Testing	% of sub-total construction costs		15.0%	\$245,400	

SUB-TOTAL DESIGN AND PROJECT ADMIN				\$490,800	
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SUB-TOTAL				\$2,126,200	Notes
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Contingency (40%)	% of sub-total		40.0%	\$850,500	
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Total Project Cost Estimate (2020 Cost Rounded up to the Nearest \$10,000)				\$2,980,000	
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Opinion of Probable Construction Costs

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City of Tracy TMP

Estimate of Conceptual Project Costs

M .Mobility Hubs

City of Tracy Future Mobility Hubs (Excluding the Valley Link Station)



Date Prepared: **September 2, 2021**

Item	Unit	Quantity	Unit Cost	Total Cost	Notes
1 Existing Tracy Transit Center Upgrades	EA	1	\$3,500,000	\$3,500,000	Facility Upgrades
2 1 Mobility Hub along I-205	EA	1	\$3,500,000	\$3,500,000	These costs are only for the facility amenities
SUB-TOTAL MAJOR CONSTRUCTION ITEMS				\$7,000,000	Notes
Utility Work	% of sub-total major construction items		8.0%	\$560,000	
Landscaping	% of sub-total major construction items		8.0%	\$560,000	
Erosion Control	% of sub-total major construction items		6.0%	\$420,000	
Drainage	% of sub-total major construction items		5.0%	\$350,000	
Traffic Control / Detour	% of sub-total major construction items		5.0%	\$350,000	
Traffic - Signage & Striping	% of sub-total major construction items		3.0%	\$210,000	
Mobilization	% of sub-total major construction items		8.0%	\$560,000	
Misc. - Lighting/Commercial Signs	% of sub-total major construction items		5.0%	\$350,000	
Minor Contract Revisions	% of sub-total major construction items		5.0%	\$350,000	
SUB-TOTAL CONSTRUCTION COSTS				\$10,710,000	Notes
Design Engineering	% of sub-total construction costs		15.0%	\$1,606,500	
Construction Management/Materials Testing	% of sub-total construction costs		15.0%	\$1,606,500	
SUB-TOTAL DESIGN AND PROJECT ADMIN				\$3,213,000	
SUB-TOTAL				\$13,923,000	Notes
Contingency (40%)	% of sub-total		40.0%	\$5,569,200	
Total Project Cost Estimate (2020 Cost Rounded up to the Nearest \$10,000)					\$19,500,000

Opinion of Probable Construction Costs

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APPENDIX J
INRIX FREEWAY DATA

DRAFT



APPENDIX K
COST ESTIMATES

DRAFT

Cost per SF = \$500 new bridge
 Cost per SF = \$400 culvert/canal crossing widen
 ROW cost/acre = \$200,000
 Construction easement cost/acre = \$50,000

City of Tracy
 Overpass/Underpass/Bridges/Culvert/Railroad Improvements
 Preliminary Construction Cost Estimates (Buildout / Horizon Year)

No.	Structure Type & Location	Improvement Description	Status	Length (ft)	Existing Width (ft)	Water Channel / Freeway Length (ft)	Buildout / Horizon Year Improvement						Total Structure Width (ft)	Future Area (ft ²)	Structure & Earthwork Cost	ROW Area (ft ²)	ROW / Easement Cost	Preliminary Subtotal Cost	Contingency / Overhead	Total Cost w/Markup	CIP Funding		Amount Funded by TIF	Notes	
							Travel Width	# Lanes	Sidewalks	Bike Facility	Bike Width	K rail & Sep									Project #	Amount (c)			
Bridges																									
1	Delta Mendota Canal/International Parkway	Widen	Planned	335	36	115	64	4	0	Class I Path	12	4	80	14,740	\$ 5,896,000	14,740	\$ 17,000	\$ 5,913,080	\$ 2,069,578	\$ 7,982,658				Widen to 4-L major arterial (parkway)	
2	Delta Mendota Canal/Old Schulte Road	Widen	Planned	325	49	110	71	4	0	Class I Path	12	4	87	12,350	\$ 4,940,000	12,350	\$ 14,000	\$ 4,954,087	\$ 1,733,930	\$ 6,688,017				Widen to 4-L major arterial (parkway)	
3	Delta Mendota Canal/Lammers Road	Widen	Planned	130	26	105	86	6	0	Class I Path	12	4	102	13,260	\$ 6,630,000	9,880	\$ 11,000	\$ 6,641,102	\$ 2,324,386	\$ 8,965,488				Widen to 6-L major arterial (parkway)	
4	California Aqueduct/Lammers Road	Widen	Planned	170	24	130	86	6	0	Class I Path	12	4	102	17,340	\$ 8,670,000	13,260	\$ 15,000	\$ 8,685,102	\$ 3,039,786	\$ 11,724,888				Widen to 6-L major arterial (parkway)	
5	Delta Mendota Canal/Corral Hollow Road	Widen	Planned	130	29	105	52	4	0	Class I Path	12	4	68	8,840	\$ 4,420,000	5,070	\$ 6,000	\$ 4,426,068	\$ 1,549,124	\$ 5,975,192				Widen to 4-L divided arterial	
6	California Aqueduct/Corral Hollow Road	Widen	Planned	220	35	150	52	4	0	Class I Path	12	4	68	14,960	\$ 7,480,000	7,260	\$ 8,000	\$ 7,488,068	\$ 2,620,824	\$ 10,108,892				Widen to 4-L divided arterial	
Culvert																									
7	Upper Main Canal/Capitol Parks Drive	Construct	Completed	240	0	240							14	3,360	\$ 1,344,000	3,360	\$ 4,000	\$ 1,348,014	\$ 471,805	\$ 1,819,819				New	
8	Upper Main Canal/Pavillion Parkway	Construct	Completed	240	0	240							14	3,360	\$ 1,344,000	3,360	\$ 4,000	\$ 1,348,014	\$ 471,805	\$ 1,819,819				New	
9	Upper Main Canal/Promontory Parkway	Construct	Completed	180	0	180							14	2,520	\$ 1,008,000	2,520	\$ 3,000	\$ 1,011,014	\$ 353,855	\$ 1,364,869				New	
10	Upper Main Canal/Lammers Road	Widen	Planned	65	93	30							142	3,185	\$ 1,274,000	3,185	\$ 4,000	\$ 1,278,142	\$ 447,350	\$ 1,725,492				Widen to 6-L major arterial (parkway)	
11	Upper Main Canal/Corral Hollow Road	Widen	Planned	65	90	30							108	1,170	\$ 468,000	1,170	\$ 1,000	\$ 469,108	\$ 164,188	\$ 633,296				Widen to 6-L major arterial (parkway)	
Interchange/Overpass/Underpass																									
12	I-205/Pavillion Parkway	New Overpass	Planned	350	0	155	76	4	6	Class I Path	12	4	98	34,300	\$ 17,150,000	19,110	\$ 88,000	\$ 17,238,098	\$ 6,033,334	\$ 23,271,432				New 4-L overcrossing	
13	I-205/Lammers Extension	New Interchange	Planned																\$ 52,893,000				New parclo interchange		
14	I-205/Tracy Boulevard	Interchange Modifications	Planned															\$ 7,500,000	\$ 2,625,000	\$ 10,125,000				Widen WB off-ramp to three lanes, widen WB on-ramp to receive dual NBL	
15	I-205/Grant Line Road	Interchange Modifications	Planned													216,551	\$ 994,000	\$ 2,500,000	\$ 875,000	\$ 3,375,000				Add EB loop on-ramp, close EBL	
16	I-205/MacArthur Drive	Interchange Modifications	Planned															\$ 2,500,000	\$ 875,000	\$ 3,375,000				Widen WB on-ramp to receive 2 NBL	
17	I-205/Chrisman Road	New Interchange	Planned															\$ 36,056,267	\$ 12,619,693	\$ 48,675,960				New parclo interchange (NE loop) w/7-L bridge, cost from 2018 SJCOG RTP	
18	I-580/International Parkway	New Interchange	Planned	350	0	155	76	4	6	Class I Path	12	4	98	34,300	\$ 17,150,000	19,110	\$ 88,000	\$ 17,238,098	\$ 6,033,334	\$ 23,271,432				New DDI interchange	
19	I-580/Lammers Road	New Interim Interchange	Planned															\$ 17,000,000	\$ 5,950,000	\$ 22,950,000				undercrossing, construct diamond w/single-lane RABs	
20	I-580/Lammers Road	Modify Interim to Future Interchange	Planned	242	0	0								155	37,510	\$ 18,755,000	37,510	\$ 172,000	\$ 22,427,000	\$ 7,849,450	\$ 30,276,450				RABs to dual-lane
21	I-580/Corral Hollow Road	New Interchange	Planned	350	34	155	76	4	6	Class I Path	12	4	98	34,300	\$ 17,150,000	12,480	\$ 57,000	\$ 27,207,098	\$ 9,522,484	\$ 36,729,582				Widen to 4-L divided arterial, interchange is assumed to be diamond w/dual-lane RABs	
Railroad Crossings																									
22	Lammers Road at Western Pacific Way (#1)	Widen from 2-4 lanes	Planned															\$ 1,250,000	\$ 437,500	\$ 1,687,500				Widen at-grade crossing to 6-L	
23	Lammers Road North of Linne Road (#2)	New Bridge	Planned	100	0	100	88	6	6	Class I Path	12	4	110	11,000	\$ 5,500,000	11,000	\$ 51,000	\$ 5,551,110	\$ 1,942,889	\$ 7,493,999				New 6-L overcrossing	
24	Corral Hollow Road North of Linne Road (#5)	Widen from 2-4 lanes	Planned															\$ 1,250,000	\$ 437,500	\$ 1,687,500				Widen at-grade crossing to 4-L	
25	Tracy Boulevard North of Linne Road (#8)	Widen from 2-4 lanes	Planned															\$ 1,250,000	\$ 437,500	\$ 1,687,500				Widen at-grade crossing to 4-L	
26	11th Street/MacArthur Drive (#9)	New Bridge	Partially Completed															\$ -	\$ -	\$ -				11th St overcrossing built, MacArthur is future	
27	MacArthur Drive South of 6th Street (#15)	Close, keep bike & ped	Planned															\$ 1,250,000	\$ 437,500	\$ 1,687,500				ped/bikes	
28	Chrisman Road at Schulte Road (#16)	Widen from 2-4 lanes	Planned															\$ 1,250,000	\$ 437,500	\$ 1,687,500				Widen at-grade crossing to 4-L	
29	MacArthur Drive Extension (#21)	New Bridge	Planned	100	0	100	64	4	6	Class I Path	12	4	86	8,600	\$ 4,300,000	8,600	\$ 39,000	\$ 4,339,086	\$ 1,518,680	\$ 5,857,766				New 4-L overcrossing	
30	Chrisman Road (#22)	New Bridge	Planned	100	0	100	88	6	6	Class I Path	12	4	110	11,000	\$ 5,500,000	11,000	\$ 51,000	\$ 5,551,110	\$ 1,942,889	\$ 7,493,999				New 6-L separated grade	
31	Hansen Road (#23)	New Bridge	Planned	100	0	100	64	4	6	Class I Path	12	4	86	8,600	\$ 4,300,000	8,600	\$ 39,000	\$ 4,339,086	\$ 1,518,680	\$ 5,857,766				New 4-L overcrossing	
32	Pavillion Parkway (#24)	New Bridge	Planned	100	0	100	88	6	6	Class I Path	12	4	110	11,000	\$ 5,500,000	11,000	\$ 51,000	\$ 5,551,110	\$ 1,942,889	\$ 7,493,999				New 6-L overcrossing	
Grand Total																	\$ 224,809,862		\$ 356,386,314		\$ -				

Notes:
 1 Markups include 15% Contingency, 10% Design & Planning and 10% Construction Management

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City of Tracy
Intersection Improvements
Preliminary Construction Cost Estimates (Horizon Year)

No.	Intersection	Status	Preliminary Cost Estimate	Cost w/Markup
1	International Parkway/I-205 Westbound Ramps	N/A	\$ -	\$ -
2	International Parkway/I-205 Eastbound Ramps	N/A	\$ -	\$ -
3	International Parkway/Capital Parks Drive	Complete	\$ 4,944,000	\$ 6,674,400
4	International Pkwy/Promontory Parkway	Complete	\$ 4,692,000	\$ 6,334,200
5	International Pkwy/Old Schulte Road	Planned	\$ -	\$ -
6	International Pkwy/Patterson Pass Rd/I-580 Westbound Ramps	See Interchange Cost Estimates		
7	International Pkwy/Patterson Pass Rd/I-580 Eastbound Ramps	See Interchange Cost Estimates		
8	Hansen Road/Capital Parks Dr	Partially Complete	\$ 4,767,000	\$ 6,435,450
9	Hansen Road/Promontory Parkway	Complete	\$ 5,197,000	\$ 7,015,950
10	Hansen Road/Old Schulte Road	Partially Complete	\$ 4,009,000	\$ 5,412,150
11	Pavillion Parkway/Capital Parks Dr	Planned	\$ 5,551,000	\$ 7,493,850
12	Pavillion Parkway/Promontory Parkway	Planned	\$ 3,992,000	\$ 5,389,200
13	Pavillion Parkway/Old Schulte Road	Planned	\$ 4,515,000	\$ 6,095,250
14	Pavillion Parkway/Hansen Road	Planned	\$ 3,150,000	\$ 4,252,500
15	Commerce Way/Capital Parks Drive	Planned	\$ 5,817,000	\$ 7,852,950
16	Road M/Capital Parks Drive	Planned	\$ 5,045,000	\$ 6,810,750
17	Hansen Road/Valpico Road	Planned	\$ 3,150,000	\$ 4,252,500
18	Pavillion Parkway/Grant Line Road	Planned	\$ 3,150,000	\$ 4,252,500
19	Pavillion Parkway/Von Sosten Road	Planned	\$ 3,327,000	\$ 4,491,450
20	Lammers Extension/Pavillion Pkwy	Planned	\$ 4,515,000	\$ 6,095,250
21	Lammers Extension/Grant Line Road	Planned	\$ 4,515,000	\$ 6,095,250
22	Lammers Extension/Van Sosten Road	Planned	\$ 4,515,000	\$ 6,095,250
23	Lammers Extension/I-205 WB Ramps	See Interchange Cost Estimates		
24	Lammers Extension/I-205 EB Ramps	See Interchange Cost Estimates		
25	Lammers Extension/Commerce Road	Planned	\$ 7,358,000	\$ 9,933,300
26	Eleventh Street/Road M	Planned	\$ 5,563,000	\$ 7,510,050
27	Grant Line Road/Pavillion Pkwy	Planned	\$ 3,150,000	\$ 4,252,500
28	Byron Road/Grant Line Road	Planned	\$ -	\$ -
29	Lammers Road/Pavillion Pkwy	Planned	\$ 3,681,000	\$ 4,969,350
30	Grant Line Road/Lammers Road	Planned	\$ 2,897,000	\$ 3,910,950
31	Lammers Road/Byron Road	Existing	\$ -	\$ -
32	Lammers Road/Eleventh Street	Existing	\$ -	\$ -
33	Lammers Road/Capital Parks Drive	Planned	\$ 499,000	\$ 673,650
34	Lammers Road/Promontory Pkwy	Planned	\$ 5,197,000	\$ 7,015,950
35	Lammers Road/Crossroads Drive	Planned	\$ 3,832,000	\$ 5,173,200
36	Lammers Road/Redbridge Rd	Planned	\$ 3,225,000	\$ 4,353,750
37	Lammers Road/Old Schulte Road	Planned	\$ 3,225,000	\$ 4,353,750
38	Lammers Road/Western Pacific Wy	Planned	\$ 3,478,000	\$ 4,695,300
39	Lammers Road/Valpico Road	Planned	\$ 5,197,000	\$ 7,015,950
40	Lammers Road/Samuel James Way	Planned	\$ 3,832,000	\$ 5,173,200
41	Lammers Road/Hansen Rd/Ellis Town Drive	Planned	\$ 5,032,000	\$ 6,793,200
42	North Tracy Hills Drive/Linne Dr	Planned	\$ 4,009,000	\$ 5,412,150
43	Lammers Road/Linne Road	Planned	Funded by Developer	
44	Lammers Road/Tracy Hills Dr	Planned	\$ -	\$ -
45	Lammers Road/I-580 WB Ramps	See Interchange Cost Estimates		
46	Lammers Road/I-580 EB Ramps	See Interchange Cost Estimates		
47	Naglee Road/Middle Road	Existing	\$ -	\$ -
48	Naglee Road/Auto Plaza Drive	Planned	\$ 1,431,000	\$ 1,931,850
49	Naglee Road/I-205 Westbound Ramps	Existing	\$ -	\$ -
50	Park & Ride/Naglee Road	Existing	\$ -	\$ -
51	Naglee Road/Grant Line Road/I-205 Westbound Ramps	Planned	\$ 499,000	\$ 673,650
52	Grant Line Road/I-205 EB Ramps	See Interchange Cost Estimates		
53	Crossroads Drive/Eleventh Road	Existing	\$ -	\$ -
54	Crossroads Drive/Schulte Road	Planned	\$ 4,869,000	\$ 6,573,150
55	Corral Hollow Road/Larch Road	Existing	\$ -	\$ -
56	Corral Hollow Road/Auto Plaza Drive	Planned	\$ 2,468,000	\$ 3,331,800
57	Corral Hollow Road/Grant Line Road	Existing	\$ -	\$ -
58	Corral Hollow Road/Eleventh Street	Planned	\$ 840,000	\$ 1,134,000

No.	Intersection	Status	Preliminary Cost Estimate	Cost w/Markup
59	Corral Hollow Road/Schulte Road	Existing	\$ -	\$ -
60	Corral Hollow Road/Valpico Road	Planned	\$ 5,373,000	\$ 7,253,550
61	Corral Hollow Road/Samuel James Way	Planned	\$ 2,291,000	\$ 3,092,850
62	Corral Hollow Road/Peony Drive	Planned	\$ 411,000	\$ 554,850
63	Corral Hollow Road/Middlefield Drive	Planned	\$ 540,500	\$ 729,675
64	Corral Hollow Road/Linne Road	Planned	\$ 5,297,000	\$ 7,150,950
65	Corral Hollow Road/North Tracy Hills Drive	Planned	\$ 4,009,000	\$ 5,412,150
66	Corral Hollow Road/Tracy Hills Drive	Planned	Funded by Developer	
67	Corral Hollow Road/I-580 WB Ramps		See Interchange Cost Estimates	
68	Corral Hollow Road/I-580 EB Ramps		See Interchange Cost Estimates	
69	Corral Hollow Road/Lammers Road	Planned	Funded by Developer	
70	Tracy Boulevard/Sugar Road	Existing	\$ -	\$ -
71	Tracy Boulevard/Larch Road	Planned	\$ 2,123,250	\$ 2,866,388
72	Tracy Blvd/I-205 WB Ramps		See Interchange Cost Estimates	
73	Tracy Blvd/I-205 EB Ramps		See Interchange Cost Estimates	
74	Tracy Boulevard/Grant Line Road	Existing	\$ -	\$ -
75	Tracy Boulevard/Eleventh Street	Existing	\$ -	\$ -
76	Tracy Boulevard/6th Street	Existing	\$ -	\$ -
77	Tracy Boulevard/Mount Diablo Avenue	Existing	\$ -	\$ -
78	Tracy Boulevard/Schulte Road	Existing	\$ -	\$ -
79	Tracy Boulevard/Central Avenue	Existing	\$ -	\$ -
80	Tracy Boulevard/Valpico Road	Existing	\$ -	\$ -
81	Tracy Boulevard/Whispering Wind Drive	Existing	\$ -	\$ -
82	Tracy Boulevard/ACE Station	Existing	\$ -	\$ -
83	Tracy Boulevard/Linne Road	Planned	\$ 4,362,000	\$ 5,888,700
84	Central Avenue/Eleventh Street	Existing	\$ -	\$ -
85	Central Avenue/Schulte Road	Existing	\$ -	\$ -
86	MacArthur Drive/Arbor Avenue	Existing	\$ -	\$ -
87	MacArthur Drive/I-205 WB Ramps		See Interchange Cost Estimates	
88	MacArthur Drive/I-205 EB Ramps		See Interchange Cost Estimates	
89	MacArthur Drive/Pescadero Avenue	Existing	\$ -	\$ -
90	MacArthur Drive/Grant Line Road	Planned	\$ 411,000	\$ 554,850
91	MacArthur Drive/Eleventh Street	Planned	\$ 4,009,000	\$ 5,412,150
92	MacArthur Drive/Eleventh Street (South)	Existing	\$ -	\$ -
93	MacArthur Drive/6th Street	Existing	\$ -	\$ -
94	MacArthur Drive/Mount Diablo Avenue	Planned	\$ 3,327,000	\$ 4,491,450
95	MacArthur Drive/Schulte Road	Planned	\$ 1,093,000	\$ 1,475,550
96	MacArthur Drive/Valpico Road	Existing	\$ -	\$ -
97	Chrisman Road/Pescadero Avenue	Planned	\$ 4,173,000	\$ 5,633,550
98	Chrisman Road/Grant Line Road	Planned	\$ 2,540,000	\$ 3,429,000
99	Chrisman Road/Eleventh Street	Planned	\$ 2,136,000	\$ 2,883,600
100	Chrisman Road/Schulte Road	Planned	\$ 4,009,000	\$ 5,412,150
101	Chrisman Road/Valpico Road	Planned	\$ 1,431,000	\$ 1,931,850
102	Paradise Road/Arbor Avenue	Planned	\$ 5,993,000	\$ 8,090,550
103	Paradise Road/I-205 WB Ramps		See Interchange Cost Estimates	
104	Paradise Road/I-205 EB Ramps		See Interchange Cost Estimates	
105	Paradise Road/Pescadero Avenue	Planned	\$ 5,625,000	\$ 7,593,750
106	Paradise Road/Grant Line Road	Planned	\$ 1,005,250	\$ 1,357,088
107	Eleventh Street/Grant Line Road	Existing	\$ -	\$ -
a	Power Road/Pavillion Parkway	Planned	\$ 4,944,000	\$ 6,674,400
b	Power Road/Grant Line Road	Planned	\$ 2,828,000	\$ 3,817,800
c	Hansen Road/Old Hansen Road	Planned	\$ 2,804,000	\$ 3,785,400
			\$ 215,868,000	\$ 291,421,800

Notes:

- 1 Markups include 15% Contingency, 10% Design & Planning and 10% Construction Management
- 2 Refer to Figure xx

City of Tracy
Roadway Improvements
Preliminary Construction Cost Estimates (Buildout / Horizon Year)

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No.	Street	From	To	Street Length (ft)	Roadway Improvement Type at Buildout / Horizon Year	Preliminary Cost Estimate
1	International Pkwy	I-205 WB	I-205 EB	N/A	N/A - Interchange Project	\$ -
2	International Pkwy	I-205 EB	Capital Parks Dr	1,200	8-Lane Major Arterial	\$ 4,900,000
3	International Pkwy	Capital Parks Dr	Promontory Pkwy	700	6-Lane Major Arterial	\$ 2,550,000
4	International Pkwy	Promontory Pkwy	Old Schulte Rd	3,500	4-Lane Major Arterial	\$ 9,500,000
5	International Pkwy	Old Schulte Rd	I-580 WB	N/A	N/A - Interchange Project	\$ -
6	International Pkwy	I-580 WB	I-580 EB	N/A	N/A - Interchange Project	\$ -
7	Hansen Rd	I-205	Capital Parks Dr	N/A	N/A - No Existing Street Widening	\$ -
8	Hansen Rd	Capital Parks Dr	Promontory Pkwy	N/A	N/A - No Existing Street Widening	\$ -
9	Hansen Rd	Promontory Pkwy	Old Schulte Rd	N/A	N/A - No Existing Street Widening	\$ -
10	Pavillion Pkwy	I-205	Lammers Rd	1,800	2-Lane Divided Arterial	\$ 2,980,000
11	Pavillion Pkwy	Lammers Rd	Grant Line Rd	2,600	2-Lane Divided Arterial	\$ 4,210,000
12	Pavillion Pkwy	Grant Line Rd	Lammers Extn	1,100	2-Lane Divided Arterial	\$ 1,860,000
13	Pavillion Pkwy	Lammers Extn	Grant Line Rd	500	2-Lane Divided Arterial	\$ 900,000
14	Pavillion Pkwy	Von Sosten Rd	Von Sosten Rd	1,900	2-Lane Divided Arterial	\$ 3,140,000
15	Pavillion Pkwy	Von Sosten Rd	Capital Parks Dr	4,900	2-Lane Divided Arterial	\$ 7,890,000
16	Pavillion Pkwy	Capital Parks Dr	Promontory Pkwy	2,000	2-Lane Divided Arterial	\$ 3,300,000
17	Pavillion Pkwy	Promontory Pkwy	Old Schulte Rd	2,300	2-Lane Divided Arterial	\$ 3,780,000
18	Pavillion Pkwy	Old Schulte Rd	Hansen Rd	3,000	2-Lane Divided Arterial	\$ 4,850,000
19	Lammers Extn	Pavillion Pkwy	Byron Rd	1,100	2-Lane Major Arterial	\$ 2,850,000
20	Lammers Extn	Byron Rd	Von Sosten Rd	800	2-Lane Major Arterial	\$ 2,100,000
21	Lammers Extn	Von Sosten Rd	I-205 WB	1,100	2-Lane Major Arterial	\$ 2,850,000
22	Lammers Extn	I-205 WB	I-205 EB	900	N/A - Interchange Project	\$ 190,000
23	Lammers Extn	I-205 EB	Commerce Wy	200	8-Lane Major Arterial	\$ 900,000
24	Lammers Extn	Commerce Wy	Road M	700	8-Lane Major Arterial	\$ 2,900,000
25	Lammers Extn	Road M	11th St	900	8-Lane Major Arterial	\$ 3,700,000
26	Lammers Rd	Pavillion Pkwy	Grant Line Rd	N/A	N/A - No Existing Street Widening	\$ -
27	Lammers Rd	Byron Rd	11th St	N/A	N/A - No Existing Street Widening	\$ -
28	Lammers Rd	11th St	Capital Parks Dr	N/A	N/A - No Existing Street Widening	\$ -
29	Lammers Rd	Capital Parks Dr	Promontory Pkwy	1,600	4-Lane Major Arterial	\$ 4,420,000
30	Lammers Rd	Promontory Pkwy	Crossroads Dr	700	4-Lane Major Arterial	\$ 1,990,000
31	Lammers Rd	Crossroads Dr	Redbridge Rd	800	4-Lane Major Arterial	\$ 2,260,000
32	Lammers Rd	Redbridge Rd	Old Schulte Rd	300	4-Lane Major Arterial	\$ 910,000
33	Lammers Rd	Old Schulte Rd	Western Pacific Wy	1,300	4-Lane Major Arterial	\$ 3,610,000
34	Lammers Rd	Western Pacific Wy	Valpico Rd	900	4-Lane Major Arterial	\$ 2,530,000
35	Lammers Rd	Valpico Rd	Samual James Wy	700	4-Lane Major Arterial	\$ 1,990,000
36	Lammers Rd	Samual James Wy	Hansen Rd	1,300	4-Lane Major Arterial	\$ 3,610,000
37	Lammers Rd	Hansen Rd	Linne Rd	2,400	4-Lane Major Arterial	\$ 6,580,000
38	Lammers Rd	Linne Rd	Tracy Hills Dr	1,400	4-Lane Major Arterial	\$ 3,880,000
39	Lammers Rd	Tracy Hills Dr	I-580 WB	400	4-Lane Major Arterial	\$ 1,180,000
40	Lammers Rd	I-580 WB	I-580 EB	N/A	N/A - Interchange Project	\$ -
41	Lammers Rd	I-580 EB	Corral Hollow Rd	N/A	N/A - Onsite Street Project	\$ -
42	Naglee Rd	Middle Rd	Auto Plaza Dr	N/A	N/A - No Existing Street Widening	\$ -
43	Naglee Rd	Auto Plaza Dr	Pavillion Pkwy	N/A	N/A - No Existing Street Widening	\$ -
44	Naglee Rd	Pavillion Pkwy	Private Dwy	N/A	N/A - No Existing Street Widening	\$ -
45	Naglee Rd	Private Dwy	Grant Line Rd	N/A	N/A - No Existing Street Widening	\$ -
46	Crossroads Dr	11th St	Schulte Rd	1,500	4-Lane Divided Arterial	\$ 3,250,000
47	Corral Hollow Rd	Larch Rd	Auto Plaza Dr	N/A	N/A - No Existing Street Widening	\$ -
48	Corral Hollow Rd	Auto Plaza Dr	Grant Line Rd	N/A	N/A - No Existing Street Widening	\$ -
49	Corral Hollow Rd	Grant Line Rd	11th St	N/A	N/A - No Existing Street Widening	\$ -
50	Corral Hollow Rd	11th St	Schulte Rd	N/A	N/A - No Existing Street Widening	\$ -
51	Corral Hollow Rd	Schulte Rd	Valpico Rd	4,000	4-Lane Divided Arterial	\$ 8,450,000
52	Corral Hollow Rd	Valpico Rd	Samuel James Wy	800	4-Lane Divided Arterial	\$ 1,780,000
53	Corral Hollow Rd	Samual James Wy	Ellis Town Dr/Peony Dr	500	4-Lane Divided Arterial	\$ 1,150,000
54	Corral Hollow Rd	Ellis Town Dr/Peony Dr	Summit Dr/Middlefield Dr	1,000	4-Lane Divided Arterial	\$ 2,200,000
55	Corral Hollow Rd	Summit Dr/Middlefield Dr	Linne Rd	300	4-Lane Divided Arterial	\$ 730,000
56	Corral Hollow Rd	Linne Rd	North Tracy Hills Dr	4,000	4-Lane Divided Arterial	\$ 8,450,000
57	Corral Hollow Rd	North Tracy Hills Dr	Tracy Hills Dr	2,400	4-Lane Divided Arterial	\$ 5,140,000
58	Corral Hollow Rd	Tracy Hills Dr	I-580 WB	1,000	4-Lane Divided Arterial	\$ 2,200,000
59	Corral Hollow Rd	I-580 WB	I-580 EB	N/A	N/A - Interchange Project	\$ -
60	Corral Hollow Rd	I-580 EB	Lammers Rd	1,000	4-Lane Divided Arterial	\$ 2,200,000
61	Tracy Blvd	Larch Rd	I-205 WB	N/A	N/A - No Existing Street Widening	\$ -
62	Tracy Blvd	I-205 WB	I-205 EB	N/A	N/A - No Existing Street Widening	\$ -
63	Tracy Blvd	I-205 EB	Grant Line Rd	N/A	N/A - No Existing Street Widening	\$ -
64	Tracy Blvd	Grant Line Rd	11th St	N/A	N/A - No Existing Street Widening	\$ -
65	Tracy Blvd	11th St	6th St	N/A	N/A - No Existing Street Widening	\$ -
66	Tracy Blvd	6th St	Mt Diablo Ave	N/A	N/A - No Existing Street Widening	\$ -
67	Tracy Blvd	Mt Diablo Ave	Schulte Rd	N/A	N/A - No Existing Street Widening	\$ -
68	Tracy Blvd	Schulte Rd	Central Ave	N/A	N/A - No Existing Street Widening	\$ -
69	Tracy Blvd	Central Ave	Valpico Rd	N/A	N/A - No Existing Street Widening	\$ -
70	Tracy Blvd	Valpico Rd	Whispering Wind Dr	N/A	N/A - No Existing Street Widening	\$ -
71	Tracy Blvd	Whispering Wind Dr	ACE Station	N/A	N/A - No Existing Street Widening	\$ -
72	Tracy Blvd	ACE Station	Linne Rd	N/A	N/A - No Existing Street Widening	\$ -

City of Tracy
Intelligent Transportation System Infrastructure Improvements
Preliminary Construction Cost Estimates (Horizon Year)

No.	Improvement Description	Unit	Quantity	Unit Cost	Total Cost	Total Cost w/Markup
Fiber Optic Communication System Installation (Traffic Management Improvements Only)						
1	Furnish and Install 3" Conduit	LF	386,000	\$60	\$23,160,000	\$31,266,000
2	Furnish and Install Pull Boxes	EA	1,544	\$2,000	\$3,088,000	\$4,168,800
3	Furnish and Install 144 Strand Singlemode Fiber Optic Cable	LF	386,000	\$18	\$6,948,000	\$9,379,800
4	Signalized Intersection Upgrades (Includes Splice Vault/Enclosure/Communication Equipment/Controller & Cabinet Modifications)	EA	109	\$43,000	\$4,687,000	\$6,327,450
5	Furnish and Install CCTV Camera System (includes CCTV Camera, Cables, Mounting and Video Encoder)	EA	33	\$15,000	\$495,000	\$668,250
6	Furnish and Install DMS System (Including Display/Sign Structure/Pole/Foundation/Splice Vault/Cabinet/Communication Equipment). This TMP includes the use of DMS signs on trailers on an "as needed" basis. Future updates may reassess the use of standard DMS signs.	EA	0	\$162,500	\$0	\$0
7	Furnish and Install Field Communication Hub (Including Splice Vault/Enclosure/Communication Equipment/Cabinet)	EA	4	\$37,500	\$150,000	\$202,500
Subtotal					\$38,528,000	\$52,012,800
Fiber Optic Communication System Installation (Public Works Department)						
8	PUBLIC WORKS DEPARTMENT Furnish and Install Two (2) Workstations/Computer (Including Fiber Optic Cable/Conduit/Splice Vault-Enclosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$62,500	\$62,500	\$84,375
Subtotal					\$62,500	\$84,375
Fiber Optic Communication System Installation (Water Department)						
9	WATER TREATMENT PLANT Furnish and Install One (1) Workstation/Computer (Including Fiber Optic Cable/Conduit/Splice Vault-Enclosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$62,500	\$62,500	\$84,375
Subtotal					\$62,500	\$84,375
Fiber Optic Communication System Installation (Parks / Library)						
10	TRACY SPORTS COMPLEX Furnish and Install One (1) Workstation/Computer (Including Fiber Optic Cable/Conduit/Splice Vault-Enclosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$62,500	\$62,500	\$84,375
11	EL PESCADERO PARK Furnish and Install One (1) Workstation/Computer (Including Fiber Optic Cable/Conduit/Splice Vault-Enclosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$62,500	\$62,500	\$84,375
12	TRACY BALL PARK Furnish and Install One (1) Workstation/Computer (Including Fiber Optic Cable/Conduit/Splice Vault-Enclosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$62,500	\$62,500	\$84,375
13	POWERS PARK Furnish and Install One (1) Workstation/Computer (Including Fiber Optic Cable/Conduit/Splice Vault-Enclosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$62,500	\$62,500	\$84,375
14	LINCOLN PARK Furnish and Install One (1) Workstation/Computer (Including Fiber Optic Cable/Conduit/Splice Vault-Enclosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$62,500	\$62,500	\$84,375

No.	Improvement Description	Unit	Quantity	Unit Cost	Total Cost	Total Cost w/Markup
15	TRACY PUBLIC LIBRARY Furnish and Install One (1) Workstation/Computer (Including Fiber Optic Cable/Conduit/Spice Vault-Enclosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$62,500	\$62,500	\$84,375
Subtotal					\$375,000	\$506,250

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No.	Improvement Description	Unit	Quantity	Unit Cost	Total Cost	Total Cost w/Markup
Fiber Optic Communication System Installation (Fire Department / Station)						
16	TRACY FIRE DEPARTMENT BUILDING Furnish and Install One (1) Workstation (Including Fiber Optic Cable/Conduit/Spice Vault-Enclosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$62,500	\$62,500	\$84,375
17	TRACY FIRE STATION NO. 1 Furnish and Install One (1) Workstation (Including Fiber Optic Cable/Conduit/Spice Vault-Enclosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$62,500	\$62,500	\$84,375
18	TRACY FIRE STATION NO. 6 Furnish and Install One (1) Workstation (Including Fiber Optic Cable/Conduit/Spice Vault-Enclosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$62,500	\$62,500	\$84,375
19	TRACY FIRE STATION NO. 7 Furnish and Install One (1) Workstation/Computer (Including Fiber Optic Cable/Conduit/Spice Vault-Enclosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$62,500	\$62,500	\$84,375
Subtotal					\$250,000	\$337,500
City Hall - Traffic Management Center						
20	TRAFFIC MANAGEMENT CENTER (TMC) Furnish and Install TMC (Including Fiber Optic Cable/Conduit/Spice Vault-Enclosure and Video Wall/Communication Equipment & Software/Furniture)	LS	1	\$500,000	\$500,000	\$675,000
Subtotal					\$500,000	\$675,000
Other Costs Associated with Intelligent Transportation System						
21	Testing	LS	1	\$62,500	\$62,500	\$84,375
22	Training	LS	1	\$25,000	\$25,000	\$33,750
23	System Integration	LS	1	\$62,500	\$62,500	\$84,375
Subtotal					\$150,000	\$202,500
Grand Total					\$39,928,000	\$53,902,800

Notes:

1 Markups include 15% Contingency, 10% Design & Planning and 10% Construction Management

2 Refer to Figure 4.37