ASSOCIATED TRANSPORTATION ENGINEERS
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Since 1978

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June 20, 2019 19029L01

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TRAFFIC ASSESSMENT FOR THE
SANTA CLAUS LANE STREETSCAPE IMPROVEMENT PROJECT, COUNTY OF SANTA BARBARA

Associated Transportation Engineer's (ATE) has prepared the following traffic assessment for the Santa Claus Lane Streetscape Improvement Project (the "Project") located near Carpinteria in the unincorporated area of Santa Barbara County.

PROJECT DESCRIPTION

The County of Santa Barbara (County) is proposing streetscape improvements along Santa Claus Lane to improve access to the beach, provide new recreational amenities to the public, increase accessibility for all users in the project area, and improve drainage and safety along Santa Claus Lane. The proposed streetscape improvements include: additional public restrooms, rinse stations, trash/recycle bins, bike racks, multi-use path, crosswalks, sidewalks, traffic calming measures, beach and business patron parking, landscaping, and a new roundabout at the intersection of Santa Claus Lane and Spindrift Lane.

BACKGROUND

The South Coast 101 HOV Lanes Project Draft Revised Environmental Impact Report (DEIR) showed that one of the study-area intersections at the US 101/South Padaro Lane interchange was forecast to operate at a poor level of service (LOS) under Year 2020 No Build conditions. County staff therefore requested an assessment of existing traffic conditions within the Project study area to determine current volumes, vehicles delays, and levels of service.

CALTRANS LEVEL OF SERVICE FORECASTS

The South Coast 101 HOV Lanes Project EIR includes level of service forecasts for the Year 2020 No Build scenario for the intersections comprising the US 101/South Padaro Lane interchange. Table 1 summarizes the PM peak hour levels of service presented in the EIR.

Table 1
South Coast 101 HOV Lanes Project EIR
Year 2020 No Build LOS Forecasts – PM Peak Hour

Intersection	Control Type	Highest Approach Delay & LOS(a)
Via Real/Padaro Ln Vehicle Delay Level of Service	TWSC	Northbound Left + Right = 17.7 Seconds **LOS C**
US 101 NB Ramps/Padaro Ln Vehicle Delay Level of Service	TWSC	Westbound Left + Right = 12.2 Seconds **LOS B**
US 101 SB Off-Ramp/Padaro Ln/Santa Claus Ln Vehicle Delay Level of Service	TWSC	Southbound Left + Thru = 53.0 Seconds **LOS F**

(a) LOS based on average delay per vehicle for worst approach.

As shown, the South Coast 101 HOV Lanes Project EIR forecast that the US 101 SB Off-Ramp/Padaro Lane/Santa Claus Lane intersection would operate at LOS F during the PM peak hour in the Year 2020. It is important to note that 1) the Caltrans levels of service are based on "traffic forecasts" not actual traffic counts, and 2) the Caltrans levels of service cited for each intersection are based on the highest vehicle delay on the worst approach at the intersections. The County determines levels of service for stop-sign controlled intersections based on the average vehicle delays for all movements that are required to stop or yield when using the intersections.

CURRENT TRAFFIC COUNTS AND LEVELS OF SERVICE

Traffic counts were conducted on Santa Claus Lane to determine existing Average Daily Traffic (ADT) volumes during the weekday and weekend periods. Intersection turning movement counts and delay studies were also conducted at 4 intersections that provide access to Santa Claus Lane. The traffic counts were collected in May and June of 2019 (count data attached). Figures 1 & 2 (attached) shows the existing traffic volumes for weekdays and weekends.

Existing Roadway Operations

Table 1 lists the existing traffic volumes on Santa Claus Lane for the weekday and weekend periods, along with the existing operations based on County criteria. As shown, Santa Claus Lane currently carries relatively low traffic volumes and operates at LOS A on weekdays and weekends.

Table 1
Existing Roadway Operations

Roadway Segment	Roadway Classification	Existing ADT	Acceptable Capacity	LOS
Santa Claus Lane e/o Padaro Lane	P-3 Roadway	2,950 (Weekday) 3,200 (Weekend)	10,990 ADT	LOS A LOS A

(b) LOS based on ADT volume using Toro Canyon Plan capacity criteria of 10,990 ADT for P-3 roadways.

Existing Intersection Operations

Table 2 lists the existing levels of service for the study-area intersections. Levels of service were calculated using the operations method contained in the Highway Capacity Manual.[1] Since levels of service for stop-sign controlled intersections are based on the average delay per vehicle, delay data was also collected at the study-area intersections to accurately calculate the levels of service (level of service worksheets and delay calculations are attached for reference). As noted, the County determines levels of service for stop-sign controlled intersections based on the average delay per vehicle for all vehicles that are required to stop and wait for a gap in the opposing traffic streams. As shown in Table 2, the study- area intersections currently operate at LOS A during the weekday PM peak hour and LOS A-B during the weekend peak hour, which meet the County's LOS C standard.

[1] Highway Capacity Manual, Transportation Research Board, 6th Edition, 2016.

Table 2
Existing Intersection Operations

Intersection / Movement	Peak Hour Delay / LOS(a)	
	Weekday PM Peak	Weekend Peak
Via Real/Padaro Ln:		
NB Left + Right	7.8 Sec. / LOS A	11.0 Sec. / LOS B
WB Left	8.7 Sec. / LOS A	7.7 Sec. / LOS A
Overall Intersection:	***8.2 Sec. / LOS A***	***10.4 Sec. / LOS B***
US 101 NB/Padaro Ln:		
WB Left + Right	10.7 Sec. / LOS B	7.6 Sec. / LOS A
NB Left	8.2 Sec. / LOS A	7.6 Sec. / LOS A
Overall Intersection:	***9.8 Sec. / LOS A***	***7.6 Sec. / LOS A***
US 101 SB/Padaro Ln/Santa Claus Ln:		
EB Left	11.9 Sec. / LOS B	8.5 Sec. / LOS A
EB Thru + Right	11.5 Sec. / LOS B	8.2 Sec. / LOS A
WB Left + Right	9.1 Sec. / LOS A	9.2 Sec. / LOS A
SB Left	7.9 Sec. / LOS A	7.5 Sec. / LOS A
Overall Intersection:	***9.1 Sec. / LOS A***	***8.2 Sec. / LOS A***
Santa Claus Lane/Spindrift:		
NB Left + Right	7.6 Sec. / LOS A	7.6 Sec. / LOS A
Overall Intersection:	***7.6 Sec. / LOS A***	***7.6 Sec. / LOS A***

(a) Level of service based on average delay per vehicle pursuant to HCM operations method.

PROJECT TRIP GENERATION & POTENTIAL IMPACTS

The Santa Claus Lane Streetscape Improvements Project is intended to enhance vehicle, pedestrian, and bicycle circulation along Santa Claus Lane; and provide additional parking resources for peak beach visitation days. The Project does not include construction of any new visitor-serving buildings or businesses that would attract new traffic. It is anticipated that these improvements will not result in significant increases in traffic at the US 101/Padaro Lane interchange during the typical weekday AM and PM peak hour commute periods since the existing beach parking is generally not full during these periods. Thus, adding vehicle parking and enhancing pedestrian and bike facilities would not attract new automobiles during the weekday peak periods. The improvements will improve traffic, pedestrian, and bike flows along Santa Claus Lane during weekend peak visitation periods because the additional parking spaces will reduce the frequency of vehicles circling through the area attempting to find open parking spots.

As shown in Tables 1 and 2, Santa Claus Lane and the study-area intersections currently operate at LOS A during the weekday PM peak hour and LOS A-B during the weekend peak hour, which meet the County's LOS C standard. Any minor increases in traffic that would result from the Project would not significantly degrade traffic operations in the study-area and therefore not generate significant traffic impacts. For reference, the study-area intersections would continue to operate at LOS A-B during the weekday AM/PM peak hours and weekend peak hour assuming a 25% increase in traffic to the Santa Claus Lane area.

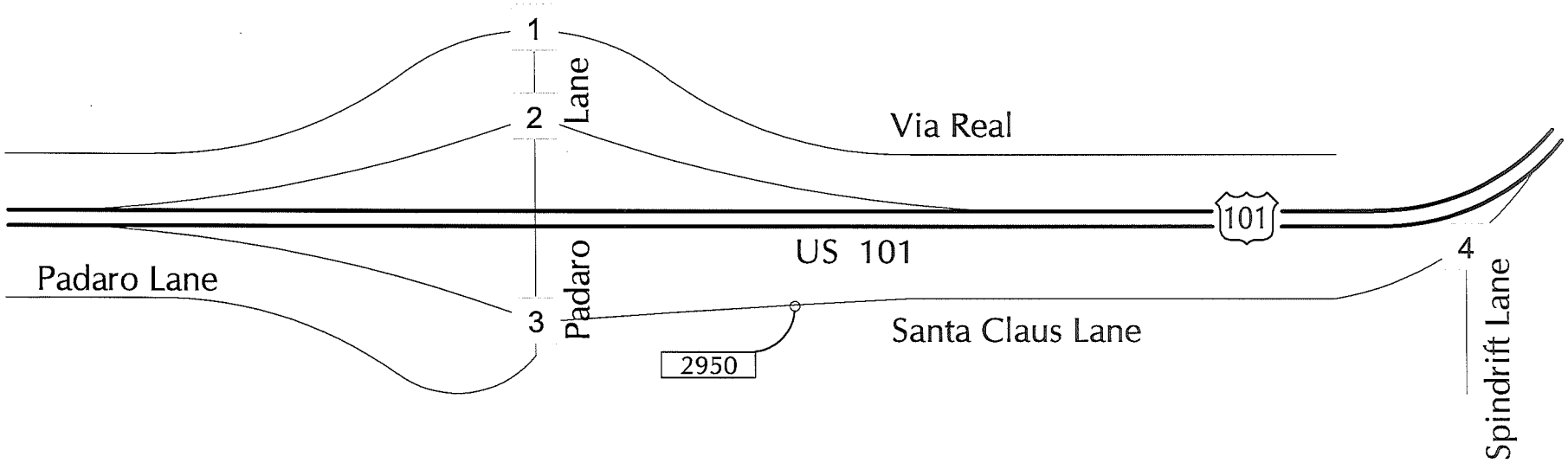
The Santa Claus Lane Streetscape Improvement Project include a new single-lane roundabout at the Santa Claus Lane/Spindrift Lane intersection. Levels of service for this new intersection feature were calculated using the roundabout operations method contained in the Highway Capacity Manual. The results show that the new roundabout is forecast to operate at LOS A during the weekday PM peak hour and weekend peak hour.

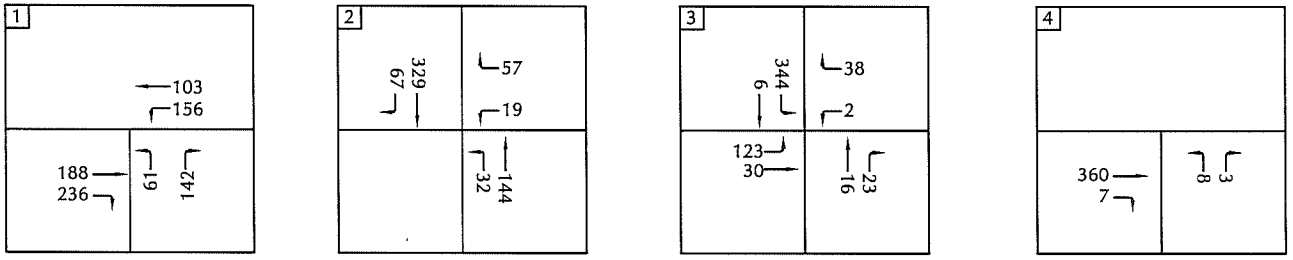
This concludes our traffic assessment for the Santa Claus Lane Streetscape Improvement Project. Thank you for your assistance during the course of the work effort.

Associated Transportation Engineers

Dan Dawson
Supervising Transportation Planner

Attachments





N
NOT TO SCALE

XX - Weekday PM Peak Hour Volume

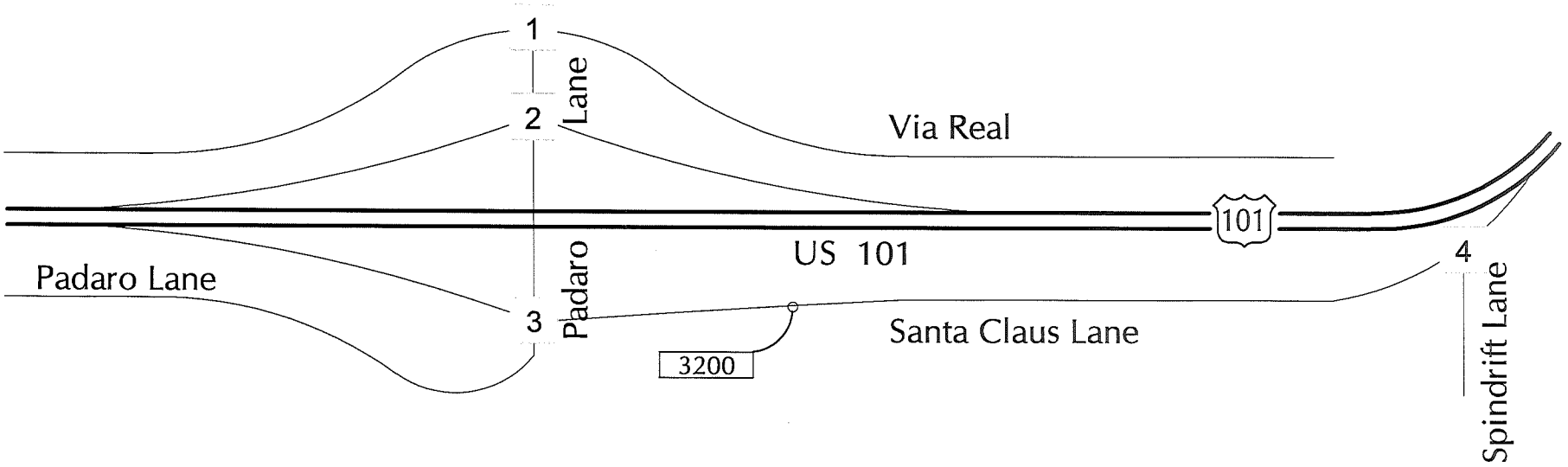
X - Average Daily Traffic Volume

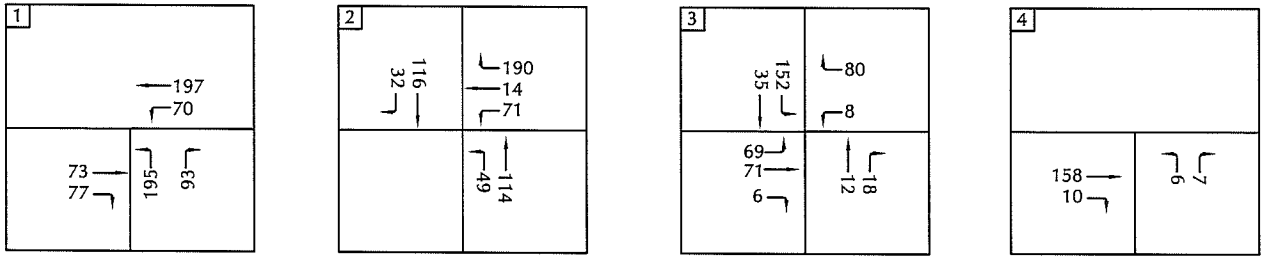
ASSOCIATED TRANSPORTATION ENGINEERS

WEEKDAY TRAFFIC VOLUMES

FIGURE 1

KAB - ATE#19029





N
NOT TO SCALE

└XX - Weekend Peak Hour Volume

X - Average Daily Traffic Volume

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WEEKEND TRAFFIC VOLUMES

FIGURE 2

KAB - ATE#19029

Prepared by National Data & Surveying Services

VOLUME

Santa Claus Ln Bet. Padaro Ln & Spindrift Ln

Day: Thursday
Date: 5/30/2019

City: Carpinteria
Project #: CA19_2037_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,510	438	2,948

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00			3	0	3	12:00			63	13	76
00:15			0	0	0	12:15			49	9	58
00:30			0	0	0	12:30			49	11	60
00:45			0	3 0	0 3	12:45			42 203	10 43	52 246
01:00			2	0	2	13:00			57	14	71
01:15			2	0	2	13:15			46	17	63
01:30			3	0	3	13:30			45	13	58
01:45			0	7 0	0 7	13:45			34 182	12 56	46 238
02:00			1	0	1	14:00			33	9	42
02:15			0	2	2	14:15			32	10	42
02:30			0	0	0	14:30			41	12	53
02:45			0	1 0 2	0 3	14:45			39 145	13 44	52 189
03:00			6	0	6	15:00			41	16	57
03:15			0	0	0	15:15			54	7	61
03:30			0	0	0	15:30			81	10	91
03:45			2	8 1 1	3 9	15:45			69 245	10 43	79 288
04:00			4	0	4	16:00			108	11	119
04:15			0	0	0	16:15			74	6	80
04:30			0	0	0	16:30			120	8	128
04:45			1	5 0	1 5	16:45			85 387	11 36	96 423
05:00			2	5	7	17:00			103	14	117
05:15			3	0	3	17:15			62	7	69
05:30			4	0	4	17:30			55	13	68
05:45			18	27 2 7	20 34	17:45			53 273	7 41	60 314
06:00			12	0	12	18:00			55	2	57
06:15			8	0	8	18:15			29	5	34
06:30			10	1	11	18:30			31	6	37
06:45			13	43 2 3	15 46	18:45			23 138	7 20	30 158
07:00			14	0	14	19:00			20	3	23
07:15			16	3	19	19:15			20	1	21
07:30			32	3	35	19:30			16	5	21
07:45			31	93 4 10	35 103	19:45			13 69	5 14	18 83
08:00			28	8	36	20:00			14	5	19
08:15			49	3	52	20:15			13	1	14
08:30			30	3	33	20:30			13	0	13
08:45			38	145 2 16	40 161	20:45			10 50	1 7	11 57
09:00			40	5	45	21:00			5	1	6
09:15			39	5	44	21:15			8	2	10
09:30			27	7	34	21:30			5	1	6
09:45			41	147 3 20	44 167	21:45			3 21	0 4	3 25
10:00			24	2	26	22:00			7	0	7
10:15			32	10	42	22:15			2	0	2
10:30			41	11	52	22:30			2	0	2
10:45			37	134 8 31	45 165	22:45			4 15	0	4 15
11:00			37	8	45	23:00			3	0	3
11:15			29	4	33	23:15			3	0	3
11:30			40	10	50	23:30			0	0	0
11:45			52	158 18 40	70 198	23:45			5 11	0	5 11
TOTALS				771	130 901	TOTALS				1739	308 2047
SPLIT %				85.6%	14.4% 30.6%	SPLIT %				85.0%	15.0% 69.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,510	438	2,948

AM Peak Hour			11:45	11:45	11:45	PM Peak Hour			16:00	13:00	16:00
AM Pk Volume			213	51	264	PM Pk Volume			387	56	423
Pk Hr Factor			0.845	0.708	0.868	Pk Hr Factor			0.806	0.824	0.826
7 - 9 Volume	0	0	238	26	264	4 - 6 Volume	0	0	660	77	737
7 - 9 Peak Hour			08:00	07:15	08:00	4 - 6 Peak Hour			16:00	16:45	16:00
7 - 9 Pk Volume	0	0	145	18	161	4 - 6 Pk Volume	0	0	387	45	423
Pk Hr Factor	0.000	0.000	0.740	0.563	0.774	Pk Hr Factor	0.000	0.000	0.806	0.804	0.826

Prepared by National Data & Surveying Services

VOLUME

Santa Claus Ln Bet. Padaro Ln & Spindrift Ln

Day: Saturday
Date: 6/8/2019

City: Carpinteria
Project #: CA19_2037_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,585	583	3,168

AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
00:00			4	0	4		12:00			88	19	107	
00:15			2	1	3		12:15			68	14	82	
00:30			3	0	3		12:30			61	17	78	
00:45			6	15 0 1	6	16	12:45			57 274	20 70	77	344
01:00			2	0	2		13:00			54	21	75	
01:15			1	2	3		13:15			55	24	79	
01:30			0	0	0		13:30			70	25	95	
01:45			1	4 0 2	1	6	13:45			61 240	17 87	78	327
02:00			6	1	7		14:00			50	12	62	
02:15			1	1	2		14:15			60	14	74	
02:30			0	0	0		14:30			54	29	83	
02:45			2	9 0 2	2	11	14:45			50 214	21 76	71	290
03:00			3	0	3		15:00			45	10	55	
03:15			0	0	0		15:15			53	12	65	
03:30			3	0	3		15:30			43	16	59	
03:45			0	6 0	0	6	15:45			53 194	15 53	68	247
04:00			2	2	4		16:00			31	8	39	
04:15			0	0	0		16:15			70	5	75	
04:30			1	0	1		16:30			51	8	59	
04:45			3	6 1 3	4	9	16:45			55 207	9 30	64	237
05:00			3	1	4		17:00			53	11	64	
05:15			3	0	3		17:15			62	8	70	
05:30			4	0	4		17:30			80	8	88	
05:45			11	21 0 1	11	22	17:45			65 260	8 35	73	295
06:00			5	3	8		18:00			46	4	50	
06:15			5	2	7		18:15			52	0	52	
06:30			12	3	15		18:30			56	8	64	
06:45			4	26 1 9	5	35	18:45			43 197	8 20	51	217
07:00			9	1	10		19:00			29	8	37	
07:15			15	2	17		19:15			37	14	51	
07:30			10	3	13		19:30			22	11	33	
07:45			14	48 3 9	17	57	19:45			23 111	12 45	35	156
08:00			24	3	27		20:00			18	8	26	
08:15			10	3	13		20:15			9	5	14	
08:30			23	5	28		20:30			12	4	16	
08:45			33	90 2 13	35	103	20:45			7 46	8 25	15	71
09:00			25	2	27		21:00			15	6	21	
09:15			24	2	26		21:15			14	4	18	
09:30			31	2	33		21:30			11	2	13	
09:45			38	118 4 10	42	128	21:45			3 43	1 13	4	56
10:00			32	6	38		22:00			10	1	11	
10:15			35	8	43		22:15			9	2	11	
10:30			43	6	49		22:30			7	1	8	
10:45			52	162 9 29	61	191	22:45			8 34	5 9	13	43
11:00			54	5	59		23:00			6	5	11	
11:15			56	2	58		23:15			10	1	11	
11:30			65	11	76		23:30			1	2	3	
11:45			66	241 12 30	78	271	23:45			2 19	3 11	5	30
TOTALS				746	109	855	TOTALS				1839	474	2313
SPLIT %				87.3%	12.7%	27.0%	SPLIT %				79.5%	20.5%	73.0%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,585	583	3,168

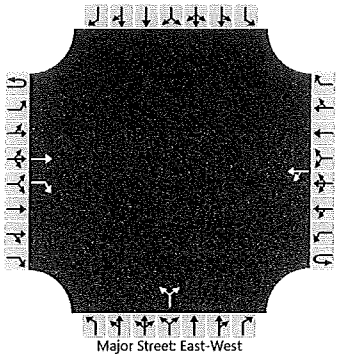
AM Peak Hour			11:30	11:45	11:45	
AM Pk Volume			287	62	345	
Pk Hr Factor			0.815	0.816	0.806	
7 - 9 Volume	0	0	138	22	160	
7 - 9 Peak Hour			08:00	07:45	08:00	
7 - 9 Pk Volume	0	0	90	14	103	
Pk Hr Factor	0.000	0.000	0.682	0.700	0.736	

PM Peak Hour			12:00	12:45	12:00	
PM Pk Volume			274	90	344	
Pk Hr Factor			0.778	0.900	0.804	
4 - 6 Volume	0	0	467	65	532	
4 - 6 Peak Hour			17:00	16:30	17:00	
4 - 6 Pk Volume	0	0	260	36	295	
Pk Hr Factor	0.000	0.000	0.813	0.818	0.838	

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	KAB	Intersection	VIA REAL/PADARO LANE
Agency/Co.	ATE	Jurisdiction	CARPINTERIA
Date Performed	6/20/2019	East/West Street	VIA REAL
Analysis Year		North/South Street	PADARO LANE
Time Analyzed	WEEKDAY PM PEAK HOUR	Peak Hour Factor	1.00
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	EXISTING CONDITIONS		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	1	0	0	1	0		0	1	0		0	0	0
Configuration			T	R		LT					LR					
Volume (veh/h)			188	236		156	103			61		142				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized			No													
Median Type | Storage			Undivided													

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				5.0		5.0				
Critical Headway (sec)						4.13				4.90		4.90				
Base Follow-Up Headway (sec)						2.2				2.9		2.9				
Follow-Up Headway (sec)						2.23				2.93		2.93				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						156					203					
Capacity, c (veh/h)						1130					1468					
v/c Ratio						0.14					0.14					
95% Queue Length, Q_{95} (veh)						0.5					0.5					
Control Delay (s/veh)						8.7					7.8					
Level of Service (LOS)						A					A					
Approach Delay (s/veh)						5.7				7.8						
Approach LOS										A						

AWD = 8.2 = LOS A

Prepared by National Data & Surveying Services

Via Real & Padaro Ln

Peak Hour Turning Movement Count

ID: 19-02036-001
City: Carpinteria

Day: Thursday
Date: 05/30/2019

Via Real

SOUTHBOUND

PEAK HOURS		COUNT PERIODS
NONE	AM	NONE
NONE	NOON	NONE
04:00 PM - 05:00 PM	PM	04:00 PM - 06:00 PM

AM	0	0	0	0	0 AM
NOON	0	0	0	0	0 NOON
PM	236	188	0	0	160 PM

1 1 0 0

EASTBOUND (Padaro Ln)

AM	NOON	PM	
0	0	396	⇦
0	0	4	↶ 0
0	0	57	↱ 0
0	0	0	→ 1
0	0	142	↷ 0

WESTBOUND (Padaro Ln)

	PM	NOON	AM
0 ↶	0	0	0
0 ←	0	0	0
0 ↰	0	0	0
0 ↷	0	0	0
⇨	0	0	0

CONTROL

1-Way Stop (EB)

TEV	0 AM	0 NOON	886 PM
PHF			0.87

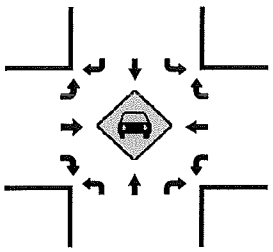
0 0 1 0 (↶ ← ↑ ↱)

PM	330	0	156	103	0 PM
NOON	0	0	0	0	0 NOON
AM	0	0	0	0	0 AM

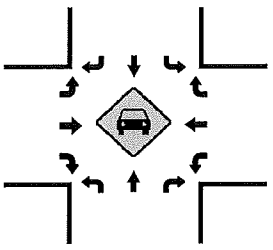
NORTHBOUND

Via Real

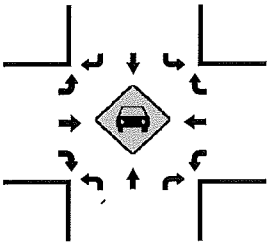
Total Vehicles (AM)



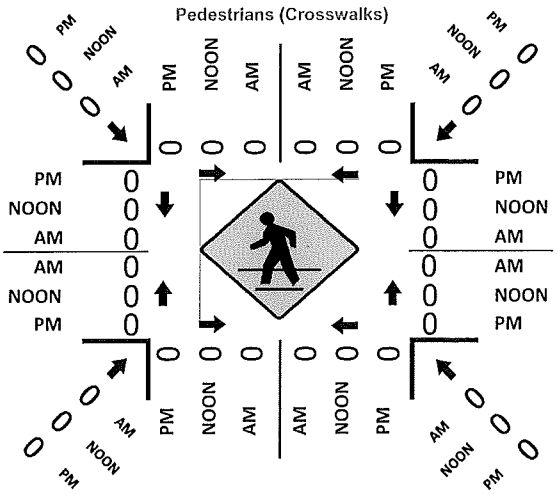
Total Vehicles (NOON)



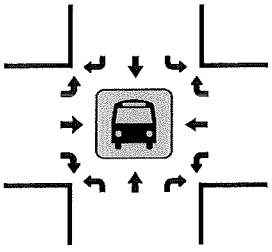
Total Vehicles (PM)



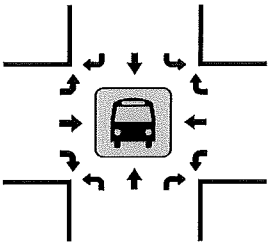
Pedestrians (Crosswalks)



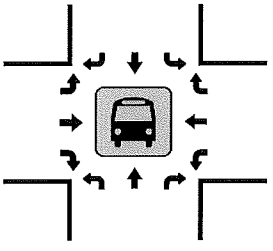
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Via Real & Padaro Ln
City: Carpinteria
Control: 1-Way Stop (EB)

Project ID: 19-02036-001
Date: 2019-05-30

Total

NS/EW Streets:	Via Real				Via Real				Padaro Ln				Padaro Ln				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	1	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	37	29	0	0	0	48	78	0	23	0	36	1	0	0	0	0	252
4:15 PM	30	29	0	0	0	37	37	0	13	0	33	2	0	0	0	0	181
4:30 PM	73	26	0	0	0	48	63	0	8	0	35	1	0	0	0	0	254
4:45 PM	16	19	0	0	0	55	58	0	13	0	38	0	0	0	0	0	199
5:00 PM	20	21	0	0	0	73	74	0	9	0	30	0	0	0	0	0	227
5:15 PM	25	18	0	0	0	52	54	0	7	0	26	0	0	0	0	0	182
5:30 PM	20	16	0	0	0	56	35	0	7	0	30	1	0	0	0	0	165
5:45 PM	17	16	0	0	0	53	29	0	9	0	25	0	0	0	0	0	149
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	238	174	0	0	0	422	428	0	89	0	253	5	0	0	0	0	1609
APPROACH %'s :	57.77%	42.23%	0.00%	0.00%	0.00%	49.65%	50.35%	0.00%	25.65%	0.00%	72.91%	1.44%					
PEAK HR :	**04:00 PM - 05:00 PM**				04:00 PM	289	289	296	04:30 PM								TOTAL
PEAK HR VOL :	156	103	0	0	0	188	236	0	57	0	142	4	0	0	0	0	886
PEAK HR FACTOR :	0.534	0.888	0.000	0.000	0.000	0.855	0.756	0.000	0.620	0.000	0.934	0.500	0.000	0.000	0.000	0.000	0.872
	0.654				0.841				0.846								

INTERSECTION DELAY WORKSHEET
Carpinteria
VIA REAL/PADERO
PM PEAK HOUR: 4:00 - 5:00
THURSDAY, 5/30/19
15 SECOND INTERVALS
APPROACH: NORTHBOUND PADERO LANE

Time Ending	Vehicles In Queue																			Total Approach
4:05 PM	0	0	0	0	0	0	0	0	1	3	3	2	0	0	0	0	0	0	0	
4:10 PM	0	0	0	0	0	0	0	1	0	0	2	0	0	0	1	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	60
4:20 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
4:25 PM	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	48
4:35 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	
4:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	0	1	44
4:50 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:55 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	1	51
Subtotal:	1	0	0	0	1	1	0	2	3	4	8	4	2	1	3	3	0	0	4	203

Total Vehicles In Queue: 38

Total Delay = 38 vehicles x 15 seconds = 570 seconds

Average Delay Per Vehicle = 570 seconds / 203 vehicles

2.8 Stop delay (seconds per vehicle) + 5 seconds control = 7.8

HCS7 Two-Way Stop-Control Report

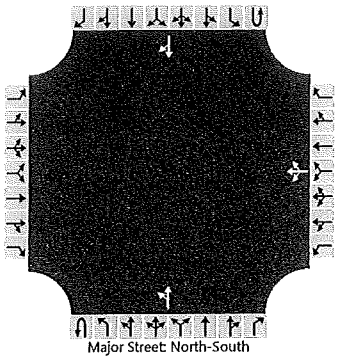
General Information

Analyst	KAB
Agency/Co.	ATE
Date Performed	6/20/2019
Analysis Year	
Time Analyzed	WEEKDAY PM PEAK HOUR
Intersection Orientation	North-South
Project Description	EXISTING CONDITIONS

Site Information

Intersection	US 101 NB/PADARO LANE
Jurisdiction	CARPINTERIA
East/West Street	US101 NB RAMP
North/South Street	PADARO LANE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LTR			LT						TR
Volume (veh/h)						19	4	57		49	114				329	67
Percent Heavy Vehicles (%)						3	3	3		3						
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						6.5	6.5	6.2		4.1						
Critical Headway (sec)						6.53	6.53	6.23		4.13						
Base Follow-Up Headway (sec)						3.5	4.0	3.3		2.2						
Follow-Up Headway (sec)						3.53	4.03	3.33		2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							80			49						
Capacity, c (veh/h)							708			1157						
v/c Ratio							0.11			0.04						
95% Queue Length, Q_{95} (veh)							0.4			0.1						
Control Delay (s/veh)							10.7			8.2						
Level of Service (LOS)							B			A						
Approach Delay (s/veh)					10.7				2.7							
Approach LOS					B											

AND = 9.8 = LOS A

Prepared by National Data & Surveying Services

US 101 NB Ramp & Padaro Ln

Peak Hour Turning Movement Count

ID: 19-02036-002
City: Carpinteria

Day: Thursday
Date: 05/30/2019

PEAK HOURS

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

COUNT PERIODS

AM	NONE
NOON	NONE
PM	04:00 PM - 06:00 PM

US 101 NB Ramp — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	103	PM

Padaro Ln — EASTBOUND

AM	NOON	PM	
0	0	348	⇦
0	0	0	↶ 0
0	0	32	↱ 0
0	0	144	→ 1
0	0	0	↷ 0
AM	NOON	PM	

CONTROL

1-Way Stop (NB)

	AM	NOON	PM
TEV	0	0	652
PHF			0.84

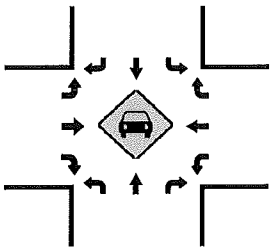
Padaro Ln — WESTBOUND

PM	NOON	AM	
0	67	0	0 ↰
1	329	0	0 ←
0	0	0	0 ↰
0	0	0	0 ↶
	201	0	0 ⇨
PM	NOON	AM	

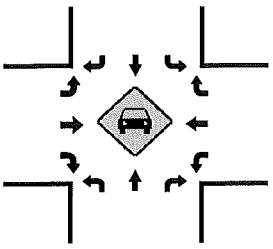
US 101 NB Ramp — NORTHBOUND

		0	0	1	0	⇩
PM	0	0	19	4	57	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

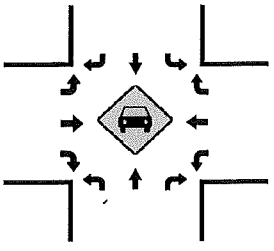
Total Vehicles (AM)



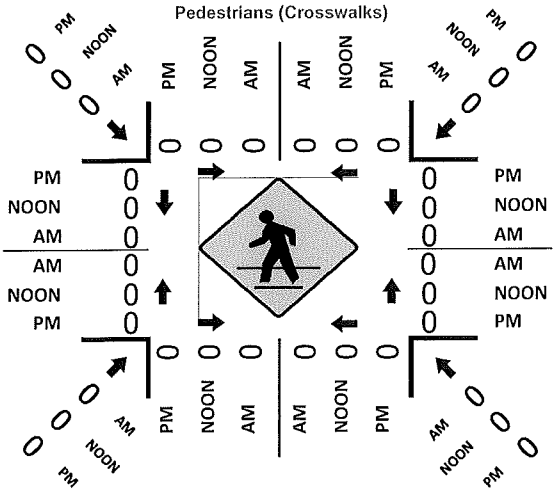
Total Vehicles (NOON)



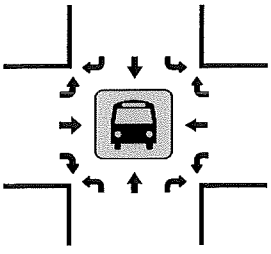
Total Vehicles (PM)



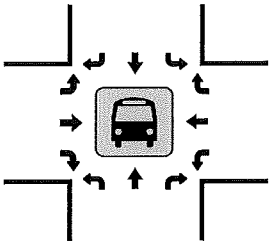
Pedestrians (Crosswalks)



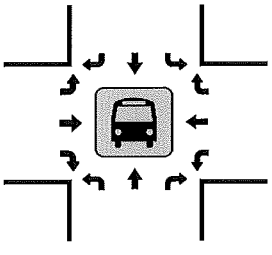
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: US 101 NB Ramp & Padaro Ln
City: Carpinteria
Control: 1-Way Stop (NB)

Project ID: 19-02036-002
Date: 2019-05-30

Total

NS/EW Streets:	US 101 NB Ramp				US 101 NB Ramp				Padaro Ln				Padaro Ln				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	4	1	24	0	0	0	0	0	12	36	0	0	0	98	18	0	193
4:15 PM	8	2	10	0	0	0	0	0	7	35	0	0	0	53	17	0	132
4:30 PM	4	1	10	0	0	0	0	0	7	36	0	0	0	110	27	0	195
4:45 PM	3	0	13	0	0	0	0	0	6	37	0	0	0	68	5	0	132
5:00 PM	5	1	9	0	0	0	0	0	11	29	0	0	0	80	13	0	148
5:15 PM	4	0	7	0	0	0	0	0	8	26	0	0	0	60	19	0	124
5:30 PM	5	0	7	0	0	0	0	0	14	32	0	0	0	42	14	0	114
5:45 PM	4	1	7	0	0	0	0	0	7	26	0	0	0	37	10	0	92
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	37	6	87	0	0	0	0	0	72	257	0	0	0	548	123	0	1130
APPROACH %'s :	28.46%	4.62%	66.92%	0.00%					21.88%	78.12%	0.00%	0.00%	0.00%	81.67%	18.33%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM				04:00 PM	289	289	296	04:30 PM								TOTAL
PEAK HR VOL :	19	4	57	0	0	0	0	0	32	144	0	0	0	329	67	0	652
PEAK HR FACTOR :	0.594	0.500	0.594	0.000	0.000	0.000	0.000	0.000	0.667	0.973	0.000	0.000	0.000	0.748	0.620	0.000	0.836
	0.690								0.917				0.723				

INTERSECTION DELAY WORKSHEET
Carpinteria
US 101 NB RAMPS/PADARO LANE
PM PEAK HOUR: 4:00 - 5:00
THRUSDAY, 5/30/19
15 SECOND INTERVALS
APPROACH: US 101 NB OFF-RAMP

Time Ending	Vehicles in Queue																				Total Approach
4:05 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
4:10 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	15
4:20 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
4:25 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	11
4:35 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
4:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	0	12
4:50 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Subtotal:	0	0	1	3	1	1	2	1	2	0	0	0	0	1	1	1	0	0	4	1	50

Total Vehicles In Queue: 19

Total Delay = 19 vehicles x 15 seconds = 285 seconds

Average Delay Per Vehicle = 285 seconds / 50 vehicles

5.7 Stop delay (seconds per vehicle) + 5 seconds control = 10.7

HCS7 Two-Way Stop-Control Report

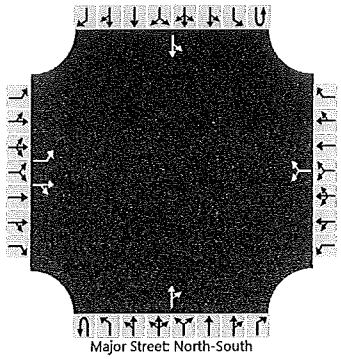
General Information

Analyst	KAB
Agency/Co.	ATE
Date Performed	6/20/2019
Analysis Year	
Time Analyzed	WEEKDAY PM PEAK HOUR
Intersection Orientation	North-South
Project Description	EXISTING CONDITIONS

Site Information

Intersection	US101SB/PADARO LANE-SANTA
Jurisdiction	CARPINTERIA
East/West Street	US101 NB RAMP
North/South Street	PADARO LANE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration		L		TR			LR					TR		LT		
Volume (veh/h)		123	30	0		2		38			16	23		344	6	
Percent Heavy Vehicles (%)		3	3	3		3		3						3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.8	5.0	5.5		7.1		6.2						4.1		
Critical Headway (sec)		4.83	5.03	5.53		7.13		6.23						4.13		
Base Follow-Up Headway (sec)		2.0	2.1	2.1		3.5		3.3						2.2		
Follow-Up Headway (sec)		2.03	2.13	2.13		3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		123		30			40							344		
Capacity, c (veh/h)		643		584			912							1565		
v/c Ratio		0.19		0.05			0.04							0.22		
95% Queue Length, Q_{95} (veh)		0.7		0.2			0.1							0.8		
Control Delay (s/veh)		11.9		11.5			9.1							7.9		
Level of Service (LOS)		B		B			A							A		
Approach Delay (s/veh)	11.8				9.1								7.8			
Approach LOS	B				A											

AWD = 9.1 = LOS A

Prepared by National Data & Surveying Services

US 101 SB Ramp/Santa Claus Ln & Padaro Ln

Peak Hour Turning Movement Count

ID: 19-02036-003
City: Carpinteria

Day: Thursday
Date: 05/30/2019

US 101 SB Ramp/Santa Claus Ln — SOUTHBOUND

PEAK HOURS		COUNT PERIODS
NONE	AM	NONE
NONE	NOON	NONE
04:00 PM - 05:00 PM	PM	04:00 PM - 06:00 PM

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	30	123	0	0	PM
	0.5	0.5	1	0		

EASTBOUND — Padaro Ln

AM	NOON	PM	
0	0	8	
0	0	0	0
0	0	0	0
0	0	16	1
0	0	23	0
AM	NOON	PM	

WESTBOUND — Padaro Ln

	PM	NOON	AM
0	0	0	0
1	6	0	0
0	343	0	0
0	1	0	0
	178	0	0
	PM	NOON	AM

CONTROL

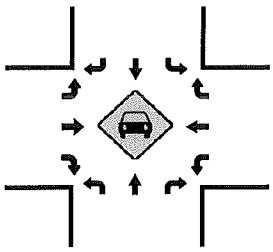
2-Way Stop (NB/SB)

	AM	NOON	PM
TEV	0	0	582
PHF			0.83

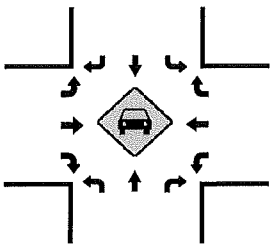
US 101 SB Ramp/Santa Claus Ln — NORTHBOUND

PM	396	0	2	0	38	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM
		0	0	0.5	0.5	

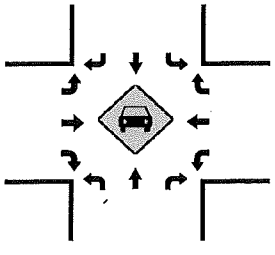
Total Vehicles (AM)



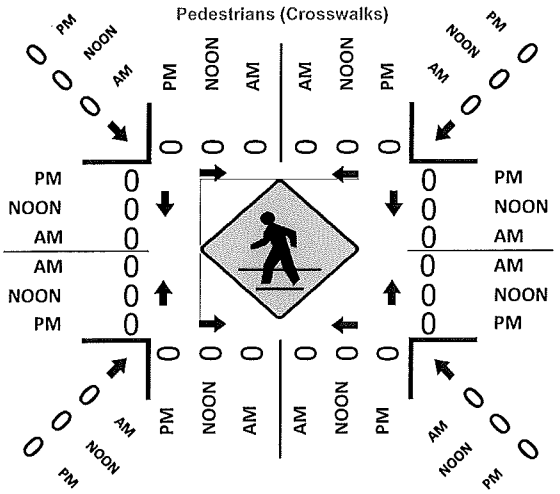
Total Vehicles (NOON)



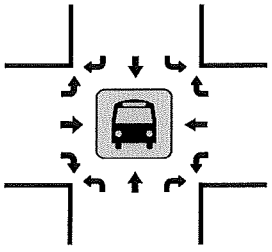
Total Vehicles (PM)



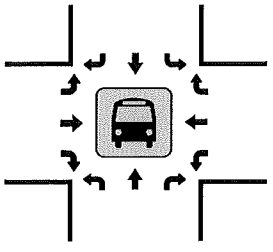
Pedestrians (Crosswalks)



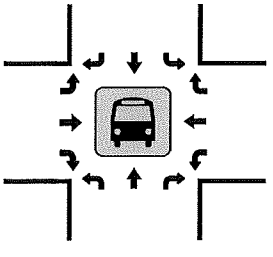
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: US 101 SB Ramp/Santa Claus Ln & Padaro Ln
City: Carpinteria
Control: 2-Way Stop (NB/SB)

Project ID: 19-02036-003
Date: 2019-05-30

Total

NS/EW Streets:	US 101 SB Ramp/Santa Claus Ln				US 101 SB Ramp/Santa Claus Ln				Padaro Ln				Padaro Ln				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0.5	0.5	0	1	0.5	0.5	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	12	0	32	8	0	0	0	5	6	0	99	2	0	0	164
4:15 PM	0	0	8	0	31	3	0	0	0	2	9	0	60	2	0	0	115
4:30 PM	1	0	8	0	31	10	0	0	0	5	5	0	115	0	0	1	176
4:45 PM	1	0	10	0	29	9	0	0	0	4	3	0	69	2	0	0	127
5:00 PM	1	0	17	0	21	12	1	0	0	2	3	0	84	1	0	0	142
5:15 PM	1	0	10	0	21	5	0	0	0	2	3	0	64	2	0	0	108
5:30 PM	0	0	14	0	32	7	1	0	0	1	2	0	43	3	0	0	103
5:45 PM	0	0	8	0	23	12	1	0	0	1	3	0	39	2	0	0	89
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	4	0	87	0	220	66	3	0	0	22	34	0	573	14	0	1	1024
APPROACH %'s :	4.40%	0.00%	95.60%	0.00%	76.12%	22.84%	1.04%	0.00%	0.00%	39.29%	60.71%	0.00%	97.45%	2.38%	0.00%	0.17%	
PEAK HR :	04:00 PM - 05:00 PM				04:00 PM	289	289	296	04:30 PM								TOTAL
PEAK HR VOL :	2	0	38	0	123	30	0	0	0	16	23	0	343	6	0	1	582
PEAK HR FACTOR :	0.500	0.000	0.792	0.000	0.961	0.750	0.000	0.000	0.000	0.800	0.639	0.000	0.746	0.750	0.000	0.250	0.827
	0.833				0.933				0.886				0.754				

INTERSECTION DELAY WORKSHEET
Carpinteria
US 101 SB/PADARO LANE
PM PEAK HOUR: 4:00 - 5:00
THURSDAY, 5/30/19
15 SECOND INTERVALS
APPROACH: US 101 SB OFF RAMP LEFTS

Time Ending	Vehicles in Queue																			Total Approach
4:05 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
4:10 PM	1	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	32
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
4:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	
4:30 PM	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	31
4:35 PM	1	0	1	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0	0	
4:40 PM	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	1	0	0	31
4:50 PM	0	0	0	1	2	2	0	0	0	0	1	0	0	1	0	1	2	0	0	
4:55 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	29
Subtotal:	3	2	2	1	3	2	1	3	1	3	3	3	4	3	0	3	5	3	2	1	123

Total Vehicles in Queue: 48

Total Delay = 48 vehicles x 15 seconds = 720 seconds

Average Delay Per Vehicle = 720 seconds / 123 vehicles

5.9 *seconds per vehicle* + 5 sec control = 11.9

INTERSECTION DELAY WORKSHEET
Carpinteria
US 101 SB/PADARO LANE
PM PEAK HOUR: 4:00 - 5:00
THURSDAY, 5/30/19
15 SECOND INTERVALS
APPROACH: US 101 SB OFF RAMP THRU+RIGHT

Time Ending	Vehicles in Queue																				Total Approach
4:05 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
4:10 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
4:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	10
4:50 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Subtotal:	0	0	0	0	0	2	2	0	0	1	1	0	0	1	0	1	2	0	0	3	30

Total Vehicles in Queue: 13

Total Delay = 13 vehicles x 15 seconds = 195 seconds

Average Delay Per Vehicle = 195 seconds / 30 vehicles

6.5 *seconds per vehicle* + 5 SCC CONTROL = 11.5

HCS7 Two-Way Stop-Control Report

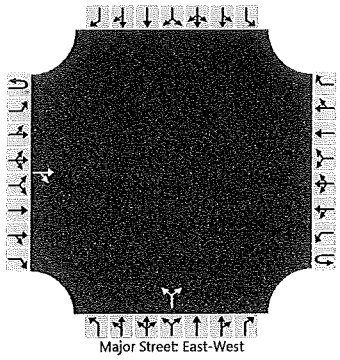
General Information

Analyst	KAB
Agency/Co.	ATE
Date Performed	6/20/2019
Analysis Year	
Time Analyzed	WEEKDAY PM PEAK HOUR
Intersection Orientation	East-West
Project Description	EXISTING CONDITIONS

Site Information

Intersection	US101SB/PADARO LANE-SANTA
Jurisdiction	CARPINTERIA
East/West Street	US101 NB RAMP
North/South Street	PADARO LANE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	0	0		0	1	0		0	0	0
Configuration				TR							LR					
Volume (veh/h)			360	7						8		3				
Percent Heavy Vehicles (%)										3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)										7.1		6.2				
Critical Headway (sec)										6.43		6.23				
Base Follow-Up Headway (sec)										3.5		3.3				
Follow-Up Headway (sec)										3.53		3.33				

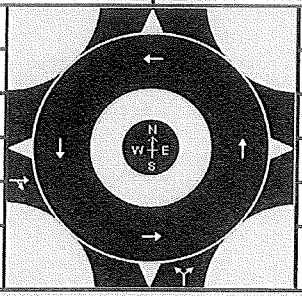
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)											11					
Capacity, c (veh/h)											646					
v/c Ratio											0.02					
95% Queue Length, Q_{95} (veh)											0.1					
Control Delay (s/veh)											10.7					
Level of Service (LOS)											B					
Approach Delay (s/veh)										10.7						
Approach LOS										B						

HCS7 Roundabouts Report

General Information

Analyst	DLD
Agency or Co.	ATE
Date Performed	6/20/2019
Analysis Year	
Time Analyzed	PM PEAK HOUR
Project Description	EXISTING WEEKDAY PM PEAK



Site Information

Intersection	SANTA CLAUS/SPINDRIFT
E/W Street Name	SANTA CLAUS
N/S Street Name	SPINDRIFT
Analysis Time Period (hrs)	0.25
Peak Hour Factor	1.00
Jurisdiction	SB COUNTY

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
Lane Assignment			TR								LR					
Volume (V), veh/h	0		360	7					0	8		3				
Percent Heavy Vehicles, %	3		3	3					3	3		3				
Flow Rate (v_{PCE}), pc/h	0		371	7					0	8		3				
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1								1							
Pedestrians Crossing, p/h	0								0							

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)		4.9763						4.9763				
Follow-Up Headway (s)		2.6087						2.6087				

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h		378						11				
Entry Volume, veh/h		367						11				
Circulating Flow (v_c), pc/h	0			8			371			8		
Exiting Flow (v_{ex}), pc/h	374			8			0			7		
Capacity (c_{pce}), pc/h		1380						945				
Capacity (c), veh/h		1340						918				
v/c Ratio (x)		0.27						0.01				

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		5.1						4.0				
Lane LOS		A						A				
95% Queue, veh		1.1						0.0				
Approach Delay, s/veh	5.1						4.0					
Approach LOS	A						A					
Intersection Delay, s/veh | LOS	5.0						A					

Prepared by National Data & Surveying Services

Spindrift Ln & Santa Claus Ln

Peak Hour Turning Movement Count

ID: 19-02036-004
City: Carpinteria

Day: Thursday
Date: 05/30/2019

PEAK HOURS

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

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 04:00 PM - 06:00 PM

Spindrift Ln

SOUTHBOUND

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

EASTBOUND (Santa Claus Ln)

AM	NOON	PM	
0	0	8	
0	0	0	0
0	0	0	0
0	0	360	1
0	0	7	0
AM	NOON	PM	

WESTBOUND (Santa Claus Ln)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
363	0	0	
PM	NOON	AM	

CONTROL

1-Way Stop (NB)

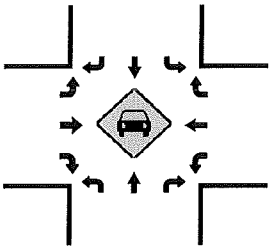
	AM	NOON	PM
TEV	0	0	378
PHF			0.82

NORTHBOUND

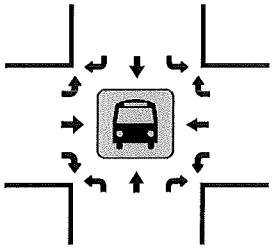
PM	7	0	8	0	3	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

Spindrift Ln

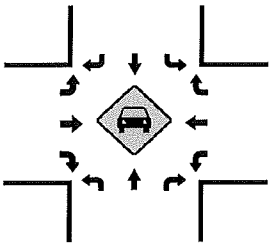
Total Vehicles (AM)



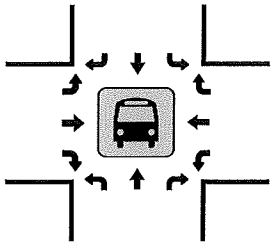
Total Vehicles (AM)



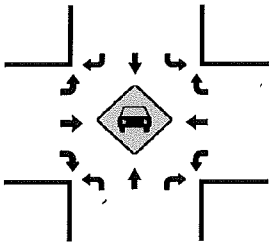
Total Vehicles (NOON)



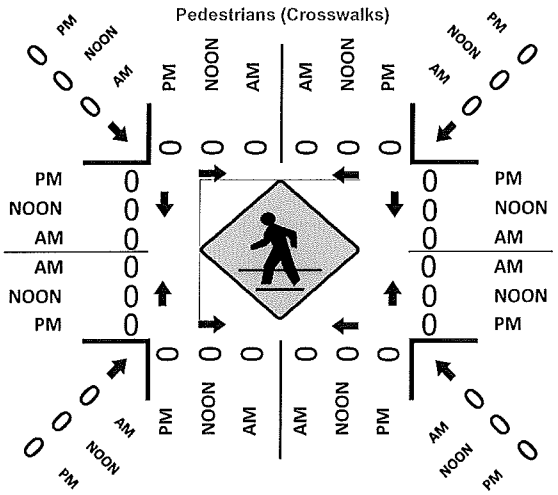
Total Vehicles (NOON)



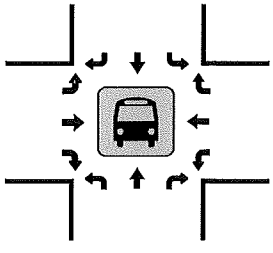
Total Vehicles (PM)



Pedestrians (Crosswalks)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Spindrift Ln & Santa Claus Ln
City: Carpinteria
Control: 1-Way Stop (NB)

Project ID: 19-02036-004
Date: 2019-05-30

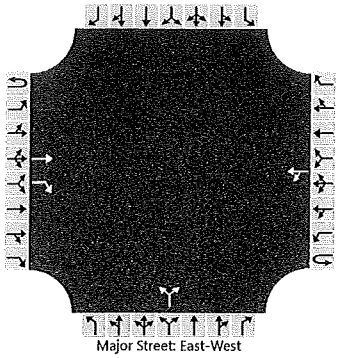
Total

NS/EW Streets:	Spindrift Ln				Spindrift Ln				Santa Claus Ln				Santa Claus Ln				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	4	0	1	0	0	0	0	0	0	108	2	0	0	0	0	0	115
4:15 PM	1	0	0	0	0	0	0	0	0	60	2	0	0	0	0	0	63
4:30 PM	2	0	0	0	0	0	0	0	0	111	1	0	0	0	0	0	114
4:45 PM	1	0	2	0	0	0	0	0	0	81	2	0	0	0	0	0	86
5:00 PM	1	0	2	0	0	0	0	0	0	91	2	0	0	0	0	0	96
5:15 PM	1	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	74
5:30 PM	1	0	1	0	0	0	0	0	0	52	1	0	0	0	0	0	55
5:45 PM	3	0	0	0	0	0	0	0	0	43	2	0	0	0	0	0	48
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	14	0	6	0	0	0	0	0	0	619	12	0	0	0	0	0	651
APPROACH %'s :	70.00%	0.00%	30.00%	0.00%					0.00%	98.10%	1.90%	0.00%					
PEAK HR :	**04:00 PM - 05:00 PM**				04:00 PM	289	289	296	04:00 PM								TOTAL
PEAK HR VOL :	8	0	3	0	0	0	0	0	0	360	7	0	0	0	0	0	378
PEAK HR FACTOR :	0.500	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.811	0.875	0.000	0.000	0.000	0.000	0.000	0.822
	0.550								0.819								

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	KAB	Intersection	VIA REAL/PADARO LANE
Agency/Co.	ATE	Jurisdiction	CARPINTERIA
Date Performed	6/20/2019	East/West Street	VIA REAL
Analysis Year		North/South Street	PADARO LANE
Time Analyzed	WEEKEND PM PEAK HOUR	Peak Hour Factor	1.00
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	EXISTING CONDITIONS		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	1	0	0	1	0		0	1	0		0	0	0
Configuration			T	R		LT					LR					
Volume (veh/h)			73	77		70	197			198		93				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized			No													
Median Type | Storage			Undivided													

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				6.5		6.2				
Critical Headway (sec)						4.13				5.83		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						70					291					
Capacity, c (veh/h)						1425					886					
v/c Ratio						0.05					0.33					
95% Queue Length, Q_{95} (veh)						0.2					1.4					
Control Delay (s/veh)						7.7					11.0					
Level of Service (LOS)						A					B					
Approach Delay (s/veh)						2.3				11.0						
Approach LOS										B						

AWD = 10.4 = LOS B

Prepared by National Data & Surveying Services

Via Real & Padaro Ln

Peak Hour Turning Movement Count

ID: 19-02036-001
City: Carpinteria

Day: Saturday
Date: 06/08/2019

	PEAK HOURS	COUNT PERIODS
AM	NONE	NONE
NOON	01:30 PM - 02:30 PM	12:00 PM - 03:00 PM
PM	NONE	NONE

CONTROL: 1-Way Stop (EB)

	AM	NOON	PM
TEV	0	708	0
PHF		0.90	

Via Real – SOUTHBOUND

	Right	Thru	Left	U-Turn	Exit
AM	0	0	0	0	0
NOON	77	73	0	0	392
PM	0	0	0	0	0
Lanes	1	1	0	0	

Via Real – NORTHBOUND

	U-Turn	Left	Thru	Right	Exit
PM	0	0	0	0	0
NOON	0	70	197	0	166
AM	0	0	0	0	0
Lanes	0	0	1	0	

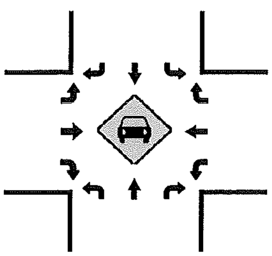
Padaro Ln – EASTBOUND

	AM	NOON	PM	Lanes
Exit	0	150	0	
U-Turn	0	3	0	0
Left	0	195	0	0
Thru	0	0	0	1
Right	0	93	0	0

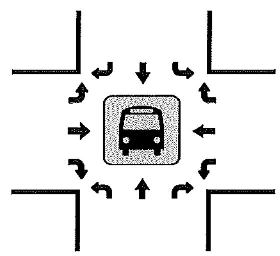
Padaro Ln – WESTBOUND

	PM	NOON	AM	Lanes
Right	0	0	0	0
Thru	0	0	0	0
Left	0	0	0	0
U-Turn	0	0	0	0
Exit	0	0	0	

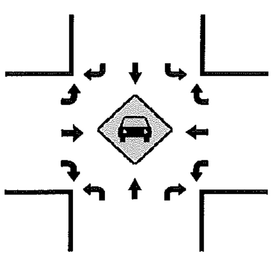
Total Vehicles (AM)



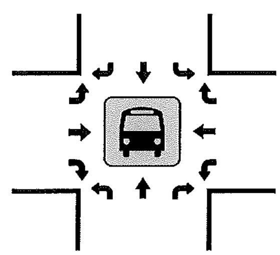
Total Vehicles (AM)



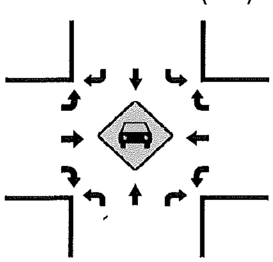
Total Vehicles (NOON)



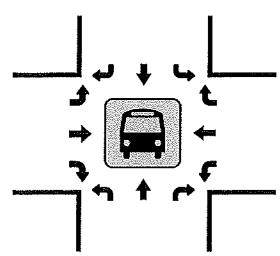
Total Vehicles (NOON)



Total Vehicles (PM)



Total Vehicles (PM)



Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North leg	0	0	0
South leg	0	0	0
West leg	0	0	0
East leg	0	0	0
NW corner (diagonal)	0	0	0
NE corner (diagonal)	0	0	0
SW corner (diagonal)	0	0	0
SE corner (diagonal)	0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Via Real & Padaro Ln
City: Carpinteria
Control: 1-Way Stop (EB)

Project ID: 19-02036-001
Date: 2019-06-08

Total

NS/EW Streets:	Via Real				Via Real				Padaro Ln				Padaro Ln				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	1	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
12:00 PM	36	34	0	0	0	51	40	0	16	0	22	0	0	0	0	0	199
12:15 PM	19	36	0	0	0	28	15	0	20	0	18	0	0	0	0	0	136
12:30 PM	19	20	0	0	0	21	21	0	25	0	25	0	0	0	0	0	131
12:45 PM	21	17	0	0	0	17	14	0	19	0	24	0	0	0	0	0	112
1:00 PM	16	28	0	0	0	20	18	0	26	0	27	0	0	0	0	0	135
1:15 PM	22	24	0	0	0	21	18	0	62	0	34	0	0	0	0	0	181
1:30 PM	24	47	0	0	0	25	18	0	49	0	19	0	0	0	0	0	182
1:45 PM	11	48	0	0	0	16	19	0	57	0	28	2	0	0	0	0	181
2:00 PM	12	35	0	0	0	22	16	0	41	0	23	0	0	0	0	0	149
2:15 PM	23	67	0	0	0	10	24	0	48	0	23	1	0	0	0	0	196
2:30 PM	19	45	0	0	0	17	13	0	36	0	26	0	0	0	0	0	156
2:45 PM	20	22	0	0	0	15	12	0	30	0	22	0	0	0	0	0	121
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	242	423	0	0	0	263	228	0	429	0	291	3	0	0	0	0	1879
APPROACH %'s :	36.39%	63.61%	0.00%	0.00%	0.00%	53.56%	46.44%	0.00%	59.34%	0.00%	40.25%	0.41%					
PEAK HR :	**01:30 PM - 02:30 PM**				01:30 PM	171	165	176	02:15 PM								TOTAL
PEAK HR VOL :	70	197	0	0	0	73	77	0	195	0	93	3	0	0	0	0	708
PEAK HR FACTOR :	0.729	0.735	0.000	0.000	0.000	0.730	0.802	0.000	0.855	0.000	0.830	0.375	0.000	0.000	0.000	0.000	0.903
	0.742				0.872				0.836								

INTERSECTION DELAY WORKSHEET
Carpinteria
VIA REAL/PADARO
SATURDAY PEAK HOUR: 1:30-2:30 PM
SATURDAY, 6/8/19
15 SECOND INTERVALS
APPROACH: NORTHBOUND PADARO LANE

Time Ending	Vehicles in Queue																				Total Approach
1:35 PM	1	0	2	1	0	3	5	0	0	0	0	0	0	0	1	0	1	0	0	0	
1:40 PM	1	0	2	1	0	3	5	0	0	0	0	0	0	0	1	0	1	0	0	0	
1:45 PM	0	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	68
1:50 PM	1	0	3	0	0	0	0	2	0	0	0	0	0	1	0	0	1	0	0	0	
1:55 PM	0	0	0	0	0	2	2	0	4	1	0	0	0	1	0	0	0	0	0	2	
2:00 PM	0	0	0	0	0	0	0	0	2	1	0	0	2	2	1	0	0	0	1	0	87
2:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
2:10 PM	0	0	3	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
2:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	64
2:20 PM	3	5	4	4	2	4	1	0	2	0	0	1	2	1	1	0	0	0	0	0	
2:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	
2:30 PM	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	52
Subtotal:	6	7	17	8	4	12	15	3	8	2	0	1	4	5	5	2	3	1	4	2	271

Total Vehicles In Queue: 109

Total Delay = 109 vehicles x 15 seconds = 1635 seconds

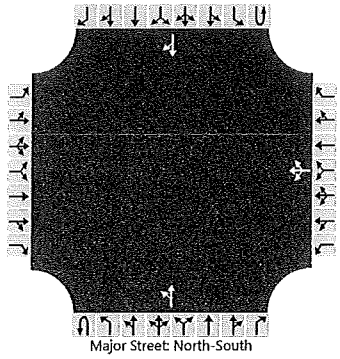
Average Delay Per Vehicle = 1635 seconds / 271 vehicles

6.0 Stop delay (seconds per vehicle) + 5 seconds control = 11.0

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	KAB	Intersection	US 101 NB/PADARO LANE
Agency/Co.	ATE	Jurisdiction	CARPINTERIA
Date Performed	6/20/2019	East/West Street	US101 NB RAMP
Analysis Year		North/South Street	PADARO LANE
Time Analyzed	WEEKEND PM PEAK HOUR	Peak Hour Factor	1.00
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	EXISTING CONDITIONS		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LTR			LT						TR
Volume (veh/h)						71	14	190		49	114				116	32
Percent Heavy Vehicles (%)						3	3	3		3						
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						2.0	2.0	2.0		4.1						
Critical Headway (sec)						2.03	2.03	2.03		4.13						
Base Follow-Up Headway (sec)						2.0	2.0	2.0		2.2						
Follow-Up Headway (sec)						2.03	2.03	2.03		2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							275			49						
Capacity, c (veh/h)							1667			1427						
v/c Ratio							0.16			0.03						
95% Queue Length, Q_{95} (veh)							0.6			0.1						
Control Delay (s/veh)							7.6			7.6						
Level of Service (LOS)							A			A						
Approach Delay (s/veh)					7.6				2.5							
Approach LOS					A											

AWD = 7.6 = LOS = A

Prepared by National Data & Surveying Services

US 101 NB Ramp & Padaro Ln

Peak Hour Turning Movement Count

ID: 19-02036-002
City: Carpinteria

Day: Saturday
Date: 06/08/2019

PEAK HOURS: NONE; 01:00 PM - 02:00 PM; NONE

COUNT PERIODS: NONE; 12:00 PM - 03:00 PM; NONE

US 101 NB Ramp — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	0	0	0	94	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Padaro Ln

AM	NOON	PM	
0	188	0	⇦
0	1	0	↶ 0
0	48	0	↱ 0
0	114	0	→ 1
0	0	0	↴ 0
AM	NOON	PM	

WESTBOUND — Padaro Ln

PM	NOON	AM	
0	32	0	0 ↰
0	116	0	1 ←
0	0	0	0 ↙
0	0	0	0 ↳
0	304	0	⇨
PM	NOON	AM	

CONTROL: 1-Way Stop (NB)

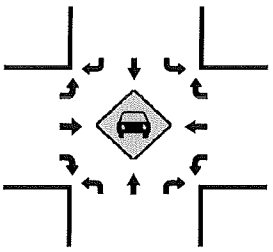
	AM	NOON	PM
TEV	0	586	0
PHF		0.88	

NORTHBOUND — US 101 NB Ramp

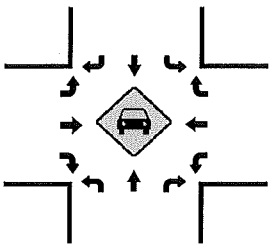
PM	0	0	0	0	0	PM
NOON	0	0	71	14	190	NOON
AM	0	0	0	0	0	AM

0 0 1 0 ⇩

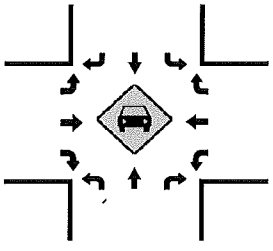
Total Vehicles (AM)



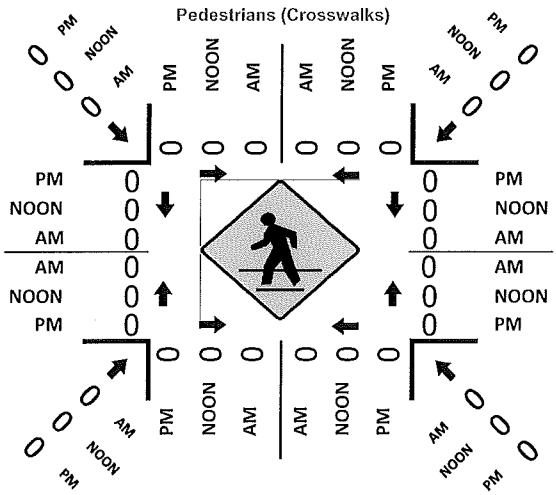
Total Vehicles (NOON)



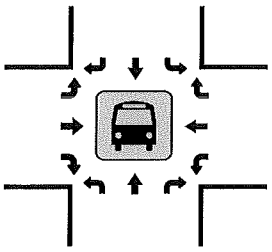
Total Vehicles (PM)



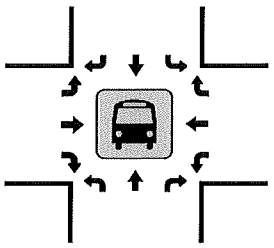
Pedestrians (Crosswalks)



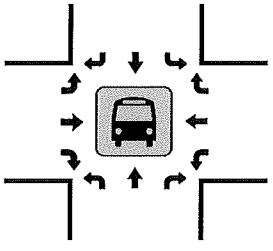
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: US 101 NB Ramp & Padaro Ln
City: Carpinteria
Control: 1-Way Stop (NB)

Project ID: 19-02036-002
Date: 2019-06-08

Total

NS/EW Streets:	US 101 NB Ramp				US 101 NB Ramp				Padaro Ln				Padaro Ln				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
12:00 PM	20	0	16	0	0	0	0	0	12	22	0	0	0	56	20	0	146
12:15 PM	22	4	23	0	0	0	0	0	9	15	0	0	0	24	10	0	107
12:30 PM	16	4	27	0	0	0	0	0	11	24	0	0	0	26	13	0	121
12:45 PM	22	2	16	0	0	0	0	0	11	26	0	0	0	24	12	0	113
1:00 PM	17	2	25	0	0	0	0	0	15	27	0	0	0	25	9	0	120
1:15 PM	12	2	67	0	0	0	0	0	14	31	0	1	0	30	9	0	166
1:30 PM	24	3	44	0	0	0	0	0	14	23	0	0	0	34	9	0	151
1:45 PM	18	7	54	0	0	0	0	0	5	33	0	0	0	27	5	0	149
2:00 PM	15	4	36	0	0	0	0	0	8	28	0	0	0	23	4	0	118
2:15 PM	9	2	49	0	0	0	0	0	11	22	0	0	0	41	8	0	142
2:30 PM	12	4	31	0	0	0	0	0	17	33	0	0	0	28	4	0	129
2:45 PM	7	3	27	0	0	0	0	0	11	24	0	0	0	25	7	0	104
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	194	37	415	0	0	0	0	0	138	308	0	1	0	363	110	0	1566
APPROACH %'s :	30.03%	5.73%	64.24%	0.00%					30.87%	68.90%	0.00%	0.22%	0.00%	76.74%	23.26%	0.00%	
PEAK HR :	**01:00 PM - 02:00 PM**				01:00 PM	169	165	176	01:15 PM								TOTAL
PEAK HR VOL :	71	14	190	0	0	0	0	0	48	114	0	1	0	116	32	0	586
PEAK HR FACTOR :	0.740	0.500	0.709	0.000	0.000	0.000	0.000	0.000	0.800	0.864	0.000	0.250	0.000	0.853	0.889	0.000	0.883
			0.849							0.886					0.860		

INTERSECTION DELAY WORKSHEET
Carpinteria
US 101 NB RAMPS/PADARO LANE
SATURDAY PEAK HOUR: 1:00-2:00 PM
SATURDAY, 6/8/19
15 SECOND INTERVALS
US 101 NB OFF RAMP

Time Ending	Vehicles in Queue																				Total Approach
1:05 PM	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	
1:10 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	34
1:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:25 PM	0	1	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	
1:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	81
1:35 PM	1	0	0	0	2	0	0	0	0	1	0	0	0	0	3	2	0	0	0	0	
1:40 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71
1:50 PM	0	0	0	0	1	0	2	0	0	1	0	0	0	0	0	0	1	0	0	0	
1:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	79
Subtotal:	2	3	0	2	3	0	2	2	2	2	0	2	2	0	3	3	3	0	0	0	265

Total Vehicles in Queue: 31

Total Delay = 31 vehicles x 15 seconds = 465 seconds

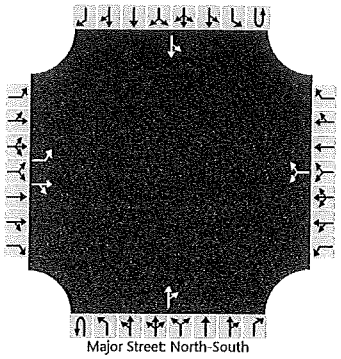
Average Delay Per Vehicle = 465 seconds / 265 vehicles

1.8 Stop delay (seconds per vehicle) + 5 seconds control = 6.8

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	KAB	Intersection	US101SB/PADARO LANE-SANTA
Agency/Co.	ATE	Jurisdiction	CARPINTERIA
Date Performed	6/20/2019	East/West Street	US101 NB RAMP
Analysis Year		North/South Street	PADARO LANE
Time Analyzed	WEEKEND PM PEAK HOUR	Peak Hour Factor	1.00
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	EXISTING CONDITIONS		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration		L		TR			LR					TR		LT		
Volume (veh/h)		69	71	6		8		80			12	18		152	35	
Percent Heavy Vehicles (%)		3	3	3		3		3						3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		4.0	4.0	4.0		7.1		6.2						4.1		
Critical Headway (sec)		4.03	4.03	4.03		7.13		6.23						4.13		
Base Follow-Up Headway (sec)		2.0	2.0	2.0		3.5		3.3						2.2		
Follow-Up Headway (sec)		2.03	2.03	2.03		3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		69		77			88							152		
Capacity, c (veh/h)		1083		1203			955							1576		
v/c Ratio		0.06		0.06			0.09							0.10		
95% Queue Length, Q_{95} (veh)		0.2		0.2			0.3							0.3		
Control Delay (s/veh)		8.5		8.2			9.2							7.5		
Level of Service (LOS)		A		A			A							A		
Approach Delay (s/veh)		8.4				9.2								6.3		
Approach LOS		A				A										

LOS = 8.2 = LOS A

Prepared by National Data & Surveying Services

US 101 SB Ramp/Santa Claus Ln & Padaro Ln

Peak Hour Turning Movement Count

ID: 19-02036-003
City: Carpinteria

Day: Saturday
Date: 06/08/2019

US 101 SB Ramp/Santa Claus Ln — SOUTHBOUND

PEAK HOURS		COUNT PERIODS
AM	NONE	NONE
NOON	12:45 PM - 01:45 PM	12:00 PM - 03:00 PM
PM	NONE	NONE

AM	0	0	0	0	0	AM
NOON	6	71	69	0	0	NOON
PM	0	0	0	0	0	PM

0.5 0.5 1 0

EASTBOUND — Padaro Ln

AM	NOON	PM	
0	45	0	
0	0	0	0
0	0	0	0
0	12	0	1
0	18	0	0
AM	NOON	PM	

WESTBOUND — Padaro Ln

PM	NOON	AM	
0	0	0	0
0	35	0	1
0	151	0	0
0	1	0	0
0	162	0	
PM	NOON	AM	

CONTROL

2-Way Stop (NB/SB)

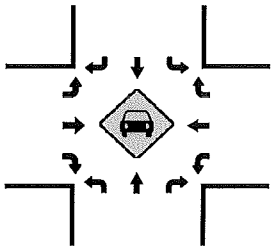
TEV	0 AM	451 NOON	0 PM
PHF		0.90	

0 0 0.5 0.5

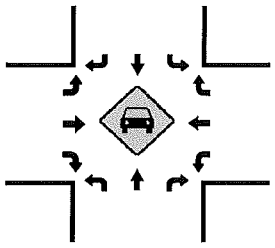
NORTHBOUND — US 101 SB Ramp/Santa Claus Ln

PM	0	0	0	0	PM
NOON	244	4	4	0	80 NOON
AM	0	0	0	0	AM

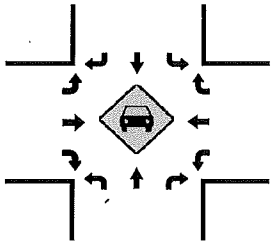
Total Vehicles (AM)



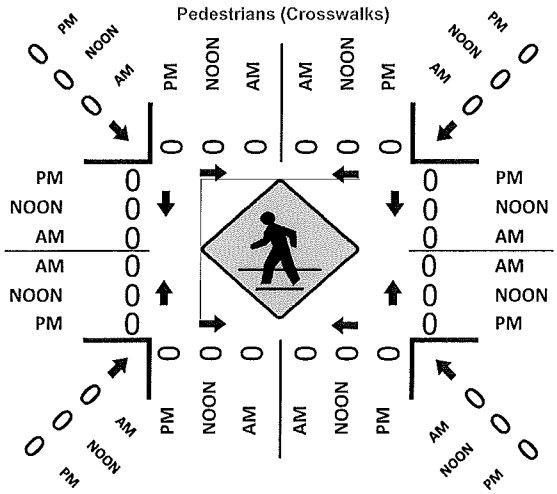
Total Vehicles (NOON)



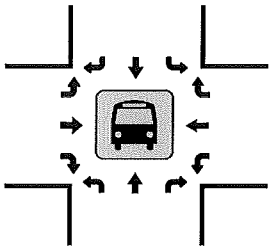
Total Vehicles (PM)



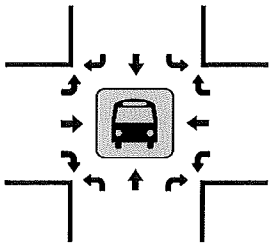
Pedestrians (Crosswalks)



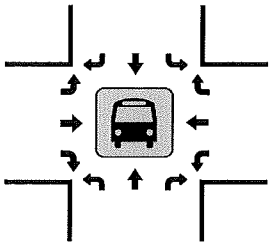
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: US 101 SB Ramp/Santa Claus Ln & Padaro Ln
City: Carpinteria
Control: 2-Way Stop (NB/SB)

Project ID: 19-02036-003
Date: 2019-06-08

Total

NS/EW Streets:	US 101 SB Ramp/Santa Claus Ln				US 101 SB Ramp/Santa Claus Ln				Padaro Ln				Padaro Ln				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0.5	0.5	0	1	0.5	0.5	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
12:00 PM	1	0	16	1	16	18	1	0	0	2	3	0	71	4	0	0	133
12:15 PM	3	0	10	0	13	17	0	0	0	0	6	0	41	6	0	0	96
12:30 PM	3	0	14	1	18	20	1	0	0	3	7	0	34	8	0	1	110
12:45 PM	2	0	18	0	16	22	2	0	0	2	3	0	32	11	0	1	109
1:00 PM	0	0	21	0	17	14	0	0	0	4	4	0	37	6	0	0	103
1:15 PM	2	0	20	1	22	16	3	0	0	3	4	0	35	8	0	0	114
1:30 PM	0	0	21	3	14	19	1	0	0	3	7	0	47	10	0	0	125
1:45 PM	4	0	15	0	22	14	0	0	0	0	7	0	40	6	0	0	108
2:00 PM	1	0	14	0	21	13	1	0	0	2	5	0	33	3	0	0	93
2:15 PM	1	0	14	1	19	17	1	0	0	0	3	0	47	6	0	0	109
2:30 PM	1	0	27	3	21	14	2	0	0	2	2	0	36	3	0	0	111
2:45 PM	2	0	11	3	21	15	1	0	0	3	4	0	30	2	0	0	92
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	20	0	201	13	220	199	13	0	0	24	55	0	483	73	0	2	1303
APPROACH %'s :	8.55%	0.00%	85.90%	5.56%	50.93%	46.06%	3.01%	0.00%	0.00%	30.38%	69.62%	0.00%	86.56%	13.08%	0.00%	0.36%	
PEAK HR :	**12:45 PM - 01:45 PM**				12:45 PM	168	165	176	01:30 PM								TOTAL
PEAK HR VOL :	4	0	80	4	69	71	6	0	0	12	18	0	151	35	0	1	451
PEAK HR FACTOR :	0.500	0.000	0.952	0.333	0.784	0.807	0.500	0.000	0.000	0.750	0.643	0.000	0.803	0.795	0.000	0.250	0.902
	0.917				0.890				0.750				0.820				

INTERSECTION DELAY WORKSHEET
Carpinteria
US 101 SB/PADARO LANE
SATURDAY PEAK HOUR: 12:34-1:45 PM
SATURDAY, 6/8/19
15 SECOND INTERVALS
APPROACH: US 101 SB OFF RAMP LEFTS

Time Ending	Vehicles in Queue																				Total Approach
12:50 PM	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	
12:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
1:05 PM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
1:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
1:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:25 PM	0	0	0	0	0	0	0	2	0	0	0	0	1	1	0	0	0	0	0	0	
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
1:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
1:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Subtotal:	1	0	0	0	0	2	0	3	1	0	0	1	1	1	0	0	0	0	1	0	69

Total Vehicles in Queue: 11

Total Delay = 11 vehicles x 15 seconds = 165 seconds

Average Delay Per Vehicle = 165 seconds / 69 vehicles

2.4 seconds per vehicle + 5 SEC Control = 7.4

INTERSECTION DELAY WORKSHEET
Carpinteria
US 101 SB/PADARO LANE
SATURDAY PEAK HOUR: 12:34-1:45 PM
SATURDAY, 6/8/19
15 SECOND INTERVALS
APPROACH: US 101 SB OFF RAMP THRU+RIGHT

Time Ending	Vehicles In Queue																				Total Approach
12:50 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
12:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	24
1:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
1:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:25 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:30 PM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	19
1:35 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:40 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
1:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Subtotal:	2	1	0	1	0	2	2	0	0	1	0	0	1	0	0	0	0	0	0	0	77

Total Vehicles In Queue: 10

Total Delay = 10 vehicles x 15 seconds = 150 seconds

Average Delay Per Vehicle = 150 seconds / 77 vehicles

1.9 seconds per vehicle + 5.0 SIGNAL = 6.9

HCS7 Two-Way Stop-Control Report

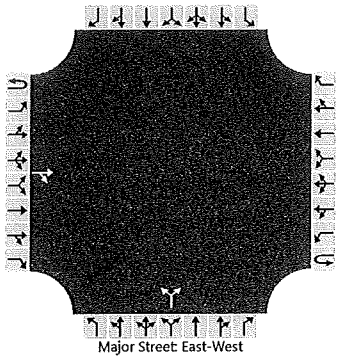
General Information

Analyst	KAB
Agency/Co.	ATE
Date Performed	6/20/2019
Analysis Year	
Time Analyzed	WEEKEND PM PEAK HOUR
Intersection Orientation	East-West
Project Description	EXISTING CONDITIONS

Site Information

Intersection	US101SB/PADARO LANE-SANTA
Jurisdiction	CARPINTERIA
East/West Street	US101 NB RAMP
North/South Street	PADARO LANE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	0	0		0	1	0		0	0	0
Configuration				TR							LR					
Volume (veh/h)			158	10						6		7				
Percent Heavy Vehicles (%)										3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)										7.1		6.2				
Critical Headway (sec)										6.43		6.23				
Base Follow-Up Headway (sec)										3.5		3.3				
Follow-Up Headway (sec)										3.53		3.33				

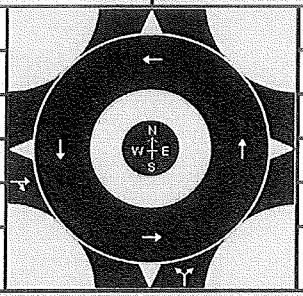
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)											13					
Capacity, c (veh/h)											853					
v/c Ratio											0.02					
95% Queue Length, Q_{95} (veh)											0.0					
Control Delay (s/veh)											9.3					
Level of Service (LOS)											A					
Approach Delay (s/veh)										9.3						
Approach LOS										A						

HCS7 Roundabouts Report

General Information

Analyst	DLD
Agency or Co.	ATE
Date Performed	6/20/2019
Analysis Year	
Time Analyzed	WEEKEND PEAK HOUR
Project Description	EXISTING WEEKEND PEAK H...



Site Information

Intersection	SANTA CLAUS/SPINDRIFT
E/W Street Name	SANTA CLAUS
N/S Street Name	SPINDRIFT
Analysis Time Period (hrs)	0.25
Peak Hour Factor	1.00
Jurisdiction	SB COUNTY

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
Lane Assignment			TR								LR					
Volume (V), veh/h	0		158	10					0	6		7				
Percent Heavy Vehicles, %	3		3	3					3	3		3				
Flow Rate (v_{PCE}), pc/h	0		163	10					0	6		7				
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1								1							
Pedestrians Crossing, p/h	0								0							

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)		4.9763						4.9763				
Follow-Up Headway (s)		2.6087						2.6087				

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h		173						13				
Entry Volume, veh/h		168						13				
Circulating Flow (v_c), pc/h	0			6			163			6		
Exiting Flow (v_{ex}), pc/h	170			6			0			10		
Capacity (c_{pce}), pc/h		1380						1169				
Capacity (c), veh/h		1340						1135				
v/c Ratio (x)		0.13						0.01				

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		3.7						3.3				
Lane LOS		A						A				
95% Queue, veh		0.4						0.0				
Approach Delay, s/veh	3.7						3.3					
Approach LOS	A						A					
Intersection Delay, s/veh | LOS	3.7						A					

Prepared by National Data & Surveying Services

Spindrift Ln & Santa Claus Ln

Peak Hour Turning Movement Count

ID: 19-02036-004
City: Carpinteria

Day: Saturday
Date: 06/08/2019

Spindrift Ln — SOUTHBOUND

PEAK HOURS		COUNT PERIODS
AM	NONE	AM
NOON	01:30 PM - 02:30 PM	NOON
PM	NONE	PM

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

EASTBOUND — Santa Claus Ln

AM	NOON	PM	
0	6	0	
0	0	0	0
0	0	0	0
0	158	0	1
0	10	0	0
AM	NOON	PM	

WESTBOUND — Santa Claus Ln

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	165	0	
PM	NOON	AM	

CONTROL

1-Way Stop (NB)

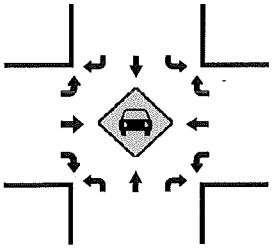
	AM	NOON	PM
TEV	0	181	0
PHF		0.85	

NORTHBOUND — Spindrift Ln

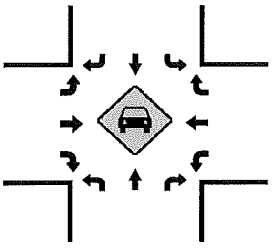
PM	0	0	0	0	0
NOON	10	0	6	0	7
AM	0	0	0	0	0

0 0 1 0

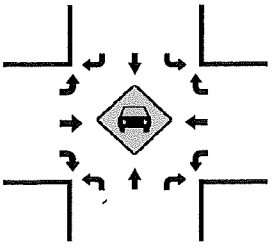
Total Vehicles (AM)



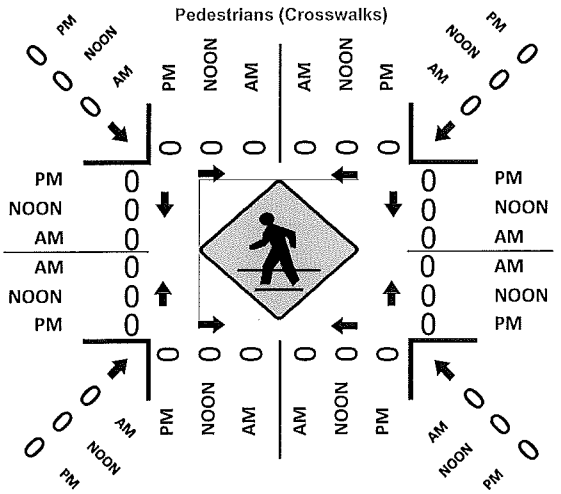
Total Vehicles (NOON)



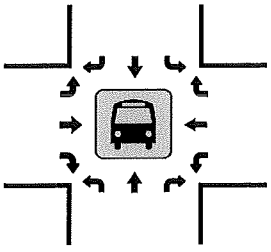
Total Vehicles (PM)



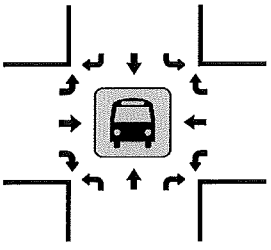
Pedestrians (Crosswalks)



Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)