INTERSECTION CAPACITY UTILIZATION WORKSHEET

COURTYARD & TOWNPLACE SUITES HOTEL PROJECT - #15068

REF. #10PM

COUNT DATE: 10/03/2013
N/S STREET: KANAN ROAD
E/W STREET: AGOURA ROAD
TIME PERIOD: P.M. PEAK HOUR
CONTROL TYPE: SIGNAL

TRAFFIC VOLUME SUMMARY

CONDITION	NORTH BOUND L	T	R	SOUTH BOUND L	T	R	EAST BOUND L	T	R	WEST BOUND L	T	R
(A) EXISTING:	149	756	48	260	829	162	137	244	167	95	203	161
(B) PROJECT:	1	0	0	0	0	37	35	3	2	0	3	0
(C) NEAR TERM - ADDED:	15	7	9	58	12	63	59	42	14	11	35	57

GEOMETRICS:	NORTH BOUND L T TR	SOUTH BOUND L T R	EAST BOUND L TR	WEST BOUND L T R

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	1	1600	149	150	164	165	0.093 *	0.094 *	0.103 *	0.103 *
NBT	2	3200	756	756	763	763	0.251	0.251	0.256	0.256
NBR	0	0	48	48	57	57	-	-	-	-
SBL	1	1600	260	260	318	318	0.163	0.163	0.199	0.199
SBT	1	1600	829	829	841	841	0.518 *	0.518 *	0.526 *	0.526 *
SBR	1	1600	162	199	225	262	0.101	0.124	0.141	0.164
EBL	1	1600	137	172	196	231	0.086	0.108	0.123	0.144
EBT	1	1600	244	247	286	289	0.257 *	0.260 *	0.292 *	0.295 *
EBR	0	0	167	169	181	183	-	-	-	-
WBL	1	1600	95	95	106	106	0.059 *	0.059 *	0.066 *	0.066 *
WBT	1	1600	203	206	238	241	0.127	0.129	0.149	0.151
WBR	1	1600	161	161	218	218	0.101	0.101	0.136	0.136
						CLEARANCE INTERVAL:	0.05 *	0.05 *	0.05 *	0.05 *
						INTERSECTION CAPACITY UTILIZATION:	0.98	0.98	1.04	1.04
						LEVEL OF SERVICE:	E	E	F	F

SCENARIO 1: EXISTING (A)
SCENARIO 2: EXISTING+PROJECT (A+B)
SCENARIO 3: EXISTING+NEAR-TERM (A+C)
SCENARIO 4: EXISTING+PROJECT+NEAR-TERM (A+B+C)

NOTES:

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COURTYARD & TOWNPLACE SUITES HOTEL PROJECT - #15068

REF. #10AM

COUNT DATE: 10/03/2013
N/S STREET: KANAN ROAD
E/W STREET: AGOURA ROAD
TIME PERIOD: A.M. PEAK HOUR
CONTROL TYPE: SIGNAL

TRAFFIC VOLUME SUMMARY

CONDITION	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	48	609	16	97	1050	251	89	70	96	50	62	59
(B) PROJECT:	1	0	0	0	0	37	26	2	1	0	4	0
(C) NEAR TERM - ADDED:	13	8	11	60	10	64	42	30	9	6	33	38

IMPROVED GEOMETRICS: NORTH BOUND L T TR; SOUTH BOUND LL TT R; EAST BOUND LL TR; WEST BOUND L T R

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	1	1600	48	49	61	62	0.030	0.031	0.038	0.039
NBT	2	3200	609	609	617	617	0.195 *	0.195 *	0.201 *	0.201 *
NBR	0	0	16	16	27	27	-	-	-	-
SBL	2	3200	97	97	157	157	0.030	0.030	0.049	0.049
SBT	2	3200	1050	1050	1060	1060	0.328 *	0.328 *	0.331 *	0.331 *
SBR	1	1600	251	288	315	352	0.157	0.180	0.197	0.220
EBL	2	3200	89	115	131	157	0.028	0.036	0.041	0.049
EBT	1	1600	70	72	100	102	0.104 *	0.106 *	0.128 *	0.130 *
EBR	0	0	96	97	105	106	-	-	-	-
WBL	1	1600	50	50	56	56	0.031	0.031	0.035	0.035
WBT	1	1600	62	66	95	99	0.039 *	0.041 *	0.059 *	0.062 *
WBR	1	1600	59	59	97	97	0.037	0.037	0.061	0.061
						CLEARANCE INTERVAL:	0.05 *	0.05 *	0.05 *	0.05 *
						INTERSECTION CAPACITY UTILIZATION:	0.72	0.72	0.77	0.77
						LEVEL OF SERVICE:	C	C	C	C

SCENARIO 1: EXISTING (A)
SCENARIO 2: EXISTING+PROJECT (A+B)
SCENARIO 3: EXISTING+NEAR-TERM (A+C)
SCENARIO 4: EXISTING+PROJECT+NEAR-TERM (A+B+C)

NOTES:

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COURTYARD & TOWNPLACE SUITES HOTEL PROJECT - #15068

REF. #10PM

COUNT DATE: 10/03/2013
N/S STREET: KANAN ROAD
E/W STREET: AGOURA ROAD
TIME PERIOD: P.M. PEAK HOUR
CONTROL TYPE: SIGNAL

TRAFFIC VOLUME SUMMARY

CONDITION	NORTH BOUND L	T	R	SOUTH BOUND L	T	R	EAST BOUND L	T	R	WEST BOUND L	T	R
(A) EXISTING:	149	756	48	260	829	162	137	244	167	95	203	161
(B) PROJECT:	1	0	0	0	0	37	35	3	2	0	3	0
(C) NEAR TERM - ADDED:	15	7	9	58	12	63	59	42	14	11	35	57

IMPROVED GEOMETRICS: NORTH BOUND L T TR | SOUTH BOUND LL TT R | EAST BOUND LL TR | WEST BOUND L T R

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	1	1600	149	150	164	165	0.093 *	0.094 *	0.103 *	0.103 *
NBT	2	3200	756	756	763	763	0.251	0.251	0.256	0.256
NBR	0	0	48	48	57	57	-	-	-	-
SBL	2	3200	260	260	318	318	0.081	0.081	0.099	0.099
SBT	2	3200	829	829	841	841	0.259 *	0.259 *	0.263 *	0.263 *
SBR	1	1600	162	199	225	262	0.101	0.124	0.141	0.164
EBL	2	3200	137	172	196	231	0.043	0.054	0.061	0.072
EBT	1	1600	244	247	286	289	0.257 *	0.260 *	0.292 *	0.295 *
EBR	0	0	167	169	181	183	-	-	-	-
WBL	1	1600	95	95	106	106	0.059 *	0.059 *	0.066 *	0.066 *
WBT	1	1600	203	206	238	241	0.127	0.129	0.149	0.151
WBR	1	1600	161	161	218	218	0.101	0.101	0.136	0.136
						CLEARANCE INTERVAL:	0.05 *	0.05 *	0.05 *	0.05 *
						INTERSECTION CAPACITY UTILIZATION:	0.72	0.72	0.77	0.78
						LEVEL OF SERVICE:	C	C	C	C

SCENARIO 1: EXISTING (A)
SCENARIO 2: EXISTING+PROJECT (A+B)
SCENARIO 3: EXISTING+NEAR-TERM (A+C)
SCENARIO 4: EXISTING+PROJECT+NEAR-TERM (A+B+C)

NOTES:

INTERSECTION CAPACITY UTILIZATION WORKSHEET

CORNERSTONE MIXED-USE PROJECT - #13070

REF. #10AM

COUNT DATE: 10/03/2013
N/S STREET: KANAN ROAD
E/W STREET: AGOURA ROAD
TIME PERIOD: A.M. PEAK HOUR
CONTROL TYPE: SIGNAL

TRAFFIC VOLUME SUMMARY

CONDITION	NORTH BOUND L	T	R	SOUTH BOUND L	T	R	EAST BOUND L	T	R	WEST BOUND L	T	R
(A) CUMULATIVE:	69	710	29	172	1221	353	144	111	119	64	105	106
(B) PROJECT:	1	0	0	0	0	37	26	2	1	0	4	0

GEOMETRICS: NORTH BOUND L T T R; SOUTH BOUND LL TT R; EAST BOUND LL T R; WEST BOUND L T R

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	1	1600	69	70	69	70	0.043 *	0.044 *	0.043 *	0.044 *
NBT	2	3200	710	710	710	710	0.222	0.222	0.222	0.222
NBR	1	1600	29	29	29	29	0.018	0.018	0.018	0.018
SBL	2	3200	172	172	172	172	0.054	0.054	0.054	0.054
SBT	2	3200	1221	1221	1221	1221	0.382 *	0.382 *	0.382 *	0.382 *
SBR	1	1600	353	390	353	390	0.221	0.244	0.221	0.244
EBL	2	3200	144	170	144	170	0.045	0.053	0.045	0.053
EBT	1	1600	111	113	111	113	0.069 *	0.071 *	0.069 *	0.071 *
EBR	1	1600	119	120	119	120	0.074	0.075	0.074	0.075
WBL	1	1600	64	64	64	64	0.040 *	0.040	0.040 *	0.040 *
WBT	1	1600	105	109	105	109	0.066	0.068 *	0.066	0.068
WBR	1	1600	106	106	106	106	0.066	0.066	0.066	0.066
						CLEARANCE INTERVAL:	0.05 *	0.05 *	0.05 *	0.05 *
						INTERSECTION CAPACITY UTILIZATION:	0.58	0.62	0.58	0.59
						LEVEL OF SERVICE:	A	B	A	A

SCENARIO 1: CUMULATIVE (A)
SCENARIO 2: CUMULATIVE+PROJECT (A+B)

NOTES:

INTERSECTION CAPACITY UTILIZATION WORKSHEET

CORNERSTONE MIXED-USE PROJECT - #13070

REF. #10PM

COUNT DATE: 10/03/2013
N/S STREET: KANAN ROAD
E/W STREET: AGOURA ROAD
TIME PERIOD: P.M. PEAK HOUR
CONTROL TYPE: SIGNAL

TRAFFIC VOLUME SUMMARY

CONDITION	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) CUMULATIVE:	187	879	65	358	969	250	217	323	207	120	270	243
(B) PROJECT:	1	0	0	0	0	37	35	3	2	0	3	0

GEOMETRICS: NORTH BOUND L T T R; SOUTH BOUND LL T T R; EAST BOUND LL T R; WEST BOUND L T R

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	1	1600	187	188	187	188	0.117 *	0.118 *	0.117 *	0.118 *
NBT	2	3200	879	879	879	879	0.275	0.275	0.275	0.275
NBR	1	1600	65	65	65	65	0.041	0.041	0.041	0.041
SBL	2	3200	358	358	358	358	0.112	0.112	0.112	0.112
SBT	2	3200	969	969	969	969	0.303 *	0.303 *	0.303 *	0.303 *
SBR	1	1600	250	287	250	287	0.156	0.179	0.156	0.179
EBL	2	3200	217	252	217	252	0.068	0.079	0.068	0.079
EBT	1	1600	323	326	323	326	0.202 *	0.204 *	0.202 *	0.204 *
EBR	1	1600	207	209	207	209	0.129	0.131	0.129	0.131
WBL	1	1600	120	120	120	120	0.075 *	0.075 *	0.075 *	0.075 *
WBT	1	1600	270	273	270	273	0.169	0.171	0.169	0.171
WBR	1	1600	243	243	243	243	0.152	0.152	0.152	0.152
						CLEARANCE INTERVAL:	0.05 *	0.05 *	0.05 *	0.05 *
						INTERSECTION CAPACITY UTILIZATION:	0.75	0.75	0.75	0.75
						LEVEL OF SERVICE:	C	C	C	C

SCENARIO 1: CUMULATIVE (A)
SCENARIO 2: CUMULATIVE+PROJECT (A+B)

NOTES:

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	Darryl F. Nelson
Agency/Co.	ATE
Date Performed	8/27/2015
Analysis Time Period	A.M. Peak Hour

Site Information

Intersection	Agoura Rd./Cirnell Rd.
Jurisdiction	City of Agoura Hills
Analysis Year	Existing Conditions

Project ID Courtyard & Townplace Suites Hotel Project - #15068

East/West Street: Agoura Road | North/South Street: Cornell Road

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	10	163	4	17	116	12
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	0	4	37	10	5	11
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	177		145		41		26	
% Heavy Vehicles	2		2		2		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.1		0.1		0.0		0.4	
Prop. Right-Turns	0.0		0.1		0.9		0.4	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		0.0		-0.5		-0.1	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.16		0.13		0.04		0.02	
hd, final value (s)	4.23		4.24		4.13		4.51	
x, final value	0.21		0.17		0.05		0.03	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	2.2		2.2		2.1		2.5	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	427		395		291		276	
Delay (s/veh)	8.34		8.11		7.34		7.67	
LOS	A		A		A		A	
Approach: Delay (s/veh)	8.34		8.11		7.34		7.67	
LOS	A		A		A		A	
Intersection Delay (s/veh)	8.10							
Intersection LOS	A							

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	Darryl F. Nelson
Agency/Co.	ATE
Date Performed	8/27/2015
Analysis Time Period	P.M. Peak Hour

Site Information

Intersection	Agoura Rd./Cirnell Rd.
Jurisdiction	City of Agoura Hills
Analysis Year	Existing Conditions

Project ID *Courtyard & Townplace Suites Hotel Project - #15068*

East/West Street: *Agoura Road* | North/South Street: *Cornell Road*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	37	495	17	68	361	23
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	18	20	43	33	20	52
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	549		452		81		105	
% Heavy Vehicles	2		2		2		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.1		0.2		0.2		0.3	
Prop. Right-Turns	0.0		0.1		0.5		0.5	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		0.0		-0.2		-0.2	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.49		0.40		0.07		0.09	
hd, final value (s)	5.24		5.37		6.53		6.49	
x, final value	0.80		0.67		0.15		0.19	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	3.2		3.4		4.5		4.5	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	677		653		331		355	
Delay (s/veh)	25.67		18.73		10.65		11.00	
LOS	D		C		B		B	
Approach: Delay (s/veh)	25.67		18.73		10.65		11.00	
LOS	D		C		B		B	
Intersection Delay (s/veh)	20.70							
Intersection LOS	C							

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	Darryl F. Nelson
Agency/Co.	ATE
Date Performed	8/27/2015
Analysis Time Period	A.M. Peak Hour

Site Information

Intersection	Agoura Rd./Cirnell Rd.
Jurisdiction	City of Agoura Hills
Analysis Year	Existing + Project

Project ID Courtyard & Townplace Suites Hotel Project - #15068

East/West Street: Agoura Road | North/South Street: Cornell Road

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	10	165	4	17	120	12
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	0	4	37	10	5	11
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	179		149		41		26	
% Heavy Vehicles	2		2		2		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.1		0.1		0.0		0.4	
Prop. Right-Turns	0.0		0.1		0.9		0.4	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		0.0		-0.5		-0.1	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.16		0.13		0.04		0.02	
hd, final value (s)	4.24		4.24		4.15		4.53	
x, final value	0.21		0.18		0.05		0.03	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	2.2		2.2		2.1		2.5	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	429		399		291		276	
Delay (s/veh)	8.36		8.15		7.35		7.68	
LOS	A		A		A		A	
Approach: Delay (s/veh)	8.36		8.15		7.35		7.68	
LOS	A		A		A		A	
Intersection Delay (s/veh)	8.13							
Intersection LOS	A							

ALL-WAY STOP CONTROL ANALYSIS

General Information		Site Information	
Analyst	Darryl F. Nelson	Intersection	Agoura Rd./Clmell Rd.
Agency/Co.	ATE	Jurisdiction	City of Agoura Hills
Date Performed	8/27/2015	Analysis Year	Existing + Project
Analysis Time Period	P.M. Peak Hour		

Project ID Courtyard & Townplace Suites Hotel Project - #15068

East/West Street: Agoura Road | North/South Street: Cornell Road

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	37	498	17	68	364	23
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	18	20	43	33	20	52
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	552		455		81		105	
% Heavy Vehicles	2		2		2		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.1		0.1		0.2		0.3	
Prop. Right-Turns	0.0		0.1		0.5		0.5	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		0.0		-0.2		-0.2	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.49		0.40		0.07		0.09	
hd, final value (s)	5.25		5.38		6.55		6.51	
x, final value	0.80		0.68		0.15		0.19	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	3.2		3.4		4.6		4.5	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	677		653		331		355	
Delay (s/veh)	26.15		18.99		10.68		11.02	
LOS	D		C		B		B	
Approach: Delay (s/veh)	26.15		18.99		10.68		11.02	
LOS	D		C		B		B	
Intersection Delay (s/veh)	21.04							
Intersection LOS	C							

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	Darryl F. Nelson
Agency/Co.	ATE
Date Performed	8/27/2015
Analysis Time Period	A.M. Peak Hour

Site Information

Intersection	Agoura Rd./Cornell Rd.
Jurisdiction	City of Agoura Hills
Analysis Year	Near-Term Conditions

Project ID *Courtyard & Townplace Suites Hotel Project - #15068*

East/West Street: *Agoura Road* | North/South Street: *Cornell Road*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	14	255	11	24	186	23
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	8	9	41	30	7	13
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	280		233		58		50	
% Heavy Vehicles	2		2		2		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.1		0.1		0.1		0.6	
Prop. Right-Turns	0.0		0.1		0.7		0.3	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		-0.0		-0.4		-0.0	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.25		0.21		0.05		0.04	
hd, final value (s)	4.46		4.49		4.79		5.16	
x, final value	0.35		0.29		0.08		0.07	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	2.5		2.5		2.8		3.2	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	530		483		308		300	
Delay (s/veh)	9.82		9.32		8.19		8.56	
LOS	A		A		A		A	
Approach: Delay (s/veh)	9.82		9.32		8.19		8.56	
LOS	A		A		A		A	
Intersection Delay (s/veh)	9.38							
Intersection LOS	A							

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	Darryl F. Nelson
Agency/Co.	ATE
Date Performed	8/27/2015
Analysis Time Period	P.M. Peak Hour

Site Information

Intersection	Agoura Rd./Cornell Rd.
Jurisdiction	City of Agoura Hills
Analysis Year	Near-Term Conditions

Project ID *Courtyard & Townplace Suites Hotel Project - #15068*

East/West Street: *Agoura Road* | North/South Street: *Cornell Road*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	42	598	22	73	453	38
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	30	35	49	53	23	53
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	662		564		114		129	
% Heavy Vehicles	2		2		2		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.1		0.1		0.3		0.4	
Prop. Right-Turns	0.0		0.1		0.4		0.4	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		0.0		-0.2		-0.1	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.59		0.50		0.10		0.11	
hd, final value (s)	5.92		5.98		7.56		7.53	
x, final value	1.09		0.94		0.24		0.27	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	3.9		4.0		5.6		5.5	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	662		600		364		379	
Delay (s/veh)	86.16		47.02		12.93		13.28	
LOS	F		E		B		B	
Approach: Delay (s/veh)	86.16		47.02		12.93		13.28	
LOS	F		E		B		B	
Intersection Delay (s/veh)	59.05							
Intersection LOS	F							

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*Darryl F. Nelson*
Agency/Co.	*ATE*
Date Performed	*8/27/2015*
Analysis Time Period	*A.M. Peak Hour*

Site Information

Intersection	*Agoura Rd./Cornell Rd.*
Jurisdiction	*City of Agoura Hills*
Analysis Year	*Near-Term + Project*

Project ID *Courtyard & Townplace Suites Hotel Project - #15068*

East/West Street: *Agoura Road* | North/South Street: *Cornell Road*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*14*	*257*	*11*	*24*	*190*	*23*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*8*	*9*	*41*	*30*	*7*	*13*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*LTR*		*LTR*		*LTR*		*LTR*	
PHF	*1.00*		*1.00*		*1.00*		*1.00*	
Flow Rate (veh/h)	*282*		*237*		*58*		*50*	
% Heavy Vehicles	*2*		*2*		*2*		*2*	
No. Lanes	*1*		*1*		*1*		*1*	
Geometry Group	*1*		*1*		*1*		*1*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*0.0*		*0.1*		*0.1*		*0.6*	
Prop. Right-Turns	*0.0*		*0.1*		*0.7*		*0.3*	
Prop. Heavy Vehicle	*0.0*		*0.0*		*0.0*		*0.0*	
hLT-adj	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.0*		*-0.0*		*-0.4*		*-0.0*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*		*3.20*		*3.20*		*3.20*	
x, initial	*0.25*		*0.21*		*0.05*		*0.04*	
hd, final value (s)	*4.47*		*4.49*		*4.80*		*5.17*	
x, final value	*0.35*		*0.30*		*0.08*		*0.07*	
Move-up time, m (s)	*2.0*		*2.0*		*2.0*		*2.0*	
Service Time, t_s (s)	*2.5*		*2.5*		*2.8*		*3.2*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*532*		*487*		*308*		*300*	
Delay (s/veh)	*9.86*		*9.37*		*8.21*		*8.57*	
LOS	*A*		*A*		*A*		*A*	
Approach: Delay (s/veh)	*9.86*		*9.37*		*8.21*		*8.57*	
LOS	*A*		*A*		*A*		*A*	
Intersection Delay (s/veh)	*9.42*							
Intersection LOS	*A*							

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	Darryl F. Nelson
Agency/Co.	ATE
Date Performed	8/27/2015
Analysis Time Period	P.M. Peak Hour

Site Information

Intersection	Agoura Rd./Cornell Rd.
Jurisdiction	City of Agoura Hills
Analysis Year	Near-Term + Project

Project ID *Courtyard & Townplace Suites Hotel Project - #15068*

East/West Street: *Agoura Road* | North/South Street: *Cornell Road*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	42	601	22	73	456	38
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	30	35	49	53	23	53
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	665		567		114		129	
% Heavy Vehicles	2		2		2		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.1		0.1		0.3		0.4	
Prop. Right-Turns	0.0		0.1		0.4		0.4	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		0.0		-0.2		-0.1	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.59		0.50		0.10		0.11	
hd, final value (s)	5.93		5.98		7.57		7.54	
x, final value	1.09		0.94		0.24		0.27	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	3.9		4.0		5.6		5.5	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	665		600		364		379	
Delay (s/veh)	88.27		48.04		12.94		13.30	
LOS	F		E		B		B	
Approach: Delay (s/veh)	88.27		48.04		12.94		13.30	
LOS	F		E		B		B	
Intersection Delay (s/veh)	60.43							
Intersection LOS	F							

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	Darryl F. Nelson
Agency/Co.	ATE
Date Performed	8/27/2015
Analysis Time Period	A.M. Peak Hour

Site Information

Intersection	Agoura Rd./Cirnell Rd.
Jurisdiction	City of Agoura Hills
Analysis Year	Cumulative Conditions

Project ID Courtyard & Townplace Suites Hotel Project - #15068

East/West Street: Agoura Road | North/South Street: Cornell Road

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	17	280	12	27	204	25
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	13	10	47	32	8	15
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	309		256		70		55	
% Heavy Vehicles	2		2		2		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.1		0.1		0.2		0.6	
Prop. Right-Turns	0.0		0.1		0.7		0.3	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		-0.0		-0.3		-0.0	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.27		0.23		0.06		0.05	
hd, final value (s)	4.56		4.59		4.97		5.32	
x, final value	0.39		0.33		0.10		0.08	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	2.6		2.6		3.0		3.3	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	559		506		320		305	
Delay (s/veh)	10.46		9.80		8.51		8.79	
LOS	B		A		A		A	
Approach: Delay (s/veh)	10.46		9.80		8.51		8.79	
LOS	B		A		A		A	
Intersection Delay (s/veh)	9.88							
Intersection LOS	A							

ALL-WAY STOP CONTROL ANALYSIS

General Information		Site Information	
Analyst	Darryl F. Nelson	Intersection	Agoura Rd./Cirnell Rd.
Agency/Co.	ATE	Jurisdiction	City of Agoura Hills
Date Performed	8/27/2015	Analysis Year	Cumulative Conditions
Analysis Time Period	P.M. Peak Hour		

Project ID *Courtyard & Townplace Suites Hotel Project - #15068*

East/West Street: *Agoura Road* | North/South Street: *Cornell Road*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	48	674	25	84	508	42
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	33	38	56	58	26	61
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	747		634		127		145	
% Heavy Vehicles	2		2		2		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.1		0.1		0.3		0.4	
Prop. Right-Turns	0.0		0.1		0.4		0.4	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	-0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		0.0		-0.2		-0.1	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.66		0.56		0.11		0.13	
hd, final value (s)	6.18		6.17		7.77		7.72	
x, final value	1.28		1.09		0.27		0.31	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	4.2		4.2		5.8		5.7	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	747		634		377		395	
Delay (s/veh)	159.69		87.03		13.68		14.16	
LOS	F		F		B		B	
Approach: Delay (s/veh)	159.69		87.03		13.68		14.16	
LOS	F		F		B		B	
Intersection Delay (s/veh)	107.84							
Intersection LOS	F							

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	Darryl F. Nelson
Agency/Co.	ATE
Date Performed	8/27/2015
Analysis Time Period	A.M. Peak Hour

Site Information

Intersection	Agoura Rd./Cirnell Rd.
Jurisdiction	City of Agoura Hills
Analysis Year	Cumulative + Project

Project ID Courtyard & Townplace Suites Hotel Project - #15068

East/West Street: Agoura Road | North/South Street: Cornell Road

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	17	282	12	27	208	25
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	13	10	47	32	8	15
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	311		260		70		55	
% Heavy Vehicles	2		2		2		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.1		0.1		0.2		0.6	
Prop. Right-Turns	0.0		0.1		0.7		0.3	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		-0.0		-0.3		-0.0	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.28		0.23		0.06		0.05	
hd, final value (s)	4.57		4.60		4.99		5.33	
x, final value	0.39		0.33		0.10		0.08	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	2.6		2.6		3.0		3.3	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	561		510		320		305	
Delay (s/veh)	10.51		9.87		8.52		8.80	
LOS	B		A		A		A	
Approach: Delay (s/veh)	10.51		9.87		8.52		8.80	
LOS	B		A		A		A	
Intersection Delay (s/veh)	9.93							
Intersection LOS	A							

ALL-WAY STOP CONTROL ANALYSIS

General Information		Site Information	
Analyst	Darryl F. Nelson	Intersection	Agoura Rd./Cirnell Rd.
Agency/Co.	ATE	Jurisdiction	City of Agoura Hills
Date Performed	8/27/2015	Analysis Year	Cumulative + Project
Analysis Time Period	P.M. Peak Hour		

Project ID *Courtyard & Townplace Suites Hotel Project - #15068*

East/West Street: *Agoura Road* | North/South Street: *Cornell Road*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	48	677	25	84	511	42
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	33	38	56	58	26	61
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	750		637		127		145	
% Heavy Vehicles	2		2		2		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.1		0.1		0.3		0.4	
Prop. Right-Turns	0.0		0.1		0.4		0.4	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		0.0		-0.2		-0.1	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.67		0.57		0.11		0.13	
hd, final value (s)	6.18		6.17		7.77		7.72	
x, final value	1.29		1.09		0.27		0.31	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	4.2		4.2		5.8		5.7	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	750		637		377		395	
Delay (s/veh)	161.78		88.71		13.68		14.16	
LOS	F		F		B		B	
Approach: Delay (s/veh)	161.78		88.71		13.68		14.16	
LOS	F		F		B		B	
Intersection Delay (s/veh)	109.49							
Intersection LOS	F							

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Darryl F. Nelson*	Intersection	*Agoura Rd./Project Dwy.*
Agency/Co.	*ATE*	Jurisdiction	*City of Agoura Hills*
Date Performed	*8/27/2015*	Analysis Year	*Cumulative + Project*
Analysis Time Period	*A.M. Peak Hour*		

Project Description *Courtyard & Townplace Suites Hotel Project - #15068*

East/West Street: *Agoura Road*	North/South Street: *Project Driveway*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*290*			*478*	*42*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*290*	*0*	*0*	*478*	*42*
Percent Heavy Vehicles	*2*	--	--	*0*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*0*	*2*	*0*	*0*	*2*	*0*
Configuration		*T*			*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)						*20*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*0*	*0*	*20*
Percent Heavy Vehicles	*0*	*0*	*0*	*2*	*0*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*1*
Configuration						*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration								*R*
v (veh/h)								*20*
C (m) (veh/h)								*777*
v/c								*0.03*
95% queue length								*0.08*
Control Delay (s/veh)								*9.8*
LOS								*A*
Approach Delay (s/veh)	--	--				*9.8*		
Approach LOS	--	--				*A*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Darryl F. Nelson*	Intersection	*Agoura Rd./Project Dwy.*
Agency/Co.	*ATE*	Jurisdiction	*City of Agoura Hills*
Date Performed	*8/27/2015*	Analysis Year	*Cumulative + Project*
Analysis Time Period	*P.M. Peak Hour*		

Project Description *Courtyard & Townplace Suites Hotel Project - #15068*

East/West Street: *Agoura Road*	North/South Street: *Project Driveway*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*612*			*455*	*41*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*612*	*0*	*0*	*455*	*41*
Percent Heavy Vehicles	*2*	--	--	*0*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*0*	*2*	*0*	*0*	*2*	*0*
Configuration		*T*			*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)						*26*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*0*	*0*	*26*
Percent Heavy Vehicles	*0*	*0*	*0*	*2*	*0*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*1*
Configuration						*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration								*R*
v (veh/h)								*26*
C (m) (veh/h)								*789*
v/c								*0.03*
95% queue length								*0.10*
Control Delay (s/veh)								*9.7*
LOS								*A*
Approach Delay (s/veh)	--	--				*9.7*		
Approach LOS	--	--				*A*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Darryl F. Nelson*	Intersection	*Roadside Rd./Driveway*
Agency/Co.	*ATE*	Jurisdiction	*City of Agoura Hills*
Date Performed	*8/27/2015*	Analysis Year	*Cumulative + Project*
Analysis Time Period	*A.M. Peak Hour*		

Project Description *Courtyard & Townplace Suites Hotel Project - #15068*

East/West Street: *Driveway*	North/South Street: *Roadside Road*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*101*	*32*			*28*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*101*	*32*	*0*	*0*	*28*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*91*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*91*	*0*	*0*	*0*
Percent Heavy Vehicles	*2*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*0*	*0*
Configuration		*LTR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LTR*	
v (veh/h)	*101*						*91*	
C (m) (veh/h)	*1599*						*1053*	
v/c	*0.06*						*0.09*	
95% queue length	*0.20*						*0.28*	
Control Delay (s/veh)	*7.4*						*8.7*	
LOS	*A*						*A*	
Approach Delay (s/veh)	--	--					*8.7*	
Approach LOS	--	--					*A*	

Average Weighted Delay = 8.0 sec. LOS A

Darryl F. Nelson

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Darryl F. Nelson*	Intersection	*Roadside Rd./Driveway*
Agency/Co.	*ATE*	Jurisdiction	*City of Agoura Hills*
Date Performed	*8/27/2015*	Analysis Year	*Cumulative + Project*
Analysis Time Period	*P.M. Peak Hour*		

Project Description *Courtyard & Townplace Suites Hotel Project - #15068*

East/West Street: *Driveway*	North/South Street: *Roadside Road*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*114*	*27*			*63*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*114*	*27*	*0*	*0*	*63*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*118*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*118*	*0*	*0*	*0*
Percent Heavy Vehicles	*2*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*0*	*0*
Configuration		*LTR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LTR*	
v (veh/h)	*114*						*118*	
C (m) (veh/h)	*1553*						*1007*	
v/c	*0.07*						*0.12*	
95% queue length	*0.24*						*0.40*	
Control Delay (s/veh)	*7.5*						*9.0*	
LOS	*A*						*A*	
Approach Delay (s/veh)	--	--					*9.0*	
Approach LOS	--	--					*A*	

Average Weighted Delay = 8.2 sec LOS A

Darryl F. Nelson

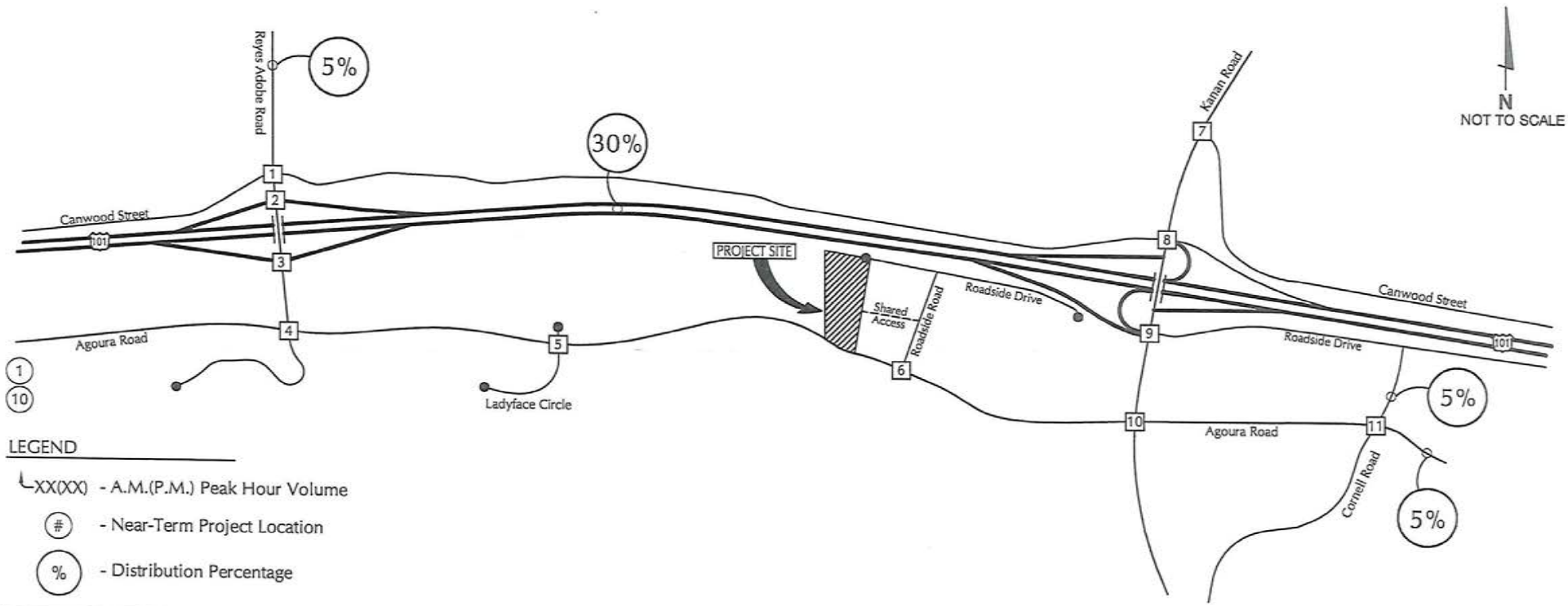
APPROVED/PENDING PROJECTS TRIP GENERATION SPREADSHEET

Trip Generation Worksheet - With In/Out Splits
Courtyard & Towneplace Suites Hotel Project

CUMULATIVE PROJECT TRIP GENERATION (#15068)

	Project Name	Land-Use (ITE Code #)	Size	Multi-Trip	ADT		A.M. Peak Hour						P.M. Peak Hour					
					Rate	Trips	Rate	Trips	In %	Trips	Out %	Trips	Rate	Trips	In %	Trips	Out %	Trips
1	Heathcote	Medical Office (#720)	14,075	1.00	36.13	509	2.39	34	79%	27	21%	7	3.57	50	28%	14	72%	36
2	Cornerstone Mixed-Use	N/A	N/A	1.00	N/A	3,035	N/A	220	0%	135	0%	85	N/A	242	0%	114	0%	128
3	Whizin Market	N/A	N/A	1.00	N/A	4,274	N/A	234	0%	137	0%	97	N/A	319	0%	170	0%	149
4	Utopia Hills	Restaurant (# 932)	3,381	1.00	127.15	430	10.81	36	55%	20	45%	16	9.85	33	60%	20	40%	13
		Townhome (# 230)	8	1.00	5.81	46	0.44	4	17%	1	83%	3	0.52	4	67%	3	33%	1
		Condominium (# 230)	9	1.00	5.81	52	0.44	4	17%	1	83%	3	0.52	5	67%	3	33%	2
		Gym/Yoga (# 939)	2,204	1.00	32.93	72	1.41	3	50%	2	50%	1	3.53	8	57%	5	43%	3
5	Selleck Development	NA	NA	1.00	N/A	3,630	N/A	195	0%	111	0%	84	N/A	237	0%	131	0%	106
6	Agoura Landmark	Warehouse (# 150)	48,532	1.00	3.56	173	0.30	14	79%	11	21%	3	0.32	16	25%	4	75%	12
		Office (# 710)	21,320	1.00	11.03	235	1.56	33	88%	29	12%	4	1.49	32	17%	5	83%	27
7	Shirvanian	Industrial Park (# 110)	103,000	1.00	6.97	718	0.92	95	88%	84	12%	11	0.97	100	12%	12	88%	88
8	Aguoura Business Center	Commercial (# 826)	21,782	1.00	44.32	965	1.33	29	50%	15	50%	14	2.71	59	44%	26	56%	33
9	APB	Office (# 710)	30,400	1.00	11.03	335	1.56	47	88%	41	12%	6	1.49	45	17%	8	83%	37
10	Khantzis/Rice	Residential (# 230)	46	1.00	5.81	267	0.44	20	17%	3	83%	17	0.52	24	67%	16	33%	8
11	Jay Rodgers	Residential (# 210)	18	1.00	9.52	171	0.75	14	25%	4	75%	10	1.00	18	63%	11	37%	7
12	Barry Robles	Residential (# 210)	2	1.00	9.52	19	0.75	2	25%	1	75%	1	1.00	2	63%	1	37%	1
13	Payan	Residential (# 210)	1	1.00	9.52	10	0.75	1	25%	0	75%	1	1.00	1	63%	1	37%	0
14	Nabiollah Moallem	Residential (# 210)	1	1.00	9.52	10	0.75	1	25%	0	75%	1	1.00	1	63%	1	37%	0
15	Katherine Neff	Residential (# 210)	1	1.00	9.52	10	0.75	1	25%	0	75%	1	1.00	1	63%	1	37%	0
16	Abudalu	Residential (# 210)	1	1.00	9.52	10	0.75	1	25%	0	75%	1	1.00	1	63%	1	37%	0
17	Texidor	Residential (# 210)	1	1.00	9.52	10	0.75	1	25%	0	75%	1	1.00	1	63%	1	37%	0
18	Gold	Residential (# 210)	1	1.00	9.52	10	0.74	1	25%	0	75%	1	1.00	1	63%	1	37%	0
Total:						*14,991*		*990*		*622*		*368*		*1,200*		*549*		*651*

APPROVED/PENDING PROJECTS TRIP DISTRIBUTION

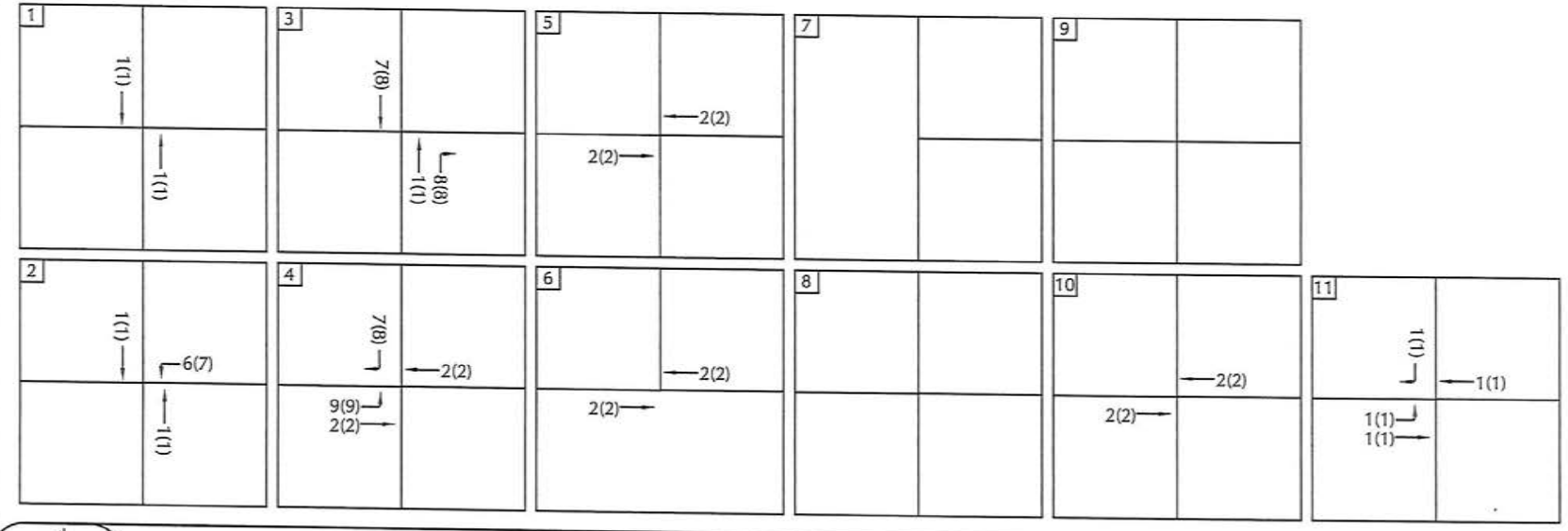


LEGEND

XX(XX) - A.M.(P.M.) Peak Hour Volume

(#) - Near-Term Project Location

(%) - Distribution Percentage

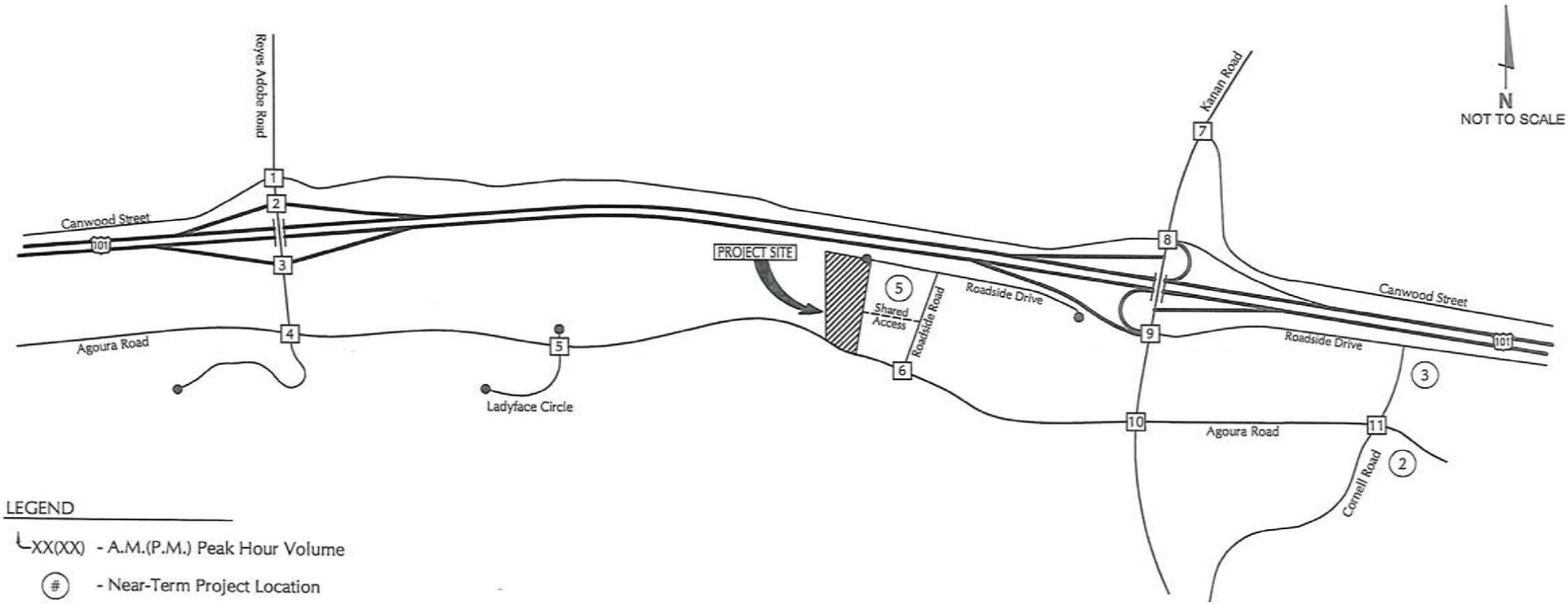


ASSOCIATED TRANSPORTATION ENGINEERS

NEAR-TERM ADDED TRAFFIC VOLUMES

FIGURE A

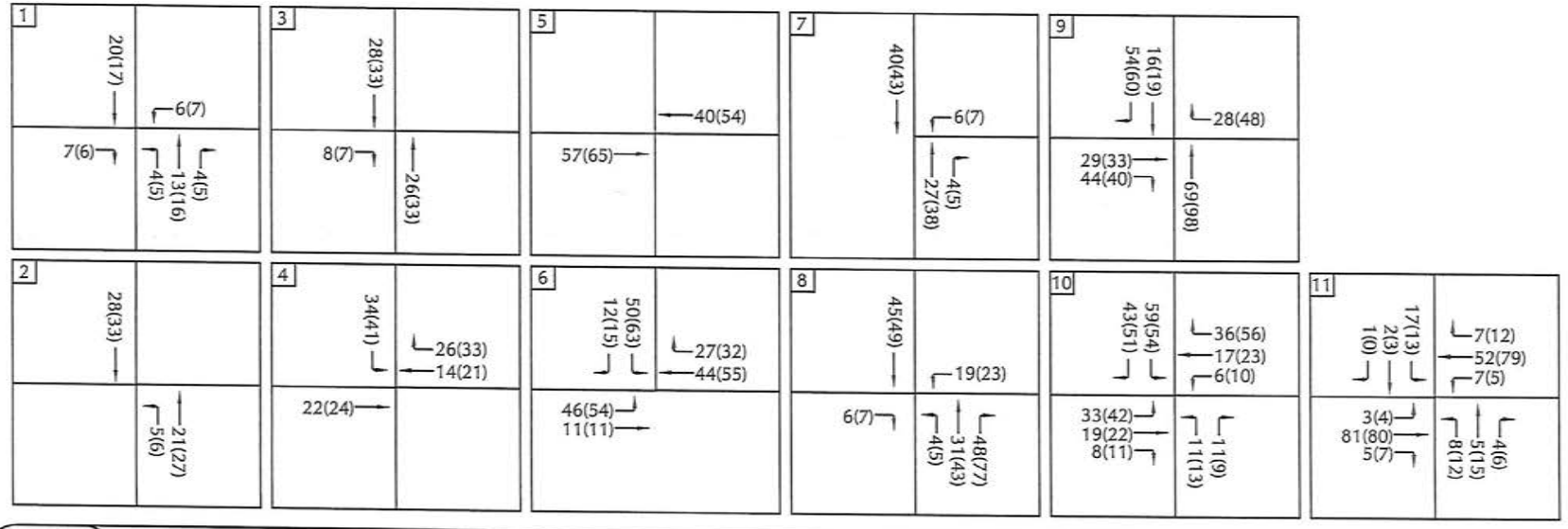
MMF - #15068



LEGEND

└XX(XX) - A.M.(P.M.) Peak Hour Volume

(#) - Near-Term Project Location

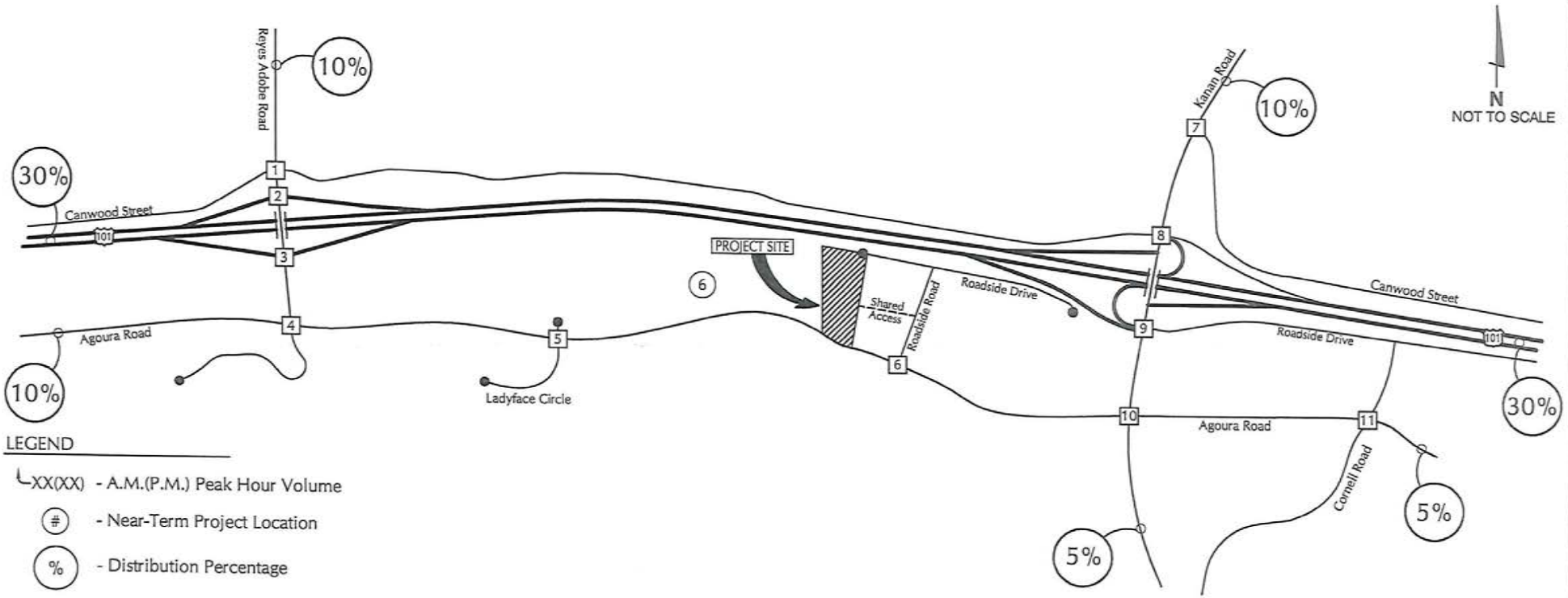


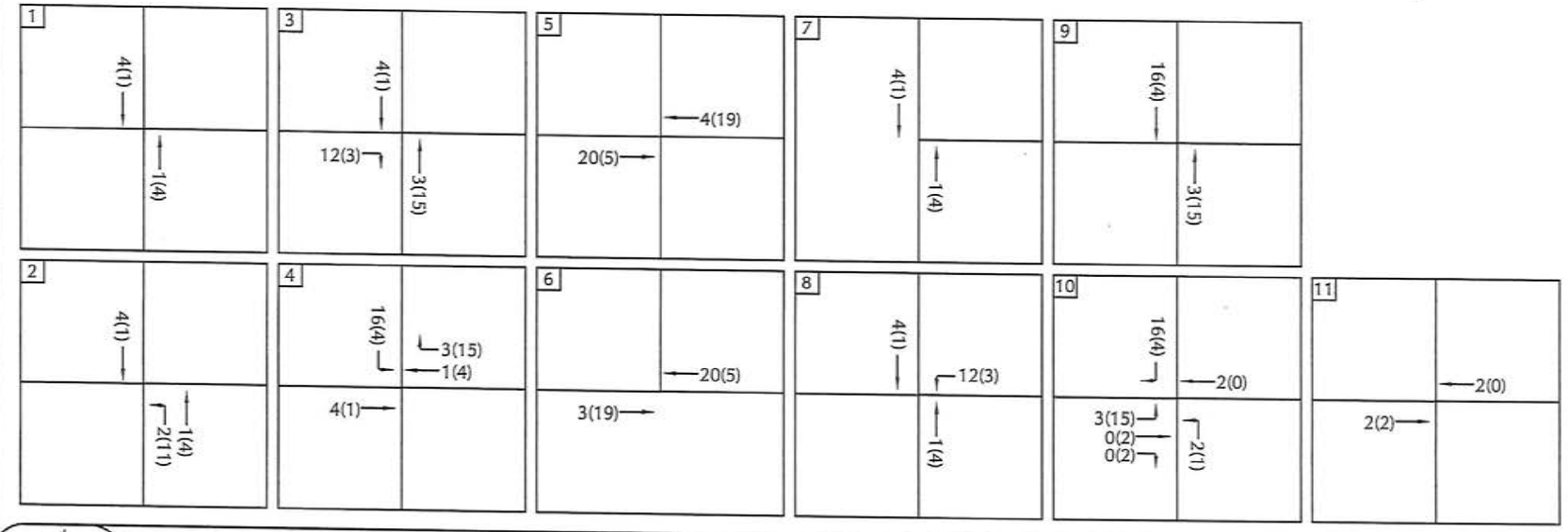
ASSOCIATED TRANSPORTATION ENGINEERS

NEAR-TERM ADDED TRAFFIC VOLUMES

FIGURE B

MMF - #15068



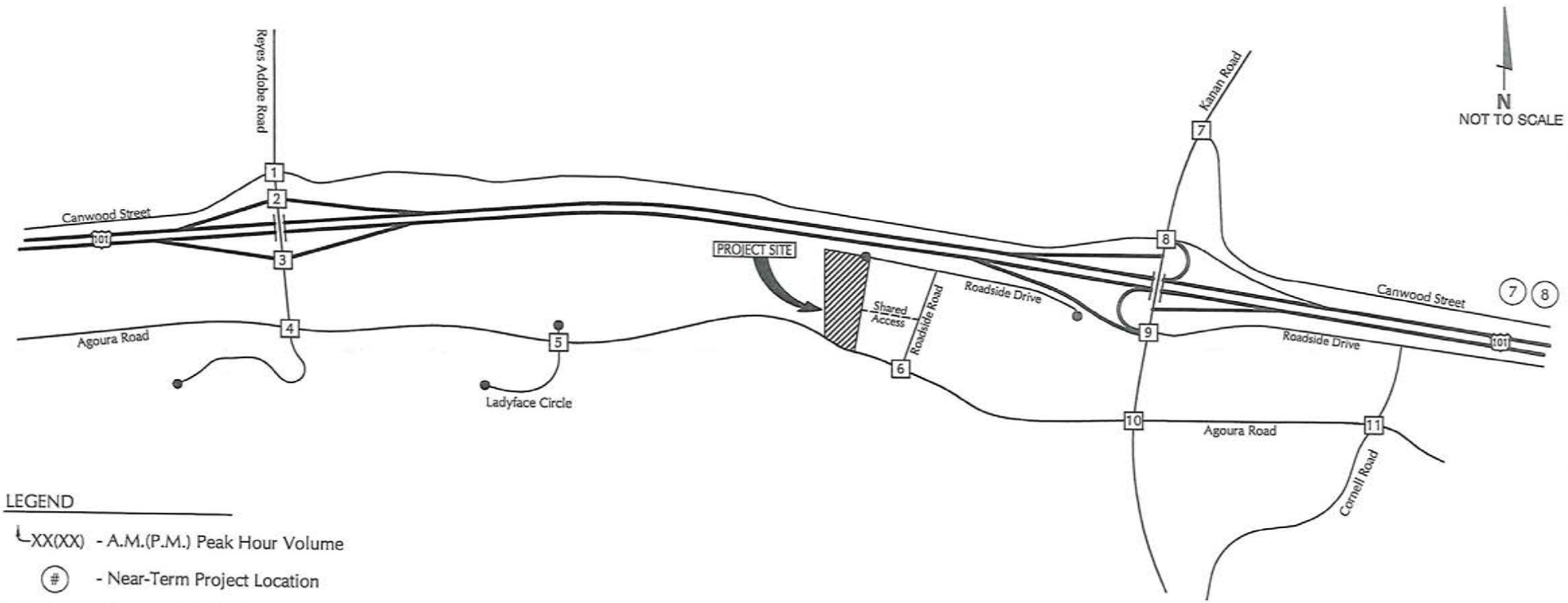


ASSOCIATED TRANSPORTATION ENGINEERS

NEAR-TERM ADDED TRAFFIC VOLUMES

FIGURE C

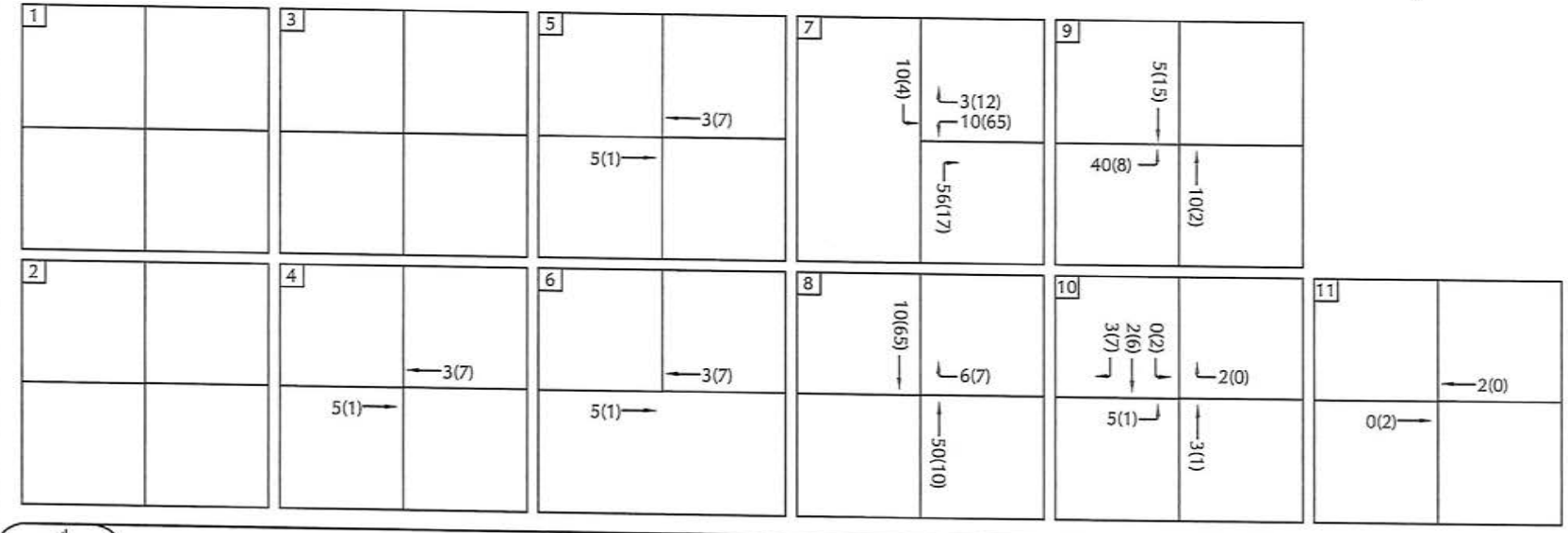
MMF - #15068



LEGEND

└XX(XX) - A.M.(P.M.) Peak Hour Volume

(#) - Near-Term Project Location

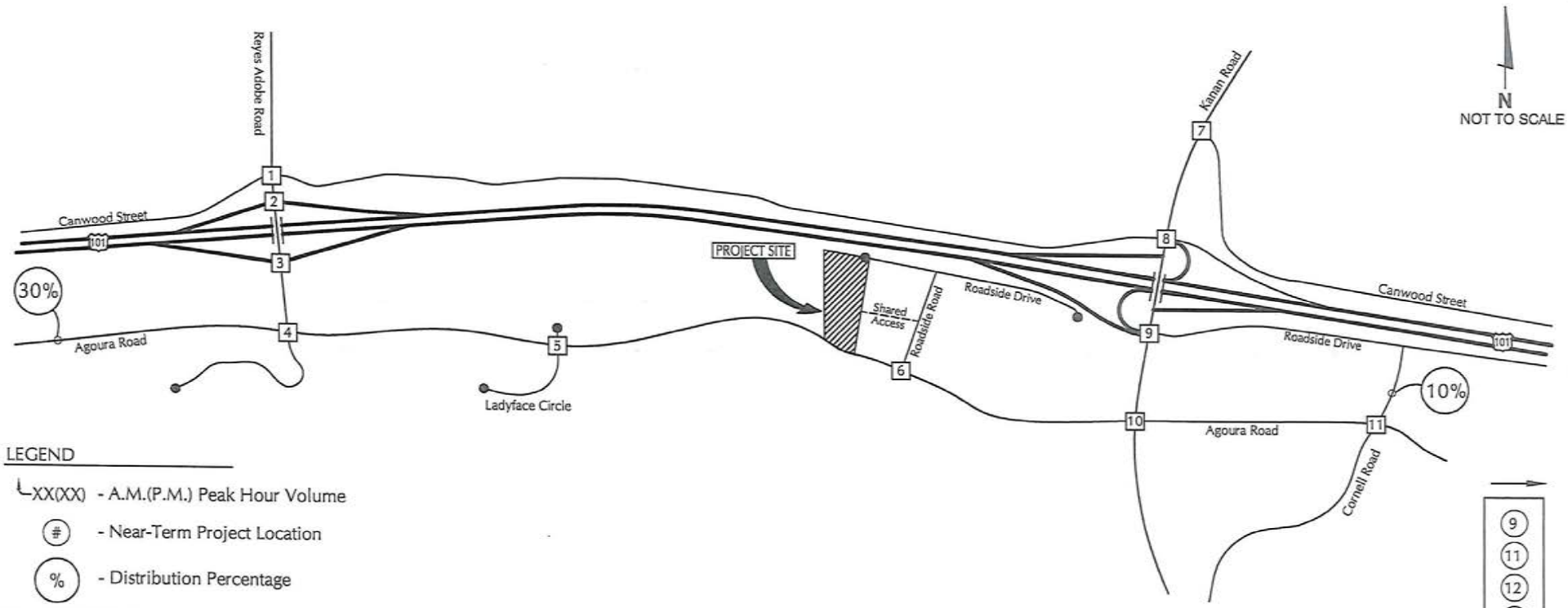


ASSOCIATED TRANSPORTATION ENGINEERS

NEAR-TERM ADDED TRAFFIC VOLUMES

FIGURE D

MMF - #15068

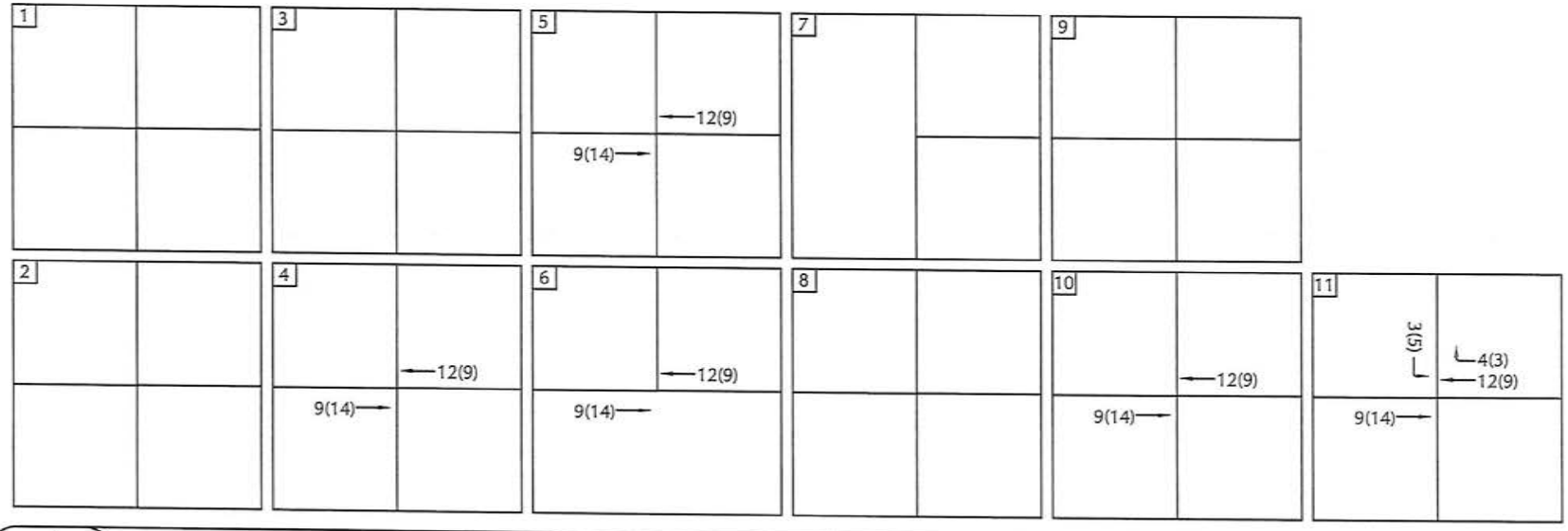


LEGEND

XX(XX) - A.M.(P.M.) Peak Hour Volume

(#) - Near-Term Project Location

(%) - Distribution Percentage



9 11 12 13 14 15 16 17 18 4

ASSOCIATED TRANSPORTATION ENGINEERS

NEAR-TERM ADDED TRAFFIC VOLUMES

FIGURE E

MMF - #15068

SIGNAL WARRANT ANALYSIS

Existing Conditions

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)

COUNT DATE _____

DIST ____ CO ____ RTE ____ PM ____

CALC _____ DATE _____

CHK _____ DATE _____

Major St: Agoura Road

Minor St: Roadside Road

Critical Approach Speed _____ mph

Critical Approach Speed _____ mph

Speed limit or critical speed on major street traffic > 40 mph ☒ or

In built up area of isolated community of < 10,000 population ☐ } RURAL (R)

☐ URBAN (U)

WARRANT 1 - Eight Hour Vehicular Volume SATISFIED YES ☐ NO ☒

(Condition A or Condition B or combination of A and B must be satisfied)

Condition A - Minimum Vehicle Volume 100% SATISFIED YES ☐ NO ☒

80% SATISFIED YES ☐ NO ☒

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				8:00 to 9:00	9:00 to 10:00	10:00 to 11:00	11:00 to 12:00	12:00 to 1:00	1:00 to 2:00	2:00 to 3:00	3:00 to 4:00	4:00 to 5:00	5:00 to 6:00	Hour
	U	R	U	R											
APPROACH LANES	1		2 or More												
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)	504	387	528	427	634	572	658	709			
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)	29	29	25	25	32	24	27	34			

Condition B - Interruption of Continuous Traffic 100% SATISFIED YES ☐ NO ☒

80% SATISFIED YES ☐ NO ☒

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				8:00 to 9:00	9:00 to 10:00	10:00 to 11:00	11:00 to 12:00	12:00 to 1:00	1:00 to 2:00	2:00 to 3:00	3:00 to 4:00	4:00 to 5:00	5:00 to 6:00	Hour
	U	R	U	R											
APPROACH LANES	1		2 or More												
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)	504	387	528	427	634	572	658	709			
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)	29	29	25	25	32	24	27	34			

Combination of Conditions A & B SATISFIED YES ☐ NO ☒

REQUIREMENT	CONDITION	✓	FULFILLED
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		Yes ☐ No ☒
	AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			Yes ☐ No ☒

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 2 of 5)

WARRANT 2 - Four Hour Vehicular Volume SATISFIED* YES ☐ NO ☒

Record hourly vehicular volumes for any four hours of an average day.

APPROACH LANES	One	2 or More	12:00 1:00	1:00 2:00	4:00 5:00	5:00 6:00 Hour
Both Approaches - Major Street	✓		727	634	658	709
Higher Approach - Minor Street	✓		25	32	27	34

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes ☐ No ☐
OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes ☐ No ☒

WARRANT 3 - Peak Hour SATISFIED YES ☐ NO ☒
(Part A or Part B must be satisfied)

PART A SATISFIED YES ☐ NO ☒
(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	Yes ☐ No ☒
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	Yes ☐ No ☒
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes ☒ No ☐

PART B SATISFIED YES ☐ NO ☒

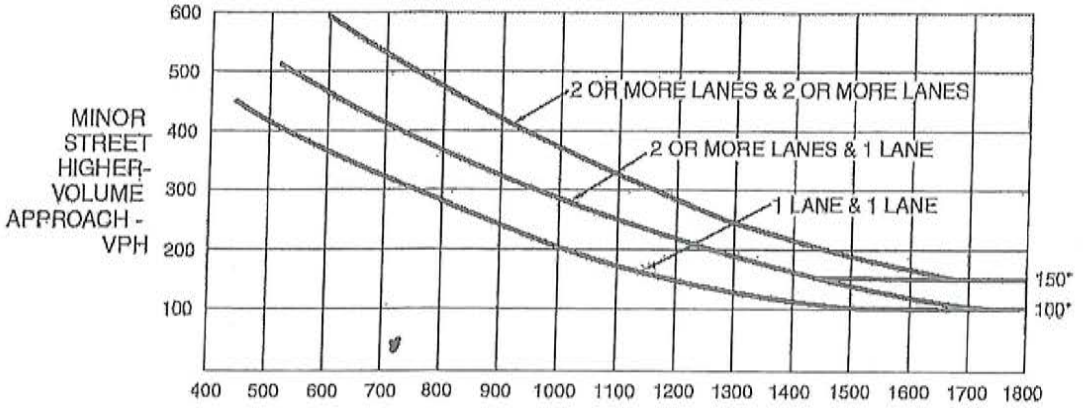
APPROACH LANES	One	2 or More	Hour
Both Approaches - Major Street	✓		731
Higher Approach - Minor Street	✓		31

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes ☐ No ☒
OR, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes ☐ No ☒

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Existing

Figure 4C-3. Warrant 3, Peak Hour

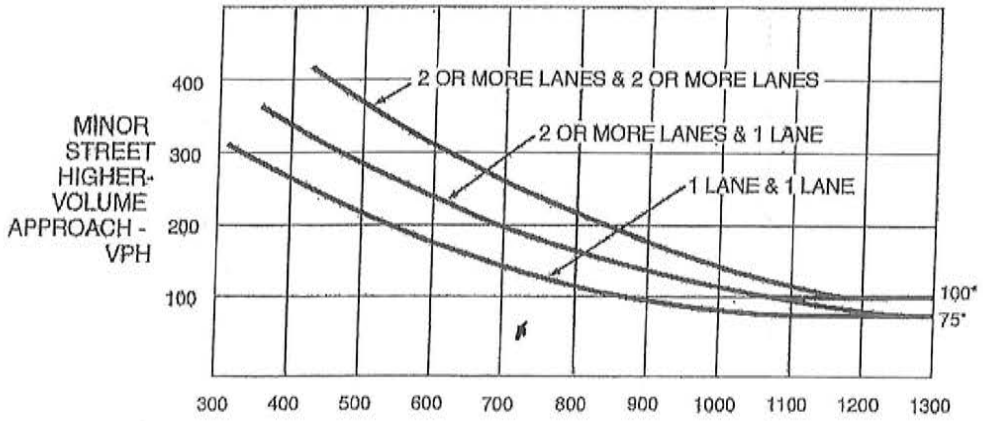


(731, 34)

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

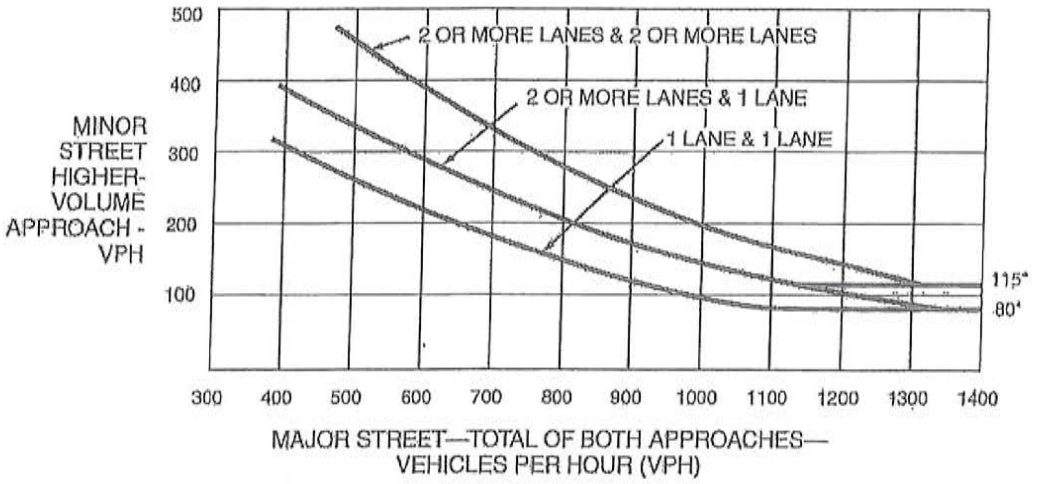
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



(731, 34)

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

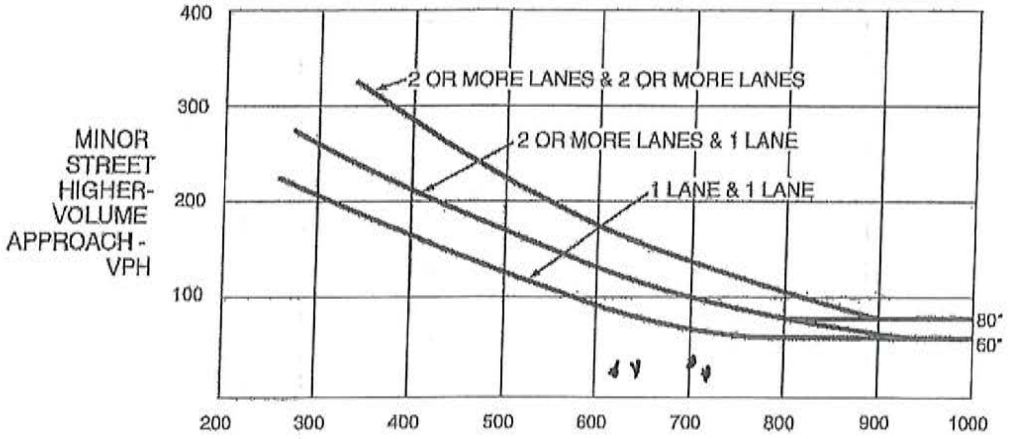
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Existing + Project

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)

COUNT DATE _____
CALC _____ DATE _____
CHK _____ DATE _____

DIST ____ CO ____ RTE ____ PM ____

Major St: Agua Road
Minor St: Reedside Road

Critical Approach Speed _____ mph
Critical Approach Speed _____ mph

Speed limit or critical speed on major street traffic > 40 mph..... ☐ or ☐ } RURAL (R)
In built up area of isolated community of < 10,000 population..... ☐ URBAN (U)

WARRANT 1 - Eight Hour Vehicular Volume SATISFIED YES ☐ NO ☒
(Condition A or Condition B or combination of A and B must be satisfied)

Condition A - Minimum Vehicle Volume 100% SATISFIED YES ☐ NO ☒
80% SATISFIED YES ☐ NO ☒

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	Hour
	U	R	U	R											
APPROACH LANES	1		2 or More												
Both Approaches Major Street	600 (400)	350 (280)	600 (480)	420 (336)	564	428	583	611	712	622	712	773			
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)	65	54	58	75	79	54	59	72			

Condition B - Interruption of Continuous Traffic 100% SATISFIED YES ☐ NO ☒
80% SATISFIED YES ☐ NO ☒

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	Hour
	U	R	U	R											
APPROACH LANES	1		2 or More												
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)	564	428	583	611	712	622	712	773			
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)	65	54	53	75	79	54	59	72			

Combination of Conditions A & B SATISFIED YES ☐ NO ☒

REQUIREMENT	CONDITION	✓	FULFILLED
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		Yes ☐ No ☒
	AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			Yes ☐ No ☒

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 2 of 5)

WARRANT 2 - Four Hour Vehicular Volume SATISFIED* YES ☐ NO ☒

Record hourly vehicular volumes for any four hours of an average day.

APPROACH LANES	One	2 or More	12:00-1:00	1:00-2:00	4:00-5:00	5:00-6:00	Hour
Both Approaches - Major Street		✓	611	712	712	713	
Higher Approach - Minor Street	✓		75	79	59	72	

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes ☐ No ☐
OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes ☐ No ☒

WARRANT 3 - Peak Hour SATISFIED YES ☐ NO ☒
(Part A or Part B must be satisfied)

PART A SATISFIED YES ☐ NO ☒

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	Yes ☐ No ☒
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	Yes ☐ No ☒
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes ☒ No ☐

PART B SATISFIED YES ☐ NO ☒

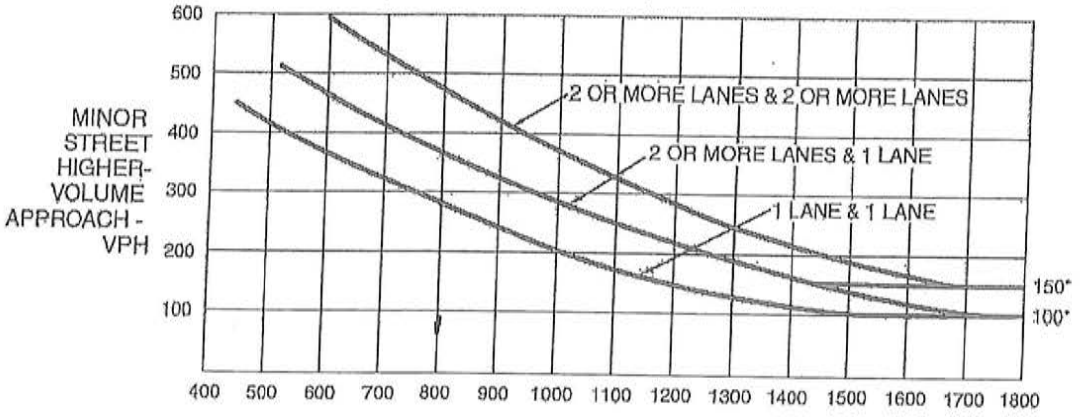
APPROACH LANES	One	2 or More	Hour
Both Approaches - Major Street		✓	800
Higher Approach - Minor Street	✓		74

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes ☐ No ☒
OR, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes ☐ No ☒

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Existing + Project

Figure 4C-3. Warrant 3, Peak Hour

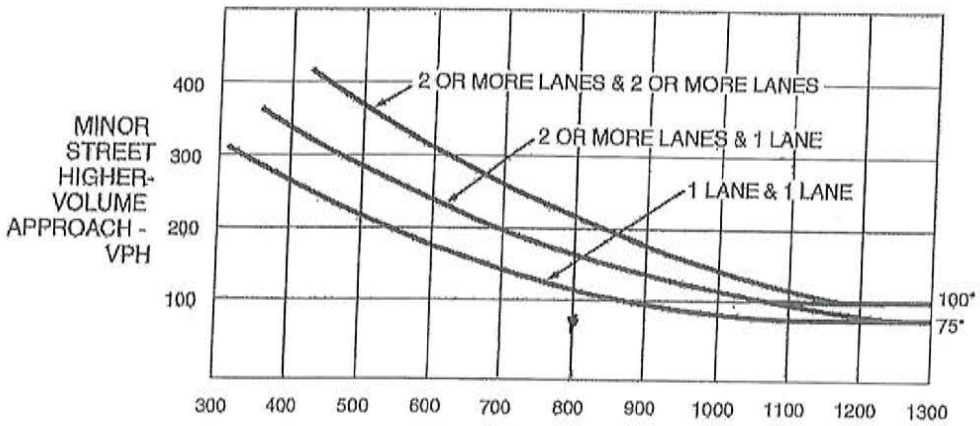


(800, 74)

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)

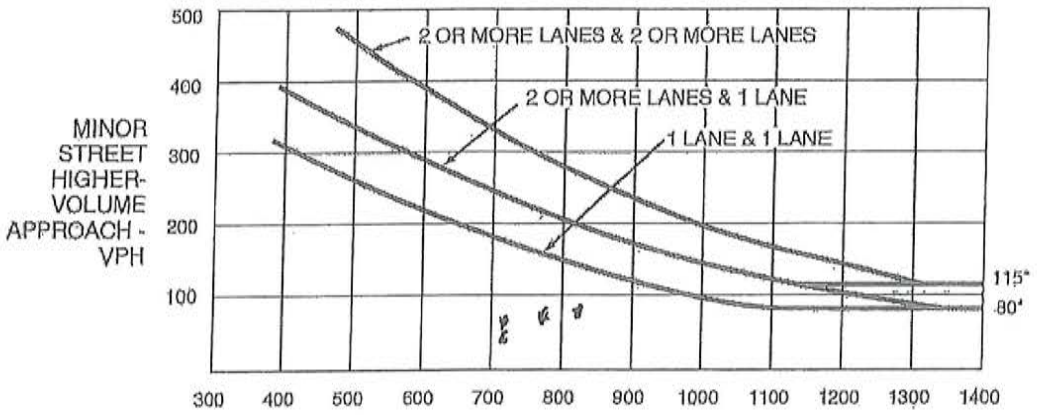


(800, 74)

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Existing + Project

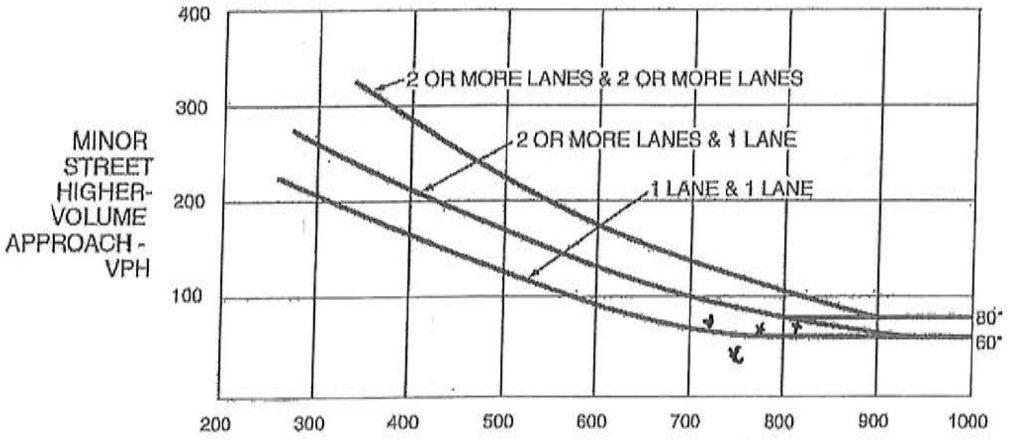
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Near - Term

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)

COUNT DATE _____

DIST _____ CO _____ RTE _____ PM _____

CALC _____ DATE _____

CHK _____ DATE _____

Major St: Agoura Road

Minor St: Roadside Road

Critical Approach Speed 45 mph

Critical Approach Speed _____ mph

Speed limit or critical speed on major street traffic > 40 mph ☑ or

In built up area of isolated community of < 10,000 population ☐ } RURAL (R)

☐ URBAN (U)

WARRANT 1 - Eight Hour Vehicular Volume SATISFIED YES ☐ NO ☒
(Condition A or Condition B or combination of A and B must be satisfied)

Condition A - Minimum Vehicle Volume 100% SATISFIED YES ☐ NO ☒

80% SATISFIED YES ☒ NO ☐

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	Hour
	U	R	U	R												
APPROACH LANES	1		2 or More													
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)	688	587	728	927	834	772	869	920				
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)	94	137	129	195	170	106	102	111				

Condition B - Interruption of Continuous Traffic 100% SATISFIED YES ☐ NO ☒

80% SATISFIED YES ☒ NO ☐

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	Hour
	U	R	U	R												
APPROACH LANES	1		2 or More													
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)	688	587	728	927	834	772	869	920				
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)	94	137	129	195	170	106	102	111				

Combination of Conditions A & B SATISFIED YES ☐ NO ☒

REQUIREMENT	CONDITION	✓	FULFILLED
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME	✓	Yes ☑ No ☐
	AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC	✓	
AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			Yes ☐ No ☒

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 2 of 5)

WARRANT 2 - Four Hour Vehicular Volume SATISFIED* YES ☑ NO ☐

Record hourly vehicular volumes for any four hours of an average day.

APPROACH LANES	One	2 or More	12:00-1:00	1:00-2:00	4:00-5:00	5:00-6:00 Hour
Both Approaches - Major Street		✓	927	834	869	920
Higher Approach - Minor Street	✓		195	170	102	111

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes ☐ No ☐
OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes ☑ No ☐

WARRANT 3 - Peak Hour SATISFIED YES ☑ NO ☐
(Part A or Part B must be satisfied)

PART A SATISFIED YES ☐ NO ☑

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	Yes ☐ No ☒
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	Yes ☒ No ☐
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes ☐ No ☒

PART B SATISFIED YES ☑ NO ☐

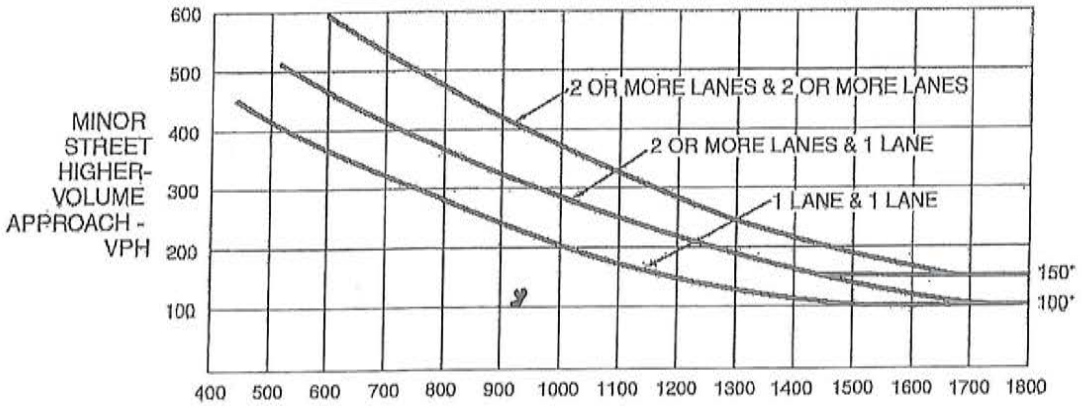
APPROACH LANES	One	2 or More	Hour
Both Approaches - Major Street		✓	942
Higher Approach - Minor Street	✓		112

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes ☐ No ☒
OR, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes ☑ No ☐

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Near - Term

Figure 4C-3. Warrant 3, Peak Hour

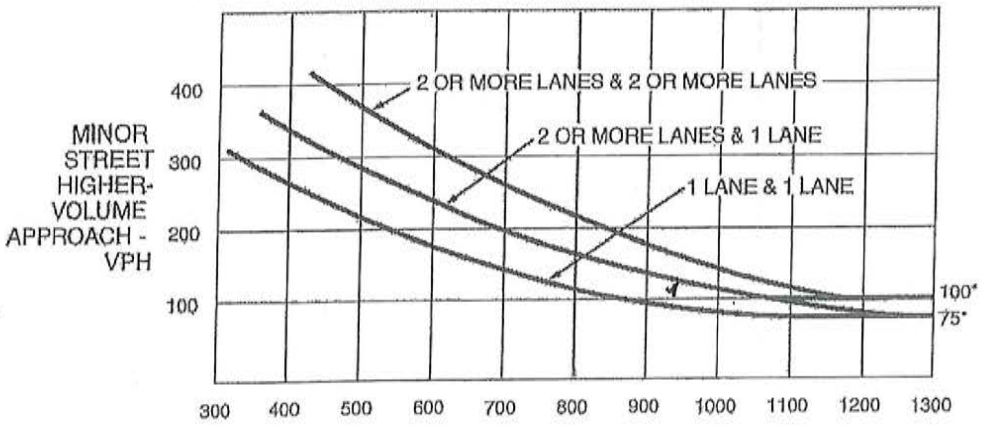


(542, 112)

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

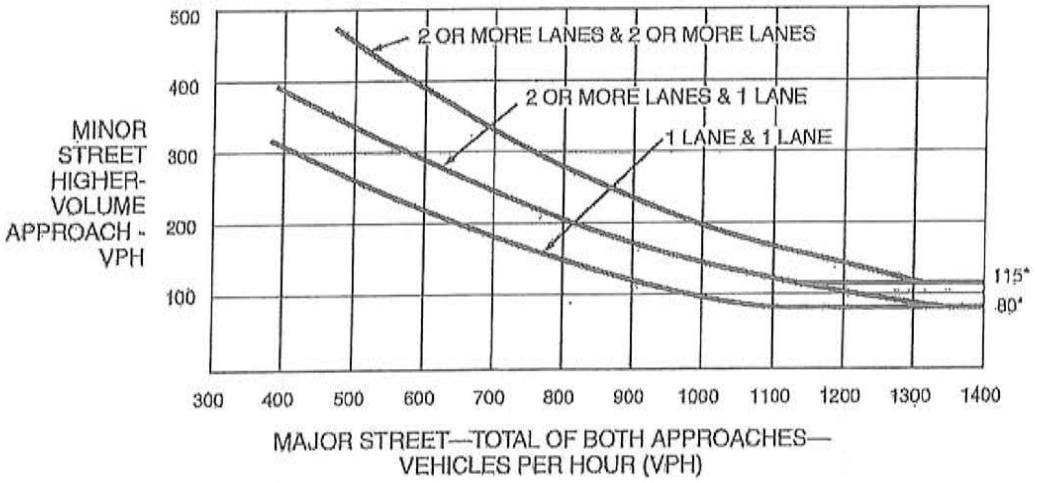
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



(942, 112)

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

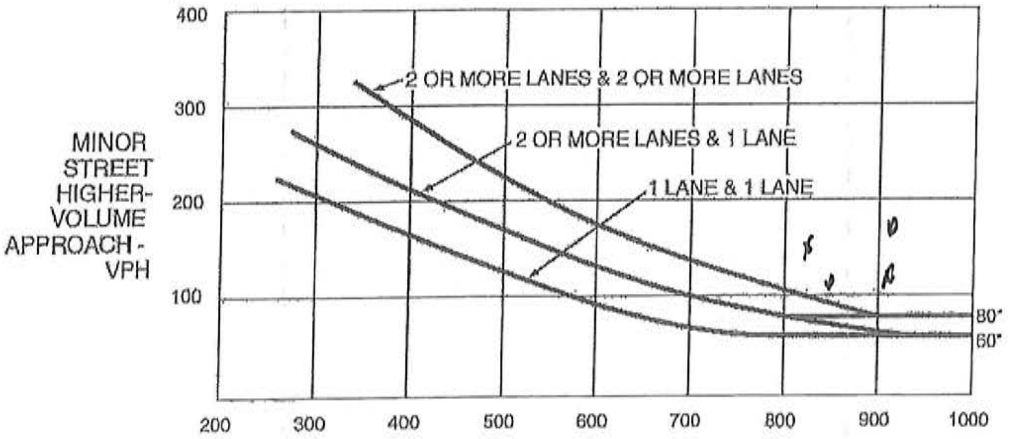
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Near-Term + Project

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)

COUNT DATE _____
CALC _____ DATE _____
CHK _____ DATE _____

DIST ____ CO ____ RTE ____ PM ____

Major St: Agoura Road
Minor St: Roadside Road

Critical Approach Speed 45 mph
Critical Approach Speed _____ mph

Speed limit or critical speed on major street traffic > 40 mph ☐ or
In built up area of isolated community of < 10,000 population ☐ } RURAL (R)
☐ URBAN (U)

WARRANT 1 - Eight Hour Vehicular Volume SATISFIED YES ☑ NO ☐
(Condition A or Condition B or combination of A and B must be satisfied)

Condition A - Minimum Vehicle Volume 100% SATISFIED YES ☒ NO ☐
80% SATISFIED YES ☐ NO ☐

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS) 1 U	1 R	2 or More U	2 or More R	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	Hour
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)	749	628	761	977	881	802	901	958				
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)	130	212	162	245	217	136	134	149				

Condition B - Interruption of Continuous Traffic 100% SATISFIED YES ☐ NO ☒
80% SATISFIED YES ☒ NO ☐

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS) 1 U	1 R	2 or More U	2 or More R	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	Hour
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)	749	628	761	977	881	802	901	958				
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)	130	212	162	245	217	136	134	149				

Combination of Conditions A & B SATISFIED YES ☐ NO ☒

REQUIREMENT	CONDITION	✓	FULFILLED
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME	✓	Yes ☒ No ☐
	AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC	✓	
AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			Yes ☐ No ☒

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 2 of 5)

WARRANT 2 - Four Hour Vehicular Volume SATISFIED* YES ☑ NO ☐

Record hourly vehicular volumes for any four hours of an average day.

APPROACH LANES	One	2 or More	12:00 1:00	1:00 2:00	5:00 6:00	5:00 6:00 / Hour
Both Approaches - Major Street		✓	677	881	901	958
Higher Approach - Minor Street	✓		245	217	134	149

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes ☐ No ☐
OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes ☑ No ☐

WARRANT 3 - Peak Hour SATISFIED YES ☑ NO ☐
(Part A or Part B must be satisfied)

PART A SATISFIED YES ☐ NO ☒

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	Yes ☐ No ☒
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	Yes ☑ No ☐
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes ☐ No ☒

PART B SATISFIED YES ☑ NO ☐

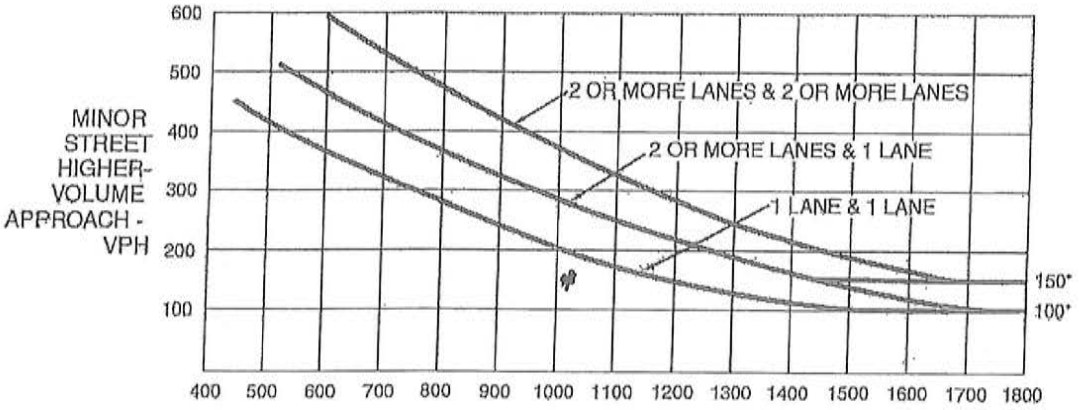
APPROACH LANES	One	2 or More	Hour
Both Approaches - Major Street		✓	1011
Higher Approach - Minor Street	✓		152

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes ☐ No ☒
OR, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes ☑ No ☐

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Near-Term + Project

Figure 4C-3. Warrant 3, Peak Hour

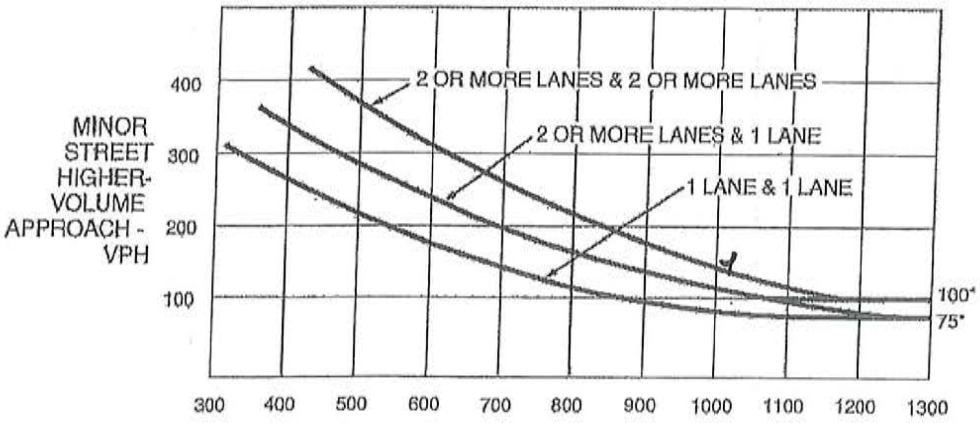


(1011, 152)

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)

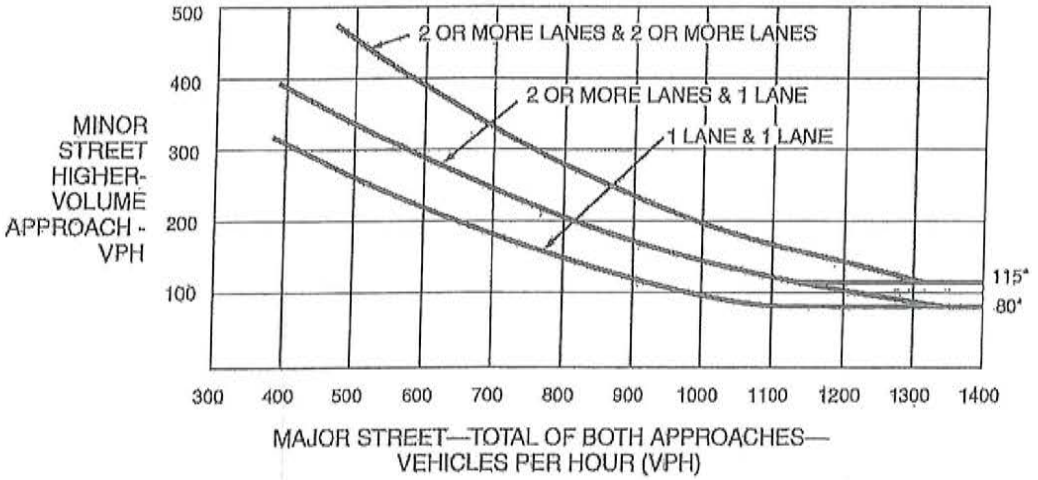


(1011, 152)

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Near-Term + Project

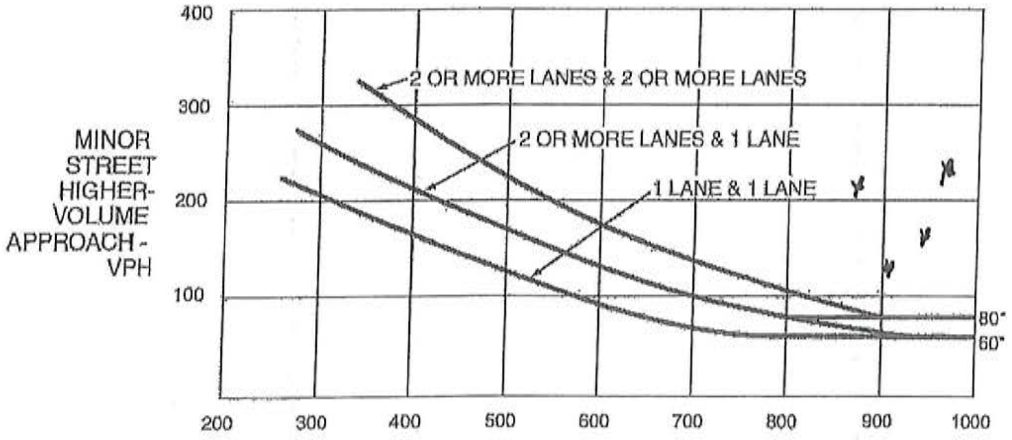
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.