Near Term Plus Project Impacts & Mitigation Measures

This section presents the project-related impacts and mitigation measures at the study intersections and segments, developed based on the findings from the analyses presented in the prior sections of this report. Improvements are identified only where this is a significant project impact, based on the significance thresholds identified previously.

Table 62 presents the intersections projected to operate at unacceptable levels of service for vehicle, pedestrian, bicycle, and transit travel modes under Near Term Plus Project conditions, and whether the project has a significant impact based on the thresholds listed above. Tables 63A and 63B present the roadway segments projected to operate at unacceptable levels of service for vehicle, pedestrian, bicycle, and transit travel modes under Near Term Plus Project AM and PM peak hour conditions, respectively, and whether the project has a significant impact based on the thresholds listed above. Table 64 presents the project impacts for the queuing analysis at the study intersections.

TABLE 62:
NEAR TERM PLUS PROJECT SIGNIFICANT INTERSECTION IMPACTS

Intersection #	1						3		5		8		9	
Name	Madonna Road/Los Osos Valley Road						Madonna Road/ Dalidio Drive		Madonna Road/ US 101 SB Ramps		Higuera Street/ South Street		Los Osos Valley Road/ Froom Ranch Way	
Mode	AUTO		PED		BIKE		AUTO		AUTO		AUTO		BIKE	
SCENARIO	v/c	LOS	v/c	LOS	v/c	LOS	v/c	LOS	Score	LOS	v/c	LOS	Score	LOS
AM PEAK HOUR			NB		WB				EB				EB	
Year 2025	-	C	3.11	C	3.36	C	-	A	1.22	D	-	C	3.42	C
Year 2025 Plus Project	-	C	3.12	C	3.39	C	-	D	1.26	D	-	C	3.44	C
Significant Impact?	No		No		No		No		**Yes**		No		No	
PM PEAK HOUR			NB		WB				EB				EB	
Year 2025	-	D	3.51	D	4.25	D	-	D	-	C	1.28	E	4.42	E
Year 2025 Plus Project	1.05	E	3.52	D	4.30	E	2.82	F	-	C	1.43	F	4.45	E
Significant Impact?	**Yes**		No		**Yes**		**Yes**		No		**Yes**		No	

Note: V/C Ratio is based on worst movement

TABLE 62 (CONT'D.):
NEAR TERM PLUS PROJECT SIGNIFICANT INTERSECTION IMPACTS

Intersection #	10		15		16		25	
Name	Los Osos Valley Road/ Auto Park Way		S. Higuera Street/ Suburban Drive		S. Higuera Street/Tank Farm Road		Dalidio Drive/ SC Project Driveway	
Mode	AUTO		PED		AUTO		AUTO	
SCENARIO	v/c	LOS	v/c	LOS	v/c	LOS	v/c	LOS
AM PEAK HOUR			NB					
Year 2025	-	C	3.23	C	1.31	E	-	-
Year 2025 Plus Project	-	C	3.25	C	1.32	E	-	B
Significant Impact?	No		No		**Yes**		No	
PM PEAK HOUR			NB					
Year 2025	0.52	F	3.96	D	-	C	-	-
Year 2025 Plus Project	0.57	F	3.98	D	-	C	0.86	F
Significant Impact?	**Yes**		No		No		**Yes**	

Note: V/C Ratio is based on worst movement

TABLE 63A: NEAR TERM PLUS PROJECT SIGNIFICANT ROADWAY IMPACTS

2025 Multimodal Segment LOS				Auto Mode					Pedestrian Mode					Bicycle Mode					Transit Mode				
AM PEAK HOUR					*2025*		*2025 Plus Project*			*2025*		*2025 Plus Project*			*2025*		*2025 Plus Project*			*2025*		*2025 Plus Project*	
ID	Roadway	From	To	Direction	Auto LOS Threshold	Travel Speed (mph)	LOS	Travel Speed (mph)	LOS	**Significant Impact?**	Ped LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Bike LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Transit LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**
2	Madonna Rd	Oceanaire Dr	Dalidio	EB	D	27.1	C	11.5	**F**	**Yes**	C	3.80	**D**	3.84	**D**	No	D	3.56	D	3.57	D	No	D	4.71	**E**	4.70	**E**	No
6	Madonna Rd	Higuera St	US 101 NB Ramps	WB	D	11.2	**E**	10.6	**F**	**Yes**	C	3.63	**D**	3.70	**D**	No	D	3.50	D	3.52	D	No	D	4.29	**E**	4.31	**E**	No
13	Los Osos Valley	Froom Ranch Way	Madonna Rd	NB	D	20.9	C	20.5	D	No	C	3.74	**F**	3.75	**F**	No	D	3.39	C	3.39	C	No	D	4.25	D	4.25	**E**	**Yes**
13	Los Osos Valley	Froom Ranch Way	Madonna Rd	NB																			D	**4.25**	**D**	**4.25**	**E**	**Yes**

Note: Segment 20 transit is southbound for routes 4 and 5; Segment 21 pedestrian and bicycle service will be further evaluated using off-street facilities methodologies.

2025 Multimodal Segment LOS				Auto Mode					Pedestrian Mode					Bicycle Mode					Transit Mode				
PM PEAK HOUR					*2025*		*2025 Plus Project*			*2025*		*2025 Plus Project*			*2025*		*2025 Plus Project*			*2025*		*2025 Plus Project*	
ID	Roadway	From	To	Direction	Auto LOS Threshold	Travel Speed (mph)	LOS	Travel Speed (mph)	LOS	**Significant Impact?**	Ped LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Bike LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Transit LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**
1	Madonna Rd	Oceanaire Dr	LOVR	WB	D	11.6	**F**	10.1	**F**	**Yes**	C	3.84	**D**	3.86	**D**	No	D	4.13	D	4.17	D	No	D	4.29	**E**	4.30	**E**	No
2	Madonna Rd	Oceanaire Dr	Dalidio	EB	D	18.7	D	16.3	**E**	**Yes**	C	3.88	**D**	3.97	**D**	No	D	3.43	C	3.44	C	No	D	4.44	**E**	4.44	**E**	No
6	Madonna Rd	US 101 NB Ramps	Higuera St	EB	D	10.4	**F**	8.0	**F**	**Yes**	C	3.76	**D**	3.86	**D**	No	D	3.52	D	3.59	D	No	D	4.13	D	4.16	D	No
13	Los Osos Valley	Madonna Rd	Froom Ranch Way	SB	D	16.9	D	15.2	**E**	**Yes**	C	3.99	**D**	3.99	**D**	No	D	3.74	D	3.74	D	No	D	4.56	**E**	4.56	**E**	No
17	Los Osos Valley	US 101 NB Ramps	S. Higuera St	EB	D	15.8	D	15.6	**E**	**Yes**	C	3.78	**D**	3.79	**D**	No	D	3.37	C	3.37	C	No	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	

Note: Segment 20 transit is southbound for routes 4 and 5; Segment 21 pedestrian and bicycle service will be further evaluated using off-street facilities methodologies.

TABLE 64:
NEAR TERM PLUS PROJECT CONDITIONS 95TH PERCENTILE QUEUING ANALYSIS

Intersection					2025		2025 PP Conditions	
					95th Percentile Queue/Lane (ft)		95th Percentile Queue/Lane (ft)	
ID	Location	Movement	No. Lanes	Total Storage (ft)[1]	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1	Madonna Road/Los Osos Valley Road	Northbound Right	1	175	119	**248**	100	**261**
2	Madonna Road/Oceanaire Drive	Westbound Right	1	100	36	**139**	58	**140**
3	Madonna Road/Dalidio Drive	Westbound Left	1	275	46	108	194	**336**
		Westbound Through/Right	1	570	10	22	108	**610**
4	Madonna Road/El Mercado	Westbound Left	2	260	56	115	50	**535**
5	Madonna Road/US 101 SB Ramps/Madonna Inn	Eastbound Left	1	100	89	96	83	**111**
		Westbound Left	1	260	160	**322**	170	**539**
6	Madonna Road/US 101 NB Ramps	Northbound Left	1	185	156	151	156	**258**
7	Madonna Road/Higuera Street	Eastbound Right	1	150	**221**	**192**	**248**	**314**
		Northbound Left	1	160	153	**361**	**185**	**376**
		Southbound Right	2	340	19	55	23	**592**
8	Higuera Street/South Street	Eastbound Right	1	60	42	54	41	**85**
		Westbound Left	2	240	**303**	**287**	**342**	**1024**
		Southbound Left	1	70	**115**	**118**	**116**	**122**
9	Los Osos Valley Road/Froom Ranch Way	Westbound Right	1	50	50	**81**	**60**	**119**
11	Los Osos Valley Road/Calle Joaquin	Southbound Right	1	80	49	72	**231**	**310**
12	Los Osos Valley Road/US 101 SB Ramps	Westbound Left/Through	1	180	**256**	**187**	**259**	**216**
		Southbound Through	1	240	**275**	**284**	**293**	**273**
13	Los Osos Valley Road/US 101 NB Ramps	Southbound Right	1	130	**215**	**187**	**244**	**248**
14	S. Higuera Street/Los Osos Valley Road	Eastbound Right	1	90	**202**	**154**	**189**	**156**
15	S. Higuera Street/Suburban Drive	Westbound Right	1	170	69	**249**	72	**251**
16	S. Higuera Street/Tank Farm Road	Southbound Left	1	165	**210**	**231**	**211**	**243**
18	S. Higuera Street/Prado Road	Westbound Right	1	100	51	78	49	**137**
		Northbound Left	1	100	**158**	**173**	**158**	**186**
		Southbound Left	1	60	**110**	**121**	**111**	**119**
19	S. Higuera Street/Margarita Avenue	Northbound Left	1	60	**75**	57	**78**	**70**
		Southbound Left	1	60	**68**	**91**	**83**	**99**

Notes 1. Bolded entries indicate queues exceed available storage

2. Storage Length of " - " represents a lane which exceeds 900 feet, usually a through lane.

3. For Movements with more than one lane, the maximum of the 95th percentile queue is reported.

4. * Represents storage lengths for one lane; second lane is a left or right trap lane.

Red Cells represent New Impacts from Project-added traffic

Yellow Cells represent Existing queues exceeding storage that are increased by project-added traffic.

Near Term Plus Project Mitigation Measures

Based on the findings, the Prado Road Overcrossing is required under the Existing Plus Project scenario, and the *Near Term* mitigation scenario assumes the Prado Overcrossing to be constructed. Additional mitigation measures have been summarized in Table 65, identifying which mitigation measures are projected to reduce the project's impact to less than significant for the corresponding intersection or segment, for each mode. Additionally, it is important to note that the optimization of throughput to mitigate segment impacts may create queuing impacts for opposing movements.

TABLE 65: NEAR TERM PLUS PROJECT MITIGATION MEASURES SUMMARY

2025 Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Intersection #1 Madonna Rd/Los Osos Valley Rd	Auto	The Project added traffic increases the delay at this intersection to be unacceptable LOS E during the PM peak hour.	• Optimizing traffic signal timing to accommodate increased traffic volumes will mitigate this impact.
Intersection #1 Madonna Rd/Los Osos Valley Rd	Auto (Queue)	Addition of project traffic would exacerbate the existing northbound right queue in the PM peak hour.	Existing Plus Project Mitigations are projected to mitigate the impact to less than significant. See Table 41.
Intersection #1 Los Osos Valley Road/Madonna Road	Bike	The Project added traffic increases the delay at this intersection to be unacceptable LOS E during the PM peak hour.	• Optimizing traffic signal timing to accommodate increased traffic volumes will mitigate this impact.
Intersection #2 Madonna Rd/Oceanaire Dr	Auto (Queue)	Addition of project traffic would exacerbate the existing westbound right queue in the PM peak hour.	Existing Plus Project Mitigations are projected to mitigate the impact to less than significant. See Table 41.
Intersection #3 Madonna Rd/Dalidio Dr*	Auto	With construction of the Prado Overcrossing, background and project traffic volumes throughout the network are redistributed and the delay increases at this intersection to be an unacceptable LOS during the PM peak hour.	In addition to the Existing Plus Project Mitigations in Table 41, Construct a second northbound left turn pocket on Dalidio/Prado to mitigate the impacts. Widening the approach and additional right-of-way may be required.
Intersection #3 Madonna Rd/Dalidio Dr	Auto (Queue)	Addition of project traffic would: •Result in a new impact to the westbound left queue in the PM peak hour. •Result in a new impact to the westbound through/right queue in the PM peak hour.	Existing Plus Project Mitigations are projected to mitigate the impact to less than significant. See Table 41.

TABLE 65: NEAR TERM PLUS PROJECT MITIGATION MEASURES SUMMARY

2025 Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Intersection #4 Madonna Rd/El Mercado	Auto (Queue)	Addition of project traffic would result in a new impact to the westbound left queue in the PM peak hour.	Existing Plus Project Mitigations in Table 41 are projected to mitigate this impact. Addition of a second westbound left turn pocket at Intersection #3 Madonna Rd/Dalidio Dr would improve this condition to an acceptable level due to the spillback into this intersection.
Intersection #5 Madonna Rd/US 101 SB Ramps/Madonna Inn	Auto	This intersection currently operates at unacceptable LOS D in the AM peak hour, and is projected to worsen in Year 2025. The addition of Project traffic exacerbates this unacceptable condition by increasing delay and v/c ratio.	Existing Plus Project Mitigations are projected to mitigate the impact to less than significant. See Table 41.
Intersection #5 Madonna Rd/US 101 SB Ramps/Madonna Inn	Auto (Queue)	Addition of project traffic would: •Result in a new impact to the eastbound left queue in the PM peak hour. •Exacerbate the westbound left queue in the PM peak hour.	•See Table 41. •Construction of the Prado Overcrossing is projected to mitigate this impact, along with optimizing the signal timings.
Intersection #6 Madonna Rd/US 101 NB Ramps	Auto (Queue)	Addition of project traffic would result in a new impact to the northbound left in the PM peak hour.	Construction of the Prado overcrossing is projected to mitigate this impact, along with optimizing the signal timings. See Table 41.
Intersection #7 Madonna Rd/S. Higuera St	Auto (Queue)	Addition of project traffic would: •Exacerbate the eastbound right queues in the AM and PM peak hours. •Result in a new impact to the northbound left in the AM peak hour and exacerbate the queue in the PM peak hour. •Result in a new impact to the southbound right in the PM peak hour.	See Table 41.

TABLE 65: NEAR TERM PLUS PROJECT MITIGATION MEASURES SUMMARY

2025 Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Intersection #8 Higuera St/South St	Auto	This intersection currently operates at unacceptable LOS E in the PM peak hour, and is projected to worsen in Year 2025. The addition of Project traffic exacerbates this unacceptable condition by increasing delay and v/c ratio.	Existing Plus Project Mitigations are projected to mitigate the impact to less than significant. See Table 41.
Intersection #9 Los Osos Valley Road/Froom Ranch Way*	Auto	With construction of the Prado Overcrossing, background and project traffic volumes throughout the network are redistributed, and increase the delay at this intersection to be an unacceptable LOS during the PM peak hour.	• Reconfigure the eastbound approach geometry and lane usage to include dual left turns, a thru lane, and a dedicated right turn pocket. • Reconfigure the westbound approach geometry and lane usage to include a dual left turns, a thru lane, and a dedicated right turn pocket.
Intersection #9 Los Osos Valley Road/Froom Ranch Way	Auto (Queue)	Addition of project traffic would result in a new impact to the westbound right queue in the AM peak hour and exacerbate the queue in the PM peak hour. Also, construction of the Prado Overcrossing results in background and project traffic volumes throughout the network being redistributed and further exacerbates the queue length.	Extension of the westbound right turn pocket to 230' would improve this condition to an acceptable level. Additional right-of-way from the adjacent vacant parcel may be required along with reconstruction of the frontage road.
Intersection #10 Los Osos Valley Road/Auto Park Way	Auto	This intersection is projected to operate at unacceptable LOS F in the PM peak hour. The addition of Project traffic exacerbates this unacceptable condition by increasing delay and v/c ratio.	Construction of the Prado Overcrossing would mitigate the project impact by redistributing the volumes through this intersection and surrounding network.
Intersection #11 Los Osos Valley Road/Calle Joaquin	Auto (Queue)	Addition of project traffic would result in a new impact to the southbound right queue in the AM and PM peak hour.	Construction of the Prado Overcrossing would mitigate the project impact by redistributing the volumes through this intersection and surrounding network.

TABLE 65: NEAR TERM PLUS PROJECT MITIGATION MEASURES SUMMARY

2025 Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Intersection #12 Los Osos Valley Road/US 101 SB Ramps	Auto (Queue)	Addition of project traffic would: •Exacerbate the westbound left/through queue in the AM and PM peak hour •Exacerbate the southbound through queue in the AM peak hour	Existing Plus Project Mitigations are projected to mitigate the impact to less than significant. See Table 41.
Intersection #13 Los Osos Valley Road/US 101 NB Ramps	Auto (Queue)	Addition of project traffic would exacerbate the southbound right queue in the AM and PM peak hours.	Construction of the Prado Overcrossing would mitigate the project impact by redistributing the volumes through this intersection and surrounding network.
Intersection #14 Los Osos Valley Road/S. Higuera St	Auto (Queue)	Addition of project traffic would exacerbate the eastbound right queue in the PM peak hour.	Existing Plus Project Mitigations are projected to mitigate the impact to less than significant. See Table 41. Alternatively, construction of the Prado Interchange is projected to mitigate this queue.
Intersection #15 S. Higuera St/Suburban Drive	Auto (Queue)	Addition of project traffic would exacerbate the westbound right queue in the PM peak hour.	Construction of the Prado Overcrossing will mitigate the impact by redistributing the volumes through this intersection and surrounding network.
Intersection #16 S. Higuera St/Tank Farm Rd	Auto	This intersection is projected to operate at unacceptable LOS E in the AM peak hour. The addition of Project traffic exacerbates this unacceptable condition by increasing delay and v/c ratio.	Construction of the Prado Overcrossing will mitigate the impact by redistributing the volumes through this intersection and surrounding network.
Intersection #16 S. Higuera St/Tank Farm Rd	Auto (Queue)	Addition of project traffic would exacerbate the southbound left queue in the AM and PM peak hours.	Extension of the southbound left turn pocket to 260' would improve this condition to an acceptable level. Left turn queues can be accommodated within the center turn lane without driveway access implications. Pocket striping could be extended but may affect driveway access.

TABLE 65: NEAR TERM PLUS PROJECT MITIGATION MEASURES SUMMARY

2025 Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Intersection #18 S. Higuera St/Prado Rd	Auto (Queue)	Addition of project traffic would: •Result in a new impact to westbound right queue in the PM peak hour •Exacerbate the northbound left queue in the PM peak hour •Exacerbate the southbound left queue in the AM peak hour	•Geometric improvements are recommended to be constructed in coordination with planned improvements to this intersection. •Extension of the westbound right turn pocket to 410' would improve this condition to an acceptable level. •Extension of the northbound left turn pocket to 250' and the southbound left turn pocket to 280' would improve these conditions to an acceptable level. Left turn queues can be accommodated within the center turn lane without driveway access implications. Pocket striping could be extended but may affect driveway access.
Intersection #21 Dalidio Dr/Prado Rd/Froom Ranch Way*	Auto	With construction of the Prado Overcrossing, background and project traffic volumes throughout the network are redistributed, and increase the delay at this intersection to be an unacceptable LOS during the PM peak hour.	• Install a Multi-lane modern roundabout
Intersection #25 Dalidio Dr/SC Project Dwy	Auto	The Project added traffic increases the delay at this intersection to be unacceptable LOS F during the PM peak hour. Construction of the Prado Overcrossing exacerbates the deficiencies at this intersection as well.	Existing Plus Project Mitigations are projected to mitigate the impact to acceptable conditions. See Table 41.
Segment #1: Madonna Rd WB - Oceanaire Dr to Los Osos Valley Rd	Auto	This segment is projected to operate at unacceptable LOS F in the PM peak hour. The addition of Project traffic exacerbates this unacceptable condition by decreasing the travel speed by 1 mph or more.	Improvements to Intersection #1 mitigate the impact to this segment.

TABLE 65: NEAR TERM PLUS PROJECT MITIGATION MEASURES SUMMARY

2025 Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Segment #2: Madonna Rd EB - Oceanaire Dr to Dalidio Dr	Auto	The Project added traffic increases the delay on this segment to be unacceptable LOS F in the AM peak hour and LOS E in the PM peak hour.	Improvements to Intersection #3 mitigate the impact to this segment.
Segment #3: Madonna Rd WB - El Mercado to Dalildio Dr*	Ped	With construction of the Prado Overcrossing, background and project traffic volumes throughout the network are redistributed, and increase the Ped Score on this segment to be an unacceptable LOS.	In order to achieve acceptable LOS, a 6-foot buffer between the sidewalk and traveled way would be required, which may not be feasible due to right-of-way constraints in certain sections of this segment. This segment provides a Class I path adjacent to the sidewalk with sufficient buffer width, which is not included in this analysis, but could serve as the preferred pathway for pedestrians and provide acceptable LOS.
Segment #6: Madonna Rd WB - Higuera St to US 101 NB Ramps	Auto	This segment is projected to operate at unacceptable LOS E in the AM peak hour. The addition of Project traffic exacerbates this unacceptable condition by decreasing the LOS and travel speed by 1 mph or more.	• Optimize Timings at the intersection of Madonna Road/US 101 NB Ramps to improve the operations of the NB throughput. However, optimization of throughput may create queuing impacts for opposing movements.
Segment #6: Madonna Rd EB - US 101 NB Ramps to Higuera St	Auto	This segment is projected to operate at unacceptable LOS F in the PM peak hour. The addition of Project traffic exacerbates this unacceptable condition by decreasing the travel speed by 1 mph or more.	• Optimize Timings at the intersection of Madonna Road/S. Higuera Street to improve the operations of the EB throughput. However, optimization of throughput may create queuing impacts for opposing movements.

TABLE 65: NEAR TERM PLUS PROJECT MITIGATION MEASURES SUMMARY

2025 Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Segment #7: Higuera St SB - Madonna Road to Margarita Ave*	Ped	With construction of the Prado Overcrossing, background and project traffic volumes throughout the network are redistributed, and increase the Ped Score on this segment to be an unacceptable LOS.	In order to achieve acceptable LOS, a 13-foot buffer between the sidewalk and traveled way would be required, which may not be feasible due to right-of-way constraints in certain sections of this segment. Continuous sidewalk is provided throughout the length (0.75mi.) of this segment and the low service level is attributable to the high vehicle volumes on S. Higuera Street. The west side of S. Higuera Street for this long stretch is currently fenced by the Cemetery and office uses with negligible pedestrian demand.
Segment #8: Higuera St SB - Margarita Ave to Prado Rd*	Auto	With construction of the Prado Overcrossing, background and project traffic volumes throughout the network are redistributed, resulting in a decrease in the travel speed and an unacceptable LOS.	Modify EB Geometry at Intersection #18: Prado Road/S. Higuera Street to provide dual thru lanes and a single left turn lane; this will require dual receiving lanes on the east leg of Prado.
Segment #13: Los Osos Valley Road SB - Madonna Rd to Froom Ranch Way	Auto	The Project added traffic results in a decrease in the travel speed and results in unacceptable LOS E in the PM peak hour.	Improvements to Intersection #9 (LOVR/Froom Ranch Way) mitigates the impact to this segment.
Segment #13: Los Osos Valley Road SB - Madonna Rd to Froom Ranch Way	Transit	The Project added traffic results in a decrease in the travel speed and results in unacceptable LOS E in the AM peak hour for both Transit Routes 4 and 5.	Construction of the Prado Overcrossing will mitigate the impact by redistributing the volumes through this intersection and surrounding network.
Segment #17: Los Osos Valley Road EB - US 101 NB Ramps to S. Higuera St	Auto	The Project added traffic results in a decrease in the travel speed and results in unacceptable LOS E in the PM peak hour.	Construction of the Prado Overcrossing with Northbound Ramps would improve this condition to an acceptable level.
Segment #18: Prado Road EB - Froom Ranch Way to Higuera Street*	Ped	With construction of the Prado Overcrossing, background and project traffic volumes throughout the network are redistributed, resulting in an increase in the Ped Score on this segment to be an unacceptable LOS.	Installing an alternate parallel Class I path would mitigate this impact.

TABLE 65: NEAR TERM PLUS PROJECT MITIGATION MEASURES SUMMARY

2025 Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Segment #18: Prado Road WB - Higuera Street toFroom Ranch Way*	Ped	With construction of the Prado Overcrossing, background and project traffic volumes throughout the network are redistributed, resulting in an increase in the Ped Score on this segment to be an unacceptable LOS.	Installing an alternate parallel Class I path would mitigate this impact.
Segment #19: Froom Ranch Rd WB - Dick's Sporting Goods to Los Osos Valley Rd*	Auto	With construction of the Prado Overcrossing, background and project traffic volumes throughout the network are redistributed, resulting in a decrease in the travel speed and an unacceptable LOS.	Improvements to Intersection #9 mitigate the impact to this segment.
Segment #20: Dalidio Dr NB - Froom Ranch Way to Madonna Rd*	Ped	With construction of the Prado Overcrossing, background and project traffic volumes throughout the network are redistributed, resulting in an increase in the Ped Score on this segment to be an unacceptable LOS.	Installing an alternate parallel Class I path would mitigate this impact.

*Mitigation applies to Overcrossing scenario only.

As shown in Table 65 above, some of the mitigations required for Near Term Plus Project conditions are the same for Existing Plus Project mitigations. Table 66 presents the mitigated intersection LOS operations assuming the above mitigation measures to be in place. Table 67 presents the mitigated roadway segment LOS operations assuming the proposed mitigation measures to be in place.

TABLE 66: NEAR TERM PLUS PROJECT – MITIGATED INTERSECTION LOS

Intersection #	1						3		5		8		9					
Name	Madonna Road/Los Osos Valley Road						Madonna Road/ Dalidio Drive		Madonna Road/ US 101 SB Ramps		Higuera Street/ South Street		Los Osos Valley Road/ Froom Ranch Way					
Mode	AUTO		PED		BIKE		AUTO		AUTO		AUTO		AUTO*		PED		BIKE	
SCENARIO	v/c	LOS	v/c	LOS	v/c	LOS	v/c	LOS	Score	LOS	v/c	LOS	v/c	LOS	Score	LOS	Score	LOS
AM PEAK HOUR			NB		WB				EB						NB		EB	
Year 2025	-	C	3.11	C	3.36	C	-	A	1.22	D	-	C	-	B	3.10	C	3.42	C
Year 2025 Plus Project	-	D	3.05	C	3.39	C	-	D	-	C	-	C	-	D	3.17	C	3.60	D
Significant Impact?	No		No		No		No		No		No		No		No		No	
PM PEAK HOUR			NB						EB						NB		EB	
Year 2025	-	D	3.51	D	4.25	D	-	D	-	C	1.28	E	-	D	3.33	C	4.42	E
Year 2025 Plus Project	-	D	3.26	C	4.08	D	-	C	-	C	-	C	-	D	3.51	D	3.65	D
Significant Impact?	No		No		No		No		No		No		No		No		No	

Note: V/C Ratio is based on worst movement

*Mitigation applies to Overcrossing scenario only.

TABLE 66 (CONT'D.): NEAR TERM PLUS PROJECT – MITIGATED INTERSECTION LOS

Intersection #	15		16		21				25			
Name	S. Higuera Street/ Suburban Drive		Madonna Road/ Dalidio Drive		Dalidio Drive/ Froom Ranch Way				Dalidio Drive/ SC Project Driveway			
Mode	PED		AUTO		AUTO*		AUTO*		AUTO*		AUTO*	
SCENARIO	v/c	LOS	v/c	LOS	v/c	LOS	v/c	LOS	v/c	LOS	v/c	LOS
AM PEAK HOUR	NB				Signal		Roundabout		Signal		Roundabout	
Year 2035 Full Build	3.29	C	1.75	F	-	-	-	-	-	-	-	-
Year 2035 FB Plus Project	3.31	C	-	C	-	C	-	A	-	D	-	A
Significant Impact?	No		No		No		No		No		No	
PM PEAK HOUR	NB				Signal		Roundabout		Signal		Roundabout	
Year 2035 Full Build	3.93	D	-	C	-	-	-	-	-	-	-	-
Year 2035 FB Plus Project	3.94	D	-	C	-	C	-	B	-	C	-	B
Significant Impact?	No		No		No		No		No		No	

Note: V/C Ratio is based on worst movement

TABLE 67:
NEAR TERM PLUS PROJECT – MITIGATED SEGMENT LOS

2025 Multimodal Segment LOS				Auto Mode					Pedestrian Mode					Bicycle Mode					Transit Mode				
AM PEAK HOUR					*2025*		*2025 Plus Project*			*2025*		*2025 Plus Project*			*2025*		*2025 Plus Project*			*2025*		*2025 Plus Project*	
ID	Roadway	From	To	Direction	Auto LOS Threshold	Travel Speed (mph)	LOS	Travel Speed (mph)	LOS	**Significant Impact?**	Ped LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Bike LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Transit LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**
2	Madonna Rd	Oceanaire Dr	Dalidio	EB	D	26.9	C	20.2	D	No	C	3.79	**D**	4.01	**D**	No	D	3.56	D	3.60	D	No	D	4.71	**E**	4.70	**E**	No
6	Madonna Rd	Higuera St	US 101 NB Ramps	WB	D	11.2	**E**	11.7	**E**	No	C	3.63	**D**	3.70	**D**	No	D	3.50	D	3.51	D	No	D	4.29	**E**	4.29	**E**	No
13	Los Osos Valley	Froom Ranch Way	Madonna Rd	NB	D	21.2	C	18.8	D	No	C	3.74	**F**	3.71	**F**	No	D	3.39	C	3.39	C	No	D	4.25	D	4.24	D	No
13	Los Osos Valley	Froom Ranch Way	Madonna Rd	NB																			D	**4.25**	**D**	**4.24**	**D**	No

Note: Segment 20 transit is southbound for routes 4 and 5; Segment 21 pedestrian and bicycle service will be further evaluated using off-street facilities methodologies.

2025 Multimodal Segment LOS				Auto Mode					Pedestrian Mode					Bicycle Mode					Transit Mode				
PM PEAK HOUR					*2025*		*2025 Plus Project*			*2025*		*2025 Plus Project*			*2025*		*2025 Plus Project*			*2025*		*2025 Plus Project*	
ID	Roadway	From	To	Direction	Auto LOS Threshold	Travel Speed (mph)	LOS	Travel Speed (mph)	LOS	**Significant Impact?**	Ped LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Bike LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Transit LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**
1	Madonna Rd	Oceanaire Dr	LOVR	WB	D	11.8	**F**	18.4	D	No	C	3.86	**D**	3.78	**D**	No	D	4.13	D	4.00	D	No	D	4.28	**E**	4.27	**E**	No
2	Madonna Rd	Oceanaire Dr	Dalidio	EB	D	18.5	D	16.6	D	No	C	3.83	**D**	3.95	**D**	No	D	3.43	C	3.43	C	No	D	4.44	**E**	4.38	**E**	No
6	Madonna Rd	US 101 NB Ramps	Higuera St	EB	D	10.4	**F**	9.8	**F**	No	C	3.76	**D**	3.73	**D**	No	D	3.52	D	3.52	D	No	D	4.13	D	4.13	D	No
13	Los Osos Valley	Madonna Rd	Froom Ranch Way	SB	D	16.9	D	17.0	D	No	C	3.99	**D**	3.94	**D**	No	D	3.74	D	3.72	D	No	D	4.56	**E**	4.52	**E**	No
17	Los Osos Valley	US 101 NB Ramps	S. Higuera St	EB	D	27.0	B	16.2	D	No	C	4.27	**E**	3.75	**D**	No	D	3.40	C	3.37	C	No	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	

Note: Segment 20 transit is southbound for routes 4 and 5; Segment 21 pedestrian and bicycle service will be further evaluated using off-street facilities methodologies.

Cumulative Conditions (Year 2035)

Cumulative conditions establish the conditions that would exist due to the build-out of the City's General Plan, which is approximately twenty years out (Year 2035). A volume growth increment for all travel modes was developed for the Cumulative conditions using the San Luis Obispo City Travel Demand Model projections. Vehicular trips are determined using the City's TDM and assuming build-out of the City's General Plan without the development of the proposed project's site; i.e. the land use totals in the project's Traffic Analysis Zone were zeroed out as to not double count site trip generation.

The City's buildout circulation system is assumed to be constructed for Cumulative conditions, including the improvements listed in the Near Term conditions and the following improvements:

- A new North/South Collector between Prado Road and Tank Farm Road
- Prado Road extension to Broad Street
- Prado Road widening to four lanes with bike lanes between S. Higuera Street, and remove parking
- Madonna Road at S. Higuera Street realignment to Bridge Street
- New North/South Collector between Tank Farm Road and Prado Road
- Restrict intersection of S. Higuera Street/Vachell Lane to be right-in right-out only
- Froom Ranch Way extension to Dalidio Road
- Dalidio Road widening to 4 lanes with Class II Bike Lanes
- Prado Road Interchange configuration to be determined based on PSR work

Prado Interchange and Overcrossing Scenarios

For the purposes of this study, Cumulative conditions were analyzed for two different configurations for the Prado Road improvements: Full Build Prado Road Interchange and Prado Road Overcrossing scenarios. The peak hour traffic volumes for both scenarios were developed utilizing the City's TDM to establish the networks for the different alternatives, and used the same land use inputs for all alternatives.

Cumulative traffic volume forecasts were derived for each alternative by applying the model's volume growth increment to the existing counts. The model's growth increment is based on the peak hour intersection turning outputs between the base year (2008) model and each of the 2035 buildout models, and factored to account for growth to existing conditions (2014). Based on existing travel patterns and counts, and to balance the volumes to account for midblock driveways, manual adjustments were made where necessary. This establishes the base forecasts for each alternative, without the San Luis Ranch development. These base volumes are consistent with the projections for the PSR for the Prado Road interchange.

Cumulative Plus Project Conditions

The project generated peak hour trip volumes have been added to the derived Cumulative volumes to obtain the Cumulative Plus Project conditions. The LOS has been quantified and compared to all study intersections and roadways analyzed in Cumulative (No Project) conditions. All proposed driveway intersections have been evaluated for LOS operations, potential vehicle queuing, and pedestrian, transit, and bicycle level of service.

With the roadway improvements for Cumulative conditions in place, the trip distribution between the two interchanges will shift slightly. The trip distribution for the Cumulative condition have

been estimated using the model's select zone capabilities for the proposed project's zone, with the added roadways in place per the City's TDM. For Cumulative conditions,

The mode split for the 2035 Cumulative Plus Project conditions is determined utilizing the City's TDM outputs and existing counts. The delta between the City's TDM modes was added to the existing mode split to determine the modal split for the project's conditions under 2035 conditions. Table 69 presents the mode split summary for project-added traffic for non-recreational uses; recreational uses mode split remains that same as Existing Plus Project conditions.

TABLE 69: 2035 TRANSPORTATION MODE SPLIT

Mode/ Mode Share[1]	2035 Mode Split
Auto	94.9%
Transit	1.3%
Bike	1.1%
Pedestrian	2.7%

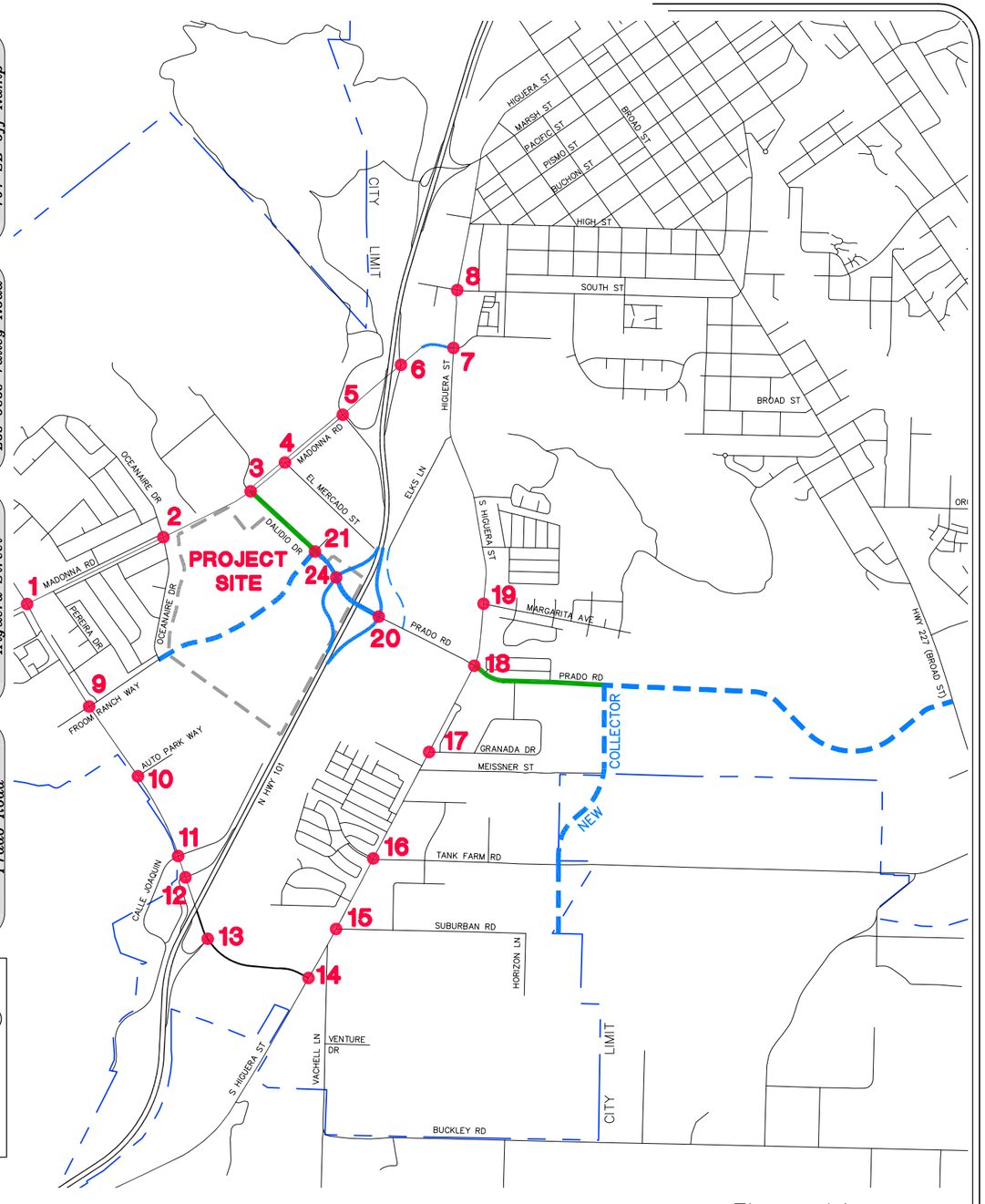
1. Mode Split for Non Parks/Recreational Uses

The San Luis Ranch development trips for the Overcrossing and Full Build Alternatives assume appropriate trip distribution and assignments based on the City Model's select zone analysis of the development for each alternative.

Year 2035 Full Build Prado Interchange Conditions

Although the Project Study Report (PSR) for the Prado Road interchange will determine the interchange configuration, the base volumes under the "Full Build" conditions analysis assume a full access diamond interchange for the purposes of this traffic impact study, along with all other roadway improvements previously listed under the "Cumulative Conditions" section of this report.

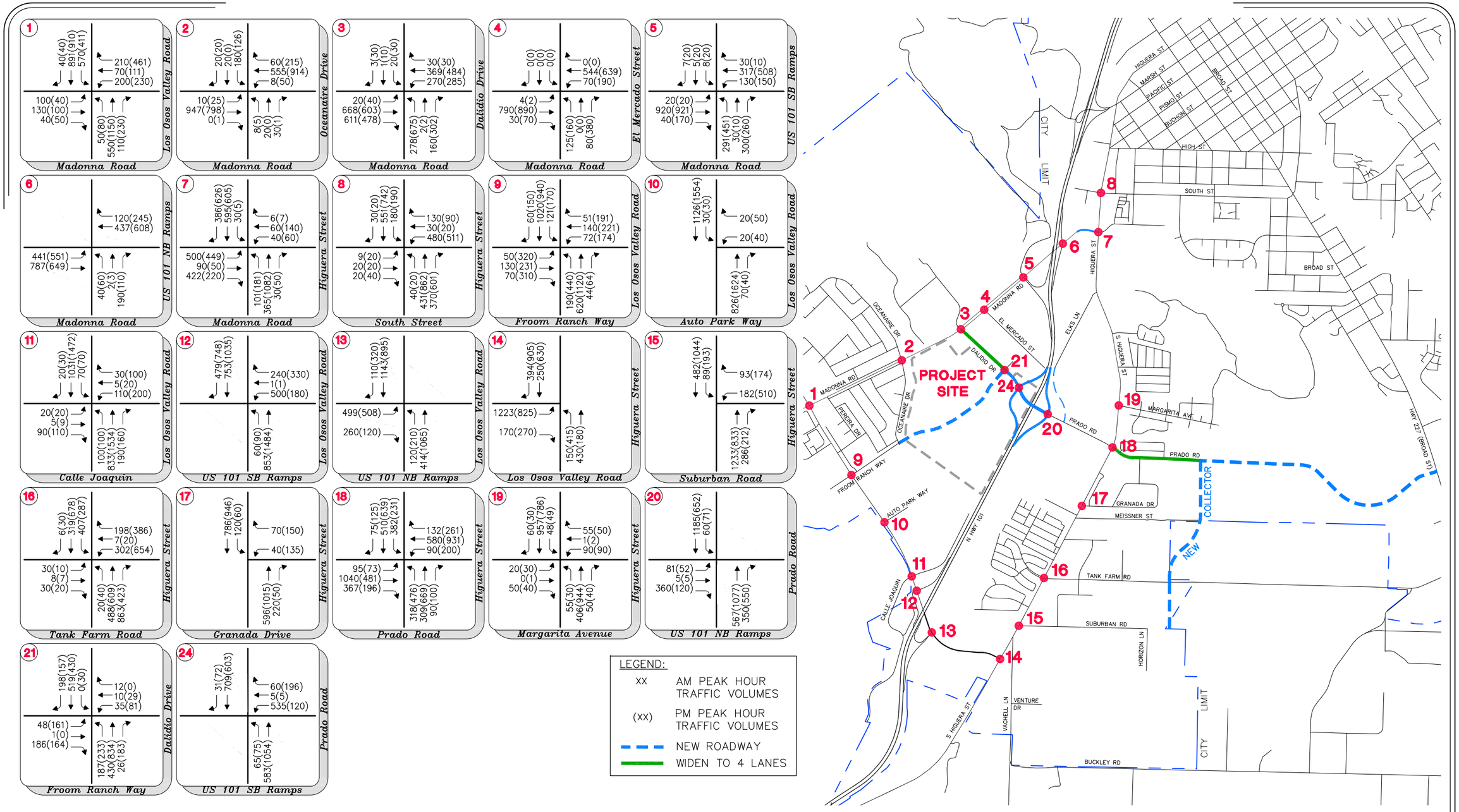
Figure 14 presents the Year 2035 Full Build Prado Road Interchange conditions lane geometrics and control, and Figure 15 presents the Year 2035 Full Build Prado Road Interchange (no project) peak hour intersection traffic volumes.



San Luis Ranch Specific Plan Multimodal TIS

Figure 14

Year 2035 Full Build Prado Road Interchange Lane Geometrics and Control



San Luis Ranch Specific Plan Multimodal TIS

Figure 15

Year 2035 Full Build Prado Road Interchange Peak Hour Traffic Volumes

Year 2035 Full Build Prado Interchange Conditions Analysis

The Year 2035 Full Build Prado Interchange conditions multimodal analysis for the study intersections and segments are presented below.

Year 2035 Full Build Prado Interchange Conditions Intersection Analysis

Table 70 provides a summary of the Year 2035 Full Build Prado Interchange conditions vehicular AM and PM peak hour intersection delay and LOS. Table 71 provides a summary of the Year 2035 Full Build Prado Interchange pedestrian AM and PM peak hour conditions at the study intersections. Table 72 provides a summary of the Year 2035 Full Build Prado Interchange bicycle AM and PM peak hour conditions at the study intersections. Table 73 provides a summary of the Year 2035 Full Build Prado Interchange conditions queuing analysis.

TABLE 70: YEAR 2035 FULL BUILD PRADO INTERCHANGE CONDITIONS INTERSECTION LEVEL OF SERVICE: AUTOMOBILE ANALYSIS

#	Intersection	Control Type[1,2]	Target LOS	AM Peak Hour			PM Peak Hour		
				v/c[3]	Delay	LOS	v/c[3]	Delay	LOS
1	Madonna Road/Los Osos Valley Road	Signal	D		32.1	C		41.3	D
2	Madonna Road/Oceanaire Drive	Signal	D		24.9	C		18.1	B
3	**Madonna Road/Dalidio Drive**	**Signal**	**D**	**5.81**	**304.2**	**F**	**8.74**	**897.8**	**F**
4	Madonna Road/El Mercado	Signal	D		13.6	B		19.1	B
5	Madonna Road/US 101 SB Ramps/Madonna	Signal	C		22.3	C		23.0	C
6	Madonna Road/US 101 NB Ramps	Signal	C		18.3	B		17.7	B
7	Madonna Road/Higuera Street	Signal	D		29.4	C		27.9	C
8	Higuera Street/South Street	Signal	D		29.9	C		40.5	D
9	**Los Osos Valley Road/Froom Ranch Way**	**Signal**	**D**		23.1	C	**1.05**	**55.9**	**E**
10	**Los Osos Valley Road/Auto Park Way**	**TWSC**	**D**		20.2	C	**0.51**	**49.4**	**E**
11	Los Osos Valley Road/Calle Joaquin	Signal	D		6.6	A		8.8	A
12	Los Osos Valley Road/US 101 SB Ramps	Signal	C		26.9	C		23.2	C
13	Los Osos Valley Road/US 101 NB Ramps	Signal	C		17.3	B		14.0	B
14	S. Higuera Street/Los Osos Valley Road	Signal	D		29.3	C		52.6	D
15	S. Higuera Street/Suburban Drive	Signal	D		13.1	B		21.4	C
16	**S. Higuera Street/Tank Farm Road**	**Signal**	**D**	**1.75**	**151.7**	**F**		23.9	C
17	S. Higuera Street/Granada Drive	Signal	D		9.8	A		11.6	B
18	S. Higuera Street/Prado Road	Signal	D		35.2	D		41.0	D
19	S. Higuera Street/Margarita Avenue	Signal	D		15.5	B		16.9	B
20	Prado Road/US 101 NB Ramps	Signal	D		12.1	B		8.6	A
21	Froom Ranch Road/Dalidio Drive/Prado Road	Signal	D		13.9	B		19.5	B
24	Prado Road/US 101 SB Ramps	Signal	D		14.6	B		9.4	A

Notes:

1. AWSC = All Way Stop Control; TWSC = Two Way Stop Control; RNDBT = Roundabout

2. LOS = Delay based on worst minor street approach for TWSC intersections, average of all approaches for AWSC, Signal,

3. Volume to Capacity Ratio (v/c) is for worst movement delay, for unacceptable LOS only

TABLE 71: YEAR 2035 FULL BUILD PRADO INTERCHANGE CONDITIONS INTERSECTION LEVEL OF SERVICE: PEDESTRIAN ANALYSIS

#	Intersection	Approach	Target LOS	AM Peak Hour Ped. Crosswalk Score	AM Peak Hour LOS	PM Peak Hour Ped. Crosswalk Score	PM Peak Hour LOS
1	Madonna Road/Los Osos Valley Road	EB	C	2.12	B	2.12	B
		WB	C	3.06	C	3.24	C
		NB	C	3.14	C	3.35	C
		SB	C	3.30	C	3.32	C
2	Madonna Road/Oceanaire Drive	EB	C	2.82	C	2.93	C
		WB	C	3.02	C	3.39	C
		NB	C	2.02	B	1.96	A
		SB	C	1.87	A	1.89	A
3	**Madonna Road/Dalidio Drive**	**EB**	**C**	**3.61**	**D**	**4.24**	**D**
		WB	C	2.98	C	2.98	C
		NB	C	2.66	B	2.71	B
		SB	C	1.99	A	2.00	A
4	Madonna Road/El Mercado	EB	C	n/a	-	n/a	-
		WB	C	3.02	C	3.10	C
		NB	C	2.34	B	2.75	B
		SB	C	1.74	A	1.74	A
5	Madonna Road/US 101 SB Ramps/Madonna Inn	EB	C	2.94	C	3.04	C
		WB	C	n/a	-	n/a	-
		NB	C	2.68	B	2.65	B
		SB	C	2.18	B	2.19	B
6	Madonna Road/US 101 NB Ramps	EB	C	n/a	-	n/a	-
		WB	C	2.76	C	2.72	B
		NB	C	2.08	B	1.95	A
		SB	C	n/a	-	n/a	-
7	Madonna Road/Higuera Street	EB	C	2.83	C	2.93	C
		WB	C	2.09	B	2.07	B
		NB	C	2.82	C	3.00	C
		SB	C	n/a	-	n/a	-
8	Higuera Street/South Street	EB	C	2.03	B	2.05	B
		WB	C	2.75	B	2.81	C
		NB	C	n/a	-	n/a	-
		SB	C	2.58	B	2.71	B
9	Los Osos Valley Road/Froom Ranch Way	EB	C	2.46	B	2.65	B
		WB	C	2.49	B	2.68	B
		NB	C	n/a	-	n/a	-
		SB	C	3.14	C	3.32	C
10	Los Osos Valley Road/Auto Park Way	EB	C	n/a	-	n/a	-
		WB	C		-		-
		NB	C		-		-
		SB	C		-		-
11	**Los Osos Valley Road/Calle Joaquin**	EB	C	2.61	B	2.46	B
		WB	C	2.21	B	2.32	B
		NB	**C**	3.07	C	**3.51**	**D**
		SB	C	3.00	C	3.31	C
12	Los Osos Valley Road/US 101 SB Ramps	EB	C	2.00	A	2.32	B
		WB	C	2.18	B	2.08	B
		NB	C	n/a	-	n/a	-
		SB	C	n/a	-	n/a	-
13	Los Osos Valley Road/US 101 NB Ramps	EB	C	2.42	B	2.37	B
		NB	C	2.77	C	2.85	C
		SB	C	n/a	-	n/a	-
14	**S. Higuera Street/Los Osos Valley Road**	**EB**	**C**	3.01	C	**3.67**	**D**
		NB	C	2.45	B	2.71	B
		SB	C	n/a	-	n/a	-
15	**S. Higuera Street/Suburban Drive**	WB	C	2.26	B	2.65	B
		NB	**C**	3.29	C	**3.93**	**D**
		SB	C	2.88	C	2.98	C
16	S. Higuera Street/Tank Farm Road	EB	C	2.03	B	2.02	B
		WB	C	2.96	C	3.25	C
		NB	C	3.44	C	3.33	C
		SB	C	2.77	C	2.93	C
17	S. Higuera Street/Granada Drive	WB	C	2.17	B	2.24	B
		NB	C	n/a	-	n/a	-
		SB	C	2.76	C	2.95	C
18	S. Higuera Street/Prado Road	EB	C	3.18	C	3.16	C
		WB	C	3.08	C	3.19	C
		NB	C	3.08	C	3.37	C
		SB	C	3.02	C	3.11	C
19	S. Higuera Street/Margarita Avenue	EB	C	2.33	B	2.07	B
		WB	C	2.16	B	2.14	B
		NB	C	2.96	C	3.05	C
		SB	C	2.83	C	2.95	C
20	Prado Road/US 101 NB Ramps	EB	C	2.02	B	1.97	A
		WB	C	1.86	A	2.08	A
		NB	C	3.10	C	3.11	A
		SB	C	2.71	B	2.70	A
21	Froom Ranch Road/Dalidio Drive/Prado Road	EB	C	2.40	B	2.41	A
		WB	C	1.77	A	1.89	A
		NB	C	2.59	B	2.73	A
		SB	C	2.80	C	2.87	A
24	Prado Road/US 101 SB Ramps	EB	C	n/a	-	n/a	-
		WB	C	2.22	B	2.15	A
		NB	C	2.71	B	2.70	A
		SB	C	2.61	B	2.74	A

Notes:

HCM 2010 Methodologies do not model segments bounded by all-way stop control. Procedures have not been developed yet to address the effect of all-way stop control or yield control on intersection performance from a pedestrian or bicyce perspective.

HCM 2010 Methodologies for the pedestrian mode at two-way stop-controlled intersections is limited to the uncontrolled crossing. No methodology exists for evaluating pedestrian performance for the stop controlled approach (cross-street). However, it is reasoned that this type of control has negligible influence on pedestrian service along the segment.

TABLE 72: YEAR 2035 FULL BUILD PRADO INTERCHANGE CONDITIONS INTERSECTION LEVEL OF SERVICE: BICYCLE ANALYSIS

#	Intersection	Approach	Target LOS	AM Peak Hour Bicycle LOS Score	AM Peak Hour Bicycle LOS LOS	PM Peak Hour Bicycle LOS Score	PM Peak Hour Bicycle LOS LOS
1	Madonna Road/Los Osos Valley Road	EB	D	3.31	C	3.15	C
		WB	D	3.60	D	4.12	D
		NB	D	1.69	A	2.10	B
		SB	D	2.94	C	2.76	C
2	Madonna Road/Oceanaire Drive	EB	D	2.92	C	2.82	C
		WB	D	1.21	A	1.71	A
		NB	D	2.83	C	2.73	B
		SB	D	2.32	B	2.25	B
3	Madonna Road/Dalidio Drive	EB	D	2.35	B	2.08	B
		WB	D	1.53	A	1.57	A
		NB	D	2.64	B	3.48	C
		SB	D	1.79	A	1.86	A
4	Madonna Road/El Mercado	EB	D	1.63	A	1.65	A
		WB	D	1.68	A	1.76	A
		NB	D	3.41	C	3.94	D
		SB	D	3.03	C	3.03	C
5	Madonna Road/US 101 SB Ramps/Madonna Inn	EB	D	1.87	A	1.90	A
		WB	D	1.56	A	1.65	A
		NB	D	n/a	-	n/a	-
		SB	D	2.91	C	2.98	C
6	Madonna Road/US 101 NB Ramps	EB	D	2.32	B	2.14	B
		WB	D	1.59	A	1.76	A
		NB	D	n/a	-	n/a	-
7	Madonna Road/Higuera Street	EB	D	3.05	C	2.47	B
		WB	D	2.60	B	2.77	C
		NB	D	1.81	A	2.52	B
		SB	D	2.36	B	2.53	B
8	Higuera Street/South Street	EB	D	2.71	B	2.77	C
		WB	D	2.69	B	2.69	B
		NB	D	2.96	C	3.55	D
		SB	D	1.78	A	1.98	A
9	**Los Osos Valley Road/Froom Ranch Way**	**EB**	**D**	3.54	D	**4.57**	**E**
		WB	D	2.15	B	3.01	C
		NB	D	1.82	A	2.24	B
		SB	D	1.91	A	1.91	A
10	Los Osos Valley Road/Auto Park Way	EB	D	n/a	-	n/a	-
		WB	D		-		-
		NB	D		-		-
		SB	D		-		-
11	Los Osos Valley Road/Calle Joaquin	EB	D	3.09	C	3.11	C
		WB	D	3.20	C	3.48	C
		NB	D	1.62	A	2.12	B
		SB	D	0.60	A	0.91	A
12	Los Osos Valley Road/US 101 SB Ramps	WB	D	n/a	-	n/a	-
		NB	D	2.84	C	3.43	C
		SB	D	1.81	A	2.30	B
13	Los Osos Valley Road/US 101 NB Ramps	EB	D	n/a	-	n/a	-
		NB	D	1.66	A	2.28	B
		SB	D	2.91	C	2.86	C
14	S. Higuera Street/Los Osos Valley Road	EB	D	2.26	B	1.99	A
		NB	D	2.30	B	2.32	B
		SB	D	2.40	B	3.93	D
15	S. Higuera Street/Suburban Drive	WB	D	1.15	A	1.84	A
		NB	D	2.55	B	2.10	B
		SB	D	1.75	A	2.31	B
16	S. Higuera Street/Tank Farm Road	EB	D	2.72	B	2.66	B
		WB	D	2.40	B	3.32	C
		NB	D	2.47	B	2.17	B
		SB	D	1.89	A	2.09	B
17	S. Higuera Street/Granada Drive	WB	D	2.70	B	3.00	C
		NB	D	1.91	A	2.13	B
		SB	D	2.12	B	2.22	B
18	S. Higuera Street/Prado Road	EB	D	2.03	B	2.64	B
		WB	D	1.94	A	3.74	D
		NB	D	1.87	A	2.33	B
		SB	D	2.09	B	2.10	B
19	S. Higuera Street/Margarita Avenue	EB	D	2.54	B	2.54	B
		WB	D	2.77	C	2.76	C
		NB	D	1.75	A	2.19	B
		SB	D	2.32	B	2.15	B
20	Prado Road/US 101 NB Ramps	EB	D	n/a	-	n/a	-
		WB	D	n/a	-	n/a	-
		NB	D	1.49	A	2.13	A
		SB	D	2.00	A	1.54	A
21	Froom Ranch Road/Dalidio Drive/Prado Road	EB	D	1.84	A	2.00	A
		WB	D	2.76	C	2.87	A
		NB	D	1.43	A	1.98	A
		SB	D	1.69	A	1.61	A
24	Prado Road/US 101 SB Ramps	EB	D	n/a	-	n/a	-
		WB	D	n/a	-	n/a	-
		NB	D	1.62	A	2.05	A
		SB	D	1.34	A	1.29	A

Notes:

HCM 2010 Methodologies do not model segments bounded by all-way stop control. Procedures have not been developed yet to address the effect of all-way stop control or yield control on intersection performance from a pedestrian or bicyce perspective.

No methodology exists for evaluating bicycle performance at two-way stop-controlled intersections. However, it is reasoned that this type of control has negligible influence on bicycle service along the segment for stop controll on the cross-street.

TABLE 73: YEAR 2035 FULL BUILD PRADO INTERCHANGE CONDITIONS 95TH PERCENTILE QUEUING ANALYSIS

Intersection					95th Percentile Queue/Lane (ft)	
ID	Location	Movement	No. Lanes	Total Storage (ft)[1]	AM Peak Hour	PM Peak Hour
1	Madonna Road/Los Osos Valley Road	Northbound Left	1	200	74	**220**
		Northbound Right	1	175	98	**187**
2	Madonna	Westbound Right	1	100	70	**123**
3	Madonna Road/Dalidio Drive	Eastbound Left	1	115	**119**	**121**
		Westbound Left	1	275	**317**	**353**
		Westbound Through/Right	3	570	186	**661**
		Northbound Right	1	150	100	**153**
4	Madonna Road/El	Westbound Left	2	260	73	**522**
5	Madonna Road/US 101	Westbound Left	1	260	168	**428**
7	Madonna Road/Higuera Street	Eastbound Right	1	150	**173**	**156**
		Northbound Left	1	160	125	**277**
		Southbound Left/Through	2	250	**259**	**470**
8	Higuera Street/South Street	Westbound Left	2	240	**257**	**556**
		Northbound Left	1	60	**74**	**89**
		Northbound Through	2	380	215	**841**
		Northbound Right	1	60	**156**	**170**
		Southbound Left	1	70	**114**	**114**
9	Los Osos Valley Road/Froom Ranch	Westbound Right	1	50	**82**	**98**
		Southbound Left	2	200	**210**	**291**
11	Los Osos Valley Road/Calle Joaquin	Eastbound Right	1	260	**401**	171
		Northbound Left	1	115	92	**120**
		Southbound Left	1	80	**148**	**104**
		Southbound Through	2		**1574**	**705**
		Southbound Right	1	80	**95**	**90**
12	Los Osos Valley Road/US 101 SB Ramps	Westbound Left	1	180	**274**	**204**
		Southbound Through	1	240	**351**	**351**
		Southbound Right	1	125	**286**	**182**
13	Los Osos Valley Road/US 101 NB	Southbound Through	1	865	**1295**	270
		Southbound Right	1	130	**280**	**165**
14	S. Higuera Street/Los Osos Valley Road	Eastbound Right	1	90	**211**	**183**
		Northbound Left	1	160	144	**242**
15	S. Higuera Street/Suburban Drive	Westbound Right	1	170	66	**308**
		Southbound Left	1	200	**316**	**312**
16	S. Higuera Street/Tank Farm Road	Westbound Right	1	250	23	**329**
		Northbound Right	1	100	**185**	**180**
		Southbound Left	1	165	**258**	**259**
17	S. Higuera	Southbound Left	1	80	**104**	77
18	S. Higuera Street/Prado Road	Eastbound Left	1	150	**167**	66
		Eastbound Right	1	140	**229**	115
		Westbound Left	1	105	**107**	**211**
		Westbound Right	1	100	98	**247**
		Northbound Left	1	100	**172**	**192**
		Southbound Left	2	60	**184**	**192**
19	S. Higuera Street/Margarita Avenue	Northbound Left	1	60	**80**	**83**
		Southbound Left	1	60	**84**	**87**
20	Prado Road/US 101 NB Ramps	Northbound Right	1	150	117	**156**

Notes: ***1. Bolded entries indicate queues exceed available storage***

2. Storage Length of " - " represents a lane which exceeds 1,000 feet, usually a through lane.

3. For Movements with more than one lane, the maximum of the 95th percentile queue is reported.

4. * Represents storage lengths for one lane; second lane is a left or right trap lane.

As shown in Table 70 above, the intersection of Madonna Road/Dalidio Drive, Los Osos Valley Road/Froom Ranch Way, Los Osos Valley Road/Auto Park Way, S. Higuera Street/Tank Farm Road are projected to operate at unacceptable conditions during 2035 Full Build Prado Interchange conditions. Pedestrian analysis shows acceptable conditions at the study intersections. Bicycle analysis shows deficiencies at Los Osos Valley Road/Froom Ranch Way. Queuing analysis results to be completed.

Year 2035 Full Build Prado Interchange Conditions Segment Analysis

Table 74 provides a summary of the Year 2035 Full Build Prado Interchange vehicular AM and PM peak hour conditions for the study segments. Table 75 provides a summary of the Year 2035 Full Build Prado Interchange pedestrian AM and PM peak hour conditions for the study segments. Table 76 provides a summary of the Year 2035 Full Build Prado Interchange bicycle AM and PM peak hour conditions for the study segments. Table 77 provides a summary of the Year 2035 Full Build Prado Interchange transit AM and PM peak hour conditions for the study segments. Table 78 provides a summary of the Year 2035 Full Build Prado Interchange freeway segments analysis for AM and PM peak hour conditions for the study segments along US 101.

TABLE 74: YEAR 2035 FULL BUILD PRADO INTERCHANGE CONDITIONS SEGMENT LEVEL OF SERVICE: AUTOMOBILE ANALYSIS

AUTO SEGMENT LOS						AM PEAK				PM PEAK		
ID	Roadway	From	To	Direction	LOS Threshold	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/ BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/ BFFS (%)
1	**Madonna Rd**	**Oceanaire Dr**	**LOVR**	**WB**	**C**	**20.7**	**42.1**	**49%**	**D**	**15.7**	**42.1**	**37%**
	Madonna Rd	LOVR	Oceanaire Dr	EB	C	25.6	42.1	61%	C	28.2	42.1	67%
2	Madonna Rd	Dalidio	Oceanaire Dr	WB	C	22.5	40.8	55%	C	23.9	40.7	59%
	Madonna Rd	**Oceanaire Dr**	**Dalidio**	**EB**	**C**	**12.3**	**40.7**	**30%**	**E**	**6.5**	**40.8**	**16%**
3	**Madonna Rd**	**El Mercado**	**Dalidio Dr**	**WB**	**C**	**17.0**	**34.1**	**50%**	**D**	**12.4**	**34.8**	**36%**
	Madonna Rd	**Dalidio Dr**	**El Mercado**	**EB**	**C**	26.5	38.2	69%	B	**13.3**	**34.6**	**38%**
4	Madonna Rd	US 101 SB Ramps	El Mercado	WB	C	27.9	37.9	74%	B	22.0	37.3	59%
	Madonna Rd	El Mercado	US 101 SB Ramps	EB	C	21.1	37.8	56%	C	20.3	37.7	54%
5	Madonna Rd	US 101 NB Ramps	US 101 SB Ramps	WB	C	25.9	37.8	68%	B	25.3	37.8	67%
	Madonna Rd	US 101 SB Ramps	US 101 NB Ramps	EB	C	33.4	37.8	88%	A	33.6	37.8	89%
6	**Madonna Rd**	**Higuera St**	**US 101 NB Ramps**	**WB**	**C**	**18.4**	**37.2**	**49%**	**D**	19.4	37.2	52%
	Madonna Rd	**US 101 NB Ramps**	**Higuera St**	**EB**	**C**	**12.8**	**37.2**	**35%**	**E**	**10.9**	**37.2**	**29%**
7	S. Higuera St	Madonna Rd	Margarita Ave	SB	C	34.0	44.5	76%	B	34.4	44.5	77%
	S. Higuera St	Margarita Ave	Madonna Rd	NB	C	31.9	44.8	71%	B	29.8	44.8	66%
8	**S. Higuera St**	**Margarita Ave**	**Prado Rd**	**SB**	**C**	**10.7**	**38.9**	**28%**	**F**	**9.7**	**38.9**	**25%**
	S. Higuera St	**Prado Rd**	**Margarita Ave**	**NB**	**C**	22.2	38.9	57%	C	**17.0**	**38.9**	**44%**
9	S. Higuera St	Prado Rd	Granada Dr	SB	C	31.9	41.8	76%	B	30.0	41.8	72%
	S. Higuera St	**Granada Dr**	**Prado Rd**	**NB**	**C**	**16.7**	**41.9**	**40%**	**E**	**15.7**	**41.9**	**38%**
10	S. Higuera St	Granada Dr	Tank Farm Road	SB	C	40.3	41.6	97%	A	25.3	42.6	59%
	S. Higuera St	Tank Farm Road	Granada Dr	NB	C	29.0	41.6	70%	B	26.5	42.6	62%
11	S. Higuera St	Tank Farm Road	Suburban Drive	SB	C	25.9	42.4	61%	C	22.7	41.2	55%
	S. Higuera St	**Suburban Drive**	**Tank Farm Road**	**NB**	**C**	**16.2**	**42.5**	**38%**	**E**	**16.6**	**41.3**	**40%**
12	**S. Higuera St**	**Suburban Drive**	**Los Osos Valley Road**	**SB**	**C**	**19.5**	**42.1**	**46%**	**D**	**6.3**	**39.1**	**16%**
	S. Higuera St	**Los Osos Valley Road**	**Suburban Drive**	**NB**	**C**	**18.2**	**42.0**	**43%**	**D**	**18.9**	**39.0**	**49%**
13	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**C**	23.0	41.9	55%	C	**13.7**	**41.8**	**33%**
	Los Osos Valley	**Froom Ranch Way**	**Madonna Rd**	**NB**	**C**	**19.5**	**41.8**	**47%**	**D**	**16.5**	**41.8**	**40%**
14	Los Osos Valley	Froom Ranch Way	Calle Joaquin	SB	C	31.7	43.0	74%	B	28.3	43.0	66%
	Los Osos Valley	**Calle Joaquin**	**Froom Ranch Way**	**NB**	**C**	29.2	43.2	68%	B	**19.4**	**43.2**	**45%**
15	**Los Osos Valley**	**Calle Joaquin**	**US 101 SB Ramps**	**SB**	**C**	**8.1**	**32.1**	**25%**	**F**	17.6	32.1	55%
	Los Osos Valley	**US 101 SB Ramps**	**Calle Joaquin**	**NB**	**C**	16.5	31.1	53%	C	**14.7**	**31.1**	**47%**
16	Los Osos Valley	US 101 SB Ramps	US 101 NB Ramps	SB	C	21.0	37.7	56%	C	22.2	37.7	59%
	Los Osos Valley	US 101 NB Ramps	US 101 SB Ramps	NB	C	32.9	37.4	88%	A	32.4	37.4	87%
17	Los Osos Valley	S. Higuera St	US 101 NB Ramps	WB	C	29.1	39.2	74%	B	26.5	39.2	68%
	Los Osos Valley	**US 101 NB Ramps**	**S. Higuera St**	**EB**	**C**	**13.5**	**39.4**	**34%**	**E**	**14.6**	**39.4**	**37%**
18	Prado Rd	S. Higuera St	US 101 NB Ramps	WB	C	26.1	39.1	67%	C	26.7	39.1	68%
	Prado Rd	**US 101 NB Ramps**	**S. Higuera St**	**EB**	**C**	**15.9**	**38.9**	**41%**	**D**	19.5	38.9	50%
19	**Froom Ranch Way**	**Dick's Sporting Goods Dwy**	**Los Osos Valley**	**WB**	**C**	**14.9**	**37.7**	**39%**	**E**	**10.4**	**37.7**	**28%**
	Froom Ranch Way	Los Osos Valley	Dick's Sporting Goods Dwy	EB	C	35.4	38.0	93%	A	34.9	38.0	92%
20	**Dalidio Dr**	**Madonna Rd**	**Frrom Ranch Way**			-	-	-	-	-	-	-
	Dalidio Dr	**Frrom Ranch Way**	**Madonna Rd**	**NB**	**C**	**0.3**	**37.7**	**1%**	**F**	**0.2**	**37.7**	**1%**
21	Froom Ranch Way	Dalidio	Dick's Sporting Goods Dwy	WB	C	39.4	40.8	97%	A	39.1	40.6	96%
	Froom Ranch Way	Dick's Sporting Goods Dwy	Dalidio	EB	C	28.0	40.7	69%	B	25.8	40.8	63%
22	Prado Road	US 101 SB Ramps	US 101 NB Ramps	SB	C	20.3	31.6	64%	C	21.8	31.6	69%
	Prado Road	US 101 NB Ramps	US 101 SB Ramps	NB	C	21.7	31.6	69%	B	21.1	31.6	67%
23	**Prado Road**	**Froom Ranch Way**	**US 101 SB Ramps**	**SB**	**C**	**16.0**	**33.7**	**48%**	**D**	17.4	33.7	52%
	Prado Road	**US 101 SB Ramps**	**Froom Ranch Way**	**NB**	**C**	18.4	33.7	55%	C	**12.6**	**33.7**	**37%**
24	**Dalido Dr**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**C**	**11.6**	**32.6**	**36%**	**E**	**10.9**	**31.9**	**34%**
	Dalido Dr	**Froom Ranch Way**	**Madonna Rd**			-	-	-	-	-	-	-

Note: Segment 20 SB will be compared to Segment 24 SB

TABLE 75: YEAR 2035 FULL BUILD PRADO INTERCHANGE CONDITIONS SEGMENT LEVEL OF SERVICE: PEDESTRIAN ANALYSIS

PEDESTRIAN SEGMENT LOS							AM PEAK		PM PEAK	
ID	Roadway	From	To	Direction	LOS Threshold	Average Ped. Space (ft^2/p)	SEGMENT SCORE	LOS	SEGMENT SCORE	LOS
1	**Madonna Rd**	**Oceanaire Dr**	**LOVR**	**WB**	**C**	**6090**	**3.63**	**D**	**3.82**	**D**
	Madonna Rd	**LOVR**	**Oceanaire Dr**	**EB**	**C**	**17482**	**4.07**	**D**	**4.04**	**D**
2	**Madonna Rd**	**Dalidio**	**Oceanaire Dr**	**WB**	**C**	**84000**	**3.64**	**D**	**3.96**	**D**
	Madonna Rd	**Oceanaire Dr**	**Dalidio**	**EB**	**C**	**26250**	**4.06**	**D**	**4.15**	**D**
3	**Madonna Rd**	**El Mercado**	**Dalidio Dr**	**WB**	**C**	**37450**	3.45	C	**3.66**	**D**
	Madonna Rd	**Dalidio Dr**	**El Mercado**	**EB**	**C**	**52920**	**3.61**	**D**	**3.70**	**D**
4	**Madonna Rd**	**US 101 SB Ramps**	**El Mercado**	**WB**	**C**	**26250**	**3.59**	**D**	**3.65**	**D**
	Madonna Rd	**El Mercado**	**US 101 SB Ramps**	**EB**	**C**	**27915**	**3.65**	**D**	**3.71**	**D**
5	**Madonna Rd**	**US 101 NB Ramps**	**US 101 SB Ramps**	**WB**	**C**	**No Peds**	**3.60**	**D**	**3.68**	**F**
	Madonna Rd	**US 101 SB Ramps**	**US 101 NB Ramps**	**EB**	**C**	**No Peds**	**3.88**	**D**	**3.86**	**D**
6	**Madonna Rd**	**Higuera St**	**US 101 NB Ramps**	**WB**	**C**	**25200**	**3.57**	**D**	**3.68**	**D**
	Madonna Rd	**US 101 NB Ramps**	**Higuera St**	**EB**	**C**	**19838**	**3.75**	**D**	**3.66**	**D**
7	**S. Higuera St**	**Madonna Rd**	**Margarita Ave**	**SB**	**C**	**23247**	3.17	C	**3.88**	**D**
	S. Higuera St	**Margarita Ave**	**Madonna Rd**	**NB**	**C**	**5398**	**3.69**	**D**	**3.99**	**D**
8	**S. Higuera St**	**Margarita Ave**	**Prado Rd**	**SB**	**C**	**40979**	**3.77**	**D**	**3.81**	**D**
	S. Higuera St	**Prado Rd**	**Margarita Ave**	**NB**	**C**	**21700**	**3.60**	**D**	**3.82**	**D**
9	**S. Higuera St**	**Prado Rd**	**Granada Dr**	**SB**	**C**	**9292**	**3.72**	**D**	**3.81**	**D**
	S. Higuera St	**Granada Dr**	**Prado Rd**	**NB**	**C**	**8400**	3.35	C	**3.63**	**D**
10	**S. Higuera St**	**Granada Dr**	**Tank Farm Road**	**SB**	**C**	**46305**	**3.66**	**D**	**3.81**	**D**
	S. Higuera St	Tank Farm Road	Granada Dr	NB	C	49140	3.26	C	3.41	C
11	**S. Higuera St**	**Tank Farm Road**	**Suburban Drive**	**SB**	**C**	**12600**	**3.63**	**D**	**3.91**	**D**
	S. Higuera St	**Suburban Drive**	**Tank Farm Road**	**NB**	**C**	**31500**	**3.69**	**D**	**3.53**	**D**
12	**S. Higuera St**	**Suburban Drive**	**Los Osos Valley Road**	**SB**	**C**	**39312**	**3.59**	**D**	**3.93**	**D**
	S. Higuera St	**Los Osos Valley Road**	**Suburban Drive**	**NB**	**C**	**43533**	**4.07**	**D**	**4.04**	**D**
13	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**C**	**21833**	**3.95**	**D**	**4.02**	**D**
	Los Osos Valley	**Froom Ranch Way**	**Madonna Rd**	**NB**	**C**	**0**	**3.75**	**F**	**4.09**	**F**
14	**Los Osos Valley**	**Froom Ranch Way**	**Calle Joaquin**	**SB**	**C**	**27300**	**3.87**	**D**	**4.12**	**D**
	Los Osos Valley	**Calle Joaquin**	**Froom Ranch Way**	**NB**	**C**	**22050**	**3.76**	**D**	**4.07**	**D**
15	**Los Osos Valley**	**Calle Joaquin**	**US 101 SB Ramps**	**SB**	**C**	**No Peds**	**3.77**	**D**	**3.80**	**F**
	Los Osos Valley	**US 101 SB Ramps**	**Calle Joaquin**	**NB**	**C**	**63000**	**3.72**	**D**	**4.12**	**D**
16	**Los Osos Valley**	**US 101 SB Ramps**	**US 101 NB Ramps**	**SB**	**C**	**No Peds**	**3.93**	**D**	**3.98**	**D**
	Los Osos Valley	**US 101 NB Ramps**	**US 101 SB Ramps**	**NB**	**C**	**53928**	**3.81**	**D**	3.34	C
17	**Los Osos Valley**	**S. Higuera St**	**US 101 NB Ramps**	**WB**	**C**	**1680**	**3.86**	**D**	**4.50**	**E**
	Los Osos Valley	**US 101 NB Ramps**	**S. Higuera St**	**EB**	**C**	**39393**	**3.91**	**D**	**3.89**	**D**
18	**Prado Rd**	**S. Higuera St**	**US 101 NB Ramps**	**WB**	**C**	**7255**	**3.81**	**D**	**4.08**	**D**
	Prado Rd	**US 101 NB Ramps**	**S. Higuera St**	**EB**	**C**	**4774**	**4.08**	**D**	**3.76**	**F**
19	**Froom Ranch Way**	**Dick's Sporting Goods Dwy**	**Los Osos Valley**	**WB**	**C**	**No Peds**	3.47	C	**3.80**	**D**
	Froom Ranch Way	Los Osos Valley	Dick's Sporting Goods Dwy	EB	C	75600	1.87	A	1.97	A
20	Dalidio Dr	Madonna Rd	Frrom Ranch Way				-	-	-	-
	Dalidio Dr	Frrom Ranch Way	Madonna Rd	NB	C	63000	3.20	C	3.49	C
21	Froom Ranch Way	Dalidio	Dick's Sporting Goods Dwy	WB	C	No Peds	1.73	A	1.74	A
	Froom Ranch Way	Dick's Sporting Goods Dwy	Dalidio	EB	C	No Peds	3.22	C	3.30	C
22	**Prado Road**	**US 101 SB Ramps**	**US 101 NB Ramps**	**SB**	**C**	**7350**	**3.73**	**D**	**3.51**	**D**
	Prado Road	**US 101 NB Ramps**	**US 101 SB Ramps**	**NB**	**C**	**4900**	3.48	C	**3.68**	**D**
23	Prado Road	Froom Ranch Way	US 101 SB Ramps	SB	C	10500	3.29	C	3.30	C
	Prado Road	**US 101 SB Ramps**	**Froom Ranch Way**	**NB**	**C**	**7000**	3.24	C	**3.54**	**D**
24	Dalido Dr	Madonna Rd	Froom Ranch Way	SB	C	63000	3.32	C	3.29	C
	Dalido Dr	Froom Ranch Way	Madonna Rd				-	-	-	-

Notes:

Sidewalk is present along frontage roads for segments #1 - Madonna Road and #13 - Los Osos Valley Road, and is not accounted for in this analysis.

HCM 2010 Methodologies do not model segments bounded by all-way stop control. Procedures have not been developed yet to address the effect of all-way stop control or yield control on intersection performance from a pedestrian or bicyce perspective. No methodology exists for evaluating two-way stop-controlled interesction performance (with the cross-street stop controlled) for pedestrians and bicycles. However, it is reasoned that it has negligible influence on pedestrian sevice along the segment.

TABLE 76: YEAR 2035 FULL BUILD PRADO INTERCHANGE CONDITIONS SEGMENT LEVEL OF SERVICE: BICYCLE ANALYSIS

BICYCLE SEGMENT LOS						AM PEAK		PM PEAK	
ID	Roadway	From	To	Direction	LOS Threshold	SEGMENT SCORE	LOS	SEGMENT SCORE	LOS
1	Madonna Rd	Oceanaire Dr	LOVR	WB	D	3.71	D	4.03	D
	Madonna Rd	LOVR	Oceanaire Dr	EB	D	3.79	D	3.76	D
2	Madonna Rd	Dalidio	Oceanaire Dr	WB	D	3.16	C	3.23	C
	Madonna Rd	Oceanaire Dr	Dalidio	EB	D	3.60	D	3.43	C
3	Madonna Rd	El Mercado	Dalidio Dr	WB	D	3.29	C	3.17	C
	Madonna Rd	Dalidio Dr	El Mercado	EB	D	3.36	C	3.39	C
4	**Madonna Rd**	**US 101 SB Ramps**	**El Mercado**	**WB**	**D**	3.94	D	**4.30**	**E**
	Madonna Rd	El Mercado	US 101 SB Ramps	EB	D	3.60	D	3.61	D
5	Madonna Rd	US 101 NB Ramps	US 101 SB Ramps	WB	D	3.28	C	3.32	C
	Madonna Rd	US 101 SB Ramps	US 101 NB Ramps	EB	D	3.31	C	3.29	C
6	Madonna Rd	Higuera St	US 101 NB Ramps	WB	D	3.48	C	3.53	D
	Madonna Rd	US 101 NB Ramps	Higuera St	EB	D	3.60	D	3.47	C
7	S. Higuera St	Madonna Rd	Margarita Ave	SB	D	3.92	D	3.89	D
	S. Higuera St	Margarita Ave	Madonna Rd	NB	D	4.09	D	4.22	D
8	S. Higuera St	Margarita Ave	Prado Rd	SB	D	3.67	D	3.68	D
	S. Higuera St	Prado Rd	Margarita Ave	NB	D	3.93	D	4.00	D
9	S. Higuera St	Prado Rd	Granada Dr	SB	D	3.90	D	3.92	D
	S. Higuera St	Granada Dr	Prado Rd	NB	D	3.47	C	3.55	D
10	S. Higuera St	Granada Dr	Tank Farm Road	SB	D	4.15	D	4.19	D
	S. Higuera St	Tank Farm Road	Granada Dr	NB	D	3.52	D	3.56	D
11	S. Higuera St	Tank Farm Road	Suburban Drive	SB	D	3.34	C	3.44	C
	S. Higuera St	Suburban Drive	Tank Farm Road	NB	D	3.48	C	3.42	C
12	S. Higuera St	Suburban Drive	Los Osos Valley Road	SB	D	3.24	C	3.73	D
	S. Higuera St	Los Osos Valley Road	Suburban Drive	NB	D	3.96	D	3.88	D
13	Los Osos Valley	Madonna Rd	Froom Ranch Way	SB	D	3.74	D	3.74	D
	Los Osos Valley	Froom Ranch Way	Madonna Rd	NB	D	3.39	C	3.47	C
14	Los Osos Valley	Froom Ranch Way	Calle Joaquin	SB	D	3.57	D	3.60	D
	Los Osos Valley	Calle Joaquin	Froom Ranch Way	NB	D	3.83	D	3.90	D
15	Los Osos Valley	Calle Joaquin	US 101 SB Ramps	SB	D	3.31	C	3.38	C
	Los Osos Valley	US 101 SB Ramps	Calle Joaquin	NB	D	3.56	D	3.63	D
16	Los Osos Valley	US 101 SB Ramps	US 101 NB Ramps	SB	D	3.73	D	3.72	D
	Los Osos Valley	US 101 NB Ramps	US 101 SB Ramps	NB	D	3.69	D	3.88	D
17	Los Osos Valley	S. Higuera St	US 101 NB Ramps	WB	D	3.42	C	3.45	C
	Los Osos Valley	US 101 NB Ramps	S. Higuera St	EB	D	3.31	C	3.35	C
18	Prado Rd	S. Higuera St	US 101 NB Ramps	WB	D	4.01	D	4.09	D
	Prado Rd	US 101 NB Ramps	S. Higuera St	EB	D	3.99	D	4.01	D
19	Froom Ranch Way	Dick's Sporting Goods Dw	Los Osos Valley	WB	D	3.44	C	3.66	D
	Froom Ranch Way	Los Osos Valley	Dick's Sporting Goods Dw	EB	D	3.49	C	3.56	D
20	**Dalidio Dr**	**Madonna Rd**	**Frrom Ranch Way**			-	-	-	-
	Dalidio Dr	Frrom Ranch Way	Madonna Rd	NB	D	3.51	D	3.80	D
21	Froom Ranch Way	Dalidio	Dick's Sporting Goods Dw	WB	D	2.62	B	3.02	C
	Froom Ranch Way	Dick's Sporting Goods Dw	Dalidio	EB	D	3.73	D	3.77	D
22	Prado Road	US 101 SB Ramps	US 101 NB Ramps	SB	D	3.25	C	3.18	C
	Prado Road	US 101 NB Ramps	US 101 SB Ramps	NB	D	3.18	C	3.25	C
23	Prado Road	Froom Ranch Way	US 101 SB Ramps	SB	D	3.21	C	3.20	C
	Prado Road	**US 101 SB Ramps**	**Froom Ranch Way**	**NB**	**D**	3.21	C	**5.24**	**F**
24	Dalido Dr	Madonna Rd	Froom Ranch Way	SB	D	3.98	D	3.97	D
	Dalido Dr	**Froom Ranch Way**	**Madonna Rd**			-	-	-	-

Notes:
HCM 2010 Methodologies do not model segments bounded by all-way stop control. Procedures have not been developed yet to address the effect of all-way stop control or yield control on intersection performance from a pedestrian or bicyce perspective. No methodology exists for evaluating two-way stop-controlled interesction performance (with the cross-street stop controlled) for pedestrians and bicycles. However, it is incorporated into the methodology for evaluateing bicycle segment performance.

Segment 20 SB will be compared to Segment 24 SB

TABLE 77:
YEAR 2035 FULL BUILD PRADO INTERCHANGE CONDITIONS SEGMENT LEVEL OF SERVICE: TRANSIT ANALYSIS

	TRANSIT LOS						AM PEAK		PM PEAK	
ID	Roadway	From	To	Direction	LOS Threshold	Route Name	SEGMENT SCORE	LOS	SEGMENT SCORE	LOS
1	**Madonna Rd**	**Oceanaire Dr**	**LOVR**	**WB**	**D**	**Ruote 4**	4.18	D	**4.26**	**E**
	Madonna Rd	**LOVR**	**Oceanaire Dr**	**EB**	**D**	**Route 5**	**4.45**	**E**	4.00	D
2	**Madonna Rd**	**Dalidio**	**Oceanaire Dr**	**WB**	**D**	**Route 4**	**4.48**	**E**	**4.56**	**E**
	Madonna Rd	**Oceanaire Dr**	**Dalidio**	**EB**	**D**	**Route 5**	**4.73**	**E**	**4.39**	**E**
3	**Madonna Rd**	**El Mercado**	**Dalidio Dr**	**WB**	**D**	**Route 4**	**4.31**	**E**	**4.37**	**E**
	Madonna Rd	Dalidio Dr	El Mercado	EB	D	Route 5	4.23	D	4.21	D
4	**Madonna Rd**	**US 101 SB Ramps**	**El Mercado**	**WB**	**D**	**Route 4**	**4.37**	**E**	**4.48**	**E**
	Madonna Rd	**El Mercado**	**US 101 SB Ramps**	**EB**	**D**	**Route 5**	**4.61**	**E**	**4.36**	**E**
5	Madonna Rd	US 101 NB Ramps	US 101 SB Ramps	WB	D	Route 4	4.12	D	4.20	D
	Madonna Rd	US 101 SB Ramps	US 101 NB Ramps	EB	D	Route 5	4.16	D	3.76	D
6	**Madonna Rd**	**Higuera St**	**US 101 NB Ramps**	**WB**	**D**	**Route 4**	**4.27**	**E**	**4.35**	**E**
	Madonna Rd	**US 101 NB Ramps**	**Higuera St**	**EB**	**D**	**Route 5**	**4.45**	**E**	4.10	D
7	S. Higuera St	Madonna Rd	Margarita Ave	SB	D	Route 2	Not Analyzed	N/A	3.54	D
	S. Higuera St	Margarita Ave	Madonna Rd	NB	D	Route 2	3.75	D	3.80	D
8	S. Higuera St	Margarita Ave	Prado Rd	SB	D	Route 2	Not Analyzed	N/A	4.22	D
	S. Higuera St	**Prado Rd**	**Margarita Ave**	**NB**	**D**	**Route 2**	4.25	D	**4.44**	**E**
9	**S. Higuera St**	**Prado Rd**	**Granada Dr**	**SB**	**D**	**Route 2**	**4.41**	**E**	**4.36**	**E**
	S. Higuera St	Granada Dr	Prado Rd	NB	D	Route 2	3.81	D	4.07	D
10	S. Higuera St	Granada Dr	Tank Farm Road	SB	D	Route 2	3.81	D	3.91	D
	S. Higuera St	Tank Farm Road	Granada Dr	NB	D	Route 2	3.56	D	3.66	D
11	S. Higuera St	Tank Farm Road	Suburban Drive	SB	D	-	Not Analyzed	N/A	Not Analyzed	N/A
	S. Higuera St	Suburban Drive	Tank Farm Road	NB	D	Route 2	4.04	D	3.99	D
12	S. Higuera St	Suburban Drive	Los Osos Valley Road	SB	D	-	Not Analyzed	N/A	Not Analyzed	N/A
	S. Higuera St	Los Osos Valley Road	Suburban Drive	NB	D	-	Not Analyzed	N/A	Not Analyzed	N/A
13	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**D**	**Route 4**	**4.56**	**E**	**4.58**	**E**
	Los Osos Valley	**Froom Ranch Way**	**Madonna Rd**	**NB**	**D**	**Route 4**	4.25	D	**4.40**	**E**
13	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**D**	**Route 5**	**4.65**	**E**	**4.39**	**E**
	Los Osos Valley	**Froom Ranch Way**	**Madonna Rd**	**NB**	**D**	**Route 5**	**4.36**	**E**	4.18	D
14	**Los Osos Valley**	**Froom Ranch Way**	**Calle Joaquin**	**SB**	**D**	**Route 4**	**4.28**	**E**	**4.43**	**E**
	Los Osos Valley	Calle Joaquin	Froom Ranch Way	NB	D	0.00	Not Analyzed	N/A	Not Analyzed	N/A
14	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**D**	**Route 5**	**4.40**	**E**	4.20	D
	Los Osos Valley	Froom Ranch Way	Madonna Rd	NB	D	0.00	Not Analyzed	N/A	Not Analyzed	N/A
15	Los Osos Valley	Calle Joaquin	US 101 SB Ramps	SB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Los Osos Valley	US 101 SB Ramps	Calle Joaquin	NB	D		Not Analyzed	N/A	Not Analyzed	N/A
16	Los Osos Valley	US 101 SB Ramps	US 101 NB Ramps	SB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Los Osos Valley	US 101 NB Ramps	US 101 SB Ramps	NB	D		Not Analyzed	N/A	Not Analyzed	N/A
17	Los Osos Valley	S. Higuera St	US 101 NB Ramps	WB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Los Osos Valley	US 101 NB Ramps	S. Higuera St	EB	D		Not Analyzed	N/A	Not Analyzed	N/A
18	Prado Rd	S. Higuera St	US 101 NB Ramps	WB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Prado Rd	US 101 NB Ramps	S. Higuera St	EB	D	Route 2	4.06	D	Not Analyzed	N/A
19	Froom Ranch Way	Dick's Sporting Goods Dwy	Los Osos Valley	WB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Froom Ranch Way	Los Osos Valley	Dick's Sporting Goods	EB	D		Not Analyzed	N/A	Not Analyzed	N/A
20	Dalidio Dr	Madonna Rd	Frrom Ranch Way	0	D		4.21	D	4.21	D
	Dalidio Dr	Frrom Ranch Way	Madonna Rd	NB	D		4.25	D	4.06	D
21	Froom Ranch Way	Dalidio	Dick's Sporting Goods	WB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Froom Ranch Way	Dick's Sporting Goods Dwy	Dalidio	EB	D		Not Analyzed	N/A	Not Analyzed	N/A
22	Prado Road	US 101 SB Ramps	US 101 NB Ramps	SB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Prado Road	US 101 NB Ramps	US 101 SB Ramps	NB	D		Not Analyzed	N/A	Not Analyzed	N/A
23	Prado Road	Froom Ranch Way	US 101 SB Ramps	SB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Prado Road	US 101 SB Ramps	Froom Ranch Way	NB	D		Not Analyzed	N/A	Not Analyzed	N/A
24	**Dalido Dr**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**D**		**4.31**	**E**	**4.32**	**E**
	Dalido Dr	**Froom Ranch Way**	**Madonna Rd**	**0**	**D**		**4.35**	**E**	4.20	D

Note: Route 2 Serves the Prado Day Center stop during the AM peak hour, and the DMV/Margarita stop during the PM Peak Hour
Segment 20 transit is southbound for routes 4 and 5

TABLE 78: YEAR 2035 FULL BUILD PRADO INTERCHANGE CONDITIONS SEGMENT LEVEL OF SERVICE: FREEWAY ANALYSIS

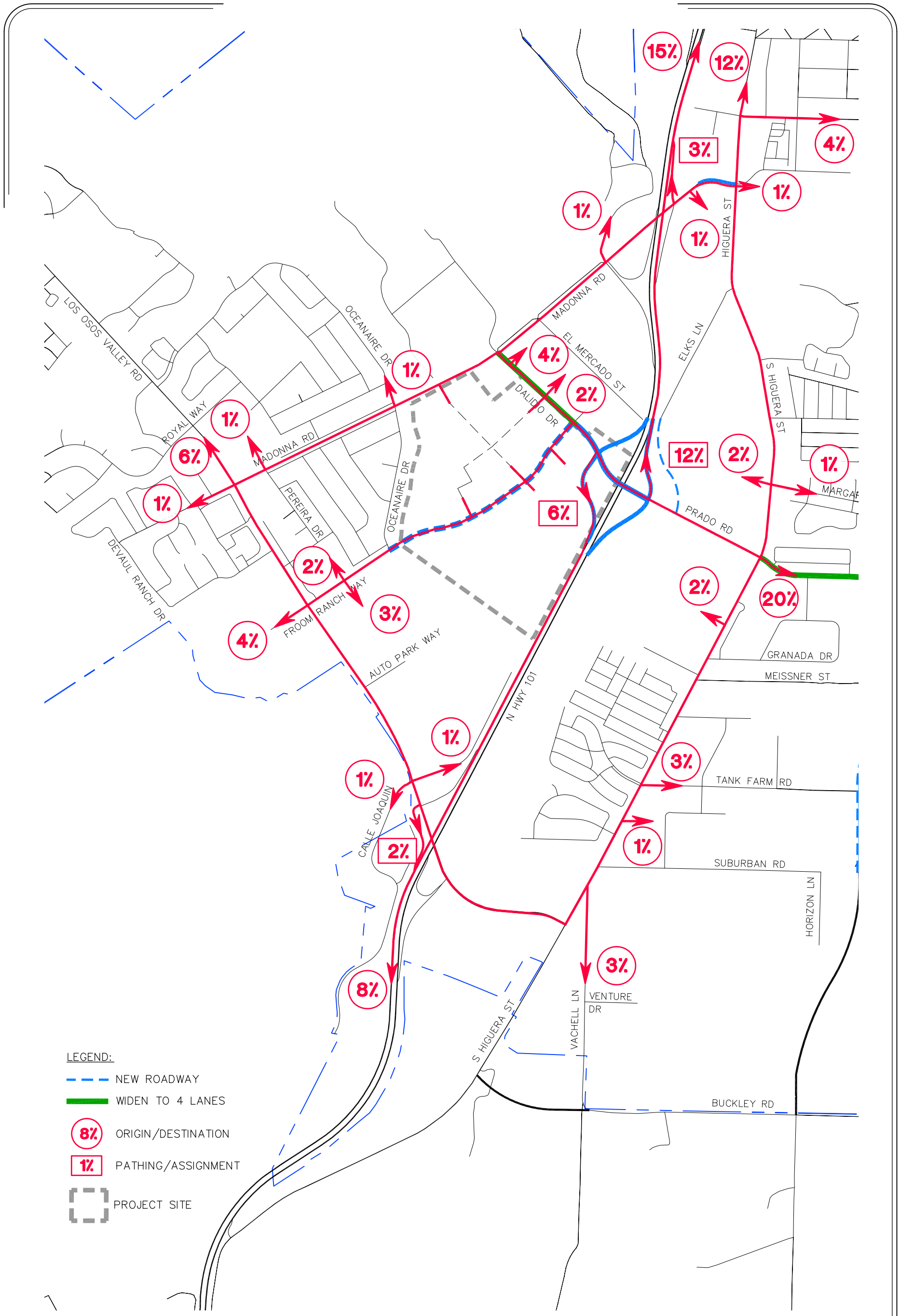
Interchange Location	Target LOS	Segment Type	No. of Lanes	AM Peak Hour Volume	AM Peak Hour Density (pc/mi/ln)	AM Peak Hour LOS	PM Peak Hour Volume	PM Peak Hour Density (pc/mi/ln)	PM Peak Hour LOS
US 101 at Los Osos Valley Road									
US 101 NB South of Los Osos Valley Road	C	Freeway	2	**3,464**	**32.8**	**D**	2,693	23.7	C
US 101 SB South of Los Osos Valley Road	C	Freeway	2	1,890	16.6	B	**3,865**	**39.5**	**E**
US 101 at Prado Road									
US 101 NB South of Prado Road	C	Freeway	2	**2,935**	**26.2**	**D**	2,595	22.8	C
US 101 SB South of Prado Road	C	Freeway	2	2,091	18.4	C	**3,537**	**33.9**	**D**
US 101 at Madonna Road									
US 101 NB South of Madonna Road	C	Freeway	2	2,904	25.9	C	**3,044**	**27.4**	**D**
US 101 SB South of Madonna Road	C	Freeway	2	2,590	22.8	C	**3,706**	**36.6**	**E**

As shown in the Year 2035 Full Build Prado Interchange Conditions segment analysis tables, most of the segments are currently operating at deficient LOS for pedestrian and transit modes, as well as several segments for automobile mode and only a couple segments for the bicycle mode. The segment of US 101 south of Los Osos Valley Road is operating at deficient LOS D during the PM peak hour for Year 2035 Full Build Prado Interchange conditions.

Year 2035 Full Build Prado Interchange Plus Project Conditions

The project generated peak hour volumes have been added to the derived 2035 Full Build Prado Interchange volumes to obtain the Full Build Prado Interchange Plus Project conditions. The LOS have been quantified and compared to all study intersections and roadways analyzed in Full Build Prado Interchange (No Project) conditions. All proposed driveway intersections have been evaluated for LOS operations, potential vehicle queuing and pedestrian and bicycle level of service.

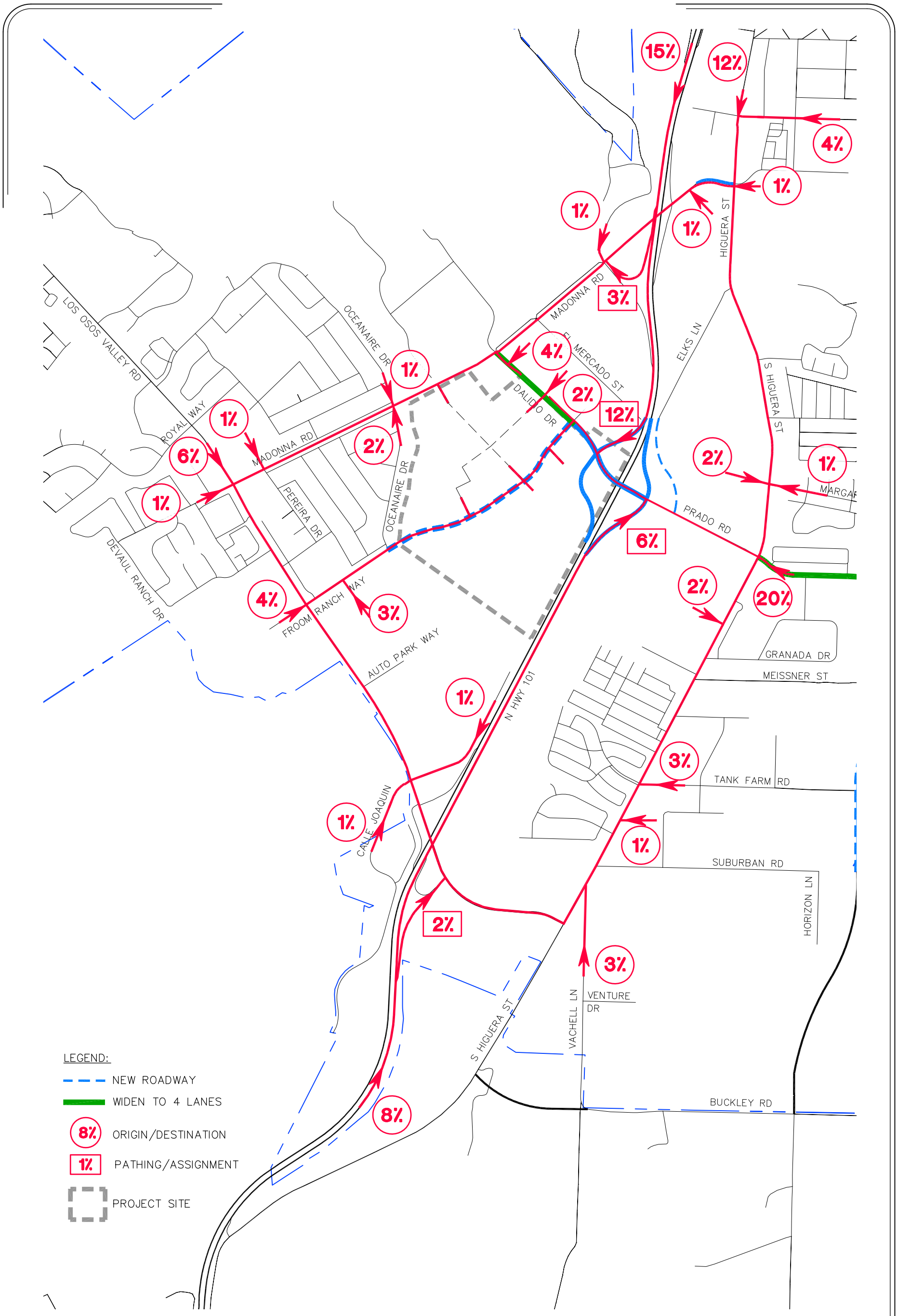
Figures 16A and 16B present the project trip distribution for the 2035 Full Build Prado Interchange scenario. Figure 17 presents the 2035 Full Build Prado Interchange Plus Project lane geometrics and control assuming the proposed project is in place. Figure 18 presents the 2035 Full Build Prado Interchange Plus Project peak hour traffic volumes with the proposed project in place.



San Luis Ranch Specific Plan Multimodal TIS

Figure 16A

2035 Full Build Prado - Project Trip Distribution (Outbound)



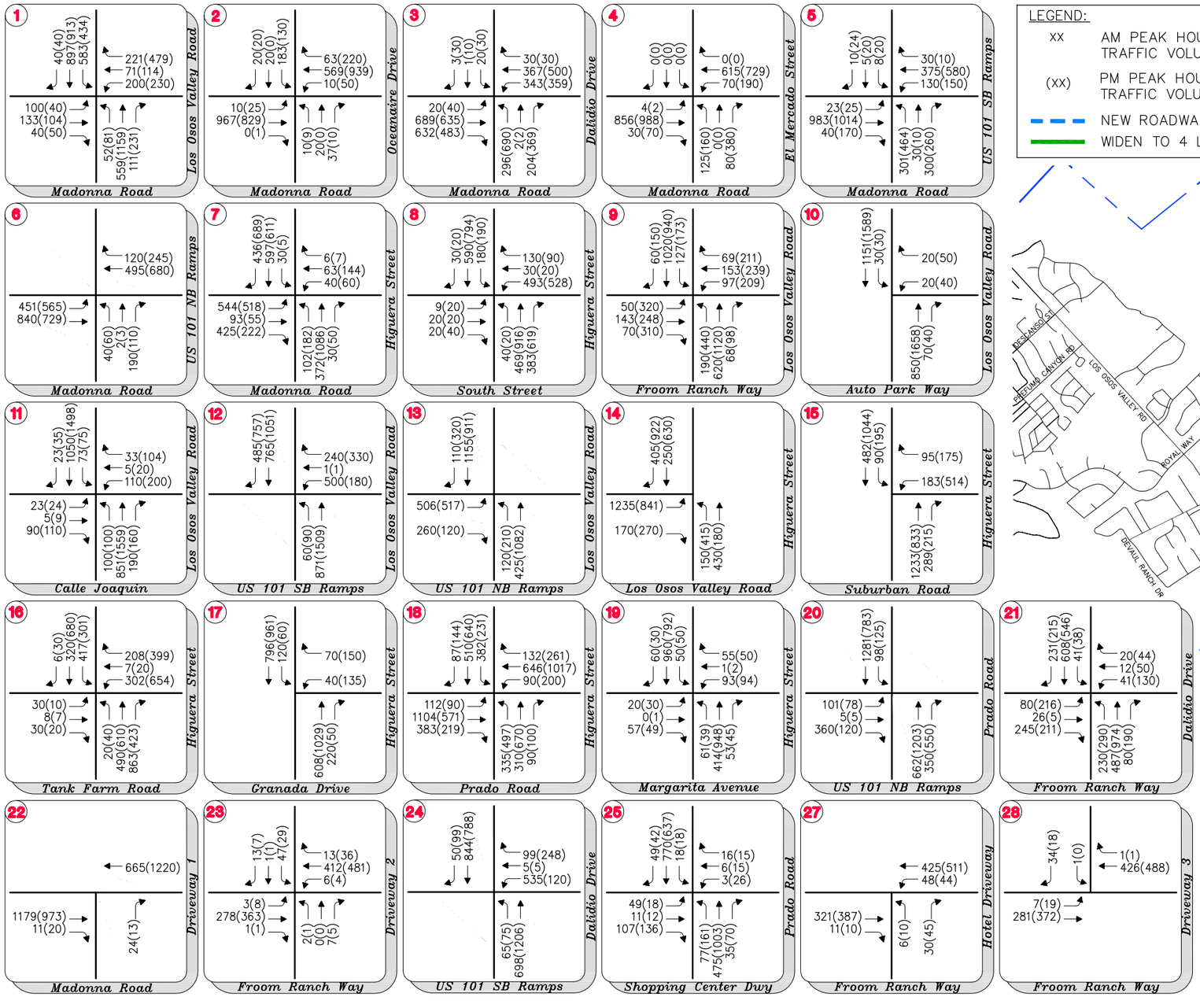
San Luis Ranch Specific Plan Multimodal TIS Figure 16B

2035 Full Build Prado - Project Trip Distribution (Inbound)

San Luis Ranch Specific Plan Multimodal TIS

Figure 17

Year 2035 Full Build Prado Road Interchange Plus Project Geometrics and Control



San Luis Ranch Specific Plan Multimodal TIS

Figure 18

Year 2035 Full Build Prado Rd Interchange Plus Project Peak Hour Traffic Volumes

Year 2035 Full Build Prado Interchange Plus Project Conditions Analysis

The Year 2035 Full Build Prado Interchange Plus Project conditions multimodal analysis for the study intersections and segments are presented below.

Year 2035 Full Build Prado Interchange Plus Project Conditions Intersection Analysis

Table 79 provides a summary of the Year 2035 Full Build Prado Interchange Plus Project conditions vehicular AM and PM peak hour intersection delay and LOS. Table 80 provides a summary of the Year 2035 Full Build Prado Interchange Plus Project pedestrian AM and PM peak hour conditions at the study intersections. Table 81 provides a summary of the Year 2035 Full Build Prado Interchange Plus Project bicycle AM and PM peak hour conditions at the study intersections. Table 82 provides a summary of the Full Build Prado Interchange Plus Project conditions queuing analysis.

TABLE 79: YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT CONDITIONS INTERSECTION LOS: AUTOMOBILE ANALYSIS

#	Intersection	Control Type[1,2]	Target LOS	AM Peak Hour			PM Peak Hour		
				v/c[3]	Delay	LOS	v/c[3]	Delay	LOS
1	Madonna Road/Los Osos Valley Road	Signal	D		33.9	C		44.6	D
2	Madonna Road/Oceanaire Drive	Signal	D		25.1	C		18.5	B
3	**Madonna Road/Dalidio Drive**	**Signal**	**D**	**6.50**	**357.2**	**F**	**8.93**	**910.7**	**F**
4	Madonna Road/El Mercado	Signal	D		11.5	B		22.4	C
5	Madonna Road/US 101 SB Ramps/Madonna	Signal	C		22.3	C		23.1	C
6	Madonna Road/US 101 NB Ramps	Signal	C		19.3	B		17.8	B
7	Madonna Road/Higuera Street	Signal	D		33.4	C		33.6	C
8	Higuera Street/South Street	Signal	D		30.1	C		39.6	D
9	**Los Osos Valley Road/Froom Ranch Way**	**Signal**	**D**		24.4	C	**1.09**	**60.3**	**E**
10	**Los Osos Valley Road/Auto Park Way**	**TWSC**	**D**		18.0	C	**0.54**	**52.9**	**F**
11	Los Osos Valley Road/Calle Joaquin	Signal	D		6.7	A		9.0	A
12	Los Osos Valley Road/US 101 SB Ramps	Signal	C		24.4	C		23.4	C
13	Los Osos Valley Road/US 101 NB Ramps	Signal	C		19.5	B		17.2	B
14	S. Higuera Street/Los Osos Valley Road	Signal	D		31.9	C		54.3	D
15	S. Higuera Street/Suburban Drive	Signal	D		13.4	B		21.8	C
16	**S. Higuera Street/Tank Farm Road**	**Signal**	**D**	**1.77**	**153.0**	**F**		24.5	C
17	S. Higuera Street/Granada Drive	Signal	D		9.8	A		12.3	B
18	S. Higuera Street/Prado Road	Signal	D		43.1	D		46.8	D
19	S. Higuera Street/Margarita Avenue	Signal	D		17.2	B		17.3	B
20	Prado Road/US 101 NB Ramps	Signal	D		12.6	B		9.6	A
21	Froom Ranch Road/Dalidio Drive/Prado Road	Signal	D		20.3	C		39.1	D
22	Madonna Road/Project Driveway	TWSC	D		14.3	B		12.6	B
23	Froom Ranch Road/Project Driveway #2	TWSC	D		18.0	C		21.4	C
24	Prado Road/US 101 SB Ramps	Signal	D		14.8	B		10.3	B
25	Dalidio Drive/SC Project Driveway	Signal	D		13.3	B		17.2	B
27	Froom Ranch Road/Hotel Project Driveway	TWSC	D		12.0	B		13.6	B
28	Froom Ranch Road/Project Driveway #3	TWSC	D		11.7	B		11.9	B

Notes:

1. AWSC = All Way Stop Control; TWSC = Two Way Stop Control; RNDBT = Roundabout

2. LOS = Delay based on worst minor street approach for TWSC intersections, average of all approaches for AWSC, Signal,

3. Volume to Capacity Ratio (v/c) is for worst movement delay, for unacceptable LOS only

TABLE 80: YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT CONDITIONS INTERSECTION LOS: PEDESTRIAN ANALYSIS

#	Intersection	Approach	Target LOS	AM Peak Hour Ped. Crosswalk Score	AM Peak Hour Ped. Crosswalk LOS	PM Peak Hour Ped. Crosswalk Score	PM Peak Hour Ped. Crosswalk LOS
1	Madonna Road/Los Osos Valley Road	EB	C	2.12	B	2.12	B
		WB	C	3.05	C	3.26	C
		NB	C	3.14	C	3.35	C
		SB	C	3.31	C	3.34	C
2	Madonna Road/Oceanaire Drive	EB	C	2.83	C	2.95	C
		WB	C	3.30	C	3.41	C
		NB	C	2.03	B	1.97	A
		SB	C	1.88	A	1.89	A
3	**Madonna Road/Dalidio Drive**	**EB**	**C**	**3.66**	**D**	**4.27**	**E**
		WB	C	3.01	C	3.02	C
		NB	C	2.76	C	2.73	B
		SB	C	1.99	A	2.00	A
4	Madonna Road/El Mercado	EB	C	n/a	-	n/a	-
		WB	C	3.02	C	3.13	C
		NB	C	2.30	B	2.76	C
		SB	C	1.71	A	1.74	A
5	Madonna Road/US 101 SB Ramps/Madonna Inn	EB	C	2.97	C	3.07	C
		WB	C	n/a	-	n/a	-
		NB	C	2.68	B	2.65	B
		SB	C	2.18	B	2.20	B
6	Madonna Road/US 101 NB Ramps	EB	C	n/a	-	n/a	-
		WB	C	2.80	C	2.77	C
		NB	C	2.05	B	1.95	A
		SB	C	n/a	-	n/a	-
7	Madonna Road/Higuera Street	EB	C	2.85	C	2.96	C
		WB	C	2.09	B	2.07	B
		NB	C	2.82	C	3.01	C
		SB	C	n/a	-	n/a	-
8	Higuera Street/South Street	EB	C	2.03	B	2.05	B
		WB	C	2.76	C	2.82	C
		NB	C	n/a	-	n/a	-
		SB	C	2.60	B	2.74	B
9	Los Osos Valley Road/Froom Ranch Way	EB	C	2.45	B	2.66	B
		WB	C	2.51	B	2.71	B
		NB	C	n/a	-	n/a	-
		SB	C	3.13	C	3.32	C
10	Los Osos Valley Road/Auto Park Way	EB	C	n/a	-	n/a	-
		WB	C		-		-
		NB	C		-		-
		SB	C		-		-
11	**Los Osos Valley Road/Calle Joaquin**	EB	C	2.61	B	2.47	B
		WB	C	2.22	B	2.33	B
		NB	**C**	3.25	C	**3.52**	**D**
		SB	C	3.06	C	3.34	C
12	Los Osos Valley Road/US 101 SB Ramps	EB	C	2.01	B	2.27	B
		WB	C	2.18	B	2.06	B
		NB	C	n/a	-	n/a	-
		SB	C	n/a	-	n/a	-
13	Los Osos Valley Road/US 101 NB Ramps	EB	C	2.42	B	2.38	B
		NB	C	2.78	C	2.85	C
		SB	C	n/a	-	n/a	-
14	**S. Higuera Street/Los Osos Valley Road**	**EB**	**C**	3.02	C	**3.65**	**D**
		NB	C	2.46	B	2.71	B
		SB	C	n/a	-	n/a	-
15	**S. Higuera Street/Suburban Drive**	WB	C	2.34	B	2.66	B
		NB	**C**	3.31	C	**3.94**	**D**
		SB	C	2.91	C	2.99	C
16	S. Higuera Street/Tank Farm Road	EB	C	2.03	B	2.02	B
		WB	C	2.97	C	3.27	C
		NB	C	3.43	C	3.33	C
		SB	C	2.78	C	2.94	C
17	S. Higuera Street/Granada Drive	WB	C	2.18	B	2.24	B
		NB	C	n/a	-	n/a	-
		SB	C	2.78	C	2.96	C
18	S. Higuera Street/Prado Road	EB	C	3.21	C	3.28	C
		WB	C	3.09	C	3.38	C
		NB	C	2.95	C	3.39	C
		SB	C	3.05	C	3.15	C
19	S. Higuera Street/Margarita Avenue	EB	C	2.34	B	2.10	B
		WB	C	2.15	B	2.15	B
		NB	C	2.97	C	3.07	C
		SB	C	2.82	C	2.95	C
20	Prado Road/US 101 NB Ramps	EB	C	2.03	B	1.98	A
		WB	C	1.90	A	2.14	B
		NB	C	3.15	C	3.27	C
		SB	C	2.76	C	2.85	C
21	Froom Ranch Road/Dalidio Drive/Prado Road	EB	C	2.54	B	2.56	B
		WB	C	1.85	A	1.97	A
		NB	C	2.67	B	2.82	C
		SB	C	2.87	C	2.95	C
24	Prado Road/US 101 SB Ramps	EB	C	n/a	-	n/a	-
		WB	C	2.27	B	2.14	B
		NB	C	2.76	C	2.85	C
		SB	C	2.69	B	2.94	C
25	Dalidio Drive/SC Project Driveway	EB	C	2.00	A	1.61	A
		WB	C	1.79	A	2.14	B
		NB	C	2.57	B	2.85	C
		SB	C	2.55	B	2.94	C

Notes:

HCM 2010 Methodologies do not model segments bounded by all-way stop control. Procedures have not been developed yet to address the effect of all-way stop control or yield control on intersection performance from a pedestrian or bicyce perspective.

HCM 2010 Methodologies for the pedestrian mode at two-way stop-controlled intersections is limited to the uncontrolled crossing. No methodology exists for evaluating pedestrian performance for the stop controlled approach (cross-street). However, it is reasoned that this type of control has negligible influence on pedestrian service along the segment.

TABLE 81: YEAR 2035 FULL BUILD PRADO INTERCHANGE TERM PLUS PROJECT CONDITIONS INTERSECTION LOS: BICYCLE ANALYSIS

#	Intersection	Approach	Target LOS	AM Peak Hour Bicycle LOS Score	AM Peak Hour Bicycle LOS LOS	PM Peak Hour Bicycle LOS Score	PM Peak Hour Bicycle LOS LOS
1	Madonna Road/Los Osos Valley Road	EB	D	3.31	C	3.16	C
		WB	D	3.63	D	4.15	D
		NB	D	1.69	A	2.10	B
		SB	D	2.95	C	2.78	C
2	Madonna Road/Oceanaire Drive	EB	D	2.99	C	2.89	C
		WB	D	1.23	A	1.74	A
		NB	D	2.78	C	2.70	B
		SB	D	2.33	B	2.27	B
3	Madonna Road/Dalidio Drive	EB	D	2.39	B	2.12	B
		WB	D	1.58	A	1.62	A
		NB	D	2.76	C	3.62	D
		SB	D	1.79	A	1.86	A
4	Madonna Road/El Mercado	EB	D	1.67	A	1.71	A
		WB	D	1.73	A	1.81	A
		NB	D	3.41	C	3.94	D
		SB	D	3.03	C	3.03	C
5	Madonna Road/US 101 SB Ramps/Madonna Inn	EB	D	1.91	A	1.96	A
		WB	D	1.60	A	1.69	A
		NB	D	n/a	-	n/a	-
		SB	D	2.92	C	2.99	C
6	Madonna Road/US 101 NB Ramps	EB	D	2.38	B	2.22	B
		WB	D	1.64	A	1.83	A
		NB	D	n/a	-	n/a	-
7	Madonna Road/Higuera Street	EB	D	3.14	C	2.60	B
		WB	D	2.60	B	2.78	C
		NB	D	1.82	A	2.53	B
		SB	D	2.41	B	2.59	B
8	Higuera Street/South Street	EB	D	2.71	B	2.77	C
		WB	D	2.71	B	2.72	B
		NB	D	3.00	C	3.61	D
		SB	D	1.82	A	2.02	B
9	**Los Osos Valley Road/Froom Ranch Way**	**EB**	**D**	3.56	D	**4.60**	**E**
		WB	D	2.25	B	3.14	C
		NB	D	1.84	A	2.26	B
		SB	D	1.91	A	1.91	A
10	Los Osos Valley Road/Auto Park Way	EB	D	n/a	-	n/a	-
		WB	D		-		-
		NB	D		-		-
		SB	D		-		-
11	Los Osos Valley Road/Calle Joaquin	EB	D	3.09	C	3.12	C
		WB	D	3.21	C	3.49	C
		NB	D	1.64	A	2.14	B
		SB	D	0.62	A	0.94	A
12	Los Osos Valley Road/US 101 SB Ramps	WB	D	n/a	-	n/a	-
		NB	D	2.85	C	3.35	C
		SB	D	1.82	A	2.21	B
13	Los Osos Valley Road/US 101 NB Ramps	EB	D	n/a	-	n/a	-
		NB	D	1.85	A	2.47	B
		SB	D	2.91	C	2.85	C
14	S. Higuera Street/Los Osos Valley Road	EB	D	2.27	B	2.00	A
		NB	D	2.30	B	2.32	B
		SB	D	2.42	B	3.96	D
15	S. Higuera Street/Suburban Drive	WB	D	1.15	A	1.85	A
		NB	D	2.56	B	2.10	B
		SB	D	1.75	A	2.31	B
16	S. Higuera Street/Tank Farm Road	EB	D	2.72	B	2.66	B
		WB	D	2.42	B	3.39	C
		NB	D	2.47	B	2.17	B
		SB	D	1.90	A	2.11	B
17	S. Higuera Street/Granada Drive	WB	D	2.70	B	3.00	C
		NB	D	1.92	A	2.14	B
		SB	D	2.13	B	2.23	B
18	S. Higuera Street/Prado Road	EB	D	2.12	B	2.75	B
		WB	D	2.00	A	3.82	D
		NB	D	1.88	A	2.35	B
		SB	D	2.10	B	2.12	B
19	S. Higuera Street/Margarita Avenue	EB	D	2.55	B	2.56	B
		WB	D	2.77	C	2.77	C
		NB	D	1.75	A	2.21	B
		SB	D	2.32	B	2.16	B
20	Prado Road/US 101 NB Ramps	EB	D	n/a	-	n/a	-
		WB	D	n/a	-	n/a	-
		NB	D	1.60	A	2.25	B
		SB	D	2.02	B	1.69	A
21	Froom Ranch Road/Dalidio Drive/Prado Road	EB	D	2.10	B	2.19	B
		WB	D	2.79	C	3.07	C
		NB	D	1.72	A	2.32	B
		SB	D	2.02	B	1.97	A
24	Prado Road/US 101 SB Ramps	EB	D	n/a	-	n/a	-
		WB	D	n/a	-	n/a	-
		NB	D	1.73	A	2.20	B
		SB	D	1.47	A	1.47	A
25	Dalidio Drive/SC Project Driveway	EB	D	2.78	C	2.78	C
		WB	D	2.53	B	2.58	B
		NB	D	2.46	B	3.03	C
		SB	D	2.68	B	2.55	B

Notes:
HCM 2010 Methodologies do not model segments bounded by all-way stop control. Procedures have not been developed yet to address the effect of all-way stop control or yield control on intersection performance from a pedestrian or bicyce perspective.
No methodology exists for evaluating bicycle performance at two-way stop-controlled intersections. However, it is reasoned that this type of control has negligible influence on bicycle service along the segment for stop controll on the cross-street.

TABLE 82: YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT CONDITIONS 95TH PERCENTILE QUEUING ANALYSIS

Intersection			No. Lanes	Total Storage (ft)[1]	95th Percentile Queue/Lane (ft)	
ID	Location	Movement			AM Peak Hour	PM Peak Hour
1	Madonna Road/Los Osos Valley Road	Northbound Right	1	175	111	**263**
		Southbound Left	2	350	**358**	309
2	Madonna Road/Oceanaire Drive	Westbound Left	1	115	31	**336**
		Westbound Right	1	100	**101**	**183**
3	Madonna Road/Dalidio Drive	Eastbound Left	1	115	98	**132**
		Westbound Left	1	275	**332**	**336**
		Southbound Right	1	50	15	**53**
4	Madonna Road/El	Westbound Left	2	260	64	**534**
5	Madonna Road/US 101	Westbound Left	1	260	187	**491**
6	Madonna Road/US 101	Northbound Left	1	185	71	**225**
7	Madonna Road/Higuera Street	Eastbound Right	1	150	**159**	87
		Northbound Left	1	160	130	**383**
		Southbound Left/Through	2	250	246	**513**
		Southbound Right	2	340	33	**578**
8	Higuera Street/South Street	Eastbound Right	1	60	45	**94**
		Westbound Left	2	240	**306**	**933**
		Northbound Left	1	60	**96**	49
		Northbound Through	2	380	322	**432**
		Northbound Right	1	60	**99**	**165**
		Southbound Left	1	70	**115**	**133**
9	Los Osos Valley Road/Froom Ranch Way	Eastbound Through/Right	1	445	376	**598**
		Westbound Right	1	50	**87**	**119**
		Southbound Left	2	200	**304**	**246**
10	Los Osos Valley	Southbound Left	1	60	**95**	46
11	Los Osos Valley	Eastbound Right	1	260	**410**	173
12	Los Osos Valley Road/US 101 SB Ramps	Westbound Left/Through	1	180	**277**	**190**
		Southbound Through	1	240	**346**	**353**
		Southbound Right	1	125	**197**	**186**
13	Los Osos Valley Road/US 101 NB Ramps	Eastbound Left/Right	1	625	**701**	308
		Southbound Through	1	865	**1253**	315
		Southbound Right	1	130	**283**	**207**
14	S. Higuera Street/Los Osos Valley Road	Eastbound Right	1	90	**207**	**190**
		Northbound Left	1	160	127	**248**
15	S. Higuera Street/Suburban Drive	Westbound Right	1	170	65	**313**
		Southbound Left	1	200	**217**	**322**
16	S. Higuera Street/Tank Farm Road	Northbound Left	1	140	**251**	71
		Northbound Right	1	100	**253**	**163**
		Southbound Left	1	165	**377**	**225**
17	S. Higuera	Southbound Left	1	80	**97**	**91**
18	S. Higuera Street/Prado Road	Eastbound Left	1	150	**193**	79
		Eastbound Right	1	140	**228**	122
		Westbound Left	1	105	97	**262**
		Westbound Right	1	100	100	**283**
		Northbound Left	1	100	**190**	**275**
		Southbound Left	1	60	**181**	**207**
19	S. Higuera Street/Margarita Avenue	Northbound Left	1	60	**104**	**76**
		Southbound Left	1	60	**91**	**87**
20	Prado Road/US 101 NB	Northbound Right	1	150	146	**193**
24	Prado Road/US 101 SB	Westbound Left/Through	1	250	**263**	**370**

Notes: ***1. Bolded entries indicate queues exceed available storage***

2. Storage Length of " - " represents a lane which exceeds 1,000 feet, usually a through lane.

3. For Movements with more than one lane, the maximum of the 95th percentile queue is reported.

4. * Represents storage lengths for one lane; second lane is a left or right trap lane.

As shown in Table 79, the intersection of Madonna Road/Dalidio Drive, Los Osos Valley Road/Froom Ranch Way, Los Osos Valley Road/Auto Park Way, and S. Higuera Street/Tank Farm Road continue to operate at unacceptable conditions during the Full Build Prado Interchange Plus Project conditions. .

Pedestrian analysis shows acceptable conditions at the study intersections. Bicycle analysis shows deficiencies at Los Osos Valley Road/Froom Ranch Way. Queuing analysis results to be completed. Transportation improvements required to mitigate project-related impacts are detailed in a subsequent section of this report.

Year 2035 Full Build Prado Interchange Plus Project Conditions Segment Analysis

Table 83 provides a summary of the Year 2035 Full Build Prado Interchange Plus Project vehicular AM and PM peak hour conditions for the study segments. Table 84 provides a summary of the Year 2035 Full Build Prado Interchange Plus Project pedestrian AM and PM peak hour conditions for the study segments. Table 85 provides a summary of the Year 2035 Full Build Prado Interchange Plus Project bicycle AM and PM peak hour conditions for the study segments. Table 86 provides a summary of the Year 2035 Full Build Prado Interchange Plus Project transit AM and PM peak hour conditions for the study segments. Table 87 provides a summary of the Year 2035 Full Build Prado Interchange Plus Project freeway segments analysis for AM and PM peak hour conditions for the study segments along US 101. Transportation improvements required to mitigate project-related impacts are detailed in a subsequent section of this report.

TABLE 83: YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT CONDITIONS SEGMENT LEVEL OF SERVICE: AUTOMOBILE ANALYSIS

AUTO SEGMENT LOS						AM PEAK				PM PEAK			
ID	Roadway	From	To	Direction	LOS Threshold	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/ BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/ BFFS (%)	LOS
1	**Madonna Rd**	**Oceanaire Dr**	**LOVR**	**WB**	**C**	**20.3**	**42.1**	**48%**	**D**	**14.7**	**42.1**	**35%**	**E**
	Madonna Rd	LOVR	Oceanaire Dr	EB	C	25.3	42.1	60%	C	28.1	42.1	67%	C
2	Madonna Rd	Dalidio	Oceanaire Dr	WB	C	22.4	40.8	55%	C	23.9	40.7	59%	C
	Madonna Rd	**Oceanaire Dr**	**Dalidio**	**EB**	**C**	**9.3**	**40.7**	**23%**	**F**	**5.9**	**40.8**	**14%**	**F**
3	**Madonna Rd**	**El Mercado**	**Dalidio Dr**	**WB**	**C**	**17.4**	**34.1**	**51%**	**C**	**12.3**	**34.8**	**36%**	**E**
	Madonna Rd	**Dalidio Dr**	**El Mercado**	**EB**	**C**	**25.7**	**38.2**	**67%**	**B**	**12.0**	**34.6**	**35%**	**E**
4	Madonna Rd	US 101 SB Ramps	El Mercado	WB	C	27.1	37.9	72%	B	21.9	37.3	59%	C
	Madonna Rd	El Mercado	US 101 SB Ramps	EB	C	21.9	37.8	58%	C	20.3	37.7	54%	C
5	Madonna Rd	US 101 NB Ramps	US 101 SB Ramps	WB	C	26.6	37.8	70%	B	25.0	37.8	66%	C
	Madonna Rd	US 101 SB Ramps	US 101 NB Ramps	EB	C	32.9	37.8	87%	A	33.5	37.8	88%	A
6	**Madonna Rd**	**Higuera St**	**US 101 NB Ramps**	**WB**	**C**	**17.8**	**37.2**	**48%**	**D**	19.5	37.2	53%	C
	Madonna Rd	**US 101 NB Ramps**	**Higuera St**	**EB**	**C**	**12.6**	**37.2**	**34%**	**E**	33.0	37.2	89%	A
7	S. Higuera St	Madonna Rd	Margarita Ave	SB	C	32.0	44.5	72%	B	34.3	44.5	77%	B
	S. Higuera St	**Margarita Ave**	**Madonna Rd**	**NB**	**C**	**32.0**	**44.8**	**71%**	**B**	**20.1**	**44.8**	**45%**	**D**
8	**S. Higuera St**	**Margarita Ave**	**Prado Rd**	**SB**	**C**	**10.5**	**38.9**	**27%**	**F**	**8.9**	**38.9**	**23%**	**F**
	S. Higuera St	**Prado Rd**	**Margarita Ave**	**NB**	**C**	**20.9**	**38.9**	**54%**	**C**	**16.9**	**38.9**	**43%**	**D**
9	S. Higuera St	Prado Rd	Granada Dr	SB	C	32.1	41.8	77%	B	29.7	41.8	71%	B
	S. Higuera St	**Granada Dr**	**Prado Rd**	**NB**	**C**	**16.6**	**41.9**	**40%**	**E**	**15.4**	**41.9**	**37%**	**E**
10	S. Higuera St	Granada Dr	Tank Farm Road	SB	C	40.5	41.6	97%	A	25.3	42.6	59%	C
	S. Higuera St	Tank Farm Road	Granada Dr	NB	C	29.3	41.6	70%	B	25.4	42.6	60%	C
11	S. Higuera St	Tank Farm Road	Suburban Drive	SB	C	26.0	42.4	61%	C	22.7	41.2	55%	C
	S. Higuera St	**Suburban Drive**	**Tank Farm Road**	**NB**	**C**	**16.0**	**42.5**	**38%**	**E**	**16.3**	**41.3**	**40%**	**E**
12	**S. Higuera St**	**Suburban Drive**	**Los Osos Valley Road**	**SB**	**C**	**19.6**	**42.1**	**47%**	**D**	**6.2**	**39.1**	**16%**	**F**
	S. Higuera St	**Los Osos Valley Road**	**Suburban Drive**	**NB**	**C**	**22.3**	**42.0**	**53%**	**C**	**18.9**	**39.0**	**49%**	**D**
13	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**C**	**21.8**	**41.9**	**52%**	**C**	**13.5**	**41.8**	**32%**	**E**
	Los Osos Valley	**Froom Ranch Way**	**Madonna Rd**	**NB**	**C**	**19.1**	**41.8**	**46%**	**D**	**15.8**	**41.8**	**38%**	**E**
14	Los Osos Valley	Froom Ranch Way	Calle Joaquin	SB	C	31.6	43.0	74%	B	28.2	43.0	66%	C
	Los Osos Valley	**Calle Joaquin**	**Froom Ranch Way**	**NB**	**C**	**28.1**	**43.2**	**65%**	**C**	**19.0**	**43.2**	**44%**	**D**
15	**Los Osos Valley**	**Calle Joaquin**	**US 101 SB Ramps**	**SB**	**C**	**8.0**	**32.1**	**25%**	**F**	**13.4**	**32.1**	**42%**	**D**
	Los Osos Valley	**US 101 SB Ramps**	**Calle Joaquin**	**NB**	**C**	**16.4**	**31.1**	**53%**	**C**	**14.6**	**31.1**	**47%**	**D**
16	Los Osos Valley	US 101 SB Ramps	US 101 NB Ramps	SB	C	20.3	37.7	54%	C	20.5	37.7	54%	C
	Los Osos Valley	US 101 NB Ramps	US 101 SB Ramps	NB	C	32.9	37.4	88%	A	30.9	37.4	83%	B
17	Los Osos Valley	S. Higuera St	US 101 NB Ramps	WB	C	29.2	39.2	74%	B	26.3	39.2	67%	C
	Los Osos Valley	**US 101 NB Ramps**	**S. Higuera St**	**EB**	**C**	**18.2**	**39.4**	**46%**	**D**	**14.3**	**39.4**	**36%**	**E**
18	Prado Rd	S. Higuera St	US 101 NB Ramps	WB	C	25.0	39.1	64%	C	25.7	39.1	66%	C
	Prado Rd	**US 101 NB Ramps**	**S. Higuera St**	**EB**	**C**	**16.3**	**38.9**	**42%**	**D**	**18.9**	**38.9**	**49%**	**D**
19	**Froom Ranch Wa**	**Dick's Sporting Goods**	**Los Osos Valley**	**WB**	**C**	**16.1**	**37.7**	**43%**	**D**	32.5	37.7	86%	A
	Froom Ranch Wa	Los Osos Valley	Dick's Sporting Goods	EB	C	35.3	38.0	93%	A	34.8	38.0	92%	A
20	**Dalidio Dr**	**Madonna Rd**	**SC Project Dwy**	**SB**	**C**	**22.0**	**37.7**	**59%**	**C**	**18.5**	**37.7**	**49%**	**D**
	Dalidio Dr	**SC Project Dwy**	**Madonna Rd**	**NB**	**C**	**0.4**	**37.7**	**1%**	**F**	**0.2**	**37.7**	**1%**	**F**

TABLE 84: YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT CONDITIONS SEGMENT LEVEL OF SERVICE: PEDESTRIAN ANALYSIS

PEDESTRIAN SEGMENT LOS							AM PEAK		PM PEAK	
ID	Roadway	From	To	Direction	LOS Threshold	Average Ped. Space (ft^2/p)	SEGMENT SCORE	LOS	SEGMENT SCORE	LOS
1	**Madonna Rd**	**Oceanaire Dr**	**LOVR**	**WB**	**C**	**3045**	**3.64**	**D**	**3.83**	**D**
	Madonna Rd	**LOVR**	**Oceanaire Dr**	**EB**	**C**	**11655**	**4.08**	**D**	**4.06**	**D**
2	**Madonna Rd**	**Dalidio**	**Oceanaire Dr**	**WB**	**C**	**8400**	**3.72**	**D**	**3.98**	**D**
	Madonna Rd	**Oceanaire Dr**	**Dalidio**	**EB**	**C**	**3750**	**4.07**	**D**	**4.18**	**D**
3	**Madonna Rd**	**El Mercado**	**Dalidio Dr**	**WB**	**C**	**37450**	**3.56**	**D**	**3.63**	**D**
	Madonna Rd	**Dalidio Dr**	**El Mercado**	**EB**	**C**	**52920**	**3.62**	**D**	**3.75**	**D**
4	**Madonna Rd**	**US 101 SB Ramps**	**El Mercado**	**WB**	**C**	**26250**	**3.61**	**D**	**3.67**	**D**
	Madonna Rd	**El Mercado**	**US 101 SB Ramps**	**EB**	**C**	**27915**	**3.67**	**D**	**3.74**	**D**
5	**Madonna Rd**	**US 101 NB Ramps**	**US 101 SB Ramps**	**WB**	**C**	**No Peds**	**3.63**	**D**	**3.72**	**F**
	Madonna Rd	**US 101 SB Ramps**	**US 101 NB Ramps**	**EB**	**C**	**No Peds**	**3.91**	**D**	**3.91**	**D**
6	**Madonna Rd**	**Higuera St**	**US 101 NB Ramps**	**WB**	**C**	**25200**	**3.60**	**D**	**3.72**	**D**
	Madonna Rd	**US 101 NB Ramps**	**Higuera St**	**EB**	**C**	**19838**	**3.78**	**D**	**3.70**	**D**
7	**S. Higuera St**	**Madonna Rd**	**Margarita Ave**	**SB**	**C**	**23247**	**3.92**	**D**	**3.89**	**D**
	S. Higuera St	**Margarita Ave**	**Madonna Rd**	**NB**	**C**	**5398**	**3.69**	**D**	**4.00**	**D**
8	**S. Higuera St**	**Margarita Ave**	**Prado Rd**	**SB**	**C**	**10245**	**3.78**	**D**	**3.83**	**D**
	S. Higuera St	**Prado Rd**	**Margarita Ave**	**NB**	**C**	**21700**	**3.61**	**D**	**3.84**	**D**
9	**S. Higuera St**	**Prado Rd**	**Granada Dr**	**SB**	**C**	**9292**	**3.73**	**D**	**3.82**	**D**
	S. Higuera St	**Granada Dr**	**Prado Rd**	**NB**	**C**	8400	3.36	C	**3.63**	**D**
10	**S. Higuera St**	**Granada Dr**	**Tank Farm Road**	**SB**	**C**	**46305**	**3.66**	**D**	**3.82**	**D**
	S. Higuera St	Tank Farm Road	Granada Dr	NB	C	49140	3.28	C	3.42	C
11	**S. Higuera St**	**Tank Farm Road**	**Suburban Drive**	**SB**	**C**	**12600**	**3.64**	**D**	**3.91**	**D**
	S. Higuera St	**Suburban Drive**	**Tank Farm Road**	**NB**	**C**	**31500**	**3.69**	**D**	**3.53**	**D**
12	**S. Higuera St**	**Suburban Drive**	**Los Osos Valley Road**	**SB**	**C**	**6552**	**3.60**	**D**	**3.94**	**D**
	S. Higuera St	**Los Osos Valley Road**	**Suburban Drive**	**NB**	**C**	**43533**	**4.08**	**D**	**4.05**	**D**
13	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**C**	**5458**	**3.95**	**D**	**4.02**	**D**
	Los Osos Valley	**Froom Ranch Way**	**Madonna Rd**	**NB**	**C**	**0**	**3.75**	**F**	**4.10**	**F**
14	**Los Osos Valley**	**Froom Ranch Way**	**Calle Joaquin**	**SB**	**C**	**13650**	**3.90**	**D**	**4.14**	**D**
	Los Osos Valley	**Calle Joaquin**	**Froom Ranch Way**	**NB**	**C**	**3675**	**3.76**	**D**	**4.08**	**D**
15	**Los Osos Valley**	**Calle Joaquin**	**US 101 SB Ramps**	**SB**	**C**	**No Peds**	**3.78**	**D**	**4.09**	**D**
	Los Osos Valley	**US 101 SB Ramps**	**Calle Joaquin**	**NB**	**C**	**12600**	**3.77**	**D**	**4.13**	**D**
16	**Los Osos Valley**	**US 101 SB Ramps**	**US 101 NB Ramps**	**SB**	**C**	**No Peds**	**3.95**	**D**	**3.96**	**D**
	Los Osos Valley	**US 101 NB Ramps**	**US 101 SB Ramps**	**NB**	**C**	**10786**	**3.82**	**D**	**4.13**	**D**
17	**Los Osos Valley**	**S. Higuera St**	**US 101 NB Ramps**	**WB**	**C**	**335**	**3.81**	**D**	**4.45**	**E**
	Los Osos Valley	**US 101 NB Ramps**	**S. Higuera St**	**EB**	**C**	**39393**	**3.98**	**D**	**4.03**	**D**
18	**Prado Rd**	**S. Higuera St**	**US 101 NB Ramps**	**WB**	**C**	**5442**	**3.86**	**D**	**4.18**	**D**
	Prado Rd	**US 101 NB Ramps**	**S. Higuera St**	**EB**	**C**	**4774**	**4.10**	**D**	**3.84**	**D**
19	**Froom Ranch Wa**	**Dick's Sporting Goods**	**Los Osos Valley**	**WB**	**C**	**6884**	**3.53**	**D**	**3.87**	**D**
	Froom Ranch Wa	Los Osos Valley	Dick's Sporting Goods	EB	C	9450	1.90	A	1.82	A
20	Dalidio Dr	Madonna Rd	SC Project Dwy	SB	C	4500	3.39	C	3.35	C
	Dalidio Dr	**SC Project Dwy**	**Madonna Rd**	**NB**	**C**	15750	3.29	C	**3.53**	**D**
21	Froom Ranch Wa	Dalidio	Dick's Sporting Goods	WB	C	12600	1.76	A	1.79	A
	Froom Ranch Wa	Dick's Sporting Goods	Dalidio	EB	C	No Peds	2.93	C	3.16	C
22	**Prado Road**	**US 101 SB Ramps**	**US 101 NB Ramps**	**SB**	**C**	**4900**	**3.81**	**D**	**3.63**	**D**
	Prado Road	**US 101 NB Ramps**	**US 101 SB Ramps**	**NB**	**C**	**5512**	**3.54**	**D**	**3.79**	**D**
23	Prado Road	Froom Ranch Road	US 101 SB Ramps	SB	C	6937	3.38	C	3.44	C
	Prado Road	**US 101 SB Ramps**	**Froom Ranch Road**	**NB**	**C**	7733	3.33	C	**3.65**	**D**
24	Dalidio Dr	SC Project Dwy	Froom Ranch Road	SB	C	4500	2.96	C	3.14	C
	Dalidio Dr	Froom Ranch Road	SC Project Dwy	NB	C	15750	3.20	C	3.49	C

Notes:

Sidewalk is present along frontage roads for segments #1 - Madonna Road and #13 - Los Osos Valley Road, and is not accounted for in this analysis.

HCM 2010 Methodologies do not model segments bounded by all-way stop control. Procedures have not been developed yet to address the effect of all-way stop control or yield control on intersection performance from a pedestrian or bicyce perspective. No methodology exists for evaluating two-way stop-controlled interesction performance (with the cross-street stop controlled) for pedestrians and bicycles. However, it is reasoned that it has negligible influence on pedestrian sevice along the segment.

TABLE 85: YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT CONDITIONS SEGMENT LEVEL OF SERVICE: BICYCLE ANALYSIS

BICYCLE SEGMENT LOS						AM PEAK		PM PEAK	
ID	Roadway	From	To	Direction	LOS Threshold	SEGMENT SCORE	LOS	SEGMENT SCORE	LOS
1	Madonna Rd	Oceanaire Dr	LOVR	WB	D	3.73	D	4.05	D
	Madonna Rd	LOVR	Oceanaire Dr	EB	D	3.81	D	3.78	D
2	Madonna Rd	Dalidio	Oceanaire Dr	WB	D	3.16	C	3.23	C
	Madonna Rd	Oceanaire Dr	Dalidio	EB	D	3.60	D	3.44	C
3	Madonna Rd	El Mercado	Dalidio Dr	WB	D	3.30	C	3.18	C
	Madonna Rd	Dalidio Dr	El Mercado	EB	D	3.37	C	3.40	C
4	**Madonna Rd**	**US 101 SB Ramps**	**El Mercado**	**WB**	**D**	3.95	D	**4.31**	**E**
	Madonna Rd	El Mercado	US 101 SB Ramps	EB	D	3.60	D	3.62	D
5	Madonna Rd	US 101 NB Ramps	US 101 SB Ramps	WB	D	3.29	C	3.33	C
	Madonna Rd	US 101 SB Ramps	US 101 NB Ramps	EB	D	3.33	C	3.31	C
6	Madonna Rd	Higuera St	US 101 NB Ramps	WB	D	3.49	C	3.54	D
	Madonna Rd	US 101 NB Ramps	Higuera St	EB	D	3.62	D	3.50	C
7	S. Higuera St	Madonna Rd	Margarita Ave	SB	D	3.92	D	3.89	D
	S. Higuera St	Margarita Ave	Madonna Rd	NB	D	4.09	D	4.22	D
8	S. Higuera St	Margarita Ave	Prado Rd	SB	D	3.68	D	3.68	D
	S. Higuera St	Prado Rd	Margarita Ave	NB	D	3.92	D	4.00	D
9	S. Higuera St	Prado Rd	Granada Dr	SB	D	3.90	D	3.92	D
	S. Higuera St	Granada Dr	Prado Rd	NB	D	3.47	C	3.52	D
10	S. Higuera St	Granada Dr	Tank Farm Road	SB	D	4.15	D	4.19	D
	S. Higuera St	Tank Farm Road	Granada Dr	NB	D	3.53	D	3.56	D
11	S. Higuera St	Tank Farm Road	Suburban Drive	SB	D	3.34	C	3.44	C
	S. Higuera St	Suburban Drive	Tank Farm Road	NB	D	3.48	C	3.42	C
12	S. Higuera St	Suburban Drive	Los Osos Valley Road	SB	D	3.24	C	3.75	D
	S. Higuera St	Los Osos Valley Road	Suburban Drive	NB	D	3.96	D	3.88	D
13	Los Osos Valley	Madonna Rd	Froom Ranch Way	SB	D	3.74	D	3.74	D
	Los Osos Valley	Froom Ranch Way	Madonna Rd	NB	D	3.39	C	3.47	C
14	Los Osos Valley	Froom Ranch Way	Calle Joaquin	SB	D	3.58	D	3.61	D
	Los Osos Valley	Calle Joaquin	Froom Ranch Way	NB	D	3.83	D	3.90	D
15	Los Osos Valley	Calle Joaquin	US 101 SB Ramps	SB	D	3.31	C	3.37	C
	Los Osos Valley	US 101 SB Ramps	Calle Joaquin	NB	D	3.56	D	3.64	D
16	Los Osos Valley	US 101 SB Ramps	US 101 NB Ramps	SB	D	3.73	D	3.72	D
	Los Osos Valley	US 101 NB Ramps	US 101 SB Ramps	NB	D	3.69	D	3.86	D
17	Los Osos Valley	S. Higuera St	US 101 NB Ramps	WB	D	3.38	C	3.51	D
	Los Osos Valley	US 101 NB Ramps	S. Higuera St	EB	D	3.36	C	3.32	C
18	Prado Rd	S. Higuera St	US 101 NB Ramps	WB	D	3.81	D	4.00	D
	Prado Rd	US 101 NB Ramps	S. Higuera St	EB	D	4.00	D	4.04	D
19	Froom Ranch Way	Dick's Sporting Goods I	Los Osos Valley	WB	D	3.50	C	3.70	D
	Froom Ranch Way	Los Osos Valley	Dick's Sporting Goods I	EB	D	3.53	D	3.90	D
20	Dalidio Dr	Madonna Rd	SC Project Dwy	SB	D	3.75	D	3.71	D
	Dalidio Dr	SC Project Dwy	Madonna Rd	NB	D	3.56	D	3.86	D
21	Froom Ranch Way	Dalidio	Dick's Sporting Goods I	WB	D	2.63	B	3.04	C
	Froom Ranch Way	Dick's Sporting Goods I	Dalidio	EB	D	3.72	D	3.68	D
22	**Prado Road**	**US 101 SB Ramps**	**US 101 NB Ramps**	**SB**	**D**	**13.90**	**F**	3.20	C
	Prado Road	**US 101 NB Ramps**	**US 101 SB Ramps**	**NB**	**D**	**12.41**	**F**	3.27	C
23	Prado Road	Froom Ranch Road	US 101 SB Ramps	SB	D	3.23	C	3.23	C
	Prado Road	US 101 SB Ramps	Froom Ranch Road	NB	D	3.24	C	3.33	C
24	Dalidio Dr	SC Project Dwy	Froom Ranch Road	SB	D	4.03	D	4.01	D
	Dalidio Dr	Froom Ranch Road	SC Project Dwy	NB	D	3.67	D	3.81	D

Notes:

HCM 2010 Methodologies do not model segments bounded by all-way stop control. Procedures have not been developed yet to address the effect of all-way stop control or yield control on intersection performance from a pedestrian or bicyce perspective. No methodology exists for evaluating two-way stop-controlled interesction performance (with the cross-street stop controlled) for pedestrians and bicycles. However, it is incorporated into the methodology for evaluateing bicycle segment performance.

TABLE 86: YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT CONDITIONS SEGMENT LEVEL OF SERVICE: TRANSIT ANALYSIS

TRANSIT LOS							AM PEAK		PM PEAK	
ID	Roadway	From	To	Direction	LOS Threshold	Route Name	SEGMENT SCORE	LOS	SEGMENT SCORE	LOS
1	**Madonna Rd**	**Oceanaire Dr**	**LOVR**	**WB**	**D**	**Ruote 4**	4.18	D	**4.27**	**E**
	Madonna Rd	**LOVR**	**Oceanaire Dr**	**EB**	**D**	**Route 5**	**4.46**	**E**	4.01	D
2	**Madonna Rd**	**Dalidio**	**Oceanaire Dr**	**WB**	**D**	**Route 4**	**4.48**	**E**	**4.57**	**E**
	Madonna Rd	**Oceanaire Dr**	**Dalidio**	**EB**	**D**	**Route 5**	**4.72**	**E**	**4.42**	**E**
3	**Madonna Rd**	**El Mercado**	**Dalidio Dr**	**WB**	**D**	**Route 4**	**4.32**	**E**	**4.39**	**E**
	Madonna Rd	**Dalidio Dr**	**El Mercado**	**EB**	**D**	**Route 5**	**4.26**	**E**	4.23	D
4	**Madonna Rd**	**US 101 SB Ramps**	**El Mercado**	**WB**	**D**	**Route 4**	**4.38**	**E**	**4.50**	**E**
	Madonna Rd	**El Mercado**	**US 101 SB Ramps**	**EB**	**D**	**Route 5**	**4.61**	**E**	**4.37**	**E**
5	Madonna Rd	US 101 NB Ramps	US 101 SB Ramps	WB	D	Route 4	4.11	D	4.22	D
	Madonna Rd	US 101 SB Ramps	US 101 NB Ramps	EB	D	Route 5	4.18	D	3.78	D
6	**Madonna Rd**	**Higuera St**	**US 101 NB Ramps**	**WB**	**D**	**Route 4**	**4.28**	**E**	**4.37**	**E**
	Madonna Rd	**US 101 NB Ramps**	**Higuera St**	**EB**	**D**	**Route 5**	**4.46**	**E**	3.70	D
7	S. Higuera St	Madonna Rd	Margarita Ave	SB	D	Route 2	Not Analyzed	N/A	3.54	D
	S. Higuera St	Margarita Ave	Madonna Rd	NB	D	Route 2	3.74	D	4.03	D
8	S. Higuera St	Margarita Ave	Prado Rd	SB	D	Route 2	Not Analyzed	N/A	4.23	D
	S. Higuera St	**Prado Rd**	**Margarita Ave**	**NB**	**D**	**Route 2**	4.24	D	**4.44**	**E**
9	**S. Higuera St**	**Prado Rd**	**Granada Dr**	**SB**	**D**	**Route 2**	**4.40**	**E**	**4.36**	**E**
	S. Higuera St	Granada Dr	Prado Rd	NB	D	Route 2	3.83	D	4.08	D
10	S. Higuera St	Granada Dr	Tank Farm Road	SB	D	Route 2	3.81	D	3.91	D
	S. Higuera St	Tank Farm Road	Granada Dr	NB	D	Route 2	3.56	D	3.70	D
11	S. Higuera St	Tank Farm Road	Suburban Drive	SB	D	-	Not Analyzed	N/A	Not Analyzed	N/A
	S. Higuera St	Suburban Drive	Tank Farm Road	NB	D	Route 2	4.04	D	3.99	D
12	S. Higuera St	Suburban Drive	Los Osos Valley	SB	D	-	Not Analyzed	N/A	Not Analyzed	N/A
	S. Higuera St	Los Osos Valley Road	Suburban Drive	NB	D	-	Not Analyzed	N/A	Not Analyzed	N/A
13	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**D**	**Route 4**	**4.56**	**E**	**4.58**	**E**
	Los Osos Valley	Froom Ranch Way	Madonna Rd	NB	D	Route 4	4.25	D	**4.40**	**E**
13	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**D**	**Route 5**	**4.65**	**E**	**4.39**	**E**
	Los Osos Valley	**Froom Ranch Way**	**Madonna Rd**	**NB**	**D**	**Route 5**	**4.36**	**E**	4.19	D
14	**Los Osos Valley**	**Froom Ranch Way**	**Calle Joaquin**	**SB**	**D**	**Route 4**	**4.29**	**E**	**4.43**	**E**
	Los Osos Valley	Calle Joaquin	Froom Ranch Way	NB	D	0.00	Not Analyzed	N/A	Not Analyzed	N/A
14	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**D**	**Route 5**	**4.41**	**E**	4.20	D
	Los Osos Valley	Froom Ranch Way	Madonna Rd	NB	D	0.00	Not Analyzed	N/A	Not Analyzed	N/A
15	Los Osos Valley	Calle Joaquin	US 101 SB Ramps	SB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Los Osos Valley	US 101 SB Ramps	Calle Joaquin	NB	D		Not Analyzed	N/A	Not Analyzed	N/A
16	Los Osos Valley	US 101 SB Ramps	US 101 NB Ramps	SB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Los Osos Valley	US 101 NB Ramps	US 101 SB Ramps	NB	D		Not Analyzed	N/A	Not Analyzed	N/A
17	Los Osos Valley	S. Higuera St	US 101 NB Ramps	WB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Los Osos Valley	US 101 NB Ramps	S. Higuera St	EB	D		Not Analyzed	N/A	Not Analyzed	N/A
18	Prado Rd	S. Higuera St	US 101 NB Ramps	WB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Prado Rd	US 101 NB Ramps	S. Higuera St	EB	D	Route 2	4.08	D	Not Analyzed	N/A
19	Froom Ranch	Dick's Sporting	Los Osos Valley	WB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Froom Ranch	Los Osos Valley	Dick's Sporting	EB	D		Not Analyzed	N/A	Not Analyzed	N/A
20	**Dalidio Dr**	**Madonna Rd**	**SC Project Dwy**	**SB**	**D**	**Route 4**	**4.46**	**E**	**4.42**	**E**
	Dalidio Dr	**Madonna Rd**	**SC Project Dwy**	**SB**	**D**	**Route 5**	**4.45**	**E**	**4.32**	**E**
21	Froom Ranch	Dalidio	Dick's Sporting	WB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Froom Ranch	Dick's Sporting	Dalidio	EB	D		Not Analyzed	N/A	Not Analyzed	N/A
22	Prado Road	US 101 SB Ramps	US 101 NB Ramps	SB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Prado Road	US 101 NB Ramps	US 101 SB Ramps	NB	D		Not Analyzed	N/A	Not Analyzed	N/A
23	Prado Road	Froom Ranch Road	US 101 SB Ramps	SB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Prado Road	US 101 SB Ramps	Froom Ranch Road	NB	D		Not Analyzed	N/A	Not Analyzed	N/A
24	**Dalidio Dr**	**SC Project Dwy**	**Froom Ranch Road**	**SB**	**D**		**4.34**	**E**	**4.33**	**E**
	Dalidio Dr	**Froom Ranch Road**	**SC Project Dwy**	**NB**	**D**		**4.38**	**E**	**4.52**	**E**

Note: Route 2 Serves the Prado Day Center stop during the AM peak hour, and the DMV/Margarita stop during the PM Peak Hour

Segment 20 transit is southbound for routes 4 and 5

TABLE 87: YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT CONDITIONS SEGMENT LEVEL OF SERVICE: FREEWAY ANALYSIS

Interchange Location	Target LOS	Segment Type	No. of Lanes	AM Peak Hour Volume	AM Peak Hour Density (pc/mi/ln)	AM Peak Hour LOS	PM Peak Hour Volume	PM Peak Hour Density (pc/mi/ln)	PM Peak Hour LOS
US 101 at Los Osos Valley Road									
US 101 NB South of Los Osos Valley Road	C	Freeway	2	**3,491**	**33.2**	**D**	2,728	24.1	C
US 101 SB South of Los Osos Valley Road	C	Freeway	2	1,915	16.8	B	**3,901**	**40.2**	**E**
US 101 at Prado Road									
US 101 NB South of Prado Road	C	Freeway	2	**2,955**	**26.4**	**D**	2,621	23.1	C
US 101 SB South of Prado Road	C	Freeway	2	2,110	18.5	C	**3,564**	**34.3**	**D**
US 101 at Madonna Road									
US 101 NB South of Madonna Road	C	Freeway	2	**2,942**	**26.3**	**D**	**3,098**	**28.0**	**D**
US 101 SB South of Madonna Road	C	Freeway	2	2,629	23.1	C	**3,758**	**37.5**	**E**

As shown in the Year 2035 Full Build Prado Interchange Plus Project Conditions segment analysis tables, most of the pedestrian and transit facilities are projected to operate at unacceptable levels of service as well as several segments for automobile mode and only one segment for the bicycle mode.

Year 2035 Full Build Prado Interchange Plus Project Impacts & Mitigation Measures

This section presents the project-related impacts and mitigation measures at the study intersections and segments, developed based on the findings from the analyses presented in the prior sections of this report. Improvements are identified only where this is a significant project impact, based on the significance thresholds identified previously.

Table 88 presents the intersections projected to operate at unacceptable levels of service for vehicle, pedestrian, bicycle, and transit travel modes under 2035 Full Build Prado Interchange Plus Project conditions, and whether the project has a significant impact based on the thresholds listed above. Table 89 presents the US 101 Mainline project impacts for 2035 Full Build Prado Interchange Plus Project conditions. Tables 90A and 90B present the roadway segments projected to operate at unacceptable levels of service for vehicle, pedestrian, bicycle, and transit travel modes under 2035 Full Build Prado Interchange Plus Project AM and PM peak hour conditions, respectively, and whether the project has a significant impact based on the thresholds listed above. Table 91 presents the project impacts for the queuing analysis at the study intersections.

TABLE 88:
YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT SIGNIFICANT INTERSECTION IMPACTS

Intersection #	3				9				10		11	
Name	S. Higuera Street/Prado Road				Los Osos Valley Road/ Froom Ranch Way				Los Osos Valley Road/ Auto Park Way		Los Osos Valley Road/ US 101 SB Ramps	
Mode	AUTO		PED		AUTO		BIKE		AUTO		PED	
SCENARIO	v/c	LOS	v/c	LOS	v/c	LOS	v/c	LOS	Score	LOS	v/c	LOS
AM PEAK HOUR			EB								NB	
Year 2035 Full Build	5.81	F	3.61	D	-	C	3.54	D	-	C	3.07	C
Year 2035 FB Plus Project	6.50	F	3.66	D	-	C	3.56	D	-	C	3.25	C
Significant Impact?	**Yes**		No		No		No		No		No	
PM PEAK HOUR			EB								NB	
Year 2035 Full Build	8.74	F	4.24	D	1.05	E	4.57	E	0.51	E	3.51	D
Year 2035 FB Plus Project	8.93	F	4.27	E	1.09	E	4.60	E	0.54	F	3.52	D
Significant Impact?	**Yes**		No		**Yes**		No		**Yes**		No	

Note: V/C Ratio is based on worst movement

TABLE 88 (CONT'D.):
YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT SIGNIFICANT INTERSECTION IMPACTS

Intersection #	14		15		16	
Name	Los Osos Valley Road/ S. Higuera Street		S. Higuera Street/ Suburban Drive		Madonna Road/ Dalidio Drive	
Mode	PED		PED		AUTO	
SCENARIO	v/c	LOS	v/c	LOS	v/c	LOS
AM PEAK HOUR	EB		NB			
Year 2035 Full Build	3.01	C	3.29	C	1.75	F
Year 2035 FB Plus Project	3.02	C	3.31	C	1.77	F
Significant Impact?	No		No		**Yes**	
PM PEAK HOUR	EB		NB			
Year 2035 Full Build	3.67	D	3.93	D	-	C
Year 2035 FB Plus Project	3.65	D	3.94	D	-	C
Significant Impact?	No		No		**No**	

Note: V/C Ratio is based on worst movement

TABLE 89:
YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT SIGNIFICANT US 101 MAINLINE IMPACTS

Location	South of Los Osos Valley Road				South of Prado Road				South of Madonna Road			
Direction	US 101 NB		US 101 SB		US 101 NB		US 101 SB		US 101 NB		US 101 SB	
SCENARIO	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
AM PEAK HOUR												
Year 2035 Full Build	32.8	D	-	-	26.2	D	-	-	25.9	C	-	-
Year 2035 Plus Project	33.2	D	-	-	26.4	D	-	-	26.3	D	-	-
Difference	0.4				0.2				0.4			
Percent Change	1.2%				0.8%				1.5%			
Significant Impact?	No		n/a		No		n/a		No		n/a	
PM PEAK HOUR												
Year 2035 Full Build	-	-	39.5	E	-	-	33.9	D	27.4	C	36.6	E
Year 2035 Plus Project	-	-	40.2	E	-	-	34.3	D	28	D	37.5	E
Difference			0.7				0.4		0.6		0.9	
Percent Change			1.8%				1.2%		2.2%		2.5%	
Significant Impact?	n/a		No		n/a		No		No		No	

Note: conducted for deficient operations only

TABLE 90A: YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT SIGNIFICANT ROADWAY IMPACTS

2035 Full Build Prado Multimodal Segment LOS				Auto Mode					Pedestrian Mode					Bicycle Mode					Transit Mode				
AM PEAK HOUR					*2025*		*2025 Plus Project*			*2035 Full Build*		*2035 FB PP*			*2035 Full Build*		*2035 FB PP*			*2035 Full Build*		*2035 FB PP*	
ID	Roadway	From	To	Direction	Auto LOS Threshold	Travel Speed (mph)	LOS	Travel Speed (mph)	LOS	**Significant Impact?**	Ped LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Bike LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Transit LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**
2	Madonna Rd	Oceanaire Dr	Dalidio	EB	D	12.3	**E**	9.3	**F**	**Yes**	C	4.06	**D**	4.07	**D**	No	D	3.60	D	3.60	D	No	D	4.73	**E**	4.72	**E**	No
3	Madonna Rd	El Mercado	Dalidio Dr	WB	D	17.0	D	17.4	C	No	C	3.45	C	3.56	**D**	**Yes**	D	3.29	C	3.30	C	No	D	4.31	**E**	4.32	**E**	No
7	S. Higuera St	Madonna Rd	Margarita Ave	SB	D	34.0	B	32.0	B	No	C	3.17	C	3.92	**D**	**Yes**	D	3.92	D	3.92	D	No	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	
19	Froom Ranch Way	Dick's Sporting Good	Los Osos Valley	WB	D	14.9	**E**	16.1	D	No	C	3.47	C	3.53	**D**	**Yes**	D	3.44	C	3.50	C	No	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	
20	Dalidio Dr	Madonna Rd	SC Project Dwy	SB	D	-	-	22.0	C	No	C	-	-	3.39	C	Mo	D	-	-	3.75	D	No	D	4.21	D	4.46	**E**	**Yes**
20	Dalidio Dr	SC Project Dwy	Madonna Rd	NB	D	0.3	**F**	0.4	**F**	No	C	3.20	C	3.29	C	No	D	3.51	D	3.56	D	No	D	4.25	D	4.45	**E**	**Yes**
22	Prado Road	US 101 SB Ramps	US 101 NB Ramps	SB	D	20.3	C	19.9	C	No	C	3.73	**D**	3.81	**D**	No	D	3.25	C	13.90	**F**	**Yes**	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	
22	Prado Road	US 101 NB Ramps	US 101 SB Ramps	NB	D	21.7	B	21.6	B	No	C	3.48	C	3.54	**D**	**Yes**	D	3.18	C	12.41	**F**	**Yes**	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	
23	Prado Road	US 101 SB Ramps	Froom Ranch Road	NB	D	18.4	C	13.2	**E**	**Yes**	C	3.24	C	3.33	C	No	D	3.21	C	3.24	C	No	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	
24	Dalidio Dr	SC Project Dwy	Froom Ranch Road	SB	D	11.6	**E**	9.4	**F**	**Yes**	C	3.32	C	2.96	C	No	D	3.98	D	4.03	D	No	D	4.31	**E**	4.34	**E**	No

Note: Segment 20 transit is southbound for routes 4 and 5; Segment 21 pedestrian and bicycle service will be further evaluated using off-street facilities methodologies.

2035 Full Build Prado Multimodal Segment LOS				Auto Mode					Pedestrian Mode					Bicycle Mode					Transit Mode				
PM PEAK HOUR					*2025*		*2025 Plus Project*			*2035 Full Build*		*2035 FB PP*			*2035 Full Build*		*2035 FB PP*			*2035 Full Build*		*2035 FB PP*	
ID	Roadway	From	To	Direction	Auto LOS Threshold	Travel Speed (mph)	LOS	Travel Speed (mph)	LOS	**Significant Impact?**	Ped LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Bike LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Transit LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**
3	Madonna Rd	Dalidio Dr	El Mercado	EB	D	13.3	**E**	12.0	**E**	**Yes**	C	3.70	**D**	3.75	**D**	No	D	3.39	C	3.40	C	No	D	4.21	D	4.23	D	No
11	S. Higuera St	Suburban Drive	Tank Farm Road	NB	D	16.6	D	16.3	**E**	**Yes**	C	3.53	**D**	3.53	**D**	No	D	3.42	C	3.42	C	No	D	3.99	D	3.99	D	No
16	Los Osos Valley	US 101 NB Ramps	US 101 SB Ramps	NB	D	32.4	A	30.9	B	No	C	3.34	C	4.13	**D**	**Yes**	D	3.88	D	3.86	D	No	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	
20	Dalidio Dr	Madonna Rd	SC Project Dwy	SB	D	-	-	18.5	D	No	C	-	-	3.35	C	No	D	-	-	3.71	D	No	D	4.21	D	4.42	**E**	**Yes**
20	Dalidio Dr	SC Project Dwy	Madonna Rd	NB	D	0.2	**F**	0.2	**F**	No	C	3.49	C	3.53	**D**	**Yes**	D	3.80	D	3.86	D	No	D	4.06	D	4.32	**E**	**Yes**
23	Prado Road	US 101 SB Ramps	Froom Ranch Road	NB	D	12.6	**E**	6.3	**F**	**Yes**	C	3.54	**D**	3.65	**D**	No	D	5.24	**F**	3.33	C	No	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	
24	Dalidio Dr	SC Project Dwy	Froom Ranch Road	SB	D	10.9	**E**	7.9	**F**	**Yes**	C	3.29	C	3.14	C	No	D	3.97	D	4.01	D	No	D	4.32	**E**	4.33	**E**	No
24	Dalidio Dr	Froom Ranch Road	SC Project Dwy	NB	D	-	-	11.6	**E**	**Yes**	C	-	-	3.49	C	No	D	-	-	3.81	D	No	D	4.20	D	4.52	**E**	**Yes**

Note: Segments 20 and 24 transit is southbound for Routes 4 and 5

TABLE 91:
YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT CONDITIONS 95TH PERCENTILE QUEUING ANALYSIS

Intersection					2035		2035 PP Conditions	
					95th Percentile Queue/Lane (ft)		95th Percentile Queue/Lane (ft)	
ID	Location	Movement	No. Lanes	Total Storage (ft)[1]	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1	Madonna Road/Los Osos Valley Road	Northbound Right	1	175	98	**187**	111	**263**
		Southbound Left	2	350	275	262	**358**	309
2	Madonna Road/Oceanaire Drive	Westbound Right	1	100	70	**123**	**101**	**183**
3	Madonna Road/Dalidio Drive	Eastbound Left	1	115	**119**	**121**	98	**132**
		Westbound Left	1	275	**317**	**353**	**332**	**336**
		Southbound Right	1	50	19	42	15	**53**
4	Madonna Road/El Mercado	Westbound Left	2	260	73	**522**	64	**534**
5	Madonna Road/US 101 SB Ramps/Madonna Inn	Westbound Left	1	260	168	**423**	187	**491**
6	Madonna Road/US 101 NB Ramps/Madonna Inn	Northbound Left	1	185	77	142	71	**225**
7	Madonna Road/Higuera Street	Northbound Left	1	160	125	**277**	130	**383**
		Southbound Left/Through	2	380	259	**470**	246	**513**
		Southbound Right	2	340	0	258	33	**578**
8	Higuera Street/South Street	Eastbound Right	1	60	45	60	45	**94**
		Westbound Left	2	240	**257**	**556**	**306**	**933**
		Northbound Left	1	60	**74**	**89**	**96**	49
		Southbound Left	1	70	**114**	**114**	**115**	**133**
9	Los Osos Valley Road/Froom Ranch Way	Eastbound Left	2*	250	110	**601**	187	**641**
		Eastbound Through/Right	1	445	286	**576**	376	**598**
		Westbound Right	1	50	**82**	**98**	**87**	**119**
		Southbound Left	2	200	**210**	**291**	**304**	**246**
10	Los Osos Valley Road/Auto Park Way	Southbound Left	1	60	9	6	**95**	46
12	Los Osos Valley Road/US 101 SB Ramps	Westbound Left/Through	1	180	95	90	**277**	**190**
		Southbound Through	1	240	161	177	**346**	**353**
		Southbound Right	1	125	**286**	**182**	**197**	**186**
14	S. Higuera Street/Los Osos Valley Road	Northbound Left	1	160	**211**	**183**	127	**248**
15	S. Higuera Street/Suburban Drive	Southbound Left	1	200	**397**	**299**	**217**	**322**
16	S. Higuera Street/Tank Farm Road	Northbound Left	1	140	23	**329**	**251**	71
		Southbound Left	1	165	**185**	**180**	**377**	**225**
18	S. Higuera Street/Prado Road	Eastbound Left	2	150	114	**165**	**193**	79
		Westbound Left	2	105	**229**	**115**	97	**262**
		Northbound Left	2	100	98	**247**	**190**	**275**
19	S. Higuera Street/Margarita Avenue	Northbound Left	1	60	42	42	**104**	**76**
20	Prado Road/US 101 NB Ramps	Northbound Right	1	150	0	0	146	**193**

Notes 1. Bolded entries indicate queues exceed available storage

2. Storage Length of " - " represents a lane which exceeds 900 feet, usually a through lane.

3. For Movements with more than one lane, the maximum of the 95th percentile queue is reported.

Red Cells represent New Impacts from Project-added traffic

Yellow Cells represent Existing queues exceeding storage that are increased by

Year 2035 Full Build Prado Interchange Plus Project Mitigation Measures

The mitigation measures have been summarized in Table 92, identifying which mitigation measures are projected to reduce the project's impact to acceptable levels of service for the corresponding intersection or segment, for each mode. Additionally, it is important to note that the optimization of throughput to mitigate segment impacts may create queuing impacts for opposing movements. Fair share calculations are included in a subsequent section of this report for Year 2035 Full Build Prado Interchange Plus Project impacts and mitigations measures.

TABLE 92: YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT MITIGATION MEASURES SUMMARY

2035 FB Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Intersection #1 Madonna Rd/Los Osos Valley Rd	Auto (Queue)	Addition of project traffic would: •Exacerbate the existing northbound right queue in the PM peak hour •Result in a new impact to the southbound left queue in the AM peak hour	•Extension of the northbound right turn pocket to 295' would improve this condition to an acceptable level, and would require the relocation of the existing frontage road. •Optimize timings to improve operations at this intersection. Optimization of throughput for northbound approach may create queuing impacts for this opposing movement.
Intersection #2 Madonna Rd/Oceanaire Dr	Auto (Queue)	Addition of project traffic would: •Result in a new impact to the westbound right queue in the AM peak hour and exacerbate the queue in the PM peak hour	•Extension of the westbound right turn pocket to 200' would improve this condition to an acceptable level, but may require expansion of bridge/ culvert.
Intersection #3 Madonna Rd/Dalidio Dr	Auto	This intersection is projected to operate at unacceptable LOS F in the AM and PM peak hours. The addition of Project traffic exacerbates this unacceptable condition by increasing delay and v/c ratio.	2025 Plus Project Mitigations are projected to mitigate the impact to acceptable conditions. See Table 65.
Intersection #3 Madonna Rd/Dalidio Dr	Auto (Queue)	Addition of project traffic would: •Exacerbate the eastbound left queue in the PM peak hour. •Exacerbate the westbound left queue in the AM peak hour. •Result in a new impact to the southbound right in the PM peak hour.	•Extension of the eastbound left turn pocket to 145' would improve this condition to an acceptable level. •Extension of the westbound left turn pocket to 365' would improve this condition to an acceptable level. •Existing southbound right storage can accommodate 95th percentile queue.

TABLE 92: YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT MITIGATION MEASURES SUMMARY

2035 FB Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Intersection #4 Madonna Rd/El Mercado	Auto (Queue)	Addition of project traffic would exacerbate the westbound left queue in the PM peak hour.	Extension of the westbound left turn pocket is not feasible due to existing median and shopping center driveway. Addition of a second westbound left turn pocket at Intersection #3 Madonna Rd/Dalidio Dr would improve this condition to an acceptable level.
Intersection #5 Madonna Rd/US 101 SB Ramps/Madonna Inn	Auto (Queue)	Addition of project traffic would exacerbate the westbound left queue in the PM peak hour.	• Optimize timings to improve the operations at this intersection.
Intersection #6 Madonna Rd/US 101 NB Ramps	Auto (Queue)	Addition of project traffic would result in a new impact to the northbound left in the PM peak hour.	• Optimize timings to improve the operations at this intersection.
Intersection #7 Madonna Rd/S. Higuera St	Auto (Queue)	Addition of project traffic would: •Exacerbate the northbound left queue in the PM peak hour. •Exacerbate the southbound left/through queue in the PM peak hour. •Result in a new impact to the southbound right queue in the PM peak hour.	Relocation of this intersection is part of Circulation Element and will necessitate improvements based on engineering feasibility not included in this analysis. •Geometric improvements are recommended to be constructed in coordination with the planned relocation of Madonna Road/S. Higuera Street to minimize potential impacts to adjacent property owners and impacts to the intersection operations.

TABLE 92: YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT MITIGATION MEASURES SUMMARY

2035 FB Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Intersection #8 Higuera St/South St	Auto (Queue)	Addition of project traffic would: •Result in a new impact to the eastbound right queue in the PM peak hour. •Exacerbate the westbound left queue in the AM and PM peak hours. •Exacerbate the northbound left queue in the AM peak hour. •Exacerbate the southbound left queue in the AM and PM peak hours	•Extension of the eastbound right turn pocket to 100' would improve this condition to an acceptable level. Removal of on-street parking would be required with potential access implications. •Although westbound queues are projected to extend past Parker Street driveway, they can be accommodated within the lane. •Extension of the northbound left turn pocket to 120' would improve this condition to an acceptable level. Geometric improvements to the northbound approach are recommended to be constructed in coordination with the planned relocation of Madonna Road/S. Higuera Street to minimize potential impacts to adjacent property owners and impacts to the intersection operations. •Extension of the southbound left turn pocket to 200' would improve this condition to an acceptable level. Southbound left turn queues can be accommodated within the center turn lane without driveway access implications. Pocket striping could be extended but may affect driveway access.
Intersection #9 Los Osos Valley Road/Froom Ranch Way	Auto	This intersection is projected to operate at unacceptable LOS E in the PM peak hour. The addition of Project traffic exacerbates this unacceptable condition by increasing delay and v/c ratio.	2025 Plus Project Mitigations are projected to mitigate the impact to acceptable conditions. See Table 65.

TABLE 92: YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT MITIGATION MEASURES SUMMARY

2035 FB Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Intersection #9 Los Osos Valley Road/Froom Ranch Way	Auto (Queue)	Addition of project traffic would: •Exacerbate the eastbound left queue in the PM peak hour. •Exacerbate the eastbound through/right queue in the PM peak hour. •Exacerbate the westbound right queue in the AM and PM peak hours. •Exacerbate the southbound left queue in the AM peak hour.	•2025 Plus Project Mitigations are projected to mitigate the impacts to acceptable conditions for the EB and WB approaches. See Table 65. •Extension of the southbound left turn pocket to 325' would improve this condition to an acceptable level, but may be infeasible due to existing raised median and the back-to-back turn pocket.
Intersection #10 Los Osos Valley Road/Auto Park Way	Auto	This intersection is projected to operate at unacceptable LOS E in the PM peak hour. The addition of Project traffic exacerbates this unacceptable condition by increasing delay, LOS to F, and v/c ratio.	Installation of a traffic signal is not currently warranted. Ultimately, signalization will be required to allow access to future adjacent development. Signalization will provide acceptable operations.
Intersection #10 Los Osos Valley Road/Auto Park Way	Auto (Queue)	Addition of project traffic would result in a new impact to the southbound left queue in the AM peak hour.	Extension of the southbound left turn pocket to 100' would improve this condition to an acceptable level. Left turn queues can be accommodated within the center turn lane without driveway access implications. Pocket striping could also be extended without current access implications.
Intersection #12 Los Osos Valley Road/US 101 SB Ramps	Auto (Queue)	Addition of project traffic would: •Result in a new impact to the westbound left/through queue in the AM and PM peak hours. •Result in a new impact to the southbound through queue in the AM and PM peak hours.	•Extension of the westbound left/through storage to 295' would improve this condition to an acceptable level. •Extension of the southbound through storage is not feasible due to existing intersection spacing.
Intersection #14 Los Osos Valley Road/S. Higuera St	Auto (Queue)	Addition of project traffic would exacerbate the northbound left queue in the PM peak hour.	Extension of the northbound left turn lane to 275' would improve this condition to an acceptable level. Left turn queues can be accommodated within the center turn lane without driveway access implications. Pocket striping could be extended but may affect driveway access.

TABLE 92: YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT MITIGATION MEASURES SUMMARY

2035 FB Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Intersection #15 S. Higuera St/Suburban Rd	Auto (Queue)	Addition of project traffic would exacerbate the southbound left queue in the PM peak hour.	Extension of the southbound left turn pocket to 325' may not be feasible due to back-to-back northbound left turn pocket at S. Higuera St/Las Praderas Dr.
Intersection #16 Higuera Rd/Tank Farm Rd	Auto	This intersection is projected to operate at unacceptable LOS F in the AM peak hour. The addition of Project traffic exacerbates this unacceptable condition by increasing delay and v/c ratio.	• Construct a Northbound channelized right turn with yield control.
Intersection #16 Higuera Rd/Tank Farm Rd	Auto (Queue)	Addition of project traffic would: •Result in a new impact to the northbound left queue in the AM peak hour •Exacerbate southbound left queues in the AM and PM peak hours.	•Optimization of signal timings and the installation of a northbound channelized right turn with yield control would improve this condition to an acceptable level. •Extension of the southbound left turn pocket to 270' would improve this condition to an acceptable level.
Intersection #18 Higuera Rd/Prado Rd	Auto (Queue)	Addition of project traffic would: •Result in a new impact to the eastbound left queue in the AM peak hour. •Exacerbate the westbound left queue in the PM peak hour. •Result in a new impact to the northbound left queue in the AM peak hour, and exacerbate the queue in the PM peak hour.	•Geometric improvements are recommended to be constructed in coordination with planned improvements to this intersection. •Extension of the eastbound left turn pocket to 205' would improve this condition to an acceptable level. •Extension of the westbound left turn pocket to 300' would improve this condition to an acceptable level. •Extension of the northbound left turn pocket to 275' would improve this condition to an acceptable level. Left turn queues can be accommodated within the center turn lane without driveway access implications. Pocket striping could be extended but may affect driveway access.

TABLE 92: YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT MITIGATION MEASURES SUMMARY

2035 FB Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Intersection #19 Higuera Rd/Margarita Ave	Auto (Queue)	Addition of project traffic would result in a new impact to the northbound left queue in the AM and PM peak hours.	Extension of the northbound left turn pocket to 125' would improve this condition to an acceptable level. Left turn queues can be accommodated within the center turn lane without driveway access implications. Pocket striping could be extended but may affect driveway access.
Intersection #20 Prado Rd/US 101 NB Ramps	Auto (Queue)	Addition of project traffic would result in a new impact to the northbound right queue in the PM peak hour.	Extension of the northbound right turn pocket to 215' would improve this condition to an acceptable level.
Segment #2: Madonna Rd EB - Oceanaire Dr to Dalidio Dr	Auto	This segment is projected to operate at unacceptable LOS E in the AM peak hour. The addition of Project traffic exacerbates this unacceptable condition by decreasing the travel speed by 1 mph or more, as well as resulting in LOS F.	2025 Plus Project Mitigations are projected to mitigate the impact to acceptable conditions.
Segment #3: Madonna Rd EB - Dalildio Dr to El Mercado	Auto	This segment is projected to operate at unacceptable LOS E in the PM peak hour. The addition of Project traffic exacerbates this unacceptable condition by decreasing the travel speed by 1 mph or more.	• Optimize timings at the intersection of Madonna Road/El Mercado to improve the operations of the EB throughput. However, optimization of throughput may create queuing impacts for opposing movements.
Segment #3: Madonna Rd WB - El Mercado to Dalidio Dr	Ped	The Project added traffic increases the Ped Score on this segment to be an unacceptable LOS D in the AM peak hour.	See Table 65.
Segment #7: Higuera St SB - Madonna Road to Margarita Ave*	Ped	The Project added traffic increases the Ped Score on this segment to be an unacceptable LOS D in the AM peak hour.	See Table 65.
Segment #11: Higuera St NB - Suburban Drive to Tank Farm Road	Auto	The Project added traffic results in a decrease in the travel speed and results in unacceptable LOS E in the PM peak hour.	• Optimize Timings at the intersection of S. Higuera St/Tank Farm Road to improve the operations of the NB throughput. However, optimization of throughput may create queuing impacts for opposing movements.

TABLE 92: YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT MITIGATION MEASURES SUMMARY

2035 FB Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Segment #16: Los Osos Valley Road NB - US 101 NB Ramps to US 101 SB Ramps	Ped	The Project added traffic increases the Ped Score on this segment to be an unacceptable LOS D in the PM peak hour.	The City considers Pedestrians as the lowest modal priority for Commercial Corridors and Areas, as well as for Regional Arterial/Highway Corridors, which LOVR is classified as. With the recently constructed interchange improvements, continuous sidewalk of sufficient width is provided. The low service level is attributable to the high vehicle volumes on LOVR, as well as the crossing delay at the adjacent intersection. However, it is projected that the Project will add a negligible amount of pedestrians along this segment and crossing LOVR at the ramps.
Segment #19: Froom Ranch Way WB - Dick's Sporting Good Dwy to LOVR	Ped	The Project added traffic increases the Ped Score on this segment to be an unacceptable LOS D in the AM peak hour.	The impact and low Ped Score is attributable to this segment not having continuous sidewalks on the north side of Froom Ranch Way, as well as the Project added vehicular and pedestrian traffic. Installing a continuous sidewalk with a 4-foot buffer and connection to the Project's proposed Class I path along Froom Ranch Way is recommended.
Segment #20: Dalidio Dr NB - Madonna Rd to SC Project Dwy	Ped	The Project added traffic increases the Ped Score on this segment to be an unacceptable LOS D in the PM peak hour.	See Table 65.
Segment #20: Dalidio Dr NB - Madonna Rd to SC Project Dwy	Transit	The Project added traffic results in a decrease in the travel speed and results in unacceptable LOS E in the AM and PM peak hours for both Transit Routes 4 and 5.	• Decrease Transit Route 4 headway from 30 minutes to 25 minutes. • Decrease Transit Route 5 headway from 30 minutes to 25 minutes.

TABLE 92: YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT MITIGATION MEASURES SUMMARY

2035 FB Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Segment #22: Prado Rd NB - US 101 SB Ramps to US 101 NB Ramps	Ped	The Project added traffic increases the Ped Score on this segment to be an unacceptable LOS D in the AM peak hour.	In order to achieve acceptable LOS a 5-foot buffer between the sidewalk and traveled way would be required, which may not be feasible due to right-of-way and/or cost constraints for the Prado Overpass structure. However, based on the City's Bicycle Transportation Plan, this segment is projected to provide a Class I path with sufficient buffer width, which is not included in this analysis, but could serve as the preferred pathway for pedestrians and provide acceptable LOS.
Segment #22: Prado Rd NB & SB - US 101 NB Ramps to US 101 SB Ramps	Bike	The Project added traffic increases the Bike Score on this segment in the NB and SB directions to be an unacceptable LOS F in the AM peak hour.	The low LOS is attributable to the high vehicular volumes projected along this segment, along with the thru delays at the intersections. Improvements to the proposed Prado Overpass structure may be infeasible due to right-of-way and/or cost constraints. However, based on the City's Bicycle Transportation Plan, this segment is projected to provide a Class I path with sufficient buffer width, which is not included in this analysis, but could serve as the preferred route for bicyclists and provide acceptable LOS.
Segment #23: Prado Rd NB - US 101 SB Ramps to Froom Ranch Rd	Auto	The Project added traffic results in a decrease in the travel speed and results in unacceptable LOS E in the AM peak hour. During the PM peak hour, this segment is projected to operate at unacceptable LOS E, and the Project added traffic exacerbates this unacceptable condition by decreasing the travel speed by 1 mph or more, as well as resulting in LOS F.	For Intersection #21 (Dalidio Drive/Froom Ranch Way): • Install a Multi-lane modern roundabout
Segment #24: Prado Rd NB - Froom Ranch Way to SC Project Dwy	Auto	The Project added traffic results in a decrease in the travel speed and results in unacceptable LOS E in the PM peak hour.	For Intersection #25 (Dalidio Drive/Froom Ranch Way): • Install a Multi-lane modern roundabout

TABLE 92: YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT MITIGATION MEASURES SUMMARY

2035 FB Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Segment #24: Prado Rd SB - SC Project Dwy to Froom Ranch Way	Auto	During the AM and PM peak hours, this segment is projected to operate at unacceptable LOS E, and the Project added traffic exacerbates this unacceptable condition by decreasing the travel speed by 1 mph or more, as well as resulting in LOS F.	For Intersection #21 (Dalidio Drive/Froom Ranch Way): • Install a Multi-lane modern roundabout
Segment #24: Prado Rd SB - SC Project Dwy to Froom Ranch Way	Transit	The Project added traffic results in a decrease in the travel speed and results in unacceptable LOS E in the PM peak hour for Transit Route 5.	• Decrease Transit Route 5 headway from 30 minutes to 25 minutes.

As shown in Table 92 above, some of the mitigations required are the same for Existing Plus Project and Near Term mitigations. Table 93 presents the mitigated intersection LOS operations assuming the proposed mitigation measures to be in place. Table 94 presents the mitigated roadway segment LOS operations assuming the proposed mitigation measures to be in place. Fair Share of improvement cost calculations are provided in a subsequent section of this report.

TABLE 93:
YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT – MITIGATED INTERSECTION LOS

Intersection #	3				9				10		11		14	
Name	S. Higuera Street/Prado Road				Los Osos Valley Road/ Froom Ranch Way				Los Osos Valley Road/ Auto Park Way		Los Osos Valley Road/ US 101 SB Ramps		Los Osos Valley Road/ S. Higuera Street	
Mode	AUTO		PED		BIKE		AUTO		AUTO		PED		PED	
SCENARIO	v/c	LOS	v/c	LOS	v/c	LOS	v/c	LOS	Score	LOS	v/c	LOS	v/c	LOS
AM PEAK HOUR			EB								NB		EB	
Year 2035 Full Build	5.81	F	3.61	D	3.54	D	-	C	-	C	3.07	C	3.01	C
Year 2035 FB Plus Projec	-	D	3.24	C	3.56	D	-	C	-	C	3.25	C	3.02	C
Significant Impact?	No		No		No		No		No		No		No	
PM PEAK HOUR			EB								NB		EB	
Year 2035 Full Build	8.74	F	4.24	D	4.57	E	1.05	E	0.51	E	3.51	D	3.67	D
Year 2035 FB Plus Projec	-	D	3.35	C	4.60	E	-	D	-	D	3.52	D	3.65	D
Significant Impact?	No		No		No		No		No		No		No	

Note: V/C Ratio is based on worst movement

TABLE 93 (CONT'D.):
YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT – MITIGATED INTERSECTION LOS

Intersection #	15		16		21				25			
Name	S. Higuera Street/ Suburban Drive		Madonna Road/ Dalidio Drive		Dalidio Drive/ Froom Ranch Way				Dalidio Drive/ SC Project Driveway			
Mode	PED		AUTO		AUTO*		AUTO*		AUTO*		AUTO*	
SCENARIO	v/c	LOS	v/c	LOS	v/c	LOS	v/c	LOS	v/c	LOS	v/c	LOS
AM PEAK HOUR	NB				Signal		Roundabout		Signal		Roundabout	
Year 2035 Full Build	3.29	C	1.75	F	-	-	-	-	-	-	-	-
Year 2035 FB Plus Project	3.31	C	-	C	-	C	-	A	-	D	-	A
Significant Impact?	No		No		No		No		No		No	
PM PEAK HOUR	NB				Signal		Roundabout		Signal		Roundabout	
Year 2035 Full Build	3.93	D	-	C	-	-	-	-	-	-	-	-
Year 2035 FB Plus Project	3.94	D	-	C	-	C	-	B	-	C	-	B
Significant Impact?	No		No		No		No		No		No	

Note: V/C Ratio is based on worst movement

TABLE 94:
YEAR 2035 FULL BUILD PRADO INTERCHANGE PLUS PROJECT – MITIGATED SEGMENT LOS

2035 Full Build Prado Multimodal Segment LOS				Auto Mode					Pedestrian Mode					Bicycle Mode					Transit Mode				
AM PEAK HOUR					*2025*		*2025 Plus Project*			*2035 Full Build*		*2035 FB PP*			*2035 Full Build*		*2035 FB PP*			*2035 Full Build*		*2035 FB PP*	
ID	Roadway	From	To	Direction	Auto LOS Threshold	Travel Speed (mph)	LOS	Travel Speed (mph)	LOS	Significant Impact?	Ped LOS Threshold	Segment Score	LOS	Segment Score	LOS	Significant Impact?	Bike LOS Threshold	Segment Score	LOS	Segment Score	LOS	Significant Impact?	Transit LOS Threshold	Segment Score	LOS	Segment Score	LOS	Significant Impact?
2	Madonna Rd	Oceanaire Dr	Dalidio	EB	D	12.3	**E**	19.8	D	No	C	4.06	D	3.96	D	No	D	3.60	D	3.60	D	No	D	4.73	**E**	4.72	**E**	No
3	Madonna Rd	El Mercado	Dalidio Dr	WB	D	17.0	D	16.0	D	No	C	3.45	C	3.33	C	No	D	3.29	C	3.30	C	No	D	4.31	**E**	4.23	D	No
7	S. Higuera St	Madonna Rd	Margarita Ave	SB	D	34.0	B	32.0	B	No	C	3.17	C	3.87	D	**Yes**	D	3.92	D	3.92	D	No	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	
19	Froom Ranch Way	Dick's Sporting Good	Los Osos Valley	WB	D	14.9	**E**	14.6	**E**	No	C	3.47	C	3.50	C	No	D	3.44	C	3.50	C	No	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	
20	Dalidio Dr	Madonna Rd	SC Project Dwy	SB	D	-	-	23.8	C	No	C	-	-	3.42	C	No	D	-	-	3.79	D	No	D	4.21	D	4.25	D	No
20	Dalidio Dr	SC Project Dwy	Madonna Rd	NB	D	0.3	**F**	12.6	**E**	No	C	3.20	C	3.31	C	No	D	3.51	D	3.56	D	No	D	4.25	D	4.22	D	No
22	Prado Road	US 101 SB Ramps	US 101 NB Ramps	SB	D	20.3	C	19.9	C	No	C	3.73	D	3.81	D	No	D	3.25	C	13.90	**F**	**Yes**	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	
22	Prado Road	US 101 NB Ramps	US 101 SB Ramps	NB	D	21.7	B	21.6	B	No	C	3.48	C	3.50	C	No	D	3.18	C	12.41	**F**	**Yes**	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	
23	Prado Road	US 101 SB Ramps	Froom Ranch Road	NB	D	18.4	C	24.2	B	No	C	3.24	C	3.38	C	No	D	3.21	C	3.25	C	No	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	
24	Dalidio Drive	SC Project Dwy	Froom Ranch Road	SB	D	11.6	**E**	14.9	D	No	C	3.32	C	2.96	C	No	D	3.98	D	4.04	D	No	D	4.31	**E**	4.34	**E**	No

Note: Segment 20 transit is southbound for routes 4 and 5; Segment 21 pedestrian and bicycle service will be further evaluated using off-street facilities methodologies.

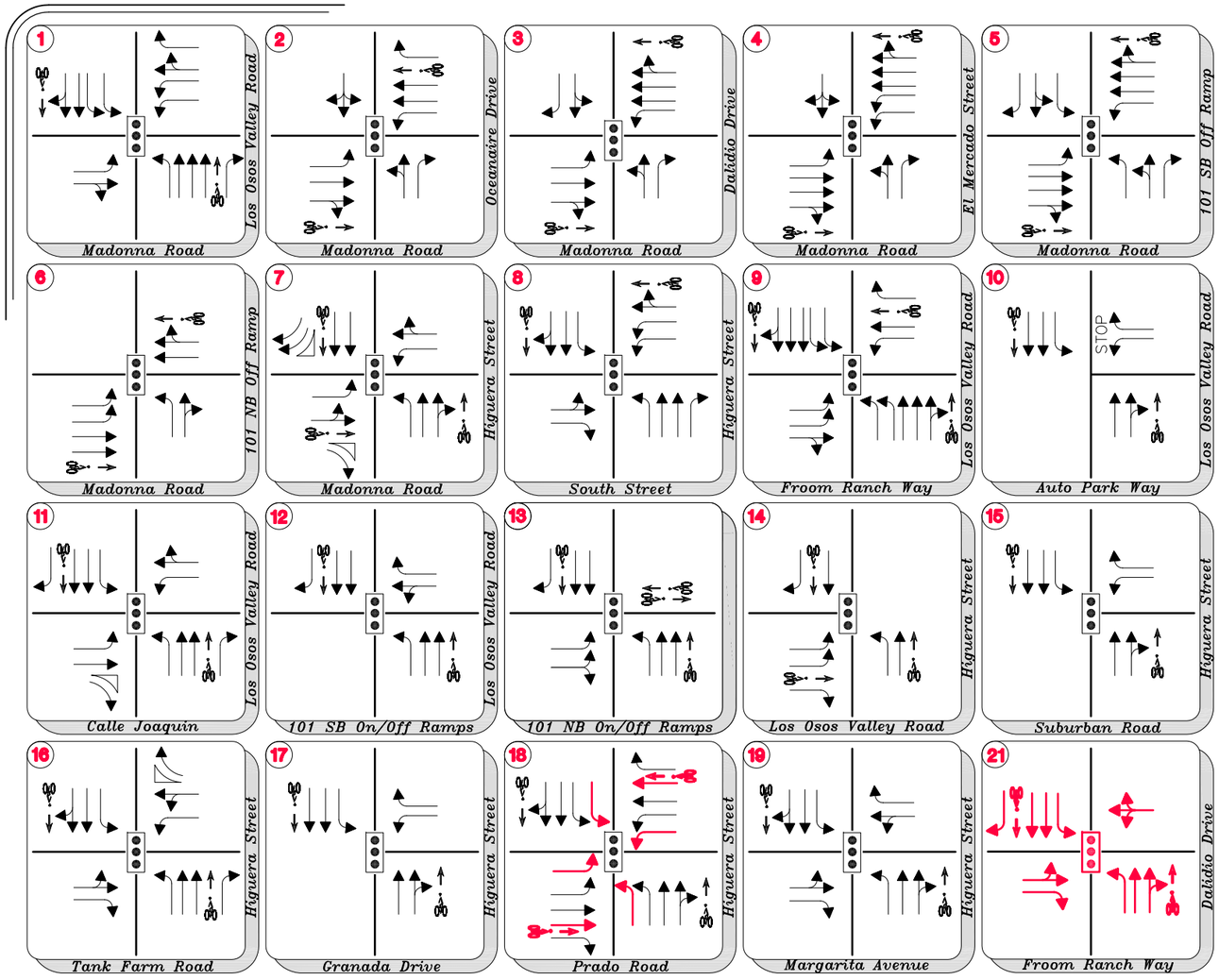
2035 Full Build Prado Multimodal Segment LOS				Auto Mode					Pedestrian Mode					Bicycle Mode					Transit Mode				
PM PEAK HOUR					*2025*		*2025 Plus Project*			*2035 Full Build*		*2035 FB PP*			*2035 Full Build*		*2035 FB PP*			*2035 Full Build*		*2035 FB PP*	
ID	Roadway	From	To	Direction	Auto LOS Threshold	Travel Speed (mph)	LOS	Travel Speed (mph)	LOS	Significant Impact?	Ped LOS Threshold	Segment Score	LOS	Segment Score	LOS	Significant Impact?	Bike LOS Threshold	Segment Score	LOS	Segment Score	LOS	Significant Impact?	Transit LOS Threshold	Segment Score	LOS	Segment Score	LOS	Significant Impact?
3	Madonna Rd	Dalidio Dr	El Mercado	EB	D	13.3	**E**	14.0	D	No	C	3.70	D	3.75	D	No	D	3.39	C	3.40	C	No	D	4.21	D	4.23	D	No
11	S. Higuera St	Suburban Drive	Tank Farm Road	NB	D	16.6	D	16.6	D	No	C	3.53	D	3.52	D	No	D	3.42	C	3.42	C	No	D	3.99	D	3.99	D	No
16	Los Osos Valley	US 101 NB Ramps	US 101 SB Ramps	NB	D	32.4	A	26.7	B	No	C	3.34	C	4.13	D	**Yes**	D	3.88	D	3.86	D	No	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	
20	Dalidio Dr	Madonna Rd	SC Project Dwy	SB	D	-	-	19.8	C	No	C	-	-	3.38	C	No	D	-	-	3.75	D	No	D	4.21	D	4.23	D	No
20	Dalidio Dr	SC Project Dwy	Madonna Rd	NB	D	0.2	**F**	14.2	**E**	No	C	3.49	C	3.49	C	No	D	3.80	D	3.91	D	No	D	4.06	D	4.24	D	No
23	Prado Road	US 101 SB Ramps	Froom Ranch Road	NB	D	12.6	**E**	20.5	C	No	C	3.54	D	3.69	D	No	D	5.24	**F**	3.35	C	No	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	
24	Dalidio Drive	SC Project Dwy	Froom Ranch Road	SB	D	10.9	**E**	13.5	D	No	C	3.29	C	3.23	C	No	D	3.97	D	4.03	D	No	D	4.32	**E**	4.33	**E**	No
24	Dalidio Drive	Froom Ranch Road	SC Project Dwy	NB	D	-	-	20.4	C	No	C	-	-	3.50	C	No	D	-	-	3.85	D	No	D	4.20	D	4.19	D	No

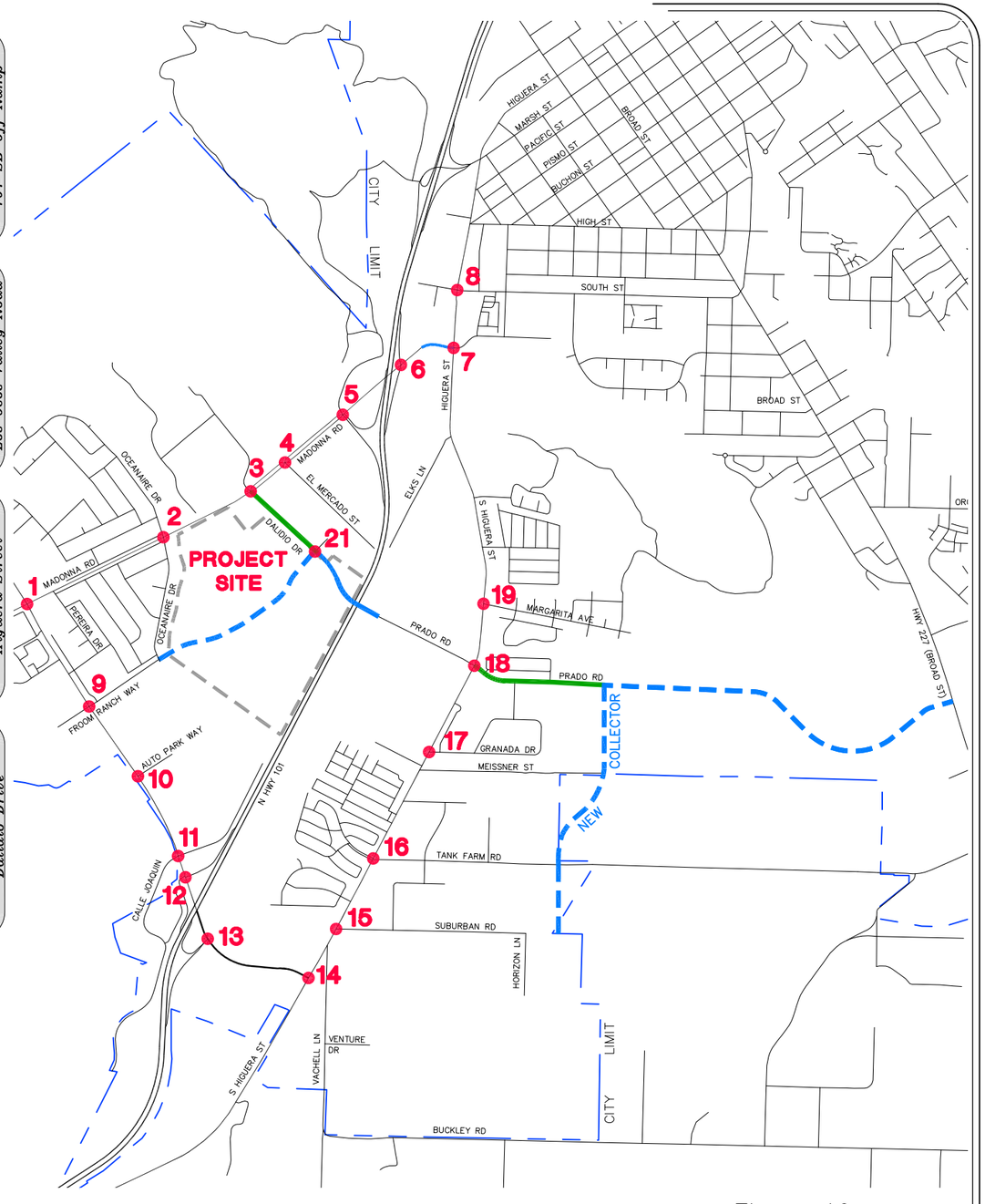
Note: Segments 20 and 24 transit is southbound for Routes 4 and 5

Year 2035 Prado Road Overcrossing Conditions

Although the Project Study Report (PSR) for the Prado Road interchange will determine the interchange configuration, the base volumes under the "Overcrossing" conditions analysis assume a four-lane roadway between S. Higuera Street and Madonna Road for the purposes of this traffic impact study, with an overcrossing over US 101 and removal of the existing US 101 Northbound ramps at Prado Road, along with all other roadway improvements previously listed under the "Cumulative Conditions" section of this report.

Figure 19 presents the Year 2035 Prado Road Overcrossing conditions lane geometrics and control, and Figure 20 presents the Year 2035 Prado Road Overcrossing (no project) peak hour intersection traffic volumes.





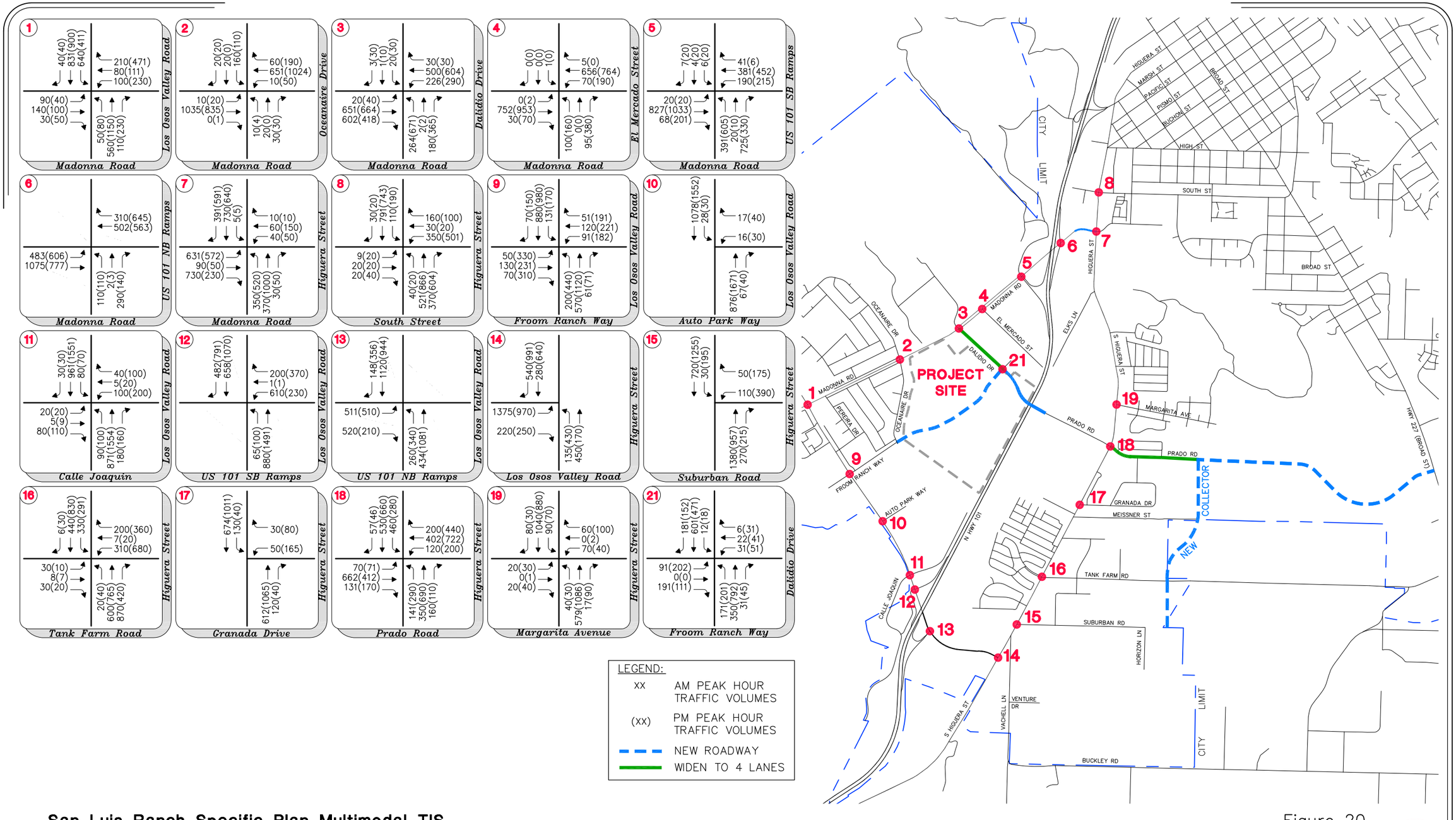
LEGEND:

- BICYCLE LANE (CLASS II)
- NEW BICYCLE LANE (CLASS II)
- BICYCLE LANE (CLASS I)
- VEHICLE LANE
- NEW VEHICLE LANE
- NEW ROADWAY
- WIDEN TO 4 LANES

San Luis Ranch Specific Plan Multimodal TIS

Figure 19

Year 2035 Overcrossing Lane Geometrics and Control



San Luis Ranch Specific Plan Multimodal TIS

Figure 20

Year 2035 Overcrossing Peak Hour Traffic Volumes

Year 2035 Prado Road Overcrossing Conditions Analysis

The Year 2035 Prado Road Overcrossing conditions multimodal analysis for the study intersections and segments are presented below.

Year 2035 Prado Road Overcrossing Conditions Intersection Analysis

Table 96 provides a summary of the Year 2035 Prado Road Overcrossing conditions vehicular AM and PM peak hour intersection delay and LOS. Table 97 provides a summary of the Year 2035 Prado Road Overcrossing pedestrian AM and PM peak hour conditions at the study intersections. Table 98 provides a summary of the Year 2035 Prado Road Overcrossing bicycle AM and PM peak hour conditions at the study intersections. Table 99 provides a summary of the Year 2035 Prado Road Overcrossing conditions queuing analysis.

TABLE 96: YEAR 2035 PRADO ROAD OVERCROSSING CONDITIONS INTERSECTION LEVEL OF SERVICE: AUTOMOBILE ANALYSIS

				AM Peak Hour			PM Peak Hour		
#	Intersection	Control Type[1,2]	Target LOS	v/c[3]	Delay	LOS	v/c[3]	Delay	LOS
1	Madonna Road/Los Osos Valley Road	Signal	D		34.5	C		41.7	D
2	Madonna Road/Oceanaire Drive	Signal	D		24.0	C		17.2	B
3	**Madonna Road/Dalidio Drive**	**Signal**	**D**	**2.99**	**162.2**	**F**	**8.42**	**779.2**	**F**
4	Madonna Road/El Mercado	Signal	D		11.4	B		19.6	B
5	Madonna Road/US 101 SB Ramps/Madonna	Signal	C		31.8	C		30.7	C
6	Madonna Road/US 101 NB Ramps	Signal	C		25.9	C		27.6	C
7	Madonna Road/Higuera Street	Signal	D		41.3	D		43.3	D
8	Higuera Street/South Street	Signal	D		20.5	C		26.2	C
9	**Los Osos Valley Road/Froom Ranch Way**	**Signal**	**D**		22.1	C	**1.05**	**58.1**	**E**
10	**Los Osos Valley Road/Auto Park Way**	**TWSC**	**D**		18.0	C	**0.41**	**46.3**	**E**
11	Los Osos Valley Road/Calle Joaquin	Signal	D		10.0	A		14.5	B
12	**Los Osos Valley Road/US 101 SB Ramps**	**Signal**	**C**	**1.22**	**38.2**	**D**		27.3	C
13	Los Osos Valley Road/US 101 NB Ramps	Signal	C		34.5	C		19.9	B
14	**S. Higuera Street/Los Osos Valley Road**	**Signal**	**D**		23.0	C	**1.08**	**71.3**	**E**
15	S. Higuera Street/Suburban Drive	Signal	D		7.3	A		16.3	B
16	**S. Higuera Street/Tank Farm Road**	**Signal**	**D**	**1.45**	**115.3**	**F**		24.4	C
17	S. Higuera Street/Granada Drive	Signal	D		8.6	A		11.5	B
18	S. Higuera Street/Prado Road	Signal	D		31.8	C		30.0	C
19	S. Higuera Street/Margarita Avenue	Signal	D		15.6	B		12.9	B
21	Froom Ranch Road/Dalidio Drive/Prado Road	Signal	D		15.3	B		18.5	B

Notes:

1. AWSC = All Way Stop Control; TWSC = Two Way Stop Control; RNDBT = Roundabout

2. LOS = Delay based on worst minor street approach for TWSC intersections, average of all approaches for AWSC, Signal,

3. Volume to Capacity Ratio (v/c) is for worst movement delay, for unacceptable LOS only

TABLE 97: YEAR 2035 PRADO ROAD OVERCROSSING CONDITIONS INTERSECTION LEVEL OF SERVICE: PEDESTRIAN ANALYSIS

#	Intersection	Approach	Target LOS	AM Peak Hour Ped. Crosswalk Score	AM Peak Hour LOS	PM Peak Hour Ped. Crosswalk Score	PM Peak Hour LOS
1	Madonna Road/Los Osos Valley Road	EB	C	2.12	B	2.12	B
		WB	C	3.03	C	3.25	C
		NB	C	3.11	C	3.35	C
		SB	C	3.29	C	3.32	C
2	Madonna Road/Oceanaire Drive	EB	C	2.88	C	2.97	C
		WB	C	3.39	C	3.37	C
		NB	C	2.05	B	2.01	B
		SB	C	1.86	A	1.87	A
3	**Madonna Road/Dalidio Drive**	**EB**	**C**	**3.59**	**D**	**4.21**	**D**
		WB	C	2.97	C	3.03	C
		NB	C	2.60	B	2.74	B
		SB	C	1.97	A	2.01	B
4	Madonna Road/El Mercado	EB	C	n/a	-	n/a	-
		WB	C	3.20	C	3.13	C
		NB	C	2.47	B	2.75	B
		SB	C	1.74	A	1.74	A
5	Madonna Road/US 101 SB Ramps/Madonna Inn	EB	C	2.97	C	3.09	C
		WB	C	n/a	-	n/a	-
		NB	C	2.83	C	2.74	B
		SB	C	2.16	B	2.19	B
6	Madonna Road/US 101 NB Ramps	EB	C	n/a	-	n/a	-
		WB	C	3.10	C	3.10	C
		NB	C	2.04	B	2.03	B
		SB	C	n/a	-	n/a	-
7	Madonna Road/Higuera Street	EB	C	2.95	C	3.05	C
		WB	C	2.05	B	2.07	B
		NB	C	3.05	C	3.09	C
		SB	C	n/a	-	n/a	-
8	Higuera Street/South Street	EB	C	2.02	B	2.05	B
		WB	C	2.58	B	2.83	C
		NB	C	n/a	-	n/a	-
		SB	C	2.63	B	2.72	B
9	Los Osos Valley Road/Froom Ranch Way	EB	C	2.45	B	2.66	B
		WB	C	2.47	B	2.68	B
		NB	C	n/a	-	n/a	-
		SB	C	3.09	C	3.33	C
10	Los Osos Valley Road/Auto Park Way	EB	C	n/a	-	n/a	-
		WB	C		-		-
		NB	C		-		-
		SB	C		-		-
11	Los Osos Valley Road/Calle Joaquin	EB	C	2.59	B	2.47	B
		WB	C	2.25	B	2.32	B
		NB	**C**	3.18	C	**3.53**	**D**
		SB	C	3.05	C	3.34	C
12	Los Osos Valley Road/US 101 SB Ramps	EB	C	2.02	B	2.31	B
		WB	C	2.15	B	2.10	B
		NB	C	n/a	-	n/a	-
		SB	C	n/a	-	n/a	-
13	Los Osos Valley Road/US 101 NB Ramps	EB	C	2.69	B	2.50	B
		NB	C	2.88	C	2.91	C
		SB	C	n/a	-	n/a	-
14	**S. Higuera Street/Los Osos Valley Road**	**EB**	**C**	3.10	C	**3.68**	**D**
		NB	C	2.51	B	2.73	B
		SB	C	n/a	-	n/a	-
15	S. Higuera Street/Suburban Drive	WB	C	2.17	B	2.59	B
		NB	**C**	3.31	C	**3.83**	**D**
		SB	C	3.00	C	3.09	C
16	**S. Higuera Street/Tank Farm Road**	EB	C	2.02	B	2.02	B
		WB	C	2.95	C	3.21	C
		NB	**C**	**3.62**	**D**	3.43	C
		SB	C	2.82	C	3.02	C
17	S. Higuera Street/Granada Drive	WB	C	2.09	B	2.13	B
		NB	C	n/a	-	n/a	-
		SB	C	2.74	B	2.96	C
18	S. Higuera Street/Prado Road	EB	C	2.95	C	3.00	C
		WB	C	3.12	C	3.11	C
		NB	C	3.08	C	3.02	C
		SB	C	2.91	C	3.03	C
19	S. Higuera Street/Margarita Avenue	EB	C	2.25	B	2.08	B
		WB	C	2.22	B	2.28	B
		NB	C	2.97	C	3.06	C
		SB	C	2.93	C	3.05	C
21	Froom Ranch Road/Dalidio Drive/Prado Road	EB	C	2.41	B	2.33	B
		WB	C	1.77	A	1.84	A
		NB	C	2.59	B	2.66	B
		SB	C	2.77	C	2.87	C

Notes:

HCM 2010 Methodologies do not model segments bounded by all-way stop control. Procedures have not been developed yet to address the effect of all-way stop control or yield control on intersection performance from a pedestrian or bicyce perspective.

HCM 2010 Methodologies for the pedestrian mode at two-way stop-controlled intersections is limited to the uncontrolled crossing. No methodology exists for evaluating pedestrian performance for the stop controlled approach (cross-street). However, it is reasoned that this type of control has negligible influence on pedestrian service along the segment.

TABLE 98: YEAR 2035 PRADO ROAD OVERCROSSING CONDITIONS INTERSECTION LEVEL OF SERVICE: BICYCLE ANALYSIS

#	Intersection	Approach	Target LOS	AM Peak Hour Bicycle LOS Score	AM Peak Hour Bicycle LOS LOS	PM Peak Hour Bicycle LOS Score	PM Peak Hour Bicycle LOS LOS
1	Madonna Road/Los Osos Valley Road	EB	D	3.29	C	3.15	C
		WB	D	3.45	C	4.13	D
		NB	D	1.69	A	2.10	B
		SB	D	2.95	C	2.75	B
2	Madonna Road/Oceanaire Drive	EB	D	3.00	C	2.85	C
		WB	D	1.30	A	1.79	A
		NB	D	2.74	B	2.74	B
		SB	D	2.29	B	2.22	B
3	Madonna Road/Dalidio Drive	EB	D	2.32	B	2.08	B
		WB	D	1.59	A	1.64	A
		NB	D	2.66	B	3.58	D
		SB	D	1.79	A	1.86	A
4	Madonna Road/El Mercado	EB	D	1.60	A	1.69	A
		WB	D	1.70	A	1.83	A
		NB	D	3.39	C	3.94	D
		SB	D	3.03	C	3.03	C
5	Madonna Road/US 101 SB Ramps/Madonna Inn	EB	D	1.83	A	1.99	A
		WB	D	1.65	A	1.65	A
		NB	D	n/a	-	n/a	-
		SB	D	2.91	C	2.98	C
6	Madonna Road/US 101 NB Ramps	EB	D	2.65	B	2.29	B
		WB	D	1.84	A	2.07	B
		NB	D	n/a	-	n/a	-
7	Madonna Road/Higuera Street	EB	D	3.85	D	2.70	B
		WB	D	2.60	B	2.77	C
		NB	D	2.05	B	2.75	B
		SB	D	2.47	B	2.53	B
8	Higuera Street/South Street	EB	D	2.71	B	2.77	C
		WB	D	2.52	B	2.69	B
		NB	D	3.03	C	3.53	D
		SB	D	1.93	A	1.98	A
9	**Los Osos Valley Road/Froom Ranch Way**	**EB**	**D**	3.54	D	**4.59**	**E**
		WB	D	2.15	B	3.02	C
		NB	D	1.81	A	2.25	B
		SB	D	1.84	A	1.94	A
10	Los Osos Valley Road/Auto Park Way	EB	D	n/a	-	n/a	-
		WB	D		-		-
		NB	D		-		-
		SB	D		-		-
11	Los Osos Valley Road/Calle Joaquin	EB	D	3.07	C	3.11	C
		WB	D	3.20	C	3.48	C
		NB	D	1.64	A	2.14	B
		SB	D	0.55	A	0.97	A
12	Los Osos Valley Road/US 101 SB Ramps	WB	D	n/a	-	n/a	-
		NB	D	2.87	C	3.34	C
		SB	D	1.72	A	2.25	B
13	Los Osos Valley Road/US 101 NB Ramps	EB	D	n/a	-	n/a	-
		NB	D	1.81	A	2.40	B
		SB	D	2.92	C	2.93	C
14	S. Higuera Street/Los Osos Valley Road	EB	D	2.44	B	2.10	B
		NB	D	2.31	B	2.33	B
		SB	D	2.71	B	4.10	D
15	S. Higuera Street/Suburban Drive	WB	D	0.94	A	1.64	A
		NB	D	2.67	B	2.21	B
		SB	D	1.91	A	2.50	B
16	S. Higuera Street/Tank Farm Road	EB	D	2.72	B	2.66	B
		WB	D	2.41	B	3.32	C
		NB	D	2.57	B	2.31	B
		SB	D	1.93	A	2.23	B
17	S. Higuera Street/Granada Drive	WB	D	2.65	B	2.93	C
		NB	D	1.84	A	2.17	B
		SB	D	2.03	B	2.26	B
18	S. Higuera Street/Prado Road	EB	D	2.75	B	1.26	A
		WB	D	3.15	C	2.43	B
		NB	D	1.81	A	2.19	B
		SB	D	2.16	B	2.10	B
19	S. Higuera Street/Margarita Avenue	EB	D	2.49	B	2.54	B
		WB	D	2.74	B	2.76	C
		NB	D	1.86	A	2.36	B
		SB	D	2.45	B	2.25	B
21	Froom Ranch Road/Dalidio Drive/Prado Road	EB	D	1.93	A	1.97	A
		WB	D	2.77	C	2.89	C
		NB	D	1.39	A	1.94	A
		SB	D	1.75	A	1.63	A

Notes:

HCM 2010 Methodologies do not model segments bounded by all-way stop control. Procedures have not been developed yet to address the effect of all-way stop control or yield control on intersection performance from a pedestrian or bicyce perspective. No methodology exists for evaluating bicycle performance at two-way stop-controlled intersections. However, it is reasoned that this type of control has negligible influence on bicycle service along the segment for stop controll on the cross-street.

TABLE 99: YEAR 2035 PRADO ROAD OVERCROSSING CONDITIONS 95TH PERCENTILE QUEUING ANALYSIS

Intersection					95th Percentile Queue/Lane (ft)	
ID	Location	Movement	No. Lanes	Total Storage (ft)[1]	AM Peak Hour	PM Peak Hour
1	Madonna Road/Los Osos Valley Road	Northbound Left	1	200	75	**222**
		Northbound Right	1	175	96	**203**
2	Madonna	Westbound Right	1	100	55	**116**
3	Madonna Road/Dalidio Drive	Westbound Left	1	275	217	**336**
		Northbound Right	1	150	90	**227**
4	Madonna Road/El	Westbound Left	2	260	74	**528**
5	Madonna Road/US	Westbound Left	1	260	185	**474**
6	Madonna Road/US	Northbound Left	1	185	151	**195**
7	Madonna Road/Higuera Street	Eastbound Right	1	150	**604**	**199**
		Northbound Left	1	160	**314**	**344**
		Southbound Left/Through	2	250	**298**	**405**
8	Higuera Street/South Street	Westbound Left	2	240	168	**501**
		Northbound Left	1	60	**105**	**101**
		Northbound Through	2	380	312	**755**
		Northbound Right	1	60	**139**	**163**
		Southbound Left	1	70	**120**	**118**
9	Los Osos Valley Road/Froom Ranch Way	Eastbound Through/Right	1	445	169	**599**
		Westbound Right	1	50	**73**	**98**
		Southbound Left	2	200	120	**288**
11	Los Osos Valley Road/Calle Joaquin	Northbound Left	1	115	93	**127**
12	Los Osos Valley Road/US 101 SB Ramps	Westbound Left/Through	1	180	**276**	**250**
		Southbound Through	1	240	**332**	**334**
		Southbound Right	1	125	**273**	**181**
13	Los Osos Valley Road/US 101 NB Ramps	Eastbound Left/Right	1	625	**1405**	458
		Southbound Through	1	865	**1203**	522
		Southbound Right	1	130	**273**	**232**
14	S. Higuera Street/Los Osos Valley Road	Eastbound Right	1	90	**208**	**200**
		Northbound Left	1	160	**163**	**248**
15	S. Higuera Street/Suburban Drive	Westbound Right	1	170	53	**308**
		Southbound Left	1	200	64	**321**
16	S. Higuera Street/Tank Farm Road	Westbound Right	1	250	28	**327**
		Northbound Right	1	100	**191**	**204**
		Southbound Left	1	165	**238**	**265**
17	S. Higuera Street/Granada Drive	Southbound Left	1	80	**102**	63
18	S. Higuera Street/Prado Road	Eastbound Right	1	140	135	103
		Westbound Left	1	105	105	**200**
		Westbound Right	1	100	73	**182**
		Northbound Left	1	100	**124**	**185**
		Southbound Left	1	60	**179**	**180**
19	S. Higuera Street/Margarita	Northbound Left	1	60	**82**	**81**
		Southbound Left	1	60	**119**	**102**

Notes: ***1. Bolded entries indicate queues exceed available storage***

2. Storage Length of " - " represents a lane which exceeds 1,000 feet, usually a through lane.

3. For Movements with more than one lane, the maximum of the 95th percentile queue is reported.

4. * Represents storage lengths for one lane; second lane is a left or right trap lane.

As shown in Table 96 above, the intersection of Madonna Road/Dalidio Drive, Los Osos Valley Road/Froom Ranch Way, Los Osos Valley Road/Auto Park Way, S. Higuera Street/Tank Farm Road are projected to operate at unacceptable conditions during 2035 Full Build Prado Interchange conditions. Pedestrian analysis shows acceptable conditions at the study intersections. Bicycle analysis shows deficiencies at Los Osos Valley Road/Froom Ranch Way. Queuing analysis results to be completed.

Year 2035 Prado Road Overcrossing Conditions Segment Analysis

Table 100 provides a summary of the Year 2035 Prado Road Overcrossing vehicular AM and PM peak hour conditions for the study segments. Table 101 provides a summary of the Year 2035 Prado Road Overcrossing pedestrian AM and PM peak hour conditions for the study segments. Table 102 provides a summary of the Year 2035 Prado Road Overcrossing bicycle AM and PM peak hour conditions for the study segments. Table 103 provides a summary of the Year 2035 Prado Road Overcrossing transit AM and PM peak hour conditions for the study segments. Table 104 provides a summary of the Year 2035 Prado Road Overcrossing freeway segments analysis for AM and PM peak hour conditions for the study segments along US 101.

TABLE 100: YEAR 2035 PRADO ROAD OVERCROSSING CONDITIONS SEGMENT LEVEL OF SERVICE: AUTOMOBILE ANALYSIS

AUTO SEGMENT LOS						AM PEAK				PM PEAK			
ID	Roadway	From	To	Direction	LOS Threshold	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/ BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/ BFFS (%)	LOS
1	**Madonna Rd**	**Oceanaire Dr**	**LOVR**	**WB**	**C**	**20.3**	**42.1**	**48%**	**D**	**15.4**	**42.1**	**37%**	**E**
	Madonna Rd	LOVR	Oceanaire Dr	EB	C	25.8	42.1	61%	C	28.6	42.1	68%	B
2	Madonna Rd	Dalidio	Oceanaire Dr	WB	C	22.8	40.8	56%	C	23.9	40.7	59%	C
	Madonna Rd	**Oceanaire Dr**	**Dalidio**	**EB**	**C**	**7.1**	**40.7**	**18%**	**F**	**16.6**	**40.8**	**41%**	**D**
3	**Madonna Rd**	**El Mercado**	**Dalidio Dr**	**WB**	**C**	**15.0**	**34.1**	**44%**	**D**	**15.0**	**34.8**	**43%**	**D**
	Madonna Rd	**Dalidio Dr**	**El Mercado**	**EB**	**C**	**27.6**	**38.2**	**72%**	**B**	**13.2**	**34.6**	**38%**	**E**
4	Madonna Rd	US 101 SB Ramps	El Mercado	WB	C	30.9	37.9	82%	B	21.8	37.3	58%	C
	Madonna Rd	**El Mercado**	**US 101 SB Ramps**	**EB**	**C**	**11.0**	**37.8**	**29%**	**F**	**17.2**	**37.7**	**46%**	**D**
5	Madonna Rd	US 101 NB Ramps	US 101 SB Ramps	WB	C	26.5	37.8	70%	B	23.6	37.8	62%	C
	Madonna Rd	US 101 SB Ramps	US 101 NB Ramps	EB	C	32.6	37.8	86%	A	33.4	37.8	88%	A
6	**Madonna Rd**	**Higuera St**	**US 101 NB Ramps**	**WB**	**C**	**9.5**	**37.2**	**26%**	**F**	**13.0**	**37.2**	**35%**	**E**
	Madonna Rd	**US 101 NB Ramps**	**Higuera St**	**EB**	**C**	**12.2**	**37.2**	**33%**	**E**	**10.2**	**37.2**	**27%**	**F**
7	S. Higuera St	Madonna Rd	Margarita Ave	SB	C	30.6	44.5	69%	B	34.9	44.5	78%	B
	S. Higuera St	Margarita Ave	Madonna Rd	NB	C	35.5	44.8	79%	B	29.6	44.8	66%	C
8	**S. Higuera St**	**Margarita Ave**	**Prado Rd**	**SB**	**C**	**13.9**	**38.9**	**36%**	**E**	**12.6**	**38.9**	**32%**	**E**
	S. Higuera St	**Prado Rd**	**Margarita Ave**	**NB**	**C**	**21.2**	**38.9**	**55%**	**C**	**18.8**	**38.9**	**48%**	**D**
9	S. Higuera St	Prado Rd	Granada Dr	SB	C	33.4	41.8	80%	B	29.8	41.8	71%	B
	S. Higuera St	**Granada Dr**	**Prado Rd**	**NB**	**C**	**16.1**	**41.9**	**38%**	**E**	**15.7**	**41.9**	**38%**	**E**
10	S. Higuera St	Granada Dr	Tank Farm Road	SB	C	42.1	41.6	101%	A	23.5	42.6	55%	C
	S. Higuera St	Tank Farm Road	Granada Dr	NB	C	29.5	41.6	71%	B	26.7	42.6	63%	C
11	S. Higuera St	Tank Farm Road	Suburban Drive	SB	C	27.0	42.4	64%	C	23.1	41.2	56%	C
	S. Higuera St	**Suburban Drive**	**Tank Farm Road**	**NB**	**C**	**18.9**	**42.5**	**44%**	**D**	**15.0**	**41.3**	**36%**	**E**
12	**S. Higuera St**	**Suburban Drive**	**Los Osos Valley Road**	**SB**	**C**	**20.3**	**42.1**	**48%**	**D**	**4.6**	**39.1**	**12%**	**F**
	S. Higuera St	Los Osos Valley Road	Suburban Drive	NB	C	22.9	42.0	54%	C	19.8	39.0	51%	C
13	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**C**	**23.3**	**41.9**	**56%**	**C**	**12.8**	**41.8**	**31%**	**E**
	Los Osos Valley	**Froom Ranch Way**	**Madonna Rd**	**NB**	**C**	**19.3**	**41.8**	**46%**	**D**	**16.4**	**41.8**	**39%**	**E**
14	Los Osos Valley	Froom Ranch Way	Calle Joaquin	SB	C	29.2	43.0	68%	B	23.5	43.0	55%	C
	Los Osos Valley	**Calle Joaquin**	**Froom Ranch Way**	**NB**	**C**	**29.1**	**43.2**	**67%**	**B**	**19.3**	**43.2**	**45%**	**D**
15	**Los Osos Valley**	**Calle Joaquin**	**US 101 SB Ramps**	**SB**	**C**	**5.3**	**32.1**	**16%**	**F**	**15.4**	**32.1**	**48%**	**D**
	Los Osos Valley	US 101 SB Ramps	Calle Joaquin	NB	C	16.1	31.1	52%	C	16.7	31.1	54%	C
16	**Los Osos Valley**	**US 101 SB Ramps**	**US 101 NB Ramps**	**SB**	**C**	**16.3**	**37.7**	**43%**	**D**	**17.8**	**37.7**	**47%**	**D**
	Los Osos Valley	US 101 NB Ramps	US 101 SB Ramps	NB	C	32.9	37.4	88%	A	20.1	37.4	54%	C
17	Los Osos Valley	S. Higuera St	US 101 NB Ramps	WB	C	27.1	39.2	69%	B	25.9	39.2	66%	C
	Los Osos Valley	**US 101 NB Ramps**	**S. Higuera St**	**EB**	**C**	**17.6**	**39.4**	**45%**	**D**	**10.6**	**39.4**	**27%**	**F**
18	Prado Rd	S. Higuera St	Froom Ranch Way	WB	C	31.5	40.3	78%	B	29.5	40.3	73%	B
	Prado Rd	Froom Ranch Way	S. Higuera St	EB	C	24.9	40.1	62%	C	24.2	40.1	60%	C
19	**Froom Ranch Way**	**Dick's Sporting Goods**	**Los Osos Valley**	**WB**	**C**	**22.6**	**37.7**	**60%**	**C**	**10.4**	**37.7**	**28%**	**F**
	Froom Ranch Way	Los Osos Valley	Dick's Sporting Goods	EB	C	35.4	38.0	93%	A	34.9	38.0	92%	A
20	**Dalidio Dr**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**C**	**18.5**	**36.0**	**51%**	**C**	**17.9**	**36.0**	**50%**	**D**
	Dalidio Dr	**Froom Ranch Way**	**Madonna Rd**	**NB**	**C**	**0.7**	**37.9**	**2%**	**F**	**0.2**	**37.9**	**1%**	**F**
21	Froom Ranch Way	Dalidio	Dick's Sporting Goods	WB	C	39.4	40.8	97%	A	39.1	40.6	96%	A
	Froom Ranch Way	Dick's Sporting Goods	Dalidio	EB	C	28.1	40.7	69%	B	27.0	40.8	66%	C

TABLE 101: YEAR 2035 PRADO ROAD OVERCROSSING CONDITIONS SEGMENT LEVEL OF SERVICE: PEDESTRIAN ANALYSIS

PEDESTRIAN SEGMENT LOS							AM PEAK		PM PEAK	
ID	Roadway	From	To	Direction	LOS Threshold	Average Ped. Space (ft^2/p)	SEGMENT SCORE	LOS	SEGMENT SCORE	LOS
1	**Madonna Rd**	**Oceanaire Dr**	**LOVR**	**WB**	**C**	**6090**	**3.59**	**D**	**3.83**	**D**
	Madonna Rd	**LOVR**	**Oceanaire Dr**	**EB**	**C**	**17482**	**4.12**	**D**	**4.07**	**D**
2	**Madonna Rd**	**Dalidio**	**Oceanaire Dr**	**WB**	**C**	**84000**	**3.77**	**D**	**4.00**	**D**
	Madonna Rd	**Oceanaire Dr**	**Dalidio**	**EB**	**C**	**26250**	**4.04**	**D**	**4.19**	**D**
3	**Madonna Rd**	**El Mercado**	**Dalidio Dr**	**WB**	**C**	**37450**	**3.55**	**D**	**3.77**	**D**
	Madonna Rd	**Dalidio Dr**	**El Mercado**	**EB**	**C**	**52920**	**3.60**	**D**	**4.01**	**D**
4	**Madonna Rd**	**US 101 SB Ramps**	**El Mercado**	**WB**	**C**	**26250**	**3.64**	**D**	**3.69**	**D**
	Madonna Rd	**El Mercado**	**US 101 SB Ramps**	**EB**	**C**	**27915**	**3.64**	**D**	**3.78**	**D**
5	**Madonna Rd**	**US 101 NB Ramps**	**US 101 SB Ramps**	**WB**	**C**	**No Peds**	**3.68**	**D**	**3.71**	**F**
	Madonna Rd	**US 101 SB Ramps**	**US 101 NB Ramps**	**EB**	**C**	**No Peds**	**4.05**	**D**	**3.96**	**D**
6	**Madonna Rd**	**Higuera St**	**US 101 NB Ramps**	**WB**	**C**	**25200**	**3.76**	**D**	**3.94**	**D**
	Madonna Rd	**US 101 NB Ramps**	**Higuera St**	**EB**	**C**	**19838**	**3.95**	**D**	**3.74**	**D**
7	**S. Higuera St**	**Madonna Rd**	**Margarita Ave**	**SB**	**C**	**23247**	**3.99**	**D**	**3.94**	**D**
	S. Higuera St	**Margarita Ave**	**Madonna Rd**	**NB**	**C**	**5398**	**3.84**	**D**	**4.13**	**D**
8	**S. Higuera St**	**Margarita Ave**	**Prado Rd**	**SB**	**C**	**40979**	**3.78**	**D**	**3.82**	**D**
	S. Higuera St	**Prado Rd**	**Margarita Ave**	**NB**	**C**	**21700**	**3.66**	**D**	**3.90**	**D**
9	**S. Higuera St**	**Prado Rd**	**Granada Dr**	**SB**	**C**	**9292**	**3.68**	**D**	**3.83**	**D**
	S. Higuera St	**Granada Dr**	**Prado Rd**	**NB**	**C**	8400	3.33	C	**3.56**	**D**
10	**S. Higuera St**	**Granada Dr**	**Tank Farm Road**	**SB**	**C**	**46305**	**3.69**	**D**	**3.87**	**D**
	S. Higuera St	Tank Farm Road	Granada Dr	NB	C	49140	3.22	C	3.40	C
11	**S. Higuera St**	**Tank Farm Road**	**Suburban Drive**	**SB**	**C**	**12600**	**3.74**	**D**	**4.02**	**D**
	S. Higuera St	**Suburban Drive**	**Tank Farm Road**	**NB**	**C**	**31500**	**3.79**	**D**	**3.62**	**D**
12	**S. Higuera St**	**Suburban Drive**	**Los Osos Valley Road**	**SB**	**C**	**39312**	**3.69**	**D**	**3.99**	**D**
	S. Higuera St	**Los Osos Valley Road**	**Suburban Drive**	**NB**	**C**	**43533**	**4.18**	**D**	**3.91**	**D**
13	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**C**	**21833**	**3.65**	**D**	**4.02**	**D**
	Los Osos Valley	**Froom Ranch Way**	**Madonna Rd**	**NB**	**C**	**0**	**3.74**	**F**	**4.09**	**F**
14	**Los Osos Valley**	**Froom Ranch Way**	**Calle Joaquin**	**SB**	**C**	**27300**	**3.88**	**D**	**4.17**	**D**
	Los Osos Valley	**Calle Joaquin**	**Froom Ranch Way**	**NB**	**C**	**22050**	**3.66**	**D**	**4.08**	**D**
15	**Los Osos Valley**	**Calle Joaquin**	**US 101 SB Ramps**	**SB**	**C**	**No Peds**	**3.85**	**D**	**4.13**	**D**
	Los Osos Valley	**US 101 SB Ramps**	**Calle Joaquin**	**NB**	**C**	**63000**	**3.75**	**D**	**3.54**	**D**
16	**Los Osos Valley**	**US 101 SB Ramps**	**US 101 NB Ramps**	**SB**	**C**	**No Peds**	**3.96**	**D**	**4.02**	**D**
	Los Osos Valley	**US 101 NB Ramps**	**US 101 SB Ramps**	**NB**	**C**	**53928**	**3.83**	**D**	**4.13**	**D**
17	**Los Osos Valley**	**S. Higuera St**	**US 101 NB Ramps**	**WB**	**C**	**1680**	**4.03**	**D**	**4.77**	**E**
	Los Osos Valley	**US 101 NB Ramps**	**S. Higuera St**	**EB**	**C**	**39393**	**4.02**	**D**	**3.88**	**D**
18	**Prado Rd**	**S. Higuera St**	**Froom Ranch Way**	**WB**	**C**	**12505**	**3.65**	**D**	**3.73**	**D**
	Prado Rd	**Froom Ranch Way**	**S. Higuera St**	**EB**	**C**	**8274**	**4.06**	**D**	**3.69**	**D**
19	**Froom Ranch Way**	**Dick's Sporting Goods**	**Los Osos Valley**	**WB**	**C**	**No Peds**	**3.62**	**D**	**3.83**	**D**
	Froom Ranch Way	Los Osos Valley	Dick's Sporting Good	EB	C	75600	1.87	A	1.97	A
20	Dalidio Dr	Madonna Rd	Froom Ranch Way	SB	C	63000	3.34	C	3.40	C
	Dalidio Dr	**Froom Ranch Way**	**Madonna Rd**	**NB**	**C**	63000	3.33	C	**3.58**	**D**
21	Froom Ranch Way	Dalidio	Dick's Sporting Good	WB	C	No Peds	1.73	A	1.73	A
	Froom Ranch Way	Dick's Sporting Goods	Dalidio	EB	C	No Peds	3.23	C	3.31	C

Notes:

Sidewalk is present along frontage roads for segments #1 - Madonna Road and #13 - Los Osos Valley Road, and is not accounted for in this analysis. HCM 2010 Methodologies do not model segments bounded by all-way stop control. Procedures have not been developed yet to address the effect of all-way stop control or yield control on intersection performance from a pedestrian or bicyce perspective. No methodology exists for evaluating two-way stop-controlled interesction performance (with the cross-street stop controlled) for pedestrians and bicycles. However, it is reasoned that it has negligible influence on pedestrian sevice along the segment.

TABLE 102: YEAR 2035 PRADO ROAD OVERCROSSING CONDITIONS SEGMENT LEVEL OF SERVICE: BICYCLE ANALYSIS

BICYCLE SEGMENT LOS						AM PEAK		PM PEAK	
ID	Roadway	From	To	Direction	LOS Threshold	SEGMENT SCORE	LOS	SEGMENT SCORE	LOS
1	Madonna Rd	Oceanaire Dr	LOVR	WB	D	3.64	D	4.06	D
	Madonna Rd	LOVR	Oceanaire Dr	EB	D	3.81	D	3.78	D
2	Madonna Rd	Dalidio	Oceanaire Dr	WB	D	3.17	C	3.24	C
	Madonna Rd	Oceanaire Dr	Dalidio	EB	D	3.59	D	3.44	C
3	Madonna Rd	El Mercado	Dalidio Dr	WB	D	3.30	C	3.19	C
	Madonna Rd	Dalidio Dr	El Mercado	EB	D	3.35	C	3.40	C
4	**Madonna Rd**	**US 101 SB Ramps**	**El Mercado**	**WB**	**D**	3.95	D	**4.32**	**E**
	Madonna Rd	El Mercado	US 101 SB Ramps	EB	D	3.59	D	3.63	D
5	Madonna Rd	US 101 NB Ramps	US 101 SB Ramps	WB	D	3.31	C	3.32	C
	Madonna Rd	US 101 SB Ramps	US 101 NB Ramps	EB	D	3.38	C	3.33	C
6	Madonna Rd	Higuera St	US 101 NB Ramps	WB	D	3.53	D	3.58	D
	Madonna Rd	US 101 NB Ramps	Higuera St	EB	D	3.91	D	3.54	D
7	S. Higuera St	Madonna Rd	Margarita Ave	SB	D	3.94	D	3.91	D
	S. Higuera St	**Margarita Ave**	**Madonna Rd**	**NB**	**D**	4.14	D	**4.27**	**E**
8	S. Higuera St	Margarita Ave	Prado Rd	SB	D	3.69	D	3.68	D
	S. Higuera St	Prado Rd	Margarita Ave	NB	D	3.96	D	4.03	D
9	S. Higuera St	Prado Rd	Granada Dr	SB	D	3.88	D	3.93	D
	S. Higuera St	Granada Dr	Prado Rd	NB	D	3.46	C	3.53	D
10	S. Higuera St	Granada Dr	Tank Farm Road	SB	D	4.16	D	4.21	D
	S. Higuera St	Tank Farm Road	Granada Dr	NB	D	3.51	D	3.56	D
11	S. Higuera St	Tank Farm Road	Suburban Drive	SB	D	3.37	C	3.48	C
	S. Higuera St	Suburban Drive	Tank Farm Road	NB	D	3.50	C	3.45	C
12	S. Higuera St	Suburban Drive	Los Osos Valley Road	SB	D	3.30	C	3.87	D
	S. Higuera St	Los Osos Valley Road	Suburban Drive	NB	D	4.00	D	3.90	D
13	Los Osos Valley	Madonna Rd	Froom Ranch Way	SB	D	3.86	D	3.75	D
	Los Osos Valley	Froom Ranch Way	Madonna Rd	NB	D	3.39	C	3.47	C
14	Los Osos Valley	Froom Ranch Way	Calle Joaquin	SB	D	3.57	D	3.61	D
	Los Osos Valley	**Calle Joaquin**	**Froom Ranch Way**	**NB**	**D**	**4.36**	**E**	3.90	D
15	Los Osos Valley	Calle Joaquin	US 101 SB Ramps	SB	D	3.30	C	3.39	C
	Los Osos Valley	US 101 SB Ramps	Calle Joaquin	NB	D	3.56	D	3.52	D
16	Los Osos Valley	US 101 SB Ramps	US 101 NB Ramps	SB	D	3.73	D	3.74	D
	Los Osos Valley	US 101 NB Ramps	US 101 SB Ramps	NB	D	3.70	D	3.87	D
17	Los Osos Valley	S. Higuera St	US 101 NB Ramps	WB	D	3.46	C	3.47	C
	Los Osos Valley	US 101 NB Ramps	S. Higuera St	EB	D	3.33	C	3.39	C
18	Prado Rd	S. Higuera St	Froom Ranch Way	WB	D	3.74	D	3.79	D
	Prado Rd	Froom Ranch Way	S. Higuera St	EB	D	3.72	D	3.65	D
19	Froom Ranch Way	Dick's Sporting Goods I	Los Osos Valley	WB	D	3.40	C	3.70	D
	Froom Ranch Way	Los Osos Valley	Dick's Sporting Goods I	EB	D	3.49	C	3.56	D
20	Dalidio Dr	Madonna Rd	Froom Ranch Way	SB	D	3.65	D	3.65	D
	Dalidio Dr	Froom Ranch Way	Madonna Rd	NB	D	3.74	D	3.96	D
21	Froom Ranch Way	Dalidio	Dick's Sporting Goods I	WB	D	2.62	B	3.02	C
	Froom Ranch Way	Dick's Sporting Goods I	Dalidio	EB	D	3.74	D	3.78	D

Notes:

HCM 2010 Methodologies do not model segments bounded by all-way stop control. Procedures have not been developed yet to address the effect of all-way stop control or yield control on intersection performance from a pedestrian or bicyce perspective. No methodology exists for evaluating two-way stop-controlled interesction performance (with the cross-street stop controlled) for pedestrians and bicycles. However, it is incorporated into the methodology for evaluateing bicycle segment performance.

TABLE 103: YEAR 2035 PRADO ROAD OVERCROSSING CONDITIONS SEGMENT LEVEL OF SERVICE: TRANSIT ANALYSIS

	TRANSIT LOS						AM PEAK		PM PEAK	
ID	Roadway	From	To	Direction	LOS Threshold	Route Name	SEGMENT SCORE	LOS	SEGMENT SCORE	LOS
1	**Madonna Rd**	**Oceanaire Dr**	**LOVR**	**WB**	**D**	Ruote 4	4.16	D	**4.26**	**E**
	Madonna Rd	**LOVR**	**Oceanaire Dr**	**EB**	**D**	Route 5	**4.46**	**E**	4.00	D
2	**Madonna Rd**	**Dalidio**	**Oceanaire Dr**	**WB**	**D**	Route 4	**4.49**	**E**	**4.58**	**E**
	Madonna Rd	**Oceanaire Dr**	**Dalidio**	**EB**	**D**	Route 5	**4.72**	**E**	**4.42**	**E**
3	**Madonna Rd**	**El Mercado**	**Dalidio Dr**	**WB**	**D**	Route 4	**4.32**	**E**	**4.40**	**E**
	Madonna Rd	Dalidio Dr	El Mercado	EB	D	Route 5	4.19	D	4.22	D
4	**Madonna Rd**	**US 101 SB Ramps**	**El Mercado**	**WB**	**D**	Route 4	**4.33**	**E**	**4.50**	**E**
	Madonna Rd	**El Mercado**	**US 101 SB Ramps**	**EB**	**D**	Route 5	**4.56**	**E**	**4.34**	**E**
5	Madonna Rd	US 101 NB Ramps	US 101 SB Ramps	WB	D	Route 4	4.13	D	4.25	D
	Madonna Rd	US 101 SB Ramps	US 101 NB Ramps	EB	D	Route 5	4.23	D	3.80	D
6	**Madonna Rd**	**Higuera St**	**US 101 NB Ramps**	**WB**	**D**	Route 4	**4.32**	**E**	**4.42**	**E**
	Madonna Rd	**US 101 NB Ramps**	**Higuera St**	**EB**	**D**	Route 5	**4.54**	**E**	4.13	D
7	**S. Higuera St**	**Madonna Rd**	**Margarita Ave**	**SB**	**D**	Route 2	**Not Analyzed**	**N/A**	3.53	D
	S. Higuera St	Margarita Ave	Madonna Rd	NB	D	Route 2	3.69	D	3.84	D
8	**S. Higuera St**	**Margarita Ave**	**Prado Rd**	**SB**	**D**	Route 2	Not Analyzed	N/A	4.22	D
	S. Higuera St	**Prado Rd**	**Margarita Ave**	**NB**	**D**	Route 2	**4.29**	**E**	**4.54**	**E**
9	**S. Higuera St**	**Prado Rd**	**Granada Dr**	**SB**	**D**	Route 2	**4.42**	**E**	**4.34**	**E**
	S. Higuera St	Granada Dr	Prado Rd	NB	D	Route 2	3.84	D	4.02	D
10	S. Higuera St	Granada Dr	Tank Farm Road	SB	D	Route 2	3.82	D	3.95	D
	S. Higuera St	Tank Farm Road	Granada Dr	NB	D	Route 2	3.54	D	3.65	D
11	**S. Higuera St**	**Tank Farm Road**	**Suburban Drive**	**SB**	**D**	-	Not Analyzed	N/A	Not Analyzed	N/A
	S. Higuera St	Suburban Drive	Tank Farm Road	NB	D	Route 2	4.06	D	4.02	D
12	**S. Higuera St**	**Suburban Drive**	**Los Osos Valley**	**SB**	**D**	-	Not Analyzed	N/A	Not Analyzed	N/A
	S. Higuera St	**Los Osos Valley Road**	**Suburban Drive**	**NB**	**D**	-	Not Analyzed	N/A	Not Analyzed	N/A
13	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**D**	Route 4	**4.54**	**E**	**4.58**	**E**
	Los Osos Valley	**Froom Ranch Way**	**Madonna Rd**	**NB**	**D**	Route 4	4.25	D	**4.40**	**E**
13	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**D**	Route 5	4.65	E	4.39	E
	Los Osos Valley	**Froom Ranch Way**	**Madonna Rd**	**NB**	**D**	Route 5	4.36	E	4.18	D
14	**Los Osos Valley**	**Froom Ranch Way**	**Calle Joaquin**	**SB**	**D**	Route 4	**4.33**	**E**	**4.54**	**E**
	Los Osos Valley	**Calle Joaquin**	**Froom Ranch Way**	**NB**	**D**		**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**
14	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**D**	Route 5	4.46	E	4.32	E
	Los Osos Valley	**Froom Ranch Way**	**Madonna Rd**	**NB**	**D**		Not Analyzed	N/A	Not Analyzed	N/A
15	**Los Osos Valley**	**Calle Joaquin**	**US 101 SB Ramps**	**SB**	**D**		Not Analyzed	N/A	Not Analyzed	N/A
	Los Osos Valley	**US 101 SB Ramps**	**Calle Joaquin**	**NB**	**D**		Not Analyzed	N/A	Not Analyzed	N/A
16	**Los Osos Valley**	**US 101 SB Ramps**	**US 101 NB Ramps**	**SB**	**D**		Not Analyzed	N/A	Not Analyzed	N/A
	Los Osos Valley	**US 101 NB Ramps**	**US 101 SB Ramps**	**NB**	**D**		Not Analyzed	N/A	Not Analyzed	N/A
17	**Los Osos Valley**	**S. Higuera St**	**US 101 NB Ramps**	**WB**	**D**		Not Analyzed	N/A	Not Analyzed	N/A
	Los Osos Valley	**US 101 NB Ramps**	**S. Higuera St**	**EB**	**D**		Not Analyzed	N/A	Not Analyzed	N/A
18	**Prado Rd**	**S. Higuera St**	**Froom Ranch Way**	**WB**	**D**		Not Analyzed	N/A	Not Analyzed	N/A
	Prado Rd	**Froom Ranch Way**	**S. Higuera St**	**EB**	**D**	Route 2	3.79	D	Not Analyzed	N/A
19	**Froom Ranch Way**	**Dick's Sporting**	**Los Osos Valley**	**WB**	**D**		Not Analyzed	N/A	Not Analyzed	N/A
	Froom Ranch Way	**Los Osos Valley**	**Dick's Sporting**	**EB**	**D**		Not Analyzed	N/A	Not Analyzed	N/A
20	Dalidio Dr	Madonna Rd	Froom Ranch Way	SB	D	Route 4	4.19	D	4.22	D
	Dalidio Dr	**Madonna Rd**	**Froom Ranch Way**	**SB**	**D**	Route 5	4.26	E	4.06	D
21	**Froom Ranch Way**	**Dalidio**	**Dick's Sporting**	**WB**	**D**		**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**
	Froom Ranch Way	**Dalidio**	**Dick's Sporting**	**WB**	**D**		Not Analyzed	N/A	Not Analyzed	N/A

Note: Route 2 Serves the Prado Day Center stop during the AM peak hour, and the DMV/Margarita stop during the PM Peak Hour

Segment 20 transit is southbound for routes 4 and 5

TABLE 104: YEAR 2035 PRADO ROAD OVERCROSSING CONDITIONS SEGMENT LEVEL OF SERVICE: FREEWAY ANALYSIS

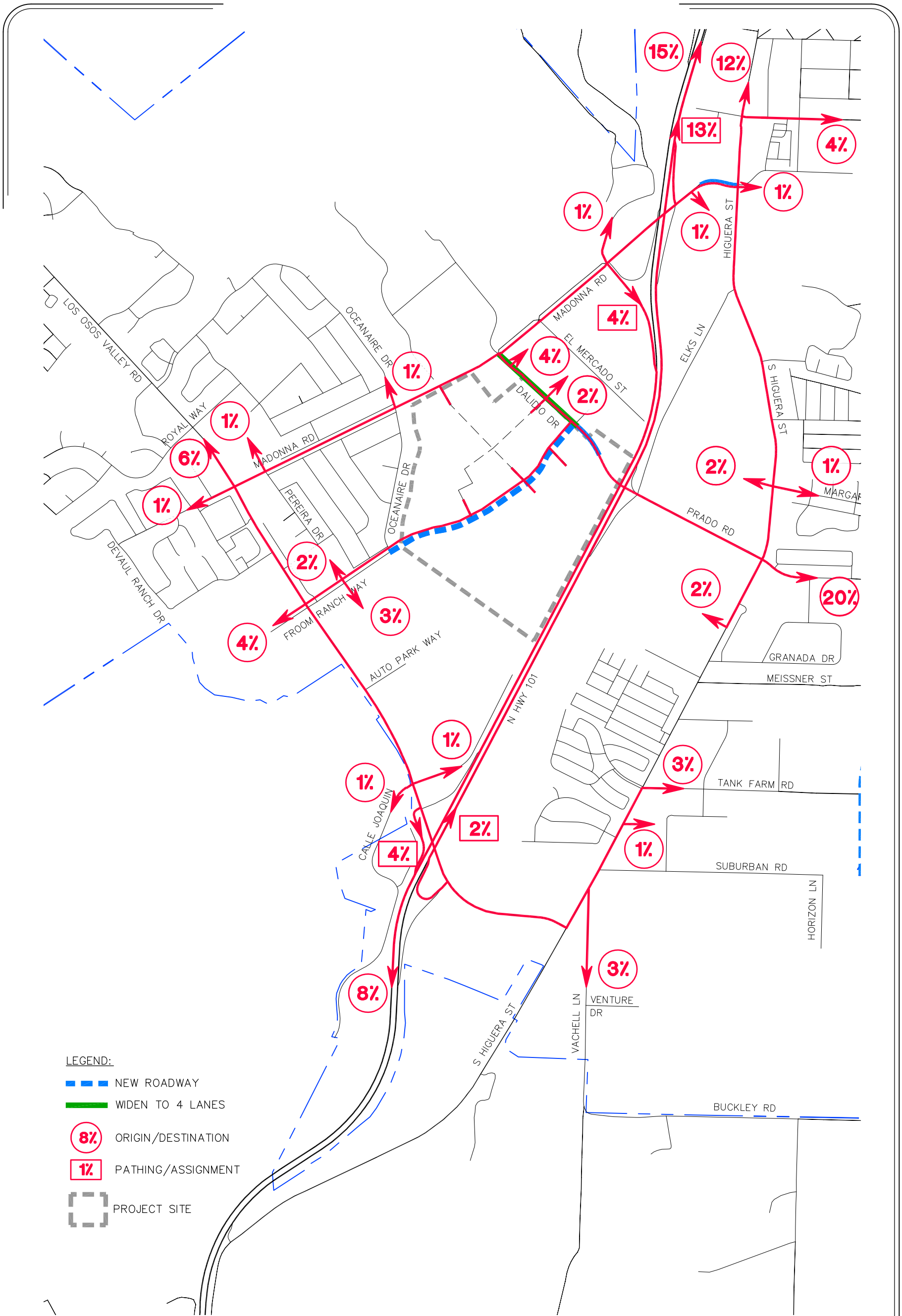
Interchange Location	Target LOS	Segment Type	No. of Lanes	AM Peak Hour Volume	AM Peak Hour Density (pc/mi/ln)	AM Peak Hour LOS	PM Peak Hour Volume	PM Peak Hour Density (pc/mi/ln)	PM Peak Hour LOS
US 101 at Los Osos Valley Road									
US 101 NB South of Los Osos Valley Road	C	Freeway	2	**3,454**	**32.6**	**D**	2,688	23.7	C
US 101 SB South of Los Osos Valley Road	C	Freeway	2	1,809	15.9	B	**3,875**	**39.7**	**E**
US 101 at Madonna Road									
US 101 NB South of Madonna Road	C	Freeway	2	2,831	25.1	C	2,664	23.5	C
US 101 SB South of Madonna Road	C	Freeway	2	2,072	18.2	C	**3,584**	**34.6**	**D**

As shown in the Year 2035 Prado Road Overcrossing Conditions segment analysis tables, most of the segments are currently operating at deficient LOS for pedestrian and transit modes, as well as several segments for automobile mode and only a couple segments for the bicycle mode. The segment of US 101 south of Los Osos Valley Road is operating at deficient LOS D during the PM peak hour for Year 2035 Prado Road Overcrossing conditions.

Year 2035 Prado Road Overcrossing Plus Project Conditions

The project generated peak hour volume has been added to the derived 2035 Prado Road Overcrossing volumes to obtain the Year 2035 Prado Road Overcrossing Plus Project conditions. The LOS has been quantified and compared to all study intersections and roadways analyzed in Prado Road Overcrossing (No Project) conditions. All proposed driveway intersections have been evaluated for LOS operations, potential vehicle queuing and pedestrian and bicycle level of service.

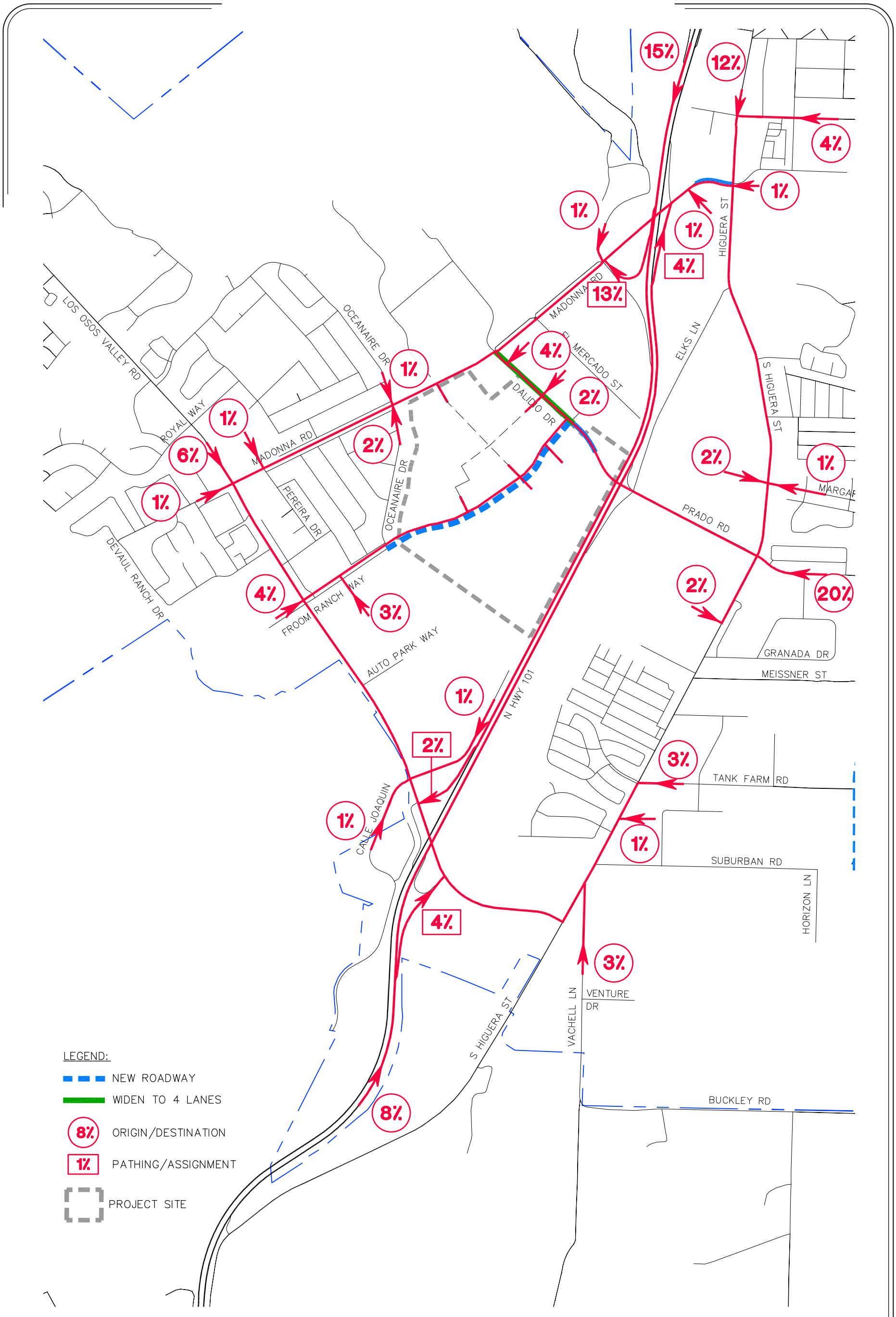
Figures 21A and 21B present the project trip distribution for the 2035 Prado Road Overcrossing scenario. Figure 22 presents the 2035 Full Build Prado Interchange Plus Project lane geometrics and control assuming the proposed project is in place. Figure 23 presents the 2035 Full Build Prado Interchange Plus Project peak hour traffic volumes with the proposed project in place.



San Luis Ranch Specific Plan Multimodal TIS

Figure 21A

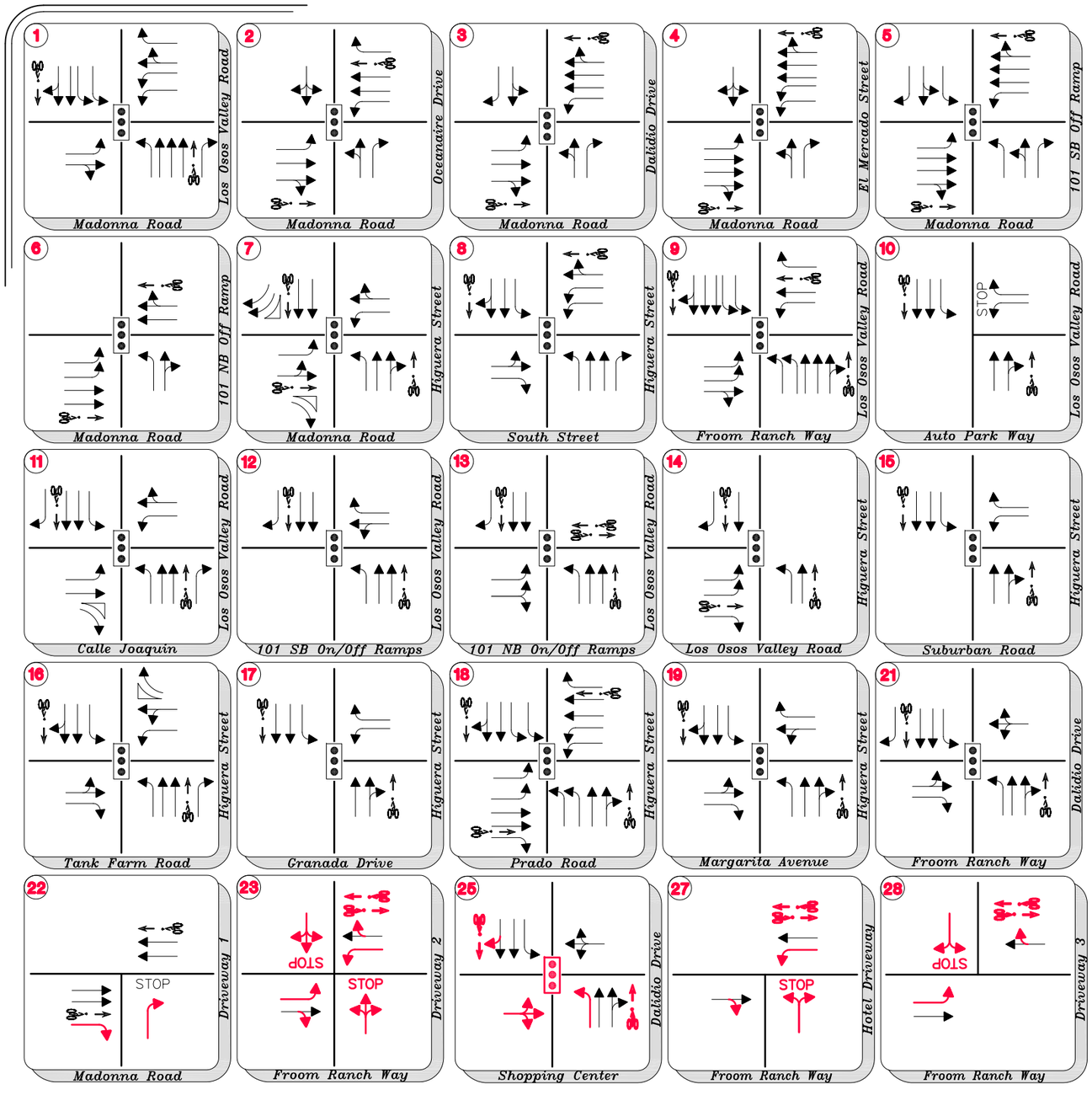
2035 Prado Overcrossing Plus Project Trip Distribution (Outbound)

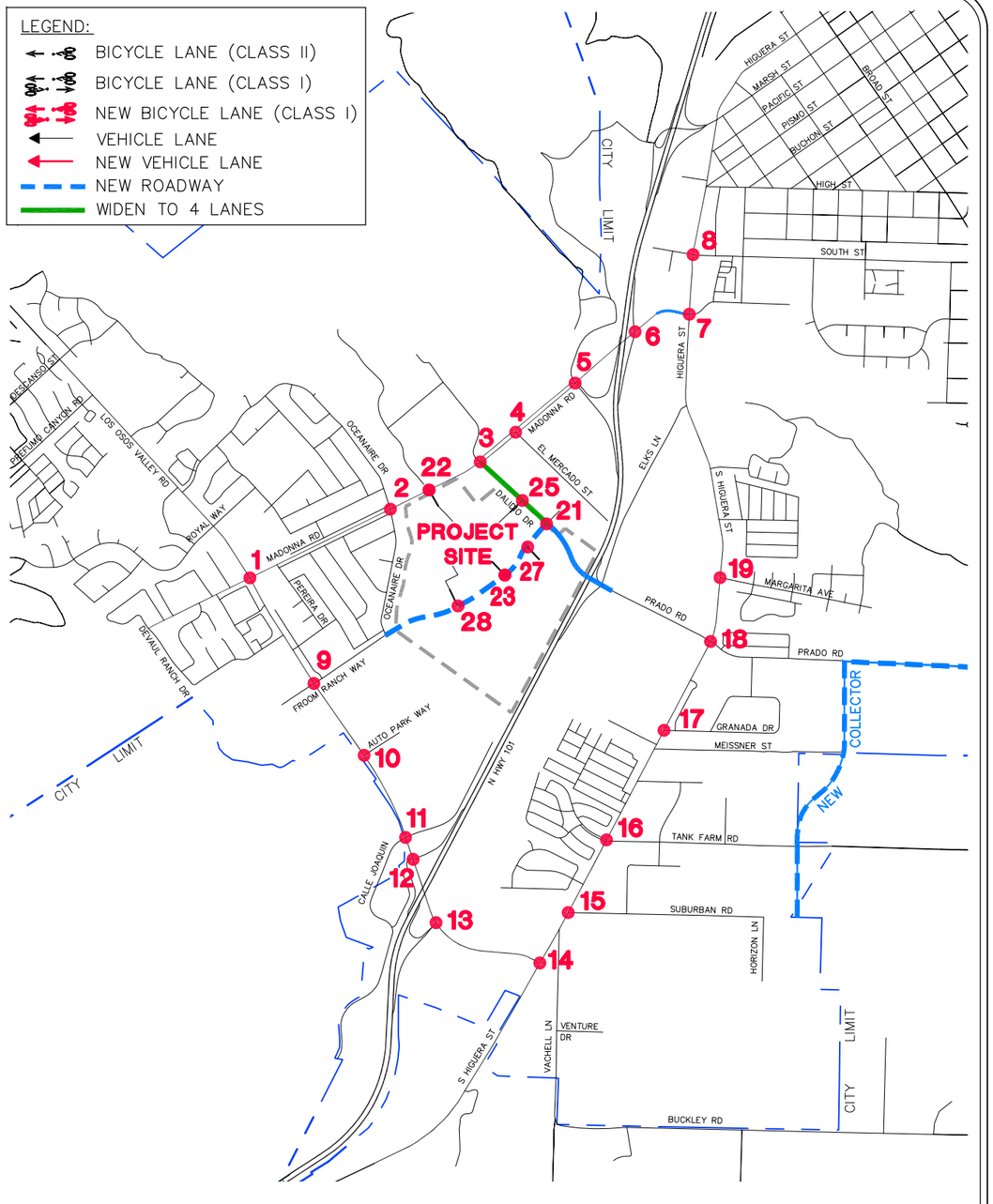


San Luis Ranch Specific Plan Multimodal TIS

Figure 21B

2035 Prado Overcrossing Plus Project Trip Distribution (Inbound)

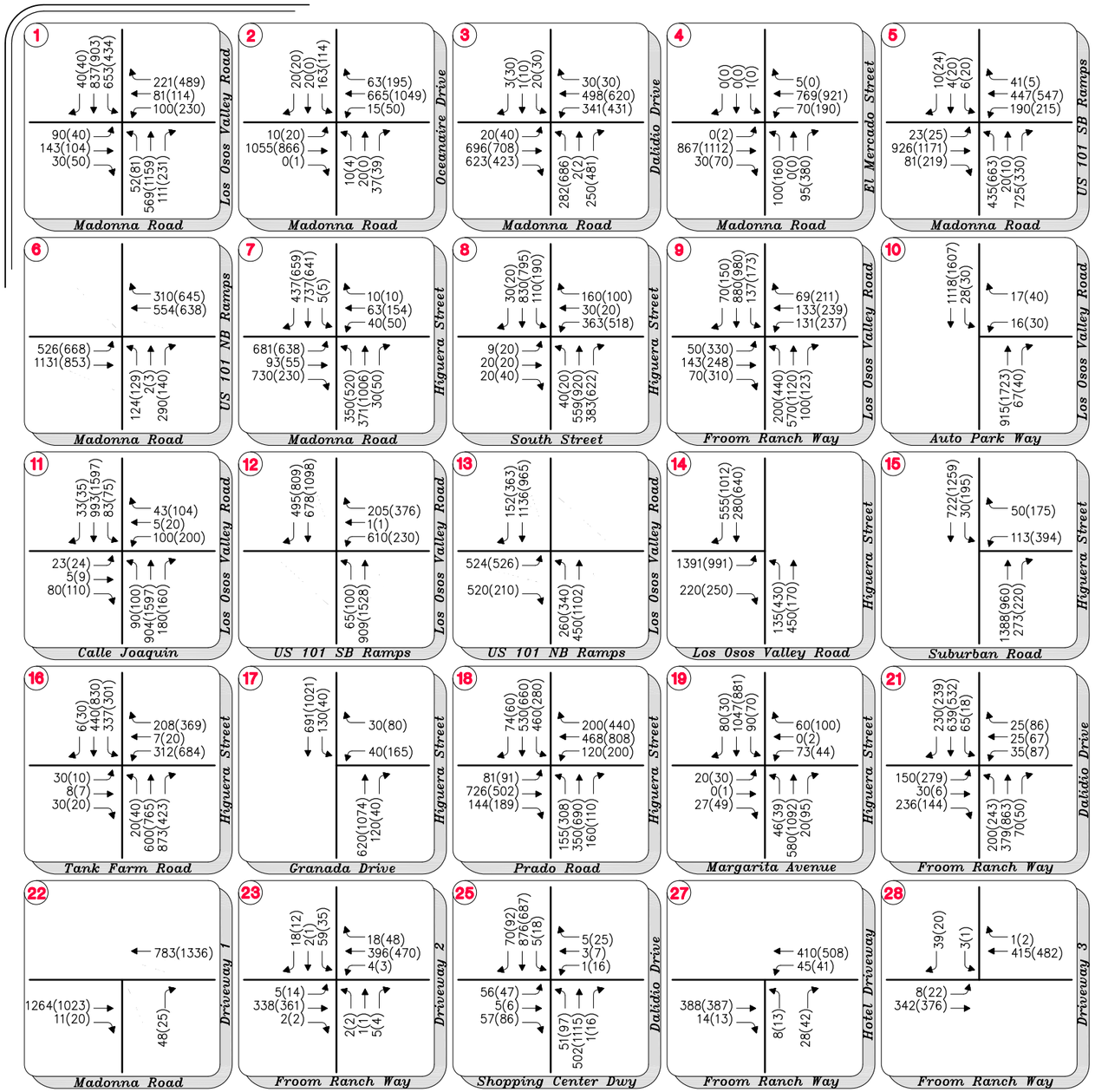


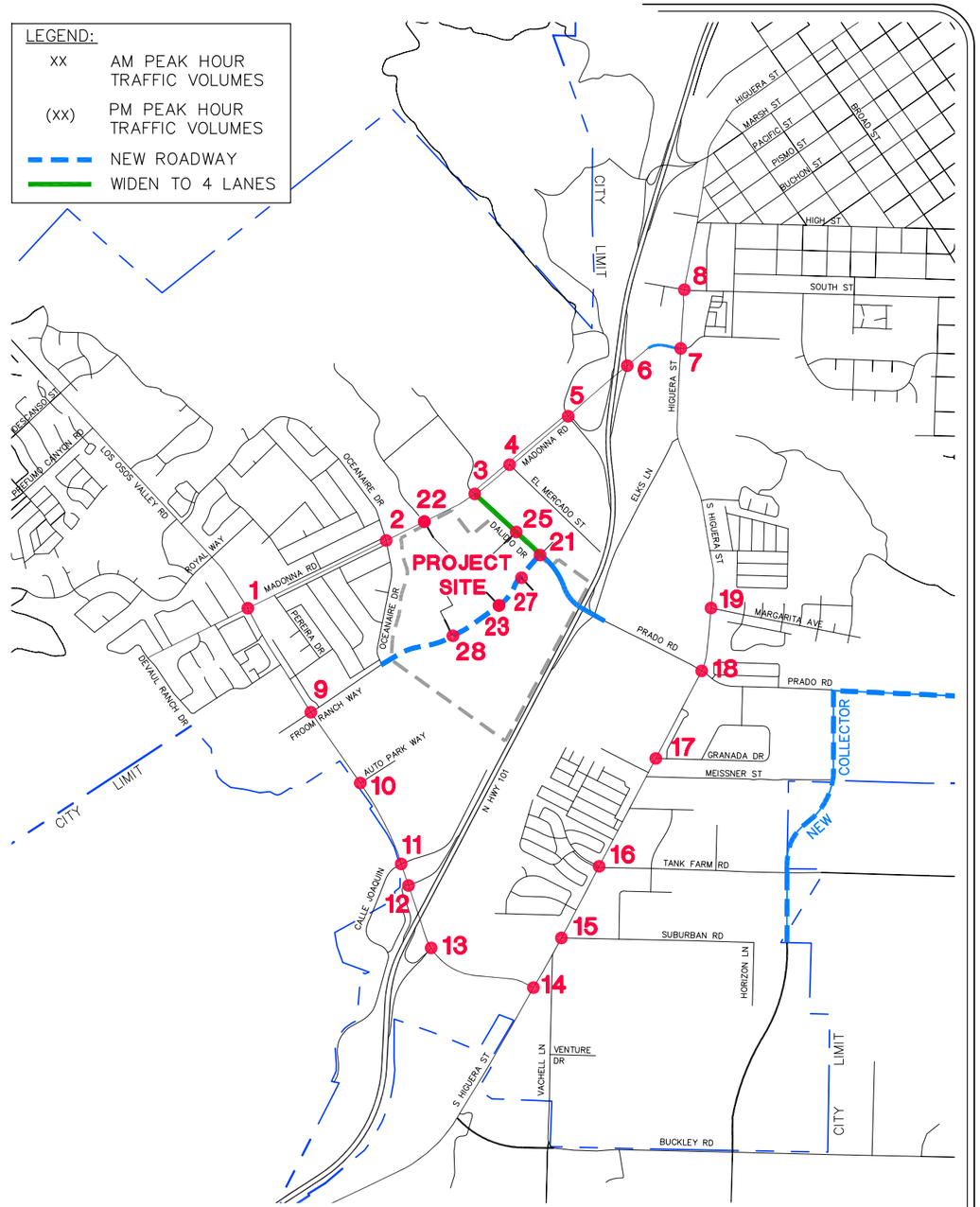


San Luis Ranch Specific Plan Multimodal TIS

Figure 22

Year 2035 Overcrossing Plus Project Lane Geometrics and Control





San Luis Ranch Specific Plan Multimodal TIS

Figure 23

Year 2035 Overcrossing Plus Project Peak Hour Traffic Volumes

Year 2035 Prado Road Overcrossing Plus Project Conditions Analysis

The Year 2035 Prado Road Overcrossing Plus Project conditions multimodal analysis for the study intersections and segments are presented below.

Year 2035 Prado Road Overcrossing Plus Project Conditions Intersection Analysis

Table 105 provides a summary of the Year 2035 Prado Road Overcrossing Plus Project conditions vehicular AM and PM peak hour intersection delay and LOS. Table 106 provides a summary of the Year 2035 Prado Road Overcrossing Plus Project pedestrian AM and PM peak hour conditions at the study intersections. Table 107 provides a summary of the Year 2035 Prado Road Overcrossing Plus Project bicycle AM and PM peak hour conditions at the study intersections. Table 108 provides a summary of the Prado Road Overcrossing Plus Project conditions queuing analysis.

TABLE 105: YEAR 2035 PRADO ROAD OVERCROSSING PLUS PROJECT CONDITIONS INTERSECTION LOS: AUTOMOBILE ANALYSIS

#	Intersection	Control Type[1,2]	Target LOS	AM Peak Hour			PM Peak Hour		
				v/c[3]	Delay	LOS	v/c[3]	Delay	LOS
1	Madonna Road/Los Osos Valley Road	Signal	D		37.3	D		45.1	D
2	Madonna Road/Oceanaire Drive	Signal	D		24.2	C		17.6	B
3	**Madonna Road/Dalidio Drive**	**Signal**	**D**	**4.04**	**258.4**	**F**	**8.66**	**806.7**	**F**
4	Madonna Road/El Mercado	Signal	D		10.7	B		23.5	C
5	Madonna Road/US 101 SB Ramps/Madonna	Signal	C		34.5	C		31.4	C
6	Madonna Road/US 101 NB Ramps	Signal	C		26.5	C		28.3	C
7	Madonna Road/Higuera Street	Signal	D		43.8	D		47.0	D
8	Higuera Street/South Street	Signal	D		20.8	C		28.6	C
9	**Los Osos Valley Road/Froom Ranch Way**	**Signal**	**D**		24.4	C	**1.11**	**63.8**	**E**
10	**Los Osos Valley Road/Auto Park Way**	**TWSC**	**D**		18.2	C	**0.44**	**49.1**	**E**
11	Los Osos Valley Road/Calle Joaquin	Signal	D		26.0	C		14.5	B
12	**Los Osos Valley Road/US 101 SB Ramps**	**Signal**	**C**	**1.26**	**41.8**	**D**		29.9	C
13	**Los Osos Valley Road/US 101 NB Ramps**	**Signal**	**C**	**1.17**	**57.6**	**E**		24.4	C
14	**S. Higuera Street/Los Osos Valley Road**	**Signal**	**D**		23.6	C	**1.10**	**79.9**	**E**
15	S. Higuera Street/Suburban Drive	Signal	D		7.5	A		16.7	B
16	**S. Higuera Street/Tank Farm Road**	**Signal**	**D**	**1.48**	**114.9**	**F**		26.2	C
17	S. Higuera Street/Granada Drive	Signal	D		8.3	A		10.9	B
18	S. Higuera Street/Prado Road	Signal	D		34.9	C		32.2	C
19	S. Higuera Street/Margarita Avenue	Signal	D		17.9	B		13.0	B
21	Froom Ranch Road/Dalidio Drive/Prado Road	Signal	D		20.5	C		32.0	C
22	Madonna Road/Project Driveway	TWSC	D		15.8	C		13.2	B
23	Froom Ranch Road/Project Driveway #2	TWSC	D		20.1	C		21.9	C
25	Dalidio Drive/SC Project Driveway	Signal	D		10.6	B		15.7	B
27	Froom Ranch Road/Hotel Project Driveway	TWSC	D		13.8	B		14.3	B
28	Froom Ranch Road/Project Driveway #3	TWSC	D		11.9	B		12.2	B

Notes:

1. AWSC = All Way Stop Control; TWSC = Two Way Stop Control; RNDBT = Roundabout

2. LOS = Delay based on worst minor street approach for TWSC intersections, average of all approaches for AWSC, Signal,

3. Volume to Capacity Ratio (v/c) is for worst movement delay, for unacceptable LOS only

TABLE 106: YEAR 2035 PRADO ROAD OVERCROSSING PLUS PROJECT CONDITIONS INTERSECTION LOS: PEDESTRIAN ANALYSIS

#	Intersection	Approach	Target LOS	AM Peak Hour Ped. Crosswalk Score	AM Peak Hour LOS	PM Peak Hour Ped. Crosswalk Score	PM Peak Hour LOS
1	Madonna Road/Los Osos Valley Road	EB	C	2.12	B	2.12	B
		WB	C	3.05	C	3.27	C
		NB	C	3.11	C	3.35	C
		SB	C	3.30	C	3.34	C
2	Madonna Road/Oceanaire Drive	EB	C	2.89	C	2.98	C
		WB	C	3.31	C	3.40	C
		NB	C	2.03	B	2.02	B
		SB	C	1.86	A	1.87	A
3	**Madonna Road/Dalidio Drive**	**EB**	**C**	**3.73**	**D**	**4.23**	**D**
		WB	C	3.02	C	3.08	C
		NB	C	2.72	B	2.79	C
		SB	C	1.97	A	2.01	B
4	Madonna Road/El Mercado	EB	C	n/a	-	n/a	-
		WB	C	3.09	C	3.19	C
		NB	C	2.36	B	2.76	C
		SB	C	1.74	A	1.74	A
5	Madonna Road/US 101 SB Ramps/Madonna Inn	EB	C	3.02	C	3.15	C
		WB	C	n/a	-	n/a	-
		NB	C	2.83	C	2.74	B
		SB	C	2.17	B	2.20	B
6	Madonna Road/US 101 NB Ramps	EB	C	n/a	-	n/a	-
		WB	C	3.12	C	3.13	C
		NB	C	2.03	B	2.04	B
		SB	C	n/a	-	n/a	-
7	Madonna Road/Higuera Street	EB	C	2.96	C	3.10	C
		WB	C	2.05	B	2.07	B
		NB	C	3.05	C	3.10	C
		SB	C	n/a	-	n/a	-
8	Higuera Street/South Street	EB	C	2.02	B	2.05	B
		WB	C	2.77	C	2.84	C
		NB	C	n/a	-	n/a	-
		SB	C	2.64	B	2.74	B
9	Los Osos Valley Road/Froom Ranch Way	EB	C	2.45	B	2.66	B
		WB	C	2.51	B	2.70	B
		NB	C	n/a	-	n/a	-
		SB	C	3.10	C	3.33	C
10	Los Osos Valley Road/Auto Park Way	EB	C	n/a	-	n/a	-
		WB	C		-		-
		NB	C		-		-
		SB	C		-		-
11	**Los Osos Valley Road/Calle Joaquin**	EB	C	2.59	B	2.47	B
		WB	C	2.26	B	2.33	B
		NB	**C**	3.19	C	**3.54**	**D**
		SB	C	3.08	C	3.37	C
12	Los Osos Valley Road/US 101 SB Ramps	EB	C	2.03	B	2.46	B
		WB	C	2.21	B	2.14	B
		NB	C	n/a	-	n/a	-
		SB	C	n/a	-	n/a	-
13	Los Osos Valley Road/US 101 NB Ramps	EB	C	2.70	B	2.56	B
		NB	C	2.89	C	2.97	C
		SB	C	n/a	-	n/a	-
14	**S. Higuera Street/Los Osos Valley Road**	**EB**	**C**	3.11	C	**3.68**	**D**
		NB	C	2.51	B	2.73	B
		SB	C	n/a	-	n/a	-
15	**S. Higuera Street/Suburban Drive**	WB	C	2.18	B	2.60	B
		NB	**C**	3.32	C	**3.84**	**D**
		SB	C	3.00	C	3.09	C
16	**S. Higuera Street/Tank Farm Road**	EB	C	2.02	B	2.02	B
		WB	C	2.96	C	3.24	C
		NB	**C**	**3.62**	**D**	3.36	C
		SB	C	2.82	C	3.02	C
17	S. Higuera Street/Granada Drive	WB	C	2.08	B	2.13	B
		NB	C	n/a	-	n/a	-
		SB	C	2.74	B	2.96	C
18	S. Higuera Street/Prado Road	EB	C	2.98	C	3.02	C
		WB	C	3.04	C	3.20	C
		NB	C	2.93	C	3.34	C
		SB	C	2.92	C	3.18	C
19	S. Higuera Street/Margarita Avenue	EB	C	2.27	B	2.11	B
		WB	C	2.22	B	2.28	B
		NB	C	2.97	C	3.08	C
		SB	C	2.92	C	3.06	C
21	Froom Ranch Road/Dalidio Drive/Prado Road	EB	C	2.54	B	2.47	B
		WB	C	1.87	A	1.91	A
		NB	C	2.65	B	2.71	B
		SB	C	2.85	C	2.96	C
25	Dalidio Drive/SC Project Driveway	EB	C	1.91	A	2.01	B
		WB	C	1.74	A	1.80	A
		NB	C	2.57	B	2.66	B
		SB	C	2.58	B	2.67	B

Notes:

HCM 2010 Methodologies do not model segments bounded by all-way stop control. Procedures have not been developed yet to address the effect of all-way stop control or yield control on intersection performance from a pedestrian or bicyce perspective.

HCM 2010 Methodologies for the pedestrian mode at two-way stop-controlled intersections is limited to the uncontrolled crossing. No methodology exists for evaluating pedestrian performance for the stop controlled approach (cross-street). However, it is reasoned that this type of control has negligible influence on pedestrian service along the segment.

TABLE 107: YEAR 2035 PRADO ROAD OVERCROSSING TERM PLUS PROJECT CONDITIONS INTERSECTION LOS: BICYCLE ANALYSIS

#	Intersection	Approach	Target LOS	AM Peak Hour Bicycle LOS Score	AM Peak Hour Bicycle LOS LOS	PM Peak Hour Bicycle LOS Score	PM Peak Hour Bicycle LOS LOS
1	Madonna Road/Los Osos Valley Road	EB	D	3.30	C	3.16	C
		WB	D	3.47	C	4.17	D
		NB	D	1.70	A	2.10	B
		SB	D	2.96	C	2.78	C
2	Madonna Road/Oceanaire Drive	EB	D	3.07	C	2.91	C
		WB	D	1.32	A	1.81	A
		NB	D	2.76	C	2.74	B
		SB	D	2.29	B	2.25	B
3	Madonna Road/Dalidio Drive	EB	D	2.39	B	2.13	B
		WB	D	1.66	A	1.73	A
		NB	D	2.82	C	3.81	D
		SB	D	1.79	A	1.86	A
4	Madonna Road/El Mercado	EB	D	1.68	A	1.78	A
		WB	D	1.83	A	1.92	A
		NB	D	3.39	C	3.94	D
		SB	D	3.03	C	3.03	C
5	Madonna Road/US 101 SB Ramps/Madonna Inn	EB	D	1.90	A	2.08	B
		WB	D	1.69	A	1.71	A
		NB	D	n/a	-	n/a	-
		SB	D	2.91	C	2.99	C
6	Madonna Road/US 101 NB Ramps	EB	D	2.74	B	2.41	B
		WB	D	1.89	A	2.13	B
		NB	D	n/a	-	n/a	-
7	Madonna Road/Higuera Street	EB	D	3.95	D	2.83	C
		WB	D	2.61	B	2.78	C
		NB	D	2.05	B	2.76	C
		SB	D	2.52	B	2.59	B
8	Higuera Street/South Street	EB	D	2.71	B	2.77	C
		WB	D	2.54	B	2.72	B
		NB	D	3.08	C	3.62	D
		SB	D	1.96	A	2.02	B
9	**Los Osos Valley Road/Froom Ranch Way**	**EB**	**D**	3.56	D	**4.62**	**E**
		WB	D	2.28	B	3.18	C
		NB	D	1.83	A	2.28	B
		SB	D	1.84	A	1.94	A
10	Los Osos Valley Road/Auto Park Way	EB	D	n/a	-	n/a	-
		WB	D		-		-
		NB	D		-		-
		SB	D		-		-
11	Los Osos Valley Road/Calle Joaquin	EB	D	3.08	C	3.12	C
		WB	D	3.21	C	3.49	C
		NB	D	1.67	A	2.17	B
		SB	D	0.58	A	1.02	A
12	Los Osos Valley Road/US 101 SB Ramps	WB	D	n/a	-	n/a	-
		NB	D	2.89	C	3.37	C
		SB	D	1.75	A	2.29	B
13	Los Osos Valley Road/US 101 NB Ramps	EB	D	n/a	-	n/a	-
		NB	D	2.00	A	2.60	B
		SB	D	2.93	C	2.93	C
14	S. Higuera Street/Los Osos Valley Road	EB	D	2.45	B	2.12	B
		NB	D	2.32	B	2.33	B
		SB	D	2.73	B	4.14	D
15	S. Higuera Street/Suburban Drive	WB	D	0.95	A	1.64	A
		NB	D	2.68	B	2.22	B
		SB	D	1.91	A	2.50	B
16	S. Higuera Street/Tank Farm Road	EB	D	2.72	B	2.66	B
		WB	D	2.43	B	3.34	C
		NB	D	2.58	B	2.31	B
		SB	D	1.93	A	2.24	B
17	S. Higuera Street/Granada Drive	WB	D	2.63	B	2.93	C
		NB	D	1.84	A	2.17	B
		SB	D	2.05	B	2.27	B
18	S. Higuera Street/Prado Road	EB	D	1.54	A	1.38	A
		WB	D	2.63	B	2.51	B
		NB	D	1.82	A	2.20	B
		SB	D	2.18	B	2.11	B
19	S. Higuera Street/Margarita Avenue	EB	D	2.50	B	2.56	B
		WB	D	2.74	B	2.77	C
		NB	D	1.86	A	2.38	B
		SB	D	2.45	B	2.26	B
21	Froom Ranch Road/Dalidio Drive/Prado Road	EB	D	2.17	B	2.19	B
		WB	D	2.81	C	3.09	C
		NB	D	1.59	A	2.05	B
		SB	D	2.03	B	1.96	A
25	Dalidio Drive/SC Project Driveway	EB	D	2.70	B	2.73	B
		WB	D	2.50	B	2.56	B
		NB	D	2.43	B	3.03	C
		SB	D	2.78	C	2.64	B

Notes:
HCM 2010 Methodologies do not model segments bounded by all-way stop control. Procedures have not been developed yet to address the effect of all-way stop control or yield control on intersection performance from a pedestrian or bicyce perspective. No methodology exists for evaluating bicycle performance at two-way stop-controlled intersections. However, it is reasoned that this type of control has negligible influence on bicycle service along the segment for stop controll on the cross-street.

TABLE 108: YEAR 2035 PRADO ROAD OVERCROSSING PLUS PROJECT CONDITIONS 95TH PERCENTILE QUEUING ANALYSIS

Intersection			No. Lanes	Total Storage (ft)[1]	95th Percentile Queue/Lane (ft)	
ID	Location	Movement			AM Peak Hour	PM Peak Hour
1	Madonna Road/Los Osos Valley Road	Northbound Right	1	175	102	**259**
		Southbound Left	2	350	**393**	267
2	Madonna Road/Oceanaire	Westbound Right	1	100	72	**132**
3	Madonna Road/Dalidio	Westbound Left	1	275	**703**	**335**
4	Madonna Road/El Mercado	Westbound Left	2	260	**317**	**538**
5	Madonna Road/US 101 SB Ramps/Madonna Inn	Eastbound Left	1	100	77	**112**
		Westbound Left	1	260	185	**548**
6	Madonna Road/US 101 NB	Northbound Left	1	185	**202**	**300**
7	Madonna Road/Higuera Street	Eastbound Right	1	150	**337**	**225**
		Northbound Left	1	160	**330**	**332**
		Southbound Left/Through	2	250	**328**	**668**
		Southbound Right	2	340	44	**635**
8	Higuera Street/South Street	Eastbound Right	1	60	43	**88**
		Westbound Left	2	240	179	**1024**
		Northbound Left	1	60	**89**	49
		Northbound Right	1	60	**112**	**168**
		Southbound Left	1	70	**119**	**126**
9	Los Osos Valley Road/Froom Ranch Way	Eastbound Through/Right	1	445	189	**617**
		Westbound Left	1	295	143	**354**
		Westbound Right	1	50	**80**	**100**
		Southbound Left	2	200	134	**296**
11	Los Osos Valley Road/Calle Joaquin	Northbound Right	1	105	**112**	64
		Southbound Right	2	80	**91**	**153**
12	Los Osos Valley Road/US 101 SB Ramps	Westbound Left/Through	1	180	**272**	**255**
		Southbound Through	1	240	**356**	**358**
		Southbound Right	1	125	**194**	**180**
13	Los Osos Valley Road/US 101 NB Ramps	Eastbound Left/Right	1	625	**1365**	454
		Southbound Through	1	865	**1069**	429
		Southbound Right	1	130	**271**	**231**
14	S. Higuera Street/Los Osos Valley Road	Eastbound Right	1	90	**207**	**202**
		Northbound Left	1	160	153	**222**
15	S. Higuera Street/Suburban Drive	Westbound Right	1	170	57	**288**
		Southbound Left	1	200	92	**328**
16	S. Higuera Street/Tank Farm Road	Northbound Right	1	100	**179**	**205**
		Southbound Left	1	165	**261**	**238**
17	S. Higuera Street/Granada	Southbound Left	1	80	**99**	66
18	S. Higuera Street/Prado Road	Eastbound Right	1	140	**165**	92
		Westbound Left	1	105	**205**	**233**
		Westbound Right	1	100	**284**	**275**
		Northbound Left	1	100	**101**	**204**
		Southbound Left	1	60	**183**	**159**
19	S. Higuera Street/Margarita Avenue	Northbound Left	1	60	**84**	**73**
		Southbound Left	1	60	**122**	**95**

Note ***1. Bolded entries indicate queues exceed available storage***

2. Storage Length of " - " represents a lane which exceeds 1,000 feet, usually a through lane.

3. For Movements with more than one lane, the maximum of the 95th percentile queue is reported.

4. * Represents storage lengths for one lane; second lane is a left or right trap lane.

As shown in Table 105, the intersection of Madonna Road/Dalidio Drive, Los Osos Valley Road/Froom Ranch Way, Los Osos Valley Road/Auto Park Way, and S. Higuera Street/Tank Farm Road continue to operate at unacceptable conditions during the Prado Road Overcrossing Plus Project conditions. .

Pedestrian analysis shows acceptable conditions at the study intersections. Bicycle analysis shows deficiencies at Los Osos Valley Road/Froom Ranch Way. Queuing analysis results to be completed. Transportation improvements required to mitigate project-related impacts are detailed in a subsequent section of this report.

Year 2035 Prado Road Overcrossing Plus Project Conditions Segment Analysis

Table 109 provides a summary of the Year 2035 Prado Road Overcrossing Plus Project vehicular AM and PM peak hour conditions for the study segments. Table 110 provides a summary of the Year 2035 Prado Road Overcrossing Plus Project pedestrian AM and PM peak hour conditions for the study segments. Table 111 provides a summary of the Year 2035 Prado Road Overcrossing Plus Project bicycle AM and PM peak hour conditions for the study segments. Table 112 provides a summary of the Year 2035 Prado Road Overcrossing Plus Project transit AM and PM peak hour conditions for the study segments. Table 113 provides a summary of the Year 2035 Full Build Prado Interchange Plus Project freeway segments analysis for AM and PM peak hour conditions for the study segments along US 101. Transportation improvements required to mitigate project-related impacts are detailed in a subsequent section of this report.

TABLE 109: YEAR 2035 PRADO ROAD OVERCROSSING PLUS PROJECT CONDITIONS SEGMENT LEVEL OF SERVICE: AUTOMOBILE ANALYSIS

AUTO SEGMENT LOS						AM PEAK				PM PEAK			
ID	Roadway	From	To	Direction	LOS Threshold	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/ BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/ BFFS (%)	LOS
1	**Madonna Rd**	**Oceanaire Dr**	**LOVR**	**WB**	**C**	**20.0**	**42.1**	**48%**	**D**	**14.4**	**42.1**	**34%**	**E**
	Madonna Rd	LOVR	Oceanaire Dr	EB	C	25.0	42.1	59%	C	28.3	42.1	67%	B
2	Madonna Rd	Dalidio	Oceanaire Dr	WB	C	22.2	40.8	54%	C	23.5	40.7	58%	C
	Madonna Rd	**Oceanaire Dr**	**Dalidio**	**EB**	**C**	**6.1**	**40.7**	**15%**	**F**	**15.9**	**40.8**	**39%**	**E**
3	**Madonna Rd**	**El Mercado**	**Dalidio Dr**	**WB**	**C**	**14.9**	**34.1**	**44%**	**D**	**15.0**	**34.8**	**43%**	**D**
	Madonna Rd	**Dalidio Dr**	**El Mercado**	**EB**	**C**	27.4	38.2	72%	B	**11.5**	**34.6**	**33%**	**E**
4	Madonna Rd	US 101 SB Ramps	El Mercado	WB	C	30.6	37.9	81%	B	21.2	37.3	57%	C
	Madonna Rd	**El Mercado**	**US 101 SB Ramps**	**EB**	**C**	**10.5**	**37.8**	**28%**	**F**	**16.5**	**37.7**	**44%**	**D**
5	Madonna Rd	US 101 NB Ramps	US 101 SB Ramps	WB	C	26.0	37.8	69%	B	23.1	37.8	61%	C
	Madonna Rd	US 101 SB Ramps	US 101 NB Ramps	EB	C	32.4	37.8	86%	A	33.4	37.8	88%	A
6	**Madonna Rd**	**Higuera St**	**US 101 NB Ramps**	**WB**	**C**	**9.4**	**37.2**	**25%**	**F**	**11.6**	**37.2**	**31%**	**E**
	Madonna Rd	**US 101 NB Ramps**	**Higuera St**	**EB**	**C**	**11.5**	**37.2**	**31%**	**E**	**9.1**	**37.2**	**25%**	**F**
7	S. Higuera St	Madonna Rd	Margarita Ave	SB	C	29.6	44.5	66%	C	34.9	44.5	78%	B
	S. Higuera St	Margarita Ave	Madonna Rd	NB	C	35.4	44.8	79%	B	29.3	44.8	65%	C
8	**S. Higuera St**	**Margarita Ave**	**Prado Rd**	**SB**	**C**	**13.3**	**38.9**	**34%**	**E**	**12.1**	**38.9**	**31%**	**E**
	S. Higuera St	**Prado Rd**	**Margarita Ave**	**NB**	**C**	20.4	38.9	53%	C	**18.7**	**38.9**	**48%**	**D**
9	S. Higuera St	Prado Rd	Granada Dr	SB	C	33.3	41.8	80%	B	29.8	41.8	71%	B
	S. Higuera St	**Granada Dr**	**Prado Rd**	**NB**	**C**	**16.2**	**41.9**	**39%**	**E**	**15.4**	**41.9**	**37%**	**E**
10	S. Higuera St	Granada Dr	Tank Farm Road	SB	C	42.1	41.6	101%	A	23.5	42.6	55%	C
	S. Higuera St	Tank Farm Road	Granada Dr	NB	C	29.6	41.6	71%	B	25.6	42.6	60%	C
11	S. Higuera St	Tank Farm Road	Suburban Drive	SB	C	27.0	42.4	64%	C	23.0	41.2	56%	C
	S. Higuera St	**Suburban Drive**	**Tank Farm Road**	**NB**	**C**	**18.5**	**42.5**	**43%**	**D**	**14.8**	**41.3**	**36%**	**E**
12	**S. Higuera St**	**Suburban Drive**	**Los Osos Valley Road**	**SB**	**C**	**20.3**	**42.1**	**48%**	**D**	**4.3**	**39.1**	**11%**	**F**
	S. Higuera St	Los Osos Valley Road	Suburban Drive	NB	C	22.7	42.0	54%	C	19.6	39.0	50%	C
13	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**C**	22.4	41.9	54%	C	**12.7**	**41.8**	**30%**	**E**
	Los Osos Valley	**Froom Ranch Way**	**Madonna Rd**	**NB**	**C**	**19.2**	**41.8**	**46%**	**D**	**15.7**	**41.8**	**38%**	**E**
14	Los Osos Valley	Froom Ranch Way	Calle Joaquin	SB	C	22.0	43.0	51%	C	23.5	43.0	55%	C
	Los Osos Valley	**Calle Joaquin**	**Froom Ranch Way**	**NB**	**C**	28.2	43.2	65%	C	**18.9**	**43.2**	**44%**	**D**
15	**Los Osos Valley**	**Calle Joaquin**	**US 101 SB Ramps**	**SB**	**C**	**6.4**	**32.1**	**20%**	**F**	**15.4**	**32.1**	**48%**	**D**
	Los Osos Valley	**US 101 SB Ramps**	**Calle Joaquin**	**NB**	**C**	**6.6**	**31.1**	**21%**	**F**	**14.6**	**31.1**	**47%**	**D**
16	**Los Osos Valley**	**US 101 SB Ramps**	**US 101 NB Ramps**	**SB**	**C**	**14.9**	**37.7**	**40%**	**E**	**15.7**	**37.7**	**42%**	**D**
	Los Osos Valley	US 101 NB Ramps	US 101 SB Ramps	NB	C	29.8	37.4	80%	B	19.7	37.4	53%	C
17	Los Osos Valley	S. Higuera St	US 101 NB Ramps	WB	C	28.3	39.2	72%	B	25.7	39.2	66%	C
	Los Osos Valley	**US 101 NB Ramps**	**S. Higuera St**	**EB**	**C**	**17.6**	**39.4**	**45%**	**D**	**10.7**	**39.4**	**27%**	**F**
18	Prado Rd	S. Higuera St	Froom Ranch Way	WB	C	29.7	40.3	74%	B	23.9	40.3	59%	C
	Prado Rd	Froom Ranch Way	S. Higuera St	EB	C	24.7	40.1	62%	C	24.0	40.1	60%	C
19	**Froom Ranch Way**	**Dick's Sporting Goods Dwy**	**Los Osos Valley**	**WB**	**C**	22.6	37.7	60%	C	**10.6**	**37.7**	**28%**	**F**
	Froom Ranch Way	Los Osos Valley	Dick's Sporting Goods Dw	EB	C	35.1	38.0	92%	A	34.7	38.0	91%	A
20	Dalidio Dr	Madonna Rd	SC Project Dwy	SB	C	21.8	36.0	61%	C	18.3	36.0	51%	C
	Dalidio Dr	**SC Project Dwy**	**Madonna Rd**	**NB**	**C**	**0.7**	**38.0**	**2%**	**F**	**0.2**	**38.0**	**1%**	**F**
21	Froom Ranch Way	Dalidio	Dick's Sporting Goods Dw	WB	C	39.2	40.8	96%	A	38.7	40.6	95%	A
	Froom Ranch Way	Dick's Sporting Goods Dwy	Dalidio	EB	C	25.6	40.7	63%	C	24.8	40.8	61%	C
24	**Dalidio Dr**	**SC Project Dwy**	**Froom Ranch Way**	**SB**	**C**	**15.5**	**36.4**	**43%**	**D**	**14.0**	**36.4**	**38%**	**E**
	Dalidio Dr	Froom Ranch Way	SC Project Dwy	NB	C	25.7	37.9	68%	B	20.6	37.9	54%	C

TABLE 110: YEAR 2035 PRADO ROAD OVERCROSSING PLUS PROJECT CONDITIONS SEGMENT LEVEL OF SERVICE: PEDESTRIAN ANALYSIS

PEDESTRIAN SEGMENT LOS							AM PEAK		PM PEAK	
ID	Roadway	From	To	Direction	LOS Threshold	Average Ped. Space (ft^2/p)	SEGMENT SCORE	LOS	SEGMENT SCORE	LOS
1	**Madonna Rd**	**Oceanaire Dr**	**LOVR**	**WB**	**C**	**3045**	**3.60**	**D**	**3.84**	**D**
	Madonna Rd	**LOVR**	**Oceanaire Dr**	**EB**	**C**	**11655**	**4.13**	**D**	**4.08**	**D**
2	**Madonna Rd**	**Dalidio**	**Oceanaire Dr**	**WB**	**C**	**8400**	**3.76**	**D**	**4.01**	**D**
	Madonna Rd	**Oceanaire Dr**	**Dalidio**	**EB**	**C**	**3750**	**4.09**	**D**	**4.17**	**D**
3	**Madonna Rd**	**El Mercado**	**Dalidio Dr**	**WB**	**C**	**37450**	**3.52**	**D**	**3.80**	**D**
	Madonna Rd	**Dalidio Dr**	**El Mercado**	**EB**	**C**	**52920**	**3.64**	**D**	**3.88**	**D**
4	**Madonna Rd**	**US 101 SB Ramps**	**El Mercado**	**WB**	**C**	**26250**	**3.67**	**D**	**3.73**	**D**
	Madonna Rd	**El Mercado**	**US 101 SB Ramps**	**EB**	**C**	**27915**	**3.69**	**D**	**3.82**	**D**
5	**Madonna Rd**	**US 101 NB Ramps**	**US 101 SB Ramps**	**WB**	**C**	**No Peds**	**3.72**	**D**	**3.75**	**F**
	Madonna Rd	**US 101 SB Ramps**	**US 101 NB Ramps**	**EB**	**C**	**No Peds**	**4.10**	**D**	**4.02**	**D**
6	**Madonna Rd**	**Higuera St**	**US 101 NB Ramps**	**WB**	**C**	**25200**	**3.79**	**D**	**3.96**	**D**
	Madonna Rd	**US 101 NB Ramps**	**Higuera St**	**EB**	**C**	**19838**	**3.98**	**D**	**3.78**	**D**
7	**S. Higuera St**	**Madonna Rd**	**Margarita Ave**	**SB**	**C**	23247	3.21	C	**3.95**	**D**
	S. Higuera St	**Margarita Ave**	**Madonna Rd**	**NB**	**C**	**5398**	**3.84**	**D**	**4.13**	**D**
8	**S. Higuera St**	**Margarita Ave**	**Prado Rd**	**SB**	**C**	**10245**	**3.79**	**D**	**3.83**	**D**
	S. Higuera St	**Prado Rd**	**Margarita Ave**	**NB**	**C**	**21700**	**3.66**	**D**	**3.91**	**D**
9	**S. Higuera St**	**Prado Rd**	**Granada Dr**	**SB**	**C**	**9292**	**3.69**	**D**	**3.83**	**D**
	S. Higuera St	**Granada Dr**	**Prado Rd**	**NB**	**C**	8400	3.30	C	**3.56**	**D**
10	**S. Higuera St**	**Granada Dr**	**Tank Farm Road**	**SB**	**C**	**46305**	**3.69**	**D**	**3.88**	**D**
	S. Higuera St	Tank Farm Road	Granada Dr	NB	C	49140	3.22	C	3.43	C
11	**S. Higuera St**	**Tank Farm Road**	**Suburban Drive**	**SB**	**C**	**12600**	**3.74**	**D**	**4.02**	**D**
	S. Higuera St	**Suburban Drive**	**Tank Farm Road**	**NB**	**C**	**31500**	**3.79**	**D**	**3.60**	**D**
12	**S. Higuera St**	**Suburban Drive**	**Los Osos Valley Road**	**SB**	**C**	**6552**	**3.70**	**D**	**4.00**	**D**
	S. Higuera St	**Los Osos Valley Road**	**Suburban Drive**	**NB**	**C**	**43533**	**4.19**	**D**	**4.07**	**D**
13	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**C**	**5458**	**3.90**	**D**	**4.02**	**D**
	Los Osos Valley	**Froom Ranch Way**	**Madonna Rd**	**NB**	**C**	**0**	**3.71**	**F**	**4.10**	**F**
14	**Los Osos Valley**	**Froom Ranch Way**	**Calle Joaquin**	**SB**	**C**	**27300**	**3.89**	**D**	**4.19**	**D**
	Los Osos Valley	**Calle Joaquin**	**Froom Ranch Way**	**NB**	**C**	**3675**	**3.76**	**D**	**4.10**	**D**
15	**Los Osos Valley**	**Calle Joaquin**	**US 101 SB Ramps**	**SB**	**C**	**No Peds**	**3.75**	**D**	**4.15**	**D**
	Los Osos Valley	**US 101 SB Ramps**	**Calle Joaquin**	**NB**	**C**	**12600**	**3.77**	**D**	**4.15**	**D**
16	**Los Osos Valley**	**US 101 SB Ramps**	**US 101 NB Ramps**	**SB**	**C**	**No Peds**	**3.98**	**D**	**4.00**	**D**
	Los Osos Valley	**US 101 NB Ramps**	**US 101 SB Ramps**	**NB**	**C**	**10786**	**3.84**	**D**	**4.15**	**D**
17	**Los Osos Valley**	**S. Higuera St**	**US 101 NB Ramps**	**WB**	**C**	**335**	**4.04**	**D**	**4.79**	**E**
	Los Osos Valley	**US 101 NB Ramps**	**S. Higuera St**	**EB**	**C**	**39393**	**4.03**	**D**	**3.91**	**D**
18	**Prado Rd**	**S. Higuera St**	**Froom Ranch Way**	**WB**	**C**	**9450**	**3.56**	**D**	**3.77**	**D**
	Prado Rd	**Froom Ranch Way**	**S. Higuera St**	**EB**	**C**	**8400**	**3.85**	**D**	**3.75**	**D**
19	**Froom Ranch Way**	**Dick's Sporting Goods Dwy**	**Los Osos Valley**	**WB**	**C**	**6852**	**3.69**	**D**	**3.89**	**D**
	Froom Ranch Way	Los Osos Valley	Dick's Sporting Goods Dw	EB	C	9450	1.91	A	2.01	B
20	Dalidio Dr	Madonna Rd	SC Project Dwy	SB	C	4500	3.42	C	3.39	C
	Dalidio Dr	**SC Project Dwy**	**Madonna Rd**	**NB**	**C**	15750	3.30	C	**3.59**	**D**
21	Froom Ranch Way	Dalidio	Dick's Sporting Goods Dw	WB	C	12600	1.76	A	1.79	A
	Froom Ranch Way	Dick's Sporting Goods Dwy	Dalidio	EB	C	No Peds	3.41	C	3.41	C
24	Dalidio Dr	SC Project Dwy	Froom Ranch Way	SB	C	4500	3.49	C	3.43	C
	Dalidio Dr	**Froom Ranch Way**	**SC Project Dwy**	**NB**	**C**	15750	3.27	C	**3.55**	**D**

Notes:

Sidewalk is present along frontage roads for segments #1 - Madonna Road and #13 - Los Osos Valley Road, and is not accounted for in this analysis.

HCM 2010 Methodologies do not model segments bounded by all-way stop control. Procedures have not been developed yet to address the effect of all-way stop control or yield control on intersection performance from a pedestrian or bicyce perspective. No methodology exists for evaluating two-way stop-controlled interesction performance (with the cross-street stop controlled) for pedestrians and bicycles. However, it is reasoned that it has negligible influence on pedestrian sevice along the segment.

TABLE 111: YEAR 2035 PRADO ROAD OVERCROSSING PLUS PROJECT CONDITIONS SEGMENT LEVEL OF SERVICE: BICYCLE ANALYSIS

BICYCLE SEGMENT LOS						AM PEAK		PM PEAK	
ID	Roadway	From	To	Direction	LOS Threshold	SEGMENT SCORE	LOS	SEGMENT SCORE	LOS
1	Madonna Rd	Oceanaire Dr	LOVR	WB	D	3.65	D	4.07	D
	Madonna Rd	LOVR	Oceanaire Dr	EB	D	3.83	D	3.78	D
2	Madonna Rd	Dalidio	Oceanaire Dr	WB	D	3.17	C	3.24	C
	Madonna Rd	Oceanaire Dr	Dalidio	EB	D	3.60	D	3.44	C
3	Madonna Rd	El Mercado	Dalidio Dr	WB	D	3.31	C	3.20	C
	Madonna Rd	Dalidio Dr	El Mercado	EB	D	3.37	C	3.41	C
4	**Madonna Rd**	**US 101 SB Ramps**	**El Mercado**	**WB**	**D**	3.98	D	**4.33**	**E**
	Madonna Rd	El Mercado	US 101 SB Ramps	EB	D	3.60	D	3.64	D
5	Madonna Rd	US 101 NB Ramps	US 101 SB Ramps	WB	D	3.32	C	3.33	C
	Madonna Rd	US 101 SB Ramps	US 101 NB Ramps	EB	D	3.40	C	3.34	C
6	Madonna Rd	Higuera St	US 101 NB Ramps	WB	D	3.54	D	3.59	D
	Madonna Rd	US 101 NB Ramps	Higuera St	EB	D	3.96	D	3.54	D
7	S. Higuera St	Madonna Rd	Margarita Ave	SB	D	3.94	D	3.91	D
	S. Higuera St	**Margarita Ave**	**Madonna Rd**	**NB**	**D**	4.14	D	**4.27**	**E**
8	S. Higuera St	Margarita Ave	Prado Rd	SB	D	3.69	D	3.68	D
	S. Higuera St	Prado Rd	Margarita Ave	NB	D	3.96	D	4.03	D
9	S. Higuera St	Prado Rd	Granada Dr	SB	D	3.89	D	3.93	D
	S. Higuera St	Granada Dr	Prado Rd	NB	D	3.46	C	3.53	D
10	S. Higuera St	Granada Dr	Tank Farm Road	SB	D	4.16	D	4.21	D
	S. Higuera St	Tank Farm Road	Granada Dr	NB	D	3.51	D	3.57	D
11	S. Higuera St	Tank Farm Road	Suburban Drive	SB	D	3.37	C	3.48	C
	S. Higuera St	Suburban Drive	Tank Farm Road	NB	D	3.50	C	3.45	C
12	S. Higuera St	Suburban Drive	Los Osos Valley Road	SB	D	3.31	C	3.87	D
	S. Higuera St	Los Osos Valley Road	Suburban Drive	NB	D	4.01	D	3.90	D
13	Los Osos Valley	Madonna Rd	Froom Ranch Way	SB	D	3.73	D	3.75	D
	Los Osos Valley	Froom Ranch Way	Madonna Rd	NB	D	3.38	C	3.47	C
14	Los Osos Valley	Froom Ranch Way	Calle Joaquin	SB	D	3.57	D	3.61	D
	Los Osos Valley	Calle Joaquin	Froom Ranch Way	NB	D	3.83	D	3.91	D
15	Los Osos Valley	Calle Joaquin	US 101 SB Ramps	SB	D	3.30	C	3.39	C
	Los Osos Valley	US 101 SB Ramps	Calle Joaquin	NB	D	3.56	D	3.64	D
16	Los Osos Valley	US 101 SB Ramps	US 101 NB Ramps	SB	D	3.74	D	3.74	D
	Los Osos Valley	US 101 NB Ramps	US 101 SB Ramps	NB	D	3.71	D	3.87	D
17	Los Osos Valley	S. Higuera St	US 101 NB Ramps	WB	D	3.46	C	3.48	C
	Los Osos Valley	US 101 NB Ramps	S. Higuera St	EB	D	3.34	C	3.39	C
18	Prado Rd	S. Higuera St	Froom Ranch Way	WB	D	3.72	D	3.80	D
	Prado Rd	Froom Ranch Way	S. Higuera St	EB	D	3.69	D	3.67	D
19	Froom Ranch Way	Dick's Sporting Goods	Los Osos Valley	WB	D	3.42	C	3.71	D
	Froom Ranch Way	Los Osos Valley	Dick's Sporting Goods	EB	D	3.51	D	3.57	D
20	Dalidio Dr	Madonna Rd	SC Project Dwy	SB	D	3.79	D	3.76	D
	Dalidio Dr	SC Project Dwy	Madonna Rd	NB	D	3.56	D	3.94	D
21	Froom Ranch Way	Dalidio	Dick's Sporting Goods	WB	D	2.63	B	3.04	C
	Froom Ranch Way	Dick's Sporting Goods	Dalidio	EB	D	3.80	D	3.81	D
24	Dalidio Dr	SC Project Dwy	Froom Ranch Way	SB	D	3.70	D	3.69	D
	Dalidio Dr	Froom Ranch Way	SC Project Dwy	NB	D	3.51	D	3.57	D

Notes:

HCM 2010 Methodologies do not model segments bounded by all-way stop control. Procedures have not been developed yet to address the effect of all-way stop control or yield control on intersection performance from a pedestrian or bicyce perspective. No methodology exists for evaluating two-way stop-controlled interesction performance (with the cross-street stop controlled) for pedestrians and bicycles. However, it is incorporated into the methodology for evaluateing bicycle segment performance.

TABLE 112: YEAR 2035 PRADO ROAD OVERCROSSING PLUS PROJECT CONDITIONS SEGMENT LEVEL OF SERVICE: TRANSIT ANALYSIS

	TRANSIT LOS						AM PEAK		PM PEAK	
ID	Roadway	From	To	Direction	LOS Threshold	Route Name	SEGMENT SCORE	LOS	SEGMENT SCORE	LOS
1	**Madonna Rd**	**Oceanaire Dr**	**LOVR**	**WB**	**D**	**Ruote 4**	4.16	D	**4.27**	**E**
	Madonna Rd	**LOVR**	**Oceanaire Dr**	**EB**	**D**	**Route 5**	**4.48**	**E**	4.01	D
2	**Madonna Rd**	**Dalidio**	**Oceanaire Dr**	**WB**	**D**	**Route 4**	**4.50**	**E**	**4.59**	**E**
	Madonna Rd	**Oceanaire Dr**	**Dalidio**	**EB**	**D**	**Route 5**	**4.72**	**E**	**4.43**	**E**
3	**Madonna Rd**	**El Mercado**	**Dalidio Dr**	**WB**	**D**	**Route 4**	**4.34**	**E**	**4.42**	**E**
	Madonna Rd	**Dalidio Dr**	**El Mercado**	**EB**	**D**	**Route 5**	4.21	D	**4.26**	**E**
4	**Madonna Rd**	**US 101 SB Ramps**	**El Mercado**	**WB**	**D**	**Route 4**	**4.35**	**E**	**4.52**	**E**
	Madonna Rd	**El Mercado**	**US 101 SB Ramps**	**EB**	**D**	**Route 5**	**4.56**	**E**	**4.34**	**E**
5	**Madonna Rd**	**US 101 NB Ramps**	**US 101 SB Ramps**	**WB**	**D**	**Route 4**	4.15	D	**4.28**	**E**
	Madonna Rd	**US 101 SB Ramps**	**US 101 NB Ramps**	**EB**	**D**	**Route 5**	**4.25**	**E**	3.82	D
6	**Madonna Rd**	**Higuera St**	**US 101 NB Ramps**	**WB**	**D**	**Route 4**	**4.33**	**E**	**4.44**	**E**
	Madonna Rd	**US 101 NB Ramps**	**Higuera St**	**EB**	**D**	**Route 5**	**4.55**	**E**	4.14	D
7	S. Higuera St	Madonna Rd	Margarita Ave	SB	D	Route 2	Not Analyzed	N/A	3.53	D
	S. Higuera St	Margarita Ave	Madonna Rd	NB	D	Route 2	3.69	D	3.85	D
8	S. Higuera St	Margarita Ave	Prado Rd	SB	D	Route 2	Not Analyzed	N/A	4.22	D
	S. Higuera St	**Prado Rd**	**Margarita Ave**	**NB**	**D**	**Route 2**	**4.30**	**E**	**4.55**	**E**
9	**S. Higuera St**	**Prado Rd**	**Granada Dr**	**SB**	**D**	**Route 2**	**4.42**	**E**	**4.40**	**E**
	S. Higuera St	Granada Dr	Prado Rd	NB	D	Route 2	3.85	D	4.02	D
10	S. Higuera St	Granada Dr	Tank Farm Road	SB	D	Route 2	3.82	D	3.96	D
	S. Higuera St	Tank Farm Road	Granada Dr	NB	D	Route 2	3.54	D	3.67	D
11	S. Higuera St	Tank Farm Road	Suburban Drive	SB	D	-	Not Analyzed	N/A	Not Analyzed	N/A
	S. Higuera St	Suburban Drive	Tank Farm Road	NB	D	Route 2	4.06	D	4.02	D
12	S. Higuera St	Suburban Drive	Los Osos Valley Road	SB	D	-	Not Analyzed	N/A	Not Analyzed	N/A
	S. Higuera St	Los Osos Valley Road	Suburban Drive	NB	D	-	Not Analyzed	N/A	Not Analyzed	N/A
13	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**D**	**Route 4**	**4.54**	**E**	**4.58**	**E**
	Los Osos Valley	**Froom Ranch Way**	**Madonna Rd**	**NB**	**D**	**Route 4**	4.23	D	**4.40**	**E**
13	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**D**	**Route 5**	**4.63**	**E**	**4.39**	**E**
	Los Osos Valley	**Froom Ranch Way**	**Madonna Rd**	**NB**	**D**	**Route 5**	**4.34**	**E**	4.19	D
14	**Los Osos Valley**	**Froom Ranch Way**	**Calle Joaquin**	**SB**	**D**	**Route 4**	**4.45**	**E**	**4.55**	**E**
	Los Osos Valley	Calle Joaquin	Froom Ranch Way	NB	D	-	Not Analyzed	N/A	Not Analyzed	N/A
14	**Los Osos Valley**	**Madonna Rd**	**Froom Ranch Way**	**SB**	**D**	**Route 5**	**4.55**	**E**	**4.34**	**E**
	Los Osos Valley	Froom Ranch Way	Madonna Rd	NB	D	-	Not Analyzed	N/A	Not Analyzed	N/A
15	Los Osos Valley	Calle Joaquin	US 101 SB Ramps	SB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Los Osos Valley	US 101 SB Ramps	Calle Joaquin	NB	D		Not Analyzed	N/A	Not Analyzed	N/A
16	Los Osos Valley	US 101 SB Ramps	US 101 NB Ramps	SB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Los Osos Valley	US 101 NB Ramps	US 101 SB Ramps	NB	D		Not Analyzed	N/A	Not Analyzed	N/A
17	Los Osos Valley	S. Higuera St	US 101 NB Ramps	WB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Los Osos Valley	US 101 NB Ramps	S. Higuera St	EB	D		Not Analyzed	N/A	Not Analyzed	N/A
18	Prado Rd	S. Higuera St	Froom Ranch Way	WB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Prado Rd	Froom Ranch Way	S. Higuera St	EB	D	Route 2	3.73	D	Not Analyzed	N/A
19	Froom Ranch Way	Dick's Sporting Goods Dwy	Los Osos Valley	WB	D		Not Analyzed	N/A	Not Analyzed	N/A
	Froom Ranch Way	Los Osos Valley	Dick's Sporting Goods	EB	D		Not Analyzed	N/A	Not Analyzed	N/A
20	Dalidio Dr	Madonna Rd	SC Project Dwy	SB	D	Route 4	4.22	D	4.25	D
	Dalidio Dr	**Madonna Rd**	**SC Project Dwy**	**SB**	**D**	**Route 5**	**4.27**	**E**	4.09	D
21	Froom Ranch Way	Dalidio	Dick's Sporting Goods	WB	D	0.00	Not Analyzed	N/A	Not Analyzed	N/A
	Froom Ranch Way	Dalidio	Dick's Sporting Goods	WB	D	0.00	Not Analyzed	N/A	Not Analyzed	N/A
24	**Dalidio Dr**	**SC Project Dwy**	**Froom Ranch Way**	**SB**	**D**	**Route 4**	**4.25**	**E**	4.22	D
	Dalidio Dr	SC Project Dwy	Froom Ranch Way	SB	D	Route 5	4.16	D	**4.40**	**E**

Note: Route 2 Serves the Prado Day Center stop during the AM peak hour, and the DMV/Margarita stop during the PM Peak Hour

Segment 20 transit is southbound for routes 4 and 5

TABLE 113: YEAR 2035 PRADO ROAD OVERCROSSING PLUS PROJECT CONDITIONS SEGMENT LEVEL OF SERVICE: FREEWAY ANALYSIS

Interchange Location	Target LOS	Segment Type	No. of Lanes	AM Peak Hour Volume	AM Peak Hour Density (pc/mi/ln)	AM Peak Hour LOS	PM Peak Hour Volume	PM Peak Hour Density (pc/mi/ln)	PM Peak Hour LOS
US 101 at Los Osos Valley Road									
US 101 NB South of Los Osos Valley Road	C	Freeway	2	**3,481**	**33.0**	**D**	2,723	24.0	C
US 101 SB South of Los Osos Valley Road	C	Freeway	2	1,835	16.1	B	**3,911**	**40.4**	**E**
US 101 at Madonna Road									
US 101 NB South of Madonna Road	C	Freeway	2	2,849	25.3	C	2,690	23.7	C
US 101 SB South of Madonna Road	C	Freeway	2	2,090	18.4	C	**3,608**	**35.0**	**D**

As shown in the Year 2035 Prado Road Overcrossing Plus Project Conditions segment analysis tables, most of the pedestrian and transit facilities are projected to operate at unacceptable levels of service as well as several segments for automobile mode and only one segment for the bicycle mode.

Year 2035 Prado Road Overcrossing Plus Project Impacts & Mitigation Measures

This section presents the project-related impacts and mitigation measures at the study intersections and segments, developed based on the findings from the analyses presented in the prior sections of this report. Improvements are identified only where this is a significant project impact, based on the significance thresholds identified previously.

Table 114 presents the intersections projected to operate at unacceptable levels of service for vehicle, pedestrian, bicycle, and transit travel modes under 2035 Prado Road Overcrossing Plus Project conditions, and whether the project has a significant impact based on the thresholds listed above. Table 115 presents the US 101 Mainline project impacts for Year 2035 Prado Road Overcrossing Plus Project conditions. Tables 116A and 116B present the roadway segments projected to operate at unacceptable levels of service for vehicle, pedestrian, bicycle, and transit travel modes under 2035 Prado Road Overcrossing Plus Project AM and PM peak hour conditions, respectively, and whether the project has a significant impact based on the thresholds listed above. Table 117 presents the project impacts for the queuing analysis at the study intersections.

TABLE 114: YEAR 2035 PRADO ROAD OVERCROSSING PLUS PROJECT SIGNIFICANT INTERSECTION IMPACTS

Intersection #	3				9				10		11		12		13	
Name	Madonna Road/ Dalidio Drive				Los Osos Valley Road/ Froom Ranch Way				Los Osos Valley Road/ Auto Park Way		Los Osos Valley Road/ US 101 SB Ramps		Los Osos Valley Road/ US 101 SB Ramps		Los Osos Valley Road/ US 101 NB Ramps	
Mode	AUTO		PED		AUTO		BIKE		AUTO		PED		AUTO		AUTO	
SCENARIO	v/c	LOS	v/c	LOS	v/c	LOS	Score	LOS	v/c	LOS	v/c	LOS	v/c	LOS	v/c	LOS
AM PEAK HOUR			EB				EB				NB					
Year 2035 Overcrossing	3.76	F	3.59	D	-	C	3.54	D	-	C	3.18	C	1.22	D	-	C
Year 2035 OC Plus Project	4.04	F	3.73	D	-	C	3.56	D	-	C	3.19	C	1.26	D	1.17	E
Significant Impact?	**Yes**		No		No		No		No		No		**Yes**		**Yes**	
PM PEAK HOUR			EB				EB				NB					
Year 2035 Overcrossing	8.42	F	4.21	D	1.05	E	4.59	E	0.41	E	3.53	D	-	C	-	B
Year 2035 OC Plus Project	8.66	F	4.23	D	1.11	E	4.62	E	0.44	F	3.54	D	-	C	-	C
Significant Impact?	**Yes**		No		**Yes**		No		**Yes**		No		No		No	

Note: V/C Ratio is based on worst movement

TABLE 114 (CONT'D.): YEAR 2035 PRADO ROAD OVERCROSSING PLUS PROJECT SIGNIFICANT INTERSECTION IMPACTS

Intersection #	14				15		16			
Name	Los Osos Valley Road/ S. Higuera Street				S. Higuera Street/ Suburban Drive		S. Higuera Street/Tank Farm Road			
Mode	AUTO		PED		PED		AUTO		PED	
SCENARIO	v/c	LOS	v/c	LOS	v/c	LOS	v/c	LOS	Score	LOS
AM PEAK HOUR			EB		NB				NB	
Year 2035 Overcrossing	-	C	3.14	C	3.34	C	1.45	F	3.62	D
Year 2035 OC Plus Project	-	C	3.15	C	3.35	C	1.48	F	3.62	D
Significant Impact?	No		No		No		**Yes**		No	
PM PEAK HOUR			EB		NB				NB	
Year 2035 Overcrossing	1.08	E	3.68	D	3.83	D	-	C	3.43	C
Year 2035 OC Plus Project	1.10	E	3.68	D	3.84	D	-	C	3.36	C
Significant Impact?	**Yes**		No		No		No		No	

Note: V/C Ratio is based on worst movement

TABLE 115: YEAR 2035 PRADO ROAD OVERCROSSING PLUS PROJECT SIGNIFICANT US 101 MAINLINE IMPACTS

	South of Los Osos Valley Road				South of Madonna Road			
Name	**US 101 NB**		**US 101 SB**		**US 101 NB**		**US 101 SB**	
SCENARIO	**Density (pc/mi/ln)**	**LOS**	**Density (pc/mi/ln)**	**LOS**	**Density (pc/mi/ln)**	**LOS**	**Density (pc/mi/ln)**	**LOS**
AM PEAK HOUR								
Year 2035 Overcrossing	32.6	D	-	-	25.1	C	-	-
Year 2035 Overcrossing Plus Project	33.0	D	-	-	25.3	C	-	-
Difference	0.4				0.2			
Percent Change	1.2%				0.8%			
Significant Impact?	No		n/a		No		n/a	
PM PEAK HOUR								
Year 2035 Overcrossing	-	-	39.7	E	-	-	34.6	D
Year 2035 Overcrossing Plus Project	-	-	40.4	E	-	-	35.0	D
Difference			0.7				0.4	
Percent Change			1.8%				1.2%	
Significant Impact?	n/a		No		n/a		No	

Note: conducted for deficient operations only

TABLE 116A: YEAR 2035 PRADO ROAD OVERCROSSING PLUS PROJECT SIGNIFICANT ROADWAY IMPACTS

2035 Overcrossing Multimodal Segment LOS				Auto Mode						Pedestrian Mode						Bicycle Mode						Transit Mode					
AM PEAK HOUR					*2035 OC*		*2035 OC + Project*				*2035 OC*		*2035 OC + Project*				*2035 OC*		*2035 OC + Project*				*2035 OC*		*2035 OC+Project*		
ID	Roadway	From	To	Direction	Auto LOS Threshold	Travel Speed (mph)	LOS	Travel Speed (mph)	LOS	**Significant Impact?**	Ped LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Bike LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Transit LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**
2	Madonna Rd	Oceanaire Dr	Dalidio	EB	D	7.1	**F**	6.1	**F**	**Yes**	C	4.04	D	4.09	D	No	D	3.59	D	3.60	D	No	D	4.72	**E**	4.72	**E**	No
5	Madonna Rd	US 101 SB Ramps	US 101 NB Ramps	EB	D	32.6	A	32.4	A	No	C	4.05	D	4.10	D	No	D	3.38	C	3.40	C	No	D	4.23	D	4.25	**E**	**Yes**
15	Los Osos Valley	US 101 SB Ramps	Calle Joaquin	NB	D	16.1	C	6.6	**F**	**Yes**	C	3.75	D	3.77	D	No	D	3.56	D	3.56	D	No	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	
16	Los Osos Valley	US 101 SB Ramps	US 101 NB Ramps	SB	D	16.3	D	14.9	**E**	**Yes**	C	3.96	D	3.98	D	No	D	3.73	D	3.74	D	No	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	
24	Dalidio Dr	SC Project Dwy	Froom Ranch Way	SB	D	18.5	C	15.5	D	No	C	3.34	C	3.49	C	No	D	3.65	D	3.70	D	No	D	4.19	D	4.25	**E**	**Yes**

Note: Segments 20 and 24 transit is southbound for Routes 4 and 5; Segment 24 SB is compared to Segment 20 SB

2035 Overcrossing Multimodal Segment LOS				Auto Mode						Pedestrian Mode						Bicycle Mode						Transit Mode					
PM PEAK HOUR					*2035 OC*		*2035 OC + Project*				*2035 OC*		*2035 OC + Project*				*2035 OC*		*2035 OC + Project*				*2035 OC*		*2035 OC+Project*		
ID	Roadway	From	To	Direction	Auto LOS Threshold	Travel Speed (mph)	LOS	Travel Speed (mph)	LOS	**Significant Impact?**	Ped LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Bike LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Transit LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**
2	Madonna Rd	Oceanaire Dr	Dalidio	EB	D	16.6	D	15.9	**E**	**Yes**	C	4.19	D	4.17	D	No	D	3.44	C	3.44	C	No	D	4.42	**E**	4.43	**E**	No
3	Madonna Rd	Dalidio Dr	El Mercado	EB	D	13.2	**E**	11.5	**E**	**Yes**	C	4.01	D	3.88	D	No	D	3.40	C	3.41	C	No	D	4.22	D	4.26	**E**	
5	Madonna Rd	US 101 NB Ramps	US 101 SB Ramps	WB	D	23.6	C	23.1	C	No	C	3.71	**F**	3.75	**F**	No	D	3.32	C	3.33	C	No	D	4.25	D	4.28	**E**	**Yes**
6	Madonna Rd	Higuera St	US 101 NB Ramps	WB	D	13.0	**E**	11.6	**E**	**Yes**	C	3.94	D	3.96	D	No	D	3.58	D	3.59	D	No	D	4.42	**E**	4.44	**E**	No
6	Madonna Rd	US 101 NB Ramps	Higuera St	EB	D	10.2	**F**	9.1	**F**	**Yes**	C	3.74	D	3.78	D	No	D	3.54	D	3.54	D	No	D	4.13	D	4.14	D	No
24	Dalidio Dr	SC Project Dwy	Froom Ranch Way	SB	D	17.9	D	14.0	**E**	**Yes**	C	3.40	C	3.43	C	No	D	3.65	D	3.69	D	No	D	4.22	D	4.22	D	No

Note: Segments 20 and 24 transit is southbound for Routes 4 and 5; Segment 24 SB is compared to Segment 20 SB

TABLE 117:
YEAR 2035 PRADO ROAD OVERCROSSING PLUS PROJECT CONDITIONS 95TH PERCENTILE QUEUING ANALYSIS

Intersection					2035		2035 PP Conditions	
					95th Percentile Queue/Lane (ft)		95th Percentile Queue/Lane (ft)	
ID	Location	Movement	No. Lanes	Total Storage (ft)[1]	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1	Madonna Road/Los Osos Valley Road	Northbound Right	1	175	100	**203**	87	**259**
		Southbound Left	2	350	**355**	262	**370**	267
2	Madonna Road/Oceanaire Drive	Westbound Right	1	100	58	**116**	98	**132**
3	Madonna Road/Dalidio Drive	Westbound Left	1	275	254	**336**	**675**	**335**
4	Madonna Road/El Mercado	Westbound Left	2	260	66	**528**	**269**	**538**
5	Madonna Road/US 101 SB Ramps/Madonna Inn	Eastbound Left	1	100	82	100	96	**112**
		Westbound Left	1	260	201	**474**	195	**548**
6	Madonna Road/US 101 NB Ramps	Northbound Left	1	185	**194**	**195**	175	**300**
7	Madonna Road/Higuera Street	Eastbound Right	1	150	**328**	**199**	**330**	**225**
		Southbound Left/Through	2	380	316	**405**	313	**668**
		Southbound Right	2	340	63	317	69	**635**
8	Higuera Street/South Street	Eastbound Right	1	60	40	56	40	**88**
		Westbound Left	2	240	169	**501**	193	**1024**
		Northbound Right	1	60	**148**	**163**	**109**	**168**
		Southbound Left	1	70	**120**	**118**	**116**	**126**
9	Los Osos Valley Road/Froom Ranch Way	Eastbound Left	2*	250	73	**592**	74	**650**
		Eastbound Through/Right	1	445	151	**599**	180	**617**
		Westbound Left	1	295	122	272	152	**354**
		Westbound Right	1	50	**81**	**98**	**82**	**100**
		Southbound Left	2	200	111	**288**	125	**296**
11	Los Osos Valley Road/Calle Joaquin	Northbound Right	1	105	54	96	**109**	64
		Southbound Right	1	80	49	**139**	**94**	**153**
12	Los Osos Valley Road/US 101 SB Ramps	Westbound Left/Through	1	180	**272**	**250**	**281**	**255**
		Southbound Through	1	240	**300**	**334**	**323**	**358**
14	S. Higuera Street/Los Osos Valley Road	Eastbound Right	1	90	**206**	**200**	**206**	**202**
15	S. Higuera Street/Suburban Drive	Southbound Left	1	200	83	**321**	75	**328**
16	S. Higuera Street/Tank Farm Road	Northbound Right	1	100	**185**	**204**	**192**	**205**
		Southbound Left	1	165	**250**	**265**	**256**	**238**
18	S. Higuera Street/Prado Road	Eastbound Right	1	140	**143**	103	**148**	92
		Westbound Left	2	105	**117**	**200**	**206**	**233**
		Westbound Right	1	100	85	**182**	**256**	**275**
		Northbound Left	2	100	**133**	**185**	99	**204**

Notes: ***1. Bolded entries indicate queues exceed available storage***

2. Storage Length of " - " represents a lane which exceeds 900 feet, usually a through lane.

3. For Movements with more than one lane, the maximum of the 95th percentile queue is reported.

4. * Represents storage lengths for one lane; second lane is a left or right trap lane.

Red Cells represent New Impacts from Project-added traffic

Yellow Cells represent Existing queues exceeding storage that are increased by project-added traffic.

Year 2035 Prado Road Overcrossing Plus Project Mitigation Measures

The mitigation measures have been summarized in Table 118, identifying which mitigation measures are projected to reduce the project's impact to less than significant for the corresponding intersection or segment, for each mode. Additionally, it is important to note that the optimization of throughput to mitigate segment impacts may create queuing impacts for opposing movements.

TABLE 118: YEAR 2035 PRADO OVERCROSSING PLUS PROJECT MITIGATION MEASURES SUMMARY

2035 OC Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Intersection #1 Madonna Rd/Los Osos Valley Rd	Auto (Queue)	Addition of project traffic would: •Exacerbate the northbound right queue in the PM peak hour •Exacerbate the southbound left queue in the AM peak hour	•Extension of the northbound right turn pocket to 295' would improve this condition to an acceptable level, and would require the relolcation of the existing frontage road. •Extension of the southbound left turn pocket to 395' would improve this condition to an acceptable level, but would result in driveway access implications. Optimization of throughput for northbound approach may create an increase in queuing impacts for this opposing movement.
Intersection #2 Madonna Rd/Oceanaire Dr	Auto (Queue)	Addition of project traffic would exacerbate the westbound right queue in the PM peak hour.	Extension of the westbound right queue pocket to 150' would improve this condition to an acceptable level, but may require expansion of bridge/ culvert.
Intersection #3 Madonna Rd/Dalidio Dr	Auto	This intersection is projected to operate at unacceptable LOS F in the AM and PM peak hours. The addition of Project traffic exacerbates this unacceptable condition by increasing delay and v/c ratio.	2025 Plus Project Mitigations are projected to mitigate the impact to acceptable conditions.
Intersection #3 Madonna Rd/Dalidio Dr	Auto (Queue)	Addition of project traffic would result in a new impact to the westbound left queue in the AM peak hour.	Extension of the westbound left queue pocket to 370' would improve this condition to an acceptable level, but may be infeasible due to existing raised median.

TABLE 118: YEAR 2035 PRADO OVERCROSSING PLUS PROJECT MITIGATION MEASURES SUMMARY

2035 OC Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Intersection #4 Madonna Rd/El Mercado	Auto (Queue)	Addition of project traffic would result in a new impact to the westbound left queue in the AM peak hour, and exacerbate the queue in the PM peak hour.	Extension of the westbound left turn pocket is not desirable due to existing raised median and shopping center driveway. Addition of a second westbound left turn pocket at Intersection #3 Madonna Rd/Dalidio Dr would improve this condition to an acceptable level due to the spillback into this intersection.
Intersection #5 Madonna Rd/US 101 SB Ramps/Madonna Inn	Auto (Queue)	Addition of project traffic would: •Result in a new impact to the eastbound left queue in the PM peak hour. •Exacerbate the westbound left queue in the PM peak hour.	•See Table 41. •Optimize signal timings; and Extension of the westbound left turn pocket to 315' would improve this condition to an acceptable level. This pocket is back-to-back with another turn pocket that would be shortened to accommodate the extension. Alternatively, construction of the Prado Interchange will mitigate this impact along with signal timing optimization.
Intersection #6 Madonna Rd/US 101 NB Ramps	Auto (Queue)	Addition of project traffic would exacerbate the northbound left queue in the PM peak hour.	• Optimize timings to improve the operations at this intersection.
Intersection #7 Madonna Rd/S. Higuera St	Auto (Queue)	Addition of project traffic would: •Exacerbate the eastbound right queue in the AM and PM peak hours. •Exacerbate the southbound left/through queue in the PM peak hour. •Result in a new impact to the southbound right queue in the PM peak hour.	Relocation of this intersection is part of Circulation Element and will necessitate improvements based on engineering feasibility not included in this analysis. •Geometric improvements are recommended to be constructed in coordination with the planned relocation of Madonna Road/S. Higuera Street to minimize potential impacts to adjacent property owners and impacts to the intersection operations.

TABLE 118: YEAR 2035 PRADO OVERCROSSING PLUS PROJECT MITIGATION MEASURES SUMMARY

2035 OC Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Intersection #8 Higuera St/South St	Auto (Queue)	Addition of project traffic would: •Result in a new impact to the eastbound right queue in the PM peak hour. •Exacerbate the westbound left queue in the AM and PM peak hours. •Exacerbate the northbound right queue in the PM peak hour •Exacerbate the southbound left queue in the PM peak hour.	•Extension of the eastbound right turn pocket to 100' would improve this condition to an acceptable level. Removal of on-street parking would be required with potential access implications. •Although westbound queues are projected to extend past Parker Street driveway, they can be accommodated within the lane. •Extension of the northbound right turn pocket to 185' would improve this condition to an acceptable level. Geometric improvements to the northbound approach are recommended to be constructed in coordination with the planned relocation of Madonna Road/S. Higuera Street to minimize potential impacts to adjacent property owners and impacts to the intersection operations. •Extension of the southbound left turn pocket to 140' would improve this condition to an acceptable level. Southbound left turn queues can be accommodated within the center turn lane without driveway access implications. Pocket striping could be extended but may affect driveway access.
Intersection #9 Los Osos Valley Road/Froom Ranch Way	Auto	This intersection is projected to operate at unacceptable LOS E in the PM peak hour. The addition of Project traffic exacerbates this unacceptable condition by increasing delay and v/c ratio.	2025 Plus Project Mitigations are projected to mitigate the impact to acceptable conditions.

TABLE 118: YEAR 2035 PRADO OVERCROSSING PLUS PROJECT MITIGATION MEASURES SUMMARY

2035 OC Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Intersection #9 Los Osos Valley Road/Froom Ranch Way	Auto (Queue)	Addition of project traffic would: •Exacerbate the eastbound left queue in the PM peak hour •Exacerbate the eastbound through/right queue in the PM peak hour •Result in a new impact to the westbound left queue in the PM peak hour •Exacerbate the westbound right queue in the AM and PM peak hours •Exacerbate the southbound left queue in the PM peak hour	•2025 Plus Project Mitigations are projected to mitigate the impacts to acceptable conditions for the EB approach and the WBL queue. See Table 65. •Extension of the westbound right turn pocket to 315' would improve this condition to an acceptable level. Additional right-of-way from the adjacent vacant parcel may be required along with reconstruction of the frontage road. Implementing a right-turn overlap phase and prohibiting U-turns southbound would also likely reduce the storage capacity required. •Extension of the southbound left turn pocket to 375' would improve this condition to an acceptable level, but may be infeasible due to existing raised median and the back-to-back turn pocket.
Intersection #10 Los Osos Valley Road/Auto Park Way**	Auto	This intersection is projected to operate at unacceptable LOS E in the PM peak hour. The addition of Project traffic exacerbates this unacceptable condition by increasing delay, LOS to F, and v/c ratio.	Installation of a traffic signal is not currently warranted. Ultimately, signalization will be required to allow access to future adjacent development. Signalization will provide acceptable operations.
Intersection #11 Los Osos Valley Road/Calle Joaquin	Auto (Queue)	Addition of project traffic would: •Result in a new impact to the northbound right queue in the AM peak hour •Result in a new impact to the southbound right queue in the AM peak hour, and exacerbate the queue in the PM peak hour	•Extension of the northbound right turn pocket may not be feasible due to existing gas station driveway and intersection spacing. •Extension of the southbound right turn pocket to 175' would improve this condition to an acceptable level. •Alternatively, construction of the Prado Interchange mitigates these queuing impacts.

TABLE 118: YEAR 2035 PRADO OVERCROSSING PLUS PROJECT MITIGATION MEASURES SUMMARY

2035 OC Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Intersection #12 Los Osos Valley Road/US 101 SB Ramps	Auto	This intersection is projected to operate at unacceptable LOS D in the AM peak hour. The addition of Project traffic exacerbates this unacceptable condition by increasing delay and v/c ratio.	• Optimize timings to improve the operations at this intersection. • Construction of the Prado Interchange (Full Access) will also mitigate this impact to acceptable operations.
Intersection #12 Los Osos Valley Road/US 101 SB Ramps	Auto (Queue)	Addition of project traffic would: •Exacerbate the westbound left/through queue in the AM and PM peak hours •Exacerbate the southbound through queue in the AM and PM peak hours	•Extension of the westbound left/through storage to 300' would improve this condition to an acceptable level. Construction of the Prado Interchange will reduce the queue and storage capacity requirements. •Extension of the southbound through storage is not feasible due to existing intersection spacing.
Intersection #13 Los Osos Valley Road/US 101 NB Ramps**	Auto	The Project added traffic increases the delay at this intersection to be unacceptable LOS E during the AM peak hour.	• Construction of the Prado Interchange (Full Access) will mitigate this impact to acceptable operations.
Intersection #14 Los Osos Valley Road/S. Higuera St**	Auto	This intersection is projected to operate at unacceptable LOS E in the PM peak hour. The addition of Project traffic exacerbates this unacceptable condition by increasing delay and v/c ratio.	• Construction of the Prado Interchange (Full Access) will mitigate this impact to acceptable operations.
Intersection #14 Los Osos Valley Road/S. Higuera St**	Auto (Queue)	Addition of project traffic would exacerbate the eastbound right queue in the PM peak hour.	Extension of the eastbound right turn pocket to 230' would improve this condition to an acceptable level, but may require additional right-of-way. Alternatively, construction of the Prado Interchange is projected to mitigate this queue.
Intersection #15 Madonna Rd/S. Higuera St	Auto (Queue)	Addition of project traffic would exacerbate the southbound left queue in the PM peak hour.	Extension of the southbound left turn pocket may not be feasible due to back-to-back northbound left turn pocket at S. Higuera St/Las Praderas Dr.
Intersection #16 Higuera Rd/Tank Farm Rd	Auto	This intersection is projected to operate at unacceptable LOS F in the AM peak hour. The addition of Project traffic exacerbates this unacceptable condition by increasing delay and v/c ratio.	• Construct a Northbound channelized right turn with yeild control.

TABLE 118: YEAR 2035 PRADO OVERCROSSING PLUS PROJECT MITIGATION MEASURES SUMMARY

2035 OC Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Intersection #16 Higuera Rd/Tank Farm Rd	Auto (Queue)	Addition of project traffic would: •Exacerbate the northbound right queue in the AM and PM peak hours •Exacerbate the southbound left queue in the AM peak hour	•Extension of the northbound right turn pocket to 230' would improve this condition to an acceptable level, but may require additional right-of-way. •Extension of the southbound left turn pocket to 270' would improve this condition to an acceptable level. Left turn queues can be accommodated within the center turn lane without driveway access implications. Pocket striping could be extended but may affect driveway access.
Intersection #18 S. Higuera St/Prado Rd	Auto (Queue)	Addition of project traffic would: •Exacerbate the eastbound right queue in the AM peak hour •Exacerbate the westbound left queue in the AM and PM peak hours •Result in a new impact to the westbound right queue in the AM peak hour, and exacerbate the queue in the PM peak hour •Exacerbate the northbound left queue in the PM peak hour	•Geometric improvements are recommended to be constructed in coordination with planned improvements to this intersection. •Extension of the eastbound right turn pocket to 150' would improve this condition to an acceptable level. •Extension of the westbound left turn pocket to 260' would improve this condition to an acceptable level. •Extension of the westbound right turn pocket to 310' would improve this condition to an acceptable level. •Extension of the northbound left turn pocket to 220' would improve this condition to an acceptable level. Left turn queues can be accommodated within the center turn lane without driveway access implications. Pocket striping could be extended but may affect driveway access.

TABLE 118: YEAR 2035 PRADO OVERCROSSING PLUS PROJECT MITIGATION MEASURES SUMMARY

2035 OC Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Segment #1: Madonna Rd WB - LOVR to Oceanaire Rd	Auto	This segment is projected to operate at unacceptable LOS E in the PM peak hour. The addition of Project traffic exacerbates this unacceptable condition by decreasing the travel speed by 1 mph or more.	• Optimize timings to improve the operations at Intersection #1 (LOVR/Madonna Road). However, optimization of throughput may create queuing impacts for opposing movements. • Construction of the Prado Interchange (Full Access) will also mitigate this impact to acceptable operations.
Segment #2: Madonna Rd EB - Oceanair Dr to Dalidio Dr	Auto	This segment is projected to operate at unacceptable LOS F in the AM peak hour. The addition of Project traffic exacerbates this unacceptable condition by decreasing the travel speed by 1 mph or more, as well as resulting in LOS F. The addition of Project traffic also decreases the LOS to unacceptable conditions in the PM peak hour.	2025 Plus Project Mitigations are projected to mitigate the impact to acceptable conditions.
Segment #3: Madonna Rd EB - Dalildio Dr to El Mercado	Auto	This segment is projected to operate at unacceptable LOS E in the PM peak hour. The addition of Project traffic exacerbates this unacceptable condition by decreasing the travel speed by 1 mph or more.	• Optimize Timings at the intersection of Madonna Road/El Mercado to improve the operations of the EB throughput. However, optimization of throughput may create queuing impacts for opposing movements.
Segment #5: Madonna Rd WB - US 101 NB Ramps to US 101 SB Ramps	Transit	The Project added traffic results in a decrease in the travel speed and results in unacceptable LOS E in the PM peak hours for Transit Route 4.	• Decrease Transit Route 4 headway from 30 minutes to 25 minutes. • Construction of the Prado Interchange (Full Access) will also mitigate this impact to acceptable operations.
Segment #5: Madonna Rd EB - US 101 SB Ramps to US 101 NB Ramps	Transit	The Project added traffic results in a decrease in the travel speed and results in unacceptable LOS E in the AM peak hours for Transit Route 5.	• Decrease Transit Route 5 headway from 30 minutes to 25 minutes. • Construction of the Prado Interchange (Full Access) will also mitigate this impact to acceptable operations.

TABLE 118: YEAR 2035 PRADO OVERCROSSING PLUS PROJECT MITIGATION MEASURES SUMMARY

2035 OC Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Segment #6: Madonna Rd EB - US 101 NB Ramps to Higuera St	Auto	This segment is projected to operate at unacceptable LOS F in the PM peak hour. The addition of Project traffic exacerbates this unacceptable condition by decreasing the travel speed by 1 mph or more.	• Construction of the Prado Interchange (Full Access) will also mitigate this impact to acceptable operations.
Segment #6: Madonna Rd WB - Higuera St to US 101 NB Ramps	Auto	This segment is projected to operate at unacceptable LOS E in the PM peak hour. The addition of Project traffic exacerbates this unacceptable condition by decreasing the travel speed by 1 mph or more.	• Optimize timings at the intersection of Madonna Road/US 101 NB Ramps to improve the operations of the WB throughput. However, optimization of throughput may create queuing impacts for opposing movements. • Construction of the Prado Interchange (Full Access) will also mitigate this impact to acceptable operations.
Segment #15: Los Osos Valley Road NB - US 101 SB Ramps to Calle Joaquin Rd	Auto	The Project added traffic results in a decrease in the travel speed and results in unacceptable LOS F in the AM peak hour.	• Optimize timings at the intersection of LOVR/Calle Joaquin to improve the operations of the NB throughput. However, optimization of throughput may create queuing impacts for opposing movements. • Construction of the Prado Interchange (Full Access) will also mitigate this impact to acceptable operations.
Segment #16: Los Osos Valley Road SB - US 101 SB Ramps to US 101 NB Ramps	Auto	The Project added traffic results in a decrease in the travel speed and results in unacceptable LOS E in the AM peak hour.	• Optimize timings at the intersection of LOVR/US 101 SB Ramps to improve the operations of the SB throughput. However, optimization of throughput may create queuing impacts for opposing movements. • Construction of the Prado Interchange (Full Access) will also mitigate this impact to acceptable operations.
Segment #24: Dalidio Dr SB - SC Project Dwy to Froom Ranch Rd	Auto	The Project added traffic results in a decrease in the travel speed and results in unacceptable LOS E in the PM peak hour.	2025 Plus Project Mitigations to Intersection #21 (Dalidio Drive/Froom Ranch Way) are projected to mitigate the impact on this segment to acceptable conditions.

TABLE 118: YEAR 2035 PRADO OVERCROSSING PLUS PROJECT MITIGATION MEASURES SUMMARY

2035 OC Plus Project Significant Impact Location	Mode	Impact	Mitigation Measure
Segment #24: Dalidio Dr SB - SC Project Dwy to Froom Ranch Rd	Transit	The Project added traffic results in a decrease in the travel speed and results in unacceptable LOS E in the AM peak hours for Transit Route 4.	• Decrease Transit Route 4 headway from 30 minutes to 25 minutes. • Construction of the Prado Interchange (Full Access) will also mitigate this impact to acceptable operations.

**Mitigated with FB Interchange

As shown in Table 118 above, some of the mitigations required are the same for Existing Plus Project and Near Term mitigations. Table 119 presents the mitigated intersection LOS operations assuming the above mitigation measures to be in place. Table 120 presents the mitigated roadway segment LOS operations assuming the proposed mitigation measures to be in place.

TABLE 119:
YEAR 2035 PRADO ROAD OVERCROSSING PLUS PROJECT – MITIGATED INTERSECTION LOS

Intersection #	3				9				10		11		12		13	
Name	Madonna Road/ Dalidio Drive				Los Osos Valley Road/ Froom Ranch Way				Los Osos Valley Road/ Auto Park Way		Los Osos Valley Road/ US 101 SB Ramps		Los Osos Valley Road/ US 101 SB Ramps		Los Osos Valley Road/ US 101 NB Ramps	
Mode	AUTO		PED		AUTO		BIKE		AUTO**		PED		AUTO		AUTO**	
SCENARIO	v/c	LOS	v/c	LOS	v/c	LOS	Score	LOS	v/c	LOS	v/c	LOS	v/c	LOS	v/c	LOS
AM PEAK HOUR			EB				EB				NB					
Year 2035 Overcrossir	3.76	F	3.59	D	-	C	3.54	D	-	C	3.18	C	1.22	D	-	C
Year 2035 OC Plus Pro	-	D	3.28	C	-	C	3.56	D	-	C	3.19	C	-	C	1.08	D
Significant Impact?	No		No		No		No		No		No		No		Yes	
PM PEAK HOUR			EB				EB				NB					
Year 2035 Overcrossir	8.42	F	4.21	D	1.05	E	4.59	E	0.41	E	3.53	D	-	C	-	B
Year 2035 OC Plus Pro	-	C	3.38	C	-	D	4.62	E	0.44	E	3.34	C	-	C	-	C
Significant Impact?	No		No		No		No		Yes		No		No		No	

Note: V/C Ratio is based on worst movement
****Fixed with Prado Full Build Interchange**

TABLE 119 (CONT'D.):
YEAR 2035 PRADO ROAD OVERCROSSING PLUS PROJECT – MITIGATED INTERSECTION LOS

Intersection #	14				15		16				21				25			
Name	Los Osos Valley Road/ S. Higuera Street				S. Higuera Street/ Suburban Drive		S. Higuera Street/Tank Farm Road				Dalidio Drive/ Froom Ranch Way				Dalidio Drive/ SC Project Driveway			
Mode	AUTO**		PED		PED		AUTO		PED		AUTO*		AUTO*		AUTO*		AUTO*	
SCENARIO	v/c	LOS	v/c	LOS	v/c	LOS	v/c	LOS	Score	LOS	v/c	LOS	v/c	LOS	v/c	LOS	v/c	LOS
AM PEAK HOUR			EB		NB				NB		Signal		Roundabout		Signal		Roundabout	
Year 2035 Overcrossing	-	C	3.10	C	3.31	C	1.45	F	3.62	D	-	-	-	-	-	-	-	-
Year 2035 OC Plus Project	-	C	3.11	C	3.32	C	-	D	3.59	D	-	C	-	B	-	B	-	A
Significant Impact?	No		No		No		No		No		No		No		No		No	
PM PEAK HOUR			EB		NB				NB		Signal		Roundabout		Signal		Roundabout	
Year 2035 Overcrossing	1.08	E	3.68	D	3.83	D	-	C	3.43	C	-	-	-	-	-	-	-	-
Year 2035 OC Plus Project	1.19	E	3.68	D	3.25	C	-	D	3.34	C	-	D	-	B	-	B	-	A
Significant Impact?	Yes		No		No		No		No		No		No		No		No	

Note: V/C Ratio is based on worst movement

TABLE 120:
YEAR 2035 PRADO ROAD OVERCROSSING PLUS PROJECT – MITIGATED SEGMENT LOS

2035 Overcrossing Multimodal Segment LOS					Auto Mode						Pedestrian Mode						Bicycle Mode						Transit Mode					
AM PEAK HOUR						*2035 OC*		*2035 OC + Project*				*2035 OC*		*2035 OC + Project*				*2035 OC*		*2035 OC + Project*				*2035 OC*		*2035 OC+Project*		
ID	Roadway	From	To	Direction	Auto LOS Threshold	Travel Speed (mph)	LOS	Travel Speed (mph)	LOS	**Significant Impact?**	Ped LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Bike LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Transit LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**
2	Madonna Rd	Oceanaire Dr	Dalidio	EB	D	7.1	**F**	19.0	D	No	C	4.03	D	4.09	D	No	D	3.59	D	3.60	D	No	D	4.72	**E**	4.64	**E**	No
5	Madonna Rd	US 101 SB Ramps	US 101 NB Ramps	EB	D	32.6	A	32.4	A	No	C	4.05	D	4.10	D	No	D	3.38	C	3.40	C	No	D	4.23	D	4.20	D	No
15	Los Osos Valley	US 101 SB Ramps	Calle Joaquin	NB	D	16.1	C	16.1	C	No	C	3.75	D	3.77	D	No	D	3.56	D	3.56	D	No	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	
16	Los Osos Valley	US 101 SB Ramps	US 101 NB Ramps	SB	D	16.3	D	15.2	D	No	C	3.96	D	3.96	D	No	D	3.73	D	3.74	D	No	D	**Not Analyzed**	**N/A**	**Not Analyzed**	**N/A**	
24	Dalidio Drive	SC Project Dwy	Froom Ranch Way	SB	D	18.5	C	15.1	D	No	C	3.34	C	3.49	**F**	**Yes**	D	3.65	D	3.69	D	No	D	4.19	D	4.20	D	No

Note: Segments 20 and 24 transit is southbound for Routes 4 and 5; Segment 24 SB is compared to Segment 20 SB

2035 Overcrossing Multimodal Segment LOS					Auto Mode						Pedestrian Mode						Bicycle Mode						Transit Mode					
PM PEAK HOUR						*2035 OC*		*2035 OC + Project*				*2035 OC*		*2035 OC + Project*				*2035 OC*		*2035 OC + Project*				*2035 OC*		*2035 OC+Project*		
ID	Roadway	From	To	Direction	Auto LOS Threshold	Travel Speed (mph)	LOS	Travel Speed (mph)	LOS	**Significant Impact?**	Ped LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Bike LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**	Transit LOS Threshold	Segment Score	LOS	Segment Score	LOS	**Significant Impact?**
2	Madonna Rd	Oceanaire Dr	Dalidio	EB	D	16.6	D	18.7	D	No	C	4.19	D	4.22	D	No	D	3.44	C	3.44	C	No	D	4.42	**E**	4.39	**E**	No
3	Madonna Rd	Dalidio Dr	El Mercado	EB	D	13.2	**E**	13.9	D	No	C	4.01	D	4.07	D	No	D	3.40	C	3.41	C	No	D	4.22	D	4.26	**E**	
5	Madonna Rd	US 101 NB Ramps	US 101 SB Ramps	WB	D	23.6	C	23.1	C	No	C	3.71	**F**	3.75	**F**	No	D	3.32	C	3.33	C	No	D	4.25	D	4.23	D	No
6	Madonna Rd	Higuera St	US 101 NB Ramps	WB	D	13.0	**E**	15.1	D	No	C	3.94	D	3.97	D	No	D	3.58	D	3.59	D	No	D	4.42	**E**	4.44	**E**	No
6	Madonna Rd	US 101 NB Ramps	Higuera St	EB	D	10.2	**F**	12.5	**E**	No	C	3.74	D	3.76	D	No	D	3.54	D	3.54	D	No	D	4.13	D	4.14	D	No
24	Dalidio Drive	SC Project Dwy	Froom Ranch Way	SB	D	17.9	D	14.8	D	No	C	3.40	C	3.44	**F**	**Yes**	D	3.65	D	3.68	D	No	D	4.22	D	4.23	D	No

Note: Segments 20 and 24 transit is southbound for Routes 4 and 5; Segment 24 SB is compared to Segment 20 SB

Vehicle Miles Traveled

As reported by the City of San Luis Obispo Travel Demand Model, the forecasted 2035 Daily Vehicle Miles Traveled (VMT) is approximately 12 million miles for the region and approximately 3.6 million miles for the sphere of influence. The average VMT per household is 80 for the region and 54 for the sphere of influence.

Project generated VMT has been forecasted by adding the proposed land uses to the City's travel demand model. The City model's forecasts for the project are 60,000, an increase of approximately 1.7% within the City sphere of influence and 0.5% within the County region. The VMT generated per household for the project is forecasted at 32 miles traveled per household. The proposed project VMT per household is lower than the City's average due to varied characteristics of the proposed land uses, including significant amounts of commercial/service uses. Additionally, the VMT per household for the project was estimate by converting the non-residential trips into equivalent dwelling units and adding them to the residential dwelling units. Table 121 presents these calculations.

TABLE 121: PROJECT-GENERATED VEHICLE MILES TRAVELED

Description	Daily VMT	VMT per HH[1]
San Luis Obispo County (Region)	12,000,000	80
San Luis Obispo City (Sphere of Influence)	3,600,000	54
San Luis Ranch Project	60,000	32

1. Reported vehicle miles traveled per household.

Fair-Share of Improvement Cost Calculations

Fair-share calculations have been identified for all intersections, which are projected to operate at unacceptable LOS under no project conditions, and experience an increase in delay with the addition of project traffic. Below is a listing of each of the study intersections warranting improvements, the corresponding improvements that the proposed project would be required to pay a fair-share of improvement cost towards, and the proposed project's equitable share of these improvements. The proposed project's equitable share is calculated using the method for calculating equitable mitigation measures outlined in the *Caltrans Guide for the Preparation of Traffic Impact Studies* (State of California, DOT, December 2002), which is shown below:

$P = T / (T_B – T_E)$ where,

P = The equitable share for the project's traffic impact.

T = The vehicle trips generated by the project during the peak hour of adjacent roadway facility in vehicles per hour (vph).

T_B = The forecasted traffic volume on an impacted roadway facility at the time of general plan build-out (e.g. 20 year model or the furthest model date feasible), vph.

T_E = The traffic volume existing on the impacted roadway facility plus other approved projects that will generate traffic that has yet to be constructed/opened, vph.

The Fair-Share calculations were calculated using Cumulative (Year 2035) Full Build project volumes. Note that the percent fair-share calculated using the above formula is reported to the nearest whole number and the calculations are based on the highest fair share percentage from the two peak hour scenarios. Table 123 presents these calculations.

TABLE 123: CUMULATIVE (YEAR 2035) FULL BUILD FAIR SHARE CALCULATIONS

Intersection / Segment		Mode	Peak Hour	**Fair Share Percentage**	Project Added Traffic	Existing Volume	2035 Full Build + Project Volume
INT 1	Madonna Road/Los Osos Valley Road	Auto (Queue only)	PM	**10%**	62	3263	3875
INT 2	Madonna Road/Oceanaire Drive	Auto (Queue only)	PM	**56%**	74	2100	2233
INT 3	Madonna Road/Dalidio Drive	Auto	PM	**30%**	209	2479	3178
INT 4	Madonna Road/El Mercado	Auto (Queue only)	PM	**n/a**	188	2674	2519
INT 5	Madonna Road/US 101 SB Ramps/Madonna Inn	Auto (Queue only)	PM	**n/a**	187	3183	2747
INT 6	Madonna Road/US 101 NB Ramps	Auto (Queue only)	PM	**n/a**	166	2643	2392
INT 7	Madonna Road/Higuera Street	Auto (Queue only)	PM	**22%**	154	2937	3629
INT 8	Higuera Street/South Street	Auto (Queue only)	PM	**18%**	141	2476	3277
INT 9	Los Osos Valley Road/Froom Ranch Way	Auto	PM	**12%**	127	3401	4458
INT 10	Los Osos Valley Road/Auto Park Way	Auto (Queue only)	PM	**11%**	69	2774	3407
INT 12	Los Osos Valley Road/US 101 SB Ramps	Auto (Queue only)	PM	**8%**	50	3324	3918
INT 14	S. Higuera Street/Los Osos Valley Road	Auto (Queue only)	PM	**4%**	33	2377	3258
INT 15	S. Higuera Street/Suburban Drive	Auto (Queue only)	PM	**2%**	10	2413	2976
INT 16	S. Higuera Street/Tank Farm Road	Auto	AM	**5%**	32	1994	2701
INT 18	S. Higuera Street/Prado Road	Auto (Queue only)	PM	**10%**	258	1980	4640
INT 19	S. Higuera Street/Margarita Avenue	Auto (Queue only)	PM	**6%**	38	1450	2130
INT 20	Prado Road/US 101 NB Ramps	Auto (Queue only)	PM	**15%**	337	661	2864
SEG 2 EB	Madonna Road - Oceanaire Drive to Dalidio Drive	Auto	AM	**18%**	42	1108	1341
SEG 19 WB	Froom Ranch Way - Dicks Sporting Goods to Los Osos Valley	Ped	AM	**23%**	56	72	319
SEG 23 NB*	Prado Road - US 101 SB Ramps to Froom Ranch Way	Auto	AM	**20%**	154	15	797
SEG 24 SB*	Dalidio Drive - SC Project Driveway to Froom Ranch Way	Auto	AM	**19%**	163	16	880
SEG 23 NB*	Prado Road - US 101 SB Ramps to Froom Ranch Way	Auto	PM	**15%**	204	71	1454
SEG 24 SB*	Dalidio Drive - SC Project Driveway to Froom Ranch Way	Auto	PM	**24%**	183	36	799
SEG 24 NB*	Dalidio Drive - Froom Ranch Way to SC Project Driveway	Auto	PM	**20%**	237	71	1234

*Existing directional volumes based on Intersection #26 (Dalidio Dr/Promenade) volumes

TECHNICAL APPENDIX:

A. ACCESS MANAGEMENT MEMORANDUM

B. MULTIMODAL SYNCHRO OUTPUTS

C. SIMTRAFFIC QUEUING OUTPUTS

D. MULTIMODAL SEGMENT WORKSHEETS

E. HIGHWAY CAPACITY SOFTWARE (HCS) 2010 OUTPUTS

F. SIGNAL WARRANTS

G. SIDRA OUTPUTS

H. PHASING ASSESSMENT