



11622 El Camino Real, Suite #100, San Diego, CA 92130
Phone 619-890-1253, Email: Justin@LOSEngineering.com

January 9, 2025

Ms. Ann Gonsalves, T.E.
City of San Diego
1222 First Avenue, MS 501
San Diego, CA 92101

Subject: Southwest Village Specific Plan Transportation Phasing Plan (PRJ-0614791)

Dear Ms. Gonsalves:

The Southwest Village Specific Plan (Specific Plan) provides a comprehensive policy framework intended to guide future development in Southwest Village, consistent with the City of San Diego - Otay Mesa Community Plan (OMCP) and City of Villages Strategy. This Phasing Plan includes the following sections:

- 1) Project Description and Trip Generation
- 2) Community Plan Circulation Changes
- 3) Planning Areas and Phasing
- 4) Community Access and On-Site Vehicular Circulation
- 5) Conclusion

PROJECT DESCRIPTION AND TRIP GENERATION

The Specific Plan encompasses approximately 490 acres, will allow up to 5,130 attached and detached residences, and will facilitate creation of a new village anchored by up to 175,000 square feet of commercial and retail uses in a mixed-use Village Core. The Specific Plan would provide public facilities including dedication of up to two new elementary schools, approximately 17.6 acres of publicly owned developed parks in addition to approximately 18 acres of trails, and 185 acres of surrounding natural open space and habitat conservation.

Access to the Specific Plan area will be from two Mobility Element roadways, Caliente Avenue to the north and from an extension of Beyer Boulevard to the west, connecting the Specific Plan area to San Ysidro. If Beyer Blvd is not extended by the 200th unit, then an alternative secondary access is proposed south of the Specific Plan area along an existing utility road to be improved as an emergency vehicle access (EVA) road to facilitate regional fire and emergency response.

The Specific Plan contains 30 planning areas and identifies a range of allowable residential densities for each planning area to allow for flexibility in future planning and design. The following land use designations are proposed:

- Medium-Low Density Residential allowing 8 to 22 dwelling units per acre
- Medium Density Residential allowing 15 to 29 dwelling units per acre
- Medium-High Density Residential allowing 20 to 44 dwelling units per acre
- Residential Mixed-Use allowing up to 175,000 square feet of commercial and retail uses at a maximum Floor Area Ratio (FAR) of 3.0 and multi-family attached residential units at a density range of 30 to 62 dwelling units per acre.

Implementation of the Specific Plan will require a number of discretionary approvals including an amendment to the OMCP related to land use to refine the buildout of the Southwest District area as defined in the OMCP; roadway circulation classification change of Beyer Boulevard from a 4-Lane Major to a 4-Lane Modified Urban Collector and Caliente Avenue from a 6-Lane Major to a 4-lane Modified Urban Collector; a rezone to implement Specific Plan land uses; a Multi-Habitat Planning Area (MHPA) Boundary Line Adjustment (BLA); and approval of an update to the Otay Mesa Public Facilities Financing Plan to include new parks, a sewer pump station, and other public facilities to reflect the project needs.

Furthermore, since the Specific Plan is under multiple property ownerships and the timing of build-out is not known at this time, the ultimate mix of residential densities cannot be known with certainty. However, the following assumptions consistent with the Specific Plan land use framework were used in this analysis that identifies build-out of up to:

- 1,158 single family residential units
- 2,503 multi-family units under 20 dwelling units per acre
- 1,469 multi-family units over 20 dwelling unit per acre
- 175,000 SF Commercial/Retail
- 2 elementary schools

Under these land use assumptions, the Specific Plan has a calculated driveway trip generation of 57,225 ADT with 4,777 AM peak hour trips (1,569 inbound and 3,208 outbound) and 5,948 PM peak hour trips (3,695 inbound and 2,253 outbound). The City of San Diego *Otay Mesa Community Plan 2014* identified Southwest Village with 5,880 homes, 190,800 SF commercial, two elementary schools, and 40 acres of developed parks for a driveway trip generation of 64,393 ADT with 5,249 peak hour trips (1,690 inbound and 3,559 outbound) and 6,596 PM peak hour trips (4,108 inbound and 2,488 outbound). The proposed Specific Plan land use mix results in an overall reduction from the 2014 OMCPU in the amount of -7,168 ADT, -472 AM trips (-121 inbound and -351 outbound), and -648 PM trips (-413 inbound and -235 outbound) as shown in **Table 1**.

Table 1: Proposed and Adopted Specific Plan Uses and Traffic Comparison

Land Use	ADT				AM							PM		
	Rate	Size & Units		ADT	%	Split	IN	OUT	Total	%	Split	IN	OUT	Total
Single-Family	10 /DU	1,158	DU	11,580	8%	0.2 0.8	185	741	926	10%	0.7 0.3	811	347	1,158
Multi-Family (< 20 du/ac)	8 /DU	2,503	DU	20,024	8%	0.2 0.8	320	1,282	1,602	10%	0.7 0.3	1402	601	2,003
Multi-Family (>20 du/ac)	6 /DU	1,469	DU	8,814	8%	0.2 0.8	141	564	705	9%	0.7 0.3	555	238	793
Community Shopping Cnt	70 /KSF	175,000	SF	12,250	3%	0.6 0.4	221	147	368	10%	0.5 0.5	613	613	1,226
Two Elem. Schools (1)	2.9 /Student	1,268	Students	3,677	31%	0.6 0.4	684	456	1,140	19%	0.4 0.6	279	419	698
Developed Park	50 /Acre	17.6	Acres	<u>880</u>	4%	0.5 0.5	<u>18</u>	<u>18</u>	<u>36</u>	8%	0.5 0.5	<u>35</u>	<u>35</u>	<u>70</u>
Proposed Southwest Village Driveway Totals				57,225			1,569	3,208	4,777			3,695	2,253	5,948
Single-Family	10 /DU	1,400	DU	14,000	8%	0.2 0.8	224	896	1,120	10%	0.7 0.3	980	420	1,400
Multi-Family (< 20 du/ac)	8 /DU	2,240	DU	17,920	8%	0.2 0.8	287	1,147	1,434	10%	0.7 0.3	1254	538	1,792
Multi-Family (>20 du/ac)	6 /DU	2,240	DU	13,440	8%	0.2 0.8	215	860	1,075	9%	0.7 0.3	847	363	1,210
Community Shopping Cnt	70 /KSF	190,800	SF	13,356	3%	0.6 0.4	240	160	400	10%	0.5 0.5	668	668	1,336
Two Elem. Schools (1)	2.9 /Student	1,268	Students	3,677	31%	0.6 0.4	684	456	1,140	19%	0.4 0.6	279	419	698
Developed Park	50 /Acre	40	Acres	<u>2,000</u>	4%	0.5 0.5	<u>40</u>	<u>40</u>	<u>80</u>	8%	0.5 0.5	<u>80</u>	<u>80</u>	<u>160</u>
Adopted Otay Mesa CPU Driveway Totals				64,393			1,690	3,559	5,249			4,108	2,488	6,596
Reduction between CPU and Southwest Village				-7,168			-121	-351	-472			-413	-235	-648

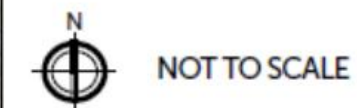
Source: City of San Diego *Trip Generation Manual*, May 2003. DU=Dwelling Unit. KSF=1,000 square feet. (1) Number of students based on estimated student enrollment for an elementary school of similar size per the Long Range Facilities Master Plan for San Ysidro School District 2021.

The regional location of the project site is shown in **Figure 1**. The 30 planning areas that make up Southwest Village are shown in **Figure 2**.

Map of San Diego County showing the project location near Chula Vista. The map includes major highways (Interstates 5, 15, 805, and State Routes 56, 52, 163, 54, 94, 96), cities (Fallbrook, Temecula, Warner Springs, Vista, Oceanside, Carlsbad, Encinitas, Poway, Ramona, Santa Ysabel, Julian, Santee, El Cajon, La Mesa, Chula Vista, Imperial Beach, Tecate, Campo, Pine Valley, Boulder), and geographical features (Pacific Ocean, Camp Joseph Pendleton). A legend indicates existing roadways as solid lines and proposed roadways as dashed lines. A north arrow and "No Scale" note are also present. Source: LOS Engineering, Inc.

This aerial map of the City of Brea displays a grid of numbered lots (1-30) and surrounding infrastructure. The map includes the following features:

- Streets:** Central Ave, Beyer Blvd W, Beyer Blvd E, West Ave, East Ave, Street A, Street B, Street C, and Street D.
- Landmarks:** Brea City Hall (marked with a star) and Brea City Jail (marked with a cross).
- Numbered Lots:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, and 30.
- Geographic Features:** The map shows the city's location relative to the Orange County Freeway (SR 91) and the Brea River.



5

COMMUNITY PLAN CIRCULATION CHANGES

The Specific Plan is consistent with the Otay Mesa Community Plan Update (OMCPU) transportation assumptions from a trip generation perspective. However, the Specific Plan identifies circulation network changes that require operational analyses to ensure the network still functions at the community level. Two circulation network changes are proposed:

- 1) Caliente Ave downgrade from a 6 Lane Major to a 4 Lane Modified Urban Collector between Central Ave and Beyer Blvd to avoid sensitive habitat, specifically a 1-acre City of San Diego owned Vernal Pool Habitat Conservation Plan 100 percent conserved parcel. The downgrade was supported by City staff during a meeting on 3/11/20 after review of materials provided by the project team. As a 4 Lane Urban Collector, this segment would operate at LOS E under Horizon Year 2062 community buildout conditions. The OMCPU EIR identified this segment as significant and unmitigated under Horizon Year conditions. This impact is considered significant, unavoidable, and consistent with the OMCPU EIR (support materials included in **Attachment A**).
- 2) Beyer Blvd downgrade from a 4 Lane Major to a 4 Lane Modified Urban Collector between Enright Dr and Caliente Ave. From Enright Dr to West Ave, Beyer Blvd will be constructed with a 2 lane cross section to avoid and minimize impacts to sensitive habitat, as requested by California wildlife agencies. From West Ave to Caliente Ave, Beyer Blvd will be constructed as a 4 Lane Urban Major. An arterial analysis supporting the narrower 2 lane cross section with raised median and pedestrian and bicycle facilities and proposed Beyer Blvd alignment are included in **Attachment B**. Beyer Blvd between E. Beyer Blvd/Old Otay Mesa Rd and Enright Dr has not yet been completed to the ultimate San Ysidro Community Plan Update classification of a 4 Lane Collector (excerpt from the San Ysidro Community Plan Update is included in **Attachment C**). Sufficient right of way does not exist on Beyer Blvd between E. Beyer Blvd and Enright Dr to complete this section to the ultimate classification. The right of way constraint is on the north side of Beyer Blvd along the San Ysidro School District parcel. The requirement of a 4 Lane Collector of Beyer Blvd between E. Beyer Blvd/Old Otay Mesa Rd and Enright Dr is forecasted to occur in Phase 4 forecasted at the 3,301st dwelling unit, after accounting for traffic from a second elementary school and 7.1 acres of park based on the assignment of the SWV Specific Plan residential traffic to Beyer Blvd using a SANDAG Series 13 Select Zone Assignment (**Attachment D**). The Beyer Blvd LOS between E. Beyer Blvd and Enright Dr within San Ysidro and when the existing 2 lanes will be required to be widened to 4 lanes at Phase 4 is shown in **Table 2**.

Table 2: Four Lane Trigger for Beyer Blvd (E. Beyer to Enright) within San Ysidro

Phase		Single Family	Multi- Family	Multi- Family	Dwelling Unit (DU) Total	Running DU Total	ADT by Phase	Aggre- gate ADT	W. Beyer	Beyer Blvd		E+C+P		E+C+P
			< 20 du/ac	> 20 du/ac					ADT based on SANDAG SZA 24% distribution	(E Beyer to Enright) ADT	E+C	E+C+P	at 2 lanes LOS E* 10k cap.	at 4 lanes LOS E* 30k cap.
1	Units	543	490	282	1,315	1,315						V/C	0.38	0.13
	ADT	5,430	3,920	1,692			11,042	11,042	2,650	1,149	3,799	LOS	A	A
2	Units	615	237		852	2,167						V/C	0.57	0.19
	ADT	6,150	1,896				8,046	19,088	4,581	1,149	5,730	LOS	C	A
	Developed Parks											V/C	0.59	0.20
	ADT at 50 ADT/Acre for 10.5 acres						525	19,613	4,707	1,149	5,856	LOS	C	A
	Elementary School (PA16)											V/C	0.63	0.21
	ADT at 2.9 ADT/Student with 600 students						1,740	21,353	5,125	1,149	6,274	LOS	C	A
3	Units		819		819	2,986						V/C	0.78	0.26
	ADT		6,552				6,552	27,905	6,697	1,149	7,846	LOS	D	A
4	Developed Parks											V/C	0.79	0.26
	ADT at 50 ADT/Acre for 7.1 acres						355	28,260	6,782	1,149	7,931	LOS	D	A
	Elementary School (PA7 Overlay)											V/C	0.84	0.28
	ADT at 2.9 ADT/Student with 668 students						1,937	30,197	7,247	1,149	8,396	LOS	D	A
	Units		314		314	3,300						V/C	0.90	0.30
	ADT		2,512				2,512	32,709	7,850	1,149	8,999	LOS	D	A
	Units		110		110	3,410						V/C	0.92	0.31
	ADT		880			880	33,589	8,061	1,149	9,210	LOS	E	A	
5	Units		266		266	3,676						V/C	0.97	0.32
	ADT		2,128				2,128	35,717	8,572	1,149	9,721	LOS	E	A
6	Units		267		267	3,943						V/C	1.02	0.34
	ADT		2,136				2,136	37,853	9,085	1,149	10,234	LOS	F	B
7	Units			1,187	1,187	5,130						V/C	1.19	0.40
	ADT			7,122			7,122	44,975	10,794	1,149	11,943	LOS	F	B
	Commercial Shopping Center											V/C	1.49	0.50
	ADT at 70 ADT/KSF for 175,000 square feet						12,250	57,225	13,734	1,149	14,883	LOS	F	C
TOTALS		Dwelling units:		5,130	ADT: 57,225									

Notes: ADT: Average Daily Trips. E+C: Existing + Cumulative. E+C+P: Existing + Cumulative + Project. KSF: 1,000 Square Feet. V/C: Volume over Capacity. Cap. = Capacity. *LOS E capacity at 10,000 ADT for 2 lanes with no fronting property and 30,000 ADT for 4 lanes with two way left turn lane from TSM Appendix F (included in Attachment E). SZA = Select Zone Assignment. Shading notes when Beyer Blvd needs to be widened to 4 lanes.

PLANNING AREAS AND PHASING

The Southwest Village Specific Plan has 30 planning areas and seven planned phases. However, the phasing is a current estimate that can change due to the unknown timing of when other planning area owners will initiate their own development process. Therefore, future planning area development will be subject to discretionary review for consistency with the current Specific Plan Phasing and will be required to complete the Specific Plan onsite and off-site improvements needed to support their development. The necessary infrastructure and public facilities required for each phase of development shall both be constructed as part of the implementing project or may be necessary to construct upfront of an implementing project consistent with Specific Plan details included in **Attachment E**. The anticipated trip generation by phase is shown in **Table 3**. The planning areas are currently anticipated to be developed over seven phases.

Table 3: Specific Plan Traffic Generation Implementation Table

Phase & Land Use	Residential Trip Rates		Non-Residential Trip Rates		Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
						IN	OUT	Total	IN	OUT	Total
1 City SD Trip Rates:	10 /DU					20%	80%	8%	70%	30%	10%
	Single Family	543 DU			5,430	87	347	434	380	163	543
	City SD Trip Rates:	8 /DU				20%	80%	8%	70%	30%	10%
	Multi-Family < 20 du/ac	490 DU			3,920	63	251	314	274	118	392
	City SD Trip Rates:	6 /DU				20%	80%	8%	70%	30%	9%
2 City SD Trip Rates:	282 DU				1,692	27	108	135	106	46	152
	Multi-Family > 20 du/ac										
	Phase 1 Totals:	1,315 DU			11,042	177	706	883	761	326	1,087
	City SD Trip Rates:	10 /DU				20%	80%	8%	70%	30%	10%
	Single Family	615 DU			6,150	98	394	492	431	185	615
3 City SD Trip Rates:	8 /DU					20%	80%	8%	70%	30%	10%
	Multi-Family < 20 du/ac	237 DU			1,896	30	122	152	133	57	190
	City SD Trip Rates:		2.9 /Student			60%	40%	31%	40%	60%	19%
	Elementary School (1)		600 Students		1,740	323	216	539	132	199	331
	City SD Trip Rates:		50 /Acre			50%	50%	4%	50%	50%	8%
4 City SD Trip Rates:	Developed Park		10.5 Acres		525	11	11	21	21	21	42
	Phase 2 Totals:	852 DU			10,311	463	742	1,204	717	461	1,178
	City SD Trip Rates:	8 /DU				20%	80%	8%	70%	30%	10%
	Multi-Family < 20 du/ac	819 DU			6,552	105	419	524	459	197	655
	Phase 3 Totals:	819 DU			6,552	105	419	524	459	197	655
5 City SD Trip Rates:	Developed Park		50 /Acre			50%	50%	4%	50%	50%	8%
	Elementary School (2)		7.1 Acres		355	7	7	14	14	14	28
	City SD Trip Rates:		2.9 /Student			60%	40%	31%	40%	60%	19%
	Multi-Family < 20 du/ac	424 DU	668 Students		1,937	361	240	601	147	221	368
	Phase 4 Totals:	424 DU			5,684	422	464	886	399	337	735
6 City SD Trip Rates:	8 /DU					20%	80%	8%	70%	30%	10%
	Multi-Family < 20 du/ac	266 DU			2,128	34	136	170	149	64	213
	Phase 5 Totals:	266 DU			2,128	34	136	170	149	64	213
	City SD Trip Rates:	8 /DU				20%	80%	8%	70%	30%	10%
	Multi-Family < 20 du/ac	267 DU			2,136	34	137	171	150	64	214
7 City SD Trip Rates:	267 DU				2,136	34	137	171	150	64	214
	Phase 6 Totals:	267 DU			2,136	34	137	171	150	64	214
	City SD Trip Rates:	6 /DU				20%	80%	8%	70%	30%	9%
	Multi-Family > 20 du/ac	1,187 DU			7,122	114	456	570	449	192	641
	City SD Trip Rates:		70 /KSF			60%	40%	3%	50%	50%	10%
8 City SD Trip Rates:	Community Shopping Cnt:		175 KSF		12,250	221	147	368	613	613	1,226
	Phase 7 Totals:	1,187 DU			19,372	335	603	938	1,062	805	1,867
	Overall Target Density/Intensity:	5,130 DU	175 KSF Schools & Parks Comm.		57,225	1,569	3,208	4,777	3,695	2,253	5,948
	Total Remaining	5,130 DU	175 KSF Schools & Parks Comm.		57,225	1,569	3,208	4,777	3,695	2,253	5,948

Source: City of San Diego *Trip Generation Manual*, May 2003. DU: Dwelling Unit, KSF=1,000sf. Comm. = Commercial. (1) In the unlikely event a school is no longer needed on Planning Area 16, the site will default to Medium Density Residential use. Although the contingency for Planning Area 16 would result in approximately 136 additional dwelling units, the maximum dwelling unit cap of 5,130 units would still apply. (2) In the event a school is not needed on Planning Area 7, the site will default to Medium Density Residential Use.

COMMUNITY ACCESS AND ON-SITE VEHICULAR CIRCULATION

Community access and on-site circulation classifications are based on two sources:

- 1) Arterial roadways of Beyer Blvd and Caliente Ave as proposed in the Otay Mesa and San Ysidro Community Plan Updates, and
- 2) Local internal roadway network being proposed as part of the Southwest Village Specific Plan.

The arterial roadways of Beyer Blvd and Caliente Ave were analyzed using volumes from the San Ysidro Community Plan Update (August 2016). The San Ysidro CPU horizon year Average Daily Traffic (ADT) was based on a Series 12 SANDAG traffic model forecast. The Otay Mesa Community Plan Update (March 2014) was not applied because it used an older Series 11 SANDAG traffic model forecast. The San Ysidro horizon year SANDAG volumes (included in **Attachment F**) were applied to the following arterial roadways:

- Beyer Blvd from Enright Dr to Caliente Ave: 28,100 ADT
- Caliente Ave from Airway Rd to Central Ave: 36,900 ADT
- Caliente Ave from Central Ave to Beyer Blvd: 29,200 ADT

The local internal roadways were analyzed based on a manual internal distribution and assignment of individual Planning Areas. On-site roadway traffic distribution and assignment worksheets are included in **Attachment G**.

The following roadway classification were applied to support the forecasted roadway volumes:

- Six Lane Major (striped as 5 lanes)
- Four Lane Urban Major
- Four Lane Urban Collector
- Four Lane Modified Urban Collector
- Two Lane Collector with two-way left turn lane.
- Two Lane Collector
- Sub-Collector

The assignment and proposed roadway classification are shown in **Figure 3** with the segment LOS calculations shown in **Table 3**.

Figure 3: On-Site Roadway Volumes and Proposed Classifications

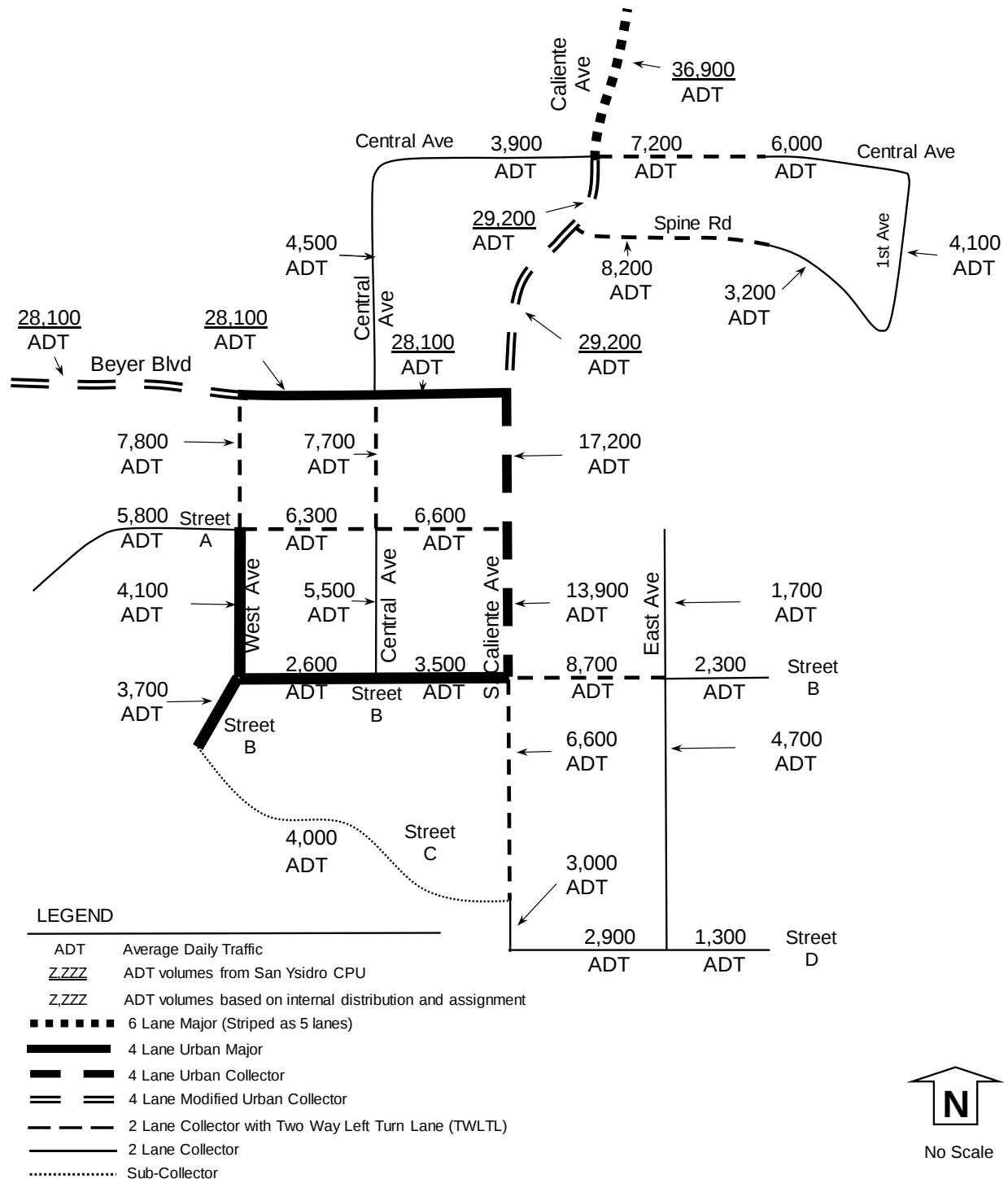


Table 3: On-Site Roadway Horizon Year Volumes and Level of Service

Segment	Functional Classification	LOS E Capacity	Horizon Year ADT	V/C Ratio	Level of Service
<u>Beyer Blvd</u>					
Enright Dr to West Ave	4 Lane Modified Urban Collector	30,000	<u>28,100</u>	0.94	E
West Ave to Central Ave	4 Lane Urban Major	40,000	<u>28,100</u>	0.70	C
Central Ave to Caliente Ave	4 Lane Urban Major	40,000	<u>28,100</u>	0.70	C
<u>Caliente Ave</u>					
Airway Rd to Central Ave	6 Ln Major (Striped as 5 Ln)	45,000	<u>36,900</u>	0.82	D
Central Ave to Spine Rd	4 Lane Modified Urban Collector	30,000	<u>29,200</u>	0.97	E
Spine Rd to Beyer Blvd	4 Lane Modified Urban Collector	30,000	<u>29,200</u>	0.97	E
Beyer Blvd to Street A	4 Lane Urban Collector	30,000	17,200	0.57	C
Street A to Street B	4 Lane Urban Collector	30,000	13,900	0.46	B
Street B to Street C	2 Collector + TWLTL	15,000	6,600	0.44	B
Street C to Street D	2 Lane Collector	8,000	3,000	0.38	B
<u>Central Ave</u>					
West of 1st Ave	2 Lane Collector	8,000	6,000	0.75	D
East of Caliente Ave	2 Collector + TWLTL	15,000	7,200	0.48	C
West of Caliente Ave	2 Lane Collector	8,000	3,900	0.49	C
North of Beyer Blvd	2 Lane Collector	8,000	4,500	0.56	C
Beyer Blvd to Street A	2 Collector + TWLTL	15,000	7,700	0.51	C
Street A to Street B	2 Lane Collector	8,000	5,500	0.69	D
<u>East Ave</u>					
Street A to Street B	2 Lane Collector	8,000	1,700	0.21	A
Street B to Street D	2 Lane Collector	8,000	4,700	0.59	C
<u>Spine Rd</u>					
West Half	2 Collector + TWLTL	15,000	8,200	0.55	C
East Half	2 Lane Collector	8,000	3,200	0.40	B
<u>Street A</u>					
West of West Ave	2 Lane Collector	8,000	5,800	0.73	D
West Ave to Central Ave	2 Collector + TWLTL	15,000	6,300	0.42	B
Central Ave to Caliente Ave	2 Collector + TWLTL	15,000	6,600	0.44	B
<u>Street B</u>					
Street C to West Ave	2 Lane Collector	8,000	3,700	0.46	C
West Ave to Central Ave	2 Lane Collector	8,000	2,600	0.33	B
Central Ave to S. Caliente Ave	2 Lane Collector	8,000	3,500	0.44	C
S. Caliente Ave to East Ave	2 Collector + TWLTL	15,000	8,700	0.58	C
East of East Ave	2 Lane Collector	8,000	2,300	0.29	A
<u>Street C</u>					
West Ave to S. Caliente Ave	Sub-Collector	(1)	4,000	(1)	(2)
<u>Street D</u>					
S. Caliente Ave to East Ave	2 Lane Collector	8,000	2,900	0.36	B
East of East Ave	2 Lane Collector	8,000	1,300	0.16	A
<u>West Ave</u>					
Beyer Blvd to Street A	2 Collector + TWLTL	15,000	7,800	0.52	C
Street A to Street B	2 Lane Collector	8,000	4,100	0.51	C
<u>1st Ave</u>					
Central Ave to Spine Rd	2 Lane Collector	8,000	4,100	0.51	C

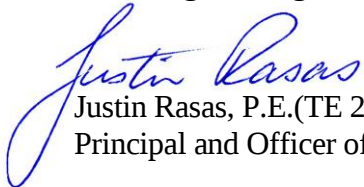
TWLTL: Two Way Left Turn Lane. BOLD indicates unacceptable LOS, which is due to environmental constraints that requires a reduced classification with a lower minimum curve radius to avoid sensitive habitat. Underlined ADT obtained from San Ysidro Community Plan Update SANDAG model. Remaining ADTs from internal distribution and assignments included in the Appendix. V/C: Volume to Capacity. (1) Sub-Collector LOS C threshold = 2,200 ADT. (2) Under capacity.

CONCLUSION

The Southwest Village Specific Plan provides a comprehensive policy framework intended to guide future development in Southwest Village, consistent with the City of San Diego - Otay Mesa Community Plan and City of Villages Strategy. The Specific Plan encompasses approximately 490 acres, will allow up to 5,130 attached and detached residences, and will facilitate creation of a new village anchored by up to 175,000 square feet of commercial and retail uses in a mixed-use Village Core. The timing along with the final number of homes and commercial space is unknown at this time; therefore, each Vesting Tentative Map will be subject to a discretionary review for consistency with the Specific Plan Subsequent EIR and will be required to prepare as needed LMA and VMT analyses.

The timing along with the final number of homes and commercial space is unknown at this time; therefore, each future Specific Plan Vesting Tentative Map will be subject to a discretionary review for consistency with the Specific Plan Subsequent EIR and will be required to prepare LMA and VMT analyses.

Sincerely,
LOS Engineering, Inc.


Justin Rasas, P.E.(TE 2135), PTOE
Principal and Officer of LOS Engineering, Inc.

Job 1733
Attachments



Attachment A

Caliente Ave Downgrade Details

Support materials for Caliente Ave downgrade from a 6 Lane Major to a 4 Lane Urban Collector between Central Ave and Beyer Blvd.

This segment of Caliente Ave can only be designed to a 4 Lane Urban Collector (with a minimum curve radius of 470 ft with 2% superelevation and design speed of 35 MPH) to avoid sensitive habitat and to be able to align with the intersection of Caliente Ave/Central Ave. Therefore, a downgrade is being proposed as part of the Southwest Village Specific Plan. A graphic of the alignment is shown on the next page.

A community buildout horizon year volume of 29,200 ADT for Caliente Ave between Central Ave and Beyer Blvd was obtained from the San Ysidro CPU EIR (SANDAG traffic model output included within the next few pages).

As a 4 Lane Urban Collector, this segment is calculated to operate at LOS E shown in **Table 1**.

Table 1: Caliente Ave Downgrade LOS

Segment	Classification & LOS E Capacity	Horizon Year ADT	V/C Ratio & LOS	CPU EIR Overrides
Caliente Ave (Central Ave to Beyer Blvd)	4 Lane Urban Collector 30,000 ADT	29,200	0.97 LOS E	Yes

The Otay Mesa CPU EIR identifies this segment as significant and unmitigated under community buildout Horizon Year conditions. This impact is considered significant, unavoidable, and consistent with the OM CPU EIR. Historical correspondence and excerpts from the OMCPU EIR are included on the next few pages.

DESIGN SPEED = 35 MPH W/ 2% SUPERELEVATION



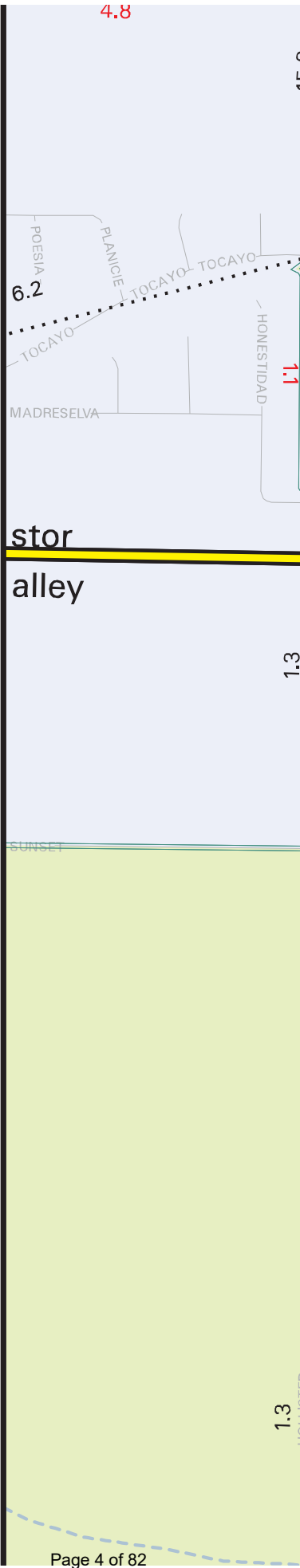
SANDAG Series 12 2035 Revenue Constrained 2011 RTP Highway Network Forecasted Daily Volumes

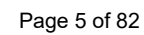
SAN YSIDRO

Model Rerun 05/14/14
San Ysidro CPU
2035 Scenario D - Proposed LU 2, Hybrid Network

Forecasted Volumes:

- # Adjusted Volume
- # Unadjusted Volume
- # Traffic Analysis Zone





From Brooke Peterson**Date** 5/8/2020, 10:52:18 AM**To** Shannon Baer**Cc****Subject** FW: Caliente/Beyer Follow Up [image001.jpg](#) (3 KB [HTML](#))

From: Brooke Peterson**Sent:** Thursday, May 7, 2020 3:14 PM**To:** Ghossain, George <GGhossain@sandiego.gov>**Subject:** Caliente/Beyer Follow Up

George,

I wanted to follow up on our discussion yesterday on two items.

First, thank you again for all your effort and coordination with City staff and Planning particularly, to confirm an agreed upon design for the realignment and downgrade of Caliente. Your willingness to work with us and City staff to find a solution was excellent and much appreciated. Based on your and Planning's concurrence with Alternative 3, we will proceed with redesign of the VTM and specific plan land use plan based on the down-grade of Caliente from the 6-land Urban Major identified in the Otay Mesa Community Plan to a 4-land Urban Collector with the Alternative 3 alignment and cross-section design.

Second, regarding your request for us to revise our design for Beyer Blvd. to accommodate a Class II bikeway in addition to our Class IV, I would appreciate asking yet again for some of your time to discuss. I recognize that we are working together to compromise from both the City and applicant side. I understand the political priorities and the focus and intent of the community plan – and the need to adhere and implement that intent. Understanding that however, I wanted to give you a more detailed description of the constraints I referred to and the implications of adding to the right-of-way (below) and then discuss when you are able.

- Our ROW is 90-ft. in our Beyer Blvd West of the project boundary and 106-ft. within the project boundary. Adding the Class II would add an additional 16-ft to the ROW.
- There is significant topography so 16 more feet would significantly increase the grading, cut/fill etc.
- Everything along Beyer between the project boundary to the San Ysidro boundary is MHPA, including the County of San Diego Furby Preserve. We have minimized our footprint of Beyer Rd from the very beginning in response to this to minimize MHPA and particularly conservation preserve lands.



MEMORANDUM

DATE September 3, 2020

TO George Ghossain, City of San Diego, Transportation Department

FROM Brooke Peterson, Rick Engineering, Southwest Village Project Manager

SUBJECT Beyer Boulevard and Caliente Avenue Alignment Rationale for Southwest Village

PROJECT NUMBER PTS 614791

This memorandum is intended to document the rationale for the Beyer Boulevard and Caliente Avenue alignments and act as a baseline in which to reference in future coordination related to the transportation network of the Southwest Village. Considering the complexity and magnitude of the Southwest Village project, we believe it is worthwhile to summarize in written-form the methodologies and conclusions that have led to the currently proposed Beyer Blvd and Caliente Ave.

I. Background

The alignments of Beyer Boulevard and Caliente Avenue in the Southwest Village Specific Plan Area (SPA) were first outlined in the Otay Mesa Community Plan Update (OMCPU). These roadways are key to the SPA as they are intended to be the two main points of direct access to the SPA from the surrounding communities to the north and west. The preparation of the Southwest Village Specific Plan prompted the need to engineer and finalize the alignments of Beyer Blvd and Caliente Ave. In doing so, Beyer Blvd and Caliente Ave have been designed and engineered to minimize and address various development constraints which has led to its current design.

The development constraints for Beyer Blvd include:

- Environmental and topographic challenges within Moody Canyon;
- Cut and fill quantity limitations;
- The Furby Preserve 100% Conserved parcel that bisects the Beyer Blvd alignment;
- County Multiple Habitat Conservation Plan (MHPA) designation;
- 90-foot Right-of-Way for Beyer Blvd West;
- The OMCPU designation of a 4-Lane Major Arterial.

The development constraints for Caliente Avenue include:

- The City-owned Vernal Pool Habitat Conservation Plan (VPHCP) 100% Conserved parcel to the east of Caliente Ave;
- The City's request to make the SPA a grid-system;
- Turning and speed limit minimums for the curved alignment of Caliente Ave;
- The OMCPU designation of a 6-Lane Major Arterial.

II. Methodology

The OMCPU designated Beyer Blvd as a 4-Lane Major Arterial and Caliente Ave as a 6-Lane Major Arterial based on anticipated average daily trips (ADT), which was based on anticipated population within the SPA. With the preparation of the Southwest Village Specific Plan, development constraints and land use designations have lowered the number of anticipated residential units, thus lowering future ADT, compared to the OMCPU estimates. LOS Engineering

conducted modeling and analysis on the ADT caused by construction and buildout of the Southwest Village, and concluded that future conditions would result in 7,393 less average daily trips (ADT) than what was assumed in the OMCP. A meeting on March 11, 2020 was held with representatives from City Transportation, Mobility, and Long-Range Planning Departments to discuss and decide on a preferred method of classifying Beyer Blvd and Caliente Ave. The following conclusions were presented to the City on March 11, 2020 which support the preferred classifications of Beyer Blvd as a 4-Lane Urban Major Street and Caliente Ave as a 4-Lane Urban Collector:

- The Otay Mesa Community Plan (OMCP) has industrial land uses with an overall mix of 11% residential and 89% industrial/other. Most of the industrial uses are located in the center and eastern side of the community while residential is mostly in the west with some in the center of the community. The Otay Mesa Southwest Village is unique without industrial uses and in the far Southwest corner of the Community Plan.
- Truck routes/restriction do not appear to exist for Beyer Blvd and Caliente Ave. There are no industrial uses in the Southwest Village, thus there would be no reason for Otay Mesa commercial trips to use Beyer Blvd and Caliente Ave other than for local deliveries. Without the demand or cut-through needs for commercial traffic, Beyer Blvd and Caliente Ave would predominately be for Southwest Village retail and residential traffic, supporting a lower volume than shown in the OMCP.
- Since the OMCP, there have been multiple different projects, Central Village SPA, and the proposed Southwest Village, that have in combination reduced the number of residential units by 2,519 from the OMCP. Similarly, the more recent San Ysidro Community Plan Update (SYCPU) had a traffic model that included the Southwest Village, which included an ADT of 29.2k for Caliente Ave between Central Ave and Beyer Blvd, compared to the 46k ADT used in the OMCP.
- Cut through traffic on Beyer Blvd and Caliente Ave would result in a more circuitous route and more traffic signals than using SR-905 and I-805. Additionally, the cut through route would have the Caliente Ave interchange at SR-905, but no equivalent at the Beyer bridge over I-805. Therefore, a cut-through trip would end up in a San Ysidro neighborhood and not on I-805.

The preferred Caliente Ave alignment discussed at the March 11, 2020 meeting curves around the VPHCP parcel. The new curved alignment requires a speed reduction around the curve, affects the ability of Caliente Ave to be classified as a 4-Lane Urban Major Street. Thus, further justifying the downgrade of Caliente Ave to a 4-Lane Urban Collector.

Beyer Blvd was designed in it's current alignment in order to best replicate the alignment identified in the OMCP, while minimizing adverse effects on resources in the area. The OMCP envisioned Beyer Blvd to be the secondary access road to the SPA, with Caliente Ave being the primary access road. To adequately alleviate vehicle trips on Caliente Ave, Beyer Blvd would need to be a straight shot from the San Ysidro community to the west. Therefore, Beyer Blvd was designed within the slope of Mood Canyon. Although the design of Beyer Blvd requires large quantities of grading and buttressing for the roadway, and bisects the Furby Preserve, the Applicant is working with wildlife agencies to find concurrence on the alignment of Beyer Blvd.

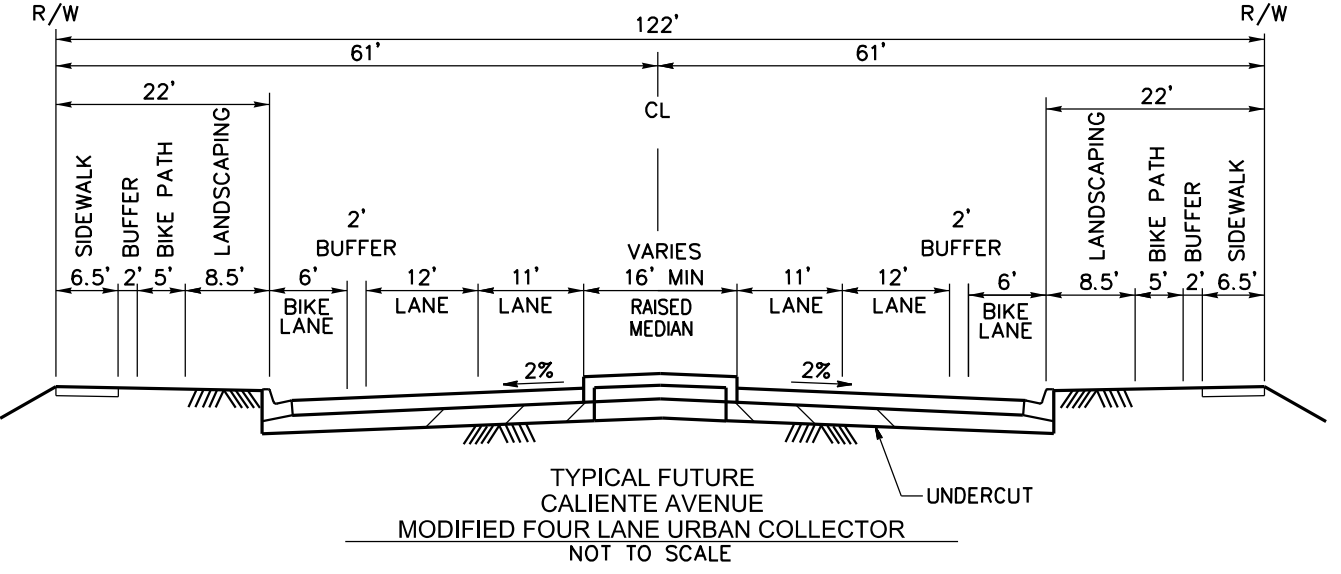
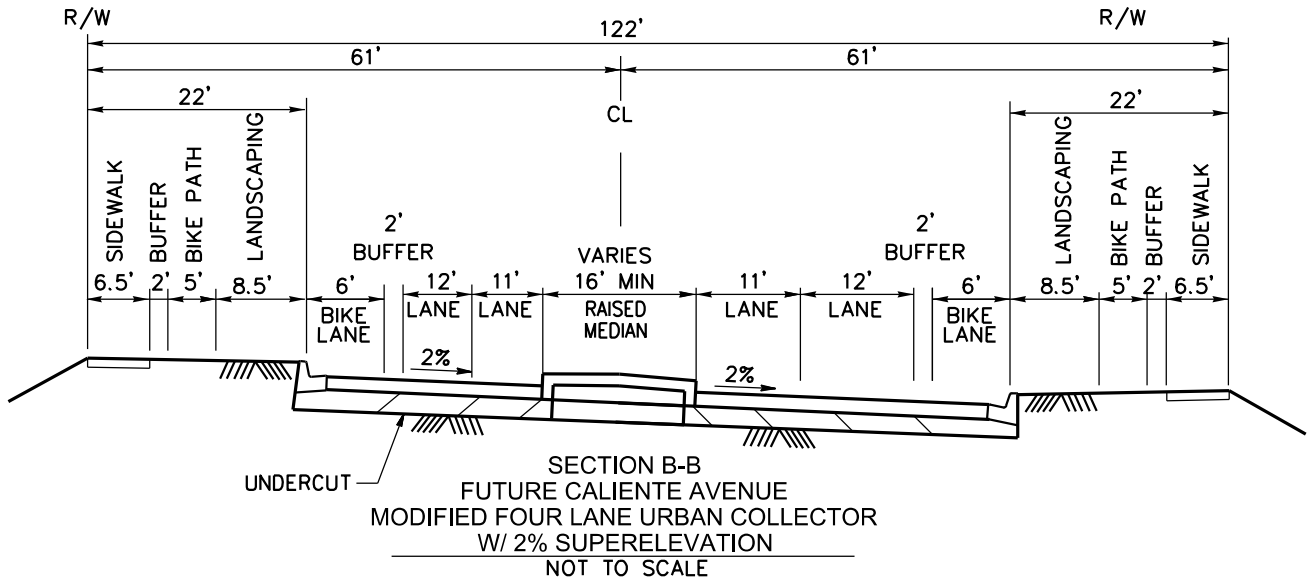
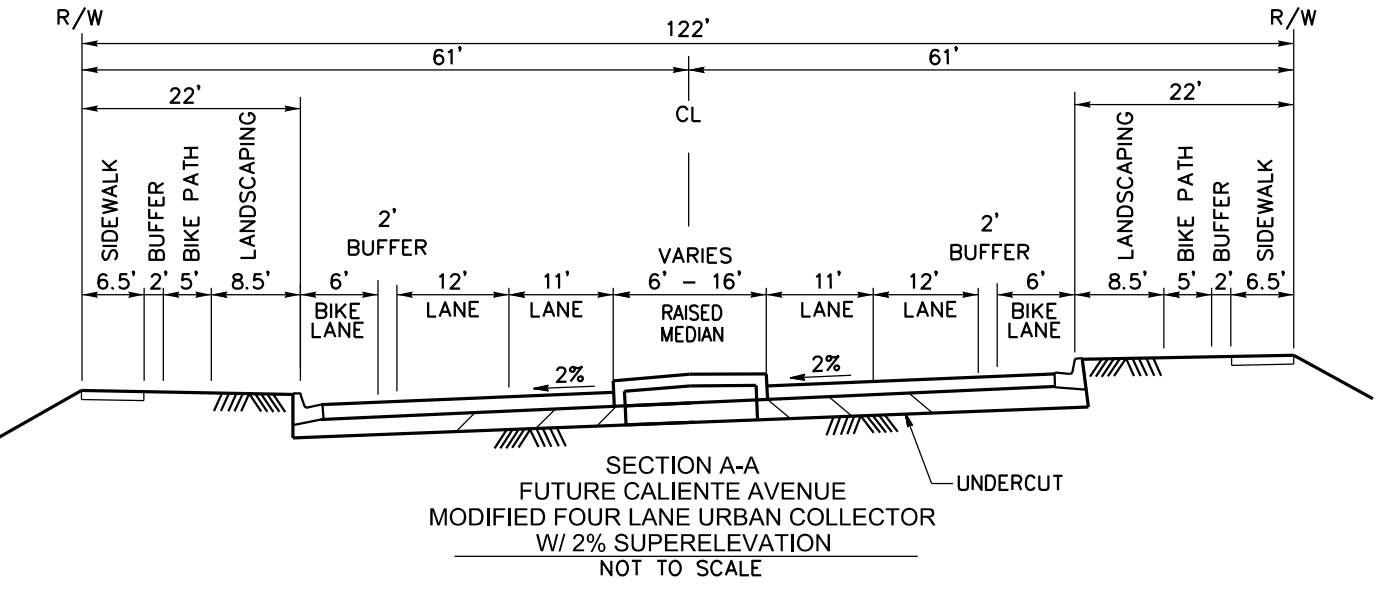
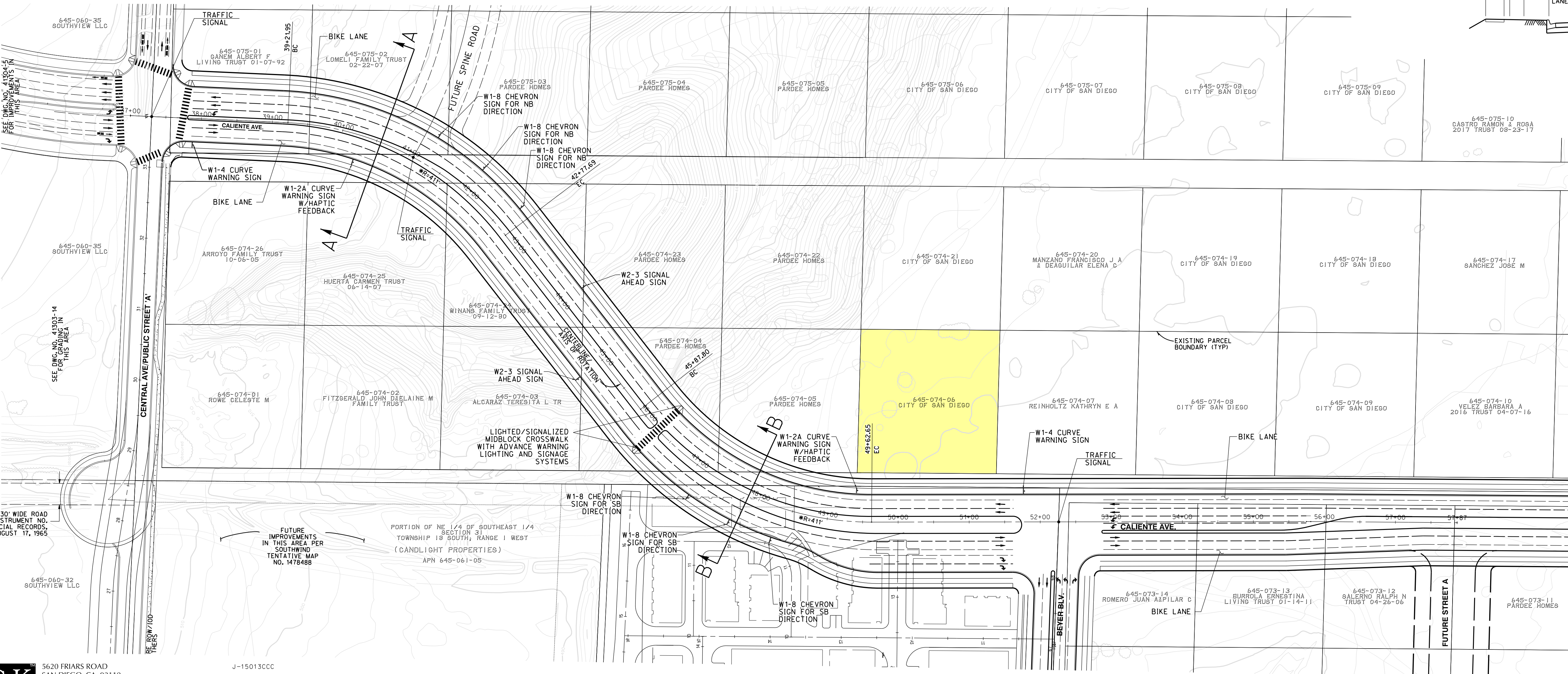
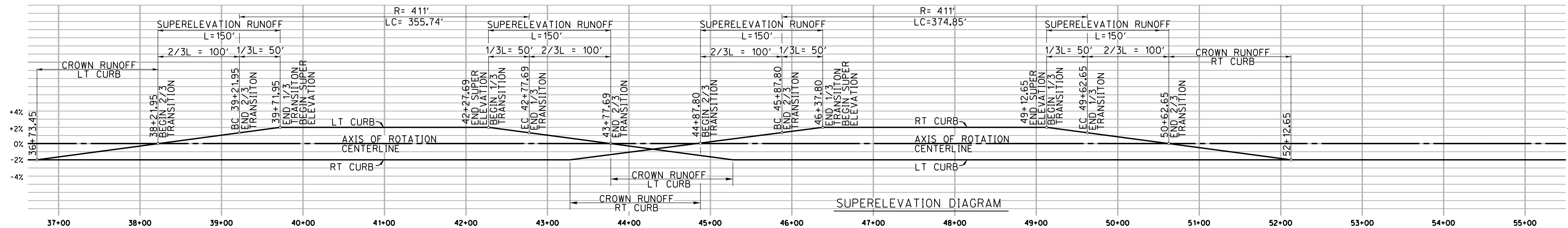
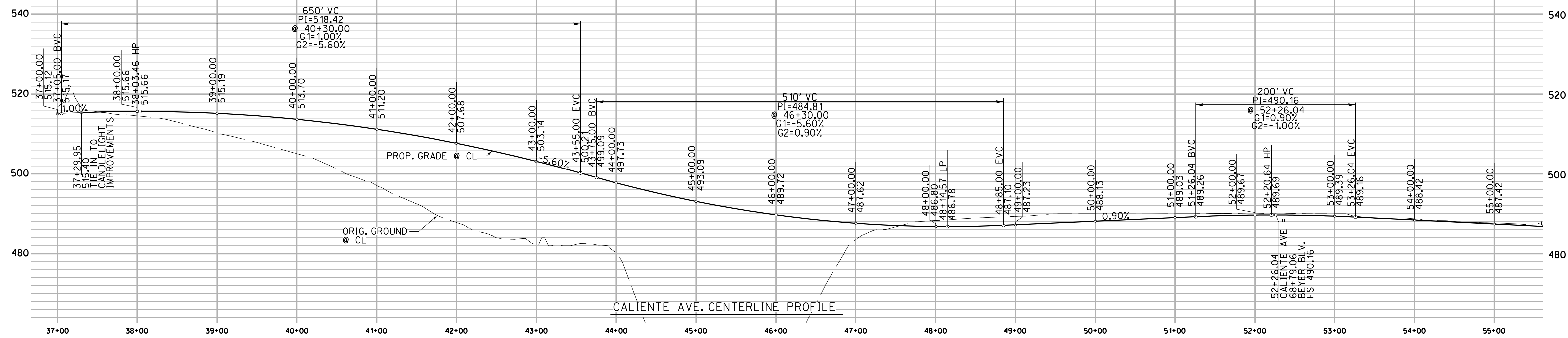
III. Conclusions

In the March 11, 2020 meeting, City staff concurred that a downgrade to Caliente Ave from 4-Lane Major Arterial to a 4-Lane Urban Collector is the preferred method to maintain the grid system south of Central Ave, avoid mobility implications, maintain lot lines to the greatest extent feasible, and avoid impacting the VPHCP parcel adjacent to Caliente Ave. Upon providing concurrence on downgrading Caliente Ave from a 6M to a 4-Lane Urban Collector, the City requested the Applicant redesign Caliente Ave to have on-street Class II bike facilities with a two-foot buffer to facilitate the downgrade and speed limit reduction. This request has been accommodated. In addition, City Long Range staff suggested a traffic circle as a traffic calming measure at the intersection of Central Ave and Caliente Ave. It was discussed that considering the environmental documentation and VTM for a project north of Specific Plan boundary, there would be design and analysis implications with incorporating a traffic circle at that location. Thus, a

traffic circle at the intersection of Central Ave and Caliente Ave was not carried through in the current designs. See the currently proposed alignment, cross-sections, and elevations of Caliente Ave in Section IV Alignments, Elevations, and Cross-Sections.

After the City's concurrence with the classification of Beyer Blvd as a 4-Lane Urban Collector, the City requested Beyer Blvd to provide on-street Class II bike facilities with a two-foot buffer to facilitate the downgrade and align with the OMCPU. This request has been accommodated in the ROW by reducing the outside travel lane from 12 feet to 11 feet and the landscape strip in the parkway down to 6.5 feet. See the currently proposed alignment, cross-sections, and elevations of Beyer Blvd in Section IV Currently Proposed Cross-Sections.

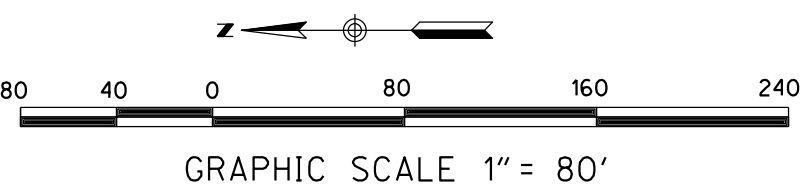
SOUTHWEST VILLAGE - CALIENTE AVENUE ALTERNATIVE 3 LINE AND GRADE STUDY
ROADWAY ALIGNMENT AS A 4 LANE URBAN COLLECTOR WITH BIKE LANE
DESIGN SPEED=35MPH WITH 2% SUPERELEVATION

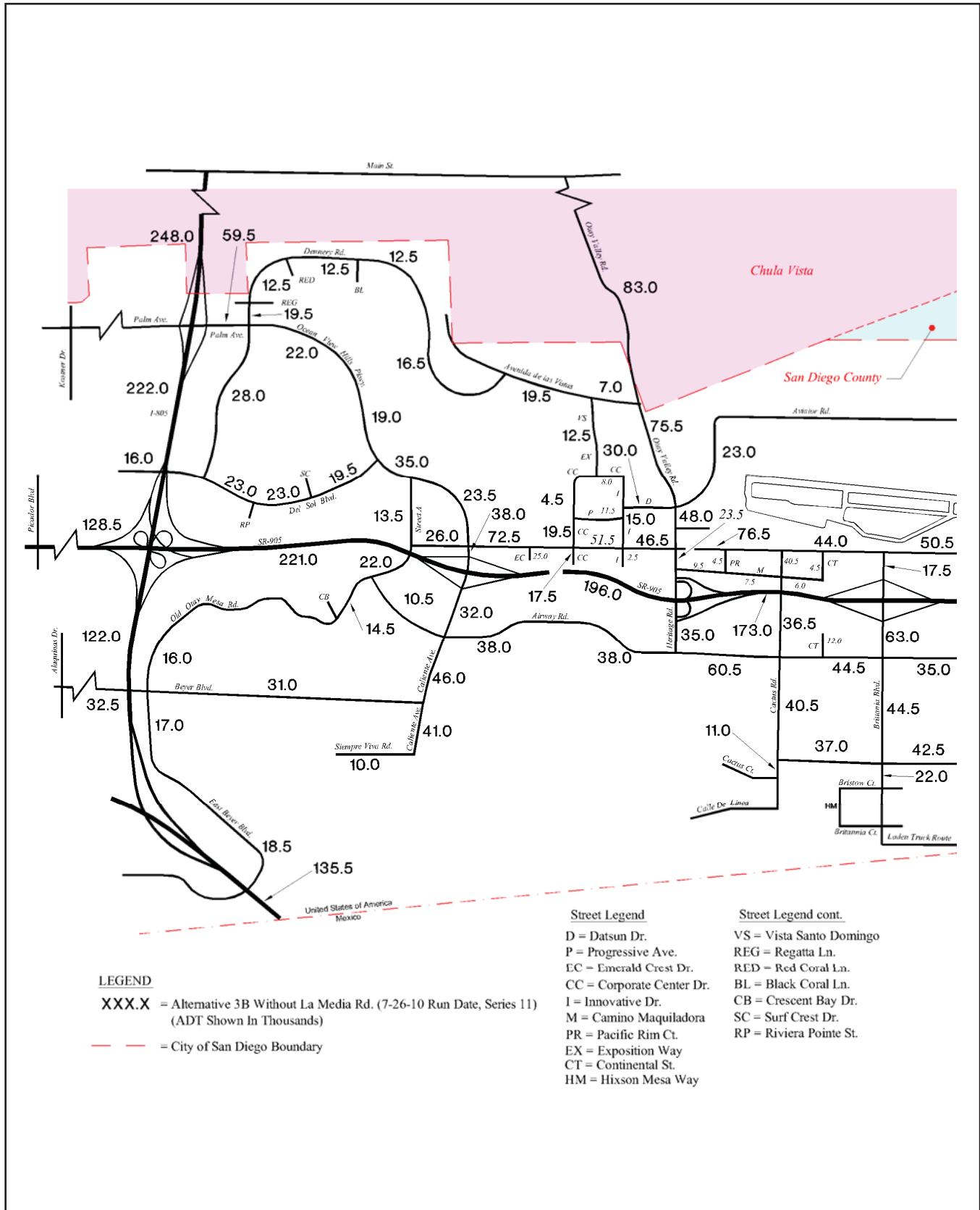


CLIENTE AVE. DESIGN REQUIREMENTS
DESIGN SPEED - 35 mph
MAXIMUM GRADE - 7%
MINIMUM CURVE RADIUS:
610' WITH 2% STANDARD CROWN CROSS SECTION
* PER CALTRANS DESIGN MANUAL FIGURE 202.2
MINIMUM RADIUS WITH 2% SUPERELEVATION
IS 411 FEET.

SIGNAGE LEGEND

- W1-4 CURVE WARNING SIGN
- W1-2A CURVE WARNING WITH HAPTIC FEEDBACK
- W1-8 CHEVRON SIGN
- W2-3 SIGNAL AHEAD SIGN





Not to Scale

FIGURE 5.12-3a
Horizon Year Plus CPU Condition Roadway Segment Volumes (West)

**TABLE 5.12-5
CPU HORIZON YEAR ROADWAY SEGMENT LEVEL OF SERVICE
(continued)**

Street	Segment	Horizon Year					Horizon Year with CPU			Sig?
		Class ¹	LOS E ADT ²	Segment ADT	V/C	LOS	New Class	New V/C	New LOS	
Palm Ave.	I-805 to Dennery Rd.	7-PA	65,000	59,500	0.92	D	-	-	-	N
Ocean View Hills Parkway	Dennery Rd. to Del Sol Blvd.	4-M	40,000	22,000	0.55	C	-	-	-	N
	Del Sol Blvd. to Street "A"	6-M	50,000	35,000	0.70	C	-	-	-	N
	Street "A" to Otay Mesa Rd.	6-M	50,000	23,500	0.42	B	-	-	-	N
Caliente Avenue	Otay Mesa Rd. to SR-905	6-M	50,000	38,000	0.76	C	6-PA	0.63	C	N
	SR-905 to Airway Rd.	6-M	50,000	32,000	0.64	C	6-PA	0.53	B	N
	Airway Rd. to Beyer Blvd.	4-M	40,000	46,000	1.15	F	6-M	0.92	E	Y
	Beyer Blvd. to Siempre Viva Rd.	4-M	40,000	41,000	1.03	F	-	-	-	Y
Beyer Boulevard	Alaquinas Dr. to Old Otay Mesa Rd.	4-M	40,000	32,500	0.81	D	-	-	-	N
	Old Otay Mesa Rd. to Caliente Ave. ³	4-M	40,000	31,000	0.78	D	-	-	-	N
Heritage Road/ Otay Valley Road	Main St. to Avenida de Las Vistas**	6-PA	60,000	83,000	1.38	F	-	-	-	Y
	Avenida De Las Vistas to Datsun St.	6-M	50,000	75,500	1.51	F	6-PA	1.26	F	Y
	Datsun St. to Otay Mesa Rd.	6-M	50,000	48,000	0.96	E	6-PA	0.80	C	N
	Otay Mesa Rd. to SR-905	6-M	50,000	23,500	0.47	B	6-PA	0.39	A	N
	SR-905 to Airway Rd.	6-M	50,000	35,000	0.70	C	6-PA	0.58	B	N
Cactus Road	Otay Mesa Rd. to Airway Rd.	4-CL	30,000	40,500	1.35	F	4-M	1.01	F	Y
	Airway Rd. to Siempre Viva Rd.	4-CL	30,000	40,500	1.35	F	4-M	1.01	F	Y
	Siempre Viva Rd. to South End	2-CL	15,000	11,000	0.73	D	-	-	-	N
Britannia Boulevard	Otay Mesa Rd. to SR-905	4-M	40,000	17,500	0.44	B	6-PA	0.29	A	N
	SR-905 to Airway Rd.	4-M	40,000	63,000	1.58	F	6-PA	1.05	F	Y
	Airway Rd. to Siempre Viva Rd.	4-M	40,000	44,500	1.11	F	6-M	0.89	D	N
	Siempre Viva Rd. to South End	2-C	8,000	22,000	2.75	F	4-CL	0.73	D	N
La Media Road	Birch Rd. to Lone Star Rd.**	6-PA	60,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Lone Star Rd. to Aviator Rd.	6-PA	60,000	19,500	0.33	A	4-M	0.49	B	N
	Aviator Rd. to Otay Mesa Rd.	6-PA	60,000	22,500	0.38	A	4-M	0.56	C	N
	Otay Mesa Rd. to SR-905	6-PA	60,000	37,500	0.63	C	-	-	-	N
	SR-905 to Airway Rd.	6-PA	60,000	64,000	1.06	F	-	-	-	Y
	Airway Rd. to Siempre Viva Rd.	4-M	40,000	33,000	0.83	D	5-M	0.73	C	N
Harvest Road	South of Otay Mesa Rd.	4-M	40,000	8,500	0.21	A	2-CL	0.57	C	N
	Airway Rd. to Otay Center Dr.	4-M	40,000	16,000	0.40	B	4-CL	0.53	C	N
	Otay Center Dr. to Siempre Viva Rd.	4-M	40,000	10,000	0.25	A	4-CL	0.33	A	N
Enrico Fermi Drive	SR-11 to Airway Rd.*	4-M	40,000	15,500	0.62	B	-	-	-	N
	Airway Rd. to Siempre Viva Rd.	4-M	40,000	8,000	0.20	A	4-CL	0.27	A	N
	Siempre Viva Rd. to Via de la Amistad	4-M	40,000	10,500	0.26	A	4-CL	0.35	B	N

However, due to the uncertainty associated with implementing freeway ramp improvements, and uncertainty related to implementation of TDM measures, the freeway ramp impacts associated with the CPU would remain significant and unavoidable unmitigated at the program-level.

5.12.3.4 Significance After Mitigation

a. Roadway Segments

Implementation of roadway segment improvements proposed as part of the CPU (see Section 5.12.3.1(a) above) would resolve several traffic impacts that would occur under the Horizon Year. However, 24 significant impacts as shown in Table 5.12-5 would remain unavoidable unmitigated and would operate unacceptably in the Horizon Year plus CPU Condition as shown below:-

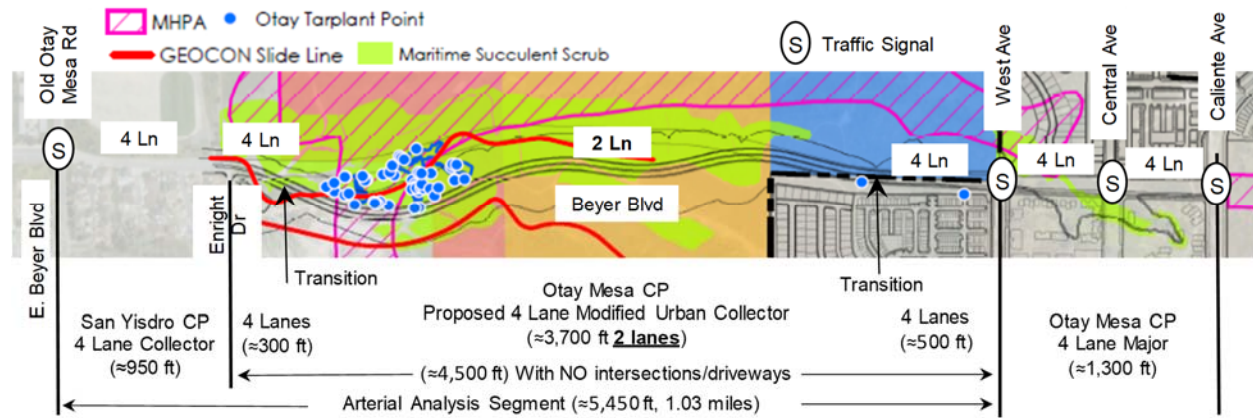
1. Otay Mesa Road, Caliente Ave. to Corporate Center Dr.
2. Otay Mesa Road, Heritage Rd. to Cactus Rd.
3. Airway Road, Caliente Ave. to Heritage Rd.
4. Airway Road, Heritage Rd. to Cactus Rd.
5. Siempre Viva Road, Otay Center Dr. to SR-905
6. Siempre Viva Road, SR-905 to Paseo de las Americas
7. Caliente Avenue, Airway Rd. to Beyer Blvd.
8. Caliente Avenue, Beyer Blvd. to Siempre Viva Rd.
9. Heritage Road/Otay Valley Road, Main St. to Avenida de Las Vistas
10. Heritage Road/Otay Valley Road, Avenida de las Vistas to Datsun St.
11. Cactus Road, Otay Mesa Rd. to Airway Rd.
12. Cactus Road, Airway Rd. to Siempre Viva Rd.
13. Britannia Boulevard, SR-905 to Airway Rd.
14. La Media Road, SR-905 to Airway Rd.
15. Dennery Road, Black Coral Ln. to East End
16. Avenida de las Vistas, Vista Santo Domingo to Dennery Rd.
17. Del Sol Boulevard, Surf Crest Dr. to Riviera Pointe
18. Del Sol Boulevard, Riviera Pointe to Dennery Rd.
19. Old Otay Mesa Road, Crescent Bay Dr. to Beyer Blvd.
20. Camino Maquiladora, Heritage Rd. to Pacific Rim Ct.
21. Camino Maquiladora, Pacific Rim Ct. to Cactus Rd.
22. Progressive Avenue, Corporate Center Dr. to Innovative Dr.
23. Datsun Street, Innovative Dr. to Heritage Rd.
24. Exposition Way/Vista Santo Domingo, Avenida de las Vistas to Corporate Center Dr.

Attachment B

Beyer Blvd Downgrade Details

Beyer Blvd Horizon Year Arterial Analysis (LOS Engineering, Inc.)

Purpose: To find a solution to support a 2-lane cross section across environmentally sensitive lands regulated by a non-City of San Diego jurisdiction. Horizon year arterial analysis from Old Otay Mesa Rd/E. Beyer Blvd to Caliente Ave as shown.



The proposed Beyer Blvd alignment and section with 2 lanes is shown on the next page.

The horizon year intersection volumes for Beyer/E. Beyer/Old Otay Mesa Rd were obtained from the San Ysidro CPU EIR. This horizon year volumes set is higher over existing volumes by 310% AM and 411% PM. Therefore, this intersection was expanded in Synchro beyond the available right-of-way to reach acceptable LOS with the horizon year volumes.

The San Ysidro CPU EIR did not expand this intersection to accommodate the volumes and listed this intersection as failing with overrides. Following this Arterial Analysis is a Supplemental Analysis that provides the percentage of horizon year volumes that can be accommodated within the existing right-of-way and within the anticipated right-of-way that is typically required for the respective roadway approach classifications.

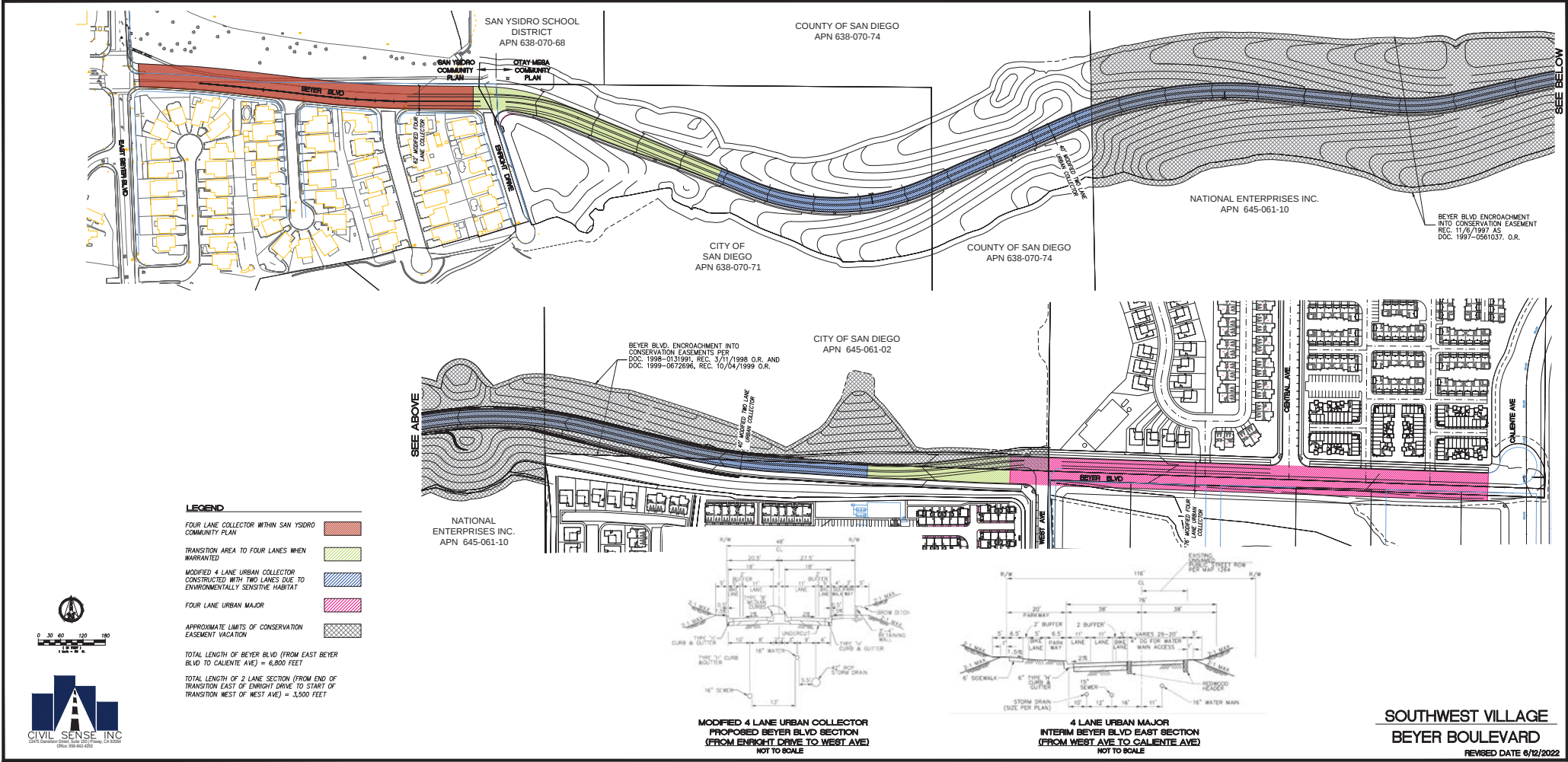
Expanding the intersection at Beyer/E. Beyer/Old Otay Mesa Rd (west end) and the proposed lane configuration along the three signalized intersection in Southwest Village (east end) to match the proposed classification along with 5,130 homes for Southwest Village (max units), the arterial speeds and the intersections at both ends of this arterial analysis are at acceptable LOS as shown below.

Horizon Year Beyer Blvd Arterial Analysis LOS and Speeds

Beyer Blvd 35 MPH	2 Lanes (≈3,700 ft Enright Dr to West Ave) Overall Segment ≈6,750 ft
AM EB	LOS A 31.1 MPH (Enright Dr to West Ave) & Overall Segment = LOS D
AM WB	LOS C 22.1 MPH (West Ave to Enright Dr) & Overall Segment = LOS C
PM EB	LOS B 27.5 MPH (Enright Dr to West Ave) & Overall Segment = LOS D
PM WB	LOS B 27.7 MPH (West Ave to Enright Dr) & Overall Segment = LOS C
West end Old Otay signal LOS D/D (AM/PM) East end Caliente signal LOS B/B (AM/PM)	

Design speed of 35 MPH from Street Design Manual for a Four Lane Urban Collector

Attachments



Arterial Level of Service: EB Beyer Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
E Beyer Blvd	III	35	14.6	91.7	106.3	0.11	3.7	F
West Ave	III	35	106.1	13.2	119.3	1.03	31.1	A
Central Ave	III	35	17.0	26.0	43.0	0.13	11.1	E
Caliente Ave	III	35	15.4	18.4	33.8	0.11	12.1	E
Total	III		153.1	149.3	302.4	1.39	16.5	D

Arterial Level of Service: WB Beyer Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Central Ave	III	35	15.4	21.7	37.1	0.11	11.1	E
West Ave	III	35	17.0	10.7	27.7	0.13	17.3	D
Otay Mesa Rd	III	35	106.1	61.9	168.0	1.03	22.1	C
Total	III		138.5	94.3	232.8	1.28	19.8	C

Arterial Level of Service: EB Beyer Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
E Beyer Blvd	III	35	14.6	73.9	88.5	0.11	4.4	F
West Ave	III	35	106.1	28.9	135.0	1.03	27.5	B
Central Ave	III	35	17.0	69.9	86.9	0.13	5.5	F
Caliente Ave	III	35	15.4	24.1	39.5	0.11	10.4	E
Total	III		153.1	196.8	349.9	1.39	14.3	D

Arterial Level of Service: WB Beyer Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Central Ave	III	35	15.4	26.3	41.7	0.11	9.8	F
West Ave	III	35	17.0	5.7	22.7	0.13	21.1	C
Otay Mesa Rd	III	35	106.1	28.0	134.1	1.03	27.7	B
Total	III		138.5	60.0	198.5	1.28	23.2	C

AM Horizon Year

1: E Beyer Blvd/Otay Mesa Rd & Beyer Blvd

HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	564	802	340	866	920	218	466	372	808	133	265	508
Future Volume (veh/h)	564	802	340	866	920	218	466	372	808	133	265	508
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.96	1.00		0.88	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	613	872	370	941	1000	237	507	404	878	145	288	280
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	688	952	1167	893	1174	665	595	745	1234	181	502	934
Arrive On Green	0.20	0.27	0.27	0.26	0.33	0.33	0.17	0.21	0.21	0.10	0.14	0.14
Sat Flow, veh/h	3456	3554	2562	3456	3554	1525	3456	3554	2446	1781	3554	2678
Grp Volume(v), veh/h	613	872	370	941	1000	237	507	404	878	145	288	280
Grp Sat Flow(s),veh/h/ln	1728	1777	1281	1728	1777	1525	1728	1777	1223	1781	1777	1339
Q Serve(g_s), s	21.5	29.6	11.7	32.1	32.6	13.0	17.7	12.6	26.0	9.9	9.4	9.6
Cycle Q Clear(g_c), s	21.5	29.6	11.7	32.1	32.6	13.0	17.7	12.6	26.0	9.9	9.4	9.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	688	952	1167	893	1174	665	595	745	1234	181	502	934
V/C Ratio(X)	0.89	0.92	0.32	1.05	0.85	0.36	0.85	0.54	0.71	0.80	0.57	0.30
Avail Cap(c_a), veh/h	826	952	1167	893	1174	665	718	745	1234	483	970	1286
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	44.1	22.8	46.1	38.7	23.7	49.9	43.8	27.3	54.6	49.8	30.2
Incr Delay (d2), s/veh	10.5	14.8	0.7	45.3	6.1	0.3	9.7	1.2	2.3	13.1	1.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	14.5	3.5	19.2	14.9	4.6	8.2	5.5	10.4	5.0	4.2	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.9	58.9	23.5	91.4	44.9	24.1	59.6	45.0	29.5	67.7	51.6	30.5
LnGrp LOS	E	E	C	F	D	C	E	D	C	E	D	C
Approach Vol, veh/h	1855				2178				1789			
Approach Delay, s/veh	51.8				62.7				41.5			
Approach LOS	D				E				D			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G + Y + Rc), s	37.0	38.2	26.3	22.8	29.2	46.0	17.8	31.2				
Change Period (Y + Rc), s	4.9	4.9	4.9	5.2	4.5	4.9	5.2	* 5.2				
Max Green Setting (Gmax), s	32.1	33.3	25.8	33.9	29.7	36.1	33.7	* 26				
Max Q Clear Time (g_c + I1), s	34.1	31.6	19.7	11.6	23.5	34.6	11.9	28.0				
Green Ext Time (p_c), s	0.0	1.1	1.7	4.8	1.3	1.1	0.7	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	52.1											
HCM 6th LOS	D											

LOS Engineering, Inc.

AM Horizon Year
2: West Ave & Beyer Blvd

HCM 6th Signalized Intersection Summary

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Traffic Volume (veh/h)	275	136	54	773	326	163
Future Volume (veh/h)	275	136	54	773	326	163
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	299	148	59	840	354	177
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	584	282	90	1559	512	456
Arrive On Green	0.25	0.25	0.05	0.44	0.29	0.29
Sat Flow, veh/h	2417	1122	1781	3647	1781	1585
Grp Volume(v), veh/h	227	220	59	840	354	177
Grp Sat Flow(s),veh/h/ln	1777	1668	1781	1777	1781	1585
Q Serve(g_s), s	3.6	3.7	1.1	5.7	5.8	2.9
Cycle Q Clear(g_c), s	3.6	3.7	1.1	5.7	5.8	2.9
Prop In Lane		0.67	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	446	419	90	1559	512	456
V/C Ratio(X)	0.51	0.52	0.65	0.54	0.69	0.39
Avail Cap(c_a), veh/h	1378	1294	569	4378	2194	1953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	10.6	15.3	6.8	10.4	9.4
Incr Delay (d2), s/veh	0.9	1.0	7.7	0.3	1.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.1	0.5	1.2	1.5	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.5	11.6	23.1	7.1	12.1	9.9
LnGrp LOS	B	B	C	A	B	A
Approach Vol, veh/h	447			899	531	
Approach Delay, s/veh	11.5			8.1	11.4	
Approach LOS	B			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G + Y + Rc), s		13.9	6.2	12.8		18.9
Change Period (Y + Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		40.5	10.5	25.5		40.5
Max Q Clear Time (g_c + I1), s		7.8	3.1	5.7		7.7
Green Ext Time (p_c), s		1.6	0.1	2.5		6.6
Intersection Summary						
HCM 6th Ctrl Delay			9.9			
HCM 6th LOS			A			

LOS Engineering, Inc.

AM Horizon Year
3: Central Ave & Beyer Blvd

HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	284	83	126	476	5	196	33	236	5	27	155
Future Volume (veh/h)	39	284	83	126	476	5	196	33	236	5	27	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	309	90	137	517	5	213	36	257	5	29	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	64	499	143	155	845	8	294	50	353	155	41	238
Arrive On Green	0.04	0.18	0.18	0.09	0.23	0.23	0.16	0.25	0.25	0.09	0.17	0.17
Sat Flow, veh/h	1781	2726	781	1781	3606	35	1781	198	1417	1781	239	1383
Grp Volume(v), veh/h	42	200	199	137	255	267	213	0	293	5	0	197
Grp Sat Flow(s),veh/h/ln	1781	1777	1730	1781	1777	1864	1781	0	1615	1781	0	1621
Q Serve(g_s), s	1.1	4.7	4.9	3.5	5.9	5.9	5.2	0.0	7.6	0.1	0.0	5.2
Cycle Q Clear(g_c), s	1.1	4.7	4.9	3.5	5.9	5.9	5.2	0.0	7.6	0.1	0.0	5.2
Prop In Lane	1.00		0.45	1.00		0.02	1.00		0.88	1.00		0.85
Lane Grp Cap(c), veh/h	64	325	317	155	416	437	294	0	403	155	0	279
V/C Ratio(X)	0.65	0.61	0.63	0.88	0.61	0.61	0.72	0.00	0.73	0.03	0.00	0.71
Avail Cap(c_a), veh/h	155	620	604	155	620	651	622	0	564	622	0	566
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.8	17.2	17.3	20.7	15.7	15.7	18.1	0.0	15.8	19.1	0.0	17.9
Incr Delay (d2), s/veh	10.6	1.9	2.1	40.0	1.5	1.4	3.4	0.0	2.9	0.1	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.8	1.8	3.0	2.1	2.2	2.0	0.0	2.5	0.0	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.4	19.1	19.3	60.6	17.1	17.1	21.5	0.0	18.6	19.2	0.0	21.2
LnGrp LOS	C	B	B	E	B	B	C	A	B	B	A	C
Approach Vol, veh/h	441				659				506			
Approach Delay, s/veh	20.5				26.2				19.9			
Approach LOS	C				C				B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G + Y + Rc), s	8.5	15.9	8.5	12.9	12.1	12.4	6.2	15.2				
Change Period (Y + Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	16.0	16.0	4.0	16.0	16.0	16.0	4.0	16.0				
Max Q Clear Time (g_c + I1), s	2.1	9.6	5.5	6.9	7.2	7.2	3.1	7.9				
Green Ext Time (p_c), s	0.0	0.8	0.0	1.5	0.4	0.6	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay	22.4											
HCM 6th LOS	C											

LOS Engineering, Inc.

AM Horizon Year
4: Caliente Ave & Beyer Blvd

HCM 6th Signalized Intersection Summary

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	408	112	261	792	367	340
Future Volume (veh/h)	408	112	261	792	367	340
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	443	122	284	861	399	370
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	762	349	495	1896	949	745
Arrive On Green	0.22	0.22	0.14	0.53	0.27	0.27
Sat Flow, veh/h	3456	1585	3456	3647	3647	2790
Grp Volume(v), veh/h	443	122	284	861	399	370
Grp Sat Flow(s),veh/h/ln	1728	1585	1728	1777	1777	1395
Q Serve(g_s), s	4.2	2.4	2.8	5.5	3.4	4.1
Cycle Q Clear(g_c), s	4.2	2.4	2.8	5.5	3.4	4.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	762	349	495	1896	949	745
V/C Ratio(X)	0.58	0.35	0.57	0.45	0.42	0.50
Avail Cap(c_a), veh/h	2315	1062	1654	4518	2381	1869
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	12.0	14.6	5.3	11.1	11.3
Incr Delay (d2), s/veh	0.7	0.6	1.1	0.2	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.3	0.9	0.7	0.9	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.5	12.6	15.7	5.4	11.4	11.8
LnGrp LOS	B	B	B	A	B	B
Approach Vol, veh/h	565			1145	769	
Approach Delay, s/veh	13.3			8.0	11.6	
Approach LOS	B			A	B	
Timer - Assigned Phs	2		4		5	6
Phs Duration (G + Y + Rc), s	24.0		12.6		9.7	14.3
Change Period (Y + Rc), s	4.5		4.5		4.5	4.5
Max Green Setting (Gmax), s	46.5		24.5		17.5	24.5
Max Q Clear Time (g_c + I1), s	7.5		6.2		4.8	6.1
Green Ext Time (p_c), s	6.4		1.9		0.7	3.7
Intersection Summary						
HCM 6th Ctrl Delay			10.3			
HCM 6th LOS			B			

LOS Engineering, Inc.

PM Horizon Year

1: E Beyer Blvd/Otay Mesa Rd & Beyer Blvd

HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	582	212	1030	657	78	130	121	591	222	130	116
Future Volume (veh/h)	79	582	212	1030	657	78	130	121	591	222	130	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.97	1.00		0.86	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	86	633	230	1120	714	85	141	132	642	241	141	-146
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	719	668	1157	1781	1013	200	621	1351	272	965	865
Arrive On Green	0.04	0.20	0.20	0.33	0.50	0.50	0.06	0.17	0.17	0.15	0.27	0.00
Sat Flow, veh/h	3456	3554	2507	3456	3554	1539	3456	3554	2389	1781	3554	2790
Grp Volume(v), veh/h	86	633	230	1120	714	85	141	132	642	241	141	-146
Grp Sat Flow(s),veh/h/ln	1728	1777	1253	1728	1777	1539	1728	1777	1194	1781	1777	1395
Q Serve(g_s), s	3.7	25.7	11.1	47.5	18.7	3.0	6.0	4.7	26.0	19.7	4.5	0.0
Cycle Q Clear(g_c), s	3.7	25.7	11.1	47.5	18.7	3.0	6.0	4.7	26.0	19.7	4.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	133	719	668	1157	1781	1013	200	621	1351	272	965	865
V/C Ratio(X)	0.65	0.88	0.34	0.97	0.40	0.08	0.71	0.21	0.48	0.89	0.15	-0.17
Avail Cap(c_a), veh/h	708	719	668	1163	1781	1013	536	621	1351	406	965	865
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.6	57.6	44.9	48.7	23.2	9.4	68.9	52.7	24.5	61.8	41.1	0.0
Incr Delay (d2), s/veh	5.2	14.6	1.4	19.1	0.1	0.0	7.6	0.3	0.4	18.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	12.8	3.6	22.9	7.7	1.0	2.8	2.1	7.4	10.2	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.8	72.2	46.3	67.9	23.3	9.5	76.5	52.9	24.9	80.2	41.2	0.0
LnGrp LOS	E	E	D	E	C	A	E	D	C	F	D	A
Approach Vol, veh/h		949			1919			915			236	
Approach Delay, s/veh		66.2			48.7			36.9			106.6	
Approach LOS		E			D			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G + Y + Rc), s	54.7	35.0	13.5	45.6	10.2	79.5	27.9	31.2				
Change Period (Y + Rc), s	4.9	4.9	4.9	5.2	4.5	4.9	5.2	* 5.2				
Max Green Setting (Gmax), s	50.1	30.1	23.1	36.8	30.5	50.1	33.9	* 26				
Max Q Clear Time (g_c + I1), s	49.5	27.7	8.0	6.5	5.7	20.7	21.7	28.0				
Green Ext Time (p_c), s	0.3	1.1	0.6	1.3	0.2	4.9	1.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			53.6									
HCM 6th LOS			D									

LOS Engineering, Inc.

PM Horizon Year
2: West Ave & Beyer Blvd

HCM 6th Signalized Intersection Summary

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Traffic Volume (veh/h)	912	439	187	491	273	149
Future Volume (veh/h)	912	439	187	491	273	149
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	991	477	203	534	297	162
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1116	526	245	2402	354	315
Arrive On Green	0.48	0.48	0.14	0.68	0.20	0.20
Sat Flow, veh/h	2437	1105	1781	3647	1781	1585
Grp Volume(v), veh/h	746	722	203	534	297	162
Grp Sat Flow(s),veh/h/ln	1777	1672	1781	1777	1781	1585
Q Serve(g_s), s	27.3	28.7	8.0	4.1	11.5	6.6
Cycle Q Clear(g_c), s	27.3	28.7	8.0	4.1	11.5	6.6
Prop In Lane		0.66	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	846	796	245	2402	354	315
V/C Ratio(X)	0.88	0.91	0.83	0.22	0.84	0.51
Avail Cap(c_a), veh/h	876	824	285	2542	483	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	17.4	30.2	4.4	27.7	25.7
Incr Delay (d2), s/veh	10.2	13.5	16.2	0.0	9.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	12.4	4.3	1.1	5.3	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.3	30.8	46.4	4.5	37.0	27.0
LnGrp LOS	C	C	D	A	D	C
Approach Vol, veh/h	1468			737	459	
Approach Delay, s/veh	29.0			16.0	33.5	
Approach LOS	C			B	C	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G + Y + Rc), s		18.8	14.4	38.8		53.2
Change Period (Y + Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		19.5	11.5	35.5		51.5
Max Q Clear Time (g_c + I1), s		13.5	10.0	30.7		6.1
Green Ext Time (p_c), s		0.8	0.1	3.6		3.9
Intersection Summary						
HCM 6th Ctrl Delay			26.2			
HCM 6th LOS			C			

LOS Engineering, Inc.

PM Horizon Year
3: Central Ave & Beyer Blvd

HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	614	252	343	452	5	154	30	245	5	94	72
Future Volume (veh/h)	166	614	252	343	452	5	154	30	245	5	94	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	667	274	373	491	5	167	33	266	5	102	78
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	223	662	272	410	1350	14	214	38	303	94	141	108
Arrive On Green	0.13	0.27	0.27	0.23	0.37	0.37	0.12	0.21	0.21	0.05	0.14	0.14
Sat Flow, veh/h	1781	2457	1009	1781	3604	37	1781	178	1434	1781	983	752
Grp Volume(v), veh/h	180	482	459	373	242	254	167	0	299	5	0	180
Grp Sat Flow(s),veh/h/ln	1781	1777	1689	1781	1777	1864	1781	0	1612	1781	0	1735
Q Serve(g_s), s	7.5	20.5	20.5	15.5	7.5	7.5	6.9	0.0	13.7	0.2	0.0	7.5
Cycle Q Clear(g_c), s	7.5	20.5	20.5	15.5	7.5	7.5	6.9	0.0	13.7	0.2	0.0	7.5
Prop In Lane	1.00		0.60	1.00		0.02	1.00		0.89	1.00		0.43
Lane Grp Cap(c), veh/h	223	479	455	410	665	698	214	0	340	94	0	249
V/C Ratio(X)	0.81	1.01	1.01	0.91	0.36	0.36	0.78	0.00	0.88	0.05	0.00	0.72
Avail Cap(c_a), veh/h	391	479	455	410	665	698	375	0	382	375	0	411
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.4	27.8	27.8	28.5	17.2	17.2	32.5	0.0	29.1	34.2	0.0	31.1
Incr Delay (d2), s/veh	6.8	42.9	44.0	23.9	0.3	0.3	6.1	0.0	18.9	0.2	0.0	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	13.8	13.2	8.9	2.9	3.0	3.1	0.0	6.6	0.1	0.0	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.1	70.7	71.8	52.4	17.6	17.5	38.5	0.0	47.9	34.5	0.0	35.1
LnGrp LOS	D	F	F	D	B	B	D	A	D	C	A	D
Approach Vol, veh/h	1121				869				466		185	
Approach Delay, s/veh	66.0				32.5				44.6		35.1	
Approach LOS	E				C				D		D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G + Y + Rc), s	8.5	20.5	22.0	25.0	13.6	15.4	14.0	33.0				
Change Period (Y + Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	16.0	18.0	17.5	20.5	16.0	18.0	16.7	21.3				
Max Q Clear Time (g_c + I1), s	2.2	15.7	17.5	22.5	8.9	9.5	9.5	9.5				
Green Ext Time (p_c), s	0.0	0.4	0.0	0.0	0.2	0.5	0.3	2.2				
Intersection Summary												
HCM 6th Ctrl Delay	49.1											
HCM 6th LOS	D											

LOS Engineering, Inc.

PM Horizon Year
4: Caliente Ave & Beyer Blvd

HCM 6th Signalized Intersection Summary

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	541	317	187	597	966	609
Future Volume (veh/h)	541	317	187	597	966	609
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	588	345	203	649	1050	662
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	908	417	311	2030	1416	1112
Arrive On Green	0.26	0.26	0.09	0.57	0.40	0.40
Sat Flow, veh/h	3456	1585	3456	3647	3647	2790
Grp Volume(v), veh/h	588	345	203	649	1050	662
Grp Sat Flow(s),veh/h/ln	1728	1585	1728	1777	1777	1395
Q Serve(g_s), s	8.2	11.1	3.1	5.2	13.7	10.2
Cycle Q Clear(g_c), s	8.2	11.1	3.1	5.2	13.7	10.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	908	417	311	2030	1416	1112
V/C Ratio(X)	0.65	0.83	0.65	0.32	0.74	0.60
Avail Cap(c_a), veh/h	1019	467	363	2291	1624	1275
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.8	18.9	23.9	6.1	13.9	12.9
Incr Delay (d2), s/veh	1.2	10.8	3.3	0.1	1.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	10.3	1.2	1.2	4.4	2.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.0	29.6	27.2	6.2	15.5	13.5
LnGrp LOS	B	C	C	A	B	B
Approach Vol, veh/h	933			852	1712	
Approach Delay, s/veh	22.9			11.2	14.7	
Approach LOS	C			B	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G + Y + Rc), s		35.5		18.8	9.4	26.1
Change Period (Y + Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		35.0		16.0	5.7	24.8
Max Q Clear Time (g_c + I1), s		7.2		13.1	5.1	15.7
Green Ext Time (p_c), s		4.3		1.1	0.0	5.9
Intersection Summary						
HCM 6th Ctrl Delay			16.1			
HCM 6th LOS			B			

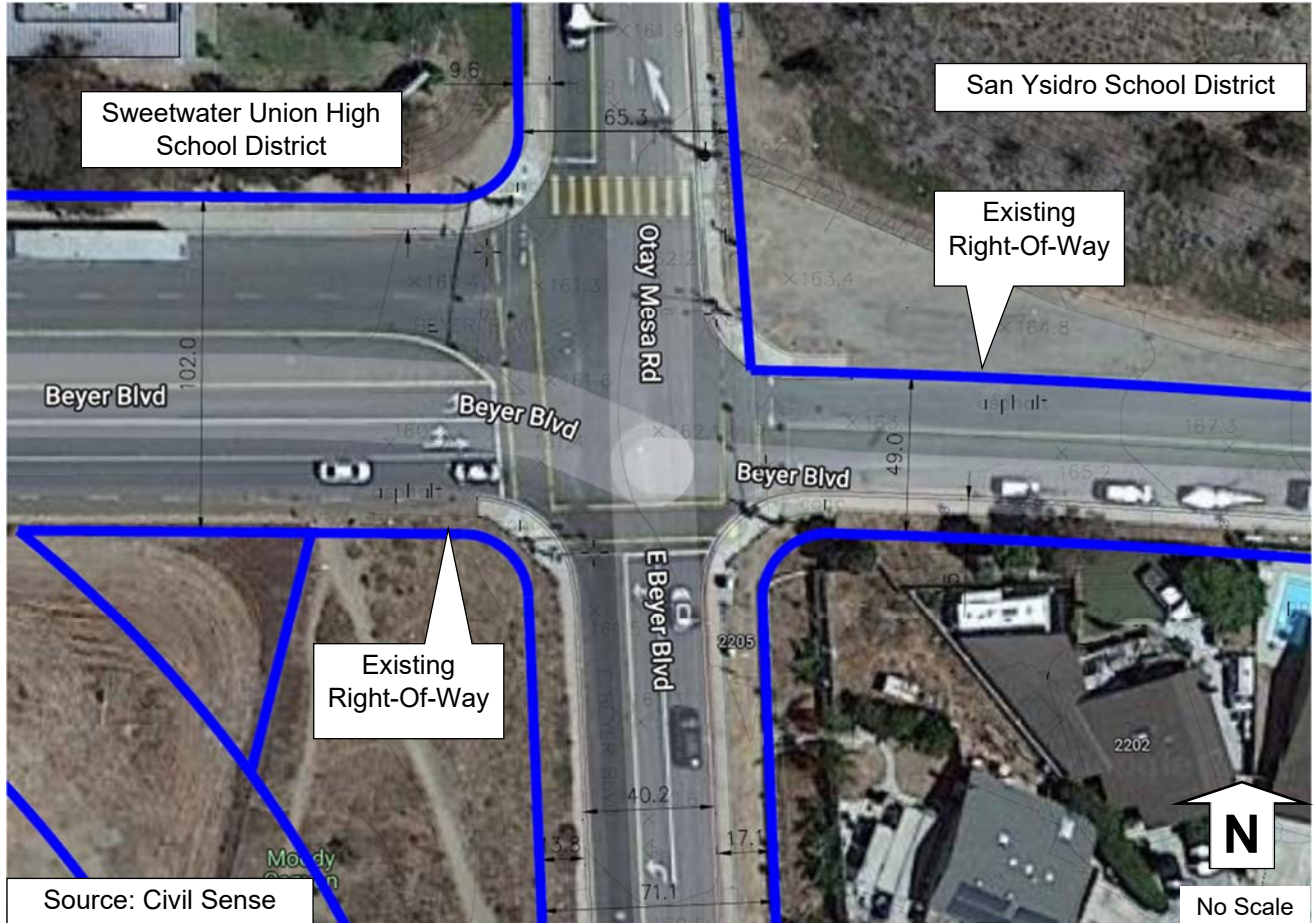
LOS Engineering, Inc.

Beyer Blvd 2 Lane Supplemental Analysis (LOS Engineering, Inc.)

Beyer at E. Beyer Intersection Options for Horizon Year Operations

This planning level analysis includes widening scenarios at intersection of Beyer Blvd at E. Beyer Blvd to determine what percent of San Ysidro CPU horizon year volumes can be supported. LOS worksheets are included following the text.

Base Condition: Beyer Blvd at E. Beyer Blvd with the following Right-Of-Way



Existing Volumes (Thur, 2/10/2022)

Beyer Blvd	354 (169)	171 (109)	0 (1)	(Old) Otay Mesa Rd	
482	(130)	N-S Permitted		6	(1)
12	(18)	E-W		15	(7)
143	(178)	Split Phase		11	(9)
	93 (75)	238 (71)	4 (5)	E. Beyer Blvd	

AM LOS C 28.6 sec of delay

PM LOS C 20.1 sec of delay

Horizon Year Volumes (San Ysidro CPU)

Beyer Blvd	508 (116)	265 (130)	133 (222)	(Old) Otay Mesa Rd	
564	(79)			218	(78)
802	(582)			920	(657)
340	(212)			866	(1030)
	466 (130)	372 (121)	808 (591)	E. Beyer Blvd	

AM LOS F 195.2 sec of delay after Mitigation

PM LOS F 155.8 sec of delay after Mitigation

SYCPU: Impact considered unavoidable.

Scenario 1: Within Existing Right-Of-Way

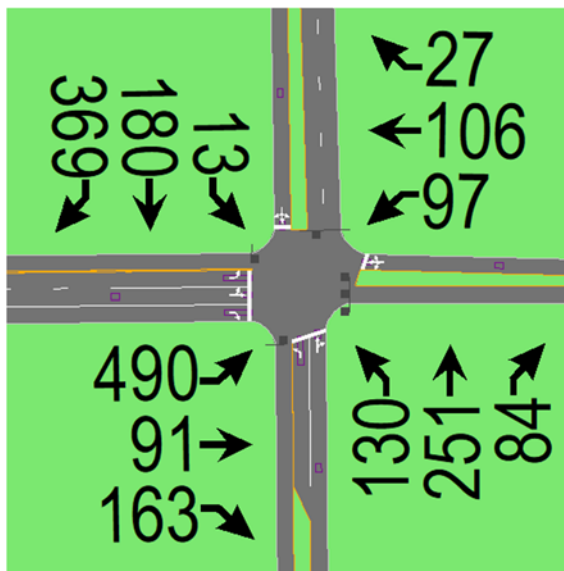
Working within available ROW (blue lines represent existing ROW).



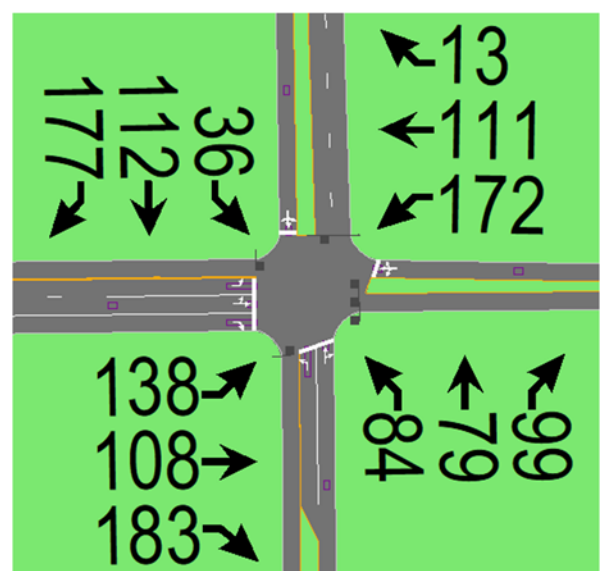
AM LOS D (50.7 sec of delay) at 32% of SYCPU Horizon Year Volumes

PM LOS D (52.5 sec of delay) at 33% of SYCPU Horizon Year Volumes

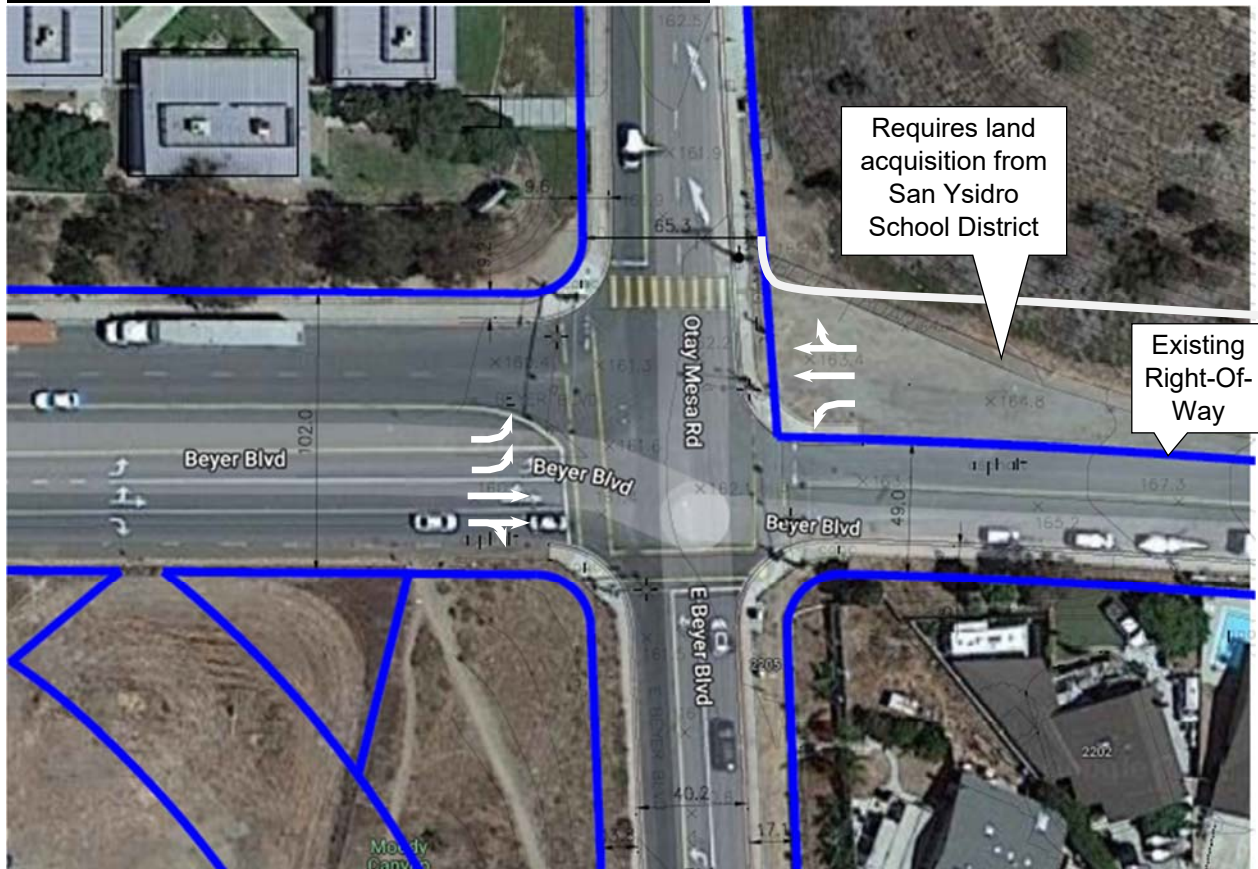
AM (32% of horizon volume)



PM (33% of horizon volume)



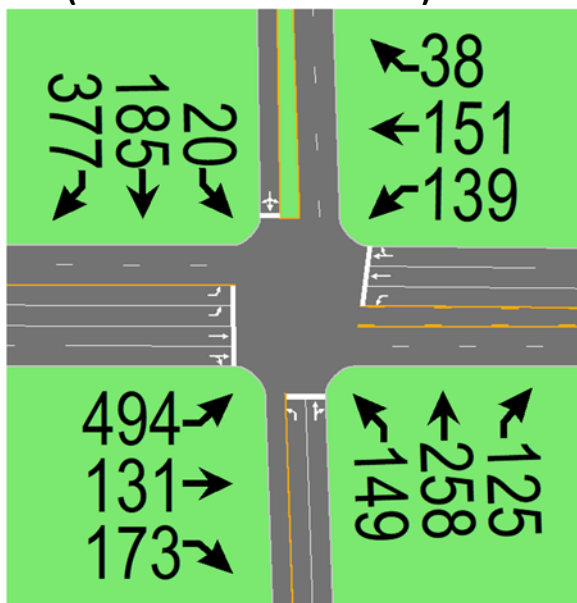
Requires ROW from San Ysidro School District.



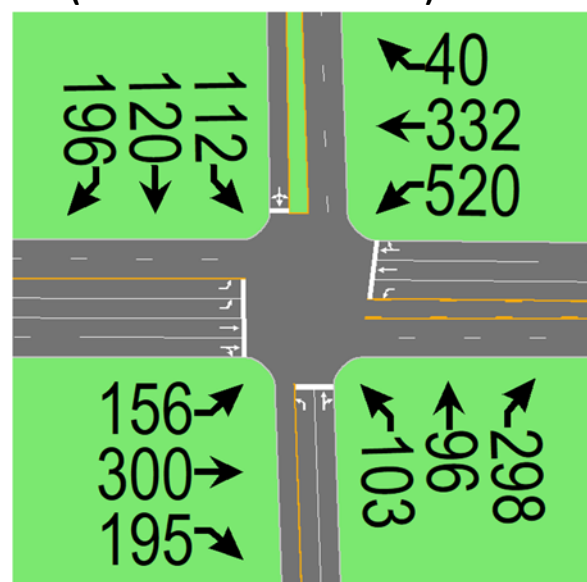
AM LOS D (54.0 sec of delay) at 36% of SYCPU Horizon Year Volumes

PM LOS D (52.7 sec of delay) at 63% of SYCPU Horizon Year Volumes

AM (36% of horizon volumes)

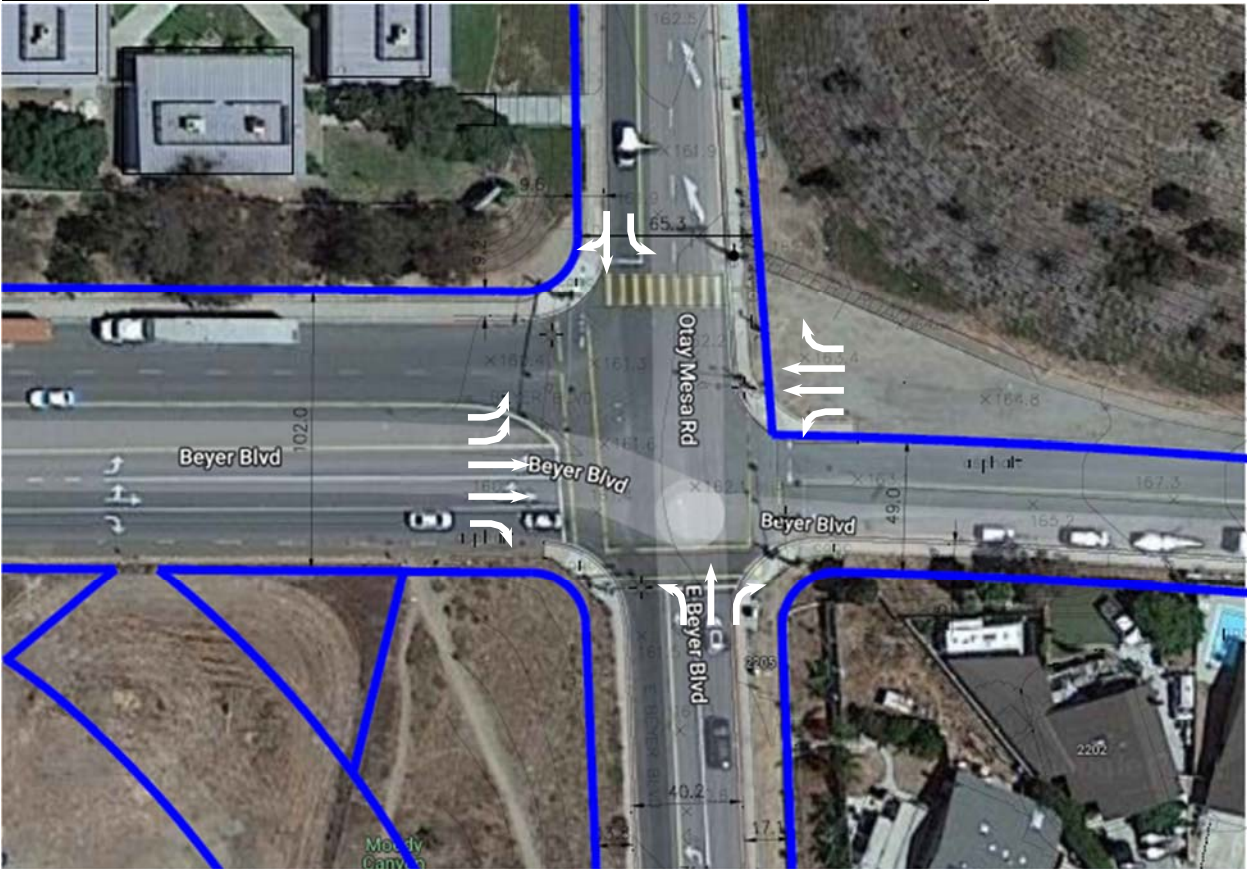


PM (63% of horizon volumes)



Scenario 3: SYCPU EIR fails to support 100% of the Horizon Year Volumes

From San Ysidro CPU (ROW requirement not defined in the CPU).



AM LOS F (195.2 sec of delay) with SYCPU Horizon Year Volumes
AM LOS Worksheet SYCPU (Kimley-Horn)

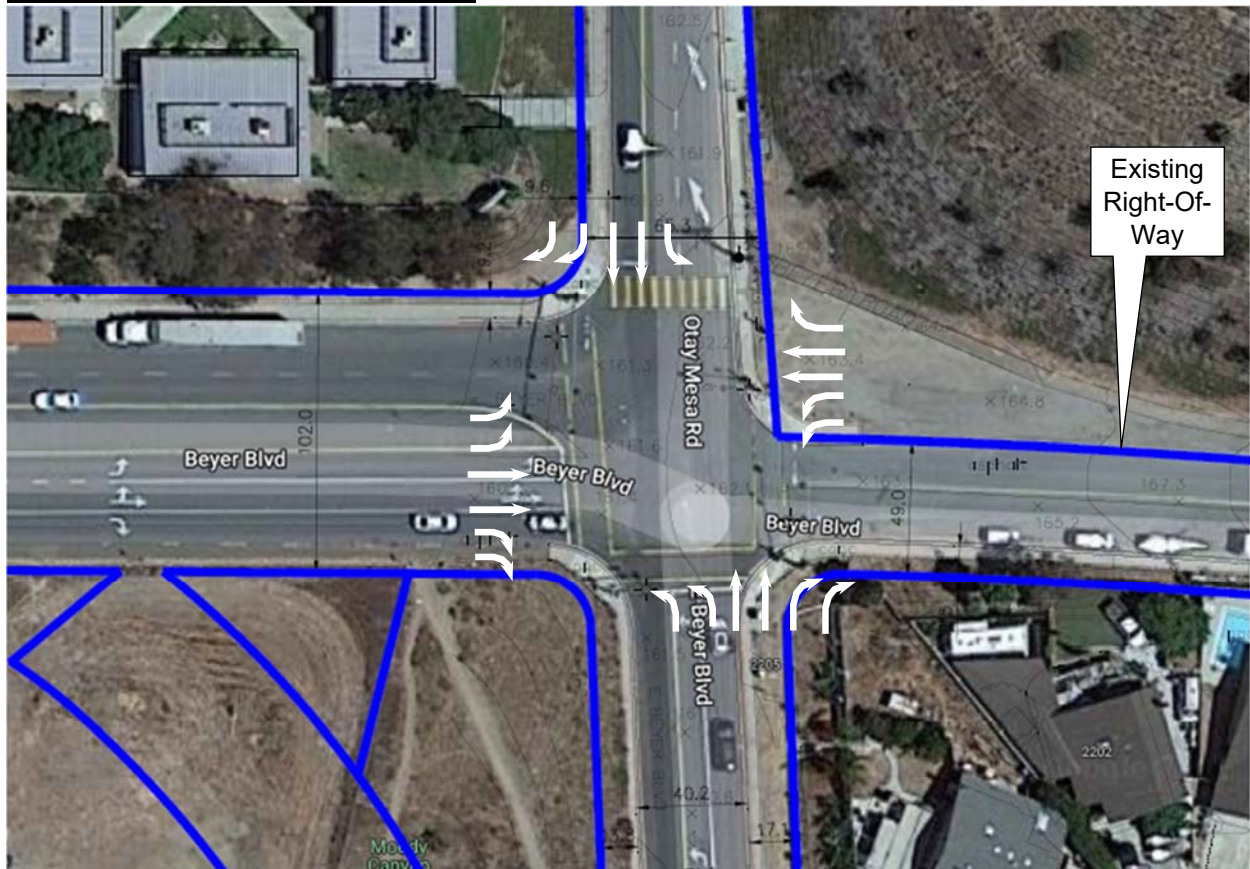
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↗	↑↑	↗	↗	↑	↗		↗	↗
Volume (vph)	557	803	329	856	918	219	452	369	796	135	260	504

PM LOS F (155.8 sec of delay) with SYCPU Horizon Year Volumes
PM LOS Worksheet from SYCPU (Kimley-Horn)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↗	↑↑	↗	↗	↑	↗		↗	↗
Volume (vph)	79	580	205	1018	657	79	123	118	586	223	126	116

Scenario 4: Lane requirements to support 100% of the Horizon Year Volumes

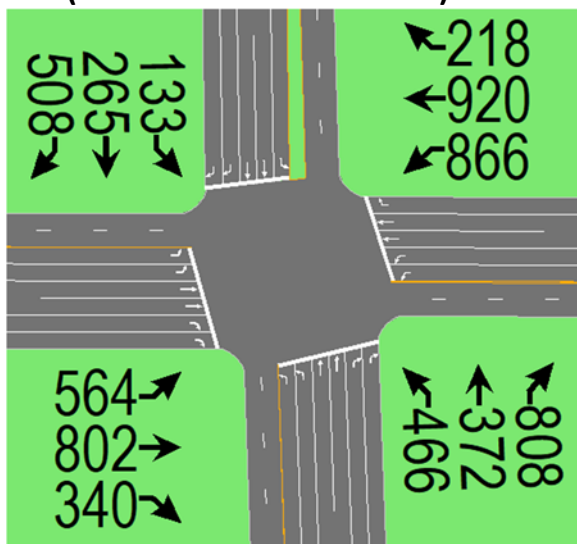
Requires ROW from all corners



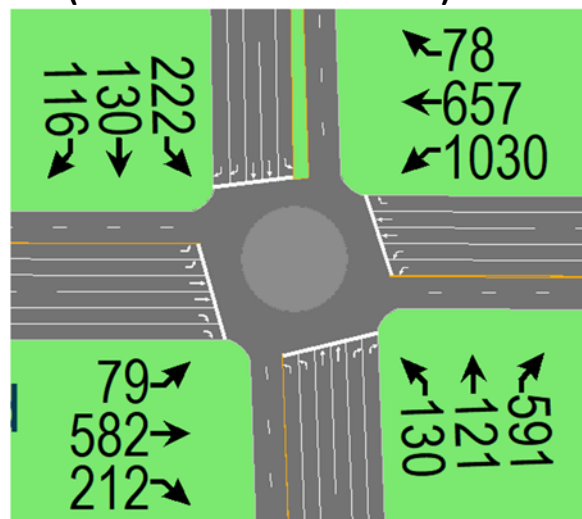
AM LOS D (54.8 sec of delay) at 100% of SYCPU Horizon Year Volumes

PM LOS D (54.9 sec of delay) at 100% of SYCPU Horizon Year Volumes

AM (100% of horizon volumes)



PM (100% of horizon volumes)



CONCLUSION

Scenario 1 shows how much of the Horizon Year volumes can be supported within the existing right-of-way, which is 32% in the AM and 33% in the PM.

Scenario 2 covers widening within San Ysidro School District that results in supporting Horizon Year volumes at 36% in the AM and 63% in the PM.

Scenario 3 shows how the SYCPU EIR fails to support 100% of the Horizon Year Volumes.

Scenario 4 covers what is required to support 100% of the San Ysidro CPU horizon year volumes at the intersection of Beyer Blvd/E. Beyer Blvd. This scenario requires expanding the intersection well beyond available ROW to incorporate multiple approach lanes that are excessive for the roadway classifications.

The findings for each option are summarized below.

Summary Table

Scenario	% Capacity of Horizon Year Volume	Notes
1	AM 32% PM 33%	Within existing ROW Adding E-W protected lefts
2	AM 36% PM 63%	Required ROW from San Ysidro School District Completes west leg of Beyer Blvd by adding left, through, and through-right lanes.
3	AM ≈100% PM ≈100%	From San Ysidro CPU with undefined ROW needs. Continues to have LOS F AM & PM
4	AM 100% PM 100%	Requires ROW from each corner. Approach lanes exceed what is typically required for the respective approach classifications.

Scenario 1 LOS Worksheets

AM at 32% of SYCPU Horizon Year Volume
10: E Beyer Blvd/Old Otay Mesa Rd & Beyer Blvd

HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	490	91	163	97	106	27	130	251	84	13	180	369
Future Volume (veh/h)	490	91	163	97	106	27	130	251	84	13	180	369
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.96	1.00		0.93	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	669	0	196	121	132	34	186	359	120	15	202	415
Peak Hour Factor	0.83	0.83	0.83	0.80	0.80	0.80	0.70	0.70	0.70	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	898	0	368	146	159	41	164	545	182	40	222	439
Arrive On Green	0.25	0.00	0.25	0.20	0.20	0.20	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	3534	0	1448	746	814	210	800	1304	436	17	532	1050
Grp Volume(v), veh/h	669	0	196	287	0	0	186	0	479	632	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	1448	1769	0	0	800	0	1740	1599	0	0
Q Serve(g_s), s	19.3	0.0	12.9	17.2	0.0	0.0	4.2	0.0	24.5	16.8	0.0	0.0
Cycle Q Clear(g_c), s	19.3	0.0	12.9	17.2	0.0	0.0	46.2	0.0	24.5	42.0	0.0	0.0
Prop In Lane	1.00		1.00	0.42		0.12	1.00		0.25	0.02		0.66
Lane Grp Cap(c), veh/h	898	0	368	346	0	0	164	0	727	701	0	0
V/C Ratio(X)	0.75	0.00	0.53	0.83	0.00	0.00	1.14	0.00	0.66	0.90	0.00	0.00
Avail Cap(c_a), veh/h	898	0	368	416	0	0	164	0	727	707	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.0	0.0	35.6	42.7	0.0	0.0	44.4	0.0	25.9	30.9	0.0	0.0
Incr Delay (d2), s/veh	5.6	0.0	5.4	11.3	0.0	0.0	111.4	0.0	2.7	14.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	0.0	4.9	8.3	0.0	0.0	9.5	0.0	10.0	17.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.6	0.0	41.0	54.0	0.0	0.0	155.8	0.0	28.6	45.6	0.0	0.0
LnGrp LOS	D	A	D	D	A	A	F	A	C	D	A	A
Approach Vol, veh/h	865			287			665			632		
Approach Delay, s/veh	43.0			54.0			64.2			45.6		
Approach LOS	D			D			E			D		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	33.0			51.1			26.5			51.1		
Change Period (Y+Rc), s	4.9			* 4.9			4.9			4.9		
Max Green Setting (Gmax), s	28.1			* 47			26.0			46.2		
Max Q Clear Time (g_c+I1), s	21.3			44.0			19.2			48.2		
Green Ext Time (p_c), s	1.9			1.1			0.8			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	50.7											
HCM 6th LOS	D											

LOS Engineering, Inc.

PM at 33% of SYCPU Horizon Year Volume
10: E Beyer Blvd/Old Otay Mesa Rd & Beyer Blvd

HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	108	183	172	111	13	84	79	99	36	112	177
Future Volume (veh/h)	138	108	183	172	111	13	84	79	99	36	112	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.96	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	131	137	195	242	156	18	100	94	118	54	167	264
Peak Hour Factor	0.94	0.94	0.94	0.71	0.71	0.71	0.84	0.84	0.84	0.67	0.67	0.67
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	519	545	448	270	174	20	180	210	264	75	157	226
Arrive On Green	0.29	0.29	0.29	0.26	0.26	0.26	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1767	1856	1526	1040	670	77	949	730	917	110	548	786
Grp Volume(v), veh/h	131	137	195	416	0	0	100	0	212	485	0	0
Grp Sat Flow(s),veh/h/ln	1767	1856	1526	1787	0	0	949	0	1647	1444	0	0
Q Serve(g_s), s	5.2	5.2	9.5	20.7	0.0	0.0	0.0	0.0	9.7	16.8	0.0	0.0
Cycle Q Clear(g_c), s	5.2	5.2	9.5	20.7	0.0	0.0	25.7	0.0	9.7	26.5	0.0	0.0
Prop In Lane	1.00		1.00	0.58		0.04	1.00		0.56	0.11		0.54
Lane Grp Cap(c), veh/h	519	545	448	463	0	0	180	0	473	458	0	0
V/C Ratio(X)	0.25	0.25	0.43	0.90	0.00	0.00	0.55	0.00	0.45	1.06	0.00	0.00
Avail Cap(c_a), veh/h	519	545	448	525	0	0	180	0	473	458	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.8	24.8	26.4	33.0	0.0	0.0	32.6	0.0	26.9	34.4	0.0	0.0
Incr Delay (d2), s/veh	1.2	1.1	3.1	16.7	0.0	0.0	5.3	0.0	1.1	58.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	2.3	3.6	10.5	0.0	0.0	2.3	0.0	3.7	17.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.0	25.9	29.4	49.7	0.0	0.0	37.9	0.0	28.0	92.6	0.0	0.0
LnGrp LOS	C	C	C	D	A	A	D	A	C	F	A	A
Approach Vol, veh/h	463			416			312			485		
Approach Delay, s/veh	27.4			49.7			31.2			92.6		
Approach LOS	C			D			C			F		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	32.0			31.4			28.8			31.4		
Change Period (Y+Rc), s	4.9			* 4.9			4.9			4.9		
Max Green Setting (Gmax), s	27.1			* 27			27.1			26.1		
Max Q Clear Time (g_c+I1), s	11.5			28.5			22.7			27.7		
Green Ext Time (p_c), s	1.4			0.0			0.9			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	52.5											
HCM 6th LOS	D											

LOS Engineering, Inc.

Scenario 2 LOS Worksheets

AM at 36% of SYCPU Horizon Year Volume

1: E Beyer Blvd/Otay Mesa Rd & Beyer Blvd

HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	494	131	173	139	151	38	149	258	125	20	185	377
Future Volume (veh/h)	494	131	173	139	151	38	149	258	125	20	185	377
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.93	1.00		0.94	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	537	142	188	151	164	41	162	280	136	22	201	138
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	607	390	315	182	419	101	492	321	156	25	226	155
Arrive On Green	0.18	0.22	0.22	0.10	0.15	0.15	0.28	0.28	0.28	0.23	0.23	0.23
Sat Flow, veh/h	3456	1777	1435	1781	2795	672	1781	1162	565	105	964	662
Grp Volume(v), veh/h	537	142	188	151	102	103	162	0	416	361	0	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1435	1781	1777	1691	1781	0	1727	1731	0	0
Q Serve(g_s), s	18.0	8.1	14.0	9.9	6.1	6.6	8.6	0.0	27.3	24.0	0.0	0.0
Cycle Q Clear(g_c), s	18.0	8.1	14.0	9.9	6.1	6.6	8.6	0.0	27.3	24.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.33	0.06		0.38
Lane Grp Cap(c), veh/h	607	390	315	182	266	254	492	0	477	405	0	0
V/C Ratio(X)	0.89	0.36	0.60	0.83	0.38	0.41	0.33	0.00	0.87	0.89	0.00	0.00
Avail Cap(c_a), veh/h	701	390	315	390	425	404	603	0	584	478	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	47.8	39.3	41.6	52.3	45.5	45.7	34.2	0.0	41.0	44.0	0.0	0.0
Incr Delay (d2), s/veh	11.8	2.6	8.1	8.8	0.9	1.0	0.7	0.0	13.4	18.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/mi	8.7	3.8	5.6	4.8	2.8	2.8	3.7	0.0	12.9	12.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.6	41.9	49.7	61.0	46.4	46.7	34.9	0.0	54.4	62.2	0.0	0.0
LnGrp LOS	E	D	D	E	D	D	C	A	D	E	A	A
Approach Vol, veh/h		867			356			578			361	
Approach Delay, s/veh		54.5			52.7			48.9			62.2	
Approach LOS		D			D			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.1	31.0		33.0	25.4	22.7		37.7				
Change Period (Y+Rc), s	4.9	4.9		5.2	4.5	4.9		4.9				
Max Green Setting (Gm), s	26.1			32.8	24.1	28.4		40.2				
Max Q Clear Time (g_c+119), s	16.0			26.0	20.0	8.6		29.3				
Green Ext Time (p_c), s	0.3	1.4		1.7	0.8	1.0		3.5				
Intersection Summary												
HCM 6th Ctrl Delay				54.0								
HCM 6th LOS				D								

LOS Engineering, Inc.

PM at 63% of SYCPU Horizon Year Volume

1: E Beyer Blvd/Otay Mesa Rd & Beyer Blvd

HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	300	195	520	332	40	103	96	298	112	120	196
Future Volume (veh/h)	156	300	195	520	332	40	103	96	298	112	120	196
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.97	1.00		0.94	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	170	326	212	565	361	43	112	104	324	122	130	-59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	239	547	344	592	1717	203	452	96	300	301	320	0
Arrive On Green	0.07	0.27	0.27	0.33	0.54	0.54	0.25	0.25	0.25	0.00	0.00	0.00
Sat Flow, veh/h	3456	2019	1268	1781	3190	377	1781	380	1183	1211	1290	-585
Grp Volume(v), veh/h	170	286	252	565	200	204	112	0	428	0	0	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1511	1781	1777	1790	1781	0	1563	0	0	0
Q Serve(g_s), s	5.0	14.4	15.0	31.9	6.0	6.1	5.2	0.0	26.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.0	14.4	15.0	31.9	6.0	6.1	5.2	0.0	26.1	0.0	0.0	0.0
Prop In Lane	1.00		0.84	1.00		0.21	1.00		0.76	0.63		-0.31
Lane Grp Cap(c), veh/h	239	482	410	592	956	963	452	0	397	0	0	0
V/C Ratio(X)	0.71	0.59	0.62	0.95	0.21	0.21	0.25	0.00	1.08	0.00	0.00	0.00
Avail Cap(c_a), veh/h	410	482	410	608	956	963	452	0	397	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	46.9	32.6	32.8	33.6	12.4	12.4	30.6	0.0	38.4	0.0	0.0	0.0
Incr Delay (d2), s/veh	3.9	5.3	6.8	25.3	0.1	0.1	0.5	0.0	68.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh	2.2	6.7	6.1	17.4	2.3	2.4	2.2	0.0	16.9	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.8	37.8	39.6	58.9	12.5	12.5	31.1	0.0	106.5	0.0	0.0	0.0
LnGrp LOS	D	D	D	E	B	B	C	A	F	A	A	A
Approach Vol, veh/h	708			969			540			0		
Approach Delay, s/veh	41.6			39.6			90.8			0.0		
Approach LOS	D			D			F					
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	32.8	32.8		0.0	11.6	60.3		31.0				
Change Period (Y+Rc), s	4.9	4.9		5.2	4.5	4.9		4.9				
Max Green Setting (G_max), s	27.9	27.9		36.0	12.2	51.2		26.1				
Max Q Clear Time (g_c3), s	17.0	17.0		0.0	7.0	8.1		28.1				
Green Ext Time (p_c), s	0.3	2.4		0.0	0.2	2.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	52.7											
HCM 6th LOS	D											

LOS Engineering, Inc.

Scenario 3 LOS Worksheets

From SYCPU. Volumes below are slightly lower than EIR figure (AM Analysis)

San Ysidro CPU-Mobility Element Horizon Year Alternative B with Improvements I-805 Ramps
7: East Beyer Blvd/Otay Mesa Rd & Beyer Blvd 11/21/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	557	803	329	856	918	219	452	369	796	135	260	504
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9	4.0	4.9	4.9	4.9	4.0	4.9	4.0		5.2	4.9
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	1770	1863	1583		1832	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.72	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3539	1583	1770	1863	1583		1332	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	666	960	393	1023	1098	262	540	441	952	161	311	603
RTOR Reduction (vph)	0	0	70	0	0	55	0	0	0	0	0	45
Lane Group Flow (vph)	666	960	323	1023	1098	207	540	441	952	0	472	558
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Free	Perm	NA	pm+ov
Protected Phases	5	2	3	1	6		3	8			4	5
Permitted Phases			2			6			Free	4		4
Actuated Green, G (s)	26.9	30.1	50.1	44.1	47.3	47.3	20.0	61.1	150.0		36.8	63.7
Effective Green, g (s)	26.9	30.1	50.1	44.1	47.3	47.3	20.0	61.1	150.0		36.8	63.7
Actuated g/C Ratio	0.18	0.20	0.33	0.29	0.32	0.32	0.13	0.41	1.00		0.25	0.42
Clearance Time (s)	4.9	4.9	4.0	4.9	4.9	4.9	4.0	4.9			5.2	4.9
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	615	710	528	520	1115	499	236	758	1583		326	672
v/s Ratio Prot	0.19	c0.27	0.08	c0.58	0.31		c0.31	0.24				0.15
v/s Ratio Perm			0.12			0.13			0.60		c0.35	0.20
v/c Ratio	1.08	1.35	0.61	1.97	0.98	0.41	2.29	0.58	0.60		1.45	0.83
Uniform Delay, d1	61.5	59.9	41.8	53.0	51.0	40.4	65.0	34.5	0.0		56.6	38.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	60.8	167.7	2.1	442.2	23.1	0.6	592.9	1.1	1.7		218.0	8.4
Delay (s)	122.3	227.6	43.9	495.2	74.1	41.0	657.9	35.7	1.7		274.6	46.7
Level of Service	F	F	D	F	E	D	F	D	A		F	D
Approach Delay (s)		157.1			251.2			192.8			146.8	
Approach LOS		F			F			F			F	
Intersection Summary												
HCM 2000 Control Delay			195.2									
HCM 2000 Volume to Capacity ratio			1.73									
Actuated Cycle Length (s)			150.0									
Intersection Capacity Utilization			144.0%									
Analysis Period (min)			15									
c Critical Lane Group												

From SYCPU. Volumes below are slightly lower than EIR figure (PM Analysis)

San Ysidro CPU-Mobility Element Horizon Year Alternative B with Improvements I-805 Ramp
7: East Beyer Blvd/Otay Mesa Rd & Beyer Blvd 11/21/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	
Volume (vph)	79	580	205	1018	657	79	123	118	586	223	126	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9	4.0	4.9	4.9	4.9	4.0	4.9	4.0		5.2	4.9
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00		1.00	1.00
Flt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.97	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	1770	1863	1583		1805	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.72	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3539	1583	1770	1863	1583		1348	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%	110%
Adj. Flow (vph)	94	693	245	1217	786	94	147	141	701	267	151	139
RTOR Reduction (vph)	0	0	134	0	0	39	0	0	0	0	0	55
Lane Group Flow (vph)	94	693	111	1217	786	55	147	141	701	0	418	84
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Free	Perm	NA	pm+ov
Protected Phases	5	2	3	1	6		3	8			4	5
Permitted Phases			2			6			Free	4		4
Actuated Green, G (s)	9.5	26.1	34.1	61.1	77.7	77.7	8.0	48.1	150.0		35.8	45.3
Effective Green, g (s)	9.5	26.1	34.1	61.1	77.7	77.7	8.0	48.1	150.0		35.8	45.3
Actuated g/C Ratio	0.06	0.17	0.23	0.41	0.52	0.52	0.05	0.32	1.00		0.24	0.30
Clearance Time (s)	4.9	4.9	4.0	4.9	4.9	4.9	4.0	4.9			5.2	4.9
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	217	615	359	720	1833	819	94	597	1583		321	478
v/s Ratio Prot	0.03	c0.20	0.02	c0.69	0.22		c0.08	0.08				0.01
v/s Ratio Perm			0.05			0.03			0.44		c0.31	0.04
v/c Ratio	0.43	1.13	0.31	1.69	0.43	0.07	1.56	0.24	0.44		1.30	0.18
Uniform Delay, d1	67.7	62.0	48.1	44.5	22.4	18.1	71.0	37.4	0.0		57.1	38.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	1.4	76.5	0.5	316.6	0.2	0.0	298.8	0.2	0.9		156.9	0.2
Delay (s)	69.0	138.4	48.6	361.1	22.6	18.1	369.8	37.7	0.9		214.0	38.8
Level of Service	E	F	D	F	C	B	F	D	A		F	D
Approach Delay (s)		110.8			218.8			61.0			170.3	
Approach LOS		F			F			E			F	
Intersection Summary												
HCM 2000 Control Delay			155.8									F
HCM 2000 Volume to Capacity ratio			1.46									
Actuated Cycle Length (s)			150.0									
Intersection Capacity Utilization			124.6%									
Analysis Period (min)			15									
c Critical Lane Group												

Table 6-1 Post Mitigation Summary of Intersection Analysis

INTERSECTION	PEAK HOUR	PREFERRED LAND USE ALTERNATIVE			WITH IMPROVEMENTS			Δ	SIGNIFICANT?
		TRAFFIC CONTROL	DELAY (s)	LOS (b)	TRAFFIC CONTROL	DELAY (s)	LOS (b)		
1 Beyer Blvd & Iris Ave SR-905 WB Ramps	AM	Signal	32.7	C	Signal	22.1	C	-10.6	NO
	PM		117.0	F		54.9	D	-82.1	NO
2 Beyer Blvd & Dairy Mart Rd SR-905 Ramps	AM	Signal	79.7	E	Signal	25.9	C	-53.8	NO
	PM		44.6	D		41.3	D	-3.3	NO
4 Smythe Crossing & Beyer Blvd	AM	One-Way Stop	13.8	B	Signal	10.5	B	-3.3	NO
	PM		ECL	F		6.6	A	-	NO
5 Beyer Blvd & Smythe Ave	AM	Signal	ECL	F	Signal	54.9	D	-	NO
	PM		38.5	D		17.3	B	-21.2	NO
6 W. Park Ave/Alaquines Dr & Beyer Blvd	AM	Signal	160.6	F	Signal	51.0	D	-109.6	NO
	PM		20.7	C		15.3	B	-5.4	NO
7 East Beyer Blvd/Otay Mesa Rd & Beyer Blvd	AM	Signal	ECL	F	Signal (c)	195.2	F	-	NO
	PM		ECL	F		155.8	F	-	NO

Notes:

Bold values indicate intersections operating at LOS E or F.

ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.

Shaded cells indicate roadway segment improvements identified in the San Ysidro Impact Study Fee (ISF)

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the 2000 Highway Capacity Manual and performed using Synchro 8

(c) With Otay Mesa Community Plan Improvements

(d) The construction of the new roundabout, new connection between Calle Primera in Camino de la Plaza, and traffic calming measures along Willow Road will decongest the area.

The saturation flow rate at the intersection of Camino de la Plaza and I-5 Southbound Ramps was adjusted to replicate existing conditions when the I-5 Southbound inspection lane is open entering Mexico.

\\sddp01\ca_and\TPTD\095413002\Excel\413002\04-Alt-B-plan\2035 ALTB WITH IMP 905_Ramp

Intersections

Implementation of the improvements identified in Tables 5.2-13 and 5.2-15 of the Final PEIR would reduce impacts of the SYCPU on local intersections. Improvements within Tables 5.2-13 are included in the IFS, and will be implemented based on funding generated by development fees. Other improvements are identified in Tables 5.2-15. However, no identified funding sources exist because they are not included in the IFS. While implementation of the improvements identified in Tables 5.2-13 and 5.2-15 would reduce impacts on roadway segments to acceptable levels, the City cannot assure that these improvements would be implemented. Insufficient right-of-way is likely to exist to accommodate Mitigation Measure 55, and Mitigation Measure TRF-56 is not considered consistent with the mobility goals. Thus, the impact of the SYCPU with respect to intersections is considered unavoidable.

**TABLE 5.2-15
INTERSECTION IMPROVEMENTS
(Not Included In Impact Fee Study)**

Mitigation Measure Number	Intersection Number	Intersection	Improvement
TRF-55	7	East Beyer Blvd/Otay Mesa Road and Beyer Boulevard	Install 4-lane major arterial with exclusive left- and right-turn lanes on east leg of the intersection.

Scenario 4 LOS Worksheets

AM Horizon Year

1: E Beyer Blvd/Otay Mesa Rd & Beyer Blvd

HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	564	802	340	866	920	218	466	372	808	133	265	508
Future Volume (veh/h)	564	802	340	866	920	218	466	372	808	133	265	508
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.96	1.00		0.88	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	613	872	370	941	1000	237	507	404	878	145	288	280
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	688	952	1167	893	1174	665	595	745	1234	181	502	934
Arrive On Green	0.20	0.27	0.27	0.26	0.33	0.33	0.17	0.21	0.21	0.10	0.14	0.14
Sat Flow, veh/h	3456	3554	2562	3456	3554	1525	3456	3554	2446	1781	3554	2678
Grp Volume(v), veh/h	613	872	370	941	1000	237	507	404	878	145	288	280
Grp Sat Flow(s),veh/h/ln	1728	1777	1281	1728	1777	1525	1728	1777	1223	1781	1777	1339
Q Serve(g_s), s	21.5	29.6	11.7	32.1	32.6	13.0	17.7	12.6	26.0	9.9	9.4	9.6
Cycle Q Clear(g_c), s	21.5	29.6	11.7	32.1	32.6	13.0	17.7	12.6	26.0	9.9	9.4	9.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	688	952	1167	893	1174	665	595	745	1234	181	502	934
V/C Ratio(X)	0.89	0.92	0.32	1.05	0.85	0.36	0.85	0.54	0.71	0.80	0.57	0.30
Avail Cap(c_a), veh/h	826	952	1167	893	1174	665	718	745	1234	483	970	1286
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	44.1	22.8	46.1	38.7	23.7	49.9	43.8	27.3	54.6	49.8	30.2
Incr Delay (d2), s/veh	10.5	14.8	0.7	45.3	6.1	0.3	9.7	1.2	2.3	13.1	1.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	14.5	3.5	19.2	14.9	4.6	8.2	5.5	10.4	5.0	4.2	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.9	58.9	23.5	91.4	44.9	24.1	59.6	45.0	29.5	67.7	51.6	30.5
LnGrp LOS	E	E	C	F	D	C	E	D	C	E	D	C
Approach Vol, veh/h	1855				2178				1789			
Approach Delay, s/veh	51.8				62.7				41.5			
Approach LOS	D				E				D			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G + Y + Rc), s	37.0	38.2	26.3	22.8	29.2	46.0	17.8	31.2				
Change Period (Y + Rc), s	4.9	4.9	4.9	5.2	4.5	4.9	5.2	* 5.2				
Max Green Setting (Gmax), s	32.1	33.3	25.8	33.9	29.7	36.1	33.7	* 26				
Max Q Clear Time (g_c + I1), s	34.1	31.6	19.7	11.6	23.5	34.6	11.9	28.0				
Green Ext Time (p_c), s	0.0	1.1	1.7	4.8	1.3	1.1	0.7	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	52.1											
HCM 6th LOS	D											

LOS Engineering, Inc.

PM Horizon Year

1: E Beyer Blvd/Otay Mesa Rd & Beyer Blvd

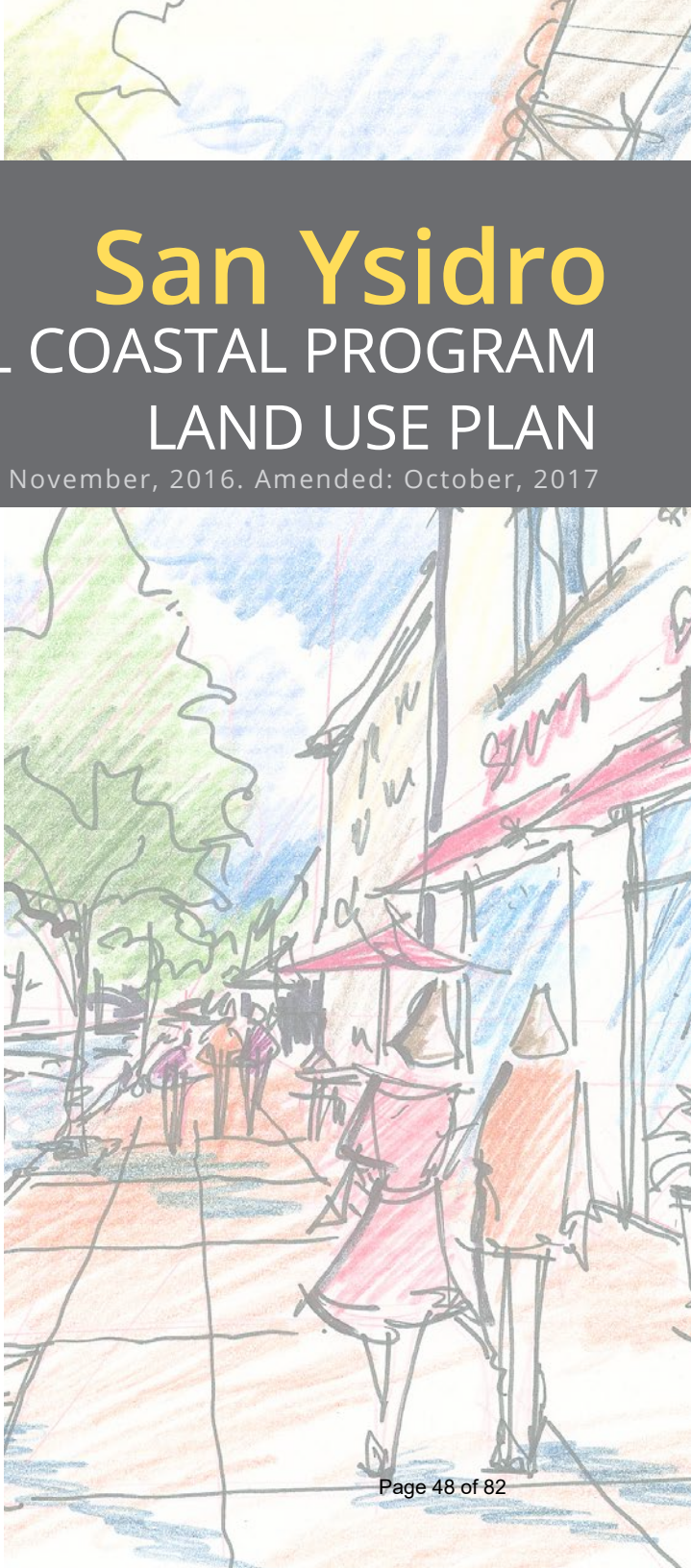
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	582	212	1030	657	78	130	121	591	222	130	116
Future Volume (veh/h)	79	582	212	1030	657	78	130	121	591	222	130	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.97	1.00		0.86	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	86	633	230	1120	714	85	141	132	642	241	141	-146
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	719	668	1157	1781	1013	200	621	1351	272	965	865
Arrive On Green	0.04	0.20	0.20	0.33	0.50	0.50	0.06	0.17	0.17	0.15	0.27	0.00
Sat Flow, veh/h	3456	3554	2507	3456	3554	1539	3456	3554	2389	1781	3554	2790
Grp Volume(v), veh/h	86	633	230	1120	714	85	141	132	642	241	141	-146
Grp Sat Flow(s),veh/h/ln	1728	1777	1253	1728	1777	1539	1728	1777	1194	1781	1777	1395
Q Serve(g_s), s	3.7	25.7	11.1	47.5	18.7	3.0	6.0	4.7	26.0	19.7	4.5	0.0
Cycle Q Clear(g_c), s	3.7	25.7	11.1	47.5	18.7	3.0	6.0	4.7	26.0	19.7	4.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	133	719	668	1157	1781	1013	200	621	1351	272	965	865
V/C Ratio(X)	0.65	0.88	0.34	0.97	0.40	0.08	0.71	0.21	0.48	0.89	0.15	-0.17
Avail Cap(c_a), veh/h	708	719	668	1163	1781	1013	536	621	1351	406	965	865
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.6	57.6	44.9	48.7	23.2	9.4	68.9	52.7	24.5	61.8	41.1	0.0
Incr Delay (d2), s/veh	5.2	14.6	1.4	19.1	0.1	0.0	7.6	0.3	0.4	18.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	12.8	3.6	22.9	7.7	1.0	2.8	2.1	7.4	10.2	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.8	72.2	46.3	67.9	23.3	9.5	76.5	52.9	24.9	80.2	41.2	0.0
LnGrp LOS	E	E	D	E	C	A	E	D	C	F	D	A
Approach Vol, veh/h		949			1919			915			236	
Approach Delay, s/veh		66.2			48.7			36.9			106.6	
Approach LOS		E			D			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G + Y + Rc), s	54.7	35.0	13.5	45.6	10.2	79.5	27.9	31.2				
Change Period (Y + Rc), s	4.9	4.9	4.9	5.2	4.5	4.9	5.2	* 5.2				
Max Green Setting (Gmax), s	50.1	30.1	23.1	36.8	30.5	50.1	33.9	* 26				
Max Q Clear Time (g_c + I1), s	49.5	27.7	8.0	6.5	5.7	20.7	21.7	28.0				
Green Ext Time (p_c), s	0.3	1.1	0.6	1.3	0.2	4.9	1.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			53.6									
HCM 6th LOS			D									

LOS Engineering, Inc.

Attachment C

Excerpt from the San Ysidro Community Plan Update



San Ysidro

COMMUNITY PLAN AND LOCAL COASTAL PROGRAM LAND USE PLAN

Adopted: November, 2016. Amended: October, 2017

Figure 3-15: Existing 2012 Functional Street Classification

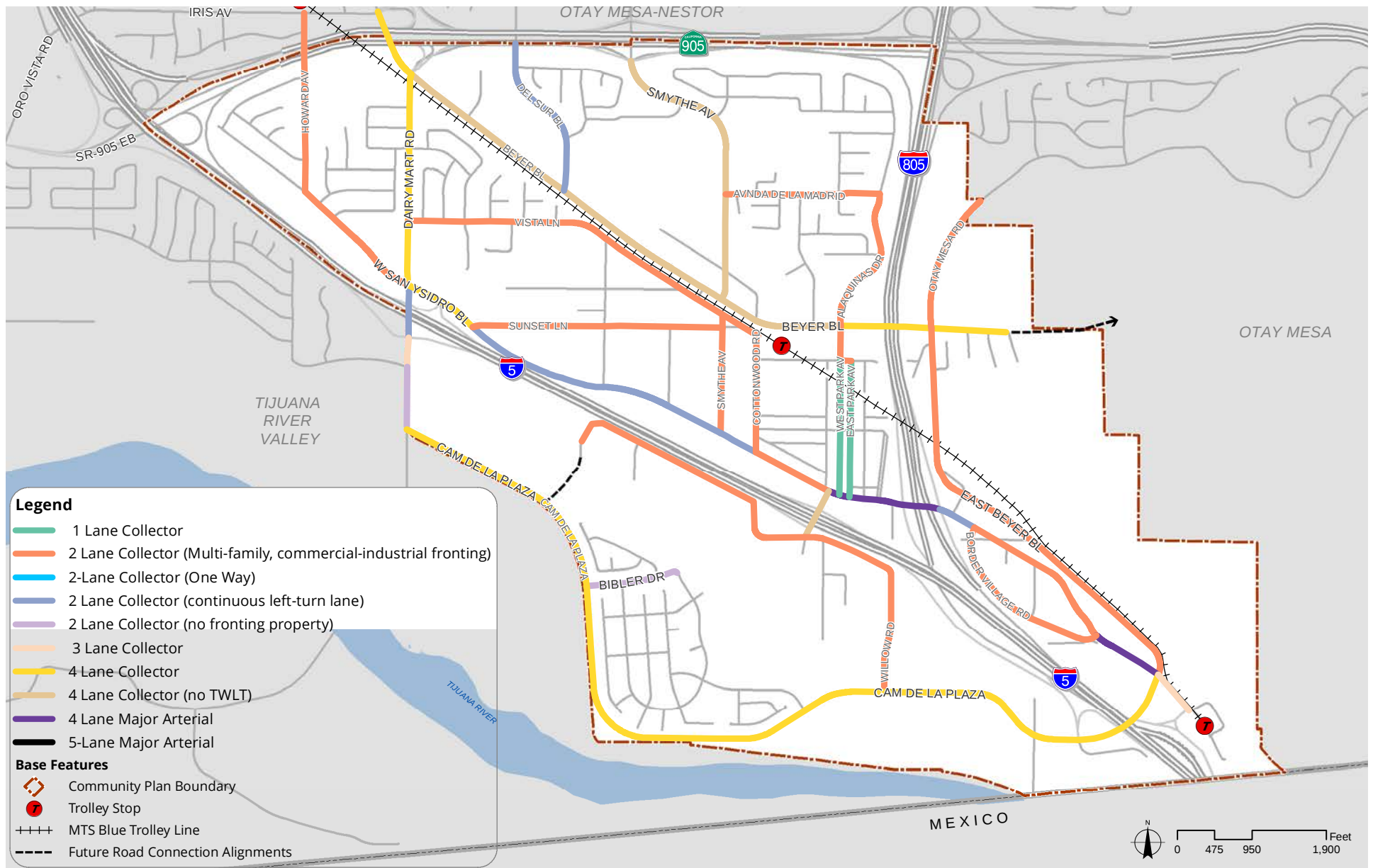
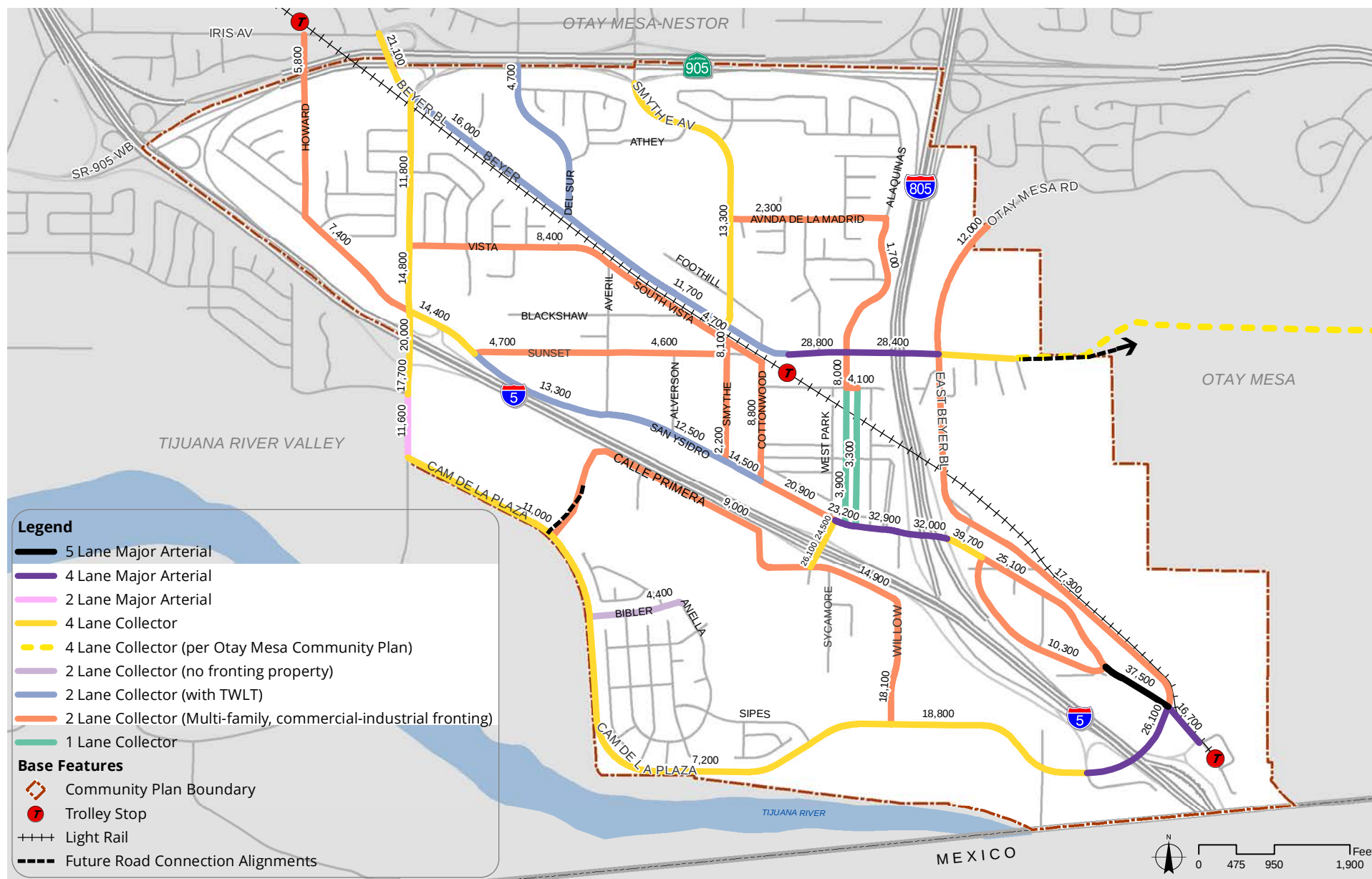


Figure 3-16: Future Planned Street Classifications and Daily Traffic



Attachment D

SANDAG Series 13 Select Zone Assignment for SWV

SANDAG
Series13

Regional Model
Year 2012

Otay Mesa

Select Zone Run
TAZ 4948

Version 13.3.3
Scenario ID1315

join

ifc

10
1; 2; 3; 4; 5; 6; 7; 8; 9

Selected Zone(s)

Select Zone Vol and %

Model Estimated ADT

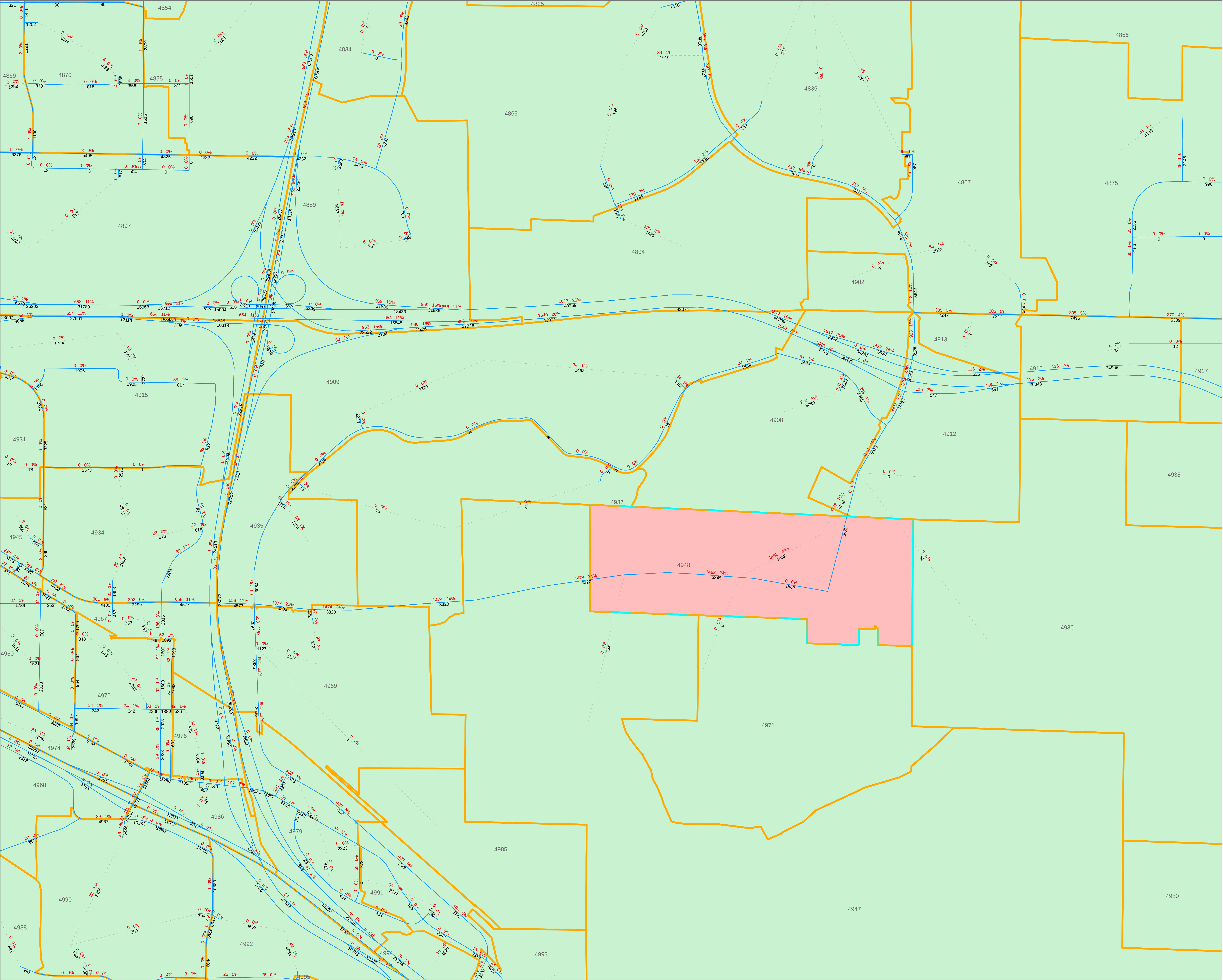
Portions of this map contain information from the San Diego Association of Governments (SANDAG) Regional Information System. This product cannot be reproduced without the written permission of SANDAG.

SAN DIEGO ASSOCIATION OF GOVERNMENTS
401 B STREET, SUITE 800
SAN DIEGO, CALIFORNIA 92101 USA
(619) 599-1900
E-mail: sandag@sandag.org
Web site: www.sandag.org

N
0 0.045 0.09 0.135
Miles

SANDAG
servicebureau

Date: July 2, 2021



Attachment E

Specific Plan Planning Area Phasing Details

Table 7.2 – Phasing Summary

Planning Areas • 8, 9, 10, 11, 12, 13, 14 1315 Maximum Residential Units: • 282 Multifamily Residential (20-44 du/ac) • 490 Multifamily Residential (15-29 du/ac) • 543 Single Family Residential (8-22 du/ac)	<u>Mobility Network</u> • Beyer Boulevard (from West Avenue to western Specific Plan boundary) • Beyer Boulevard (from Caliente Avenue to West Avenue, northern half of the street) • Central Avenue (from Caliente Avenue to Beyer Blvd) • Street A (from western cul-de sac to West Ave) • West Avenue (western half of the street from Beyer Blvd to Street B & full width south of Street B) • Beyer Blvd / Central Avenue Intersection (interim conditions per Southwest Village Specific Plan Transportation Phasing Plan (Appendix E)) • T-intersection at Caliente Ave/Central Ave • Secondary Emergency Vehicle Access Road (constructed at the 201st dwelling unit) <u>Parks and Trails</u> • Planning Area 8 Pocket Park: HH • Planning Area 9 Pocket Park: II • Planning Area 10 Pocket Parks: AA, BB, CC and DD • Planning Area 10 Paseos • Planning Area 11 Pocket Parks: MM and OO • Planning Area 12 Pocket Parks: SS, XX • Planning Area 12 Paseos • Planning Area 13 Pocket Parks: PP, RR • Planning Area 13 Paseos • Planning Area 14 Pocket Parks: YY • Planning Area 14 Paseos • Multi-use Perimeter Trail and trail amenities (Specific Plan area entrance at Caliente Avenue to eastern boundary of Planning Area 14) • Primitive Trails Type A that connect to PA 12 and 14 (including the closure of non-conforming trails adjacent to these trails) <u>Other Infrastructure</u> • Landscape infrastructure in Planning Areas 8 - 14 • 16-inch water line backbone loop along Central Avenue, Beyer Boulevard between Central Avenue and West Avenue and along West Avenue • 18-inch gravity sewer line along Beyer Boulevard and West Avenue. • Eight-inch gravity sewer along Street A in Planning Areas 11-14	<u>Mobility Network</u> • Beyer Boulevard from project boundary to current terminus in San Ysidro at Enright Drive will be required to be constructed at the 700th dwelling unit, or earlier in Phase 1. • Intersection of Caliente Avenue at SR-905 WB ramp: re-stripe the northbound single left turn lane into a dual left turn lane, upgrade traffic controller, and construct second receiving lane to the westbound on-ramp. • Intersection of Caliente Avenue at SR-905 EB ramp: upgrade traffic controller • Intersection of Caliente Ave/Ocean View Hills/Otay Mesa Rd: upgrade traffic controller • Intersection of Caliente Ave/Airway Rd: upgrade traffic controller • Caliente Ave from the existing southern terminus to Central Ave • Secondary Emergency Vehicle Access Road, from project boundary to Rail Court to the southwest will be required to be constructed at the 201st dwelling unit <u>Park and Trails</u> • Primitive Trails Type A

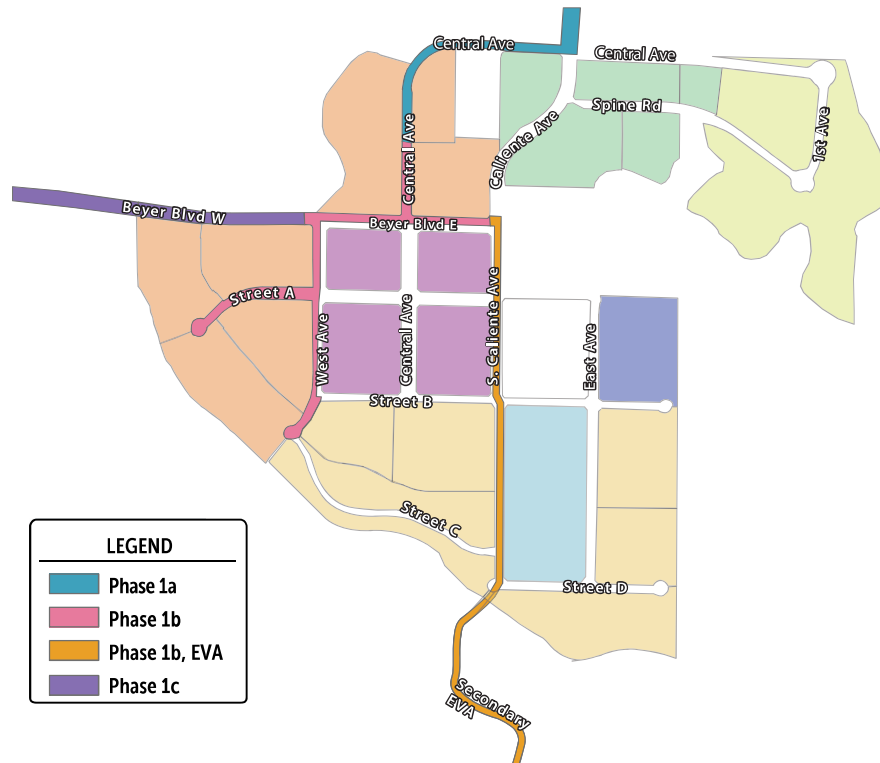
Planning Areas • 15, 16, 17, 18, 19, 20 988 Residential Units: • 237 Multifamily Residential (15-29 du/ac) • 136¹ Contingency Multifamily Residential in PA 16 (15-29 du/ac) • 615 Single Family Residential (8-22 du/ac)	<u>Mobility Network</u> • Caliente Avenue from Central Avenue to Beyer Boulevard • Caliente Avenue / Beyer Boulevard Intersection • S. Caliente Avenue (full-width north of Beyer Boulevard & south of Street B) • S. Caliente Avenue (eastern half of the street from Beyer Boulevard to Street B) • Street B (full-width east of S. Caliente Avenue) • Street B (southern half of the street from West Avenue to S. Caliente Avenue) • Street C (all segments) • Street D (all segments) • East Avenue (all segments) <u>Parks and Trails</u> • Neighborhood Park in Planning Area 17 • Paseo along Street C (from West Avenue to East Avenue) • Multi-use Perimeter Trail (Terminus of Phase 1 to northern boundary of Planning Area 19) • Public multi-use Perimeter Trail in Planning Areas 15, 18, and 19 • Primitive Trails Type A that connect to PA 15 and 18 (including the closure of non-conforming trails adjacent to these trails) <u>Other Infrastructure</u> • Landscape infrastructure in Planning Areas 15 - 20 • Southwest Village Elementary School (1) (Planning Area 16) • Sewer Lift Station east of Street D	<u>Other Infrastructure</u> • 16-inch water line in Otay Mesa Road and Beyer Boulevard between Enright Drive and Princess Park Pump Station. • Improvements at existing Princess Park Pump Station to become operational. • Upsize existing 12" gravity sewer to 27" in E. Beyer Boulevard between Beyer Boulevard and trolley tracks. • Upsize existing 18" gravity sewer to 33" in E. Beyer Boulevard and Center Street between Hill Street and E. San Ysidro Boulevard.

1. In the unlikely event a school is no longer needed on Planning Area 16, the site will default to Medium Density Residential use. Although the contingency for Planning Area 16 would result in approximately 136 additional dwelling units, the maximum dwelling unit cap of 5,130 units would still apply.

Planning Areas • 4, 5 819 Multifamily Residential (15-29 du/ac) units	<u>Mobility Network</u> • 1st Avenue • Spine Road • Central Avenue (Caliente Avenue to 1st Avenue) <u>Parks and Trails</u> • Public mini/pocket parks in Planning Area 5 • Public multi-use Pathway (internal to PA) • Public multi-use Perimeter Trail (Planning Area 5) • Paseo <u>Other Infrastructure</u> • Landscape infrastructure in Planning Areas 4 and 5 • 12-inch sewer force main along Spine Road • 10-inch gravity sewer line along Caliente Avenue from terminus to Beyer Boulevard • Sewer Lift Station	
Planning Areas: 1, 2, 3, 6, 7 424 Multifamily Residential (15-29 du/ac) units	<u>Parks and Trails</u> • Public multi-use Perimeter Trail in Planning Area 6/7 • Public neighborhood park in Planning Area 2/3 <u>Other Infrastructure</u> • Landscape infrastructure in Planning Areas 1, 2, 3, 6, and 7 • [Water/sewer improvements TBD]	<u>Mobility Network</u> • Improve Beyer Blvd between E. Beyer Blvd and Enright Dr to a Modified 4-Lane Urban Collector with buffered Class II bike lanes when land is available. <u>Parks and Trails</u> • Eastern Quadrant Trails – Segment no.(s) TBD <u>Other Infrastructure</u> • Widen Beyer Blvd between E. Beyer Blvd and Enright Dr from 2 lanes to 4 lanes with buffered Class II bike lanes. • Upsize existing 10" gravity sewer to 15" in Beyer Boulevard between Enright Drive and E. Beyer Boulevard.

Planning Areas: 21 266 Multifamily Residential (8-22 du/ac) units	<u>Parks and Trails</u> • Paseo (bike/pedestrian connection- S. Caliente Avenue to East Avenue) • Public mini/pocket parks in Planning Areas 19, 20, and 21 • Public multi-use Perimeter Trail in Planning Area 21 <u>Other Infrastructure</u> • Landscape infrastructure in Planning Area 21 • [Water/sewer improvements TBD]	
Planning Areas: 22, 23 267 Multifamily Residential (15-29 du/ac) units	<u>Parks and Trails</u> • Public pocket park(s) in Planning Areas 22 & 23 <u>Other Infrastructure</u> • Landscape infrastructure in Planning Area 22 • [Water/sewer improvements TBD]	
Planning Areas: 24, 25, 26, 27 1187 Multifamily Residential (30-62 du/ac) units 175,000 square feet commercial	<u>Mobility Network</u> • Central Ave from Beyer Boulevard E to Street B • Street A from West Avenue to S. Caliente Avenue • Beyer Boulevard (southern half of the street from West Avenue to S. Caliente Avenue) • West Avenue (eastern half of the street from Beyer Boulevard to Street B) • Street B (northern half of the street) • S. Caliente Avenue (western half of the street from Beyer Boulevard E to Street B) <u>Parks and Trails</u> • Pocket parks and urban plazas in the Village Core (Planning Areas 24 - 27) <u>Other Infrastructure</u> • Landscape infrastructure in Planning Areas 24 - 27 • Mobility hub with public transit stop	<u>Other Infrastructure</u> • Upsize existing 15" gravity sewer to 27" in E. Beyer Boulevard between trolley tracks and Hill Street. • Perform efficiency testing at Ocean View Hills Pump Station.
Total Dwelling Units: 5,130 Commercial Square Footage: 175,000		

Figure 7.4 — Phase 1 Roadways



Note: On-site alignment for Phase 1b, Secondary Emergency Vehicle Access Road, as shown, may change to an alternative route deemed satisfactory by the City Engineer and Fire Department. Implementation will occur at 201st dwelling unit.

Note: Phase 1c, Beyer Blvd W. will be implemented at the 700th dwelling unit or earlier in Phase 1.

Figure 7.5 — Phase 2 Roadways

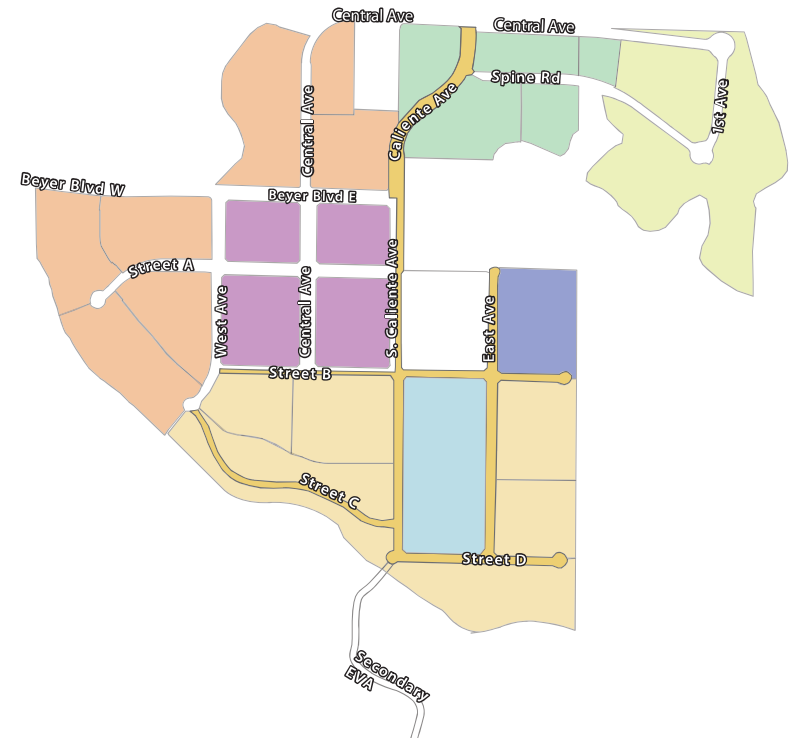


Figure 7.6 — Phase 3 Roadways

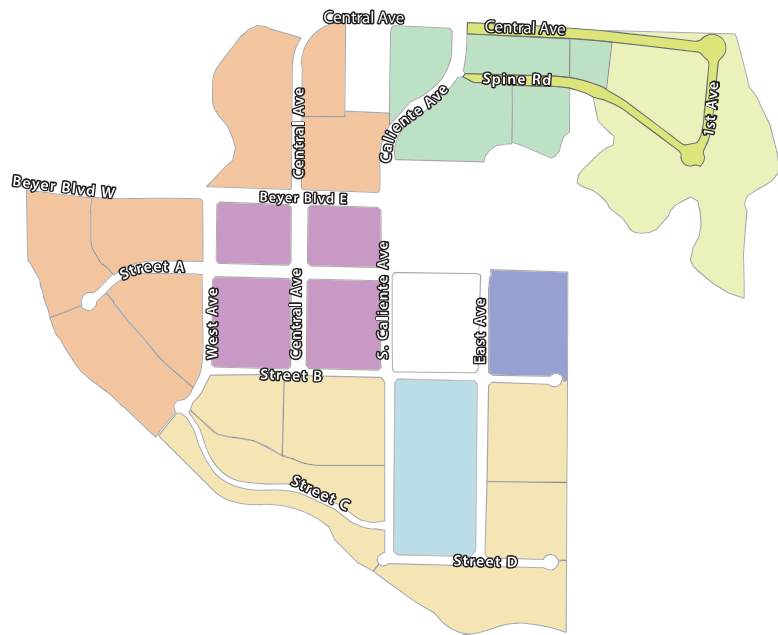
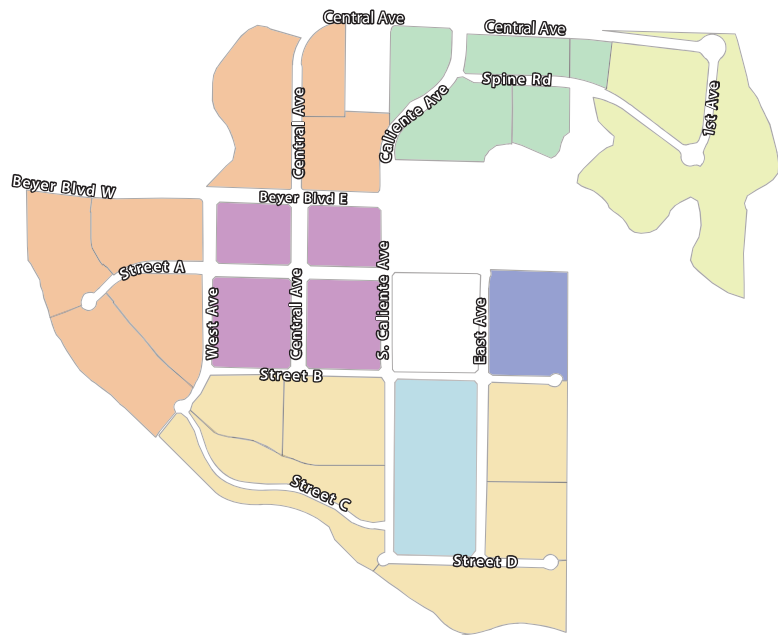
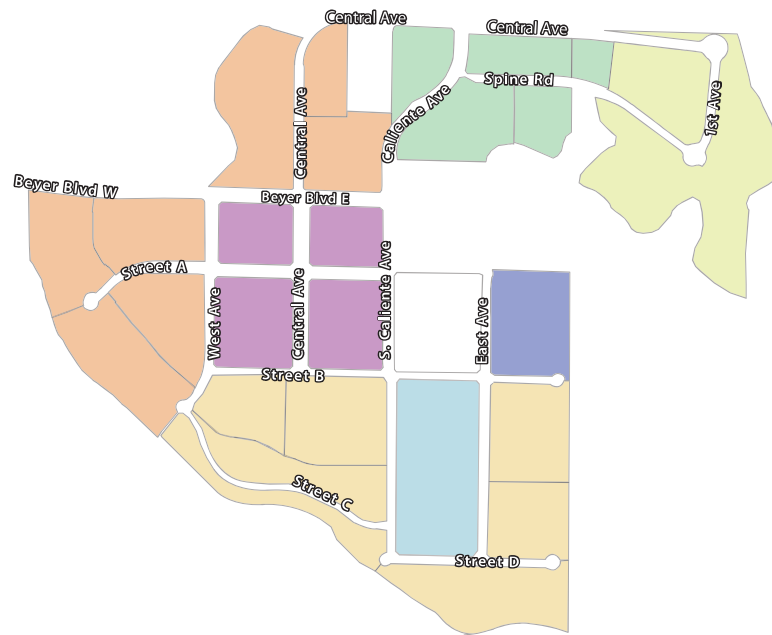


Figure 7.7 — Phase 4 Roadways



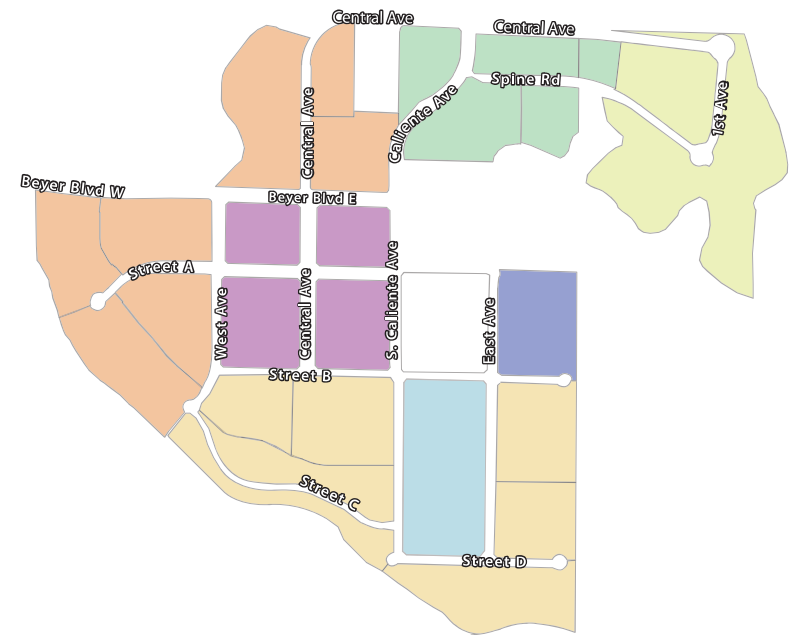
Note: Off-site improvements to occur to widen Beyer Blvd between E. Beyer Blvd/Otay Mesa Rd to Enright Dr.

Figure 7.8 — Phase 5 Roadways



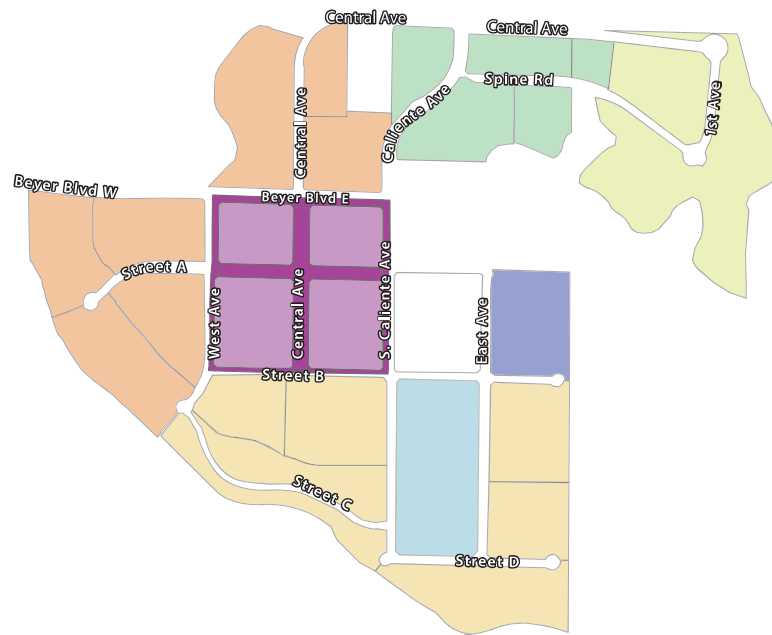
Note: No additional roadways are expected to be required in this phase.

Figure 7.9 — Phase 6 Roadways



Note: No additional roadways are expected to be required in this phase.

Figure 7.10 — Phase 7 Roadways



Attachment F

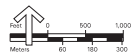
San Ysidro Community Plan Update SANDAG Output

[illegible]

Model Run on 05/14/14
San Ysidro CPU
2035 Scenario D - Proposed LU 2, Hybrid Network

Forecasted Volumes:

- Adjusted Volume
- Unadjusted Volume
- Traffic Analysis Zone



San Diego's Regional Planning Agency

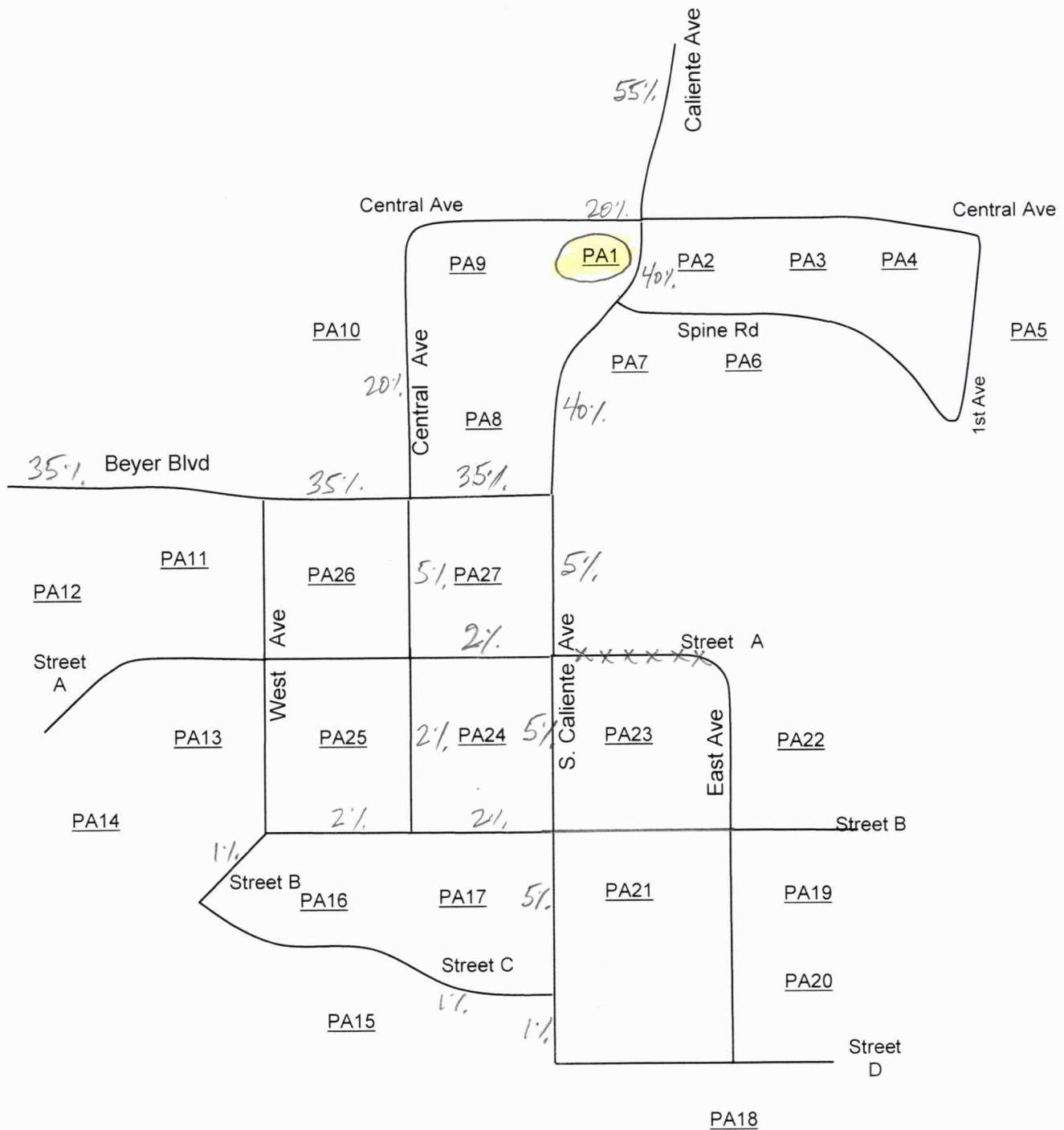
May 15, 2014

Attachment G

On-Site Roadway Trip Assignment Details

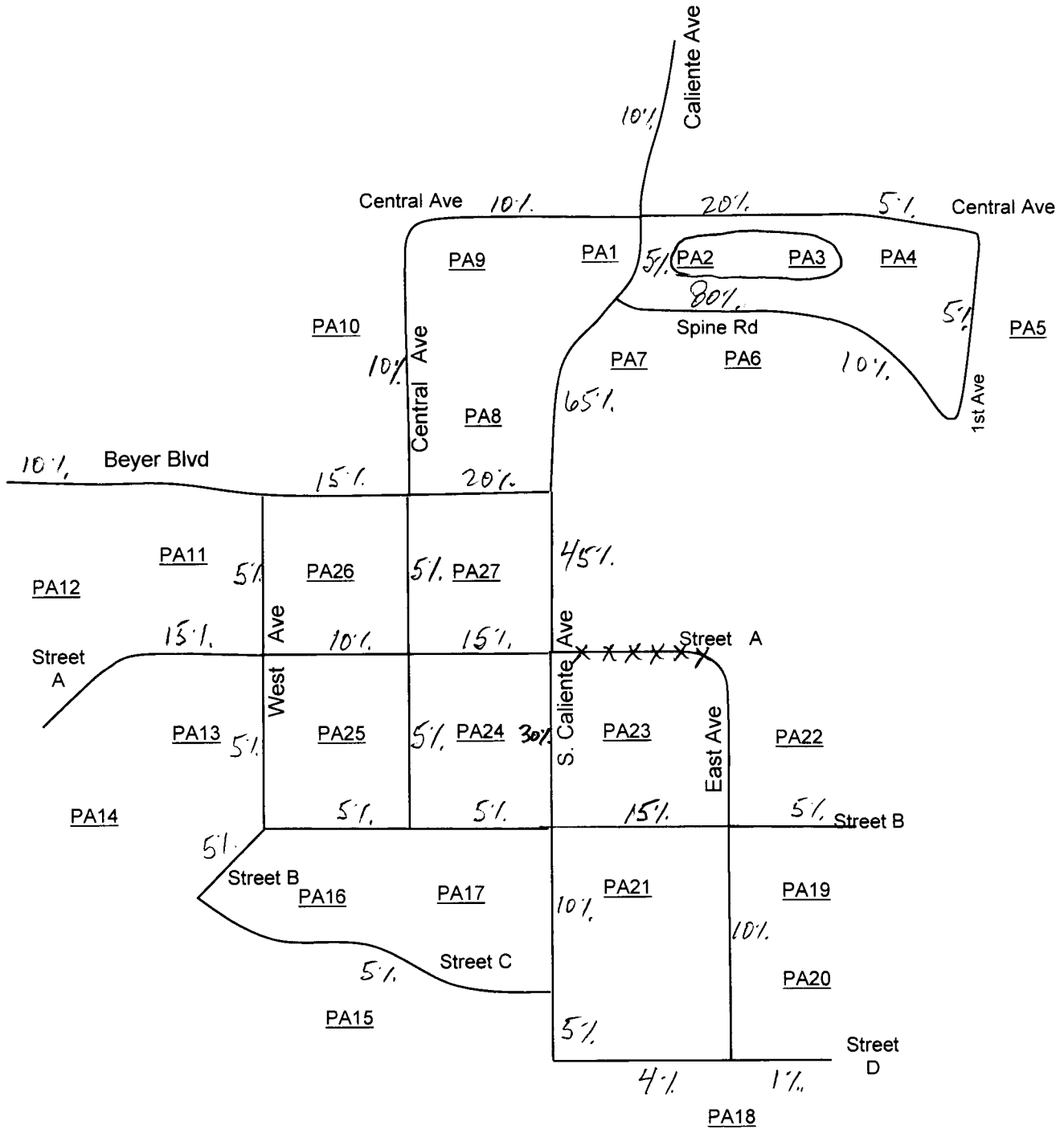
PA1

160 DU MFL 20

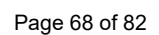


PA 2 & PA 3

PA2K
7.1 AC.

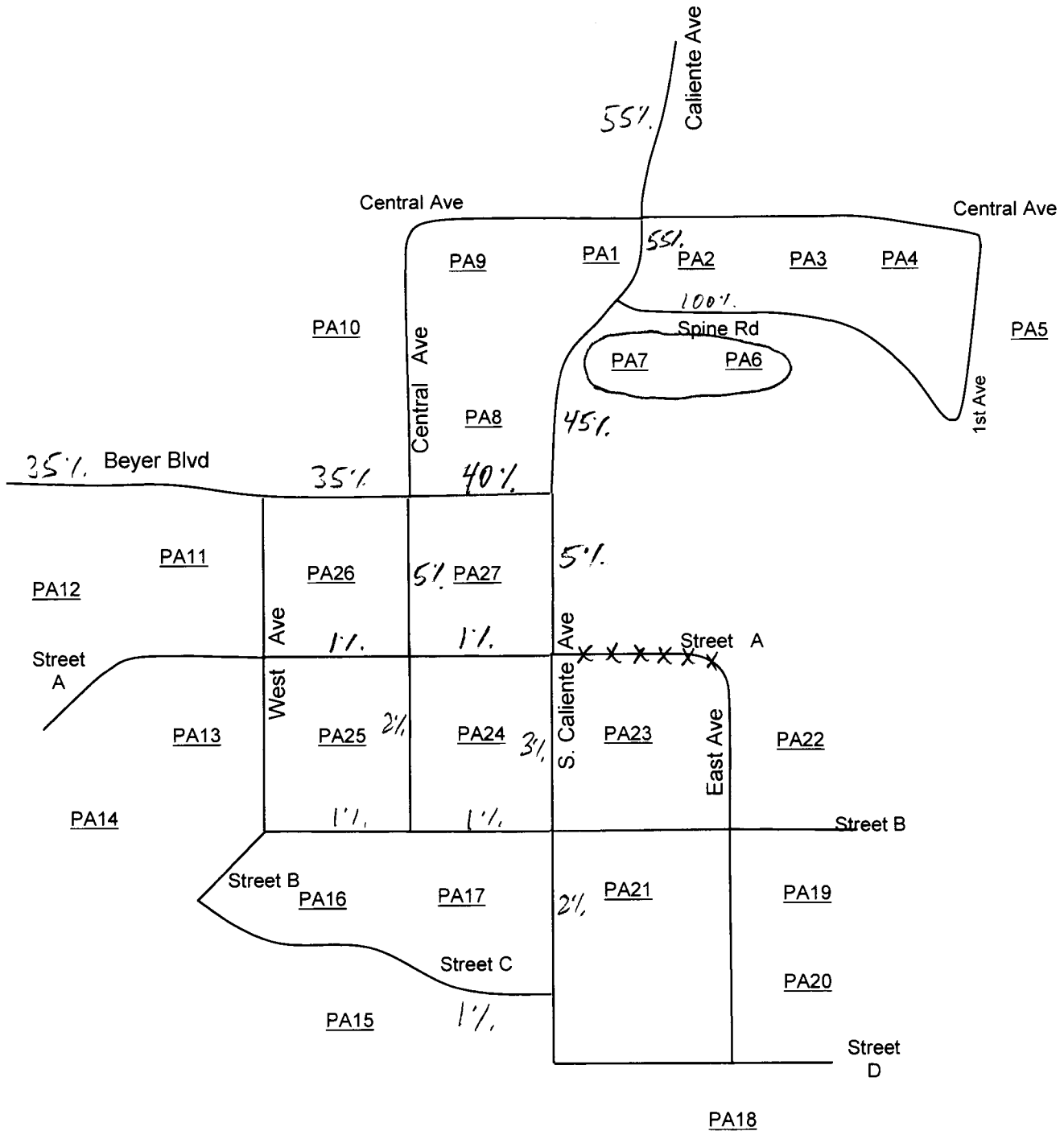


819 DU
MF
L20



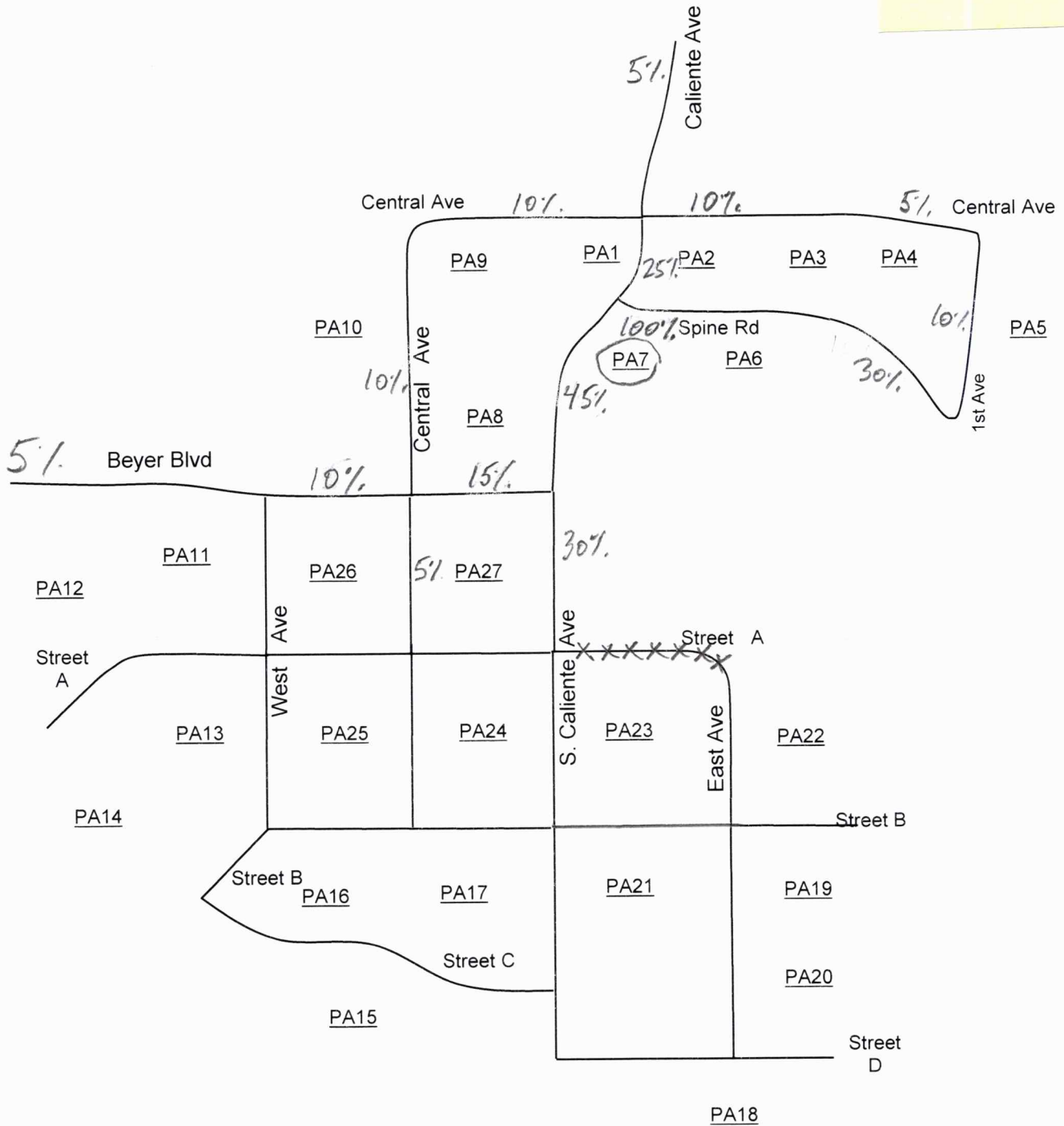
PA 6 & PA 7

264 DU
MF
L 20



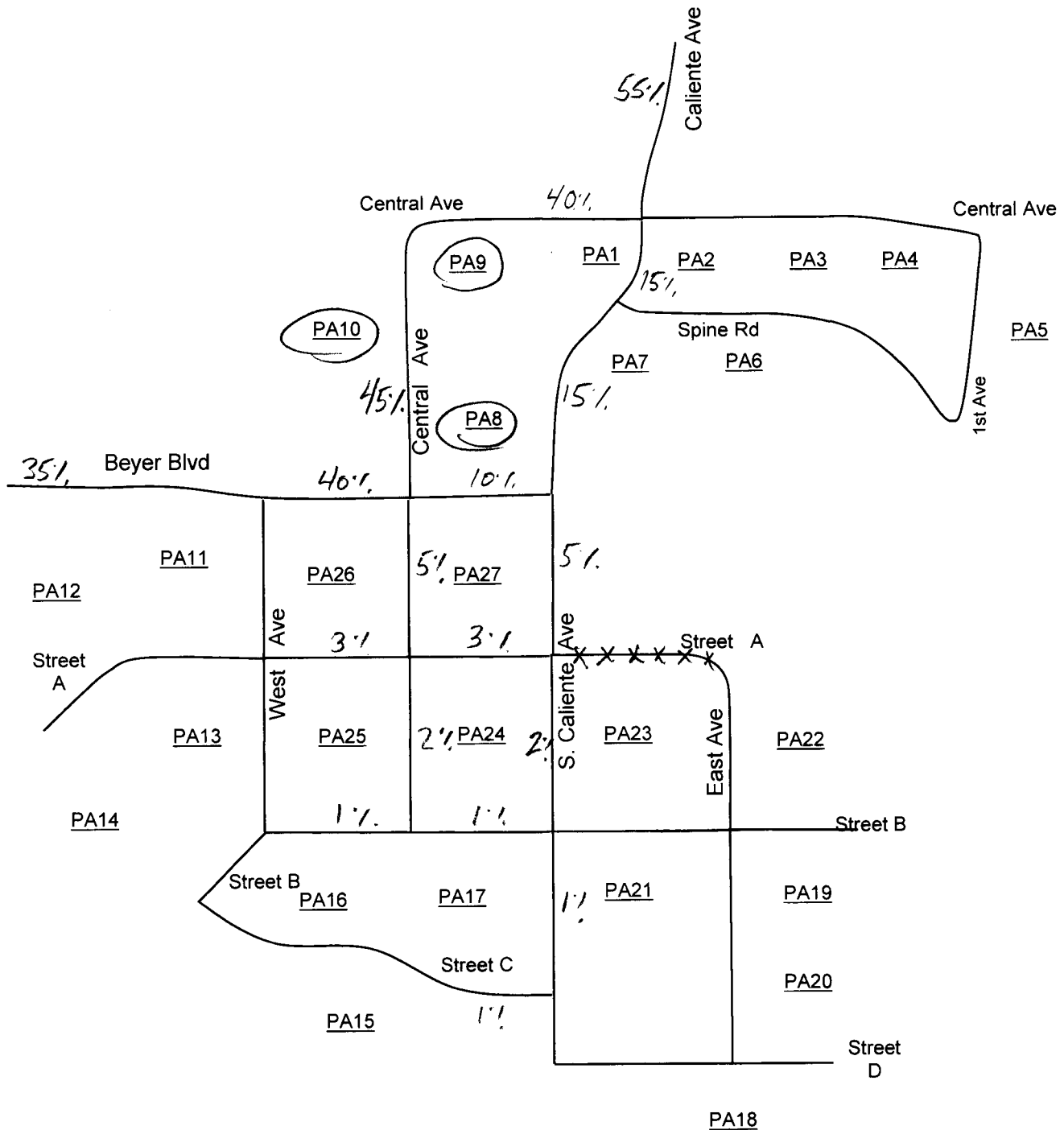
PA 7 SCHOOL OVERLAY

PA 7 6.9 AC SCH.
668 STUDENTS
1,937 ADT



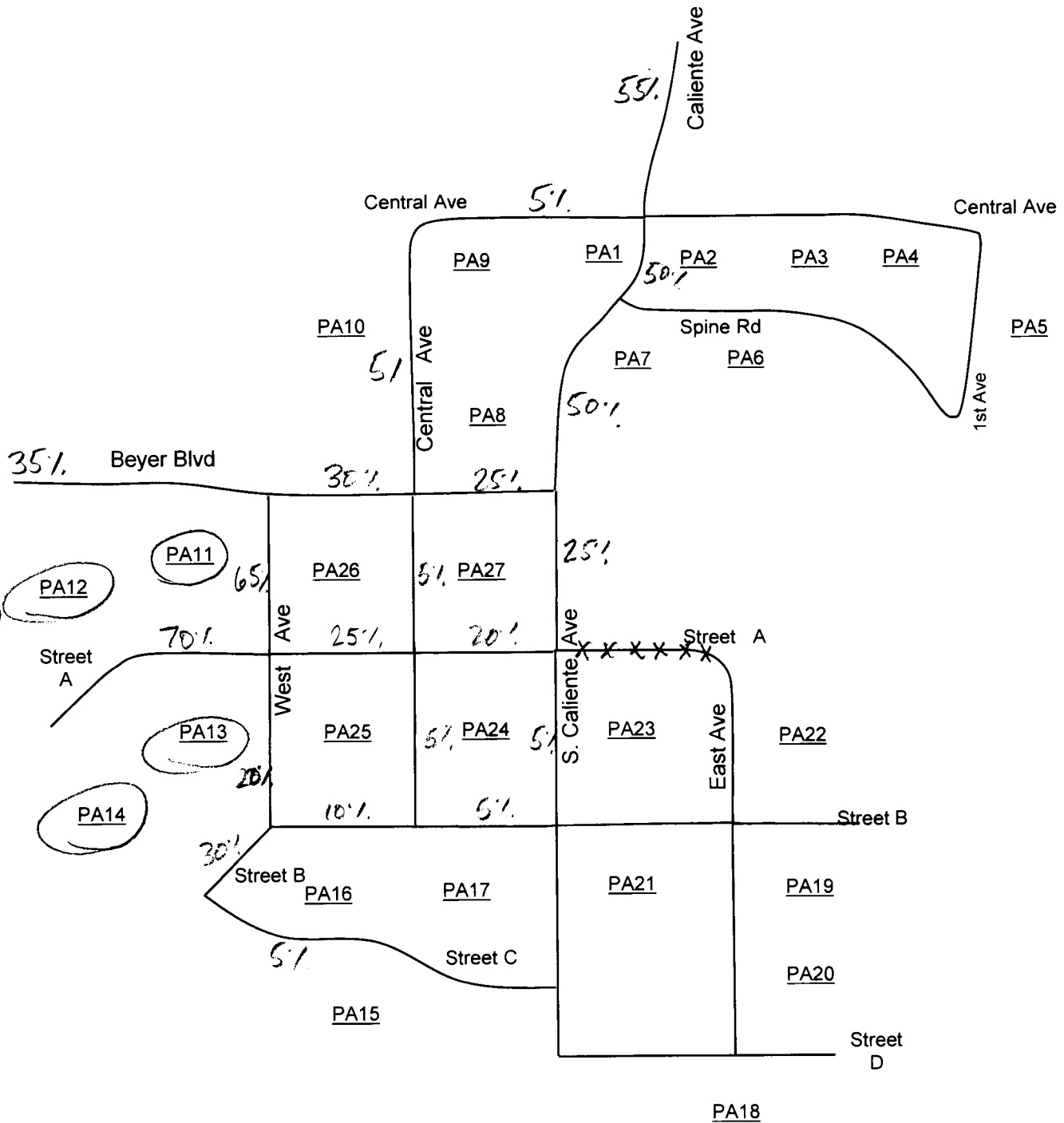
PA 8, 9, & 10

225 DU SF
107 DU MF<20
282 DU MF>20



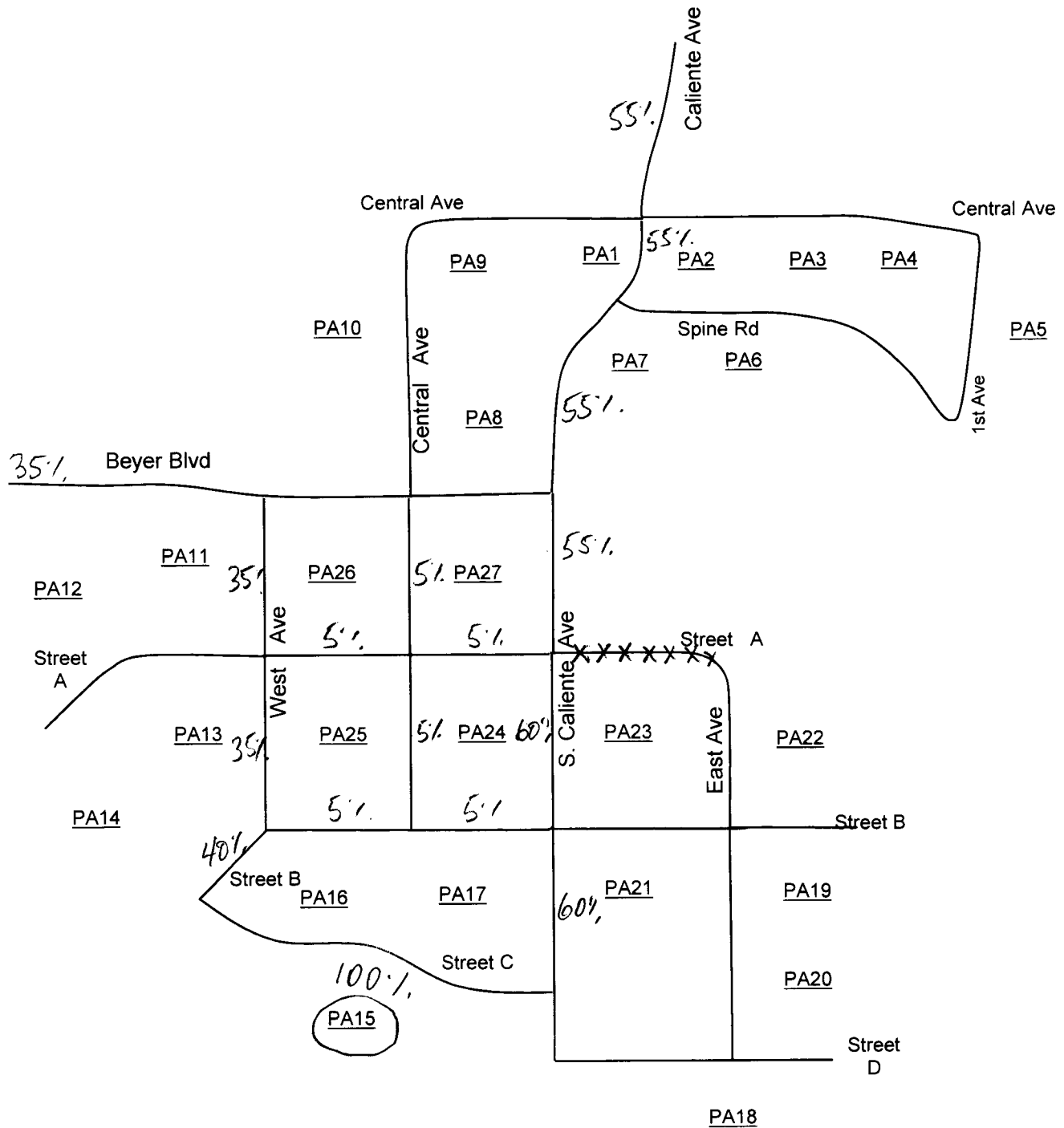
PA 11, 12, 13 & 14

318 DU SF
383 DU MF L20



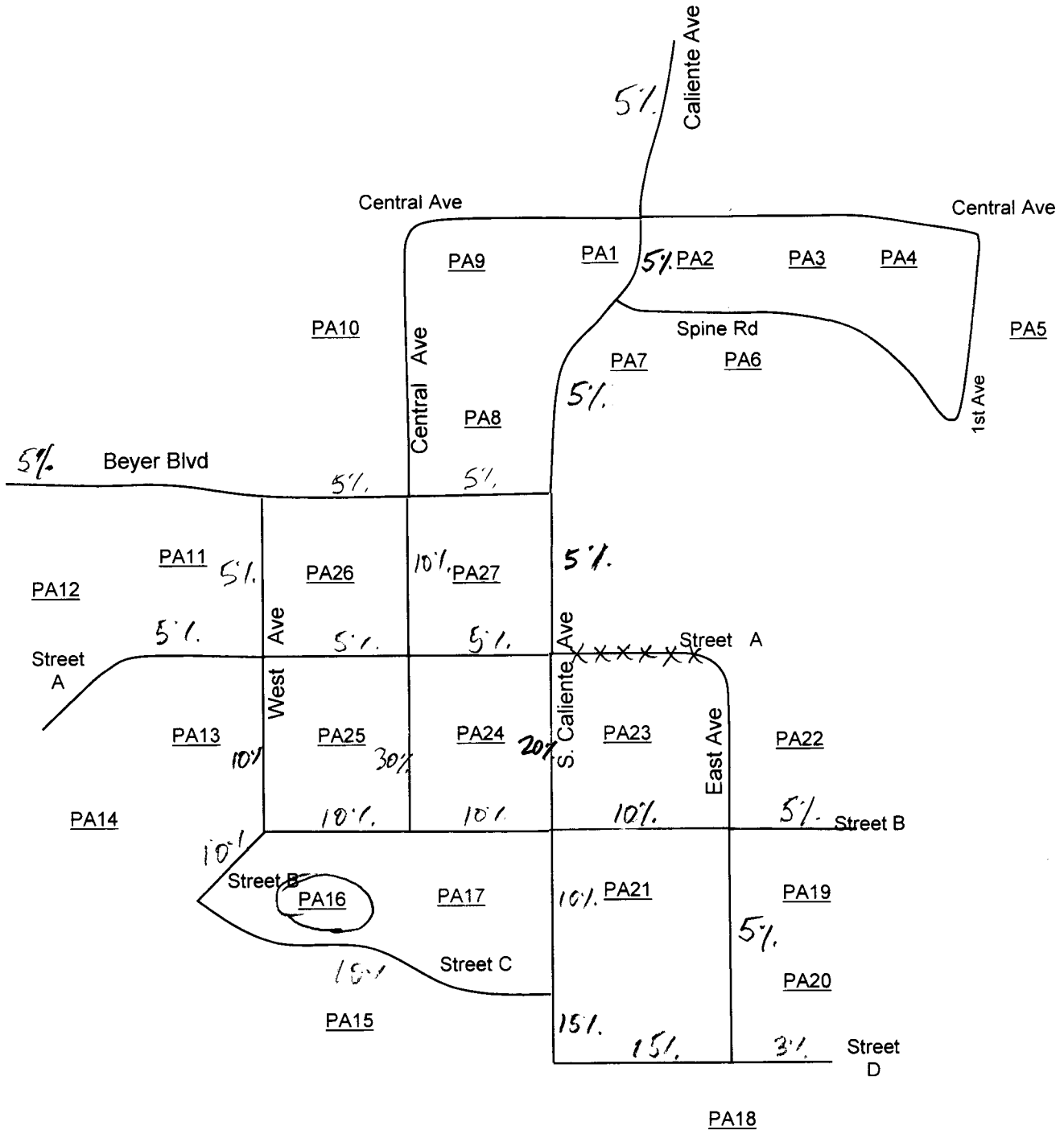
PA 15

243 DU
SF



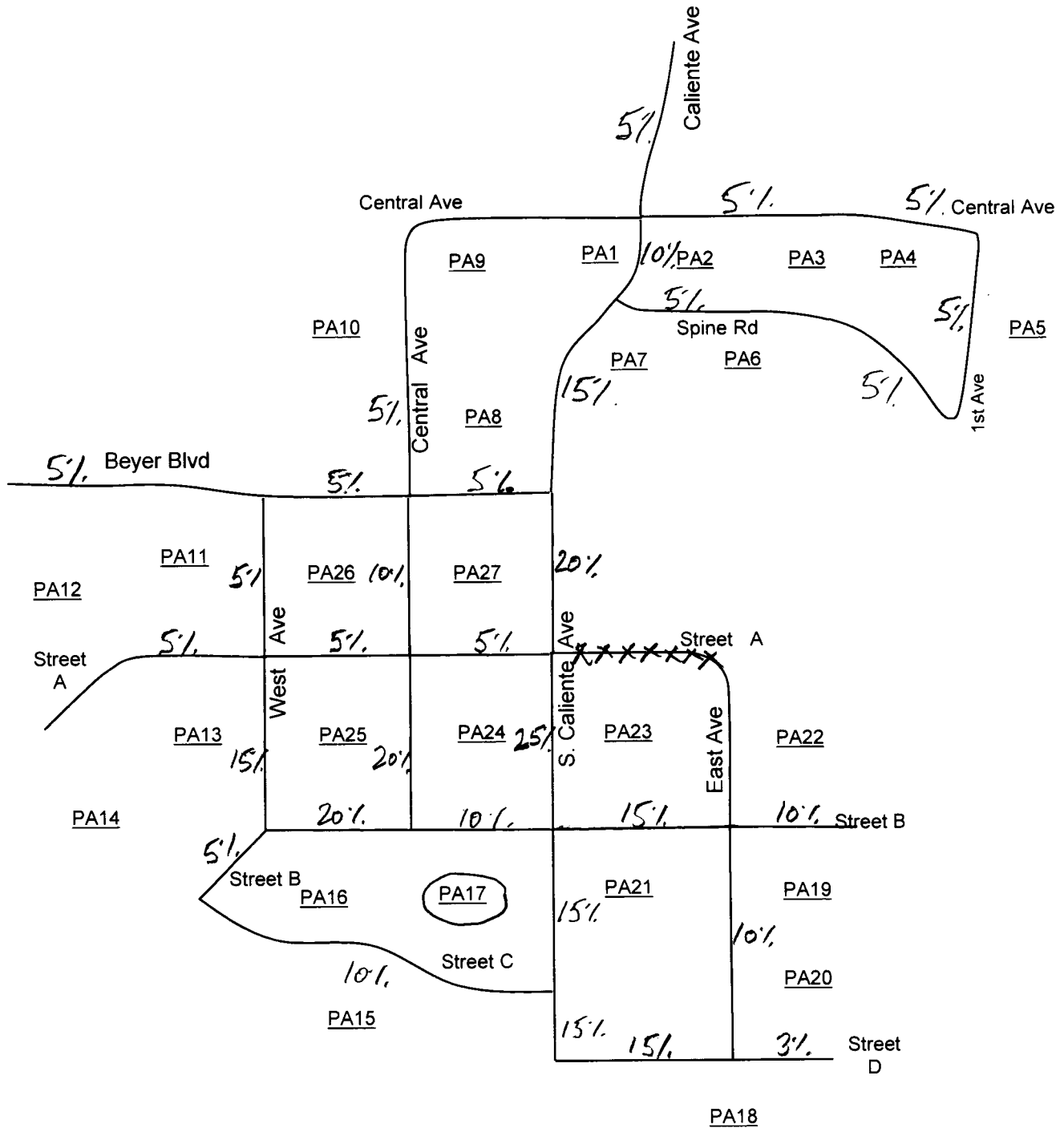
PA 16

SCHOOL



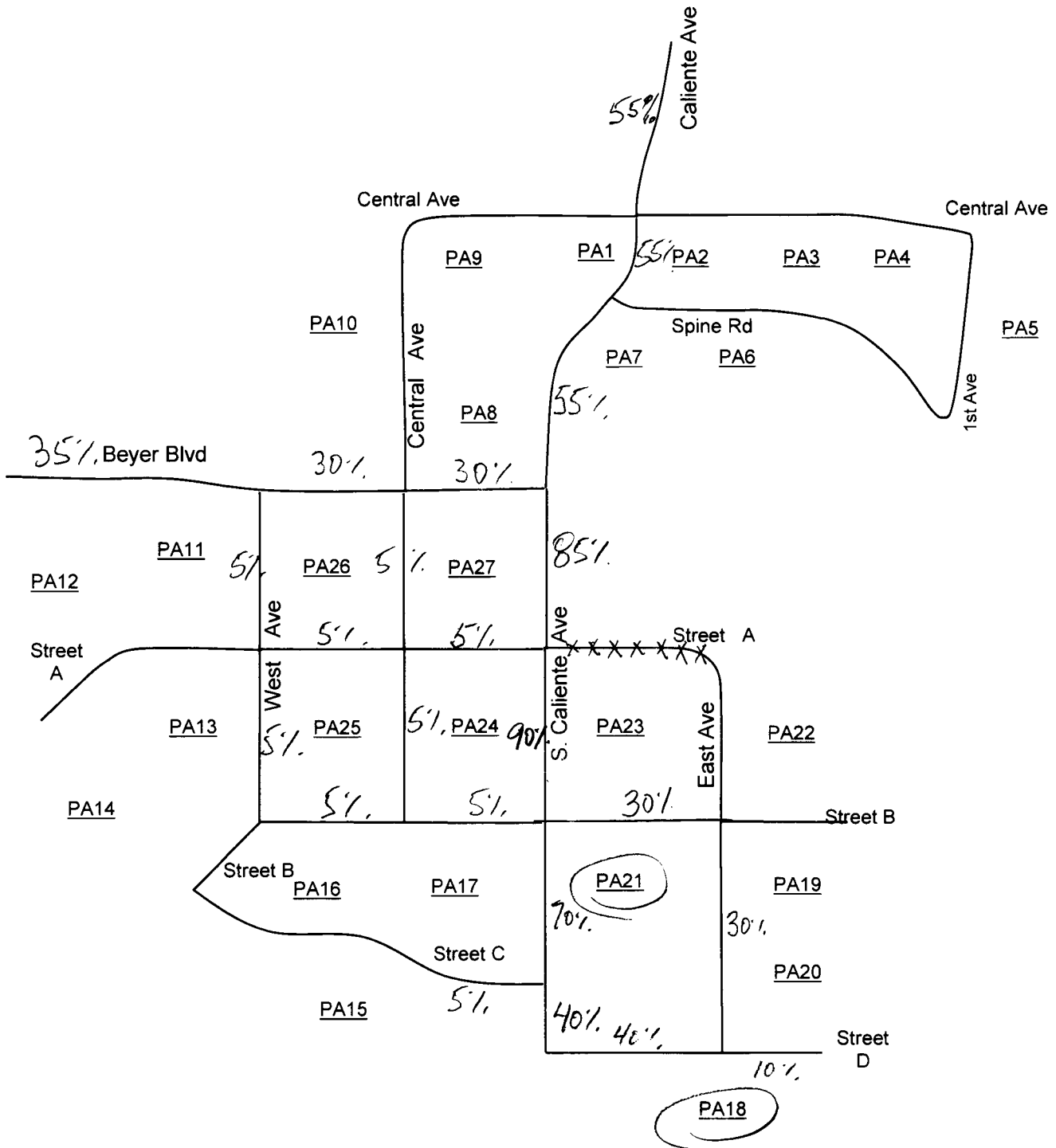
PA 17

PARK



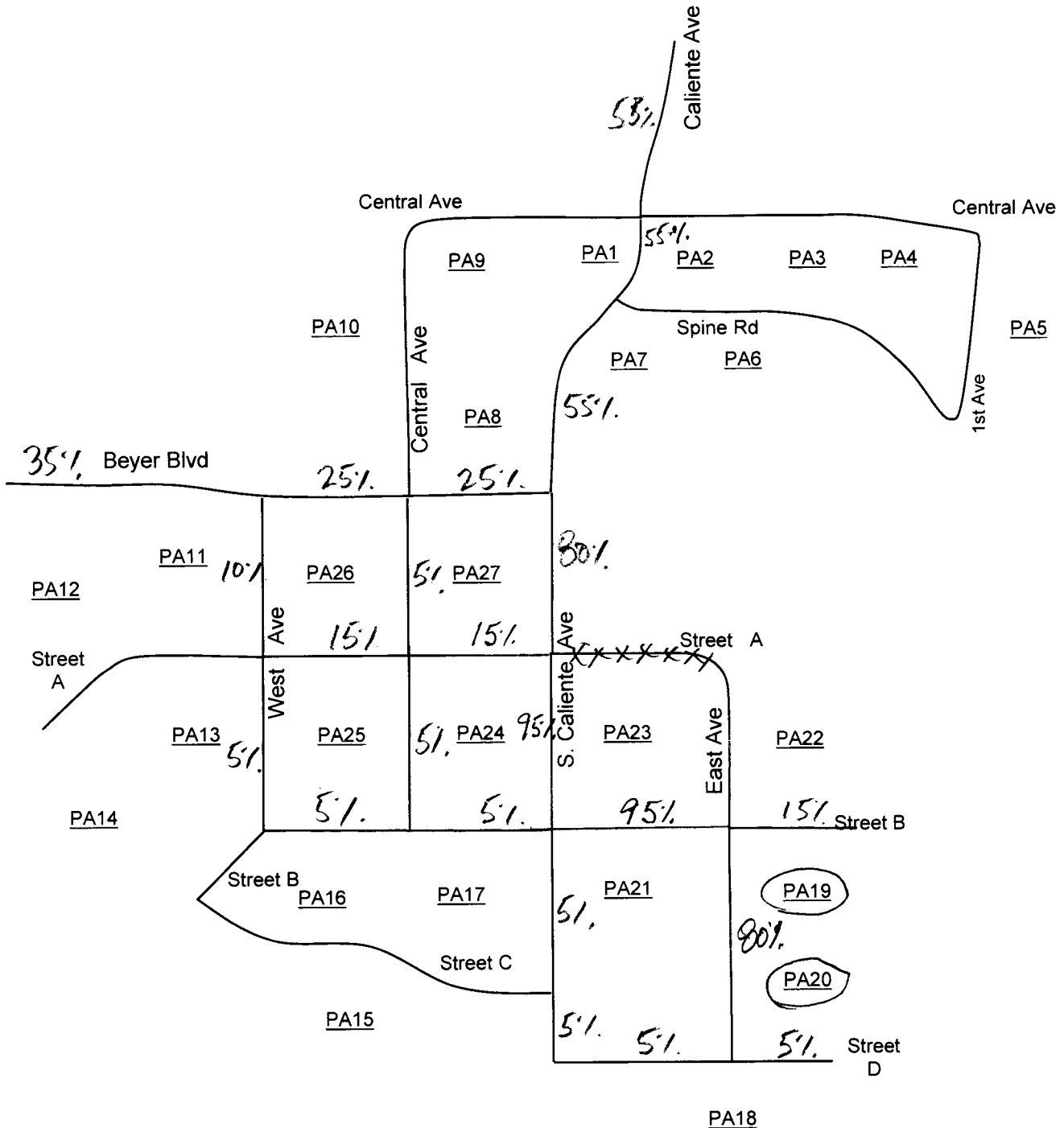
TA 18 & 21

504 DU SF



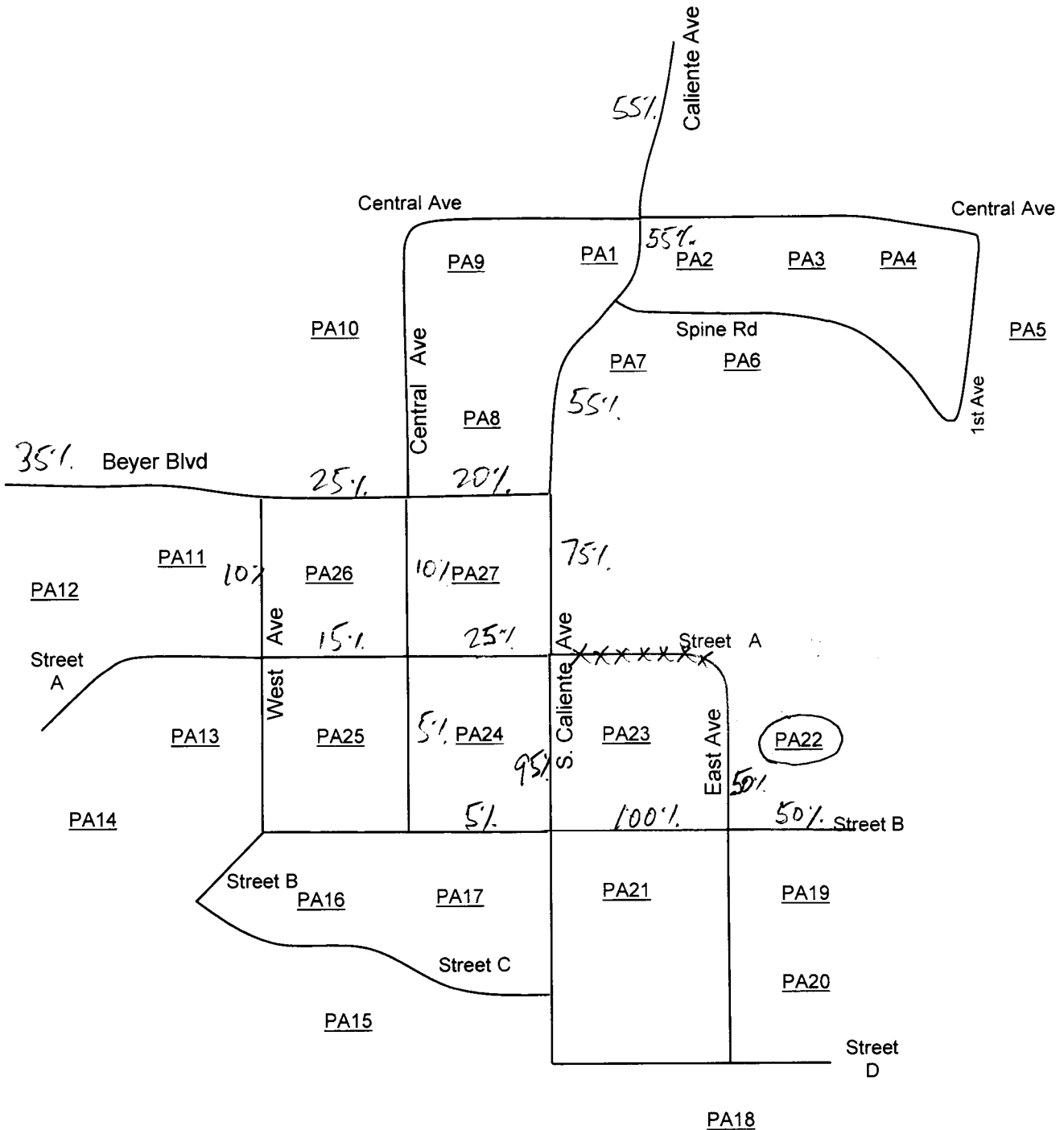
PA 19 & 20

134 DU SF
237 DU MF < 20



PA 22

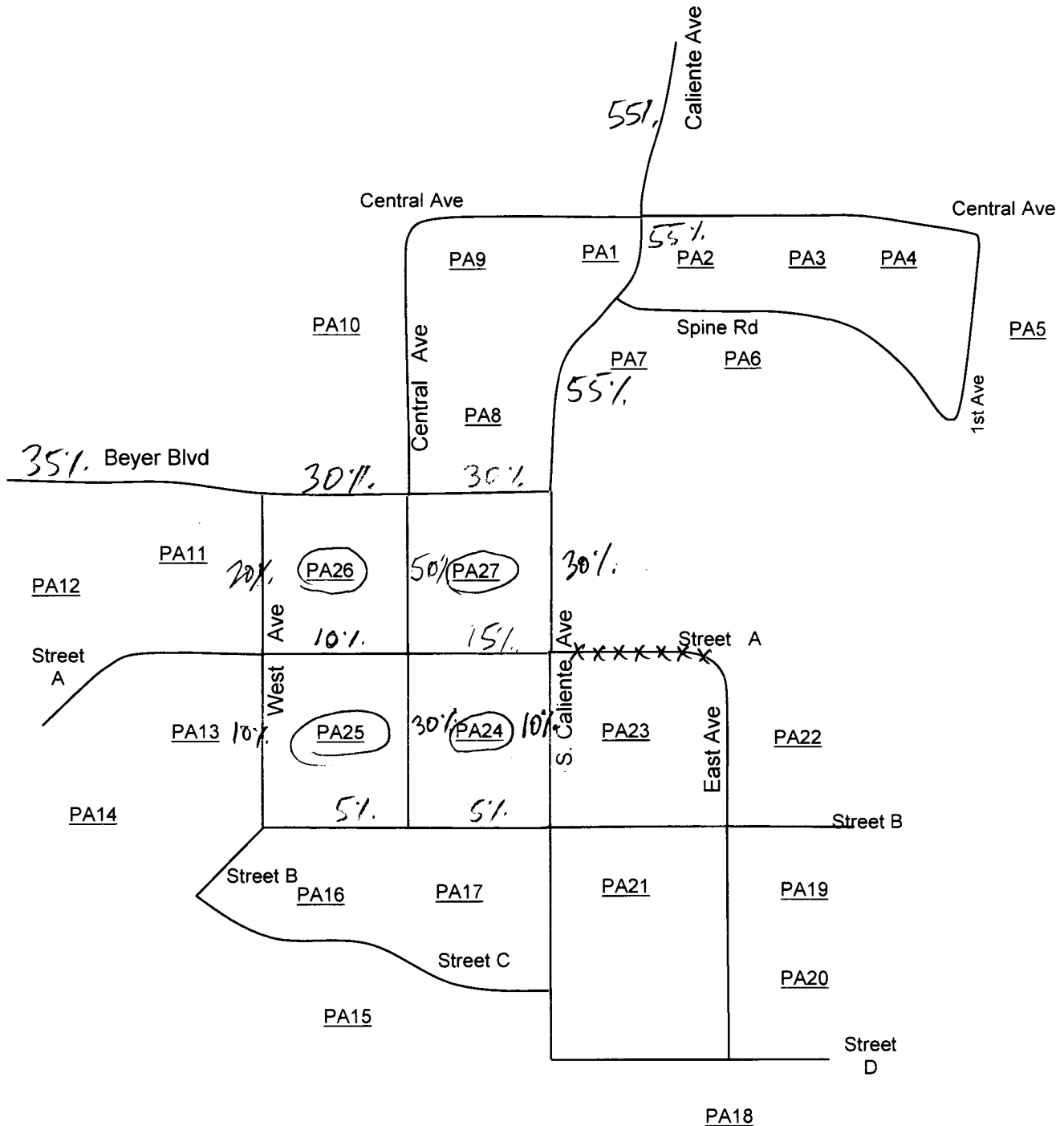
267 DU
MF
220



PA 24, 25, 26, & 27

RESIDENTIAL

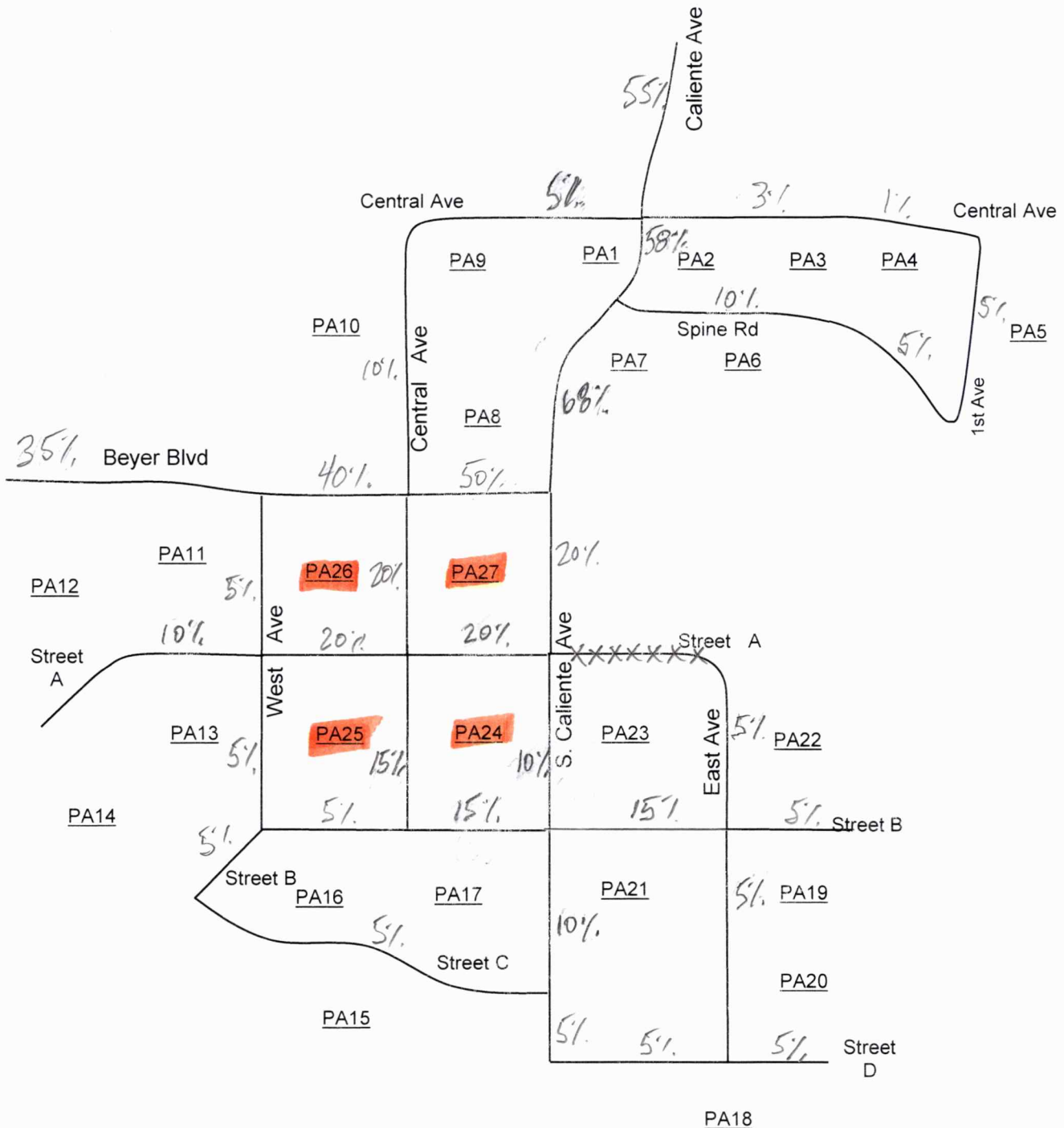
1,187 DU
MF
720



PA 24, 25, 26, & 27

175,000 SF

COMMERCIAL ALLOWED



Southwest Village

Planning Areas and Land Uses

	PA 1	PA 2&3	PA 4	PA 5	PA 6&7	PA 7	PA 8	PA 9	PA 10	PA 11	PA 12	PA 13	PA 14	PA 15
Land Use & TG	% ADT	% ADT	% ADT	% ADT	% ADT	% ADT	% ADT	% ADT	% ADT	% ADT	% ADT	% ADT	% ADT	% ADT
Single Family									225		137		181	243
MultiFamily<20	160		211	608	264			107		190		193		
MultiFamily>20							282							
Park (Acers)		7.1												
School (students)						Students 668								
TG Single Family	0	0	0	0	0	0	0	0	2,250	0	1,370	0	1,810	2,430
TG MF<20	1,280	0	1,688	4,864	2,112	0	0	856	0	1,520	0	1,544	0	0
TG MF>20	0	0	0	0	0	0	1,692	0	0	0	0	0	0	0
TG Commercial	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TG Sch/Pk		355				1,937								
TG TOTAL	1,280	355	1,688	4,864	2,112	1,937	1,692	856	2,250	1,520	1,370	1,544	1,810	2,430

Rounded

Total ADT

Distribution and Assignment

Beyer Blvd																			
Enright Dr to West Ave	28,100*	35% 448	10% 36	35% 591	35% 1,702	35% 739	5% 97	35% 592	35% 300	35% 788	35% 532	35% 480	35% 540	35% 634	35% 851				
West Ave to Central Ave	28,100*	35% 448	15% 53	35% 591	35% 1,702	35% 739	10% 194	40% 677	40% 342	40% 900	30% 456	30% 411	30% 463	30% 543	0				
Central Ave to Caliente Ave	28,100*	35% 448	20% 71	35% 591	35% 1,702	40% 845	15% 291	10% 169	10% 86	10% 225	25% 380	25% 343	25% 386	25% 453	0				

Caliente Ave

Airway Rd to Central Ave	36,900*	55% 704	10% 36	55% 928	55% 2,675	55% 1,162	5% 97	55% 931	55% 471	55% 1,238	55% 836	55% 754	55% 849	55% 996	55% 1,337				
Central Ave to Spine Rd	29,200*	40% 512	5% 18	10% 169	10% 486	55% 1,162	25% 484	15% 254	15% 128	15% 338	50% 760	50% 685	50% 772	50% 905	55% 1,337				
Spine Rd to Beyer Blvd	29,200*	40% 512	65% 231	40% 675	40% 1,946	45% 950	45% 872	15% 254	15% 128	15% 338	50% 760	50% 685	50% 772	50% 905	55% 1,337				
Beyer Blvd to Street A	17,200	5% 64	45% 160	5% 84	5% 243	5% 106	30% 581	5% 85	5% 43	5% 113	25% 380	25% 343	25% 386	25% 453	55% 1,337				
Street A to Street B	13,900	5% 64	30% 107	3% 51	3% 146	3% 63	0	2% 34	2% 17	2% 45	5% 76	5% 69	5% 77	5% 91	60% 1,458				
Street B to Street C	6,600	5% 64	10% 36	2% 34	2% 97	2% 42	0	1% 17	1% 9	1% 23	0	0	0	0	60% 1,458				
Street C to Street D	3,000	1% 13	5% 18	0	0	0	0	0	0	0	0	0	0	0	0% 0				

Central Ave

West of 1st Ave	6,000	0	5% 18	60% 1,013	60% 2,918	0	5% 97	0	0	0	0	0	0	0	0	0	0	0	0
East of Caliente Ave	7,200	0	20% 71	60% 1,013	60% 2,918	0	10% 194	0	0	0	0	0	0	0	0	0	0	0	0
West of Caliente Ave	3,900	20% 256	10% 36	5% 84	5% 243	0	10% 194	40% 677	40% 342	40% 900	5% 76	5% 69	5% 77	5% 91	0				
North of Beyer Blvd	4,500	20% 256	10% 36	5% 84	5% 243	0	10% 194	45% 761	45% 385	45% 1,013	5% 76	5% 69	5% 77	5% 91	0				
Beyer Blvd to Street A	7,700	5% 64	5% 18	5% 84	5% 243	5% 106	5% 97	5% 85	5% 43	5% 113	5% 76	5% 69	5% 77	5% 91	5% 122				
Street A to Street B	5,500	2% 26	5% 18	2% 34	2% 97	2% 42	0	2% 34	2% 17	2% 45	5% 76	5% 69	5% 77	5% 91	5% 122				

East Ave

Street A to Street B	1,700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Street B to Street D	4,700	0	10% 36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Spine Rd

West Half	8,200	0	80% 284	40% 675	40% 1,946	100% 2,112	100% 1,937	0	0	0	0	0	0	0	0	0	0	0	0
East Half	3,200	0	10% 36	30% 506	30% 1,459	0	30% 581	0	0	0	0	0	0	0	0	0	0	0	0

Street A

West of West Ave	5,800	0	15% 53	0	0	0	0	0	0	0	70% 1,064	70% 959	70% 1,081	70% 1,267	0				
West Ave to Central Ave	6,300	0	10% 36	1% 17	1% 49	1% 21	0	3% 51	3% 26	3% 68	25% 380	25% 343	25% 386	25% 453	5% 122				
Central Ave to Caliente Ave	6,600	2% 26	15% 53	1% 17	1% 49	1% 21	0	3% 51	3% 26	3% 68	20% 304	20% 274	20% 309	20% 362	5% 122				

Street B

Street C to West Ave	3,700	1% 13	5% 18	0	0	0	0	0	0	0	30% 456	30% 411	30% 463	30% 543	40% 972				
West Ave to Central Ave	2,600	2% 26	5% 18	1% 17	1% 49	1% 21	0	1% 17	1% 9	1% 23	10% 152	10% 137	10% 154	10% 181	5% 122				
Central Ave to S. Caliente Ave	3,500	2% 26	5% 18	1% 17	1% 49	1% 21	0	1% 17	1% 9	1% 23	5% 76	5% 69	5% 77	5% 91	5% 122				
S. Caliente Ave to East Ave	8,700	0	15% 53	0	0	0	0	0	0	0	0	0	0	0	0				
East of East Ave	2,300	0	5% 18	0	0	0	0	0	0	0	0	0	0	0	0				

Street C

West Ave to S. Caliente Ave	4,000	1% 13	5% 18	1% 17	1% 49	1% 21	0	1% 17	1% 9	1% 23	5% 76	5% 69	5% 77	5% 91	100% 2,430				
-----------------------------	--------------	-------	-------	-------	-------	-------	---	-------	------	-------	-------	-------	-------	-------	------------	--	--	--	--

Street D

S. Caliente Ave to East Ave	2,900	0	4% 14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East of East Ave	1,300	0	1% 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

West Ave

Beyer Blvd to Street A	7,800	0	5% 18	0	0	0	0	0	0	0	65% 988	65% 891	65% 1,004	65% 1,177	35% 851				
Street A to Street B	4,100	0	5% 18	0	0	0	0	0	0	0	20% 304	20% 274	20% 309	20% 362	35% 851				

1st Ave

Central Ave to Spine Rd	4,200	0	5% 18	50% 844	50% 2,432	0	10% 194	0	0	0	0	0	0	0	0	0	0	0	0
-------------------------	--------------	---	-------	---------	-----------	---	---------	---	---	---	---	---	---	---	---	---	---	---	---

* From SYCPU Horizon Year Volumes

Southwest Village

Planning Areas and Land Uses

PA 24-27

	PA 16		PA 17		PA 18		PA 19		PA 20		PA 21		PA 22		PA 23		PA 24		PA 25		PA 26		PA 27		Commercial		Adjacent cumulative on north edge of SWV	
Land Use & TG	%	ADT	%	ADT	%	ADT	%	ADT	%	ADT	%	ADT	%	ADT	%	ADT	%	ADT	%	ADT	%	ADT	%	ADT	%	ADT		
Single Family						238				134																		
MultiFamily<20								237				266		267														
MultiFamily>20																	352		365		251		219					
Park (Acers)				10.5												Open												
School (students)	Students	600													Space													
TG Single Family		0		0		2,380		0		1,340		0		0		0		0		0		0		0		0		
TG MF<20		0		0		0		1,896		0		2,128		2,136		0		0		0		0		0		0		
TG MF>20		0		0		0		0		0		0		0		0		2,112		2,190		1,506		1,314		0		
TG Commercial		0		0		0		0		0		0		0		0		0		0		0		0		12,250		
TG Sch/Pk		1,740		525														0		0		0		0				
TG TOTAL		1,740		525		2,380		1,896		1,340		2,128		2,136		0		2,112		2,190		1,506		1,314		12,250		
Beyer Blvd																												
Enright Dr to West Ave	5%	87	5%	26	35%	833	35%	664	35%	469	35%	745	35%	748		0	35%	739	35%	767	35%	527	35%	460	35%	4,288		
West Ave to Central Ave	5%	87	5%	26	30%	714	25%	474	25%	335	30%	638	25%	534		0	30%	634	30%	657	30%	452	30%	394	40%	4,900		
Central Ave to Caliente Ave	5%	87	5%	26	30%	714	25%	474	25%	335	30%	638	20%	427		0	30%	634	30%	657	30%	452	30%	394	50%	6,125		
Caliente Ave																												
Airway Rd to Central Ave	5%	87	5%	26	55%	1,309	55%	1,043	55%	737	55%	1,170	55%	1,175		0	55%	1,162	55%	1,205	55%	828	55%	723	55%	6,738		
Central Ave to Spine Rd	5%	87	10%	53	55%	1,309	55%	1,043	55%	737	55%	1,170	55%	1,175		0	55%	1,162	55%	1,205	55%	828	55%	723	58%	7,105		
Spine Rd to Beyer Blvd	5%	87	15%	79	55%	1,309	55%	1,043	55%	737	55%	1,170	55%	1,175		0	55%	1,162	55%	1,205	55%	828	55%	723	68%	8,330		
Beyer Blvd to Street A	5%	87	20%	105	85%	2,023	80%	1,517	80%	1,072	85%	1,809	75%	1,602		0	30%	634	30%	657	30%	452	30%	394	20%	2,450		
Street A to Street B	20%	348	25%	131	90%	2,142	95%	1,801	95%	1,273	90%	1,915	95%	2,029		0	10%	211	10%	219	10%	151	10%	131	10%	1,225		
Street B to Street C	10%	174	15%	79	70%	1,666	5%	95	5%	67	70%	1,490		0		0	0	0		0		0		0	10%	1,225		
Street C to Street D	15%	261	15%	79	40%	952	5%	95	5%	67	40%	851		0		0	0	0		0		0		0	5%	613		
Central Ave																												
West of 1st Ave		0	5%	26		0		0		0		0		0		0		0		0		0		0	1%	123	1,800 2,565 285	
East of Caliente Ave		0	5%	26		0		0		0		0		0		0		0		0		0		0	3%	368		
West of Caliente Ave		0		0		0		0		0		0		0		0		0		0		0		0	5%	613		
North of Beyer Blvd		0	5%	26		0		0		0		0		0		0		0		0		0		0	10%	1,225		
Beyer Blvd to Street A	10%	174	10%	53		0	5%	95	5%	67		0		0		0	50%	1,056	50%	1,095	50%	753	50%	657	20%	2,450		
Street A to Street B	30%	522	20%	105		0	5%	95	5%	67		0		0		0	30%	634	30%	657	30%	452	30%	394	15%	1,838		
East Ave																												
Street A to Street B		0		0		0		0		0		0	50%	1,068		0		0		0		0		0	5%	613		
Street B to Street D	5%	87	10%	53	30%	714	80%	1,517	80%	1,072	30%	638		0		0		0		0		0		0	5%	613		
Spine Rd																												
West Half		0	5%	26		0		0		0		0		0		0		0		0		0		0	10%	1,225		
East Half		0	5%	26		0		0		0		0		0		0		0		0		0		0	5%	613		
Street A																												
West of West Ave	5%	87	5%	26		0		0		0		0		0		0		0		0		0		0	10%	1,225		
West Ave to Central Ave	5%	87	5%	26	5%	119	15%	284	15%	201	5%	106	15%	320		0	10%	211	10%	219	10%	151	10%	131	20%	2,450		
Central Ave to Caliente Ave	5%	87	5%	26	5%	119	15%	284	15%	201	5%	106	25%	534		0	15%	317	15%	329	15%	226	15%	197	20%	2,450		
Street B																												
Street C to West Ave	10%	174	5%	26		0		0		0		0		0		0		0		0		0		0	5%	613		
West Ave to Central Ave	10%	174	20%	105	5%	119	5%	95	5%	67	5%	106		0		0	5%	106	5%	110	5%	75	5%	66	5%	613		
Central Ave to S. Caliente Ave	10%	174	10%	53	5%	119	5%	95	5%	67	5%	106	5%	107		0	5%	106	5%	110	5%	75	5%	66	15%	1,838		
S. Caliente Ave to East Ave	10%	174	15%	79	30%	714	95%	1,801	95%	1,273	30%	638	100%	2,136		0		0		0		0		0	15%	1,838		
East of East Ave	5%	87	10%	53		0	15%	284	15%	201		0	50%	1,068		0		0		0		0		0	5%	613		
Street C																												
West Ave to S. Caliente Ave	10%	174	10%	53	5%	119		0		0	5%	106		0		0		0		0		0		0	5%	613		
Street D																												
S. Caliente Ave to East Ave	15%	261	15%	79	40%	952	5%	95	5%	67	40%	851		0		0		0		0		0		0	5%	613		
East of East Ave	3%	52	3%	16	10%	238	5%	95	5%	67	10%	213		0		0		0		0		0		0	5%	613		
West Ave																												
Beyer Blvd to Street A	5%	87	5%	26	5%	119	10%	190	10%	134	5%	106	10%	214		0	20%	422	20%	438	20%	301	20%	263	5%	613		
Street A to Street B	10%	174	15%	79	5%	119	5%	95	5%	67	5%	106		0		0	10%	211	10%	219	10%	151	10%	131	5%	613		
1st Ave																												
Central Ave to Spine Rd		0	5%	26		0		0		0		0		0		0		0		0		0		0	5%	613		