

D. BUILD OUT CONDITIONS

This section provides a description of the Build Out conditions projected for the San Ysidro community for the Year 2030.

Road Network

Under the Build Out scenario or by the Year 2030, no infrastructure improvements have been assumed to be completed in the study area. As a result, the intersection and roadway geometrics are the same as Existing Conditions (see **Figures 2-7a, 2-7b and 2-8**).

Traffic Volumes

The Build Out traffic volumes for the roadway segments in the study area were obtained from SANDAG's Series 10 regional model for the Year 2030. To estimate the Build Out turning movement volumes at the study intersections, the existing turning movements at each respective study intersection were factored up based on the projected ADT volumes along each approach, as discussed previously. **Figure 2-25** shows the projected growth in the San Ysidro community for the Year 2030. As shown in the figure, the majority of the growth is anticipated to occur north of the study area with approximately 30 percent originating from the northwest and 27 percent originating from the northeast. Only five percent is anticipated to be originating from within the community. **Figure 2-26** displays the projected growth in daily traffic volumes along the roadway segments evaluated in the study area.

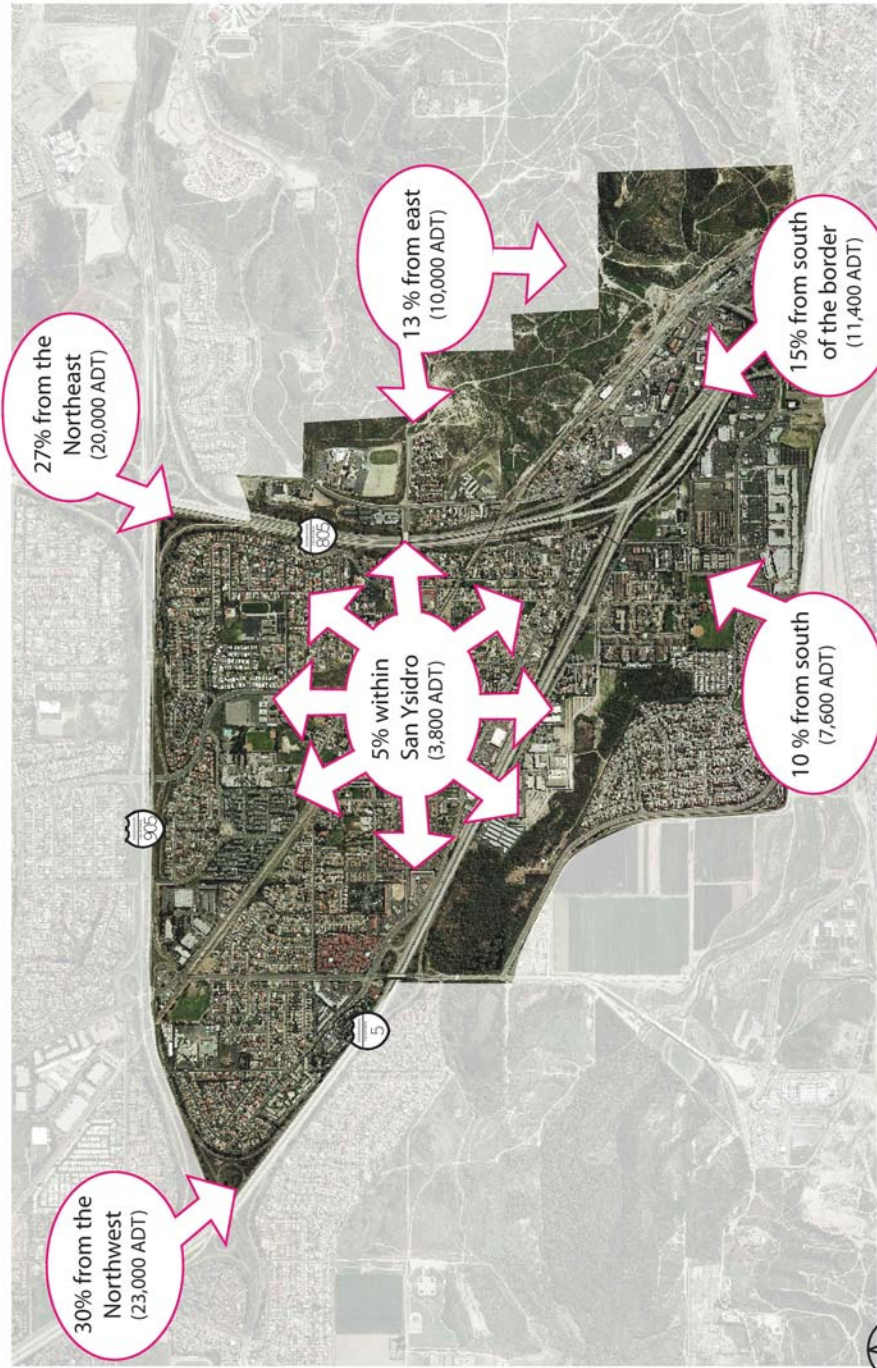
Figures 2-27 through 2-28 show the Build Out peak-hour and ADT volumes for the Year 2030.

Intersection Analysis

Table 2-11 displays the LOS analysis results for the study intersections under the Build Out condition. As shown in the table, all study intersections would operate at LOS D or better except for the following intersections:

- I-5 NB ramps & Via de San Ysidro (LOS F, a.m. and p.m. peaks)
- I-5 SB Off-Ramp & Via de San Ysidro (LOS E, p.m. peak)
- Calle Primera & Via de San Ysidro (LOS F, a.m. and p.m. peaks)
- East San Ysidro Boulevard & East Beyer Boulevard (LOS F, a.m. peak, LOS E, p.m. peak)
- Camino de la Plaza & Willow Road (LOS F, a.m. and p.m. peaks)

Figure 2-29 graphically displays the LOS at the study intersections. **Appendix E** contains the LOS calculation worksheets.



Not to Scale



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Figure 2-25
Projected Growth

San Ysidro Mobility Strategy

<p>1</p> <p>161 / 310 83 / 236 Dairy Mart Rd</p> <p>I-5 SB ramps</p> <p>288 / 615 200 / 447</p> <p>646 / 487 19 / 37</p>	<p>2</p> <p>52 / 116 136 / 222 177 / 256 Dairy Mart Rd</p> <p>168 / 196 115 / 129 70 / 201 W San Ysidro Blvd</p> <p>35 / 44 178 / 162 62 / 129</p> <p>149 / 136 216 / 261 575 / 722</p>	<p>3</p> <p>267 / 423 397 / 374 W San Ysidro Blvd</p> <p>340 / 691 613 / 424</p> <p>108 / 67 98 / 88</p>	<p>4</p> <p>141 / 93 301 / 182 Smythe Ave</p> <p>194 / 112 424 / 325 Beyer Blvd</p> <p>124 / 64 442 / 275</p>
<p>5</p> <p>16 / 12 2 / 2 125 / 137 Cottonwood Rd</p> <p>108 / 96 339 / 588 4 / 15 W San Ysidro Blvd</p> <p>14 / 19 295 / 687 2 / 3</p> <p>4 / 2 3 / 1 8 / 5</p>	<p>6</p> <p>182 / 379 358 / 425 W San Ysidro Blvd</p> <p>222 / 549 167 / 349</p> <p>276 / 315 489 / 677</p>	<p>7</p> <p>276 / 163 290 / 593 Via de San Ysidro</p> <p>137 / 64 27 / 113 I-5 NB Ramps</p> <p>182 / 425 664 / 921</p>	<p>8</p> <p>376 / 834 Via de San Ysidro</p> <p>183 / 525 114 / 418</p> <p>842 / 816</p>
<p>9</p> <p>87 / 376 8 / 15 390 / 1878 Via de San Ysidro</p> <p>602 / 615 105 / 82 11 / 10 Via Calle Primera</p> <p>106 / 193 92 / 225 12 / 9</p> <p>8 / 8 35 / 59 11 / 22</p>	<p>10</p> <p>218 / 197 2 / 3 230 / 413 I-805 SB ramps</p> <p>410 / 629 47 / 213 E San Ysidro Blvd</p> <p>587 / 855 119 / 316</p>	<p>11</p> <p>I-805 NB ramps</p> <p>231 / 575 359 / 698 E San Ysidro Blvd</p> <p>218 / 202 561 / 1016</p> <p>67 / 102 0 / 2 129 / 379</p>	<p>12</p> <p>298 / 905 0 / 3 E San Ysidro Blvd</p> <p>379 / 799 266 / 617</p> <p>159 / 482 7 / 7</p>
<p>13</p> <p>2 / 2 2 / 1 2 / 33 Border Village Rd (south end)</p> <p>3 / 0 259 / 638 76 / 165 E San Ysidro Blvd</p> <p>3 / 16 330 / 781 2 / 2</p> <p>2 / 2 0 / 4 72 / 289</p>	<p>14</p> <p>206 / 103 257 / 196 48 / 68 E Beyer Blvd</p> <p>23 / 50 48 / 235 22 / 61 E San Ysidro Blvd</p> <p>295 / 153 43 / 337 138 / 704</p> <p>23 / 583 123 / 231 10 / 569</p>	<p>15</p> <p>59 / 75 74 / 55 0 / 4 I-5 Ramps</p> <p>0 / 2 21 / 18 7 / 2 E San Ysidro Blvd</p> <p>101 / 164 24 / 27 2 / 931</p> <p>112 / 184 59 / 20 7 / 1</p>	<p>16</p> <p>70 / 84 48 / 224 277 / 1472 Willow Rd</p> <p>155 / 553 29 / 155 12 / 39 Camino de la Plaza</p> <p>140 / 85 38 / 115 6 / 26</p> <p>3 / 19 29 / 156 5 / 67</p>



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Figure 2-27a

Build Out Peak-Hour Traffic Volumes

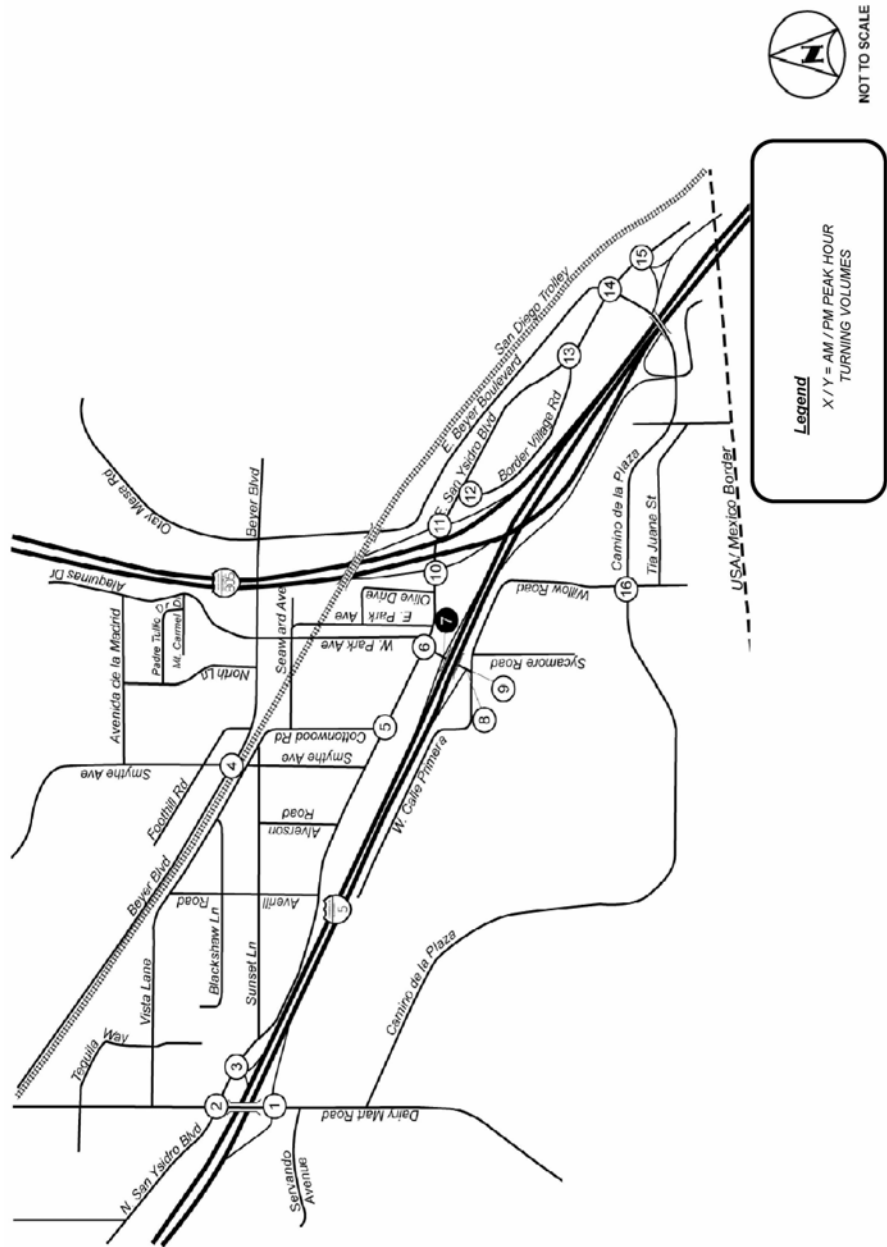


Figure 2-27b
Build Out Peak-Hour Traffic Volumes (cont.)



Table 2-11
BUILD OUT CONDITIONS
PEAK-HOUR INTERSECTION LOS SUMMARY

	INTERSECTION	PEAK HOUR	YEAR 2030 BASELINE	
			DELAY (a)	LOS (b)
1	I-5 SB Ramps & Dairy Mart Rd	AM	32.7	C
		PM	44.2	D
2	W. San Ysidro Blvd & Dairy Mart Rd	AM	19.2	B
		PM	39.9	D
3	W. San Ysidro Blvd & I-5 NB Ramps	AM	19.6	B
		PM	13.7	B
4	Beyer Blvd & Smyth Ave	AM	19.3	B
		PM	10.1	B
5	W. San Ysidro Blvd & Cottonwood Rd	AM	7.4	A
		PM	8.6	A
6	W. San Ysidro Blvd & Via de San Ysidro	AM	17.1	B
		PM	42.9	D
7	I-5 NB Ramps & Via de San Ysidro	AM	114.4	F
		PM	ECL	F
8	I-5 SB off-ramp & Via de San Ysidro	AM	29.6	C
		PM	68.6	E
9	Calle Primera & Via de San Ysidro	AM	83.3	F
		PM	90.7	F
10	E. San Ysidro Blvd & I-805 SB Ramps	AM	11.8	B
		PM	16.9	B
11	E. San Ysidro Blvd & I-805 NB Ramps	AM	9.8	A
		PM	25.1	C
12	E. San Ysidro Blvd & Border Village Rd (N)	AM	7.6	A
		PM	46.6	D
13	E. San Ysidro Blvd & Border Village Rd (S)	AM	10.2	B
		PM	33.8	C
14	E. San Ysidro Blvd & E. Beyer Blvd	AM	ECL	F
		PM	56.1	E
15	E. San Ysidro Blvd & I-5 NB Ramp	AM	12.2	B
		PM	45.5	D
16	Camino de la Plaza & Willow Rd	AM	ECL	F
		PM	ECL	F

Notes:

Bold values indicate intersections operating at LOS E or F.

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

(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 6.0

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Summary of Build Out Conditions Peak-Hour Intersection LOS
Figure 2-29

Roadway Segment Analysis

Table 2-12 displays the roadway segments analysis under the Build Out condition. As shown in the table, all roadway segments function at LOS D or better except for the following segments:

- San Ysidro Boulevard between Dairy Mart Road and Cottonwood Road (LOS F)
- San Ysidro Boulevard between Cottonwood Road and Via de San Ysidro (LOS F)
- San Ysidro Boulevard between I-805 Ramps and Border Village Road (South) (LOS F)
- E. Beyer Boulevard between Beyer Boulevard and E. San Ysidro Boulevard (LOS F)
- Camino de la Plaza between I-805 ramps and San Ysidro Boulevard (LOS F)
- Willow Road between Calle Primera and Camino de la Plaza (LOS F)
- Border Village Road (LOS F)

Figure 2-30 graphically displays the LOS at the roadway segments.

Table 2-12
BUILD OUT CONDITIONS
ROADWAY SEGMENT LOS SUMMARY

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ADT (b)	V/C RATIO (c)	LOS
Dairy Mart Rd					
W. San Ysidro Blvd to Vista Ln	4-Lane Collector	30,000	12,000	0.400	B
W. San Ysidro Blvd					
Dairy Mart Rd to Cottonwood Rd	2-Lane Collector (continuous left-turn lane)	15,000	16,000	1.067	F
Cottonwood Rd to Via de San Ysidro	2-Lane Collector (Multi-family)	8,000	20,000	2.500	F
Via de San Ysidro to I-805 Ramps	4-Lane Major Arterial	40,000	26,600	0.665	C
E. San Ysidro Blvd					
I-805 Ramps to Border Village Rd (south)	2-Lane Collector (continuous left-turn lane)	15,000	19,000	1.267	F
Border Village Rd (south) to E. Beyer Blvd/Camino de la Plaza	4-Lane Major Arterial	40,000	24,000	0.600	C
W. Park Ave					
W. San Ysidro Blvd to Beyer Blvd	1-Lane Collector (one-way)	5,000	3,300	0.660	C
E. Park Ave					
W. San Ysidro Blvd to E. Seaward Ave	1-Lane Collector (one-way)	5,000	4,000	0.800	D
Beyer Blvd					
Diary Mart Rd to Smythe Ave	4-Lane Collector (no center lane)	15,000	11,800	0.787	D
Smythe Ave to E. Beyer Blvd	4-Lane Collector	30,000	17,900	0.597	C
E. Beyer Blvd					
Beyer Blvd to E. San Ysidro Blvd	2-Lane Collector (Multi-family)	8,000	8,500	1.063	F
Via de San Ysidro					
Calle Primera to W. San Ysidro Blvd	4-Lane Collector	30,000	23,000	0.767	D
Camino de la Plaza					
Diary Mart Rd to I-805 Ramps	4-Lane Collector	30,000	8,000	0.267	A
I-805 Ramps to E. San Ysidro Blvd	4-Lane Collector	30,000	28,000	0.933	E
Willow Rd					
Calle Primera to Camino de la Plaza	2-Lane Collector (Multi-family)	8,000	31,300	3.913	F
Border Village Rd					
E. San Ysidro Blvd to E. San Ysidro Blvd	2-Lane Collector (Multi-family)	8,000	10,000	1.250	F
Notes:					
Bold values indicate roadway segments operating at LOS E or F.					
(a) Future roads street classification is based on the San Ysidro Community Plan adopted September 18, 1990.					
(b) Average Daily Traffic (ADT) volumes for the roadway segments were taken from SANDAG's Series 10 Regional Model for the year 2030.					
(c) The v/c ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity at LOS E.					

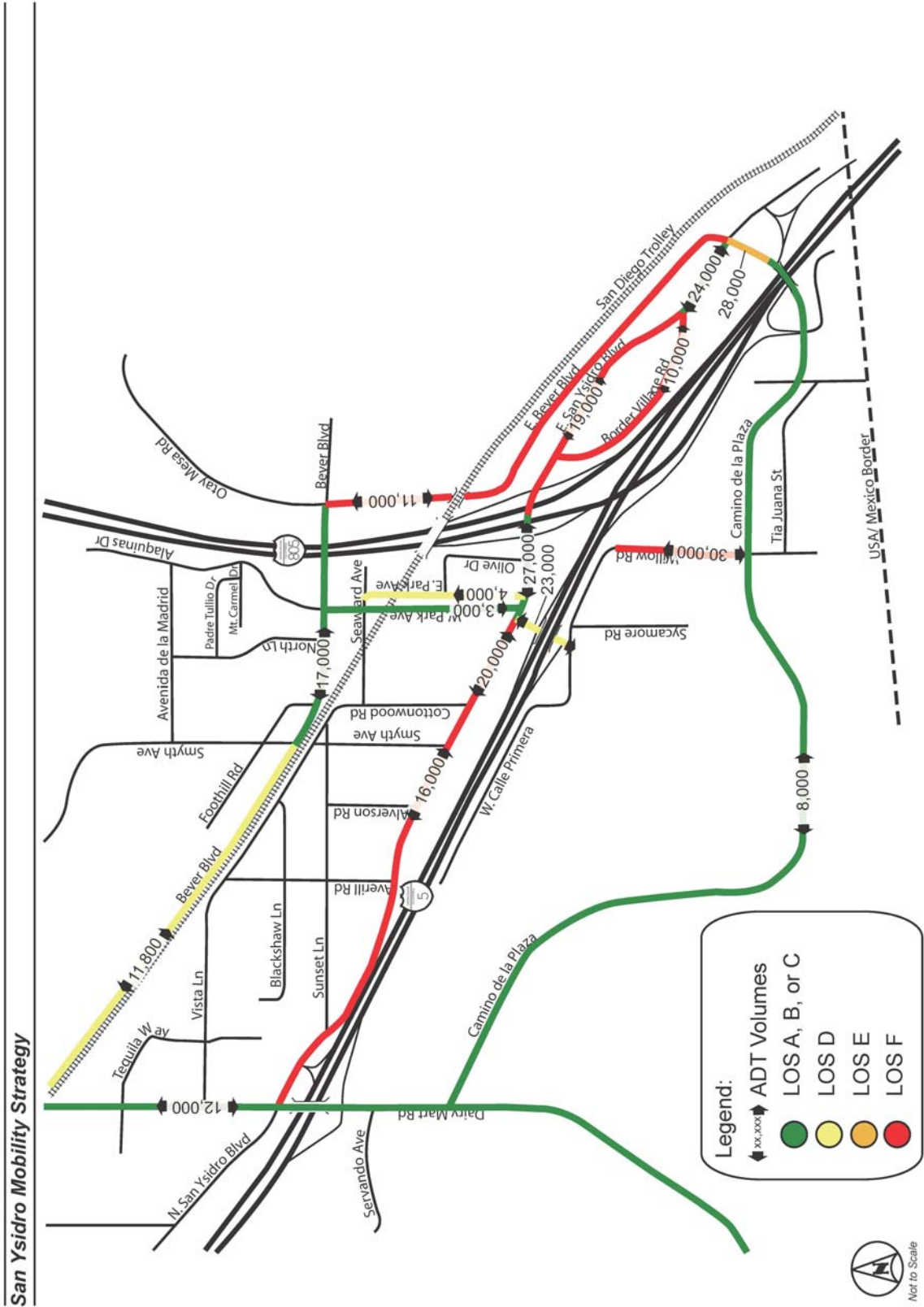


Figure 2-30
Summary of Build Out Conditions Roadway Segment LOS

E. LAND USES

At the time of this writing, a Community Plan Update for San Ysidro is about 3 months from beginning. There will likely be some changes to the existing land uses when the update process is completed. However, it is important to understand the existing land uses in the preparation of any mobility strategy. **Figure 2-31** is the current Community Plan Existing Condition Land Use Map and **Figure 2-32** is the current Community Plan Existing Condition Transit and Bike Route map. Note that the existing Community Plan does not indicate many bike routes. No through routes are indicated and those bike routes that are shown are not located in areas likely to generate high bike traffic.

The community of San Ysidro contains a wide variety of land uses. As noted earlier, the bulk of the community is surrounded by a freeway system and bisected by a rail corridor with little access across it. As illustrated in **Figure 2-21**, many pedestrian intensive uses presently exist. It is imperative that mobility choices be maximized to take advantage of these high pedestrian generation areas.



San Ysidro

Existing Conditions

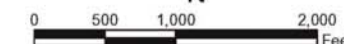
Land Use

Legend

- Single Family Residential; Rural Residential
- Multi-Family Residential
- Residential (under construction)
- Group Quarters
- Mobile Home Park
- Commercial
- Commercial (under construction)
- Industrial, Warehouse/Storage
- Industrial Under Construction
- Communication Utilities; Parking
- Institutional
- Schools
- Other Transportation
- Agriculture
- Park; Open Space
- Private Recreation
- Undeveloped, Undevelopable Natural Areas

Single Family—single family detached housing units, on lots smaller than 1 acre.
Multi-Family—Attached housing units, two or more units per structure—includes duplexes, townhouses, condominiums, apartments, and SRO's in Centre City.
Group Quarters—includes dormitories, convalescent or retirement homes not associated with or within a health care facility, rooming houses, or hall-way houses.
Commercial—includes, community, neighborhood, and specialty shopping centers, office buildings, hotels, motels, auto dealerships, wholesale trade, and store front retail, which may include mixed-use i.e. residential on top of commercial, or residential units adjacent to commercial establishments.
Industrial—heavy industry, light industry, which includes industrial parks—office/industrial uses clustered into a center. Light industry—usually along major streets or clustered in certain areas, which includes manufacturing uses such as lumber, furniture, paper, rubber, stone, clay, and glass; as well as light industrial uses as auto repair services and recycling centers. Warehousing/public storage—usually large buildings located near freeways, industrial or strip commercial areas.
Communication and Utilities/Parking—TV and radio broadcasting stations, relay towers, electrical power generating plants, water and sewage treatment facilities and surface parking lots. Transit Centers included.
Institutional—hospitals, churches, libraries, post offices, police and fire stations, and other public services, such as cultural facilities, museums, art galleries, social service agencies, humane societies, and historic sites.
Schools—Includes public and private schools, colleges, and universities.
Park—Community parks with recreation areas and centers containing one or more of the following activities: tennis or basketball courts, baseball diamonds, soccer fields, or ovals. Smaller neighborhood parks with a high level of use are also included as active parks.
Private Recreation—May include clubhouses, recreation areas, pools, tennis courts etc. within and associated with residential development if a separate parcel exists. Also includes Golf Courses.
Open Space—includes wildlife and nature preserves, lands set aside for open space, and parks with limited development and access.
Undeveloped—Vacant land that is either graded or not graded. Undevelopable natural areas planned as open space easements around development or open space not a part of an established park or preserve.

All land use designations may not occur in the area displayed on this map.



City of San Diego
Planning Department
October 21, 2003

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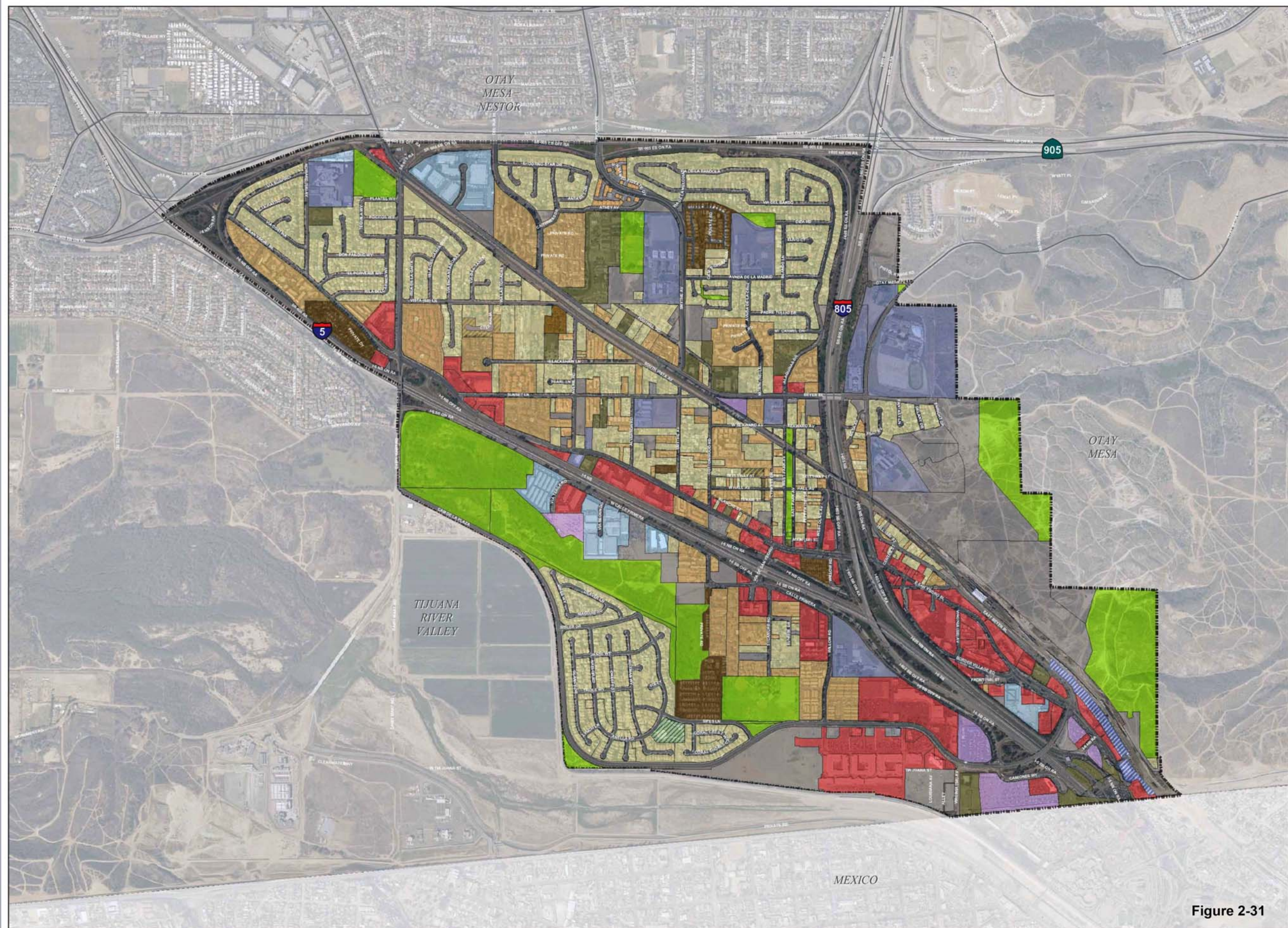


Figure 2-31



San Ysidro

Existing Conditions

Transit and Bike Routes

Transit Stops

- Local Bus
- Express Bus
- Limited Express Bus
- Trolley

Transit Routes

- Local Bus
- Limited Express Bus
- Express Bus
- Trolley

- Commuter Rail
- 123 Route Number/Name (some information may be removed for clarity)

Bikeway Class

- 1
- 2
- 3

Transit and Bike Routes

Bike Lanes and Routes
National design standards for bikeways have been developed by the American Association of Highway and Transportation Builders (AAHTB) and the California Department of Transportation (Caltrans). The Caltrans Highway Design Manual, Chapter 1000, Bikeway Planning and Design, serves as the official standard for all bicycle facilities in California. While all roadways are open to bicycle travel unless it is specifically prohibited, the California Highway Design Manual establishes three classifications of facilities specifically for bicycle traffic.

Path of Trail and Reduced Speed Path - Class I bikeways that are bike paths, also called multi-use trails, consisting of an eight- to twelve-foot paved surface within the main right of way. Appropriate where an roadway alternative route, or where they can be provided with limited interference from adjacent roadways.

Bike Lane - A Class II bikeway that consists of a five-foot lane that are striped on the outside of the roadway and identified with signs and pavement markings. This is the predominant type of bikeway facility in the region.

Bike Route - Class III bike routes which typically have wider outside lanes, lower traffic volumes, and slower vehicle speeds.

Other Suggested Routes - Suggested, unmarked streets relatively good for bicycling.

Note: all features may not exist in this area.



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Figure 2-32