

SECTION 3

LONG-TERM FUTURE (YEAR 2010) CONDITIONS

The following paragraphs describe long-term future conditions in the Torrey Hills project. Succeeding sections will analyze future traffic conditions, compare the traffic impacts of proposed land uses to those of approved land uses, and describe project phasing.

3.1 FUTURE TRANSPORTATION SYSTEM

3.1.1 FUTURE STREET NETWORK

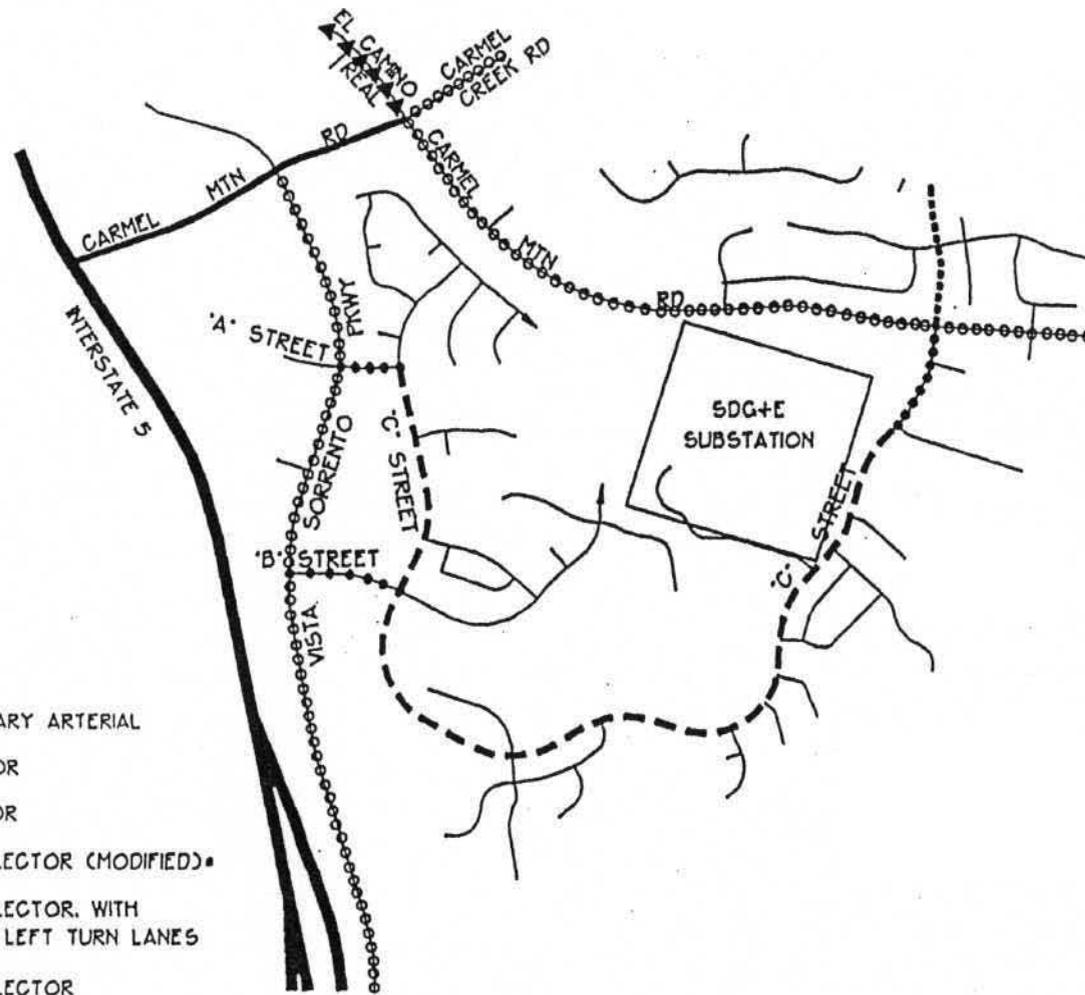
The Sorrento Hills roadway network has been modified from the approved plan in order to provide for better circulation of project-related traffic and to serve the proposed development patterns. Among the key changes was the extension and realignment of the former "D" Street to connect with Carmel Mountain Road near the eastern edge of the project. This street is now known as "C" Street and includes a segment formerly referred to as Sorrento Hills Boulevard East. "C" Street's alignment has been shifted to the west opposite a residential access street and now provides only two connections to Vista Sorrento Parkway (via "A" Street and "B" Street), whereas the previous plan provided for three connections. The extension of "C" Street will improve intra-project access and allow motorists to avoid possible congestion at the Carmel Mountain Road intersections with Vista Sorrento Parkway and El Camino Real. Figure 3.1-1 depicts the proposed future street alignments and classifications. (Refer to Appendix A for a map presenting the superseded street system.)

3.1.2 FUTURE INTERSECTION CONFIGURATIONS

Kimley-Horn developed lane configurations for future intersections based on anticipated travel patterns. At the Carmel Mountain Road intersection with the access road serving the multi-family development on the north side of Carmel Mountain Road south of Carmel Creek Road (i.e., TAZ 722), traffic operations will be channelized as shown in previously-referenced Figure 3.1-2. The configuration shown will serve as a temporary refuge/acceleration lane for southbound left-turning vehicles. Figure 3.1-2 presents the lane configurations of the 12 intersections analyzed in this study.

3.1.3 BICYCLE ROUTES

Figure 3.1-3 depicts the location of bicycle routes within the Torrey Hills development. These routes were identified in consultation with City of San Diego staff and are generally consistent with the Pedestrian Circulation Plan contained in the Torrey Hills Planned Residential Development/Planned Industrial Development Design Guidelines and Development Standards (June, 1995).



LEGEND

-  FREEWAY
-  6-LANE PRIMARY ARTERIAL
-  6-LANE MAJOR
-  4-LANE MAJOR
-  4-LANE COLLECTOR (MODIFIED)
-  2-LANE COLLECTOR, WITH CONTINUOUS LEFT TURN LANES
-  2-LANE COLLECTOR
-  LOCAL STREET
- INCLUDES A RAISED MEDIAN



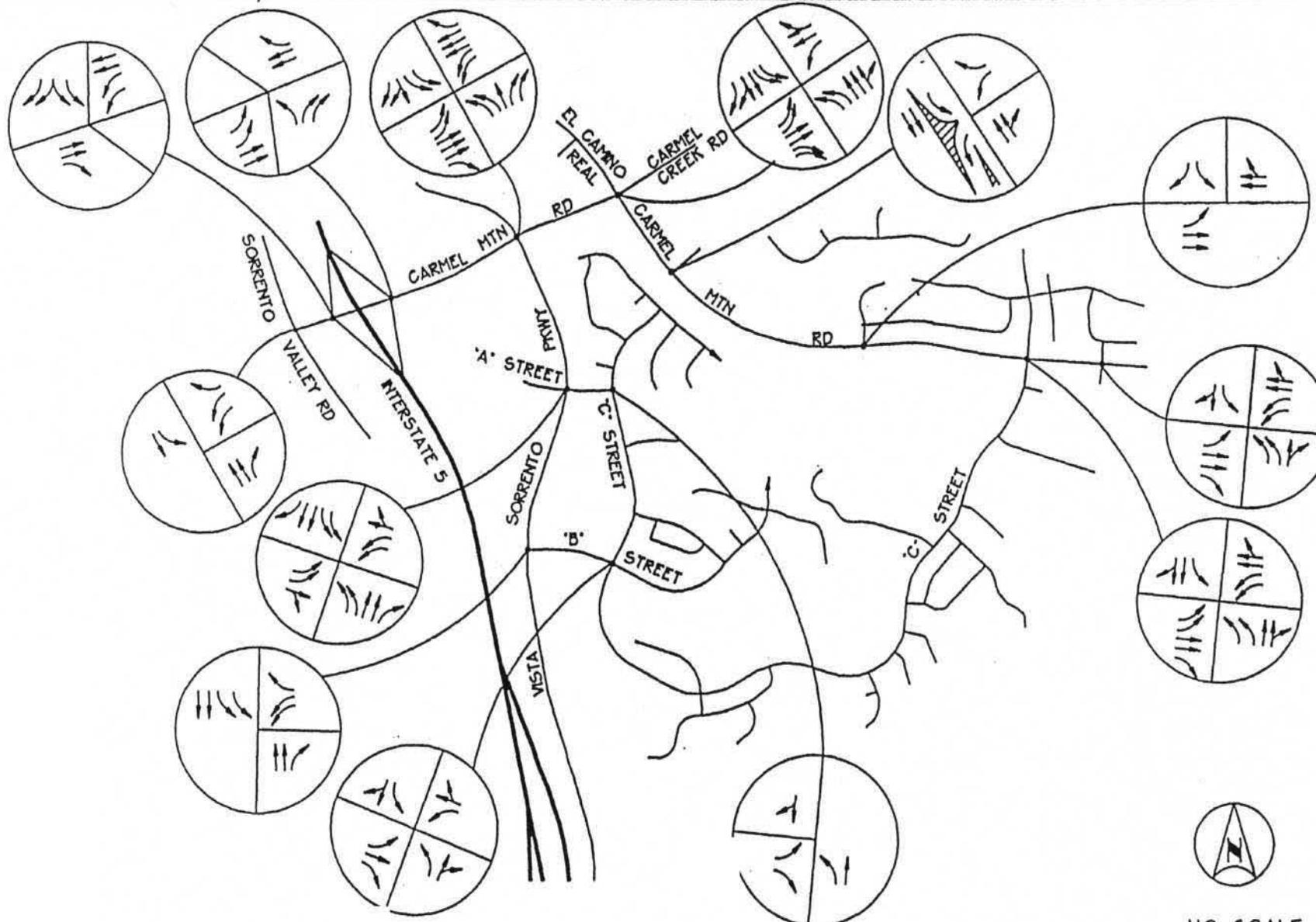
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TORREY HILLS PROPOSED STREET CLASSIFICATION

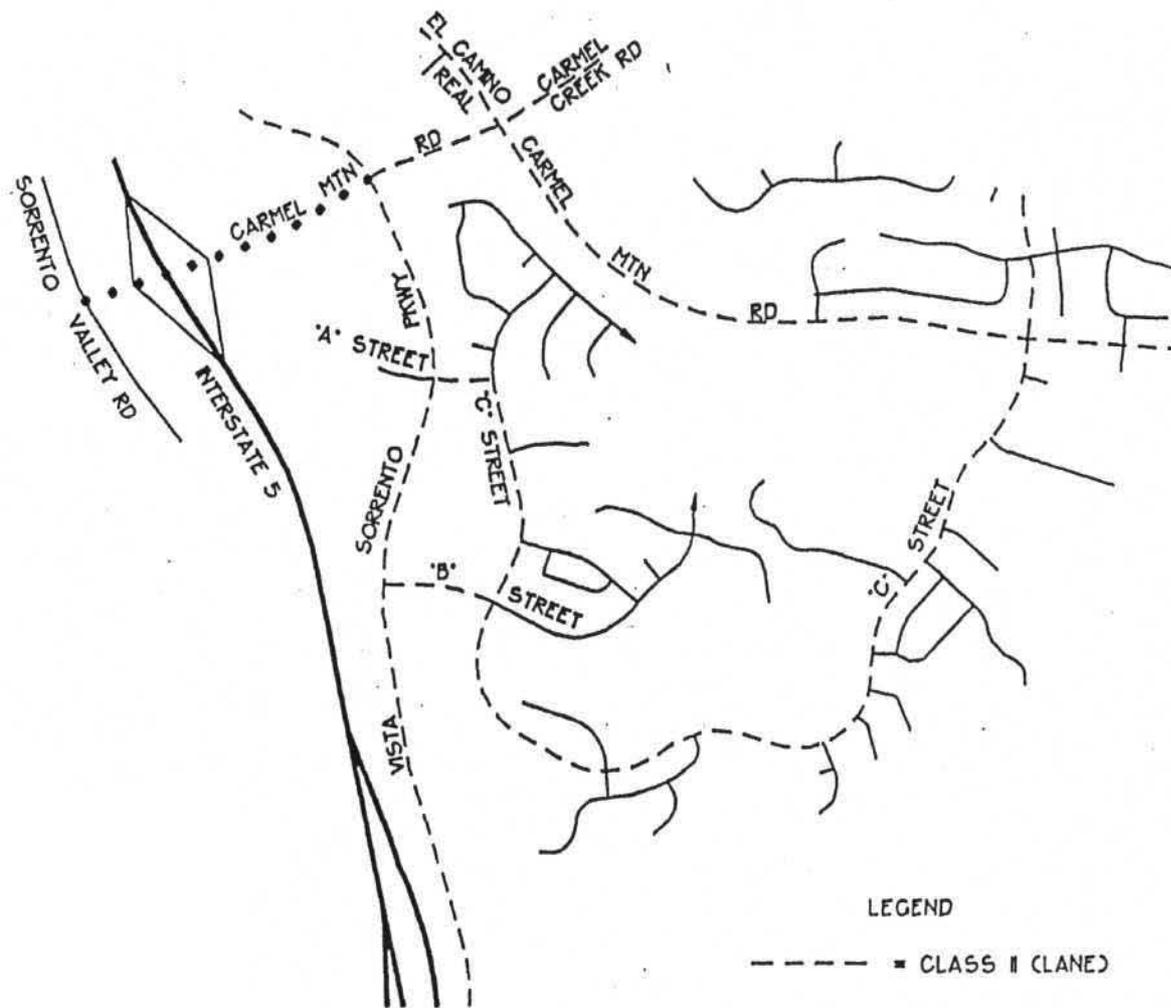
FIGURE 3.1-1



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TORREY HILLS
INTERSECTION LANE CONFIGURATIONS

FIGURE 3.1-2



LEGEND

- ■ CLASS II (LANE)
- ■ CLASS III (ROUTE)



NO SCALE



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TORREY HILLS BICYCLE FACILITIES

FIGURE 3.1-3

3.2 FORECAST TRAFFIC VOLUMES

Forecast traffic volumes were obtained using the regional transportation demand forecast model developed and maintained by the San Diego Association of Governments (SANDAG). Kimley-Horn developed model inputs for a project-specific travel forecast. This forecast considers the proposed project and the latest development proposals in the Carmel Valley community plan area. This forecast, which was developed in consultation with the City, assumes that Carmel Creek Road will connect to SR-56 in Neighborhood 8A. A separate evaluation of this issue is being reviewed as part of the update to the Carmel Valley Neighborhood 8A Specific Plan. The model is based on complete buildout of the Sorrento Hills community planning area and the surrounding area and year 2010 projections of population and employment in the San Diego region. The model reflects the Torrey Hills land uses as currently proposed, which have less intense trip generation characteristics than the approved plan. The following subsections summarize the key steps in developing the forecast.

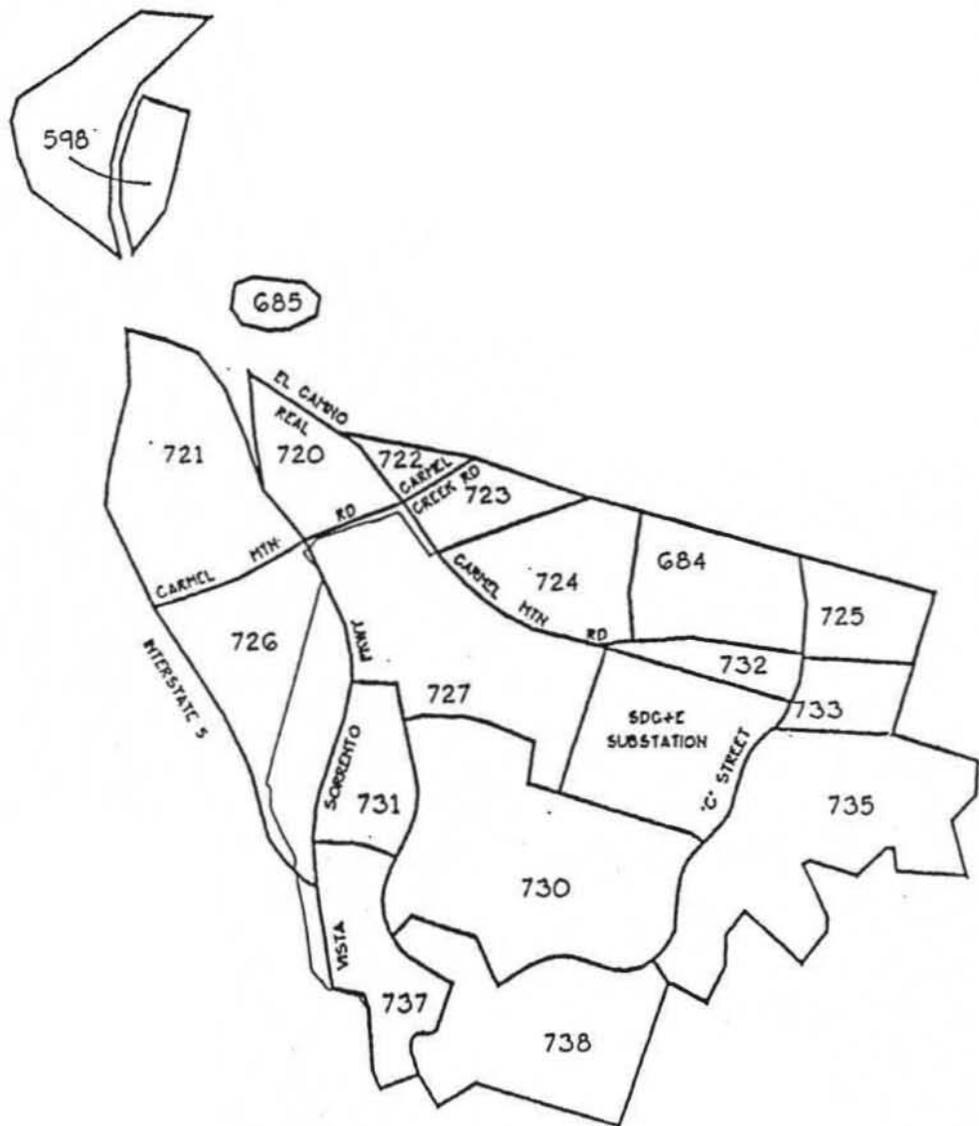
3.2.1 PROJECT TRAFFIC GENERATION

Sorrento Hills Community land uses were grouped into similarly-sized geographic subunits, known as Traffic Analysis Zones (TAZs). Figure 3.2-1 depicts TAZ boundaries for the entire Sorrento Hills Community. Trip generation rates developed by the City of San Diego were then used to calculate the number of trips generated by all Sorrento Hills land uses based on land use types and intensities. The "cumulative" traffic generation rate which represents the amount of traffic that is expected to be added to the roadway system (i.e., driveway traffic minus "pass-by" traffic), which was used in this evaluation.

Table 3.2-1 summarizes Sorrento Hills traffic generation. In accordance with City of San Diego direction, this study analyzes traffic conditions associated with cumulative trip generation, because this condition reflects the addition of new traffic to the street system. As shown in Table 3.2-1, the Community (comprised primarily of the Torrey Hills project) will generate 65,123 daily trips, including 6,374 in the morning peak hour and 7,853 in the afternoon peak hour. The proposed project will have a better balance of inbound/outbound peak hour trips than the approved Community Plan. This is particularly true in the afternoon peak hour, where 37 percent of all trips are inbound (compared to 34 percent in the approved plan). This is due to the mix of proposed land uses. Whereas the approved plan provided for more intensive industrial uses which would generate heavy outbound traffic volumes in the afternoon peak hour, proposed land uses would have a mix of land uses which, when combined, would generate a more balanced split on inbound and outbound traffic. This balance will reduce the congestion typically associated with highly concentrated directional travel.

Traffic Analysis Zone 733, located at the southeast corner of the Carmel Mountain Road/"C" Street, will generate 8,640 daily trips. This neighborhood commercial center will serve the needs of the Sorrento Hills Community, as well as those of the Carmel Valley (South) Community and Future Urbanizing Area (FUA) Subarea V. Nearly all of these trips are "captured" within

3-6



NO SCALE



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TORREY HILLS TRAFFIC ANALYSIS ZONE

FIGURE 3.2-1

TABLE 3.2-1
TORREY HILLS DAILY AND PEAK HOUR TRIP GENERATION
SUBTOTALLED BY TRAFFIC ANALYSIS ZONE (CUMULATIVE RATE FOR RETAIL USES)

TAZ	LAND USE	AMOUNT	DAILY TRIP RATE	AM PEAK HOUR TRIPS				PM PEAK HOUR TRIPS		
				ADT*	TOTAL	IN	OUT	TOTAL	IN	OUT
598	Office/Corporate	440,066 SF	15 /KSF	6,601	990	891	99	990	99	891
598	Visitor Serving Comm.	36,580 SF	20 /KSF	732	110	99	11	110	11	99
				7,333	1,100	990	110	1,100	110	990
684	SF 4,000	120 DU	10 /DU	1,200	96	19	77	120	84	36
684	SF 5,000	35 DU	10 /DU	350	28	6	22	35	25	11
				1,550	124	25	99	155	109	47
685	Single-Family Dwelling	2 DU	10 /DU	20	2	0	1	2	1	1
720	Office	210,000 SF	20 /KSF	4,200	546	491	55	588	118	470
721	Office	210,000 SF	20 /KSF	4,200	546	491	55	588	118	470
721	Single-Family Dwelling	121 DU	10 /DU	1,210	97	19	77	121	85	36
721	Industrial	120,000 SF	15 /KSF	1,800	198	178	20	216	43	173
721	Industrial	42,070 SF	15 /KSF	631	69	62	7	76	15	61
				7,841	910	751	159	1,001	261	740
722	Flats (MF)	88 DU	8 /DU	704	56	11	45	70	49	21
723	Flats (MF)	262 DU	8 /DU	2,096	168	34	134	210	147	63
724	Courtyard Dwelling (SF)	125 DU	10 /DU	1,250	100	20	80	125	88	38
724	SF 5,000	35 DU	10 /DU	350	28	6	22	35	25	11
				1,600	128	26	102	160	112	48
725	SF 5,000	85 DU	10 /DU	850	68	14	54	85	60	26
726	Industrial	237,930 SF	15 /KSF	3,569	393	353	39	428	86	343
726	Office/Industrial	270,000 SF	20 /KSF	5,400	702	632	70	756	151	605
726	Support Commercial	40,000 SF	72 /KSF	2,880	115	69	46	317	158	158
726	Day Care	3,000 SF	70 /KSF	210	40	20	20	38	19	19
				12,059	1,250	1,074	175	1,539	414	1,125
727	SF 5,000	135 DU	10 /DU	1,350	108	22	86	135	95	41
727	SF Shallow	80 DU	10 /DU	800	64	13	51	80	56	24
				2,150	172	34	138	215	151	65
730	Townhouse	140 DU	8 /DU	1,120	90	18	72	112	78	34
730	SF 4,000	140 DU	10 /DU	1,400	112	22	90	140	98	42
730	Townhouse Flat	200 DU	8 /DU	1,600	128	26	102	160	112	48
				4,120	330	66	264	412	288	124
731	Elementary School	4 AC	60 /AC	240	62	37	25	12	4	8
731	Health Club	20,000 SF	45 /KSF	900	36	22	14	81	49	32
731	Park	12 AC	50 /AC	600	24	12	12	48	24	24
				1,740	122	71	51	141	76	65
732	Neighborhood Commer.	5,000 SF	72 /KSF	360	14	9	6	40	20	20
733	Neighborhood Commer.	110,000 SF	72 /KSF	7,920	317	190	127	871	436	436
735	Flats	300 DU	8 /DU	2,400	192	38	154	240	168	72
735	Townhouse Flats	190 DU	8 /DU	1,520	122	24	97	152	106	46
735	SF 4,000	165 DU	10 /DU	1,650	132	26	106	165	116	50
735	SF 4,000	15 DU	10 /DU	150	12	2	10	15	11	5
				5,720	458	92	366	572	400	172
737	Office	190,000 SF	20 /KSF	3,800	494	445	49	532	106	426
738	SF 5,000	40 DU	10 /DU	400	32	6	26	40	28	12
738	SF 5,000	70 DU	10 /DU	700	56	11	45	70	49	21
				1,100	88	18	70	110	77	33
TOTALS				65,123	6,374	4,466	1,908	7,853	2,860	4,993

* Average Daily Traffic Volume

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Sorrento Hills, Carmel Valley, and FUA Subarea V communities and would have minimal regional transportation impacts. The trip generation characteristics of this TAZ are therefore somewhat overstated.

3.2.2 PROJECT TRAFFIC DISTRIBUTION AND ASSIGNMENT

Project-related traffic volumes on the street system shown on previously-referenced Figure 3.2-1 were estimated using a select zone run of the SANDAG model. **Figure 3.2-2** presents total project volumes on study area roadways as well as the percentage of total project traffic on each segment. Carmel Mountain Road between Vista Sorrento Parkway and the I-5 northbound ramps will accommodate nearly 22,000 project-related trips, or 34 percent of total project-generated traffic. Although the project traffic represents the greatest portion of total forecast traffic on most links, some segments, including Carmel Mountain Road and Vista Sorrento Parkway, will have a significant amount of non-project traffic on them. These volumes represent regional traffic entering or passing through Sorrento Hills.

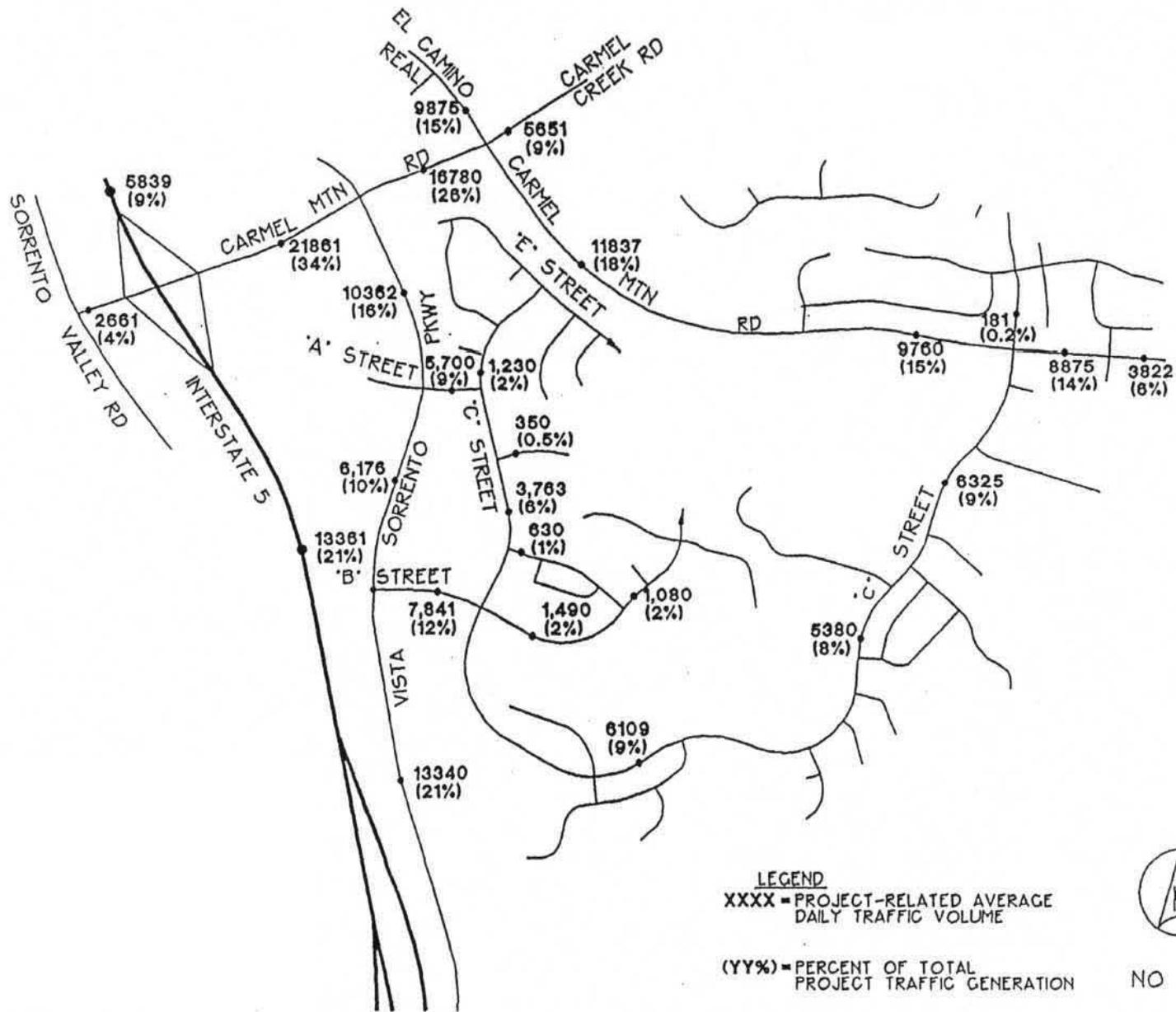
A cordon analysis was conducted in order to estimate the amount of project-related traffic "captured" within the site. This analysis indicated that 23 percent of project traffic remained within the Sorrento Hills area, reflecting the project's balance of residential, commercial and industrial uses. This balance of land use types reduces the amount of project traffic contributed to the regional transportation network.

3.2.3 FORECAST DAILY ROADWAY SEGMENT VOLUMES

Figure 3.2-3 depicts forecast daily traffic volumes on Sorrento Hills streets. As shown in this figure, Carmel Mountain Road will have an ADT volume of 45,000 vehicles per day between Vista Sorrento Parkway and El Camino Real. On "C" Street, there will be an ADT volume of 10,000 east of "B" Street. South of Carmel Mountain Road, the ADT on "C" Street will be 8,000 vehicles per day.

3.2.4 FORECAST PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

Kimley-Horn developed peak hour turning movement volumes for the September, 1994 study based on the land uses then proposed. As discussed previously, the approved community plan generates 6,800 more daily trips than the current proposal. The peak hour volumes analyzed in the September, 1994 study were adjusted manually to reflect reductions due to the less intensive trip generation characteristics of the current proposal, and to reflect changes to the peak hour directional distribution of project traffic. **Figure 3.2-4** presents these volumes.



LEGEND
 XXXX = PROJECT-RELATED AVERAGE DAILY TRAFFIC VOLUME
 (YY%) = PERCENT OF TOTAL PROJECT TRAFFIC GENERATION



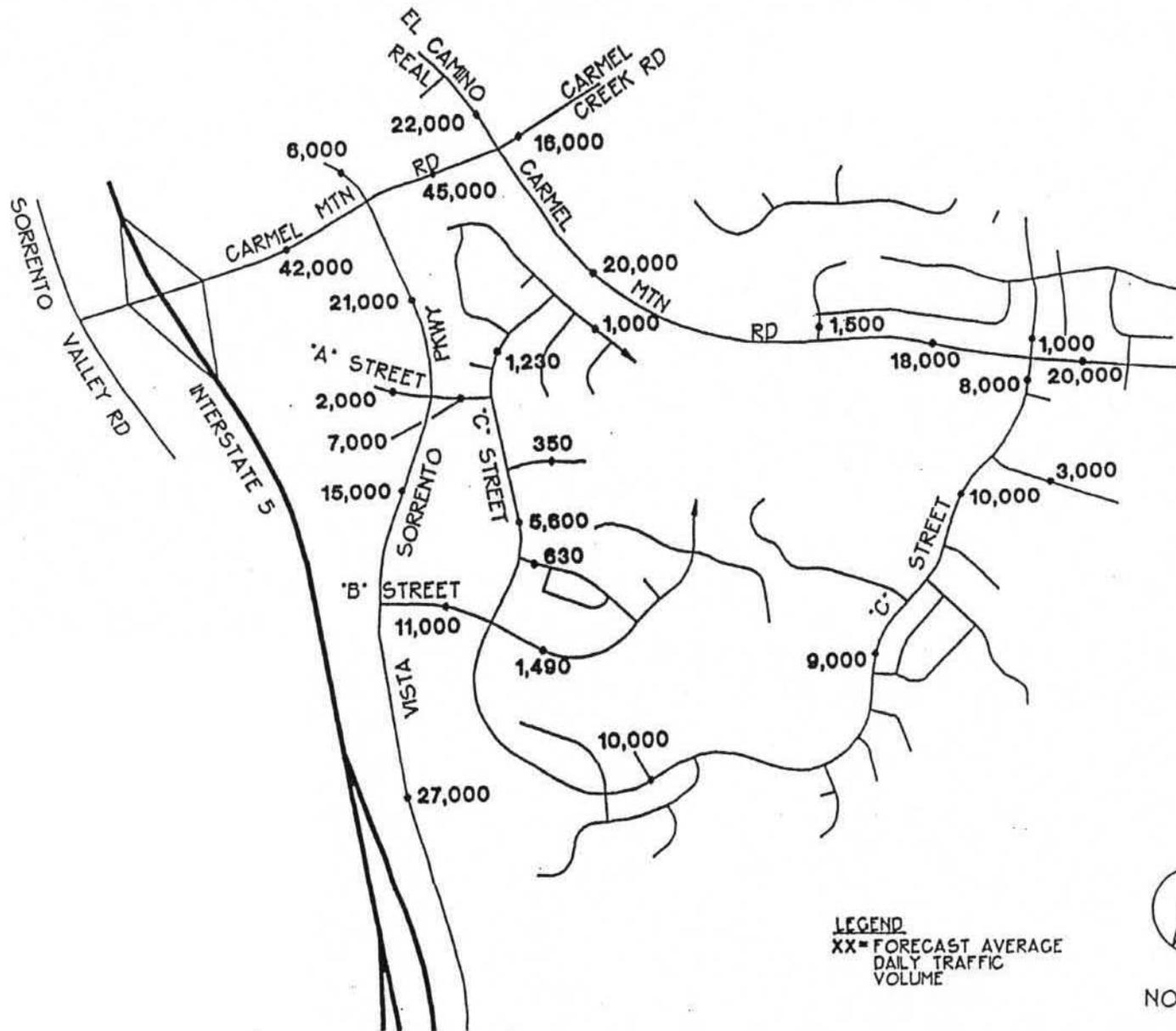
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TORREY HILLS
 PROJECT TRAFFIC ASSIGNMENT
 (Actual + percent of total project traffic)

FIGURE 3.2-2



LEGEND
 XX = FORECAST AVERAGE
 DAILY TRAFFIC
 VOLUME



NO SCALE



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TORREY HILLS
 YEAR 2010 FORECASTED DAILY TRAFFIC VOLUMES

FIGURE 3.2-3

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