

5.0 CIRCULATION

5.1 FREEWAY SYSTEM

Figure 5.1 shows the existing freeway and street system in the project area. Also shown on Figure 5.1 are 1985 SANDAG two-way weekday traffic flows in the area.

Interstate Highway 8 (I-8), located just south of the project area, is one of San Diego's major east-west travel corridors. It connects downtown employment centers and those north of Mission Valley with residential areas to the east. Interstate 8, carrying both regional and commuter traffic, has a two-way average daily traffic (ADT) volume of approximately 185,600 in the vicinity of the project.

Primary access to I-8 in the project area is via two frontage roads on either side of the freeway - Hotel Circle North and Hotel Circle South. Hook ramps provide east- and westbound access to the freeway from these frontage roads. The eastbound on-ramp near the Mission Valley Inn transitions to a connector ramp for northbound and southbound State Route 163 (SR 163) traffic. In addition to the I-8 access ramps adjacent to the Mission Valley Inn and Stardust Hotel, there are I-8 interchanges with Hotel Circle North and Hotel Circle South-Taylor Street to the west of the project.

Interstate Highway 5 (I-5) is located about one mile west of the project site and is accessed via I-8 or by the Morena Boulevard/Tecolote Road (Sea World Drive) interchange to the northwest. Interstate 5 is a major north-south travel cor-

ridor between the north coastal area and metropolitan San Diego. Weekday volumes on the segment of I-5 between I-8 and the Morena/Tecolote (Sea World Drive) interchange average approximately 150,500 ADT.

State Route 163 (SR 163) is located about 0.4 mile east of the project area and carries a weekday average two-way volume of 132,000 ADT on the segment just north of I-8. Route 163 provides a north-south connection between downtown and the residential, commercial, and industrial areas north of Mission Valley.

5.2 STREET SYSTEM

The Mission Valley street system serves two regional shopping centers, San Diego Jack Murphy Stadium, high density residential development, office complexes, and entertainment/dining establishments. Friars Road, the primary arterial street in the valley, functions smoothly most of the time because there are few intersections and east of Frazee Road there is virtually no driveway access. However, some major streets in the area experience congestion during the peak travel periods because they are not built to major street standards.

East of Fashion Valley Road, Friars Road has two westbound and three eastbound lanes and carries an average weekday flow of 40,500 trips. West of Fashion Valley Road, Friars Road is four lanes with a two-way left-turn lane and a

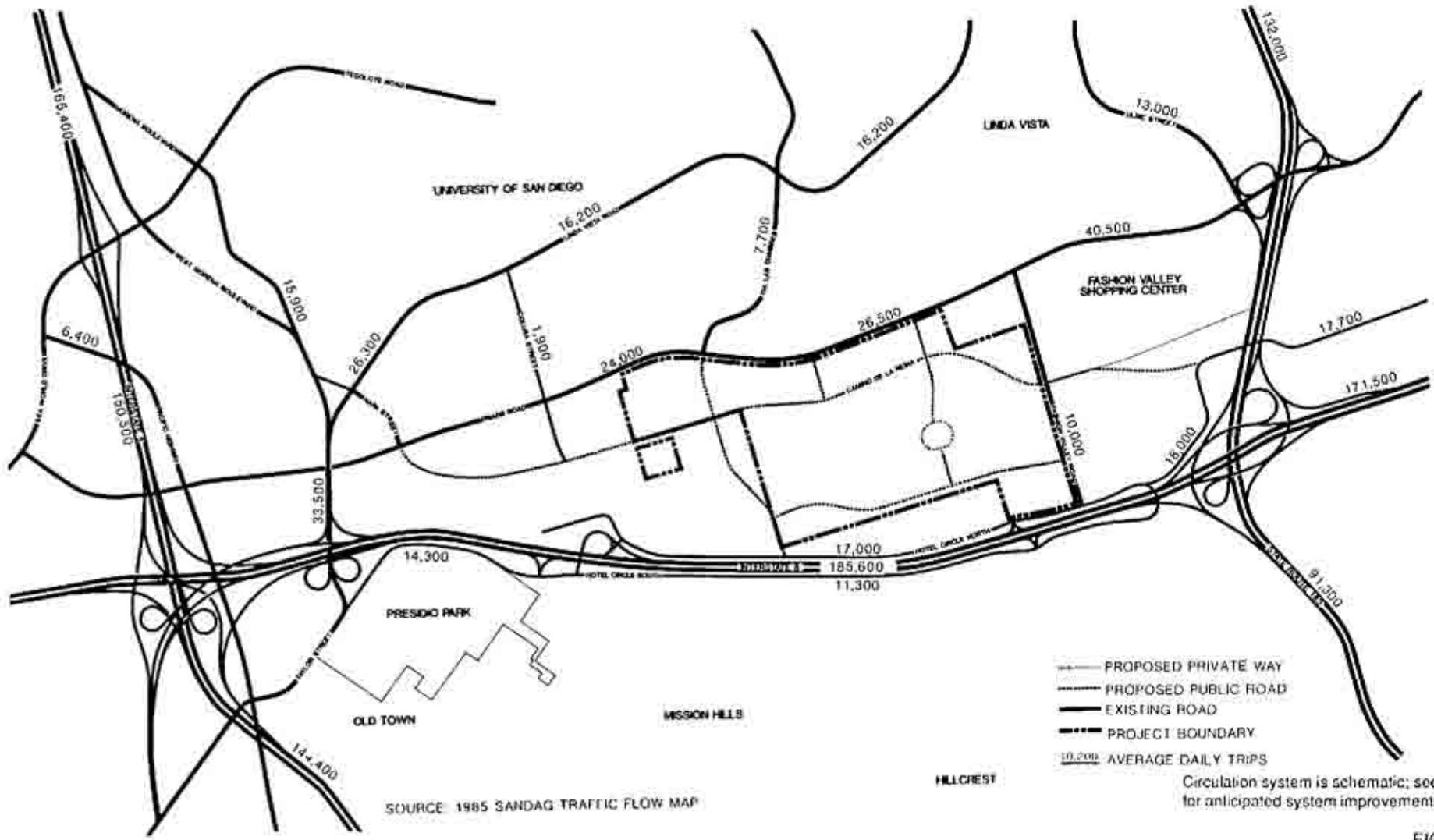
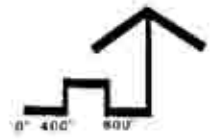
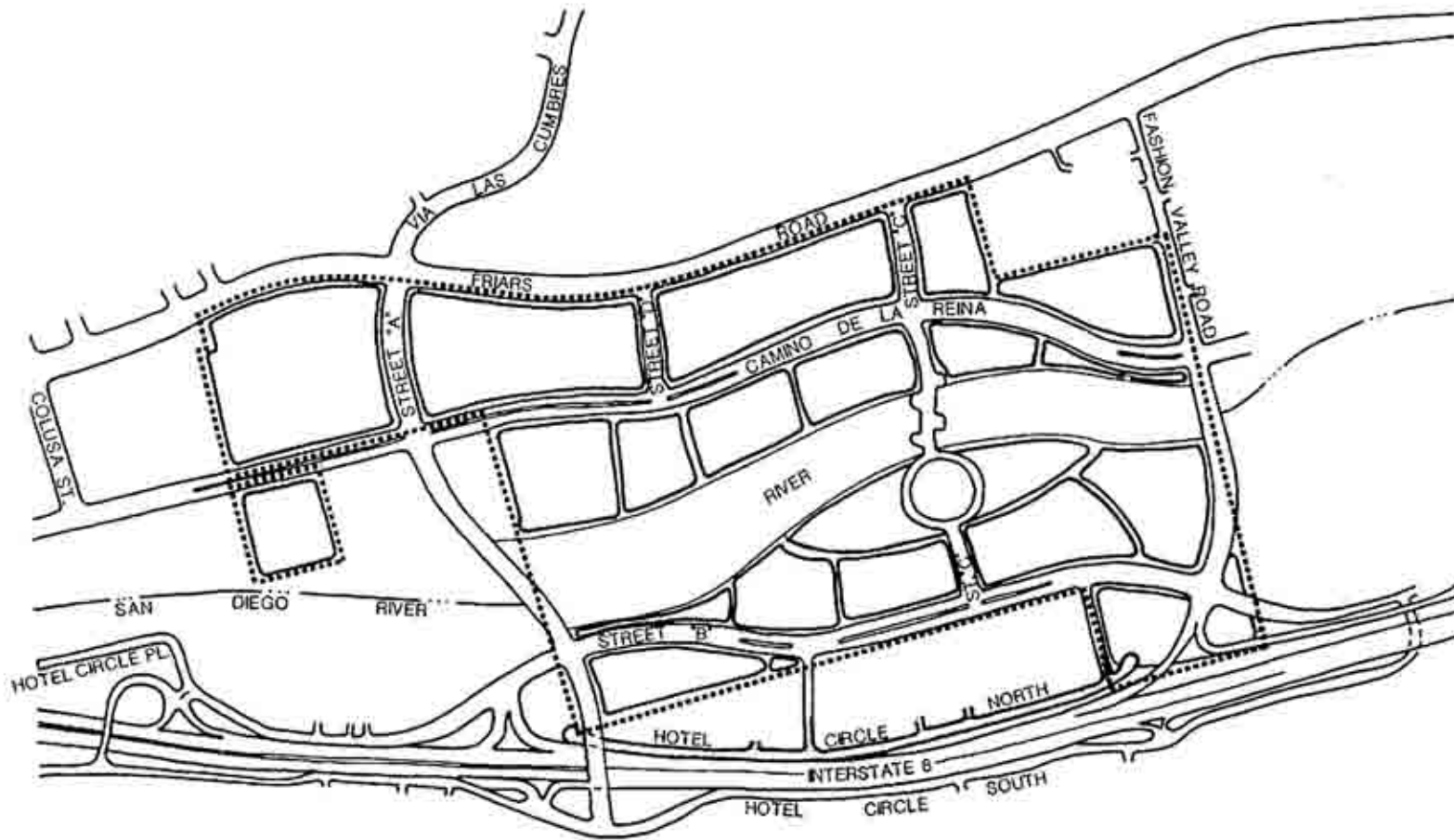


FIGURE 5.1





**LEVI - CUSHMAN
SPECIFIC PLAN**

82 / LEVI-CUSHMAN SPECIFIC PLAN



No scale.

FIGURE 5.2

**PROPOSED CUL DE SAC
OF HOTEL CIRCLE NORTH**

separated bike lane along the south side. Weekday traffic volumes average about 26,500 trips. The Mission Valley Community Plan proposes that Friars Road between Fashion Valley Road and Colusa Street to the west be striped for six lanes.

The Community Plan also proposes that Hotel Circle North and Hotel Circle South be developed as three or four-lane collector roads to provide a loop frontage road system parallel to I-8. However, to comply with Caltrans' preferred access improvements to Interstate 8, Hotel Circle North between Fashion Valley Road and the extension of Via Las Cumbres is now proposed to cul-de-sac at each end (Figure 5.2). A new four-lane major street, Street B, will be constructed parallel to Hotel Circle North between Fashion Valley Road and Via Las Cumbres and will maintain the loop road concept of the community plan. Hotel Circle North currently has one lane of traffic in each direction and a two-way left-turn lane; weekday traffic volumes are approximately 17,000. Parking is presently allowed along some parts of the street. Hotel Circle South has one westbound and one eastbound lane with parking presently allowed on some parts of the south side. Weekday traffic averages 11,300 trips west of the I-8 on-ramp in front of the Mission Valley Inn.

Colusa Street, designated in the Community Plan as a four-lane collector road south of Friars Road, is currently a two-lane road which terminates within the Presidio Place residential development west of the project area. Colusa Street north of Friars Road is two lanes and presently carries about 1,900 vehicles daily.

Via Las Cumbres is currently four lanes between Friars Road and Linda Vista Road, carries 7,700 ADT on weekdays, and terminates at Friars Road. The Mission Valley Community Plan proposes an extension of Via Las Cumbres as a four-lane major road between Friars Road and Hotel Circle North. This new road would intersect the future Camino De La Reina - which parallels Friars Road - before feeding into Hotel Circle North.

The Community Plan also proposes new SR 163/Friars Road improvements that would separate the southbound-to-westbound ramp from the traffic signal at Friars Road and Ulric Street. Improvements planned or proposed by Caltrans in the vicinity of the project are shown on Figure 5.3. The feasibility of these improvements is being considered jointly by Caltrans and the City. Implementation of these projects or alternatives will result in significant access and traffic circulation improvements in the project area.

5.3 PROJECT ACCESS AND PARKING

The Mission Valley Community Plan identifies the most serious parking deficiencies as being located "at or near major office complexes, restaurants . . . and in residential areas." It designates various sites for consolidated parking, including one site within the Specific Plan area.

Development within the project will provide off-street parking facilities that are attractively designed and integrated within the high intensity core area. The parking pattern will be created through the joint use and physical interconnection

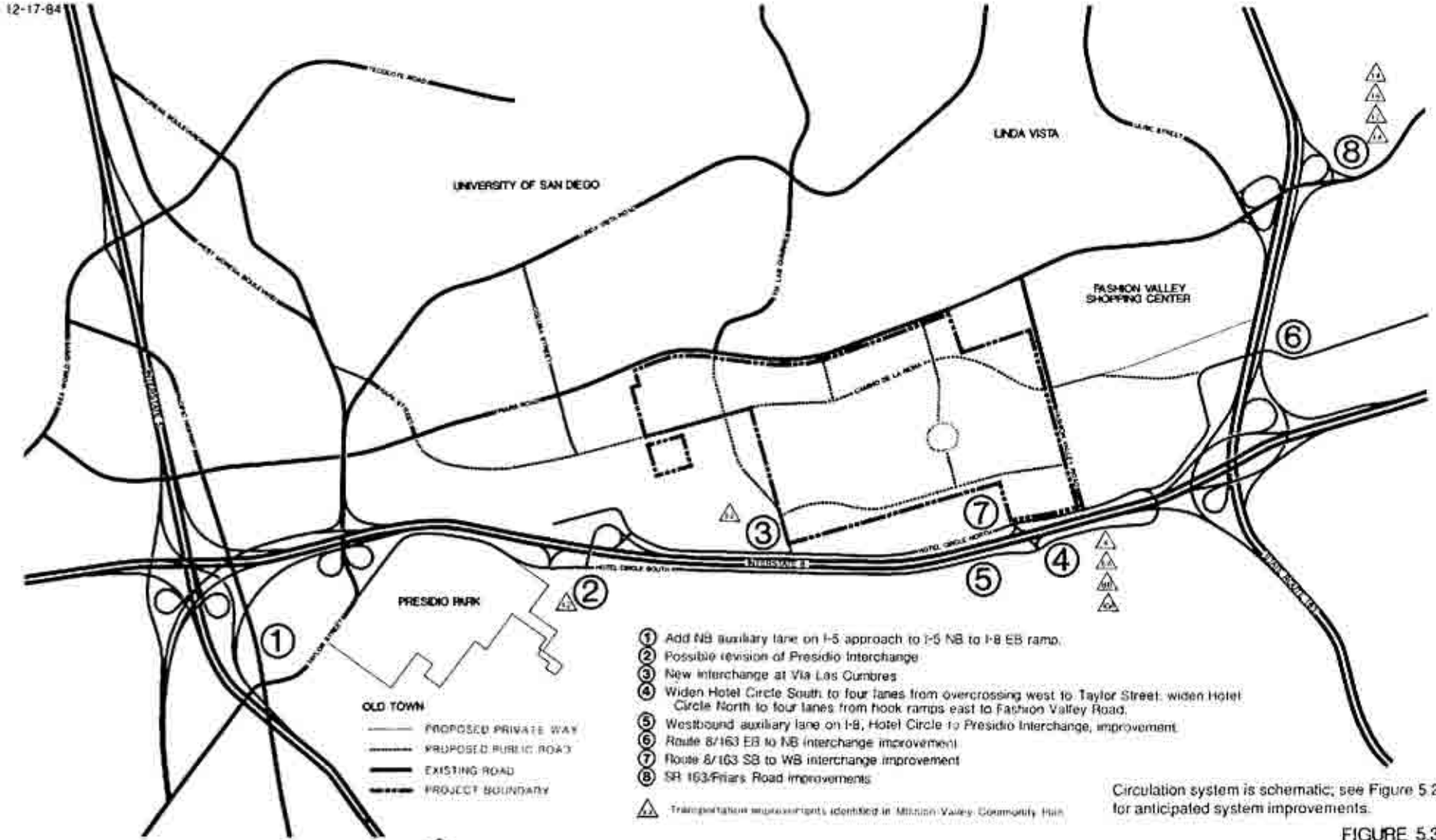


FIGURE 5.3

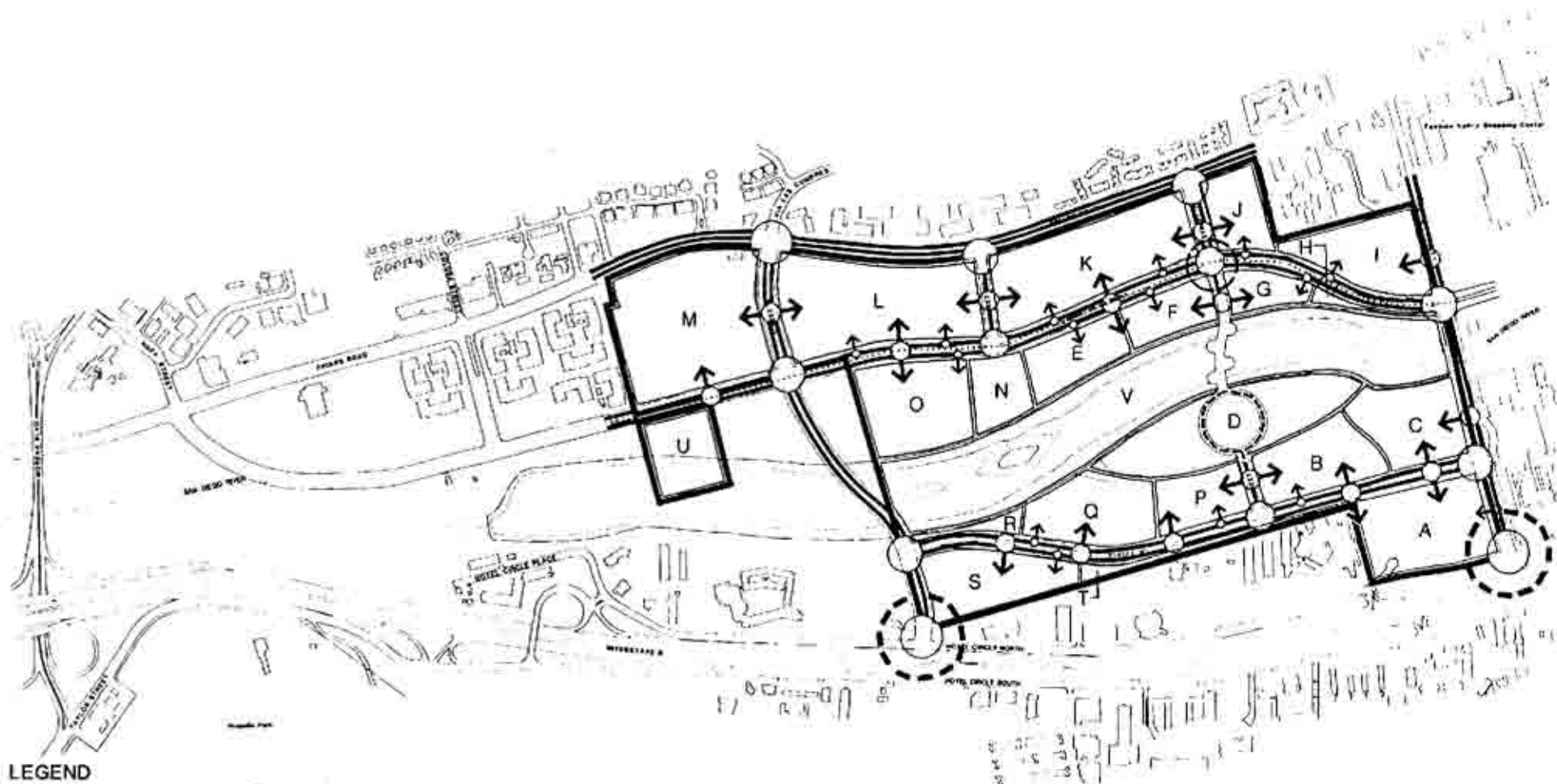
of parking areas and garages when feasible. Higher density developments such as hotels and large office buildings will include parking facilities within the buildings themselves to allow for greater open space and landscaped area throughout the project.

Private vehicle access to the island from the north, as shown on the project Circulation Plan, Figure 5.4, will be prohibited. Access from the south is planned to be available at all times. Few private driveways will be permitted in the project in order to preserve traffic capacity yet provide convenient and safe access. LRT tracks are proposed to be located in the median of Camino De La Reina. Therefore, vehicular movements to and from the access points shown on Figure 5.4 will be limited to right turns in and out only unless the access or a street intersection is signalized. Limiting access is necessary to assure efficient and safe trolley operation. Also, trolley signal preemption will be necessary. At signalized intersections along the trolley route, turns and movements across the LRT tracks will be permitted. Signalization of intersections will occur only when warrants approved by the City Engineers and Council are met. The determination of which locations will be signalized will be made by the City Engineers in consultation with MTDB at the time site-specific development plans are submitted to the city.

Since the proposed project has mixed uses, some areas may provide the opportunity for the sharing of parking. Recent studies by the Urban Land Institute (ULI, Shared Parking, 1983) specifically addressed multi-use/mixed-use developments. Studies clearly indicate that some combinations of

land uses require less parking space than the same land uses would individually require at freestanding or isolated locations. Similarly, the ULI data gathered revealed that overall external traffic generation for mixed-use projects is somewhat reduced from the normal traffic generation expected from individual land uses. The ULI study concluded that:

- *Hourly accumulation of parking is significantly different for various types of land uses.*
- *There are important seasonal variations which represent another form of time differential.*
- *Parking demand was not found to be sensitive to regional factors or city size.*
- *Site-specific factors such as transit accessibility are more directly related to parking demand.*
- *Reductions in parking space requirements resulting from shared parking have occurred and indicates the following factors:*
 - (a) *Actual peak occupancy is consistently lower than simply adding single use peak parking demands.*
 - (b) *Parking estimates based on shared parking demands using time differentials are more reliable than simple gross parking demand estimates.*



- LEGEND**
- PUBLIC ROADS
 - - - PRIVATE ROADS
 - INTERSECTIONS
 - ←○ PRIMARY ACCESS
 - ←○ SECONDARY ACCESS
 - L.R.T.
 - TRANSPORTATION CENTER
 - - - - - FREEWAY CONNECTION

Circulation system is schematic; see Figure 5.2 for anticipated system improvements.

FIGURE 5.4

(c) Captive market effects often significantly reduce requirements for shared parking.

Parking for the proposed project will be provided in accordance with the City's Zoning Code and as determined by the Department of Engineering and Development.

5.4 LIGHT-RAIL TRANSIT

The San Diego Trolley Light-Rail System opened in 1981 and has been highly successful in attracting ridership. It currently connects downtown San Diego and the South Bay area, ending at the Mexican border. Several extensions of the system have been proposed and the Mission Valley Community Plan shows an alignment through Mission Valley which would extend from the railroad tracks near Old Town to I-15. As shown in Figure 5.5, in the project area, the trolley would run a course generally along Camino De La Reina then continue east beyond Fashion Valley Road. Stations would be located at Napa Street, Street C, and in the Fashion Valley Shopping Center. A development agreement will also incorporate appropriate language regarding Levi-Cushman's fair-share responsibilities for funding LRT construction costs and participation in operating or capital costs for the intra-valley shuttle. Sufficient right-of-way to provide for the LRT will be reserved with recordation of the first final map for Development Area 2. The right-of-way will be dedicated when construction of the Mission Valley LRT commences.

The light-rail alignment and station proposal for the Specific Plan shown on Figure 5.6 refines the Community Plan recom-

mendations. The trolley station within the project area is proposed within a transportation center which would incorporate parking, pedestrians, bicycles, autos, bus, and commercial activity areas. Access between the island and the trolley station/transportation center could be provided via a privately operated jitney system. LRT and jitney systems will significantly enhance the likelihood that the mixed use and transit trip reductions discussed in the next section of this report will be achieved within the project area.

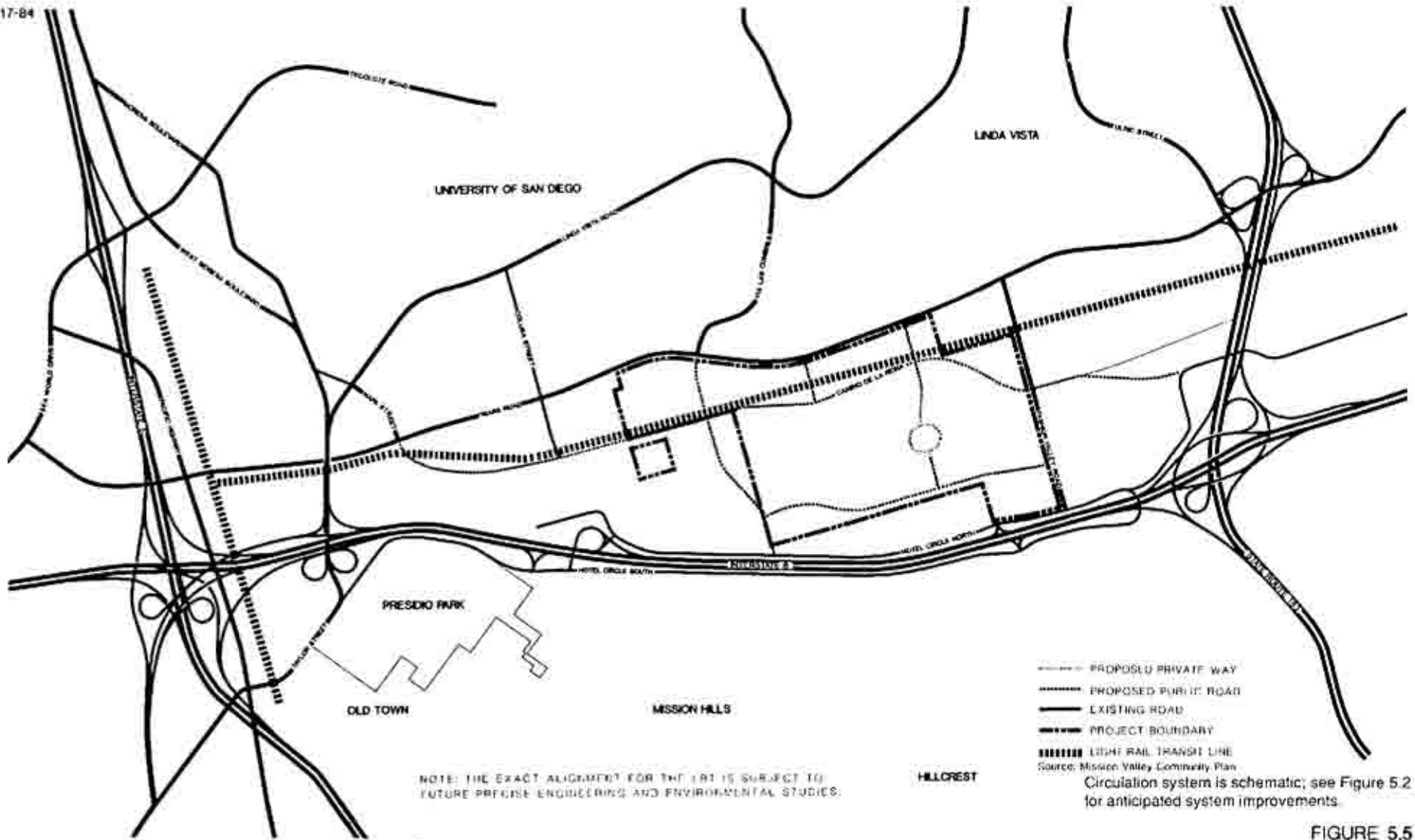
5.5 TRIP GENERATION ESTIMATE

The Levi-Cushman project will generate approximately 66,954 daily trips (see Table 5.1). The basis for this estimate is the City of San Diego's Recommended Trip Generation Rates (7-29-86) which have been adjusted to take into consideration the effect of the Mission Valley LRT.

While a six percent peak period adjustment for light rail transit was initially discussed for use in this analysis, only a four percent adjustment was actually approved and used. It should also be noted that the LRT adjustment for the entire site was applied only to Development Area 3, which is expected to be the last increment of development for the project. Since there is currently a preliminary engineering feasibility study underway for the Mission Valley LRT corridor, it is expected that these estimates of transit impacts will be refined to a greater extent during the next several months.

Details of the ADT calculations for the Levi-Cushman Specific Plan can be found in the "Transportation Analysis"

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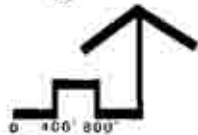
- PROPOSED PRIVATE WAY
- PROPOSED PUBLIC ROAD
- EXISTING ROAD
- PROJECT BOUNDARY
- LIGHT RAIL TRANSIT LINE

Source: Mission Valley Community Plan
 Circulation system is schematic; see Figure 5.2 for anticipated system improvements.

NOTE: THE EXACT ALIGNMENT FOR THE LRT IS SUBJECT TO FUTURE PRECISE ENGINEERING AND ENVIRONMENTAL STUDIES.

FIGURE 5.5

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SPECIFIC PLAN



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COMMUNITY PLAN
LRT ALIGNMENT

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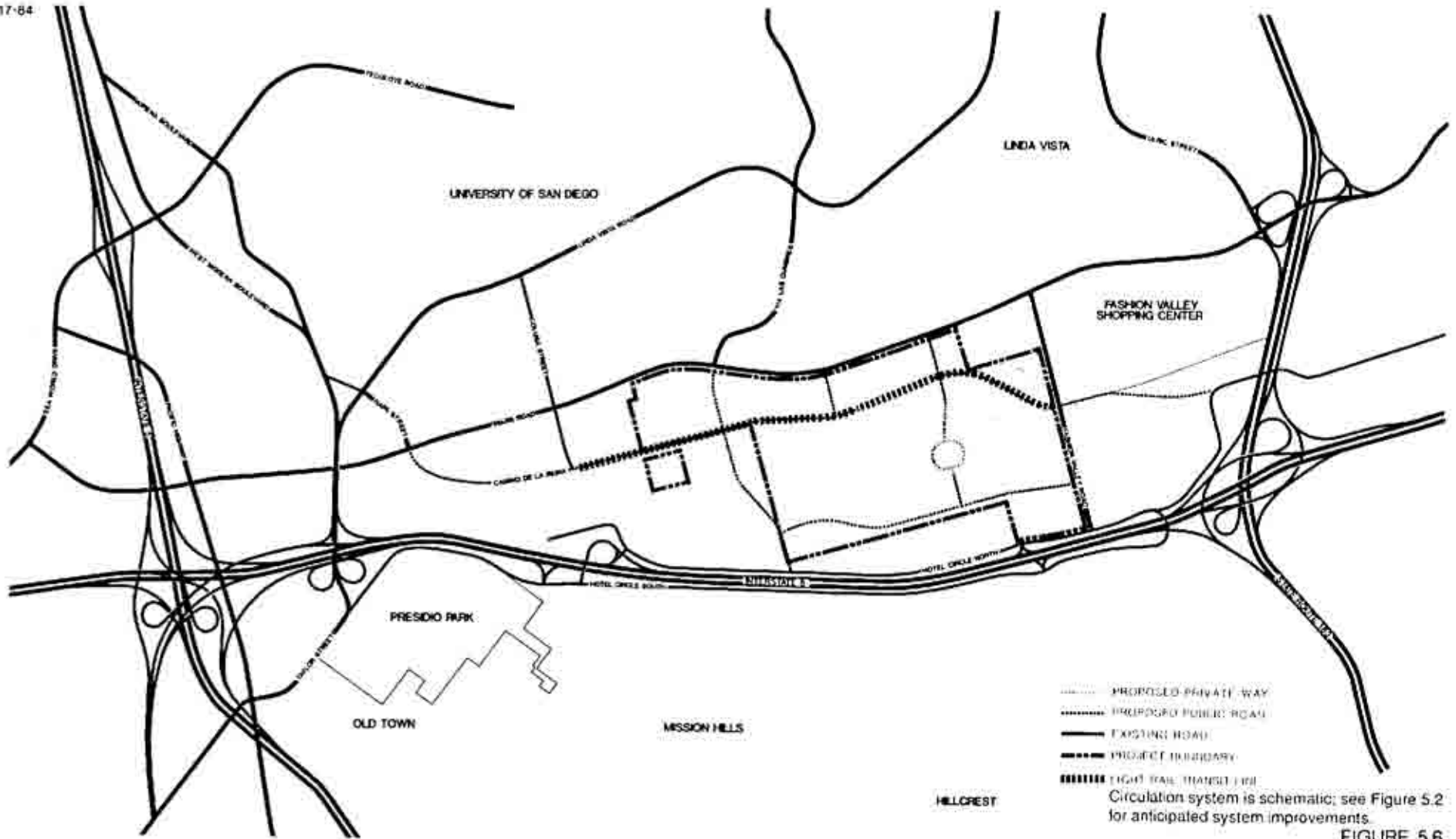


FIGURE 5.6

LEVI - CUSHMAN
SPECIFIC PLAN



PROJECT
RECOMMENDED
LRT ALIGNMENT

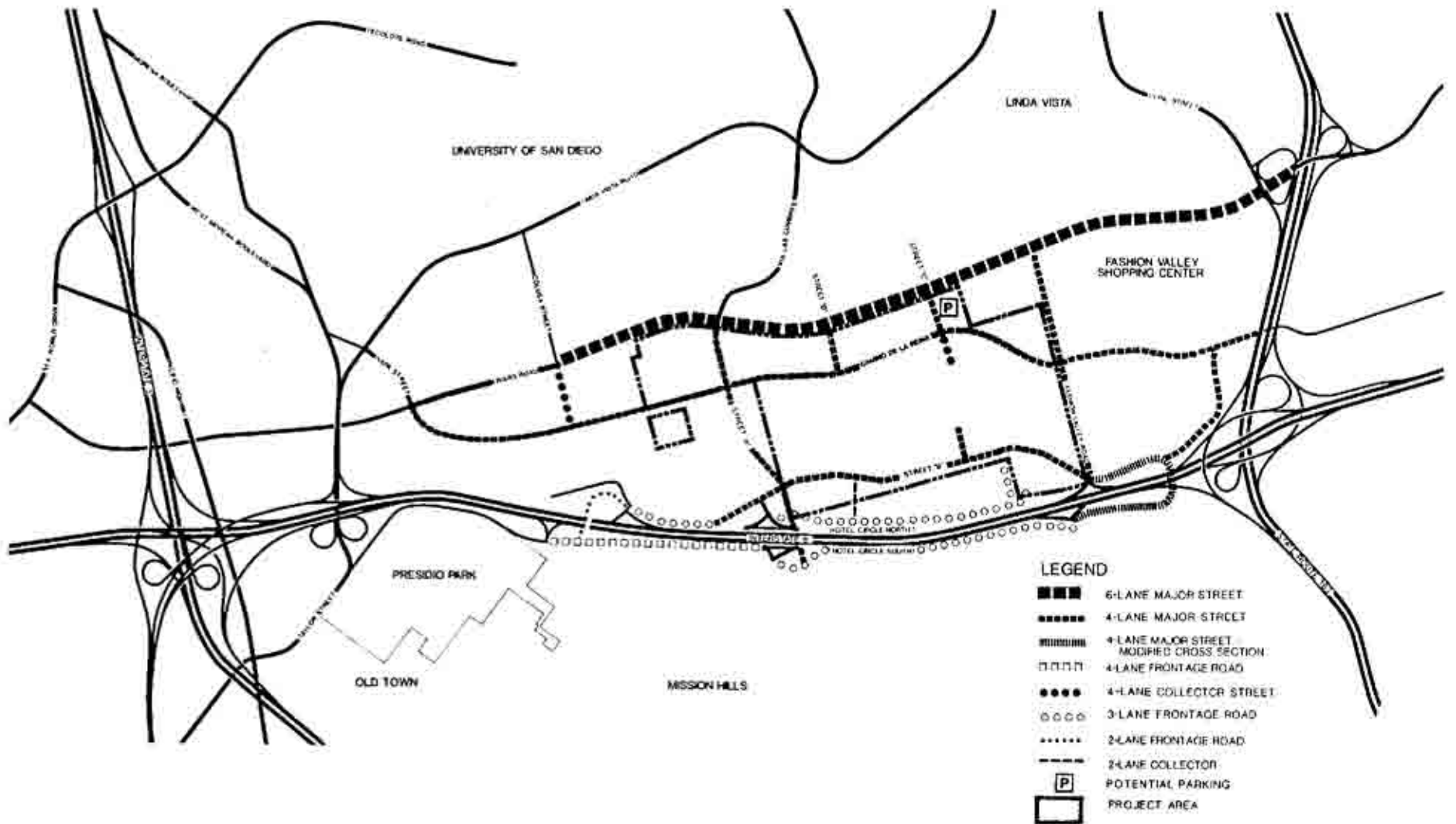
included as part of the LCSP EIR. As can be observed from Table 5.1, the expected cumulative traffic generation expected from the project after applying the revised rates is 66,954 ADT. For this same area, under the Mission Valley ordinance, a total trip allocation of 66,880 ADT is permitted. The proposed project is therefore almost identical, in terms of trip generation, to that permitted by the Community Plan.

Since the expected project trip generation is about the same (66,954 vs. 66,880) as that permitted by the plan and ordinance, cumulative impacts and mitigation as identified in the Community Plan will be applicable. Other relevant mitigation programs include the Recommended Street Classification, Figure 5.7; and Phasing of Transportation Improvements, Table 5.2.

**TABLE 5.1
PROJECT TRIP GENERATION**

Use	Development Area			Rate	Unadjusted ADT			4% LRT R/W Adjustment*			ADT Adjusted for LRT, Vacancy and Passerby Trips		
	1	2	3		1	2	3	1	2	3	1	2	3
Residential (units)	60	300	969	8/du	480	2,400	7,752	0	0	425	480	2,400	7,327
Hotel (rooms)	500	250	250	8/room	4,000	2,000	2,000	0	0	320	4,000	2,000	1,680
Retail (K SqFt)	100	50	50	49/K SqFt	4,900	2,450	2,450	0	0	392	4,900	2,450	2,058
Office	500	691	1,391	16/K SqFt	8,000	11,056	22,256	0	0	1,652	8,000	11,056	20,604
TOTALS											17,380	17,906	31,669
TOTAL PROJECT GENERATION											66,954		
TOTAL ALLOCATION BY REVISED INTERIM ORDINANCE											66,880		

* Light-rail transit adjustment equals 4% of unadjusted cumulative ADT.



Circulation system is schematic; see Figure 5.2 for anticipated system improvements.

**LEVI - CUSHMAN
SPECIFIC PLAN**



FIGURE 5.7
**RECOMMENDED
STREET
CLASSIFICATIONS
WEST MISSION VALLEY**

TABLE 5.2
MISSION VALLEY PHASING OF TRANSPORTATION IMPROVEMENTS

EDU* GROUP	SECTOR	PROJECT	LOCATION	IMPROVEMENT
A	1	Texas Interchange		Widen bridge over I-8 to six lanes (CALTRANS). Widen to four lanes, Mission Center Rd. to I-805. Widen to six lanes, Friars Rd. to Camino del Rio No. Includes improving interchanges ramps at the Friars Road Interchange. Restripe to three lanes and prohibit parking from the eastbound Hotel Circle Interchange ramps to Camino de la Reina. Provide increased intersection capacity and signalization at both the eastbound and westbound ramps.
	2	Camino del Rio So.		
	3	Mission Center Rd.		
	4	Hotel Circle So.		
	5	Hotel Circle/ I-8 Ramps		
200 B	1	Friars Road		Restripe for six lanes, Colusa Street to Ulric St. Construct as a four-lane major between Ilega Street and Fashion Valley Road.
	2	Camino de la Reina		
200 C	8A	Hotel Circle So.		Remove parking and restripe for three lanes between the I-8/Presidio overcrossing and the eastbound Hotel Circle Ramps. Widen to four lanes between the eastbound Hotel Circle ramps and Camino de la Reina. Widen to four lanes between eastbound Presidio ramps and the I-8/Presidio overcrossing.
	8B	Hotel Circle So.		
	9	Hotel Circle So.		
200 D	4	Hotel Circle No.		Widen to four lanes between westbound I-8 Ramps and Camino de la Reina. Construct and widen to a four-lane major between Fashion Valley Road and SR-163. Widen to four lanes between Hotel Circle North and Avenida del Rio.
	10A	Hotel Circle No.		
	10B	Camino de la Reina		
400 D	4	Camino de la Reina (existing)		Widen to four lanes between Hotel Circle North and Avenida del Rio.
	4	Camino de la Reina (existing)		
3,000 E	1, 3	Via Las Cumbres Interchange		Construct when Via Las Cumbres is connected or when listed EDU's are developed. (Approximately 75% of build-out in these sectors.)
1,500 F	1-4	Via Las Cumbres		Construct between Friars Road and Hotel Circle North. Construct new southbound-westbound off-ramp.
	1-4	SR-163 and Friars Road		
500 G	1, 2, 4-7	SR-163 and Friars Road		Add dual lefts for eastbound-northbound on-ramps; widen north leg of intersection to accept two turning lanes. Improve to a four-lane street along north side of river between Camino de la Reina and Mission Center Road. Cut back median on bridge to allow three west-bound lanes through signal for northbound on-ramps; approximately 85% of build-out in these sectors. Move northbound on-ramps eastward or replace with a loop or flyover; approximately 95% build-out in these sectors.
	1, 2, 4-7	Hazard Center Drive		
4,700 G	1, 2, 4-7	SR-163 and Friars Road		Widen to four-lane major, SR-163 to Mission Center Road. Restripe for three lanes, Camino del Arroyo to Mission Center Road.
	1, 2, 4-7	SR-163 and Friars Road		
18,000 G	1, 2, 4-7	SR-163 and Friars Road		Widen to six lanes between Friars Road and Camino del Rio North; improve interchange for all moves at Friars Road.
	1, 2, 4-7	SR-163 and Friars Road		
400 H	5, 7	Camino de la Reina		Widen to six lanes between Friars Road and Camino del Rio North; improve interchange for all moves at Friars Road.
	5, 7	Camino del Rio No.		
200 I	6, 8	Stadium Way		Widen to six lanes between Friars Road and Camino del Rio North; improve interchange for all moves at Friars Road.
	6, 8	Stadium Way		
500 J	8	Camino de la Reina		Widen to four lanes, Camino del Este to Stadium Way Widen to four lanes, Stadium Way to I-805.
	8	Camino del Rio No.		
500 K	8, 11	westbound I-8 ramps to/from Camino del Rio North		Continue in the vicinity of I-805.
	8, 11	westbound I-8 ramps to/from Camino del Rio North		
1,000 L	9-12	Hilly Way		Construct between Friars Road and Camino del Rio North; Build Interchange at Friars Road. Construct between I-15 and Fairmount Avenue. Extend south across San Diego River to Camino del Rio North.
	9-12	Camino del Rio No.		
3,000 L	9-12	Camino del Rio No.		Widen to four lanes, I-805 to I-15. Widen to four lanes, Hilly Way to I-15.
	9-12	Rancho Mission Rd.		
800 M	11	Camino del Rio No.		Widen to four lanes, I-805 to Hilly Way.
	11	Camino del Rio No.		
200 N	11, 12	Camino del Rio So.		Widen to four lanes, I-805 to I-15. Widen to four lanes, Hilly Way to I-15.
	11, 12	Camino del Rio No.		

* Total cumulative EDU's in sector(s) indicated that are not contained in tentative or final maps approved prior to 5/3/82.

SOURCE: MISSION VALLEY COMMUNITY PLAN, AUGUST 1984