

TRANSPORTATION ELEMENT

The movement of people and goods is one of the most important considerations in the planning process. Ideally, the transportation system should be well balanced between individual and mass transit conveyances and offer a wide choice among modes of travel. The transportation system in Serra Mesa community planning area falls short of the ideal in several respects. This will be seen in the existing conditions analysis to follow. Topics include: Street System, Parking, Transit System, Bicycle Routes, Pedestrian Walkways and Equestrian Trails.

EXISTING CONDITIONS

Street System

The street system in the community is characterized by five functional classifications: Freeways, Primary Arterials, Major Streets, Collector Streets and Local Streets. Freeways may have four or more lanes, with full access control and grade separations at intersections. Their primary function is to carry high volumes of traffic at high speeds between points. Primary arterials are usually four to six lanes wide with limited access, grade separations and extra lanes where conditions require. They are designed for through-traffic but usually have signals at major intersections. Major Streets are also usually four to six lanes wide. Although designed primarily for through traffic they also provide access to abutting property. Collector Streets are typically two to four lanes wide. They function as feeders of traffic to the major street system and provide continuity with local streets. An equally important function is that of providing access to abutting property. Local Streets serve adjacent land uses. They may be two-lane minor streets or one-lane alleys.

Efficiency of the primary arterial-major street network in the community varies considerably. Friars Road and Aero Drive function smoothly most of the time because there are few intersecting streets and virtually no driveways.

Several traffic generators may cause local congestion. San Diego Stadium traffic can overload Friars road and increase the load on nearby residential streets. Traffic generated by Mesa College and Kearny Senior High School affect the Mesa College/Kearny Villa Road major street system.

See **Figure 9**: Street Classification.

See **Figure 10**: Traffic Flow 1976

Parking

On-street parking occurs either by necessity, because parking lots are inadequate or non-existent, by individual choice to avoid fees or for convenience. Examples of inadequate off-street parking are found in the Kearny Mesa Health-Institutional Complex and the Serra Mesa Shopping Center. On-street parking has been a source of irritation in some residential areas. Patrons of San Diego Stadium park along Mission Village Drive and adjacent residential streets to avoid parking fees. Another problem area is along Ruffin Road north of the Mission Village Shopping Center.

Transit

An element of the transportation network destined to become more important as pressure mounts to relieve traffic congestion conserve energy and to improve air quality, is the public transit system.

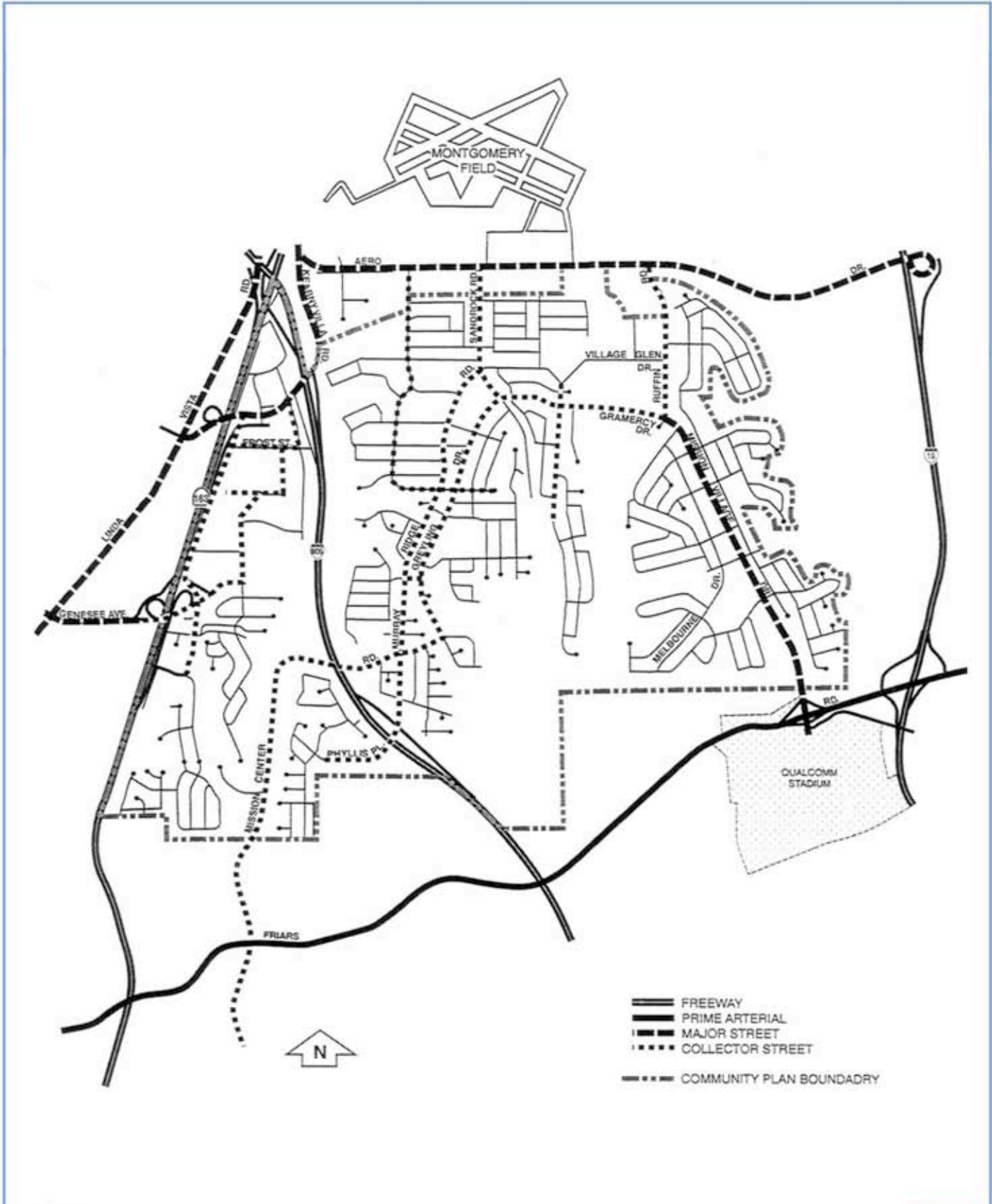
Currently serving the northern portion of Serra Mesa along Aero Drive is Route 25, providing service between Clairemont and downtown San Diego. Route 25 provides direct service to Kaiser Clinic, Sharp Hospital and Fashion Valley and Mission Valley shopping centers. Two transfer points on Route 25, the Kearny Mesa and Fashion Valley Transit Centers, offer connections to the following routes: 6, 16, 20, 27, 41, 81 and 990, offering access to destinations such as Escondido, UCSD, Old Town, La Mesa, SDSU, Pacific Beach, Tierrasanta, Carmel Mountain Ranch, Hillcrest, Linda Vista and downtown San Diego. Route 25 offers 30-minute frequency during weekdays and 60-minute frequency on evenings and weekends. Route 16 provides service through the southern portion of Serra Mesa with destination points of the Euclid Trolley Station and Mission Village. Route 16 provides 15 and 30-minute frequency during weekdays and 60-minute frequency during evenings and weekends. A concern of residents is direct access to the Mission Valley West trolley line.

In 1999, two transit studies are underway. One is to evaluate existing internal service in the Serra Mesa area, service to destinations outside of the area, and address concerns voiced in a survey of residents.

Bicycle, Pedestrian and Equestrian Trails

Non-motorized forms of transportation have achieved great popularity in recent years in response to increased concerns over personal and environmental health. The result has been a boom in bicycling, walking, jogging and horseback riding. Although these activities are oriented to both transportation and recreation, trails are a part of the circulation system.

An important issue in the community is the establishment of an adequate bicycle route plan. Major bicycle generators include the six public elementary schools, St. Columbia Parochial School, Taft and Montgomery Junior Highs, Kearny Senior High, the library and the community park and recreation center. Problems confronting bicyclists are: (1) steep roads leading out of the community, (2) on-street parking along designated route lines and (3) general traffic.



Functional Street System **11**
 Serra Mesa Community Plan **FIGURE**

High costs preclude the provision of separate bike trails throughout the community. The only alternative is to utilize existing streets for most of the bicycle route system.

Fortunately for pedestrians, nearly all streets are improved with sidewalks. Pedestrian over crossings at SR-163/Cardinal Lane and I-805/Othello Avenue provide access to schools and parks outside the community. However, few walkways intended solely for pedestrians exist in the study area. There is a need for separate pedestrian access to parts of the Mission Village Shopping Center and other activity centers. Hiking trails have not been designated in the community but the regional bikeways could serve as major hiking routes. These could be linked to urbanized areas by trails through the attractive natural canyons.

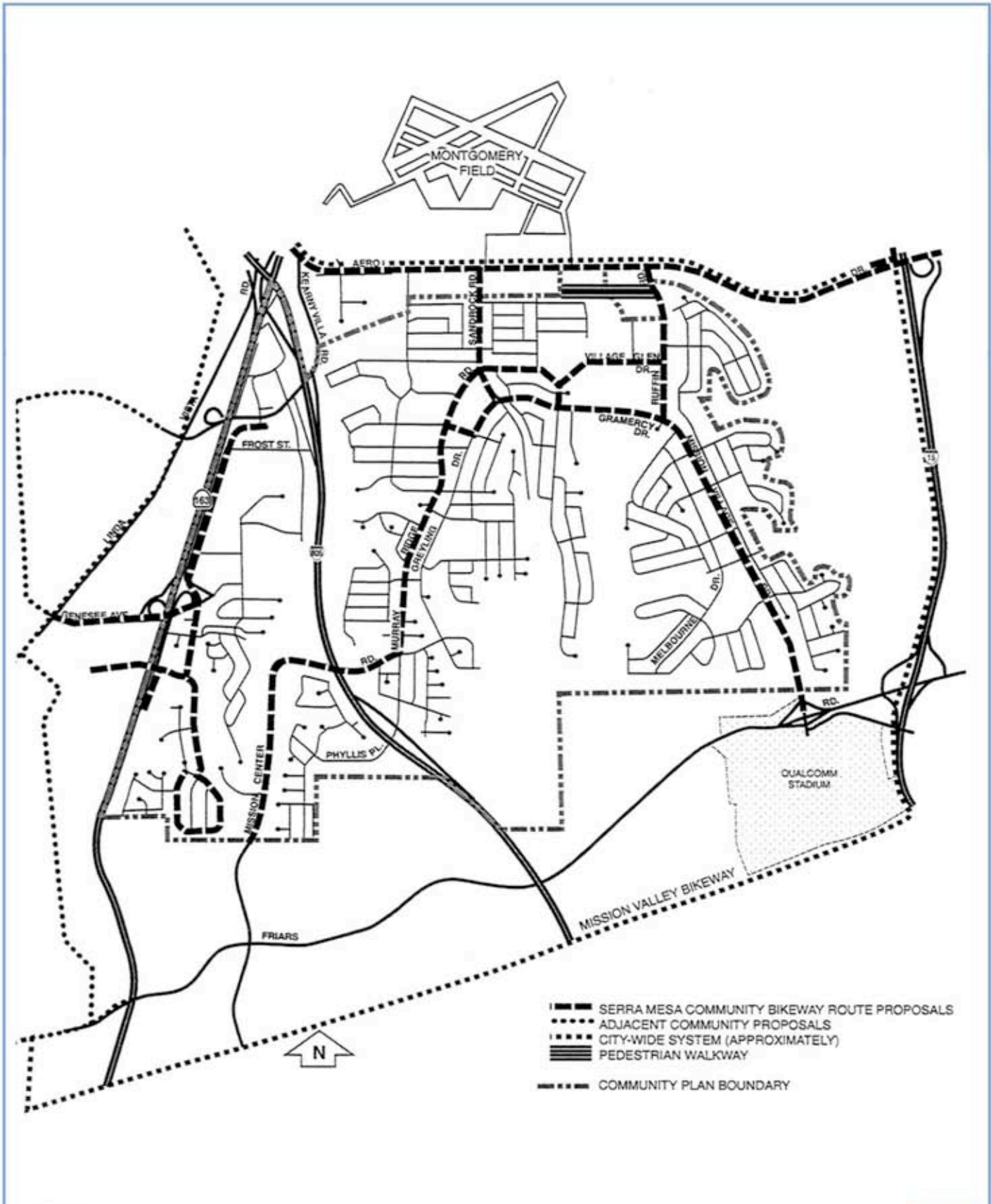
Horseback riding has also increased in popularity, necessitating trails and facilities, (see A Plan for Equestrian Trails and Facilities). A major trail is recommended that would connect San Clemente Natural Park with Fortuna Mountain through NAS Miramar lands. The trail would cross I-15 north of its intersection with SR-163, with the alignment continuing along State Route 52 (SR-52). A local trail from Ruffin Court through Shepherd's Canyon to Fortuna Mountain is already in use.

FUTURE TRAVEL FORECASTS

Street and Highway System

While increases are forecast in pedestrian, bicycle and transit usage, the auto should remain as the dominant form of transportation in the community for the next 15 to 20 years. Using the City's Streets and Highways Standards (**Table 4**) as a guide, the projected 1995 traffic demand volume, expressed in auto trips, is translated into street requirements on the 1995 Street System map.

As auto trips begin to exceed the street capacity, safety performance will diminish and congestion, driver irritation and delay will occur. Because the circulation system is already established, remedies for future conditions must necessarily involve changes to existing streets. These changes are basically limited to parking removal, street widening, left-turn prohibitions during "peak" periods, costly grade separated interchanges, access control and establishment of one-way pairs.



Bikeways and Pedestrian Walkway
 Serra Mesa Community Plan

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 FIGURE

**TABLE 3
CITY OF SAN DIEGO STREET DESIGN STANDARDS**

Functional Street Classification	Number of Lanes	Approximate Maximum ADT	R.O.W. Width	Curb or Other Width	Median Width	Shoulder Width	Minimum Radius of Curve	Maximum Grade
Primary Arterial	6	47,000	122' (1)	102'	14'	8' (4)	1000'	6%
	4	28,000	98' (1)	78'	14'	8'-10' (4)	1000'	6%
Major	6 (2)	32,000	122' (3)	102' 78'	14'	8'-10' (4)	1000'	7%
	4	25,000	98' (3)	68'-78'	14'	8'-10' (4)	1000'	7%
	4	18,000	88'-98' (5)		4'	8'-10' (4)	1000'	7%
Collector Street	4	10,000	84'-98' (5)	64'-78'	0-14'	8'-13' (4)	500'	12% (6)
	2	5,000	60'-70' (7)	40'-50' (7)	0'	8'-13'	300'	12% (6)
Local Street (8)								
Industrial	2	5,000	70'	50'	0'	13'	200'	8%
Commercial	4	10,000	84'	64'	0'	8'	200'	8%
	2	5,000	60'	40'	0'	8'	200'	8%
Residential	2	5,000	60'	40'	0'	8'	200'	8%
	2	1,500	56'	36'	0'	8'	200'	8%
	2	700	52' (9)	32'	0'	8'	200'	8%
	2	200	50' (9)	30'	0;	8'	200'	8%
Bikeways	2							
Separated Facility		---	12'	8'-10' (10)	0'	---	15'	7%
Within Street								
R/W (11)	2	---	10'-16' (12)	10' (13)	0'	---	15'	Grade St.
Within Roadway								
(14)	2	---	---	5'8'	0'	---	15'	Grade St.
Alley	2	---	20'	20'	0'	---	100'	15%
Sidewalk (15)	2	---	---	4'-5' (16)	0'	---	---	Grade St.

FOOTNOTES FOR TABLE 3

1. Full control of access from abutting property.
2. Used only where property owners elect and are authorized to construct additional lanes to convert a four-lane primary arterial to a major street in order to gain access.
3. Access and parking control at critical locations. Additional width required for double left turn lanes.
4. Ten feet where state or federal design standards apply.
5. Ninety-eight feet required where left-turn lanes are needed.
6. Eight percent in commercial areas.
7. Seventy percent R.O.W. and 50-foot curb width in industrial areas.
8. Frontage roads or other single-located streets. R.O.W. and curb widths may be reduced in residential areas to provide streets of 47/32 feet (5000 ADT), 43/28 feet (1500 ADT) and 41/26 feet (700 and 200 ADT). R.O.W. may be reduced five feet in commercial or industrial areas with no decrease in curb width.
9. Where no parking will be allowed, curb-to-curb width may be reduced to 24 feet with right-of-way width of 44 feet (R.O.W. 34 feet where sidewalks are provided separately from streets).
10. Ten-foot facility where substantial amount of traffic volume is anticipated (e.g. near schools).
11. Located in curb to property line area.
12. 16-foot provides for six-foot landscaped separation between bikeway and roadway along major/primary arterials.
13. Street lights, hydrants, etc., accommodated within paved ten-foot area.
14. One-way traffic on each shoulder, no parking. Separation from traffic lane varies from six inches white line to two-foot island.
15. Sidewalk on each side except on single-loaded streets.
16. Minimum clear unobstructed width, four-foot residential areas, five feet in commercial and industrial areas (excludes curb top width, fire hydrants, light poles, transformers, etc.).

*Note: These are standards applicable primarily to newly developing areas without unusual terrain problems. In difficult terrain and in older developed areas where flexibility is lost, they may represent only desirable goals which the designer attempts to achieve.

See **Figure 11**: Functional Street System.

In the Kearny Mesa Health-Institutional Complex, increased demand on health and custodial services combined with existing internal circulation problems necessitates the extension of Berger Avenue to connect with Birmingham Drive.

All other streets in the Serra Mesa area are considered to be adequate to handle future travel demands. Projected traffic flow on these streets may result in increased congestion, but will not require major operational or reconstruction changes. The freeways serving the area are marked by a substantial increase in travel demand which cannot be allocated to an individual community. Rather it must be treated on a regional basis.

Interstate 15 between I-8 and SR-163 will be constructed subject to the availability of state funds. Major interchanges are planned along I-15 at Aero Drive and Friars Road.

GOAL

TO PROVIDE A SAFE, BALANCED, EFFICIENT TRANSPORTATION SYSTEM WITH MINIMAL ADVERSE ENVIRONMENTAL EFFECTS.

PROPOSALS

Streets and Highways

- The freeway network should be completed as soon as monies are available.
- Hillside and canyon views should be preserved when new streets are constructed.
- Street widening and other improvements should be minimized and compatibility with the total landscape should be assured.
- Curb cuts along designated primary arterial and major streets should be discouraged.
- Unsightly barricades at the ends of minor residential streets should be replaced with attractive cul-de-sacs and loop streets. These should be constructed by developers of mesa rim lands.
- The City Manager's office should evaluate alternatives for:
 1. Improving the intersection design at the intersections of: (1) Kearny Villa Road and Health Center Drive and (2) Kearny Villa Road and I-805.
 2. Improving Health Center Drive to four lanes. Projected 1995 traffic volumes for this street exceed the City standards for desirable daily traffic volumes. The recommended improvement should be incorporated into the City's 20-year needs list for determining a priority and timetable for completion. Such improvement may be accomplished by parking removal and/or widening.

3. Signalizing the following intersections when warranted: Health Center Drive and Frost Street, and Murray Ridge and Mission Center Roads.
 4. Giving highest priority to parking removal on the following streets: Health Center Drive, Frost Street.
- The internal street network in the Kearny Mesa Health-Institutional Complex consisting of Berger Avenue and Birmingham Drive should be completed. The intersection of Mesa College Drive and Berger Avenue should be designed to control left turn traffic.
 - A name change for Ruffin Road should be made to avoid confusion between the two segments within the community.

Public Transportation

- Studies should be conducted to determine the feasibility of an express bus pickup point at the intersection of Murray Ridge Road and I-805. This would be connected by shuttle bus to the rest of Serra Mesa via the Murray Ridge-Sandrock-Gramercy-Mission Village-Shawn major street link.
- Express bus and/or other mass transit services linking Serra Mesa with major employment centers and other destinations should be accorded the highest priority.
- Studies should be conducted to determine the feasibility of an express bus terminus in the vicinity of Genesee Avenue and Health Center Drive.
- Bus service to the Kearny Mesa Health-Institutional Complex should be improved with scheduling taking into account the 24-hour operating basis of medical facilities.

Parking

- On-street parking along Ruffin Road south of Aero Drive, and non-residential parking along Mission Village Drive and adjacent residential streets should be recognized as sources of irritation. Although there is no practical way to discourage these kinds of parking, the community should look into means of persuading people to park elsewhere.

Pedestrian Walkway

- A walkway should be established connecting Ruffin Road with Serra Mesa Community Park.

Bicycle Routes

- A community bikeway system should be designated as shown on the Bikeways Map. This system should be developed so as to adequately serve the major bicycle traffic generators identified in the Plan and connect with the bicycle route systems in adjoining communities.

- Three access routes should be established linking the mesa to regional bikeways serving Mission Valley and Murphy Canyon. One route should follow Mission Center Road from Murray Ridge Road to the Mission Valley bikeway. Should this route prove unfeasible, studies for an alternative route should be carried out. A second route should connect Aero Drive with the Murphy Canyon Bikeway. A third route should serve the Mission Village area. On a near term basis, a route connecting Mission Village Drive to the Mission Valley Bikeway should be investigated, possibly involving the City-owned slope easement on the west side of Mission Village Drive.
- Means of improving transportation linkages and lessening the impact of motorized vehicular traffic on the environment should be considered. Two possibilities are the “bicycle park-bus ride” and “piggy back” bicycle-bus transportation concepts.

See **Figure 12**: Bikeways and Pedestrian Walkway.