

#### 7.0 MOBILITY

## 7.1 City of Pasadena Mobility Element Goals

Pursuant to the City of Pasadena's Mobility Element, contained in the City's General Plan, several objectives have been identified. The following objectives and policies have been formulated as part of the City's Mobility Element:

- I. Increase the Availability and Use of Transit
  - Develop Strategies to Maximize Use of Light Rail
  - Expand Regional Bus Service
  - Expand Local Bus Service
  - Provide Priority Treatment for Transit Vehicles
  - Decrease Reliance of the Automobile
- II. Increase the Use of Bicycling and Walking
  - Provide Enhanced Bicycle Facilities
  - Improve Pedestrian Environment
- III. Reduce the Level of Vehicular Trips in General, Specifically the Use of Autos for Drive Alone Trips
  - Expand the Trip Reduction Ordinance (TRO)
  - Provide High Occupancy-Vehicle (HOV)
    Facilities
  - Develop Parking Supply Programs
  - Develop Parking Pricing Programs
- IV. Develop Land Use Planning to Support the Mobility Goals
  - Increase Land Use Densities in Transit Corridors

- Develop Mixed-Use Zoning
- Encourage Supportive Urban Design
- V. Establish Principal Mobility Corridors Within the City
- VI. Reduce Adverse Impacts of Through Traffic and Control Flows Into Designated Corridors

It should also be noted in this overview that north/south arterials accessing the I-210 Freeway have been identified in the City's Mobility Element as experiencing "localized pockets of congestion." In the East Pasadena Specific Plan area, Sierra Madre Boulevard, San Gabriel Boulevard, Sierra Madre Villa Avenue, Rosemead Boulevard, and Michillinda Avenue can be considered as north/south arterials which provide access to the I-210 Freeway. Altadena Drive, Sierra Madre Boulevard (north of the freeway), San Gabriel Boulevard, and Rosemead Boulevard have also been identified in the City of Pasadena's General Plan Mobility Element as north-south "Principal Mobility Corridors." Orange Grove Boulevard from Lincoln Avenue to Rosemead Boulevard, Walnut Street from Orange Grove Boulevard to Foothill Boulevard, and Foothill Boulevard has been identified as east-west "Principal Mobility Corridors." Rosemead Boulevard and Walnut Street/Foothill Boulevard to the east City limit are designated truck routes. In addition, the City's General Plan Mobility Element states that an extension of Kinneloa Street is crucial in order to provide access to the Sierra Madre Villa light rail station.

### 7.2 Mobility Plan

The following is a description of the East Pasadena Mobility Plan.

#### 7.2.1 Light Rail Station

The Pasadena Blue Line Construction Authority is planning an extension of the existing Blue Line Light Rail Transit system to Pasadena. The proposed extension will provide service from downtown Los Angeles' Union Station to Sierra Madre Villa Avenue, located in the East Pasadena Specific Plan area. The 13.5 mile trip from downtown Los Angeles to East Pasadena is expected to take a total of 34 minutes. The extension is proposed to provide service at the following six stations in Pasadena:

- Huntington Station at Fillmore Street
- Transportation Center Station at Del Mar Boulevard
- Pasadena Civic Center Station adjacent to Memorial Park
- Lake Avenue Gateway Station at the center of I-210 Freeway
- Allen Avenue College Station at the center of I-210 Freeway
- Sierra Madre Villa Station at the center of I-210 Freeway

The Blue Line will connect, via Union Station in downtown Los Angeles, to the High Occupancy Vehicle (HOV) facilities on the San Bernardino Freeway, to the Metro Red Line downtown, to the Metro Blue Line through Long Beach, and to other areas in the metropolitan Los Angeles Basin via the Metrolink Commuter Rail System. This is expected to result in

a reduction of local traffic on the 210 Freeway and the Pasadena Freeway.

The Sierra Madre Villa station is anticipated to serve both commuters from East Pasadena and San Gabriel Valley cities to the east for some time. A parking facility for approximately 1,000 cars is planned adjacent to the station. In addition, Foothill Transit, the Pasadena ARTS bus and the MTA will provide service to the station, further increasing transit opportunities in East Pasadena. Conceptually buses will enter the Station from Sierra Madre Villa Avenue and exit to Halstead Street. Design of a bus-only turn lane from Sierra Madre Villa Avenue is being considered.

### **7.2.2 ARTS Bus**

The Pasadena ARTS Uptown route enters the East Pasadena Specific Plan area from the west along Orange Grove Boulevard traveling east to Rosemead Boulevard, and south to Foothill Boulevard. The route then travels west along Foothill Boulevard to Halstead Street, Halstead Street north back Rosemead Boulevard. Returning west via Rosemead Boulevard and Orange Grove Boulevard. The ARTS Uptown route operates on 26-minute headways (2 buses per hour in each direction) from approximately 7:00 a.m. to 6:30 p.m., Monday through Friday. There is limited service on weekends.

The Pasadena ARTS five-year plan – Mobility Options for the Millennium (MOM) has studied the potential for expanded service in the East Pasadena Specific Plan area. These plans include restructuring the Uptown route (renamed C Route) to provide direct access to the planned Light Rail Station and the addition of a new route (D Route) that will enter the East Pasadena Specific Plan area from the west along Villa Street,

south on Altadena Drive to Foothill Boulevard. The route would travel east on Foothill Boulevard to Rosemead Boulevard, south on Rosemead Boulevard to Colorado Boulevard, west on Colorado Boulevard to Sierra Madre Villa and the Light Rail Station, and back to Foothill Boulevard. While these plans have not been formally adopted, they provide an opportunity to examine transit alternatives for the area.

### 7.2.3 Bicycle Access

The Draft Bicycle Master Plan and Master Environmental Impact Report are currently being reviewed. Bicycle access in the East Pasadena Specific Plan area includes the existing bike lane on Sierra Madre Boulevard and some new bicycle facilities on segments of Halstead Avenue, Sierra Madre Boulevard, Altadena Drive, Rosemead Boulevard and Foothill Boulevard.

#### 7.2.4 Pedestrian Access

Pedestrian facilities will be enhanced to encourage walking trips in the Specific Plan area (e.g., between office and restaurants) to lessen the dependence on the automobile for travel. In addition, pedestrian routes leading to the Sierra Madre Villa light rail station from Foothill Boulevard, Colorado Boulevard and Sierra Madre Villa Avenue will be improved to provide greater accessibility.

#### 7.2.5 Truck Routes

Rosemead Boulevard between Orange Grove Boulevard and Colorado Boulevard; and Foothill Boulevard/Walnut Street between the eastern city boundary and Fair Oaks Avenue are both designated as truck routes through the East Pasadena Specific Plan area. The General Plan Mobility Element update will be reviewing the current truck routes throughout the city.

### 7.2.6 Transportation Demand Management

Transportation Demand Management (TDM) measures are part of the Mobility Plan to take advantage of the high level of transit, pedestrian, and bicycling opportunities in the Specific Plan area. East Pasadena employers and property owners will be encouraged to participate in the city-wide Transportation Management Association (TMA) to coordinate activities related to carpooling vanpooling and other ride-share programs, as well as bicycling and walking to work.

### 7.2.7 Traffic Signal Upgrades

In order to improve the efficiency at signalized intersections, several traffic signals in the East Pasadena Specific Plan area will be upgraded. These upgrades may include changing out traffic controllers, improving signal indications, enhancing communications between the field devices and the Traffic Management Center (TMC) located in the City Hall, and reprogramming signal timings. In addition to these upgrades, traffic signal improvements are recommended for the following five intersections within the specific plan area:

- Sierra Madre Boulevard and Foothill Boulevard
- San Gabriel Boulevard and Foothill Boulevard
- Sierra Madre Villa Avenue and I-210 Freeway WB On/Off Ramps
- Sierra Madre Villa Avenue and I-210 Freeway EB On/Off Ramps
- Rosemead Boulevard and Colorado Boulevard

Signal timing along Foothill Boulevard will be improved in early 2001 to maximize the efficiency of traffic throughputs and minimize vehicular delays, and ultimately reduce air pollutions in the specific area.

### 7.2.8 Traffic Management Expansion

The Advanced Communications and Transportation Intelligence Center (ACTIC) conceptualizes an integrated transportation management system in the City of Pasadena. ACTIC envisions the linkage of multi-jurisdictional transportation management such as the L.A. County Traffic Management Center (TMC) through the Countywide Transportation Management Architecture, Caltrans TMC and the City of Los Angeles ATSAC system to allowing data exchange and coordinating incidents effectively and efficiently.

The proposed TMC Master Planning Study will formalize current and future TMC operations enhancements. Pasadena is currently completing joint projects with Glendale and Los Angeles County that will significantly increase the data gathering and dissemination workloads of the TMCs. The City's existing decade-old TMC technologies are desperately in need of modernization. The TMC Master Plan will employee the National ITS Architecture concept to crating framework and vocabulary for planning, defining and integrating the ACTIC system.

ACTIC is envisioned to have different communications infrastructure that allow for data exchange from the L.A. County TMC, Caltrans TMC, Arroyo-Verdugo Coalition Agencies and Los Angeles ATSAC system for real-time, multijurisdictional transportation management. In anticipation of near-term multi-million dollar projects such as the Pasadena

Blue Line, ACTIC will provide swift coordination between train preemption control and signal synchronization and allow a greater range of coordination methodologies to be utilized.

ACTIC will also include integrated transit vehicles tracking via Geographic Information System (GIS) and improved CCTV network through a complete fiber-optic communications network.

### 7.2.9 Physical Improvements

Physical improvement measures have been recommended at eight intersections as follows:

# 7.2.9.1 Altadena Drive and Colorado Boulevard

Restripe Altadena Drive to provide both northbound and southbound exclusive right-turn lanes. Remove on-street parking approximately 100 feet in advance (both north and south) of the intersection. Peak-hour parking restrictions (i.e., from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM) may be posted if removal of on-street parking will negatively impact local residents and/or retail establishments. This measure can be accommodated within the existing roadway width. The location of traffic signal equipment (i.e., loop detectors, signal heads, mast arms, and others) will be modified to conform to intersection layout adjustments.

# 7.2.9.2 Sierra Madre Villa Avenue and Foothill Boulevard

Widen the south side of Foothill Bl. west Sierra Madre Villa

Avenue by approximate 5 feet for a distance of up to 200 feet and the north side of Foothill Bl. west Sierra Madre Villa Avenue by approximately 7 feet for a distance of up to 200 feet. Widen the east side of Sierra Madre Villa Avenue south of Foothill Bl. by approximately 5 feet for a distance of up to 200 feet and remove the center median on Sierra Madre Villa Avenue. Add a second left-turn lane to northbound and upgrade traffic signal to provide protected left-turn for both northbound and southbound movements. Traffic signal equipment (signal controller, signal phasing and timing, and signal indications) will be modified accordingly.

# 7.2.9.3 Sierra Madre Villa Avenue/Madre Street and Colorado Boulevard

Remove the raised median on the north leg of intersection. Restripe to provide an additional southbound exclusive left-turn lane (i.e., dual left-turn lanes). This measure can be accommodated within the existing roadway width. The location of traffic signal equipment will be modified to conform to intersection layout adjustments. Maintain southbound left-turn ingress and westbound left-turn egress restrictions for the retail establishment on the northeast corner of the intersection.

# 7.2.9.4 Halstead Street and Foothill Boulevard

Modify signal and restripe to provide an additional southbound left-turn lane (i.e., one left-turn lane, one left-turn/through lane, and one right-turn lane). This measure can be accommodated within the existing roadway width. Traffic signal equipment

locations will be modified to conform to intersection layout adjustments. Provide enough roadway width to accommodate the proposed bike lane at this intersection.

Future transit and auto access to the SMV Transit Station will be heavy on Halstead Street south of Foothill Boulevard. The existing 40-foot street width and 60-foot right of way will not be able to carry the projected vehicular volumes combining with bus layovers. Section 4.2 6 of the East Pasadena Specific Plan conceptualizes several ideal streetscape designs. The feasibility of widening Halstead Street will be constrained by the right of way acquisition on either side of the street and needs to be further analyzed.

### 7.2.9.5 I-210 Freeway Westbound Off-Ramp and Foothill Boulevard (west of Rosemead Boulevard)

Widen the south side of Foothill Boulevard west of the I-210 Freeway Westbound Off-Ramp by up to five feet for a distance of up to 200 feet. Restripe to provide an additional eastbound through lane (i.e., three through lanes). Traffic signal equipment locations will be modified to conform to intersection layout adjustments.

# 7.2.9.6 Rosemead Boulevard and Foothill Boulevard

Remove the raised median on the south leg of intersection. Widen the west side of Rosemead Boulevard north of Foothill Boulevard by three feet for up to 120 feet. This widening can be accomplished within the existing public right-of-way and

would result in a minimum parkway width of nine feet on Rosemead Boulevard at the Foothill Boulevard intersection. Restripe to provide a second northbound to west bound and left-turn lane (i.e., two left-turn lanes, two through lanes, and one right-turn lane). Traffic signal equipment locations will be modified to conform to intersection layout adjustments.

# 7.2.9.7 I-210 Freeway Westbound Ramps and Foothill Boulevard

Restripe the intersection to provide an exclusive eastbound right-turn lane (i.e., one left-turn lane, one through lane, one through/right-turn lane, and one right-turn lane). Prohibit parking on the south side of Foothill Boulevard for 150 feet west of the I-210 Freeway Westbound Ramp. Peak-hour parking restrictions may be posted if removal of on-street parking will negatively impact local residents and/or retail establishments. Traffic signal equipment locations will be modified to conform to intersection layout adjustments. This measure can be accommodated within the existing roadway width, however, turning radii should be checked before implementing this measure.

# 7.2.9.8 Michillinda Avenue and Foothill Boulevard (LA County Jurisdiction)

Remove the raised medians on both the north and south legs of the intersection. Restripe to provide additional northbound and southbound exclusive left-turn lanes (i.e., dual northbound and southbound left-turn lanes). This measure can be accommodated within the existing roadway width. Traffic signal equipment locations will be modified to conform to intersection layout adjustments.

# 7.2.10 Roadway Extension/Street Improvement Projects

The 1994 General Plan incorporated two roadway extension projects within the East Pasadena Specific Plan area, namely:

- Kinneloa Avenue from Titley Avenue to Walnut Street
- Maple Street from Sierra Madre Villa Avenue to Titley Avenue

The mobility plan of the East Pasadena Specific Plan also recommends these street extensions as part of citywide transportation system enhancement. In addition, connecting Walnut Street between Sunnyslope Avenue and Kinneloa Avenue has been envisioned in the specific plan. These three street extensions would provide additional roadway capacities, alternative circulations and reduction of congestion at several key intersections within the specific plan area. The future traffic analysis was based on the "worse case scenario" of full build-out within the specific plan area and completions of these street extensions.

Street extension projects are costly due to the complexity of issues and phases. The feasibility of Maple Street Extension, from the perspectives of benefits (traffic improvements) and costs (land acquisitions, constructions, etc.) will be examined through the update of the Mobility Element of the General Plan. Based on the analysis results, the Public Works and Transportation Department will be able to either continue its vision of extending Maple Street or remove it from the General Plan. The General Plan update is scheduled to completed in late 2001.

### 7.2.11 Street Segment Improvements

Center two-way left-turn lanes are recommended for the following street segments.

- Walnut Street east of San Gabriel Boulevard
- Electronic Drive east of Sierra Madre Villa Avenue

Figure 7-1 provides a summary of the Mobility Plan.

### 7.2.12 Neighborhood Protection

Neighborhood protection measures are proposed for a number of locations within the East Pasadena Specific Plan area. Neighborhood protection measures are expected to decrease cut-through traffic and reduce speeds along neighborhood streets. These measures should also redirect traffic from the neighborhood streets onto the arterials and highways that surround the neighborhoods. Neighborhood protection measures should effectively mitigate East Pasadena Specific Plan street segment impacts at two locations (No. 17, Rosemead Boulevard south of Halstead Street and No. 19, Greenhill Road east of Cliff Drive).

Neighborhood protection measures shall be monitored to ensure that neighborhood residents are not adversely inconvenienced by neighborhood protection measures.

### 7.3 Neighborhood Protection Measures

Beginning in the 1980s, the City implemented an on-going program to reduce speeds on residential streets and reduce intrusion of commuter trips into various residential areas located within the City of Pasadena. Components of the program have included speed humps, diverters, turn

restrictions, and signing. The East Pasadena Specific Plan prescribes several neighborhood protection measures for the Lower Hasting Ranch neighborhood. Some of the proposed measures will be implemented as part of the City's Capital Improvement Project, Neighborhood Traffic Management Program (NTMP), in fiscal years 2001 and 2002. City staff will be meeting with the community to develop a set of detail implementation plans beginning October 2000. The following conceptual neighborhood protection measures (Figure 7-2) for the Lower Hastings Ranch residents will be refined through a series of neighborhood outreach, consensus building and engineering analyses.

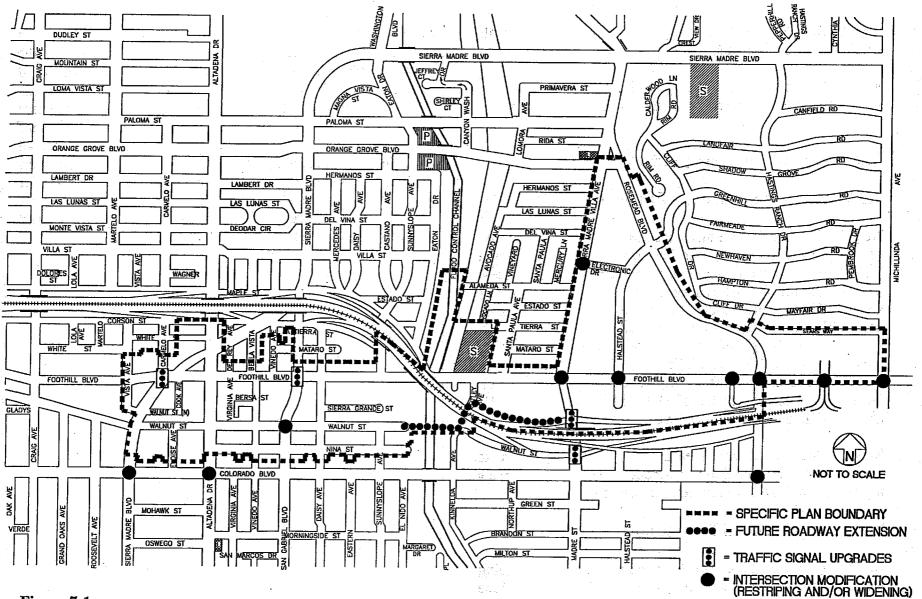


Figure 7-1. Summary of Mobility Plan

### 7.3.1 Speed Humps

The City of Pasadena has established guidelines to evaluate the applicability of installing speed humps. The main purpose of installing speed humps is to reduce speeds. Speed humps also create some negative results, for example, speed humps may delay emergency vehicle response times by 5-10 seconds at each hump crossing, create noise and often shift the speed problem to parallel adjacent streets. Speed humps are only effective when installed along narrow streets where few other measures can be applied. Speed humps should only be installed on local streets with low traffic volumes.

To reduce speeds found to be excessive on local streets, speed humps may be considered for installation in neighborhood areas. The feasibility of speed humps will be evaluated on a case-by-case basis.

### 7.3.2 Physical Improvements

Physical improvements are proposed at the following locations to reduce the attractiveness of using the local streets for cutthrough regional travel:

# 7.3.2.1 Hastings Ranch Drive/Greenhill Road Intersection

Consolidate intersection (i.e., narrow approaches) and remove northbound right-turn yield to reduce speeds near the intersection.

### **7.3.2.2** Sears Way

Sears Way will be modified to discourage non-local traffic from entering the Lower Hastings Ranch neighborhood. The following measures are expected to produce this result without completely modifying local traffic patterns (as shown in Figure 7.3).

- Redirect westbound traffic to the south via the driveway approximately 500 east of Hastings Ranch Drive (i.e., the driveway between Rite Aid and Sears).
- Sear Ways between Hastings Ranch Drive and this driveway will become a one-way (i.e., eastbound only) street. Sears Way between this driveway and Michillinda Avenue will remain a two-way street.
- Provide an internal defined path connecting the driveway at Sears Way to the driveway at Foothill Boulevard. The driveway at Foothill Boulevard is approximately half-way between Rosemead Boulevard and the I-210 Westbound On/Off Ramps.

The exact re-configuration of Sears Way will be determined and refined as part of the NTMP outreach efforts.

### 7.3.3 Traffic Signal Modification

To discourage cut-through traffic by minimizing "green" time for through movements, signal modifications are recommended at the following intersections:

- Hastings Ranch Drive and Sierra Madre Boulevard
- Greenhill Road and Michillinda Avenue
- Halstead Street/Greenhill Road and Rosemead Boulevard

Signal modification should be monitored to ensure neighborhood residents are not adversely inconvenienced by recommended measures.

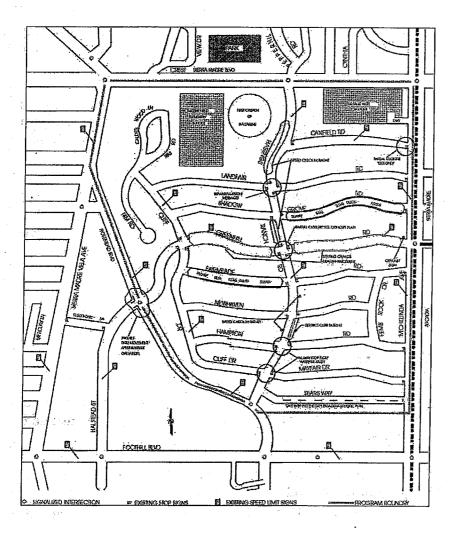


Figure 7-2 Neighborhood Protection Measures