

IV. RECOMMENDED TRANSPORTATION IMPROVEMENT PROGRAM

The development of the transportation improvement program for the Coastal Corridor Study Area was conducted by first identifying the types of projects that appear to be the most appropriate. The framework for the development of the improvement program was based upon the categories used to define these projects.

FRAMEWORK FOR IMPROVEMENT PROGRAM

The proposed recommendations for the Coastal Corridor improvement program have been divided into the following five categories of project types:

- A. Locally-Identified Projects
 - Widen or realign selected roadway segments
 - Implement the recommendations of the Rosecrans Avenue Corridor Study (sponsored by the SBCCOG and SCAG) and Lincoln Boulevard Corridor Study (sponsored by the Lincoln Boulevard Corridor Task Force)
 - Implement identified ITS/Signal system improvements
- B. Bikeway Projects
 - Expand the existing bikeway network
- C. Transit Projects
 - Coordinate with the Metro Rapid Expansion Program
- D. Grade Crossing Projects
 - Implement safety improvements at selected grade crossings
- E. Freeway and Ramp Improvements
 - Address bottlenecks through operational improvements
 - Intelligent, dynamic metering system for maximum efficiency

Short-Term Improvements

The short-term improvements, i.e., those that should be implemented by Year 2005, satisfy the following criteria:

- They are already programmed and funded, although new projects whose implementation is consistent with this time frame may be identified
- Typical projects will be ITS deployment, spot arterial improvements and transit service enhancements

Longer-Term Improvements

The long-term improvements, i.e., those needed by Year 2015, satisfy the following criteria:

- Generally capital-intensive multi-modal improvements
- Typical projects could include freeway ramp and interchange improvements, street improvements to segments of arterials and capital-intensive transit service enhancements

LOCALLY-IDENTIFIED PROJECTS

The first element of the category titled Locally-Identified Projects was obtained from each jurisdiction through interviews and a review of the update of the Portfolio of Projects (Draft South Bay Cities Strategic Transportation Investment Portfolio Study Report, January 2001, Meyer, Mohaddes Associates, Inc.). Each of the jurisdictions identified a list of projects whose focus was generally the immediate area of the improvements. These projects included roadway widening or re-alignment projects, improvements at intersections, improvements to access routes to freeways, and some

capacity enhancement projects for corridors in the study area. As indicated in Figure 9, each of the member cities provided information on baseline improvements.

Additional local projects are listed in Table 5, which includes the jurisdiction, a description of the improvement, the cost estimate, and whether the project is viewed as a near-term (by 2005) or mid-term (by 2015) project. Figure 14 illustrates the location of each of the locally identified projects. The costs shown for improvements to the Rosecrans Corridor may be refined as that study continues. Also to be included in the category of Locally-Identified Projects are the proposed recommendations from the Lincoln Boulevard Corridor Study. These two ongoing studies of critical segments of these key arterials are expected to produce final recommendations by mid-2003.

The third element of the category is a list of the ITS/signal system improvements in Culver City, Hawthorne, Inglewood, and Los Angeles. The LA County Department of Public Works staff coordinating the South Bay Signal Forum have stated that the ongoing process was initiated almost 10 years ago with the *Conceptual Design Study of Traffic Signal Improvements in the South Bay Area of Los Angeles County* (July 1993). Based on that report, four tiers of improvements were identified and have been pursued:

- Tier I (the traffic signal synchronization program or TSSP) is composed of projects to synchronize signals along arterial corridors spanning multiple jurisdictions, which is now nearly complete.
- Tier II (bus signal priority systems or BSP) will be implemented as the Metro Rapid system is expanded over the next 6 years. A pilot project is planned for MTA Line 210/310 on Crenshaw Boulevard between Adams Boulevard and Redondo Beach Boulevard. Following the evaluation of this project, bus signal priority guidelines will be prepared to guide the further deployment of this technology.
- Tiers III and IV (design and installation of communications systems and software, local traffic management centers and advanced traveler information systems) are ongoing. The current phase of work will construct and deploy an intelligent transportation system (ITS) throughout the SBCCOG sub-region, plus the City of Los Angeles, which will provide each city with local transportation control centers (LTCCs) and the necessary architecture for jurisdiction-specific centrally-controlled signal systems on 38 arterial corridors.

DONTPRINT Table 5 1

DONTPRINT Figure 14 1

The ITS system is currently in the conceptual design stage. A recent consultant report recommended specific locations for the employment of in-pavement recording devices, cameras and changeable message signs. Each jurisdiction has chosen or will choose its specific system and will have control of the signals within its jurisdiction unless it opts to enter into an inter-jurisdictional agreement with a neighboring city or the County of Los Angeles. Each LTTC will have real-time access to the traffic flow data and video images from throughout the entire area through an Information Exchange Network (IEN). The process acknowledges that several cities have their own ITS systems currently in place and are working on their own to further develop them. It will be tailored to conform to this constraint. Figure 14 illustrates the coverage of the ITS/Signal System project within the Coastal Corridor study area.

Table 5 shows that the total estimated costs for the Locally Identified Projects portion of the recommended improvement program is \$68,895,000. Of this total, it is estimated that \$27,820,000 would be for the near-term improvements and the remaining \$41,075,000 for the mid-term improvements.

RECOMMENDED BIKEWAY PROJECTS

Recommended Bikeway Projects include those taken from the MTA Bike Plans for South Bay and Westside Areas, as updated for the South Bay Cities sub-region, to identify opportunities to expand the existing bikeway system. Figure 15 illustrates the location of these projects to be included in the list of recommended improvements. Each are listed in Table 6 which identifies the route segment on which the bikeway is located, the terminus points of the facility, the class of bikeway the project is, its length and a cost estimate. The list has been separated into near-term and mid-term projects.

It can be seen from Table 6 that the total estimated cost to implement the 90 miles of bikeway projects is \$12,620,000, of which \$5,228,000 is for the near-term projects and \$7,392,000 for the mid-term improvements.

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TRANSIT PROJECTS

The extent of the existing network of transit routes within the study area has been illustrated in Figure 4. Routes which have difficulty adhering to published schedules due to congestion or which have experienced overcrowding in the past have been identified by transit operators and are illustrated in Figure 16. These are the logical routes that the SBCCOG should request that the MTA concentrate on as they plan for improvements in the area. They represent those routes that currently experience the most overcrowding and/or are regularly unable to arrive at bus stops in a timely fashion.

The MTA has recently approved and funded a dramatic expansion of the Metro Rapid program that was first implemented in Phase I demonstration projects on Wilshire and Ventura Boulevards in June 2000. This expansion plan, Phase II, has identified 23 additional Metro Rapid routes for implementation over the next five fiscal years (by 2008) based on current transit service, corridor transit potential and corridor transit dependence. The Metro Rapid service is defined by some or all of 11 attributes, the first eight of which were included in the demonstration projects:

1. Frequent service
2. Bus signal priority
3. Headway-based schedules
4. Simple route layout
5. Less frequent stops
6. Integration with local bus service
7. Level boarding and alighting
8. "Branded" buses and stations
9. High-capacity buses
10. Exclusive lanes
11. All-door boarding

Of the 23 expansion routes in the MTA service area, six lie largely within the Coastal Corridor. These six routes, which are all illustrated in Figure 17, include the following implementation program:

Fiscal Year 2003-2004

- Crenshaw-Rossmore

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Figure17

Fiscal Year 2004-2005

- Pico - potentially operated by Santa Monica Municipal Bus Lines
- Hawthorne

Fiscal Year 2007-2008

- Lincoln - potentially operated by Santa Monica Municipal Bus Lines
- Sepulveda - potentially operated by Culver City Municipal Bus Lines
- Torrance-Long Beach - potentially operated by Torrance Transit

Because four of these routes have historically been served by municipal transit agencies, Metro Rapid service here could be operated by the agencies shown above. The Metro Rapid expansion plan calls for the same service attributes to be provided on these routes, whether operated locally or by the MTA. Close coordination and cooperation between the municipal transit agencies and the MTA will be required as these routes move toward implementation.

Several of the Metro Rapid attributes (bus signal priority, stations, and, at some locations, exclusive lanes) will require coordination and cooperation between the affected municipalities and the MTA or municipal transit agencies.

Because the funding for the expansion of Metro Rapid service is in place, this study recommends that the affected municipalities and municipal transit agencies coordinate as necessary for implementation.

GRADE CROSSING PROJECTS

A railroad study of the BNSF Harbor Subdivision was prepared for SCAG and the SBCCOG² to identify the need for future grade crossing improvements given the decline in rail volume following the opening of the Alameda Corridor in April 2002, and to identify alternative uses for the rail corridor. Current train traffic was forecast to fall from up to 20 trains per day (14 through trains and six local trains) to six local trains per day. Because

² *South Bay Cities Railroad Study - BNSF Harbor Subdivision*, prepared by Wilbur Smith Associates for SCAG in association with South Bay Cities Council of Governments, February 28, 2002.

local trains are much shorter than through trains, delays at grade crossings and nearby intersections are "expected to be virtually eliminated." Nevertheless, the study recommended minor operational improvements at nine crossings that are also recommended by this study. One additional improvement was identified through discussions with staff at the City of Hawthorne. While it is recognized that some minor street grade crossings are deficient in some way (*i.e.*, 162nd Street with poor surface condition and 160th and 161st Streets with poor drainage), the recommendations in this study are limited to those that affect the arterial street system, which carries the majority of traffic within the Coastal Corridor. Figure 18 illustrates the locations and a summary description of each of these grade crossing improvements. Table 7 also provides a summary of these improvements, all of which are listed as near-term, indicating the location, a description, and the estimated cost to complete.

Table 7 indicates that the rail grade crossing improvements, which are all near-term projects, would have an estimated cost of \$165,000 to complete.

FREEWAY AND RAMP PROJECTS

The freeway system is the backbone of the transportation system within the Coastal Corridor and improvements to its operation will yield substantial benefits to the surrounding network of arterial streets. For this reason, it is recommended that local jurisdictions within the Coastal Corridor cooperate with and support to the fullest extent the ongoing efforts of Caltrans to reduce congestion on the freeway system. In January 2002, Caltrans District 7 approved the *Traffic Operations Strategies Implementation Report* (TOPS) as part of a statewide plan to improve the operation of the state's transportation system. TOPS is an operationally-oriented approach that would utilize "all available tools to effectively operate the State freeway system at maximum efficiency through better system management, especially on the congested corridors" and would "produce significant benefits for relatively small costs compared to the traditional State Transportation Improvement Program (STIP) projects." The TOPS focuses on four major elements: intelligent infrastructure, mitigating bottlenecks through physical operational improvements, HOV gap closure and modifying freeway-to-freeway connectors and interchange improvements. Among the projects identified in the TOPS

DONTPRINT Figure 18 1

DONTPRINT Table 7 1

are over 30 within the Coastal Corridor, primarily on the I-405 and the I-10. Figure 19 summarizes the location of the various projects included in this category. Table 8 lists each of the improvements separating them into three categories: non-capacity enhancing operating improvements (from the Caltrans SHOPP project list (*Traffic Operations Strategies Implementation Report*, Caltrans District 7, Traffic Operations Unit, January 2002)), candidate capacity-enhancing projects (Caltrans Candidate Project), and Caltrans Focused Congestion Relief Project List. The table describes each project on the list by indicating the route location, the type of improvement, the cost and its status whether near-term or mid-term.

Caltrans is also pursuing other focused congestion relief studies, including the following:

1. Project that addresses the I-405 bottleneck in the vicinity of SR-90 between Manchester Avenue to Culver Boulevard.
2. The South Bay Cities Council of Governments has recently initiated the I-405 Arterial Improvement Planning Studies to identify, evaluate, and prioritize operational and physical improvements within the I-405 corridor. That study has already identified 3 high priority projects for feasibility studies and the preparation of project reports:
 - Crenshaw Bl/182nd Street/I-405 ramps
 - Inglewood Ave/I-405 ramps
 - La Cienega Bl/Manchester Ave/I-405 ramps

Among the other projects to be evaluated in that study are:

- PSR for widening the NB I-405 Inglewood Avenue on-ramp
- Relocate or remove ramp meter at the SB I-405 La Cienega Boulevard on-ramp

The results summarized in Table 8 indicate that the three categories of freeway and ramp improvements would have a total cost of \$116,400,000 to implement. Of these, the near-term projects would cost \$10,900,000 while the mid-term improvements would have a total cost of \$105,500,000.

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DONTPRINT Table 8 1

SUMMARY OF RECOMMENDED IMPROVEMENT PROGRAM

Table 9 has been prepared to summarize the cost associated with the implementation of the entire improvement program. It can be seen that the total cost is \$198,080,000, of which \$44,113,000 is for the near term improvements and \$153,967,000 for the near-term improvements.

Travel data related to air-quality benefits has been collected and analyzed. This analysis, presented in Appendix D, shows that full implementation of the recommended program of improvements could yield a reduction of approximately 12,900 daily vehicle trips, approximately 51,500 daily vehicle miles of travel, approximately 730 PM peak hour vehicle hours of delay and approximately 5,850 daily vehicle hours of delay.

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