S.0 EXECUTIVE SUMMARY

S.1 Study Overview

The I-710 Major Corridor Study was initiated in January 2001 to analyze the traffic congestion, safety, and mobility problems along the I-710 travel corridor and to develop transportation solutions to address these problems as well as some of the quality of life concerns experienced in the I-710 Corridor.

Study Organization

Daily project management and oversight of the study was provided by the Los Angeles County Metropolitan Transportation Authority in partnership with three other principal agencies: Caltrans, Gateway Cities COG, and SCAG. In addition, a policy oversight committee was established for the I-710 Study. The I-710 Oversight Policy Committee is comprised of elected officials from 14 participating cities and the County of Los Angeles; executive managers or senior staff from three of the principal partners (MTA, Caltrans, and SCAG); and a Commissioner from each of the Ports of Long Beach and Los Angeles.

Study History

During the first 24 months of the study, existing and future conditions in the I-710 Corridor were assessed, a Purpose and Need Statement was developed, and several different transportation alternatives were analyzed. By April of 2003, five alternatives had been evaluated in detail and information on their benefits, costs, and impacts were made available to the public:

Alternative A: No Build Alternative (also called the "No Project" Alternative)
Alternative B: Transportation Systems Management / Travel Demand Management Alternative
Alternative C: Medium General Purpose / Medium Truck Alternative
Alternative D: High General Purpose / High HOV Alternative
Alternative E: High Truck Alternative

Three of the five alternatives were build alternatives that would either involve significant expansion of the I-710 freeway or would require the construction of new travel lanes next to I-710. The public did not support any of the build alternatives due to concerns about the large amount of property acquisitions and relocation impacts, environment and health issues, environmental justice, and perceived shortcomings in the public outreach for the I-710 Study.

Revised Study Direction

In response to the community concerns and opposition to the build alternatives, the MTA Board passed a motion on May 22, 2003 to revise the direction of the I-710 Study. Through this motion, the MTA Board directed staff to continue to work with the affected communities and other stakeholders to develop a Hybrid Strategy that would be acceptable to them, while meeting the purpose and need for transportation improvements in the I-710 Study Area. This Hybrid Strategy would have both operational and policy elements, as well as selected physical infrastructure improvements. The MTA Board also directed staff to "...form advisory groups in key areas along the Corridor where current design alternatives require the acquisition of large

amounts of private property." As a result, the scope of the I-710 Study was substantially reconfigured to drop or reduce several technical tasks in deference to a greatly expanded public outreach effort to develop consensus for a preferred package of transportation improvements and strategies for the I-710 Corridor.

At its May 28, 2003 meeting, the I-710 Oversight Policy Committee (OPC), also cognizant of community concerns regarding the Final Set of Alternatives, adopted a set of Guiding Principles that further elaborated on the MTA motion and provided guidance to the development of a Hybrid Strategy for the I-710 Corridor. At this same meeting, the I-710 OPC created two tiers of Community Advisory Committees to advise them on the development of the Hybrid Strategy: Tier 1 and Tier 2 Community Advisory Committees.

Tier 1 – Community Level Committee Structure

Tier 1 Community Advisory Committees (CACs) were formed for each of the cities that border the I-710 Freeway. These CACs primarily focused on key issues that affected their communities including: health, environment and quality of life issues, safety and mobility issues, as well as economic development and land use issues.

To assist with the formation and coordination of these Tier 1 CACs, MTA retained a consultant, Moore, Iacofano, Goltsman, Inc. (MIG), to facilitate meetings of these committees. The Gateway Cities COG also retained an engineer (Jerry Wood, Consultant) to assist the Tier 1 CACs in the development of their recommendations for improvements to the I-710 Freeway and the transportation system in the surrounding study area.

Tier 1 Community Advisory Committees were established for the following communities: Carson, Compton, Lynwood, Bell Gardens, Commerce, East Los Angeles, and South Gate.

Rather than form a Tier 1 CAC, the City of Long Beach formed an I-710 Oversight Committee comprised of the three city council members whose districts border the I-710 freeway. The City of Long Beach also retained consultants for facilitation (DSO) and engineering (MMA) to support its separate community outreach process, leading to the development and adoption by the Long Beach City Council of their portion of the Hybrid Strategy.

Tier 2 – Corridor Level Committee Structure

The Tier 2 Community Advisory Committee (CAC) was formed to provide community representation via a broad based corridor-wide body. The initial membership consisted of:

- The Chair of each Tier 1 CAC
- For each community that does not have a Tier 1 CAC, a member appointed by the City Council or County Supervisor
- No more than 15 members appointed by the OPC to provide representation from the environmental community, business, labor, institutions, and academia
- The Chair of the I-710 Technical Advisory Committee
- The Chair of the Gateway Cities COG Enhancement Committee

In order to empower the Tier 2 CAC to engage additional perspectives or interests that it deems important, the OPC delegated to the Tier 2 CAC the authority to appoint, by two-thirds

vote, up to ten additional members. As a result, the Tier 2 CAC voted to add one additional member.

Employing Moore, Iacofano, Goltsman, Inc. as a resource, the Tier 2 CAC structured its work based on key issue areas that were identified by the Tier 1 Community Advisory Committees. These issue areas included:

- Health
- Jobs and Economic Development
- Safety
- Noise
- Congestion and Mobility
- Community Enhancements
- Design Concepts
- Environmental Justice
- Organization and Process

Draft Hybrid Design Concept

The Gateway Cities COG engineer worked with the Tier 1 Community Advisory Committees to help develop a hybrid design concept. Each of the Tier 1 CACs met numerous times and developed a list of issues, concerns, and recommendations. After reviewing these lists, preliminary design concepts for respective segments of I-710 were developed and presented to each Tier 1 CAC for review and comment. Through this feedback, adjustments and refinements to the hybrid design concept were made.

The purpose of the Draft Hybrid Design Concept was to provide infrastructure improvements to I-710 focused on improving safety; addressing heavy duty truck demand as well as general purpose traffic; improving reliability of travel times; and separating autos and trucks to the greatest extent possible while limiting right-of-way impacts. In general terms, the Draft Hybrid Design Concept is comprised of 10 general-purpose traffic lanes, 4 exclusive truck lanes, and interchange improvements from Ocean Boulevard in Long Beach to the intermodal railroad yards in Commerce/Vernon. [Note that the community engagement process to reach consensus on the Hybrid Design Concept is still underway with Commerce and East Los Angeles and therefore proposed improvements to I-710 between the Atlantic/Bandini interchange and SR-60 are yet to be defined.]

Caltrans standards were considered during the development of the Draft Hybrid Design Concept. However, the standards could not be met at all locations and Caltrans/FHWA approval of design exceptions will be needed to implement the geometric design as currently proposed. If the design exceptions are not acceptable to Caltrans/FHWA, then the geometric designs at certain locations will have to be restudied and the design modified. Any changes will be reviewed with the local community before being finalized.

Tier 2 Community Advisory Committee Recommendations

The charge of the Tier 2 Committee was to review key local issues and opportunities identified by the Tier 1 Community Advisory Committees, consider issues of local and regional

importance from a corridor-wide perspective, and provide recommendations to the Oversight Policy Committee on a comprehensive transportation solution for the I-710 Corridor.

Several of the Tier 2 meetings were devoted to the preparation of a report, documenting the Committee's findings and recommendations: *Major Opportunity/Strategy Recommendations and Conditions*, *August 2004*. Great care was taken to develop precise wording to convey the convictions and intent of the overall group.

Three overarching principles defined the priorities of the Tier 2 Committee and reflected the consensus that emerged during their deliberations:

1. This is a corridor – considerations go beyond the freeway and infrastructure.
2. Health is the overriding consideration.
3. Every action should be viewed as an opportunity for repair and improvement of the current situation.

Technical Advisory Committee (TAC) Recommendations

The TAC made no further changes to the Draft Hybrid Design Concept with the understanding that the segment of the I-710 Corridor between the BNSF/UP railroad yards in Vernon/Commerce and SR-60 is still under study and that findings from this focused study effort, including any new freeway-to-freeway ramp connections between I-710 and I-5, will need to be integrated with the overall I-710 Hybrid Design Concept prior to initiating environmental studies on I-710. The TAC also recommended that all of the proposed improvements in Alternatives A and B, a truck inspection station, and improvements to key arterial roadways in the I-710 Study Area, be incorporated to form a Hybrid Strategy.

I-710 Oversight Policy Committee Actions

The OPC met on November 18, 2004 and adopted the Locally Preferred Strategy for the I-710 Major Corridor Study. The OPC approved the draft hybrid design concept and the related supporting elements as the Locally Preferred Strategy:

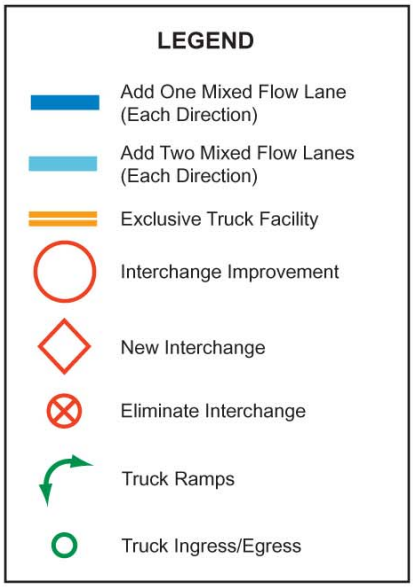
- Hybrid Design Concept, which consists of ten (10) mixed flow lanes, specified interchange improvements, and four (4) truck lanes between the intermodal rail-yards in Vernon/Commerce and Ocean Boulevard in Long Beach (see Figure S-1).
- Alternative B – Transportation System Management/Transportation Demand Management Improvements
- Improvement to arterial highways within the I-710 Corridor
- Construction of truck inspection facilities to be integrated with the selected overall design concept

The OPC, as part of the Locally Preferred Strategy decision, also committed to an additional "mini" study of the segment of the Corridor between Atlantic/Bandini Boulevard and SR-60 to determine an acceptable design concept and scope for that segment of the Corridor. In addition, they adopted four recommendations providing direction and guidance on the future phases of project development and on companion actions.

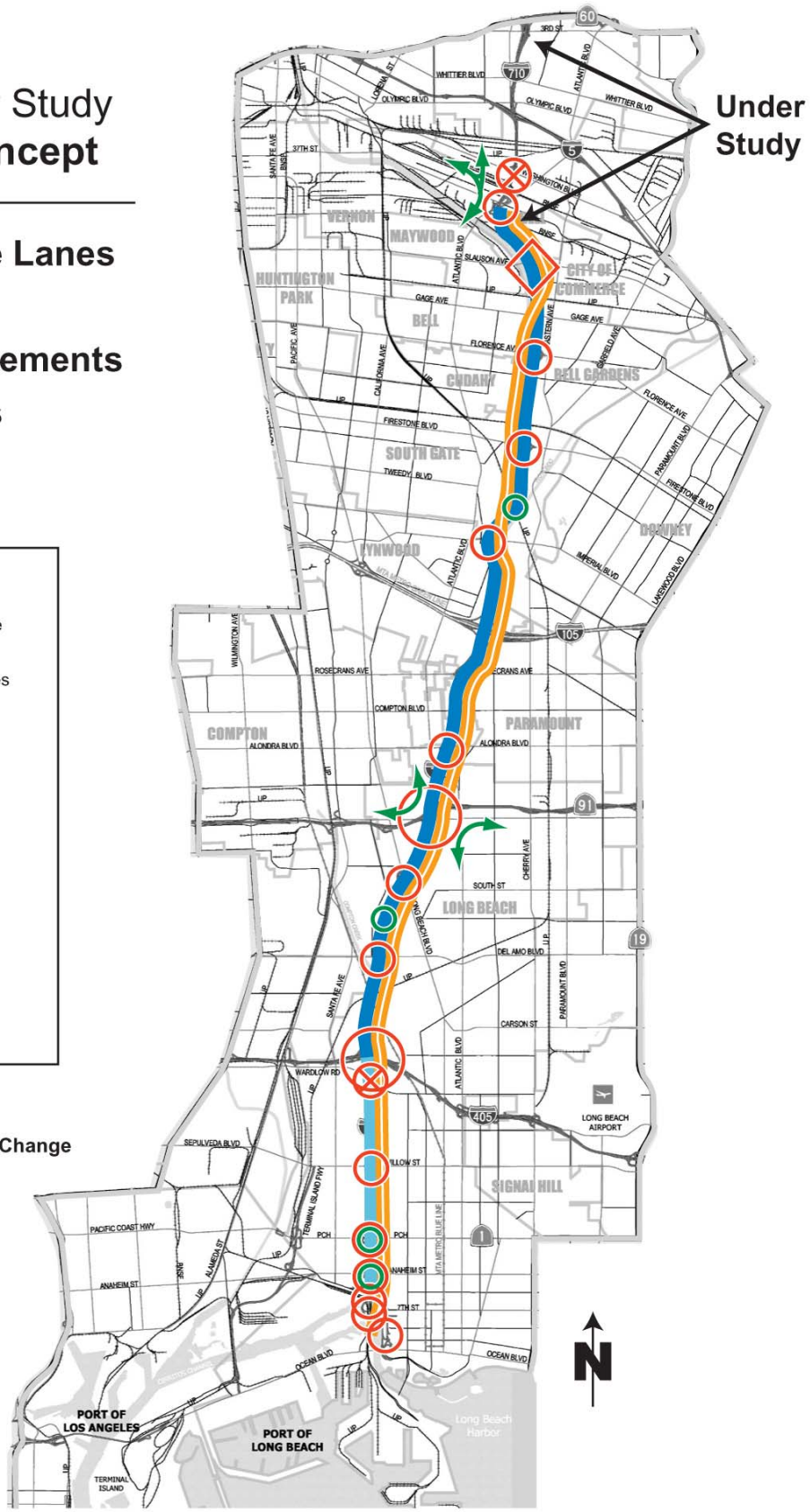
Figure S-1

I-710 Major Corridor Study
Hybrid Design Concept

- **10 General Purpose Lanes**
- **4-Lane Truckway**
- **Interchange Improvements**
- **Direct Truck Ramps**



Preliminary Concepts, Subject to Change



Source: Jerry Wood, Consultant, in association with MMA, Inc. and Nolan Consulting, Inc., April 2004

1. Request the Gateway Cities Council of Governments to return with suggested steps for initiating the development and implementation of a corridor level Air Quality Action Plan to include not only technical but also funding, institutional structure and legislative strategies as well as an approach to holding public agencies with jurisdiction in the Corridor accountable for progress in meeting air quality and public health objectives in the Corridor and Region.
2. Forward the Tier 2 report in its entirety to be accepted as pre-scoping guidance to the preparation of the EIR/EIS.
3. Request the Gateway Cities Council of Governments to identify and pursue appropriate avenues to implement those Tier 2 recommendations that prove to exceed the scope of any I-710 transportation improvement project and report back to the community.
4. Request MTA and COG staff to suggest a process and structure for continuing community participation throughout the environmental analysis.

Based on the OPC Action of November 18, 2004, the Locally Preferred Strategy was forwarded to the MTA Board for its consideration and possible action.

MTA Board Action

The MTA Board met on January 27, 2005 to adopt the Draft Final Report of the I-710 Major Corridor Study. Additionally the Board acted to:

1. Authorize the Chief Executive Officer to proceed with the preparation of a Scope of Work and Funding Plan that will include funding commitments from multiple partners for the environmental phase of the project pursuant to the Major Corridor Study's Locally Preferred Strategy and use input from the I-710 Community Advisory Committees in the environmental scoping process. The Scope of Work should also include assessment of impacts to the I-170/SR-60 interchange and evaluation of alternative project delivery methods.

2. Direct MTA staff to report back to the Board with the results of the East Los Angeles Mini-Study and that results be included into the Locally Preferred Strategy prior to initiating scoping for the EIR/EIS;

3. Receive the TIER II report to be accepted and utilized as pre-scoping guidance for the EIR/EIS;

4. Direct the MTA CEO, with the assistance of our state and federal advocates, to work with the appropriate governmental and non-governmental agencies to form a multi-jurisdictional entity to coordinate the appropriate aspects of the project, including identification of a funding plan with funding sources from multiple partners, and upon formation, the multi-jurisdictional partnership be tasked with identifying strategies for achieving near-term improvements to the Corridor's air quality and that the strategies be identified prior to initiation of the EIR/EIS Request for Proposals.

Issues for Further Consideration

While consensus for a Locally Preferred Strategy was reached among study decision-makers, it was with the understanding that a number of issues of concern that were raised during the study process would be revisited during the environmental review, preliminary engineering, final design, and construction phases of the proposal. For the most part, these are issues that were beyond the scope and authority of the I-710 planning study. Some are matters about which design assumptions had to be made for study purposes and yet about which considerable controversy remains. Others have to do with phasing of the overall project and ensuring that it supports the overall health and quality of life issues in the I-710 Study Area. These issues represent critical concerns of several of the local representatives, the community advisory group members, and the public, and will become part of future discussions as the various aspects of the project move into the next phases.

- Air Quality Action Plan
- Public Involvement Plan for EIS/EIR Phase
- Mini-Corridor Study
- Freeway Design Issues
- Definition of Arterial Street Improvements
- Determination of Truck Inspection Facility(ies)
- Phasing of Improvements
- Technology, Construction and Noise Impacts
- Project Funding

S.2 Study Background

The I-710 Major Corridor Study was conducted according to Southern California Association of Governments' Regionally Significant Transportation Investment Study (RSTIS) guidelines. A RSTIS is a tool for making better decisions about improving transportation in metropolitan areas. The RSTIS is necessary for major projects seeking federal funding. As such, the RSTIS is part of the federal planning process, yet decision-making takes place at the local and regional levels.

Under the Final Metropolitan Planning Rules (23 CFR Part 450.318) that guide the RSTIS, the I-710 Major Corridor Study is an integral element of a metropolitan area's long range planning process that is designed to provide decision-makers with better and more complete information on the options available for addressing identified transportation problems. The I-710 Study provides a focused analysis and evaluation of the mobility needs and related problems of a transportation corridor within a region. Specific criteria are developed to measure the benefits, costs, and impacts of various options. The RSTIS evaluation leads to a decision on a design concept and scope for transportation investments in the corridor – a Locally Preferred Strategy – that is then incorporated into a metropolitan area's transportation plan. The RSTIS is a cooperative and collaborative process that includes public agencies, local governments, and the general public.

Once the purpose and need, design concept, scope, and other elements have been adopted into the Southern California Association of Governments' Regional Transportation Plan (RTP) and the Regional Transportation Improvement Program (RTIP), the Locally Preferred Strategy

can then be advanced into environmental review and preliminary engineering. Consideration of more detailed design issues and completion of National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) requirements occur in this next phase.

The I-710 Major Corridor Study was sponsored by the Los Angeles County Metropolitan Transportation Authority (MTA) in partnership with the Gateway Cities Council of Governments (Gateway Cities COG), the California Department of Transportation (Caltrans), and the Southern California Association of Governments (SCAG).

The I-710 Study was governed by a policy oversight committee comprised of elected officials from 14 participating cities and the County of Los Angeles; executive managers or senior staff from three principal partners (MTA, Caltrans, and SCAG); and a Commissioner from each of the Ports of Long Beach and Los Angeles. The I-710 Oversight Policy Committee (OPC) was advised by a set of committees made up of concerned citizens, stakeholder groups, and technical and engineering staff from participating municipalities and public agencies: (a) the Tier 2 Community Advisory Committee; (b) the Tier 1 Community Advisory Committees; and (c) the Technical Advisory Committee. During the I-710 Study, public input was sought and technical analysis was performed to support decisions that lead to the identification of a Locally Preferred Strategy for the I-710 Corridor. An important aspect of this process was adherence to a set of *Guiding Principles* (Figure S-2) established for the I-710 Corridor by the I-710 Oversight Policy Committee in May 2003.

Figure S-2
I-710 Corridor Guiding Principles

1. Minimize right-of-way acquisitions with the objective being to preserve existing houses, businesses, and open space.

2. Identify and minimize both immediate and cumulative exposure to air toxics and pollution with aggressive advocacy and implementation of diesel emissions reduction programs and use of alternative fuels as well as in project planning and design.

3. Improve safety by considering enhanced truck safety inspection facilities and reduced truck/car conflicts and improved roadway design.

4. Relieve congestion and reduce intrusion of traffic into communities and neighborhoods by employing a comprehensive regional systems approach that includes adding needed capacity as well as deploying Transportation Systems Management and Transportation Demand Management technologies and strategies (TSM/TDM) to make full use of freeway, roadway, rail, and transit systems.

5. Improve public participation in the development and consideration of alternatives and provide technical assistance to facilitate effective public participation.

Source: Oversight Policy Committee Meeting Minutes, May 28, 2003

The *Corridor Analysis Alternatives Evaluation Report* summarizes the I-710 Study process and the decisions reached throughout the course of the study. This report describes the study approach, problems and needs in the I-710 Corridor, alternatives considered, and their respective benefits, costs, and impacts. It also documents the major steps that led to the development of a Hybrid Strategy and ultimately the selection of the Locally Preferred Strategy for the I-710 Corridor, including public input and recommendations at key study milestones. Additionally, the *Corridor Analysis Alternatives Evaluation Report* memorializes issues raised by project decision-makers, participating agencies, and concerned citizens during the I-710 Study that will require further consideration as the project enters into subsequent phases of analysis and project development.

S.3 I-710 Corridor Study Area

The I-710 Study Area encompasses the sphere of influence of the I-710 travel corridor. The project study area is about twenty miles long and a little over six miles wide. A map of the I-710 Study Area is shown in Figure S-3. The Study Area boundaries are generally defined as follows:

- State Route 60 (northern boundary)
- Lakewood Boulevard / Rosemead Avenue (eastern boundary)
- Ports of Long Beach and Los Angeles (southern boundary)
- Wilmington Avenue / Alameda Street (western boundary)

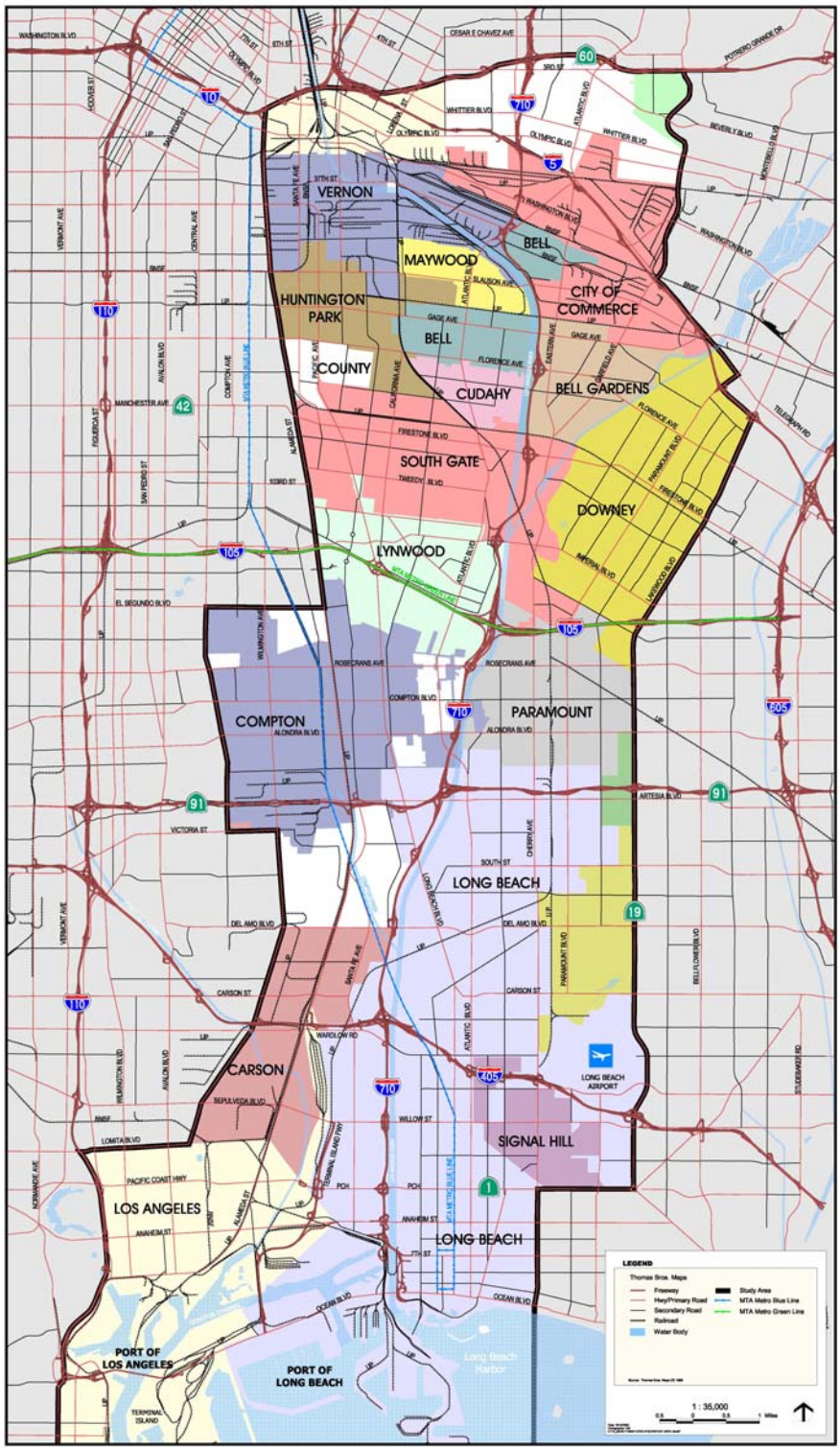
S.4 Purpose and Need

The I-710 Corridor is the principal transportation connection between East Los Angeles and the Ports of Long Beach and Los Angeles. It plays an important role in the regional, statewide, and national transportation system, serving both person trips and goods movement needs. Based on the examination of existing and future travel conditions, the I-710 Corridor is already experiencing serious performance problems due to a number of interrelated reasons.

With the exception of the I-105 interchange, no major work has been done on I-710 since it was built approximately 50 years ago. This means that traffic volumes have overwhelmed the existing design capacity of the interstate, particularly at the interchanges. This, in turn, has led to congestion and safety problems along the full length of the facility.

A complicating factor is the large numbers of trucks that use I-710 to travel between the Ports and rail freight yards located near Interstate 5 (I-5), and to warehousing and distribution points scattered throughout the Southern California urban area. Near Long Beach, trucks make up nearly twenty percent of the traffic stream during the day, compared with an average daily truck percentage of 6 to 13 percent on similar freeways in Los Angeles County. It is not uncommon to see a line of trucks, nose to tail, in the two right-hand lanes of the freeway, which greatly restricts movement across lanes as other vehicles attempt to enter and exit the freeway. In terms of utilization of highway capacity, one truck is the equivalent of two passenger cars or more depending upon prevailing roadway conditions. Moreover, trucks move at different speeds compared to general-purpose traffic and often have difficulty negotiating the tight turns, short weave distances, and steep grades at most of the I-710's interchanges. Additionally, trucks are a major source of diesel particulate emissions, which contribute to carcinogenic risk in the South Coast Air Basin.

Figure S-3
I-710 Corridor Study Area



Source: Parsons Brinckerhoff, June 2001.

High traffic volumes, design deficiencies, freeway congestion, and the interaction between cars and trucks in the traffic stream, create potentially unsafe conditions. Field officers of the California Highway Patrol consider I-710 to be one of the worst freeways in the Los Angeles County area with regard to safety. According to state records, I-710 experiences an accident rate that is well above the statewide average for freeways of this type. About five accidents per day occur on I-710 between Ocean Boulevard and SR-60. Accidents, particularly truck-related accidents, form bottlenecks as emergency workers close travel lanes to clear the scene. As a result, these incidents lead to additional congestion, delay, and occasionally secondary accidents on I-710 as approaching vehicles unexpectedly run into the back of a queue. When I-710 shuts down, freeway traffic spills over onto local roadways and arterials searching for an alternative route, creating additional congestion on those facilities as well.

I-710 is, and is expected to remain, a primary route for trucks carrying containers to and from the Ports. I-710 also serves as the gateway to the City of Long Beach, including several cultural, business, and tourist attractions of great economic importance to this area of Los Angeles County. The amount of congestion and traffic delay currently experienced on I-710 is not only disruptive to Port operations that must accommodate "just-in-time" goods delivery and inventory processes, but also hurts trucking, manufacturing, and other commercial interests within the region as shipments are delayed and as trucks sit in traffic. Idling trucks produce diesel particulates affecting air quality and thus exacerbating public health concerns of nearby residents. In addition, the I-710 freeway is visually unattractive, which degrades the motorist's experience and detracts from the impressions formed of the communities surrounding it.

The planning horizon for the I-710 Study is 2025. Both population and employment within the Study Area are expected to grow by about 20 percent between now and 2025. According to demand projections produced by the Ports of Long Beach and Los Angeles, container traffic will more than double during that same time period. These figures indicate that the existing transportation problems on I-710 and other study area roadways will get much worse and will affect the competitive position of the Los Angeles region, as well as other U.S. businesses and industries, unless corrective action is taken.

Finally, there is a significant percentage of mobility-constrained and minority populations within the I-710 Study Area. Improvements to transit services are needed to better serve those without access to autos for their travel needs and to attract drivers from their cars to help reduce traffic congestion. Future transportation improvements also need to be sensitive to the distribution of their benefits and impacts, so as not to disproportionately affect any one ethnic group or community.

Analysis of these current and projected conditions in the I-710 Study Area, as well as public input, has led to the identification of several key problem areas for the I-710 Corridor, which was approved in December 2001 by the I-710 Oversight Policy Committee. Many of these problems and needs are interrelated. Figure S-4 on the following pages lists and describes these problem issue areas in no particular order of importance:

Figure S-4
I-710 Corridor Problem Statements

Problem/Need	***Problem Statement***
Recurrent Traffic Congestion	Traffic demand is overwhelming the existing design capacity of I-710 and related interchanges in the peak periods. Under current conditions, high volumes of both trucks and cars have led to peak spreading and traffic congestion throughout most of the day (6 a.m. to 7 p.m.) on the mainlines of I-710 as well as approaching arterials. This pattern is projected to worsen over the next twenty years.
Non-Recurrent Traffic Congestion	The frequent occurrence of traffic incidents and constraints associated with quickly clearing those incidents causes bouts of traffic congestion on I-710 that cannot be predicted or avoided. Serious incidents can shut down the freeway for an hour or more, with its attendant spillover effects on the local arterial system. These unexpected delays and resulting economic consequences to freight carriers, employers, manufacturing, and business interests in the region are severe. The unexpected nature of traffic congestion on I-710 is also inconvenient and highly disruptive to commuters and residents that depend upon it for their daily travel.
Safety	The number and severity of accidents on I-710 are high when compared to other similar freeways in the Los Angeles region. Accidents on I-710 are largely due to design deficiencies, high traffic volumes, and the current vehicle mix of autos and heavy-duty trucks. These accidents cause property damage, injuries, and fatalities as well as vehicle delays, as traffic slows or comes to a stop on the freeway mainline until the incidents are cleared. In some cases, secondary accidents are triggered as vehicles upstream of the incident run into the back of an unexpected traffic queue.
Goods Movement	To remain economically competitive in the global marketplace, the Southern California region must support and manage increasing demand for goods movement in the I-710 Corridor. With the recent completion of the Alameda Corridor and its corresponding expansion in freight rail capacity, the regional focus has turned to trucks because of the essential role that this travel mode plays in the logistics chain for goods movement. By 2025, the number of heavy duty trucks on I-710 is expected to more than double. Of particular concern in the I-710 Study Area is how to best realize the economic benefits of the movement of goods (freight) and yet lessen the disruptive effects of truck traffic on the freeway and roadway system, and on neighboring communities.

Source: Purpose and Need Statement, Parsons Brinckerhoff, Adopted by the OPC in December 2001.

Figure S-4 Continued
I-710 Corridor Problem Statements

Problem/Need	***Problem Statement***
Design Deficiencies	Non-standard design features such as inadequate weave distances, acceleration lanes that are too short, poor turning radii, narrow lane widths, left-side egress locations, lack of shoulders, and missing freeway connectors and access points are a major contributor to safety problems and operational inefficiencies along the full length of I-710 corridor. These non-standard features also constrain the operational capacity of travel lanes and ramps on I-710. This situation contributes to poor levels of service currently experienced by motorists on I-710.
Land Use Constraints	The envelope of state-owned land that contains the I-710 facility is limited along much of the length of I-710, including the interchanges. This means that the buffer of land between the edge of travel way and the state right-of-way line is very narrow in most locations and, in some cases, it is non-existent. In addition, sensitive populations and natural resources such as the Los Angeles River Channel, residential neighborhoods, businesses, cemeteries, schools, and parks are located adjacent to the right-of-way line. If major changes are made to the current geometric configuration of freeway, then the potential for right-of-way impacts is high.
Air Quality/Public Health	As shown by recent Air Quality Management District (AQMD) studies, populations within the I-710 Study Area are regularly exposed to toxic air contaminants that increase carcinogenic risk. A major source of these air toxins is diesel particulates, which is considered to be a local source air pollutant. About half of the diesel particulate matter in the South Coast Air Basin as reported by AQMD (1998) is caused by emissions from vehicles using the freeway and roadway system. Heavy-duty diesel trucks are the leading contributor to on-road sources of diesel particulates.
Environmental Justice/Equity	The I-710 Study Area contains a high number of minority and low-income populations that require special consideration under federal environmental justice guidelines. Proposed transportation improvements should be equitable and should distribute benefits and burdens fairly.
Aesthetics/Noise	The I-710 freeway is unattractive, which affects the perception that visitors, residents, and potential customers have of the Gateway Cities area. In addition, residents and other sensitive receptors located close to I-710 experience high levels of traffic noise, particularly in locations where noise barriers do not presently exist.

Source: Purpose and Need Statement, Parsons Brinckerhoff, Adopted by the OPC in December 2001.

Figure S-4 Continued
I-710 Corridor Problem Statements

Cost-Effectiveness	There are limited financial resources and high competition for transportation dollars within Los Angeles County over the next 25 years. Transportation improvements identified in the I-710 Corridor must compete for these available funds with other worthy projects within the county. To be successful, proposed improvements must be cost-effective, generating the maximum transportation benefits for the dollars invested. In addition, proposed transportation improvements should be realistic and achievable, based on known physical, operational, social, and institutional parameters.
Transit	There is a need to better serve the populations in the I-710 Study Area with transit. Existing transit services warrant solutions to improve the mobility of those who currently use public transit, as well as to make these services more competitive with the automobile so as to attract new riders to help reduce traffic congestion.

Source: Purpose and Need Statement, Parsons Brinckerhoff, Adopted by the OPC in December 2001.

S.5 Alternatives Considered

As part of the I-710 Major Corridor Study, a number of alternative transportation mode solutions to the mobility, safety, and air quality problems were assessed. This approach was intended to provide decision-makers with a broad spectrum of transportation options to address the purpose and need within the I-710 Study Area. The conceptual alternatives developed for the I-710 study were multimodal, included both capital improvements and operational strategies, and were structured to provide a range of options so that their respective trade-offs in terms of costs, transportation benefits, and other impacts could be understood. In developing these transportation alternatives for the I-710 Corridor Study Area, input from several sources was considered. Technical information on travel patterns, accident statistics, future growth, and transportation system performance was analyzed. Substantial emphasis was given to discussions with residents, business interests, community leaders, local officials, city representatives, and with agencies such as the California Highway Patrol, about the most critical problems in the I-710 Corridor and what should be done about them.

The purpose of developing various alternatives is to identify a fairly large list of possible transportation options so that these different alternatives can be studied and compared to each other to come up with the best solution for the I-710 Corridor. The alternatives also emphasized different modes of travel or answered specific transportation needs that were identified in the I-710 Study Area. These different travel modes included: general purpose traffic (all types of vehicles); high occupancy vehicles (HOV or carpools); trucks; goods movement (both trucks and freight rail); and passenger rail. The initial set of twelve alternatives developed for the I-710 Study incorporated operational improvements to existing transportation programs and services as well as major construction projects involving a substantial financial investment and expansion of the transportation system, particularly I-710.

The following initial alternatives were approved by the I-710 Oversight Policy Committee in February 2002 for analysis in the I-710 Study:

Alternative 1 – No Build Alternative
Alternative 2 – Transportation Systems Management/Transportation Demand Management (TSM/TDM) Alternative
Alternative 3 – Low General Purpose Alternative
Alternative 4 – Low Truck Alternative
Alternative 5 – Medium HOV Alternative
Alternative 6 – Medium General Purpose Alternative
Alternative 7 – Medium Truck Alternative
Alternative 8 – High General Purpose Alternative
Alternative 9 – High Truck Alternative
Alternative 10 – High Goods Movement Alternative
Alternative 11 – High HOV Alternative
Alternative 12 – High Rail Alternative

A screening analysis was performed on the initial set of twelve alternatives. Screening criteria addressing mobility benefits, cost, right-of-way impact, and environmental concerns was developed to gauge the performance of the alternatives in light of the purpose and need for improvements listed in Figure S-4. The purpose of alternatives screening was to identify those alternatives that were most competitive and should, therefore, be carried forward for further study and evaluation in the I-710 Study. Public outreach during alternatives screening took place during the months of February, March, April, and May of 2002 and consisted of elected official briefings, agency briefings, community presentations, and roundtable discussions. No one alternative as it was presented was favored by the majority of the participants. Rather, certain elements of the different alternatives were noted as being favorable or unfavorable. Truckers, auto drivers, and community members all agreed that trucks and cars must be separated. Several participants stated that the alternative chosen at the end of the study must meet this criterion in order to truly address the problems of the I-710 freeway. In addition, many participants felt that the ports are directly responsible for the volume of trucks on the freeway and that they should work with the local agencies to identify ways to change the way they operate, especially if they plan on expanding. Community members were particularly negative towards the ports, believing that industry is being accommodated at the expense of the local communities. They stated that the amount of traffic, pollution and other negative health impacts in the I-710 Corridor is increasing.

As a result of the screening analysis, including public commentary, and after extensive review and scrutiny by the I-710 TAC, five alternatives were approved by the OPC for detailed evaluation in the I-710 Major Corridor Study. Alternatives that were determined to have little or no chance of becoming the Locally Preferred Strategy were eliminated during the screening process. At the same time, the most competitive elements of the initial alternatives were carried forward, and in some cases re-combined, to form the final set of five alternatives.

For clarity and to avoid confusion with the initial alternatives, the five remaining alternatives were relabeled “A” through “E” as follows:

Alternative A No Build Alternative

Alternative B	Transportation Systems Management / Transportation Demand Management (TSM/TDM) Alternative
Alternative C	Medium General Purpose / Medium Truck Alternative
Alternative D	High General Purpose / High HOV Alternative
Alternative E	High Truck Alternative

The following discussion provides a summary description of the five alternatives that were selected to undergo detailed study in the I-710 Major Corridor Study.

Alternative A - No Build Alternative

Also called the "No Project" Alternative, the No Build Alternative examines what travel conditions will be like by 2025, the future planning horizon year for the I-710 Study. It is also the baseline against which other transportation alternatives proposed for the I-710 Study are assessed. The No Build Alternative encompasses future improvements to the existing transportation system that are expected to be in place by 2025. Major transportation projects that are already under construction or that are already planned to occur are folded into the No Build. Examples of these projects include the construction of the Alameda Corridor, replacement of all of the pavement on I-710 by Caltrans, added bus service throughout the I-710 Study Area, and improvements to truck-impacted intersections, as well as other future transportation projects that are already funded and committed.

Alternative B – TSM/TDM Alternative

The Transportation Systems Management/Transportation Demand Management (TSM/TDM) Alternative is made up of a list of operational improvements needed to make the best use of the transportation system in the I-710 Study Area and that stops just short of a major financial investment in new transportation facilities. The TSM/TDM Alternative incorporates several transportation strategies and programs to better manage how the existing freeways, roadways, and the transit systems operate in the I-710 Study Area.

Alternative B includes transportation improvements such as added bus service for local communities, the completion of the ramp metering system on I-710, and the use of advanced technologies to manage traffic and to inform motorists about alternate routes to avoid traffic congestion. Other proposed TSM/TDM improvements include: emissions reduction programs, incentives to consolidate truck trips, and measures to shift of truck traffic into the late evening or early morning hours.

Mainlines on I-710

- additional ramp metering
- aesthetics (landscaping and hardscape treatments along I-710)
- continuous high-mast illumination
- improved signage on I-710

Interchanges/Arterials

- I-710 ramp terminus/arterial improvements
  - for example, curb and gutter, including aesthetics improvements
  - mostly in state right-of-way

- implement parking restrictions on major parallel arterials during peak periods

Goods Movement

- empty container management through policies and incentives
- expanded drayage truck emission reduction program
- extended gate hours at the ports
  - move toward 24 hour / 7 days a week operations
  - incentives / disincentives (emphasize policy recommendations, not mandate)
  - include all entities in the supply chain

Transit

- additional Blue/Green Line feeder bus shuttles
- enhanced community service (local circulators)

Intelligent Transportation Systems (ITS)

- expand ITS Corridors
  - expand "depth" of ITS coverage on two identified ITS corridors (I-710/Atlantic; I-105 Corridor)
  - emphasize system connectivity

Alternative C - Medium General Purpose / Medium Truck Alternative

Alternative C would entail a major capital investment to the I-710 Corridor and is focused on improving safety and eliminating operational bottlenecks on I-710 for all vehicle types as well as selected improvements to manage the flow of heavy-duty trucks within the corridor. Alternative C also emphasizes capacity improvements to the most deficient arterials serving as feeders or alternate routes to I-710. By definition, Alternative C incorporates all of the operational and policy improvements proposed in the TSM/TDM Alternative. In addition, Alternative C includes the following physical elements:

I-710 Mainlines

- add one mixed flow lane in each direction for selected I-710 segments
  - Shoemaker Bridge Complex to I-405 (I-710 becomes 4 lanes in each direction)
  - Imperial Hwy. to Atlantic Blvd. (I-710 becomes 5 lanes in each direction)
- improve mainlines to design standards
  - 12' travel lanes
  - 12' right shoulder
- add a continuous collector-distributor system between Atlantic Blvd. and I-5
- add a truck inspection facility adjacent to NB I-710 between Del Amo Blvd. and Long Beach Blvd.
- add truck bypass facilities at three freeway-to-freeway interchanges: I-405/I-710; SR-91/I-710; I-105/I-710
- add truck ramps to selected interchanges with high truck volumes: WB Pacific Coast Highway and WB Washington Blvd.

I-710 Interchanges

- add a right-side freeway connector ramp at the I-5/I-710[a] interchange to be used primarily by trucks and retain the left-side connector to be used primarily by autos (NB I-710 to NB I-5)

- eliminate design deficiencies at the I-405/I-710 freeway-to-freeway interchange
- eliminate design deficiencies at eight local interchanges[b]
- add one new interchange (Slauson)

Terminal Island Freeway (SR-47/SR-103)

- extend the Terminal Island Freeway (SR-103) to I-405, by adding an elevated, four-lane facility (two lanes in each direction) that would be used primarily by trucks

Arterials

- arterial capacity enhancements to 10 major arterials[c] by adding one lane in each direction
  - consists of either spot widenings to eliminate chokepoints/bottlenecks, restriping, and removal of on-street parking; or roadway widening
  - provision of off-street parking, as needed, to replace loss of on-street parking due to restriping
  - includes access management improvements (raised medians, elimination/consolidation of driveways and smaller streets)

Notes for Alternative C

a. Would requires coordination with I-5 Corridor Improvements
b. Anaheim; Pacific Coast Highway; Willow; Del Amo; Imperial; Florence; Atlantic/Bandini; Washington
c. Atlantic Blvd.; Cherry Ave./Garfield Ave.; Eastern Ave.; Long Beach Blvd.; Paramount Blvd.; Pacific Coast Highway; Willow St.; Del Amo Blvd.; Firestone Blvd.; Florence Ave.

Alternative D - High General Purpose / High HOV Alternative

Alternative D would represent a high level of capital investment in the I-710 Study Area and focuses on improving safety and increasing roadway capacity to address the high traffic volumes along the full length of the I-710 Corridor for all vehicle types as well as improving the travel time and attractiveness of carpools to increase the person-carrying capacity of the regional transportation system. Alternative D includes all of the proposed TSM/TDM improvements listed in Alternative B. The transportation elements that comprise Alternative D are listed as follows:

I-710 Mainlines

- add 2 mixed flow lanes in each direction to I-710 from:
  - Shoemaker Bridge Complex to I-405 (I-710 becomes approximately 5 lanes in each direction)
  - Imperial Hwy. to Atlantic Blvd. (I-710 becomes approximately 6 lanes in each direction)
- add 1 mixed flow lane in each direction to the remaining I-710 segments
- add an exclusive HOV facility[a] for carpools and buses
  - 4 lanes (2 HOV lanes in each direction) from the Shoemaker Bridge Complex to SR-60
  - generally elevated, however, profile would be adjusted as needed depending upon best fit in I-710 right-of-way
  - alignment generally located in the median of I-710
  - dedicated ingress/egress points to facility for high occupancy vehicles at selected locations (approx. every 3-4 miles)

  - HOV lanes would operate 24 hours/7 days per week and assume a 2+ occupancy requirement
- improve I-710 mainlines to design standards
  - 12' travel lanes
  - 12' right shoulder

I-710 Interchanges

- eliminate design deficiencies at three freeway-to-freeway interchanges: I-405/I-710, SR-91/I-710; I-5/I-710[b]
- eliminate design deficiencies at ten local interchanges[c]
- include direct HOV connectors at the I-405/I-710 interchange (NB I-405 to NB I-710; SB I-710 to SB I-405)

Terminal Island Freeway (SR-47/SR-103)

- add four-lane viaduct connector, between SR-47 and Alameda Street

Transit

- add express bus service on the proposed HOV lanes

Arterials

- arterial capacity enhancements to four major arterials[d] by adding one lane in each direction to those parallel arterials close to I-710
  - consists of either spot widenings to eliminate chokepoints/bottlenecks, restriping, and removal of on-street parking; or roadway widening
  - provision of off-street parking, as needed, to replace loss of on-street parking due to restriping
  - includes access management improvements (raised medians, elimination/consolidation of driveways and smaller streets)

Notes for Alternative D

a. The exclusive 4-lane HOV facility would be designed and constructed so as to not preclude its future development as a high speed rail line between Long Beach and downtown Los Angeles.
b. Would require coordination with I-5 Corridor Improvements
c. Anaheim; Pacific Coast Highway; Willow; Del Amo; Long Beach Blvd; Rosecrans; Imperial; Florence; Atlantic/Bandini; Washington
d. Atlantic Blvd., Cherry Ave./Garfield Ave., Eastern Ave., Long Beach Blvd.

Alternative E - High Truck Alternative

Alternative E would entail a high level of capital investment in the I-710 Corridor focused on: improving safety; increasing capacity for growing heavy duty truck demand; improving reliability of travel times; and reducing points of conflict between autos and trucks to the greatest extent possible. As with the other build alternatives, Alternative E includes the TSM/TDM strategies recommended in Alternative B. Specific transportation improvements associated with Alternative E are listed as follows:

Mainline Facility

- construct an exclusive truck facility
  - 4 lanes (2 in each direction) between SR-91 and SR-60
  - 6 lanes (3 in each direction) between Ocean and SR-91

- proposed truck facility would be generally elevated, however, the profile would ultimately be determined based on need to minimize grades and best fit to minimize need for additional right-of-way
- provide dedicated ingress/egress points for trucks at selected locations (approximately every 3-4 miles)
- horizontal alignment of truckway could be in the median or adjacent to I-710 in state, LA River, or power line right-of-way depending upon best fit
- consider a tolling option for users of the truck facility
- provide extensive auxiliary lane improvements along existing I-710 travel lanes
- improve existing I-710 travel lanes to design standards
  - 12' travel lanes
  - 12' right shoulder

I-710 Interchanges

- eliminate design deficiencies at I-5/I-710[a]; SR-91/I-710; and I-405/I-710
- add one new interchange (Slauson)

Arterials

- arterial capacity enhancements to arterials that lead to I-710 and that carry very high truck volumes by adding one lane in each direction: Ocean Blvd.; Pacific Coast Highway; Florence Ave.; Bandini Blvd.; Washington Blvd.
  - consists of either spot widenings to eliminate chokepoints/bottlenecks, restriping, and removal of on-street parking; or roadway widening
  - provision of off-street parking, as needed, to replace loss of on-street parking due to restriping
  - includes access management improvements (raised medians, elimination/consolidation of driveways and smaller streets)

Notes for Alternative E

a. Would requires coordination with I-5 Corridor Improvements

S.6 Alternatives Evaluation

During Alternatives Evaluation, several technical studies were performed on Alternatives A, B, C, D, and E. The purpose of these studies was to elicit evaluative information on the alternatives as well as provide a higher level of definition of their respective operational and physical characteristics. These technical studies included: conceptual engineering; travel demand forecasting; right-of-way impact analysis; environmental analysis; and estimation of capital costs. Once the technical studies were completed, this information was used to assess the travel benefits, costs, and impacts of the proposed alternatives. Key trade-offs among the alternatives were also evaluated and discussed, and public input was sought.

Following adoption by the OPC in June 2002, the specifics of the design concepts of each of the build alternatives (Alternatives C, D, and E) evolved. This evolution was a result of the conceptual engineering work undertaken to refine the alternatives for further evaluation and analysis. While the basic design concept and scope of each of the build alternatives did not change from those concepts approved by the OPC, the objective of the conceptual design

process was to further define the specifics of the alternatives within the framework of three background assumptions:

- Meet the Intent of the OPC-Approved Alternative Definition
- Maintain Federal and State Design Standards
- Minimize Right-of-Way/Land Use Impacts

In order to understand the major differences among the five alternatives, Table S-1 on the following page illustrates the I-710 mainline configuration of the "through" lanes included in each of the alternatives, not counting lane drops and adds at various locations up and down the freeway associated with the interchanges or with auxiliary lanes.

Travel demand forecasting models were used to predict future traffic volumes on I-710 based on forecasts of future population, housing units, jobs, and cargo. In this case, a subarea travel forecasting model was developed for the overall I-710 Study Area. It is important to look at future travel demand so that proposed transportation improvements are not rendered obsolete by failing to take into account anticipated future growth in traffic. The planning horizon year for the I-710 Study is 2025.

The travel demand forecasts predict how many travelers are likely to use any new transportation facilities tested using the model. Table S-2 shows future traffic volumes on I-710 under all five alternatives, including all vehicle types (autos, trucks, buses, etc.) Since trucks take up more space on the freeway than cars, heavy duty trucks were converted to passenger-car-equivalent units consistent with Highway Capacity Manual procedures. In general, a single heavy duty truck is the equivalent of 2.5 autos. Table S-2 indicates that Alternative B would result in a slight decrease in traffic volumes on I-710, most likely due to the strategies designed to discourage and reduce vehicle trips. On the other hand, the build alternatives (Alternatives C, D, and E) would result in increased traffic volumes on I-710 because the added capacity and operational improvements would result in a better level of service to motorists. Most of these vehicles are switching to I-710 from parallel arterials within the I-710 Study Area closest to I-710 and also from parallel freeways such as I-110 and I-605 as traffic redistributes itself to take advantage of improved travel times on I-710.

Table S-3 shows the changes in estimated truck volumes only. In this case, passenger-car-equivalent units do not apply – a single heavy duty truck is the equivalent of one vehicle in this table. Table S-3 shows a pattern similar to Table S-2, which is not surprising since a good portion of the vehicle stream on I-710 are trucks. Table S-3 also shows that one of the elements proposed in Alternative C (extension of the Terminal Island Freeway) would reduce truck traffic on I-710 south of the I-405 since many trucks would elect to use the Terminal Island Freeway for this one stretch. However, overall truck traffic would increase somewhat on I-710 north of the I-405 compared to the no build condition (Alternative A) as these trucks from the Terminal Island freeway rejoin I-710.

Table S-1
I-710 Mainline Lane Configurations

Segments on I-710		Number of General Purpose Lanes and Special Purpose Lanes (SP, HOV, TR)					
		Existing	Alt A	Alt B	Alt C	Alt D	Alt E
From	To	GP	GP	GP	GP + SP	GP + HOV	GP + TR
SR-60	I-5	8	8	8	8	8 + 2	8
I-5	Washington	10	10	10	10 + 4[a]	12 + 2	10 + 4
Washington	Atlantic/Bandini	10	10	10	10 + 4[a]	12 + 2	10 + 4
Atlantic/Bandini	Florence	8	8	8	10	12 + 4	8 + 4
Florence	Firestone	8	8	8	10	12 + 4	8 + 4
Firestone	Imperial	8	8	8	10	12 + 4	8 + 4
Imperial	I-105	8	8	8	8 + 4[b]	10 + 4	8 + 4
I-105	Rosecrans	8	8	8	8 + 4[b]	10 + 4	8 + 4
Rosecrans	Alondra	8	8	8	8 + 4[b]	10 + 4	8 + 4
Alondra	SR-91	8	8	8	8 + 4[b]	10 + 4	8 + 4
SR-91	Artesia	8	8	8	8 + 4[b]	10 + 4	8 + 4
Artesia	Long Beach	8	8	8	8 + 4[b]	10 + 4	8 + 4
Long Beach	Del Amo	8	8	8	8	10 + 4	8 + 4
Del Amo	I-405	8	8	8	8	10 + 4	8 + 4
I-405	Wardlow	6	6	6	8	10 + 2	6 + 4
Wardlow	Willow	6	6	6	8	10 + 2	6 + 4
Willow	Pacific Coast Highway	6	6	6	8	10 + 2	6 + 4[c]
Pacific Coast Highway	Anaheim	6	6	6	8	10 + 2	6 + 4[c]
Anaheim	9th	6	6	6	8	6	6 + 4[c]
9th	Ocean	4	4	4	4	4	4

Source: Parsons Brinckerhoff, Inc. and Cambridge Systematics, Inc., April 2003.

Notes: Mainline lane configurations show the total number of through lanes for both directions of I-710. Auxiliary lanes are not counted. General purpose (GP) lanes are travel lanes that are used by all vehicle types. Special purpose (SP) lanes are lanes devoted to a specific purpose (i.e., collector-distributor lanes, high occupancy vehicle lanes (HOV), truck bypass lanes, truckway (TR), and autoway).
[a]Collector-Distributor System, [b]Truck Bypass Lanes, [c]Autoway Lanes

Table S-2
I-710 Average Daily Traffic Volumes (in Passenger Car Equivalent units)

Segments on I-710		Alt A Volumes	Alt B Volumes	B – A % Diff.	Alt C Volumes	C - A % Diff.	Alt D Volumes	D - A % Diff.	Alt E Volumes	E – A % Diff.
From	**To**									
SR-60	I-5	280,300	280,900	0.2%	289,900	3.4%	313,400	11.8%	297,900	6.3%
I-5	Washington	280,100	281,300	0.4%	321,700	14.9%	329,000	17.5%	320,400	14.4%
Washington	Atlantic/Bandini	294,300	294,000	-0.1%	325,100	10.5%	342,800	16.5%	338,000	14.8%
Atlantic/Bandini	Florence	298,400	296,100	-0.8%	339,600	13.8%	345,600	15.8%	364,200	22.1%
Florence	Firestone	305,100	302,800	-0.8%	341,600	12.0%	349,300	14.5%	355,800	16.6%
Firestone	Imperial	306,000	303,400	-0.8%	342,000	11.8%	355,100	16.0%	350,400	14.5%
Imperial	I-105	325,700	322,700	-0.9%	344,900	5.9%	363,000	11.5%	366,400	12.5%
I-105	Rosecrans	250,200	247,400	-1.1%	266,500	6.5%	272,700	9.0%	284,400	13.7%
Rosecrans	Alondra	441,500	437,700	-0.9%	468,200	6.0%	451,300	2.2%	486,800	10.3%
Alondra	SR-91	431,900	427,800	-0.9%	458,100	6.1%	434,700	0.6%	479,200	11.0%
SR-91	Artesia	312,300	304,400	-2.5%	339,300	8.6%	371,600	19.0%	358,000	14.6%
Artesia	Long Beach	322,000	314,300	-2.4%	350,200	8.8%	383,100	19.0%	373,200	15.9%
Long Beach	Del Amo	306,500	298,600	-2.6%	331,000	8.0%	352,200	14.9%	350,100	14.2%
Del Amo	I-405	311,100	303,800	-2.3%	342,300	10.0%	356,200	14.5%	358,700	15.3%
I-405	Wardlow	290,000	281,400	-3.0%	281,000	-3.1%	334,500	15.3%	307,000	5.9%
Wardlow	Willow	302,000	293,100	-2.9%	299,400	-0.9%	350,700	16.1%	328,600	8.8%
Willow	Pacific Coast Hwy.	291,400	279,600	-4.0%	279,400	-4.1%	335,800	15.2%	308,100	5.7%
Pacific Coast Hwy.	Anaheim	268,300	254,100	-5.3%	244,200	-9.0%	277,300	3.4%	278,200	3.7%
Anaheim	9th	251,700	237,000	-5.8%	245,500	-2.5%	250,400	-0.5%	200,500	-20.3%
9th	Ocean	166,900	151,300	-9.3%	144,600	-13.4%	154,100	-7.7%	158,300	-5.2%

Source: Cambridge Systematics, Inc. and Kaku Associates, Inc, Electronic Data File, April 2003.

Notes: Average daily traffic volumes are shown for each alternative for the Year 2025 for vehicles using I-710 mainline travel lanes, including general purpose lanes, collector-distributor lanes, high occupancy vehicle lanes, truck bypass lanes, truckway lanes, and autoway lanes.

Percentage difference compares each alternative to the No Build Alternative (Alt. A).

Table S-3
I-710 Average Daily Heavy Duty Truck Volumes

Segments on I-710		Alt A Volumes	Alt B Volumes	B – A % Diff.	Alt C Volumes	C - A % Diff.	Alt D Volumes	D - A % Diff.	Alt E Volumes	E – A % Diff.
From	**To**									
SR-60	I-5	17,400	17,500	0.6%	20,300	16.7%	21,200	21.8%	25,200	44.8%
I-5	Washington	18,800	19,100	1.6%	24,200	28.7%	23,500	25.0%	29,800	58.5%
Washington	Atlantic/Bandini	28,600	28,300	-1.0%	33,300	16.4%	32,500	13.6%	39,900	39.5%
Atlantic/Bandini	Florence	38,400	37,200	-3.1%	42,600	10.9%	41,700	8.6%	48,700	26.8%
Florence	Firestone	39,700	38,400	-3.3%	43,400	9.3%	42,400	6.8%	48,900	23.2%
Firestone	Imperial	39,600	38,300	-3.3%	43,300	9.3%	42,500	7.3%	48,300	22.0%
Imperial	I-105	41,100	39,600	-3.6%	43,900	6.8%	43,500	5.8%	49,700	20.9%
I-105	Rosecrans	38,300	36,800	-3.9%	40,900	6.8%	39,200	2.3%	46,900	22.5%
Rosecrans	Alondra	57,700	55,500	-3.8%	60,200	4.3%	56,700	-1.7%	64,500	11.8%
Alondra	SR-91	57,000	54,900	-3.7%	59,600	4.6%	55,700	-2.3%	64,000	12.3%
SR-91	Artesia	56,800	53,100	-6.5%	60,900	7.2%	59,500	4.8%	61,100	7.6%
Artesia	Long Beach	57,800	54,100	-6.4%	62,100	7.4%	60,700	5.0%	62,600	8.3%
Long Beach	Del Amo	58,000	54,200	-6.6%	61,200	5.5%	59,200	2.1%	62,500	7.8%
Del Amo	I-405	60,300	56,800	-5.8%	66,000	9.5%	62,500	3.6%	65,800	9.1%
I-405	Wardlow	69,000	65,000	-5.8%	54,500	-21.0%	69,800	1.2%	68,500	-0.7%
Wardlow	Willow	71,900	67,700	-5.8%	57,600	-19.9%	73,100	1.7%	71,900	0.0%
Willow	Pacific Coast Hwy.	72,000	67,900	-5.7%	57,700	-19.9%	73,300	1.8%	72,000	0.0%
Pacific Coast Hwy.	Anaheim	68,200	63,400	-7.0%	54,400	-20.2%	65,200	-4.4%	66,300	-2.8%
Anaheim	9th	66,300	61,500	-7.2%	56,100	-15.4%	62,200	-6.2%	62,500	-5.7%
9th	Ocean	59,100	54,800	-7.3%	49,500	-16.2%	53,800	-9.0%	55,700	-5.8%

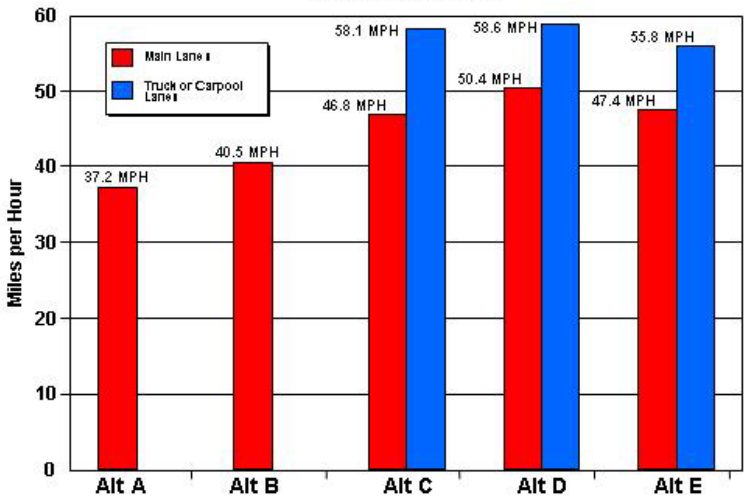
Source: Cambridge Systematics, Inc. and Kaku Associates, Inc., Electronic Data File, April 2003.

Notes: Average daily truck volumes are shown for each alternative for the Year 2025 for trucks using I-710 mainline travel lanes, including general purpose lanes, collector-distributor lanes, truck bypass lanes, and truckway lanes.

Percentage difference compares each alternative to the No Build Alternative (Alt. A).

The travel demand forecasts served as inputs to the traffic operations analysis and transportation performance assessments conducted for the I-710 Study. Several measures were employed to assess the mobility benefits of the various alternatives. These measures included: volume/capacity ratio analysis, average travel speeds, travel time savings, and estimated accident reductions, among others. Figure S-5 shows the traffic volume weighted average speeds for the entire length of the I-710 mainlines for each of the five alternatives in the p.m. peak period for 2025.

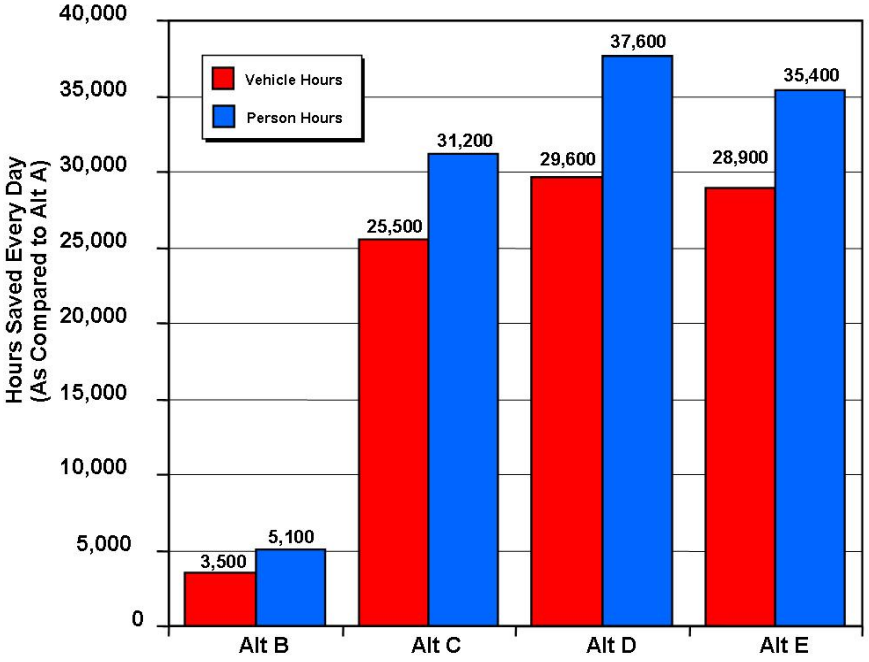
Figure S-5
I-710 Average Travel Speeds – PM Peak Period



In Figure S-5, a distinction is made between the general purpose travel lanes and the lanes that would be used either exclusively by carpools or by trucks depending upon the alternative. Alternatives B, C, D and E are all forecast to improve travel speeds on the I-710 as compared to the future no build condition, Alternative A. Mainline general purpose lanes average p.m. peak period speeds are forecast to be the highest with Alternative D, followed by E and C respectively. The proposed HOV and truck lanes in the build alternatives are forecast to all have average speeds above 55 mph, providing time savings to their users. The overall forecast improvement in p.m. peak period average speeds will save time for users of I-710 and contribute to reduced pollutant emissions and fuel consumption compared to the future no build alternative.

Figure S-6 shows how better speeds on I-710 translates to delay reductions for all travelers throughout the I-710 Study Area, including motorists on major street arterials as well as those vehicles using I-710. Vehicle hours of travel measures the total travel time spent by all vehicles on the roadway system during a given time period, such as an average weekday. Person hours of travel measures the total travel time spent by the people riding in each of the vehicles on the roadway system during a given time period. For example, if a car carrying two people (driver and passenger) spent one hour traveling from home to work in the Study Area, it would compute as one vehicle hour of travel and two person hours of travel.

Figure S-6
Delay Reductions (Vehicle Hours, Person Hours Saved)



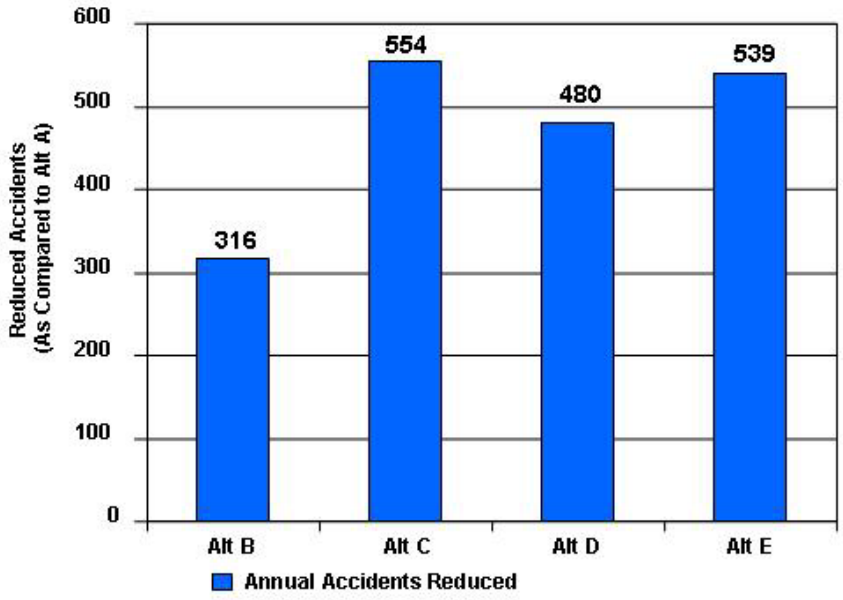
In 2025, Alternatives D and E are forecast to produce the greatest reductions in overall average weekday travel time (measured both in terms of vehicle hours traveled and person hours traveled) in the Study Area as compared to the No Build alternative. This is because these two alternatives add the most capacity to the transportation system in the I-710 Study Area. Both Alternative D and Alternative E are forecast to save travelers over 35,000 hours of travel time per day in the year 2025 as compared to the No Build, Alternative A.

Figure S-7 presents information on the safety benefits of the alternatives compared to Alternative A in terms of estimated accident reductions. In general terms, the greater the amount of predicted congestion (volume/capacity ratio), the worse the accident rate gets. In addition, accidents vary by facility type. The more that traffic uses the arterials compared to freeways, the higher the accident rate. Using travel demand forecasts for each of the alternatives, FHWA's ITS Deployment Analysis System (IDAS) model was used to predict the number of accidents that would occur over a one year period, assuming the Year 2025. Figure S-7 shows the number of accidents that would be *reduced* by Alternatives B, C, D, and E, respectively, compared to the no build condition.

Interpretation of the accident data shown in Figure S-7 indicates that the incident management strategies related to the intelligent transportation improvements in Alternative B are forecasted to provide significant accident reduction benefits. By definition, these incident management strategies are also included in Alternatives C, D and E. On top of that, the build alternatives are forecast to reduce accidents, in part, by shifting traffic from the arterials to the freeways, where accident rates are lower. It is important to note here that FHWA's IDAS model does not account for certain types of safety benefits – specifically the predicted benefits of separating

cars from trucks – since insufficient accident data on exclusive truckways exists that would provide the basis to quantify these estimates.

Figure S-7
Annual Accident Reductions

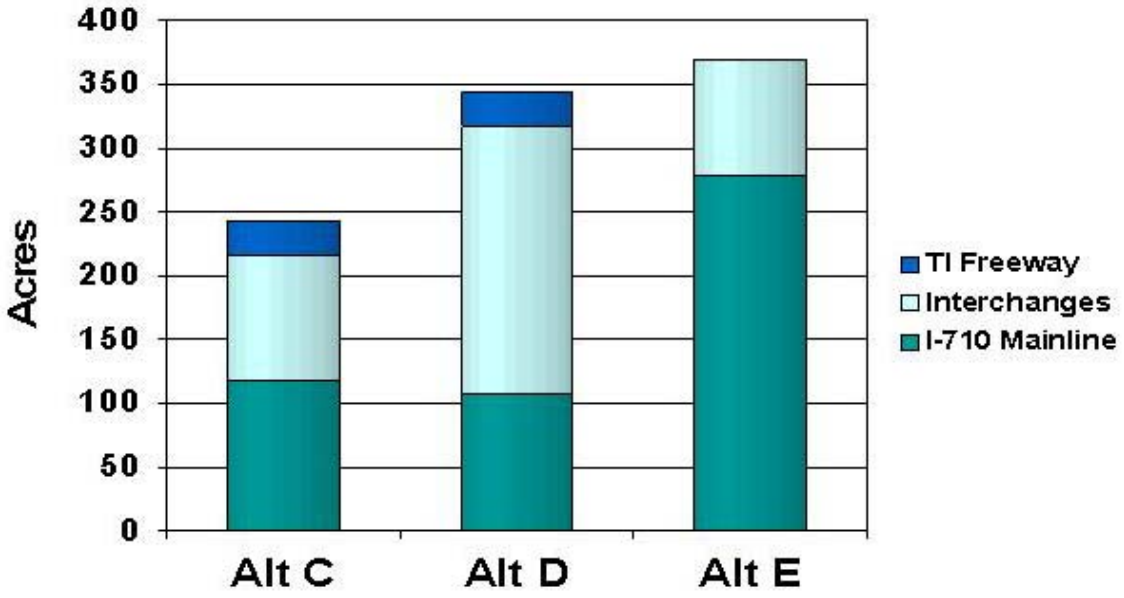


Thus, the potential for accident reductions attributable to Alternative E is likely under-reported in Figure S-7. However, it is logical to assume that separating trucks and autos would provide significant safety benefits for traveling motorists that is not necessarily reflected in Figure S-7.

Construction of the build alternatives (Alternatives C, D, and E) all involve physical transportation elements that would result in expansion of the I-710 freeway and, in some cases, new transportation facilities (Terminal Island Freeway Extension, truck bypass lanes, etc.). As part of the I-710 Study, a right-of-way impact assessment was conducted for the build alternatives to provide comparative information on the alternatives so that the general public, the advisory committees, and the Oversight Policy Committee could learn about the right-of-way acquisition implications of each of the alternatives. The right-of-way analysis also presented information on expected impacts associated with specific transportation elements within the alternatives to better inform decision-making on what transportation improvements might be most desirable to recommend for further study.

Right-of-way impacts are included for those improvements that would entail acquisitions beyond what is already planned and committed for the I-710 Corridor. Since Alternative A, the No Build Alternative, represents the “no action” option, this alternative would not result in any acquisitions beyond what is already planned for implementation by 2025. Alternative B does not include any elements on I-710 that require right-of-way acquisition, so this alternative is not included in the following analysis. Therefore, estimates for the build alternatives in Figure S-8 reflect the right-of-way acquisitions of these three alternatives over and above the No Build Alternative.

Figure S-8
Right-of-Way Impact Analysis

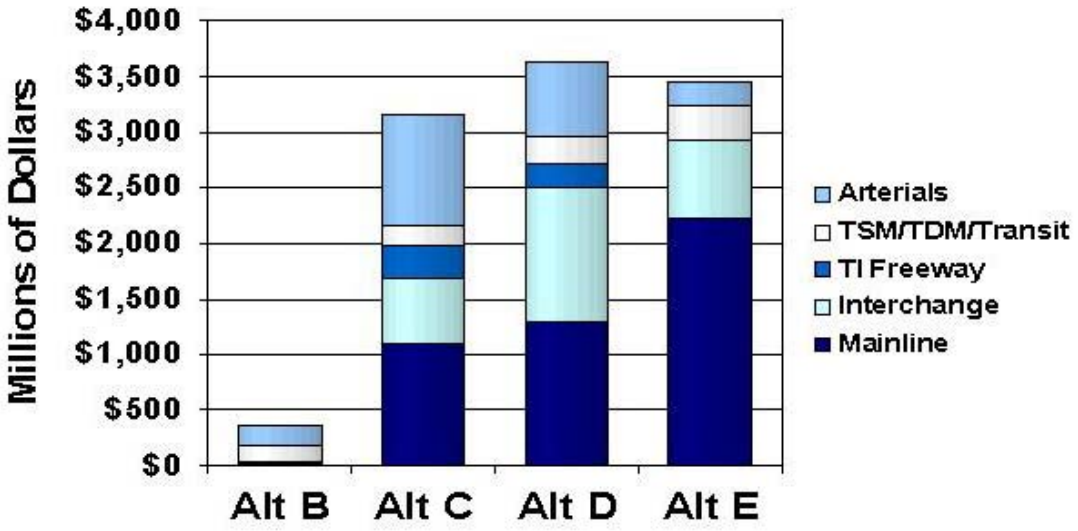


As indicated in Figure S-8, Alternatives C and D include improvements associated with the Terminal Island Freeway, which is why these two alternatives show right-of-way impacts attributable to this component. Alternative D would result in more right-of-way impacts in the vicinity of the interchanges along I-710 due to the amount of mainline freeway width that would affect the existing configuration of these interchanges and also due the types of geometric changes proposed at the SR-91/I-710 freeway-to-freeway interchange for Alternative D. Alternative E appears to require the most right-of-way in total as this alternative involves the construction of a new truck facility along the entire length of the I-710 Corridor. However, a good portion of Alternative E would utilize Southern California Edison and Los Angeles Department of Water & Power property adjacent to I-710.

Similar to the right-of-way impact analysis, costs were also assessed to establish the relative differences among the alternatives in terms of absolute cost and the cost of various parts of the alternatives to support decision making for the I-710 Study. The cost estimates assume that all the transportation improvements associated with each alternative have been constructed. Costs are shown in 2003 dollars.

Figure S-9 presents the capital cost estimates for Alternatives B, C, D, and E. For Alternative B, the TSM/TDM Alternative, the component categories included I-710 Mainline Improvements, Interchanges and Arterials, Goods Movement, Transit, and Intelligent Transportation Systems (ITS). For Alternatives C, D and E, the component categories included I-710 Mainline Improvements, Interchanges, the Terminal Island Freeway, TSM/TDM/Transit, and Arterials. Right-of-way costs for the build alternatives were also estimated and included in the totals. Total costs for Alternative B were estimated at approximately $355 million, $3.2 billion for Alternative C, $3.6 billion for Alternative D, and $3.5 billion for Alternative E.

Figure S-9
Capital Cost Estimates (Year 2003 dollars)



The Alternatives Evaluation phase of the public involvement process for the I-710 Study involved conducting outreach to stakeholders and gathering feedback regarding the final set of five alternatives. In the outreach process, briefings were held with elected officials at all levels of government along the corridor and presentations were given to numerous community, business, and environmental groups regarding the estimated benefits, costs, and impacts of the five alternatives. Once the potential impacts of the alternatives, including potential right of way (ROW) acquisition requirements became known, the previously approved outreach strategy was revised to go beyond what is typically undertaken for a Major Corridor Study process to ensure that all stakeholders would have an opportunity to review project information, including potential ROW impacts in their area, as well as additional opportunities for communities to provide feedback on the various transportation components included in the five alternatives.

The key issues and themes identified throughout this phase of the public involvement process were: concerns about the large amount of proposed property acquisitions and relocation related to the proposed build alternatives, environmental and health concerns, environmental justice, and perceived shortcomings in the public outreach for the I-710 Study.

Property Acquisition/Relocation—The majority of residents, business leaders, and elected officials along the Corridor expressed strong dissatisfaction with the amount of residential and commercial property that would need to be acquired for the implementation of several of the alternatives. Some of the property that would be lost would include homes, businesses, parks, schools, and churches. There was also a pervasive feeling among the public that property owners would not receive adequate compensation for their properties in an acquisition process. There were also significant concerns regarding the impacts to their communities of the magnitude of the proposed property acquisitions.

Environmental/Health Concerns—Nearly all community residents were concerned that construction of any of the alternatives and the additional truck traffic that is expected on

I-710 between now and the future will lead to increases in dust, smog, noise, and diesel emissions in the communities adjacent to the freeway. Increased cancer risks from diesel toxins and increased incidence of respiratory diseases were also a major concern of stakeholders throughout the I-710 Study Area.

Environmental Justice—Most of the residents living along the I-710 freeway are minorities, and as such, feel that their communities will be unfairly impacted by any of the build alternatives (Alternatives C, D, and E). They would prefer to see further studies conducted to ensure that all potential negative impacts to their communities can either be avoided or sufficiently mitigated.

Public Outreach—Some of the stakeholders did not like the open house format used to disseminate information to the public regarding the final set of five alternatives, and would have preferred that formal meetings be held instead. The open house format was intended to provide members of the public with the opportunity to view project maps and displays and to speak with project team members one-on-one. In response to these concerns, formal meetings were later held in each of the potentially impacted cities, at which point, stakeholders were able to receive a presentation regarding the I-710 Study, as well as formally interact with study staff in a group setting.

As a consequence of the high level of public and community concern voiced about the Final Set of Alternatives, the MTA Board and the I-710 Oversight Policy Committee (OPC) directed agency staff to undertake a revised community participation process. The goal of this revised process was to develop a community consensus for a Hybrid Strategy for the I-710 Major Corridor Study.

S.7 Development of a Hybrid Strategy

In response to the community concerns and opposition to the build alternatives (C, D, and E) of the final set of alternatives, the MTA Board passed a motion on May 22, 2003 to revise the direction of the I-710 Study. Through this motion, the MTA Board directed staff to continue to work with the affected communities and other stakeholders to develop a Hybrid Strategy that would be acceptable to them, while meeting the purpose and need for transportation improvements in the I-710 Study Area. This Hybrid Strategy would have both operational and policy elements, as well as selected physical infrastructure improvements. The MTA Board also directed staff to "...form advisory groups in key areas along the Corridor where current design alternatives require the acquisition of large amounts of private property."

At its May 28, 2003 meeting, the Oversight Policy Committee, also cognizant of community concerns regarding the Final Set of Alternatives, adopted a set of Guiding Principles [see Section S.1] that further elaborated on the MTA motion and provided guidance to the development of a Hybrid Strategy for the I-710 Corridor. At this same meeting, the OPC created two tiers of Community Advisory Committees (CACs) to advise the OPC on the development of the Hybrid Strategy.

Tier 1 – Community Level Committees

Tier 1 Community Advisory Committees (CACs) were formed for each of the cities that border the I-710 Freeway. These communities would have potential right-of-way impacts created by

the build alternatives (C, D, and E) of the Final Set of Alternatives. In total, eight communities were involved at the Tier 1 level:

- Long Beach
- Carson
- Compton
- South Gate
- Lynwood
- Bell Gardens
- Commerce
- East Los Angeles

These CACs primarily focused on key issues that affected their communities including: health, environment and quality of life issues, safety and mobility issues, as well as economic development and land use issues.

To assist with the formation and coordination of these Tier 1 CACs, MTA and the Gateway Cities COG retained a consultant, Moore, Iacofano, Goltsman, Inc. (MIG), to facilitate meetings of these committees. The Gateway Cities COG also retained an engineer (Jerry Wood, Consultant) to assist the Tier 1 CACs in the development of their recommendations for improvements to the I-710 freeway and the transportation system in the surrounding study area. MIG facilitated the formation and meetings of the Tier 1 CACs representing the cities of Carson, Compton, Lynwood, Bell Gardens, and Commerce, as well as the community of East Los Angeles.

The Gateway Cities COG engineer worked with these Tier 1 CACs as well as the South Gate Tier I CAC to help develop a Hybrid Strategy. Each of the Tier 1 CACs met numerous times and developed a list of issues, concerns, and recommendations. After reviewing these lists, preliminary design concepts for respective segments of I-710 were developed and presented to each Tier 1 CAC for review and comment. Through this feedback, adjustments and refinements to the hybrid design concept were made.

Rather than form a Tier 1 CAC, the City of Long Beach formed an I-710 Oversight Committee comprised of the three city council members whose districts border the I-710 freeway. The City of Long Beach also retained consultants for facilitation (DSO) and engineering (MMA) to support its separate community outreach process, leading to the development and adoption by the Long Beach City Council of their portion of the Hybrid Strategy.

Tier 2 – Corridor Level Committee

The Tier 2 Community Advisory Committee (CAC) was formed to provide community representation via a broad based corridor-wide body consistent with the OPC action, which stated, “The communities are the 14 corridor cities and two unincorporated areas, with the understanding that the City of Long Beach may identify no more than four impacted communities based on the length (8 miles) of the freeway frontage within that City.” As a result, the initial membership consisted of:

- The Chair of each Tier 1 CAC
- For each community that does not have a Tier 1 CAC, a member appointed by the City Council or County Supervisor
- Four members representing the City of Long Beach
- 15 members appointed by the OPC to provide representation from the environmental community, business, labor, institutions, and academia
- The Chair of the I-710 Technical Advisory Committee

In order to empower the Tier 2 CAC to engage additional perspectives or interests that it deems important, the OPC delegated to the Tier 2 CAC the authority to appoint, by two-thirds vote, up to ten additional members. The Tier 2 CAC voted to add one additional member representing environmental justice.

Employing Moore, Iacofano, Goltsman, Inc. as a resource, the Tier 2 CAC structured its work based on key issue areas that were identified by the Tier 1 Community Advisory Committees. These issue areas included:

- Health
- Jobs and Economic Development
- Safety
- Noise
- Congestion and Mobility
- Community Enhancements
- Design Concepts
- Environmental Justice
- Organization and Process

The Tier 1 Community Level Committees provided direct input to the Tier 2 Corridor Level Committee, which in turn was charged with providing input directly to the OPC. The Corridor Level Tier 2 Committee was also charged with providing feedback to the Community Level Tier 1 Committees

Draft Hybrid Design Concept

The community participation phase of the development of the Hybrid Strategy generated a significant number of comments on a number of physical features that were viewed as providing future improvement on I-710. These physical features were combined and coordinated to develop the overall I-710 Draft Hybrid Design Concept.

The purpose of the I-710 Draft Hybrid Design Concept is to provide infrastructure improvements to I-710 focused on improving safety; increasing capacity for growing heavy duty truck demand; increasing capacity for high general-purpose traffic demand; improving reliability of travel times; and separating autos and trucks to the greatest extent possible while limiting direct and indirect right-of-way impacts.

In general terms, the Draft Hybrid Design Concept is comprised of 10 general-purpose traffic lanes, 4 exclusive truck lanes, and interchange improvements from Ocean Boulevard in Long Beach to the intermodal railroad yards in Commerce/Vernon. It is important to note that proposed improvements to the segment of I-710 between Washington Boulevard and SR-60

are still under study, due to the design complexities and potential right-of-way impacts in the vicinity of the I-710/I-5 interchange.

The I-710 Draft Hybrid Design Concept is made up of the following components:

Exclusive Truck Facility on I-710

- 4 lanes (2 in each direction) mostly at-grade between Ocean Boulevard and the intermodal rail-yards in Vernon/Commerce, with the truck lanes being elevated at the following locations: near the SR-91 interchange; north of I-105 near Imperial Highway; and north of Slauson Avenue.
- dedicated ingress/egress points for trucks at selected locations: north of Ocean Boulevard (ingress northbound, egress southbound); north of I-405 (ingress northbound, egress southbound); SR-91 interchange (NB I-710 to EB SR-91, WB SR-91 to SB I-710, EB SR-91 to NB I-710, and SB I-710 to WB SR-91); south of Firestone Boulevard (ingress southbound, egress northbound); and north of Atlantic/Bandini Boulevard (ingress southbound, egress northbound)
- horizontal alignment is as follows:
  - split on both sides of I-710 from Ocean Boulevard to north of Pacific Coast Highway
  - on the east side of I-710 from north of Pacific Coast Highway to Imperial Highway, largely (though not entirely) within the existing State right-of-way or the Southern California Edison right-of-way
  - on the west side of I-710 from Imperial Highway to Gage Avenue
  - on the east side of I-710 from Gage Avenue to Bandini Boulevard
  - split on both sides of I-710 from Bandini Boulevard to south of Washington Boulevard

General Purpose Traffic Improvements on I-710

- one additional general purpose lane in each direction from Ocean Boulevard to the Shoemaker Bridge
- two additional general purpose lanes in each direction from Shoemaker Bridge to I-405
- one additional general purpose lane in each direction from I-405 to Atlantic Boulevard
- shifting the freeway centerline at various locations between Shoemaker Bridge and Atlantic Boulevard to attempt to minimize right-of-way impacts

Interchange Improvements – Truck-Related

- add a truck interchange on the exclusive truck facility providing a northbound exit ramp and a southbound entrance ramp viaduct for trucks only along Sheila Street south of Washington Boulevard providing direct access to/from the UP and BNSF rail yards; also provide a southbound exit ramp and a northbound entrance ramp using the viaduct from the rail yards

Interchange Improvements – General Purpose Traffic

- eliminate some of the design deficiencies at I-405/I-710 and SR-91/I-710 interchanges
- reconfigure approximately 13 local access interchanges between and including Ocean Boulevard at Shoreline Drive in Long Beach and Atlantic Boulevard/Bandini Boulevard in Vernon/Bell
- add one new interchange (Slauson Avenue)
- eliminate freeway access at 9 locations:
  - entrance from 7th Street to SB Shoreline Drive (1 ramp)

- connection from Shoemaker Bridge to Pico Avenue (1 ramp)
- connection from Pico Avenue to Shoemaker Bridge (1 ramp)
- SB exit to and NB entrance from Wardlow Road at I-710 (2 ramps)
- NB and SB I-710 to Santa Fe Avenue (1 ramp)
- exit from WB SR-91 to Alondra Boulevard (1 ramp)
- exit from EB SR-91 to Cherry Avenue (1 ramp)
- WB exit to and EB entrance from Atlantic Boulevard at SR-91 (2 ramps)
- all ramps at Washington Boulevard (4 ramps)

Caltrans standards were considered during the development of the Draft Hybrid Design Concept. However, the standards could not be met at all locations and Caltrans/FHWA approval of design exceptions will be needed to implement the geometric design as currently proposed. If the design exceptions are not acceptable to Caltrans/FHWA, then the geometric designs at certain locations will have to be restudied and the design modified. Any changes will be reviewed with the local community before being finalized.

Note that the community engagement process to reach consensus on the I-710 Draft Hybrid Design Concept north of Atlantic/Bandini is still underway with Commerce and East Los Angeles and therefore proposed improvements to this segment are yet to be defined.

Right-of-Way Impact Analysis

As right-of-way impacts are of great concern to the public, MTA Board, and OPC, right-of-way impacts were assessed for the I-710 Draft Hybrid Design Concept. The precision of this right-of-way impact analysis is governed by the general level of engineering design of the Draft Hybrid Design Concept, which is highly conceptual at this stage of project planning.

Based on aerial photography and topographic information, the approximate number of structures that would be impacted was assessed, as well as the total acreage that would be impacted by the Draft Hybrid Design Concept. Each potentially impacted structure was assigned to a specific land use category to provide an understanding of what kind of structures were being impacted. The land use categories are residential, commercial/industrial, railroad, power/utility, sensitive, or undeveloped land uses. Sensitive land use refers to particularly sensitive natural and community resources, such as parks, green space, schools, hospitals, and cemeteries. The estimated number of impacted structures in each affected city is shown in Table S-4.

Right-of-way impacts were also assessed on an acreage basis, again utilizing aerial photographs, topographic mapping, and GIS database mapping. Table S-5 displays the impacted acreage stratified by city and by land use type. The same land use categories were used as in the structure impact analysis. The City of Long Beach, by virtue of the fact that the City stretches from the southerly project limit at Ocean Boulevard northward to near the SR-91/I-710 interchange, would have the greatest acreage impact of any jurisdiction, 91.2 acres out of a total of 241.4 acres. However, almost half of the impacted acreage in Long Beach is in the Power/Utility land use category. This is an intentional by-product of the design concept, which attempts to maximize use of existing utility owned land adjacent to the I-710 for improvements and hence minimize impacts to residential and commercial properties.

Table S-4
Estimated Number of Structures Removed by Land Use Type by City
Draft Hybrid Design Concept

City/Land Use Type	Long Beach	County – Rancho Dominguez	Carson	Compton	Paramount	Lynwood	South Gate	Bell	Bell Gardens	Commerce	Vernon	Total
Residential Structures	3									2		**5**
Commercial/Industrial Structures	1		3	7			14	15		18	3	**61**
Railroad Structures												**0**
Power/Utility Structures	42							9				**51**
Sensitive Land Use Structures				1								**1**
Undeveloped Land Structures												**0**
Total Structures by City	**46**		**3**	**8**			**14**	**24**		**20**	**3**	**118**

Source: Jerry Wood, Consultant, in association with MMA, Inc. and Nolan Consulting, Inc., April 2004.
Notes: Does not include right-of-way impacts between I-710/Washington Boulevard and I-710/SR-60, including I-5/I-710 interchange improvements.
Sensitive Land Use refers to particularly sensitive natural and community resources (e.g., parks, green space, schools, hospitals, and cemeteries).

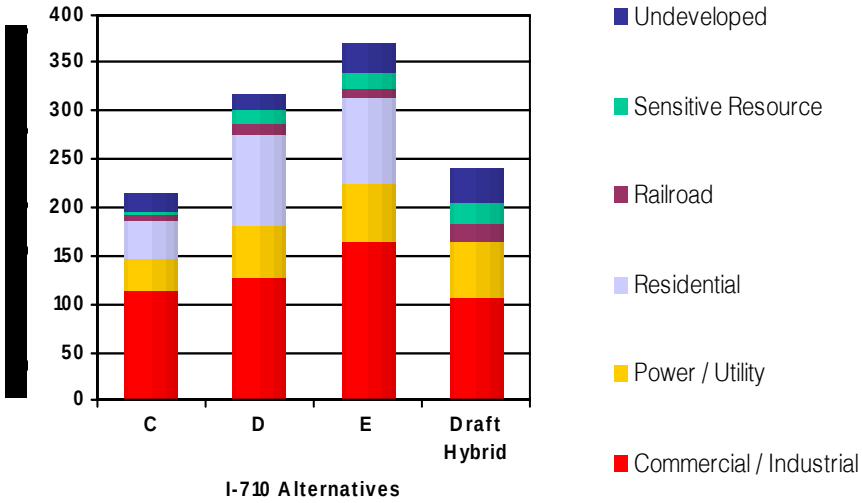
Table S-5
Acreage Impacts by Land Use Type by City
Draft Hybrid Design Concept

City/Land Use Type	Long Beach	County – Rancho Dominguez	Carson	Compton	Paramount	Lynwood	South Gate	Bell	Bell Gardens	Commerce	Vernon	Total
Residential Acreage	1.0									0.5		**1.5**
Commercial/Industrial Acreage	5.5		2.9	18.1	0.5		19.0	20.6		29.0	9.9	**105.5**
Railroad Acreage										17.3		**17.3**
Power/Utility Acreage	45.5						0.4	11.9				**57.8**
Sensitive Land Use Acreage	12.6			3.0	1.6			4.3	0.3			**21.8**
Undeveloped Acreage	26.6					3.1	6.2	1.6				**37.5**
Total Acreage by City	**91.2**		**2.9**	**21.1**	**2.1**	**3.1**	**25.6**	**38.4**	**0.3**	**46.8**	**9.9**	**241.4**

Source: Jerry Wood, Consultant, in association with MMA, Inc. and Nolan Consulting, Inc., April 2004.
Notes: Does not include right-of-way impacts between I-710/Washington Boulevard and I-710/SR-60, including I-5/I-710 interchange improvements.
Sensitive Land Use refers to particularly sensitive natural and community resources (e.g., parks, green space, schools, hospitals, and cemeteries).

Figure S-10 displays the potential right-of-way impacts of Alternatives C, D, and E along with the same data for the Draft Hybrid Design Concept. Only the right-of-way impacts of the I-710 mainline concepts are shown. Impacts of proposed improvements north of Washington Boulevard are included in Alternatives C, D, and E, while the Draft Hybrid Design Concept improvements are currently defined only as far north as the I-710/Washington Boulevard interchange. The right-of-way impacts for the proposed truck inspection station have been extracted from Alternative C to normalize its comparison with the Draft Hybrid Design Concept. The right-of-way impacts for the Draft Hybrid Design Concept do not include those from a truck inspection station, nor do they account for impacts for any improvements north of Washington Boulevard, as these are yet to be defined.

Figure S-10
Acreage Impacts by Land Use Type



Source: Parsons Brinckerhoff (March 2003) for Alternatives C, D, and E; Jerry Wood, consultant, in association with MMA, Inc. and Nolan Consulting, Inc. (April 2004) for the Draft Hybrid Design Concept.

Notes: Alternative C impacts exclude proposed truck inspection facility. Draft Hybrid Design Concept impacts exclude truck inspection facility and improvements north of I-710/Washington Boulevard.

Cost Analysis

The cost of the Draft Hybrid Design Concept was estimated using the same methodology that was used to estimate the costs of the Final Set of Alternatives. In the year since the previous cost estimates were prepared, there has been a dramatic change in certain elements of the local economy. Land values have risen significantly, as have the unit costs of certain construction materials, specifically concrete and steel. As such, the estimate for the Draft Hybrid Design Concept is in 2004 dollars as compared to the estimates for Alternatives C, D and E, which were developed in 2003 dollars and were presented in Section S.5. To provide a clearer comparison among the alternatives, the estimates for Alternatives C, D and E have been escalated to 2004 dollars within this section only. Previous references to the Alternatives C, D, and E costs were relative to their estimates in 2003 dollars.

The estimated cost for the Draft Hybrid Design Concept is $4.5 billion for mainline and interchange improvements with $3.9 billion of the total for infrastructure construction and $0.6 billion for right-of-way acquisition. This design concept does not currently include any improvements north of Washington Boulevard in the City of Commerce, nor does it currently include:

- a truck inspection station,
- any arterial improvements, or
- any TSM/TDM/Transit elements.

The cost estimates for Alternatives C, D, and E have been escalated to 2004 dollars and modified to exclude elements that are not included in the Draft Hybrid Design Concept for purposes of comparison. Table S-6 displays the cost estimates for the various alternatives.

Table S-6
Comparison of Capital Cost Estimates
(2004 dollars in millions)

	Alternative C	Alternative D	Alternative E	Draft Hybrid Design Concept
Construction	$1,787.5	$2,709.3	$2,992.3	$3,902.8
Right-of-Way	$627.1	$692.9	$900.7	$584.8
Total	**$2,414.6**	**$3,402.2**	**$3,893.0**	**$4,487.6**

The Draft Hybrid Design Concept has the highest estimated construction cost, but the lowest right-of-way cost. One of the goals of the Draft Hybrid Design Concept was to reduce residential right-of-way impacts, which would commensurately reduce right-of-way acquisition costs. The measures taken to reduce right-of-way impacts included constructing more of the alignment on structure or building other features that resulted in higher construction costs – the Draft Hybrid Design Concept has a capital cost that is about 595 million dollars higher than Alternative E, the alternative with the next highest construction cost.

S.8 Tier 2 Community Advisory Committee Recommendations

The Tier 2 Community Advisory Committee first convened on February 3, 2004 and met a dozen times over a period of seven months between February 2004 and August 2004 in order to develop their recommendations for the I-710 Study.

The charge of the Tier 2 Committee was to review key local issues and opportunities identified by the Tier 1 Community Advisory Committees, consider issues of local and regional importance from a corridor-wide perspective, and provide recommendations to the Oversight Policy Committee on a comprehensive transportation solution for the I-710 Corridor.

The Tier 2 Committee covered a number of issue areas, including: health, jobs and economic development, safety, noise, congestion and mobility, community enhancements, design concepts, environmental justice, and organization and process. Consequently, the Tier 2 Committee recommendations are wide ranging in scope and encompass not only transportation improvements, but also policy proposals, strategies to improve the current environment, specific items for further study, and conditions for future implementation. The

Tier 2 Committee work effort also incorporates the suggestions, ideas, and input from the Tier 1 Committees that represent the most directly impacted communities along I-710.

Several of the Tier 2 meetings were devoted to the preparation of a report, documenting the Committee's findings and recommendations. Great care was taken to develop precise wording to convey the convictions and intent of the overall group.

Three overarching principles defined the priorities of the Tier 2 Committee and reflected the consensus that emerged during their deliberations:

1. This is a corridor – considerations go beyond the freeway and infrastructure.
2. Health is the overriding consideration.
3. Every action should be viewed as an opportunity for repair and improvement of the current situation.

Table S-7 lists the summary recommendations from the Tier 2 Committee, which are excerpted directly from the executive summary of the Tier 2 Community Advisory Committee's full report entitled *Major Opportunity/Strategy Recommendations and Conditions*, prepared with the assistance of Moore, Iacofano, Goltsman, Inc. (MIG), on August 2004. The full report from the Tier 2 Committee, including their conditions, is provided in the Appendices of the *I-710 Major Corridor Study Final Report* in its entirety.

Table S-7
Tier 2 CAC Summary Recommendations

Topic Area	Tier 2 CAC Recommended Strategies
Health	1. Develop an action plan to improve air quality in the corridor. 2. Implement a corridor level action plan to improve community air quality. 3. Implement local alternative fuels/electrification and/or hydrogen policies and programs to reduce diesel emissions. 4. Pursue opportunities for incremental improvements. 5. Implement port-specific air quality improvement strategies.
Jobs and Economic Development	1. Position the I-710 corridor and Gateway communities for a post-oil economy. 2. Create a community environment that attracts and retains businesses and residents who can support a new gateway cities economy. 3. Enable the I-710 corridor and Gateway communities to become more proactive in today's economy. 4. Institute corridor-wide programs and partnerships to equip area residents with the skills needed to move into higher-paying jobs in the new economy. 5. While promoting the importance of all business, specifically recognize small business as an economic driver and foster its growth within the communities. 6. Consistent with current law, advocate policies at the national, state, regional and local levels to require businesses that benefit from any potential I-710 improvements to pay living wages.

Table S-7 Continued
Tier 2 CAC Summary Recommendations

Topic Area	Tier 2 CAC Recommended Strategies
Safety	1. Continue support and implementation of safety programs. 2. Increase enforcement of traffic and vehicle safety laws and regulations. 3. Increase public and truck education on safety and neighborhood issues. 4. Implement infrastructure improvements. 5. Separate trucks and cars.
Noise	1. Provide appropriate and effective sound walls to reduce noise impacts to neighborhoods and schools adjacent to the freeway. 2. Implement noise mitigation programs. 3. Conduct a study to assess how truck traffic from extended gate hours for trucks and 24/7 port operations will impact communities, and assess what mitigations may be appropriate.
Congestion and Mobility	1. Maximize use of existing infrastructure. 2. Implement expanded public transit solutions. 3. Provide a comprehensive bicycle and pedestrian network with connectivity throughout the area. 4. Develop a consistently implemented plan with cities and residents to mitigate construction impacts and maintain access. 5. Support cooperative planning among all ports along the West Coast.
Design Concepts	1. Endorse the specific Tier 1 CAC recommendations included in the Appendix of this Tier 2 Report. 2. Support capacity enhancement improvements for the I-710 Freeway upon meeting the conditions recommended in this Tier 2 Report, including those recommended by both Tier 1 and Tier 2 CACs. 3. If economic and environmental studies show that expansion of the freeway is necessary, develop new transportation infrastructure for I-710 that separates cars from trucks. 4. If economic and environmental studies show that expansion of the freeway is necessary, locate the new truck lanes in such a way as to minimize community impacts. 5. Redesign unsafe and congested interchanges on I-710. 6. Consider future needs and requirements in implementing any new I-710 design. 7. If economic and environmental studies show that expansion of the freeway is necessary, upgrade of the existing freeway must satisfy criteria detailed in this Tier 2 Report.

Table S-7 Continued
Tier 2 CAC Summary Recommendations

Topic Area	Tier 2 CAC Recommended Strategies
Community Enhancements	1. Preserve existing parks, open space, and natural areas. 2. Develop and implement community enhancement projects. 3. Provide programs to minimize construction impacts. 4. Develop and implement a plan for arterial streetscapes. 5. Mitigate light and glare in surrounding communities.
Environmental Justice	1. Include the corridor communities in the planning process, in a meaningful way, including provision of appropriate language translation. 2. Ensure that impacts do not disproportionately fall on low-income people or people of color. 3. Ensure that the benefits from the projects flow to the corridor communities.
Organization and Process	1. This Tier 2 Report will be formally "agendized" and presented to the OPC when it convenes in September 2004 for consideration and decision. All Tier 2 members will be invited to the OPC meeting, and the presentation of the Tier 2 report will be delivered by a representative group of Tier 2 spokespersons. 2. Following the OPC's meeting, there will be a follow-up meeting(s) of the Tier 2 Committee to discuss actions taken by the OPC. 3. Prior to the beginning of any formal EIR for the I-710 Major Corridor Study, Metro (MTA) and the Gateway Cities COG will work with the communities, appropriate agencies, organizations and community groups in developing a collaborative process for community participation in the environmental review process. This process will continue to work collaboratively throughout the EIR process.

S.9 Technical Advisory Committee Recommendations

The role of the Technical Advisory Committee was to provide technical oversight of study methods, assumptions, and findings throughout the course of the I-710 Major Corridor Study and to make recommendations to the Oversight Policy Committee prior to key decision points. Between March and May, 2003, the TAC met several times to hear and review technical reports from the study team on the evaluation results of the Final Set of Alternatives – Alternatives A, B, C, D, and E. The TAC members also attended numerous public and community meetings that were held within their respective jurisdictions to hear public concerns on the five alternatives. Through this process, the TAC immersed itself in the details of the elements that made up the various alternatives.

On May 28, 2003, the Oversight Policy Committee directed the TAC to start with Alternative B and create a "hybrid" alternative recommendation that combines appropriate elements from all five alternatives. The OPC further directed that these elements must be acceptable to each affected city with the purpose of minimizing right-of-way acquisitions and the objective of

preserving existing housing stock, yet work together as an integrated strategy consistent with adopted guiding principles. The following month, June 2003, the TAC formally adopted the OPC's guiding principles to guide the next phase of their effort in developing a technical recommendation for a Hybrid Strategy. [The Guiding Principles are listed in Section S.1 of this report.]

For a period of several months, individual TAC members met with their communities and with the Gateway Cities COG's engineer to develop a community-based design that incorporated the most appropriate elements for a Hybrid Design Concept for I-710. This community-based design process looked at exceptions to federal and state highway design standards as well as other opportunities to avoid residential property takes. TAC members from potentially impacted cities actively participated in their respective Tier 1 community advisory committees to help identify and resolve technical issues for each of their cities. The TAC Chair served as an active member of the Corridor-wide (Tier 2) Community Advisory Committee. In addition, several TAC members routinely attended the Tier 2 CAC meetings either to observe or to serve as a technical resource, which helped provide both continuity and interface among these advisory bodies to the I-710 Study.

The TAC reconvened, as a whole, beginning in February 2004 to hear status reports on the development of a community-based design concept for the Hybrid Strategy and to receive updates on the activities of the Tier 1 and Tier 2 Community Advisory Committees. During March and April of 2004, the TAC reviewed conceptual plans of the Hybrid Design Concept, representing the work of the Gateway Cities COG engineering team and the Tier 1 community advisory committees.

In early September 2004, the TAC met again to receive design review comments from Caltrans/FHWA and to receive the Tier 2 CAC Report, *Major Opportunity/Strategy Recommendations and Conditions*. At this meeting, the TAC also formulated their recommendations for a Hybrid Strategy for the I-710 Study Area for consideration by the Oversight Policy Committee. Through their recommendation, the TAC sought to bring the greatest transportation benefit to the overall I-710 Corridor in terms of public health, safety and mobility, while adhering to the Guiding Principles.

The TAC made no further changes to the draft Hybrid Design Concept (presented in Section S.6 of this report) with the understanding that the segment of the I-710 Corridor between the BNSF/UP railroad yards in Vernon/Commerce and SR-60 is still under study and that findings from this focused study effort, including any new freeway-to-freeway ramp connections between I-710 and I-5, will need to be integrated with the overall I-710 Hybrid Design Concept prior to initiating environmental studies on I-710. The TAC further recognizes that additional design options will be explored and refinements will necessarily occur to the Hybrid Design Concept as it moves forward into project development (e.g., environmental studies and preliminary engineering) Examples of these design issues include items such as the specific location of truck lane ingress/egress ramps; evaluation of traffic impacts of proposed ramp closures; proposed local interchange configurations; and weave distances between ramps that connect to I-710. Some of these design issues were identified during the course of the I-710 Study and are called out in Section S.10 of this report (Issues for Further Consideration). Yet others will be identified through the more detailed environmental and engineering studies that typically occur in future phases of project development.

Table S-8 summarizes the recommendations for a Hybrid Strategy that were developed by the TAC on September 9, 2004.

Table S-8
Summary TAC Recommendations – Hybrid Strategy

Component	***Descriptive Elements***
Hybrid Design Concept[1] (Ocean Blvd. to the Intermodal Railroad Yards[2])	➢ 10 general purpose traffic lanes on I-710 ➢ 4 exclusive truck lanes along I-710, between Ocean Boulevard and the intermodal railroad yards in Vernon / Commerce, including dedicated ingress/egress points for trucks at selected locations ➢ exclusive truck ramps from the truck lanes to the intermodal railroad yards in Vernon / Commerce ➢ new local interchange at Slauson on I-710 ➢ interchange modifications at 15 local interchanges and 2 freeway-to-freeway interchanges on I-710
Alternative A – No Build Improvements	➢ Future improvements to the existing transportation system that are already planned and committed and are, therefore, expected to be in place by 2025. Examples of these projects include: replacement of all of the pavement and construction of a new concrete, median divider on I-710 between Ocean Boulevard and I-10; added bus service throughout the I-710 Study Area; and improvements to truck-impacted intersections, among other future transportation projects.
Alternative B – TSM/TDM Improvements	➢ Transportation strategies to better manage how the existing freeways, roadways, and the transit systems operate in the I-710 Study Area. Examples include: added bus service for local communities; the completion of the ramp metering system on I-710, advanced technologies to manage traffic and to inform motorists about alternate routes to avoid traffic congestion; and programs to reduce truck diesel emissions and encourage a shift of truck traffic into the late evening or early morning hours. (See Section S.4 of this report, Alternative B, for a complete list.)
Truck Inspection Facility	➢ Precise configuration and location of the truck inspection facility within the I-710 Study Area to be determined through further study.
Arterial Roadway Improvements	➢ Operational and/or capacity improvements to selected arterial roadways within the I-710 Study Area. The scope and extent of the proposed improvements as well as those arterials to be included in this component of the Hybrid Strategy to be determined through further study.

Notes: [1]Detailed information on the Hybrid Design Concept is provided in I-710 Major Corridor Study "Hybrid" Alternative (Locally Preferred Strategy) Technical Report, Gateway Cities COG, April 2004.

[2]The portion of the I-710 Corridor between the BNSF /UP intermodal railroad yards in Vernon / Commerce and SR-60 is currently under study. Results from this focused study effort will be integrated with the Hybrid Design Concept prior to initiating follow on environmental studies.

S.10 I-710 Oversight Policy Committee Actions

The I-710 Oversight Policy Committee met on September 30, 2004 to receive the reports from the Tier 2 Community Advisory Committee and the Technical Advisory Committee, as well as public comment related to both reports. After added consideration of these two reports, the OPC then met on November 18, 2004 and adopted the Locally Preferred Strategy (LPS) for the I-710 Major Corridor Study. In addition they adopted four recommendations providing direction and guidance on the future phases of project development and on companion actions.

The Locally Preferred Strategy

The OPC approved the Hybrid Design Concept and the related supporting elements as the Locally Preferred Strategy:

- Hybrid Design Concept, which consists of ten (10) mixed flow lanes, specified interchange improvements, and four (4) truck lanes between the intermodal rail-yards in Vernon/Commerce and Ocean Boulevard in Long Beach (see Figure S-11)
- Alternative B – Transportation System Management/Transportation Demand Management Improvements
- Improvement to arterial highways within the I-710 Corridor
- Construction of truck inspection facilities to be integrated with the selected overall design concept

The LPS adds general purpose capacity to I-710, as well as separating trucks from autos to the extent feasible by adding truck-only lanes. The LPS includes all of the transportation projects of the No Build Alternative as these comprise the future condition in the I-710 Corridor. As described above, the LPS also includes all of the programs, policies, and strategies from Alternative B. Based on the OPC Action of November 18, 2004, the Locally Preferred Strategy was forwarded to the MTA Board for its consideration and action.

The OPC, as part of the LPS decision, also committed to an additional "mini" study of the segment of the Corridor between Atlantic/Bandini and SR-60 to determine an acceptable design concept and scope for that segment of the Corridor. The results of this mini-study will be reviewed by the impacted Tier 1 CACs, the Tier 2 CAC, and the TAC. These advisory committee recommendations will be considered by the OPC prior to its adoption of the design concept and scope for this segment of the Corridor, which will then be referred to the MTA for inclusion in the I-710 Corridor LPS. It is anticipated that these efforts will be concluded by Summer 2005.

Additional OPC Actions

The OPC adopted four additional actions to support the LPS decision and in response to community issues regarding the I-710 Corridor, as expressed in the Tier 2 CAC's report. These actions are:

- Request the Gateway Cities Council of Governments to return with suggested steps for initiating the development and implementation of a corridor level Air Quality Action Plan to include not only technical but also funding, institutional structure and legislative strategies as well as an approach to holding public agencies with jurisdiction in the

Corridor accountable for progress in meeting air quality and public health objectives in the Corridor and Region.

- Forward the Tier 2 report in its entirety to be accepted as pre-scoping guidance to the preparation of the EIR/EIS.

- Request the Gateway Cities Council of Governments to identify and pursue appropriate avenues to implement those Tier 2 recommendations that prove to exceed the scope of any I-710 transportation improvement project and report back to the community.

- Request MTA and COG staff to suggest a process and structure for continuing community participation throughout the environmental analysis.

S.11 MTA Board Action

The MTA Board met on January 27, 2005 to adopt the Draft Final Report of the I-710 Major Corridor Study. Additionally the Board acted to:

1. Authorize the Chief Executive Officer to proceed with the preparation of a Scope of Work and Funding Plan that will include funding commitments from multiple partners for the environmental phase of the project pursuant to the Major Corridor Study's Locally Preferred Strategy and use input from the I-710 Community Advisory Committees in the environmental scoping process. The Scope of Work should also include assessment of impacts to the I-170/SR-60 interchange and evaluation of alternative project delivery methods.

2. Direct MTA staff to report back to the Board with the results of the East Los Angeles Mini-Study and that results be included into the Locally Preferred Strategy prior to initiating scoping for the EIR/EIS;

3. Receive the TIER II report to be accepted and utilized as pre-scoping guidance for the EIR/EIS;

4. Direct the MTA CEO, with the assistance of our state and federal advocates, to work with the appropriate governmental and non-governmental agencies to form a multi-jurisdictional entity to coordinate the appropriate aspects of the project, including identification of a funding plan with funding sources from multiple partners, and upon formation, the multi-jurisdictional partnership be tasked with identifying strategies for achieving near-term improvements to the Corridor's air quality and that the strategies be identified prior to initiation of the EIR/EIS Request for Proposals.

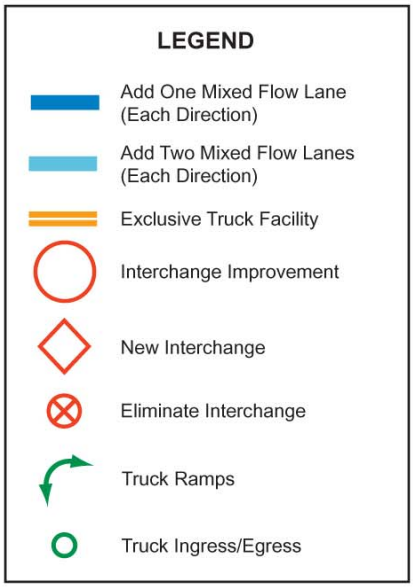
S.12 Issues for Further Consideration

While consensus for a Locally Preferred Strategy was reached among study decision-makers, it was with the understanding that a number of issues of concern that were raised during the study process would be revisited during the environmental review, preliminary engineering, final design, and construction phases of the proposal.

Figure S-11

I-710 Major Corridor Study
Hybrid Design Concept

- **10 General Purpose Lanes**
- **4-Lane Truckway**
- **Interchange Improvements**
- **Direct Truck Ramps**



Preliminary Concepts, Subject to Change

Source: Jerry Wood, Consultant, in association with MMA, Inc. and Nolan Consulting, Inc., April 2004

For the most part, these are issues that were beyond the scope and authority of the I-710 planning study. Some are matters about which design assumptions had to be made for study purposes and yet about which considerable controversy remains. Others have to do with phasing of the overall project and ensuring that it supports the overall health and quality of life issues in the I-710 Study Area. These issues represent critical concerns of several of the local representatives, the community advisory group members, and the public, and will become part of future discussions as the various aspects of the project move into the next phases.

Air Quality Action Plan – The Tier 2 Community Advisory Committee (CAC) determined that air quality is the number one public health issue in the I-710 Corridor. The OPC agrees and has approved a resolution requesting the GCCOG develop and implement a corridor level Air Quality Action Plan, independent of the future environmental studies of proposed improvements to I-710. This study will need to be developed and a framework for continued participation with the affected communities implemented. In addition, this Action Plan will need to inform the future environmental studies of the proposed I-710 improvements.

Public Involvement Plan for EIS/EIR Phase – Concurrent with their LPS decision, the OPC has also approved a request to MTA and GCCOG staff to suggest a process and structure for continuing community participation throughout the upcoming environmental analysis of the proposed I-710 infrastructure improvements. The OPC has committed to the public to continue the high level of community participation achieved with the Tier 1 and Tier 2 CACs through the environmental analysis phase of proposed I-710 improvements. The agency staff will need to work with the affected communities to determine if the current CAC process best serves the community engagement process in the EIS/EIR phase or whether a different process is preferred.

Mini-Corridor Study – As part of their LPS decision, the OPC acknowledged that additional study and community consensus building is required to determine the LPS design concept and scope for the northern segment of the Corridor between Atlantic/Bandini and SR-60. The OPC has committed to undertake this “mini” corridor study and incorporate its results into the LPS. The OPC further commits to consider recommendations from the impacted Tier 1 CACs, Tier 2 CAC and TAC prior to its decision on the LPS for this segment of the Corridor. It remains to be determined if transportation infrastructure improvements that are acceptable to the local communities can be developed for this segment of the Corridor.

Freeway Design Issues – The Hybrid Design Concept adopted as the LPS contains several design exceptions to achieve the objective of increasing corridor roadway capacity while minimizing right-of-way impacts. Caltrans and FHWA have performed a preliminary review of the conceptual design of the LPS and have expressed concern regarding several design features. These concerns will be addressed in subsequent engineering development phases of the project. While the objective is to minimize right-of-way impacts, addressing design issues/concerns may require revising acquisition needs. These impacts will be reviewed with the affected communities to ascertain whether a consensus can be maintained on the design concept that is acceptable to Caltrans, FHWA, and other agencies whose facilities and operations are impacted by the design.

Definition of Arterial Street Improvements – As part of the LPS, the OPC approved an element of "improvement of arterial highways within the I-710 Corridor". The scope and extent of these arterial improvements will need to be defined in future project development phases. The TAC had differences of opinion as to the scope of arterial improvements within each of the respective local jurisdictions, which range from lane additions, to intersection improvements to signal system upgrades or spot improvements. These improvements will also need to achieve consistency, such as lane continuity, among jurisdictions. At a minimum, pavement on arterials to withstand the anticipated detour traffic in advance of I-710 construction that can handle the weight of heavy duty trucks would need to be examined.

Determination of Truck Inspection Facility(ies) – Construction of truck inspection facilities integrated with the overall design concept is a component of the LPS. During the MCS, a candidate site was identified for an inspection facility adjacent to northbound I-710 between Long Beach Blvd. and Del Amo Blvd. However, specific sites have not been subjected to more detailed scrutiny. Siting issues which will need to be addressed include proximity to the Ports, adequate space to queue trucks awaiting inspections, noise and air emissions impacts to surrounding communities and traffic safety. These decisions will also be influenced by emerging inspection facility technologies.

Phasing of Improvements – All of the elements in the Locally Preferred Strategy (LPS), including the Hybrid Design Concept, have a price tag in excess of $5 billion and their implementation will need to be phased over several years. Decisions will need to be made regarding the order of phasing of implementation of the LPS components, including items such as the truckway, added travel lanes for I-710, and interchange improvements. Considerations in these decisions will include constructability, maintenance of traffic, funding availability, and political consensus. A phasing plan will need to be agreed upon by the funding and implementing agencies as part of the EIS/EIR phase of the project development process.

Technology, Construction and Noise Impacts

The OPC at its November 2004 meeting adopted guiding principles stating that the analysis during the EIR/EIS Phase include detailed review of construction and noise impacts and mitigation; and the feasibility of alternative technologies for movement of goods in the corridor.

Project Funding

MTA views the I-710 Corridor Improvement Project as one of national significance. As a consequence, the MTA intends to assemble a multi-jurisdictional coalition of funding partners. In order to access federal and state funds for the project, innovative and conventional local revenue sources must be analyzed in detail. A detailed financial plan will be prepared exploring such revenue sources as container fees and truck-way tolls, during the next phases of project planning and development.