



Purpose and Need Statement

[SUMMARY]

Prepared for:

**LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY**

In cooperation with:

**Gateway Cities Council of Governments
Caltrans, District 7
Southern California Association of Governments**

Prepared by:

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.

**Kaku Associates, Inc.
Cambridge Systematics, Inc.
Greenwood and Associates
Chambers Group, Inc.**

**Consensus Planning Group, Inc
Jacki Bacharach and Associates
Adler Public Affairs
Jenkins/Gales and Martinez, Inc.**

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Introduction

The Purpose and Need Statement explains the need for future transportation improvements based on the problems and deficiencies identified in the I-710 Corridor. Purpose and Need also provides the basis for selecting reasonable and practicable alternatives for consideration, comparing the alternatives, and selecting a preferred strategy for the corridor.

I-710 Corridor Study Area

The I-710 Major Corridor Study Area is about 18 miles long and encompasses the sphere of influence of the I-710 freeway corridor, from the Long Beach area to the southeast portion of Los Angeles City. General boundaries for the study area are:

- State Route 60 (north)
- Lakewood Boulevard (east)
- Ports of Long Beach / Los Angeles (south)
- Wilmington Avenue / Alameda Street (west)

Project Need

Based on an 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 over 30 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 over 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.

High traffic volumes, design deficiencies, freeway congestion, and the interaction between cars and trucks in the traffic stream, create conditions that cause accidents. 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, an average of five accidents occur on I-710 each day and I-710 experiences an accident rate that is well above the statewide average for freeways of this type. 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, the 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. In addition, the freeway corridor 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.

Need for Action

Analysis of these current and projected conditions in the I-710 Study Area, as well as public input, has led to the identification of eleven key problem areas for the I-710 Corridor by the year 2025. Many of these problems and needs are interrelated. The following table summarizes each of the eleven problem issue areas:

I-710 Corridor Problem Statements

<i>Problem/Need</i>	<i>Problem Statement</i>
A. 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.
B. 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.

I-710 Corridor Problem Statements (continued)

<i>Problem/Need</i>	<i>Problem Statement</i>
C. 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.
D. 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 upcoming 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 truck movement of goods (freight) and yet lessen the disruptive effects of truck traffic on the freeway and roadway system, and on neighboring communities.
E. 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.
F. 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.

I-710 Corridor Problem Statements (continued)

<i>Problem/Need</i>	<i>Problem Statement</i>
G. 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.
H. Air Quality	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
I. 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.
J. 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.
K. 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.