APPENDIX P

I-710 Major Corridor Study "Hybrid" Alternative (Locally Preferred Strategy) Technical Report, Gateway Cities Council of Governments, April 2004

(DRAFT)

I-710 MAJOR CORRIDOR STUDY

"HYBRID" ALTERNATIVE
(LOCALLY PREFERED STRATEGY)
TECHNICAL REPORT

PREPARED FOR
I-710 TECHNICAL ADVISORY COMMITTEE

PREPARED BY
GATEWAY CITIES COUNCIL OF GOVERNMENTS

IN ASSOICATION WITH
MEYER, MOHADDES ASSOCIATES, INC.
AND
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INTRODUCTION, BACKGROUND AND HISTORY

Introduction

The I-710 Freeway is a vital transportation artery, linking the Ports of Long Beach and Los Angeles to the Los Angeles region and beyond. An essential component of the regional, statewide and national transportation system, it serves both passenger needs and goods movement. Due to a growing population, increasing traffic volumes and existing design deficiencies, the I-710 Freeway has begun to experience serious problems with performance and safety. In the next 20 years, population and employment growth in the Gateway Cities are expected to grow by 20%, and container traffic to and from the Ports of Long Beach and Los Angeles is expected to triple. Without corrective action, the continued decline of the I-710 Freeway's safety and efficiency could yield negative environmental, economic and public health consequences.

In 2001, the Gateway Cities Council of Governments (GCCOG), along with the Los Angeles County Metropolitan Transportation Authority (MTA), Caltrans, and the Southern California Association of Governments (SCAG) decided to work together and funded an extensive study of the I-710 corridor to explore possible solutions. The I-710 Freeway Major Corridor Study (MCS) was implemented to analyze traffic congestion and mobility problems toward the development of multi-modal, timely and cost-effective transportation solutions that preserve and enhance the quality of life of surrounding neighborhoods and communities.

Major Corridor Study Area:

The MCS focused on the transportation system in an area approximately 18 miles long with the following general boundaries:

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

Impacted Area:

The 18-mile corridor area encompasses the following 14 cities and jurisdictions:

- Bell
- Bell Gardens
- Carson
- Commerce
- Compton

- Cudahy
- Downey
- Huntington Park
- Long Beach
- Maywood
- Paramount
- South Gate
- Portions of Unincorporated Los Angeles County, including East Los Angeles
- Vernon
- Port of Long Beach
- Port of Los Angeles

Major Corridor Study Goals

The MCS had the following primary study goals:

- Improve Public Safety
- Improve Public Health (vis a vis Diesel Emissions)
- Improve Mobility (congestion/access)
- Reinvigorate Corridor Communities
- Sustain Regional State and National Economies

Major Corridor Study Implementation and Initial Results

When the MCS was initiated in 2001, the MCS team created an Oversight Policy Committee (OPC) to guide the study and provide recommendations on findings of the study. The OPC comprises 20 public agencies including the 14 area cities and representatives from GCCOG, MTA, SCAG and Caltrans.

The MCS Technical Advisory Committee (TAC) was also formed and consists of representatives from each of the impacted communities, along with local, state and federal resource agencies including MTA, SCAG, CALTRANS, the Ports of Long Beach and Los Angeles, California Highway Patrol (CHP), the Federal Transit Administration (FTA), the Federal Highway Administration (FHWA) and Air Quality Management District (AQMD).

In February of 2002, the OPC/TAC adopted 12 alternatives for the study area for analysis. Over the next several months, the OPC/TAC narrowed the 12 alternatives down to 5 for even more detailed evaluation. The 5 alternatives were evaluated in more detail. During the months of March and April of 2003 the results of that evaluation were presented to the public during a series of TAC meetings and "open houses," in order to gain public input and feedback on the alternatives. Members of the public expressed – and the OPC and TAC agreed -that a greater level of community input and involvement would be needed to produce an alternative to improve the freeway that better reflects the concerns and desires of local residents.

Revised Process

In May 2003, in direct response to community concerns the GCCOG and the funding partners revised the process to include deep and direct input from the community, which will be used to develop a "Hybrid Alternative" (Locally Preferred Strategy) for the MCS area.

Because of the GCCOG's advocacy role and close ties with the cities, it has worked to give the cities and local residents a larger role in the development of the MCS. Each of the 14 cities/jurisdictions along the route of the I-710 were given the opportunity to form a local Community Advisory Committee (CAC), also known as Tier One to ensure their full and .accurate representation in the process. Also, a broader, regional corridor Community Advisory Committee, Tier Two, was formed.

The communities bordering the freeway all formed Tier One CAC's. These include the following communities:

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

Hybrid Alternative Definition

Also, in May 2003, the OPC adopted the following Guiding Principles for the study for the development of the "Hybrid Alternative":

- Minimize "right-of-way acquisitions" (eminent domain) with the objective being to preserve existing houses, businesses and open space.
- 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.
- Improve safety by considering enhanced truck safety inspection facilities and reduced truck/car conflicts and improved roadway design.
- 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 (TSM) and Transportation Demand Management (TDM) technologies to make full use of freeway, roadway, rail and transit systems.
- Improve public participation in the development and consideration of alternatives and provide technical assistance to facilitate effective public participation.

Status

In September 2003, the GCCOG and MTA began the process of developing the design for "hybrid" alternative. This report summarizes the results of the efforts made in conjunction with the local communities to develop the "hybrid" design that would make the improvements to the I-710 freeway acceptable to them. That process is just being completed working with the local communities and this report and attachments are being submitted to the TAC for their review and comment so that the TAC can forward their comments to the OPC.

SECTION B
HYBRID DEVELOPMENT/PRESENTATION

Formation of Tier 1 Community Advisory Committees (CAC)

As stated in the previous section Tier 1 Community Advisory Committees (CAC's) were formed for each of the communities that border the I-710 Freeway. These communities had potential right of way impacts that had been previously identified. These committees primarily focused on key issues and areas that affected their community including heath, environmental 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 CAC's, MTA and the GCCOG retained the firm of Moore, Iacofano, Goltsman, Inc. (MIG) to facilitate these groups. The GCCOG also retained an engineer to assist the Tier 1 CAC's in the development of their recommendations for improvements to the I-710 freeway and the corridor.

MIG facilitated the formation of and worked with the following Tier 1 CAC's:

- Carson
- Compton
- Lynwood
- Bell Gardens
- Commerce
- East Los Angeles

The GCCOG engineer worked with the South Gate Tier l CAC and the City of Long Beach formed a 710 oversight committee chaired by three city council persons whose districts border the I-710 freeway. The City of Long Beach retained the firm of Diverse Strategies for Organizing (DSO) to facilitate the city's meetings and public coordination.

Tier 1 CAC Responsibilities

The CAC's were charged with the following:

- Solicit community (residents, businesses, institutions, labor, environmental and health interests, etc.) input and engagement on issues of local and regional importance relating to the present and future of the I-710 freeway.
- Encourage a representative and broad base of citizen participation both within and beyond the CAC's.
- Provide a vehicle to incorporate and respond to public input in planning for the I-710 corridor.
- Assist the OPC and the Technical Advisory Committee (TAC) in educating and communicating information about the I-710 MCS.

- Promote constructive dialogue in an environment of trust, credibility and mutual respect in the community outreach process and in the transportation planning process.
- Strive to understand and reconcile competing interests and objectives.
- Develop consensus on a set of corridor solutions, including the hybrid alternative, consistent with the goal of reinvigorating corridor economies and sustaining safe, healthy and vibrant communities.
- Provide a long-term structure for community engagement with future environmental processes; ensuring that the implementation is faithful to the community vision.

Summary or Tier 1 CAC I-710 Design Input Results

Each of the Tier 1 CAC have met numerous ,times and developed a list of their issues and concerns along with a list of the recommendations developed by them for improvements to the I-710 freeway and the corridor. MIG is assembling a report summarizing the results of both the Tier 1 and Tier 2 CAC's of all of the issues, concerns and recommendations developed by them. Appendix C contains a summary of the issues, concerns and recommendations from the Tier 1 CAC's that relate to the just the improvements to the I-710 freeway. There are a number of similar and common issues, concerns and recommendations developed by these various Tier 1 CAC's that can be applied to the design of the I-710 freeway improvements and include the following:

1. Separate cars and trucks as much as possible.
2. Minimize elevated structures.
3. Keep trucks at grade as much as possible.
4. Move the existing centerline of the freeway to take advantage of adjacent property that will minimize impacts to existing homes, parks and businesses.
5. Minimize (or eliminate) property impacts required to improve the I-710 freeway.
6. Use "diamond" type interchange designs to modify some existing interchanges to reduce property impacts at these interchanges.
7. Keep trucks away from existing homes as much as possible.
8. Use the adjacent river to construct additional lanes for the freeway.
9. Relocate utility systems adjacent to the freeway to provide space to improve the freeway.
10. Keep trucks off local streets.
11. Extend any improvements of the I-710 freeway past the SR-60 freeway.
12. Any improvements to the I-710 freeway should include landscaping and aesthetic treatments to beautify the freeway.
13. Construct soundwalls at all sensitive receptive locations.
14. Consider safety in all design improvements.
15. Do not extend the Terminal Island Freeway to the I-710/1-405 interchange (but consider such elimination impacts to the City of Carson).
16. Provide a truck inspection facility.

17. Consider limiting trucks on the I-710 freeway during peak hours and encourage the ports to go to extended hours of operations for truck movements.
18. Consider the Bandini "Alternative" at the I-5/I-710 interchange to reduce the impacts at this location.
19. Consider constructing elevated HOV lanes on the I-5 freeway north and south of the I-710 freeway to reduce adjacent property impacts.
20. The communities along the freeway should benefit economically from the construction of the improvements in the corridor during and after construction.

The preceding list shows how similar the design issues, concerns and recommendations were for all eight of the Tier 1 CAC's. The list of general issues, concerns and recommendations presented above, along with the specific local issues, concerns and recommendations developed by each Tier 1 CAC contained in Appendix C were used to prepare and process the "hybrid" design through each of the Tier 1 CAC's. After receiving and reviewing the lists contained in Appendix C, preliminary concepts were developed and presented to each of the Tier 1 CAC for their review and comment. Based on that review (received at numerous meetings), a locally preferred strategy for the "hybrid" design was prepared. The maps showing this locally preferred strategy are attached by reference.

At the time this report was prepared the Tier 1 CAC's that have supported the reference maps are Long Beach, Carson, South Gate and Bell Gardens. The Tier 1 CAC's in Compton and Lynwood were finalizing their reviews of the maps while this report was being prepared. Both the Commerce and East L.A. Tier 1 CAC's were still reviewing the maps prepared for the "hybrid" for their sections of the I-710 (and the I-5) freeway.

Hybrid Design Discussion/Results

Even though not all of the Tier 1 CAC's have finished their review of the referenced maps, this report was prepared for the I-710 TAC so they could review the design concepts while the Tier 1 CAC's are finalizing their review and comments. Any changes to the design concepts presented herein will be shown to the I-710 TAC before they finish their review of the maps.

A universal theme developed by all of the Tier 1 CAC's was to separate the cars and trucks as much as possible and to minimize the construction of elevated structures. They also requested that safety be a priority design criteria considered in any new "designs" and that the freeway improvements be "modern" in their design. The underlying (and primary) design criteria that affected the design was to minimize right-of-way impacts to adjacent property when considering improvements to the I-710 freeway.

The initial future traffic projections previously performed indicated that ten general purpose lanes were probably required along with 4 separate and dedicated truck lanes. These truck lanes would intercept the trucks leaving the ports and continue north along

the river. The two primary destinations identified for the trucks in these lanes were the SR-91 freeway and the rail yards in Commerce and Vernon. This concept is similar to Alternative "E" developed for the initial MCS in 2001 to 2003 and was the underlying basis for the hybrid design modified to conform to the new design guidelines required by the OPC and the Tier 1 CAC's.

Following the guidelines adopted by the OPC and after meeting with the Tier 1 CAC's, preliminary sketches for improvements to the I-710 freeway were developed and presented to the Tier 1 CAC's for review and comments. This procedure was repeated to process the "hybrid" design through the Tier 1 CAC's making any changes requested by them and doing additional analyses needed to explore new ideas that developed as the designs were examined by the Tier 1 CAC's.

Based on the input and review of the Tier 1 CAC's the appended fourteen maps were prepared and finalized (still subject to some review by some of the Tier 1 CAC's as previously noted). The GCCOG engineer worked between adjacent Tier 1 CAC's when the requirements of the Tier 1 CAC's in one community affected the design of the freeway in another community. All of these "conflicts" were worked out between adjacent communities.

It appears that the fourteen lane facility (ten general purpose lanes adjacent to four dedicated truck lanes) can be constructed with minimal impacts to adjacent property in the communities. This is discussed for each section of the freeway subsequently. In addition to the physical analysis of any possible improvements, a traffic modeling analysis was also performed for the proposed improvements to the freeway. This analysis is contained in Appendix A. The major assumptions are listed in the report prepared by Meyer, Mohaddes Associates (MMA). These major assumptions include continued growth of the ports as shown in the report, the implementation of extended hours of operations at the ports and continued growth in Southern California as estimated by SCAG for the region for the year 2025. With these assumptions MMA analyzed the proposed fourteen lane facility at three different locations to assess whether the facility adequately operated in the future. This report and analysis can only be considered a "snap-shot" of the future operations of this fourteen lane facility at these three locations. A much more detailed traffic model and analysis will be prepared for the future environmental document.

The MMA study indicates that the fourteen lane facility operates adequately in the year 2025. The truck lanes are at capacity in the future at the south end of the project and operate at acceptable levels of service further north. The general purpose lanes operate at very acceptable levels of service at the south end of the project but do not operate at acceptable levels of service at the very north end of the project (north of the I-105 Freeway). Suggestions for further analysis are discussed subsequently. However, the MMA study indicates that the fourteen lane facility appears to be the correct size facility for this corridor (it does not assume any carpool lanes). The subsequent discussion for the proposed improvements will indicate that this fourteen lane facility can be built while

minimizing the impacts to adjacent community properties. Any additional lanes will require a new design approach or additional rights-of-way from the adjacent properties.

The following discusses the design for the freeway section for each community that meets their design guidelines and the design guidelines required by the OPC starting from the south end of the freeway and proceeding to the north.

General Design Comments

The geometric plans (maps) that show the proposed improvements are attached by reference. Typical sections were prepared to show the proposed improvements within each city and those typical sections are included with this report. Caltrans standards were used to develop the designs shown on the referenced maps. However, these standards could not always be met at all locations and design exceptions may be needed to implement the geometric designs shown on the referenced maps. These design exceptions are noted on the referenced maps and will have to be reviewed and approved by Caltrans. If the design exceptions are not acceptable to Caltrans than 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. These changes could require additional right-of-way to accomplish.

New soundwalls are shown next to all sensitive noise receptor sites adjacent to the freeway. To the extent possible, it is recommended that these sound walls be constructed prior to the major construction of the freeway. This will help isolate the adjacent property during construction of the freeway.

Many of the existing bridges that cross over the freeway are proposed to be reconstructed for the design shown on the references maps. It is necessary to lengthen them to provide the necessary width underneath them to construct the additional freeway general purpose lanes and the dedicated truck lanes at many locations. The timing and phasing of the construction of these re-built bridges will need to be studied in more detail at a later date.

The typical sections contained with this report show standard width lanes and full shoulders for all typical sections. This was one of the primary objectives of the design. There are a few locations where shoulder widths or lane widths are reduced for a short stretch of the freeway to avoid un-necessary reconstruction of an intercepting freeway. Otherwise, full lane and shoulder widths are proposed for the entire design.

The design includes four dedicated truck lanes that begin at the ramps leading from the ports at the south end and continues these lanes to the rail yards at the north end of the freeway in Vernon and Commerce. Access points and ramps to and from these dedicated truck lanes are shown at various locations and discussed subsequently. Further study will be needed to determine if additional access points and ramps are needed from the dedicated truck lanes for destinations along the freeway or for access from the I-710 freeway.

City or Long Beach (Ocean Blvd. to SR-91 Freeway)

The design guidelines provided by the City of Long Beach for the freeway are listed in Appendix C and were followed to develop the design shown on Maps 1 through 4. Figures 1, 2 and 3 show the typical sections for the freeway improvements for this section of the freeway. Key elements of this design include the following:

1. Freeway improvements were constructed to the east, towards the river.
2. The bridges that cross the freeway are all proposed to be reconstructed and lengthened over the new freeway to provide the necessary space underneath them to construct the proposed freeway improvements.
3. The dedicated truck lanes intercept the trucks as they leave the ramps from the ports heading north and continue far enough south to discharge the southbound trucks from these lanes into the ramps leading into the ports.
4. The Shoemaker Bridge that crosses the river into downtown Long Beach is proposed to be reconstructed and realigned. This is necessary to build the freeway improvements underneath it and to expand the Cesar Chavez Park in downtown Long Beach.
5. The interchanges of Anaheim St., PCH and Willow St. are all reconstructed in a "diamond" type configuration. As shown on the maps, full access at the Anaheim St. and PCH interchanges is maintained for both autos and trucks as requested by the city.
6. To minimize the right-of-way impacts to adjacent property between PCH and Willow St. the freeway design (see Figure 2) is stacked with depressed truck lanes on the bottom and general purpose lanes on top. The community did not want the lanes on top to be above the adjacent river levee and this design is shown in Figure 2. This design will be difficult to build so a constructability analysis was performed for it. This constructability analysis is contained in Appendix B and indicates that it appears the design shown in Figure 2 can be constructed. Much more extensive analysis will be necessary to confirm this. Depressing the truck lanes as much as shown in Figure 2 complicates the constructability and will also require further analysis.
7. It appears that the 10 general purpose lanes will "fit" through the existing openings on the I-710 freeway as it crosses underneath the I-405 freeway but this also will require further analysis to determine if the reconstruction of the I-405 bridges over the I-710 can be avoided. Map No.2 shows the closure of the existing ramps at Wardlow Rd. The impacts of these closures will require further analysis. The impact of the modernization of the connector ramps at the I-710/I-405 interchange will require further study of the interchanges on I-405 at least 2 miles beyond the I-710 freeway in both directions.
8. The dedicated truck lanes continue at grade north of the I-405 along the river and affect two ponds next to the river. A mitigation plan for these impacts will have to be developed. Also, near this location the widening of the

freeway appears to impact the Blue Line bridge over the freeway, which is shown to be reconstructed. This impact needs to be evaluated and verified and a plan developed to re-build this bridge without interfering with the operation of the Blue Line.

9. The typical section shown in Figure 3 shows the dedicated truck lanes using property acquired from SCE. Preliminary discussions with SCE in the past indicated they would cooperate with this design but that design and its costs have to be verified. Truck access ramps are provided near Del Amo Blvd. to provide access and egress from the truck lanes to and from I-710. These ramps will also provide truck access to the dedicated truck lanes from both directions from the I-405 freeway.
10. The extension of the Terminal Island Freeway to the I-710 and I-405 interchange is not included in the design.
11. The dedicated truck lanes continue through the SR-91 freeway and provide truck access ramps to this freeway as shown on Map No.4. The truck only ramps shown on Map No.4 have been determined as the only "necessary" truck ramps. Further study of the impacts of these truck connector ramps on the SR-91 freeway is required at least two interchanges west and east of the I-710 freeway (see Map No. 13 that shows the transition of these truck lanes ramps onto SR-91).
12. The ten general purpose lanes continue through the SR-91 interchange. As shown on the referenced maps, narrower shoulders are proposed for I-710 as these lanes pass through the SR-91 interchange to avoid having to re-build the SR-91 bridges that go over the I-710 freeway. The Artesia Blvd. bridge over I-710 is proposed to be constructed, however, to provide the needed width for the general purpose lanes.

City of Carson (Del Amo Blvd. Interchange)

The city boundaries of the City of Carson only intersect with the freeway in the southwest comer of the Del Amo Blvd. interchange. There appears to be a slight impact to a business in the city at this location and more detailed analysis is needed to see if the property could be avoided or minimized so a full property acquisition is not needed.

The Tier 1 Carson CAC supports the dedicated truck lanes that begin at the ports and run along the river past Carson. However, that committee remains concerned about the impact of the proposed SR-47 freeway extension to Alameda St. (not shown on the enclosed maps) and the additional truck traffic that that design will introduce on Alameda St. through Carson. The traffic modeling report prepared by MMA contained in Appendix A states that about 5 to 10% of the truck traffic will divert from the I-710 onto Alameda St. if the SR-47 extension is built. This is confirmed by the studies prepared by the Alameda Corridor Transportation Authority (ACTA), the proponent for the extension. ACTA had estimated that about 8% of the trucks would be diverted from the I-710 to Alameda St. if the extension were built.

Further study of the destination of these trucks that would use the SR-47 extension to Alameda St. is needed. It is assumed that many of these trucks are accessing the 1-405 or SR-91 freeways and, further, many of them will still want to access the dedicated truck lanes along the I-710 freeway. This additional study should include an analysis of an improved interchange of Alameda St. with the 1-405 freeway that would allow the trucks using the SR-47 extension and Alameda St. to access the I-710 dedicated truck lanes from that interchange to the 1-405 freeway and then onto the dedicated truck lanes at the access ramp provided at Del Amo Blvd. as shown on Map No.3. This could significantly reduce the volume of trucks on Alameda St. north of the I-405 freeway.

City of Compton (SR-91 Freeway to I-105 Freeway)

Maps 4 and 5 show the proposed freeway improvements that are still being studied by the Compton Tier 1 CAC. At the time this report was the CAC had not acted on these plans but seemed to be supportive. The key elements of the designs shown on Maps 4 and 5 are an improved interchange with Alondra Blvd. that does not impact the adjacent properties. This design eliminates the weaving problem with the SR-91 connector ramps to I-710 with the northbound Alondra off-ramp and the southbound Alondra on-ramp. However, the elimination of these weaving problems eliminates access to Alondra Blvd. from westbound SR-91 and eastbound SR-91. This traffic will have to be signed to use the Atlantic Blvd. interchange to access Alondra Blvd. and will have to be studied in more detail at a later date.

Figure 4 shows the typical section for this part of the freeway. It shows the dedicated truck lanes elevated next to the river. This is necessary for the truck lanes to get "past" Alondra Blvd. and Compton Blvd. by going over them. It may be possible to go under each of these bridges provided the river levee can be eliminated and replaced with a river levee wall. This is not proposed at this time but is recommended to be studied at a later date. Soundwalls are shown on the dedicated truck lanes to minimize the broadcasting of sound from these truck lanes. A study is also recommended to determine how to make these truck lanes as aesthetic as possible.

As the truck lanes approach Rosecrans Ave. they are proposed to go under a re-built and extended Rosecrans Ave. bridge and continue through the I-105 interchange at grade. This will require the reconstruction of the northbound on and off-ramps from Rosecrans Ave. as shown on Map Nos. 5 and 6. Just north of the I-105 freeway the maps show the dedicated truck lanes intruding into the river levee. This will have to be approved by the Los Angeles County Flood Control District and the Corps of Engineers and will be achieved by rebuilding the levee to provide the space needed for the dedicated truck lanes. The dedicated truck lanes do not access with the I-105 freeway. The ten general purpose lanes continue through the I-105 interchange and are narrowed to avoid rebuilding the I-105 bridges that crossover the I-710 freeway.

A new ramp is proposed to be constructed from the I-105 connector ramps to join with the southbound Rosecrans Ave. off-ramp to provide new access to the city as requested by the CAC. As shown on the map the design of this new ramp will require a design

exception in order to be constructed. This proposed ramp will reduce the ramp volumes at the southbound Alondra Blvd. interchange and could be an integral part of the construction staging for this section of the freeway.

The City of Compton has similar concerns about additional truck traffic onto Alameda St. as discussed for the City of Carson from the extension of SR-47. A separate truck access on-ramp from eastbound SR-91 is shown to be constructed at the SR-91 interchange. This ramp will allow trucks on Alameda St. to access the dedicated truck lanes along I-710 and should discourage them from continuing north on Alameda St. past the SR-91 freeway if their destinations are the rail yards or north of the rail yards along I-710. A study is recommended to be performed that would study improvements at the Alameda St./SR-91 interchange that would expedite trucks accessing the dedicated truck lanes and the possibility of extending the truck on and off-ramps to Alameda St. along SR-91.

City of Lynwood (Rosecrans Ave. to Imperial Highway)

At the time this report was prepared the Lynwood Tier 1 CAC was still reviewing the proposed design and had not made a final decision about the design.

Map No.6 and Figure 5 show the dedicated truck lanes built over the northbound I-710 lanes for a short duration to avoid property on the west side and the intrusion into the river on the east side. This still requires some intrusion into the river levee and will have to be processed and approved by the Flood Control District and the Corps of Engineers as previously discussed for other sections of the freeway.

The Imperial Highway interchange is reconstructed in a "diamond" configuration to provide the necessary improvement and to avoid adjacent property impacts. The inclusion of possible northbound and southbound loop on-ramps should be studied at a later date to see if those additions, which would improve the operation of the new interchange, could be constructed without impacting adjacent property.

At this location the freeway alignment is shifted toward the river to provide the space to construct the revised interchange. A by-product of this design allows the elimination of the weaving between the Imperial Highway southbound on-ramp with the Martin Luther King Blvd. southbound off-ramp. The City of Lynwood has requested that a study be conducted to determine if new northbound on and off-ramps could be constructed to access Martin Luther King Blvd. from I-710 via a tunnel underneath I-710. That study is not included with this report and will have to be performed at a later date. The proximity of these proposed ramps to the I-I05/I-710 connector ramps and the Imperial Highway ramps would make the inclusion of these ramps very difficult to implement.

The reconstruction of the both the Rosecrans Ave. and Imperial Highway interchanges will be very disruptive to access into and from Lynwood. The impacts of these particular reconstruction projects needs to be studied for their impact on the interchanges and ramps from I-105 into and from Lynwood and the need to improve those I-105 interchanges and ramps as part of the I-710 freeway improvement project.

City of South Gate (Imperial Highway to north of Firestone Blvd.)

Access ramps from the dedicated truck lanes are shown just north of Imperial Highway that will allow trucks to access Garfield Ave. These ramps will assist in keeping trucks from using the Firestone Blvd. interchange and improve the operation of the adjacent Garfield Ave./Firestone Blvd. intersection" which has high truck volumes.

Just north of Imperial Highway the dedicated truck lanes are proposed to be constructed on the west side of the freeway (see Map No.7). Figure 6 shows that it is possible to construct the dedicated truck lanes and the general purpose lanes through the City of South Gate at grade with minimal property impacts. The city is requesting that a new bridge at Southern Ave. be built over the river and over the freeway. This is necessary to provide a second entrance to the Thunderbird Villa Mobile Home Park (the only entrance to the park is affected by the proposed truck ramps that connect the dedicated truck lanes to Garfield Ave.) and to assist moving traffic across the freeway when the Firestone Blvd. bridge is being reconstructed. The impacts on the businesses along Southern Ave. west of the freeway are being reviewed with those businesses at the time this report was prepared.

The Firestone Blvd. interchange would be reconstructed with the same ramp configurations as part of the proposed improvements to the I-710 freeway.

City of Bell Gardens (north of Firestone Blvd. to north of Florence Ave.)

The dedicated truck lanes are proposed to be constructed at grade next to the river through the City of Bell Gardens. As shown in the typical section in Figure 7, this design can only be accomplished by building a river levee wall" removing the levee and moving and relocating the DWP transmission towers to provide the space for the dedicated truck lanes. This will require significant coordination with DWP and study and approval by the Flood Control District and the Corps of Engineers to achieve.

As part of this design the Florence Ave. interchange is proposed to be reconstructed in a “diamond” configuration. As discussed previously for the Imperial Highway interchange, northbound and southbound loop on-ramps should be studied to be incorporated with the design shown on Map No.8 to improve the operation of this proposed interchange.

The dedicated truck lanes continue through the City of Bell Gardens next to the river. At the north end of the city, the dedicated truck lanes elevate and cross over to the other side of the freeway for the reasons discussed subsequently.

City of Commerce (Slauson Ave. to north of I-5 freeway and I-5 Freeway)

The Commerce Tier 1 CAC is still evaluating and review the designs for both the I-710 and I-5 improvements. This section only discusses the portion of the I-710 that the committee has indicated they may support.

As shown on Map No.8, a new interchange (single-point type) is shown to be constructed at the location of the existing Slauson Ave. bridge over the I-710 freeway. The communities around this proposed interchange (with the possible exception of the City of Commerce) are requesting this new interchange to improve access to the communities to the west and to relieve the traffic on both Firestone Blvd. and Florence Ave. to the south. The majority of this proposed interchange (and all of the property impacts) is located in the City of Commerce. The businesses affected by the construction '. of this interchange will have to be acquired and relocated to construct it. At the time of the preparation of this report, the Commerce Tier 1 CAC has indicated they may not be in support the construction of this interchange. The Commerce Tier 1 CAC has reviewed the proposed Slauson Ave. interchange and do not appear to be opposed to the actual design but do not perceive the interchange as beneficial to the city. The construction of this interchange will have to be negotiated between Commerce and the other cities requesting its construction.

The "single-point" interchange design proposed for Slauson Ave. is shown on Map No.8. This will require the construction of a new bridge over the river and over the freeway and the reconstruction of Slauson Ave. in both directions. Also, as noted on Map No.8, auxiliary lanes are needed to the north of this proposed interchange. The dedicated truck lanes are elevated over the railroad delivery tracks and are above Slauson Ave.

Map No.9 shows the extensive reconstruction proposed for the Bandini Blvd. and Atlantic Blvd. interchange. The previously proposed truck viaduct along Atlantic Blvd. is no longer a part of the design. The intent of the design is to move the ramp intersections with Bandini Blvd. and Atlantic Blvd. away from the intersection of Bandini Blvd. and Atlantic Blvd. where the ramps currently intersect. Both the cities of Commerce and Vernon have reviewed and approved the new design shown on Map No. 8. Significant property impacts result from the construction of this new interchange but were determined to be acceptable to the adjacent communities.

The dedicated truck lanes are elevated over the Bandini Blvd./Atlantic Blvd. interchange. The lanes split apart at this location so that ramps can be built from these dedicated truck lanes directly into the rail yards. Both the cities of Vernon and Commerce have requested that the significant number of trucks that are destined for these two rail yards from the ports do not use their local streets to access the entrances to the BNSF and UP rail yards. Map Nos. 9 and 14 show ramps from the dedicated truck lanes directly into the BNSF and UP rail yard entrances. Return ramps are also shown from these two rail

yards. This unique solution will keep trucks from the dedicated truck lanes coming from the south from using local streets to access the rail yards. This design will require special approval of Caltrans to construct. The design will also have to be processed and approved by both BNSF and UP in order to be constructed. The design of these ramps is consistent with the existing truck entrances into the two rail yards. However, the ramps are mostly overhead and the designs can be altered if the truck rail yard entrances are altered.

The truck rail yard ramp designs also include ramps that connect trucks traveling southbound on I-710 to these new rail yard ramps and the return movement. This will keep trucks traveling southbound on I-710 that want access to the rail yards from having to use local city streets. The southbound truck rail yard access ramps are not compatible with the existing Washington Blvd. interchange and ramps. It will probably be necessary to eliminate those ramps. The City of Commerce is considering that option. An analysis of the closure of the Washington Blvd. ramps will have to be performed at a later date. That closure will affect the proposed Bandini Blvd./ Atlantic Blvd. interchange on the I-710 freeway and the proposed improvements to Eastern Ave./Atlantic Blvd. interchange on the I-5 Freeway.

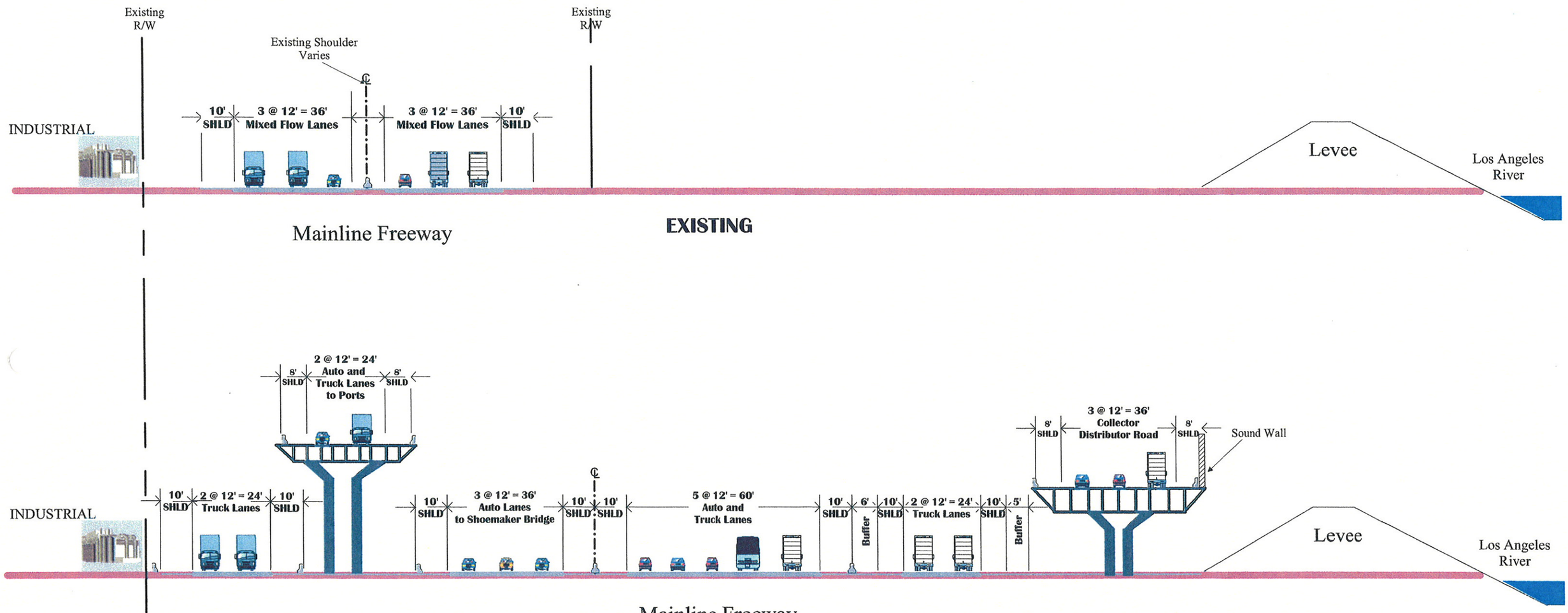
On and off-ramps would be provided from the dedicated truck lanes for access to I-710 freeway for trucks that do not want to access the rail yards. These are shown on Map No. 9.

This report does not include any discussion of the I-5/I-710 freeway interchange as the Commerce Tier 1 CAC is still reviewing the proposed design and has remaining issues and concerns with it.

East Los Angeles (I-5 freeway to Valley Blvd. and I-5 Freeway)

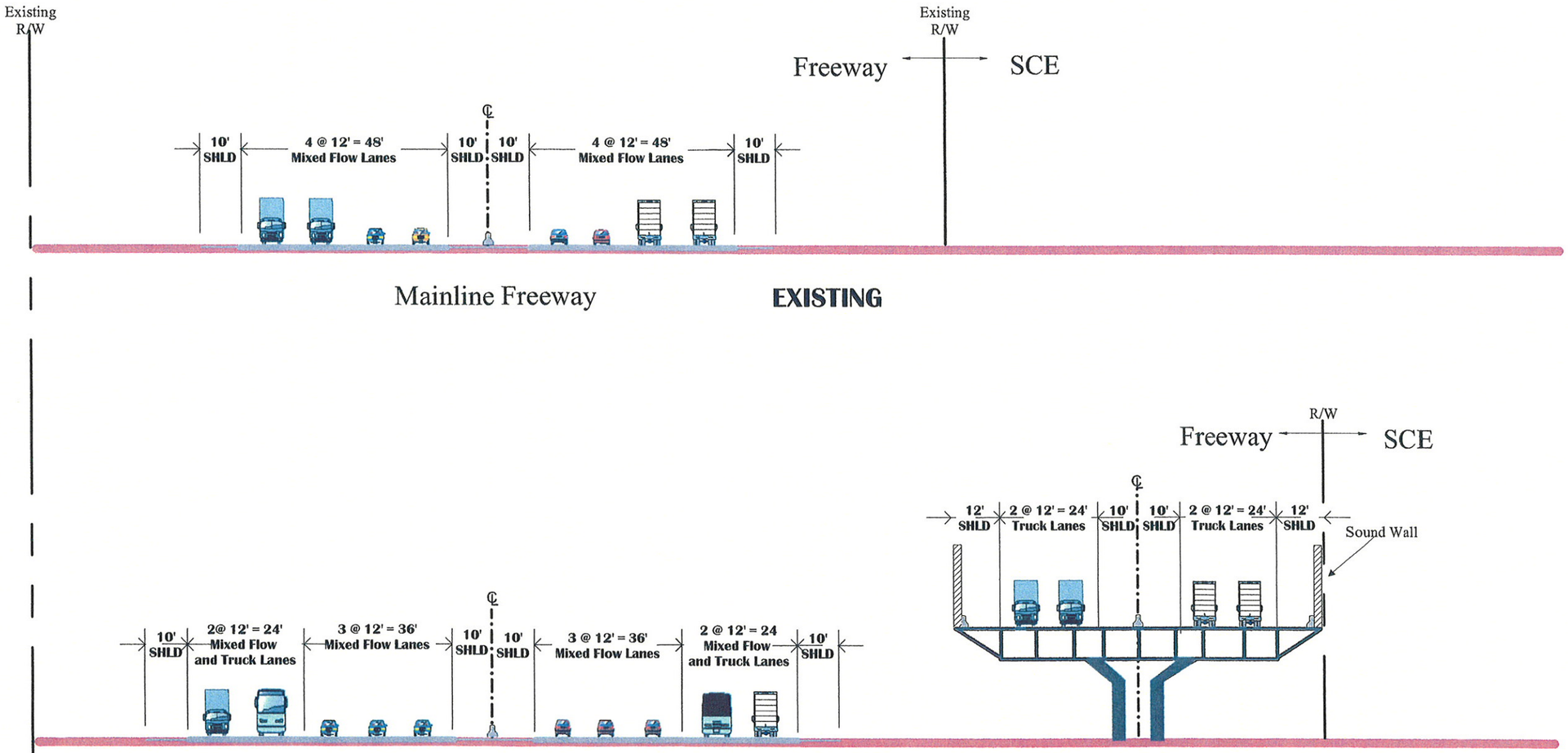
At the time of the preparation of this report, the East L.A. Tier 1 CAC was still reviewing and commenting on the conceptual designs that affect their community for both the I-710 and I-5 Freeways. Therefore, this report contains no maps, typical sections or discussions about that section of the project. The I-5 Joint Powers Authority (JPA) has the responsibility for the conceptual design for the I-5 freeway south of the I-710 freeway. The I-5 JPA has previously processed a conceptual design for the I-5 freeway through the City of Commerce in 1998 and received that city's approval of the design. However, while the conceptual plan prepared by the I-5 JPA showed improvements to the I-5/I-710 interchange, the City of Commerce did not approve that design for that interchange or include it with their approval for the improvements to I-5 in 1998. Any improvements at the I-5/I-710 interchange affect both the City of Commerce and East L.A. Discussions continue with the Tier 1 CAC's for both these communities about the improvements at this interchange. The GCCOG and the I-5 JPA are working closely together to address the concerns of these two communities at this location, including re-examining the design of the I-5 freeway south of the I-710 freeway.

An issue that the East L.A. Tier 1 CAC feels need to be addressed is the continuation of any improvements to the I-710 freeway north ofSR-60 freeway. If the I-710 freeway is improved, the East L.A. Tier 1 CAC has requested that those improvements need to continue north to Valley Blvd. A map showing these possible improvements to the I-710 freeway north of the SR-60 freeway to Valley Blvd. (north of the 1-10 freeway) has been prepared and submitted to the East L.A. Tier 1 CAC for review and comment.



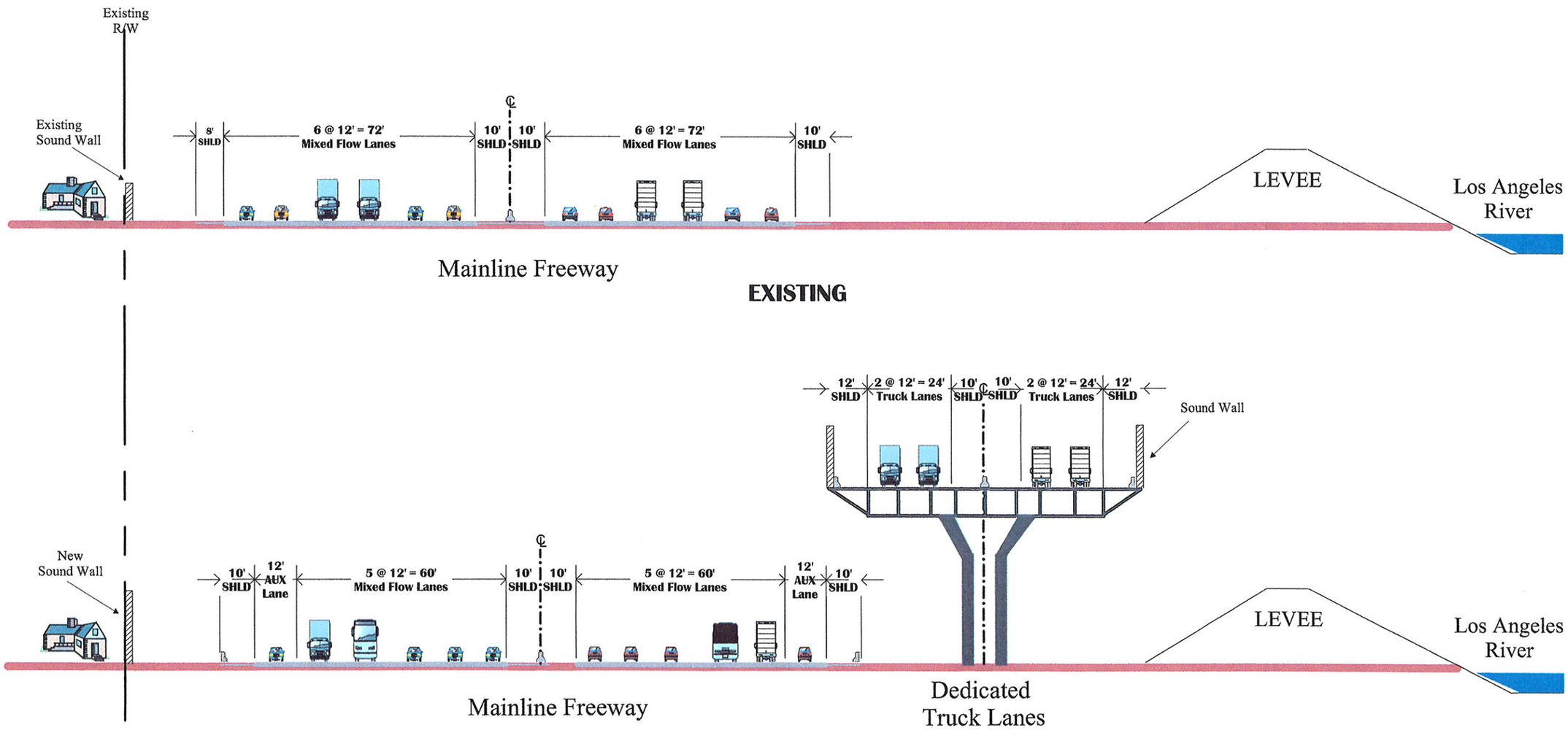
TYPICAL SECTION (Between PCH and Anaheim St.)

FIGURE NO. 1



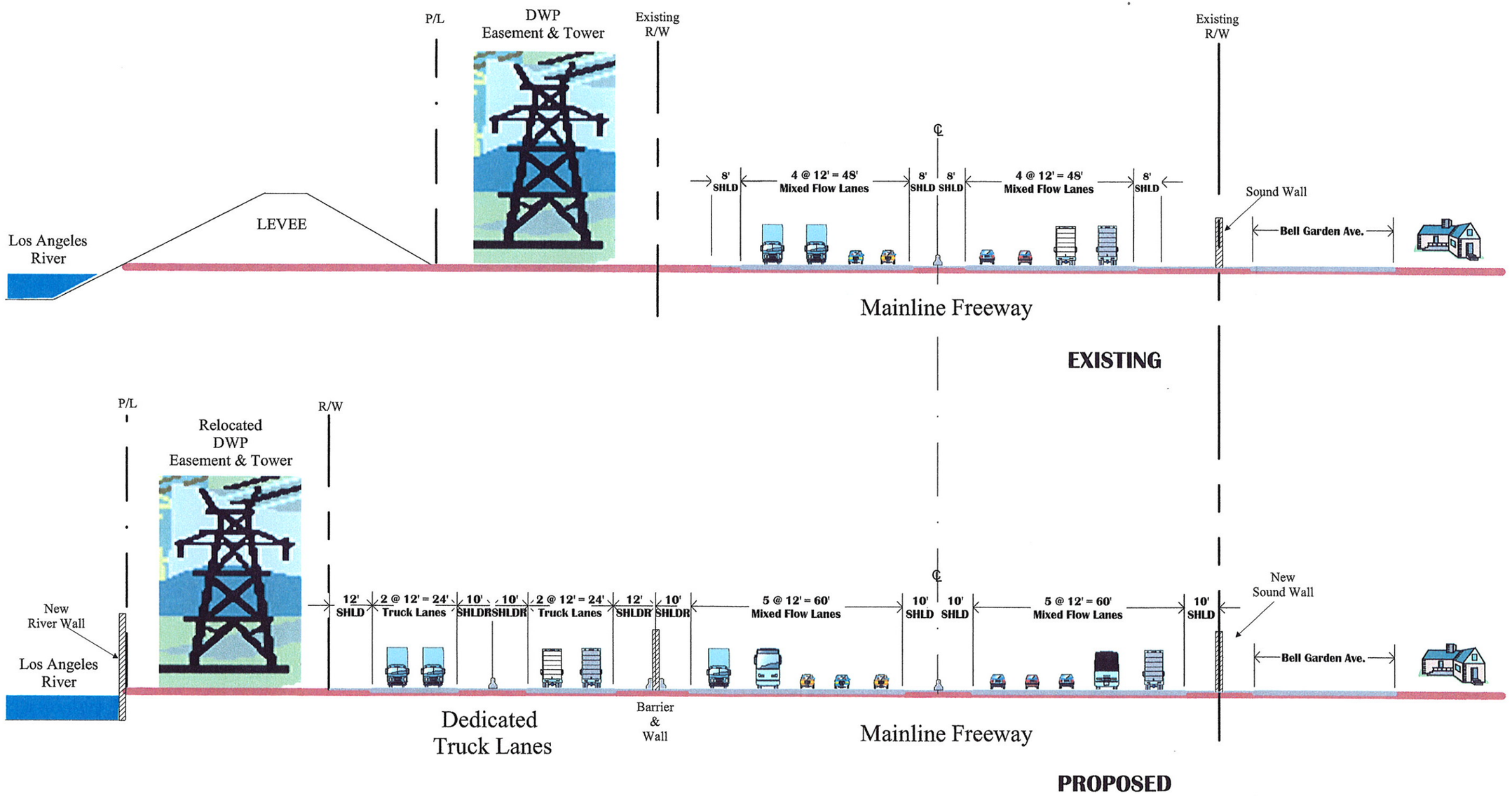
TYPICAL SECTION North of Del Amo

FIGURE NO. 3



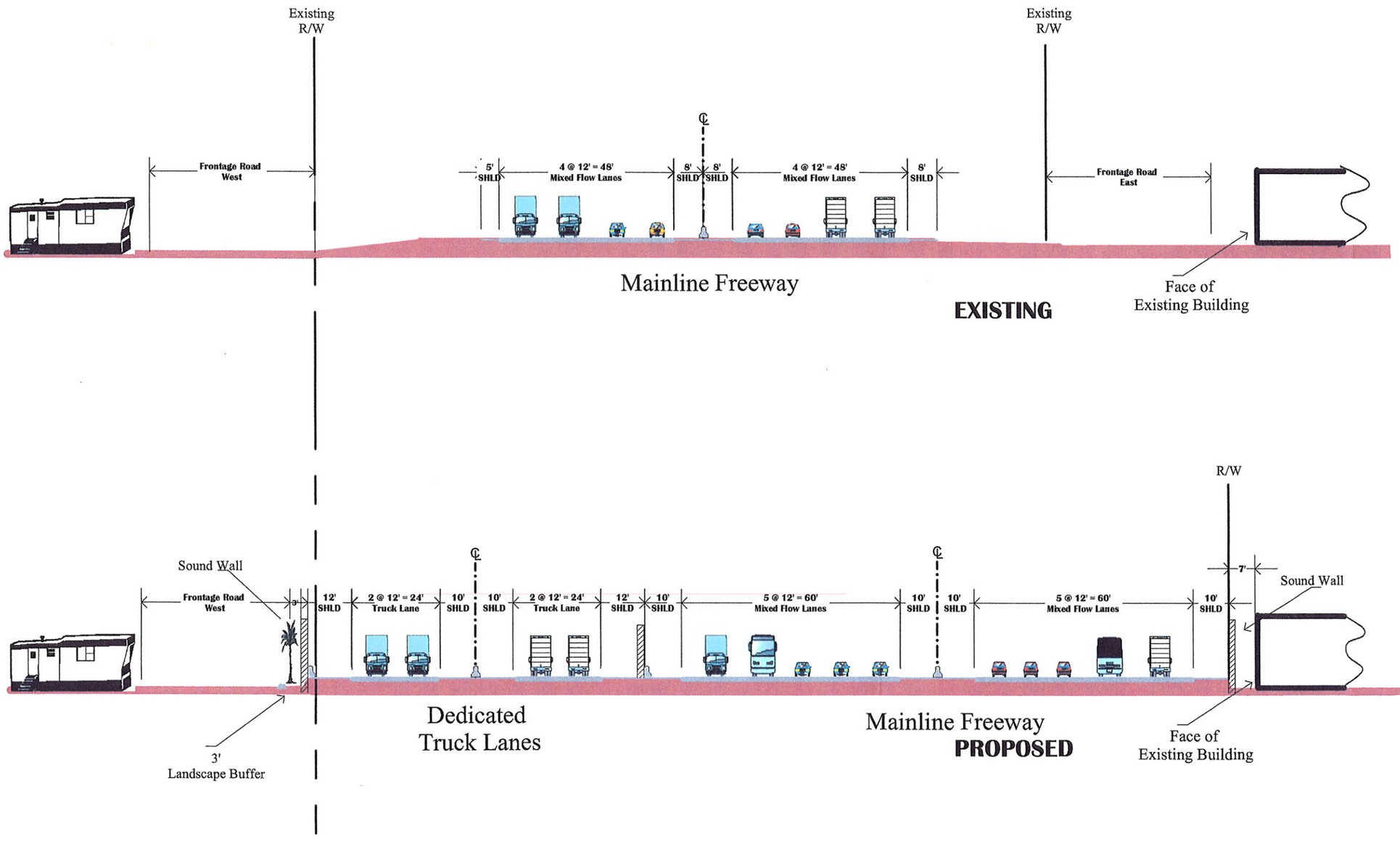
TYPICAL SECTION (Alondra Blvd. to Rosecrans Ave.)

FIGURE NO. 4



TYPICAL SECTION (Firestone Blvd. to Florence Ave.)

FIGURE NO. 7



TYPICAL SECTION (Imperial Hwy to Firestone Blvd)

FIGURE NO. 6

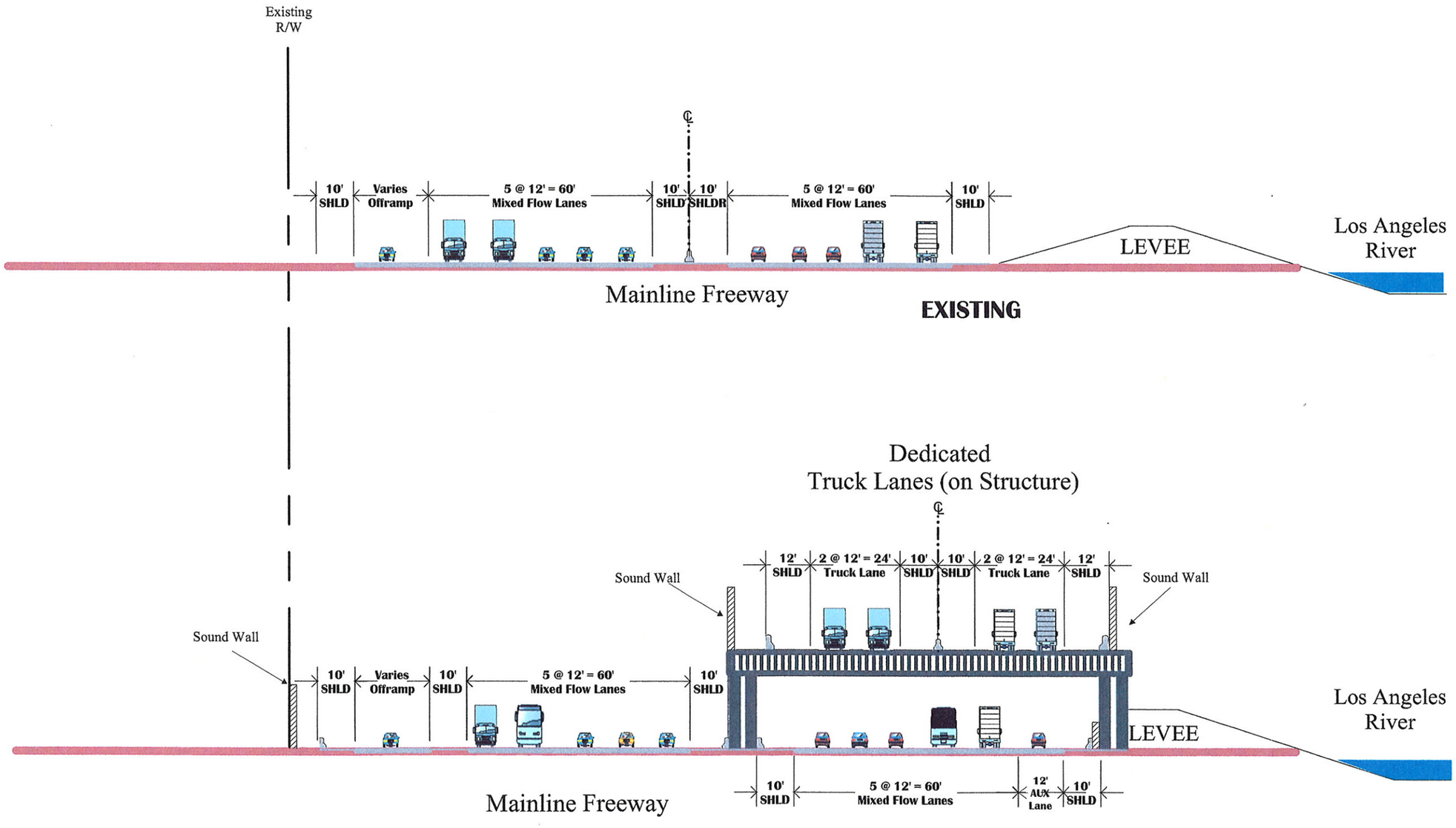


FIGURE NO. 5

TYPICAL SECTION (South of Imperial Hwy)