

PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation

<b>RTIP ID#</b> <i>(required)</i> LA996347				
<b>TCWG Consideration Date</b> 7/27/2010				
<p><b>Project Description</b> <i>(clearly describe project)</i>                  The City of South Gate (project proponent), in cooperation with Caltrans (the NEPA and CEQA lead agency), has proposed widening of the Firestone Boulevard Los Angeles River Bridge on the south side to provide a median, shoulders, and a dedicated right turn lane; modification of the southbound I-710 on-ramps; improvements to the northbound I-710 on-ramp; and roadway improvements to Firestone Boulevard between the I-710 northbound on-ramp and Rayo Avenue on the west. Roadway improvements include re-striping to provide a continuous third westbound through lane between the I-710 northbound and I-710 southbound ramp intersections. In addition, the project would include pavement rehabilitation to Firestone Boulevard between Rayo Avenue and the Los Angeles River Bridge. Figures 1 and 2 show the project location, while Figure 3 shows the layout plan for the project.</p> <p>Proposed improvements would not change the number of lanes on any freeway on or off ramps, nor affect any portion of the freeway mainline.</p> <p>The proposed project would temporarily require one adjacent property for a temporary construction easement (TCE) and partial acquisition of two adjacent properties. These properties include portions of the Los Angeles County Flood Control District (LACFCD) channel, and a portion of the Los Angeles Department of Water and Power (LADWP) property adjacent to the LACFCD channel.</p> <p>Project construction is anticipated to begin in June 2011, and be completed and open for traffic in September 2012. The project design/horizon year is 2035.</p>				
<p><b>Type of Project</b> <i>(use Table 1 on instruction sheet)</i>                  Reconfigure Existing Interchange</p>				
<b>County</b> Los Angeles		<p><b>Narrative Location/Route &amp; Postmiles</b>                  City of South Gate – Route I-710 / Firestone Blvd. Interchange (PM 18.44)</p> <p><b>Caltrans Projects – EA#</b> 278701</p>		
<b>Lead Agency:</b> Caltrans				
<b>Contact Person</b> Andrew Yoon		<b>Phone#</b> 213-897-6117	<b>Fax#</b> 213-897-1634	<b>Email</b> Andrew_yoon@dot.ca.gov
<b>Hot Spot Pollutant of Concern</b> <i>(check one or both)</i> <b>PM2.5 X</b> <b>PM10 X</b>				
<b>Federal Action for which Project-Level PM Conformity is Needed</b> <i>(check appropriate box)</i>				
<b>Categorical Exclusion (NEPA)</b>	<input checked="" type="checkbox"/> <b>EA or Draft EIS</b>	<input type="checkbox"/> <b>FONSI or Final EIS</b>	<input type="checkbox"/> <b>PS&amp;E or Construction</b>	<input type="checkbox"/> <b>Other</b>
<b>Scheduled Date of Federal Action:</b> April 2010				
<b>NEPA Delegation – Project Type</b> <i>(check appropriate box)</i>				
<input type="checkbox"/> <b>Exempt</b>		<input type="checkbox"/> <b>Section 6004 – Categorical Exemption</b>	<input checked="" type="checkbox"/> <b>Section 6005 – Non-Categorical Exemption</b>	
<b>Current Programming Dates</b> <i>(as appropriate)</i>				
	<b>PE/Environmental</b>	<b>ENG</b>	<b>ROW</b>	<b>CON</b>
<b>Start</b>	November 2008	June 2010	August 2010	June 2011
<b>End</b>	August 2010	January 2011	March 2011	September 2012

**Project Purpose and Need (Summary):** *(attach additional sheets as necessary)*

The overall purpose of the proposed project is to upgrade the facility to meet current highway standards and improve operational characteristics that currently contribute to safety problems and operational inefficiencies. Specifically, three general-purpose objectives were identified for the proposed project:

1. Upgrade interim non-standard roadway features to current highway standards,
2. Improve operational characteristics along Firestone Boulevard at the interchange to address operational inefficiencies, and
3. Improve operational characteristics and enhance safety of the southbound direct on-ramp and northbound loop on-ramp.

Several deficient operations and capacity inadequacies within the interchange will be negatively affected by increased traffic volumes resulting from redevelopment in the cities of Downey and South Gate. Both cities rely on the interchange to handle current and future traffic demands. The proposed solutions are intended to improve future interchange operation and capacity while minimizing disruptions during construction.

Firestone Boulevard has inadequate capacity in the interchange area for its demand volume. The large demand volumes, limited through capacity and a 590-foot weaving area between the loop ramps on Firestone Boulevard, make weaving difficult for traffic that is attempting to access the loop ramps. The weaving traffic acts as a bottleneck to peak-hour through traffic, especially in the westbound direction. Currently, there are only two through lanes and one dedicated right-turn lane between the loop ramps in the westbound direction. The right through lane also serves the high-occupancy vehicle bypass lane for the loop on-ramp. Additionally, these lanes are non-standard widths (10.8 feet). All of the existing loop ramps have awkward geometries, with compound and broken-back curves.

**Surrounding Land Use/Traffic Generators** *(especially effect on diesel traffic)*

As shown in Figure 4 (attached), the area surrounding the project site is highly developed with predominantly light industrial and commercial uses. Shultz Steel Co. factory property is located on the north side of the project alignment between Rayo Avenue and Los Angeles River. The factory manufactures steel parts for the aerospace industry. Just east of the project site is the Los Angeles River Flood Control Channel operated by Los Angeles County Flood Control District (LACFCD) and property of Los Angeles Department of Water and Power (LADWP). High voltage power lines run through LADWP property that is also used as a plant nursery. Portions of LACFCD and LADWP properties are proposed for ROW acquisition. International Windows Company is located southeast of the project alignment across I-710. Pacer International-PDS Trucking Company, a mixed office building and truck parking/storage building, is located at the west limit of the southern side of the project alignment between Rayo Avenue and Los Angeles River. I-710 is located to the east of the LACFCD, and east of the Site across I- 710 is a Target store property.

**Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility**

<b>Opening Year (2012)</b>		
	<b>No-Build <sup>a</sup></b>	<b>Build <sup>a</sup></b>
<b>Northbound I-710 North of Firestone Boulevard</b>		
ADT	139,372	139,372
Truck Percentage of ADT	8%	8%
Truck ADT	11,150	11,150
<b>Northbound I-710 South of Firestone Boulevard</b>		
ADT	137,261	137,261
Truck Percentage of ADT	8%	8%
Truck ADT	10,981	10,981
<b>Southbound I-710 North of Firestone Boulevard</b>		
ADT	131,665	131,665
Truck Percentage of ADT	4.3%	4.3%
Truck ADT	5,662	5,662
<b>Southbound I-710 South of Firestone Boulevard</b>		
ADT	143,460	143,460
Truck Percentage of ADT	4.3%	4.3%
Truck ADT	6,169	6,169
<b>Firestone Blvd segment west of I-710 (from Rayo Avenue to I-710 SB on/off ramps) <sup>b</sup></b>		
LOS (AM/MID/PM)- EB	B/A/B	A/A/B
LOS (AM/MID/PM)-WB	C/B/B	B/A/B
ADT	85,293	85,293
Truck Percentage of ADT	7%	7%
Truck ADT	5,970	5,970
<b>Firestone Blvd segment over I-710 (from I-710 SB on/off ramps to the I-710 NB on/off ramps) <sup>b</sup></b>		
LOS (AM/MID/PM)- EB	A/B/A	A/A/A
LOS (AM/MID/PM)-WB	A/A/B	A/A/A
ADT	84,141	84,141
Truck Percentage of ADT	7%	7%
Truck AADT	5,890	5,890
<b>Firestone Blvd segment east of I-710 (from I-710 NB on/off ramps to Garfield Avenue) <sup>b</sup></b>		
LOS (AM/MID/PM)- EB	A/B/A	A/A/A
LOS (AM/MID/PM)-WB	B/D/B	A/B/A
ADT	68,613	68,613
Truck Percentage of ADT	7%	7%
Truck ADT	4,803	4,803
Note: <sup>a</sup> Build and No-Build ADT and truck volumes are the same because the proposed project would not result in traffic redistribution. <sup>b</sup> The ADT volumes presented include combination of the eastbound and westbound traffic on Firestone Boulevard Source: PBS&J, Traffic Study Report, June 2010		

**RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility**

<b>Horizon Year (2035)</b>		
	<b>No-Build <sup>a</sup></b>	<b>Build <sup>a</sup></b>
<b>Northbound I-710 North of Firestone Boulevard</b>		
ADT	151,933	151,933
Truck Percentage of ADT	8%	8%
Truck ADT	12,155	12,155
<b>Northbound I-710 South of Firestone Boulevard</b>		
ADT	149,631	149,631
Truck Percentage of ADT	8%	8%
Truck ADT	11,971	11,971
<b>Southbound I-710 North of Firestone Boulevard</b>		
ADT	143,531	143,531
Truck Percentage of ADT	4.3%	4.3%
Truck ADT	6,172	6,172
<b>Southbound I-710 South of Firestone Boulevard</b>		
ADT	156,390	156,390
Truck Percentage of ADT	4.3%	4.3%
Truck ADT	6,725	6,725
<b>Firestone Blvd segment west of I-710 (from Rayo Avenue to I-710 SB on/off ramps) <sup>b</sup></b>		
LOS (AM/MID/PM)- EB	C/B/B	B/A/B
LOS (AM/MID/PM)-WB	B/C/B	A/A/A
ADT	94,770	94,770
Truck Percentage of ADT	7%	7%
Truck ADT	6,634	6,634
<b>Firestone Blvd segment over I-710 (from I-710 SB on/off ramps to the I-710 NB on/off ramps) <sup>b</sup></b>		
LOS (AM/MID/PM)- EB	A/A/A	A/A/A
LOS (AM/MID/PM)-WB	B/C/B	A/A/A
ADT	93,491	93,491
Truck Percentage of ADT	7%	7%
Truck AADT	6,545	6,545
<b>Firestone Blvd segment east of I-710 (from I-710 NB on/off ramps to Garfield Avenue) <sup>b</sup></b>		
LOS (AM/MID/PM)- EB	A/A/A	A/A/A
LOS (AM/MID/PM)-WB	B/F/C	A/B/B
ADT	76,237	76,237
Truck Percentage of ADT	7%	7%
Truck ADT	5,337	5,337

Note:

<sup>a</sup> Build and No-Build ADT and truck volumes are the same because the proposed project would not result in traffic redistribution.

<sup>b</sup> The ADT volumes presented include combination of the eastbound and westbound traffic on Firestone Boulevard

Source: PBS&J, Traffic Study Report, June 2010

**Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT**

Opening Year (2012)		
	No-Build	Build
<b>Firestone Blvd and I-710 SB On and Off Ramps</b>		
LOS (AM/Mid/PM)	B/B/B	B/A/B
<b>Firestone Blvd and I-710 NB On and Off Ramps</b>		
LOS (AM/Mid/PM)	B/C/C	B/B/B
AADT, Truck ADT and Truck ADT Percentage same as above (Opening Year 2012)		

Source: PBS&J, Traffic Study Report, June 2010

**RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT**

Horizon Year (2035)		
	No-Build	Build
<b>Firestone Blvd and I-710 SB On and Off Ramps</b>		
LOS (AM/Mid/PM)	C/C/C	B/B/B
<b>Firestone Blvd and I-710 NB On and Off Ramps</b>		
LOS (AM/Mid/PM)	B/D/C	B/B/B
AADT, Truck ADT and Truck ADT Percentage same as above (Horizon Year 2035)		

Source: PBS&J, Traffic Study Report, June 2010

**Describe potential traffic redistribution effects of congestion relief (*impact on other facilities*)**

The proposed project is an interchange improvement/modification intended to better manage existing traffic flow and enhance safety. As indicated in Tables above, neither mainline nor cross-street ADT is anticipated to change with implementation of the proposed project, as indicated by the project traffic engineers, PBS&J. (Traffic Report, June 2010). Although ADT is not anticipated to change, implementation of the proposed project is anticipated to result in improvements to levels of services within Firestone Boulevard project limits and freeway interchange.

Project improvements would not provide new, nor enhanced access to any parcels along Firestone Boulevard, or any other roadway facility. As such, no traffic redistribution effects are anticipated to occur as a result of proposed project improvements.

**Comments/Explanation/Details** (attach additional sheets as necessary)

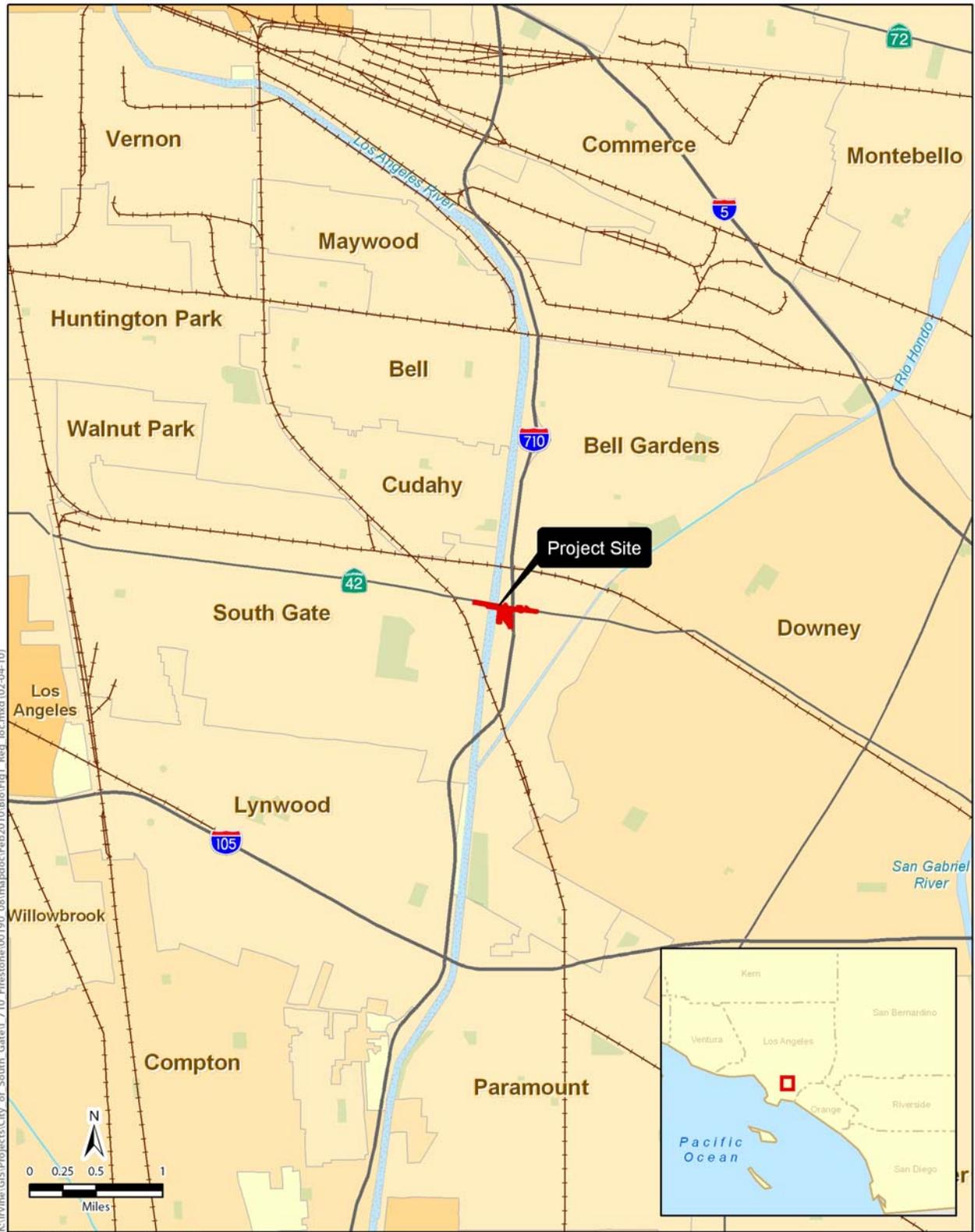
The EPA's March 2006 guidance document *Transportation Guidance for Qualitative Hot-spot Analysis in PM<sub>2.5</sub> and PM<sub>10</sub> Nonattainment and Maintenance Areas* references a two step criteria to identify "a significant volume of diesel truck traffic." The first criterion is facilities with greater than 125,000 AADT volumes. If the first criterion is met, the second criterion is that 8 percent or more of said traffic volumes (i.e., 10,000 vehicles or more) are diesel truck traffic volumes. With respect to traffic volumes along the project limits of Firestone Boulevard, both opening year and horizon year ADT volumes are forecast to be below the above-mentioned screening-level criteria of 125,000 total AADT traffic volumes. Most importantly, the proposed project would have no effect on I-710 mainline AADT or truck traffic volumes. As such, the project does not have potential to result in a substantial number of diesel vehicles within the project area (i.e., the project limits of Firestone Blvd).

As tables above, which summarize mainline truck percentages for opening- and design-year conditions, indicate that implementation of the proposed project would not affect diesel truck traffic volumes or percentages between no build and build conditions. Consequently, the build alternative is not considered a POAQC for PM<sub>10</sub> and PM<sub>2.5</sub> because it would not have an effect on roadway diesel truck traffic volumes or percentages (i.e., effects to truck percentages are below 5% between the no-build and build alternatives). Because the project is not considered a POAQC, the CAA and 40 CFR 93.116 requirements were met without a hot-spot analysis. According to the *Transportation Guidance for Qualitative Hot-spot Analysis in PM<sub>2.5</sub> and PM<sub>10</sub> Nonattainment and Maintenance Areas*, this project is not a project of air quality concern under 40 CFR 93.123(b)(1) (i) and (ii).

**References**

Federal Highway Administration and U.S. Environmental Protection Agency. 2006. *Transportation conformity guidance for qualitative hot-spot analyses in PM<sub>2.5</sub> and PM<sub>10</sub> nonattainment and maintenance areas*. Washington, D.C.

PBS&J. 2010. *I-710/Firestone Blvd Interchange, Phase IV, City of South Gate, California-Memorandum for Traffic Data for Air Quality Analysis*. June 28, 2010.



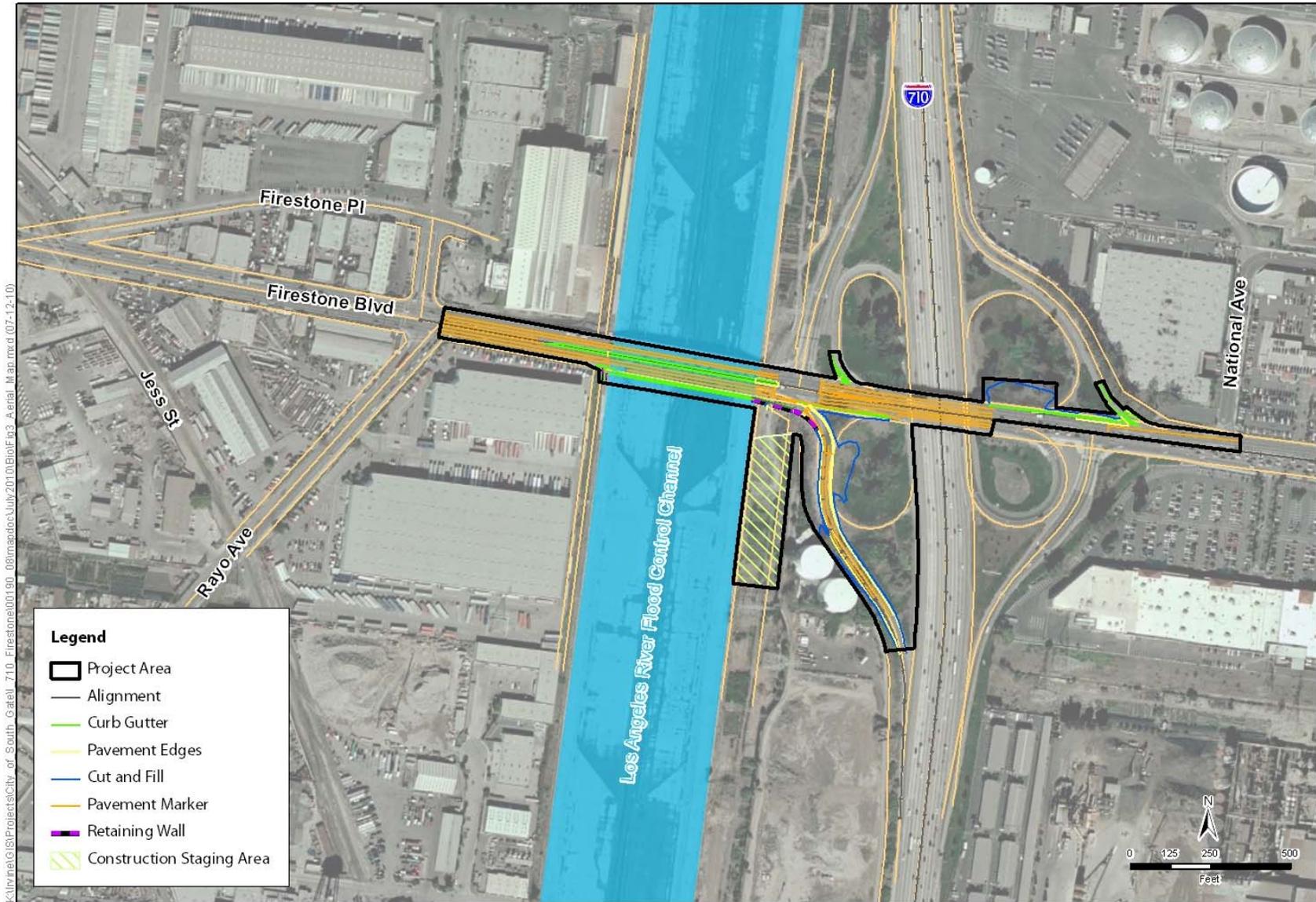
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SOURCE: ESRI Streetmap USA (2008)

**Figure 1**  
**Project Location**



**Figure 2**  
**Project Vicinity Map**



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SOURCE: ESRI Streetmap USA (2008)

**Figure 3**  
**Layout Plan**



**Figure 4**  
**Existing Land Use**