REQUEST FOR COUNCIL ACTION

CITY COUNCIL MEETING DATE:

DECEMBER 2, 2014

TITLE:

APPROVE SANTA ANA GRADE SEPARATION PROJECT REPORT EQUIVALENT (PRE) AND RECEIVE AND FILE ENVIRONMENTAL CLEARANCE {STRATEGIC PLAN NO. 5,4,6 and 6,1}

CITY MANAGER

CLERK OF COUNCIL USE ONLY:

APPROVED

- ☐ As Recommended
- ☐ As Amended
- ☐ Ordinance on 1st Reading
- ☐ Ordinance on 2nd Reading
- ☐ Implementing Resolution
- ☐ Set Public Hearing For_____

CONTINUED TO _____

FILE NUMBER _____

RECOMMENDED ACTION

1. Approve the Santa Ana Grade Separation Project Report Equivalent (PRE).
2. Receive and file the Notice of Exemption (NOE) for this project dated June 23, 2014.

DISCUSSION

Santa Ana Boulevard is a six-lane east-west principal arterial and carries in excess of 20,000 vehicles per day. Santa Ana Boulevard crosses the OCTA Metrolink Railroad at grade, causing traffic flow interruption when the train is near station, with little to no pedestrian and bicycle safety or protection at the crossing.

Due to increasing demand for inter- and intracounty rail services resulting from growth in population and employment in the surrounding areas, a grade separation at Santa Ana Boulevard and the OCTA Metrolink Railroad is needed to alleviate the current and potential traffic impacts and hazards posed by the existing at-grade rail crossing. This project will minimize the potential conflicts between trains and pedestrians, bicyclists, and vehicles while also providing better connectivity, improving air quality, enhancing emergency response time and improving the quality of life of the community. The grade separation would also accommodate a future extension of the streetcar across the railroad should that be needed.

Approval of the project's PRE fulfills the city's responsibilities of analyzing the best geometric alignment and developing a corresponding cost estimate, and filing the NOE completes the project's environmental review requirements. Fulfilling these steps qualify the project for design and construction funding.

The OCTA Metrolink Railroad is a north-south, two-track railroad. This railroad serves Metrolink, Amtrak, Union Pacific (UP), and Burlington Northern Santa Fe (BNSF), which connects freight and residents of central Orange County with the outlying areas of nearby regions, including Los Angeles, the Inland Empire, San Diego and beyond. Local passenger access to the trains is via the Santa Ana Regional Transportation Center (SARTC).

City staff, in conjunction with OCTA, secured $1,500,000 for the preparation of a Project Report Equivalent (PRE) and Environmental Document (ED) and conceptual engineering for the project. The PRE has now been completed. The PRE analyzed a single build alternative for an underpass. The proposed alignment minimizes impacts to the Logan Neighborhood while minimizing the right of acquisition and relocation of businesses.

The underpass lowers Santa Ana Boulevard under the existing railroad tracks and minimizes the visual impacts. The underpass also provides two new pedestrian bridges on the east and west sides of the railroad bridge which enhances connectivity from SARTC (Santa Ana Regional Transportation Center) to the Logan neighborhood and industrial properties east of the railroad tracks and north of Santa Ana Boulevard. Additional landscaping would be provided in the retaining/slope areas on both sides of Santa Ana Boulevard. The roadway typical section accommodates a Class I Bike Lane, pedestrian plaza, and Fixed Guideway extension (Exhibit 1).

Though not required as part of the ED, several community meetings were held to determine the public's concerns related to this priority project. The following meetings were held:

- A Logan Neighborhood meeting (October 5, 2009),
- A Stakeholder Working Group Meeting for the Fixed Guideway Project (June 3, 2010), and
- A Public Information Meeting (December 18, 2013).

The input received was instrumental in providing project features that minimized the impact to the community, including the pedestrian bridges, landscaping and final alignment.

City Council action to approve the PRE will position this project for funding. Staff recommends its approval and will continue to work with OCTA to fund this priority infrastructure project.

STRATEGIC PLAN ALIGNMENT

Approval of this item supports the City's efforts to meet Goal #5: Community Health, Livability, Engagement and Sustainability (Objectives 4 and 6) by adding transportation connectivity for all, and Goal #6: Community Facilities & Infrastructure (Objective 1) by providing enhanced rail, transit, bicycling, walking and roadway infrastructure. This project also provides for the City's streetcar project that will service the City's historic downtown, courthouses, businesses, the Artist's Village and several colleges.

ENVIRONMENTAL IMPACT

In accordance with the California Environmental Quality Act, the proposed project is exempt from future review. A Statutory Exemption has been filed for the project. In addition, a Certification of Categorical Exemption and a Statutory Worksheet have been prepared in accordance with the National Environmental Policy Act.

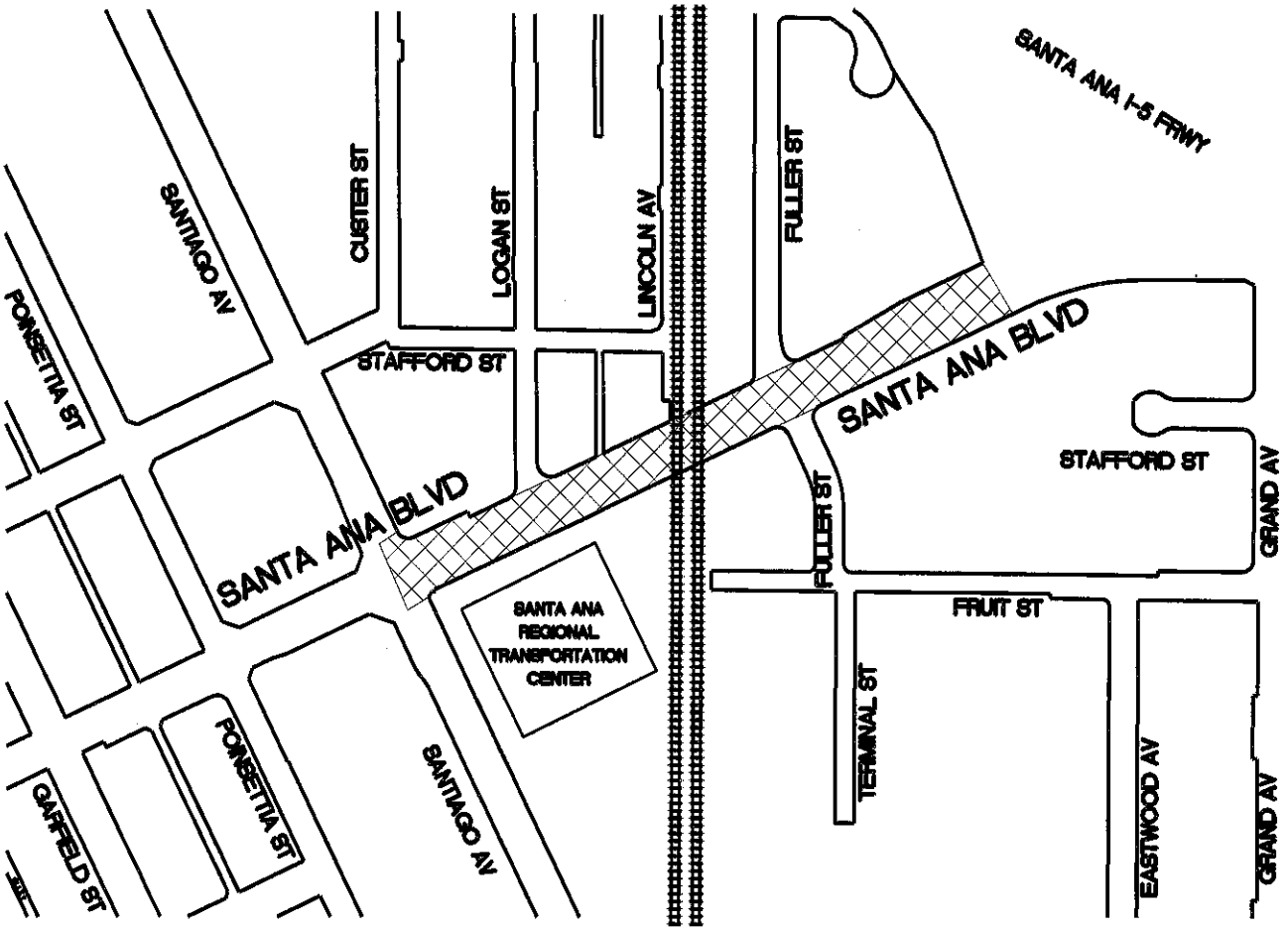
FISCAL IMPACT

There is no fiscal impact associated with this item.

Fred Mousavipour
Executive Director
Public Works Agency

FM/EWG/MS

Exhibits:
1. Project Map
2. Project Report Equivalent (CD)
3. Statutory Exemption



LEGEND:

PROJECT LIMITS

EXHIBIT 1

SANTA ANA PWA PUBLIC WORKS AGENCY

CITY COUNCIL AGENDA DATE: DECEMBER 02, 2014

PROJECT MAP

SANTA ANA GRADE SEPARATION

DOWNTOWN ORANGE COUNTY SANTA ANA 1869

Santa Ana Boulevard Grade Separation
12-Ora-Local
OCTA Project No. xxxx
Federal Project Number: STPL 5063(136)

PROJECT REPORT EQUIVALENT

For Project Approval of the

Santa Ana Boulevard Grade Separations Project

REVIEWED and RECOMMENDED:

Jason Gabriel, PE
Project Manager, City of Santa Ana

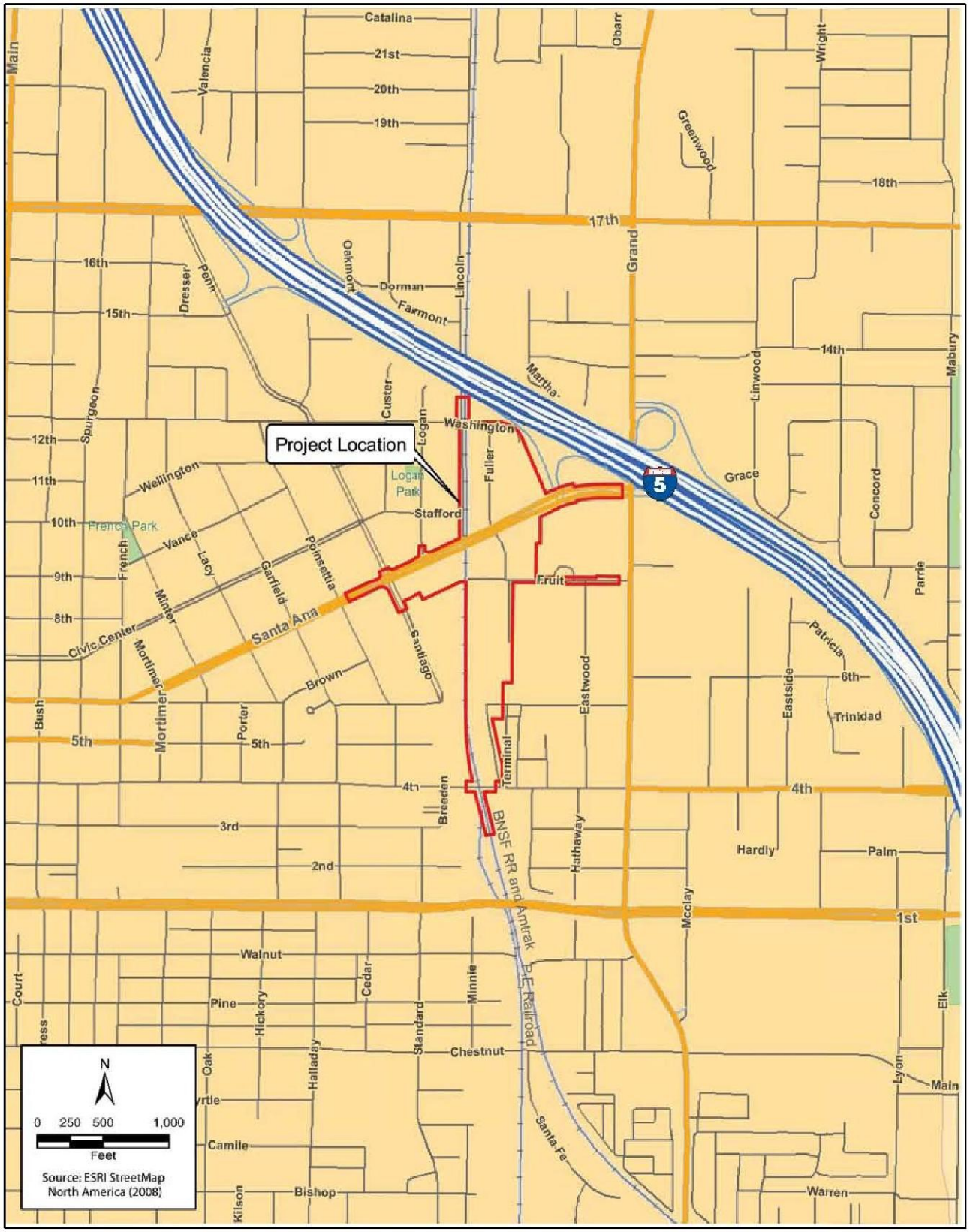
Date

APPROVED:

xxxx
xxxx

Date

Exhibit 2
19E-7



Vicinity Map

This Project Report Equivalent (PRE) has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

	08/14/14
Chuanche Ting, P.E. Project Manager	*DATE*

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1 INTRODUCTION

The City of Santa Ana (City) and Orange County Transportation Authority (OCTA), in cooperation with Caltrans and the Federal Highway Administration (FHWA), propose to grade separate the current at-grade crossing of Santa Ana Boulevard with the Southern California Regional Rail Authority (SCRRA) double tracks. The project objective is to eliminate the at-grade crossing of the railroad traffic and the vehicular traffic; improve safety at the crossing for pedestrians, bicyclists and motorists; provide unimpeded access for emergency responders; and, enhance traffic operations and reduce existing traffic congestion and delay.

Both an overhead alternative and an underpass alternative were considered. The overhead alternative was deemed non-viable because of concerns and opposition expressed by members of an adjacent neighborhood. A No-Build Alternative was not considered, with the exception of within the traffic studies discussed later in this report, as it does not meet the project objective.

The preferred alternative will construct a railroad underpass structure to carry SCRRA trains over Santa Ana Boulevard, depressing the current grade of the roadway and maintaining the railroad profile. Project cost for the preferred alternative has been estimated to be approximately $71.2 million, which includes $43.3 million for construction, $15.6 million for right-of-way acquisition and utility work, and $12.3 million for administration support. Tentatively, the project will be funded by a combination of federal, state, and local funds.

2 RECOMMENDATION

It is recommended that the project be approved using the Preferred Alternative (underpass structure) and that the project proceed to the design phase. Local agency concurrence for the project has been obtained as the local agency (City of Santa Ana) is the lead agency.

3 BACKGROUND

3.1 Project History

This highway-rail at-grade crossing is located along the Los Angeles to San Diego (LOSSAN) Corridor, which is the primary north/south rail corridor connecting the cities of Los Angeles and San Diego, as well as cities in between including some within Orange County. The LOSSAN Corridor is owned by OCTA, with Metrolink commuter rail service maintained and operated by the SCRRA. The Burlington Northern Santa Fe (BNSF) Railway, the Union Pacific Railroad (UPRR), and Amtrak all have been granted user rights by OCTA.

Because it is the primary north/south rail corridor, the LOSSAN Corridor is becoming increasingly burdened due to the demand of commuter rail and freight rail, operations. OCTA recently completed construction of a project for the purpose of increasing the capacity of the corridor, the Metrolink Service Expansion Project (MSEP). The MSEP will increase capacity to accommodate OCTA's planned expansion of commuter rail operations, targeting a 30 minute headway resulting in rail service at each station within the corridor every 30 minutes for commuter rail service within the next couple of years. In addition, due to the increase in train movements resulting from the expansion of the Ports of Los Angeles and Long Beach, freight service has also increased. Finally, increased development, and accompanying traffic has increased delay at the existing highway-rail crossing.

OCTA has embarked on an ambitious program, which began in 2009 to grade separate 13 at-grade highway-rail crossings within Orange County. The first group of those, three are

currently under construction and four others are scheduled to go to construction by 2014. This project is part of the next group of projects to advance.

The City nominated this project with the California Public Utilities Commission (PUC) for the 2012-2013 Grade Separation Priority List and received a ranking of xxx.

3.2 Community Interaction

A Project Development Team (PDT) was identified to foster collaborative communications among the stakeholders which includes representatives from OCTA, Caltrans, and City. The representatives have actively participated in the engineering and environmental studies leading up to the development of this Project Report Equivalent

A public informational meeting was held on December 18, 2013, in the City of Santa Ana. The preferred alternative and technical studies were presented to approximately 33 attendees representing the local community. Representatives from OCTA, Caltrans, City of Santa Ana, AECOM, and ICF International were present to address questions from the general public. In general, the public expressed support for the project.

3.3 Existing Facility

Santa Ana Boulevard is listed in the City's General Plan as a 6-Lane Primary Arterial, which is defined as a roadway with 100 feet of right-of-way width and includes 3 traffic lanes for a total of 35 feet of traveled way in each direction, a 14-foot median, and 8-foot parkways. Currently, Santa Ana Boulevard is a six-lane street with left turn pockets located in each direction at the intersections with Santiago Street and the I-5 southbound on and off ramps. The right of way along Santa Ana Boulevard is 104 feet in width.

The railroad right-of-way is owned by OCTA and the tracks are maintained by SCRRA. In addition, Amtrack commuter trains as well as freight rail service provided by BNSF have licenses with OCTA for use of the tracks.

The land use surrounding the project site varies and includes industrial uses in the northerly quadrant; various industrial uses, including parts of the Orange County maintenance yard and a junkyard in the easterly quadrant; the Santa Ana Regional Transportation Center (SARTC) in the southerly quadrant; and, single-family dwellings in the westerly quadrant.

4 PURPOSE AND NEED

4.1 Need

Increased traffic on Santa Ana Boulevard and increased train movements on the LOSSAN line have resulted in the increase of delays at the existing highway-rail crossing of Santa Ana Boulevard and the SCRRA double-track. These delays have not only affected the traveling public, but also have impacted access by emergency vehicles. This is compounded by the fact that there is currently only one other grade separation located at 1st Street, within the city limits, increasing the importance to the City's traffic circulation as the project will provide another unimpeded access across the railroad.

Also, safety at the crossing is a major concern. Since 1977, there have been four separate accidents at this crossing, averaging about one every eight years. These four accidents are classified as follows: one involved an Atchison Topeka Santa Fe (ATSF) train striking a vehicle stopped on the tracks; two others involved a motorist driving around the gates and being struck by an ATSF train; and one involved an AMTRAK train hitting a pedestrian walking on the tracks. Please see Section 4.3.1, Accident Analysis-Vehicle/Train, of this

report, and Attachment A for copies of the Highway-Rail Crossing Accident/Incident Reports for additional details.

4.2 Purpose

The primary project objective is to minimize potential conflicts between trains, vehicles, and pedestrians. The project also aims to alleviate traffic congestion and delayb and provide better connectivity by constructing a grade separation structure with the railroad and retiring the existing at-grade crossing. The proposed project is deemed required and necessary, and is supported by various public agencies.

4.3 Deficiencies

Safety at the crossing is a major concern to OCTA and the City. Accident/Incident Reports were obtained from the CPUC website. These reports, included as Attachment A, range from December 1977 to January 2000, and document four accident/incidents, described in Table 1.

Table 1 - Summary of Accident Data from the CPUC

Location	Number of Accidents				Primary Collision Factor	
	Fatal	Injury	Non-Injury	Total		
Santa Ana Boulevard Highway-Rail Crossing	1	0	3	4	Pedestrian	1
					Stopped on Crossing	1
					Drove Around/Through Gate	2
					Did Not Stop	0
					Stopped and Then Proceeded	0
					Other	0

This table shows there was a fatality, as one person was killed while walking on the tracks.

4.4 Regional and System Planning

The project has been programmed in the Federal Transportation Improvement Program (FTIP) as Federal Project Number ORA082610, and in the Regional Transportation Plan (RTP) as project number 2TR0704.

4.5 Traffic

A Traffic Study was prepared and received technical approval from Caltrans on August 28, 2012. The study evaluated rail-highway grade crossing delay in the existing condition (2011), opening year (2016) and future year (2035). In addition, the study focused on locations that could be directly affected by the proposed grade separation project. Level of service (LOS) was conducted at these intersections in the existing condition (2011), opening year (2016) and future year (2035) with and without the project. Detailed methodologies and analysis results can be referenced in the traffic study.

One of the project's needs is to eliminate delays at the current at-grade crossing. Since the project eliminates the at-grade crossing, this analysis is not performed under "with project" conditions. The delays are summarized in Table 2.

Table 2 - Rail-Highway Grade Crossing Delay Analysis without Project

Study Year	Train Frequency (trains per day)	Daily Delay (minutes/vehicle)	AM Peak Delay (minutes/vehicle)	PM Peak Delay (minutes/vehicle)
Existing 2011	66	0.10		
	8/10 (AM/PM) trains per hour		0.28	0.32
Project Opening 2016	71	0.13		
	8/10 (AM/PM) trains per hour		0.34	0.41
Future 2035	105	0.20		
	8/10 (AM/PM) trains per hour		0.43	0.48

Table 3 summarizes the intersection LOS with and without the project in the existing condition (2011), project opening (2016) and future condition (2035). Existing traffic volumes were collected at the study intersections. Opening year volume is composed of existing count data, background growth, and the traffic that is anticipated to occur based on known development projects within the vicinity of the study area. The future year condition accounts for major plans within the study area, including the Santa Ana Fixed Guideway (Streetcar), Santa Ana Regional Transportation Center (SARTC) Expansion, and Transit Zoning Code Environmental Impact Report.

As shown in Table 3, all study area intersections are forecast to operate at acceptable LOS with the project except for that of Fuller Street/Santa Ana Boulevard. It should be noted that this location experiences significant delays on the minor street approach (Fuller Street) due to the high volume on Santa Ana Boulevard that is not required to stop. Utilizing the Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (MUTCD) Signal Warrant 3 (Peak Hour Warrant), this location does not warrant a signal under existing, project opening, and future conditions. In addition, this location will operate at LOS F without the project; as such, the additional delay (less than the 1% threshold of significance) with the project would not constitute a significant impact.

At all other locations, the project will result in minimal changes to the intersection capacity utilization (ICU) values (none greater than the 0.010 ICU threshold) or the average delays (less than 1%) per vehicle. Overall, the project and associated improvements can be implemented without significantly impacting any of the study area intersections or roadway segments. The proposed project will provide a net benefit by reducing the congestion along Santa Ana Boulevard caused by daily train crossings by removing the existing at-grade conflict between vehicular traffic and rail traffic.

Table 3 - Intersection LOS

Year	Intersection	Traffic Control	Without Project				With Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
Existing (2011)	Santiago St/Santa Ana Blvd	Signal	0.479	A	0.538	A	0.532	A	0.588	A
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
	Grand Ave/Santa Ana Blvd	Signal	28.1	C	25.7	C	28.1	C	25.7	C
	Santiago St/Civic Center Dr	AWSC	11.4	B	12.3	B	11.6	B	12.4	B
	Logan St/Santa Ana Blvd	TWSC	11.2	B	9.7	B	n/a[2]		n/a[2]	
	SARTC Dwy/Santa Ana Blvd	TWSC	9.7	A	11.8	B	9.7	A	11.8	B
	Fuller St/Santa Ana Blvd	TWSC	**>50**	**F**	**>50**	**F**	**>50**	**F**	**>50**	**F**
	I-5 SB Ramps/Santa Ana Blvd	Signal	25.5	C	26.4	C	25.6	C	26.4	C
Opening Year (2016)			ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
	Santiago St/Santa Ana Blvd	Signal	0.521	A	0.598	A	0.587	A	0.662	B
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
	Grand Ave/Santa Ana Blvd	Signal	28.8	C	26.4	C	29.4	C	26.7	C
	Santiago St/Civic Center Dr	AWSC	12.3	B	13.3	B	12.8	B	13.9	B
	Logan St/Santa Ana Blvd	TWSC	11.6	B	9.8	A	n/a[2]	n/a[2]	n/a[2]	n/a[2]
	SARTC Dwy/Santa Ana Blvd	TWSC	9.9	A	12.5	B	10.0	A	12.7	B
	Fuller St/Santa Ana Blvd	TWSC	**>50**	**F**	**>50**	**F**	**>50**	**F**	**>50**	**F**
	I-5 SB Ramps/Santa Ana Blvd	Signal	26.0	C	26.6	C	26.3	C	26.8	C
Future Year (2035)			ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
	Santiago St/Santa Ana Blvd	Signal	0.771	C	0.774	C	0.771	C	0.773	C
	Santiago St/Civic Center Dr	Signal	0.559	A	0.610	B	0.565	A	0.619	B
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
	Grand Ave/Santa Ana Blvd	Signal	32.1	C	37.8	D	32.1	C	37.8	D
	Logan St/Santa Ana Blvd	TWSC	12.9	B	10.7	B	n/a[2]	n/a[2]	n/a[2]	n/a[2]
	SARTC Dwy/Santa Ana Blvd	TWSC	9.7	A	14.7	B	9.7	A	14.7	B
	Fuller St/Santa Ana Blvd	TWSC	**>50**	**F**	**>50**	**F**	**>50**	**F**	**>50**	**F**
	I-5 SB Ramps/Santa Ana Blvd	Signal	31.7	C	30.7	C	31.8	C	30.7	C

Notes:
AWSC – all-way stop controlled intersection; TWSC – two-way stop controlled intersection; Delay expressed in terms of seconds
***Bold** denotes unacceptable LOS*
[1] ICU reported for all signalized locations, except Caltrans facilities. Delay (reported in seconds per vehicle) is reported for all unsignalized intersections and Caltrans facilities. For AWSC, the average delay is calculated whereas for TWSC, the delay of the worst approach is calculated.

5 ALTERNATIVES

The Project Development Team (PDT) explored various alternatives to address the need and purpose of this project, taking into account the constraints presented by the project area and the City's desired traffic operations. Both an overhead alternative and an underpass alternative were discussed among the PDT members. However, the overcrossing alternative was deemed non-viable because of concerns and opposition expressed by members of an adjacent neighborhood. A No-Build Alternative was not considered, with the exception of within the traffic studies

discussed later in this report, as it does not meet the project objective. With this, the PDT members elected to study the underpass alternative as the single-build alternative and it was selected as the locally recommended alternative. Refer to Attachment B for the proposed layout, typical section and profile of the locally recommended alternative.

5.1 Alternative Description

5.1.1 Design Parameters

The governing standards for the horizontal and vertical roadway alignment alignments are Caltrans and American Association of State Highway and Transportation Officials (AASHTO) standards and practices. Caltrans Highway Design Manual (HDM) was used to determine the minimum inside radius for the horizontal curves and AASHTO's Policy on Geometric Design of Highways and Streets was used for to determine minimum curve length for crest and sag vertical curves.

Selected specific design parameters include the following:

- Design Speed: 45 mph
- Vertical Clearance: 16'-6"
- Cross-Section: 100' right-of-way width (minimum)

5.1.2 Horizontal Layout

The horizontal alignment of this alternative is based on the standards listed above. The alignment features a slight shift of the roadway centerline to the south to accommodate a utility corridor and a landscaped-retaining-slope area along the northerly right-of-way. The utility corridor will allow the relocation of the water and sewer line and preserves an existing underground electric transmission line. The landscaped-retaining-slope area would reduce the impact of the proposed retaining wall and provide an additional buffer adjacent to the residential properties. Shifting the alignment southward also eliminates the need to acquire right-of-way from residential properties to the north, given there is space available to the south at the City owned SARTC parking area.

5.1.3 Profile

This alternative will depress the roadway profile to allow for an underpass bridge that carries the railroad tracks over Santa Ana Boulevard. The proposed profile will join the existing grade at the Santiago Street intersection to the west and the I-5 southbound off-ramp to the east. The new Santa Ana Boulevard profile is designed to provide a minimum of 16.5 feet clearance to the soffit of the underpass structure utilizing 6% grades for the approaches.

5.1.4 Cross-Section

Santa Ana Boulevard is designed as a six-lane primary arterial with three traffic lanes and a total of 35 feet of traveled way in each direction, plus a 15-foot median. The northerly parkway will be widened to accommodate the utility corridor and the landscape-retaining-slope area. The southerly parkway will remain at the standard width of eight feet. Landscaping will not be proposed within the southerly parkway. However, a 50-foot landscaped embankment will be incorporated to the south to eliminate the need for a retaining structure against the SARTC. The 50-foot buffer will also accommodate future developments including a street car corridor and the SARTC Master Plan.

5.1.5 Adjacent Streets

Access from Logan Street to Santa Ana Boulevard will be terminated with a cul-de-sac on Logan Street. The intersection of Fuller Street and Santa Ana Boulevard will be reconfigured

on the south side of Santa Ana Boulevard into a T-intersection that will allow full access to Santa Ana Boulevard from the south. The north leg will be terminated with a cul-de-sac and connectivity with Santa Ana Boulevard will be reestablished with a new access road. Due to the proximity to the southern leg of Fuller Street, access will be limited to right-in/right-out.

5.2 Structure

The proposed underpass structure will match the current horizontal and vertical alignment of the two existing Metrolink tracks and span Santa Ana Boulevard which will be depressed under the tracks at this location. In addition, the underpass structure is also designed to meet the needs of the City's SARTC Master Plan, which entails new station areas, additional parking, and improved pedestrian and bicycle access as well as a future street car corridor, resulting in a four-span, simply-supported structure. The proposed underpass superstructure is a steel girder bridge since this is the SCRRA preferred bridge type for span length between 15 feet to 72 feet. Refer to Attachment C for the Bridge General Plans.

5.3 Pedestrian Bridge

Two pedestrian bridges are proposed to flank both sides of the proposed railroad underpass structure. The proposed pedestrian bridges will provide connectivity between the residential neighborhood west of the railroad and potential mix-use developments east of the railroad bridge at the SARTC. The exact bridge type and configuration will be determined during the next phase of the project. Refer to Attachment D for a typical section of the proposed pedestrian bridge.

5.4 Stage Construction

Stage construction is a critical component of this project as it affects right-of-way acquisition and access to the local businesses and properties. A detailed analysis and design for staging should be completed during the next phase of the project. However, several critical components have been identified and incorporated into the overall design during this phase. The following is a summary of construction staging. Attachment E contains plans of the concept.

The first phase of construction involves constructing the shoofly and shifting Santa Ana Boulevard south of its current alignment onto a detour road. The shoofly is needed to maintain railroad operations. The shoofly is designed to maintain existing design speeds. A copy of the shoofly layout is included in Attachment F. The detour road will provide two travel lanes in each direction for the duration of the stage for approximately 12 months. Reducing the number of travel lanes will still allow Santa Ana Boulevard to operate at LOS A.

The second phase of the construction will require complete closure of the eastbound direction on Santa Ana Boulevard, detouring eastbound traffic to Fruit utilizing the detour road. Westbound traffic will be maintained on the newly constructed roadway.

The staging concept allows the railroad to remain fully operational during construction, although minor closures will be needed to allow switching over to the shoofly. The placement of the shoofly will allow the continued use of the easterly platforms at SARTC, greatly reducing the need for temporary platforms. It is noted that on June 3, 2014, Amtrak representatives agreed to a temporary platform length of 800 feet.

5.5 Right of Way

Right-of-way needs are driven by the staging concept. Additional right-of-way is needed to construct a temporary detour road south of existing Santa Ana Boulevard and temporary

shoofly tracks east of existing railroad tracks. Nine parcels will require full acquisition, three parcels will require partial acquisition, and ten parcels will require temporary construction easements. Due the preliminary nature of this study, individual property owners were not consulted to determine the extent of the impacts to their properties. Full acquisition of a parcel is assumed where the proposed shoofly or detour road will impact an existing building, otherwise, temporary construction easements are assumed. Refer to Attachment G for a breakdown of the right-of-way requirements.

5.6 Drainage

The drainage designs for the preferred alternative of the project follows the current Orange County Hydrology Manual (1986) and City of Santa Ana engineering design standards. Generally, 100-year and 25-year storm water discharges will be studied for sump conditions and gravity/flow-by conditions respectively.

The project site currently receives surface flows generally from northeast to southwest by means of street flow. There is an existing storm drain system consisting of a 24-inch reinforced concrete pipe (RCP) and catch basins at Santa Ana Boulevard near the existing railroad at-grade crossing that receives surface flow from the project site and offsite flows from north of Santa Ana Boulevard. The project site runoff then drains to Santa Ana Delhi Channel and eventually discharges to Upper Newport Bay and Lower Newport Bay.

In the proposed condition, a pump station and new catch basins are proposed to collect runoff in the newly created sump along Santa Ana Boulevard. The outflow from the pump station will be discharged to the existing 24-inch drainage system along Santa Ana Boulevard west of the project limit. A portion of the existing 24-inch RCP conflicting with the proposed improvements will be removed and a drainage system will be reestablished between the existing drainage system and the pump station. It is noted that the exact location and configuration of the pump station will be determined in the next phase of the project as details of the SARTC Master Plan and Street Car Corridor become available. Tentatively, the pump station is located next to the Fuller Street cul-de-sac since this is the area least impact by future SARTC expansion.

The drainage pattern at Santiago Street near the project is not anticipated to be changed; however, additional catch basins should be considered at the northeast corner of the Santa Ana Boulevard / Santiago Street intersection to reduce surface flow traveling toward the proposed sump. The street flow along Logan Street and Lincoln Avenue north of Santa Ana Boulevard will be captured by an at grade swale before the underpass.

5.7 Utilities

Refer to Attachment H for exhibits showing existing and proposed utilities. There are numerous existing utilities within the project footprint. Based on field investigation, as-built plan research, and coordination with various utilities owners, the existing utilities are summarized below.

City of Santa Ana:

12" waterlines: A 12" waterline runs east-west along the Santa Ana Boulevard. It ties into a 16" waterline to near the intersection of the Santa Ana Boulevard and Santiago Street and tees into a 20" waterline running north-south direction along the Fuller Street to the east. A 20" waterline continues to the east under Santa Ana Boulevard until it connects to the 16" waterline along Grand Avenue.

8" water lines: Two 8" waterlines are identified within the proposed project area. Both are fed from the 12" waterline along the Santa Ana Boulevard. The first waterline flows northerly along Logan Street north of the Santa Ana Boulevard, the second one runs southerly along Fuller Street from the 20" waterline in Santa Ana Boulevard until it ties into the 8" waterline on Fruit Street.

6" waterline: A 6" waterlines have been identified in the north-south direction just west of the railroad. The waterline is also connected to the waterline underneath Santa Ana Boulevard. The waterline continues to the north underneath Lincoln Avenue.

20" waterline: A 20" waterline is located under Fuller Street that extends north from Santa Ana Boulevard.

Sewer: City of Santa Ana sewers are generally running in the north-south direction and are connected to the Orange County Sanitation District (OCSD) sewer main underneath Fruit Street. They are summarized as follows:

Santiago Street	8"
Logan Street	6"
Lincoln Avenue/Railroad	6"
Fuller Street	6"/8"

Orange County Sanitation District (OCSD):

18" sewer trunk main: The 18" sewer runs in the east-west direction underneath Fruit Street. The sewer line continues to the east passing under the SARTC parking area and under Santa Ana Boulevard east of Santiago Street.

Southern California Gas (SCG):

With the exception of a short segment between Santiago Street and Logan Street, all SCG gas lines are limited to side streets. The locations of existing gas lines are summarized as follows:

Santa Ana Boulevard	4" (between Santiago Street and Logan Street)
Logan Street	2"
Lincoln Avenue/Railroad	2"
Fuller Street	2" (north of Santa Ana Boulevard)
Fruit Street	3"

Southern California Edison (SCE):

Underground cables: Underground cables are identified along the south side of Santa Ana Boulevard, west side of Lincoln Avenue, and west side of Fuller Street within the project area. Some underground SCE facilities can also be found on the north side of the Santa Ana Boulevard between Santiago Street and Fuller Street.

Aerial Facilities: Power poles and aerial wires are found along the east side of Fuller and north side of Santa Ana Boulevard.

AT&T

AT&T's facilities are located along Santiago Street, Logan Street, Fuller Street, and Fruit Street. A short segment is also located under the SARTC parking area south of Santa Ana Boulevard.

Verizon

Verizon overhead lines are located along Lincoln Avenue, Fuller Street and Fruit Street.

Metrolink

Metrolink's telecommunication and signal control cables are located within the railroad right of way and along the railroad tracks.

Impacts to existing utilities are mainly as a result of depressing Santa Ana Boulevard roadway profile limiting the ability of utilities along side streets to continue across Santa Ana Boulevard. To that end, the following strategies are proposed:

City of Santa Ana:

Water: The 12" waterline under Santa Ana Boulevard will be relocated to a proposed parallel utility corridor north of Sana Ana Boulevard. This will allow the waterline to maintain existing ground profile as the utility corridor will not be depressed. Minor waterlines along the side streets to the north will also be able to retain their connectivity to the 12" waterline. East of Fuller Street, the 20" waterline will be relocated behind the northerly retaining wall. Additional study is needed to determine if the 8" waterline under Fuller Street south of Santa Ana Boulevard can be removed.

Sewer: Although the existing OCSD trunk main can remain in place underneath the SARTC parking area, connectivity to sewer service lines from Logan Street, Lincoln Avenue, and Fuller Street will be disrupted by the depressed Santa Ana Boulevard roadway profile. As a result, a 12" sewer is proposed to be placed in the same utility corridor to collect service lines from the north and reconnect to the OCSD trunk line near Santiago Street. It is noted that since the proposed 12" line will be at a higher elevation at Lincoln Avenue/Railroad crossing, the existing sewer service line along Lincoln Avenue/Railroad will need to be reconstructed at a higher elevation as well.

Dry Utilities (Eletric, Telephone, and Gas):

Due to a general lack of dry utilities located within Santa Ana Boulevard, existing dry utilities can be generally protected in place. It is noted that the utility corridor will allow for the protection of existing SCE underground line paralleling Santa Ana Boulevard. Additional coordination efforts are need in the next phase of the project.

5.8 Cost Estimate

A detailed cost breakdown for the preferred alternative is included as Attachment I. The following table summarizes the cost for the construction and support components.

Table 4 - Cost Breakdown

Construction Cost	**$43.3M**
Roadway	*$33.1M*
Structures	*$10.2M*
Right-of-Way	**$15.6M**
Total Project Capital Outlay	*$59.9M*
Support (PS&E, Right-of-Way, Construction, Program Management)	*$12.3M*
Total Project Cost	**$71.2M**

6 ENVIRONMENTAL DETERMINATION

Caltrans is the National Environmental Policy Act (NEPA) Lead Agency for this project. Initially, Caltrans determined that the appropriate environmental documentation for NEPA compliance is an Environmental Assessment (EA). Refer to Attachment J for the Preliminary Environment Study (PES). However, upon the completion of the required technical studies and public meeting, it was determined that the project is Categorically Excluded (CE). The Categorical Exemption / Categorical Exclusion Determination Form is included as Attachment K. The project is also Statutorily Exempt (SE) from the California Environmental Quality Act (CEQA) per Section 15282(g). City has filed the Notice of Exemption (NOE) as the lead agency on June 23, 2014.

The PES recommended the following technical studies to support these documents: Traffic Study; Noise Study Report; Air Quality Assessment Report; Initial Site Assessment; Water Quality Memorandum; Natural Environmental Study-Minimum Impact; Visual Impact Assessment; Relocation Impact Memorandum; Historical Property Survey Report; Archaeological Survey Report, Historic Resources Evaluation Report, and Community Impact Assessment. The Environmental Commitment Record listing various mitigation measures is included as Attachment L. The result of the Traffic Study is included in Section 4.5 and the results of the remaining studies are included as follows:

6.1 Noise Study Report (NSR):

The NSR determined that six of the 16 modeled receivers (representative of six residences or noise-sensitive receptors) would approach or exceed the FHWA/Caltrans noise abatement criteria (NAC) for Activity Category B and C land uses with the implementation of the project. Noise abatement in the form of soundwalls was considered. Two soundwalls were found to be acoustically feasible and the estimated cost to construct was compared with the reasonable allowance. NB-2 was determined to be reasonable to construct at heights of 12 to 16 feet.

During construction of the proposed project, noise from construction activities would intermittently dominate the noise environment in the immediate area of construction. Conventional construction equipment is expected to generate maximum noise levels ranging from 75 to 99 decibels (dB) at a distance of 50 feet, while noise from pile driving, if necessary, would generate maximum noise levels of approximately 101 dB at a distance of 50 feet. Noise produced by construction equipment would diminish over distance at a rate of about 6 dB per doubling of distance. No adverse noise impacts from construction are anticipated because construction would be conducted in accordance with the Department's

provisions in Section 14-8.02, "Noise Control" of the Draft 2010 Standard Specifications and Special Provisions (SSP S5-310), and applicable local noise standards.

The closest residences to the project site are within 50 feet from the project construction areas. Therefore, these residences may be subject to short-term noise reaching 95 dBA maximum sound level (L max) or higher generated by project construction activities.

Proposed avoidance and/or minimization measures include:

N-1 Comply with the construction hours specified in the City of Santa Ana Municipal Code, Noise Section 18-314.

N-2 Noise control will conform to the provisions in Section 14-8.02 and Standard Special Provision S5-310. The noise level from the contractor's operations between the hours of 9:00 p.m. and 6:00 a.m. will not exceed 86 dBA L eq (h) at a distance of 50 feet. This requirement in no way relieves the contractor from responsibility for complying with local ordinances regulating noise levels. The contractor should use an alternative warning method instead of a sound signal unless required by safety laws. In addition, the contractor will equip all internal combustion engines with the manufacturer-recommended mufflers and will not operate any internal combustion engine on the job site without the appropriate muffler.

N-3 The sound barriers that are determined to be reasonable and feasible shall be coordinated with the affected property owners. All benefited residents and property owners will be notified should a change in placement or removal of any soundwall occur during the design phase. Additionally, all residents/property owners will be notified of final soundwall locations prior to 100% PS&E.

N-4 The contractor will implement appropriate additional noise mitigation measures, including changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.

6.2 Air Quality Assessment Report:

The Air Quality Assessment Report determined that the project would have no adverse impacts under National Environmental Policy Act (NEPA). The determination is based on the following:

- during project construction, the implementation of exhaust and fugitive dust emission control measures would avoid and/or minimize impacts to air quality;

- the project is included in the Southern California Association of Government's (SCAG) 2008 Regional Transportation Plan (RTP) and SCAG 2011 Federal Transportation Improvement Program (FTIP) (Project ID ORA082610), which implies that project's operational emissions (which include the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NOX) meet the transportation conformity requirements imposed by EPA and the South Coast Air Quality Management District (SCAQMD). As such, the project would not exceed the motor vehicle emissions budget for the region;

- Caltrans' Carbon Monoxide (CO) protocol screening procedure demonstrated that the project would not have a material effect on localized CO concentrations;

- the proposed project is not considered a project of air quality concern, as defined by 40 CFR 93.123(b)(1), and as such, a qualitative PM2.5/PM10 (particulate matter 2.5 and 10 microns or less in diameter) hot-spot evaluation is not required. It is unlikely that the proposed project would generate new air quality violations, worsen existing violations, or delay attainment of National Ambient Air Quality Standards (NAAQS) for PM2.5 or PM10; and

- the proposed project was found to have no potential for significant mobile-source air toxics (MSAT) emissions (using FHWA guidance) and is not linked with any special MSAT concern.

Proposed avoidance and/or minimization measures include:

AQ-1 The project would conform to Caltrans' construction requirements, as specified in the Caltrans' Standard Specifications, Section 7-1.01F (Air Pollution Control): "The Contractor shall comply with all air pollution control ordinances and statutes which apply to any work performed pursuant to the contract, including any air pollution control rules, regulations, ordinances and statutes, specified in Section 11017 of the Government Code."

AQ-2 The proposed project, although not a large operation under the Rule's definition would be required to implement measures for each source of PM10 emissions, as specified in SCAQMD Rule 403 (Fugitive Dust) Implementation Handbook.

6.3 Initial Site Assessment (ISA):

Table 5 lists identified or potential environmental concerns based on site reconnaissance and review of historical information sources regarding the acquisition and temporary construction easement parcels (BOLD = Recognized Environmental Condition):

Follow up Phase I Environmental Site Assessments were conducted on the area along Fuller Street north of Fruit Street, the County maintenance facility and the industrial buildings at the south end of the acquisition area, south of Sixth Street. Additional Phase II Environmental Site Assessment was also performed on 1111 and 1143 Fruit Street (A-9).

The result of the Phase II Site Assessment did not indicate significant soil impacts that would require remediation. However, access to the remaining properties has limited further analysis. As a result, the following recommendations were made to be completed at a later date:

HAZ-1 A Phase II Environmental Site Assessment is recommended during the final design phase for parts of the study area as follows: parcel A-1 (1024 Fuller): currently the auto repair shop: sampling if indicated (interior inspection required); parcel A-2 (1022 Fuller): former machine shop with degreaser, auto wrecking and auto repair shop; parcel A-4 (1020 Fuller): former paint manufacturer, former auto body shop, former metals recovery facility; parcel A-5 (1016 Fuller): former machine shop; parcel A-6 (1012 Fuller): former paint spray booth, former paint manufacturer (Jasco Chemical); parcel A-7 (1008 Fuller): Jasco Chemical. The Phase II ESA would include soil sampling for petroleum hydrocarbons, volatile organic compounds, heavy metals and/or those chemicals formerly stored on site by Jasco Chemical, as appropriate for each individual location.

HAZ-2 Perform a comprehensive survey for asbestos-containing materials, lead-based paint, PCBs and mercury switches during the final design phase at the buildings proposed for acquisition.

HAZ-3 Subsurface investigations are deemed to be unnecessary on Temporary Construction Easement parcels. However, in view of the former usage of Parcel T-9 for battery manufacturing, and the current presence of an automotive junkyard on the site, soil sampling for lead, cadmium and petroleum hydrocarbons should performed if any ground disturbance is contemplated in order to ensure worker and public safety during construction.

HAZ-4 The hazardous waste storage area and possible waste oil tank at J&H Drilling should be inspected for possible releases of waste oil or other environmental concerns.

HAZ-5 Removal of the three closed-in-place USTs at the former Jasco Chemical plant should be considered.

HAZ-6 Inspection and sampling for asbestos, lead-based paint, PCBs and mercury switches in the building in the acquisition area.

Table 5 - Environmental Concerns

Area	Parcel Numbers	Current Concerns	Historical Concerns
Fuller Street	A-1 through A-8 (and T-1)	Industrial buildings	**Chemical plant with removed and closed-in-place USTs (closed LUST case 2000)**
County yard	A-9	Repair/service facilities	**Former petroleum storage facility**
South Warehouses	A-11	Possible hazardous materials usage	Former warehouses, light-industrial buildings and auto repair shops
East of Fuller Street	T-4	**Known low-level soil impacts by heavy metals**	Agriculture
County Yard	T-8	**Gas station, known low-level impacts by PCE and TCEy to soil vapor,** repair/service facilities	--
Auto Wrecking Yard	T-9	**Auto wrecking yard**	**Battery manufacturer**

6.4 Water Quality Memorandum

The following avoidance and minimization measures were included in the Water Quality Memorandum:

WQ-1 The project shall comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activities (Order Number 2009-0009-DWQ, NPDES Number CAS000002) and any subsequent permit in effect at the time of construction.

Prior to construction, Permit Registration Documents (PRDs), which includes permit application fee, a Notice of Intent (NOI), a Storm Water Pollution Prevention Plan (SWPPP)

and other compliance related documents required by the permit, shall be mailed to the State Water Quality Control Board.

The project SWPPP shall be prepared by a Qualified SWPPP Practitioner (QSP) or a Qualified SWPPP Developers (QSD) to address all construction related activities, equipment, and materials that have the potential to impact the water quality. The SWPPP shall identify the sources of pollutants that may affect the quality of storm water and include construction site BMPs to control pollutants and sediments. The SWPPP shall include erosion control, sediment control, wind erosion control, tracking control, and all other applicable non-stormwater management and material management BMPs. All construction site BMPs shall follow the latest edition of the CASQA Stormwater Best Management Practice Handbook for Construction. In addition, the project water quality risk level shall be identified. Rain Event Action Plan, Field Monitoring, and Reporting Guidance shall be prepared for effluent monitoring and receiving water monitoring.

The General Permit requires that permittees prepare, certify, and electronically submit an Annual Report no later than September 1st of each year. Reporting requirements are identified in Section XVI of the General Permit.

WQ-2 Treatment BMPs shall be implemented to the maximum extent practicable (MEP), consistent with the requirements of the Orange County MS4 Permit, Order R8-2009-0030 (amended by Order R8-2010-0062, NPDES No. CAS 618030). Biofiltration systems or catch basin filter inserts are proposed as the potential treatment BMPs for the project. Detailed design of the BMP and the location will be determined in the final engineering phase. Removal of existing vegetation will be minimized to the greatest extent possible and any mature trees to be saved would be identified on final plans. The final siting and design of treatment BMPs will be designed in compliance with the 2010 OC Model Water Quality Management Plan (WQMP), the Technical Guidance Document (TGD) and the 2003 OC Drainage Area Management Plan (DAMP).

WQ-3 Design pollution prevention BMPs shall be implemented in accordance with Green Streets Municipal Handbook (EPA-833-F-08-009; 2008), such as preservation of existing vegetation, slope/surface protection systems (permanent soil stabilization), concentrated flow conveyance systems such as ditches, berms, dikes, and swales, overside drains, flared end sections, and outlet protection/velocity dissipation devices.

6.5 Natural Environmental Study-Minimum Impact (NES/MI)

The NES-Minimal Impacts (NES/MI) found no natural vegetation communities occurring within the Biological Study Area (BSA). In addition, no impact to jurisdictional waters and wetlands would occur as these resources are not present within the BSA.

The following measures are avoidance and/or minimization measures to reduce impacts to species.

BIO-1 Preconstruction Nesting Bird Survey. If project-related site disturbances are scheduled to occur during the core nesting period (February 15 through September 1), a qualified biologist will perform preconstruction nesting bird surveys. The survey will be completed within seven days prior to any project-related disturbances. If native birds are nesting on or within 100 feet (as accessible) of the LOD, a 100-foot buffer (or an alternative width, as determined by a qualified ornithologist) should be flagged around the nest, and no

project-related construction activities within the buffer will occur until it has been determined that all young have fledged or the nest is no longer active.

BIO-2 Preconstruction Nesting Raptor Survey. If project-related site disturbances are scheduled to occur during the core nesting period (February 15 through September 1), a qualified biologist will perform preconstruction nesting raptor surveys. The survey will be completed within seven days prior to any project-related disturbances. If raptors are nesting on or within 500 feet (as accessible) of the limits of disturbance (LOD), a 500-foot buffer (or an alternative width, as determined by a qualified ornithologist) should be flagged around the nest, and no project-related construction activities within the buffer will occur until it has been determined that all young have fledged or the nest is no longer active.

BIO-3 Preconstruction Bat Survey. To prevent impacts on daytime bat roosts and maternity roosts, a qualified biologist will be retained to conduct bat and bat roosting site surveys prior to commencement of building demolition or mature tree removal activities. This pre-construction survey will be conducted at any abandoned buildings, as well as any mature tree proposed for removal and within 100 feet of the LOD. If no roosting sites or bats are found, a report confirming their absence will be sent to the California Department of Fish and Wildlife (CDFW) and no further mitigation will be required.

If the pre-construction survey finds bats to be roosting, and building demolition/mature tree removal is scheduled to occur between October 1 and March 30 (outside of the maternity season of April 1st through September 30), the bats shall be evicted by the following methods. Eviction of bats shall be conducted using bat exclusion techniques, developed by Bat Conservation International (BCI) and in consultation with CDFW. These techniques allow the bats to exit the roosting site but prevent re-entry to the site. This process will include, but not be limited to, the installation of one-way exclusion devices on buildings and a two-step cutting process for trees. Sealing buildings at the time of abandonment may prevent the need for the exclusion process. Where exclusionary devices would be installed on buildings, the devices shall remain in place for seven days, and then the exclusion points and any other potential entrances shall be sealed. A visual inspection of each building would be required prior to demolition to verify that all bats have been successfully excluded. Where the two-step cutting process would be applicable for tree roosts, surrounding branches, not housing bats, would be removed during step one. This would alter the condition of the roost tree, causing bats to abandon the roost. The tree can then be fully removed, as step two. A visual inspection of the roost tree would be required prior to removal to verify that all bats have been successfully excluded. This work shall be completed by a bat exclusion professional.

If the pre-construction survey finds bats to be roosting and building demolition/mature tree removal is scheduled to occur during the maternity season (April 1 through September 30), a qualified biologist will monitor the roost to determine if the roost site is a maternal roost. This may be determined by either visual inspection of the roost for bat pups, if possible, or monitoring the roost after the adults leave for the night to listen for bat pups. If the roost is determined to not be a maternal roost, then the bats shall be evicted as described above. If the roost is determined to be a maternal roost, eviction of a maternal roost cannot occur during the nursery season, as bat pups cannot leave the roost until they have reached maturity. In this case, a 250-foot-wide buffer zone (or an alternative width, as determined in consultation with CDFW) shall be established around the roosting site, within which no construction-related impacts shall occur until the bat pups are mature enough to permanently leave the roost.

BIO-4 Standard Best Management Practices. Applicable Best Management Practices shall be implemented. These include but are not limited to:

- Water pollution and erosion control plans shall be developed and implemented in accordance with Regional Water Quality Control Board (RWQCB) requirements.
- Equipment storage, fueling, and staging areas shall be located at sites with minimal risks of direct drainage into surface waters. Project related spills of hazardous materials shall be reported to appropriate entities, including but not limited to the City and/or RWQCB, and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.
- Exotic species removed during construction will be properly handled to prevent sprouting or regrowth.
- Trucks with loads carrying vegetation will be covered, and vegetation materials removed from the site will be disposed of in accordance with applicable laws and regulations.
- Construction equipment will be cleaned of mud or other debris that may contain invasive plants and/or seeds and inspected to reduce the potential of spreading noxious weeds before mobilizing to the site and before leaving the site during the course of construction.
- To avoid attracting wildlife to the project site, the construction shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s).

6.6 Visual Impact Assessment

The report concluded that the proposed project will not result in substantial adverse effects on visual resources under the NEPA.

Since the project's grade separation features are essentially at or below existing grade levels, they will not substantially affect either east or west-facing views along Santa Ana Boulevard. As motorist or pedestrians enter the underpass while travelling eastward on Santa Ana Boulevard, they will experience only the briefest interruptions in views of the Lomas Ridge and the more distant Santa Ana Mountains ridgelines. Hence, no significant changes to key views will occur. Residential viewers also will continue to have key east-facing views of the mountain ridgelines available to them. The loss of mature trees will reduce visual quality over a period of five or more years; however, because comparable replacement landscaping will be installed per City and Caltrans' best management practice, no adverse effects would occur under NEPA..

Caltrans and FHWA mandate that a qualitative aesthetic approach be taken to mitigate for visual quality loss in the project area. The proposed project fulfills these requirements because it is expected that it will address the actual loss of visual quality that will occur in the project viewshed within five to ten years of when the project is implemented by installing comparable replacement trees for those proposed for removal, where feasible, and groundcover where full right-of-way takes would necessitate demolition and/or where right-of-way design constraints will preclude installation of replacement trees. The project will be implemented in adherence to the guidance found in Caltrans' Highway Design Manual and other Caltrans memoranda regarding landscape design policy, which mandates consideration of the local design context in which the work is proposed and obtaining the input of local governmental agencies. In addition, the project will be designed and

implemented with the concurrence of the District Landscape Architect. In summary, substantial adverse effects under NEPA are not anticipated.

The following avoidance and minimization measures shall be implemented:

VIS-1 The project will be implemented in adherence to the guidance found in Caltrans' Highway Design Manual and other Caltrans memoranda regarding landscape design policy, which mandates consideration of the local design context in which the work is proposed and obtaining the input of local governmental agencies. In addition, the project will be designed and implemented with the concurrence of the District Landscape Architect.

6.7 Relocation Impact Memo

The project would affect 16 distinct nonresidential properties. Of these, seven nonresidential properties (composed of nine parcels) would be fully acquired and would result in displacement requiring relocation. An additional two nonresidential properties would be partially acquired (sliver takes) and would require some property reconfiguration but would not result in displacement. Nine properties, including portions of two of the partially acquired properties mentioned previously, would require a temporary construction easement. Based on real estate listings and the professional opinions of two local commercial real estate agents, there appear to be a sufficient supply of adequate sites to relocate all of the displacees within the immediate vicinity of the City of Santa Ana. Given the availability of suitable properties in the immediate vicinity of the project, displacement and relocation of businesses would not result in substantial hardship. Relocation assistance benefits or entitlements would be provided to displacees in accordance with the Uniform Relocation Assistance and Real Property Act of 1970, as amended.

Any person (individual, family, corporation, partnership, or association) who moves from real property or moves personal property from real property as a result of the acquisition of the real property, or required to relocate as a result of a written notice from the City of Santa Ana from the real property required for a transportation project is eligible for "Relocation Assistance." All activities will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Relocation resources shall be available to all displacees, in compliance with Title VI, free of discrimination.

6.8 Historical Properties Survey Report (HPSR)

The HSPR determined a finding of No Historic Properties Affected. Concurrence on this determination was received from the State Historic Prservation Officer on February 2, 2012.

6.9 Archaeological Survey Report (ASR)

No archaeological resources have been previously recorded within the project area of potential effect (APE), and no new cultural resources were observed within the project APE for the proposed project during the field survey. Given the geologic setting and the level of previous disturbance within the project APE, the potential to encounter buried prehistoric resources or historic-period archaeological resources within the project APE is considered to be low.

The following avoidance and minimization measure which is standard on all Caltrans' project will be implemented:

CR-1 It is the Department's policy to avoid cultural resources whenever possible. Further investigations may be needed if unanticipated cultural sites are encountered that cannot be

avoided by the project. If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find. If changes are made to the proposed project, an additional archaeological survey would be required to include areas not previously surveyed.

6.10 Historic Resources Evaluation Report (HRER)

Thirty-four built environment properties were evaluated in the HRER. The Burlington Northern Santa Fe Railroad was determined ineligible for the National Register and the California Register in 2007, as was 1102 East Fruit Street in 2004. 917 Logan Street was surveyed in 1980 and was determined to be a 5D2. Due to a lack of supporting documentation of that finding and because it was assessed more than 20 years ago, it has been re-evaluated and determined individually ineligible for the National Register and California Register. The Orange County Maintenance Yard was previously determined eligible for the National Register by State Historic Preservation Officier (SHPO) on December 27, 2004. A re-assessment of the determination and supporting documentation for 1102 East Fruit Street concluded that the finding in 2004 was in error and the Orange County Road Department Maintenance Yard is ineligible for the National Register and the California Register. All of the evaluated properties have been found to be ineligible for the National Register and the California Register and are not considered historical resources for the purposes of CEQA. All other properties within the APE meet the criteria for Section 106 PA Attachment 4 (Properties Exempt from Evaluation). No impacts were identified and no avoidance, minimization and/or mitigation measures were needed.

6.11 Community Impact Assessment (CIA)

The Community Impact Assessment considers how the proposed project would affect the people, neighborhoods, communities, businesses, and larger social and economic systems. The findings of the CIA concludes that the proposed project would not introduce an incompatible use in the area, the pattern and rate of population and housing growth would be consistent with those contemplated in existing regional and local plans for the area, and the proposed project would have beneficial effect on community. Cumulative impacts are not expected to be cumulatively considerable.

The following avoidance and minimization measures shall be implemented:

TRF-1 Prepare and implement a Traffic Management Plan (TMP). The TMP will be provided to emergency service providers and school officials with construction plans prior to commencement of construction. The following shall be included in the TMP or carried out in coordination with the TMP:

- Implement a construction management program that maintains access to and from the project area community through signage, detours, flagmen, etc.
- Coordinate with emergency services providers to ensure that alternative response routes to and from the project area community are in place during construction of the proposed project.
- Provide access to all fire hydrants along all access routes and provide and maintain fire department vehicle access roads along project site.
- Consult with local school officials to indentify safe vehicular routes and pedestrian crossing for student traveling to and from schools in the project area community during construction of the proposed project.
- Coordinate with the utility providers for relocation of ut9ility lines and inform the utility users in advance about the date and timings of service disruptions.

- Prepare temporary detour plans during the Plans, Specifications, and Estimate (PS&E) phase.
- Provide notification to be sent to emergency service providers, local school officials, and any residents that may be substantially affected by any street closure (including partial and/or full closures) or traffic diversions at least two weeks in advance of the planned closure or diversion.

RELOC-1 In accordance with the federal Uniform Relocation Assistance and Property Acquisition Act of 1970 as amended (42 USC Secs. 4601-4655), provide compensation to eligible recipients for property acquisitions.

UT-1 The City will coordinate all utility relocation work with the affected utility companies to ensure minimum disruption to customers in the service areas during construction.

7 RAILROAD INVOLVEMENT

There are two SCRRA mainline tracks located within the project. OCTA owns the railroad right of way, while SCRRA maintains and operates the Metrolink service. SCRRA is an important stakeholder of the project. The PDT initially met with SCRRA on August 31, 2011. Additional meetings between February and August of 2014 were held to discuss structure type and shoofly alignment. In these meetings, SCRRA approved the proposed steel girder bridge in concept. SCRRA also rejected a staging concept that would eliminate the need for a shoofly.

It was also determined that SCRRA will be responsible for all work related to shoofly installation, temporary at-grade crossing with the detour road, and removal of existing at-grade crossing. Further coordination effort will be needed during the PS&E phase of the project to obtain design approval and finalizaton of the Construction and Maintenance Agreement.

8 FUNDING

It will be a priority of OCTA to securing funds for this project. Funding may be Federal, State, or Local or a combination of each..

9 SCHEDULE

A preliminary schedule for the entire project is included as Attachment M. It is important to know that this schedule is preliminary and subject to change as the project evolves. The following table provides a summary of the project milestones.

Table 6 - Project Milestone Preliminary Dates

Begin PSRE	June 2011
Complete PSRE	February 2012
Begin Preliminary Engineering/Environmental Document	June 2012
Complete Preliminary Engineering/Environmental Document	August 2014
Begin Final Design and Right of Way Acquisition	December 2014
Complete Final Design and Right of Way Acquisition	December 2016
Begin Construction	September 2016
Complete Construction	June 2018
Complete Project Close-out	December 2018

10 OTHER CONSIDERATIONS AS APPROPRIATE

10.1 Permits

The potential permits are:

- Orange County General NPDES Permit (SWPPP)
- A Regional Water Quality Control Board (RWQCB) Permit.

Cooperative Agreements and Other Agreements:

- SCRRA Construction and Maintenance Agreement.
- CPUC Construction Agreement.

10.2 Involvement with a Navigable Waterway

There is no involvement with a Navigable Waterway within the limits of this project.

10.3 Graffiti Control

The bridge and retaining wall design will include a fractured-rib finish treatment for the abutments, retaining walls, and other vertical surfaces, and this shall be constructed from the finish surface to six (6) feet above the finish surface.

In addition, the columns shall be sprayed with graffiti protection, in accordance with Caltrans specifications.

10.4 Geotechnical Investigation

A Geotechnical Technical Memorandum is included within this report as Attachment N, which provides preliminary information and recommendations for the improvements. During the next phase of the project, geotechnical investigation, testing, and preparation of the Final Geotechnical Report will occur.

11 PROJECT PERSONNEL

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12 ATTACHMENTS

Attachment A – Highway-Rail Crossing Accident/Incident Reports

Attachment B – Project Layout, Typical Section, and Profile

Attachment C – Bridge General Plan

Attachment D – Pedestrian Bridge Typical Section

Attachment E – Staging and Traffic Handling

Attachment F – Shoofly

Attachment G – Right-of-Way Acquisition Map

Attachment H – Existing & Proposed Utilities

Attachment I – Cost Estimate

Attachment J – Preliminary Environmental Study (PES)

Attachment K – Categorical Exemption/Categorical Exclusion Determination Form

Attachment L – Environmental Commitment Record

Attachment M – Project Schedule

Attachment N – Geotechnical Technical Memorandum

Attachment A:

Highway-Rail Crossing Accident/Incident Reports

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION (FRA)

HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

Name Of		Alphabetic Code	RR Accident/Incident No.
1. Reporting Railroad	Amtrak [ATK]	1a. ATK	1b. 060087
2. Other Railroad Involved in Train Accident/Incident		2a.	2b.
3. Railroad Responsible for Track Maintenance	Southern California Regional Rail Authority	3a. SCAX	3b. XXX

4. U.S. DOT-AAR Grade Crossing ID No.	5. Date of Accident/Incident	6. Time of Accident/Incident
026702V	01/25/00	06:22 PM

7. Nearest Railroad Station	8. Division	9. County	10. State Abbr.	Code
SANTA ANA	WSD	ORANGE	06	CA

11. City *(if in a city)*	12. Highway Name or No.	
SANTA ANA	SANTA ANA BLVD	☑ Public ☐ Private

Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **K**

14. Vehicle Speed *(est. mph at impact)*: **0**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **1**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **2**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)*, A. Train pulling- RCL, B. Train pushing- RCL, C. Train standing- RCL — Code: **2**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **50** °F

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **4**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **3**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Main./inspect. car, A. Spec. MoW Equip — Code: **2**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN TWO**

27. FRA Track Class: **5**

28. Number of Locomotive Units: **1**

29. Number of Cars: **5**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **39** mph — Code: **R**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **3**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None

Code(s): **01** **03** **06** **07**

33. Signaled Crossing Warning: **20 sec warn min (1);**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code: **2**

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **3**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **1**

38. Driver's Age: **48**

39. Driver's Gender — 1. Male, 2. Female — Code: **2**

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code:

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code:

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code:

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

Casualties to:	Killed	Injured
46. Highway-Rail Crossing Users	1	0
49. Railroad Employees	0	0
52. Passengers on Train	0	0

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code:

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code:

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$0**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1**

50. Total Number of People on Train *(include passengers and crew)*: **98**

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

TRAIN 782 STRUCK A PEDESTRIAN WALKING ON TRACK GUAGE AT SANTA ANA BLVD. CROSSING IN SANTA ANA, CA.

55. Typed Name and Title	56. Signature	57. Date

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION (FRA)

HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

Name Of		Alphabetic Code	RR Accident/Incident No.
1. Reporting Railroad	Amtrak [ATK]	1a. ATK	1b. 112881A
2. Other Railroad Involved in Train Accident/Incident	Atchison, Topeka & Santa Fe Rwy Co. [ATSF]	2a. ATSF	2b. 311181204
3. Railroad Responsible for Track Maintenance	Atchison, Topeka & Santa Fe Rwy Co. [ATSF]	3a. ATSF	3b. 311181204

4. U.S. DOT-AAR Grade Crossing ID No.	5. Date of Accident/Incident	6. Time of Accident/Incident
026702V	11/28/81	02:20 PM

7. Nearest Railroad Station	8. Division	9. County	10. State Abbr.	Code
SANTA ANA		ORANGE	06	CA

11. City *(if in a city)*	12. Highway Name or No.	
SANTA ANA	SANTA ANA BLVD	☑ Public ☐ Private

Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **30**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **1**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)*, A. Train pulling- RCL, B. Train pushing- RCL, C. Train standing- RCL — Code: **1**

18. Position of Car Unit in Train: **2**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **2**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **50** °F

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **2**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Main./inspect. car, A. Spec. MoW Equip — Code: **2**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN**

27. FRA Track Class: **3**

28. Number of Locomotive Units: **1**

29. Number of Cars: **5**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **30** mph — Code: **R**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **3**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None

Code(s): **01** **03**

33. Signaled Crossing Warning: **20 sec warn min (1);**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **2**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **2**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **1**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

Casualties to:	Killed	Injured
46. Highway-Rail Crossing Users	0	0
49. Railroad Employees	0	0
52. Passengers on Train	0	0

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **1**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$2,300**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **0**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

55. Typed Name and Title	56. Signature	57. Date

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

19E-37

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION (FRA)

HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

Name Of		Alphabetic Code	RR Accident/Incident No.
1. Reporting Railroad	Atchison, Topeka & Santa Fe Rwy Co. [ATSF]	1a. ATSF	1b. 311181204
2. Other Railroad Involved in Train Accident/Incident	Amtrak [ATK]	2a. ATK	2b. 112881A
3. Railroad Responsible for Track Maintenance	Atchison, Topeka & Santa Fe Rwy Co. [ATSF]	3a. ATSF	3b. 311181204

4. U.S. DOT-AAR Grade Crossing ID No.	5. Date of Accident/Incident	6. Time of Accident/Incident
026702V	11/28/81	02:20 PM

7. Nearest Railroad Station	8. Division	9. County	10. State Abbr.	Code
SANTA ANA		ORANGE	06	CA

11. City *(if in a city)*	12. Highway Name or No.	
SANTA ANA	SANTA ANA BLVD	☑ Public ☐ Private

Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **35**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **1**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)*, A. Train pulling- RCL, B. Train pushing- RCL, C. Train standing- RCL — Code: **1**

18. Position of Car Unit in Train: **2**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **2**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **50** °F

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **2**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Main./inspect. car, A. Spec. MoW Equip — Code: **2**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN**

27. FRA Track Class: **3**

28. Number of Locomotive Units: **1**

29. Number of Cars: **5**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **30** mph — Code: **R**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **3**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None

Code(s): **01** **03**

33. Signaled Crossing Warning: **20 sec warn min (1);**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **2**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **2**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **1**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

Casualties to:	Killed	Injured
46. Highway-Rail Crossing Users	0	0
49. Railroad Employees	0	0
52. Passengers on Train	0	0

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **1**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$2,300**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

55. Typed Name and Title	56. Signature	57. Date

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

19E-38

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION (FRA)

HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

Name Of		Alphabetic Code	RR Accident/Incident No.
1. Reporting Railroad	Atchison, Topeka & Santa Fe Rwy Co. [ATSF]	1a. ATSF	1b. 31019102
2. Other Railroad Involved in Train Accident/Incident	Amtrak [ATK]	2a. ATK	2b. 010579A
3. Railroad Responsible for Track Maintenance	Atchison, Topeka & Santa Fe Rwy Co. [ATSF]	3a. ATSF	3b. 31019102

4. U.S. DOT-AAR Grade Crossing ID No.	5. Date of Accident/Incident	6. Time of Accident/Incident
026702V	01/05/79	09:18 AM

7. Nearest Railroad Station	8. Division	9. County	10. State Abbr.	Code
SANTA ANA		ORANGE	06	CA

11. City *(if in a city)*	12. Highway Name or No.	
SANTA ANA	SANTA ANA BLVD	☑ Public ☐ Private

Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **25**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **1**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)*, A. Train pulling- RCL, B. Train pushing- RCL, C. Train standing- RCL — Code: **1**

18. Position of Car Unit in Train: **2**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **2**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **49** °F

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **2**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **2**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Main./inspect. car, A. Spec. MoW Equip — Code: **2**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN TRACK**

27. FRA Track Class: **2**

28. Number of Locomotive Units: **1**

29. Number of Cars: **4**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **40** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **3**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None

Code(s): **01**

33. Signaled Crossing Warning: **20 sec warn min (1);**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **2**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **2**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **1**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

Casualties to:	Killed	Injured
46. Highway-Rail Crossing Users	0	0
49. Railroad Employees	0	0
52. Passengers on Train	0	0

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **1**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$900**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **1**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

55. Typed Name and Title	56. Signature	57. Date

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

19E-39

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION (FRA)

HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

Name Of		Alphabetic Code	RR Accident/Incident No.
1. Reporting Railroad	Amtrak [ATK]	1a. ATK	1b. 010579A
2. Other Railroad Involved in Train Accident/Incident	Atchison, Topeka & Santa Fe Rwy Co. [ATSF]	2a. ATSF	2b. 31019102
3. Railroad Responsible for Track Maintenance	Atchison, Topeka & Santa Fe Rwy Co. [ATSF]	3a. ATSF	3b. 31019102

4. U.S. DOT-AAR Grade Crossing ID No.	5. Date of Accident/Incident	6. Time of Accident/Incident
026702V	01/05/79	09:18 AM

7. Nearest Railroad Station	8. Division	9. County	10. State Abbr.	Code
SANTA ANNA		ORANGE	06	CA

11. City *(if in a city)*	12. Highway Name or No.	
SANTA ANNA	SANTA ANNA BLVD	☑ Public ☐ Private

Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **25**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **1**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)*, A. Train pulling- RCL, B. Train pushing- RCL, C. Train standing- RCL — Code: **1**

18. Position of Car Unit in Train: **2**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **2**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **49** °F

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **2**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **2**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Main./inspect. car, A. Spec. MoW Equip — Code: **2**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN**

27. FRA Track Class: **2**

28. Number of Locomotive Units: **1**

29. Number of Cars: **4**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **40** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **3**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None

Code(s): **01**

33. Signaled Crossing Warning: **20 sec warn min (1);**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **2**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **2**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **1**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

Casualties to:	Killed	Injured
46. Highway-Rail Crossing Users	0	0
49. Railroad Employees	0	0
52. Passengers on Train	0	0

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **1**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$900**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **1**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

55. Typed Name and Title	56. Signature	57. Date

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

19E-40

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION (FRA)

HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

Name Of		Alphabetic Code	RR Accident/Incident No.
1. Reporting Railroad	Atchison, Topeka & Santa Fe Rwy Co. [ATSF]	1a. ATSF	1b. 31127101
2. Other Railroad Involved in Train Accident/Incident		2a.	2b.
3. Railroad Responsible for Track Maintenance	Atchison, Topeka & Santa Fe Rwy Co. [ATSF]	3a. ATSF	3b. 31127101

4. U.S. DOT-AAR Grade Crossing ID No.	5. Date of Accident/Incident	6. Time of Accident/Incident
026702V	12/15/77	10:10 PM

7. Nearest Railroad Station	8. Division	9. County	10. State Abbr.	Code
SANTA ANA		LOS ANGELES	06	CA

11. City *(if in a city)*	12. Highway Name or No.	
SANTA ANA	SANTA ANA BLVD	☑ Public ☐ Private

Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **0**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **4**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **2**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)*, A. Train pulling- RCL, B. Train pushing- RCL, C. Train standing- RCL — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **52** °F

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **4**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Main./inspect. car, A. Spec. MoW Equip — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN TRACK**

27. FRA Track Class	28. Number of Locomotive Units	29. Number of Cars	30. Consist Speed *(Recorded if available)* R. Recorded E. Estimated	Code	31. Time Table Direction 1. North 2. South 3. East 4. West	Code
4	4	83	20 mph	E		3

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None

Code(s): **01** **03**

33. Signaled Crossing Warning: **20 sec warn min (1);**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **2**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **1**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **4**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

Casualties to:	Killed	Injured
46. Highway-Rail Crossing Users	0	0
49. Railroad Employees	0	0
52. Passengers on Train	0	0

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **2**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$6,000**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **0**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **1**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

55. Typed Name and Title	56. Signature	57. Date

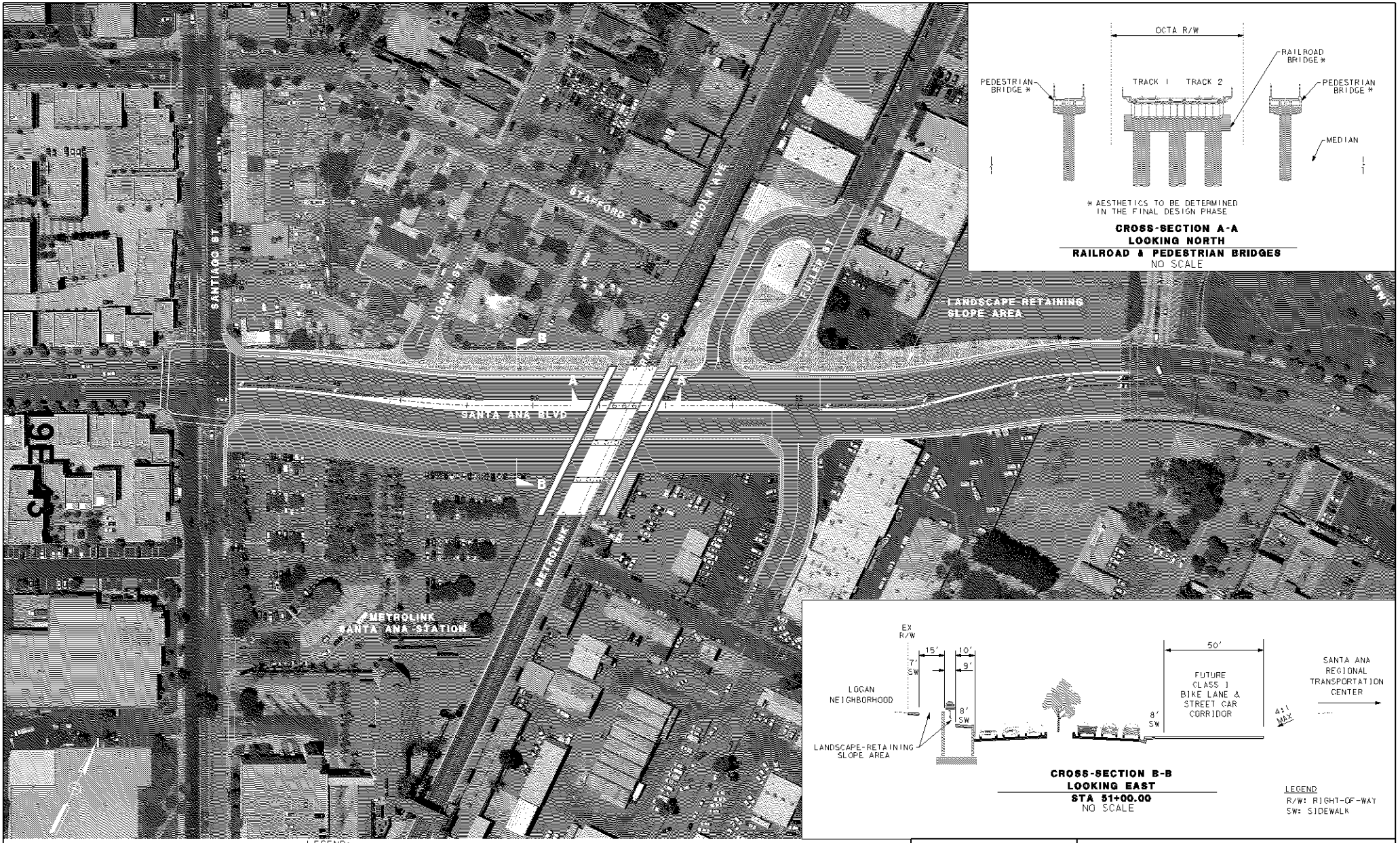
FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

19E-41

Attachment B:

Project Layout, Typical Section, and Profile



CROSS-SECTION A-A
LOOKING NORTH
RAILROAD & PEDESTRIAN BRIDGES
NO SCALE

CROSS-SECTION B-B
LOOKING EAST
STA 51+00.00
NO SCALE

LEGEND
R/W: RIGHT-OF-WAY
SW: SIDEWALK

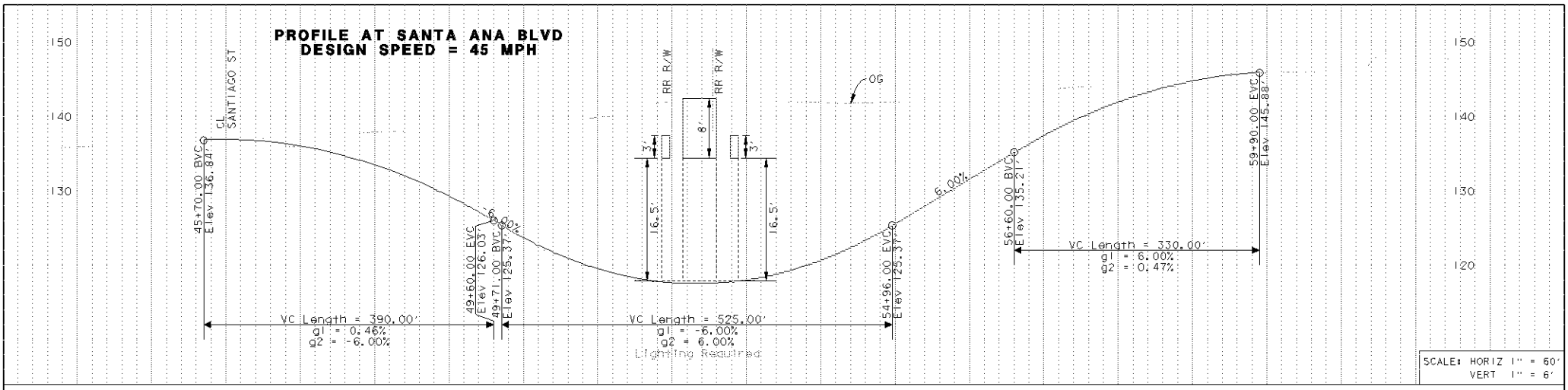
0 30 60 120 180 240
SCALE: 1" = 60'

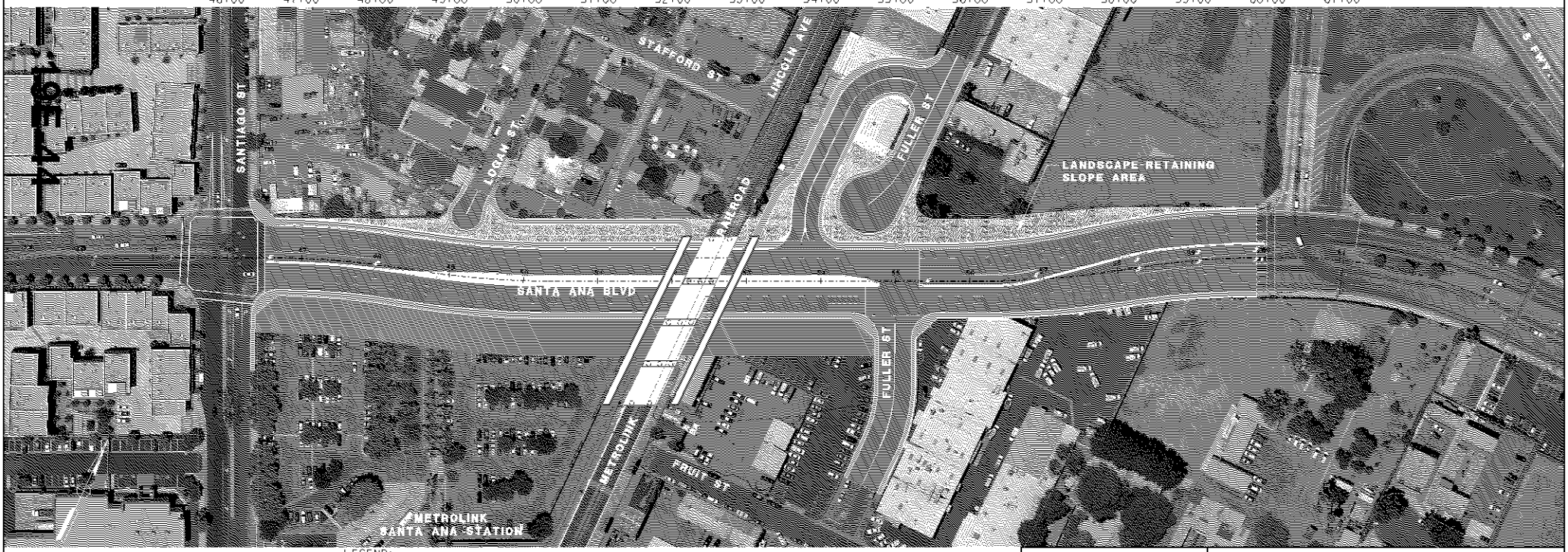
LEGEND:
- PARCEL LINE
- RAILROAD RIGHT-OF-WAY
- PROPOSED CENTERLINE
- EXISTING CENTERLINE
- PROPOSED TOP OF SLOPE
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE
- PROPOSED PED BRIDGE
- FUTURE 50' BIKE LANE AND STREET CAR CORRIDOR

2014-08-18

PLANS PREPARED BY:
AECOM
999 W. TOWN AND COUNTRY ROAD
ORANGE, CA 92868-4713
(714) 567-2501

CITY OF SANTA ANA
SANTA ANA BOULEVARD GRADE SEPARATION
PROJECT LAYOUT & TYPICAL SECTIONS





0 30 60 120 180 240
SCALE: 1" = 60'

LEGEND:

- PARCEL LINE
- RAILROAD RIGHT-OF-WAY
- PROPOSED CENTERLINE
- EXISTING CENTERLINE
- PROPOSED TOP OF SLOPE
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE
- PROPOSED PED BRIDGE
- FUTURE 50' BIKE LANE AND STREET CAR CORRIDOR

2014-08-18

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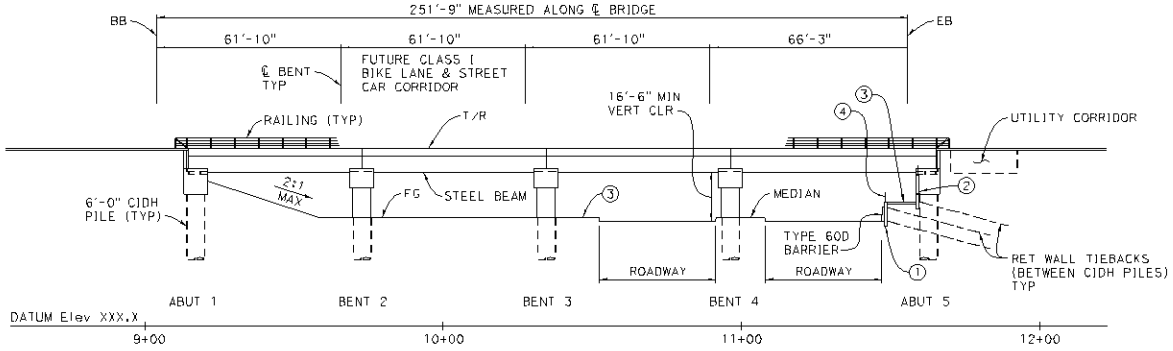
ORANGE, CA 92868-4713
(714) 567-2501

CITY OF SANTA ANA
SANTA ANA BOULEVARD
GRADE SEPARATION

PROJECT LAYOUT & PROFILE

Attachment C:

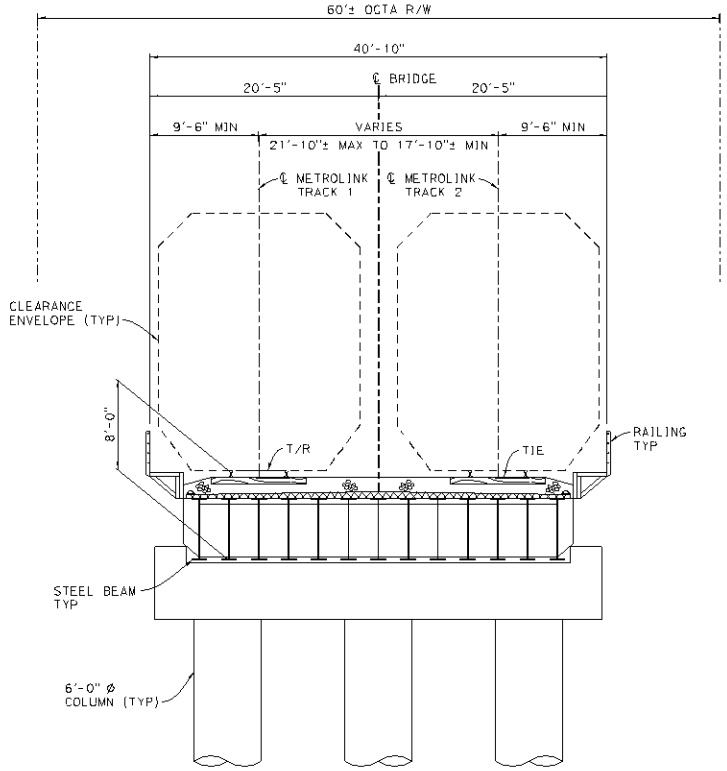
Bridge General Plan



NOTE: ELEVATION IS SHOWN LOOKING WEST.

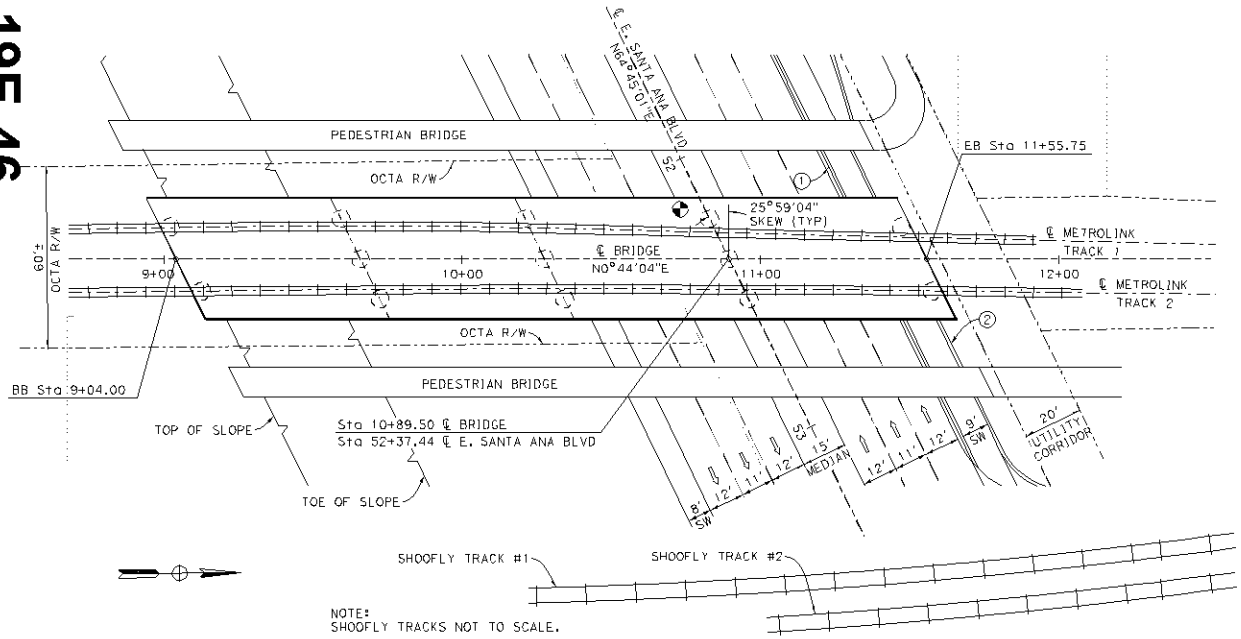
ELEVATION

1" = 20'



TYPICAL SECTION

3/16" = 1'-0"



NOTE:
SHOOFLY TRACKS NOT TO SCALE.

PLAN

1" = 20'

LEGEND:

1. RETAINING WALL #1
2. RETAINING WALL #2
3. SIDEWALK
4. CABLE RAILING

POINT OF MINIMUM VERTICAL CLEARANCE

DIRECTION OF TRAFFIC

PLANS PREPARED BY:

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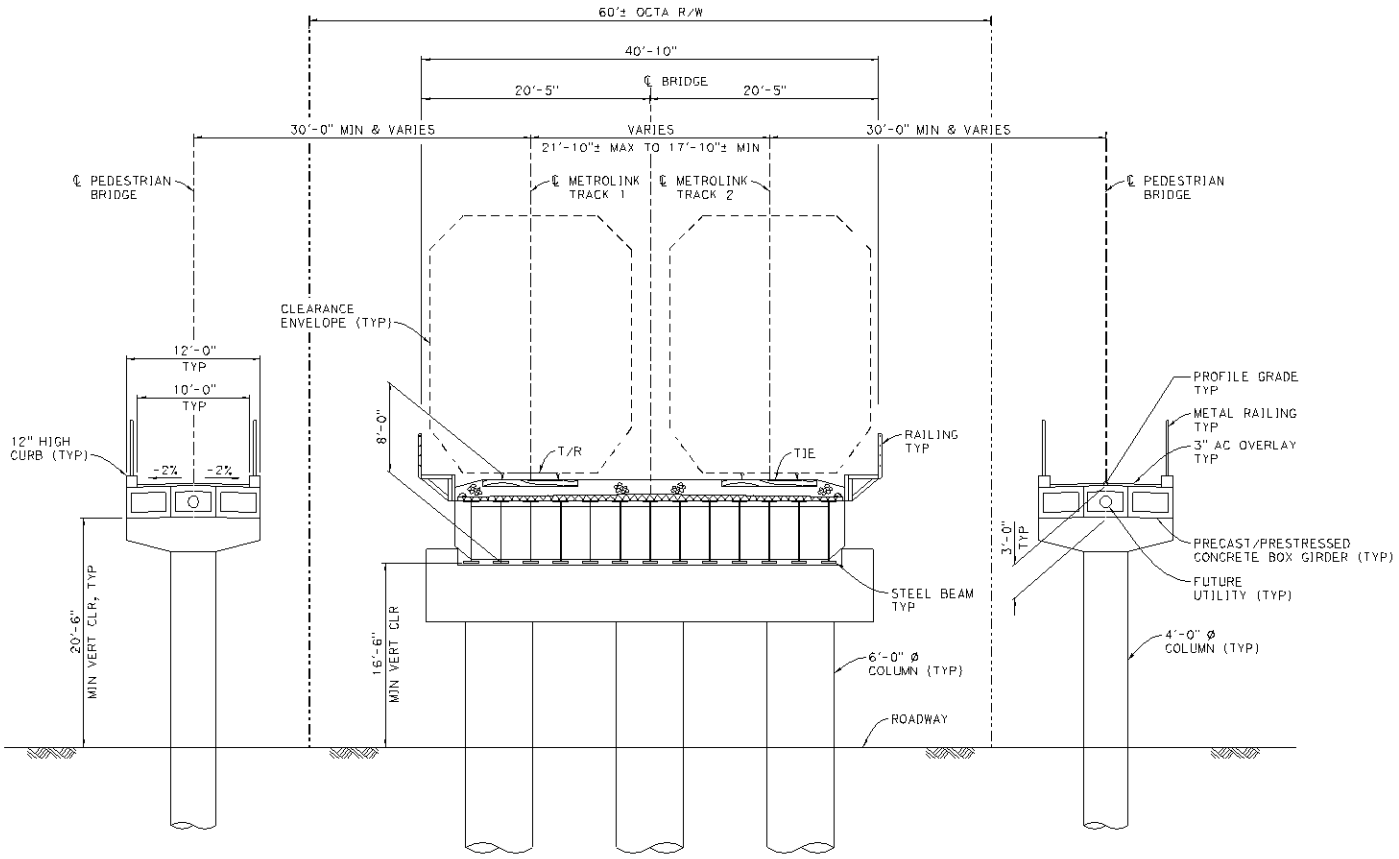
ORANGE, CA 92868-4713
(714) 567-2501

CITY OF SANTA ANA
SANTA ANA BOULEVARD GRADE SEPARATION
GENERAL PLAN

19E-46

Attachment D:

Pedestrian Bridge Typical Section



TYPICAL SECTION

3/16" = 1'-0"

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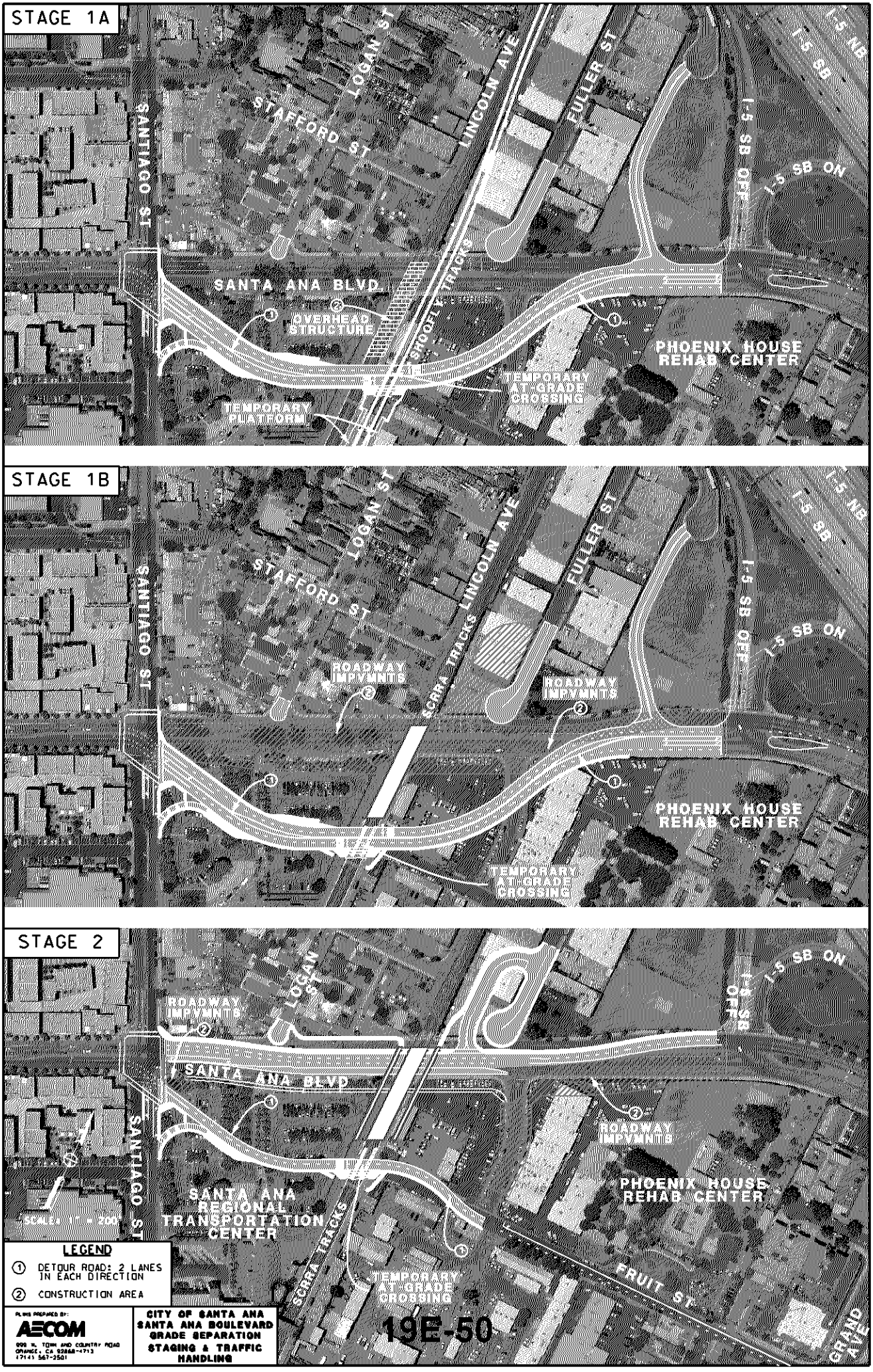
CITY OF SANTA ANA

SANTA ANA BOULEVARD GRADE SEPARATION

TYPICAL SECTION

Attachment E:

Staging and Traffic Handling


STAGE 1A
SANTIAGO ST
STAFFORD ST
LOGAN ST
LINCOLN AVE
FULLER ST
I-5 NB
I-5 SB OFF
I-5 SB ON
SANTA ANA BLVD.
OVERHEAD STRUCTURE
SCHOOLEY TRACKS
PHOENIX HOUSE REHAB CENTER
TEMPORARY AT-GRADE CROSSING
TEMPORARY PLATFORM
STAGE 1B
SANTIAGO ST
STAFFORD ST
LOGAN ST
LINCOLN AVE
FULLER ST
SCHOOLEY TRACKS
ROADWAY IMPVMNTS
ROADWAY IMPVMNTS
I-5 NB
I-5 SB OFF
I-5 SB ON
PHOENIX HOUSE REHAB CENTER
TEMPORARY AT-GRADE CROSSING
STAGE 2
SANTIAGO ST
LOGAN ST
ROADWAY IMPVMNTS
I-5 SB ON
SANTA ANA BLVD
ROADWAY IMPVMNTS
SANTA ANA REGIONAL TRANSPORTATION CENTER
PHOENIX HOUSE REHAB CENTER
SCHOOLEY TRACKS
TEMPORARY AT-GRADE CROSSING
FRUIT ST
GRAND
LEGEND
1 DETOUR ROAD: 2 LANES IN EACH DIRECTION
2 CONSTRUCTION AREA
PLANS PREPARED BY:
AECOM
900 N. TOWN AND COUNTRY ROAD
ORANGE, CA 92868-4713
(714) 567-2501
CITY OF SANTA ANA
SANTA ANA BOULEVARD
GRADE SEPARATION
STAGING & TRAFFIC HANDLING
19E-50

Attachment F:

Shoofly

SCALE: 1" = 60'

PLANS PREPARED BY:

AECOM

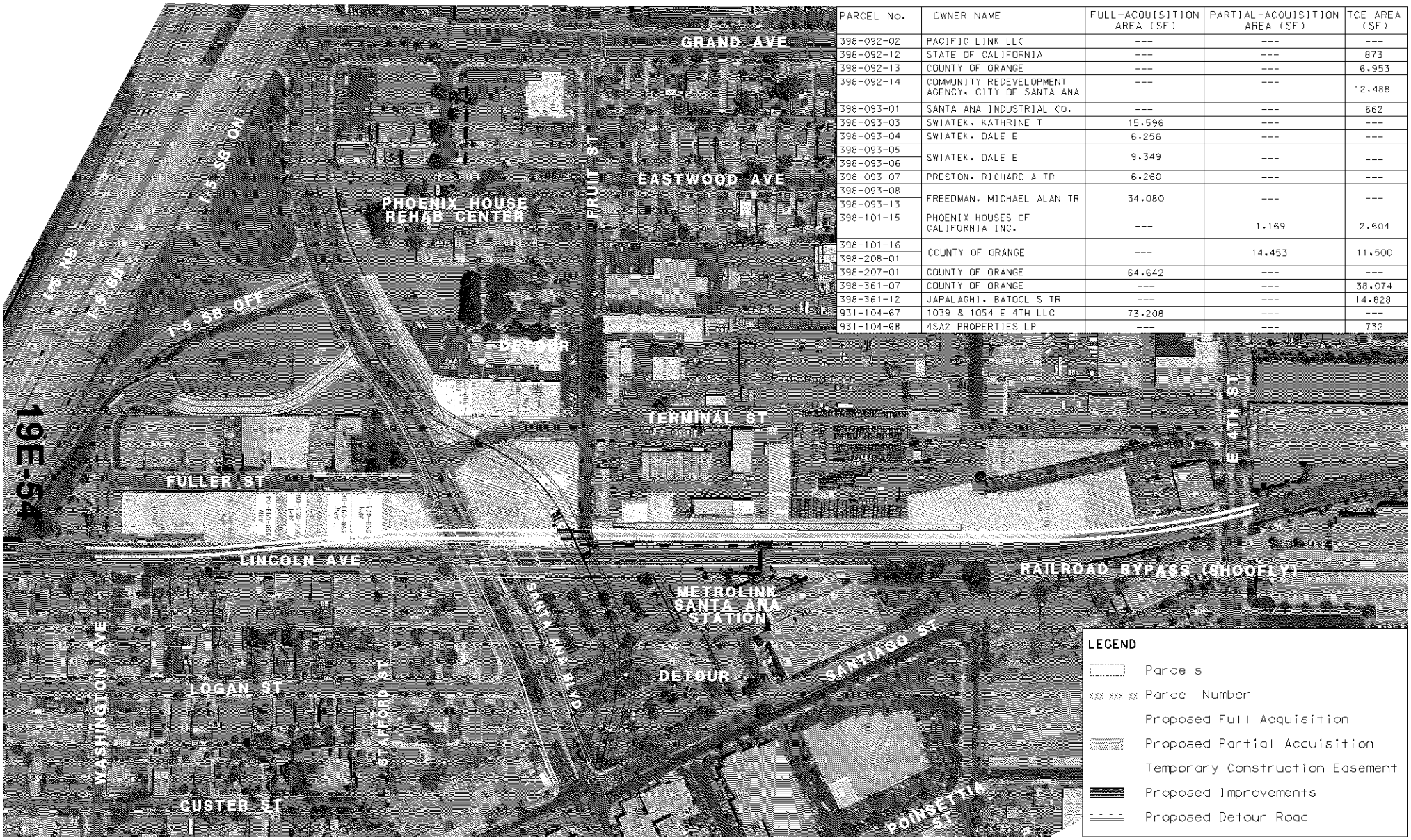
999 W. TOWN AND COUNTRY ROAD
ORANGE, CA 92868-4713
(714) 567-2501

CITY OF SANTA ANA
SANTA ANA BOULEVARD
GRADE SEPARATION
PROPOSED SHOOFLY

19E-52

Attachment G:

Right-of-Way Acquisition Map



PARCEL No.	OWNER NAME	FULL-ACQUISITION AREA (SF)	PARTIAL-ACQUISITION AREA (SF)	TCE AREA (SF)
398-092-02	PACIFIC LINK LLC	---	---	---
398-092-12	STATE OF CALIFORNIA	---	---	873
398-092-13	COUNTY OF ORANGE	---	---	6,953
398-092-14	COMMUNITY REDEVELOPMENT AGENCY, CITY OF SANTA ANA	---	---	12,488
398-093-01	SANTA ANA INDUSTRIAL CO.	---	---	662
398-093-03	SWIATEK, KATHRINE T	15,596	---	---
398-093-04	SWIATEK, DALE E	6,256	---	---
398-093-05	SWIATEK, DALE E	9,349	---	---
398-093-06				
398-093-07	PRESTON, RICHARD A TR	6,260	---	---
398-093-08	FREEDMAN, MICHAEL ALAN TR	34,080	---	---
398-093-13				
398-101-15	PHOENIX HOUSES OF CALIFORNIA INC.	---	1,169	2,604
398-101-16	COUNTY OF ORANGE	---	14,453	11,500
398-208-01				
398-207-01	COUNTY OF ORANGE	64,642	---	---
398-361-07	COUNTY OF ORANGE	---	---	38,074
398-361-12	JAPALAGHI, BATOOL S TR	---	---	14,828
931-104-67	1039 & 1054 E 4TH LLC	73,208	---	---
931-104-68	4SA2 PROPERTIES LP	---	---	732

LEGEND

- Parcels
- XXX-XXX-XX Parcel Number
- Proposed Full Acquisition
- Proposed Partial Acquisition
- Temporary Construction Easement
- Proposed Improvements
- Proposed Detour Road

0 50 100 200 300

SCALE: 1" = 100'

2014-08-18

PLANS PREPARED BY:

AECOM

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ORANGE, CA 92868-4713
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CITY OF SANTA ANA

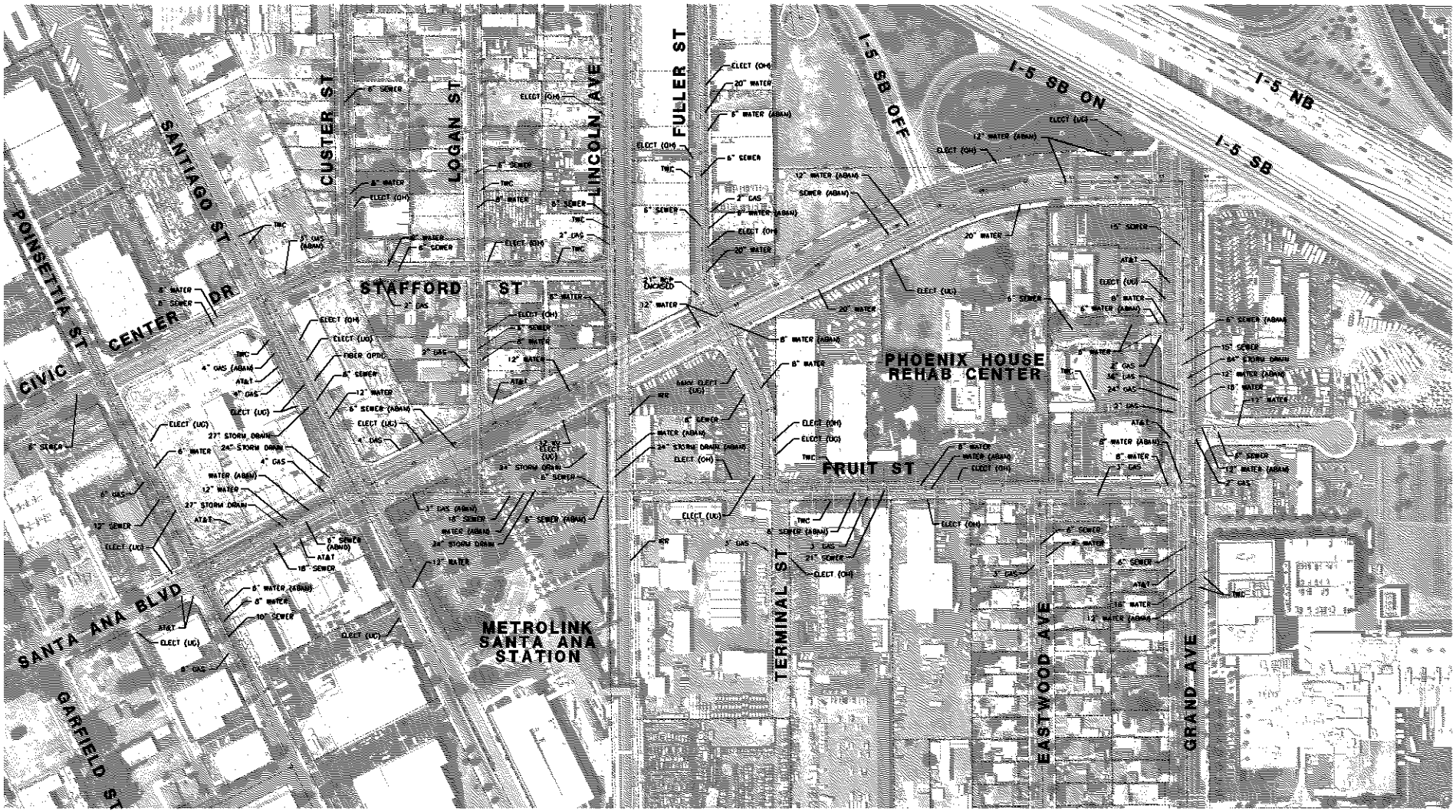
SANTA ANA BOULEVARD GRADE SEPARATION

RW ACQUISITION MAP

Attachment H:

Existing & Proposed Utilities

19E-56



0 100 200 400 800

SCALE: 1" = 100'

PLANS PREPARED BY:

AECOM

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ORANGE, CA 92868-4713
(714) 567-2501

CITY OF SANTA ANA
SANTA ANA BOULEVARD GRADE SEPARATION
EXISTING UTILITIES

0 30 60 120 180 240
SCALE: 1" = 60'

2014-08-18

PLANS PREPARED BY:
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999 W. TOWN AND COUNTRY ROAD
ORANGE, CA 92868-4713
(714) 567-2501

CITY OF SANTA ANA
SANTA ANA BOULEVARD
GRADE SEPARATION
PROJECT UTILITY RELOCATION

Attachment I:

Cost Estimate

City of Santa Ana
Santa Ana Boulevard Grade Separation Project
Preliminary Engineering Estimate

No.	Item Description	Unit of Measure	Unit Cost	Quantity	Item Total
1	Mobilization (10%)	LS	$ 3,149,000	1	$ 3,149,000
2	Clearing and Grubbing	LS	$ 200,000	1	$ 200,000
3	Demolition	LS	$ 1,500,000	1	$ 1,500,000
4	Roadway Excavation	CY	$ 13	98,000	$ 1,274,000
5	Hot Mix Asphalt (HMA)	TON	$ 85	9,100	$ 773,500
6	Class 2 Aggregate Base	CY	$ 40	7,300	$ 292,000
7	PCC Curb & Gutter	LF	$ 25	6,100	$ 152,500
8	PCC Sidewalk	SF	$ 5	34,600	$ 173,000
9	Retaining Wall	SF	$ 70	26,500	$ 1,855,000
10	Retaining Wall (Raised Sidewalk)	SF	$ 70	3,470	$ 242,900
11	Underpass Structural	LS	$ 7,451,415	1	$ 7,451,415
12	Pedestrian Bridge	SF	$ 190	5,040	$ 957,600
13	Storm Drain System	LS	$ 200,000	1	$ 200,000
14	Pump Station	LS	$ 1,500,000	1	$ 1,500,000
15	Utility Relocation	LS	$ 2,000,000	1	$ 2,000,000
16	Street Lighting	LS	$ 300,000	1	$ 300,000
17	Railroad Shoofly	TF	$ 450	5,850	$ 2,632,500
18	Railroad Grade Crossing Work	LS	$ 1,600,000	1	$ 1,600,000
19	Temporary Railroad Station	LS	$ 2,688,000	1	$ 2,688,000
20	Permanent Railroad Station	LS	$ 640,000	1	$ 640,000
21	Rail Road Signal & Communication	LS	$ 2,500,000	1	$ 2,500,000
22	PTC	LS	$ 1,000,000	1	$ 1,000,000
23	Signing & Striping	LS	$ 50,000	1	$ 50,000
24	Detour Road & Traffic Control	LS	$ 1,000,000	1	$ 1,000,000
25	Signal Modification	EA	$ 100,000	1	$ 100,000
26	Landscape	LS	$ 150,000	1	$ 150,000
27	Irrigation	LS	$ 150,000	1	$ 150,000
28	SWPPP and Implementation	LS	$ 100,000	1	$ 100,000
				Subtotal:	**$ 34,632,000**
				25 % Contingency:	**$ 8,658,000**
				Construction Total:	**$ 43,290,000**

City of Santa Ana
Santa Ana Boulevard Grade Separation Project
Preliminary Engineering Estimate

No.	Item Description	Unit of Measure	Unit Cost	Quantity	Item Total
	Engineering:				
29	Final PS&E Design (10%)	LS	$ 4,329,000	1	$ 4,329,000
30	Construction Engineering (15%)	LS	$ 6,493,500	1	$ 6,493,500
				Engineering Total:	**$ 10,822,500**
	Right of Way:				
31	Right of Way Acquisition	LS	$ 12,460,486	1	$ 12,460,486
				Subtotal:	**$ 12,460,486**
				25 % Contingency:	**$ 3,115,122**
				Right of Way Total:	**$ 15,575,608**
32	Right of Way Consultant Support	LS	$ 1,500,000	1	$ 1,500,000
				Total Project Cost (not including PA/ED):	**$ 71,188,108**

Attachment J:

Preliminary Environmental Study (PES)

Exhibit 6-A Preliminary Environmental Study (PES) Form

Federal Project No.: STPL 5063(136) *(Federal Program Prefix-Project No., Agreement No.)* **Final Design:** December 2012 *(Expected Start Date)*

To: Jim Kaufman, Chief, Office of Local Programs *(District Local Assistance Engineer)*
District 12 *(District)*
3347 Michelson Dr., Suite 100
Irvine, California 92612-8894 *(Address)*
Jim.Kaufman@dot.ca.gov *(E-mail Address)*

From: City of Santa Ana *(Local Agency)*
Jason Gabriel – (714) 647-5664 *(Project Manager's Name and Telephone No.)*
20 Civic Center Plaza, M-36
Santa Ana, California 92701 *(Address)*
JGabriel@santa-ana.org *(E-mail Address)*

Is this Project "ON" the State Highway System? ☐ Yes ☒ No **IF YES, STOP HERE** and contact the District Local Assistance Engineer regarding the completion of other environmental documentation.

Federal State Transportation Improvement Program (FSTIP) http://www.dot.ca.gov/hq/transprog/fedpgm.htm: 2011 *(Currently Adopted Plan Date)* 21 *(Page No.___ attach to this form)*

Programming for FSTIP:	**Preliminary Engineering**		**Right of Way**		**Construction**	
	Prior *(Fiscal Year)*	$ 1.5M *(Dollars)*	N/A *(Fiscal Year)*	$ N/A *(Dollars)*	N/A *(Fiscal Year)*	$ N/A *(Dollars)*

Project Description as Shown in RTP and FSTIP: FTIP No. ORA082610: Santa Ana Blvd Grade Separation - Near the Expansion of the Santa Ana Regional Transportation Center (SARTIC). Initial planning and conceptual engineering phase. Related to ORA81621.

Detailed Project Description: *(Describe the following, as applicable: purpose and need, project location and limits, required right of way acquisition, proposed facilities, staging areas, disposal and borrow sites, construction activities, and construction access.)*
Project Name: Santa Ana Boulevard Grade Separation Project. The City of Santa Ana, in coordination with the California Department of Transportation (Department), is proposing to grade separate the existing Santa Ana Boulevard/Orange County Transportation Authority (OCTA) Metrolink at-grade railroad crossing in the City of Santa Ana, Orange County, California. The purpose of the proposed project is to improve safety, as it will remove the existing at-grade conflict between vehicular traffic and rail traffic. In addition, the proposed project would reduce the congestion and inconvenience caused by this existing at-grade facility. See page 1 for complete. Project Description.

(Continue description on "Notes" sheet, last page of this Exhibit, if necessary)

Preliminary Design Information:
Does the project involve any of the following? Please check the appropriate boxes and delineate on an attached map, plan, or layout including any additional pertinent information.

Yes	No		Yes	No		Yes	No	
☒	☐	Widen existing roadway	☒	☐	Ground disturbance	☒	☐	Easements
☐	☒	Increase number of through lanes	☒	☐	Road cut/fill	☒	☐	Equipment staging
☐	☒	New alignment	☒	☐	Excavation: anticipated maximum depth 25 feet	☒	☐	Temporary access road/detour
☐	☒	Capacity increasing—other (e.g., channelization)				☒	☐	Utility relocation
			☒	☐	Drainage/culverts	☒	☐	Right of way acquisition (if yes, attach map with APN)
☒	☐	Realignment	☐	☒	Flooding protection			
☐	☒	Ramp or street closure	☐	☒	Stream channel work	☒	☐	Disposal/borrow sites
☒	☐	Bridge work						
			☒	☐	Pile driving	☐	☒	Part of larger adjacent project
☒	☐	Vegetation removal						
☒	☐	Tree removal	☒	☐	Demolition	☒	☐	Railroad

Required Attachments:
☒ Regional map ☒ Project location map ☒ Project footprint map (existing/proposed right of way)
☐ Engineering drawings (existing and proposed cross sections), if available ☐ Borrow/disposal site location map, if applicable
(Note: all maps (except project location map and regional maps) should be consistent with the project description (minimum scale: 1" = 200').)
☒ Notes to support the conclusions of this checklist/project description continuation page (attached)

Examine the project for potential effects on the environment, direct or indirect and answer the following questions. The "construction area," as specified below, includes all areas of ground disturbance associated with the project, including staging and stockpiling areas and temporary access roads.

Each answer must be briefly documented on the "Notes" pages at the end of the PES Form.

A. Potential Environmental Effects	Yes	To Be Determined	No
General			
1. Will the project require future construction to fully utilize the design capabilities included in the proposed project?	☐	☐	☒
2. Will the project generate public controversy?	☐	☐	☒
Noise			
3. Is the project a Type I project as defined in 23 CFR 772.5(h); "construction on new location or the physical alteration of an existing highway, which significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes"?	☒	☐	☐
4. Does the project have the potential for adverse construction-related noise impact (such as related to pile driving)?	☐	☒	☐
Air Quality			
5. Is the project in a NAAQS non-attainment or maintenance area?	☒	☐	☐
6. Is the project exempt from the requirement that a conformity determination be made? (If "Yes," state which conformity exemption in 40 CFR 93.126, Table 2 applies): railroad/highway crossing	☒	☐	☐
7. Is the project exempt from regional conformity? (If "Yes," state which conformity exemption in 40 CFR 93.127, Table 3 applies):	☐	☐	☐
8. If project is not exempt from regional conformity, (If "No" on Question #7)			
Is project in a metropolitan non-attainment/maintenance area?	☐	☐	☐
Is project in an isolated rural non-attainment area?	☐	☐	☐
Is project in a CO, PM10 and/or PM2.5 non-attainment/maintenance area?	☐	☐	☐
Hazardous Materials/Hazardous Waste			
9. Is there potential for hazardous materials (including underground or aboveground tanks, etc.) and/or hazardous waste (including oil/water separators, waste oil, asbestos-containing material, lead-based paint, ADL, etc.) within or immediately adjacent to the construction area?	☐	☒	☐
Water Quality/Resources			
10. Does the project have the potential to impact water resources (rivers, streams, bays, inlets, lakes, drainage sloughs) within or immediately adjacent to the project area?	☐	☒	☐
11. Is the project within a designated sole-source aquifer?	☐	☐	☒
Coastal Zone			
12. Is the project within the State Coastal Zone, San Francisco Bay, or Suisun Marsh?	☐	☐	☒
Floodplain			
13. Is the construction area located within a regulatory floodway or within the base floodplain (100-year) elevation of a watercourse or lake?	☐	☐	☒
Wild and Scenic Rivers			
14. Is the project within or immediately adjacent to a Wild and Scenic River System?	☐	☐	☒
Biological Resources			
15. Is there a potential for federally listed threatened or endangered species, or their critical habitat or essential fish habitat to occur within or adjacent to the construction area?	☐	☒	☐
16. Does the project have the potential to directly or indirectly affect migratory birds, or their nests or eggs (such as vegetation removal, box culvert replacement/repair, bridge work, etc.)?	☐	☒	☐
17. Is there a potential for wetlands to occur within or adjacent to the construction area?	☐	☐	☒

18. Is there a potential for agricultural wetlands to occur within or adjacent to the construction area?	☐	☐	☒
19. Is there a potential for the introduction or spread of invasive plant species?	☒	☐	☐
Sections 4(f) and 6(f)			
20. Are there any historic sites or publicly owned public parks, recreation areas, wildlife or waterfowl refuges (Section 4[f]) within or immediately adjacent to the construction area?	☐	☐	☒
21. Does the project have the potential to affect properties acquired or improved with Land and Water Conservation Fund Act (Section 6[f]) funds?	☐	☐	☒
Visual Resources			
22. Does the project have the potential to affect any visual or scenic resources?	☐	☒	☐
Relocation Impacts			
23. Will the project require the relocation of residential or business properties?	☒	☐	☐
Land Use, Community, and Farmland Impacts			
24. Will the project require any right of way, including partial or full takes? Consider construction easements and utility relocations.	☒	☐	☐
25. Is the project inconsistent with plans and goals adopted by the community?	☐	☐	☒
26. Does the project have the potential to divide or disrupt neighborhoods/communities?	☐	☐	☒
27. Does the project have the potential to disproportionately affect low-income and minority populations?	☐	☒	☐
28. Will the project require the relocation of public utilities?	☒	☐	☐
29. Will the project affect access to properties or roadways?	☒	☐	☐
30. Will the project involve changes in access control to the State Highway System (SHS)?	☐	☐	☒
31. Will the project involve the use of a temporary road, detour, or ramp closure?	☒	☐	☐
32. Will the project reduce available parking?	☒	☐	☐
33. Will the project construction encroach on state or federal lands?	☐	☐	☒
34. Will the project convert any farmland to a different use or impact any farmlands?	☐	☐	☒
Cultural Resources			
35. Is there National Register listed, or potentially eligible historic properties, or archaeological resources within or immediately adjacent to the construction area? *(Note: Caltrans PQS answers question #35)*	☐	☐	☐
36. Is the project adjacent to, or would it encroach on Tribal land?	☐	☐	☒

For Sections B, C, and D, check appropriate box to indicate required technical studies, coordination, permits, or approvals.

B. Required Technical Studies and Analyses	C. Coordination	D. Anticipated Actions/Permits/Approvals
☒ **Traffic**		
Check one:		
☒ Traffic Study	☒ Caltrans	☒ Approval
☐ Technical Memorandum	☐ Caltrans	☐ Approval
☐ Discussion in ED Only	☐ Caltrans	☐ Approval
☒ **Noise**		
Check as applicable:		
☒ Traffic Related		
☒ Construction Related		
Check one:		
☒ Noise Study Report	☒ Caltrans	☒ Approval
☐ NADR	☐ Caltrans	☐ Approval
☐ Technical Memorandum	☐ Caltrans	☐ Approval
☐ Discussion in ED Only	☐ Caltrans	☐ Approval
☒ **Air Quality**		
Check as applicable:		
☒ Traffic Related		
☒ Construction Related		
Check one:		
☒ Air Quality Report	☒ Caltrans	☒ Approval
☐ Technical Memorandum	☐ Caltrans	☐ Approval
☐ Discussion in ED Only	☐ Caltrans	☐ Approval
	☐ FHWA	☐ Conformity Finding (6005 CEs, EAs, EISs)
	☐ Caltrans	☐ Conformity Finding (6004 CEs)
	☐ Regional Agency	☐ PM10/PM2.5 Interagency Consultation
☒ **Hazardous Materials/ Hazardous Waste**		
Check as applicable:		
☒ Initial Site Assessment (Phase 1)	☒ Caltrans	☒ Approval
☐ Preliminary Site Assessment (Phase 2)	☐ Caltrans	☐ Approval
☐ Discussion in ED Only	☐ Caltrans	☐ Approval
	☒ Cal EPA DTSC	☒ Review Database
	☒ Local Agency	☒ Review Database
☒ **Water Quality/Resources**		
Check as applicable:		
☐ Water Quality Assess. Report	☐ Caltrans	☐ Approval
☒ Technical Memorandum	☒ Caltrans	☒ Approval
☐ Discussion in ED Only	☐ Caltrans	☐ Approval
☐ **Sole-Source Aquifer (Districts 5, 6 and 11)**	☐ EPA (S.F. Regional Office)	☐ Approval of Analysis in ED
☐ **Coastal Zone**	☐ CCC	☐ Coastal Zone Consistency Determination

B. Required Technical Studies and Analyses	C. Coordination	D. Anticipated Actions/Permits/Approvals
☐ **Floodplain**		
Check as applicable:		
☐ Location Hydraulic Study	☐ Caltrans	☐ Approval
☐ Floodplain Evaluation Report	☐ Caltrans	☐ Approval
☐ Summary Floodplain Encroachment Report	☐ Caltrans	☐ Approval
	☐ Caltrans	☐ Only Practicable Alternative Finding
	☐ FHWA	☐ Approves significant encroachments and concurs in Only Practicable Alternative Findings
☐ **Wild and Scenic Rivers**	☐ River Managing Agency	☐ Wild and Scenic Rivers Determination
☒ **Biological Resources**		
Check as applicable:		
☒ NES, Minimal Impact	☒ Caltrans	☒ Approval
☐ NES		
☐ BA	☐ Caltrans	☐ Approves for Consultation
	☐ USFWS ☐ NOAA Fisheries	☐ Section 7 Informal/Formal Consultation
☐ EFH Evaluation	☐ NOAA Fisheries	☐ MSA Consultation
☐ Bio-Acoustic Evaluation	☐ NOAA Fisheries	☐ Approval
☐ Technical Memorandum	☐ Caltrans	☐ Approval
☐ **Wetlands**		
Check as applicable:		
☐ WD and Assessment	☐ Caltrans	☐ Approval
	☐ ACOE	☐ Wetland Verification
	☐ NRCS	☐ Agricultural Wetland Verification
	☐ Caltrans	☐ Wetlands Only Practicable Alternative Finding
☒ **Invasive Plants**		
☒ Discussion in ED Only (NES)	☒ Caltrans	☒ Approval
☐ **Section 4(f)**		
Check as applicable:		
	☐ Caltrans	☐ Determine Temporary Occupancy
☐ De minimis	☐ Caltrans	☐ De minimis finding
☐ Programmatic 4(f) Evaluation Type: _____	☐ Caltrans	☐ Approval
☐ Individual 4(f) Evaluation	☐ Caltrans	☐ Approval
	☐ Agency with Jurisdiction ☐ SHPO ☐ DOI ☐ HUD ☐ USDA	

B. Required Technical Studies and Analyses	C. Coordination	D. Anticipated Actions/Permits/Approvals
☐ **Section 6(f)**	☐ Agency with Jurisdiction ☐ NPS	☐ Determines Consistency with Long-Term Management Plan
	☐ NPS	☐ Approves Conversion
☒ **Visual Resources**		
Check one:		
☒ Visual Impact Assessment	☒ Caltrans	☒ Approval
☐ Technical Memorandum	☐ Caltrans	☐ Approval
☐ Discussion in ED Only	☐ Caltrans	☐ Approval
☒ **Relocation Impacts**		
Check one:		
☐ Relocation Impact Memo	☐ Caltrans	☐ Approval
☒ Relocation Impact Study	☒ Caltrans	☒ Approval
☐ Relocation Impact Report	☐ Caltrans	☐ Approval
☒ **Land Use and Community Impacts**		
Check one:		
☒ CIA	☒ Caltrans	☒ Approval
☐ Technical Memorandum	☐ Caltrans	☐ Approval
☐ Discussion in ED Only	☐ Caltrans	☐ Approval
☐ **Construction/Encroachment on State Lands**		
Check as applicable:		
☐ SLC Jurisdiction	☐ SLC	☐ SLC Lease
☐ Caltrans Jurisdiction	☐ Caltrans	☐ Encroachment Permit
☐ SP Jurisdiction	☐ SP	☐ Encroachment Permit
☐ **Construction/Encroachment on Federal Lands**	☐ Federal Agency with Jurisdiction	☐ Encroachment Permit
☐ **Construction/Encroachment On Indian Trust Lands**	☐ Bureau of Indian Affairs	☐ Right of Way Permit
☐ **Farmlands**		
Check one:		
☐ CIA	☐ Caltrans	☐ Approval
☐ Technical Memorandum	☐ Caltrans	☐ Approval
☐ Discussion in ED Only	☐ Caltrans	☐ Approval
Check as applicable:		
☐ Form AD 1006	☐ NRCS	☐ Approves Conversion
	☐ CDOC	☐ Approves Conversion
☐ Conversion to Non-Agri Use	☐ ACOE	

B. Required Technical Studies and Analyses	C. Coordination	D. Anticipated Actions/Permits/ Approvals
☒ **Cultural Resources** (PQS completes this section) ***Check as applicable:***	☐ Caltrans PQS	☐ Screened Undertaking
☒ APE Map	☒ Caltrans PQS and DLAE	☒ Approves APE Map
	☐ Local Preservation Groups and/or Native American Tribes	☐ Provides Comments Regarding Concerns with Project
☒ HPSR ☒ ASR ☒ HRER	☒ Caltrans	☒ Approves for Consultation
☒ Finding of Effect Report	☒ Caltrans	☒ Concurs on No Effect, No Adverse Effect with Standard Conditions
	☒ SHPO	☒ Letter of Concurrence on Eligibility, No Adverse Effect without Standard
☐ MOA	☐ Caltrans	☐ Approves MOA
	☐ SHPO	☐ Approves MOA
	☐ ACHP (if requested)	☐ Approves MOA
☐ **Permits** Copies of permits and a list of mitigation commitments are mandatory submittals following NEPA approval.	☐ ACOE	☐ Section 404 Nationwide Permit
	☐ ACOE	☐ Section 404 Individual Permit
	☐ Caltrans/ACOE/EPA ☐ USFWS ☐ NOAA Fisheries	☐ NEPA/404 Integration MOU
	☐ ACOE	☐ Rivers and Harbors Act Section 10 Permit
	☐ USCG	☐ USCG Bridge Permit
	☐ RWQCB	☐ Section 401 Water Quality Certification
	☐ CDFG	☐ Section 1602 Streambed Alteration Agreement
	☒ RWQCB	☒ NPDES Permit
	☐ CCC ☐ Local Agency	☐ Coastal Zone Permit
	☐ BCDC	☐ BCDC Permit

Notes: Additional studies may be required for other federal agencies.

ACHP = Advisory Council on Historic Preservation
ACOE = U.S. Army Corps of Engineers
ADL = Aerially Deposited Lead
APE = Area of Potential Effect
APN = Assessor Parcel Number
ASR = Archaeological Survey Report
BA = Biological Assessment
BCDC = Bay Conservation and Development Commission
BE = Biological Evaluation
BO = Biological Opinion
Cal EPA = California Environmental Protection Agency
CCC = California Coastal Commission
CDFG = California Department of Fish and Game
CDOC = California Department of Conservation
CE = Categorical Exclusion
CIA = Community Impact Assessment
CWA = Clean Water Act
DLAE = District Local Assistance Engineer
DOI = U.S. Department of Interior
DTSC = Department of Toxic Substances Control
EA = Environmental Assessment
ED = Environmental Document
EFH = Essential Fish Habitat
EIS = Environmental Impact Statement
EPA = U.S. Environmental Protection Agency
FEMA = Federal Emergency Management Agency
FHWA = Federal Highway Administration
FONSI = Finding of No Significant Impacted
FTIP = Federal Transportation Improvement Program
HPSR = Historic Property Survey Report
HRER = Historical Resources Evaluation Report
HUD = U.S. Housing and Urban Development
MOA = Memorandum of Agreement
MSA = Magnuson-Stevens Fishery Conservation and Management Act
NEPA = National Environmental Policy Act
NADR = Noise Abatement Decision Report
NES = Natural Environment Study
NHPA = National Historic Preservation Act
NOAA = National Oceanic and Atmospheric Administration
NMFS National Marine Fisheries Service
NPDES = National Pollutant Discharge Elimination System
NPS = National Park Service
NRCS = Natural Resources Conservation Service
PM10 = Particulate Matter 10 Microns in Diameter or Less
PM2.5 = Particulate Matter 2.5 Microns in Diameter or Less
PMP = Project Management Plan
PQS = Professionally Qualified Staff
ROD = Record of Decision
RTIP = Regional Transportation Improvement Program
RTP = Regional Transportation Plan
RWQCB = Regional Water Quality Control Board
SER = Standard Environmental Reference
SEP = Senior Environmental Planner
SHPO = State Historic Preservation Officer
SLC = State Lands Commission
SP = State Parks
TIP = Transportation Improvement Program
USCG = U.S. Coast Guard
USDA = U.S. Department of Agriculture
USFWS = U.S. Fish and Wildlife Service
WD = Wetland Delineation

E. Preliminary Environmental Document Classification (NEPA)

Based on the evaluation of the project, the environmental document to be developed should be:

Check one:

☐ Environmental Impact Statement (*Note: Engagement with participating agencies in accordance with SAFETEA-LU Section 6002 required)*

☐ Compliance with SAFETEA-LU Section 6002 regarding Participating Agencies required

☐ Complex Environmental Assessment

☒ Routine Environmental Assessment

☐ Categorical Exclusion without required technical studies.

☐ Categorical Exclusion with required technical studies

(if Categorical Exclusion is selected, check one of the following):

☐ Section 6004

☐ 23 CFR 771 activity (c)(_____)

☐ 23 CFR 771 activity (d) (3)

☐ Activity _____ listed in the Section 6004 MOU

☐ Section 6005

F. Public Availability and Public Hearing

Check as applicable:

☐ Not Required

☒ Notice of Availability of Environmental Document

☒ Public Meeting

☐ Notice of Opportunity for a Public Hearing

☐ Public Hearing Required

G. Signatures

Local Agency Staff and/or Consultant Signature

(Signature of Preparer)	June 17, 2011 (Date)	(949) 333-6618 (Telephone No.)

Brian Calvert
(Name)

Local Agency Project Engineer Signature

This document was prepared under my supervision, in accordance with the *Local Assistance Procedures Manual,* Exhibit 6-B, "Instructions for Completing the Preliminary Environmental Study Form."

(Signature of Local Agency)	June 27, 2011 (Date)	(714) 647-5664 (Telephone No.)

Caltrans District Professionally Qualified Staff (PQS) Signature

☐ Project does not meet definition of an "undertaking"; no further review is necessary under Section 106 ("No" Section A, #35).

☐ Project is limited to the type of activity listed in Attachment 2 of the Section 106 PA and based on the information provided in the PES Form, the project does not have the potential to affect historic properties ("No" Section A, #35).

☐ Project is limited to the type of activity listed in Attachment 2 of the Section 106 PA, but the following additional procedures or information is needed to determine the potential for effect ("To Be Determined" Section A, #35):

☐ Records Search ☐ _____ ☐ _____ ☐ _____

☐ Project meets the definition of an "undertaking"; all properties in the project area are exempt from evaluation per Attachment 4 of the Section 106 PA ("No" Section A, #35).

☒ The proposed undertaking is considered to have the potential to affect historic properties; further studies for 106 compliance are indicated in Sections B, C, and D of this PES Form ("Yes" Section A, #35).

(Signature of Professionally Qualified Staff)	8-17-11 (Date)	949-724-2252 (Telephone No.)

The following signatures are required for all CEs, routine and complex EAs, and EISs:

Caltrans District Senior Environmental Planner (or Designee) and DLAE Signatures

I have reviewed this Preliminary Environmental Study (PES) Form and determined that the submittal is complete and sufficient. I concur with the studies to be performed and the recommended NEPA Class of Action.

(Signature of Senior Environmental Planner or Designee)	8-17-11 (Date)	949-724-2252 (Telephone No.)
Charles Baker (Name)		

(Signature of District Local Assistance Engineer or Designee)	8-18-11 (Date)	(949) 756-7805 (Telephone No.)
Jim Kaufman (Name)		

☒ HQ DEA Environmental Coordinator concurrence 8/23/11 (date). E-mail concurrence attached.

PROJECT DESCRIPTION

The City of Santa Ana, in coordination with the California Department of Transportation (Department), is proposing to grade separate the existing Santa Ana Boulevard/Orange County Transportation Authority (OCTA) Metrolink at-grade railroad crossing in the City of Santa Ana, Orange County, California (see Figures 1 and 2).

Currently, 66 trains cross Santa Ana Boulevard at this location on weekdays. The purpose of the proposed project is to eliminate the at-grade crossing of Santa Ana Boulevard and the Orange County Transportation Authority (OCTA) Metrolink tracks by creating a grade separation, including depressing the profile of Santa Ana Boulevard under the adjacent Metrolink tracks to: enhance traffic operations; improve pedestrian and bicycle user safety; improve emergency response times; and reduce existing traffic congestion along Santa Ana Boulevard.

"The proposed project improvements extend along Santa Ana Boulevard from approximately Santiago Street at the west end to the west side of the Interstate 5 (I-5) southbound off-ramp intersection with Santa Ana Boulevard."As part of the grade separation the proposed project includes: minor improvements to the Santa Ana Boulevard/Santiago Street intersection; terminating Logan Street north of Santa Ana Boulevard by constructing a cul-de-sac; and improvements to Fuller Street, both north and south of Santa Ana Boulevard (see Figure 3).

The project proposes to relocate Santa Ana Boulevard approximately 30 feet south of its existing alignment, to construct a utility corridor on the north side of the roadway, and to maintain the existing lane configuration of three (3) lanes in each direction for the entire length of the project.

The proposed project will include the construction of an underpass bridge (i.e., roadway going under the railroad tracks) and retaining walls, installation of paving, curbs, gutters, medians, sidewalks, streetlights, landscape and irrigation features, drainage facilities, and the relocation of utilities.

During construction the project proposes to construct a temporary two track shoofly railroad alignment for the purpose of constructing the underpass structure while maintaining railroad service, which is to be constructed beginning just south of the existing Metrolink crossing of I-5 and terminating south of the Santa Ana Transportation Center near 4th Street. This shoofly alignment would be located east of the existing railroad alignment. The project also proposes to construct a two-lane detour road south of Santa Ana Boulevard, which would be used by traffic during the construction of the underpass bridge and its approaches. The project also proposes to use Fruit Street as a detour route during the final phase of construction. New right-of-way, including both permanent acquisition and temporary easements, will be needed for the construction of the shoofly and detour road.

Construction staging areas for the proposed project would potentially be located on the following properties: APNs 398-093-13, 398-092-12, and 398-207-01. The disposal site for the proposed project, if needed, will be selected by the contractor. Any environmental clearances related to the disposal site will be obtained by the contractor prior to construction.

The proposed project is included in the 2008 Regional Transportation Plan (RTP) and 2011 cost-constrained Federal Transportation Improvement Program (FTIP) (federal approval date of December 14, 2010) as project ID ORA082610. The project as proposed is consistent with the 2011 FTIP description.

PRELIMINARY ENVIRONMENTAL STUDY FORM RESPONSES

General

1. **Will the project require future construction to fully utilize the design capabilities included in the proposed project?**

   The proposed project, as designed, would provide a number of potential traffic-related, environmental, and safety-related benefits, without future construction:

   - Elimination of traffic delays related to the existing Orange County Transportation Authority (OCTA) Metrolink at-grade crossing at Santa Ana Boulevard;
   - assist in vehicle emissions reduction (along Santa Ana Boulevard) related to motorists waiting for trains to traverse the existing at-grade crossing;
   - decrease in delays and improved travel time along Santa Ana Boulevard, which in turn reduces travel cost;
   - decrease in emergency response times related to existing at-grade crossing traffic delays; and
   - Reduction or elimination of rear-end collisions, and elimination of potential broadside collisions with trains, along Santa Ana Boulevard at the OCTA Metrolink tracks.

   The proposed project would be able to function independently, and would not require future construction to fully utilize the design capabilities included in the proposed project.

2. **Will the project generate public controversy?** No known public controversy exists regarding the proposed project. There is no reason to expect substantial public interest in the project from a community standpoint based on potential environmental effects. The proposed project is expected to provide a number of potential traffic-related, environmental, and safety-related benefits to the community. It is anticipated that any local interest in the environmental impacts of the project would be primarily related to typical concerns related to grade separation projects such as property acquisition and visual and noise impacts for residents located immediately adjacent to the project alignment. This will be further evaluated in the Community Impact Assessment that is prepared and during the public information meeting that is held for the project.

Noise

3. **Is the project a Type I project as defined in 23 CFR 772.5(h); "construction on new location or the physical alteration of an existing highway, which significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes"?** According to 23 CFR 772.5(h), a Type I project involves "construction on new location or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes." The proposed project involves the grade separation of an existing road/railroad crossing, which would involve the construction of an undercrossing (roadway passing under the railroad tracks). This would alter the vertical alignment of the roadway, thus the proposed project is a Type I project.

4. **Does the project have the potential for adverse construction-related noise impact (such as related to pile driving)?** The proposed project will likely involve pile driving during construction. This type of work would be limited in duration; however, this will be further evaluated and addressed in the Noise Study.

Air Quality

5. **Is the project in a National Ambient Air Quality Standards non-attainment or maintenance area?** The proposed project is located in the South Coast Air Basin (SCAB). As shown below, the State of California has designated the SCAB as being a nonattainment area for ozone (O_3) and

particulate matter (PM_{10}). At the federal level, EPA has also designated this area as being a nonattainment area for O_3 (8-hour standard), PM_{10}, and $PM_{2.5}$.

Selected Criteria Pollutants: Attainment Status for the South Coast Air Basin (SCAB)

	Status	
Pollutants	Federal	State
O_3 (one-hour standard)	—	Extreme Nonattainment
O_3 (eight-hour standard)	Nonattainment, Severe-17	—
PM_{10}	Serious Nonattainment	Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO_2	Unclassified/Attainment	Attainment
SO_2	Attainment	Attainment

6. **Is the project exempt from the requirement that a conformity determination be made? (If "Yes," state which conformity exemption in 40 CFR 93.126, Table 2 applies).** Yes, the proposed project is exempt from the requirement to determine conformity under the Safety heading in 40 CFR 93.126 (railroad/highway crossing). However, an Air Quality Report will be prepared to address any potential operational or construction period impacts.

7. **Is the project exempt from regional conformity? (If "Yes," state which conformity exemption in 40 CFR 93.127, Table 3 applies).** Not applicable based on response to Question 6.

8. **If project is not exempt from regional conformity? (If "No" on Question #7).** Not applicable based on response to Question 6.

Hazardous Materials/Hazardous Waste

9. **Is there potential for hazardous materials (including underground or aboveground tanks, etc.) and/or hazardous waste (including oil/water separators, waste oil, asbestos-containing material, lead-based paint, ADL, etc.) within or immediately adjacent to the construction area?** Based on a review of readily available database information, it is not anticipated that any hazardous materials or waste sites would be impacted by the proposed project as no known sites were identified within limits of disturbance for the proposed project and it is not anticipated that the project would impact groundwater. A review of the California Department of Toxic Substances' EnviroStor database revealed that the nearest site that utilizes hazardous waste and substances on site is the Orange County Register (located at 625 N. Grand Avenue). This site is located approximately 800 feet south of the east end of the project site. However, although not identified in the database search, a field review of the project site indicated that several industrial and warehouse type uses are present and these have a high potential for using or storing hazardous materials. In particular, the County Maintenance Yard located at 1102 Fruit Street has gas pumps and above ground tanks on site, and a hazardous materials placard was identified on the Orange County Public Works property located at 1143 Fruit Street. The Initial Site Assessment (ISA) that is prepared for the proposed project will further evaluate the potential for hazardous materials/waste concerns related to the proposed project.

Water Quality

10. **Does the project have the potential to impact water resources (rivers, streams, bays, inlets, lakes, drainage sloughs) within or immediately adjacent to the project area?** There are no rivers, streams, bays, inlets, lakes, or drainage sloughs located within or immediately adjacent to the proposed project based on an initial field review of the project site. While the project is not located near any rivers, streams, bays, inlets, lakes, or drainage sloughs, the project areas drainage system

will ultimately discharge into waters of the United States and the State of California, making the project subject to the requirements of a National Pollution Discharge Elimination System (NPDES) permit. Additionally, other impacts could potentially occur related to groundwater, dewatering during construction, and the potential need for a pump system to remove storm water from the lower elevations of the project area. This will be further evaluated in the Water Quality Memorandum that is prepared for the proposed project.

11. **Is the project within a designated sole-source aquifer?** The designated sole-source aquifers in California are located in the counties of Fresno, Santa Cruz, Butte, and Imperial. The proposed project is located in Orange County and not near any of California's designated sole-source aquifers.

Coastal Zone

12. **Is the project within the State Coastal Zone, San Francisco Bay, or Suisun Marsh?** The State Coastal Zone is designated as the coastal area that is generally located within one mile of the Pacific Coast. The project area is considerably further from the coast and not within an area regulated by the State Coastal Zone Management Agency (SCZMA).

Floodplain

13. **Is the construction area located within a regulatory floodway or within the base floodplain (100-year) elevation of a watercourse or lake?** As identified on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) number 06059C0163J, dated December 3, 2009, for Orange County, California and Incorporated Areas the proposed project is not located with a 1-percent annual chance (100-year) floodplain or a regulatory floodway. The proposed project is located in unshaded Zone X, which is defined as areas determined to be outside the 0.2% annual chance (500-year) floodplain.

Wild and Scenic Rivers

14. **Is the project within or immediately adjacent to a Wild and Scenic River System?** There are no wild and scenic rivers located in or adjacent to the study area according to the Wild and Scenic River System list that is maintained by the National Park Service.

Biological Resources

15. **Is there a potential for federally listed threatened or endangered species, or their critical habitat or essential fish habitat to occur within or adjacent to the construction area?** A review of the California Natural Diversity Database and California Nation Plant Society database was performed. In addition a preliminary review of the project site was conducted. The project site includes a few heavily disturbed lots with ruderal vegetation. Based on these reviews, no federally listed or threatened or endangered species occur, or have the potential to occur, on or adjacent to the project site. In addition, no critical habitat for any federally listed threatened or endangered species is present. This will be further documented in the Natural Environment Study (Minimal Impact) (NES [MI]) that is prepared.

16. **Does the project have the potential to directly or indirectly affect migratory birds, or their nests or eggs (such as vegetation removal, box culvert replacement/repair, bridge work, etc.)?** The Migratory Bird Treaty Act (MBTA) makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds. The law applies to the removal of nests as well as the abandonment of nests occupied by migratory birds during the breeding season. Due to the presence of vegetation and trees within and adjacent to the identified limits of disturbance for the proposed project there is the potential for impacts to migratory and nesting birds during construction activities. This will be further evaluated and addressed in the NES (MI) that is prepared for the proposed project. It is anticipated that tree removal associated with project would occur outside of the bird breeding season. If tree removal would occur during the bird breeding season (February 15 through August 15), a pre-construction nesting bird survey shall be conducted prior to any ground disturbance or vegetation removal.

17. **Is there a potential for wetlands to occur within or adjacent to the construction area?** Based on a preliminary review of the project site no surface waters are present. Per the National Wetland Inventory (NWI) maps, available through the Natural Resource Conservation Service (NRCS) field office, and the Wetlands Online Mapper (U.S. Fish and Wildlife Service, Wetlands Online Mapper, http://www.fws.gov/wetlands/Data/Mapper.html), which is based on the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory database, there are no wetlands on, immediately adjacent to, or in the vicinity of the proposed project. The potential for wetlands to occur within or adjacent to the project, and the potential for the project to affect wetlands, if any, will be confirmed during the detailed field evaluation performed as part of the NES (MI). Based on a preliminary review of the project site wetlands are not anticipated to be encountered within or adjacent to the identified limits of disturbance.

18. **Is there a potential for agricultural wetlands to occur within or adjacent to the construction area?** According to the Wetlands Online Mapper (U.S. Fish and Wildlife Service, Wetlands Online Mapper, http://www.fws.gov/wetlands/Data/Mapper.html), which is based on the U.S. Fish and Wildlife Service National Wetlands Inventory database, there are no wetlands on, immediately adjacent to, or in the vicinity of the proposed project. The potential for agricultural wetlands to occur within or adjacent to the project, and the potential for the project to affect agricultural wetlands, if any, will be confirmed during the field evaluation performed as part of the NES (MI). Based on a preliminary review of the project site wetlands, including agricultural wetlands, are not anticipated to be encountered within or adjacent to the identified limits of disturbance.

19. **Is there a potential for the introduction or spread of invasive plant species?** During construction there would be the potential for the spread of invasive species through introduction from construction equipment and other outside sources. Standard Department construction best management practices (BMPs) would be implemented during construction to limit the potential for the introduction or spread of invasive species. This will be addressed in the NES (MI) that is prepared.

Sections 4(f) and 6(f)

20. **Are there any historic sites or publicly owned public parks, recreation areas, wildlife or waterfowl refuges (Section 4[f]) within or immediately adjacent to the construction area?** It is not anticipated that any Section 4(f) resources would be impacted by the proposed project as no publicly owned parks or recreation areas, wildlife or waterfowl refuges, or known historic sites are located within or immediately adjacent to the proposed project site. One site, the Orange County Highway Department (now Road Department) industrial/maintenance yard located at 1102 East Fruit Street (buildings number 3 through 9) was previously identified as being eligible for listing on the National Register of Historic Places. However, this finding does not appear to be appropriate for this site and will be addressed in the Historic Property Survey Report/Historical Resources Evaluation Report that is prepared for the project. Is anticipated that this site will be determined to not be eligible for listing on the NRHP and therefore would not be a Section 4(f) resource.

21. **Does the project have the potential to affect properties acquired or improved with Land and Water Conservation Fund Act (Section 6[f]) funds?** No parks are located within or adjacent to the proposed project site. No properties acquired with Land and Water Conservation Fund (Section 6(f)) funds would be impacted by the proposed project.

Visual Resources

22. **Does the project have the potential to affect any visual or scenic resources?** The project vicinity consists of primarily light industrial and warehouse uses to the east of Lincoln Avenue. In the northwest quadrant of the Santa Ana Boulevard/OCTA Metrolink at-grade crossing are predominantly single-family uses, while the southwest quadrant is the Santa Ana Regional Transportation Center. To the west of Santiago Street to the north and south of Santa Ana Boulevard multi-family residential units are present. The Visual Impact Assessment Guide was completed for the proposed project. Based on a preliminary review of the project site and the information known about the project area the proposed project received a scope of 17. Based on these results an abbreviated Visual Impact

Assessment is anticipated for the proposed project. Where feasible the project would include landscaping and would provide architectural elements on the new structure. This will be further addressed in the Visual Impact Assessment that is prepared.

Relocation Impacts

23. **Will the project require the relocation of residential or business properties?** The proposed project would not require the relocation of any residences. A total of sixteen commercial parcels would be acquired, which would require the relocation of approximately eleven businesses and three County buildings/operations. Two acquisition parcels do not currently have tenants. This will be further evaluated in the Relocation Impact Study and Community Impact Assessment that are prepared.

Land Use, Community, and Farmlands Impacts

24. **Will the project require any right of way, including partial or full takes? Consider construction easements and utility relocations.** The proposed project would require the full acquisition of sixteen properties, which all contain commercial/industrial/maintenance facility uses and are presented below. As shown below, partial acquisition and temporary construction easements (TCEs) would be required on two properties and TCEs only would be required on three properties. This will be further evaluated in the Relocation Impact Study and Community Impact Assessment that are prepared.

Acquisitions

Parcel No.	Full Acquisition	Partial Acquisition	Temporary Construction Easement	Status
398-101-15	No	Yes	Yes	Active
398-101-16	No	Yes	Yes	Active
398-208-01	Yes	No	No	Active
398-207-01	Yes	No	No	Active
398-361-07	Yes	No	No	Active
398-361-12	Yes	No	No	Active
931-104-67	Yes	No	No	Active
931-104-68	Yes	No	No	Active
398-362-01	Yes	No	No	Active
398-093-13	Yes	No	No	Vacant
398-093-08	Yes	No	No	Active
398-093-07	Yes	No	No	Active
398-093-06	Yes	No	No	Active
398-093-05	Yes	No	No	Active
398-093-04	Yes	No	No	Active
398-093-03	Yes	No	No	Active
398-093-01	Yes	No	No	Active
398-092-02	Yes	No	No	Vacant
398-092-13	No	No	Yes	Active
398-092-14	No	No	Yes	Active

25. **Is the project inconsistent with plans and goals adopted by the community?** The City of Santa Ana General Plan Circulation Element (Adopted February 2, 1998 and reformatted January 2010)

identifies Santa Ana as a primarily arterial, which is defined as a four- or six-lane divided arterial, which is consistent with the proposed project design. The proposed project would be consistent with plans and goals adopted by the community. The proposed project is consistent with the goals that are included in the City of Santa Ana General Plan Circulation Element. Specifically it meets the following goals.

- Goal 1, "Provide and maintain a comprehensive circulation system that facilitates the efficient movement of people and goods throughout the City, and enhances its economic viability." This is achieved by meeting Policy 1.10, which is to "Provide barrier-free accessibility throughout the circulation system."

- Goal 2, "Provide design and construction that facilitates safe utilization of the City's transportation system." This is achieved by meeting Policy 2.7, which is to "Continue design practices which facilitate the safe use of circulation systems.

Consistency with plans adopted by the community will be further evaluated further in the Community Impact Assessment that is prepared for the proposed project.

26. **Does the project have the potential to divide or disrupt neighborhoods/communities?** The proposed project would be constructed along an existing roadway and would not divide a neighborhood/community. The proposed project includes a sidewalk along both sides of the overcrossing which will provide an enhanced connection across the railroad tracks; pedestrians currently have to cross the railroad tracks at-grade. The pedestrian crossing at the intersection of Santa Ana Boulevard and Santiago Street, which is the primary pedestrian access across Santa Ana Boulevard, would remain as part of the proposed project. The proposed project would result in the full and partial acquisition of several parcels (businesses), see Items 23 and 24 above, and would also involve construction adjacent to single-family residences, which could cause temporary disruptions within the affected neighborhood. This will be evaluated further in the Community Impact Assessment that is prepared for the proposed project.

27. **Does the project have the potential to disproportionately affect low-income and minority populations?** All projects involving a federal action (funding, permit, or land) must comply with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,* signed by President Bill Clinton on February 11, 1994. This Executive Order directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. The proposed project is located within Census Tract 744.05, Block Groups 1, 2, and 3 (located along the north side of Santa Ana Boulevard) and Census Tract 744.06, Block Groups 1 and 3 (located along the south side of Santa Ana Boulevard). As shown in the following table, the project area (defined as Census Tract 744.05, Block Groups 1, 2, and 3, and Census Tract 744.06 Block Groups 1 and 3) has a lower percentage of individuals identified as White than Orange County (County) and the City of Santa Ana (City); however, the difference between the project area and the City is much less than between the project area and Orange County. The percentage of individuals identified as Latino/Hispanic is greater for the project area than for Orange County and the City with the difference between the project area and the County being much greater than between the project area and the City. For all other groups (African-American, American Indian/Alaskan Native, Pacific Islander/Native Hawaiian, and Other races/Ethnicities) the percentage within the project area is less than the percentages identified for the County and the City.

Population and Ethnic Distribution

Area	2000 Population	White (%)	Latino/ Hispanic (of any race) (%)	African-American (%)	Asian (%)	American Indian/ Alaskan Native (%)	Pacific Islander/ Native Hawaiian (%)	Other races/ Ethnicities*
Orange County	2,846,289	51.26	30.76	1.50	13.48	0.30	0.30	0.16
City of Santa Ana	337,977	12.42	76.07	1.27	8.70	0.26	0.26	0.08
Project Area**	8,843	7.24	89.96	0.70	1.27	0.21	0.21	0.06

* For Census Tract level, data classified as "Some other race alone" applied

** Includes Census Tract 744.05 Block Groups 1, 2, and 2 and Census Tract 744.06 Block Groups 1 and 3

As shown in the following table the median household income for the Census tracts where the project is located (i.e., Census tracts Census Tract 744.05, Block Groups 1, 2, and 3, and Census Tract 744.06 Block Groups 1 and 3) is below that reflected for Orange County and the City of Santa Ana. Low income is defined based on the Department of Health and Human Services (DHHS) poverty guidelines. For 1999 (commensurate with available income data), this was $16,700 for a family of four, and for 2011 (current), it is $22,350. Therefore, although the project area has a lower median household income than for the County and the City, the project area is not considered a low income area as it is above the DHHS poverty guidelines.

Median Household Income

Census Tract/City	1999 Median Household Income
Orange County	$58,820
City of Santa Ana	$43,412
Project Area"	$28,947

** Includes Census Tract 744.05 Block Groups 1, 2, and 2 and Census Tract 744.06 Block Groups 1 and 3

Based on a comparative analysis of demographic (i.e. race and ethnicity) and income characteristics of the study area with that of the City or County populations, the study area population is characterized as having a higher proportion of minority groups (i.e., Latino/Hispanic); and as having a lower income (though not defined as low income). However, the difference between the project area and the City percentages are not grossly different. Based on the above discussion the project could have impacts per Executive Order 12898 regarding environmental justice. However, no residential acquisitions would occur as part of the proposed project; and in addition, all residences located east of Santiago Street are located along the north side of Santa Ana Boulevard. As part of the project Santa Ana Boulevard would be shifted to the south and away from these residences. Therefore, it is not anticipated that the proposed project would cause disproportionately high and adverse effects on any minority or low-income populations as per Executive Order 12898 regarding environmental justice. In addition the proposed project would comply with Title VI of the Civil Rights Act of 1964 and related statutes. This will be further addressed in the Community Impact Assessment that is prepared for the proposed project.

28. **Will the project require the relocation of public utilities?** The proposed project would require the relocation of the following utilities.

- Southern California Gas – two-, three-, and four-inch gas lines
- Southern California Edison – 66 kilovolt (kV) and 12 kV electric lines
- City of Santa Ana – 8-, 12-, and 20-inch water lines and 6-, 8-, and 18-inch sewer lines
- AT&T – transmission fiber optic and distribution fiber optic

- Time Warner – fiber optic cable
- Metrolink – signal and communication fiber optic

The affected utilities shall be relocated in accordance with State law and regulations and County and City policies. There shall be ongoing coordination between the City of Santa Ana, the affected agencies, and the utility companies in order to minimize potential disruption of utility service. No adverse effects to public services are anticipated.

29. **Will the project affect access to properties or roadways?** Access would be modified at the following APNs.

- 398-092-11 (temporary and permanent impact) – driveway approach would be reconstructed within the public right-of-way
- 398-101-16 (temporary and permanent impact) – access would be relocated from Fuller Street to Fruit Street
- 398-202-09 (temporary impact) – driveway approach would be reconstructed within the public right-of-way
- 398-205-05 (temporary impact) - driveway approach would be reconstructed within the public right-of-way
- 398-361-01 (temporary impact) – access along Terminal Street may be temporarily impacted during construction
- 398-204-04 (Santa Ana Transportation Center) (temporary and permanent impact) – reconstruction of the access and circulation would occur to ensure that access and circulation remains suitable within the Santa Ana Transportation Center

With regard to roadways, the connection of Logan Street to Santa Ana Boulevard will be permanently eliminated and a cul-de-sac will be constructed at the end of Logan Street. Impacts to property and roadway access will be evaluated further in the Community Impact Assessment that is prepared.

30. **Will the project involve changes in access control to the State Highway System (SHS)?** The proposed project would not result in a change in access control. Some construction activity will occur to the west of the intersection of Santa Ana Boulevard and the Interstate 5 off- and on-ramps, however, this would not result in a change in access control.

31. **Will the project involve the use of a temporary road, detour, or ramp closure?** During construction the project proposes to construct a temporary two track shoofly (temporary) railroad alignment for the purpose of constructing the underpass structure while maintaining railroad service, which is to be constructed beginning just south of the existing Metrolink crossing of I-5 and terminating south of the Santa Ana Transportation Center near 4th Street. This shoofly alignment would be located east of the existing railroad alignment. The project also proposes to construct a two-lane detour road south of Santa Ana Boulevard, which would be used by traffic during the construction of the underpass bridge and its approaches. The project also proposes to use Fruit Street as a detour route during the final phase of construction. New right-of-way, including both permanent acquisition and temporary easements, will be needed for the construction of the shoofly and detour road.

32. **Will the project reduce available parking?** As shown under Item 24, there would be sixteen full acquisition parcels as part of the proposed project. The parking at all of these locations would be removed, however, this parking is for the property where the use would be removed and therefore the parking would no longer be required. This situation is present for all but one of the sixteen full acquisition parcels. At APN 398-208-01 there are approximately 13 parking spaces. These spaces are used by APN 398-101-16. The project shall require a portion of the existing building located on parcel 398-101-016 to be removed. This potential decrease in building square footage may result in a decrease of the required parking spaces, offsetting the required spaces needing replacement. In

addition, APN 398-101-16 would lose an additional approximately 15 parking spaces that are currently fronting Santa Ana Boulevard. A review of City standards for parking at this location will be conducted to determine whether replacement of this parking is necessary during the preparation of the Community Impact Assessment (CIA). At the Santa Ana Transportation Center approximately 150 parking spaces would be removed. A parking structure has been constructed at the Santa Ana Transportation Center, which is greatly underutilized; it is assumed that this loss of parking can be accommodated by the parking structure. A review of the capacity and utilization of the parking structure will be included in the CIA.

33. **Will the project construction encroach on state or federal lands?** The proposed project would not involve any encroachment on state or federal lands.

34. **Will the project convert any farmland to a different use or impact any farmlands?** Through mapping maintained by the Natural Resources Conservation Service/California Department of Conservation, it has been determined that the project area, which is located in an urbanized area (Santa Ana Boulevard), does not meet the definition of farmland as defined in 7 CFR 658. The entire project area is defined as Urban and Built-up Land. Therefore, the provisions of the Farmland Protection Policy Act of 1984 do not apply to this project.

Cultural Resources

35. **Is there National Register listed, or potentially eligible historic properties, or archaeological resources within or immediately adjacent to the construction area?** ***(Note: Caltrans PQS answers question #35)*** To be addressed by Caltrans PQS.

36. **Is the project adjacent to, or would it encroach on Tribal land?** No Tribal Land has been identified on or adjacent to the proposed project site and no impacts to Tribal Lands are anticipated.

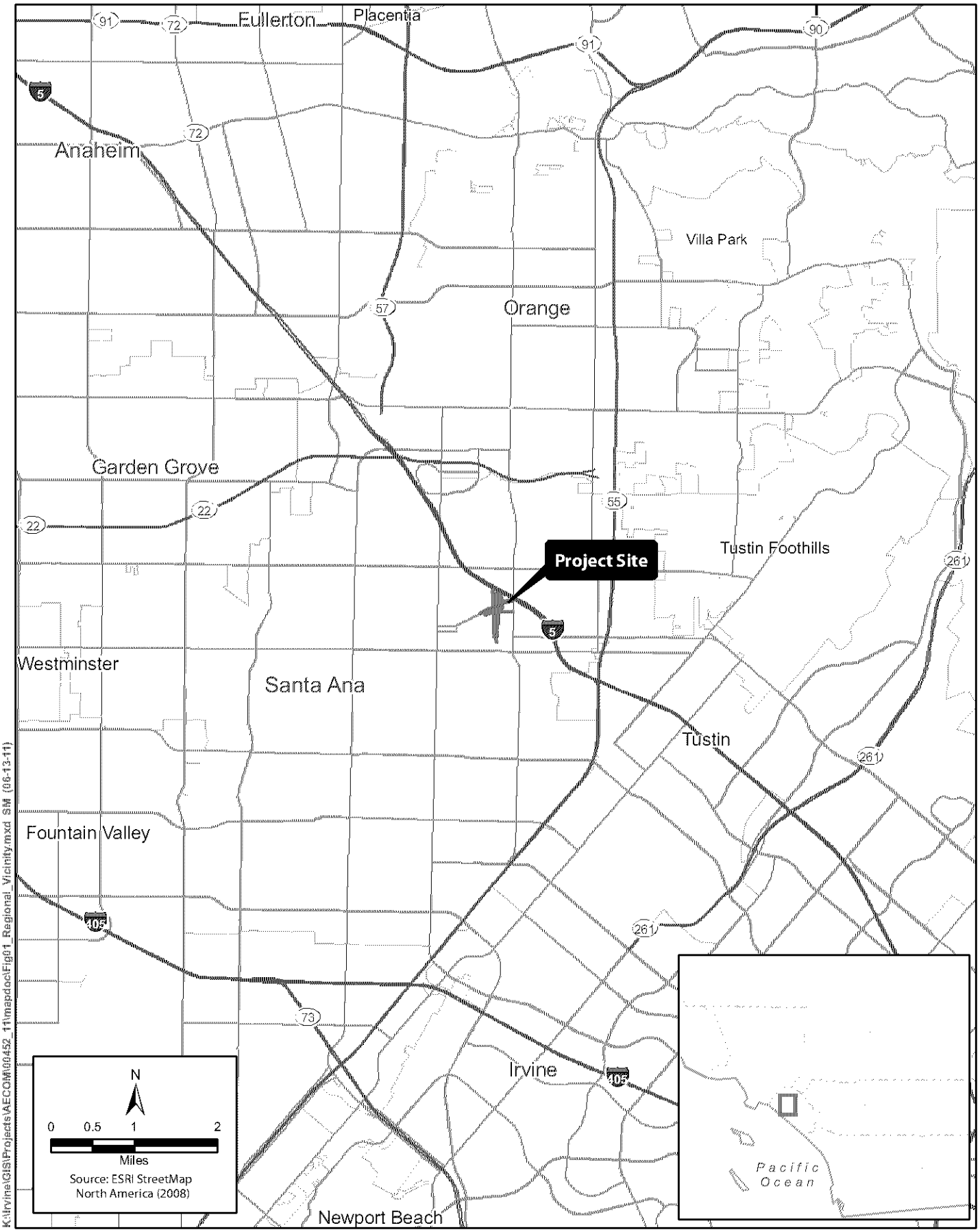

Figure 1
Regional Vicinity Map
Santa Ana Boulevard Grade Separation Project

Figure 2
Project Location Map
Santa Ana Boulevard Grade Separation Project

Figure 3a
Proposed Project
Santa Ana Boulevard/Metrolink Railroad Grade Separation

Adopted 2011 Federal Transportation Improvement Program

Orange County
Local Highway
Including Amendments 1-7
(In 000`s)

ProjectID	County	Air Basin	Model	RTP ID	Program	Route	Begin	End	System	Conformity Category	Amendment
ORA020809	Orange	SCAB		REG0704	NCR25				L	EXEMPT - 93.126	0
Description:							PTC	293	Agency	SANTA ANA	

SANTA ANA GOLDEN LOOP TRAIL REHABILITATION - REHAB 19,000 LINEAR FEET OF TRAIL

Fund	ENG	R/W	CON	Total	Prior	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	Total
RECREATIONAL TRAILS	87		167	254	87	167						254
CITY FUNDS			39	39		39						39
ORA020809 Total	87		206	293	87	206						293

ProjectID	County	Air Basin	Model	RTP ID	Program	Route	Begin	End	System	Conformity Category	Amendment
ORA082610	Orange	SCAB		2TR0704	CAN61				L	EXEMPT - 93.126	0
Description:							PTC	1,671	Agency	SANTA ANA	

Santa Ana Blvd Grade Separation - Near the Expansion of the Santa Ana Regional Transportation Center. (SARTIC) Initial planning and conceptual engineering phase. related to ORA81621

Fund	ENG	R/W	CON	Total	Prior	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	Total
STP LOCAL - REGIONAL	1,330			1,330	1,330							1,330
ORANGE M - TRANSIT	170			170	170							170
ORA082610 Total	1,500			1,500	1,500							1,500

ProjectID	County	Air Basin	Model	RTP ID	Program	Route	Begin	End	System	Conformity Category	Amendment
ORA085003	Orange	SCAB		REG0704	NCR26				L	EXEMPT - 93.126	1
Description:							PTC	625	Agency	SANTA ANA	

Flower Street Bike Trail Gap Closure- Construction of a 10-foot wide by one-half mile long asphalt bicycle trail, including landscaping, irrigation, and trailhead plaza

Fund	ENG	R/W	CON	Total	Prior	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	Total
RECREATIONAL TRAILS			550	550		550						550
CITY FUNDS			75	75		75						75
ORA085003 Total			625	625		625						625

ProjectID	County	Air Basin	Model	RTP ID	Program	Route	Begin	End	System	Conformity Category	Amendment
ORA100501	Orange	SCAB		ORA100501	NCR25				L	EXEMPT - 93.126	0
Description:							PTC	158	Agency	SANTA ANA	

THORTON PARK RECREATION TRAIL REFURBISHMENT. INCLUDING REGRADING, REPLACE ASPHALT & CONCRETE, INSTALLATION OF EDGING.

Fund	ENG	R/W	CON	Total	Prior	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	Total
RECREATIONAL TRAILS			103	103	103							103
CITY FUNDS			55	55	55							55
ORA100501 Total			158	158	158							158

S PANEL 0276

$^{4}21^{000m}$E

tional Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

50 0 500 1000

FEET

METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0163J

FIRM

FLOOD INSURANCE RATE MAP

ORANGE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 163 OF 539

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ORANGE, CITY OF	060228	0163	J
SANTA ANA, CITY OF	060232	0163	J

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
06059C0163J

MAP REVISED
DECEMBER 3, 2009

Federal Emergency Management Agency

Visual Impact Assessment Guide – Santa Ana Boulevard Grade Separation Project

Change to the Visual Environment

1. Will the project result in a noticeable change in the physical characteristics of the existing environment?
(Consider all project components and construction impacts - both permanent and temporary, including landform changes, structures, noise barriers, vegetation removal, railing, signage, and contractor activities)

High level of change (3) Moderate level of change (2) Low level of change (1)

2. Will the project complement or contrast with the visual character desired by the community?
(Evaluate the scale and extent of the project features compared to the surrounding scale of the community. Is the project likely to give an urban appearance to an existing rural or suburban community? Is the change viewed as positive or negative? Research planning documents, or talk with local planners and community representatives to get a rough idea of what type of visual environment local residents envision for their community.)

Highly incompatible (3) Somewhat incompatible (2) **Somewhat compatible (1)**

3. What types of project features and construction impacts are proposed? Are bridge structures, large excavations, sound barriers, or median planting removal proposed?
(Certain project improvements can be of special local interest, causing a heightened level of public concern, and requiring a more focused visual analysis.)

High concern (3) Moderate concern (2) Low concern (1)

4. Will the project changes likely be mitigated by normal means such as landscaping and architectural enhancement or will avoidance measures be necessary to minimize adverse change?
(Consider the type of changes caused by the project, i.e., can undesirable views be screened or will desirable views be permanently obscured?)

Project alternative may be needed (3) Extensive mitigation likely (2) **Normal mitigation (1)**

5. Will this project, when seen collectively with other projects, result in an aggregate adverse change in overall visual quality or character?
(Identification of contributing projects should include any projects (both departmental and local) in the area that have been constructed within the last couple of years and those currently envisioned or planned for future construction. The window of time and the extent of area applicable to possible cumulative impacts should be based on a reasonable anticipation of the viewing public's perception.)

Impacts likely in 0-5 years (3) Impacts likely in 6-10 years (2) **Cumulative Impacts unlikely (1)**

Viewer Sensitivity

1. What is the potential that the project proposal may be controversial within the community, or opposed by any organized group?
(This can be researched initially by talking with Departmental and local agency management and staff familiar with the affected community's sentiments as evidenced by past projects and/or current information. Factor in your own judgment as well.)

High Potential (3) **Moderate Potential (2)** Low Potential (1)

2. How sensitive are potential viewer-groups likely to be regarding visible changes proposed by the project?
(Consider among other factors the number of viewers within the group, probable viewer expectations, activities, viewing duration, and orientation. The expected viewer sensitivity level may be scoped by applying

professional judgment, and by soliciting information from other Caltrans staff, local agencies and community representatives familiar with the affected community's sentiments and demonstrated concerns.)

High Sensitivity (3) **Moderate Sensitivity (2)** Low Sensitivity (1)

3. To what degree does the project appear to be consistent with applicable laws, ordinances, regulations, policies or standards?
(Although the State is often not obligated to adhere to local planning ordinances, these documents are critical in understanding the importance the local communities place on aesthetic issues. The Caltrans Environmental Planning branch may have copies of the planning documents that pertain to the project. If not, this information can be obtained by contacting the local planning department. Many local and state planning documents can be found online at the California Land Use Planning Network).

Incompatible (3) Moderately compatible (2) **Largely compatible (1)**

4. Are any permits going to be required by outside regulatory agencies (i.e., Federal, State, or local) that will necessitate a particular level of Visual Impact Assessment?
(Anticipated permits, as well as specific permit requirements - which are defined by the permitter, may be determined by talking with the project Environmental Planner and Project Engineer. Note: coordinate with the Caltrans representative responsible for obtaining the permit prior to communicating directly with any permitting agency.)

Yes (3) Maybe (2) **No (1)**

5. Will the Project Development Team or public benefit from a more detailed visual analysis in order to help reach consensus on a course of action?
(Consider the proposed project features, possible environmental impacts, and probable mitigation recommendations.)

Yes (3) **Maybe (2)** No (1)

Determining the Type of Visual Impact Assessment Required

The total score will indicate the general level of Visual Impact Assessment that should be performed for the project. Once the level of recommended assessment is identified, the user should double-check the results by comparing each of the ten question-areas to the total score in order to confirm that the level of document appears sufficient and reasonable in each case.

Score 25-30 – Prior to preparing a VIA, a formal visual scoping study that meets or exceeds FHWA requirements is recommended to alert the Project Development Team to potential highly adverse impacts and to develop new project alternatives to avoid those impacts.

Score 20-24 – A fully developed VIA, that meets or exceeds FHWA requirements, is recommended. This technical study will likely receive extensive public review.

Score 15-19 – An abbreviated VIA would be appropriate in this case. The assessment would describe project features, impacts and mitigation requirements. Visual simulations would be optional.

Score 10-14 – A brief Visual assessment in memo form would likely be sufficient.

Initial Site Assessment (ISA) Checklist

Project Information

District 12 County ORA Route _____ Post Mile _____ EA Fed Proj No. (CML-5956 [188])

Description The City of Santa Ana, in coordination with the California Department of Transportation (Department), is proposing to grade separate the existing Santa Ana Boulevard/Orange County Transportation Authority (OCTA) Metrolink at-grade railroad crossing in the City of Santa Ana, Orange County, California. The purpose of the proposed project is to improve safety, as it will remove the existing at-grade conflict between vehicular traffic and rail traffic. In addition, the proposed project would reduce the congestion and inconvenience caused by this existing at-grade facility.

Is the project on the HW Study Minimal-Risk Projects List (HW1)? No

Project Manager Jason Gabriel phone # (714) 647-5400

Project Screening

Attach the project location map to this checklist to show location of all known and/or potential HW sites identified.

1. Project Features: New R/W? Yes Excavation? Yes Railroad Involvement? Yes

   Structure demolition/modification? Yes Subsurface utility relocation? Yes

2. Project Setting Heavily developed. Adjoining properties include commercial/industrial sites, County maintenance facilities, single- and multi-family dwellings, and Metrolink tracks.

   Rural or Urban Urban

   Current land uses Roadway, railroad, commercial/industrial

   Adjacent land uses Commercial/industrial, single- and multi-family dwellings, Metrolink tracks
   (industrial, light industry, commercial, agricultural, residential, etc.)

3. Check federal, State, and local environmental and health regulatory agency records as necessary, to see if any known hazardous waste site is in or near the project area. If a known site is identified, show its location on the attached map and attach additional sheets, as needed, to provide pertinent information for the proposed project.

4. Conduct Field Inspection. Date 06/13/2011 Use the attached map to locate potential or known HW sites.

   STORAGE STRUCTURES / PIPELINES:

Underground tanks	Yes	Surface tanks	Yes
Sumps	None observed	Ponds	None observed
Drums	None observed	Basins	None observed
Transformers	Yes	Landfill	None observed

   Other Several industrial sites noted, these include the County Maintenance Yard located at 1102 Fruit Street, which has gas pumps and above ground tanks on site, and a hazardous materials placard was identified on the Orange County Public Works property located 1143 Fruit Street.

Initial Site Assessment (ISA) Checklist

(continued)

CONTAMINATION: (spills, leaks, illegal dumping, etc.)

Surface staining Typical pavement stains Oil sheen None observed

Odors None observed Vegetation damage None observed

Other None

HAZARDOUS MATERIALS: (asbestos, lead, etc.)

Buildings Potential Spray-on fireproofing n/a

Pipe wrap n/a Friable tile n/a

Acoustical plaster n/a Serpentine n/a

Paint Potential Other

5. Additional record search, as necessary, of subsequent land uses that could have resulted in a hazardous waste site. Use the attached map to show the location of potential hazardous waste sites.

6. Other comments and/or observations: A review of the California Department of Toxic Substances' EnviroStor database revealed that the nearest site that utilizes hazardous waste and substances onsite is the Orange County Register (located at 625 N. Grand Avenue). This site is located approximately 800 feet south of the east end of the project site.

ISA Determination

Does the project have potential hazardous waste involvement? Yes If there is known or potential hazardous waste involvement, is additional ISA work needed before task orders can be prepared for the Investigation? Yes If "YES," explain; then give an estimate of additional time required:

An Initial Site Assessment will be prepared for the proposed project. It is anticipated to be completed in four months.

A brief memo should be prepared to transmit the ISA conclusions to the Project Manager and Project Engineer.

ISA Conducted by Brian Calvert **Date** June 16, 2011

Attachment K:

Categorical Exemption/Categorical Exclusion Determination Form

CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM

12-ORA-Santa Ana	N/A	N/A	STPL 5063 (136)
Dist.-Co.-Rte. (or Local Agency)	P.M./P.M.	E.A/Project No.	Federal-Aid Project No. (Local Project)/Project No.

PROJECT DESCRIPTION: (Briefly describe project including need, purpose, location, limits, right-of-way requirements, and activities involved in this box. *Use Continuation Sheet, if necessary.)*

The City of Santa Ana, in coordination with the California Department of Transportation (Caltrans), is proposing to separate the existing Santa Ana Boulevard/Orange County Transportation Authority (OCTA) Metrolink at-grade railroad crossing in the City of Santa Ana, Orange County, California. The purpose of the proposed project is to eliminate the at-grade crossing of Santa Ana Boulevard and the OCTA Metrolink tracks by creating a grade separation to: enhance traffic operations; improve pedestrian and bicycle user safety; improve emergency response times; and reduce existing traffic congestion along Santa Ana Boulevard. See continuation page...

CEQA COMPLIANCE *(for State Projects only)*

Based on an examination of this proposal and supporting information, the following statements are true and exceptions do not apply (See 14 CCR 15300 et seq.):

- If this project falls within exempt class 3, 4, 5, 6 or 11, it does not impact an environmental resource of hazardous or critical concern where designated, precisely mapped and officially adopted pursuant to law.
- There will not be a significant cumulative effect by this project and successive projects of the same type in the same place, over time.
- There is not a reasonable possibility that the project will have a significant effect on the environment due to unusual circumstances.
- This project does not damage a scenic resource within an officially designated state scenic highway.
- This project is not located on a site included on any list compiled pursuant to Govt. Code § 65962.5 ("Cortese List").
- This project does not cause a substantial adverse change in the significance of a historical resource.

CALTRANS CEQA DETERMINATION (Check one)

☐ **Exempt by Statute.** (PRC 21080[b]; 14 CCR 15260 et seq.)

Based on an examination of this proposal, supporting information, and the above statements, the project is:

☐ **Categorically Exempt. Class** . (PRC 21084; 14 CCR 15300 et seq.)

☐ **Categorically Exempt. General Rule exemption.** [This project does not fall within an exempt class, but it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment (CCR 15061[b][3].)

N/A

Print Name: Environmental Branch Chief		Print Name: Project Manager/DLA Engineer	
Signature	Date	Signature	Date

NEPA COMPLIANCE

In accordance with 23 CFR 771.117, and based on an examination of this proposal and supporting information, the State has determined that this project:

- does not individually or cumulatively have a significant impact on the environment as defined by NEPA and is excluded from the requirements to prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS), and
- has considered unusual circumstances pursuant to 23 CFR 771.117(b).

CALTRANS NEPA DETERMINATION (Check one)

☐ **23 USC 326:** The State has determined that this project has no significant impacts on the environment as defined by NEPA, and that there are no unusual circumstances as described in 23 CFR 771.117(b). As such, the project is categorically excluded from the requirements to prepare an environmental assessment or environmental impact statement under the National Environmental Policy Act. The State has been assigned, and hereby certifies that it has carried out the responsibility to make this determination pursuant to Chapter 3 of Title 23, United States Code, Section 326 and a Memorandum of Understanding dated June 07, 2013, executed between the FHWA and the State. The State has determined that the project is a Categorical Exclusion under:

- ☐ **23 CFR 771.117(c): activity (c)(___)**
- ☐ **23 CFR 771.117(d): activity (d)(__)**
- ☐ **Activity ___ listed in Appendix A of the MOU between FHWA and the State**

☒ **23 USC 327:** Based on an examination of this proposal and supporting information, the State has determined that the project is a CE under 23 USC 327.

Print Name: Environmental Branch Chief		Print Name: Project Manager/DLA Engineer	
Charles Baker		Jim Kaufman	
Signature	Date	Signature	Date
	7-8-14		7-8-14

Date of Categorical Exclusion Checklist completion: 7/8/14 Date of ECR or equivalent : 7/8/14

Briefly list environmental commitments on continuation sheet. Reference additional information, as appropriate (e.g., CE checklist, additional studies and design conditions).

CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM
Continuation Sheet

12-ORA-Santa Ana	N/A	N/A	STPL 5063 (136)
Dist.-Co.-Rte. (or Local Agency)	P.M./P.M.	E.A/Project No.	Federal-Aid Project No. (Local Project)/Project No.

Continued from page 1:

The existing at-grade crossing is used by several passenger rail lines including Metrolink Orange County and Inland Empire/Orange County lines and the Amtrak Pacific Surfliner line. For Metrolink lines, the existing service schedule includes the following:

- Orange County (OC) Line: Two trains per hour per direction in both the weekday AM and PM peak hours and 22 trains per day in each direction.
- Inland Empire Orange County (IEOC) Line: Two trains per hour per direction in both the weekday AM and PM peak hours and 20 trains per day in each direction.

Amtrak Pacific Surfliner operates with one train per day in the peak hour each way and 13 to 14 trains per day each direction. The Burlington Northern Santa Fe (BNSF) freight rail traffic also uses this crossing with approximately 10 freight trains per day during off-peak hours, resulting in a total of 66 train crossings during a typical weekday.

Proposed project improvements extend along Santa Ana Boulevard from approximately Santiago Street at the west end to the west side of the Interstate 5 (I-5) southbound off-ramp intersection with Santa Ana Boulevard. As part of the grade separation the proposed project includes: minor improvements to the Santa Ana Boulevard/Santiago Street intersection; terminating Logan Street north of Santa Ana Boulevard by constructing a cul-de-sac; and improvements to Fuller Street, both north and south of Santa Ana Boulevard.

Construction of the underpass bridge (i.e., roadway going under the railroad tracks) includes; retaining walls; two pedestrian bridges (one on each side of the railroad bridge; installation of paving, curbs, gutters, medians, sidewalks, streetlights, landscape and irrigation features, and drainage facilities; and the relocation of utilities. The proposed pedestrian bridges would allow connectivity of the residential neighborhood west of the railroad and potential mixed-use developments east of the railroad bridge with SARTC. The exact bridge type and configuration will be determined during the final design phase of the project.

During construction the project proposes to construct a temporary two track shoofly railroad alignment for the purpose of constructing the underpass structure while maintaining railroad service, which is to be constructed beginning just south of the existing Metrolink crossing of I-5 and terminating south of SARTC near 4th Street. This shoofly alignment would be located east of the existing railroad alignment. The project also proposes to construct a four-lane detour road south of Santa Ana Boulevard, which would be used by traffic during the construction of the underpass bridge and its approaches. The project also proposes to use Fruit Street as a detour route during the final phase of construction. New right-of-way, including both permanent acquisition and temporary easements, would be required for the construction of the shoofly and detour road.

No significant environmental consequences are anticipated with the proposed project. However, please find the attached Environmental Commitments Record (ECR), which lists all the commitments that must be met and documented throughout the project.

Attachment L:

Environmental Commitment Record

ENVIRONMENTAL COMMITMENT RECORD

19E-95

Section 1.

RECORDING DATES

Originating date:	**7/8/2014**
Current date:	**7/8/2014**

Section 2.

PROJECT DETAILS

Dist-County-Route	**12-ORA-Santa Ana**
EA / E-FIS	**STPL 5063 (136)**
Post Mile (PM)	**N/A**
Document Type	**NEPA CE/23USC327**

Section 3.

PROJECT DESCRIPTION:

The project proposes to o grade separate the existing Santa Ana Boulevard/Orange County Transportation Authority (OCTA) Metrolink at-grade railroad crossing in the City of Santa Ana, Orange County, California. The purpose of the proposed project is to improve safety, as it will remove the existing at-grade conflict between pedestrian, vehicular traffic, and rail traffic. In addition, the proposed project would reduce the congestion and inconvenience caused by this existing at-grade facility. As part of the grade separation the proposed project includes: a pedestrian bridge, minor improvements to the Santa Ana Boulevard/Santiago Street intersection; terminating Logan Street north of Santa Ana Boulevard by constructing a cul-de-sac; and improvements to Fuller Street, both north and south of Santa Ana Boulevard.

Section 4.

PROJECT PHASE

PROJECT PHASE	
PSR	
PA&ED (DRAFT PR/ED)	
PA&ED (FINAL PR/ED)	X
35% PS&E	
65% PS&E	
95% PS&E	
ENVIRONMENTAL CERTIFICATION	
PRECONSTRUCTION	
CONSTRUCTION	
POST CONSTRUCTION	

Section 5.

ASSIGNED STAFF	Name	Phone Number	Signature
ENVIRONMENTAL GENERALIST:	Caltrans/Brian Liu	(949) 724-2014	
PROJECT MANAGER:	Santa Ana/Jason Gabriel	(949) 724-2252	
PROJECT ENGINEER	AECOM/Janson Ting	(714) 567-2527	
RESIDENT ENGINEER:			
ENVIRONMENTAL CONSULTANT	ICF/Brian Calvert	(949) 333-6600	

Section 6.

CONSTRUCTION KICKOFF SIGNATURE:

I hearby acknowledge that as of the Construction Kickoff Meeting, I have read, fully understand and will implement the following commitment measures during construction.

Resident Engineer:____________________ Date:__________

Environmental Planner:____________________ Date:__________

Section 7.

ENVIRONMENTAL COMMITMENTS

NO.	DESCRIPTION OF COMMITMENT	NSSP	RESPONSIBLE PARTY/MONITOR	TIMING/PHASE	TASK COMPLETED (Initial and Date)	COMMITMENT SOURCE (Document source & date)	COMMENTS (Include location within limits of project if needed)
1	**WQ-1:** The project shall comply with the provisions of the NPDES General Permit, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activities (Order Number 2009-0009-DWQ, NPDES Number CAS000002) and any subsequent permit in effect at the time of construction. Prior to construction, Permit Registration Documents (PRDs), which includes permit application fee, a Notice of Intent (NOI), a Storm Water Pollution Prevention Plan (SWPPP) and other compliance related documents required by the permit, shall be mailed to the State Water Quality Control Board. The project SWPPP shall be prepared by a Qualified SWPPP Practitioner (QSP) or a Qualified SWPPP Developers (QSD) to address all construction related activities, equipment, and materials that have the potential to impact the water quality. The SWPPP shall identify the sources of pollutants that may affect the quality of storm water and include construction site BMPs to control pollutants and sediments. The SWPPP shall include erosion control, sediment control, wind erosion control, tracking control, and all other applicable non-stormwater management and material management BMPs. All construction site BMPs shall follow the latest edition of the CASQA Stormwater Best Management Practice Handbook for Construction. In addition, the project water quality risk level shall be identified. Rain Event Action Plan, Field Monitoring, and Reporting Guidance shall be prepared for effluent monitoring and receiving water monitoring. The General Permit requires that permittees prepare, certify, and electronically submit an Annual Report no later than September 1st of each year. Reporting requirements are identified in Section XVI of the General Permit.	YES	City of Santa Ana (during final design)/Resident Engineer and Contractor (during construction)	Design / Construction	________ ________	Water Quality Memorandum October 2012	

2	**WQ-2**: Treatment BMPs shall be implemented to the maximum extent practicable (MEP), consistent with the requirements of the Orange County MS4 Permit, Order 8-009-0030 (amended by Order R8-2010-0062, NPDES No. CAS 618030). Biofiltration systems or catch basin filter inserts are proposed as the potential treatment BMPs for the ject. Detailed design of the BMP and the location will be determined in the final engineering phase. Removal of existing vegetation will be minimized to the greatest extent sible and any mature trees to be saved would be identified on final plans. The final siting and design of treatment BMPs will be designed in compliance with the OC Model Water Qualiy Management Plan (WQMP) (2010), the Technical Guidance Document (TGD) and the 2003 OC Drainage Area Management Plan (DAMP)	YES	City of Santa Ana (during final design)/Resident Engineer and Contractor (during construction)	Design / Construction	_____ _____	Water Quality Memorandum October 2012	
3	**WQ-3:** Design pollution prevention BMPs shall be implemented in accordance with Green Streets Municipal Handbook (EPA-833-F-08-009; 2008), such as preservation of existing vegetation, slope/surface protection systems (permanent soil stabilization), concentrated flow conveyance systems such as ditches, berms, dikes, and swales, overside drains, flared end sections, and outlet protection/velocity dissipation devices.	YES	City of Santa Ana (during final design)/Resident Engineer and Contractor (during construction)	Design / Construction		Water Quality Memorandum October 2012	
4	**BIO-1: Preconstruction Nesting Bird Survey**. If project-related site disturbances are scheduled to occur during the core nesting period (February 15 through September 1), a qualified biologist will perform preconstruction nesting bird surveys. The survey will be completed within seven days prior to any project-related disturbances. If native birds are nesting on or within 100 feet (as accessible) of the limits of disturbance (LOD), a 100-foot buffer (or an alternative width, as determined by a qualified ornithologist) should be flagged around the nest, and no project-related construction activities within the buffer will occur until it has been determined that all young have fledged or the nest is no longer active.	NO	Resident Engineer and Contractor	Survey to be performed within 7 days prior to any ground disturbance. Measure to be implemented if nesting birds are found.		Natural Environment Study January 2012	
5	**BIO-2: Preconstruction Nesting Raptor Survey**. If project-related site disturbances are scheduled to occur during the core nesting period (February 15 through September 1), a qualified biologist will perform preconstruction nesting raptor surveys. The survey will be completed within seven days prior to any project-related disturbances. If raptors are nesting on or within 500 feet (as accessible) of the LOD, a 500-foot buffer (or an alternative width, as determined by a qualified ornithologist) should be flagged around the nest, and no project-related construction activities within the buffer will occur until it has been determined that all young have fledged or the nest is no longer active.	NO	Resident Engineer and Contractor	Survey to be performed within 7 days prior to any ground disturbance. Measure to be implemented if nesting raptors are found.	_____ _____	Natural Environment Study January 2012	
6	**BIO-3: Preconstruction Bat Survey**. To prevent impacts on daytime bat roosts and maternity roosts, a qualified biologist will be retained to conduct bat and bat roosting site surveys prior to commencement of building demolition or mature tree removal activities. This pre-construction survey will be conducted at any abandoned buildings, as well as any mature tree proposed for removal and within 100 feet of the LOD. If no roosting sites or bats are found, a report confirming their absence will be sent to the California Department Fish and Wildlife (CDFW) and no further mitigation will be required. If the pre-construction survey finds bats to be roosting, and building demolition/mature tree removal is scheduled to occur between October 1 and March 30 (outside of the maternity season of April 1st through September 30), the bats shall be evicted by the following methods. Eviction of bats shall be conducted using bat exclusion techniques, developed by Bat Conservation International (BCI) and in consultation with CDFW. These techniques allow the bats to exit the roosting site but prevent re-entry to the site. This process will include, but not be limited to, the installation of one-way exclusion devices on buildings and a two-step cutting process for trees. Sealing buildings at the time of abandonment may prevent the need for the exclusion process. Where exclusionary devices would be installed on buildings, the devices shall remain in place for seven days, and then the exclusion points and any other potential entrances shall be sealed. A visual inspection of each building would be required prior to demolition to verify that all bats have been successfully excluded. Where the two-step cutting process would be applicable for tree roosts, surrounding branches, not housing bats, would be removed during step one. This would alter the condition of the roost tree, causing bats to abandon the roost. The tree can then be fully removed, as step two. A visual inspection of the roost tree would be required prior to removal to verify that all bats have been successfully excluded. This work shall be completed by a bat exclusion professional. If the pre-construction survey finds bats to be roosting and building	NO	Resident Engineer and Contractor	Survey to be performed prior to start of building demolition or mature tree removal. Measure to be implemented if roosting sites or bats are found.	_____ _____	Natural Environment Study January 2012	

7	**BIO-4: Standard Best Management Practices.** Applicable Best Management Practices shall be implemented. These include but are not limited to: • Water pollution and erosion control plans shall be developed and implemented in accordance with Regional Water Quality Control Board (RWQCB) requirements. • Equipment storage, fueling, and staging areas shall be located at sites with minimal risks of direct drainage into surface waters. Project related spills of hazardous materials shall be reported to appropriate entities, including but not limited to the City and/or RWQCB, and shall be cleaned up immediately and contaminated soils removed to approved disposal areas. • Exotic pecies removed during construction will be properly handled to prevent sprouting or regrowth. • Trucks with loads carrying vegetation will be covered, and vegetation materials removed from the site will be disposed of in accordance with applicable laws and regulations. • Construction equipment will be cleaned of mud or other debris that may contain invasive plants and/or seeds and inspected to reduce the potential of spreading noxious weeds before mobilizing to the site and before leaving the site uring the course of construction. • To avoid attracting wildlife to the project site, the construction shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s).	YES	Resident Engineer and Contractor	During Construction	_____ _____	Natural Environment Study January 2012	
8	**CR-1:** It is the Department's policy to avoid cultural resources whenever possible. Further investigations may be needed if unanticipated cultural sites are encountered that cannot be avoided by the project. If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find. If changes are made to the proposed project, an additional archaeological survey would be required to include areas not previously surveyed.	YES	Resident Engineer and Contractor	During all ground-disturbing and construction activities	_____ _____	Historic Property Survey Report Decmeber 2011	
9	**N-1:** Comply with the construction hours specified in the City of Santa Ana Municipal Code, Noise Section 18-314.	NO	Resident Engineer and Contractor	During any grading and construction activities	_____ _____	Noise Study Report January 2013	
10	**N-2:** Noise control will conform to the provisions in Section 14-8.02 and Standard Special Provision S5-310. The noise level from the contractor's operations between the hours of 9:00 p.m. and 6:00 a.m. will not exceed 86 dBA L eq (h) at a distance of 50 feet. This requirement in no way relieves the contractor from responsibility for complying with local ordinances regulating noise levels. The contractor should use an alternative warning method instead of a sound signal unless required by safety laws. In addition, the contractor will equip all internal combustion engines with the manufacturer-recommended mufflers and will not operate any internal combustion engine on the job site without the appropriate muffler.	YES	Resident Engineer and Contractor	During any grading and construction activities	_____ _____	Noise Study Report January 2013	
11	**N-3:** The sound barriers that are determined to be reasonable and feasible shall be coordinated with the affected property owners. All benefited residents and property owners will be notified should a change in placement or removal of any soundwall occur during the design phase. Additionally, all residents/property owners will be notified of final soundwall locations prior to 100% PS&E.	NO	City of Santa Ana	Design	_____ _____	Noise Study Report January 2013	
12	**N-4:** The contractor will implement appropriate additional noise mitigation measures, including changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.	NO	Resident Engineer and Contractor	During any grading and construction activities	_____ _____	Noise Study Report January 2013	
13	**AQ-1:** The project would conform to Caltrans' construction requirements, as specified in the Caltrans' Standard Specifications, Section 7-1.01F (Air Pollution Control): "The Contractor shall comply with all air pollution control ordinances and statutes which apply to any work performed pursuant to the contract, including any air pollution control rules, regulations, ordinances and statutes, specified in Section 11017 of the Government Code.	NO	Resident Engineer and Contractor	During any grading and construction activities	_____ _____	Air Quality Assessment June 2012	

14	**AQ-2:** The proposed project, although not a large operation under the Rule's definition would be required to implement measures for each source of PM10 emissions, as specified in SCAQMD Rule 403 (Fugitive Dust) Implementation Handbook	No	Resident Engineer and Contractor	During any grading and construction activities	_____ _____	Air Quality Assessment June 2012	
15	**RELOC-1**: In accordance with the federal Uniform Relocation Assistance and Property Acquisition Act of 1970 as amended (42 USC Secs. 4601-4655), provide compensation to eligible recipients for property acquisitions	No	City of Santa Ana	Design	_____ _____	Relocation Impacts Memorandum July 2012	
16	**UT-1:** The City will coordinate all utility relocation work with the affected utility companies to ensure minimum disruption to customers in the service areas during construction.	No	City of Santa Ana, Resident Engineer, and Contractor	Design / Prior to construction	_____ _____	Community Impact Assessment March 2014	
17	**HAZ-1:** A Phase II Environmental Site Assessment is recommended during the final design phase for parts of the study area as follows: Parcel A-1 (1024 Fuller): current the auto repair shop: sampling if indicated (interior inspection required); Parcel A-2 (1022 Fuller): former machine shop with degreaser, auto wrecking compant and auto repair shop. Parcel A-4 (1020 Fuller): former paint manufacturer, former auto body shop, former metals receovery facility; Parcel A-5 (1016 Fuller): former machine shop; Parcel A-6 (1012 Fuller): former paint spray booth, former paint manufacturer (Jasco Chemical). Parcel A-7 (1008 Fuller): Jasco Chemical. The Phase II ESA would include soil sampling for petroleum hydrocarbons, volatile organic compouns, heavy metals and/or those chemicals formerly stored on site by Jasco Chemical, as appropriate for each individual location.	NO	City of Santa Ana	Design	_____ _____	Initial Site Assessment October 2012	
18	**HAZ-2:** Perform comprehensive survey for asbestos-containing materials, lead-based paoint, PCBs and mercury switches during the final design phase at the buildings proposed for acquisition.	NO	City of Santa Ana (during final design)	Design	_____	Initial Site Assessment October 2012	
19	**HAZ-3:** Subsurface investigations are deemed to be unnecessary on Temporary Construction Easement parcels. However, in view of the former usage of Parcel T-9 for battery manufacturing, and the current presence of an automotive junkyard on the site, soil sampling for lead, cadmium and petroleum hydrocarbons should performed if any ground disturbance is contemplated in order to ensure worker and public safety during construction.	NO	City of Santa Ana (during final design)	Design	_____ _____	Initial Site Assessment October 2012	
20	**HAZ-4:** The hazardous waste storage area and possible waste oil tank at J&H Drilling should be inspected for possible release of waste oil or other environmental concerns.	NO	City of Santa Ana (during final design)	Design	_____	Initial Site Assessment October 2012	
21	**HAZ-5:** Removal of the three closed-in-place USTs at the former Jasco Chemical plant should be considered.	NO	City of Santa Ana (during final design)	Design	_____	Initial Site Assessment October 2012	
22	**HAZ-6:** Inspection and sampling for asbestos, lead-based paint, PCBs and mercury switches in the buildings in the acquisition area.	NO	City of Santa Ana (during final design)	Design	_____	Initial Site Assessment October 2012	
23	**TRF-1:** Prepare and implement a Traffic Management Plan (TMP). The TMP will be provided to emergency service providers and school officials with construction plans prior to commencement of construction. The following shall be included in the TMP or carried out in coordination with the TMP: •Implement a construction management program that maintains access to and from the project area community through signage, detours, flagmen, etc. • Coordinate with emergency services providers to ensure that alternative response routes to and from the project area community are in place during construction of the proposed project. • Provide access to all fire hydrants along all access routes and provide and maintain fire department vehicle access roads along project site. • Consult with local school officials to identify safe vehicular routes and pedestrian crossing for students traveling to and from schools in the project area community during construction of the proposed project. • Coordinate with the utility providers for relocation of utility lines and inform the utility users in advance about the date and timings of service disruptions. • Prepare temporary detour plans during the Plans, Specifications, and Estimates (PS&E) phase. • Provide notification to be sent to emergency service providers, local school officials, and any residents that may be substantially affected by any street closures (including partial and/or full closures) or traffic diversions at least two weeks in advance of the planned closure or diversion.	YES	City of Santa Ana, Resident Engineer, and Contractor	Prior to any grading or construction activities / during any grading or construction (implement)	_____ _____	Community Impact Assessment March 2014	

24	**VIS-1:** The project will be implemented in adherence to the guidance found in Caltrans' Highway Design Manual and other Caltrans memoranda regarding landscape design policy, which mandates consideration of the local design context in which the work is proposed and obtaining the input of local governmental agencies. In addition, the project will be designed and implemented with the concurrence of the District Landscape Architect.	YES	City of Santa Ana (during final design) / Resident Engineer and Contractor (during construction)	Incorporate recommendations during final design and implement during construction	_____ _____	Visual Impact Assessment February 2014	

Section 8.
PERMITS

	Agency	Issue Date	Type	Expiration Date	Comments

Attachment M:

Project Schedule

Attachment N:

Geotechnical Technical Memorandum

Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

TECHNICAL MEMORANDUM

EMI PROJECT NO: 11-123

DATE: September 13, 2011

PREPARED FOR: Mohan Char, Ph.D., P.E. / AECOM

PREPARED BY: Ranjan Gunaranjan and Lino Cheang / Earth Mechanics, Inc. (EMI)

SUBJECT: **Santa Ana Boulevard Grade Separation**
City of Santa Ana, Orange County, California
Structure Preliminary Geotechnical Report (SPGR)

Introduction

This memorandum has been prepared to provide the necessary geotechnical information to assist the structural designers in the type selection process for the Santa Ana Boulevard Grade Separation (GS) at Santa Ana Boulevard and Metrolink Railroad intersection. The content of this memorandum follows Caltrans Foundation Report Preparation for Bridge Foundations (Caltrans, 2009). It includes preliminary geotechnical, seismic, and foundation recommendations for the subject GS and the adjoining retaining walls. The recommendations provided in this memorandum are based on subsurface information contained on the as-built Log-of-Test-Borings (LOTB) of three nearby structures: Grand Avenue Undercrossing (Bridge No. 55-671L), Lincoln Avenue Underpass (Bridge No. 55-672), and Lincoln Avenue Overcrossing (Bridge No. 55-675). These nearby bridges are located less than 0.3 mile from the proposed GS. An additional geotechnical investigation will need to be performed during the PS&E phase; therefore, the following recommendations may change when additional information becomes available.

Project Description

As presented in the preliminary plan provided by the designers, the existing Santa Ana Boulevard, which intersects at-grade with the existing Metrolink railroad tracks, will be lowered under the railroad tracks to have a minimum vertical clearance of about 16.5 feet. The horizontal alignment of Santa Ana Boulevard will also be shifted about 30 feet to the south due to the presence of a utility corridor. Retaining walls will be constructed on the north side of the Santa Ana Boulevard in-line with the bridge abutment (Abutment 5). A portion of the retaining wall located at the depressed roadway is proposed to be a Type SW retaining wall and the remaining portion is proposed to be Caltrans Standard Type 1 retaining wall. Based on the information provided by the structural designers, Type SW retaining wall is a U-shape cantilever wall that will support the sidewalk in the middle of the "U".

General Subsurface Conditions

According to the attached As-Built LOTB sheets for the nearby structures, a total of twelve auger borings were drilled between March and May, 1989. The deepest boring was advanced to about elevation +50 feet. Existing grade at the borehole locations at the time of the investigation ranged between elevations +130 feet and +168 feet. The existing grade at the subject site is about elevation +145 feet.

At the nearby bridge site, the surficial material is embankment fill consisting predominantly of medium dense to dense silty sand with few interbedded very stiff to hard sandy silt. Thickness of this embankment fill varies from 10 to 25 feet. The embankment fill is underlain by about 40 feet of native deposits composed predominantly of loose to very dense silty sand and medium stiff to hard sandy silt with occasional silty clay and clayey silt interbeds. Below about elevation +105 feet, the stratigraphy included very dense silty sand, sand with gravel and cobbles, sandy gravel, and clayey gravel with some interbedded loose to medium dense silty sand and sand layers down to about elevation +80 feet. Very dense silty sand, sand with gravel and cobbles, sandy gravel, and clayey gravel layers were encountered below about elevation +80 feet down to the depth explored.

Groundwater was not encountered in any of the borings that were drilled down to the deepest elevation of about +50 feet.

Preliminary Seismic Recommendations

It is our understanding that the Santa Ana Boulevard GS will be constructed using the American Railway Engineering and Maintenance-of-Way Association (AREMA) guidelines (AREMA, 2009).

We performed a site-specific probabilistic ground motion analysis using FRISKSP (Blake, 2004 & 2000) computer program for the bridge site. The probabilistic analysis was performed using four attenuation equations published by Abrahamson and Silva (1997), Boore, et al. (1997), Campbell (1997), and Sadigh et al. (1997). These peak horizontal ground acceleration (PGA) values were obtained by averaging the results of the above-referenced attenuation equations and are provided in Table 1.

Table 1. Seismic Design Parameters

Ground Motion Level (Frequency)	Return Period	PGA (g)	Site Coefficient, S
1 (occasional)	100 Years	0.214	1.5
2 (rare)	500 Years	0.351	
3 (very rare)	2,400 Years	0.524	

The structural engineer can use the data provided in Table 1 to develop the site-specific response spectrum following the procedure outlined in Section 1.4 of Chapter 9 of AREMA (2009).

Liquefaction Potential and Seismic Settlement Evaluation

The subject site is anticipated to have a low liquefaction potential due to the absence of groundwater. Since the liquefaction potential at the bridge site is anticipated to be low, seismic settlement of onsite soils is also anticipated to be low. A more detailed liquefaction assessment will be conducted during the PS&E phase using site-specific soil boring data.

Scour Evaluation

The proposed structure does not cross a channel that conveys water; therefore, scour potential is not anticipated to be a design issue.

Corrosion Evaluation

There is no corrosion test result included with the as-built plans. Site-specific soil corrosivity will be investigated during the PS&E phase in accordance with Caltrans requirements.

Foundation Data of Nearby Bridges

The proposed GS is a new structure and therefore, no as-built foundation data specific to this structure is available. However, the as-built plans for the nearby three structures (Bridge Numbers 55-671L, 55-672, and 55-675) that are located less than 0.3 mile from the proposed railroad bridge were reviewed as part of this project. All of these structures are supported on driven concrete piles with a service demand of 45, 70, or 100 tons.

Preliminary Bridge Foundation Recommendations

Bridge Configuration: The preliminary plan provided by the structural engineers indicates that the Santa Ana Boulevard GS is a four-span steel plate girder bridge with a total bridge length of about 247 feet and a total bridge width of about 40 feet.

Foundation Type: Due to the presence of weak near-surface site soils, deep foundation is recommended for the proposed structure. The preliminary plans provided by the structural engineers show that large-diameter Cast-In-Drilled-Hole (CIDH) pile extensions will be used at the bents and driven steel HP piles will be used at the abutments.

Based on the information provided by the structural designers, the abutments are supported by 100-ton steel HP piles (HP 14x89). For each 6-foot diameter CIDH pile, a service load of 960 kips is provided by the structural designers. Based on these axial demands, the preliminary pile lengths are 70 feet and 55 feet at the abutments and the bents, respectively, for cost estimating purposes.

As mentioned earlier, as-built foundation type for the three nearby Caltrans bridges is driven precast-prestressed concrete (PCC) piles. We will evaluate the feasibility of using driven PCC piles instead of the HP-piles during the PS&E phase when site-specific soil boring data become available.

Preliminary Retaining Wall Recommendations

Earth retaining structures are proposed for the Santa Ana Boulevard Grade Separation Project. The retaining walls consist of Caltrans Standard Type 1 cantilevered retaining wall and Type SW cantilevered retaining wall.

Lateral Earth Pressure: A static active lateral earth pressure of 36 psf per foot of depth is recommended for a free draining, level and compacted backfill. Materials placed behind the retaining wall should be Caltrans Structure Backfill.

If applicable, a uniform lateral pressure due to vehicular traffic loading, equivalent to a vertical pressure produced by at least 2 feet of earth with a soil unit weight of 120 lb/ft^3, should be added to the above lateral earth pressure. Using an active earth pressure of 0.3, the recommended uniform lateral earth pressure due to traffic loading is 72 psf.

In addition to the above loadings, the two railroad tracks will induce additional surcharge on the adjacent retaining wall located within the horizontal zone of influence. The uniform lateral earth pressure due to railroad surcharge and the extent of horizontal zone of influence will be determined during the PS&E phase using additional project information.

Lateral Resistance: Resistance to lateral loads may be developed by a combination of friction acting at the base of the wall and passive earth pressure. A maximum passive equivalent fluid pressure of 370 psf per foot and a frictional coefficient of 0.4 between the soil-concrete interface can be used for preliminary design. We recommend 100% of the base friction for static loading. For seismic loading, we recommend combining 100% of the passive resistance and 100% of the base friction.

Shallow Foundation Design: Using a maximum overexcavation depth (below the footing bottom) of three feet or less and some assumed footing bottom elevations, our calculations show that the allowable bearing capacity is about 3 kips per square foot (ksf). Using the 2006 Caltrans Standard Plan Sheets for Type-1 walls, this implies that Type-1 wall with a height of 12 feet or less can be supported on a spread footing. For Type-1 wall heights greater than 12 feet and Type-SW walls with bearing pressures greater than 3 ksf, we recommend using deep foundations. Foundation type for the retaining walls will be re-visited when site specific soil boring data become available during the PS&E phase.

The horizontal limits of the overexcavation should begin one foot from each edge of the footing bottom and extending downward at a 45-degree imaginary plane until the plane intersects the overexcavation depth. Prior to backfilling, the excavation bottom should be proof-rolled and after that the excavation bottom should be inspected by a qualified geotechnical engineer or technician to confirm the presence of an unyielding and competent surface. Onsite soils may or may not be suitable for use as backfill; if not, Caltrans Structure Backfill is recommended. Backfill should be compacted to a minimum relative compaction of 95% of maximum density as determined by Caltrans Test Method 216.

Minimum footing embedment and offset (from a slope face) for retaining wall should be based on Section 4.4.5.1 of Caltrans Bridge Design Specifications (Caltrans, 2003).

Deep Foundation Design: To facilitate fabrication and cost estimate, we recommend using the same pile type as the bridge abutment. However, the axial pile demand should be 45 tons for retaining wall and the corresponding HP pile section is HP 10x42. Using a 45-ton service demand, a preliminary pile length of 50 feet is recommended.

Construction Considerations

Groundwater was not encountered in any of the as-built borings down to about elevation +50 feet. Therefore, groundwater is not anticipated to be encountered during pile construction and footing construction at the supports and walls. However, groundwater level can fluctuate due to seasonal rainfall amount, local irrigation and groundwater recharge program, and other man-made conditions. If groundwater is encountered during footing construction, it should be controlled in accordance with Section 19-3.03D of the Caltrans Standard Specifications (Caltrans, 2010). If groundwater is encountered during CIDH pile construction, contractor should be prepared to use a "wet" method of construction for the CIDH piles. As a standard Caltrans practice for "wet" construction, PVC tubings should be installed within the reinforcement cage for gamma-ray testing.

Based on the As-Built LOTB sheets of the nearby structures, the onsite soils are generally loose to very dense coarse grained materials and these materials are susceptible to caving. If caving occurs, a temporary casing can be used. The casing should have an inside diameter larger than or equal to the pile diameter and should be placed tight in the hole. Vibratory hammers or oversized drilling are not allowed for casing installation. In the event that any boring becomes bell-shaped and cannot be advanced due to severe caving, all loose material should be removed from the bottom of the boring and the caved region filled with a low strength sand-cement slurry. Drilling may continue when the slurry has reached its initial set.

Based on the As-Built LOTB sheets of the nearby structures, gravel and cobbles were recovered during drilling operations in multiple borings and are expected to be encountered during CIDH pile construction. While there could be a trace amount of cobbles between 6 inches and 1 foot diameter, the largest rocks of significance that will be encountered would likely be small cobbles, in the 3- to 6-inch diameter range. While the oversized material will likely create difficult drilling conditions, large-diameter augers typically have flights with wide spacing and a shallow pitch allowing rock pieces, cobbles and boulders to be extracted from the drilled hole. Rock augers and clean-out buckets can also be used to extract oversized material where a high concentration of gravel and cobbles are encountered.

References

Abrahamson, N. A., and Silva, W., 1997, "Empirical Response Spectral Attenuation Relations for Shallow Crustal Earthquakes," Seismological Research Letters, Vol. 68, No. 1, January/February.

AREMA, 2009, "Manual for Railway Engineering," American Railway Engineering Association, Chapters 8, 9, 15.

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Boore, David M., William B. Joyner, and Thomas E. Fumal, 1997, "Equations for Estimating Horizontal Response Spectra and Peak Acceleration from Western North American Earthquakes: A Summary of Recent Work," Seismological Research Letters, Vol. 68, No. 1, pp. 128-153, January/February.

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Caltrans, 2006, Standard Plans

Caltrans, 2003, BDS, Section 4, November.

Campbell, K. W., 1997, "Empirical near-source attenuation relationships for horizontal and vertical components of peak ground acceleration, peak ground velocity, and pseudo-absolute acceleration response spectra," Seismological Research Letters, Vol. 68, No. 1, pp.154-179.

Sadigh, K., Chang K.-Y., Egan, J.A., Makdisi, F., and Youngs, R.R., 1997, "Attenuation Relationships for Shallow Crustal Earthquakes Based on California Strong Motion Data," Seismological Research Letters, Vol. 68, No. 1, January/February.

ATTACHMENT 1

As-Built LOTB sheets of the nearby

Structures (Grand Avenue Undercrossing (Bridge No. 55-671L),

Lincoln Avenue Underpass (Bridge No. 55-672),

and Lincoln Avenue Overcrossing (Bridge No. 55-675),

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	5	31.4/32.7	360	378

GEOTECHNICAL PROFESSIONAL

3-2-92

PLANS APPROVAL DATE

PARSONS BRINCKERHOFF
Parsons Brinckerhoff Quade & Douglas
Engineers Architects Planners
505 South Main Street, Suite 900
Orange, CA 92668

NOTES:

Reference benchmark KV-4 Chiseled square in concrete @ West End, of I-5 Bridge over Grand Ave., North bound lanes. Elev. 168.60

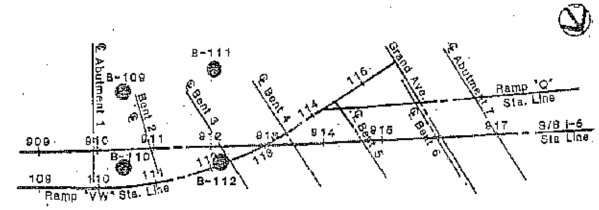
No Ground Water Encountered

NO CHANGES
AS BUILT 1-21-97
CORRECTIC AS BY R.L. Breidenbaugh
CONTRACT NO. 12-004904
DATE 4-15-96

LABORATORY TESTING

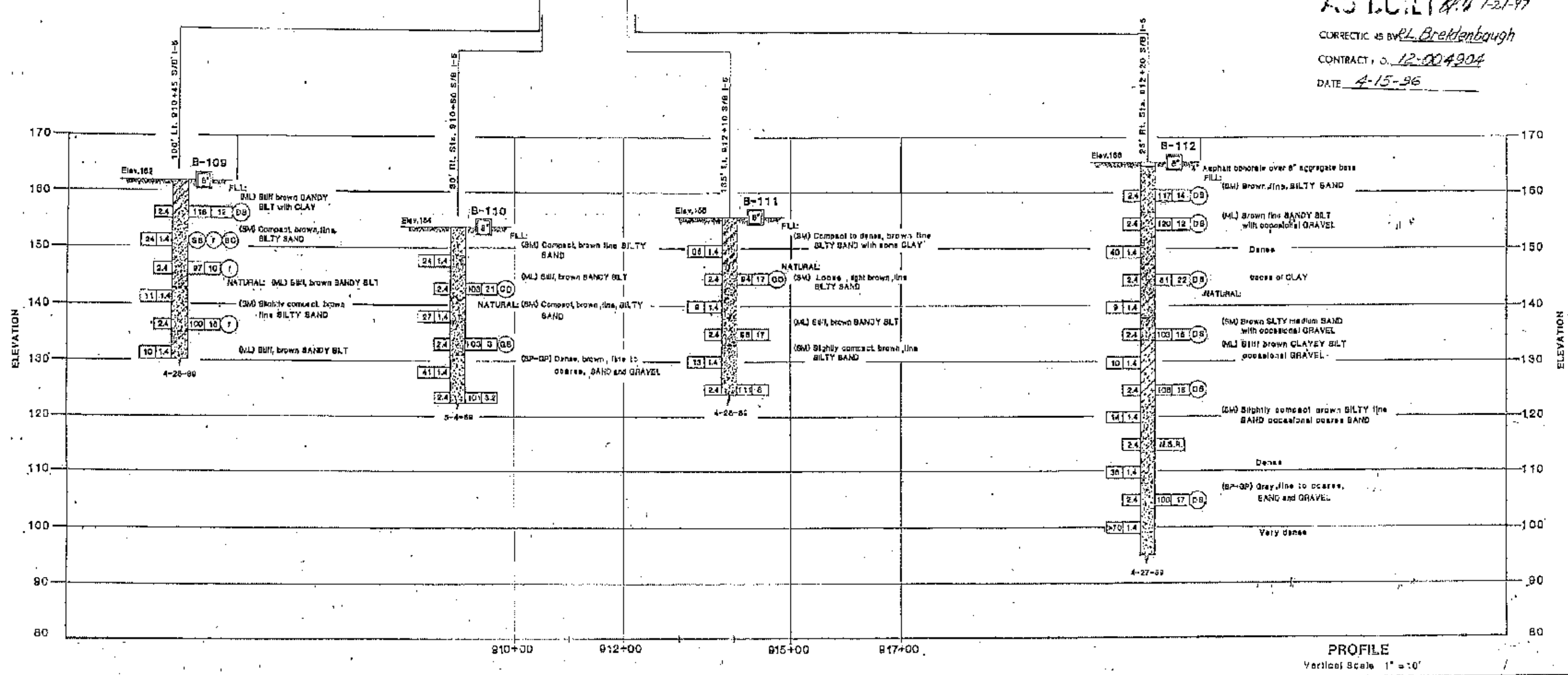
- (GS) — Grain Size Distribution — CTM 202
- (P) — Plasticity Index — CTM 204
- (M) — Maximum Density — CTM 216
- (SE) — Sand Equivalent — CTM 217
- (CO) — Consolidation — CTM 219
- (DS) — Direct Shear — CTM 222
- (R) — Resistance Value — CTM 301
- (SS) — Soluble Sulfate — CTM 417
- (SC) — Soluble Chloride — CTM 422
- (r) — Resistivity, pH — CTM 643
- (200) — Wash (-200) Sieve — ASTM 1140-71
- N.S.R. — No Sample Recovery

PLAN



PROFILE

Vertical Scale 1" = 10'



CONSISTENCY CLASSIFICATION FOR SOILS

According to the Standard Penetration Test

LEGEND OF EARTH MATERIALS

LEGEND OF BORING OPERATIONS

NOTE: Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

DESIGN ENGINEER	DRAWN BY R.O.O.	FIELD INVESTIGATION
10-30-97	CHECKED BY M.R.	DATE 11-30-89

PREPARED FOR THE
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT ENGINEER

BRIDGE NO. 55-871L

POST MILE 31.8

GRAND AVE. UNDERCROSSING (LT. BRIDGE)

LOG OF TEST BORINGS 1 OF 2

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

CU 12101
EA 004901

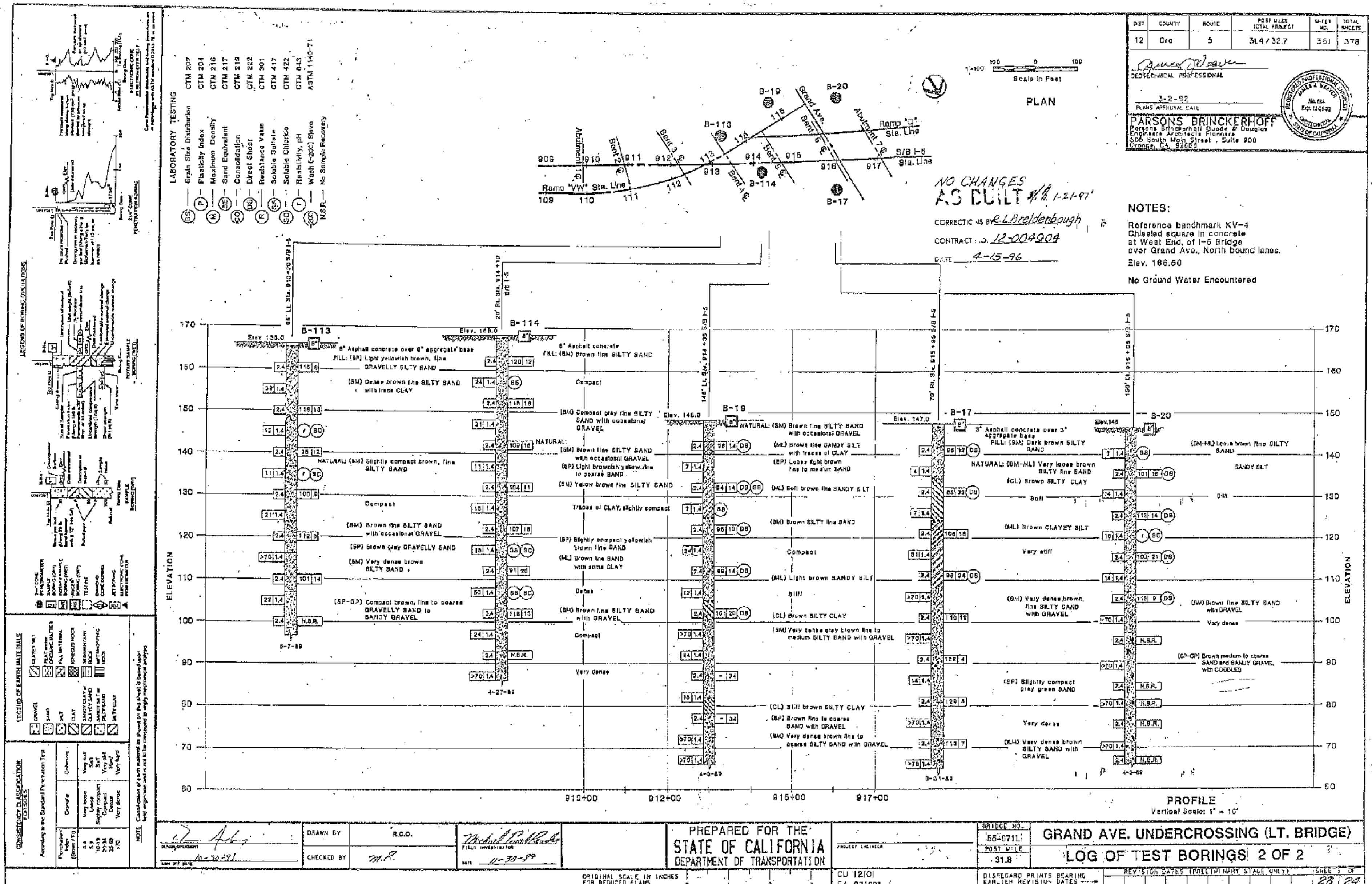
DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET 22 OF 24

19E-109

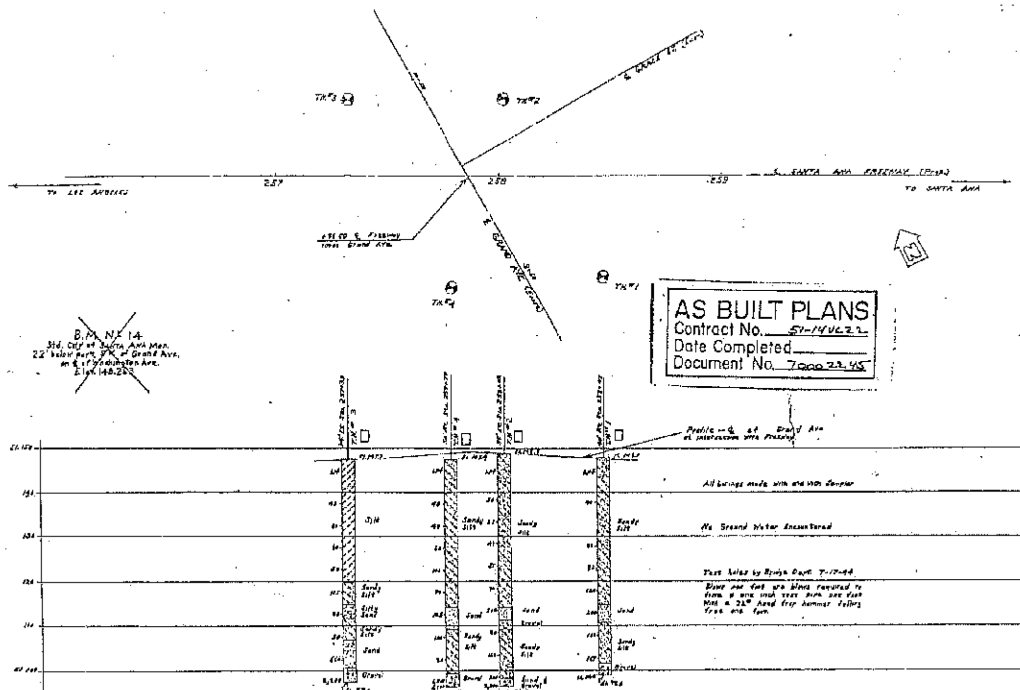
19E-110



GRAND AVE. UNDERCROSSING (LT. BRIDGE)
LOG OF TEST BORINGS 2 OF 2
BRIDGE NO. 55-0711L
POST MILE 31.8
PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
CU 12101
EA 034803
DIST 12 COUNTY Ora ROUTE 5 POST MILES TOTAL PROJECT 31.4/32.7 SHEET NO. 351 TOTAL SHEETS 378
GEOTECHNICAL PROFESSIONAL
3-2-92
PLANS APPROVAL DATE
PARSONS BRINCKERHOFF
Parsons Brinckerhoff Quade & Douglas
Engineers Architects Planners
505 South Main Street, Suite 900
Orange, CA 92668
PLAN
Scale in Feet
NO CHANGES
AS BUILT
CONTRACT 12-004904
DATE 4-15-96
NOTES:
Reference bandmark KV-4
Chiseled square in concrete at West End of I-5 Bridge over Grand Ave., North bound lanes.
Elev. 166.50
No Ground Water Encountered
LABORATORY TESTING
GS — Grain Size Distribution CTM 202
P — Plasticity Index CTM 204
M — Maximum Density CTM 216
SE — Sand Equivalent CTM 217
CO — Consolidation CTM 219
DS — Direct Shear CTM 222
R — Resistance Value CTM 301
SS — Soluble Sulfate CTM 417
SC — Soluble Chloride CTM 422
I — Resistivity, pH CTM 643
20C — Wash (-200) Sieve ASTM 1140-71
N.S.R. — No Sample Recovery
B-113
B-114
B-19
B-17
B-20
ELEVATION
PROFILE
Vertical Scale: 1" = 10'
910+00
912+00
915+00
917+00
DRAWN BY R.C.O.
CHECKED BY
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
DISREGARD PRINTS BEARING EARLIER REVISION DATES
SHEET 28 OF 24
LEGEND OF EARTH MATERIALS
LEGEND OF BORING OPERATIONS
CONSISTENCY CLASSIFICATION FOR SOILS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	5	31.4/32.7	362	378

3-2-92
TO ACCOMPANY PLANS DATED



AS BUILT PLANS
Contract No. 51-14VC22
Date Completed
Document No. 7000 23 45

B.M. No 14
22' below part of Grand Ave.
Elev. 148.2

CLASSIFICATION OF MATERIAL BASED ON STANDARD GRADE SIZE LIMITS

LEGEND OF BORING OPERATIONS

LEGEND OF EARTH MATERIALS

ABBREVIATIONS

NOTES

The contractor's attention is directed to Section 2, Article (1) of the Standard Specifications and to the Special Provisions accompanying this set of plans.

Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

GRAND AVE. UNDERCROSSING
LOG OF TEST BORINGS
BRIDGE NO. 55-170
DRAWING NO. C-1716-2

NO CHANGES
AS BUILT 1-22-97
CORRECTIONS BY R. L. Breidenbaugh
CONTRACT 2-004904
DATE 4-15-96

NOTE:
ADDITIONAL AS-BUILT FOUNDATION DATA MAY BE AVAILABLE AT THE DIVISION OF NEW TECHNOLOGY, MATERIALS AND RESEARCH 5900 FOLSOM BOULEVARD, SACRAMENTO, CALIFORNIA 95819

DESIGN
DETAILS
QUANTITIES

PREPARED FOR THE
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CU 12101
EA 004901

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

BRIDGE NO. 55-671L
POST MILE 31.8

GRAND AVE. UNDERCROSSING (LT. BRIDGE)

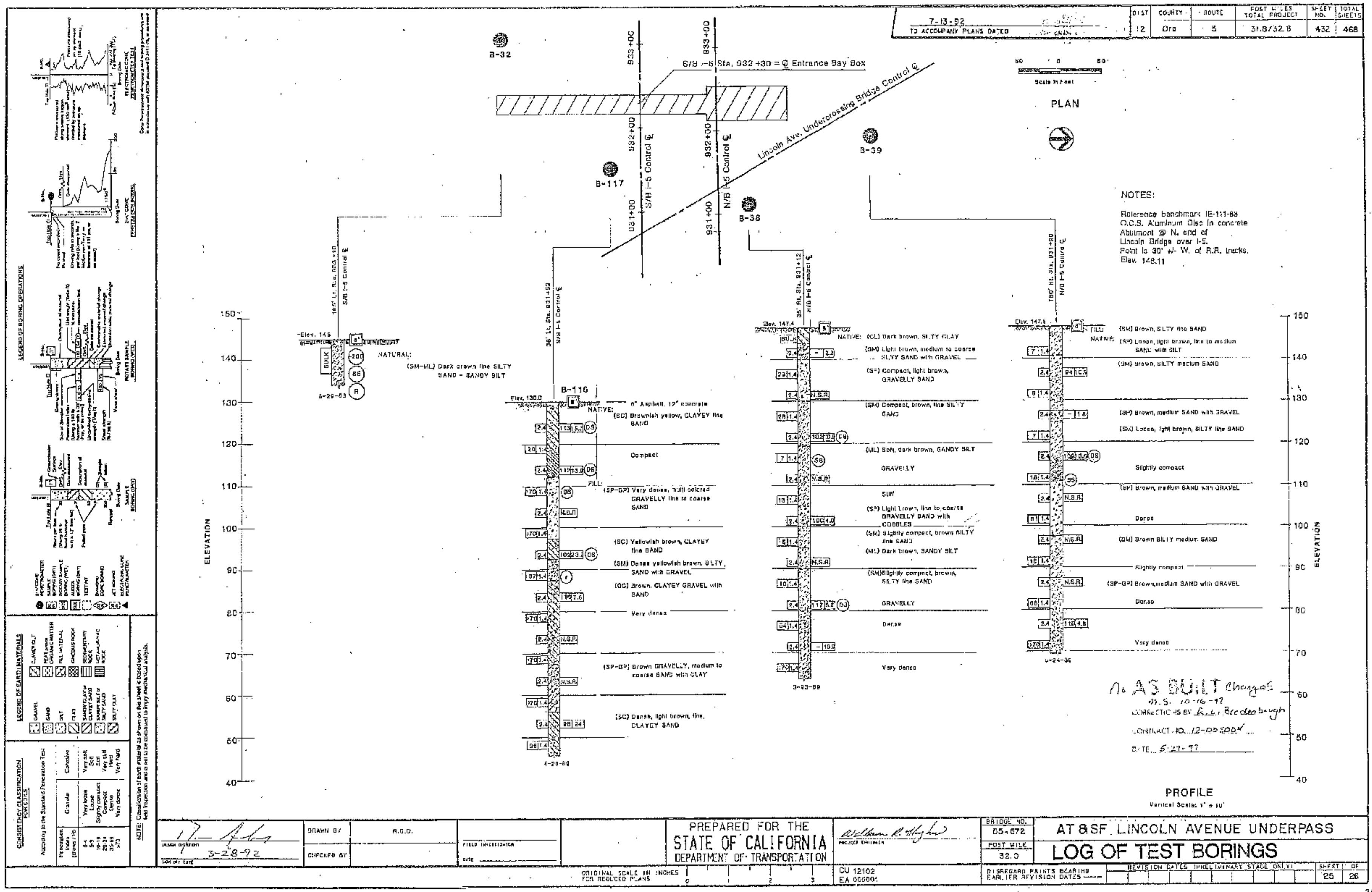
AS-BUILT LOG OF TEST BORINGS

DISREGARD PRINTS BEARING EARLIER REVISION DATES

SHEET 24 OF 24

393

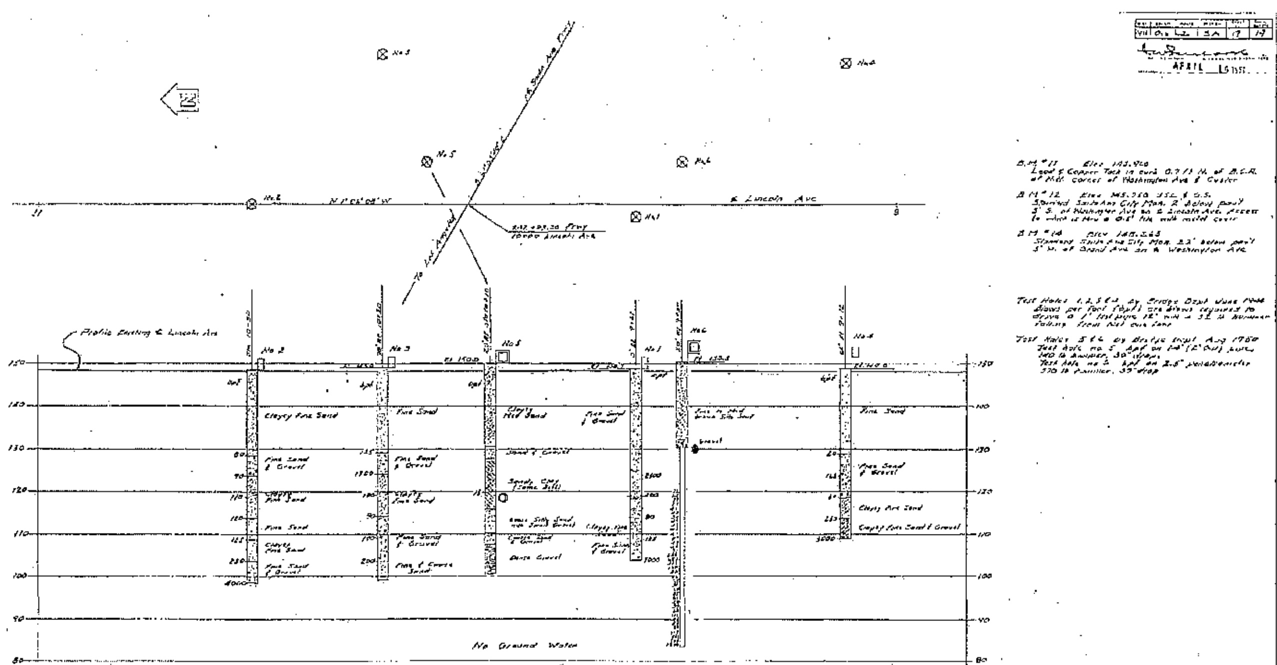
19E-111



AT&SF LINCOLN AVENUE UNDERPASS
LOG OF TEST BORINGS
PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
PLAN
PROFILE
NOTES:
Reference benchmark IE-111-88
O.C.S. Aluminum Disc in concrete
Abutment @ N. end of
Lincoln Bridge over I-5.
Point is 30' +/- W. of R.R. tracks.
Elev. 148.11
S/B I-5 Sta. 932+30 = ℄ Entrance Bay Box
Lincoln Ave. Undercrossing Bridge Control ℄
S/B I-5 Control ℄
N/B I-5 Control ℄
B-32
B-117
B-38
B-39
B-110
ELEVATION
AS BUILT changes
BRIDGE NO. 55-672
POST MILE 32.0
CU 12102
EA 000001
DIST 12 COUNTY Ora ROUTE 5 POST MILES TOTAL PROJECT 31.8/32.8 SHEET NO. 432 TOTAL SHEETS 468
LEGEND OF BORING OPERATIONS
LEGEND OF EARTH MATERIALS
CONSISTENCY CLASSIFICATION

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	5	31.8/32.8	433	468

7-15-92
TO ACCOMPANY PLANS DATED



AS BUILT PLANS
Contract No.
Date Completed
Document No.

CLASSIFICATION OF MATERIAL BASED ON STANDARD GRADE SIZE LIMITS

LEGEND OF BORING OPERATIONS

LEGEND OF EARTH MATERIALS

ABBREVIATIONS

NOTES

LINCOLN AVE O.C. & U.P.
LOG OF TEST BORINGS
SCALE NONE
DRAWING No. C-2060-17

AS BUILT changes
M.S. 10-15-97
CORRECTIONS BY
CONTRACT NO. 12-0
DATE 5-27-97

NOTE:
ADDITIONAL AS-BUILT FOUNDATION DATA MAY BE AVAILABLE AT THE DIVISION OF NEW TECHNOLOGY, MATERIALS AND RESEARCH 5900 FOLSOM BOULEVARD, SACRAMENTO, CALIFORNIA 95819

3-26-92

DESIGN	BY	CHECKED
DETAILS	BY	CHECKED
QUANTITIES	BY	CHECKED

PREPARED FOR THE
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT ENGINEER

BRIDGE NO. 55-672
POST MILE 32.0

AT&SF LINCOLN AVENUE UNDERPASS
AS-BUILT LOG OF TEST BORINGS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

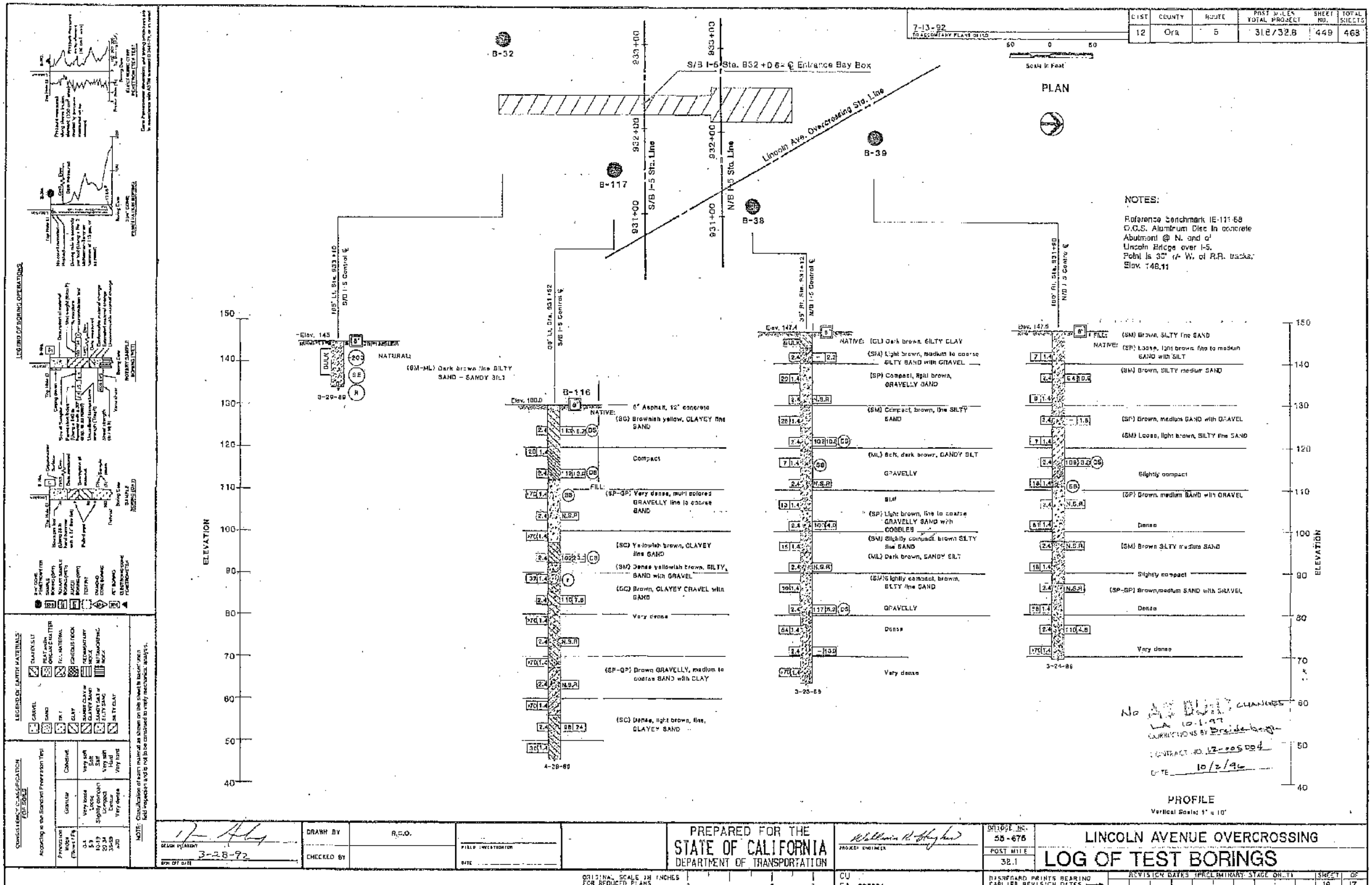
CU 12102
EA 005001

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY)

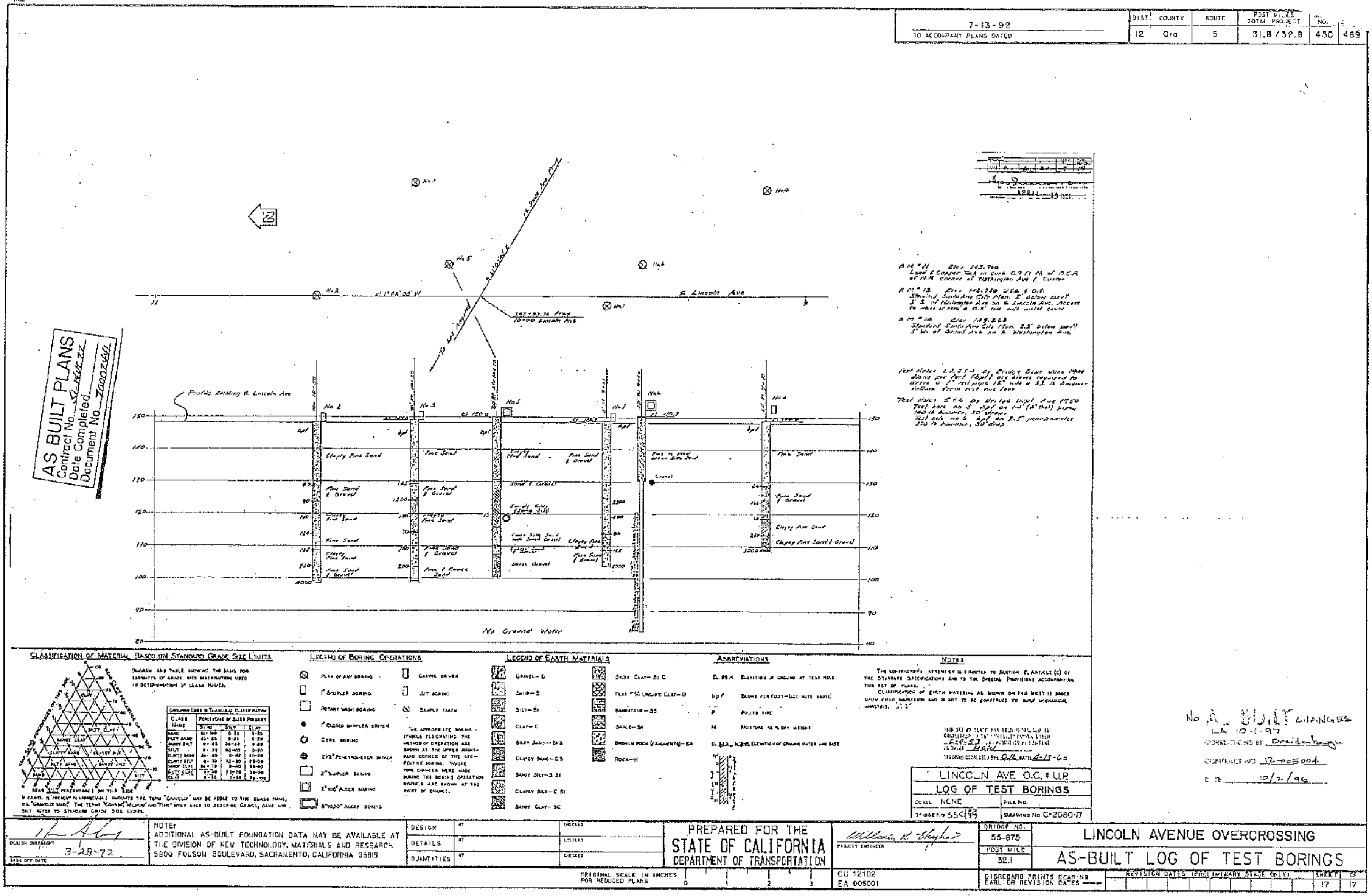
SHEET 26 OF 26

19E-113



DIST 12 | COUNTY Ora | ROUTE 5 | POST MILES TOTAL PROJECT 31.8/32.8 | SHEET NO. 449 | TOTAL SHEETS 463
7-13-92
PLAN
Scale in Feet
B-32
B-117
B-38
B-39
S/B I-5 Sta. 852+06± Entrance Bay Box
Lincoln Ave. Overcrossing Sta. Line
S/B I-5 Sta. Line
N/B I-5 Sta. Line
933+00
932+00
931+00
NOTES:
Reference Benchmark IE-111-58
O.C.S. Aluminum Disc in concrete
Abutment @ N. end of
Lincoln Bridge over I-5.
Point is 35' +/- W. of R.R. tracks.
Elev. 146.11
ELEVATION
150
140
130
120
110
100
90
80
70
60
50
40
Elev. 143
NATURAL:
(SM-ML) Dark brown fine SILTY SAND – SANDY SILT
3-29-89
B-116
Elev. 100.0
6" Asphalt, 12" concrete
NATIVE:
(SC) Brownish yellow, CLAYEY fine SAND
Compact
FILL:
(SP-GP) Very dense, multi colored GRAVELLY fine to coarse SAND
(SC) Yellowish brown, CLAYEY fine SAND
(SM) Dense yellowish brown, SILTY, SAND with GRAVEL
(GC) Brown, CLAYEY GRAVEL with SAND
Very dense
(SP-GP) Brown GRAVELLY, medium to coarse SAND with CLAY
(SC) Dense, light brown, fine, CLAYEY SAND
4-26-89
Elev. 147.4
NATIVE: (CL) Dark brown, SILTY CLAY
(SM) Light brown, medium to coarse SILTY SAND with GRAVEL
(SP) Compact, light brown, GRAVELLY SAND
(SM) Compact, brown, fine SILTY SAND
(ML) Soft, dark brown, SANDY SILT
GRAVELLY
Stiff
(SP) Light brown, fine to coarse GRAVELLY SAND with COBBLES
(SM) Slightly compact, brown SILTY fine SAND
(ML) Dark brown, SANDY SILT
(SM) Slightly compact, brown, SILTY fine SAND
GRAVELLY
Dense
Very dense
3-28-89
Elev. 147.5
FILL: (SM) Brown, SILTY fine SAND
NATIVE: (SP) Loose, light brown, fine to medium SAND with SILT
(SM) Brown, SILTY medium SAND
(SP) Brown, medium SAND with GRAVEL
(SM) Loose, light brown, SILTY fine SAND
Slightly compact
(GP) Brown, medium SAND with GRAVEL
Dense
(SM) Brown SILTY medium SAND
Slightly compact
(SP-GP) Brown/medium SAND with GRAVEL
Dense
Very dense
3-24-89
PROFILE
Vertical Scale: 1" = 10'
PREPARED FOR THE
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DRAWN BY R.C.O.
CHECKED BY
3-28-92
BRIDGE NO. 55-676
POST MILE 32.1
LINCOLN AVENUE OVERCROSSING
LOG OF TEST BORINGS
CU
EA. 005001
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
SHEET 16 OF 17
LEGEND OF EARTH MATERIALS
LEGEND OF BORING OPERATIONS
CONSISTENCY CLASSIFICATION FOR SOILS

19E-114


7-13-92
TO ACCOMPANY PLANS DATED
DIST. COUNTY ROUTE POST MILES TOTAL PROJECT SHEET NO. TOTAL SHEETS
12 Ora 5 31.8/32.8 450 469
AS BUILT PLANS
Contract No.
Date Completed
Document No.
No Ground Water
CLASSIFICATION OF MATERIAL BASED ON STANDARD GRADE SIZE LIMITS
LEGEND OF BORING OPERATIONS
LEGEND OF EARTH MATERIALS
ABBREVIATIONS
NOTES
LINCOLN AVE O.C. & U.P.
LOG OF TEST BORINGS
SCALE NONE
DRAWING NO C-2080-17
NOTE:
ADDITIONAL AS-BUILT FOUNDATION DATA MAY BE AVAILABLE AT THE DIVISION OF NEW TECHNOLOGY, MATERIALS AND RESEARCH, 5900 FOLSOM BOULEVARD, SACRAMENTO, CALIFORNIA 95819
DESIGN
DETAILS
QUANTITIES
PREPARED FOR THE
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT ENGINEER
BRIDGE NO. 55-675
POST MILE 32.1
LINCOLN AVENUE OVERCROSSING
AS-BUILT LOG OF TEST BORINGS
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
CU 12102
EA 005001
DISREGARD PRINTS BEARING EARLIER REVISION DATES
REVISION DATES (PRELIMINARY STAGE ONLY)
SHEET OF
17 17
3-28-92

19E-115

Santa Ana Boulevard Grade Separation

SCH Number: 2014068326

Document Type: NOE - Notice of Exemption

Project Lead Agency: Santa Ana, City of

Project Description

Grade separation of the existing Santa Ana Blvd/Orange County Transportation Authority (OCTA) Metrolink at-grade railroad crossing. The purpose is to: enhance traffic operations; improve pedestrian and bicycle user safety; improve emergency response times; and reduce congestion along Santa Ana Blvd.

Contact Information

Primary Contact:
Jason Gabriel
City of Santa Ana
714-647-5664
20 Civic Center Plaza
Santa Ana, CA 92701

Project Location

County: Orange
City: Santa Ana
Region:
Cross Streets:
Latitude/Longitude:
Parcel No:
Township:
Range:
Section:
Base:
Other Location Info:

Exempt Status

- ☐ Ministerial
- ☐ Declared Emergency
- ☐ Emergency Project
- ☐ Categorical Exemption
- ☒ Statutory Exemption

Type, Section or Code Number S:21080.13;15282

Reasons for Exemption

CA Code of Regulations, Title 14, Chapter 3, Article 18, §15282(g) statutorily exempts any railroad grade separation project which eliminates an existing grade crossing as set forth in Section 21080.13 of the CA Public Resources Code. Section 21080.13 further states that CEQA shall not apply to any railroad grade separation project which eliminates an existing grade crossing.

Date Received: 6/23/2014

CEQAnet HOME | NEW SEARCH

EXHIBIT 3

SANTA ANA PWA PUBLIC WORKS AGENCY

CITY COUNCIL AGENDA DATE: DECEMBER 02, 2014

STATUTORY EXEMPTION

SANTA ANA GRADE SEPARATION

DOWNTOWN ORANGE COUNTY SANTA ANA