

## Project Report

### *For Project Approval*

On Route State Route 58

Between 0.4 miles west of Kern/San Bernardino County Line

And to 7.5 miles east of United States Route 395

I have reviewed the right of way information contained in this report and the Right of Way Data Sheet attached hereto and find the data to be complete, current and accurate:



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APPROVAL RECOMMENDED:



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Project Manager



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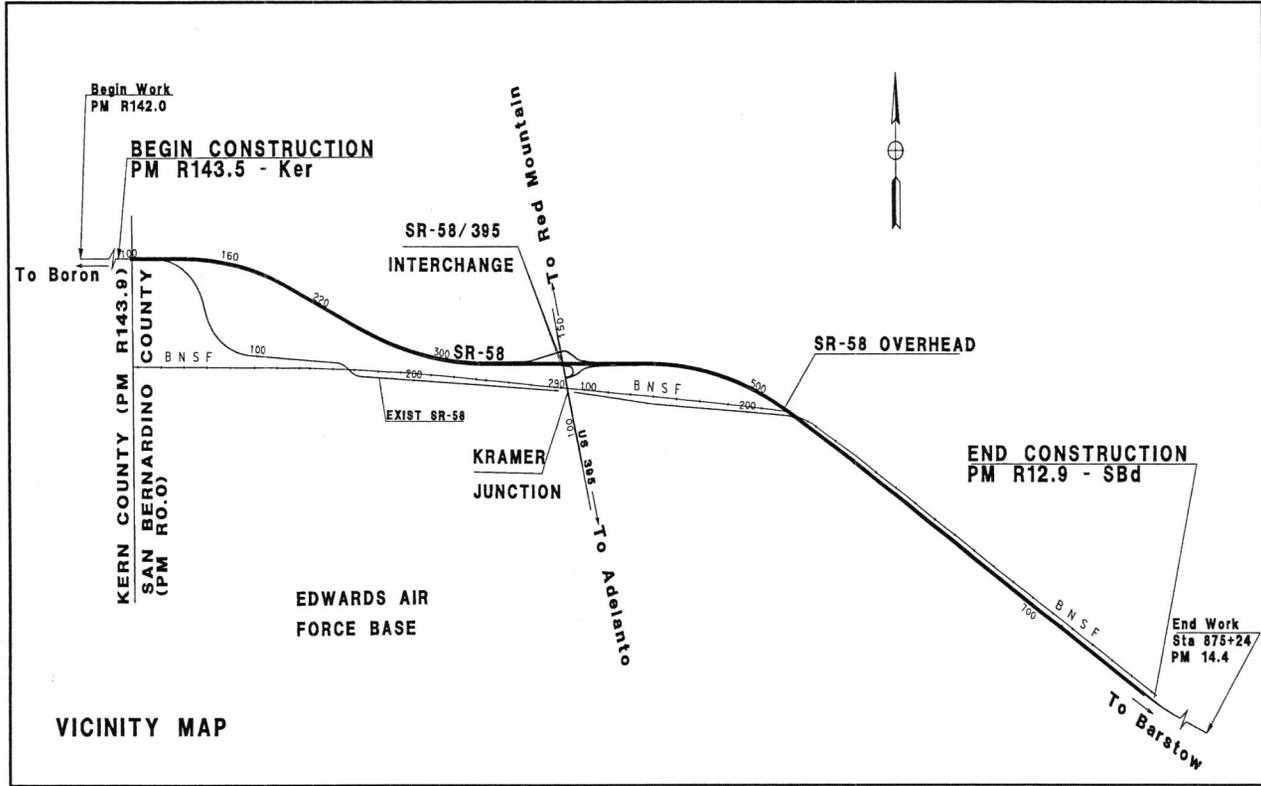
APPROVED:



BASEM E. MUALLEM, P.E.  
District Director

7/1/14  
DATE

# Vicinity Map



This project report 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.



A handwritten signature in black ink, appearing to be "Cresencio Garcia", written over a horizontal line.

CRESENCIO GARCIA, Registered Civil Engineer

5/10/14  
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Concurred By:

A handwritten signature in black ink, appearing to be "Sergio E. Avila", written over a horizontal line.

SERGIO E. AVILA, Office Chief, Design "E"

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## 1. INTRODUCTION

### Project Description:

It is proposed to realign and widen a portion of State Route 58 (SR-58) from a two-lane conventional highway to a four-lane divided expressway, located north of existing SR-58 from the Kern/San Bernardino County Line to 7.5 miles east of United States Route 395 (US-395). The proposed project would implement route continuity, increase capacity, reduce congestion, improve traffic safety and provide new State route access. The proposal includes construction of a spread diamond/cloverleaf interchange at SR-58/US-395 Junction and an overhead structure at the Burlington Northern Santa Fe (BNSF) Railway intersection.

The project is funded from the 2014 State Transportation Improvement Program (STIP).

<b>Project Limits</b>	06-Ker-58 PM R143.5/R143.9 08-SBd-58 PM R0.0/R12.9
<b>Number of Alternatives</b>	Four Alternatives and No-Build
<b>Current Capital Outlay Support Estimate</b>	\$37,424,000
<b>Current Capital Outlay Construction Estimate</b>	\$141,967,000
<b>Current Capital Outlay Right of Way Estimate</b>	\$18,170,000
<b>Funding Source</b>	025.700/HE14
<b>Funding Year</b>	2017
<b>Type of Facility</b>	Four-lane divided expressway
<b>Number of Structures</b>	SR 58/US 395 Interchange and overhead structure at the Burlington Northern Santa Fe (BNSF) railway
<b>Environmental Determination or Document</b>	Environmental Impact Report/Environmental Impact Statement (EIR/EIS)
<b>Legal Description</b>	In San Bernardino and Kern Counties on Route 58 from 0.4 miles west of Kern/San Bernardino County Line to 7.5 miles east of United States Route 395.
<b>Project Development Category</b>	Category 1

## 2. RECOMMENDATION

It is recommended that the project be approved using the Preferred Alternative (Alternative 1A) and that the project proceed to the design phase.

The affected local agencies have been consulted with respect to the recommended plan. Their views have been considered, and they are in general accord with the plan as presented.

## 3. BACKGROUND

- **Project History**

In 1983 the California Transportation Commission (CTC) programmed \$20 million in the 1985/86 Fiscal Year State Transportation Improvement Plan (STIP) for a four-lane widening project from the Kern/San Bernardino County Line, Post Mile (PM) 0.0 to PM 10.0. This project was postponed on the basis that other State highways and other sections of State Route 58 were in greater need of improvement.

A Project Study Report (PSR) for SR-58 was approved on September 22, 1991. The recommended Alternative A-1 from the PSR consisted of construction of a four-lane divided expressway from PM 0.0 to PM 12.9 on a new alignment north of existing SR-58, with a spread diamond interchange at SR-58/US-395 Junction and a railroad overhead structure. The proposed right of way width was 460 feet wide throughout the project limits.

A re-evaluation of the right of way requirements was performed during the preparation of the Draft Project Report and the 460-foot wide right of way proposed in the PSR was reduced to 400 feet throughout the project limits. The exception to this right of way adjustment is at the proposed SR-58/US-395 Interchange, where the proposed right of way is 1400 feet wide to accommodate the interchange entrance and exit ramps.

The current Preferred Alternative, Alternative 1A (Attachment B) differs from the approved PSR Alternative (A-1) on the type of proposed interchange at the SR-58/US-395 Junction. Alternative 1A includes a spread diamond/ cloverleaf interchange whereas Alternative A-1 in the approved PSR was proposed as a spread diamond interchange.

This Project Report carries the same scope as the PSR, and documents the project development efforts expanded to focus on Alternative 1A.

- **Community Interaction**

An informal public meeting was held at Kramer Junction on March 7, 1991. The scope of the project was presented to the participants. The attendees overwhelmingly favored the implementation of the proposed project and Preferred Alternative 1, located mostly north of the existing SR-58. The only objection to the Alternative 1 was made by LUZ Engineering Group, who stated that the dust raised by construction would affect the mirrors at the solar energy plant.

On July 17, 2002, the Resource Management Division from Edwards Air Force Base sent a letter to Caltrans indicating their preference for the northern alignment (Alternatives 1 or 1A) because it protects the flight test missions at the base.

A Scoping Meeting was held at the Roadhouse Restaurant (6158 State 58, Kramer Junction, CA 93516) on June 21, 2007 to give the community an opportunity to provide input on the purpose and need for the project, the alternatives being considered, and issues addressed in the EIR/EIS, which would evaluate the effects this project may have on the environment.

A public hearing was held Tuesday, August 6, 2013 at the Roadhouse Restaurant. For a further discussion concerning this public hearing, see Section 7 (Other Considerations as Appropriate) of this report.

- **Existing Facility**

SR-58 is a major east-west transportation corridor. SR-58 begins at its junction with United States Highway 101 (US-101) in the Community of Santa Margarita, connecting with Interstate 5 (I-5) and United States Highway 99 (US-99) in the Bakersfield area and United States Highway 395 (US-395) at Kramer Junction in San Bernardino County, ending at its junction with Interstate 15 (I-15) in the City of Barstow. SR-58 was adopted into the State Highway System in 1919 and was first paved in the late 1930s. The highway was constructed along the natural terrain, using prescriptive rights of way.

The total length of SR-58 in District 8, from the Kern/San Bernardino County Line to its junction with I-15, is 35 miles. SR-58, within District 8, begins at the Kern/San Bernardino County line as a four-lane expressway transitioning to a two-lane conventional highway at approximately PM 0.4; at PM 12.9, SR-58 transitions to a four-lane expressway then back to a two-lane conventional highway before transitioning into a freeway at PM R31.0, ending at its junction with I-15. The four-lane segments at each end of the project limits consist of 12-foot lanes, 10-foot outside shoulders, 5-foot inside shoulders and 100-foot median. Existing right of way at these segments of SR-58 is 230 feet at the west end and 480 feet at the east end.

SR-58 within the project limits is a two-lane conventional highway constructed on a relatively flat terrain. The width of each lane and shoulder is approximately 12 feet and four feet wide, respectively. There are existing centerline and shoulders rumble strips. The pavement surface consists of asphalt concrete about one foot thick and rigid pavement at the existing SR-58/US-395 intersection. The existing right of way width varies from 120 feet to 400 feet throughout the project limits with some segments of this facility constructed on 60-foot prescribed rights.

SR-58 within the project limits bisects rural undeveloped areas of San Bernardino County and crosses US-395 at Kramer Junction (PM 5.4). This is a signalized intersection with pedestrian crosswalks on three of the four legs. Gas stations and restaurants provide a place to refuel and rest for travelers. Approximately 100 feet north of the intersection is the BSNF railway crossing.

SR-58 from PM 0.0 to PM 5.4 is bordered on the south by Edwards Air Force Base. Paralleling SR-58, BNSF owns and operates rail lines with its rail yard located in the northwestern part of the City of Barstow with access to SR-58 via Main Street. The BNSF rail lines cross SR-58 at PM 2.8.

US-395 is a major north/south highway in the western United States. It traverses California, Nevada, Oregon and Washington. The District 8 portion of US-395 is located within San Bernardino County and begins at I-15 in the City of Hesperia and ends at the Kern County Line near the Community of Johannesburg. US-395 within the District 8 portion is generally a two-lane conventional highway with a total route length of 68.5 miles.

At Kramer Junction, US- 395 is currently configured with one left-turn lane, one through lane, and one right-turn lane in the northbound approach, while the southbound approach has one left-turn, one through, and one shared through/right-turn lane. Northbound and southbound approach lanes measure from 11 to 12 feet in width with shoulders measuring from 5.5 to 12 feet in width. US-395 right of way at the project area is 80 feet wide.

#### **4. PURPOSE AND NEED**

##### **Purpose:**

The purpose of this project is to implement route continuity on SR-58 with its adjacent segments, increase capacity, reduce congestion, improve traffic safety, meet community and environmental needs along the corridor through integrated management of the transportation network and provide new state route access. In addition, it will accommodate the increased volumes of oversized vehicles. The four-lane divided controlled access expressway from PM 0.0 to approximately PM 9.0 will separate local

traffic from interregional traffic. The proposed 100-foot wide median will separate opposing traffic and it will improve sight distance and clear recovery zone. The SR-58/US-395 interchange and the railroad grade separation would eliminate stop and go delays. Moreover, this project will be in compliance with the Transportation Concept Report (TCR), dated September 25, 2012.

**Need:**

The proposed project is needed to address current and future operational deficiencies. Truck and general traffic volumes on SR-58 are expected to increase in the future, affecting the level of service (LOS). Currently, the two-lane conventional highway within project limits is operating at a LOS “D” and “E” and it will decline to “E” and “F” by the Year 2039. Delays will also increase at US-395 (Kramer Junction) due to an at-grade crossing. Without improvements, the congestion and delays created on this segment of SR-58 and on the local streets network will affect the traffic operation safety for motorist.

**A. Problem, Deficiencies, Justification**

The segment of SR-58 within project limits does not meet the future expected capacity needs of a designated High Emphasis, Focus Route under the Interregional Road System (IRRS), which requires a minimum standard facility of a four-lane expressway. In addition, this segment is expected to operate at an unacceptable LOS by 2035 operating as a conventional highway.

Commercial truck traffic traveling on SR-58 currently experiences continuous delays at the railroad crossing (PM 2.8) and at the four-way signalized intersection with US-395 (Kramer Junction, PM 5.4). Numerous local roads and driveways intersections slow down traffic and contribute to further congestion. There are no auxiliary or passing lanes for speed change along the two-lane segment of the highway.

In 2010, a Traffic Study Report was prepared for SR-58 from PM 0.0 to 12.9. The report shows a LOS “D” and “E”, AM and PM respectively, for Year 2010 and it is projected to decline to “E” and “F” for the No-Build Alternative by the Year 2039.

Improvements are necessary to enhance route continuity, increase capacity, reduce congestion, and improve traffic safety. By upgrading SR-58 from a two-lane conventional highway to a four-lane expressway with grade separations at Kramer Junction and at the BNSF railway, it is anticipated to improve LOS and overall highway operational efficiency.

Alternative 1A addresses projected safety and operational deficiencies and improves local circulation through the segment of SR-58 within project limits.

## **B. Regional and System Planning**

- **Identify Systems**

SR-58 is a major east-west transportation corridor with a high percentage of truck traffic transporting goods in and out of the state. SR-58 stretches from coastal mountains in Central California to the high desert of Southern California and passes through the southern section of the central valley.

SR-58 acts as a major extension of the Interstate System by connecting I-5 in Bakersfield to I-15 and I-40 in Barstow. SR-58 is classified as part of the Statewide Freeway and Expressway System (FES) between these points.

SR-58 is part of the Strategic Highway Corridor Network (STRAHNET) between SR-99 and I-15 and has been designated as part of the National Network for oversized trucks and the National Highway System. It is also included as a High Emphasis Route and Focus Route under the Interregional Road System (IRRS). Within District 8, SR-58 is functionally classified as Other Principal Arterial.

- **State Planning**

The SR-58 Transportation Concept Report (TCR) approved on September 25, 2012, indicates the need for improvements in Segments 1 (PM R0.0/5.4) and Segment 2 (PM 5.4/12.9). These segments should be upgraded from a two-lane conventional highway to a four-lane expressway. The proposed viable alternatives meet this concept with a forecasted LOS "C" or better ensuring an efficient traffic operation until the Year 2035.

The US-395 TCR is being updated and is not available at this time. A preliminary analysis indicates that the concept for US-395 through Year 2035 in the SR-58 project area will be two mixed-flow lanes in each direction. It should be noted that the TCR does not consider right of way needs for auxiliary lanes, ramps, sound walls or the need for additional mainline lanes beyond Year 2035.

- **Regional Planning**

The proposed project scope is consistent with the improvements planned for SR-58 in the Southern California Association of Governments' (SCAG) 2012 Regional Transportation Plan (RTP) ID 34770. It is also included in the list of State Highways Improvement Projects in the SCAG's 2013 Federal Transportation Improvement Program (FTIP) ID # 34770.

**C. Traffic**

**SR-58 Current and Forecasted Traffic (2010, 2019, and 2039)**

Current (2010)	WEEKDAY			WEEKEND		
	EB	WB	TOTAL	EB	WB	TOTAL
Average daily Traffic (ADT)	7,336	6,484	13,820	7,038	5,417	12,455
Directional Split (DS)	53%	47%	100%	57%	43%	100%
AM Peak Hour Volume (PHV)	298	298	596	369	277	646
PM Peak Hour Volume (PHV)	472	421	893	369	349	718
Truck ADT	4,525	3,889	8,414	3,919	2,555	6,474
Truck % of Total ADT	62%	60%	61%	56%	47%	52%
AM Truck PHV	195	164	359	195	154	349
PM Truck PHV	277	236	513	205	174	379

Forecasted (2019)	WEEKDAY			WEEKEND		
	EB	WB	TOTAL	EB	WB	TOTAL
Average daily Traffic (ADT)	9,490	8,390	17,880	8,537	7,570	16,107
Directional Split (DS)	53%	47%	100%	53%	47%	100%
AM Peak Hour Volume (PHV)	390	380	770	448	387	835
PM Peak Hour Volume (PHV)	610	540	1,150	448	487	935
Truck ADT	5,850	5,030	10,880	4,781	3,558	8,339
Truck % of Total ADT	62%	60%	61%	56%	47%	52%
AM Truck PHV	250	210	460	236	215	451
PM Truck PHV	350	310	660	249	244	493

Forecasted (2039)	WEEKDAY			WEEKEND		
	EB	WB	TOTAL	EB	WB	TOTAL
Average daily Traffic (ADT)	16,398	14,542	30,940	14,770	13,097	27,867
Directional Split (DS)	53%	47%	100%	53%	47%	100%
AM Peak Hour Volume (PHV)	670	660	1,330	775	670	1,445
PM Peak Hour Volume (PHV)	1,055	940	1,995	775	843	1,618
Truck ADT	10,167	8,725	18,892	8,271	6,156	14,427
Truck % of Total ADT	62%	60%	61%	56%	47%	52%
AM Truck PHV	440	370	810	409	372	781
PM Truck PHV	620	530	1,150	431	422	853

**SR-58 / US-395 Turning-Movement Volume 2010 (Existing)**

Peak Hour	SR-58 Eastbound			SR-58 Westbound			US-395 Northbound			US-395 Southbound		
	Lt	Thru	Rt	Lt	Thu	Rt	Lt	Thru	Rt	Lt	Thru	Rt
Weekday AM	18	193	94	19	159	28	118	85	25	15	49	9
Weekday PM	11	294	169	29	232	14	158	84	6	29	132	15

**SR-58 / US-395 Turning-Movement Volume 2019 (Forecasted)**

Peak Hour	SR-58 Eastbound			SR-58 Westbound			US-395 Northbound			US-395 Southbound		
	Lt	Thru	Rt	Lt	Thru	Rt	Lt	Thru	Rt	Lt	Thru	Rt
Weekday AM	24	250	122	25	206	36	153	110	32	20	64	12
Weekday PM	15	381	219	37	300	19	204	109	8	37	171	20

**SR-58 / US-395 Turning-Movement Volume 2039 (Forecasted)**

Peak Hour	SR-58 Eastbound			SR-58 Westbound			US-395 Northbound			US-395 Southbound		
	Lt	Thru	Rt	Lt	Thru	Rt	Lt	Thru	Rt	Lt	Thru	Rt
Weekday AM	41	432	211	44	356	62	264	191	55	34	110	21
Weekday PM	25	659	379	64	519	32	354	188	14	64	296	34

**SR-58 Level of Service (LOS) Analysis Result-No-Build**

	PEAK HOUR (AM/PM)	
	Time-spend-following (%)	LOS
2010 Existing	80/87	D/E
2019 No Build	85/91	E/E
2039 No Build	92/96 (V/C>1)	E/F

**SR-58 / US-395 Intersection Level of Service (LOS) Analysis Result-No-Build**

	PEAK HOUR (AM/PM)	
	Delay (sec/veh)	LOS
2010 Existing	27.6/31.3	C/C
2019 No Build	28.5/36.8	C/D
2039 No Build	44.7/113.4	D/F

**Forecasted 2019 & 2039 Build Conditions SR-58 Mainline Analysis Results**

	Facility	2019 Build Condition (AM/PM)		2039 Build Conditions (AM/PM)	
		Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
<b>SR-58 Mainline</b>	Freeway	5.1/7.7	A/A	8.8/13.4	A/B

**Forecasted 2019 & 2039 Build Conditions SR-58 /US-395 Ramp Intersection Analysis Results**

	2019 Build (AM/PM)			2039 Build (AM/PM)	
	Delay (sec/veh)	LOS		Delay (sec/veh)	LOS
<b>L-2 (Diamond)</b>			<b>L-2 (Diamond)</b>		
North I/S	11.0/14.9	B/B	North I/S (signal)	9.8/13.9	A/B
South I/S (signal)	9.5/10.7	A/B	South I/S (signal)	10.7/11.8	B/B
<b>L-8 (Modified)</b>			<b>L-8 (Modified)</b>		
North I/S	4.4/4.3	A/A	North I/S (signal)	9/14.7	A/B
South I/S (signal)	14.1/11.8	B/B	South I/S (signal)	9.5/12.6	A/B

**SR-58**  
**Traffic Indices (TI) and Equivalent Single Axle Loads (ESAL)**

Traffic Indices are based on the year 2019

TI And ESAL Year	Inside Lane		Outside Lane	
	Mainline	Shoulder	Mainline	Shoulder
10 Year TI	13.2	8.3	13.2	8.3
10 Year ESAL	24,306,047	486,121	24,306,047	486,121
20 Year TI	14.3	9.0	14.3	9.0
20 Year ESAL	48,612,094	972,242	48,612,094	972,242
40 Year TI	15.5	9.7	15.5	9.7
40 Year ESAL	97,224,189	1,944,484	97,224,189	1,944,484

**US-395**  
**Traffic Indices (TI) and Equivalent Single Axle Loads (ESAL)**

Traffic Indices are based on the year 2019

TI And ESAL Year	South of SR-58 / US-395 Junction (Kramer Junction)		North of SR-58 / US-395 Junction (Kramer Junction)	
	Mainline	Shoulder	Mainline	Shoulder
10 Year TI	12.2	7.7	12.2	7.7
10 Year ESAL	13,011,358	260,227	12,011,358	260,227
20 Year TI	13.3	8.3	13.3	8.3
20 Year ESAL	26,022,715	520,454	26,022,715	520,454
40 Year TI	14.4	9.0	14.4	9.0
40 Year ESAL	52,045,430	1,040,909	52,045,430	1,040,909

### Collision Analysis

Based on traffic accident data from Traffic Surveillance and Analysis System (TASAS), collision data along the stretch of SR-58 between PM R0.0 to PM R12.9 during the 3-year period from April 2009 through March 2012 is summarized in the table below:

#### Accident Rates April 1, 2009 / March 31, 2012

Actual Accident Rates (Per Million Vehicle Miles)			Statewide Avg. for Similar Type Facilities (Per Million Vehicle Miles)		
Fatal	Fatal + Injury	Total	Fatal	Fatal + Injury	Total
0.00	0.19	0.66	0.017	0.29	0.68

The total actual accident rate for the mainline segment of SR-58 was 0.66 per million vehicle miles (pmvm), which is lower than the statewide average of 0.68 pmvm for similar facilities. The actual fatal accident rate of 0.00 pmvm was lower than the statewide average of 0.017 pmvm, as well as the actual fatal plus injury rate of 0.19 pmvm is lower than the statewide average of 0.29 pmvm.

The type of collisions were side wipe (28%), rear-end (29%), hit object (11%), broad side (17%), head-on (5%), overturn (7%), and other (3%).

The Primary Collision Factor was Other Violations (28%), Improper Turn (26%), Speeding (25%), Failure to Yield (9%), Influence Alcohol (4%), Unknown (3%), Other than Driver (2%), Follow to Close (2%), and Improper Driving (1%).

As per TASAS, there are no accident along the stretch of SR-58 in Kern County between PM R143.5 and PM R143.9 during the 3-year period from April 2009 through March 2012.

Implementation of the proposed project is expected to considerably reduce the occurrences of traffic accidents. It is also expected that the proposed four-lane expressway with the SR-58/US-395 Interchange and the railroad overhead structure will reduce congestion and will improve overall safety of the facility.

## 5. ALTERNATIVES

### 5A. Viable Alternatives

#### **Alternative 1A - Northerly Alignment Four - Lane Divided Expressway (with Spread Diamond and Cloverleaf Interchange at SR-58/US-395 Junction)**

##### **Preferred Alternative**

Alternative 1A is located north of the existing SR-58 and begins 0.4 miles west of Kern/San Bernardino County Line (PM R143.5) and ends 7.5 miles east of the SR-58/US-395 Junction (PM R12.9). This Alternative consists of realigning and widening portion of SR-58 from a two-lane conventional highway to a four-lane divided expressway between Kern County line and PM R12.9 in San Bernardino County. Alternative 1A also includes a new modified Type L-8 interchange (spread diamond at the north side of SR-58 and cloverleaf at the south side of SR-58) located approximately 0.26 miles north of existing SR-58/US-395 Junction and overhead railroad separation that would be located 2.6 miles east of the same junction.

Caltrans, in coordination with the County of San Bernardino and the public, identified Alternative 1A the most preferable with the least affected resources. In addition, a Value Analysis (VA) study conducted in June 2002 recommended the northern alignment as the best alternative for this project.

After technical studies were completed and based on the determination in the final environmental document and public comments received from the public hearing that was held on August 6, 2013, the Project Development Team (PDT) decided to select Alternative 1A as the Preferred Alternative on August 27, 2013.

The decision made by the PDT was structured and analyzed to address the evaluation criterion, which was developed to ensure that the selected Alternative 1A was the most suitable to meet the purpose and need for this project. Caltrans considered all significant, foreseeable, adverse impacts that would remain after the incorporation of all mitigation measures.

The Preferred Alternative's majority consensus resulted from the comments received during circulation of the Draft Environmental Impact Report/Environmental Impact Statement (DEIR/EIS) and Public Hearing. The circulation DEIR/EIS included responses from Cooperative and Participating Agencies, resource and regulatory agencies and the public.

- **Proposed Engineering Features:**

Construct a four-lane divided expressway with partial control of access, a modified Type L-8 interchange (spread diamond at the north side of SR-58 and cloverleaf at the south side of SR-58) at SR-58/US-395 Junction, and a railroad overhead structure. The expressway will be primarily constructed on fill section and it will follow the relatively flat existing terrain except at the cross drainages and bridges.

SR-58 typical cross-section will consist of a 400-foot right of way, 100-foot median with mostly a 4:1 or flatter fill slope, 12-foot lanes, 10-foot outside shoulders and 5-foot inside shoulders. SR-58/US-395 interchange ramps will have two 12-foot lanes at the connection to US-395 and transition to a single-lane where it connects to SR-58.

Culverts, over-side drains and down drains are proposed to handle on-site as well as off-site storm runoff. Two large culverts are proposed with dual purposes; to allow water to cross SR-58 and to serve as wildlife crossing. These culverts will be constructed on SR-58 one on each side of US-395. Exact location of those culverts will be determined during the design phase.

US-395 at the SR-58/US-395 interchange will be widened from existing two lanes and one left-turn lane to four lanes, two lanes in each direction, and two left-turn lanes on the northbound and one left-turn lane on the southbound. Proposed lanes will be 12 feet wide with 8-foot outside shoulders having mostly a 4:1 or flatter side slope. At the north and south of SR-58/US-395 interchange, US-395 will be constructed on a proposed 126-foot and 122-foot right of way respectively.

Traffic coming from SR-58 eastbound and westbound exit ramps would stop at the intersections with US-395. There will be a stop control at the westbound off-ramp and a traffic signal at the eastbound ramp intersection. Standard lighting will be used to illuminate these intersections as well as the connection of SR-58 with the entrance and exit ramps.

- **Cost Estimate:**

Detailed cost estimate for the Preferred Alternative (Alternative 1A) is referenced in Attachment C. The roadway and structure construction costs, including right of way cost for Alternative 1A is summarized in the table below:

<b>ALTERNATIVE 1A (PREFERRED ALTERNATIVE)</b>	
<b>CONSTRUCTION COST</b>	
Roadway	\$127,139,000
Structures	\$14,828,000
Right of Way	\$18,170,000
<b>Total Project Capital Outlay</b>	\$160,137,000
<b>SUPPORT COST</b>	\$37,424,000
<b>TOTAL PROJECT COST</b>	\$197,561,000

- **Right of Way Data:**

The 113 parcels, including 20 Government Land parcels from the Bureau of Land Management (BLM) are required for implementation of this alternative. Alternative 1A will have minimum impacts on parcels located on the southwest quadrant of the proposed SR-58/US-395 interchange mainly due to the proposed widening of US-395. Refer to the Right of Way Data Sheet (Attachment D) for utilities impacted under this alternative.

**Alternative 1 - Northerly Alignment Four - Lane Divided Expressway**

Alternative 1 is located north of existing SR-58 beginning 0.4 miles west of the Kern/San Bernardino County Line (PM R143.5), ending 7.5 miles east of the SR-58/US-395 Junction (PM R12.9). This alternative includes a spread diamond interchange (Type L-2) located approximately 0.26 miles north of existing SR-58/US-395 Junction and an overhead railroad grade separation that would be located approximately 2.6 miles east of the same junction.

- **Proposed Engineering Features:**

See Alternative 1A. Alternative 1 differs from Alternative 1A on the type of interchange proposed at the SR-58/US-395 Junction. A spread diamond interchange is proposed in Alternative 1.

- **Cost Estimate:**

<b>ALTERNATIVE 1</b>	
<b>CONSTRUCTION COST</b>	
Roadway	\$126,620,000
Structures	\$14,828,000
Right of Way	\$20,895,000
<b>Total Project Capital Outlay</b>	<b>\$162,343,000</b>
<b>SUPPORT COST</b>	<b>\$37,424,000</b>
<b>TOTAL PROJECT COST</b>	<b>\$199,767,000</b>

- **Right of Way Data:**

The 133 parcels, including 13 Government Land parcels from the Bureau of Land Management (BLM), are required for implementation of this alternative. Utility relocation will be required, and utilities impacted for Alternative 1 are similar to Alternative 1A. Refer to the Right of Way Data Sheet (Attachment D) for utilities impacted under this alternative.

**Alternative 2 - Along Existing Alignment Four - Lane Divided Expressway**

Alternative 2 is located along existing SR-58 beginning 0.4 miles west of the Kern/San Bernardino County Line (PM R143.5), ending 7.5 miles east of the SR-58/US-395 Junction (PM R12.9). This alternative includes a spread diamond interchange (Type L-2) located south of and adjacent to the existing SR-58/US-395 Junction and an overhead railroad grade separation that would be located approximately 3.9 miles west of the same junction. In addition, existing SR-58 would be demolished in order to upgrade non-standard conditions and to provide for major drainage improvements.

- **Proposed Engineering Features:**

See Alternative 1.

• **Cost Estimate:**

<b>ALTERNATIVE 2</b>	
<b>CONSTRUCTION COST</b>	
Roadway	\$124,181,000
Structures	\$14,828,000
Right of Way	\$206,408,000
<b>Total Project Capital Outlay</b>	<b>\$345,417,000</b>
<b>SUPPORT COST</b>	<b>\$37,424,000</b>
<b>TOTAL PROJECT COST</b>	<b>\$382,841,000</b>

• **Right of Way Data:**

The 121 parcels, including 11 Government Land parcels from the Bureau of Land Management (BLM), are required for implementation of this alternative. Utility relocation will be required. Utilities impacted under this alternative are as follows:

- Easements with: Large Towers, “H” Frames, 3 Pole Array
- Steel Towers 220 KV
- Edison Substation
- Wood Poles (Telecommunication)
- Switch Poles
- Riser Poles
- Engineer Steel Poles
- Small Transmission Towers
- Rack with Transformers on it
- Vaults
- Circuit Breakers
- Southern California Edison facility

**Alternative 3-Southerly Alignment Four- Lane Divided Expressway**

Alternative 3 is located south of existing SR-58 beginning 0.4 miles west of the Kern/San Bernardino County Line (PM R143.5) and ending 7.5 miles east of the SR-58/US-395 Junction (PM R12.9). This alternative includes a spread diamond interchange (Type L-2) located approximately 0.48 miles south of existing SR-58/US-395 Junction and an overhead railroad grade separation that would be located approximately 2.9 miles west of the same junction.

- **Proposed Engineering Features:**

See Alternative 1.

- **Cost Estimate:**

<b>ALTERNATIVE 3</b>	
<b>CONSTRUCTION COST</b>	
Roadway	\$124,231,000
Structures	\$14,828,000
Right of Way	\$70,236,000
<b>Total Project Capital Outlay</b>	<b>\$209,295,000</b>
<b>SUPPORT COST</b>	<b>\$37,424,000</b>
<b>TOTAL PROJECT COST</b>	<b>\$246,719,000</b>

- **Right of Way Data:**

The 87 parcels, including 11 Government Land parcels from the Bureau of Land Management (BLM), are required for implementation of this alternative. Utility relocation will be required. Utilities impacted under this alternative are as follows:

- "H" Frames
- 3 Pole Array
- Steel Towers 220kV
- 6 miles of pipeline to be relocated

**Project Features Applicable to all Viable Alternatives unless otherwise noted:**

- **Non-Standard Advisory Design Features:**

A Fact Sheet Exceptions to Advisory Design Standards for the Preferred Alternative is required to justify the side slope steeper than 4:1 at SR-58/US-395 interchange and at the railroad grade separation over the BNSF railway. Headquarters Design Reviewer (Anthony Ng) has reviewed the proposed Fact Sheet Exceptions to Advisory Design Standards and concurred with this proposal.

- **High Occupancy Vehicle (HOV) Lanes:**

According to the Caltrans Transportation Concept Report, dated September 25, 2012, it has not been projected to include HOV lanes for the SR-58 within project limits for Design Year 2035. Project is located mainly within rural area and

construction of HOV lanes is not required at this time. Proposed median width would accommodate future need for HOV lanes.

- **Ramp Metering:**

Provisions for ramp metering should be included within the freeway corridors identified in the District 8 Ramp Metering Development Plan (RMDP). SR-58 is not included in the RMDP, however, additional right of way will be procured in case this route is identified in future RMDPs.

- **California Highway Patrol (CHP) Enforcement Areas:**

Construction CHP ramp-metering enforcement areas are deferred to future projects once SR-58 is identified in future RMDPs.

- **Park and Ride Facilities:**

No provisions for park and ride facilities are included in this project.

- **Utility and Other Owner Involvement:**

The utility companies involved in the project are as follows:

Southern California Edison-Distribution/Transmission  
AT & T  
El Paso Mojave Pipeline Operating Company  
PG & E Gas Transmission Hinkley  
San Bernardino County Transmission  
Southern California Gas Company-Transmission  
Southern California Gas Company Distribution  
PG & E Transmission & Distribution Ridgecrest  
Southwest Gas  
Verizon

Types of facilities and agreements required are as follows:

Electric Distribution  
Petroleum Pipeline  
Water (Private Ownership-well)  
Fiber Optics  
Gas-Transmission  
Electric Transmission Lines  
Telephone  
Natural Gas Line  
Notice to Owner  
Utility Agreements

Refer to the Right of Way Data Sheet (Attachment D) for utilities relocation.

- **Railroad Involvement:**

The overhead design for the railroad grade separation over the BNSF railway will consider additional railroad tracks for future expansion. Initial contacts between District Right of Way and BNSF Railway officials concluded that final decision to determine the number of additional tracks will be made by the time when project plans are 60 percent completed.

- **Highway Planting:**

The District Landscape Architect (DLA) does not recommend planting with irrigation for this project; instead the DLA is recommending a combination of climatically appropriate/desert appropriate rock and gravel consistent with the corridor natural environment.

- **Erosion Control:**

Permanent erosion control measures will be implemented on this project to prevent erosion of roadway side slopes by the action of natural forces particularly wind and water. The District Landscape Architect and Storm Water Coordinator will determine the type of erosion control measures applicable to this project during the design phase.

- **Noise Barriers:**

Based on the results of the Noise Study Report (NSR), noise barriers are not required.

- **Non-Motorized and Pedestrian Features:**

The San Bernardino County Non-Motorized Transportation Plan, dated March 2011 does not identify the project limits as a part of the existing or future bicycle network.

Pedestrian facilities would be considered only for Alternative 2. This alternative is located along SR-58 and pedestrian facilities would be constructed at the SR-58/US-395 Interchange to provide pedestrian mobility around businesses in the area. For the other alternatives, no pedestrian facilities are proposed because these alternatives are located away from existing SR-58 on a rural/isolated area.

- **Structures Advanced Planning Study:**

An Advanced Planning Study (APS) that applies to all proposed alternatives was prepared by Caltrans Division of Engineering Services-Office of Bridge Design South 2 on March 11, 2014 (Attachment J). The cost of structures involved in this project is as follows:

**SR-58/US-395 Separation:**

Structure Type	Estimated Cost
CIP/PS Box Girder	\$ 2,916,000

**SR-58 Overhead:**

Structure Type	Estimated Cost
CIP/PS Box Girder	\$ 11,912,000

## **5B. Rejected Alternatives**

### **Alternative 4 - No-Build**

The No-Build Alternative would maintain the facility in its present condition. Under this alternative, the capacity of SR-58 would remain as a conventional two-lane highway with an at-grade signalized intersection at US-395, an at-grade railroad crossing and uncontrolled access from adjacent driveways and streets. Existing congestions and travel delays will increase resulting in higher user cost, particularly for transporting farm products. The LOS for this segment of SR-58 is currently at "D" and it is projected to operate at LOS F by Year 2039.

There will be no construction costs associated with the No-Build Alternative and no environmental impacts other than ongoing impacts associated with the existing alignment.

The No-Build Alternative provides decision-makers with a baseline for evaluating and considering the relative magnitude of impacts from the build alternatives. The No-Build Alternative may be selected if other alternatives have substantial impacts on the environment, do not serve the stated purpose and need or are not economically feasible. Selection of the No-Build Alternative will not preclude future maintenance work or future highway projects along this section of highway.

## 6. CONSIDERATIONS REQUIRING DISCUSSION

### A. Hazardous Waste

The Initial Site Assessment (ISA) report was prepared in June 2008 for the project, including all three alternatives and an updated ISA was prepared in October 2012 (Attachment G), which includes the addition of Alternative 1A. The ISA identified Potential Recognized Environmental Concerns (REC) within the environmental footprint. The identified REC's include the following:

- Air Strip and Airplane Hangars
- Service Stations and vehicle repair and maintenance facilities
- Scrap and junk yards
- Illegally dumped piles of trash
- Septic systems, clarifiers and surface impoundments
- Accidental petroleum releases from transporter vehicles
- Two abandoned oil wells
- Electrical substation and pole-mounted transformers
- Potential existence of ADL along highways
- Lead-based paint and asbestos containing materials

A summary of potential RECs and recommendations for Phase II investigations are described in Table A of the Initial Site Assessment (ISA, October 18, 2012) report available at Caltrans, District 8, Environmental Division.

The Hazardous Waste Coordinator indicated in the updated ISA Checklist, dated April 2, 2014 (Attachment G) Site Investigations were performed between October 2013 and February 2014 on three parcels with potential for hazardous waste within the Preferred Alternative 1A alignment:

1. Kramer Services - Airplane Hangar/storage and office structure/scrap metal yard
2. Karen Caillier – Division of Oil and Gas - Abandoned Oil Well
3. BNSF Railroad right of way

The investigations did not reveal or detect elevated concentrations of contaminated materials/waste, except for slightly elevated arsenic concentrations within the soils. A soil management plan will be required as guidance for construction workers. After acquisition of parcels, any structures to be demolished will have asbestos and lead-based paint surveys performed and any asbestos and/or lead-based paint will be removed and disposed of by the right of way demolition contract. An Aerially Deposited Lead Survey was performed in December 2013, the results indicated non-hazardous ADL soils (Type X) and the soils may be reused on the project. Based on the site investigations there is a low potential to encounter hazardous waste during construction and no remediation is required prior to right of way acquisition.

## B. Value Analysis

A Value Analysis (VA) was conducted in June 2002. Seven recommendations were considered as part of the study, of which four were accepted and further analyzed as project alternatives.

The following is a summary of the four alternatives that were accepted and their scores:

	Score	Index
- Northern Alignment (Baseline)	700	7.4
- Southern Alignment	643	6.4
- Modified Northern Alignment	517	5.1
- Modified Southern Alignment	452	4.5

Based on the analysis, the VA team agreed that the northern alignment was the best alternative for this project. The team also recommended having more definitive input from Edwards Air Force Base (AFB) before dropping the southern alignment. In August 2002, Edwards AFB Officials manifested their opposition to the southern alignment because it would impact their flight test missions.

The Project Development Team will determine the need to perform another Value Analysis (VA) during the Design Phase.

## C. Resource Conservation

Measures will be taken to reduce wasteful, inefficient and unnecessary consumption of energy and nonrenewable resources in construction, operations, and maintenance. The construction of the SR-58/SR-395 Interchange north of Kramer Junction will eliminate the delays caused by the current signalized intersection, thus reducing the waste and pollution associated with idling vehicles. Any suitable asphalt concrete pavement after removal will be recycled and used by the Contractor.

## D. Right of Way Issues

Preferred Alternative 1A will require additional right of way acquisition from private and public property owners, as well as from the Federal Bureau of Land Management and the Edwards Air Force Base. The proposed new right of way width is 400 feet throughout the project limits, except at the SR-58/US-395 Interchange where the width will be widened to 1400 feet.

The 400-foot right of way (mostly vacant-desert) was proposed considering the possible need for future expansion to accommodate additional mixed-flow or High Occupancy Vehicle lanes in the median. Also, the proposed right of way will accommodate the construction of 4:1 or flatter embankment side slopes and a 10-foot

minimum clearance (15 feet when feasible) from the side slope catch point to the right of way line. The proposed side slope and clearance to the right of way line will make this facility safer for users and maintenance crews.

The number of parcels that will be affected by the Preferred Alternative 1A is described in detail in the Right of Way Data Sheet (Attachment D). Most of the impacted parcels are vacant except at the SR-58/US-395 Junction. For this alternative, no relocation of businesses, homes or farms have been identified.

The cost of right of way acquisition and utility relocation for the Preferred Alternative 1A is detailed on the Right of Way Data Sheet (Attachment D).

- **Relocation Impact Studies:**

Alternative 1A would displace two non-residential units, an airplane hangar/storage facility, and a privately owned water cistern. The displacees will be contacted by a Relocation Agent. All activities are conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act 1970 as amended.

- **Airspace Lease Areas:**

The proposed project is not located in an area of high land values; therefore, the project geometric plan is not necessary to accommodate airspace leases.

## **E. Environmental Issues**

The Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS) has been prepared in accordance with Caltrans' environmental procedures, as well as State and federal environmental regulations.

After receiving comments from the public and reviewing agencies, the Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS) has been prepared. The Department may prepare additional environmental and/or engineering studies to address comments. The Final EIR/EIS includes responses to comments received on the Draft EIR/EIS and has identified the Preferred Alternative. After the Final EIR/EIS is circulated, if the Department decides to approve the project, a Notice of Determination will be published for compliance with CEQA and a Record of Decision will be published for compliance with NEPA.

Changes have been made to this Environmental Document since the public circulation of the Draft EIR/EIS. Public and agency comments received during the circulation of the Draft EIR/EIS and at the related Open Forum Public Hearing, which was held on

August 6, 2013, resulted in refinements that have been incorporated into this Final EIR/EIS.

The cover and signature pages from the Final EIR/EIS are the only included documents in the Project Report (See Attachment F).

- **Biological Resources**

Except for Alternative 4, which is the No-Build Alternative, all of the alternatives would result in the loss of occupied shelter and foraging habitat and displacement of the desert tortoise (*Gopherus agassizii*) and Mojave ground squirrel (*Spermophilus mohavensis*). Because of this, a formal consultation with the U.S. Fish and Wildlife Service (USFWS) and a 2081 Incidental Take Permit from California Department Fish and Wildlife (CDFW) would be required in order to determine appropriate avoidance, minimization and mitigation measures in relation to the desert tortoise.

The proposed project would install desert tortoise fencing along the right of way limits prior to construction; therefore, it would result in a permanent loss of desert tortoise and Mojave ground squirrel habitat. Alternative 3 is the alternative that has better quality habitat for desert tortoise (habitat east of Fornessa Road). Alternatives 1 and 1A have a similar quantity of better quality habitat for this species. Alternative 2 would result in the least amount of impact area, with a total of 214.16 ha (4529.21 ac) followed by Alternative 1 and 1A, with 219.67 ha (542.81 ac) and Alternative 3 with 236.52 ha (584.46 ac).

Desert tortoise and Mojave ground squirrel habitat lands would be acquired in an agreement with USFWS, CDFG and Bureau of Land Management (BLM) (USFWS 2008). Projected mitigation acreages that would be acquired are as follows:

Alternative 1 – 1,022.92 ha (2,527.69 ac)  
Alternative 1A – 1,022.92 ha (2,527.69 ac)  
Alternative 2 – 987.55ha (2,440.28 ac)  
Alternative 3 – 1,105.15 ha (2,730.87 ac)

The burrowing owl habitat assessment survey evaluated and mapped the Biological Survey Area (BSA) according to three established criteria: suitable, marginal and unsuitable habitat. No live burrowing owls were observed during the habitat assessment survey in 2009, while one burrowing owl was observed during the 2001 desert tortoise surveys. However, numerous California ground squirrels, tortoises and large mammal burrows were present throughout the BSA, which provided potential habitat for the burrowing owl.

For this reason, preconstruction surveys would be required to be conducted by qualified biologists 30 days prior to ground disturbing activities for all of the project alternatives. Suitable habitat for 11 special-status plant species are present within the (BSA) (CNDDDB 2009; California Native Plant Survey (CNPS) 2009). No State or federally-listed (threatened or endangered) plant species were observed during the surveys.

Four of the sensitive plant species, crowned muilla (*Muilla coronata*), Mojave spineflower (*Chorizanthe spinosa*), Barstow Woolly Sunflower (*Eriophyllum mohavense*) and Desert Cymopterus (*Cymopterus deserticola*) were observed during field surveys. These sensitive species have a limited distribution and are currently on the CNPS watch list (List 4), but do not have any State or federal protection. Mitigation for impacts to sensitive plant species resulting from this project is not anticipated. Preconstruction surveys will take place to assure no other plants are present within the project limits.

All of the proposed alternatives support nesting and foraging habitat for bird species protected under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (USFWS 1918). Breeding bird nests cannot be damaged or destroyed during the breeding season (February 1<sup>st</sup> to September 1<sup>st</sup>), in accordance with the MBTA. If, due to construction schedules, it is necessary to remove vegetation, including trees, during this season, a biological construction monitor must perform a pre-construction survey of each individual tree and/or of the entire area where vegetation will be removed.

All measures shall be taken to minimize impacts to nesting birds. A pre-construction sweep for nesting birds would be conducted prior to construction activities outside of the nesting season as well. The sweep includes areas used for staging, storage, sign placement or parking areas. If a migratory bird is detected during surveys construction shall stop on a minimum radius of 33 m (100 ft) or as determined by the biological monitor. It was determined that the waters present within the project limits are isolated and do not have any interstate commerce nexus. For this reason, USACOE does not have jurisdiction over these waters. This determination will be sent to USACOE to start the process that will result on USACOE to determine that they do not have jurisdiction over the washes affected by this project. No wetlands are present within all the alternative footprint.

- **Wetlands and Other Waters**

There are no perennial water sources in the project area. Washes in the study area are not considered to constitute waters of the United States due to their lack of connectivity with Traditional Navigable Waters. It was determined, through coordination with CDFG, that they are protected under Section 1600 of the

CDFG code and under regulations of the RWQCB. It would, therefore, be necessary to obtain a 1600 Permit from CDFG and a waste discharge permit from the RWQCB, Lahontan Region.

The project design used to calculate impacts to the waters for the Jurisdictional Delineation (JD) is based on the preliminary project design; therefore, the impacts may need to be recalculated prior to submittal of the permits required for this project. As determined in the JD, the build alternatives have the potential to permanently affect CDFG jurisdictional waters, as follows; Alternative 1 impact area currently calculated to be 3.40 acres, Alternative 1A impact area currently calculated to be 3.40 acres, Alternative 2 impact area currently calculated to be 3.44 acres and Alternative 3 impact area currently calculated to be 4.70 acres.

Coordination with CDFG and RWQCB, Lahontan Region, would be required to complete the permitting process. Final issuance of permits for the proposed project would be determined by these agencies during the design phase of the project.

In order to minimize impacts to state streambeds, the following are among the measures expected to be implemented:

- An Environmentally Sensitive Area (ESA) fence will be installed along washes within the right of way that will not be directly affected by the project.
- A biological construction monitor will coordinate with the Resident Engineer to ensure that construction activities will not have an impact on washes limited by the ESA fencing. No grading or fill activity of any type will be permitted within the ESA's. The monitor, in coordination with the Resident Engineer, will be operated in a manner so as to present accidental damage to nearby preserved areas.
- Project impacts to California Department of Fish and Game (CDFG) jurisdictional waters will be mitigated at a minimum 2:1 ratio, either through onsite restoration and/or offsite acquisition, through coordination with CDFG and RWQCB during the permitting process for the 1602 and WDR permits, respectively.

## **F. Air Quality Conformity**

- **Permanent Impacts**

The project's operational emissions, which include the ozone precursor's reactive organic gases (ROGs) and nitrogen oxides (NO<sub>x</sub>), meet the transportation conformity requirements imposed by the United States Environmental Protection Agency (U.S. EPA). Although the proposed project

is a conforming project for regional emissions, it requires both Carbon Monoxide (CO) and Particulate Matter (PM<sub>2.5</sub>/PM<sub>10</sub>) hot-spot analyses to determine any localized emissions effects.

Through analysis, it was determined that the project would not increase CO concentrations, because project implementation would not result in higher CO concentrations than those existing within the region at the time of attainment demonstration, on the basis of the protocol's analysis methodology, no further analysis is needed. Also, a qualitative conformity review found that the proposed project would not be considered a Project of Air Quality Concern, as defined by 40 CFR 93.123(b)(1). Therefore, PM<sub>10</sub> and PM<sub>2.5</sub> hot-spot evaluations are not required.

- **Temporary Impacts**

During construction of this project, short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling and other activities related to construction. Caltrans' policy to reduce construction-period emissions by the greatest extent feasible requires implementation of effective and comprehensive avoidance and minimization measures.

- **Avoidance, Minimization and/or Mitigation Measures**

Caltrans will require implementation of effective and comprehensive avoidance and minimization measures, as detailed in Caltrans' Standard Specifications 2010, Section 14-9.02 (Air Pollution Control), and MDAQMD Rule 403.2 (Fugitive Dust Control).

A Project-level Air Quality Conformity Analysis document was prepared by Caltrans and submitted to FHWA for review and approval. On January 30, 2014, FHWA made a conformity determination stating that the proposed project conforms to the State Implementation Plan in accordance with 40 C.F.R. 93.

## **G. Title VI Considerations**

Alternative 1A on this project will not result in any adverse impacts on minority or low-income neighborhoods or communities. Caltrans and FHWA policies demonstrate a commitment to Title VI of the Civil Rights Act, which provides that no person in the United States shall, on the ground of race, color or national origin be excluded from participation in, be denied the benefits of or be subjected to discrimination under any program or activity receiving federal financial assistance.

The proposed project mostly falls on a rural undeveloped area except at SR-58/US-395 Junction (Kramer Junction). This location has gas stations and restaurants that offer a place to refuel and rest for travelers, and provides jobs for nearby communities. Alternative 1A will maintain continuation of access to Kramer Junction for adjacent minority communities through the existing SR-58 segment that will be relinquished to the County of San Bernardino as well as the new proposed interchange at SR-58/US-395 Junction.

#### **H. Noise Abatement Decision Report**

A Noise Study Report (NSR) was prepared by Caltrans Environmental Engineering Unit to evaluate noise impacts and abatement along the proposed widening of SR-58 and at SR-58/US-395 interchange. Based on the results of the NSR, noise abatement does not need to be considered on this project. The NSR was approved by Tony Louka, Office Chief of the Environmental Engineering Unit on September 11, 2012.

### **7. OTHER CONSIDERATIONS, AS APPROPRIATE**

#### **Public Hearing Process**

A public hearing was held at the Kramer Junction area on August 6, 2013 to obtain public input and to ensure that the scope of this project is consistent with the goals and objectives of federal, State and local entities. The purpose of the hearing was to present the Draft EIR/EIS and solicit public comments on the proposed project and its environmental effects.

Public notification included mailing the public a hearing notice, publication of display and internet advertisement in local newspapers and posting the public hearing date and location on the project website. Approximately 61 property owners, residents, and business tenants within 500 feet of the proposed alternative alignments and 51 agencies and elected officials received a public hearing meeting notice.

The public hearing was attended by approximately 21 community members. Comment cards were distributed at the public hearing, where meeting attendees could provide comments on the materials and exhibits on display, as well as comments on the project. The deadline for submitting public comments was Monday, August 19, 2013.

The formal public circulation period for the Draft EIR/EIS began on Friday, July 5, 2013 and ended on Monday, August 19, 2013. A total of five (5) individuals at the public hearing submitted comments either in writing or verbally via the court reporter supporting Alternative 1 or 1A. A total of eighteen (18) letters were received from the public during circulation. Five letters stated a preference for Alternative 1A and two community letters favored Alternatives 1 or 1A. Ten letters did not state any Preferred Alternative.

## **Route Matters**

### Freeway Agreements

A Freeway Agreement between the State and the County of San Bernardino was adopted on February 16, 1967 for SR-58 from San Bernardino/Kern County Line to Community Boulevard in Barstow. The Freeway Agreement was subsequently rescinded on June 17, 1976, as part of route adoption recycling. Later, a Controlled Access Highway Agreement between State and the County of San Bernardino was approved on May 19, 1986 for SR-58 from 3.6 miles east of US-395 (PM 9.0) to 0.4 miles west of Valley View Road (PM 24.0).

The proposed four-lane expressway (Alternative 1A) will have access control from PM R0.0 to PM 9.0. Following approval of the project report, the County of San Bernardino and Caltrans will prepare and enter into a new Freeway Agreement to address this segment of the expressway. This agreement will also include the relinquishment of an existing SR-58 segment to the County of San Bernardino. Refer to Relinquishments section for more details.

### Route Adoptions

The proposed project will be submitted for approval to the California Transportation Commission (CTC) for Route Adoption and it will occur at a regularly scheduled CTC meeting following approval of the environmental document.

### Relinquishments

The segment of existing SR-58 between approximately PM T0.44 to PM R8.1 will be relinquished to the County of San Bernardino. A cul-de-sac will be constructed at each end of the relinquished segment. The cul-de-sac at the west end is proposed to be constructed at approximately PM T1.3, inside Assessor's Parcel No. (APN) 049811103 and the one at the east end will be constructed at approximately PM R7.9 inside APN 049213101. Both cul-de-sacs in conjunction with the proposed relinquished segment of SR-58 will facilitate existing parcel owners and public to drive safely and to access their properties or public roads.

The proposed location of cul-de-sac at PM T1.3 was selected to maintain access to APNs 049823250, 049823251 and 049823200, which are partially developed consisting of small businesses and residences. In addition, the owner of one of the biggest undeveloped parcel (APN 049811103) will have traffic connectivity and access to public roads, as well as the rest of the community and public. The other cul-de-sac location (PM R7.9) was determined by considering the access to existing public roads for all parcel's owners in the vicinity. This cul-de-sac will be constructed in a location that will not affect or land-lock APNs along this existing SR-58 segment for this project.

The west end of the proposed relinquished segment of SR-58, between approximately PM T0.44 and PM T1.3, will be obliterated and vacated for environmental mitigation. A small segment at the east end approximately between PM 7.9 and PM 8.1 will also be obliterated and vacated to establish logical termini of the relinquishment segment.

### **Permits**

This project conforms to the requirements of the Department's Statewide National Pollutant Discharge Elimination System (NPDES) Storm Water Permit, NPDES No. CAS000003 in addition to the responsibilities specified in the Caltrans's Statewide Storm Water Management Plan (SWMP). The project is also in conformance with the requirements of the General NPDES Permit for Construction Activities, General Construction Statewide Permit, NPDES No. CAS000002 and any subsequent General Permit in effect at the time of project activity.

Construction of the railroad overhead will adhere to the policies and standards outlined in Guidelines for Design of Highway Separation Structures over Railroad (Overhead Grade Separation), January 24, 2007, as well as applicable Caltrans standards. An encroachment permit will be required for all work within BNSF railroad right of way. Temporary construction horizontal and vertical false work minimum clearances will be maintained during all phases of construction. No adverse impacts to BNSF facilities or operations are anticipated as a result of this project.

A Caltrans encroachment permit will be required for any work performed within the State right of way by forces other than the Contractor.

### **Cooperative Agreements**

It is anticipated that no cooperative agreements will be required on this project. All project funds and staffing will be fully-funded by the State.

### **Other Agreements**

A Maintenance Agreement is anticipated for the traffic signal located at the existing SR-58 and US-395 Intersection. This agreement will determine a 50/50 responsibility of maintenance between the County of San Bernardino and Caltrans. In addition, a Relinquishment Agreement will be required to vacate a segment of existing SR-58 between approximately PM T0.44 to PM R8.1 to the County of San Bernardino.

### **Transportation Management Plan for Use During Construction**

The District Operations Division has provided a Preliminary Transportation Management

Plan (TMP). It is anticipated that the construction activities will not contribute to the existing traffic delays or have a negative impact on public and construction workers' safety. The required TMP activities for this project are listed below:

- Public Information
- Motorist Information Strategies
- Incident Management

SR-58 within the limits of the proposed project is a two-lane highway. The two lanes will remain open to traffic during construction period. The estimated cost of TMP is \$1,489,800 (Attachment H).

### **Stage Construction**

Preferred Alternative 1A will have minimum impact on traffic. The new expressway, on its major part, will be constructed on a new alignment away from present traffic. Before connecting the expressway with existing SR-58, median crossover would be constructed to redirect eastbound traffic into the new westbound lanes (and vice-versa). Detailed stage construction for the Preferred Alternative 1A will be prepared during the design phase.

### **Accommodation of Oversize Loads**

SR-58 accommodates a significant volume of heavy trucks and it has been designated for oversized trucks. Alternative 1A will be designed to accommodate oversized loads during and after construction. This Project is on the National Network route, and a section of the proposed SR-58 realignment, from PM 0.0 to PM 5.8 (new interchange at SR-58/US-395 Junction), is on the ExtraLegal Load Network (ELLN) route.

### **Interchange Spacing Requirements**

Seven conditions are given that must be satisfied (where applicable) to be considered for approval of the proposed interchange.

#### **1. Interchange Justification**

Within the project limits, SR-58 does not meet future capacity. Recent traffic studies (Year 2010) reflect a level of service (LOS) "D" and "E" that will decline further without major operational improvements. Traffic along SR-58 now experiences delays at the Burlington Northern Santa Fe railroad crossing and at the four-way signalized intersection with US-395 at Kramer Junction.

The present two-lane conventional highway experiences interrupted-flow at the highway and railroad intersections. A free-flow condition on SR-58 can only be achieved with the proposed four-lane expressway with railroad grade separation and

highway interchange linking the existing expressway sections to the east and west. For a further discussion concerning the justification, see Section 4 (Purpose and Need) of this report.

## **2. Consideration of Alternatives**

Consideration has been given to all reasonable design alternatives and options. Four alternatives have been identified and analyzed. The most favorable alternative (Alternative 1A) has been determined and is presented in this report for approval.

Ramp metering and HOV facilities have been examined and do not lend themselves to the existing conventional highway as an alternative to the proposed design.

Provisions to incorporate ramp metering and HOV lanes are included into the Preferred Alternative, but construction of these facilities will be deferred to future projects, as they are not required at this time.

## **3. Interchange Spacing**

The SR-58/US-395 Intersection is in the rural Mojave Desert. The minimum interchange spacing for a rural setting is two miles, as measured between intersecting roadways. The minimum weaving length in a rural area is 5,000 feet.

The proposed interchange for Alternative 1A is approximately 1350 feet north of the existing SR-58/US-395 Intersection. The nearest interchange is 6.3 miles west at Boron Avenue on SR-58 in District 6, Kern County. The nearest interchange to the east along SR-58 is 28 miles at the intersection with Interstate 15 (I-15). This distance will be reduced from 28 miles to 21 miles when SR-58 is realigned and widened in the near future (Project No. 0800000010, EA 043510). The nearest interchange to the east will then be Hinkley Road. Along US-395, the closest interchange is 42 miles south at the intersection with I-15. To the north, the nearest interchange along US-395 is 65 miles distant at the intersection of State Route 178 (SR-178) in District 6, Kern County. Differences in distance for the other alternatives are negligible. The nearest interchange exceeds the minimum distance by more than 4 miles.

The weaving length is not an issue for interchanges separated by 6.3 miles. The distance between where the westbound entrance ramp of SR-58 (at US-395 Interchange) merges with the mainline and the point of departure where the westbound exit ramp at Boron Avenue leaves the mainline, is approximately 28,500 feet. The minimum weaving length of 5,000 feet is a condition that has been satisfied by the proposed interchange. The minimum spacing requirements for the proposed design has been met.

#### **4. No Significant Adverse Impact**

The proposed design adheres to or exceeds all current mandatory Highway Design Manual Standards. The only advisory standard that requires a design exception is Topic 304, Side Slope Standards. This exception applies to the side slopes near the structure abutment fills. This is a common situation where lateral clearance is insufficient or conflicts with ramps or skewed alignments, as the grade rises for the structure abutment.

The proposed design would drastically reduce crossing conflicts and it would make this facility intrinsically safer than the current geometry and, therefore, has no significant adverse impact. Refer to the discussion in Section 4 (Purpose and Need) concerning the traffic and accident analysis.

#### **5. Connection to Public Road**

With the realignment of SR-58, connections and traffic movements with the existing public highways will be maintained. SR-58 will connect to the existing four-lane expressway at the Kern County Line (06-Kern PM R143.9 / 08-SBd PM R0.0) and the existing four-lane section at PM R12.9 in San Bernardino County. For US-395, the connection point will move from the current intersection to the proposed interchange.

#### **6. Meets Local Planning**

The existing intersection and proposed interchange of SR-58 and US-395 are in a rural desert setting. The area of the proposal is mostly within vacant land. Several gasoline service stations and restaurants and other businesses are located around the intersection. One mile to the north lies a solar electric generating station (SEGS) owned and operated by FPL Energy. US Borax Corporation operates an open-pit mine 7 miles west of the intersection. There are no conflicting local development plans that were revealed in the public hearing process (See Sections 4 and 7).

The proposed interchange is in agreement with State and Regional planning. (See Section 4B for a discussion of transportation plans.)

#### **7. Coordination with Development**

The proposed new interchange is not the result of new or expanded development generated within the local community, but rather it is the result of increased traffic volumes along the principal route from distant sources. State Route 58 is being upgraded to a four-lane expressway with this segment joining adjacent completed expressway segments. The proposed interchange and grade separation are logical additions to satisfy the capacity demands.

There is minimal development in this rural desert setting and as a consequence there will be only modest future development that has its genesis within the community. This report has not identified any potential future developments within or adjacent to the improvement area.

## 8. FUNDING/PROGRAMMING

It has been determined that this project is eligible for federal-aid funding.

The proposed project capital outlay construction cost estimate for Alternative 1A is \$141,967,000 and the current capital outlay right of way estimate is \$18,170,000.

### Capital Outlay Support and Project Estimate (programmed)

Fund Source	Fiscal Year Estimate							
	Prior	2014/15	2015/16	2016/17	2017/18	2018/19	Future	Total
20.XX.025.700								
Component	In thousands of dollars (\$1,000)							
PA&ED Support	8,800							8,800
PS&E Support	8,200							8,200
Right of Way Support	4,756							4,756
Construction Support				15,668				15,668
Right of Way	18,387							18,387
Construction				139,427				139,427
<b>Total</b>	<b>40,143</b>			<b>155,095</b>				<b>195,238</b>

The project is funded from the 2014 State Transportation Improvement Program (STIP) under the 025.700/HE-14 program (New Highways) for construction in the 2016/2017 Fiscal Year.

The support cost ratio is 24%.

**9. SCHEDULE**

PROJECT MILESTONES		Scheduled Delivery Date (Month/Day/Year)
PROGRAM PROJECT	M015	7/22/1991
BEGIN ENVIRONMENTAL	M020	1/05/2007
NOTICE OF PREPARATION (NOP)	M030	5/08/2007
NOTICE OF INTENT (NOI)	M035	5/10/2007
CIRCULATE DPR & DED EXTERNALLY	M120	6/28/2013
PA & ED	M200	5/23/2014
DRAFT STRUCTURES PS&E	M378	2/12/2016
PROJECT PS&E	M380	5/13/2016
RIGHT OF WAY CERTIFICATION	M410	9/12/2016
READY TO LIST (RTL)	M460	10/26/2016
AWARD	M495	4/17/2017
APPROVE CONTRACT	M500	5/01/2017
CONTRACT ACCEPTANCE	M600	5/14/2020
END PROJECT	M800	5/13/2022

**10. RISKS**

1. This project has been selected to be delivered under the new Construction Manager/General Contractor-Pilot Program (CM/GC). This program is a specific variation of construction management in which Caltrans engages both project designer and a qualified construction manager under a negotiated contract to provide both preconstruction services and construction. Due to the CM/GC delivery method, the PDT has identified the following risks:
  - Unknown coordination process between Headquarters, Structures Division and the General Contractor. This may lead to inefficiencies and delays in design.
  - Uncertainty on the time required for the procurement of the CM/GC Contract. Is the Record of Decision required to start the procurement process? Delays to Begin Construction might occur.
  - Caltrans is not familiar with Right of Way Certification process for a CM/GC project.
  - Resource allocation might not be appropriate for the new delivery method, CM/GC. Additional design reviews might be needed causing an increase of design support budget and delays.
  
2. Utility relocation at Kramer Junction might be complex. Delays might occur during construction.

## 11. PROJECT REVIEWS

District Program Advisor	<u>Denise Craig</u>	Date <u>04/22/2014</u>
District Maintenance	<u>Hector Gomez</u>	Date <u>04/22/2014</u>
Headquarters Design Coordinator	<u>Luis Betancourt</u>	Date <u>04/22/2014</u>
Headquarters Design Reviewer	<u>Anthony Ng</u>	Date <u>04/15/2014</u>
Traffic Operations Liaison Engineer	<u>Jerry Champa</u>	Date <u>04/22/2014</u>
Project Manager	<u>Jim Robinson</u>	Date <u>04/22/2014</u>
District Safety Review	<u>Cliff Shieh</u>	Date <u>04/22/2014</u>
Constructability Review	<u>Wil Ochoa</u>	Date <u>04/03/2014</u>

## 12. PROJECT PERSONNEL

JIM ROBINSON Project Manager	(909) 917-8839
SERGIO AVILA Functional Manager	(909) 383-1554
CRESENCIO GARCIA Project Engineer	(909) 383-7565
KURT HEIDELBERG Office Chief, Environmental	(909) 388-1387
JOHN TILLER Right of Way Coordinator	(909) 383-5493

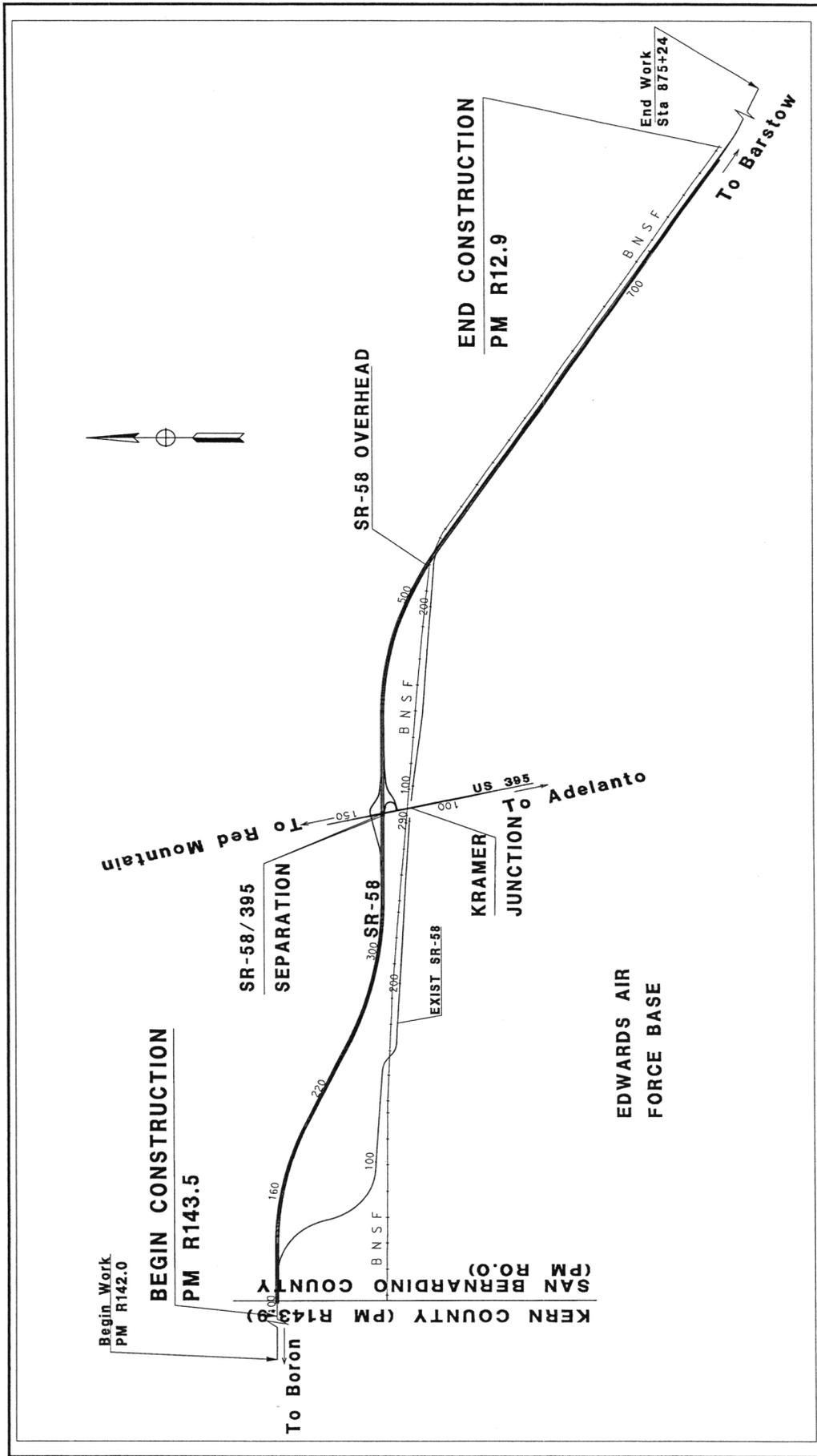
### 13. LIST OF ATTACHMENTS

- Attachment A – Project Location Map
- Attachment B – Alternative 1A (Preferred Alternative) Plans (Typical Cross-Sections and Layouts)
- Attachment C – Alternative 1A (Preferred Alternative) Cost Estimate
- Attachment D – Alternative 1A (Preferred Alternative) Right of Way Data Sheet
- Attachment E – Storm Water Data Report Cover Sheet
- Attachment F – Final Environmental Document Cover Sheet
- Attachment G – Initial Site Assessment (ISA) checklist & ISA Report (Cover and signature sheets only)
- Attachment H – Transportation Management Plan
- Attachment I – Category Assignment
- Attachment J – Advance Planning Study

**ATTACHMENT A**

**PROJECT LOCATION MAP**

# PROJECT LOCATION MAP



# ATTACHMENT B

## **ALTERNATIVE 1A (PREFERRED ALTERNATIVE) PLANS (TYPICAL CROSS SECTIONS AND LAYOUTS)**



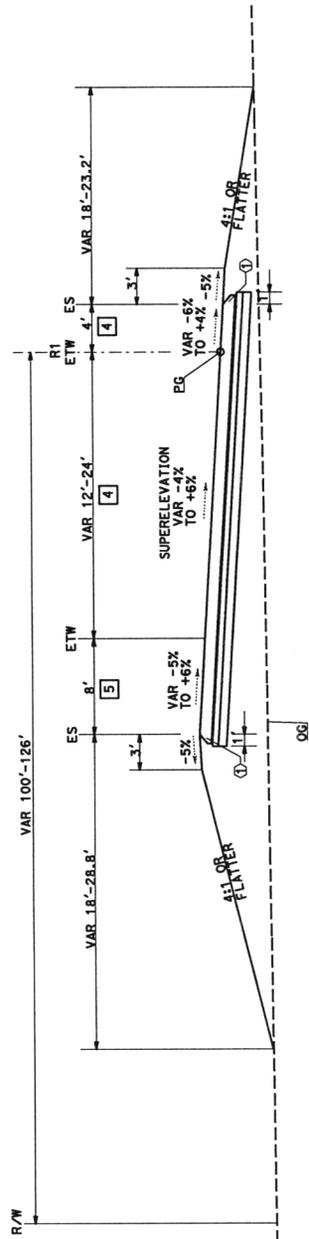
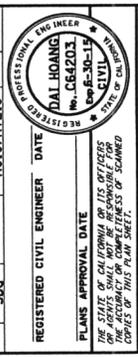


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SHEET NO.		ROUTE	58	SCALE	NO SCALE
TOTAL SHEETS		ROUTE	58	PROJECT NUMBER & PHASE	080000061601

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WESTBOUND ON/OFF RAMPS AT SR-58/US-395 INTERCHANGE

**TYPICAL CROSS SECTION**  
NO SCALE  
**X-3**

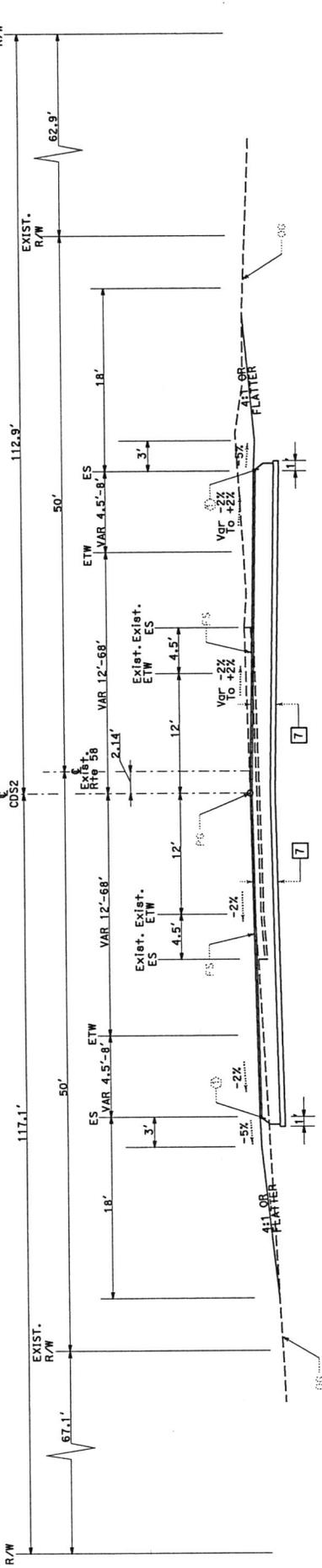
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		DAI HOANG	CRESENCIO GARCIA		
		DAI HOANG	CRESENCIO GARCIA		
		DAI HOANG	CRESENCIO GARCIA		



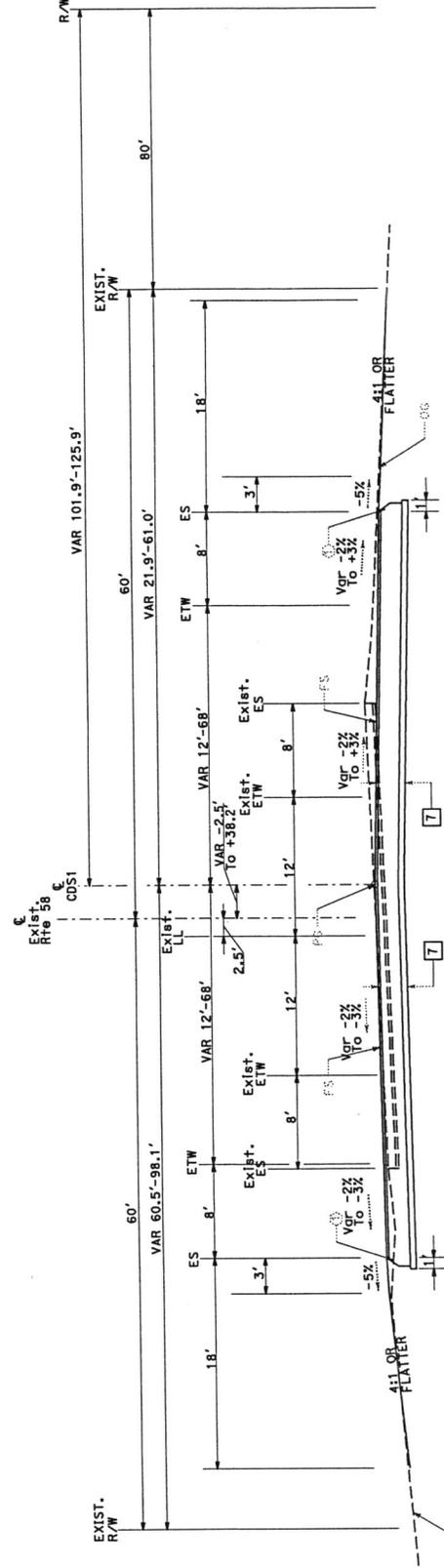
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ROUTE	58	TOTAL PROJECT	143.9
COUNTY	SBP	PROJECT NO.	RO.0/R12.9
DIST	08	DATE	143.5/143.9



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€ CUL DE SAC-CDS2 ( EAST END)



€ CUL DE SAC- CDS1 ( WEST END)

**TYPICAL CROSS SECTION**  
 NO SCALE  
 X-5

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			CHECKED BY	CRESENCIO GARCIA		
			CALCULATED BY			
			DESIGNED BY			
			CHECKED BY			
			DATE REVISED			

DATE	08	COUNTY	KBT	ROUTE	58	SHEET TOTAL	143
			SBC			PROJECT	57/143.9
						NO.	RO.0/R12.9

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

PROFESSIONAL ENGINEER

DAI HOANG

No. C64203

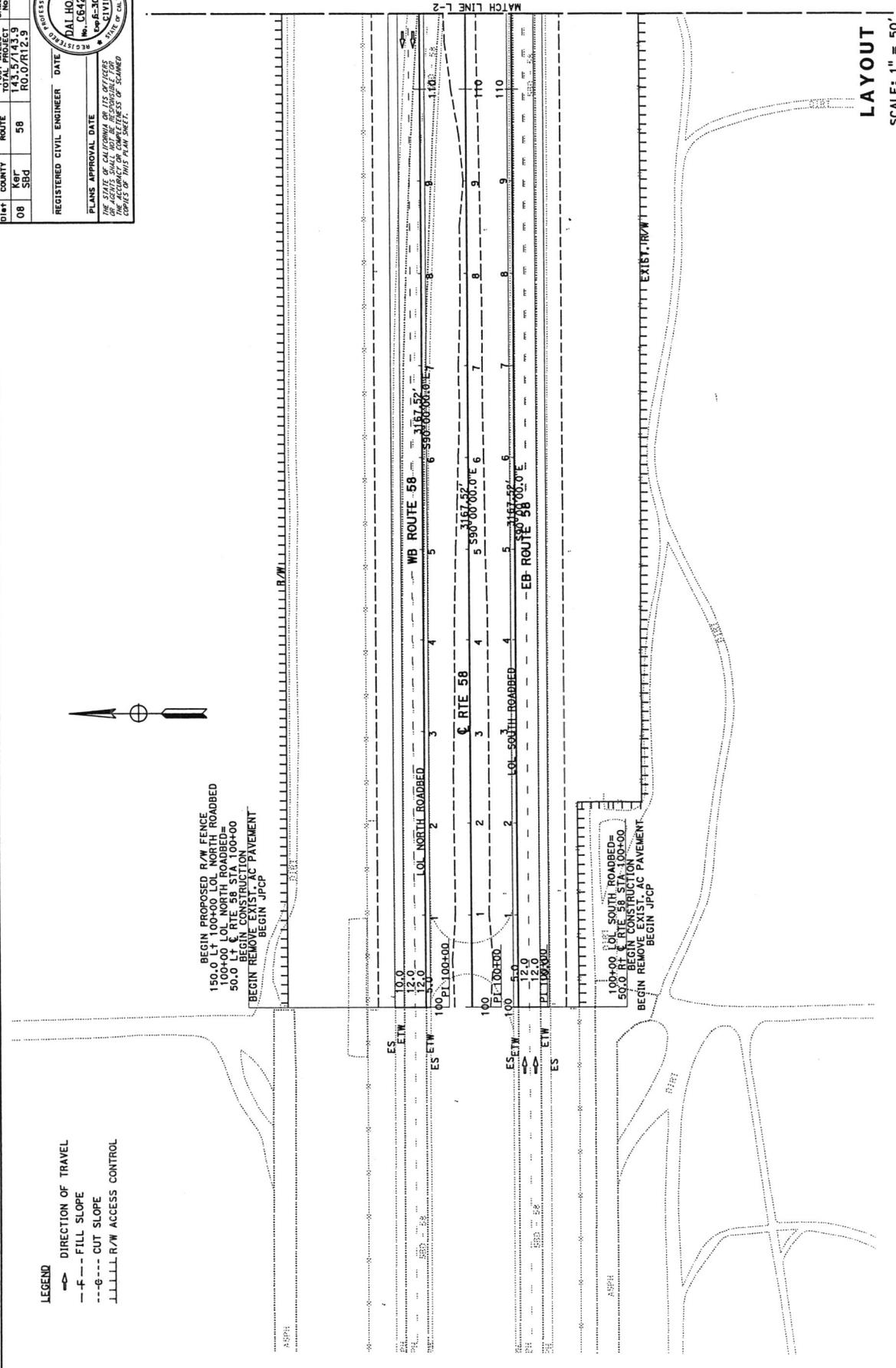
Cap.#30-13

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- LEGEND**
- DIRECTION OF TRAVEL
  - F- FILL SLOPE
  - G- CUT SLOPE
  - ||||| R/W ACCESS CONTROL



BEGIN PROPOSED R/W FENCE  
 150.0 LT 100+00 LOL NORTH ROADBED  
 100+00 LOL NORTH ROADBED=  
 50.0 LT & RTE 58 STA 100+00  
 BEGIN CONSTRUCTION  
 BEGIN REMOVE EXISTING PAVEMENT  
 BEGIN JPCP



**LAYOUT**

SCALE: 1" = 50'

L-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	DAI HOANG	REVISOR	
SENIO E. AVILA	CHECKED BY	CRESNCIO GARCIA	DATE REVISED		

NOTES FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

DIST	COUNTY	ROUTE	POST MILEAGE TOTAL	SHEET TOTAL
08	Kern	58	143.57143.9	143.57143.9
	SBD		RO.0/R12.9	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

DAI HOANG No. CG4203

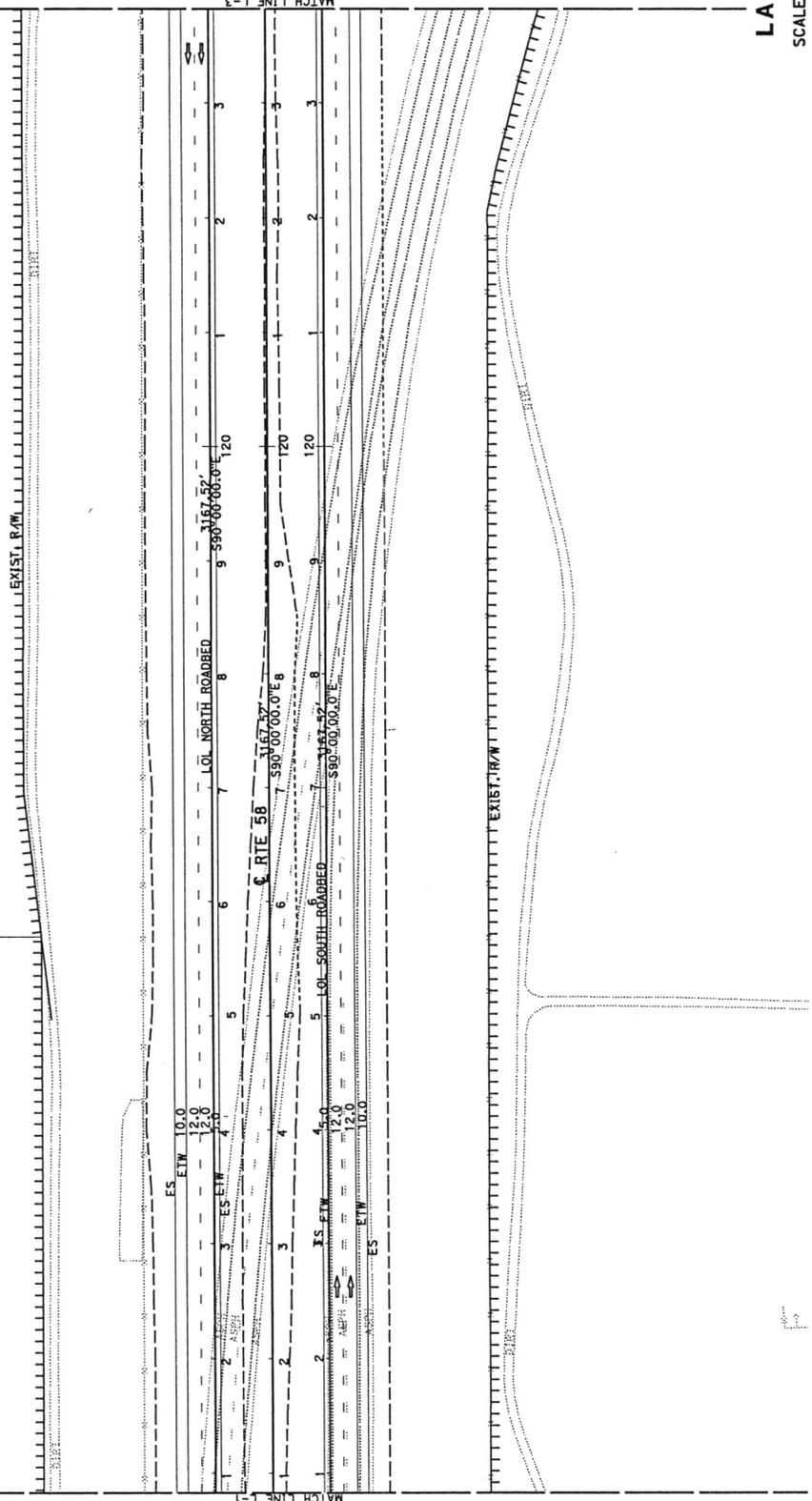
PROFESSIONAL ENGINEER No. 62-30-15 CIVIL

REGISTRATION No. 62-30-15 CIVIL

RECEIVED



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JOIN EXIST. R/W

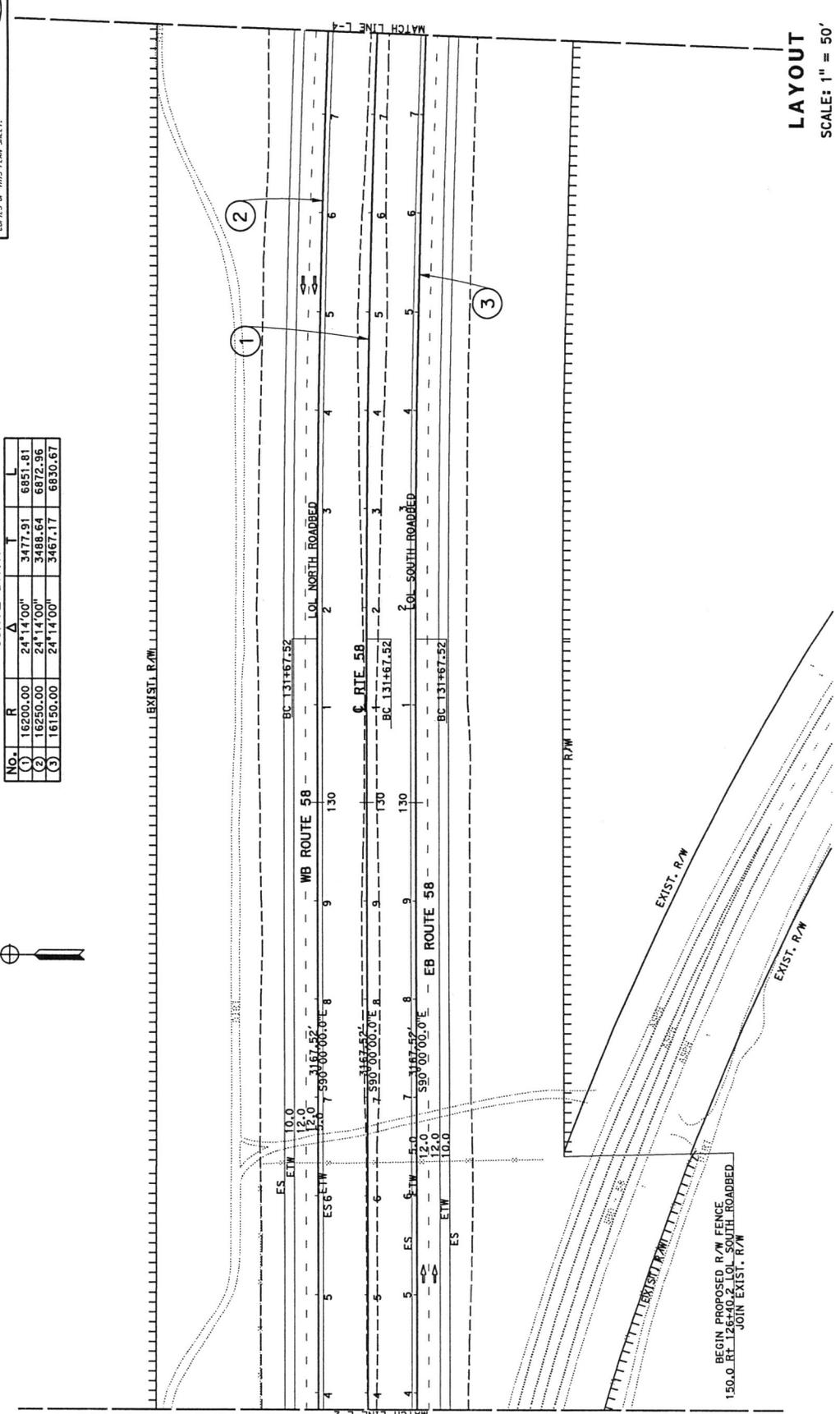


LAYOUT  
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NOTES FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	DAI HOANG	REVISOR	
SENGIO E. AVILA	CHECKED BY	CRESCENCIO GARCIA	DATE REVISED		

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



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 TIME PLOTTED: 12:30  
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 TOTAL PROJECT: 143.5/143.9  
 COUNTY: KBT  
 ROUTE: 58  
 SHEET NO.: RD.0/R12.9

REGISTERED CIVIL ENGINEER: DAI HOANG  
 No. C64203  
 State of California  
 CIVIL ENGINEER

PLANS APPROVAL DATE: \_\_\_\_\_  
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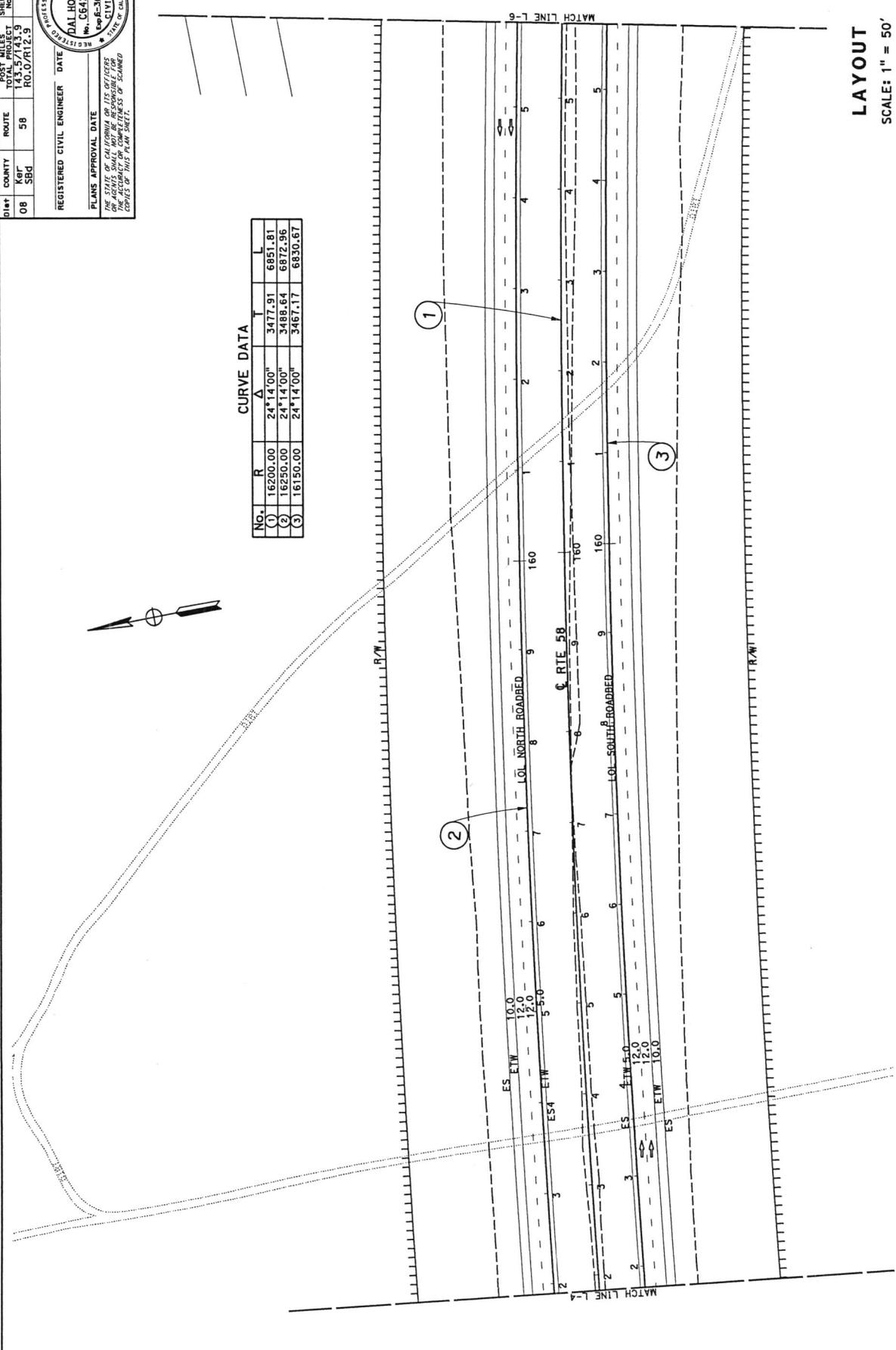


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 R0.0/R12.9

REGISTERED CIVIL ENGINEER DATE  
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 PROFESSIONAL ENGINEER REG. STATE OF CALIFORNIA  
 No. E-30-15  
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 PLANS APPROVAL DATE  
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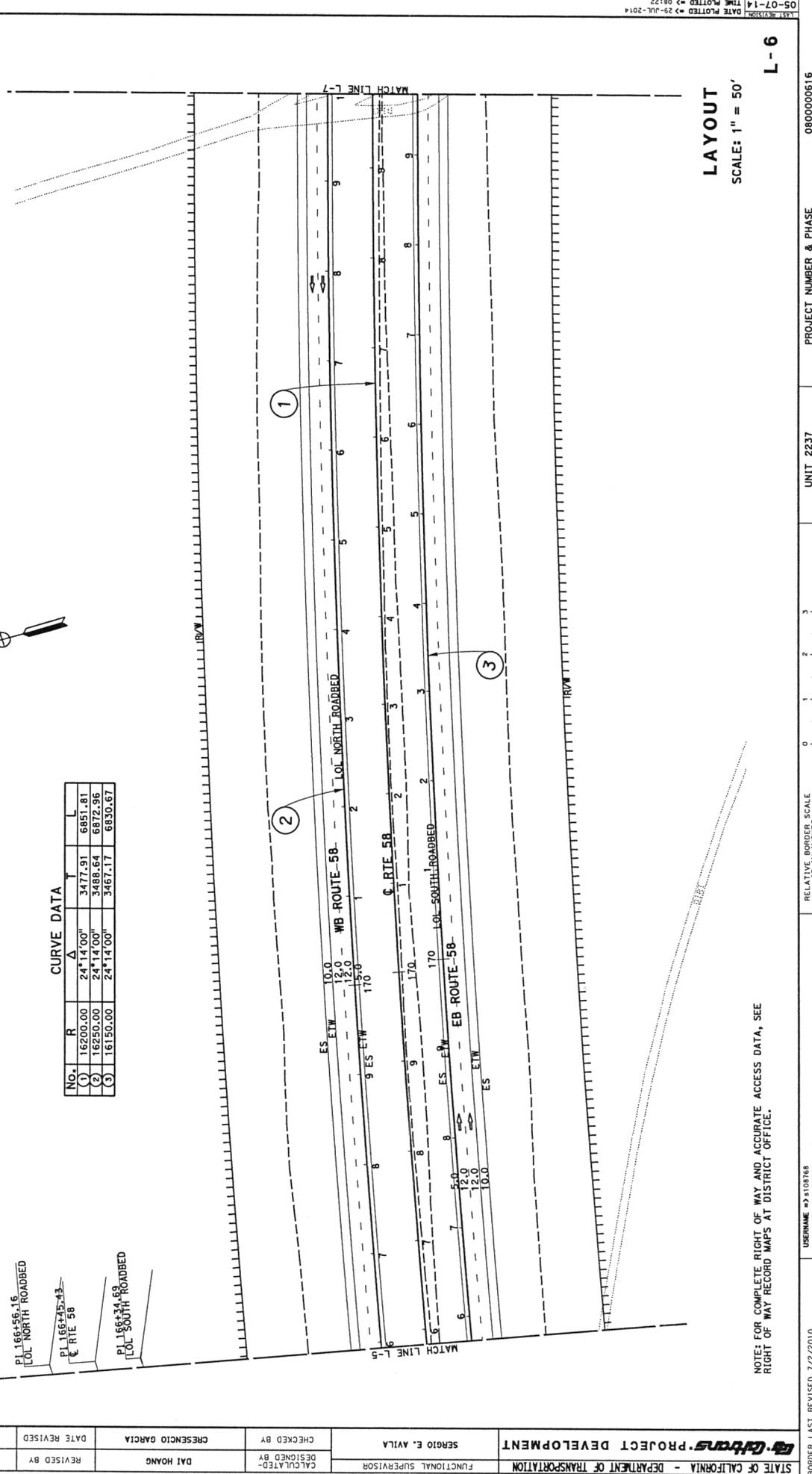
NOTES FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE  
 RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

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Citytrans PROJECT DEVELOPMENT	SERGIO E. AVILA	CHECKED BY	CRESCENCIO GARCIA	DATE REVISED	
		CALCULATED BY			

DIST COUNTY ROUTE POST MILES SHEET TOTAL  
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REGISTERED CIVIL ENGINEER DATE  
 DAL HOANG  
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 Exp. 6-30-15  
 CIVIL  
 STATE OF CALIFORNIA

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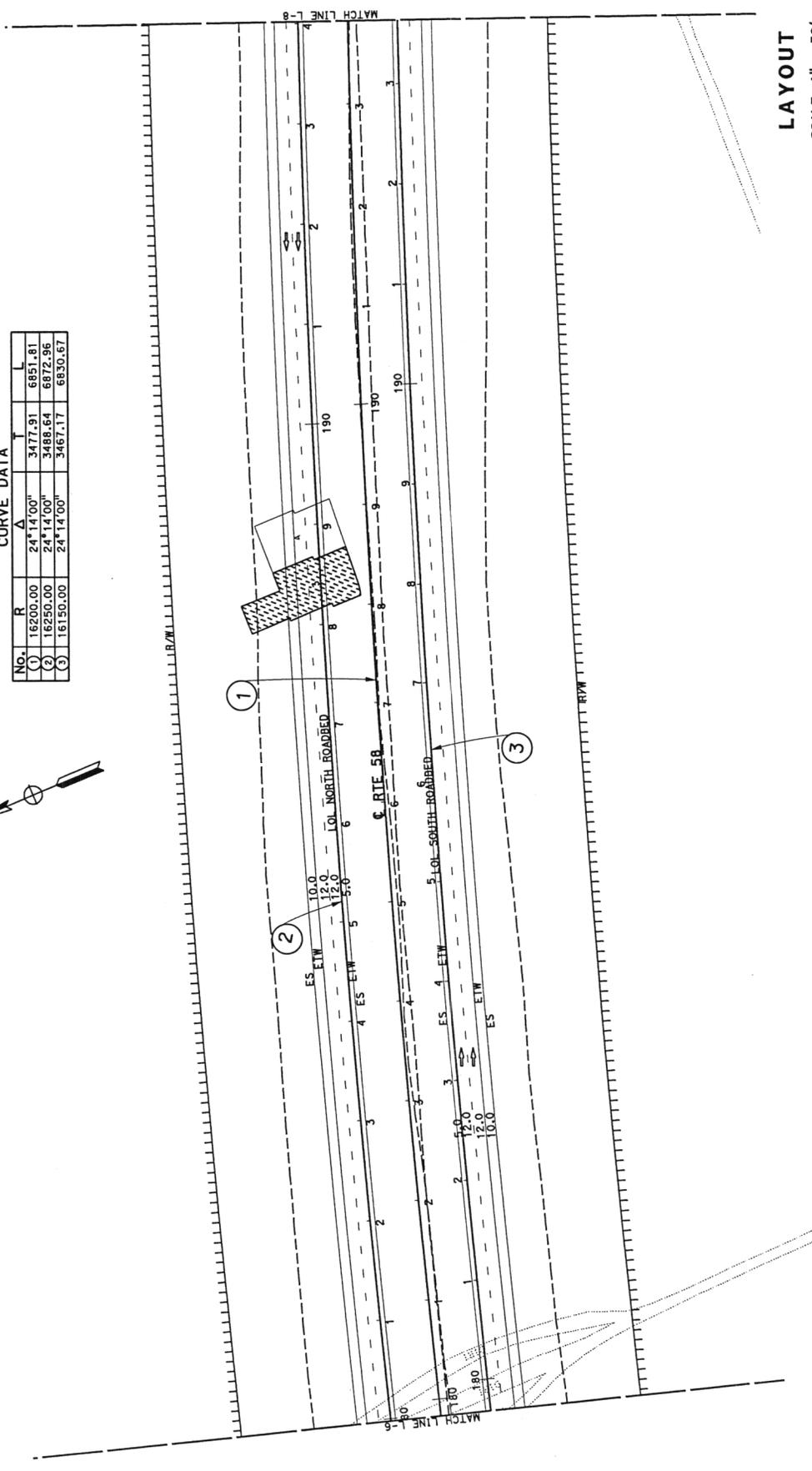
NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

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REGISTERED CIVIL ENGINEER DATE  
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 PROFESSIONAL ENGINEER  
 STATE OF CALIFORNIA  
 LICENSE No. R-30-15  
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LAYOUT  
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L-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	DATE REVISIED
DAI HOANG	CRESENCIO GARCIA	CHECKED BY	DATE REVISIED
REVISIED BY		DESIGNED BY	

DIST	COUNTY	ROUTE	POST MILES	SHEET TOTAL
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	SBG		R0.0/R12.9	

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PROFESSIONAL ENGINEER

**DAL HOANG**

No. **CE4203**

Exp. **6-30-15**

CIVIL

STATE OF CALIFORNIA

REGISTERED CIVIL ENGINEER

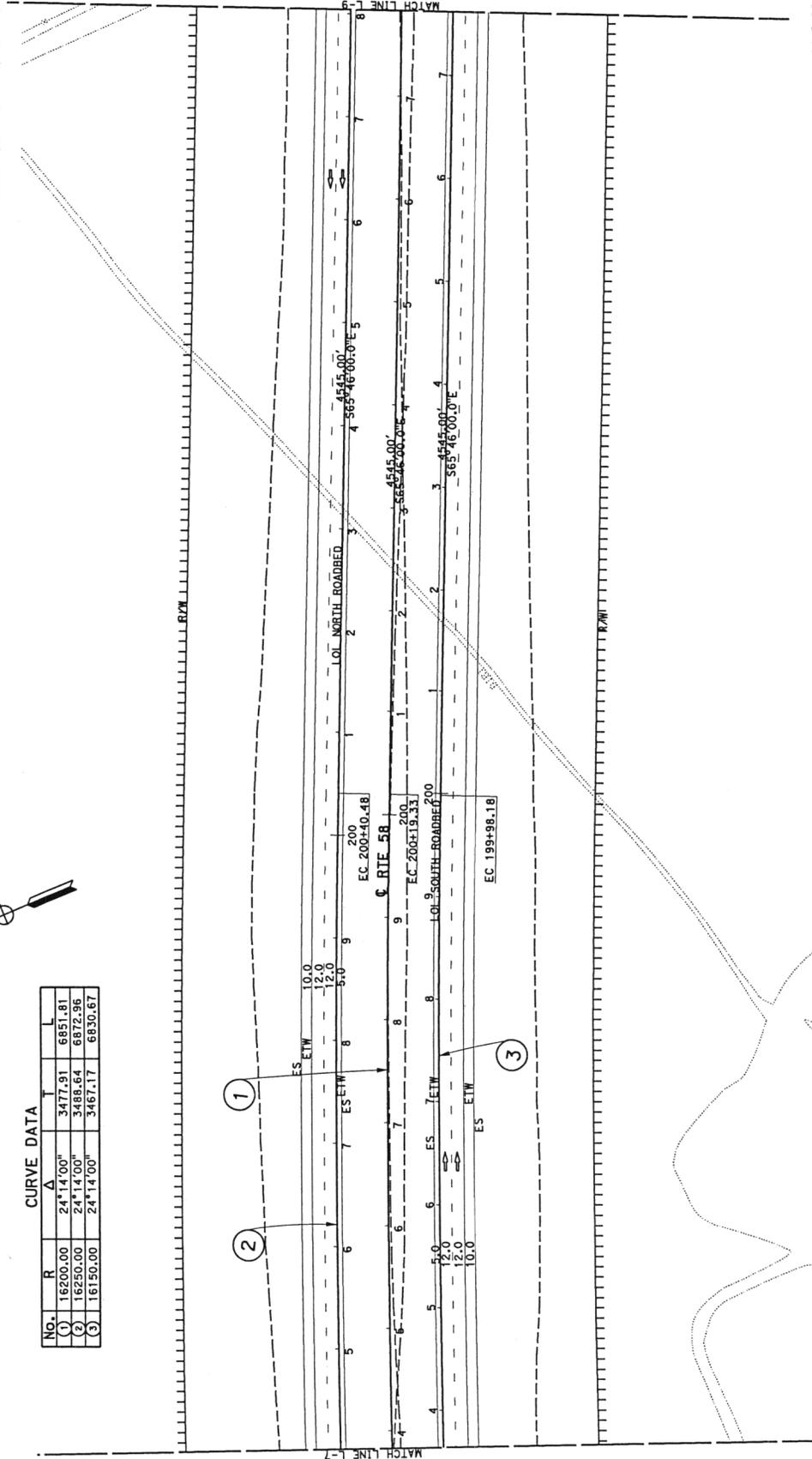
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NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

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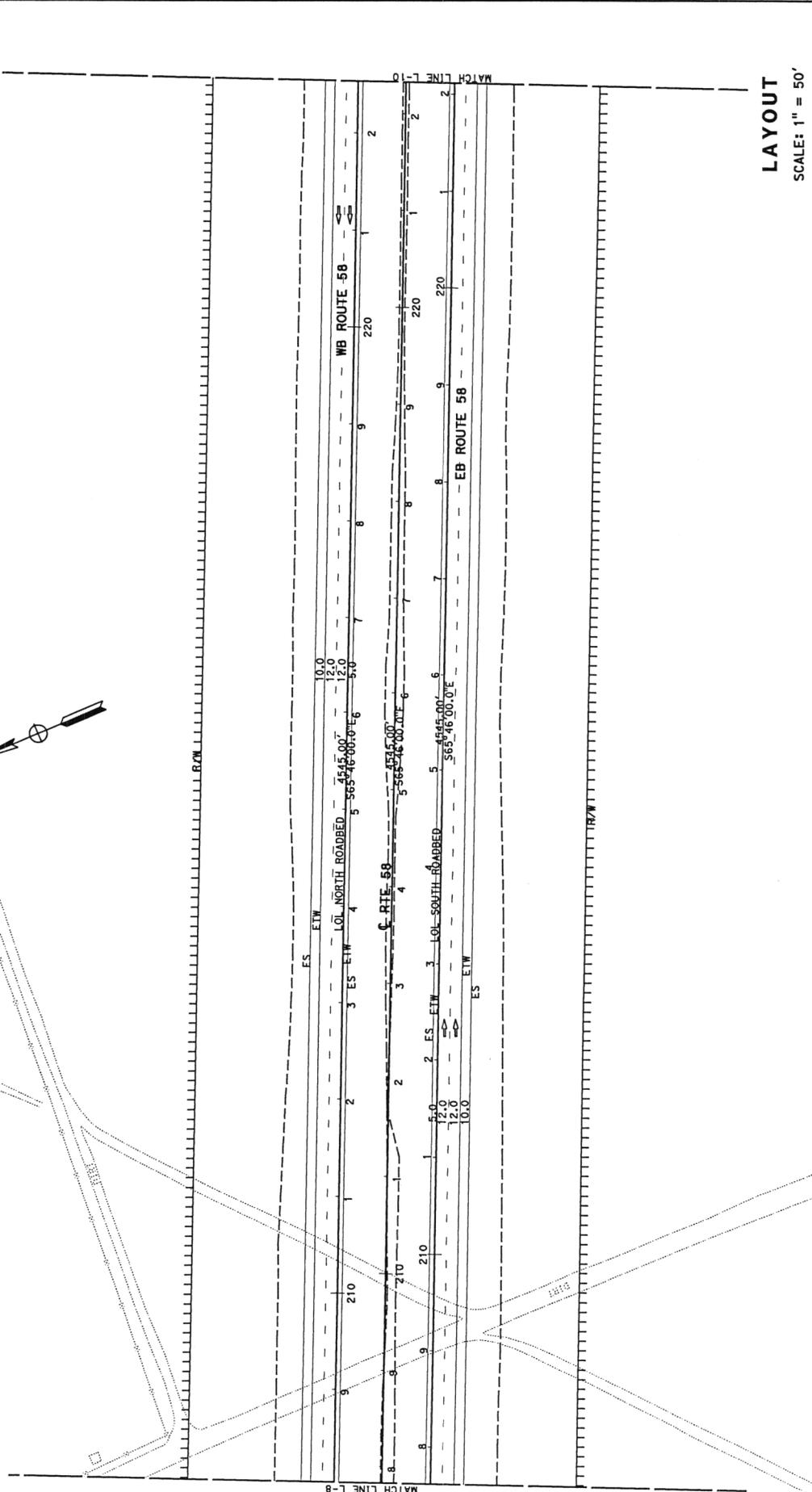
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR	DATE REVISED
SEBENS PROJECT DEVELOPMENT	SEBENS E. AYLA	CHECKED BY		
		CRESENCIO GARCIA		
		DAL HOANG		

DIST	COUNTY	ROUTE	POST MILES	SHEET TOTAL
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THE ASSISTANT ENGINEER OF THE STATE OF CALIFORNIA  
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DAI HOANG	DESIGNED BY		REVISOR			

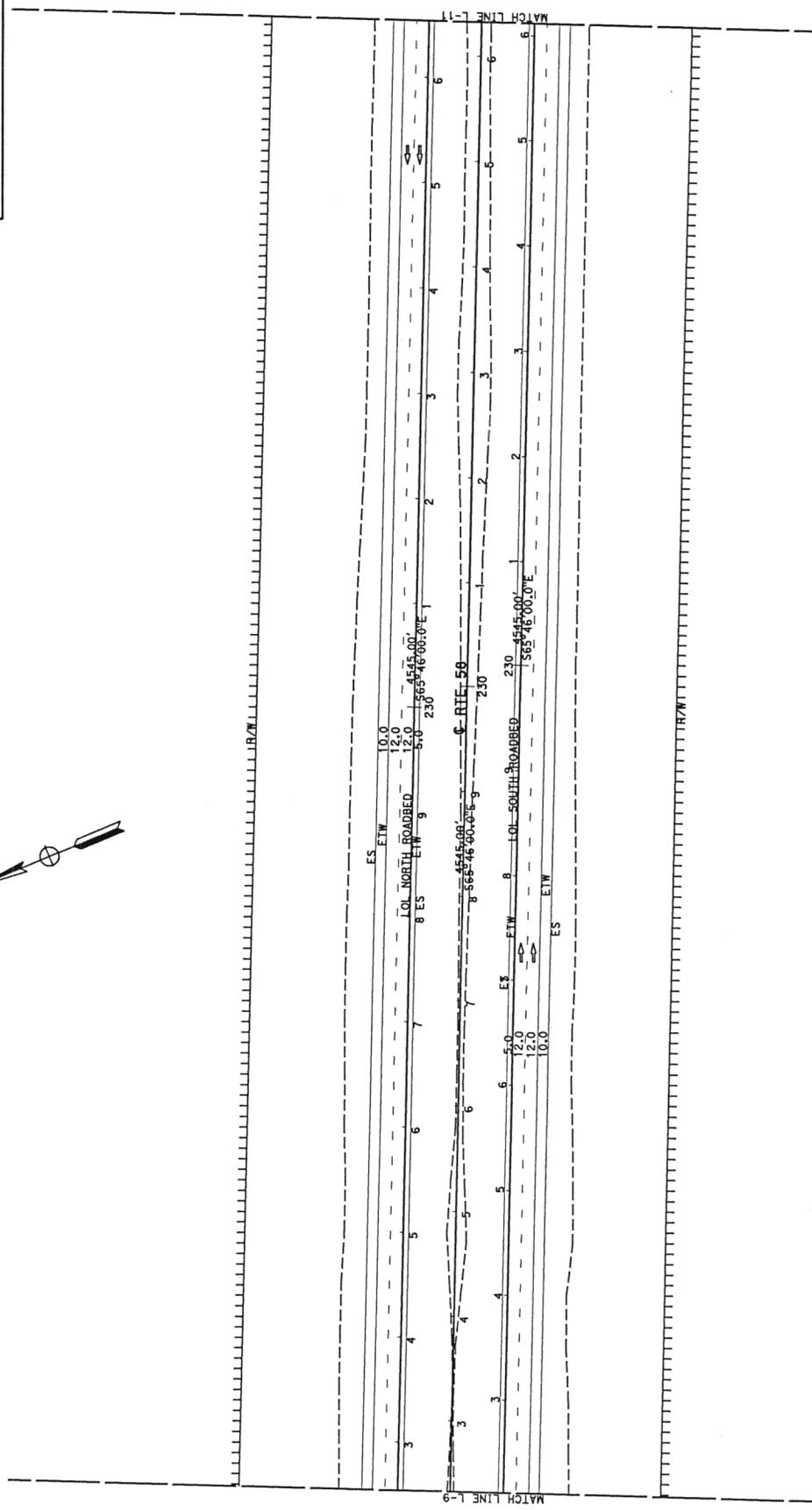
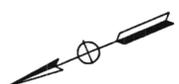
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REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

**DAL HOANG**  
No. C64203  
Exp. 6-30-15

REGISTERED PROFESSIONAL ENGINEER  
THE STATE OF CALIFORNIA OR ITS OFFICERS  
THE ACCOUNT OF COMPLETENESS OF SEAMEN  
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**LAYOUT**  
SCALE: 1" = 50'

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	SERGIO E. AVILA	CHECKED BY	CRESENCIO GARCIA	DATE REVISED
	DESIGNED BY	DAL HOANG	REVISOR		



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	DATE REVISID
CD-TRANS PROJECT DEVELOPMENT	SERGIO E. AVILA	CRESCENCIO GARCIA	
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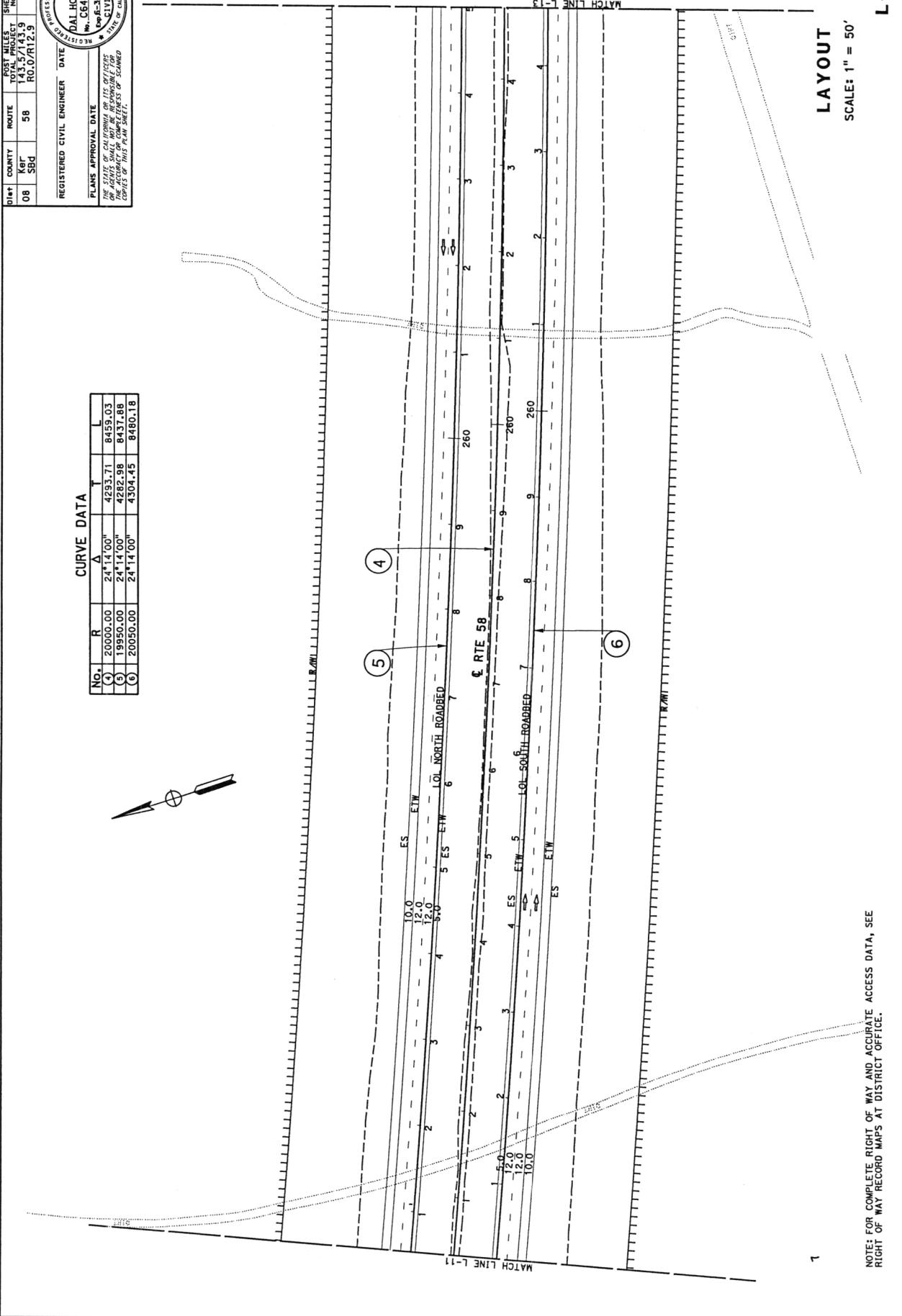
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15" IN INCHES

UNIT 2237

PROJECT NUMBER & PHASE

0800000616

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



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DIST	COUNTY	ROUTE	POST MILES	SHEET TOTAL
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REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

**DAL HOANG**  
No. C64203  
Exp. 6-30-15  
CIVIL ENGINEER

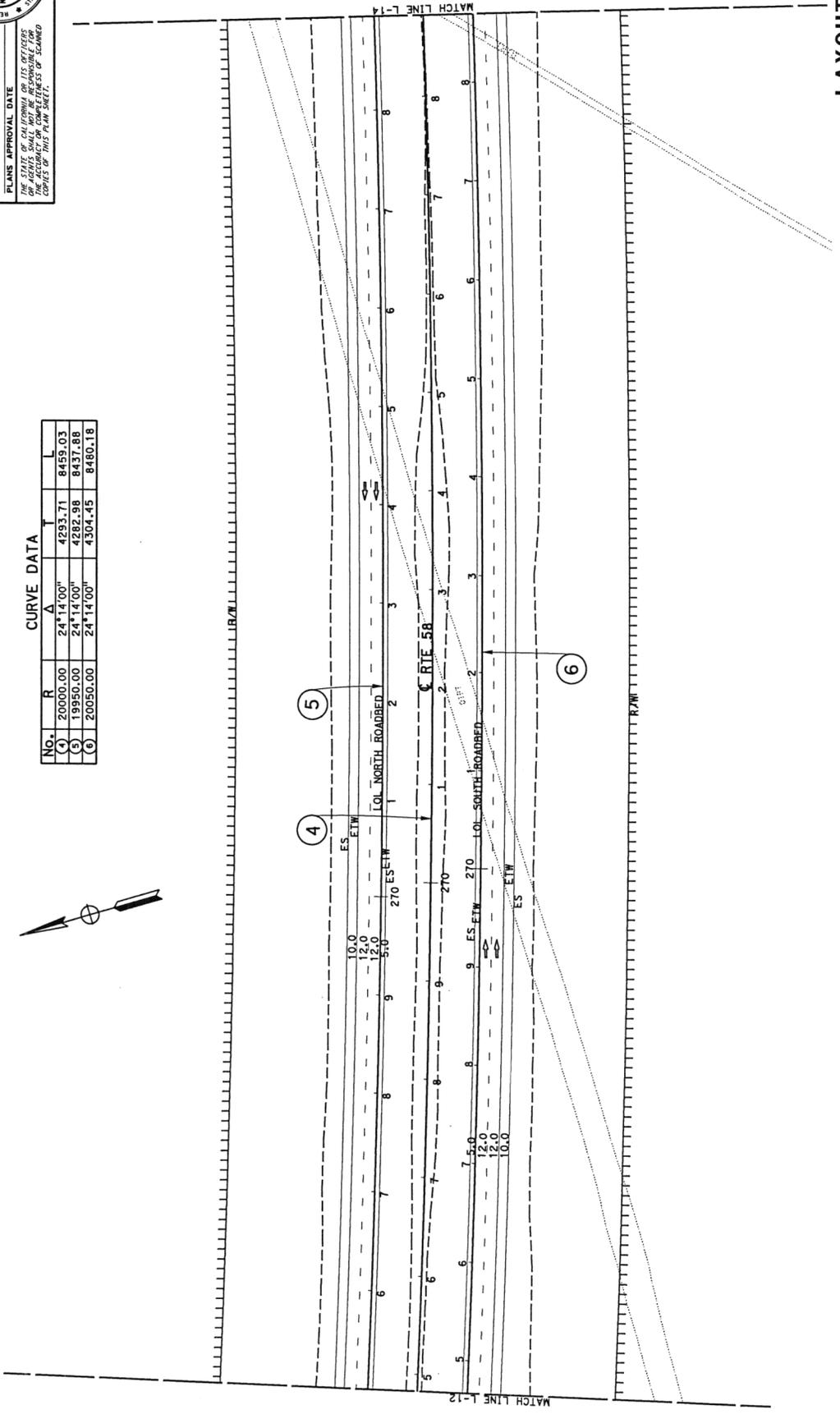
THE STATE OF CALIFORNIA OR ITS OFFICERS  
THE ACCURACY OR COMPLETENESS OF SKANNED  
COPIES OF THIS PLAN SHEET.

LAYOUT  
SCALE: 1" = 50'

L-12

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	SERGIO E. AYLA	CHECKED BY	CRESCENCIO GARCIA	DATE REVISED
	DESIGNED BY	DAI HOANG	REVISOR		

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



**CURVE DATA**

No.	R	A	T	L
(4)	20000.00	24°14'00"	4293.71	8459.03
(5)	19950.00	24°14'00"	4282.98	8437.88
(6)	20050.00	24°14'00"	4304.45	8480.18

DIST	COUNTY	ROUTE	POST MILES	SHEET TOTAL
08	SBA	58	10.0/12.9	NO. SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

**DAI HOANG**  
No. C64203  
Exp. 6-30-15  
CIVIL ENGINEER

THE STATE OF CALIFORNIA OR ITS OFFICERS  
DO NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF SCANNED  
COPIES OF THIS PLAN SHEET.

**LAYOUT**  
SCALE: 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR
CDOT	SERGIO E. AVILA	DAI HOANG	DATE REVISION
	CHECKED BY	CRESENCIO GARCIA	
	CALCULATED BY		

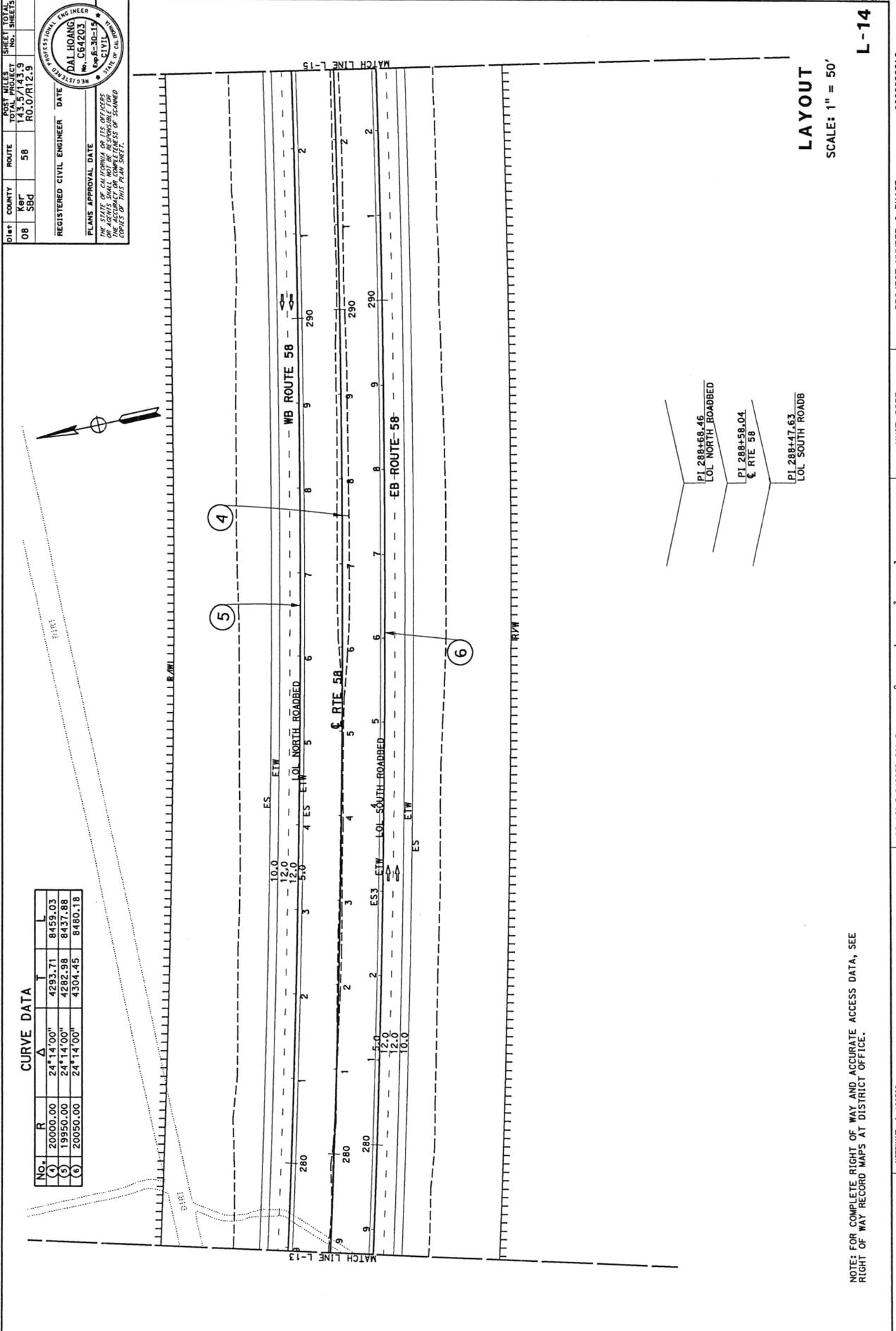
No.	R	Δ	T	L
(A)	20000.00	24°14'00"	4293.71	8459.03
(B)	19950.00	24°14'00"	4282.98	8437.88
(C)	20050.00	24°14'00"	4304.45	8480.18

DIST COUNTY ROUTE POST MILES TO THE POINT TOTAL SHEETS  
 08 KOT 58 SB4 R0.10/R12.9 15 15

REGISTERED CIVIL ENGINEER DATE  
 DAI HOANG

PLANS APPROVAL DATE  
 REGISTERED PROFESSIONAL ENGINEER  
 DAI HOANG  
 No. C64203  
 Exp. 6-30-15  
 CIVIL  
 STATE OF CALIFORNIA

THE STATE ENGINEER OF THE DISTRICT FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



DIST	COUNTY	ROUTE	POST MILES	SHEET TOTAL
08	SBD	58	RD. 0/RT. 12.9	No. SHEETS

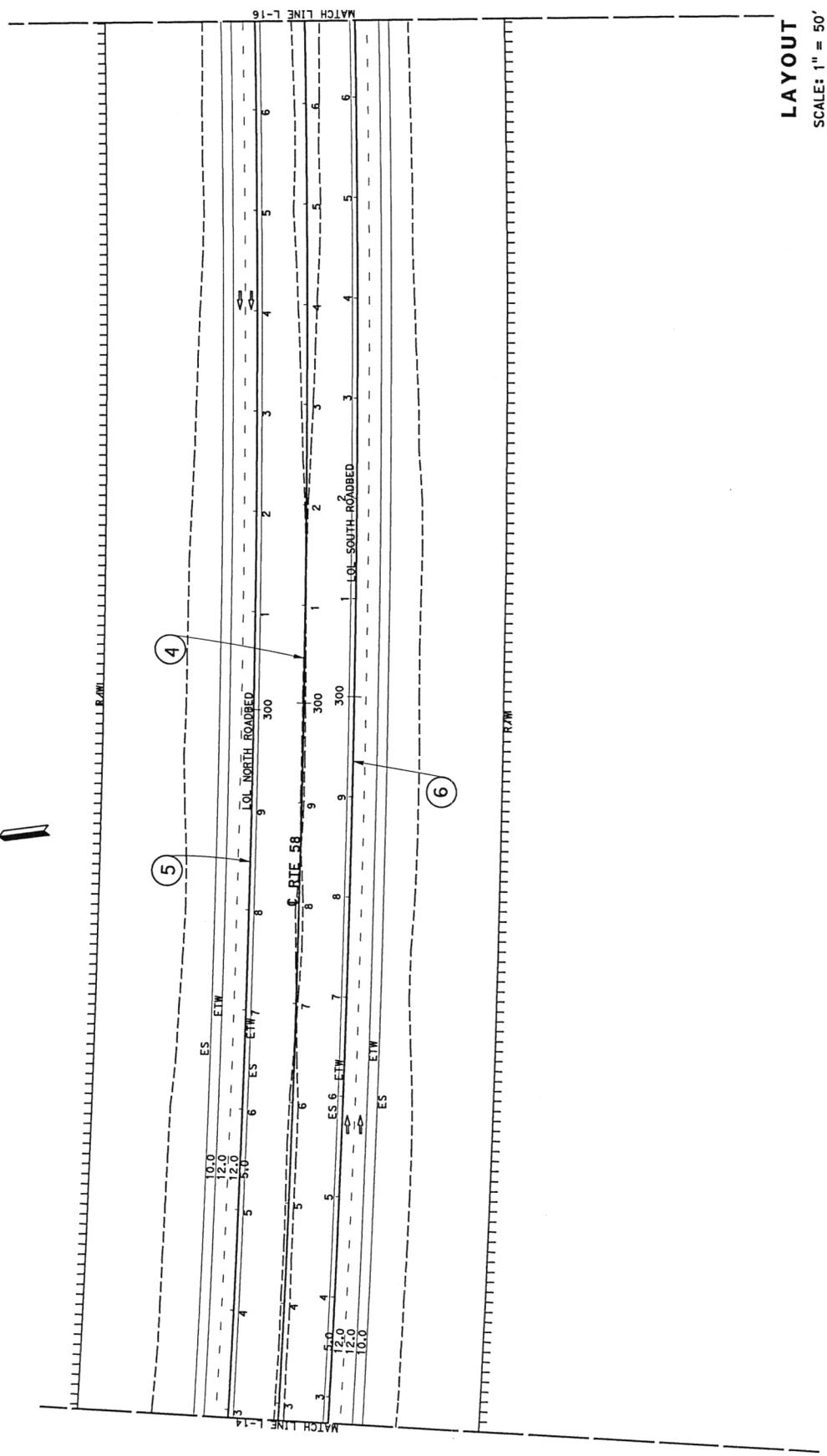
REGISTERED CIVIL ENGINEER	DATE
DAL HOANG	
No. 664203	
Exp. 6-30-19	

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS  
THE ACCURACY OR COMPLETENESS OF SCANNED  
COPIES OF THIS PLAN SHEET.

**CURVE DATA**

NO.	R	Δ	L
(1)	20000.00	24°14'00"	4293.71
(2)	19950.00	24°14'00"	4282.98
(3)	20050.00	24°14'00"	4304.45



**LAYOUT**

SCALE: 1" = 50'

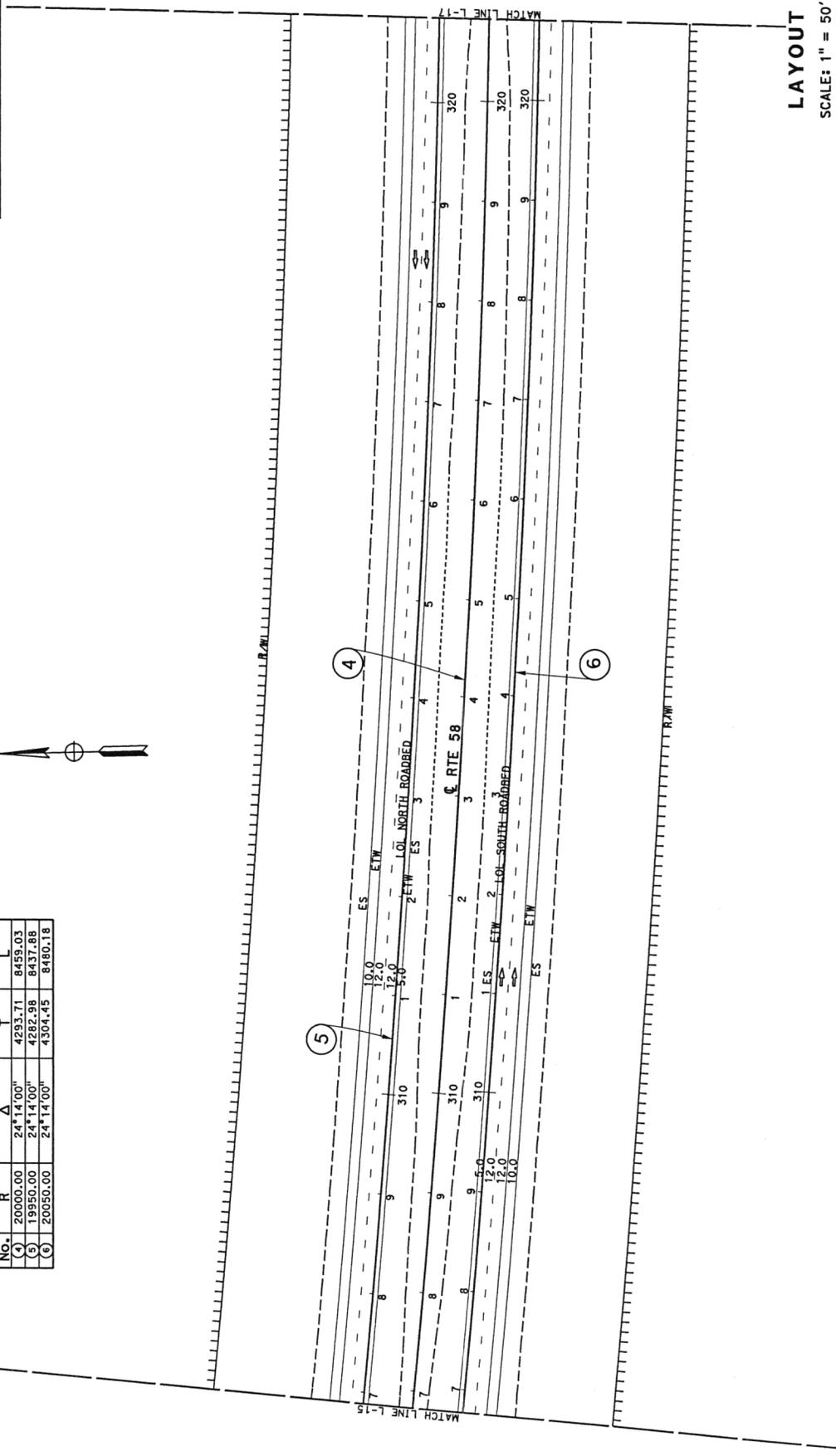
NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE  
RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	DATE REVISSED
Caltrans PROJECT DEVELOPMENT	SERGIO E. AYLA	DAI HOANG	
CHECKED BY		CRESCENCIO GARCIA	DATE REVISSED
REVISSED BY			

08	KRT SBA	58	POST MILES 14.5/14.9 R0.0/R12.9	SHEET TOTAL NO. SHEETS
REGISTERED CIVIL ENGINEER DATE				REGISTERED PROFESSIONAL ENGINEER
PLANS APPROVAL DATE				DAI HOANG No. CE4203 Exp. 6-30-19 CIVIL STATE OF CALIFORNIA

**CURVE DATA**

No.	R	Δ	T	L
(4)	20000.00	24°14'00"	4293.71	8459.03
(5)	19950.00	24°14'00"	4282.98	8437.88
(6)	20050.00	24°14'00"	4304.45	8480.18



**LAYOUT**  
 SCALE: 1" = 50'

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

POST MILES	ROUTE	COUNTY	SHEET TOTAL
14.57143.9	58	KOT	NO. SHEETS
RO.0/R12.9		SB4	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

PROFESSIONAL ENGINEER

DAL HOANG

No. C64203

Exp. 6-30-15

CIVIL

STATE OF CALIFORNIA

REGISTERED CIVIL ENGINEER

DATE

PLANS APPROVAL DATE

PROFESSIONAL ENGINEER

DAL HOANG

No. C64203

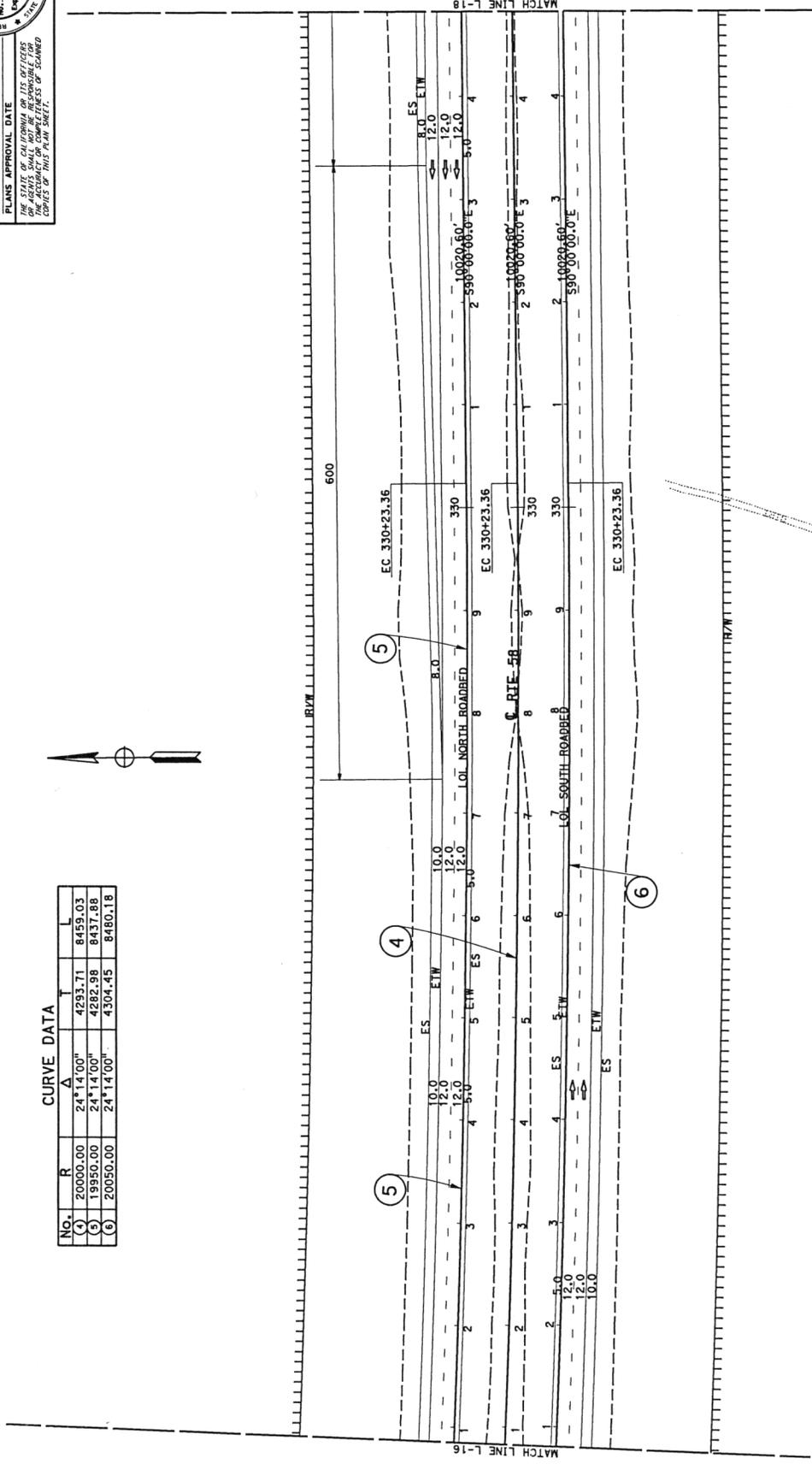
Exp. 6-30-15

CIVIL

STATE OF CALIFORNIA

CURVE DATA

NO.	R	A	T	L
(1)	20000.00	24°14'00"	4293.71	8459.03
(5)	19850.00	24°14'00"	4282.98	8437.88
(6)	20050.00	24°14'00"	4304.45	8480.18



LAYOUT

SCALE: 1" = 50'

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

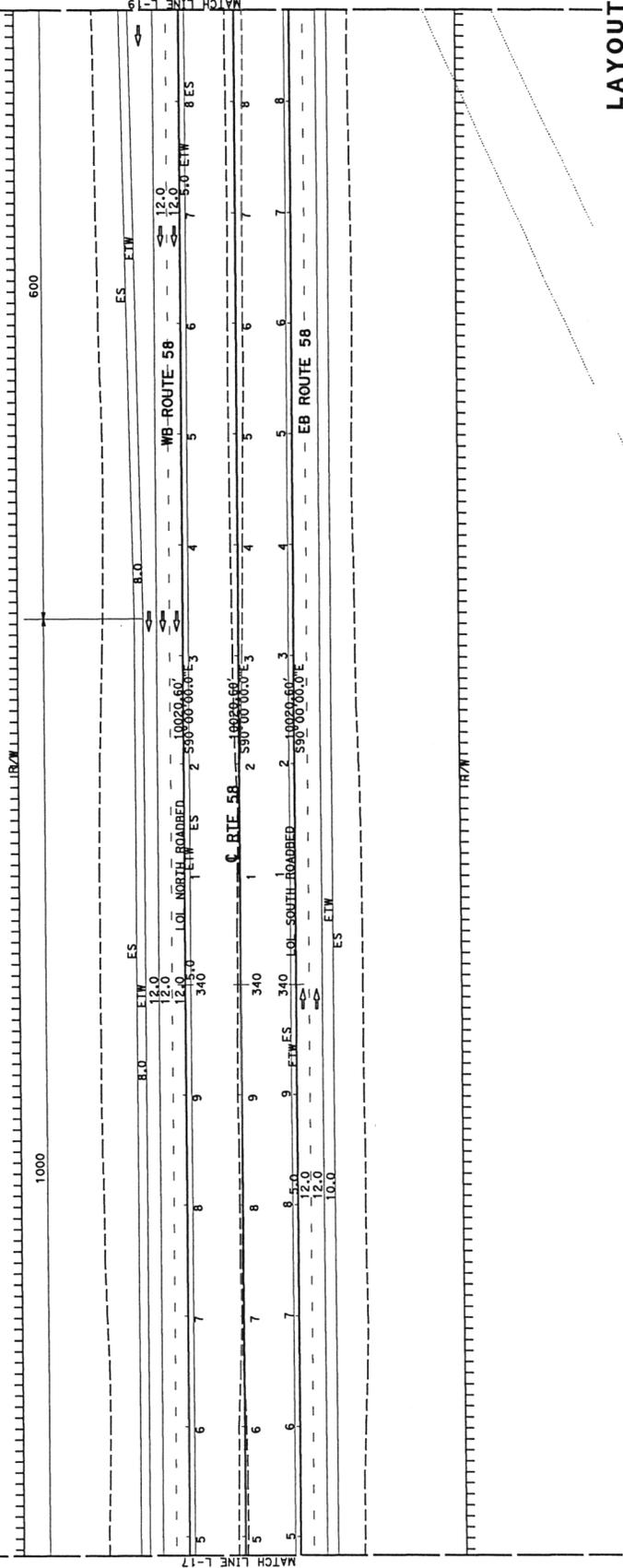
L-17

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	DAI HOANG	REVISOR	
DESIGNED BY	SERGIO E. AVILA	CHECKED BY	CRESENCIO GARCIA	DATE REVISED	

DIST	COUNTY	ROUTE	POST MILES	SHEET TOTAL
08	Kgr	58	143.5/143.9	NO. SHEETS
	SBD		RC.0/R12.9	

REGISTERED CIVIL ENGINEER DATE  
**DAL HOANG**  
 No. C64203  
 REG. STATE OF CALIF. CIVIL ENGINEER  
 Exp. 6-30-15

PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS  
 ACCEPTS THESE PLANS FOR THE ACCURACY  
 AND COMPLETENESS OF SCANNED  
 COPIES OF THIS PLAN SHEET.



**LAYOUT**  
 SCALE: 1" = 50'

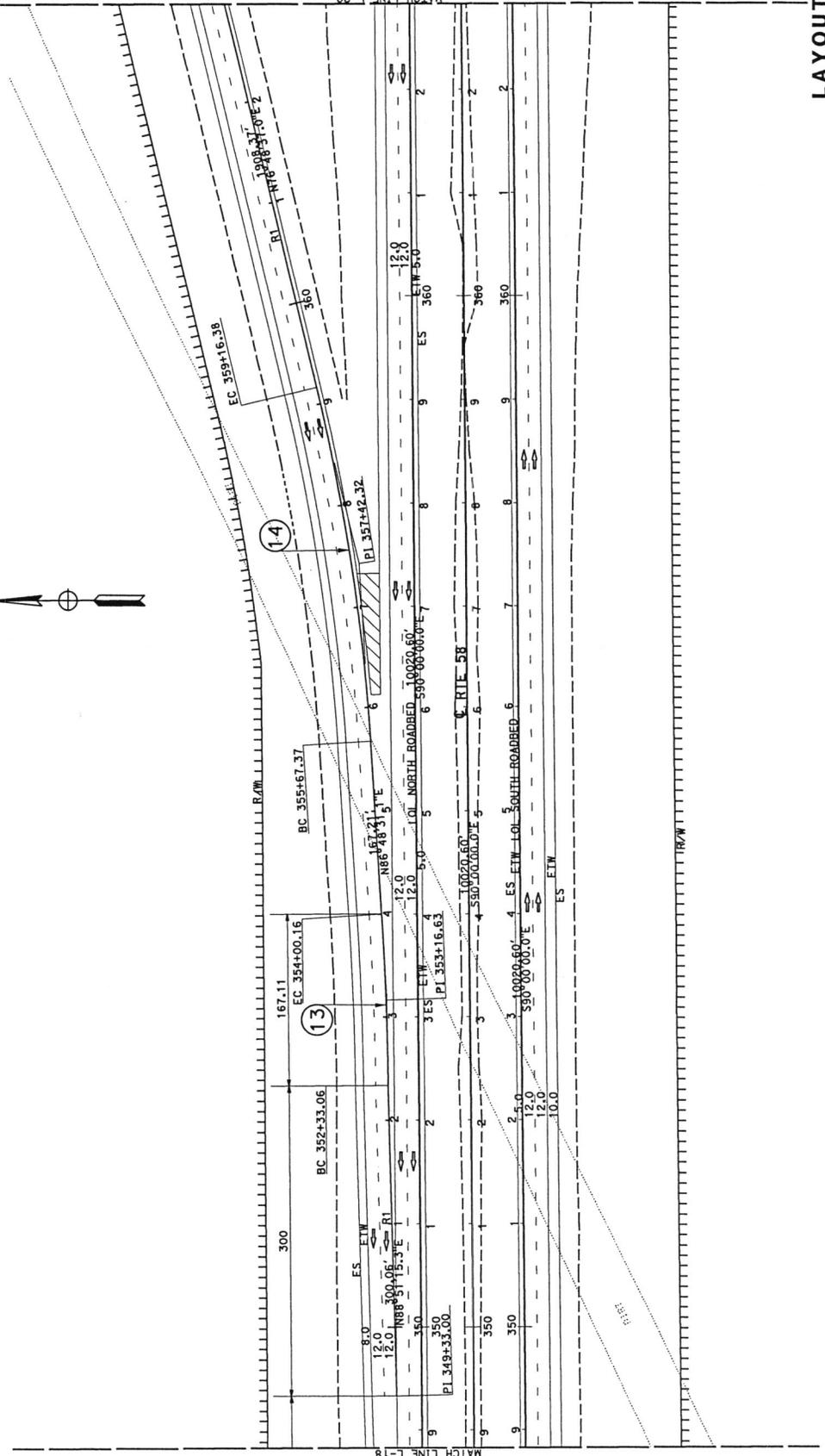
NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE  
 RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	SERGIO E. AYLA	CHECKED BY	CRESCENCIO GARCIA	DATE REVISED
	DESIGNED BY	DAL HOANG	REVISOR		

DIST	COUNTY	ROUTE	POST MILES	SHEET TOTAL
08	58	58	10.0/R12.9	NO. SHEETS 9
REGISTERED CIVIL ENGINEER			DATE	PLANS APPROVAL DATE
DAL HOANG			10/08/2014	10/08/2014
THE STATE OF CALIFORNIA OR ITS OFFICERS ACCEPTS THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.				



CURVE DATA				
No.	R	Δ	T	L
(13)	3000.00	3°11'29"	83.57	167.10
(14)	2000.00	9°59'54"	174.95	349.01



**LAYOUT**  
SCALE: 1" = 50'

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

L-19

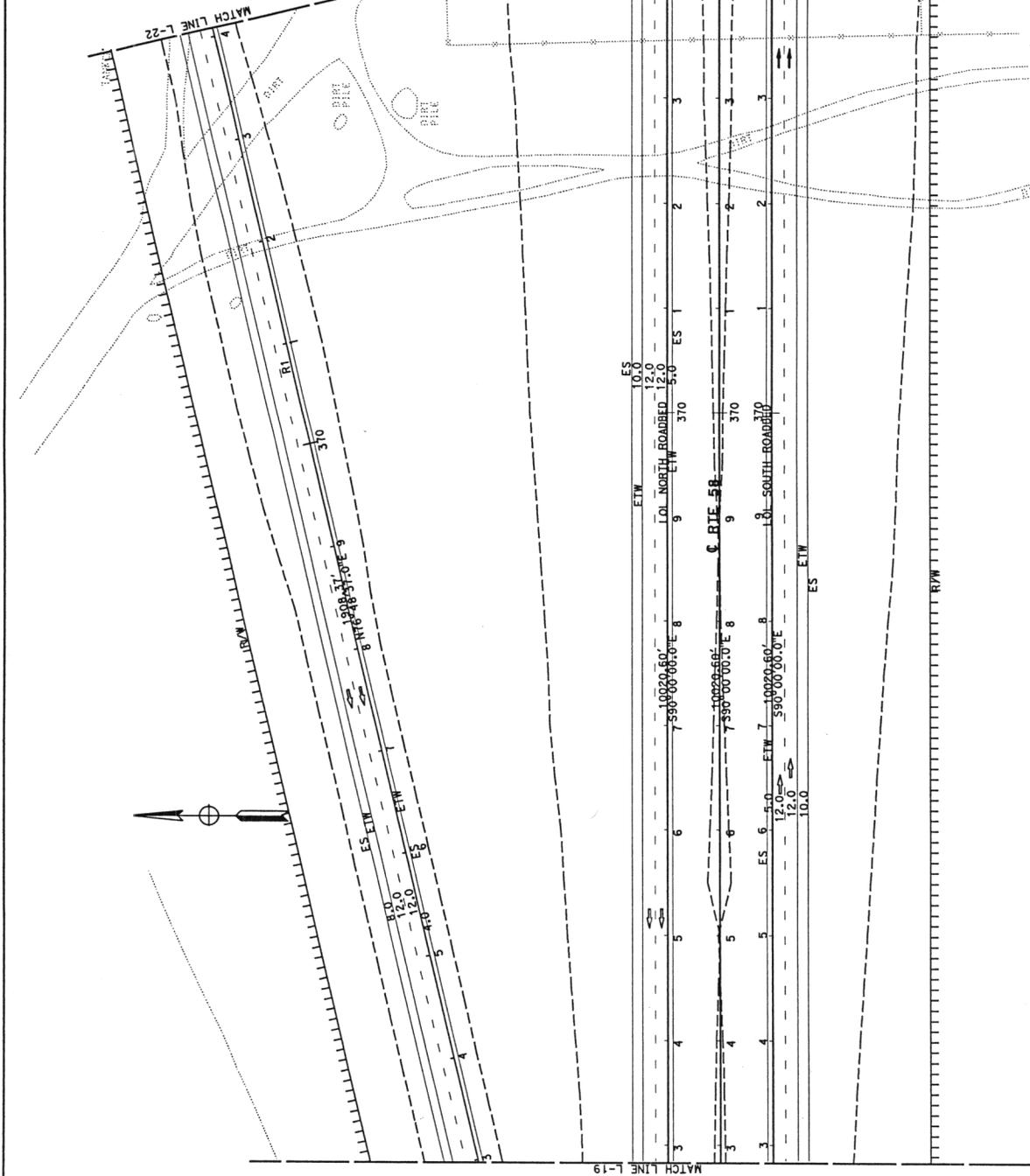
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	SERGIO E. AYLA	CHECKED BY	CRESCENCIO GARCIA	DATE REVISION
	DESIGNED BY	DAL HOANG	REVISION		

DATE	05-07-14
TIME PLOTTED	2:28:44 PM
DATE PLOTTED	05-07-14
TIME PLOTTED	2:28:44 PM

REGISTERED CIVIL ENGINEER  
 DATE: 05/07/14  
 PROJECT: R0.0/R12.9  
 SHEET TOTAL: 14  
 SHEET NO.: 9  
 DISTRICT: 08  
 COUNTY: SBA  
 ROUTE: 5B  
 KSC: SBA

PROFESSIONAL ENGINEER  
**DAI HOANG**  
 No. C64203  
 CIVIL  
 STATE OF CALIFORNIA

PLANS APPROVAL DATE: 05/07/14  
 I HAVE REVIEWED THE PLANS AND  
 CERTIFY THAT THE PROJECT HAS BEEN  
 DESIGNED IN ACCORDANCE WITH THE  
 REQUIREMENTS OF THE CALIFORNIA  
 CIVIL ENGINEERING BOARD AND THE  
 STATE OF CALIFORNIA. I AM NOT  
 PROVIDING ANY GUARANTEE OF  
 ACCURACY OR COMPLETENESS OF SCANNED  
 COPIES OF THIS PLAN SHEET.



**LAYOUT**  
 SCALE: 1" = 50'

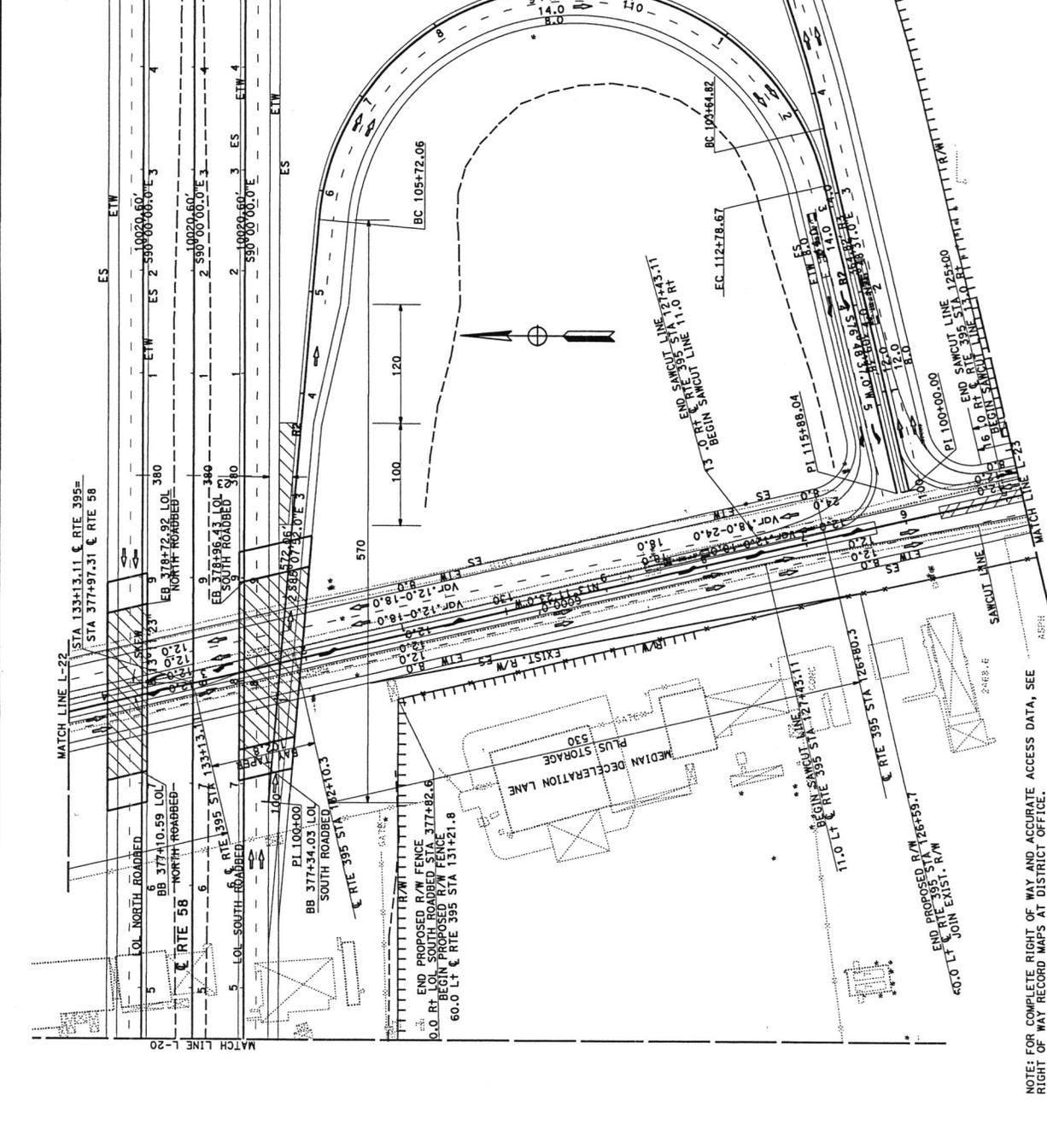
L-20

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	SEBASTIAN E. AYALA	CHECKED BY	CRESCENCIO GARCIA	DATE REVISION	
DAI HOANG	DESIGNED BY		REVISION			

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE  
 RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

REGISTERED CIVIL ENGINEER    DATE: \_\_\_\_\_  
 PLANS APPROVAL DATE: \_\_\_\_\_  
**DAI HOANG**  
 No. 084203  
 PROFESSIONAL ENGINEER  
 CIVIL  
 STATE OF CALIFORNIA

DIST	COUNTY	ROUTE	POST MILE	SHEET TOTAL
08	KeP	58	143.5/143.9	NO. SHEETS
	58D		RO.0/R12.9	



**CURVE DATA**

No.	R	Δ	L
(7)	250.00	161°56'29"	1573.24
(8)	1400.00	17°51'19"	219.93
			436.28

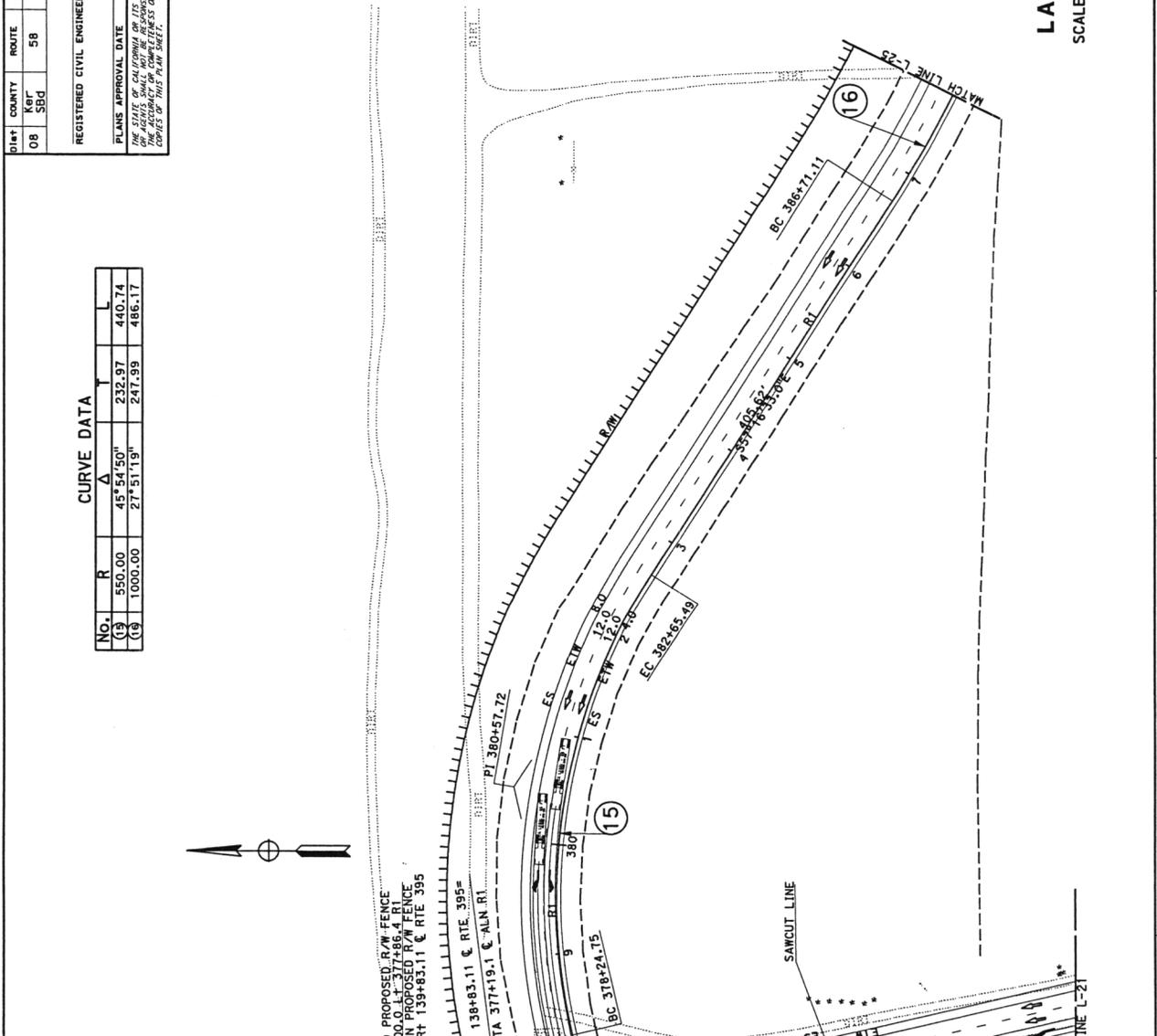
**LAYOUT**  
SCALE: 1" = 50'

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE  
 RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DAI HOANG	REVISOR	DATE
SRGIO E. AVILA	CHECKED BY	CRESCENCIO GARCIA	DATE	REVISOR
	DESIGNED BY			
	CALCULATED BY			

BORDER LAST REVISED 7/2/2010  
 USERNAME: s2103768  
 DGN FILE: s08347700m022.dgn

NOTES: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



**CURVE DATA**

No.	R	Δ	L	P
(3)	550.00	45°54'50"	232.97	440.74
(9)	1000.00	27°51'19"	247.99	486.17

Dist	County	Route	Post Miles	SHEET TOTAL
08	Ken	58	143.5/143.9	NO. SHEETS
	SBD		RO.0/R12.9	

REGISTERED CIVIL ENGINEER    DATE

RESIDENT PROFESSIONAL ENGINEER

**DAI HOANG**  
 No. C64203  
 Exp. 6-30-15

PLANS APPROVAL DATE

FOR THIS PROJECT, I HEREBY CERTIFY THAT I AM THE REGISTERED CIVIL ENGINEER RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THIS PROJECT.

**LAYOUT**  
 SCALE: 1" = 50'

**L-22**

DIST	COUNTY	ROUTE	POST MILES	SHEET TOTAL
08	Kern	58	143.57/143.9	NO. SHEETS
	SBD		R0.0/R12.9	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER

**DAL HOANG**

NO. C64203

EXPIRES 06-30-15

CIVIL

STATE OF CALIFORNIA

FOR THE ACCURACY OF THIS DRAWING, THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE COMPLETENESS OF SCANNED COPIES OF THIS DRAWING.



**LAYOUT**

SCALE: 1" = 50'

**L-23**

PROJECT NUMBER & PHASE

UNIT 2237

RELATIVE BORDER SCALE

15" IN INCHES

0 1 2 3

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

FUNCTIONAL SUPERVISOR

DESIGNED BY

CHECKED BY

CRESCENCIO GARCIA

DATE REVISED

REVISOR

DESIGNED BY

DAL HOANG

0800000616

05-07-14

DATE PLOTTED => 29-JUL-2014

TIME PLOTTED => 10:47

USERNAME => s108168

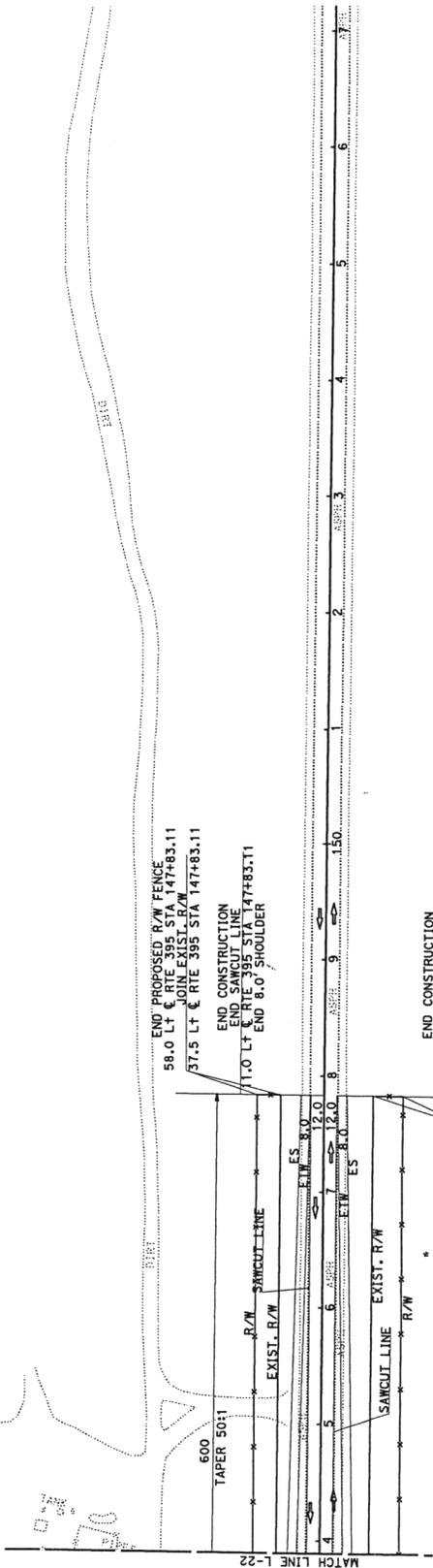
DDI FILE => 08347700023.dgn

BORDER LAST REVISED 7/2/2010

DATE	COUNTY	ROUTE	POST MILES	SHEET TOTAL
08	Kern	58	143.5/143.9	NO. SHEETS
	380		10.0/11.9	



REGISTERED CIVIL ENGINEER DATE  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS  
 DO NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF SCANNED  
 COPIES OF THIS PLAN SHEET.



LAYOUT  
 SCALE: 1" = 50'

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE  
 RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	DATE REVISSED
REGISTRATION PROJECT DEVELOPMENT	SERGIO E. AYLA	CRESCENCIO GARCIA	
		REVISSED BY	
		DATE REVISSED	



DIST	COUNTY	ROUTE	POST MILES	SHEET TOTAL
08	KOC	58	143.5/143.9	NO. SHEETS
	SBD		RO.0/R12.9	

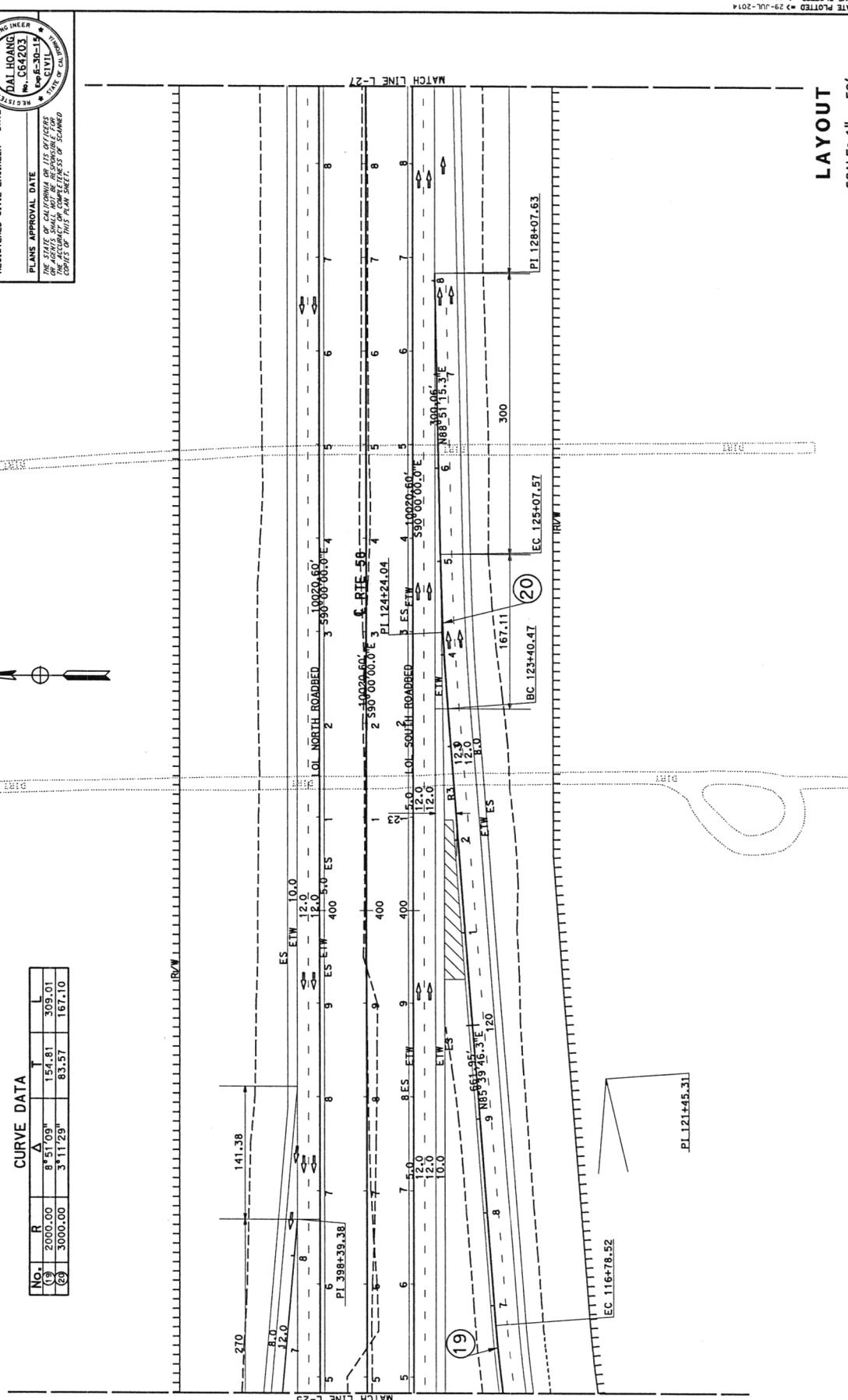
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

PROFESSIONAL ENGINEER  
**DAI HOANG**  
 No. C64203  
 Exp. E-30-15  
 CIVIL  
 STATE OF CALIFORNIA

PLANS SHALL NOT BE RESPONSIBLE FOR  
 ANY ERRORS OR OMISSIONS OF THE ORIGINAL  
 CONTRACT DOCUMENTS AND SPECIFICATIONS.

No.	R	Δ	T	L
(19)	2000.00	8°51'09"	154.81	309.01
(20)	3000.00	3°11'29"	83.57	167.10



**LAYOUT**  
 SCALE: 1" = 50'

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE  
 RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	SERGIO E. AYILA	CHECKED BY	CRESCENCIO GARCIA	DATE REVISED
	DESIGNED BY	DAI HOANG	REVISOR		



DATE PLOTTED => 15:13  
 TIME PLOTTED => 29-JUL-2014  
 LAYOUT

DATE PLOTTED => 15:13  
 TIME PLOTTED => 29-JUL-2014  
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DATE PLOTTED => 15:13  
 TIME PLOTTED => 29-JUL-2014  
 LAYOUT

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 FUNCTIONAL SUPERVISOR  
 SERGIO E. AVILA  
 CHECKED BY  
 CRESCENCIO GARCIA  
 DATE REVISED

DESIGNED BY  
 DAI HOANG  
 REVISED BY

PROJECT DEVELOPMENT

BORDER LAST REVISED 7/2/2010

USERNAME => S10316  
 DGN FILE => 08321700a28.dgn

RELATIVE BORDER SCALE  
 15' IN INCHES

UNIT 2237

PROJECT NUMBER & PHASE  
 0800000616

L-28

SCALE: 1" = 50'

LAYOUT

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

PROFESSIONAL ENGINEER  
 DAI HOANG  
 No. CG4203  
 Exp. E-30-15

POST MILES  
 143.57/143.9

ROUTE  
 58

COUNTY  
 K&C  
 SBD

DIST#  
 08

SHEET TOTAL  
 13

NO. SHEETS  
 13



DIST	COUNTY	ROUTE	POST MILES	SHEET NO.	TOTAL SHEETS
08	KAT	58	13.571/13.9	9	9
	SBD		RO.0/R12.9		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

PROFESSIONAL ENGINEER No. 664203

REGISTRATION No. R-30-15

STATE OF CALIFORNIA

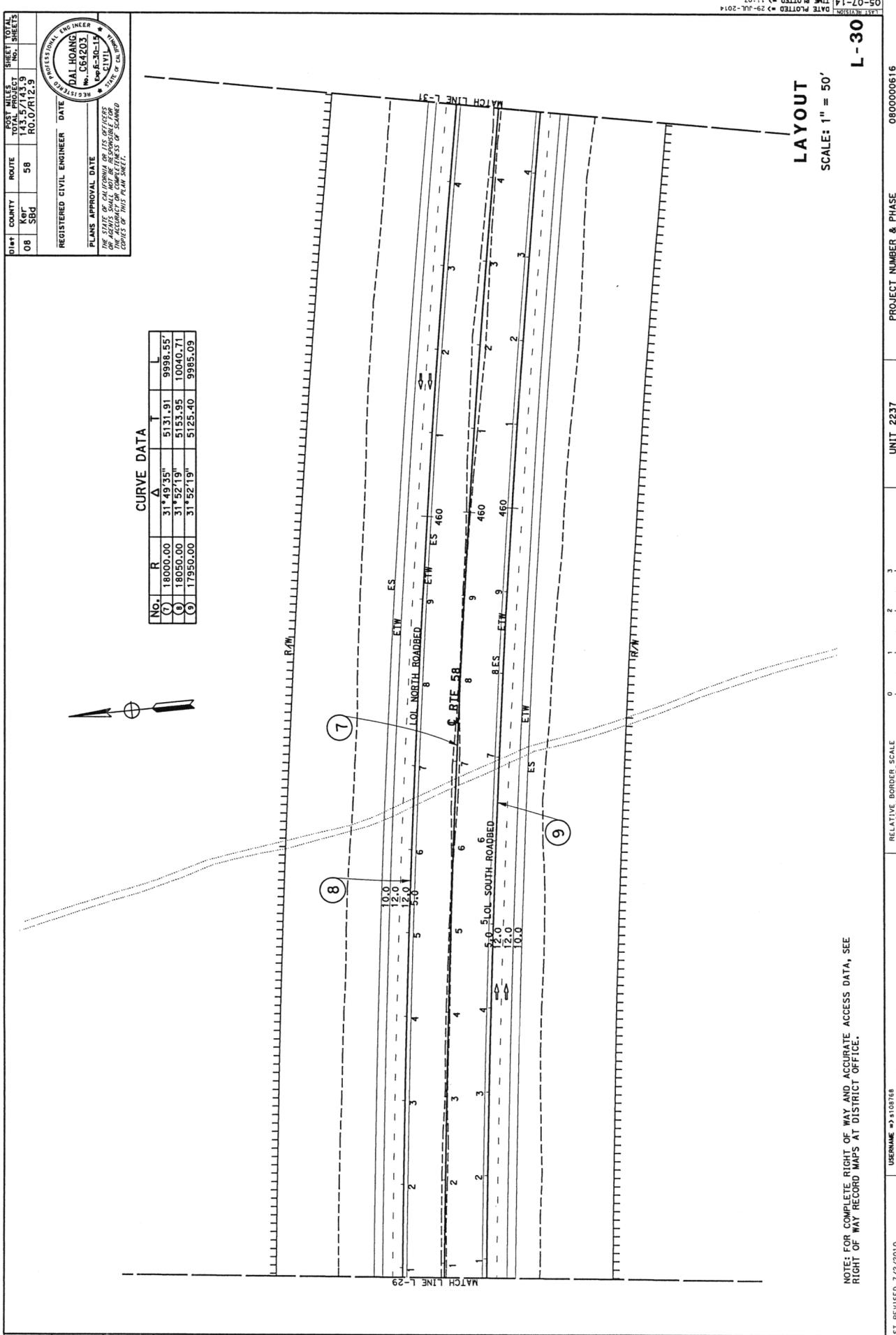
DATE OF EXPIRATION

REVISIONS

THESE PLANS SHALL BE THE RESPONSIBILITY OF THE ENGINEER AND NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CURVE DATA

No.	R	Δ	T	L
⑦	18000.00	31°49'35"	5131.91	9998.55'
⑧	18050.00	31°52'19"	5153.95	10040.71
⑨	17950.00	31°52'19"	5125.40	9985.03'



LAYOUT

SCALE: 1" = 50'

L-30

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	DAI HOANG	REVISOR BY	
REVISIONS		DATE REVISOR	CRESCENCIO GARCIA		
CHECKED BY	SERGIO E. AVILA				

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

DATE REVISIONS  
 05-07-14 TIME PLOTTED 11:09  
 05-07-14 DATE PLOTTED 29-JUL-2014

POST MILEAGE SHEET TOTALS  
 143.57/143.9  
 143.57/143.9  
 143.57/143.9

ROUTE 58  
 KGT SBD  
 COUNTY SBD

REGISTERED CIVIL ENGINEER  
 DAI HOANG  
 No. C84203  
 CIVIL  
 REGISTERED PROFESSIONAL ENGINEER

PLANS APPROVAL DATE  
 REGISTERED CIVIL ENGINEER DATE

THE STATE OF CALIFORNIA FOR ITS OFFICERS  
 AND AGENCIES SHALL NOT BE RESPONSIBLE FOR  
 THE ACCURACY OR COMPLETENESS OF SCANNED  
 COPIES OF THIS PLAN SHEET.

**LAYOUT**  
 SCALE: 1" = 50'

L-31

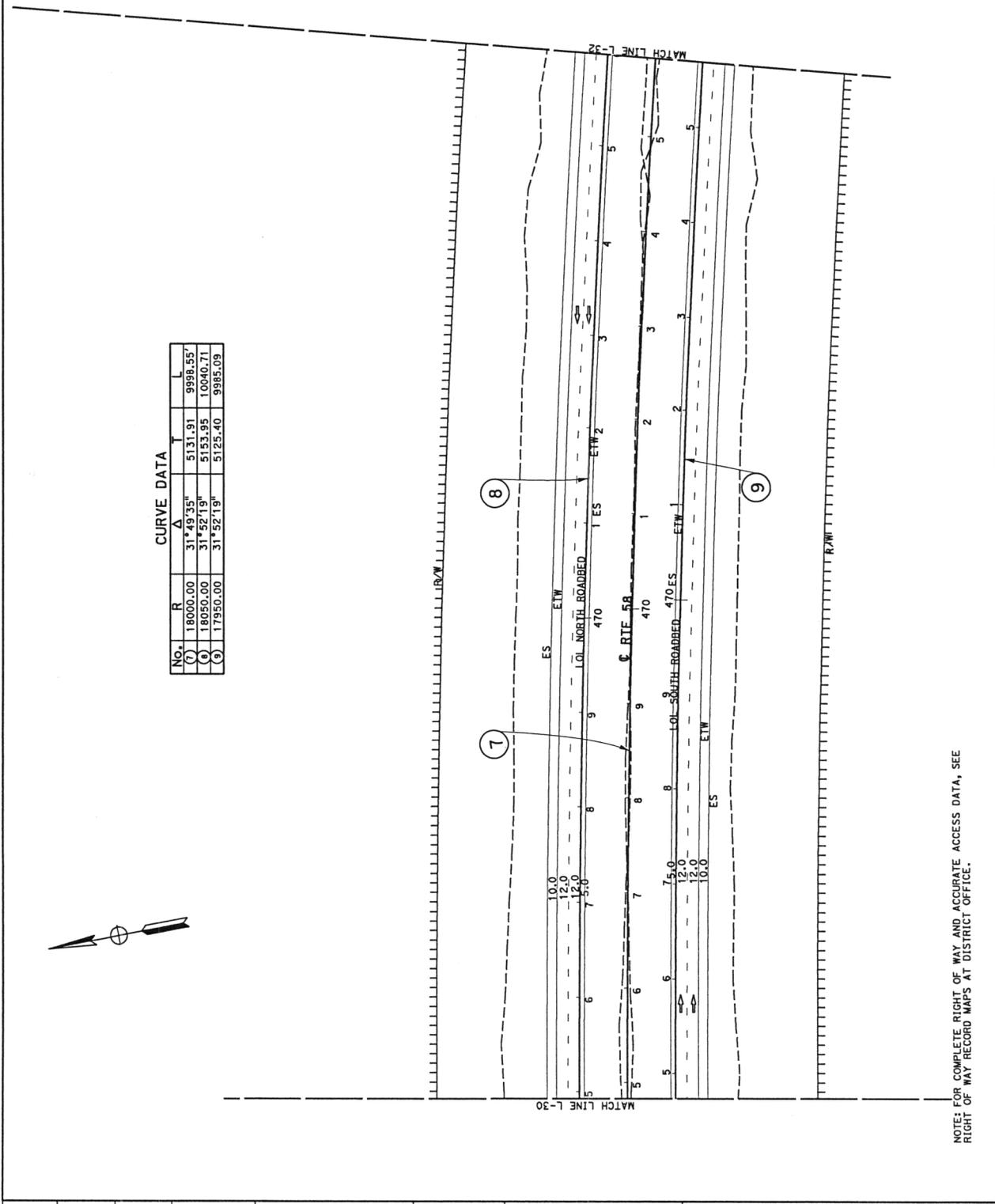
PROJECT NUMBER & PHASE  
 UNIT 2237

0800000616

RELATIVE BORDER SCALE  
 15' IN INCHES

USERNAME: d108768  
 DGN FILE: 08347700c031.dgn

BORDER LAST REVISED 7/2/2010



**CURVE DATA**

No.	R	A	T	L
(7)	18000.00	31°49'35"	5131.91	9998.55'
(8)	18050.00	31°52'19"	5153.95	10040.71'
(9)	17950.00	31°52'19"	5125.40	9985.09'



NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

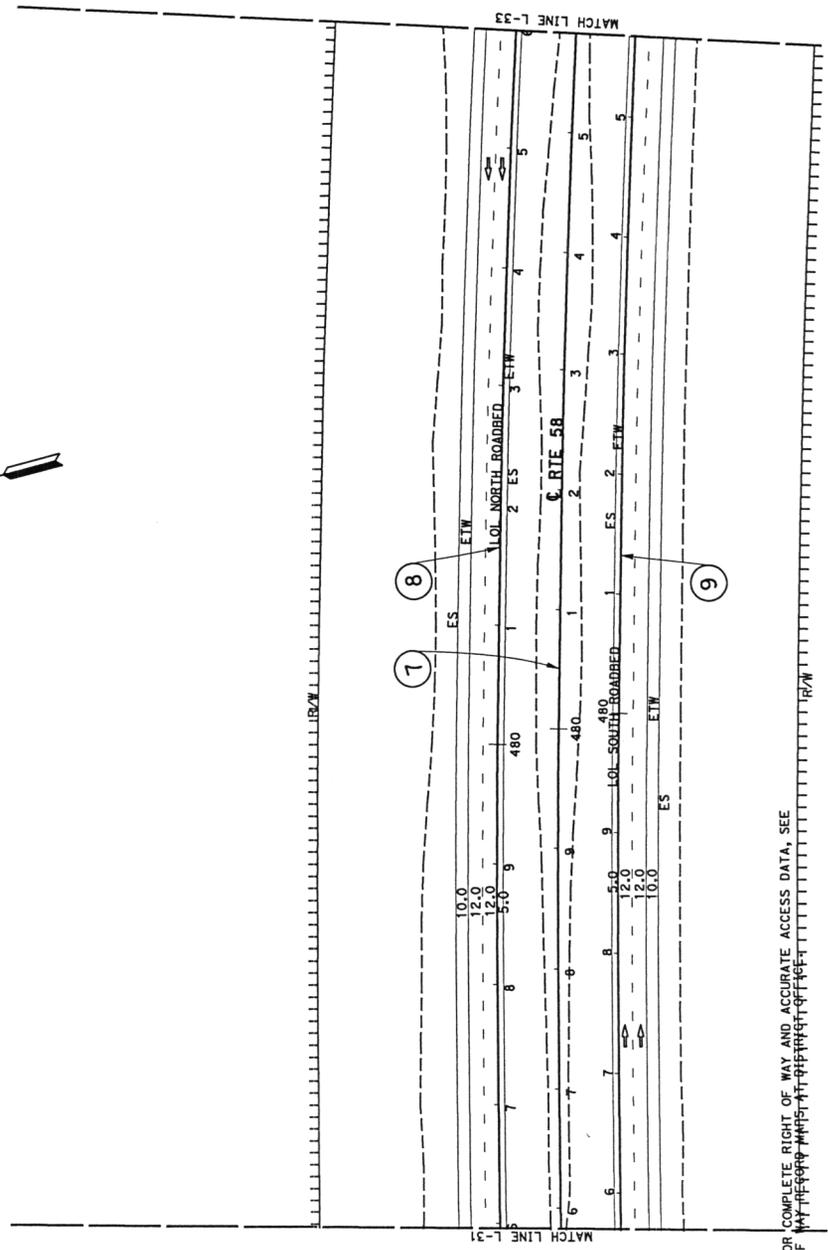
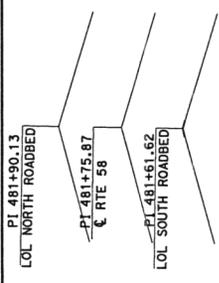
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DAI HOANG	REVISOR
DESIGNED BY	CHECKED BY	CRESCENCIO GARCIA	DATE REVISOR
DESIGNED BY	CHECKED BY	CRESCENCIO GARCIA	DATE REVISOR
DESIGNED BY	CHECKED BY	CRESCENCIO GARCIA	DATE REVISOR

DIST COUNTY ROUTE POST MILES SHEET TOTAL  
 08 KAT 58 10.57/14.9 NO. SHEETS  
 R0.0/R12.9

REGISTERED CIVIL ENGINEER DATE  
 DAI HOANG No. C64203  
 REGISTERED PROFESSIONAL ENGINEER  
 CIVIL  
 STATE OF CALIFORNIA  
 REGISTRATION NO. 00630-15  
 EXPIRES 06/30/15

CURVE DATA

NO.	R	Δ	T	L
7	18000.00	31° 49' 35"	5131.91	9996.55
8	18050.00	31° 52' 19"	5153.95	10040.71
9	17950.00	31° 52' 19"	5125.40	9985.09



LAYOUT  
 SCALE: 1" = 50'

DATE PLOTTED = 29-JUL-2014  
 TIME PLOTTED = 11:10  
 L-32

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	SENGIO E. AVILA	CHECKED BY	CRESCENCIO GARCIA	DATE REVISED
DESIGNED BY	DAI HOANG	REVISOR			

NOTES FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY PLANS

DATE COUNTY ROUTE POST MILES SHEET TOTAL  
 08 08 SBD 143.57143.9 143.9

REGISTERED CIVIL ENGINEER DATE  
 PROFESSIONAL ENGINEER REG. NO. C64203  
 DAI HOANG  
 CIVIL  
 STATE OF CALIFORNIA

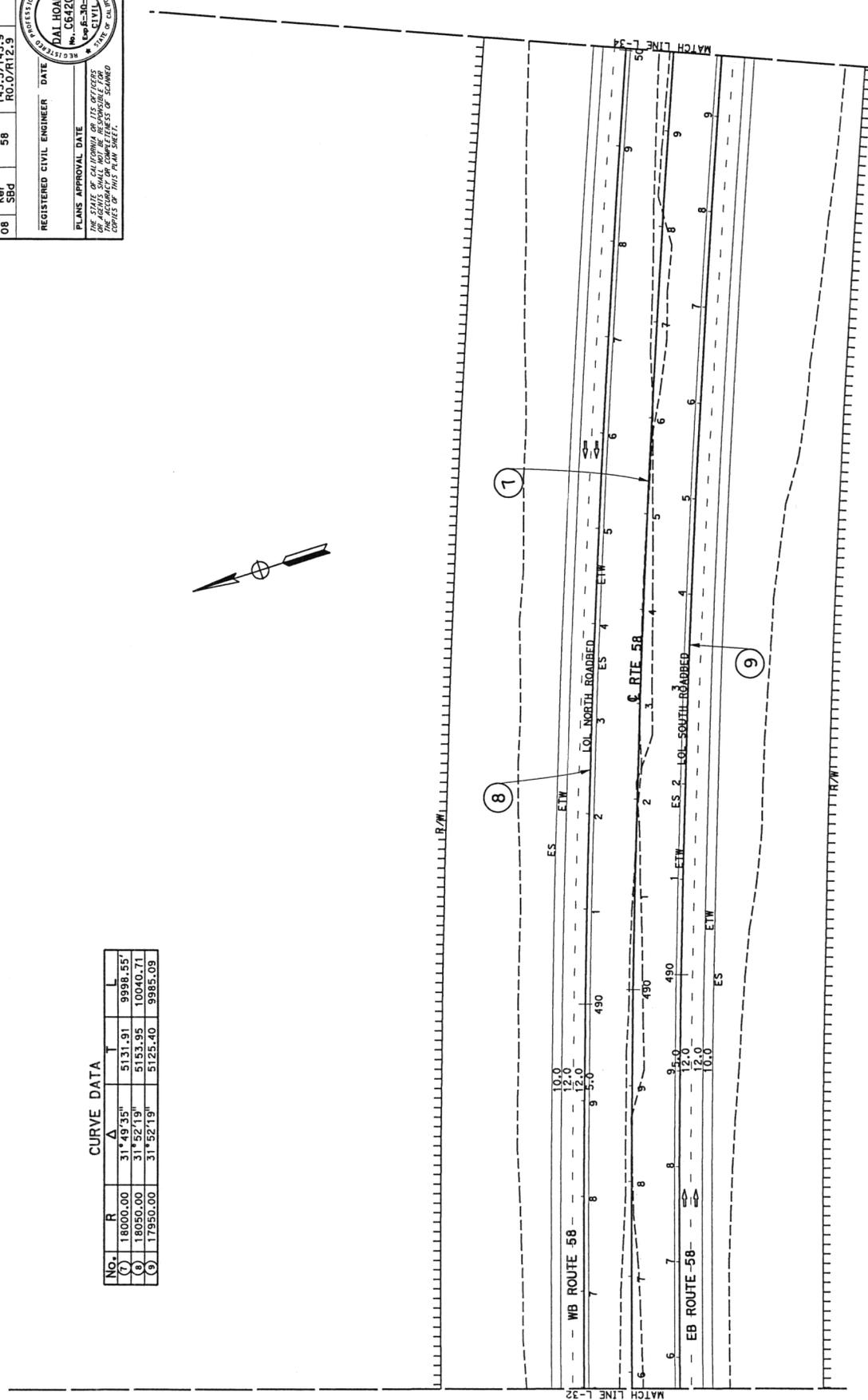
PLANS APPROVAL DATE  
 THE DESIGNER SHALL BE RESPONSIBLE FOR THE ACCURACY AND COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

DATE APPROVAL DATE  
 REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE  
 THE DESIGNER SHALL BE RESPONSIBLE FOR THE ACCURACY AND COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CURVE DATA

No.	R	Δ	T	L
(7)	18000.00	31°49'35"	5131.91	9998.55'
(8)	18050.00	31°52'19"	5153.95	10040.71
(9)	17950.00	31°52'19"	5125.40	9985.09



LAYOUT  
 SCALE: 1" = 50'

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

L-33

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DAI HOANG	REVISOR
DESIGNED BY	SEBASTIAN E. AVILA	CRESENCIO GARCIA	DATE REVISOR
CHECKED BY			

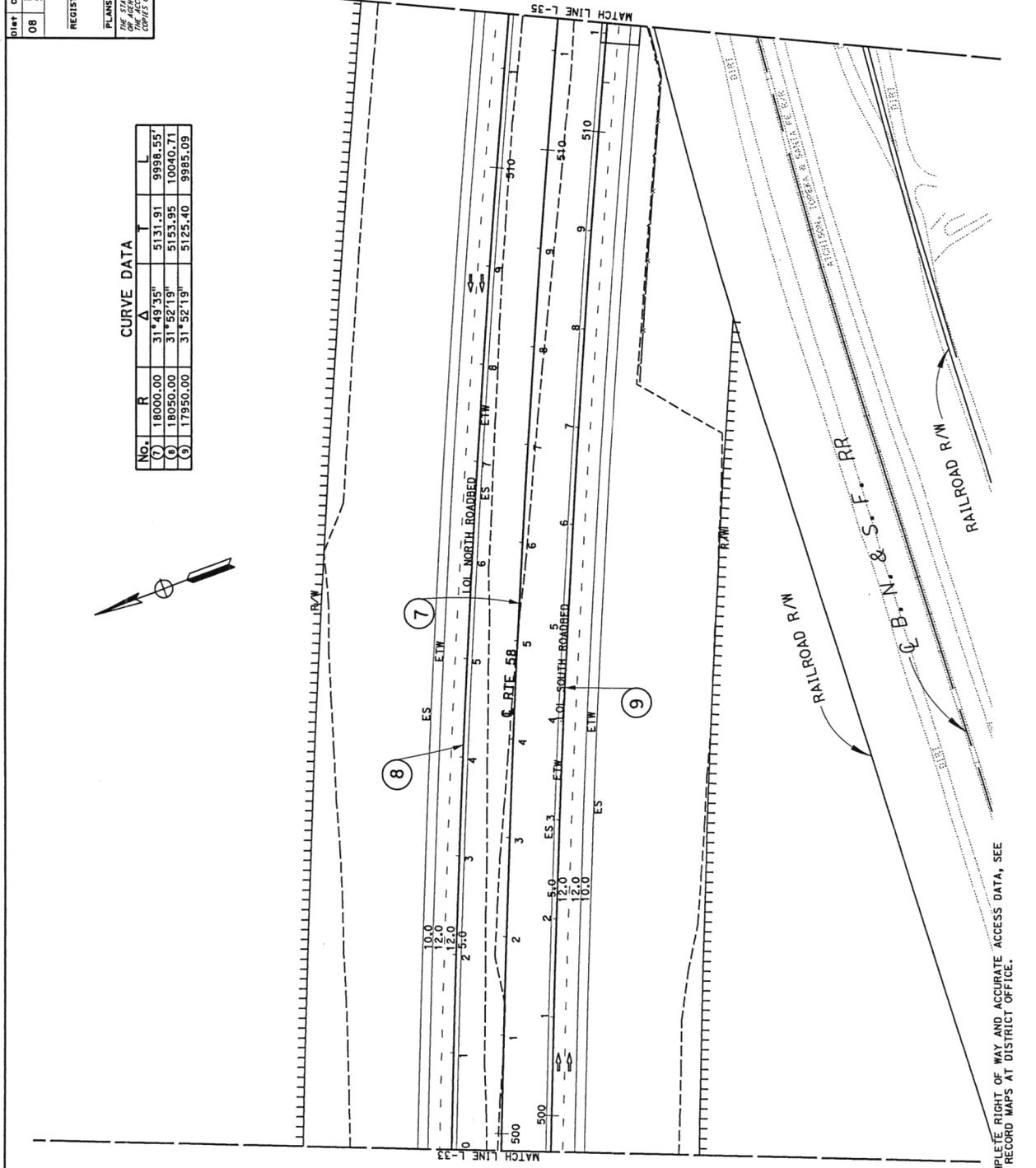
DATE COUNTY ROUTE POST MILES SHEET TOTAL  
 08 Kern 58 R0.0/R12.9 10.5/14.9 NO. SHEETS  
 R0.0/R12.9

REGISTERED CIVIL ENGINEER DATE  
 PROFESSIONAL ENGINEER  
**DAI HOANG**  
 No. C64203  
 Exp. E-30-19  
 CIVIL  
 STATE OF CALIFORNIA

PLANS APPROVAL DATE  
 THE ACCURACY OF THIS PLAN SHEET  
 IS THE RESPONSIBILITY OF THE ENGINEER  
 AND SHALL NOT BE ASSUMED BY THE  
 BOARD OF SUPERVISORS

**CURVE DATA**

No.	R	Δ	5131.91	9998.557
①	18000.00	31°49'35"	5131.91	9998.557
②	18050.00	31°52'19"	5183.95	10040.71
③	17950.00	31°52'19"	5125.40	9985.09



**LAYOUT**  
 SCALE: 1" = 50'

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE  
 RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	DAI HOANG	REVISOR	
CRESCENCIO GARCIA	CHECKED BY	DATE REVISED			

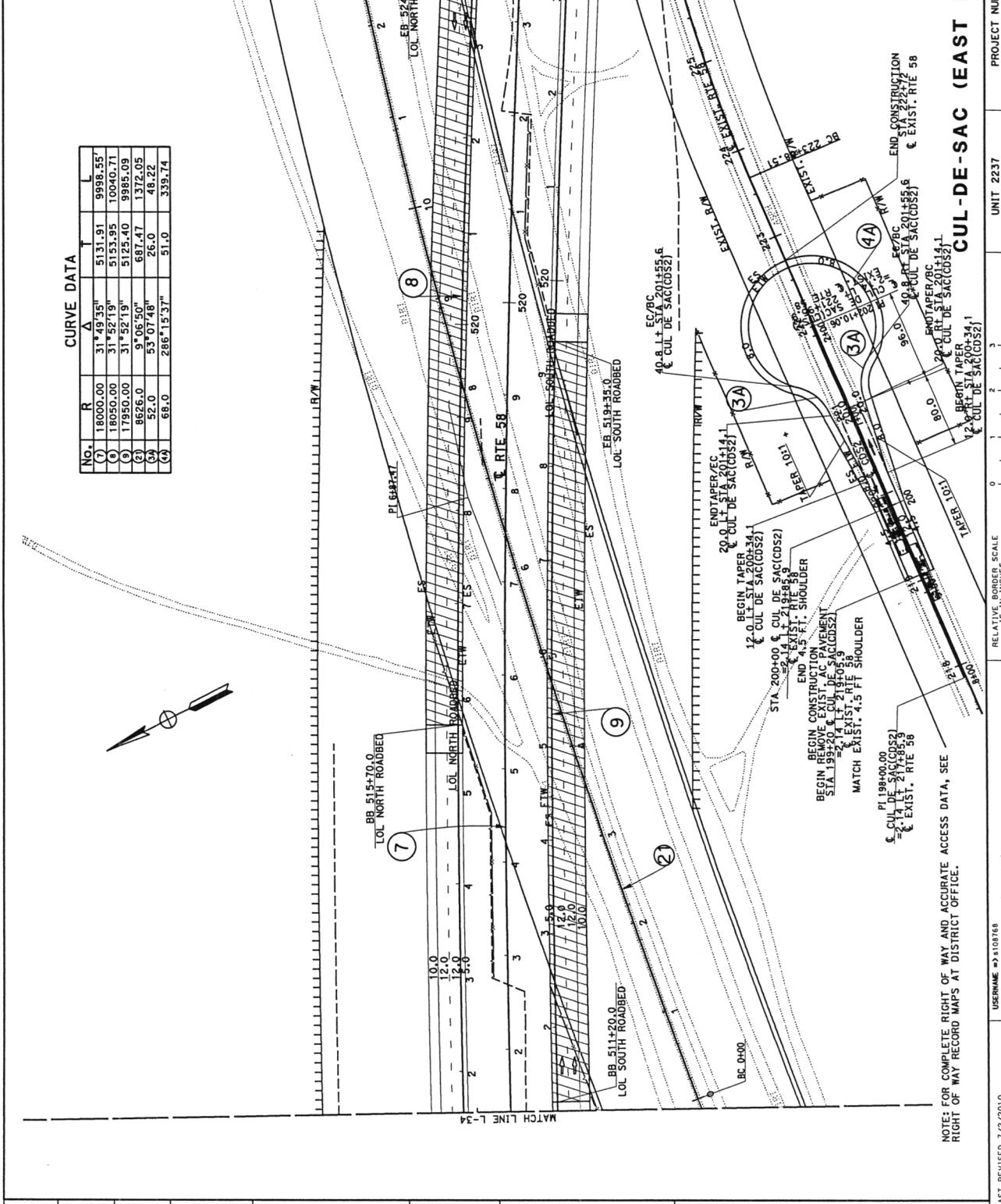
**CURVE DATA**

NO.	R	Δ	T	L
(1)	18000.00	31°49'35"	5131.91	9988.55'
(2)	18050.00	31°52'19"	5153.95	10040.71
(3)	17950.00	31°52'19"	5125.40	9985.09
(4)	8626.0	31°05'50"	681.47	1372.05
(5)	32.0	53°07'48"	26.0	48.22
(6)	58.0	286°15'37"	51.0	339.74

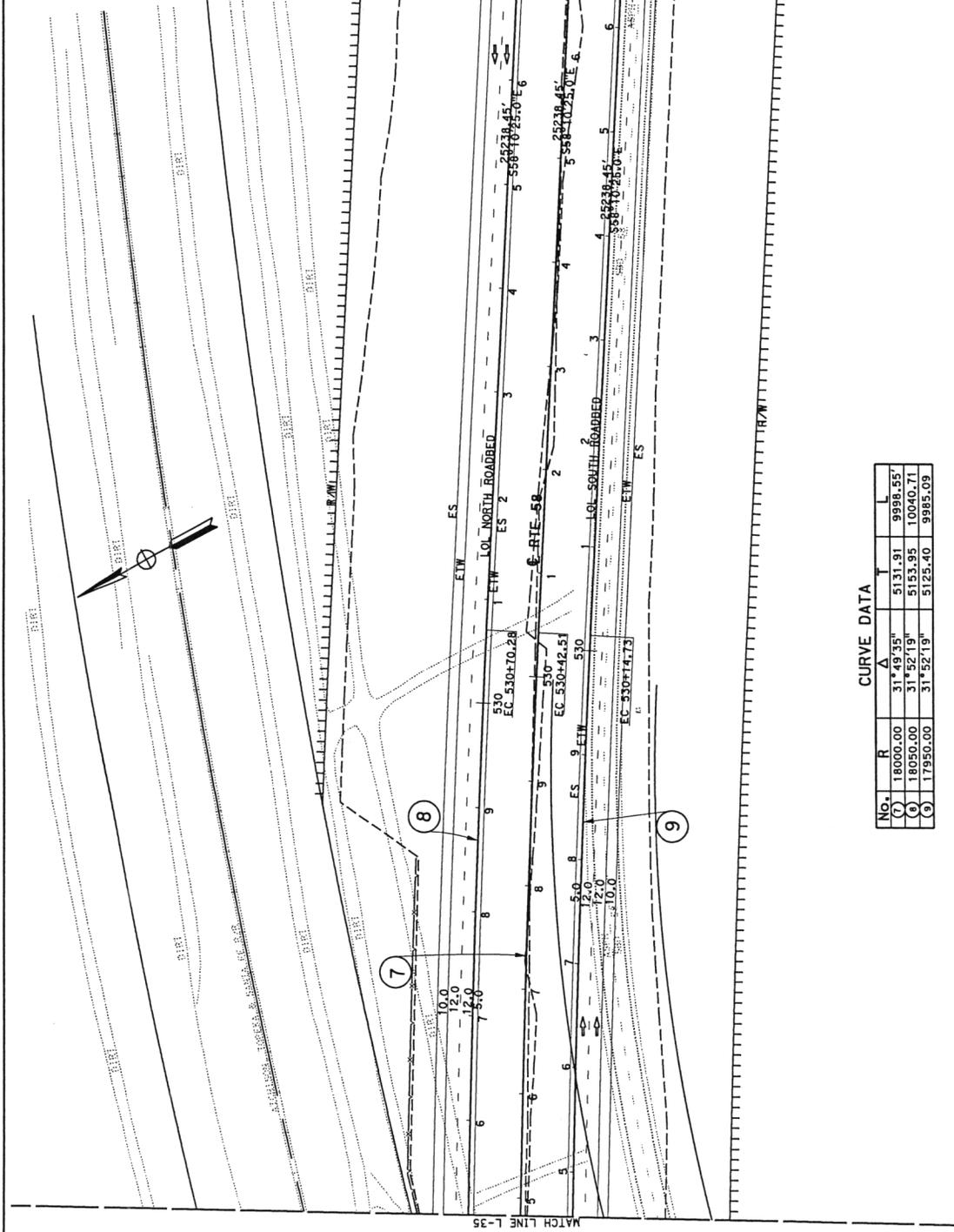
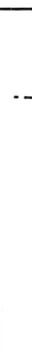
DIST COUNTY ROUTE POST MILES SHEET TOTAL  
 08 KBT 58 143.5/143.9 NO. SHEETS  
 RO.0/R12.9

REGISTERED CIVIL ENGINEER DATE  
 DAI HOANG  
 No. C64203  
 Exp. 03-15

PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS  
 OR AGENTS SHALL NOT BE RESPONSIBLE FOR  
 COPIES OF THIS PLAN SHEET.



DIST COUNTY ROUTE POST MILES SHEET TOTAL  
 08 SB4 58 10.7/12.9 11.0/12.9  
 REGISTERED CIVIL ENGINEER DATE  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS  
 TAKE NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF SCANNED  
 COPIES OF THIS PLAN SHEET.



RELATIVE BORDER SCALE  
1" = 15' IN INCHES

No.	R	Δ	T	L
(1)	18000.00	31° 49' 35"	5131.91	9998.55'
(2)	18050.00	31° 52' 19"	5153.95	10040.71
(3)	17950.00	31° 52' 19"	5125.40	9965.09

LAYOUT  
SCALE: 1" = 50'

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR
DAI HOANG	CRESCENCIO GARCIA	DATE REVISED	
SERGIO E. AVILA	CHECKED BY		

DIST	COUNTY	ROUTE	POST MILES	SHEET TOTAL
08	Kern	58	143.5/143.9	NO. SHEETS
		SBD	RO.0/R12.9	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

DESIGNED BY

CHECKED BY

DATE REVISED

REVISOR

PROFESSIONAL ENGINEER

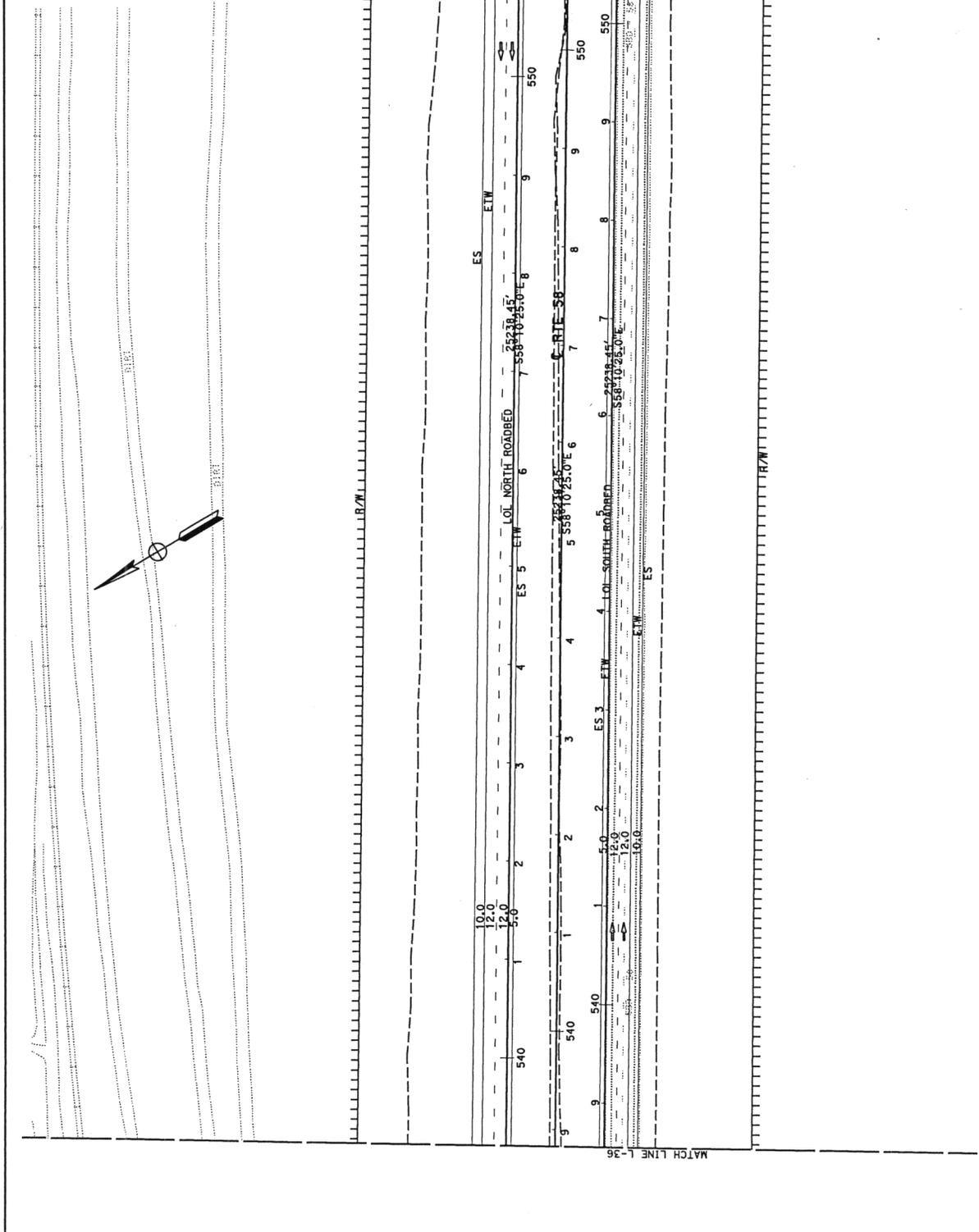
DAI HOANG

NO. CG4203

EXPIRES 06-30-15

CIVIL

MEMBER OF CALIFORNIA SOCIETY OF CIVIL ENGINEERS



LAYOUT

SCALE: 1" = 50'

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	DAI HOANG	REVISOR	
	SERGIO E. AYLA	CHECKED BY	CRESCENCIO GARCIA	DATE REVISED	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**California** PROJECT DEVELOPMENT

FUNCTIONAL SUPERVISOR  
 SERGIO E. AYALA

CHECKED BY  
 CRESCENCIO GARCIA

DATE REVISID  
 REVISID BY

REGISTERED CIVIL ENGINEER  
 DAI HOANG

PLANS APPROVAL DATE  
 REGISTERED CIVIL ENGINEER DATE

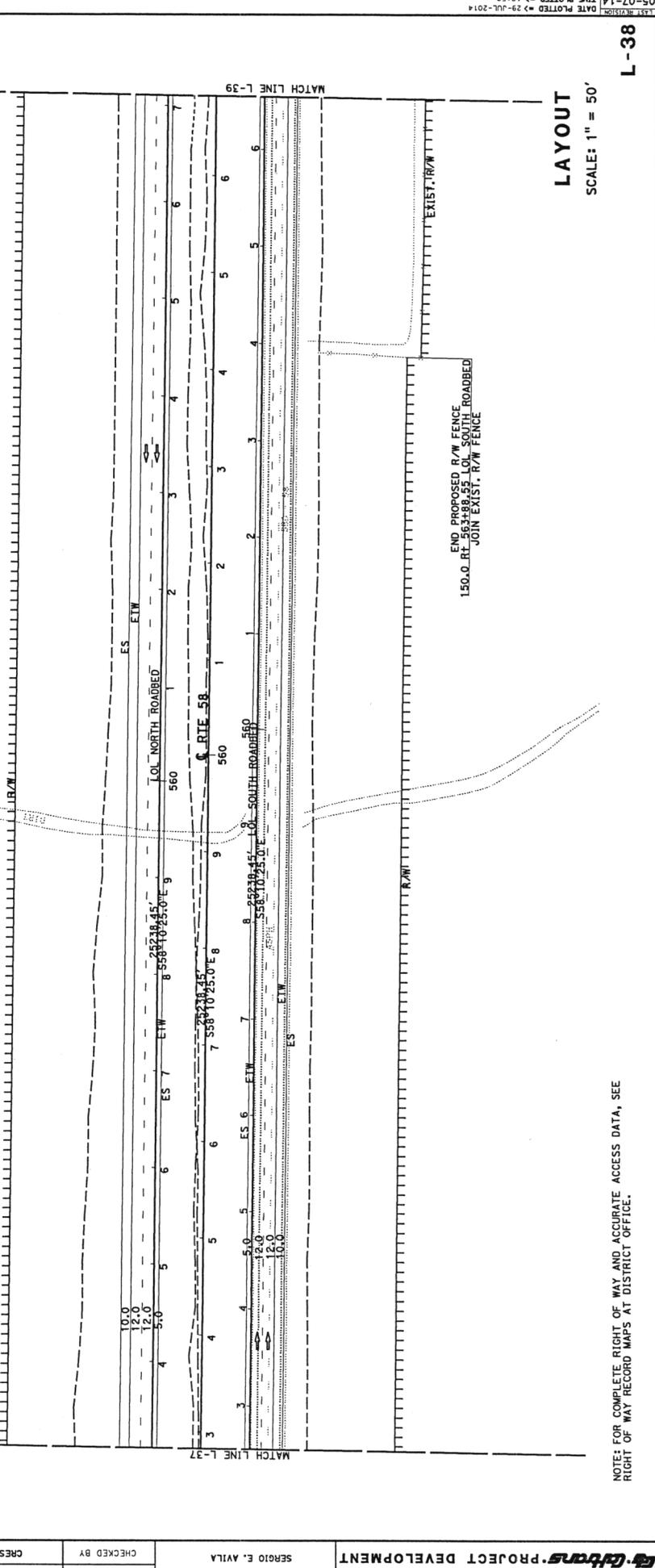
ROUTE 58  
 COUNTY KBT  
 DISTRICT 08

POST MILEAGE  
 143.57143.9  
 TO 143.57143.9

ROUTE 58  
 COUNTY KBT  
 DISTRICT 08

REGISTERED CIVIL ENGINEER  
 DAI HOANG  
 No. C61203  
 Exp. 06-30-15

THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION  
 AND AREAS SHALL NOT BE RESPONSIBLE FOR  
 THE ACCURACY OF THIS PLAN SHEET.  
 COPIES OF THIS PLAN SHEET.



**LAYOUT**  
 SCALE: 1" = 50'

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

L-38

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 FUNCTIONAL SUPERVISOR

DESIGNED BY  
 DAI HOANG

CHECKED BY  
 CRESCENCIO GARCIA

DATE REVISIONS

PROJECT MILES  
 143.5/143.9

ROUTE  
 58

COUNTY  
 SBD

REGISTERED CIVIL ENGINEER  
 DAI HOANG

PLANS APPROVAL DATE  
 06/20/15

PROFESSIONAL ENGINEER  
 No. CG4203

MEMBER OF CALIFORNIA SOCIETY OF CIVIL ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF PROFESSIONAL ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF TRANSPORTATION ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF HIGHWAY ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF WATER RESOURCES ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF ENVIRONMENTAL ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF ELECTRICAL ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF MECHANICAL ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF CHEMICAL ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF INDUSTRIAL ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF METALLURGICAL ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF AERONAUTICAL ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF AGRICULTURAL ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF FOOD ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF TEXTILE ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF LEATHER ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF PAPER ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF PETROLEUM ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF MINING ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF METALS ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF CERAMIC ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF POLYMER ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF PLASTIC ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF RUBBER ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF GLASS ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF OPTICAL ENGINEERS

MEMBER OF CALIFORNIA SOCIETY OF ELECTRONIC ENGINEERS

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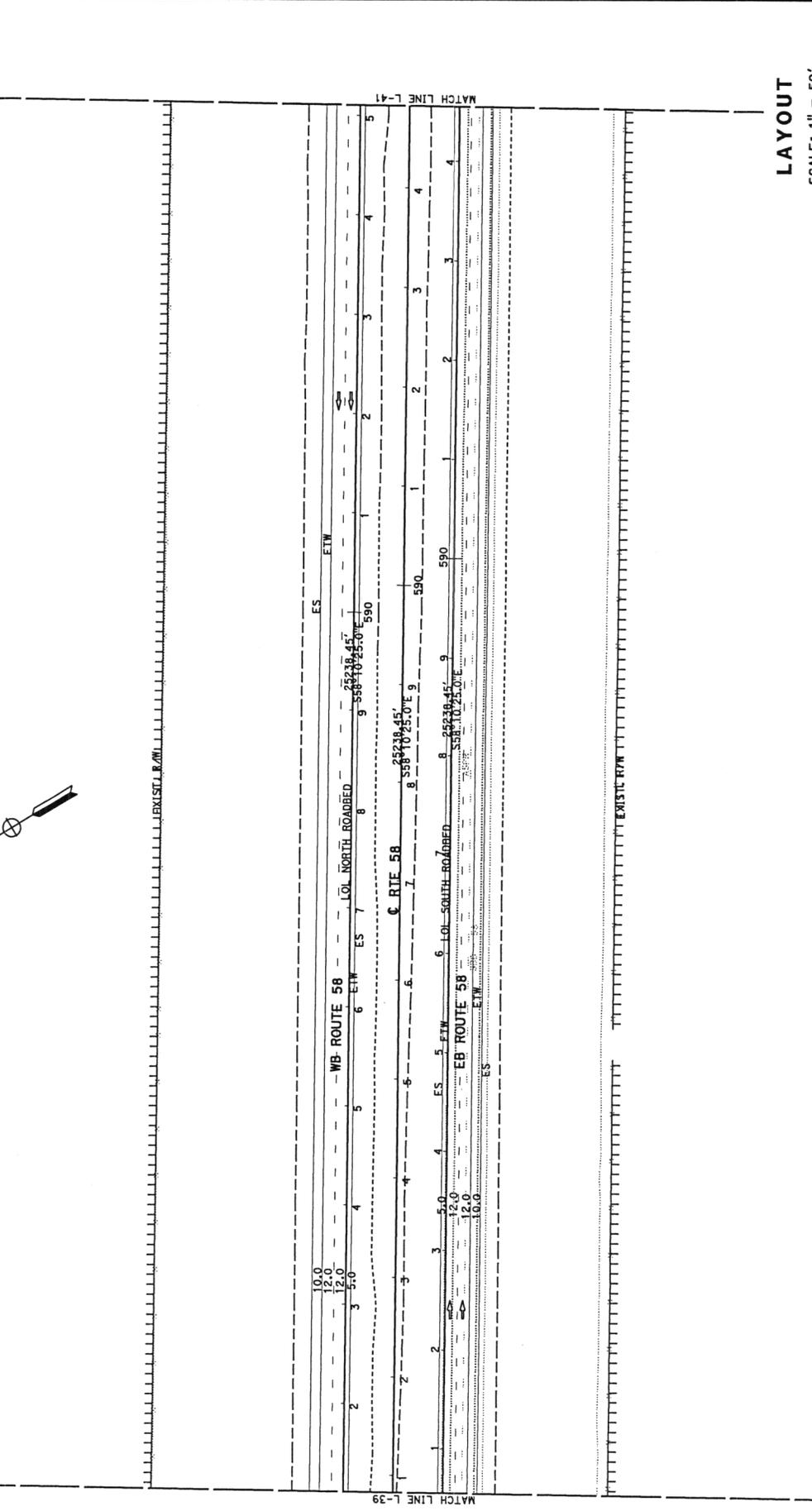
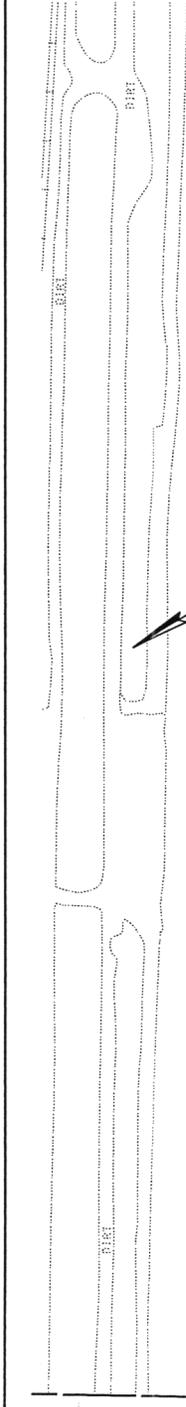
08

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08

08

PROJECT NO.	08	COUNTY	KBT	ROUTE	58	POST MILES	143.5/143.9	SHEET TOTAL	143
			SBD				R0.0/R12.9	NO. SHEETS	143
REGISTERED CIVIL ENGINEER DATE									
									
PLANS APPROVAL DATE									
I, <b>DAL HOANG</b> , LICENSE NO. <b>CG4203</b> , REGISTERED CIVIL ENGINEER, HEREBY CERTIFY THAT THE ABOVE PLANS WERE PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND I AM AWARE OF ALL THE REQUIREMENTS OF THE CALIFORNIA PROFESSIONAL ENGINEERING ACTS. I SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS OF THIS PLAN UNLESS I HAVE BEEN ADVISED IN WRITING BY THE CLIENT.									



**LAYOUT**  
SCALE: 1" = 50'

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

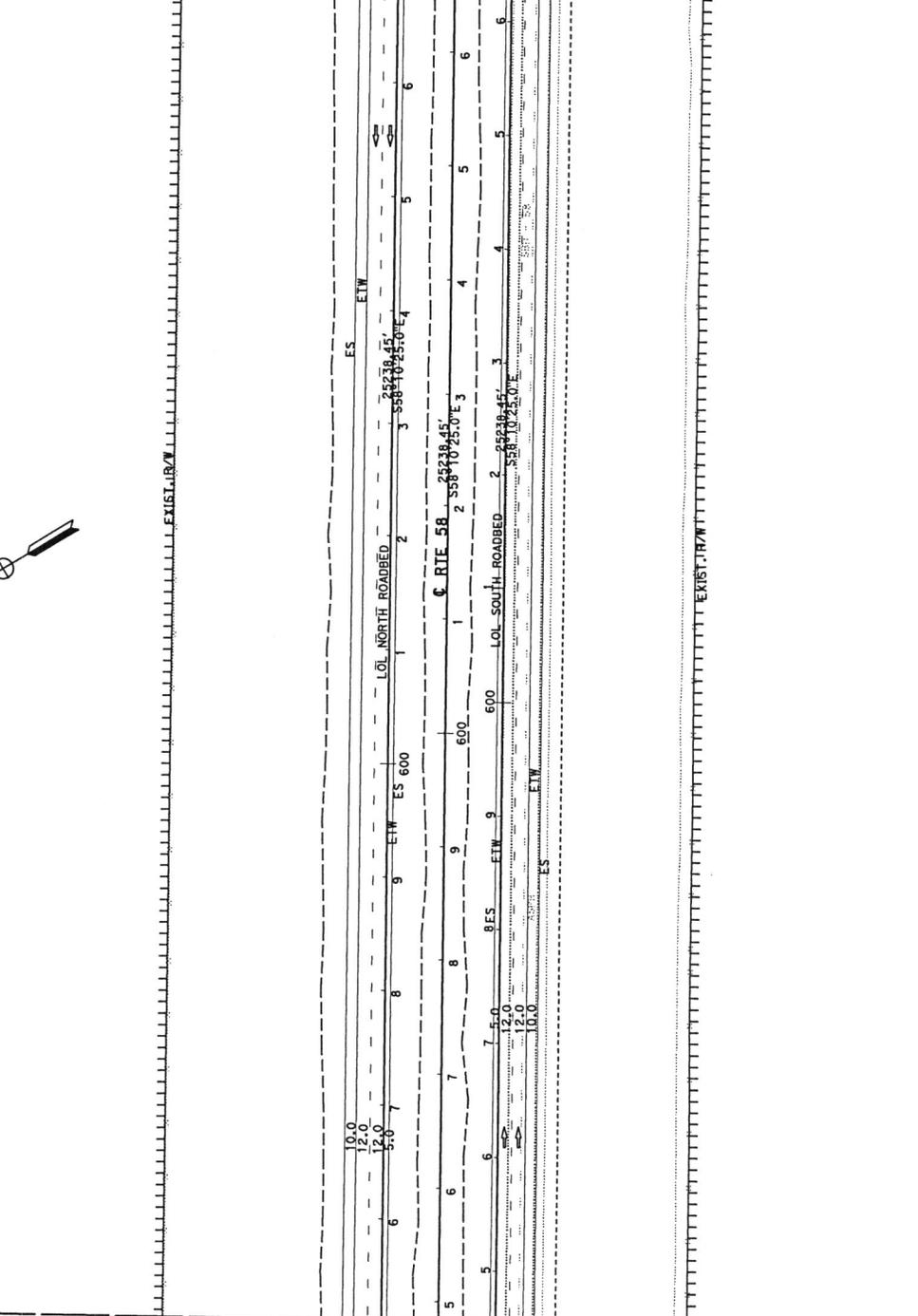
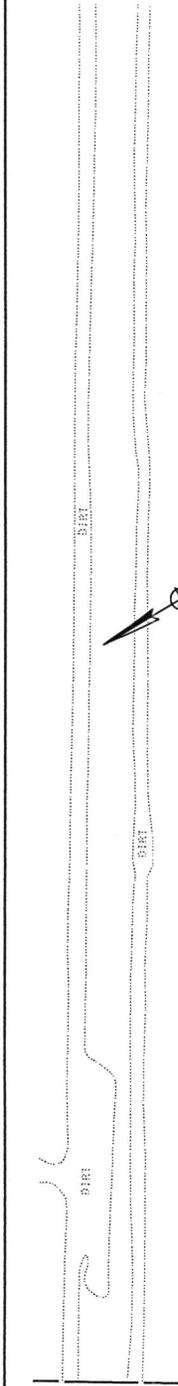
**L-40**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	DAI HOANG	REVISOR	
CS-TRANS-PROJECT DEVELOPMENT	SERGIO E. AVILA	CHECKED BY	CRESCENCIO GARCIA	DATE REVISOR	
		CALCULATED BY			

Dist	County	Route	Post Miles	Sheet	Total
08	SBD	58	143.5/143.9	143	143
			RO.0/R12.9	NSI	SHEETS



REGISTERED CIVIL ENGINEER DATE  
 PLANS APPROVAL DATE  
 THE ENGINEER SHALL BE RESPONSIBLE FOR THE ACCURACY OF ALL DIMENSIONS AND LOCATIONS OF ALL UTILITIES SHOWN HEREON.



LAYOUT  
 SCALE: 1" = 50'

L-41

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	SERGIO E. AVILA	CHECKED BY	CRESCENCIO GARCIA	DATE REVISED	REVISOR	DAI HOANG
CALCULATED BY		DESIGNED BY		DATE REVISED		REVISOR	

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



DATE PLOTTED	29-JUL-2014
TIME PLOTTED	12:56
LAST REVISION	

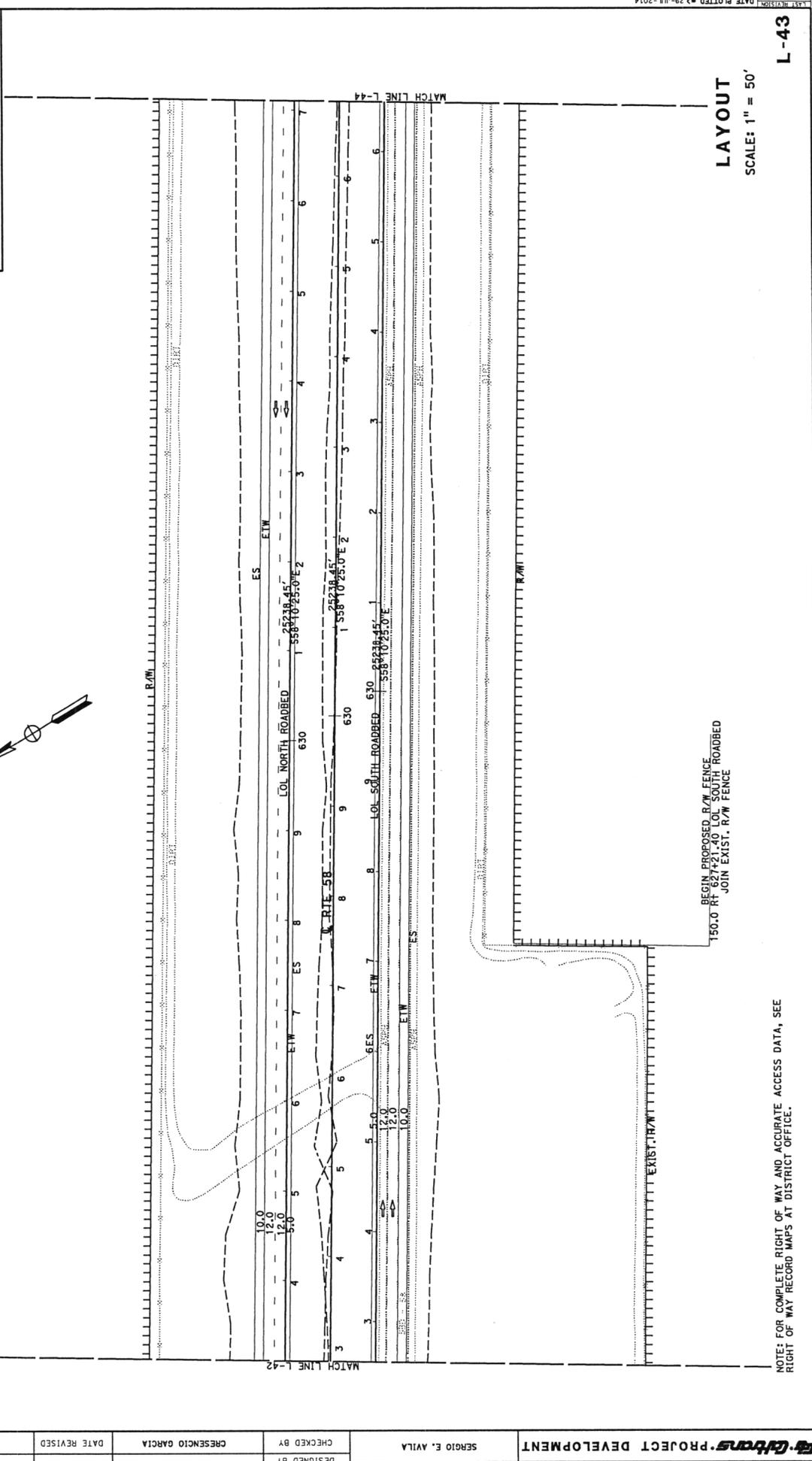
DATE	REGISTERED CIVIL ENGINEER
PROJECT NO.	08
ROUTE	58
COUNTY	KB
SHEET NO.	58
TOTAL SHEETS	143
PROJECT NO.	08
ROUTE	58
COUNTY	KB
SHEET NO.	58
TOTAL SHEETS	143

REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR COPIES OF THIS PLAN SHEET.



BEGIN PROPOSED R/W FENCE  
150.0 FT 627+21.40 LOL SOUTH ROADBED  
JOIN EXIST. R/W FENCE

**LAYOUT**  
SCALE: 1" = 50'

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

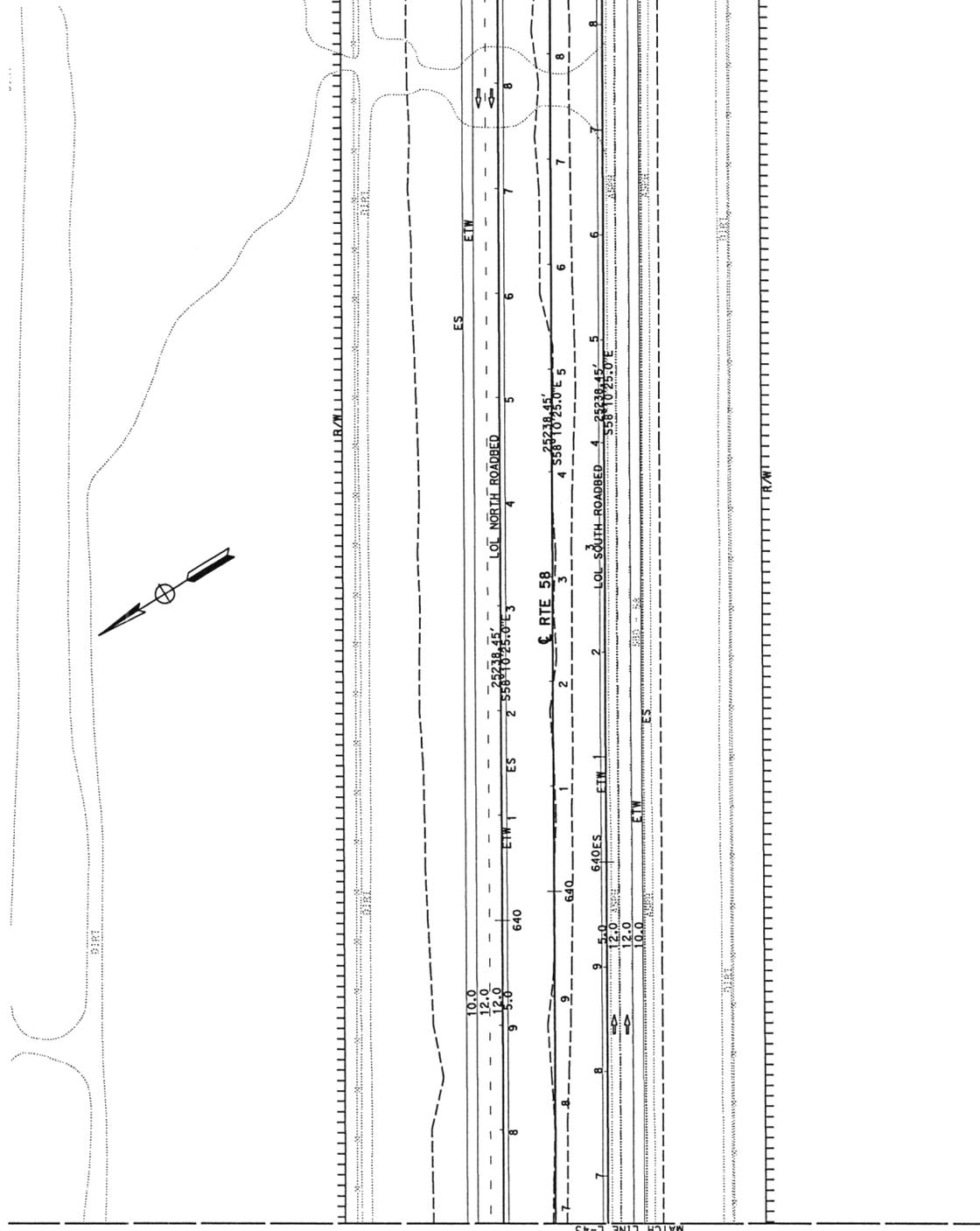
**L-43**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	DAI HOANG	REVISOR	
California PROJECT DEVELOPMENT	SERGIO E. AVILA	CHECKED BY	CRESCENCIO GARCIA	DATE REVISED	

Dist#	08	County	KeP	Route	58	Dist. Miles	143.5/143.9	SHEET TOTAL	14
			SPD				RO.0/R12.9	NO. OF SHEETS	14

REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_  
 FILE NO. APPROVAL DATE \_\_\_\_\_  
**DAI HOANG**  
 No. C66203  
 CIVIL  
 PROFESSIONAL ENGINEER

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR ERRORS OR OMISSIONS UNLESS IT IS PROVEN BY THE COURT THAT THIS PLAN SHEET WAS NOT CORRECTLY PREPARED OR CHECKED.



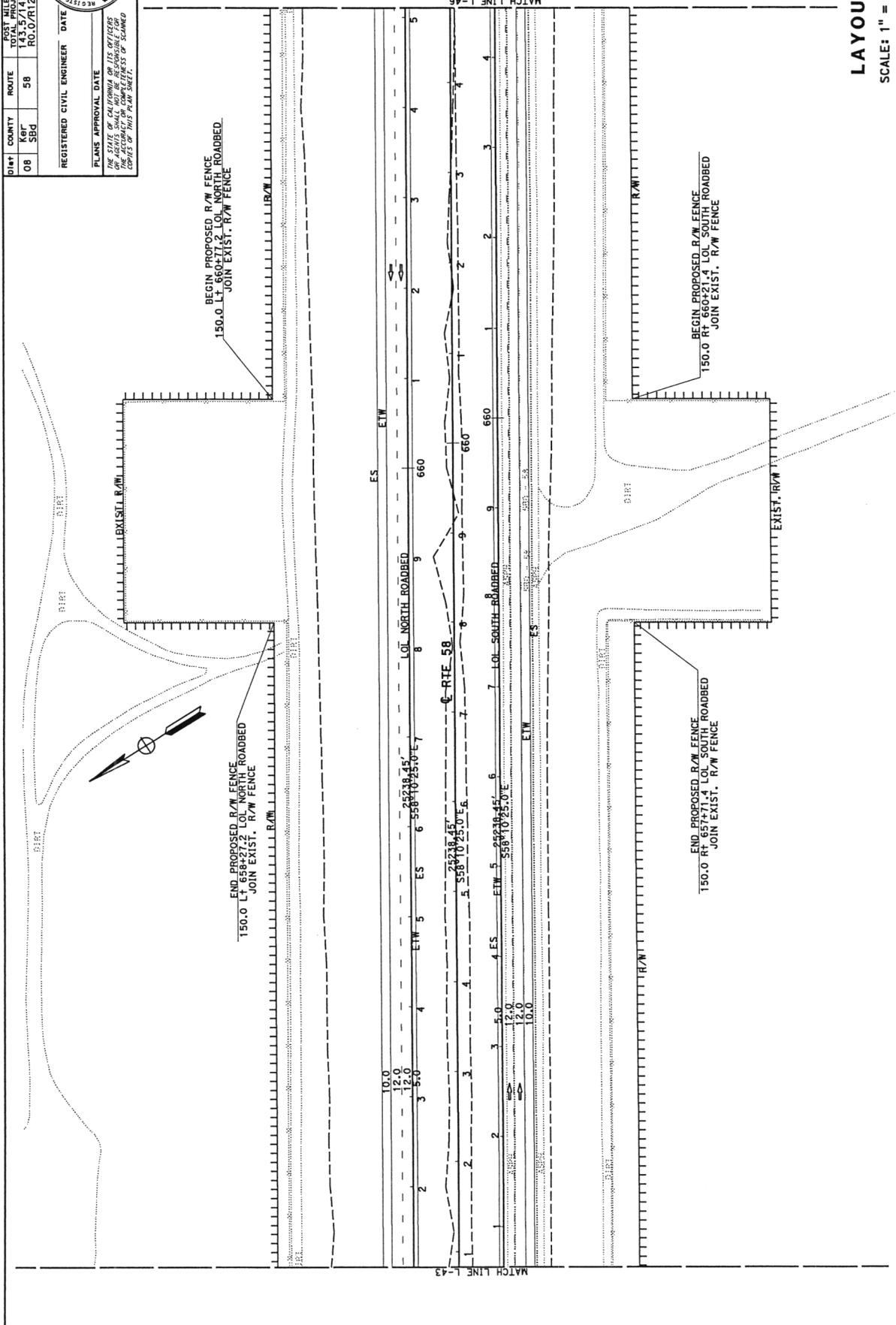
**LAYOUT**  
 SCALE: 1" = 50'

NOTES FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DAI HOANG	REVISOR	DATE
SRGIO E. AVILA	CHECKED BY	CRESENCIO GARCIA	DATE	REVISOR
	DESIGNED BY			
	CALCULATED BY			

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	DAI HOANG	REVISOR	DATE
CDOT	SERGIO E. AYLA	CHECKED BY	CRESENCIO GARCIA	DATE	REVISOR

NOTES: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



**LAYOUT**  
SCALE: 1" = 50'

DIST	COUNTY	ROUTE	POST MILES	SHEET TOTAL
08	Kern	58	143.5/143.9	NO. SHEETS
	SBD		RO.0/R12.9	

REGISTERED CIVIL ENGINEER DATE

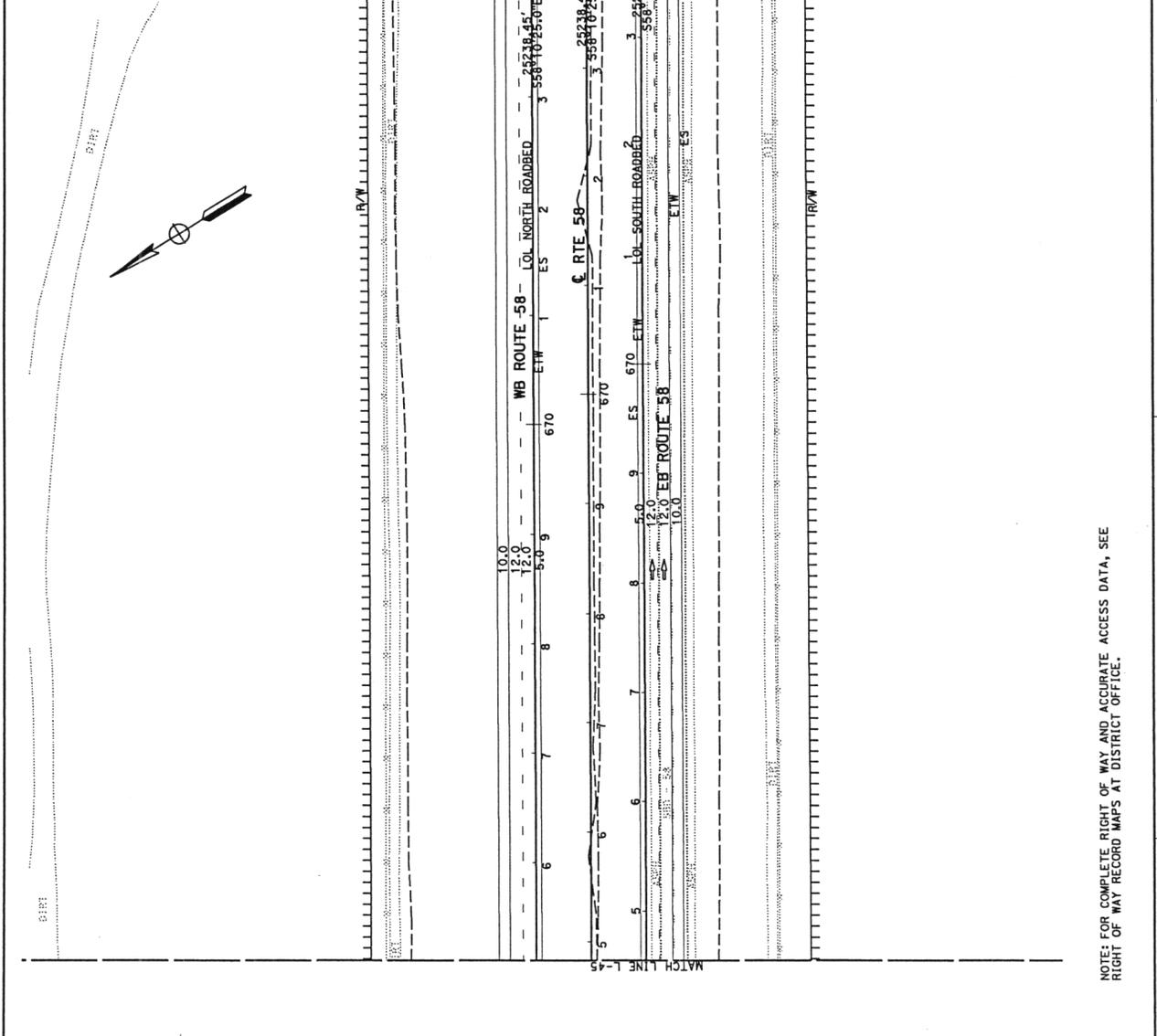
PLANS APPROVAL DATE

**DAI HOANG**  
No. C64203  
Exp. E-30-19

REGISTERED PROFESSIONAL ENGINEER  
CIVIL  
No. 68426  
Exp. E-30-19

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR COPIES OF THIS PLAN SHEET.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	SRGIO E. AVILA
DESIGNED BY	CHECKED BY	CRESCENCIO GARCIA
REVISOR BY	DATE REVISOR	



Dist#	COUNTY	ROUTE	POST MILES	SHEET TOTAL
08	Ker	58	143.5/143.9	143.5/143.9
	SBD		RG.0/R12.9	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

DESIGNED BY: DAI HOANG No. C64203

REGISTERED PROFESSIONAL ENGINEER CIVIL No. C64203

DATE: 07/22/2010

SCALE: 1" = 50'

LAYOUT

SCALE: 1" = 50'

NOTES: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

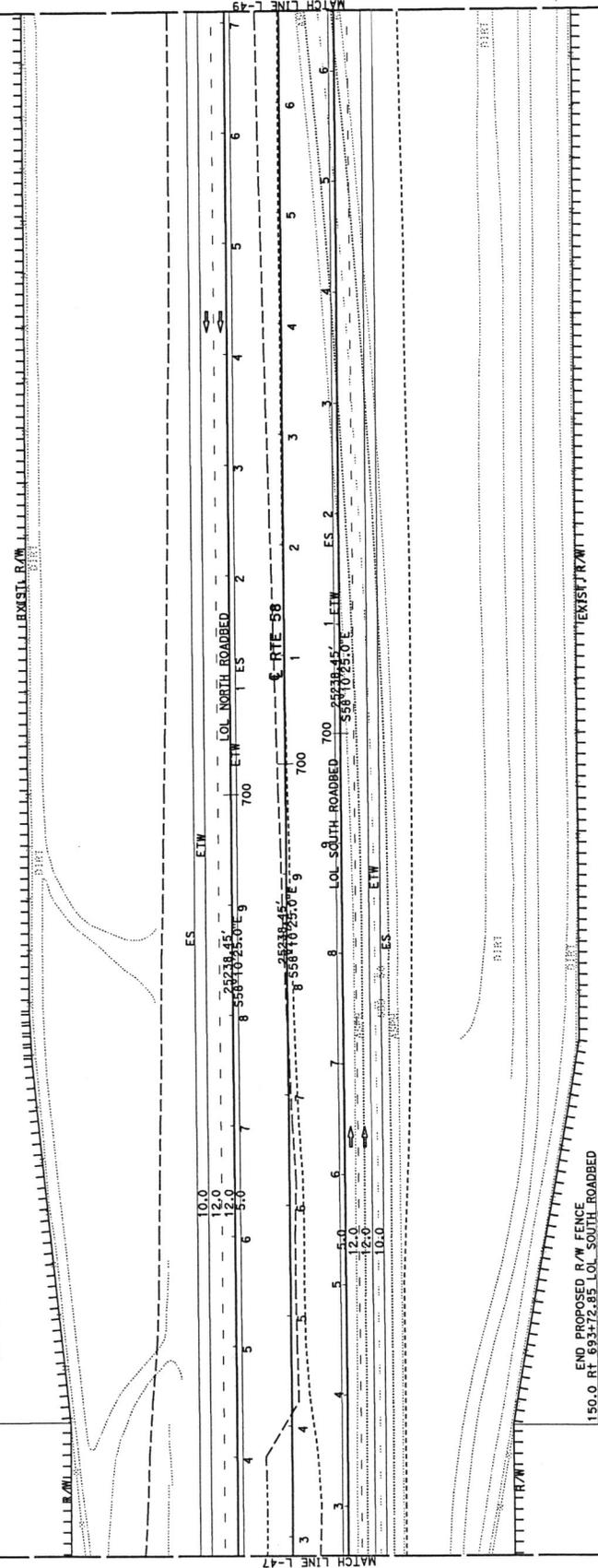


Dist#	08	County	Keir	Route	58	Total Miles	143.5/143.9	Total Sheets	143.5/143.9
City	SBD	Registered Civil Engineer		Date	RO.0/R12.9	SHEET TOTAL			
REGISTERED CIVIL ENGINEER <b>DAI HOANG</b> No. C64203 Exp. 6-30-15 PROFESSIONAL ENGINEER CIVIL						PLANE APPROVAL DATE THIS PLAN IS THE PROPERTY OF THE OFFICE AND SHALL NOT BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF THE OFFICE			



END PROPOSED R/W FENCE  
 150.0 FT. SOUTH R/W FENCE  
 JOIN EXIST. R/W FENCE

END PROPOSED R/W FENCE  
 150.0 FT. NORTH R/W FENCE  
 JOIN EXIST. R/W FENCE



**LAYOUT**  
 SCALE: 1" = 50'

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE  
 RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	SENARIO E. AVILA	CHECKED BY	CRENSANCIO GARCIA	DATE REVISED	
	DESIGNED BY	DAI HOANG	REVISID BY			

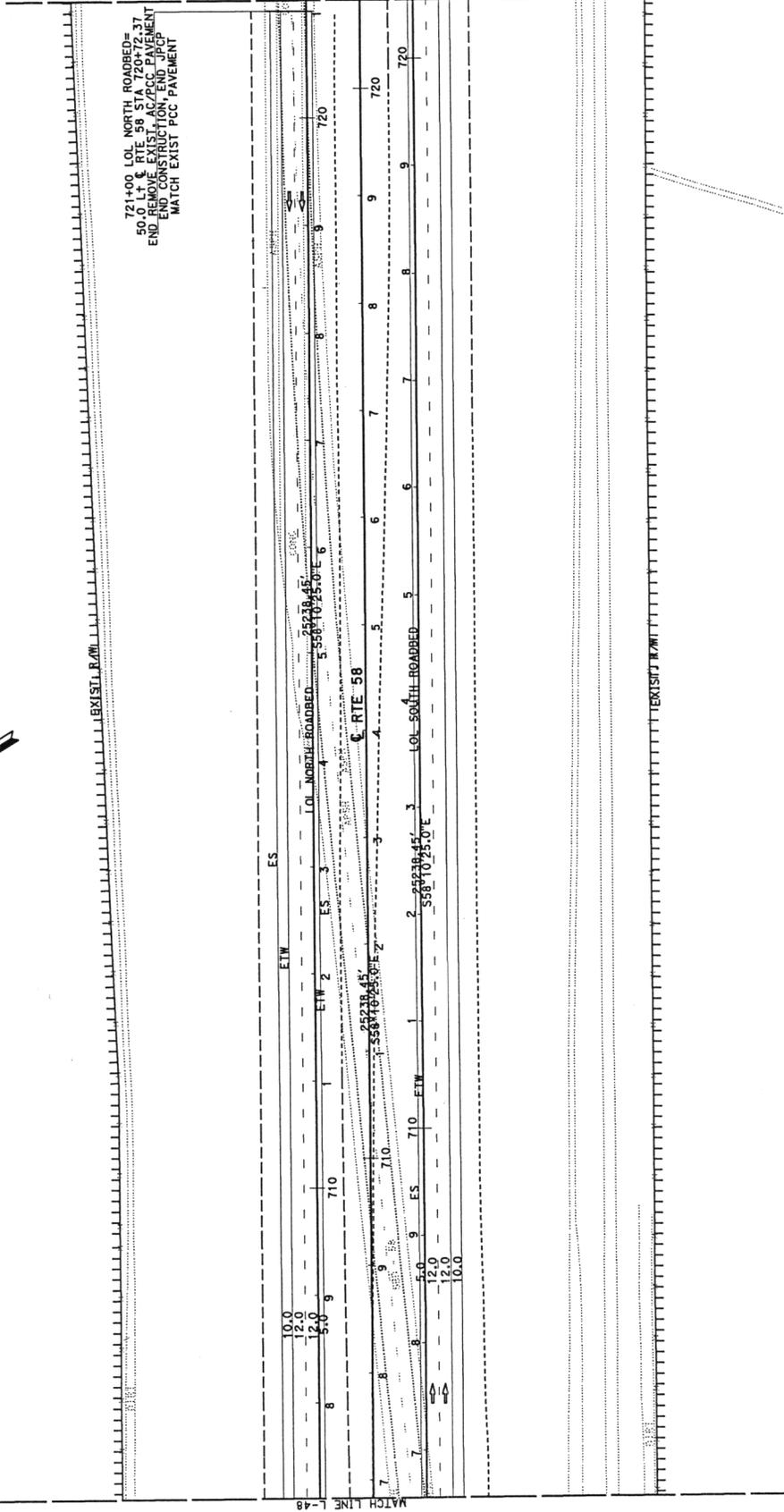
Dist#	COUNTY	ROUTE	SHEET NUMBER	TOTAL SHEETS
08	San Bernardino	58	143	143
			PROJECT SHEET NO.	PROJECT SHEETS
			143	143
			DATE PLOTTED	29-JUL-2014
			TIME PLOTTED	13:15

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

**DAI HOANG**  
No. 664203  
Exp. 12/31/15

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS OF THIS PLAN SHEET.



721+00 LOI NORTH ROABBED=  
50' WIDE STA 720+72.37  
END REMOVE EXIST. AG/PCC PAVEMENT  
END CONSTRUCTION, END JPCP  
MATCH EXIST PCC PAVEMENT

**LAYOUT**  
SCALE: 1" = 50'

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	DATE REVISD
<b>Caltrans</b> PROJECT DEVELOPMENT	SERGIO E. AVILA	DAI HOANG	
		CHECKED BY	DATE REVISD
		CRESCENCIO GARCIA	



DIR#	COUNTY	ROUTE	SHEET TOTAL	SHEET TOTAL
08	Ker SBD	58	143.5/143.9	NO. SHEETS
			RO.0/R12.9	

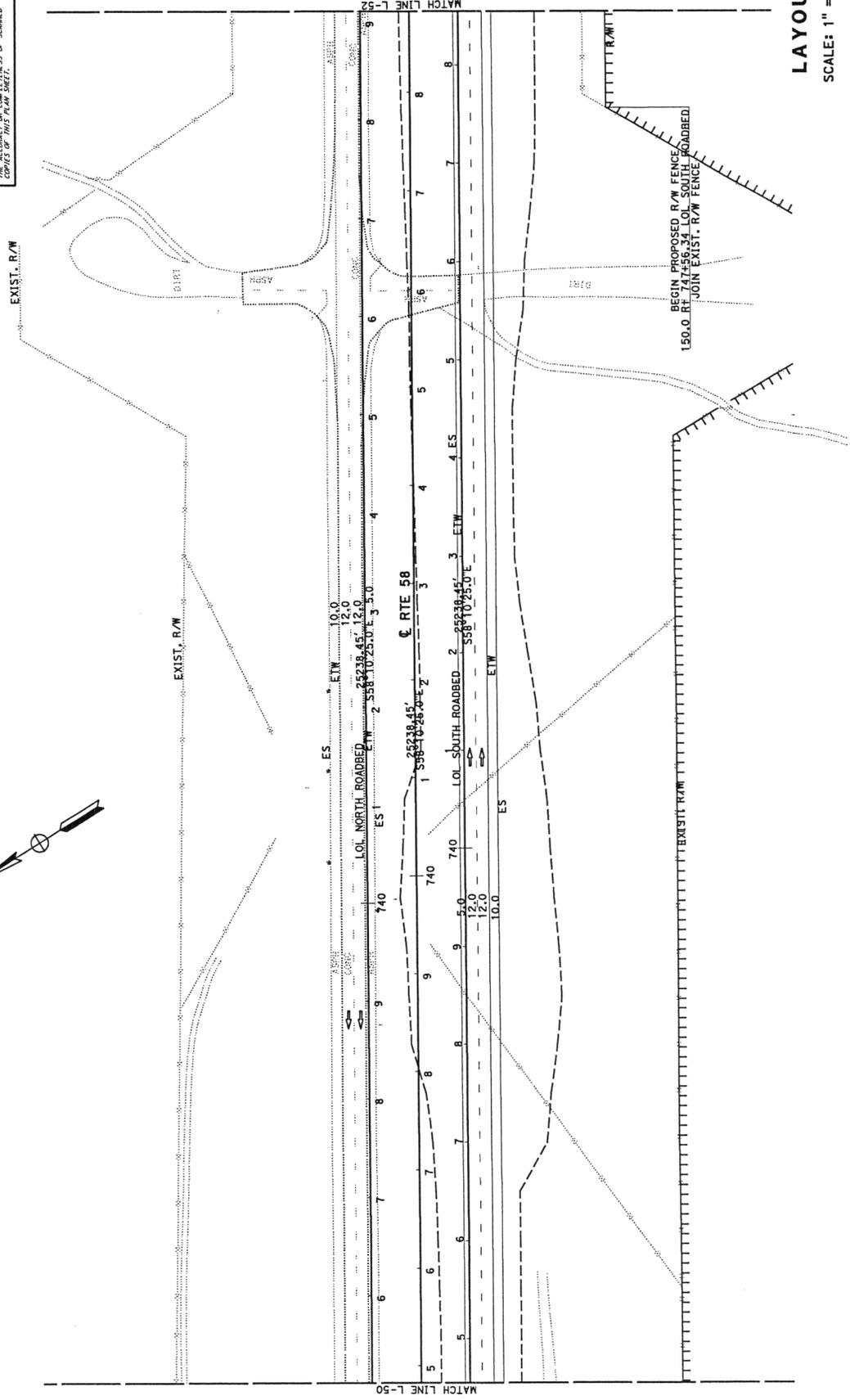
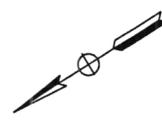
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

**DAL HOANG**  
No. C64203  
Exp. 12-13

PROFESSIONAL ENGINEER  
STATE OF CALIFORNIA  
REGISTERED CIVIL ENGINEER

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR ERRORS OR OMISSIONS OR FOR THE CONSEQUENCES OF SUCH ERRORS OR OMISSIONS OF THIS PLAN SHEET.



BEGIN PROPOSED R/W FENCE  
150.0 RE 747+56.34 LOL SOUTH ROADBED  
JOIN EXIST. R/W FENCE

**LAYOUT**  
SCALE: 1" = 50'

NOTES: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR	DATE REVISOR
DAI HOANG	DAI HOANG	DAI HOANG	DAI HOANG	DAI HOANG
FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR	DATE REVISOR	DATE REVISOR
DAI HOANG	DAI HOANG	DAI HOANG	DAI HOANG	DAI HOANG
FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR	DATE REVISOR	DATE REVISOR
DAI HOANG	DAI HOANG	DAI HOANG	DAI HOANG	DAI HOANG

DIST	COUNTY	ROUTE	PROJECT TITLE	SHEET TOTAL
08	Ker	58	143.5/143.9	1 OF 1 SHEETS
	SBD		RD-0/R12.9	

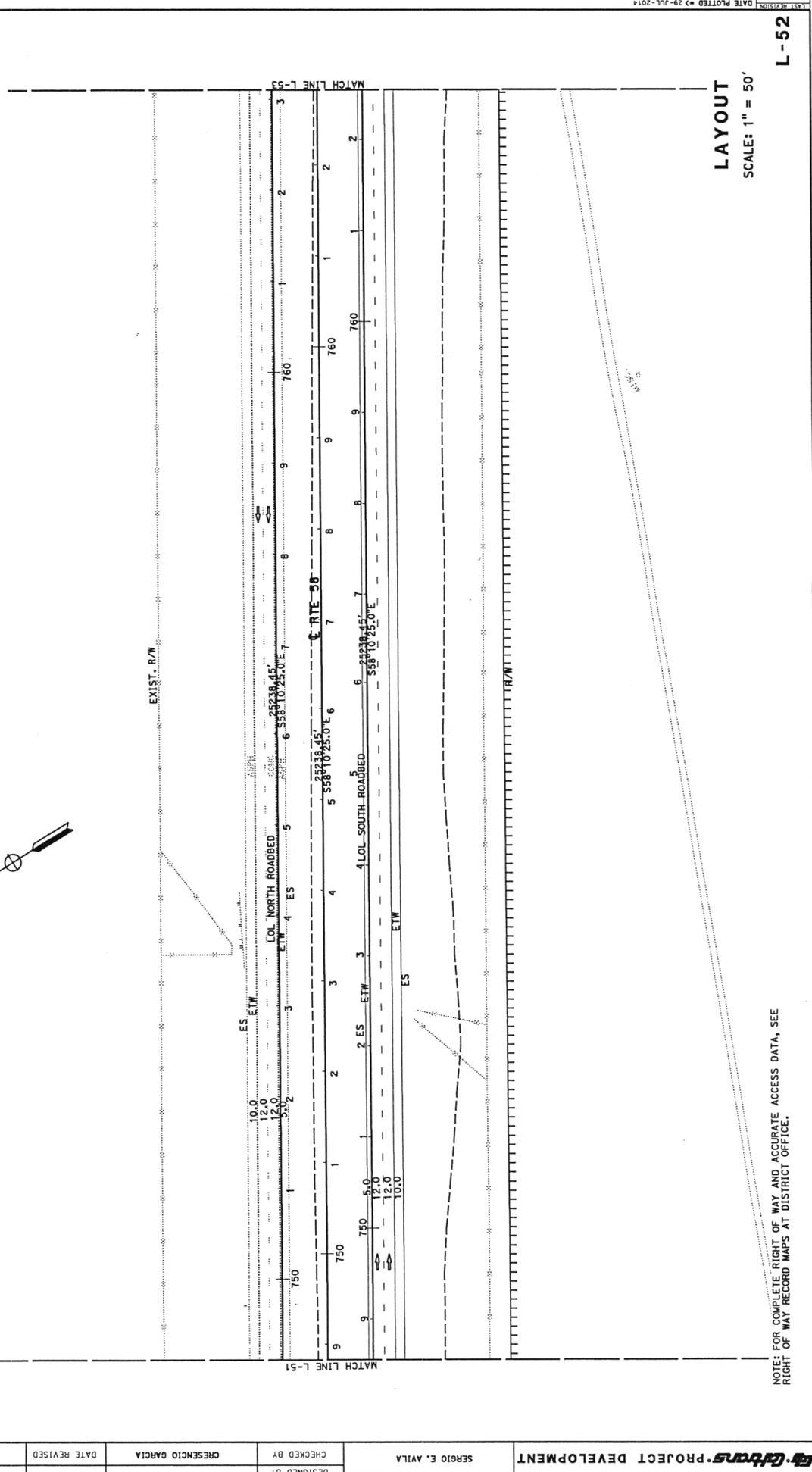
  

REGISTERED CIVIL ENGINEER	DATE

PLANS APPROVAL DATE	
REGISTERED CIVIL ENGINEER	DAI HOANG
PROFESSIONAL ENGINEER NO.	CG4203
EXPIRES	6-30-15

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR COPIES OF THIS PLAN SHEET.



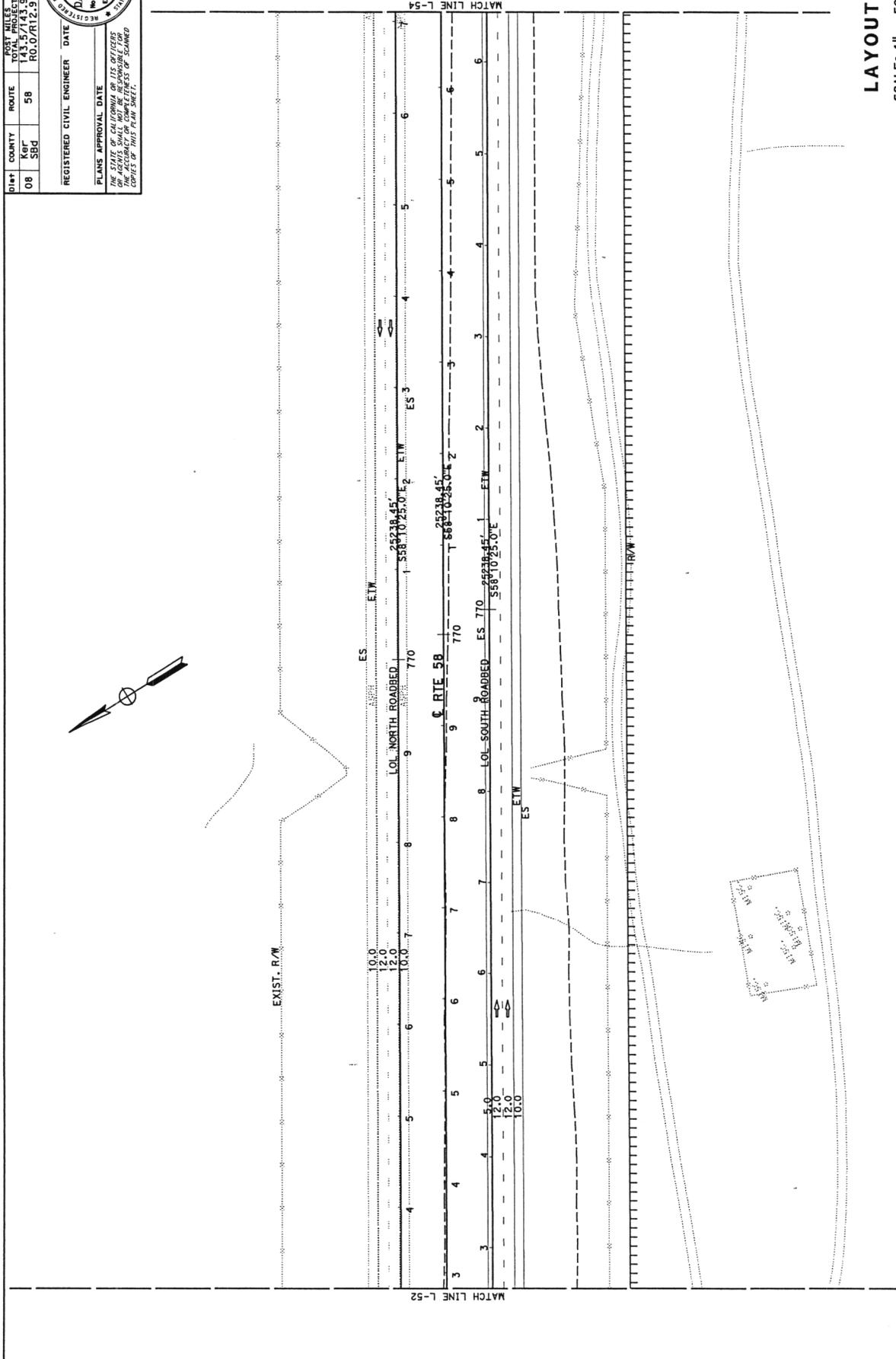
**LAYOUT**  
SCALE: 1" = 50'

NOTES: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	SERGIO E. AYLA
CALCULATED BY	CHECKED BY	CRESCENCIO GARCIA
DESIGNED BY	DATE REVISED	[ ]
REVISOR	REGISTERED CIVIL ENGINEER	DAI HOANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	SERGIO E. AYILA	CHECKED BY	CRESENCIO GARCIA	DATE REVISED	
	CALCULATED BY	DAI HOANG	DESIGNED BY	DAI HOANG	REVISOR	

NOTES: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



**LAYOUT**  
SCALE: 1" = 50'

L-53

Dist#	COUNTY	ROUTE	POST MILES	SHEET TOTAL
08	San	58	143.5/143.9	NO. SHEETS
	SSD		RG.0/R12.9	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

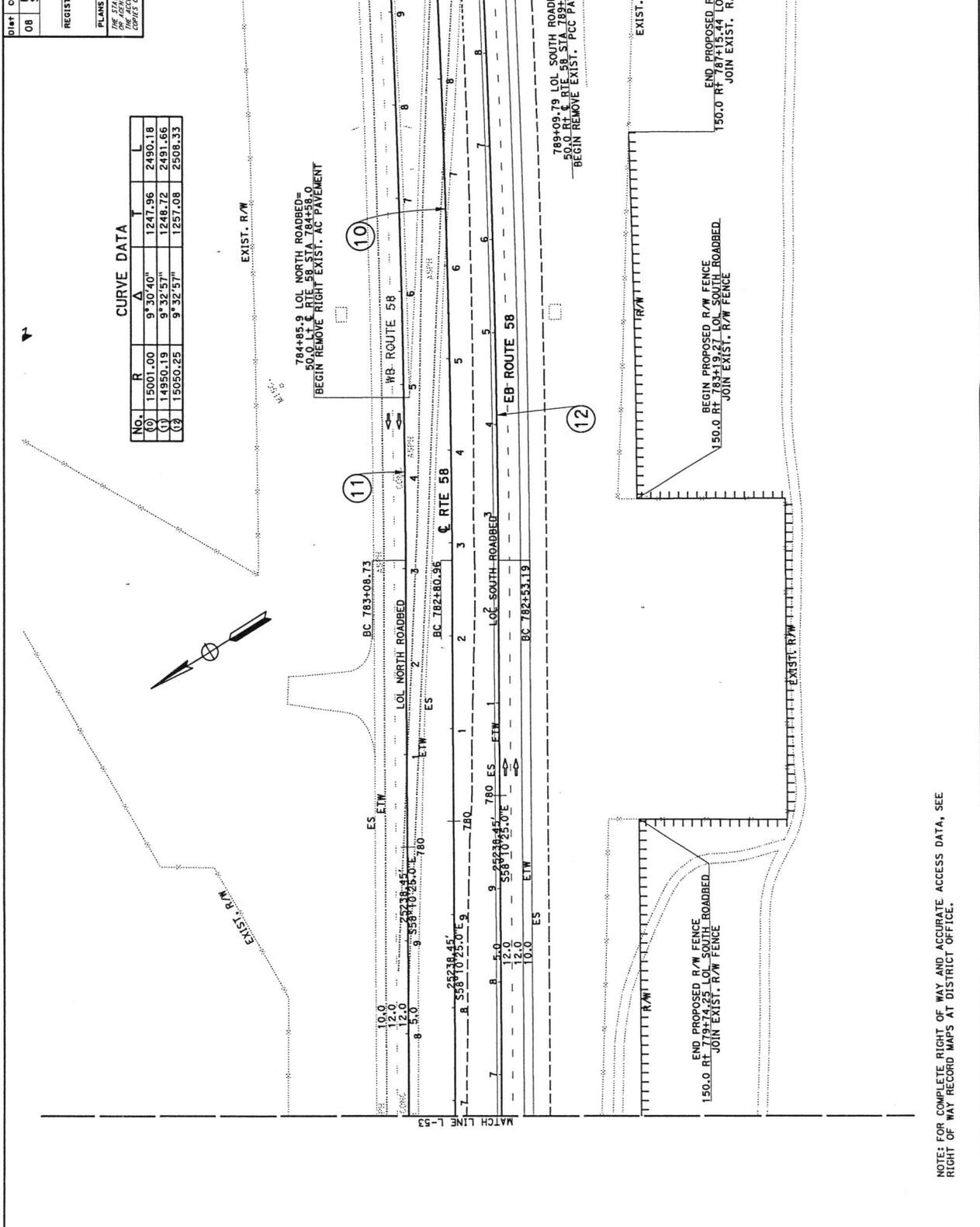
DAI HOANG No. C64203

PROFESSIONAL ENGINEER No. 6-30-15 CIVIL

THE AGENT SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	SERGIO E. AYLA	CHECKED BY	CRESCENCIO GARCIA	DATE REVISED
	DESIGNED BY	DAI HOANG	REVISOR		

No.	R	Δ	T	L
(10)	15001.00	9°30'40"	1247.96	2490.18
(11)	14950.19	9°32'57"	1248.72	2491.66
(12)	15050.25	9°32'57"	1257.08	2508.33



DISTRICT COUNTY ROUTE  
 08 Kern SBD 58  
 SHEET TOTAL SHEETS  
 143.5/143.9  
 PROJECT NO. RD. 0/R12.9  
 REGISTERED CIVIL ENGINEER DATE  
 DAI HOANG  
 No. 664203  
 No. 6-30-15  
 CIVIL  
 REGISTERED PROFESSIONAL ENGINEER  
 STATE OF CALIFORNIA  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR COPIES OF THIS PLAN SHEET.

**LAYOUT**  
 SCALE: 1" = 50'

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



DIST	COUNTY	ROUTE	FIRST TILES	SHEET TOTAL
08	San Bernardino	58	143.5/143.9	NO. OF SHEETS
			RO.0/R12.9	

REGISTERED CIVIL ENGINEER	DATE
DAI HOANG	

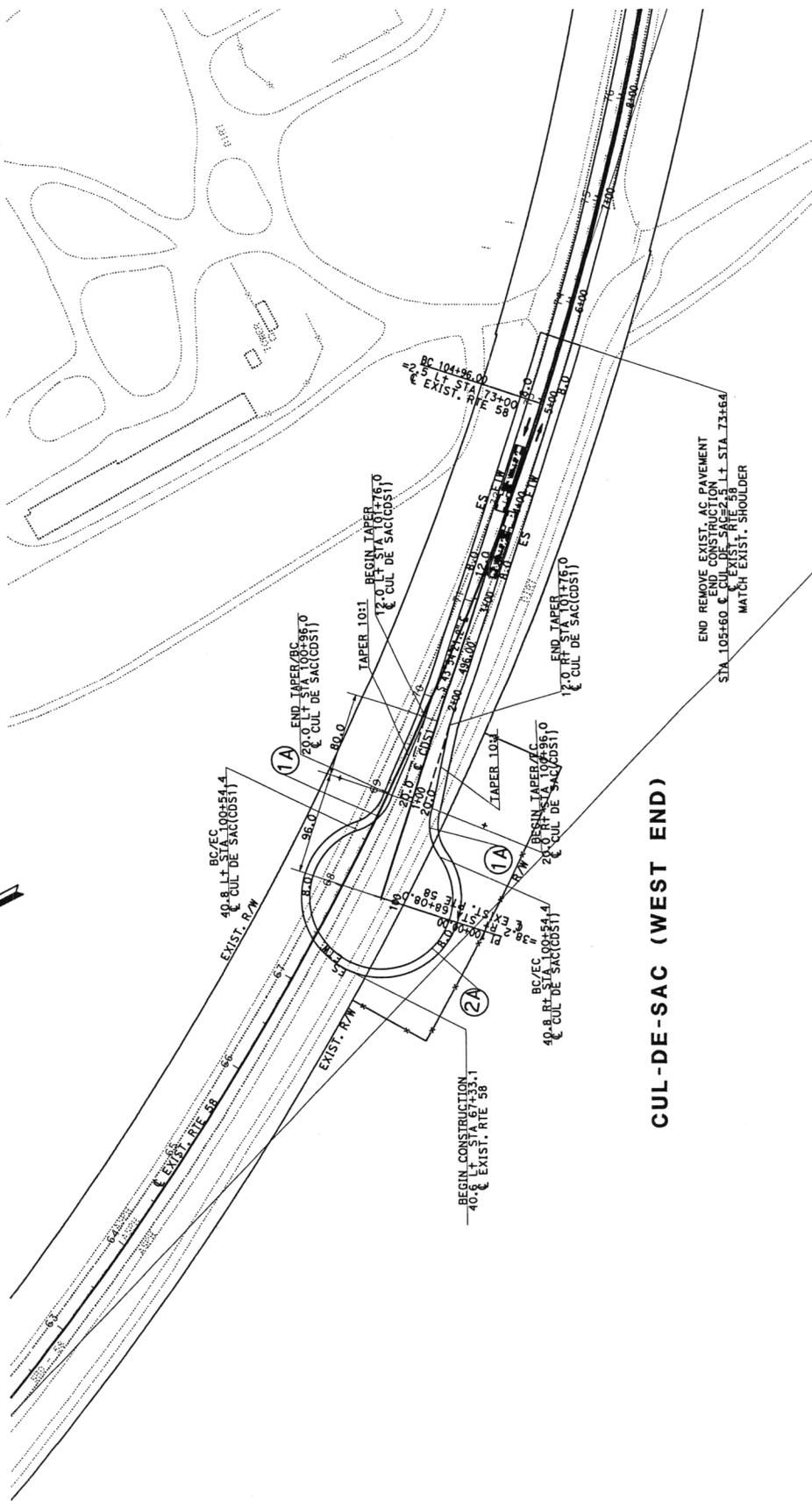
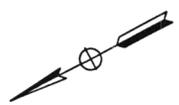
PLANS APPROVAL DATE	APPROVED BY
	DAI HOANG

PROFESSIONAL ENGINEER  
No. C64203  
Exp. 12-31-15  
REGISTERED CIVIL ENGINEER

THE STATE OF CALIFORNIA OR ITS OFFICERS  
OR AGENTS SHALL NOT BE RESPONSIBLE FOR  
COPIES OF THIS PLAN SHEET.

CURVE DATA

NO.	R	Δ	T	L
(1A)	52.0	53°07'48"	26.0	48.22
(2A)	68.0	286°15'37"	51.0	339.74



**LAYOUT**  
SCALE: 1" = 50'

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

L-56

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	SERGIO E. AYLA	CHECKED BY	CRESENCIO GARCIA	DATE REVISED	
	DESIGNED BY	DAI HOANG	REVISOR			

# ATTACHMENT C

## **ALTERNATIVE 1A (PREFERRED ALTERNATIVE) COST ESTIMATE**

District-County-Route 06-KER-58 and 08-SBd-58  
 PM R143.5/R143.9 and R0.0/R12.9  
 EA. 347700  
 Program Code 025.700/HE14

## PROJECT REPORT COST ESTIMATE - ALT 1A

PROJECT DESCRIPTION: It is proposed to realign and widen State Route 58 (SR-58) from a two lane conventional highway to a four-lane expressway north of existing SR-58.

Limits: From 0.4 miles west of Kern County line to 7.5 miles east of United States Route 395.

Proposed Improvement: Construct a 4-lane divided Expressway, Interchange at SR-58/US-395 junction, and a railroad Overhead Bridge. Typical cross sections for SR-58 consist of 400-foot right of way, 100-foot median, 12-foot lanes, 10-foot right shoulders, and 5-foot left shoulders. US-395 would be widened from two to four 12-foot lanes and a left-turn-lane at the SR-58/US-395 Interchange.

### SUMMARY OF PROJECT COST ESTIMATES

TOTAL ROADWAY ITEMS	\$	<u>127,139,000</u>
TOTAL STRUCTURE ITEMS	\$	<u>14,828,000</u>
 SUBTOTAL CONSTRUCTION COSTS	 \$	 <u>141,967,000</u>
TOTAL RIGHT OF WAY ITEMS	\$	<u>18,170,000</u>
 TOTAL PROJECT CAPITAL OUTLAY COSTS	 \$	 <u>160,137,000</u>

Reviewed by District Program Manager Anthony liao \_\_\_\_\_  
Date

Approved by Project Manager Jim Robinson \_\_\_\_\_  
Date

Phone Number: 909-917-8839

I. ROADWAY ITEMS

<u>Section 1 - Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Roadway Excavation	1,216,527	CY	\$ 8.50	\$ 10,340,500	
Imported Borrow	4,967,815	CY	\$ 4	\$ 19,871,300	
Clearing & Grubbing	1	LS	\$ 25,000	\$ 25,000	
Develop Water Supply	1	LS	\$ 75,000	\$ 75,000	
					Subtotal Earthwork: \$ 30,312,000

Section 2 - Pavement Structural Section \*

Jointed Plain Concrete Pavement	227,647	CY	\$ 110	\$ 25,041,200	
Hot Mix Asphalt (Type A)	42,029	TON	\$ 65	\$ 2,731,900	
Hot Mix Asphalt (Type C)	21,879	TON	\$ 75	\$ 1,640,900	
Rubberized Hot Mix Asphalt-G	3,153	TON	\$ 90	\$ 283,800	
Lean Concrete Base	107,878	CY	\$ 75	\$ 8,090,900	
Class 2 Aggregate Base	2,881	CY	\$ 34	\$ 98,000	
Class 2 Aggregate Subbase	150,385	CY	\$ 20	\$ 3,007,700	
Tack Coat	5.0	TON	\$ 980	\$ 4,900	
Prime Coat	535.0	TON	\$ 500	\$ 267,500	
Cold Plan Exit. Concrete Pav.	6,258	SQYD	\$ 3	\$ 18,800	
					Subtotal Pavement Structural Section: \$ 41,186,000

Section 3 - Drainage

Class 2 Concrete (WingWalls)	288	CY	\$ 900	\$ 259,200	
Class 1 Concrete (Box Culvert)	4,370	CY	\$ 450	\$ 1,966,500	
Bar Reinforcing Steel	1,101,804	LB	\$ 0.60	\$ 661,100	
					Subtotal Drainage: \$ 2,887,000

\* Attach sketch showing typical structural section elements of the roadway.  
 Include (if available) T.I., R-Value and date when tests were performed.

Section 4 - Specialty Items	Quantity	Unit	Unit Price	Item Cost	Section Cost
Midwest Guardrail System (MGS)	14,900	LF	\$ 27	\$ 402,300	
Alternative Flared Terminal System	19	EA	\$ 2,500	\$ 47,500	
Vegetation Control	5795	SQYD	\$ 42.00	\$ 243,400	
Fence (Type WM, Metal Post)	105,600	LF	\$ 3	\$ 316,800	
Remove Building	1	LS	\$ 40,000	\$ 40,000	
Resident Engineer's Office Space	1	LS	\$ 497,000	\$ 497,000	
Storm Water	1	LS	\$ 1,150,804	\$ 1,150,800	
Pymt Adj For Price Index Fluc	1	LS	\$ 511,000	\$ 511,000	
Obliterate	24,196	SQYD	\$ 1	\$ 24,200	
Time-Related Overhead	470	WDAY	\$1,500	705000	
Slope paving concrete	260	CY	\$500	130000	
Cable Railing	1790	LF	\$20	35800	
Structure Excavation (Retaining Wall)	3704	CY	\$70	259300	
Structure Concrete (Retaining Wall)	5841	CY	\$400	2336400	
Bar Reinforcing Steel	803710	LB	\$ 0.80	643000	
			Subtotal	Specialty Items:	\$ 7,343,000

Section 5 - Traffic Design

Construction Area Signs	1	LS	\$ 12,000	\$ 12,000	
Traffic Control System	1	LS	\$ 500,000	\$ 500,000	
Temporary Traffic Stripe (Paint)	127000	LF	0.75	\$ 95,300	
Channelizer (Surface Mounted)	240	EA	\$ 38	\$ 9,100	
Traffic Plastic Drum	120	EA	\$ 75	\$ 9,000	
Flashing Beacon (Portable)	12	EA	\$ 700	\$ 8,400	
Portable Changeable Message Sign	10	EA	\$ 3,500	\$ 35,000	
Temporary Railing (Type K)	12,000	LF	11.50	\$ 138,000	
Temporary Crash Cushion Module	280	EA	\$ 235	\$ 65,800	
Remove Yellow Thermoplastic Traffic Stripe (Hazardous Waste)	21,120	LF	\$ 1	\$ 10,600	
Remove Thermoplastic Traffic Stripe	31,680	LF	\$ 1	\$ 31,700	
Remove Thermoplastic Pavement Marking	300	SQFT	\$ 5	\$ 1,500	
Remove Pavement Marker	7,404	EA	\$ 1	\$ 7,400	
Remove Roadside Sign	20	EA	\$ 300	\$ 6,000	
Lead Compliance Plan	1	LS	\$ 7,000	\$ 7,000	
Furnish Sign Structure (Truss)	132,000	LB	\$ 5	\$ 660,000	
Install Sign Structure (Truss)	132,000	LB	\$ 1	\$ 132,000	
Furnish Formed Panel Sign (Overhead)	1,320	SQFT	\$ 20	\$ 26,400	
Furnish Laminated Panel Sign (1"-Type B)	960	SQFT	\$ 37	\$ 35,500	
Furnish Laminated Panel Sign (21/2"-Type H)	135	SQFT	\$ 30	\$ 4,100	
Furnish Single Sheet Aluminum Sign (0.080"-Unfarmed)	5,000	SQFT	\$ 15	\$ 75,000	
Furnish Single Sheet Aluminum Sign (0.063"-Framed)	4,000	SQFT	\$ 19	\$ 76,000	
60" Cast-In-Drilled Hole Concrete Pile (Sign Foundation)	240	LF	\$ 1,700	\$ 408,000	
Roadside Sign-One Post	120	EA	\$ 350	\$ 42,000	
Roadside Sign-Two Post	20	EA	\$ 500	\$ 10,000	
Install Roadside Sign (Laminated Wood Box Post) Type M	8	EA	\$ 2,500	\$ 20,000	
Delineator (Class 1)	200	EA	\$ 50	\$ 10,000	
Delineator (Class 2)	200	EA	\$ 40	\$ 8,000	
Thermoplastic Pavement Marking	3,500	SQFT	\$ 5	\$ 17,500	
Thermoplastic Traffic Stripe (Sprayable)	475,200	LF	\$ 0.75	\$ 356,400	
Pavement Marker (Non-Reflective)	14,082	EA	\$ 2	\$ 28,200	
Pavement Marker (Retroreflective)	7,044	EA	\$ 4	\$ 28,200	
Maintain Traffic	1	LS	\$ 50,000	\$ 50,000	
			Subtotal Traffic Design:	\$ 2,924,000	

District-County-Route 06-KER-58 and 08-SBd-58  
 PM R143.5/R143.9 and R0.0/R12.9  
 EA. 347700

TMP:

Public Information/Public Awareness Campaign (PAC)	<u>1</u>	<u>LS</u>	<u>\$ 80,000</u>	<u>\$ 80,000</u>
Motorist Information Strategies	<u>1</u>	<u>LS</u>	<u>\$ 120,000</u>	<u>\$ 120,000</u>
Incident management	<u>1</u>	<u>LS</u>	<u>\$ 148,200</u>	<u>\$ 148,200</u>
Alternative Route Strategies	<u>1</u>	<u>LS</u>	<u>\$ 60,000</u>	<u>\$ 60,000</u>
			TMP:	<u>\$ 408,000</u>

Electrical Design:

Traffic Monitoring Station	<u>4</u>	<u>LS</u>	<u>\$ 40,000</u>	<u>\$ 160,000</u>
Changeable Message Sign System	<u>2</u>	<u>LS</u>	<u>\$ 300,000</u>	<u>\$ 600,000</u>
Closed Circuit Television System	<u>5</u>	<u>LS</u>	<u>\$ 40,000</u>	<u>\$ 200,000</u>
Lighting and Sign Illumination	<u>1</u>	<u>LS</u>	<u>\$ 350,000</u>	<u>\$ 350,000</u>
Communication System	<u>1</u>	<u>LS</u>	<u>\$ 150,000</u>	<u>\$ 150,000</u>
Signal and Lighting	<u>1</u>	<u>LS</u>	<u>\$ 250,000</u>	<u>\$ 250,000</u>
Wireless Vehicle Detection Station	<u>10</u>	<u>LS</u>	<u>\$ 40,000</u>	<u>\$ 400,000</u>
Electric Service Connection	<u>1</u>	<u>LS</u>	<u>\$ 70,000</u>	<u>\$ 70,000</u>
Changeable Message Sign (Model 170 Controller Assembly)	<u>2</u>	<u>EA</u>	<u>\$ 60,000</u>	<u>\$ 120,000</u>
	<u>1</u>	<u>LS</u>	<u>\$ 40,000</u>	<u>\$ 40,000</u>
			Subtotal Electrical:	<u>\$ 2,340,000</u>

Subtotal Traffic, TMP, Electrical Items: \$ 5,672,000

<u>Section 6-Planting and Irrigation</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Rock Blanket (Gore Areas)	<u>9,535</u>	<u>SQFT</u>	<u>\$65</u>	<u>\$ 619,800</u>	
Gravel Mulch (Miscellaneous Areas)	<u>1,340,000</u>	<u>SQFT</u>	<u>\$2.24</u>	<u>\$ 3,001,600</u>	
Bouldres (8'-12')	<u>10</u>	<u>EA</u>	<u>\$2,000</u>	<u>\$ 20,000</u>	
Plant Group K	<u>10</u>	<u>EA</u>	<u>\$400</u>	<u>\$ 4,000</u>	
Construct Irrigation Facility	<u>1</u>	<u>LS</u>	<u>\$12,000</u>	<u>\$ 12,000</u>	
Well Development	<u>1</u>	<u>LS</u>	<u>\$60,000</u>	<u>\$ 60,000</u>	
Water Supply System	<u>1</u>	<u>EA</u>	<u>\$83,000</u>	<u>\$ 83,000</u>	
CSP (12" Conrrogated Steel Pipi)	<u>395</u>	<u>LF</u>	<u>\$35</u>	<u>\$ 13,800</u>	
			Subtotal Planting and Irrigation Items:	<u>\$ 3,814,000</u>	

<u>Section 7-Roadside Management</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Erosion Control (Duff)	<u>590,000</u>	<u>SQYD</u>	<u>\$2</u>	<u>\$ 1,180,000</u>	
Maintenance Vehicle Pullout	<u>2</u>	<u>EA</u>	<u>\$3,500</u>	<u>\$ 7,000</u>	
Architectural Treatment (5% of Structures Cost)	<u>0.05</u>	<u>1</u>	<u>\$14,828,000</u>	<u>\$ 741,000</u>	
Pavement beyond the gore area					
Miscellaneous Paving					
Side Slopes/Embankment Slopes					
Maintenance Vehicle Pull outs					
			Subtotal Roadside Management:	<u>\$ 1,928,000</u>	

TOTAL SECTIONS 1 thru 7 \$ 93,142,000

District-County-Route 06-KER-58 and 08-SBd-58  
 PM R143.5/R143.9 and R0.0/R12.9  
 EA. 347700

<u>Section 8 - Minor Items</u>			<u>Percentage</u>	<u>Item Cost</u>	<u>Section Cost</u>
Subtotal Section 1-7	<u>\$93,142,000</u>	x	5%	= \$ <u>4,657,000</u>	
TOTAL MINOR ITEMS					\$ <u>4,657,000</u>

<u>Section 9 - Roadway Mobilization</u>					
Subtotal Section 1-8	<u>\$ 97,799,000</u>	x	10%	= \$ <u>9,780,000</u>	
TOTAL ROADWAY MOBILIZATION					\$ <u>9,780,000</u>

<u>Section 10 - Roadway Additions</u>					
Supplemental Work					
Subtotal Section 1-8	<u>\$ 97,799,000</u>	x	5%	= \$ <u>4,890,000</u>	
Contingencies*					
Subtotal Section 1-8	<u>\$ 97,799,000</u>	x	15%	= \$ <u>14,670,000</u>	
TOTAL ROADWAY ADDITIONS					\$ <u>19,560,000</u>
TOTAL ROADWAY ITEMS: (Total of Section 1-10)					\$ <u>127,139,000</u>

Estimate Prepared By	<u>Reza Tootoonchi</u>	<u>(909) 383-4467</u>	<u>3/17/2014</u>
	(Print Name, First Last)	Phone #	Date
Estimate Checked By	<u>Cresencio Garcia</u>	<u>(909) 383-7565</u>	<u>3/20/2014</u>
	(Print Name, First Last)	Phone #	Date

\* Use appropriate percentage per chapter 20 of PDPM

District-County-Route 06-KER-58 and 08-SBd-58  
 PM R143.5/R143.9 and R0.0/R12.9  
 EA. 347700

II. Structure Items:

	Structure (1)	Structure (2)	Structure (3)
Bridge Name	<u>Rte 58/395 Separation</u>	<u>Rte 58 OH(LT)</u>	<u>Rte 58 OH(RT)</u>
Structure Depth (ft)	<u>6'-9"</u>	<u>7'-0"</u>	<u>6'-6"</u>
Width (ft). (out to out)	<u>Varies</u>	<u>42'</u>	<u>42'</u>
Span Lengths (ft)	<u>150'-9"</u>	<u>611</u>	<u>558</u>
Total Area (ft <sup>2</sup> )	<u>15910.00</u>	<u>25558.00</u>	<u>23341.00</u>
Cost Per ft <sup>2</sup> (incl. 10% mobilization and 25% contingency)	<u>\$456</u>	<u>\$456</u>	<u>\$456</u>
Total Structure Cost	<u>\$2,916,000</u>	<u>\$6,170,000</u>	<u>\$5,742,000</u>

SUBTOTAL STRUCTURES ITEMS: \$ 14,828,000

Railroad Related Costs: N/A

SUBTOTAL RAILROAD ITEMS \_\_\_\_\_

TOTAL STRUCTURE ITEMS \$ 14,828,000

COMMENTS:

Estimate Prepared By Howard NG 909-545-7020 3/11/2014  
 (Print Name, First Last) Phone # Date

(If appropriate, attach additional pages and backup)



# ATTACHMENT D

## **ALTERNATIVE 1A (PREFERRED ALTERNATIVE) RIGHT OF WAY DATA SHEET**

Date: February 10, 2014  
06-Kern – 58 PM R143.5/R143.9  
08-SBd – 58 PM R0.0/R12.9  
Project Description: Construct 4 lane  
expressway  
EA 34770      PN #0800000616  
Alternative 1A

To: BEHZAD SEDIGHI

From: LAWRENCE KELLY,  
R/W Project Delivery

Subject: Current Estimated Right of Way Costs

We have completed an updated ROW data sheet for estimate of the right of way costs for the above-referenced project based on maps we received from you November 6, 2013 and the following assumptions and limiting conditions:

- 1. The mapping did not provide sufficient detail to determine the limits of the right of way required.
- 2. The transportation facilities have not been sufficiently designed so that the estimator could determine the damages to any of the remainder parcels affected by the project.
- 3. Additional right of way requirements are anticipated, but are not defined due to the preliminary nature of the early design requirements.
- 4. We have determined there are no right of way functional involvement in the proposed project at this time, as designed.

Right of Way Lead Time will require a minimum of 25 months after we begin receiving final right of way requirements (PYPSCAN node No. 224), necessary environmental clearance has been obtained, and freeway agreements have been approved. From the date of receipt of final right of way requirements (PYPSCAN node No. 225), we will require a minimum of 21 months prior to the date of certification of the project. Either of these actions may reflect adversely on the District's other programs or our public image generally.

\*TOTAL PROJECT HOURS FOR R/W: 50,082

\*NOTE: THESE HOURS ARE PRELIMINARY BASED ON THE INFORMATION PROVIDED WITH THE DATA SHEET REQUEST. HOURS ARE SUBJECT TO CHANGE AS NEW INFORMATION IS PROVIDED.

Attachments:

- Right of Way Data Sheet
- Utility Information Sheet
- Railroad Information Sheet

Date: February 10, 2014  
 06-Kern – 58 PM R143.5/R143.9  
 08-SBd – 58 PM R0.0/R12.9  
 Project Description: Construct 4 lane  
 expressway  
 EA 34770 PN #0800000616  
 Alternative 1A

1. Right of Way Cost Estimate:

	Value
A. Acquisition, including Excess Lands Damages, Goodwill, Major Rehabilitation, and Environmental Permits to Enter	\$ 3,971,000.00
B. Acquisition of Offsite Mitigation.	\$ 10,000,000.00
C. Utility - Relocation (State share) - Potholing	\$ 2,539,250.00 \$ 0.00
D. RAP	\$ 100,000.00
E. Clearance/Demolition	\$ 100,000.00
F. Title and Escrow Fees	\$ 140,000.00
G. Project Permit Fees	\$ 20,000.00
H. Condemnation Costs	\$ 1,300,000.00
I. <b>Total R/W Estimate:</b>	<b>\$ 18,170,250.00</b>
J. Construction Contract Work	\$ 0.00

1a. Real Property Services:

A. Routine Maintenance (Object Code 058)	\$ 0.00
B. Advertising Costs (Object Code 039)	\$ 0.00
C. Utility Costs (Object Code 002)	\$ 0.00
D. Total Real Property Services Estimate:	\$ 0.00

2. Anticipated Pypscan Date of Right of Way Certification 2/2014

3. Parcel Data:

Type	Dual/Appr	Utility Involvement	RR Involvement	Yes
X _____	_____	U4-1 <u>4</u>	C&M Agreement	<u>1</u>
A _____	_____	-2 _____	Svc Contract	<u>1</u>
B <u>105</u>	_____	-3 _____	OE Clearances	<u>1</u>
C <u>7</u>	_____	-4 <u>12</u>	Clauses	<u>1</u>
D <u>1</u>	_____	U5-7 _____	LIC/ROE	<u>1</u>
E <u>xxxx</u>	_____	-8 <u>6</u>	Government Lands	<u>Yes</u>
F <u>xxxx</u>	_____	-9 <u>9</u>	Number of Parcels	<u>20</u>
			Misc. R/W Work	<u>0</u>
			RAP Displacement	<u>1</u>
			Clear/Demo	<u>0</u>
			Const Permits	<u>0</u>
			Condemnation	<u>34</u>

Total 113

Permits to Enter-ENV 100

Areas: Right of Way: S.F. 18,386,711

Excess: S.F. 48,493

No. Excess Land Parcels: 3

Date: February 10, 2014  
06-Kern – 58 PM R143.5/R143.9  
08-SBd – 58 PM R0.0/R12.9  
Project Description: Construct 4 lane expressway  
EA 34770 PN #0800000616  
Alternative 1A

4. Are there major items of construction contract work?  
Yes \_\_\_ No X (If yes, explain.)
5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.). **No right of way required.** \_\_\_\_\_

Type and Number of Parcels:

Fee	<u>113</u>
Partial	<u>110</u>
Full	<u>3</u>
Easements	<u>0</u>
Temporary	<u>0</u>
Permanent	<u>0</u>

6. Is there an effect on assessed valuation?  
Yes \_\_\_ Not Significant \_\_\_ No X (If yes, explain.)
7. Are utility facilities or rights of way affected?  
Yes X No \_\_\_ (If "Yes," attach Utility Information Sheet, Exhibit 4-EX-5.)  
The following checked items may seriously impact lead time for utility relocation:  
 Longitudinal policy conflict(s)  
 Environmental concerns impacting acquisition of potential easements  
 Power lines operating in excess of 50 KV and substations  
(See attached Exhibit 4-EX-5 for explanation.)
8. Are railroad facilities or rights of way affected? Yes X No \_\_\_  
(If yes, attach Railroad Information Sheet, Exhibit 4-EX-6.)
9. Were any previously unidentified sites with hazardous waste and/or material found? Yes \_\_\_ None Evident X (If yes, attach memorandum per Procedural Handbook Chapter 4, Section 4.01.10.00.)
10. Are RAP displacements required? Yes 1 No \_\_\_ (If yes, provide the following information.)
- |                      |     |                           |          |
|----------------------|-----|---------------------------|----------|
| No. of single family | ___ | No. of business/nonprofit | <u>1</u> |
| No. of multi-family  | ___ | No. of farms              | ___      |
- Based on Draft/Final Relocation Impact Statement/Study dated \_\_\_\_\_, it is anticipated that sufficient replacement housing (will/will not) be available without Last Resort Housing.
11. Are there material borrow and/or disposal sites required?  
Yes X No \_\_\_ (If yes, explain.) Commercial
12. Are there potential relinquishments and/or abandonments?  
Yes X No \_\_\_ (If yes, explain.) Old Hwy 58 to San Bernardino County
13. Are there existing and/or potential Airspace sites?  
Yes \_\_\_ No X (If yes, explain.)
14. Indicate the anticipated Right of Way schedule and lead time requirements.  
(Discuss if District proposes less than PMCS lead time and/or if significant pressures for project advancement are anticipate

PYPSCAN lead time (from Maps to R/W to project certification) 25 months.

Date: February 10, 2014  
06-Kern - 58 PM R143.5/R143.9  
08-SBd- 58 PM R0.0/R12.9  
Project: Construct 4 lane expressway  
EA34770 PN #0800000616

15. Is it anticipated that all Right of Way work will be performed by CALTRANS staff?  
Yes X No \_\_\_ (If no, discuss.)

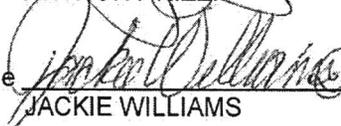
Evaluations prepared by:

Right of Way: Name  Date 12-20-13  
LAWRENCE KELLY

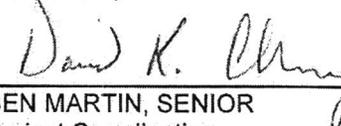
Railroad: Name  Date 12/23/13  
TANISHA BARFIELD

Utilities: Name  Date 2/13/2014

Government Lands: Name  Date 12/23/13  
ANTHONY RIZZO

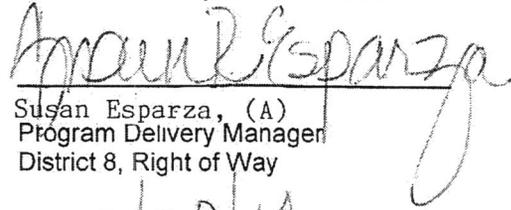
Property Management: Name  Date 12-24-13  
JACKIE WILLIAMS

Reviewed By:

for   
BEN MARTIN, SENIOR  
Project Coordination  
District 8, Right of Way

Date 2/14/14

I have personally reviewed this Right of Way Data Sheet and all supporting information. I certify that the probable Highest and Best Use, estimated values, escalation rates, and assumptions are reasonable and proper subject to the limiting conditions set forth, and I find this Data Sheet complete and current.

  
Susan Esparza, (A)  
Program Delivery Manager  
District 8, Right of Way

Date 2/20/14

cc: Program Manager  
Project Manager

08-SBd-58-KP-0.0/22.2

(PM0.0/13.8)

EA 34770

Alternative 1(A) – North Alignment

Project Description: To re-align  
State Route 58 proposes to widen  
from two lanes to a four lane  
divided expressway

### UTILITY INFORMATION SHEET

1. Name of utility companies involved in project:

Southern California Edison – Dist./Trans  
AT&T  
El Paso Mojave Pipeline Operating Company  
PG&E Gas Transmission Hinkley  
San Bernardino County Transmission

Southern California Gas Company-Trans  
Southern California Gas Co. Dist.  
PG&E Transmission & Dist Ridgecrest  
Southwest Gas  
Verizon

2. Types of facilities and agreements required:

Electric Dist  
Petroleum Pipeline  
Water (Private Ownership-well)  
Fiber Optics

Gas-Trans  
Electric Trans Lines  
Phone

Notice to Owner  
Utility Agreements  
Natural Gas Line

3. Is any facility a longitudinal encroachment in existing or proposed access controlled right of way? **Explain.**

Disposition of longitudinal encroachment(s):

**Yes** Relocation required.

Exception to policy needed.

Other. Explain.

4. Additional information concerning utility involvements on this project, i.e., long lead time materials, growing or species seasons, customer service seasons (no transmission tower relocations in summer).

Design is preparing a Project Report for EA 347700 to re-align State Route 58. This realignment will consist of a 4-lane divided expressway, railroad grade separation, and an interchange at the Routes 58/395 Junction. The alternatives consist of a northerly alignment, central alignment and a southerly alignment. Therefore, new right of way will be required for this project.

The transmission towers on the existing alignments that may require relocation can not take place in the summer (June thru October). Of these, there may be several that fall in the historic category and will have to go through environmental for their okay to relocate. These towers are site specific and each one needs to be built for that site alone. This will take approximately 12 to 18 months to accomplish.

Extensive Potholing will be necessary.

Due to time constraints, this data sheet has taken into consideration the possible scenarios that will affect the existing utilities within the proposed project limits. When additional utility information becomes available, the utility data sheet will also be updated. Should the project scope change, and RW Utilities is informed by design, the data sheet will also be updated. Design must also request an updated data sheet from R/W Planning and Management and notify R/W Utilities of any potholing, relocation, or any other utility conflicts (i.e. manhole covers, water valves, etc.).

Transmission Towers	\$1,250,000.00
"H" Frames transmissions	\$375,000.00
Wooden Transformer Poles	\$112,500.00
Wooden Poles	\$600,000.00
Fiber Optic	\$201,750.00

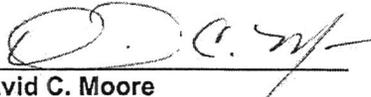
5. PMCS Input Information

Total estimated cost of State's obligation for utility relocation on this project:  
(Phase 9 funding) \$ 2,539,250.00

**Note:** Total estimated cost to include any Department obligation to relocate longitudinal encroachments in access controlled right of way and acquire any necessary utility easements.

Utility Involvement	
U4-1	4
-2	<u>        </u>
-3	<u>        </u>
-4	<u>12</u>
U5-7	<u>        </u>
-8	<u>6</u>
-9	<u>9</u>

Prepared By:

  
**David C. Moore**  
Right of Way Utility Estimator

Date: February 6, 2014

Date: February 10, 2014  
06-Kern – 58 PM R143.5/R143.9  
08-SBd – 58 PM R0.0/R12.9  
Project Description: Construct 4 lane expressway  
EA 34770 PN #0800000616  
Alternative 1A

### RAILROAD AND GOVERNMENT LANDS INFORMATION SHEET

1. Describe railroad facilities or rights of way affected.

BNSF Railway – 08-SBd-58-PM2.774, at grade crossing. PUC# 002.780.30, DOT #028209C

2. When branch lines or spurs are affected, would acquisition and/or payment of damages to businesses and/or industries served by the railroad facility be more cost effective than construction of a facility to perpetuate the rail service? Yes \_\_\_ No X (If yes, explain.)

3. Discuss types of agreements and rights required from the railroads. Are grade crossings requiring service contracts, or grade separations requiring construction and maintenance agreements involved?

Railroad track will be grade separated when project is constructed C&M Agreement SVC contract, OE clearance & clauses, permanent easement, TCE, ROE & PUC application will be requested.

4. Remarks (non-operating railroad right of way involved?):

Cost to construction will be determined at future date in addition to the flagging cost for R/R flaggers – Pre-Cert work to be cost estimated separately. Allow 15-24 months for completion of acquisition agreements.

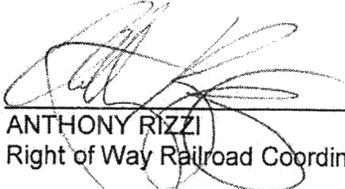
5. Is Government Lands involved? Yes X No \_\_\_

If yes, number of parcels 20

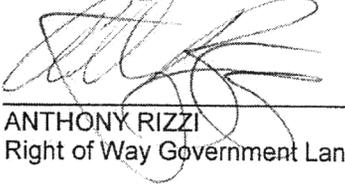
Agency Name and Explanation: USAF- Edwards AFB and BLM highway easements needed.

6. PMCS Input Information

RR Involvement	<u>Yes</u>
C&M Agreement	<u>1</u>
SVC Contract	<u>1</u>
OE Clearances	<u>1</u>
Clauses	<u>1</u>
LIC/RE	<u>1</u>
Government Lands	<u>Yes</u>
Number parcels	<u>20</u>

Prepared By:   
ANTHONY RIZZI  
Right of Way Railroad Coordinator

Date: 2/14/14

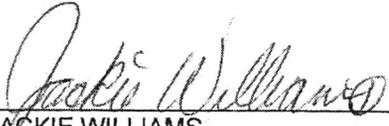
Prepared By:   
ANTHONY RIZZI  
Right of Way Government Lands Coordinator

Date: 2/14/14

Date: February 10, 2014  
 06-Kern – 58 PM R143.5/R143.9  
 08-SBd – 58 PM R0.0/R12.9  
 Project Description: Construct 4 lane expressway  
 EA 34770 PN #0800000616  
 Alternative 1A

PROPERTY MANAGEMENT/EXCESS LAND INFORMATIONAL SHEET

<u>WBS CODE</u>	<u>WBS ACTIVITY</u>	<u>NUMBER OF PARCELS</u>	<u>HOURS</u>	<u>COST</u>
	<u>PROPERTY MANAGEMENT</u>			<u>NOT APPLICABLE</u>
195.40.05	Fair Market Rent Determinations (Residential)	_____	_____	_____
195.40.10	Fair Market Rent Determinations (Non-Residential)	_____	_____	_____
195.40.15	Regular Rental Property Management	113	904	5,000
195.40.20	Property Maintenance and Rehabilitation (Rental Property)	1	10	_____
195.40.25	Property Maintenance and Rehabilitation (Non-Rental Property)	112	896	_____
195.40.30	Hazardous Waste and Hazardous Materials	_____	_____	_____
195.40.35	Transfer of Property to Clearance Status	113	226	_____
270.25.03	Secure Lease for Resident Engineer's Office Space or Trailer	1	700	_____
		Subtotal	2736	_____
	<u>EXCESS LAND</u>			<u>NOT APPLICABLE</u>
195.45.05	Excess Land Inventory	3	20	_____
195.45.10	Excess Land Appraisal and Public Sale Estimate	3	60	_____
195.45.15	Excess Land Inventory ("Roberti Bill")	_____	_____	_____
195.45.20	Excess Land Sales to \$15,000	3	60	_____
195.45.25	Excess Land Sales from \$15,001 to \$500,000	_____	_____	_____
195.45.30	Excess Land Sales over \$500,000	_____	_____	_____
195.45.35	CTC and AAC Coordination	_____	_____	_____
		Subtotal	140	_____
			TOTAL HOURS (ONLY)	_____

  
 JACKIE WILLIAMS  
 Property Management  
 Excess Land

Date: 2-14-14

ATTACHMENT E

**STORM WATER DATA REPORT  
COVER SHEET**

APPENDIX E

Long Form - Storm Water Data Report



Dist-County-Route: 8-SBC-SR 58
Post Mile Limits: PM0.0-12.7
Project Type: New Alignment Construction of 4 Lanes Express way
Project ID (or EA): 0800000616 (EA34770)
Program Identification: 025.700/HE14
Phase: [ ] PID, [x] PA/ED, [ ] PS&E

Regional Water Quality Control Board(s): Lahontan Region

Is the Project required to consider Treatment BMPs? Yes [x] No [ ]
If yes, can Treatment BMPs be incorporated into the project? Yes [x] No [ ]
If No, a Technical Data Report must be submitted to the RWQCB at least 30 days prior to the projects RTL date. List RTL Date: \_\_\_\_\_

Total Disturbed Soil Area: 315.3 ac Risk Level: 1
Estimated: Construction Start Date: 5/1/2017 Construction Completion Date: 5/14/2020
Notice of Intent (NOI) Date to be submitted: 4/1/2017

Erosivity Waiver Yes [ ] Date: \_\_\_\_\_ No [x]
Notification of ADL reuse (if Yes, provide date) Yes [ ] Date: \_\_\_\_\_ No [x]
Separate Dewatering Permit (if yes, permit number) Yes [ ] Permit # \_\_\_\_\_ No [x]

This Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the date upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.

Tianpeng Guo, Ph.D., Registered Project Engineer Date: 6/9/14

I have reviewed the stormwater quality design issues and find this report to be complete, current and accurate:

Jim Robinson, Project Manager Date: 6/10/14

Cindy Mondary, Designated Maintenance Representative Date: 6/10/14

Ray Desselle, Designated Landscape Architect Representative Date: 6/10/14

[Stamp Required for PS&E only] Patrick Hally, District/Regional Design SW Coordinator or Designee Date: 6/10/14

**ATTACHMENT F**

**FINAL ENVIRONMENTAL  
DOCUMENT COVER SHEET**

SCH#2007051051  
06-KER-58 PM R143.5/R143.9  
08-SBD-58 PM R0.0/R12.9  
EA 347700  
Project ID 0800000616

Construct a new interchange, grade separate, widen, and realign a 13.3-mile segment of State Route 58 (SR-58), 0.4 miles west of the Kern County/San Bernardino County Line (PM 0.0) to approximately or 7.5 miles east of United States Route 395 (US-395) (PM 12.9) in the Mojave Desert region of western San Bernardino County.

## FINAL ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT

Submitted Pursuant to: (State) Division 13, California Public Resources Code  
(Federal) 42 USC 4332(2) (C)

THE STATE OF CALIFORNIA  
Department of Transportation

### Cooperating Agencies:

U.S. Bureau of Land Management (BLM)  
Department of Defense, Edwards Air Force Base

### Responsible Agencies:

California Regional Water Quality Control Board  
California Department of Fish and Wildlife  
County of San Bernardino  
California Public Utilities Commission

7/1/14  
Date of Approval

  
Basem Muallem  
District Director  
District 8  
California Department of Transportation  
CEQA Lead Agency  
NEPA Lead Agency

The following person(s) may be contacted for additional information concerning this document:

Kurt Heidelberg, Senior Environmental Planner  
Environmental Studies "D" Branch Chief  
Environmental Project Management  
California Department of Transportation, District 8  
464 W. 4th Street, 6th Floor MS 820  
San Bernardino, California 92401-1400  
(909) 388-7028

**Abstract:** The proposed State Route 58 (SR-58) Kramer Junction Expressway Project would widen and realign an existing 13.3-mile segment of SR-58, 0.4 miles west of the Kern County/San Bernardino County line and a point that is approximately 7.5 miles east of US-395 in western San Bernardino County. The purpose of the proposed project is to: improve east-west mobility and reduce congestion and travel time; reduce potential traffic conflicts; and maintain uninterrupted and consistent facility design between economic and community centers. Environmental effects on biological resources, community cohesion/character, relocation impacts, hazardous materials/wastes, water quality, and aesthetics are anticipated.

# ATTACHMENT G

## **INITIAL SITE ASSESSMENT (ISA) CHECK LIST & ISA REPORT (COVER & SIGNATURE SHEETS ONLY)**

# INITIAL SITE ASSESSMENT (ISA) CHECKLIST

DATE: 3/13/13 Updated

**PROJECT INFORMATION**

District 08 County SBD Route 58 Post Mile PM 0.0/12.9 E.A. 34770

Description of Work: Proposed to widen a portion of SR-58 from two lanes to a four-lane divided expressway.

Project Engineer Dai Hoang Telephone 909-383-4445  
 Environmental Coordinator Candice Hughes Telephone 909-383-5920

DATE ISA NEEDED \_\_\_\_\_  
 \_\_\_\_\_

Attach the project location map and an aerial photo to this checklist to show the location of proposed R/W and all known and/or potential hazardous waste sites.

1. Project Features: New R/W? YES Excavation? YES Railroad Involvement? YES  
 Structure Demolition/Modification? NO Utility Relocation? YES
2. Project Setting: Rural - YES Urban - \_\_\_\_\_  
 Current Land Uses: existing state hwy facility  
 Adjacent Land Uses: commercial, residential, vacant desert  
 (Industrial light industry, commercial, agriculture, residential, other)
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 all information available pertinent to the proposed project. IS PROJECT
4. AFFECTING SITES LISTED ON CORTESE LIST? YES IF YES, DESCRIBE SITE: Edwards Air Force Base
5. Conduct Field Inspection \_\_\_\_\_ Date \_\_\_\_\_

Storage Structures/Pipelines:	Contamination: (spills, leaks, illegal dumping, etc)	Hazardous Materials: (asbestos, lead, etc.)
UST's <u>YES</u>	Surface Staining <u>TBD</u>	Buildings <u>YES</u>
Surface tanks <u>NO</u>	Oil Sheen <u>TBD</u>	Sprayed-on <u>NO</u>
Sumps <u>TBD</u> Ponds <u>NO</u>	Odors <u>TBD</u>	Fireproofing <u>NO</u>
Drums <u>TBD</u> Basins <u>NO</u>	Vegetation damage <u>TBD</u>	Pipe Wrap <u>NO</u>
Transformers <u>NO</u>	Other _____	Friable Tile <u>NO</u>
Landfill <u>NO</u>		Acoustical <u>NO</u>
Other _____		Plaster _____
		Serpentine <u>NO</u>
		Paint <u>TBD</u> Other _____

Other comments and/or observations: The Updated Initial Site Assessment (Oct 2012) indicated the need for site investigation at 3 parcels within Alternative 1 and 1a that will be performed after the next fiscal year, 2014. The investigation reports will determine if parcels required for acquisition are impacted with hazardous waste.

**ISA DETERMINATION:**

Does the project have potential hazardous waste involvement? MEDIUM RISK  
 If there is known or potential hazardous waste involvement, is additional ISA work needed before task orders can be prepared for the Preliminary Site Investigation? NO If yes, explain, and give estimate of additional time required:

ISA CONDUCTED BY: Rosanna Roa DATE: 3/13/13  
 ROSANNA ROA, ENV. ENG. MS-824  
 DISTRICT 08 HAZARDOUS WASTE COORDINATOR  
 (909) 383-5917

25864-F Business Center Drive  
Redlands, California 92374  
909.335.6116 TEL  
909.335.6120 FAX

**INITIAL SITE ASSESSMENT (ISA)**  
**Project Title: Construct 4-Lane**  
**Location: 08-SBd-58-PM R0.0/R12.9**  
**San Bernardino County, California**  
**PN: 08-0000-06160 (EA 347700)**

**Prepared for:**  
**California Department of Transportation, District 8**  
**Task Order No. 6**

**Contract No. 08A2047**

**October 18, 2012**

## 8.0 LIST OF PREPARERS

This Initial Site Assessment (ISA) has been prepared under the direction of the following environmental professionals.

"We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in Section 312.10 of 40 Code of Federal Regulations (CFR) 312," and

"We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Project. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312."

### **Preparers**

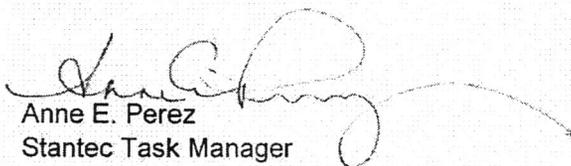
Kevin Miskin P.E., Stantec Consulting Corporation (Stantec). M.S., Civil Engineering, Purdue University, Indiana.

Anne E. Perez, Stantec. M.S., Geology, University of California, Riverside, California. ISA Author.

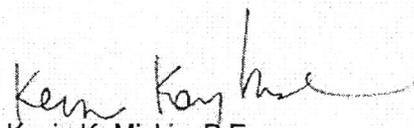
Dion Monge, Stantec. B.S. Soil Science, California State University, Pomona, California. ISA Author.

If you have any questions or comments regarding the information enclosed herein, please contact the undersigned at your convenience.

Respectfully submitted,  
**Stantec Consulting Services Inc.**



Anne E. Perez  
Stantec Task Manager  
Tel: 909.335.6116 x8202  
Fax: 909.335.6120  
Email: [Anne.Perez@stantec.com](mailto:Anne.Perez@stantec.com)



Kevin K. Miskin, P.E.  
Stantec Project Manager  
Tel: 909.335.6116 x8210  
Fax: 909.335.6120  
Email: [Kevin.Miskin@stantec.com](mailto:Kevin.Miskin@stantec.com)

ATTACHMENT H

**TRANSPORTATION  
MANAGEMENT PLAN**

**TRANSPORTATION MANAGEMENT PLAN (TMP) DATA SHEET 3 for PID, PSR, PR or PSE including DTM requirements for PSE and Construction Phase - This TMP is valid for two years from date of preparation, unless the project or impact changes.**

T:\DTM.TMP\project docs\ SBd\058 \0800000616\140528\0800000616\DRAFT TMP Data Sheet 3.xls (includes signature/background sheet, estimate and Revisions & Notes)

**TEMPLATE: 0 TMP Data Sheet revised 070216.xls. CT & CONSULTANTS, PLEASE REQUEST THE LATEST TEMPLATE SINCE IT WILL HAVE THE CURRENT RATES, etc. CAUTION - ck for formulas in cells - amounts flow from Tab 3 to 2 to 1.**

**PIN No.** 08-0000-0616

**DATE** 5/28/2013

08-SBd-58-R0.00/R12.90 & R 143.5/r143.9 PM

Location: In San Bernardino County from Kern/San Bernardino County Line to 7.5 Mi. E/O Rte 395

Work: Widen From Two To Four Lanes

**Date of TMP Request:** 15-May-14  
**Documents available:** Memo, Location Map And X-Section

**PLEASE NOTE:**

**Please Be Hereby Informed That This Project Shall Not Be Certified Without Approved Lane Closure Requirement Chart/s (LCRC) And Approved TMP Elements By DTM/TMP.**

Please fill in the green areas to help expedite your TMP request. If you add anything to the other tabs, please highlight w green.

**SAMPLE TMP DATA SHEET - Instructions see Tab 6**

Construction period per PE

EST START DATE	2013/2014 FY
EST END DATE	2013/2014 FY

Construction period per WPS

EST START DATE	2013/2014 FY
EST END DATE	2013/2014 FY

**BACKGROUND INFORMATION:**

DURATION: 470 Per Memo Of DEC 20, 2013  
 PROJECT COST: \$132,765,000 Per Memo Of Dec 20, 2013  
 TMP ESTIMATE: \$408,200 or 0.31% OF THE PROJECT COST

IMPACT	High	Medium	Low	NA
STATE HWY	X			
LOCAL RD		X		
Ramps/connectors				X

Details: (Briefly explain traffic impacts and how you will mitigate them)

If the TMP has been prepared by D8/Ops/TMP, use this signature block:

Prepared by \_\_\_\_\_ Signature ORIGINAL SIGNED BY Martin Hess Date 5/28/2013

Name Martin Hess  
 Title Transportation Engineer (Civil)  
 Organization Caltrans  
 Telephone/FAX 909-806-3901  
 email Martin\_Hess @dot.ca.gov

If This Transportation Management Plan (TMP) has been prepared under the direction of the following Registered Engineer. The Registered Civil Engineer attests to the technical information contained therein and the engineering data

upon which recommendations, conclusions, and decisions are based.

Prepared by \_\_\_\_\_ Signature ORIGINAL SIGNED BY ???? YOUR NAME ??? Date 0/0/00

Name \_\_\_\_\_  
Title \_\_\_\_\_ Seal or Seal information  
Organization \_\_\_\_\_  
Telephone/FAX \_\_\_\_\_  
email \_\_\_\_\_

*At 100% PSE these signature blocks need to be filled in:*

Approved by \_\_\_\_\_ Signature ORIGINAL SIGNED BY Martin Hess For AI Afaneh Date 5/28/2014

AI Afaneh  
TMP/DTM Traffic Manager  
Department of Transportation  
District 8/Operations MS-B20  
464 W 4th Street 6th Floor  
909 383-6262, FAX 909 383-1068  
AI\_Afaneh@dot.ca.gov

Prepared for REQUESTER (s), phone #s: X Sergio Avila/Cresencio Garcia X 1554/7565

cc:

Project Senior: Sergio Avila  
CGarcia

1. Public Information	NO	<input checked="" type="checkbox"/> YES	MAYBE	\$80,000
2. Motorist Information Strategies	NO	YES	<input checked="" type="checkbox"/> MAYBE	\$120,000
3. Incident Management	NO	<input checked="" type="checkbox"/> YES	MAYBE	\$148,200
4. Construction Strategies	NO	YES	<input checked="" type="checkbox"/> MAYBE	\$0
5. Demand Management (DM)	NO	YES	<input checked="" type="checkbox"/> MAYBE	\$0
6. Alternate Route Strategies	NO	YES	<input checked="" type="checkbox"/> MAYBE	\$60,000
7. Other Strategies	NO	YES	<input checked="" type="checkbox"/> MAYBE	\$0
<b>TMP TOTAL</b>				<b>\$ 408,200</b>

An X in the check box means you need to include this in the project unless staging, material, or work hour changes eliminate the need for the item. A ? in the box means TMP anticipates this - please check into this. A blank box means the item is not needed at this time based on the information received.

**1 Public Information/Public Awareness Campaign (PAC) COST**

**BEES 066063 - Traffic Management Plan Public Information.**

Cost to be reduced by Public Affairs (PA) and Construction Liaison (CL) only. Show under **State/Local Furnished** as the total of PA+CL.

PA COST CL COST

40000 40000

- 1.0  Include Rideshare information in PA/CL project material to encourage vehicles reduction in work area
- 1.1  Brochures and Mailers
- 1.2  Media Releases (& minority media sources)
- 1.3  Paid Advertising
- 1.4  Public Information Center/Kiosk
- 1.5  Public Meetings/PAC Mtgs./Speakers Bureau (show cost also for room rental)
- 1.6  Handdeliver notices to vicinity
- 1.7  Broadcast fax service
- 1.8  Telephone Hotline OR
- 1.9  1-800-COMMUTE (the telephone number is shown on CS-Info signs) - contact Cyrin Kwong, 383-4256, to place msg into the 1800C telephone system.
- 1.10  Visual Information (videos, slide shows, etc.)
- 1.11  Local cable TV and News
- 1.12  BEES 861985 Traveler Information Systems (Internet)
- 1.13  Internet, E-mail
- 1.14 Notification to targeted groups:
  - Revised Transit Schedules/maps
  - Rideshare organizations
  - schools
  - organizations representing people with disabilities
  - bicycle organizations
- 1.15  Include PA/CL/Consultant resources in WPS
- 1.16  Commercial traffic reporters/feeds - e.g. brief Traffic Information people (TIP) group
- 1.17  Insert SSP (no number at this time)
 

"A representative of the Contractor, at Superintendent level or higher, and authorized to commit the Contractor, shall attend and participate in all Public Awareness Campaign meetings. Time commitment for the meeting(s) varies from two to four hours per month."
- 1.18  Others

Subtotals \$ 40,000 \$ 40,000  
**SUBTOTAL \$80,000**

**2 Traveler Information Strategies**  
**Project team needs to coordinate with Traffic Design!**

- 2.1  Existing Electronic Message Signs (Stationary) - list locations. See Note 5

- New Installation (Stationary) - BEES 860530 CHANGEABLE MESSAGE SIGN SYSTEM  
- list locations. See Note 5

2.2  4 Portable Changeable Message Signs (PCMS).

**Construction prefers Rental Lumpsum BEES 066578 in Supplemental Funds  
And include SSP 12-370**

These PCMS advise motorists to divert at remote advance decision points - outside the usual work limits. Unlike stationary CMS, you are allowed to use them for advance motorist information - e.g. a week ahead. Their placement may need to be cleared **environmentally** so that they can be included in plans and SSP later. They may be in **addition** to Traffic Design's PCMS for regular traffic handling in and next to a work area.

120000 **Please Note  
The cost of  
It is advised  
Please Contact**

Placement Details:

- 2.3  BEES 860503 Extinguishable Signs (only shown because they are on the TMP Guidelines list. Usually found at Weigh Stations - Weigh Station "open/closed".)

2.4 Ground Mounted Signs / Fabric signs

Note 2

- C40/40A Double Fine Sign - black and white
- BEES 860926 Regulatory speed signs
- SC6-4 (per MUTCD) (Ramp will be closed...)
- CS-SPECIAL w/ SC6-2 PANEL ("Dates/Days/Hours/Expect delay") Use when conventional highways or local roads will be affected for longer periods. To encourage traffic to detour so delay in your work area is less, use at advance location and add the work location. **Use fabric signs if short duration or fast moving operation.**

- CS-INFO/1-800-COMMUTE Panel Sign. **Also see 1.9.**
- Blue and white Rideshare guide signs, including website (1-800-COMMUTE/www.commutesmart.info). **Need to be installed at the same time as the funding signs.**

- 2.5  BEES 860520 Commercial Traffic Radio (usually only applicable in the Upper desert)

- Highway Advisory Radio (HAR) - Fixed. List locations here. They can be obtained from TMC Manager. See Note 5.

- Highway Advisory Radio - mobile (signs alerting motorists to the HAR will also be needed)  
Contact TMC manager for assistance with specifications to include portable HARs as bid item in the contract. To avoid FCC fines, CT Portable HAR cannot be used except for emergencies. Seldom used. See Note 5

List proposed locations here:

- 2.6  Lane Closure Web Site
- 2.7  Caltrans Highway Information Network (CHIN)
- 2.8  Radar Speed Message Sign (Specter sign) BEES 066064 (approx. EA @ \$30,000)
- 2.9  Bicycle and pedestrian information, e.g. Detour maps
- 2.10  Others

**SUBTOTAL \$120,000**

**3 Incident Management**

3.1 CHP's Construction or Maintenance Zone Enhanced Enforcement Program – COZEEP or MAZEEP. BEES 066062 - show under "State or Agency furnished" in the Cost Estimate. SSP 12-225 has been deleted per HQ OE. See note 1.

Consider the LC hours and add CHP driving time to/from their office

Hourly Cozeep overtime loaded rate: \$ 95

COZEEP - to protect active closures

100	8	1	30	10	2	\$133,000
# of days	hours	# of officers (1 per car)	nights	hours	# of officers (Remember - nights require 2 per car)	

ECOZEEP - to mitigate continuous restrictions. Add weekends days if needed.

0	0	0				\$0
# of days	hours	# of officers	nights	hours	see above	

(add weekends days as needed)

**CHP TRAFFIC HANDLING** - reduce delay by keeping traffic flowing and/or to enforce closures - total facility/structure/major traffic shifts/ramps/connectors/local road/extended closures. Freeway closures with local road detours may require **2 officers per intersection** to direct traffic.

			10	8	2	\$15,200
days	hours	# of officers	nights	hours	see above	

CHP Officer in TMC during major construction closures

0	0	0				\$0
days	hours	# of officers				

CHP Officer for Command Post during regional impact construction closures

0	0	0				\$0
days	hours	# of officers				

**3.1 Total**      \$148,200

3.2 **BLANK**

3.3 **Freeway Service Patrol (FSP) for Construction (CFSP)**      \$/hr/truck      \$75

BEES 066065 - show under "State or Agency furnished" in the Cost Estimate  
Short duration or remote area CFSP usually is bid w much higher hourly rates. If enhancement of program FSP feasible, CFSP could tie into the lower long-term FSP rates.

FOR SERVICE **WITHIN** REGULAR FSP HOURS:

<b>A</b>	days & hrs:	0	0	# of trucks:	0		\$0
----------	-------------	---	---	--------------	---	--	-----

FOR SERVICE **OUTSIDE** REGULAR FSP HOURS:

Extend Peak hour coverage

<b>B</b>	days & hrs:			# of trucks:			\$0
----------	-------------	--	--	--------------	--	--	-----

Night support during structure freeway closures and major traffic shifts

<b>C</b>	days & hrs:			# of trucks:			\$0
----------	-------------	--	--	--------------	--	--	-----

Weekend support \_\_\_\_\_

**TMP TABLE** **EA** **#REF!** **DATE** **#####**

D	days & hrs:			# of trucks:		\$0
	Local agency (SAFE) support			8% of truck cost		\$0
	CFSP CHP support			5% of truck cost		\$0
	THIS % ONLY IF WITHIN REGULAR FSP HOURS AND AREA!					
	Equipment/Supplies			10%		\$0
	% of truck cost unless more detail available					

**CONSULT W INLAND DIVISION CHP OR BORDER IN SOUTHERN RIVERSIDE CO. which method is acceptable FOR B,C,D WHICH ARE OUTSIDE REGULAR FSP HOURS OR AREA!**

**Method 1**

CFSP CHP support - including time for meetings 20% of truck cost \$0

or

**Method 2**

CFSP Dispatcher @ \$45

		0	
days/nights	hours	Dispatcher(s)	\$ -

CFSP CHP Officers (See Cozeep rate)

		0	0	0	0	
days	hours	# of officers	nights	hours	hours	\$ -

Include time for meetings:

		0			0	
days	hours	# of officers	nights	hours	hours	\$ -

- Cooperative Agreement or Task Order with SAFE for \$0
- Task Order with CHP (Statewide Master Agreement for FSP support). for \$0
- Contact District FSP Coordinator for task orders.
- Service Contract
- Local Agency will arrange CFSP with SAFE
- Local Agency will arrange CFSP administration with CHP

**3.3 Total** \$0

- 3.4  CHP Helicopter/Airplane
- 3.5  Traffic Surveillance Stations for construction impact mitigation (loop detectors and CCTV)  
Keep existing operational during construction
- New CCTV
- New loops

3.6 **Call Boxes - also see NOTE 4 in the Revisions & Notes tab**  
**TEMPORARY INSTALLATION to mitigate impact** (\$5000/box/move from project funds to SAFE). Project Report/Design PE: Please discuss with the D8 Call box coordinator if it is feasible to keep this motorist aid available during construction. If it is not, please notify TMP, then other mitigation needs to be considered. For location in SBd County see Q:\Ops\Call Boxes\SBd\Excel List. Apparently no list available for Riv County.

0 callboxes x  0 moves x \$5,000.00 = \$0  
 Add 15% to callbox cost since contractor will need to pay SAFE through CCO.

- 3.7  911 Cellular Calls
- 3.8  Project needs to provide resources to Transportation Management Center Unit 370 for additional staff during high impact closures
- 3.9  Traffic Management Teams (TMT) needed to assist w system diversion/impact reduction. Project needs to provide resources.  
See 7/3/05 in Tab 6 - Revisions

- 3.10  On-site Traffic Advisor
- 3.11  Others

**SUBTOTAL \$ 148,200**

**4 Construction Strategies**

- 4.1  Coordinate with adjacent construction and planned projects - also on detour routes.  
Use SSP 07-850

4.2 This TMP presumes work is planned as below. If different, TMP needs to be revised. The Lead Project Engineer is responsible to include all appropriate closure charts.

- Off peak
- Night
- Weekend

- 4.3  Flagging
- Shoulder
- Lane
- Street
- Ramp
- Connector\*
- Extended Weekend Closures\*
- Total Facility Closures\*

\*Consult w TMP and DTM re Cozeep & other cost. Show your detour and traffic diversion plans.

- 4.4  Contra Flow (put traffic into opposing roadbed)
- 4.5  Reversible Lanes
- 4.6  Project Phasing
- 4.7  BEES 152372 - If K-Rail is placed, consider including cost item for lateral shifting to open a minimum of 2.4 m (8') shoulder space as soon as possible. Please include supplemental work funds in the estimate to pay for the extra work. See Standard Specifications 12-4, Measurement and Payment. **PE must discuss this and traffic screen w Traffic Design!**

- 4.8  BEES 129150 Temporary Traffic Screens (Gawk Screen - see 5/10/06 entry in Revisions tab)
- 4.9  Movable Barrier
- 4.10  Truck Traffic Restrictions
- 4.11  BEES 066008 Incentives/Disincentives
- 4.12  BEES 070010 Strictly enforce Constr. Progress Schedule (CPM)

**CAUTION: If the Lane Closure Chart (LCC) for full mainline closures (one or both directions on a highway or freeway) does not show a maximum number of allowable days, the PSE cannot be certified by DTM/TMP.**

Please contact DTM at 909-838-4917 to get Delay Calculations, lane closure charts, Table Z and Special events list. Inform him of any concerns/commitments re special LC days, times, season, events; environmental restrictions; if work may be affected by snow and low or high temperatures. E.g. desert heat may delay AC digout curing which may increase traffic impact when vehicles overheat in the queue; etc. IF traffic volumes vary significantly between seasons, consider 2 sets of closure charts to avoid CCOs later.

Use SSP 12-130 and following

- 4.13  Include Specification 12-220
  - 4.14  Funds for paragraph 11 and 12:  
BEES 066022 (Traffic) Right of Way delay. Show in supplemental work. If State (or agency) \$ -  
denies an approved closure or orders the contractor to pick it up early, this can be used to pay  
damages, e.g. for AC cold load, etc.
  - 4.15  Delay Damages Please contact DTM at, 909-383-4917, regarding Delay Calculations.  
(DD) DD is different from the R/W Delay shown above!
  - 4.16  Others
- SUBTOTAL \$ -

**5 Demand Management (DM)**  
**Project team needs to coordinate with RCTC/SANBAG/CVAG**

Traffic diversion may increase available work hours.

- 5.1  A coop will be executed - mentioned in PSR or PR.
  - Instead of a coop, 15% is added to the cost of DM elements since the payment to the local  
agency will be routed through the contractor.
  - Instead of a coop, the local agency will make their own arrangements with RCTC/SANBAG.
  - PA/CL or local agency need to inform commuters through RCTC/SANBAG. Funds part of  
PA/CL.
  - 5.2  HOV Lanes/Ramps (New or Convert)
  - 5.3  Park-and-Ride Lots
  - LEASED SPACES (Sponsored spaces may be feasible in exchange for signs and print coverage)
  - 5.4  Parking Management/Pricing (Coordination with local agency required)
  - 5.5  BEES 066069 Rideshare Promotion
  - 5.6 Rideshare Incentives -  
As far as D8 DTM.TMP knows, incentives to individuals cannot be paid by the State, however,  
State can pay for Local Transportation agency staff time, postage, cost of extra busses, etc.
  - Carpool/vanpool
  - Transit
  - Train
  - Light-Rail
  - 5.7 BEES 066066  
 Public Transit Support/Improvements/Shuttle Service
  - School Shuttle Service
  - 5.8  Variable Work Hours
  - 5.9  Telecommute
  - 5.10  Ramp Metering (Modify or new)
  - 5.11  Blue and white Rideshare signs needed - unless already signed. See 2.4
  - 5.12  Others
- SUBTOTAL \$ -

**6 Alternate Route Strategies**  
**Caution - signed detours may require environmental clearance**

Traffic diversion may increase available work hours. Please work with Traffic Design.

- 6.1  Add Capacity to Freeway connector
- 6.2.1  Upstream Ramp Closures needed to avoid conflicts with closure tapers, etc., during construction
- 6.2.2  Upstream Connector Closures needed to avoid conflicts with closure tapers, etc., during construction
- 6.3  Temporary Highway Lanes or Shoulder Use

TMP TABLE	EA	#REF!	DATE	#####
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6.4	<input type="checkbox"/>	Parking Restrictions		
6.5	<input type="checkbox"/>	Street Improvements		
	<input type="checkbox"/>	State R/W - Signals, Widen, etc.		
	<input type="checkbox"/>	Local R/W - Signals, Widen, etc. Coop or Permit may be needed		
6.6	<input type="checkbox"/>	Local Street USE - Coop or Permit may be needed		
6.7	<input type="checkbox"/>	Traffic Control Officers (see 3.1 Cozeep)		
6.8	<input type="checkbox"/>	Signed detour - using State routes	10000	Please No
6.9	<input type="checkbox"/>	Signed detour - using local streets and roads	10000	The Costs
6.10	<input type="checkbox"/>	Adjust signals	\$ 40,000	The Costs
6.11	<input type="checkbox"/>	Temporary bicycle or pedestrian facilities		
6.12	<input type="checkbox"/>	Others		

SUBTOTAL \$ 60,000.00

**7 Other Strategies**

7.1	<input type="checkbox"/>	Application of new technology
7.2	<input type="checkbox"/>	Innovative products
7.3	<input type="checkbox"/>	Others

SUBTOTAL \$ -

TOTAL \$ 408,200

**ATTACHMENT I**

**CATEGORY ASSIGNMENT**

## Memorandum

*Flex your power!  
Be energy efficient!*

To: CHRISTY CONNORS  
DEPUTY DISTRICT DIRECTOR  
DESIGN, MS 1267

Date: March 8, 2010

File: 08-SBD-58-PM 0.0/12.9  
Const 4-Lane Expressway  
08-230-347700  
Program 025.700/HE14

From: SERGIO E. AVILA   
Office Chief  
Design E, MS 971

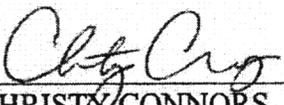
Subject: Project Categorical Assignment

We are preparing a Draft Project Report (DPR) for the above-referenced project. It is proposed to realign and widen State Route 58 (SR-58) from a two lane conventional highway to a four-lane access controlled expressway from the Kern/San Bernardino County Line to 7.5 miles east of State Route 395 (SR-395).

Approval is requested for the above project to be assigned to a Category 1 in accordance with Chapter 8, Section 5 of the 2007 Project Development Procedures Manual, 7<sup>th</sup> Edition. A Category 1 is recommended since this project requires a Route Adoption, new Right of Way, Freeway Agreement, and provides access control.

If you have any questions or need additional information, please contact Michelle Tavakoli at Ext. 4540 or myself at Ext. 4062.

Approved by:

  
CHRISTY CONNORS  
Deputy District Director  
Design

3/8/10  
Date

Michelle Tavakoli / bs

# ATTACHMENT J

## **ADVANCE PLANNING STUDY**

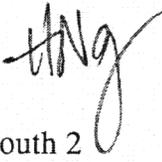
# Memorandum

*Flex your power!  
Be energy efficient!*

To: SERGIO AVILA  
Branch Chief  
Design E, MS 9-71  
District 8

Date: March 11, 2014

File: 08-SBd-58- R0.0/R20.77  
Kern County Line  
12.08KP E/o Rte 395  
Realign and Upgrade to  
4-Lane Expressway  
08-231-347700

From: HOWARD NG   
Branch Chief  
Bridge Design Branch 20  
Office of Bridge Design South 2  
Division of Engineering Services

Subject: **Advance Planning Study-Cost Update**

Attached you will find Advance Planning Studies structure cost estimate update for the above referenced project.

The estimated construction costs, including 5% time related overhead, 8% mobilization and 25% contingencies, is as follows:

**Route 58 /395 Separation:**

Structure Type	Estimated Cost
CIP/PS Box Girder	\$2,916,000

**Route 58 Overhead:**

Structure Type	Estimated Cost
CIP/PS Box Girder	\$11,912,000

The following table summarizes the projected total structure cost based on escalation rate:

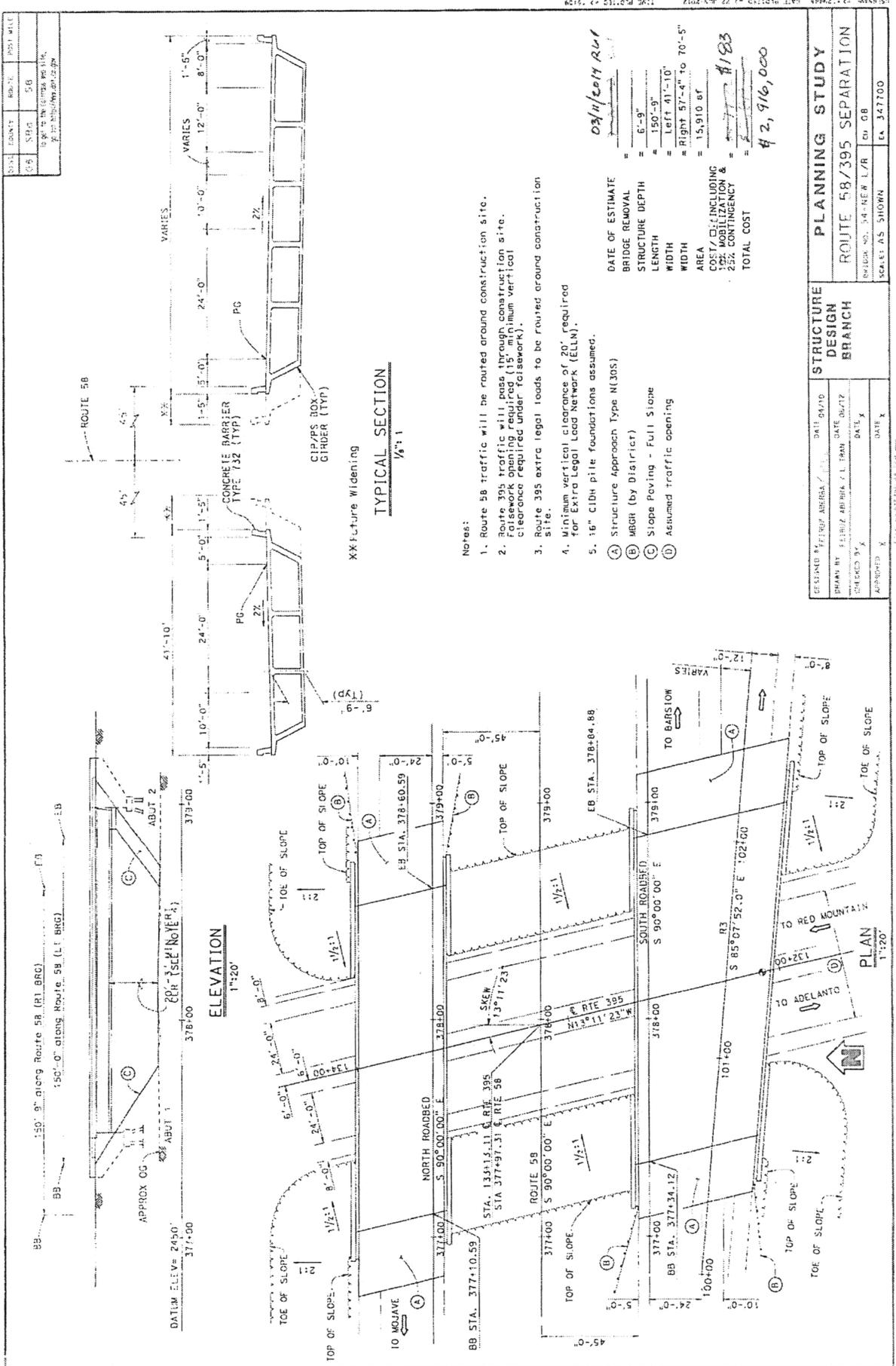
Year	Escalation Rate	58/395 Separation	Route 58 Overhead
2015	2.3%	\$2,983,000	\$12,161,000
2016	2.9%	\$3,070,000	\$12,526,000
2017	3.5%	\$3,177,000	\$12,926,000
2018	3.5%	\$3,288,000	\$13,272,000
2019	2.3%	\$3,364,000	\$13,584,000

The escalated structure cost is provided for informational purposes only and does not replace annual cost updates as required by Department policy.

Please refer to the previous transmittal memos for design assumptions used to develop these Advance Planning Studies.

If you have any questions or if you need additional information regarding this cost estimate, please contact me at (909) 598-6367 or Mohammad Muqtadir at (909) 595-7020.

- c: Dan Adams, Bridge Design Office Chief, Diamond Bar (Acting)
- Feiruz Aberra, Senior Bridge Engineer -Technical Liaison
- Colyn Peterson, Project Coordination Engineer, MS 9-5/11G



DATE	DESIGNED	CHECKED	POST MILE
08/11/83	08/11/83	08/11/83	5.6

ROUTE 58  
 150'-0" along Route 58 (R1 BRG)  
 150'-0" along Route 58 (L1 BRG)

DATE OF ESTIMATE = 08/11/83  
 BRIDGE REMOVAL = 6'-9"  
 STRUCTURE DEPTH = 150'-9"  
 LENGTH = Left 41'-10"  
 WIDTH = Right 57'-4" to 70'-5"  
 AREA = 15,910 SF  
 COST INCLUDING CONSTRUCTION & 25% CONTINGENCY = \$1,833,916,000  
 TOTAL COST = \$2,916,000

Notes:  
 1. Route 58 traffic will be routed around construction site.  
 2. Route 395 traffic will pass through construction site. Foilsework opening required (15' minimum vertical clearance required under foilsework).  
 3. Route 395 extra legal loads to be routed around construction site.  
 4. Minimum vertical clearance of 20' required for Extra Legal Load Network (ELLN).  
 5. 16" CIDH pile foundations assumed.

DESIGNED BY: FETTER ARBERG / DATE: 08/11/83  
 DRAWN BY: FETTER ARBERG / DATE: 08/11/83  
 CHECKED BY: / DATE: /  
 APPROVED BY: / DATE: /

STRUCTURE DESIGN BRANCH  
 ROUTE 58/395 SEPARATION  
 NUMBER NO. 54-NEW L/R  
 SCALE: AS SHOWN  
 DATE: 08/11/83

PLANNING STUDY  
 ROUTE 58/395 SEPARATION  
 NUMBER NO. 54-NEW L/R  
 DATE: 08/11/83

DATE: 08/11/83  
 DATE: 08/11/83  
 DATE: /  
 DATE: /

