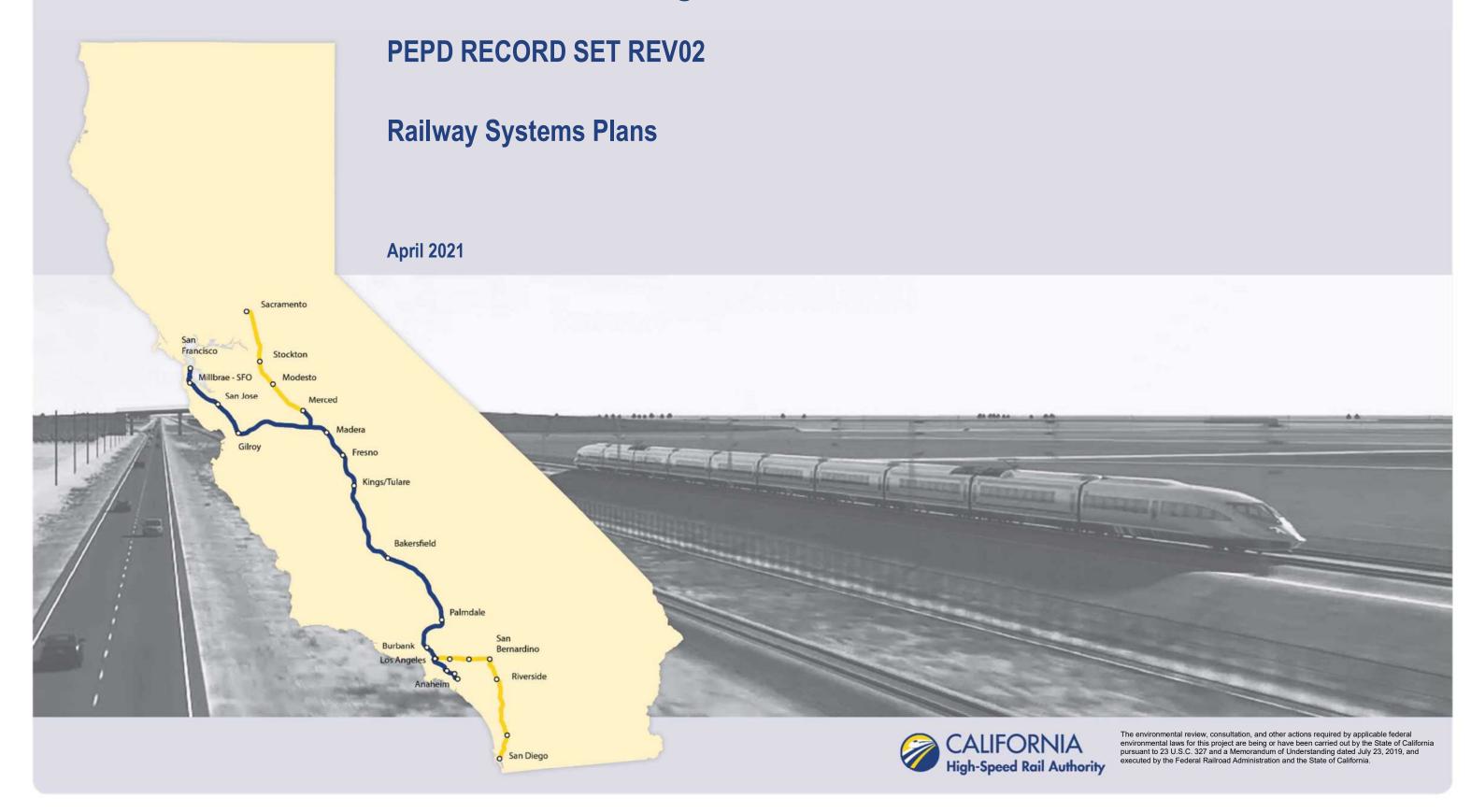
**California High-Speed Rail Authority** 

# Palmdale to Burbank Project Section



DRAWING NO.	DRAWING DESCRIPTION	SHEET NO
TP-B0001	GENERAL - INDEX OF DRAWINGS	
TP-B0002	GENERAL - ABBREVIATIONS	
TP-B0003	GENERAL - ABBREVIATIONS AND LEGEND	

### ALIGNMENT "REFINED SR14" RAILWAY SYSTEMS AND FACILITIES

DRAWING NO.	DRAWING DESCRIPTION	SHEET	NO.
TP-D0001-S14	TRACTION POWER FACILITIES - LOCATION LAYOUT		
TP-B6001-S14	RAILWAY SYSTEMS - KEY MAP 1 OF 2		
TP-B6002-S14	RAILWAY SYSTEMS - KEY MAP 2 OF 2		
TP-F4001-S14	TRACTION POWER FACILITIES - TRACTION POWER SUBSTATION 17A - VINCENT SUBSTATION 1 OF 2		
TP-F4002-S14	TRACTION POWER FACILITIES - TRACTION POWER SUBSTATION 17A - VINCENT SUBSTATION 2 OF 2		
TP-F4003-S14	TRACTION POWER FACILITIES - TRACTION POWER SUBSTATION 18A - INTERSTATE 210 AREA		
TP-04002-S14	TRACTION POWER FACILITIES - PARALLELING STATION 2		
TP-04003-S14	TRACTION POWER FACILITIES - PARALLELING STATION 3		
TP-04004-S14	TRACTION POWER FACILITIES - SWITCHING STATION 1		
TP-04005-S14	TRACTION POWER FACILITIES - PARALLELING STATION 4		
TP-04006-S14	TRACTION POWER FACILITIES - PARALLELING STATION 5		
TP-04007-S14	TRACTION POWER FACILITIES - PARALLELING STATION 6		
TP-04008-S14	TRACTION POWER FACILITIES - PARALLELING STATION 7		

### **ALIGNMENT "E1"** RAILWAY SYSTEMS AND FACILITIES

DRAWING NO.	DRAWING DESCRIPTION	SHEET NO.
TP-D0001-E1	TRACTION POWER FACILITIES - LOCATION LAYOUT	
TP-B6001-E1	RAILWAY SYSTEMS - KEY MAP 1 OF 2	
TP-B6002-E1	RAILWAY SYSTEMS - KEY MAP 2 OF 2	
TP-F4001-E1	TRACTION POWER FACILITIES - TRACTION POWER SUBSTATION 17B/17C - VINCENT SUBSTATION	
TP-F4002-E1	TRACTION POWER FACILITIES - TRACTION POWER SUBSTATION 18B - LADWP VALLEY POWER GENERATING STATION	
TP-04002-E1	TRACTION POWER FACILITIES - PARALLELING STATION 2	
TP-04003-E1	TRACTION POWER FACILITIES - PARALLELING STATION 3	
TP-04004-E1	TRACTION POWER FACILITIES - PARALLELING STATION 4	
TP-04005-E1	TRACTION POWER FACILITIES - SWITCHING STATION 1	
TP-04006-E1	TRACTION POWER FACILITIES - PARALLELING STATION 5	
TP-04007-E1	TRACTION POWER FACILITIES - PARALLELING STATION 6	
TP-04008-E1	TRACTION POWER FACILITIES - PARALLELING STATION 7	
TC-F4002-E1	TRAIN CONTROL SYSTEM - STANDALONE RADIO SITE 2	
TC-F4003-E1	TRAIN CONTROL SYSTEM - STANDALONE RADIO SITE 3	

### **ALIGNMENT "E2"** RAILWAY SYSTEMS AND FACILITIES

DRAWING NO.	DRAWING DESCRIPTION	SHEET N	٧O.
TP-D0001-E2	TRACTION POWER FACILITIES - LOCATION LAYOUT		
TP-B6001-E2	RAILWAY SYSTEMS - KEY MAP		
TP-F4002-E2	TRACTION POWER FACILITIES - TRACTION POWER SUBSTATION 18C - TUJUNGA WASH AREA		
TP-04005-E2	TRACTION POWER FACILITIES - SWITCHING STATION 1		
TP-04006-E2	TRACTION POWER FACILITIES - PARALLELING STATION 5		П
TP-04007-E2	TRACTION POWER FACILITIES - PARALLELING STATION 6		

### ALIGNMENT "REFINED SR14/E1/E2" TRACTION POWER FACILITIES DETAIL

DRAWING NO.	DRAWING DESCRIPTION	SHEET NO.
TP-D5001	UNDERGROUND TRACTION POWER FACILITIES - DETAIL 1	
TP-D5002	UNDERGROUND TRACTION POWER FACILITIES - DETAIL 2	
TP-D5003	UNDERGROUND TRACTION POWER FACILITIES - DETAIL 3	

## ALIGNMENT "REFINED SR14/E1/E2" TRAIN CONTROL SYSTEM

I RAIN C	ONINGE SISIEM	
DRAWING NO.	DRAWING DESCRIPTION	SHEET NO.
TC-E6002	ALIGNMENT "REFINED SR14" - TRAIN CONTROL SYSTEM - INTERLOCKING SITES - SITE D LOCATIONS	
TC-E6003	ALIGNMENT "E1" - TRAIN CONTROL SYSTEM - INTERLOCKING SITES - SITE D LOCATIONS	
TC-E6004	ALIGNMENT "E2" - TRAIN CONTROL SYSTEM - INTERLOCKING SITES - SITE D LOCATIONS	
TC-E6005	ALIGNMENT "REFINED SR14/E1/E2" - TRAIN CONTROL SYSTEM - INTERLOCKING SITES - BURBANK STATION	
TC-B6001-S14	ALIGNMENT "REFINED SR14" - TRAIN CONTROL SYSTEM - RAILWAY SYSTEMS - KEY MAP	
TC-F5001-S14	ALIGNMENT "REFINED SR14" - TRAIN CONTROL SYSTEM - INTERLOCKING SITES - STA 2233+00 TO STA 2245+00	
TC-B6001-E1	ALIGNMENT "E1" - TRAIN CONTROL SYSTEM - RAILWAY SYSTEMS - KEY MAP	
TC-F5001-E1	ALIGNMENT "E1" - TRAIN CONTROL SYSTEM - INTERLOCKING SITES - STA 2125+00 TO STA 2137+00	
TC-B6001-E2	ALIGNMENT "E2" - TRAIN CONTROL SYSTEM - RAILWAY SYSTEMS - KEY MAP	
TC-F5001-E2	ALIGNMENT "E2" - TRAIN CONTROL SYSTEM - INTERLOCKING SITES - STA 1923+00 TO STA 1935+00	

R. RODRIGUEZ J.LEMA N CHARGE BY CHK APP 04/30/2021 DESCRIPTION

FJ. DOMINGUEZ PEPD RECORD SET REV Q2 NOT FOR

CONSTRUCTION





### **CALIFORNIA HIGH-SPEED RAIL PROJECT** PALMDALE TO BURBANK

ALIGNMENT "REFINED SR14/E1/E2"

GENERAL INDEX OF DRAWINGS

HSR14-42 AWING NO. TP-B0001 NO SCALE SHEET NO.

		( A )		(C CONTINUED)		(E CONTINUED)		Н			(M CONTINUED)	
	AB	AGGREGATE BASE	CHSRA	CALIFORNIA HIGH SPEED RAIL	EASE	EASEMENT	н	HEIGHT	_	MOD	MODIFIED, MODIFY	
	ABBC	ASBESTOS BONDED BITUMINOUS COATED	CHORA	AUTHORITY	EB	END OF BRIDGE, EASTBOUND	HD	HORIZONTAL DR	ΔIN	MON	MONUMENT	
	ABM	AIR-BLOWN MORTAR	CHST	CALIFORNIA HIGH SPEED TRAIN	EC	END HORIZONTAL CURVE	HDWL	HEADWALL	8113	MP	METAL PLATE	
	ABN	ABANDON	CHSR	CALIFORNIA HIGH SPEED RAIL	ECR	END CURB RETURN	HEX HD	HEXAGONAL HEA	D	MPGR	METAL PLATE GUARD RAILIN	AC.
	ABUT	ABUTMENT	CG	CENTER OF GRAVITY	ED	EDGE DRAIN	HMA	HOT MIXED ASP		MPH	MILES PER HOUR	,0
	AC	ASPHALT CONCRETE	CHNL	CHANNEL	EDC	EDGE DRAIN CLEANOUT	HORIZ	HORIZONTAL			MOVEMENT RATING	
	ACB	ASPHALT CONCRETE BASE		CAST IRON	EDO	EDGE DRAIN OUTLET	HP	HINGE POINT, H	ORSEPOWER		MECHANICALLY STABILIZED	FARTH
	ACP	ASBESTOS CEMENT PIPE		CAST-IN-DRILLED-HOLE	EDV	EDGE DRAIN VENT	HPS	HIGH PERFORMA		MSS	MOVING SCAFFOLDING SYSTE	
	ADL	ADDED DEAD LOAD		CAST-IN-PLACE, CAST IRON PIPE	ELEC	ELECTROLIER	HR	HOUR		MT	MAIN TRACK	
	ADJ	ADJUST		CAST IN PLACE CONCRETE PIPE		ELECTRIC	HS	HIGH STRENGTH		MTL	MATERIAL	
	AFES	ALTERNATIVE FLARED END SECTION		CAST-IN-STEEL-SHELL	ELEV	ELEVATION	HSR	HIGH SPEED RA	IL		(	
	AHD	AHEAD		COMPLETE JOINT PENETRATION	ELLN	EXTRALEGAL LEAD NETWORK	HST	HIGH SPEED TR	AIN	N	NORTH, NORTHING	
	ALT	ALTERNATE	CL	CENTERLINE, CLASS	EMB	EMBANKMENT	HW	HEADWALL, HIGH	H WATER	N/A	NOT APPLICABLE	
	AM	TIME FROM MIDNIGHT TO NOON	€	CENTERLINE	ENGR	ENGINEER	HWM	HIGH WATER MA	RK	NB	NORTHBOUND	
	AP	ALTERNATIVE PIPE	CL2	CLASS 2	EOD	EDGE OF DECK	HWY	HIGHWAY		NO.	NUMBER (MUST HAVE PERIOD	<b>)</b> )
	APC	ALTERNATIVE PIPE CULVERT	CL-6	CHAIN LINK FENCE (6 FT)	EP	EDGE OF PAVEMENT				NOS.	NUMBERS (MUST HAVE PERIO	(סנ
	APPROX	APPROXIMATE	CLR	CLEAR, CLEARANCE	EO	EQUATION, EQUAL				NPS	NOMINAL PIPE SIZE	
	APU	ALTERNATIVE PIPE UNDERDRAIN	CM	CORRUGATED METAL	ES	EDGE OF SHOULDER	IB	IMPORTED BORR	OW	NS	NEAR SIDE	
	ARS	ACCELERATION RESPONSE SPECTRUM	CMP	CORRUGATED METAL PIPE	ETW	EDGE OF TRAVELED WAY	ID	INSIDE DIAMETE	R	NTS	NOT TO SCALE	
	AR	ACCESS RESTRICTION	СО	COUNTY	EVC	END VERTICAL CURVE	[F	INSIDE FACE				
	AS	AGGREGATE SUBBASE	COL	COLUMN	EW	ENDWALL	IN	INCH, INCHES			<u> </u>	
	ASRP	ALUMINUM SPIRAL RIB PIPE	CONC	CONCRETE	EXC	EXCAVATION	INT	INTERIOR		OBLR	OBLITERATE	
	ASSY	ASSEMBLY	COND	CONDUIT	EXIST, EX		INV	INVERT			OVERCROSSING	
	ATPB	ASPHALT TREATED PERMEABLE BASE	CONN	CONNECTOR	EXP	EXPANSION	IRR	IRRIGATION			OVERHEAD CONTACT SYSTEM	
	ATPM	ASPHALT TREATED PERMEABLE MATERIAL	CONST	CONSTRUCT, CONSTRUCTION		EXPANSION JOINT				OD	OUTSIDE DIAMETER	
	AVE	AVENUE	CONT	CONTINUOUS	EXT	EXTERIOR			_	OF	OUTSIDE FACE	
	AVG	AVERAGE	COORD	COORDINATE	EXWY	EXPRESSWAY	JCT	JUNCTION		OG	ORIGINAL GROUND	ODETE
	@	AT	CP	CANDLEPOWER		F	JP	JOINT POLE	CONCRETE DAVENENT	OGAC	OPEN GRADED ASPHALT CON	CRETE
		В	CR CRCP	CREEK		EDAME AND COVER	JPCP		CONCRETE PAVEMENT	OH	OVERHEAD	
	DACD		CRSP	CONTINUOUS REINFORCED CONCRETE PAVT CONCRETED ROCK SLOPE PROTECTION		FRAME AND COVER FRAME AND GRATE	JS JT	JUNCTION STRU JOINT	CIURE	0-0 0PP	OUT TO OUT OPPOSITE	
	BAGR	BRIDGE APPROACH GUARD RAILING BEGINNING OF BRIDGE		CURVE TO SPIRAL	r ox U FB	FLOOR BEAM	JI	JOINI		OPP	OPPOSITE	
	BB BC	BEGIN HORIZONTAL CURVE	CSP	CORRUGATED STEEL PIPE	F-B	FRESNO TO BAKERSFIELD		K			( P	
_	BCC	BALANCED CANTILEVER CONSTRUCTION		CORRUGATED STEEL PIPE ARCH	FDN	FOUNDATION	K	DISTANCE TO A	CHIEVE 1% GRADE CHANGE	P	PAGE	
dgp	BCR	BEGIN CURB RETURN		CEMENT TREATED BASE		FACING EASTBOUND TRAFFIC	K	DISTANCE TO A	CHIEVE IN GRADE CHARGE	PAP	PERFORATED ALUMINUM PIPE	:
02.	BEG	BEGIN		CEMENT TREATED BASE	FES	FLARED END SECTION		L		PB	PULL BOX	
00		BITUMINOUS COATED	CTPM	CEMENT TREATED PERMEABLE MATERIAL	FF	FILTER FABRIC	L	LENGTH		PC	POINT OF CURVATURE, PREC	:AST
_	BK C.D	BACK	CTRS	CENTERS	FG	FINISHED GRADE	LAT	LATITUDE		PCC	POINT OF COMPOUND CURVE,	
- -	BKF	BACKFILL	CULV	CULVERT	EU .	FIRE HYDRANT	LC	LENGTH OF CUF	VF	. 55	PORTLAND CEMENT CONCRET	
89		BUILDING	CVFPB	CENTRAL VALLEY FLOOD PROTECTION BOARD	FIG	FIGURE	LMF	LIGHT MAINTEN		PCP	PERFORATED CONCRETE PIPE	
47.	BLM	BRIDGE-LOG MILE			FL	FLOW LINE	LN	LANE		_	PRESTRESSED CONCRETE PI	
ms.	BLVD	BOULEVARD		$\bigcirc$ D	FNBT	FACING NORTHBOUND TRAFFIC	LOC	LOCATION		PCVC	POINT OF COMPOUND VERTIC	CAL CURVE
?	ВМ	BENCH MARK	D	DEPTH	FOC	FACE OF CONCRETE	LOL	LAYOUT LINE		PED	PEDESTRIAN	
ishs:	BND	BOUND	DD	DOWNDRAIN, DIRECTIVE DRILLING	FPLM	FULL SPAN PRECAST	LONG	LONGITUDE		PED OC	PEDESTRIAN OVERCROSSING	
) gr	BOT	BOTTOM	DBL	DOUBLE		LAUNCHING METHOD	LONGIT	LONGITUDINAL		PED UC	PEDESTRIAN UNDERCROSSING	;
<u> </u>	BR	BRIDGE	DEG	DEGREE	FR RD	FRONTAGE ROAD	LS	LENGTH OF SPI	RAL	PERM MTL	PERMEABLE MATERIAL	
.wo	BRG	BEARING	DEL	DELINEATOR	FS	FAR SIDE, FINISHED SURFACE	LT	LEFT		PG	PROFILE GRADE	
<u>ة</u>	BTU	BRITISH THERMAL UNIT		DETAIL, DETOUR	FSBT	FACING SOUTHBOUND TRAFFIC		11		PΙ	POINT OF INTERSECTION	
O	BVC	BEGIN VERTICAL CURVE	DF	DOUGLAS FIR	FT	FOOT, FEET		<u> </u>		PJP	PARTIAL JOINT PENETRATIO	N
	BW	BARBED WIRE	DI	DRAINAGE INLET, DROP INLET	FTG	FOOTING	MAINT	MAINTENANCE		P,PL	PLATE	
			DIA	DIAMETER	FUT	FUTURE	MAX	MAXIMUM		P/L	PROPERTY LINE	
				DIAPHRAGM	FWBT	FACING WESTBOUND TRAFFIC	MB	METAL BEAM	20152	PM	POST MILE, TIME FROM NOO	N TO MIDNIGHT
		CARLE ANGUER ASSESSED		DISTANCE, DISTRICT	FWY	FREEWAY	MBB	METAL BEAM BA		PN	PAVING NOTCH	
₽	CAA	CABLE ANCHOR ASSEMBLY	DMBB	DOUBLE METAL BEAM BARRIER		G	MBGR	METAL BEAM GU	ARD KAILING	POB	POINT OF BEGINNING	ır.
25	CAP	CORRUGATED ALUMINUM PIPE	DR	DRIVE	G	ACCELERATION DUE TO GRAVITY	MED M-F	MEDIAN	CNO	POC	POINT OF HORIZONTAL CURV	L
12	CAPA	CONSTRUCTION AREA SIGN	DTBB Dwy	DOUBLE THRIE BEAM BARRIER DRIVEWAY	GA	GAGE	M-F MH	MERCED TO FRE	DIVIC	POE POT	POINT OF ENDING POINT OF TANGENT	
10:	CAS	CONSTRUCTION AREA SIGN	ו אינו	DUIACMAI	GALV	GALVANIZED	MIN	MANHOLE MINIMUM		POVC	POINT OF TANGENT POINT OF VERTICAL CURVE	
<u>.</u> [	CB CBW	CONCRETE BARRIER CONCRETE BLOCK WALL		( E )	GP.	GRADING PLANE	MIN	MISCELLANEOUS		PDVC	PIPE PILE, PLASTIC PIPE,	DOWER DOLE
202		CENTER TO CENTER	E	EAST, EASTING	GR	GUARD RAILING		MISCELLANEOUS MISCELLANEOUS		PPL	PREFORMED PERMEABLE LINE	
797	C-C	CLITICITY OF CLINIER	EA	ACTUAL SUPERELEVATION	GSP	GALVANIZED STEEL PIPE	MKR	MARKER	MON AND SILLE	PPP	PERFORATED PLASTIC PIPE	.11
S .			EU	UNBALANCED SUPERELEVATION	GTR	GUTTER	M/L	MAIN LINE (RAI	LWAY)	PRC	POINT OF REVERSE CURVE	
	1 1			DESIGNED BY								CONTRACT NO.
	<del>-    </del>	++		R. RODRIGUEZ							D RAIL PROJECT	HSR14-42
	<del>-    </del>	++								ALE TO B		DRAWING NO. TP-B0002
	<del>-    </del>	++		J.LEMA	SEN				AL [GNMEN]	"REFINED S	SK14/E1/E2"	SCALE SCALE
0,4	<del>-    </del>	++		A DELANO			LIFORI			GENERAL		NO SCALE
O REV DATE	-   <sub>BV</sub> /	CHK APP DESCRIPTION		DATE 04/30/2021		HIGH-S	PEED RAIL AUTH	HORITY		ABBREVIATIO	NS	SHEET NO.
UATE VALE	- 1811	DESCRIPTION		V77 3U7 EVE1								

HIGH-SPEED RAIL AUTHORITY

CONSTRUCTION

04/30/2021

DATE

BY CHK APP

DESCRIPTION

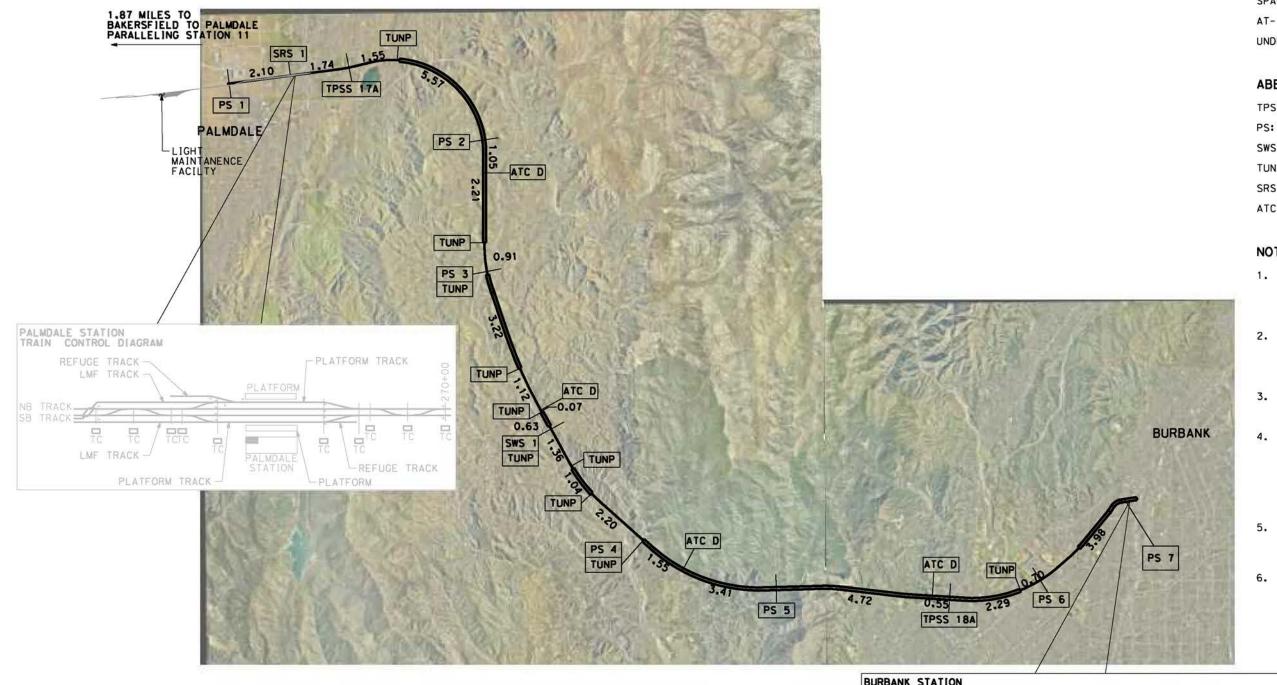
HSR14-42

TP-B0003

NO SCALE

SHEET NO.

ABBREVIATIONS AND LEGEND



### **LEGEND**

RAILWAY SYSTEMS FACILITY SPACING (MILES)

AT- GRADE / ELEVATED

UNDERGROUND

### ABBREVIATIONS:

TRACTION POWER SUBSTATION

5.0

PARALLELING STATION

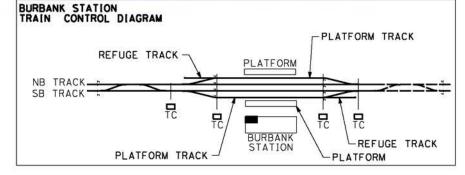
SWS: SWITCHING STATION

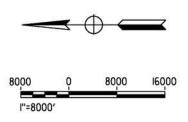
TUNP: TUNNEL PORTAL FACILITIES SRS: STANDALONE RADIO SITE

ATC D: TRAIN CONTROL FACILITY

### NOTE:

- 1. SITE STATIONING GIVEN IS APPROXIMATE AND WILL BE FINALIZED IN FUTURE DESIGN PHASE.
- IN UNDERGROUND SECTIONS, RF COMMUNICATION WILL BE USING DIRECTIONAL ANTENNAS OR RADIANT CABLES.
- TRACTION POWER FACILITIES HAVE RADIO ANTENNAS.
- ALL TUNNEL PORTALS (TUNP)
  REQUIRE SPACE FOR RADIO MASTS AS WELL AS ANTENNAS, PLUS AN ASSOCIATED CABIN TO HOUSE RADIO EQUIPMENT. ATC EQUIPMENT CABINS WILL BE LOCATED AT THESE LOCATIONS TOO.
- RADIO EQUIPMENT WITHIN TUNNELS WILL BE INSTALLED IN CROSS PASSAGES EQUIPMENT ROOMS AND AT PARALLELING STATIONS.
- SYSTEMS FACILITIES IN PALMDALE SUBSECTION ARE INCLUDED FOR REFERENCE ONLY, SINCE THEY ARE PART OF THE PALMDALE SUBSECTION RECORD SET INCLUDED IN THE BAKERSFIELD - PALMDALE ENVIRONMENTAL DOCUMENT.





					DESIGNED BY R. RODRI	GUE Z	
					DRAWN BY FJ. DOM		PE
		+			CHECKED BY  J.LEMA		
$\overline{}$		+			IN CHARGE A. RELAR	io i	
REV	DATE	ВУ	СНК	APP	DESCRIPTION DATE 04/30/	2021	8

PEPD RECORD SET REV 02 NOT FOR CONSTRUCTION



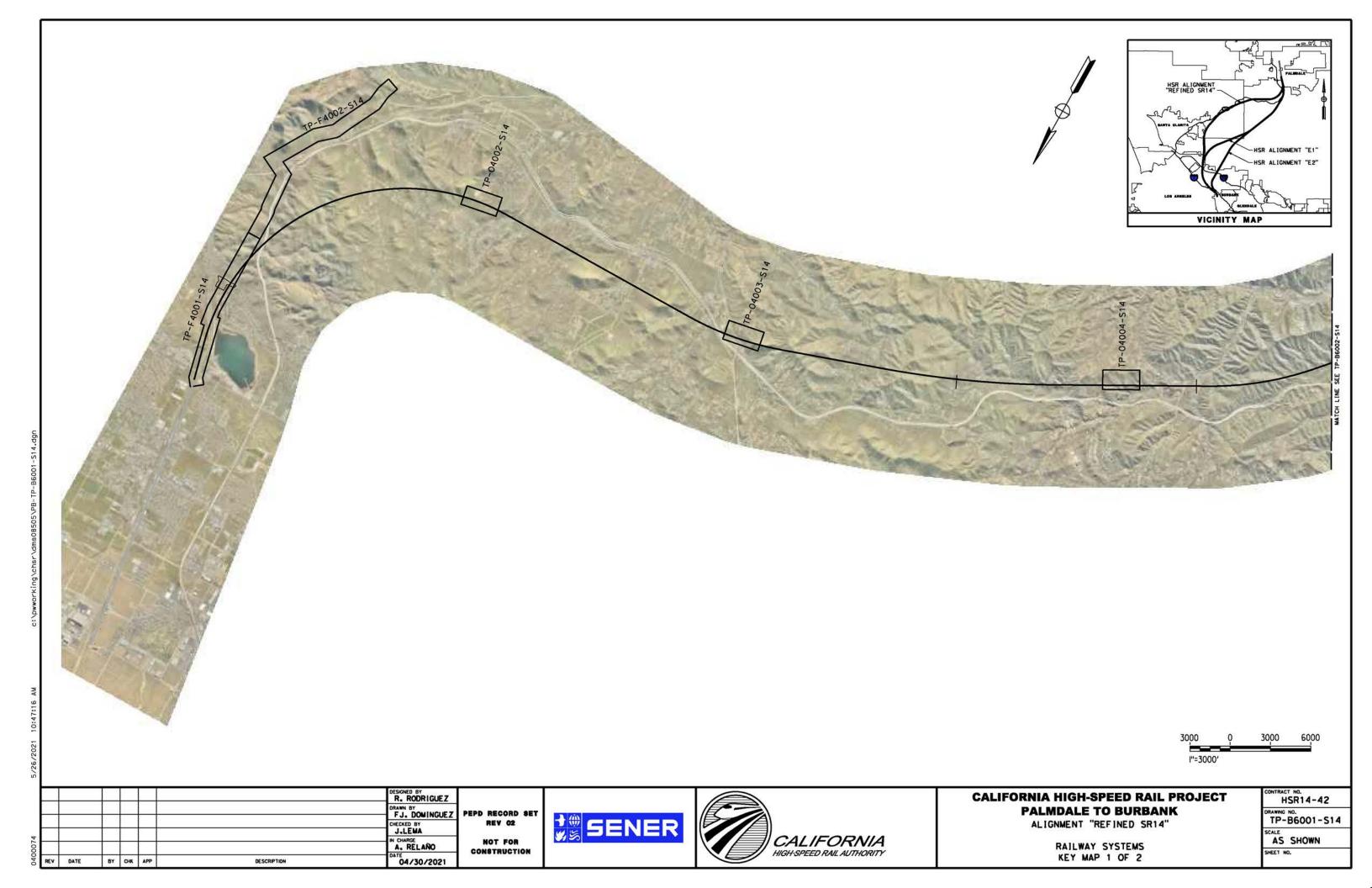


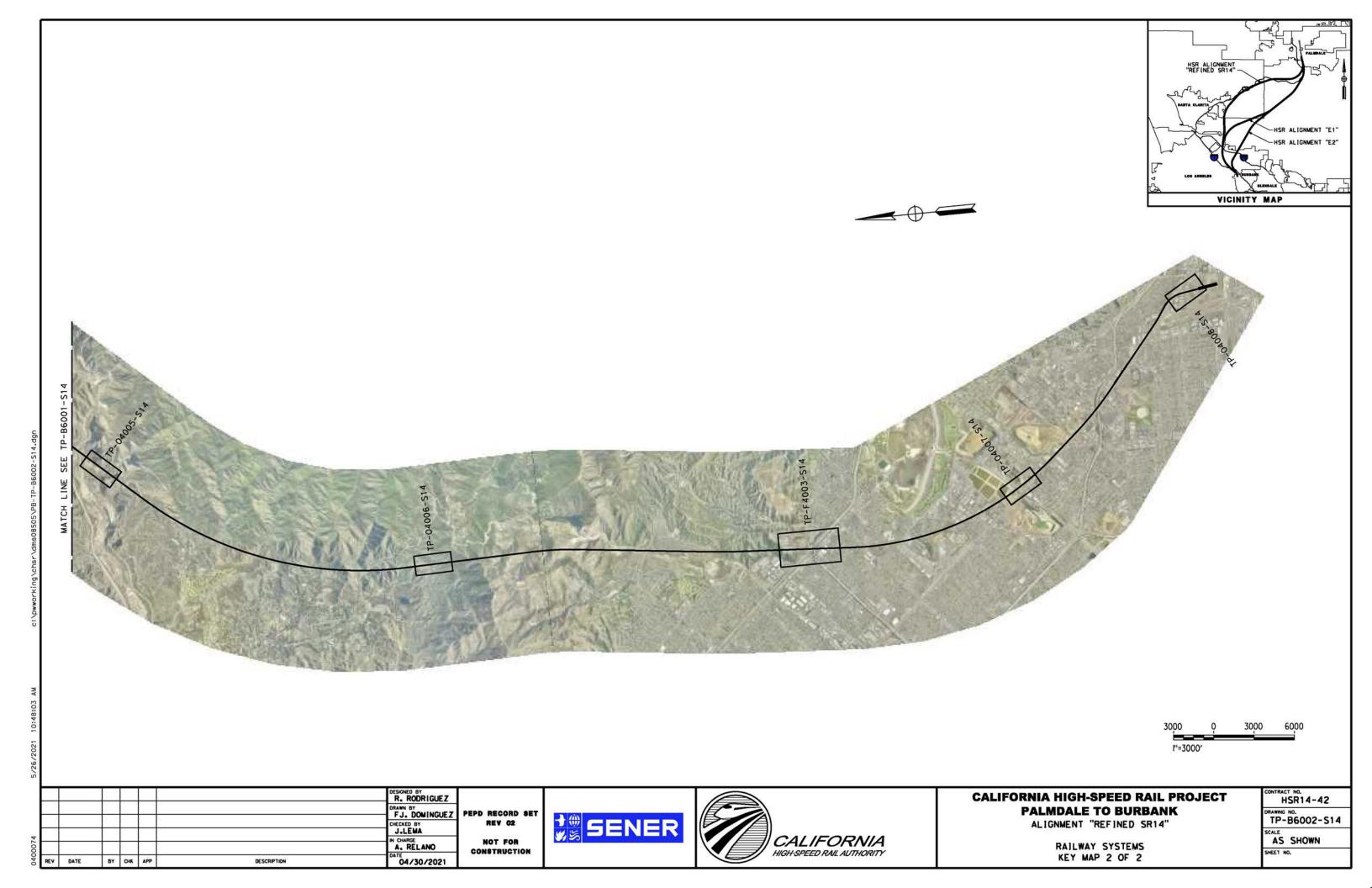
### **CALIFORNIA HIGH-SPEED RAIL PROJECT** PALMDALE TO BURBANK

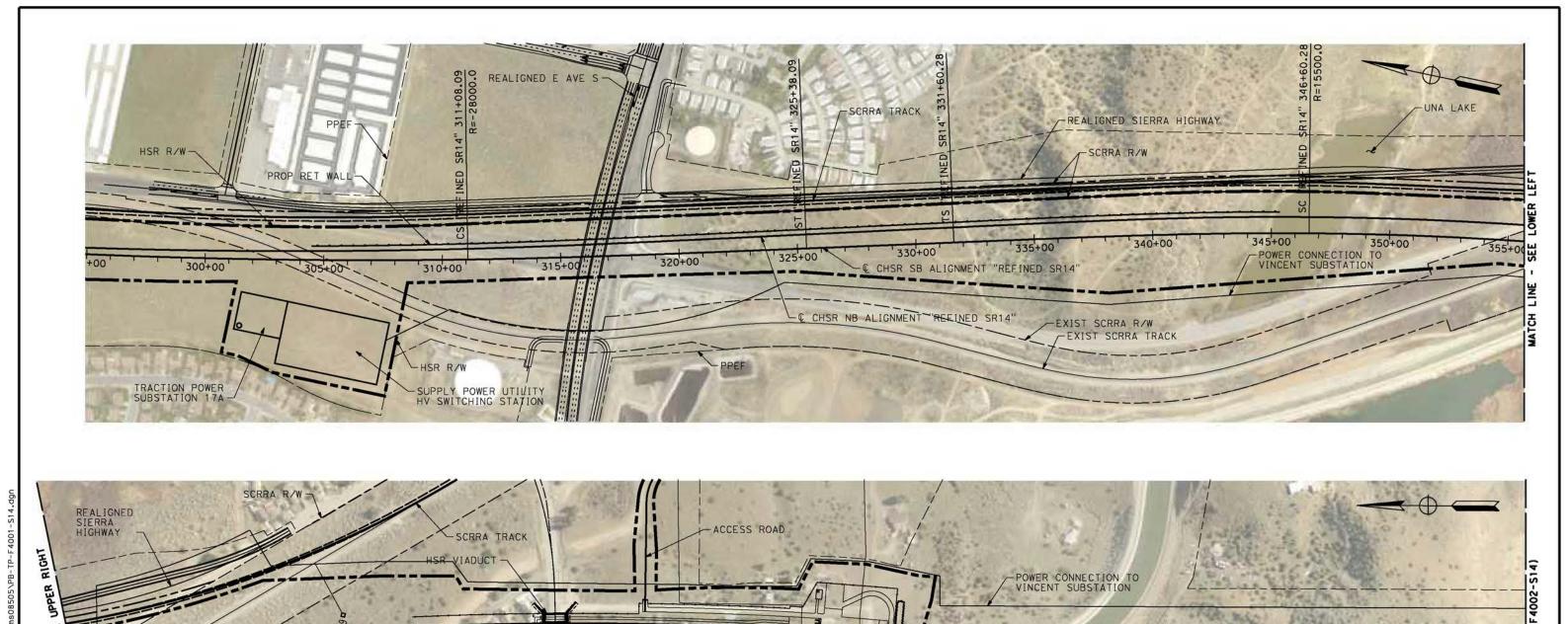
ALIGNMENT "REFINED SR14"

TRACTION POWER FACILITIES LOCATION LAYOUT

HSR14-42 TP-D0001-S14 AS SHOWN









### TRACTION POWER SUBSTATION 17A



						DESIGNED BY R. RODRIGUEZ
						DRAWN BY FJ. DOMINGUEZ
						CHECKED BY J.LEMA
						IN CHARGE A. RELAÑO
REV	DATE	BY	СНК	APP	DESCRIPTION	DATE 04/30/2021

PEPD RECORD SET REV 02 NOT FOR CONSTRUCTION

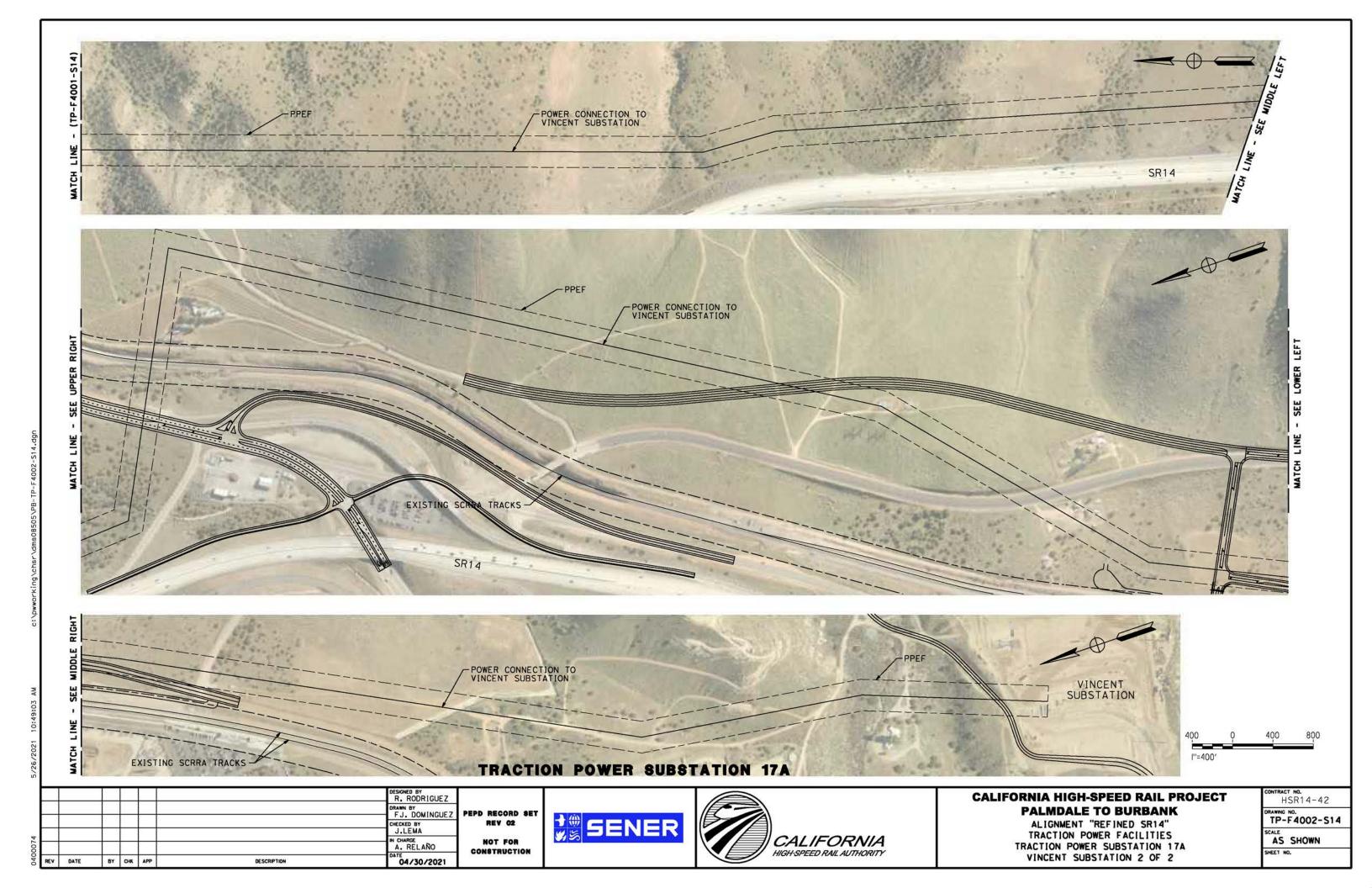




### CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK

ALIGNMENT "REFINED SR14"
TRACTION POWER FACILITIES
TRACTION POWER SUBSTATION 17A
VINCENT SUBSTATION 1 OF 2

CONTRACT NO. HSR14-42
DRAWING NO. TP-F4001-S14
AS SHOWN
SHEET NO.



### TRACTION POWER SUBSTATION 18A



						DESIGNED BY  R. RODRIGUEZ	
$\perp$						FJ. DOMINGUEZ	PE
$\vdash$		-				CHECKED BY J.LEMA	
$\vdash$		+				IN CHARGE A. RELAÑO	
REV	DATE	BY	СНК	APP	DESCRIPTION	DATE 04/30/2021	8

PEPD RECORD SET NOT FOR CONSTRUCTION

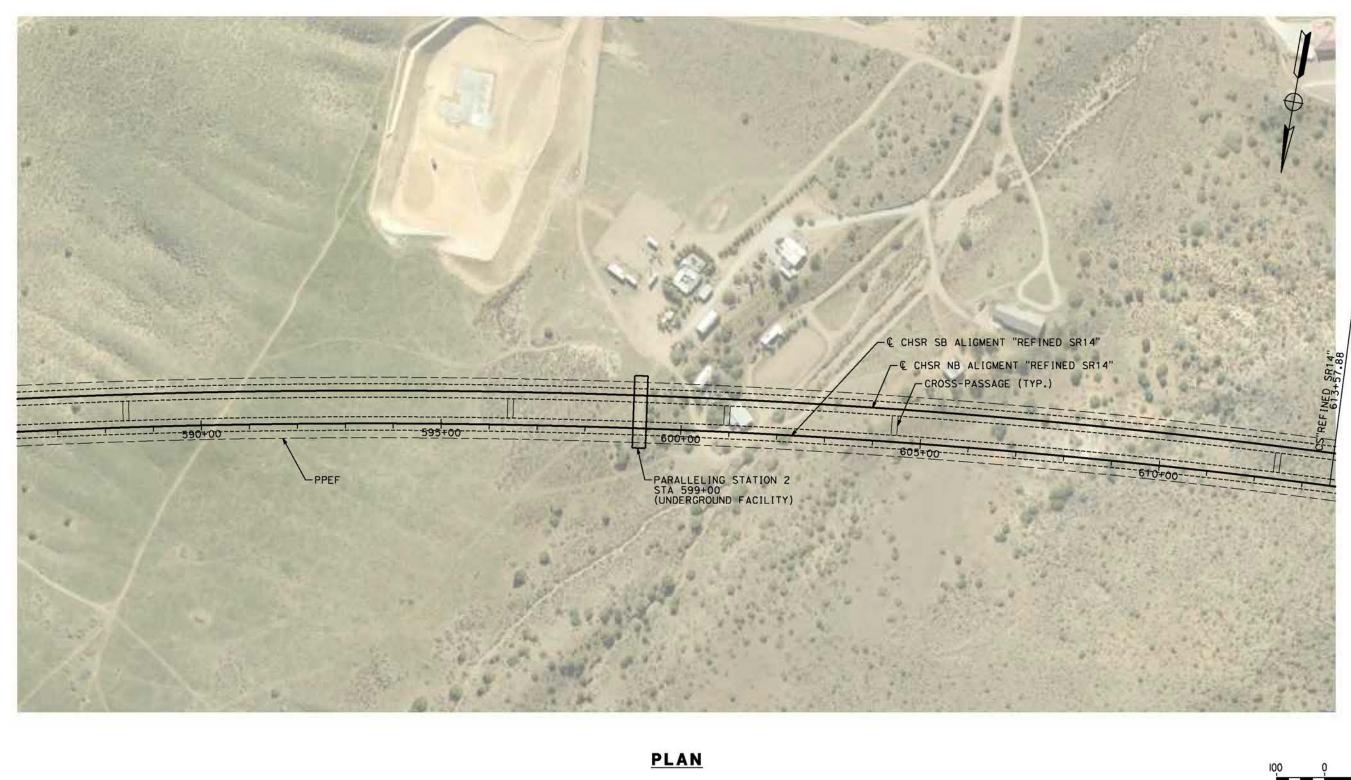


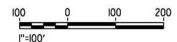


### **CALIFORNIA HIGH-SPEED RAIL PROJECT** PALMDALE TO BURBANK

ALIGNMENT "REFINED SR14" TRACTION POWER FACILITIES TRACTION POWER SUBSTATION 18A INTERSTATE 210 AREA

CONTRAC	ISR14-42
DRAWING TP-	NO. F4003-S14
SCALE	SHOWN
SHEET N	n.





						DESIGNED BY R. RODRIGUEZ	
						FJ. DOMINGUEZ	PI
		+				CHECKED BY J.LEMA	
		+		in ik		IN CHARGE A. RELAÑO	
REV	DATE	ВУ	СНК	APP	DESCRIPTION	DATE 04/30/2021	

PEPD RECORD SET REV 02 NOT FOR CONSTRUCTION





### CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK

	HSR14-42
	DRAWING NO. TP-04002-S14
	AS SHOWN
ı	SHEET NO

5/26/2021 10:51

DRAWN BY
FJ. DOMINGUEZ
CHECKED BY
J-LEMA
IN CHARGE
NOT FOR

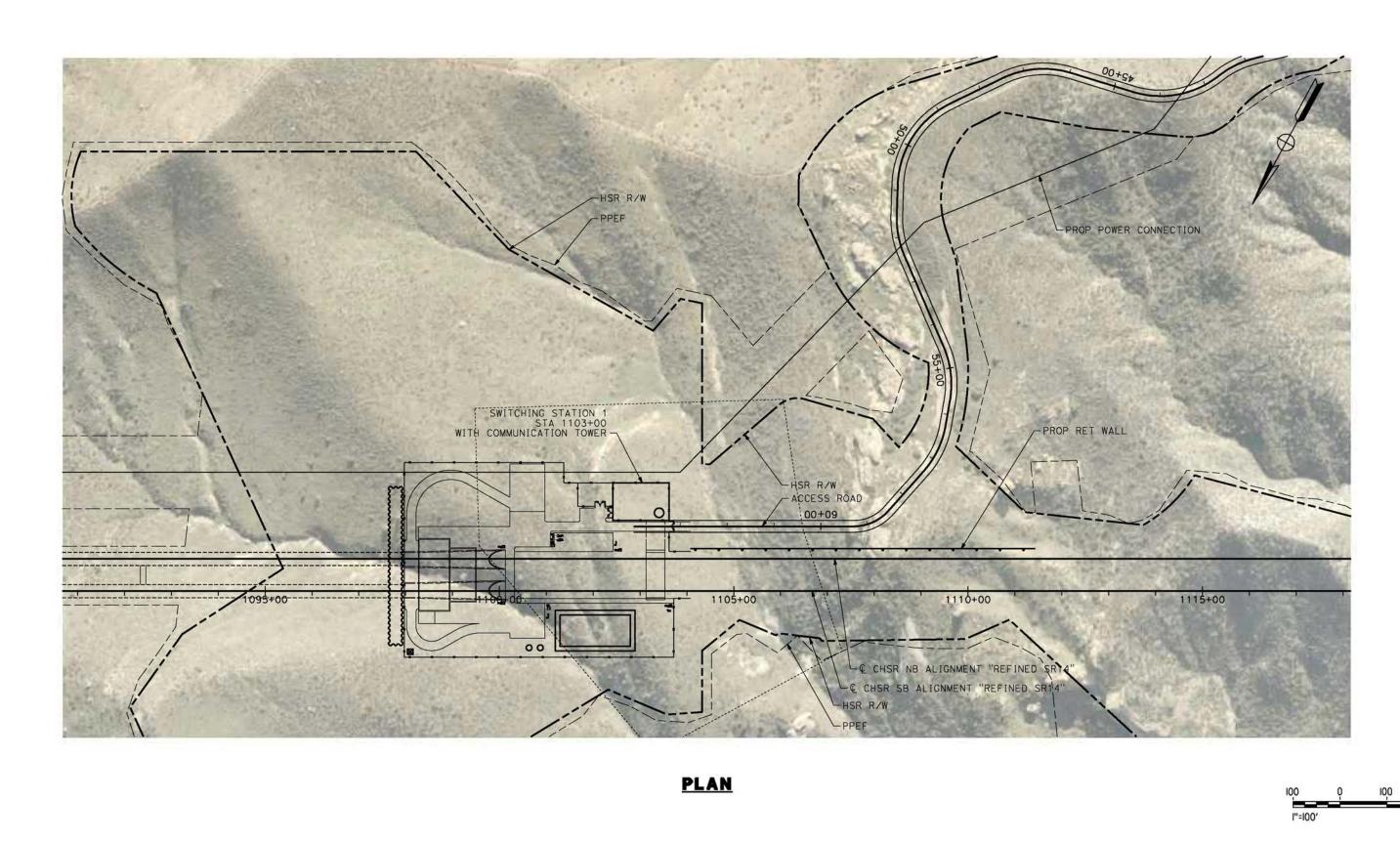
CONSTRUCTION

SENER SENER



### CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK

	CONTRACT NO. HSR14-42					
	DRAWING NO. TP-04003-S14					
ı	AS SHOWN					
ı	SHEET NO.					



8EA DATE

BY CHK APP

DESCRIPTION

DESIGNED BY
R. RODRIGUEZ
DRAWN BY
FJ. DOMINGUEZ
CHECKED BY
J.LEMA
IN CHARCE
A. RELARIO
DATE
04/30/2021

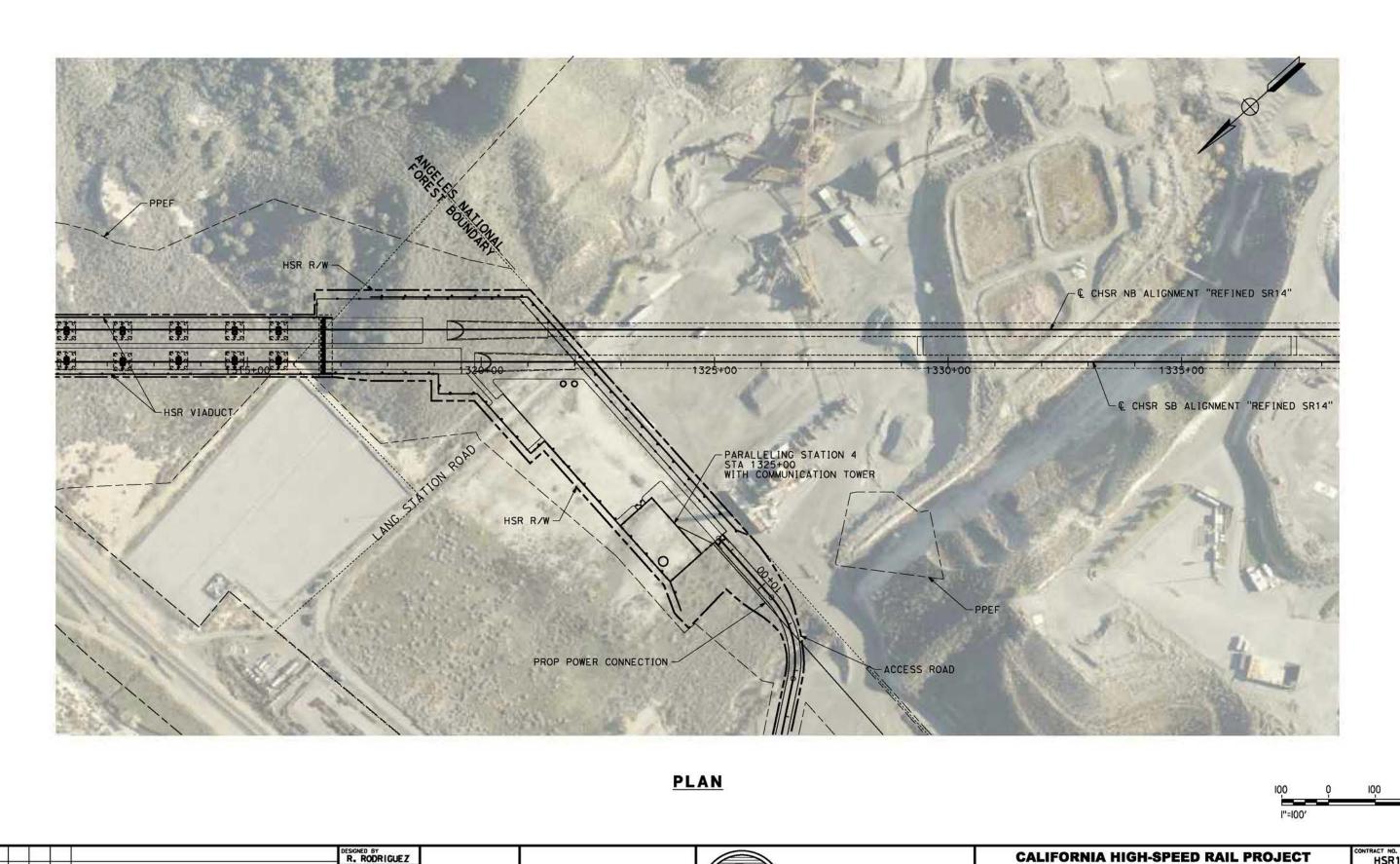
SENER



### CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK

ALIGNMENT "REFINED SR14" TRACTION POWER FACILITIES SWITCHING STATION 1

HSR14-42			
DRAWING TP-	NO. 04004-S14		
SCALE	SHOWN		
	2		



BY CHK APP

FJ. DOMINGUEZ PEPD RECORD SET J.LEMA A. RELAÑO 04/30/2021 DESCRIPTION

SENER

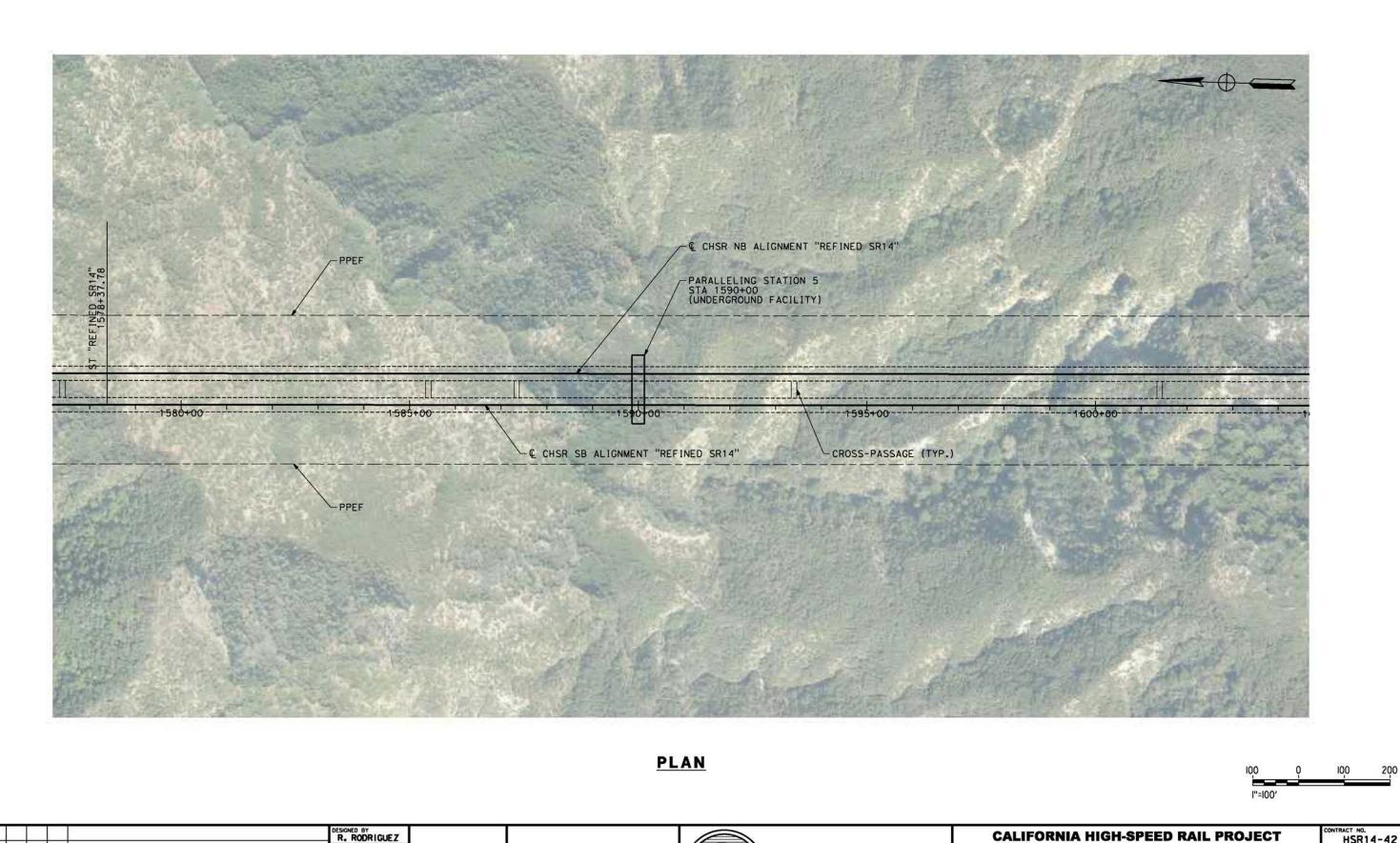
NOT FOR

CONSTRUCTION



### **CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK**

ı	HSR14-42					
I	DRAWING NO. TP-04005-S14					
I	AS SHOWN					
Ì	SHEET NO.					



FJ. DOMINGUEZ PEPD RECORD SET NOT FOR CONSTRUCTION

J.LEMA

DESCRIPTION

A. RELAÑO

04/30/2021

SENER



### **CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK**

Н	SK14-42
DRAWING TP-	NO. 04006-S14
SCALE	SHOWN
	2

R. RODRIGUEZ

DESCRIPTION

FJ. DOMINGUEZ PEPD RECORD SET J.LEMA NOT FOR A. RELAÑO CONSTRUCTION 04/30/2021

SENER



### **CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK**

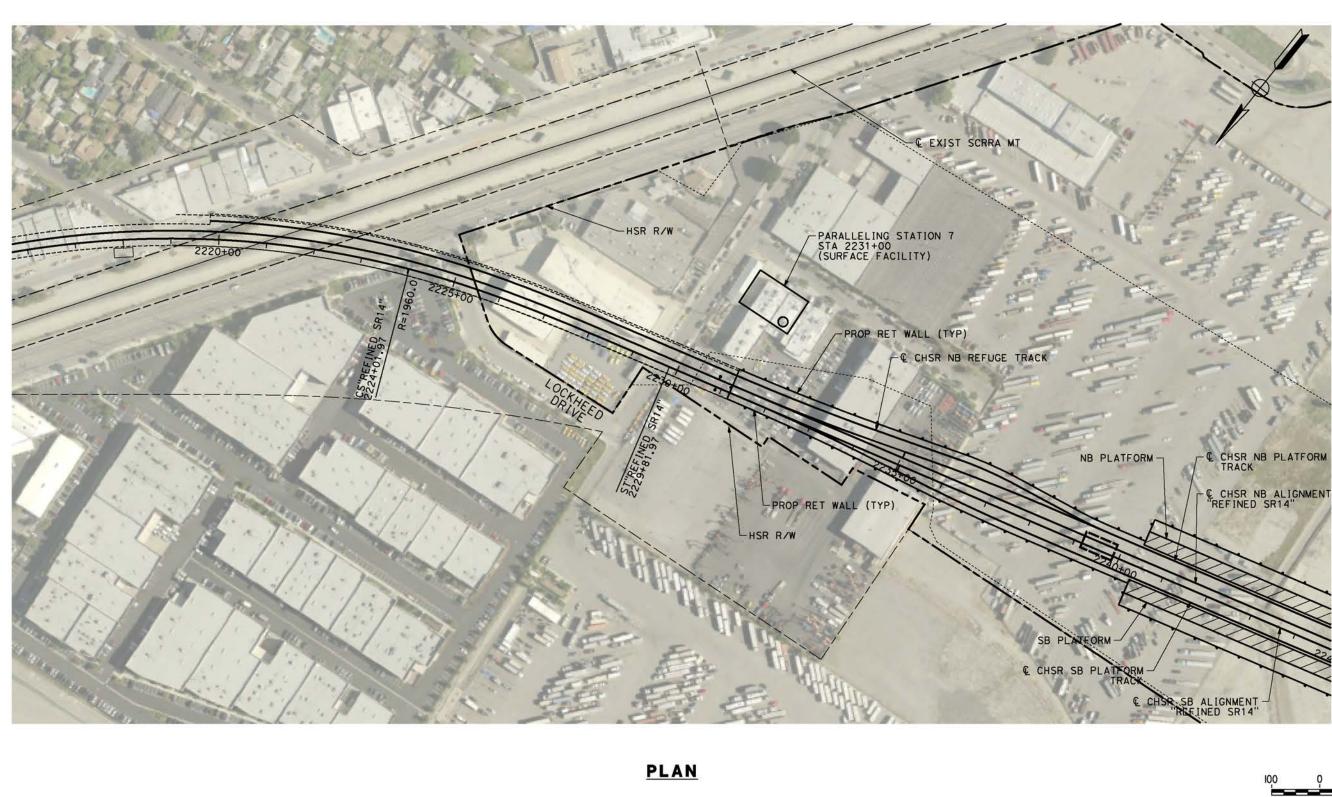
ALIGNMENT "REFINED SR14" TRACTION POWER FACILITIES PARALLELING STATION 6

CONTRAC	T NO. ISR14-42
DRAWING TP-	NO. 04007-S14
SCALE	SHOWN
	17.5

1"=100"

200

BY CHK APP





						DESIGNED BY R. RODRIGUEZ	
						DRAWN BY	PI
						CHECKED BY J.LEMA	
						IN CHARGE A .RELAÑO	
REV	DATE	BY	СНК	APP	DESCRIPTION	04/30/2021	

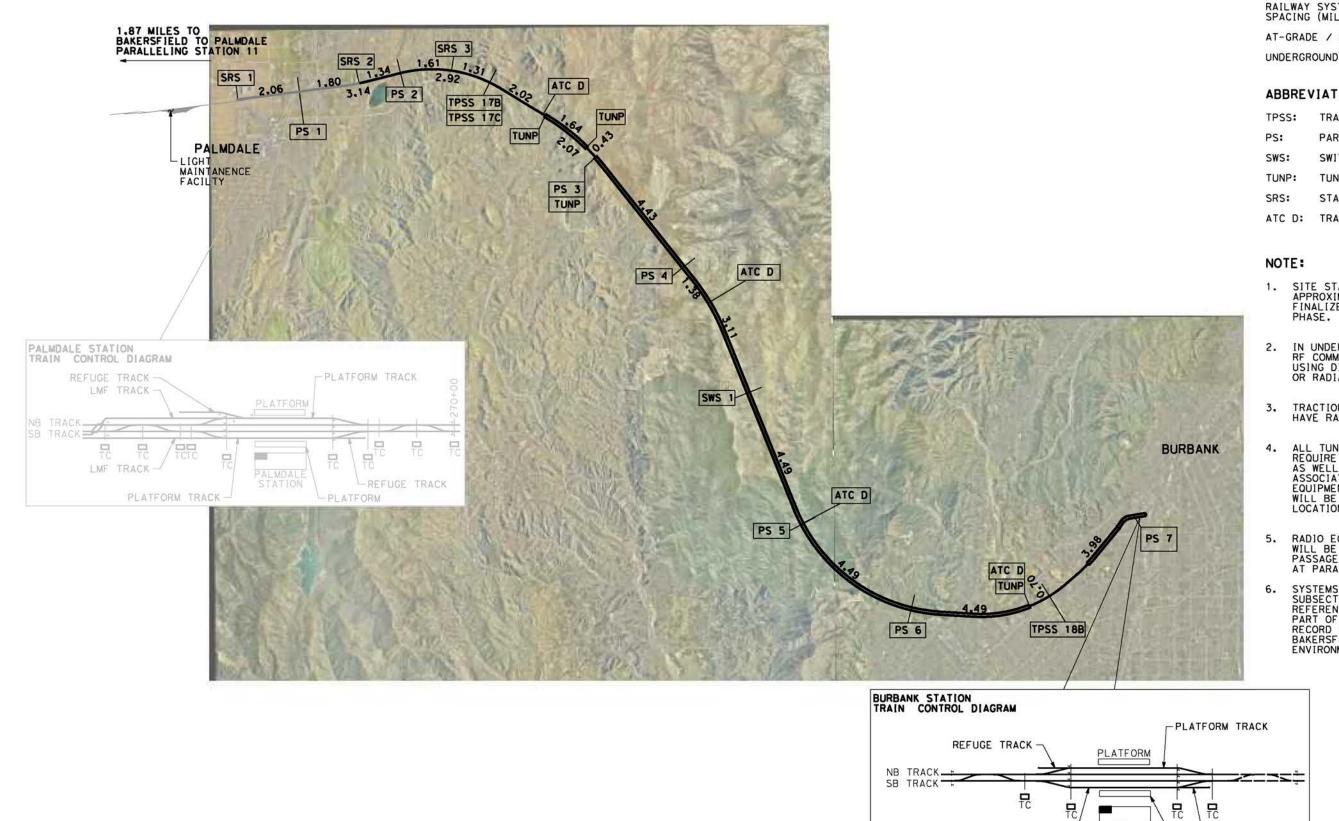
PEPD RECORD SET REV 02 NOT FOR CONSTRUCTION





# CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK ALIGNMENT "BEEINED SPIA"

	Н	SK14-42
D	RAWING	
	TP-	04008-S14
S	CALE	
	AS	SHOWN
S	HEET N	0.



### **LEGEND**

RAILWAY SYSTEMS FACILITY SPACING (MILES)

AT-GRADE / ELEVATED

### ABBREVIATIONS:

TRACTION POWER SUBSTATION

5.0

PARALLELING STATION

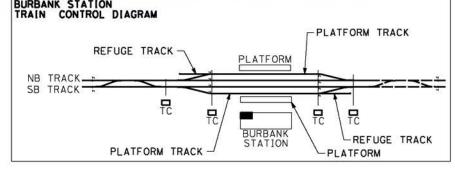
SWITCHING STATION

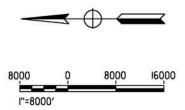
TUNNEL PORTAL FACILITIES

STANDALONE RADIO SITE

ATC D: TRAIN CONTROL FACILITY

- SITE STATIONING GIVEN IS APPROXIMATE AND WILL BE FINALIZED IN FUTURE DESIGN
- 2. IN UNDERGROUND SECTIONS, RF COMMUNICATION WILL BE USING DIRECTIONAL ANTENNAS OR RADIANT CABLES.
- 3. TRACTION POWER FACILITIES HAVE RADIO ANTENNAS.
- ALL TUNNEL PORTALS (TUNP)
  REQUIRE SPACE FOR RADIO MASTS
  AS WELL AS ANTENNAS, PLUS AN
  ASSOCIATED CABIN TO HOUSE RADIO
  EQUIPMENT. ATC EQUIPMENT CABINS
  WILL BE LOCATED AT THESE LOCATIONS TOO.
- RADIO EQUIPMENT WITHIN TUNNELS WILL BE INSTALLED IN CROSS PASSAGES EQUIPMENT ROOMS AND AT PARALLELING STATIONS.
- SYSTEMS FACILITIES IN PALMDALE SUBSECTION ARE INCLUDED FOR REFERENCE ONLY, SINCE THEY ARE PART OF THE PALMDALE SUBSECTION RECORD SET INCLUDED IN THE BAKERSFIELD PALMDALE ENVIRONMENTAL DOCUMENT.





						DESIGNED BY  R. RODRIGUEZ	
						FJ. DOMINGUEZ	P
Н						CHECKED BY J.LEMA	
$\vdash$		+				IN CHARGE A. RELAÑO	
REV	DATE	BY	СНК	APP	DESCRIPTION	DATE 04/30/2021	

PEPD RECORD SET REV 02 NOT FOR CONSTRUCTION



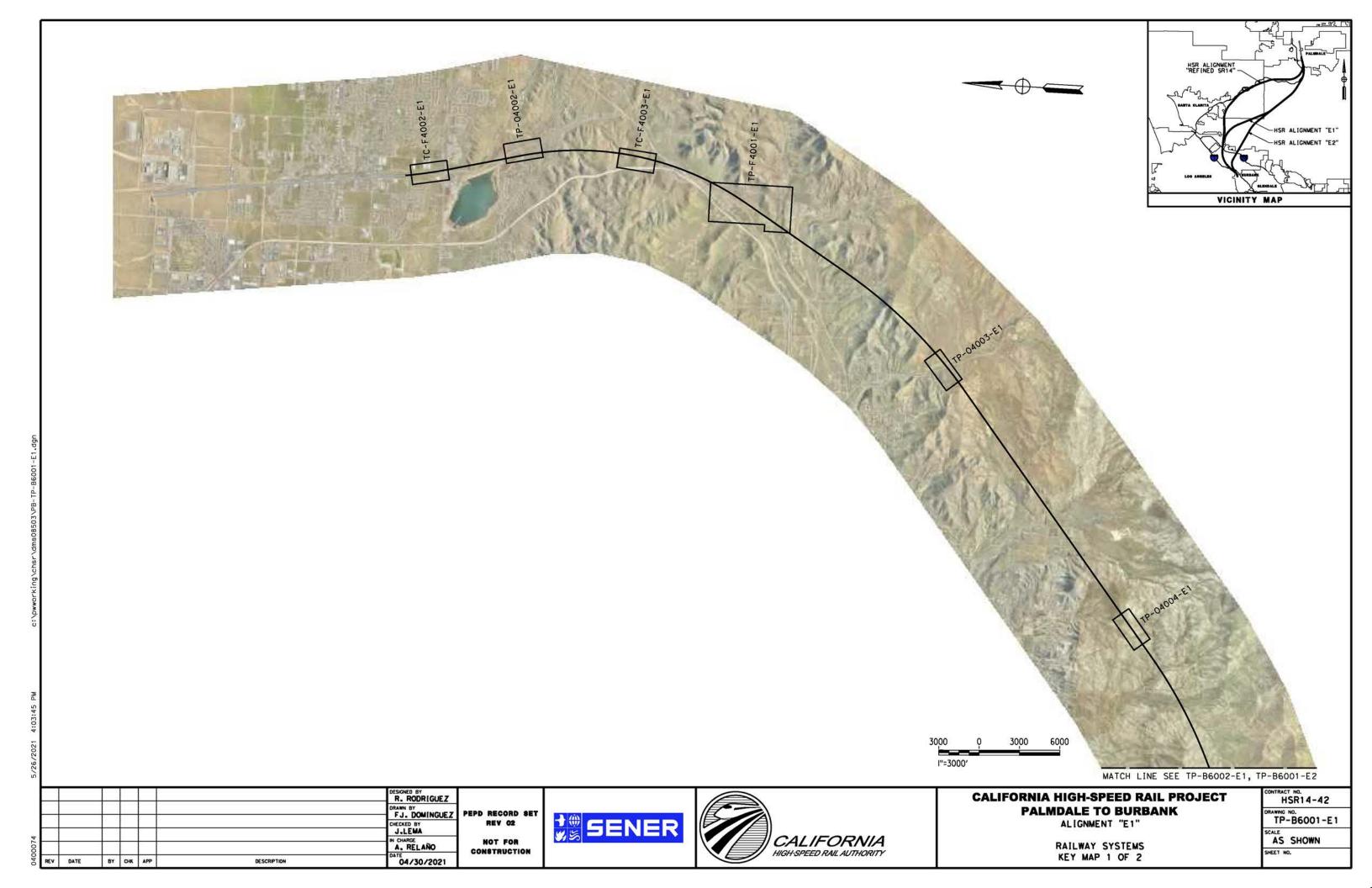


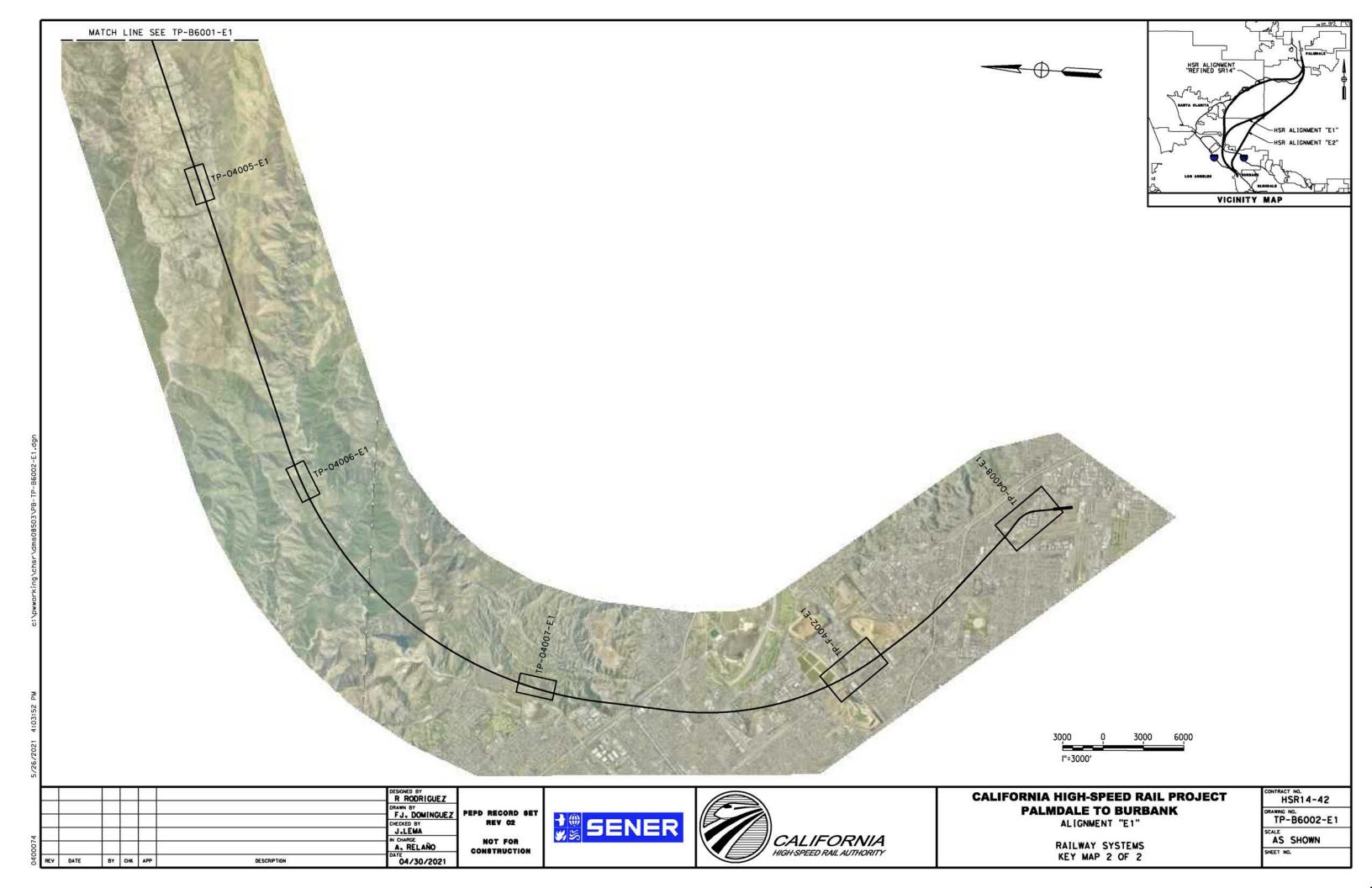
### **CALIFORNIA HIGH-SPEED RAIL PROJECT** PALMDALE TO BURBANK

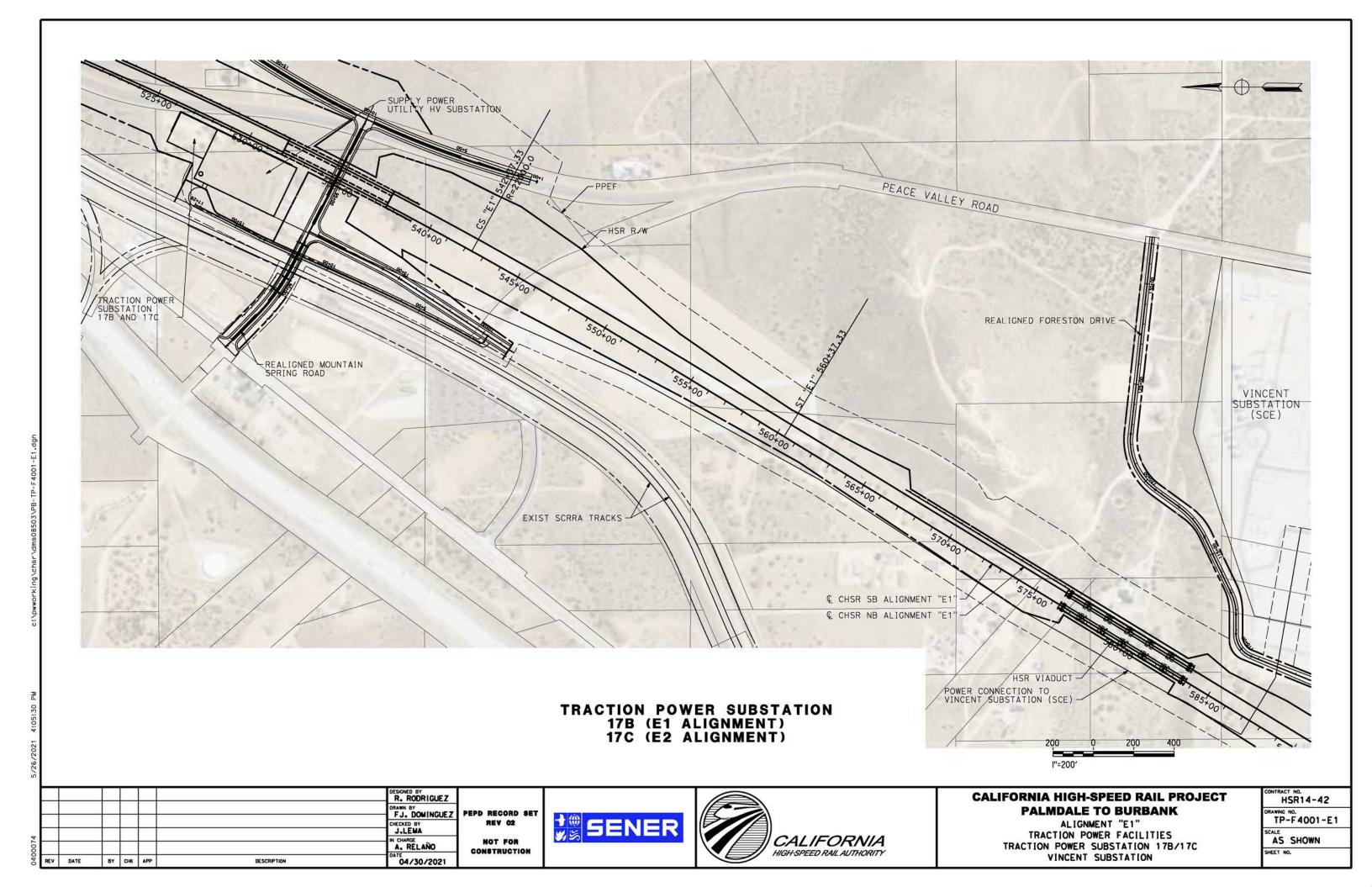
ALIGNMENT "E1"

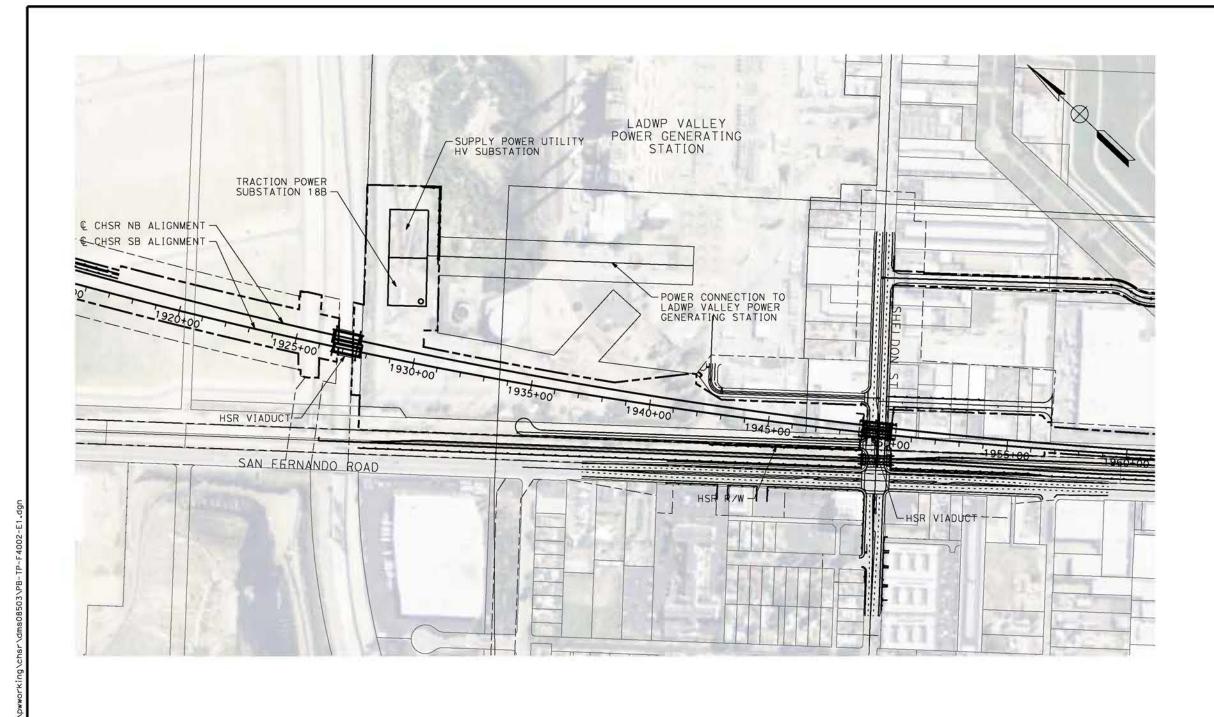
TRACTION POWER FACILITIES LOCATION LAYOUT

HSR14-42 TP-D0001-E1 AS SHOWN









### TRACTION POWER SUBSTATION 18B



					DESIGNED BY R. RODRIGUEZ	Γ
					DRAWN BY FJ. DOMINGUEZ	l
					CHECKED BY J.LEMA	1
		$\vdash$			N CHARGE A. RELAÑO	l
REV	DATE	ВУ	СНК	APP	DESCRIPTION DATE 04/30/2021	1

PEPD RECORD SET REV 02 NOT FOR CONSTRUCTION

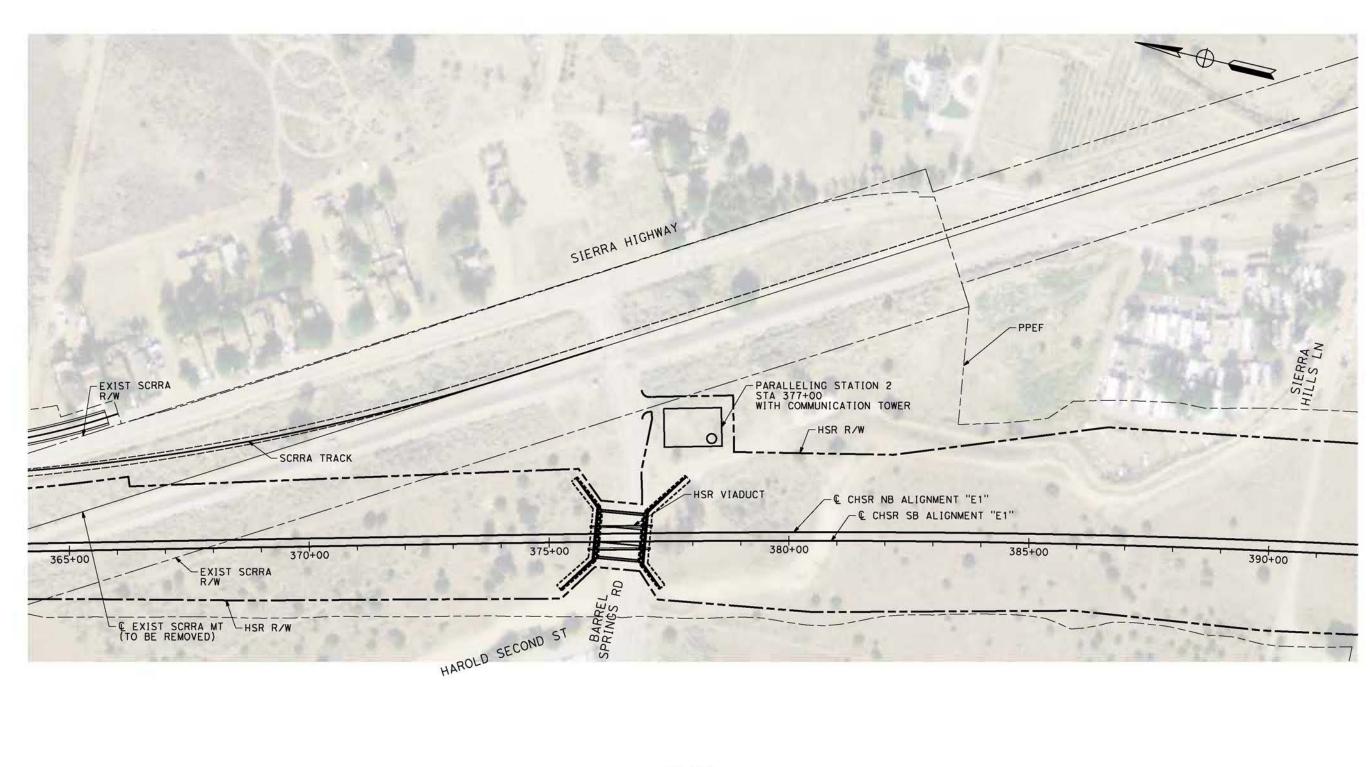




### CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK

ALIGNMENT "E1"
TRACTION POWER FACILITIES
TRACTION POWER SUBSTATION 18B
LADWP VALLEY POWER GENERATING STATION

CONTRAC	T NO. SR14-42	
TP-F4002-E1		
SCALE	SHOWN	
SHEET N	0.	



PLAN



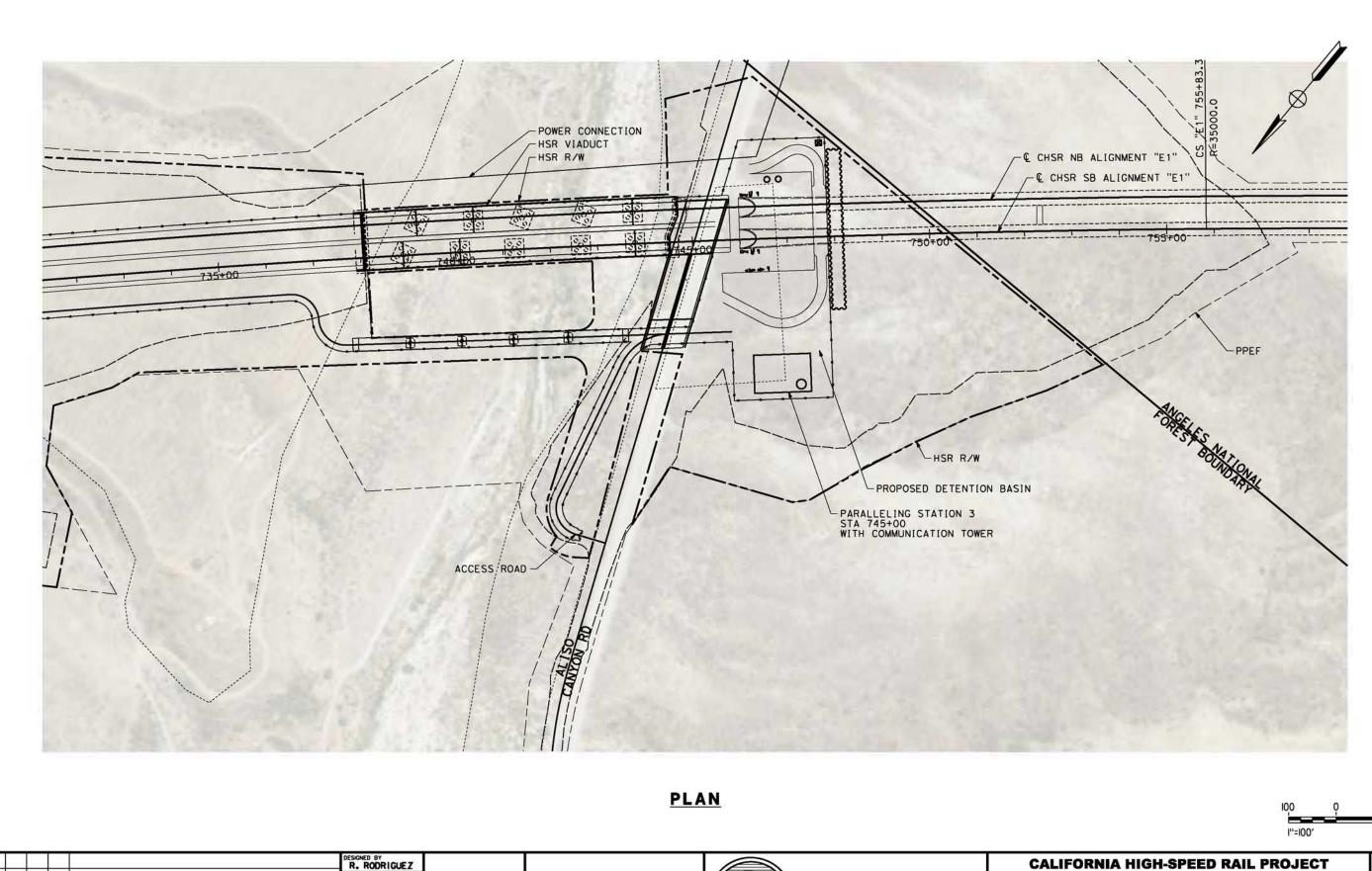
						DESIGNED BY R. RODRIGUEZ	
						FJ. DOMINGUEZ	PEPD RECORD SET
						CHECKED BY	REV 02
H						IN CHARGE	NOT FOR CONSTRUCTION
REV	DATE	BY	СНК	APP	DESCRIPTION	DATE 04/30/2021	CONSTRUCTION

SENER



### **CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK**

ı	HSR14-42
I	TP-04002-E
	AS SHOWN
I	SHEET NO.



FJ. DOMINGUEZ PEPD RECORD SET NOT FOR CONSTRUCTION

J.LEMA

DESCRIPTION

A. RELAÑO

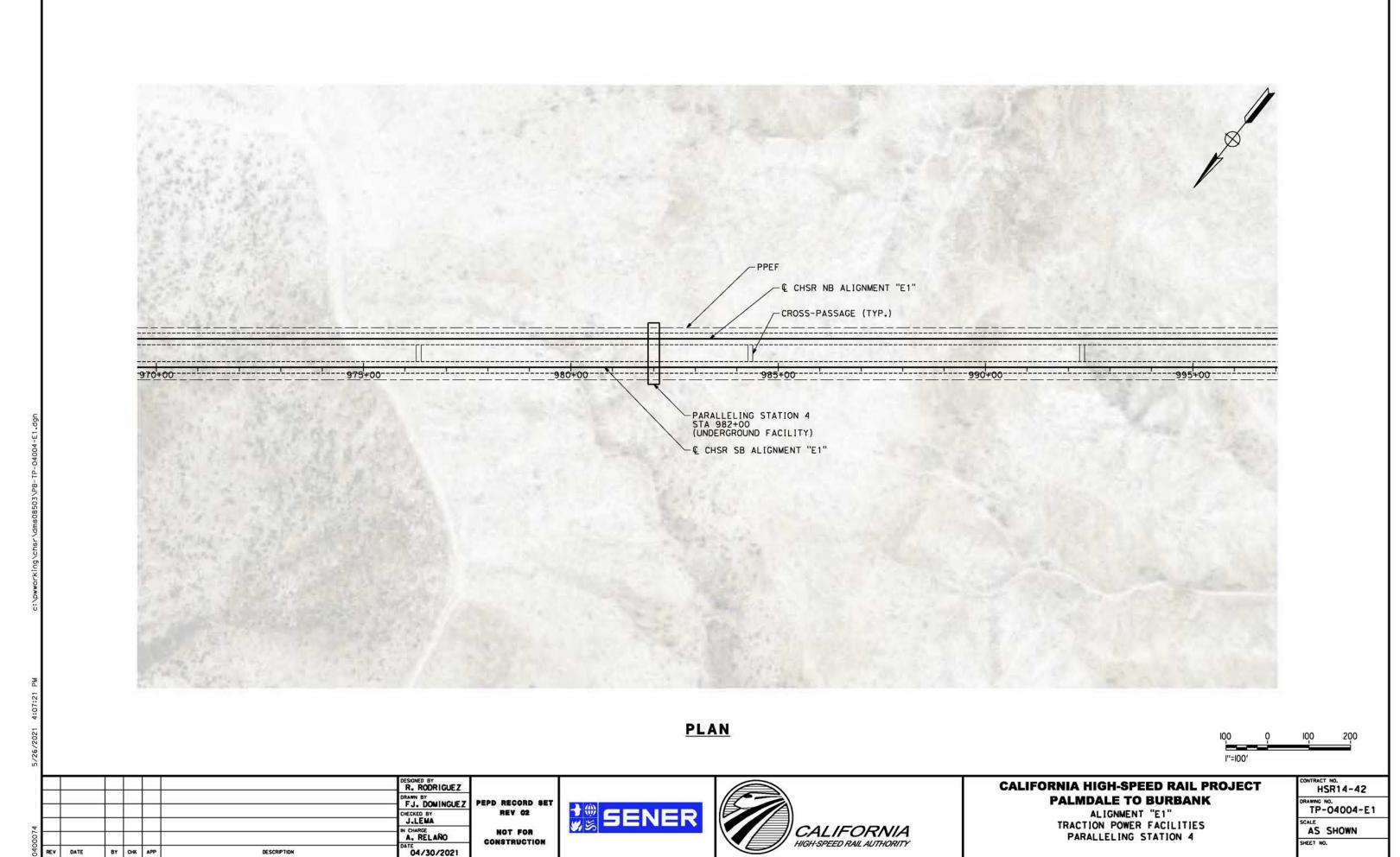
04/30/2021

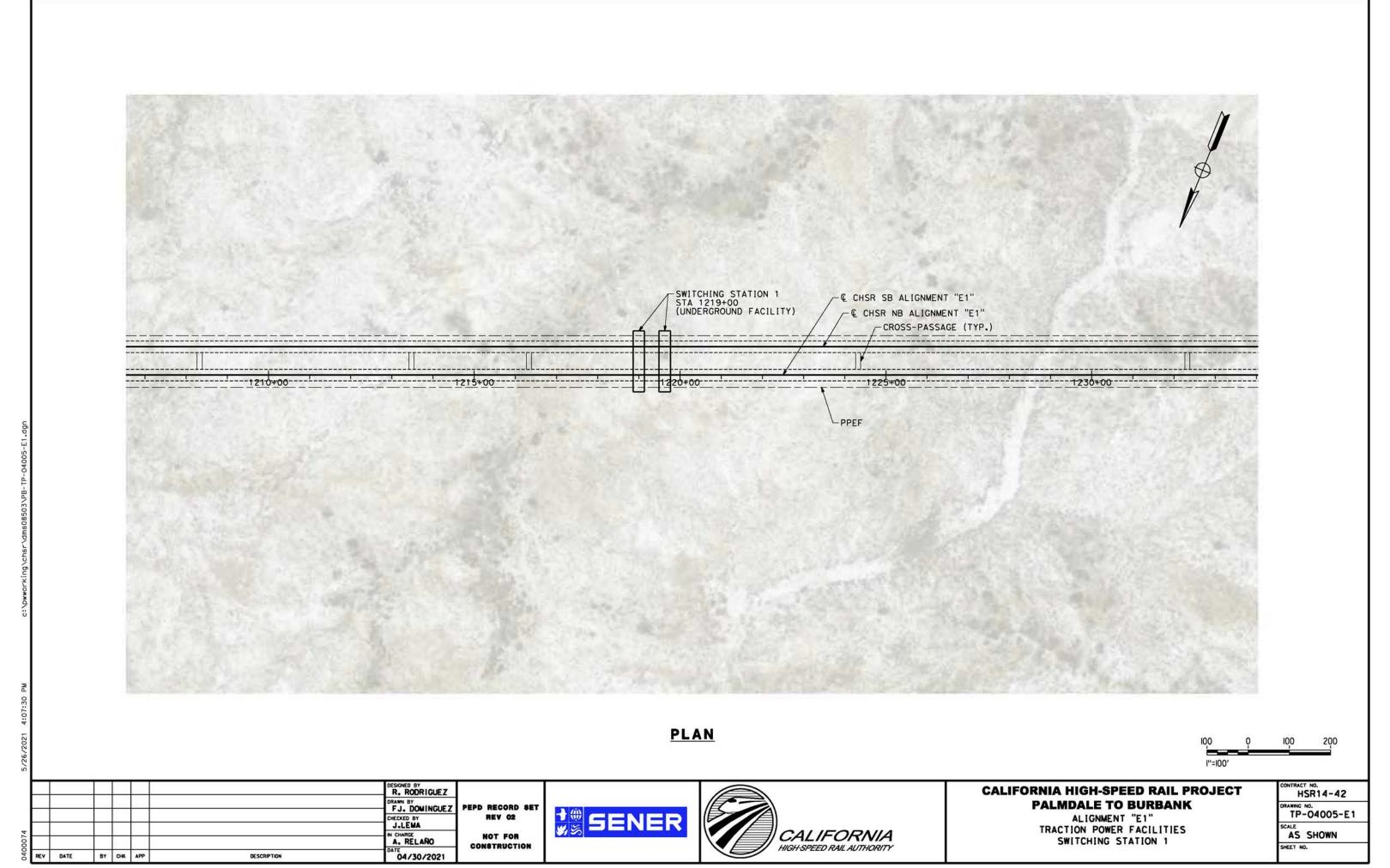
SENER

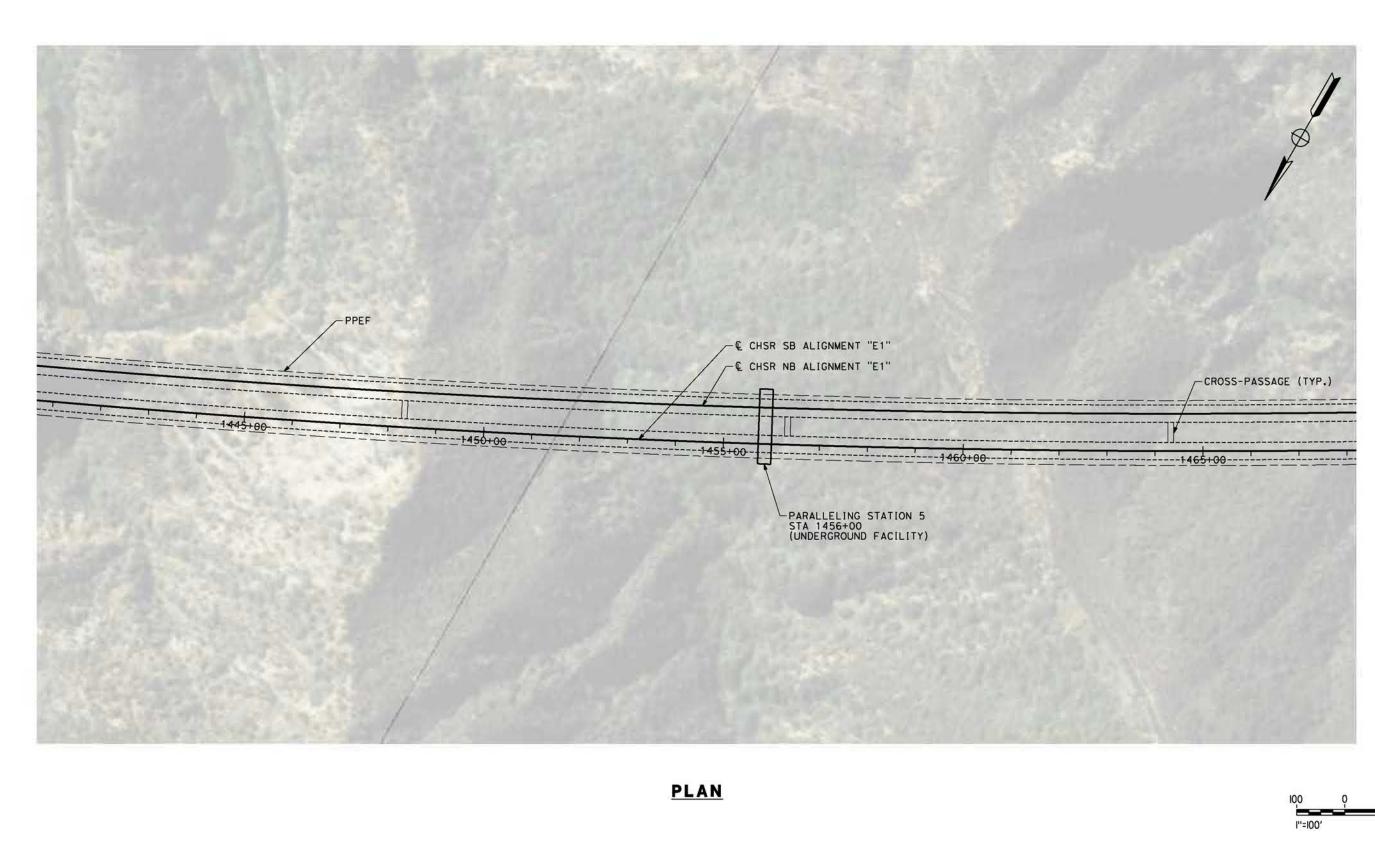


### **CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK**

1	H5R14-42
	TP-04003-E1
	AS SHOWN
	SHEET NO.







R. RODRIGUEZ J.LEMA IN CHARGE A. RELAÑO 04/30/2021

DESCRIPTION

FJ. DOMINGUEZ PEPD RECORD SET NOT FOR CONSTRUCTION

SENER SENER



### **CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK**

TP-04006-E1 SCALE AS SHOWN	CONTRAC	T NO. SR14-42
		SHOWN

**PLAN** 



_		_		_		100200000000000000000000000000000000000	
						R. RODRIGUEZ	
						FJ. DOMINGUEZ	PE
						CHECKED BY J.LEMA	
						IN CHARGE A. RELAÑO	
REV	DATE	BY	СНК	APP	DESCRIPTION	04/30/2021	

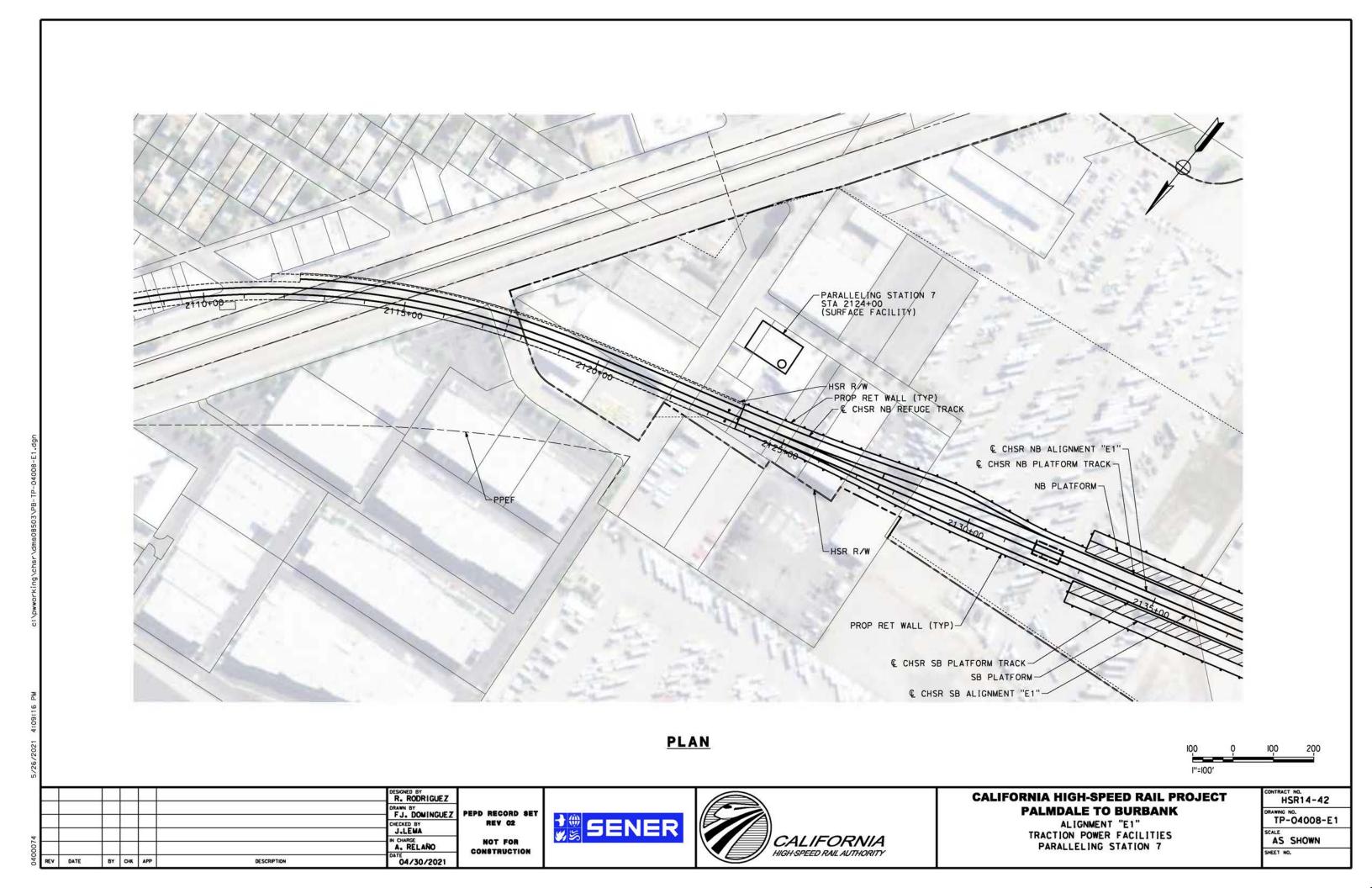
PEPD RECORD SET REV 02 NOT FOR CONSTRUCTION

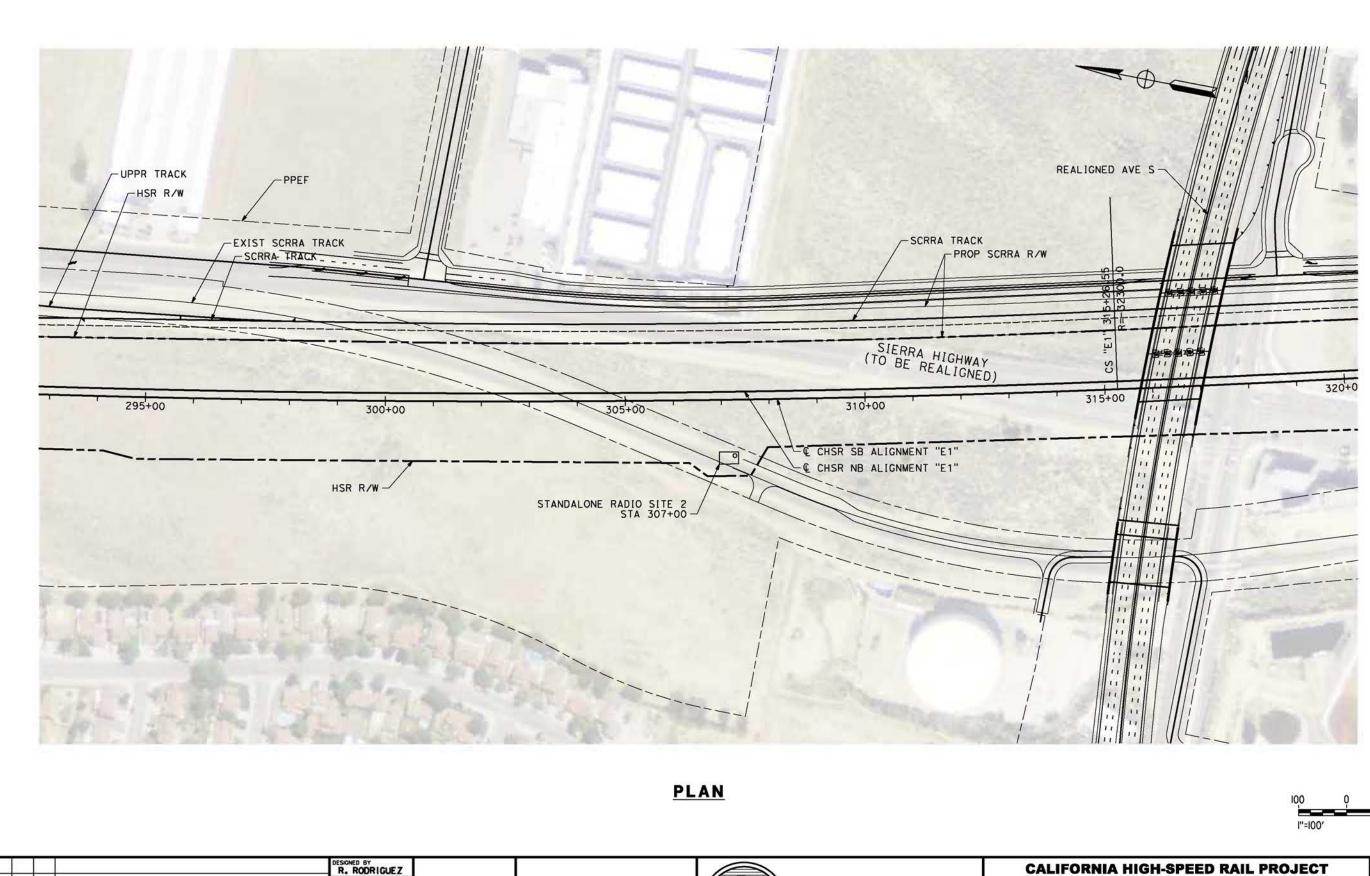




# CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK ALIGNMENT "E1"

TP-04007-E	SR14-42
Control of the contro	
AS SHOWN	SHOWN





FJ. DOMINGUEZ PEPD RECORD SET NOT FOR CONSTRUCTION

J.LEMA

DESCRIPTION

A. RELAÑO

04/30/2021

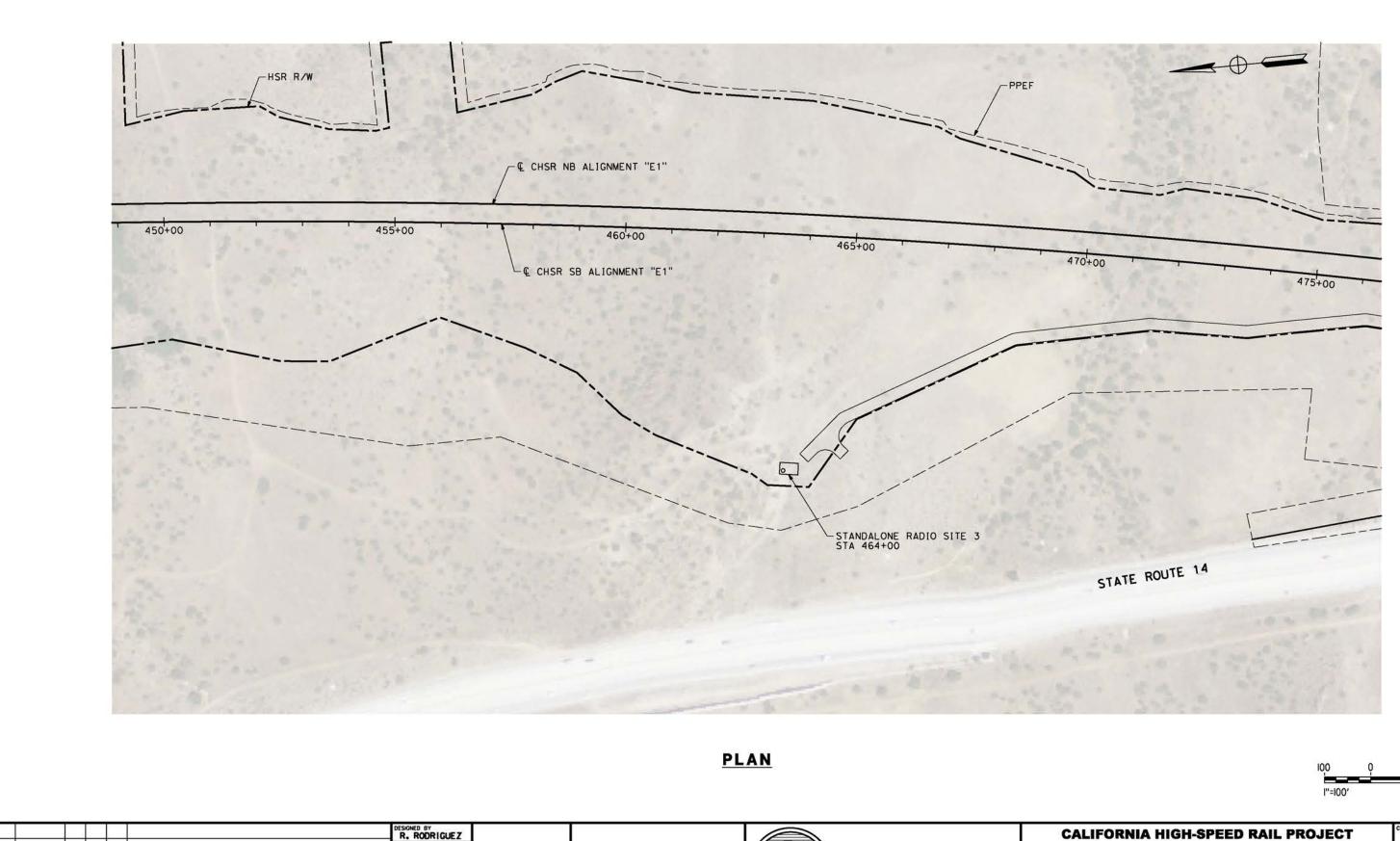
SENER



### **CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK**

ALIGNMENT "E1"
TRAIN CONTROL SYSTEM
STANDALONE RADIO SITE 2

CONTRACT NO. HSR14-42
DRAWING NO. TC-F4002-E1
SCALE AS SHOWN
SHEET NO.



CALIFORNIA HIGH-SPEED RAIL AUTHORITY

FJ. DOMINGUEZ PEPD RECORD SET

NOT FOR

CONSTRUCTION

J.LEMA

DESCRIPTION

A. RELAÑO

04/30/2021

CALIFORNIA HIGH-SPEED RAIL PROJECT
PALMDALE TO BURBANK

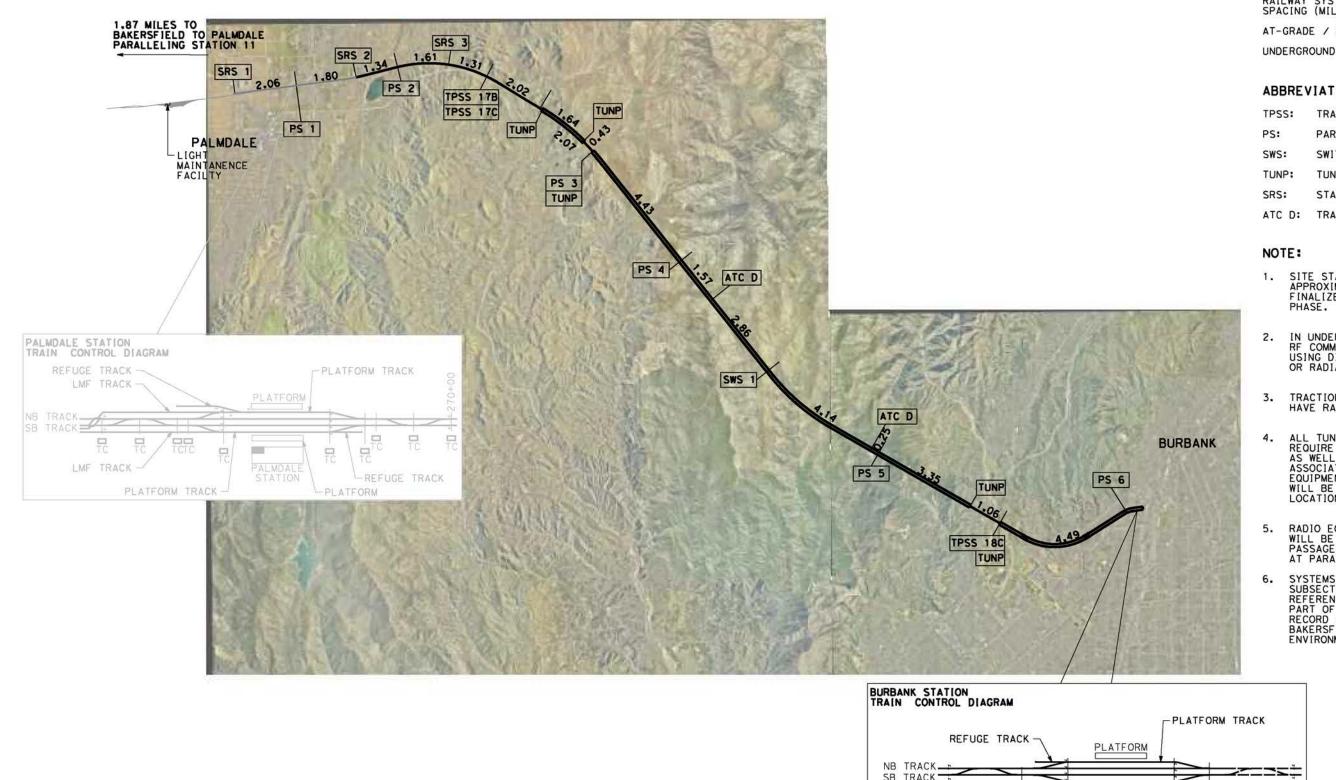
ALIGNMENT "E1"

TRAIN CONTROL SYSTEM
STANDALONE RADIO SITE 3

CONTRACT NO.
HSR14-42

DRAWING NO.
TC-F4003-E1

SCALE
AS SHOWN



### **LEGEND**

RAILWAY SYSTEMS FACILITY SPACING (MILES)

AT-GRADE / ELEVATED

#### ABBREVIATIONS:

TRACTION POWER SUBSTATION

5.0

PARALLELING STATION

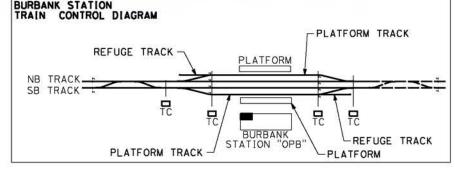
SWITCHING STATION

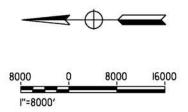
TUNNEL PORTAL FACILITIES

STANDALONE RADIO SITE

ATC D: TRAIN CONTROL FACILITY

- 1. SITE STATIONING GIVEN IS APPROXIMATE AND WILL BE FINALIZED IN FUTURE DESIGN PHASE.
- IN UNDERGROUND SECTIONS, RF COMMUNICATION WILL BE USING DIRECTIONAL ANTENNAS OR RADIANT CABLES.
- 3. TRACTION POWER FACILITIES HAVE RADIO ANTENNAS.
- ALL TUNNEL PORTALS (TUNP)
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  AS WELL AS ANTENNAS, PLUS AN
  ASSOCIATED CABIN TO HOUSE RADIO
  EQUIPMENT. ATC EQUIPMENT CABINS WILL BE LOCATED AT THESE LOCATIONS TOO.
- RADIO EQUIPMENT WITHIN TUNNELS WILL BE INSTALLED IN CROSS PASSAGES EQUIPMENT ROOMS AND AT PARALLELING STATIONS.
- SYSTEMS FACILITIES IN PALMDALE SUBSECTION ARE INCLUDED FOR REFERENCE ONLY. SINCE THEY ARE PART OF THE PALMDALE SUBSECTION RECORD SET INCLUDED IN THE BAKERSFIELD - PALMDALE ENVIRONMENTAL DOCUMENT.





						R. RODRIGUEZ	
						FJ. DOMINGUEZ	P
$\vdash$						CHECKED BY J.LEMA	
						IN CHARGE A. RELAÑO	
REV	DATE	BY	СНК	APP	DESCRIPTION	DATE 04/30/2021	

PEPD RECORD SET REV 02 NOT FOR CONSTRUCTION



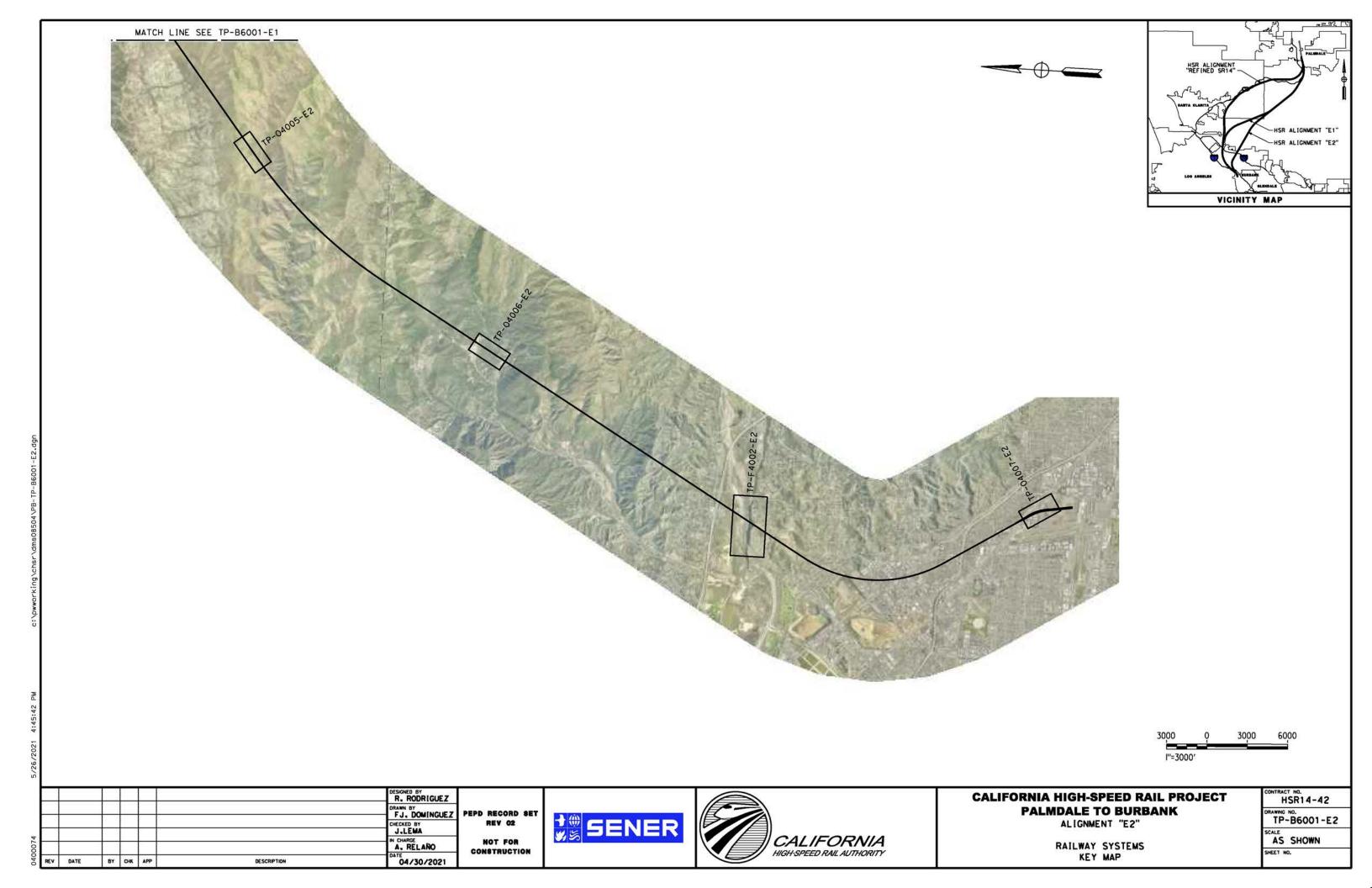


### **CALIFORNIA HIGH-SPEED RAIL PROJECT** PALMDALE TO BURBANK

ALIGNMENT "E2"

TRACTION POWER FACILITIES LOCATION LAYOUT

HSR14-42 TP-D0001-E2 AS SHOWN



### TRACTION POWER SUBSTATION 18C



						R. RODRIGUEZ	
						FJ. DOMINGUEZ	P
						CHECKED BY J.LEMA	
REV		+		21 .		IN CHARGE A. RELAÑO	
REV	DATE	BY	СНК	APP	DESCRIPTION	04/30/2021	

PEPD REGORD SET REV 02 NOT FOR CONSTRUCTION

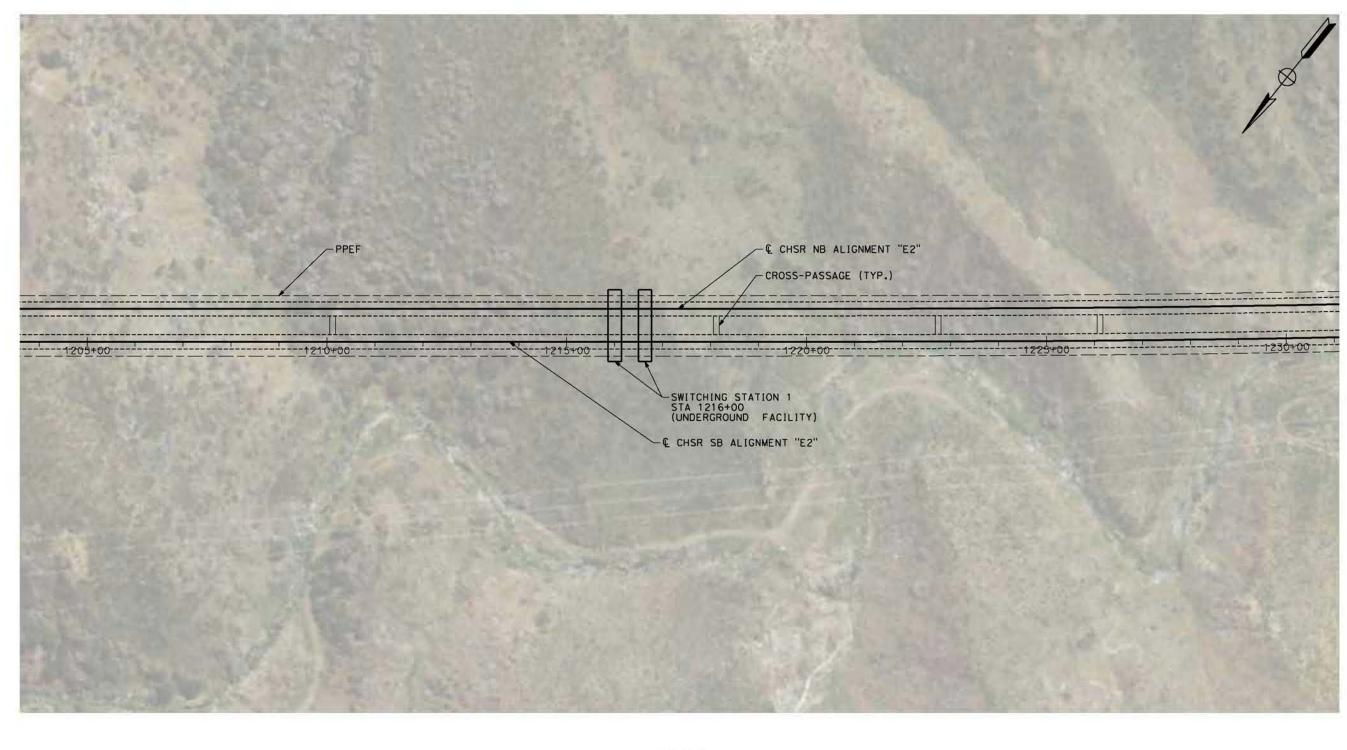




### CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK

ALIGNMENT "E2"
TRACTION POWER FACILITIES
TRACTION POWER SUBSTATION 18C
TUJUNGA WASH AREA

H	SR14-42
DRAWING TP	<sup>№</sup> . -F4002-E2
SCALE AS	SHOWN
CHEET N	0



**PLAN** 



						DESIGNED BY R. RODRIGUEZ	
						DRAWN BY	P
Н				NS -		CHECKED BY J.LEMA	
		+				IN CHARGE A. RELAÑO	
REV	DATE	ВУ	СНК	APP	DESCRIPTION	04/30/2021	

PEPD RECORD SET REV 02 NOT FOR CONSTRUCTION

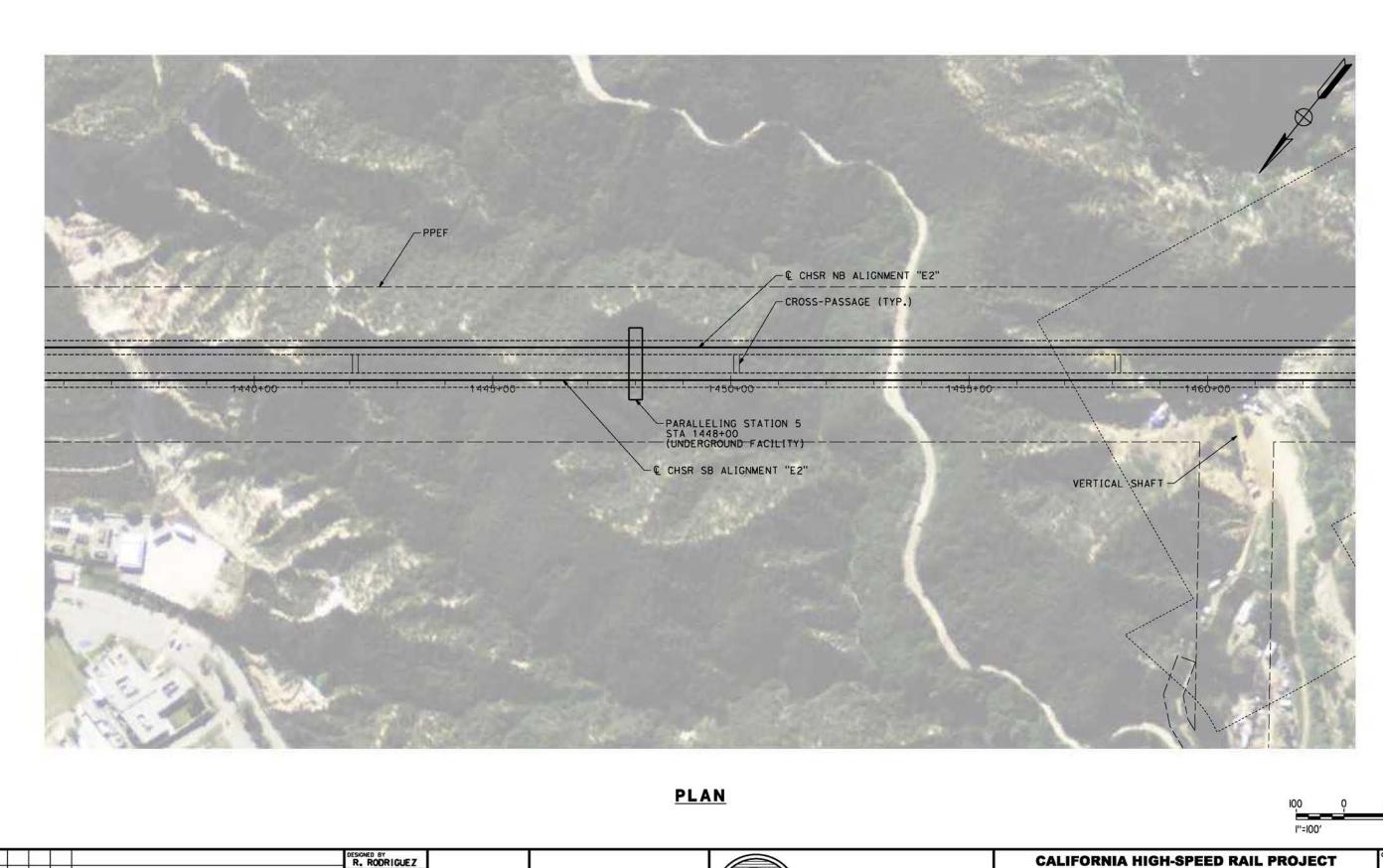




### CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK ALIGNMENT "E2"

ALIGNMENT "E2"
TRACTION POWER FACILITIES
SWITCHING STATION 1

CONTRA	T NO. ISR14-42
DRAWING TP	-04005-E2
SCALE AS	SHOWN
SHEET I	NO.



FJ. DOMINGUEZ PEPD RECORD SET NOT FOR CONSTRUCTION

J.LEMA

DESCRIPTION

A. RELAÑO

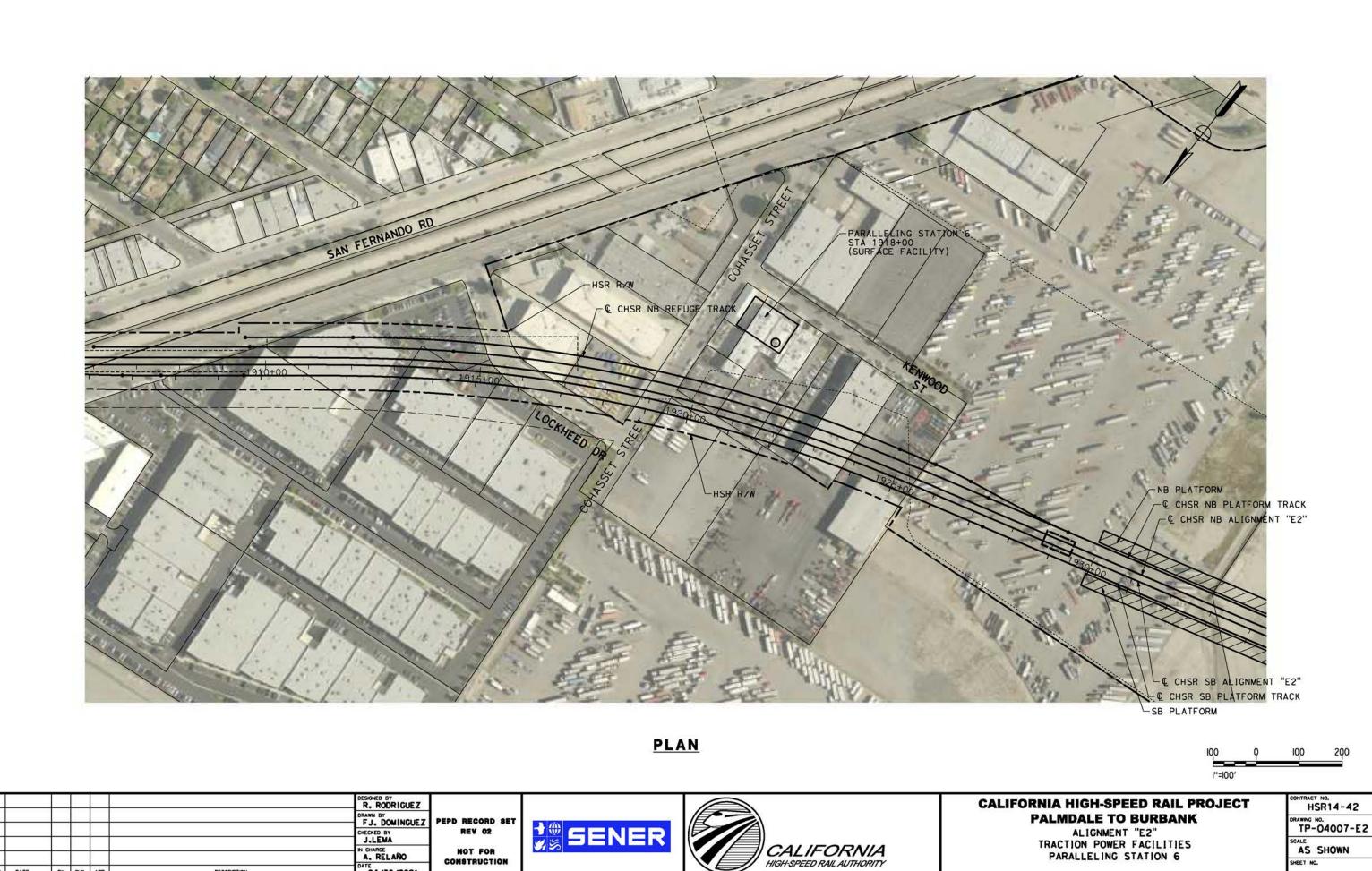
04/30/2021

SENER



### **CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK**

DRAWING	NO.
	-04006-E2
SCALE	SHOWN

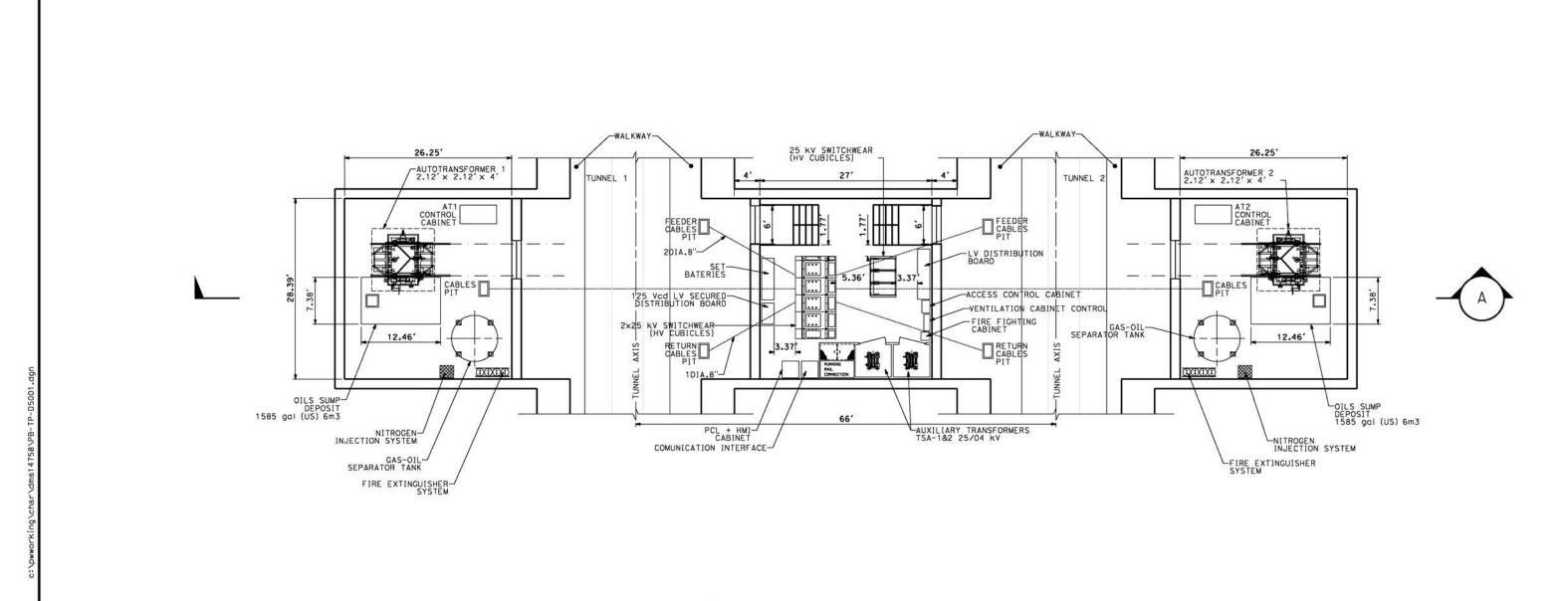


A. RELAÑO

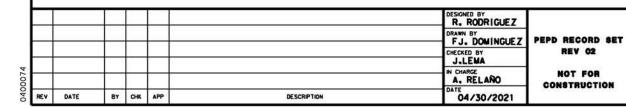
DESCRIPTION

04/30/2021

CONSTRUCTION



## **UNDERGROUND PARALLELING STATION**







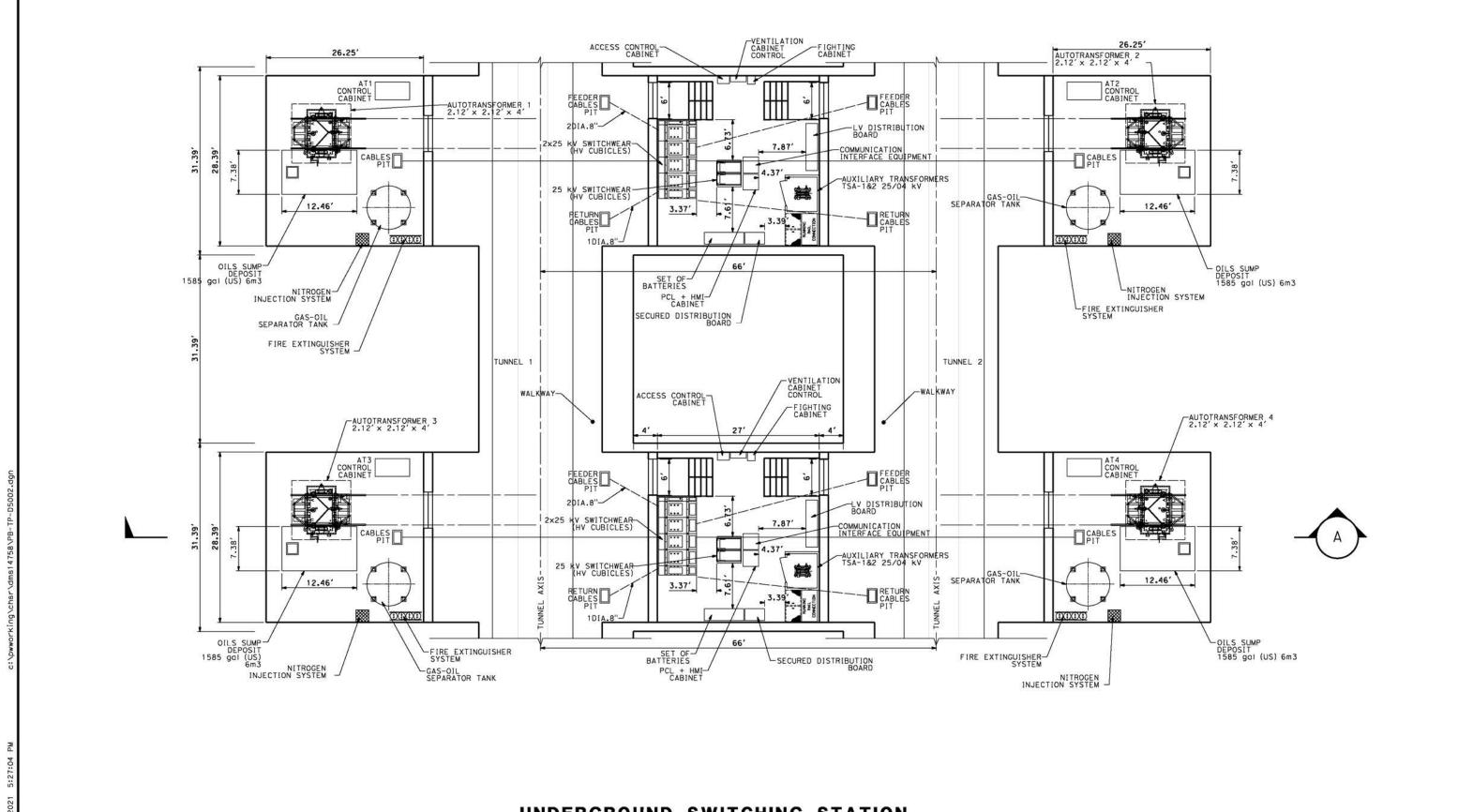
### **CALIFORNIA HIGH-SPEED RAIL PROJECT** PALMDALE TO BURBANK

ALIGNMENT "REFINED SR14/E1/E2"

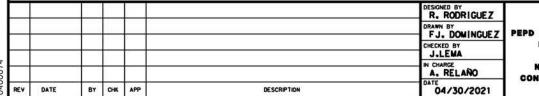
UNDERGROUND TRACTION POWER FACILITIES DETAIL 1

CO	HS		-42
DR	AWING N		001
sc	NOT	TO	SCAI

NOT TO SCALE SHEET NO.



### **UNDERGROUND SWITCHING STATION**



PEPD RECORD SET REV 02 NOT FOR CONSTRUCTION





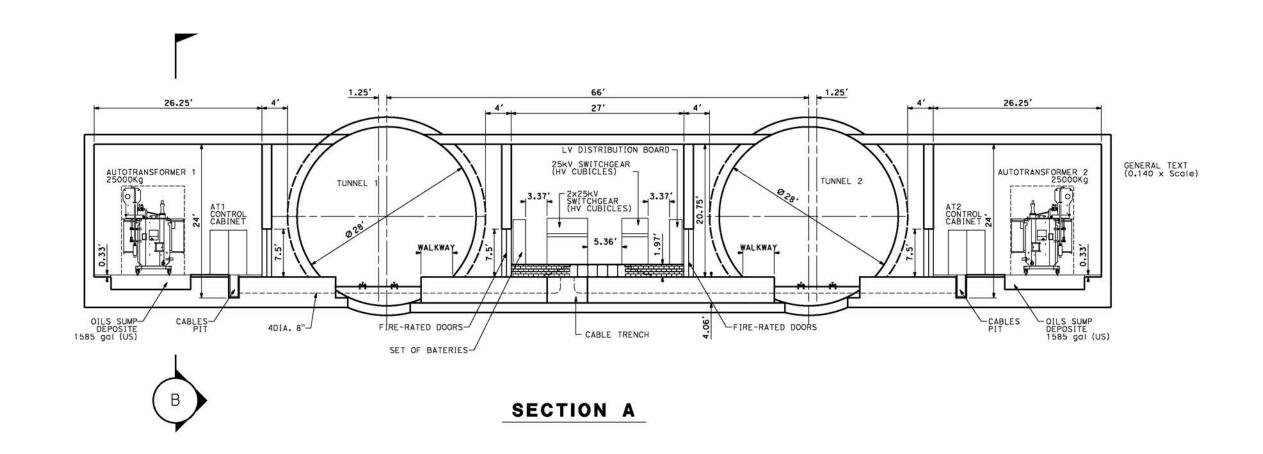
### **CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK**

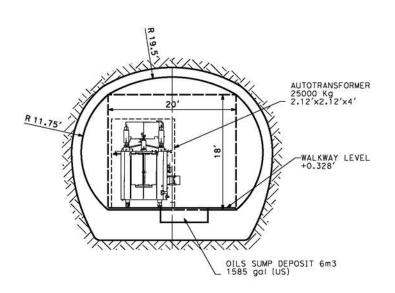
ALIGNMENT "REFINED SR14/E1/E2"

UNDERGROUND TRACTION POWER FACILITIES DETAIL 2

HSR14-42
DRAWING NO. TP-D5002
SCALE

NOT TO SCALE SHEET NO.





## SECTION B

REV	DATE	BY	CHK	APP	DESCRIPTION	04/30/2021	"
Н				in is		A. RELAÑO	Ι,
						J-LEMA	
		-				R. RODRIGUEZ	PE
						R. RODRIGUEZ	

PEPD RECORD SET REV 02 NOT FOR CONSTRUCTION





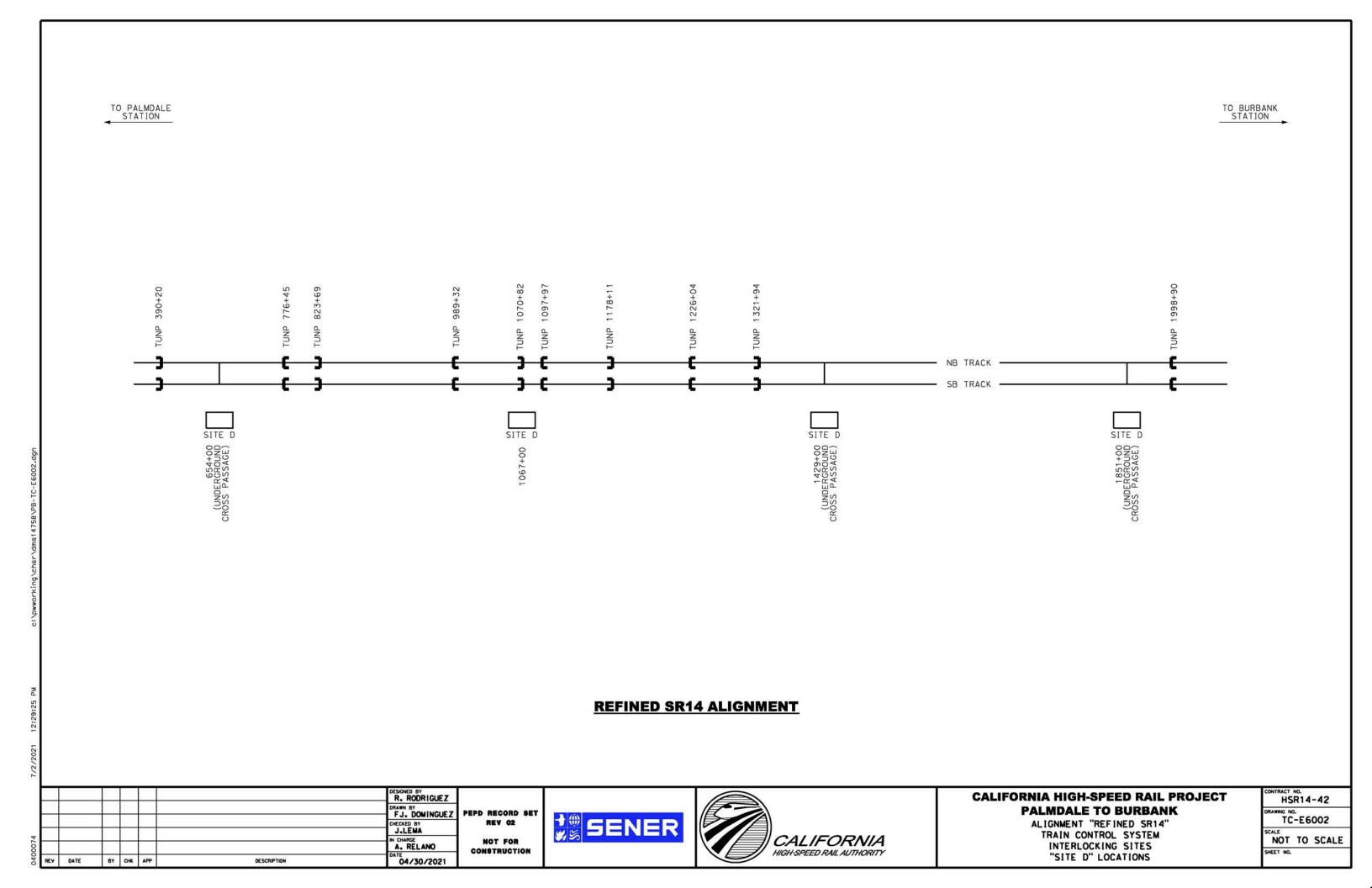
## CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK

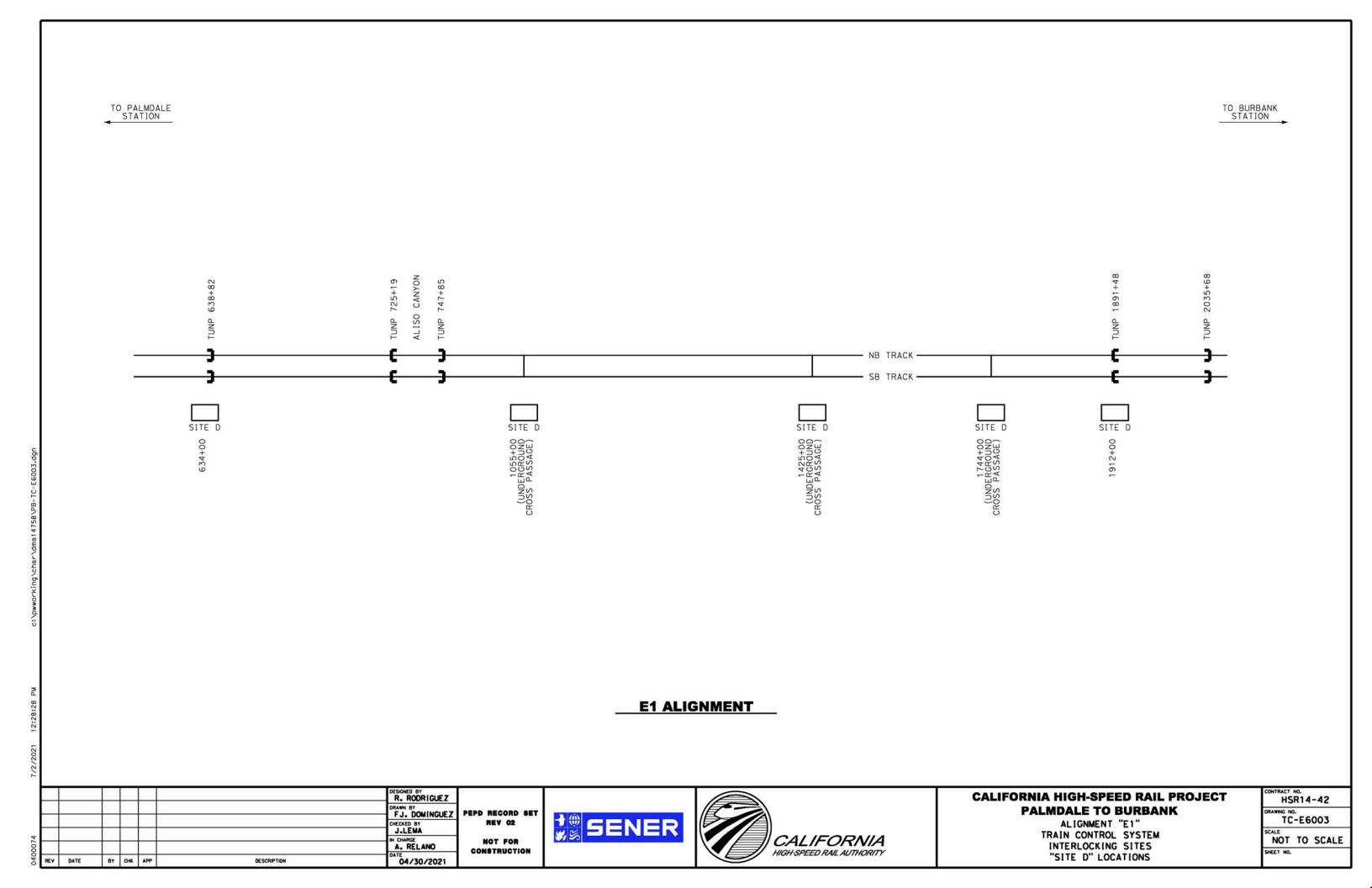
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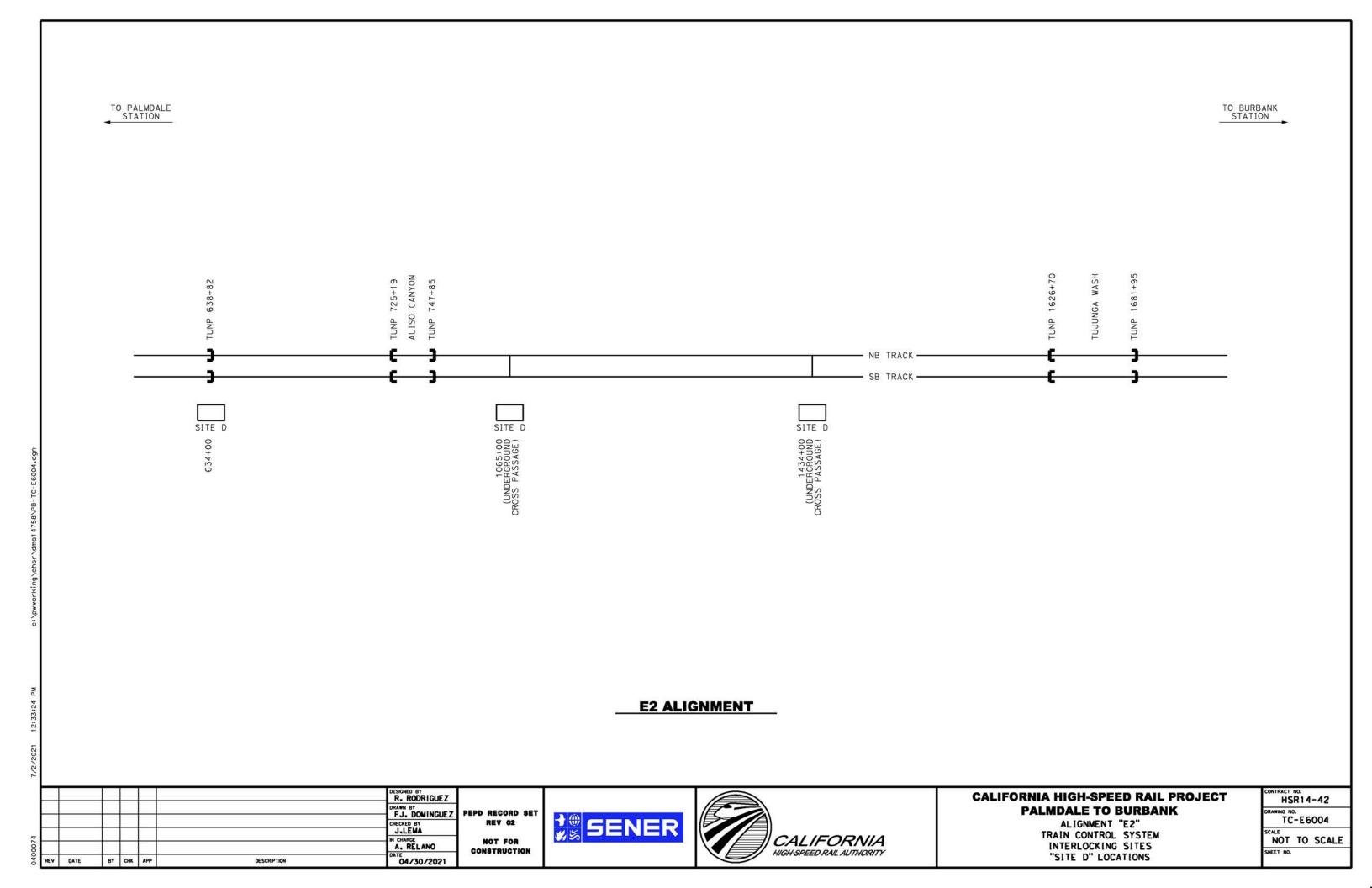
UNDERGROUND TRACTION POWER FACILITIES DETAIL 3

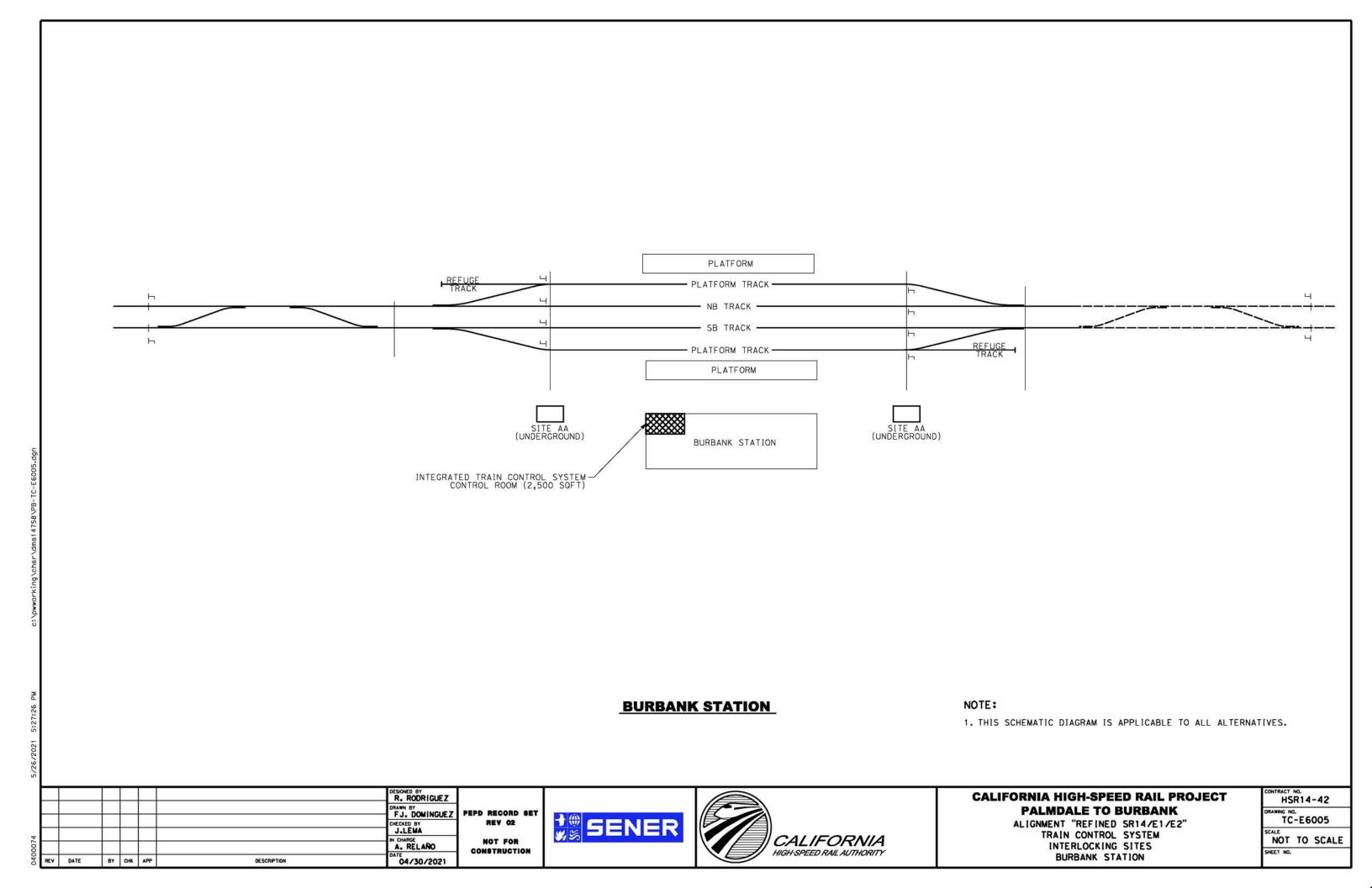
ľ	HS		-42
ľ	RAWING NO		003
	CALE	TO	SCAL

NOT TO SCALE

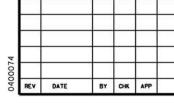












DESCRIPTION

R. RODRIGUEZ DRAWN BY
F.J. DOMINGUE Z
CHECKED BY
J.LEMA
PEPD RECORD SET
REV 02 N CHARGE A. RELANO DATE 04/30/2021 NOT FOR CONSTRUCTION

SENER



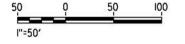


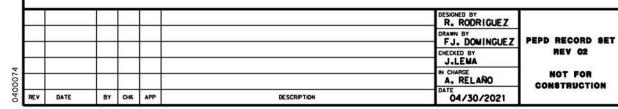
**CALIFORNIA HIGH-SPEED RAIL PROJECT** 

Н	SR14-42
TC-	NO. B6001-S14
SCALE	SHOWN

TC-F5001-S14 BURBANK STATION	

PLAN





REV 02 NOT FOR CONSTRUCTION

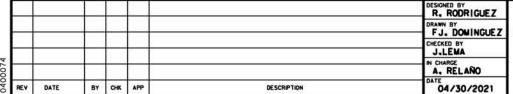




### **CALIFORNIA HIGH-SPEED RAIL PROJECT** PALMDALE TO BURBANK

ALIGNMENT "REFINED SR14" TRAIN CONTROL SYSTEM
INTERLOCKING SITES
STA 2233+00 TO STA 2245+00

F	ISR14-42
TC-	-F5001-S14
SCALE AS	SHOWN
SHEET I	10.



FJ. DOMINGUEZ PEPD RECORD SET REV 02 NOT FOR

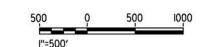
CONSTRUCTION



TC-F5001-E1

BURBANK STATION

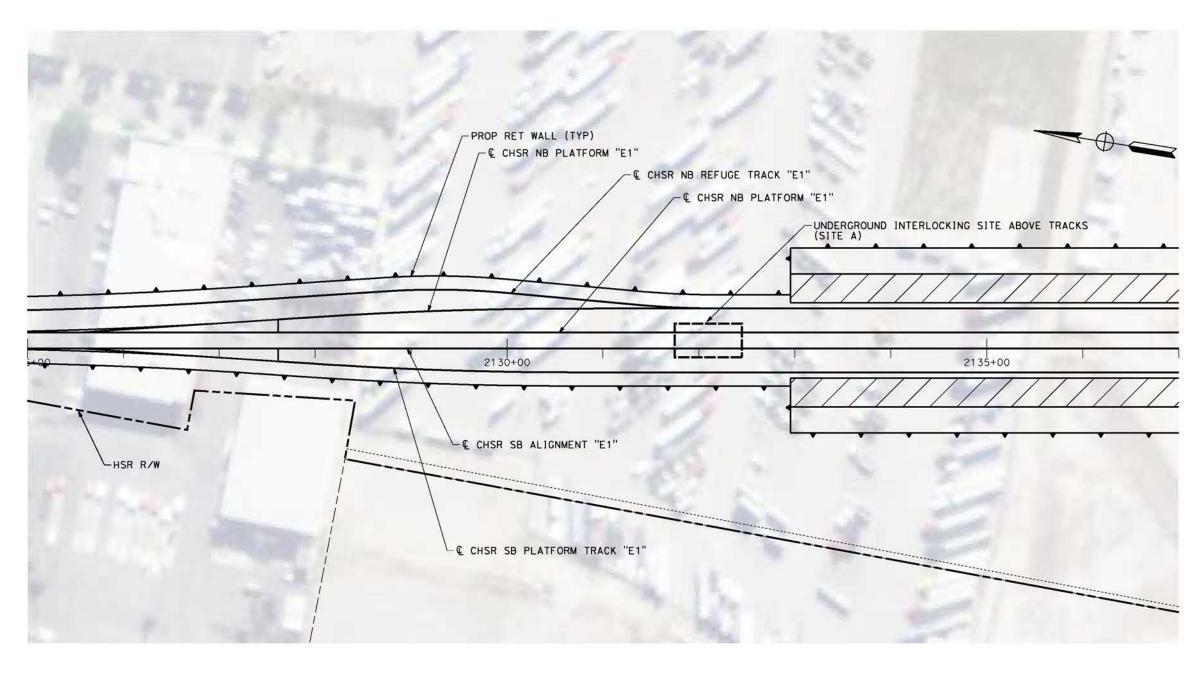




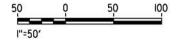
**CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK** 

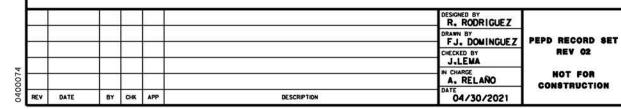
ALIGNMENT "E1"
TRAIN CONTROL SYSTEMS
RAILWAY SYSTEMS
KEY MAP

CONTRACT NO. HSR14-42
TC-B6001-E
SCALE AS SHOWN
SHEET NO.



PLAN





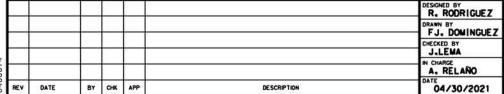
SENER



# CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK

ALIGNMENT "E1"
TRAIN CONTROL SYSTEM
INTERLOCKING SITES
STA 2125+00 TO STA 2137+00

	HSR14-42
1	DRAWING NO.
	TC-F5001-E1
	SCALE
	AS SHOWN
	SHEET NO.



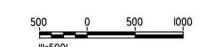
FJ. DOMINGUEZ PEPD RECORD SET REV 02 NOT FOR

SENER SENER CONSTRUCTION

TC-F5001-E2

BURBANK STATION





# **CALIFORNIA HIGH-SPEED RAIL PROJECT**

PALMDALE TO BURBANK

ALIGNMENT "E2"

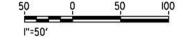
TRAIN CONTROL SYSTEMS

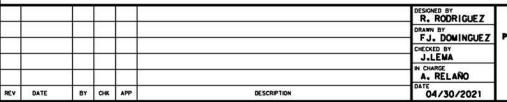
RAILWAY SYSTEMS

KEY MAP

DRAWING	
TC-	-B6001-E2
SCALE	SHOWN

PLAN





FJ. DOMINGUEZ PEPD RECORD SET REV 02 NOT FOR CONSTRUCTION





### **CALIFORNIA HIGH-SPEED RAIL PROJECT PALMDALE TO BURBANK**

ALIGNMENT "E2"
TRAIN CONTROL SYSTEM
INTERLOCKING SITES STA 1923+00 TO STA 1935+00

HSR14-42
TC-F5001-E2
AS SHOWN
SHEET NO.