# **VENTURA COUNTY TRANSPORTATION COMMISSION** SESPE CREEK BRIDGE OVERFLOW SANTA PAULA BRANCH LINE, FILLMORE, CA



APPROVED BY

SUBMITTED BY:

JULINA CORONA, P.E. PROJECT MANAGER, RAILPROS



#### DRAFT - 30% DESIGN REVIEW PACKAGE

SHT	DWG.	REV.	7.7. 0
NU.	NU.	NU.	IIILE
GENERA	L		
1	G-001	0	TITLE SHEET
2	G-002	0	INDEX OF DRAWINGS
3	G-003	0	STANDARD ABBREVIATIONS
4	G-004	0	STANDARD SYMBOLS
5	G-005	0	GENERAL NOTES
6	G-006	0	SURVEY CONTROL EXHIBIT
TRACK			
	TD 00-	0	
/	TD-001	U	TRACK PLAN AND PROFILE
а	KP-UUI	U	IRAUN MLAN AND MRUTILE
STRUCT	URES		
9	S-001	0	GENERAL PLAN NO. 1, PLAN AND ELEVATION
10	S-002	0	GENERAL PLAN NO. 2, TYPICAL SECTIONS
11	S-003	0	STAGE CONSTRUCTION PLAN
12	S-004	0	FOUNDATION PLAN
			CG NO
DATE			BY VIR APP.

#### DRAFT - 30% DESIGN REVIEW PACKAGE

#### UTILITY AND AGENCY CONTACTS

30% SUBMITTAL NOT FOR CONSTRUCTION

SCRRA (METROLINK)	(909) 392-8463 CHRISTOS SOURM
CITY OF SANTA CLARITA	(661) 286-4172 LESLIE FRAZIER
AT&T TRANSMISSION	(714) 963-7964 JOSEPH FORKERT
PLAINS ALL AMERICAN PIPELINE	(562) 728-2371 PAULA BAWDEN
MCI (VERIZON BUSINESS)	(469) 886-4238 DEAN BOYERS
QWEST/CENTURYLINK/LEVEL 3 COMMUNICATIONS	(303) 992-9931 GEORGE MCEL VAIN
SPRINT	(800) 659-9698 TIBOR LAKY
WILCON (WILSHIRE CONNECTION LLC)	(213) 542-0100 NOC
CHARTER COMMUNICATIONS/TWC	(818) 295-3030 JERRY BAYLES
SOUTHERN CALIFORNIA GAS	(818) 701-3245 SAM SIFUENTES

Drawings/Track/VCTC\_SCB\_G-003.4 Drawings/Plot Drivers/PlotStamp.tbl

1 AM USER - Jonathan Whek Sespe Creek Bridge Overflow N900 CADD 1950 Sespe Creek Bridge Overflow N900 CADD 1950

		ABBREVIATIONS
ELIS	ADS	ADVANCED DRAINAGE SYSTEMS
	AVE	AVENUE
	AT&T	AMERICAN TELEPHONE AND TELEGR
	AWW	ABSOLUTE WORK WINDOW
	BLVD	BOULEVARD
	CI	CAST IRON
	Ę	CENTERLINE
	CMPA	CORRUGATED METAL PIPE ARCH
	CONT	CONTINUED
	CP	CONTROL POINT
	CPUC	CALIFORNIA PUBLIC UTILITIES COM
	CWR	CONTINUOUS WELDED RAL
	Dc	DEGREE OF CURVE
	θs	DEFLECTION ANGLE - SPIRAL
	DI	DRAINAGE INLET
	DOT	DEPARTMENT OF TRANSPORTATION
	DWG	DRAWING
	EA	EACH
	Ea	ACTUAL SUPERELEVATION
	Eu	UNBALANCED SUPERELEVATION
	ELEV	ELEVATION
	ES	ENGINEERING STANDARDS (SCRRA S
	EG	EXISTING GROUND
	EWD	EASTWARD DIRECTION
	EXIST, EX, (E)	EXISTING
	FL	FLOW LINE
	FT	FEET, FOOT
	FWY	FREEWAY
	GPS	GLOBAL POSITIONING SYSTEM
	HMA	HOT MIX ASPHALT
	HR	HOUR
	HTTD	HAND THROW TURNOUT
	HDPE	HIGH DENSITY POLY ETHYLENE
	HST	HOLLOW STEEL TIE
	1J	INSUL ATED JOINT
	JCT	JUNCTION
	L -	LENGTH
	LA	LOS ANGELES
	L ACMTA	LOS ANGELES COUNTY METROPOL
	LACTC	LOS ANGELES COUNTY TRANSPOR
	Lc	LENGTH OF CIRCULAR CURVE
	Ls	LENGTH OF SPIRAL
	LF	LINEAL FOOT

OFFSET

M. WHITE J. ZIEGLER J. WNEK

N. ORTEGA

8-16-2023

ON CENTER

NUMBER NOT TO SCALE OVERHEAD OTHER TRACK MATERIAL

LEFT LIP OF GUTTER

LH

LLT

LT LG LWW

MC I

MFS

MIN

MIN

MP MPH

MT

NAD 83

NAD 88 ND NTS

DH DTM DFF

D.C.

MH

ADVANCED DRAINAGE SYSTEMS	PCC
AVENUE AVENUE	PED
AMERICAN TELEPHONE AND TELEGRAPH COMPANY	PH
ABSOLUTE WORK WINDOW	PITO
BOULEVARD	POB
CAST IRON	POF
CENTERLINE	POTO
CORRUGATED METAL PIPE ARCH	PROP
CONTINUED	PS
CONTROL POINT	PI
CALIFORNIA PUBLIC UTILITIES COMMISSION	SPI
CONTINUOUS WELDED RAIL	SC
DEGREE OF CURVE	CS
DEFLECTION ANGLE - SPIRAL	ST
DRAINAGE INLET	TS
DEPARTMENT OF TRANSPORTATION (U.S.)	PT
DRAWING	PTC
EACH	PVI
ACTUAL SUPERELEVATION	PVT
UNBALANCED SUPERELEVATION	PVC
ELEVATION	QWEST
ENGINEERING STANDARDS (SCRRA STANDARD DRAWINGS)	R
EXISTING GROUND	RBM
EASTWARD DIRECTION	RR
EXISTING	RH
FLOW LINE	RCB
FEET, FOOT	ROW, R/W
FREEWAY	RT
GLOBAL POSITIONING SYSTEM	RWIC
HOT MIX ASPHALT	SCRRA
HOUR	STA
HAND THROW TURNOUT	ST
HIGH DENSITY POLY ETHYLENE	SD
HOLLOW STEEL TE	SUB
INSULATED JOINT	SWI
JUNCTION	TUE
	TO
LOS ANGELES	TOD T (D
LOS ANGELES COUNTY TRANSPORTATION CONNECTION	TUR, IZR
LOS ANGELES COUNTE TRANSPORTATION COMMISSION	TYP
	LIPPP
LINEAL FOOT	V
LEFT HAND	VERT
LAST LONG THE	WSM
IFFT	WWD
LIP OF GUTTER	WWM
LIMITED WORK WINDOW	XING
MICROWAVE COMMUNICATIONS INC.	
MERCANTILE FREIGHT SERVICE	
MANHOLE	
MINUTE	
MINIMUM	
MILEPOST	
MILES PER HOUR	
MAIN TRACK	
NORTH AMERICAN DATUM OF 1983	
NORTH AMERICAN DATUM OF 1988	
NUMBER	
NUT TO SCALE	

VENTURA COUNTY TRANSPORTATION COMMISSION

SUBMITTED: \_\_\_\_

JULINA CORDNA, P.E. PROJECT MANAGER

BANKLESS CA 1991

ABBREVIATIONS (CONT.)
PORTLAND CEMENT CONCRETE
PEDESTRIAN
POT HOLE
POINT OF INTERSECTION OF TURNOUT
POINT OF BEGINNING
POINT OF ENDING
POWER OPERATED TURNOUT
PROPOSED
POINT OF SWITCH
POINT OF INTERSECTION
POINT OF INTERSECTION - SPIRAL
POINT OF SPIRAL TO CIRCULAR CURVE
POINT OF CIRCULAR CURVE TO SPIRAL
POINT OF SPIRAL TO TANGENT
POINT OF TANGENT TO SPIRAL
POINT OF TANGENCY
POSITIVE TRAIN CONTROL
POINT OF VERTICAL INTERSECTION
POINT OF VERTICAL TANGENT
POINT OF VERTICAL CURVE
QWEST ENGINEERING
RADIUS
RAIL BOUND MANGANESE
RAILROAD
RIGHT HAND
REINFORCED CONCRETE BOX
RIGHT-OF-WAY
RIGHT
RAILROAD WORKER IN CHARGE
SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY
STATION
STREET
STORM DRAN
SUBDIVISION
SWITCH
TEMPORARY CONSTRUCTION EASEMENT
TURNOUT
TRACK FOOT
TOP OF RAIL
TIME WADNED CADLE
TYDICAL
VELOCITI
VERTICAL
WELDED SPRING MANGANESE
WESTWARD DIRECTION
WELDED WIRE MESH
LKUSSING

#### EXISTING LINESTYLES

			ASPHALT SURFACE	
			BUILDING	
			BRUSH LINE/TREE L	INE
			CONCRETE SURFACE	
			CURB	
			DIRT SURFACE	
			FLOW LINE	
		1	EXISTING TRACK	
			FENCE AND HANDRA	IL S
1.2.2.2	1.1	2.01.2	GUARD RAIL	
			GUTTER	
			PROPERTY LINE	
			RAIL ROAD TRACK	
			RETAINING WALL	
			ROAD STRIPING	
			TOP OF SLOPE	
* *	a 4		SCRRA INTERTRACK	FENCE/WWM
			SCRRA RIGHT-OF-W	AY

#### PROPOSED LINESTYLES

				9	- PROPOSED TRACK
		-+			— PROPOSED RESURFACE TRACK
		-1			- PROPOSED SHIFT TRACK
		-+			<ul> <li>EXISTING RESURFACE TRACK</li> </ul>
				-1	- EXISTING SHIFT TRACK
		¶		1	TRACK TO BE REMOVED
	*	××	*	× ×	FENCE
					SCRRA INTERTRACK FENCE/WWM
	-				ROADWAY GUARDRAIL
	_	• •			RETAINING WALL / GRAVITY WALL
	-	1	à		TOP OF SLOPE
	1				K-RAIL
					PLATFORM HANDRAIL
	PLL-				- FILL
		out			CUT
			•		- FLOW LINE
	-		-		BLOCK WALL
					CENTERLINE OF ROAD
					GUARDRAIL
	SD	SD	SD	SD	STORM DRAIN
	TD	TD	TD	TD	TRENCH DRAIN
	UD	UD	UD-	uo	UNDER DRAIN
	* - * -				- PLATFORM EDGE FENCE
	_				- LIMITS OF CONSTRUCTION BOUNDARY
	-				CONST JOINT
	-	···· TFR ·····			FIBER ROLLS
	a		××	xx	- SILT CONTROL FENCE
					- PROPOSED TEMPORARY CONSTRUCTION
					EASEMENT
000					
SESP CANITA D					
SANTA F			LINE	, I ILLIV	
					activision similar ind.
	STAND	ard Ab	BREVIA	TIONS	SCALE NTS

#### DRAFT - 30% DESIGN REVIEW PACKAGE



GENERAL NOTES		GENERAL NOTES (CONTNUED)						
1. THE CONTRACTOR SHALL COMPL FOR THIS CONTRACT.	Y WITH ALL LOCAL, STATE, AND FEDERAL SAFETY CODES, REGULATIONS, AND SPECIFICATIONS	LE RAL THAN TO DISPLATIONS UNAL BE REFERENCE A MINUM COMMUNICATION WITH DAL ENVIRONMENT REFERENCES ON CONTRACT WITH A MARKET DALLAR DALLAR DALLAR DALLAR	O'HUHTERS IN RAL TRAFFIC THAT MAY BE REQUIRED HALL BE WONG FUEL COMMENCE WITHOUT THE ENLINESS AFFOLY AND AFFOLY AFFOLY AND AFFOLY AFFOL AFFOLY AFFOLY AFFOLY AFFOLY AFF					
<ol> <li>ALL CONSTRUCTION ACTIVITIES AGENCIES, AND OTHER CONTRAC</li> </ol>	SHALL BE SCHEDULED AND COORDINATED WITH THE ENGINEER AND THE VARIOUS COMPANES, TORS WHO MAY BE AFFECTED BY THIS WORK,	THE CONTRACTOR CAN I NOT DIACE MATCHIN MOUCH CONTRACTOR THETE ADD FET OF AN ADDRESS ADDRES						
<ol> <li>HORIZONTAL AND VERTICAL COM BE THE CONTRACTOR'S RESPON ARE CONSTRUCTED AT THE CO</li> </ol>	NTROL PONTS FOR THE SITE LAYOUT ARE IDENTIFIED IN THE CONTRACT DOCUMENTS.IT SHALL NSIBILITY TO UTILIZE THESE CONTROL PONTS TO ASSURE THAT ALL FACILITIES INCLUDED IN PROJECT REPCT HORIZONTA. AND VERTICAL LOCATIONS.	THE WITHOUT PRIOR APPROVAL FROM THE ENGINEER. 14. WALKWAYS SHALL BE PLACED AS REQUIRED BY CALIFORN	A PUBLIC UTILITIES COMMISSION GENERAL ORDER NO. 118 AND 260					
4. SECTION 4216/4217 OF THE GO TO EXCAVATE" IS VALID. THE CO	DVERNMENT CODE RECURES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT CONTRACTOR SHALL CALL THE UNDERGROUND SERVICE ALERT (1-800-422-4133) TWO (2) WORKING	AND CONFRACTION OF ALL NEW 15. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GE 15. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GE 15. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GE	CONSTRUCTION, UNLESS OTHERWISE NOTED. BERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR BANGHU MY CONTRACTOR CONTRACTOR CONTRACTOR					
5. CALIFORNIA SENATE BILL 1359 - CONTRACTOR SHALL BECOME F.	TO DUTAT A DU ALCH TO MUNICA APPROVED 2005 DUTLINES PROCEENESS FOR LOCATING UTILITES BY HAND EXCAVATION. THE AMBLINE WITH THIS LEDISLATION AND COMPLY WITH ITS DURCTIVE PROR TO EACH B WITHON DURLICE-WAY THE CONTENTION OF WITH INTERVE AND PROFINS GRAND. PEDERSENTATIVE	CONSTRUCTION OF THE PROJECT INCLUDING SAFETY OF TO APPLY CONTINUOUSLY WAD NOT INNEED TO NORMAL INDEXNETY HOLD SAFETY OF THE DESIGN PROFESSIONAL WITH THE PROFENSIONAL OF INTERCONTINUE REPORTED	ALL DEPENDENT SHALL DE MADE NORMON FOLGER, AND THE CONTRACTOR FUELTHER AGREES TO DEFEND, ARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION					
5 CONTROCTION ACTIVITY WITH 5 CONTROL IS NOT A MEMBER OF DI MINIMUM OF FIVE DAYS PRIOR TO ASSURE CABLES AND COND	I RELEVENT TRADE TO THE CONTRACTOR STATE CALL FOR THE RELEVENT AT THE RELEVENT	THE ICCATIONS AND DIMENSIONS SHOWN ON THE FLANS F WITHOUT UNCOVERING AND MEASURING. THE ENGINEER DOE EXISTING UNDERREGNING FACILITIES AND RESURNED	DR EXISTING FACILITES ARE IN ACCORDANCE WITH AVAILABLE INFORMATION S NOT GUARANTEE THE ACCURACY OF THIS INFORMATION OR THAT ALL					
WITH AN SCRRA DIG NUMBER. IN 24-HOUR SIGNAL EMER	I CASE OF SIGNAL ENERGÈNCIES OR GRADE CROSSING PROBLEMS, THE CONTRACTOR SHALL CALL RGENCY NUMBER <mark>1888-146 HTTL</mark>	17. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE APP AGENCIES THAT HAVE THE RESPONSIBILITY OF REVIEWING	ICABLE CODES, ORDINANCES, AND STANDARD SPECIFICATIONS OF ALL PLANS AND SPECIFICATIONS FOR CONSTRUCTION OF ALL ITEMS PER THESE					
<ol> <li>THE CONTRACTOR SHALL FIELD FIBER OPTIC LINES, AND/OR OT REPORTED TO THE ENGINEER.</li> </ol>	VERFY ALL DIMEMSIONS FOR CONFLICTS WITH EXISTING UTILITIES, SIGNAL CABLES/EQUIPMENT, HER ITEMS THAT MIGHT IMPAIR CONSTRUCTION ACTIVITIES. INCONSISTENCIES FOUND SHALL BE	PLANS AND SPECIFICATIONS IN THIS LOCALITY. 18. THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PEI	MITS AND PAY PERMIT FEES AS REQUIRED FOR CONSTRUCTION OF THIS PROJECT.					
<ol> <li>REPAIRS TO THE DAMAGED MAT AT THE CONTRACTOR'S EXPENSION</li> </ol>	ERIALS OR FACILITES INTENDED TO REMAIN IN PLACE SHALL BE MADE BY THE CONTRACTOR SE UNLESS OTHERWISE STATED BY THE ENGINEER.	<ol> <li>THE CONTRACTOR SHALL CLEAN UP ALL DEBRIS AND MATE STRUCTURES, DITCHES, AND PROPERTY TO ITS ORIGINAL C</li> </ol>	RIALS RESULTING FROM HIS OPERATION AND RESTORE ALL SURFACES, NOTION TO THE SATISFACTION OF THE ENGINEER					
<ol> <li>ALL EXCAVATED WASTE MATERI MATERIAL SHALL NOT BE PERMI</li> </ol>	AL SHALL BE IMWEDIATELY REMOVED FROM THE SITE.ON SITE STORAGE OF EXCAVATED WASTE TTED AT ANY TIME.	UNTRALING AN PHUMIN FOR HILDNING SOPER	ATION OF WITHOUT INTERRUPTION DURING					
10. DEFINITIONS:		21. CONTRACTOR TO IDENTIFY DEPTH AND LOCATION OF ALL	XISTING UNDERGROUND UTILITIES. FOR LOCATION OF SIGNALS AND					
A. TRACK OUTAGE	TRACK WHICH IS OUT OF SERVICE FOR A GIVEN PERIOD OF TIME.	COMMUNICATION CONDUITS CONTACT RAILROAD SIGNAL DEF	ARTMENT.					
B. ACTIVE TRACK:	TRACK ON WHICH TRAINS ARE OPERATING AND INTERRUPTION OF SERVICE MAY OCCUR ONLY WITHIN AN APPROVED "WINDOW" AS DEFINED BELOW.	22. TIMBER TIES SHALL BE SPACED AT 9 17 WHILE ON CE	HER. CONCRETE THES SHALL BE SPACED AT 24 INCHES ON CENTER					
C. FOULED TRACK:	TRACK IS FOULED WHEN AN OBSTRUCTION IS PLACED WITHIN EIGHT (8) FEET FROM THE NEAREST RAL OF THE TRACK OR WHEN AN OVERHEAD OBSTRUCTION IS PLACED WITHIN TWENTY-TWO AND A HALF FEET (221-67) AGOVE THE TOP OF RALL	2.3. EMPORTE TAULITES CURSICULED AUD REMOVED BI DURING ITÉ PHASING OF CONSTRUCTION SUCH AS PLACE TO BE CONSTRUCTED AT A FUTURE PHASEWILL BE CON MEASUREMENT OR PANIENT WILL BE MADE FOR PROVIDIN MEASUREMENT OR PANIENT WILL BE MADE FOR PROVIDIN	HE CUMITALIUM ID FROME FUR MANNELEMANNEL FANL OFFICATIONS BENT OF A TEMPORARY TRACK PANEL AT THE LOCATION OF A TURNOUT UBERED INCLEMTAL TO OTHER IFENS BEING CONSTRUCTED. NO SEPARATE FOR THE CONTINUOUS OPERATION OF RALL TRAFFIC.					
D. WINDOW:	A GIVEN PERIOD OF TIME BETWEEN OPERATING TRAINS WHERE A TRACK MAY BE FOULED WITH THE STIPULATION THAT THE TRACK SHALL BE BACK IN SERVICE AT THE END OF THE GIVEN PERIOD OF TIME A FORM OF POSITIVE PROFESTION SHALL ASSO BE REQUIRED	24. EXISTING RAILROAD SIGNAGE (INCLUDING SPEED SIGNS) SH SIGNAGE SHALL BE FULLY RESTORED UPON COMPLETION PRIOR TO CONSTRUCTION, Rev STAUDARP PROBLECT NO	L BE MAINTAINED DURING CONSTRUCTION PERIOD, ALL RAIROAD F EACH WORK PERIOD IN ACCORDANCE WITH CONFALENDINEERING STANDARDS CE SIGNS SHALL BE PLACED AT LOCATIONS AS DIRECTED BY THE ENGINEER					
E. EXCLUSIVE TRACK WINDO	W / ABSOLUTE WORK WINDOW (AWW): AW APPROVED WORK WINDOW IN WHICH NO TRAN MOVEMENTS WILL OPERATE ON ANY TRACK WITHIN THE WINDOW LIMITS. THE CONTRACTOR MAY DISMAILE, REMOVE, RECONSTRUCT, OR OTHERWISE OBSTRUCT TRACKS WITHIN THE LIMITS OF SUCH A WINDOW THIS WORK WAY BE PROTECTED BY TRACK OUT OF SERVICE, RACK AND THE LIMITS, OR BY TORM BITARCE SULLETIN	NO TRESPASSING SIGNS SHALL BE PLACED IN ACCREMANC DE CENTRACT VERES ELINSUELINGT / CENTRACTRE TE ANNAN SHALL RAMIN AVAILABLE IN MALLAN REQUIRE A NANANG SHALLAN G RAMIN AVAILABLE IN LARANTEE THE AVAIL	WITH ESS214 AND AS SHOWN ON THE DRAWINGS I CHO FULLAND REPORTED I AVAILABLE THANKS AS DESEMBENT OF THE TEXT WORKING AND A THANK AS DRAWING WORK PHILM INSTAND ATION BUILT OF THE RAWING THAN THE PROVINCE UNKS OF WORK CONTINUES TO A THAN THAN THAN ALLOW AS WITHOUT THAT					
F.LIMITED TRACK WINDOW	/ LIMITED WORK WINDOW (LWW);	FROM THE RECEIPTION OF THE WARK IN A WARKEN	THE TRANS					
	AN APPROVED WORK WNDOW FOR SOWE, BUT NOT ALL TRACKS WITHIN A GENERAL WORK AREA LEG. ONE TRACK REMAINS FOR DEPERATION OF TRANS, OTHER TRACKS ARE AVAILABLE FOR THE CONTRACTOR'S WORK, MOVEMENT OF TRAINS OVER THE TRACKSS OF A LIMITED TRACK MNDOW IS UNDER THE CONTROL OF THE SOME RADWAY WORKEN TO CHARGE (MINUS WHO WILL NOT AUTHORIZE TRAIN MOVEMENT UNLESS AND UNTIL THE CONTRACTOR PERSONNEL AND EQUIPMENT ARE CLEAR OF THE OPERATING TRACK. THE CONTRACTOR PERSONNEL AND EQUIPMENT ARE CLEAR OF THE OPERATING TRACK. THE CONTRACTOR PERSONNEL AND EQUIPMENT ARE CLEAR WITHOUT DELAY ON THE REMAINING TRACKS IN THE WORK AREA THIS WORK MAY BE PROTECTED BY TRACK DUT OF SERVICE TRACK AND THE OR TRACKS IN THE WORK AREA THIS WORK MAY BE PROTECTED BY TRACK DUT OF SERVICE TRACK AND THE	27. NO MECHAWIZED EXCAVATION WITHIN 2 FEET OF FIBER LU 5 FEET HORIZONTALLY OF VERTICALLY OF FIBER LUES. TO QWEST, LACIC AND MFS'S STRUCTURES, NCLUONG TH LURIS BEFORE BEDONNOR WORK IN THAT VOINTY IF COM PLACE STEEL PLATES OVER THE FIBER LINE BEFORE COM	E IS ALLOWED. OWEST, VOITE AND ME'S TO BE PRESENT FOR ANY ACTIVITY WITHN O FAILITES WAN BE KODE CLOSER THAN 2 FEET VERICALLY ON HORIZONTALLY ENCASEMENT. CONTRACTOR SHALL POTHOLE ALL FIBER LINES WITHN THE WORK TRUCTION COMPARENT NIETNOS TO DRIVE OVER THE FIBER LINE, CONTRACTOR SHALL IRRUCTION CREWS DRIVE OVER FIBER.					
		DESIGN CRITERIA						
G. WORK WINDOW:	AN APPROVED WORK WINDOW IN WHICH PASSENGER, FREIGHT AND ALL OTHER TRAINS AND ON-TRACK COURMENT NOVERWITS CAN BE PROHIBIED FROM ENTERING THE DEFINED LINTS OF A SECURATION FTACK, THE "TORM B" WORK WINDOW DOES NOT ALLOW THE CONTRACTOR TO REMOVE FROM SERVICE OF MODIFY THE TRACKS, SIGNALS BRUDESS, STATIONS OF OTHER ELEMENTS OF THE OFFERING SYSTEM IN A MANNER, WINCH WILL DELAY OR IN ANY WAY AFFECT THE SAFE OPERATION OF THE TRAINS STIEL AND A MANNER, WINCH WILL DELAY OR IN ANY WAY AFFECT THE SAFE OPERATION OF THE TRAINS THE "FORM B" WORK WINDOW ALLOWS THE CONTRACTOR THE CAULTY TO CHIEF THE OFFERTAINE SEVELORE AND PERFORM CONSTRUCTION ACTIVITIES SUBJECT TO THE CONDITIONS ABOVE. AN INIC/FLAGMAN FROM SCRAPA WILL EXERCISE STRICT CONTROL OVER THE CONTRACTOR TRACTORS CONSTRUCTION AT THE ON SCRAPA WILL EXERCISE STRICT PROTECTION REQUIREMENTS, TO ASSUME THAT THE CONTRACTOR'S ACTIVITIES DO NOT DELAY OR IMPACT TRAIN SERVICE.	SCRRA DESIGN CRITERIA MANUAL, FEBRUARY 2022						
H. TRACK AND TIME:	AN APPROVED WORK WINDOW IN WHICH THE DISPATCHER WILL AUTHORIZE WEN AND EQUIPMENT TO OCCUPY A TRACK OR TRACKS WITHIN LIMITS FOR A CERTAIN TIME PERIOD. THE DISPATCHER AUTHORITY SHALL INCLUDE AUTHORITY NUMBER, TRACK DESIGNATION, LIMITS AND TIME. MOVEMENTS MAY BE MADE IN EITHER DIRECTION WITHIN THE SPECIFIED LIMITS UNTIL THE LIMITED ARE RELEASED.							
11. PROR TO COMMENCING WORK THE LANS OF WORK ACTIVIT SCHEDULE AND OPERATIONS P THE CONTRACTOR SHALL REFE	.ALL EVISITING SITE CONDITIONS SHALL BE FEED VERHED WITH THE ENDMEER TO ASCETIAN ES THE CONTRACTOR SHALL USENT HOW RECEIVE THE ENDMEENS APPROVAL OF THE PROJECT LAN EACH ITEM OF WORK SHALL BE DESCRIBED AND ACCOUNTED FOR IN THE CONTRACT DOCUMENTS. ER TO THE SPECIFICATIONS FOR FURTHER INFORMATION REGARDING SUBMITTAL REQUIREMENTS,							
0.000	NFORMATION CONFDENTINU DESIGNED BY Alplans, drawings, specifin M, WHITE		SESPE CREEK BRIDGE OVERFLOW	CONTRACT NO.				
30% 3	SUBMITTAL contract of the second of the foreign of the second of the sec	TRANSPORTATION COMMISSION	SANTA PAULA BRANCH LINE, FILLMORE, CA	G-005				
NOT FOR				SHEET NO.				
V. DATE	erry purpose not provided for in operands with the Bourtern California Regional Rei Junora, App. App. 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 10	SUBMITTED: JULIA CORDAN PE. WE ALLEVES WORTH	GENERAL NOTES	SCALE NTS				

8-16-2023





USER = Jonathan Wnek Creek Bridge Overflow/900 Creek Bridge Overflow/900 1 AM Sespe Sespe











4:16:23 PM USER - gerry.estepa VCTCNSespe Creek Bridge Overflow1900 CADDN950 Draw Connect/Configuration/WorkSpaces/SCRRAN-Structure-NSE XCADD Standard (All Aenervy).Metric.int-SCRRAN Workspace ing/\

# **Project Definition Report**

Sespe Creek Bridge Overflow Project

August 16 2023

Submitted By: RailPros, Inc.



250 Commerce, Suite 200 Irvine, CA 92602 Submitted To: Ventura County Transportation Commission



## 1.0 Project Objective

The Sespe Creek Overflow Bridge Reconstruction-Planning, Design & Compliance project objective is to perform a railroad bridge repair to pre-disaster design, capacity, and function, consistent with FEMA guidance.

## 1.1 Project Existing Conditions

On January 10, 2023, the heavy rainfall from a series of storms led to flooding in the creek which resulted in the destruction of three span bents, approximately 90 feet, on the Easterly section of the bridge. The line is currently out of service as the rail and rail ties are suspended between the Abutment 1 and Bent 4, see Figure 1. Reconstruction of the bridge section is necessary to resume rail operations on the Sespe Creek Overflow railroad bridge.

### 1.2 Project Description

Ventura County Transportation Commission's (VCTC) owns the Santa Paula Branch Line (SPBL) railroad tracks that runs over the Sespe Creek. It was originally constructed by the Southern Pacific railroad in 1887 and acquired by VCTC in 1995. In 2021, VCTC entered into a 35-year Railroad Lease and Operations Agreement with Sierra Northern Railway.

The Sespe Creek Overflow railroad bridge is located within SPBL, and it is composed of 15 spans with a total length of 450 feet and vertical clearance of 14 feet. The Project is in VCTC's SPBL at Mile Post 423.44 in Fillmore, California (Longitude 34.406284, Latitude -118.931914). The bridge runs parallel to the Sespe Creek Highway Bridge.



Figure 1. Project Location (County View)

## 2.0 Design Limitations and Constraints

To perform the bridge repairs construction the substructure installation activities must be conducted from the creek bed which will require encroachment permits from Ventura County Watershed Protection and all necessary environmental clearance and permitting must be obtained prior to construction. An environmental field survey will be conducted within the limits defined in the Area of Potential Effects (APE) map which will need to be developed by the design team with constructability and access in mind and any creek bed clearing required from the washed out bridge components that are laying in the project area.

## 3.0 Design Alternatives

The three alternatives were identified for the reconstruction to a portion of the Sespe Creek Overflow Railroad bridge. All alternatives will include erosion protection, the West abutment and wingwall. RailPros will design girders like BNSF standard girders rather than Metrolink standards to benefit from shorter material procurement lead times. After evaluating the three alternatives, Alternative 1 is recommended for reconstruction.

### 3.1 Alternative 1 (Proposed Design)

Alternative 1 proposes two new bents, two new pier caps, two new 49-foot spans, a new abutment and wingwall, and erosion protection. The new proposed bent will be parallel to the flow of water and each bent is comprised of two cast-in-drilled-hole (CIDH) piles. The new proposed pier caps are cast-in-place (CIP). The abutment and wingwall will be constructed at the end of the bridge.

Figure 2. Alternative 1



#### 3.2 Alternative 2

Alternative 2 proposes a replacement-in-kind. It consists of three driven pile bents, three pier caps, three 30-foot spans, a new abutment and wingwall, and erosion protection.

#### 3.3 Alternative 3

Alternative 3 proposes three new bents, three new CIP pier caps, three new spans, a new abutment and wingwall, and erosion protection. Like Alternative 1, the new bent will also be parallel to the flow of water and each bent is comprised of two cast-in-drilled-hole (CIDH) piles. Of the three spans, two of the spans are 49-feet in length and the third span is 30-feet in length.

August 16, 2023

## Ventura County Transportation Commission, (VCTC)

## SESPE CREEK BRIDGE OVERFLOW SANTA PAULA BRANCH LINE, FILLMORE, CA

### 30% Submittal - Design Submittal Report

Prepared by: RailPros Inc. 811 Wilshire Blvd Suite 1820 Los Angeles, CA 90017

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## 1. Project Scope

The bridge requiring rehabilitation and reconstruction is located on VCTC's SPBL at Mile Post 423.44 in Fillmore, California (Longitude 34.406284, Latitude -118.931914). The bridge runs parallel to the Sespe Creek Highway Bridge. On January 10, 2023, the heavy rainfall from a series of storms led to flooding in the creek which resulted in the destruction of three span bents, approximately 90 feet, on the Easterly section of the bridge. The line is currently out of service as the rail and rail ties are suspended between the Abutment 1 and Bent 4. Reconstruction of the bridge section is necessary to resume rail operations on the Sespe Creek Overflow railroad bridge. The rehabilitation will include the entire restoration of the destroyed bridge and track bed. See the Project Definition, attached in submission, for more detailed information.

## 2. Background

#### **Project Description/Definition**

The Sespe Creek Overflow railroad bridge is located within SPBL, and it is composed of 15 spans with a total length of 450 feet and vertical clearance of 14 feet. The bridge is located within FEMA-designated Zone A and the channel immediately downstream of the bridge is designated ZONE AE with defined base flood elevations. The Ventura County Transportation Commission's (VCTC) Santa Paula Branch Line (SPBL) was originally constructed by the Southern Pacific railroad in 1887 and acquired by VCTC in 1995. In 2021, VCTC entered into a 35-year Railroad Lease and Operations Agreement with Sierra Northern Railway. The construction work area surrounds the North-East portion of the railroad bridge. The three design alternatives presented will improve bridge hydraulics. All design alternatives will include erosion protection, the West abutment and wingwall. Girders will likely be standard UP/BNSF girders rather than Metrolink standards to avoid delays in construction procurement as UP/BNSF standard girders are typically "shelve ready". See the Hazard Mitigation Memo for details on each alternative.

RailPros has included the **Project Definition Report** with the 30% Submittal (provided with Reference Documents) identifying 3 proposed solutions and VCTC selected Alternative 1 comprised of two new bents, two new cast-in-place (CIP) pier caps, and two new spans that are each 49-feet in length.

## 3. Design Criteria

#### Design Criteria (to be submitted separately when complete):

Prepare 30% plans. Design will include structural design of piers and the northwestern abutment. This will include repairs to current Bent 4, the standing westerly bent. Girders will be designed by RailPros similar to standard UP/BNSF girders rather than using Metrolink's standard girder, to benefit from shorter procurement lead times. The design will meet or exceed Metrolink's standard design criteria.

#### Geotechnical Analysis (to be submitted separately when complete):

Diaz Yourman will provide the geotechnical report with geotechnical design conclusions and recommendations that will include foundation design such as bearing capacity and settlements for potential shallow and deep foundations for the bridge structure, seismic design input for the bridge structure such as acceleration response spectrum (ARS) curves, design peak ground acceleration (PGA)

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and seismic earthquake magnitude per AREMA and Caltrans codes, potential liquefaction analysis, and corrosion at the site.

#### Hydraulic Analysis (to be submitted separately when complete):

Hydrologist will consider 2022 FEMA submitted preliminary FIS revisions for Ventura County, if accessible, which included Sespe Creek and the bridge location and FEMA updated HEC-RAS model geometry and flows for Sespe Creek. GHD is developing an HEC-RAS model which includes Sespe Creek and the bridge location.

#### Foundation Type Selection (to be submitted separately when complete):

Based on the preliminary geotechnical memo, heavy structure loading, deep pile foundations will be required to support bridge structures. The necessary pile installation method is drilled given the preliminary soil parameters defined. The installation of the piles will be combined with the wet method and temporary casing. Where the site is susceptible to liquefaction, liquefaction-induced down-drag loads will be evaluated for the per Caltrans methodology as long as they meet the design criteria outlined in SCRRA Design Criteria Manual. The pile foundations will be designed per Caltrans methodology, which is the preferred practice for seismic analysis. Any design exception to SCRRA Design Criteria Manual will be brought to VCTC's attention.

## 4. Design Submittal

#### **Design Drawing Sheets**

**Surveying Control Points:** RSE performed a topographic survey and a base map of the project site which have been incorporated into the 30 percent design drawings. Survey control points were established to depict the horizontal and vertical alignment of the bridge, including adjacent top-of-rail elevations of adjacent spans and the northwest approach and elevations of the creek bed near the project.

**Track Design Sheets:** Track Design incorporated survey control data into the track plan and profile sheet and developed a typical cross section for the bridge approaches (Sheet 8 and 9), which is a Metrolink Standard, to be further discussed with VCTC and Sierra Northern.

**Structural Design Sheets:** The Structural Design based the bridge repair on the recommendations contained in the reports as part of this submittal. The proposed solution consists of two new bents, two new cast-in-place (CIP) pier caps, and two new spans that are each 49-feet in length. Each bent is comprised of two cast-in-drilled-hole (CIDH) piles 30% design diameter of the pile is taken as 6 feet pending final Geotech memo. The abutment and wingwall will be constructed at the end of the bridge. This design is shown on S-001 General Plan No. 1 Plan and Elevation.

**Project Definition Report:** defines the repair concept, project limits, and needs of the project.

**Geotechnical Investigation Memo (to be submitted separately when complete):** Diaz Yourman has conducted subsurface exploration in the channel bottom and adjacent to the abutment at the northwestern end of the three washed-out bridge spans. The boring samples from the exploration are under review in the lab. Lab results are anticipated by mid-August and will drive the development of the geotechnical memo for the final foundation design determination.

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Hazard Mitigation Memo (to be submitted separately when complete): Will include more information on the design repair considerations, and recommendations to achieve a sustainable solution considering future hazard mitigation. Alternatives have been reviewed with VCTC and 30% Submittal consists of the proposed design alternative.

**Hydrology and Hydraulics Memo (to be submitted separately when complete):** will include results from HEC-RAS development of the memo is dependent on confirmation of boring sample lab results.

**Utility Matrix Draft:** See utilities matrix draft, attached in submission, for a list of affected utility information. Pending further coordination with county and VCTC.

Permits Matrix Draft: See permit matrix draft, attached in submission, for a list of permit statuses to date.

## 5. Design Criteria Exceptions

There are no design criteria exceptions requested for this project at the 30% design phase.

## 6. Permit and Environmental Coordination

**Environmental Assessment:** Coordinate with Environmental permitting restrictions and requirements that will be incorporated into the plans, specifications, and estimates. Jacobs will be submitting and coordinating permit approvals for the repair/replacement of the damaged bridge over Sespe Creek. Permitting may include California Department of Fish and Wildlife Lake and Streambed Alteration Agreement, and a Regional Water Quality Control Board Waste Discharge Requirements.

The approach to obtain environmental clearance is through a CEQA Statutory Exemption (SE), which will be further coordinated with VCTC and Sierra Northern prior to submission. The permits necessary to clear this project includes:

- U.S. Army Corps of Engineers Section 404 the Clean Water Act (CWA) establishes a program to regulate the discharge of dredged or fill material into waters of the United States
- Regional Water Quality Control Board Section 401 CWA requires that any person applying for a federal permit or license, which may result in a discharge of pollutants into waters of the United States must obtain a state water quality certification
- Fish and Wildlife's Lake and Streambed Alteration Agreement (LSAA) must notify CDFW prior to beginning any activity that may alter the streambed profile, including drilling piles, installing riprap, and earthwork on the creek bed
- Construction General Permit (CGP) must ensure that construction BMP methods adhere to environmental mitigation of all permits applicable to this project

## **RAILPROS** 7. Quality Assurance / Quality Control (QA/QC)

RailPros follows a detailed internal QA/QC program which was implemented. QA of the 30% Design Submittal was performed by Aaron Silver, holding constructability of the project in mind. Jonathan Wnek performed the QC for the track design. Sarwar Naveed performed the QC for the structural design. Rough Order Magnitude (ROM) cost estimate performed by Julina Corona and reviewed by Aaron Silver.

## 8. Cost Estimate

<u>ROM Project cost estimates</u> were prepared for the proposed design based on high level construction cost data from recent construction bids.

See ROM Cost Estimate breakdown attached in submission.

## 9. Reference Information

1) Project Definition Report



### **PERMIT MATRIX**

									PERMIT MATRIX		
									Project Name:	Sespe Creek Bridge Overflow Repair	
									Last Updated:	8/11/2023	
Т₩	DESCRIPTION	PERMITTING AGENCY	PERMIT	PROCESS	DATA REQUIRED	PE	ERMIT F	EE	COMMENTS	STATUS	
		Agency Name	LEAD TIME	DURATION OR	Technical requirements or back-up to accompany	BY	BYRP	BY Construction Contractor	Basis of permit fee determination	Next steps; Outstanding issues	
		Address		LAFINATION	permit application	1010					
		Phone	0.14/				ļ	ļ	And Pro Constant and		
1	Permit	County of Ventura Public Works	2 weeks		Site Specific Workplan; Certification				Application by owner.	work under this permit has been completed.	
	Ferrin	800 S Victoria Ave, Ventura, CA 93009			ormsulance						
		(805) 654-2055									
2	Watershed Protection Permit	Public Works Agency Watershed Protection	2 Months		In process of determination.	\$2,480			Application by owner.	Work under this permit has been completed.	
		800 S Victoria Ave, Ventura, CA 93009									
		(805) 662-6882									
3	404	Army Corp of Engineers	2 Months	2 Years	To be discussed during VCTC			-	Environmental lead assisting owner	Permit is being developed by biologist.	
		Aaron Allen			Coordination meeting on 8/16.				in processing application.		
		915 Wilshire Blvd, Los Angeles, CA									
L	404					TOD			The factor of the second s		
4	401	Army Corp of Engineers	2 11S	2 Years	Coordination meeting on 8/15	IBD			in processing application	Permit is being developed by biologist.	
		915 Wilshire Blvd, Los Angeles, CA			Coordination meeting on one.				in processing application.		
		90017									
5	Lake and Streambed Alteration	California Department of Fish and	3 Mon	5 Years	Project information, surveys, bio	TBD			Environmental lead assisting owner	Permit is being developed by biologist.	
	Agreement (LSAA)	Wildlife (CDFW)			reports, environmental studies				in processing application.		
		3883 Ruffin Rd, San Diego, CA 92123-									
6	Construciton General Permit (CGP)	California Environmental Protection		-	Owner information, project information,				RP assisting owner in processing	Has not been initiated.	
		Agency			drainage report, WQMP, geotechnical report,				application.		
		1001 I St #1, Sacramento, CA 95814 (916) 323-2514			area, construction duration, project contact						
L-	Energehment & Weterseyung Dermit	Ventura County Dublia Works Agenay	1 Month		information	£0.400			DD essisting sumar in pressaning	Contractor will obtain during construction	
<b> </b> '	Encloachment & Watercourse Permit	800 S Victoria Ave, Ventura, CA 93009			and included and include water	φ2,40U			application		
		(805) 662-6882			diversion plan						
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