

**GENERAL NOTES:**

**JACKING FORCE (P):** The jacking force required at the point of control along the span. The jacking force does not include any fabrication specific losses. The maximum tensile stress in the prestressing steel upon release shall not exceed 75% of the specified minimum ultimate tensile strength of the prestressing steel.

The maximum temporary tensile stress (jacking stress) in the prestressing steel shall not exceed 80% of the specified minimum ultimate tensile strength of the prestressing steel.

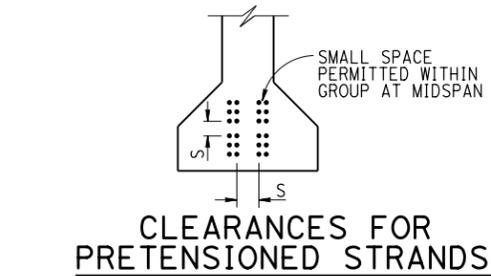
**CONCRETE STRENGTH:** f'ci is at time of initial stressing  
f'c is at 28 days

**DEFLECTION COMPONENTS:** Informational - to be used in setting screed line elevations

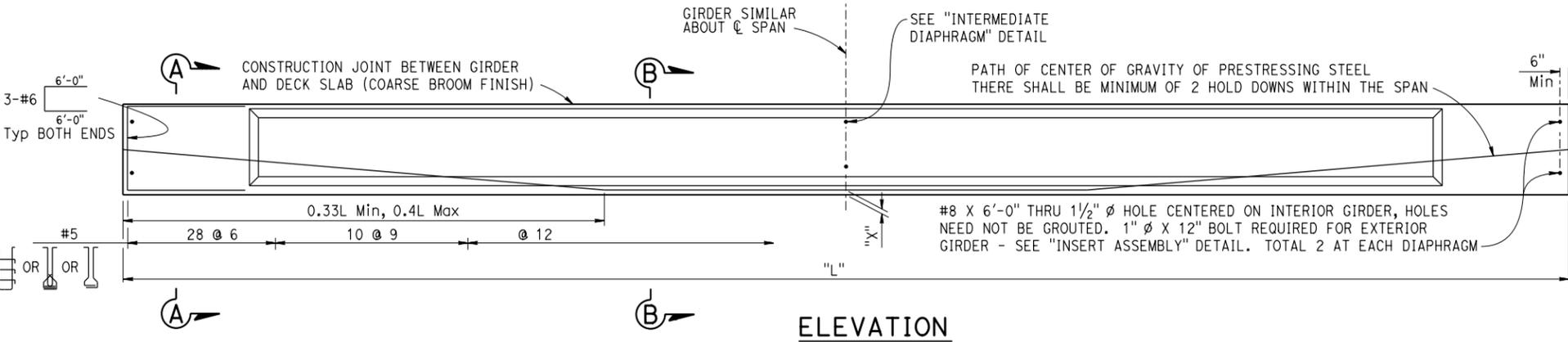
Screed line elevations for deck concrete will be determined by the Engineer.

Contractor may interpolate "P" and "X" values between limits shown, as approved by the Engineer.

Location	Girder Length (L)	Girder Depth (D)	Jacking Force (P) (Kips)		"Y" (in)	Concrete Strength (ksi)		Midspan Dead Load Deflection (inches)	
			"X"			f'ci	f'c	Deck	Rail
Right Bridge	86'-7 1/2"	48"	4"	791	17	5	6	1.06	0.04
			6"	879					
Left Bridge	78'-5 3/4"	42"	4"	703	16	5	6	1.00	0.03
			6"	791					



- Strands may be bundled in groups consisting of 3 vertically 2 horizontally and separated at the ends
- The Min distance "S" between groups or individual strands is 1/2" for 3/8" diameter strands, 1 3/4" for 1/2" diameter strands, 2" for 0.6" diameter strands
- "S" is measured between centers of adjacent strands
- Approval by the Engineer is required for deviation

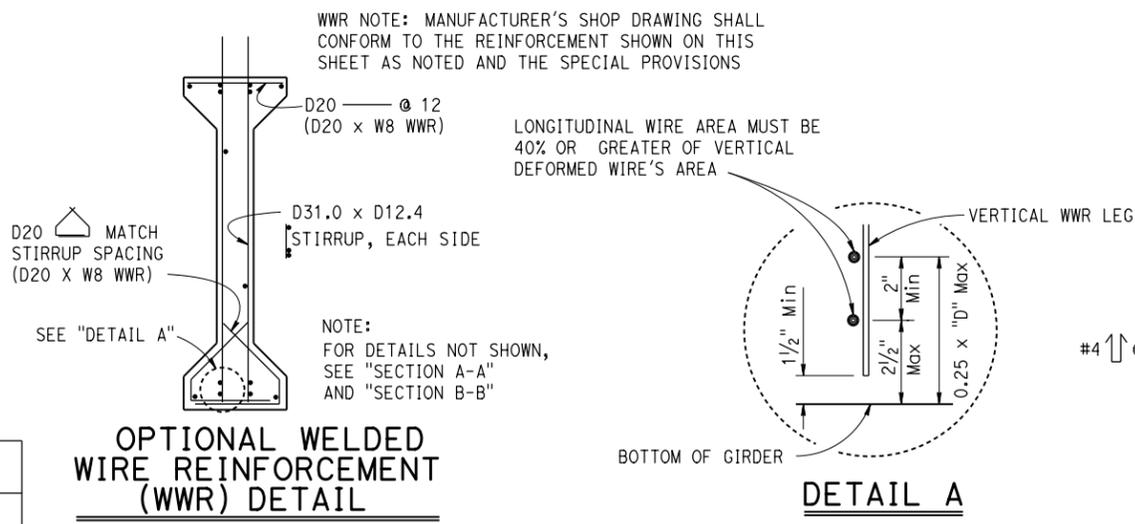


STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY C. LOMICKA	CHECKED E. MERCADO	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 19	BRIDGE NO.	54-1299L/R	HOFF WASH BRIDGE (REPLACE) PRECAST PRESTRESSED I GIRDER
	DETAILS	BY H. INIGUEZ	CHECKED E. MERCADO			POST MILE	93.7	
	QUANTITIES	BY S. YEH	CHECKED K. KIM			CONTRACT NO.	08-027904	

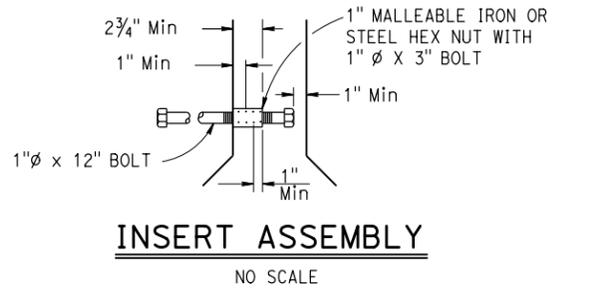
UNIT: 3621 PROJECT NUMBER & PHASE: 0800020481 1 CONTRACT NO.: 08-027904

REVISION DATES: 08-21-14, 01-30-15, 11-17-14 SHEET 18 OF 24

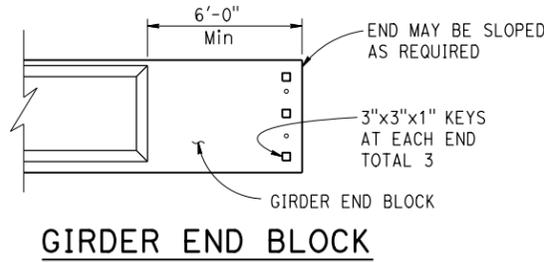
DATE PLOTTED => 08-15 USERNAME => s125726



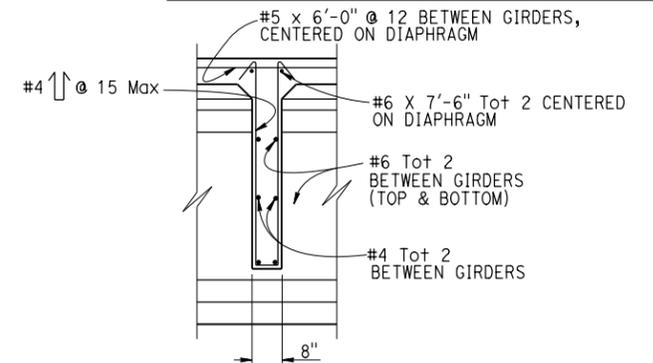
**OPTIONAL WELDED WIRE REINFORCEMENT (WWR) DETAIL**



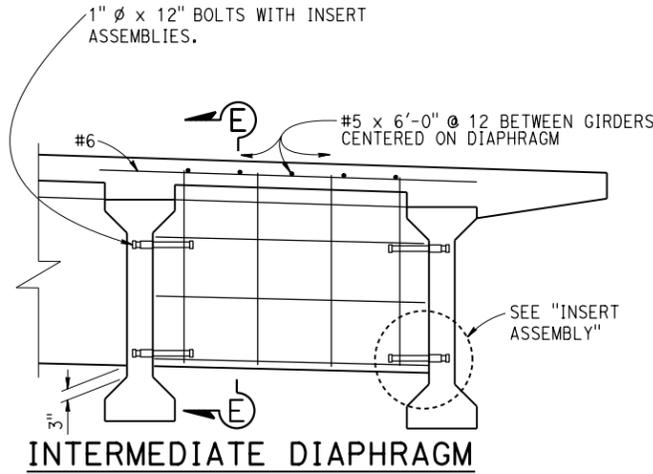
**INSERT ASSEMBLY**  
NO SCALE



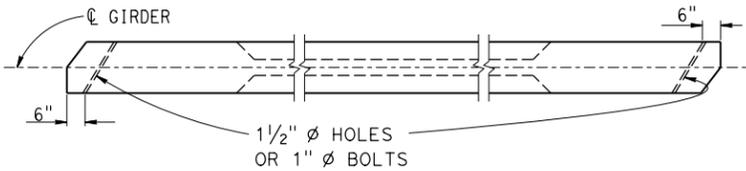
**GIRDER END BLOCK**



**SECTION E-E**



**INTERMEDIATE DIAPHRAGM**

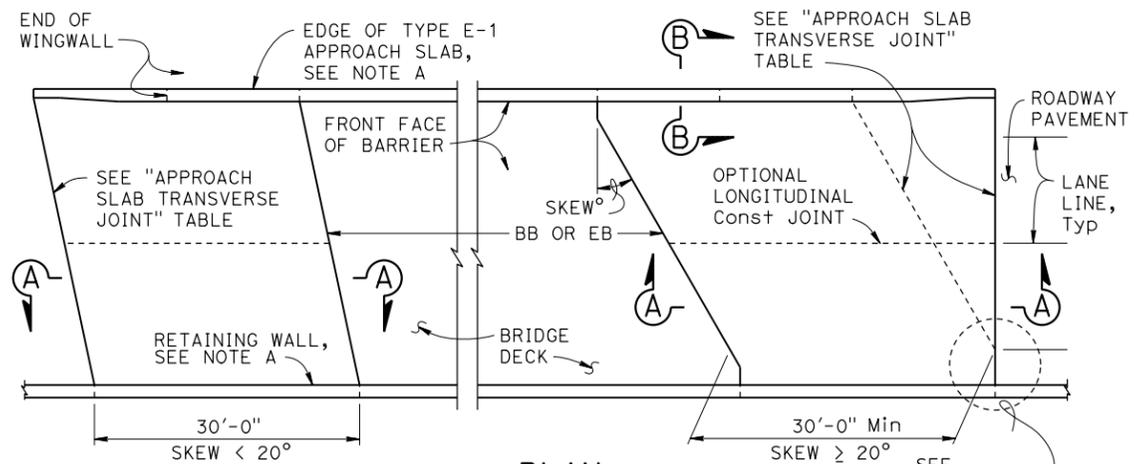


**DOWEL/INSERT - ANGLE DETAIL**

DATE PLOTTED => 08-15 USERNAME => s125726

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	40	R93.1/R94.2	102	107

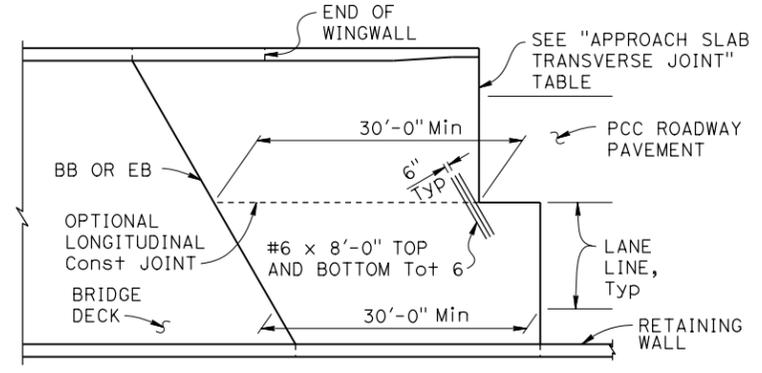
REGISTERED CIVIL ENGINEER DATE 3-23-15  
 11-9-15 PLANS APPROVAL DATE  
 C. J. SIMS No. C 46471 Exp. 6/30/18 CIVIL STATE OF CALIFORNIA



**NOTE A:**  
 Type E-1 Approach Slab shown, see "SECTION B-B" for Type E-2 details.

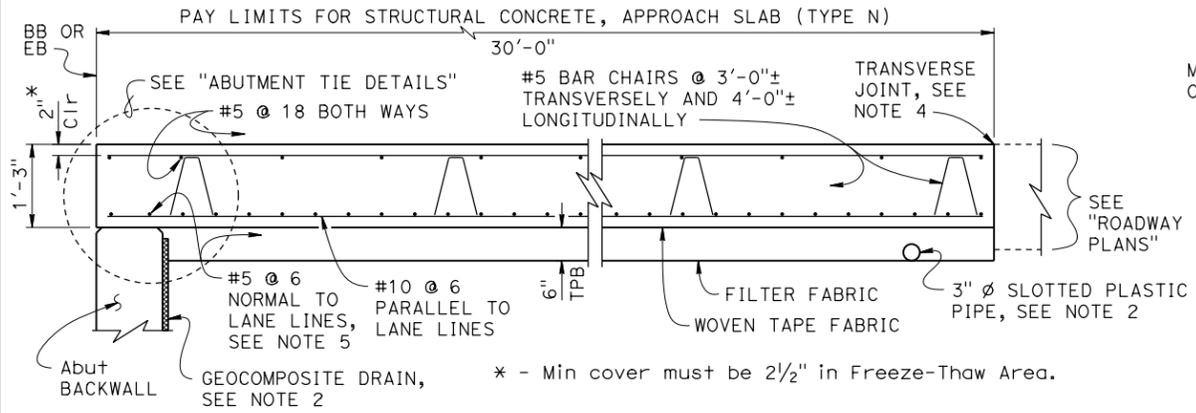
**PLAN**  
 1" = 10'

**DETAIL A**  
 No Scale

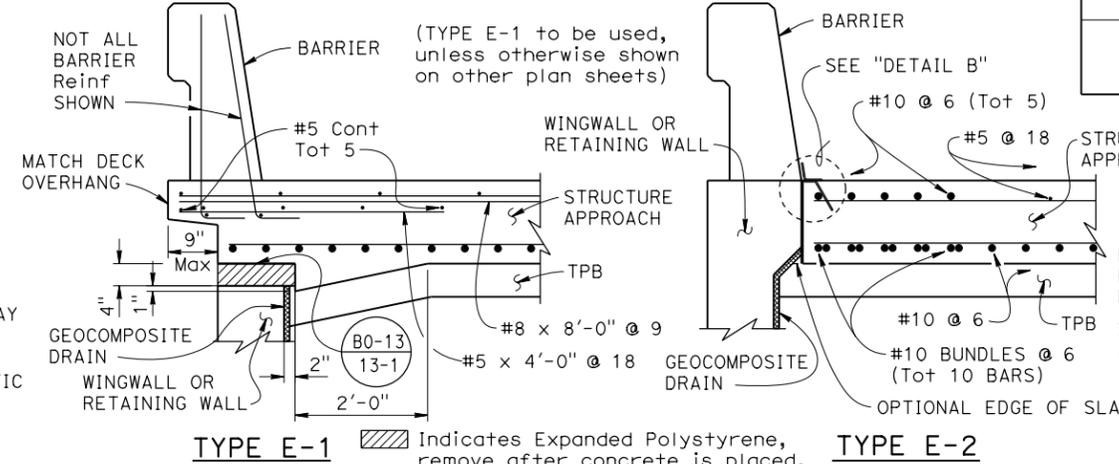


**END STAGGER DETAIL**  
 1" = 10'

APPROACH SLAB TRANSVERSE JOINT		
APPROACH SKEW	WITH HMA ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 20°	PARALLEL TO BB OR EB	PARALLEL TO BB OR EB
20° - 45°	PARALLEL TO BB OR EB USE "DETAIL A"	STAGGER AT LANE LINES 24' TO 36' APART, SEE "END STAGGER DETAIL"
> 45°	PARALLEL TO BB OR EB USE "DETAIL A"	STAGGER AT EACH LANE LINE, SEE "END STAGGER DETAIL"

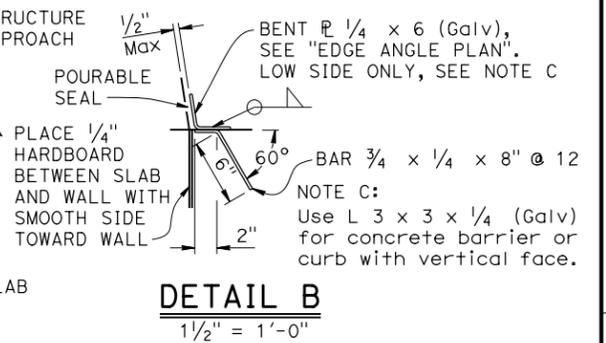


**SECTION A-A**  
 3/4" = 1'-0"



**TYPE E-1**

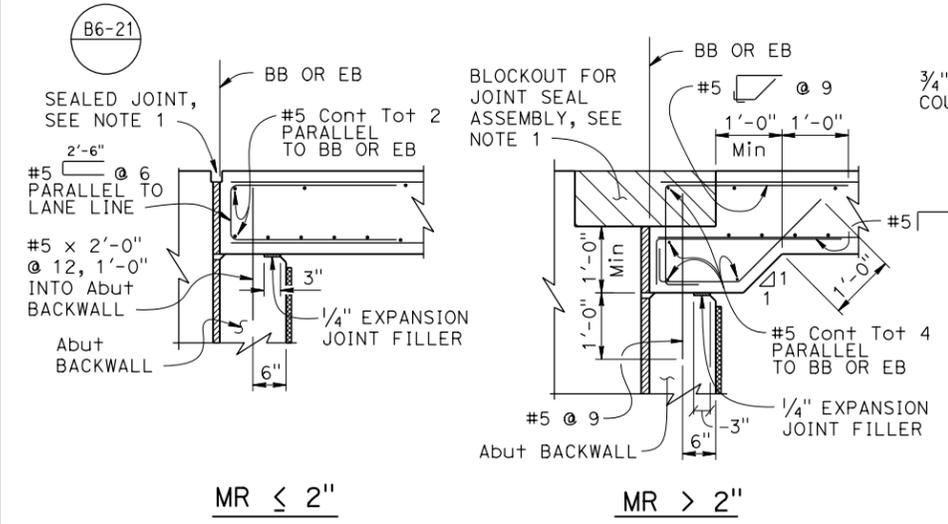
**TYPE E-2**



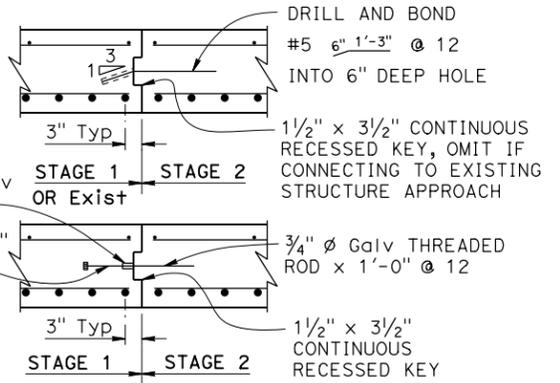
**DETAIL B**  
 1/2" = 1'-0"

**DESIGN NOTES**

DESIGN: AASHTO LRFD Bridge Design Specifications, 2012 Edition with Caltrans Amendments, preface dated January 2014  
 LIMIT STATES: Service I, Strength I & II, Extreme II and Fatigue I ( $\gamma_{FAT} = 1.0$ )  
 DEAD LOAD: Includes 35 psf for future wearing surface  
 LIVE LOAD: HL93 and permit design load  
 Equivalent strip width method:  $W_1 = 12$  ft  
 Slab span:  $L_1 = 24.5$  ft  
 REINFORCED CONCRETE:  
 $f_y = 60$  ksi  
 $f'_c = 3.6$  ksi  
 $n = 8$

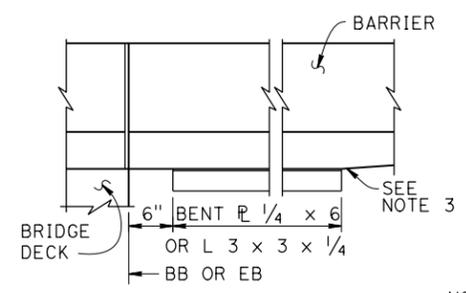


**ABUTMENT TIE DETAILS**  
 3/4" = 1'-0"

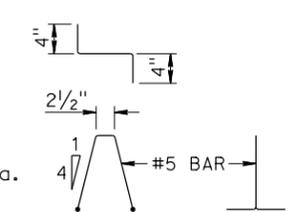


**LONGITUDINAL CONSTRUCTION JOINT ALTERNATIVES**  
 3/4" = 1'-0"

**SECTION B-B**  
 3/4" = 1'-0"



**EDGE ANGLE PLAN**  
 1" = 1'-0"



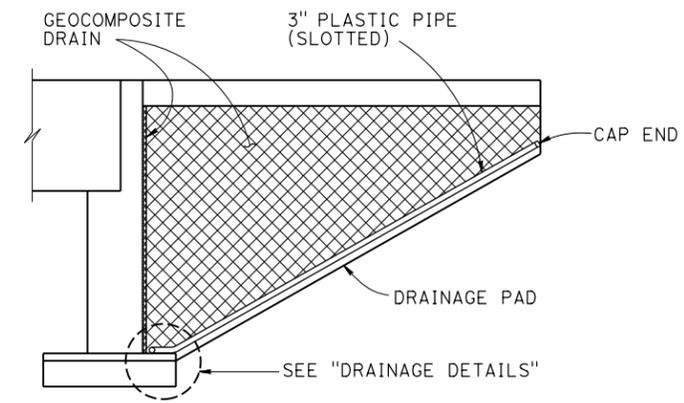
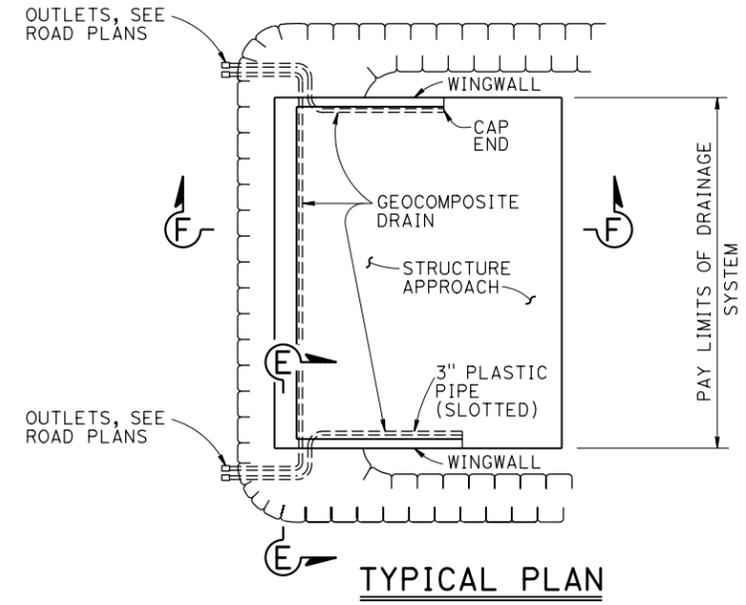
**BAR CHAIR DETAIL**  
 1" = 1'-0"

- NOTES:
- For joint protection details, blockout dimensions for joint seal assembly, and other details not shown, see other plan sheets. For  $MR \leq 2$ , adjust reinforcement to clear sawcut for sealed joint. For  $MR > 2$ , haunch reinforcement placed for joint seal assembly blockout must be normal to BB or EB and spaced to avoid joint seal assembly anchorage.
  - For drainage details, see "STRUCTURE APPROACH DRAINAGE DETAILS" sheet.
  - End the plate or edge angle at beginning of barrier transition, end of wingwall, or end of structure approach as applicable.
  - Transverse joint must be a minimum of 5'-0" from an existing or constructed weakened plane joint in approach PCC roadway pavement. Refer to Standard Plans P10 and P14.
  - At the Contractor's option, approach slab transverse reinforcement may be placed parallel to BB or EB. Spacing of transverse reinforcement is measured along  $\phi$  roadway.

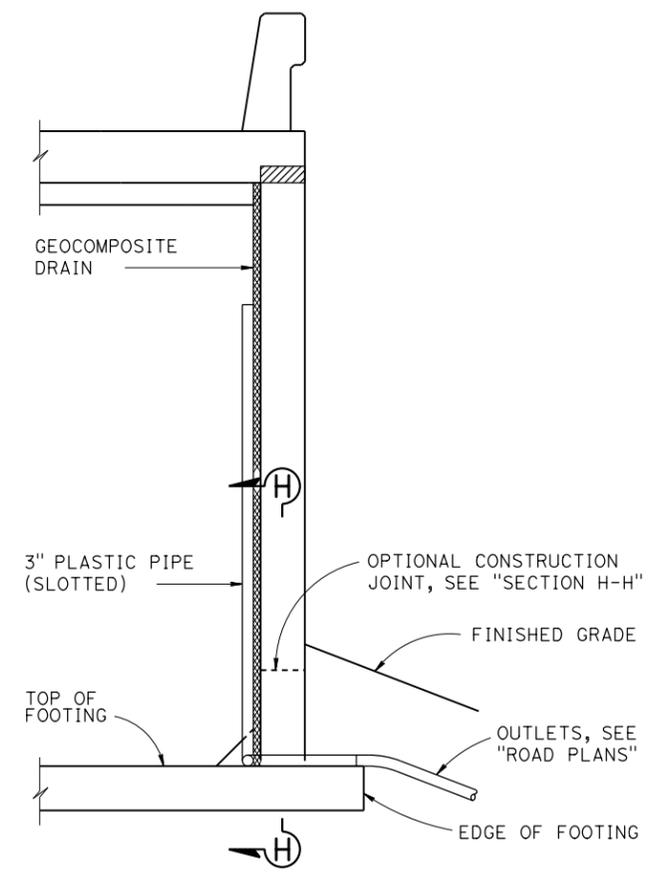
STANDARD DRAWING	BRIDGE NO. 54-1299L/R	<b>HOFF WASH BRIDGE (REPLACE)</b>	
FILE NO. <b>xs3-120</b>	POST MILE R93.7	<b>STRUCTURE APPROACH TYPE N (30S)</b>	
APPROVAL DATE January 2015	PROJECT NUMBER & PHASE: 0800020481 - 1	CONTRACT NO.: 08-007904	REVISION DATES
DS OSD 2147A (ENGLISH STANDARD DRAWING "XS" BORDER REV. (10-01-14))	UNIT: 3621	DISREGARD PRINTS BEARING EARLIER REVISION DATES	SHEET 19 OF 24

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION  
 DIVISION OF ENGINEERING SERVICES  
 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS  
 FILE => 54-12991r-s\_sa-n(30s).dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	40	R93.1/R94.2	103	107
<i>Charles Lomicka</i> 03-27-15 REGISTERED CIVIL ENGINEER DATE		11-9-15 PLANS APPROVAL DATE			
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					

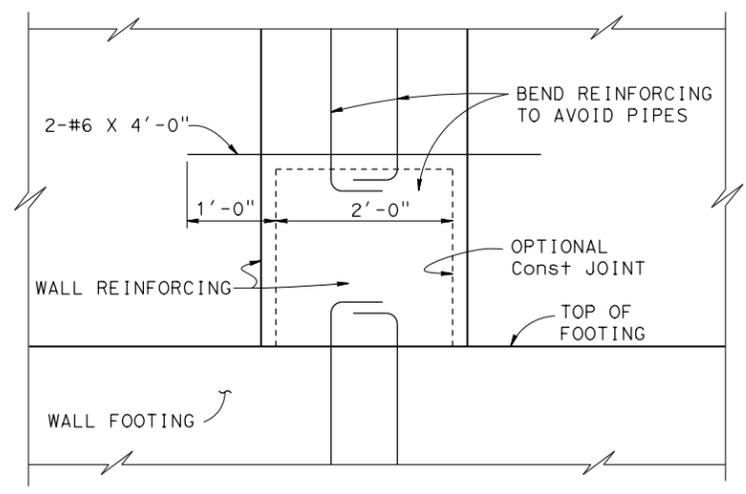


**CANTILEVER WINGWALL**  
**SECTION F-F**  
 NO SCALE

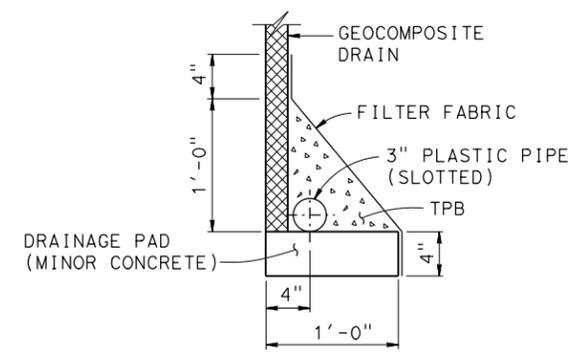


**SECTION E-E**  
 NO SCALE

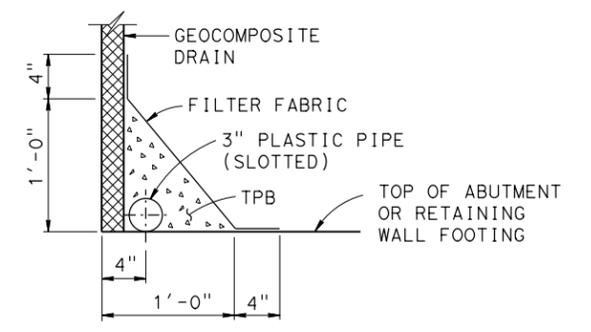
NOTE: Bends and junctions in 3" plastic pipe are 30" radius Min



**SECTION H-H**  
 NO SCALE



**WITHOUT FOOTING**



**WITH FOOTING**

**DRAINAGE DETAILS**  
 1/2" = 1'-0"

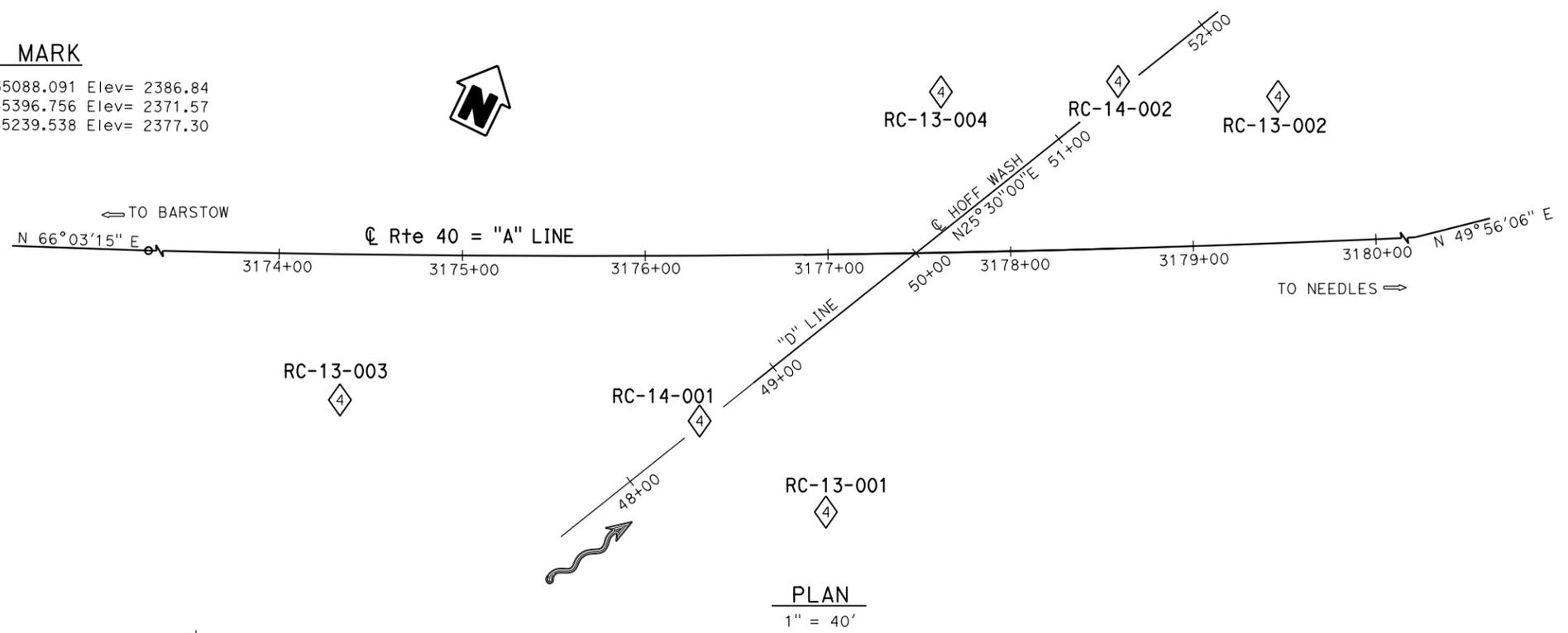
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY C. LOMICKA	CHECKED K. KIM	<b>STATE OF CALIFORNIA</b> <b>DEPARTMENT OF TRANSPORTATION</b>	DIVISION OF ENGINEERING SERVICES <b>STRUCTURE DESIGN</b> <b>DESIGN BRANCH 19</b>	BRIDGE NO.	<b>HOFF WASH BRIDGE (REPLACE)</b> <b>STRUCTURE APPROACH DRAINAGE DETAILS</b>
	DETAILS	BY H. MAHBOOBI	CHECKED K. KIM			54-1299L/R	
	QUANTITIES	BY K. KIM	CHECKED K. KIM			POST MILE R93.7	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT: 3621 PROJECT NUMBER & PHASE: 0800020481 - 1 CONTRACT NO.: 08-007904		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
0 1 2 3				10-28-14 10-30-14 11-17-14		SHEET	OF
FILE => 54-12991r-s-soad.dgn						20	24

TIME PLOTTED => 08:17  
 05-FEB-2016  
 USERNAME => s125726

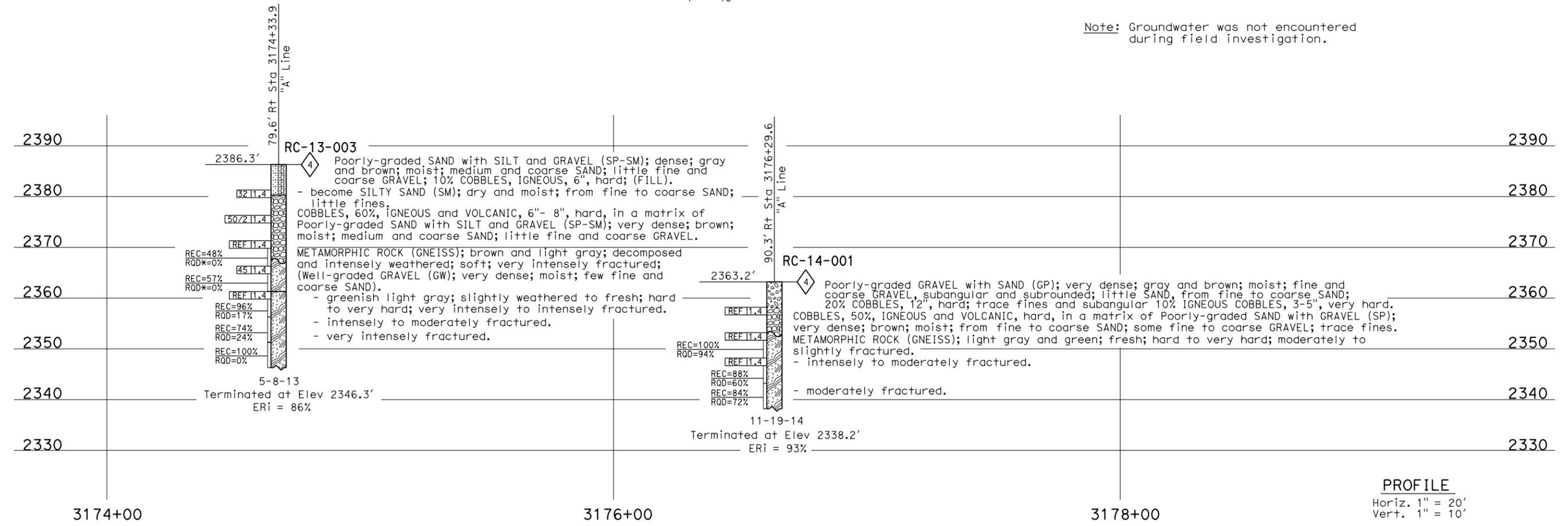
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	40	R93.1/R94.2	104	107
 REGISTERED CIVIL ENGINEER			1-12-15	DATE	
11-9-15 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition). See 2010 Standard Plans A10F and A10G for Soil Legend, and A10H for Rock Legend.

**BENCH MARK**  
 PNO101 2118263.562 7335088.091 Elev= 2386.84  
 PNO102 2118640.417 7335396.756 Elev= 2371.57  
 PNO104 2118598.544 7335239.538 Elev= 2377.30

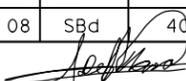


Note: Groundwater was not encountered during field investigation.



<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION</b>		<b>DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 19</b>		<b>BRIDGE NO. 54-1299L/R POST MILE 93.6</b>		<b>HOFF WASH BRIDGE (REPLACE) LOG OF TEST BORINGS 1 OF 4</b>	
FUNCTIONAL SUPERVISOR NAME: M. DeSalvatore		DRAWN BY: F. Nguyen CHECKED BY: E. Neupert		FIELD INVESTIGATION BY: F. De Haro		UNIT: 3643 PROJECT NUMBER & PHASE: 08000204811		CONTRACT NO.: 08-007904		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
005 CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		FILE => 54-12991r-z-1o+tb_01.dgn		REVISION DATES 12-15-14 01-12-15 01-06-15		SHEET 21 OF 24	

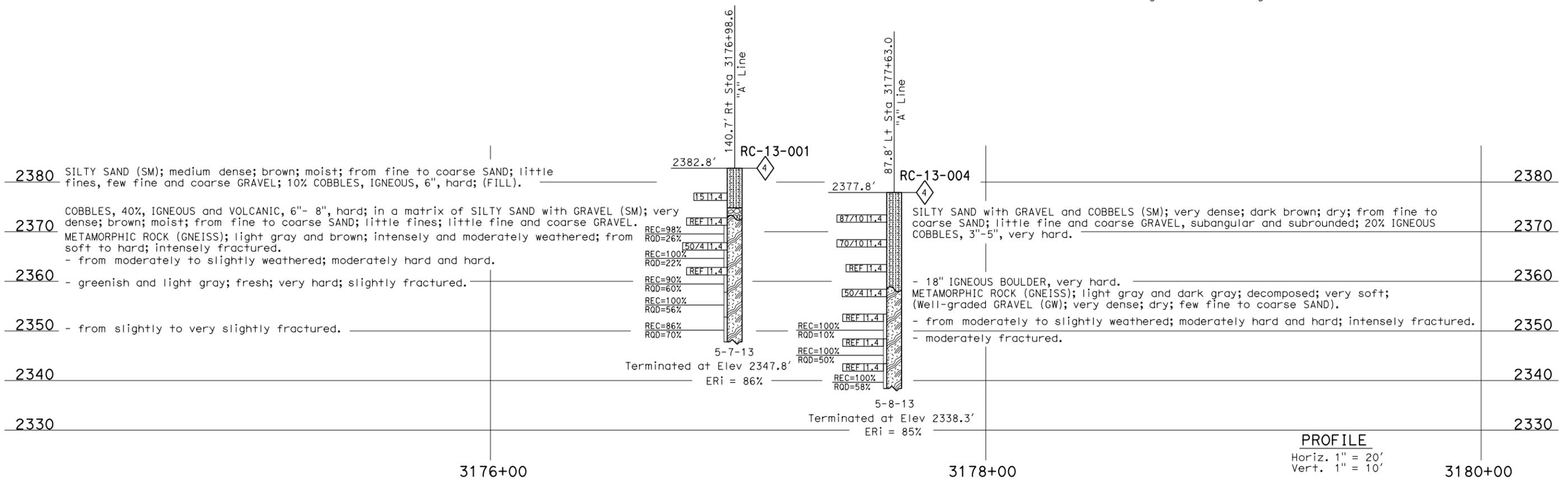
USERNAME => s125726 DATE PLOTTED => 05-FEB-2016 TIME PLOTTED => 08:18

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	40	R93.1/R94.2	105	107
 REGISTERED CIVIL ENGINEER			1-12-15	DATE	
PLANS APPROVAL DATE 11-9-15					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					

This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition). See 2010 Standard Plans A10F and A10G for Soil Legend, and A10H for Rock Legend.

FOR PLAN VIEW, SEE  
"LOG OF TEST BORINGS 1 OF 4"

Note: Groundwater was not encountered during field investigation.



PROFILE  
Horiz. 1" = 20'  
Vert. 1" = 10'

<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION</b>		<b>DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 19</b>		<b>BRIDGE NO. 54-1299L/R POST MILE 93.6</b>		<b>HOFF WASH BRIDGE (REPLACE) LOG OF TEST BORINGS 2 OF 4</b>	
FUNCTIONAL SUPERVISOR NAME: M. DeSalvatore	DRAWN BY: F. Nguyen CHECKED BY: E. Neupert	FIELD INVESTIGATION BY: F. De Haro, T-M Liao		UNIT: 3643 PROJECT NUMBER & PHASE: 08000204811		CONTRACT NO.: 08-007904		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES 12-26-14 01-22-15 01-26-15 01-12-15	
OCS CIVIL LOG OF TEST BORINGS SHEET ORIGINAL SCALE IN INCHES FOR REDUCED PLANS										SHEET 22 OF 24	

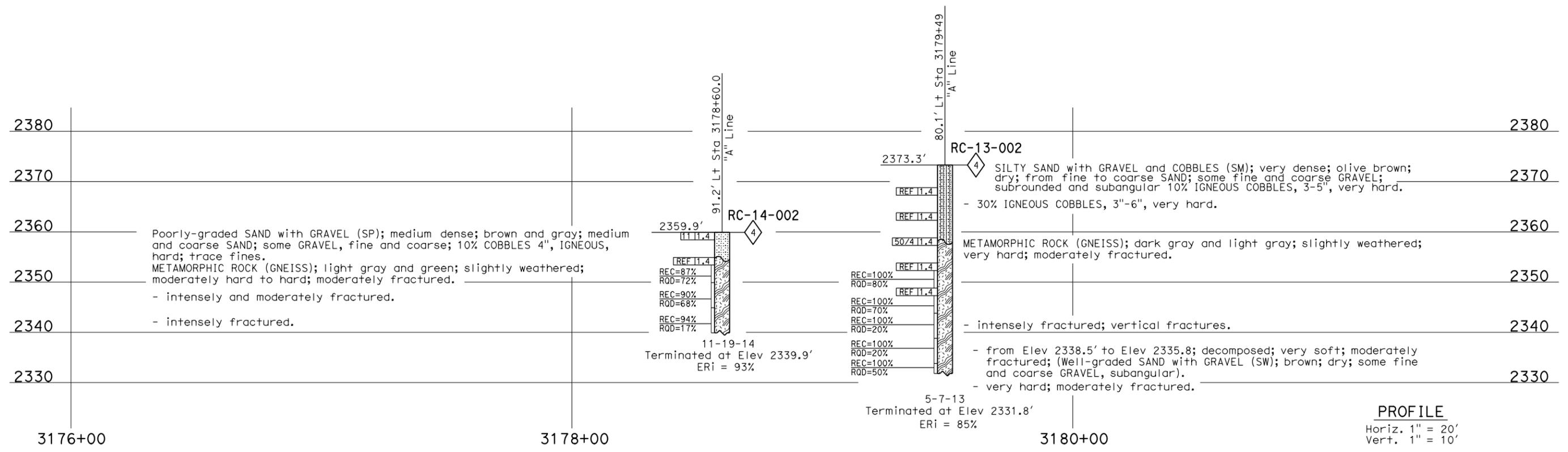
USERNAME => s125726 DATE PLOTTED => 05-FEB-2016 TIME PLOTTED => 08:19

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	40	R93.1/R94.2	106	107
REGISTERED CIVIL ENGINEER			DATE	1-12-15	
PLANS APPROVAL DATE			11-9-15		
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition). See 2010 Standard Plans A10F and A10G for Soil Legend, and A10H for Rock Legend.

FOR PLAN VIEW, SEE  
"LOG OF TEST BORINGS 1 OF 4"

Note: Groundwater was not encountered during field investigation.



PROFILE  
Horiz. 1" = 20'  
Vert. 1" = 10'

<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION</b>		<b>DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 19</b>		<b>BRIDGE NO. 54-1299L/R POST MILE 93.6</b>		<b>HOFF WASH BRIDGE (REPLACE) LOG OF TEST BORINGS 3 OF 4</b>	
FUNCTIONAL SUPERVISOR NAME: M. DeSalvatore	DRAWN BY: F. Nguyen CHECKED BY: E. Neupert	FIELD INVESTIGATION BY: F. De Haro, T-M. Liao		UNIT: 3643 PROJECT NUMBER & PHASE: 08000204811		CONTRACT NO.: 08-007904		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES: 12-26-14, 01-22-15, 01-26-15, 01-12-15	
OCS CIVIL LOG OF TEST BORINGS SHEET										SHEET 23 OF 24	

USERNAME => s125726 DATE PLOTTED => 05-FEB-2016 TIME PLOTTED => 08:20

DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Sbd	40	R77.8/R114.7	164	223

*R. O. Blake*  
 REGISTERED CIVIL ENGINEER NO. 8083  
 DATE APPROVED March 15, 1971

**DIVISION OF ENGINEERING SERVICES - MATERIALS AND GEOTECHNICAL SERVICES**

As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. It does not attest to the accuracy or validity of the information contained in the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.

DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	Sheet No.	Total Sheets
08	Sbd	40	R93.1/R94.2	107	107

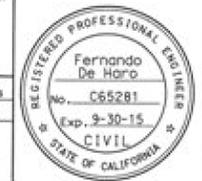
REGISTERED CIVIL ENGINEER Blake DATE 11-9-15 1-12-15

**HOFF WASH BRIDGE (REPLACE)**  
**LOG OF TEST BORINGS 4 OF 4**

UNIT:	3643	CONTRACT No.	BRIDGE No.
PROJ. No. & PHASE:	08000204811	08-007904	54-1299L/R

AS-BUILT VERT DATUM: \_\_\_\_\_ CONVERSION: \_\_\_\_\_ Sheet 24 of 24

NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA



LEGEND OF BORING OPERATIONS  
 PENETRATION BORING  
 ROTARY BORING  
 SOIL TUBE  
 TEST PIT

**LEGEND OF EARTH MATERIALS**

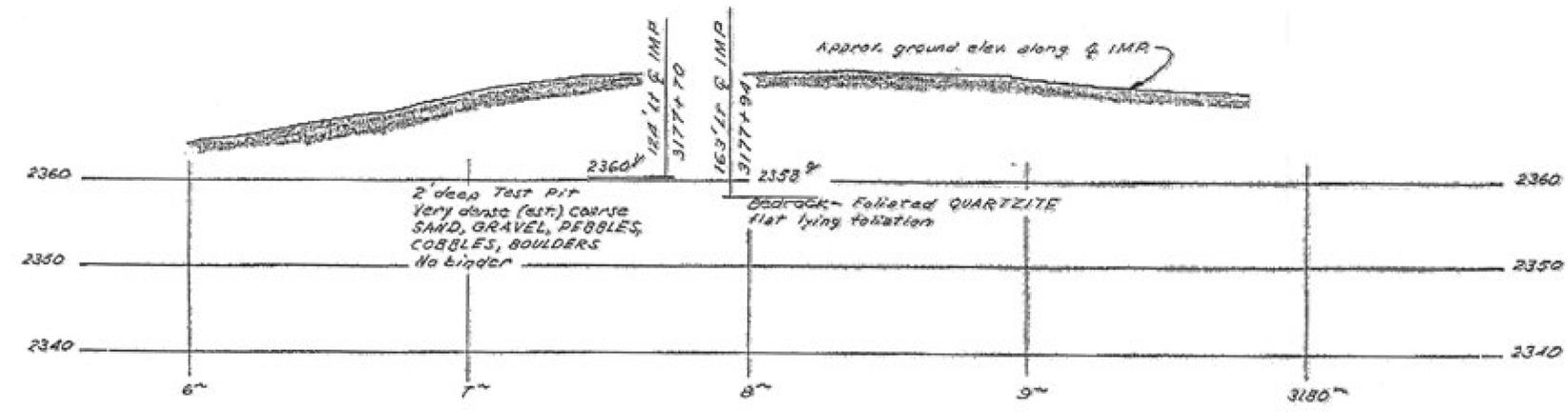
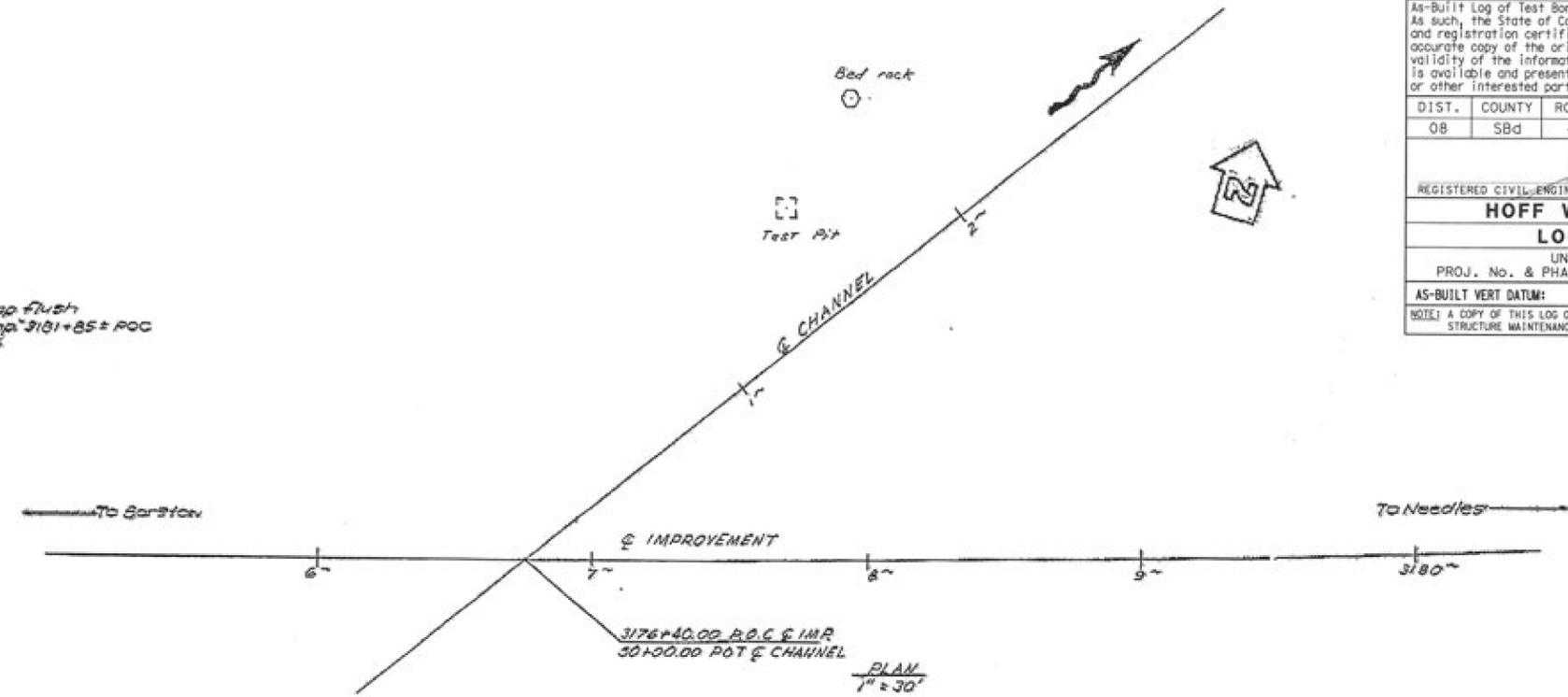
GRAVEL	SAND	SILT	CLAY
Stony Clay or Clayey Sand	Silty Sand or Sandy Silty Clay	CLAYEY SILT	SILT CLAY or CLAYEY SILT
PEAT	ORGANIC MATTER	FILL MATERIAL	IGNEOUS ROCK
SEPARATORY ROCK	METAMORPHIC ROCK	SEDIMENTARY ROCK	SEDIMENTARY ROCK

**CLASSIFICATION OF MATERIAL BASED ON STANDARD GRADE SIZE LIMITS**

Diagram shows the limits for estimated percentages of material in each size range. The terms "sand", "silt", and "clay" are used to describe the material based on the percentages of each size range. The terms "sandy", "silty", and "clayey" are used to describe the material based on the percentages of each size range. The terms "stony", "peaty", and "organic" are used to describe the material based on the percentages of each size range.

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

BM\*LI  
 RL T-bar & cap flush  
 825± LF. E Imp. 3181+85± POC  
 Elev. 2359.55



**AS BUILT PLANS**  
 Contract No. 08-076854  
 Date Completed 5-1-73  
 Document No. 8002312

NO GROUND WATER ENCOUNTERED  
 DURING THIS INVESTIGATION BY  
 BRIDGE DEPT. GEOLOGY SECTION  
 DATE Dec. 1969

INFORMATION ON ACTUAL FOUNDATION  
 CONDITIONS IN USE IS ON FILE  
 IN BRIDGE GEOLOGY SECTION

STATE OF CALIFORNIA  
 TRANSPORTATION AGENCY  
 DEPARTMENT OF PUBLIC WORKS  
 DIVISION OF HIGHWAYS

**HOFF WASH**

**LOG OF TEST BORINGS**

BRIDGE NO.	POST MILE	DRAWING NO.	SHEET	OF
54-889 1/2	93.7		9	9

WO 046851 PR 54889-2  
 CU 08203

Disregard plots bearing earlier revision dates

REVISION DATES  
 3/11/71

BRIDGE DEPARTMENT  
 ENGINEERING GEOLOGY SECTION