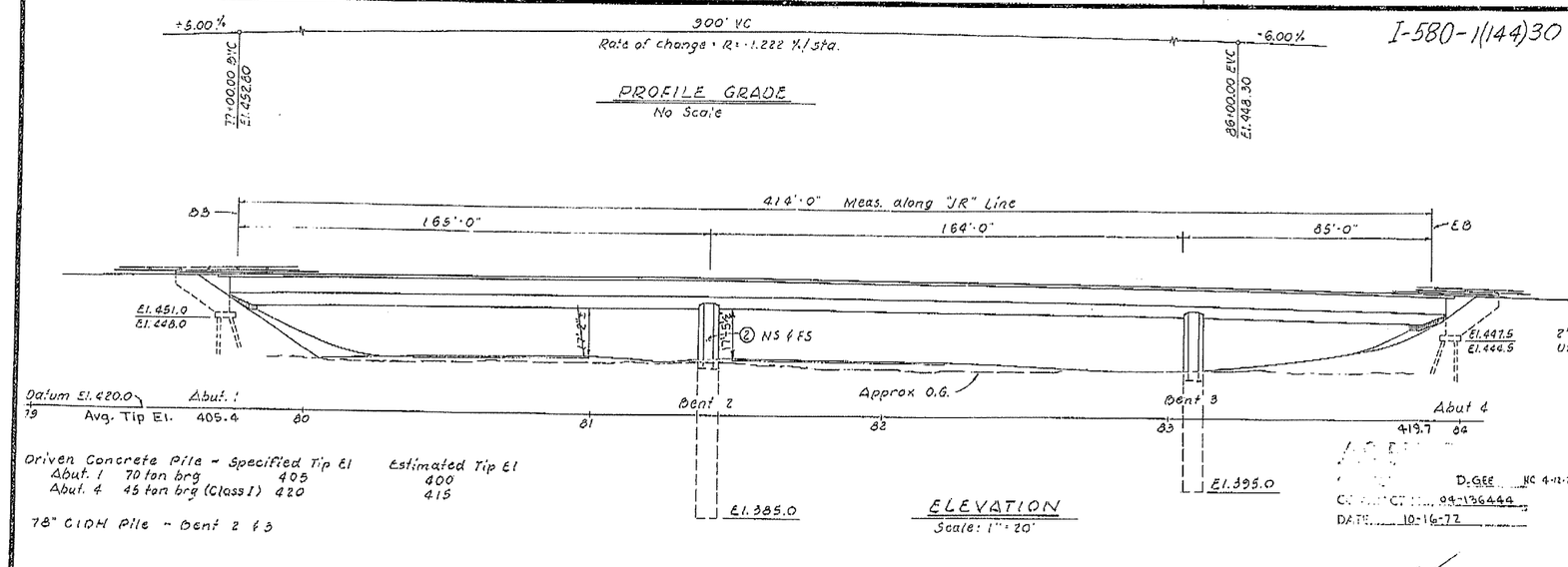
DIST.	COUNTY	ROUTE	POST MILES—TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	580	9.4/18.1	213	248

PROJECT ENGINEER — REGISTERED CIVIL ENGINEER NUMBER 8888

SUPERVISOR — STATE HIGHWAY ENGINEER — REGISTERED CIVIL ENGINEER NUMBER 5295

DATE APPROVED April 27, 1970

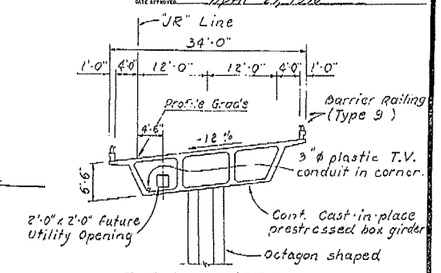
I-580-1(144)30



Driven Concrete Pile - Specified Tip El — Estimated Tip El
Abut. 1 70 ton brg 405 — 400
Abut. 4 45 ton brg (Class I) 420 — 415

78" CIDH Pile - Bent 2 & 3

D. GEE NC 4-12-73
CHECKED 94-136444
DATE 10-16-72



TYPICAL SECTION
Scale: 1" = 10'

INDEX TO PLANS

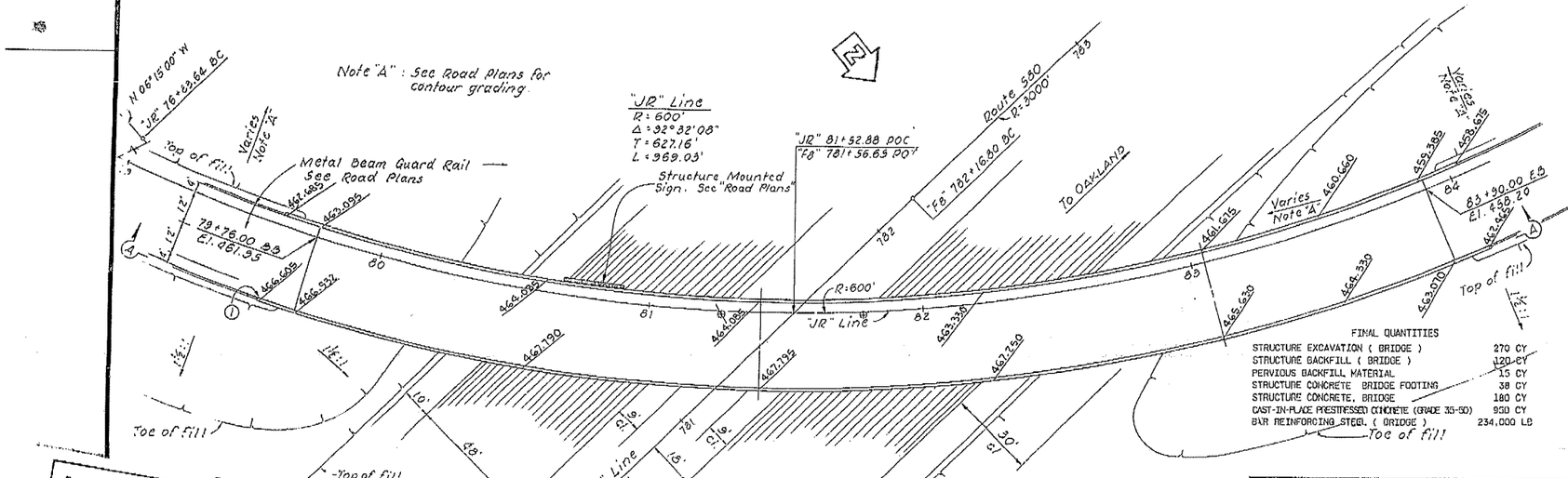
Sheet No.	Title
1	General Plan
2	Grid Grades
3	Foundation Plan
4	Abutments 1 & 4
5	Bents 2 & 3
6	Typical Section
7	Girder Layout
8	Utility Openings - Box Girder
9	Log of Test Borings

STANDARD PLANS dated July, 1969:

A35-8 — P.C.C. Paving Details & Br. Approach
A62-B.2 — Excavation and Backfill
A79-C.1 — Guard Rail Connections to Bridge
B0-1,3,5, & 13 — Bridge Details
B2-1 — Concrete Pile Details - 45 Ton
B2-5 — Concrete Pile Details - 70 Ton
B6-21 — Joint Seal Details
B7-1 — Box Girder Details
B8-5 — C.I.P. Prestressed Girder Details
B11-30 — Temporary Railings
B11-39 — Barrier Railing Type 9
B11-43 — Metal Railing Details - Types 9, 10 & 11
B11-46 — Type 9 Railing - Aluminum Post Alternative

APPROXIMATE QUANTITIES

TEMPORARY RAILING (TYPE J)	392 LF
FURNISH CONCRETE PILING (CLASS I)	320 LF
FURNISH CONCRETE PILING (70 TON)	510 LF
78" CAST-IN-DRILLED HOLE CONCRETE PILING	90 LF
DRIVE CONCRETE PILE (CLASS I)	10 EA
DRIVE CONCRETE PILE (70 TON)	10 EA
PRESTRESSING CAST-IN-PLACE CONCRETE	LUMP SUM
12" NEOPRENE WATERSTOP	63 LF
JOINT SEAL (TYPE A)	8 LF
JOINT SEAL (TYPE D)	72 LF
METAL RAILING (TYPE 9)	920 LF



FINAL QUANTITIES

STRUCTURE EXCAVATION (BRIDGE)	270 CY
STRUCTURE BACKFILL (BRIDGE)	120 CY
PERVIOUS BACKFILL MATERIAL	15 CY
STRUCTURE CONCRETE BRIDGE FOOTING	38 CY
STRUCTURE CONCRETE, BRIDGE	180 CY
CAST-IN-PLACE PRESTRESSED CONCRETE (GRADE 35-50)	930 CY
BAR REINFORCING STEEL (BRIDGE)	234,000 LB

① Paint Br. No. & Year
② Paint "Portola Ave. O.C.", Br. No. & Year
⊕ Point of minimum vertical clearance

FOR GENERAL NOTES SEE "Foundation Plan" sheet

LIVE LOADING HS20-44 AND ALTERNATIVE

AS BUILT PLANS
Contract No. 04-136444
Date Completed 9-25-72
Document No. 6229

BRIDGE DEPARTMENT
*** DESIGN SECTION *** 8
Section Supervisor
Project Designer
DESIGN By
DETAILS By R. Kuroda 4-69
LAYOUT By
QUANTITIES By
SPECIFICATIONS By
Approval Recommended by
Reviewed Civil Eng. License No. 7282

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

PORTOLA AVENUE OVERCROSSING

LOCATED ADJACENT TO THE NORTHERLY LIMIT OF THE CITY OF LIVERMORE IN ALAMEDA COUNTY

GENERAL PLAN

BRIDGE NO.	POST MILE	DRAWING NO.	SHEET	OF
33-140	13.22	33140-1	1	9

REVISION DATES (PRELIMINARY STAGE ONLY)

Disregard prints bearing earlier revision dates

WO 136441
CU 04204

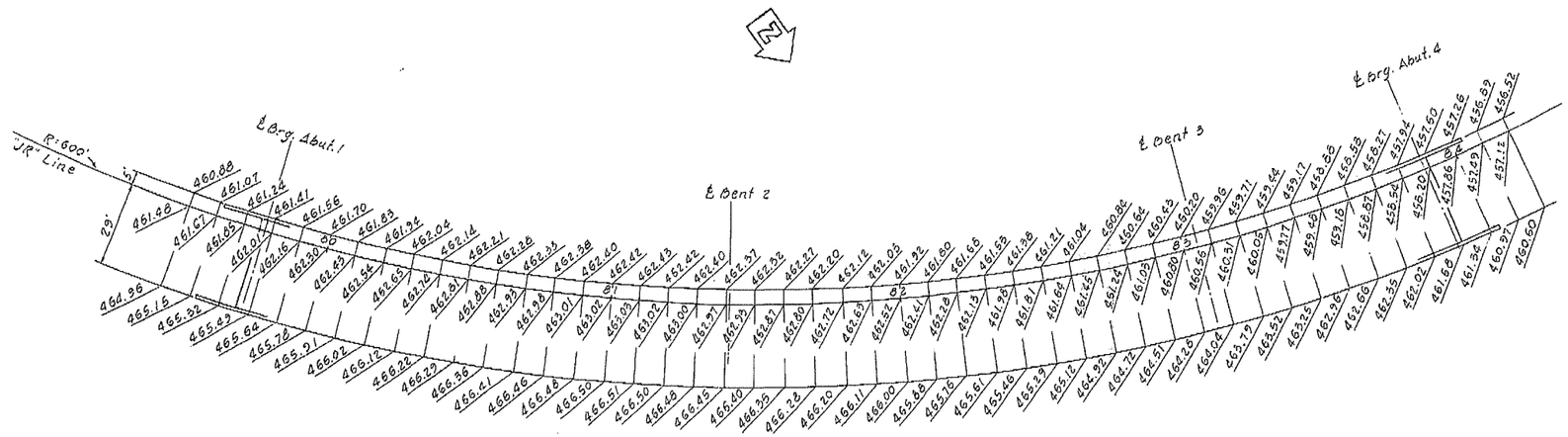
I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.

DATE 10/29/73 SIGNATURE TITLE Sr. Engr.

DIST.	COUNTY	ROUTE	POST MILES—TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	580	9.4/18.1	214	248

DESIGN SECTION SUPERVISOR — REGISTERED CIVIL ENGINEER NO. 7004

DATE APPROVED April 27, 1970



NO AS BUILT CHANGES

AS BUILT

CORRECTIONS BY D. Gee HC 4-12-73

CONTRACT NO. 04-136444

DATE 10-16-72

AS BUILT PLANS
Contract No. 04-136444
Date Completed 9-25-72
Document No. 6229

Scale: 1" = 20'

Note: Elevations are figured radially from profile line @ 10' stations along "JR" Line.

BRIDGE DEPARTMENT
DESIGN SECTION 8

Project Engineer J. R. Taylor

DESIGN	By	5/69
	Checked	1-70
DETAILS	By R. Kuroko	5-69
	Checked	1-70
QUANTITIES	By	1/70
	Checked	1-70

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

PORTOLA AVENUE OVERCROSSING

GRID GRADES

BRIDGE NO.	POST MILE	DRAWING NO.	SHEET	OF
33-140	13.22	33140-	2	9

WO 136441
CU 04204

Disregard prints bearing earlier revision dates →

REVISION DATES (PRELIMINARY STAGE ONLY)

214

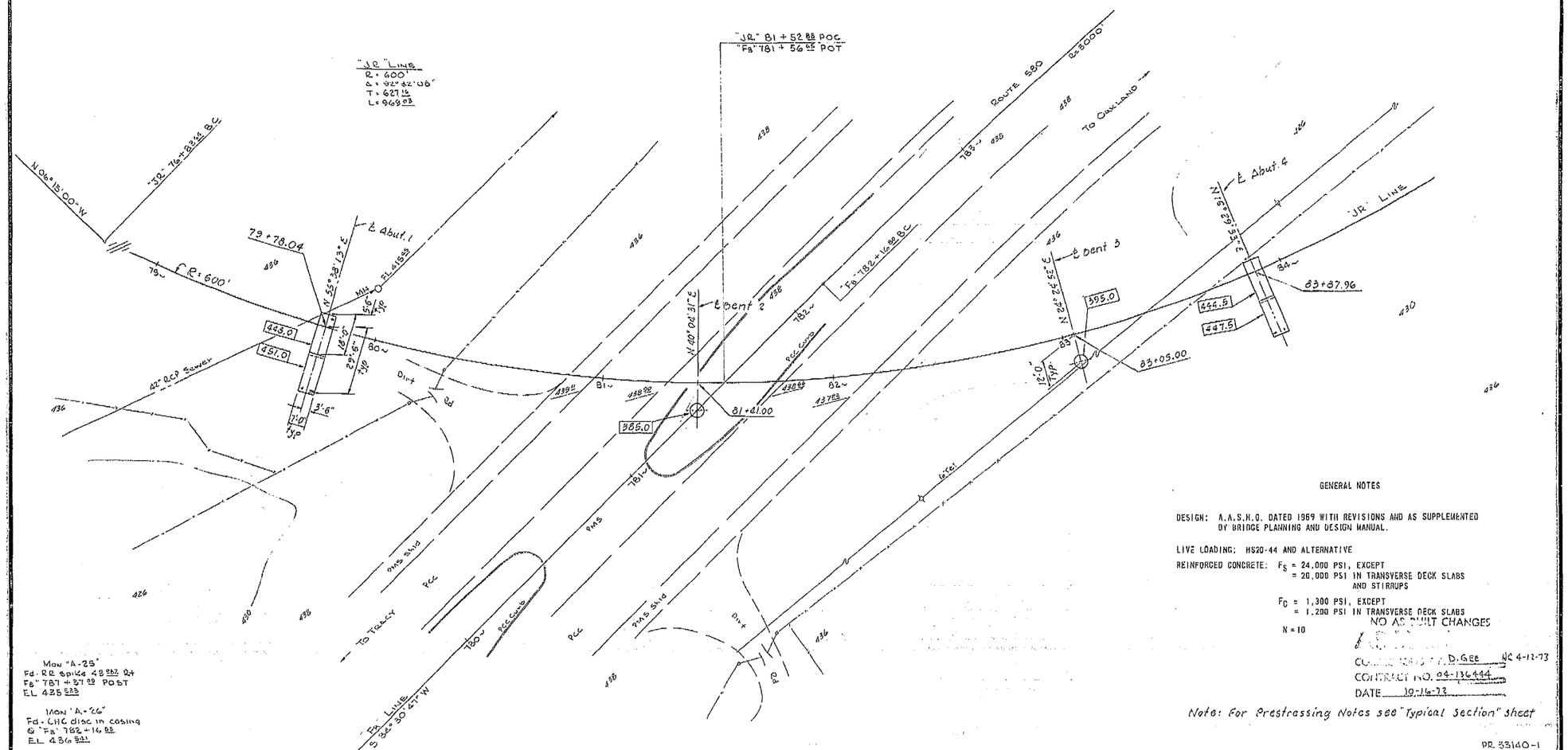
I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.

DATE 10/29/73 SIGNATURE James E. Court TITLE SR. RMC

DIST.	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
04	Ala	580	9.4 / 18.1	215	248

Chris H. Dunnichlet
BRIDGE ENGINEER — REGISTERED CIVIL ENGINEER NO. 38[illegible]

DATE APPROVED April 27, 1970



Mon "A-25"
Fd - RR spike 43.882 Rt
Fs "787 + 37.99 POST
EL 435.533

Mon "A-26"
Fd - CHC disc in casing
@ "Fs" 782 + 16.88
EL 436.541

Contour Interval 2 Feet

SCALE 1" = 20'
LEVEL DATUM USC & GS MSL
FOR ALIGNMENT DES SEE PR 33140-3
CONTOURS AS OF 4-65
SITE PLAN DISTRICT DATA
SURVEY BY JHP DATE 3-65
DRAWN BY LBT DATE 3-65
TRACED BY CS DATE 3-9-65

215

AS BUILT PLANS
Contract No. 04-136444
Date Completed 9-25-72
Document No. 6229

Note: For pile layout, see "Abuts 1 & 4" sheet.
☐ Indicates elev @ bottom of ftg & bottom of bent column

GENERAL NOTES

DESIGN: A.A.S.H.O. DATED 1969 WITH REVISIONS AND AS SUPPLEMENTED BY BRIDGE PLANNING AND DESIGN MANUAL.

LIVE LOADING: HS20-44 AND ALTERNATIVE

REINFORCED CONCRETE: F_S = 24,000 PSI, EXCEPT
= 20,000 PSI IN TRANSVERSE DECK SLABS AND STIRRUPS

F_C = 1,300 PSI, EXCEPT
= 1,200 PSI IN TRANSVERSE DECK SLABS

N = 10

NO AS BUILT CHANGES

[illegible] D. GEE NC 4-12-73
CONTRACT NO. 04-136444
DATE 10-16-73

Note: For Prestressing Notes see "Typical Section" sheet

PR 33140-1

BRIDGE DEPARTMENT
DESIGN SECTION 8
Section Supervisor J. R. Taylor

DESIGN	By [illegible]	73
	Checked	1-73
DETAILS	By R. Kusko	10-69
	Checked	1-70
QUANTITIES	By	1/70
	Checked	

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

PORTOLA AVENUE OVERCROSSING

FOUNDATION PLAN

BRIDGE NO. 33-140 | DRAWING NO. | SHEET 3 OF 9

WO 13644: CU 04204 — Disregard prints bearing earlier revision dates — E-33

REVISION DATES (PRELIMINARY STAGE ONLY)

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.

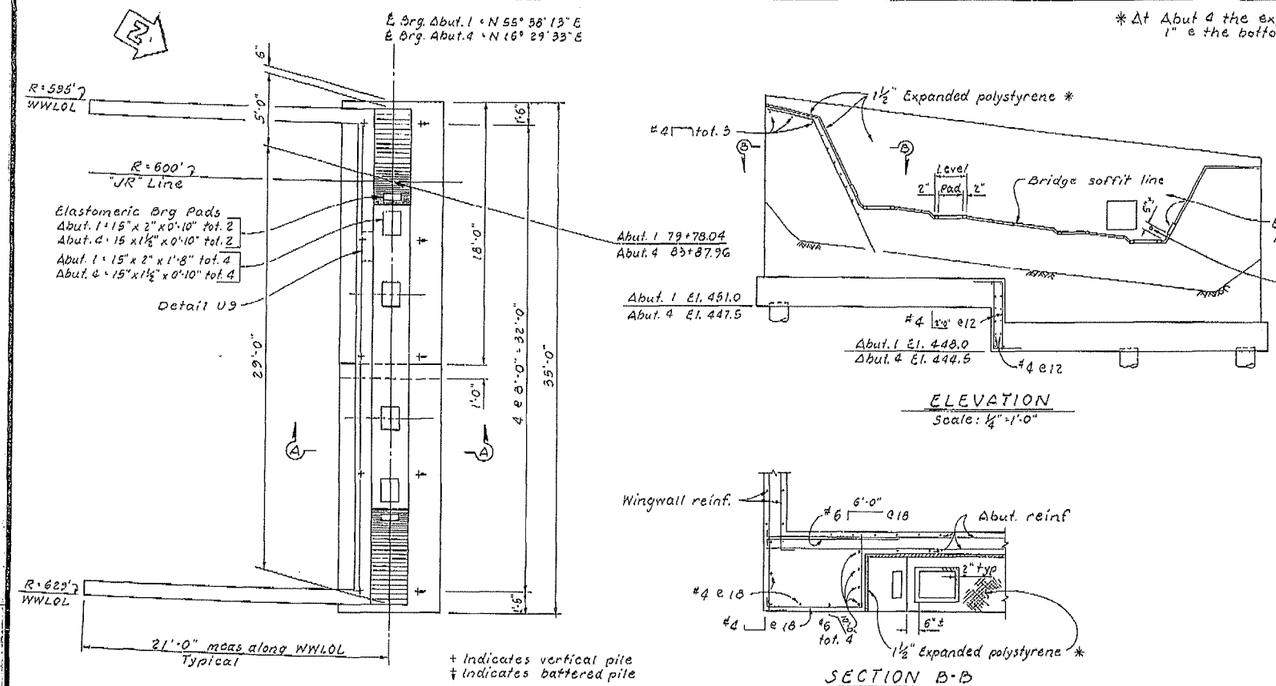
DATE 10/29/73 — SIGNATURE James E. Court — TITLE SR. RMO

DIST.	COUNTY	ROUTE	POST MILES—TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	380	9.1/18.1	248	

DESIGN SECTION ENGINEER — REGISTERED CIVIL ENGINEER No. 7564

DATE APPROVED April 27, 1970

CCO # 151

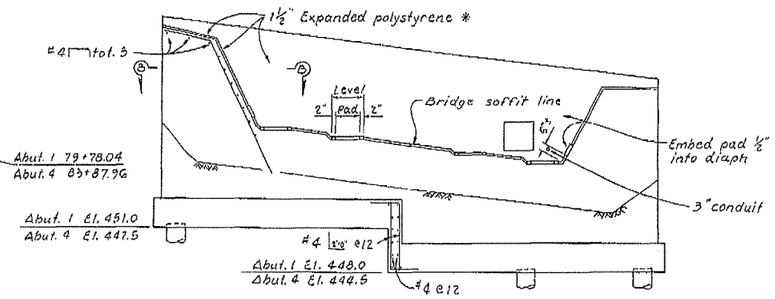


PLAN
Scale: ⅛" = 1'-0"

+ Indicates vertical pile
‡ Indicates battered pile

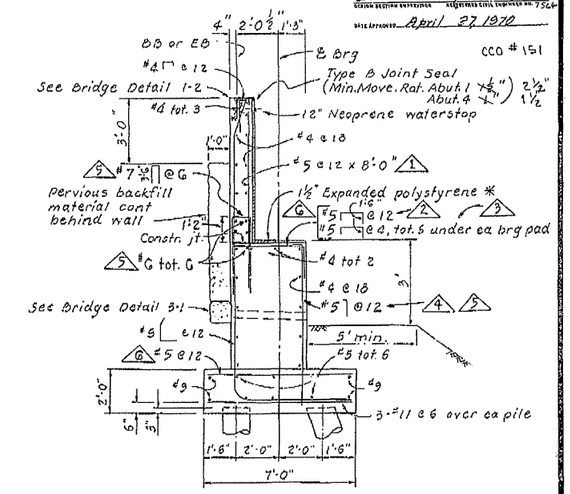
Note: Abut. 1 shown, Abut. 4 similar except as noted.

* At Abut 4 the expanded polystyrene is 1" @ the bottom & sides

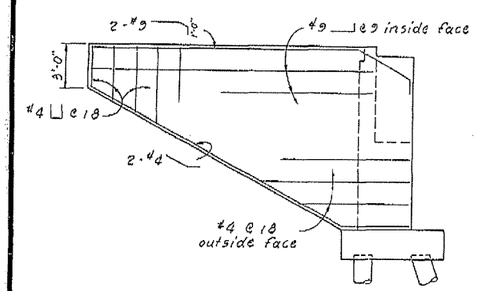


ELEVATION
Scale: ¼" = 1'-0"

SECTION B-B
Scale: ⅜" = 1'-0"

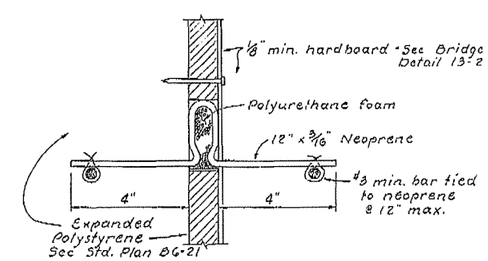


SECTION A-A
Scale: ⅜" = 1'-0"



TYPICAL WINGWALL ELEV
Scale: ¼" = 1'-0"

SECTION @ BRG PAD
No Scale



12" NEOPRENE WATERSTOP
No Scale

CCO #48

MARK	DATE	DESCRIPTION	BY	CHK
6	3/24/71	Bar size	JRT	EMP
5	3/24/71	Bars added	JRT	EMP
4	3/24/71	Bar spacing changed	JRT	EMP
3	3/24/71	Bar length changed	JRT	EMP
2	3/24/71	Bar length and spacing change	JRT	EMP
1	3/24/71	Bar size and length changed	JRT	EMP

REVISIONS

AS BUILT PLANS
Contract No. 04-136444
Date Completed 9-25-72
Document No. 6229

CONTRACT NO. 04-136444
DATE 10-16-72

BRIDGE DEPARTMENT
DESIGN SECTION 8

Project Engineer O Taylor
DESIGN By H. Stephenson
Checked H. Adam 1-70
DETAILS By R. Kuroko 10-69
Checked H. Adam 1-70
QUANTITIES By
Checked

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

PORTOLA AVENUE OVERCROSSING

ABUTMENTS 1 & 4

BRIDGE NO.	POST MILE	DRAWING NO.	SHEET	OF
33-140	13.22	33140 -	4-R1	9

REVISION DATES (PRELIMINARY STAGE ONLY)

Disregard prints bearing earlier revision dates

WO 136441
CU 04204

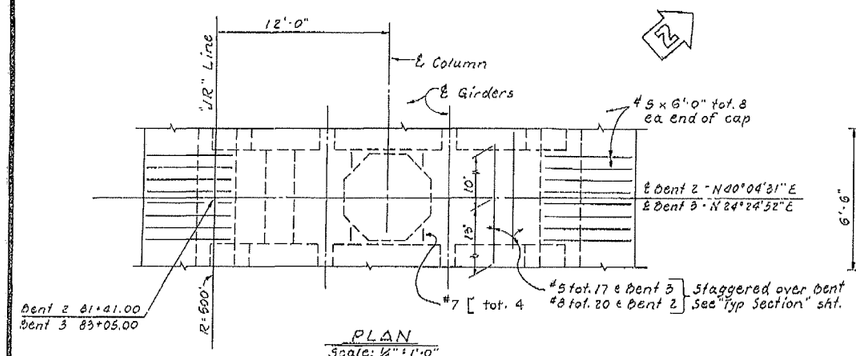
I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.

DATE 10/29/73 Signature Thomas E. Cassidy Title S/R Engr

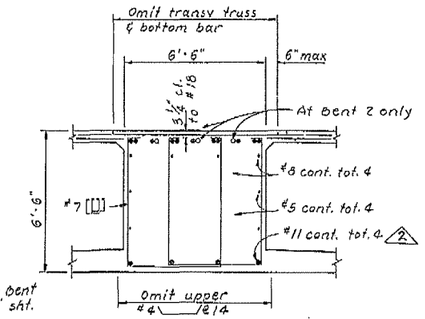
DIST.	COUNTY	ROUTE	POST MILES—TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	580	9.4/18.1	217	248

217R

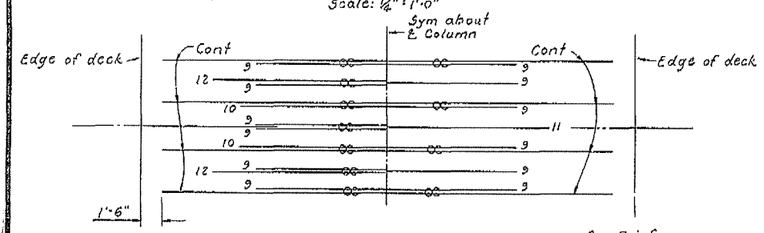
Chas. H. Campbell
DESIGN SECTION SUPERVISOR REGISTERED CIVIL ENGINEER NO. 25746
DATE APPROVED April 27, 1970



PLAN
Scale: 1/4" = 1'-0"



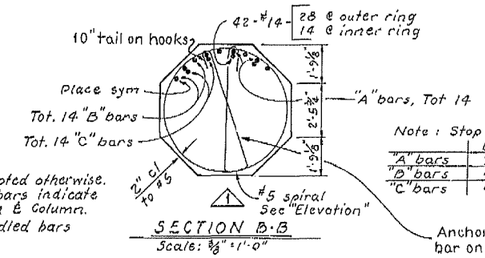
SECTION A-A
Scale: 3/8" = 1'-0"



AT BENT 2 AT BENT 3

TOP CAP REINF

Cap Reinf:
All reinf #18 unless noted otherwise.
Numbers at ends of bars indicate distance in feet from ℄ Column.
Indicates bundled bars



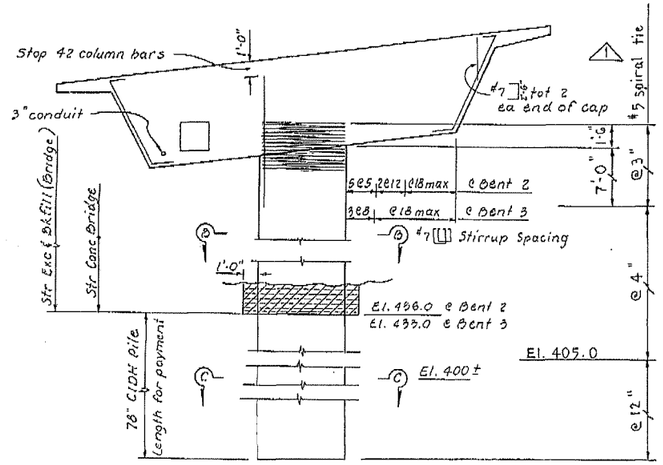
SECTION B-B
Scale: 3/8" = 1'-0"

Note: Stop bars at elevations shown

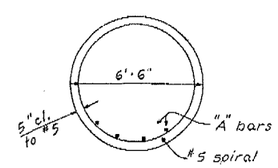
	Bent 2	Bent 3
"A" bars	385.5	395.5
"B" bars	405.0	405.0
"C" bars	414.0	411.0

Anchor splices in spiral around vertical bar on opposite side of column.

Note: Splicing of #14 & #18 bars shall be done by butt-welding



ELEVATION
Scale: 1/2" = 1'-0"



SECTION C-C
Scale: 3/8" = 1'-0"

Structure Excavation (Bridge)
Structure Backfill (Bridge)

AS BUILT
CORRECTIONS BY D. GEE AIC 4-12-73
CONTRACT NO. 04-136444
DATE 10-16-72

CCO #48

MARK	DATE	DESCRIPTION	BY	CHK
2	3/26/73	Bar size	JZT	EWP
1	7/24/73	#5 spiral revised	JZT	EWP

REVISIONS

AS BUILT PLANS
Contract No. 04-136444
Date Completed 9-25-72
Document No. 6229

BRIDGE DEPARTMENT
DESIGN SECTION 8
Project Engineer J R Taylor
DESIGN By W Chapman 10-69
Checked W Chapman 1-70
DETAILS By R. Kuroko 10-69
Checked W Chapman 1-70
QUANTITIES By R. Kuroko 1-70
Checked R. Kuroko 1-70

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

PORTOLA AVENUE OVERCROSSING

BENTS 2 & 3

BRIDGE NO.	POST MILE	DRAWING NO.	SHEET	OF
33-140	13.22	33140-	5-R1	9

Disregard prints bearing earlier revision dates

REVISION DATES (PRELIMINARY STAGE ONLY)

WO 136441
CU 04204

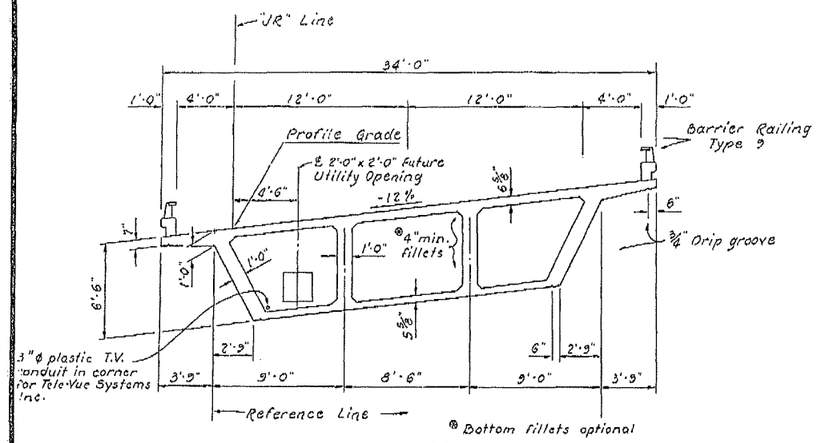
I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.

DATE 10/29/73 SIGNATURE Thomas E. Cummins TITLE S.R. RMC

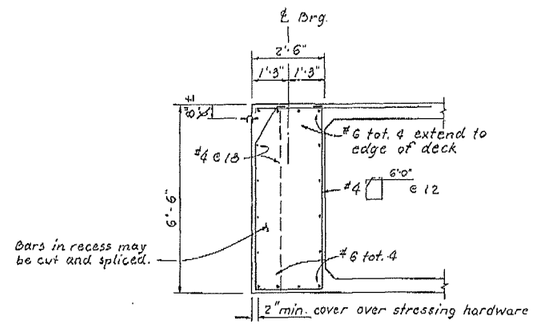
217

REV.	COUNTY	ROUTE	POST MILES—TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	580	9.4/18.1	218	248

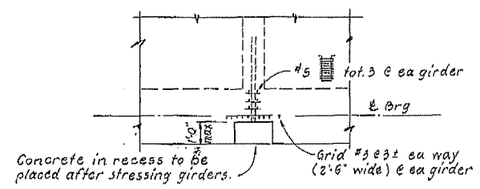
REGION SECTION SUPERVISOR — REGISTERED CIVIL ENGINEER NO. 7583
DATE APPROVED April 27 1970



TYPICAL SECTION
Scale: 1/4" = 1'-0"



END DIAPHRAGM
Scale: 1/2" = 1'-0"



PART PLAN
Scale: 3/8" = 1'-0"

PRESTRESSING NOTES

*P_{JACK} = 8,430 KIPS TOTAL AT JACKING ENDS. $A_S = \frac{P_{JACK}}{.75\ F_S}$

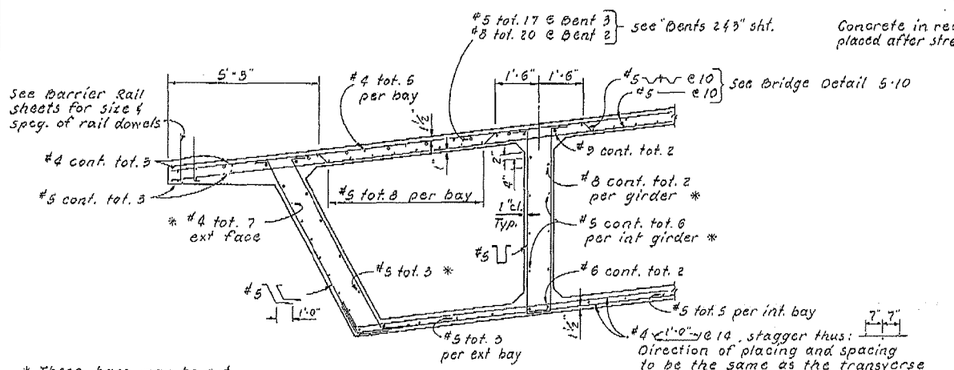
TOTAL NUMBER OF GIRDERS = 4

CONCRETE F_C = 3,800 PSI @ 28 DAYS; F_{CI} = 3,500 PSI @ TIME OF STRESSING

GENERAL: *1. DESIGN IS BASED ON u 0.25 AND k 0.0002. P_{JACK} SPECIFIED AT THE JACKING ENDS INCLUDES FRICTION LOSSES AND PROVISION FOR 25,000 PSI LOSS IN STRESS.

2. TENDONS TO BE JACKED TO .75 F_S AND ANCHORED AT AN EQUIVALENT ANCHOR SET = 5/8".

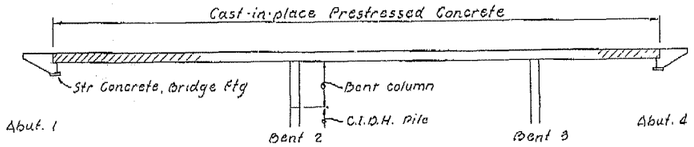
3. CONTRACTOR TO SUBMIT ELONGATION AND JACKING CALCULATIONS BASED ON uo + kl = 0.222 AND INITIAL STRESS AT ⊠ = 0.800 TIMES JACKING STRESS.



* These bars may be cut & spliced as necessary to avoid prestressing tendons.

PART SECTION
Scale: 1/2" = 1'-0"

AS BUILT
CORRECTIONS BY D. GEE HC 4-12-73
CONTRACT NO. 04-136444
DATE 10-16-72



LIMITS OF PRESTRESSED CONCRETE
No Scale
Abut walls & wingwalls & Bent columns = Str Concrete, Bridge

AS BUILT PLANS
Contract No. 04-136444
Date Completed 9-25-72
Document No. 6229

218

BRIDGE DEPARTMENT
DESIGN SECTION 8
Project Engineer G. R. Taylor
DESIGN By R. Lyman 5/69 Checked 1-70
DETAILS By R. Lyman 5-69 Checked 1-70
QUANTITIES By 1-70 Checked 1-70

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

PORTOLA AVENUE OVERCROSSING

TYPICAL SECTION

BRIDGE NO.	POST MILE	DRAWING NO.	SHEET	OF
33-140	13.22	33140 -	6	9

REVISION DATES (PRELIMINARY STAGE ONLY)

Disregard prints bearing earlier revision dates

WO 136441
CU 04204

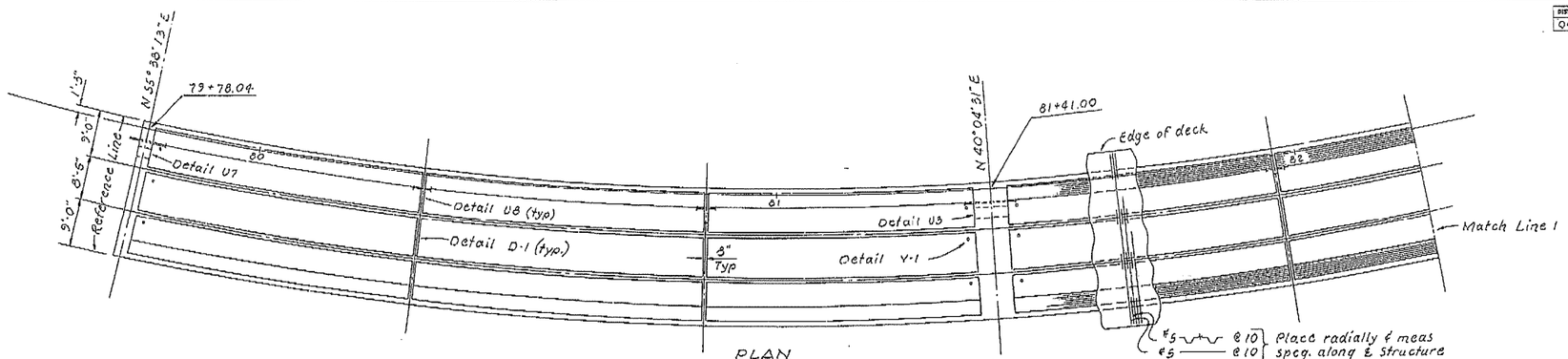
I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.

DATE 10/29/73 SIGNATURE James E. Cornett TITLE S/B RMC

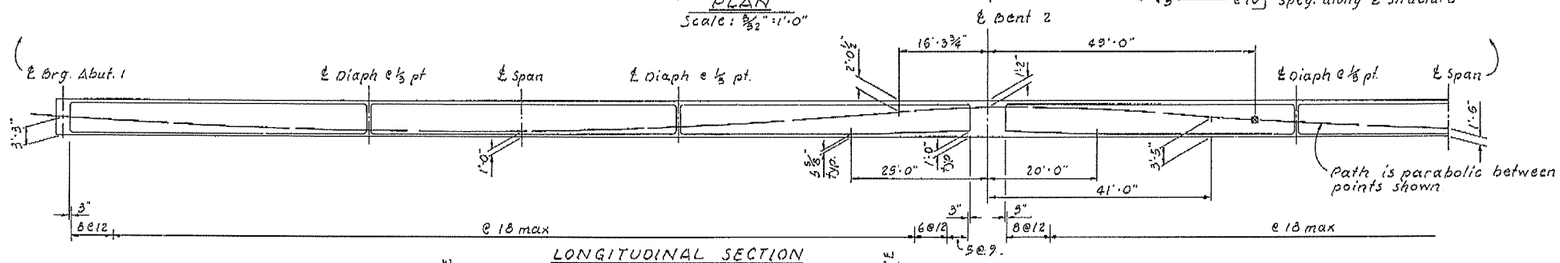
DIST.	COUNTY	ROUTE	POST MILES—TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	580	9.4/18.1	219	249

OFFICIAL SECTION OVERSEER — REGISTERED CIVIL ENGINEER NO. 7969

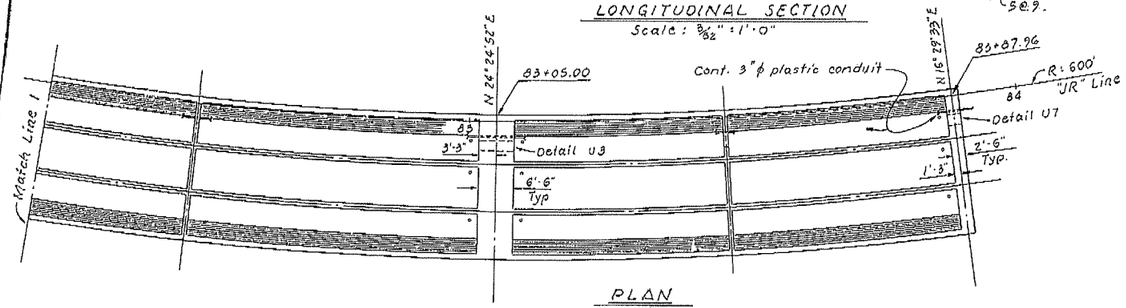
DATE APPROVED April 27, 1970



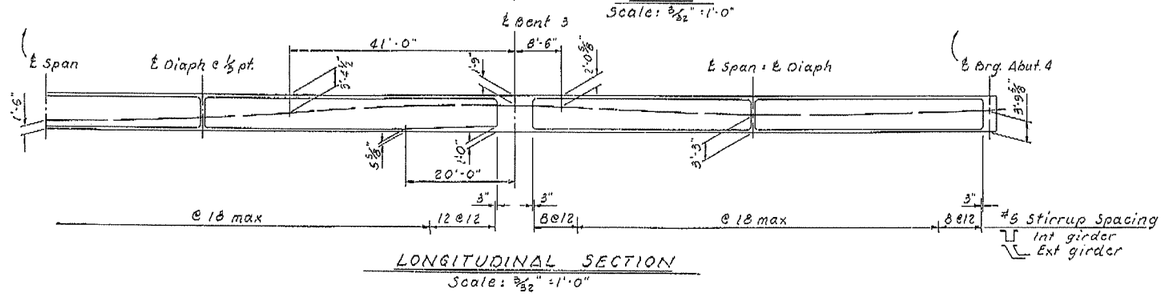
PLAN
Scale: 3/32" = 1'-0"



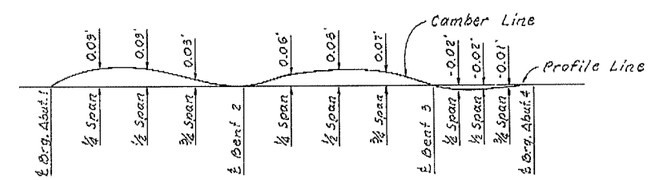
LONGITUDINAL SECTION
Scale: 3/32" = 1'-0"



PLAN
Scale: 3/32" = 1'-0"



LONGITUDINAL SECTION
Scale: 3/32" = 1'-0"



CAMBER DIAGRAM
No Scale
(Does not include allowance for falsework settlement)

NO AS BUILT CHANGES

AS BUILT
CORRECTIONS BY D. Gee HC 4-12-73
CONTRACT NO. 04-136444
DATE 10-16-72

Note: For Prestressing Note, see "Typical Section" sheet.

AS BUILT PLANS
Contract No. 04-136444
Date Completed 9-25-72
Document No. 6223

219

BRIDGE DEPARTMENT
DESIGN SECTION 8
℄ Project ℄ Engineer J. R. Taylor
DESIGN — Checked 1-70
DRAFTS — Checked 1-70
QUANTITIES — Checked 1-70

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

PORTOLA AVENUE OVERCROSSING

GIRDER LAYOUT

BRIDGE NO.	POST MILE	DRAWING NO.	SHEET	OF
33-140	13.22	33140-	7	9

REVISION DATES (PRELIMINARY STAGE ONLY)
Disregard prints bearing earlier revision dates
7/8/69 10/20/70

WO 136441
CU 04204

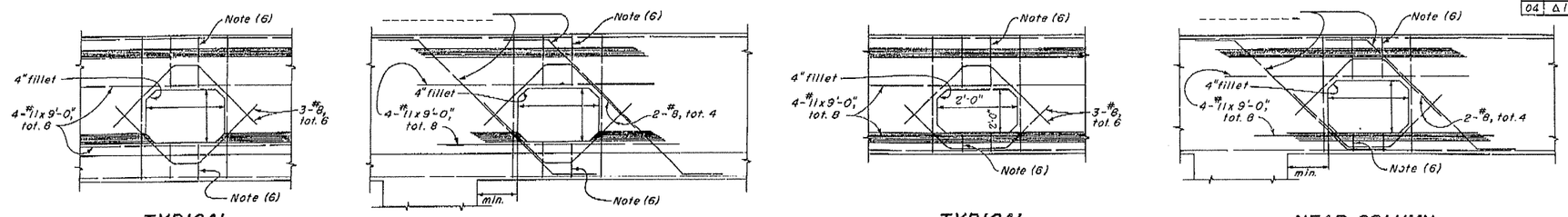
I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.

DATE 10/29/73 SIGNATURE [illegible] TITLE SR. KIMC

DIST	COUNTY	ROUTE	POST MILES	TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	280	9.4/18.1	220	220	248

BRIDGE ENGINEER — CIVIL ENGINEER-LICENSED (SM)

APPROVED April 27, 1972



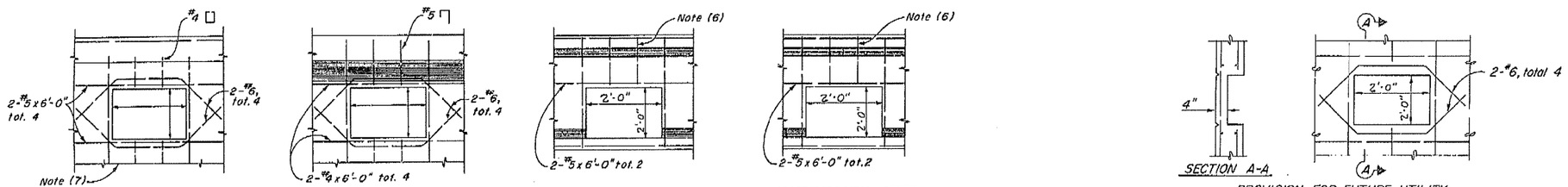
TYPICAL
DETAIL U1

NEAR COLUMN
DETAIL U2

TYPICAL
DETAIL U3

NEAR COLUMN
DETAIL U4

BENT CAP



RIGID FRAME
DETAIL U5

CANTILEVER TYPE
DETAIL U6

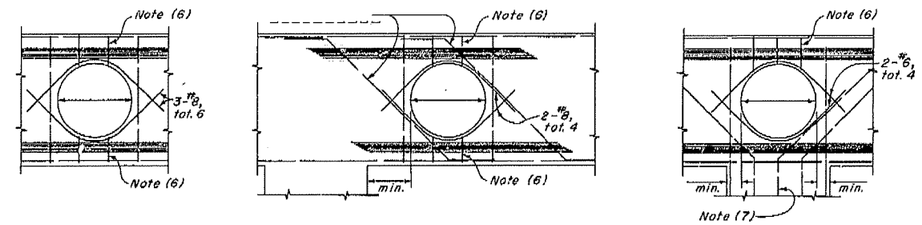
END
DETAIL U7

INTERMEDIATE
DETAIL U8

PROVISION FOR FUTURE UTILITY THROUGH ABUTMENT BACKWALL
DETAIL U9

ABUTMENT BACKWALL

DIAPHRAGMS

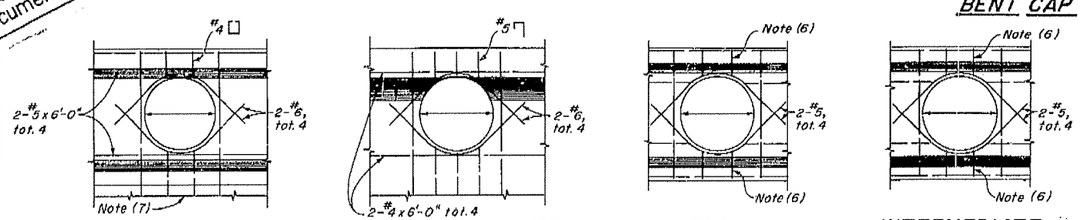


TYPICAL
DETAIL U12

NEAR COLUMN
DETAIL U13

AT COLUMN
DETAIL U14

BENT CAP



RIGID FRAME
DETAIL U15

CANTILEVER TYPE
DETAIL U16

END
DETAIL U17

INTERMEDIATE
DETAIL U18

ABUTMENT BACKWALL

DIAPHRAGMS

NOTES

(1) For exact location and direction of openings see other sheets.
(2) Location and size of utility openings may be modified as directed by the Engineer, provided minimum dimensions are maintained.
(3) Girders not shown, see other sheets.
(4) Seal around utilities at abutments to be of sufficient strength to withstand earth pressure.
(5) All reinforcement detailed to be placed in addition to reinforcement shown on other sheets.
(6) Stirrups are same size as adjacent stirrups shown on other sheets.
(7) Main reinforcement to clear opening as detailed on other sheets.

NO AS BUILT CHANGES
AS BUILT
CORRECTIONS BY D. GEE
CONTRACT NO. 04-136444
DATE 10-16-72

6/69 — STATE OF CALIFORNIA BUSINESS AND TRANSPORTATION AGENCY DEPARTMENT OF PUBLIC WORKS DIVISION OF HIGHWAYS — XS 16-49

PORTOLA AVENUE OVERCROSSING

UTILITY OPENINGS - BOX GIRDER

BRIDGE NO.	POST MILE	DRAWING NO.	SHEET	OF
33-140	12.22		8	9

W.O. 136441 CU 09202 Disregard prints bearing earlier revision dates

REVISION DATES (PRELIMINARY STAGE ONLY) 1/26/70 1/26/70

STANDARD DRAWING — Rev.: Bar totals 2/9/61 LJS. Revised Title Block 3/26/66 "Details U9, U10 and "U11" signed E.J.J. Revised title 23 Nov 66 - EJJ

STATE OF CALIFORNIA DEPARTMENT OF PUBLIC WORKS DIVISION OF HIGHWAYS — BRIDGE DEPARTMENT

AS BUILT PLANS
Contract No. 04-136444
Date Completed 9-25-72
Document No. 622,9

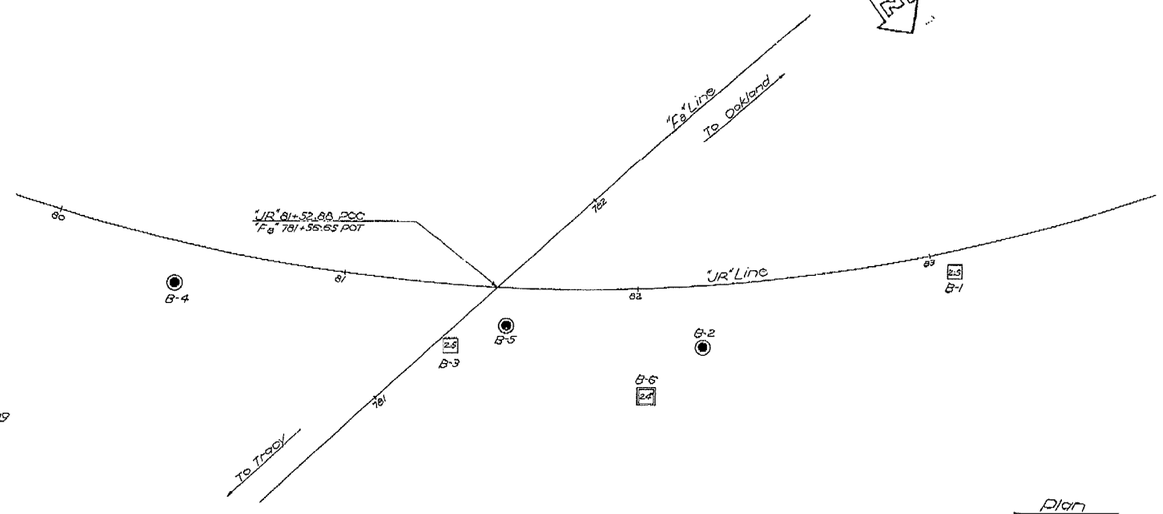
220

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.

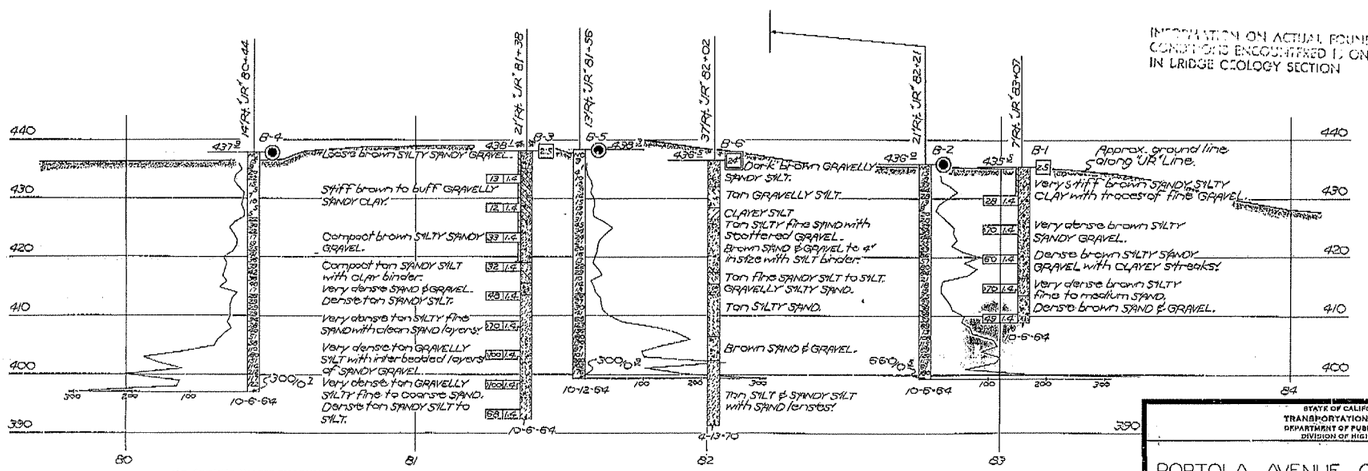
DATE 10/29/73 SIGNATURE Thomas E. Cullinan TITLE S/R. R.M.C.

DIST.	COUNTY	ROUTE	POST MILES—TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Alm	580	9.4/18.1	221	248

Chief H. Raymond Alm
DESIGN SECTION SUPERVISOR — REGISTERED CIVIL ENGINEER No. 7564
DATE APPROVED April 27, 1970



Plan
Scale: 1"=20'



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

Profile
Scale: Hor. 1"=20'
Ver. 1"=10'

NO GROUND WATER ENCOUNTERED DURING THIS INVESTIGATION BY BRIDGE DEPT. GEOLOGY SECTION
DATE April, 1970

LEGEND OF BORING OPERATIONS

Penetrometer
24" Core Penetrometer
Shallow Boring (Grav)
Rotary Boring (Wet)
Auger Boring (Dry)
Jet Borings
Core Boring
Test Pit

Penetration Boring
Rotary Boring
1" Soil Tube

LEGEND OF EARTH MATERIALS

Gravel
Sand
Silt
Clay
Silty Clay or Clayey Silt
Peat or Organic Matter
Fill Material
Igneous Rock
Sandy Clay or Clayey Sand
Sandy Silt or Silty Sand
Sedimentary Rock
Metamorphic Rock

CLASSIFICATION OF MATERIAL BASED ON STANDARD GRADE SIZE LIMITS

Diagram showing the ends the separate of which are interpreted used in interpolating the "Clay" line.

Angles the total "Gravel" and "Sand" and "Silt" and "Clay" are "Gravelly Sand." The terms "Sandy Silt" and "Silty Sand" are used to designate sand, silt and gravel, refer to standard grade size limits.

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.

FIELD STUDY	J. G. Miller	4-70
DRAWN	J. G. Miller	4-70
CHECKED		

Approval Recommended: Engineering Geologist

BRIDGE DEPARTMENT
ENGINEERING GEOLOGY SECTION

221

AS BUILT PLANS
Contract No. 04-136414
Date Completed 9-25-72
Document No. 6229

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

PORTOLA AVENUE OVERCROSSING

LOG OF TEST BORINGS

BRIDGE NO.	POST MILE	DRAWING NO.	SHEET	OF
33-140			9	9

REVISION DATES (PRELIMINARY STAGE ONLY)
4/22/70

WO 136441
CU 04204
PR 33140-2

Disregard prints bearing earlier revision dates

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DATE 10/29/73 SIGNATURE [illegible] TITLE S/S. 12 MSC