Bridge Inspection Records Information System

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State of California
Department of Transportation

Division of Maintenance
Structures Maintenance & Investigations

DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0628
Facility Carried: ANTONIO PARKWAY
Location : 0.2 MI. N/O ORTEGA HWY
City :
Inspection Date : 10/24/2002

Bridge Inspection Report

Inspection Type

Routine	Group A	Underwater	Special	Other
X				

STRUCTURE NAME: SAN JUAN CREEK

CONSTRUCTION INFORMATION

Year Built : 1997
Year Widened : N/A
Length (m) : 236.5
Skew (degrees): 22
No. of Joints : 2
No. of Hinges : 0

Structure Description: Continuous five span CIP/PS concrete box girder (five cells) with RC two column bents and with RC closed end seat abutments, all supported upon driven steel H-piles, and upon CIDH concrete piles.

Span Configuration : (S) 38.1 m, 3 @ 53.0 m, 38.1 m (N) c/c

LOAD CAPACITY AND RATINGS

Design Live Load : MS - 18 OR HS - 20
Inventory Rating : 32.6 metric tons Calculation Method : LOAD FACTOR
Operating Rating : 53.5 metric tons Calculation Method : LOAD FACTOR
Permit Rating : PPPPP
Posting Load : Type 3 English tons Type 3S2 English tons Type 3-3 English tons

DESCRIPTION ON STRUCTURE

Deck X-Section: (W) 0.5 m br, 19.7 m, 0.5 m br (E)
Total Width : 20.7 m Net Width : 19.7 m No. of Lanes : 4
Rail Description : Type 25 concrete railings. Rail Code : 1110
Min. Vertical Clearance: Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description : Wide natural earth channel

CONDITION OF STRUCTURE

The structure is in excellent condition.

SCOUR

The scour rating of A1 is appropriate.

MISCELLANEOUS

Vehicular parking is at the southeast quadrant. Take photographs during the next inspection.

ELEMENT INSPECTION RATINGS

F# Elem No.	Element Description	Env	Total Qty	Units	Qty in each Condition State St. 1	St. 2	St. 3	St. 4	St. 5
01 12	Concrete Deck - Bare	2	4896	sq.m.	4896	0	0	0	0
01 104	P/S Conc Closed Web/Box Girder	2	236	m.	236	0	0	0	
01 205	Reinforced Conc Column or Pile Extension	2	8	ea.	8	0	0	0	
01 215	Reinforced Conc Abutment	2	40	m.	40	0	0	0	
01 220	Reinforced Conc Submerged Pile Cap/Footing	2	10	ea.	10	0	0	0	
01 225	Unpainted Steel Submerged Pile	2	306	ea.	306	0	0	0	
01 252	Cast-In-Drilled Hole Concrete Pile	2	50	ea.	50	0	0	0	
01 303	Assembly Joint/Seal (modular)	2	40	m.	40	0	0		
01 312	Enclosed/Concealed Bearing	2	2	ea.	2	0	0		

F#	Elem No.	Element Description	Env	Total Units Qty		Qty in each Condition State St. 1	St. 2	St. 3	St. 4	St. 5
01	321	Reinforced Conc Approach Slab w/ or w/o AC Ovly	2	8	ea.	8	0	0	0	
01	331	Reinforced Conc Bridge Railing	2	510	m.	510	0	0	0	

WORK RECOMMENDATIONS - NONE

Inspected By : M. Ogata

M. Ogata

Registered Civil Engineer

CC: TMRut
Orange County
WLindsey

Printed on: Friday 10/25/2002 11:06 AM 55C0628/AAAA/860

NOV - 6 2002

STRUCTURE INVENTORY AND APPRAISAL REPORT

********** IDENTIFICATION **********

(1) STATE NAME- CALIFORNIA 069
(8) STRUCTURE NUMBER **55C0628**
(5) INVENTORY ROUTE(ON/UNDER)- ON 140
(2) HIGHWAY AGENCY DISTRICT 12
(3) COUNTY CODE 059 (4) PLACE CODE
(6) FEATURE INTERSECTED- SAN JUAN CREEK
(7) FACILITY CARRIED- ANTONIO PARKWAY
(9) LOCATION- 0.2 MI. N/O ORTEGA HWY
(11) MILEPOINT/KILOMETERPOINT
(12) BASE HIGHWAY NETWORK- NOT ON NET 0
(13) LRS INVENTORY ROUTE & SUBROUTE
(16) LATITUDE 33 DEG 31 MIN 30 SEC
(17) LONGITUDE 117 DEG 37 MIN 12 SEC
(98) BORDER BRIDGE STATE CODE % SHARE %
(99) BORDER BRIDGE STRUCTURE NUMBER

******** STRUCTURE TYPE AND MATERIAL *********

(43) STRUCTURE TYPE MAIN:MATERIAL- CONCRETE CONT
TYPE- BOX BEAM OR GIRDER - MULTI CODE 205
(44) STRUCTURE TYPE APPR:MATERIAL-
TYPE- BOX BEAM OR GDR - MULTIPLE CODE
(45) NUMBER OF SPANS IN MAIN UNIT 5
(46) NUMBER OF APPROACH SPANS
(107) DECK STRUCTURE TYPE- CIP CONCRETE CODE 1
(108) WEARING SURFACE / PROTECTIVE SYSTEM:
A) TYPE OF WEARING SURFACE- CONCRETE CODE 1
B) TYPE OF MEMBRANE- NONE CODE 0
C) TYPE OF DECK PROTECTION- NONE CODE 0

********** AGE AND SERVICE **********

(27) YEAR BUILT 1997
(106) YEAR RECONSTRUCTED
(42) TYPE OF SERVICE: ON- HIGHWAY-PEDESTRIAN 5
UNDER- WATERWAY 5
(28) LANES: ON STRUCTURE 04 UNDER STRUCTURE
(29) AVERAGE DAILY TRAFFIC 10000
(30) YEAR OF ADT 1998 (109) TRUCK ADT 1 %
(19) BYPASS, DETOUR LENGTH 10 KM

********** GEOMETRIC DATA **********

(48) LENGTH OF MAXIMUM SPAN 53 M
(49) STRUCTURE LENGTH 236.5 M
(50) CURB OR SIDEWALK: LEFT M RIGHT M
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 19.7 M
(52) DECK WIDTH OUT TO OUT 20.7 M
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 19.7 M
(33) BRIDGE MEDIAN- CLOSED (NO BARRIER) 2
(34) SKEW 22 DEG (35) STRUCTURE FLARED NO
(10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 19.7 M
(53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M
(54) MIN VERT UNDERCLEAR REF- NOT H/RR M
(55) MIN LAT UNDERCLEAR RT REF- NOT H/RR M
(56) MIN LAT UNDERCLEAR LT M

********** NAVIGATION DATA **********

(38) NAVIGATION CONTROL- NOT APPLICABLE CODE N
(111) PIER PROTECTION- NOT REQUIRED CODE 1
(39) NAVIGATION VERTICAL CLEARANCE 0 M
(116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR 0 M
(40) NAVIGATION HORIZONTAL CLEARANCE 0 M

****

SUFFICIENCY RATING = 95.3
STATUS
HEALTH INDEX 100.0
PAINT CONDITION INDEX N/A

********** CLASSIFICATION ********** CODE

(112) NBIS BRIDGE LENGTH- YES Y
(104) HIGHWAY SYSTEM- NOT ON NHS 0
(26) FUNCTIONAL CLASS- MINOR ARTERIAL URBAN 16
(100) DEFENSE HIGHWAY- NOT STRAHNET 0
(101) PARALLEL STRUCTURE- NONE EXISTS N
(102) DIRECTION OF TRAFFIC- 2 WAY 2
(103) TEMPORARY STRUCTURE-
(105) FED.LANDS HWY- NOT APPLICABLE 0
(110) DESIGNATED NATIONAL NETWORK - NOT ON NET 0
(20) TOLL- ON FREE ROAD 3
(21) MAINTAIN- COUNTY HIGHWAY AGENCY 02
(22) OWNER- COUNTY HIGHWAY AGENCY 02
(37) HISTORICAL SIGNIFICANCE- NOT ELIGIBLE 5

********** CONDITION ********** CODE

(58) DECK 7
(59) SUPERSTRUCTURE 8
(60) SUBSTRUCTURE
(61) CHANNEL & CHANNEL PROTECTION 8
(62) CULVERTS

******** LOAD RATING AND POSTING ********* CODE

(31) DESIGN LOAD- MS - 18 OR HS - 20 5
(63) OPERATING RATING METHOD- LOAD FACTOR 1
(64) OPERATING RATING- 53.5
(65) INVENTORY RATING METHOD- LOAD FACTOR 1
(66) INVENTORY RATING- 32.6
(70) BRIDGE POSTING-
(41) STRUCTURE OPEN, POSTED OR CLOSED- A
DESCRIPTION- OPEN, NO RESTRICTION

********** APPRAISAL ********** CODE

(67) STRUCTURAL EVALUATION 8
(68) DECK GEOMETRY 7
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N
(71) WATER ADEQUACY 8
(72) APPROACH ROADWAY ALIGNMENT 8
(36) TRAFFIC SAFETY FEATURES 1110
(113) SCOUR CRITICAL BRIDGES 6

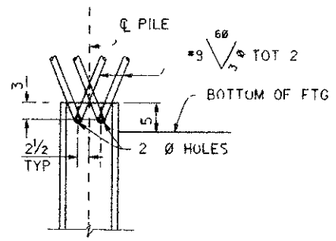
********** PROPOSED IMPROVEMENTS **********

(75) TYPE OF WORK- CODE
(76) LENGTH OF STRUCTURE IMPROVEMENT M
(94) BRIDGE IMPROVEMENT COST
(95) ROADWAY IMPROVEMENT COST
(96) TOTAL PROJECT COST
(97) YEAR OF IMPROVEMENT COST ESTIMATE
(114) FUTURE ADT 20000
(115) YEAR OF FUTURE ADT 2018

********** INSPECTIONS **********

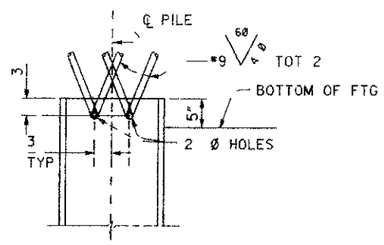
(90) INSPECTION DATE 10/02 (91) FREQUENCY 24 MO
(92) CRITICAL FEATURE INSPECTION: (93) CFI DATE
A) FRACTURE CRIT DETAIL- 0 MO A)
B) UNDERWATER INSP- 0 MO B)
C) OTHER SPECIAL INSP- 0 MO C)

NOV - 6 2002



HP 10X57 STEEL PILE ANCHOR

NO SCALE



HP 14X89 STEEL PILE ANCHOR

NO SCALE

CALTRANS STANDARD PLANS DATED JULY 1992

A10A	ABBREVIATIONS
A10B	SYMBOLS
A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE
A77A	METAL BEAM GUARD RAILING
A77B	METAL BEAM GUARD RAILING STANDARD HARDWARE
A77C	METAL BEAM GUARD RAILING POST AND BLOCKS
A77D	GUARD RAIL FLARES
B0-1	BRIDGE DETAILS
B0-5	BRIDGE DETAILS
B0-13	BRIDGE DETAILS
B7-1	BOX GIRDER DETAILS
B7-6	DECK DRAINS TYPES D-1 AND D-2
B7-10	UTILITY OPENING - BOX GIRDER
B7-11	UTILITY DETAILS
B8 5	CAST-IN-PLACE PRESTRESSED GIRDER DETAILS
B11-51	TUBULAR HAND RAILING
B11-53	CONCRETE BARRIER TYPE 25
ES-7A	SIGNAL, LIGHTING AND ELECTRICAL SYSTEMS ELECTRICAL DETAILS STRUCTURE INSTALLATIONS
ES-7C	SIGNAL LIGHTING AND ELECTRICAL SYSTEMS ELECTRICAL DETAILS STRUCTURE INSTALLATIONS

GENERAL NOTES
LOAD FACTOR DESIGN

DESIGN	BRIDGE DESIGN SPECIFICATIONS (1992 AASHTO WITH INTERIMS AND REVISIONS BY CALTRANS)
DEAD LOAD	INCLUDES 35 psf FOR FUTURE WEARING SURFACE
LIVE LOADING	HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
SEISMIC LOADING	PEAK ROCK ACCELARATION = 0.3g DEPTH OF ALLUVIUM - 10 TO 80 FEET DESIGN BASED ON CURRENT SPECIFICATION WITH DUCTILITY/RISK FACTOR Z= 6.0
REINFORCED CONCRETE	fy = 60 000 psi f'c = 3 500 psi UNLESS OTHERWISE NOTED n = 9 (SEE CAMBER DIAGRAM AND CONCRETE STRENGTH & TYPE LIMITS SHEET) TRANSVERSE DECK SLAB (WORKING STRESS DESIGN) fs = 20 000 psi f'c = 1 200 psi n = 10
PRESTRESSED CONCRETE	SEE PRESTRESSING NOTES ON GIRDER LAYOUT SHEETS

INDEX TO PLANS

SHEET NO	TITLE
1	GENERAL PLAN
2	INDEX TO PLANS
3	STRUCTURE PLAN NO 1
4	STRUCTURE PLAN NO 2
5	DECK CONTOURS
6	FOUNDATION PLAN NO 1
7	FOUNDATION PLAN NO 2
8	ABUTMENT DETAILS NO 1
9	ABUTMENT DETAILS NO 2
10	ABUTMENT DETAILS NO 3
11	ABUTMENT DETAILS NO 4
12	BENT DETAILS NO 1
13	BENT DETAILS NO 2
14	BENT DETAILS NO 3
15	BENT DETAILS NO 4
16	TYPICAL SECTION
17	GIRDER LAYOUT NO 1
18	GIRDER LAYOUT NO 2
19	CAMBER DIAGRAM AND CONC STRENGTH & TYPE LIMITS
20	DECK DRAIN DETAILS
21	JOINT SEAL ASSEMBLY (MOVEMENT RATING = 5½)
22	STRUCTURE APPROACH TYPE N (30S)
23	STRUCTURE APPROACH DRAINAGE DETAILS
24	EROSION PROTECTION PLAN
25	SMWD UTILITY DETAILS
26	MISCELLANEOUS DETAILS
27	LOG OF TEST BORINGS

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Plotted on 17 Oct 1996 Is Generated by Whitaker

DR 3 (161 8)
sheet 50 Of 126

RECORD DRAWING

½ 0 1 2
3 inches on original drawing

MARK	DATE	DESCRIPTION
REVISIONS		

PREPARED UNDER RESPONSIBLE CHARGE OF

RICHARD A. HART RCE 38898 EXP 12-31-97 DATE 10/96

ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY
BRIDGE OVER
SAN JUAN CREEK

INDEX TO PLANS

2/27

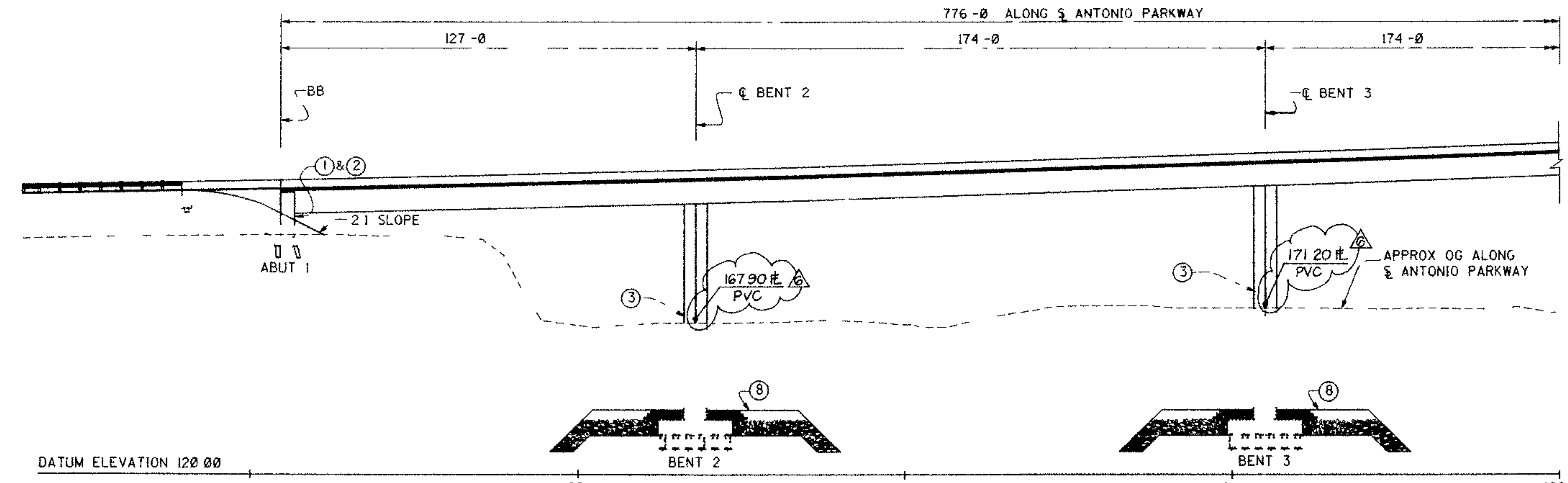
DESIGNED Steve A. Whitaker
DRAWN L. West CHECKED R. Hart

SCALE	DATE	DRAWING NO	SHEET
AS SHOWN			50 OF 126

PLAN PREPARED BY
HNTB
16 EXECUTIVE PARK
SUITE 200
IRVINE, CALIFORNIA 92614

BR # 55C0628

DR. 3 (16158)



DEVELOPED ELEVATION

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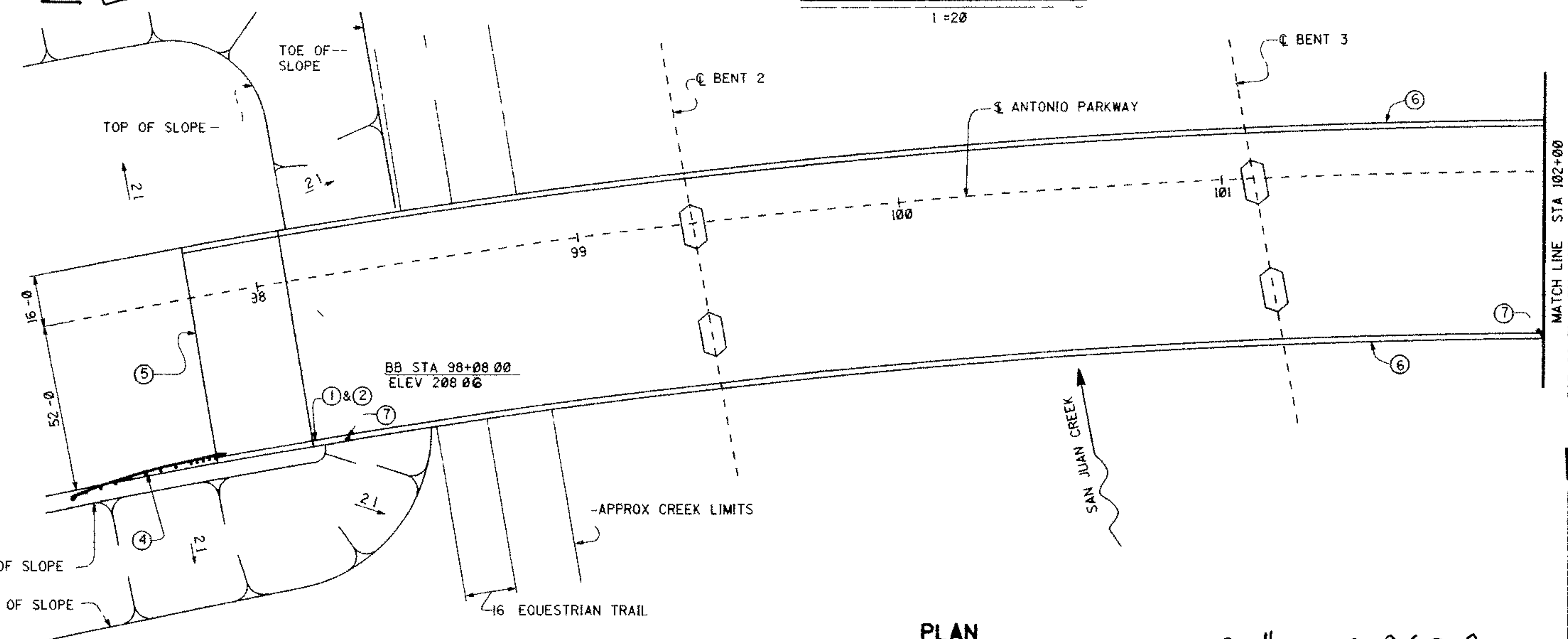

PLAN

1"=20'

LEGEND

① = PAINT BRIDGE NO 55C-628

② - PAINT ANTONIO PARKWAY BRIDGE AND YEAR COMPLETED

③ = PAINT BENT NO

④ = METAL BEAM GUARD RAIL TYPE 1 FLARE (A77A)

⑤ = STRUCTURE APPROACH TYPE N(30S)

⑥ = CONCRETE BARRIER TYPE 25 MOD

⑦ = TYPE 9A PULL BOX IN TOP OF BARRIER (TOT 3) SEE MISCELLANEOUS DETAILS SHEET

⑧ = RIPRAP PILE CAP PROTECTION SEE EROSION PROTECTION PLAN SHEET

NOTES

1 FOR TYPICAL SECTION SEE "GENERAL PLAN" SHEET

2 FOR DECK DRAIN LOCATIONS SEE DECK DRAIN DETAILS SHEET

3 FOR MANHOLE AND SOFFIT ACCESS OPENINGS SEE GIRDER LAYOUTS

DR 3 (16158) Sheet 51 of 126

RECORD DRAWING

1/2 0 1 2 — 3 Inches on original drawing

MARK	DATE	DESCRIPTION
6	10/99	AS BUILT SHOWN

REVISIONS

PREPARED UNDER RESPONSIBLE CHARGE OF: Richard A. Hart, RCE 38896 (EXP 12-31-97), 10/8/96

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK

STRUCTURE PLAN NO. 1

DESIGNED Steve A. Whitaker · DRAWN L. West · CHECKED R. Hart · SCALE AS SHOWN · SHEET 51 OF 126

BR #55C0628

PLAN PREPARED BY: HNTB, 36 EXECUTIVE PARK, SUITE 300, IRVINE, CALIFORNIA 92614

DR 3 (16158)

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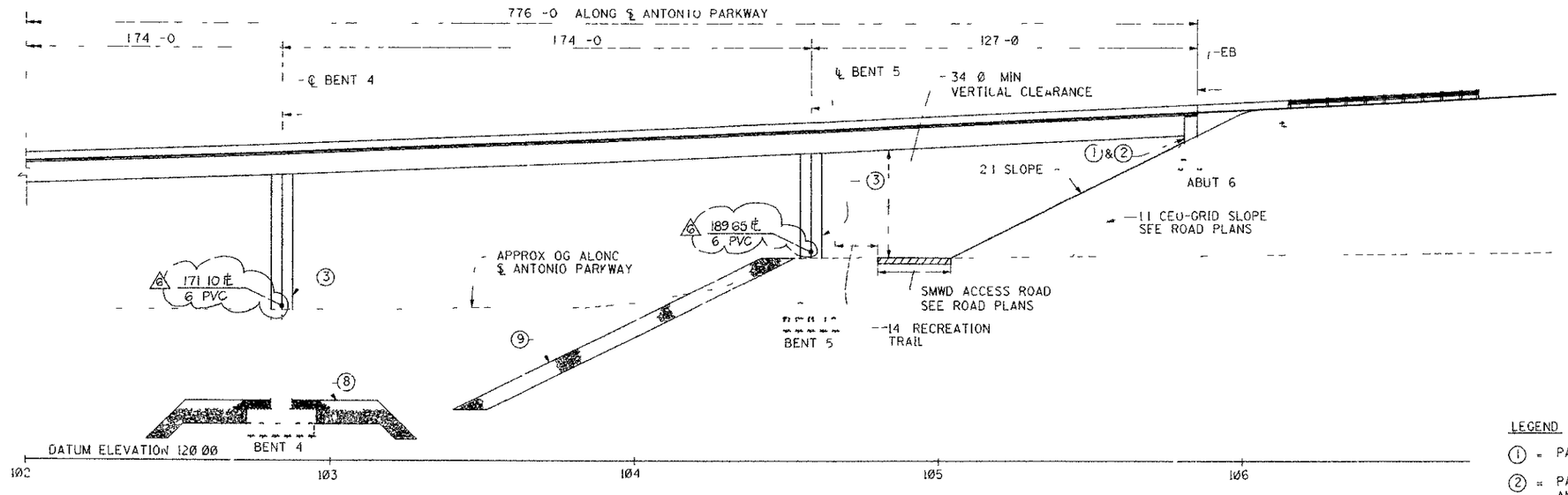

DEVELOPED ELEVATION

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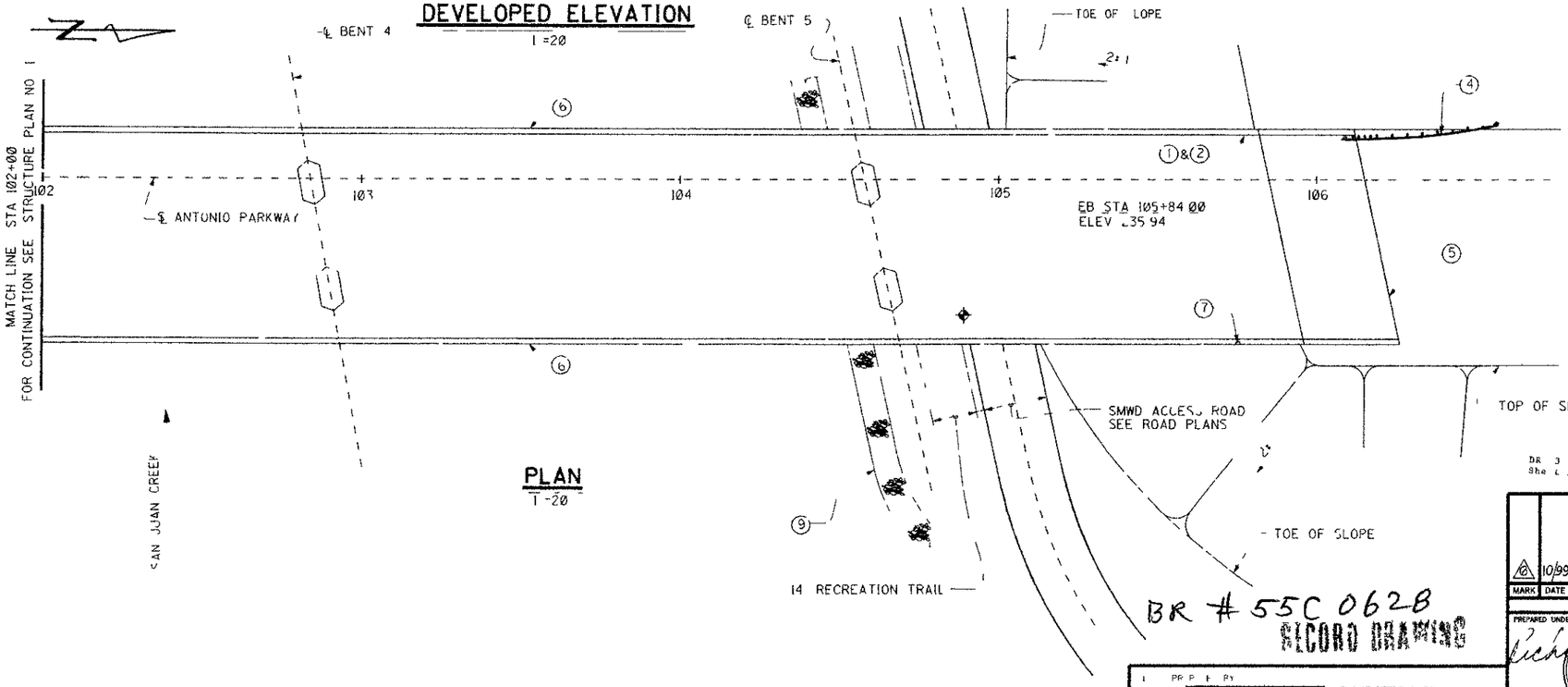


PLAN

1 -20

LEGEND

1 = PAINT BRIDGE NO 55C-628

2 = PAINT ANTONIO PARKWAY BRIDGE AND YEAR COMPLETED

3 - PAINT BENT NO

4 = METAL BEAM GUARD RAIL A77A

5 = STRUCTURE APPROACH TYPE N(30S)

6 - CONCRETE BARRIER TYPE 25 MOD

7 - TYPE 9A PULL BOX IN TOP OF BARRIER (TOT 3) SEE MISCELLANEOUS DETAILS SHEET

8 RIPRAP BANK CAP PROTECTION SEE EROSION PROTECTION PLAN SHEET

9 RIPRAP BANK PROTECTION SEE EROSION PROTECTION PLAN SHEET

✦ - INDICATES POINT OF MINIMUM VERTICAL CLEARANCE

NOTE

1 FOR TYPICAL SECTION SEE GENERAL PLAN SHEET

2 FOR DECK DRAIN LOCATIONS SEE DECK DRAIN DETAILS SHEET

3 FOR MANHOLE AND SOFFIT ACCESS OPENINGS SEE GIRDER LAYOUTS

DR 3 (16158)
Sheet 52 of 126

1/2 0 1 2
3 inches on original drawing

BR # 55C 0628
RECORD DRAWING

PREPARED BY
HNTB
34 EXECUTIVE PARK
SUITE 200
IRVINE CALIFORNIA 92614

MARK	DATE	DESCRIPTION
6	10/99	AS BUILT SHOWN

REVISIONS

PREPARED UNDER RESPONSIBLE CHARGE OF
RICHARD A HART RCE 39595 EXP 12 31 97 CIVIL
RICHARD A HART RCE 39595 EXP 12 31 97
DATE 10/8/96

ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY

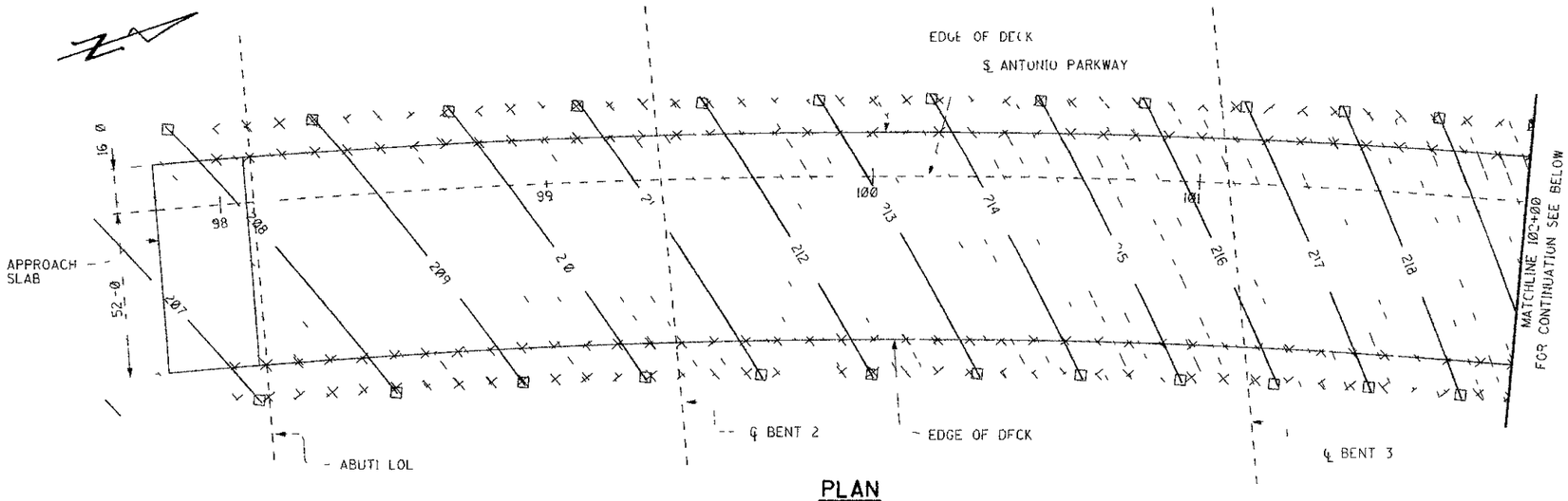
ANTONIO PARKWAY
BRIDGE OVER
SAN JUAN CREEK

STRUCTURE PLAN NO. 2

4/27

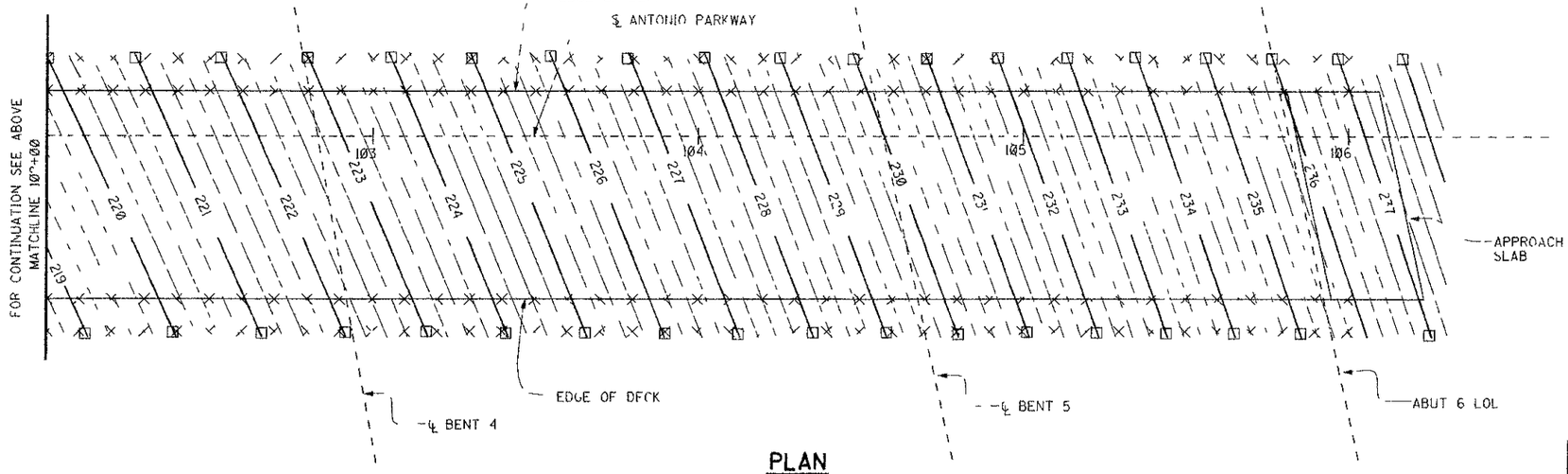
DESIGNED Steve A. Whitaker
DRAWN L. West
CHECKED R. Hart
SCALE AS SHOWN
DATE
DRAWING NO
SHEET 52 OF 126

DR 3 (16158)



PLAN

1"=20'



PLAN

1"=20'

LEGEND

- ∨ - INDICATES 10' INTERVALS ALONG STATION LINE
- □ - INDICATES EVEN FOOT CONTOURS

NOTES

1. CONTOURS DO NOT INCLUDE CAMBER
2. CONTOUR INTERVAL IS 0.25 FEET

DR 3 (16158)
Sh 5 of 16

REVISED [illegible]

½ 0 1 2
3 inches on original drawing

ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY
BRIDGE OVER
SAN JUAN CREEK

DECK CONTOURS

5/27

MARK	DATE	DESCRIPTION
REVISIONS		

PREPARED UNDER RESPONSIBLE CHARGE OF

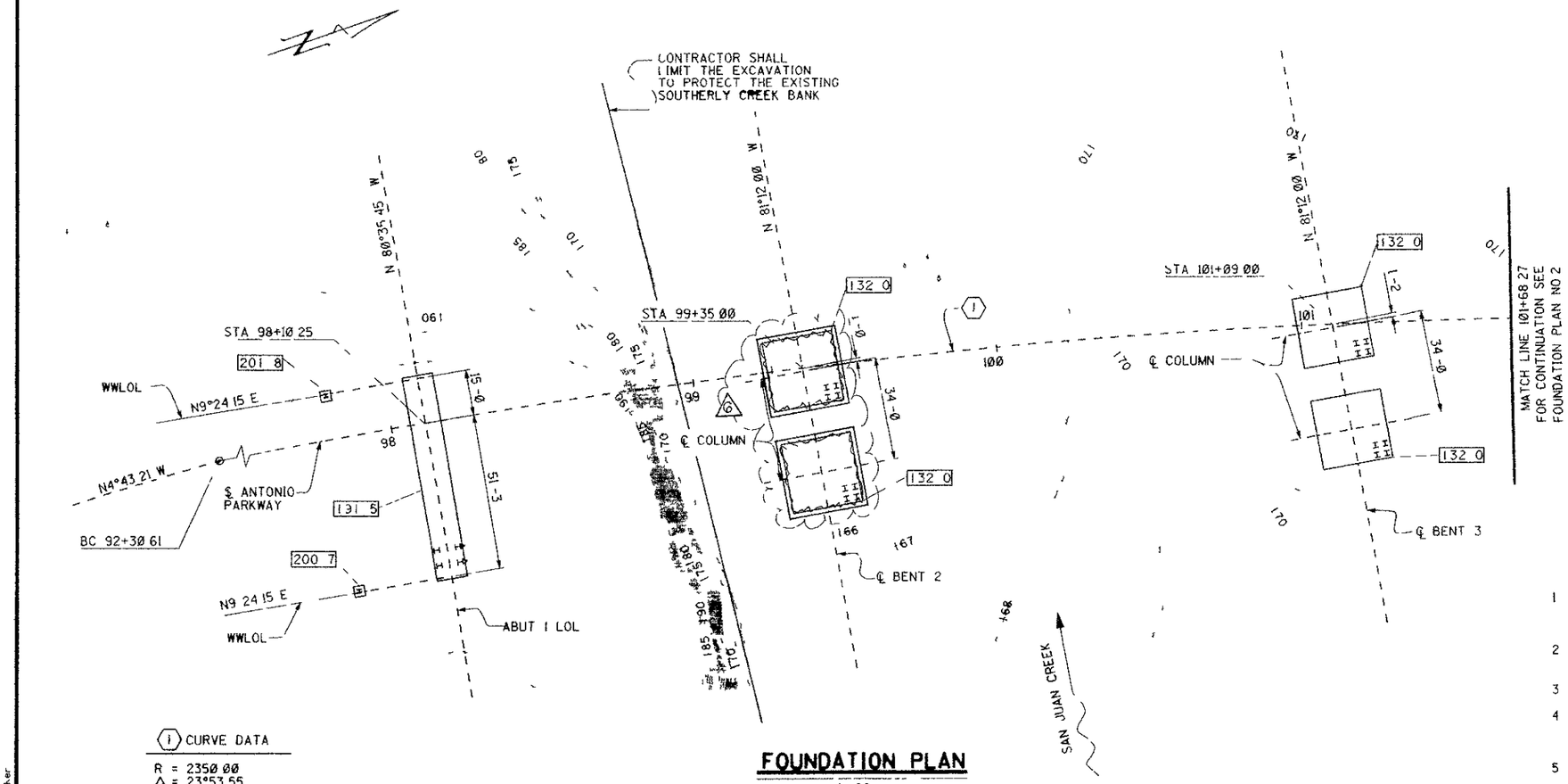
Richard A. Hart
No. C 039595
Exp. 12-31-97
CIVIL
STATE OF CALIFORNIA
9/20/96
RICHARD A. HART
RCE 39595 (EXP 12 31 97)
DATE

DESIGNED Steve A. Whitaker
DRAWN L. West
CHECKED R. Hart
SCALE AS SHOWN
DATE
DRAWING NO
SHEET 53 OF 126

PREPARED BY
HNTB
36 EXECUTIVE PARK
SUITE 200
IRVINE CALIFORNIA 92614

BR # 55C0628

DR 3 (16158)



LEGEND

= INDICATES BOTTOM OF FOOTING ELEVATION

⊢ OR H = DENOTES PILES ALL PILES NOT SHOWN FOR CLARITY

BENCH MARK

O C S BENCHMARK Y-312
RECOVERY NOTE BY US GEOLOGICAL SURVEY 1968
60 3 MILES NORTHEAST ALONG ORTEGA HIGHWAY (STATE HIGHWAY 74) FROM IT S INTERSECTION WITH THE SAN DIEGO FREEWAY (INTERSTATE 5) TO THE BRIDGE OVER SAN JUAN CREEK THENCE Ø 6 OF A MILE EAST TO THE WEST END OF A DEEP CUT AT THE CURVE IN THE HIGHWAY, 30 FT WEST OF A 18 INCH CORRUGATED METAL PIPE CULVERT 29 FT SOUTH OF THE CENTERLINE OF THE HIGHWAY 9 FT EAST OF A FENCE CORNER 1 FT NORTH OF THE FENCE SET IN THE TOP OF A CONCRETE POST
NGVD 29/1995 O C S ADJUSTMENT
(LOCAL MEAN SEA LEVEL) ELEVATION (FT) =282 478

① CURVE DATA

R = 2350 00
Δ = 23°53 55
L = 980 21

FOUNDATION PLAN

1 =20

NOTES

1 ELEVATIONS SHOWN ARE BASED UPON NGVD29/1995 O C S ADJUSTMENT (LOCAL MEAN SEA LEVEL) VERTICAL DATUM

2 BASIS OF BEARINGS IS CALIFORNIA STATE COORDINATE SYSTEM OF 1983

3 SEE ROAD PLANS FOR DETAILS NOT SHOWN

4 THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES BEFORE EXCAVATION AND PILE DRIVING BEGINS

5 CONTOURS SHOWN ARE ORIGINAL GROUND CONTOUR INTERVAL IS 10 FEET

PILE DATA

LOCATION	TYPE	DESIGN LOADING (SERVICE LOAD)	SPECIFIED TIP ELEVATION
ABUT 1 & WW	HP 10 X 57	70 TONS	160 0
BENT 2	HP 14 X 89	100 TONS	81 0
BENT 3	HP 14 X 89	100 TONS	81 0
BENT 4	HP 14 X 89	100 TONS	94 0
BENT 5	HP 14 X 89	100 TONS	126 0
ABUT 6 & WW	HP 10 X 57	70 TONS	158 0

RECORD DRAWING

DR 3 (16158)
hea 5 Of 126

½ 0 1 2
3 inches on original drawing

BR # 55C 0628

HOFFMAN M CORMICK & URBAN I C J
GEOTECHNICAL PROFESSIONAL — 9/23/96 APPROVAL DATE

PLAN PREPARED b
HNTB
44 EXECUTIVE PARK SUITE 200 IRVINE CALIFORNIA 92614

MARK	DATE	DESCRIPTION
6	11/00	AS BUILT SHOWN

REVISIONS

PREPARED UNDER RESPONSIBLE CHARGE OF
Richard A Hart
RICHARD A HART RCE 29596 (EXP 12-31-97) — 9/20/96 DATE

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY
ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK
FOUNDATION PLAN NO. 1
6/27

DESIGNED Steve A. Whitaker
DRAWN L. West CHECKED R. Hart
SCALE AS SHOWN DATE DRAWING NO 54 OF 126

DR. 3 16158

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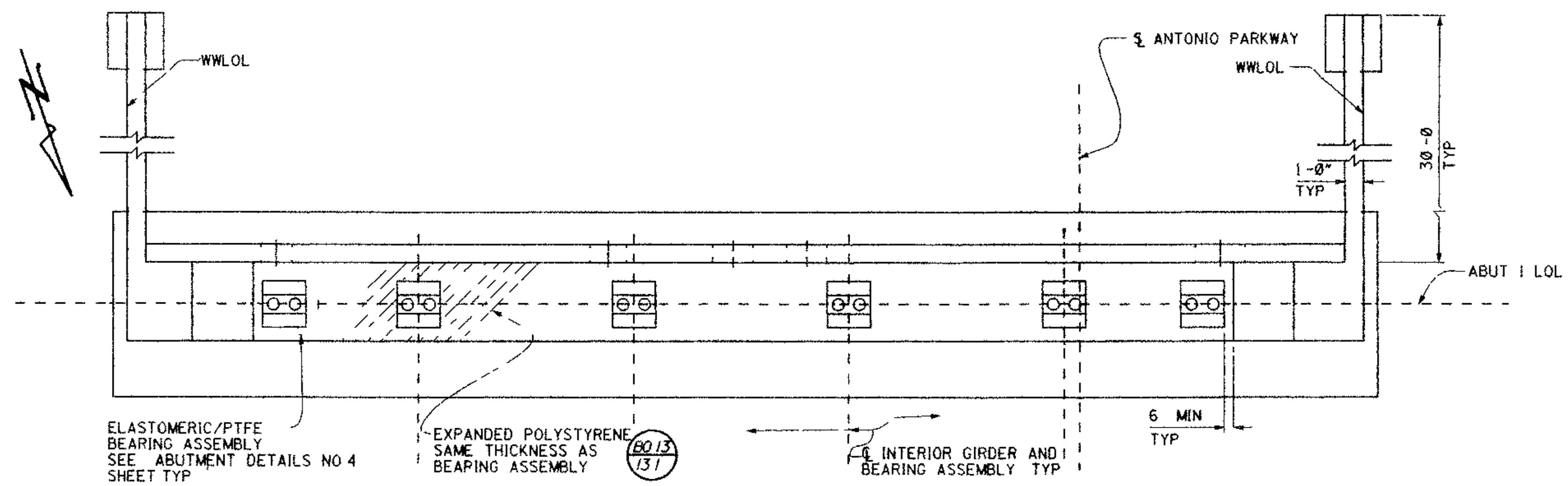
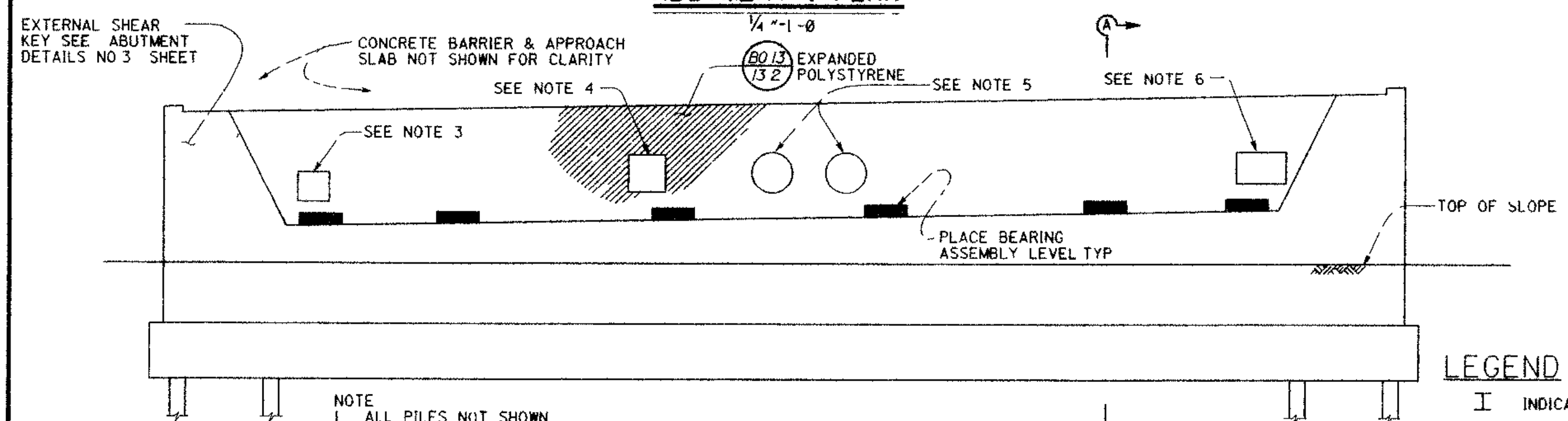


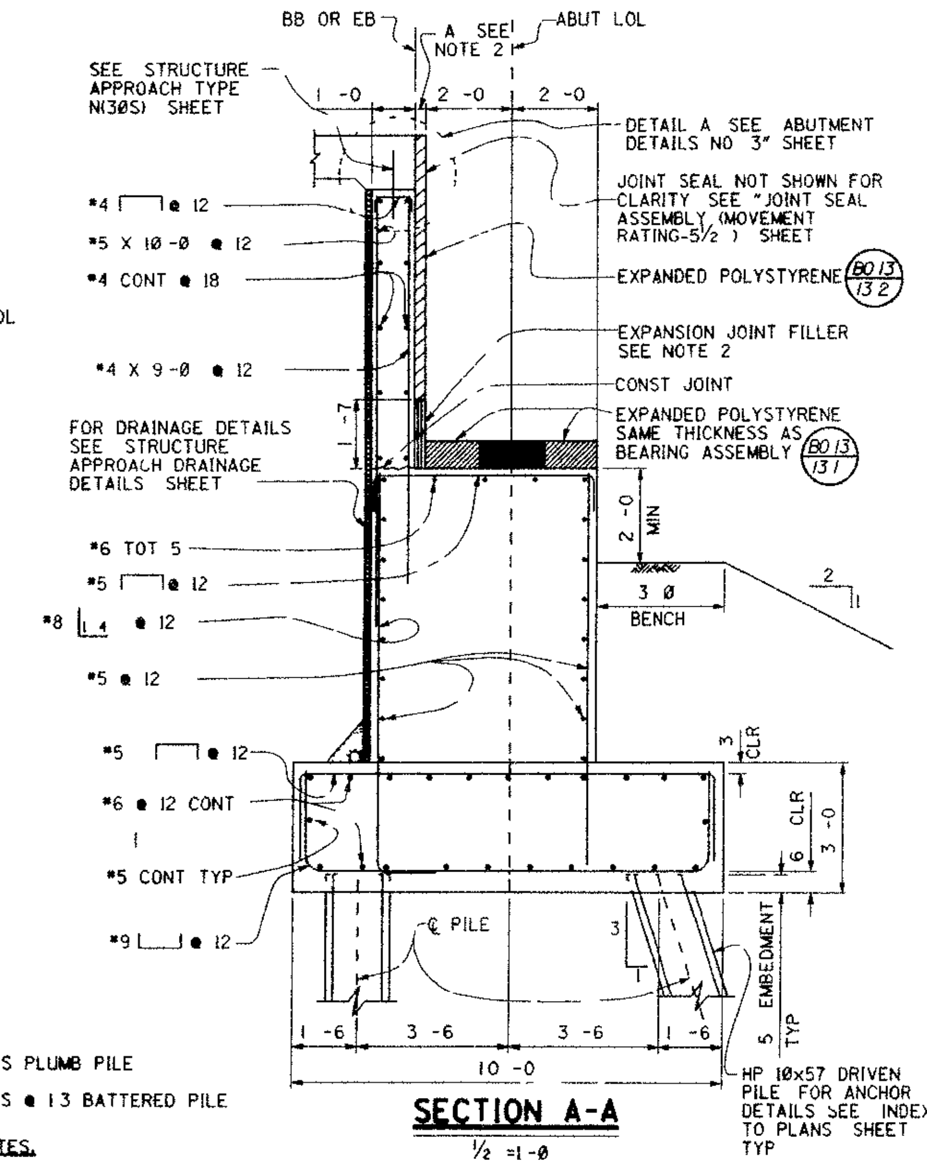
ABUTMENT 1 PLAN

¼"=1-0



ABUTMENT 1 ELEVATION

¼ =1-0"



SECTION A-A

½ =1-0

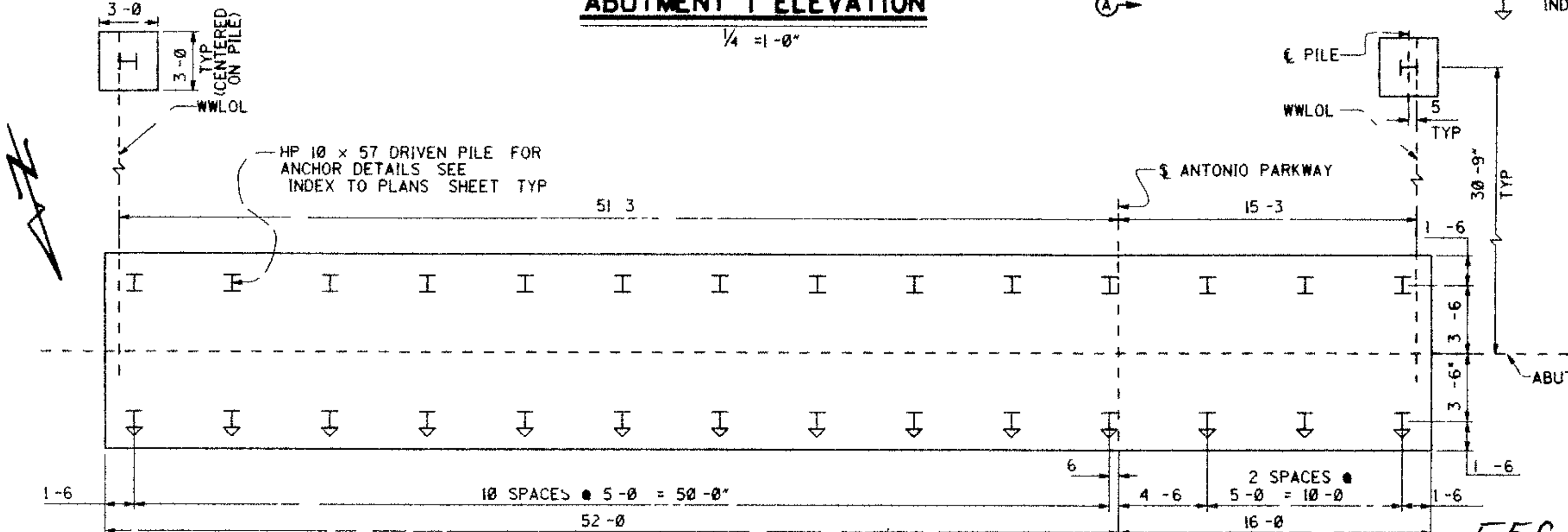
LEGEND

- ⌶ INDICATES PLUMB PILE
- ⌶ INDICATES @ 1:3 BATTERED PILE

NOTES

1. FOR DETAILS NOT SHOWN SEE "ABUTMENT DETAILS NO 2 3 4" SHEETS
2. USE DIMENSION A SHOWN ON "JOINT SEAL ASSEMBLY (MOVEMENT RATING - 5½) SHEET FOR EXPANSION JOINT THICKNESS
3. 19 Hx20 W UTILITY OPENING IN ABUTMENT BACKWALL (SDG&E) FOR LOCATION & DETAILS, SEE TYPICAL SECTION" SHEET STEEL CASING NOT REQUIRED UNDER APPROACH SLAB
4. 24"Hx24 W UTILITY OPENING (PAC BELL) FOR LOCATION & DETAILS SEE TYPICAL SECTION SHEET STEEL CASING NOT REQUIRED UNDER APPROACH SLAB
5. 26 DIA UTILITY OPENING IN ABUTMENT BACKWALL (SMWD) FOR LOCATION & DETAILS SEE "TYICAL SECTION" AND "SMWD UTILITY DETAILS" SHEETS
6. 20"Hx32"W UTILITY OPENING (SMWD) FOR LOCATION & DETAILS SEE "TYPICAL SECTION' AND "SMWD UTILITY DETAILS" SHEETS

DR 3 (161,8) Sheet 6 of 126



ABUTMENT 1 PILE LAYOUT

¼ =1-0

RECORD DRAWINGS

55C0628

½ 0 1 2 3 inches on original drawing

PLANS PREPARED BY HNTB 16 EXECUTIVE PARK SUITE 300 IRVINE, CALIFORNIA 92614

MARK	DATE	DESCRIPTION
REVISIONS		

PREPARED UNDER RESPONSIBLE CHARGE OF RICHARD A. HART RCE 38696 (EXP 12-31-97) DATE

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK

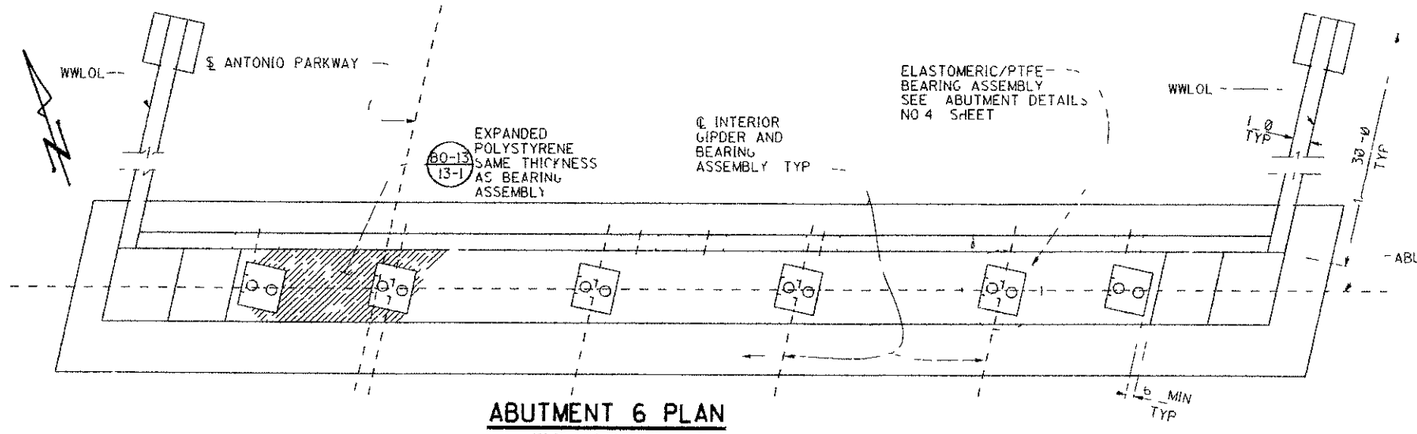
ABUTMENT DETAILS NO 1

8/27

DESIGNED Steve A. Whitaker — DRAWN L. West — CHECKED R. Hart — SCALE AS SHOWN — SHEET 56 OF 126

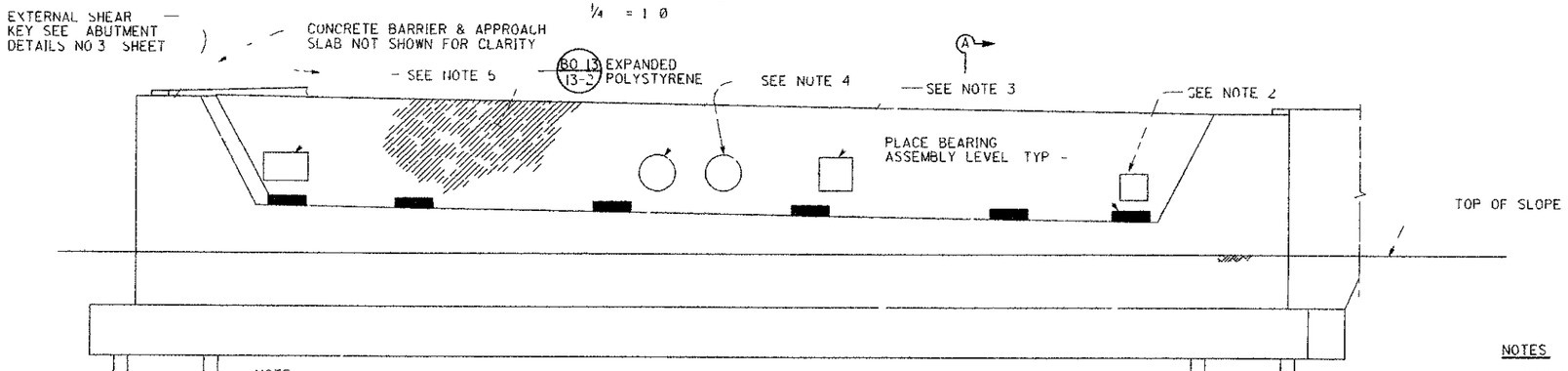
DR 3 (U4158)

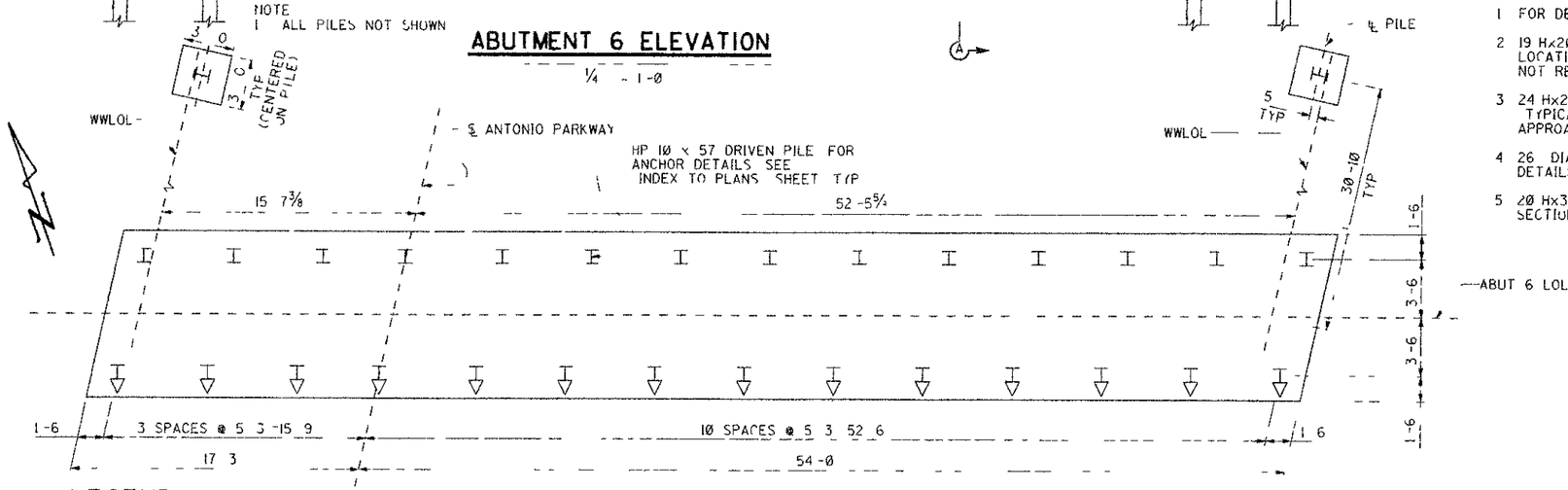
Design filename ... Plotted on 08 OC 1996 08:44 Generated by ...Whitaker



ABUTMENT 6 PLAN

¼ = 1 Ø





ABUTMENT 6 ELEVATION

¼ = 1-0

ABUTMENT 6 PILE LAYOUT

¼ = 1-0

LEGEND

I = INDICATES PLUMB PILE

I = INDICATES BATTERED PILE

NOTES

1 FOR DETAILS NOT SHOWN SEE ABUTMENT DETAILS NO 1 3 4 SHEETS

2 19 Hx20 W UTILITY OPENING IN ABUTMENT BACKWALL (SDG&E) FOR LOCATION & DETAILS SEE TYPICAL SECTION SHEET STEEL CASING NOT REQUIRED UNDER APPROACH SLAB

3 24 Hx24 W UTILITY OPENING (PAC BELL) FOR LOCATION & DETAILS SEE TYPICAL SECTION SHEET STEEL CASING NOT REQUIRED UNDER APPROACH SLAB

4 26 DIA UTILITY OPENING IN ABUTMENT BACKWALL (SMWD) FOR LOCATION & DETAILS SEE TYICAL SECTION AND SMWD UTILITY DETAILS SHEETS

5 20 Hx32 W UTILITY OPENING (SMWD) FOR LOCATION & DETAILS SEE TYPICAL SECTION AND SMWD UTILITY DETAILS SHEETS

DP 3 (16159) Sheet 57 Of 126

1 ½ 0 1 2
3 inches on original drawing

BR # 55C0628

PLAN PREPARED BY
HNTB
24 EXECUTIVE PARK SUITE 200 IRVINE CALIFORNIA 92614

MARK	DATE	DESCRIPTION
REVISIONS		

PREPARED UNDER RESPONSIBLE CHARGE OF
RICHARD A HART NO. C 39595 EXP 12-31-97 CIVIL STATE OF CA
DATE 12/2/96
RICHARD A HART RCE 39595 (EXP 12 31 97)

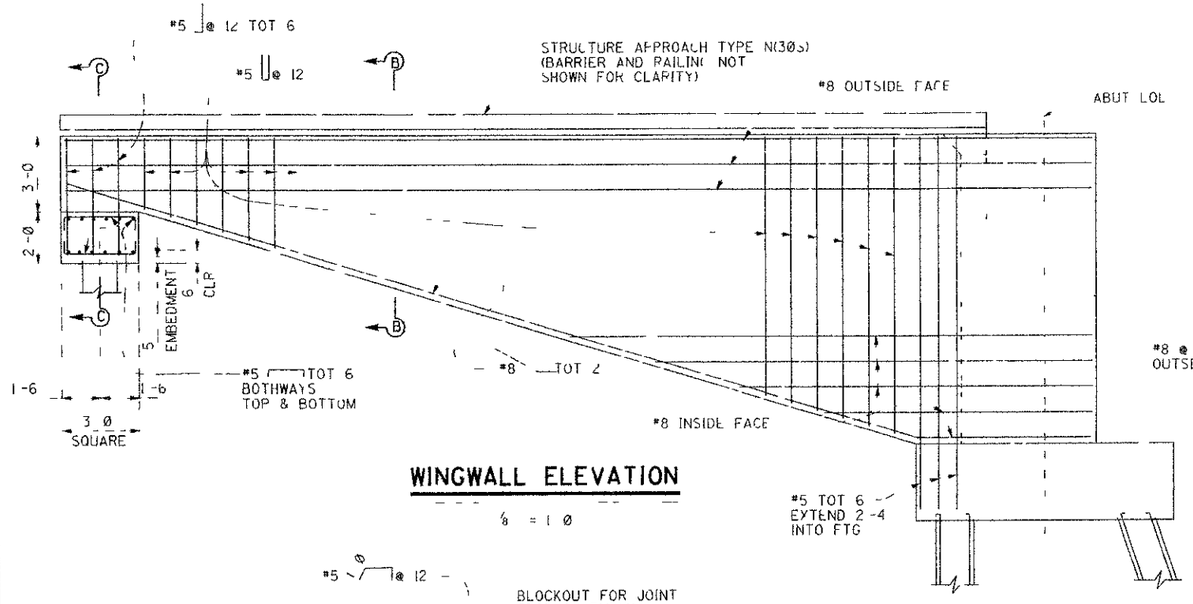
ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY
ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK

ABUTMENT DETAILS NO 2

9/97

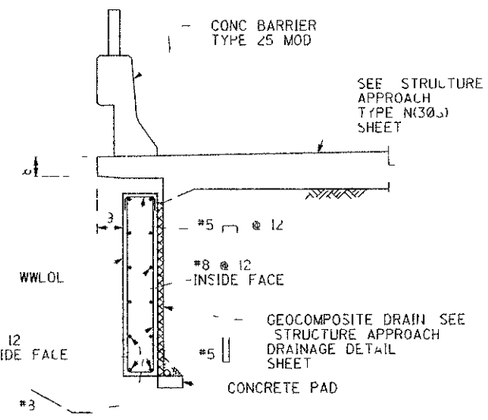
DESIGNED Steve A. Whitaker		SHEET
DRAWN L. West	CHECKED R. Hart	57
SCALE AS SHOWN	DATE	DRAWING NO OF 126

DP 3 (16159)



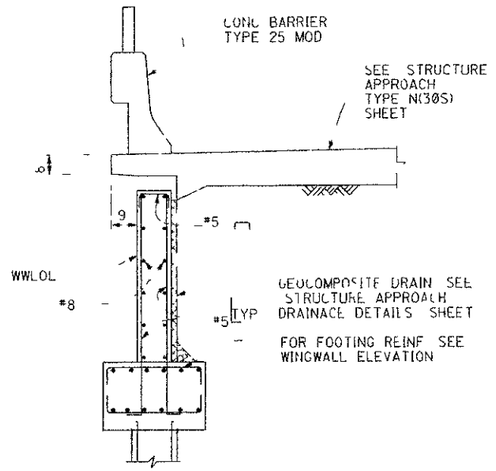
WINGWALL ELEVATION

1/8 = 1'-0



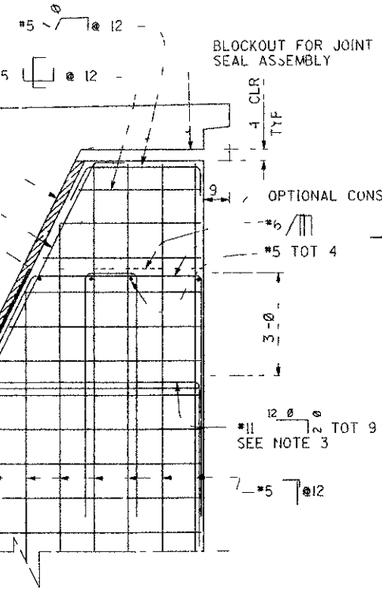
SECTION B-B

1/4 = 1'-0

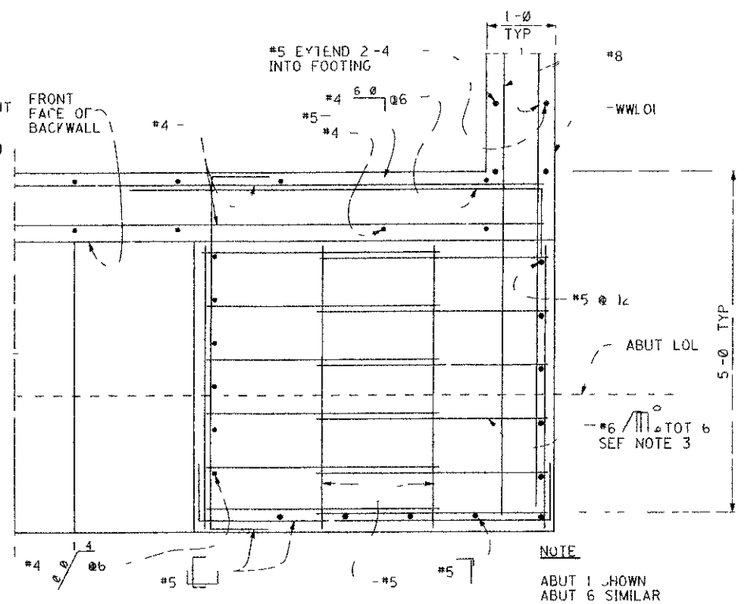


SECTION C-C

1/2 = 1'-0



PART ELEVATION



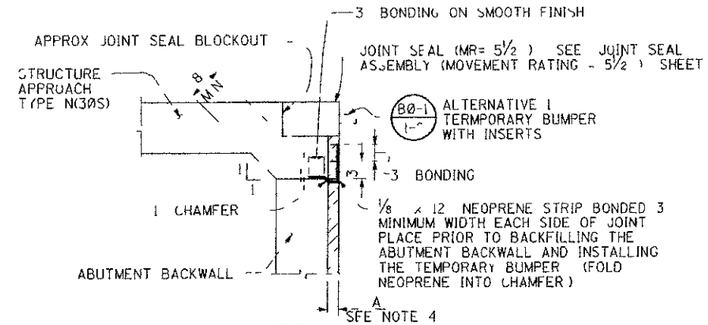
SECTION D-D

NOTE

ABUT 1 SHOWN
ABUT 6 SIMILAR

EXTERNAL SHEAR KEY

1'-1'-0



DETAIL A

NO SCALE

NOTES

1 FOR DETAILS NOT SHOWN SEE ABUTMENT DETAILS NO 12 & 4 SHEETS

2 3 EXPANDED POLYSTRENE INCLUDING ½ EXPANSION JOINT FILLER

3 BEGIN SPACING REINFORCEMENT AT THE FRONT FACE OF THE BACKWALL

4 USE DIMENSION A SHOWN ON JOINT SEAL ASSEMBLY SHEET FOR EXPANSION JOINT THICKNESS

DR 3 (16158)
Sheet 55 Of 126

1 ½ 0 1 2
3 inches on original drawing

BR #55C 0628

PLAN PLACED AT

HNTB
36 EXECUTIVE PARK
SUITE 200
IRVINE CALIFORNIA 92614

MARK	DATE	DESCRIPTION
REVISIONS		

PREPARED UNDER RESPONSIBLE CHARGE OF

Richard A. Hart
No. C 039596
Exp. 12-31-07
CIVIL
STATE OF CALIFORNIA
RICHARD A HART
RCE 39596 (EXP 12-31-07)
DATE 9/20/06

ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY

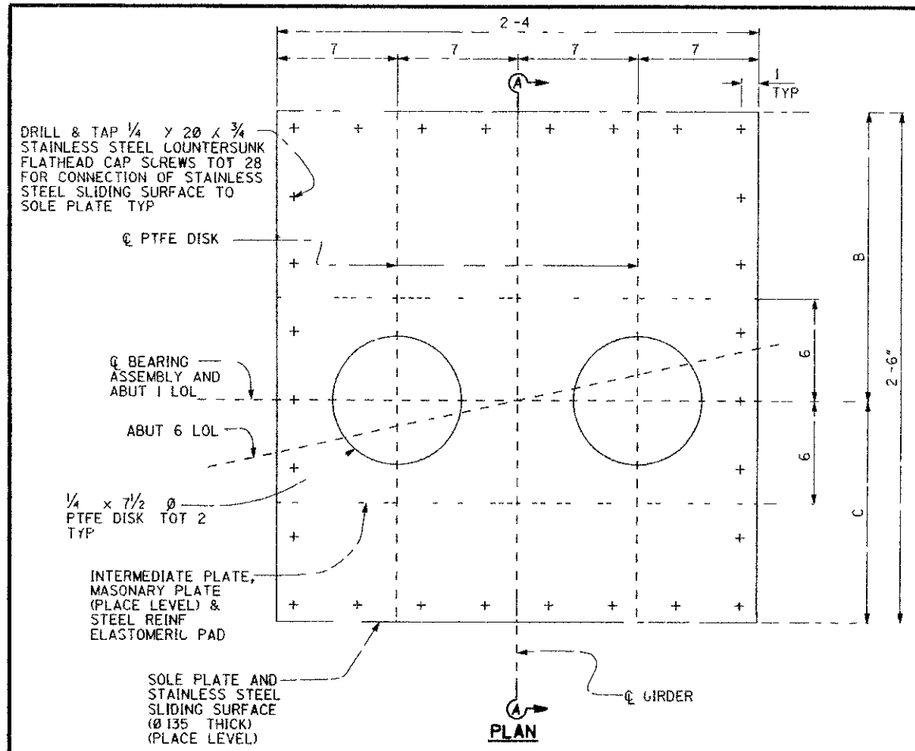
ANTONIO PARKWAY
BRIDGE OVER
SAN JUAN CREEK

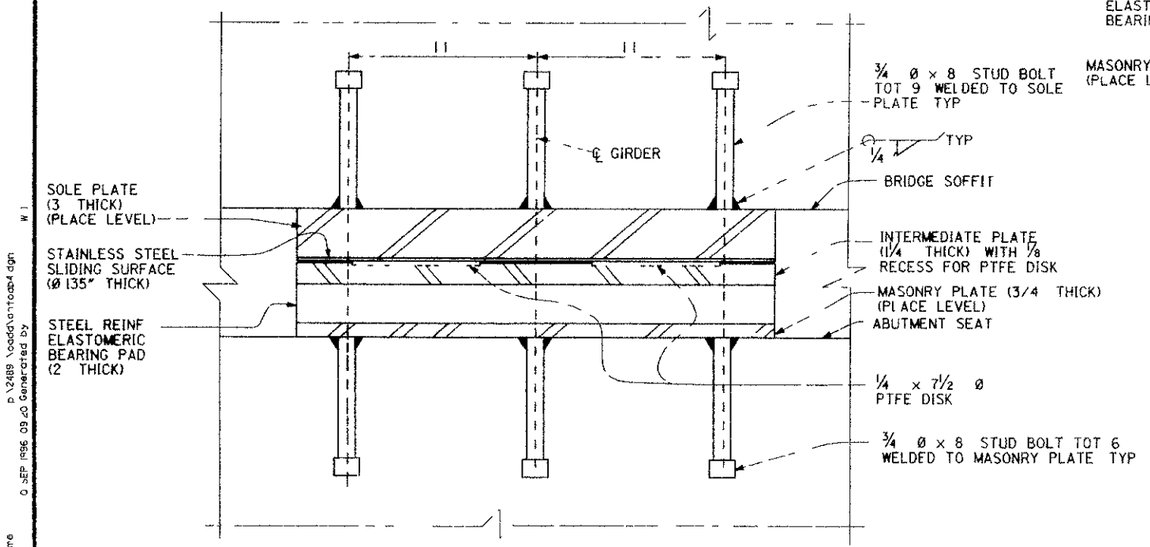
ABUTMENT DETAILS NO 3

10/27

DESIGNED	Steve A. Whitaker		SHEET
DRAWN	L. West	CHECKED R Hart	58
SCALE AS SHOWN	DATE	DRAWING NO	OF 126

DR 3 (16158)

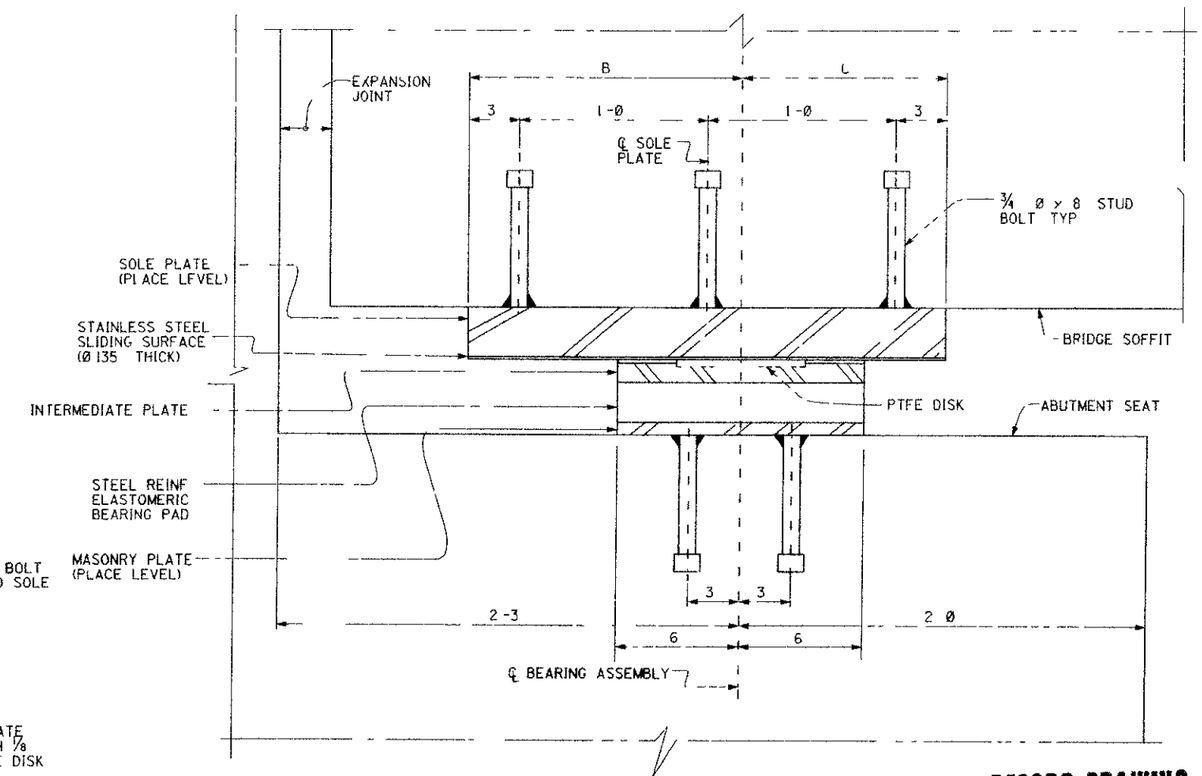




ELEVATION

DESIGN VALUES	
MAXIMUM VERTICAL LOAD (KIPS PER ASSEMBLY)	MINIMUM VERTICAL LOAD (KIPS PER ASSEMBLY)
260	207

SOLE PLATE PLACEMENT						
LOCATION	B DIMENSION			C DIMENSION		
	WINT	SUMM	SPR/FALL	WINT	SUMM	SPR/FALL
ABUTMENT 1	1 -7 1/4	1 -5	1 -6	10 3/4	1 -1	1 -0
ABUTMENT 6	1 -7 1/4	1 -5	1 -6	10 3/4	1 -1	1 -0



SECTION A-A

RECORD DRAWING

DR 3 (16158)
Sheet 59 Of 126

1/2 0 1 2
3 inches on original drawing

ELASTOMERIC/PTFE BEARING ASSEMBLY

3 =1 -0

BR # 55C 0628

PLANS PREPARED BY
HNTB
86 EXECUTIVE PARK
SUITE 300
IRVINE, CALIFORNIA 92614

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY
BRIDGE OVER
SAN JUAN CREEK

ABUTMENT DETAILS NO. 4

11/27

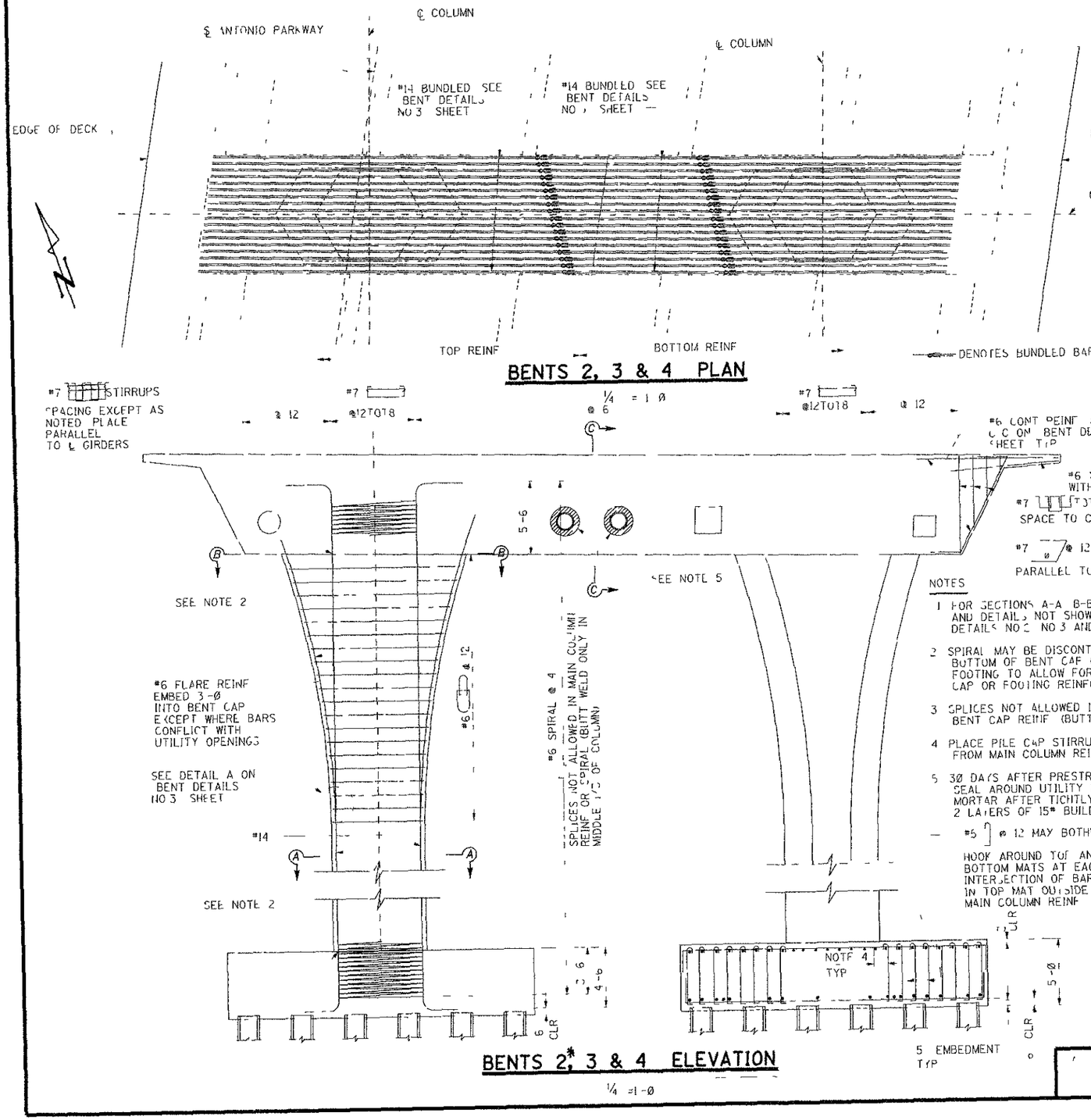
MARK	DATE	DESCRIPTION
REVISIONS		

PREPARED UNDER RESPONSIBLE CHARGE OF
RICHARD A. HART
RCE 39596 EXP 12 31 97
DATE 9/26/96

DESIGNED Steve A. Whitaker
DRAWN L. West
CHECKED R. Hart
SCALE AS SHOWN
DATE
DRAWING NO
SHEET 59 OF 126

DR 8 (16158)

Design Filename p:\2489\loaddiv\load24.dgn W1
Plotted on 05 SEP 1996 09:20 Generated by

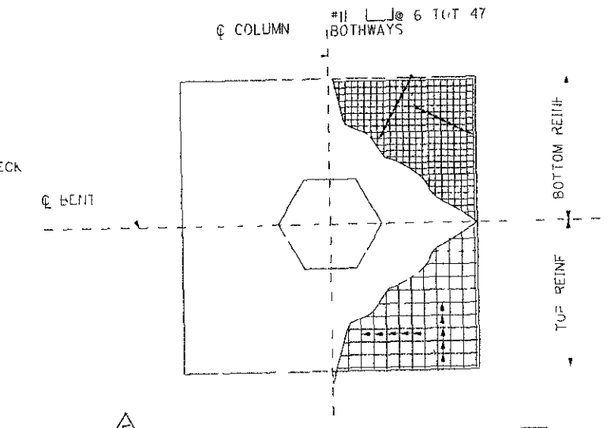


BENTS 2, 3 & 4 PLAN

1/4 = 1 Ø

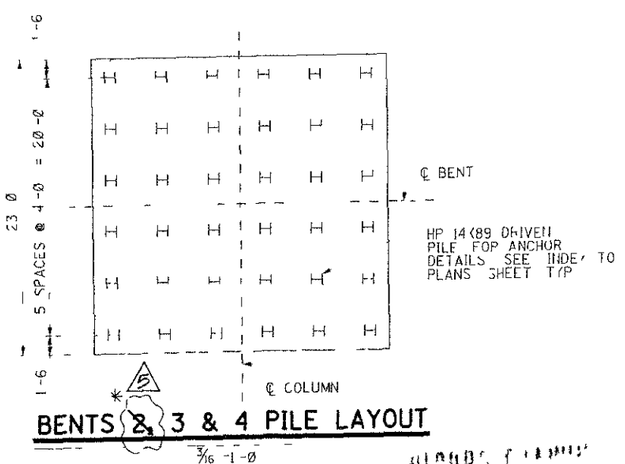
BENTS 2, 3 & 4 ELEVATION

1/4 = 1-Ø



BENTS 2, 3 & 4 FOOTING REINFORCEMENT

3/16 -1 Ø



BENTS 2, 3 & 4 PILE LAYOUT

3/16 -1-Ø

BR #55 C 0628

* SEE BENT 2 FOOTING REINFORCEMENT & PILE LAYOUT ON BENT DETAILS NO 4 SHEET

1/2 0 1 2
3 inches on original drawing

HNTB
36 EXECUTIVE PARK
SUITE 200
IRVINE CALIFORNIA 92614

MARK	DATE	DESCRIPTION
5	10/97	ADDITION OF CLEAR @ BENT 2

REVISIONS

PREPARED UNDER RESPONSIBLE CHARGE OF
RICHARD A HART
RCE 39995 (EXP 12 31 97)
CIVIL
STATE OF CALIF
11/21/97
DATE

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY
BRIDGE OVER
SAN JUAN CREEK

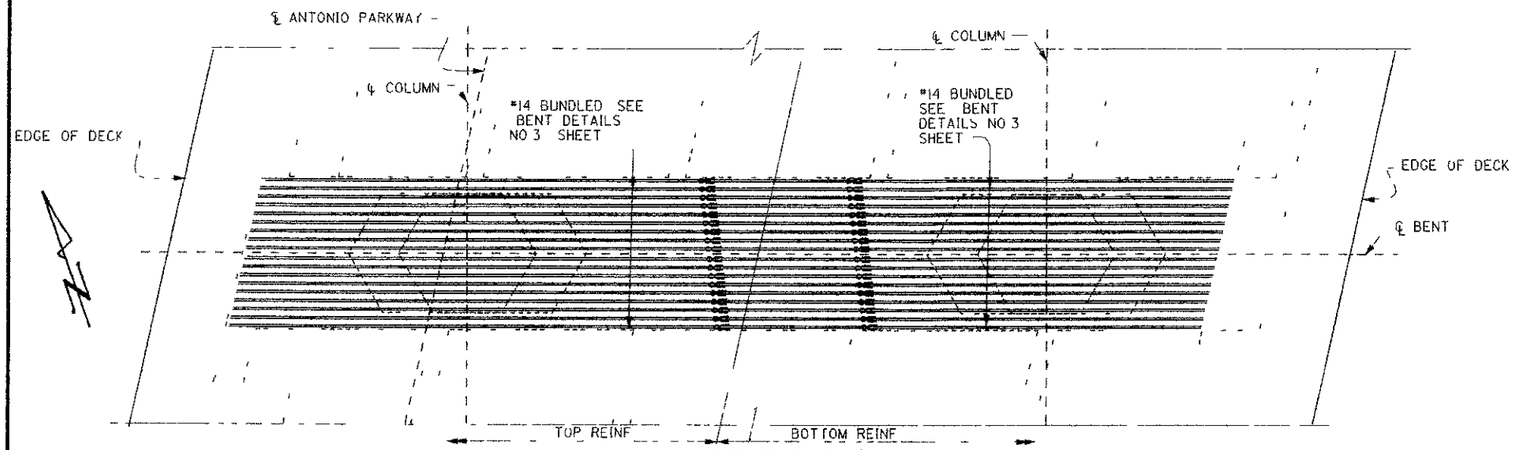
BENT DETAILS NO 1

1 DR-3 (16158)
sheet 60 OF 126

12/97

DESIGNED	Steve A Whitaker	CHECKED	R Hart	SHEET
DRAWN	L We-t			60
DATE	AS SHOWN	DATE	DRAWING NO	OF 126

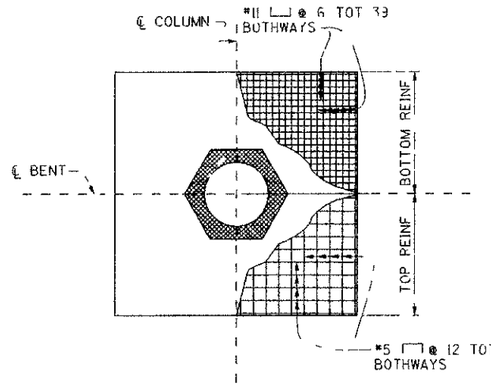
DR-3 (16158) sht



BENT 5 PLAN

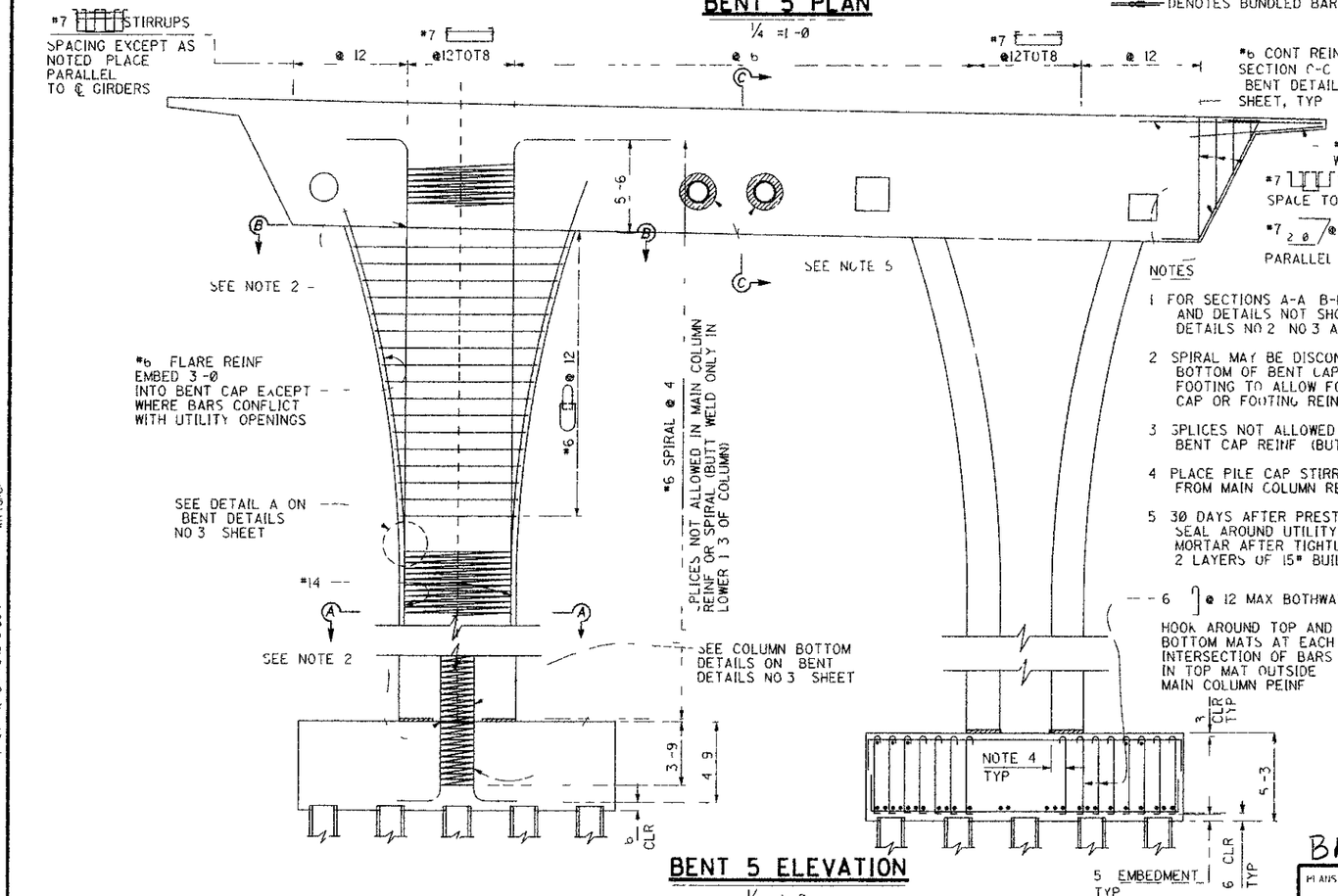
1/4 =1 -0

DENOTES BUNDLED BAR



BENT 5 FOOTING REINFORCEMENT

3/16 =1 -0



BENT 5 ELEVATION

1/4 =1 -0

NOTES

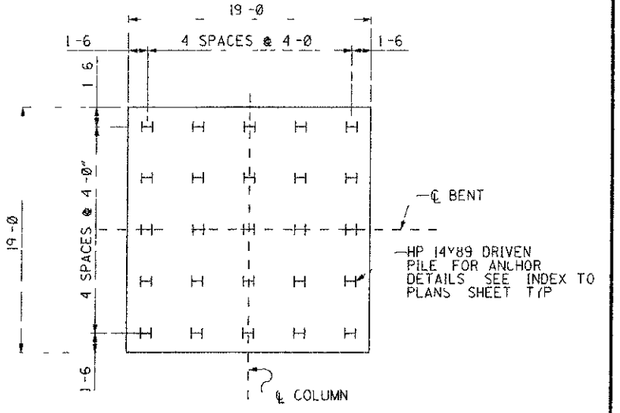
1 FOR SECTIONS A-A B-B & C AND DETAILS NOT SHOWN SEE BENT DETAILS NO 2 NO 3 AND NO 4 SHEETS

2 SPIRAL MAY BE DISCONTINUOUS AT BOTTOM OF BENT CAP OR TOP OF FOOTING TO ALLOW FOR PLACING CAP OR FOOTING REINFORCEMENT

3 SPLICES NOT ALLOWED IN MAIN BENT CAP REINF (BUTT WELD ONLY)

4 PLACE PILE CAP STIRRUPS 6 MAX FROM MAIN COLUMN REINFORCEMENT

5 30 DAYS AFTER PRESTRESSING IS COMPLETE SEAL AROUND UTILITY WITH CONCRETE OR MORTAR AFTER TIGHTLY WRAPPING WITH 2 LAYERS OF 15# BUILDING PAPER



BENT 5 PILE LAYOUT

3/16 =1 -0

DR 3 (16158)
Sh 61 Of 126

REFERENCE DRAWING

1/2 0 1 2

3 Inches on original drawing

BR #55C 062B

PLANS PREPARED BY
HNTB
36 EXECUTIVE PARK
SUITE 300
IRVINE CALIFORNIA 92614

ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY
BRIDGE OVER
SAN JUAN CREEK

BENT DETAILS NO 2

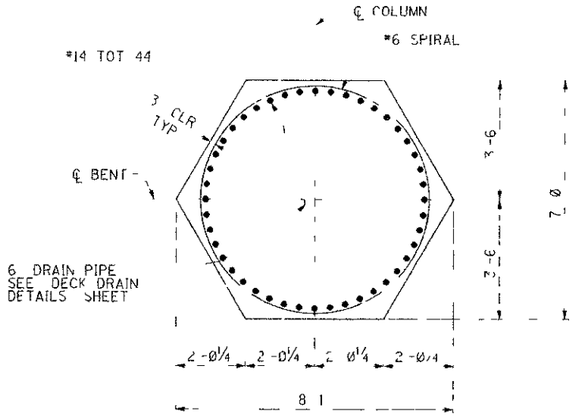
13/27

MARK	DATE	DESCRIPTION
REVISIONS		

PREPARED UNDER RESPONSIBLE CHARGE OF
Richard A. Hart
RICHARD A. HART
RCE 39595 (EXP 12 31-97)
DATE 12-31-97

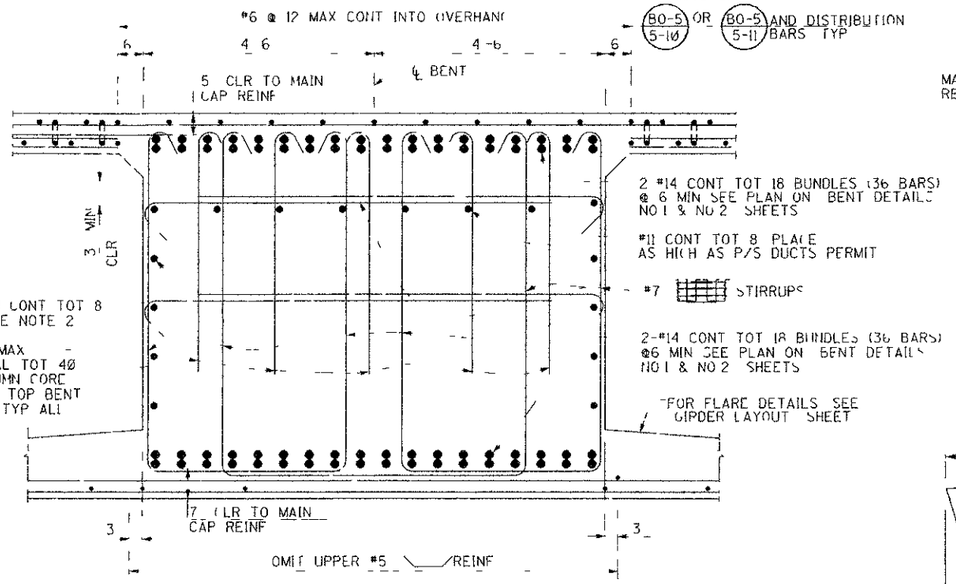
DESIGNED Steve A. Whitaker
DRAWN L. West
CHECKED R. Hart
SCALE AS SHOWN
DATE
DRAWING NO
SHEET 61 OF 126

DR 3 (16158)



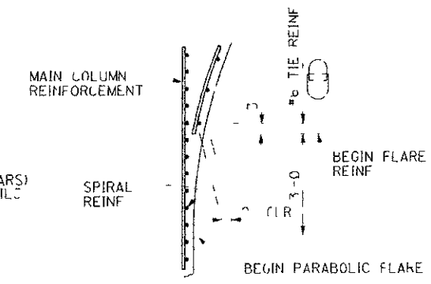
SECTION A-A

½ - 1 Ø



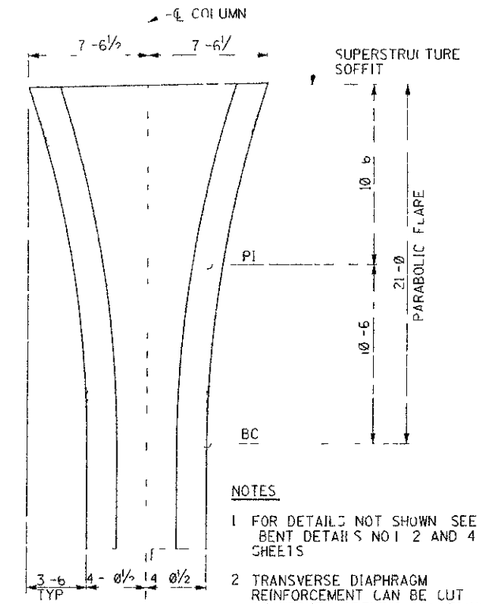
SECTION C-C

3/4 = 1-Ø



DETAIL A

NO SCALE



NOTES

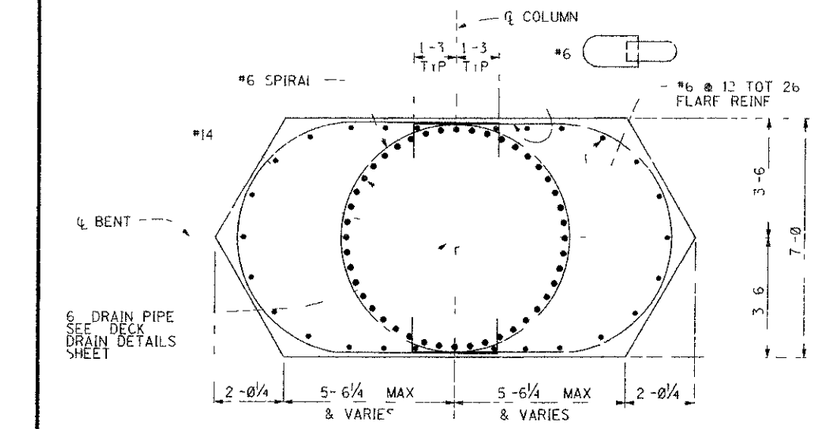
1 FOR DETAILS NOT SHOWN SEE BENT DETAILS NO 1 2 AND 4 SHEETS

2 TRANSVERSE DIAPHRAGM REINFORCEMENT CAN BE CUT AT UTILITY OPENING LOCATIONS

COLUMN GEOMETRICS

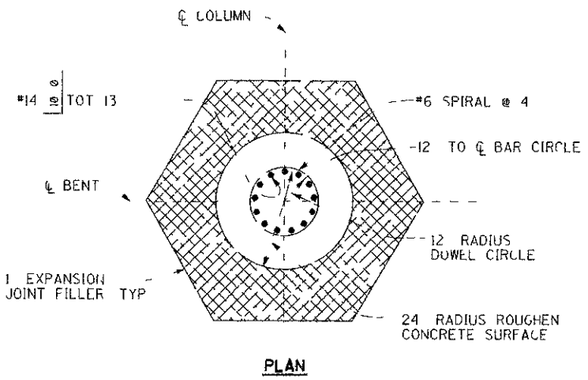
NO SCALE

DR 3 (16158) Sheet 6 Of 1 6



SECTION B-B

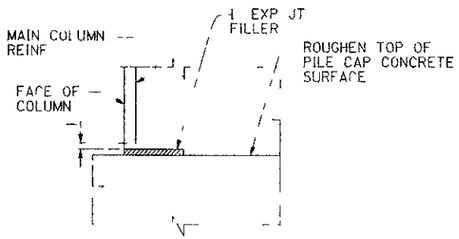
½ = 1-Ø



PLAN

BENT 5 COLUMN BOTTOM DETAILS

NO SCALE



BENT 5 PARTIAL ELEVATION

NO SCALE

BR #55C 06 28

PLAN PREPARED BY
HNTB
36 EXECUTIVE PARK
SUITE 200
IRVINE CALIFORNIA 92614

½ 0 1 2
3 inches on original drawing

MARK	DATE	DESCRIPTION
REVISIONS		

PREPARED UNDER RESPONSIBLE CHARGE OF

RICHARD A. HART RCE 39595 EXP 12-31-97 STATE OF CALIFORNIA

DATE 1/20/96

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

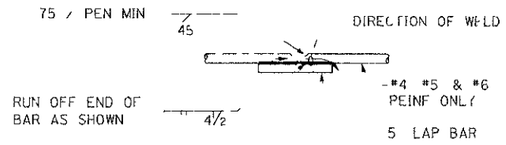
ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK

BENT DETAILS NO.3

14/27

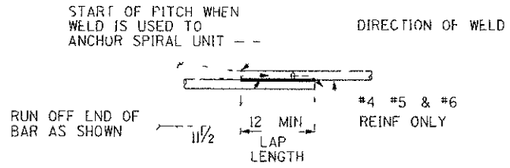
DESIGNED	Steve A Whitaker		SHEET
DRAWN	L. West	CHECKED R Hart	62
SCALE	DATE	DRAWING NO	OF 126
As SHOWN			

DR 3 (16158)



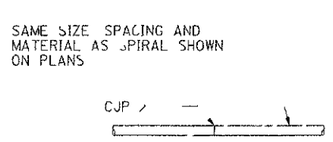
1 BUTT WELD TO BE MADE FIRST
2 BUTT WELD TO BE MADE IN FLAT OR HORIZ POSITION
3 LAP BAR TO BE CENTERED ON SPLICE
4 FLARE WELD TO BE MADE IN DIRECTION SHOWN
5 LAP BAR EQUAL SIZE TO PIRAL BAR

VEE GROOVE WELDED SPLICE



NOTE
FLARE WELD TO BE MADE IN DIRECTION SHOWN

WELDED LAP SPLICE AND ANCHOR

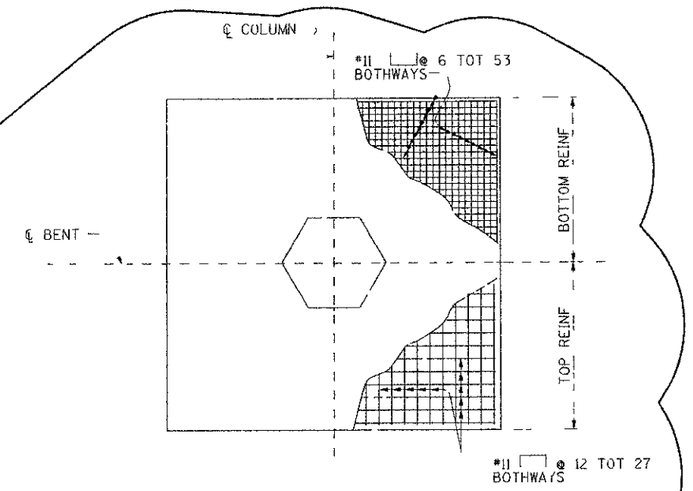


INDIVIDUAL HOOPS MADE CONTINUOUS WITH 100% PENETRATION WELDS MAY BE SUBSTITUTED FOR SPIRALS

BUTT WELDED CONTINUOUS HOOP

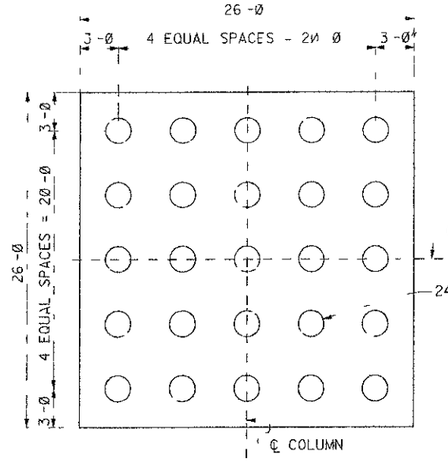
BAR SPIRAL SPLICE & SPIRAL ANCHOR AND HOOP DETAIL

NO SCALE



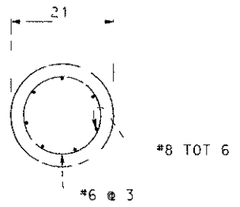
BENTS 2 FOOTING REINFORCEMENT

3/16 =1 Ø



BENTS 2 PILE LAYOUT

3/16 =1 -Ø



24" CIDH PILE SECTION

NTS
PILE LENGTH = 29 0'

½ 0 1 2
3 inches on original drawing

MARK	DATE	DESCRIPTION
5	10/97	ADDITION OF CIDH @ BENT 2

REVISIONS

ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY
BRIDGE OVER
SAN JUAN CREEK

BENT DETAILS NO 4
DR - (16158)
Sheet 61 of 176

15/27

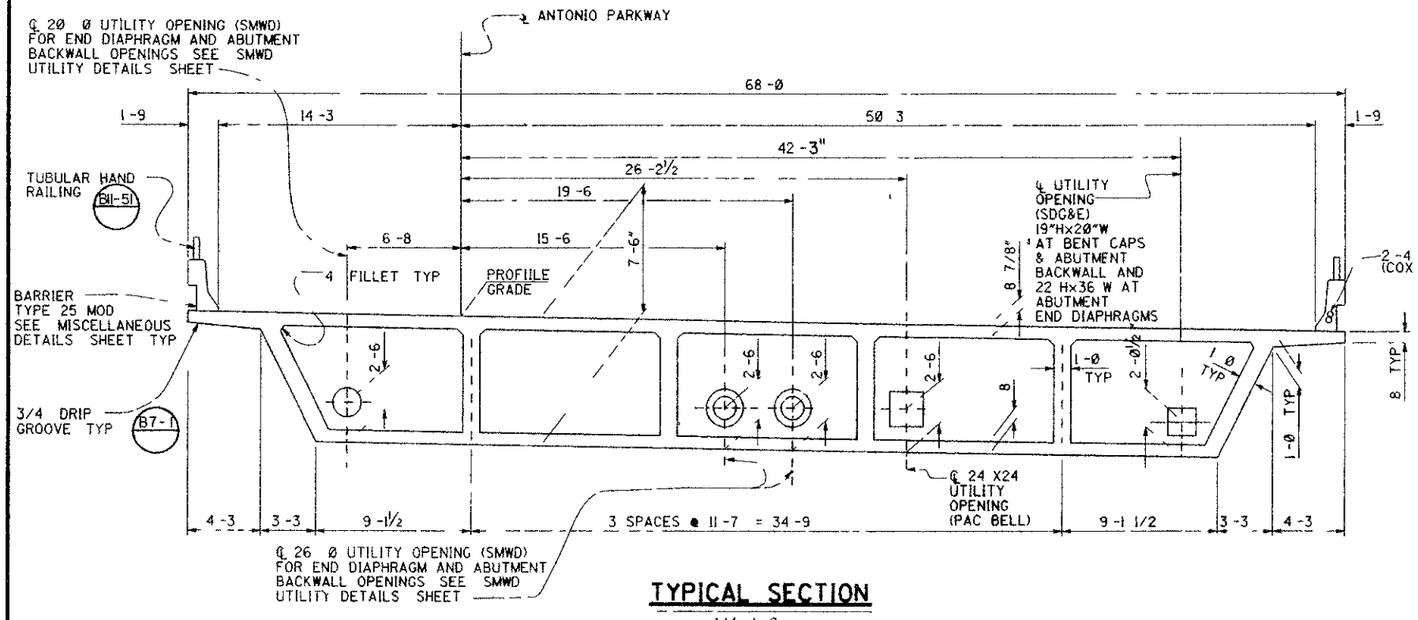
PREPARED UNDER RESPONSIBLE CHARGE OF
RICHARD A. HART
RCE 3 595 (EXP 6 31 97)
10/24/97
DATE

HNTB
36 EXECUTIVE PARK
SUITE 200
IRVINE CALIFORNIA 92614

DESIGNED Steve A. Whitaker
DRAWN L. West
CHECKED R. Hart
SCALE AS HOWN
DATE
DRAWING NO
SHEET 63 OF 126

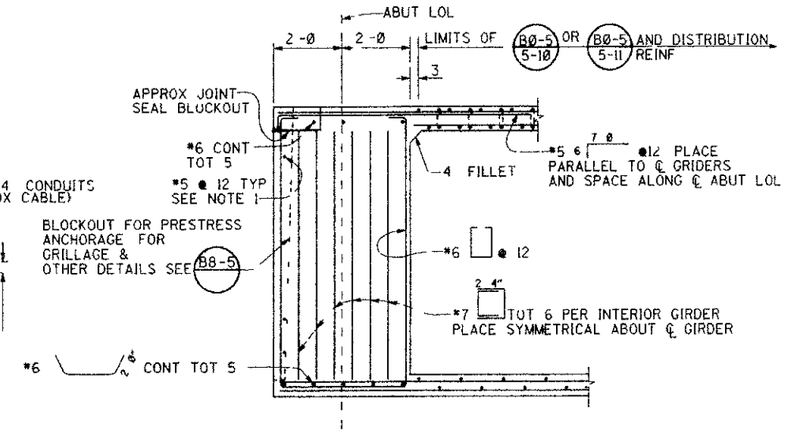
BR # 55C0628

DR-3 (16158)



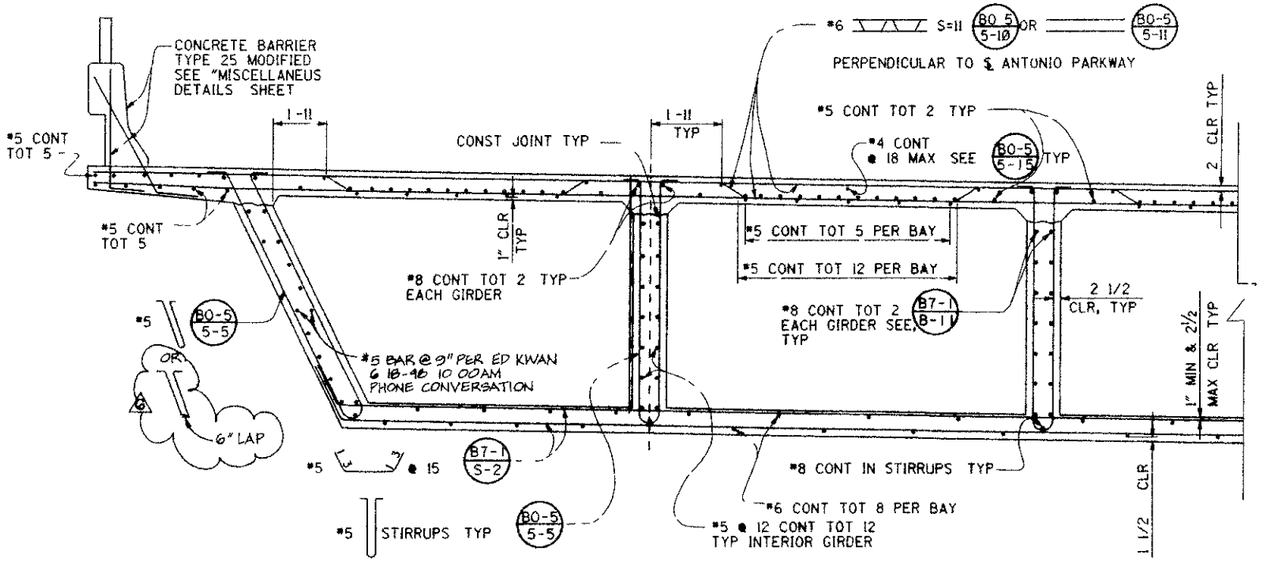
TYPICAL SECTION

1/4 =1 -Ø



END DIAPHRAGM (B8-5)

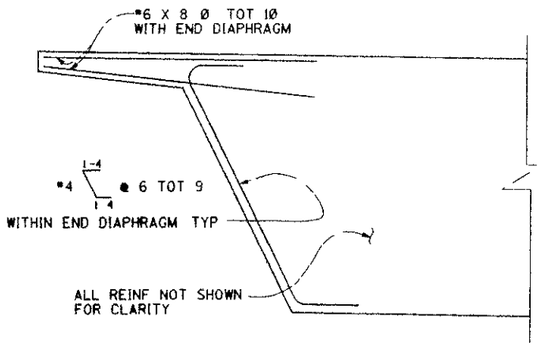
½ = 1 -Ø



PART TYPICAL SECTION

(B0-5 5-5) (B0-5 5-10) (B0 5 5-11) (B0-5 5 15) (B7-1 B-1) (B7-1 S-2)

½"-1 -Ø



END DIAPHRAGM FACIA

½ =1

NOTES

1 TRANSVERSE DIAPHRAGM REINFORCEMENT CONFLICTING WITH UTILITY OPENING LOCATIONS CAN BE CUT

DR 3 (161 8) Sheet 64 of 126

RECORD DRAWING

½ 0 1 2

3 inches on original drawing

MARK	DATE	DESCRIPTION
6	10/99	AS BUILT SHOWN

REVISIONS

PREPARED UNDER RESPONSIBLE CHARGE OF

RICHARD A HART RCE 39896 EXP 12-31-97

10/16/96 DATE

PLANS PREPARED B

HNTB

16 EXECUTIVE PARK SUITE 200 IRVINE, CALIFORNIA 92614

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK

TYPICAL SECTION

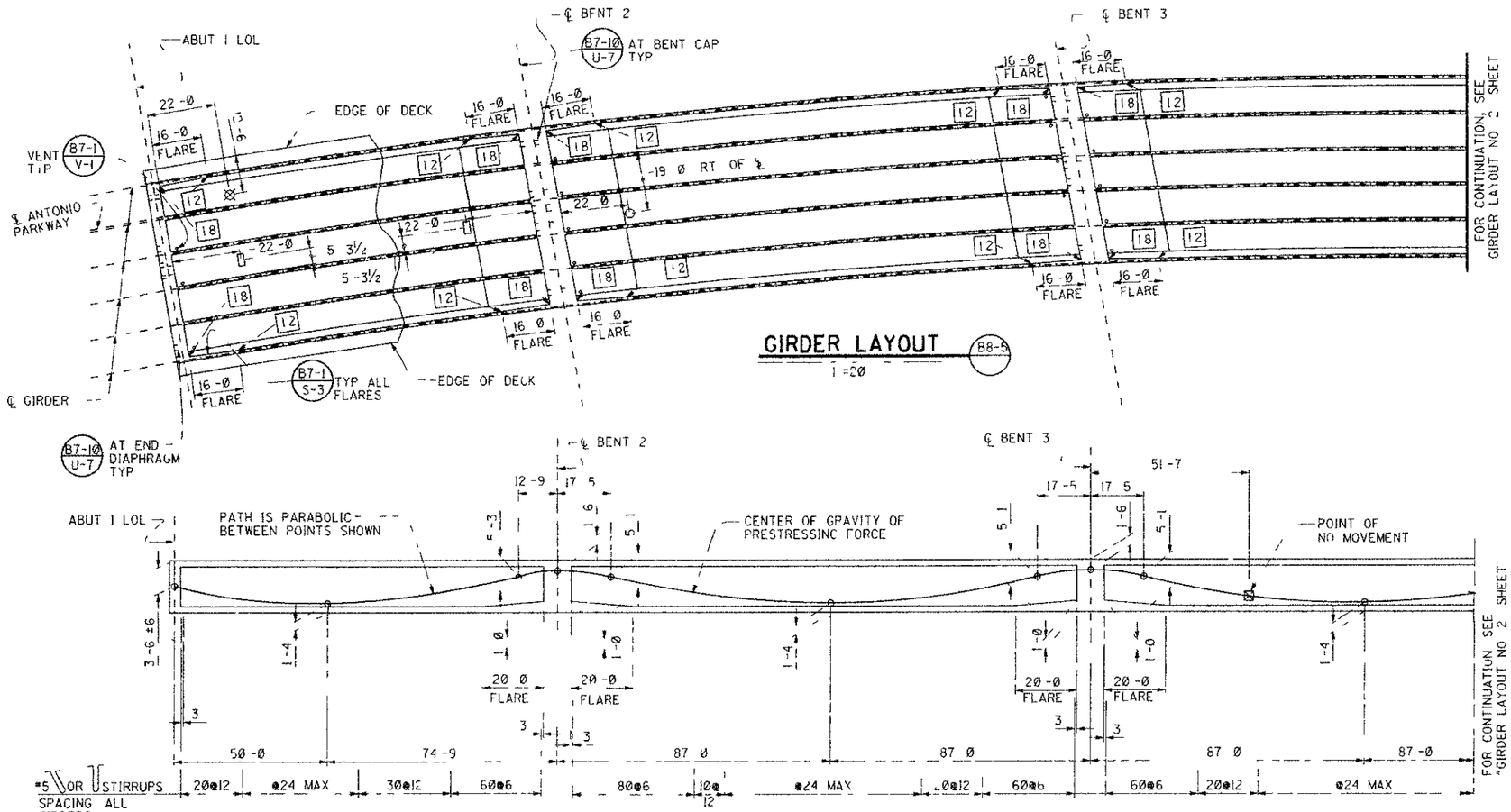
16/27

DESIGNED Steve A. Whitaker | DRAWN L. West | CHECKED R. Hart | SCALE AS SHOWN | DATE | DRAWING NO | SHEET 64 OF 126

BR # 55C0628

Dr 3 (161 58)

Design Filename: p_24897\codd or ofal dgn
07 OCT 1996 17:23 Generated b Smithaker
Pl. Tbu. or



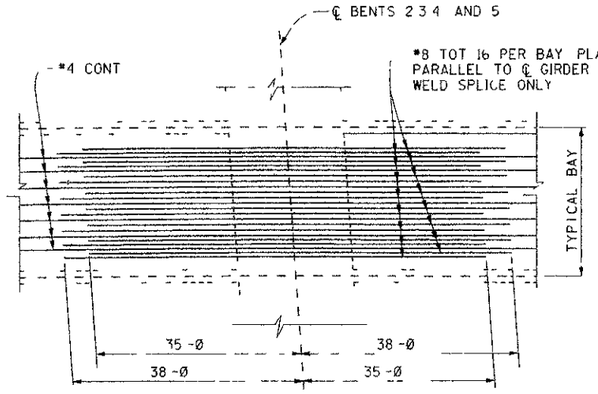
GIRDER LAYOUT

B8-5

1 =20

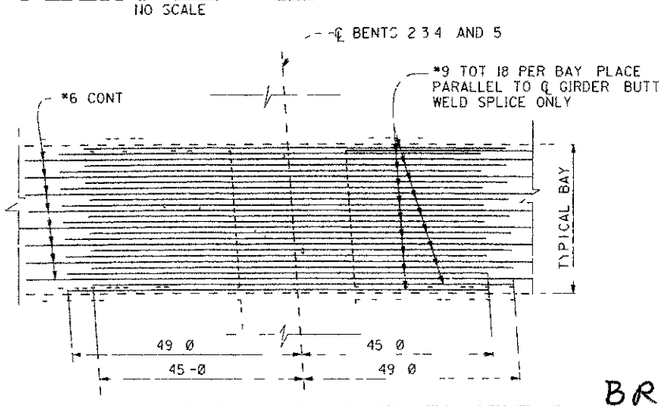
LONGITUDINAL SECTION

NO SCALE



TOP LONGITUDINAL MILD REINFORCEMENT

NO SCALE



BOTTOM LONGITUDINAL MILD REINFORCEMENT

NO SCALE

PRESTRESSING NOTES

270 ksi LOW RELAXATION STRAND
Pjack = 12 600 kips
ANCHOR SET = ⅜ IN
TOTAL NUMBER OF GIRDERS 6

DISTRIBUTION OF FINAL PRESTRESS FORCE (Pjack) BETWEEN GIRDERS SHALL NOT EXCEED THE RATIO OF 3 : 4
MAXIMUM FINAL FORCE VARIATION BETWEEN GIRDERS SHALL NOT EXCEED 725 kips

CONCRETE f'c = 4 000 psi AT 28 DAYS
f'ci = 3 500 psi AT TIME OF STRESSING

CONTRACTOR SHALL SUBMIT ELONGATION CALCULATIONS BASED ON INITIAL STRESS AT ⊠ = Ø 829 TIMES JACKING STRESS

BOTH END STRESSING SHALL BE PERFORMED

FOR PRESTRESSING DETAILS NOT SHOWN SEE B8-5

LEGEND

- □ INDICATES GIRDER FLARE WIDTH IN INCHES SEE B7 1 / S-3
- ▭ SOFFIT ACCESS OPENING SEE MISCELLANEOUS DETAILS SHEET
- ○ MANHOLE DECK OPENING B7-11 COVER SHALL BE STAMPED SMWD WATER PER SMWD STANDARD DRAWING S 1
- Ø SOFFIT ACCESS OPENING (CIRCULAR) B14-5

DR 3 (16158)
Sheet 5 Of 12h

½ 0 1 2
3 inches on original drawing

PREPARED BY HNTB 34 EXECUTIVE PARK SUITE 200 IRVINE CALIFORNIA 92614

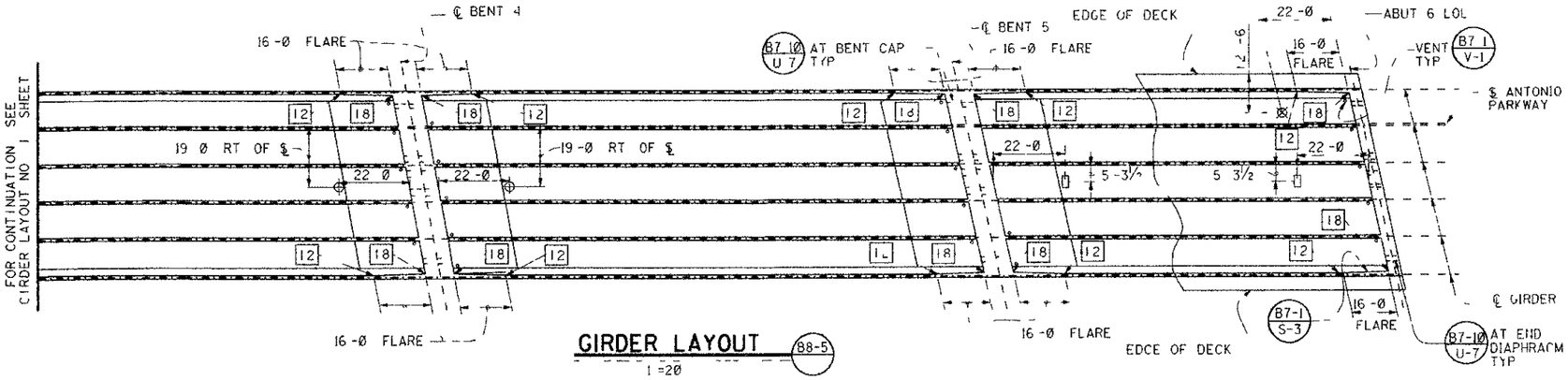
MARK	DATE	DESCRIPTION
REVISIONS		

PREPARED UNDER RESPONSIBLE CHARGE OF
Richard A Hart NO C 039595 EXP 12 31 97 CIVIL STATE OF CALIFORNIA
RICHARD A HART RCE 39598 (EXP 1 31 97) DATE 10/4/96

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY
ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK
GIRDER LAYOUT NO. 1
17 27

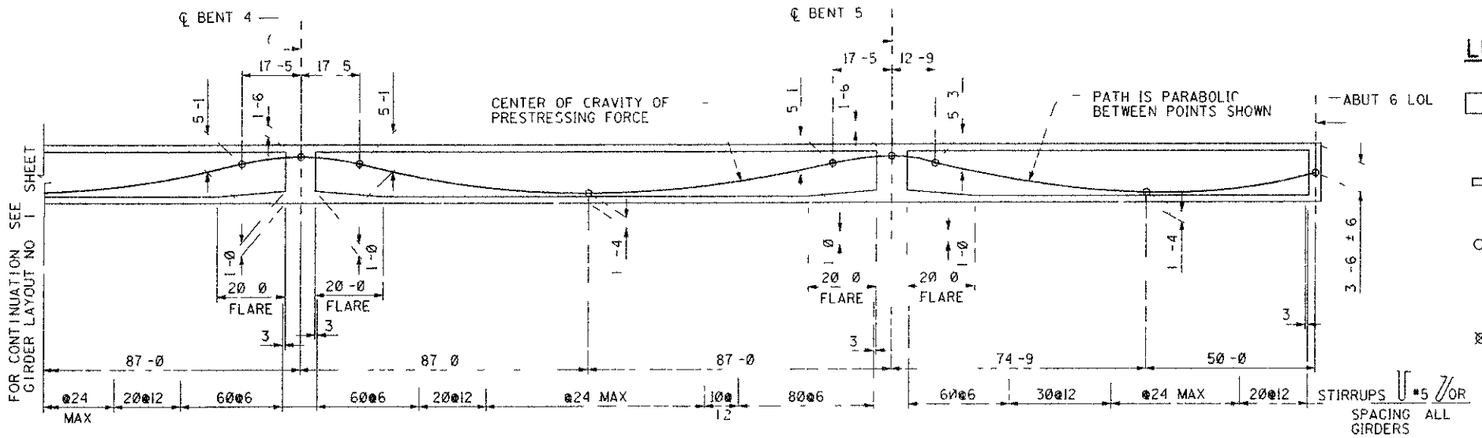
DESIGNED Steve A. Whitaker			SHEET
DRAWN L. West		CHECKED R Hart	65
SCALE AS NOWN	DATE	DRAWING NO	OF 126

DR 3 (16158)



GIRDER LAYOUT B8-5

1 =20



LONGITUDINAL SECTION

NO SCALE

LEGEND

- = INDICATES GIRDER FLARE WIDTH IN INCHES SEE B7 1 S-3
- = SOFFIT ACCESS OPENING SEE MISCELLANEOUS DETAILS SHEET
- O = MANHOLE DECK OPENING B7 11 COVER SHALL BE STAMPED SMWD WATER PER SMWD STANDARD DRAWING S-1
- ⊠ = SOFFIT ACCESS OPENING (CIRCULAR) B14-5

Richard Harris

DR 8 (1615P) Sheet 6 OF 12o

½ 0 1 2
3 inches on original drawing

BR # 55C0628

PLAN PREPARED BY
HNTB
36 EXECUTIVE PARK
SUITE 200
IRVINE, CALIFORNIA 92614

MARK	DATE	DESCRIPTION
REVISIONS		

PREPARED UNDER RESPONSIBLE CHARGE OF
Richard A Hart
RCE 39598 EXP 12 31 97
10/1/96
RICHARD A HART — DATE

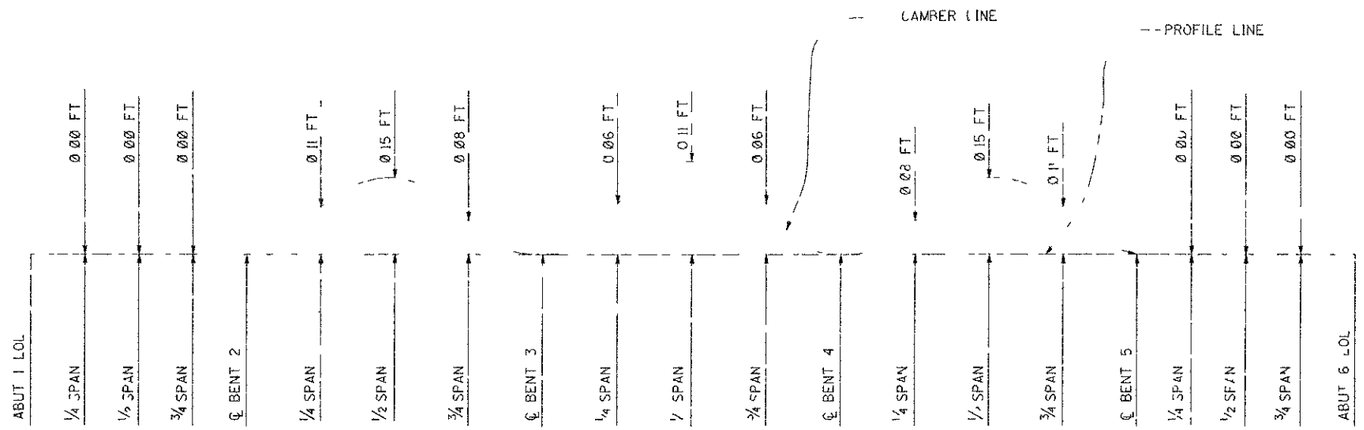
ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY
ANTONIO PARKWAY
BRIDGE OVER
SAN JUAN CREEK

GIRDER LAYOUT NO. 2

18/27

DESIGNED Steve A. Whittaker		SHEET
DRAWN L. West	CHECKED R. Hart	66
SCALE AS SHOWN	DATE	DRAWING NO OF 126

DR 3 (1615J)

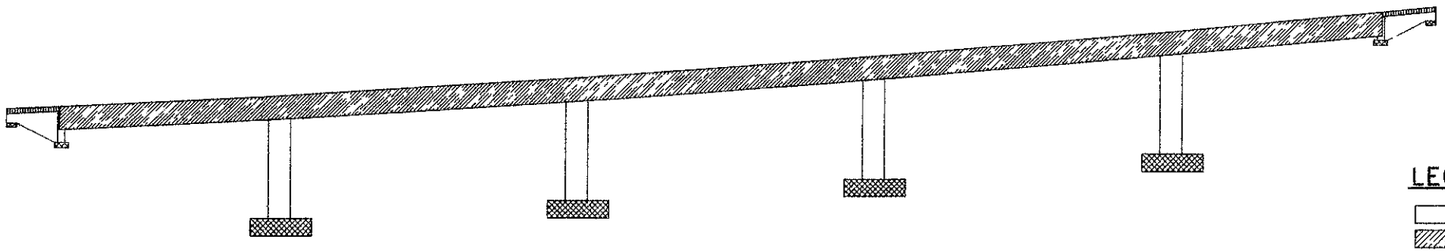


NOTE

CAMBER LINE DOES NOT INCLUDE ALLOWANCE FOR FALSEWORK SETTLEMENT

CAMBER DIAGRAM

NO SCALE



CONCRETE STRENGTH & TYPE LIMITS

NO SCALE

LEGEND

- = STRUCTURAL CONCRETE BRIDGE (f c=3 500 psi @ 28 DAYS)
- = STRUCTURAL CONCRETE BRIDGE (f c=4 000 psi @ 28 DAYS)
- STRUCTURAL CONCRETE BRIDGE FOOTING (f c=3 500 psi @ 28 DAYS)
- = STRUCTURAL CONCRETE APPROACH SLAB (TYPE N)

DR 3 (1of 8)
Sheet 67 of 126

3 inches on original drawing

MARK	DATE	DESCRIPTION
		REVISIONS

PREPARED UNDER RESPONSIBLE CHARGE OF

RICHARD A HART RCE 39596 (EXP 12 31 97) — DATE 9/20/96

PLANS PREPARED B

HNTB 36 EXECUTIVE PARK SUITE 200 IRVINE CALIFORNIA 92614

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

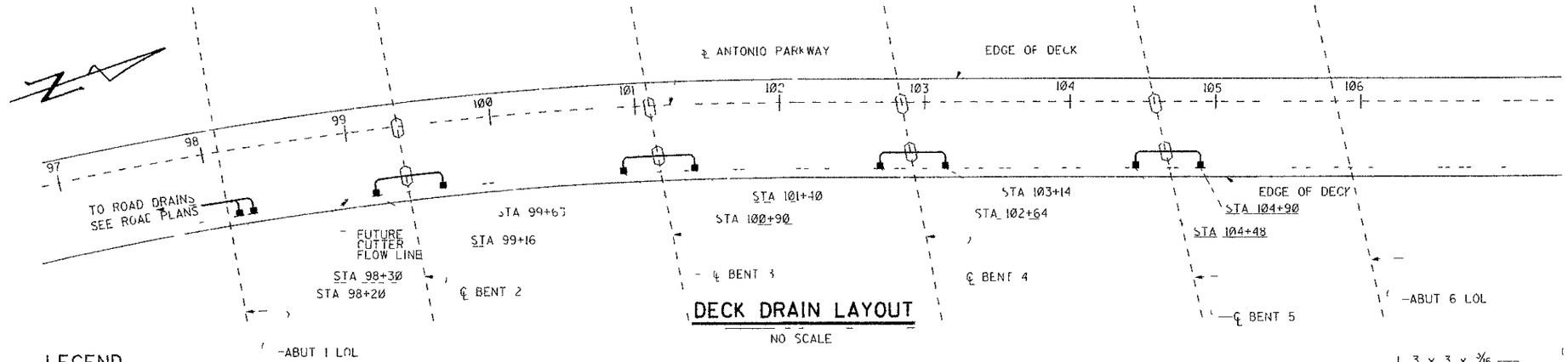
ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK

CAMBER DIAGRAM & CONC STRENGTH & TYPE LIMITS

DESIGNED	Steve A. Whittaker		SHEET
DRAWN	L. West	CHECKED R. Hart	67
SCALE AS SHOWN	DATE	DRAWING NO	OF 126

BR #55C0628

DR 3 (1 of 8)

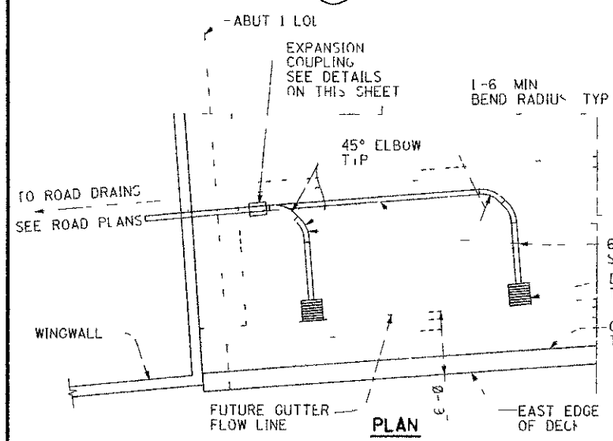


DECK DRAIN LAYOUT

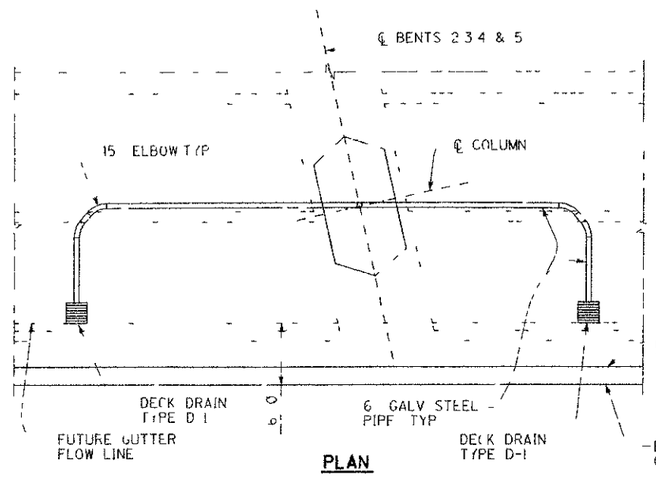
NO SCALE

LEGEND

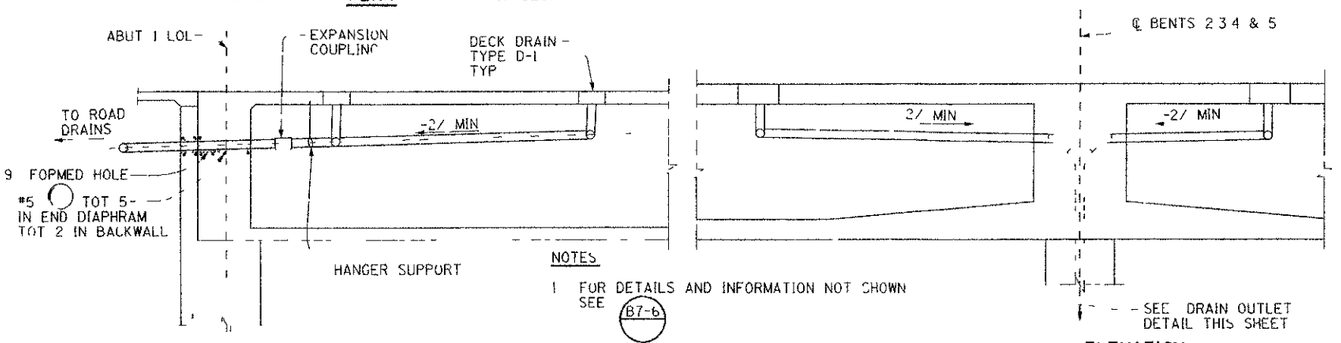
■ = DECK DRAIN TYPE D 1 (B7-6)



PLAN



PLAN



ELEVATION

ELEVATION

NOTES

1 FOR DETAILS AND INFORMATION NOT SHOWN SEE (B7-6)

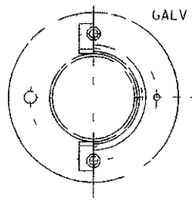
2 ALL EXPANSION COUPLING HARDWARE TO BE GALVANIZED FOR DIMENSION A SEE JOINT SEAL ASSEMBLY (MOVEMENT RATING - 5½) SHEET

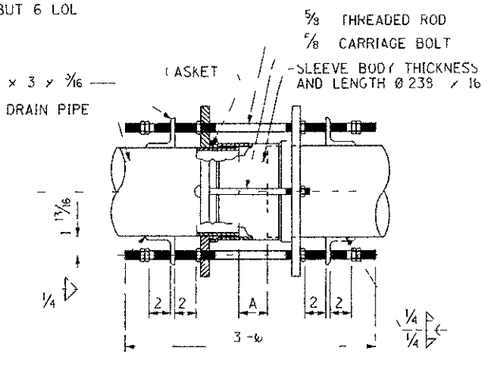
DRAINS NEAR ABUTMENT 1

NO SCALE

DRAINS NEAR BENTS 2, 3, 4 & 5

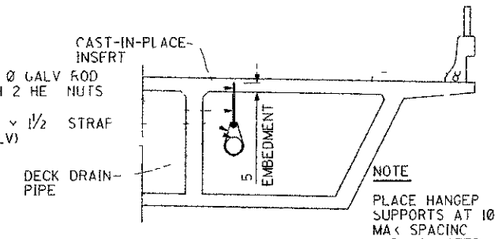
NO SCALE





EXPANSION COUPLING

NO SCALE



NOTE

PLACE HANGER SUPPORTS AT 10 -0 MAX SPACING AND AS NOTED

HANGER SUPPORT DETAILS

NO SCALE

DR 3 (1613B)
H F 68 OF 126

FOUND DRAWING
½ 0 1 2
3 inches on original drawing

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK

DECK DRAIN DETAILS

20/27

MARK	DATE	DESCRIPTION
REVISIONS		

PREPARED UNDER RESPONSIBLE CHARGE OF

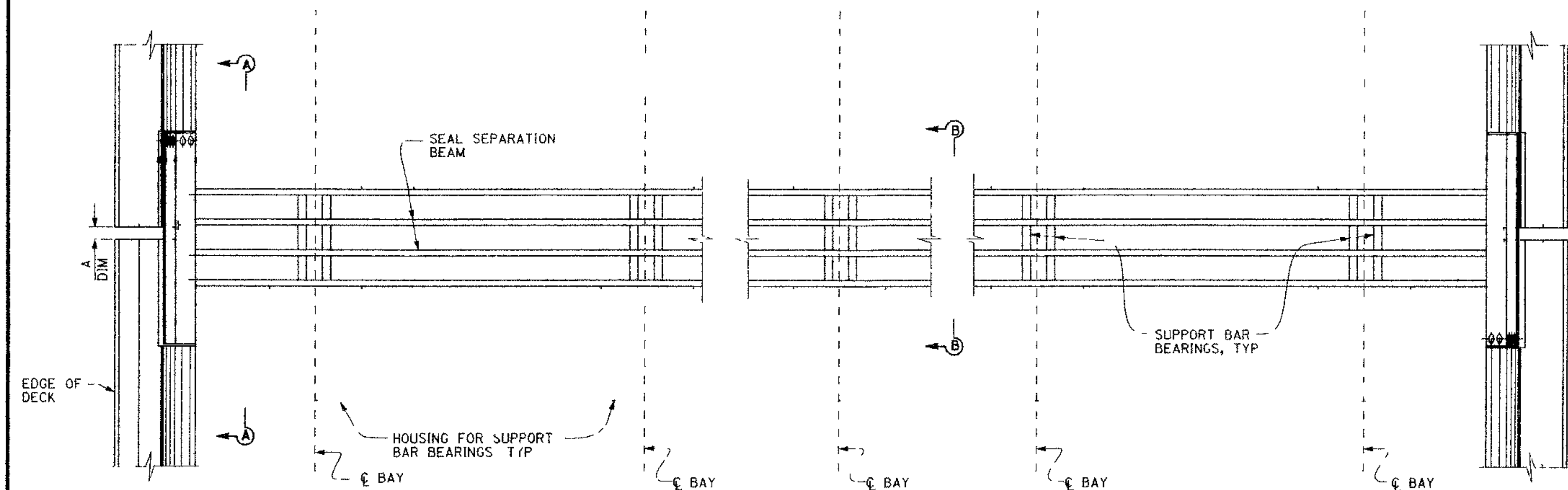
Richard A Hart
No C 039695
Exp 12-31-97
CIVIL
STATE OF CALIFORNIA
RICHARD A HART
R E 39 95 (EXP 12 31 97)
9/20/96
DATE

PLANS PREPARED BY
HNTB
36 EXECUTIVE PARK
SUITE 200
IRVINE CALIFORNIA 92614

DESIGNED Steve A. Whitaker
DRAWN L. West
CHECKED R Hart
SCALE AS HOWN
DATE
DRAWING NO
SHEET 68 OF 126

BR #55C0628

DR. 3 (1613)



PARTIAL PLAN

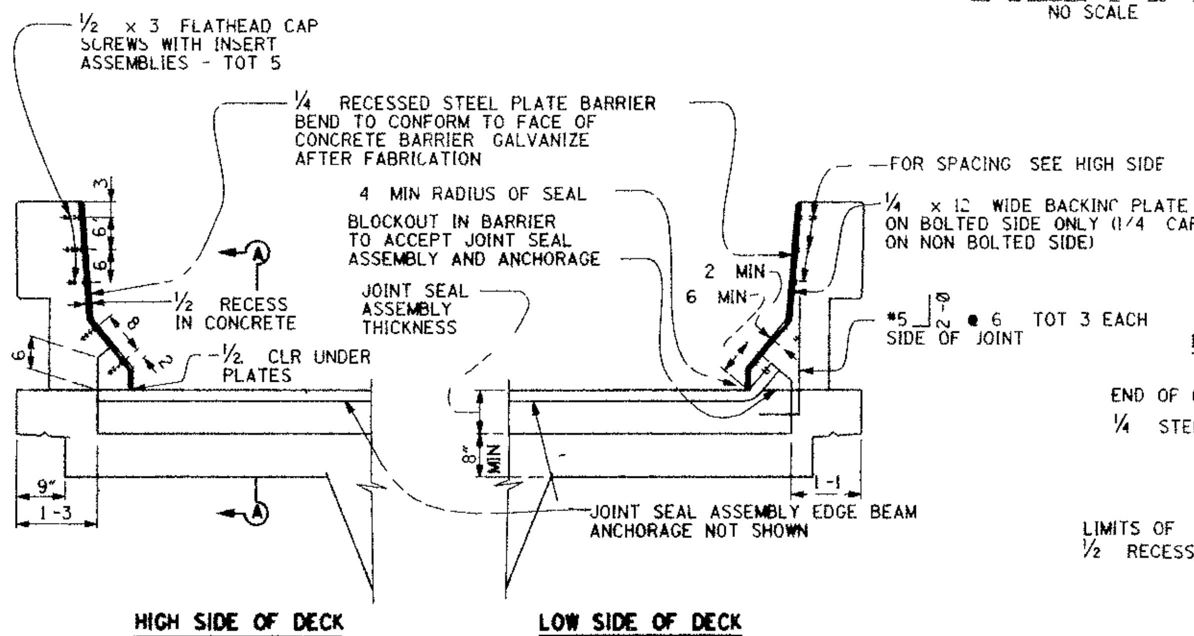
NO SCALE

ABUTMENT 1 SHOWN
ABUTMENT 6 SIMILAR

JOINT INFORMATION			A DIMENSIONS		
ABUTMENT NO	MOVEMENT RATING (MR)	SKEW	WINTER	SUMMER	SPRING & FALL
1	5½	0°	3½	1½	2½
6	5½	12 4	3½	1½	2½

NOTE

JOINT SEAL ASSEMBLY DETAILS INDICATED HERE ARE FOR ILLUSTRATIVE PURPOSE ONLY DETAIL DESIGN OF THE ASSEMBLY IS THE RESPONSIBILITY OF THE CONTRACTOR

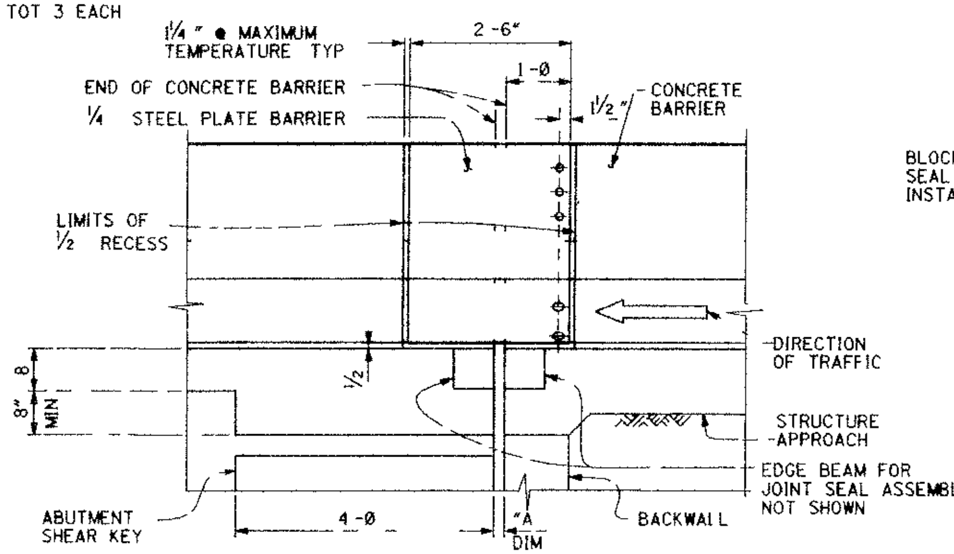


SEAL INSTALLATION

NO SCALE

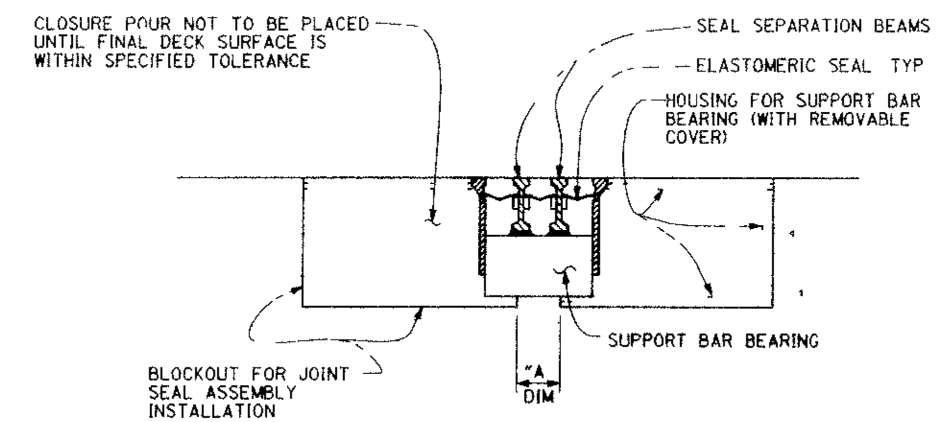
NOTE

HOUSING FOR SUPPORT BAR BEARING NOT SHOWN FOR CLARITY



ELEVATION A-A

NO SCALE



SECTION B-B

NO SCALE

DR 3 (16158)
Sheet 9 of 126

RECORD DRAWING

3 inches on original drawing

BR #55C 0628

PLAN PREPARED BY HNTB 36 EXECUTIVE PARK SUITE 200 IRVINE, CALIFORNIA 92614

MARK	DATE	DESCRIPTION
REVISIONS		

PREPARED UNDER RESPONSIBLE CHARGE OF RICHARD A HART RCE 29996 (EXP 12-31-97)

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK

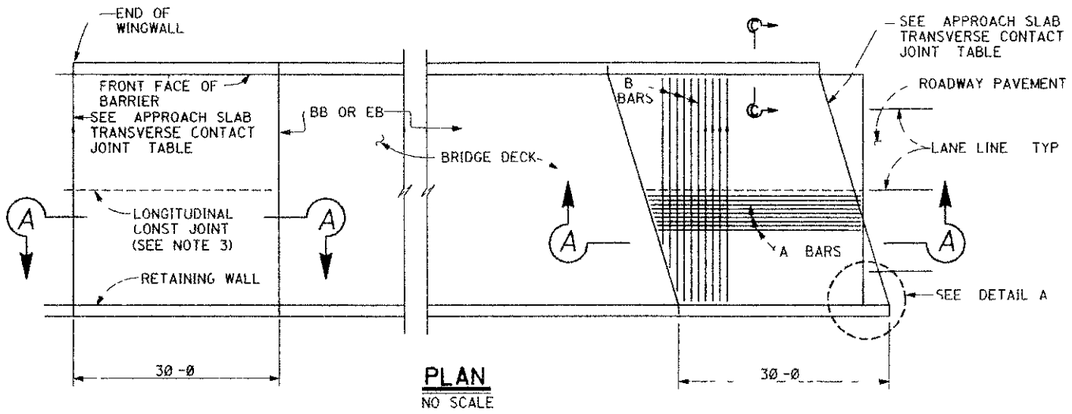
JOINT SEAL ASSEMBLY (MOVEMENT RATING=5 1/2")

21/27

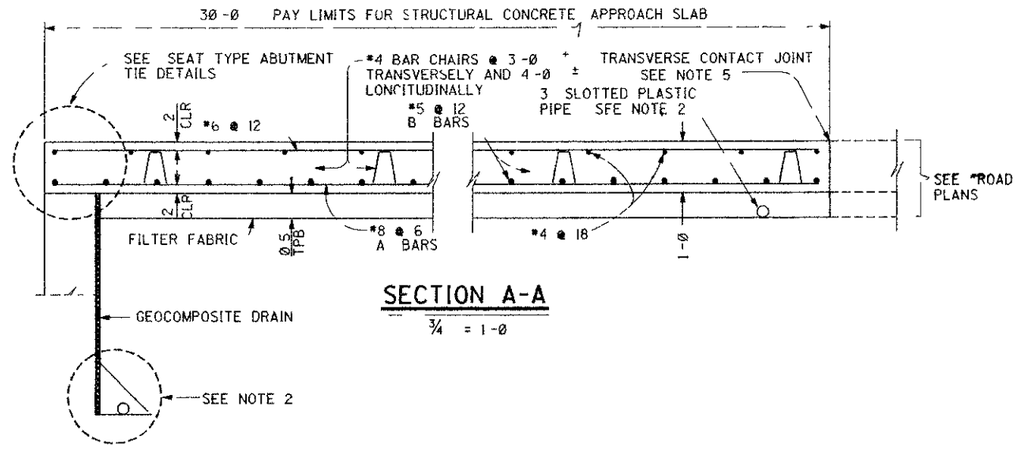
DESIGNED Steve A. Whitaker
DRAWN L. West CHECKED R. Hart
SCALE AS SHOWN
SHEET 69 OF 126

DR. 3 (16158)

Design Filename P 4897 oada anto/sl.dgn
Plotted on 20 SEP 1996 09 03 Generated by

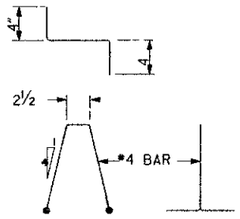


PLAN
NO SCALE

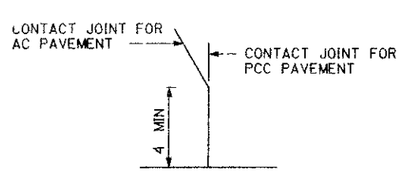


SECTION A-A
¾ = 1 -Ø

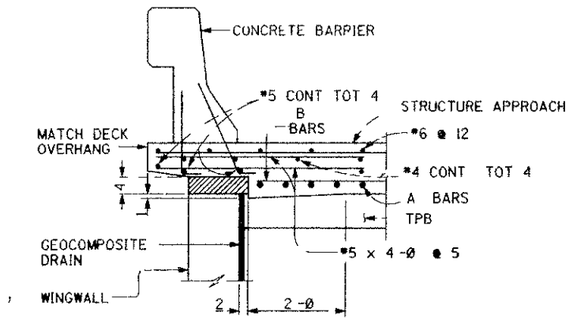
APPROACH SLAB TRANSVERSE CONTACT JOINT		
APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 20°	PARALLEL TO FACE OF PAVING NOTCH	PARALLEL TO FACE OF PAVING NOTCH



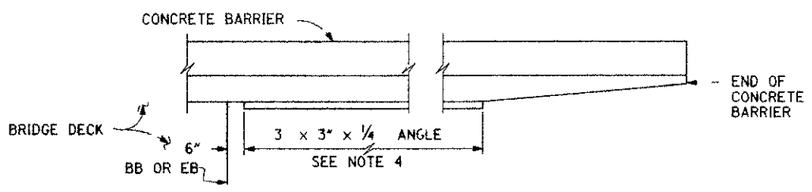
BAR CHAIR DETAIL
1½ =1 -Ø



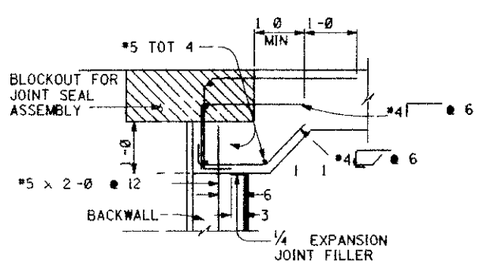
DETAIL A
NO SCALE



SECTION C-C
¾ "=1 -Ø



EDGE ANGLE DETAIL
½ =1 -Ø



SEAT TYPE ABUTMENT TIE DETAILS (SEE NOTE 1)
¾ =1 -Ø

NOTES
1. FOR DETAILS NOT SHOWN SEE STRUCTURE PLANS
2. FOR DRAINAGE DETAILS SEE STRUCTURE APPROACH DRAINAGE DETAILS SHEET
3. LONGITUDINAL CONSTRUCTION JOINTS WHEN PERMITTED BY THE ENGINEER SHALL BE LOCATED ON LANE LINES AND/OR AT EDGES OR UTILITY VAULTS
4. END ANGLE AT BEGINNING OF BARRIER TRANSITION END OF WINGWALL OR END OF STRUCTURE APPROACH AS APPLICABLE
5. FOR TRANSVERSE CONTACT JOINT WITH NEW PCC PAVING REFER TO STANDARD PLAN A35-A
6. AT THE CONTRACTOR'S OPTION APPROACH SLAB TRANSVERSE REINFORCEMENT MAY BE PLACED PARALLEL TO PAVING NOTCH SPACING OF TRANSVERSE REINFORCEMENT IS MEASURED ALONG ℄ ROADWAY

▨ REMOVE ALL POLYSTYRENE

DR 3 (1615) 70 of 125

RECORD DRAWING

½ 0 1 2
3 inches on original drawing

BR # 55C0628

PLANS PREPARED BY
HNTB
36 EXECUTIVE PARK SUITE 200 IRVINE, CALIFORNIA 92614

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY
ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK
STRUCTURE APPROACH TYPE N(30S)
22/27

MARK	DATE	DESCRIPTION
REVISIONS		

PREPARED UNDER RESPONSIBLE CHARGE OF
Richard A. Hart
RICHARD A. HART — DATE
RCE 39686, EXP 12-31-97

DESIGNED Steve A. Whitaker
DRAWN L. West CHECKED R. Hart
SCALE AS SHOWN DATE DRAWING NO
SHEET 70 OF 126

DR. 3 (16158)

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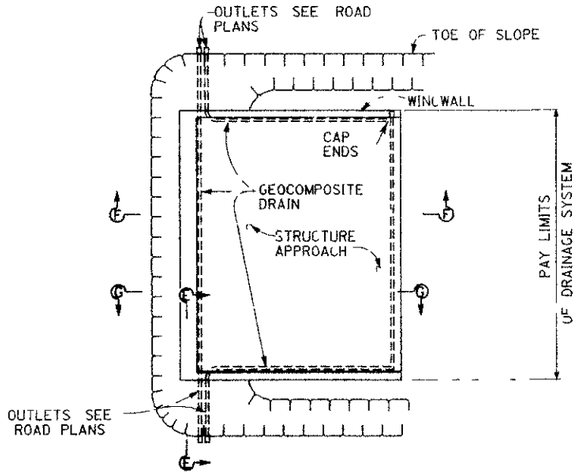
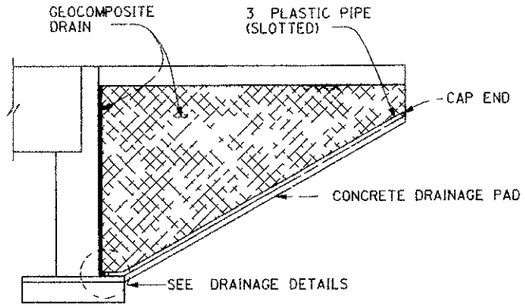


TYPICAL PLAN
NO SCALE



SECTION F-F
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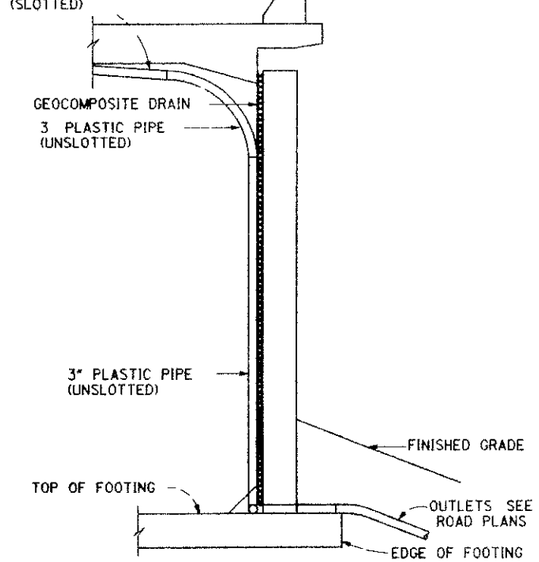

SECTION E-E
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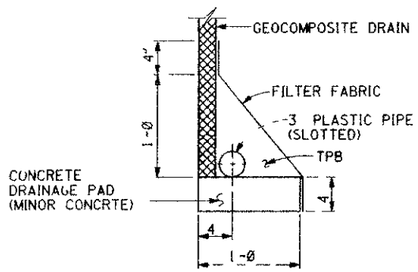
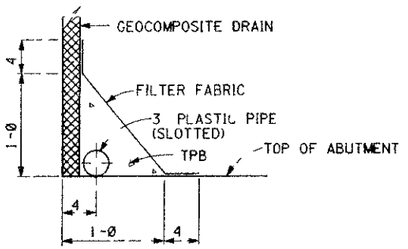


WITHOUT FOOTING



WITH FOOTING

DRAINAGE DETAILS
NO SCALE

NOTE

BENDS AND JUNCTIONS IN 3 PLASTIC PIPE ARE 30 RADIUS MIN

Design Filename 70 JP 1996 09 08 generated by 489 \cadd x 2117.dgn WLI
Plotted on

DR 3 (16158)
Sht 71 of 126

RECORD DRAWING

½ 0 1 2
3 inches on original drawing

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK

STRUCTURE APPROACH DRAINAGE DETAILS

23/27

MARK	DATE	DESCRIPTION
REVISIONS		

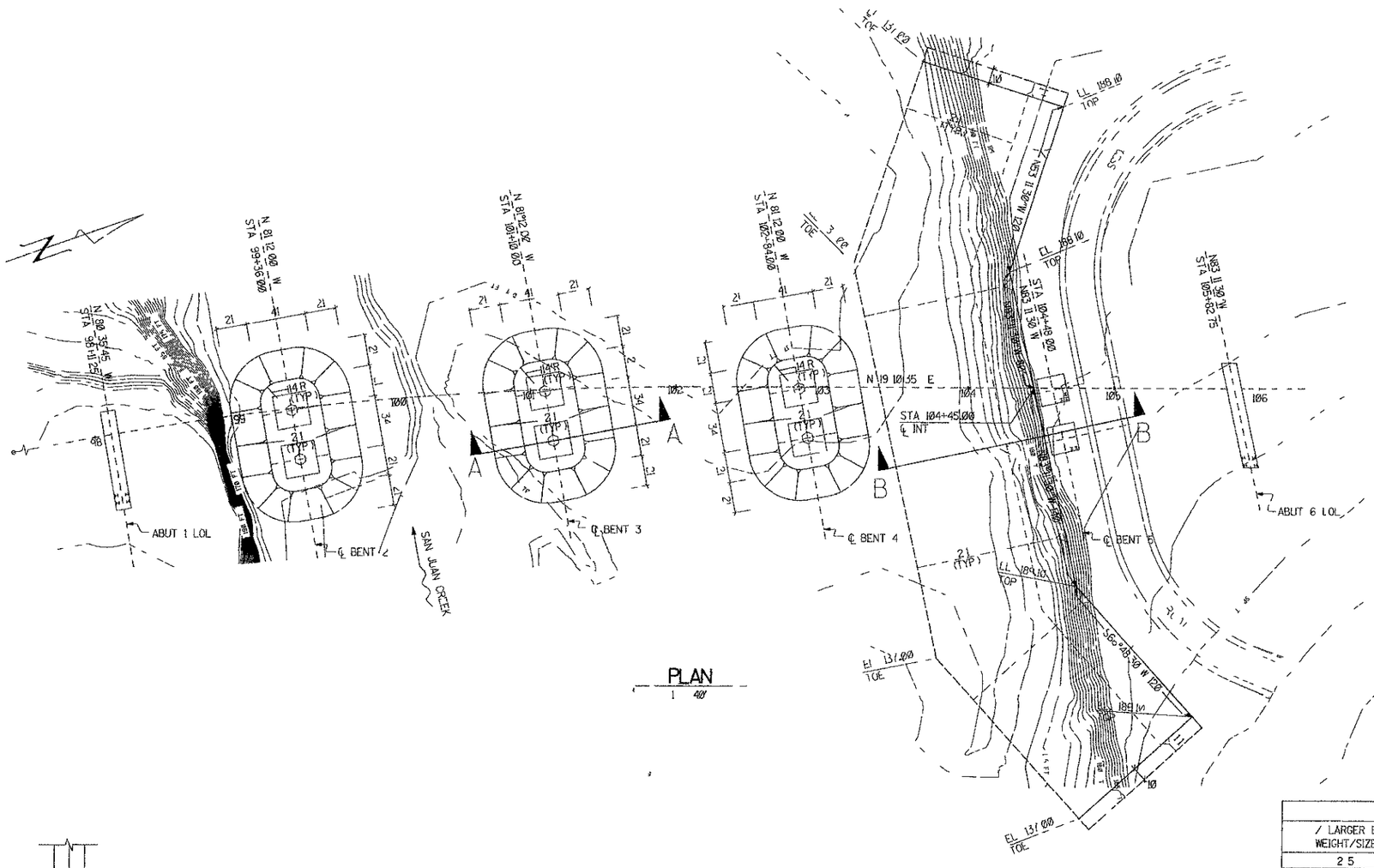
PREPARED UNDER RESPONSIBLE CHARGE OF
RICHARD A. HART RCE 25896 (EXP 12-31-97)
DATE 4/20/96

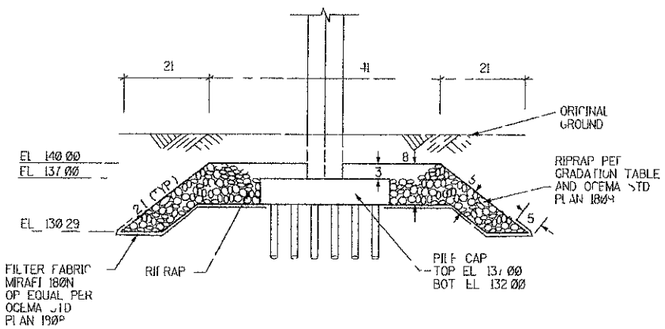
DESIGNED Steve A. Whitaker
DRAWN L. West
CHECKED R. Hart
SCALE AS SHOWN
DATE
DRAWING NO
SHEET 71 OF 126

PLAN PREPARED BY
HNTB
16 EXECUTIVE PARK SUITE 300 IRVINE, CALIFORNIA 92614

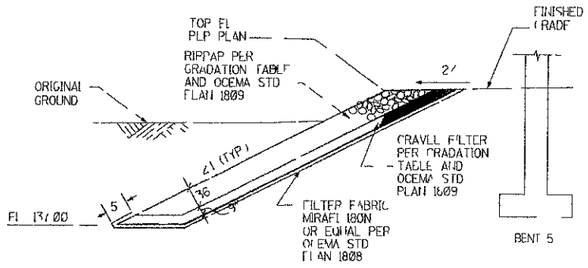
BR # 55C 0628

DR 3 (16158)





SECTION A-A
N.T.S.



SECTION B-B
N.T.S.

GRADATION		
% LARGER BY WEIGHT/SIZE	RIPRAP (LB)	GRAVEL FILTER (INCHES)
2 5	1200	5
30 50	500	4
50 65	330	3
90-98	140	1

NOTES

1 CONTOURS SHOWN ARE ORIGINAL GROUND
2 CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIALS

RECORD DRAWING

DR 3 (161-8)
Sheet 0F 12n

MARK	DATE	DESCRIPTION
REVISIONS		

PLANS PREPARED BY
sla
3150 BRISTOL STREET
SUITE 500
COSTA MESA CA 92626

PREPARED UNDER RESPONSIBLE CHARGE OF
RUH MING LI
No 3677
Exp 3-31-98
CIVIL
STATE OF CALIFORNIA
RUH MING LI
RCE 36777 (EXP 6-30-98)
9/18/97
DATE

ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY
BRIDGE OVER
SAN JUAN CREEK

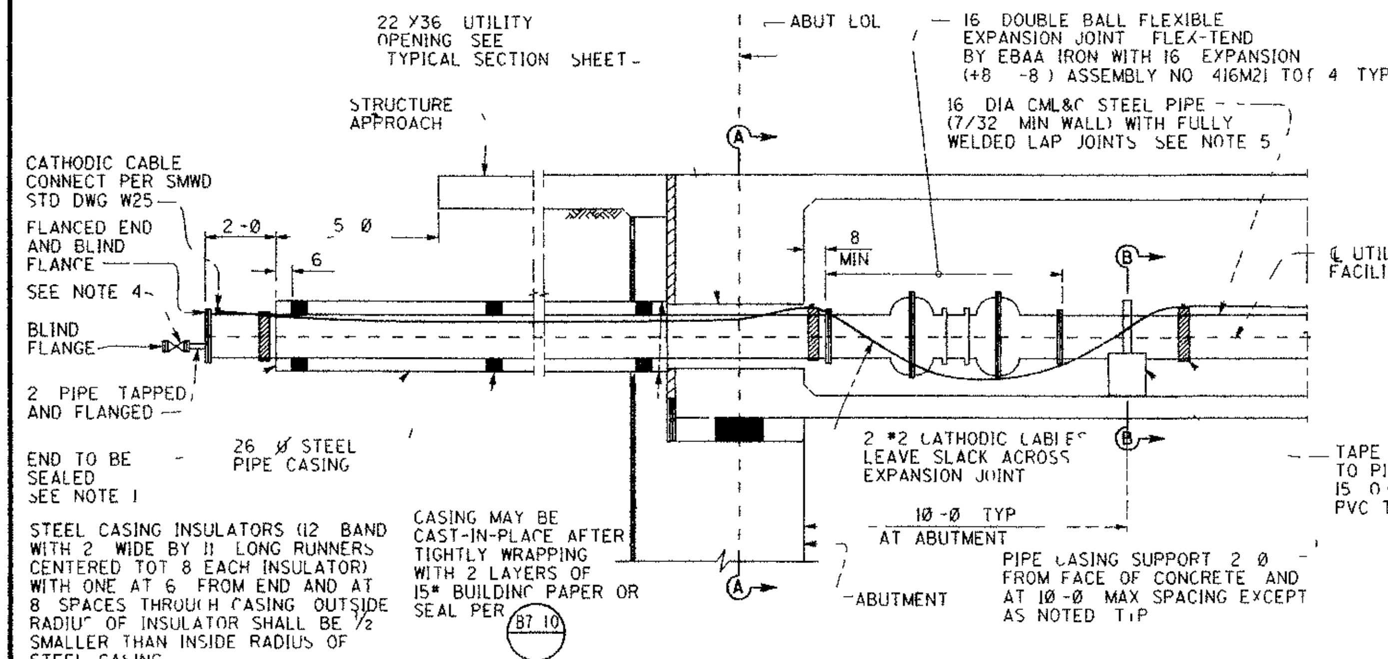
EROSION PROTECTION PLAN

24/27

DESIGNED	JOHN LEE		SHEET
DRAWN	P.F	CHECKED Y.H.C	72
SCALE	DATE	DRAWING NO	OF 126
AS SHOWN	8-24-98		

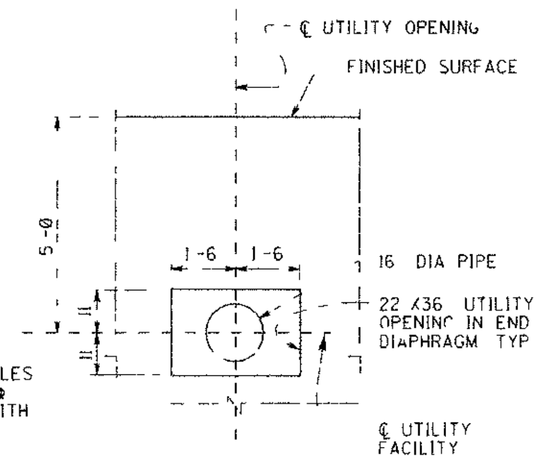
BR #55C0628

DR 3 (161-8)



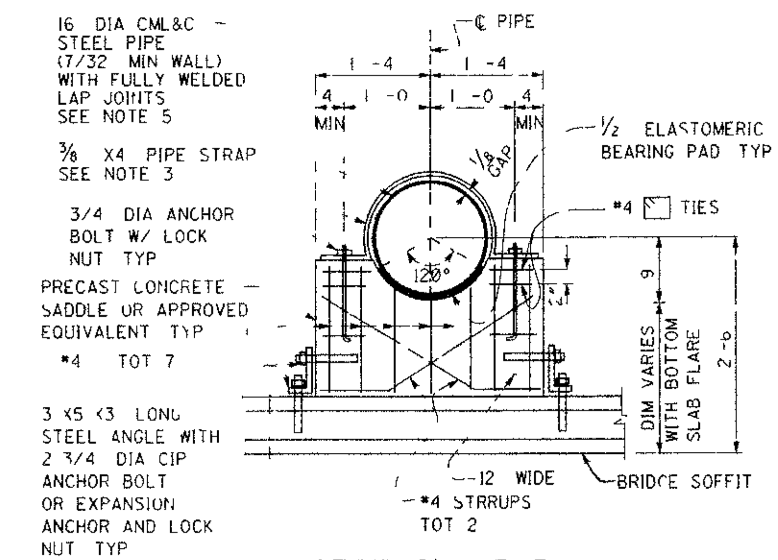
TYPICAL SECTION - 16" FACILITY

3/8 = 1 -0



SECTION A-A

NO SCALE



SECTION B-B

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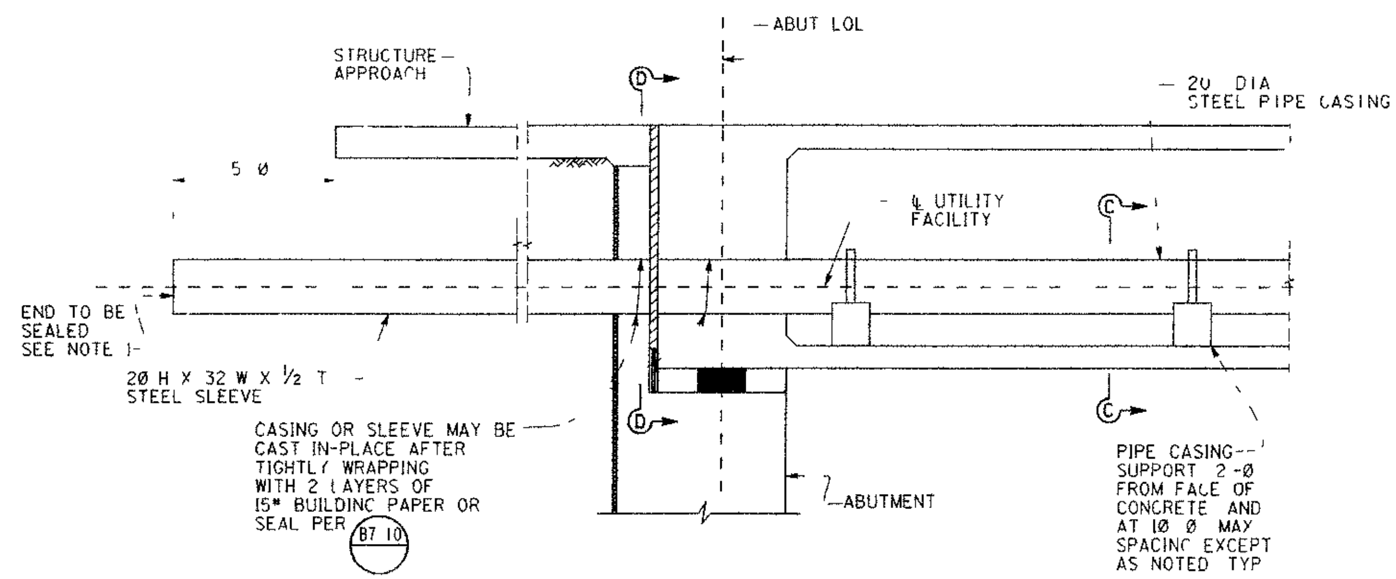
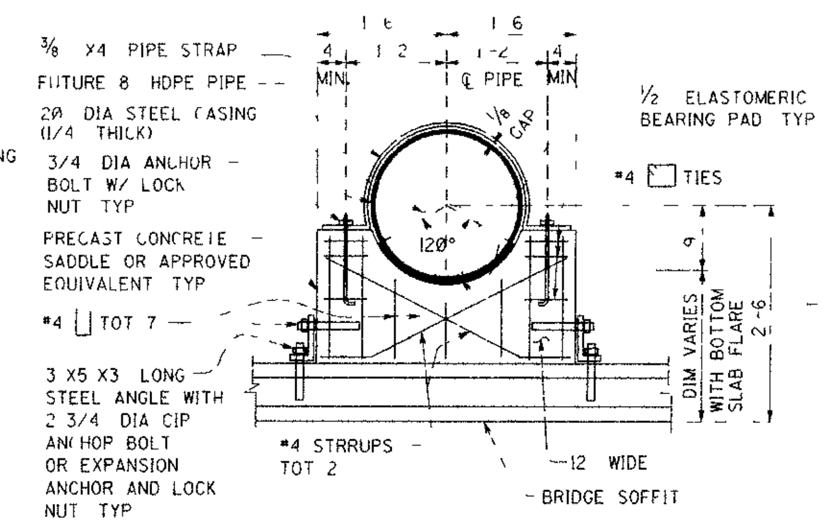


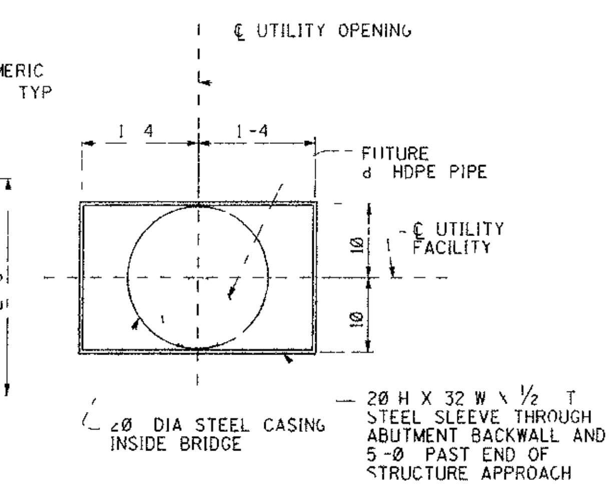
TYPICAL SECTION - FUTURE 8" FACILITY

3/8 = 1 -0



SECTION C-C

1 = 1 -0



SECTION D-D

1 = 1 -0

NOTES

1. SEAL END OF CASING WITH A METHOD ACCEPTABLE TO THE ENGINEER
2. THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIALS
3. PIPE STRAPS SHALL NOT BE TIGHTENED UNTIL THE BRIDGE HAS BEEN POST-TENSIONED
4. PROVIDE 2 FLANGED GATE VALVE (KEY OPER) AT ABUTMENT 1 AND 2 AIR RELEASE AND VACUUM VALVE AT ABUTMENT 6
5. SEE SMWD STANDARD DRAWING W24 FOR WELDED PIPE JOINT DETAILS CLOSURE WELDS IN PIPE JOINTS WITHIN THE BRIDGE AT CENTER SPAN BENT AND ABUTMENT LOCATIONS ARE TO BE MADE AFTER THE BRIDGE DECK IS PLACED POST TENSIONING COMPLETED AND FALSEWORK REMOVED CLOSURE WELDS AT THE END OF EACH SPAN SHOULD BE AT THE FIRST JOINT WITHIN THE SPAN THERE SHALL NOT BE ANY PIPE JOINTS WITHIN 2 PIPE DIAMETERS OF THE CENTERLINE OF ANY BENT OR ABUTMENT EXCEPT AS NOTED
6. CONTRACTOR SHALL REMOVE ALL FALSEWORK FROM CELLS HOUSING SMWD FACILITIES

RECORD DRAWING

BR #55C0628

DR 3 (16158) Sheet 73 OF 126

½ 0 1 2 — 3 inches on original drawing

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK

SMWD UTILITY DETAILS

25/27

MARK	DATE	DESCRIPTION
REVISIONS		

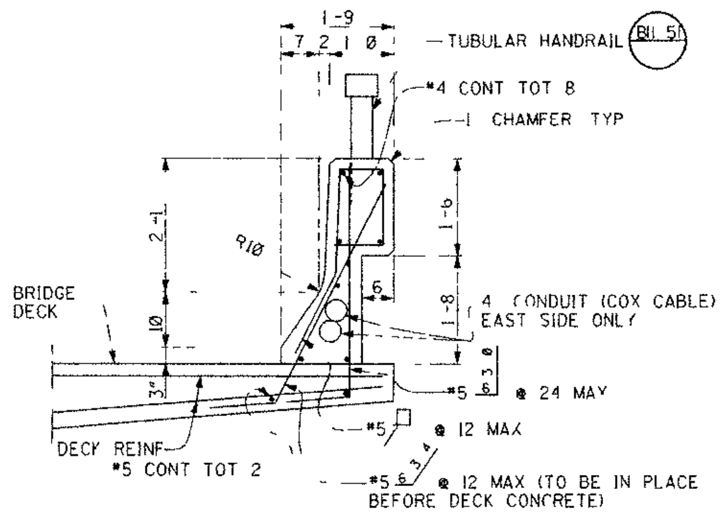
RECOMMENDED FOR APPROVAL SMWD
DISTRICT ENGINEER
RCE 37595 EXP 12/31/97

PLAN PREPARED BY HNTB 36 EXECUTIVE PARK SUITE 200 IRVINE CALIFORNIA 92614

PREPARED UNDER RESPONSIBLE CHARGE OF RICHARD A HART RCE 39596 EXP 12-31-97 DATE 12/8/96

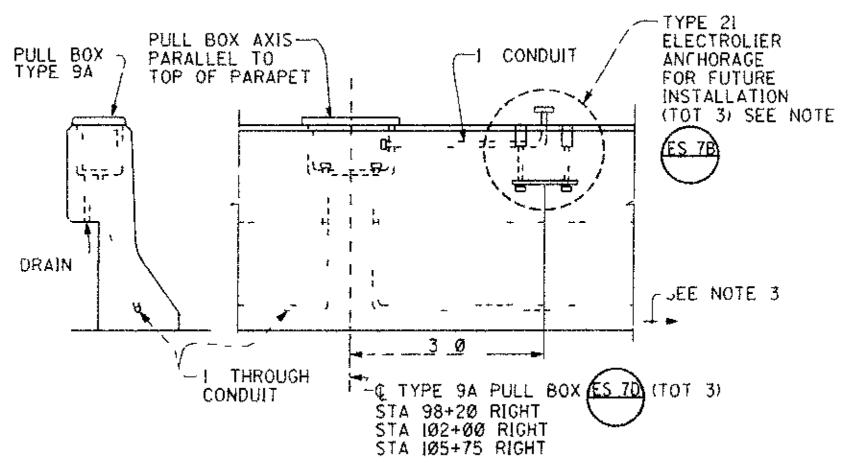
DESIGNED Steve A. Whitaker
DRAWN WWL/SAW CHECKED R Hart
SCALE AS SHOWN DATE DRAWING NO
SHEET 73 OF 126

DR 3 (16158)



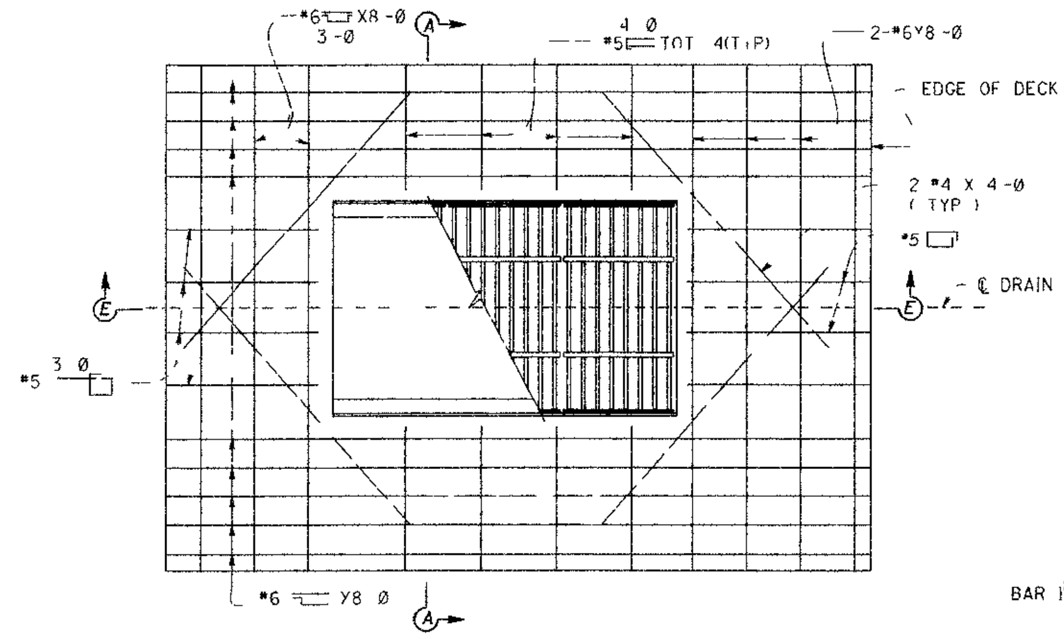
CONCRETE BARRIER TYPE 25 MODIFIED

1 = 1-0

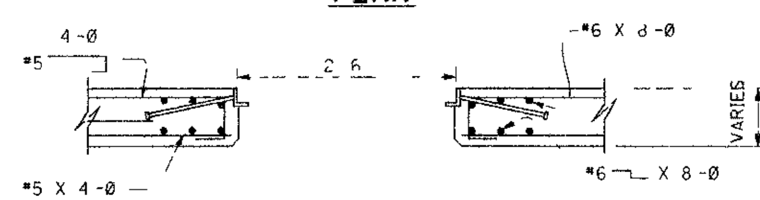


PULL BOX AND ELECTROLIER ANCHORAGE DETAIL

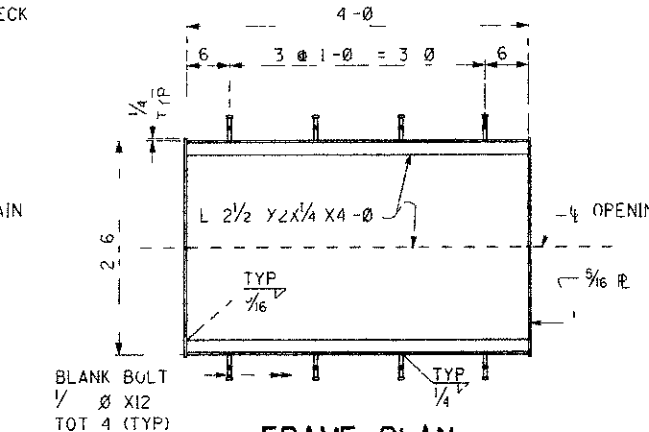
NO SCALE



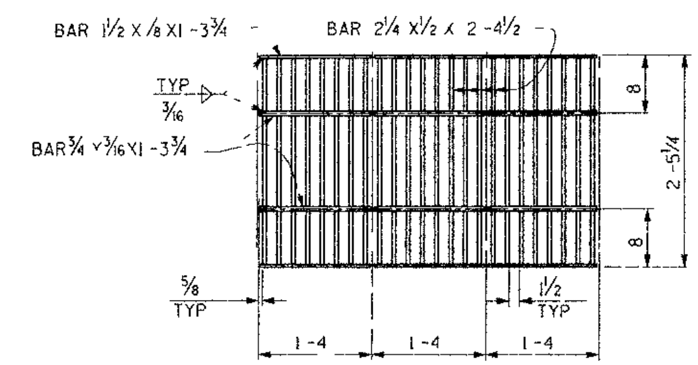
PLAN



SECTION A-A



FRAME PLAN

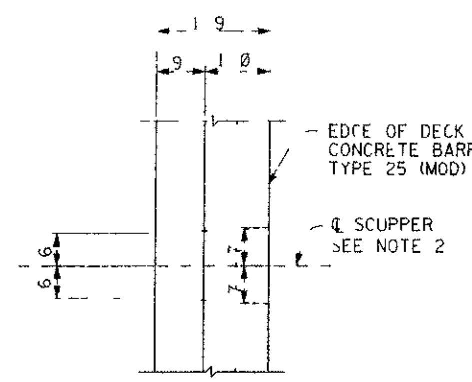


GRATE PLAN

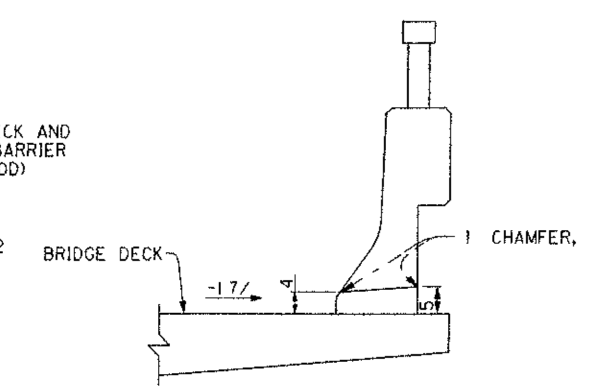
NOTE GRATING CONSISTS OF 3 IDENTICAL UNITS

SOFFIT ACCESS OPENING DETAILS

NO SCALE



PLAN



ELEVATION

DR 3 (16159)
Sheet 73 of 126

3 inches on original drawing

SCUPPER DRAIN DETAILS

1 = 1-0

NOTES

1 FOR POST ANCHORAGE DETAILS END TRANSITION DETAILS PULL BOX & ELECTROLIER ANCHORAGE REINF AND OTHER BARRIER DETAILS NOT SHOWN SEE CALTRANS STANDARD PLAN B11-53

2 SCUPPER DRAIN TO BE PLACED IN EAST SIDE CONCRETE BARRIER TYPE 25 (MOD) AT 20 0 SPACING FROM BB TO EB

3 FOR DETAILS THROUGH EXPANSION JOINTS SEE ES 7C

BR # 55C0628

PLAN PREPARED BY HNTB
36 EXECUTIVE PARK SUITE 200 IRVINE CALIFORNIA 92614

MARK	DATE	DESCRIPTION
REVISIONS		

PREPARED UNDER RESPONSIBLE CHARGE OF Richard A. Hart
RICHARD A HART RCE 39596 EXP 12 31 97
10/8/96 DATE

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY BRIDGE OVER SAN JUAN CREEK

MISCELLANEOUS DETAILS

26/27

DESIGNED Steve A. Whitaker
DRAWN L. West
CHECKED R. Hart
SCALE AS SHOWN
SHEET 74 OF 126

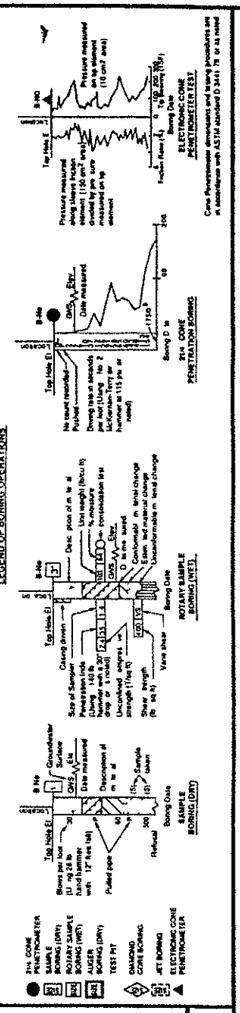
DR 3 (16158)

ANTONIO PARKWAY
SAN JUAN CREEK BRIDGE

GOFFMAN McCORMICK & URBAN INC

PROJECT 95 48 PLATE 3

LEGEND OF BORING OPERATIONS



LEGEND OF EARTH MATERIALS

GRAVEL | SAND | SILT | CLAY | SANDY CLAY or CLAYEY SAND | SANDY SILT or SILTY SAND | SILTY CLAY

CLAYEY SILT | PEAT and/or ORGANIC MATTER | FILL MATERIAL | IGNEOUS ROCK | SEDIMENTARY ROCK | METAMORPHIC ROCK

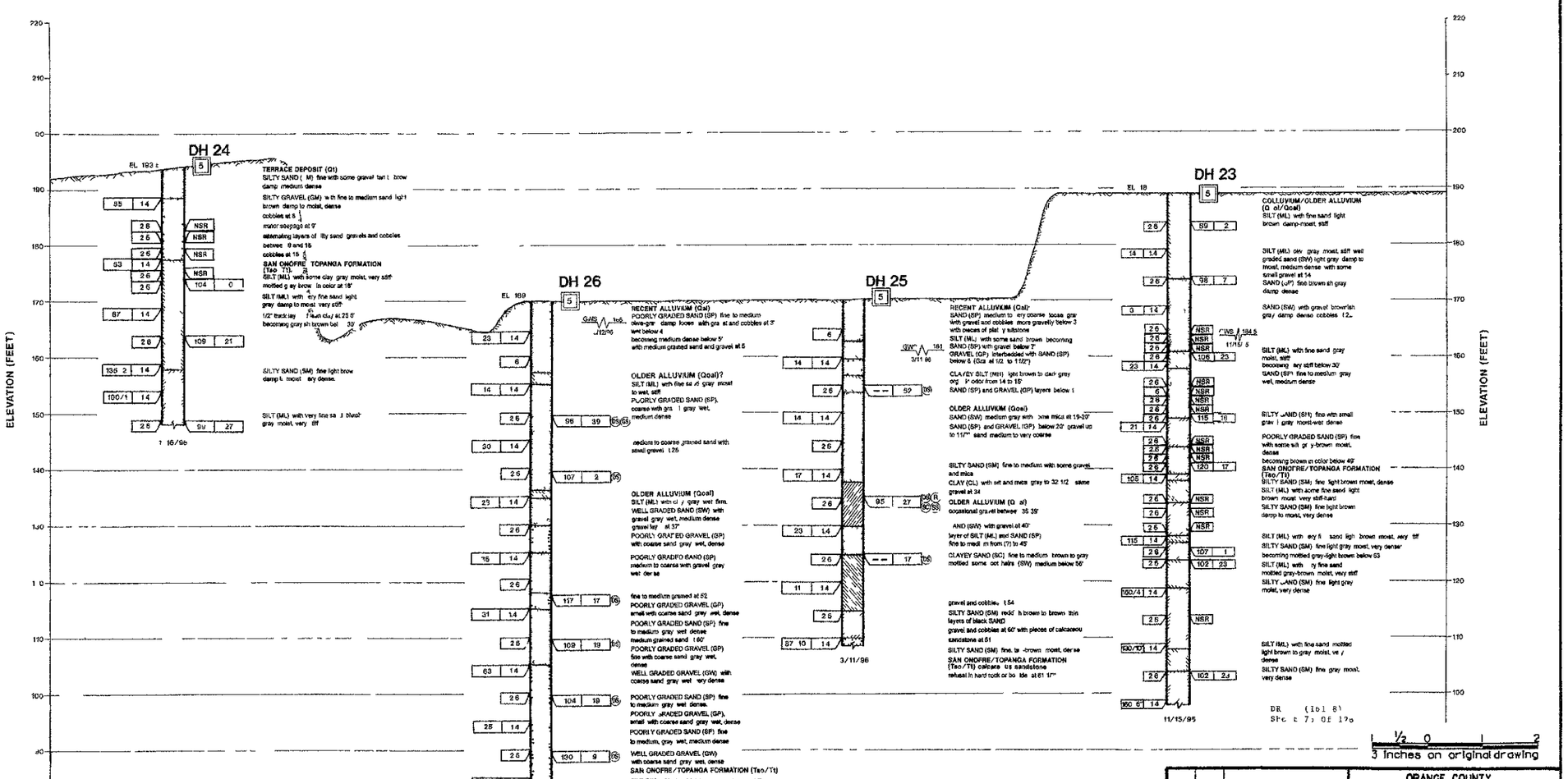
CONSISTENCY CLASSIFICATION FOR SOILS

According to the Standard Penetration Test

Penetration (Blows / Ft)	Granular	Cohesive
0-4	Very loose	Very soft
5-9	Loose	Soft
10-19	Slightly compact	Stiff
20-34	Compact	Very stiff
35-69	Dense	Hard
70	Very dense	Very hard

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

LABORATORY TESTING (R) RESISTIVITY (D) DIRECT SHEAR (G) GRAIN SIZE (S) SOLUBLE CHLORIDE (S) SOLUBLE SULFATE NSR NO SAMPLE RECOVERY



PROFILE
VERTICAL SCALE 1 10

BR #55C0628

DESIGN OVERSIGHT	DRAWN BY	JDP	ARS	Gary K Kiehn RCE 49980		BRIDGE NO
SAN DIEGO	CHECKED BY	ARS	E LEO HAVEST GATOR	Andrew R Stone CEC 1648	PRO ICT ENG NEER	POST MILE
			D TE 8 21 96			

ORIGINAL SCALE IN INCHE FOR REDUCED PLANS 0 1 2 3

CU
EA

MARK	DATE	DESCRIPTION
REVISIONS		

PREPARED UNDER SUPERVISION OF

ARS 8 21 96
DATE

ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY
BRIDGE OVER
SAN JUAN CREEK

LOG OF TEST BORINGS

27 /27

DESIGNED		CHECKED		SHEET
DRAWN	JDP		ARS	75
SCALE	DATE	DRAWING NO.		OF 126
AS SHOWN				

DR 3 C16158)