Bridge Inspection Records Information System

The requested documents have been generated by the BIRIS.

The documents provided are considered confidential and may only be released outside of the department of transportation upon proper execution of the confidentiality agreement.

State of California
Department of Transportation

Division of Maintenance
Structures Maintenance & Investigations

DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0605
Facility Carried: ANTONIO PARKWAY
Location : 0.8 MI SW AVENIDA BNDRA
City :
Inspection Date : 12-JUN-01
Inspection Type

Bridge Inspection Report

Routine	Group A	Underwater	Special	Other
X				

Name : TIJERAS CREEK

CONSTRUCTION INFORMATION

Year Built : 1991
Year Widened : N/A
Length (m) : 128.6

Skew (degrees): 99
No. of Joints : 0
No. of Hinges : 0

Description of Structure : Continuous 3-span CIP/PS concrete box girder (11 cells) with RC 3-column bents and RC open end diaphragm abutments, all supported upon spread footings.

Span Configuration : (S) 38.4 m, 51.2 m, 38.4 m (N) c/c

LOAD CAPACITY AND RATINGS

Design Live Load : MS - 18 + MOD OR HS - 20 + MOD
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 N/A english tons Type 3S2 N/A english tons Type 3-3 N/A english tons

DESCRIPTION ON STRUCTURE

Bridge width : (W) 0.3 m br, 1.5 m sw, 13.4 m, 4.3 m cu med, 13.4 m, 2.7 m sw, 0.3 m br (E)

Total Width : 36.0 m Net Width : 13.40 m No. of Lanes : 6
Rail Description : Type 26 (Concrete) Railing Rail Code : 1010
Min. Vertical Clearance : Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description : Natural earth trapezoidal ravine.

CONDITION OF STRUCTURE

The structure is in good condition.

MISCELLANEOUS

Vehicular parking is at the southeast quadrant.

ELEMENT LEVEL INSPECTION RATINGS

F#	Elem No.	Element Description	Env	Total Quantity	Units	Qty in each Condition State St. 1	St. 2	St. 3	St. 4	St. 5
01	12	Concrete Deck - Bare	2	4610	sq.m.	4610	0	0	0	0
01	104	P/S Conc Closed Web/Box Girder	2	129	m.	129	0	0	0	0
01	205	Reinforced Conc Column or Pile Extension	2	6	ea.	6	0	0	0	0
01	215	Reinforced Conc Abutment	2	90	m.	90	0	0	0	0
01	303	Assembly Joint/Seal (modular)	2	90	m.	90	0	0	0	0
01	312	Enclosed/Concealed Bearing	2	2	ea.	2	0	0	0	0
01	321	Reinforced Conc Approach Slab w/ or w/o AC Ovly	2	12	ea.	12	0	0	0	0
01	331	Reinforced Conc Bridge Railing	2	282	m.	282	0	0	0	0

WORK RECOMMENDATIONS - NONE

Printed on : 13-JUN-2001 08:08:36 AM

Bridge No.: 55C0605 Location: 0.8 MI SW AVENIDA BNDRA Inspection Date: 12-JUN-01

Inspected By : M. Ogata

M. Ogata

Registered Civil Engineer

CC : TMRut
Orange County

Printed on : 13-JUN-2001 08:08:36 AM

Bridge No.: 55C0605 **Location: 0.8 MI SW AVENIDA BNDRA** **Inspection Date: 12-JUN-01**

STRUCTURE INVENTORY AND APPRAISAL REPORT

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

(1)	STATE NAME - CALIFORNIA	069
(8)	STRUCTURE NUMBER	55C0605
(5)	INVENTORY ROUTE(ON/UNDER) - ON	1 40 00000N
(2)	HIGHWAY AGENCY DISTRICT	12
(3)	COUNTY CODE 059 (4) PLACE CODE	00000
(6)	FEATURE INTERSECTED - TIJERAS CREEK	
(7)	FACILITY CARRIED - ANTONIO PARKWAY	
(9)	LOCATION - 0.8 MI SW AVENIDA BNDRA	
(11)	MILEPOINT/KILOMETERPOINT	0
(12)	BASE HIGHWAY NETWORK - NOT ON NET	0
(13)	LRS INVENTORY ROUTE & SUBROUTE	
(16)	LATITUDE	33 DEG 36 MIN 18 SEC
(17)	LONGITUDE	117 DEG 37 MIN 19 SEC
(98)	BORDER BRIDGE STATE CODE % SHARE	%
(99)	BORDER BRIDGE STRUCTURE NUMBER	

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

(43)	STRUCTURE TYPE MAIN: MATERIAL - PRSTR CONC CONT TYPE - BOX BEAM OR GDR - MULTIPLE CODE	6 05
(44)	STRUCTURE TYPE APPR: MATERIAL - TYPE - CODE	
(45)	NUMBER OF SPANS IN MAIN UNIT	30
(46)	NUMBER OF APPROACH SPANS	0
(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	1991
(106)	YEAR RECONSTRUCTED	0000
(42)	TYPE OF SERVICE: ON - HIGHWAY-PEDESTRIAN	5
	UNDER - WATERWAY	5
(28)	LANES: ON STRUCTURE 06 UNDER STRUCTURE	
(29)	AVERAGE DAILY TRAFFIC	20000
(30)	YEAR OF ADT 1999 (109) TRUCK ADT	1%
(19)	BYPASS, DETOUR LENGTH	11 KM

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

(48)	LENGTH OF MAXIMUM SPAN	51.2 M
(49)	STRUCTURE LENGTH	128.6 M
(50)	CURB OR SIDEWALK: LEFT 1.5 M RIGHT	2.7 M
(51)	BRIDGE ROADWAY WIDTH CURB TO CURB	13.4 M
(52)	DECK WIDTH OUT TO OUT	36 M
(32)	APPROACH ROADWAY WIDTH (W/SHOULDERS)	21.9 M
(33)	BRIDGE MEDIAN - CLOSED (NO BARRIER)	2
(34)	SKEW 99 DEG (35) STRUCTURE FLARED	NO
(10)	INVENTORY ROUTE MIN VERT CLEAR	99.99 M
(47)	INVENTORY ROUTE TOTAL HORIZ CLEAR	13.4 M
(53)	MIN VERT CLEAR OVER BRIDGE RDWY	99.99 M
(54)	MIN VERT UNDERCLEAR REF - NOT H/RR	0 M
(55)	MIN LAT UNDERCLEAR RT REF - NOT H/RR	0 M
(56)	MIN LAT UNDERCLEAR LT	0 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

****

SUFFICIENCY RATING = 66.7

STATUS = FUNCTIONALLY OBSOLETE

HEALTH INDEX = 100

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

(112)	NBIS BRIDGE LENGTH - YES	Y
(104)	HIGHWAY SYSTEM - NOT ON NHS	0
(26)	FUNCTIONAL CLASS - LOCAL URBAN	19
(100)	DEFENSE HIGHWAY - NOT STRAHNET	0
(101)	PARALLEL STRUCTURE - NONE EXISTS	N
(102)	DIRECTION OF TRAFFIC - 2 WAY	2
(103)	TEMPORARY STRUCTURE -	
(105)	FEDERAL LANDS HIGHWAY - NOT APPLICABLE	0
(110)	DESIGNATED NATIONAL NETWORK - NOT ON NET	0
(20)	TOLL - ON FREE ROAD	3
(21)	MAINTAIN - COUNTY HIGHWAY AGENCY	2
(22)	OWNER - COUNTY HIGHWAY AGENCY	2
(37)	HISTORICAL SIGNIFICANCE - NOT ELIGIBLE	5

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

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

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

(31)	DESIGN LOAD - MS - 18 + MOD OR HS - 20 + MOD	6
(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 - Equal to or above legal loads	5
(41)	STRUCTURE OPEN, POSTED OR CLOSED - DESCRIPTION - OPEN, NO RESTRICTION	A

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

(67)	STRUCTURAL EVALUATION	7
(68)	DECK GEOMETRY	2
(69)	UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(71)	WATER ADEQUACY	9
(72)	APPROACH ROADWAY ALIGNMENT	8
(36)	TRAFFIC SAFETY FEATURES	1010
(113)	SCOUR CRITICAL BRIDGES	8

********** 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	40000
(115)	YEAR OF FUTURE ADT	2019

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

(90) INSPECTION DATE 06/01 (91) FREQUENCY 24 MO

(92) CRITICAL FEATURE INSPECTION: (93) CFI DATE

A)	FRACTURE CRIT DETAIL -	NO	-1 MO A)
B)	UNDERWATER INSP -	NO	-1 MO B)
C)	OTHER SPECIAL INSP -	NO	-1 MO C)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF STRUCTURES
SUPPLEMENTARY BRIDGE REPORT
DS-M19 (REV. 2/93)

Bridge Number 55C-605

Location 12 - Ora - CR
Dist.-Co.-Rte.-City

Date of Investigation August 7, 1996

TYPE OF INVESTIGATION/REPORT			
BIENNIAL	X	DAMAGE	
CATEGORY A		OTHER	
UNDERWATER		OFFICE	

Name **TIJERAS CREEK (Antonio Parkway, 0.8 mile southwest of Avenida De Las Banderas)**

CONDITION RATINGS:
Element Level Inspection (ELI) form attached.

Channel & Channel Protection: 8

CONDITION OF STRUCTURE:

Condition of structure is good.

WORK RECOMMENDED:

None.

M. Hadi Behrooj

By G. P. Balinghasay

REGISTERED PROFESSIONAL ENGINEER
MOHAMMAD HADI BEHROOJ
No. C 41777
MAR 31 2003
CIVIL
STATE OF CALIFORNIA

GPB:cd
cc: TMRut
Orange County

********** STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION **********

ELEMENT LEVEL INSPECTION-(ELI)

BRIDGE NUMBER: 55C0605 (1–8)

FRAME: 01 (9)

INSPECTION DATE: 080796 (11–16)

INFORMATION ONLY - NOT FOR UPDATE

SCOUR CRITICAL..... NO
GROUP A INVESTIGATION..... NO
FRACTURE CRITICAL..... NO
ELIGIBLE FOR RAIL UPGRADE.. NO
UNDERWATER INVESTIGATION... NO

DISTRICT: 12
COUNTY: ORA
ROUTE:
POSTMILE:
NAME:

DEL	ELE #	ELEMENT DESCRIPTION	ENV	TOTAL QUANTITY	UNITS	QUANT CONDITION STATE 1	QUANT CONDITION STATE 2	QUANT CONDITION STATE 3	QUANT CONDITION STATE 4	QUANT CONDITION STATE 5
	12	CONCRETE DECK - BARE	2	1	EA	1				
	104	P/S CONCRETE CLOSED WEB/BOX GIRDER	2	129	M	129				
	205	REINFORCED CONCRETE COLUMN OR PILE EXTENSION	2	6	EA	6				
	215	REINFORCED CONCRETE ABUTMENT	2	90	M	90				
	303	ASSEMBLY JOINT SEAL (MODULAR)	2	90	M	90				
	321	REINFORCED CONCRETE APPROACH SLAB	2	10	EA	10				
	333	MISCELLANEOUS BRIDGE RAILING	2	282	M	282				

(18 19) (22 23) (28) (33) (38) (43) (48)

08/23/96 55C SHAWN ZANGANEH

BY:

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF STRUCTURES

SUPPLEMENTARY BRIDGE REPORT

DS-M19 (REV. 2/93)

Bridge Number 55C-605

Location 12 - Ora - CR
Dist.-Co.-Rte.-City

Date of Investigation July 8, 1994

TYPE OF INVESTIGATION/REPORT			
BIENNIAL	X	DAMAGE	
CATEGORY A		OTHER	
UNDERWATER		OFFICE	

Name **TIJERAS CREEK (Antonio Parkway, 0.8 mile southwest of Avenida De Las Banderas)**

CONDITION RATINGS:
Condition ratings of all bridge elements are shown on the PONTIS DATA FORM (Attachment A).

Channel & Channel Protection: 8

SCOUR CRITICAL:

The scour rating of A-3 is appropriate.

CONDITION OF STRUCTURE:

The few light intermittent longitudinal cracks in soffit of this concrete box girder near east and west exterior girder in the south span remain unchanged. Otherwise the structure is in good condition.

WORK RECOMMENDED:

None.

M. H. Behrooj

By S. A. Zanganeh
S. A. Zanganeh

SAZ:cd
cc: CDHarris
Orange County
WLindsey

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

(ATTACHMENT A)

PONTIS DATA FORM - PIA

BRIDGE NUMBER	FRAME	INSPECTION DATE
5 5 C 0 6 0 5	0 1	0 7 0 8 9 4
1 – 8	9	11 – 16

INFORMATION ONLY - NOT FOR UPDATE

SCOUR CRITICAL	NO
CATEGORY A	NO
FRACTURE CRITICAL	NO
ELIGIBLE FOR RAIL UPGRADE	NO
UNDERWATER INSPECTION	NO

DISTRICT	12
COUNTY	ORA
ROUTE	
POSTMILE	
NAME	

DEL	ELE #	ELEMENT DESCRIPTION	ENV	TOTAL QUANTITY	UNITS	QUANT CONDITION STATE 1	QUANT CONDITION STATE 2	QUANT CONDITION STATE 3	QUANT CONDITION STATE 4	QUANT CONDITION STATE 5
	4	P/S CONCRETE CLOSED WEB/BOX GIRDER	2	129	M	129				
	47	REINFORCED CONCRETE COLUMN OR PILE EXTENSION	2	6	EA	6				
	51	CONCRETE ABUTMENT	2	90	M	90				
	104	MISCELLANEOUS BRIDGE RAILING	2	282	M	282				
	112	CONCRETE DECK - BARE	2	1	EA	1				
18	19		22	23		28	33	38	43	48

BY: S22

07/10/95

DEPARTMENT OF TRANSPORTATION

BRIDGE REPORT 14W24

DS-M58 (REV. 1/91)

Bridge No. 55C - 605

Location 12 - Ora - CR
Dist Co Rte City

Date of Investigation June 11, 1992

Name TIJERAS CREEK (Antonio Parkway, 0.8 mile southwest of Avenida De Las Banderas)

Lat. 33°- 36.6'N **Long.** 117°- 37.0'W

Custodian County of Orange **Owner** County of Orange

STRUCTURAL DATA AND HISTORY

Year Built 1991 **By** County of Orange **Contract No.** Unknown

Designed by: McDaniel Engineering Co. **Plans Avail. @** DOS

Description: Three span continuous CIP prestressed concrete box girder (11 cells) supported by RC column (3 each) bents and open end RC diaphragm abutments, all on steel piles except bent 3 (from south) which is on spread footings.

Spans (S) 126', 168', 126' (N)

Length 422' **NBIS Bridge Length** Yes **Skew** Var. 28° to 40° Lt.

Number of Intermediate Joints: **@Hinges** None **@Bents** None

Maximum Column/Pier Height: **(Less than 20')** **(20'-29')** **(30' & Over)** X

Design Live Load HS 20-44 & Alt. & Permit **Design Method** Load Factor

DESCRIPTION - ON STRUCTURE

Bridge Width (W) 1'br, 5'sw, 44', 14'm, 44', 9'sw, 1'br (E)

Total Width 118' **Net Width** 102' **Lanes** 5 **Tracks** None

Median Painted stripe **Rail Type** 26 with tubular handrail 1011

Vert. Clearance over deck Unimpaired **Appr. Rdwy. Width** 72'

Deck Type 1 **Wearing Surface/Prot. Sys.** 100 Concrete/None

Alignment R = 2,350'

DESCRIPTION - UNDER STRUCTURE

Roadway Section None

Clearances: **Road:** **Vert.** **Horiz. Lt.** ; **Rt.**

Lanes **Tracks**

Facilities Crossed Tijeras (L 11)

Bridge No. 55C - 605

June 11, 1992

DESCRIPTION - HYDRAULICS

Channel Natural ravine with gravel bottom

Navigable: Yes [ ] No [ ] **Clearances:** Vert. ..... **Horiz.** .....

Pier/Abutment Protection (For Navigation) [ ]

TRAFFIC INFORMATION	**DECK**	**YEAR**	**UNDER**	**YEAR**
Average Daily Traffic & Year :	Est. 1,000	1992	N	
Average Daily Traffic (Future) :	Est. 12,000	2010	N	
Average Daily Trucks (% OF ADT) :	1%		N	
Bypass Detour Length:	7 miles		N	
Shell Route:	No		N	
Functional Classification :	19		N	

LOAD RATINGS: **Inventory** HS 20 **Operating** HS 33

Permit PPPPP **Computation Method** Min. by design

CONDITION RATINGS:

Deck 8 **Superstructure** 8 **Substructure** 8

Channel & Channel Protection 8 **Culvert** N **Widenable** Yes

APPRAISAL RATINGS:

Waterway Adequacy 9 **Approach Roadway Alignment** 8

Date of Revisions .....

CONDITION OF STRUCTURE:

There are a few light intermittent longitudinal cracks in soffit of this concrete box girder near east and west exterior girder in the south span.

The structure is new and is in good condition.

Henry Ma

REGISTERED PROFESSIONAL ENGINEER
HENRY MA
No. C-36817
Exp 6-30-96
CIVIL
STATE OF CALIFORNIA

HM:cd
cc: INagai (2)
County of Orange

IMPROVEMENT PLANS FOR CONSTRUCTION OF

ANTONIO PARKWAY BRIDGE

OVER TIJERAS CREEK

F.C.P.P. PROJECT 15-B

INDEX TO BRIDGE PLANS

SHEET NO.	TITLE
1	IMPROVEMENT PLAN TITLE SHEET
2	GENERAL PLAN
3	DECK CONTOURS
4	FOUNDATION PLAN
5	ABUTMENT DETAILS – 1
6	ABUTMENT DETAILS – 2
7	BENTS 2 & 3 DETAILS
8	TYPICAL SECTION
9	GIRDER LAYOUT
10	JOINT SEAL ASSEMBLY
11	APPROACH SLAB DETAILS
12	BRIDGE LIGHTING PLAN
13	LOG OF TEST BORINGS
14	SLOPE PROTECTION PLAN

INDEX TO STANDARD PLANS

THE FOLLOWING STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS, DATED JANUARY, 1988, ARE A PART OF THESE CONTRACT DRAWINGS.

A 62-B	EXCAVATION AND BACKFILL BRIDGE SURCHARGE AND WALL
A 62-C	EXCAVATION AND BACKFILL BRIDGE
B 0- 3	BRIDGE DETAILS
B 0- 5	BRIDGE DETAILS
B 0-13	BRIDGE DETAILS
B 2- 5	PILE DETAILS – CLASS 45 & CLASS 70
B 3- 1	RETAINING WALL TYPE 1 H= 4'-30'
B 3- 8	RETAINING WALL DETAILS NO. 1
B 7- 1	BOX GIRDER DETAILS
B 7-10	UTILITY OPENING – BOX GIRDER
B 8- 5	CAST-IN-PLACE PRESTRESSED GIRDER DETAILS
B11-51	TUBULAR HAND RAILING
B11-54	CONCRETE BARRIER TYPE 26
ES-6B	LIGHTING STANDARDS
ES-7B THRU 7D	SIGNAL AND LIGHTING DETAILS
ES- 8	SIGNAL AND LIGHTING DETAILS
B 7-11	UTILITIES DETAILS

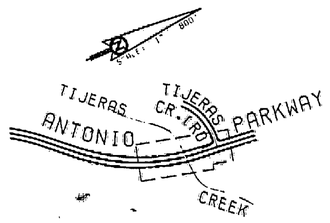
SPECIFICATIONS

STANDARD SPECIFICATIONS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, DATED JANUARY, 1988.

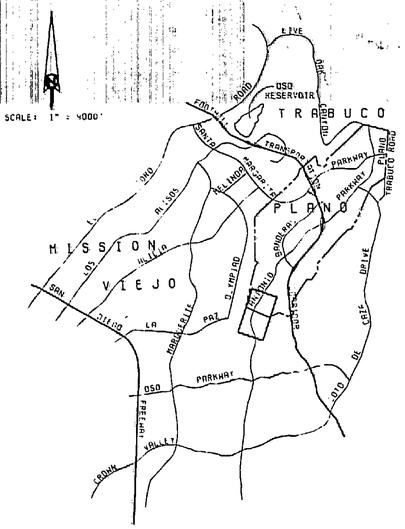
SPECIAL PROVISIONS FOR THE CONSTRUCTION OF THIS PROJECT

STANDARD PLANS

STANDARD PLANS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, DATED JANUARY, 1988.



LOCATION MAP



AREA OF INDEX MAP

VICINITY MAP

GENERAL NOTES

STREET IMPROVEMENTS

1. THIS NOTE HEREIN INCORPORATES BY REFERENCE, THOSE GENERAL NOTES NUMBERED 1 THROUGH 17 OF O.C.E.M.A. STANDARD PLAN 1301., 1936 EDITION.
2. THE CONTRACTOR SHALL HAVE A COPY OF CURRENT O.C.E.M.A. STANDARD PLANS ON THE CONSTRUCTION SITE AT ALL TIMES.
3. THE CONTRACTOR SHALL TELEPHONE EMA/PUBLIC WORKS/CONSTRUCTION AT 567-7800 AT LEAST 24 HOURS PRIOR TO STARTING CONSTRUCTION WORK SUBJECT TO EMA/PUBLIC WORKS' INSPECTION.
4. EMA ENCROACHMENT PERMIT REQUIRED. EMA APPROVED PLANS DO NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY TO OBTAIN PUBLIC PROPERTY PERMIT WHICH SHALL BE AVAILABLE ON THE JOB AT ALL TIMES WORK IS BEING ACCOMPLISHED IN THE PUBLIC RIGHT OF WAY.
5. CONTRACTOR SHALL MAINTAIN ADJACENT STREETS IN A NEAT, CLEAN, DUST FREE AND SANITARY CONDITION AT ALL TIMES AND TO THE SATISFACTION OF COUNTY'S INSPECTOR. THE ADJACENT STREETS SHALL BE KEPT CLEAN OF DEBRIS, WITH DUST AND OTHER NUISANCE BEING CONTROLLED AT ALL TIMES. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CLEAN UP ON ADJACENT STREETS AFFECTED BY HIS CONSTRUCTION. METHOD OF STREET CLEANING SHALL BE BY DRY SWEEPING OF ALL PAVED AREAS. NO STOCKPILING OF BUILDING MATERIALS WITHIN THE COUNTY RIGHT-OF-WAY WITHOUT THE PERMISSION OF COUNTY'S INSPECTOR.
6. TRAFFIC SHALL BE MAINTAINED AT ALL TIMES AND SHALL BE PROTECTED WITH ADEQUATE BARRICADES, LIGHTS, SIGNS AND WARNING DEVICES AS PER THE CURRENT STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, MANUAL OF TRAFFIC CONTROLS, AND TO THE DIRECTIONS OF THE COUNTY'S INSPECTOR.
7. ALL STREET STATIONING REFERS TO CENTERLINE OF STREET.
8. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
9. ALL MATERIAL TESTING SHALL BE PROVIDED BY THE CONTRACTOR OR CONTRACTOR IN ACCORDANCE WITH THE NUMBER, LOCATION AND FREQUENCY REQUESTED BY THE O.C.E.M.A. INSPECTOR.

AS BUILT PLANS
Bridge
~~Contract~~ No. 55C-605
Date Completed 04/90
Document No. 13 Sh

55C-605
TIJERAS CREEK
1991

REGISTERED PROFESSIONAL ENGINEER
W. MARK ASHLEY
No. C 34299
Exp. 9-30-91
CIVIL
STATE OF CALIFORNIA

COUNTY OF ORANGE
E.M.A. REGULATION DIVISION
THIS PLAN SIGNED BY E.M.A. REGULATIONS FOR CONCEPT AND ADHERENCE TO COUNTY STANDARDS AND REQUIREMENTS ONLY. E.M.A. REGULATION IS NOT RESPONSIBLE FOR DESIGN ASSUMPTIONS AND ACCURACY.
BY Patrick Stanton R.C.E. DATE 4/18/90

GEOTECHNICAL CONSULTANT

MOORE & TABER
1290 N. HANCOCK STREET
ANAHEIM, CALIF. 92817
(714) 779-2591

BENCH MARK

O.C.S. BENCH MARK DESIGNATION 3EE-8-72 LOCATED APPROXIMATELY 4000 FEET NORTHERLY OF C/L INTERSECTION OF OSO AND ANTONIO PARKWAYS, AND 700 FEET WESTERLY OF C/L ANTONIO PARKWAY, 90 FEET NORTHEAST OF HIRIZONTAL CONTROL STATION 3-2-5-7-7, 3 FEET EAST OF A STEEL WITNESS POST, SET IN THE TOP OF A CONCRETE POST, 0.6 FOOT HIGHER THAN GROUND.

1976 ADJUSTED ELEVATION 643.748

BASIS OF BEARINGS

THE BEARINGS SHOWN ON THESE PLANS ARE BASED UPON THE LINE BETWEEN TRIANGULATION STATIONS (NGS BRASS CAP STAMPED PLANO 1939) AND (O.C.S. 6-7-101 BEING N 9) 01' 32" E PER THE CALIFORNIA COORDINATE SYSTEM, ZONE VI, 1975 DATUM ON FILE IN THE OFFICE OF THE ORANGE COUNTY SURVEYOR

OWNER DEVELOPER

SANTA MARGARITA COMPANY
30211 AVENIDA DE LAS BANDERAS
RANCHO SANTA MARGARITA, CALIF. 92688
(714) 589-4040

NO.	REVISIONS	APPROVED	DATE
1	ADDED SHEET 14 "SLOPE PROTECTION PLAN"; RENUMBERS SHEETS 4-25-90	P. Stanton	5-2-90

PROJECT REIMBURSED BY FUNDS FROM:
COMMUNITY FACILITIES DISTRICT
86-2

BLOCK NO. 5258
MODULE NO. 07, 03

McDANIEL ENGINEERING COMPANY, INC.
3990 OLD TOWN AVE., SUITE 207D, SAN DIEGO, CA 92110 - (619)692-1920

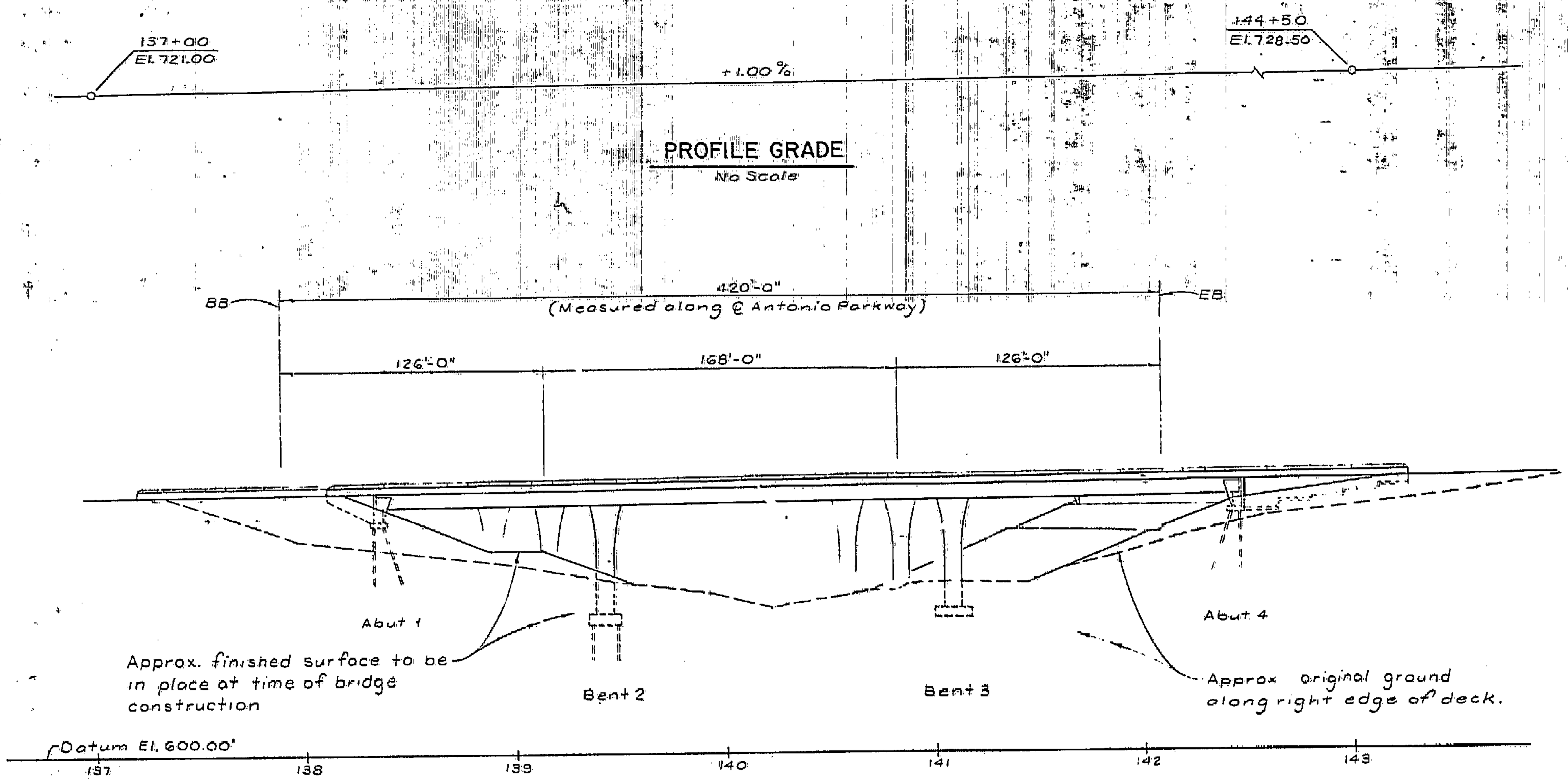
ENGINEER OF WORK:
W. Mark Ashley C 34299 9-30-91 10-11-89
W. MARK ASHLEY RCE EXP DATE

IMPROVEMENT PLAN TITLE SHEET

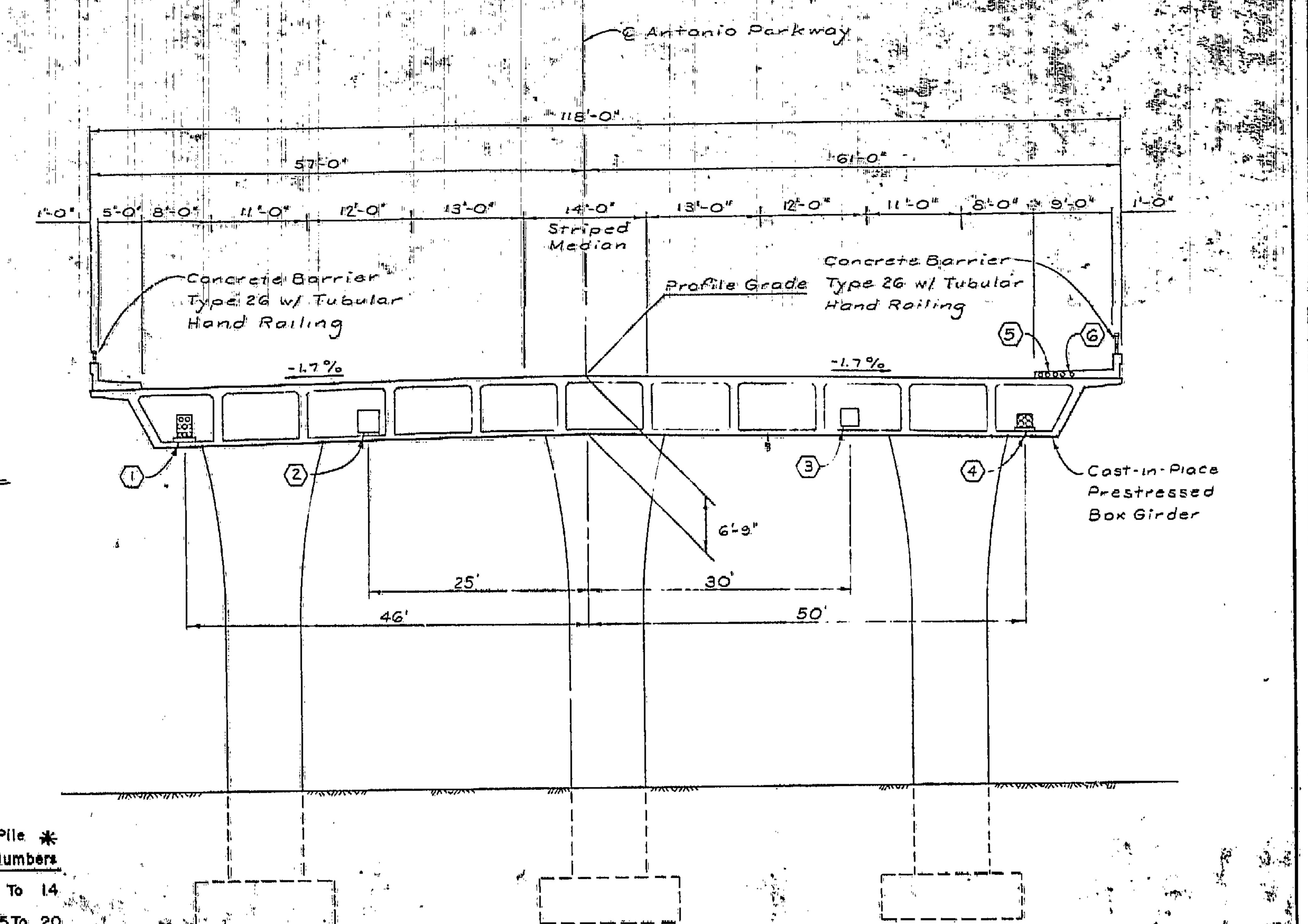
ANTONIO PARKWAY BRIDGE OVER TIJERAS CREEK

SHEET 1 OF 14 SHEETS

DRB 15552



ELEVATION
1" = 40'



TYPICAL SECTION
1" = 10'

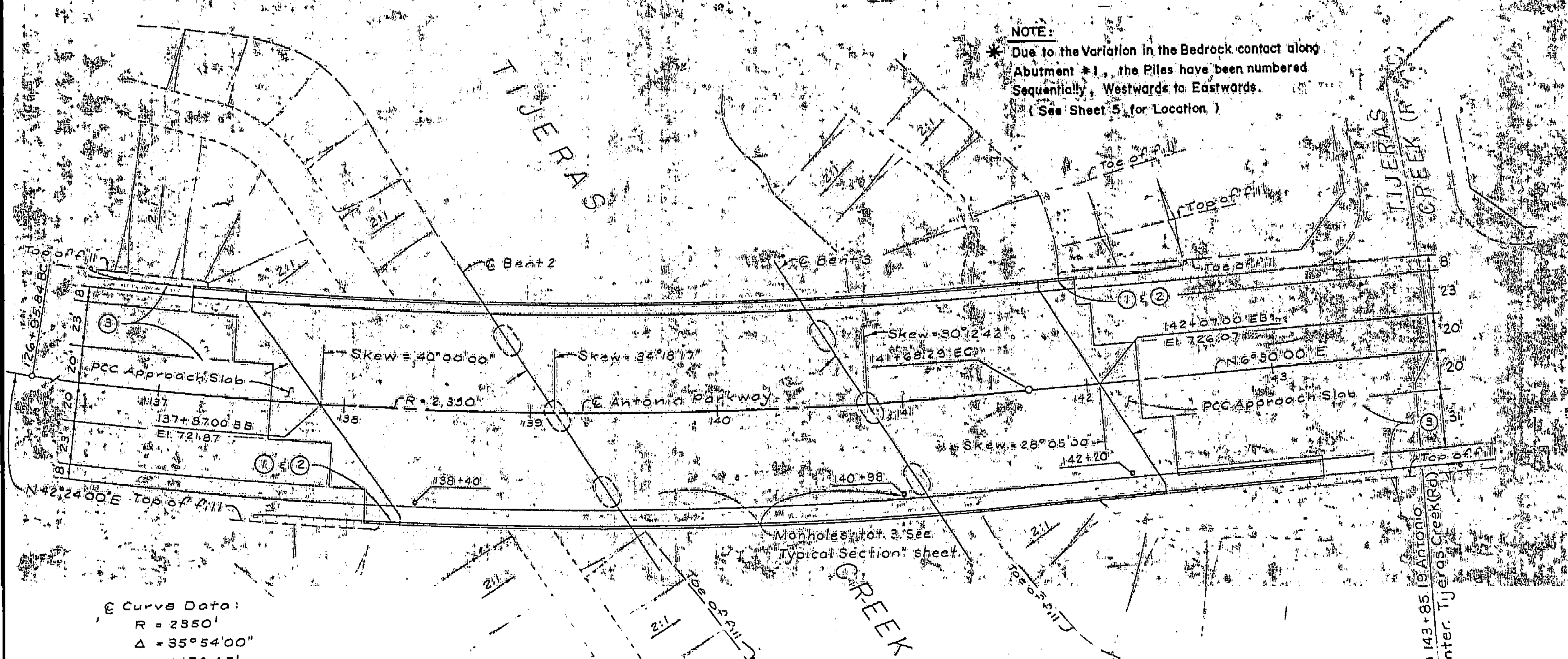
PILE DATA

Location	Pile Type	Design Loading	Tip Elevation Specified	Tip Elevation Probable
Bent 2	HP 12 X 74	85 TONS	646.0	641.0
Abutment 4	HP 12 X 74	85 TONS	695.0	690.0

PILE DATA

Location	Pile Type	Design Loading	Tip Elevation Specified	Tip Elevation Probable	Pile * Numbers
Abutment 1	HP 12 X 74	85 TONS	640.0	635.0	1 To 14
			642.0	637.0	15 To 20
			645.0	640.0	21 To 30

NOTE:
* Due to the Variation in the Bedrock contact along Abutment # 1, the Piles have been numbered Sequentially, Westwards to Eastwards. (See Sheet 5 for Location)



℄ Curve Data:
R = 2350'
Δ = 35°54'00"
L = 1472.45'
T = 761.29'

PLAN
1" = 40'

① — Paint Bridge No.
② — Paint "Antonio Parkway Bridge Over Tijeras Canyon."
③ — Metal Beam Approach Guard Railing, see Street Improvement Plans by Williamson & Schmid "OSO Parkway to Tijeras Creek."

UTILITIES

① — 8-4" dia. Telephone ducts, 33" H x 19" W Opening Pac Bell.
② — 2'-6" H x 2'-6" W Openings for future gas main.
③ — 24" H x 24" W Openings for future utilities
④ — 4-5" dia. Electric Conduits 18" H x 18" W Opening Southern California Edison.
⑤ — 4-2" dia. Cable TV ducts, Santa Margarita Cable T.V.
⑥ — 1-2" dia. Signalization Conduit.

NOTE: Street lighting conduits not shown.

POOR COPY

PLAN SYMBOLS

(A) — SECTION IDENTIFICATION

(B0-3 / 3-1) ← CALTRANS STANDARD PLAN (JANUARY, 1988) SHEET NUMBER.
← DETAIL NUMBER.

APPROXIMATE QUANTITIES

FURNISH STEEL PILING (HP 12 X 74)	3,469.	LF
DRIVE STEEL PILE (HP 12 X 74)	123.	EA
PRESTRESSING CAST-IN-PLACE CONCRETE	LUMP SUM	
JOINT SEAL ASSEMBLY (MR 3")	254.	LF
TUBULAR HAND RAILING	990.	LF
CONCRETE BARRIER TYPE 26 (5' SIDEWALK)	475.	LF
CONCRETE BARRIER TYPE 26 (9' SIDEWALK)	520.	LF
BRIDGE LIGHTING	LUMP SUM	
⚠1 RIP-RAP	1,163	CY
FILTER FABRIC	9,750	S.F.

FINAL PAY QUANTITIES

STRUCTURE EXCAVATION (BRIDGE)	690.	CY
STRUCTURE EXCAVATION (RETAINING WALL)	110.	CY
STRUCTURE EXCAVATION (TYPE D)	1,190.	CY
STRUCTURE BACKFILL (BRIDGE)	278.	CY
STRUCTURE BACKFILL (RETAINING WALL)	107.	CY
PERVIOUS BACKFILL MATERIAL	71.	CY
STRUCTURAL CONCRETE, BRIDGE	4,631.	CY
STRUCTURAL CONCRETE, RETAINING WALL	42.	CY
STRUCTURAL CONCRETE, BRIDGE FOOTING	448.	CY
STRUCTURAL CONCRETE, APPROACH SLAB	159.	CY
BAR REINFORCING STEEL (BRIDGE)	829,800.	LB
BAR REINFORCING STEEL (RETAINING WALL)	2,200.	LB
MISCELLANEOUS METAL (BRIDGE)	1,500.	LB

[redacted]

REGISTERED PROFESSIONAL ENGINEER — W. MARK ASHLEY — No. C 34299 — Exp. 9-30-91 — CIVIL — STATE OF CALIFORNIA

55C-605

1/2 0 1 2
3 inches on original drawing

ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY BRIDGE
OVER TIJERAS CREEK

GENERAL PLAN

McDANIEL ENGINEERING COMPANY, INC.
3990 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 • (619)692-1920

ENGINEER OF WORK:
W. Mark Ashley — 34299 RCE — 9-30-91 EXP — 10-11-89 DATE

MARK	DATE	DESCRIPTION
⚠1	4-24-90	ADDED RIP RAP AND FILTER FABRIC TO QTY'S

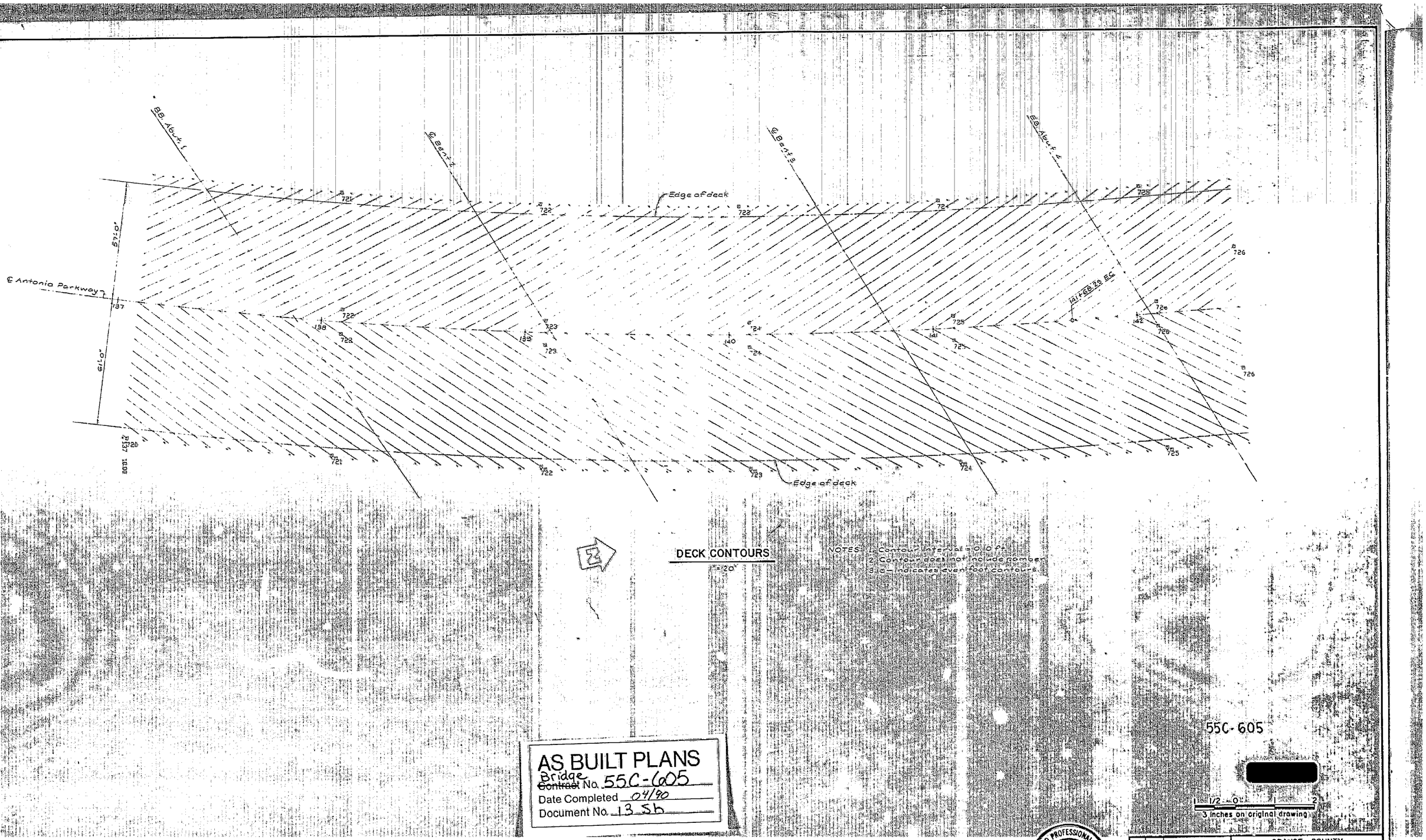
REVISIONS
DESIGNED / DRAWN / CHECKED
PREPARED UNDER SUPERVISION OF — DATE
SCALE AS SHOWN — DATE — DWG. NO. — SHEET 2/14

DR8 15552

AS BUILT PLANS
Bridge No. 55C-605
Date Completed 04/90

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION — CERTIFICATE OF ACCURATE MICROFILM IMAGE — ADM-0239 (REV 10/81)
I hereby certify that this is a true and accurate image of the above document taken under my direction and control on this date in Sacramento, California pursuant to authorization by the Director of Transportation.
SUPERVISOR OF MICROFILM SERVICES (SIGNATURE) — DATE

29X



DECK CONTOURS

NOTES: 1. Contour interval = 0.10 ft.
2. Contour does not include decimal
3. (0.0) Indicates elevation of contours

AS BUILT PLANS
Bridge
~~Contract~~ No. 55C-605
Date Completed 04/90
Document No. 13,556

55C-605

[redacted]

1 1/2" = 0" 1 2
3 inches on original drawing

REGISTERED PROFESSIONAL ENGINEER
W. MARK ASHLEY
No. C 34299
Exp. 9-30-91
CIVIL
STATE OF CALIFORNIA

McDANIEL ENGINEERING COMPANY, INC.
3990 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 · (619)692-1920

ENGINEER OF WORK:
W Mark Ashley C34299 9-30-91 10-11-89
W Mark Ashley RCE EXP DATE

ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY BRIDGE
OVER TIJERAS CREEK

DECK CONTOURS

MARK	DATE	DESCRIPTION
REVISIONS		

DESIGNED ____ DRAWN ____ CHECKED ____

PREPARED UNDER SUPERVISION OF ____ DATE ____

SCALE AS SHOWN | DATE | DWG. NO. | SHEET 3/14

DR8 15552

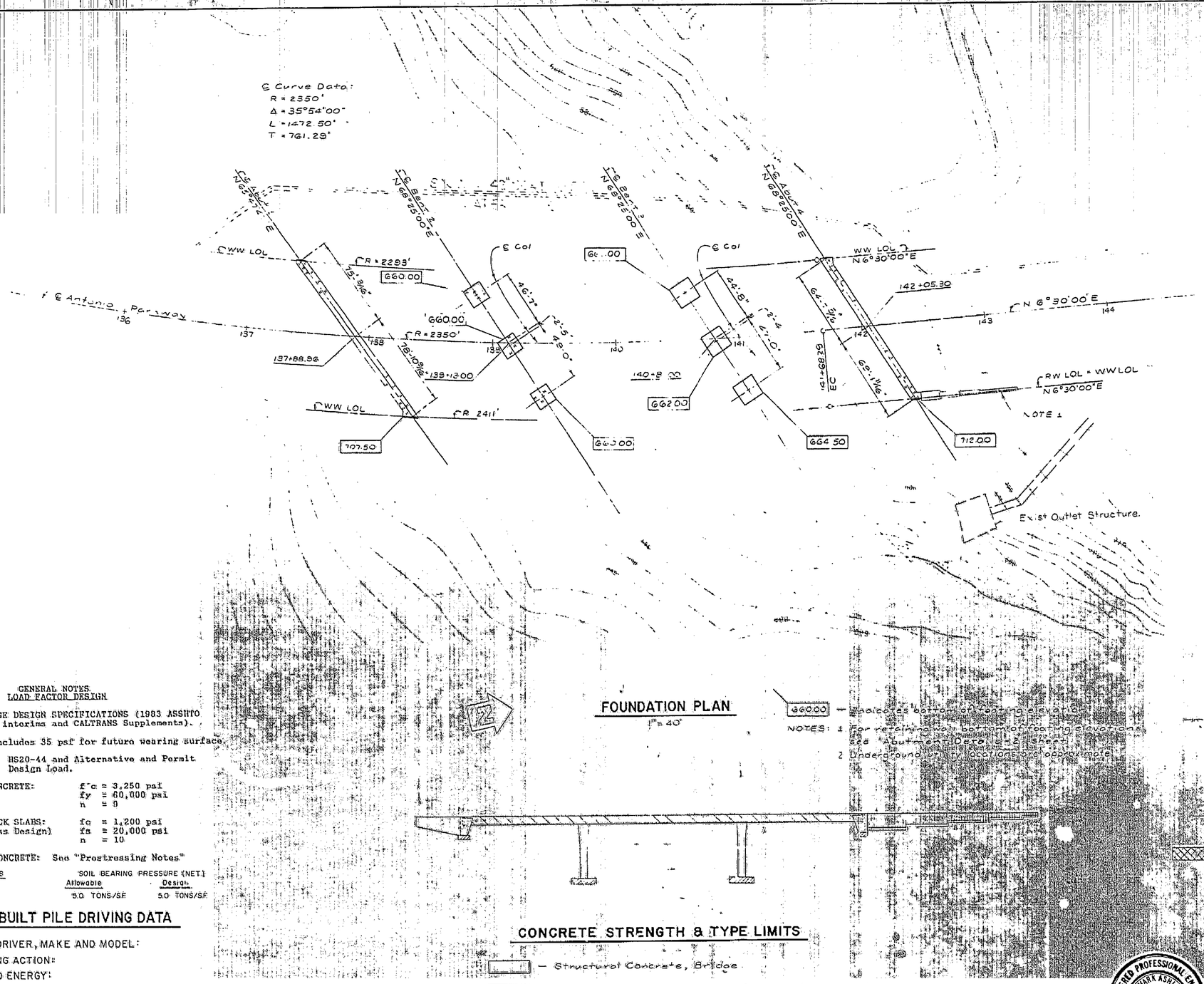
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION CERTIFICATE OF ACCURATE MICROFILM IMAGE ADM-0229 (REV. 10/81)

I hereby certify that this is a true and accurate image of the above document taken under my direction and control on this date in Sacramento, California pursuant to authorization by the Director of Transportation.

SUPERVISOR OF MICROFILM SERVICES (SIGNATURE) DATE 2-2-92

29X

℄ Curve Data:
R = 2350'
Δ = 35°54'00"
L = 1472.50'
T = 761.29'



POOR COPY

AS BUILT PLANS
Bridge
~~Contract~~ No. 55C-605
Date Completed 04/90
Document No. 13 Sh

GENERAL NOTES
LOAD FACTOR DESIGN

DESIGN: BRIDGE DESIGN SPECIFICATIONS (1983 ASSHTO with interims and CALTRANS Supplements).

DEAD LOAD: Includes 35 psf for future wearing surface.

LIVE LOADING: HS20-44 and Alternative and Permit Design Load.

REINFORCED CONCRETE: f'c = 3,250 psi
fy = 60,000 psi
n = 9

TRANSVERSE DECK SLABS: (Working Stress Design) fc = 1,200 psi
fs = 20,000 psi
n = 10

PRESTRESSED CONCRETE: See "Prestressing Notes"

SPREAD FOOTINGS — SOIL BEARING PRESSURE (NET)

	Allowable	Design
BENT 3	5.0 TONS/SF	5.0 TONS/SF

AS BUILT PILE DRIVING DATA

PILE DRIVER, MAKE AND MODEL:
DRIVING ACTION:
RATED ENERGY:
RAM WEIGHT:
MAX. STROKE:
BEARING VALUE FORMULA:
P= OR P=

LOCATION	CUT-OFF ELEVATION	MAXIMUM TIP ELEVATION	MINIMUM TIP LENGTH	AVERAGE "AS BUILT" PILE TIP ELEVATION	AVERAGE STROKE HEIGHT	AVERAGE BLOW PER FOOT	AVERAGE BEARING VALUE (TONS)
ABUT. 1							
BENT 2							
ABUT. 4							

TWO DAYS BEFORE YOU DIG
CALL USA TOLL FREE
800-422-4133

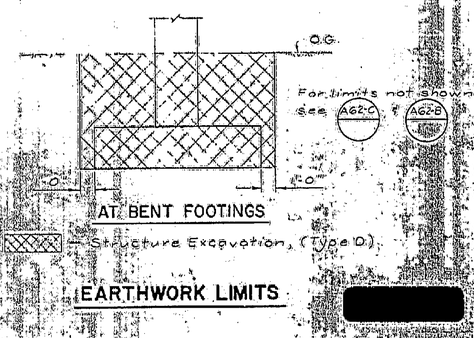
FOUNDATION PLAN
1" = 40'

660.00 — Indicates bottom of footing elevation

NOTES: 1 For retaining wall portion of footing elevations see "Abutment Details" sheet.
2 Underground utility locations are approximate.

CONCRETE STRENGTH & TYPE LIMITS

- Structural Concrete, Bridge
- Structural Concrete, Bridge (4000 psi @ 28 days)
- Structural Concrete, Bridge Footing
- Structural Concrete, Retaining Wall



EARTHWORK LIMITS [redacted]

55C-605

1/2 0 1 2
3 inches on original drawing

REGISTERED PROFESSIONAL ENGINEER
W MARK ASHLEY
No. C 34299
Exp. 9-30-91
CIVIL
STATE OF CALIFORNIA

McDANIEL ENGINEERING COMPANY, INC.
3990 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 (619)692-1920

ENGINEER OF WORK:
W Mark Ashley — C 34299 — RCE — 9-30-91 — EXP — 10-11-89 — DATE

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY BRIDGE OVER TIJERAS CREEK

FOUNDATION PLAN

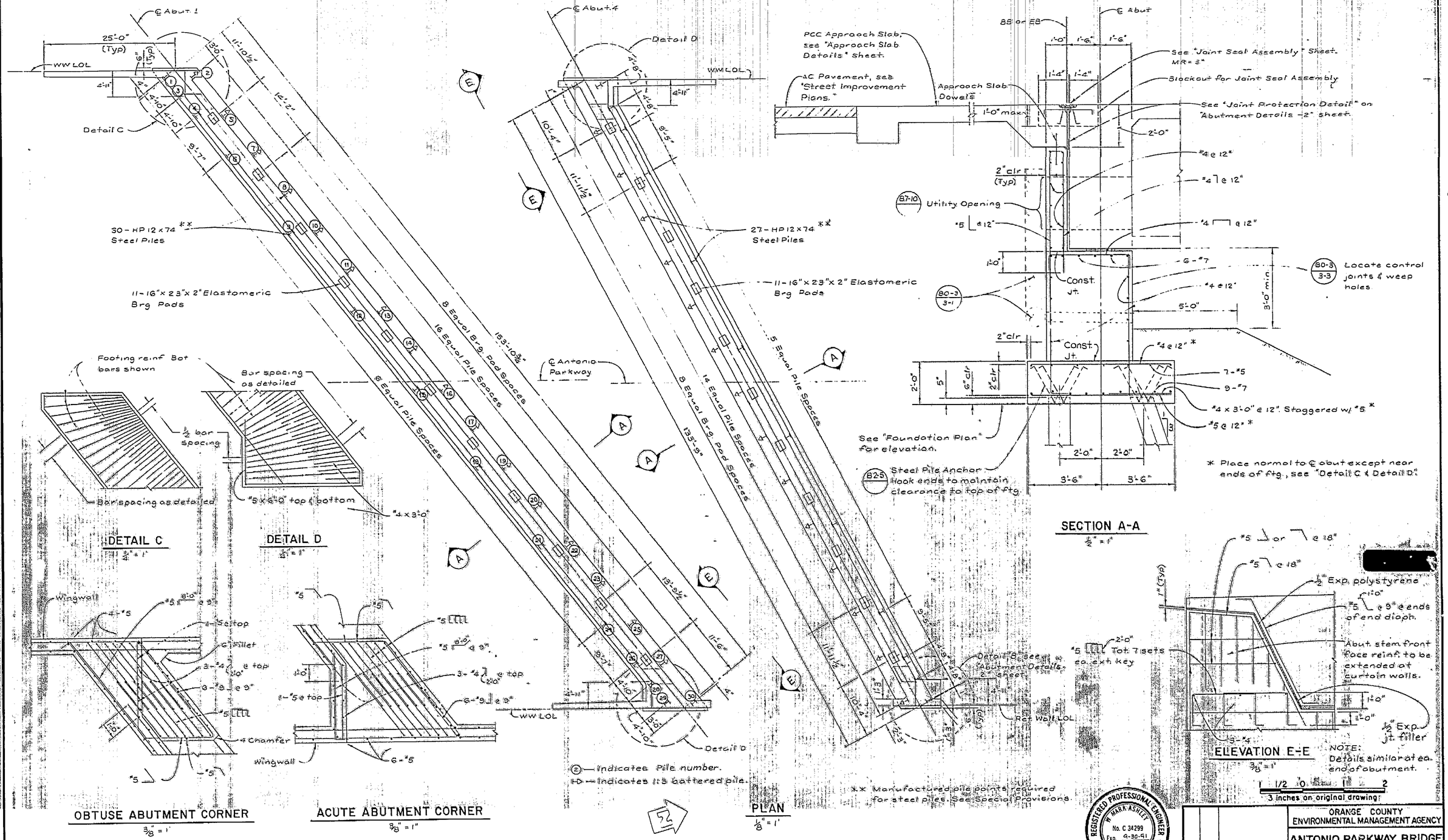
MARK	DATE	DESCRIPTION
REVISIONS		

DESIGNED
DRAWN CHECKED

PREPARED UNDER SUPERVISION OF DATE

SCALE AS SHOWN | DATE | DWG. NO. | SHEET 4/14

DR8 15552



AS BUILT PLANS
Bridge ~~Contract~~ No. 55C-605
Date Completed 04/90
Document No. 13 Sh

55C-605

REGISTERED PROFESSIONAL ENGINEER W. MARK ASHLEY No. C 34299 Exp. 9-30-91 CIVIL STATE OF CALIFORNIA

McDANIEL ENGINEERING COMPANY, INC.
3990 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 · (619)692-1920

ENGINEER OF WORK:
W. Mark Ashley C34299 9-30-91 10-11-89
W. Mark Ashley RCE EXP DATE

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY BRIDGE OVER TIJERAS CREEK

ABUTMENT DETAILS - 1

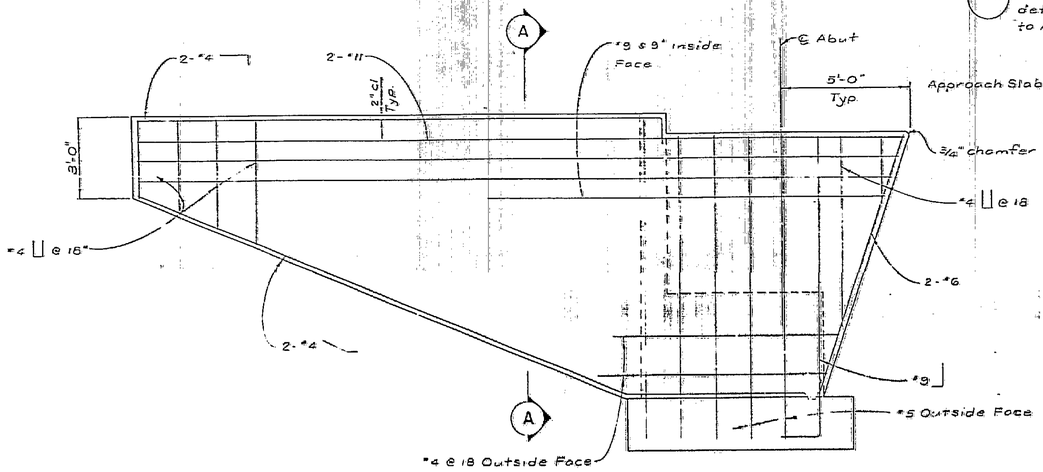
MARK	DATE	DESCRIPTION
REVISIONS		

PREPARED UNDER SUPERVISION OF _____ DATE _____

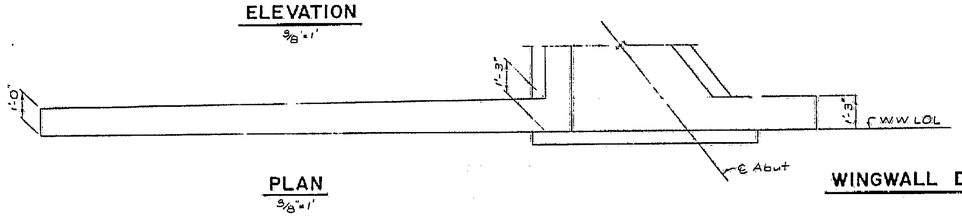
DESIGNED _____ DRAWN _____ CHECKED _____

SCALE AS SHOWN | DATE | DWG. NO. | SHEET 5/14

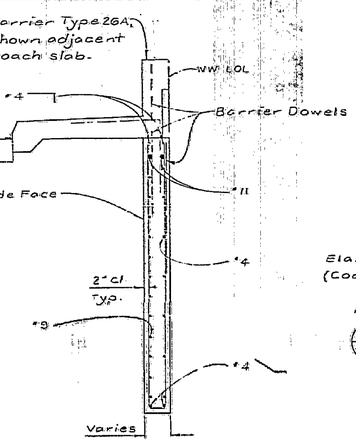
DR8 15552



ELEVATION
3/8"=1'

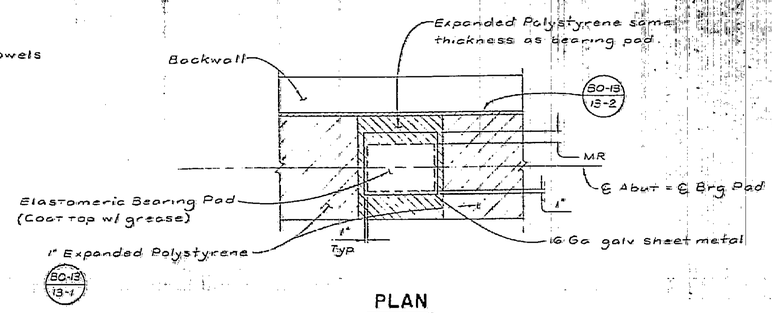


PLAN
3/8"=1'

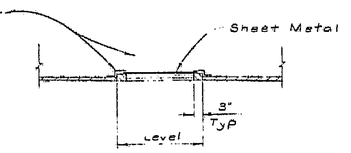


SECTION A-A
3/8"=1'

WINGWALL DETAILS



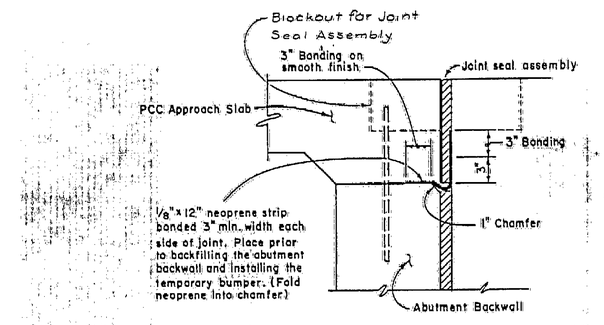
PLAN
1/2"=1'



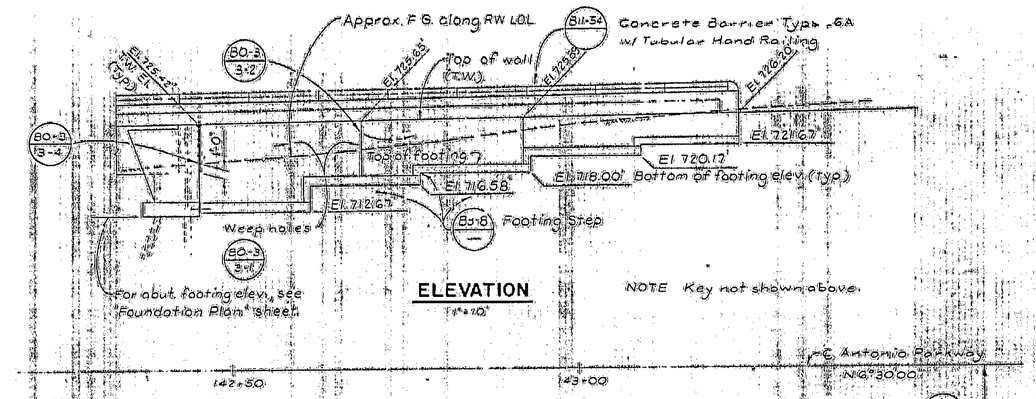
ELEVATION
1/2"=1'

BEARING SEAT DETAILS

AS BUILT PLANS
Bridge
~~Contract~~ No. 55C-1605
Date Completed 04/90
Document No. 13 Sh

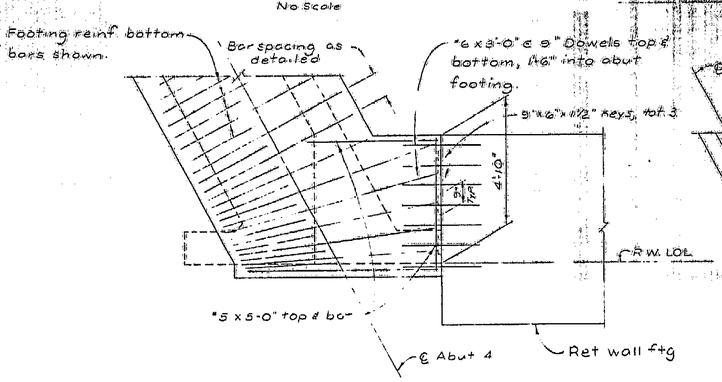


JOINT PROTECTION DETAIL
No Scale



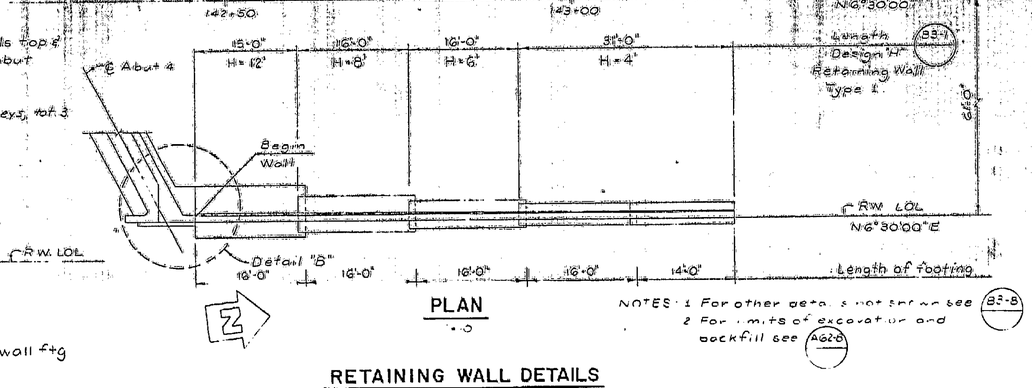
ELEVATION
1"=10'

NOTE Key not shown above.



DETAIL "B"
3/8"=1'

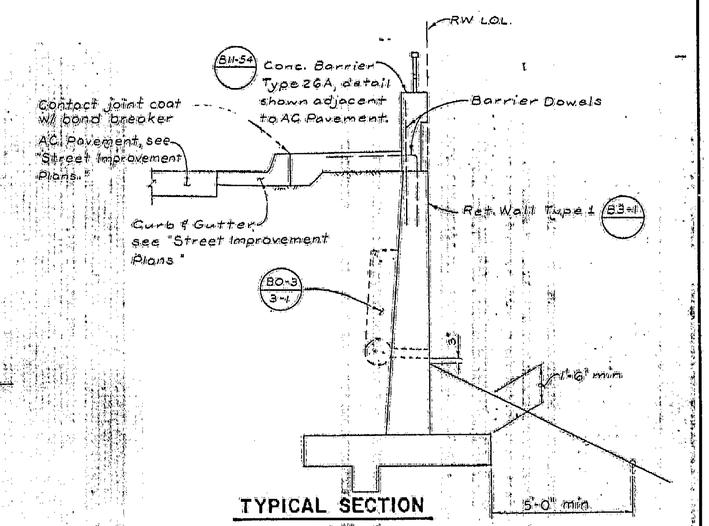
(For detail location see "Abutment Details-1" sheet)



PLAN
1"=10'

NOTES: 1 For other data, not shown see B3-8
2 For limits of excavation and backfill see A62-8

RETAINING WALL DETAILS



TYPICAL SECTION
3/8"=1'

1/2 0 1 2
3 inches on original drawing

55C-605

REGISTERED PROFESSIONAL ENGINEER W. MARK ASHLEY No C 34299 Exp 9-30-91 CIVIL STATE OF CALIFORNIA

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY BRIDGE OVER TIJERAS CREEK

ABUTMENT DETAILS-2

SHEET 6/14

McDANIEL ENGINEERING COMPANY, INC.
3990 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 · (619)392-1020

ENGINEER OF WORK:
W Mark Ashley 34299 9-30-91 10-11-89
W Mark Ashley RCE EXP DATE

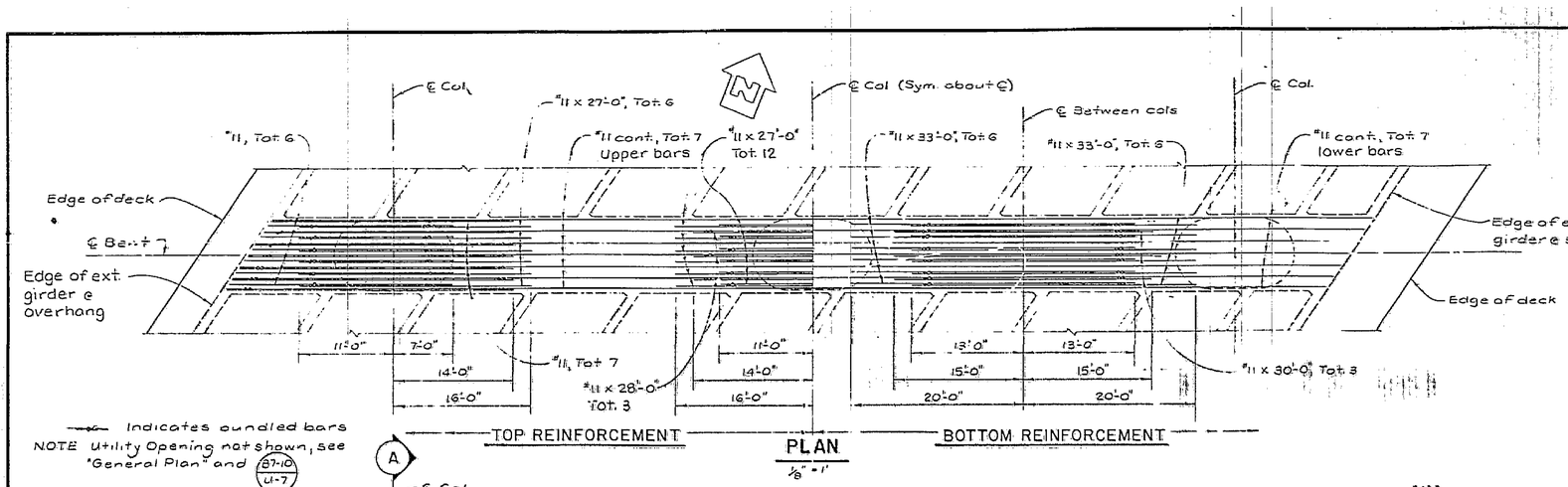
MARK	DATE	DESCRIPTION
REVISIONS		

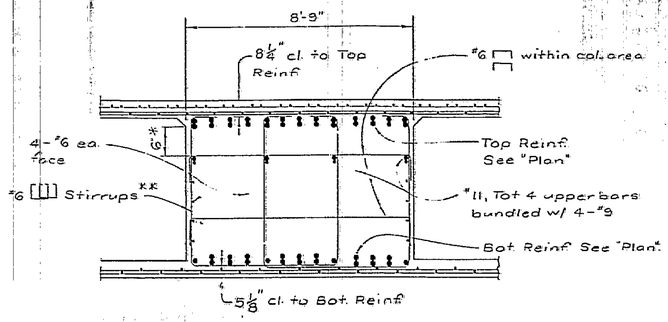
DESIGNED ____ DRAWN ____ CHECKED ____

PREPARED UNDER SUPERVISION OF ____ DATE ____

SCALE AS SHOWN | DATE | DWG. NO.

DR8 15552

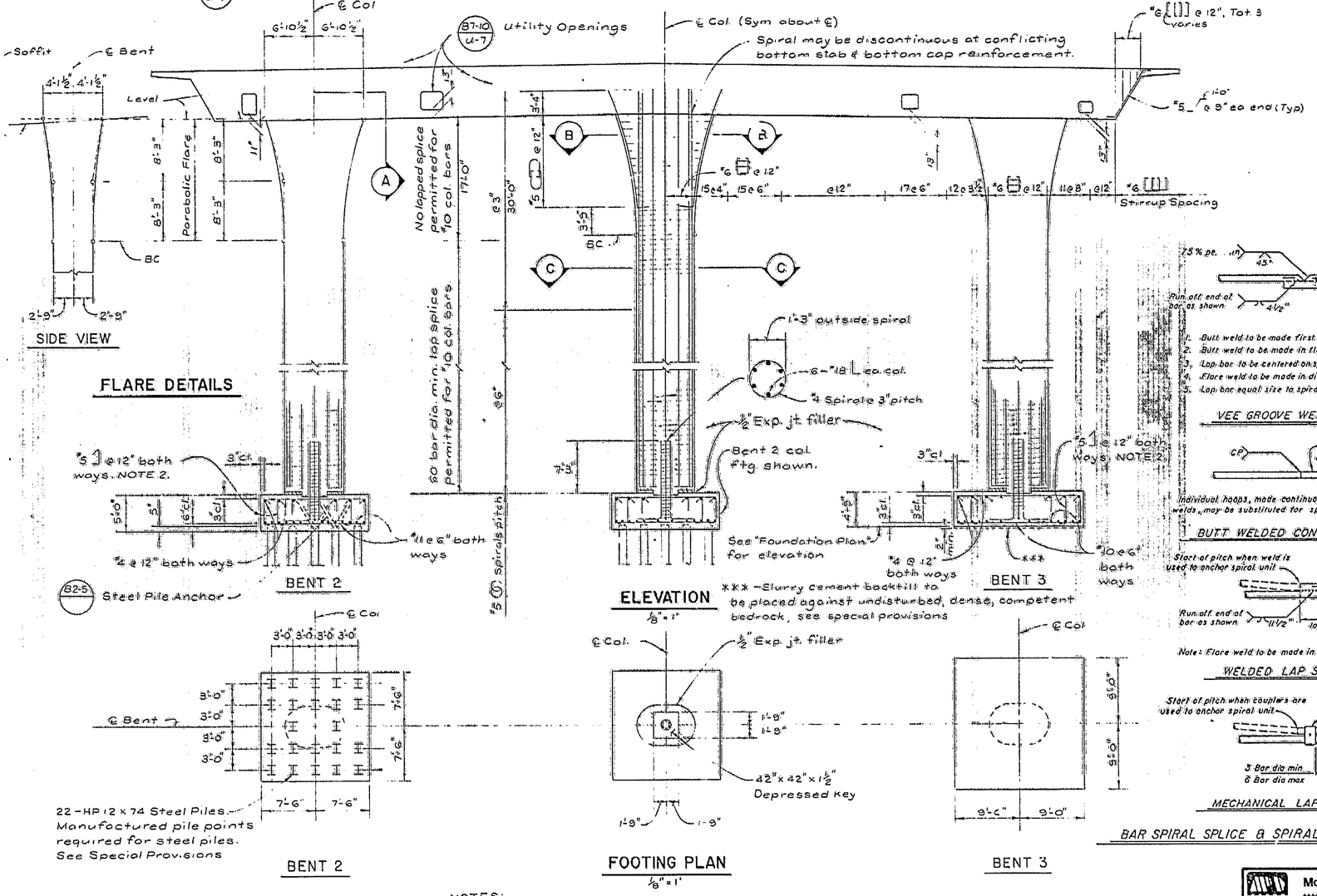


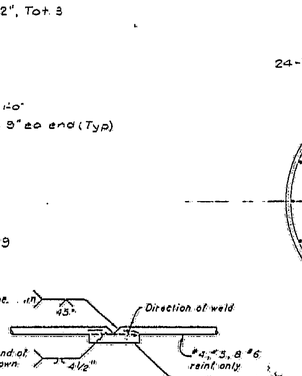


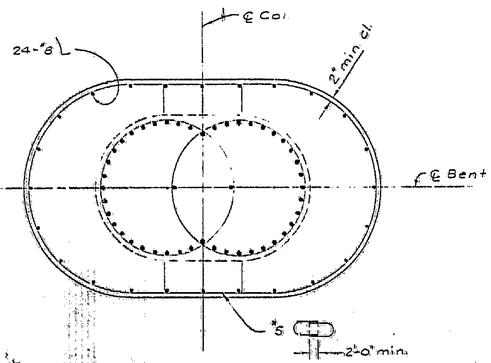
SECTION A-A
3/8" = 1'

* Reinf. may be bent or lowered to clear P/S ducts

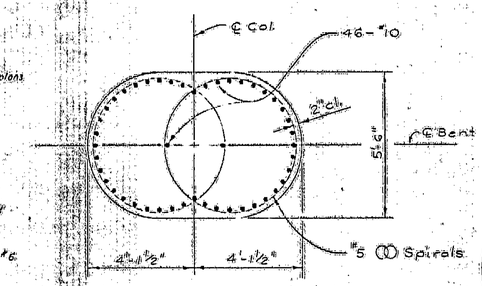
** Place normal to ℄ bent.







SECTION B-B
3/8" = 1'



SECTION C-C
3/8" = 1'

NOTES:
1. Details similar for all columns and footings of each bent.
2. "5 ☐ stirrups shall be hook around top & bot bars. Omit beneath key & within 6" of edge of key

1/2 0 1 2
3 inches on original drawing

55C-605

McDANIEL ENGINEERING COMPANY, INC.
3990 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 - (619)692-1720

ENGINEER OF WORK:
W Mark Ashley | C34299 RCE | 9-30-91 EXP | 0-11-89 DATE

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY BRIDGE OVER TIJERAS CREEK

BENTS 2 & 3 DETAILS

MARK	DATE	DESCRIPTION
REVISIONS		

DESIGNED | DRAWN | CHECKED

PREPARED UNDER SUPERVISION OF | DATE

SCALE AS SHOWN | DATE | DWG. NO. | SHEET 7/14

REGISTERED PROFESSIONAL ENGINEER W. MARK ASHLEY No. C 34299 Exp. 9-30-91 CIVIL STATE OF CALIFORNIA

DR8 15552

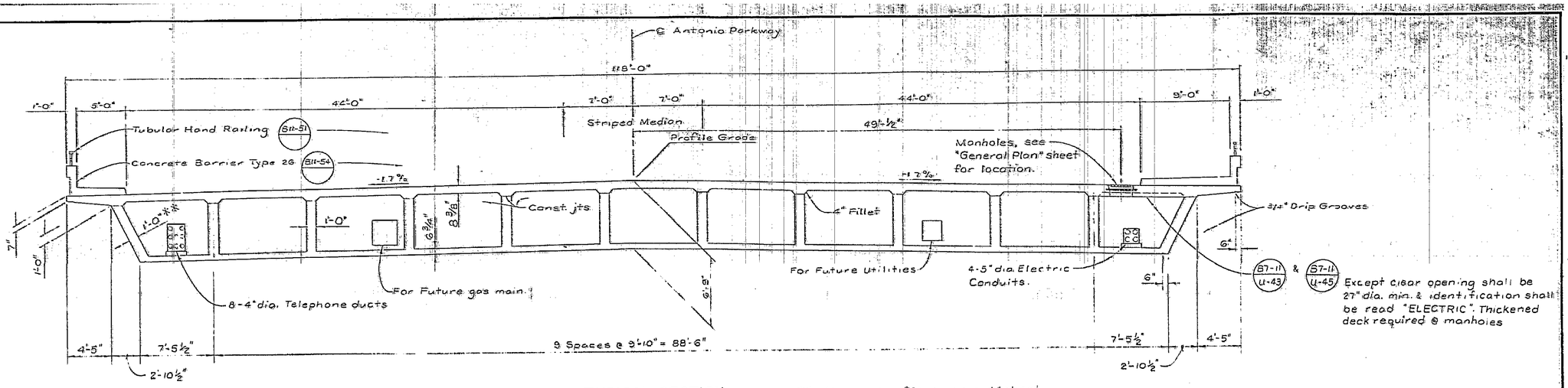
AS BUILT PLANS
Bridge ~~Contract~~ No. 55C-605
Date Completed 04/90

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION CERTIFICATE OF ACCURATE MICROFILM IMAGE ADM-8220 (REV. 10/91)

I hereby certify that this is a true and accurate image of the above document taken under my direction and control on this date in Sacramento, California pursuant to authorization by the Director of Transportation.

SUPERVISOR OF MICROFILM SERVICES (SIGNATURE) DATE

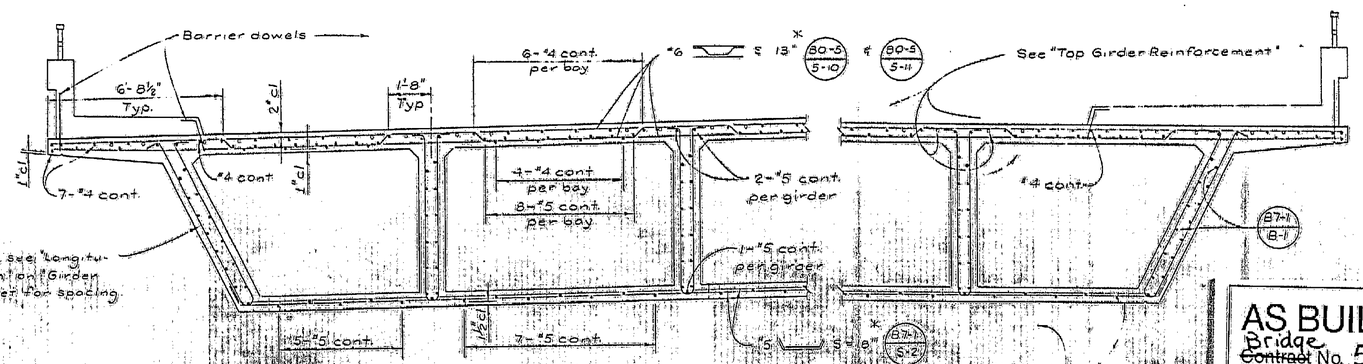
29X



TYPICAL SECTION

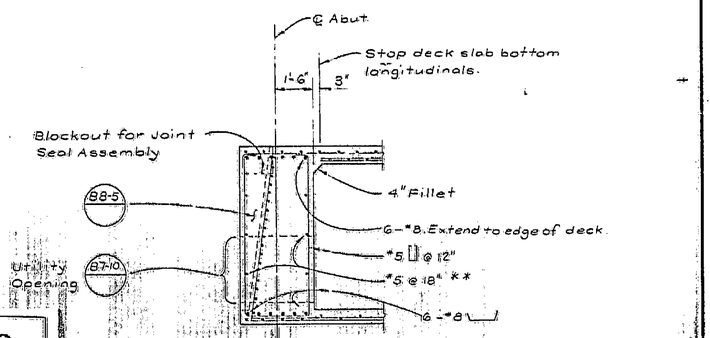
3/16" = 1'

** — Varies, see "Girder Layout" sheet.



PART TYPICAL SECTION

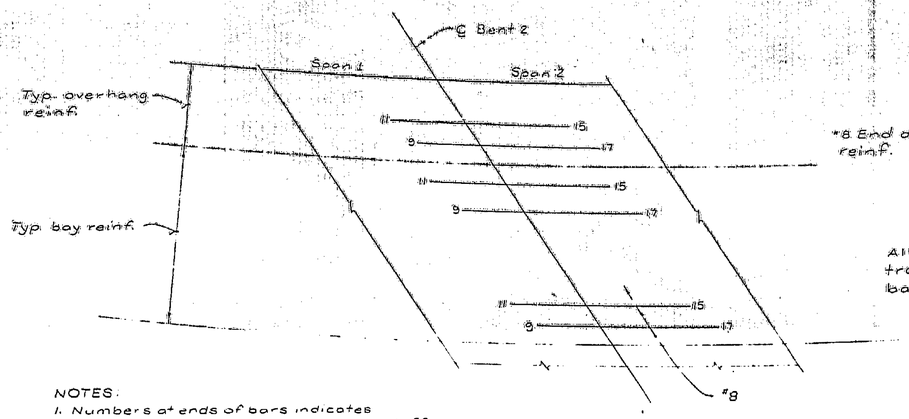
3/8" = 1'



END DIAPHRAGM DETAILS

3/8" = 1'

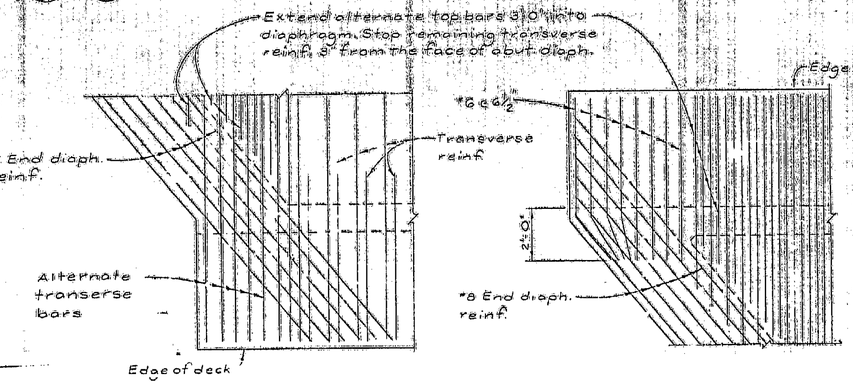
** Bars may be spliced or bent to clear prestressed anchorage as directed by the Engineer.



NOTES:
1. Numbers at ends of bars indicates distance in feet from ℄ Bent to bar cutoff
2. Bent 2 shown, Bent 3 similar except opposite hand

TOP GIRDER REINFORCEMENT

No Scale



DETAIL A

3/8" = 1'

NOTE For detail location see 'Girder Layout' sheet

DETAIL B

3/8" = 1'

AS BUILT PLANS
Bridge ~~Contract~~ No. 55C-0605
Date Completed 04/90
Document No. 13 Sh

REGISTERED PROFESSIONAL ENGINEER
W. MARK ASHLEY
No. C 34299
Exp. 9-30-91
CIVIL
STATE OF CALIFORNIA

55C-605

1/2 0 1 2
3 inches on original drawing

McDANIEL ENGINEERING COMPANY, INC.
3990 OLD TOWN AVE., SUITE 201B, SAN DIEGO, CA 92110 · (619)692-1920

ENGINEER OF WORK:
W. Mark Ashley — C34299 — 9-30-91 — 10-11-89
W Mark Ashley | RCE | EXP | DATE

MARK	DATE	DESCRIPTION
REVISIONS		
DESIGNED		
DRAWN		CHECKED

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

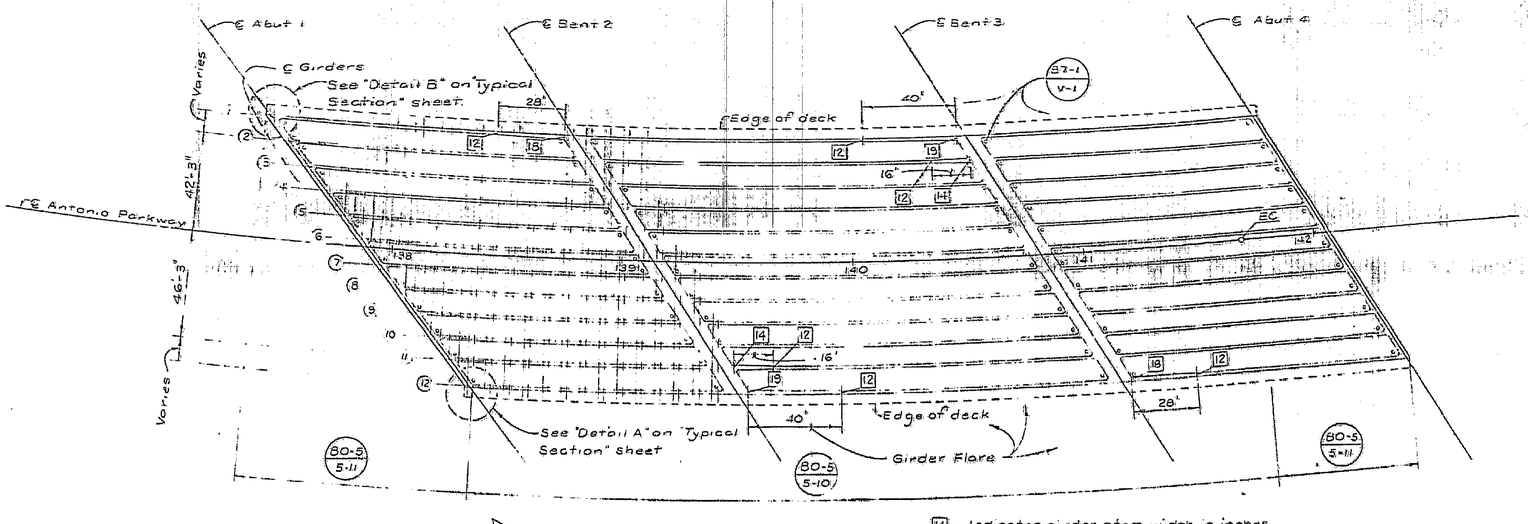
ANTONIO PARKWAY BRIDGE OVER TIJERAS CREEK

TYPICAL SECTION

PREPARED UNDER SUPERVISION OF _____ DATE _____

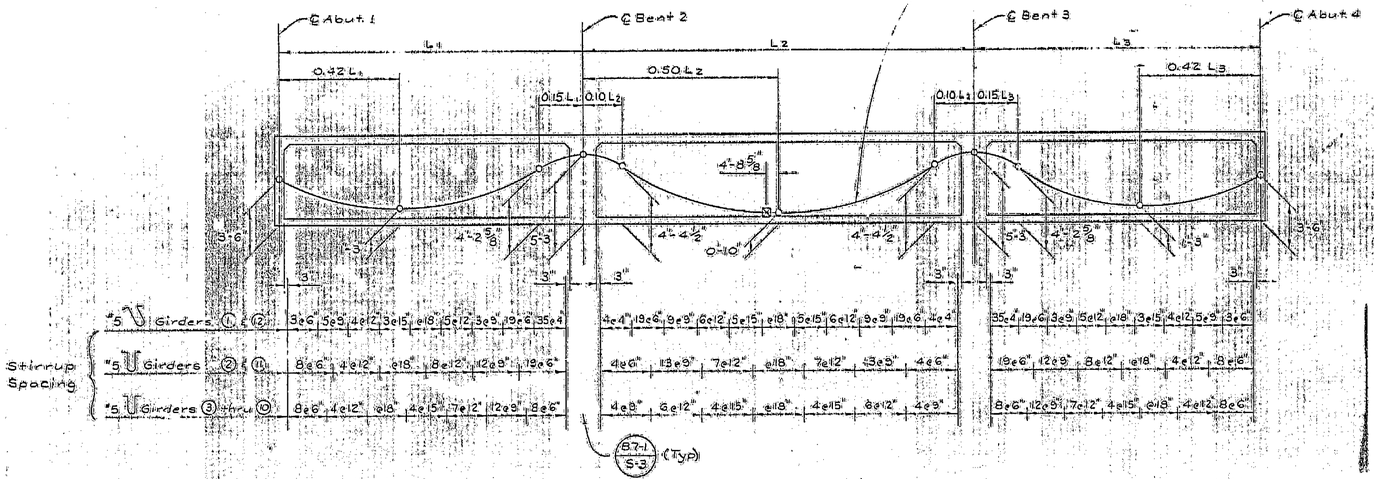
SCALE AS SHOWN | DATE | DWG. NO. | SHEET 8/14

DR8 15552



GIRDER LAYOUT

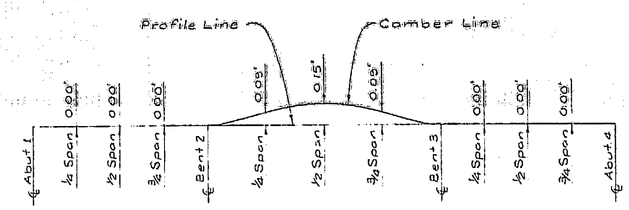
No Scale



LONGITUDINAL SECTION

No Scale

⊠ — Theoretical point of no movement for two end stressing.



CAMBER DIAGRAM

No Scale

Does not include allowance for falsework settlement.

PRESTRESSING NOTES

270 KSI Low Relaxation Strand:

Pjack = 18.687 kips

A_{ps} = 92.3 in²

Total Number of Girders = 12

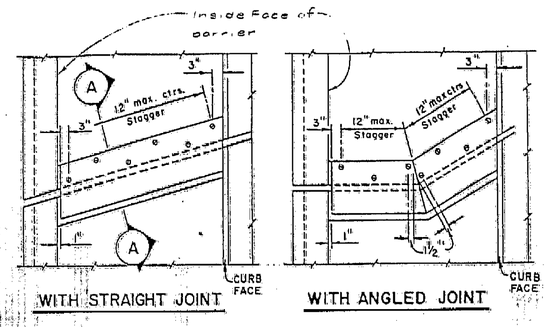
Anchor Set = 3/8 in

Distribution of prestress force (Pjack) between girders shall not exceed the ratio of 3:2. Maximum final force variation between girders shall not exceed 725k.

Concrete: f'c = 4000 psi @ 28 days

f'ci = 3500 psi @ time of stressing

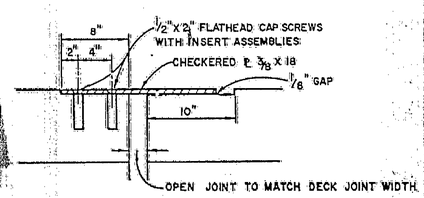
Contractor shall submit elongation calculations based on initial stress at ☒ = .834 times jacking stress.



PLAN

1/2" = 1'

AS BUILT PLANS
Bridge
~~Contract~~ No. 55C-605
Date Completed 04/90
Document No. 13 56



SECTION A-A

1 1/2" = 1'

55C-605

SIDEWALK EXPANSION JOINT ARMOR DETAIL

NOTES: 1. Adjust bolt locations to miss utilities when present in sidewalk and to clear blockouts and anchors for joint seal assemblies.
2. Hardware shall be non-corrodable.
3. Plate shall be galvanized after fabrication.

REGISTERED PROFESSIONAL ENGINEER — W. MARK ASHLEY — No. C 34299 — Exp. 9-30-91 — CIVIL — STATE OF CALIFORNIA

McDANIEL ENGINEERING COMPANY, INC.
3990 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 - (619)692-1020

ENGINEER OF WORK: W. Mark Ashley — C 34299 — 9-30-91 — 10-11-89
W. Mark Ashley | RCE | EXP | DATE

MARK	DATE	DESCRIPTION
		REVISIONS

DESIGNED | DRAWN | CHECKED

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

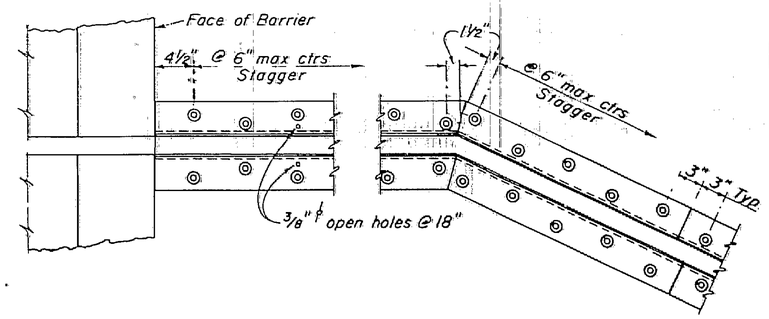
ANTONIO PARKWAY BRIDGE OVER TIJERAS CREEK

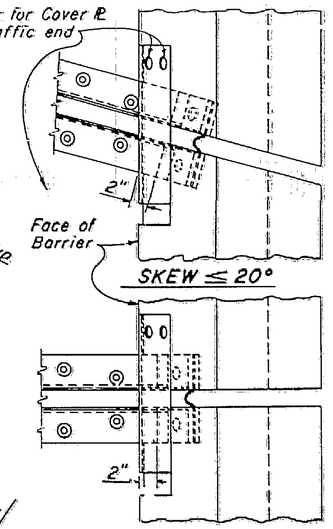
GIRDER LAYOUT

PREPARED UNDER SUPERVISION OF _____ DATE

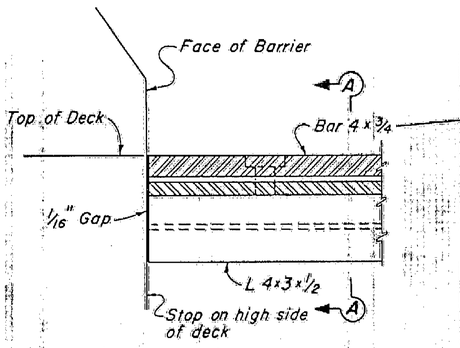
SCALE	DATE	DWG. NO.	SHEET
AS SHOWN			9/14

DRB 15552

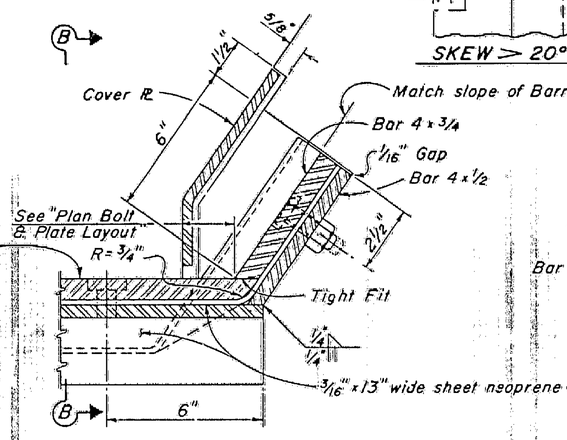




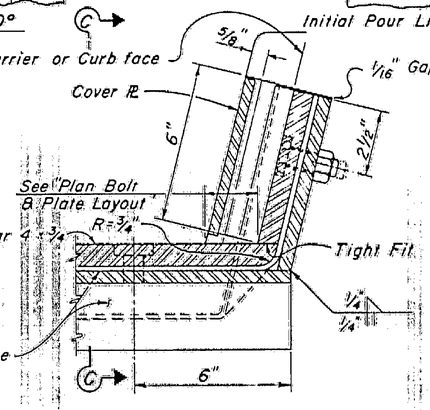
PLAN
BOLT & PLATE LAYOUT



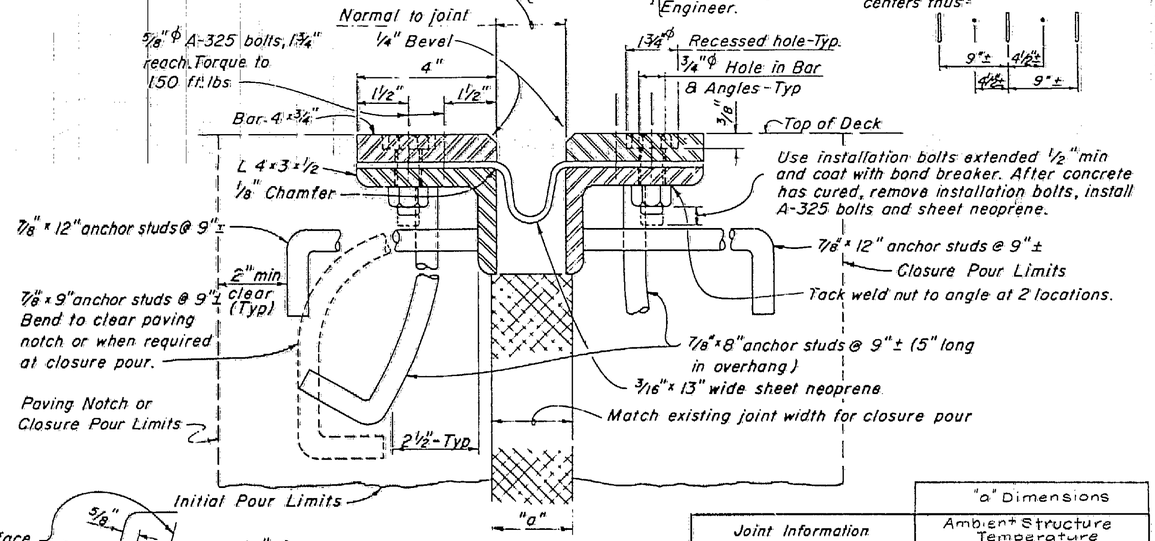
HIGH SIDE BARRIER DETAIL



LOW SIDE BARRIER DETAIL
(See Note "B")



SIDEWALK DETAIL
(See Note "B")



SECTION A-A

Note
Stagger anchor studs @ 4½"± on centers thus:

Joint Information			"a" Dimensions Ambient Structure Temperature		
Location	Movement Rating (M.R.)	Skew	25°-50°	51°-80°	81°-110°
Abut 1	3"	40°	1½"	1"	¾"
Abut 4		28°05'			

Notes:

Full penetration butt welds may be substituted for the fillet welds on all anchor studs.

Alternate types of anchor studs may be permitted subject to the approval by the Engineer.

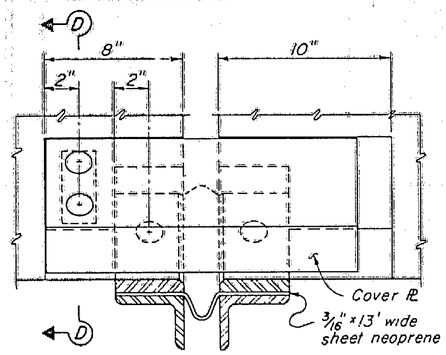
Joint seal assembly to be used in conjunction with closure pour. (See other sheets for limits). Closure pour shall not be placed until final deck surface is within the tolerance specified.

Joint seal assembly to be fabricated in 14' max lengths. Use joint at crown of roadway, at any change in transverse slope in deck, and at changes in horizontal direction. Place other joints at or near lane lines. All metal parts to be galvanized after fabrication.

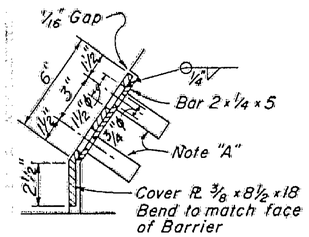
Sheet neoprene shall be fabricated in one continuous piece or joints shall be vulconized. Neoprene shall be fabricated to bend around corners. 1" holes in neoprene sheets shall be drilled or punched so that the neoprene is not distorted at the time of installation.

Note "A"
Insert assembly or expansion anchorage for ⅝" x 1¾" A-325 bolt.

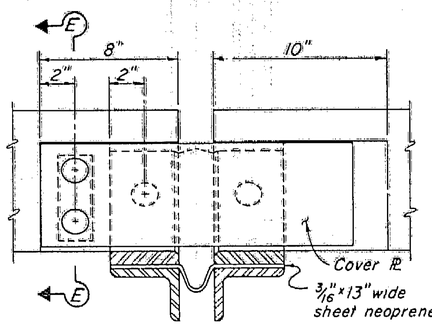
Note "B"
Use the Sidewalk Detail at all sidewalk joints. Use the Barrier Detail at both sides if the roadway is crowned or if the difference in elevation between the ends of the seal is 0.5" or less.



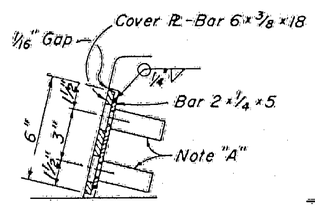
VIEW B-B



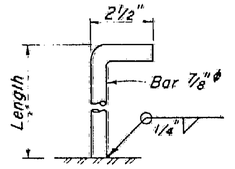
SECTION D-D



VIEW C-C



SECTION E-E



ANCHOR STUD

55C-605

1 1/2 0 1 2
3 inches on original drawing

REGISTERED PROFESSIONAL ENGINEER
W. MARK ASHLEY
No. C 34299
Exp. 9-30-91
CIVIL
STATE OF CALIFORNIA

ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY BRIDGE OVER TIJERAS CREEK

JOINT SEAL ASSEMBLY
(Max. MR = 4")

McDANIEL ENGINEERING COMPANY, INC.
3890 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 (619)692-1820

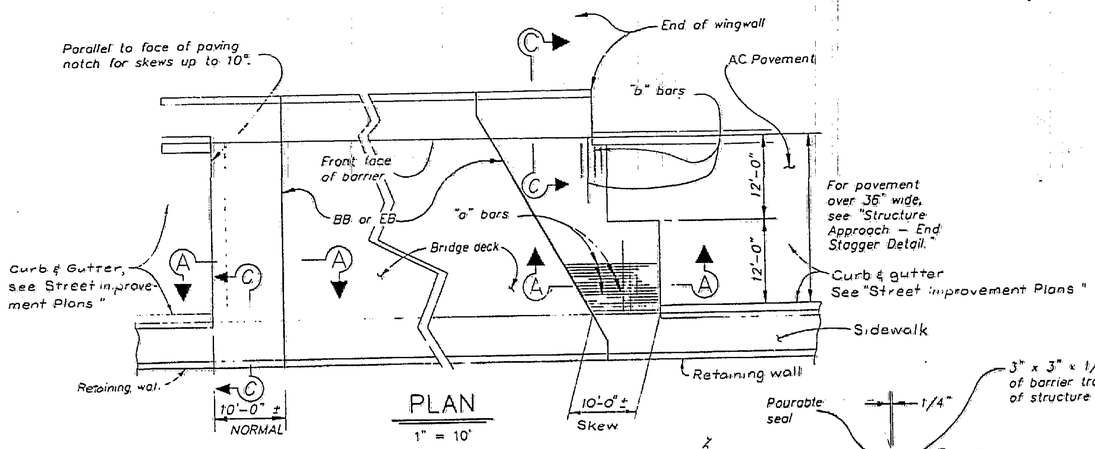
ENGINEER OF WORK:
W. Mark Ashley — C34299 — EXP 9-30-91 — 10-11-89
W. Mark Ashley | RCE | EXP | DATE

MARK	DATE	DESCRIPTION
		REVISIONS

DESIGNED
DRAWN CHECKED
PREPARED UNDER SUPERVISION OF
DATE
SCALE AS SHOWN
DATE
DWG. NO.
SHEET 10/14

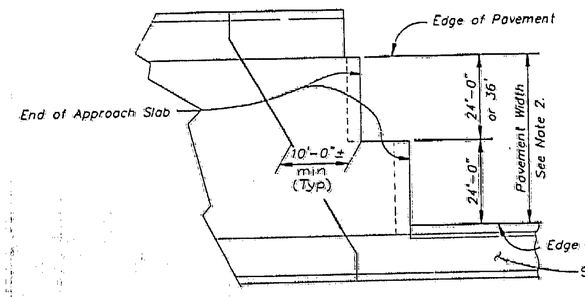
AS BUILT PLANS
~~Bridge Contract~~ No. 55C-605
Date Completed 04/90
Document No. 13 5h

DRB 15552



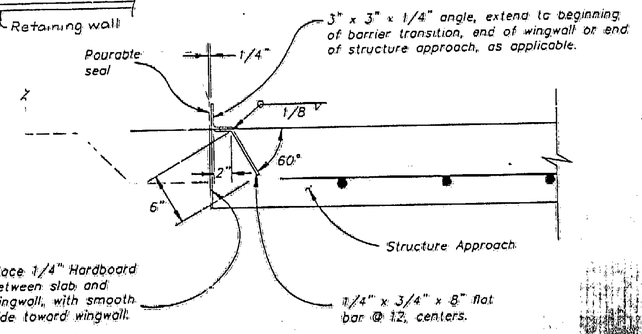
PLAN

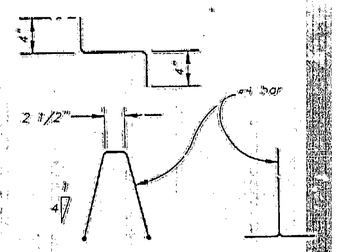
1" = 10'



DETAIL B

1-1/2" = 1'-0"



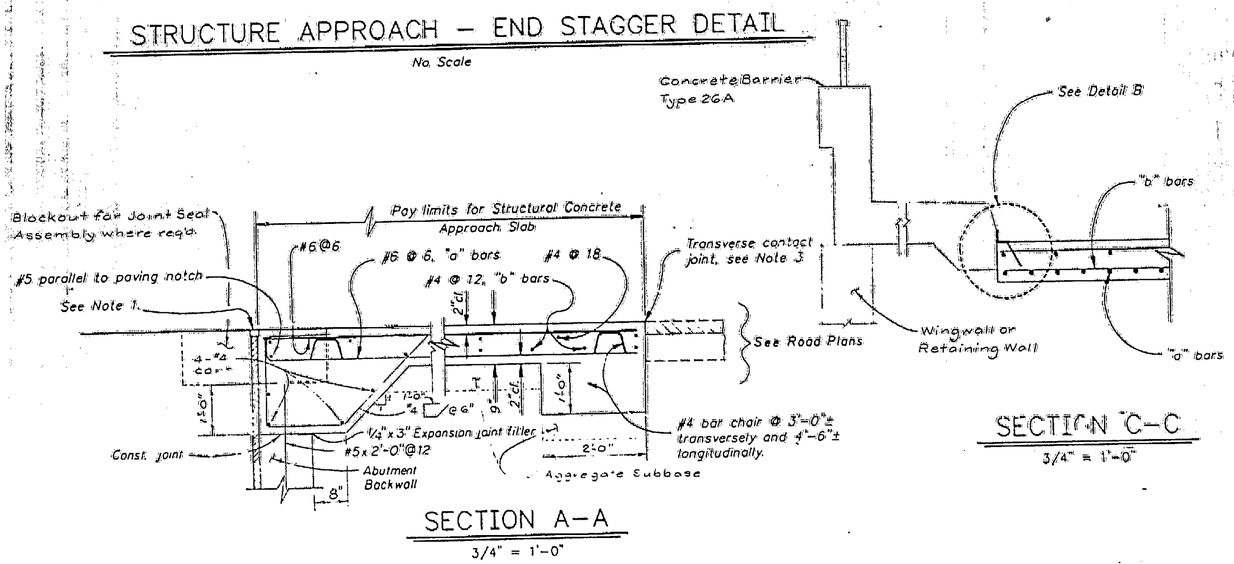


BAR CHAIR DETAIL

1-1/2" = 1'-0"

STRUCTURE APPROACH — END STAGGER DETAIL

No Scale



SECTION A—A

3/4" = 1'-0"

SECTION C—C

3/4" = 1'-0"

NOTES

1. For details not noted or shown, see "Abutment" details on Project Plans. Adjust bar reinforcement to clear a sawcut for sealed joint, when required.
2. Approach Slabs to skewed structures shall be staggered at lane lines. Staggered lines may be 24" or 36" apart for skews of 45° or less and at each lane line for skews greater than 45°.
3. For transverse contact joint with new PCC paving, refer to Standard Plan A35-A.
4. Longitudinal construction joints shall be permitted as approved by the Engineer.

AS BUILT PLANS
Bridge
~~Contract~~ No. 55C-605
Date Completed 04/90
Document No. 13 Sh

55C-605

1/2 0 1 2
3 inches on original drawing

REGISTERED PROFESSIONAL ENGINEER W. MARK ASHLEY No. C 34299 Exp. 9-30-91 CIVIL STATE OF CALIFORNIA

McDANIEL ENGINEERING COMPANY, INC.
3990 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 · (619)692-1920

ENGINEER OF WORK:
W Mark Ashley C34299 9-30-91 10-11-84
W Mark Ashley RCE EXP DATE

MARK	DATE	DESCRIPTION
		REVISIONS

DESIGNED ____ DRAWN ____ CHECKED ____

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

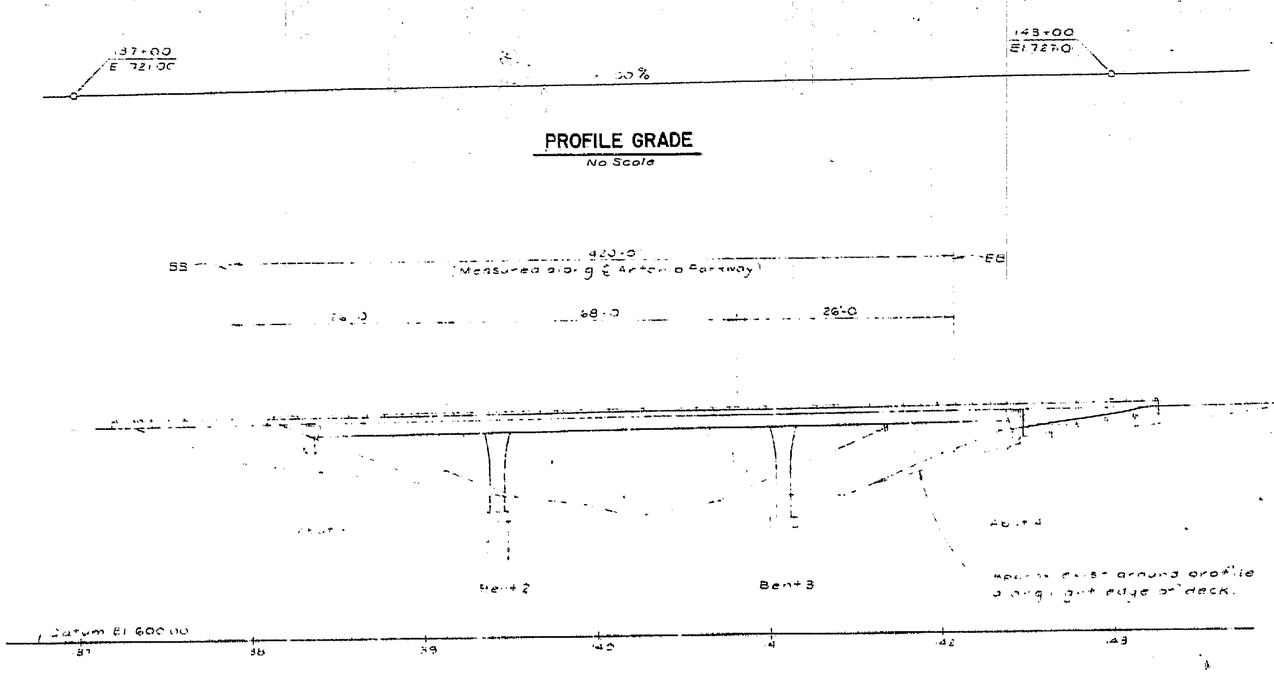
ANTONIO PARKWAY BRIDGE OVER TIJERAS CREEK

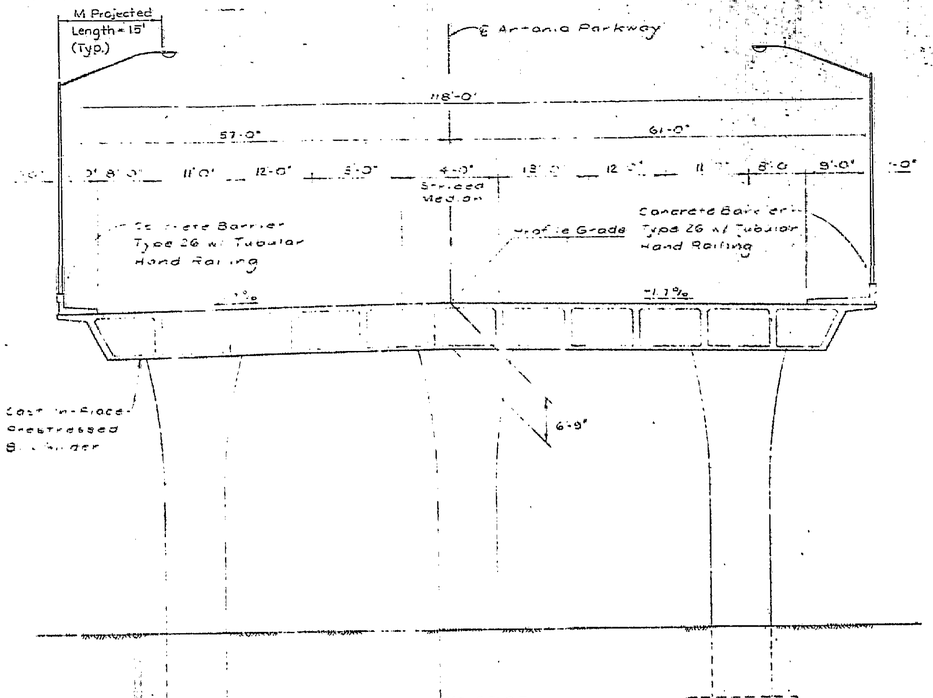
PCC APPROACH SLAB

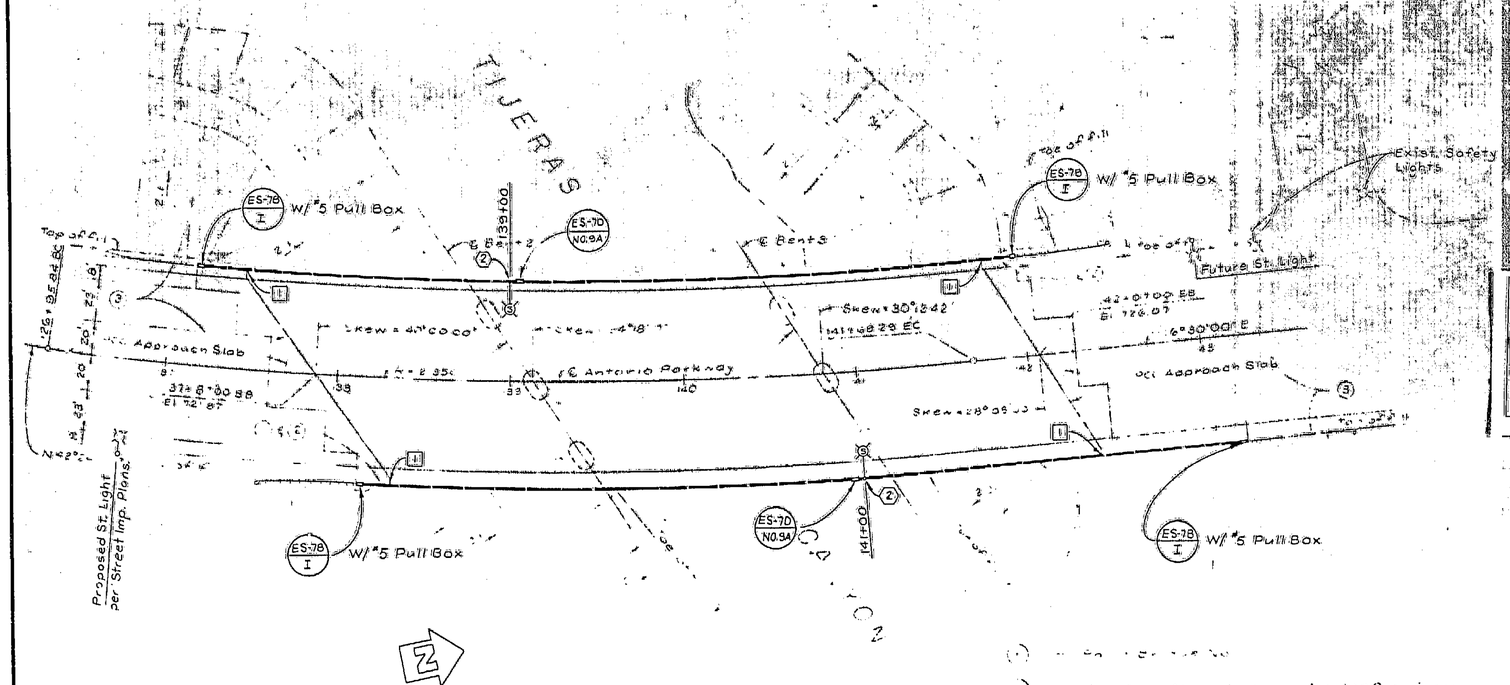
PREPARED UNDER SUPERVISION OF ____ DATE ____

SCALE AS SHOWN | DATE | DWG. NO. | SHEET 11/14

DR8 15552







(4) — Conduit expansion fitting similar on Detail "X" on ES-7C except fitting shall accomodate an expansion equal to the max. movement rating on bridge plans.

(2) — 200-Watt HPS Lamp, Type 15, LMA = 15', See ES-6B

Street Improvement Plans" by Williams & Schmid

AS BUILT PLANS
Bridge
~~Contract~~ No. 55C-605
Date Completed 04/90
Document No. 13 Sh

55C-605

REGISTERED PROFESSIONAL ENGINEER — W. MARK ASHLEY — No. C 34299 — Exp. 9-30-91 — CIVIL — STATE OF CALIFORNIA

1/2 0 1 2
3 inches on original drawing

POOR COPY

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY BRIDGE OVER TIJERAS CREEK

BRIDGE LIGHTING PLAN

McDANIEL ENGINEERING COMPANY, INC.
3890 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 (619)692-1920

ENGINEER OF WORK:
W. Mark Ashley C34299 9-30-91 10-11-89
RCE EXP DATE

MARK	DATE	DESCRIPTION
		REVISIONS

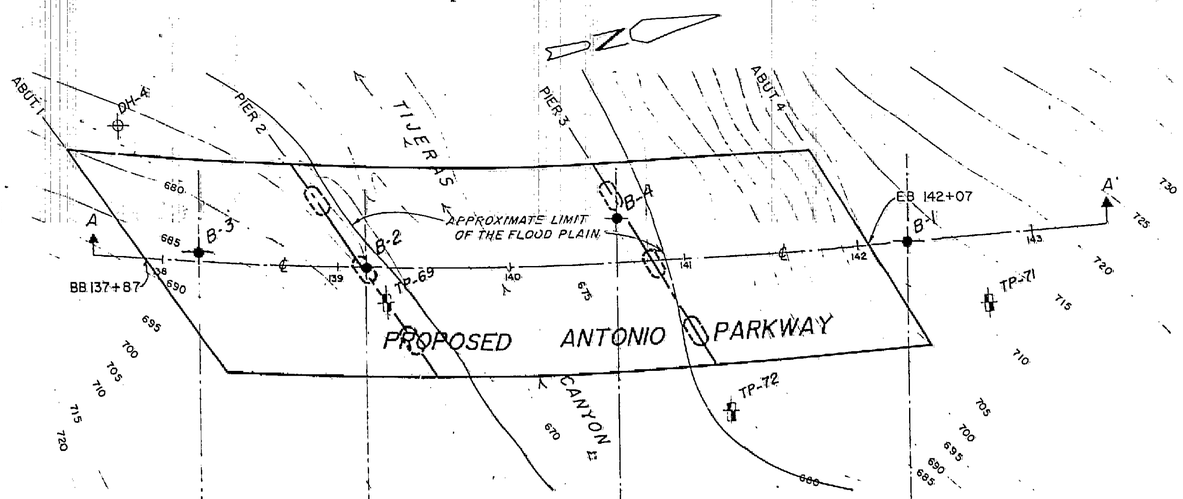
DESIGNED — DRAWN — CHECKED

PREPARED UNDER SUPERVISION OF — DATE

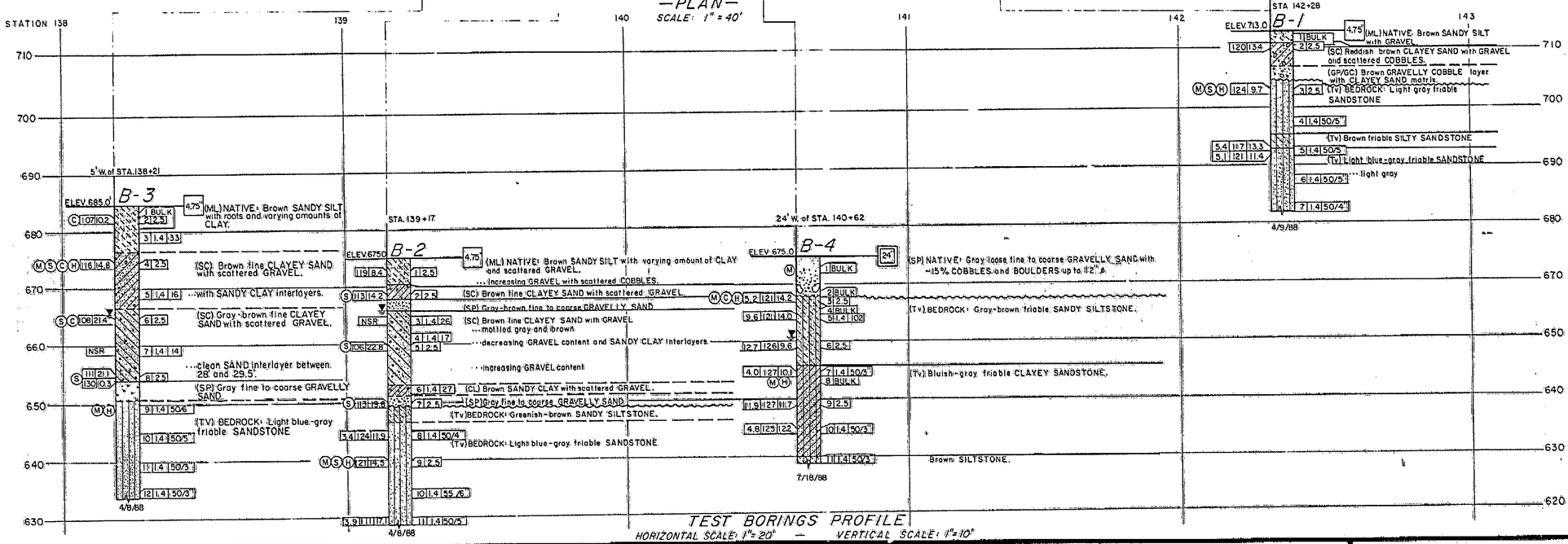
SCALE AS SHOWN | DATE | DWG. NO. | SHEET 12/14

DR8 15552

AS BUILT PLANS
Bridge
~~Contract~~ No. 55C-605
Date Completed 04/90
Document No. 13 Sb



—PLAN—
SCALE: 1" = 40'



TEST BORINGS PROFILE
HORIZONTAL SCALE: 1"= 20' — VERTICAL SCALE: 1"=10'

NOTES:

1) BORINGS LOGGED BY GEORGE P. HATTRUP, PROJECT ENGINEER.
2) BORING ELEVATIONS BASED ON A 1988 TOPOGRAPHIC PLAN OF PROJECT SITE, PREPARED BY WILLIAMSON & SCHMID.

POOR COPY

55C-605

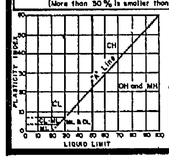
REGISTERED PROFESSIONAL ENGINEER GEORGE P. HATTRUP No. 43979 Exp. 6-30-93 CIVIL STATE OF CALIFORNIA

LEGEND OF EARTH MATERIALS

UNIFIED SOIL CLASSIFICATION

Pt	OH	CH	MH	OL	CL	ML	SC	SM	SP	SW	GC	GM	GP	GW
Highly organic soils	Silts and clays Liquid limit greater than 50			Silts and clays Liquid limit less than 50			Sands with fines: >12% fines		Clean sands <5% fines		Gravels with fines: >12% fines		Clean gravels <5% fines	
	Fine grained soils (More than 50 % is smaller than Nº 200 sieve)						Sands - more than 50% of coarse fraction is smaller than Nº4 sieve.				Gravels - more than 50% of coarse fraction is larger than Nº4 sieve.			
							Coarse grained soils (More than 50 % is larger than Nº 200 sieve)							

LABORATORY CLASSIFICATION CRITERIA



GW and SW - $C_u = \frac{D_{60}}{D_{10}}$ greater than 4 for GW & 6 for SW, $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 & 3.

GP and SP - Clean gravel or sand not meeting requirements for GW and SW.

GM and SM - Atterberg limits below "A" line or PI less than 4.

GC and SC - Atterberg limits above "A" line with PI greater than 7.

Fines (silt or clay)		Fine sand	Medium sand	Coarse sand	Fine gravel	Coarse gravel	Cobbles	Boulders
Sieve sizes	#200	#40	#10	#4	3/4"	3"	12"	

Classification of earth materials shown on this sheet is based on field inspection and should not be construed to imply laboratory analysis unless so stated

MATERIAL SYMBOLS

Gravel; Sand; Silt; Clay; Sandy clay or clayey sand; Sandy silt or silty sand; Silty clay or clayey silt; Peat or organic matter; Fill material; Shale; Sandstone; Limestone; Metamorphic rock; Igneous rock

CONSISTENCY CLASSIFICATION FOR SOILS

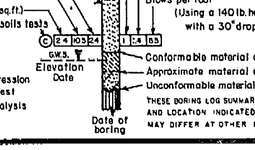
According to the Standard Penetration Test

Nº of blows	Granular	Cohesive
0-5	Very loose	Very soft
6-10	Loose	Soft
11-20	Semicompact	Stiff
21-35	Compact	Very stiff
36-70	Dense	Hard
>70	Very dense	Very hard

LEGEND OF BORING OPERATIONS

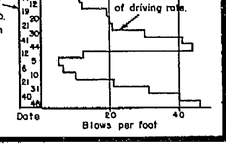
Plan of Moore & Taber borings
Goffman & McCormick Inc. boring (1986)
Goffman & McCormick Inc. Test pits (1986)
Auger boring
Sample boring
Rotary boring

ROTARY BORING



THESE BORING LOG SUMMARIES APPLY ONLY AT THE TIME AND LOCATION INDICATED. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND TIMES.

PENETRATION TEST



MOORE & TABER
CONSULTING ENGINEERS AND GEOLOGISTS
Approved George P. Hattrup
REGISTERED CIVIL ENGINEER No. 43979
JOB No. 188-23

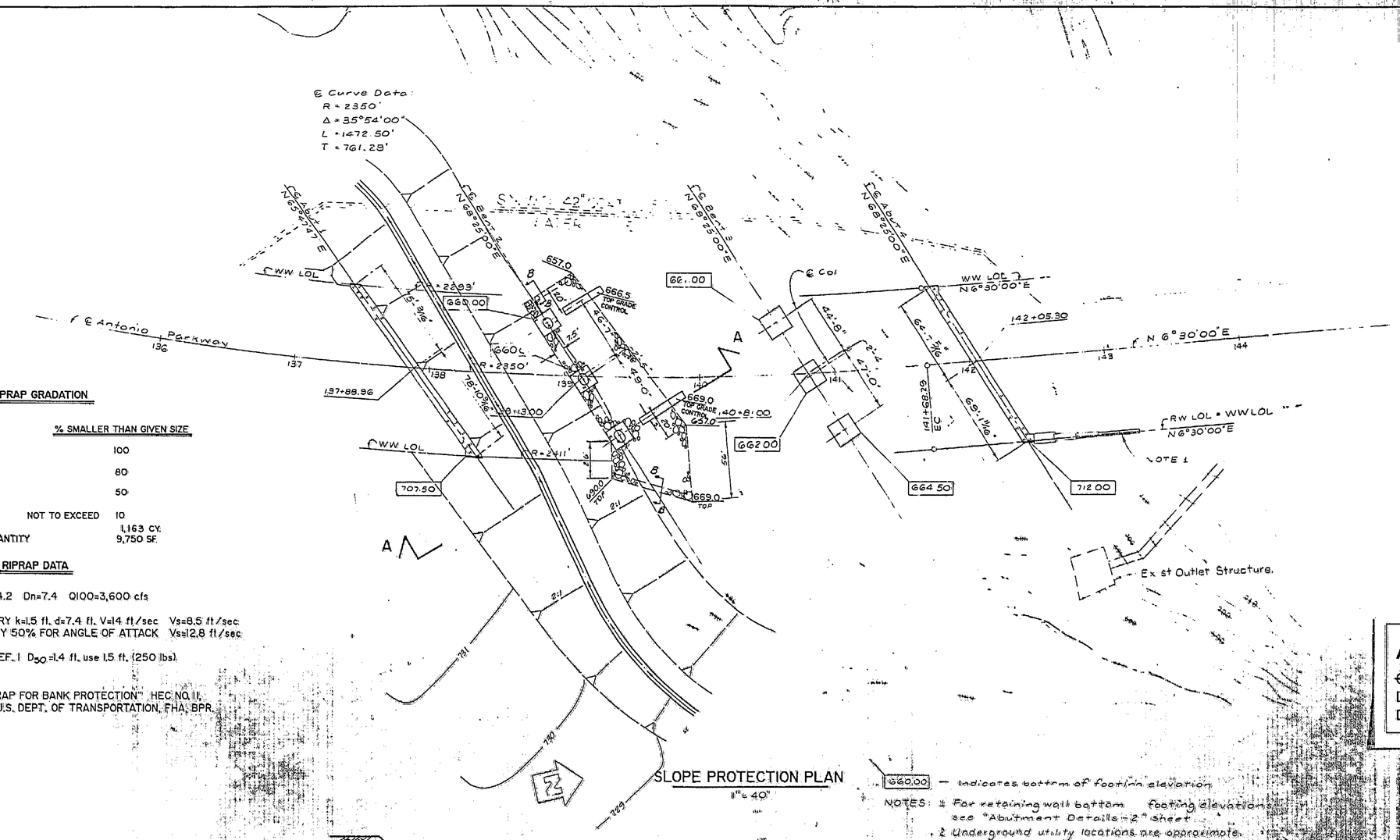
SANTA MARGARITA COMPANY

ANTONIO PARKWAY BRIDGE
OVER TIJERAS CREEK
RANCHO SANTA MARGARITA, CALIFORNIA

LOG OF TEST BORINGS

Scale AS SHOWN | Date 10/23/89 | By B.F. | Check by | Drawing 13/14

DR8 15552



SLOPE PROTECTION PLAN
1" = 40'

660.00 — indicates bottom of footing elevation

NOTES: 1 For retaining wall bottom footing elevation see "Abutment Details - 2" sheet.
2 Underground utility locations are approximate.

RIPRAP GRADATION

STONE SIZE		% SMALLER THAN GIVEN SIZE
750 lb.		100
500 lb.		80
250 lb.		50
25 lb.	NOT TO EXCEED	10

RIP RAP QUANTITY 1,163 CY.
FILTER FABRIC QUANTITY 9,750 SF.

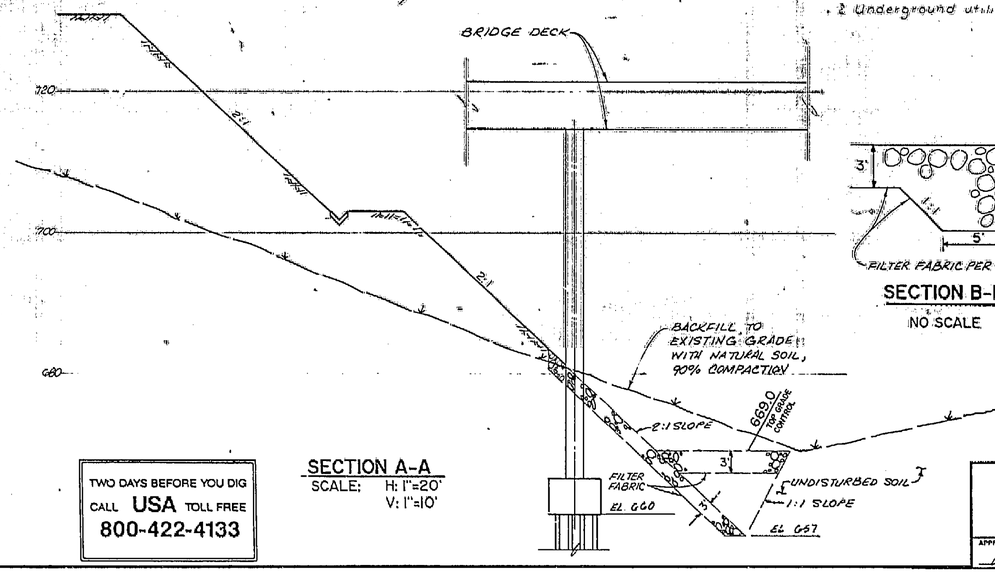
RIPRAP DATA

n=0.035 Vn=14.2 Dn=7.4 Q100=3,600 cfs

FIG. 1, REF. 1 TRY k=1.5 ft. d=7.4 ft. V=14 ft./sec Vs=8.5 ft./sec
INCREASE Vs BY 50% FOR ANGLE OF ATTACK Vs=12.8 ft./sec

FROM FIG. 2, REF. 1 D_{50} =1.4 ft. use 1.5 ft. (250 lbs)

1. "USE OF RIPRAP FOR BANK PROTECTION" HEC NO. 11, JUNE 1967, U.S. DEPT. OF TRANSPORTATION, FHA, BPR.



SECTION A-A
SCALE: H: 1"=20'
V: 1"=10'

FILTER FABRIC PER O.C.E.M.A STD. PLAN 1808

SECTION B-B
NO SCALE

TWO DAYS BEFORE YOU DIG
CALL USA TOLL FREE
800-422-4133

9/30/91

WILLIAMSON & SCHMID
17782 SKY PARK BOULEVARD • IRVINE, CALIFORNIA 92714 • (714)261-2222
APPROVED BY: William J. Young RCE 35715 EXPIRES 9/30/91 DATE 4/24/90

AS BUILT PLANS
Bridge
~~Contract~~ No. 55C-605
Date Completed 04/90
Document No. 13 Sh

POOR COPY

55C-605

1/2 0 1 2
3 inches on original drawing

MARK	DATE	DESCRIPTION
1	4-23-90	ADDED SHEET "4 SLOPE PROTECTION

REVISIONS
DESIGNED
DRAWN CHECKED

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY BRIDGE OVER TIJERAS CREEK

SLOPE PROTECTION PLAN

PREPARED UNDER SUPERVISION OF DATE

SCALE AS SHOWN | DATE | DWG. NO. | SHEET 14/14

DEB 15552