

INDEX TO BRIDGE PLANS

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4	FOUNDATION PLAN
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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
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B 8-5	CAST-IN-PLACE PRESTRESSED GIRDER DETAILS
B 11-51	TUBULAR HAND RAILING
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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

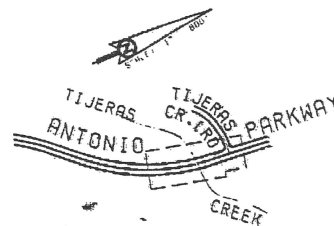
STANDARD PLANS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, DATED JANUARY, 1988.

IMPROVEMENT PLANS FOR CONSTRUCTION OF

ANTONIO PARKWAY BRIDGE

OVER TIJERAS CREEK

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



LOCATION MAP

GENERAL NOTES

STREET IMPROVEMENTS

THIS NOTE HEREIN INCORPORATES BY REFERENCE THOSE GENERAL NOTES NUMBERED 1 THROUGH 12 OF O.C.E.M.A. STANDARD PLAN 1381, 1954 EDITION.

THE CONTRACTOR SHALL HAVE A COPY OF CURRENT O.C.E.M.A. STANDARD PLANS ON THE CONSTRUCTION SITE AT ALL TIMES.

THE CONTRACTOR SHALL TELEPHONE EMA/PUBLIC WORKS/CONSTRUCTION AT 567-7600 AT LEAST 24 HOURS PRIOR TO STARTING CONSTRUCTION WORK SUBJECT TO EMA/PUBLIC WORKS INSPECTION.

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.

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 NOISANCE 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.

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.

ALL STREET STATIONING REFERS TO CENTERLINE OF STREET.

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

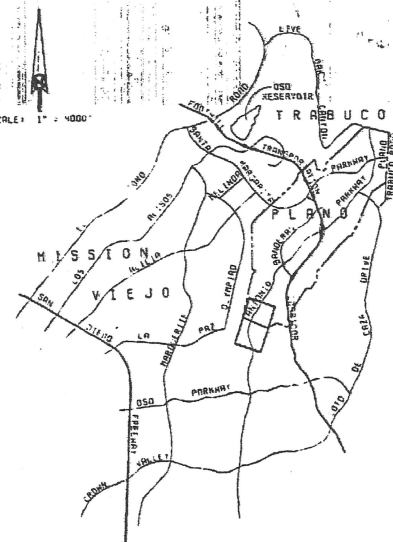
ALL MATERIAL TESTING SHALL BE PROVIDED BY THE CONTRACTOR OR CONTRACTOR IN ACCORDANCE WITH THE NUMBER, LOCATION AND FREQUENCY REQUESTED BY THE O.C.E.M.A. INSPECTOR.

AS BUILT PLANS

Bridge
Contract No. 55C-605
Date Completed 07/90
Document No. 13 Sh

AREA OF INDEX MAP

VICINITY MAP



55C-605

TIJERAS CREEK

1991



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 Santa 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 361-B-72 LOCATED APPROXIMATELY 4000 FEET NORTHERLY OF C/L INTERSECTION OF OSD AND ANTONIO PARKWAYS, AND 700 FEET WESTERLY OF C/L ANTONIO PARKWAY, 90 FEET NORTHEAST OF HORIZONTAL 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 143.748

BASIS OF BEARINGS

THE BEARINGS SHOWN ON THESE PLANS ARE BASED UPON THE LINE BETWEEN TRIANGULATION STATIONS (NGS 8985 CAP STAMPED PLANO 1939) AND 10.C.S. 8-7-101 BEING N 91° 01' 32" E PER THE CALIFORNIA COORDINATE SYSTEM, ZONE 11, 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

PROJECT REIMBURSED BY FUNDS FROM:
COMMUNITY FACILITIES DISTRICT

BLOCK NO. 5258

MODULE NO. 07, 03

McDANIEL ENGINEERING COMPANY, INC.

3040 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 - (619) 592-1920

ENGINEER OF WORK:

W. M. Ashley C34299 9-30-91 10-11-89
W. M. Ashley RCE EXP DATE

IMPROVEMENT PLAN TITLE SHEET

ANTONIO PARKWAY
BRIDGE
OVER TIJERAS CREEK

SHEET
1
OF
14
SHEETS

DRB 15552

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

86-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CERTIFICATE OF ACCURATE MICROFILM IMAGE

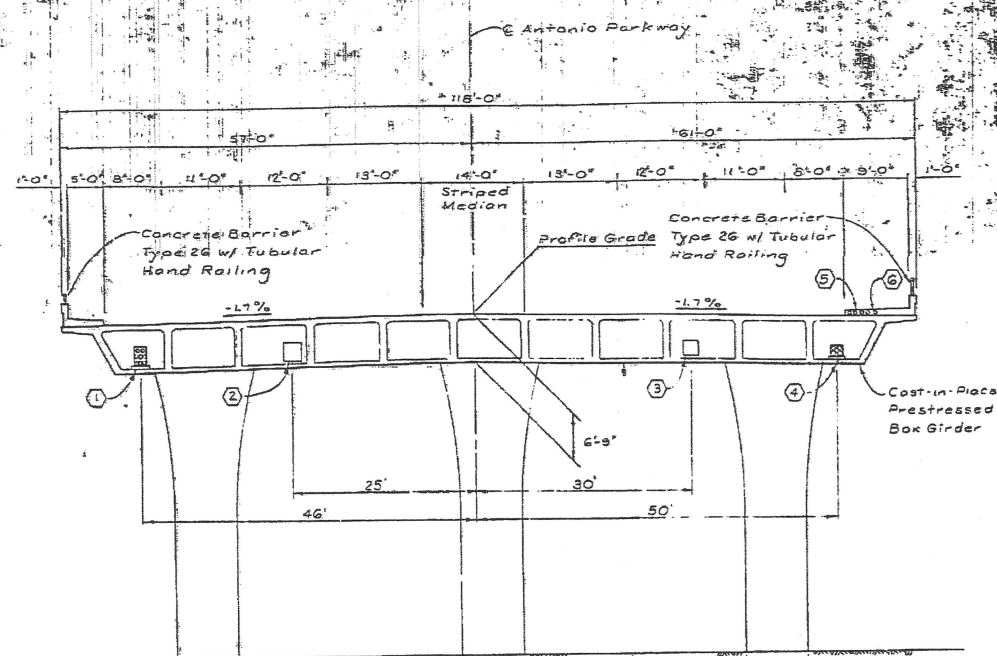
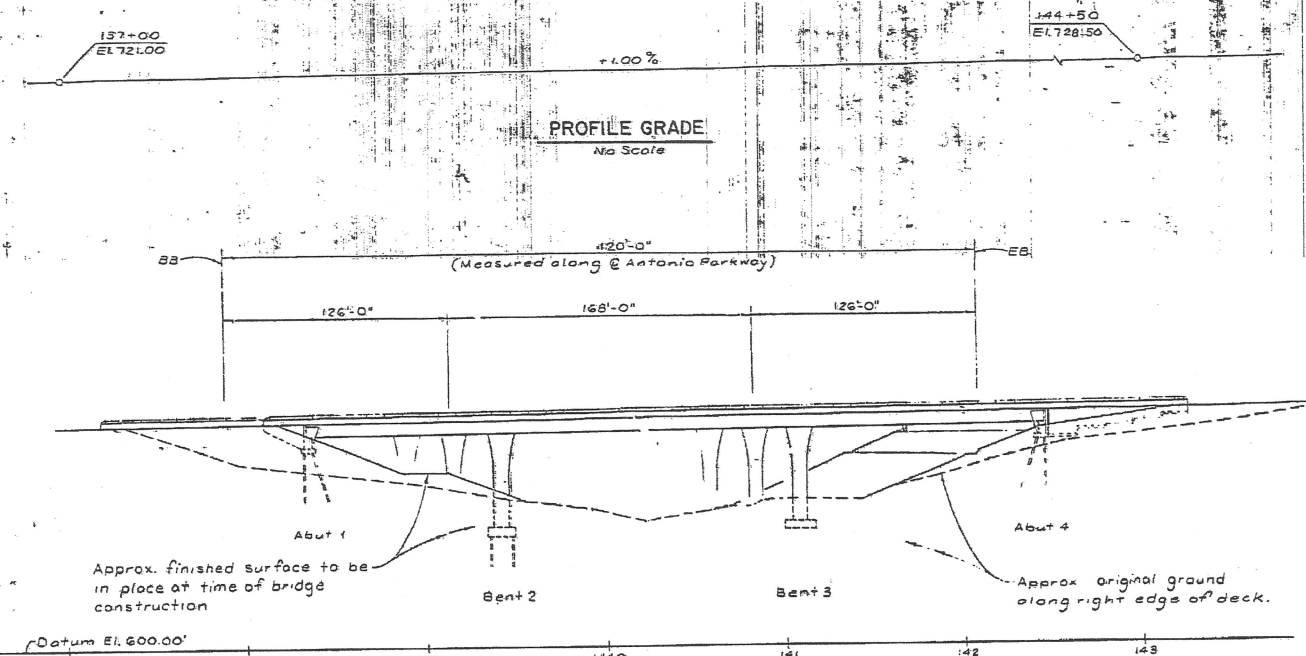
ADM 5229 (REV. 1989)

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

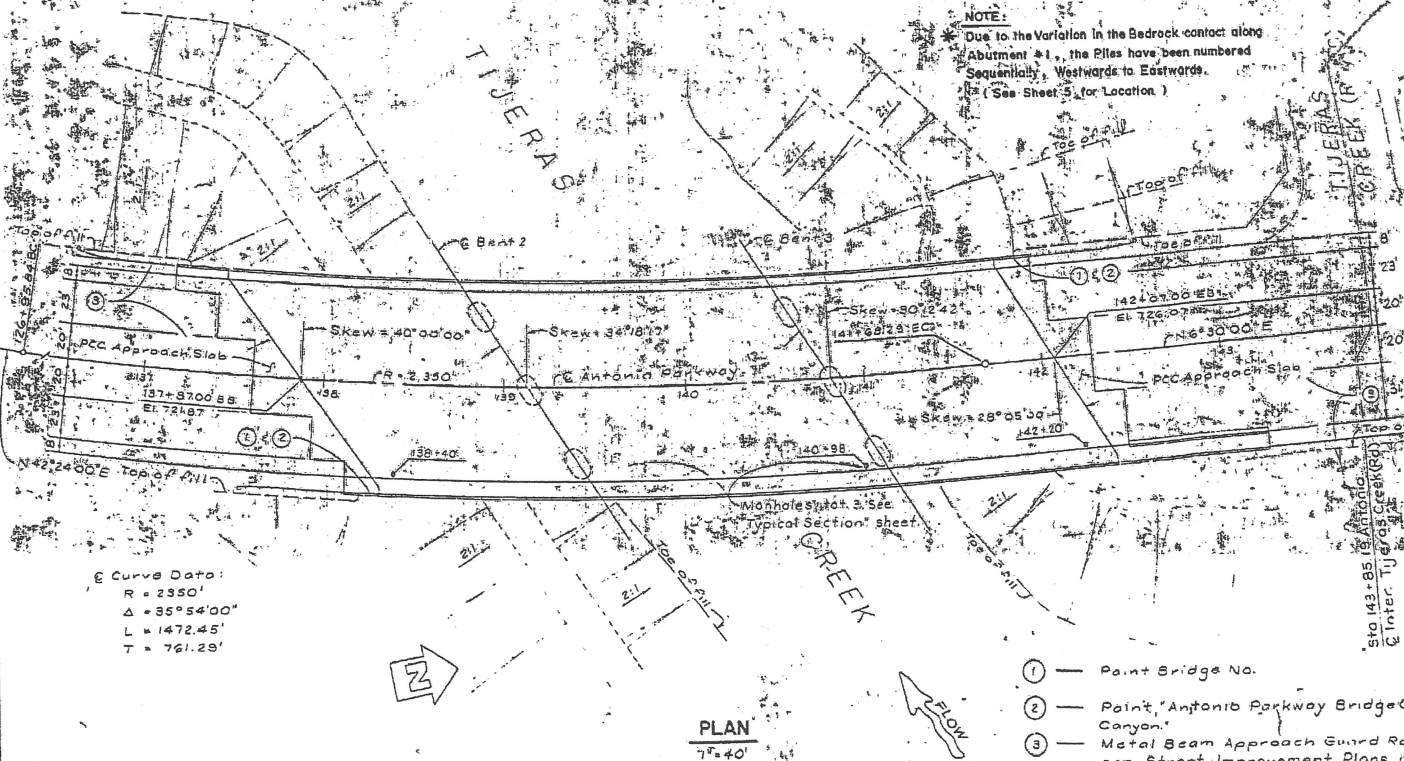


PILE DATA

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	635.0	630.0

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



- UTILITIES**
- 1 - 8" dia. Telephone ducts, 33" H x 18" W Opening
 - 2 - 2" dia. Gas ducts, 33" H x 18" W Opening
 - 3 - 24" H x 24" W Opening for future gas main
 - 4 - 4" dia. Electric Conductors, 18" H x 18" W Opening
 - 5 - 4" dia. Cable TV ducts, Santa Margarita
 - 6 - 4" dia. Signalization Conduct
- NOTES: Street lighting conduits not shown.

APPROXIMATE QUANTITIES

FURNISH STEEL PILING (HP 12 X 74)	123.1 LB
DRIVE STEEL PILE (HP 12 X 74)	123.1 LB
PRESTRESSING CAST-IN-PLACE CONCRETE	254.1 LB
JOINT SEAL ASSEMBLY (MR J)	10.00 LB
TUBULAR HAND RAILING	175.0 LB
CONCRETE BARRIER TYPE 26 (5' SIDEWALK)	520.0 LB
CONCRETE BARRIER TYPE 26 (9' SIDEWALK)	183.0 LB
BRIDGE LIGHTING	9.750 LB
WIPER	1.00 LB
WIPER PASTIC	1.00 LB

FINAL PAY QUANTITIES

STRUCTURE EXCAVATION (BRIDGE)	690.00 CT
STRUCTURE EXCAVATION (RETAINING WALL)	110.00 CT
STRUCTURE EXCAVATION (TYPE D)	278.00 CT
STRUCTURE BACKFILL (BRIDGE)	10.00 CT
STRUCTURE BACKFILL (RETAINING WALL)	10.00 CT
PREVIOUS BACKFILL MATERIAL	10.00 CT
STRUCTURAL CONCRETE, BRIDGE	442.00 CT
STRUCTURAL CONCRETE, RETAINING WALL	442.00 CT
STRUCTURAL CONCRETE, BRIDGE FOOTING	442.00 CT
STRUCTURAL CONCRETE, APPROACH SLAB	442.00 CT
BAR REINFORCING STEEL (BRIDGE)	2,200.00 LB
BAR REINFORCING STEEL (RETAINING WALL)	2,200.00 LB
MISCELLANEOUS METAL (BRIDGE)	1,500.00 LB

POOR COPY

- PLAN SYMBOLS**
- A - SECTION IDENTIFICATION
 - 80-3 - CALTRANS STANDARD PLAN (JANUARY, 1988)
 - 3-1 - SHEET NUMBER.
 - 3-1 - DETAIL NUMBER.

McDANIEL ENGINEERING COMPANY, INC.
3000 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 • (619) 592-1920

ENGINEER OF WORK:
W. Mark Ashley RCE 9-30-88 10-11-89

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

ANTONIO PARKWAY BRIDGE OVER TIJERAS CREEK

GENERAL PLAN

REVISIONS	DATE	SCALE	DATE	DWG. NO.	SHEET
1	10-11-89	AS SHOWN			2/14

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CERTIFICATE OF ACCURATE MICROFILM IMAGE
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.

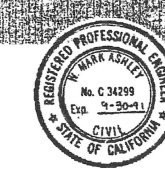
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NOTES: 1. Contour Interval = 0.0 ft.
2. Contour does not include number
3. 0 - indicates even foot contours.

55C-605

1/2 0 1 2
3 inches on original drawing



MARK		DATE	DESCRIPTION	PREPARED UNDER SUPERVISION OF			SHEET
REVISIONS							3/4
DESIGNED		SCALE	DATE	DWG. NO.			
DRAWN		CHECKED	AS SHOWN				

DRB 15552

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

GENERAL NOTES:
 LOAD FACTOR DESIGN
 DESIGN: BRIDGE DESIGN SPECIFICATIONS (1983 ASSHTO with Interim 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
 $f_y = 60,000$ psi
 $n = 9$
 TRANSVERSE DECK SLABS: $f'_c = 1,200$ psi
 (Working Stress Design) $f_s = 20,000$ psi
 $n = 10$
 PRESTRESSED CONCRETE: See "Prestressing Notes"
 SPREAD FOOTINGS: SOIL BEARING PRESSURE (NET)
 Allowable Design
 5.0 TONS/SF 5.0 TONS/SF
 BENT 3

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

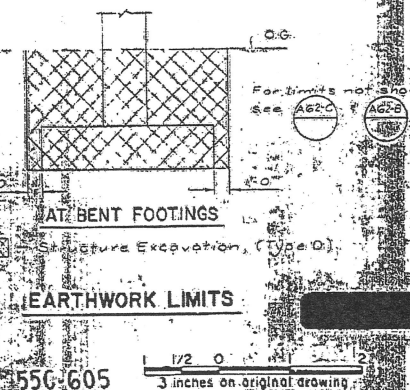
FOUNDATION PLAN

CONCRETE STRENGTH & TYPE LIMITS

- Structural Concrete, Bridge
- Structural Concrete, Bridge (#4007 psi @ 28 days)
- Structural Concrete, Bridge Footing
- Structural Concrete, Retaining Wall

POOR COPY

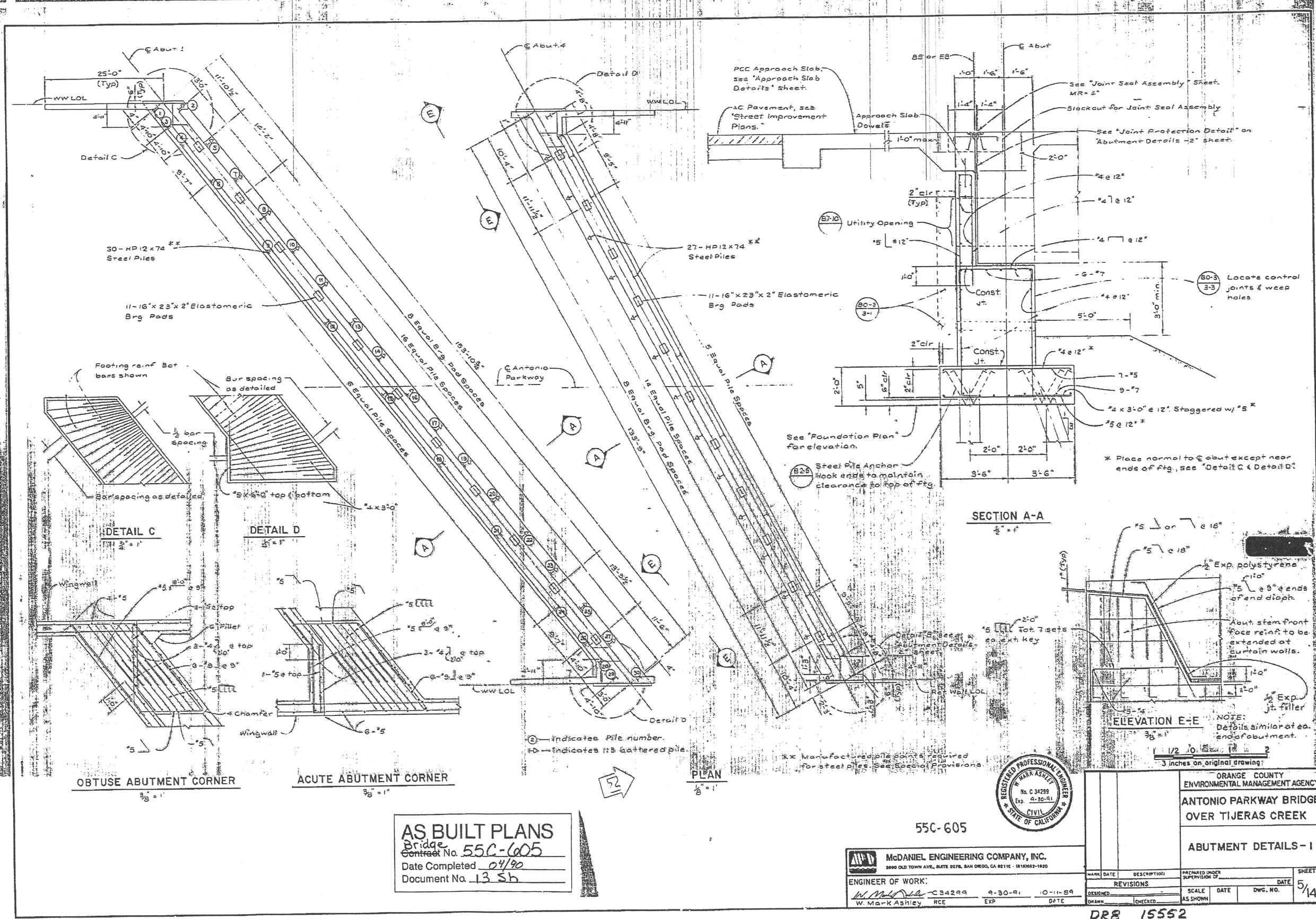
AS BUILT PLANS
 Bridge
 Contract No. 55C-605
 Date Completed 04/90
 Document No. 13 Sb

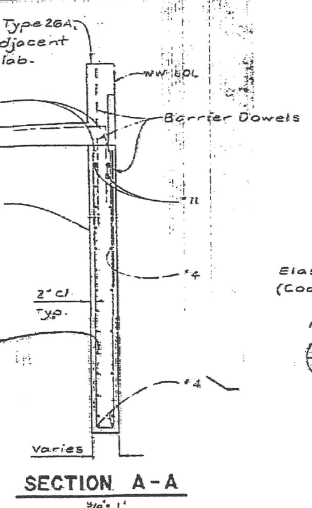
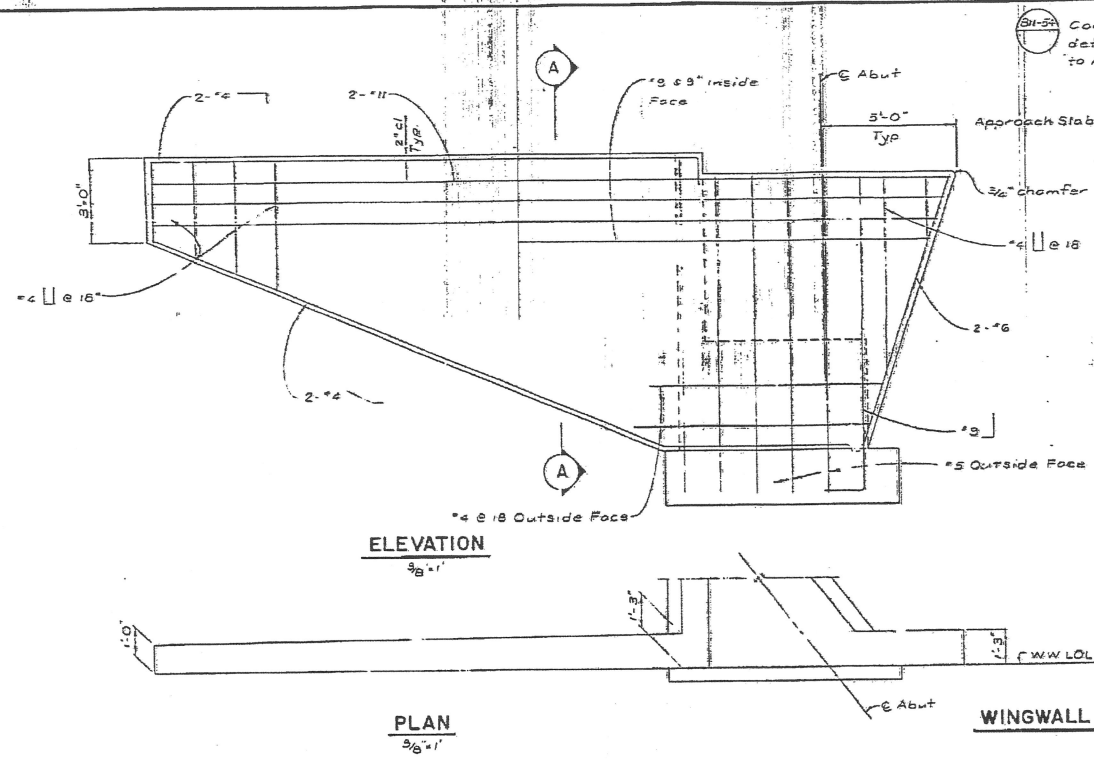


McDANIEL ENGINEERING COMPANY, INC.
 3890 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 (619) 583-1820
 ENGINEER OF WORK:
 W. Mark Ashley C 34299 a-j-a 10-1-91
 W. Mark Ashley RCE EXP DATE

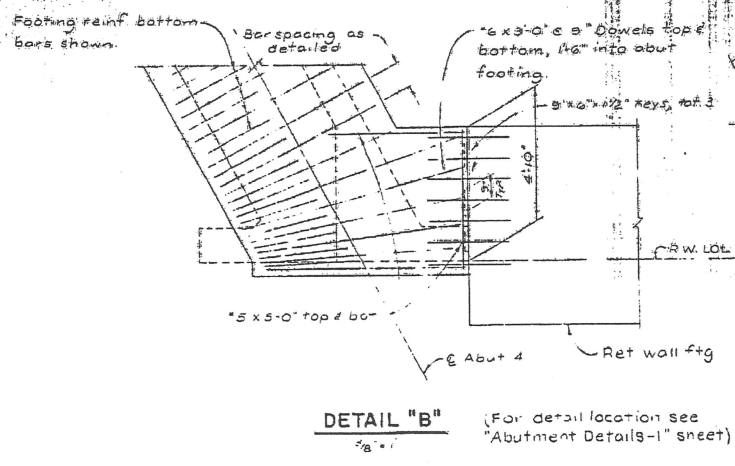
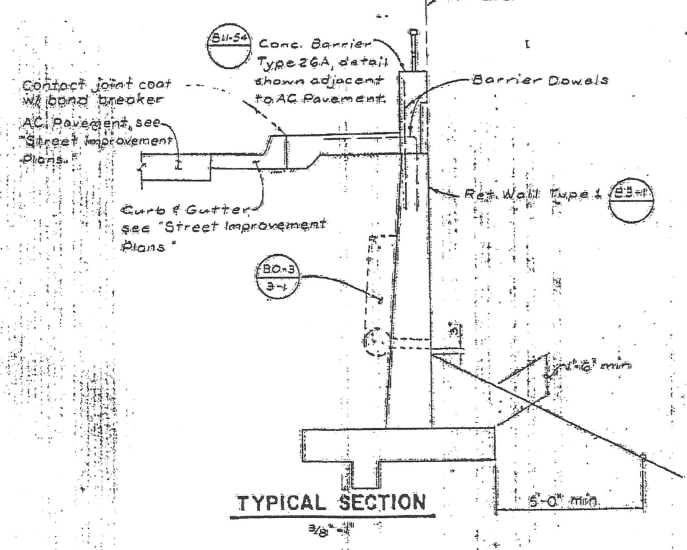
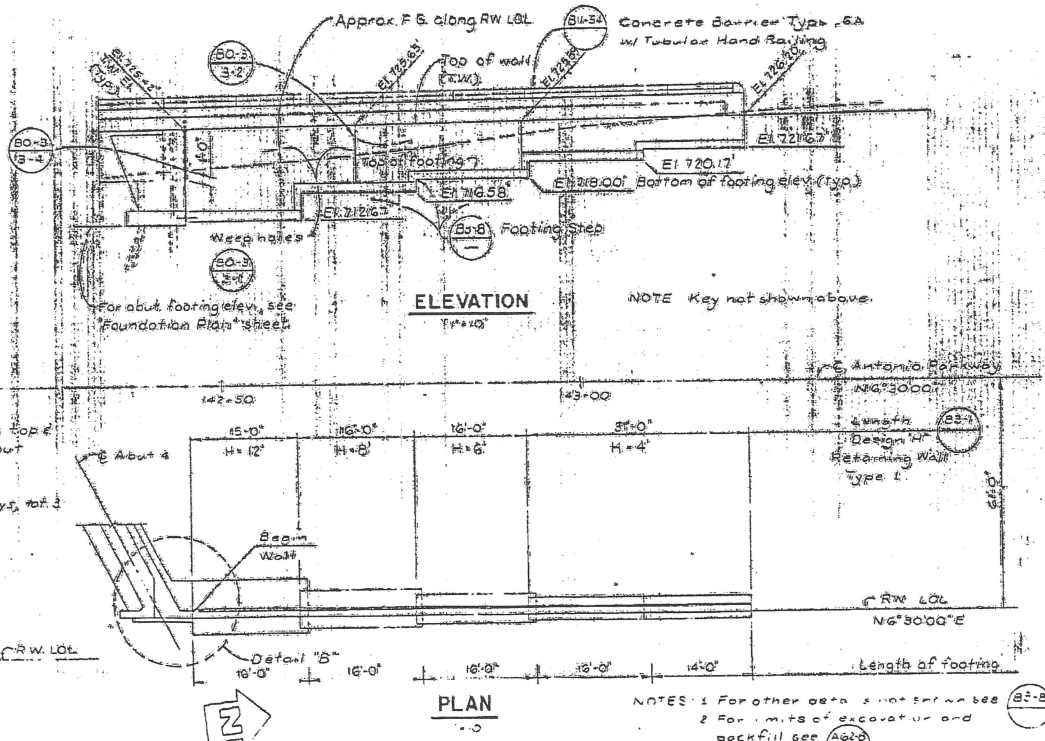
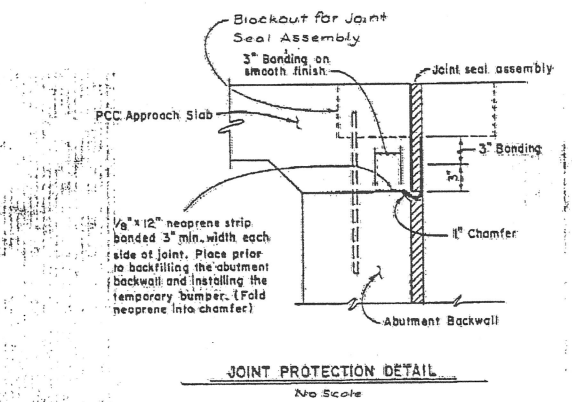
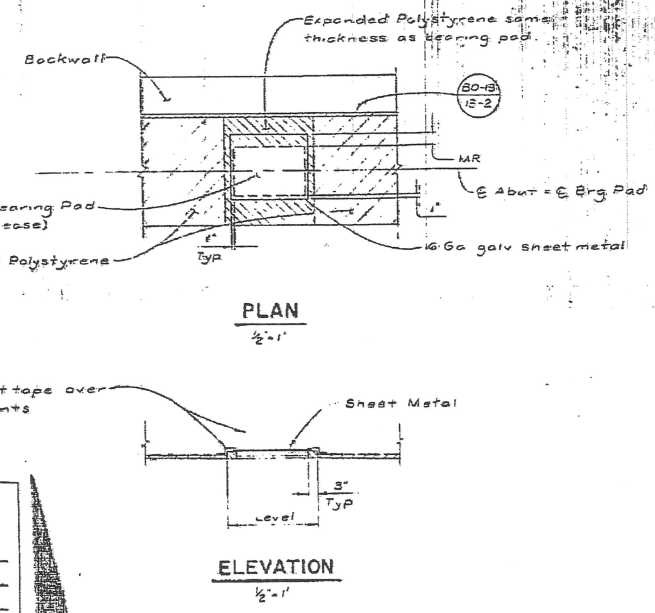
ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY		ANTONIO PARKWAY BRIDGE OVER TIJERAS CREEK	
FOUNDATION PLAN			
DATE	DESCRIPTION	PREPARED UNDER SUPERVISION OF	SHEET
DESIGNED	REVISIONS	DATE	4/4
DRAWN	CHECKED	SCALE AS SHOWN	DWG. NO.

DRB 15552





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



RETAINING WALL DETAILS

NOTES: 1. For other data, see notes on sheet 13-1.
 2. For limits of excavation and backfill, see sheet 13-2.

McDANIEL ENGINEERING COMPANY, INC.
 5440 OLD TOWN AVE., SUITE 207E, SAN DIEGO, CA 92110 (619) 592-1000
 ENGINEER OF WORK:
 W. Mark Ashby, RCE, No. C 34299, Exp. 7-20-91

55C-605

3 inches on original drawing

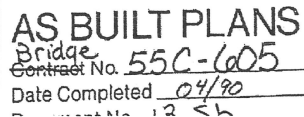
DATE	DESCRIPTION	PREPARED UNDER SUPERVISION OF	DATE
DESIGNED	REVISIONS	SCALE	DATE
DRAWN	CHECKED	AS SHOWN	DATE

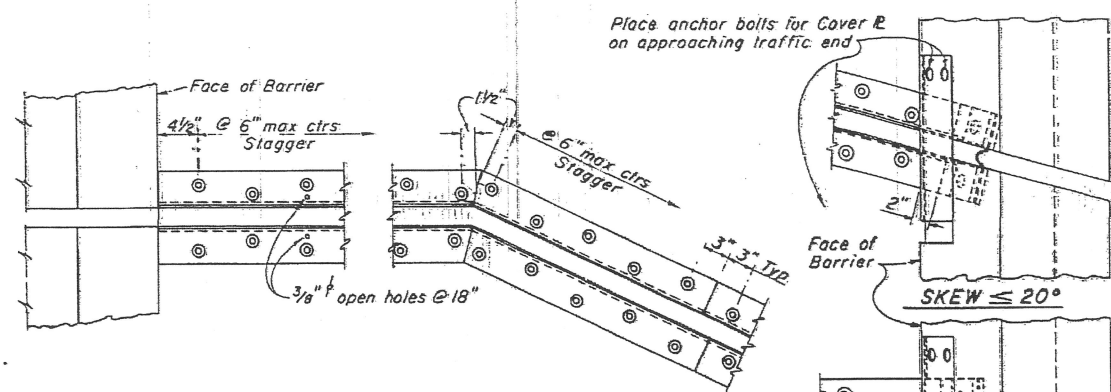
ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY
 ANTONIO PARKWAY BRIDGE OVER TIJERAS CREEK
 ABUTMENT DETAILS-2

SHEET 6/14

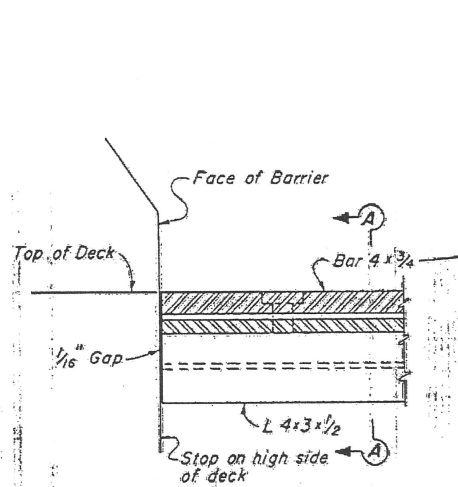
DRB 15552

29X

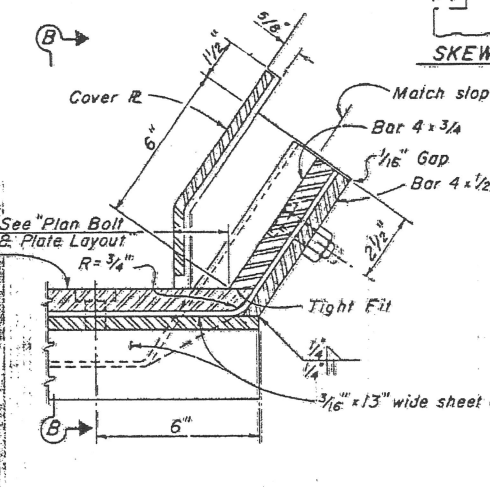




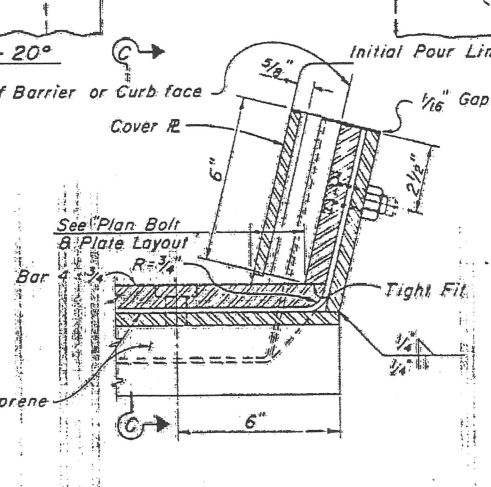
PLAN
BOLT & PLATE LAYOUT



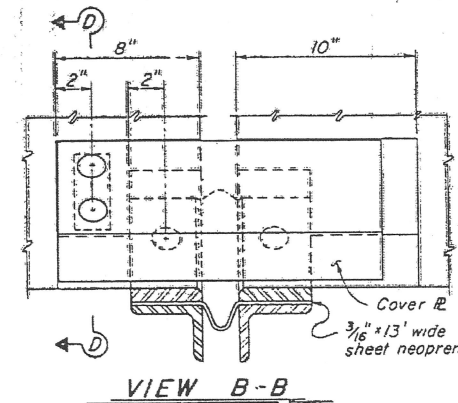
HIGH SIDE BARRIER DETAIL



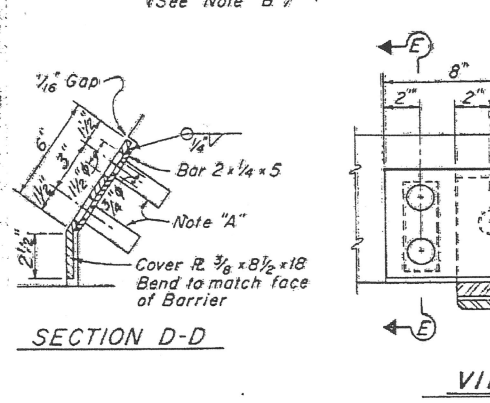
LOW SIDE BARRIER DETAIL
(See Note "B")



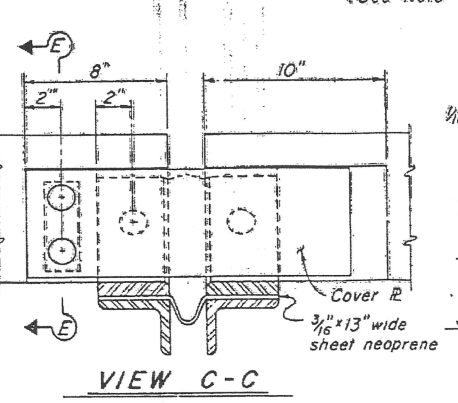
SIDEWALK DETAIL
(See Note "B")



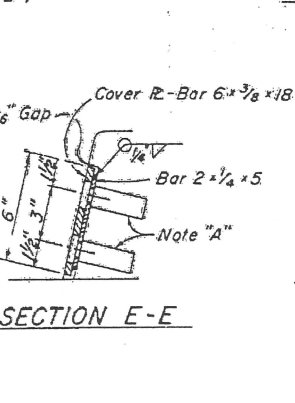
VIEW B-B



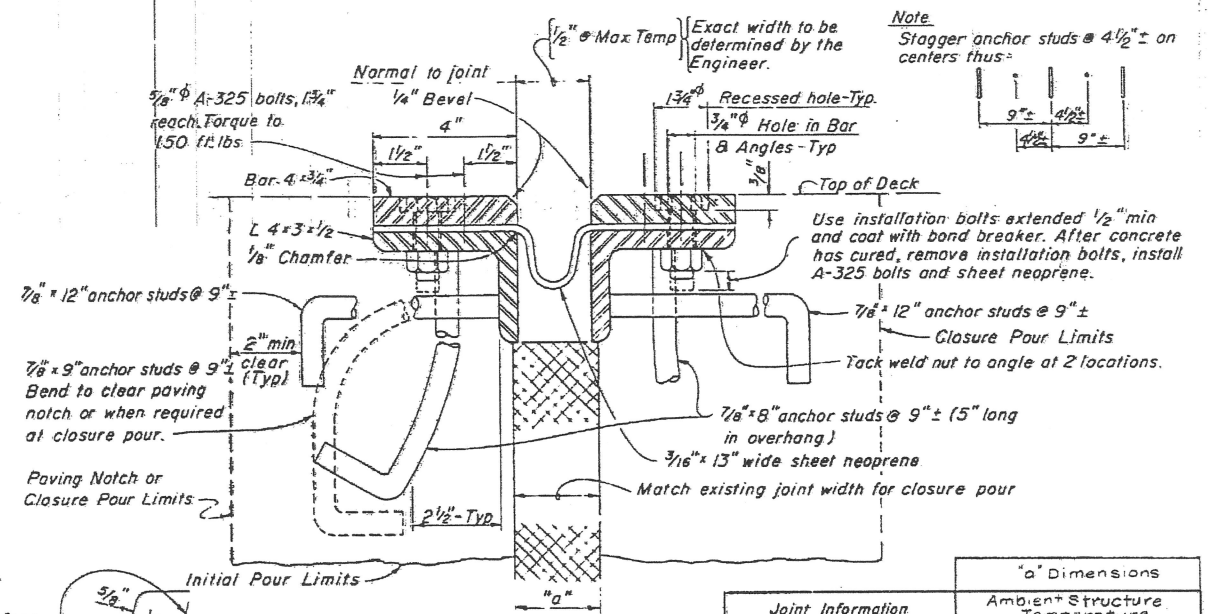
SECTION D-D



VIEW C-C



SECTION E-E



SECTION A-A

Joint Information		"a" Dimensions		
Location	Movement Rating (MR)	Skew	25°-50°	Ambient Structure Temperature
Abut 1	5	40°	1 1/2"	1"
Abut 4	5	28°-35°	1"	3/4"

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.

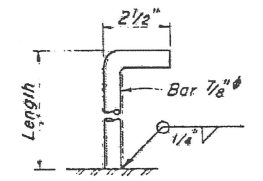
Joint seal assembly to be used in conjunction with closure pour. (See other sheets for limits). Closure pour shall not be placed until final deck surface is within the tolerance specified.

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 vulcanized. Neoprene shall be fabricated to bend around corners. If 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 3/8" x 1 3/4" 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.



ANCHOR STUD

55C-605

1/2 0 1 2
3 inches on original drawing



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

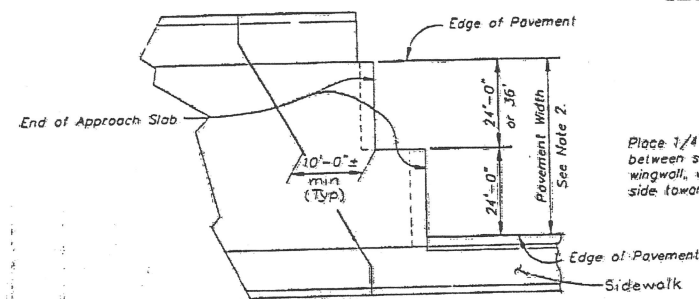
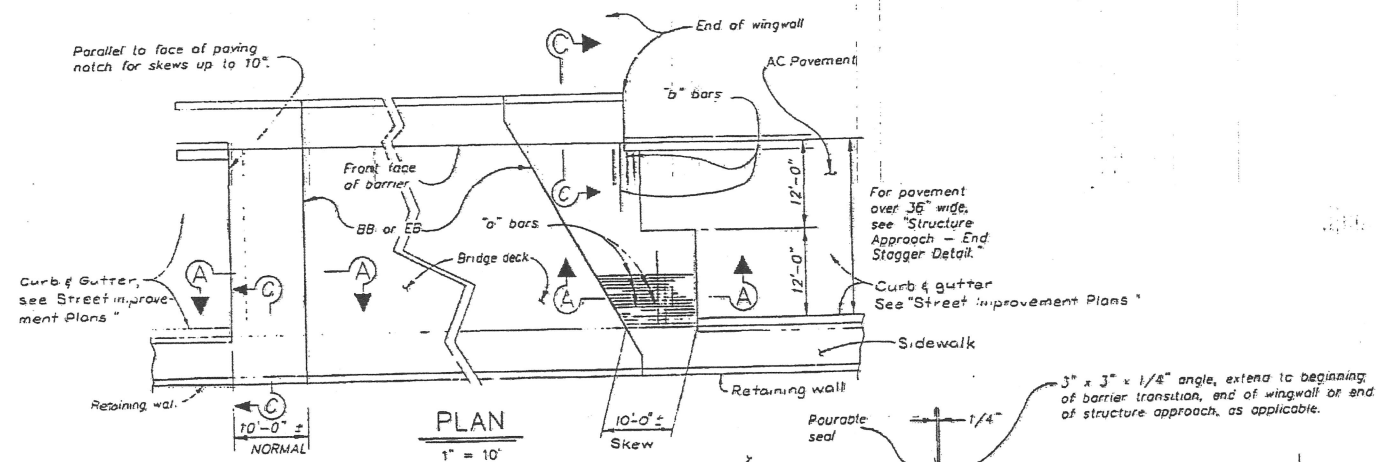
McDANIEL ENGINEERING COMPANY, INC.
3880 OLD TOWN AVE., SUITE 307, SAN DIEGO, CA 92110 (619) 582-1820

ENGINEER OF WORK:
W. Mark Ashley
RCE EXP 10-11-84

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY		ANTONIO PARKWAY BRIDGE OVER TIJERAS CREEK	
JOINT SEAL ASSEMBLY (Mex. MR = 4")		DATE 10/14	
MAIN DATE	DESCRIPTION	PREPARED UNDER SUPERVISION OF	SHEET
REVISIONS	DATE	SCALE	DATE
DESIGNED	CHECKED	DATE	DATE
DRAWN	CHECKED	DATE	DATE

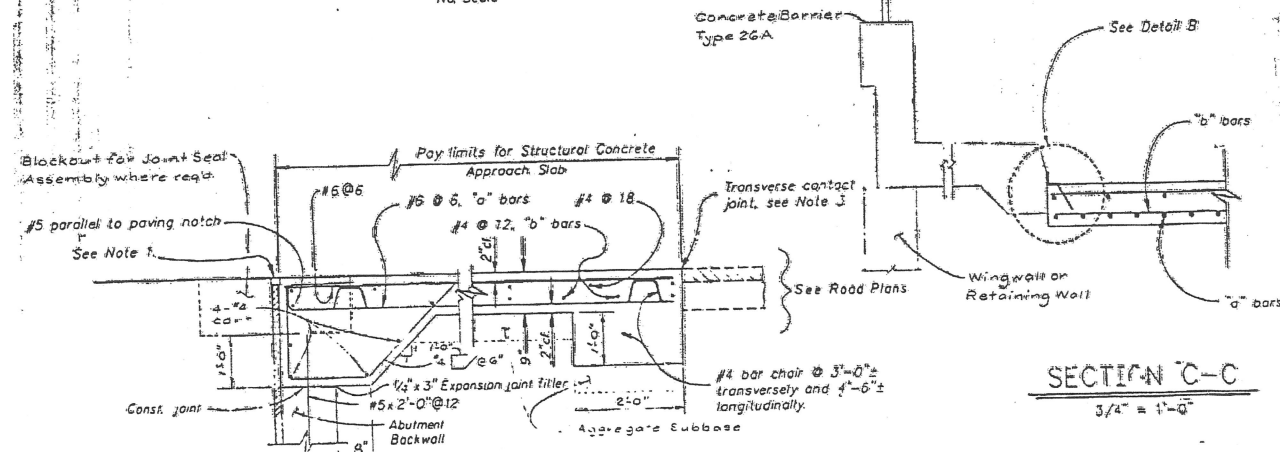
DRB 15552

29X



STRUCTURE APPROACH - END STAGGER DETAIL

No Scale



SECTION A-A

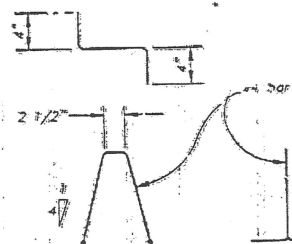
3/4\" = 1'-0"

DETAIL B

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

SECTION C-C

3/4\" = 1'-0"



BAR CHAIR DETAIL

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

AS BUILT PLANS

Bridge Contract No. 55C-605

Date Completed 04/90

Document No. 135b

NOTES

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

55C-605

1/2 0 1 2
3 inches on original drawing



McDANIEL ENGINEERING COMPANY, INC.
3900 OLD TOWN AVE., SUITE 207B, SAN DIEGO, CA 92110 (619) 592-1820

ENGINEER OF WORK:
W. Mark Ashley RCE EXP 10-11-84 DATE

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY			
ANTONIO PARKWAY BRIDGE OVER TIJERAS CREEK			
PCC APPROACH SLAB			
DATE	DESCRIPTION	PREPARED UNDER SUPERVISION OF	SHEET
11/14			
DATE	REVISIONS	SCALE	DATE
		AS SHOWN	

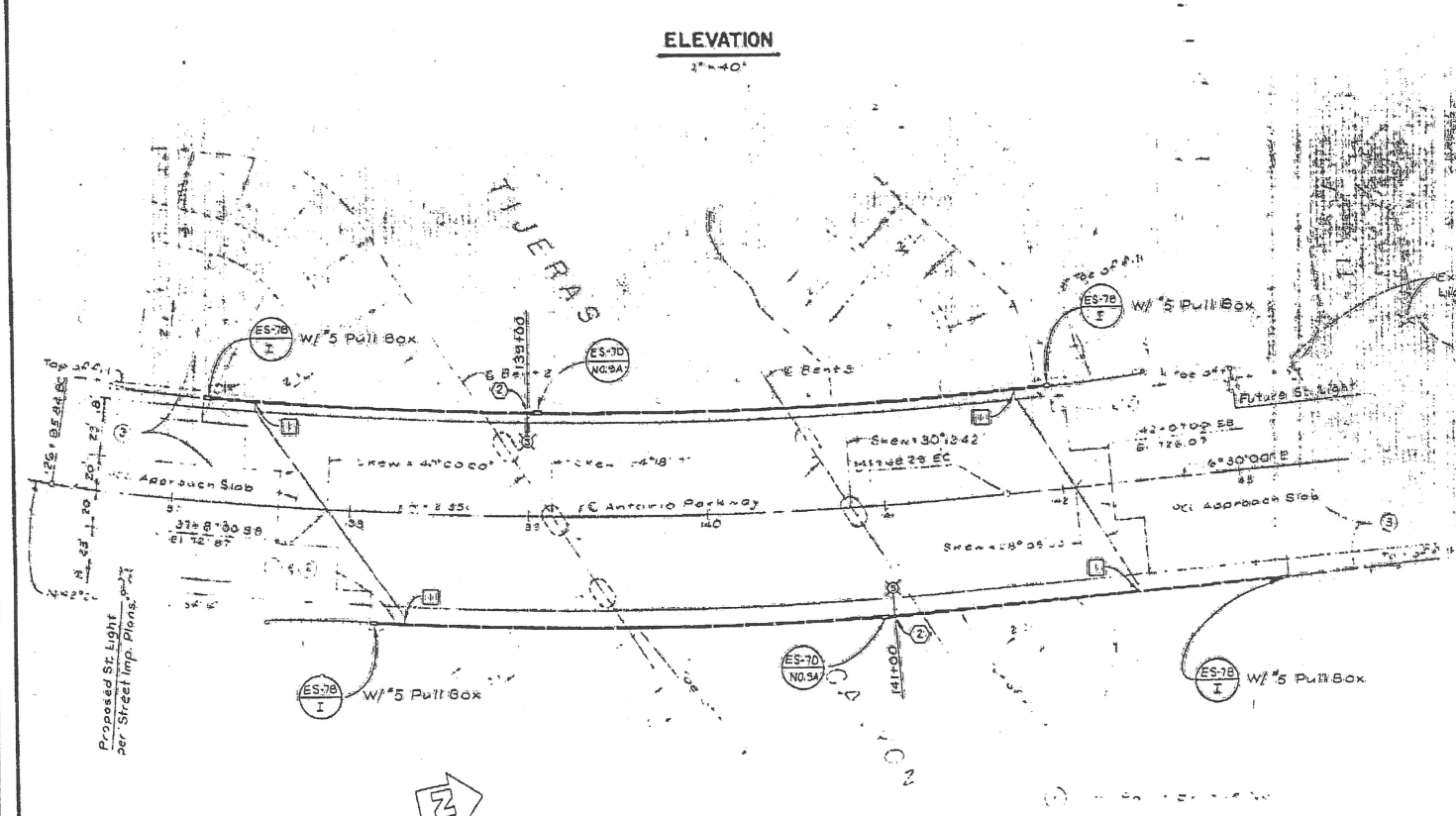
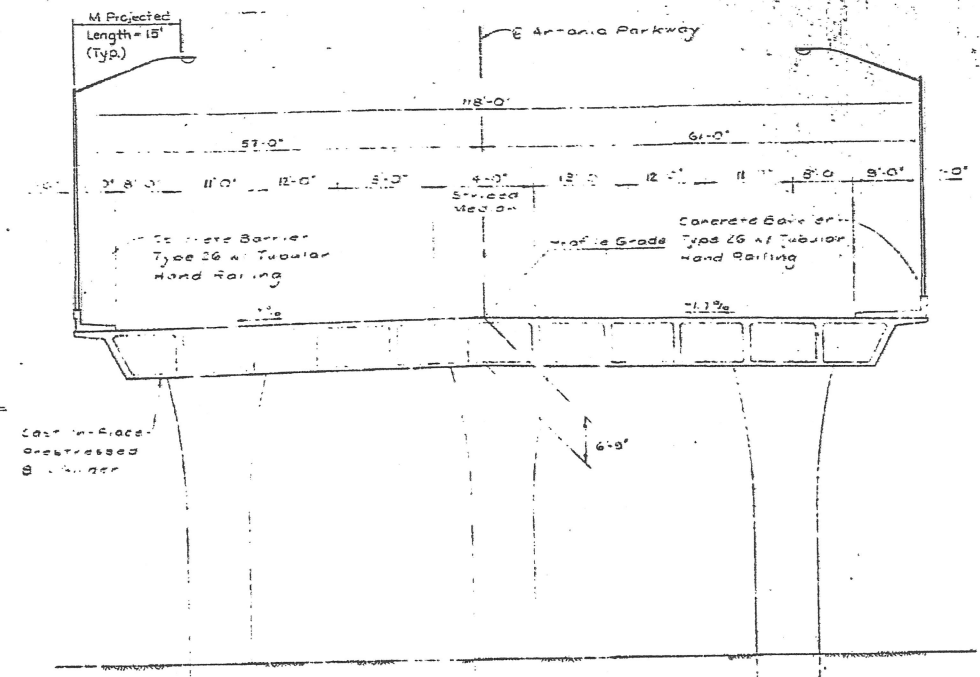
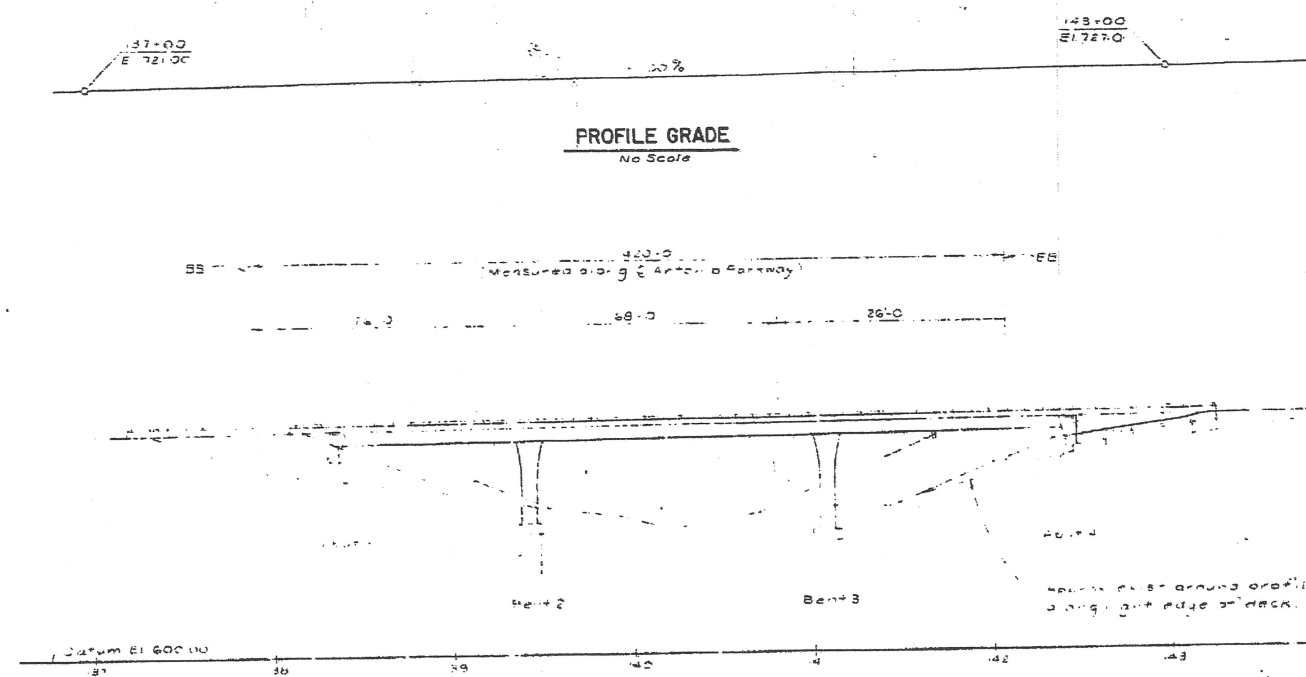
DR8 15552

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION CERTIFICATE OF ACCURATE MICROFILM IMAGE ADA 505 (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



- ① Conduit expansion fitting similar on Detail "C" on except fitting shall accommodate an expansion equal to the max. movement rating on bridge piers.
- ② 200-watt KPS lamp, Type 15, LMA = 15". See ES-60.

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

POOR COPY



55C-605

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

McDANIEL ENGINEERING COMPANY, INC.
 2800 OLD TOAH AVE., SUITE 207E, SAN DIEGO, CA 92116 (619) 593-1830
 ENGINEER OF WORK:
 R. M. [Signature] C34299 9-30-91 10-11-89
 RCE EXP DATE

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY		DATE 12/14	
ANTONIO PARKWAY BRIDGE OVER TIJERAS CREEK			
BRIDGE LIGHTING PLAN			
REVISIONS	DATE	SCALE	DWG. NO.
AS SHOWN			

DR8 15552

29X

AS BUILT PLANS

Bridge
Contract No. 55C-605

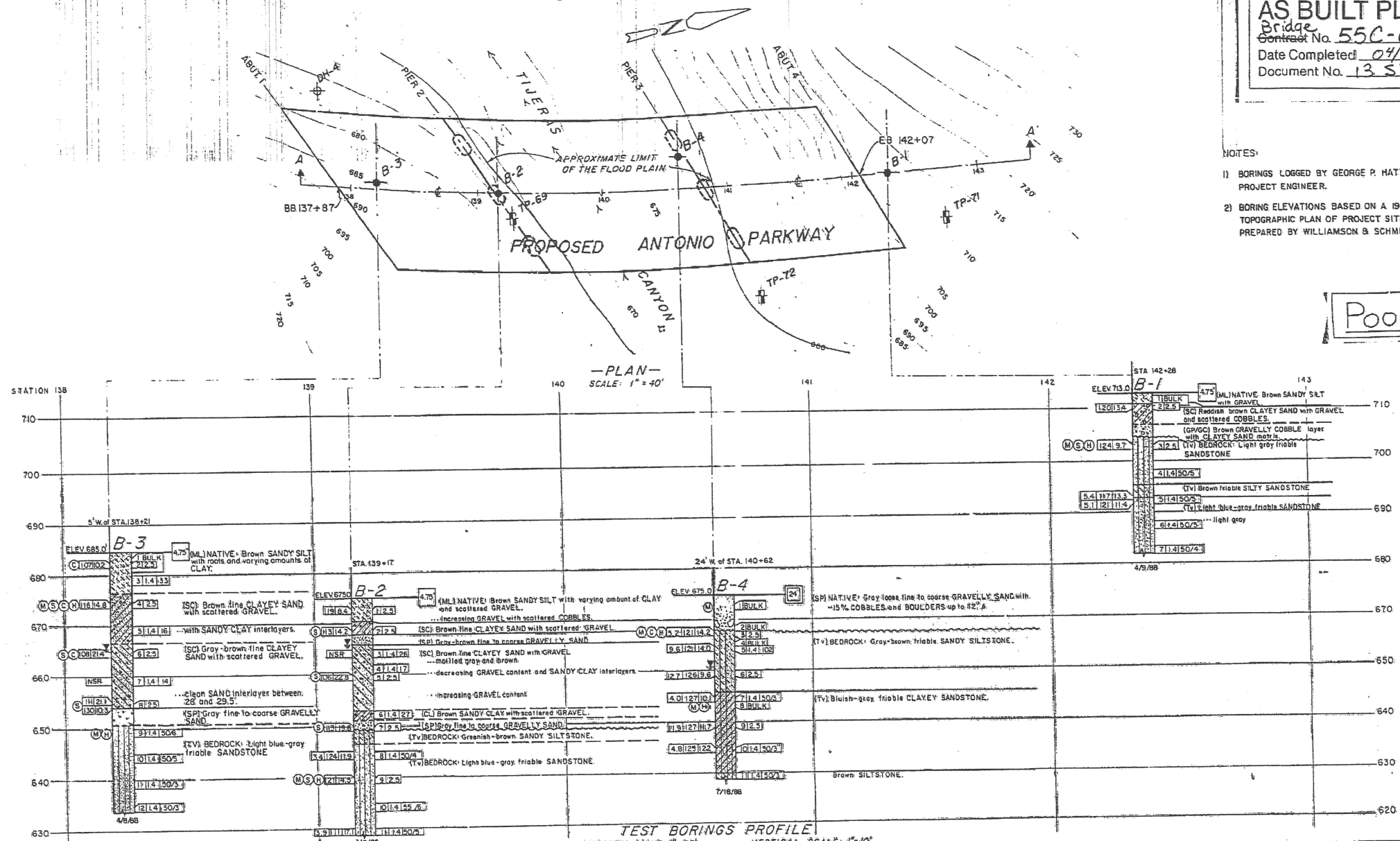
Date Completed 04/90

Document No. 13 Sh

NOTES:

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

POOR COPY



55C-605



LEGEND OF EARTH MATERIALS											
UNIFIED SOIL CLASSIFICATION						MATERIAL SYMBOLS					
PI	CH	CH	ML	CL	ML	SC	SM	SP	SW	GC	GM
Highly organic soils	Silty and clayey	Liquid limit greater than 50	Silty and clayey	Liquid limit less than 50	Clayey silts	Clayey silts	Clayey silts	Clayey silts	Clayey silts	Clayey silts	Clayey silts
LABORATORY CLASSIFICATION CRITERIA						CONSISTENCY CLASSIFICATION FOR SOILS					
Plasticity Chart (Liquid Limit vs. Plasticity Index)						According to the Standard Penetration Test					
Soil Classification						Consistency					
Soil Classification						Consistency					

LEGEND OF BORING OPERATIONS											
ROTARY BORING						PENETRATION TEST					
Plan of Moore & Taber borings	Moore & Taber boring (1988)	Moore & Taber boring (1988)	Moore & Taber boring (1988)	Moore & Taber boring (1988)	Moore & Taber boring (1988)	Top hole elev.	Sample number	Blows per foot	Blows per foot	Blows per foot	Blows per foot
Moisture (% dry wt.)	Dry density (lb/cu ft.)	Undrained shear strength (lb/sq ft.)	Designates other soils tests	C - Consolidation	S - Direct shear	E - Expansion	T - Triaxial compression	U - Hydrometer Test	M - Mechanical Analysis	Blows per foot	Blows per foot

MOORE & TABER
CONSULTING ENGINEERS AND GEOLOGISTS
George P. Hattrup
REGISTERED CIVIL ENGINEER No. 43979

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. Drawing 13/14

DRB 15552

29X

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

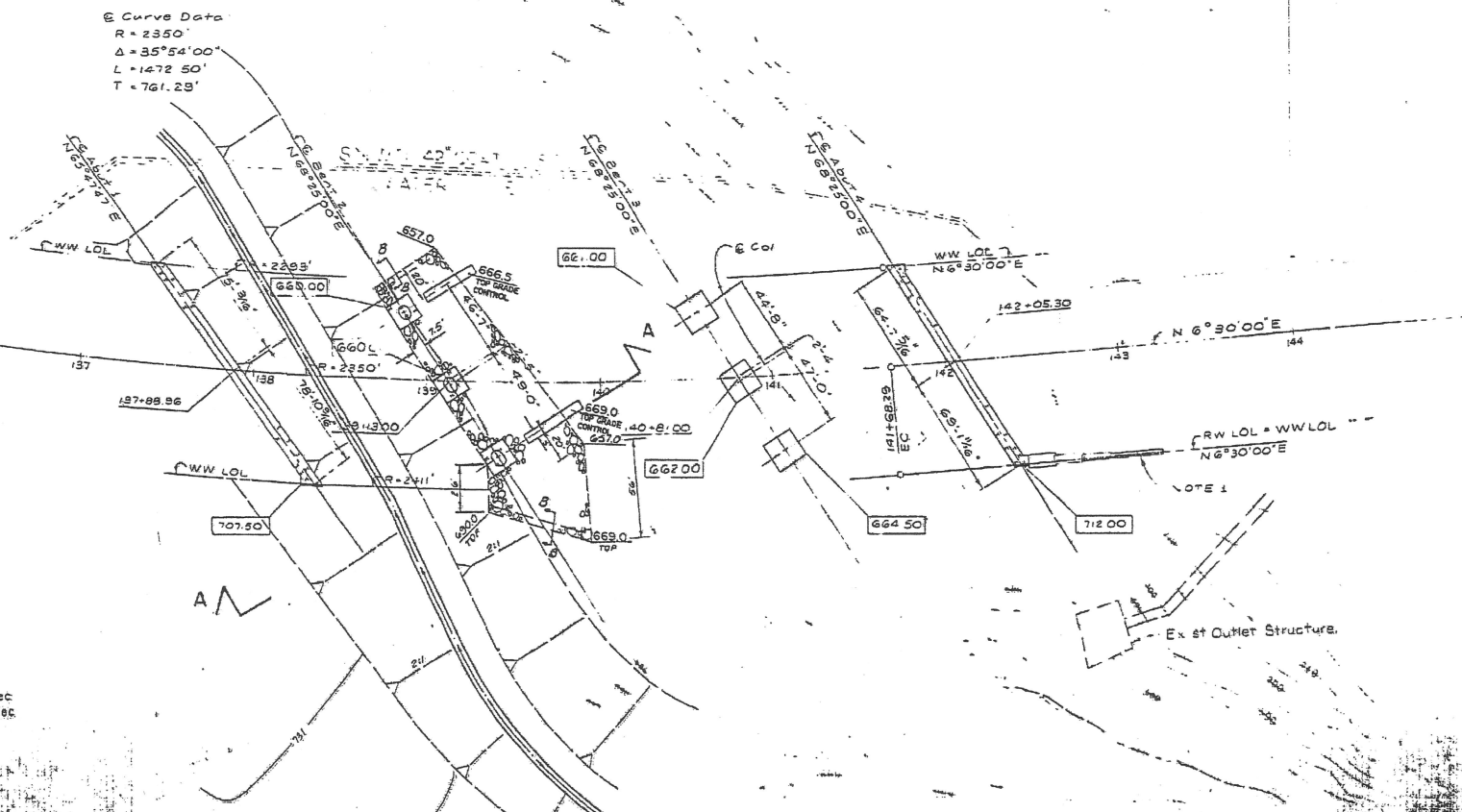
$n=0.035$ $V_n=14.2$ $Q_n=7.4$ $Q_{100}=3,600$ cfs

FIG. 1, REF. 1 TRY $k=1.5$ ft, $d=7.4$ ft, $V=4$ ft/sec $V_s=8.5$ ft/sec
INCREASE V_s BY 50% FOR ANGLE OF ATTACK $V_s=12.8$ ft/sec

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

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

Curve Data
 $R=2350'$
 $\Delta=35^\circ 54' 00''$
 $L=1472.50'$
 $T=761.29'$

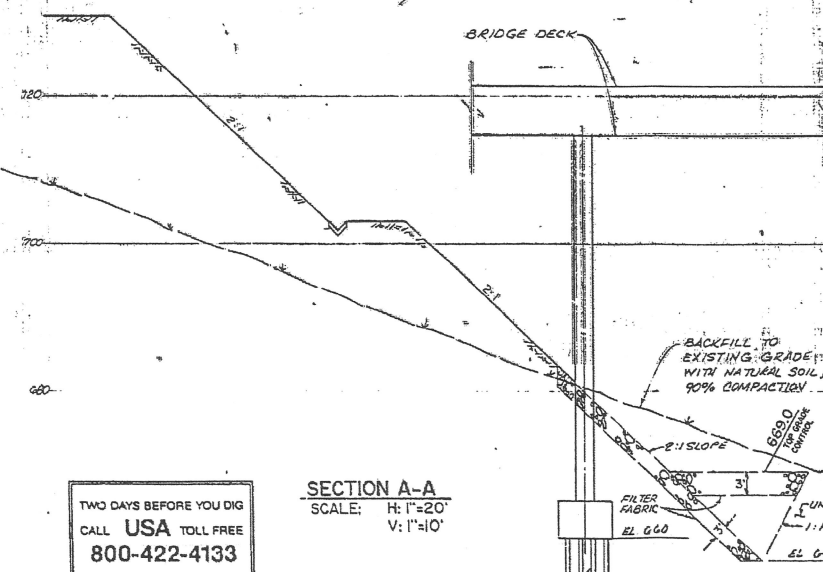


SLOPE PROTECTION PLAN

1" = 40'

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

BRIDGE DECK

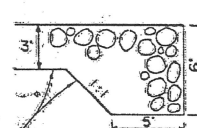


SECTION A-A

SCALE: H: 1"=20' V: 1"=10'

SECTION B-B

NO SCALE



AS BUILT PLANS
 Bridge Contract No. 55C-605
 Date Completed 04/90
 Document No. 13.5b

POOR COPY

55C-605

3 inches on original drawing

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

W S WILLIAMSON & SCHMID
 17782 SKY PARK BOULEVARD • IRVINE, CALIFORNIA 92714 • (714) 261-2222

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY	
ANTONIO PARKWAY BRIDGE OVER TIJERAS CREEK	
SLOPE PROTECTION PLAN	
APPROVED BY <i>William A. Hargreaves</i>	DESIGNED BY <i>William A. Hargreaves</i>
CHECKED BY <i>William A. Hargreaves</i>	DATE 9/30/91
SCALE AS SHOWN	DATE 04/90
DWG. NO.	SHEET 14/14

DEB 15552

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 CERTIFICATE OF ACCURATE MICROFILM IMAGE
 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