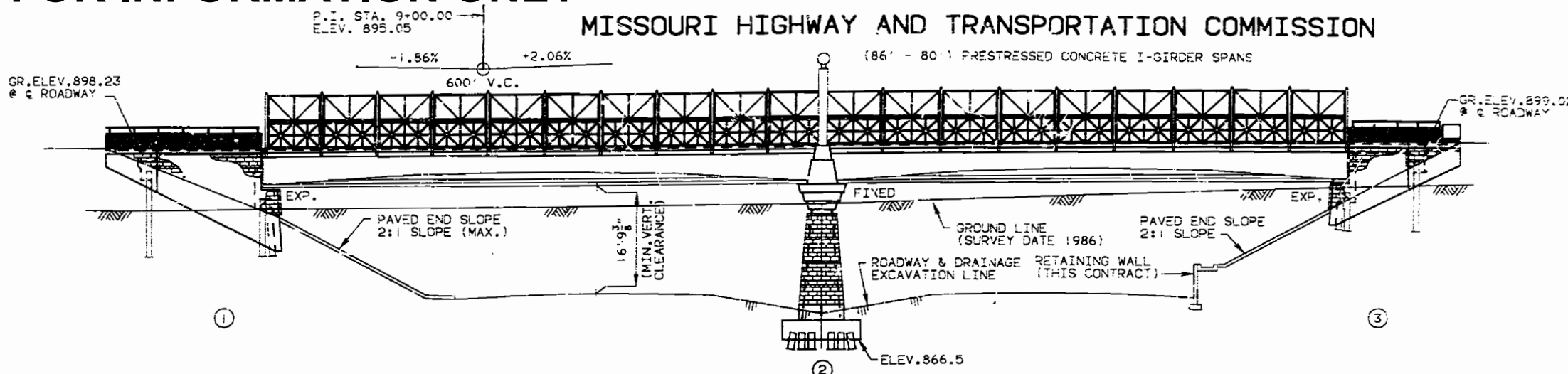


MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

STATE	PROJ. NO.	SHEET NO.
MO.		27
SEC./SUP.	3 WP. 48	PAGE 33A

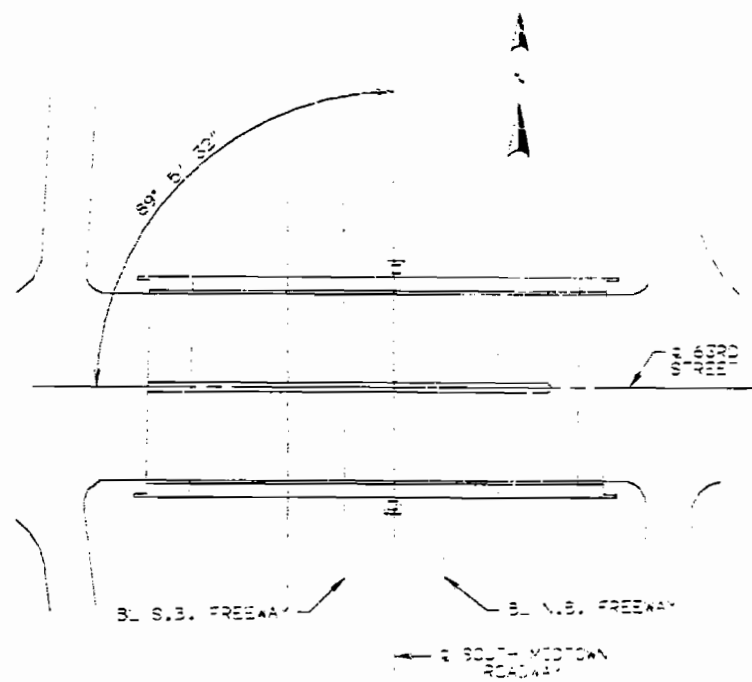
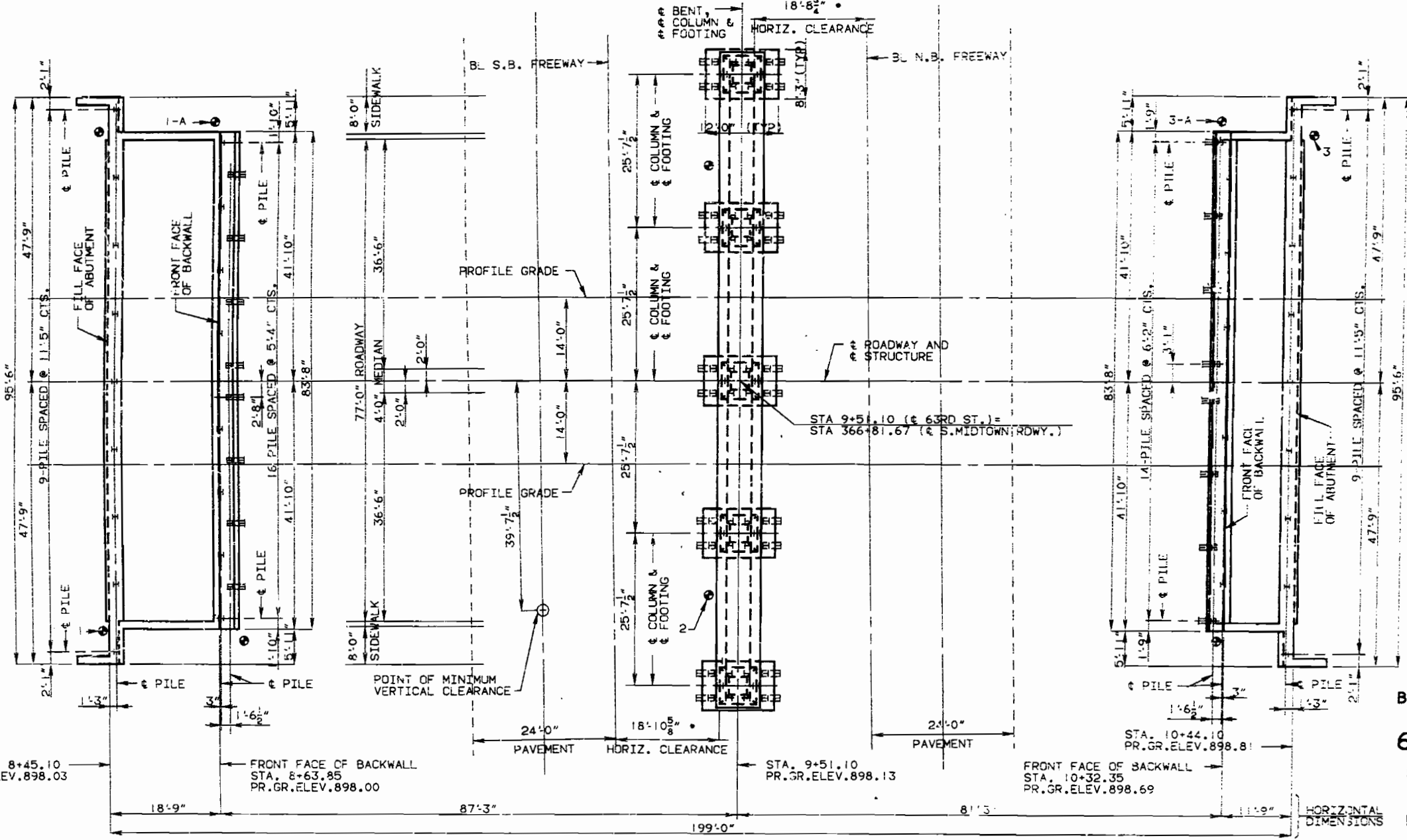


THIS DRAWING IS TO BE USED FOR INFORMATION ONLY AND DOES NOT REPRESENT THE ACTUAL CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CONDITIONS ON THE JOB SITE. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.

FOR BIDDING DATA SEE SHEET NO. 3.

THIS DRAWING IS TO BE USED FOR INFORMATION ONLY AND DOES NOT REPRESENT THE ACTUAL CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CONDITIONS ON THE JOB SITE. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.

ELEVATION



B.M. #41 = ELEV. 897.14 (WYEN TOP OF BRIDGE PILE, SOUTH SIDE, S.A. CORNER 63RD ST. AND CHESTNUT AVE.)

63 RD ST. OVER BRUCE WATKINS DR.

STATE ROAD FROM 63 RD ST. TO 75 TH ST.

IN KANSAS CITY

PROJECT NO. FH 71-4(56) STA. 366+81.67

JOB NO. 4U 10 71 RTE. 71

JACKSON COUNTY

STD. 606.22
STD. 611.60
STD. 706.38
A-4863

7888 1896

DESIGNED JUNE 1990
DETAILED SEPT. 1990
CHECKED SEPT. 1990

HORIZONTAL DISTANCES ARE TO EDGE OF BLOCK FACADE ON COLUMN AT TOP OF BLOCK SILL ON FOOTING.

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 1 OF 37.

Date 2/18/91

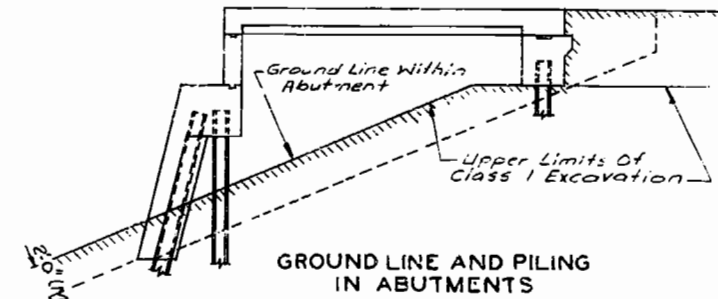
DATE	PROJ. NO.	SHEET NO.
MO		27

ESTIMATED QUANTITIES			
ITEM		SUBSTR.	SUPERSTR. TOTAL
Class 1 Excavation	Cu. Yd.	390	390
Structural Steel Piles (10 in.)	Lin. Ft.	1,420	1,420
Structural Steel Piles (12 in.)	Lin. Ft.	600	600
Prebore For Piling	Lin. Ft.	516	516
Protective Coating Conc. Events (Decks, etc.)	Lump Sum	1	1
() Slab On Conc. I-Girder (See Spec. Prov.)	Sq. Yd.		1,580
Safety Barrier Curb	Lin. Ft.		398
Pre-cast Cap On Safety Barrier Curb	Lin. Ft.		396
Pre-cast Cap On Pedestrian Walls	Lin. Ft.		78
Split Faced Masonry Facade On Abutts.	Sq. Ft.		1,294
Split Faced Masonry Facade On Int. Bent	Sq. Ft.		1,485
Brick Veneer On Pedestrian Walls And Safety Barrier Curb	Sq. Ft.		1,095
Uni-Stone Pavers On Sidewalks And Raised Median Barrier	Sq. Ft.		3,488
Pre-cast Ornamental Column	Each		2
Slab On Semi-Deep Abutment	Sq. Yd.		284
Raised Median Barrier	Sq. Ft.		699
Sidewalk	Sq. Ft.		3,345
Class 3 Concrete (Substr.)	Cu. Yd.	454.0	454.0
Laminated Neoprene Bearing Pads	Each		40
Preformed Compression Exp. Jt. Seal (2.5 in)	Lin. Ft.		190
Prestressed Conc. I-Girder (20' Span)	Each		10
Prestressed Conc. I-Girder (86' Span)	Each		10
Reinforcing Steel	Lbs.	63,280	63,280
Conduit System On Structure (1 1/2" dia)	Lump Sum		1
Conduit System On Structure (4" dia)	Lump Sum		1
Reinforcing Steel (Epoxy Coated)	Lbs.	8,660	8,660
Fabricated Structural Carbon Steel (Misc.)	Lbs.	11,030	11,030
Ornamental Fence	Lin. Ft.		337
Tube Handrail On Pedestrian Walls	Lin. Ft.		74
Slab Drains	Each		14
Painting	Lump Sum		1
Masonry Protection System	Lump Sum		1
Graffiti Protection System	Lump Sum		1
Pedestrian Wall	Lin. Ft.		82

ESTIMATED QUANTITIES FOR ALTERNATE SLABS			
TYPE OF SLAB	SLAB ON CONC. I-GDR.		
	REINF. (LBS.)		CONC.
	EPOXY	PLAIN	CU. YD.
CAST IN PLACE CONVENTIONAL FORMS	146,990	750	448.4
PRECAST PANEL FORMS	107,490	190	372.1 *
ESTIMATED QUANTITIES FOR SEMI-DEEP ABUTMENT SLABS			
	REINF. (LBS.)		CONC.
	EPOXY	PLAIN	CU. YD.
	18,150		97.8

Note:
 This Table Of Estimated Quantities For Alternate Slabs & Semi-Deep Abutment Slabs Represents The Quantities Used By The State In Preparing The Cost Estimate For Concrete Slabs. Variations May Be Encountered In These Estimated Quantities But These Variations Cannot Be Used For An Adjustment In The Contract Unit Price Per Sq. Yd. Of Alternate Slab Or Semi-Deep Abutment Slabs Used.
 See Special Provisions For Alternate Methods Of Forming Slabs.

* Based on minimum top flange thickness and minimum joint filler thickness.



Note:
 In No Case Shall The Earth Within Abutments No. 1 & 3 Be Above The Ground Line Shown. Forms Supporting Abutment Slab May Be Left In Place.
 The Maximum Variation Of The Head Of The Pile And The Battered Face Of The Pile From The Position Shown On The Plans Shall Be Not More Than 2 Inches For Pile Under Abutments No. 1 & 3.
 Exposed Steel Piles Within Abutment To Be Coated With A Heavy Coating Of An Approved Bituminous Paint.

GENERAL NOTES:
 Design Loading:
 HS20-44, 35' 10" Sp. 1.1 Future Clearing, Turf, etc. Modified 24,000# Tandem, Axle Weight 120#/Cu. Ft. Equivalent Fluid Pressure 45#/Cu. Ft.
 Superstructure: Simply-Supported, Non-Composite For Dead Load, Continuous Composite For Live Load.
 Design Unit Stresses:
 Class B Concrete (Substructure) $f_c = 3,000$ Psi.
 Class B1 Concrete (Safety Barrier Curb, Raised Median Barrier and Pedestrian Walls) $f_c = 4,000$ Psi.
 Class B2 Concrete (Superstructure, Except Safety Barrier Curb, Raised Median Barrier, Prestressed Girders and Pedestrian Wall) $f_c = 4,000$ Psi.
 Reinforcing Steel (Grade 60) $f_y = 60,000$ Psi.
 Steel Piling $f_b = 9,000$ Psi.
 Structural Carbon Steel $f_y = 36,000$ Psi.
 For Prestressed Panel Stresses, See Sheet No. 17.
 For Prestressed Girder Stresses see sheet No. 15.
 Neoprene Pads:
 Bearings Shall Be 60 Durometer Neoprene Pads. Cost Of Furnishing, Fabricating, And Installing Neoprene Bearing Pads Complete In Place, Will Be Paid For At The Contract Unit Price For Laminated Neoprene bearing Pads, Per Each.

Joint Filler:
 All Joint Filler Shall Meet The Requirements Of Std. Spec. 1057.2.4, Except As Noted.
 Paint:
 See Special Provisions.
 Fabricated Steel:
 Field Connections, High Strength Bolts 3/4" dia, Holes 13/16" dia, Except As Noted.
 Reinforcing Steel:
 Minimum Clearance To Reinforcing Steel Shall Be 1 1/2" Unless Otherwise Shown.

Note:
 All Concrete And Reinforcing Steel Below Top Of Slab And Above Construction Joint Under Slab In Semi-Deep Abutments Are Included In Superstructure Quantities For Slab On Semi-Deep Abutment.
 All Concrete And Reinforcing Steel In Sidewalks Are Included In Superstructure Quantities For Sidewalk.
 All concrete and reinforcing steel in Raised Median Barrier are included in Superstructure Quantities for Raised Median Barrier.

187 187 187

DETAILED Sept. 1990
 CHECKED Oct. 1990

Note: This drawing is not to scale. Follow dimensions.

PROJ. PLANS
 Sheet No. 2 of 37.

JACKSON COUNTY A-4863

FOR INFORMATION ONLY

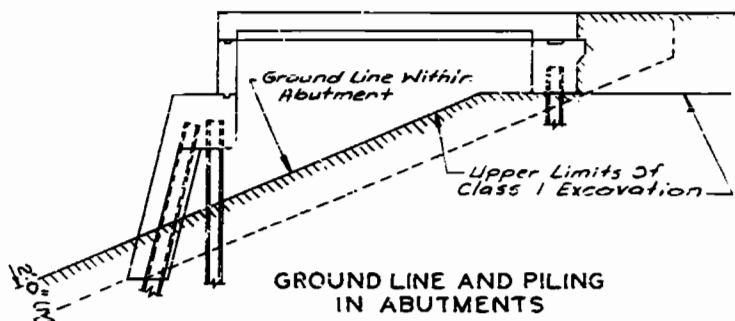
A48631, Sht. 3

ESTIMATED QUANTITIES			
ITEM		SUBSTR.	SUPERSTR. TOTAL
Class 1 Excavation	Cu. Yd.	412.5	412.5
Structural Steel Piles (10 in.)	Lin. Ft.	1517	1517
Structural Steel Piles (12 in.)	Lin. Ft.	736	736
Prebare For Piling	Lin. Ft.	554	554
Protective Coating - Conc. Bents (Deleterious Agents)	Lump Sum	1	1
() Slab On Conc. I-Girder (See Spec. Prov.)	Sq. Yd.	1,580	1,580
Safety Barrier Curb	Lin. Ft.	398	398
Precast Cap On Safety Barrier Curb	Lin. Ft.	386	386
Precast Cap On Pedestrian Walls	Lin. Ft.	78	78
Split Faced Masonry Facade On Abuts.	Sq. Ft.	1158	1158
Split Faced Masonry Facade On Int. Bent	Sq. Ft.	1529	1529
Brick Veneer On Pedestrian Walls And Safety Barrier Curb	Sq. Ft.	1117	1117
Uni-Stone Pavers On Sidewalks And Raised Median Barrier	Sq. Ft.	0	0
Precast Ornamental Column	Each	2	2
Slab On Semi-Deep Abutment	Sq. Yd.	284	284
Raised Median Barrier	Sq. Ft.	699	699
Sidewalk	Sq. Ft.	3,345	3,345
Class B Concrete (Substr.)	Cu. Yd.	454.0	454.0
Laminated Neoprene Bearing Pads	Each	40	40
Preformed Compression Exp. Jt. Seal (2.5 in)	Lin. Ft.	190	190
Prestressed Conc. I-Girder (20' Span)	Each	10	10
Prestressed Conc. I-Girder (26' Span)	Each	10	10
Reinforcing Steel	Lbs.	63,280	63,280
Conduit System On Structure (1 1/2")	Lump Sum	1	1
Conduit System On Structure (4" #)	Lump Sum	1	1
Reinforcing Steel (Epoxy Coated)	Lbs.	8,660	8,660
Fabricated Structural Carbon Steel (Misc.)	Lbs.	0	0
Ornamental Fence	Lin. Ft.	337	337
Tube Handrail On Pedestrian Walls	Lin. Ft.	74	74
Slab Drains	Each	14	14
Painting	Lump Sum	0	0
Masonry Protection System	Lump Sum	1	1
Graffiti Protection System	Lump Sum	1	1
Pedestrian Wall	Lin. Ft.	82	82
CONTINGENT ITEMS:			
Painting	Lump Sum	1	1
Special Paver Replace. Br.	Sq. Ft.	0	0
Paver Price Adj. Bridge	Sq. Ft.	489	489
Special Paver Repl. Br. Price Adj.	Sq. Ft.	489	489

ESTIMATED QUANTITIES FOR ALTERNATE SLABS			
TYPE OF SLAB	SLAB ON CONC. I-GDR.		
	REINF. (LBS.)		CONC.
	EPOXY	PLAIN	CU. YD.
CAST IN PLACE CONVENTIONAL FORMS	146,990	780	448.4
PRECAST PANEL FORMS	107,490	780	273.1 *
ESTIMATED QUANTITIES FOR SEMI-DEEP ABUTMENT SLABS			
	REINF. (LBS.)		CONC.
	EPOXY	PLAIN	CU. YD.
	18,150	—	97.8

Note:
The Table Of Estimated Quantities For Alternate Slabs & Semi-Deep Abutment Slabs Represents The Quantities Used By The State In Preparing The Cost Estimate For Concrete Slabs. Variations May Be Encountered In These Estimated Quantities But These Variations Cannot Be Used For An Adjustment In The Contract Unit Price Per Sq. Yd. Of Alternate Slab Or Semi-Deep Abutment Slabs Used.
See Special Provisions For Alternate Methods Of Forming Slabs.

* Based on minimum top flange thickness and minimum joint filler thickness.



Note:
In No Case Shall The Earth Within Abutments No. 1 & 3 Be Above The Ground Line Shown. Forms Supporting Abutment Slab May Be Left In Place.
The Maximum Variation Of The Head Of The Pile And The Battered Face Of The Pile From The Position Shown On The Plans Shall Be Not More Than 2 Inches For Pile Under Abutment's No. 1 & 3.
Exposed Steel Piles Within Abutment To Be Coated With A Heavy Coating Of An Approved Bituminous Paint.

GENERAL NOTES:

Design Specifications: A.A.S.H.T.O. - 1989
Load Factor Design
A.A.S.H.T.O. - 1983 Guide Specifications for Seismic Design
Seismic Performance Category F

Design Loading:
HS20-44, 25' 50" Fl. Future Clearing Surface
Modified 20,000# Tandem Axle
Earth 120#/Cu. Ft., Equivalent Fluid
Pressure 45#/Cu. Ft.
Superstructure: Simply-Supported,
Non-Composite For Dead Load,
Continuous Composite For Live Load.

Design Unit Stresses:
Class B Concrete (Substructure) $f'_c = 3,000$ Psi.
Class B1 Concrete (Safety Barrier Curb, Raised Median Barrier and Pedestrian Walls) $f'_c = 4,000$ psi.
Class B2 Concrete (Superstructure, Except Safety Barrier Curb, Raised Median Barrier, Prestressed Girders and Pedestrian Walls) $f'_c = 4,500$ psi.
Reinforcing Steel (Grade 60) $f_y = 60,000$ Psi.
Steel Piling $f_b = 9,000$ Psi.
Structural Carbon Steel $f_s = 36,000$ Psi.
For Prestressed Panel Stresses, See Sheet No. 17.
For Prestressed Girder Stresses see sheets No. 12 & 13.
Neoprene Pads:
Bearings Shall Be 60 Durometer Neoprene Pads. Cost Of Furnishing, Fabricating And Installing Neoprene Bearing Pads Complete In Place, Will Be Paid For At The Contract Unit Price For Laminated Neoprene Bearing Pads, Per Each.

Joint Filler:
All Joint Filler Shall Meet The Requirements Of Std. Spec. 1057.2.4, Except As Noted.
Paint:
See Special Provisions.
Fabricated Steel:
Field Connections, High Strength Bolts 3/4", Holes 13/16", Except As Noted.
Reinforcing Steel:
Minimum Clearance To Reinforcing Steel Shall Be 1 1/2" Unless Otherwise Shown.

B.M. □ S.W. CORNER AT END POST BT*3 ELEV. 902.15

Note:
All Concrete And Reinforcing Steel Below Top Of Slab And Above Construction Joint Under Slab In Semi-Deep Abutment's Are Included In Superstructure Quantities For Slab On Semi-Deep Abutment.
All Concrete And Reinforcing Steel In Sidewalks Are Included In Superstructure Quantities For Sidewalk.
All concrete and reinforcing steel in Raised Median Barrier are included in Superstructure Quantities for Raised Median Barrier.

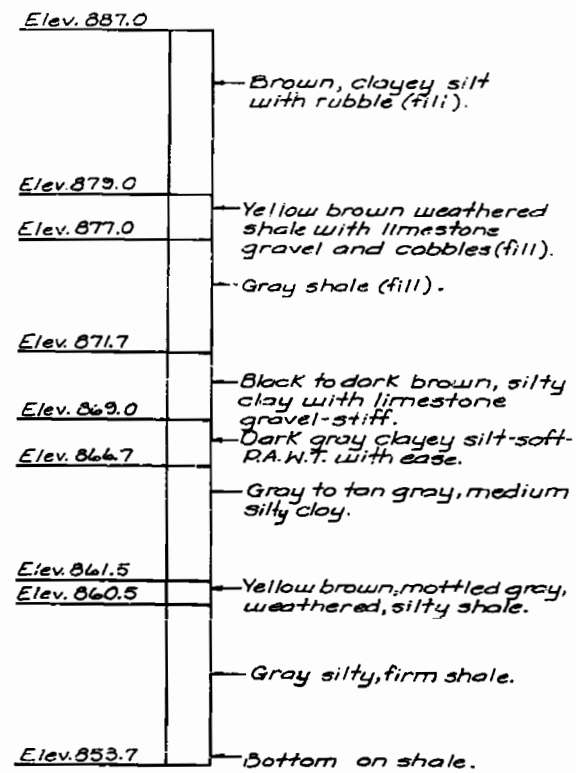
781 188

DETAILED Sept. 1990
CHECKED Oct. 1990

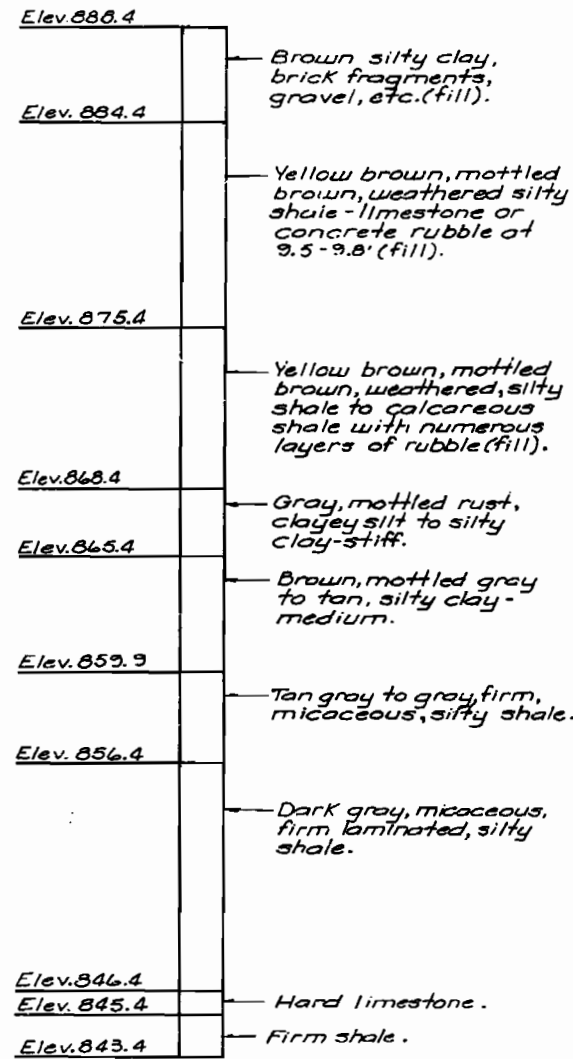
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 2A of 37.

STATE	PROJ. NO.	SHEET NO.
MO		151



①



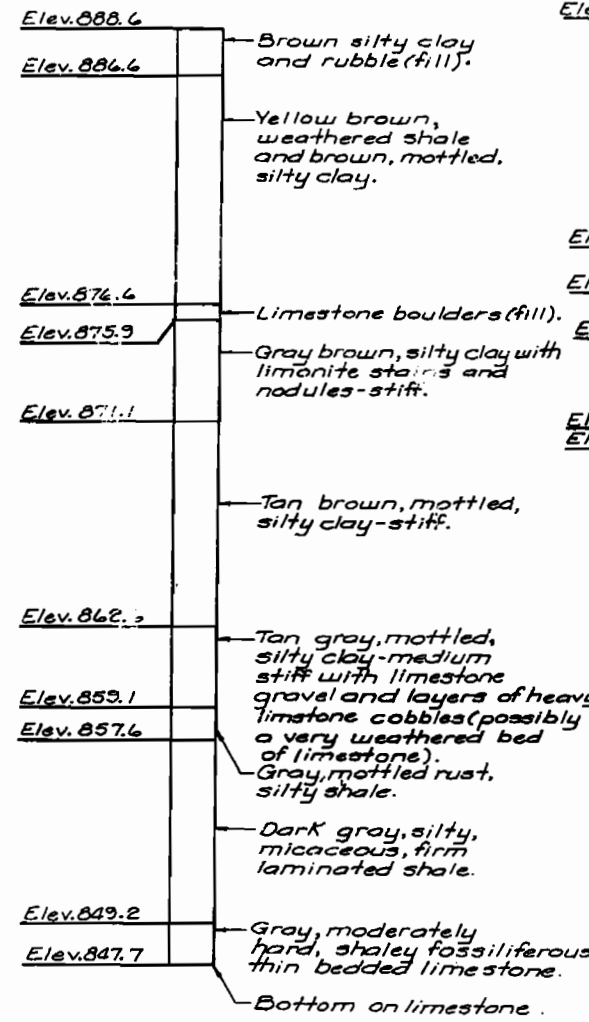
Note: lost all water at 10' ± in shale and rubble fill.

Standard Penetration Test

Depth (ft.)	Blows/6"
5'	4-6-7
10'	6-9-9
15'	5-7-8
20'	3-4-7
25'	2-3-4
30'	14-45-55 in 5"
36.4'	23-51-43 in 3"

①-A CORE

Note: For Locations Of Borings, See Sheet No. 1. Boring Data For All Locations Is Available Upon Request From The District Office.

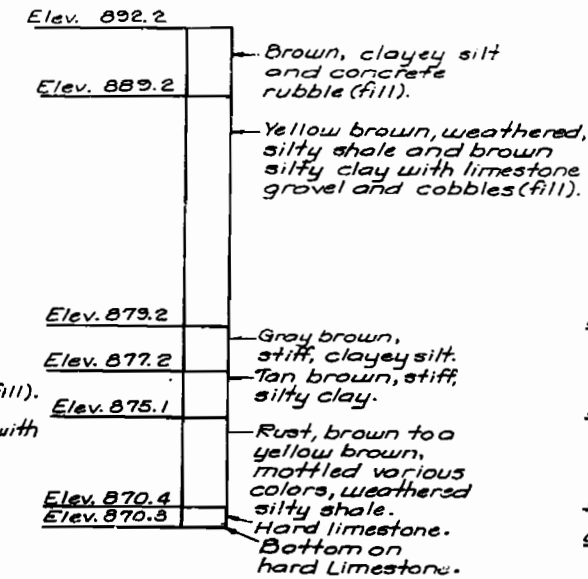


Standard Penetration Test

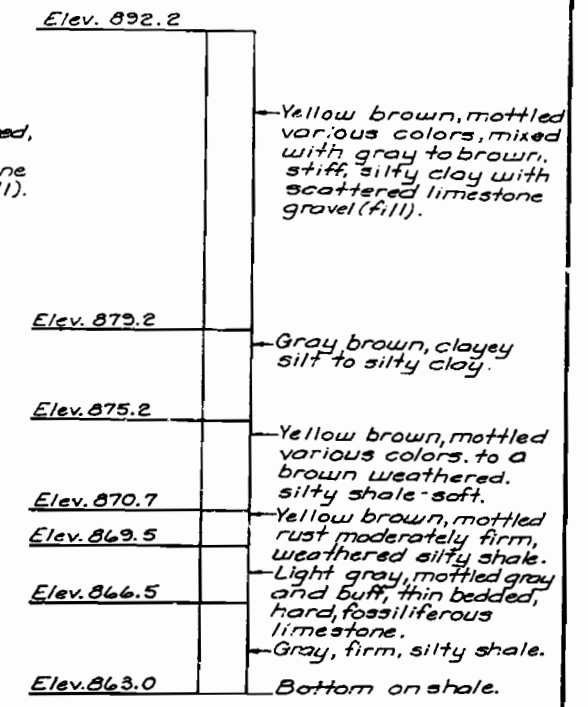
Depth (ft.)	Blows/6"
15'	4-5-6
20'	3-4-5
25'	3-15-21
29.4'	12-33-67 in 5 3/4"

② CORE

BORING DATA



③-A



③ CORE

Standard Penetration Test

Depth (ft.)	Blows/6"
5'	3-3-3
10'	2-3-5
15'	5-7-8
17.7'	4-7-12

PILE DATA

BENT NUMBER	ABUTMENT NO. 1		2	ABUTMENT NO. 3	
	APPR. BM.	BRG. BM.		APPR. BM.	BRG. BM.
PILE TYPE & SIZE	HP10x42	HP10x42	HP12x53	HP10x42	HP10x42
NUMBER	9	16	50	9	14
APPROXIMATE LENGTH	40	33	12	28	20
DESIGN BEARING	30	54	65	23	53
HAMMER ENERGY REQUIRED	7,000	12,400	15,300	7,000	12,100

Note: Minimum Energy Requirement Of Hammer Is Based On Plan Length And Design Bearing Value Of Piles. All Piles Shall Be Driven To Practical Refusal. Prebore For Piles At Abutments No. 1 To Elev. 889.00 Prebore For Piles At Bent No. 2 To Elev. 857.00

DETAILED Sept 1990
CHECKED Oct. 1990

Note: This drawing is not to scale. Follow dimensions.

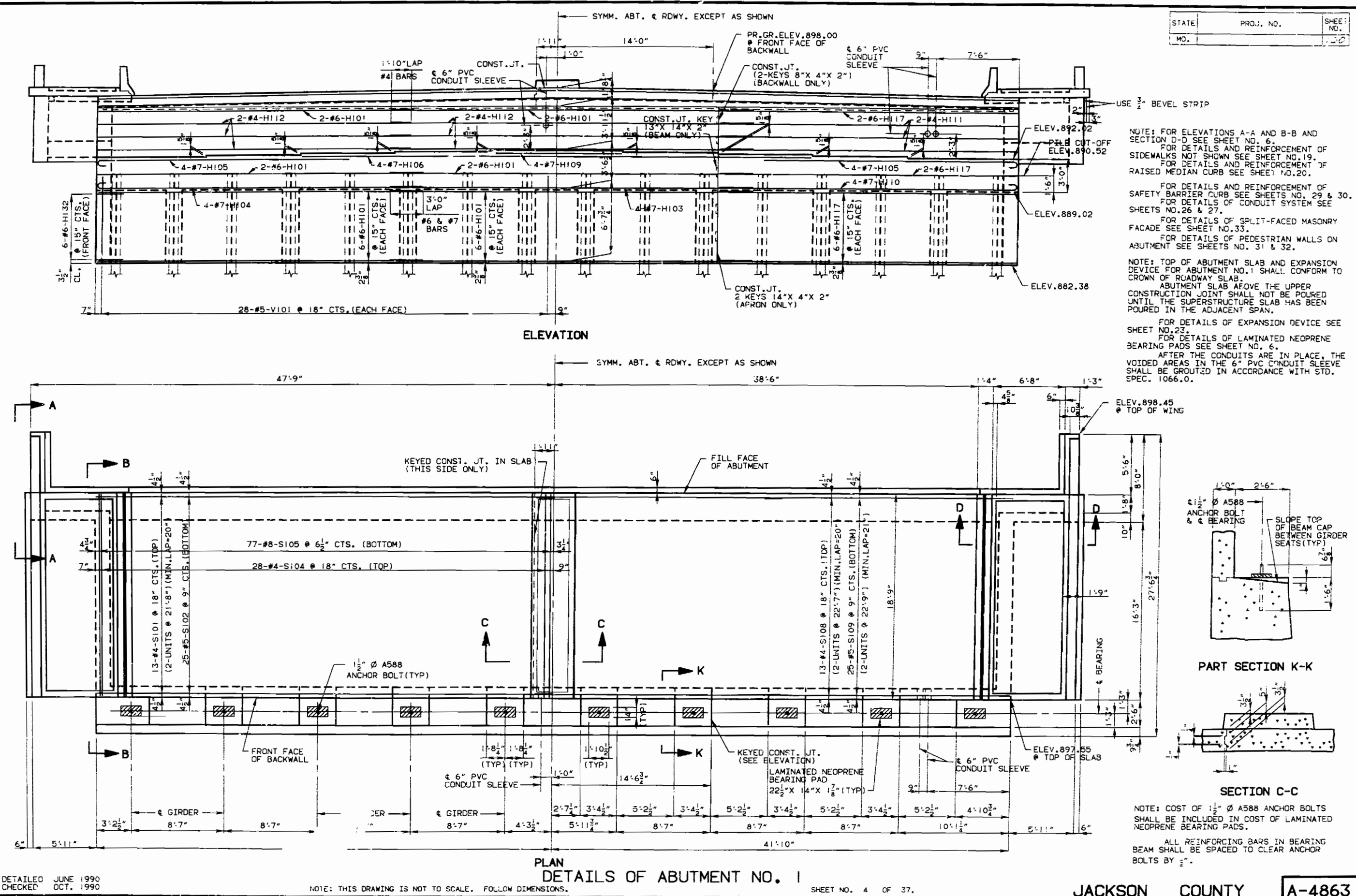
SEE FINAL PLANS
Sheet No. 3 of 37.

JACKSON COUNTY

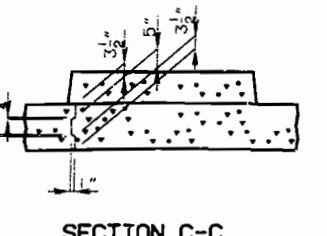
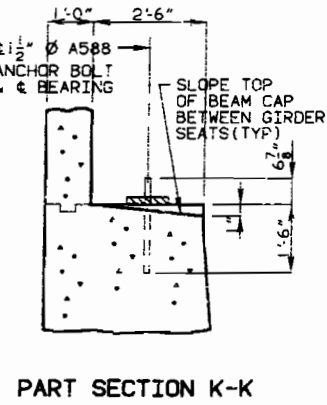
A-4863

198 189

STATE	PROJ. NO.	SHEET NO.
MO.		19



NOTE: FOR ELEVATIONS A-A AND B-B AND SECTION D-D SEE SHEET NO. 6.
 FOR DETAILS AND REINFORCEMENT OF SIDEWALKS NOT SHOWN SEE SHEET NO. 19.
 FOR DETAILS AND REINFORCEMENT OF RAISED MEDIAN CURB SEE SHEET NO. 20.
 FOR DETAILS AND REINFORCEMENT OF SAFETY BARRIER CURB SEE SHEETS NO. 29 & 30.
 FOR DETAILS OF CONDUIT SYSTEM SEE SHEETS NO. 26 & 27.
 FOR DETAILS OF SPLIT-FACED MASONRY FACADE SEE SHEET NO. 33.
 FOR DETAILS OF PEDESTRIAN WALLS ON ABUTMENT SEE SHEETS NO. 31 & 32.
 NOTE: TOP OF ABUTMENT SLAB AND EXPANSION DEVICE FOR ABUTMENT NO. 1 SHALL CONFORM TO CROWN OF ROADWAY SLAB.
 ABUTMENT SLAB ABOVE THE UPPER CONSTRUCTION JOINT SHALL NOT BE POURED UNTIL THE SUPERSTRUCTURE SLAB HAS BEEN POURED IN THE ADJACENT SPAN.
 FOR DETAILS OF EXPANSION DEVICE SEE SHEET NO. 23.
 FOR DETAILS OF LAMINATED NEOPRENE BEARING PADS SEE SHEET NO. 6.
 AFTER THE CONDUITS ARE IN PLACE, THE VOIDED AREAS IN THE 6" PVC CONDUIT SLEEVE SHALL BE GROUTED IN ACCORDANCE WITH STD. SPEC. 1066.0.

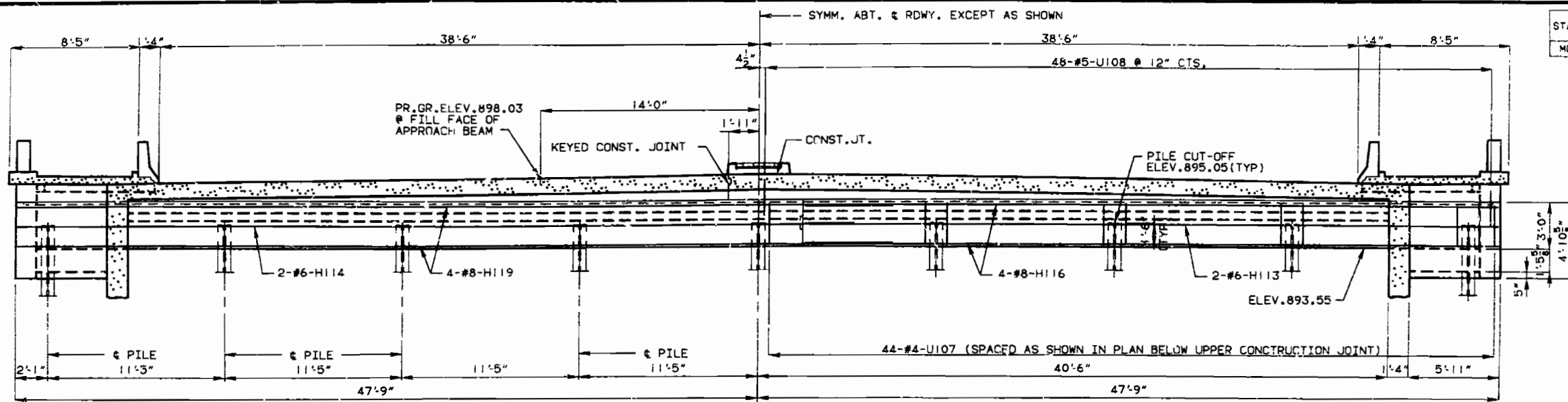


NOTE: COST OF 1/2" Ø A588 ANCHOR BOLTS SHALL BE INCLUDED IN COST OF LAMINATED NEOPRENE BEARING PADS.
 ALL REINFORCING BARS IN BEARING BEAM SHALL BE SPACED TO CLEAR ANCHOR BOLTS BY 1/2".

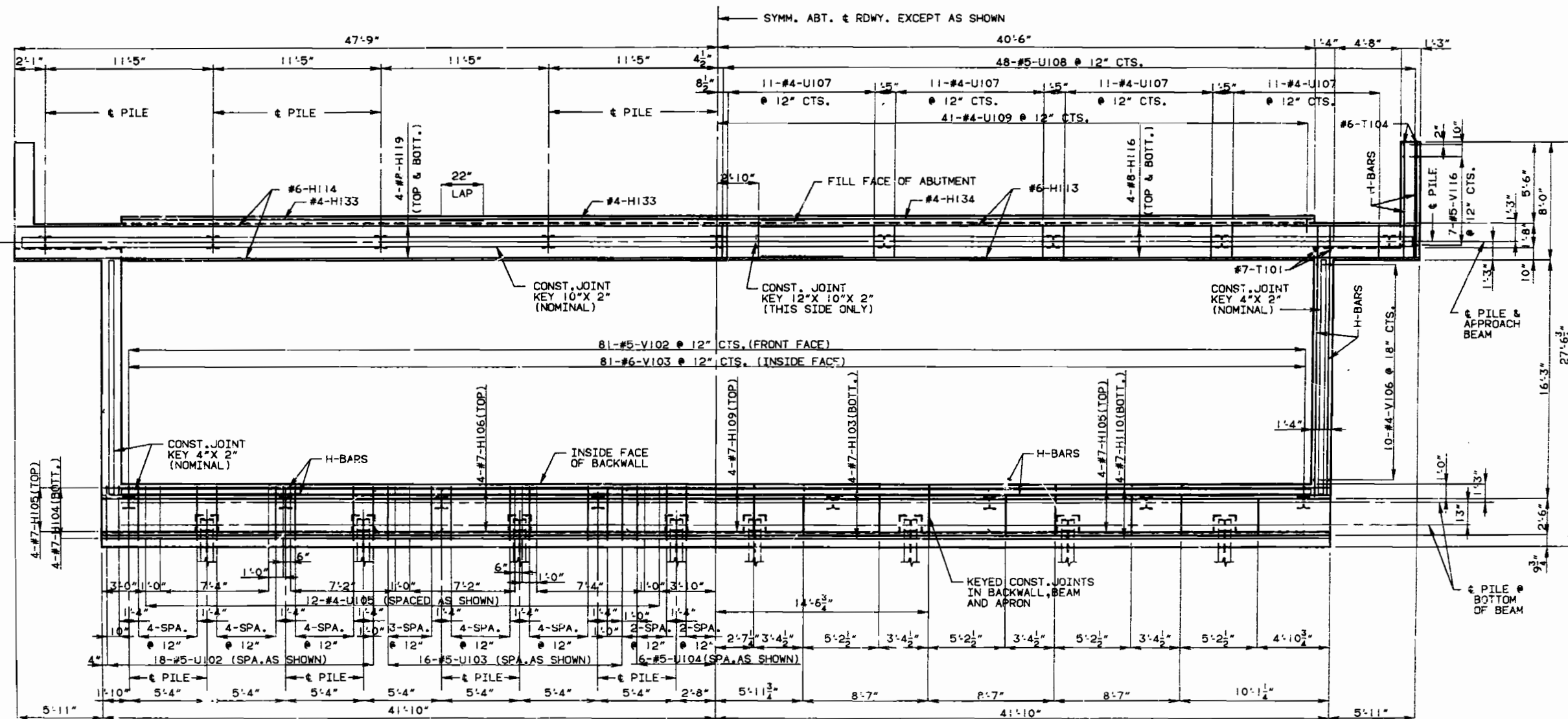
197 190

PLAN
 DETAILS OF ABUTMENT NO. 1

STATE	PROJ. NO.	SHEET NO.
MO.		1/1



SECTION NEAR APPROACH BEAM



PLAN BELOW UPPER CONSTRUCTION JOINT
DETAILS OF ABUTMENT NO. 1

NOTE: ALL PILE SHALL BE HP 10 X 42.
FOR DETAILS OF STEEL PILE SPLICE
SEE SHEET NO. 8.

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 5 OF 37.

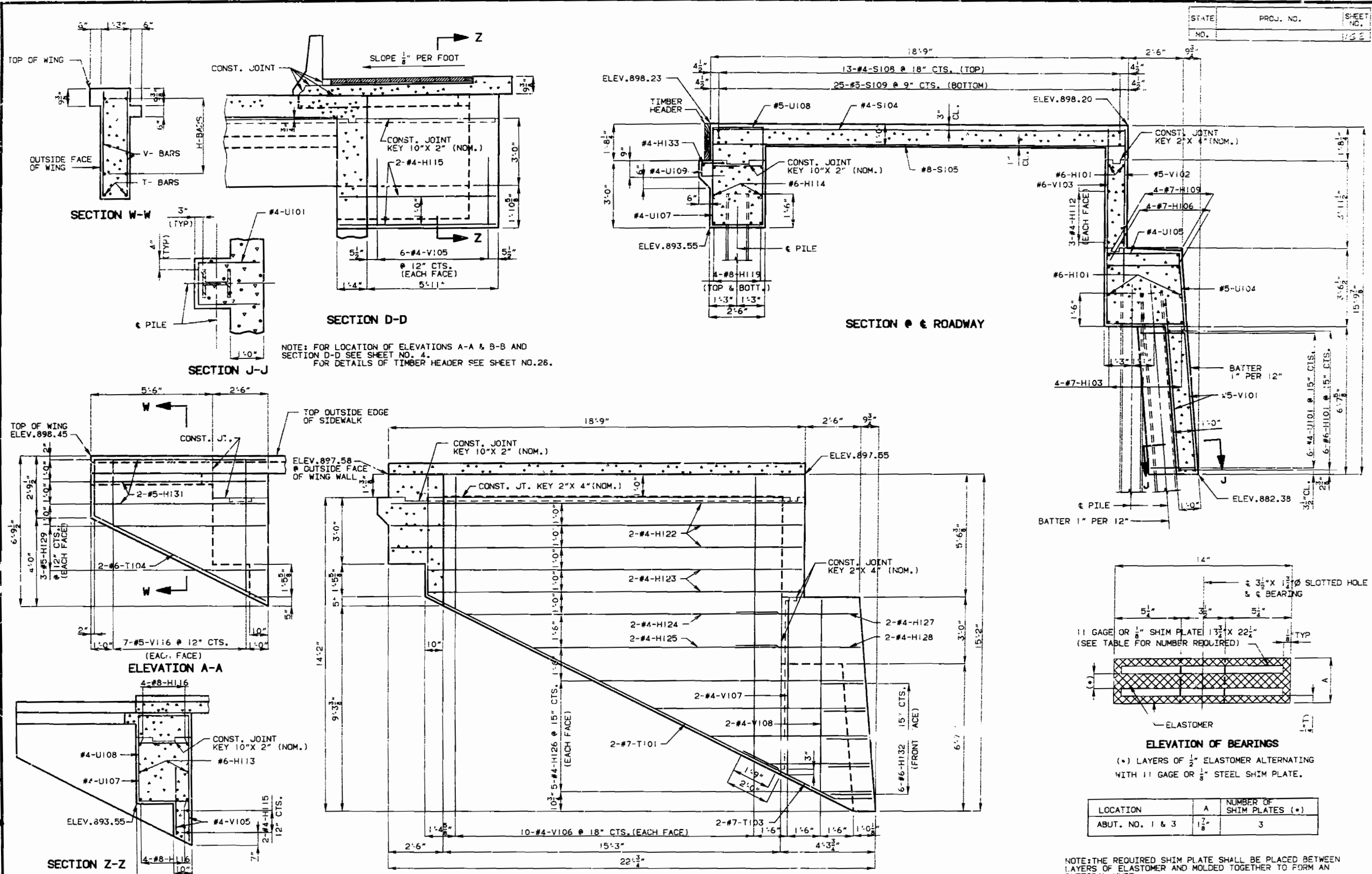
DETAILED JUNE 1990
CHECKED OCT. 1990

JACKSON COUNTY

A-4863

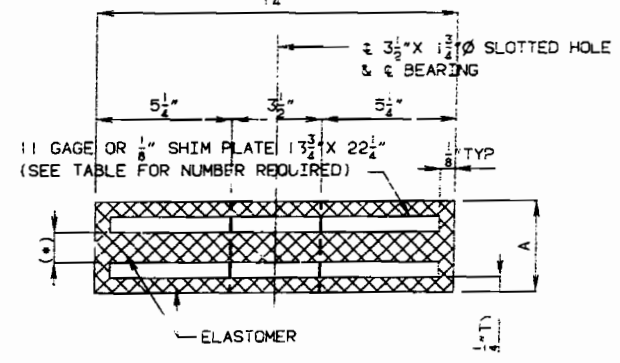
1997

STATE	PROJ. NO.	SHEET NO.
NO.		155



NOTE: FOR LOCATION OF ELEVATIONS A-A & B-B AND SECTION D-D SEE SHEET NO. 4. FOR DETAILS OF TIMBER HEADER SEE SHEET NO. 26.

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.



ELEVATION OF BEARINGS
 (*) LAYERS OF 1/2" ELASTOMER ALTERNATING WITH 1/8" GAGE OR 1/8" STEEL SHIM PLATE.

LOCATION	A	NUMBER OF SHIM PLATES (*)
ABUT. NO. 1 & 3	1 7/8"	3

NOTE: THE REQUIRED SHIM PLATE SHALL BE PLACED BETWEEN LAYERS OF ELASTOMER AND MOLDED TOGETHER TO FORM AN INTEGRAL UNIT.

193 198

DETAILED JUNE 1990
 CHECKED OCT. 1990

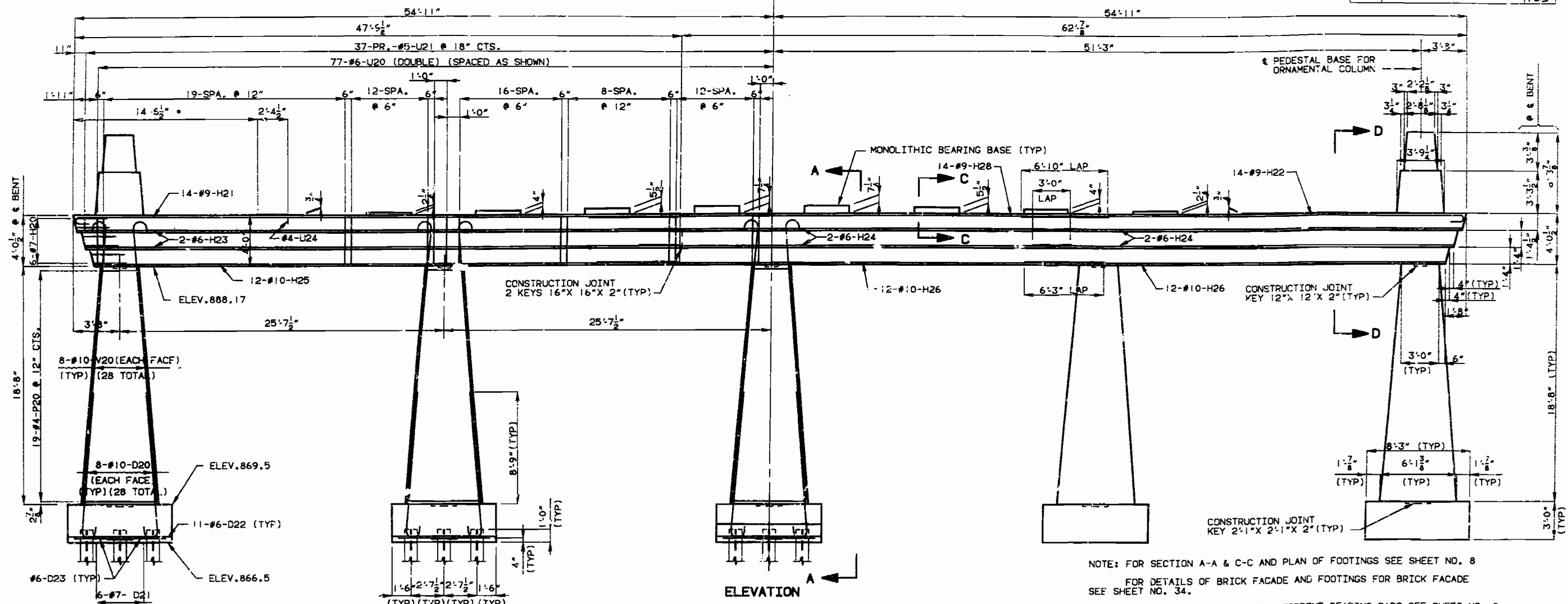
DETAILS OF ABUTMENT NO. 1
 SHEET NO. 6 OF 37.

JACKSON COUNTY A-4863

STATE	PROJ. NO.	SHEET NO.
MO.		102

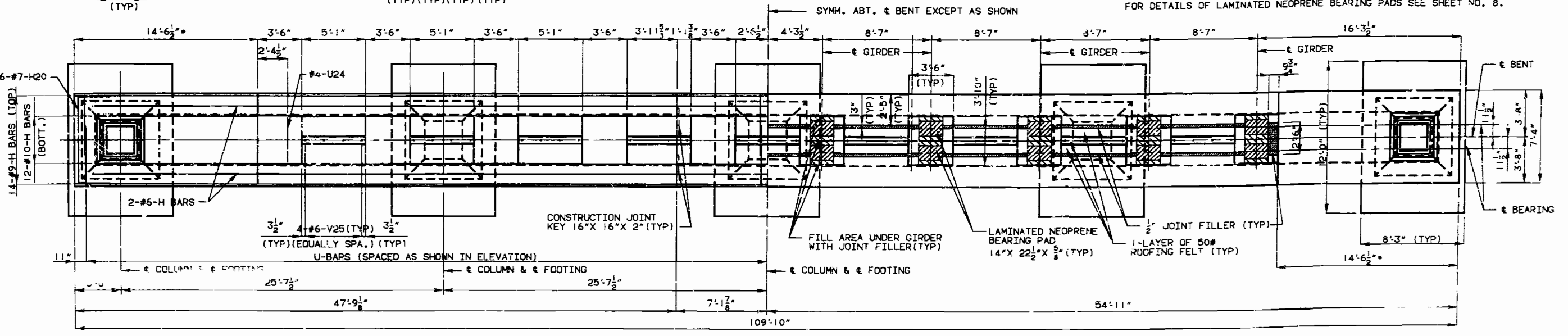
• SLOPE TOP OF BEAM TO DRAIN, SEE SHEET NO. 8.

SYMM. ABT. & BENT EXCEPT AS SHOWN



NOTE: FOR SECTION A-A & C-C AND PLAN OF FOOTINGS SEE SHEET NO. 8
 FOR DETAILS OF BRICK FACADE AND FOOTINGS FOR BRICK FACADE SEE SHEET NO. 34.
 FOR DETAILS OF LAMINATED NEOPRENE BEARING PADS SEE SHEET NO. 8.

194193



NOTE: ALL PILE SHALL BE HP 12 X 53.

PLAN
 DETAILS OF INTERMEDIATE BENT NO. 2

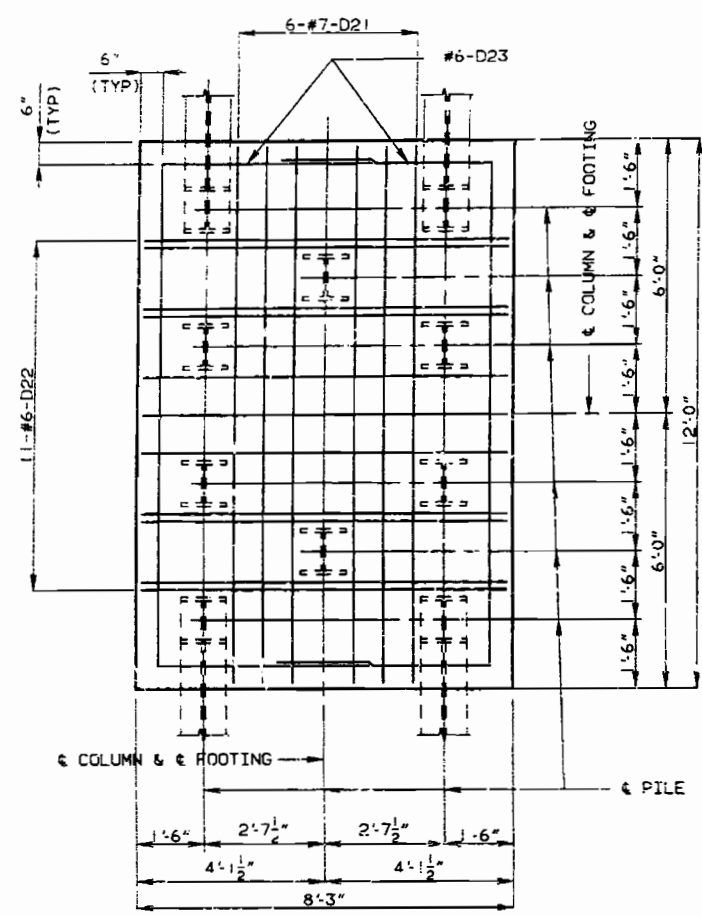
NOTE: USE 1/2" JOINT FILLER ON VERTICAL FACES OF 2" OR MORE ON MONOLITHIC BEARING BASES.

DETAILED JUNE 1990
 CHECKED SEPT. 1990

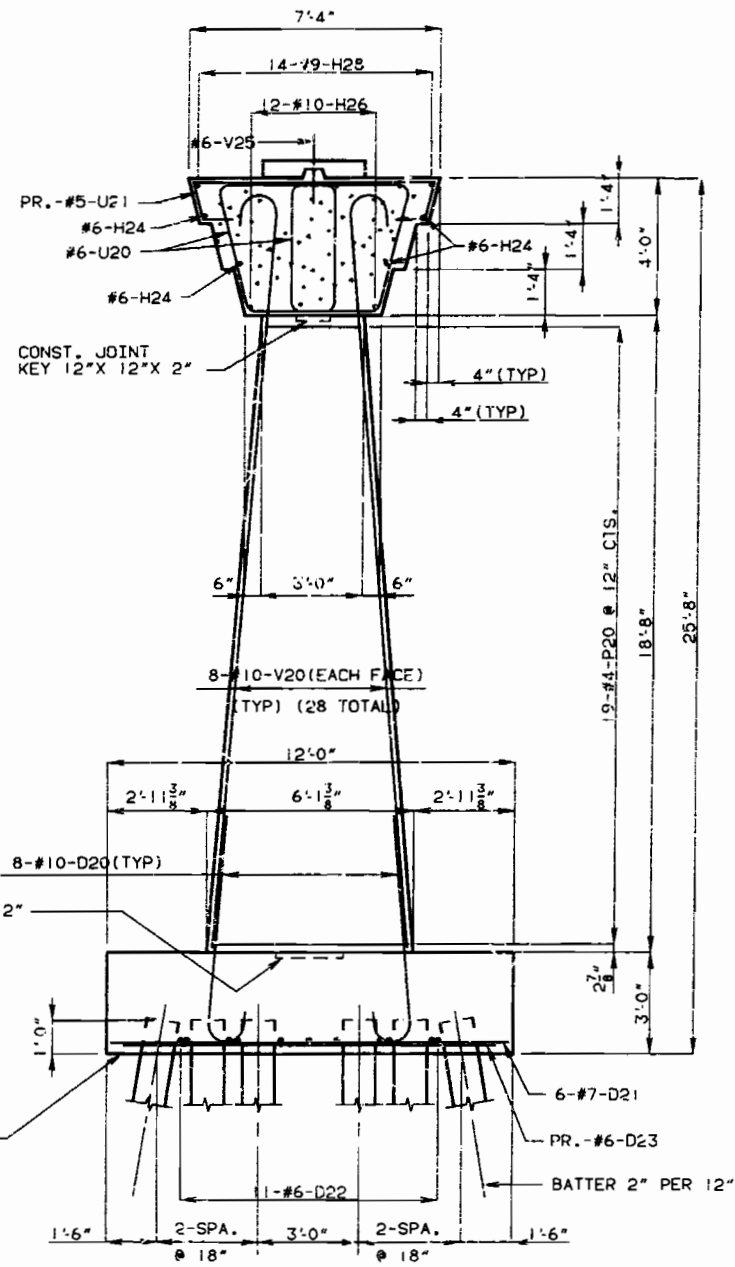
NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 7 OF 37.

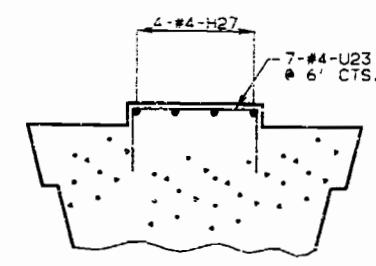
STATE:	PROJ. NO.	SHEET NO.
		13



PLAN OF FOOTING

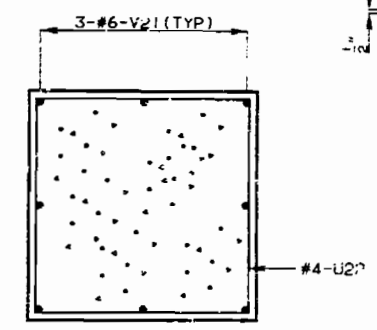


SECTION A-A



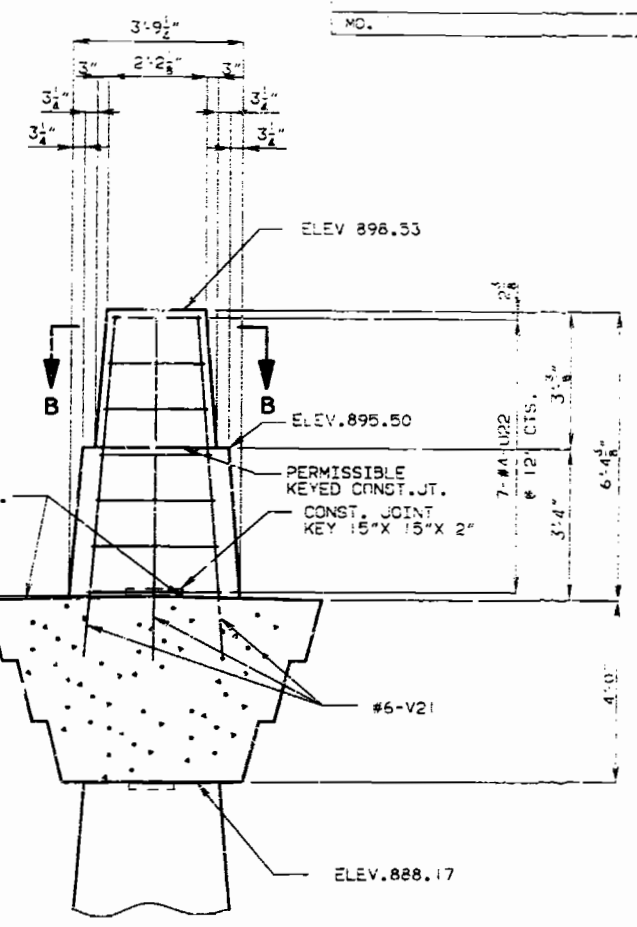
SECTION C-C

NOTE: USE #4-H27 & #4-U23 BARS IN MONOLITHIC BEARING BASES 4" AND OVER IN HEIGHT.

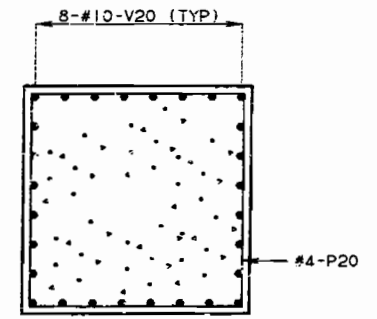


SECTION B-B

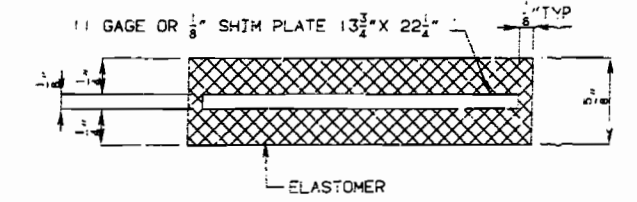
NOTE: FOR ADDITIONAL DETAILS OF BASE FOR PRECAST ORNAMENTAL COLUMN SEE SHEET NO. 25.



SECTION D-D

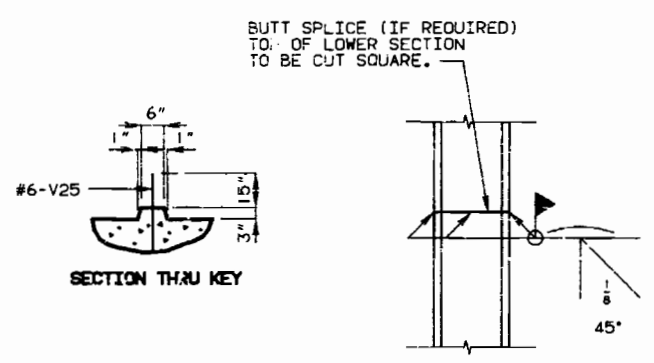


SECTION THRU COLUMN



ELEVATION OF BEARINGS

NOTE: THE REQUIRED SHIM PLATE SHALL BE PLACED BETWEEN LAYERS OF ELASTOMER AND MOLDED TOGETHER TO FORM AN INTEGRAL UNIT.



DETAIL OF STEEL PILE SPLICE

NOTE: FOR DETAILS OF FOOTINGS AND TIES FOR SPLIT FACED MASONRY FACADE SEE SHEET NO. 34.
FOR LOCATION OF SECTION A-A, C-C AND D-D SEE SHEET NO. 7.

DETAILS OF INTERMEDIATE BENT NO. 2

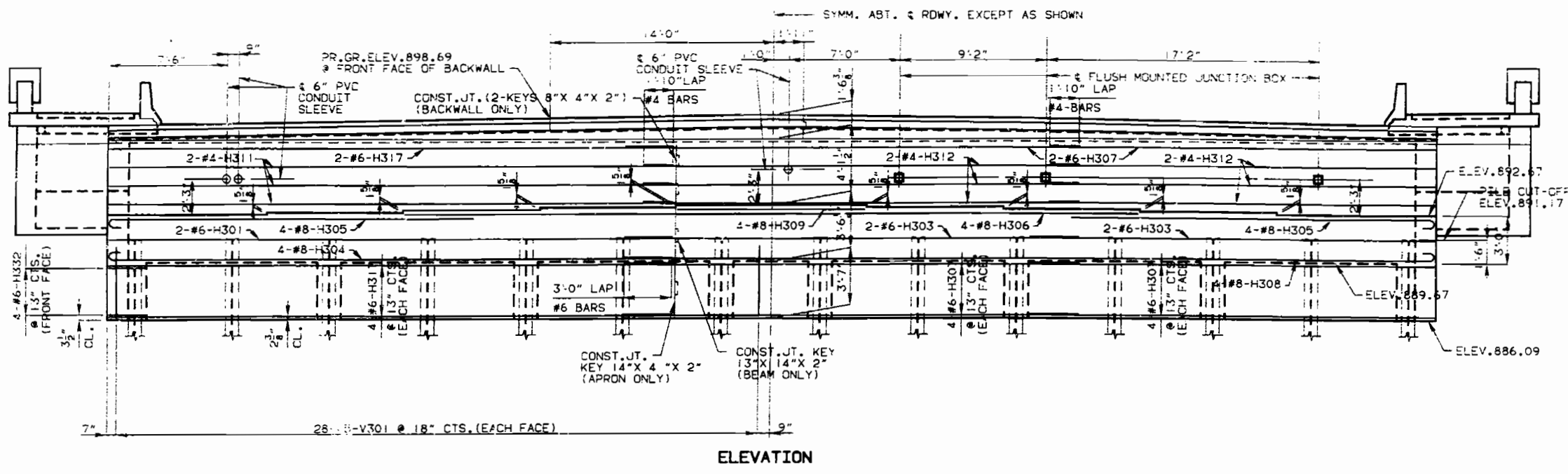
795194

DETAILED JULY 1990
CHECKED SEPT. 1990

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 8 OF 37.

STATE	PROJECT NO.	SHEET NO.
MO.		9



NOTE: FOR ELEVATIONS FIVE AND FIVE AND SEVEN AND SEVEN SEE SHEET NO. 19.

FOR DETAILS AND REINFORCEMENT OF SIDEWALKS NOT SHOWN SEE SHEET NO. 19.

FOR DETAILS OF CONDUIT SYSTEM SEE SHEET NO. 26 & 27.

FOR DETAILS OF SPLIT-FACED VASCOPY FACADE SEE SHEET NO. 33.

FOR DETAILS OF PEDESTRIAN WALLS AND BRIDGE ANCHOR SECTION ON ABUTMENT SEE SHEET NO. 32.

NOTE: TOP OF ABUTMENT SLAB AND EXPANSION DEVICE FOR ABUTMENT NO. 3 SHALL CONFORM TO CROWN OF ROADWAY SLAB.

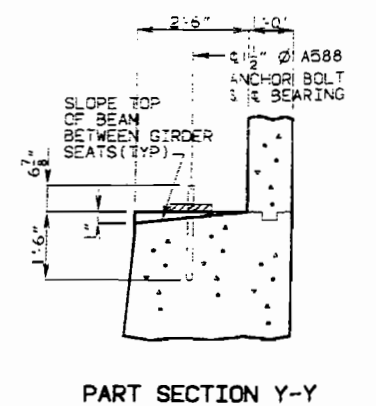
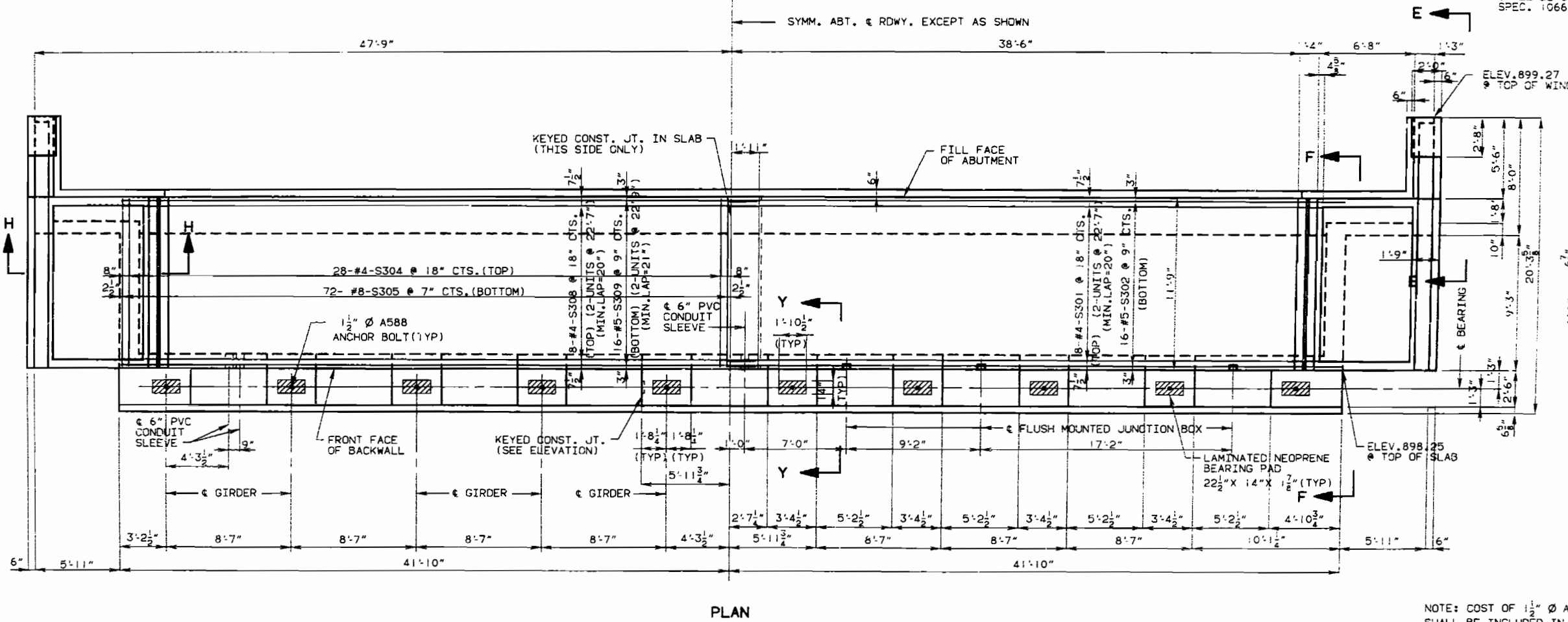
ABUTMENT SLAB ABOVE THE UPPER CONSTRUCTION JOINT SHALL NOT BE POURED UNTIL THE SUPERSTRUCTURE SLAB HAS BEEN POURED IN THE ADJACENT SPAN.

FOR DETAILS OF EXPANSION DEVICE SEE SHEET NO. 23.

FOR DETAIL OF LAMINATED NEOPRENE BEARING PAD SEE SHEET NO. 6.

AFTER THE CONDUITS ARE IN PLACE, THE VOIDED AREAS IN THE 6" PVC CONDUIT SLEEVE SHALL BE GROUTED IN ACCORDANCE WITH STD. SPEC. 1066.0.

196 195



DETAILS OF ABUTMENT NO. 3

NOTE: COST OF 1 1/2" Ø A588 ANCHOR BOLTS SHALL BE INCLUDED IN COST OF LAMINATED NEOPRENE BEARING PADS.

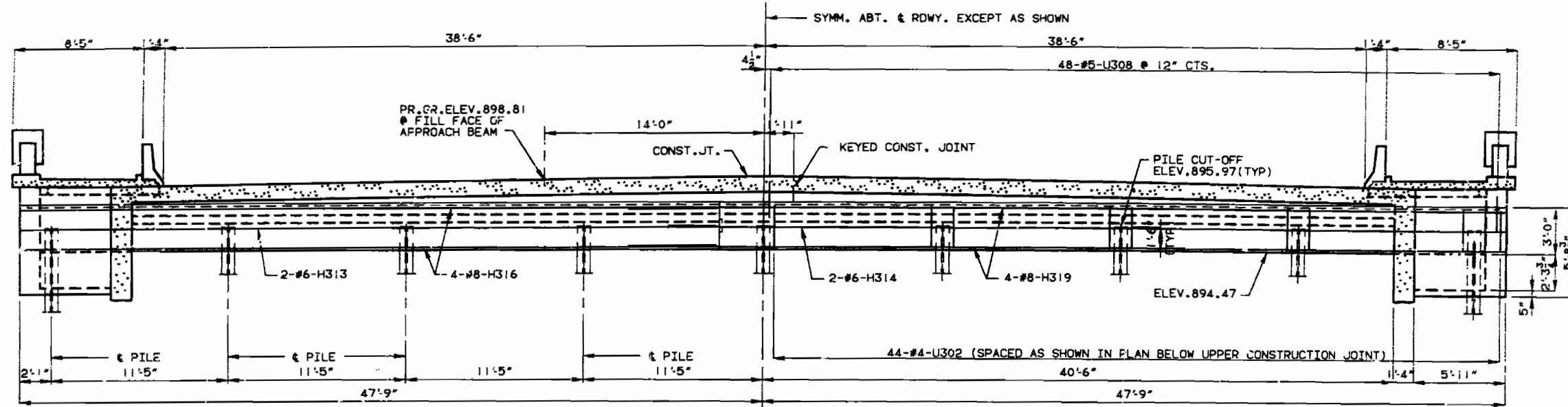
ALL REINFORCING BARS IN BEARING BEAM SHALL BE SPACED TO CLEAR ANCHOR BOLTS BY 1/2".

DETAILED JUNE 1990
CHECKED OCT. 1990

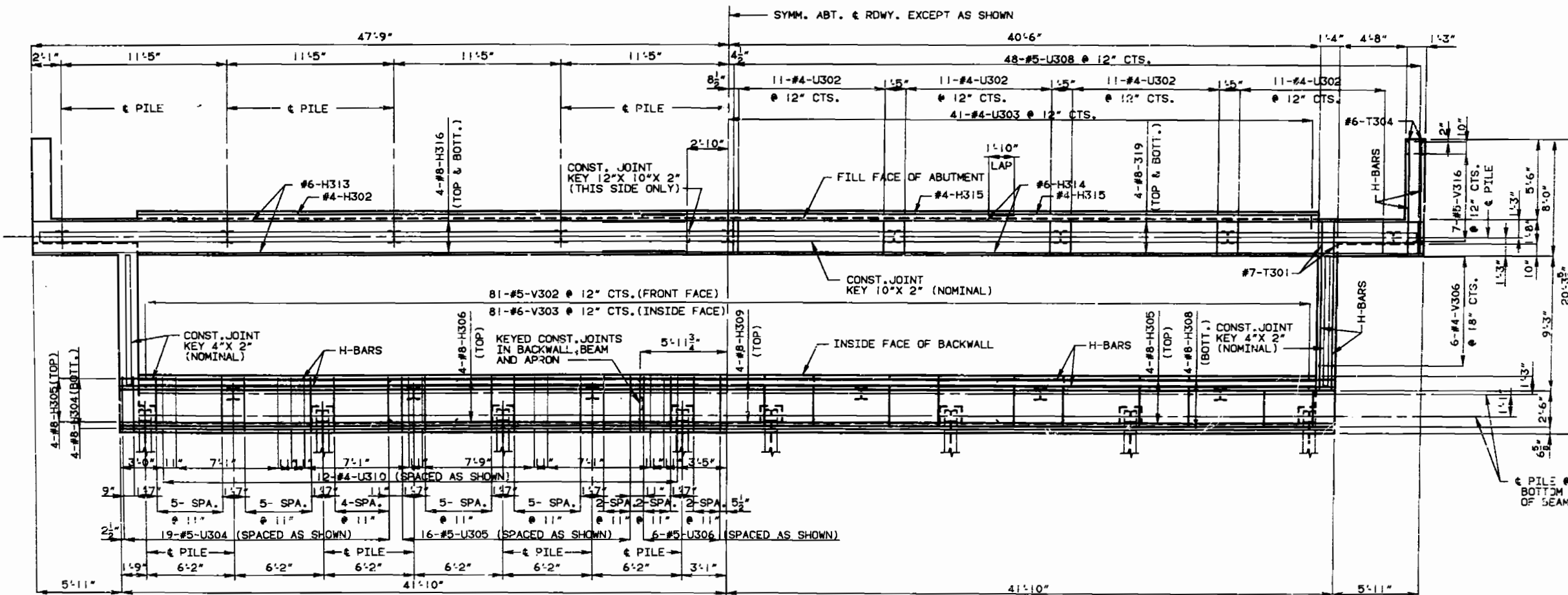
NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 9 OF 37.

STATE	PROJ. NO.	SHEET NO.
MO.		106



SECTION NEAR APPROACH BEAM



PLAN BELOW UPPER CONSTRUCTION JOINT
DETAILS OF ABUTMENT NO. 3

NOTE: ALL PILE SHALL BE HP 10 X 42.
FOR DETAILS OF STEEL PILE SPLICE
SEE SHEET NO. 8.

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 10 OF 37

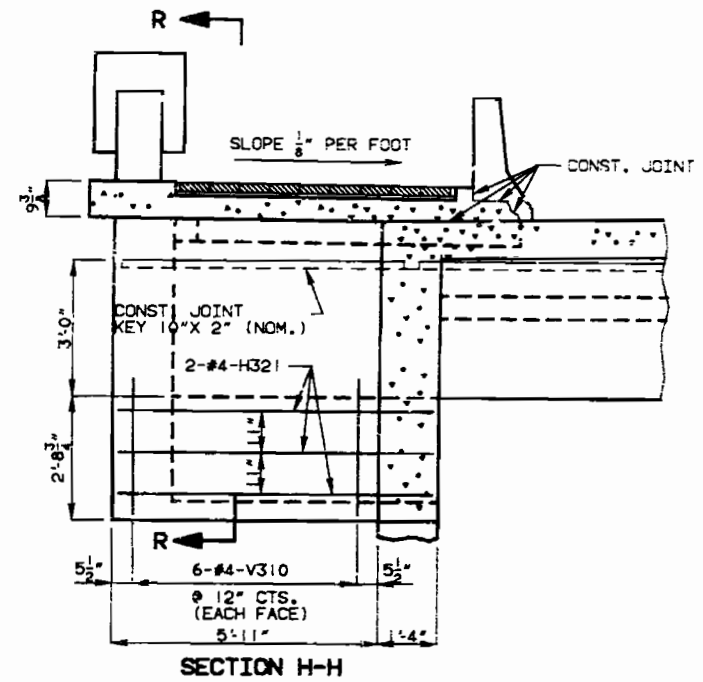
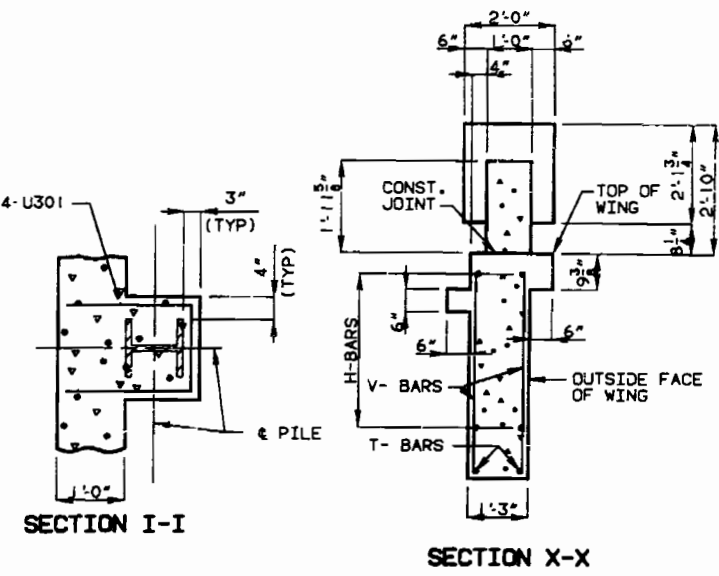
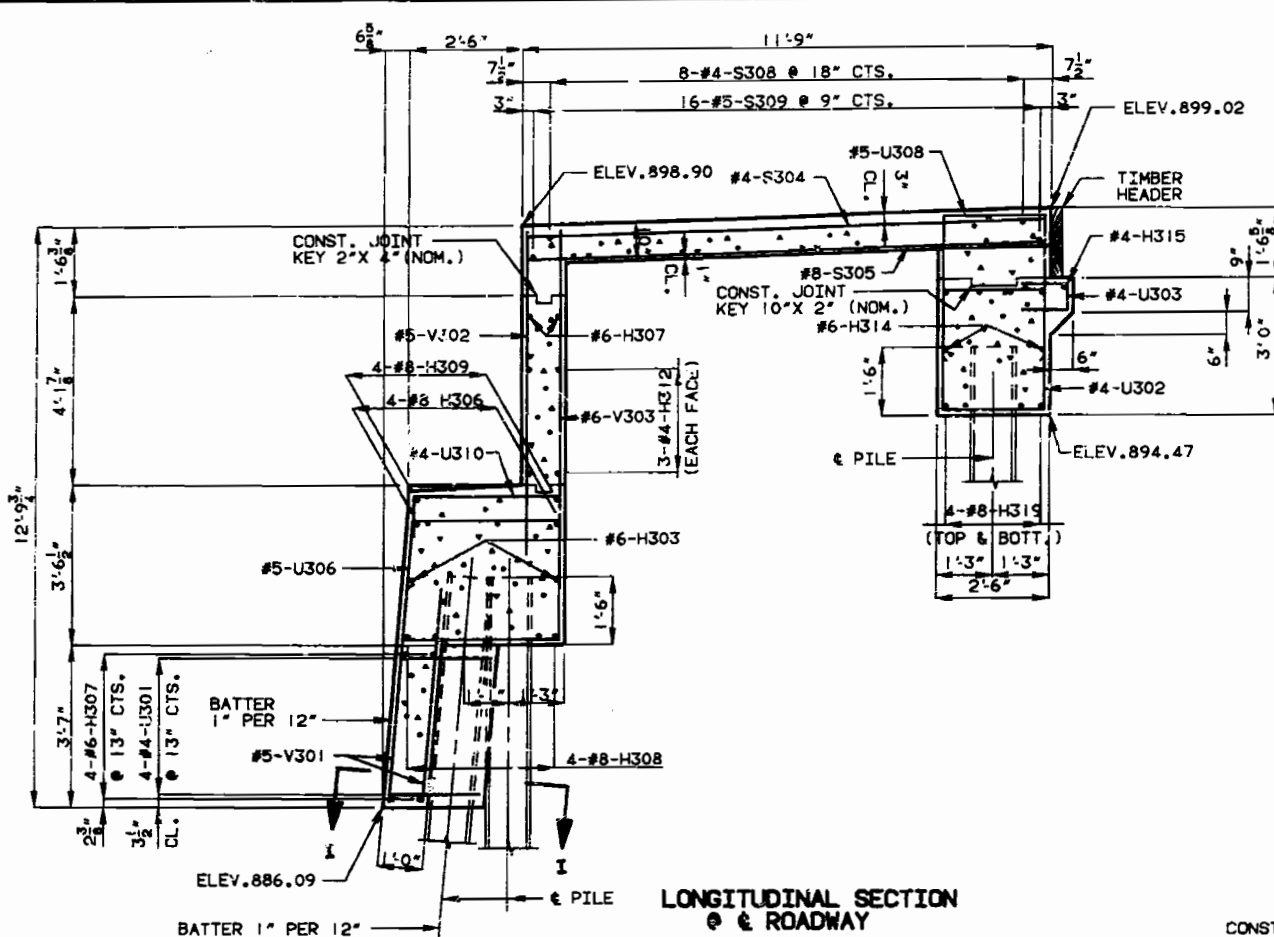
DETAILED JUNE 1990
CHECKED OCT. 1990

JACKSON COUNTY

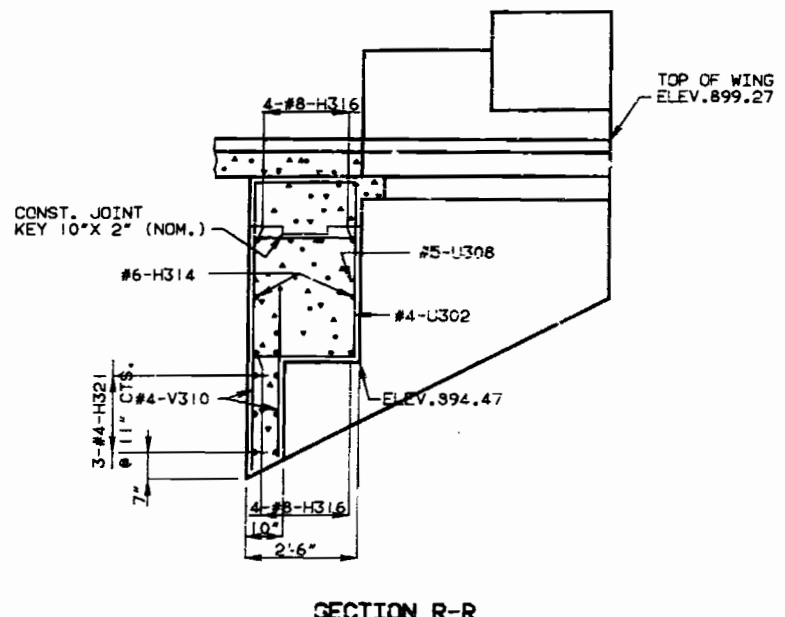
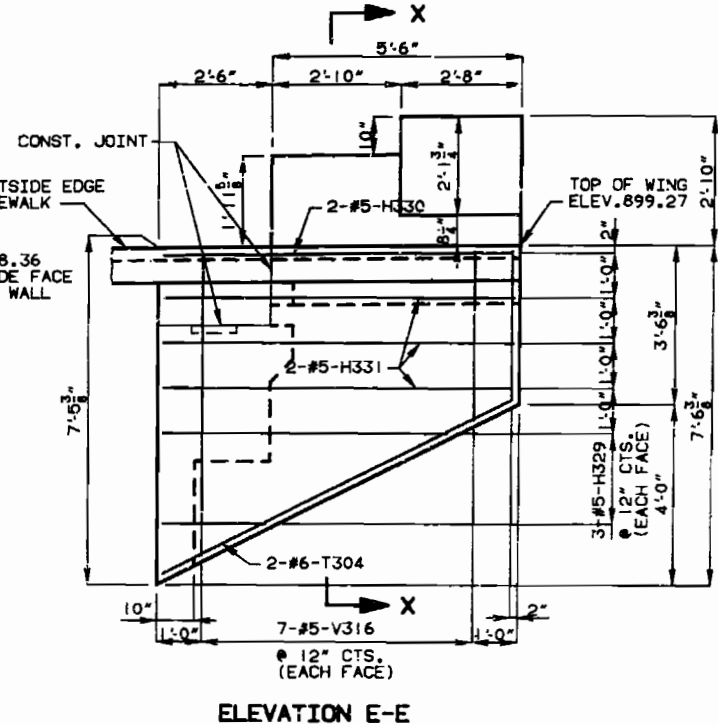
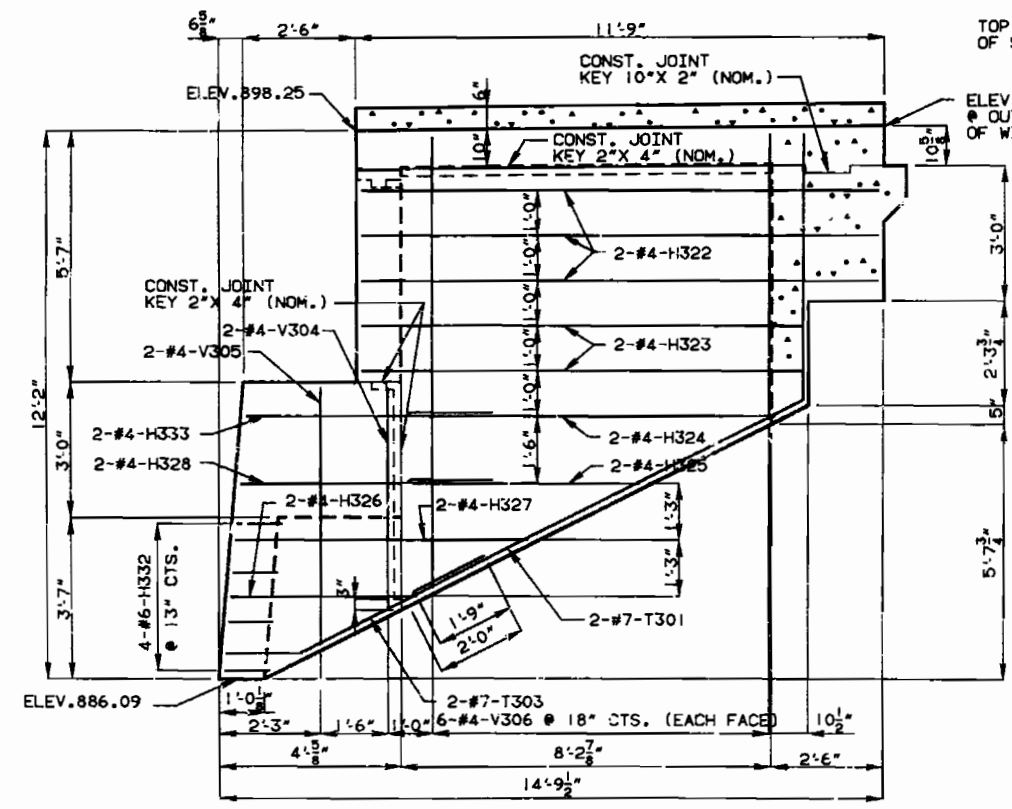
A-4863

197/196

STATE	PROJ. NO.	SHEET NO.
MO.		197



NOTE: FOR LOCATION OF SECTION H-H SEE SHEET NO. 9.



NOTE: FOR DETAILS AND REINFORCEMENT OF BRIDGE ANCHOR SECTION NOT SHOWN, SEE SHEET NO. 32.

FOR LOCATION OF ELEVATION E-E & F-F SEE SHEET NO. 9.

FOR DETAILS OF TIMBER HEADER SEE SHEET NO. 28.

DETAILS OF ABUTMENT NO. 3

ELEVATION F-F

ELEVATION E-E

SECTION R-R

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 11 OF 37.

198 197

DETAILED JUNE 1990
CHECKED OCT. 1990

NOTE:

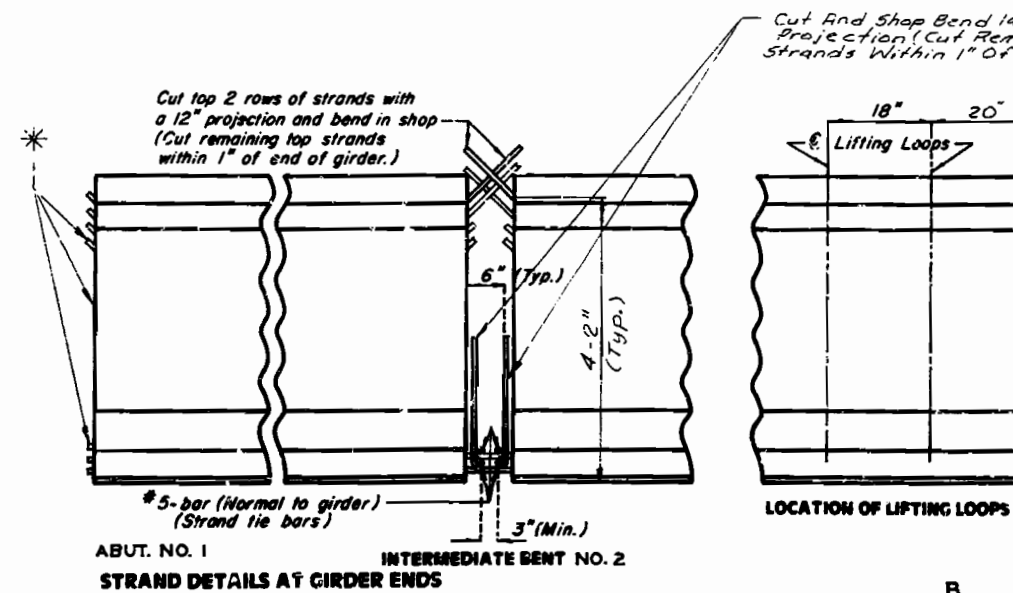
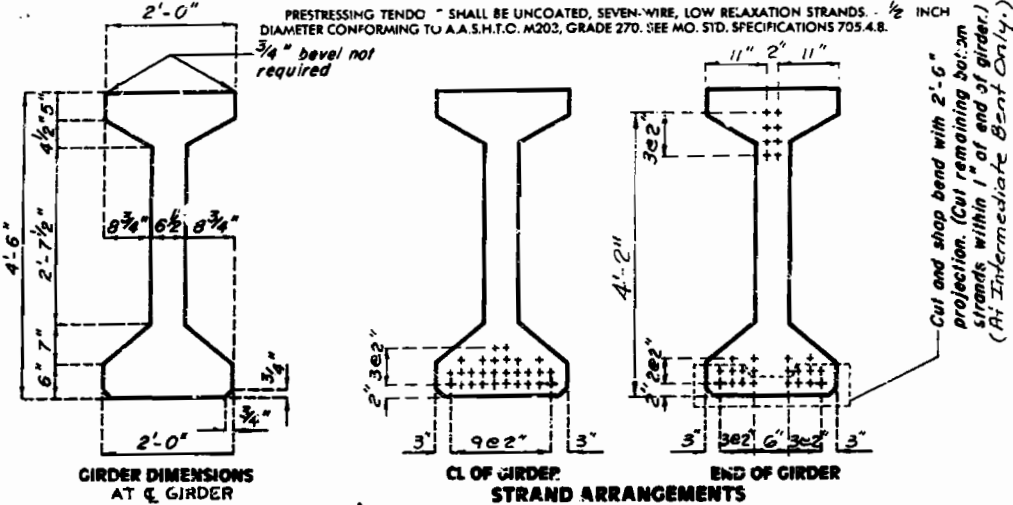
CONCRETE FOR PRESTRESSED GIRDERS SHALL BE CLASS A1 WITH $f_c = 5,000$ PSI.

(+) INDICATES PRESTRESSED STRAND.

USE 2B STRANDS WITH AN INITIAL PRESTRESS FORCE OF 860 KIPS.

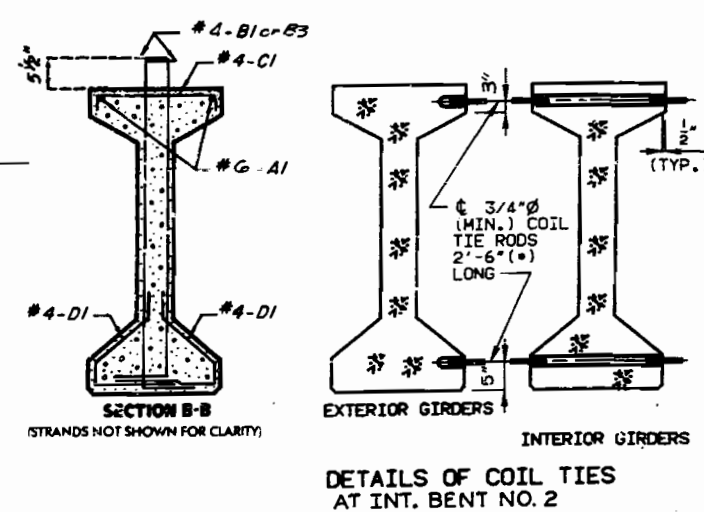
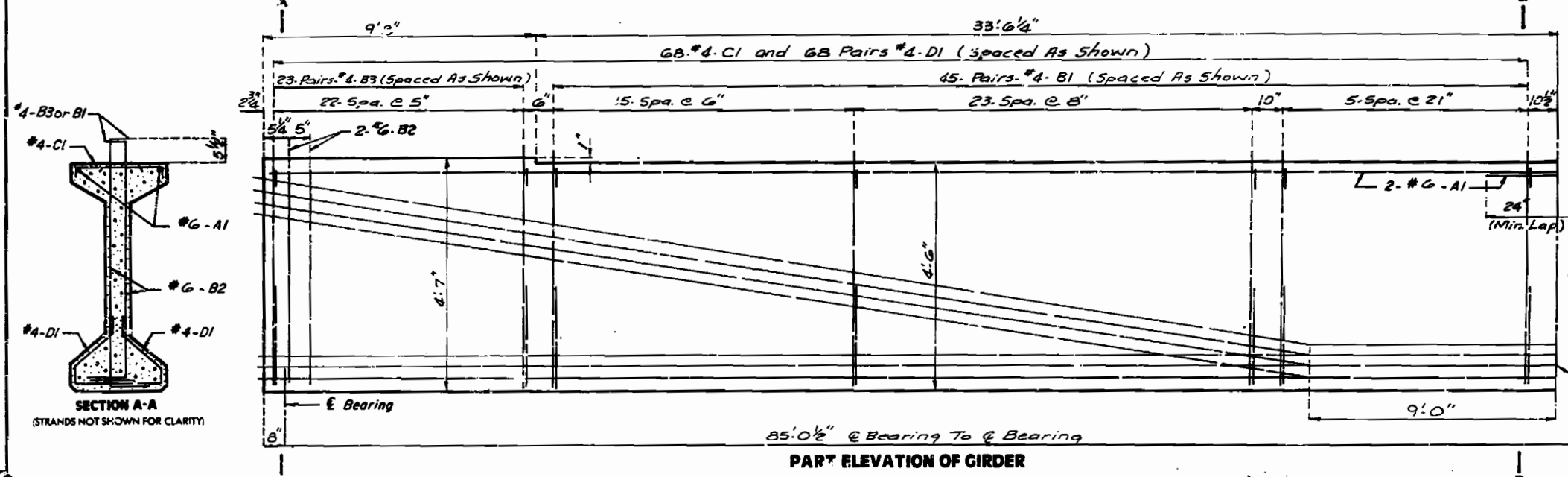
PRESTRESSING TENDONS SHALL BE UNCOATED, SEVEN-WIRE, LOW RELAXATION STRANDS - 1/2 INCH DIAMETER CONFORMING TO A.A.S.H.T.C. M203, GRADE 270. SEE MO. STD. SPECIFICATIONS 705.4.B.

3/4" bevel not required



BILL OF REINFORCING STEEL - EACH GIRDER				BENDING DIAGRAMS	
NO.	SIZE & MARK	ACTUAL LENGTH	SHAPE		
4	6A1	44'-1"	20	SHAPE 10	
180	4B1	5'-11"	11	SHAPE 11	
8	6B2	5'-4"	11	SHAPE 9	
92	4B3	6'-0"	11	SHAPE 10	
136	4C1	2'-2"	10	SHAPE 11	
272	4D1	3'-0"	9	SHAPE 9	

NOTE:
 ALL DIMENSIONS IN BENDING DIAGRAM ARE OUT TO OUT.
 HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE CRSI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES STIRRUP AND TIE DIMENSIONS.
 ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.
 MINIMUM CLEARANCE TO REINFORCING SHALL BE 1".
 ALL REINFORCEMENT SHALL BE GRADE 60.
 THE TWO D1 BARS MAY BE FURNISHED AS ONE BAR AT THE FABRICATOR'S OPTION.



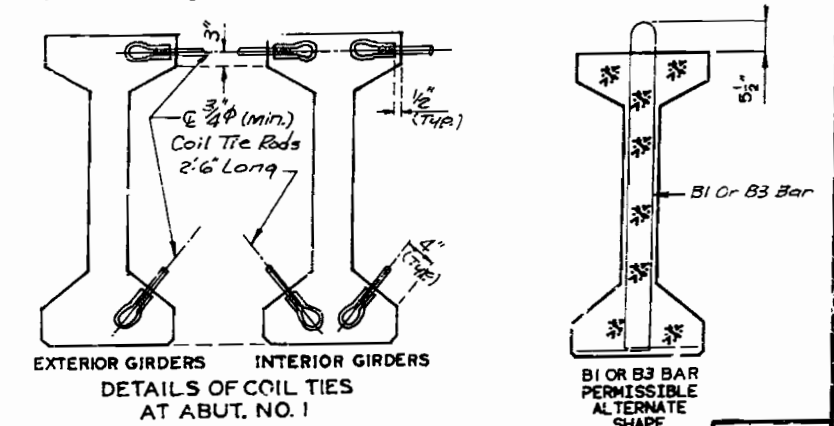
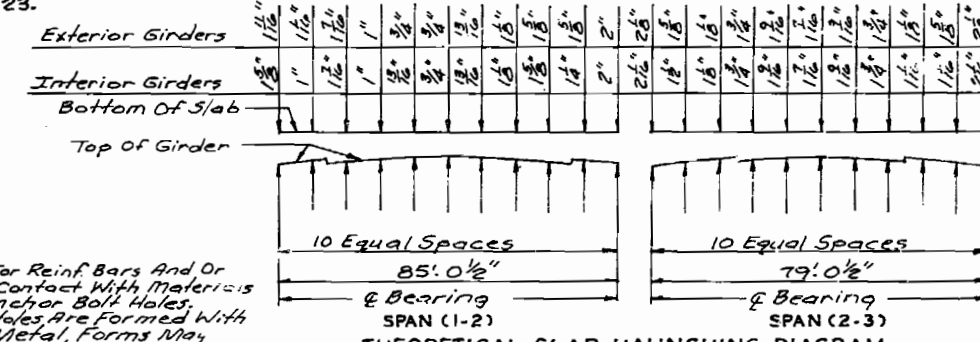
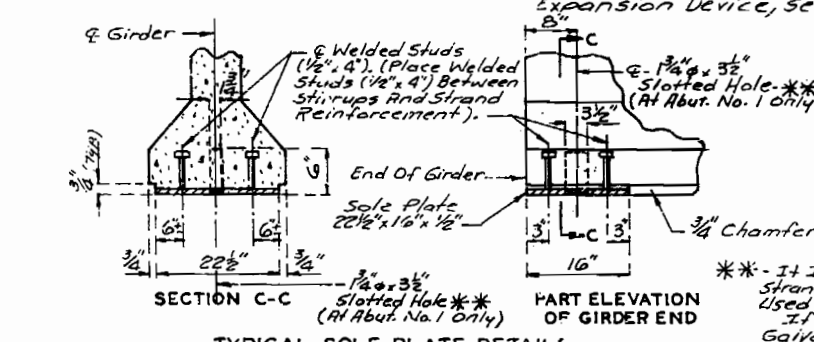
Note:
 For Location Of Coil Inserts At Slab Drains See Sheet No. 18.
 For Location Of Luminaire Diaphragms See Sheet No. 27.

Note:
 Concrete In The Slab Haunches Is Included In The Estimated Quantities For Alternate Slabs.
 For Girder Camber Diagram, See Sheet No. 13.
 For Location Of Steel Intermediate Diaphragms, See Sheet No. 15.
 For Details Of Steel Intermediate Diaphragms, See Sheet No. 15.
 For Location Of 1 1/4", 2", 4" Slotted Holes For Expansion Device, See Sheet No. 23.

* - Prestressing Strands At Abutments No. 1 and 3 Shall Be Trimmed To Within 1/2" Of Concrete If Exposed, Or 1" Of Concrete If Encased. Exposed Ends Of Girders Shall Be Given 2 Coats Of An Asphaltic Paint. Ends Of Girders Which Will Be Encased In Concrete Diaphragms Shall Not Be Painted.

Note: The 1/2" Holes Shall Be Cast In The Web For Steel Intermediate & Luminaire Diaphragms. Drilling is not allowed.

NOTE:
 COST OF 3/4" COIL TIE RODS PLACED IN DIAPHRAGMS IS INCLUDED IN CONTRACT UNIT PRICE FOR PRESTRESSED CONCRETE MEMBERS.
 COIL TIES SHALL BE HELD IN PLACE IN THE FORMS BY SLOTTED WIRE-SETTING-STUDS PROJECTING THRU FORMS. STUDS ARE TO BE LEFT IN PLACE OR REPLACED WITH TEMPORARY PLUGS UNTIL GIRDERS ARE ERECTED AND THEN REPLACED BY COIL TIE RODS.



Note: The Sole Plate Shall Be Placed At Each End Of All Prestressed I-Girders. Paint The 1/2" Sole Plate With 2 Coats Of Inorganic Zinc (5 Mills Min.) Or Galvanize In Accordance With ASTM A123.
 Cost Of Furnishing, Painting And Installing The 1/2" Sole Plate And Welded Studs In The Prestressed Girder Shall Be Included In The Price Bid For Prestressed Concrete I-Girder Per Each.

Note: For Location Of Coil Ties, See Sheet No. 14.

Note: This drawing is not to scale. Follow dimensions.

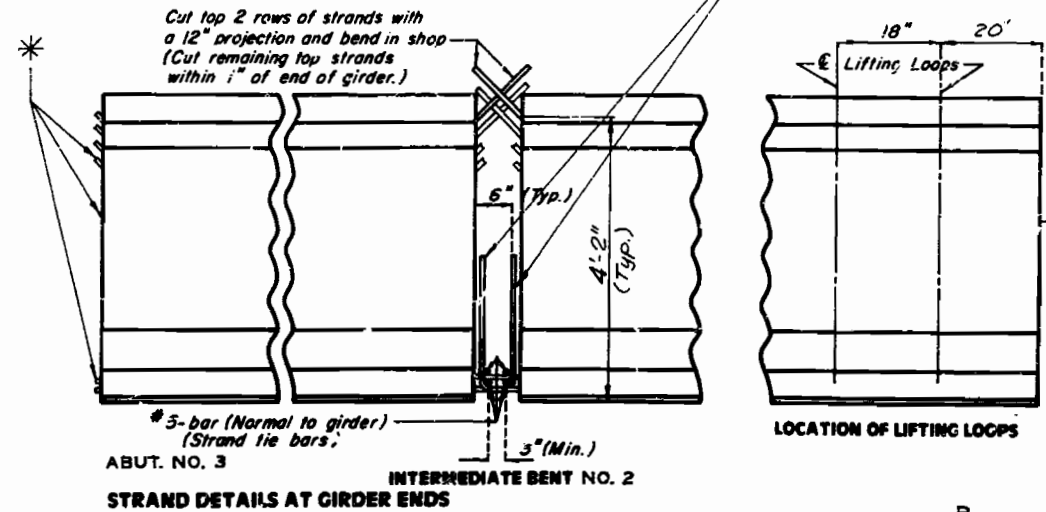
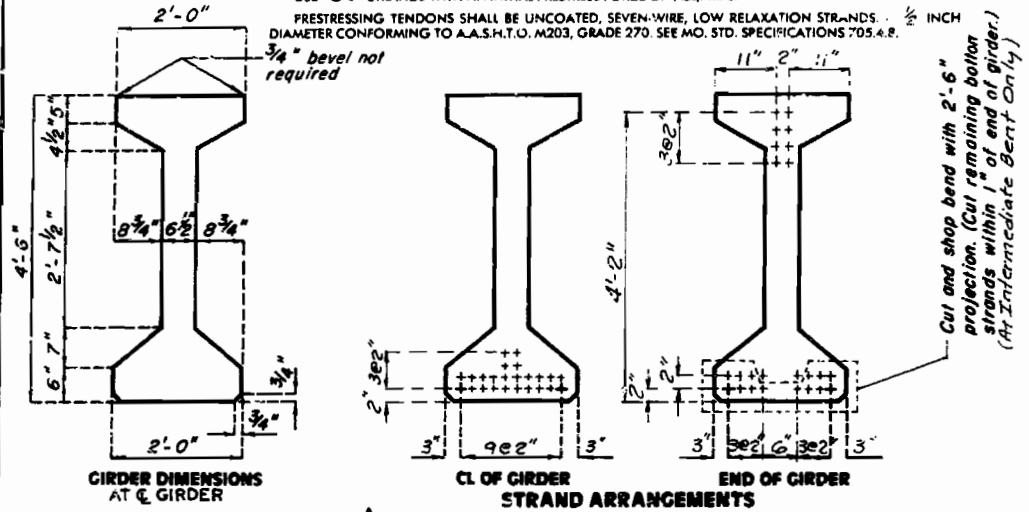
Sheet No. 12 of 37.

199198
 SPS 55.6.6.2 REVISED JUNE 1987
 FEB 1974
 DETAILED Sept. 1990
 CHECKED Sept. 1990

NOTE:

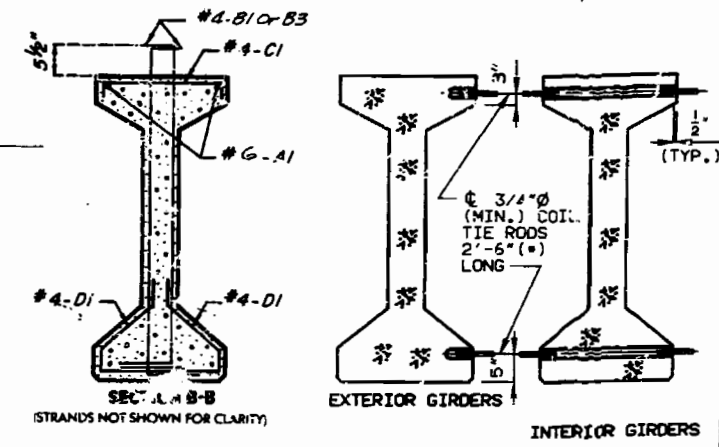
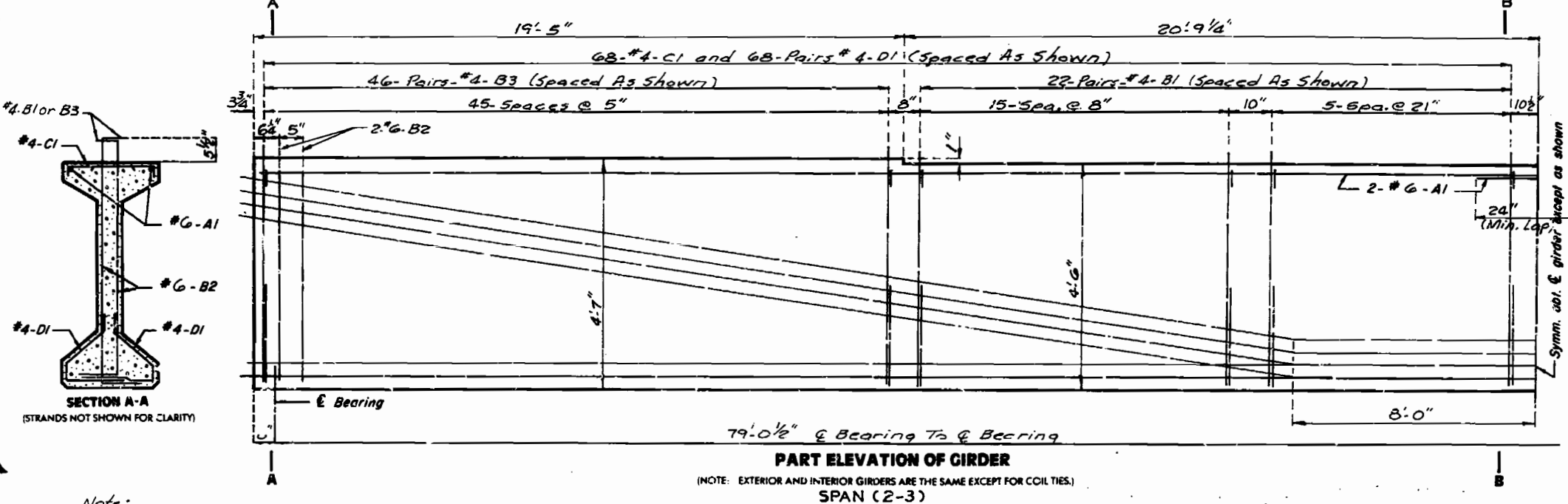
CONCRETE FOR PRESTRESSED GIRDERS SHALL BE CLASS A1 WITH $f_c = 5,000$ PSI.
 (+) INDICATES PRESTRESSED STRAND.
 USE 24 STRANDS WITH AN INITIAL PRESTRESS FORCE OF 744 KIPS.
 PRESTRESSING TENDONS SHALL BE UNCOATED, SEVEN-WIRE, LOW RELAXATION STRANDS, 1/2 INCH DIAMETER CONFORMING TO A.A.S.H.T.O. M203, GRADE 270. SEE MO. STD. SPECIFICATIONS 705.4.B.

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MC		109



BILL OF REINFORCING STEEL - EACH GIRDER				BENDING DIAGRAMS	
NO.	SIZE & NAME	ACTUAL LENGTH	SHAPE		
4	6A1	41'-1"	20		
88	4B1	5'-11"	11		
8	6B2	5'-4"	11		
184	4B3	6'-0"	11		
136	4C1	2'-2"	10		
272	4D1	3'-0"	9		

NOTE:
 ALL DIMENSIONS IN BENDING DIAGRAM ARE OUT TO OUT.
 HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE CRSI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES STIRRUP AND THE DIMENSIONS.
 ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.
 MINIMUM CLEARANCE TO REINFORCING SHALL BE 1".
 ALL REINFORCEMENT SHALL BE GRADE 60.
 THE TWO D1 BARS MAY BE FURNISHED AS ONE BAR AT THE FABRICATOR'S OPTION.



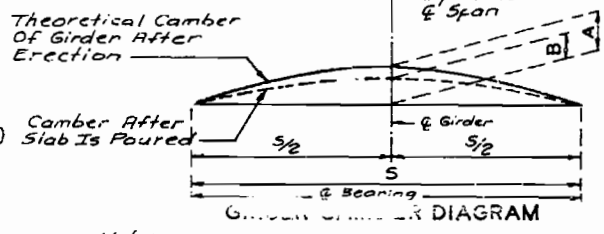
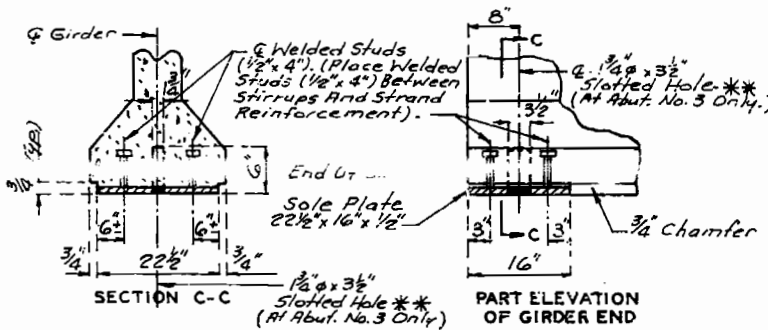
NOTE:
 COST OF 3/4" COIL TIE RODS PLACED IN DIAPHRAGMS IS INCLUDED IN CONTRACT UNIT PRICE FOR PRESTRESSED CONCRETE MEMBERS.
 COIL TIES SHALL BE HELD IN PLACE IN THE FORMS BY SLOTTED WIRE-SETTING STUDS PROJECTING THRU FORMS. STUDS ARE TO BE LEFT IN PLACE OR REPLACED WITH TEMPORARY PLUGS UNTIL GIRDERS ARE ERECTED AND THEN REPLACED BY COIL TIE RODS.

Note:
 For Location of Steel Intermediate Diaphragms, See Sheet No. 15.
 For Details of Steel Intermediate Diaphragms, See Sheet No. 15.
 For Location of 1 1/2" x 2 1/4" x 1/2" Slotted Holes for Expansion Device, See Sheet No. 23.
 The 1 1/2" Holes Shall Be Cast In The Web For Steel Intermediate & Luminaire Diaphragms. Drilling Is Not Allowed.
 For Location of Coil Inserts At Slab Drains, See Sheet No. 18.
 For Location of Luminaire Diaphragms, see sheet No. 27.

* - Prestressing Strands At Abutments No. 1 and 3 Shall Be Trimmed To Within 1/2" Of Concrete If Exposed, Or 1" Of Concrete If Encased. Exposed Ends Of Girders Shall Be Given 2 Coats Of An Asphaltic Paint. Ends Of Girders Which Will Be Encased In Concrete Diaphragms Shall Not Be Painted.

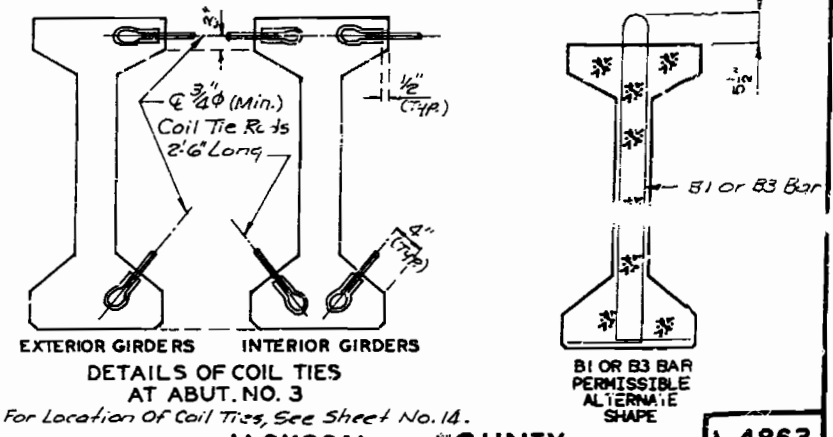
Girders	Span 1-2		Span 2-3	
	A"	B"	A"	B"
Exterior Girder	2 3/8"	1 1/8"	1 3/8"	1 1/8"
Interior Girder	2 3/8"	1 3/8"	1 3/8"	1"

Conversion Factors For Girder Camber
 0.1 pt. = 0.314 x 0.5 pt.
 0.2 pt. = 0.593 x 0.5 pt.
 0.3 pt. = 0.813 x 0.5 pt.
 0.4 pt. = 0.952 x 0.5 pt.



Note:
 If Girder Camber Is Different From That Shown In The Camber Diagram, It Shall Be Necessary To Adjust The Slab Haunches, Increase The Slab Thickness Or To Raise The Grade Uniformly Throughout The Structure.
 No Payment Will Be Made For Additional Labor Or Materials Required For Variation In Haunching, Slab Thickness Or Grade Adjustment.

* - It Is Permissible For Reinf. Bars And Or Strands To Come In Contact With Materials Used In Forming Anchor Bolt Holes. If Anchor Bolt Holes Are Formed With Galvanized Sheet Metal, Forms May Be Left In Place.

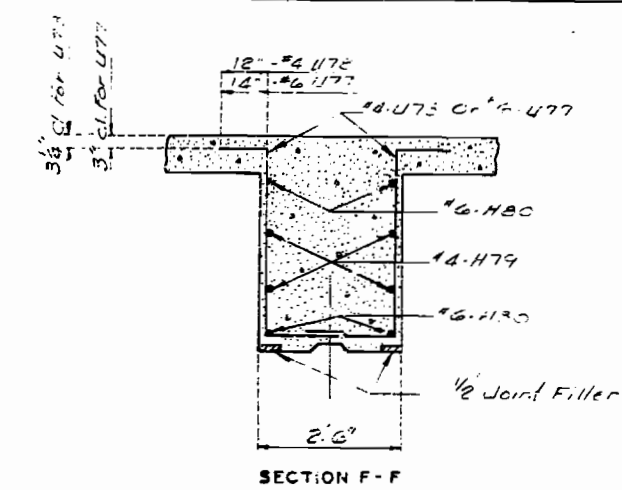
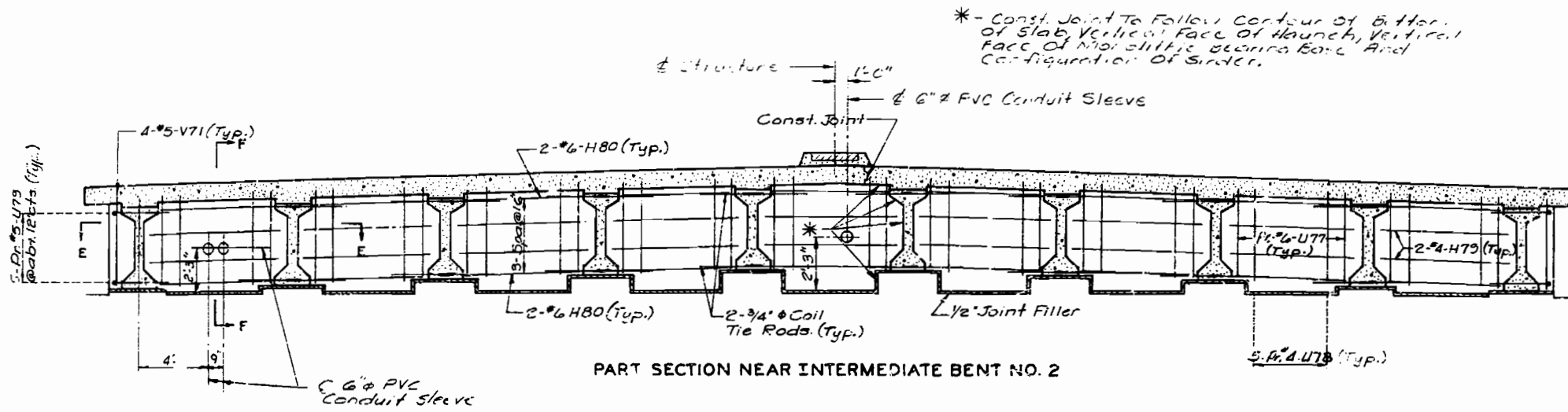


Note: For Location Of Coil Ties, See Sheet No. 14.

1788199
 SPS 55.6.6 1/2
 FEB 1974
 REVISED
 JUNE 1987

DETAILED Sept. 1990
 CHECKED Sept. 1990
 Note: This drawing is not to scale. Follow dimensions.

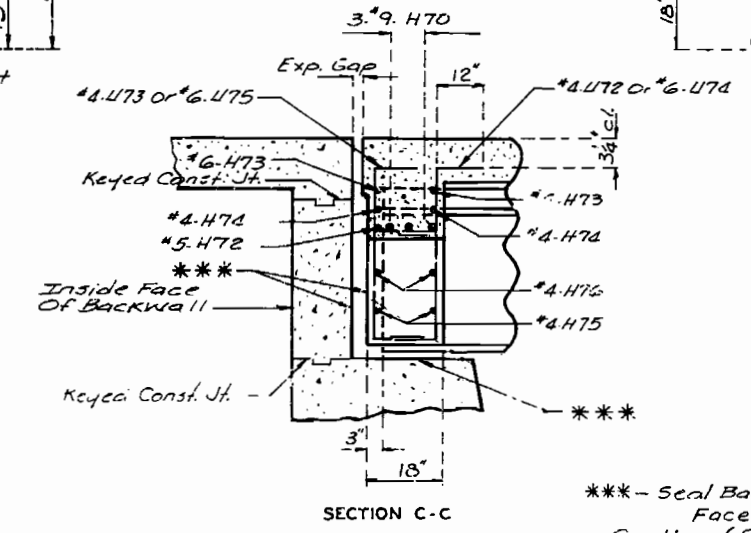
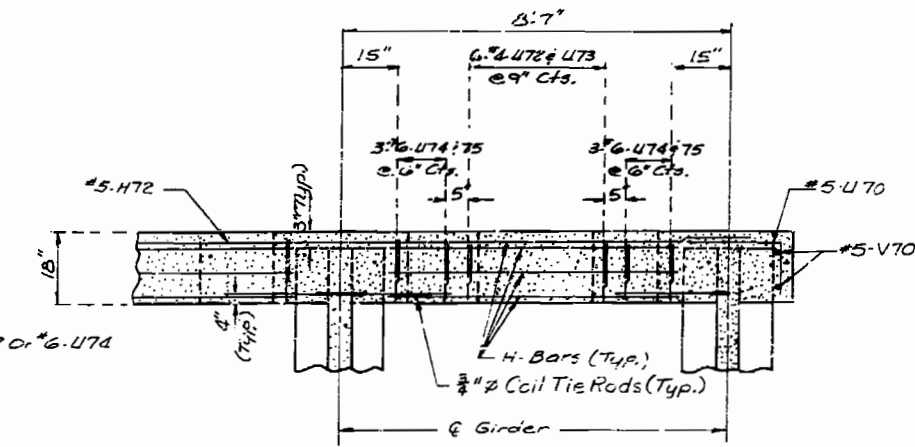
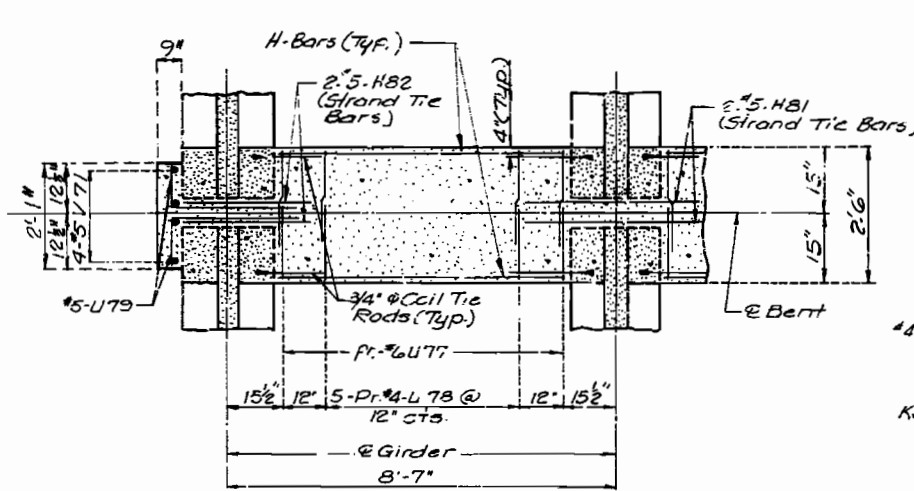
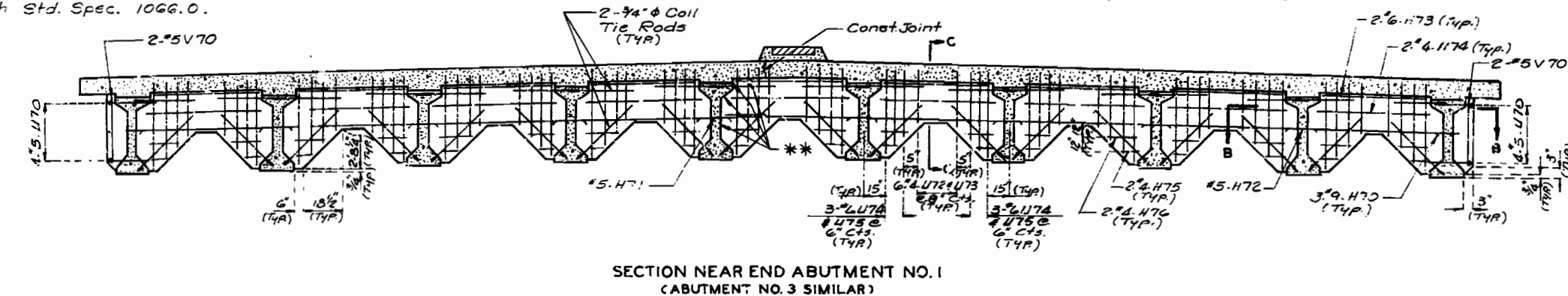
STATE	PROJ NO	SHEET NO
MO		170



Note: After conduits are in place, voided areas in 6" PVC sleeves shall be grouted in accordance with Std. Spec. 1066.0.

** - Const. Joint To Follow Contour Of Bottom Of Slab, Vertical Face Of Haunch And Configuration Of Girder.

Note: Cost of 3/8" Coil Tie Rods Placed In Diaphragms Is Included In Price Bid For Prestressed Concrete Members. Diaphragm At Intermediate Bent Is Vertical. For Location Of Strand Tie Bars At Intermediate Bent, See Sheets No. 12 & 13.

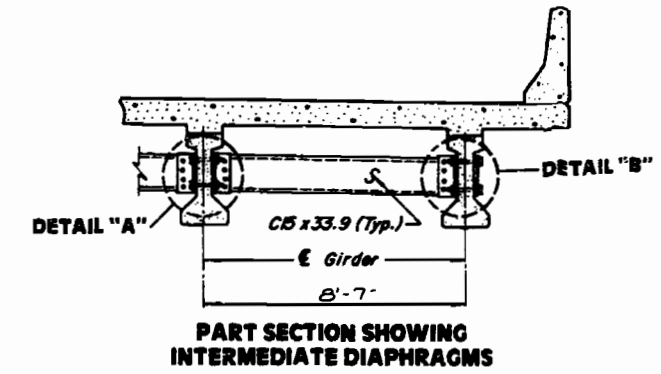


NOTE: For Expansion Gap, see sheet No. 23.

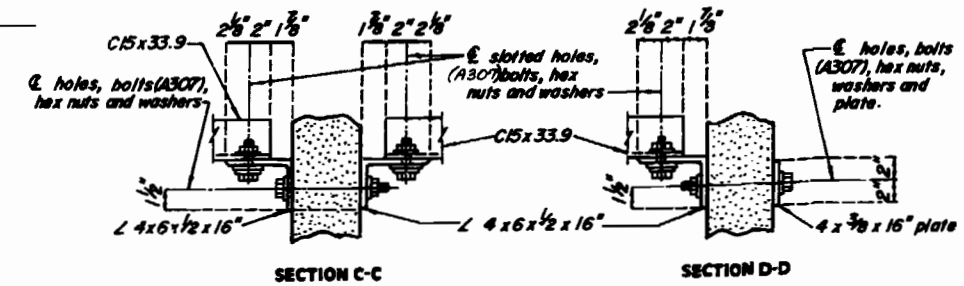
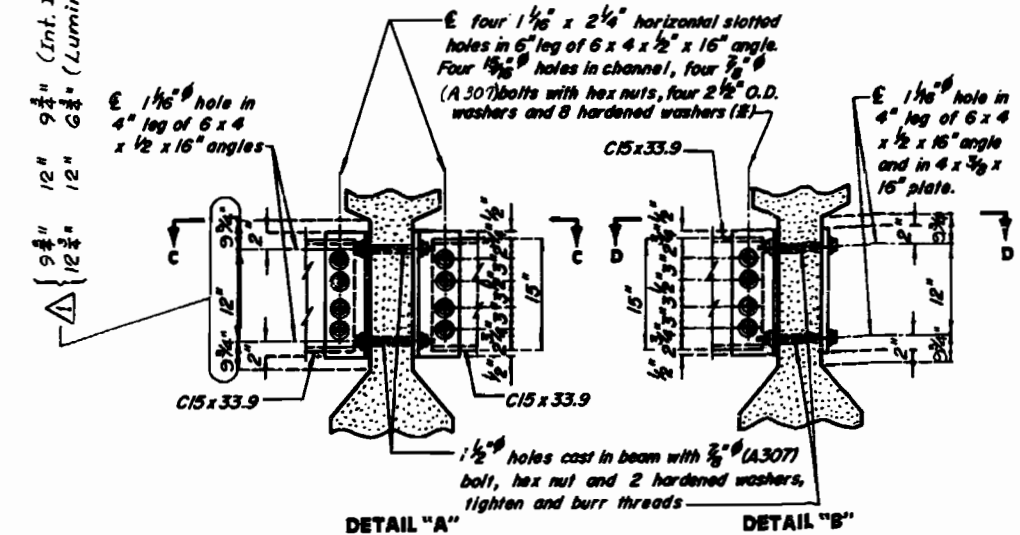
*** - Seal Backwall, Top of Beam and Face of Diaphragm with Protective Coating (See Special Provisions).

201 500

STATE	PROJ. NO.	SHEET NO.
MO		171



9 1/2" 12" 12" 12" (Int. Diaphragms) (Luminaire Diaphragms)



STEEL AND LUMINAIRE DIAPHRAGM NOTES:

(*) IN LIEU OF 2 1/2" O.D. WASHERS, CONTRACTOR MAY SUBSTITUTE A 3/16" (MIN. THICKNESS) PLATE WITH FOUR 1 1/16" HOLES AND 1 HARDENED WASHER PER BOLT.

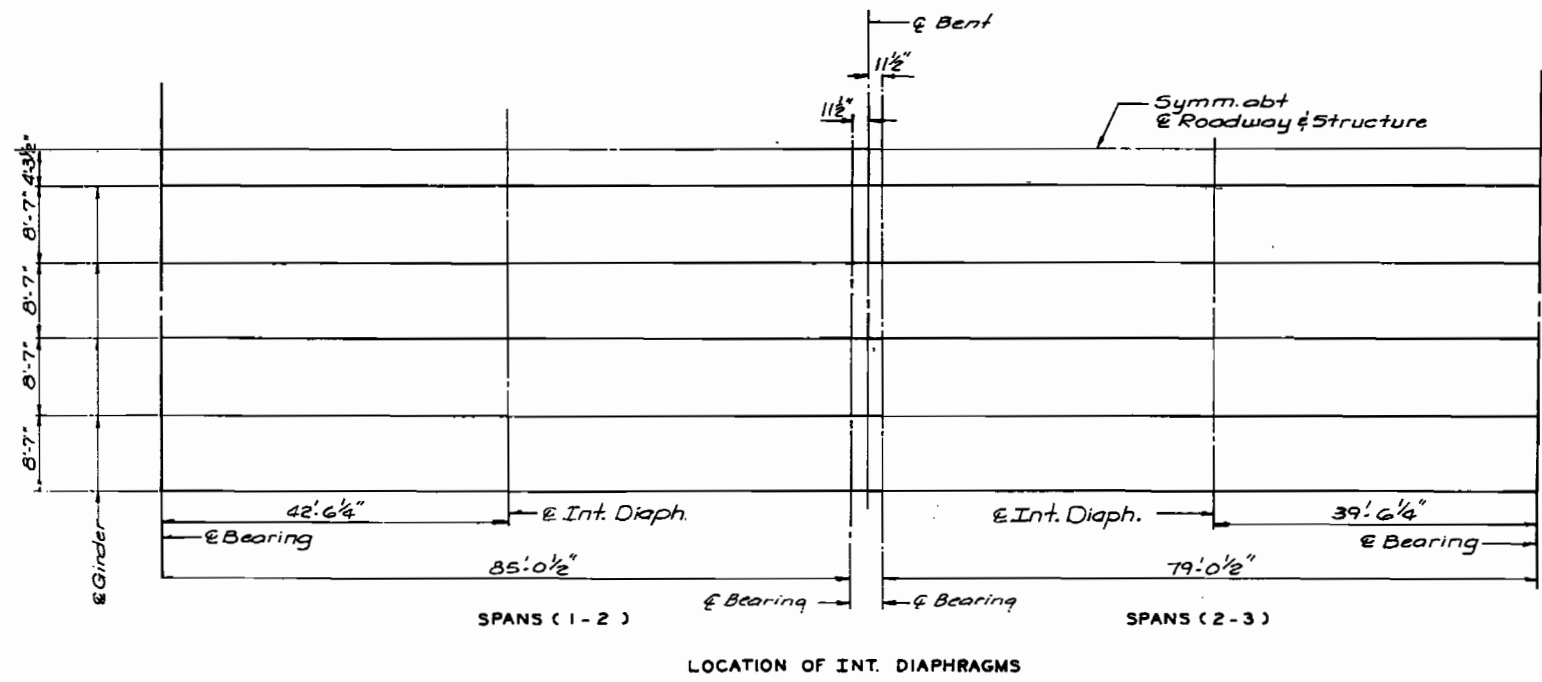
These bolts shall be tightened to provide a tension of one-half that specified by Section 712.10.2 of the Missouri Standard Specifications.

ALL DIAPHRAGM MATERIALS INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED.

FABRICATED STRUCTURAL STEEL SHALL BE A36 EXCEPT AS NOTED.

PAYMENT FOR FURNISHING AND INSTALLING STEEL INTERMEDIATE DIAPHRAGMS SHALL BE INCLUDED IN CONTRACT UNIT PRICE FOR PRESTRESSED CONCRETE I-GIRDERS.

SHOP DRAWINGS WILL NOT BE REQUIRED FOR STEEL INTERMEDIATE DIAPHRAGMS AND ANGLE CONNECTIONS.



207 701

STEEL INT. DIA. (STR) AUGUST 1983 MAY 1985 Revised

DETAILED APRIL 1983
CHECKED SEPT. 1983

Note: This drawing is not to scale. Follow dimensions.

Revised 10 June 1991

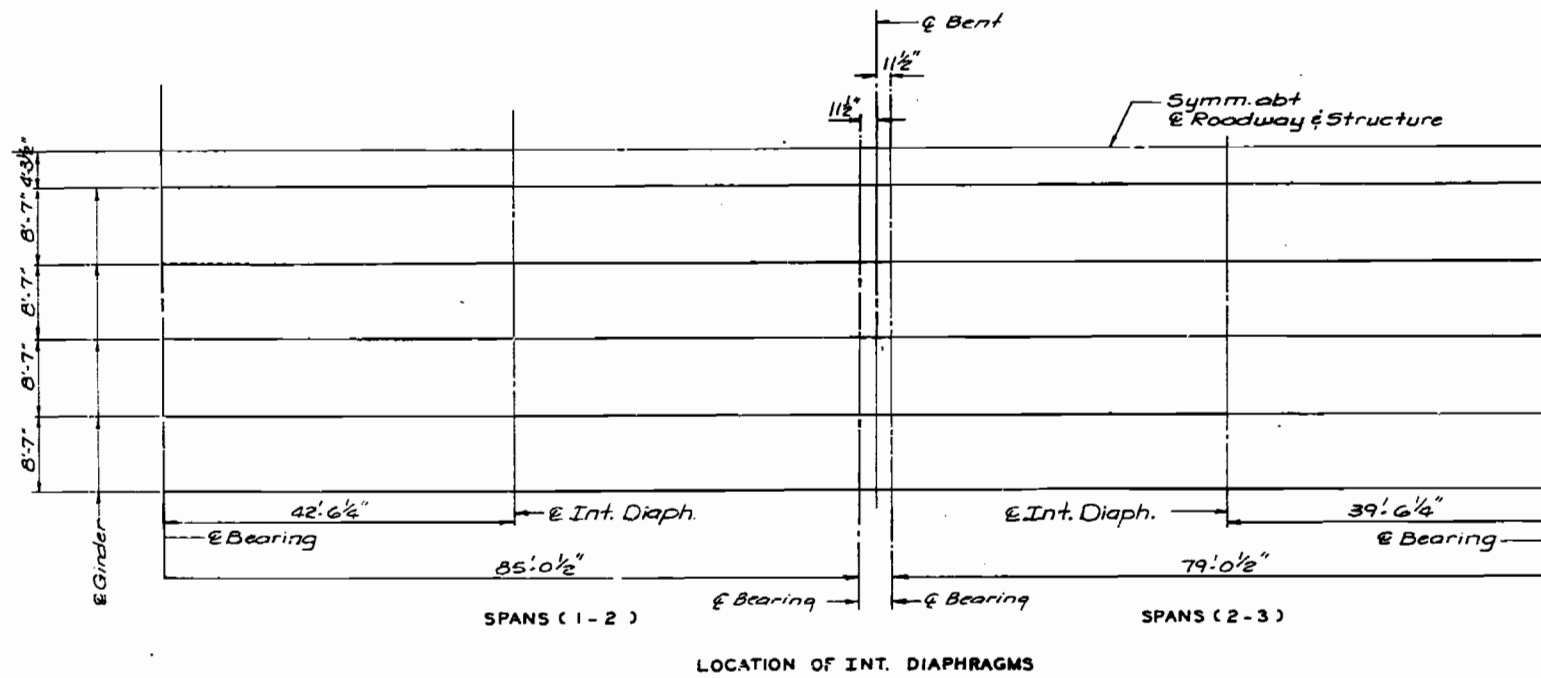
SEE FINAL PLANS

Sheet No. 15 of 37.

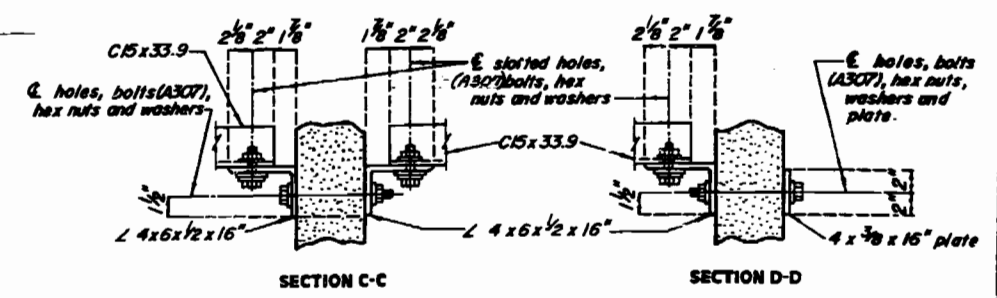
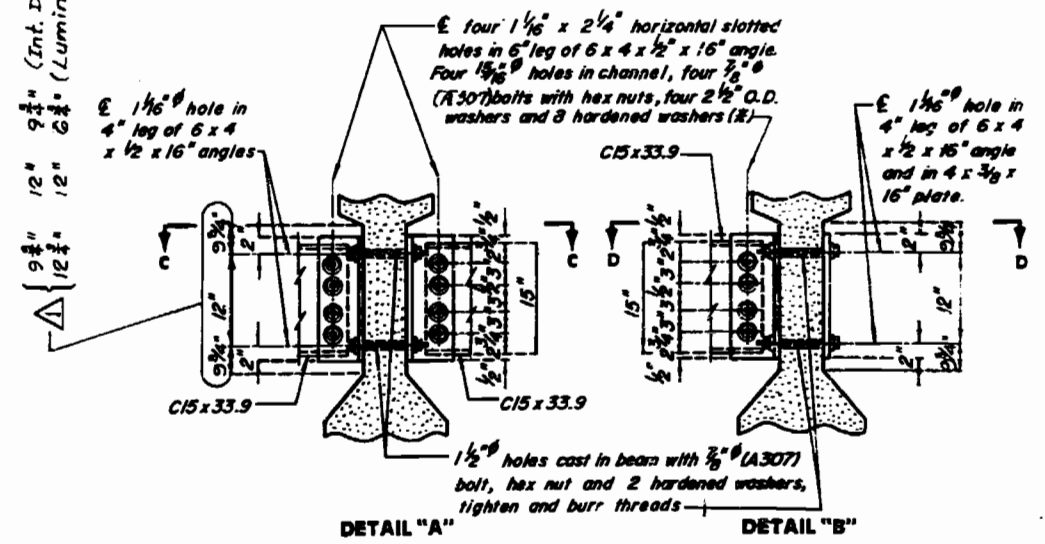
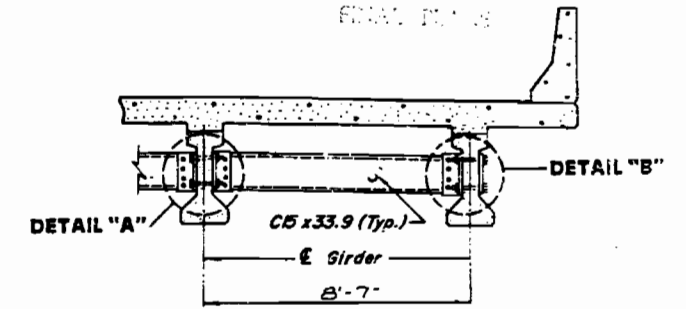
JACKSON COUNTY

A-4863

STATE	PROJ NO	SHEET NO
MO		171



9 3/4" 12" 12" 12" (Int. Diaphragms) (Luminaire Diaphragms)



STEEL AND LUMINAIRE DIAPHRAGM NOTES:

(*) IN LIEU OF 2 1/2" O.D. WASHERS, CONTRACTOR MAY SUBSTITUTE A 3/16" (MIN. THICKNESS) PLATE WITH FOUR 15/16" HOLES AND 1 HARDENED WASHER PER BOLT.

These bolts shall be tightened to provide a tension of one-half that specified by Section 712.10.2 of the Missouri Standard Specifications.

ALL DIAPHRAGM MATERIALS INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED.

FABRICATED STRUCTURAL STEEL SHALL BE A36 EXCEPT AS NOTED.

PAYMENT FOR FURNISHING AND INSTALLING STEEL INTERMEDIATE DIAPHRAGMS SHALL BE INCLUDED IN CONTRACT UNIT PRICE FOR PRESTRESSED CONCRETE I-GIRDERS.

SHOP DRAWINGS WILL NOT BE REQUIRED FOR STEEL INTERMEDIATE DIAPHRAGMS AND ANGLE CONNECTIONS.

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STEEL INT. DIA. (STR)
 AUGUST 1983
 Revised
 MAY 1985

DETAILED APRIL 1983
 CHECKED SEPT. 1983

Note: This drawing is not to scale. Follow dimensions.

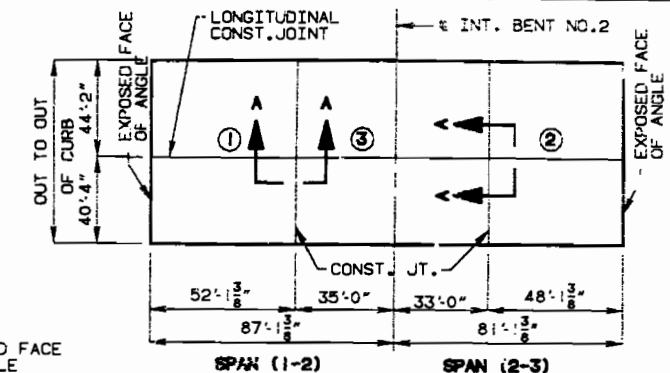
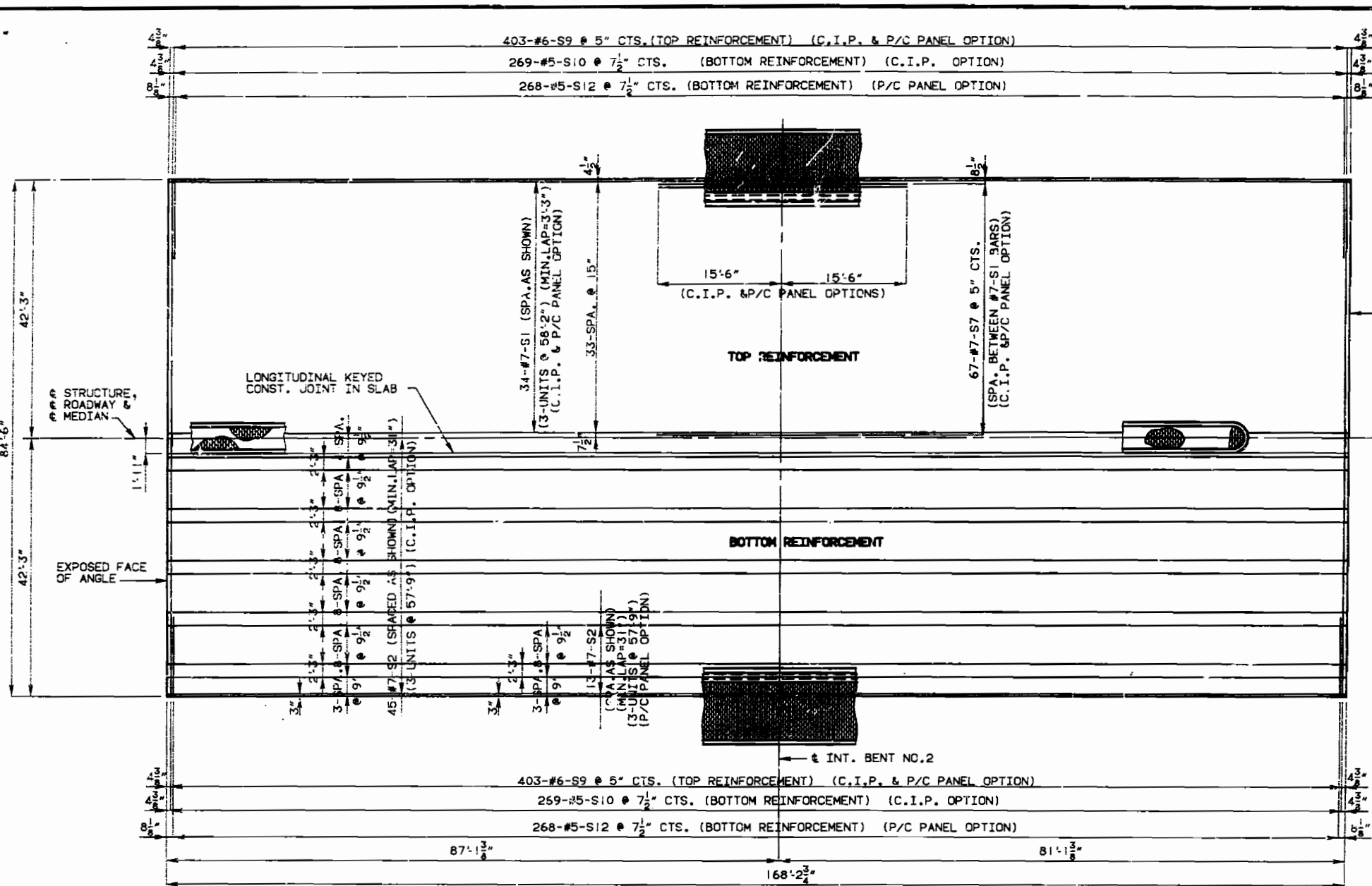
Revised 10 June 1991

Sheet No. 15 of 37

JACKSON COUNTY

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MO.		172



SEQUENCE OF POURS	MIN. RATE OF POUR CU. YDS./HR.	
	WITH RETARDER	WITHOUT RETARDER
BASIC SEQUENCE	25	25
ALTERNATE "A" POURS	41	41
ALTERNATE "B" POURS	41	41

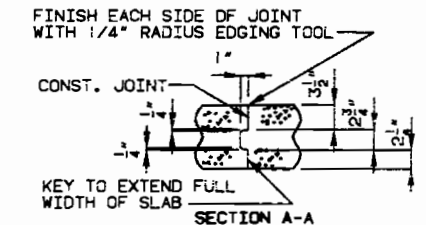
ALTERNATE POURS TO THE BASIC SKIP SEQUENCE ARE SUBJECT TO THE APPROVAL OF THE ENGINEER IN ACCORDANCE WITH SECTION 703.3.12.4 OF MISSOURI STANDARD SPECIFICATIONS.

SLAB POURING SEQUENCE

THE CONTRACTOR SHALL FURNISH AN APPROVED RETARDER TO RETARD THE SET OF THE CONCRETE TO 2.5 HOURS AND SHALL POUR AND SATISFACTORILY FINISH THE SLAB POUR AT THE RATE GIVEN ABOVE.

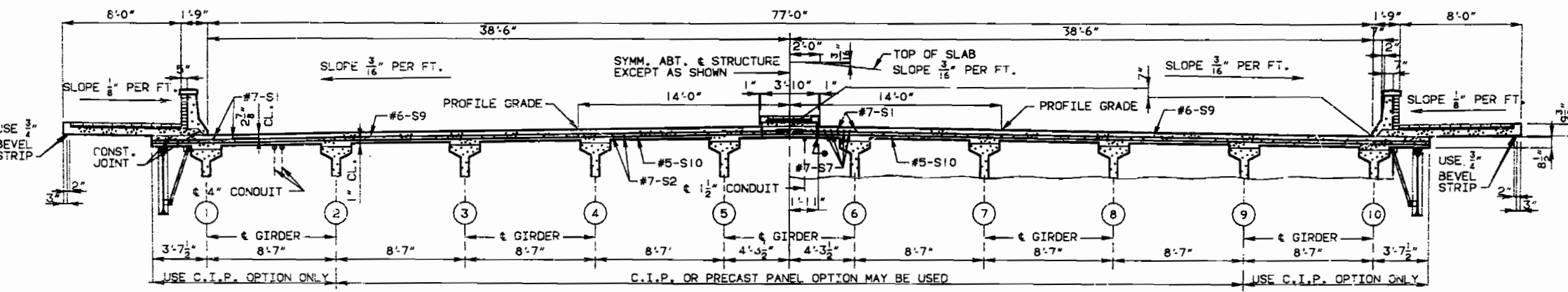
THE CONCRETE DIAPHRAGM AT THE INTERMEDIATE BENT SHALL BE POURED A MINIMUM OF 30 MINUTES AND A MAXIMUM OF 2 HOURS BEFORE THE SLAB IS POURED.

IF THE PRECAST PRESTRESSED PANEL OPTION IS USED, THE VALUES SHOWN FOR THE MINIMUM RATE OF POUR MAY BE REDUCED BY 25%. HOWEVER, IN NO CASE SHALL THE MINIMUM RATE OF POUR BE LESS THAN 25 CU.YDS. PER HOUR.



- NOTE: LONGITUDINAL DIMENSIONS ARE HORIZONTAL @ 60° F.
- FOR DETAILS AND REINFORCEMENT OF SAFETY BARRIER CURBS NOT SHOWN SEE SHEET NO.28.
 - FOR DETAILS AND REINFORCEMENT OF RAISED MEDIAN CURB NOT SHOWN SEE SHEET NO.20.
 - FOR DETAILS OF CONDUIT SYSTEM SEE SHEET NO.26 & 27.
 - FOR LOCATION AND DETAILS OF FASCIA GIRDER SUPPORT BRACKETS SEE SHEET NO.24.
 - FOR SLAB HAUNCHING DIAGRAM SEE SHEET NO.12.
 - FOR DETAILS OF SIDEWALKS AND PEDESTRIAN FENCE SEE SHEETS NO.19, 21 & 22.
 - FOR LOCATION OF SLAB DRAINS SEE SHEET NO.18.
 - FOR DETAILS OF PRECAST PRESTRESSED PANEL OPTION SEE SHEET NO.17.
 - CONCRETE IN THE SLAB HAUNCHES IS INCLUDED IN THE ESTIMATED QUANTITIES FOR ALTERNATE SLABS.
 - LONGITUDINAL REINFORCING STEEL SHALL BE PLACED SO THAT ENDS SHALL NOT BE MORE THAN 1"± FROM VERTICAL LEG OF ANGLE AT EXPANSION DEVICE.

203



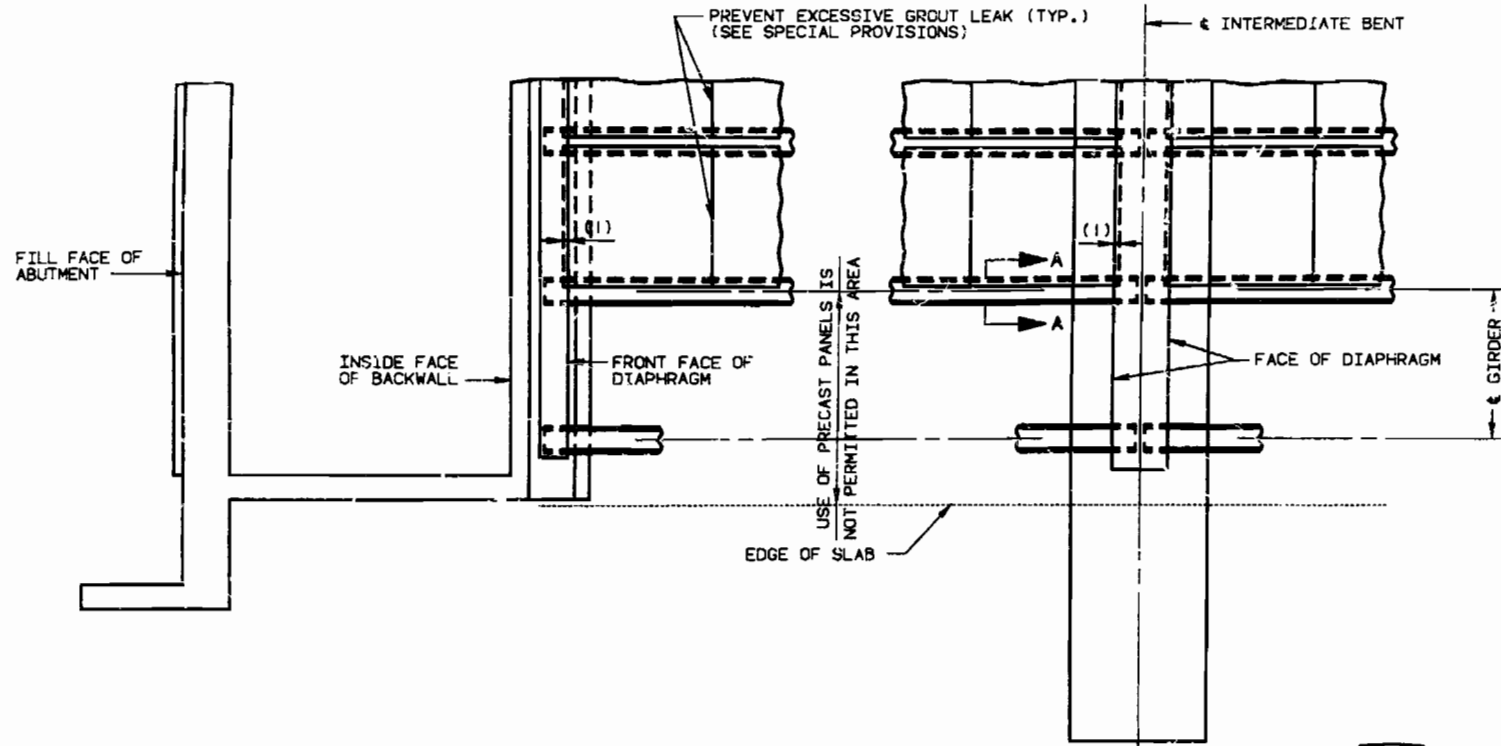
HALF SECTION NEAR SPAN (CAST-IN-PLACE OPTION SHOWN) **HALF SECTION NEAR INTERMEDIATE BENT** (CAST-IN-PLACE OPTION SHOWN)

DETAILED MAY 1990
CHECKED SEPT. 1990

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 16 OF 37.

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PLAN OF PRECAST PRESTRESSED PANELS PLACEMENT

NOTE:

USE SLAB HAUNCHING DIAGRAM ON SHEET NO. 12 FOR DETERMINING THICKNESS OF JOINT FILLER OR POLYSTYRENE BEDDING MATERIAL WITHIN THE LIMITS NOTED BELOW.

GENERAL NOTES:

PRESTRESSED PANELS:

CONCRETE FOR PRESTRESSED PANELS SHALL BE CLASS A1 WITH $f'c = 5,000$ PSI, $f'ct = 3,500$ PSI.

THE TOP SURFACE OF ALL PANELS SHALL RECEIVE A SCORED FINISH WITH A DEPTH OF SCORING OF 1/8 INCH PERPENDICULAR TO THE PRESTRESSING STRANDS IN THE PANELS (SEE SPECIAL PROVISIONS).

PRESTRESSING TENDONS SHALL BE HIGH-TENSILE STRENGTH UNCOATED SEVEN WIRE (7), LOW-RELAXATION STRANDS FOR PRESTRESSED CONCRETE CONFORMING TO AASHTO M203, EXCEPT THAT NOMINAL DIAMETER OF STRAND = 3/8 INCH AND NOMINAL AREA = 0.085 SQ. IN. AND MINIMUM ULTIMATE STRENGTH = 23,000 LBS. (270 KSI). LARGER STRANDS MAY BE USED WITH THE SAME SPACING AND INITIAL TENSION.

INITIAL PRESTRESSING FORCE = 14.9 KIPS/STRAND.

THE METHOD AND SEQUENCE OF RELEASING THE STRANDS SHALL BE SHOWN ON THE SHOP DRAWINGS.

SUITABLE ANCHORAGE DEVICES FOR LIFTING PANELS MAY BE CAST IN PANELS, PROVIDED THEY ARE SHOWN ON THE SHOP DRAWINGS AND APPROVED BY THE ENGINEER. PANEL LENGTHS SHALL BE DETERMINED BY THE CONTRACTOR AND SHOWN ON THE SHOP DRAWINGS.

MINIMUM JOINT FILLER OR POLYSTYRENE BEDDING MATERIAL THICKNESS SHALL BE 1/2 INCH. THICKER JOINT FILLER OR POLYSTYRENE BEDDING MATERIAL MAY BE USED ON ONE OR BOTH SIDES OF THE GIRDER TO REDUCE CAST-IN-PLACE CONCRETE THICKNESS, WITHIN TOLERANCES. NO MORE THAN 2 INCHES TOTAL THICKNESS OF JOINT FILLER OR POLYSTYRENE BEDDING MATERIAL SHALL BE USED.

THE SAME THICKNESS OF JOINT FILLER MATERIAL SHALL BE USED UNDER ANY ONE EDGE OF ANY PANEL AND THE MAXIMUM CHANGE IN THICKNESS BETWEEN ADJACENT PANELS SHALL BE 1/4 INCH. THE POLYSTYRENE BEDDING MATERIAL MAY BE CUT TO MATCH HAUNCH HEIGHT ABOVE TOP OF FLANGE.

AT THE CONTRACTOR'S OPTION, THE VARIATION IN SLAB THICKNESS OVER PRESTRESSED PANELS MAY BE ELIMINATED OR REDUCED BY INCREASING AND VARYING THE GIRDER TOP FLANGE THICKNESS. DIMENSIONS SHALL BE SHOWN ON THE SHOP DRAWINGS.

REINFORCING STEEL:

ALL DIMENSIONS ARE OUT TO OUT.

MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 1-1/2" INCH, UNLESS OTHERWISE SHOWN.

HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE C.R.S.I. MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, STIRRUP AND TIE DIMENSIONS.

ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE OF BAR TO THE NEAREST INCH.

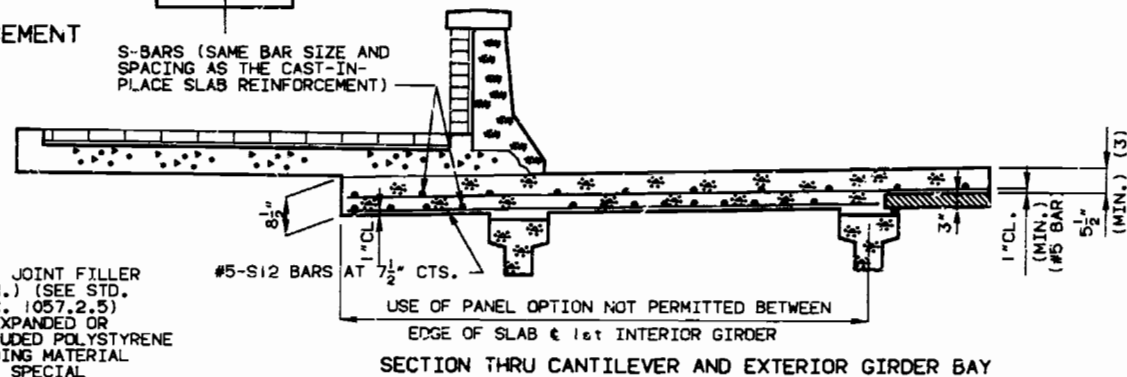
THE PRESTRESSED PANEL QUANTITIES ARE NOT INCLUDED IN THE TABLE OF ESTIMATED QUANTITIES FOR ALTERNATE SLABS.

IF U1 BARS INTERFERE WITH PLACEMENT OF SLAB STEEL, U1 LOOPS MAY BE BENT OVER, AS NECESSARY, TO CLEAR SLAB STEEL.

WELDED WIRE FABRIC OR WELDED DEFORMED BAR MATS PROVIDING A MINIMUM AREA OF REINFORCING PERPENDICULAR TO STRANDS OF 0.22 SQ. IN./FT. WITH SPACING PARALLEL TO STRANDS SUFFICIENT TO INSURE PROPER HANDLING, MAY BE USED IN LIEU OF THE #3-P2 BARS SHOWN. WIRE OR BAR DIAMETER SHALL NOT BE LARGER THAN 0.375 INCHES.

THE REINFORCING STEEL SHALL BE TIED SECURELY TO THE 3/8" Ø STRANDS WITH THE FOLLOWING MAXIMUM SPACING IN EACH DIRECTION: #3-P2 BARS AT 16 INCHES. WELDED WIRE FABRIC OR WELDED DEFORMED BAR MATS AT 24 INCHES.

TIE THE #3-U1 BARS TO THE #3-P2 BARS, TO THE WELDED WIRE FABRIC OR THE WELDED DEFORMED BAR MATS AT ABOUT 36 INCH CENTERS.



SECTION THRU CANTILEVER AND EXTERIOR GIRDER BAY

NOTES:

(1) END PANELS TO BE DIMENSIONED 1-1/2" INCHES FROM THE INSIDE FACE DIAPHRAGM.

(2) S-BARS SHOWN ARE BOTTOM STEEL IN SLAB BETWEEN PANELS AND USED WITH SQUARED END PANELS ONLY.

COST OF S-BARS SHALL BE INCLUDED IN PRICE BID FOR SLAB PER SQUARE YARD.

S-BARS ARE NOT LISTED IN BILL OF REINFORCING.

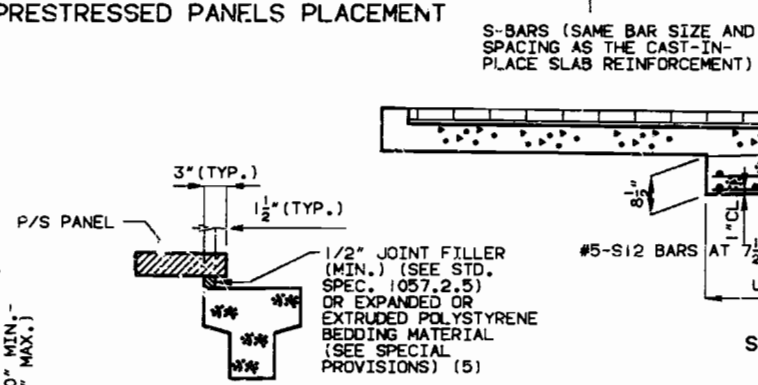
SLAB EXTERIOR GIRDER HAUNCH SHALL BE THE SAME AS CAST-IN-PLACE.

SLAB THICKNESS OVER PRESTRESSED PANELS VARIES DUE TO GIRDER CAMBER.

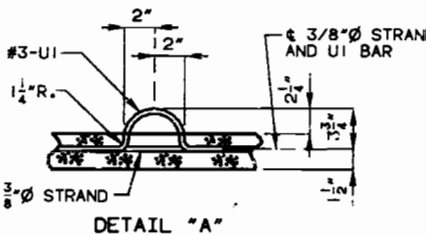
(3) IN ORDER TO MAINTAIN MINIMUM SLAB THICKNESS, IT MAY BE NECESSARY TO RAISE THE GRADE UNIFORMLY THROUGHOUT THE STRUCTURE. NO PAYMENT WILL BE MADE FOR ADDITIONAL LABOR OR MATERIALS REQUIRED FOR NECESSARY GRADE ADJUSTMENT.

(4) ANY STRAND 2'-0" OR SHORTER SHALL HAVE A #4 REINFORCING BAR ON EACH SIDE OF IT CENTERED BETWEEN STRANDS. STRANDS 2'-0" OR SHORTER MAY THEN BE DEBONDED AT THE FABRICATORS OPTION.

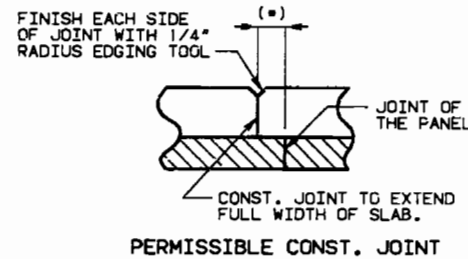
(5) ALL PANEL SUPPORT PADS SHALL BE GLUED TO THE GIRDER. WHEN SUPPORT THICKNESS EXCEEDS 1-1/2", THE PADS SHALL BE GLUED TOP AND BOTTOM. THE GLUE USED SHALL BE THE TYPE RECOMMENDED BY THE PANEL SUPPORT PADS MANUFACTURER.



SECTION A-A



DETAIL "A"



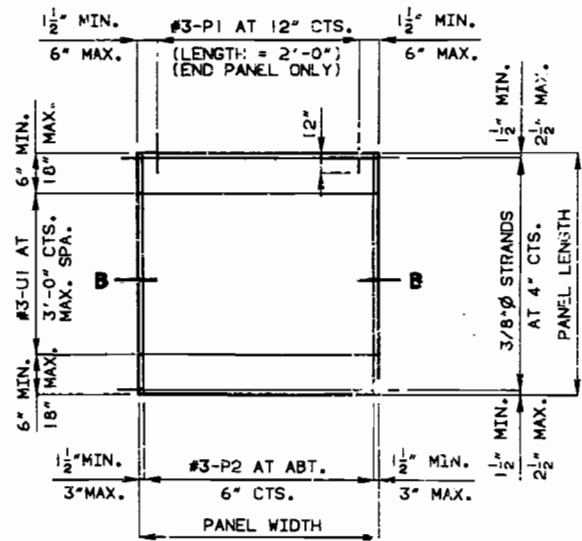
PERMISSIBLE CONST. JOINT

BENDING DIAGRAM FOR U1 BAR

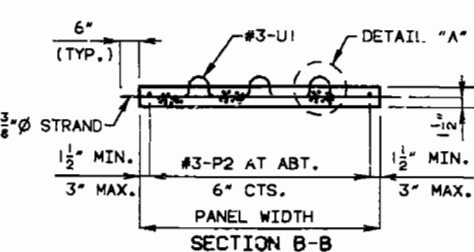
(#3-U1 BARS MAY BE ORIENTED AT RIGHT ANGLES TO LOCATION AND SPACING SHOWN. U1 BARS SHALL BE PLACED BETWEEN P1 BARS)

(*) ADJUST THE PERMISSIBLE CONSTRUCTION JOINT TO A CLEARANCE OF 6 INCHES MINIMUM FROM THE JOINTS OF THE PANELS.

DETAILS OF PRECAST PRESTRESSED PANELS



PLAN OF PRECAST PRESTRESSED PANEL



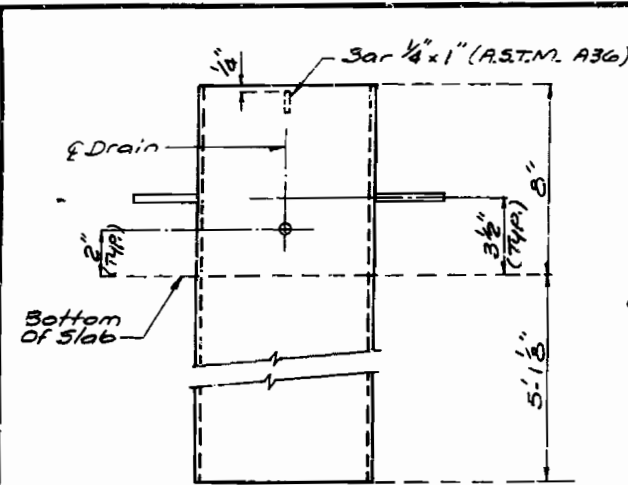
SECTION B-B

DETAILED JULY 1990
CHECKED OCT. 1990

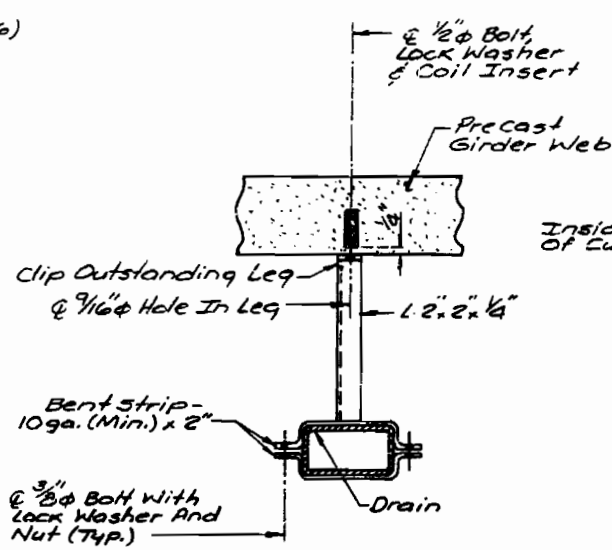
NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 17 OF 37.

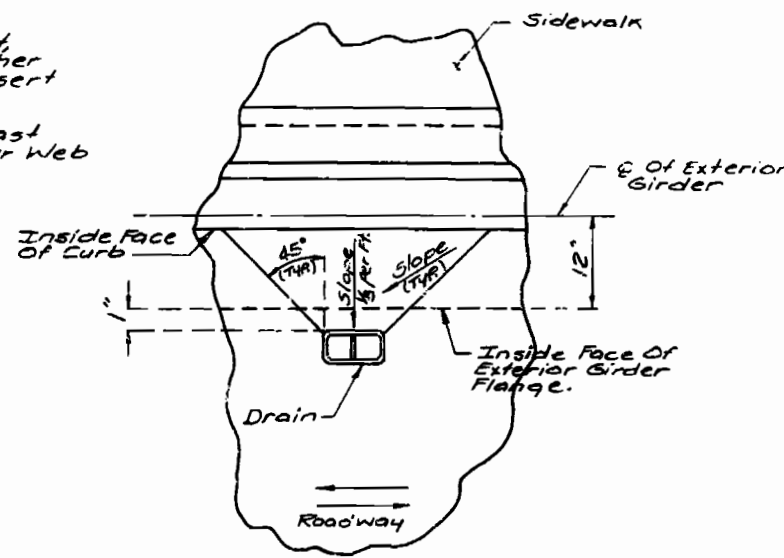
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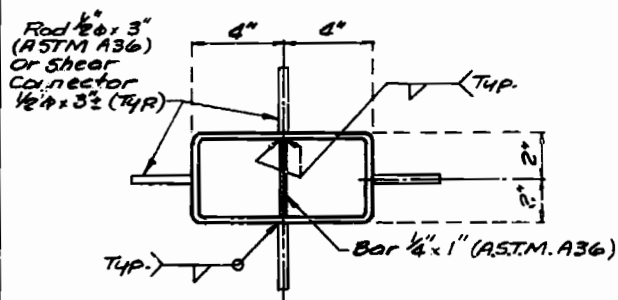
ELEVATION OF DRAIN



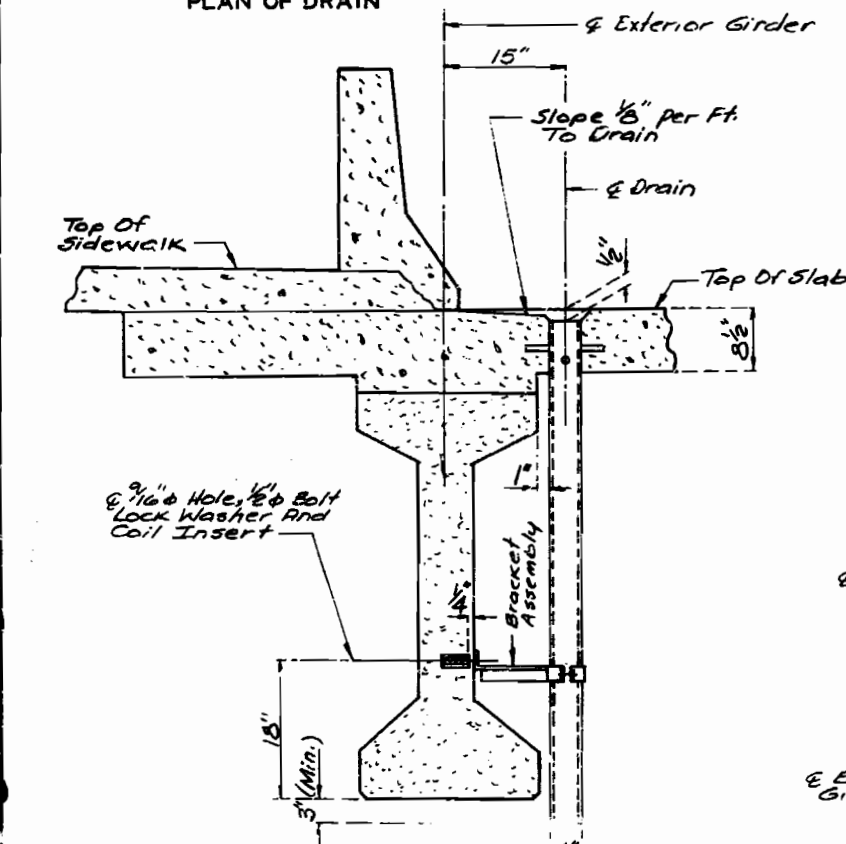
PART SECTION SHOWING BRACKET ASSEMBLY



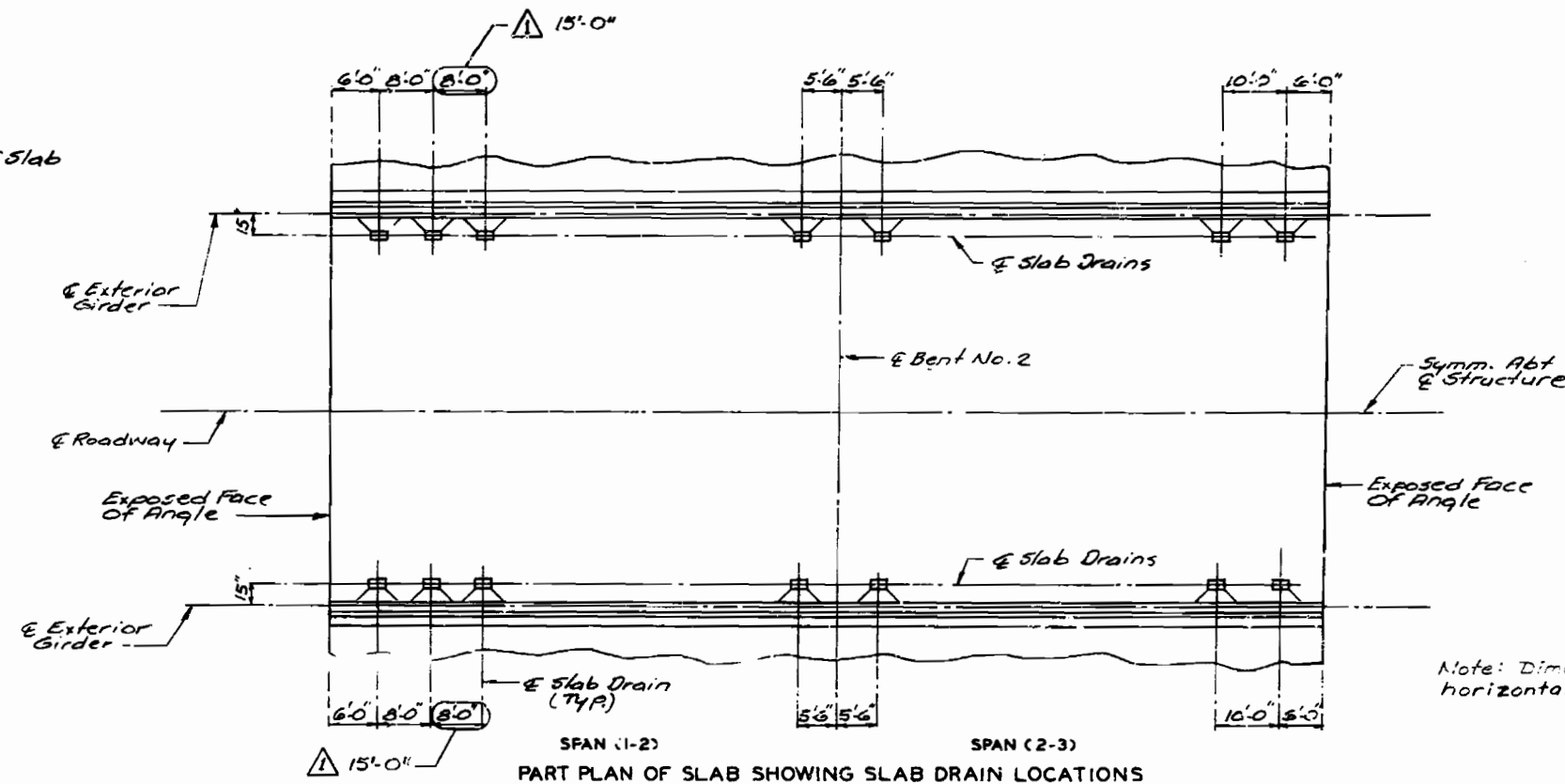
PART PLAN OF SLAB AT DRAIN



PLAN OF DRAIN



PART ELEVATION OF SLAB AT DRAIN



PART PLAN OF SLAB SHOWING SLAB DRAIN LOCATIONS

GENERAL NOTES:

Slab Drains May Be Fabricated Of Either 1/4" Welded Sheets Of A.S.T.M. A36 Steel Or From 1/4" Structural Steel Tubing A.S.T.M. A500 Or A501.

Outside Dimensions Of Drains Are 8"x4". Locate Drains In The Slab By Dimensions Shown In The Part Elevation.

Shift Reinforcing In Field Where Necessary To Clear Drains.

The Drains And Bracket Assembly Shall Be Galvanized In Accordance With A.S.T.M. A123.

All Bolts, Lock Washers And Nuts Shall Be Galvanized In Accordance With A.S.T.M. A153.

Shop Drawings Will Not Be Required For Slab Drains And The Bracket Assembly.

Coil Inserts Shall Have A Concrete Pull-Out Strength (Ultimate Load) Of At Least 2,500 Pounds In 5,000 Psi Concrete.

205

DETAILED Sept 1990
CHECKED Oct 1990

Note: This drawing is not to scale. Follow dimensions.

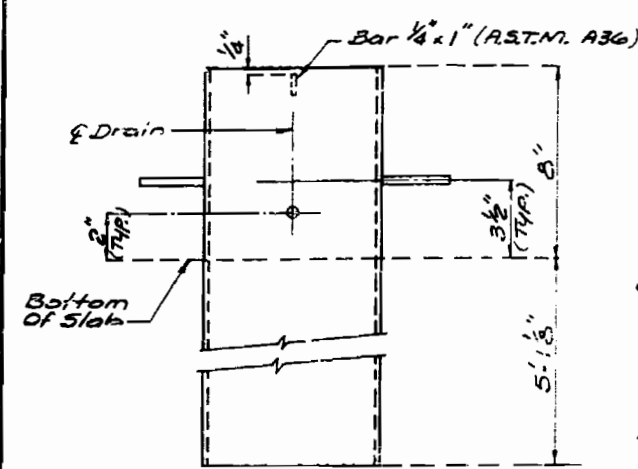
Revised 10 June 1991

Sheet No. 18 of 37.

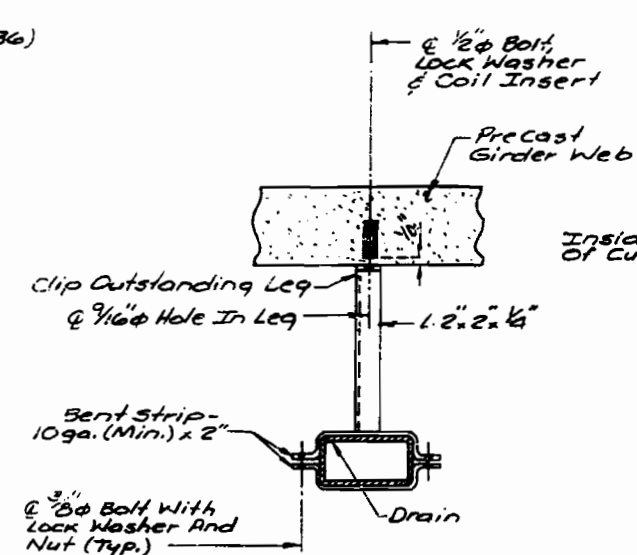
JACKSON COUNTY

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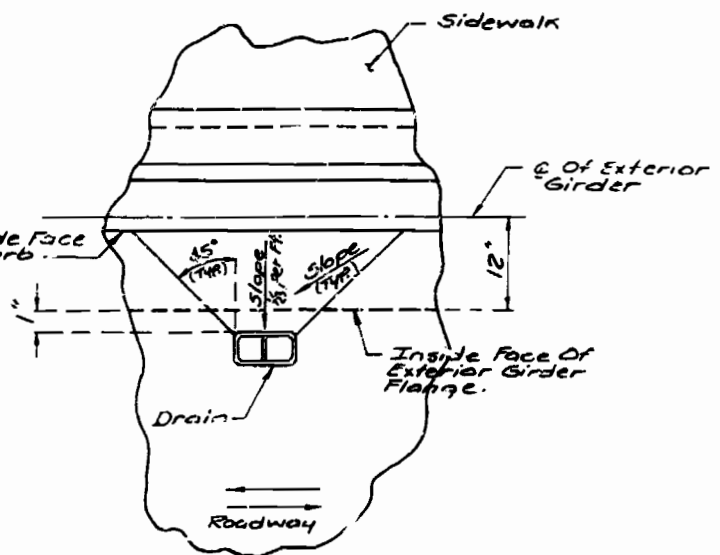
STATE	NO. 18	SHEET
MO.		176



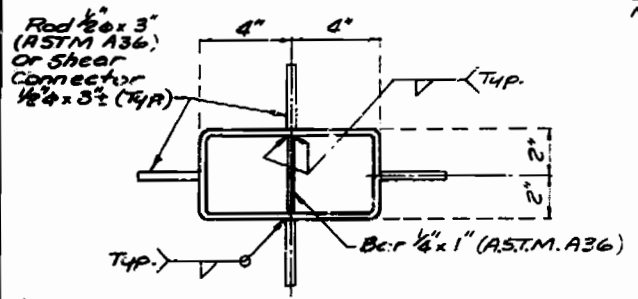
ELEVATION OF DRAIN



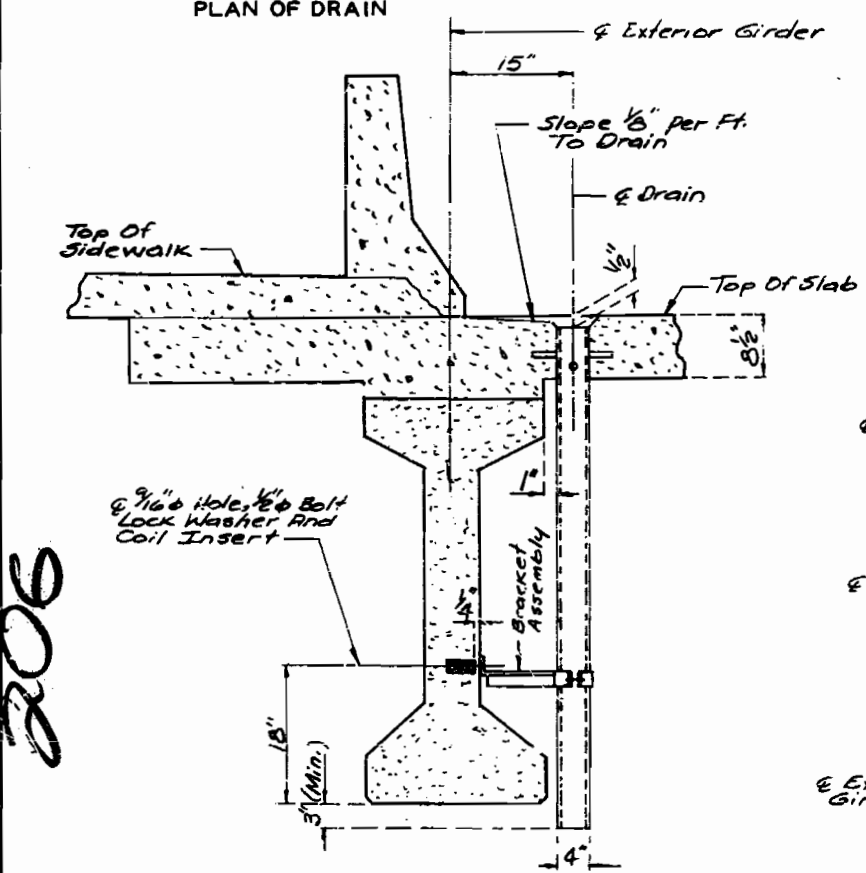
PART SECTION SHOWING BRACKET ASSEMBLY



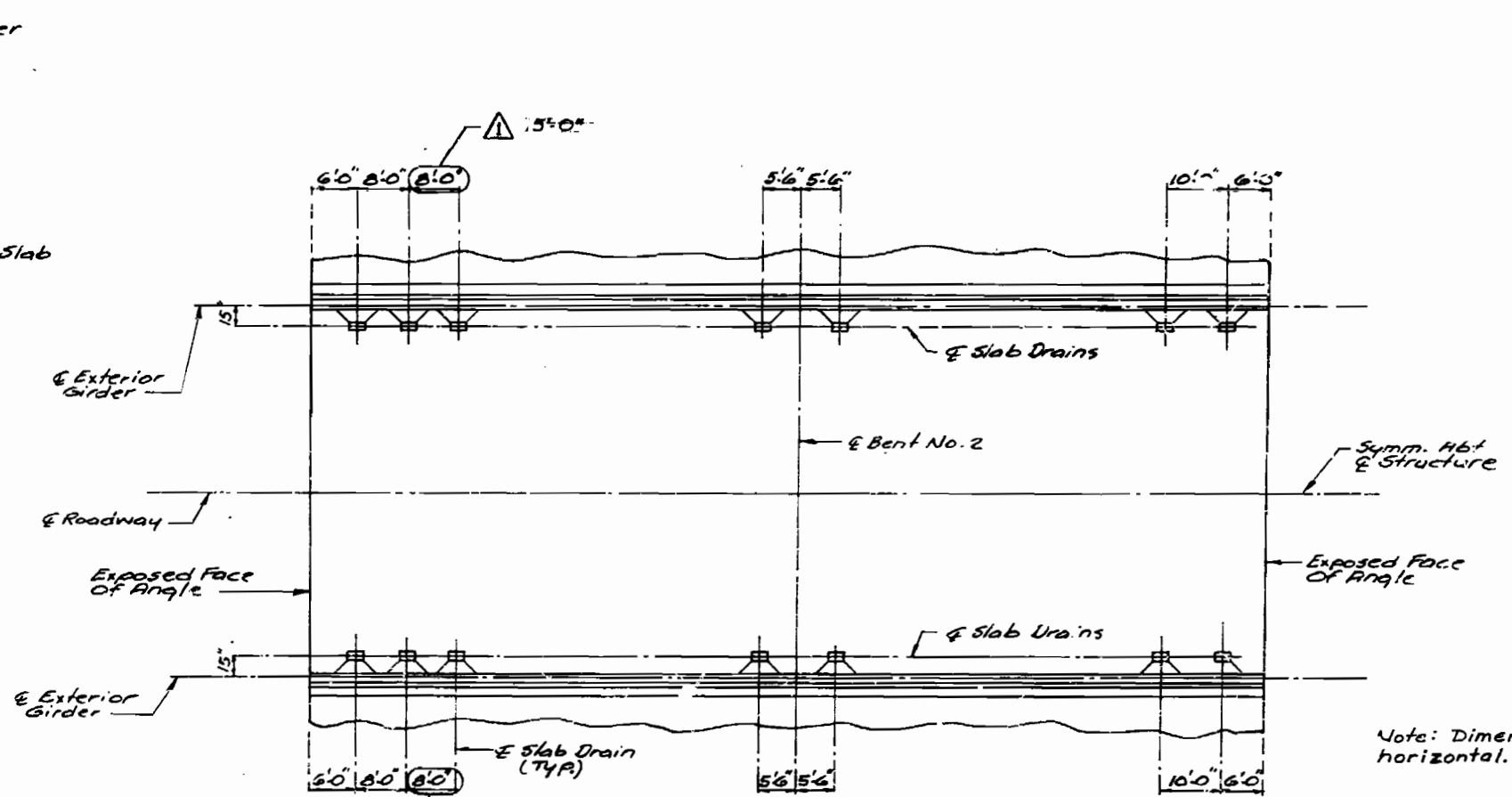
PART PLAN OF SLAB AT DRAIN



PLAN OF DRAIN



PART ELEVATION OF SLAB AT DRAIN



PART PLAN OF SLAB SHOWING SLAB DRAIN LOCATIONS

GENERAL NOTES:
 Slab Drains May Be Fabricated Of Either 1/4" Welded Sheets Of A.S.T.M. A36 Steel Or From 1/4" Structural Steel Tubing A.S.T.M. A500 Or A501.
 Outside Dimensions Of Drains Are E & C.
 Locate Drains In The Slab By Dimensions Shown In The Part Elevation.
 Shift Reinforcing In Field Where Necessary To Clear Drains.
 The Drains And Bracket Assembly Shall Be Galvanized In Accordance With A.S.T.M. A153.
 All Bolts, Lock Washers And Nuts Shall Be Galvanized In Accordance With A.S.T.M. A153.
 Shop Drawings Will Not Be Required For Slab Drains And The Bracket Assembly.
 Coil Inserts Shall Have A Concrete Full-Cu Strength (Ultimate Load) Of At Least 2500 Pounds In 5000 Psi Concrete.

206

DETAILED Sept 1990
 CHECK'D Oct 1990

Note: This drawing is not to scale. Follow dimensions.

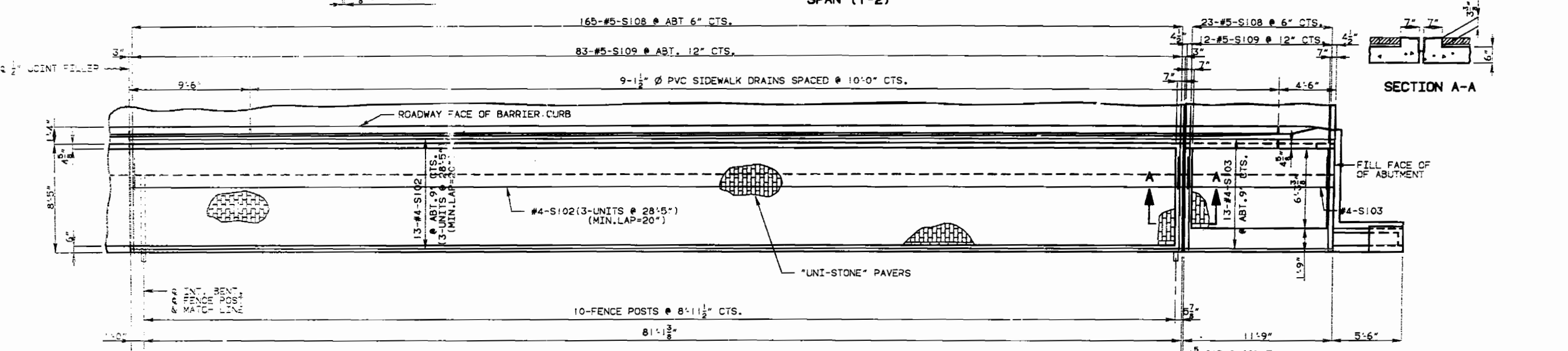
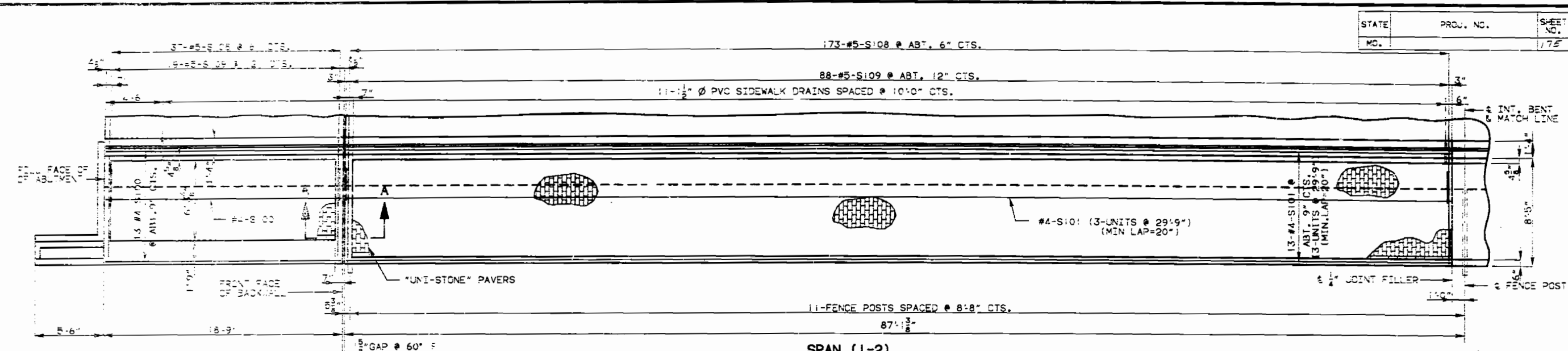
Revised 10 June 1991

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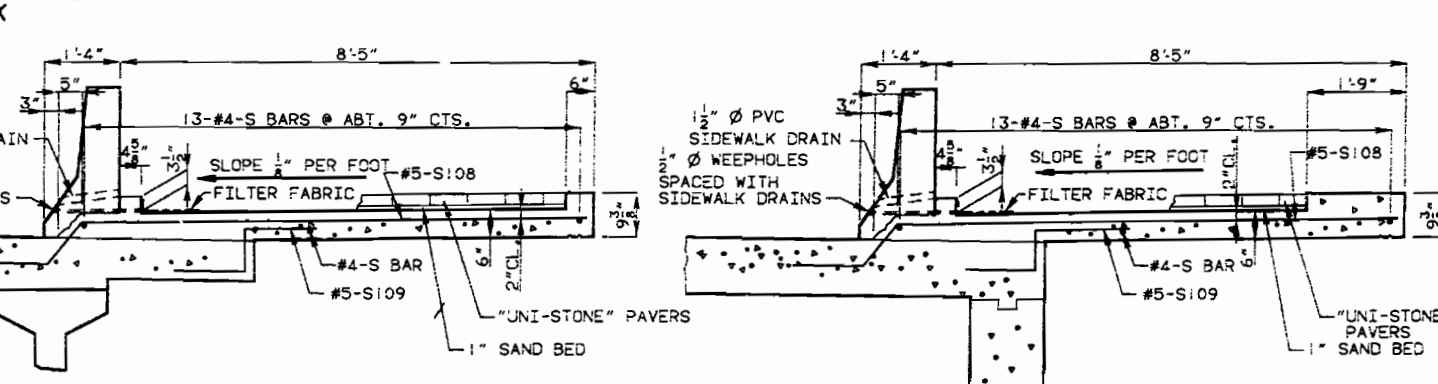
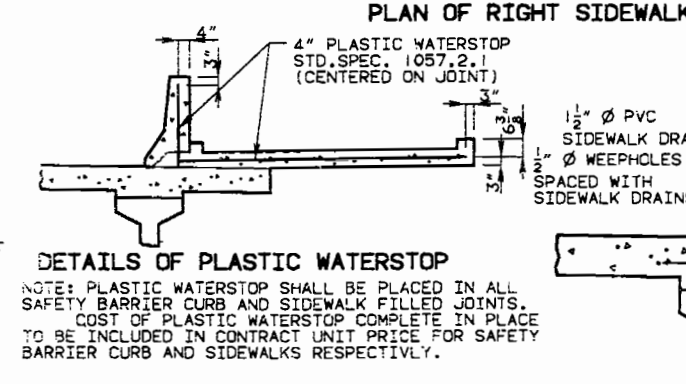
NOTE: FOR DETAILS OF PEDESTRIAN FENCE ON SIDEWALK SEE SHEETS NO. 21 & 22.

ALL EXPOSED EDGES OF SIDEWALK SHALL HAVE EITHER A 1/2" RADIUS OR A 1/8" BEVEL STRIP, UNLESS OTHERWISE NOTED.

"UNI-STONE" PAVERS PLACED IN RUNNING BOND PATTERN WITH A HEADER COURSE OF HOLLAND STONE PAVERS AT OUTSIDE EDGES, SET ON A SAND BED WITH SAND JOINTS. PAVERS TO BE "TERRA COTTA" FIELD WITH LIGHT GREY BAND EVERY FIFTH ROW. HEADER COURSE TO BE CENTER. CUT PAVERS AS REQUIRED TO CONFORM TO EDGES. CONCRETE IN THE SIDEWALK SHALL BE CLASS 32.

WHEN THE SIDEWALK IS Laid BY SQUARE FEET, THE CONTRACT UNIT PRICE SHALL INCLUDE THE COST OF ALL CONCRETE REINFORCEMENT, SIDEWALK DRAINS, WEEDHOLES AND FILTER FABRIC COMPLETE IN PLACE.

MEASUREMENT OF THE SIDEWALK IS TO THE NEAREST SQUARE FOOT FOR EACH STRUCTURE, MEASURED FROM THE OUTSIDE FACE OF SAFETY BARRIER CURB TO THE OUTSIDE EDGE OF SIDEWALK FROM FILL FACE TO FILL FACE OF ABUTMENTS.



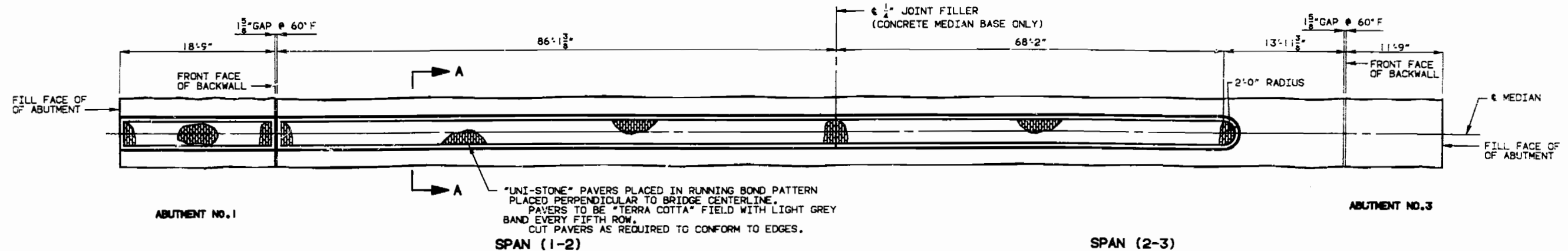
FOR DETAILS OF EXPANSION DEVICE IN SIDEWALK SEE SHEET NO. 23.

PROVIDE SEALER COATING ON ALL BRICK PAVERS IN SIDEWALK. (SEE SPECIAL PROVISIONS.)

DETAILS OF SIDEWALK SHOWING REINFORCEMENT AND FENCE POST SPACING (RIGHT SIDEWALK SHOWN; LEFT SIDEWALK IS SIMILAR)

206 807

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"UNI-STONE" PAVERS PLACED IN RUNNING BOND PATTERN PLACED PERPENDICULAR TO BRIDGE CENTERLINE. PAVERS TO BE "TERRA COTTA" FIELD WITH LIGHT GREY BAND EVERY FIFTH ROW. CUT PAVERS AS REQUIRED TO CONFORM TO EDGES.

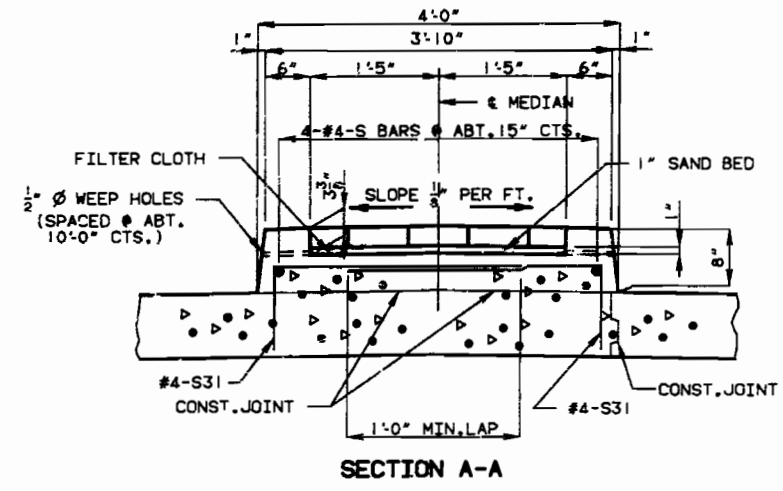
PLAN OF RAISED MEDIAN SHOWING BRICK PAVING

NOTE: PROVIDE SEALER COATING ON ALL BRICK PAVERS IN SIDEWALK. (SEE SPECIAL PROVISIONS)

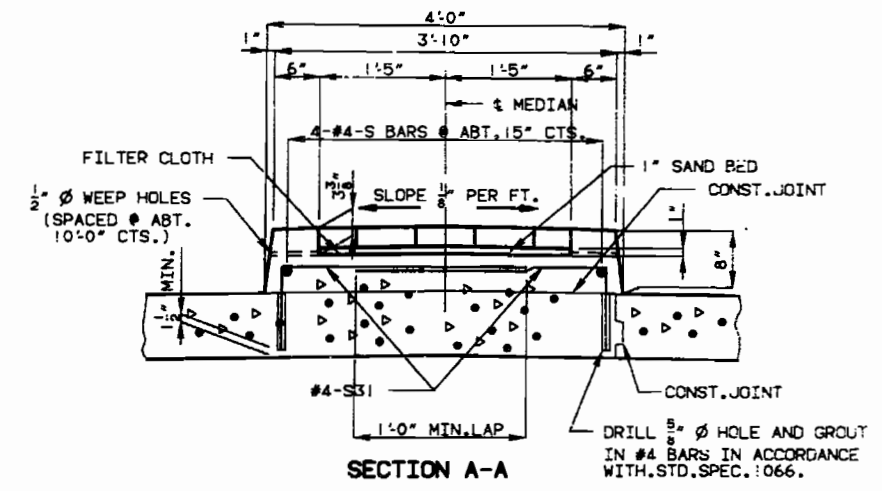
WHEN THE RAISED MEDIAN IS BID BY SQUARE FEET, THE CONTRACT UNIT PRICE SHALL INCLUDE THE PRICE OF ALL CONCRETE, REINFORCEMENT, WEEPHOLES AND FILTER FABRIC COMPLETE IN PLACE.

CONCRETE IN THE RAISED MEDIAN SHALL BE CLASS B2.

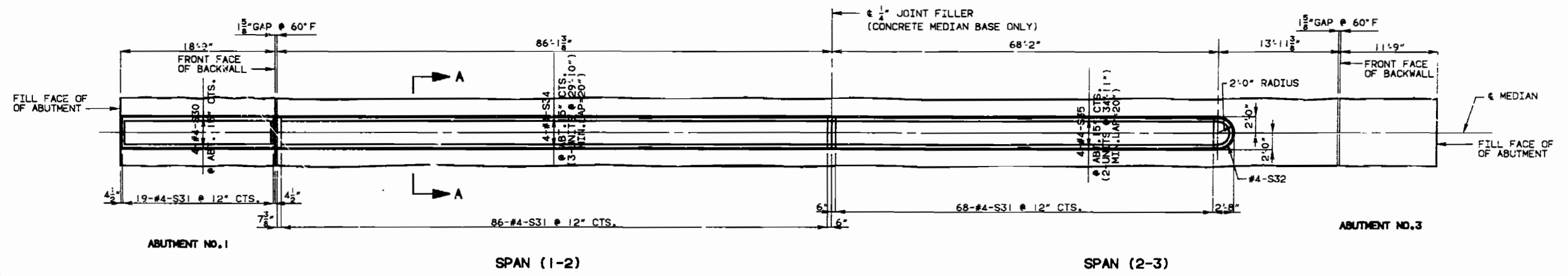
MEASUREMENT OF THE RAISED MEDIAN IS TO THE NEAREST SQUARE FOOT, MEASURED FROM FILL FACE OF ABUTMENT NO. 1 TO END.



SECTION A-A



SECTION A-A (OPTIONAL ANCHORING SYSTEM)



PLAN SHOWING REINFORCEMENT

DETAILS OF RAISED MEDIAN

207 508

DETAILED AUG. 1990
CHECKED OCT. 1990

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

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NOTE: ALL FENCE POSTS SHALL BE PLACED VERTICAL. SHIM PLATES MAY BE REQUIRED BETWEEN FENCE POSTS AND SIDEWALK FOR ALIGNMENT.

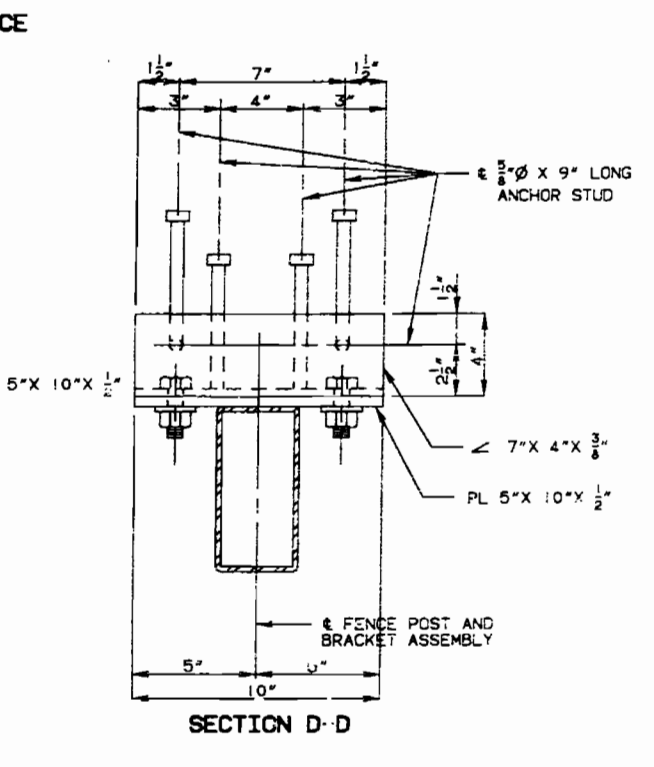
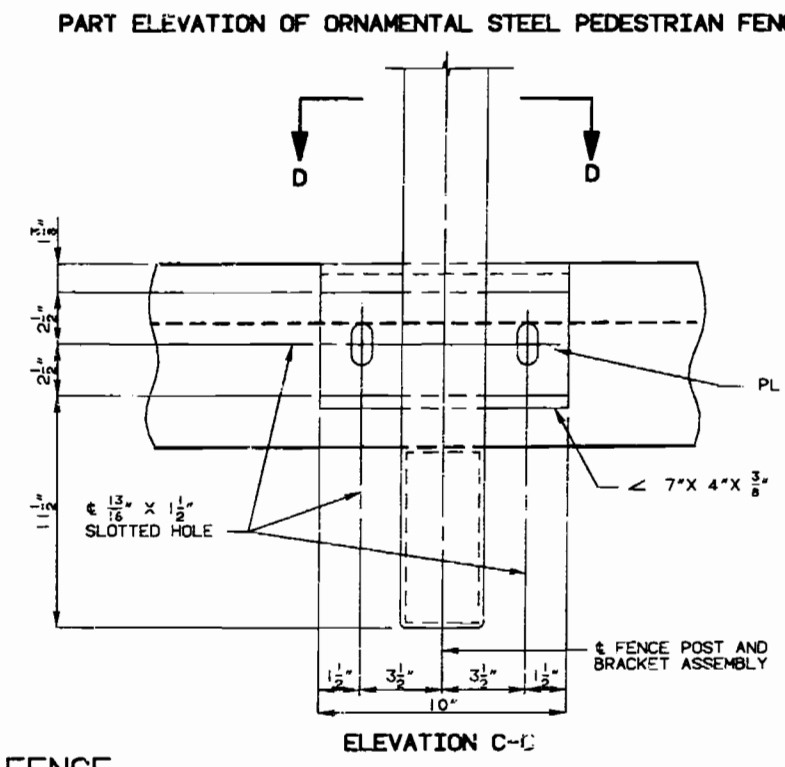
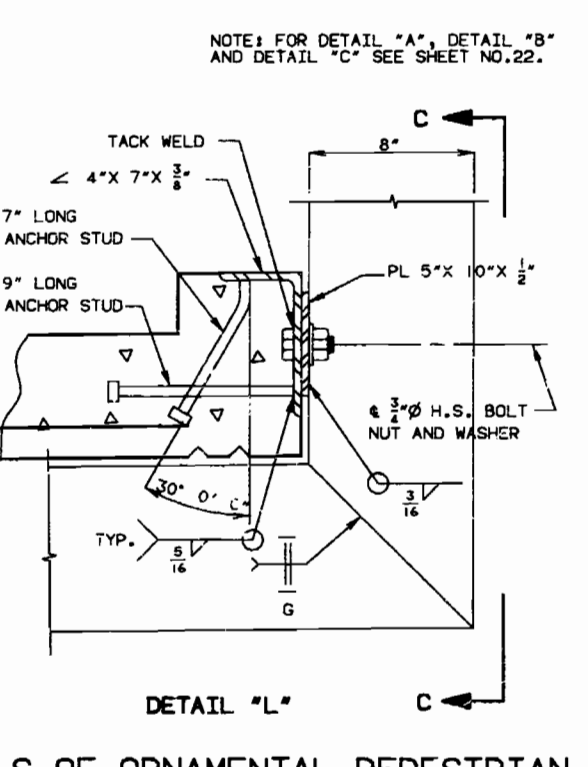
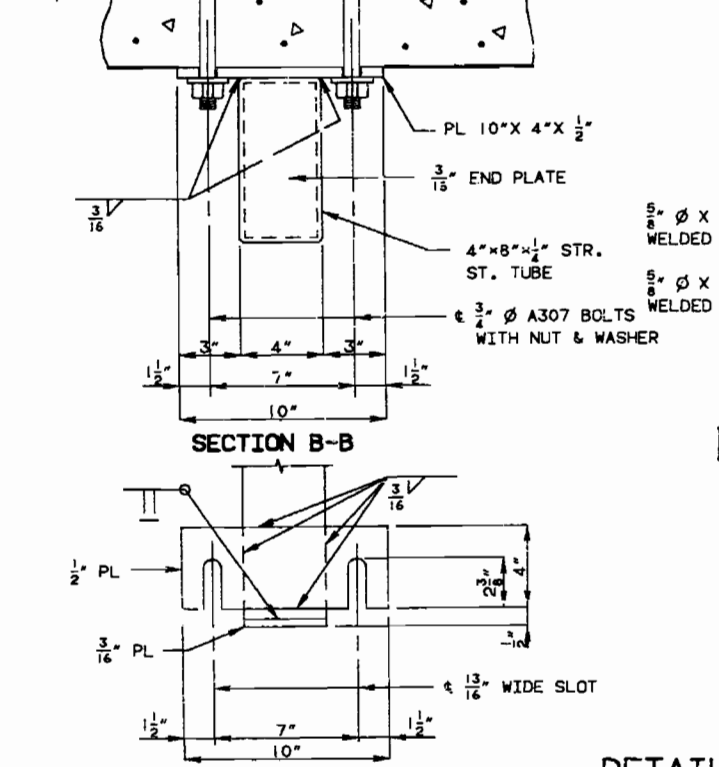
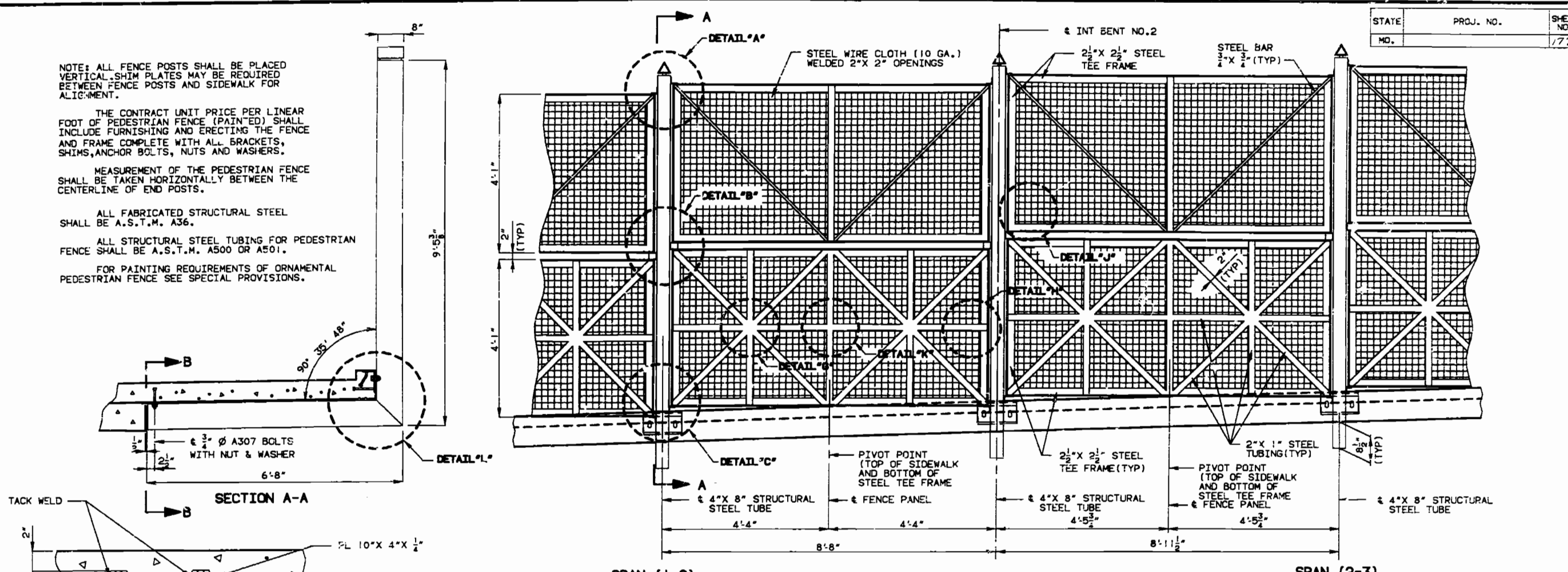
THE CONTRACT UNIT PRICE PER LINEAR FOOT OF PEDESTRIAN FENCE (PAINTED) SHALL INCLUDE FURNISHING AND ERECTING THE FENCE AND FRAME COMPLETE WITH ALL BRACKETS, SHIMS, ANCHOR BOLTS, NUTS AND WASHERS.

MEASUREMENT OF THE PEDESTRIAN FENCE SHALL BE TAKEN HORIZONTALLY BETWEEN THE CENTERLINE OF END POSTS.

ALL FABRICATED STRUCTURAL STEEL SHALL BE A.S.T.M. A36.

ALL STRUCTURAL STEEL TUBING FOR PEDESTRIAN FENCE SHALL BE A.S.T.M. A500 OR A501.

FOR PAINTING REQUIREMENTS OF ORNAMENTAL PEDESTRIAN FENCE SEE SPECIAL PROVISIONS.



DETAILS OF ORNAMENTAL PEDESTRIAN FENCE

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 21 OF 37.

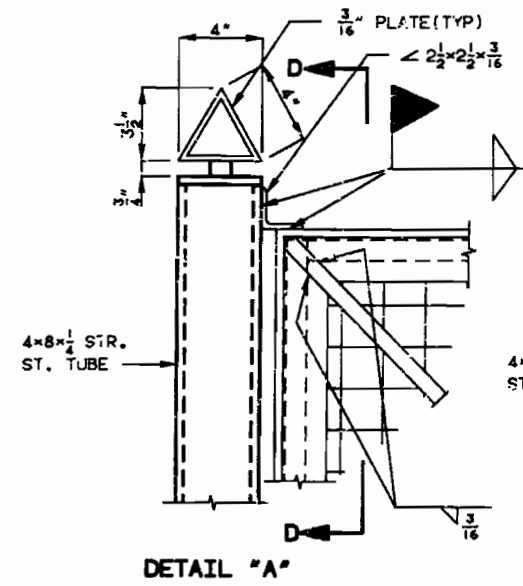
2009 809

DETAILED SEPT. 1990
CHECKED OCT. 1990

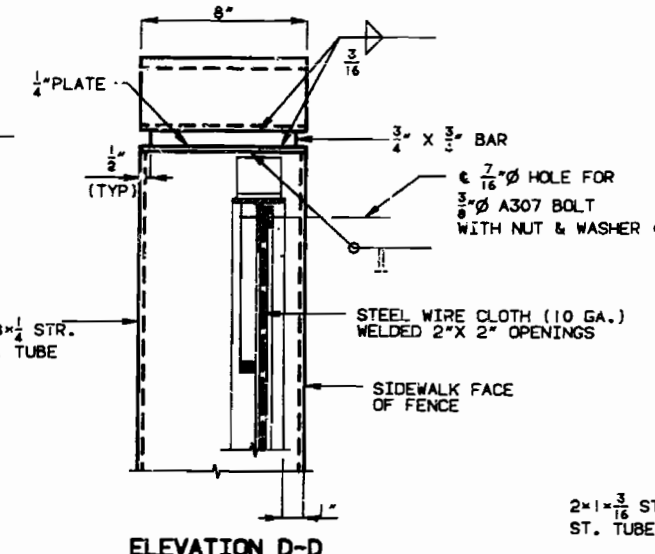
STATE	PROJ. NO.	SHEET NO.
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* WIRE CLOTH RETAINER BAR SHALL BE PLACED AROUND THE PERIMETER OF EACH STEEL TEE FENCE PANEL FRAME.

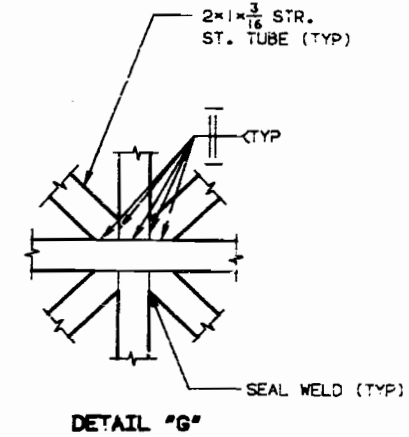
WIRE CLOTH RETAINER BAR SHALL BE BOLTED TO THE STEEL TEE FRAME WITH $\frac{3}{8}$ " ϕ A307 BOLTS SPACED AT ABT. 1'-0" CTS. AROUND THE PERIMETER.



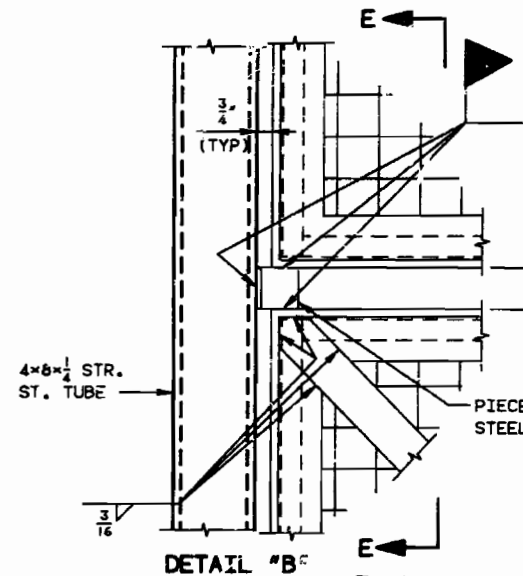
DETAIL "A"



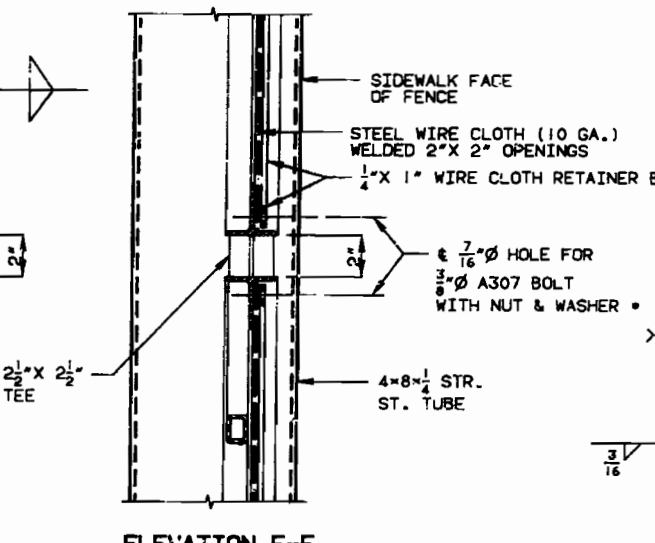
ELEVATION D-D



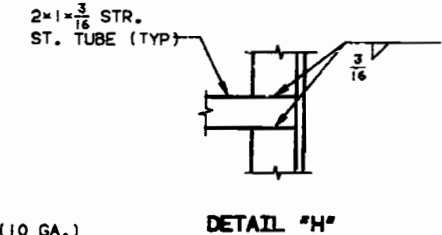
DETAIL "G"



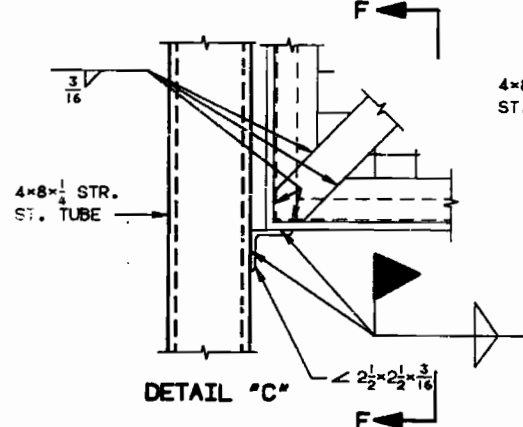
DETAIL "B"



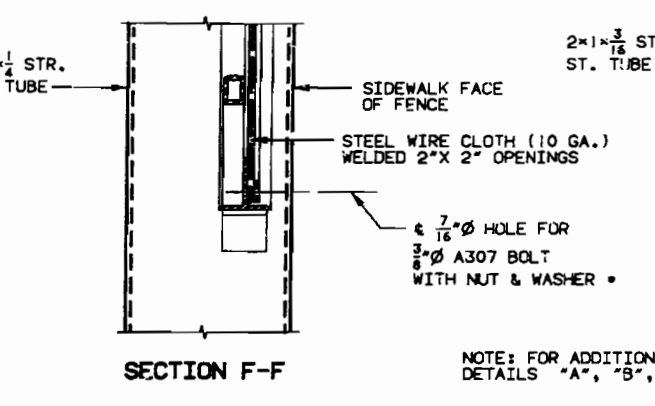
ELEVATION E-E



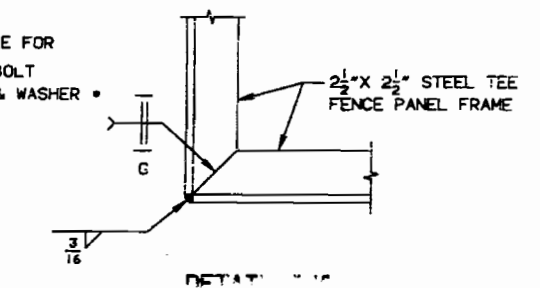
DETAIL "H"



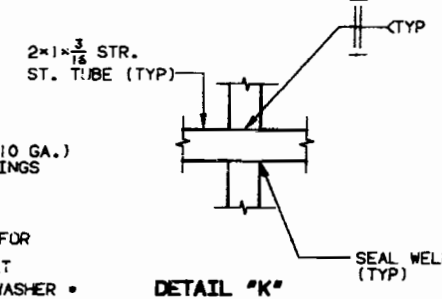
DETAIL "C"



SECTION F-F



DETAIL "I"



DETAIL "K"

NOTE: FOR ADDITIONAL PEDESTRIAN FENCE DETAILS AND LOCATION OF DETAILS "A", "B", "C", "G", "H", "J" AND "K" SEE SHEET NO. 21.

DETAILS OF ORNAMENTAL FENCE

209 210

DETAILED SEPT. 1990
CHECKED OCT. 1990

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

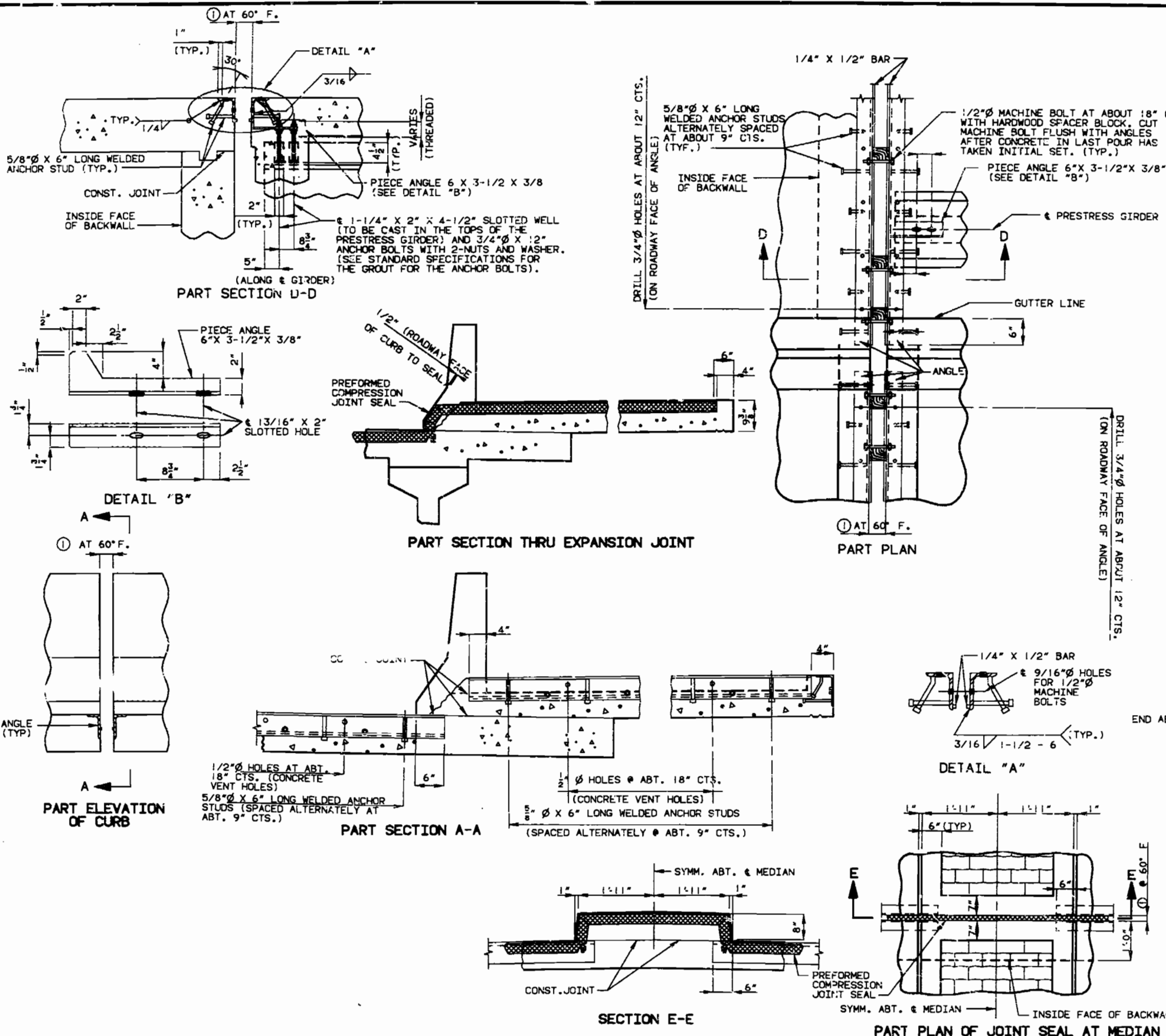
SHEET NO. 22 OF 37.

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GENERAL NOTES:

STRUCTURAL STEEL FOR EXPANSION DEVICE SHALL BE FABRICATED IN ONE SECTION, EXCEPT THAT WHEN THE LENGTH IS OVER 50', SPlicing IS PERMISSIBLE.

THE EXPANSION DEVICE SHALL BE BENT TO CONFORM TO CROWN AND GRADE OF ROADWAY.

STRUCTURAL STEEL FOR THE ARMORED JOINT SHALL BE GRADE A36.

ANCHORS FOR COMPRESSION SEAL ARMOR SHALL BE APPROVED STUD WELDED ANCHORS (C1010 THRU C1020).

PLAN DIMENSIONS ARE BASED ON INSTALLATION AT 60°F.

DIMENSION ① SHALL BE INCREASED 1/16" FOR EACH 10° FALL IN TEMPERATURE AND DECREASED 1/16" FOR EACH 10° RISE IN TEMPERATURE AT INSTALLATION.

SEE SPECIAL PROVISIONS FOR THE REQUIREMENTS OF COMPRESSION JOINT SEAL.

FURNISHING, PAINTING AND INSTALLING THE STRUCTURAL STEEL ARMORED JOINT SHALL BE INCLUDED IN CONTRACT UNIT PRICE FOR PREFORMED EXPANSION JOINT SEAL.

NEOPRENE EXTRUSIONS SHALL MEET A.S.T.M. D3542-83.

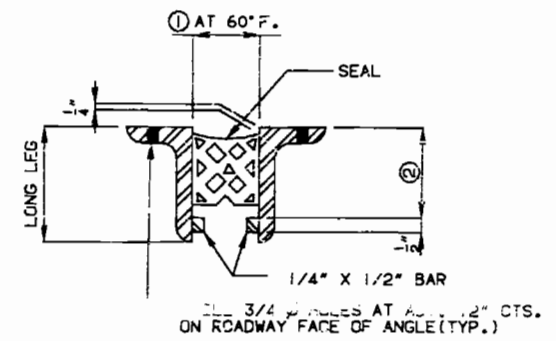


TABLE OF TRANSVERSE BRIDGE SEAL DIMENSIONS

SEAL (WIDTH)	①	②	REQUIRED MOVEMENT RANGE
2.5"	1-5/8"	SEAL DEPTH + 3/4"	0.9"
3.0"	1-7/8"	SEAL DEPTH + 3/4"	1.0"
3.5"	2-1/4"	SEAL DEPTH + 3/4"	1.3"
4.0"	2-5/8"	SEAL DEPTH + 3/4"	1.5"
4.5"	2-3/4"	SEAL DEPTH + 3/4"	1.9"
5.0"	2-7/8"	SEAL DEPTH + 3/4"	2.0"

NOTE: DEPTH OF SEAL SHALL NOT BE LESS THAN WIDTH OF SEAL.

SIZE OF ARMOR JOINT

VERTICAL LEG OF ANGLE SHALL BE A MINIMUM OF DEPTH OF SEAL + 1-1/2". HORIZONTAL LEG OF ANGLE SHALL BE A MINIMUM OF 3". MINIMUM THICKNESS OF ANGLE SHALL BE 1/2".

IF A SEAL SIZE LARGER THAN THAT INDICATED ON THE PLANS IS USED, THE MOVEMENT RANGE, THE OPENING AT 60° AND ALL DIMENSIONS FOR THE ARMOR ANGLES SHALL BE SHOWN ON THE SHOP DRAWINGS.

DETAILS OF PREFORMED COMPRESSION JOINT SEAL AT ABUTMENTS NO. 1 AND 3

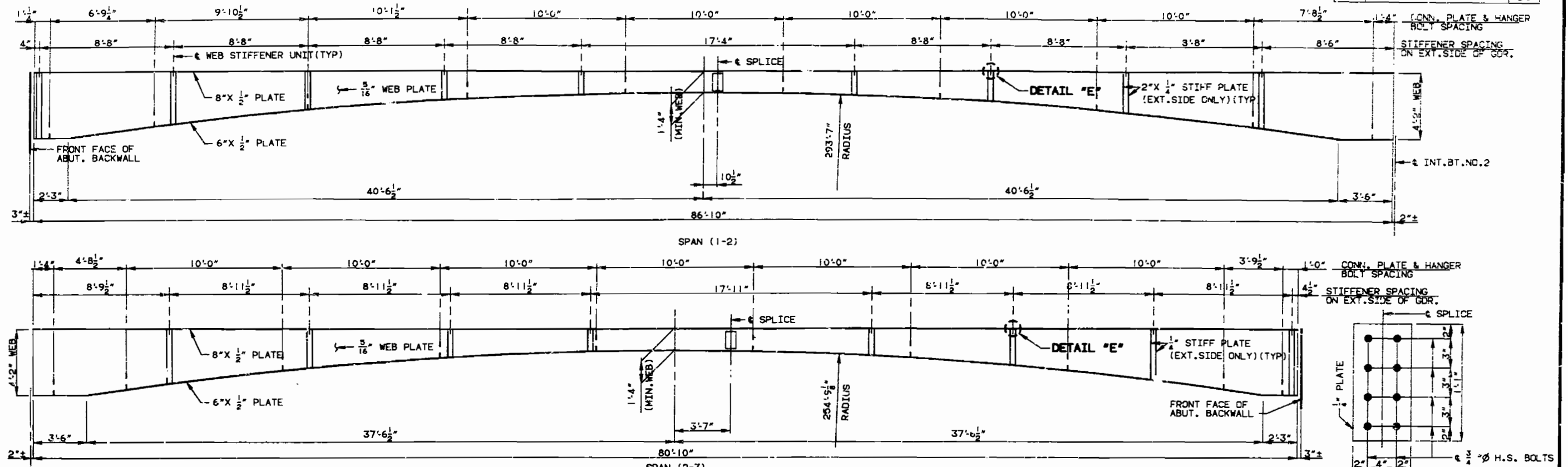
NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 23 OF 37.

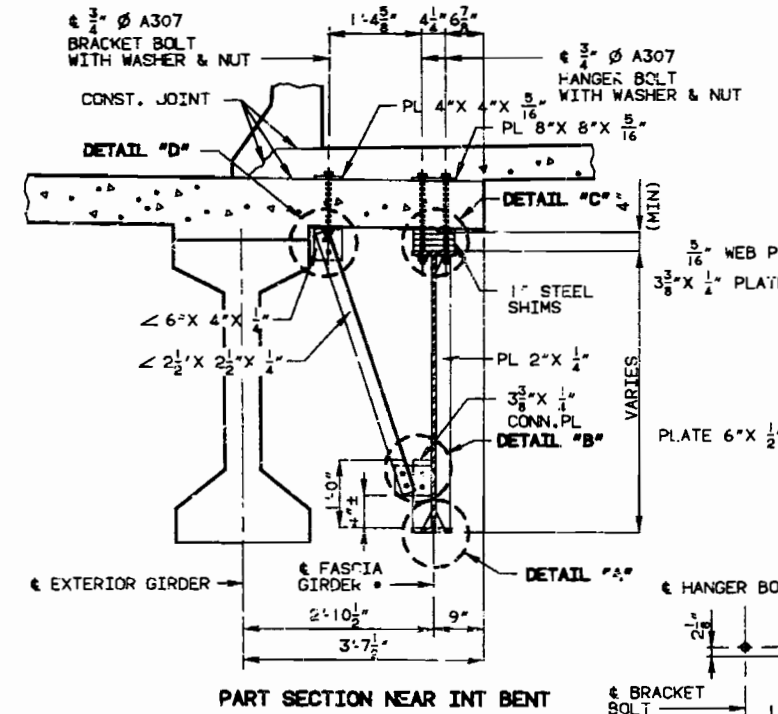
210 211

DETAILED SEPT. 1990
CHECKED OCT. 1990

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ELEVATION OF FASCIA GIRDER



PART SECTION NEAR INT BENT

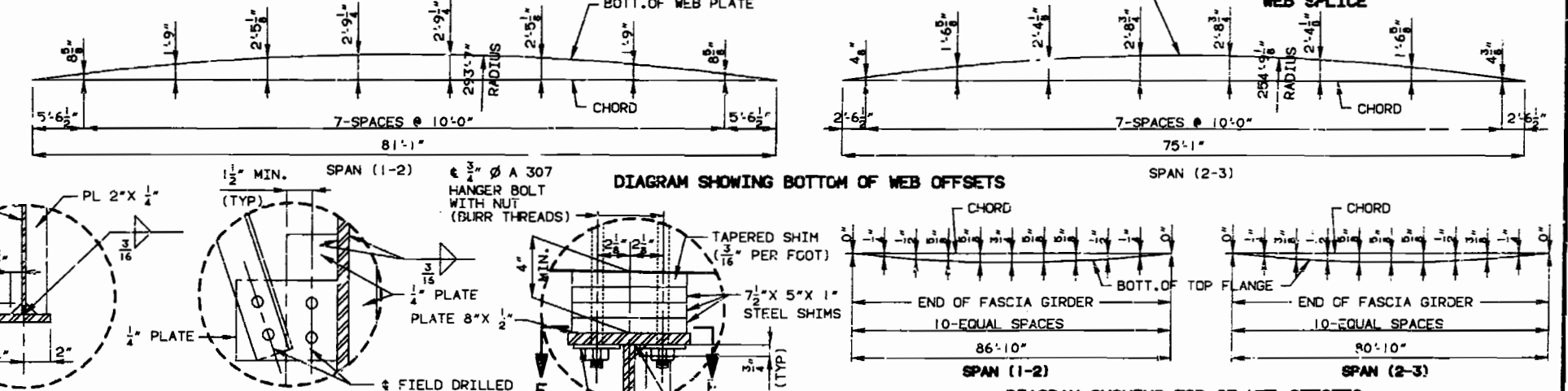


DIAGRAM SHOWING BOTTOM OF WEB OFFSETS

DIAGRAM SHOWING TOP OF WEB OFFSETS

PLAN OF FASCIA GIRDER SUPPORT BOLTS

SECTION F-F

* FASCIA GIRDER TO BE CAMBERED TO CONFORM TO GRADE. SHIM AS REQUIRED TO ACCOUNT FOR ANY VARIATION IN GIRDER CAMBER FROM THAT SHOWN IN CAMBER DIAGRAM.

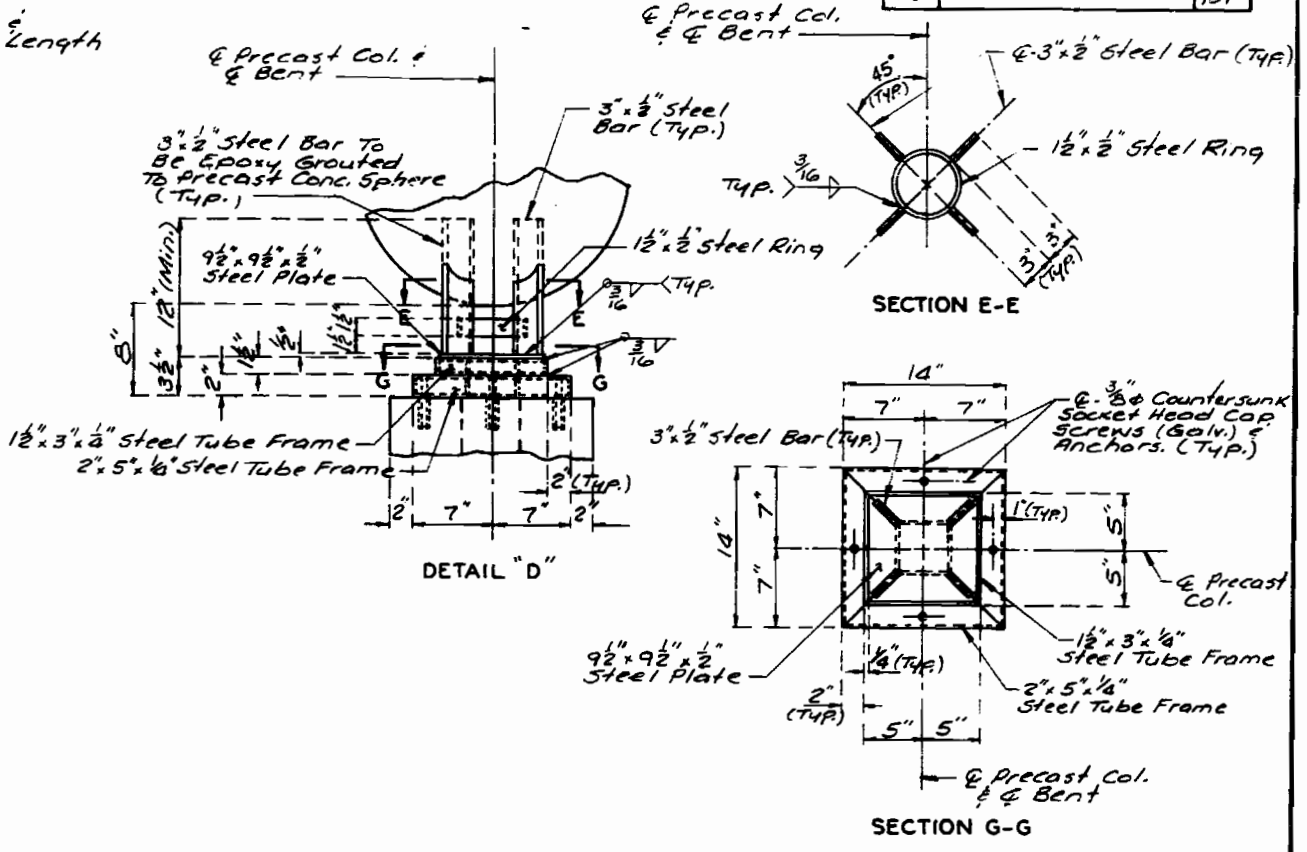
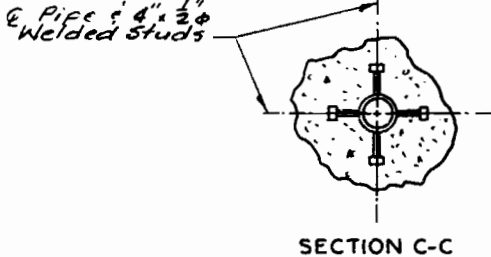
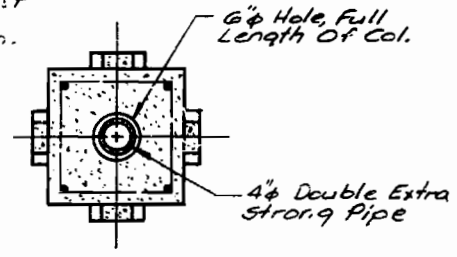
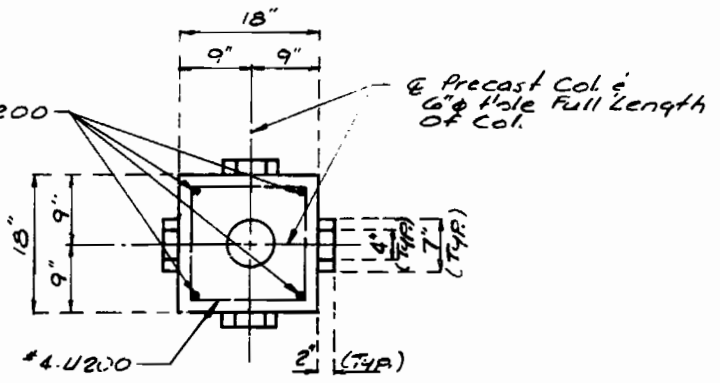
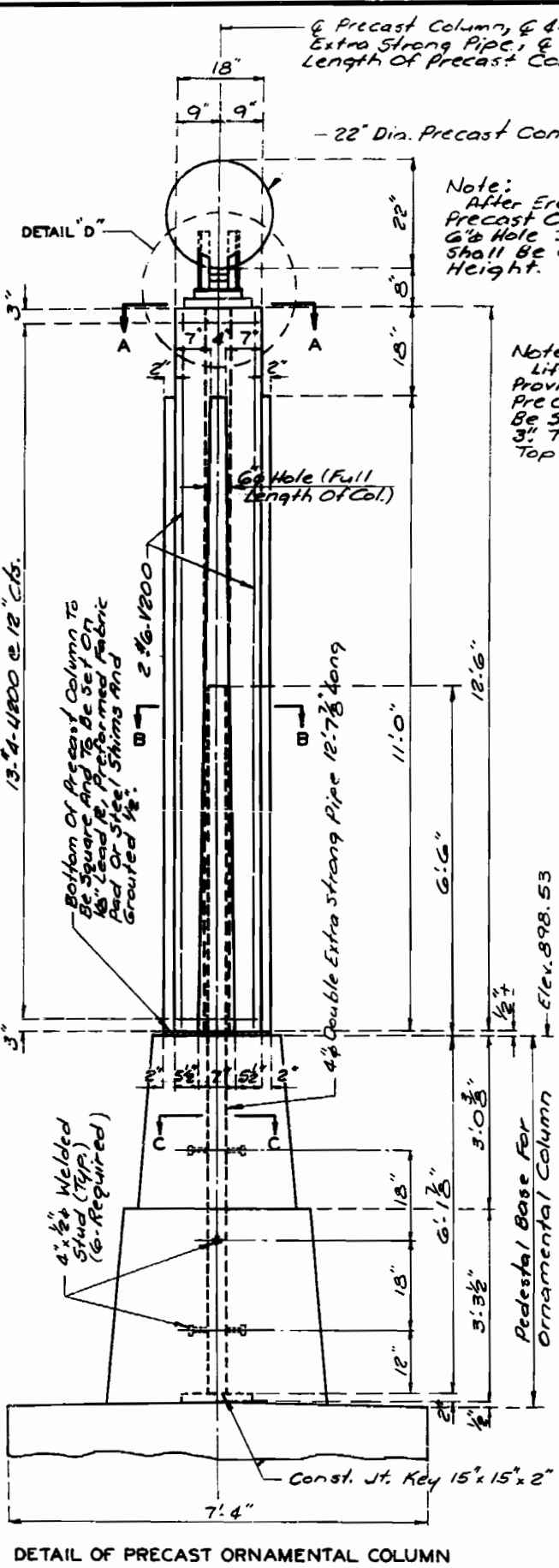
NOTE: FASCIA GIRDER SHALL BE FABRICATED TO CONFORM WITH CAMBER DIAGRAM.
 FABRICATED STRUCTURAL STEEL SHALL BE A36.
 INTERMEDIATE WEB STIFFENERS SHALL BE PLACED AS DETAILED.
 FOR PAINTING REQUIREMENTS OF FASCIA GIRDER SEE SPECIAL PROVISIONS.

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

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Note: After Erection Of The Precast Column, The 6" Hole In The Center Shall Be Grouted Full Height.

Note: Lifting Devices To Be Provided In Top End Of Precast Column Only & Must Be Set In From Edge At Least 3" To Be Removed Flush With Top Of Column After Erection.

Note: All Structural Steel For The Precast Ornamental Column Shall Be Grade A36. All Structural Steel For The Precast Ornamental Column Shall Be Galvanized In Accordance With A.S.T.M. A123. The 3/8" Countersunk Socket Head Cap Screws Shall Be Galvanized In Accordance With A.S.T.M. A153. Anchors Shall Be Cast-In-Place And Shall Have A Concrete Pull Out Strength (Ultimate Load) Of At Least 4,000 Lbs In 4,000 Psi Concrete. Payment For Furnishing And Installing The Precast Ornamental Column, Precast Concrete Sphere And Other Accessories Including The 4" Double Extra Strong Pipe And Studs Shall Be Included In The Unit Price Bid For Precast Ornamental Column. Concrete And Reinforcement In The Pedestal Base For Ornamental Column Are Included In Substructure Quantities For Bent No. 2. For Color And Surface Finish Of Precast Column And Precast Conc. Sphere, See Special Provisions.

Note: Hooks And Bends Shall Be In Accordance With The CRSI Manual Of Standard Practice For Detailing Reinforced Concrete Structures Stirrup And Tie Dimensions.

BILL OF REINFORCING STEEL EACH ORNAMENTAL COL.				
NO.	SIZE & MARK	ACTUAL LENGTH	SHAPE	
13	#4-U200	5'6"	13	SHAPE 20 15" 15"
4	#6-V200	12'3"	20	
				SHAPE 13

Note: All Dimensions Are Out To Out. Actual Lengths Are Measured Along Centerline Of Bar To The Nearest Inch. Pay Weights Are Based On Actual Lengths. All Reinforcing Steel To Be Epoxy Coated. All Reinforcement To Be Grade 60. Minimum Clearance To Reinforcing Steel Shall Be 1/2" Unless Otherwise Shown.

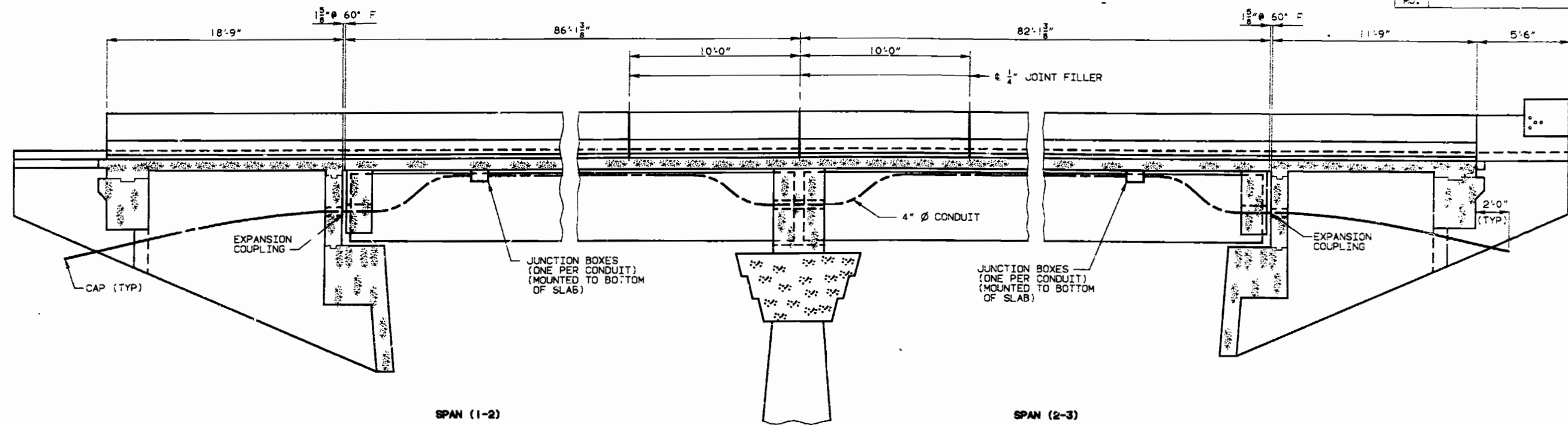
Payment For Reinforcement Shall Be Included In Unit Price Bid For Precast Ornamental Column.

DETAILED Sept. 1990
CHECKED Oct. 1990

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 25 of 37.

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SECTION A-A

NOTE: FOR LOCATION OF SECTION A-A SEE SHEET NO. 27.

NOTE: ALL CONDUIT SHALL BE RIGID NON-METALLIC SCHEDULE 40 HEAVY WALL PVC (POLYVINYL CHLORIDE PLASTIC). EACH SECTION SHALL BEAR THE UNDERWRITERS' LABORATORIES, INC., (UL) LABEL.

EXPANSION FITTINGS SHALL PROVIDE A MINIMUM MOVEMENT IN EITHER DIRECTION OF 2" AT OPEN JOINTS. EXPANSION FITTINGS SHALL BE EQUAL TO CARLON ELECTRICAL CONSTRUCTION PRODUCTS OR TRIANGLE CONDUIT AND CABLE COMPANY, INC.

ALL JUNCTION BOXES SHALL BE PVC MOLDED AND SURFACE MOUNTED (UNLESS OTHERWISE NOTED) AND EQUAL TO CARLON ELECTRICAL CONSTRUCTION PRODUCTS OR TRIANGLE CONDUIT AND CABLE COMPANY, INC. THE TERMINATIONS AND COVERS SHALL BE PERMANENT OR SEPARABLE. THE TERMINATIONS AND COVERS SHALL BE OF WATERTIGHT CONSTRUCTION.

WEEPHOLES SHALL BE PROVIDED AT APPROPRIATE LOCATIONS TO DRAIN ANY MOISTURE IN THE CONDUIT LINES.

CONDUITS SHALL BE SECURED TO THE BOTTOM OF SLAB WITH CLAMPS AT ABOUT 5'-0" CTS.

WIRING TO BE FURNISHED AND INSTALLED BY OTHERS.

CONDUITS WITHIN SEMI DEEP ABUTMENTS SHALL BE SUPPORTED FROM ABUTMENT SLAB BY A HANGER SYSTEM EQUIVALENT TO "CONDUX" SUSPENDED TYPE UNDERBRIDGE HANGER SYSTEM AND SPACED AT ABOUT 5'-0" CTS.

213 214

DETAILS OF CONDUIT SYSTEM

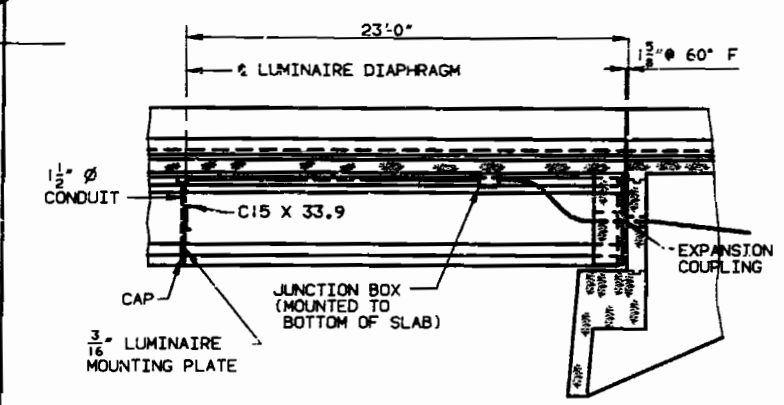
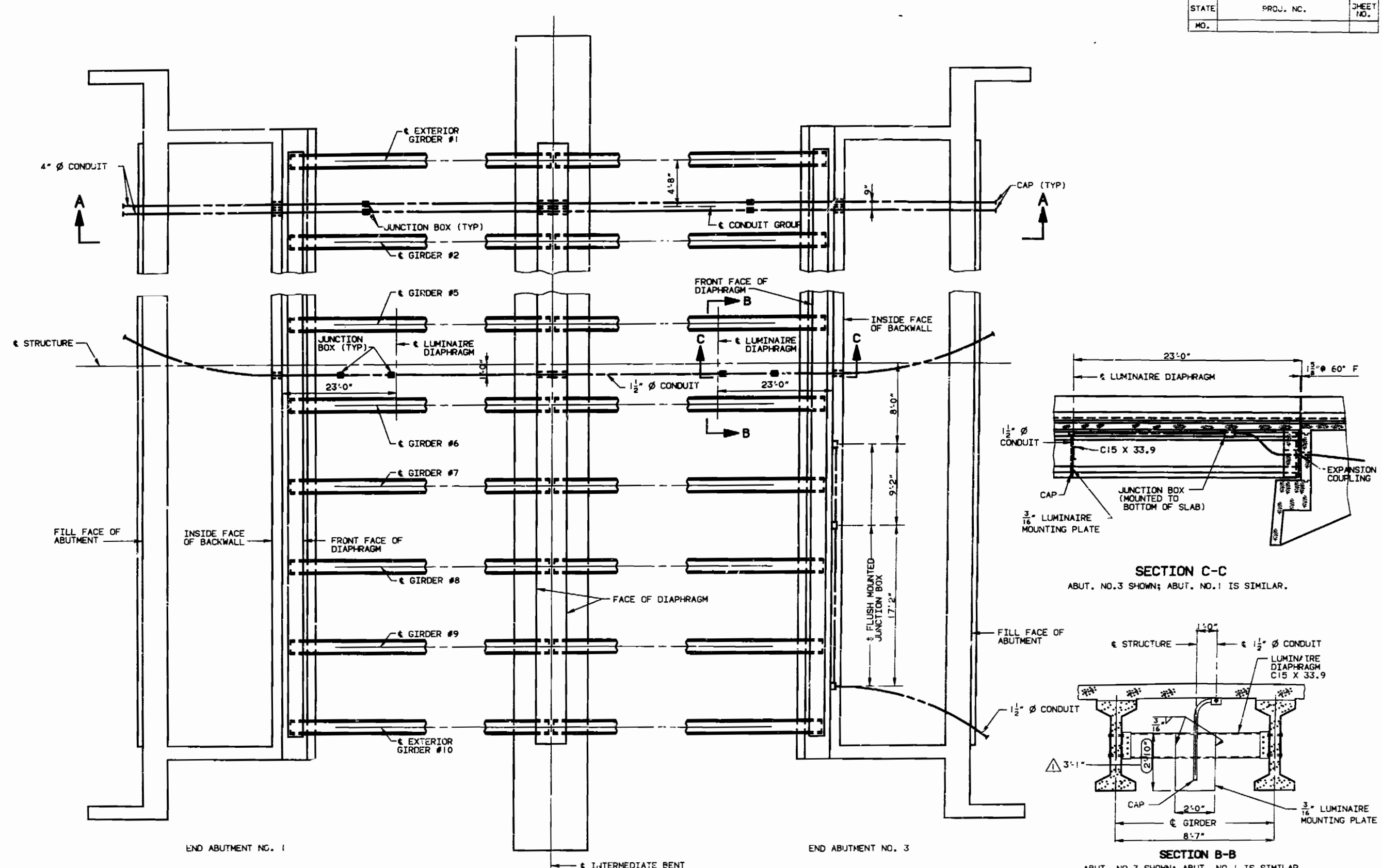
DETAILED DEC. 1990
CHECKED JAN. 1991

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

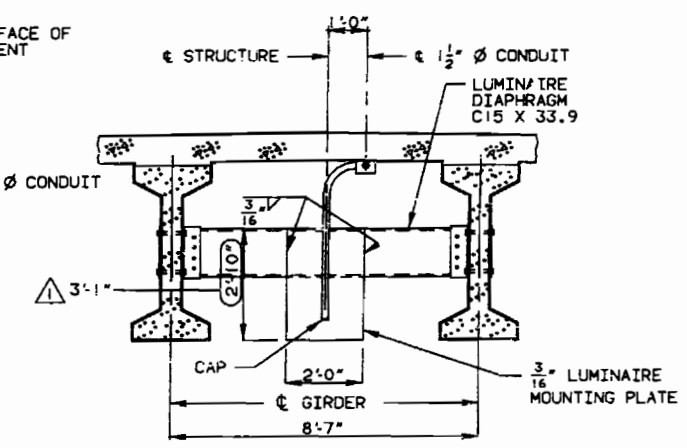
SHEET NO. 26 OF 37.

JACKSON COUNTY A-4863

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MO.		



SECTION C-C
ABUT. NO.3 SHOWN; ABUT. NO.1 IS SIMILAR.



SECTION B-B
ABUT. NO.3 SHOWN; ABUT. NO.1 IS SIMILAR.

PART PLAN
DETAILS OF CONDUIT SYSTEM

NOTE: DIMENSIONS SHOWN ARE HORIZONTAL.
FOR SECTION A-A SEE SHEET NO.26.

NOTE: SEE SHEET NO. 15 FOR DETAILS OF LUMINAIRE DIAPHRAGM.

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

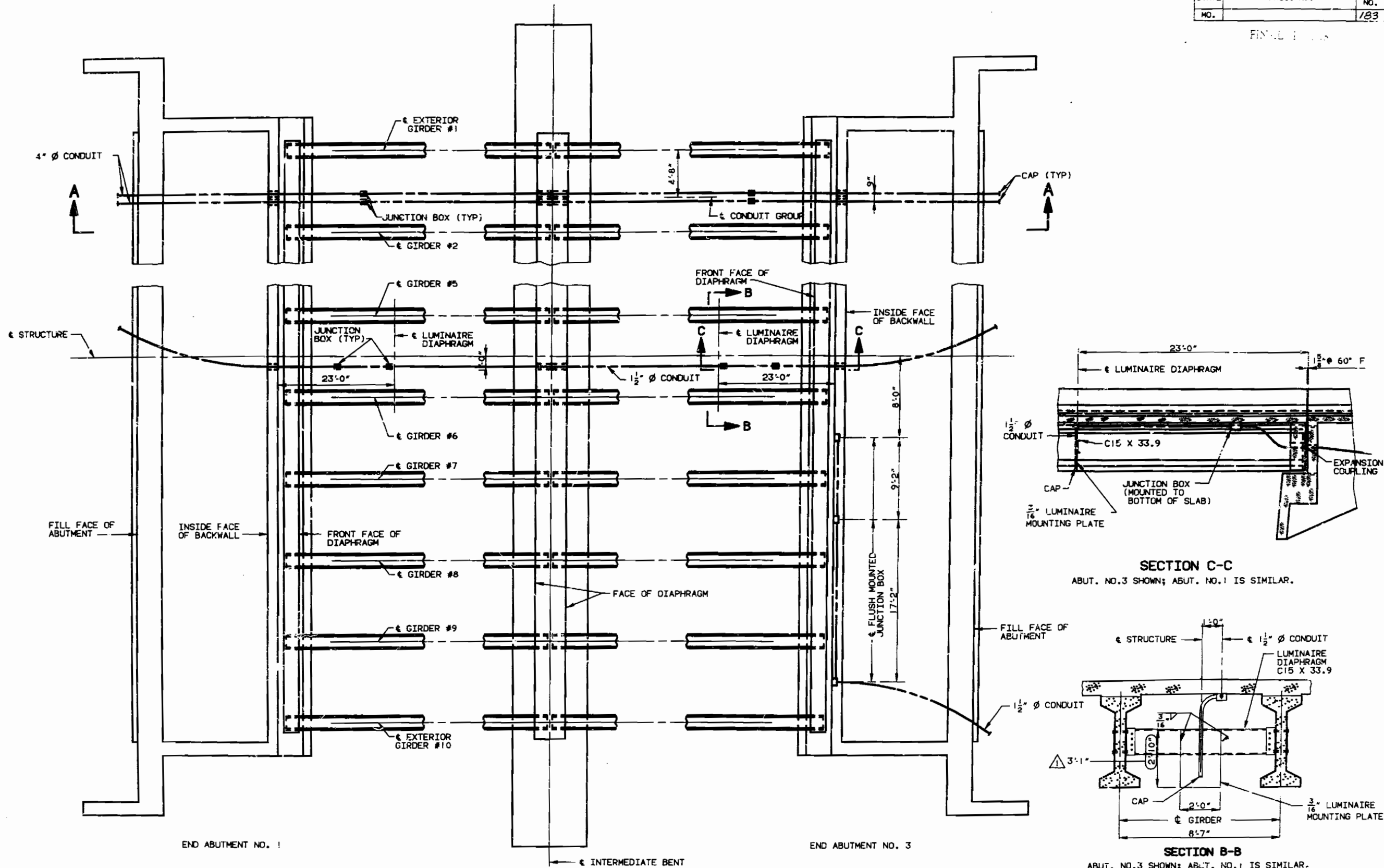
REVIS 10 JUNE 1991
SHEET NO. 27 OF 37 SEE FINAL PLANS

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DETAILED DEC. 1990
CHECKED JAN. 1991

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MO.		183

FIGURE 1



**PART PLAN
DETAILS OF CONDUIT SYSTEM**

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

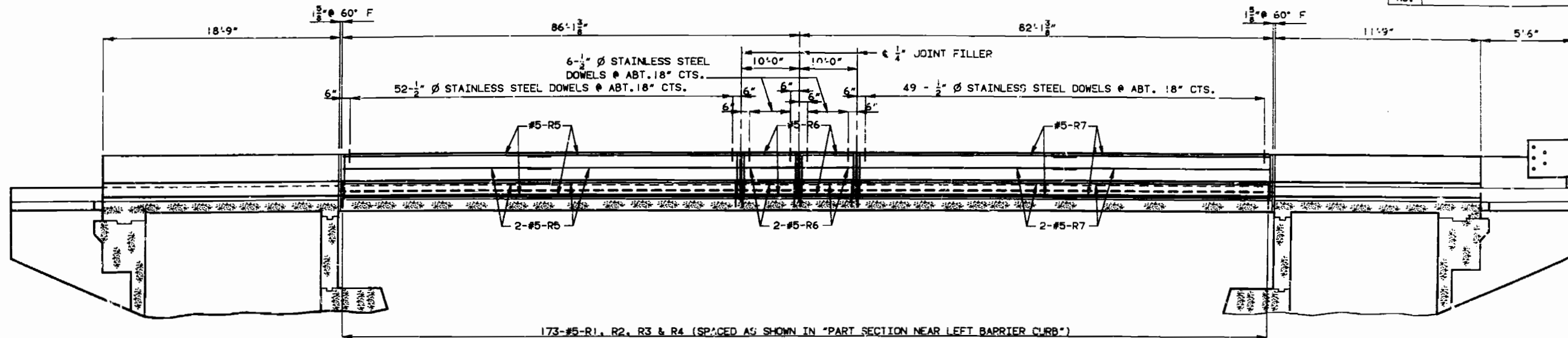
DETAILED DEC. 1990
CHECKED JAN. 1991

REVISOR'S MARK: Δ REVISED 10 JUNE 1991
SHEET NO. 27 OF 37.

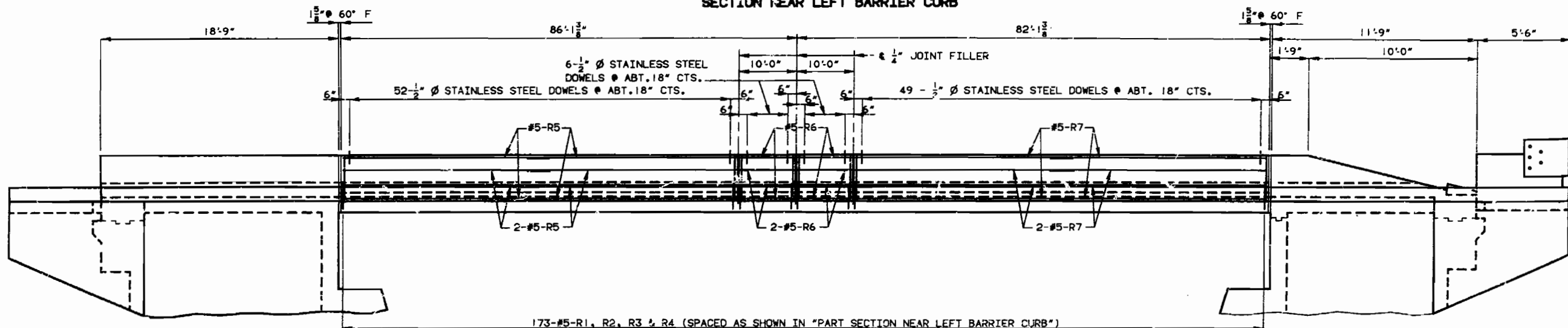
JACKSON COUNTY A-4863

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SECTION NEAR LEFT BARRIER CURB
SPAN (1-2) SECTION NEAR LEFT BARRIER CURB SPAN (2-3)



ELEVATION OF RIGHT BARRIER CURB
SPAN (1-2) SECTION NEAR LEFT BARRIER CURB SPAN (2-3)

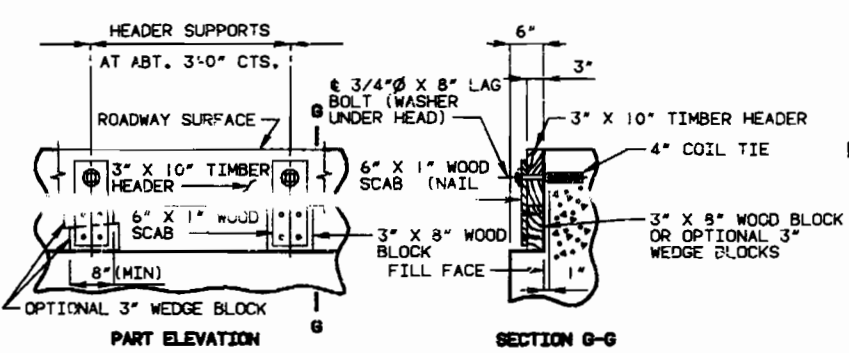
NOTE: LONGITUDINAL DIMENSIONS SHOWN ARE HORIZONTAL.

NOTE:
TOP OF SAFETY BARRIER CURB SHALL BE BUILT PARALLEL TO GRADE WITH SAFETY BARRIER CURB JOINTS NORMAL TO GRADE.
ALL EXPOSED EDGES OF SAFETY BARRIER CURB SHALL HAVE EITHER A 1/2" RADIUS OR A 3/8" BEVEL, UNLESS OTHERWISE NOTED.

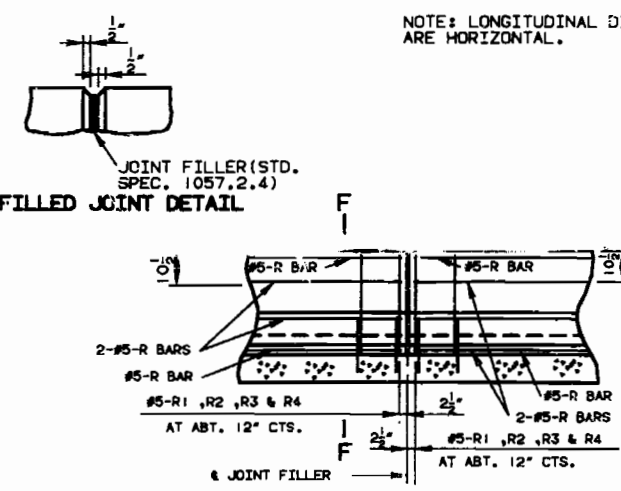
CONCRETE FOR THE SAFETY BARRIER CURB SHALL BE CLASS B1.
WHEN THE SAFETY BARRIER CURB IS BID BY LINEAR FEET, THE CONTRACT UNIT PRICE SHALL INCLUDE THE COST OF ALL CONCRETE, REINFORCEMENT, BRICK VENEER, ANCHORS, PRECAST CONCRETE CAPS AND STAINLESS STEEL DOWELS, COMPLETE-IN-PLACE.

MEASUREMENT OF THE SAFETY BARRIER CURB IS TO THE NEAREST LINEAR FOOT FOR EACH STRUCTURE, MEASURED ALONG THE ROADWAY FACE OF CURB FROM FILL FACE OF ABUTMENT TO FILL FACE OF ABUTMENT.

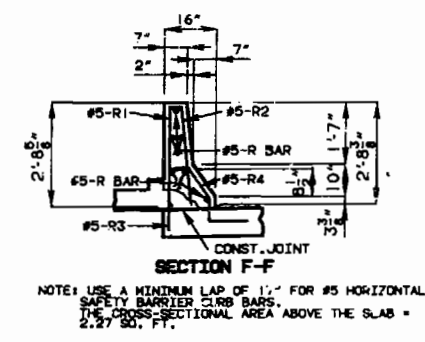
CONCRETE AND REINFORCING STEEL IN THE END POSTS ARE INCLUDED IN THE PRICE BID FOR LINEAR FOOT OF SAFETY BARRIER CURB.
FOR DETAILS AND SPACING OF SIDEWALK DRAINS IN SAFETY BARRIER CURB SEE SHEET NO. 19.
FOR DETAILS OF BRICK VENEER ON SIDEWALK FACE OF BARRIER CURB AND PRECAST CONCRETE CAP SEE SHEET NO. 29.
FOR DETAILS OF PLASTIC WATERSTOP SEE SHEET NO. 19.



DETAILS OF TIMBER HEADER AT END BENTS
NOTE: COST OF TIMBER HEADERS COMPLETE IN PLACE TO BE INCLUDED IN CONTRACT UNIT PRICE FOR CONCRETE.



PART SECTION NEAR LEFT SAFETY BARRIER CURB



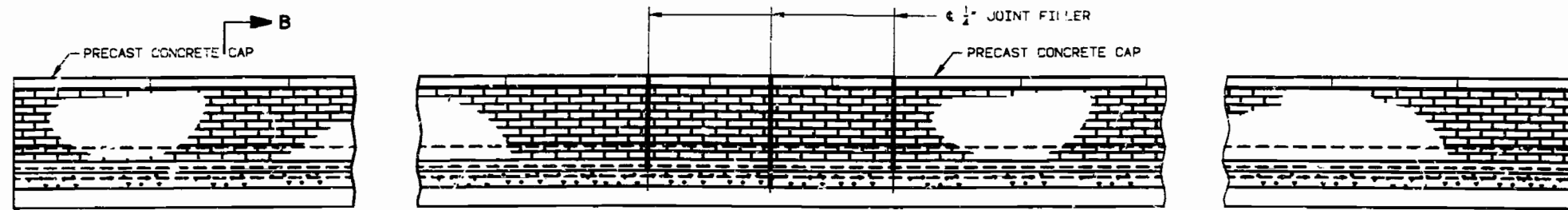
SECTION F-F
NOTE: USE A MINIMUM LAP OF 1'-0" FOR #5 HORIZONTAL SAFETY BARRIER CURB BARS. THE CROSS SECTIONAL AREA ABOVE THE SLAB = 2.27 SQ. FT.

DETAILED AUG. 1990
CHECKED OCT. 1990

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

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NOTE: PROVIDE WEEP HOLES AT SILLS NOT TO EXCEED .6" O.C.

SECURE BRICK VENEER TO CONCRETE BACKING WITH FLEXIBLE ANCHORS SPACED NOT MORE THAN 16" O.C. VERTICALLY AND 24" O.C. HORIZONTALLY.

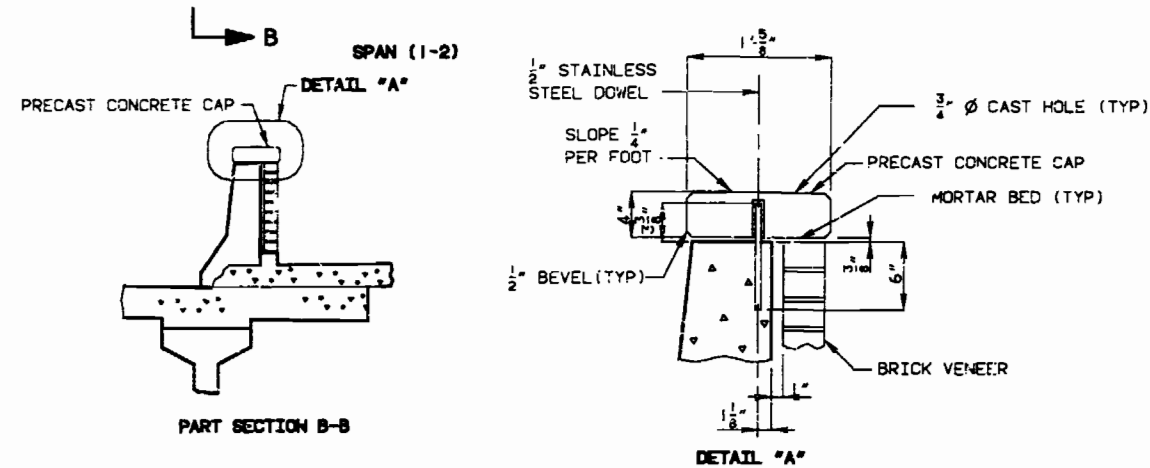
ANCHORS SHALL BE DOVETAIL ANCHOR SLOTS. (SEE SPECIAL PROVISIONS)

PROVIDE TWO PIECE ANCHORS WHICH PERMIT VERTICAL AND HORIZONTAL MOVEMENT BUT PROVIDE LATERAL RESTRAINT OF MASONRY.

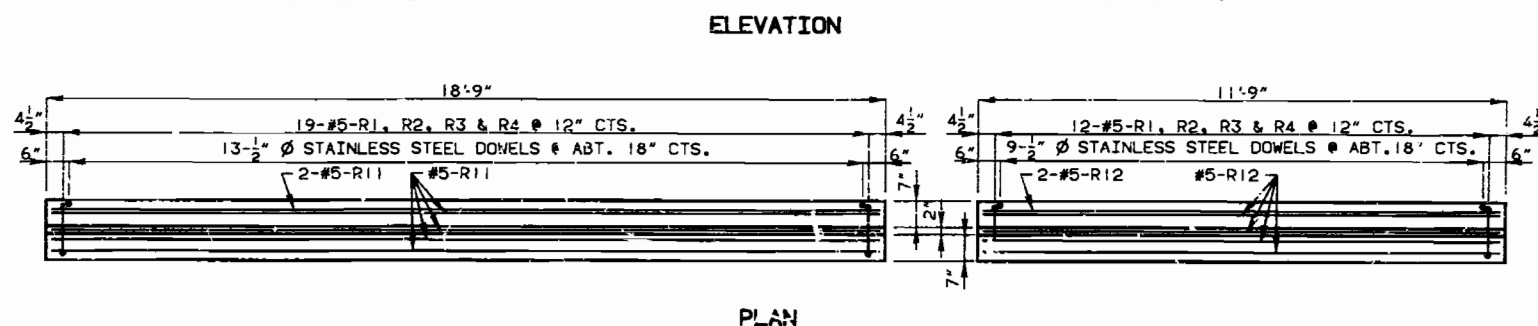
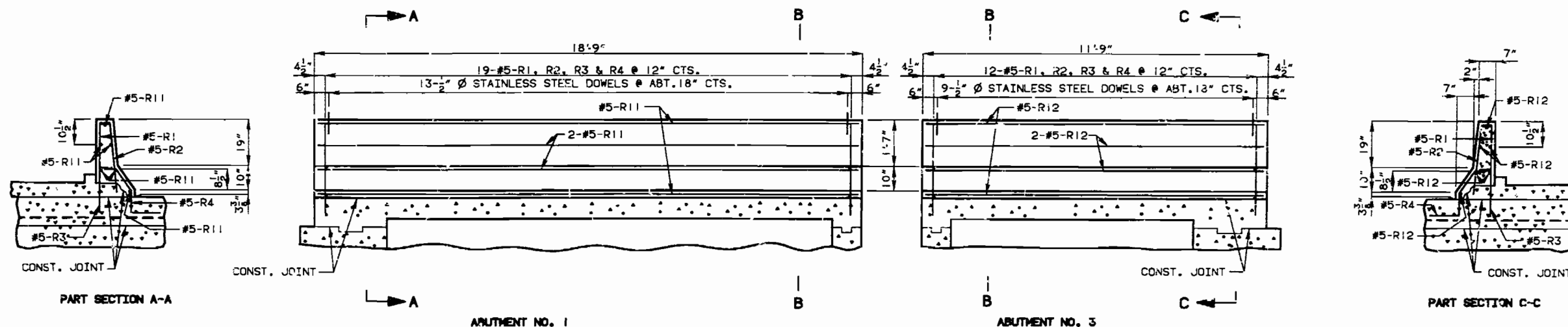
TIES SHALL BE CORRUGATED STRAPS NOT LESS THAN 12 GAGE OR TRIANGULAR WIRE TIES NOT LESS THAN 3/16" DIAMETER AS DETERMINED BY THE ENGINEER. LENGTH OF TIES SHALL BE AS REQUIRED FOR EMBEDMENT IN WYTHES OF MASONRY.

NOTE: PROVIDE SEALER ON ALL BRICKS, MORTAR AND PRECAST CONCRETE. (SEE SPECIAL PROVISIONS)

NOTE: WHEN THE SAFETY BARRIER CURB IS BID BY LINEAR FEET, THE CONTRACT UNIT PRICE SHALL INCLUDE THE COST OF ALL CONCRETE, REINFORCEMENT, DOVETAIL ANCHORS, AND STAINLESS STEEL DOWELS COMPLETE IN PLACE.



ELEVATION OF RIGHT SAFETY BARRIER CURB
(LEFT CURB IS SIMILAR)



PLAN
REINFORCEMENT OF LEFT SAFETY BARRIER CURB AT END ABUTMENTS

DETAILED OCT. 1993
CHECKED OCT. 1993

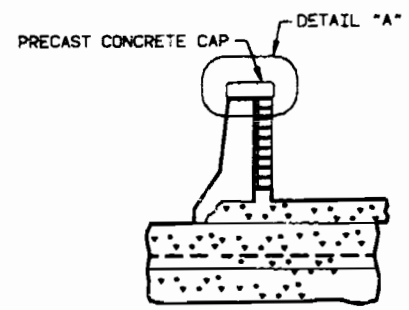
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SHEET NO. 29 OF 37.

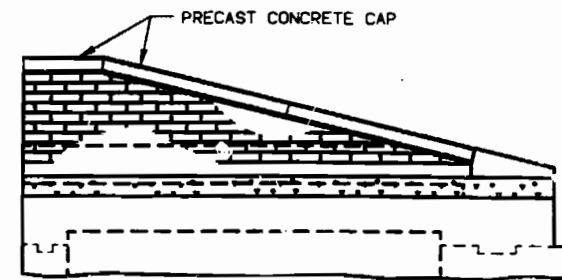
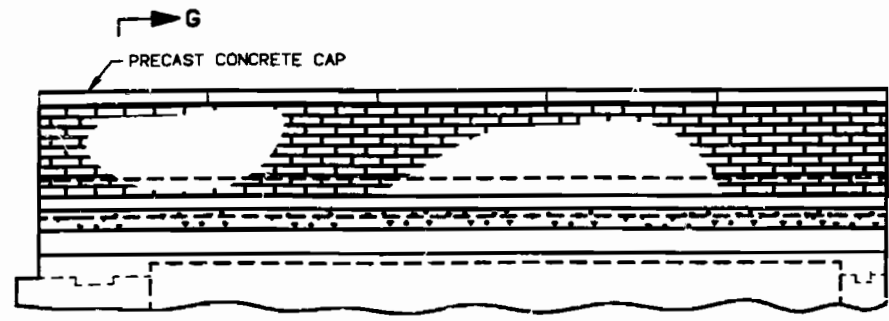
JACKSON COUNTY

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PART SECTION G-G



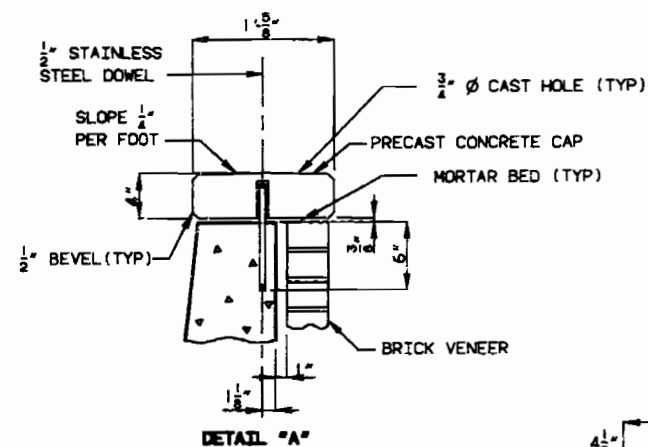
NOTE: PROVIDE WEEP HOLES AT SILLS NOT TO EXCEED 16" O.C.
 SECURE BRICK VENEER TO CONCRETE BACKING WITH FLEXIBLE ANCHORS SPACED NOT MORE THAN 16" O.C. VERTICALLY AND 24" O.C. HORIZONTALLY.
 ANCHORS SHALL BE DOVETAIL ANCHOR SLOTS. (SEE SPECIAL PROVISIONS)
 PROVIDE TWO PIECE ANCHORS WHICH PERMIT VERTICAL AND HORIZONTAL MOVEMENT BUT PROVIDE LATERAL RESTRAINT OF MASONRY.
 TIES SHALL BE CORRUGATED STRAPS NOT LESS THAN 12 GAGE OR TRIANGULAR WIRE TIES NOT LESS THAN 3/16" DIAMETER AS DETERMINED BY THE ENGINEER. LENGTH OF TIES SHALL BE AS REQUIRED FOR EMBEDMENT IN WYTHES OF MASONRY.

NOTE: PROVIDE SEALER ON ALL BRICKS, MORTAR AND PRECAST CONCRETE. (SEE SPECIAL PROVISIONS)

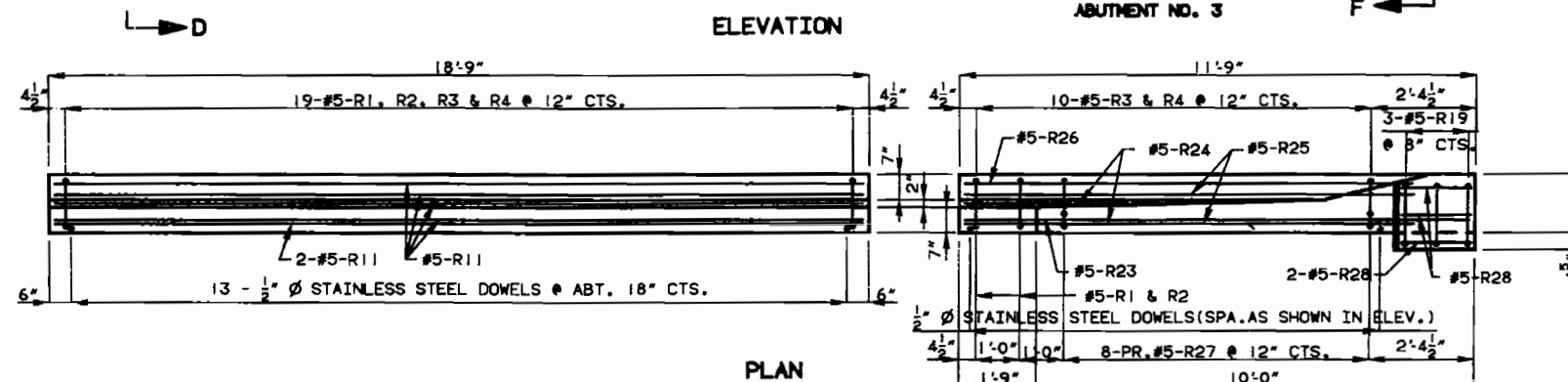
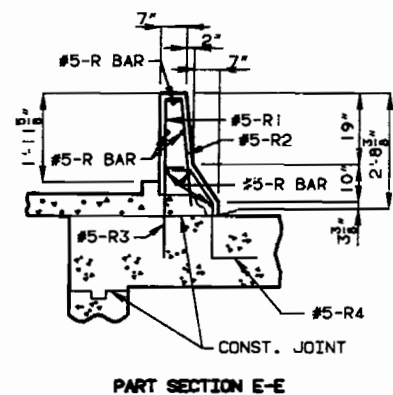
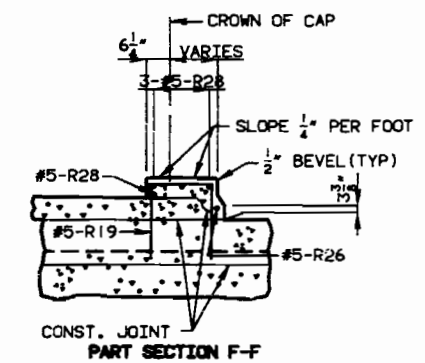
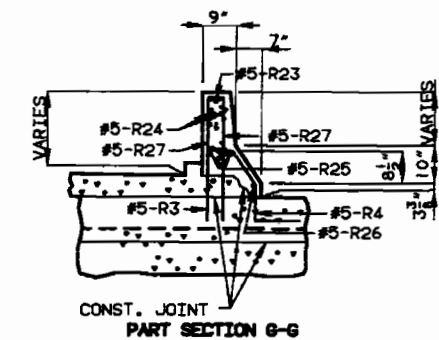
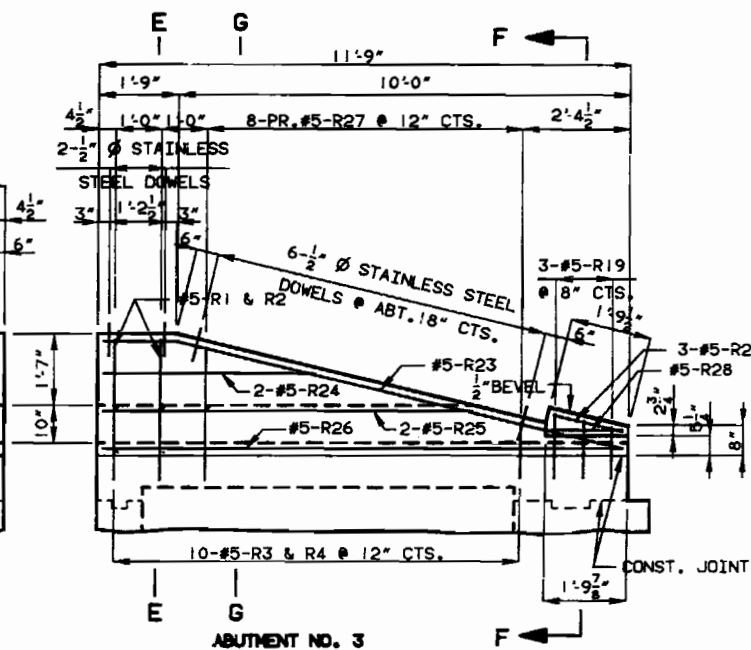
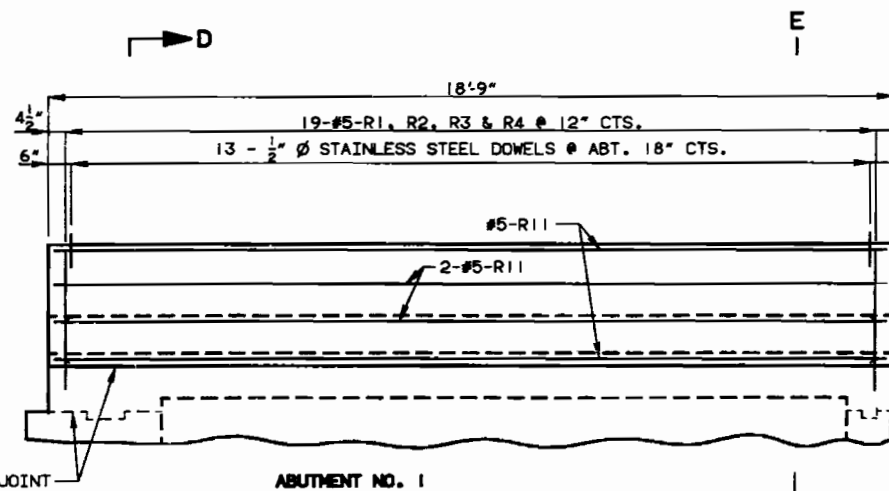
NOTE: WHEN THE SAFETY BARRIER CURB IS BID BY LINEAR FEET, THE CONTRACT UNIT PRICE SHALL INCLUDE THE COST OF ALL CONCRETE, REINFORCEMENT, DOVETAIL ANCHORS, AND STAINLESS STEEL DOWELS COMPLETE IN PLACE.

ELEVATION OF RIGHT SAFETY BARRIER CURB ENDS

(BRICK VENEER ON LEFT CURB IS SIMILAR)



PART SECTION D-D



REINFORCEMENT OF RIGHT SAFETY BARRIER CURB AT END ABUTMENTS

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 30 OF 37.

JACKSON

COUNTY

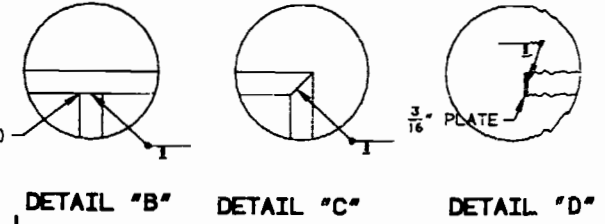
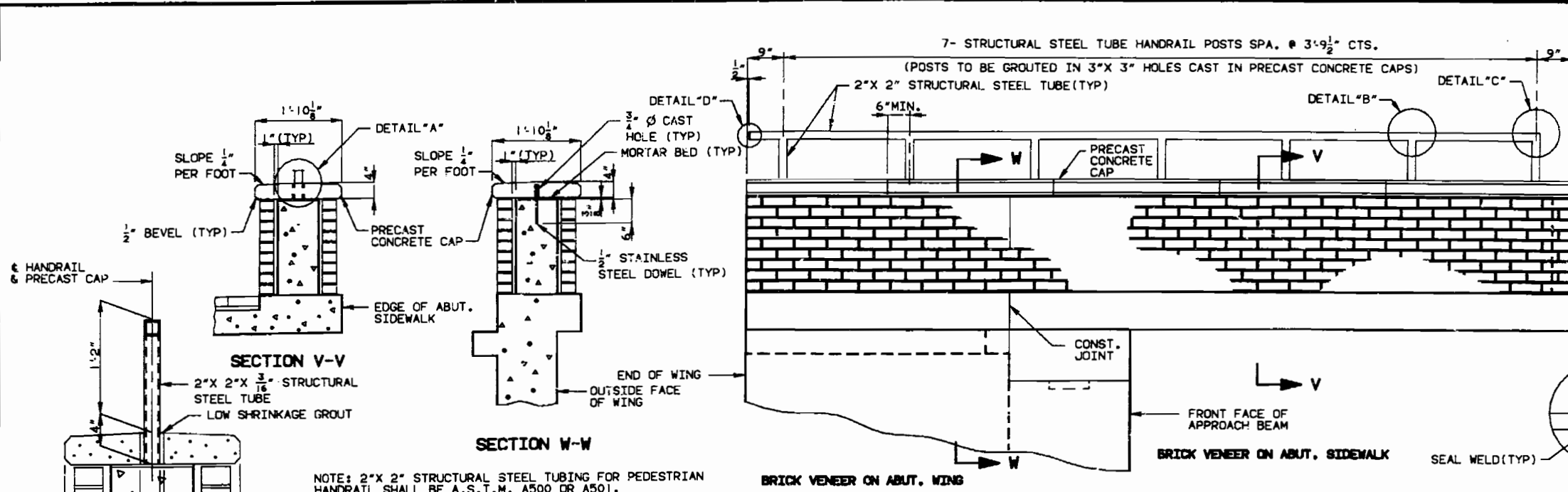
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277 219

DETAILED AUG. 1990
 CHECKED OCT. 1990

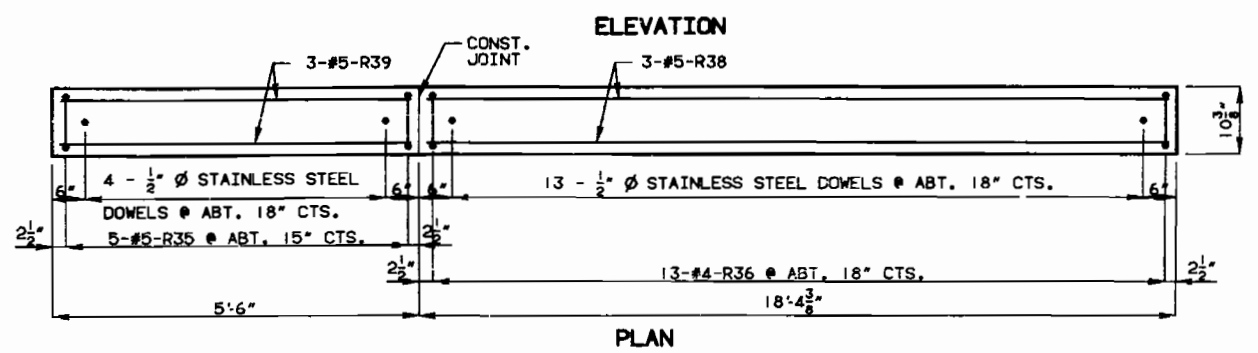
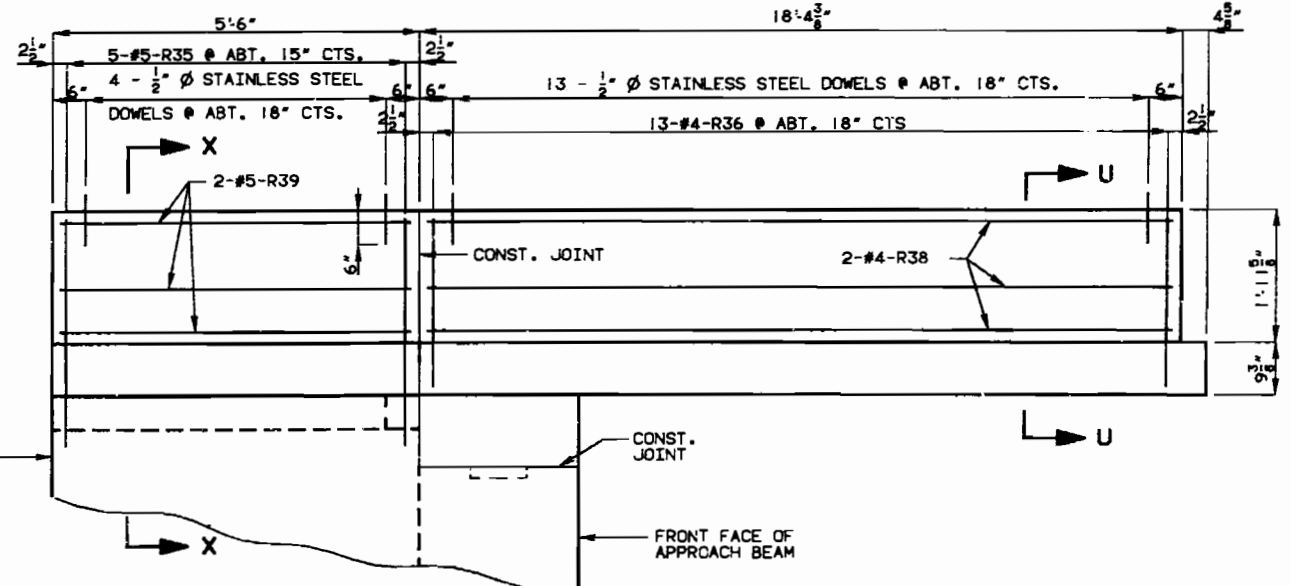
STATE	PROJ. NO.	SHEET NO.
MO.		137

NOTE: PROVIDE WEEP HOLES AT SILLS NOT TO EXCEED 16" O.C.
 SECURE BRICK VENEER TO CONCRETE BACKING WITH FLEXIBLE ANCHORS SPACED NOT MORE THAN 16" O.C. VERTICALLY AND 24" O.C. HORIZONTALLY.
 ANCHORS SHALL BE DOVETAIL ANCHOR SLOTS. (SEE SPECIAL PROVISIONS)
 PROVIDE TWO PIECE ANCHORS WHICH PERMIT VERTICAL AND HORIZONTAL MOVEMENT BUT PROVIDE LATERAL RESTRAINT OF MASONRY.
 TIES SHALL BE CORRUGATED STRAPS NOT LESS THAN 12 GAGE OR TRIANGULAR WIRE TIES NOT LESS THAN 3/16" DIAMETER AS DETERMINED BY THE ENGINEER. LENGTH OF TIES SHALL BE AS REQUIRED FOR EMBEDMENT IN WYTHES OF MASONRY.
 NOTE: PROVIDE SEALER ON ALL BRICKS, MORTAR AND PRECAST CONCRETE. (SEE SPECIAL PROVISIONS)

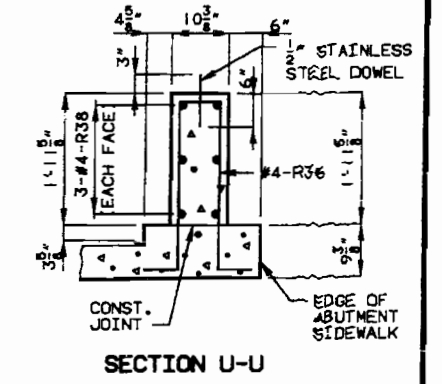


ELEVATION OF RIGHT PEDESTRIAN WALLS OF ABUTMENT NO. 1
 (LEFT WALLS ARE SIMILAR)

NOTE: 2" X 2" STRUCTURAL STEEL TUBING FOR PEDESTRIAN HANDRAIL SHALL BE A.S.T.M. A500 OR A501.
 SEE SPECIAL PROVISIONS FOR PAINTING REQUIREMENTS OF PEDESTRIAN HANDRAILS.



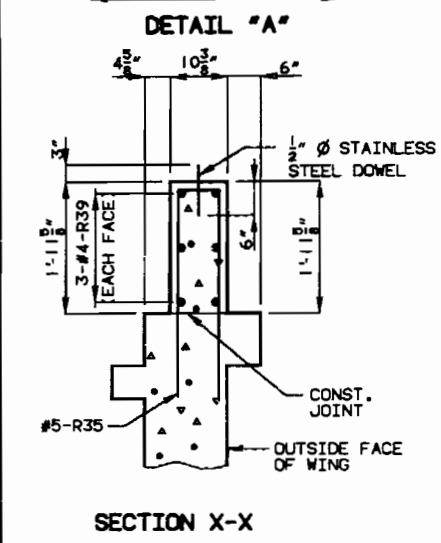
REINFORCEMENT OF RIGHT PEDESTRIAN WALLS ON ABUTMENT NO. 1
 (LEFT WALLS ARE SIMILAR)



NOTE: WHEN THE PEDESTRIAN WALL IS BID BY LINEAR FEET, THE CONTRACT UNIT PRICE SHALL INCLUDE THE COST OF ALL CONCRETE, REINFORCEMENT, DOVETAIL ANCHORS, AND STAINLESS STEEL DOWELS COMPLETE IN PLACE.

CONCRETE IN THE PEDESTRIAN WALL SHALL BE CLASS B1.

MEASUREMENT OF THE PEDESTRIAN WALL IS TO THE NEAREST LINEAR FOOT FOR EACH STRUCTURE, MEASURED FROM END OF WING TO FRONT FACE OF BACKWALL.



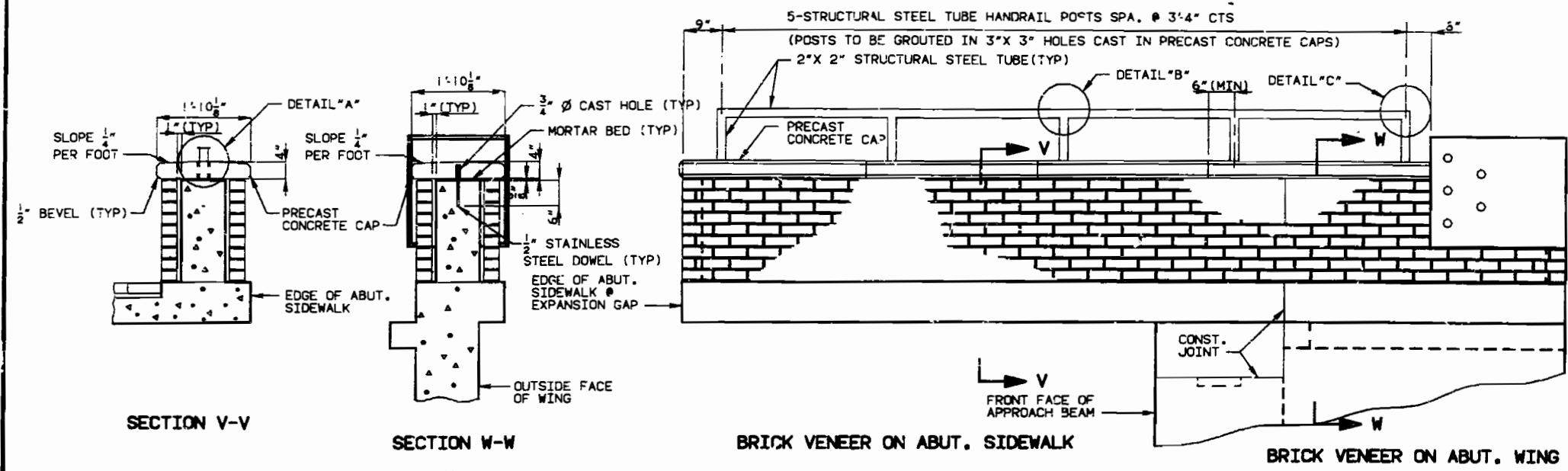
278 700

DETAILED AUG. 1990
 CHECKED OCT. 1990

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

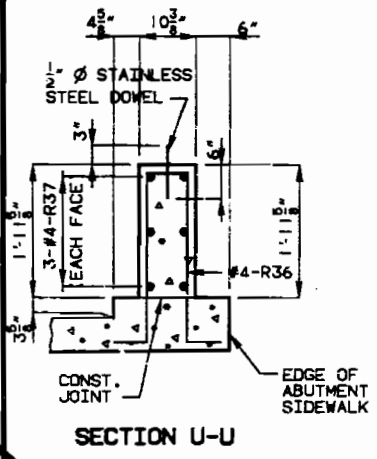
SHEET NO. 31 OF 37.

STATE	PROJ. NO.	SHEET NO.
MO.		188



ELEVATION OF RIGHT PEDESTRIAN WALLS OF ABUTMENT NO. 3
(LEFT WALLS ARE SIMILAR)

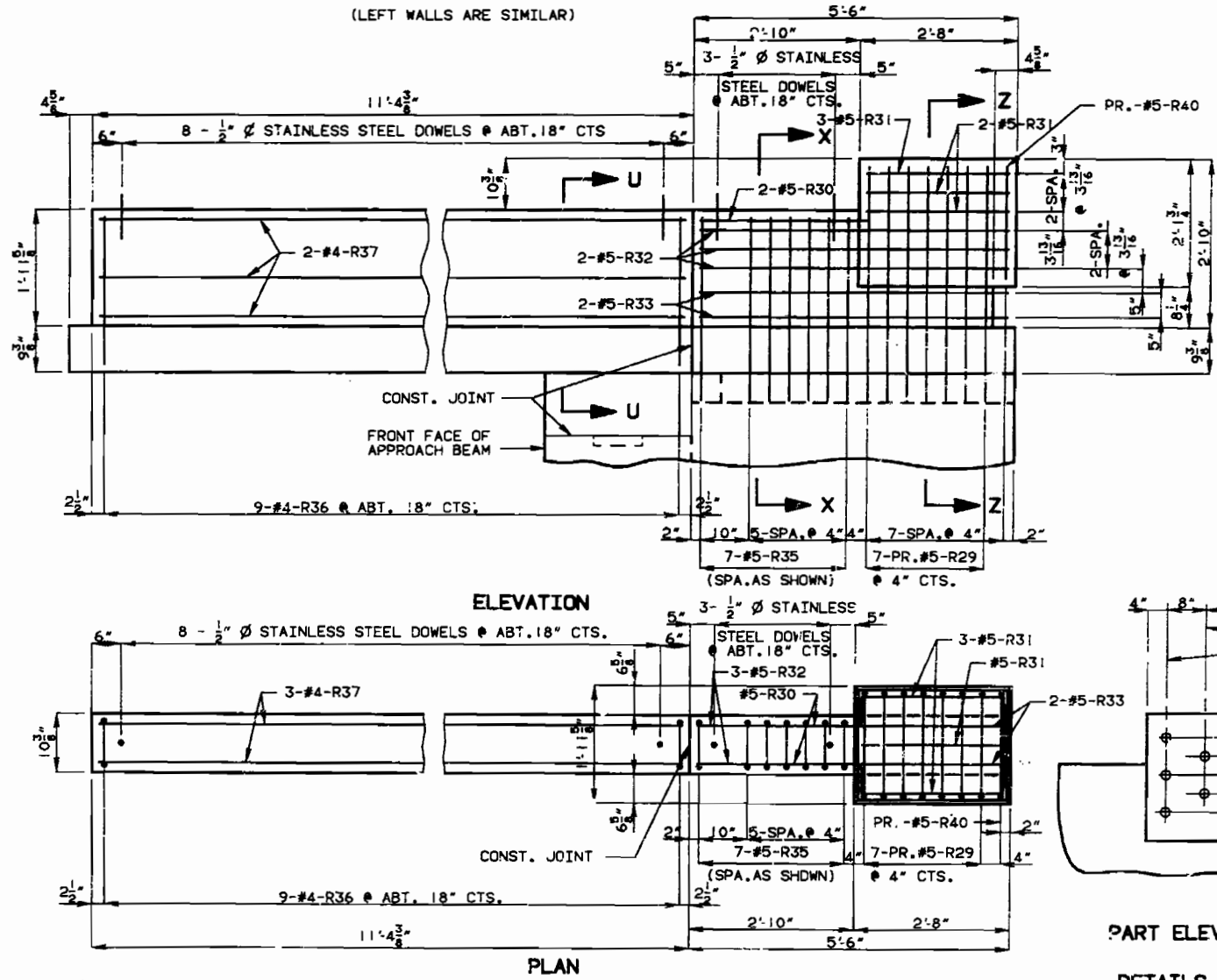
NOTE: PROVIDE WEEP HOLES AT SILLS NOT TO EXCEED 16" O.C.
 SECURE BRICK VENEER TO CONCRETE BACKING WITH FLEXIBLE ANCHORS SPACED NOT MORE THAN 16" O.C. VERTICALLY AND 24" O.C. HORIZONTALLY.
 ANCHORS SHALL BE DOVETAIL ANCHOR SLOTS. (SEE SPECIAL PROVISIONS)
 PROVIDE TWO PIECE ANCHORS WHICH PERMIT VERTICAL AND HORIZONTAL MOVEMENT BUT PROVIDE LATERAL RESTRAINT OF MASONRY.
 TIES SHALL BE CORRUGATED STRAPS NOT LESS THAN 12 GAGE OR TRIANGULAR WIRE TIES NOT LESS THAN 3/16" DIAMETER AS DETERMINED BY THE ENGINEER. LENGTH OF TIES SHALL BE AS REQUIRED FOR EMBEDMENT IN WYTHES OF MASONRY.
 NOTE: PROVIDE SEALER ON ALL BRICKS, MORTAR AND PRECAST CONCRETE. (SEE SPECIAL PROVISIONS)
 NOTE: 2" X 2" STRUCTURAL STEEL TUBING FOR PEDESTRIAN HANDRAIL SHALL BE A36.
 SEE SPECIAL PROVISIONS FOR PAINTING REQUIREMENTS OF PEDESTRIAN HANDRAILS.
 NOTE: FOR DETAILS "A", "B" & "C" SEE SHEET NO. 31.



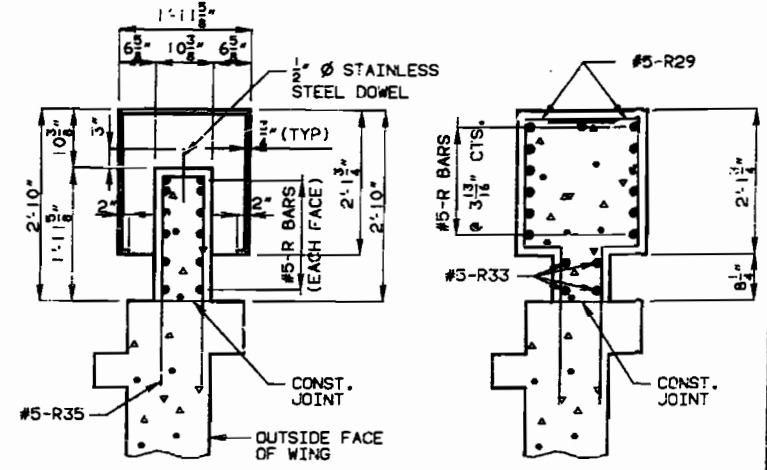
SECTION U-U

NOTE: WHEN THE PEDESTRIAN WALL IS BID BY LINEAR FEET, THE CONTRACT UNIT PRICE SHALL INCLUDE THE COST OF ALL CONCRETE, REINFORCEMENT, DOVETAIL ANCHORS, AND STAINLESS STEEL DOWELS COMPLETE IN PLACE.

CONCRETE IN THE PEDESTRIAN WALL SHALL BE CLASS B1.
 MEASUREMENT OF THE PEDESTRIAN WALL IS TO THE NEAREST LINEAR FOOT FOR EACH STRUCTURE, MEASURED FROM END OF WING TO FRONT FACE OF BACKWALL.

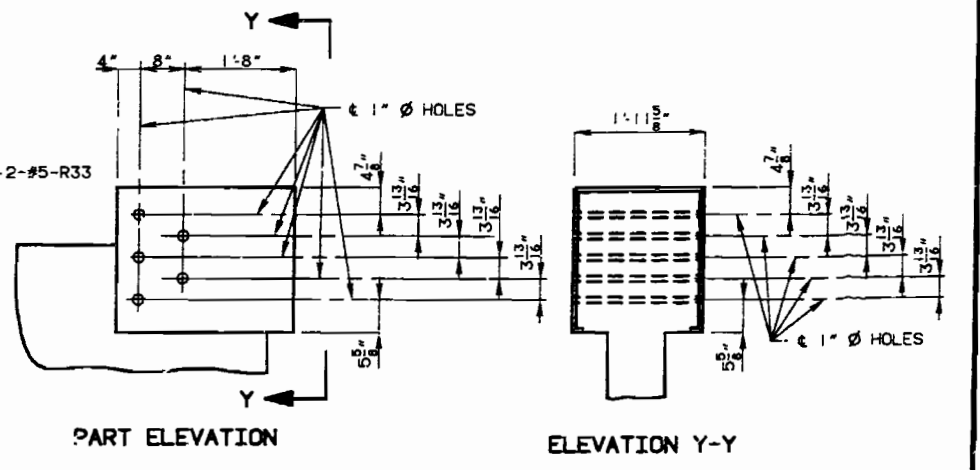


REINFORCEMENT OF RIGHT PEDESTRIAN WALLS ON ABUTMENT NO. 3
(LEFT WALLS ARE SIMILAR)



SECTION X-X

SECTION Z-Z



PART ELEVATION

ELEVATION Y-Y

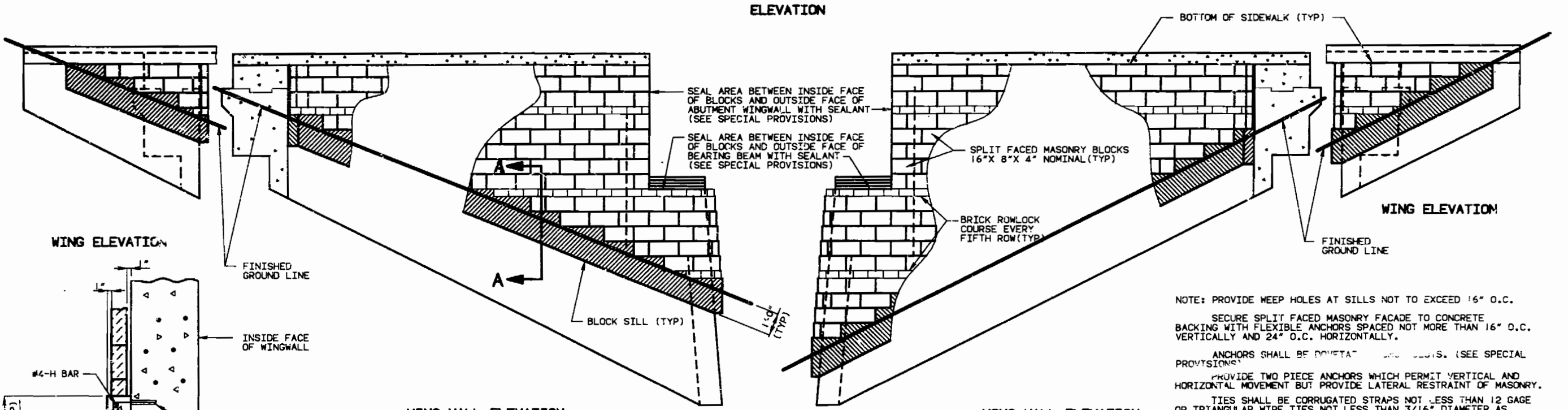
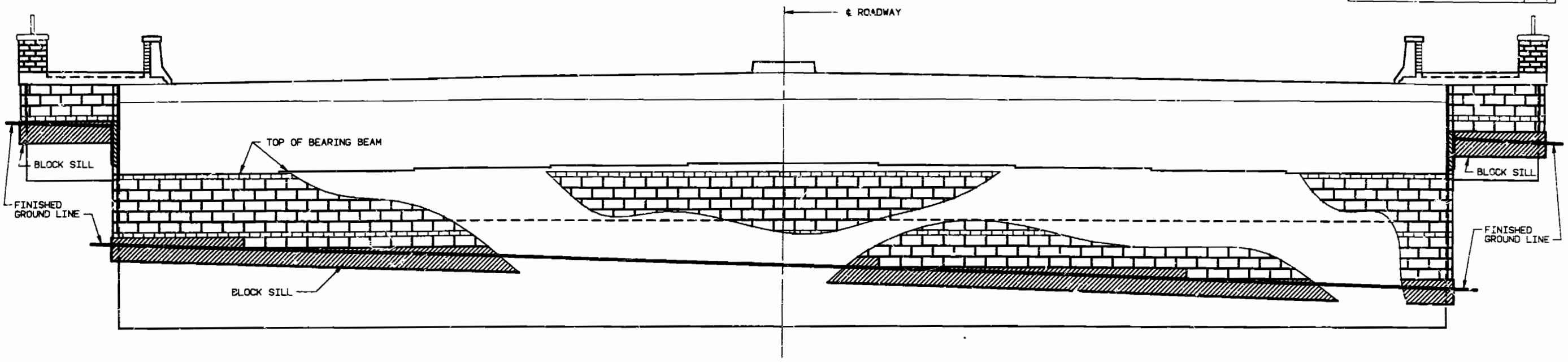
DETAILS OF BRIDGE ANCHOR SECTION ATTACHMENT

DETAILED AUG. 1990
 CHECKED OCT. 1990

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS. (LEFT WALLS ARE SIMILAR)

SHEET NO. 32 OF 37.

STATE	PROJ. NO.	SHEET NO.
MO.		129



NOTE: PROVIDE WEEP HOLES AT SILLS NOT TO EXCEED 16" O.C.

SECURE SPLIT FACED MASONRY FACADE TO CONCRETE BACKING WITH FLEXIBLE ANCHORS SPACED NOT MORE THAN 16" O.C. VERTICALLY AND 24" O.C. HORIZONTALLY.

ANCHORS SHALL BE DOWEL TYPE ANCHORS. (SEE SPECIAL PROVISIONS)

PROVIDE TWO PIECE ANCHORS WHICH PERMIT VERTICAL AND HORIZONTAL MOVEMENT BUT PROVIDE LATERAL RESTRAINT OF MASONRY.

TIES SHALL BE CORRUGATED STRAPS NOT LESS THAN 12 GAGE OR TRIANGULAR WIRE TIES NOT LESS THAN 3/16" DIAMETER AS DETERMINED BY THE ENGINEER. LENGTH OF TIES SHALL BE AS REQUIRED FOR EMBEDMENT IN WYTHES OF MASONRY.

BLOCK SILL'S FOR SUPPORT OF CMU UNITS SHALL BE STEPPED IN ORDER TO MINIMIZE THE AMOUNT OF EXPOSED CONCRETE BLOCK SILL ABOVE FINISHED GRADE.

PROVIDE EXPANSION, CONTROL AND ISOLATION JOINTS TO ACCOMMODATE MOVEMENT IN MASONRY WORK. (SEE SPECIAL PROVISIONS)

NOTE: PROVIDE SEALER AND ANTI-GRAFFITI COATING ON ALL BRICK, SPLIT FACED MASONRY BLOCKS, MORTAR AND PRECAST CONCRETE. (SEE SPECIAL PROVISIONS)

NOTE: COST OF CONCRETE, REINFORCING STEEL AND ANCHORS, IN PLACE, FOR BLOCK SILLS SHALL BE INCLUDED IN UNIT PRICE BID FOR OTHER ITEMS.

DETAILS OF SPLIT-FACED MASONRY FACADE ON ABUTMENT NO. 1
(ABUTMENT NO. 3 IS SIMILAR)

220 200

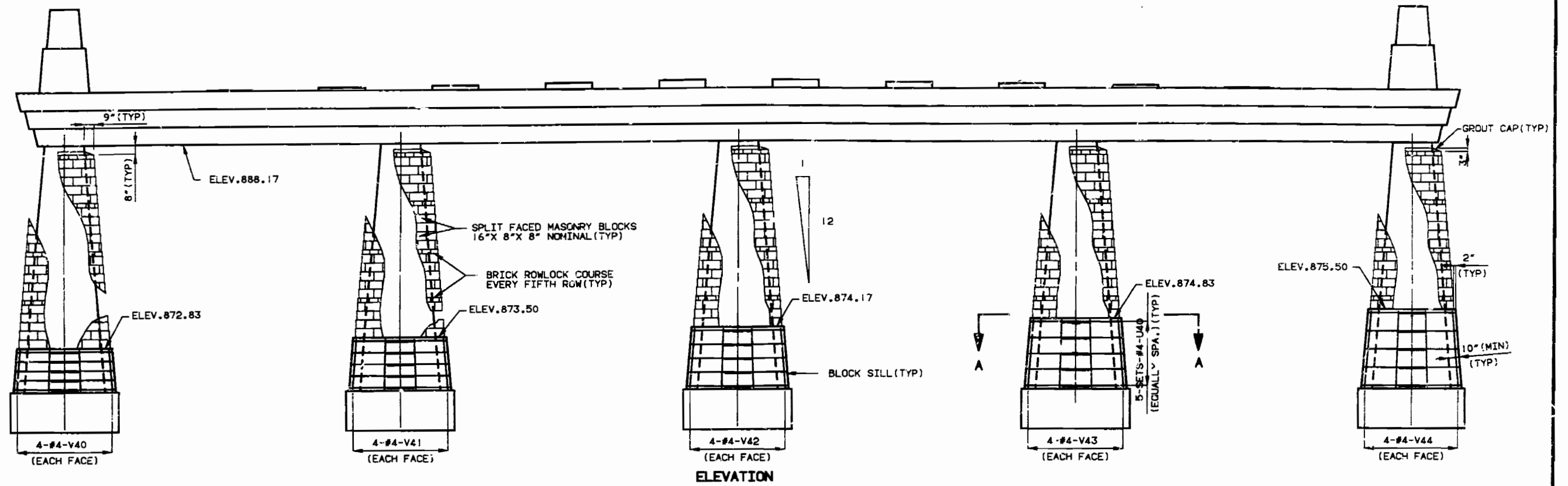
DETAILED AUG. 1990
CHECKED OCT. 1990

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 33 OF 37.

PART SECTION A-A

STA. E.	PROJ. NO.	SHEET NO.
MO.		170



NOTE: PROVIDE WEEP HOLES AT SILLS NOT TO EXCEED 16" O.C.

SECURE SPLIT FACED MASONRY FACADE TO CONCRETE BACKING WITH FLEXIBLE ANCHORS SPACED NOT MORE THAN 16" O.C. VERTICALLY AND 24" O.C. HORIZONTALLY.

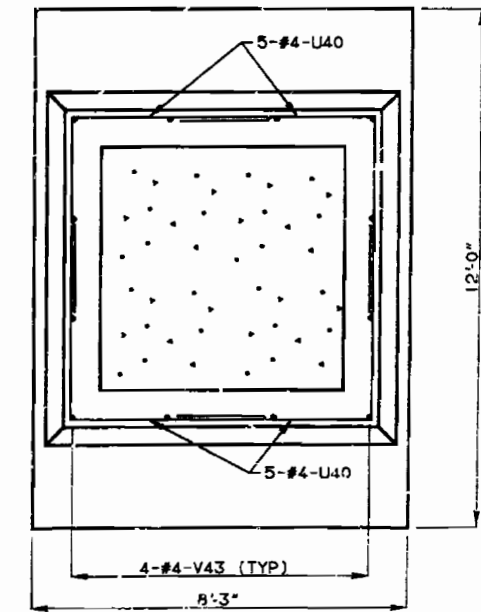
ANCHORS SHALL BE DOVETAIL ANCHOR SLOTS. (SEE SPECIAL PROVISIONS)

PROVIDE TWO PIECE ANCHORS WHICH PERMIT VERTICAL AND HORIZONTAL MOVEMENT BUT PROVIDE LATERAL RESTRAINT OF MASONRY.

TIES SHALL BE CORRUGATED STRAPS NOT LESS THAN 12 GAGE OR TRIANGULAR WIRE TIES NOT LESS THAN 3/16" DIAMETER AS DETERMINED BY THE ENGINEER. LENGTH OF TIES SHALL BE AS REQUIRED FOR EMBEDMENT IN WYTHES OF MASONRY.

NOTE: PROVIDE SEALER AND ANTI-GRAFFITI COATING ON ALL BRICK, SPLIT FACED MASONRY BLOCKS, MORTAR AND PRECAST CONCRETE. (SEE SPECIAL PROVISIONS)

NOTE: COST OF CONCRETE, REINFORCING STEEL AND ANCHORS, IN PLACE, FOR BLOCK SILLS SHALL BE INCLUDED IN UNIT PRICE BID FOR OTHER ITEMS.



SECTION A-A

DETAILS OF SPLIT FACED MASONRY FACADE ON INTERMEDIATE BENT

221 883

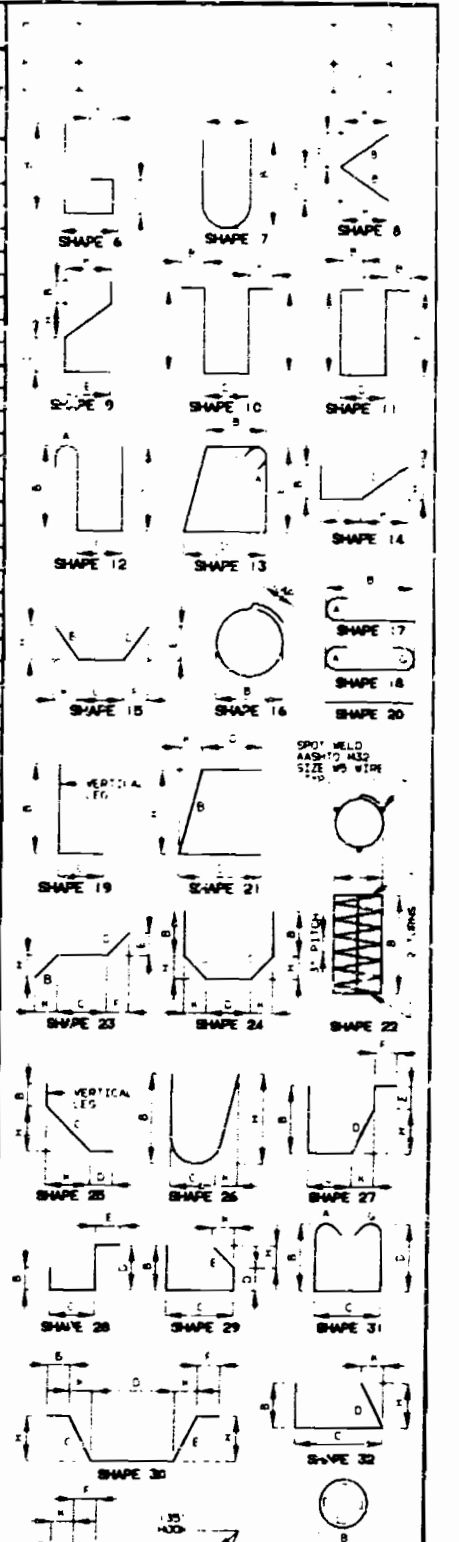
DETAILED SEPT. 1990
CHECKED OCT. 1990

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 34 OF 37.

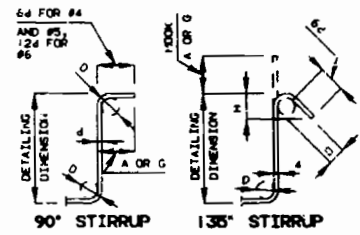
Table 1: COMPLETE BILL OF REINFORCING STEEL. Columns include NO. REQ'D., MARK NO., LOCATION, DIMENSIONS (B, C, D, E, F, H, K), NOMINAL LENGTH, ACTUAL LENGTH, and WEIGHT. Rows list various structural elements like BACKMALL, APRON, BEARING, and SLABS.

Table 2: COMPLETE BILL OF REINFORCING STEEL. Similar to Table 1, listing structural elements and their reinforcement specifications.

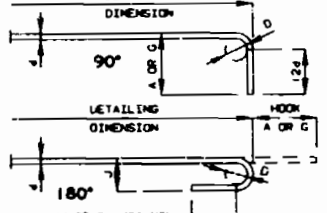


TWO ADDITIONAL #5 @ 18" ON C/S ARE INCLUDED IN THE BAR BILL FOR TESTING.

277 274



STIRRUP HOOK DIMENSIONS TABLE: Grades 40 - 50 - 60 KE1. Columns include BAR SIZE (D), 90° HOOK, and 135° HOOK dimensions.



END HOOK DIMENSIONS TABLE: ALL GRADES. Columns include BAR SIZE (D), 180° HOOKS, and 90° HOOKS dimensions.

NOTE: ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEG. TO BE BENT WITH THE SAME PROCEDURE AS FOR 90 DEG. STD. HOOKS. HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET.

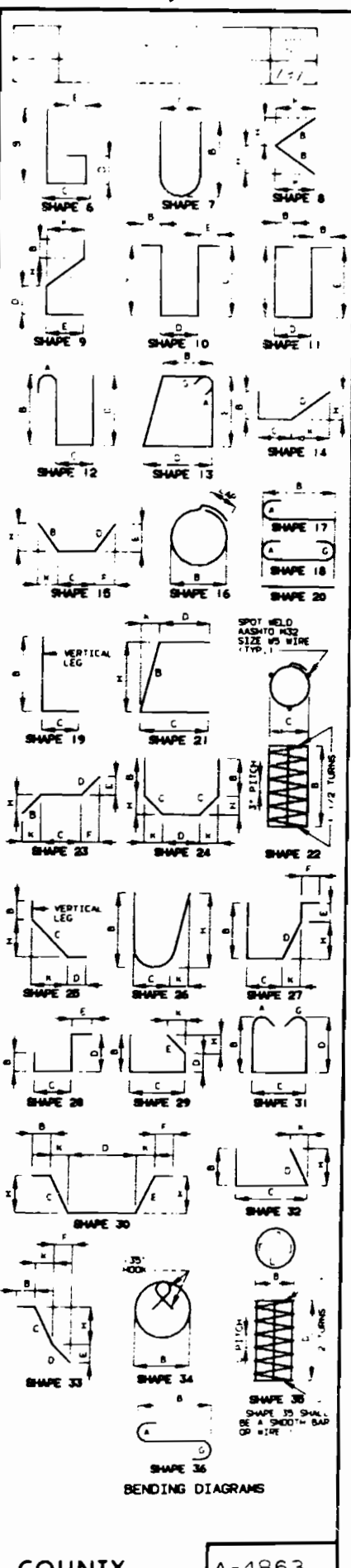
DATE: Dec. 1990

COMPLETE BILL OF REINFORCING STEEL

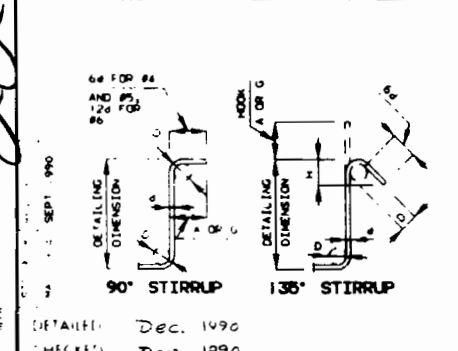
NO. REQ'D.	MARK NO.	LOCATION	EPOXY	SHAPE NO.	STIRRUP SUBSTITUTION VARIABLE	DIMENSIONS						NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT																					
						B	C	D	E	F	H				K																				
FT.												IN.												LBS.											
		SUBSTRUCTURE																																	
		ABUT. NO. 1																																	
32	6H101	BRG. BEAM		20	X		31	5.000						31	3	31	3			152															
4	7H103	BRG. BEAM		23	X		31	3.000						31	3	31	3			254															
4	7H104	BRG. BEAM		17	X		31	3.000						32	1	32	1			242															
8	7H105	BRG. BEAM		17	X		22	1.000						22	11	22	11			375															
4	7H106	BRG. BEAM		20	X		46	3.000						46	3	46	3			378															
4	7H109	BRG. BEAM		20	X		11	9.000						11	9	11	9			96															
4	7H110	BRG. BEAM		17	X		27	0.000						27	10	27	10			228															
6	4H111	BACKWALL		20	X		27	0.000						27	0	27	0			108															
12	4H117	BACKWALL		20	X		30	1.000						30	1	30	1			241															
2	6H113	APPR. BEAM		20	X		44	8.000						44	8	44	8			134															
2	6H114	APPR. BEAM		20	X		53	8.000						53	8	53	8			161															
8	4H115	APPR. BEAM		20	X		7	0.000						7	0	7	0			37															
8	8H116	APPR. BEAM		20	X		44	8.000						44	8	44	8			954															
16	6H117	APPR. BEAM		20	X		27	0.000						27	0	27	0			649															
8	8H119	APPR. BEAM		20	X		54	7.000						54	7	54	7			1168															
12	4H122	WTNG WALL		20	X		18	6.000						18	6	18	6			148															
8	4H123	WTNG WALL		20	X		16	10.000						16	10	16	10			90															
4	4H124	WTNG WALL		20	X		14	0.000						14	0	14	0			37															
4	4H125	WTNG WALL		20	X		11	0.000						11	0	11	0			29															
20	4H126	WTNG WALL		20	X	V	4	2 3.000						2 3	2 3																				
		INCREMENT =						11 10.000						11 10	11 10					94															
		28.750 INCH																																	
4	4H127	WTNG WALL		20	X		5	7.000						5	7	5	7			15															
4	4H128	WTNG WALL		20	X		5	8.000						5	8	5	8			15															
12	5H129	WTNG		20	X	V	4	2 10.000						2 10	2 10																				
		INCREMENT =						6 10 000						6 10	6 10					60															
		24.000 INCH																																	
12	5H131	WTNG		20	X		7	9.000						7	9	7	9			97															
17	6H132	APPRON		19	X		22	20.000	22	0.000				3	8	3	6			63															
2	4H133	APPR. HAUNCH		20	X		23	0.000						23	0	23	0			31															
1	4H134	APPR. HAUNCH		20	X		37	5.000						37	5	37	5			25															

COMPLETE BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO.	LOCATION	EPOXY	SHAPE NO.	STIRRUP SUBSTITUTION VARIABLE	DIMENSIONS						NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT																					
						B	C	D	E	F	H				K																				
FT.												IN.												LBS.											
4	4V10R	WING WALLS		20	X		8	7.000						8	7	8	7			23															
28	5V116	WTNGS		20	X	V	4	2 11.750						3 0	3 0																				
		INCREMENT =						5 11.750						6 0	6 0					131															
		6.000 INCH																																	
		INT. WENT NO2																																	
140	10D20	COL. & FTG.		17	X		11	5.000						12	10	12	10			7731															
30	7D21	FOOTING		20	X		11	9.000						11	9	11	9			721															
55	6D22	FOOTING		20	X		8	0.000						8	0	8	0			641															
10	4D23	FOOTING		10	X		4	8.500	11	0.000				20	5	20	1			302															
12	7H20	BEAM		10	X	V	2	2 6.000	3 10.000					8 10	8 2																				
		INCREMENT =						2 6.000	3 7.375					10 5	10 5					252															
		3.500 INCH																																	
14	9H21	BEAM		17	X		47	6.000						48	9	48	9			2821															
14	9H22	BEAM		17	X		38	0.000						39	5	39	5			1545															
4	6H23	BEAM		20	X		46	6.000						46	6	46	6			279															
8	6H24	BEAM		20	X		34	6.000						34	6	34	6			415															



225 223

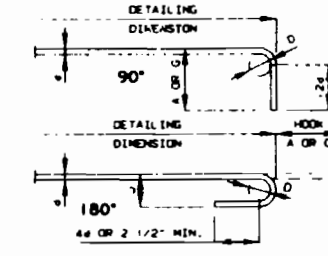


STIRRUP HOOK DIMENSIONS

GRADES 40 - 50 - 60 KSI

BAR SIZE	D (IN.)	90° HOOK			135° HOOK		
		A OR G	H	H	A OR G	H	H
#4	2"	4-1/2"	4-1/2"	3"			
#6	2-1/2"	6"	5-1/2"	3 3/4"			
#8	3"	7"	6"	4-1/2"			

NOTE: UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.



END HOOK DIMENSIONS

ALL GRADES

BAR SIZE	D (IN.)	90° HOOKS		180° HOOKS	
		A OR G	H	A OR G	H
#3	2 1/4"	5"	3"	6"	
#4	3"	6"	4"	8"	
#5	3 3/4"	7"	5"	10"	
#6	4-1/2"	8"	6"	12"	
#7	5-1/4"	10"	7"	14"	
#8	6"	11"	8"	16"	
#9	6-1/2"	13"	10"	18"	
#10	7-1/4"	15"	11"	22"	
#11	8"	17"	13"	24"	
#14	11-1/4"	23"	17"	32"	

NOTE: ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEG. TO BE BENT WITH THE SAME PROCEDURE AS FOR 90 DEG. STD. HOOKS. HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET. E = EPOXY COATED REINFORCEMENT. S = STIRRUP. * BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES. V = BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE. NG, EA = NUMBER OF BARS OF EACH LENGTH. NOMINAL LENGTHS ARE BASED ON OUT TO OUT DIMENSIONS SHOWN IN BENDING DIAGRAMS AND ARE LISTED FOR FABRICATORS USE. (NEAREST INCH) ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE OF BAR TO THE NEAREST INCH. PAYMENTS ARE BASED ON ACTUAL LENGTHS. FOUR ANGLE OR CHANNEL SPACERS ARE REQUIRED FOR EACH COLUMN SPIRAL. SPACERS ARE TO BE PLACED ON INSIDE OF SPIRALS. LENGTH AND WEIGHT OF COLUMN SPIRALS DO NOT INCLUDE SPACES OR SPACERS. REINFORCING STEEL (GRADE 60) - FY 60,000 PSI.

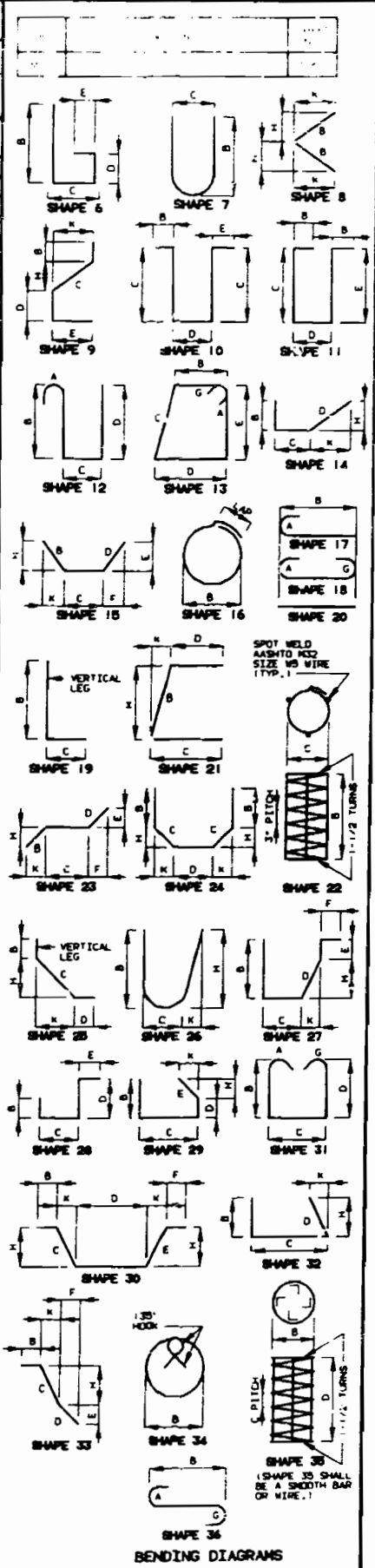
DETAILED: Dec. 1990
CHECKED: Dec. 1990

COMPLETE BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO.	LOCATION	EPOXY	SHAPE NO.	DIMENSIONS										NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT
					B	C	D	E	F	H	K						
					FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.						
		CAST IN PLACE															
204	751	SLAB	E	20	58	2								58	2	24254	
267	752	SLAB	E	20	57	9								57	9	31517	
136	757	SLAB	E	20	31	0								31	0	8618	
809	659	SLAB	E	20	43	5								43	5	52691	
538	5510	SLAB	E	20	43	3								43	3	24269	
204	751	SLAB	E	20	58	2								58	2	24254	
78	752	SLAB	E	20	57	9								57	9	9207	
136	757	SLAB	E	20	31	0								31	0	8618	
808	659	SLAB	E	20	43	5								43	5	52691	
536	5512	SLAB	E	20	12	8								12	8	7081	
28	45100	SIDEWALK	E	20	18	6								18	6	346	
84	45101	SIDEWALK	E	20	29	9								29	9	1669	
84	45102	SIDEWALK	E	20	28	5								28	5	1995	
28	45103	SIDEWALK	E	20	11	6								11	6	215	
796	55108	SIDEWALK	E	9	8	11	0.875	15	0.000		7.250	8.750	11	2	11	9202	
604	55109	SIDEWALK	E	28	5			9.000	15	0.000				3	3	1299	

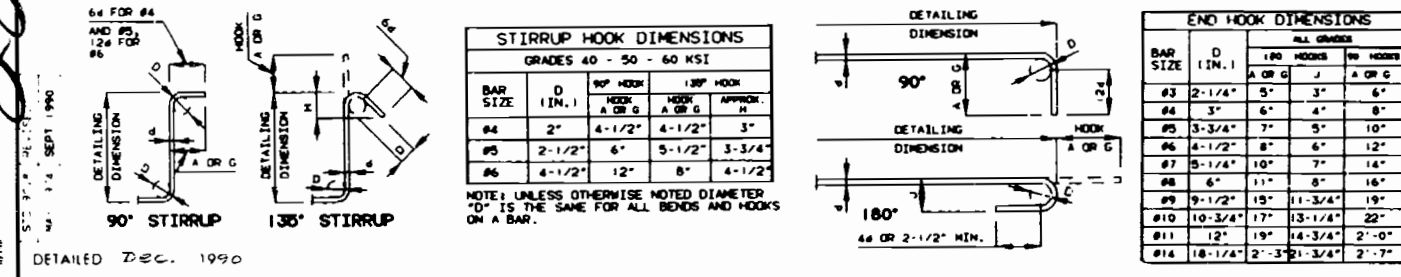
COMPLETE BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO.	LOCATION	EPOXY	SHAPE NO.	DIMENSIONS										NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT		
					B	C	D	E	F	H	K								
					FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.								
28	5R29	PED. WALL	E	24	19	0.000	22	7.50	6.625	2	0.750				6	1	5	9	168
4	5R30	PED. WALL	E	20	2	8.000									2	8	2	8	11
14	5R31	PED. WALL	E	20	2	5.000									2	5	2	5	35
12	5R32	PED. WALL	E	28	19	0.000	2	5.000	6.625	2	10.000				7	9	7	1	89
8	5R33	PED. WALL	E	20	4	10.000									4	10	4	10	40
24	5R35	PED. WALL	E	10	3	1.125	7	3.75							6	10	6	7	165
44	5R36	PED. WALL	E	10	6	0.000	2	6.000	7	3.75	6	0.000			6	7	6	2	283
12	4R37	PED. WALL	E	20	11	1.000									11	1	11	1	89
12	4R38	PED. WALL	E	20	18	1.000									18	1	18	1	165
12	5R39	PED. WALL	E	20	4	10.000									4	10	4	10	68
4	5R40	PED. WALL	E	10	5			19.000	22	7.50					5	1	4	10	20
		END OF LIST																	



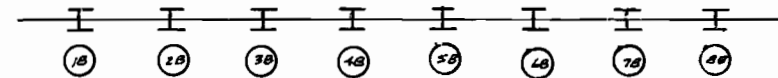
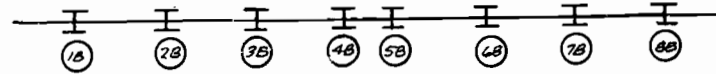
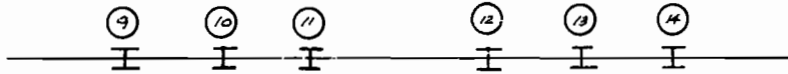
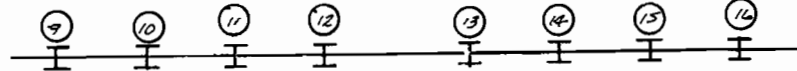
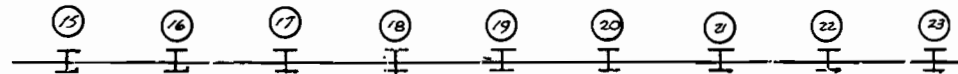
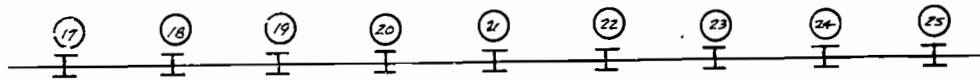
TWO ADDITIONAL R6, S7 & S9 ARE INCLUDED IN THE BAR BILL FOR TESTING.

224 276



DETAILED Dec. 1990
CHECKED Dec. 1990

STATE	PROJ. NO.	SHEET NO.
MO. <i>FA</i>	<i>71-4(56)</i>	<i>42</i>



Abutment No. 1

Abutment No. 3

PART PLAN SHOWING PILE NUMBERING FOR RECORDING "AS BUILT PILE" DATA

"AS BUILT PILE" DATA				
PILE NO.	LENGTH IN PLACE (FT.)	COMPUTED BEARING (TONS)	PRE-BORE	REMARKS
18	34	118.2		All pile driven to Practical Refusal
28	34	118.2		plan batter
38	34	118.2		HP 10x42*
48	35	109.7		
58	35	109.7		
68	36	109.7		
78	38	109.7		
88	41	153.6		
9	34	111.4		
10	34	111.4		
11	34	111.4		
12	34	111.4		
13	36	111.4		
14	37	120.0		
15	41	130.0		
16	40	111.4		
17	38	111.4	5	
18	38	111.4	5	
19	39	120.0	5	
20	39	141.0	5	
21	40	111.4	5	
22	43	111.4	6	
23	45	111.4	14	bored thru abandoned conduit encasement
24	42	111.4	5	
25	40	111.4	5	
941			54	subtotal B#1

"AS BUILT PILE" DATA				
PILE NO.	LENGTH IN PLACE (FT.)	COMPUTED BEARING (TONS)		REMARKS
18	28	139.7		
28	24	128.0		
38	28	128.0		
48	24	109.7		
58	21	139.7		
68	21	109.7		
78	21	139.7		
88	21	153.6		
9	28	130.0		
10	30	130.0		
11	22	130.0		
12	21	156.0		
13	20	156.0		
14	21	156.0		
15	28	111.4		
16	28	120.0		
17	29	111.4		
18	29	111.4		
19	29	130.0		
20	28	130.0		
21	25	130.0		
22	25	156.0		
23	25	156.0		
	576			subtotal B#3
	47517			Total Lin. Ft. 10x42*HP

"AS BUILT PILE" DATA				
PILE NO.	LENGTH IN PLACE (FT.)	COMPUTED BEARING (TONS)		REMARKS

NOTE: INDICATE IN REMARK COLUMN:
 A.) IF PILING WERE DRIVEN TO PRACTICAL REFUSAL.
 B.) PILE BATTER IF OTHER THAN SHOWN ON BENT DETAIL SHEET.
 C.) TYPE OF PILING USED.

NOTE: THIS SHEET TO BE COMPLETED BY MHTD CONSTRUCTION PERSONNEL.

MISC. PILES IN PLACE, 1, 2, 3, 4
 PILES IN PLACE
 MAY 1992

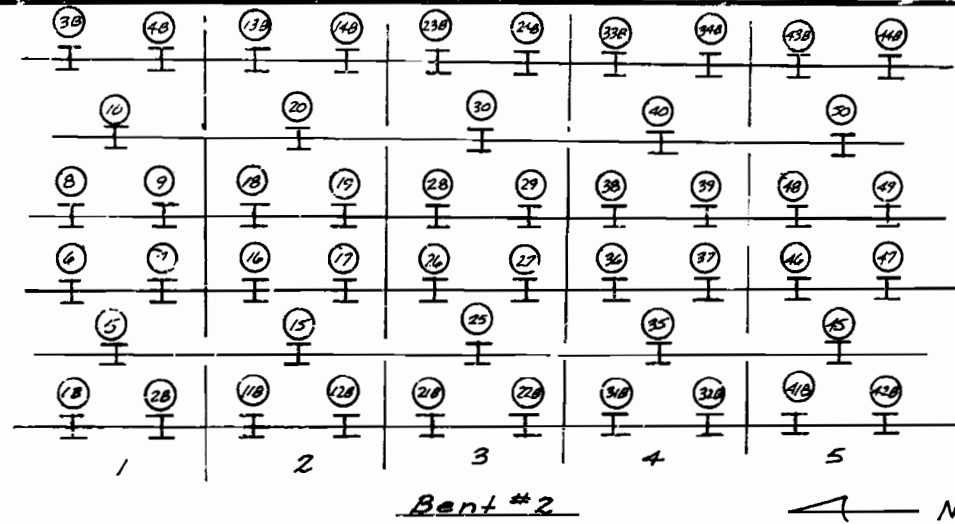
DETAILED *11-24-1992*
 CHECKED *19*

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

3A-A Final Plans
 SHEET NO. **3A** OF **37**.

COUNTY A-4863

STATE	PROJ. NO.	SHEET NO.
MO.	F.A.-71-4-(56)	159.6



PART PLAN SHOWING
PILE NUMBERING FOR RECORDING
"AS BUILT PILE" DATA

"AS BUILT PILE" DATA				
PILE NO.	LENGTH IN PLACE (FT.)	COMPUTED BEARING (TONS)	PRE-BORE	REMARKS
1B	16	124.4	10	All pile driven to Practical Refusal
2B	16	124.4	10	plan batter
3B	15	135.7	10	HP 12X53*
4B	15	135.7	10	
5	15	141.8	10	
6	15	141.8	10	
7	14	141.8	10	
8	15	141.8	10	
9	15	156.0	10	
10	15	156.0	10	
11B	16	124.4	10	
12B	16	124.4	10	
13B	15	124.4	10	
14B	15	135.7	10	
15	15	130.0	10	
16	16	130.0	10	
17	15	130.0	10	
18	16	130.0	10	
19	15	141.8	10	
20	15	130.0	10	
21B	15	135.7	10	
22B	14	135.7	10	
23B	14	135.7	10	
24B	14	124.4	10	
25	15	141.8	10	
26	15	141.8	10	
27	14	130.0	10	
28	14	130.0	10	
29	14	130.0	10	
30	14	130.0	10	
31B	14	135.7	10	
32B	15	135.7	10	
33B	14	135.7	10	
34B	14	135.7	10	
35	14	130.0	10	
36	14	141.8	10	
37	14	130.0	10	
38	14	141.8	10	

"AS BUILT PILE" DATA				
PILE NO.	LENGTH IN PLACE (FT.)	COMPUTED BEARING (TONS)	PRE-BORE	REMARKS
39	14	141.8	10	
40	14	141.8	10	
41B	15	135.7	10	
42B	15	135.7	10	
43B	15	149.3	10	
44B	13	135.7	10	
45	14	156.0	10	
46	14	141.8	10	
47	15	141.8	10	
48	14	156.0	10	
49	16	141.8	10	
50	16	141.8	10	
				Total Lin. Ft. HP 12X53*
				54 from sheet # 3A
				55.4 Total Lin. Ft. Pre-Bore

"AS BUILT PILE" DATA				
PILE NO.	LENGTH IN PLACE (FT.)	COMPUTED BEARING (TONS)		REMARKS

NOTE: INDICATE IN REMARK COLUMN:
A.) IF PILING WERE DRIVEN TO PRACTICAL REFUSAL.
B.) PILE BATTER IF OTHER THAN SHOWN ON BENT DETAIL SHEET.
C.) TYPE OF PILING USED.

NOTE: THIS SHEET TO BE COMPLETED BY MHTD CONSTRUCTION PERSONNEL.

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MISC. PILES IN 'PLA, 'A
PILES IN PLACE REVISIONS
MAY 1992

DETAILED 11-28-1992
CHECKED 19

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

3B-A Final Plans
SHEET NO. 38 OF 37.

COUNTY A-4863