

64H77

PROJECT ENGINEER - REBECCA MARRUFFO

SQUAD LEADER - PAUL DREZEN (815) - 284 - 5915

INDEX

06-15-12 LETTING ITEM 207

STATE OF ILLINOIS

VARIOUS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	D2 SAFETY 2012-2	**	151	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	64H77	
* 74, 80, 88 & 280				
** HENRY / ROCK ISLAND / WHITESIDE				

- 1 COVER SHEET
- 2 - 3 SUMMARY OF QUANTITIES
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- 115 DELINEATOR AND POST ORIENTATION (37.4)
- 116 TRAFFIC CONTROL TYPICAL WEAVE (39.1)
- 117 - 118 TRAFFIC BARRIER TERMINAL, TYPE 6B (SPECIAL) (90.1)
- 119 - 151 CROSS SECTIONS

100%
06-24-2013

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

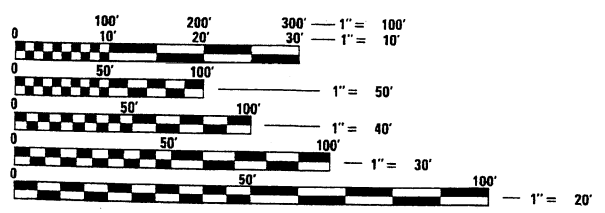
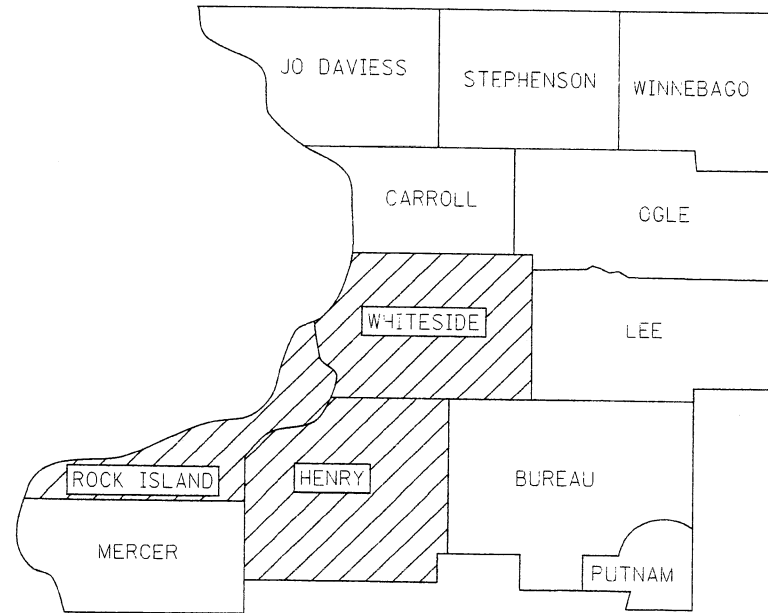
FAI ROUTE 74,80, 88 & 280 (VARIOUS LOCATIONS)
SECTION D2 SAFETY 2012-2
PROJECT: HSIP-000S(903)

HENRY, ROCK ISLAND AND WHITESIDE COUNTIES

C-92-134-12

STATE STANDARDS

- 280001-06 TEMPORARY EROSIONS CONTROL SYSTEMS
- 542526-03 INLET BOX TYPE 24 (600) F
- 601001-04 SUBSURFACE DRAINS
- 601101-01 CONCRETE HEADWALL FOR PIPE DRAIN
- 602401-03 MANHOLE TYPE A
- 604036-02 GRATE TYPE 8
- 630001-10 STEEL PLATE BEAM GUARDRAIL
- 630301-05 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
- 631011-08 TRAFFIC BARRIER TERMINAL, TYPE 2
- 635001-01 DELINEATORS
- 635006-03 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 635011-02 REFLECTOR MARKER AND MOUNTING DETAILS
- 643001 SAND MODULE IMPACT ATTENUATORS
- 701101-02 OFF-RD OPERATIONS, MULTILANE, 15' (4.5 M) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701106-02 OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 M) AWAY
- 701400-05 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701406-06 LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
- 701411-08 LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS ≥ 45 MPH
- 701426-04 LANE CLOSURE, MULTILANE, INTERMITTANT OR MOVING OPER., SPEEDS ≥ 45 mph
- 701456-02 PARTIAL EXIT RAMP CLOSURE FREEWAY/EXPRESSWAY
- 701901-02 TRAFFIC CONTROL DEVICES
- 000001-04 STANDARD SYMBOLS, ABBREVIATIONS, & PATTERNS
- 001001 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH & OF A FOOT



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED May 1 20 12
Eric S. Zrubik
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 11 20 12
John D. Bucamacci P.E. Ia
acting ENGINEER OF DESIGN AND ENVIRONMENT

May 11 20 12
William R. Frey Ia
acting DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

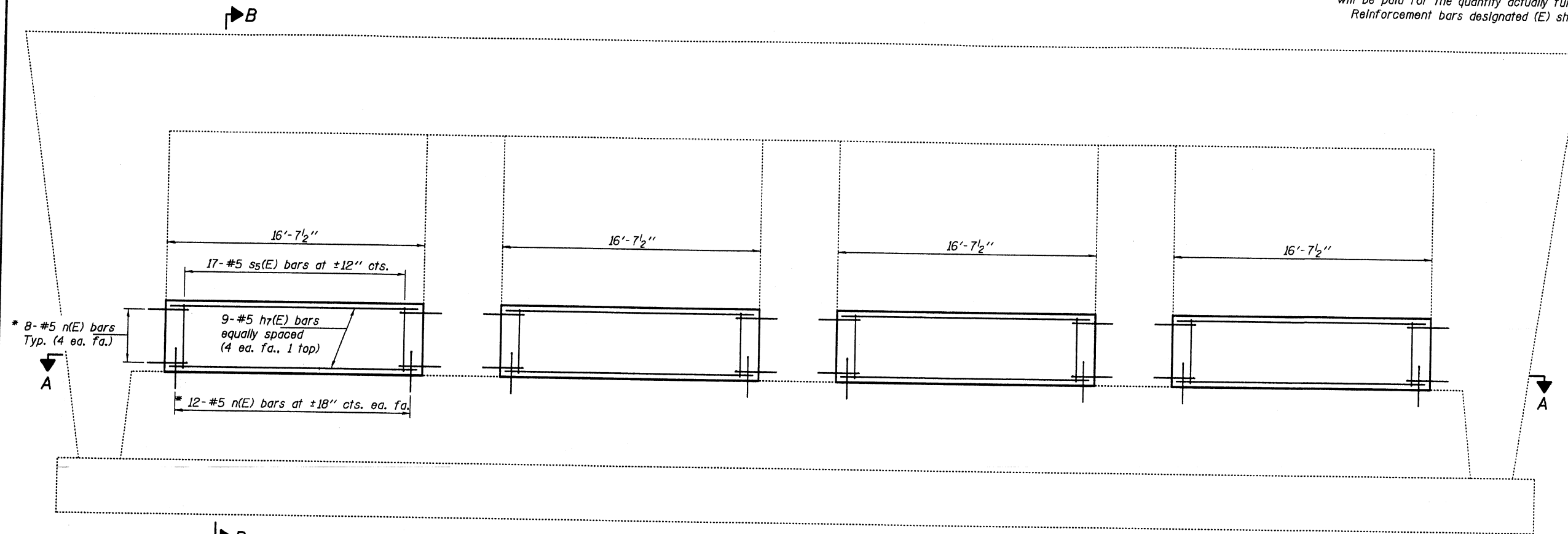
PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 64H77 081-0125

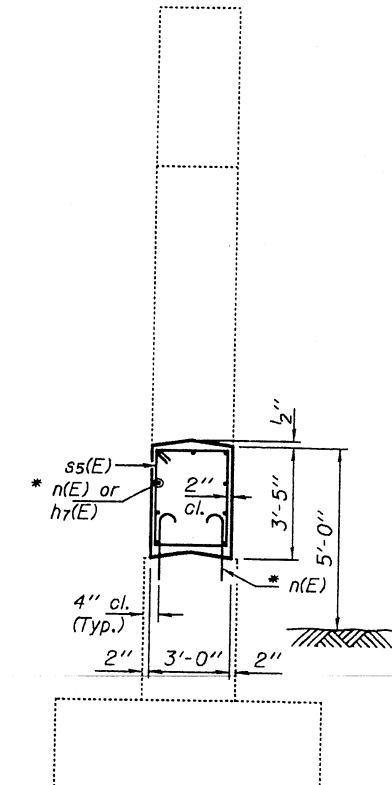
GROSS LENGTH = 373,375 FT. = 70.72 MILE
NET LENGTH = 12,418 FT. = 2.35 MILE

NOTES

The cost of epoxy grouting threaded rods shall be included with Reinforcement Bars, Epoxy Coated.
 Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work. Reinforcement bars designated (E) shall be epoxy coated.

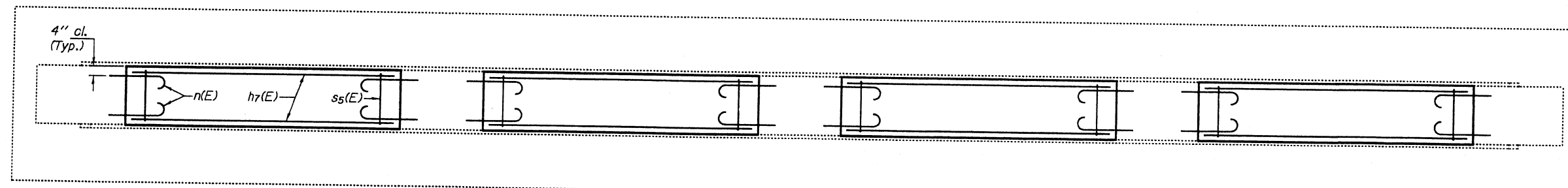


ELEVATION

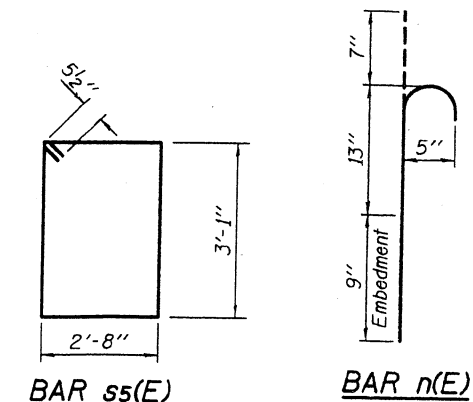


SECTION B-B

* Epoxy grout n(E) bars in 9" min. holes according to Article 584 of the Standard Specifications.



SECTION A-A



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h7(E)	36	#5	16'-3"	—
n(E)	160	#5	2'-5"	⌋
ss(E)	68	#5	12'-5"	□
Concrete Structures			Cu. Yd.	25.2
Reinforcement Bars, Epoxy Coated			Pound	1890



EXPIRES 11-30-2012

DESIGNED DAB	EXAMINED <i>J.F. Jolly</i>	DATE - APRIL 23, 2012
CHECKED VP	PASSED <i>J.C. Puzey</i>	REVISED Δ 06/04/2012
DRAWN ballva	ACTING ENGINEER OF STRUCTURAL SERVICES	
CHECKED DAB VP	ACTING ENGINEER OF BRIDGES AND STRUCTURES	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER CRASHWALL EXTENSION
081-0125

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	02 SAFETY 2012-2	ROCK ISLAND	151	96
			CONTRACT NO. 64HT7	
ILLINOIS FED. AID PROJECT				

SHEET NO. OF SHEETS

18

99.9%
11-18-2001

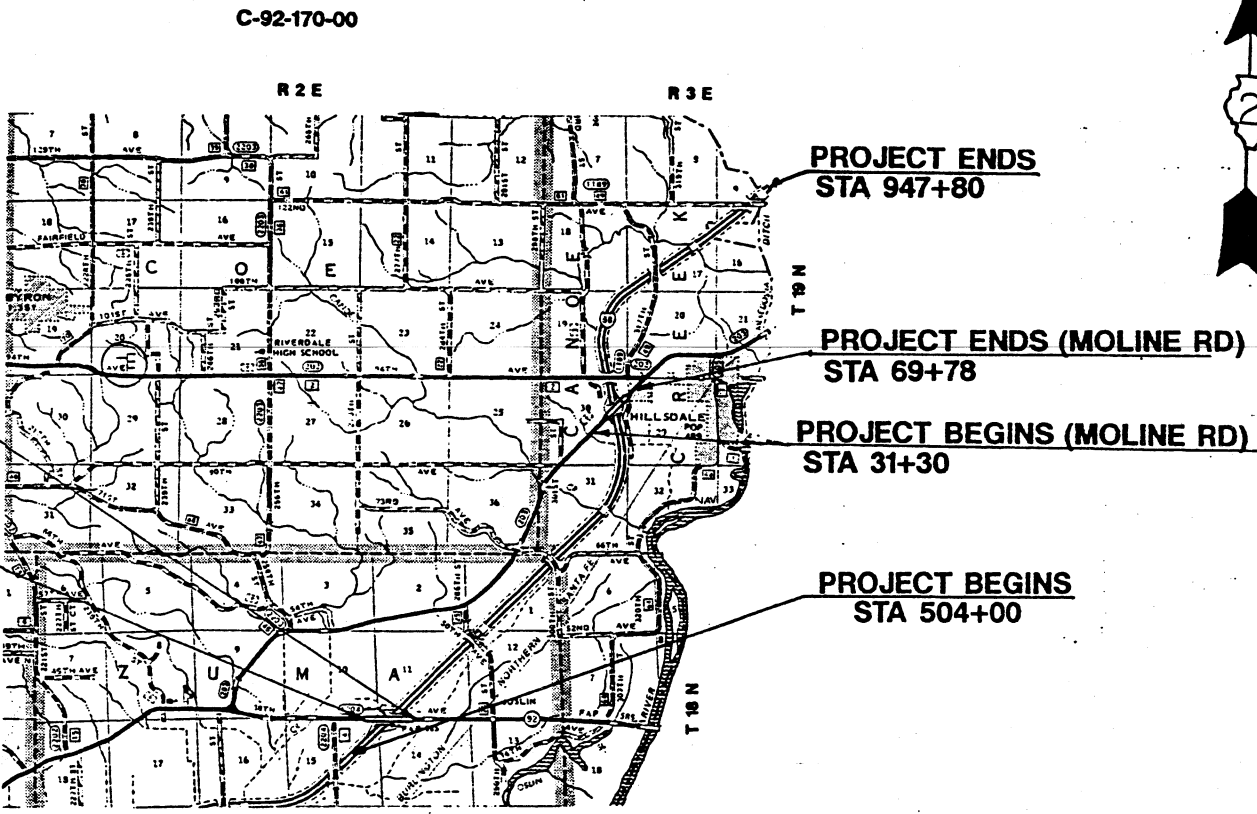
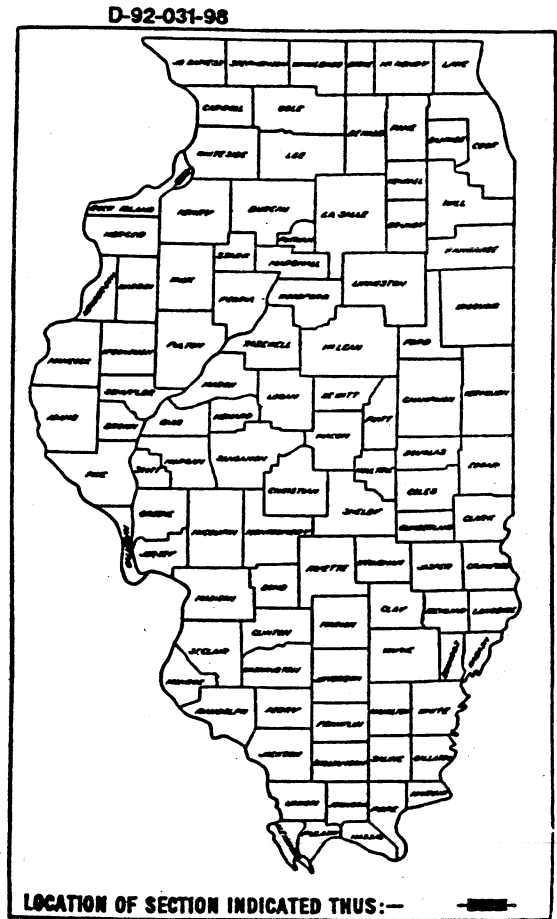
INDEX OF SHEETS
SEE SHEET NO. 2

STANDARDS
SEE SHEET NO. 2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FAI 88 (INTERSTATE 88)
SECTION (161-1-2) RS
PROJECT NO. ACIM-88-1(7)6

WHITESIDE AND ROCK ISLAND COUNTIES
RESURFACING & INTERSECTION IMPROVEMENTS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 88		ROCK ISLAND	129	1
* (161-1-2) RS				



NOTE: COUNTIES INVOLVED IN THIS SECTION INCLUDES WHITESIDE COUNTY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

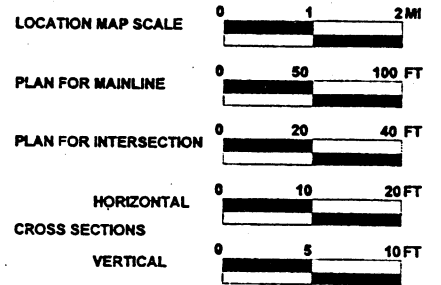
DATE: October 23, 2000

BY: [Signature]

APPROVED: Michael Hine
DISTRICT ENGINEER

APPROVED: JAMES C. SLIPEN
CHIEF ENGINEER

ZUMA TOWNSHIP, SECTIONS 1, 10, 11, 12, 14, 15
CANOE CREEK TOWNSHIP, SECTIONS 9, 16, 17, 19, 20, 30, 31



"CALL J.U.L.I.E.
BEFORE YOU DIG"
800-892-0123

081-0125

CONTRACT NO. 64291

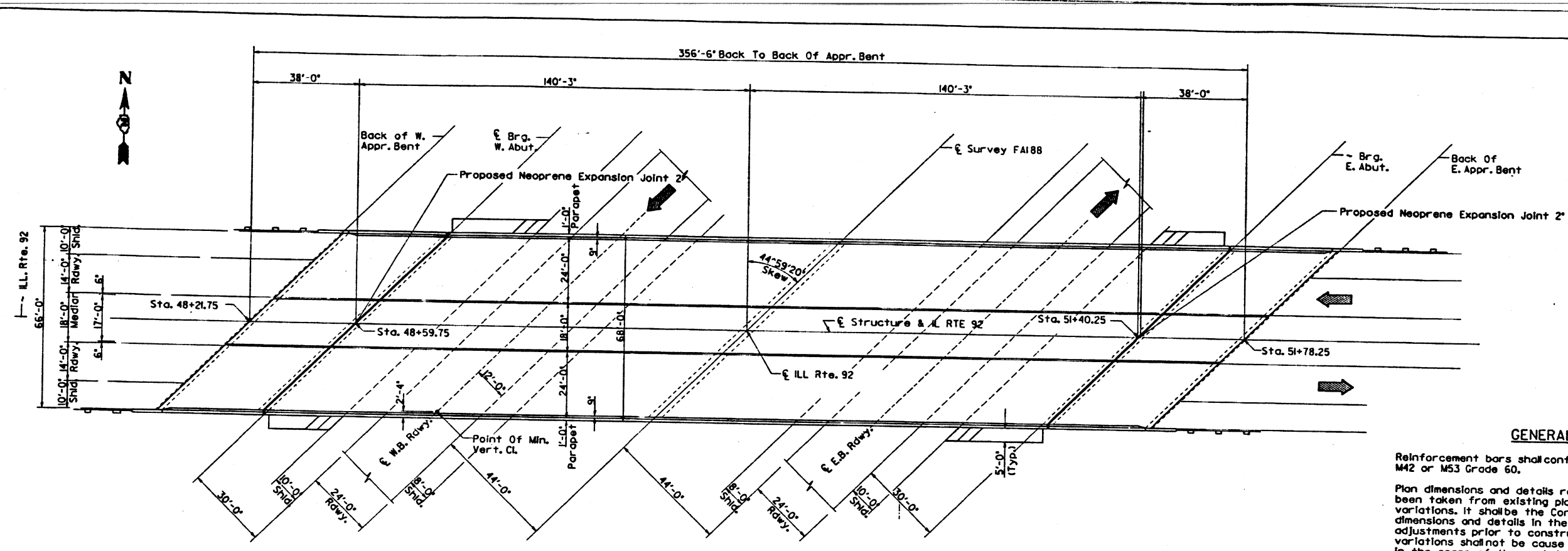
NET LENGTH OF PROJECT = 51,907 FT = 9.83 MILES
GROSS LENGTH OF PROJECT = 52,001 FT = 9.85 MILES

DISTRICT 2
DIXON, IL

2-241

081-0125

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	161-1-2/R5	ROCKISLAND	129	74
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
SHEET 1 OF 10				



PLAN

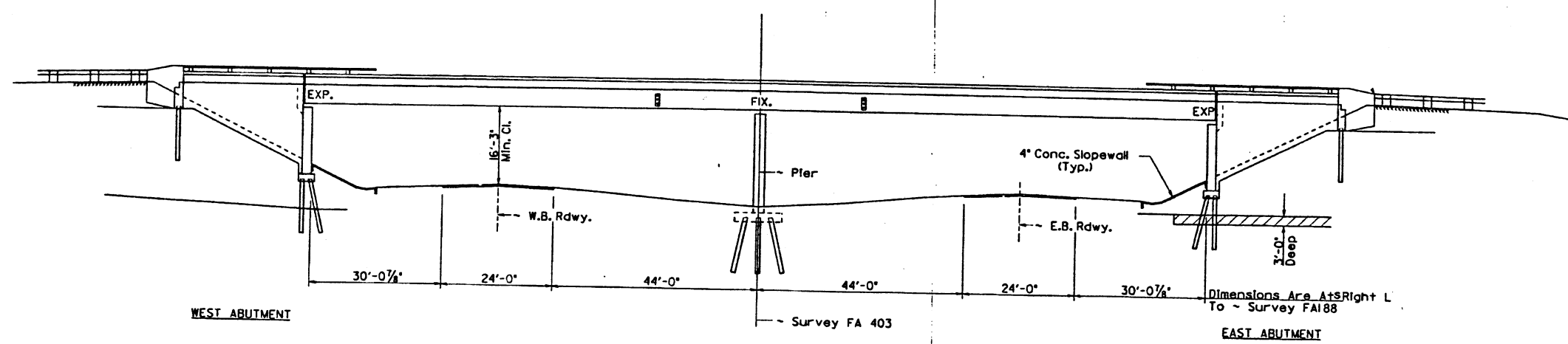
GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M31, M42 or M53 Grade 60.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work; however, the Contractor will be paid for the Quantity actually furnished at the unit price bid for the work.

The existing structural steel coatings contain lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.

Prior to pouring the new concrete for the deck, all loose rust, loose mill scale, and all other loose, potentially detrimental foreign material shall be removed from the surfaces of beams or girders in contact with concrete. The cost of this work shall be included in the pay item covering removal of the existing concrete. All heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surfaces of the beams or girders in contact with concrete. This removal shall be accomplished by methods that will not damage the steel. The cost of this work will be paid for according to Article 109.04.



ELEVATION

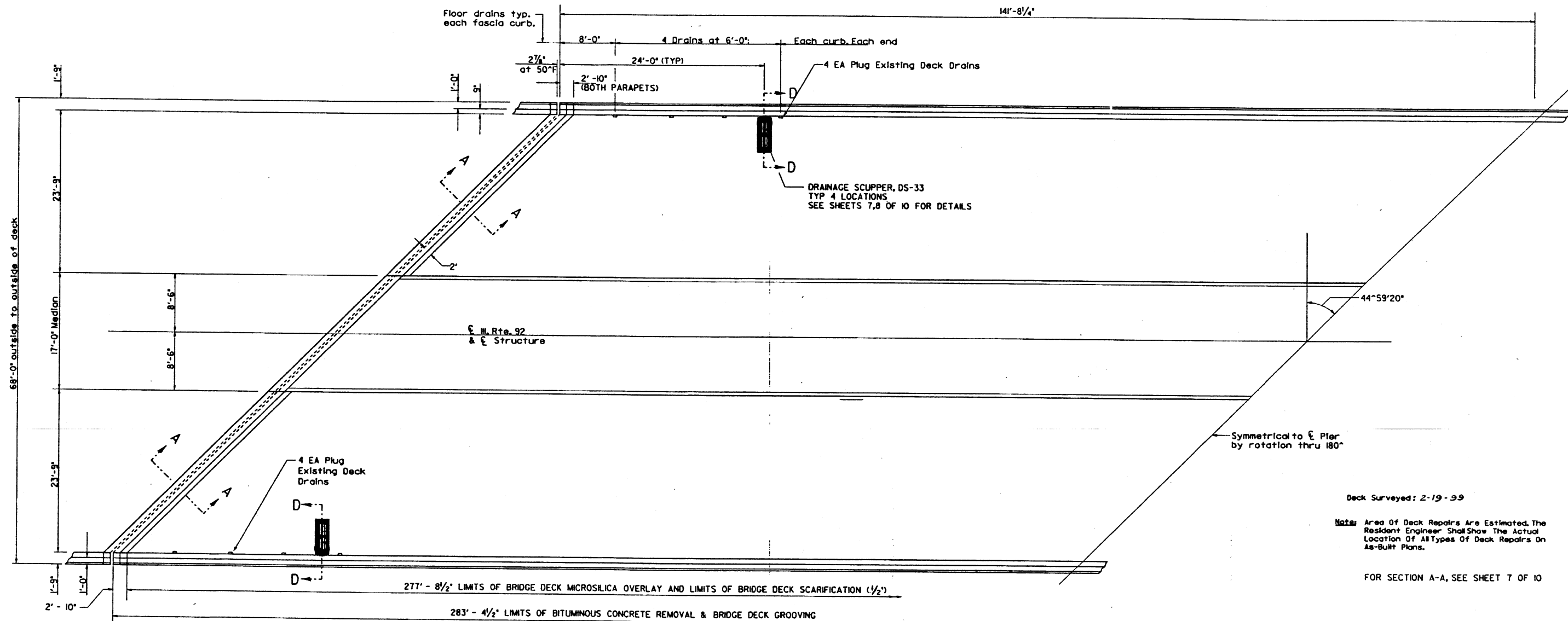
TOTAL BILL OF MATERIALS

ITEM	UNIT	QUANTITY
BITUMINOUS CONCRETE REMOVAL (DECK)	SQ YD	1872
CONCRETE REMOVAL	CU YD	15
CONCRETE SUPERSTRUCTURE	CU YD	16
BRIDGE DECK GROOVING	SQ YD	1714
REINFORCEMENT BARS, EPOXY COATED	POUND	1890
PLUG EXISTING DECK DRAINS	EACH	16
BRIDGE DECK MICROSILICA CONCRETE OVERLAY	SQ YD	1822
CONCRETE BRIDGE DECK SCARIFICATION (1/2)	SQ YD	1822
DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	10
DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	10
DECK SLAB REPAIR (PARTIAL)	SQ YD	300
DRAINAGE SCUPPERS	EACH	4
PROTECTIVE SHIELD	SQ YD	813
POLYMER CONCRETE	CU FT	13
SILICONE JOINT SEALER	FOOT	186
NEOPRENE EXPANSION JOINT 2"	FOOT	192

GENERAL PLAN & ELEVATION
 FAS 1204 (IL 92) OVER I-88
 ROCK ISLAND COUNTY
 SECT. 161-IHB-4
 STRUCTURE NO. 081-0125

DATE: 11/28/2008
 DRAWN BY: [unreadable]
 CHECKED BY: [unreadable]

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	161-I-2WS	ROCKISLAND	129	75
STA.		TO STA.		
FED. ROAD DIST. NO.	ILL. NOS.	FED. AID PROJECT		
		SHEET 2 OF 10		

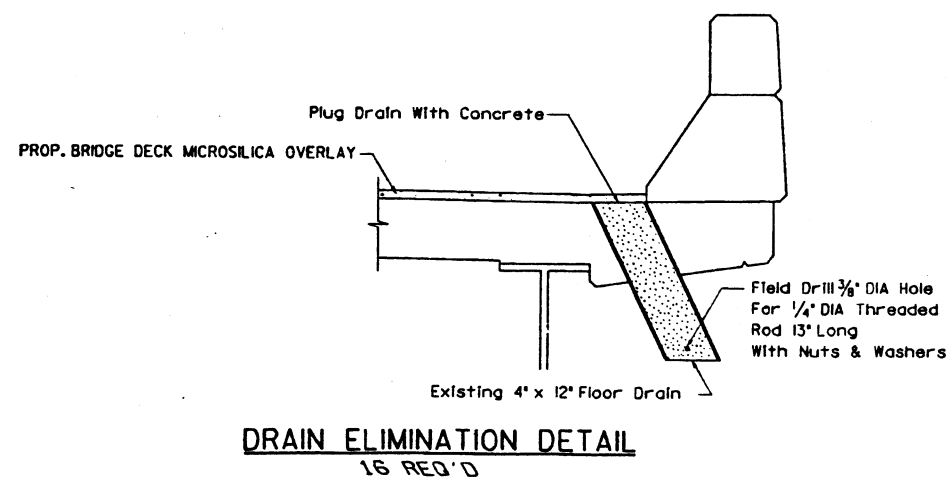


HALF DECK PLAN

Deck Surveyed: 2-19-99

Note: Area of Deck Repairs Are Estimated. The Resident Engineer Shall Show The Actual Location of All Types of Deck Repairs on As-Built Plans.

FOR SECTION A-A, SEE SHEET 7 OF 10



DRAIN ELIMINATION DETAIL
16 REQ'D

DECK PLAN
FAS 1204 (IL 92) OVER I-88
ROCK ISLAND COUNTY
SECT. 161-IHB-4
STRUCTURE NO. 081-0125

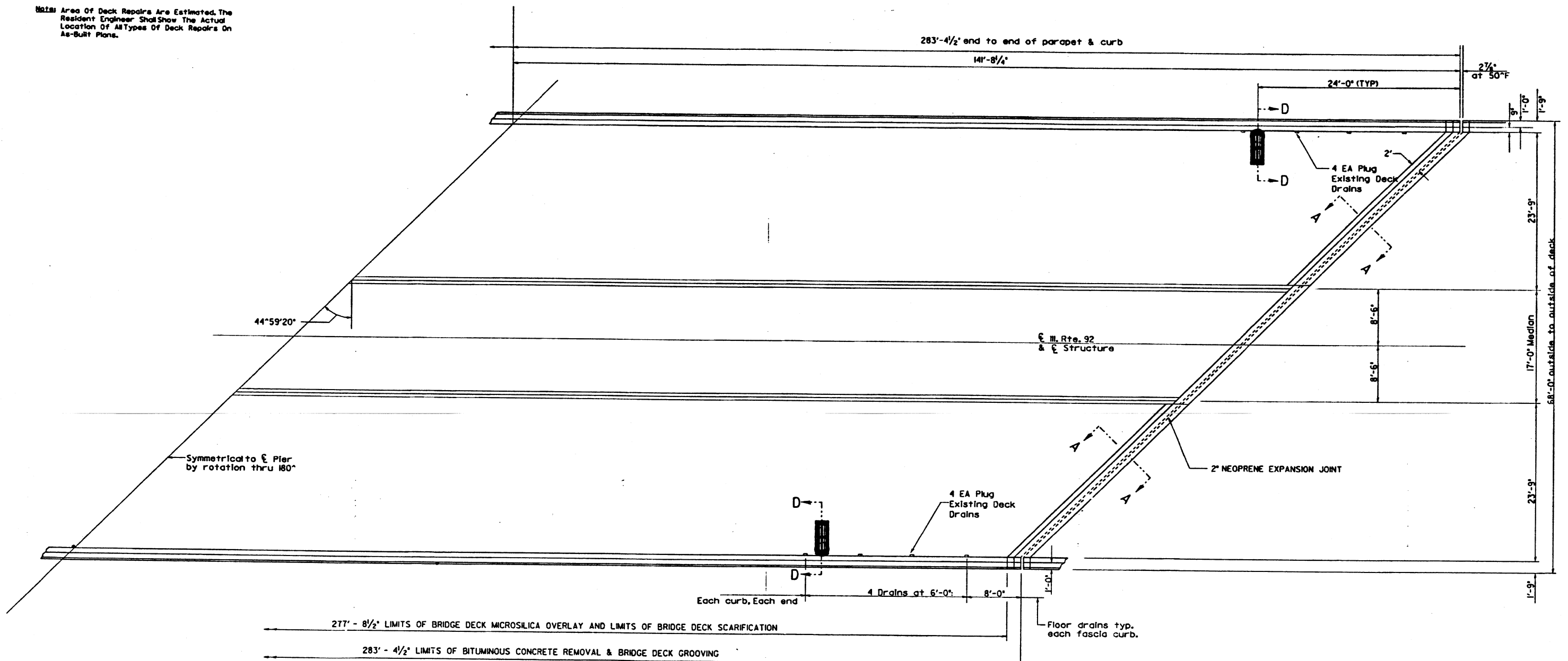
PLAN OF THE BRIDGE DECK
 FOR THE BRIDGE OVER I-88
 AT THE INTERSECTION OF I-88 AND I-88
 IN ROCK ISLAND COUNTY, ILLINOIS
 PROJECT NO. 161-IHB-4
 SHEET NO. 081-0125

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	061-1-21RS	ROCKISLAND	129	76
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

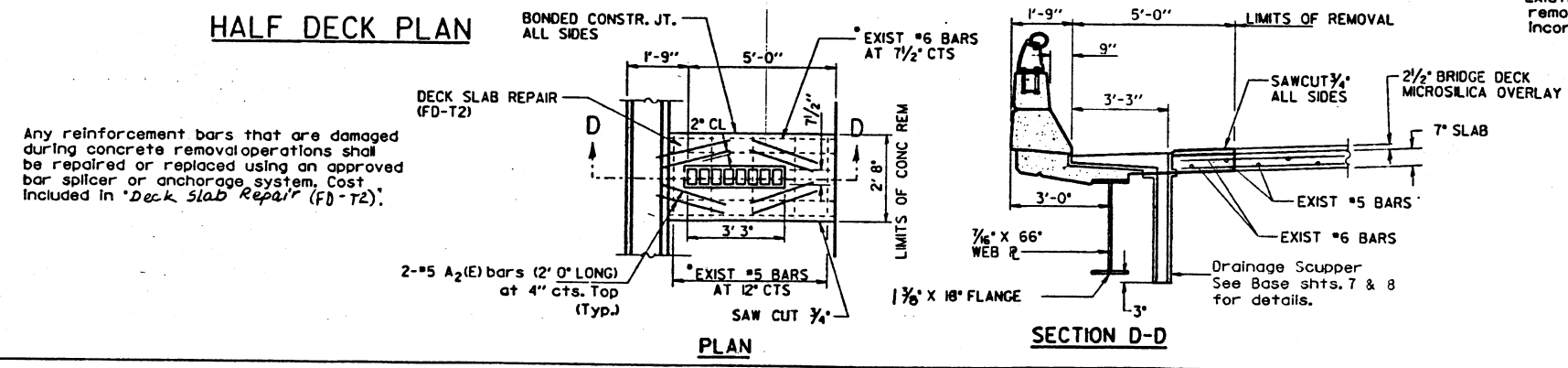
SHEET 3 OF 10

Deck Surveyed

NOTE: Area Of Deck Repairs Are Estimated. The Resident Engineer Shall Show The Actual Location Of All Types Of Deck Repairs On As-Built Plans.



HALF DECK PLAN



• Existing reinforcement bars that extend into the removal area shall be cleaned, straightened, and incorporated into the new construction.

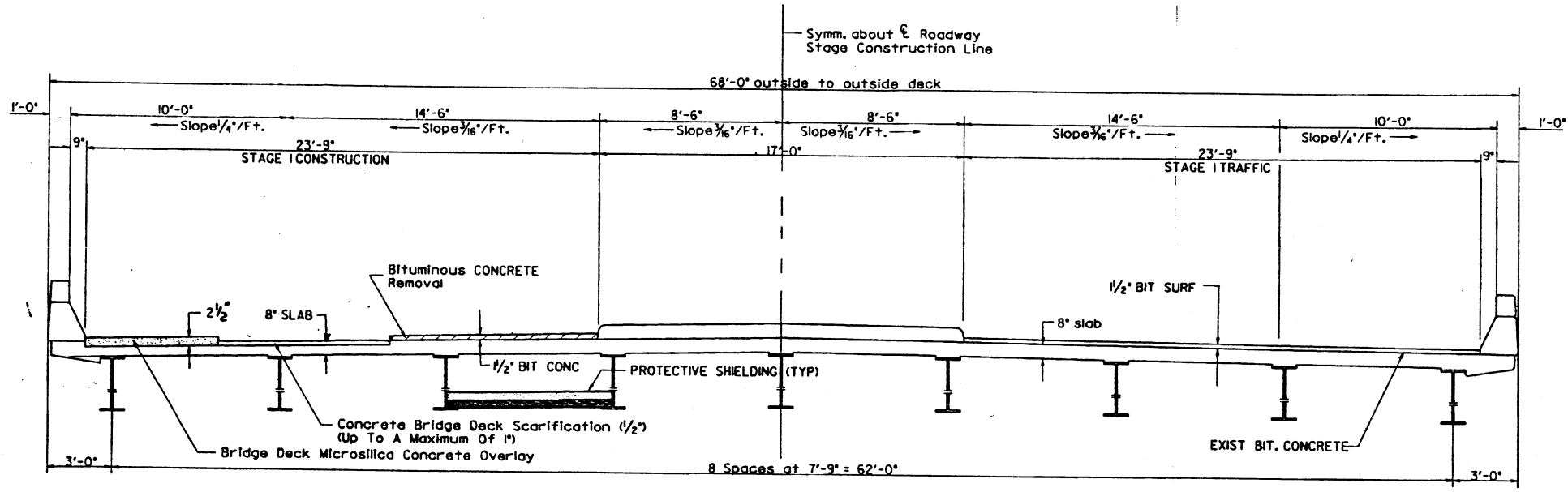
Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included in 'Deck Slab Repair' (FD-T2).

DECK PLAN
 FAS 1204 (IL 92) OVER I-88
 ROCK ISLAND COUNTY
 FAI 88 SECT. 161-IHB-4
 STRUCTURE NO. 081-0125

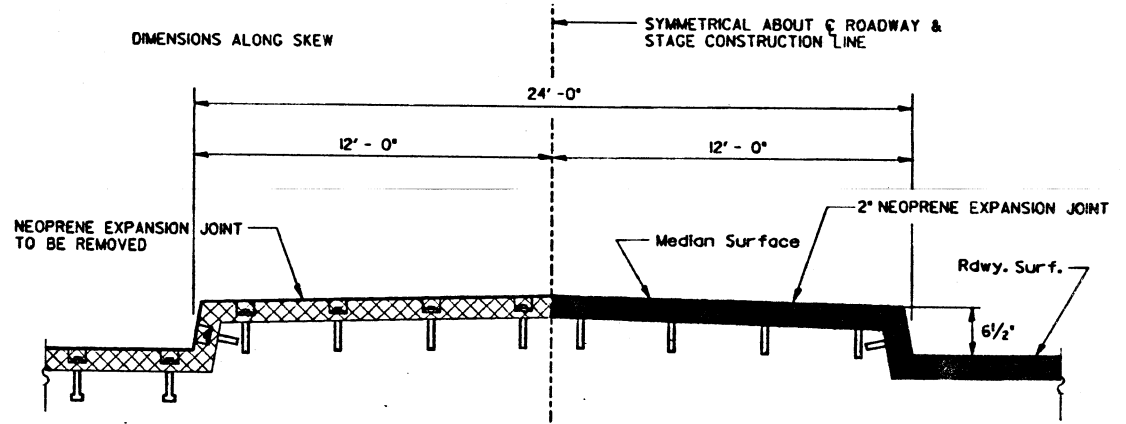
P.L. 11/25/88
 C.V. 11/25/88
 11-88-101-88

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	161-1-21RS	ROCKISLAND	129	77
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET 4 OF 10

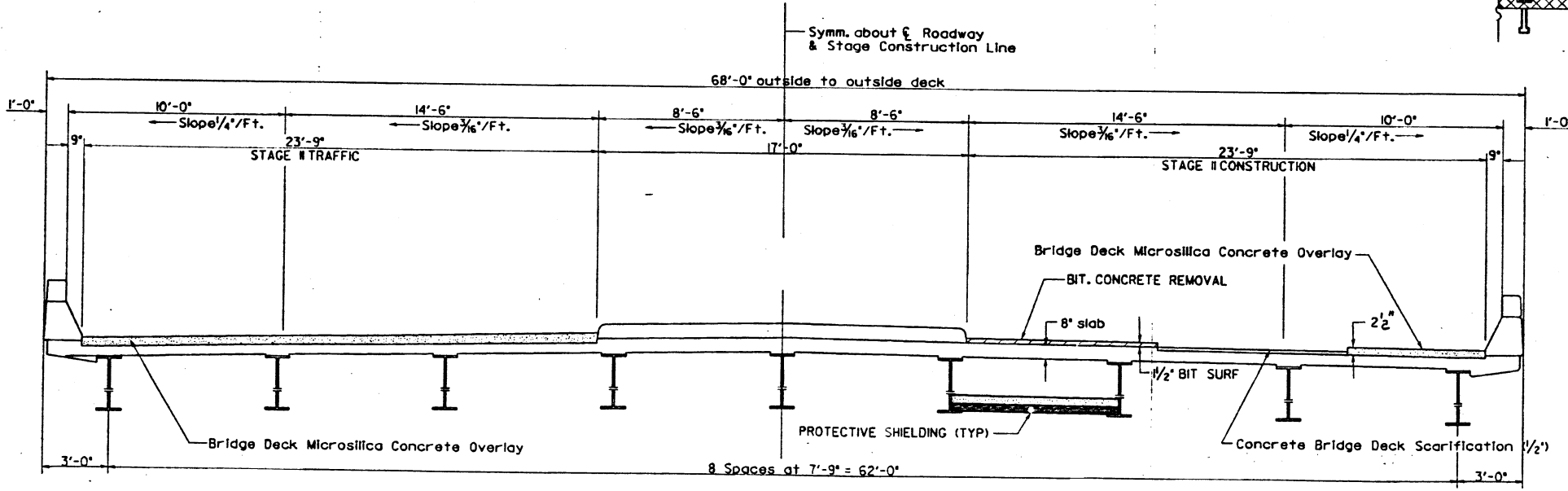


CROSS SECTION
Looking East
Stage I



EXISTING **PROPOSED**

HALF SECTION THRU MEDIAN JOINT



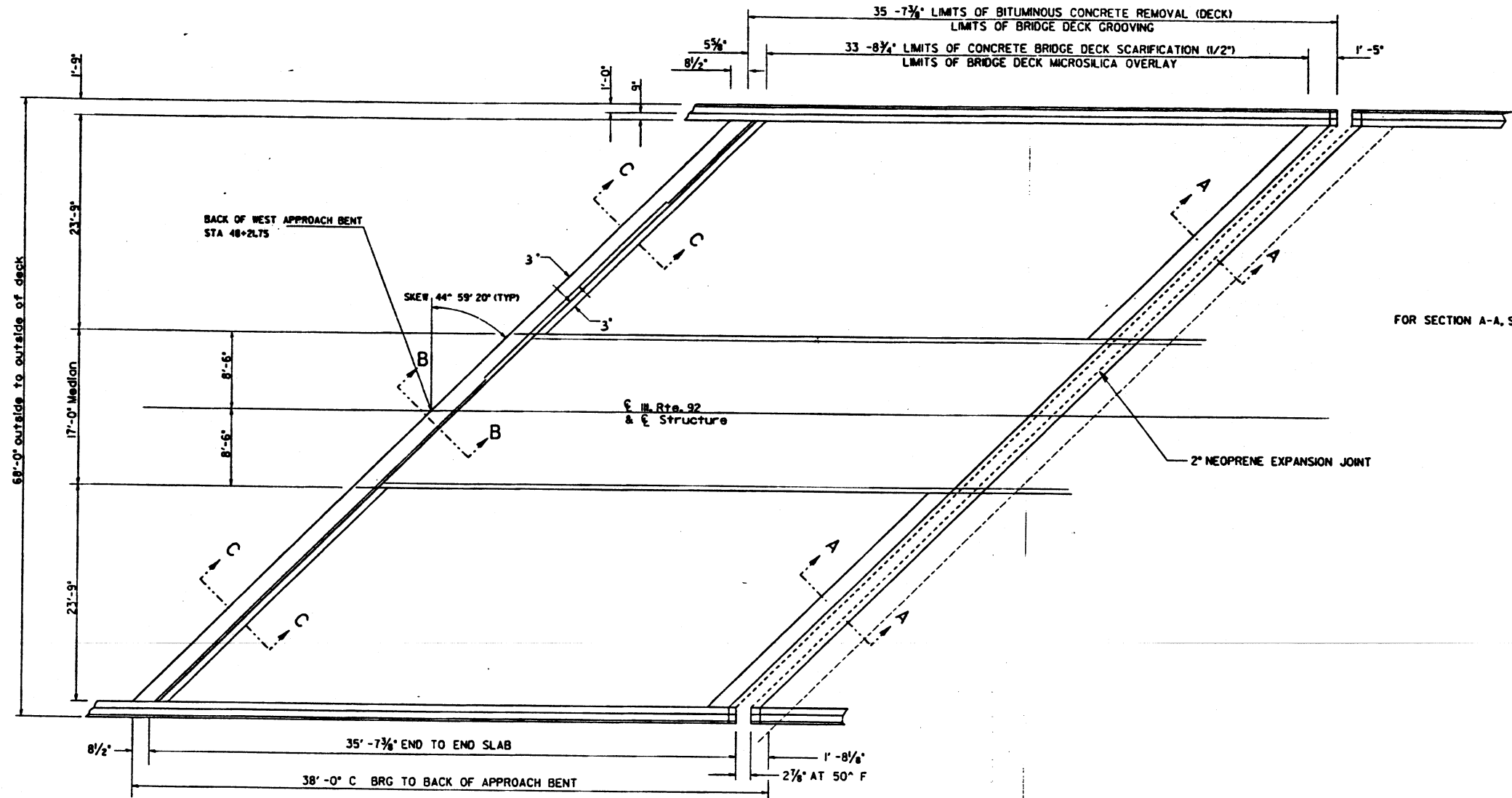
CROSS SECTION
Looking East
Stage II

DECK DETAILS
FAS 1204 (IL 92) OVER I-88
ROCK ISLAND COUNTY
FAI88 SECT. 161-IHB-4
STRUCTURE NO. 081-0125

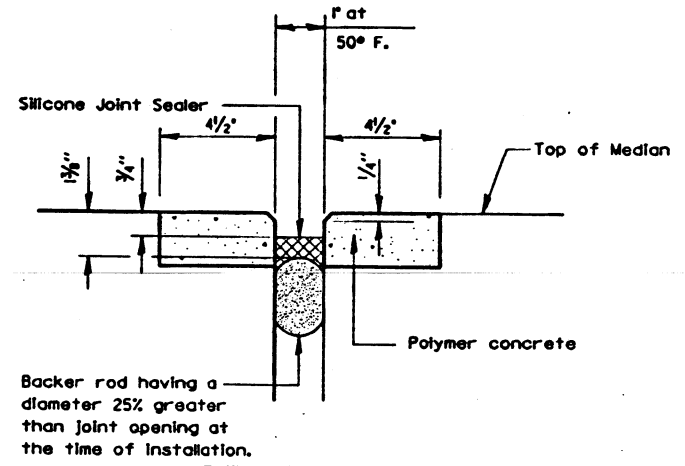
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	061-1-2RS	ROCKISLAND	129	78
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

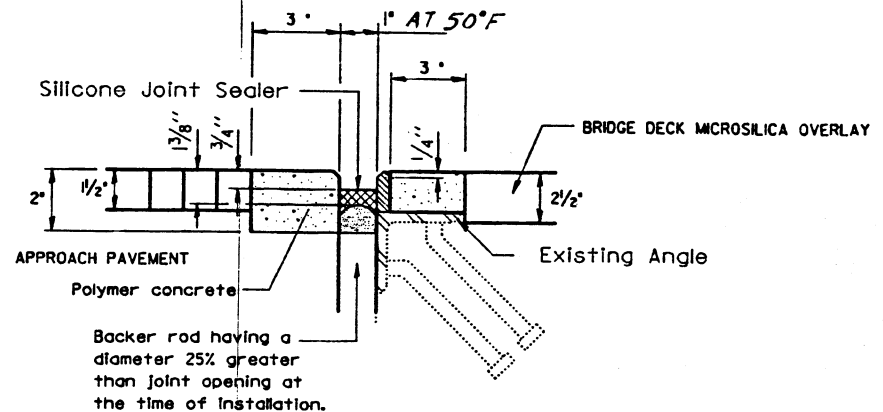
SHEET 5 OF 10



WEST APPROACH PLAN



SECTION B-B



SECTION C-C

APPROACH DETAILS
 FAS 1204 (IL 92) OVER I-88
 ROCK ISLAND COUNTY
 FAI 88 SECT. 161-IHB-4
 STRUCTURE NO. 081-0125

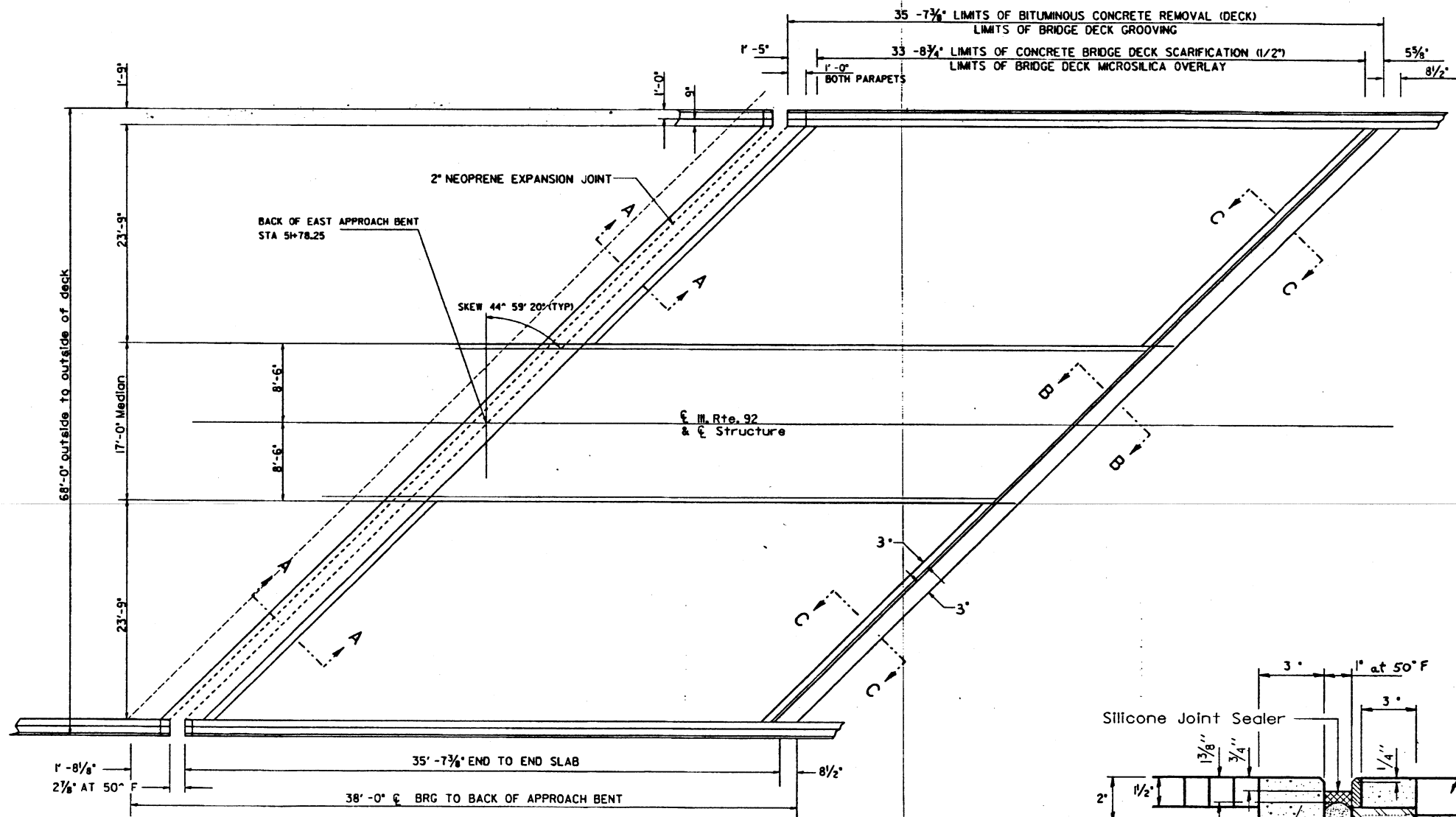
FOR SECTION B-B,
 SEE SHEET 2 OF 10.

FOR SECTION A-A, SEE SHEET 7 OF 10

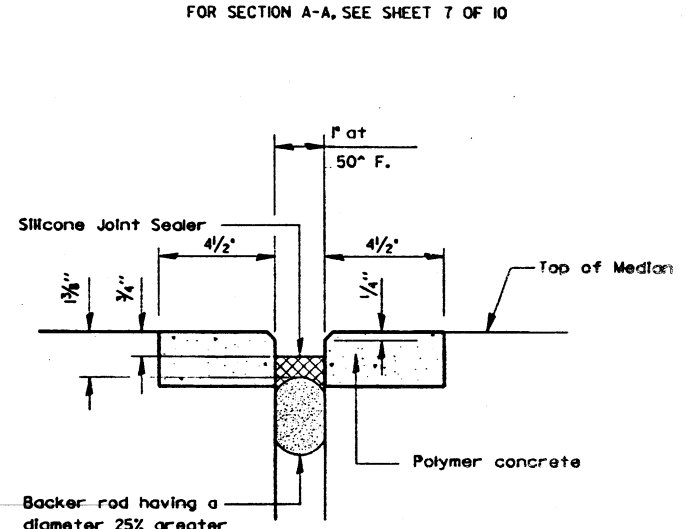
P. Des. 87 Marshall Stone
 DATE: 08/12/88 L101-88

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	161-1-2RS	ROCK ISLAND	129	79
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

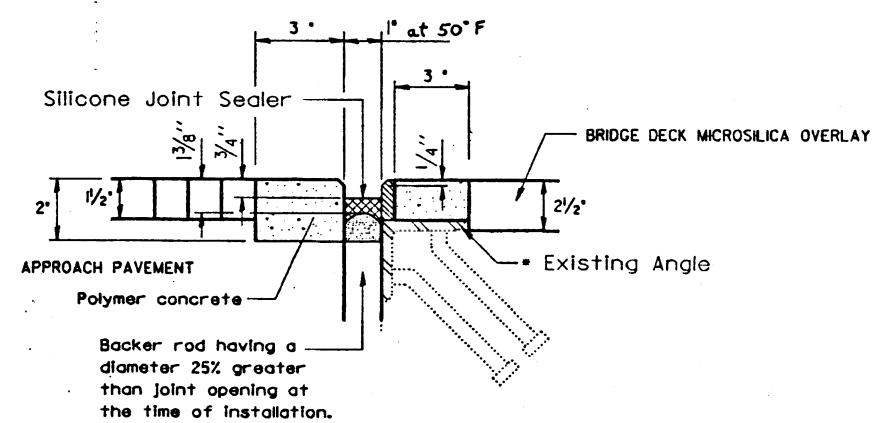
SHEET 6 OF 10



EAST APPROACH PLAN



SECTION B-B

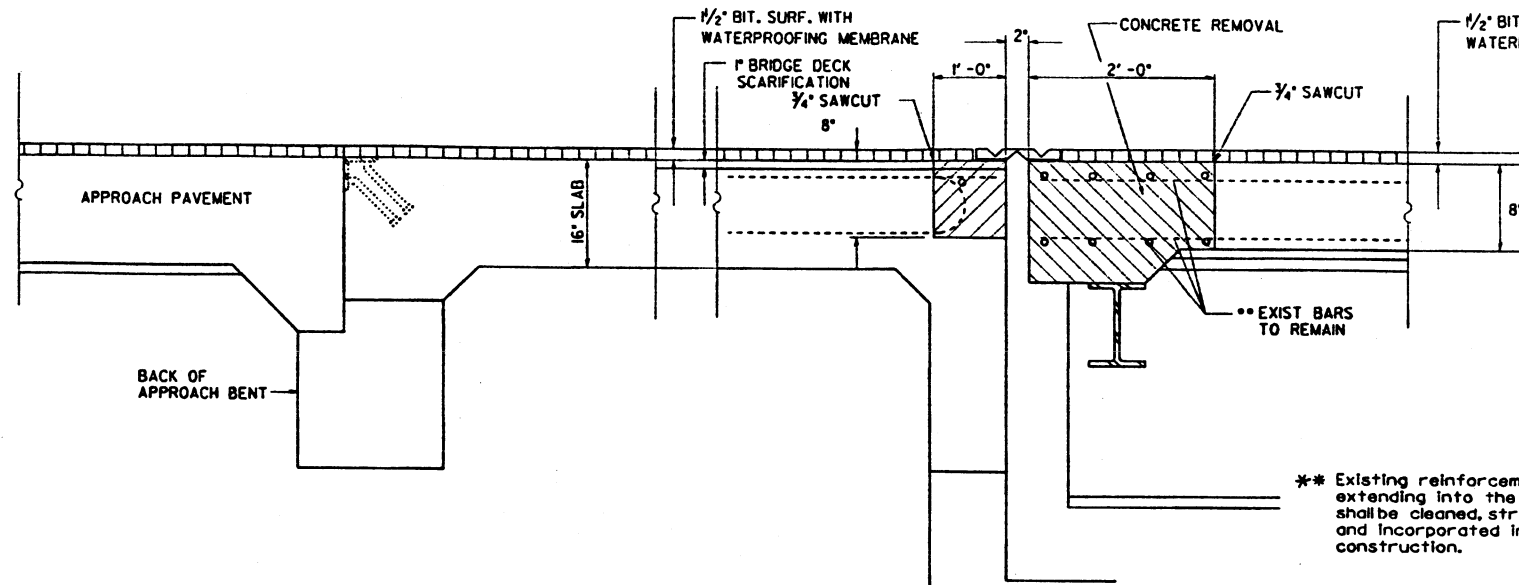


SECTION C-C

APPROACH DETAILS
 FAS 1204 (IL 92) OVER I-88
 ROCK ISLAND COUNTY
 FA188 SECT. 161-IHB-4
 STRUCTURE NO. 081-0125

F.A.I. RY.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	061-I-2RS	ROCKISLAND	129	80
STA. 161+10.00		TO STA. 161+10.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

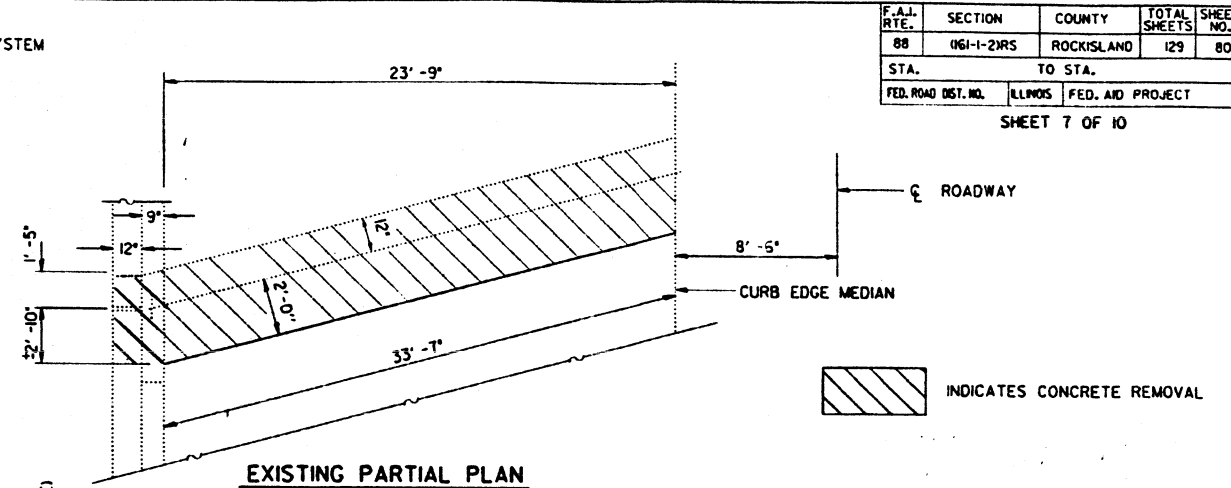
SHEET 7 OF 10



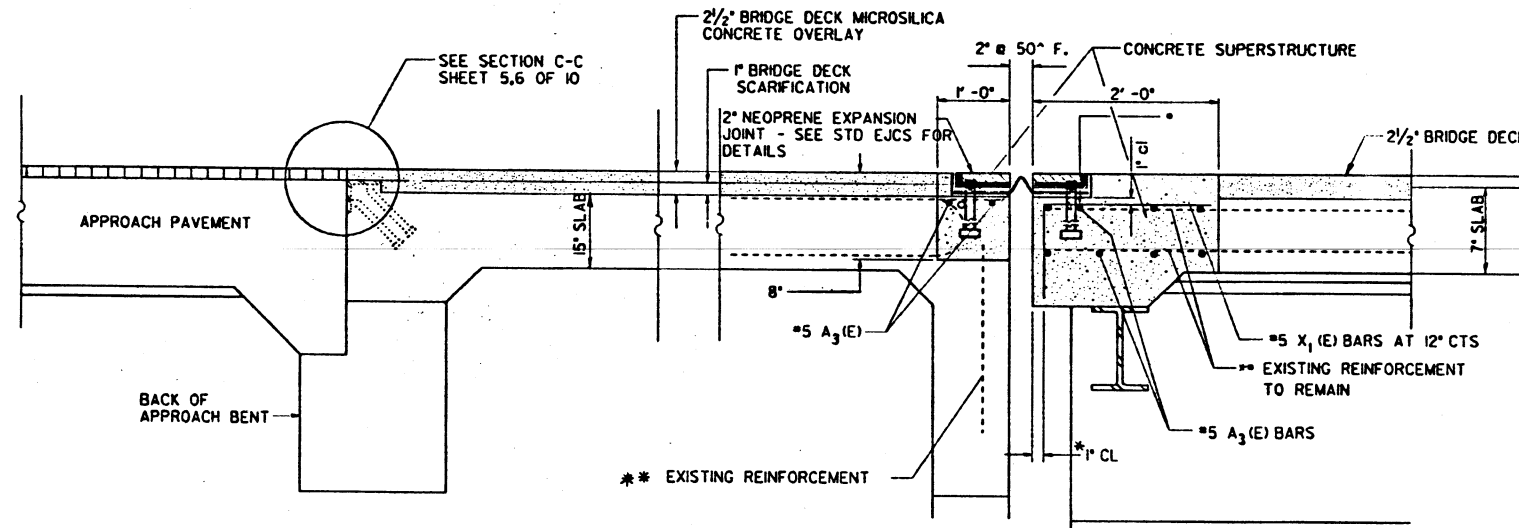
EXISTING SECTION C-C

EXISTING SECTION A-A

** Existing reinforcement bars extending into the removal area shall be cleaned, straightened, and incorporated into the new construction.
 ** Any reinforcement bars that are damaged during concrete removal operation shall be repaired or replaced using an approved bar splicer or anchor system. Cost included in concrete removal.



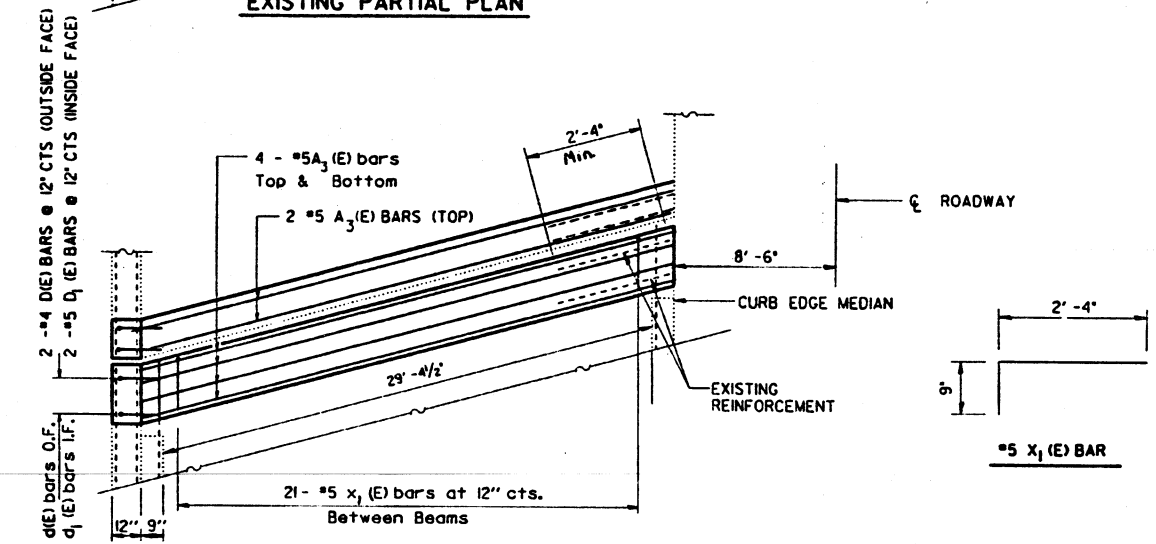
EXISTING PARTIAL PLAN



PROPOSED SECTION C-C

PROPOSED SECTION A-A

* PLACE A₃(E) BARS IN BACK OF ANCHOR BOLT AS SHOWN IF REQUIRED TO MAINTAIN 1" CL. (+0-1/8") ANCHOR BOLTS SHALL BE TIED TO A₃(E) BARS

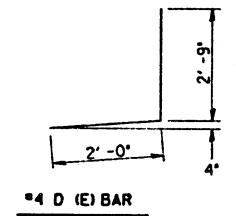


PROPOSED PARTIAL PLAN

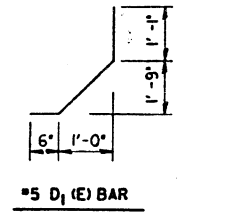
BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE
A ₂ (E)	32	5	2'-0"	—
A ₃ (E)	40	5	33'-3"	—
X ₁ (E)	84	5	3'-4"	┌┐
DIE	20	4	4'-9"	┌┐
D ₁ (E)	20	5	3'-7"	┌┐

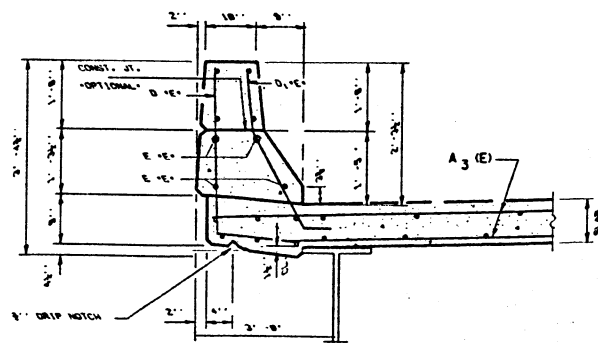
ITEM	UNIT	QUANTITY
BITUMINOUS CONCRETE REMOVAL (DECK)	SQ YD	1872
CONCRETE REMOVAL	CU YD	15
CONCRETE SUPERSTRUCTURE	CU YD	16
BRIDGE DECK GROOVING	SQ YD	1714
REINFORCEMENT BARS, EPOXY COATED	POUND	1890
BRIDGE DECK MICROSILICA CONCRETE OVERLAY	SQ YD	1822
CONCRETE BRIDGE DECK SCARIFICATION (1/2")	SQ YD	1822
PROTECTIVE SHIELD	SQ YD	813
POLYMER CONCRETE	CU FT	13
SILICONE JOINT SEALER	FOOT	186
DECK SLAB REPAIR (FD-T1)	SQ YD	10
DECK SLAB REPAIR (FD-T2)	SQ YD	10
DECK SLAB REPAIR (PARTIAL)	SQ YD	300
NEOPRENE EXPANSION JOINT 2"	FOOT	192



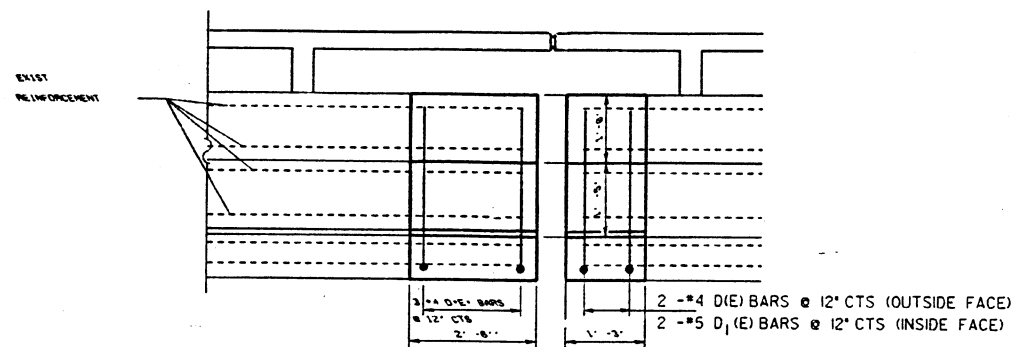
#5 X₁(E) BAR



#4 D₁(E) BAR



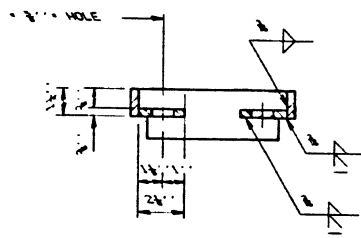
SECTION THRU PARAPET



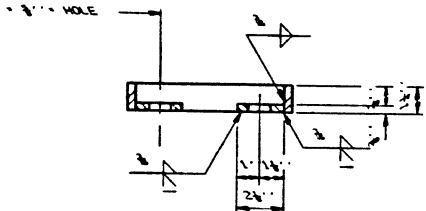
INSIDE VIEW OF PARAPET

DECK DETAILS
 FAS 1204 (IL 92) OVER I-88
 ROCK ISLAND COUNTY
 FAI SECT. 161-IHB-4
 STRUCTURE NO. 081-0125

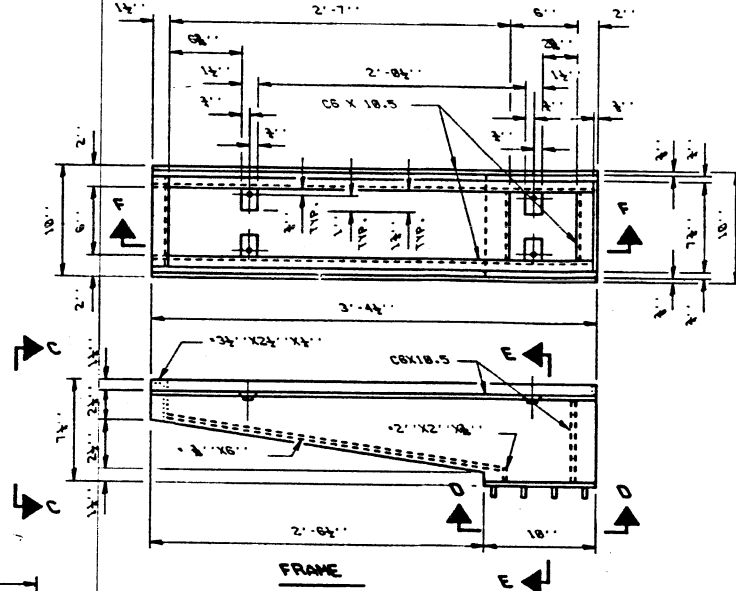
Prepared by: [unreadable]
 Checked by: [unreadable]
 Date: 11/11/03



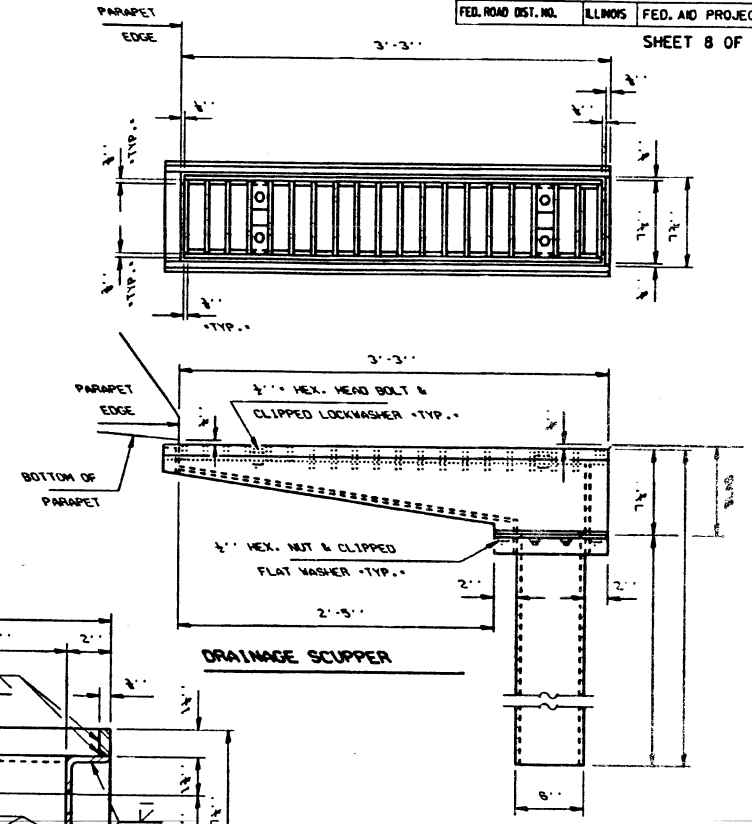
SECTION A-A



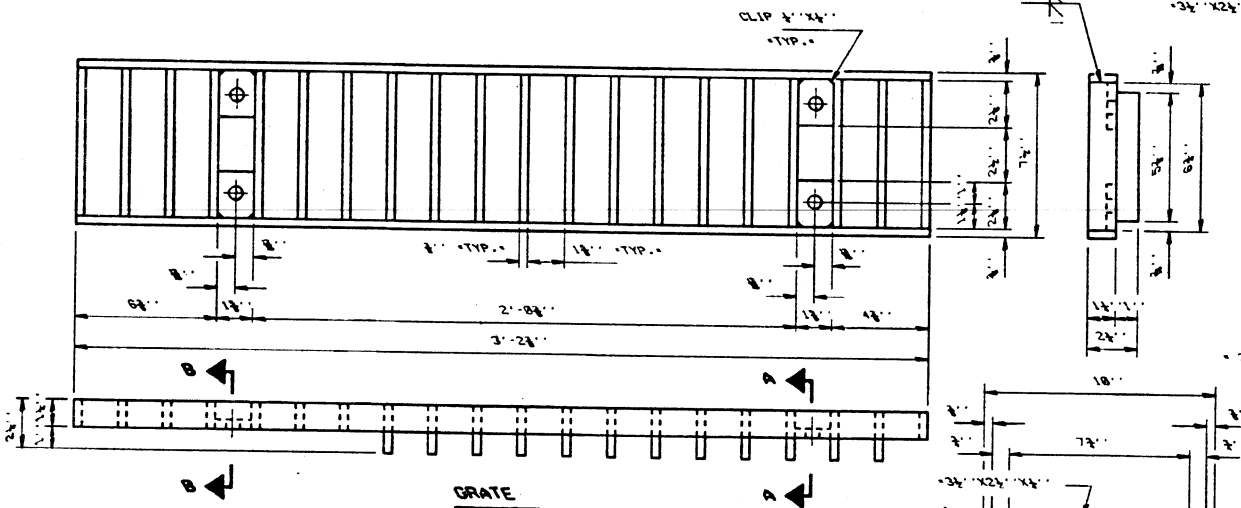
SECTION B-B



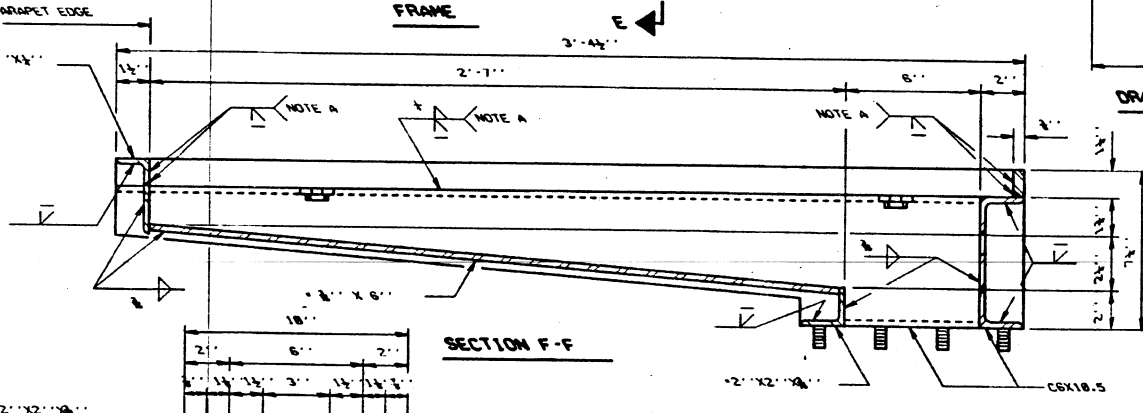
FRAME



DRAINAGE SCUPPER

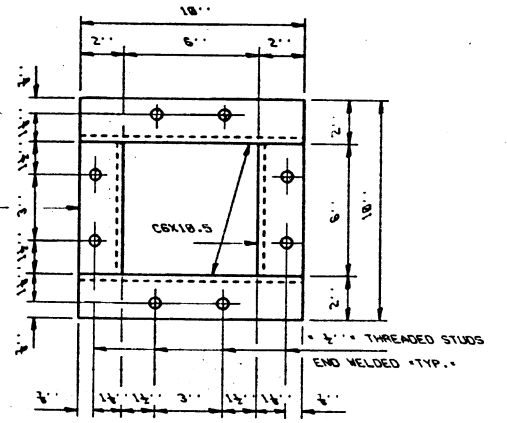


GRATE



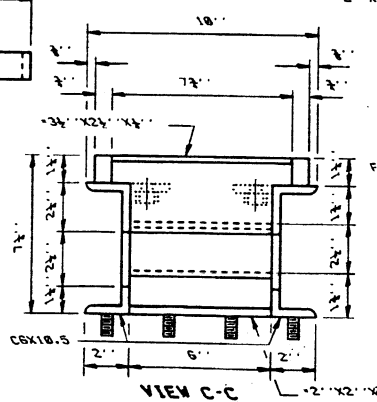
SECTION F-F

NOTE A: SURFACE OF WELDS SHALL BE RECESSED 1/8" MAX. OR PLACED FLUSH WITH INSIDE FACE OF BARS TO PROVIDE CLEARANCE FOR GRATE.

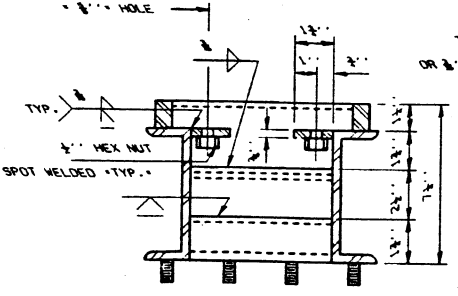


VIEW D-D

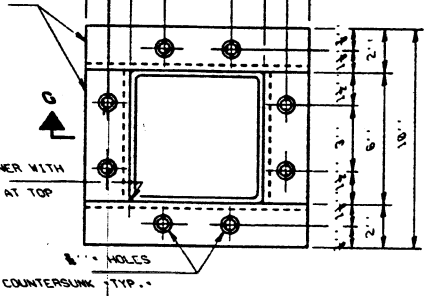
NOTES:
 HOLLOW STRUCTURAL STEEL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION A 500 GRADE B, OR A 501 STRUCTURAL STEEL TUBING.
 ALL OTHER SHAPES, PLATES AND BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 270 GRADE 36.
 BOLTS, STUDS, WASHERS AND NUTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 307.
 THE GRATE, FRAME AND DOWNSPOUT SHALL BE GALVANIZED AFTER SHOP FABRICATION ACCORDING TO AASHTO M 111 & ASTM A 395.
 ALL BOLTS, WASHERS AND NUTS SHALL BE GALVANIZED ACCORDING TO AASHTO M 232.
 COST OF THE GRATE, FRAME, DOWNSPOUT, BOLTS, WASHERS AND NUTS INCLUDING COMPLETE INSTALLATION OF SCUPPER WILL BE PAID FOR AT THE UNIT BID PRICE EACH FOR "DRAINAGE SCUPPERS."



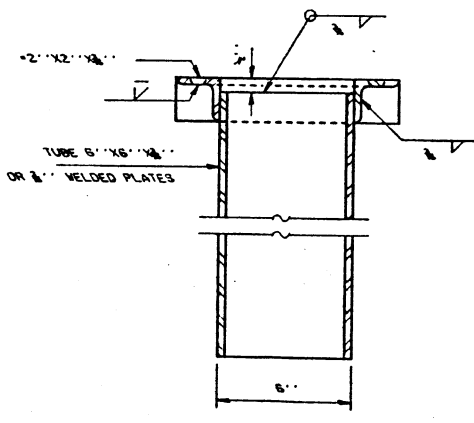
VIEW C-C



SECTION E-E



DOWNSPOUT



SECTION G-G

BILL OF MATERIAL

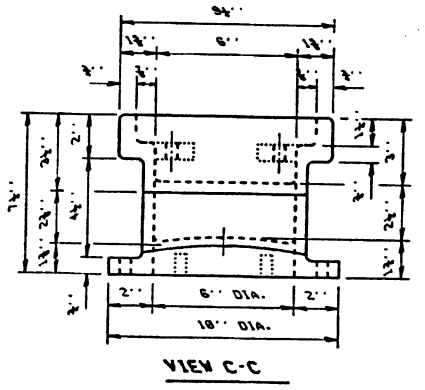
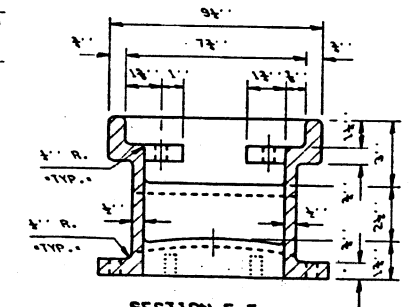
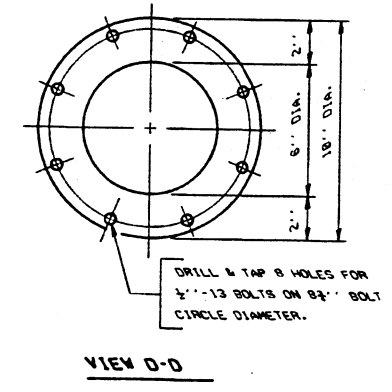
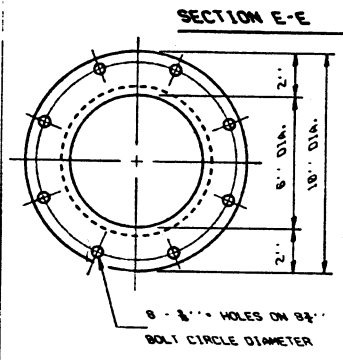
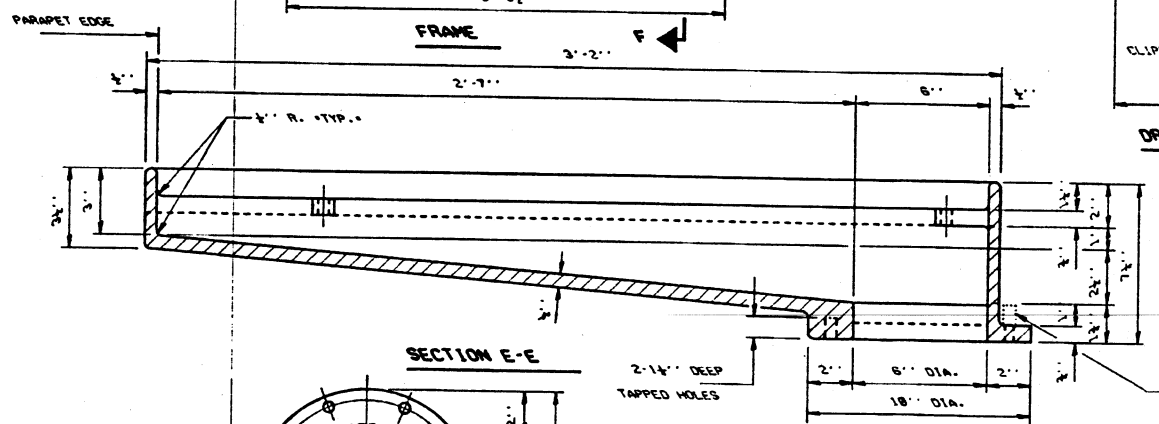
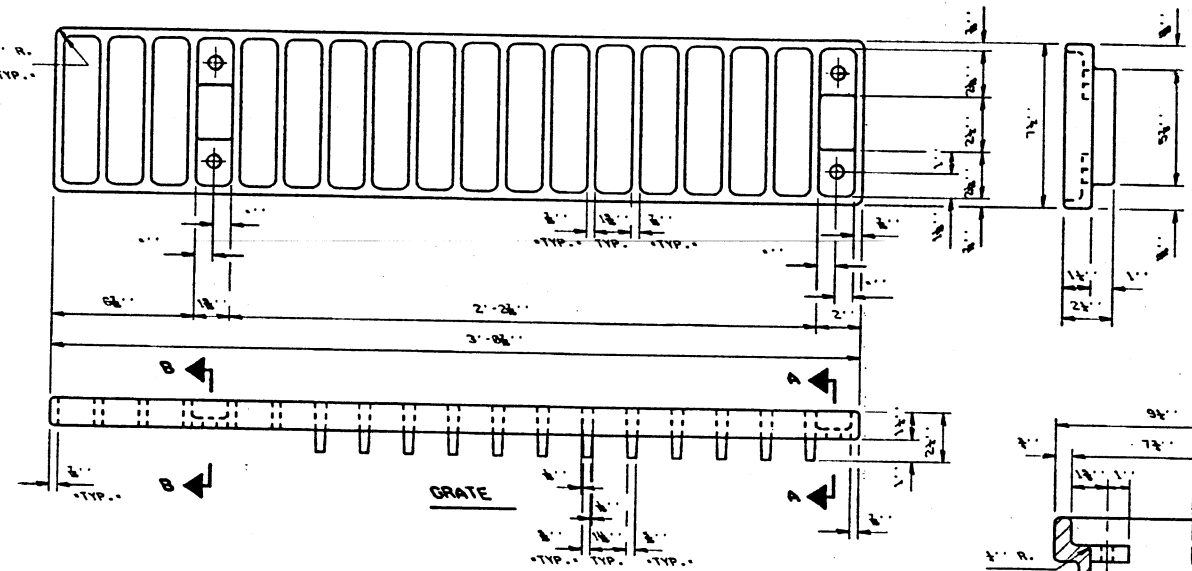
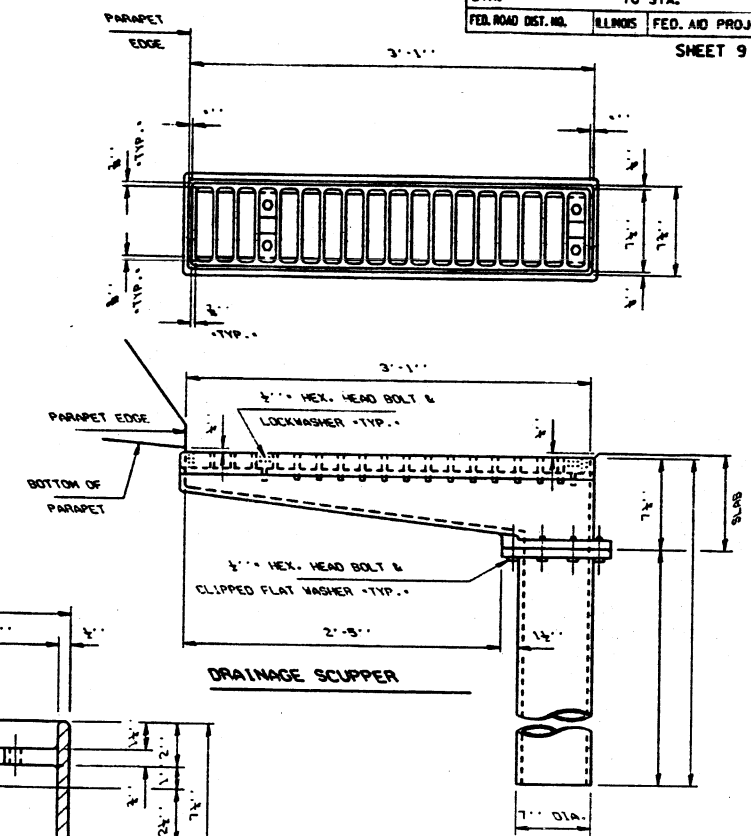
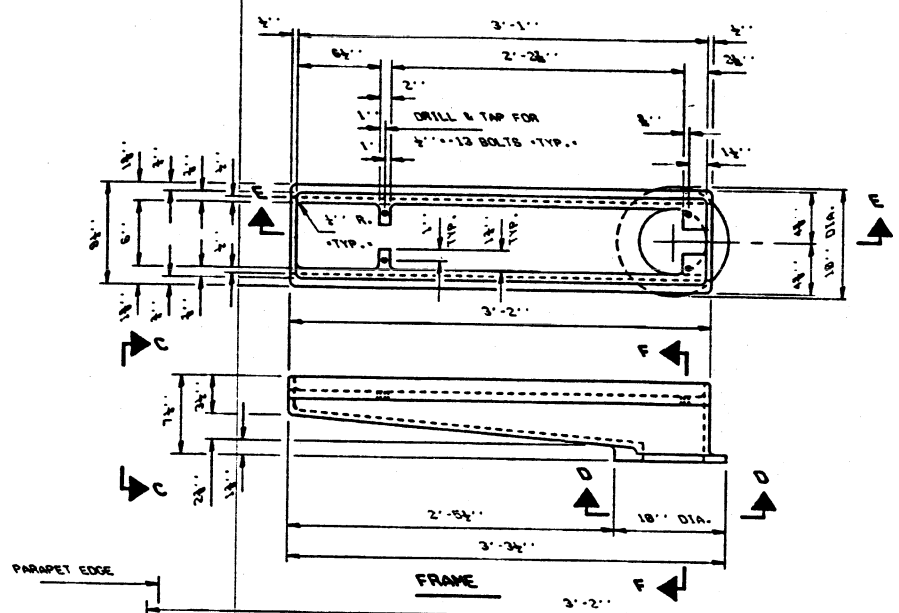
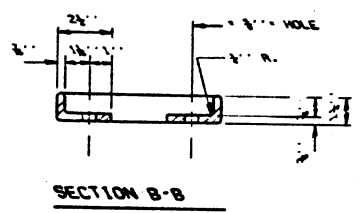
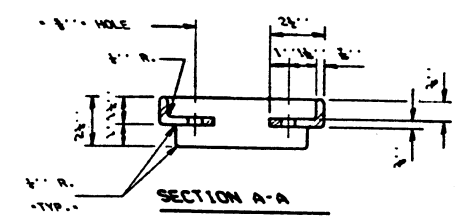
ITEM	UNIT	QUANTITY
DRAINAGE SCUPPER	EACH	4

SHEET 1 OF 2
STEEL DRAINAGE SCUPPER

P:\04\27\042710\042710.dwg Lvl-03
 DATE: 04/27/97 10:00 AM
 DRAWN BY: J. J. J.

F.A.L. RITE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	161-1-2RS	ROCKISLAND	129	82
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET 9 OF 10



NOTES:

- ALL CAST IRON PARTS SHALL BE GRAY IRON CONFORMING TO THE REQUIREMENTS OF AASHTO M 185, CLASS 38.
- BOLTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 387.
- ALL BOLTS AND WASHERS SHALL BE GALVANIZED ACCORDING TO AASHTO M 232.
- AS AN ALTERNATE BOLTS AND WASHERS MAY BE STAINLESS STEEL.
- COST OF THE GRATE, FRAME, DOWNSPOUT, BOLTS AND WASHERS INCLUDING COMPLETE INSTALLATION OF SCUPPER WILL BE PAID FOR AT THE UNIT BID PRICE EACH FOR "DRAINAGE SCUPPERS."
- THE CONTRACTOR MAY USE AT HIS OPTION STEEL DRAINAGE SCUPPERS OR CAST IRON DRAINAGE SCUPPERS.

SHEET 2 OF 2
ALTERNATE - CAST IRON
DRAINAGE SCUPPER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

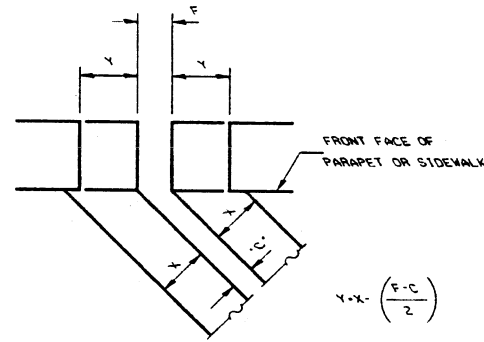
ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
88	**	ROCKISLAND	129	83
P.O. NO. 081-2785		SHEET 10 OF 10		

JOINT SIZE	'C' AT 50°F	'D' AT 50°F
2"	2"	1 1/2" MIN.
2 1/2"	2 1/2"	1 3/4" MIN.
4"	3"	2 1/4" MIN.

INSTALLATION NOTES

- INSTALL CONTINUOUS SEAL IN ROADWAY, PARAPET, CURB, AND SIDEWALK.
- INSTALL ANCHOR BLOCKS AS INDICATED.

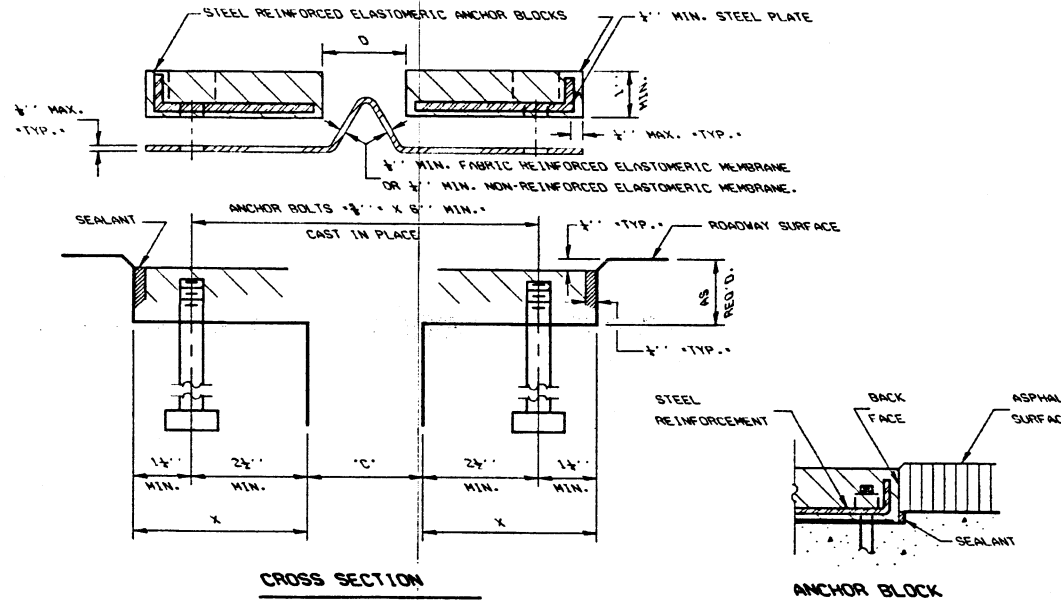
NOTE A: MAXIMUM SPACING OF ANCHOR BOLTS SHALL BE 12" CENTERS.



FORMING BLOCKOUT
SKETCH

$$Y \cdot X = \left(\frac{F-C}{2} \right)^2$$

FOR DIMENSION 'F'
SEE SHEET 2 & 3 OF 10.



CROSS SECTION

ANCHOR BLOCK
WITH ASPHALT SURFACE

GENERAL NOTES

CONTINUOUS SEAL NEOPRENE EXPANSION JOINT SHALL CONSIST OF MOLDED ANCHOR BLOCKS OF ELASTOMER AND STEEL, FIELD ASSEMBLED OVER CONTINUOUS LENGTHS OF ELASTOMERIC MEMBRANE.

THE ELASTOMERIC MEMBRANE SHALL BE PREMOLDED WITH A SINGLE OR A DOUBLE UPWARD CONVOLUTION THAT WILL HAVE A "MEMORY" TO RETURN TO ITS MOLDED POSITION UPON JOINT CLOSURE.

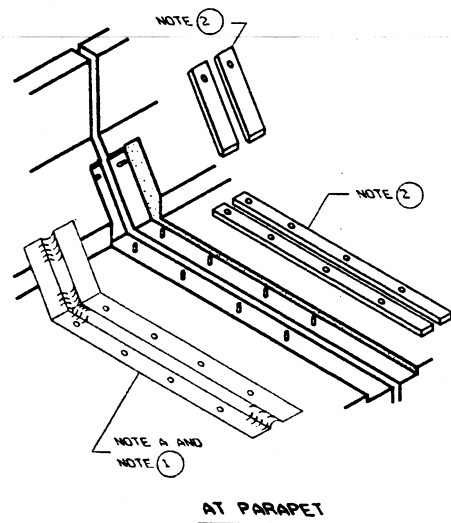
THE CONVOLUTION LENGTH SHALL BE SUCH THAT THE EXTENDED LENGTH WILL NOT BE GREATER THAN THE MANUFACTURED LENGTH WHEN THE JOINT IS FULLY EXPANDED IN ITS DESIGN RANGE AND WILL NOT PROTRUDE ABOVE THE ANCHOR BLOCKS WHEN THE JOINT IS FULLY COMPRESSED.

JOINT OPENINGS SHALL BE ADJUSTED ACCORDING TO ARTICLE 583.10-C OF THE STANDARD SPECIFICATIONS WHEN THE DECK IS POURED AT AN AMBIENT TEMPERATURE OTHER THAN 50°F.

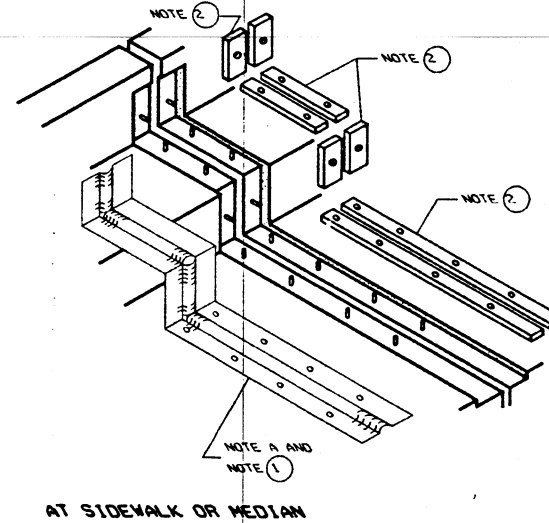
THE PARAPET AND ROADWAY MEMBRANE SHALL BE MADE CONTINUOUS BY AN APPROVED VULCANIZING PROCESS. LAPPING WILL NOT BE PERMITTED.

SKEW LIMITATIONS

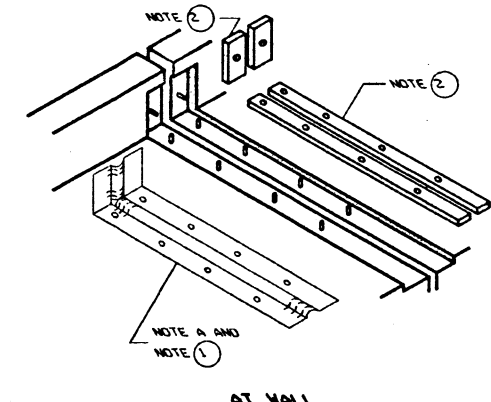
THE DETAILS OF THE ANCHOR BLOCKS AND THE ELASTOMERIC MEMBRANE IN THE PARAPET, AS SHOWN, ARE FOR UP TO 50° SKEWS. FOR SKEWS GREATER THAN 50°, THE ANCHOR BLOCKS AND THE ELASTOMERIC MEMBRANE, INSTALLED ACCORDING TO DIMENSION 'D', MUST REQUIRE MODIFICATIONS TO INSURE A MINIMUM CLEARANCE OF 1 1/2" FROM CENTERLINE OF ANCHOR STUDS TO EDGE OF PARAPET OPENING. THE ANCHOR BLOCKS AND THE ELASTOMERIC MEMBRANE SHALL ALSO BE INSTALLED TO THE TOP OF THE PARAPET WITH THE ANCHOR STUDS SPACED AT 12" CTS.



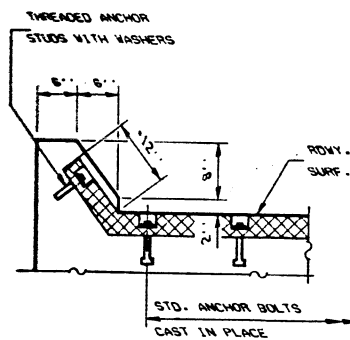
AT PARAPET



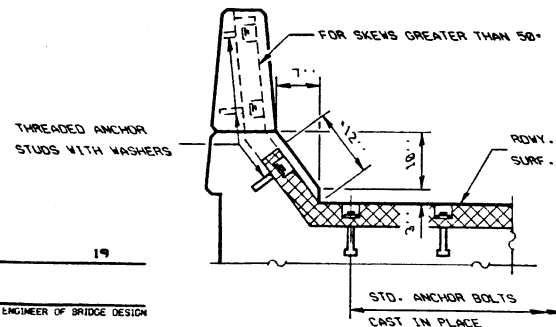
AT SIDEWALK OR MEDIAN



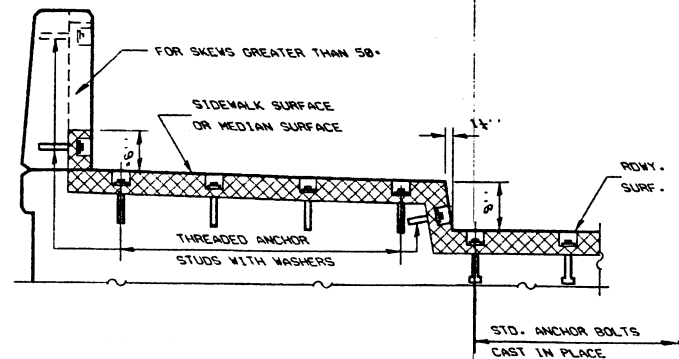
AT WALL



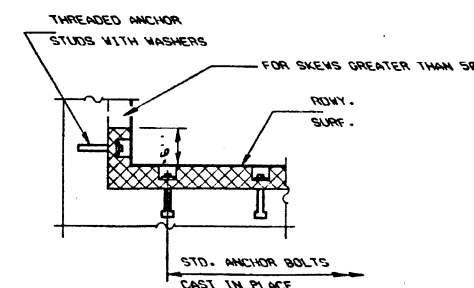
AT CURB



AT PARAPET



AT SIDEWALK OR MEDIAN
TYPICAL END TREATMENTS



AT WALL

DESIGNED	
CHECKED	
DRAWN	
CHECKED	

EXAMINED	19
PASSED	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

CONTINUOUS SEAL TYPE
NEOPRENE EXPANSION JOINTS
FOR 2" - 2 1/2" AND 4" MOVEMENT

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION PLANS FOR PROPOSED FEDERAL AID HIGHWAY

SEE SHEET NO. 2
FOR INDEX OF SHEETS

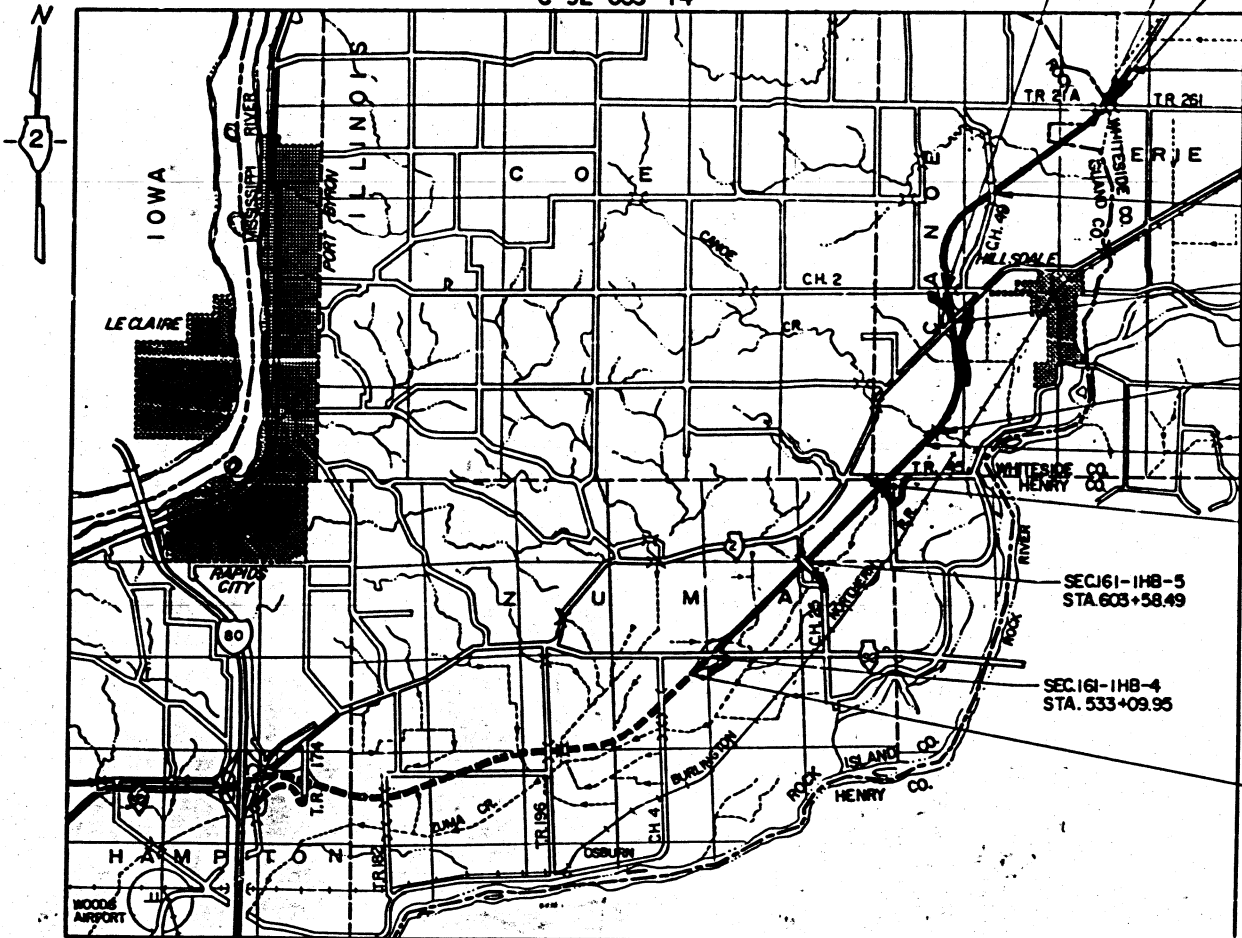
FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 403	161-2	ROCK ISLAND	532	1
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT	EBRF-403-1(6)	

P-92-001-71 (161)

F. A. ROUTE 403
SEC. 161-1-(2,2SG,HB-4,HB-5,HB-10,B-2,HB-6,HB-7,HB-8,HB-9,B-3,B-4)
PROJECT EBRF 403-1(6)
ROCK ISLAND COUNTY
WHITESIDE COUNTY

SCALES
PLAN 1 INCH = 100 FT.
PROFILE HOR. 1 INCH = 100 FT.
PROFILE VERT. 1 INCH = 10 FT.
CROSS-SECTIONS 1 INCH = 10 FT.

C-92-059-74



PROJECT EBRF 403-1(6)
SEC. 161-1-2 ENDS
STA. 960+00

SEC 161-1HB-8
STA. 866+12.86

SEC. 161-1HB-6
STA. 774+50.24

SEC. 161-1B-2
STA. 710+50

EQUATION STA. 703+68.46 BACK =
STA. 703+69.44 AHEAD

SEC. 161-1HB-10
STA. 669+50

SEC. 161-1HB-5
STA. 603+58.49

SEC. 161-1HB-4
STA. 533+09.95

PROJECT EBRF 403-1(6)
SEC. 161-1-2 BEGINS
STA. 504+00



LOCATION OF SECTION INDICATED THIS:—

DESIGN DESIGNATION
1235 (95) TRUNK 7.16 (CRPCC-20)

SCALE: 1 INCH = 1 MILE

NET LENGTH OF PROJECT 45,599.02 FEET 8.675 MILES 13.698 KILOMETERS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

QUANTITY *July 26, 74*
L. S. Summers

EXAMINED *Aug 27, 74*
Richard

DRAWN *Aug 27, 74*
Richard

APPROVED *Aug 27, 74*
Richard
DIRECTOR, HIGHWAYS

2-108

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED DATE

DIVISION ENGINEER

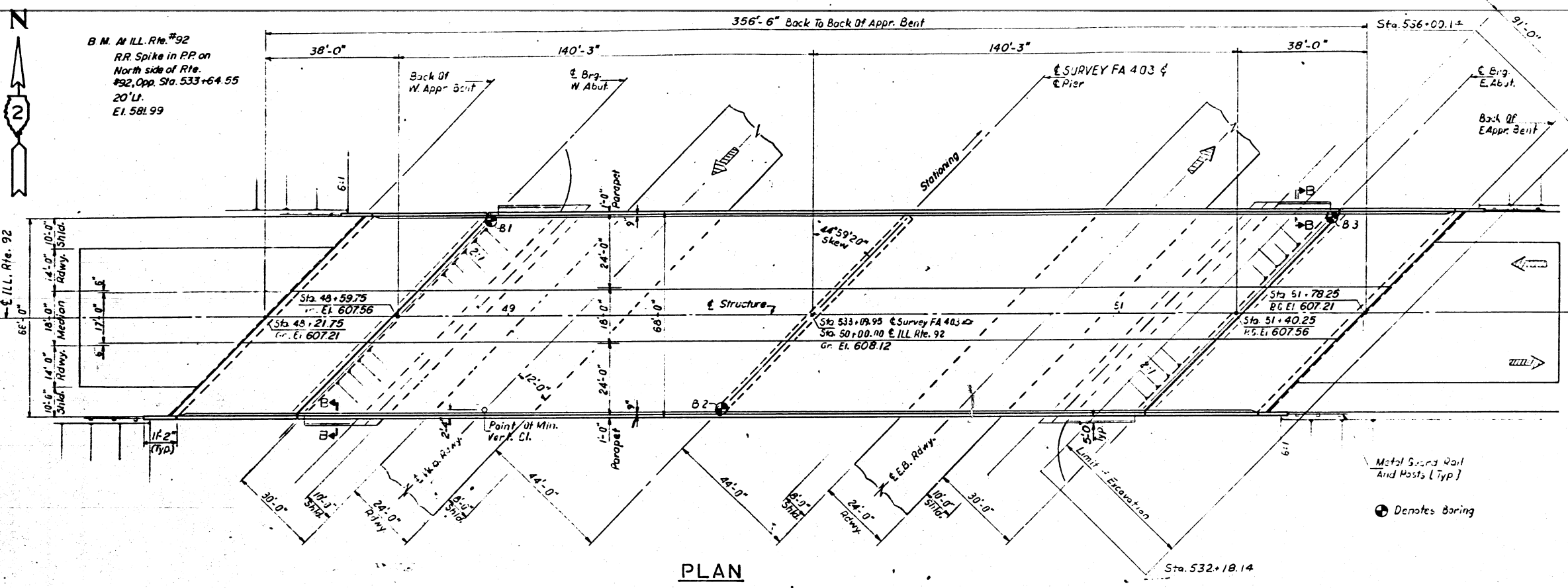
533+09.95

081-0125

CONTRACT NO. 30278

ROCK ISLAND COUNTY
WHITESIDE COUNTY
SECTION 161-1-2 F. A. ROUTE 403

B. M. ILL. Rte. #92
RR Spike in PP on
North side of Rte.
#92, Opp. Sta. 533+64.55
20' L.
El. 581.99



PLAN

GENERAL NOTES

ALL REINFORCEMENT BARS SHALL BE LAPPED 24 DIAMETERS UNLESS OTHERWISE SHOWN. FIELD CONNECTIONS SHALL BE BOLTED USING HIGH STRENGTH BOLTS. BOLTS 3/4" Ø, OPEN HOLES 1 1/16" Ø, UNLESS OTHERWISE NOTED.

THE BASIC LEAD SILICO CHROMATE PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL.

FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM OF FLANGE OF BEAMS OR GIRDERS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

ANCHOR BOLTS SHALL BE SET BEFORE BOLTING CROSS FRAMES OVER SUPPORTS.

SLOPE WALL SHALL BE REINFORCED WITH WELDED WIRE FABRIC 6" x 6" MESH, WEIGHING 58# PER 100 SQ. FT..

THE EMBANKMENT CONFIGURATION SHOWN SHALL BE THE MINIMUM EMBANKMENT THAT MUST BE CONSTRUCTED PRIOR TO CONSTRUCTION OF THE ABUTMENTS.

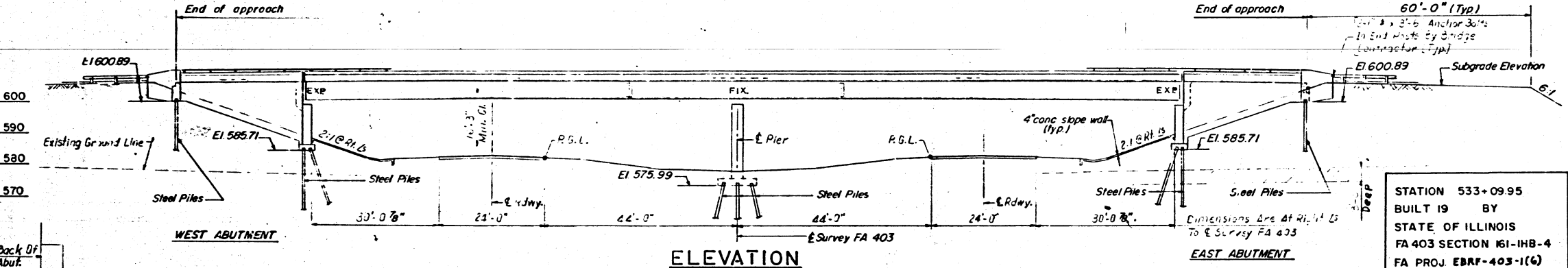
THE CONTRACTOR SHALL DRIVE ONE STEEL TEST PILE IN A PERMANENT LOCATION, AT PIER AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE PILE.

THE CONCRETE RAIL SECTION ABOVE THE MANDATORY CONST. JOINT AT THE TOP OF THE SLAB SHALL BE CONSTRUCTED OF CLASS X CONCRETE, EXCEPT THE AGGREGATES SHALL CONFORM TO THE REQUIREMENTS OF HANDRAIL CONCRETE.

PROTECTIVE COAT SHALL NOT BE APPLIED TO SURFACES TO WHICH WATERPROOFING MEMBRANE SYSTEM IS APPLIED.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER STRUCT.	SUB STRUCT.	TOTAL
STRUCTURE EXCAVATION	CU. YDS.	--	120	120
PROTECTIVE COAT	SQ. YDS.	961	--	961
CLASS "X" CONCRETE	CU. YDS.	983.6	683.3	1,666.9
STRUCTURAL STEEL	L. SUM	0.22	--	0.22
ALUMINUM RAILING	LIN. FT.	698	--	698
REINFORCEMENT BARS	LBS.	279,70	91,710	371,410
STUD SHEAR CONNECTORS	EACH	3,294	--	3,294
STEEL PILES HP10x42	LIN. FT.	--	6,537	6,537
TEST PILES (STEEL) HP10x42	EACH	--	1	1
NAME PLATES	EACH	--	1	1
SLOPE WALL 4"	SQ. YDS.	--	661	661
BIT. CONC. SURFACE COURSE CLASS I	TONS	158	--	158
WATERPROOFING MEMBRANE SYSTEM	SQ. YDS.	1,873	--	1,873
NEOPRENE EXPANSION JOINT	LIN. FT.	190	--	190
SAND BACKFILL	CU. YDS.	--	1,100	1,100
REMOVAL & DISPOSAL OF UNDESIRABLE MATERIAL	CU. YDS.	--	1,700	1,700
PERMANENT B. M. TYPE I	EACH	1	--	1



ELEVATION

STATION 533+09.95
BUILT 19 BY
STATE OF ILLINOIS
FA 403 SECTION 161-1HB-4
FA PROJ. EBRF-403-1(6)
LOADING HS 20

NAME PLATE
SEE STD. 2113

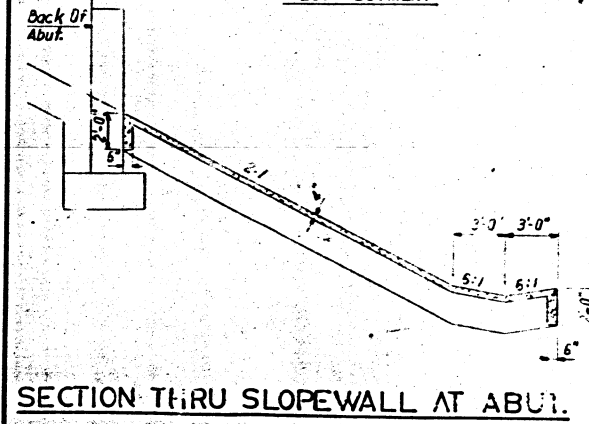
DESIGN NOTES:

DESIGN STRESSES:

- $f_c = 1400$ P.S.I. Except As Follows.
- $f_c = 1200$ P.S.I. For Deck Slab.
- $f_c = 1000$ P.S.I. For Conc. Contact With Earth
- $f_s = 20,000$ P.S.I. - AISC Structural Steel.
- $f_s = 20,000$ P.S.I. - Reinforcement Steel.
- $v = 75$ P.S.I. - Allowable Shear In Footings.
- $n = 10$
- Allowable Live Load Deflection = $L/1200$ (Composite)

DESIGN LOADING:
HS 20-44 And Allowance For 25 PSF Future Wearing Surface

* CALCULATED WEIGHT OF STRUCTURAL STEEL = 844,940 LBS.

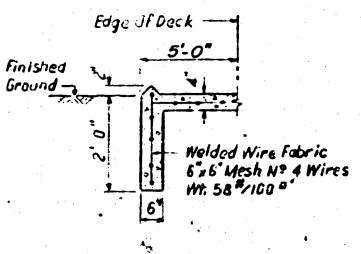


SECTION THRU SLOPEWALL AT ABUT.

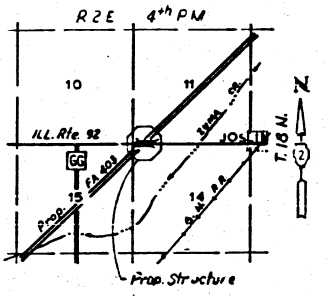
DESIGNED P.B.
CHECKED D.M.P.
DRAWN G.G.
CHECKED D.M.P.

PROFILE FA 403 ALONG SURVEY
(Along Inside Edges of Pavements)

PROFILE ILL. RTE 92
TOP OF CLASS I
(Along Median Edges of Pavements)



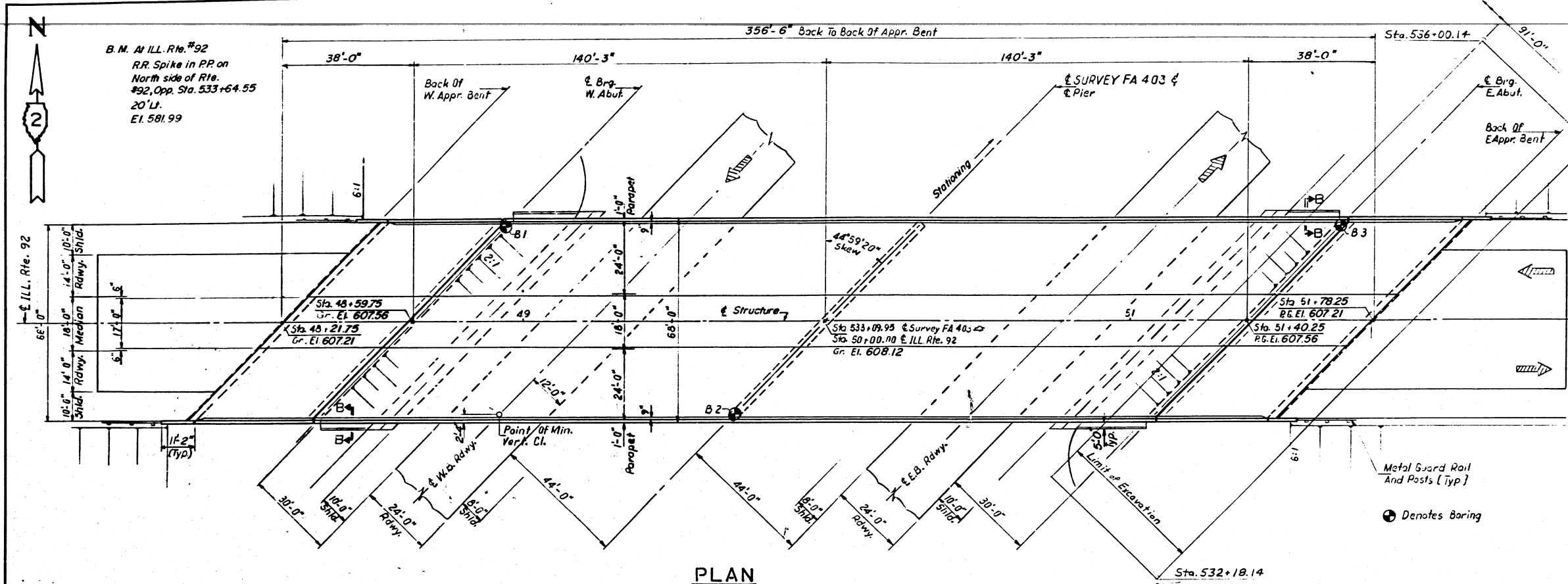
SECTION B-B



LOCATION MAP

GENERAL PLAN & ELEVATION
FA 403 SECTION 161-1HB-4
FA 403 UNDER ILL. RTE. 92
ROCK ISLAND COUNTY
STATION 533+09.95

AS REVISED



GENERAL NOTES

ALL REINFORCEMENT BARS SHALL BE LAPPED 24 DIAMETERS UNLESS OTHERWISE SHOWN.

FIELD CONNECTIONS SHALL BE BOLTED USING HIGH STRENGTH BOLTS. BOLTS 3/4" Ø. OPEN HOLES 1 1/16" Ø, UNLESS OTHERWISE NOTED.

THE BASIC LEAD SILICO CHROMATE PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL.

FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM OF FLANGE OF BEAM OR GIRDERS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

ANCHOR BOLTS SHALL BE SET BEFORE BOLTING CROSS FRAMES OVER SUPPORTS.

SLOPE WALL SHALL BE REINFORCED WITH WELDED WIRE FABRIC 6" x 6" MESH, WEIGHING 58# PER 100 SQ. FT..

THE EMBANKMENT CONFIGURATION SHOWN SHALL BE THE MINIMUM EMBANKMENT THAT MUST BE CONSTRUCTED PRIOR TO CONSTRUCTION OF THE ABUTMENTS.

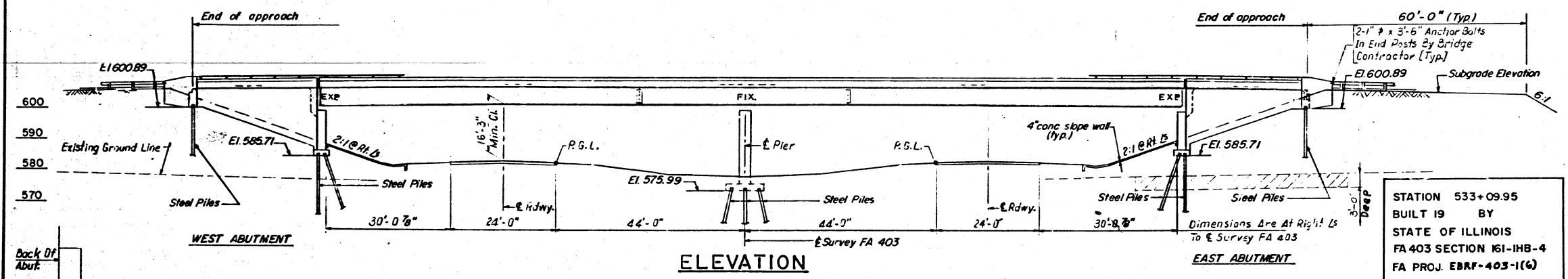
THE CONTRACTOR SHALL DRIVE ONE STEEL TEST PILE IN A PERMANENT LOCATION, AT PIER AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE PILES.

THE CONCRETE RAIL SECTION ABOVE THE MANDATORY CONST. JOINT AT THE TOP OF THE SLAB SHALL BE CONSTRUCTED OF CLASS X CONCRETE, EXCEPT THE AGGREGATES SHALL CONFORM TO THE REQUIREMENTS OF HANDRAIL CONCRETE.

PROTECTIVE COAT SHALL NOT BE APPLIED TO SURFACES TO WHICH WATERPROOFING MEMBRANE SYSTEM IS APPLIED.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER STRUCT.	SUB STRUCT.	TOTAL
STRUCTURE EXCAVATION	CU. YDS.	--	120	120
PROTECTIVE COAT	SQ. YDS.	961	--	961
CLASS "X" CONCRETE	CU. YDS.	983.6	683.9	1,667.5
STRUCTURAL STEEL	L. SUM	0.22	--	0.22
ALUMINUM RAILING	LIN. FT.	698	--	698
REINFORCEMENT BARS	LBS.	2,370	9,710	12,080
STUD SHEAR CONNECTORS	EACH	3,294	--	3,294
STEEL PILES HP10x42	LIN. FT.	--	6,537	6,537
TEST PILES (STEEL) HP10x42	EACH	--	1	1
NAME PLATES	EACH	--	1	1
SLOPE WALL #	SQ. YDS.	--	661	661
BIT. CONC. SURFACE COURSE CLASS I	TONS	158	--	158
WATERPROOFING MEMBRANE SYSTEM	SQ. YDS.	1,878	--	1,878
NEOPRENE EXPANSION JOINT 2"	LIN. FT.	190	--	190
SAND BACKFILL	CU. YDS.	--	1,100	1,100
REMOVAL & DISPOSAL OF UNQUITABLE MATERIAL	CU. YDS.	--	1,700	1,700
POROUS GRANULAR EMBANKMENT	CU. YDS.	--	1,700	1,700
PERMANENT B.M. TYPE I	EACH	1	--	1



STATION 533+09.95
 BUILT BY
 STATE OF ILLINOIS
 FA 403 SECTION 161-IHB-4
 FA PROJ. EBRF-403-1(G)
 LOADING HS 20.

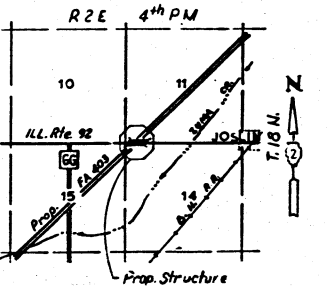
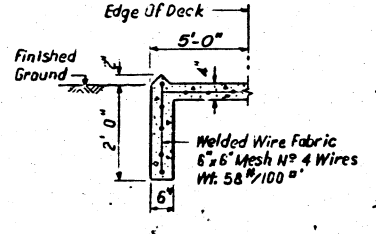
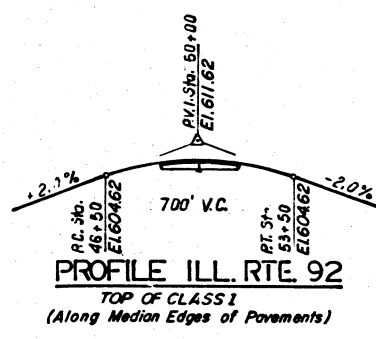
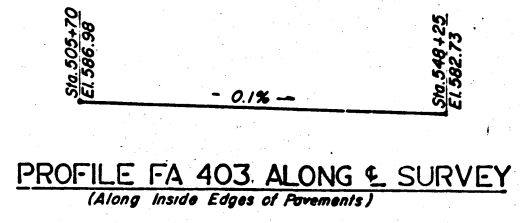
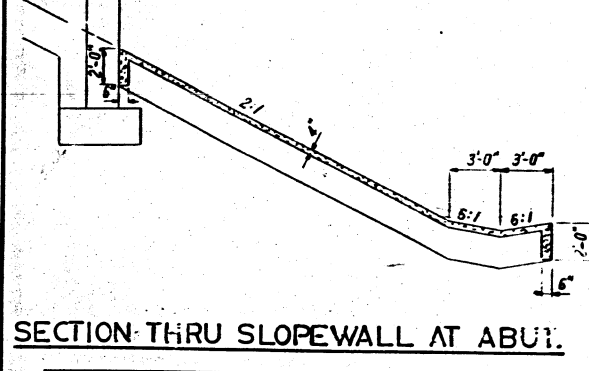
NAME PLATE
 SEE STD. 2113

DESIGN NOTES: DESIGN STRESSES:

f_c = 1400 P.S.I. Except As Follows:
 f_c = 1200 P.S.I. For Deck Slab.
 f_c = 1000 P.S.I. For Conc. in Contact With Earth
 f_s = 20,000 P.S.I. - Structural Steel.
 f_s = 20,000 P.S.I. - Reinforcement Steel.
 v = 75 P.S.I. - Allowable Shear in Footings.
 n = 10
 Allowable Live Load Deflection = $L/1200$ (Composite)
 DESIGN SPECIFICATIONS: AASHTO 1973 As Applicable.

DESIGN LOADING:
 HS 20-44 And Allowance For 25 P.S.F. Future Wearing Surface

* CALCULATED WEIGHT OF STRUCTURAL STEEL = 844,940 LBS.

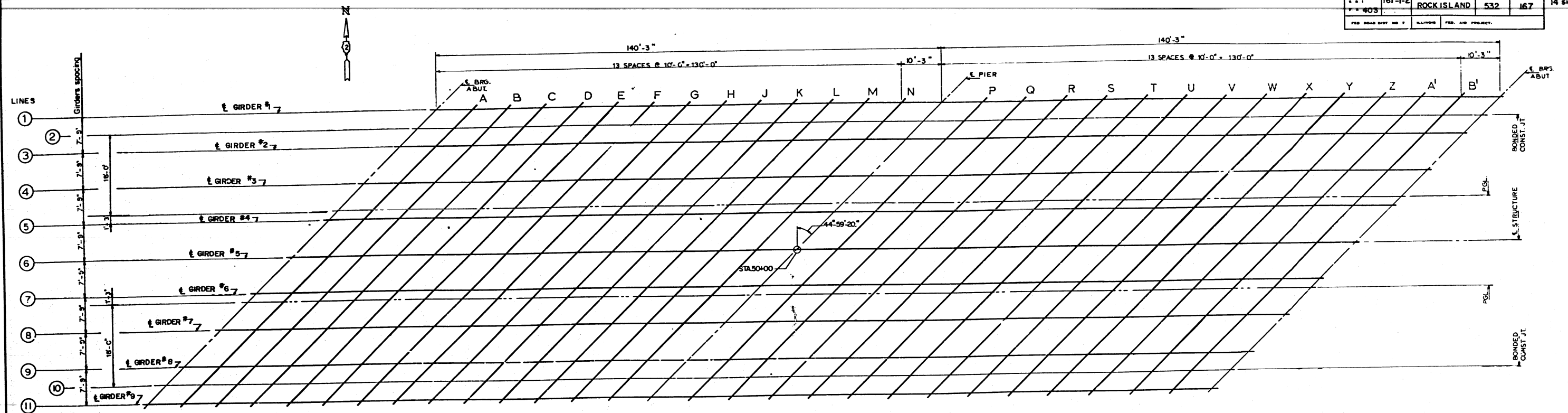


DESIGNED	P.B.
CHECKED	D.M.P.
DRAWN	G.G.
CHECKED	D.M.P.

APPROVED
 FOR STRUCTURE

GENERAL PLAN & ELEVATION
 FA 403 SECTION 161-IHB-4
 FA 403 UNDER ILL. RTE. 92
 ROCK ISLAND COUNTY
 STATION 533+09.95

Reinforcing Bars Sub. from 9/14/70 to 9/18/70. Total from 320,840# to 321,140# 7-25-74 D.D.



PLAN

LOCATION OF LINES	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	DEFL CONC	THEORETICAL ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
A	1	48+90.738	31.000	607.3928	607.393
	2	48+86.739	27.000	607.4507	607.451
	3	48+82.990	23.250	607.5042	607.504
	4	48+75.243	15.500	607.5731	607.573
	5	48+67.496	7.750	607.6372	607.637
	6	48+59.750	0.000	607.6979	607.698
	7	48+52.003	-7.750	607.7513	607.751
	8	48+44.256	-15.500	607.8247	607.825
	9	48+36.509	-23.250	607.1317	607.132
	10	48+32.760	-27.000	607.0181	607.018
	11	48+28.761	-31.000	606.8961	606.896

LOCATION OF LINES	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	DEFL CONC	THEORETICAL ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
B	1	49+10.738	31.000	607.5063	607.592
	2	49+ 6.739	27.000	607.5687	607.658
	3	49+ 2.990	23.250	607.6265	607.718
	4	48+95.243	15.500	607.7042	607.796
	5	48+87.496	7.750	607.7772	607.869
	6	48+79.750	0.000	607.8468	607.939
	7	48+72.003	-7.750	607.6708	607.763
	8	48+64.256	-15.500	607.4913	607.583
	9	48+56.509	-23.250	607.3071	607.399
	10	48+52.760	-27.000	607.1978	607.287
	11	48+48.761	-31.000	607.0804	607.166

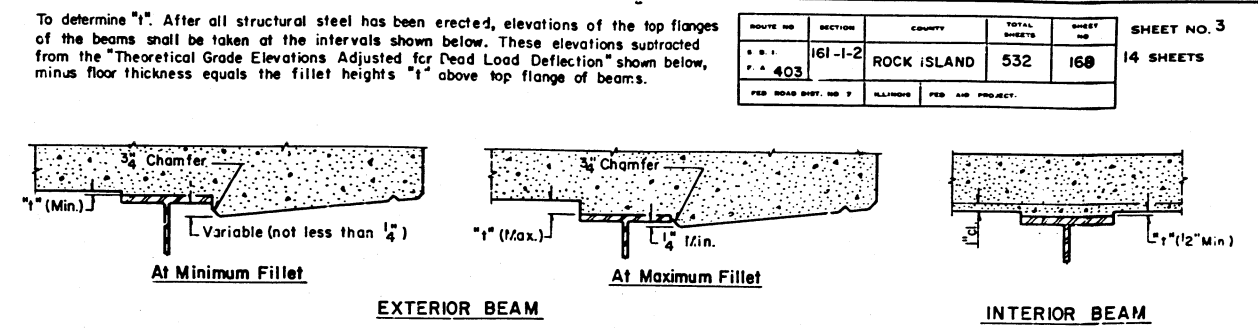
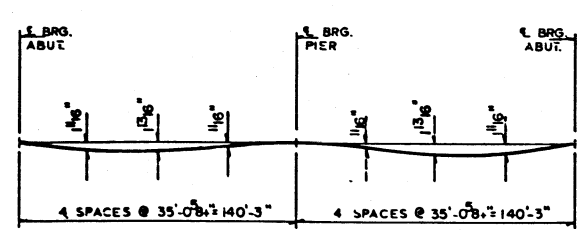
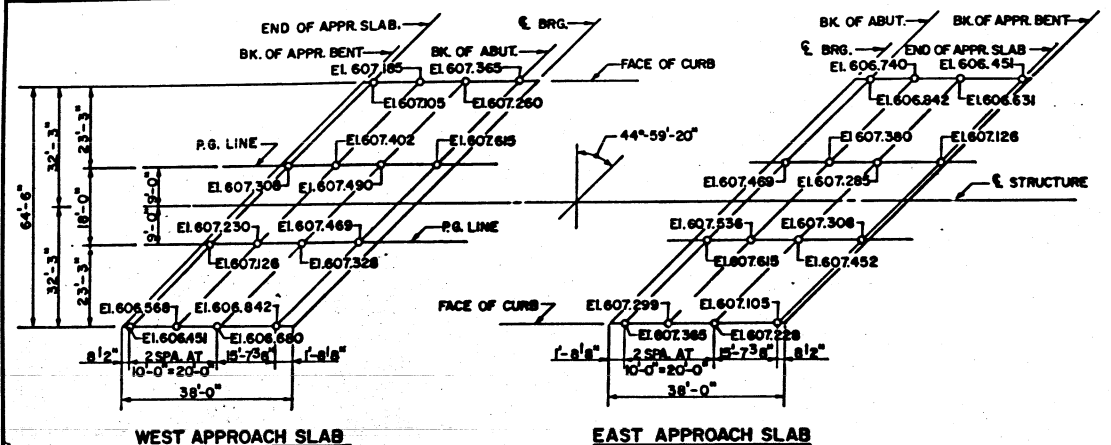
LOCATION OF LINES	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	DEFL CONC	THEORETICAL ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
C	1	49+20.738	31.000	607.5544	607.672
	2	49+16.739	27.000	607.6192	607.741
	3	49+12.990	23.250	607.6791	607.804
	4	49+ 5.243	15.500	607.7612	607.886
	5	48+97.496	7.750	607.6387	607.963
	6	48+89.750	0.000	607.9127	608.037
	7	48+82.003	-7.750	607.7410	607.886
	8	48+74.256	-15.500	607.5660	607.681
	9	48+66.509	-23.250	607.3862	607.581
	10	48+62.760	-27.000	607.2791	607.400
	11	48+58.761	-31.000	607.1640	607.282

LOCATION OF LINES	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	DEFL CONC	THEORETICAL ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
D	1	49+30.738	31.000	607.5968	607.738
	2	49+26.739	27.000	607.6639	607.809
	3	49+22.990	23.250	607.7259	607.875
	4	49+15.243	15.500	607.8125	607.962
	5	49+ 7.496	7.750	607.8944	608.044
	6	48+99.750	0.000	607.9728	608.122
	7	48+92.003	-7.750	607.8056	607.955
	8	48+84.256	-15.500	607.6350	607.784
	9	48+76.509	-23.250	607.4597	607.609
	10	48+72.760	-27.000	607.3547	607.500
	11	48+68.761	-31.000	607.2416	607.383

DESIGNED P.P.
 CHECKED A.Z.
 DRAWN G.S.
 CHECKED D.M.P.

NOTES:
 ELEVATIONS ARE GIVEN AT SURFACE OF 1 1/2" CLASS I BITUMINOUS CONCRETE.
 OFFSETS ARE FROM C STRUCTURE.
 WORK THIS SHEET WITH SHEET NO. 3 & NO. 4

ELEVATIONS
 FA 403 SECTION 161-IHB-4
 FA 403 UNDER ILL RTE. 92
 ROCK ISLAND COUNTY
 STATION 533+09.95



Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.

DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete slab, parapet, curb and wearing surfaces)

FILLET HEIGHTS

APPROACH SLAB ELEVATION

LOCATION OF LINES	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	DEFL CONC	THEORETICAL ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION	
H	1	49+70.738	31.000	607.7094	0.1292	607.838
	2	49+66.739	27.000	607.7856	0.1329	607.919
	3	49+62.990	23.250	607.8562	0.1365	607.993
	4	49+55.243	15.500	607.9605	0.1365	608.097
	5	49+47.496	7.750	608.0601	0.1365	608.197
	6	49+39.750	0.000	608.1562	0.1368	608.293
	7	49+32.003	-7.750	608.0068	0.1368	608.143
	8	49+24.256	-15.500	607.8338	0.1368	607.990
	9	49+16.509	-23.250	607.6962	0.1368	607.833
	10	49+12.760	-27.000	607.5998	0.1329	607.733
	11	49+8.761	-31.000	607.4961	0.1292	607.628
J	1	49+80.738	31.000	607.7233	0.1038	607.827
	2	49+76.739	27.000	607.8018	0.1069	607.909
	3	49+72.990	23.250	607.8745	0.1100	607.985
	4	49+65.243	15.500	607.9832	0.1100	608.093
	5	49+57.496	7.750	608.0872	0.1100	608.197
	6	49+49.750	0.000	608.1878	0.1100	608.298
	7	49+42.003	-7.750	608.0428	0.1100	608.153
	8	49+34.256	-15.500	607.8943	0.1100	608.004
	9	49+26.509	-23.250	607.7411	0.1100	608.851
	10	49+22.760	-27.000	607.6468	0.1069	607.784
	11	49+18.761	-31.000	607.5453	0.1038	607.649
K	1	49+90.738	31.000	607.7314	0.0789	607.808
	2	49+86.739	27.000	607.8122	0.0787	607.891
	3	49+82.990	23.250	607.8871	0.0804	607.968
	4	49+75.243	15.500	608.0003	0.0804	608.081
	5	49+67.496	7.750	608.1087	0.0804	608.189
	6	49+59.750	0.000	608.2137	0.0804	608.294
	7	49+52.003	-7.750	608.0730	0.0804	608.153
	8	49+44.256	-15.500	607.9290	0.0804	608.009
	9	49+36.509	-23.250	607.7802	0.0804	607.861
	10	49+32.760	-27.000	607.6881	0.0787	607.787
	11	49+28.761	-31.000	607.5889	0.0789	607.666

LOCATION OF LINES	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	DEFL CONC	THEORETICAL ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION	
L	1	50+0.738	31.000	607.7339	0.0479	607.782
	2	49+96.739	27.000	607.8169	0.0486	607.866
	3	49+92.990	23.250	607.8940	0.0492	607.943
	4	49+85.243	15.500	608.0115	0.0492	608.061
	5	49+77.496	7.750	608.1244	0.0492	608.174
	6	49+69.750	0.000	608.2338	0.0492	608.283
	7	49+62.003	-7.750	608.0976	0.0492	608.147
	8	49+54.256	-15.500	607.9580	0.0492	608.007
	9	49+46.509	-23.250	607.8136	0.0492	607.863
	10	49+42.760	-27.000	607.7236	0.0486	607.772
	11	49+38.761	-31.000	607.6268	0.0479	607.675
M	1	50+10.738	31.000	607.7306	0.0233	607.754
	2	50+6.739	27.000	607.8159	0.0238	607.840
	3	50+2.990	23.250	607.8951	0.0242	607.919
	4	49+95.243	15.500	608.0171	0.0242	608.041
	5	49+87.496	7.750	608.1344	0.0242	608.159
	6	49+79.750	0.000	608.2482	0.0242	608.272
	7	49+72.003	-7.750	608.1165	0.0242	608.141
	8	49+64.256	-15.500	607.9813	0.0242	608.006
	9	49+56.509	-23.250	607.8413	0.0242	607.866
	10	49+52.760	-27.000	607.7535	0.0238	607.777
	11	49+48.761	-31.000	607.6589	0.0233	607.682
N	1	50+20.738	31.000	607.7216	0.0078	607.729
	2	50+16.739	27.000	607.8092	0.0078	607.817
	3	50+12.990	23.250	607.8905	0.0078	607.898
	4	50+5.243	15.500	608.0170	0.0078	608.025
	5	49+97.496	7.750	608.1387	0.0078	608.147
	6	49+89.750	0.000	608.2569	0.0078	608.269
	7	49+82.003	-7.750	608.1296	0.0078	608.137
	8	49+74.256	-15.500	607.9988	0.0078	608.006
	9	49+66.509	-23.250	607.8633	0.0078	607.871
	10	49+62.760	-27.000	607.7776	0.0078	607.786
	11	49+58.761	-31.000	607.6853	0.0078	607.693

LOCATION OF LINES	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	DEFL CONC	THEORETICAL ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION	
Pier	1	50+30.988	31.000	607.7065		607.707
	2	50+26.989	27.000	607.7964		607.797
	3	50+23.240	23.250	607.8799		607.880
	4	50+15.493	15.500	608.0109		608.011
	5	50+7.746	7.750	608.1371		608.137
	6	50+0.000	0.000	608.2600		608.260
	7	49+92.253	-7.750	608.1371		608.137
	8	49+84.506	-15.500	608.0109		608.011
	9	49+76.759	-23.250	607.8799		607.880
	10	49+73.010	-27.000	607.7964		607.797
	11	49+69.011	-31.000	607.7065		607.707
Q	1	50+40.988	31.000	607.6859	0.0078	607.694
	2	50+36.989	27.000	607.7782	0.0076	607.786
	3	50+33.240	23.250	607.8638	0.0078	607.872
	4	50+25.493	15.500	607.9992	0.0078	608.007
	5	50+17.746	7.750	608.1299	0.0078	608.138
	6	50+10.000	0.000	608.2571	0.0078	608.265
	7	50+2.253	-7.750	608.1387	0.0078	608.147
	8	49+94.506	-15.500	608.0169	0.0078	608.025
	9	49+86.759	-23.250	607.8904	0.0078	607.898
	10	49+83.010	-27.000	607.8090	0.0078	607.817
	11	49+79.011	-31.000	607.7213	0.0078	607.729

DESIGNED P.P.
CHECKED A.Z.
DRAWN G.S.
CHECKED D.M.P.

NOTE: Elevations are given of surface of 1 1/2" Class I Bituminous Concrete.
Work this sheet with sheet No. 2

ELEVATIONS
FA 403 SECTION 161-1H8-4
FA 403 UNDER ILL RTE. 92
ROCK ISLAND COUNTY
STATION 533+0395

LOCATION OF LINES	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	DEFL CONC	THEORETICAL ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION	
R	1	50+60.988	31.000	607.6276	0.0479	607.678
	2	50+56.989	27.000	607.7246	0.0488	607.773
	3	50+53.240	23.250	607.8144	0.0492	607.864
	4	50+45.493	15.500	607.9586	0.0492	608.008
	5	50+37.746	7.750	608.0961	0.0492	608.147
	6	50+30.000	0.000	608.2342	0.0492	608.283
	7	50+22.253	-7.750	608.1247	0.0492	608.174
	8	50+14.506	-15.500	608.0118	0.0492	608.081
	9	50+ 6.759	-23.250	607.4941	0.0492	607.943
	10	50+ 3.010	-27.000	607.3170	0.0496	607.886
	11	49+99.011	-31.000	607.7339	0.0479	607.782
S	1	50+70.988	31.000	607.5899	0.0788	607.667
	2	50+66.989	27.000	607.6890	0.0787	607.768
	3	50+63.240	23.250	607.7811	0.0806	607.862
	4	50+55.493	15.500	607.9294	0.0804	608.010
	5	50+47.746	7.750	608.0737	0.0804	608.184
	6	50+40.000	0.000	608.2142	0.0804	608.299
	7	50+32.253	-7.750	608.1091	0.0804	608.190
	8	50+24.506	-15.500	608.0006	0.0804	608.081
	9	50+16.759	-23.250	607.8873	0.0804	607.968
	10	50+13.010	-27.000	607.8124	0.0787	607.891
	11	50+ 9.011	-31.000	607.7316	0.0769	607.809
T	1	50+80.988	31.000	607.5465	0.1038	607.650
	2	50+76.989	27.000	607.6479	0.1069	607.755
	3	50+73.240	23.250	607.7421	0.1100	607.852
	4	50+65.493	15.500	607.8952	0.1100	608.008
	5	50+57.746	7.750	608.0436	0.1100	608.184
	6	50+50.000	0.000	608.1885	0.1100	608.299
	7	50+42.253	-7.750	608.0878	0.1100	608.198
	8	50+34.506	-15.500	607.9837	0.1100	608.094
	9	50+26.759	-23.250	607.8749	0.1100	607.988
	10	50+23.010	-27.000	607.8021	0.1069	607.909
	11	50+19.011	-31.000	607.7236	0.1038	607.827
U	1	50+90.988	31.000	607.4974	0.1292	607.627
	2	50+86.989	27.000	607.6010	0.1329	607.734
	3	50+83.240	23.250	607.6974	0.1369	607.836
	4	50+75.493	15.500	607.8549	0.1369	607.991
	5	50+67.746	7.750	608.0077	0.1368	608.144
	6	50+60.000	0.000	608.1571	0.1368	608.294
	7	50+52.253	-7.750	608.0608	0.1368	608.197
	8	50+44.506	-15.500	607.9612	0.1368	608.098
	9	50+36.759	-23.250	607.8568	0.1368	607.993
	10	50+33.010	-27.000	607.7861	0.1329	607.819
	11	50+29.011	-31.000	607.7099	0.1292	607.839

LOCATION OF LINES	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	DEFL CONC	THEORETICAL ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION	
V	1	51+ 0.988	31.000	607.4425	0.1467	607.589
	2	50+96.989	27.000	607.5485	0.1509	607.699
	3	50+93.240	23.250	607.6470	0.1550	607.802
	4	50+85.493	15.500	607.8089	0.1550	607.964
	5	50+77.746	7.750	607.9662	0.1550	608.121
	6	50+70.000	0.000	608.1200	0.1580	608.275
	7	50+62.253	-7.750	608.0281	0.1580	608.183
	8	50+54.506	-15.500	607.9329	0.1580	608.088
	9	50+46.759	-23.250	607.8329	0.1580	607.988
	10	50+43.010	-27.000	607.7644	0.1509	607.915
	11	50+39.011	-31.000	607.6904	0.1467	607.837
W	1	51+10.988	31.000	607.3819	0.1558	607.539
	2	51+ 6.989	27.000	607.4902	0.1608	607.651
	3	51+ 3.240	23.250	607.5908	0.1658	607.757
	4	50+95.493	15.500	607.7572	0.1658	607.923
	5	50+87.746	7.750	607.9189	0.1658	608.085
	6	50+80.000	0.000	608.0771	0.1658	608.243
	7	50+72.253	-7.750	607.9897	0.1658	608.156
	8	50+64.506	-15.500	607.8989	0.1658	608.065
	9	50+56.759	-23.250	607.8033	0.1658	607.969
	10	50+53.010	-27.000	607.7370	0.1608	607.898
	11	50+49.011	-31.000	607.6653	0.1588	607.821
X	1	51+26.988	31.000	607.3157	0.1550	607.471
	2	51+16.989	27.000	607.4262	0.1595	607.586
	3	51+13.240	23.250	607.5290	0.1640	607.693
	4	51+ 5.493	15.500	607.6998	0.1640	607.864
	5	50+97.746	7.750	607.8659	0.1640	608.030
	6	50+90.000	0.000	608.0285	0.1640	608.193
	7	50+82.253	-7.750	607.9456	0.1640	608.110
	8	50+74.506	-15.500	607.8592	0.1640	608.023
	9	50+66.759	-23.250	607.7686	0.1640	607.932
	10	50+63.010	-27.000	607.7038	0.1595	607.863
	11	50+59.011	-31.000	607.6344	0.1550	607.789
Y	1	51+30.988	31.000	607.2437	0.1413	607.388
	2	51+26.989	27.000	607.3565	0.1483	607.502
	3	51+23.240	23.250	607.4614	0.1402	607.611
	4	51+15.493	15.500	607.6367	0.1492	607.786
	5	51+ 7.746	7.750	607.8072	0.1492	607.956
	6	51+ 0.000	0.000	607.9742	0.1492	608.123
	7	50+92.253	-7.750	607.8957	0.1492	608.045
	8	50+84.506	-15.500	607.8137	0.1492	607.963
	9	50+76.759	-23.250	607.7276	0.1492	607.878
	10	50+73.010	-27.000	607.6649	0.1483	607.810
	11	50+69.011	-31.000	607.5978	0.1413	607.739

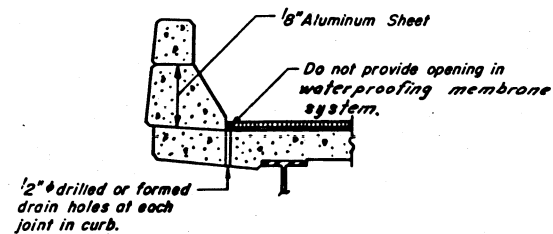
LOCATION OF LINES	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	DEFL CONC	THEORETICAL ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION	
Z	1	51+40.988	31.000	607.1660	0.1179	607.284
	2	51+36.989	27.000	607.2811	0.1213	607.402
	3	51+33.240	23.250	607.3881	0.1246	607.513
	4	51+25.493	15.500	607.5678	0.1246	607.692
	5	51+17.746	7.750	607.7427	0.1246	607.867
	6	51+10.000	0.000	607.9142	0.1246	608.039
	7	51+ 2.253	-7.750	607.8401	0.1246	607.965
	8	50+94.506	-15.500	607.7626	0.1246	607.887
	9	50+86.759	-23.250	607.6803	0.1246	607.805
	10	50+83.010	-27.000	607.6204	0.1213	607.742
	11	50+79.011	-31.000	607.5555	0.1179	607.673
A1	1	51+50.988	31.000	607.0825	0.0858	607.168
	2	51+46.989	27.000	607.1999	0.0888	607.289
	3	51+43.240	23.250	607.3091	0.0917	607.401
	4	51+35.493	15.500	607.4932	0.0917	607.585
	5	51+27.746	7.750	607.6726	0.0917	607.764
	6	51+20.000	0.000	607.8485	0.0917	607.940
	7	51+12.253	-7.750	607.7788	0.0917	607.871
	8	51+ 4.506	-15.500	607.7057	0.0917	607.797
	9	50+76.759	-23.250	607.6279	0.0917	607.720
	10	50+93.010	-27.000	607.5701	0.0888	607.659
	11	50+89.011	-31.000	607.5075	0.0858	607.593
B1	1	51+60.988	31.000	606.9934	0.0463	607.040
	2	51+56.989	27.000	607.1131	0.0465	607.160
	3	51+53.240	23.250	607.2244	0.0467	607.271
	4	51+45.493	15.500	607.4129	0.0467	607.460
	5	51+37.746	7.750	607.5967	0.0467	607.643
	6	51+30.000	0.000	607.7771	0.0467	607.824
	7	51+22.253	-7.750	607.7118	0.0467	607.759
	8	51+14.506	-15.500	607.6431	0.0467	607.690
	9	51+ 6.759	-23.250	607.5697	0.0467	607.616
	10	51+ 3.010	-27.000	607.5141	0.0465	607.561
	11	50+99.011	-31.000	607.4538	0.0463	607.500
C Brg. E. Abut.	1	51+71.238	31.000	606.8961		606.896
	2	51+67.239	27.000	607.0181		607.018
	3	51+63.490	23.250	607.1317		607.132
	4	51+55.743	15.500	607.3247		607.325
	5	51+47.996	7.750	607.5131		607.513
	6	51+40.750	0.000	607.6979		607.698
	7	51+32.503	-7.750	607.6372		607.637
	8	51+24.756	-15.500	607.5731		607.573
	9	51+17.009	-23.250	607.5042		607.504
	10	51+13.260	-27.000	607.4507		607.451
	11	51+ 7.261	-31.000	607.3928		607.393

DESIGNED	PP
CHECKED	AZ
DRAWN	GG
CHECKED	DMP

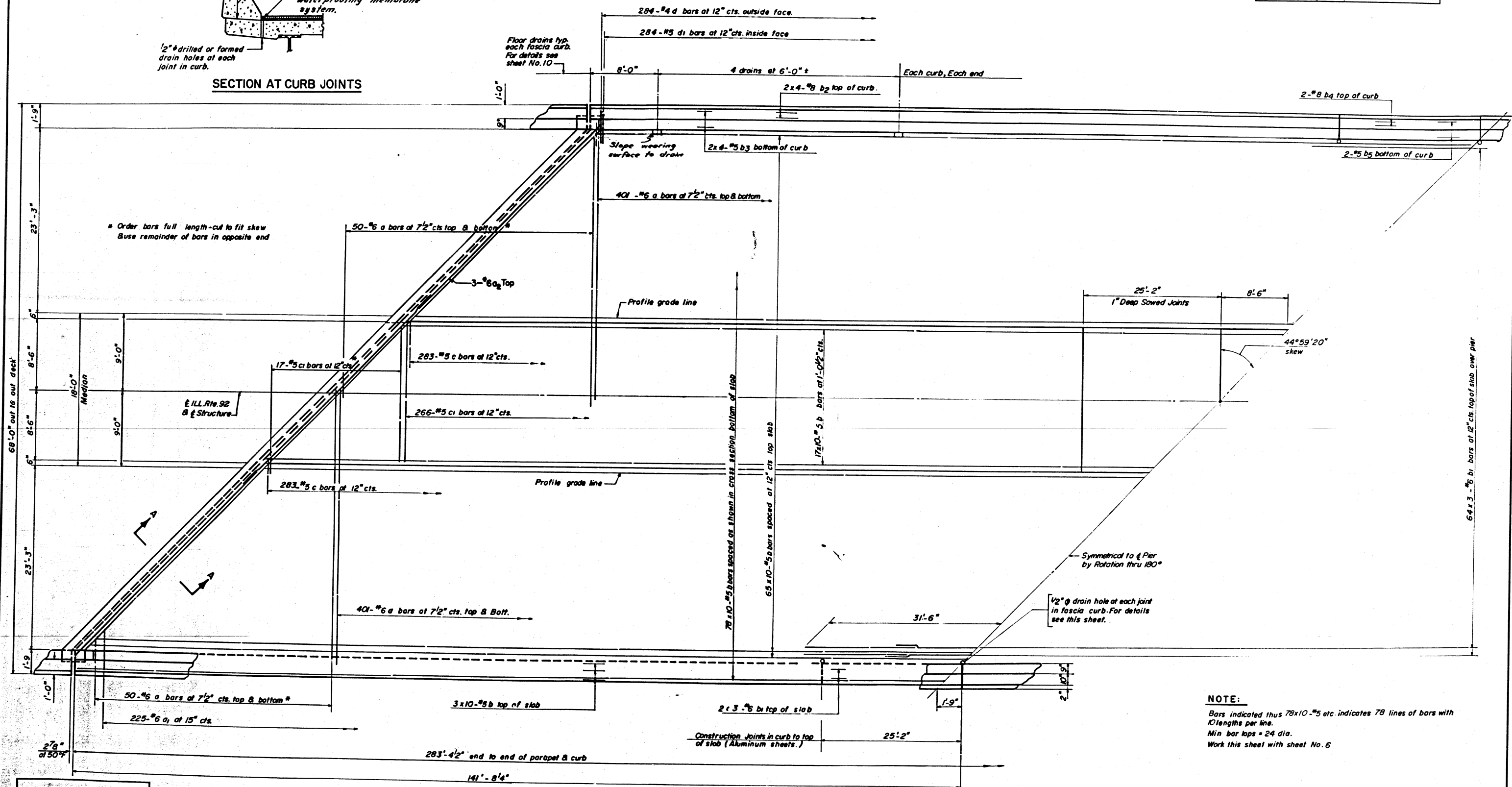
NOTE: Elevations are given at surface of 12" class I Bituminous Concrete.
Work this sheet with sheet No. 2

ELEVATIONS
FA 403 SECTION 161-IHB-4
FA 403 UNDER ILL RTE. 92
ROCK ISLAND COUNTY
STATION 533+09.95

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 5 14 SHEETS
S. S. L. P. A. 403	161-1-2	ROCK ISLAND	532	170	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:			



SECTION AT CURB JOINTS



* Order bars full length-cut to fit skew
Buse remainder of bars in opposite end

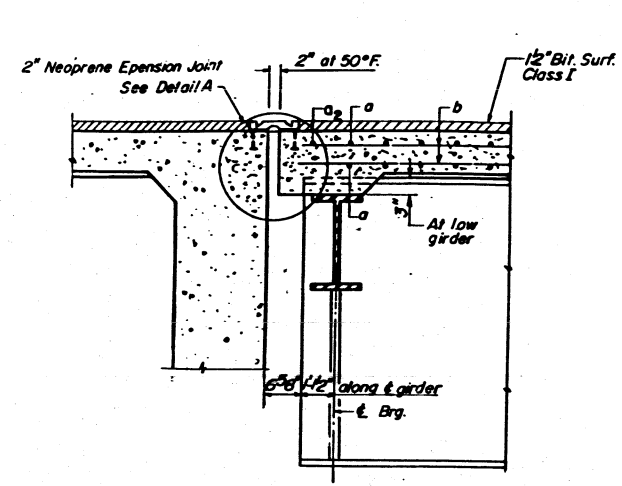
ILL. RTE. 92
& Structure

NOTE:
Bars indicated thus 78x10-#5 etc. indicates 78 lines of bars with 10 lengths per line.
Min bar laps = 24 dia.
Work this sheet with sheet No. 6

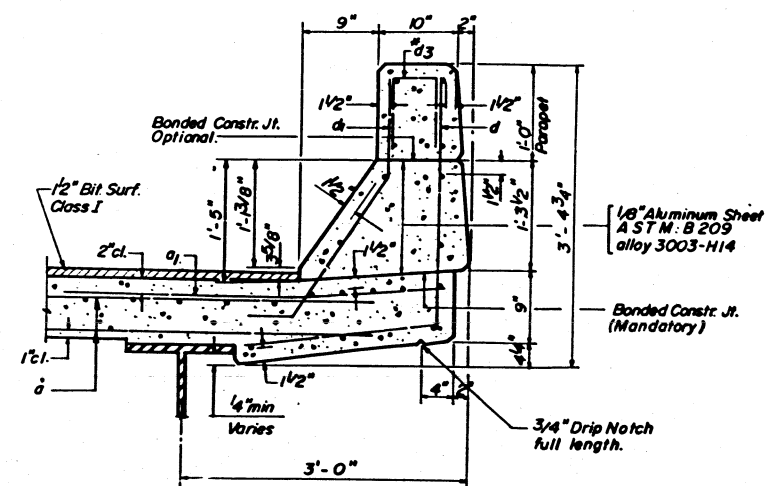
DESIGNED	A. A.
CHECKED	B.T.M.
DRAWN	A.M.
CHECKED	B.T.M.

HALF DECK PLAN

DECK DETAILS
FA 403 SECTION 161-1HB-4
FA 403 UNDER ILL. RTE 92
ROCK ISLAND COUNTY
STATION 533+09.95

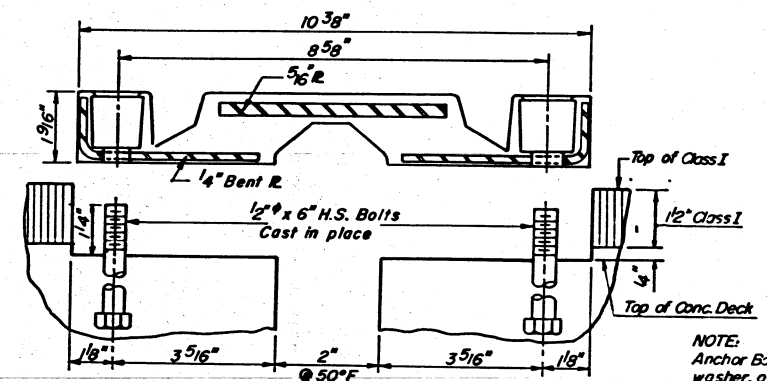


SECTION A-A



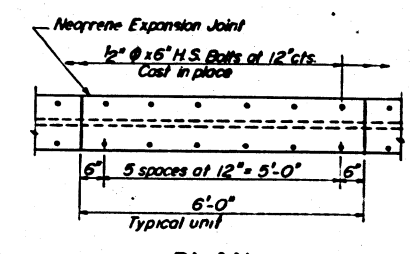
CURB SECTION

Cost of Aluminum Sheets shall be incidental to Class X Concrete.

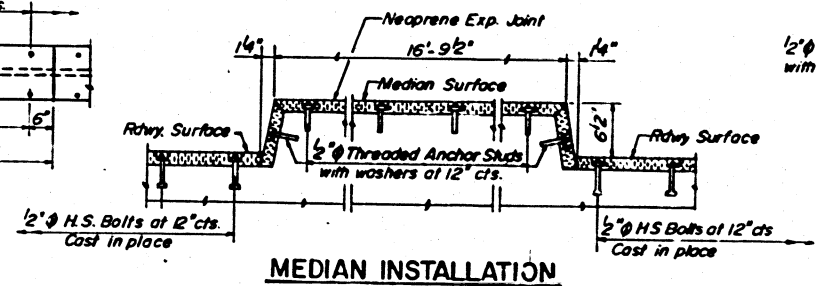


DETAIL 'A'

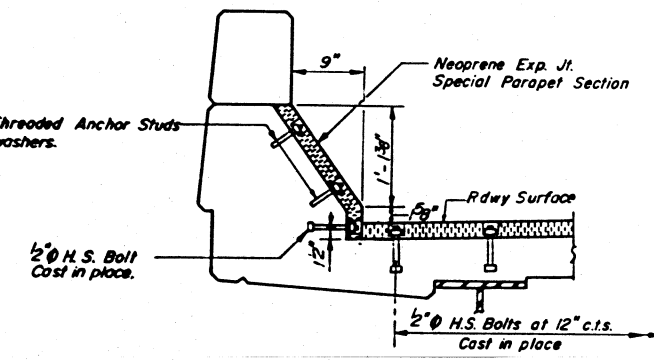
NOTE: Anchor Bolts require a clipped washer, one word and hex nut.



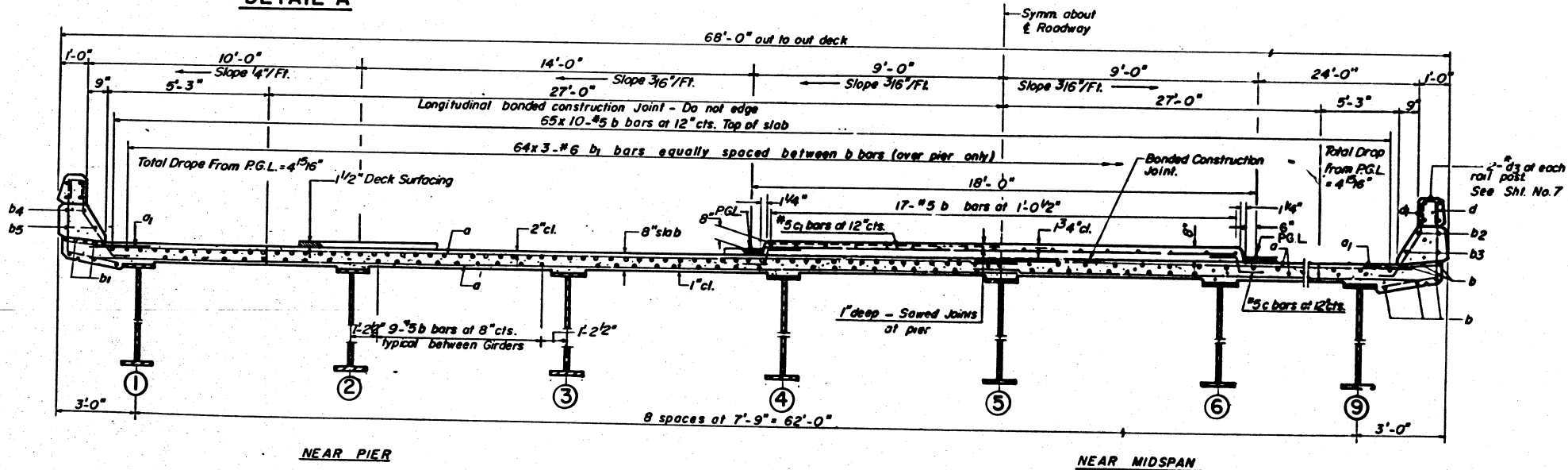
PLAN



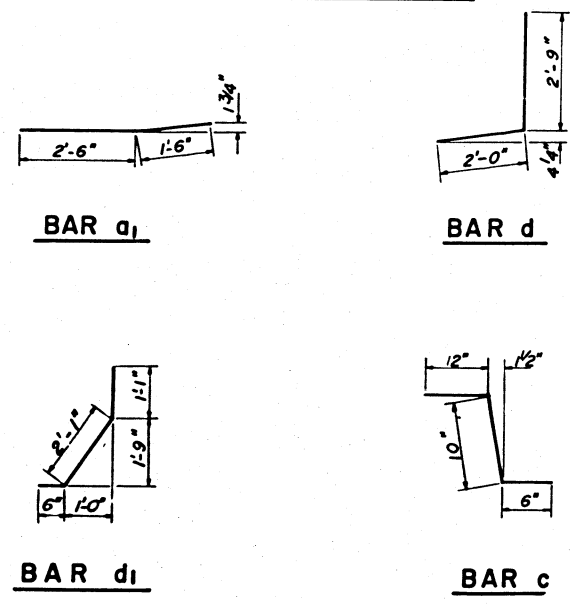
MEDIAN INSTALLATION



CURB INSTALLATION



CROSS SECTION
Looking East



BILL OF MATERIAL

BAR NO.	SIZE	LENGTH	SHAPE
a	1804 #6	33'-9"	—
a1	450 #6	4'-0"	—
a2	6 #6	32'-0"	—
b	1660 #5	29'-5"	—
b1	204 #6	22'-0"	—
b2	32 #8	30'-6"	—
b3	32 #5	30'-0"	—
b4	8 #8	24'-8"	—
b5	8 #5	24'-11"	—
c	566 #5	2'-4"	—
c1	283 #5	16'-9"	—
d	568 #4	4'-9"	—
d1	568 #5	3'-8"	—
** Reinforcement Bars			Lbs. 166,760
** Class X Concrete			Cu. Yds. 655.7
*** Structural Steel			Lbs. 841,800
Protective Coat			Sq. Yds. 756
Aluminous Concrete Surface Course Class I			Tons 126
Waterproofing Membrane System			Sq. Yds. 1496
2" Neoprene Exp. Jt.			Lin. Ft. 190

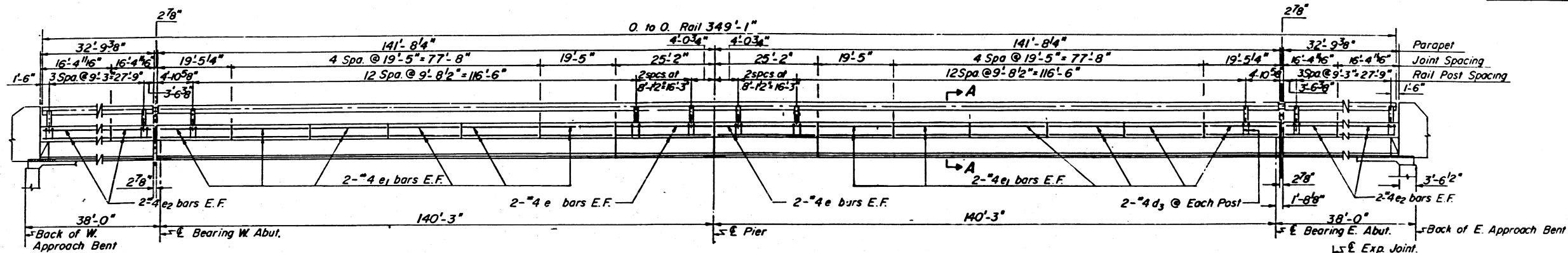
*** Weight of bearing assemblies with lead plates and anchor bolts are included as Structural Steel

** Parapet Reinforcement and Class X Concrete are billed on sheet No. 7

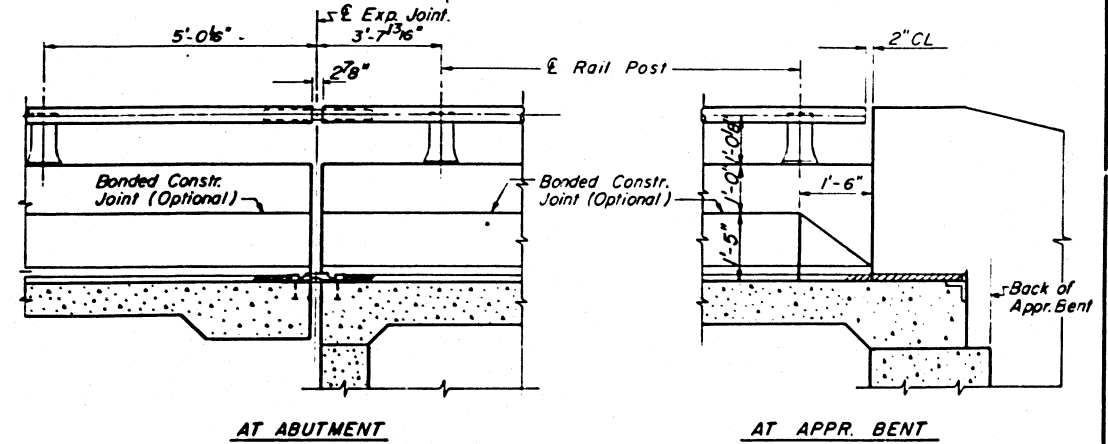
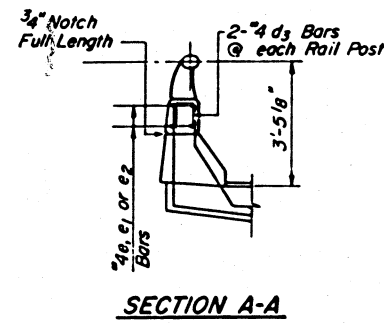
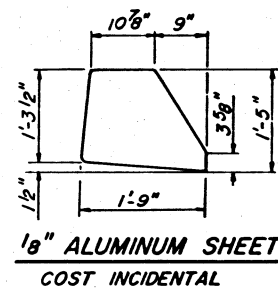
Work this Sheet with Sheet No. 5

DESIGNED	A.A.
CHECKED	B.T.M.
DRAWN	A.M.
CHECKED	B.T.M.

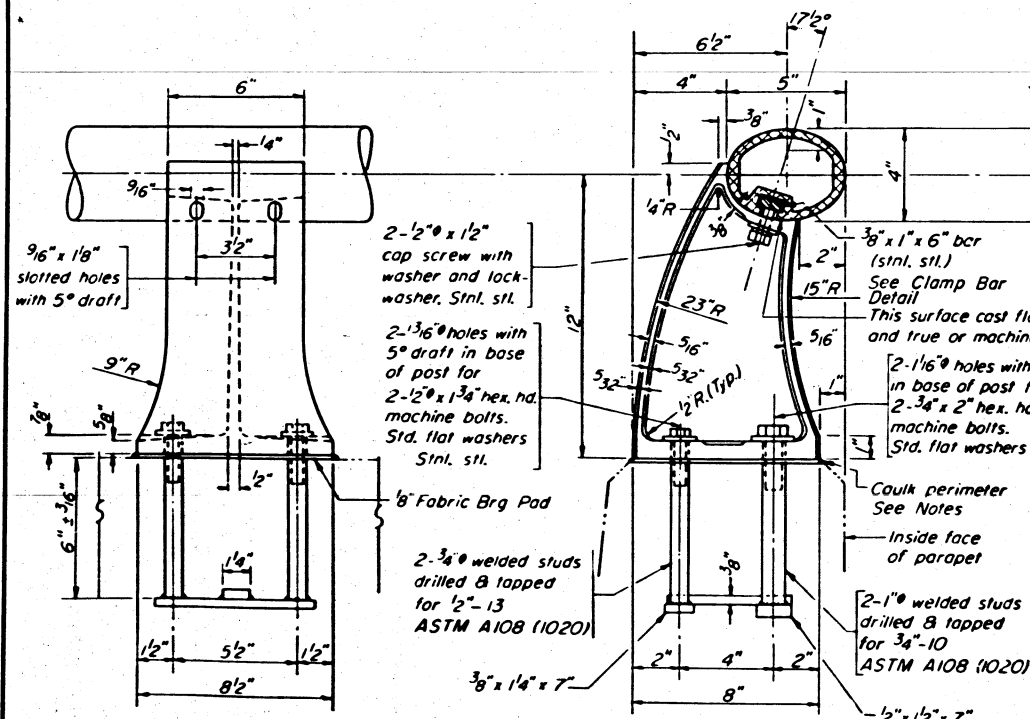
DECK DETAILS
FA 403 SECTION 161-IHB-4
FA 403 UNDER ILL. RTE. 92
ROCK ISLAND COUNTY
STATION 533+09.95
REV 9-28-72 L.S.



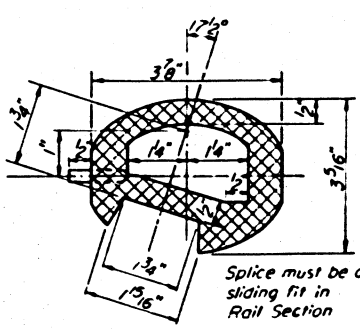
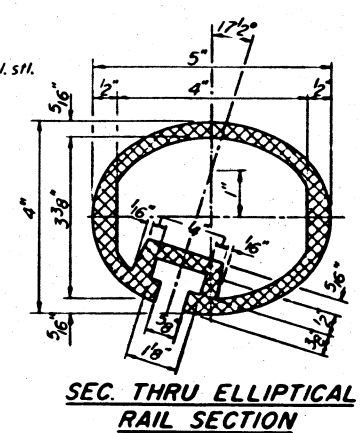
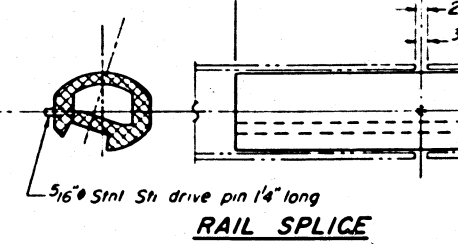
PARAPET & RAILING ALONG NORTH FASCIA
(SOUTH FASCIA SIMILAR)



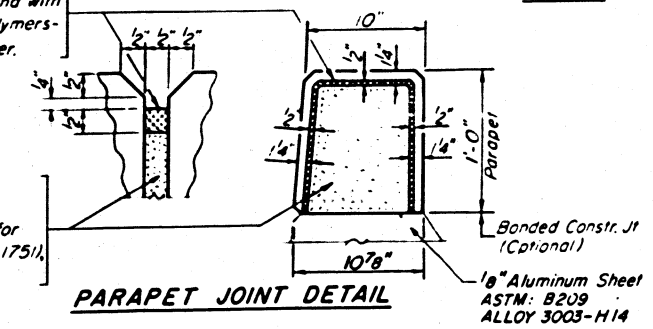
INSIDE VIEW OF PARAPET
(EAST END SHOWN, WEST END SIMILAR)



CAST END CAP
DRIVE FIT TYPE
4 Required



Two component non-staining gray sealing compound with polysulfide liquid polymers-gun grade with primer.



NOTES:

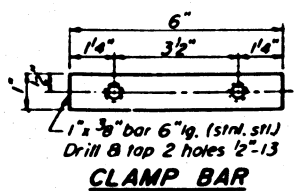
All Aluminum Alloy Extruded Rail shall be supplied in modular lengths of 30 feet, except at the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a horizontal curve of 2300 foot radius or less, the modular lengths may be reduced but shall be attached to a minimum of 2 posts.
All joints in rail shall be spliced per detail.
Provide 1-#8 and 2-#16 Aluminum Shims for 25% of the Posts. Rail element shall be parallel to Grade - high spots shall be ground and low spots shimmed.
Seal perimeter of base of post to parapet with two component non-staining gray sealing compound with polysulfide liquid polymers, gun grade with primer. Fabric Bearing Pad shall have same dimensions as base of post.
Aluminum alloy rail shall conform to ASTM B221 alloy 6061-T6 or 6351-T5 with min. yield 35 ksi, min tensile 38 ksi, and elongation of 10% in 2 inches.

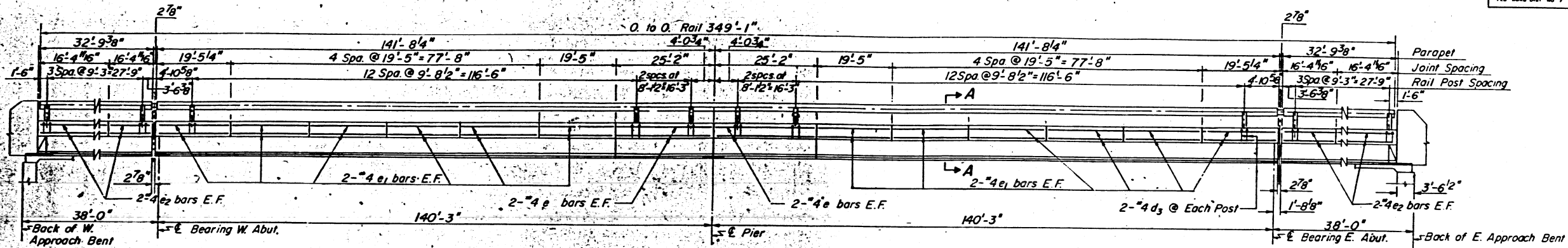
PARAPETS & RAILS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d3	152	#4	2'-1"	□
e	16	#4	24'-10"	—
e1	96	#4	19'-1"	—
e2	32	#4	16'-0"	—
Reinforcement Bars				Lbs. 2040
Glass X Concrete				Cu. Yds. 22.5
Aluminum Railing				Lin. Ft. 698

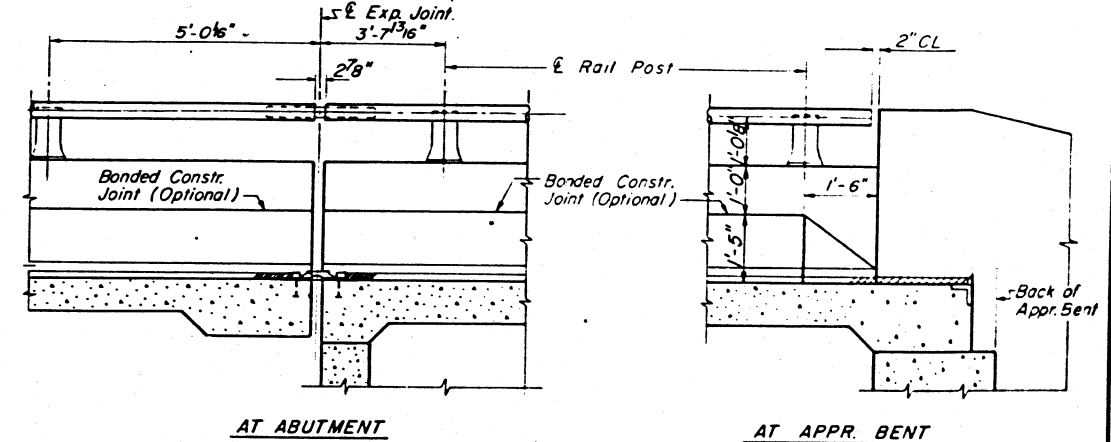
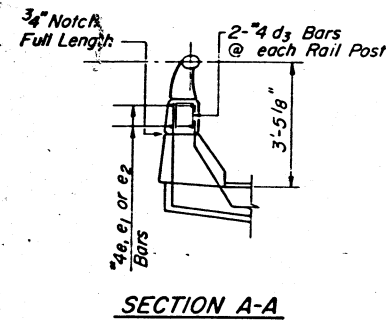
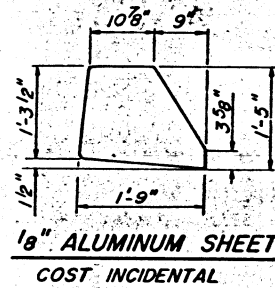
DESIGNED	H.S.
CHECKED	H.R.S.
DRAWN	A.M.
CHECKED	H.S.

PARAPET AND RAILING
FA 403 SECTION 161-1HB-4
FA 403 UNDER ILL. RTE. 92
ROCK ISLAND COUNTY
STATION 533+09.95

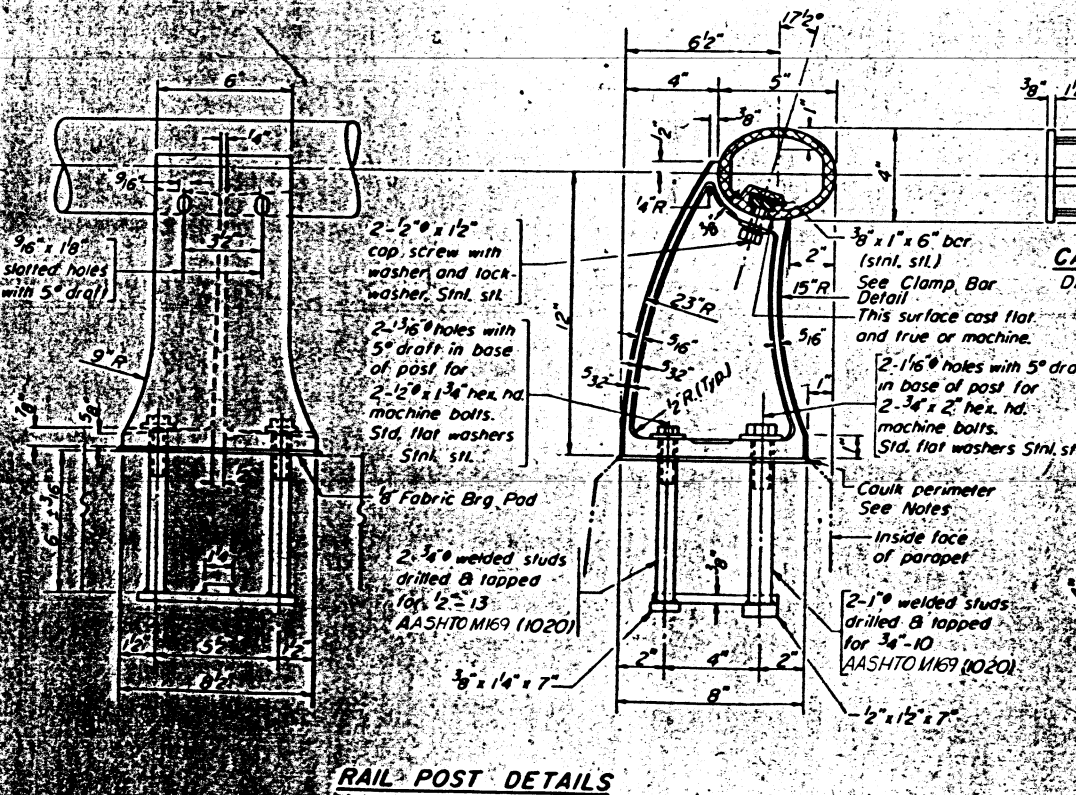




PARAPET & RAILING ALONG NORTH FASCIA
(SOUTH FASCIA SIMILAR)

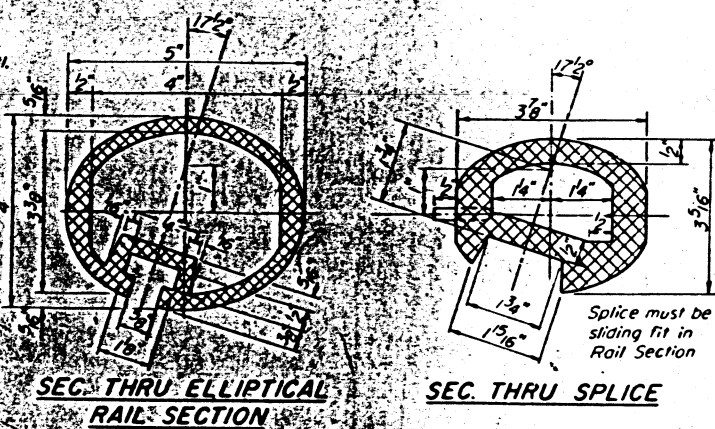


INSIDE VIEW OF PARAPET
(EAST END SHOWN, WEST END SIMILAR)



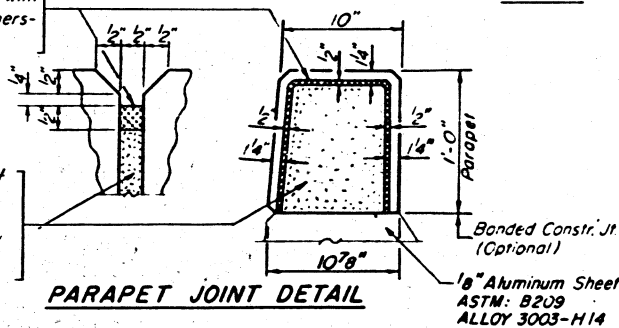
CAST END CAP
DRIVE FIT TYPE
4 Required

RAIL SPLICE



Two component non-staining gray sealing compound with polysulfide liquid polymers - gun grade with primer.

1/2" Preformed Cork Joint Filler (In accordance with Articles 715.07 or 715.09) Cost Incidental.



PARAPETS & RAILS
BILL OF MATERIAL

Bar	No	Size	Length	Shape
d ₃	152	#4	2'-1"	□
e	16	#4	24'-10"	—
e ₁	96	#4	19'-1"	—
e ₂	32	#4	16'-0"	—
Reinforcement Bars			Lbs.	2040
Class Concrete			Cu. Yds.	22.5
Aluminum Railing			Lin. Ft.	698

NOTES:

All Aluminum Alloy Extruded Rail shall be supplied in modular lengths of 30 feet, except at the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a horizontal curve of 2300 foot radius or less, the modular lengths may be reduced but shall be attached to a minimum of 2 posts.

All joints in rail shall be spliced per detail. Provide 1-#8 and 2-#16 Aluminum Shims for 25% of the Posts. Rail element shall be parallel to Grade - high spots shall be ground and low spots shimmed.

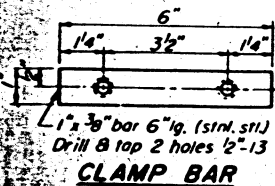
Seal perimeter of base of post to parapet with two component non-staining gray sealing compound with polysulfide liquid polymers, gun grade with primer. Fabric Bearing Pad shall have same dimensions as base of post.

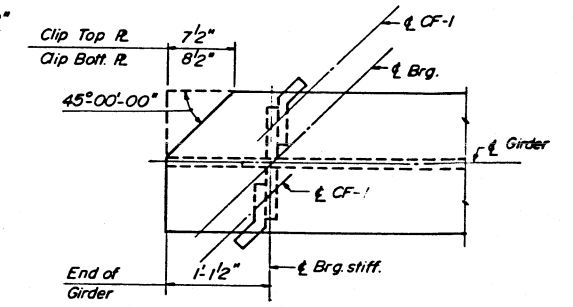
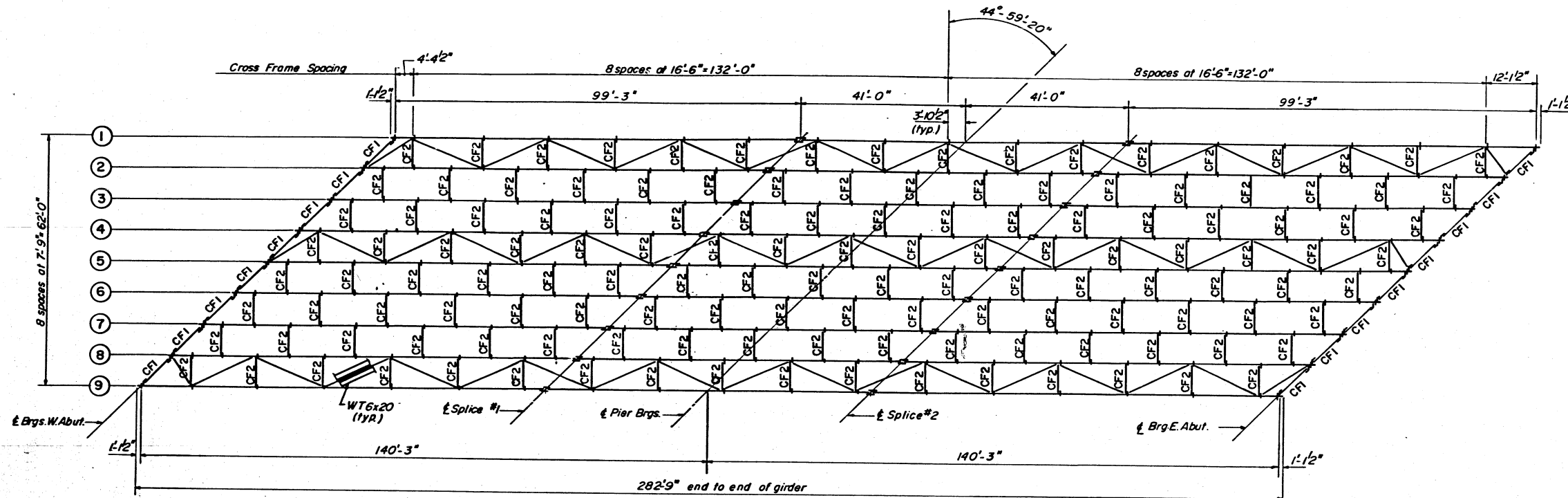
Aluminum alloy rail shall conform to ASTM B221 alloy 6061-T6 or 6351-T5 with min. yield 35 ksi, min tensile 38 ksi, and elongation of 10% in 2 inches.

PARAPET AND RAILING
FA 403 SECTION 161-IHB-4
FA 403 UNDER ILL. RTE. 92
ROCK ISLAND COUNTY
STATION 533+09.95

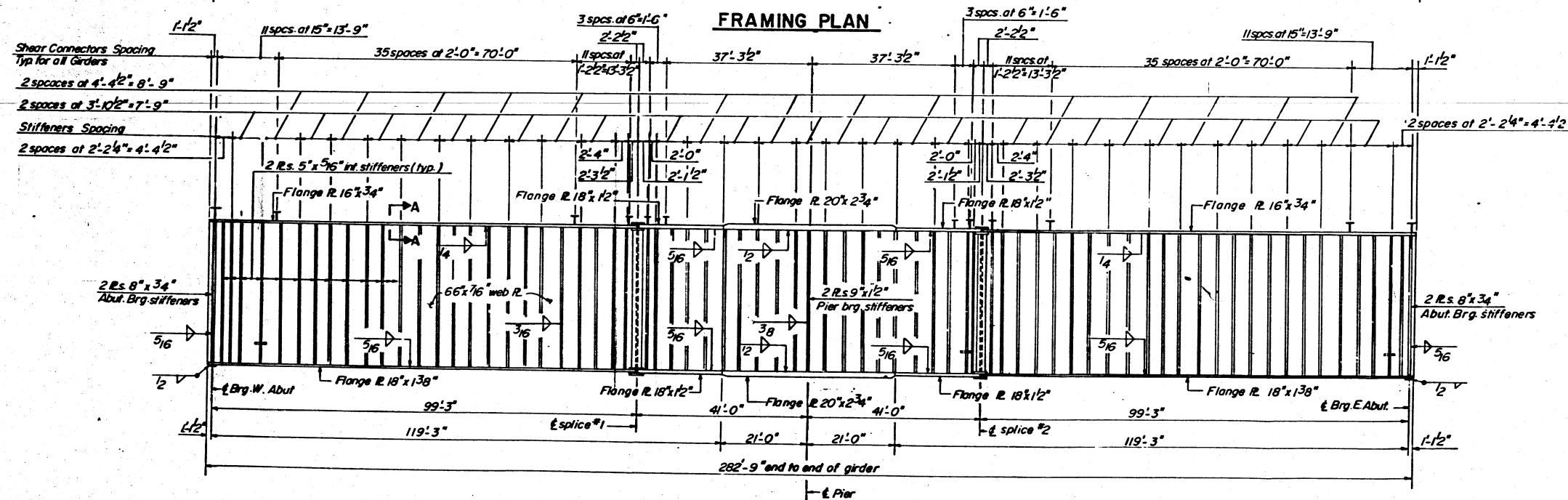
DESIGNED: H.S.
CHECKED: H.R.
DRAWN: A.M.
CHECKED: H.S.

AS REVISED





TYPICAL END GIRDER



GIRDER ELEVATION

(Composite in Positive Moment Areas only)

	0.4 SPAN 1	PIER
I_s (in ⁴)	49146.0	140,462.47
I_c (in ⁴)	121093.40	—
S_s (in ³)	1768.5	3929.02
S_c (in ³)	2335.0	—
J (in ⁴)	1.089	1.345
M_Q (in ⁴)	1231.95	3427.32
$f_s Q$ (ksi)	8.36	10.47
$S Q$ (in ³)	0.52	0.52
M_{s+imp} (in ⁴)	718.7	1271.7
M_{t+imp} (in ⁴)	1533.9	1715.30
Total (in ⁴)	2252.6	2987.00
$f_s L$ (ksi)	11.58	9.12
f_s Total (ksi)	19.94	19.59
VR (k)	68.7	—

I_s and S_s are the moment of inertia and section modulus of the steel section
 I_c and S_c are the moment of inertia and section modulus of the composite section used in computing f_s .
 VR is the maximum $L+Imp$ shear range in span.

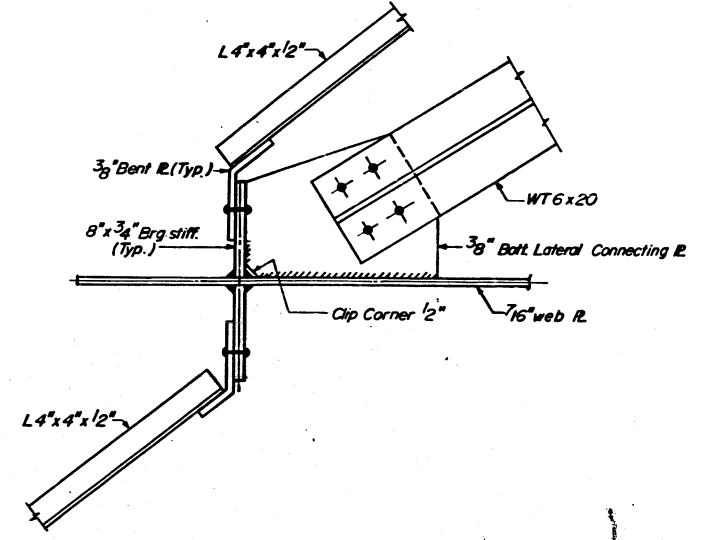
	ABUTMENT	PIER
R_Q (k)	79.9	3032
R_{L+imp} (k)	61.0	120.3
R_{Total} (k)	140.9	423.5

DESIGNED	B.T.M.
CHECKED	P.B.
DRAWN	A.M.
CHECKED	P.B.

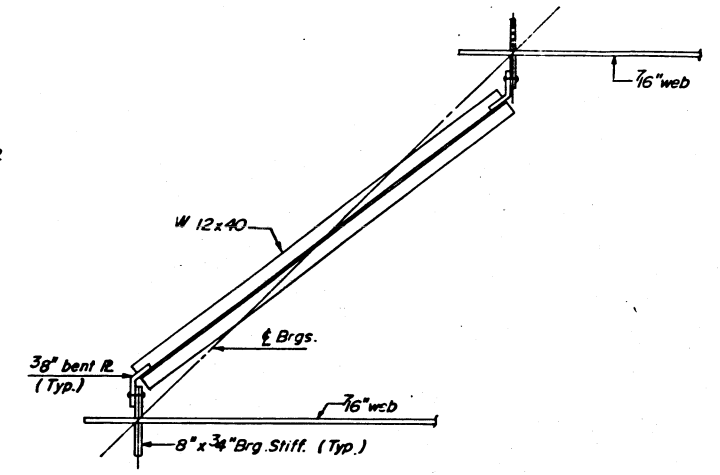
*** TOP OF WEB ELEVATION**

Location	ℓ Brg. W. Abut.	ℓ Splice #1	ℓ Pier	ℓ Splice #2	ℓ Brg. E. Abut.
Girder 1	606.497	606.808	606.644	606.663	606.000
Girder 2	606.608	606.967	606.817	606.858	606.236
Girder 3	606.677	607.080	606.948	607.008	606.430
Girder 4	606.741	607.188	607.075	607.152	606.617
Girder 5	606.802	607.293	607.197	607.293	606.802
Girder 6	606.617	607.152	607.075	607.188	606.741
Girder 7	606.430	607.008	606.948	607.080	607.677
Girder 8	606.236	606.858	606.817	606.967	606.608
Girder 9	606.000	606.663	606.644	606.808	606.497

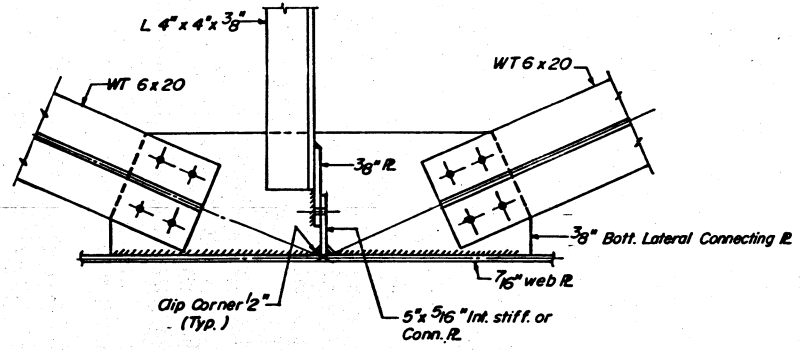
* For Fabrication only



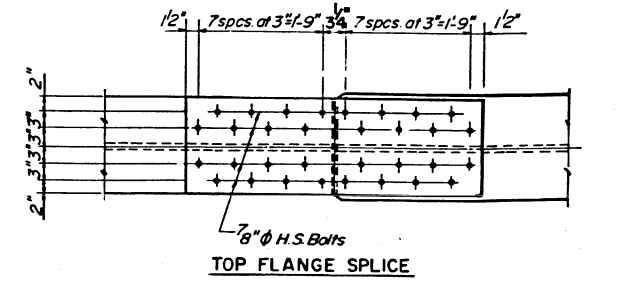
TYPICAL CONNECTION AT ABUTMENT



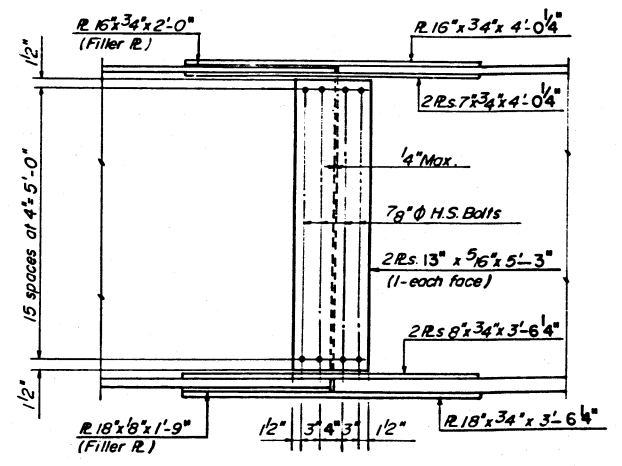
CF-1 PLAN



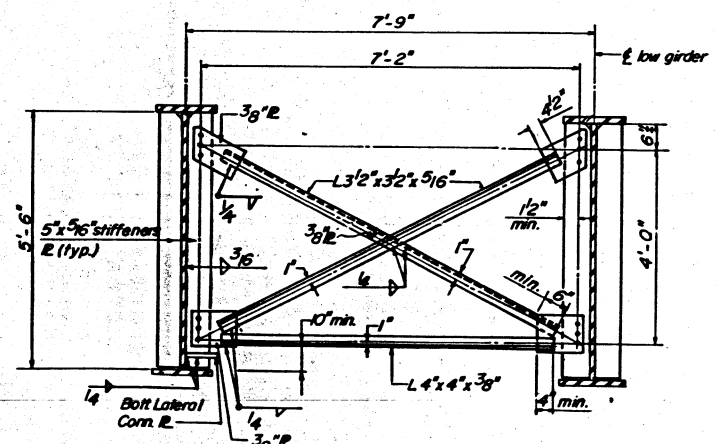
TYPICAL INTERIOR CONNECTION



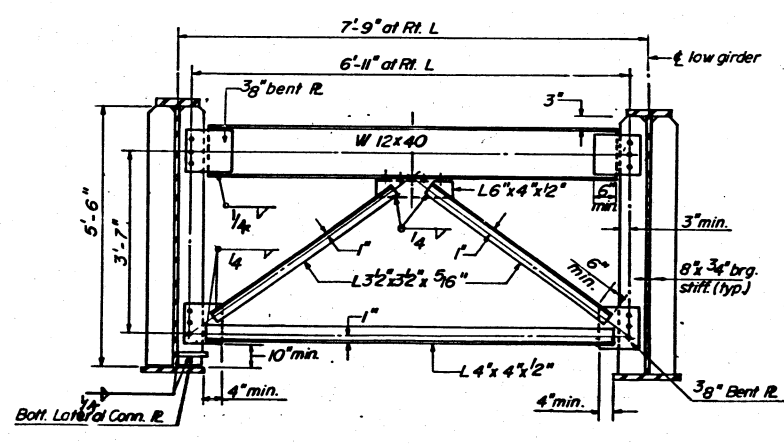
TOP FLANGE SPLICE



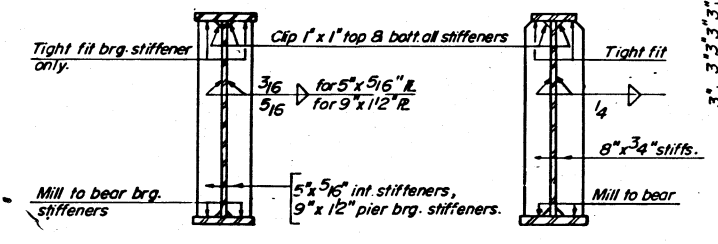
WEB SPLICE



TYPICAL INTERIOR CROSS FRAME CF-2

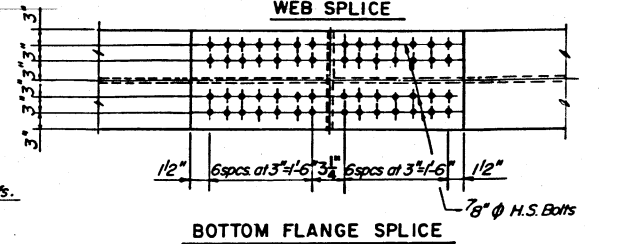


TYPICAL END CROSS FRAME CF-1



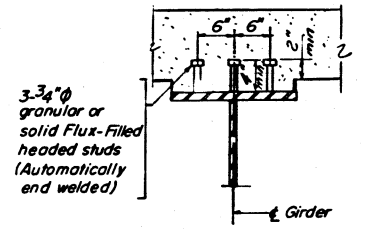
TYPICAL SECTION (AT PIER & INTER-STIFFENERS) **TYPICAL SECTION (AT ABUTMENT ONLY)**

NOTE:
The intermediate stiffeners within 41'-0" either side of ℓ Pier shall be a tight fit at the bottom & 5/8" undercut at the top.
All other intermediate stiffeners shall be a tight fit at the top & 5/8" undercut at the bottom.



BOTTOM FLANGE SPLICE

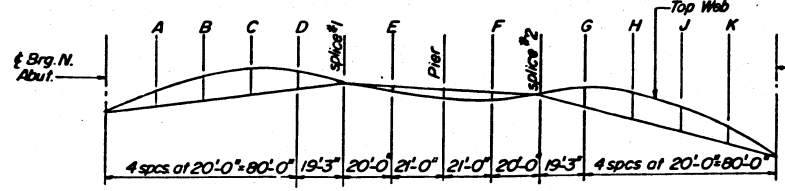
DETAIL OF SPLICE
Splice #1 Shown
Splice #2 Opposite Hand



SECTION A-A

No. Req'd Stud Shear Connectors 3, 294 Each.

Note: Hardened washers shall be req. over 1/8" & holes.



Location	ℓ Brg. N. Abut.	A	B	C	D	Splice #1	E	Pier	F	Splice #2	G	H	J	K	ℓ Brg. S. Abut.
Camber	0'-0"	0'-7/8"	0'-3/8"	0'-3/8"	0'-2/8"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-2/8"	0'-3/8"	0'-3/8"	0'-7/8"	0'-0"

CAMBER DIAGRAM

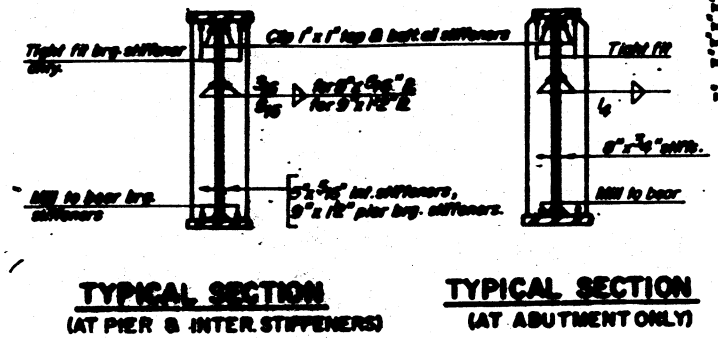
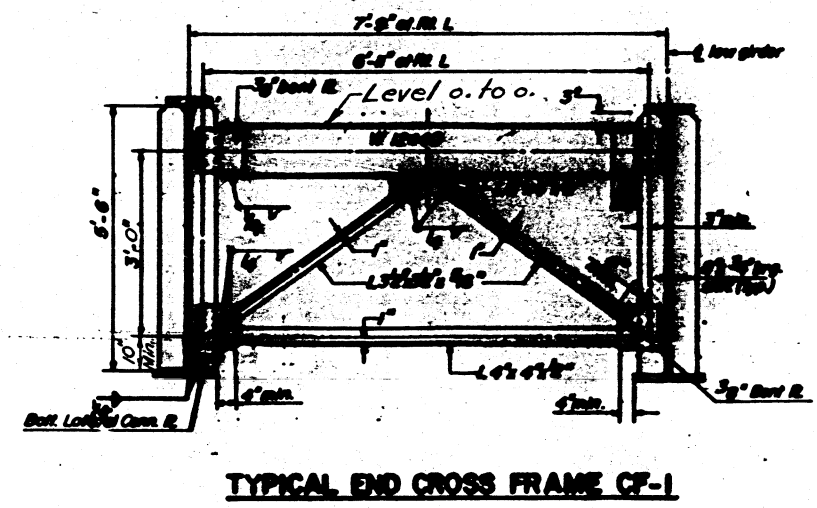
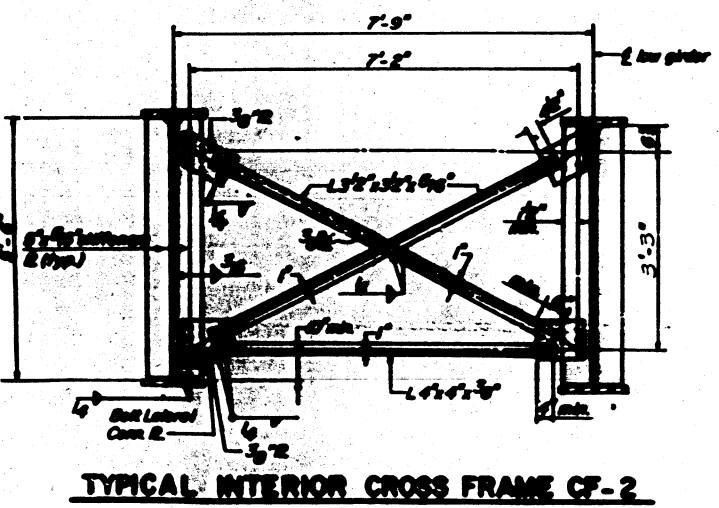
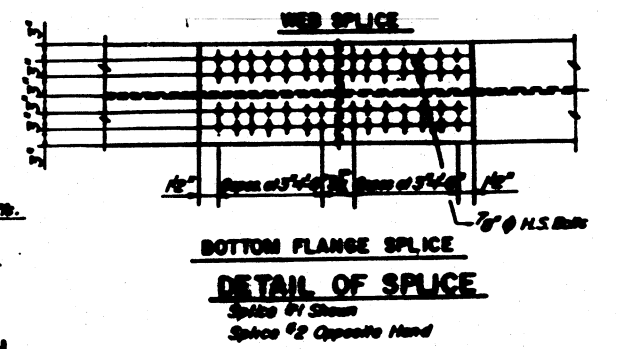
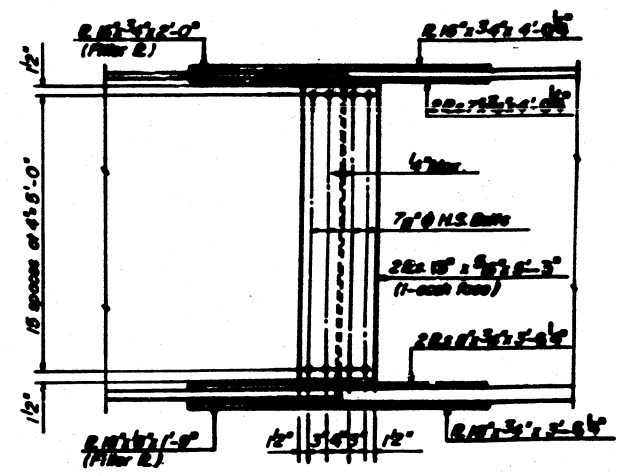
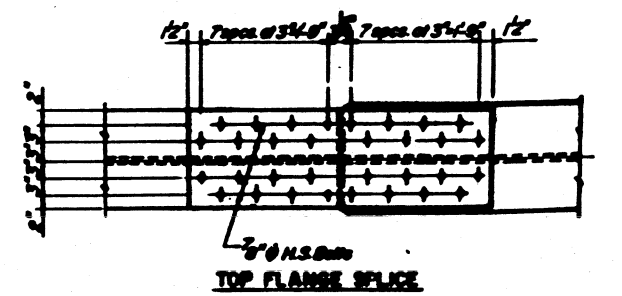
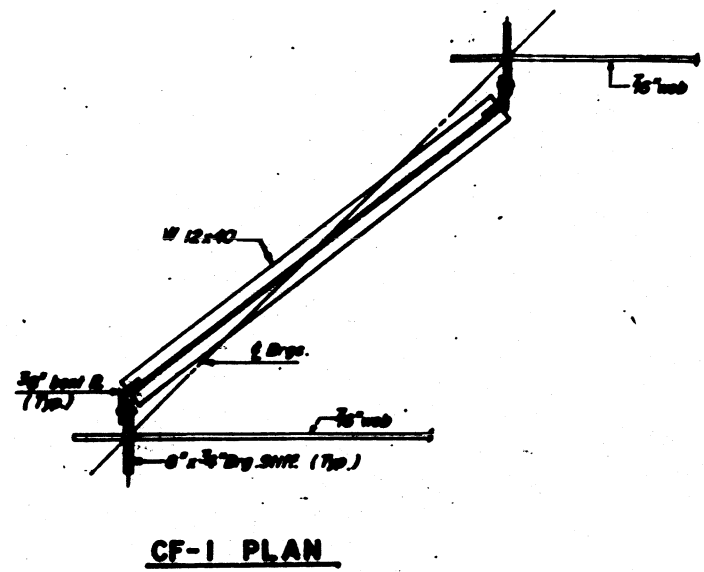
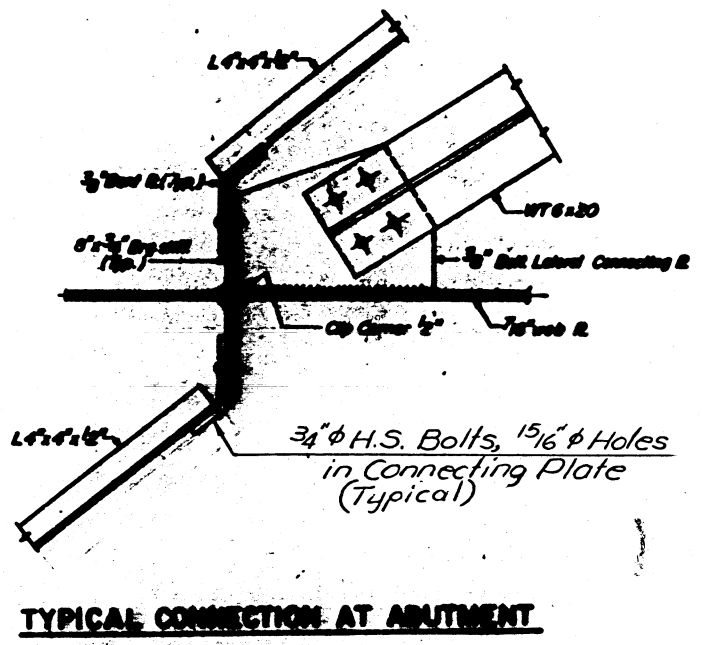
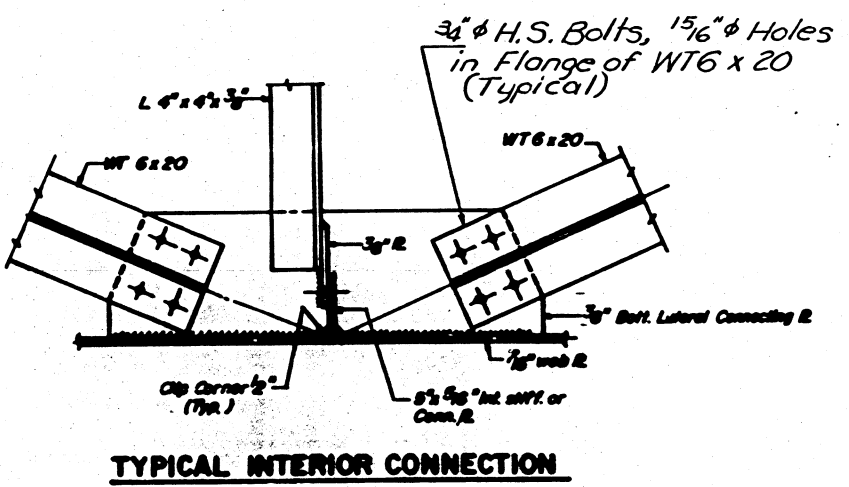
DESIGNED	B.T.M.
CHECKED	P.B.
DRAWN	A.M.
CHECKED	P.B.

STRUCTURAL STEEL
FA 403 SECTION 161-IHB-4
FA 403 UNDER ILL. RTE. 92
ROCK ISLAND COUNTY
STATION 533+09.95
REV. 9-28-72 L.S.

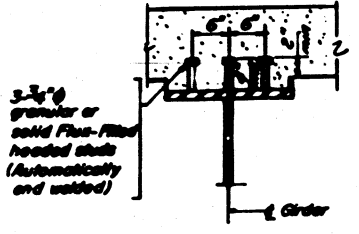
*** TOP OF WEB ELEVATION**

Location	1st	2nd	3rd	4th	5th
Order 1	606.467	606.808	606.844	606.883	606.900
Order 2	606.808	606.867	606.817	606.888	606.838
Order 3	606.877	607.080	606.948	606.908	606.880
Order 4	606.741	607.188	607.078	607.182	606.817
Order 5	606.802	607.293	607.187	607.293	606.802
Order 6	606.817	607.152	607.078	607.188	606.741
Order 7	606.430	607.008	606.948	607.080	606.877
Order 8	606.238	606.868	606.817	606.867	606.808
Order 9	606.000	606.663	606.844	606.808	606.487

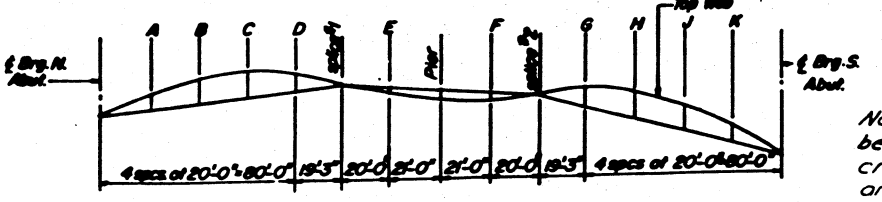
* For Fabrication only



NOTE:
The intermediate stiffeners within 4'-0" either side of \bar{c} Pler shall be a tight fit at the bottom & 5/8" undercut at the top.
All other intermediate stiffeners shall be a tight fit of the top & 5/8" undercut at the bottom.



SECTION A-A
No. Riv'd Stud Shear Connectors 3, 294 Each.



Note: Hardened washers shall be req. over 1/2" holes in cross frame assemblies and lateral bracing.

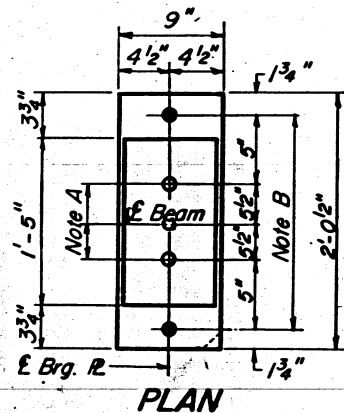
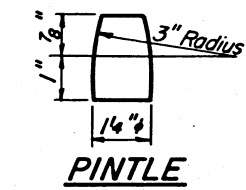
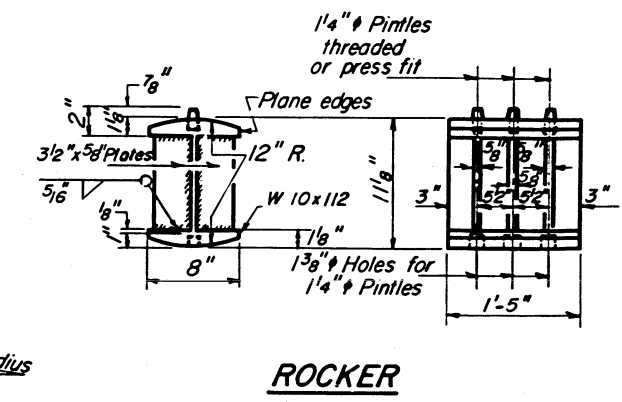
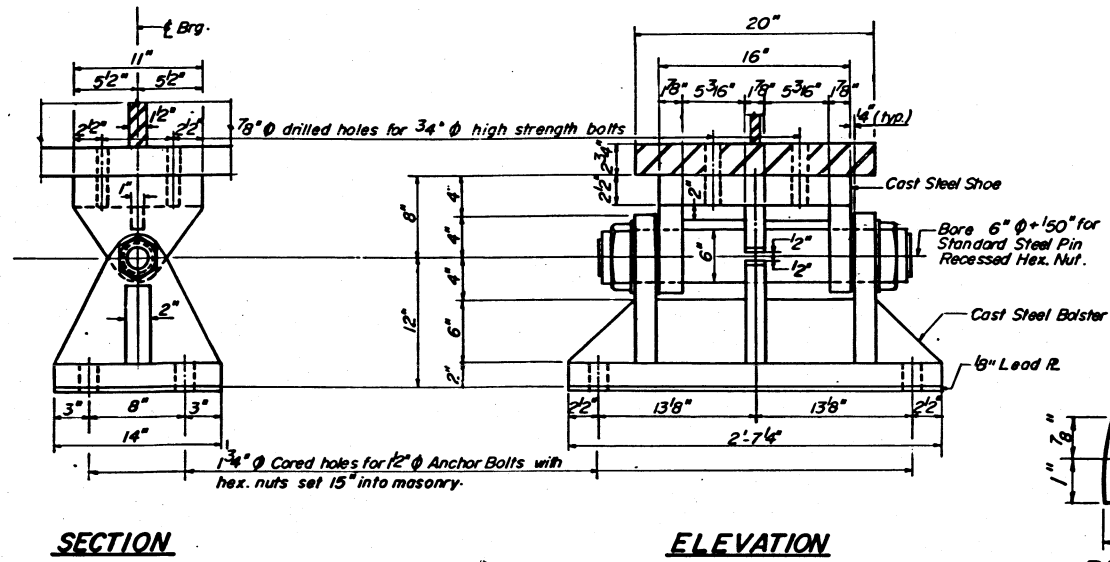
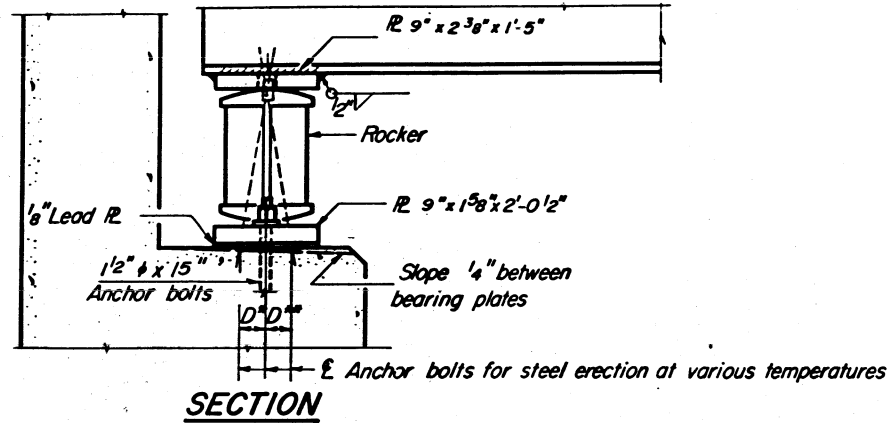
Location	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th
Center	0'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"

CAMBER DIAGRAM

DESIGNED	R.T.H.
CHECKED	P.R.
APPROVED	A.M.
DATE	P.R.

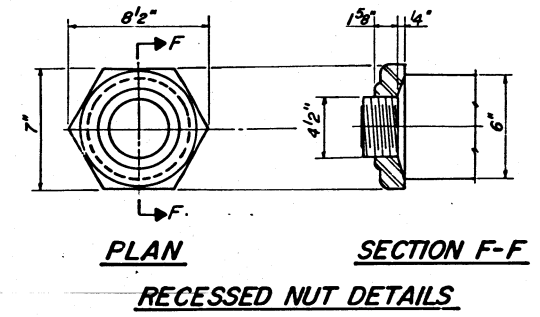
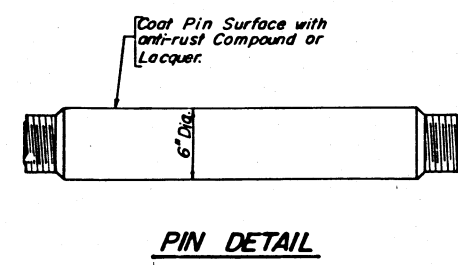
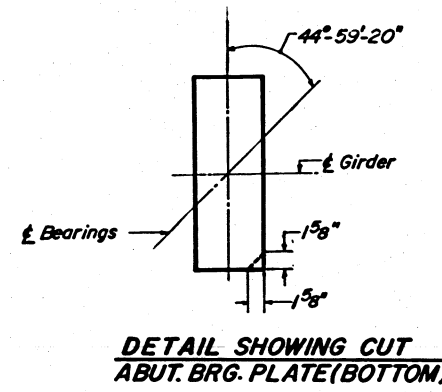
AS REVISED

STRUCTURAL STEEL
FA 403 SECTION 161-NB-4
FA 403 UNDER ILL. RTE. 92
ROCK ISLAND COUNTY
STATION 533+00.98
REV. 9-28-72 L.S.



AT ABUTMENT
No. REQ'D - 18

NOTE A
1 3/8" Holes - 1" deep in top R. for pintles. Thread or press fit pintles into bottom R.



NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

- a) D* (Side of brg. away from fixed brg.)
D* = 1/8" per each 100' of expansion for every 15° fall below the normal temp. of 50°F.
- D** (Side of brg. toward fixed brg.)
D** = 1/8" per each 100' of expansion for every 15° rise above the normal temp. of 50°F.

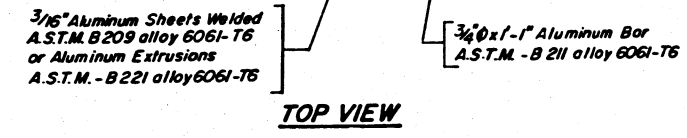
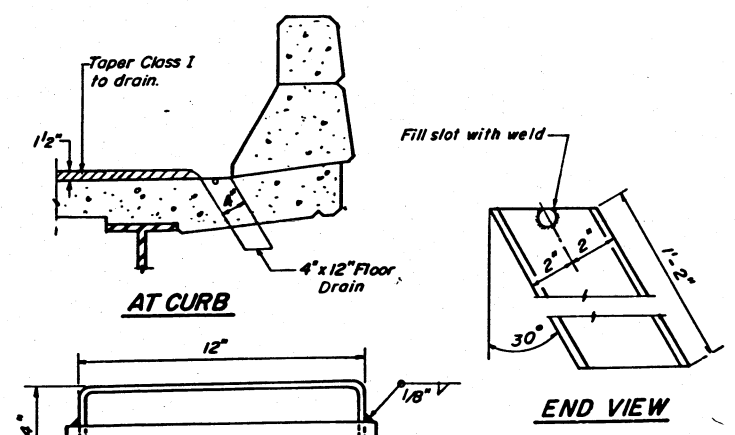
NOTE B
2" Holes for 1 1/2" anchor bolts 3/16" x 3" x 3" R. Washers under nut.

- b) After beams have been erected and dimensions D* or D** determined, holes shall be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of ± 1/8 inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/8" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

The main load carrying member components subject to the Supplemental Requirements for Notch Toughness are the flanges, webs, and splice plates of the steel girders or wide flange beams.

BEARING ASSEMBLY DETAILS



BEARINGS
FA 403 SECTION 161-IHB-4
FA 403 UNDER ILL. RTE. 92
ROCK ISLAND COUNTY
STATION 533+09.95

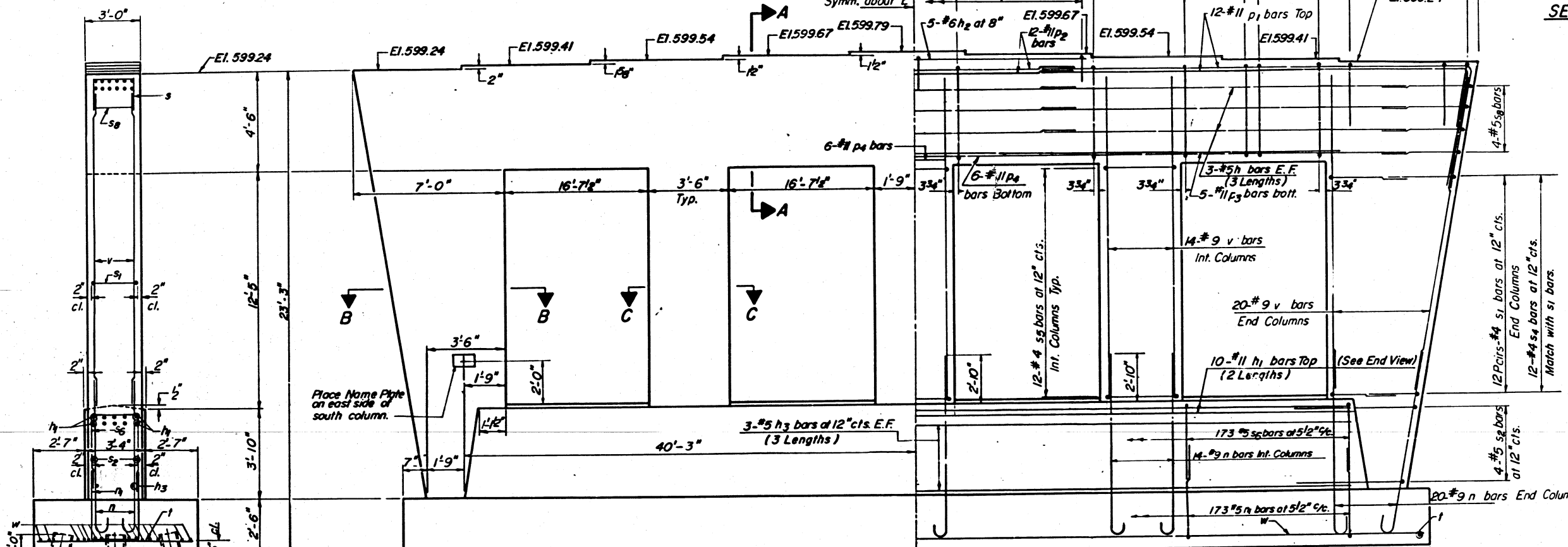
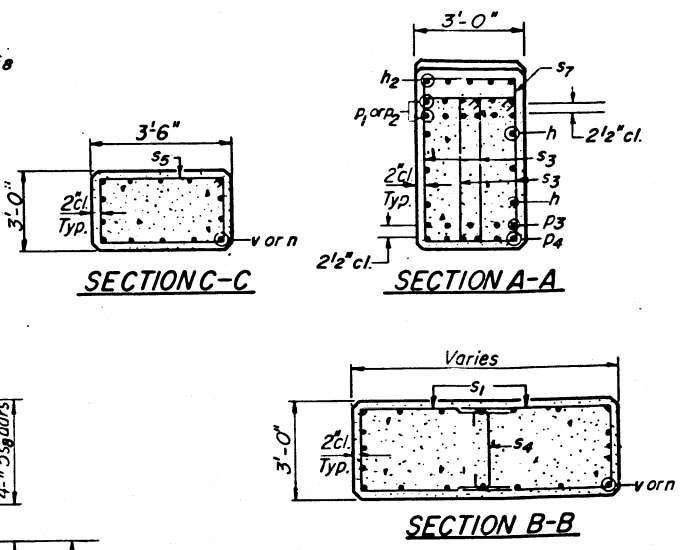
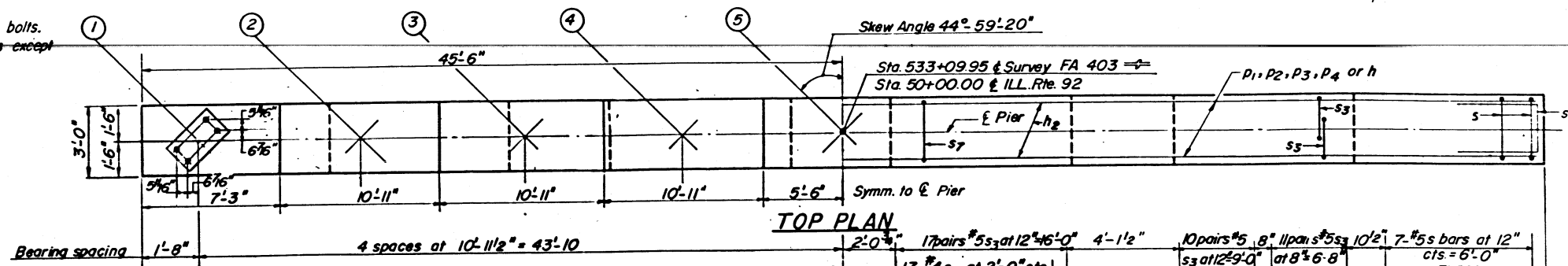
DESIGNED	B. I. M.
CHECKED	P. B.
DRAWN	A. M.
CHECKED	P. B.

NOTES

Space reinforcement in cap to miss anchor bolts.
All edges shall have standard chamfers except as noted.
Four steps monolithically with cap.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
403	161-1-2	ROCK ISLAND	532	176

14 SHEETS



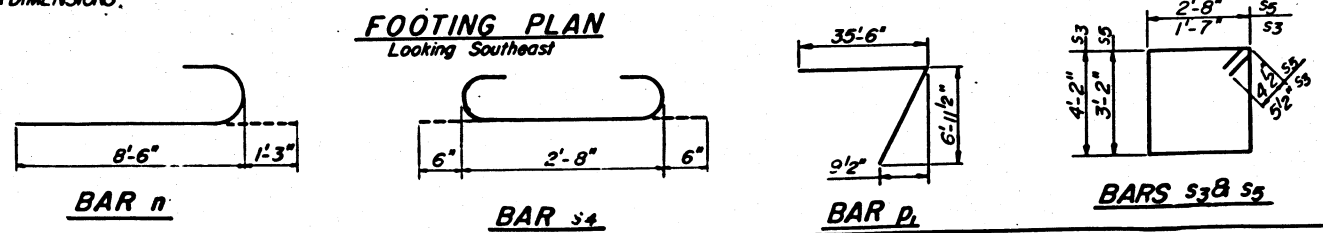
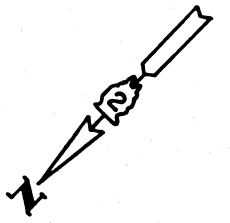
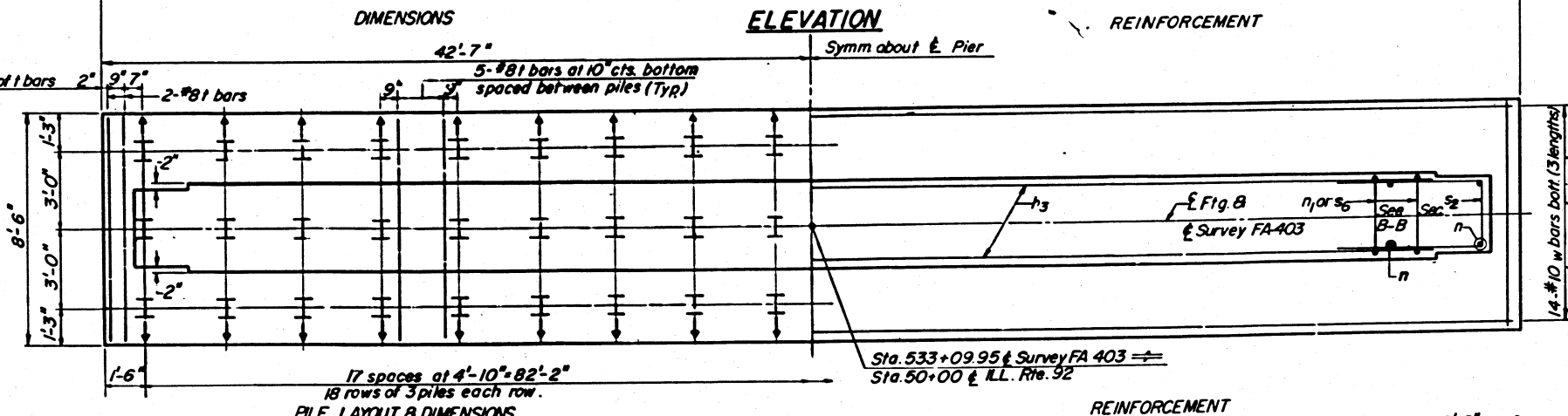
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	18	#5	28'-6"	
h1	20	#11	42'-6"	
h2	5	#6	32'-6"	
h3	18	#5	27'-9"	
n	82	#9	9'-9"	
n1	173	#5	11'-8"	
p1	4	#11	42'-6"	7
p2	12	#11	25'-5"	
p3	10	#11	40'-0"	
p4	12	#11	43'-3"	
s	14	#5	11'-0"	U
s1	48	#4	9'-4"	U
s2	8	#5	12'-6"	U
s3	152	#5	12'-7"	U
s4	24	#4	3'-8"	C
s5	36	#4	12'-5"	U
s6	173	#5	9'-0"	U
s7	17	#4	7'-0"	U
s8	8	#5	6'-9"	U
t	89	#8	8'-2"	
v	82	#9	15'-6"	
w	42	#11	30'-0"	

Class X Concrete	Cu Yds	1837
Reinforcement Bars	Lbs.	40470
Structure Excavation	Cu Yds.	120
Name Plate	Each	1
HPI0x42 Steel Piles	Lin. Ft.	1431
Test Pile HPI0x42	Each	1

PILE DATA
Type ----- HPI0x42 Steel Piles
Capacity ----- Refusal
Est. Length ----- 27'
No. Required ----- 54 including one Test Pile in permanent location

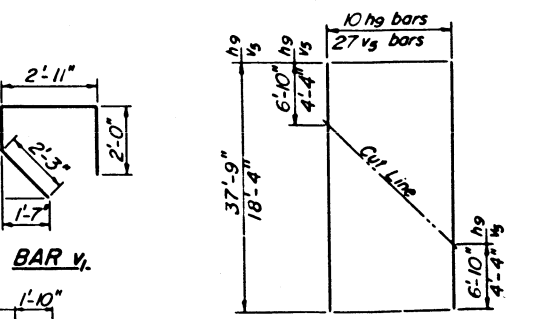
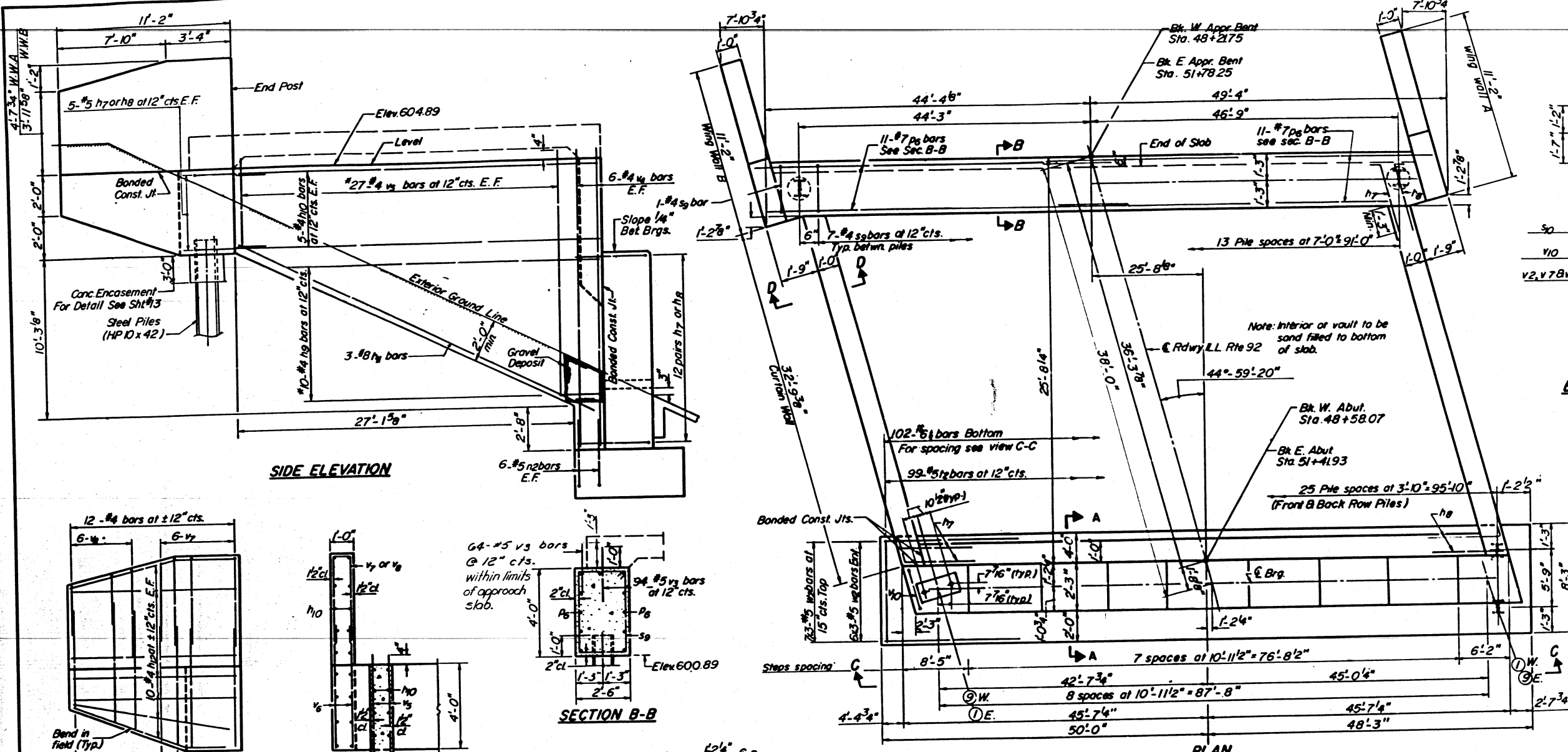
DESIGNED	H.R.S.
CHECKED	D.M.P.
DRAWN	A.M.
CHECKED	D.M.P.



A&B DIMENSIONS

Bar	A	B
n1	3'-0"	4'-4"
s	2'-8"	4'-2"
s1	2'-8"	3'-3"
s6	3'-0"	3'-0"
s2	2'-8"	4'-11"
s7	2'-8"	2'-2"
s8	2'-5"	2'-2"

PIER
FA 403 SECTION 161-1HB-4
FA 403 UNDER ILL. RTE 92
ROCK ISLAND COUNTY
STATION 533+09.95



FIELD CUTTING DIAGRAM
* Order h9 & h5 bars full length. Cut to fit as shown and use remainder of bars in other face.

ONE ABUT. BILL OF MATERIAL.

Bar No	Size	Length	Shape
n5	#8	31'-2"	
n6	#5	30'-3"	
n7	#5	8'-7"	
n8	#5	8'-7"	
n9	#4	37'-9"	
n10	#4	32'-5"	
n11	#8	32'-0"	
n12	#4	10'-10"	
n13	#5	27'-10"	
n2	#5	3'-7"	
n3	#9	5'-3"	
n8	#7	47'-6"	
s9	#4	12'-5"	
s10	#5	5'-10"	
n	#6	7'-11"	
l2	#5	8'-0"	
v	#5	8'-4"	
v2	#5	14'-3"	
v3	#5	2'-6"	
v4	#4	17'-2"	
v5	#4	18'-4"	
v6	#4	5'-8"	
v7	#4	8'-5"	
v8	#4	7'-7"	
v9	#9	11'-0"	
v10	#5	8'-10"	
v11	#5	11'-0"	
w2	#5	33'-6"	
Reinforcement Bars			Lbs. 25,670
Class X Concrete			Cu. Yds. 2,19.8
HP10x42 Steel Piles			Lin. Ft. 2,186
Sand Backfill			Cu. Yd. 150

ABUT.-PILE DATA

Type	W. Abut.	E. Abut.
Capacity	Refusal	Refusal
Est. Length	36	35
No. Req'd	52	52

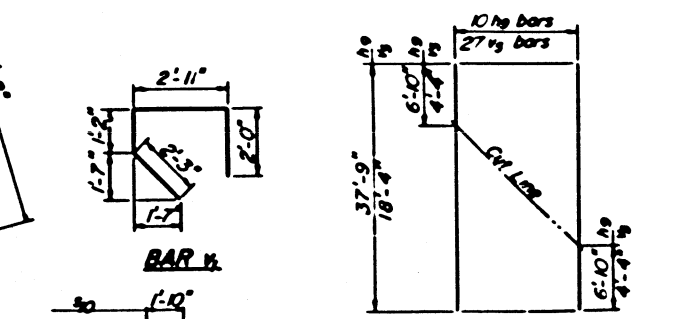
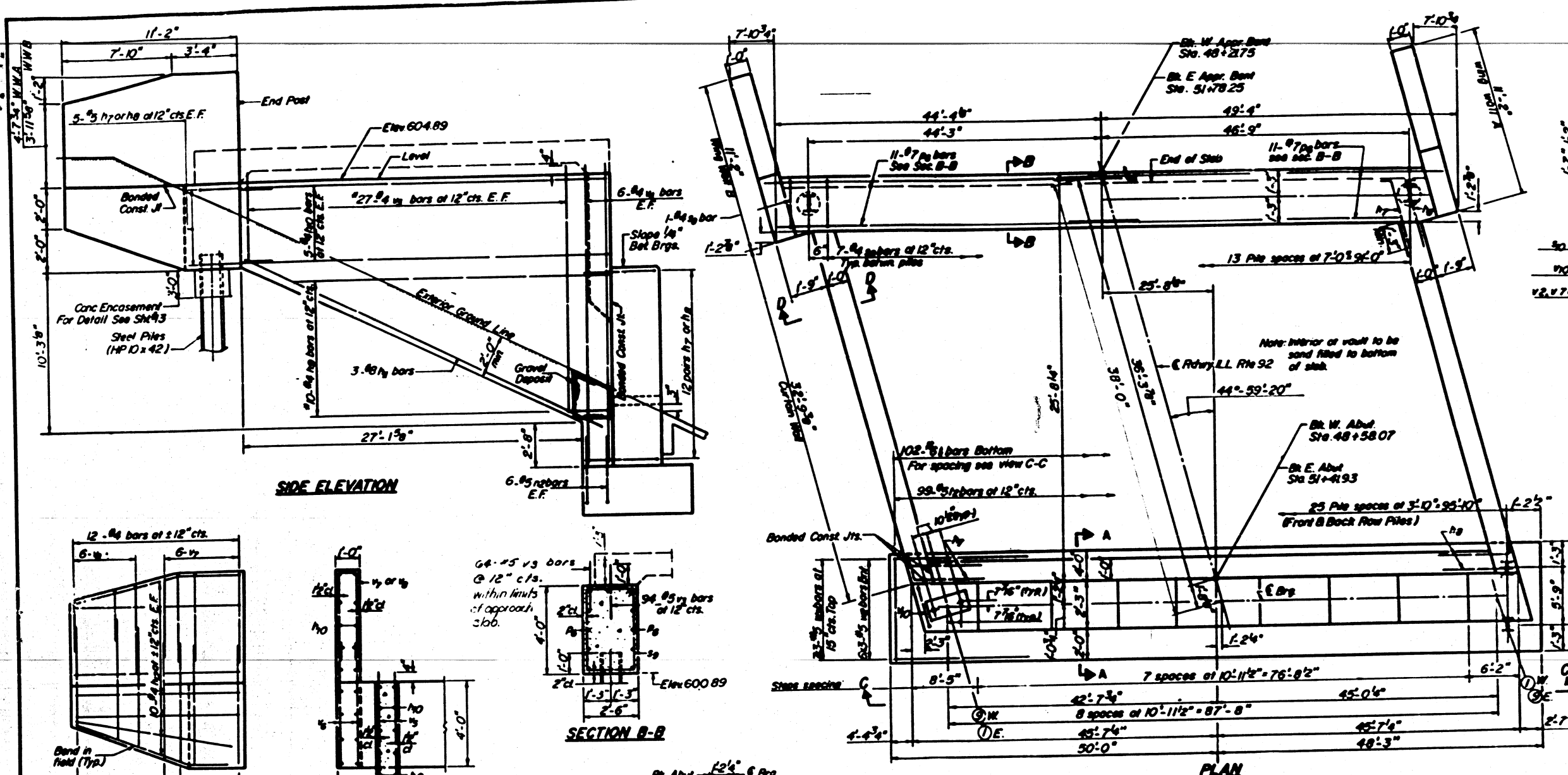
APPR. BENT-PILE DATA

Type	W. Abut.	E. Abut.
Capacity	Refusal	Refusal
Est. Length	51	50
No. Req'd	14	14

NOTE:
Work this sheet with sheet No. 1.
** Steel Piles shown is for West Abut.
East Abut. = 2520 Lin. Ft.

ABUTMENTS
FA 403 SECTION 161-1111-4
FA 403 UNDER ILL. RTE. 92
ROCK ISLAND COUNTY
STATION 533+09.95
REV. 9-28-72 L.S.

DESIGNED B.T.M.
CHECKED HRS
DRAWN A.M.
CHECKED HRS.



FIELD CUTTING DIAGRAM
 Order #8 bars full length cut to fit as shown and use remainder of bars in other face.

ONE ABUT. BILL OF MATERIAL

Bar	No	Size	Length	Shape
#8	78	#5	31'-2"	—
#8	36	#5	30'-3"	—
#7	46	#5	8'-7"	—
#8	46	#5	8'-7"	—
#8	20	#4	37'-9"	—
#10	20	#4	37'-5"	—
#11	6	#8	32'-0"	—
#8	40	#4	10'-0"	—
#10	8	#5	27'-0"	—
#8	115	#5	3'-7"	—
#3	129	#5	5'-3"	—
#8	22	#7	47'-6"	—
#8	92	#4	12'-5"	—
#8	55	#5	5'-0"	—
#8	102	#5	7'-1"	—
#8	99	#5	8'-0"	—
#8	25	#5	8'-4"	—
#8	88	#5	14'-3"	—
#8	666	#5	2'-6"	—
#8	24	#4	17'-2"	—
#8	54	#4	18'-4"	—
#8	48	#4	5'-8"	—
#8	12	#4	8'-5"	—
#8	12	#4	7'-7"	—
#8	129	#9	11'-0"	—
#8	2	#5	6'-0"	—
#8	92	#5	1'-0"	—
#8	39	#5	33'-6"	—
Reinforcement Bars				Lbs. 25,670
Class X Concrete				Cu Wt. 2498
HP10x42 Steel Piles				Lin Ft. 2808
Sand Backfill				Cu Yd. 530

ABUT.-PILE DATA

	W. Abut.	E. Abut.
Type	HP10x42	HP10x42
Capacity	Refusal	Refusal
Est. Length	36	35
No. Req'd	52	52

APPR. BENT-PILE DATA

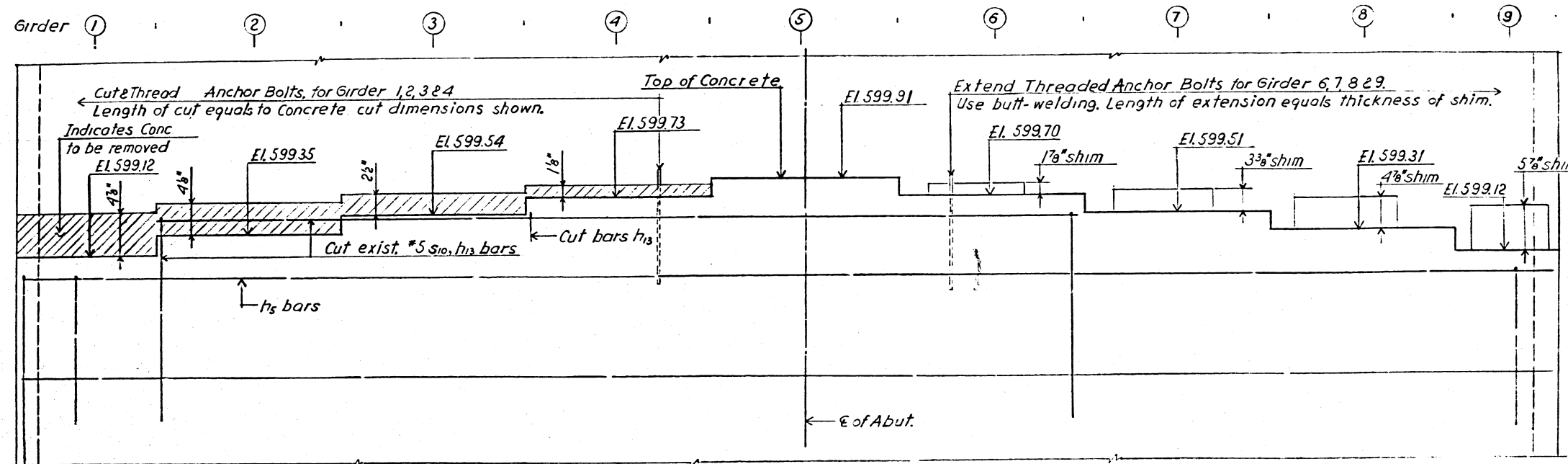
	W. Abut.	E. Abut.
Type	HP10x42	HP10x42
Capacity	Refusal	Refusal
Est. Length	51	50
No. Req'd	14	14

NOTE:
 Work this sheet with sheet No 13
 # Steel Piles shown is for West Abut
 East Abut. = 5380 Lin Ft.

ABUTMENTS
 FA 403 SECTION 161-1HB-4
 FA 403 UNDER ILL. RTE. 92
 ROCK ISLAND COUNTY
 STATION 533+09.95
 REV. 9-28-72 L.S.

DESIGNED	B.T.M.
CHECKED	H.R.S.
DRAWN	A.M.
CHECKED	H.R.S.

For Rev. Seat Elev. @ East Abut. See Sh. 177B.

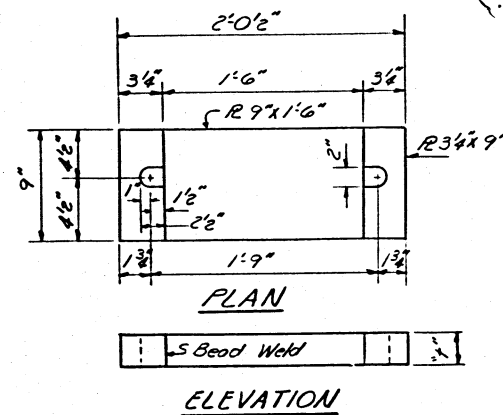


Construction Procedure

1. Remove East Ends of Girders 1, 2, 3 & 4.
2. Construct Bridge Seats to Elevations shown.
3. Loosen splice and diaphragm connections of East Ends of Girders 6, 7, 8 & 9. Butt-weld threaded Anchor Bolt extensions for length of shim thicknesses shown.
4. Raise Steel, install shim plates.
5. Reassemble Steel.

Note
 Bridge Seats shall be lowered to the Elevations shown.
 Smooth surface shall be provided by grinding or cement grouting as necessary.

**PARTIAL ELEVATION
 EAST ABUT.**



SHIM PLATE DETAILS

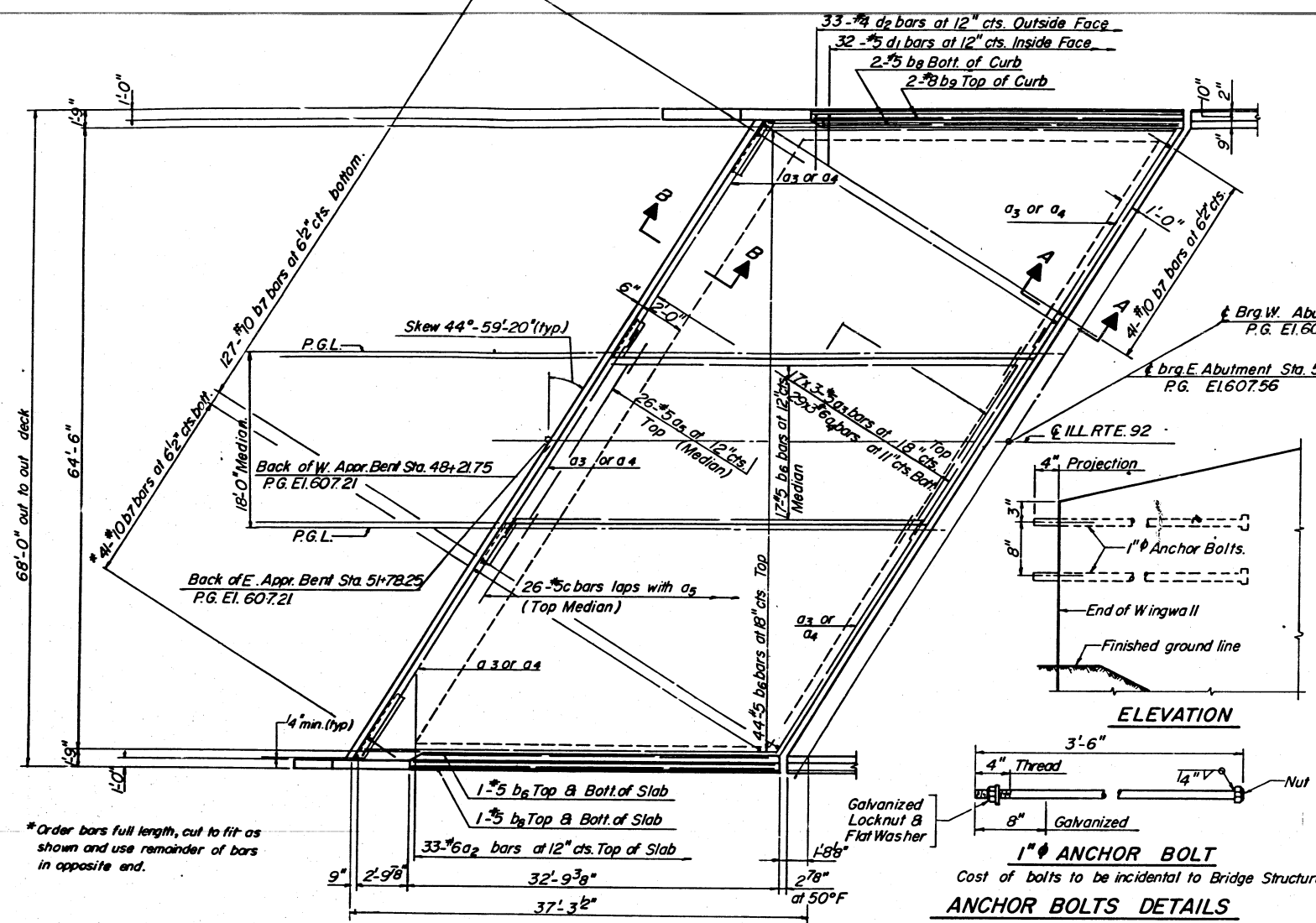
DESIGNED
CHECKED
DRAWN
CHECKED

ME
 MURPHY ENGINEERING INC.
 CONSULTING ENGINEERS
 80 E. JACKSON BLVD CHICAGO, ILLINOIS 60604 (312) 922-2145

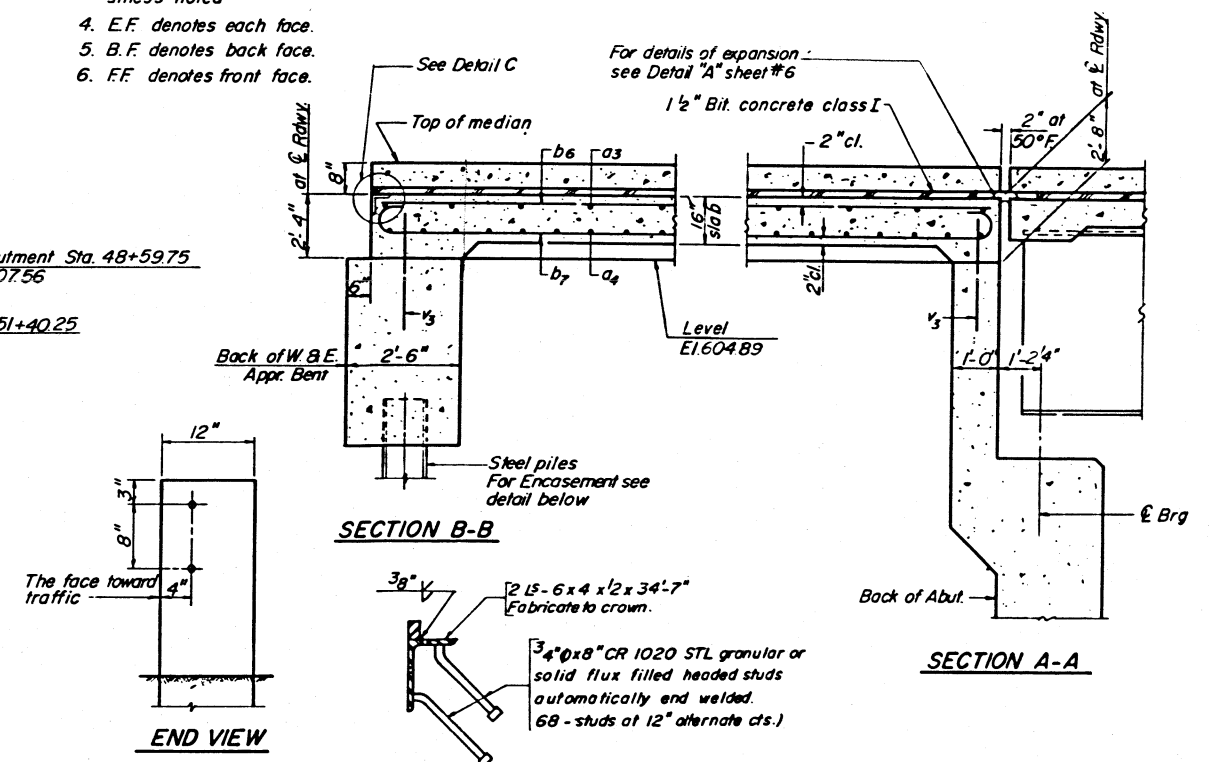
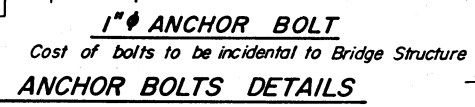
**EAST ABUTMENT
 BRIDGE SEAT ADJUSTMENT DETAILS
 FA 403 SECTION 161-1HB-4
 FA 403 UNDER ILL. RTE. 92
 ROCK ISLAND COUNTY
 STATION 533+09.95**

NOTES

- The steps shall be poured monolithically with abutment.
- Space all reinforcements to miss anchor bolts.
- All edges shall have standard 3/4" chamfer unless noted.
- E.F. denotes each face.
- B.F. denotes back face.
- FF. denotes front face.



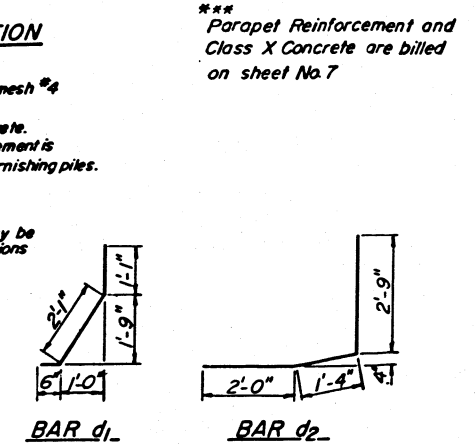
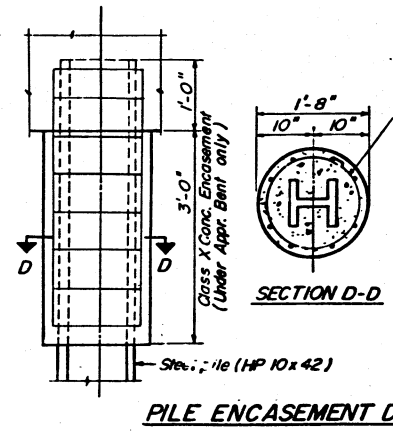
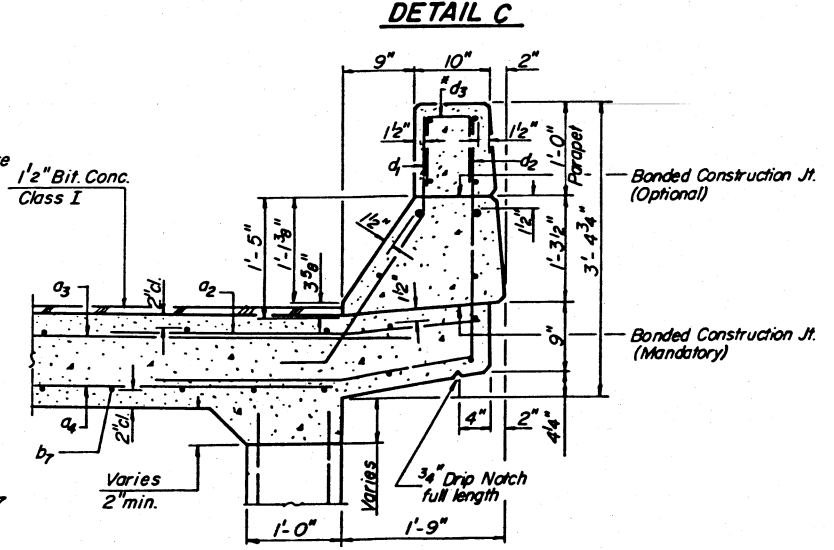
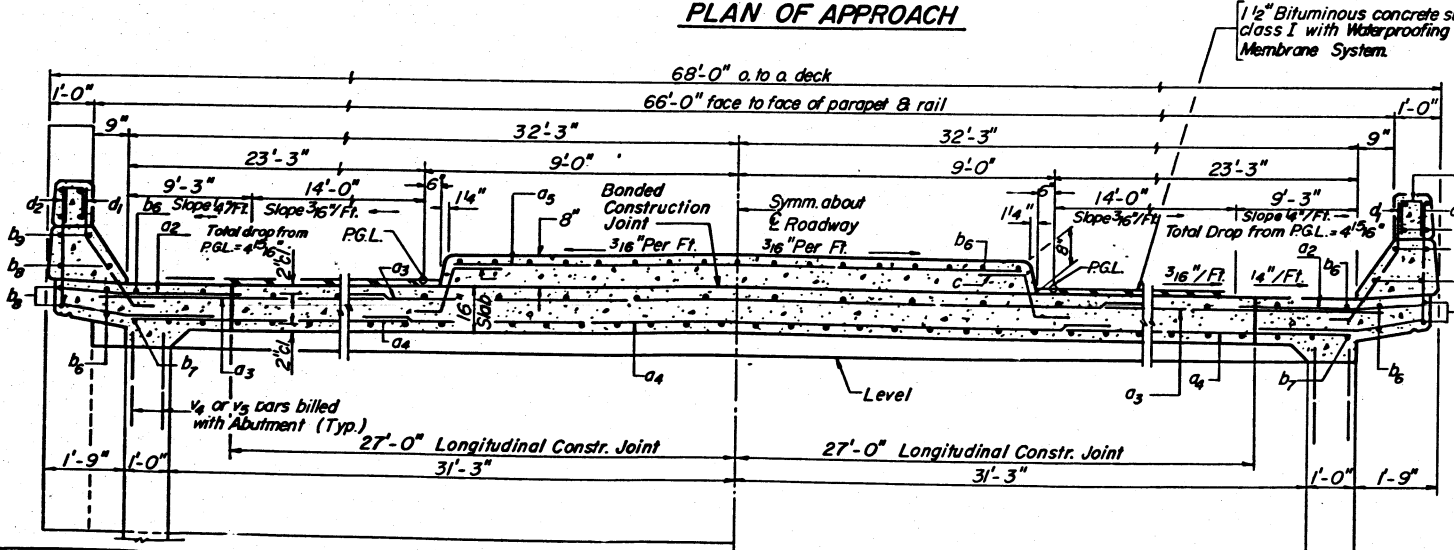
*Order bars full length, cut to fit as shown and use remainder of bars in opposite end.



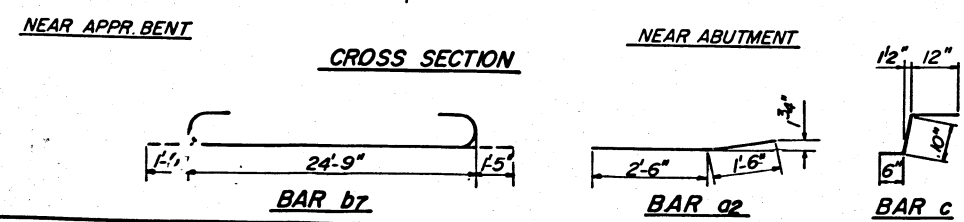
**TWO APPR SLABS
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a2	132	#6	4'-0"	—
a3	102	#5	31'-11"	—
a4	174	#6	31'-6"	—
a5	52	#5	23'-3"	—
b6	130	#5	35'-4"	—
b7	336	#10	27'-7"	—
b8	16	#5	32'-6"	—
b9	8	#8	32'-6"	—
c	104	#5	2'-4"	—
d1	128	#5	3'-8"	J
d2	132	#4	6'-1"	J
Structural Steel				Lbs. 3140
Reinforcement Bars				Lbs. 60860
Class X Concrete				Cu. Yds. 305.4
Protective Coat				Sq. Yds. 205
Bit. Conc. Course Class I				Tons 32
Waterproof Membrane Sys.				Sq. Yds. 377

Note:
Work this sheet with sheet No. 12
Bars indicated thus 17 x 3 #5 etc. indicates 17 lines of bars with 3 lengths per line. Min. bar laps = 24 dia.



DESIGNED	B.T.M.
CHECKED	H.R.S.
DRAWN	A.M.
CHECKED	H.R.S.



EAST & WEST APPROACH SLABS
FA 403 SECTION 161- IHB-4
FA 403 UNDER ILL. RTE. 92
ROCK ISLAND COUNTY
STATION 533+09.95
REV. 9-28-72 L.S.

BRIDGE FOUNDATION BORING LOG

PROJECT 5-1501 BRIDGE RT 92 Date April 16, 1971
 ROUTE FA-403 Bored By JE & RR
 SEC 161-1HB STA 524 + 25 (FA-403) Checked By JB & SS
 COUNTY Rock Island

Boring No. 1
 Station 48 + 94 (RT-92)
 Offset 32' Lt.
 Ground Surface Elev. 578.79

Elevation	N	Qu (t/sf)	w (%)	Surface Water El.	Elevation	N	Qu (t/sf)	w (%)
0					0			
					4.8			
					-2.5			
	5	1.4	22		102			
					-5			
	5	1.2	31		100 for 1"			
					-30			
	4				100 for 2"			
					-10			
	18							
					-3.5			
	11							
					-15			
	19							
					-40			
	19							
					-20			
	51							
					-45			

BRIDGE FOUNDATION BORING LOG

PROJECT 5-1501 BRIDGE RT 92 Date March 25, 1971
 ROUTE FA-403 Bored By WS & DS
 SEC 161-1HB STA 524 + 25 (FA-403) Checked By JB & SS
 COUNTY Rock Island

Boring No. 2
 Station 49 + 69 (RT-92)
 Offset 30.5 Rt.
 Ground Surface 578.88

Elevation	N	Qu (t/sf)	w (%)	Surface Water El.	Elevation	N	Qu (t/sf)	w (%)
0					0			
					16			
					-2.5			
	6	0.6	24		70			
					-5			
	4	0.7	24		50 for 3"			
					-30			
	2	0.2	37					
					-10			
	16							
					-3.5			
	9							
					-15			
	7							
					-40			
	15							
					-20			
	35							
					-45			

BRIDGE FOUNDATION BORING LOG

PROJECT 5-1501 BRIDGE RT 92 Date April 2, 1971
 ROUTE FA-403 Bored By RR & JE
 SEC 161-1HB STA 524 + 25 (FA-403) Checked By JB & SS
 COUNTY Rock Island

Boring No. 3
 Station 51 + 92 (RT-92)
 Offset 32' Lt.
 Ground Surface Elev. 579.24

Elevation	N	Qu (t/sf)	w (%)	Surface Water El.	Elevation	N	Qu (t/sf)	w (%)
0					0			
					71			
					-2.5			
	7	0.7	22		151			
					-5			
					0.4	41		
					-30			
	16							
					-10			
	16							
					-3.5			
	18							
					-15			
	12							
					-40			
	24							
					-20			
	30							
					-45			

N - Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30".

Qu - Unconfined Compressive Strength - t/sf
 w - Water Content - percentage of oven dry weight - %.

Type failure:
 B - Bulge Failure
 S - Shear Failure
 E - Estimated Value

DESIGNED	Z.W.
CHECKED	D.M.P.
DRAWN	Z.W.
CHECKED	D.M.P.

BORING DATA
 FA 403 SECTION 161-IHB-4
 FA 403 UNDER ILL. RTE. - 92
 ROCK ISLAND COUNTY
 STATION 533 + 09.95