

CONTRACT NO. B-14217

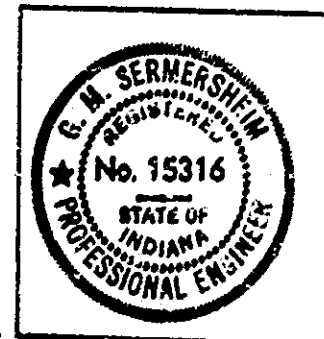
INDEX					
PROJECT	STRUCTURE	TYPE	SPAN	OVER	STATION
M-J091 (3)	17-6116	CONTINUOUS COMPOSITE BOX BEAM BRIDGE	3 SPANS 21'-0", 22'-0", 21'-0"	CEDAR CREEK	103+49.50 SKEW 00°00'
SHEET NO.	SHEET DESIGNATION	SUBJECT			F.H.W.A. APPROVAL
1	ONE SHEET	TITLE SHEET AND INDEX			
2	ONE SHEET	TYPICAL CROSS SECTION			
3	ONE SHEET	APPROACH DETAILS			
4	C1	LAYOUT			
5	C2	GENERAL PLAN			
6	C3	DETAILS END BENTS			
7	C4	DETAILS END BENTS			
8	C5	DETAILS BENTS NO. 2+3			
9	C6	SUPERSTRUCTURE DETAILS			
10	C7	DETAILS			
11	C8	BEAM CONNECTION DETAILS			
12	ONE SHEET	BRIDGE SUMMARY			
13	ONE SHEET	BRIDGE ESTIMATE OF QUANTITIES			
14-19	SIX SHEETS	CROSS SECTIONS			

TRAFFIC DATA		
A. D. T. (1979)		920 V.P.D.
A. D. T. (1999 PROJECTED)		1345 V.P.D.
D. H. V. (1999 PROJECTED)		135 V.P.D.
TRUCKS		D.H.V. 12 % A.D.T. 13%
DESIGN SPEED		40 M.P.H.
ACCESS CONTROL		NONE

PLANS PREPARED BY:
CONTECH ENGINEERS INC.

FORT WAYNE, INDIANA

CERTIFIED BY: *David M. Zimmerman* DATE 2-26-82



NOTE:
Wherever "Indiana State Highway Commission" appears in these plans, it shall be interpreted as "Indiana Department of Highways" except the 1978 Indiana State Highway Commission Specifications shall be used.

INDIANA STATE HIGHWAY COMMISSION
STANDARD SPECIFICATIONS DATED 1978
TO BE USED WITH THESE PLANS.

REVISIONS	
DATE	SHEET NO.
6-13-83	1/4
7-1-83	1, 3, 5, 10, 11, 13 Revised; 3B Deleted; 27A, 29A, 31A Added
9-16-83	5
8-20-83	1/3
10-2-83	1, 4, 5, 8, 12, 13 Revised

STATE OF INDIANA
INDIANA STATE HIGHWAY COMMISSION

BRIDGE PLANS

FOR SPANS OVER 20 FEET

ON

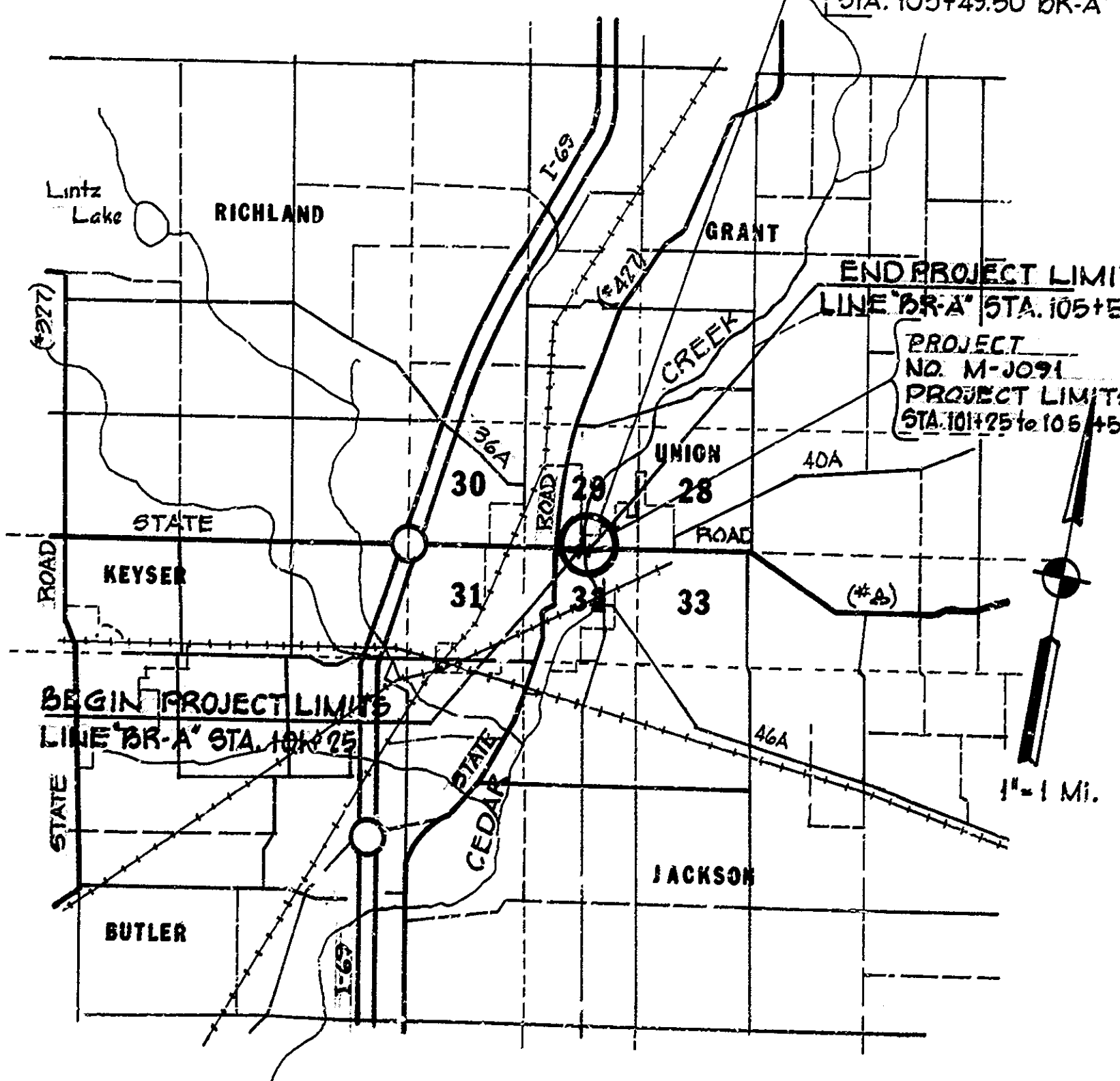
STATE ROAD NO. 8

PROJECT NO. ST-J091 (3) P.E.
M-J091 (3) R/W
M-J091 (3) CONST.

BEGINNING AT A POINT APPROXIMATELY 125.0' WEST OF THE S.W. CORNER S.E. 1/4 SECTION 29, T-34-N, R-13-E A POINT CALLED THE WEST PROJECT LIMITS, PROCEED EAST 425 ALONG LINE "BR-A" AND 1/2 STATE ROAD 8 TO A POINT CALLED THE EAST PROJECT LIMITS ALL BEING IN SECTION 29, T-34-N, R-13-E, UNION TOWNSHIP DEKALB COUNTY, INDIANA

BRIDGE LENGTH: .012 MI.
ROADWAY LENGTH: .068 MI.
TOTAL LENGTH: .080 MI.
MAX. GRADE: .17 %

STRUCTURE 17-6116
SINGLE STRUCTURE
3 SPANS - 21'-0", 22'-0", 21'-0"
SKEW: 00°00'00"
CONT. CORR BOX BEAM
STA. 103+49.50 "BR-A"



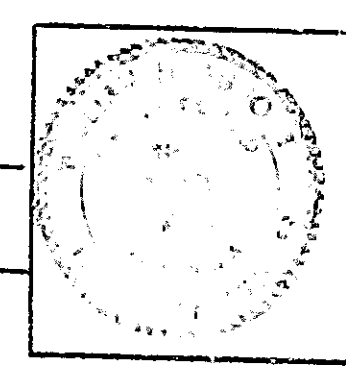
BRIDGES OVER 20' SPAN					
FEDERAL REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	M-J091 (3)	1981	1	44

INDEX CONTINUED			
SHEET NO.	SHEET DESIGNATION	STANDARD DRAWINGS	SUBJECT
	BRIDGE STD. BR1	ALUMINUM BRIDGE RAILING	
	BRIDGE STD. BR2	ALUMINUM BRIDGE RAILING DETAILS	
	BRIDGE STD. BR3	STEEL BRIDGE RAILING	
	BRIDGE STD. BR4	STEEL BRIDGE RAILING DETAILS	
	BRIDGE STD. BR5	RAILING CONNECTION DETAILS	
	BRIDGE STD. BR6	RAILING CONNECTION DETAILS	
20	BRIDGE STD. C1	MISCELLANEOUS DETAILS	12-21-81 R 12-7-81
	BRIDGE STD. C2	MISCELLANEOUS DETAILS	
21	BRIDGE STD. C3	MISCELLANEOUS DETAILS	12-21-81 R 12-7-81
	BRIDGE STD. C4	MISCELLANEOUS DETAILS	
22	BRIDGE STD. D	CASTING DETAILS ROADWAY DRAINS	3-8-76 R 1-9-76
	BRIDGE STD. PB	PRESTRESSED CONCRETE TYPE I-BEAMS	
	BRIDGE STD. PB	PRESTRESSED CONCRETE TYPE I-BEAMS	
23	BRIDGE STD. PB6	PRESTRESSED COMPOSITE BOX BEAMS WIDE	7-20-71 R 3-1-71
	BRIDGE STD. PB	PRESTRESSED COMPOSITE BOX BEAMS WIDE	
24	BRIDGE STD. PB15	PRESTRESSED COMPOSITE BOX BEAMS 48" WIDE	7-20-71 R 3-1-71
	BRIDGE STD. PB10	TOLERANCES FOR FABRICATION OF PRESTRESSED BEAMS	8-14-63 A Nov. 9-63
26	BRIDGE STD. PB11	ELASTOMERIC BEARING PAD DETAILS	R 9-9-82
	BRIDGE STD.		
	BRIDGE STD. R2A	BRIDGE LIGHTING DETAILS	
	BRIDGE STD. R2B	BRIDGE LIGHTING DETAILS	
27	BRIDGE STD. S1	MISCELLANEOUS DETAILS	1-17-72 R 8-2-71
	BRIDGE STD. S1	STEEL SHOE DETAILS	
	BRIDGE STD. T SHEET A	STANDARD TEMPORARY BRIDGE	
	BRIDGE STD. T SHEET B	STANDARD TEMPORARY BRIDGE	
	BRIDGE STD.		
	BRIDGE STD.		
	BRIDGE STD.		
	BRIDGE STD.		
27A	ROAD STD. SHEET A	STANDARD PAVEMENT JOINTS	6-3-81 R 4-1-81
	ROAD STD. SHEET B	STANDARD PAVEMENT JOINTS	
	ROAD STD. SHEET MA	MISCELLANEOUS STANDARDS	
28	ROAD STD. SHEET MA-1	MISCELLANEOUS STANDARDS	5-21-82 R 4-1-82
	ROAD STD. SHEET MB	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MB2	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MC	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MC1	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MD	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MD	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MD	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MD	MISCELLANEOUS STANDARDS	
29	ROAD STD. SHEET ME	MISCELLANEOUS STANDARDS	5-21-82 R 4-1-82
	ROAD STD. SHEET ME-2	MISCELLANEOUS STANDARDS	11-2-78 R 10-2-78
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS	
30	ROAD STD. SHEET MH	MISCELLANEOUS STANDARDS	10-16-82 R 9-1-82
	ROAD STD. SHEET MH	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MI	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MN	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MP	MISCELLANEOUS STANDARDS	
31	ROAD STD. SHEET MP	MISCELLANEOUS STANDARDS	* R 5-2-83
31A	ROAD STD. SHEET MPB	MISCELLANEOUS STANDARDS	5-30-82 A July, 1982
	ROAD STD. SHEET MP	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MR	MISCELLANEOUS STANDARDS	
32	ROAD STD. SHEET CD-2	TEMPORARY CONCRETE BARRIERS	6-3-81 R 4-1-81
	ROAD STD.	STANDARD REINFC. CONCRETE BOX CULVERTS	
	ROAD STD.	STANDARD REINFC. CONCRETE CULVERTS	
	ROAD STD. SHEET GR	GUARD RAIL CLASS	
	ROAD STD. SHEET GR	GUARD RAIL CLASS	
33	ROAD STD. SHEET GR-4	GUARD RAIL CLASS GA OR GET	R 4-1-82
	ROAD STD. SHEET GR5	ALUMINUM GUARD RAIL DETAILS & GUARD RAIL TERMINAL ENDS	5-21-82 R 4-1-82
35	ROAD STD. SHEET GR6	STEEL TUBE GUARD RAIL DETAILS	5-21-82 R 4-1-82
36	ROAD STD. SHEET GR7	GUARD RAIL CONNECTION DETAILS CLASS EA	5-21-82 R 4-1-82
37	ROAD STD. SHEET GR10	GUARD RAIL BURIED ENDS	5-21-82 R 4-1-82
	ROAD STD.		
38	ROAD STD. SHEET 1	TRAFFIC SIGN DETAILS	R 11-1-82
39	ROAD STD. SHEET 1A	STANDARD DETOUR SIGNS	10-18-82 R 9-1-82
	ROAD STD. SHEET 1B	STANDARD DETOUR SIGNS	
	ROAD STD. SHEET 1C	STANDARD DETOUR SIGNS	
40	ROAD STD. SHEET 2	STANDARD DETOUR SIGNS	10-18-82 R 9-1-82
41	ROAD STD. SHEET 2A	STANDARD DETOUR SIGNS	10-18-82 R 9-1-82
42	ROAD STD. SHEET 3	STANDARD DETOUR SIGNS	10-18-82 R 9-1-82
43	ROAD STD. SHEET 3A	STANDARD DETOUR SIGNS	8-20-82 R 9-1-82
44	ROAD STD. SHEET 4	STANDARD DETOUR SIGNS	* R 5-2-83
	ROAD STD. SHEET 5	STANDARD DETOUR SIGNS	8-20-82 R 9-1-82
	ROAD STD. SHEET 5A	STANDARD DETOUR SIGNS	

APPROVED 2-28-83

David M. Zimmerman
CHIEF HIGHWAY ENGINEER

RECOMMENDED FOR APPROVAL

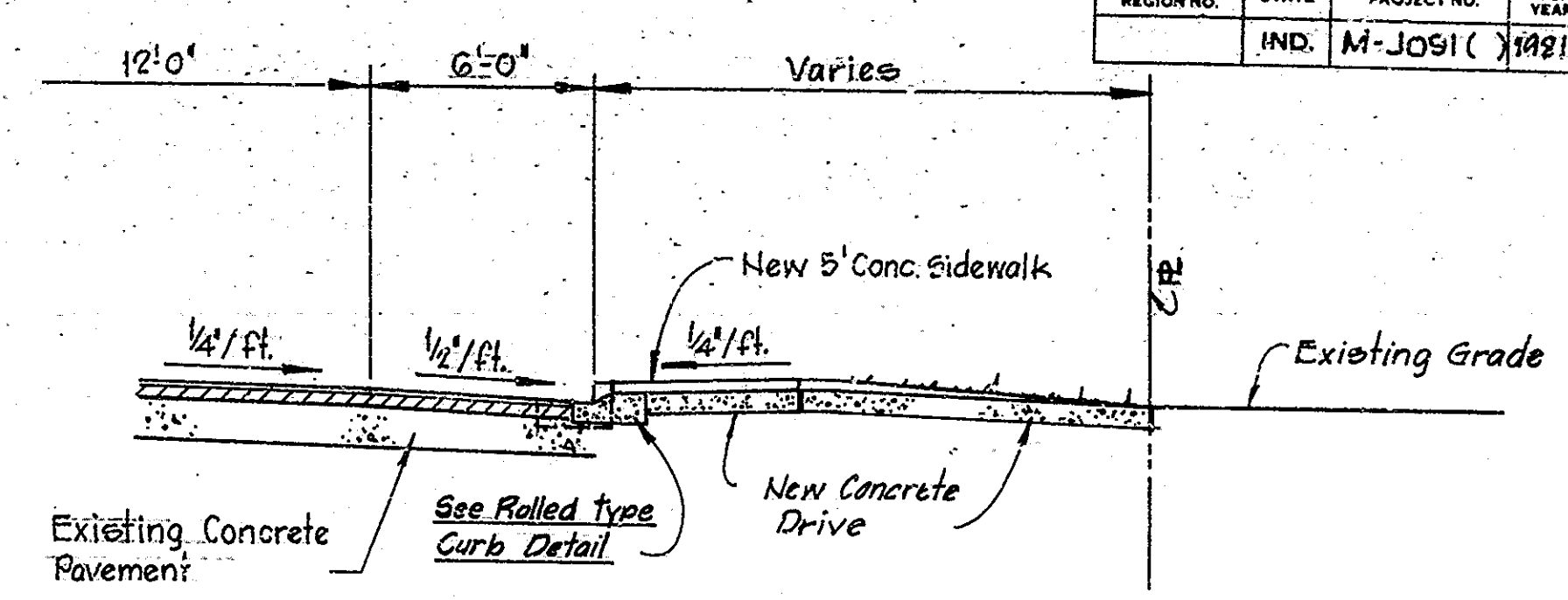
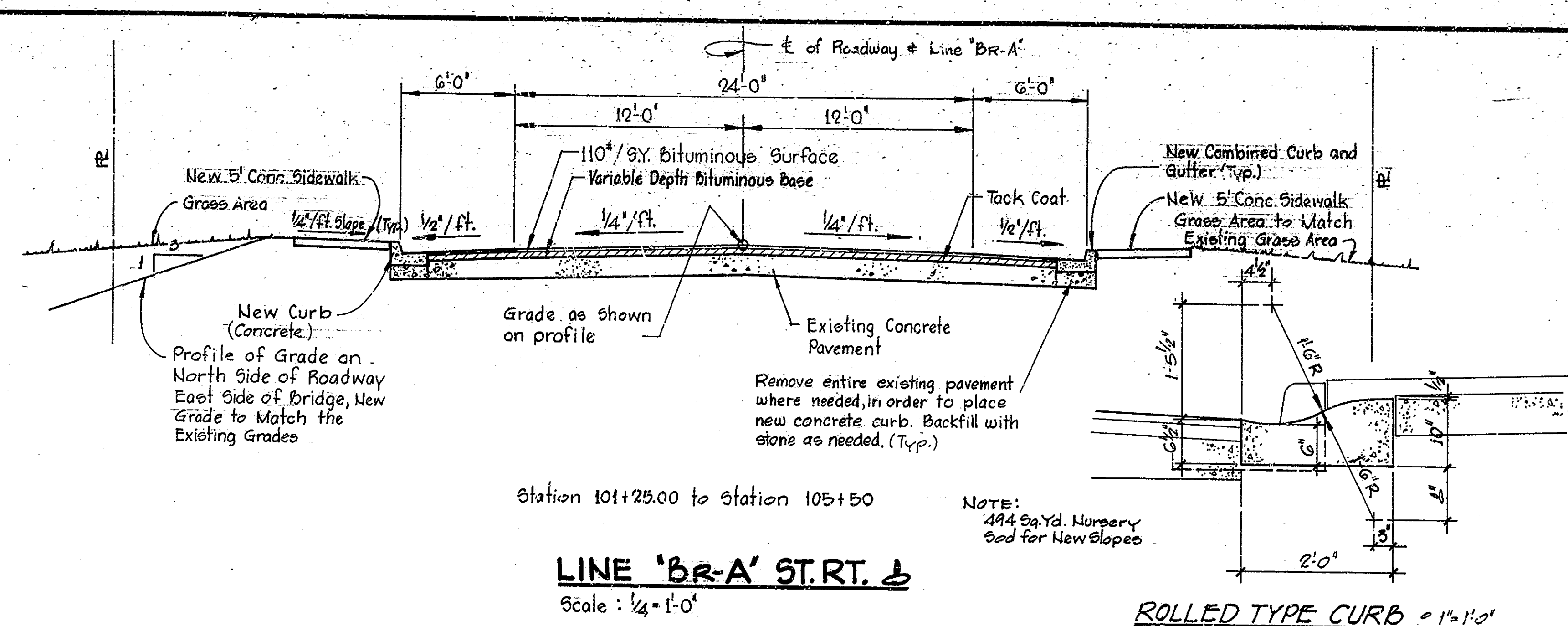


FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

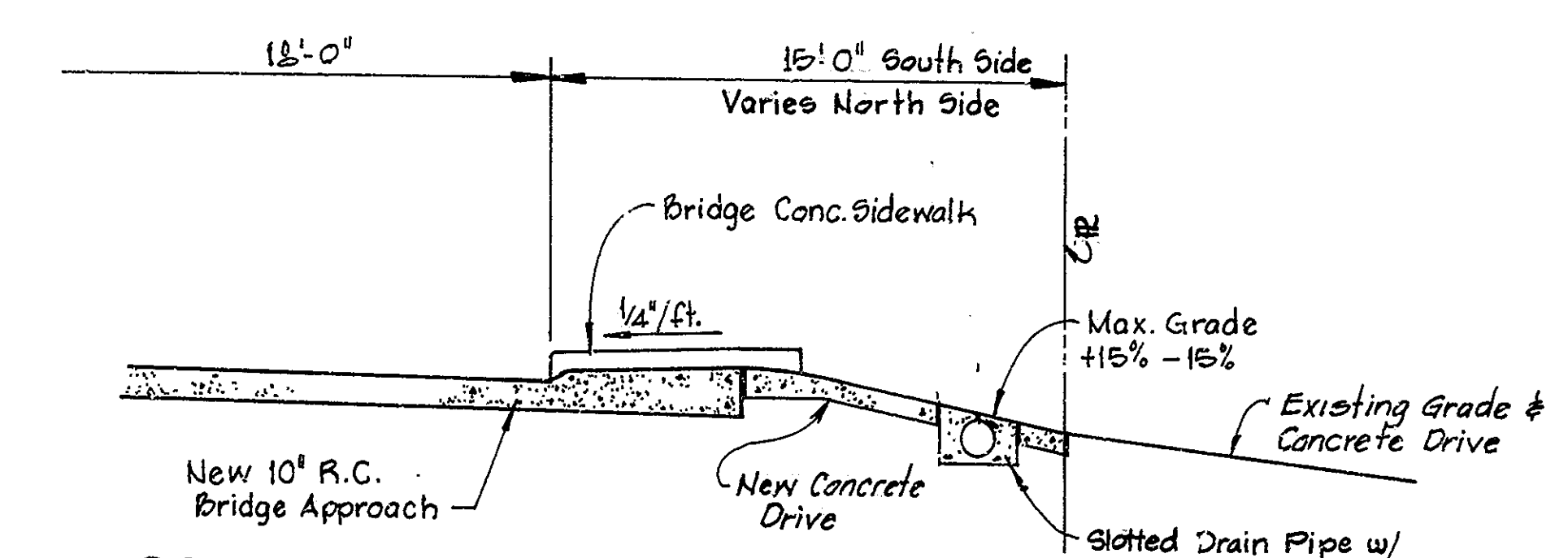
APPROVED: _____
DIVISION ADMINISTRATOR DATE _____

BRIDGE FILE: 17-6116

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	IND.	M-JOSI ()	1981	2	44



PROFILE PRIVATE DRIVES AT
STA. 101+50, 104+00, 104+88 & 105+50 @ 1/4" = 1'-0"



PROFILE DRIVES AT
STA. 103+00 @ 1/4" = 1'-0"
(Typical Each Side)

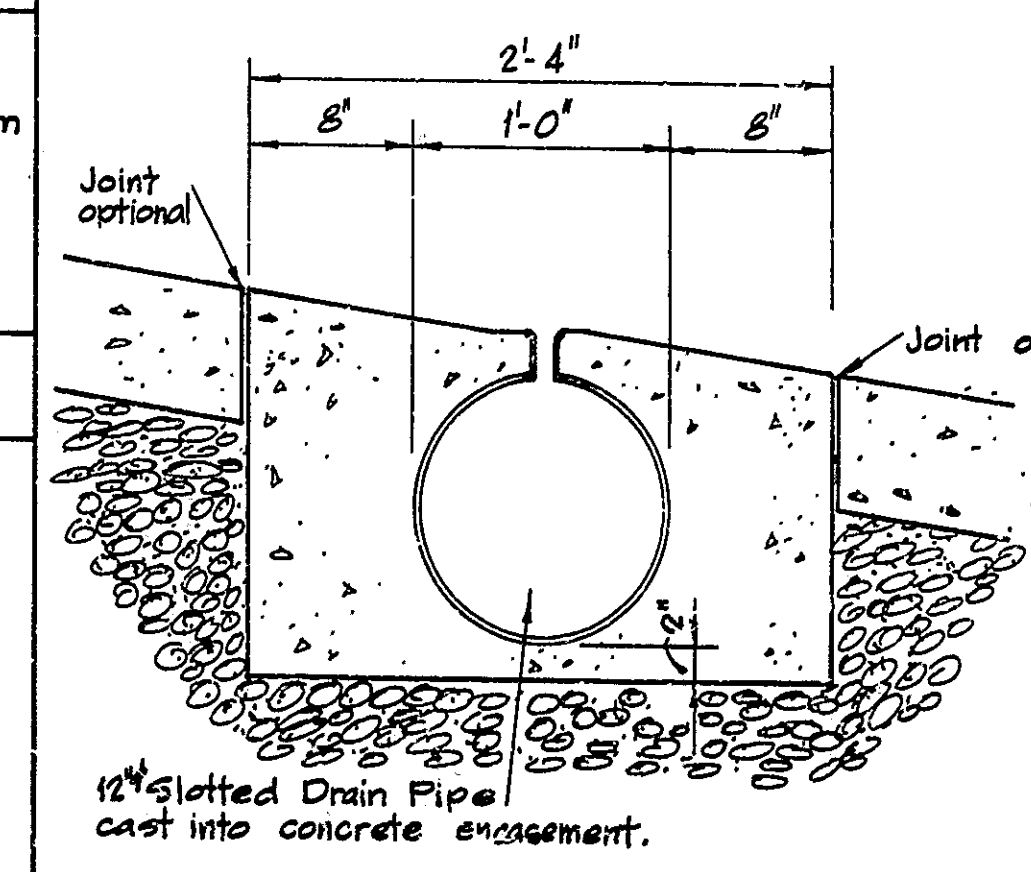
TEST BORING NO.	T.B. No. 1A		T.B. No. 2		T.B. No. 3			
STATION ("BR-A")	103+13.00		103+37.00		103+24.00			
OFFSET	26' Lt.		27' Rt.		23' Rt.			
GROUND ELEV.	859.8		848.7		861.4			
	Sample No.	Elev.	Description	Sample No.	Elev.	Description		
	1	857.3	Asphalt	1	846.2	Gray Wet Very Loose Sandy Silt		
	2	854.8	Gray Moist Medium Stiff Sandy Clay with sand seams with trace small Gravel (Fill)	2	848.7	Gray Wet Very Loose to Loose Fine Sand		
	3	852.3	Brown Wet Loose to medium dense Sandy Loam (Fill)	3	841.2	7		
	4	849.8		15	4	858.7	10	
	5	846.8	Boulder	5	838.7	10	Gray Wet Stiff Silty Sandy Clay Loam (Fill)	
	6	844.8	43	6	823.7	16	Gray Wet Medium Dense Fine Sand	
	7	844.8	23	7	823.7	19	Gray Moist Very Stiff to Hard Silty Clay Loam with sand seams	
	8	829.8	19	8	818.7	25/4		
	9	824.8	80/4	9	813.7	50/4	Gray Moist Medium Dense to Medium Sand with some small to medium Gravel	
	10	819.8	47	10	808.7	50/3		
					828.2		Boulder	
					11	816.4	50/5	Gray Dry Hard Silty Clay Loam with some small to medium Gravel
					12	811.4	50/2	

End of boring, Depth of Boring: 40'-0"

Note: Test Boring No. 1 was Terminated at 14'-0" Below Grade when they Encountered Auger Refusal on a Boulder.

End of boring, Depth of Boring: 43'-0"

End of boring, Depth of Boring: 50'-0"

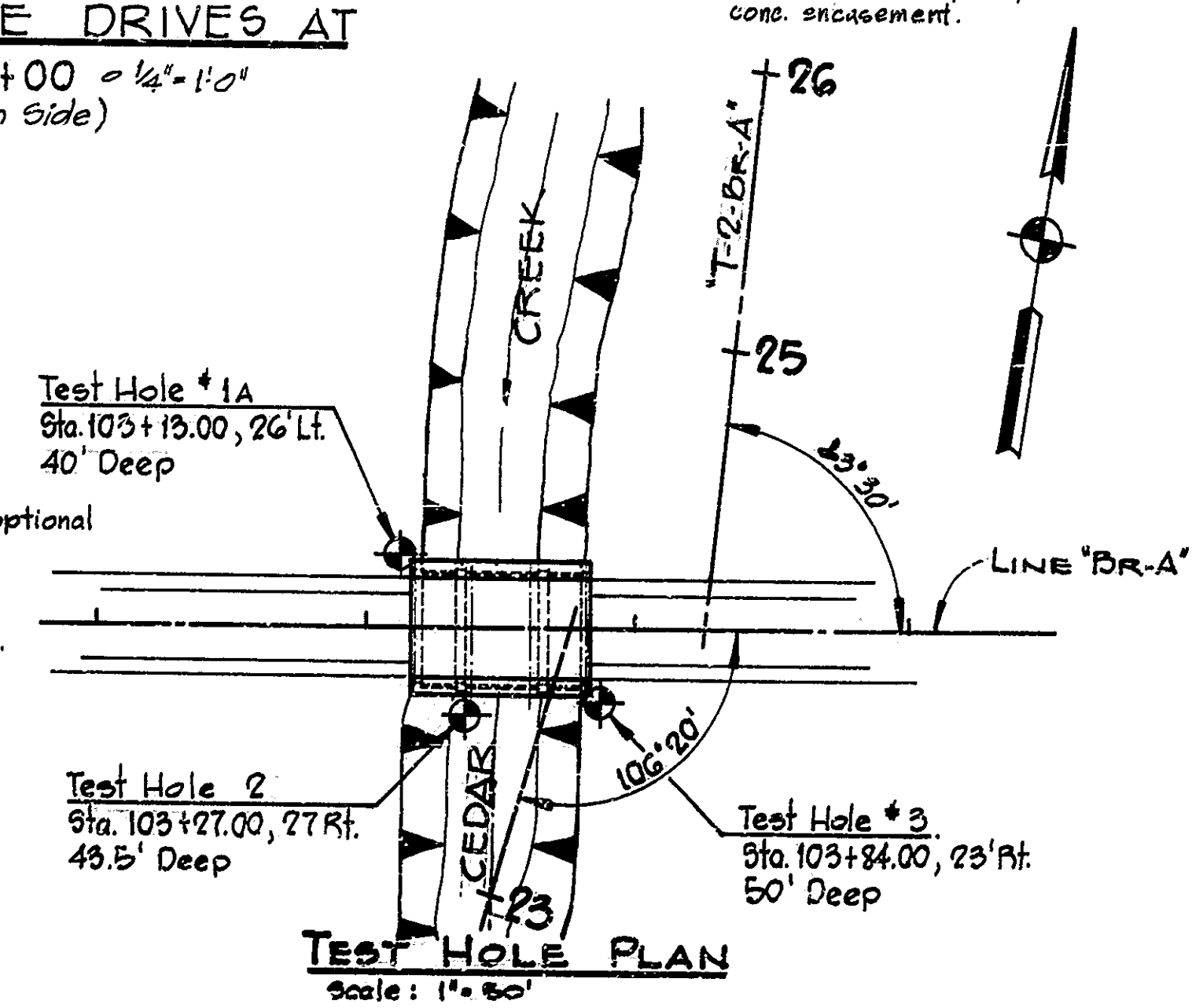


SLOTTED PIPE - 1/2" = 1'-0"

BILL OF MATERIAL

Conc. Base	1.2	1.6	C.Y.
12" Slotted Drain Pipe	10	14	LFT.
12" x 3" Pipe Group	7	8	LFT.
End Section	1	1	EA.

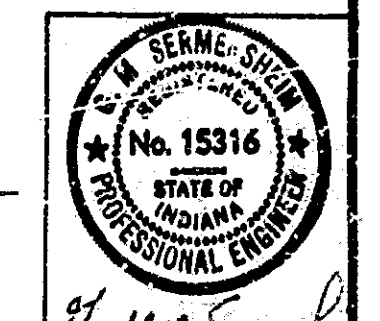
NOTE:
▽ = Ground Water Level
N = Number of blows required to drive a 1 1/2" I.D., 2" O.D. split spoon sampler 12" by means of a 140 lb. weight falling 30"

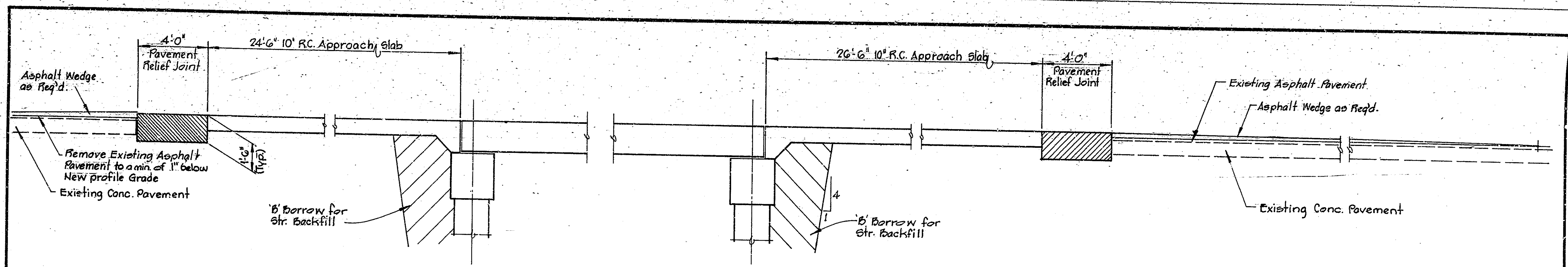


SOIL BORINGS TYPICAL CROSS SECTIONS

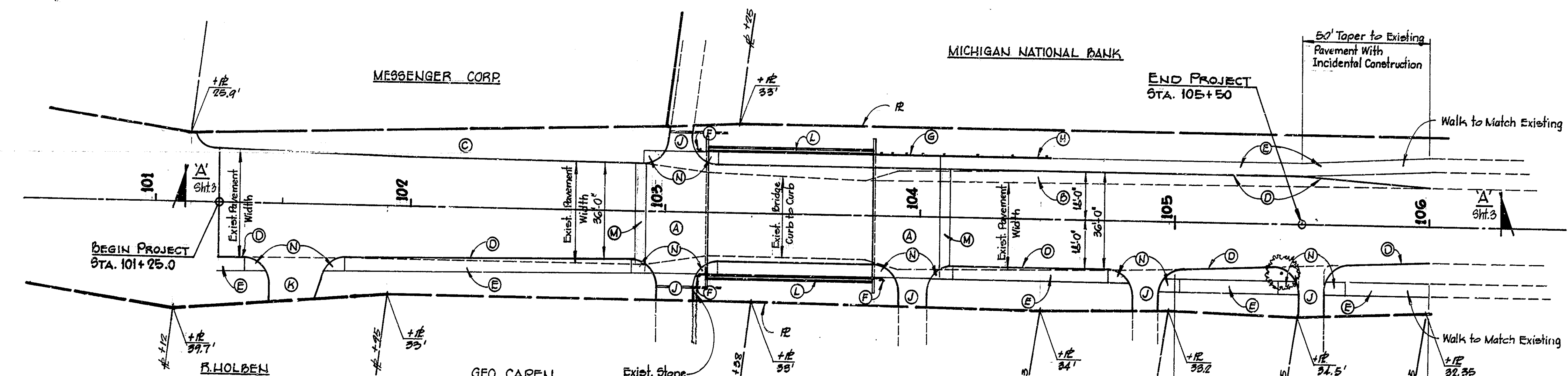
SCALE: AS NOTED

RECOMMENDED FOR APPROVAL





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



APPROACH DETAILS = 1" = 20'-0"

- LEGEND**
- (A) 10' R.C. Approach Slab
 - (B) Pavement Widening
 - (C) Existing Curb and Sidewalk to Remain
 - (D) New Combined Concrete Curb and Gutter
 - (E) New 5'-0" Concrete Sidewalk
 - (F) Terminal End
 - (G) Guard Rail Type 'G'
 - (H) Guard Rail End Treatment
 - (J) Class I Drive
 - (K) Class III Drive
 - (L) Concrete Railing
 - (M) Pavement Relief Joint
 - (N) Sidewalk Ramp

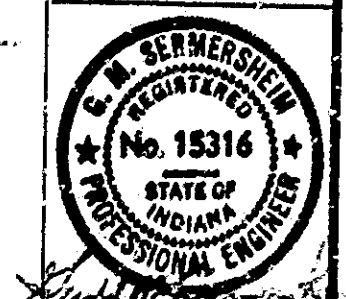
Exist. Stone Wall Cut as Required for Construction Then to be Replaced in Kind. Removal Beyond R/L Not Required

Note:
Save 24" Tree @ Sta. 105+42, 1/2" Rt.

APPROACH DETAILS
INDIANA STATE HIGHWAY COMMISSION

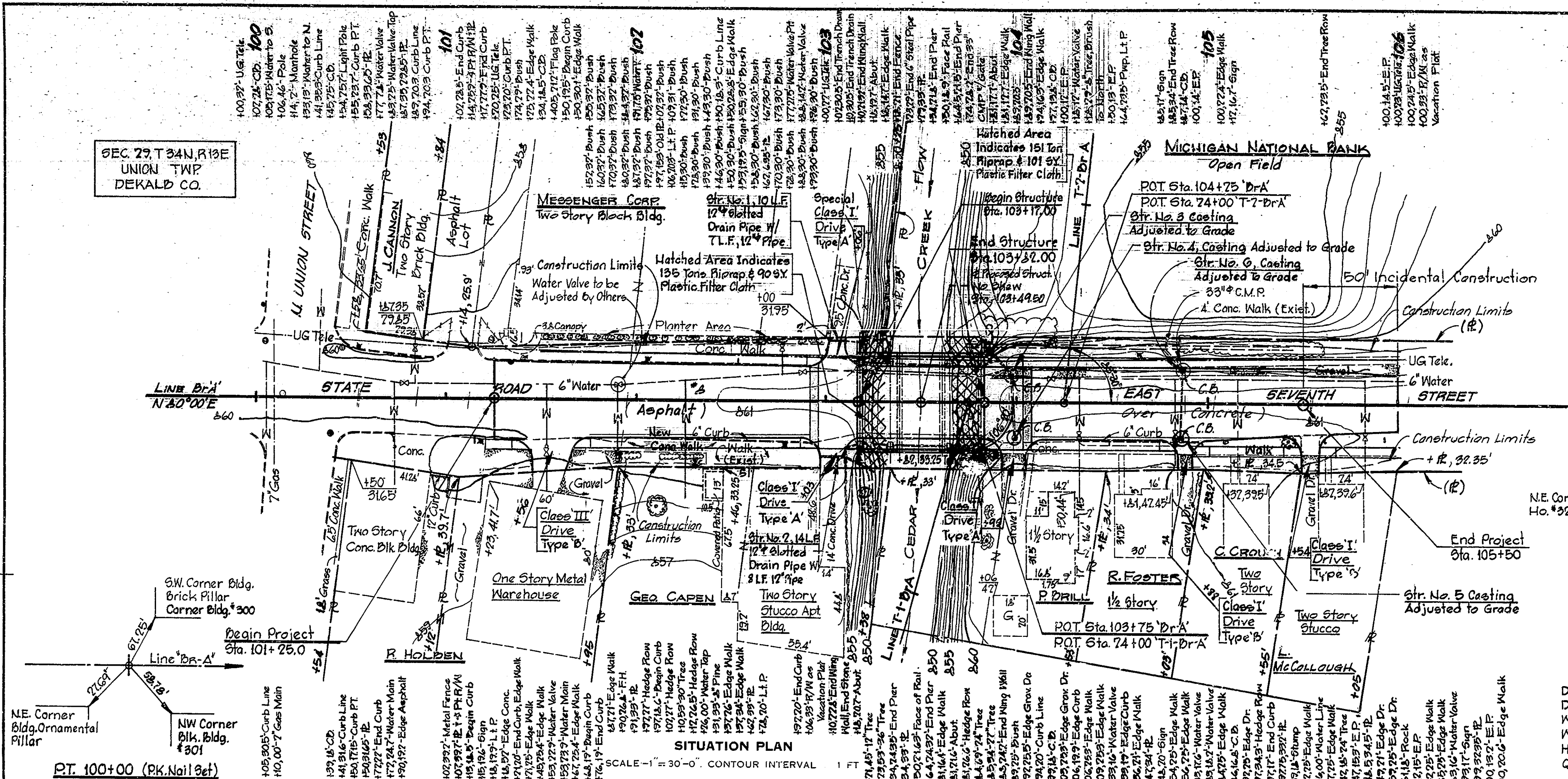
SCALE: AS NOTED DATE: August 26, 1982

DRAWING: OF SHEET: 3 OF 44
PROJECT: M-1091 - ()
CONTRACT NO. 314217
BRIDGE FILE: 1-17-0116

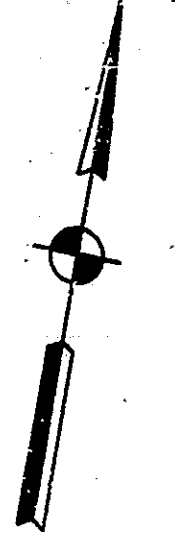


DESIGNED: CKD
DRAWN: MKS & LLS CKD
TRACED: CKD

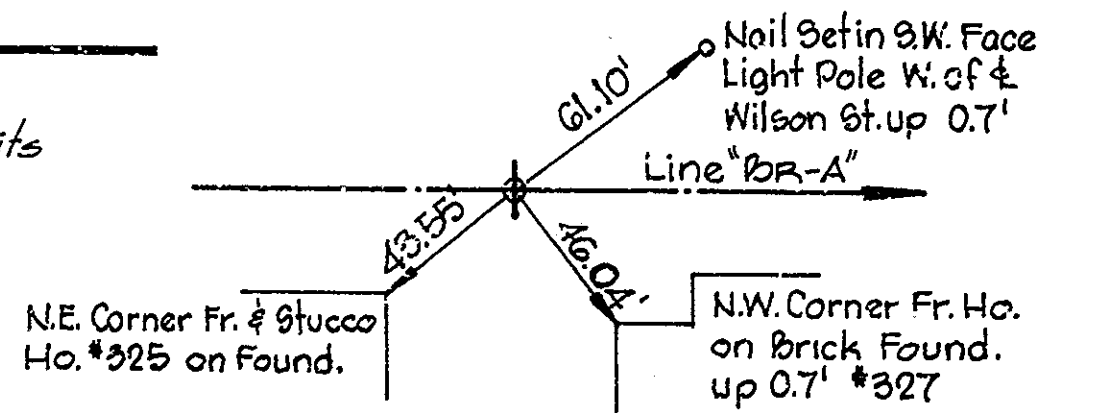
SEC. 23, T.34N, R.13E
UNION TWP
DEKALD CO.



- UTILITY OWNERS**
- United Telephone Of Indiana
P.O. Box 331
Warsaw, Indiana 46580
 - City Of Auburn Water, Sewer & Electric
City Hall, Ninth & Cedar Street
Auburn, Indiana 46706
 - Northern Indiana Fuel & Light Co.
P.O. Box 576, 156 East Seventh Street
Auburn, Indiana 46706



PRESENT STRUCTURE
Present Structure is a Three Span
(16'-0\"/>

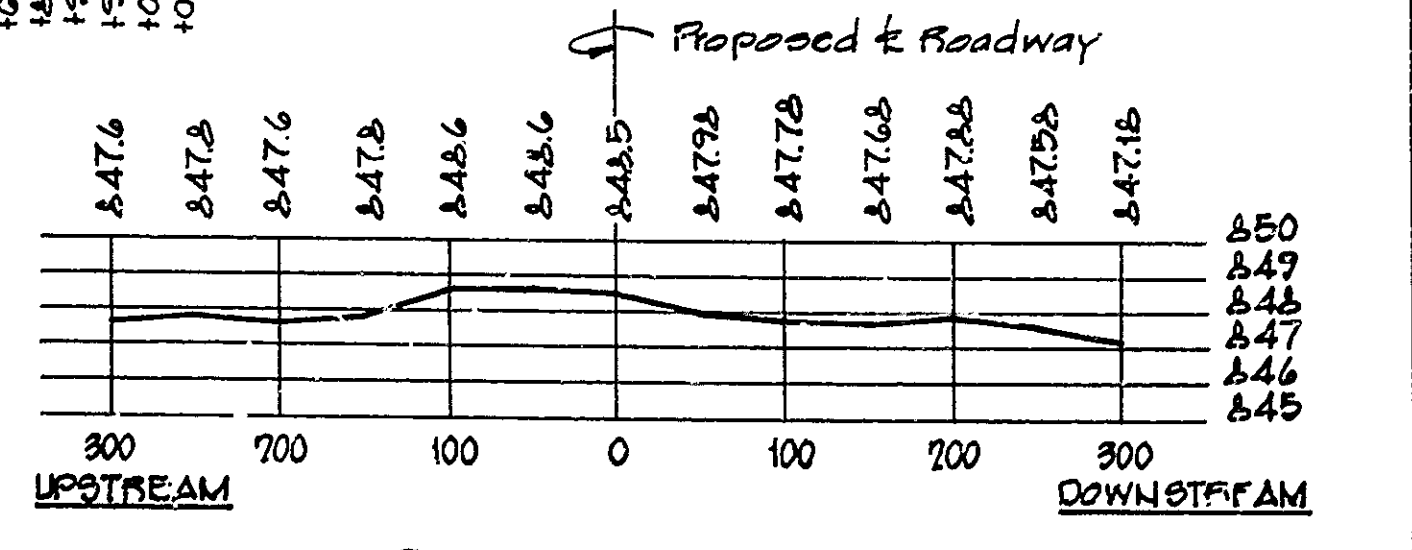
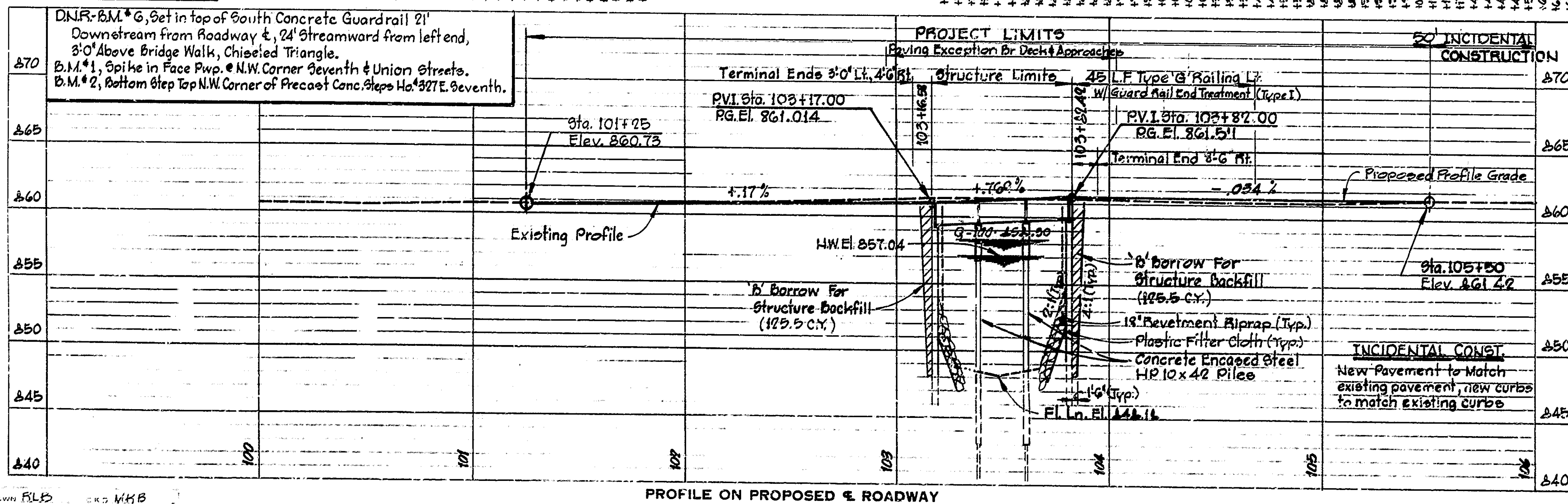


EARTHWORK TABULATION

FILL + 20%	91 Cu. Yds.
COMMON EXCAVATION	18 Cu. Yds.
BORROW	73 Cu. Yds.

HYDRAULIC DATA

Drainage Area	= 55,472 Ac. = 2.75 Sq. Mi.
Design Discharge (Q-100)	= 1060 CFS.
Waterway Opening Area Required Below Q-100	= 480 Sq. Ft.
Waterway Opening Area Provided Below Q-100	= 535.0 Sq. Ft.
High Water Elevation	= 857.04
Q-100 High Water Elevation	= 858.30



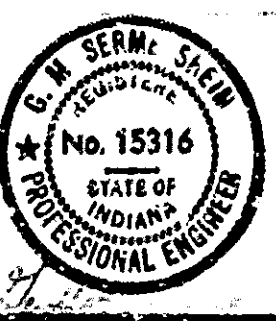
LAYOUT
CONTINUOUS COMPOSITE BOX BEAM BRIDGE
3 SPANS: 21'-0\", 22'-0\", 21'-0\" SHEW: 00'00\"00\", 30'-0\" CLEAR ROADWAY
S.R. 3 OVER CEDAR CREEK
INDIANA STATE HIGHWAY COMMISSION
DEKALD COUNTY
SCALE: -AS NOTED DATE: August 26, 1987
RECOMMENDED FOR APPROVAL:
DRAWING: C1 OF C2 SHEET: 4 OF 44
PROJECT: M-J091 () STATION: 103+49.50
BRIDGE CONTRACT NO. B-14217
BRIDGE FILE: 1-17-G11G

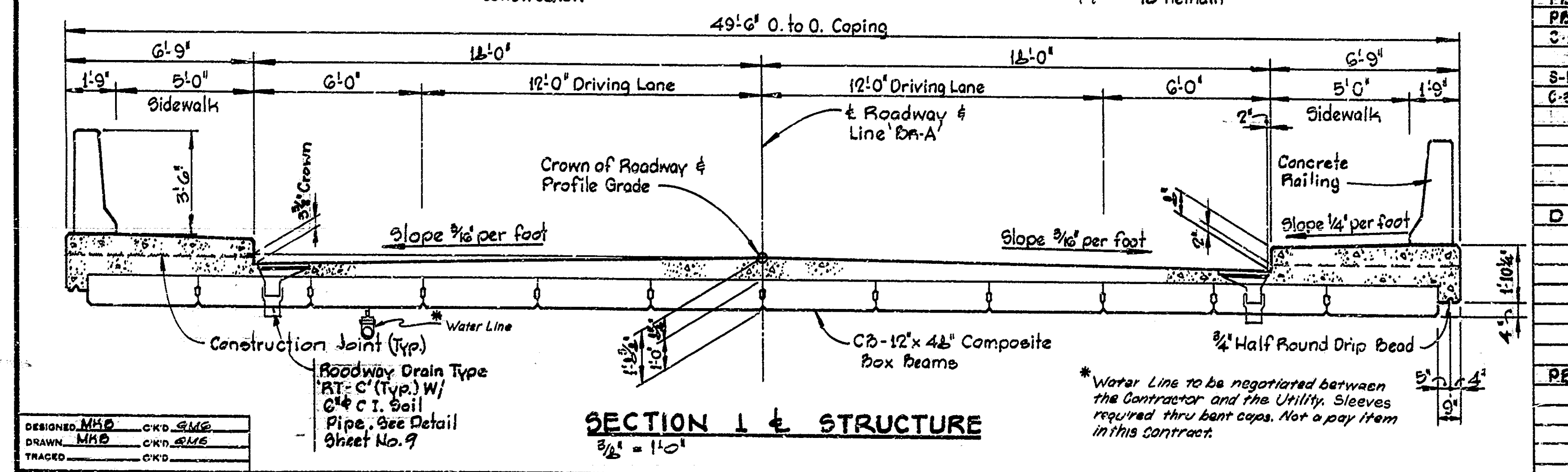
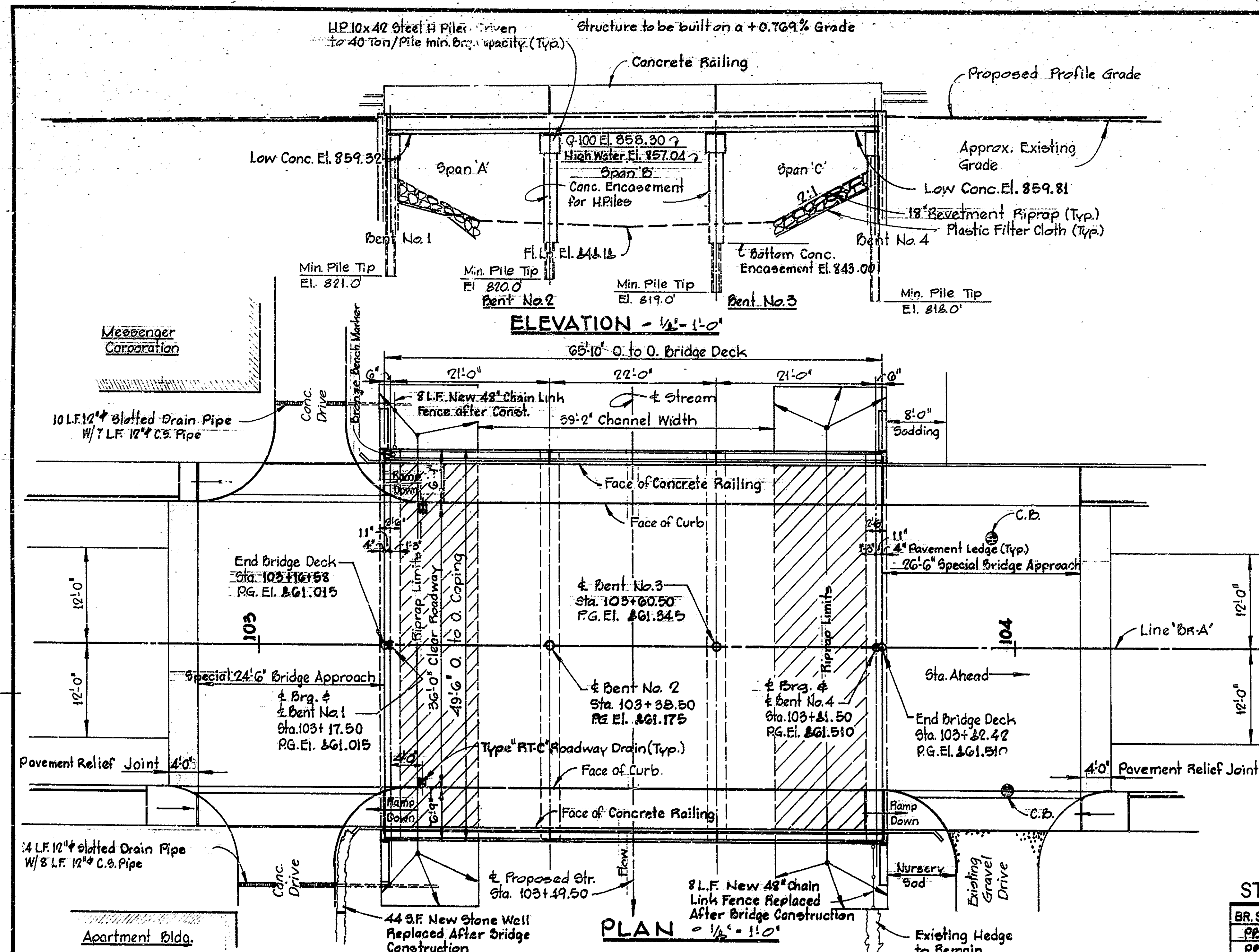
DESIGNED: FLS
CHECKED: MAB
PERMITTED: MAB
TRACED: FLS

PROFILE ON PROPOSED & ROADWAY
SCALES HORIZ 1\"/>

NOTE: FIELD NOTES, BOOK 88, 2411

REV 6-13-83 Utility Owners Rev 10-2-83 Pk Encasement





DESIGN DATA

Designed for HS-20-44 loading in accordance with 1977 A.A.S.H.T.O. Specifications & Interims
 Dead Load: Actual load plus 35 lbs. per sq. ft. for future wearing surface. Slab designed with a 1" wearing surface.
 Unit Stresses: $f_c = 1200 \text{ psi}$, $f_s = 20,000 \text{ psi}$

GENERAL NOTES

- Piles shall have minimum bearing value shown on detail drawings. Determine pile lengths by Art. 701.02 (a) of Specifications.
- Piles shall be driven to elevation shown on plans or below if necessary to obtain desired bearing.
- Reinforcing steel covering shall be 2 1/2 inches in top of composite floor slab, 3 inches in footing except bottom steel which shall be 4 inches and 2 inches in all other parts, unless noted.
- Concrete in Superstructure and Railings to be Class 'C'
- Concrete in Encasement around Piles to be Class 'A'.
- Concrete in the End Bent Walls and Wingwalls to be Class 'A'.
- Continuous concrete pours shall be required between construction joints as shown in detail plans.
- All edges to be chamfered 1" inch unless otherwise noted, and bevel forms 1/2" under coping.
- Place revetment riprap at locations shown on layout.
- Top of deck, face of curb, top of sidewalk, top and both faces of the concrete railing, the coping, and the underside of the deck from the coping to and including the outside face of the Box Beam to be Surface Sealed.
- Two Standard Type "RT-C" roadway drains to be placed as shown on this drawing.

STANDARD DRAWINGS

BR. STD.	RD. STD.	PURPOSE
PB-6		BOX BEAM NOTES & DATA
PB-9a		12"x48" COMPOSITE BOX BEAM
PB-10		BOX BEAM FABRICATION TOLERANCE
C-1		REINFORCING BAR NOTES & CONCRETE ENCASEMENT FOR PILES, PILE SPICE
S-1		5' BORROW FROM STRUCTURE BACKFILL
C-3		UT TYPE "A", CONJ. JT. TYPE "A"
MA-1		BIDEWALK RAMP & BIDEWALK
ME		CURB DETAILS
MH		DRIVEWAY STANDARDS
ME 2		PIPE END SECTIONS
MP		PIPE GROUPS
D		ROADWAY DRAIN TYPE "RT-C"
GR-4		GUARDRAIL SPACING
GR-5		GUARDRAIL DETAILS
GR-6		GUARDRAIL DETAILS
GR-10		GUARDRAIL BURIED END
GR-7		GUARDRAIL CONNECTIONS
		TO CONC. RAILING CLASS "EA"
MT3		TRAFFIC SIGN DETAILS
PB-11		ELASTOMERIC BEG. PAD DETAILS
SHT. 172		DETOUR SIGNS
SHT. 2A		DETOUR SIGNS
SHT. 3A		DETOUR SIGNS
SHT. 4		DETOUR SIGNS
CB-2		TEMP. CONC. BARRIER

GENERAL PLAN

CONTINUOUS COMPOSITE BOX BEAM BRIDGE

3 SPAN 21'-0", 22'-0", 21'-0"
 SKEW: 00°00'00"
 36'-0" CLEAR ROADWAY
 S.R. & OVER CEDAR CREEK DEKALB CO.

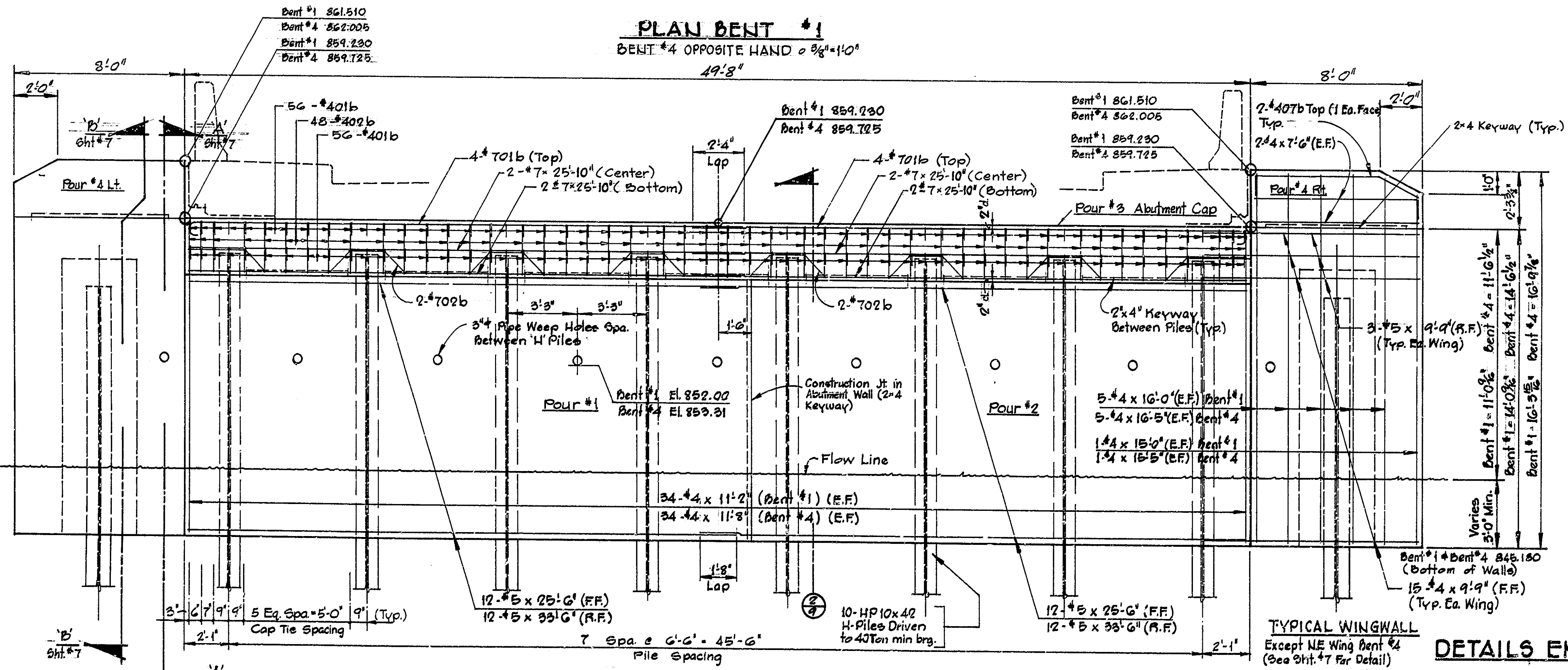
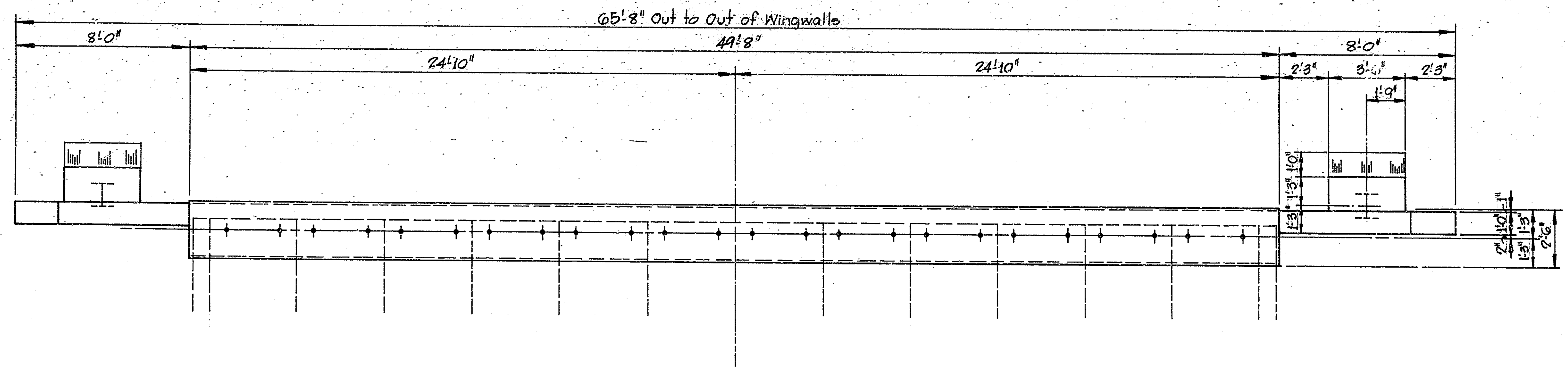
**INDIANA STATE HIGHWAY COMMISSION
 DEKALB COUNTY**

SCALE: AS NOTED DATE: August 26, 1982

DRAWING: C2 OF C8 SHEET: 5 OF 44
 PROJECT: M-J031 ()
 CONTRACT NO. B-4217 STATION 106+49.50
 BRIDGE FILE: 1-17-6116



DESIGNED: MMB CWD, GMB
 DRAWN: MMB CWD, GMB
 TRACED: CWD



BILL OF MATERIAL			
END BENTS 1 & 4			
REINFORCING STEEL			
MARKER SIZE	LENGTH	NO. REQD. BENTS #4	TOTAL WEIGHT BENTS 1&4
# 701b	26'-8"	16	
# 702b	28'-11"	8	
# 7	25'-10"	16	
Total Standard # 7 Bars			2190*
# 5	33'-0"	48	
# 5	25'-6"	48	
# 5	9'-9"	12	
Total Standard # 5 Bars			3076*
# 401b	2'-3"	924	
# 402b	7'-9"	96	
# 403b	7'-7"	72	
# 404b	7'-2"	24	
# 407b	8'-9"	8	
# 4	16'-0"	10	
# 4	16'-0"	10	
# 4	15'-5"	2	
# 4	15'-0"	2	
# 4	11'-8"	68	
# 4	11'-0"	68	
# 4	9'-9"	60	
# 4	7'-6"	16	
# 4	4'-6"	16	
# 4	11'-9"	12	
# 4	11'-6"	12	
Total Standard # 4 Bars			2527*
Total Standard Rein. Steel			7793*
MISCELLANEOUS			
1.	10-HP10x42 Piles x 40'-0"	400 LF.	
4.	10-HP10x42 Piles x 45'-0"	450 LF.	
CLASS 'A' CONCRETE			
Pour # 1	Abutment # 1	33.5 CY.	
Pour # 2	"	30.5 CY.	
Pour # 3	Abutment Cap # 1	11.5 CY.	
Pour # 4	Rt. Lt. Upper Wingwall # 1	1.1 CY.	
Pour # 1	Abutment # 4	34.4 CY.	
Pour # 2	"	31.8 CY.	
Pour # 3	Abutment Cap # 4	11.5 CY.	
Pour # 4	Rt. Lt. Upper Wingwall # 4	1.1 CY.	
Total Class 'A' Conc. in Bents			155.4 CY.

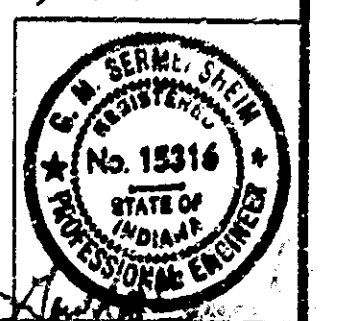
NOTE:
1. Occurs at Bent No. 1
4. Occurs at Bent No. 4

INDIANA STATE HIGHWAY COMMISSION

SCALE: As Noted DATE: August 26, 1982

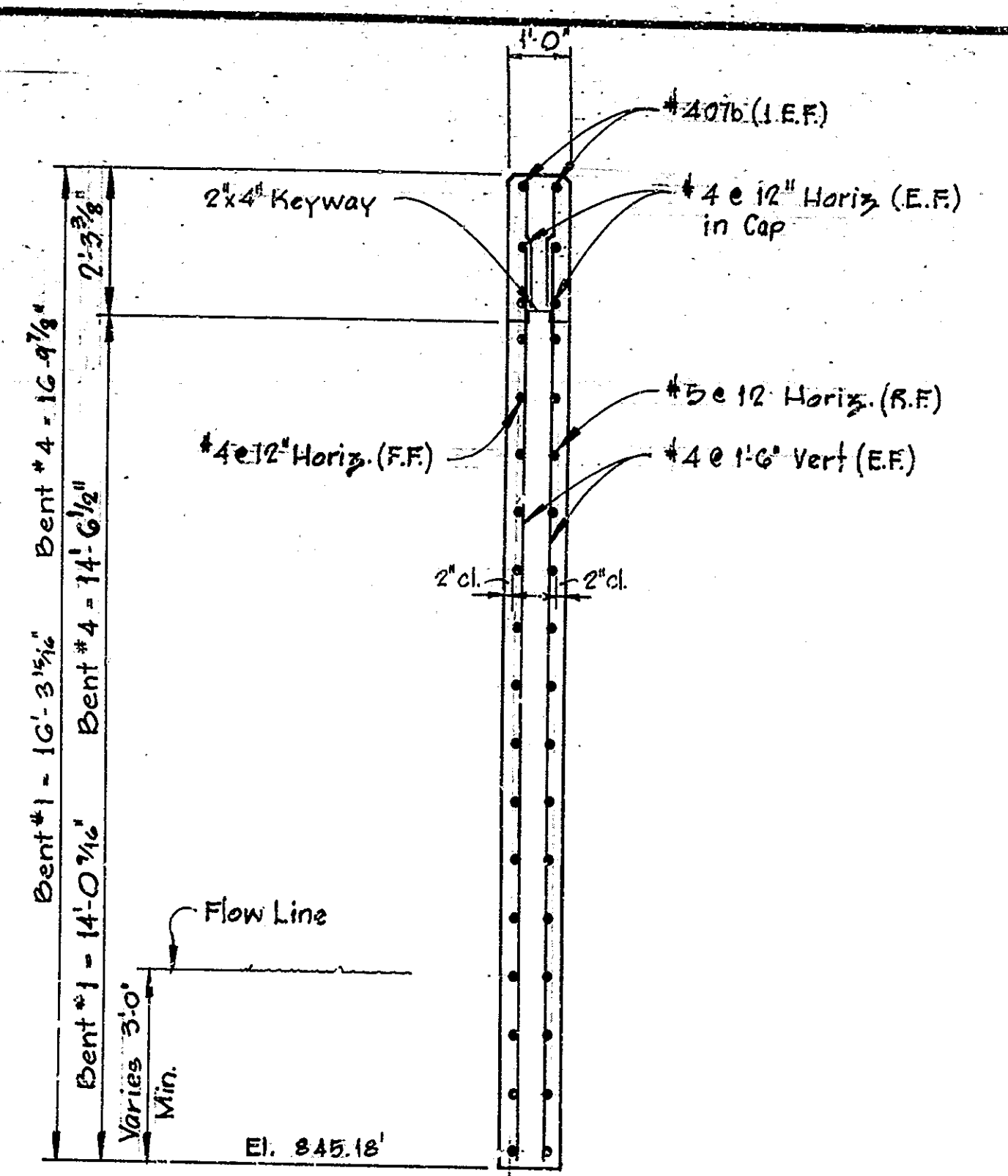
NOTE:
The Vertical construction joints may be eliminated subject to the approval of the Engineer See Dr. Std. C-1 for reinforcing bar notes

DRAWING: C-8 OF C-8 SHEET: 6 OF 44
PROJECT: M-3091 ()
CONTRACT NO. B-14217
BRIDGE FILE: 8-17-6116

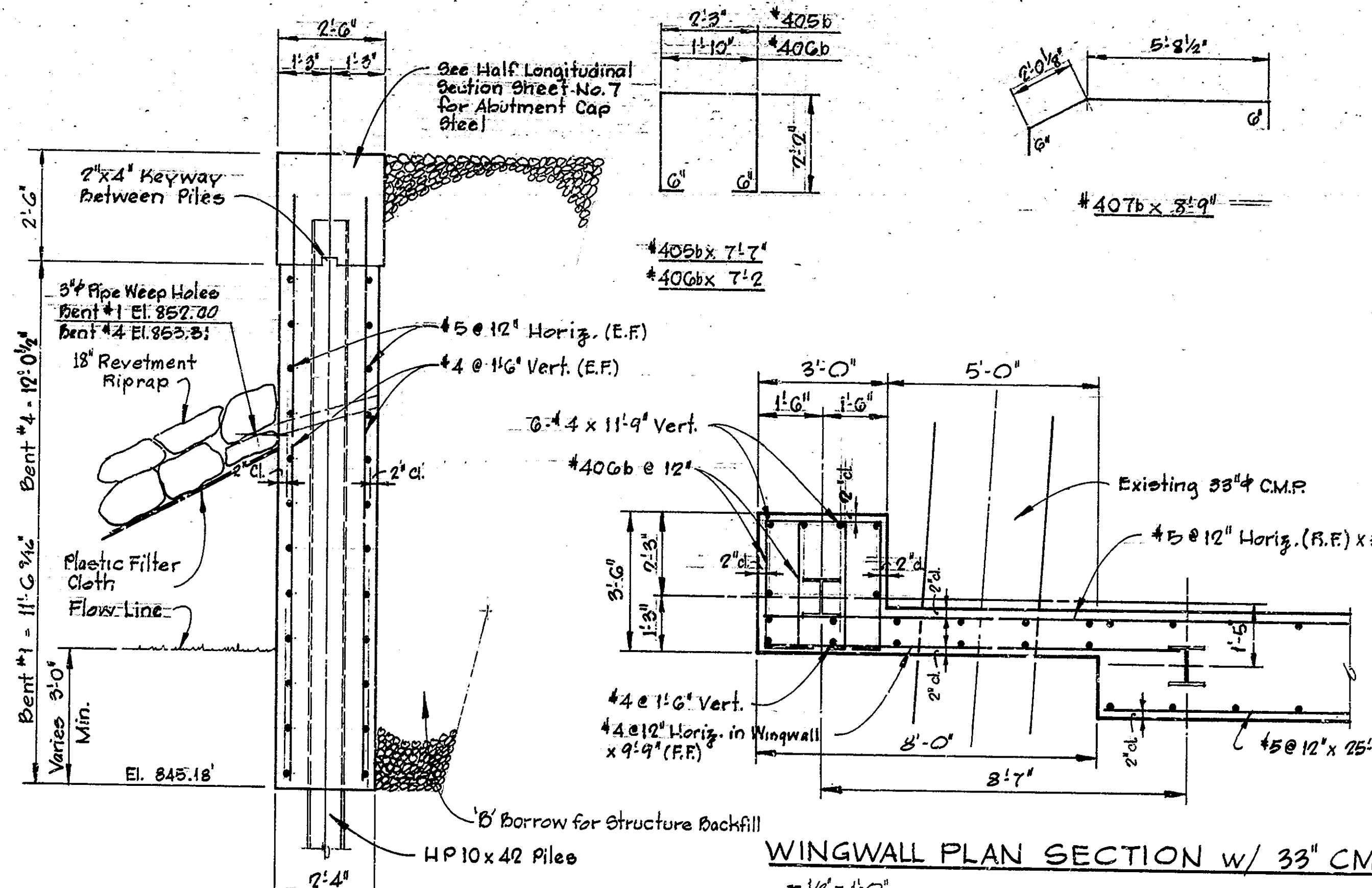


DESIGNED: M.K.B. CKD: G.M.S.
DRAWN: B.E. CKD: M.K.B.
TRACED: C.K.D.

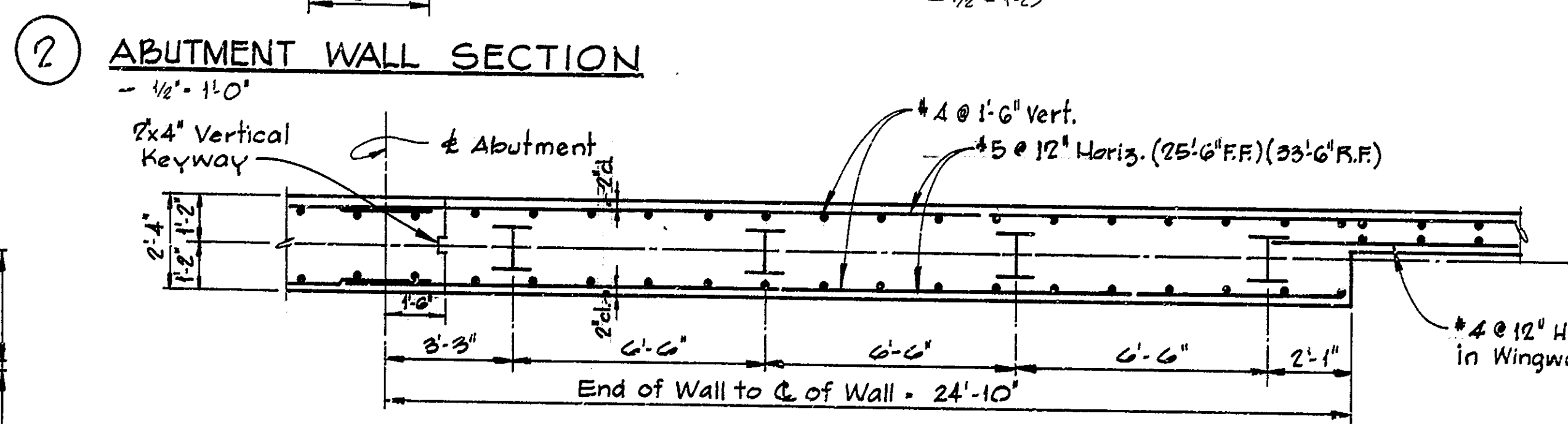
702 b x 28'-11"



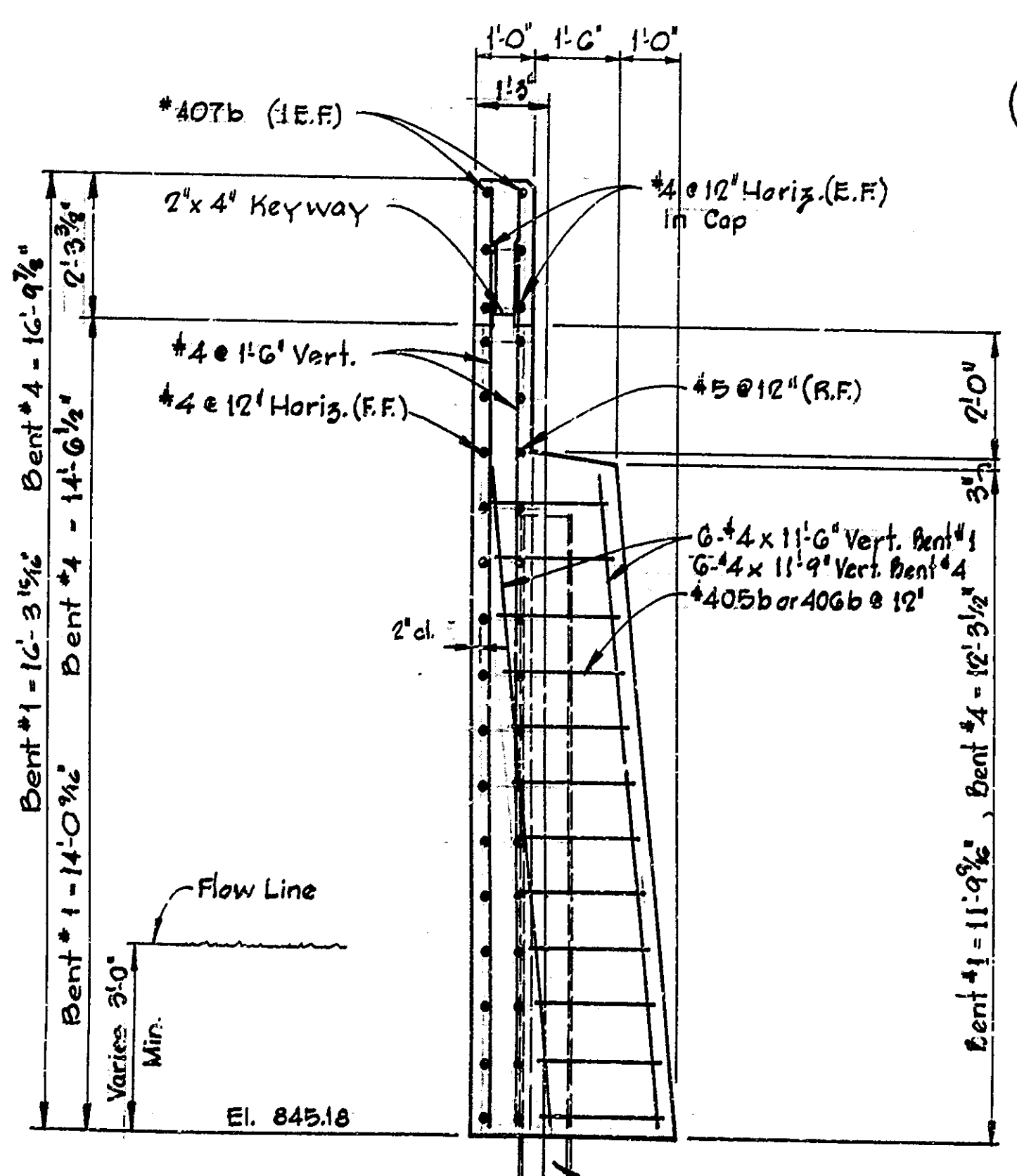
1 WINGWALL SECTION "B-B"
- 1/2' - 1'-0"



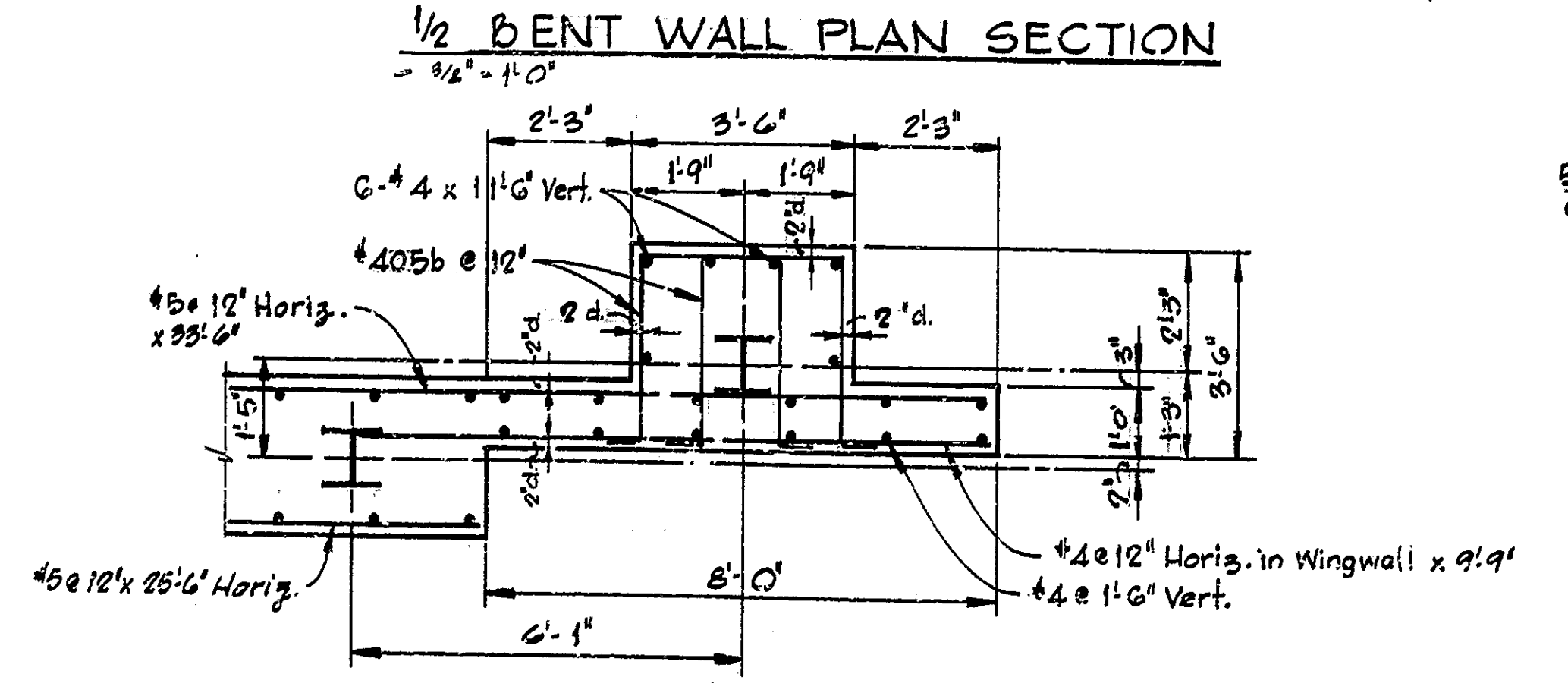
WINGWALL PLAN SECTION w/ 33" CMP
- 1/2' - 1'-0"



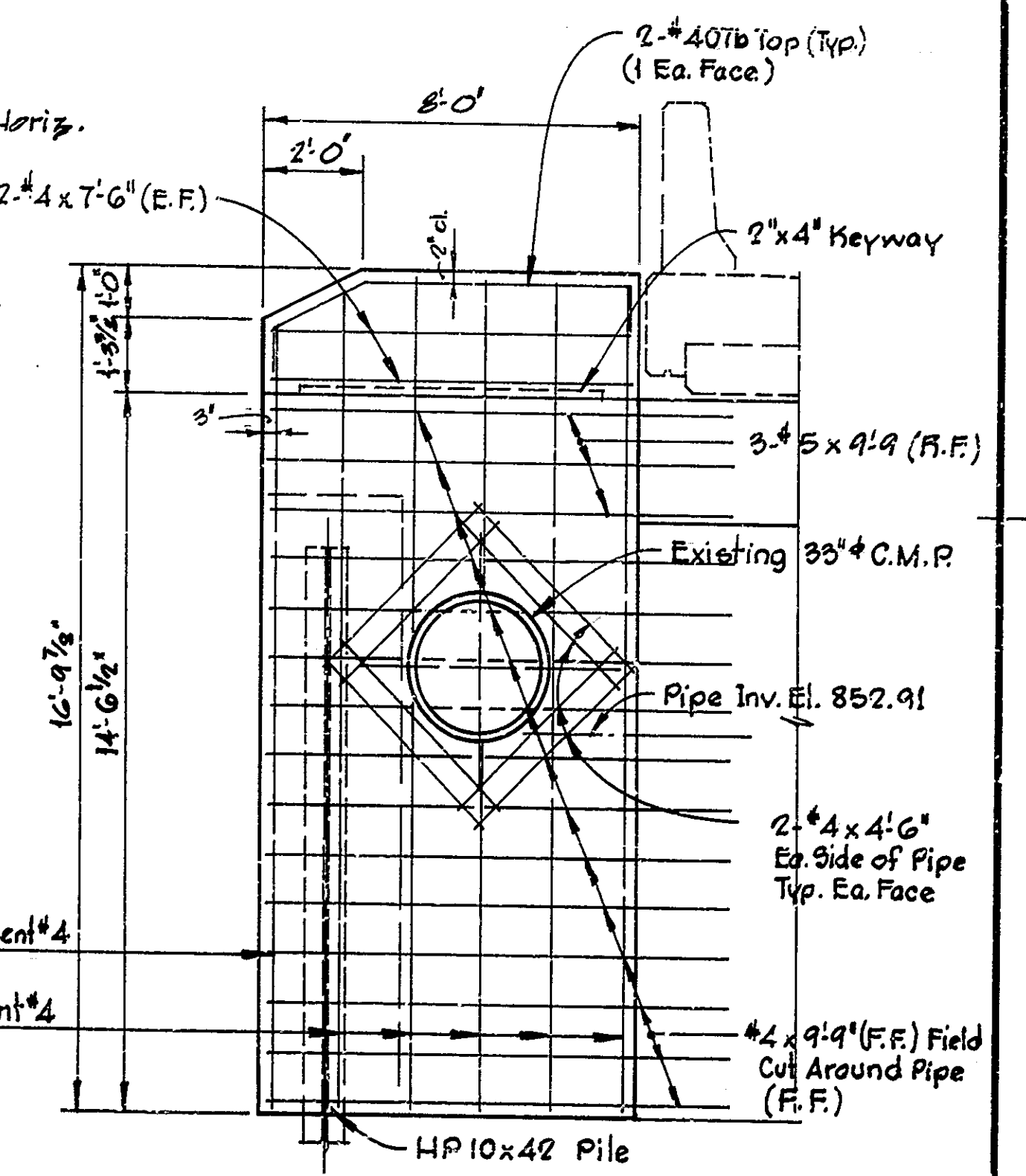
2 ABUTMENT WALL SECTION
- 1/2' - 1'-0"



3 WINGWALL SECTION "A-A"
- 1/2' - 1'-0"



WINGWALL PLAN SECTION
- 1/2' - 1'-0" TYPICAL WINGWALL

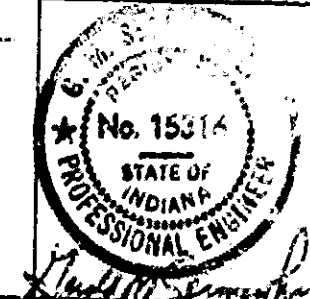


NORTH WINGWALL ABUTMENT #4
- 3/8' - 1'-0" NORTHEAST WINGWALL

DETAILS END BENTS
INDIANA STATE HIGHWAY COMMISSION

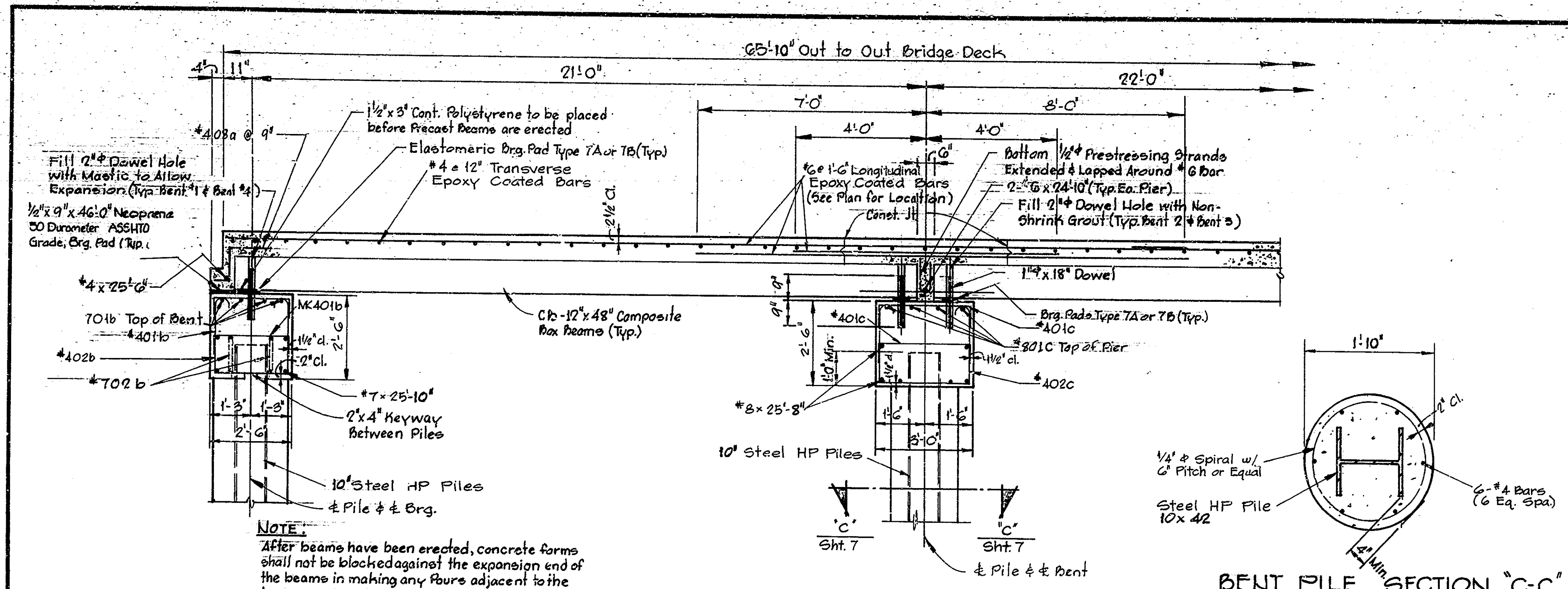
SCALE: As Noted DATE: August 26, 1982

DRAWING: 04 OF 08 SHEET: 7 OF 14
PROJECT: M-J091 ()
CONTRACT NO. B-14217
BRIDGE FILE: 8-17-G116



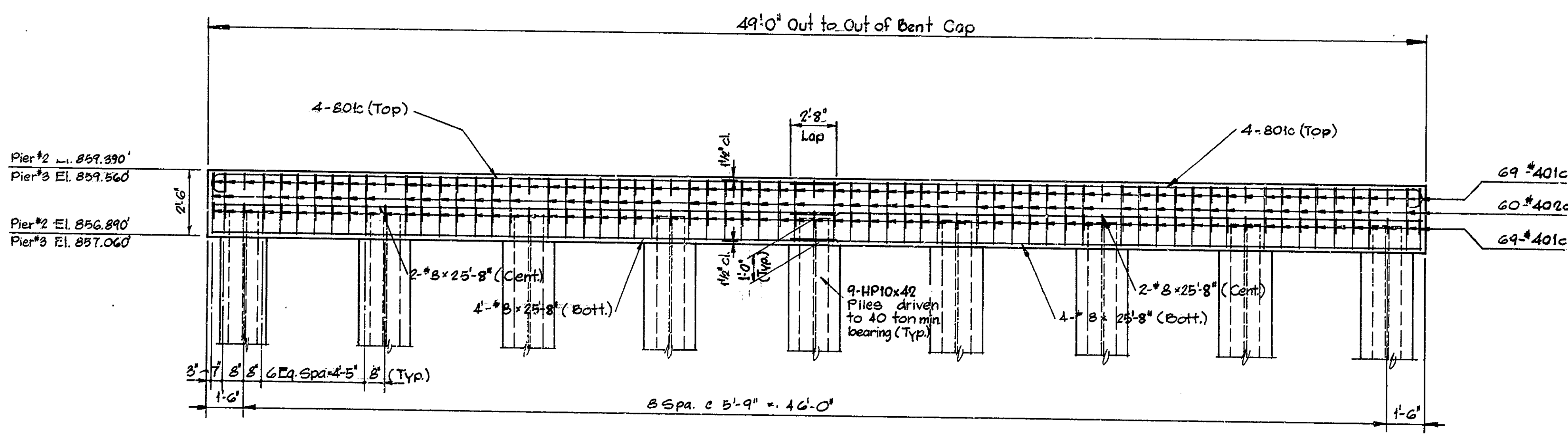
NOTE: See Bridge Std. C-1 for Reinforcing Bar Notes.

DESIGNED	CKD	CHKD
DRAWN	CKD	CHKD
TRACED	CKD	



HALF LONGITUDINAL SECTION 'B-B'
 1/2" = 1'-0"

BENT PILE SECTION 'C-C'
 1" = 1'-0" See Bridge Std. C-1 for more details



NOTE: See Bridge Std. C-1 for Reinforcing Bar Notes.

BENTS #2 OR #3
 3/8" = 1'-0"

BILL OF MATERIAL
SUPERSTRUCTURE

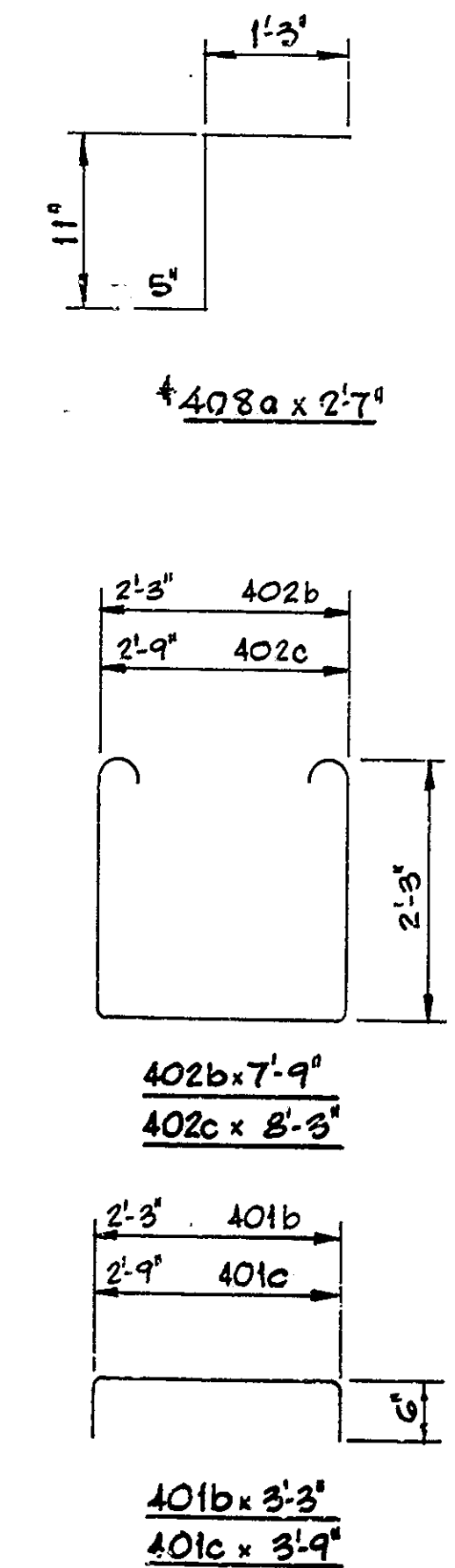
REINFORCING STEEL			
MARK OR SIZE	LENGTH	NO. REQD	WEIGHT
#6	29'-9"	96	
#6	15'-0"	40	
#6	10'-0"	48	
#6	8'-0"	40	
#6	6'-0"	122	
#6	24'-10"	4	
Total Epoxy Coated #6 Bars 7848 *			
#504	5'-6"	138	
#505	4'-10"	138	
Total Epoxy Coated #5 Bars 1487 *			
#405a	8'-11"	120	
#404a	8'-11"	12	
#4	21'-3"	24	
#4	25'-6"	132	
#4	21'-9"	12	
#4	6'-6"	12	
#408a	2'-7"	122	
Total Epoxy Coated #4 Bars 3772 *			
Total Epoxy Coated Reinf Steel 13,107 *			

BENTS 2 & 3

REINFORCING STEEL			
MARK OR SIZE	LENGTH	NO. REQD	TOTAL WEIGHT
#801c	26'-9"	16	
#8	25'-8"	24	
Total Standard #8 Bars 2787 *			
#401c	3'-9"	216	
#402c	8'-5"	180	
Total Standard #4 Bars 1353 *			
Total Standard Reinf Steel 4140 *			

MISCELLANEOUS		
18-HP10x42 Piles x 39'-0"	702 L.F.	
Pile Encasement (Conc) 140'	252 L.F.	
Class 'A' Conc in Bents 2 & 3	27.2 CY.	

SUPERSTRUCTURE CONC SUMMARY			
POUR NO.	CU. YDS. EA.	TOTAL CY	
CLASS 'C' CONCRETE			
1	2 @ 21.2 CY	42.4 CY	
2	1 @ 18.2 CY	18.2 CY	
3	2 @ 6.3 CY	12.6 CY	
Sidewalk	2 @ 9.1 CY	18.2 CY	
Total Class 'C' Concrete		91.4 CY	
Class 'C' Railing Concrete		19.0 CY	



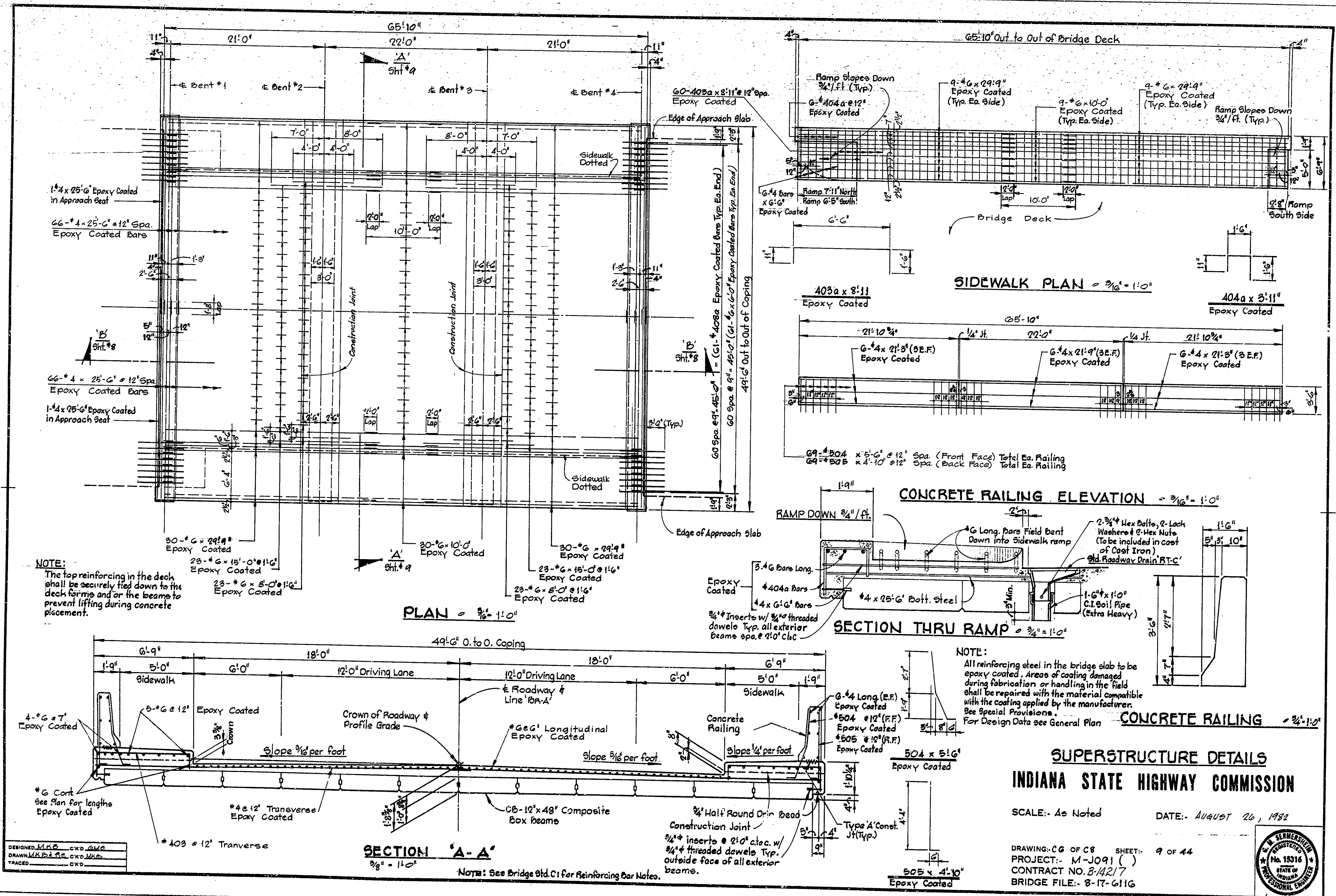
DETAILS BENTS No. 2 OR 3
INDIANA STATE HIGHWAY COMMISSION

SCALE: As Noted DATE: August 26, 1982

DRAWING: C5 OF C8 SHEET: 8 OF 44
 PROJECT: M-J091 ()
 CONTRACT NO. B-14217
 BRIDGE FILE: 8-17-6110



DESIGNED: JKP, CKD, GMS
 DRAWN: FB, MKR, CKD, MKR
 TRACED: CKD



NOTE:
The top reinforcing in the deck shall be securely tied down to the deck forms and/or the beams to prevent lifting during concrete placement.

NOTE:
All reinforcing steel in the bridge slab to be epoxy coated. Areas of coating damaged during fabrication or handling in the field shall be repaired with the material compatible with the coating applied by the manufacturer. See Special Provisions. For Design Data see General Plan.

SUPERSTRUCTURE DETAILS
INDIANA STATE HIGHWAY COMMISSION

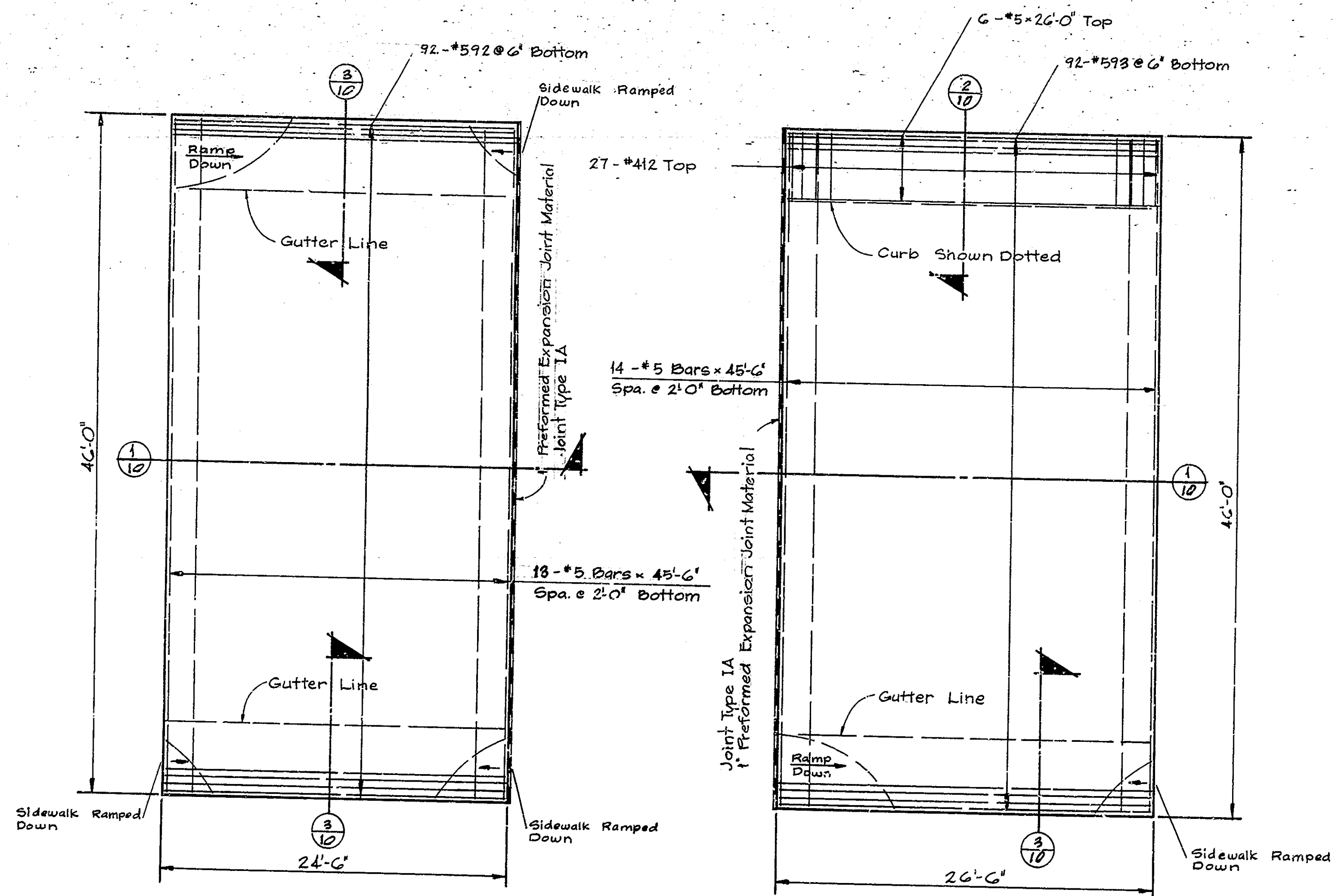
SCALE: As Noted DATE: August 26, 1982

DRAWING: CG OF C8 SHEET: 9 OF 44
PROJECT: M-J091 ()
CONTRACT NO. B-4217
BRIDGE FILE: 8-17-6116

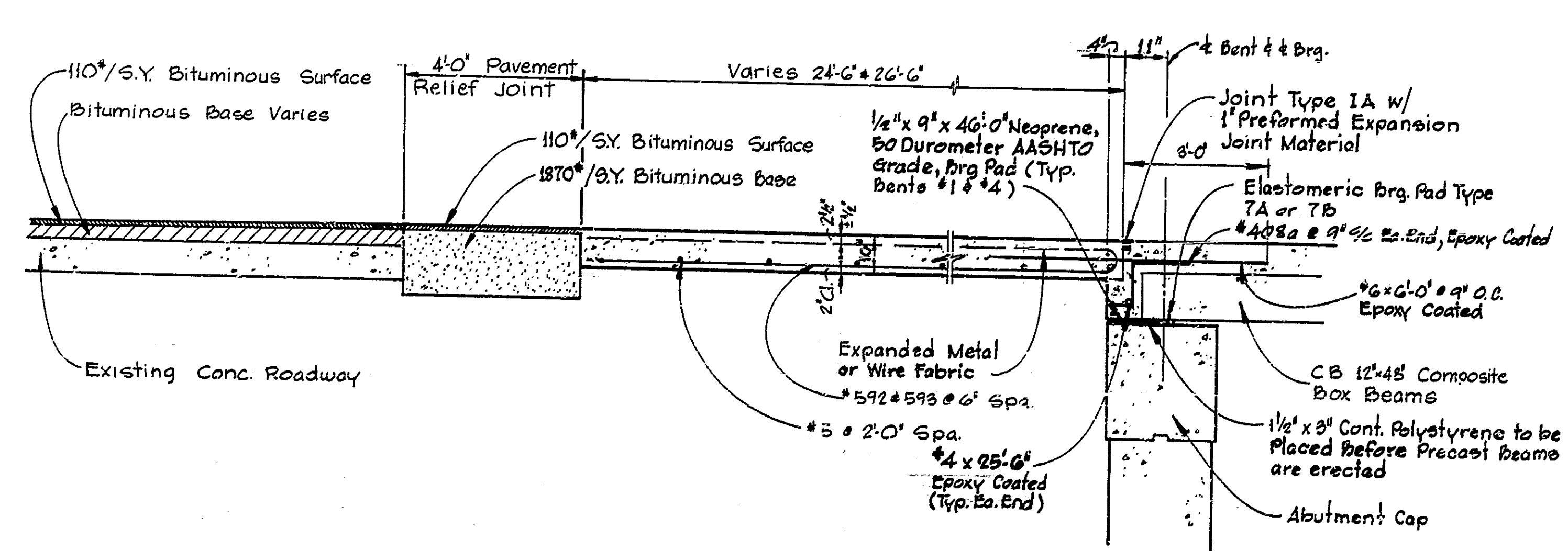
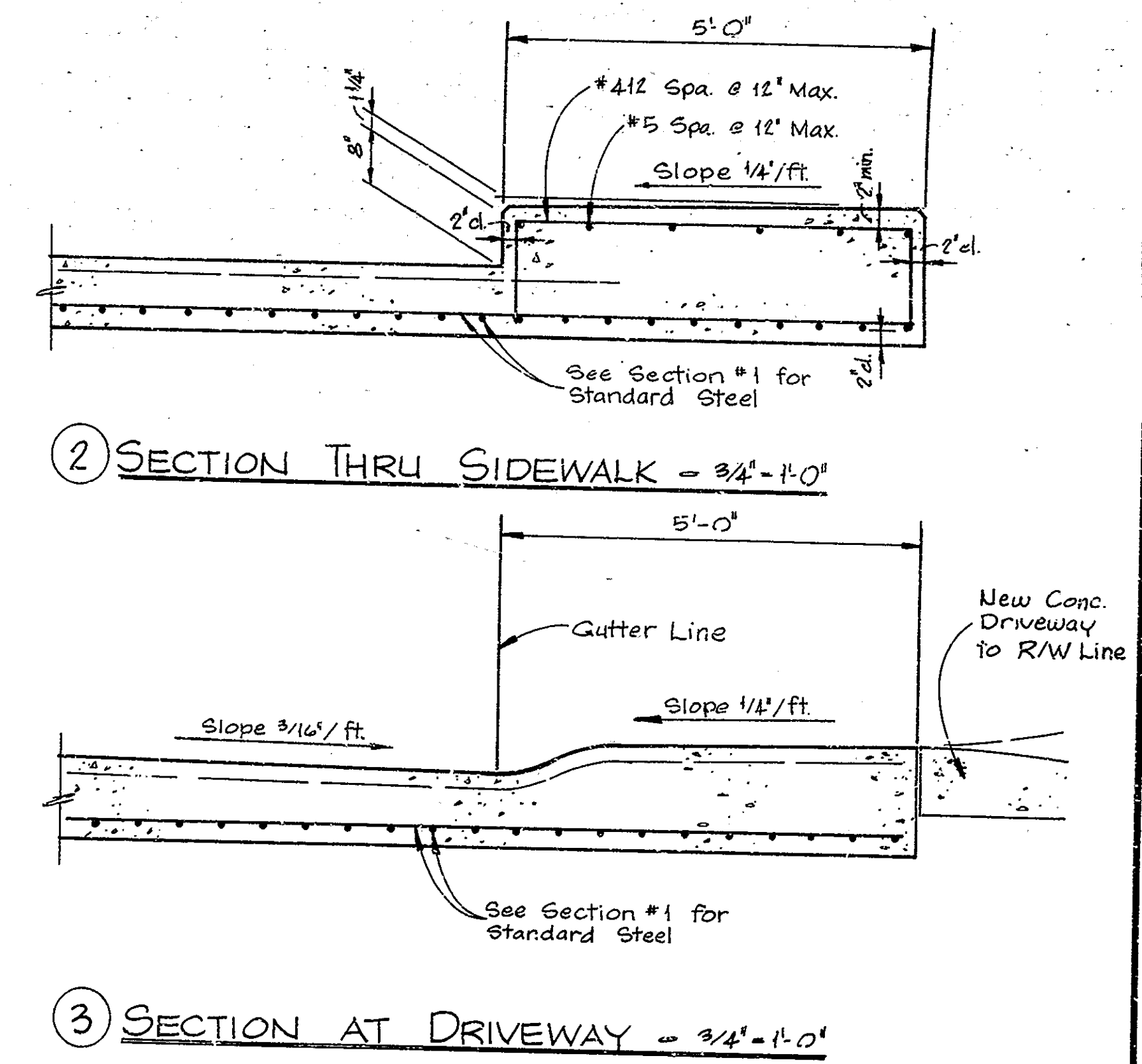
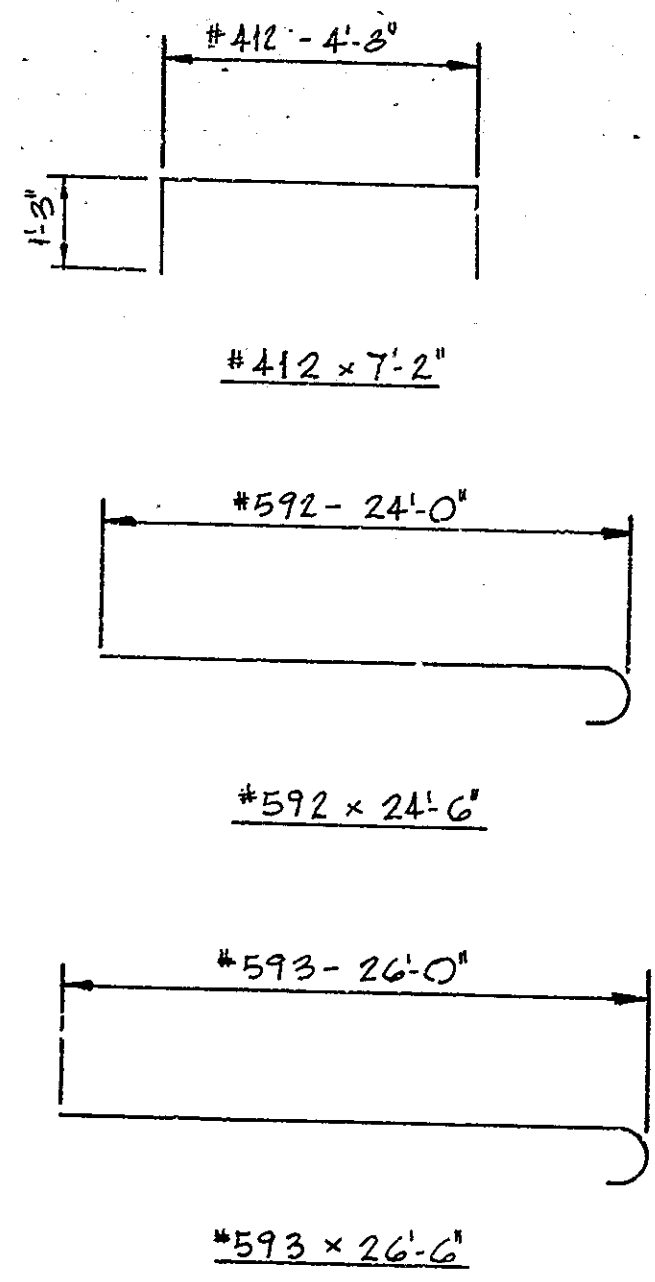


DESIGNED: MKS cwo GUA
DRAWN: MKS BLS cwo MKS
TRACED: MKS cwo

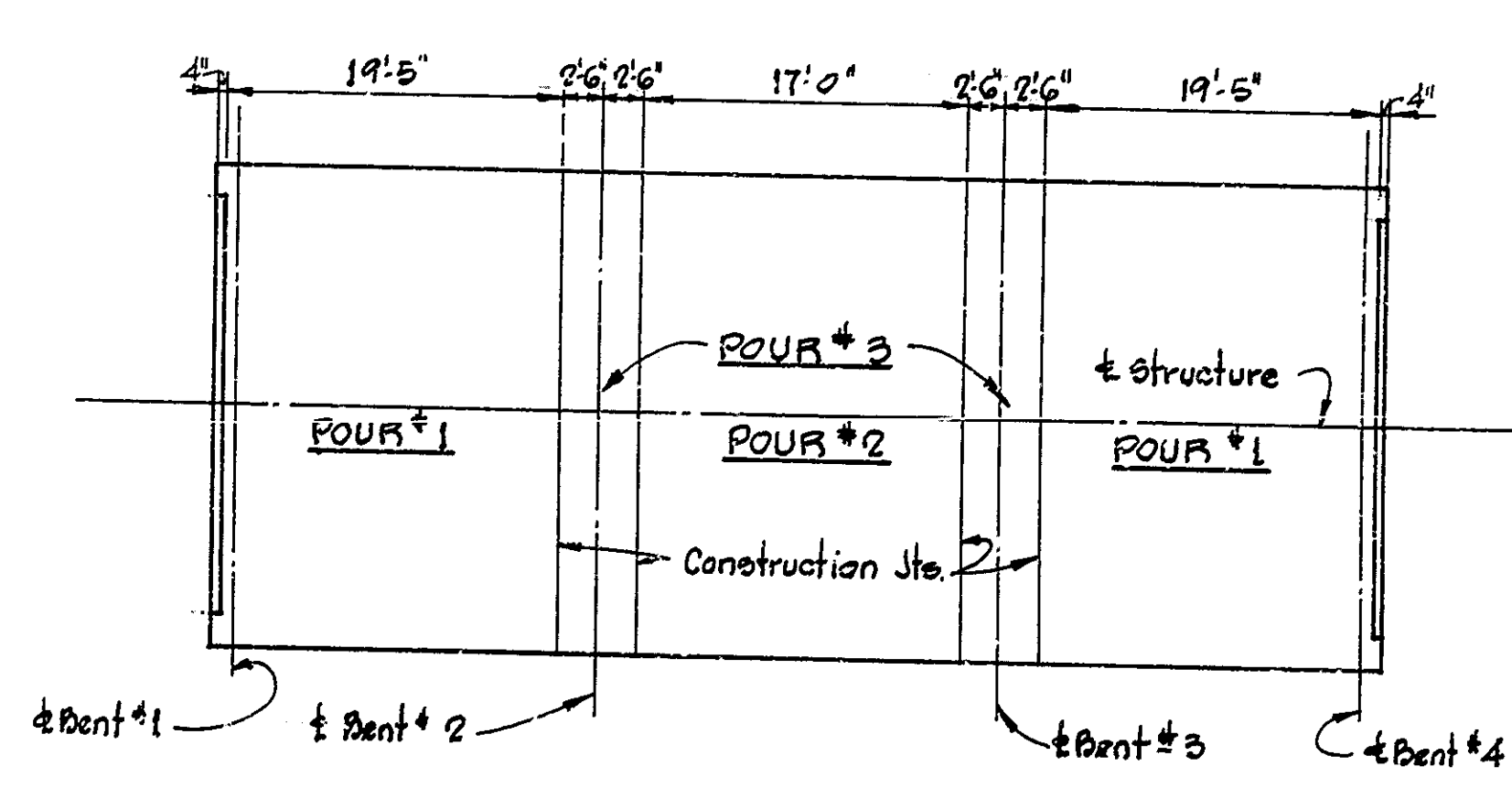
SECTION 'A-A'
3/8" = 1'-0"
NOTE: See Bridge Std. C1 for Reinforcing Bar Notes.



PLAN OF APPROACH SLABS - 3/4" - 1'-0"



SECTION THRU APPROACH SLABS - 1/2" - 1'-0"



POUR DIAGRAM No Scale

NOTE:
Pour Numbers indicate sequence of pours. Pours over interior supports to be made last to reduce the effect of the slab deadload in the negative moment area. Pour #3 will include the diaphragm at support and will be held to a 5'-0" length.
See Br. Std. C1 for Reinforcing bar Notes.

BILL OF MATERIAL			
EAST & WEST APPROACHES			
REINFORCING STEEL			
MARK OR SIZE	LENGTH	NO REQD EAST & WEST	TOTAL WEIGHT ESTIMATED
#592	24'-0"	92	
#593	26'-0"	92	
#5	13'-0"	27	
#412	7'-2"	27	
Total #5 Bars			6338*
Total #4 Bars			129*
Total Approach Steel			6467*
MISCELLANEOUS			
10' RC Approach Pavement			261.57

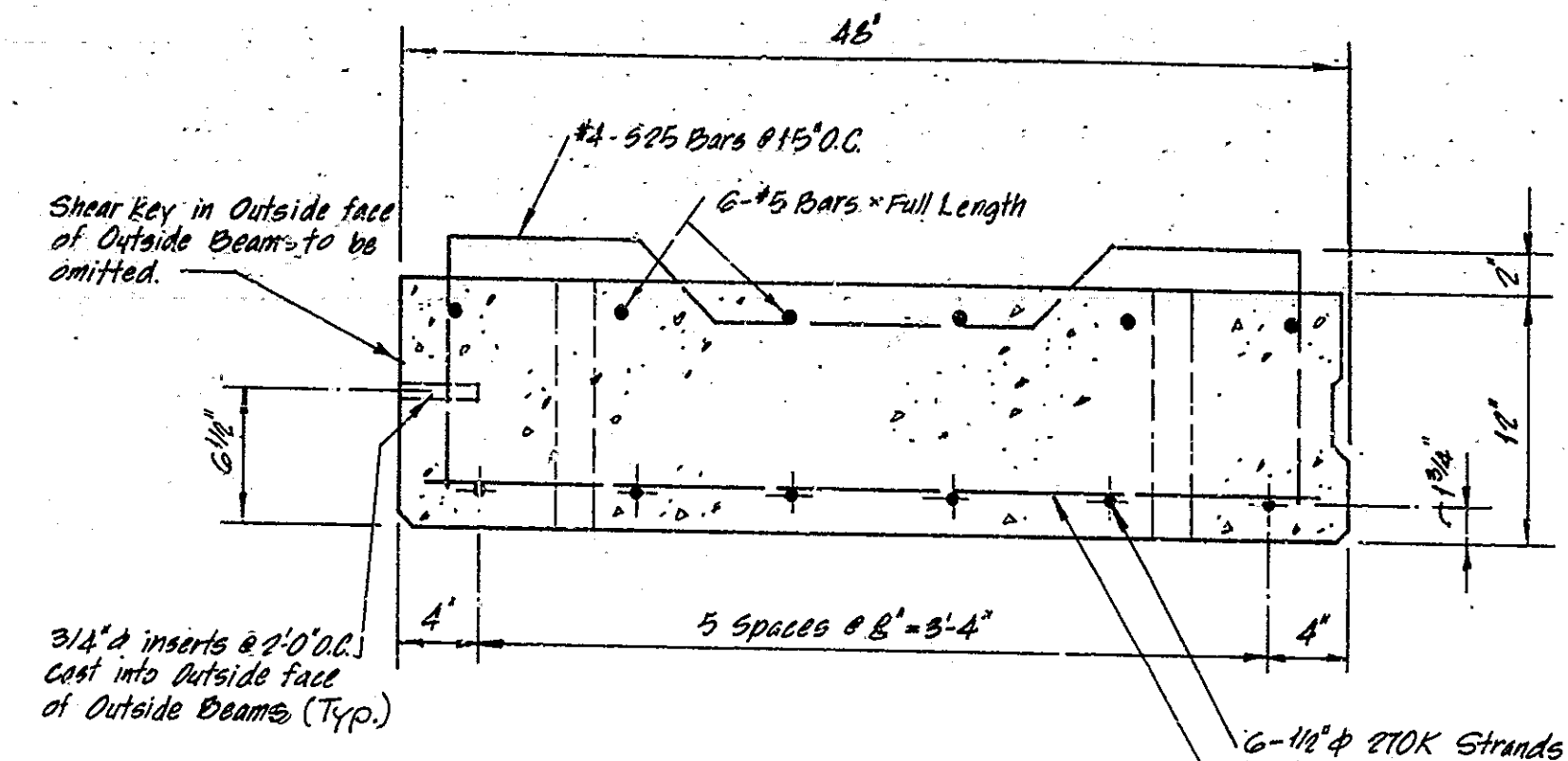
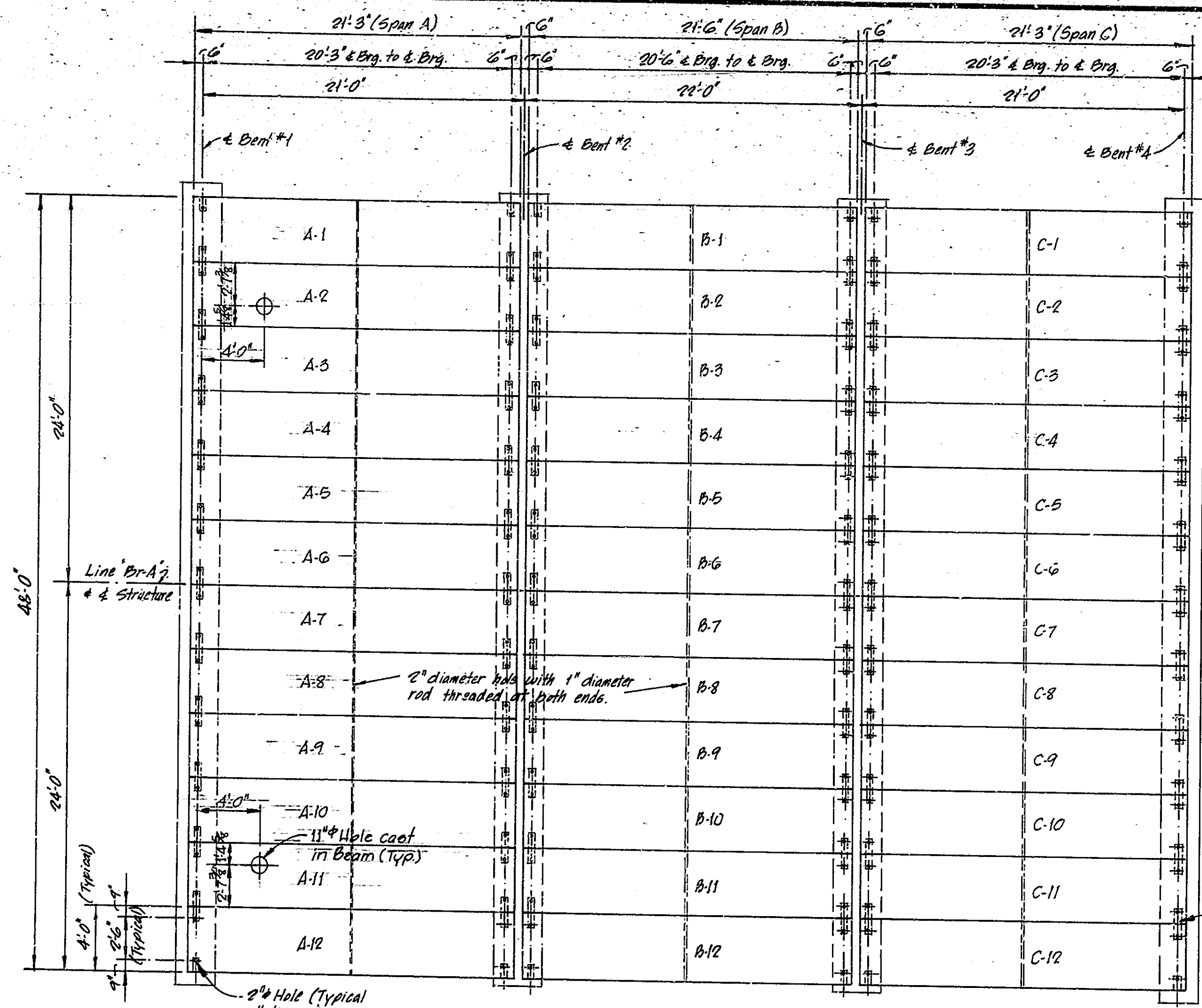
DETAILS
INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED DATE: AUGUST 26, 1982

DRAWING: C7 OF C8 SHEET: 10 OF 44
PROJECT: M-JO91 ()
CONTRACT NO. B-14217
BRIDGE FILE: B-17-G116



DESIGNED BY: C.W.D. G.M.P.
DRAWN BY: C.W.D. M.G.P.
TRACED BY: C.W.D.

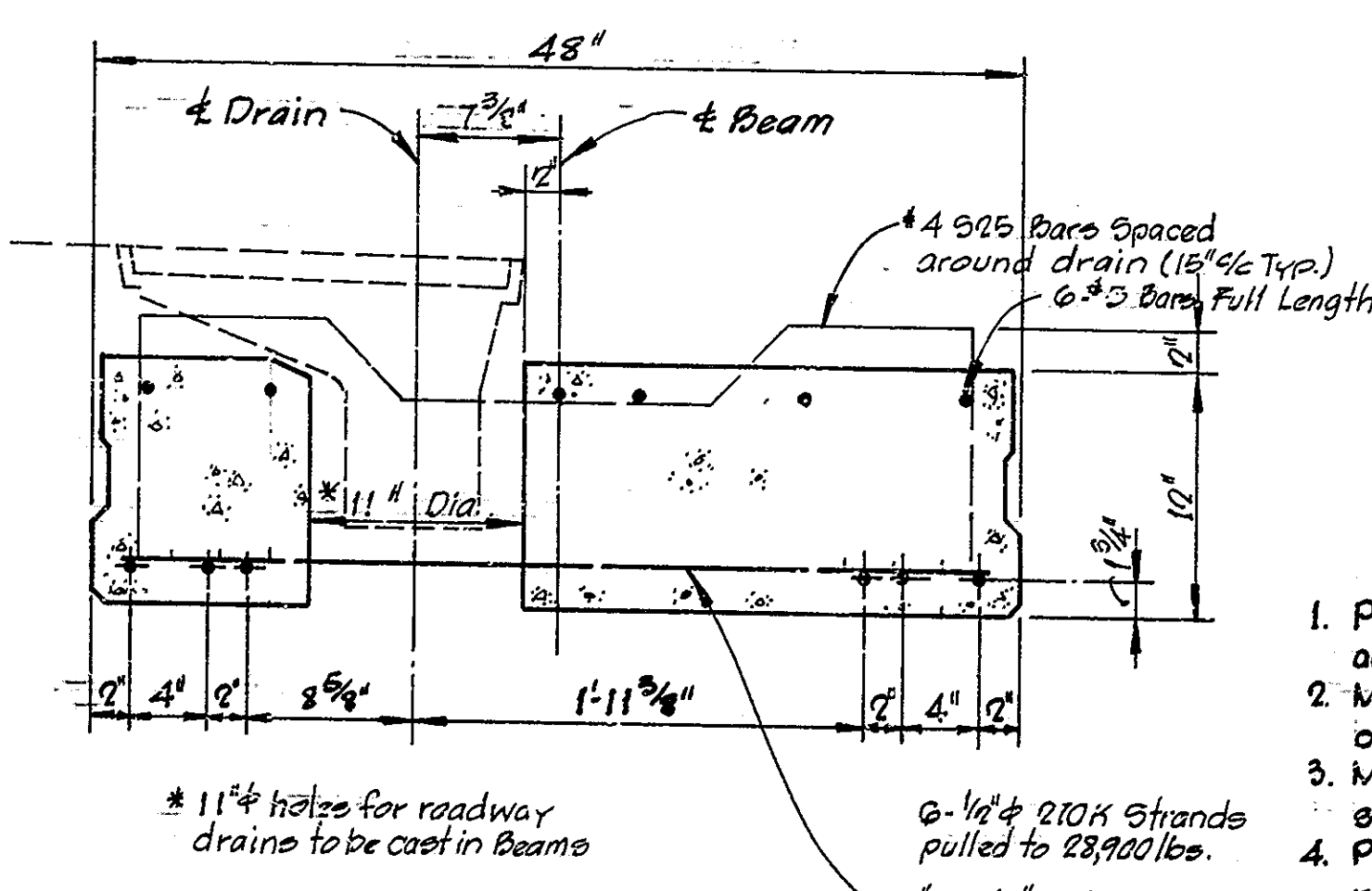


DEFLECTIONS AT MIDSPAN

Initial Beam Camber	.22	in.up
Camber at Erection	.35	in.up
Dead Load Deflection	.10	in.down
Residual Camber	.25	in.up

DESIGN NOTES

All beams are designed in accordance with A.A.S.H.T.O. standard specifications for Highway Bridges - 1977, & All Current Interim Specifications.



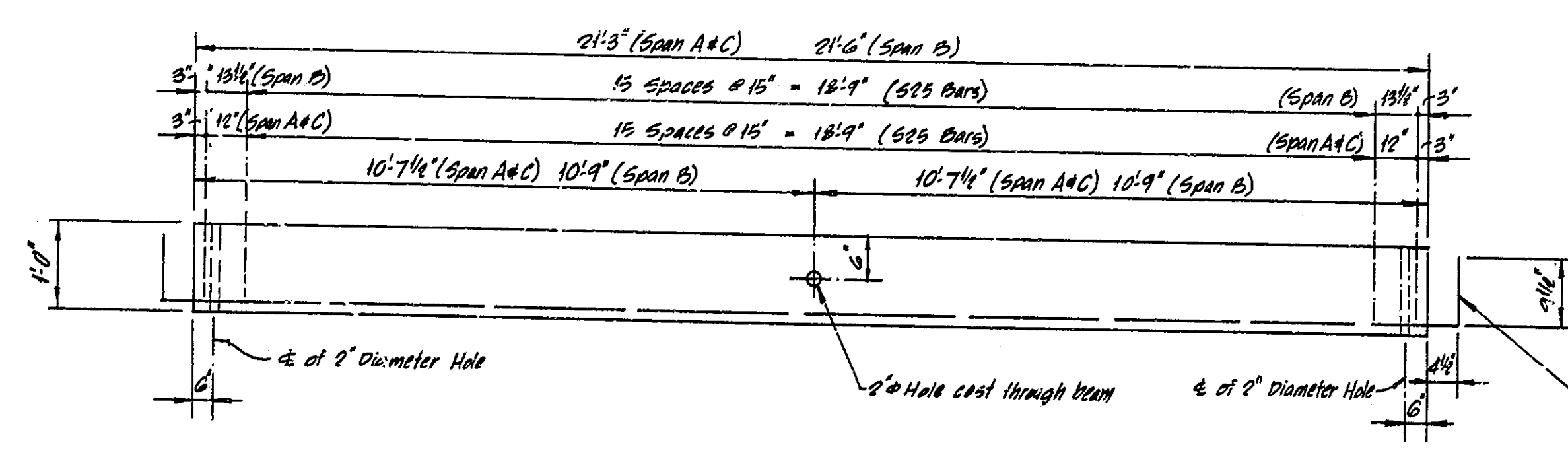
PRESTRESS NOTES

1. Prestressed Concrete Box Beams shall be manufactured in accordance with the latest I.D.O.H. and AASHTO specifications.
2. Minimum compressive strength of concrete at the time of prestressing shall be 4000 psi.
3. Minimum compressive strength of concrete at 28 days shall be 5000 psi.
4. Prestressing steel shall be 1/2" diameter, 7 wire, stress-relieved strand with a minimum tensile strength of 270,000 psi. Initial tension on strands to be 189,000 psi.
5. The beams shall be cast a minimum of 45 days before the deck is poured.
6. See Bridge Standards PB6 and PB10 for additional notes. Beams to comply with CB12 I.D.O.H. Bridge Standards PB9B.

NOTE: The cost of Elastomeric Brigs. Pads, 3/4" inserts with 3/4" threaded dowels, 1" x 1" dowels, non-shrinking grout, expanded polystyrene, Neoprene Brigs. Pads and Prestressed Conc. Box Beams to be included in Lump Sum bid for Structural Members.

NOTE: For treatment of Dowel Holes at fixed and expansion ends see Bridge Std. PB6.

See Bridge Std. PB11 for Brigs. Pad details.

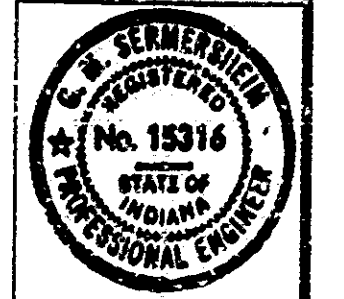


BEAM ERECTION DETAILS
INDIANA DEPARTMENT OF HIGHWAYS

SCALE: - As Noted DATE: - AUGUST 26, 1982

DESIGNED: JMM CKD GNS
DRAWN: BEE CKD GNS
TRACED: CKD

SENIOR DESIGNER
DRAWING: C8 OF C8 SHEET: 11 OF 44
PROJECT: M-1091(1)
CONTRACT NO. B-14217
BRIDGE FILE: B-17-6116



BRIDGE FILE NO.	ITEM	CONCRETE										STRUCTURE										QUANTITIES										
		CLASS C		CLASS A		CLASS B		CLASS A		CONCRETE RAILING CLASS C		REINF. STEEL TOTAL	STRUCT. STEEL ***	ANCHOR RODS MK-AR	ANCHOR PLATES MK-AP	UNTREATED TIMBER	TREATED TIMBER	STEEL ENCASED CONE	STEEL N BEARING	CAST IRON DRAIN PIPE	CAST IRON GRATES, BASINS & FITTINGS	RAILING TYPE OR	EXP. JOINT TYPE	EXP. JOINT CLASS	CONC. STR. BOX BEAMS TYPE CB-12-48	MEMBERS I BEAM TYPE	APPLIED SHEET MEMBRANE	BITUM. MIXTURE FOR APPROACHES	MOD. P.C. CONCRETE SURFACE	DECK DRAIN	SURFACE SEAL	Epoxy Coat Reinforcing Steel
		CU. YDS.	CU. YDS.	CU. YDS.	CU. YDS.	NO.	LIN. FT.	CU. YDS.	LIN. FT.	LBS.	LBS.	EACH	EACH	NO.	LIN. FT.	NO.	LIN. FT.	NO.	LIN. FT.	LBS.	LBS.	LIN. FT.	LIN. FT.	LIN. FT.	SQ. FT.	LIN. FT.	SQ. FT.	TONS	CU. YDS.	EACH	SQ. FT.	
	Superstructure	91.4						19.0											52	296				3072								
	Substructure																															
	Bent #1		76.6							3397																						
	Bent #2		18.6				9	120		2070																						
	Bent #3		18.6				9	120		2070																						
	Bent #4		76.6							3397																						
	TOTALS	91.4	182.6				18	252	19.0	13401									88	1552	52	296		3072								4477+ 13,107

Reinf. Steel for Approach Structures
 Reinf. Steel for R.C. Bridge Approaches
 Reinf. Steel for Lip Gutter, Pvm, Tapers, etc.

BRIDGE FILE NO.	STRUCT. NO.	LOCATION	APPROACH				STRUCTURES			REMARKS
			SIZE	KIND	LENGTH	CONCR. CL. A IN STRS.	REINF. STEEL	PIPE END SEC.		
	1	Sta. 103+26	30' Lt.	12" Blasted Drain Pipe R.C. (16 Ga.)	10'	1.2				Concrete in Encasement in Pipe Price
				12" C.S. Pipe Group (D)	7'					
	2	Sta. 103+08	28' Rt.	12" Blasted Drain Pipe R.C. (16 Ga.)	14'	1.6				Concrete in Encasement in Pipe Price
				12" C.S. Pipe Group (D)	8'					
	3	Sta. 103+97	13.8 Lt.	Catch Basin (Exist.)						Castings to be adjusted to grade
	4	Sta. 103+99	18' Rt.	Catch Basin (Exist.)						"
	5	Sta. 104+26	16.8 Rt.	Catch Basin (Exist.)						"
	6	Sta. 104+51	14' Lt.	Catch Basin (Exist.)						"
										TOTALS

Total of Reinforcing Steel Carried to "Structure Quantities"

L.T. OR RT.	STATION TO STATION	PAVED SIDE DITCH (LIN. FT.)					SODDING (SQ. YD.)							
		TYPE	PAY LENGTH	NO. OF LUGS	PAY LENGTH	CUT OFF WALLS	PAY LENGTH	TOTAL PAY LENGTH	FOR PSD	FOR DITCHES	SHOULDERS	OTHER	TOTAL SOD	
Lt.	103+32 to 105+50												187	187
Lt.	105+50 to 106+00												69	69
Rt.	103+32 to 103+92												11	11
Rt.	104+03 to 104+94												40	40
Rt.	104+94 to 105+50												75	75
Rt.	105+50 to 106+00												62	62
														494

Estimated Quantity

Note: All sodding shall be Sodding/Nursery

L.T./RT.	LOCATION STATION	DESCRIPTION	WIDTH	RADI	GRADE	LENGTH	DIST. FROM	EXCAVATION (CY)		BITUM. SURFACE		BITUM. BINDER		BITUM. BASE		COMP. AGG. BASE		CONC. DRIVEWAY
								CUT	FILL	#/SQ. YD.	TONS	#/SQ. YD.	TONS	#/SQ. YD.	TONS	Depth (in)	TONS	
Rt.	101+50.00	Class III Drive	14' Ave	10'/10'		16.5'												Existing
Rt.	103+08.00	Class I Drive	14'	10'/10'		10.5'												15.5
Lt.	103+08.00	Class I Drive	9.5'	10'/10'		10'												10.8
Rt.	103+99.00	Class I Drive	12'	10'/10'		11'												12.2
Rt.	104+26.00	Class I Drive	10'	10'/10'		15'												27.4
Rt.	106+00.00	Class I Drive	10'	10'/10'		19'												30.7

MARCH 1975

SUMMARIZED LIKE C'DD SWR
 TRACED BE. C'DD SWR

NOTES:
 Weight of Spirals includes weight of 1/2 extra turns top and bottom.
 Spacers and 1 1/2 turns of laps included in cost of Spiral.
 *** The weight of structural steel is approximate only, and it shall be the Contractor's responsibility to determine the weight on which he bases his bid.
 For Test Bar Samples See Bridges Standard C1.

REVISIONS	
DATE	ITEM
7-7-83	Note: Surface Seal Est. Quantity
10-2-83	PILE ENCASEMENT

BRIDGE SUMMARY
 INDIANA STATE HIGHWAY COMMISSION

DATE August 26, 1982

SHEET 12 OF 44

PROJECT: M. Joant ()
 CONTRACT NO: 8-1217



ESTIMATE OF QUANTITIES

STRUCTURE PAY ITEMS				
CODE NO.	DESCRIPTION	UNIT	STRUCTURE	TOTAL QUANTITY
51002	CONCRETE CLASS C IN SUPERSTRUCTURE	CYS.		91.8
51001	CONCRETE CLASS A IN SUPERSTRUCTURE	CYS.		
51005	CONCRETE CLASS A IN SUBSTRUCTURE	CYS.		187.6
51010	CONCRETE CLASS B ABOVE FOOTINGS	CYS.		
51015	CONCRETE CLASS B IN FOOTINGS	CYS.		
51875	SPECIAL CLASS A CONCRETE	SFT		
51045	CONCRETE STRUCTURAL MEMBERS	LSUM		1
51030	REINFORCING STEEL	LBS.		18,401
	EPoxy Coated Rebar Steel	LBS.		13,107
51035	STRUCTURAL STEEL	LBS.		
51038	STRUCTURAL STEEL	LSUM		
51090	BRONZE PLATES	LBS.		
51050	ANCHOR RODS (MK-AR 1)	EACH		
51055	ANCHOR RODS (MK-AR 2)	EACH		
51060	ANCHOR RODS (MK-AR 3)	EACH		
51065	ANCHOR RODS (MK-AR 4)	EACH		
51070	ANCHOR PLATES (MK-AP 1)	EACH		
51075	ANCHOR PLATES (MK-AP 2)	EACH		
51080	ANCHOR PLATES (MK-AP 3)	EACH		
51085	ANCHOR PLATES (MK-AP 4)	EACH		
51112	ANCHOR BOLTS	EACH		
51068	TIE DOWN ASSEMBLY MK-UA	EACH		
51095	CAST IRON DRAIN PIPE, 4 INCH	LBS.		52
51100	CAST IRON DRAIN PIPE, 6 INCH	LBS.		
51105	CAST IRON DRAIN PIPE, 8 INCH	LBS.		
51110	CAST IRON GRATES, BASINS AND FITTINGS	LBS.		794
51194	REMOVAL OF PRESENT RAILING	LFT.		
51132	RAILING RESET	LFT.		
51115	RAILING (TYPE E OR C)	LFT.		
51120	RAILING (TYPE 5A OR C1)	LFT.		
51125	RAILING (TYPE 6 OR D)	LFT.		
51130	RAILING (TYPE 7 OR E)	LFT.		
51020	CLASS C, CONCRETE RAILING	CYS.		19
51025	CLASS C, CONCRETE RAILING	LFT.		
51131	BARRIER RAILING TYPE X	LFT.		
51215	CLASS X EXCAVATION	CYS.		
51220	WET EXCAVATION	CYS.		
51222	WATERWAY EXCAVATION	CYS.		
51224	WATERWAY EXCAVATION	LSUM		
51225	DRY EXCAVATION	CYS.		
51230	FOUNDATION EXCAVATION (UNCLASSIFIED)	CYS.		100
51231	FOUNDATION EXCAVATION (UNCLASSIFIED)	LSUM		
51813	PNEUMATICALLY PLACED MORTAR	SFT.		
51870	REPOINTING MASONRY IN STR'S	SFT.		
51814	WELDED STEEL WIRE FABRIC	SFT.		
51858	PAINTING OLD STEEL BRIDGE	LSUM		
51881	EXPANSION JOINT, TYPE B82	LFT.		
51885	EXPANSION JOINT, TYPE B86	LFT.		
51887	EXPANSION JOINT, TYPE B88	LFT.		
51888	EXPANSION JOINT, TYPE B89	LFT.		
51890	EXPANSION JOINT, TYPE B811	LFT.		
51819	EXPANSION JOINT, CLASS I	LFT.		
51920	EXPANSION JOINT, CLASS II	LFT.		
51921	EXPANSION JOINT, CLASS III	LFT.		
51922	EXPANSION JOINT, CLASS IV	LFT.		

SUMMARIZED MKS C'K'D G.M.S.
 TRACED MKS C'K'D MKS

STRUCTURE PAY ITEMS				
CODE NO.	DESCRIPTION	UNIT	STRUCTURE	TOTAL QUANTITY
51135	TIMBER PILES FURNISHED, UNTREATED	LFT.		
51140	TIMBER PILES DRIVEN, UNTREATED	LFT.		
51145	TIMBER PILES FURNISHED, TREATED	LFT.		
51150	TIMBER PILES DRIVEN, TREATED	LFT.		
51155	PILE SHELLS FURNISHED AND DRIVEN (12 INCH)	LFT.		
51160	PILE SHELLS FURNISHED AND DRIVEN (14 INCH)	LFT.		
51185	STEEL H PILES FURNISHED AND DRIVEN (8 BP 36)	LFT.		
51190	STEEL H PILES FURNISHED AND DRIVEN (10 BP 42)	LFT.		
51195	STEEL H PILES FURNISHED AND DRIVEN (12 BP 53)	LFT.		
51210	PILE ENCASEMENT (CONCRETE)	LFT.		252
51328	REMOVAL OF PRESENT STRUCTURE (PORTIONS)	LSUM		1
51330	REMOVAL OF PRESENT STRUCTURE	LSUM		
51335	TEMPORARY BRIDGE AND APPROACHES	LSUM		
51395	CONCRETE SLOPEWALL 5 INCH	SYS.		
51395	SLOPEWALL	SYS.		
51370	RIPRAP	TON		286
51375	REVEMENT RIPRAP	TON		
51371	HANDLAID RIPRAP 12 INCH	SYS.		
51372	DUMPED RIPRAP	TON		
	PLASTIC FILTER CLOTH	SYS.		197
51106	DECK DRAINS	EACH		
51355	STEEL DRAIN PIPE (6 INCH)	LSUM		
51400	STEEL DRAIN PIPE (8 INCH)	LSUM		
51092	STEEL PIPE CONDUIT (2 INCH)	LFT.		
51898	RIVETS REMOVED	EACH		
51864	FIELD DRILLED HOLES	EACH		
51867	STRUCTURAL STEEL CUTTING	SIN		
51826	SURFACE SEAL	LSUM		1
51830	SHEET APPLIED MEMBRANE	LSUM		
51828	LIQUID APPLIED MEMBRANE	LSUM		
51831	MODIFIED PORTLAND CEMENT CONCRETE OVERLAY	CYS.		
51833	MODIFIED PORTLAND CEMENT CONCRETE (SURFACE)	CYS.		
51823	CONCRETE SCARIFYING	SYS.		
51834	REMOVAL OF SCARIFYING DUST	LSUM		
51835	HANDCHIPPING AND CLEANING	SYS.		
51837	SANDBLASTING AND CLEANING	SYS.		
51838	FINISHING AND CURING	SYS.		

* Estimated Quantity - 4477 SFT.
 (See Special Provision)

APPROACH PAY ITEMS				
CODE NO.	DESCRIPTION	UNIT	STRUCTURE	TOTAL QUANTITY
02020	UNCLASSIFIED EXCAVATION	CYS.		
52240	COMMON EXCAVATION	CYS.		18
52245	BORROW	CYS.		72
52250	B BORROW	CYS.		721
52303	REMOVAL OF PAVEMENT	SYS.		261
02235	BREAKING PAVEMENT	SYS.		
	COMBINED CONCRETE CURB AND GUTTER	LFT.		351
52490	TERMINAL JOINT	LFT.		
52495	CONTRACTION JOINT, TYPE D-1	LFT.		
52280	CONCRETE PAVEMENT REINFORCED (7 INCH)	SYS.		
52285	CONCRETE PAVEMENT REINFORCED (8 INCH)	SYS.		
52290	CONCRETE PAVEMENT REINFORCED (9 INCH)	SYS.		
52300	CONCRETE PAVEMENT REINFORCED (10 INCH)	SYS.		261
06070	CONCRETE SIDEWALK	SYS.		260
52305	TYPE P COMPACTED AGGREGATE FOR BASE (SIZE NO. 53)	TON		
52800	COVER AGGREGATE	TON		
52805	COVER AGGREGATE (SIZE NO. 12)	TON		
52805	AGGREGATE FOR SHOULDER DRAINS	TON		
52810	AGGREGATE FOR UNDER DRAINS	CYS.		
52308	TYPE 7 COMPACTED AGGREGATE FOR BASE (SIZE NO. 53)	TON		97
52310	SUBBASE	CYS.		
52315	BITUMINOUS STABILIZED SUBBASE TYPE I, II, OR III	TON		
52320	BITUMINOUS STABILIZED SUBBASE	TON		
52415	BITUMINOUS BASE	TON		168
52440	BITUMINOUS BASE (SIZE NO 88B)	TON		
52451	BITUMINOUS BINDER	TON		
52450	BITUMINOUS SURFACE	TON		71
52455	BITUMINOUS MATERIAL FOR TACK COAT	SYS.		
52460	BITUMINOUS MATERIAL FOR PRIME COAT	SYS.		1294
52465	BITUMINOUS MATERIAL FOR SEAL COAT	TON		
52470	BITUMINOUS MIXTURE FOR APPROACHES	TON		
52475	BITUMINOUS MIXTURE FOR SHOULDER	TON		
52480	BITUMINOUS MATERIAL, APPLIED	TON		
52500	GUARD RAIL, TYPE A	LFT.		
52505	GUARD RAIL, TYPE B	LFT.		
52510	GUARD RAIL, TYPE C	LFT.		
52515	GUARD RAIL, TYPE D	LFT.		
52520	GUARD RAIL, TYPE E	LFT.		
52525	GUARD RAIL, TYPE F	LFT.		
52530	GUARD RAIL, TYPE G	LFT.		61
52531	GUARD RAIL, TYPE H	LFT.		
06035	RESET GUARD RAIL	LFT.		
52535	REMOVAL OF GUARD RAIL	LFT.		
	SODDING (NUMBER)	SYS.		494
52385	MULCHED SEEDING "R"	SYS.		
52390	SEED MIXTURE "R"	LBS.		
52397	SEED MIXTURE "TR"	LBS.		
52400	MULCHING MATERIAL	TON		
52405	FERTILIZER	TON		
52410	WATER	M.G.		20
52415	AGRICULTURAL LIMESTONE	TON		
52398	SEED MIXTURE "CV"	LBS.		
52401	MULCHING MATERIAL (WOOD CELLULOSE FIBER)	TON		
52840	MAINTAINING TRAFFIC	LSUM		
52370	CLEARING RIGHT-OF-WAY	LSUM		1

1. INCLUDES _____ TONS FOR SEED MIXTURE "R"
2. INCLUDES _____ TONS FOR SEED MIXTURE "R"
3. INCLUDES _____ TONS FOR SEED MIXTURE "R"

APPROACH PAY ITEMS				
CODE NO.	DESCRIPTION	UNIT	STRUCTURE	TOTAL QUANTITY
07025	PIPE: GR. A (0.084" FBCCS) 12"	LFT.		
07075	PIPE: GR. A (0.084" FBCCS) 15"	LFT.		
07125	PIPE: GR. A (0.084" FBCCS) 18"	LFT.		
07175	PIPE: GR. A (0.084" FBCCS) 24"	LFT.		
07225	PIPE: GR. A (0.084" FBCCS) 30"	LFT.		
07275	PIPE: GR. A (0.084" FBCCS) 36"	LFT.		
07325	PIPE: GR. A (0.084" FBCCS) 42"	LFT.		
10000	PIPE: GR. D (0.064" CS) 12"	LFT.		15
10025	PIPE: GR. D (0.064" CS) 15"	LFT.		
10050	PIPE: GR. D (0.064" CS) 18"	LFT.		
10075	PIPE: GR. D (0.064" CS) 24"	LFT.		
10100	PIPE: GR. D (0.064" CS) 30"	LFT.		
10125	PIPE: GR. D (0.064" CS) 36"	LFT.		
10150	PIPE: GR. D (0.064" CS) 42"	LFT.		
34000	PIPE: 0.052" FBC PERF. CS 6"	LFT.		
82000	PIPE: 0.064" FBCCS 12"	LFT.		
52375	CONCRETE CLASS A IN STRUCTURE	CYS.		2.6
52376	CONCRETE CLASS C IN STRUCTURE	CYS.		
48000	PIPE END SECTION 12"	EACH		2
48005	PIPE END SECTION 15"	EACH		
48010	PIPE END SECTION 18"	EACH		
48015	PIPE END SECTION 21"	EACH		
48020	PIPE END SECTION 24"	EACH		
48025	PIPE END SECTION 27"	EACH		
48030	PIPE END SECTION 30"	EACH		
48035	PIPE END SECTION 33"	EACH		
48040	PIPE END SECTION 36"	EACH		
45000	INLET, TYPE A-1	EACH		
45025	INLET, TYPE D-6	EACH		
45030	INLET, TYPE E-7	EACH		
45070	INLET, TYPE P-12A	EACH		
06335	PAVED SIDE DITCH TYPE A	LFT.		
06340	PAVED SIDE DITCH TYPE B	LFT.		
06345	PAVED SIDE DITCH TYPE C	LFT.		
06350	PAVED SIDE DITCH TYPE D	LFT.		
06355	PAVED SIDE DITCH TYPE E	LFT.		
06360	PAVED SIDE DITCH TYPE F	LFT.		
06365	PAVED SIDE DITCH TYPE G	LFT.		
	CASTING ADJUSTED TO GRADE	EA.		4
	STONE WALL	8FT		44
	CEMENT CONCRETE FOR DRIVEWAYS (6")	SYS.		97
	PIPE, FBCCS SLOTTED DRAIN (12")	LFT.		24
	GUARD RAIL END TREATMENT (TYPE I)	EA.		1
	ROLLED TYPE CURB	LFT.		51
	REMOVAL OF BITUMINOUS SURF	SYS.		705
	CLASS "A" CONCRETE FOR SIDEWALK RAMPS	SYS.		56

** INCLUDES _____ LFT. FOR YELLOW BARRIER LINE

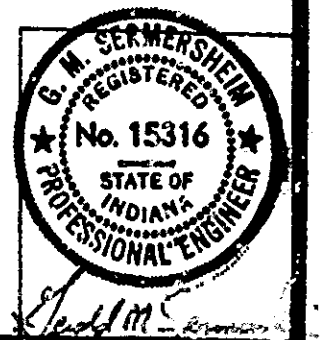
REVISIONS	
DATE	ITEM
7-7-83	52320, 51375, Plastic Filter Cloth, 52303, Combined Curb and Gutter, 06070, 06070, Yellow Skip Line Revised; 52375 Rolled Type Curb, Removal of Bit. Surface Added; 06725 Deleted.
9-20-83	Pipe, F.B.C.S. Slotted Drain (12"); Class "A" Concrete for sidewalk ramps added.
10-3-83	51210

BRIDGE ESTIMATE OF QUANTITIES INDIANA STATE HIGHWAY COMMISSION

DATE August 26, 1982

PROJECT: M-Jo91 ()
 CONTRACT NO: B-14217
 BRIDGE FILE: 8-17-6116

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