CONTRACT NO. B-13710

FEDERAL REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.		1979	1	30

BRIDGES OVER 20' SPAN

INDEX

PROJECT	STRUCTURE	TYPE	SPAN	OVER	STATION
BHM-L 720(1)	52-79-1784B	STEEL TRUSS	8 SPANS 60', 90', 4@150', 2@90'	WABASH RIVER & SR 43	
	52-79-1784JA	CONT. WELDED STEEL GIRDER	3 SPANS 60', 90', & 152', 2@90', 60'		

SHEET NO	SHEET DESIGNATION	SUBJECT	F.H.W.A. APPROVAL
1	ONE SHEET	TITLE & INDEX SHEET	
2&3	TWO SHEETS	TRAFFIC MAINTENANCE DETAILS	
4	R-1	GENERAL PLAN 52-79-1784B	
5	R-2	GENERAL NOTES & CONSTRUCTION PROCEDURE	
6	R-3	BENT Nº1 EXP. JOINT RECONSTRUCTION DETAILS	
7	R-4	PIERS Nº 4,5 & 6 EXP. JOINT RECONSTRUCTION DETAILS	
8	R-5	ABUT. Nº 9 EXP. JOINT DETAILS & BILL OF MATERIALS	
~~9~~	~~R-6~~	~~TYPE "S6" EXPANSION JOINT DETAILS~~	
10	R-7	GENERAL PLAN 52-79-1784JA	
~~11~~	~~R-8~~	~~BENT Nº1 & 10 EXP. JT. RECONSTRUCTION DETAILS & BILL OF MATERIALS~~	
12		BRIDGE ESTIMATE OF QUANTITIES	
11A	R-8A	BENT Nº1 EXPANSION JOINT DETAILS	
11B	R-8B	BENT Nº10 EXPANSION JOINT DETAILS	
9A	R-6A	EXPANSION JOINTS CLASS S-S	

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 SPECIFICATIONS SHALL BE USED.

TRAFFIC DATA		
A.D.T. (1983)		10300 V.P.D.
A.D.T. (19 PROJECTED)		V.P.D.
D.H.V. (19 PROJECTED)		V.P.D.
TRUCKS		D.H.V. % A.D.T. %
DESIGN SPEED		M.P.H.
ACCESS CONTROL		

STATE OF INDIANA

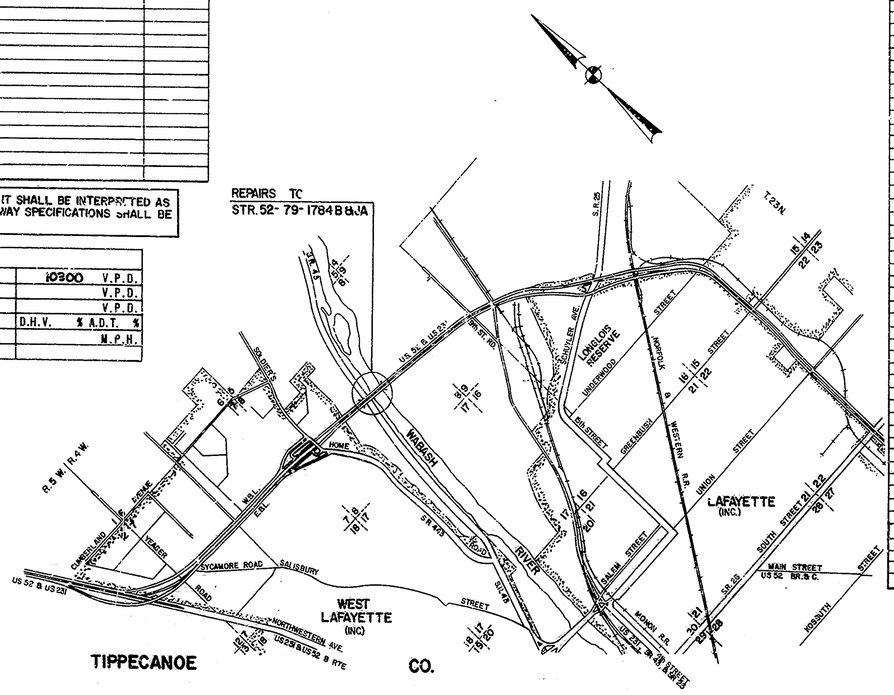
INDIANA STATE HIGHWAY COMMISSION

BRIDGE PLANS

FOR SPANS OVER 20 FEET ON STATE ROAD NO. 52

PROJECT NO. BHM-L 720 (1)

REPAIRS TO THE STRUCTURES 52-79-1784B AND 52-79-1784JA, ON S.R. 52, OVER THE WABASH RIVER AND S.R.43, IN SEC. 8, T-23-N., R-4-W., TIPPECANOE COUNTY, INDIANA.



PREPARED BY

REID, QUEBE, ALLISON, WILCOX AND ASSOC., INC. ENGINEERS

INDIANAPOLIS, INDIANA

9/12/79

REGISTERED No. 13050 STATE OF INDIANA PROFESSIONAL ENGINEER

NOTE:— WHENEVER BHM-L720(1) APPEARS IN THESE PLANS OR CONTRACT DOCUMENTS IT SHALL BE INTERPRETED AS BHM-L720(1)

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

REVISIONS	
DATE	SHEET NO.
11-29-83	1,2,3,4,5,10,12, Delete 11, Add 11A & 11B. Delete 9, Add 9A, Delete 22
12-21-88	1,5,11A,11B,12; DELETE 24; ADD 17A
1-12-89	Change Proj. No.
5-25-89	4,11B

REVISIONS	
DATE	SHEET NO.

INDEX CONTINUED

STANDARD DRAWINGS

SHEET NO.	SHEET DESIGNATION	SUBJECT	F.H.W.A. APPROVAL	ADOPTED REVISION DATE
	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		
13	BRIDGE STD. C1	MISCELLANEOUS DETAILS	12-21-81	R-12-7-81
	BRIDGE STD. C2	MISCELLANEOUS DETAILS		
14	BRIDGE STD. C3	MISCELLANEOUS DETAILS	12-21-81	R-12-7-81
	BRIDGE STD. C4	MISCELLANEOUS DETAILS		
	BRIDGE STD. D	CASTING DETAILS ROADWAY DRAINS		
15	BRIDGE STD. D1	ADJUSTING FRAME DETAILS FOR ROADWAY DRAINS	7-18-83	R-6-30-82
	BRIDGE STD. M2	MISCELLANEOUS APPROACH DETAILS		
	BRIDGE STD. PB	PRESTRESSED CONCRETE TYPE I-BEAMS		
	BRIDGE STD. PB	PRESTRESSED CONCRETE TYPE I-BEAMS		
	BRIDGE STD. PB6	PRESTRESSED BOX BEAMS		
	BRIDGE STD. PB	PRESTRESSED COMPOSITE BOX BEAMS WIDE		
	BRIDGE STD. PB	PRESTRESSED COMPOSITE BOX BEAMS WIDE		
	BRIDGE STD. PB10	TOLERANCES FOR FABRICATION OF PRESTRESSED BEAMS		
	BRIDGE STD. PB11	ELASTOMERIC BEARING PAD DETAILS		
	BRIDGE STD.			
	BRIDGE STD.			
	BRIDGE STD. R2A	BRIDGE LIGHTING DETAILS		
	BRIDGE STD. R2B			
	BRIDGE STD. S1	MISCELLANEOUS DETAILS		
	BRIDGE STD. SH1	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.			
	BRIDGE STD.			
16	ROAD STD. SHEET A	STANDARD PAVEMENT JOINTS	6-3-81	R-4-1-81
	ROAD STD. SHEET B	STANDARD PAVEMENT JOINTS		
17	ROAD STD. SHEET MA	MISCELLANEOUS STANDARDS	6-22-82	R-5-3-82
	ROAD STD. SHEET MA	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MB	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET M32	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET M3	MISCELLANEOUS APPROACH DETAILS		
	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 ME	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MF	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MH	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MH	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MI	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MM	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MP	MISCELLANEOUS STANDARDS		
17A	ROAD STD. SHEET #17B	MISCELLANEOUS STANDARDS	8-30-82	R-JULY, 1982
	ROAD STD. SHEET MQ	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MR	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET			
	ROAD STD.	STANDARD REINF. CONCRETE BOX CULVERTS		
	ROAD STD.	STANDARD REINF. CONCRETE CULVERTS		
	ROAD STD. SHEET GR	GUARD RAIL CLASS		
18	ROAD STD. SHEET GR8	GUARD RAIL CLASS DS		R-4-1-82
19	ROAD STD. SHEET GR9	GUARD RAIL CLASS DA		R-4-1-82
20	ROAD STD. SHEET GR5	ALUMINUM GUARD RAIL DETAILS	5-21-82	R-4-1-82
21	ROAD STD. SHEET GR6	STEEL TUBE GUARD RAIL DETAILS	5-21-82	R-4-1-82
	ROAD STD. SHEET GR			
22	ROAD STD. SHEET GR10	GUARD RAIL	5-21-82	R-4-1-82
~~23~~	~~ROAD STD. SHEET GR10A~~	~~GUARD RAIL BREAKAWAY CABLE TERMINAL~~		
~~24~~	~~ROAD STD. SHEET O~~	~~TRAFFIC SIGN DETAILS~~		
25	ROAD STD. SHEET 1 DETOURS	STANDARD DETOUR SIGNS		R-10-3-83
26	ROAD STD. SHEET 1B2	TEMPORARY CONCRETE BARRIER	6-3-81	R-4-1-81
	ROAD STD. SHEET 1B DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 2 DETOURS	STANDARD DETOUR SIGNS		
27	ROAD STD. SHEET 2A DETOURS	STANDARD DETOUR SIGNS		R-10-3-83
28	ROAD STD. SHEET 3 DETOURS	STANDARD DETOUR SIGNS		R-10-3-83
	ROAD STD. SHEET 3A DETOURS	STANDARD DETOUR SIGNS		
29	ROAD STD. SHEET 4 DETOURS	STANDARD DETOUR SIGNS		R-10-3-83
	ROAD STD. SHEET 5 DETOURS	STANDARD DETOUR SIGNS		
30	ROAD STD. SHEET 5A DETOURS	STANDARD DETOUR SIGNS	12-27-82	R-10-1-82

APPROVED 11-9-79

J. K. Hallock

CHIEF HIGHWAY ENGINEER—INDIANA STATE HIGHWAY COMMISSION

RECOMMENDED FOR APPROVAL 11-8-79

E. W. Walters

ENGINEER OF BRIDGE DESIGN, INDIANA STATE HIGHWAY COMMISSION

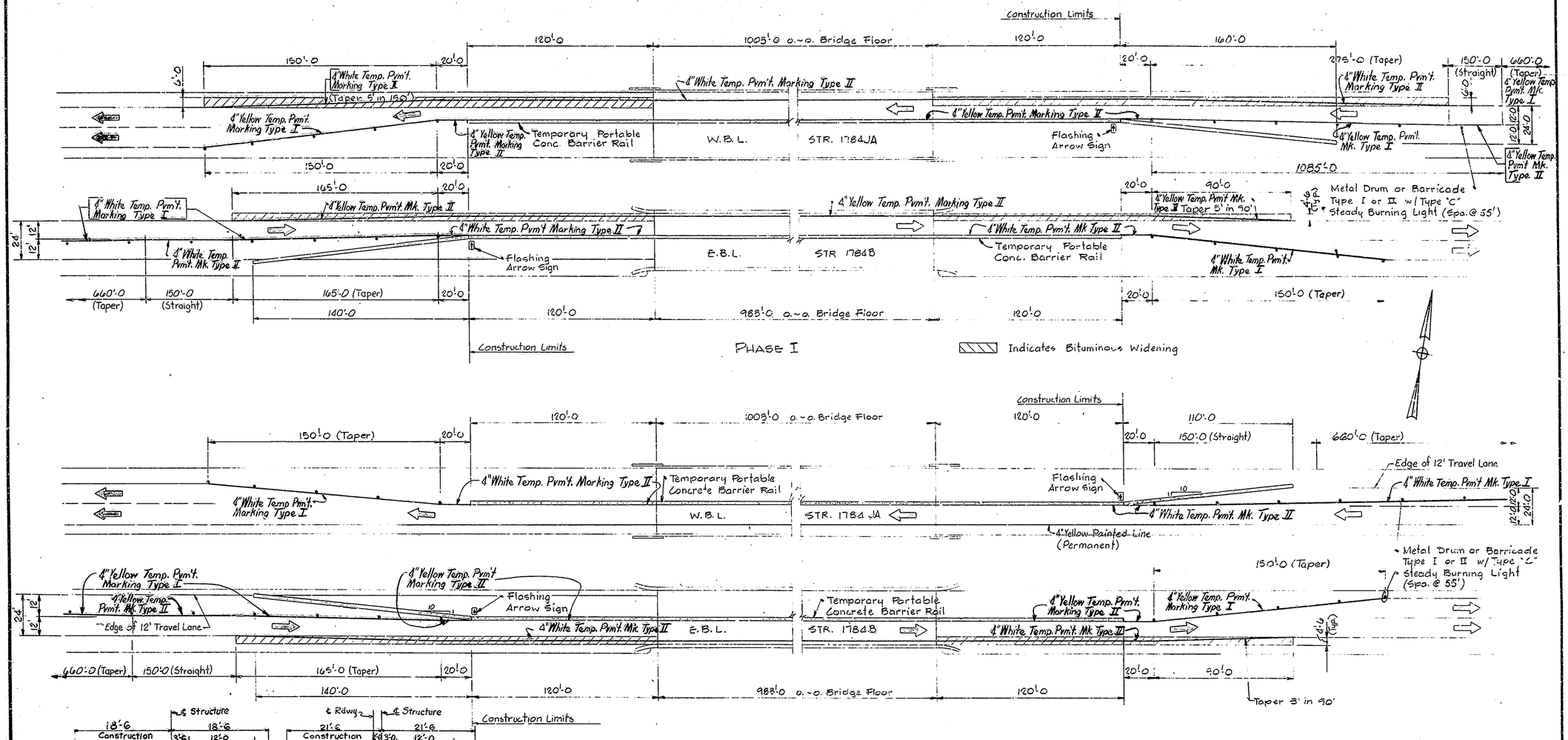
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

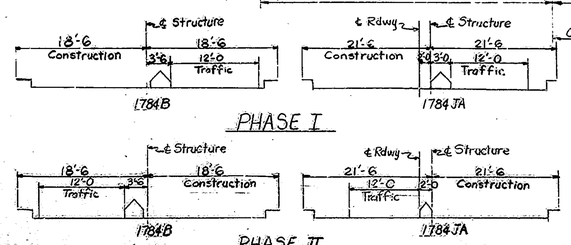
APPROVED:-

DIVISION ADMINISTRATOR | DATE

BRIDGE FILE:- 52-79-1784B & JA

TP100





TEMPORARY PAVEMENT MARKING TAPE

Type I

White: 1785 Yellow: 2060

Type II

White: 6072 Yellow: 4364

NOTES.

Refer to Road Standard Sheet 1 Detours for advanced signing and additional details.

Cost of Bituminous Material for Widening to be included in the cost of Maintaining Traffic.

For additional details and quantities, see sheet No 3.

Rev 11-29-83 Type I & Type II Temp. Pvm't. Marking. Special Tape, Phase I & Phase II Sections

TRAFFIC MAINTENANCE DETAILS

INDIANA STATE HIGHWAY COMMISSION

SCALE:- No Scale DATE:- 9-12-79

SUBMITTED FOR APPROVAL:

DRAWING:- OF SHEET:- 2 OF 30

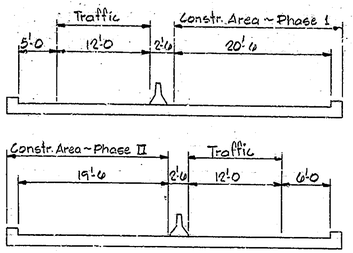
PROJECT:- BRM-L720(1)

CONTRACT NO. B-13710

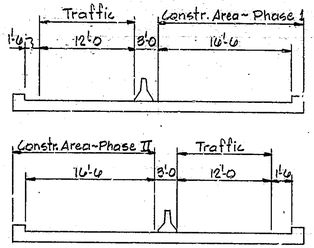
BRIDGE FILE:- 52-79-1784B & JA

DESIGNED D.O.G. CKD. R.D.R.
DRAWN S. JONES CKD. D.O.G.
TRACED CKD.

TP118



WESTBOUND - 1784 JA



EASTBOUND - 1784 B

ESTIMATE OF QUANTIES

Metal Drums or Type I or Type II Barricades w/ Steady Burning Lights.	1784 B 22 Ea.	1784 JA 24 Ea.

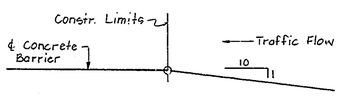
Cost of the above item is to be included in the cost of "Maintaining Traffic" (Lump Sum)

SEPARATE PAY ITEMS

		STRUCTURE 1784 B	STRUCTURE 1784 JA
CONSTRUCTION SIGNS (TYPE A)	EA.	9	9
CONSTRUCTION SIGNS (TYPE B)	EA.	2	2
TEMPORARY CONCRETE BARRIER	LFT	1870	1410
TEMPORARY PVMT MARKING TYPE I	LFT.	1950	1895
TEMPORARY PVMT. MARKING TYPE II	LFT.	5862	4574
REMOVAL OF LINE, SOLID WHITE, 4 IN.	LFT.	295	1708
REMOVAL OF LINE, SOLID YELLOW, 4 IN.	LFT.	1518	—
PAINTED LINE, SOLID WHITE, 4 IN.	LFT.	1518	1708
PAINTED LINE, SOLID YELLOW, 4 IN.	LFT.	1518	1343
REMOVAL OF LINE, SKIP, WHITE, 4 IN	LFT.	437	278
PAINTED LINE, SKIP WHITE, 5 IN.	LFT.	896	944
BITUM. WIDENING (BITUM. MIXTURE FOR APPROACHES)	TON	265	233

NOTES:

1. Approved lights shall mark barricades and signs continuously at night.
2. All signs shall be mounted in such a manner that the vertical distance between the bottom of the sign and the edge of the pavement shall not be less than 5 feet and horizontal distance from the edge of pavement to the edge of sign shall not be less than 12 feet (R/W permitting) or 6 feet from the edge of paved shoulder.
3. The spacing of Type II Barricades in feet, shall be numerically equal to the posted speed limit with a minimum spacing equal to 20 feet.
4. Flashing arrow sign shall be mounted in such a manner that the vertical distance between the bottom of the panel and the top of the pavement surface shall not be less than 7 feet.
5. The Flashing Arrow Sign shall be operated continuously day and night while any lane is closed to traffic.
6. Signs and Barricades are to be provided and maintained by the contractor at such points as may be designated on the plans or by the engineer.



BARRIER RAIL OFFSETS

DESIGNED D.D.G. CKD. R.D.P.
DRAWN S. JONES CKD. D.D.G.
TRACED CKD.

Rev - 11-29-83 Separate Pay Items.
Temp Pvmt Mkg Tape, Special Temp Pvmt Mkg Tape, Temp. Conc. Barrier

TRAFFIC MAINTENANCE DETAILS

INDIANA STATE HIGHWAY COMMISSION

SCALE:- AS NOTED DATE:- 9-12-79

SUBMITTED FOR APPROVAL: _____

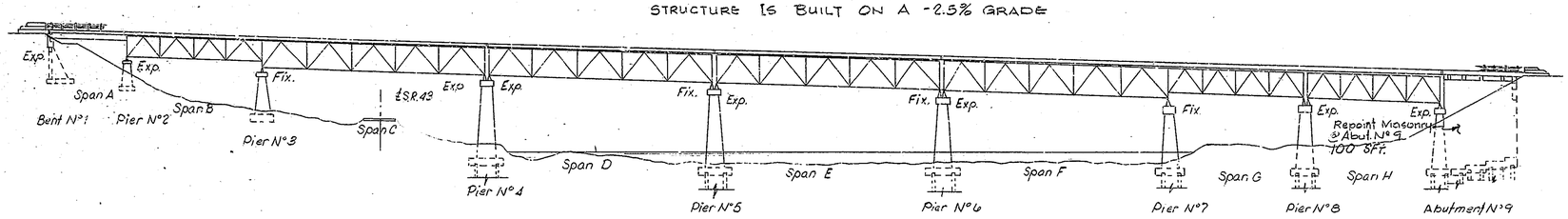
DRAWING:- OF SHEET:- 3 OF 30

PROJECT:- BRM-L720(1)

CONTRACT NO. B-13710

BRIDGE FILE:- 52-79-1784 B & JA

STRUCTURE IS BUILT ON A -2.5% GRADE



ELEVATION
Scale 1"=40'-0

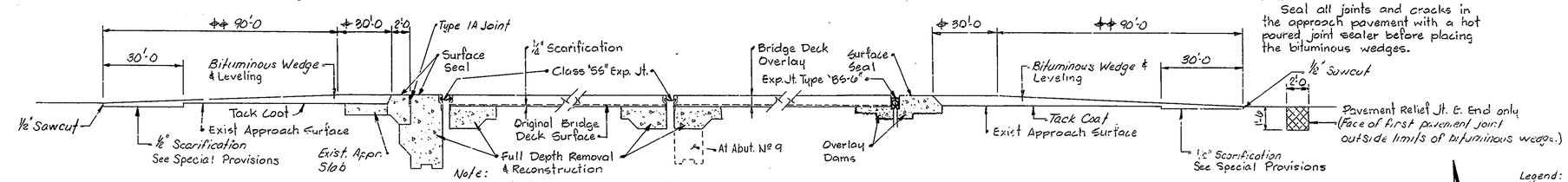
11-30-78	4½
12-1-78	8
12-4-78	4½
1-18-79	6
1-19-79	2

UTILITY OWNERS

Telephone:
General Telephone Company of Indiana, Inc.
8001 U.S. 24 West
Post Office Box 1201
Ft. Wayne, In 46801

Power:
Public Service Indiana
1000 East Main St.
Plainfield, In. 46168

✦ Top of wedge to be a continuation of bridge deck profile
✦✦ Taper top of wedge uniformly to meet existing roadway surface.



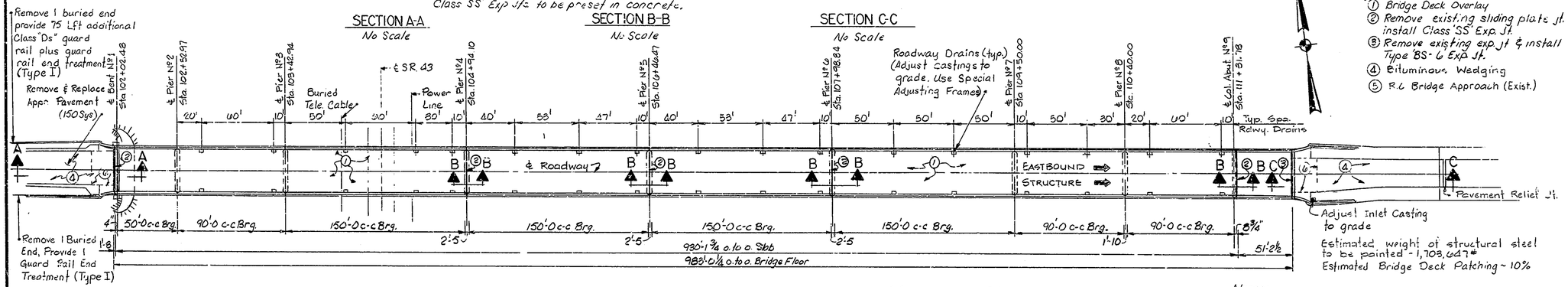
Note: Class "SS" Exp Jt's to be preset in concrete.

Note:
Seal all joints and cracks in the approach pavement with a hot poured joint sealer before placing the bituminous wedges.

SECTION A-A
No Scale

SECTION B-B
No Scale

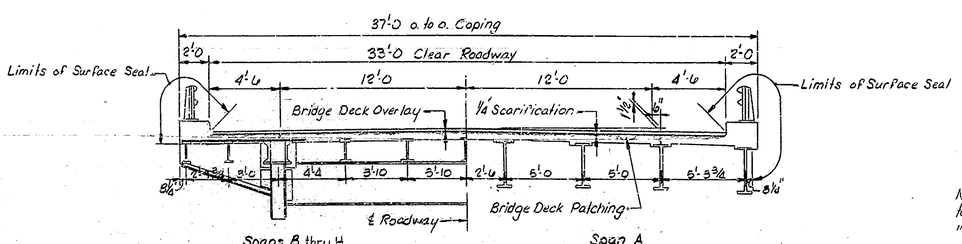
SECTION C-C
No Scale



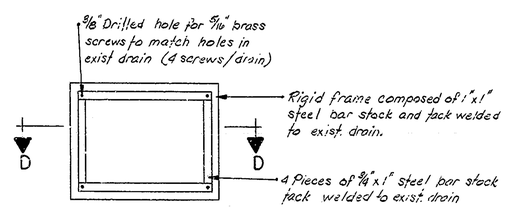
Legend:
1. Bridge Deck Overlay
2. Remove existing sliding plate jt. & install Class "SS" Exp. Jt.
3. Remove existing exp. jt & install Type "BS-6" Exp. Jt.
4. Bituminous Wedging
5. R.C. Bridge Approach (Exist.)

Estimated weight of structural steel to be painted - 1,703,047#
Estimated Bridge Deck Patching ~ 10%

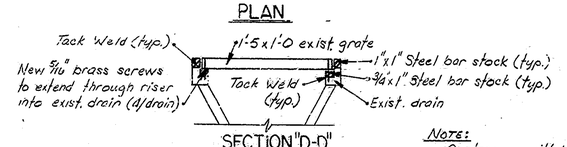
PLAN
Scale 1"=40'-0



SECTION ⊥ TO ℄ ROADWAY
Scale ¼"=1'-0



PLAN



SECTION "D-D"

SPECIAL ADJUSTING FRAME
Scale 1½" = 1'-0

Note:
Contractor will have the option to use alternate schemes if approved by the engineer.

Notes:
For "General Notes", "Construction Procedure", and "Material Notes", see Sheet N° 5.
For Traffic Maintenance Details, see Sheets N° 2 & 3.

BRIDGE DECK RECONSTRUCTION AND OVERLAY
GENERAL PLAN

STEEL TRUSS BRIDGE
8 SPANS: 50'-0, 90'-0, 4-150'-0, 2-90'-0 SQUARE
33'-0 CL ROADWAY + 2-2'-0 CURBS
OVER WABASH RIVER ON U.S. 52 BY-PASS

INDIANA STATE HIGHWAY COMMISSION
TIPPECANOE COUNTY

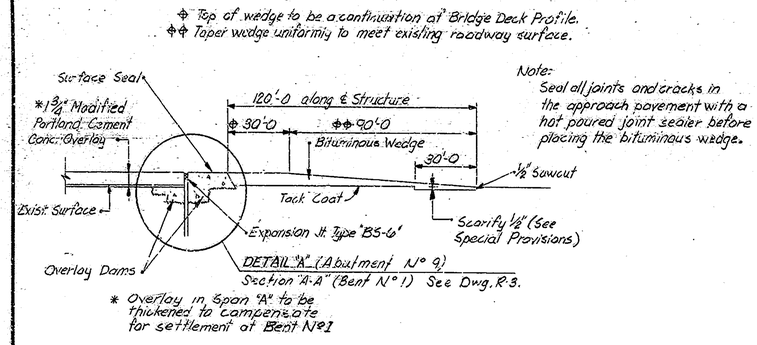
SCALE:- As Noted DATE:- 9-12-79

SUBMITTED FOR APPROVAL:

DRAWING:- R1 OF 8 SHEET:- 4 OF 30
PROJECT:- BRM-L720 (1)
CONTRACT NO. B-137/0
BRIDGE FILE:- 52-79-17848

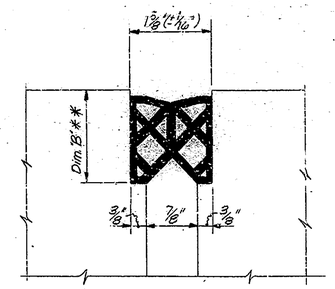
DESIGNED	D.O.C.	CK'D	R.D.P.
DRAWN	E.J.J. & L.E.	CK'D	D.O.C.
TRACED	J.L.F. 12-4-78	CK'D	D.O.C.

Revised 11-29-83 G.K.E.T. (TYPE I)

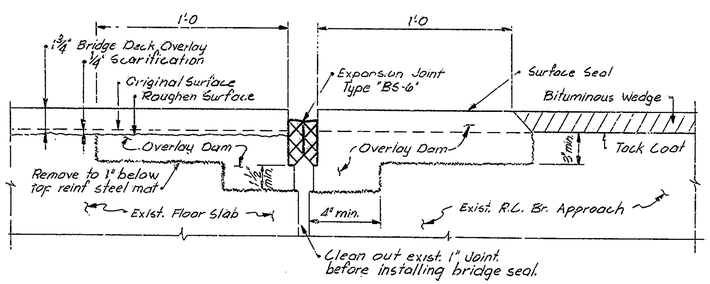


Note:
Seal all joints and cracks in the approach pavement with a hot poured joint sealer before placing the bituminous wedge.

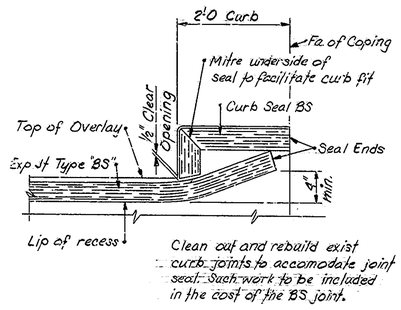
TYPICAL SECTION THRU WEDGE
No Scale



EXP. JOINT TYPE BS-6 (1784B)
No Scale
** To be determined in the field, see Special Provisions.



DETAIL "A" (Abutment No 9)
No Scale



DETAIL-BS JOINT AT CURB (1784B)
No Scale

CONSTRUCTION PROCEDURE

1. CONSTRUCT ALL BITUMINOUS WIDENING. INSTALL TEMPORARY BARRIER RAILING AND OTHER TRAFFIC CONTROL DEVICES TO DIVERT TRAFFIC AS INDICATED ON THE TRAFFIC MAINTENANCE DETAILS, PHASE I. (SHEET NUMBER 2).
2. SCARIFY THE ENTIRE BRIDGE FLOOR TO A DEPTH OF 1/4", SCARIFY ADDITIONAL AREAS OF THE BRIDGE FLOOR AN ADDITIONAL 1/4" AS DIRECTED BY THE ENGINEER. REMOVE SCARIFIED DUST.
3. REMOVE ALL DETERIORATED CONCRETE BELOW THE LEVEL OF SCARIFICATION AND REMOVE CONCRETE AROUND REINFORCING STEEL, ALONG CURBS INACCESSIBLE TO SCARIFYING EQUIPMENT AND AS REQUIRED FOR THE INSTALLATION OF EXPANSION JOINTS BY HAND CHIPPING AND CLEANING IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
4. REPOUR NEW PORTION OF SLAB AT PIERS NUMBER 1, 4, 5, 6, AND ABUTMENT NUMBER 9 UP TO THE LEVEL OF SCARIFICATION. CLASS S-S JOINT EXTRUSIONS AT PIERS NUMBER 1, 4, 5, 6, and ABUTMENT NUMBER 9 TO BE PRESET IN CONCRETE. EAST BOUND STRUCTURE ONLY.
5. BLAST AND CLEAN ALL REMOVAL AND SCARIFIED AREAS.
6. CONSTRUCT OVERLAY DAMS AS SHOWN ON DETAILS.
7. PLACE BRIDGE DECK PATCHES AND BRIDGE DECK OVERLAY AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
8. SURFACE SEAL VERTICAL FACE AND TOP OF CURBS AND OUTSIDE FACE OF COPINGS TO FACE OF OUTSIDE BEAM, TOP OF MUDWALLS, TOP OF OVERLAY DAMS, AND ALL SURFACES ON WINGWALLS.
9. ADJUST CASTINGS TO GRADE.
10. REMOVE AND REPLACE DETERIORATED APPROACH PAVEMENT ON WEST END OF EAST BOUND STRUCTURE.
11. CONSTRUCT BITUMINOUS WEDGE AT EACH END OF THE BRIDGE. PROVIDE PAVEMENT RELIEF JOINT AT EAST END OF EAST BOUND STRUCTURE.
12. INSTALL TYPE "D" GUARD RAIL AT LOCATIONS SHOWN ON THE GENERAL PLAN.
13. REPOINT MASONRY ON ABUTMENT NUMBER 9 ON EAST BOUND STRUCTURE.
14. CLEAN AND PAINT STRUCTURAL STEEL. EAST BOUND STRUCTURE ONLY.
15. REPOUR NEW PORTION OF SLAB AND WALL AT BENT NUMBER 1 AND 10 AS SHOWN ON THE DETAILS. INSTALL MODULAR JOINTS. WEST BOUND STRUCTURE ONLY.
16. RESET TRAFFIC CONTROL DEVICES TO DIVERT TRAFFIC AS INDICATED ON THE TRAFFIC MAINTENANCE DETAILS, PHASE II. (SHEET NUMBER 2).

THE NUMBERS DO NOT NECESSARILY INDICATE THE SEQUENCE OF OPERATIONS.

ALL REMOVAL EQUIPMENT USED FOR PARTIAL CONCRETE REMOVALS OF STRUCTURES SHALL BE HAND HELD. PNEUMATIC HAMMERS, 30 LBS. MAXIMUM WEIGHT, SHALL BE USED FOR ALL REMOVAL AREAS TO BE PATCHED AND ALL AREAS WITHIN 24 INCHES OF FULL DEPTH REMOVAL LINES. PNEUMATIC HAMMERS UP TO 90 LBS. MAX. WEIGHT MAY BE USED FOR ALL OTHER REMOVALS OUTSIDE THESE LIMITS. DECK AREAS THAT ARE TO BE REMOVED FULL DEPTH SHALL BE COMPLETELY SEPARATED FROM ADJACENT CONCRETE BEFORE HAMMERS HEAVIER THAN 30 LBS. MAY BE USED.

STANDARD DRAWINGS

BR. STD.	RD. STD.	PURPOSE
C1		REINF. BAR NOTES, BENDING DETAILS
C3		TYPE 1A JOINT, BEAM NOTCH
D1		ADJUSTING FRAME DETAILS
	SHT A	PAVEMENT FABRIC AND JOINTS
	SHT CB2	TEMPORARY CONCRETE BARRIER
	SHT MA	APPROACH SLAB
	SHT GR5	ALUMINUM GUARD RAIL DETAILS
	SHT GR6	STEEL TUBE GUARD RAIL DETAILS
	SHT GR8	GUARD RAIL CLASS DS
	SHT GR9	GUARD RAIL CLASS DA
	SHT GR10	GUARD RAIL END TREATMENT TYPE I
	SHT 1	DETOURS
	SHT 2A	STANDARD METAL DRUM, TYPE I OR II BARRICADES
	SHT 3	SIGNS
	SHT 4	SIGNS
	SHT 5A	SIGN DETAILS
	MT 3	SIGN DETAILS

GENERAL NOTES

1. PLANS FOR EXISTING STRUCTURE ARE ON FILE IN THE BRIDGE DEPARTMENT, INDIANA STATE HIGHWAY COMMISSION AS BRIDGE FILE NO. 52-79-1784A & J AND ARE AVAILABLE UPON REQUEST.
2. WHERE NEW WORK IS TO BE FITTED TO OLD WORK, THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND CONDITIONS IN THE FIELD AND REPORT ANY ERRORS OR DISCREPANCIES TO THE ENGINEER AND ASSUME RESPONSIBILITY FOR THEIR CORRECTNESS AND THE FIT OF THE NEW PART TO THE OLD.
3. THE HAND CHIPPING AND CLEANING OF DETERIORATED DECK AREAS SHALL BE AS DIRECTED BY THE ENGINEER. IT IS THE INTENT OF THESE PLANS THAT ALL SUCH DETERIORATED CONCRETE BE REMOVED AND SHOULD THERE BE ANY DOUBT AS TO THE QUALITY OF THE CONCRETE, REMOVAL SHALL CONTINUE UNTIL PERFECTLY SOUND CONCRETE IS EXPOSED. ALL EXISTING NON-FULL DEPTH PATCHES SHALL BE REMOVED.
4. CONCRETE IN PATCHES FOR DETERIORATED DECK AREAS SHALL BE SPECIAL CLASS "A" CONCRETE OR MODIFIED P. C. CONCRETE. SEE SPECIAL PROVISIONS.
5. ALL BITUMINOUS MATERIAL REQUIRED IN THIS CONTRACT TO BE INCLUDED IN THE PAY ITEM "BITUMINOUS MIXTURE FOR APPROACHES", EXCEPT TACK COAT WHICH IS TO BE PAID FOR AS "BITUMINOUS MATERIAL FOR TACK COAT" IN SQUARE YARDS.
6. FOR THE COMPOSITION OF CONCRETE IN OVERLAY DAMS, SEE THE SPECIAL PROVISIONS.
7. SEAL ALL EXPOSED CONCRETE SURFACES, AS NOTED ON THE PLAN WITH A PENETRATING EPOXY SEALER.
8. SEAL ALL CRACKS AND JOINTS IN THE APPROVED PAVEMENT WITH A HOT POURED JOINT SEALER BEFORE PLACING BITUMINOUS WEDGES.
9. THE LENGTH AND QUANTITY OF BITUMINOUS WEDGING SHOWN ON THE PLANS IS BASED ON THE USE OF THE MODIFIED PORTLAND CEMENT CONCRETE OVERLAY. SEE THE SPECIAL PROVISIONS.
10. REMOVED GUARDRAIL SHALL REMAIN THE PROPERTY OF THE STATE.
11. CONCRETE IN SUPERSTRUCTURE TO BE CLASS "A".
12. THE CLEANING AND PAINTING OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH APPLICABLE PROVISIONS OF THE "PAINTING STRUCTURAL STEEL" SPECIAL PROVISION. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM PAINTING STRUCTURAL STEEL.
13. CHAMFER ALL EXPOSED EDGES (1 INCH) UNLESS NOTED.
14. WATERPROOF BACK OF MUDWALLS IN ACCORDANCE WITH ARTICLE 702.22 OF THE SPECIFICATIONS.

MATERIAL NOTES

BRIDGE DECK OVERLAY:

1 3/4 INCH MODIFIED PORTLAND CEMENT CONCRETE OR
2 1/2 INCH DENSE PORTLAND CEMENT CONCRETE.
(1 1/2 INCH OR 2 1/4 INCH ABOVE EXISTING PLUS 1/4" SCARIFICATION)

BITUMINOUS WEDGE:

110 POUND PER SQUARE YARD BITUMINOUS SURFACE, TYPE II-B, OVER VARIABLE DEPTH BITUMINOUS BINDER.

BITUMINOUS WIDENING:

990 POUNDS PER SQUARE YARD BITUMINOUS BASE (5D).

PAVEMENT RELIEF JOINT:

110 LBS./SYS. BITUMINOUS SURFACE TYPE NO. II-B OVER 1870 LBS./SYS. BITUMINOUS BASE.

DESIGNED D.O.C. CK'D R.D.P.
DRAWN D.E.A. & J.L.F. CK'D T.J.N.
TRACED _____ CK'D _____

Rev. 12-21-83 Std Drwgs MT-3
Rev. 11-29-83 MATERIAL NOTES, GENERAL NOTES

GENERAL NOTES & CONSTRUCTION PROCEDURE

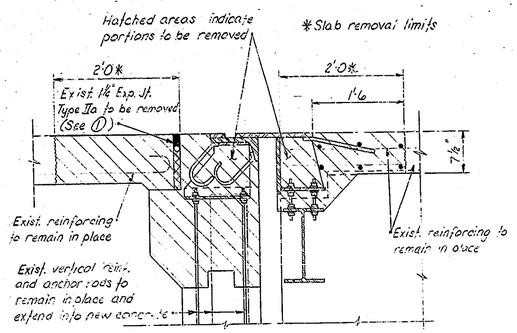
INDIANA STATE HIGHWAY COMMISSION

SCALE:- NONE DATE:- 9-12-79

SUBMITTED FOR APPROVAL

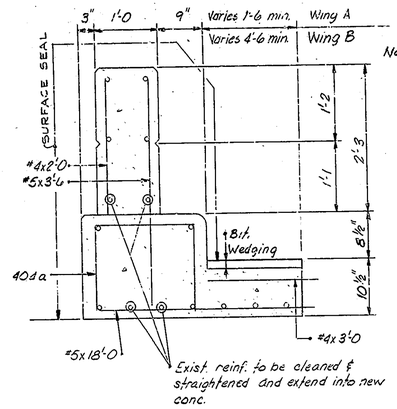
DRAWING:- R2 OF 8 SHEET:- 5 OF 30
PROJECT:- BRM-L720 (1)
CONTRACT NO. B-13710
BRIDGE FILE:- 52-79-1784 B & JA

TP1J8



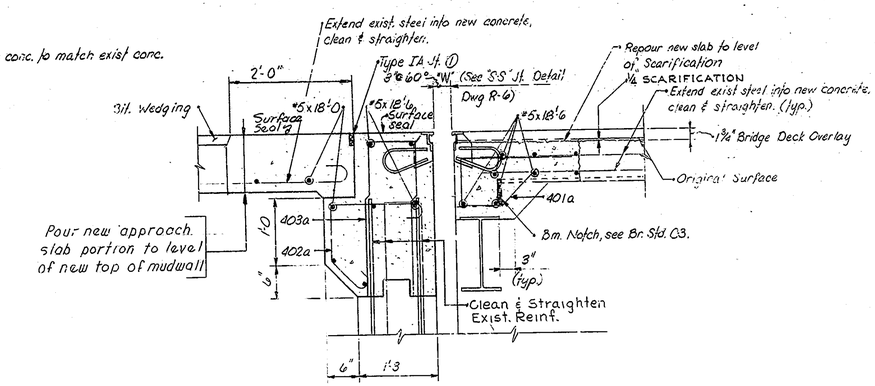
SECTION "A-A"

Showing limits of removal



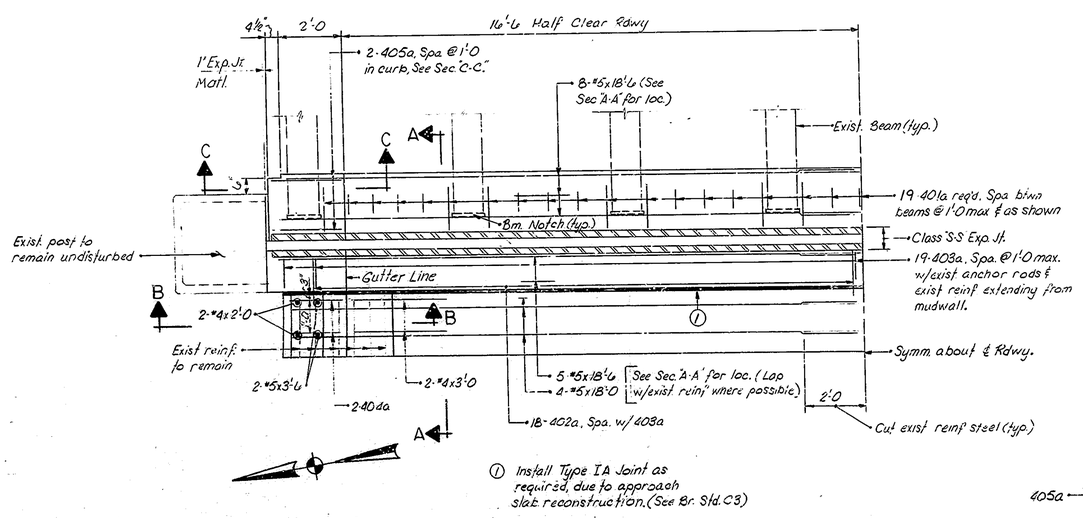
Note: Pour all new conc. to match exist conc.

SECTION "B-B"



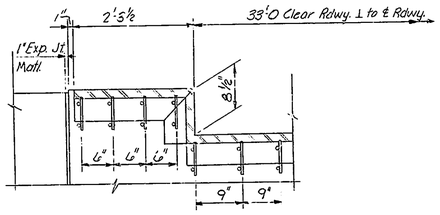
SECTION "A-A"

(Showing New Constr.)



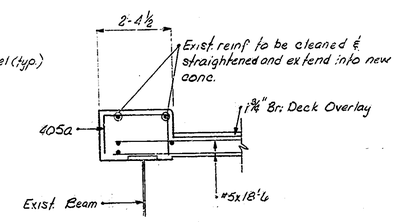
① Install Type IA Joint as required, due to approach slab reconstruction. (See Br. Std. C3)

PLAN



JOINT INSTALLATION @ CURB

Notes:
See "General Plan" for location of Class "S-S" Expansion Joint, Dwg. R-1
For details of Class "S-S" Exp. Jt., see Dwg. R-6
For Bill of Materials, see Dwg. R-5



SECTION "C-C"

BENT Nº 1
EXPANSION JOINT RECONSTRUCTION
INDIANA STATE HIGHWAY COMMISSION

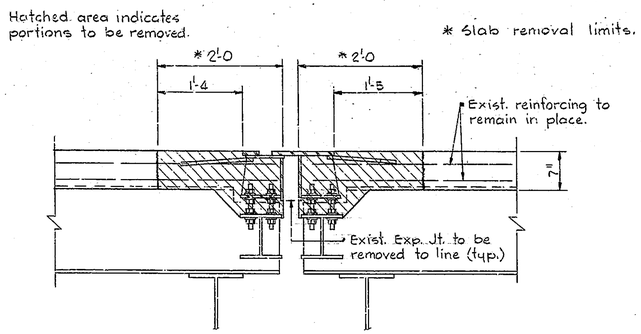
SCALE:- No Scale DATE:- 9-12-79

SUBMITTED FOR APPROVAL

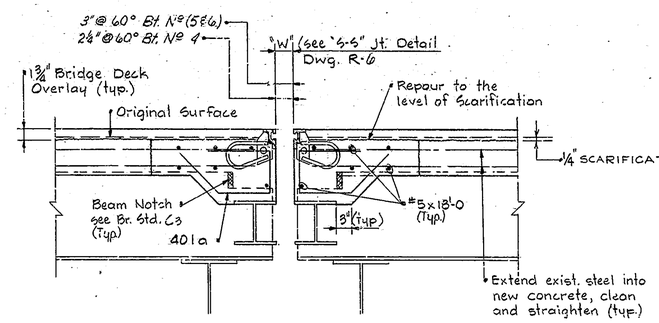
DRAWING:- R-3 OF 8 SHEET:- 6 OF 30
PROJECT:- BRM-L720(1)
CONTRACT NO. B-13710
BRIDGE FILE:- 52-79-17848

RICHARD T. O'CONNOR REGISTERED No. 17778 STATE OF INDIANA PROFESSIONAL ENGINEER

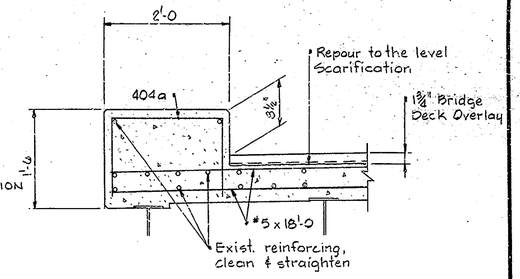
DESIGNED DOC CK'D RDR
DRAWN J.L.E. 4-79 CK'D TJN
TRACED CK'D



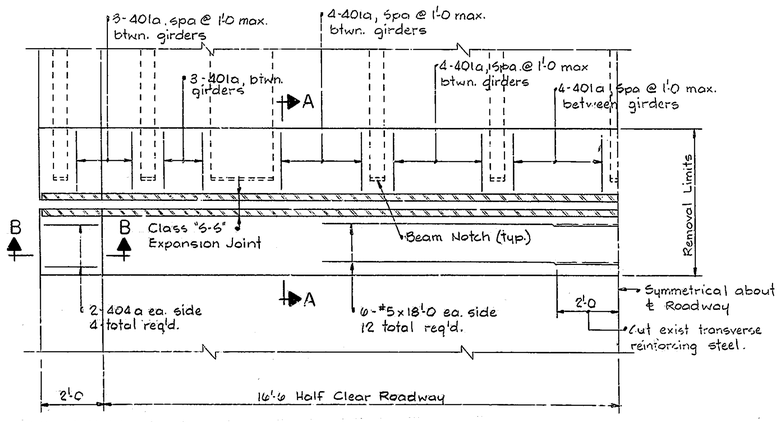
SECTION A-A
(Showing limits of removal)



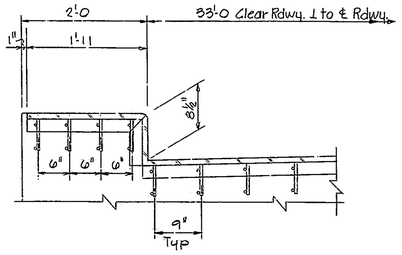
SECTION A-A
(Showing new constr.)



SECTION B-B



PLAN



JOINT INSTALLATION @ CURB

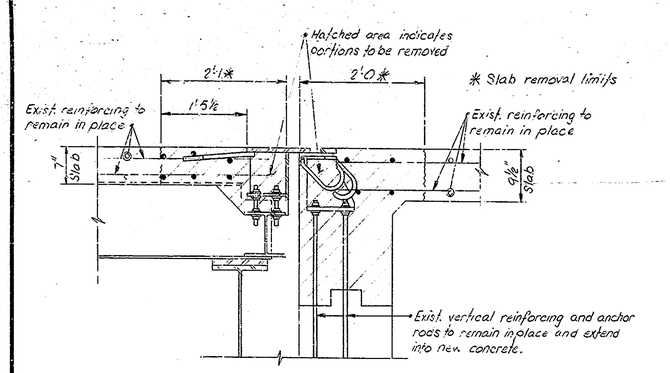
NOTES:
For Bill of Materials, see Dwg. R-5
See "General Plan" for location of Class "S-S" Expansion Joints. Dwg. R-1
For details of Class "SS" Exp. Jt. see Dwg. R-6

PIER № 4, 5 & 6
EXPANSION JOINT RECONSTRUCTION
INDIANA STATE HIGHWAY COMMISSION

SCALE:- No Scale DATE:- 9-12-79
SUBMITTED FOR APPROVAL:
DRAWING:- R4 OF 8 SHEETS 7 OF 30
PROJECT:- BRM-L720(1)
CONTRACT NO. B-13710
BRIDGE FILE:- 52-79-17848

DESIGNED DGC CK'D RDP
DRAWN S. JONES CK'D J.N.
TRACED CK'D

TP118



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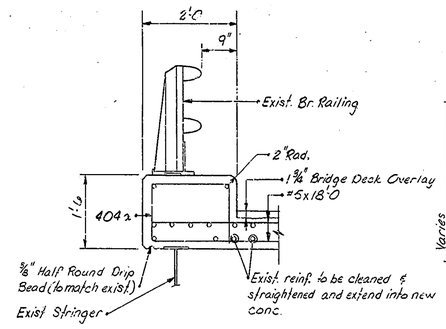
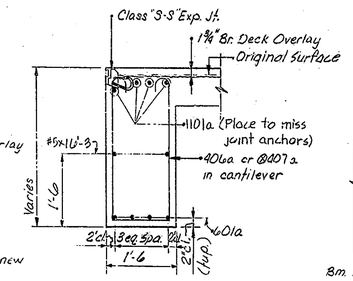
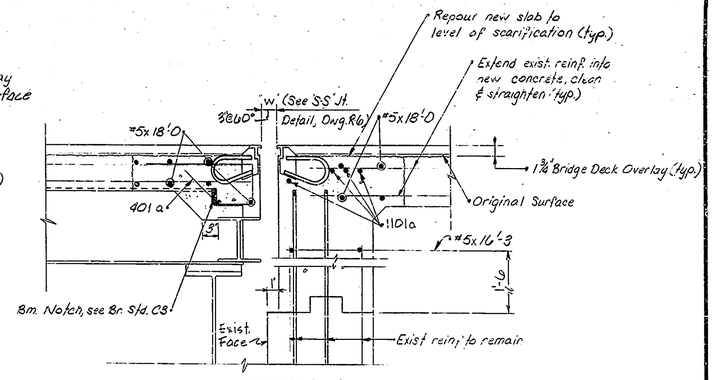
Showing limits of removal



SECTION B-B



SECTION "D-D"



SECTION "A-A"
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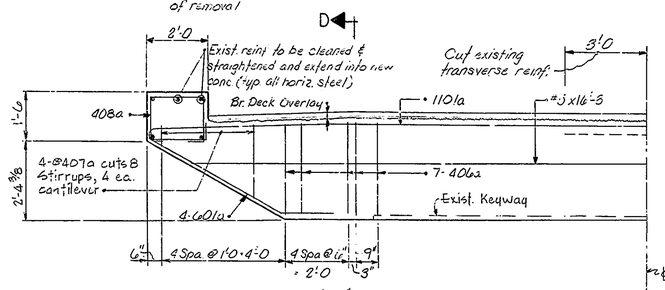
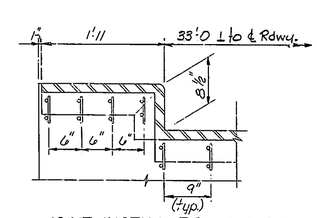
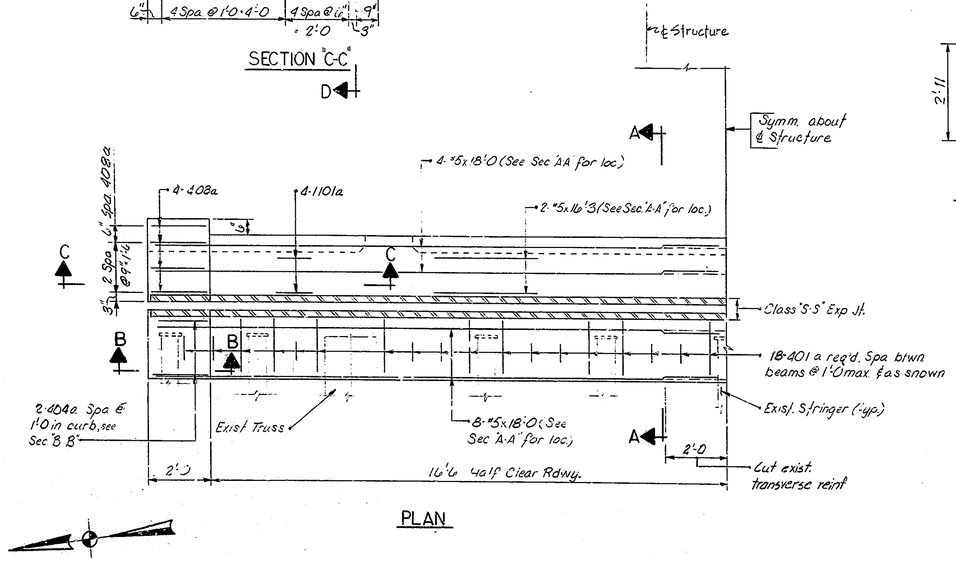


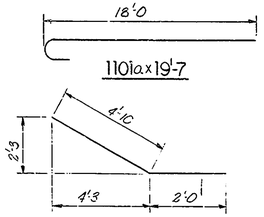
SECTION "C-C"



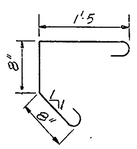
JOINT INSTALLATION @ CURB



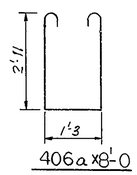
PLAN



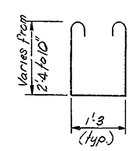
601a x 6'-10



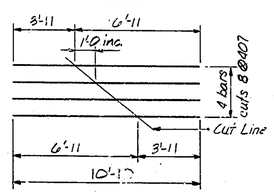
402a x 3'-9



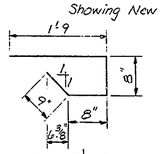
406a x 8'-0



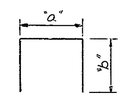
⊗407a x 10'-10



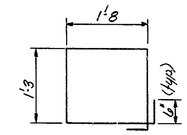
CUTTING DIAGRAM
⊗407a x 10'-10



401a x 3'-10



Mark	"a"	"b"	Length
403a	9"	2'-0	4'-9
404a	1'-9	1'-3	4'-3
405a	2'-0	1'-3	4'-6



408a x 6'-10

NOTE:
For Reinf. Bar Notes, see Br. Std. C2.
For details of Class 'S-S' Exp. Jt. see Dwg R-6.
See G.P. for location of Class 'SS' Exp. Jt. see Dwg R-1.

BILL OF MATERIALS
FOR BENT 1, ABUT. 9 & PIERS 4, 5 & 6

REINFORCING STEEL			
Size & Mark	No. of Bars	Length	Weight (lbs.)
1101a	8	19'-7	
	Total #11		832
601a	8	6'-10	
	Total #9		82
#5	26	18'-6	
#5	104	18'-0	
#5	4	16'-3	
#5	4	3'-6	
	Total #5		2537
401a	290	3'-10	
402a	36	3'-9	
403a	38	4'-9	
404a	32	4'-3	
405a	4	4'-6	
406a	14	8'-0	
⊗407a	4	10'-10	
408a	8	6'-10	
#4	4	3'-0	
#4	4	2'-0	
	Total #4		1210
Total Reinforcing			4661
CONCRETE			
Class "A" Concrete			C45
Exp. Jt. Reconstruction			
Bent No. 1			10.3
Pier No. 4			4.6
Pier No. 5			4.6
Pier No. 6			4.6
Abut. No. 9			8.4
Total Class "A" in Supstr.			32.5
Class "A" Conc. Railing			.3

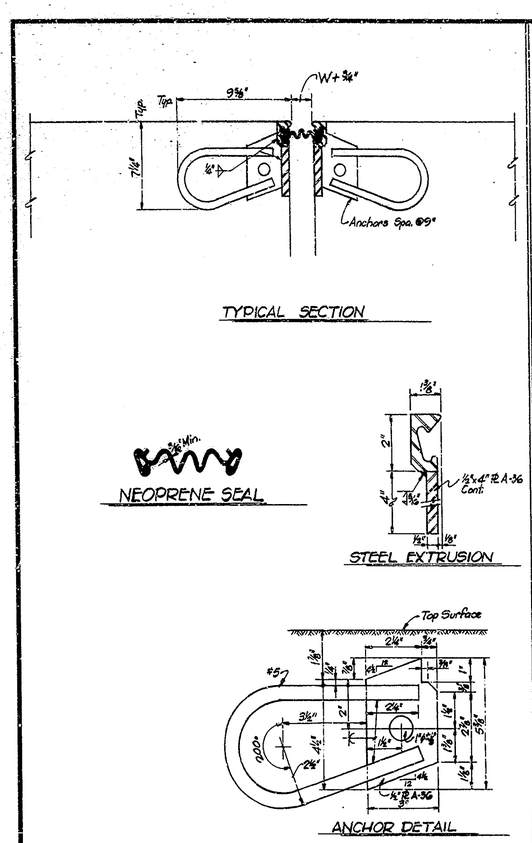
ABUTMENT No. 9
EXPANSION JOINT RECONSTRUCTION
& BILL OF MATERIALS
INDIANA STATE HIGHWAY COMMISSION

SCALE:- No Scale DATE:- 9-12-79

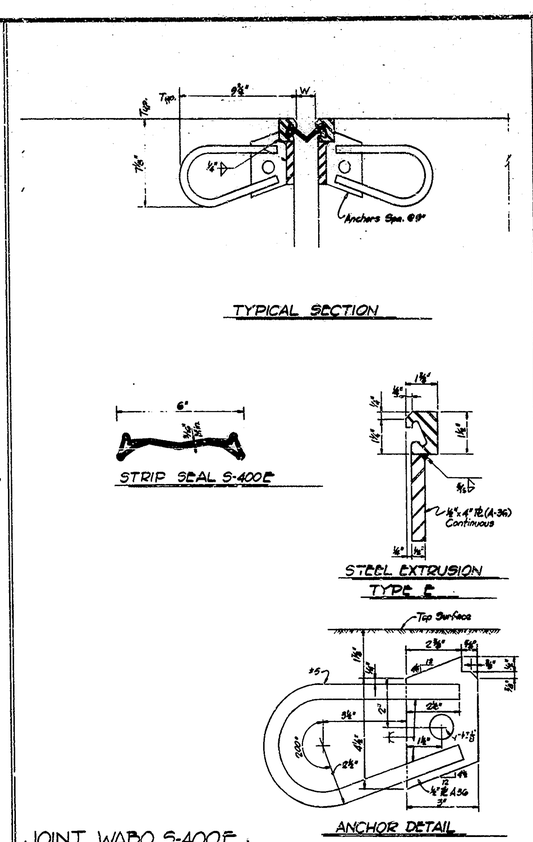
SUBMITTED FOR APPROVAL _____

DRAWING:- R5 OF 8 SHEET:- 8 OF 30
PROJECT:- ~~BRM-L 720(1)~~
CONTRACT NO. B-13710
BRIDGE FILE:- 52-79-17848

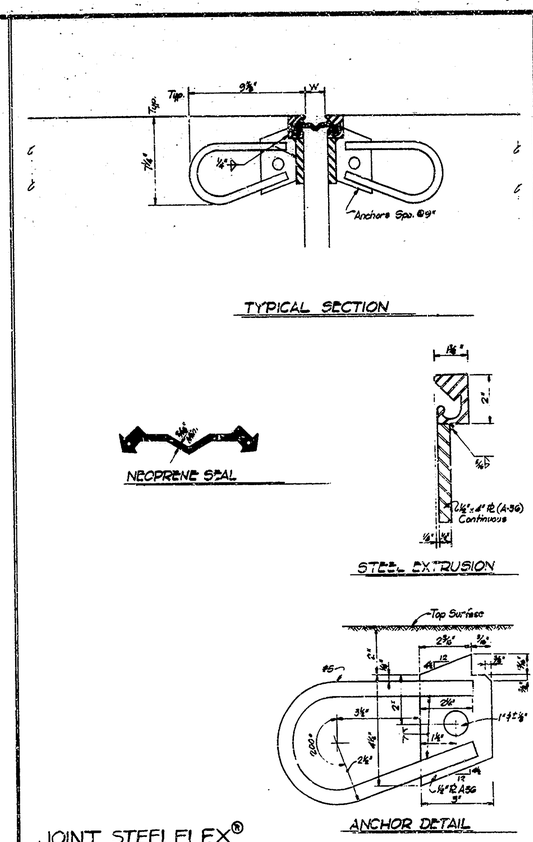
DESIGNED D.G.C. CK'D R.D.F.
DRAWN J.L.F. CK'D T.N.
TRACED CK'D



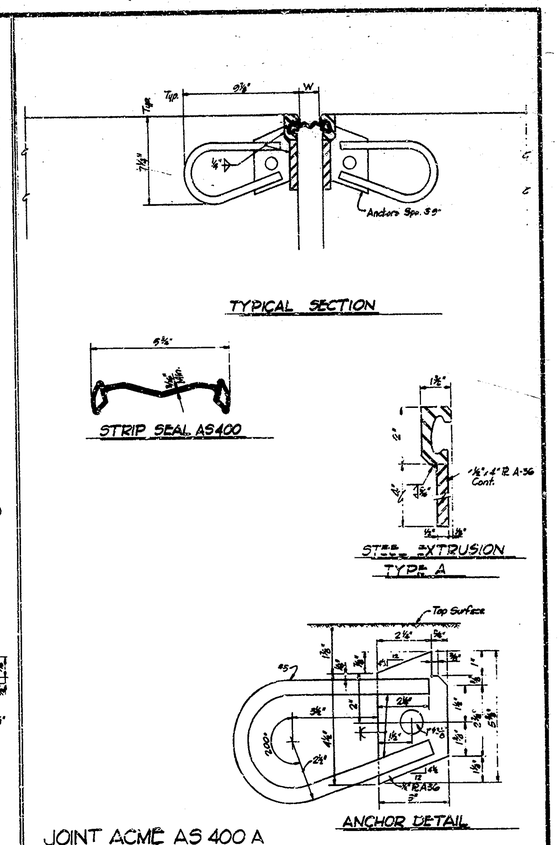
GENERAL TIRE GS-400



JOINT WABO S-400E



JOINT STEELFLEX®



JOINT ACME AS 400 A

NOTES

SEE THE SPECIAL PROVISIONS FOR PROPERTIES OF MATERIALS.

THE STRIP SEAL GLAND SHALL BE SIZED TO ACCOMODATE AT LEAST FOUR (4) INCHES OF MOVEMENT.

THE STRIP SEAL GLAND SHALL BE INSTALLED IN AN EXTRUDED MOUNTING UNIT.

THE COST OF EXTRUSIONS, ELASTOMERIC SEAL ELEMENTS, SEALANTS, ADHESIVE, CEMENT GROUT, ANCHOR SYSTEM AND INSTALLATION OF JOINT SHALL BE INCLUDED IN THE COST OF EXPANSION JOINT.

THE PROFILE OF THE JOINT IS TO CONFORM TO THE ROADWAY CROSS SECTION.

THE SEAL ELEMENT SHALL BE MOULDED AND FURNISHED IN A CONTINOUS LENGTH EQUAL TO THAT REQUIRED FOR THE JOINT.

AT CHANGES IN DIRECTION (AT CURBS, MEDIAN BARRIERS, ETC.) THE SECTIONS OF JOINT ARE TO BE CUT TO THE BEVEL REQUIRED TO PRODUCE THE SAME CROSS SECTION ON EACH PIECE BEING JOINED.
THE ANCHOR ASSEMBLY IS TO BE SHOP FABRICATED AND DELIVERED TO THE JOB SITE AS A COMPLETE CONTINUOUS UNIT FOR JOINT LENGTHS UP TO 44 FEET. JOINTS ABOVE LENGTHS OF 44 FEET OR JOINTS USED WITH STAGE CONSTRUCTION SHALL BE FIELD WELDED WITH ENDS TO BE SHOP PREPARED.

ALL WORK, BOTH SHOP & FIELD, SHALL BE IN ACCORDANCE WITH 711.03.

ALL EXPOSED STRUCTURAL STEEL SURFACES WILL BE PAINTED IN ACCORDANCE WITH ISHC STANDARD SPECIFICATIONS.

THE CONTRACTOR SHALL SUBMIT 3 COPIES OF SHOP DRAWINGS FOR ALL JOINTS INVOLVING CURBS OR OTHER SPECIAL FEATURES.

JOINT SETTING TABLE			
Ambient Temperature	DIMENSION "W" Expansion Length		
	100'-200'	200'-300'	300'-400'
120°	2¼"	1¾"	1½"
100°	2⅛"	1¾"	1½"
80°	2⅛"	2⅛"	1⅞"
60°	3"	2⅛"	2⅛"
40°	3⅛"	3⅛"	2⅞"
20°	3⅛"	3⅛"	3⅛"
0°	3⅞"	3⅞"	4"

NOTE: EXTRUSIONS WITH HEIGHTS BETWEEN 1½ and 2" MAY BE SUBSTITUTED FOR THOSE SHOWN. IF SUCH A SUBSTITUTION IS MADE, THE NOTCH IN THE ANCHOR PLATE AND THE STRIP SEAL GLAND SHALL BE MODIFIED ACCORDINGLY AND IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

EXPANSION JOINTS CLASS S-S

INDIANA DEPARTMENT OF HIGHWAYS

SCALE:- NONE DATE:- 11-29-83

SENIOR DESIGNER

DRAWING:- R6A OF 8 SHEET:- 9A OF 30

PROJECT:- BRM-L720(1)

CONTRACT NO. 8-13710

BRIDGE FILE:- 52-79-1784B

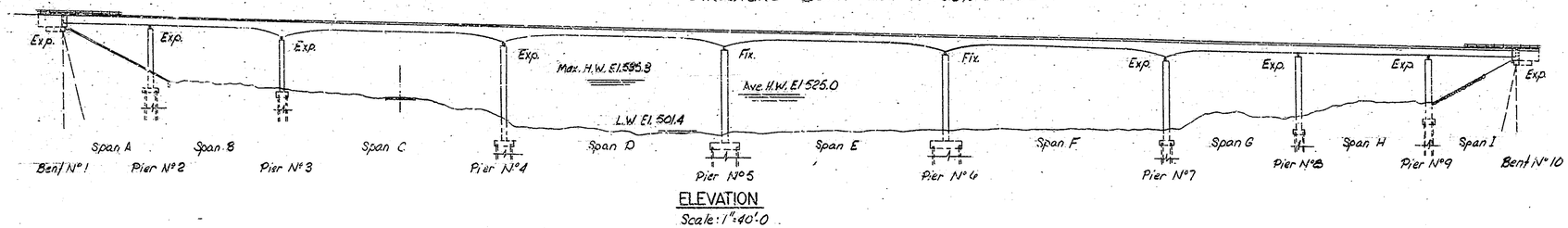
DESIGNED _____ CK'D _____
DRAWN DAS 11/24/83 CK'D _____
TRACED _____ CK'D _____

Revised 7/1/82 - Notes Revised 6/21/83

11-27-79
3½
11-29-79
8
11-30-79
3½

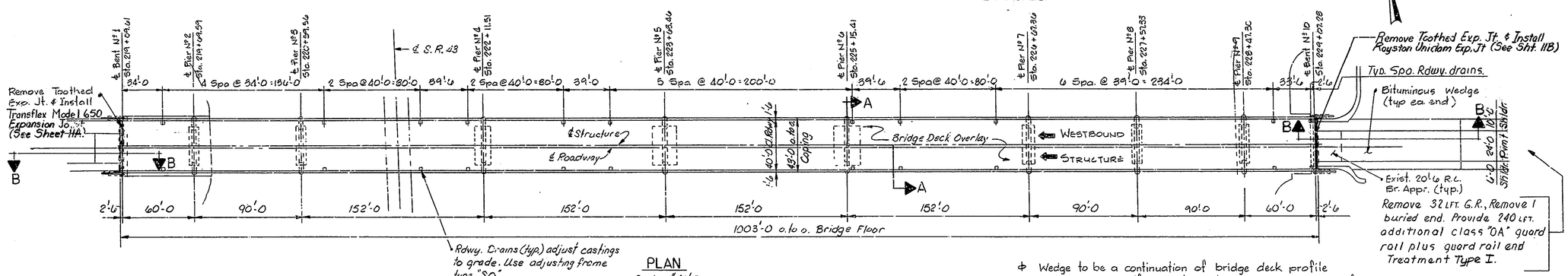
1-19-79 - 3 wk
1-22-79 4½ wk
7-10-79

STRUCTURE BUILT ON A -2.5% GRADE



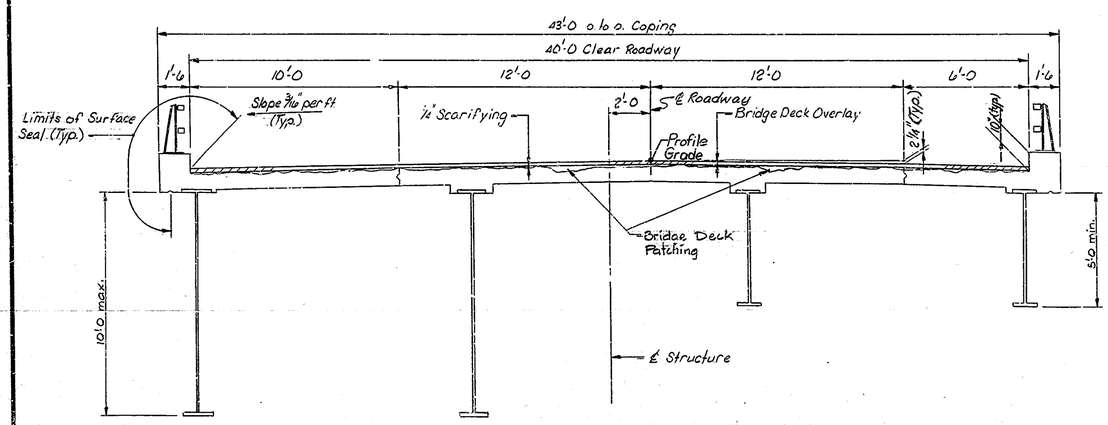
ELEVATION
Scale: 1" = 40'-0

UTILITY OWNERS
Telephone: General Telephone Company of Ind., Inc. 8001 U.S. 24 West Post Office Box 1201 Ft. Wayne, In. 46801
Power: Public Service Indiana 1000 East Main St. Plainfield, In 46168

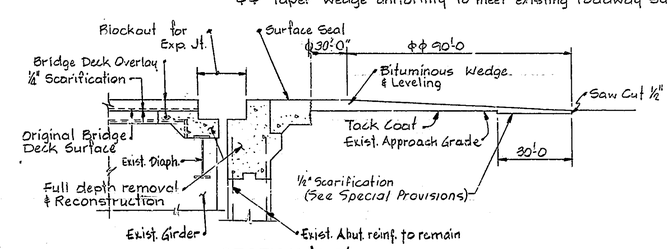


PLAN
Scale: 1" = 40'-0

℄ Wedge to be a continuation of bridge deck profile
℄℄ Taper wedge uniformly to meet existing roadway surface.



SECTION A-A
Scale: 1" = 3'-0



SECTION 'B-B'
No Scale

Note:
Seal all joints and cracks in the approach pavement with a hot poured joint sealer before placing the bituminous wedges.

Notes:
For "General Notes", "Construction Procedure" & Material Notes", see Dwg. 6.
For Traffic Maintenance Details see sheet No 2 & No 3.
For Roadway drain adjustment details, see Br. Std. D1.
Estimated Bridge Deck Patching - 5%

BRIDGE DECK RECONSTRUCTION AND OVERLAY
GENERAL PLAN

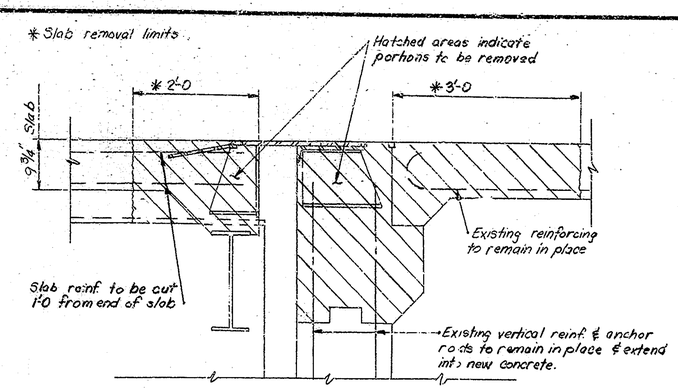
CONTINUOUS WELDED STEEL PLATE GIRDER BRIDGE
9 SPANS: 60'-0, 90'-0, 4-152'-0, 2-90'-0, 60'-0 SQUARE
40'-0 CL. ROADWAY + 2-3" CURBS
OVER WABASH RIVER ON U.S. 52 BY-PASS

INDIANA STATE HIGHWAY COMMISSION
TIPPECANOE COUNTY

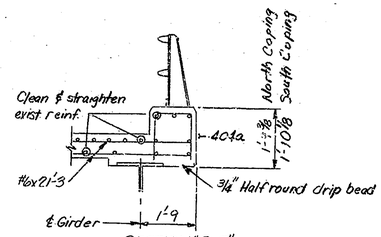
SCALE:- As Noted DATE:- 9-12-79
SUBMITTED FOR APPROVAL:
DRAWING:- R7 OF 8 SHEET:- 10 OF 30
PROJECT:- BRM-L720(1)
CONTRACT NO. B-13710
BRIDGE FILE:- 52-79-1784JA

DESIGNED D.O. CK'D R.D.R.
DRAWN S.J. CK'D T.J.N.
TRACED J.L.F. 11-30-78 CK'D

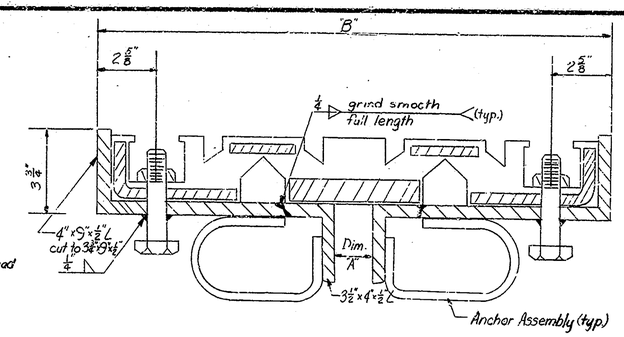
Revised 11-29-83 Note on Plan concerning joints; curb height Rev. 11-29-83 G.R.E.T. Type I



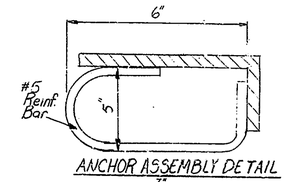
SECTION "A-A"
Showing Limits of Removal



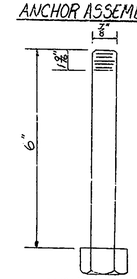
SECTION "B-B"



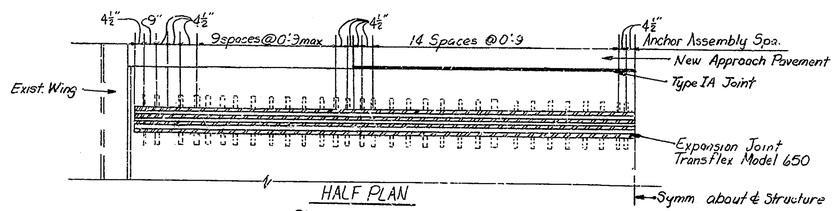
DETAIL "B"
TRANSFLEX MODEL 650
EXPANSION JOINT



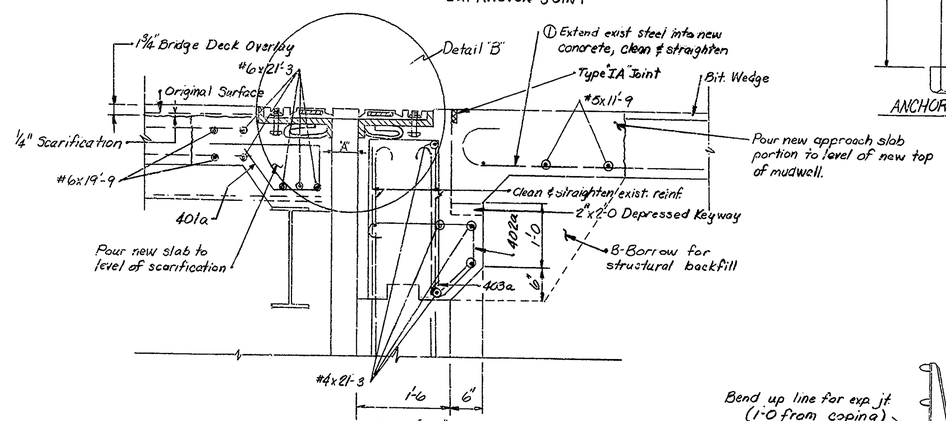
ANCHOR ASSEMBLY DETAIL



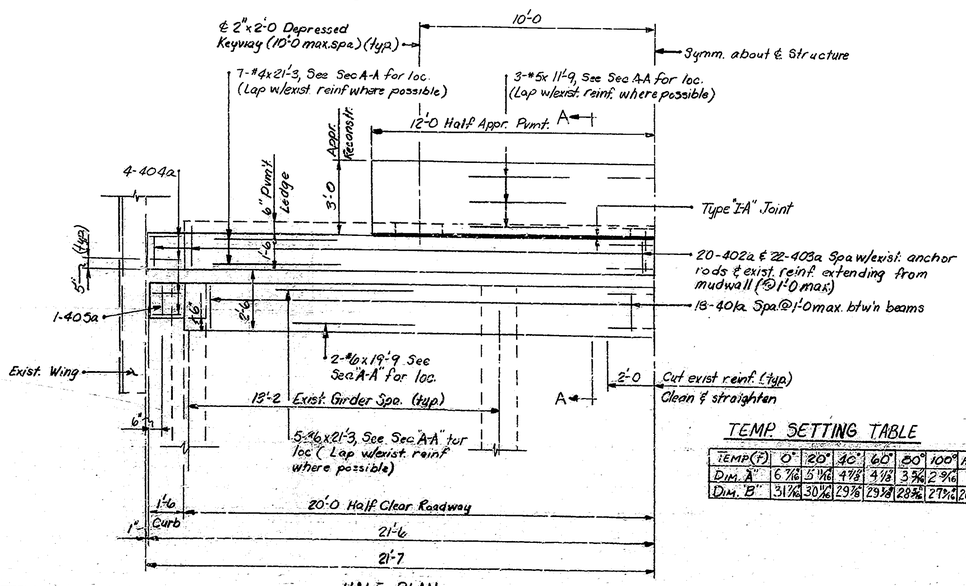
ANCHOR BOLT DETAIL



HALF PLAN
Showing Expansion Joint



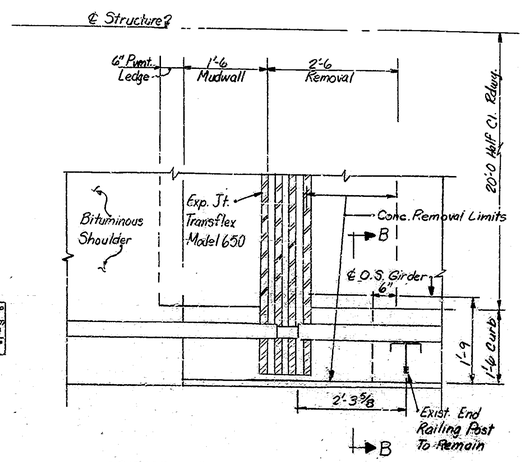
SECTION "A-A"
Showing New Constr.



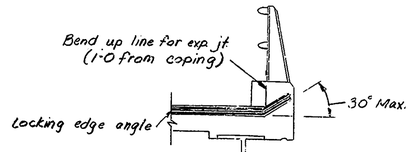
HALF PLAN
Showing Conc. Dim. & Reinf. Steel

TEMP. SETTING TABLE

TEMP (F)	0°	20°	40°	60°	80°	100°	120°
DIM. "A"	6 7/16	5 11/16	4 7/8	4 1/8	3 3/16	2 9/16	1 3/4
DIM. "B"	31 1/16	30 3/16	29 7/8	29 7/8	28 7/16	27 11/16	26 3/4



CORNER DETAIL SHOWING EXPANSION JOINT



TYPICAL EXPANSION JOINT INSTALLATION @ CURB

General Notes:

For Reinf. Bar Notes, see Br. Std C1.

Modular expansion joint shall conform to the top of the roadway surface. Modular joint shall be capable of a total movement of 6½ inches (See Special Provisions)

The top and sides of the top flange of all beams & end diaphragms within the slab removal area shall be thoroughly cleaned & primed with one coat of Zinc Silicate paint before repouring the slab. See the Special Provisions. Cost of cleaning & painting shall be included in cost of other items.

See Drawing R8B for Bill of Materials and Bending Diagrams.

TRANSFLEX MODEL 650 EXPANSION JOINT
BENT No. 1
INDIANA DEPARTMENT OF HIGHWAYS

SCALE:- None

DATE:- 11-29-83

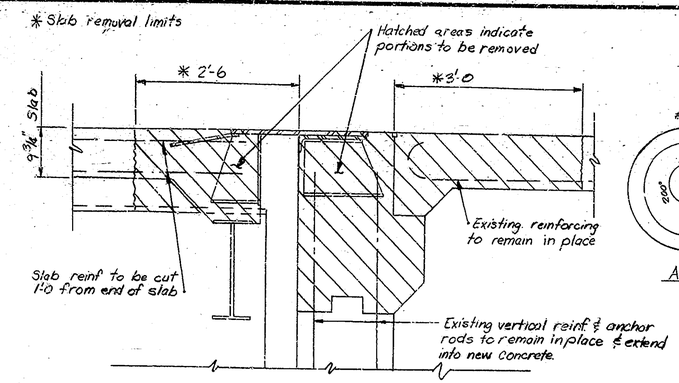
SENIOR DESIGNER

DRAWING: R8A OF 8 SHEET:- 11A OF 30
PROJECT:- BRM-L 720(1)
CONTRACT NO. B-13710
BRIDGE FILE:- 52-79-1784 JA

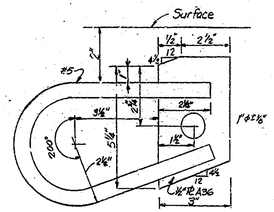
DESIGNED ____ C'K'D ____
DRAWN GMS C'K'D JCK
TRACED ____ C'K'D ____

Rev 12-21-83 Temp. Setting Table, Notes

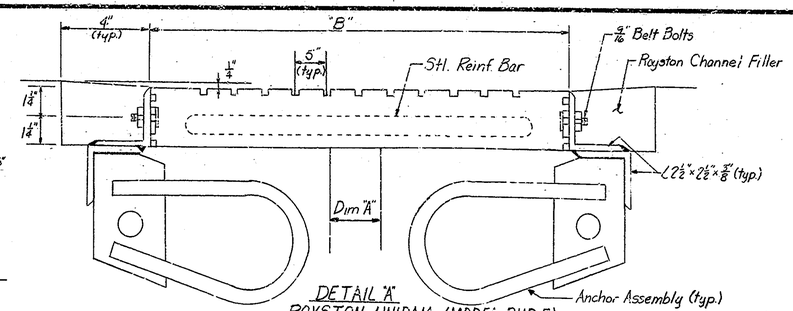
TP118



SECTION "A-A"
Showing Limits of Removal



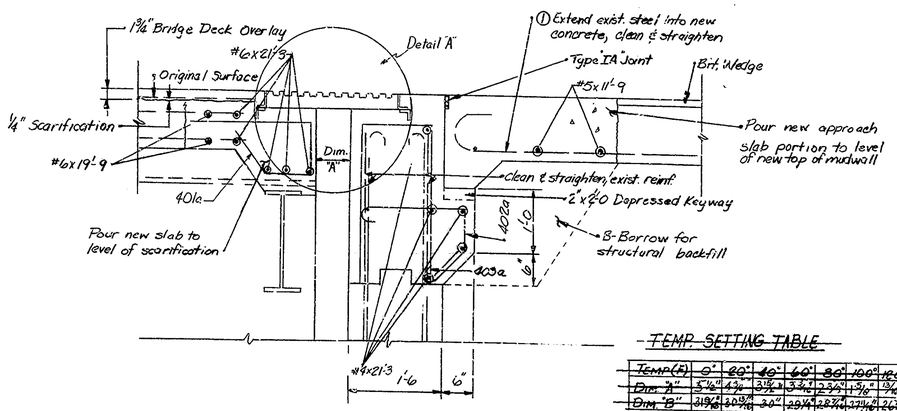
ANCHOR ASSEMBLY DETAIL



DETAIL "A"
ROYSTON UNIDAM (MODEL RUD 5)
EXPANSION JOINT

BILL OF MATERIALS
For Bent Nº1 & Bent Nº10

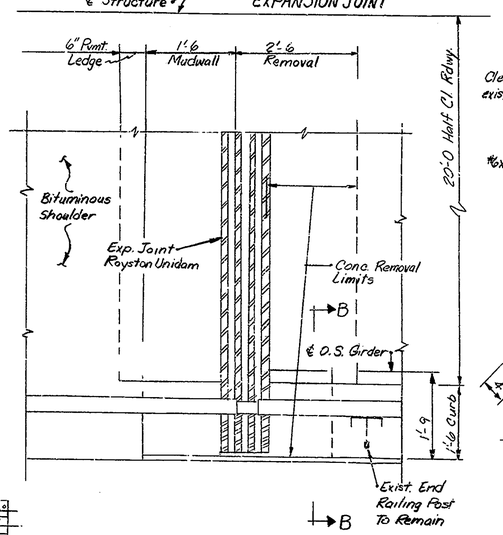
REINFORCING STEEL			
Size & Mark	Nº of Bars	Length	Weight (lbs)
#6	20	21'-3	
#6	8	19'-9	
	Total #6		876
#5	12	11'-9	
	Total #5		147
401a	72	4'-5	
402a	80	4'-0	
403a	88	5'-6	
404a	16	4'-0	
405a	4	3'-6	
#4	28	21'-3	
	Total #4		1198
Total Reinforcing			2221
CONCRETE Class "A"			
Expansion Joint Reconstruction			
Bent Nº1			15.2 Cys.
Bent Nº10			15.2 Cys.
Class "A" in Superstructure			30.4 Cys.
MISCELLANEOUS			
Royston Unidam Exp. Jt.			43 Lft.
Transflex Exp. Jt.			43 Lft.



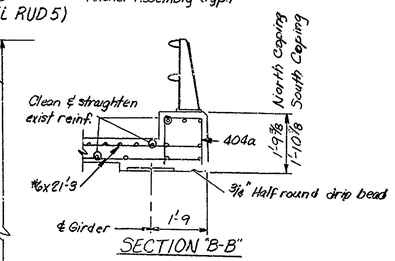
SECTION "A-A"
Showing New Constr.

TEMP. SETTING TABLE

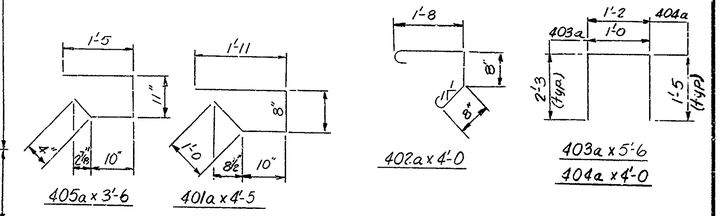
TEMP (F°)	0°	20°	40°	60°	80°	100°	120°
Dim. "A"	5 1/4"	4 3/16"	3 1/16"	3 1/16"	2 3/8"	1 5/8"	7/8"
Dim. "B"	23 9/16"	22 3/4"	22"	21 1/4"	20 9/16"	19 13/16"	19 1/16"

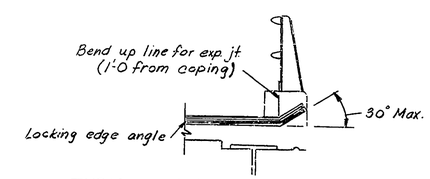


CORNER DETAIL SHOWING EXPANSION JOINT

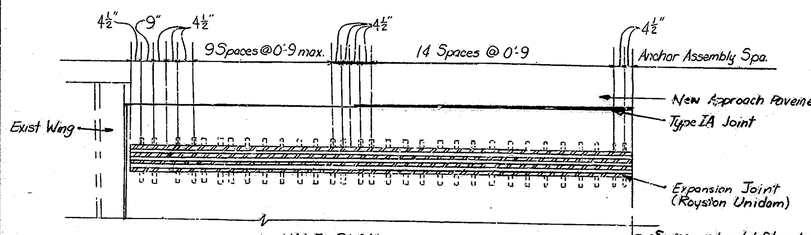


SECTION "B-B"





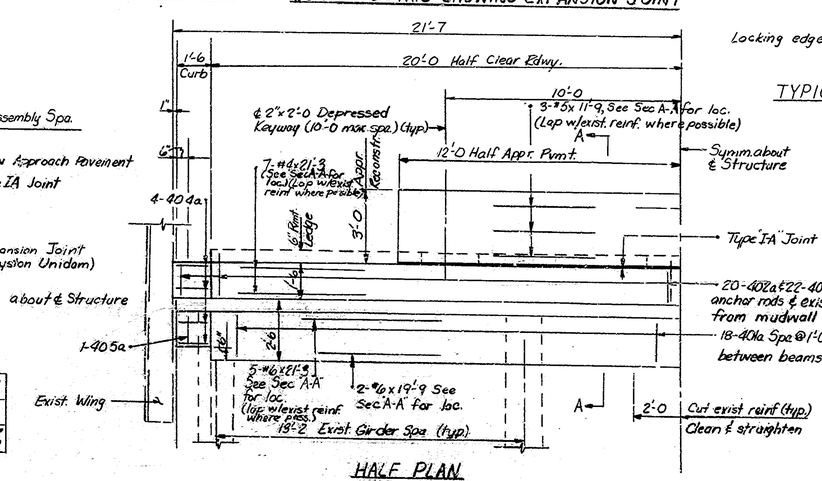
TYPICAL EXPANSION JOINT INSTALLATION @ CURB



HALF PLAN
Showing Expansion Joint

TEMP. SETTING TABLE

TEMP. (F°)	0°	20°	40°	60°	80°	100°	120°
DIM. "A"	5 1/4"	4 3/16"	3 13/16"	3 1/16"	2 3/8"	1 5/8"	7/8"
DIM. "B"	23 9/16"	22 3/4"	22"	21 1/4"	20 9/16"	19 13/16"	19 1/16"



HALF PLAN
Showing Conc. Dim. & Reinf. Steel

See Drawing R8A for General Notes

ROYSTON UNIDAM EXPANSION JOINT
BENT Nº 10

INDIANA DEPARTMENT OF HIGHWAYS

SCALE:- None

DATE:- 11-29-83

SENIOR DESIGNER

DRAWING:- R8B OF 8 SHEET:- 118 OF 30
PROJECT:- BRM-L720(1)
CONTRACT NO. B-13710
BRIDGE FILE:- 52-79-1784 JA

DESIGNED C'K'D
DRAWN GMS C'K'D JCK
TRACED C'K'D

Rev. 12-21-83 Temp. Setting Table
Rev. 5-25-84 Temp. Setting Table

TP118

ESTIMATE OF QUANTITIES

STRUCTURE PAY ITEMS

CODE NO.	DESCRIPTION	UNIT	STRUCTURE 1784B	STRUCTURE 1784JA	TOTAL QUANTITY
51002	CONCRETE CLASS C IN SUPERSTRUCTURE	CYS.			
51001	CONCRETE, CLASS A IN SUPERSTRUCTURE	CYS.	32.5	30.4	62.9
51005	CONCRETE, CLASS A IN SUBSTRUCTURE	CYS.			
51010	CONCRETE, CLASS B ABOVE FOOTINGS	CYS.			
51015	CONCRETE, CLASS B IN FOOTINGS	CYS.			
51875	SPECIAL CLASS A CONCRETE	SFT			
	CLASS "A" CONC. IN RAILING	CYS.	.3		.3
51045	CONCRETE STRUCTURAL MEMBERS	LSUM			
51030	REINFORCING STEEL	LBS.	4661	2306	6967
51032	EPOXY COATED REINFORCING STEEL	LBS			
51035	STRUCTURAL STEEL	LBS.			
51038	STRUCTURAL STEEL	LSUM			
51090	BRONZE PLATES	LBS.			
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.			
51100	CAST IRON, DRAIN PIPE, 6 INCH	LBS.			
51105	CAST IRON, DRAIN PIPE, 8 INCH	LBS.			
51110	CAST IRON, GRATES, BASINS AND FITTINGS	LBS.		4524	4524
51134	REMOVAL OF PRESENT RAILING	LFT.			
51132	RAILING RESET	LFT.			
51115	RAILING (TYPE 5 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.			
51025	CLASS C, CONCRETE RAILING	LFT.			
51131	BARRIER RAILING TYPE X	LFT.			
51215	CLASS X EXCAVATION	CYS.			
51220	WET EXCAVATION	CYS.			
51223	WATERWAY EXCAVATION	CYS.			
51224	WATERWAY EXCAVATION	LSUM			
51225	DRY EXCAVATION	CYS.			
51230	FOUNDATION EXCAVATION (UNCLASSIFIED)	CYS.			
51231	FOUNDATION EXCAVATION (UNCLASSIFIED)	LSUM			
51813	PNEUMATICALLY PLACED MORTAR	SFT.			
51870	REPOINTING MASONRY IN STR'S.	SFT.	100		100
51814	WELDED STEEL WIRE FABRIC	SFT.			
51859	PAINTING OLD STEEL BRIDGE	LSUM	1		1
61001	POLLUTION CONTROL	LSUM	1		1
51881	EXPANSION JOINT, TYPE BS2	LFT.			
51885	EXPANSION JOINT, TYPE BS5	LFT.	43		43
51887	EXPANSION JOINT, TYPE BS8	LFT.			
51888	EXPANSION JOINT, TYPE BS9	LFT.			
51890	EXPANSION JOINT, TYPE BS11	LFT.			
51925	EXPANSION JOINT, CLASS S-3	LFT.	194		194
51926	EXPANSION JOINT, CLASS T-3	LFT.			
	ROYSTON UNIDRAIN EXP. JOINT	LFT.		43	43
	TRANSFLEX EXP. JOINT	LFT.		43	43
	SPECIAL ADJUSTING FRAME	EACH	34		34

STRUCTURE PAY ITEMS

CODE NO.	DESCRIPTION	UNIT	STRUCTURE 1784B	STRUCTURE 1784JA	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.			
	REMOVAL OF PRESENT STRUCTURE (PORTIONS) 1784 JA	LSUM		1	1
	REMOVAL OF PRESENT STRUCTURE (PORTIONS) 1784 B	LSUM	1		1
51330	REMOVAL OF PRESENT STRUCTURE	LSUM			
51335	TEMPORARY BRIDGE AND APPROACHES	LSUM			
51366	CONCRETE SLOPEWALL 5 INCH	SYS.			
51365	SLOPEWALL	SYS.			
51370	RIPRAP	SYS.			
51375	REVETMENT RIPRAP	TON			
51371	HANDLAID RIPRAP 12 INCH	SYS.			
51372	DUMPED RIPRAP	TON			
51374	PLASTIC FILTER CLOTH	SYS.			
51106	DECK DRAINS	EACH			
51395	STEEL DRAIN PIPE (6 INCH)	LSUM			
51400	STEEL DRAIN PIPE (8 INCH)	LSUM			
51092	STEEL PIPE CONDUIT (2 INCH)	LFT.			
51866	RIVETS REMOVED	EACH			
51864	FIELD DRILLED HOLES	EACH			
51867	STRUCTURAL STEEL CUTTING	SIN			
51863	FIELD DRILLED HOLES IN CONCRETE	EACH			
	SURFACE SEAL "JA"	LSUM		1	1 (c.)
	SURFACE SEAL "B"	LSUM	1		1 (c.)
51877	BRIDGE DECK MEMBRANE	LSUM			
51842	BRIDGE DECK OVERLAY	SYS.	3605	4458	8063
51845	BRIDGE DECK SURFACE	SYS.			
		CYS.			
51843	BRIDGE DECK PATCHING	SFT.	7244	3006	5250
51833	CONCRETE SCARIFYING	SYS.	3678	4591	8269 (b.)
51840	ADDITIONAL CONCRETE SCARIFYING	SYS.			
	OVERLAY DAMS	SFT.	66		66
51837	BLASTING AND CLEANING	SYS.	3678	4458	8136
51838	FINISHING AND CURING	SYS.	3605	4458	8063
51846	ADDITIONAL BRIDGE DECK OVERLAY	CYS.	31	26	57

APPROACH PAY ITEMS

CODE NO.	DESCRIPTION	UNIT	STRUCTURE 1784B	STRUCTURE 1784JA	TOTAL QUANTITY
02020	UNCLASSIFIED EXCAVATION	CYS.			
52240	COMMON EXCAVATION	CYS.			
52245	BORROW	CYS.			
52250	B BORROW	CYS.			
52255	B BORROW FOR STRUCTURE BACKFILL	CYS.			
52303	REMOVAL OF PAVEMENT	SYS.			
02235	BREAKING PAVEMENT	SYS.			
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.	150	0	150
06070	CONCRETE SIDEWALK	SYS.			
52305	TYPE P COMPACTED AGGREGATE FOR BASE (SIZE NO. 53)	TON			
52600	COVER AGGREGATE	TON			
52806	COVER AGGREGATE (SIZE NO. 12)	TON			
52605	AGGREGATE FOR SHOULDER DRAINS	TON			
52610	AGGREGATE FOR UNDER DRAINS	CYS.			
52308	TYPE O COMPACTED AGGREGATE FOR BASE (SIZE NO. 53)	TON			
52310	SUBBASE	CYS.			
52315	BITUMINOUS STABILIZED SUBBASE TYPE I, II, OR III	TON			
52320	BITUMINOUS STABILIZED SUBBASE	TON			
52445	BITUMINOUS BASE	TON			
04250	BITUMINOUS BASS (SIZE NO 5D)	TON			
52451	BITUMINOUS BINDER	TON			
52450	BITUMINOUS SURFACE	TON			
52456	BITUMINOUS MATERIAL FOR TACK COAT	SYS	854	867	1721
52461	BITUMINOUS MATERIAL FOR PRIME COAT	SYS.			
04348	SEAL COAT TYPE 2	SYS.			
52470	BITUMINOUS MIXTURE FOR APPROACHES	TON	309	274	583 (a)
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.	75	240	315
52520	GUARD RAIL, TYPE E	LFT.			
52525	GUARD RAIL, TYPE F	LFT.			
52530	GUARD RAIL, TYPE G	LFT.			
52531	GUARD RAIL, TYPE H	LFT.			
06035	RESET GUARD RAIL	LFT.			
52535	REMOVAL OF GUARD RAIL	LFT.	80	72	152
52380	SODDING	SYS.			
52385	MULCHED SEEDING "R"	SYS.			
52388	SEED MIXTURE "R"	LBS.			
52397	SEED MIXTURE "TR"	LBS.			
52400	MULCHING MATERIAL	TON			
52405	FERTILIZER	TON			
52410	WATER	M.G.			
52415	AGRICULTURAL LIMESTONE	TON			
52398	SEED MIXTURE "CV"	LBS.			
52401	MULCHING MATERIAL (WOOD CELLULOSE FIBER)	TON			
52640	MAINTAINING TRAFFIC	LSUM			1
52370	CLEARING RIGHT-OF-WAY	LSUM			
52434	BREAKAWAY CABLE TERMINAL TYPE "A"	EACH			

APPROACH PAY ITEMS

CODE NO.	DESCRIPTION	UNIT	STRUCTURE 1784B	STRUCTURE 1784JA	TOTAL QUANTITY
07025	PIPE: GR. A (0.064" FBCCS) 12"	LFT.			
07075	PIPE: GR. A (0.064" FBCCS) 15"	LFT.			
07125	PIPE: GR. A (0.064" FBCCS) 18"	LFT.			
07175	PIPE: GR. A (0.064" FBCCS) 24"	LFT.			
07225	PIPE: GR. A (0.064" FBCCS) 30"	LFT.			
07275	PIPE: GR. A (0.064" FBCCS) 36"	LFT.			
07325	PIPE: GR. A (0.064" FBCCS) 42"	LFT.			
10000	PIPE: GR. D (0.064" CS) 12"	LFT.			
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.			
29000	PIPE: 0.064" FBCCS 12"	LFT.			
52375	CONCRETE CLASS A IN STRUCTURE	CYS.			
52376	CONCRETE CLASS C IN STRUCTURE	CYS.			
46000	PIPE END SECTION 12"	EACH			
46005	PIPE END SECTION 15"	EACH			
46010	PIPE END SECTION 18"	EACH			
46015	PIPE END SECTION 21"	EACH			
46020	PIPE END SECTION 24"	EACH			
46025	PIPE END SECTION 27"	EACH			
46030	PIPE END SECTION 30"	EACH			
46035	PIPE END SECTION 33"	EACH			
46040	PIPE END SECTION 36"	EACH			
45000	INLET, TYPE A-1	EACH			
45025	INLET, TYPE D-6	EACH			
45030	INLET, TYPE 2-7	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.			
52831	DRILLED HOLES FOR MUDJACKING	EACH			
52830	MATERIAL FOR MUDJACKING	CYS.			
	GUARD RAIL END TREATMENT TYPE I	EA.	2	1	3
	CASTING ADJUST TO GRADE	EA.	1		1

APPROACH PAY ITEMS

CODE NO.	DESCRIPTION	UNIT	STRUCTURE 1784B	STRUCTURE 1784JA	TOTAL QUANTITY
06040	47" FENCE, F. FIELD	LFT.			
06045	48" FENCE, CHAIN LINK	LFT.			
52340	CONSTRUCTION SIGNS (TYPE A)	EACH	9	9	18
52345	CONSTRUCTION SIGNS (TYPE B)	EACH	2	2	4
52350	STANDARD BARRICADES (TYPE III)	EACH			
06650	STOP SIGN, TYPE R-1A	EACH			
06652	DO NOT PASS SIGN, TYPE R-11-A	EACH			
06655	YIELD SIGN, TYPE R-301	EACH			
06657	PASS WITH CARE SIGN, TYPE R-12A	EACH			
06660	CURVE SIGN, TYPE W-2AP	EACH			
06665	CURVE SIGN, TYPE W-2AL	EACH			
06670	REVERSE CURVE SIGN, TYPE W-4AR	EACH			
06675	REVERSE CURVE SIGN, TYPE W-4AL	EACH			
06680	LARGE ARROW SIGN, TYPE W-11A	EACH			
06685	STOP AHEAD SIGN, TYPE W-13A	EACH			
06725	DELINEATOR WITH POST, TYPE D-1 3 INCH	EACH			
06740	DELINEATOR WITH POST, TYPE D-2 3 INCH	EACH			
		EACH			
06770	DELINEATOR POST	EACH			
06771	FLEXIBLE DELINEATOR POST	EACH			
52361	TEMPORARY PAVEMENT MARKING TYPE I	LFT.	1950	1095	3045
52362	TEMPORARY PAVEMENT MARKING TYPE II	LFT.	5862	4574	10436
52360	RIGHT-OF-WAY MARKERS	EACH			
06500	MONUMENT, TYPE A	EACH			
06505	MONUMENT, TYPE B	EACH			
06510	MONUMENT, TYPE C	EACH			
06515	MONUMENT, TYPE D	EACH			
	FLASHING ARROW SIGN		13	13	26
52821	FLASHING ARROW SIGN	EACH			
06713	PAINTED LINE, SOLID, WHITE 4"	LFT.	1518	1708	3226
06714	PAINTED LINE, SOLID, YELLOW 4"	LFT.	1518	1343	2861
06702	WHITE, 5"	LFT.			
06716	REMOVAL OF LINE, SOLID, WHITE, 4"	LFT.	295	1708	2003
06717	REMOVAL OF LINE, SOLID, YELLOW, 4"	LFT.	1518		1518
06718	REMOVAL OF LINE, SKIP, WHITE, 4"	LFT.	437	478	915
52536	TEMPORARY CONCRETE BARRIER	LFT.	1370	1410	2780
52819	TEMPORARY CROSSOVER TYPE "B"	EACH			
	PAINTED LINE, SKIP WHITE, 5"	LFT.	896	944	1840

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

A. 100% State Funding

REVISIONS	
DATE	ITEM
11-29-83	52361, 52362, Surface Seal, 51843, G.R.E.T. Type I; Delete 51840; Add 51846
12-21-83	1784 JA, 1784 B REMOVAL OF PRESENT STRUCTURE PORTIONS, FLASHING ARROW SIGN

(a) INCLUDES: 1784 B - 41.5 TONS FOR WEDGING & 2.5 TONS FOR JOINT; 1784 JA - 41 TONS FOR WEDGING

(b) INCLUDES: SCARIFYING AT END OF BITUMINOUS WEDGES: 1784 B - 147 SYS; 1784 JA - 160 SYS.

(c) ESTIMATED QUANTITY OF SURFACE SEAL: 1784B - 9450 SFT.; 1784 JA - 10850 SFT.

SUMMARIZED T.J.N. C'K'D K.G.

TRACED K.G. C'K'D T.J.N.

NOVEMBER, 1978

BRIDGE ESTIMATE OF QUANTITIES

INDIANA STATE HIGHWAY COMMISSION

DATE 9-12-79

SUBMITTED FOR APPROVAL: _____

PROJECT: BRM-L 720(1) SHEET 12 OF 30

CONTRACT NO: B-13710

BRIDGE FILE: 52-79-1784 B & JA