

CONTRACT NO. B-15649

FEDERAL REGION NO.	STATE	PROJECT NO.	FILE YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	IR-465-4(241)	198	1	25

INDEX					
PROJECT	STRUCTURE	TYPE	SPAN	OVER	STATION
IR-465-4(241)107	I-465-108-4403A	REINFORCED CONCRETE GIRDER AND CONTINUOUS STEEL BEAM BRIDGE	4 C 33'-0,76"-0,88" 57'6"	SHERMAN DRIVE OVER I-465	19+41.46
SHEET NO.	SHEET DESIGNATION	SUBJECT			F.H.W.A. APPROVAL
1		TITLE AND INDEX			
2	D1	GENERAL PLAN			
3-7	D2-D6	DETAILS			
8	D7	EXPANSION JOINT CLASS S-S			
9		BRIDGE ESTIMATE OF QUANTITIES			

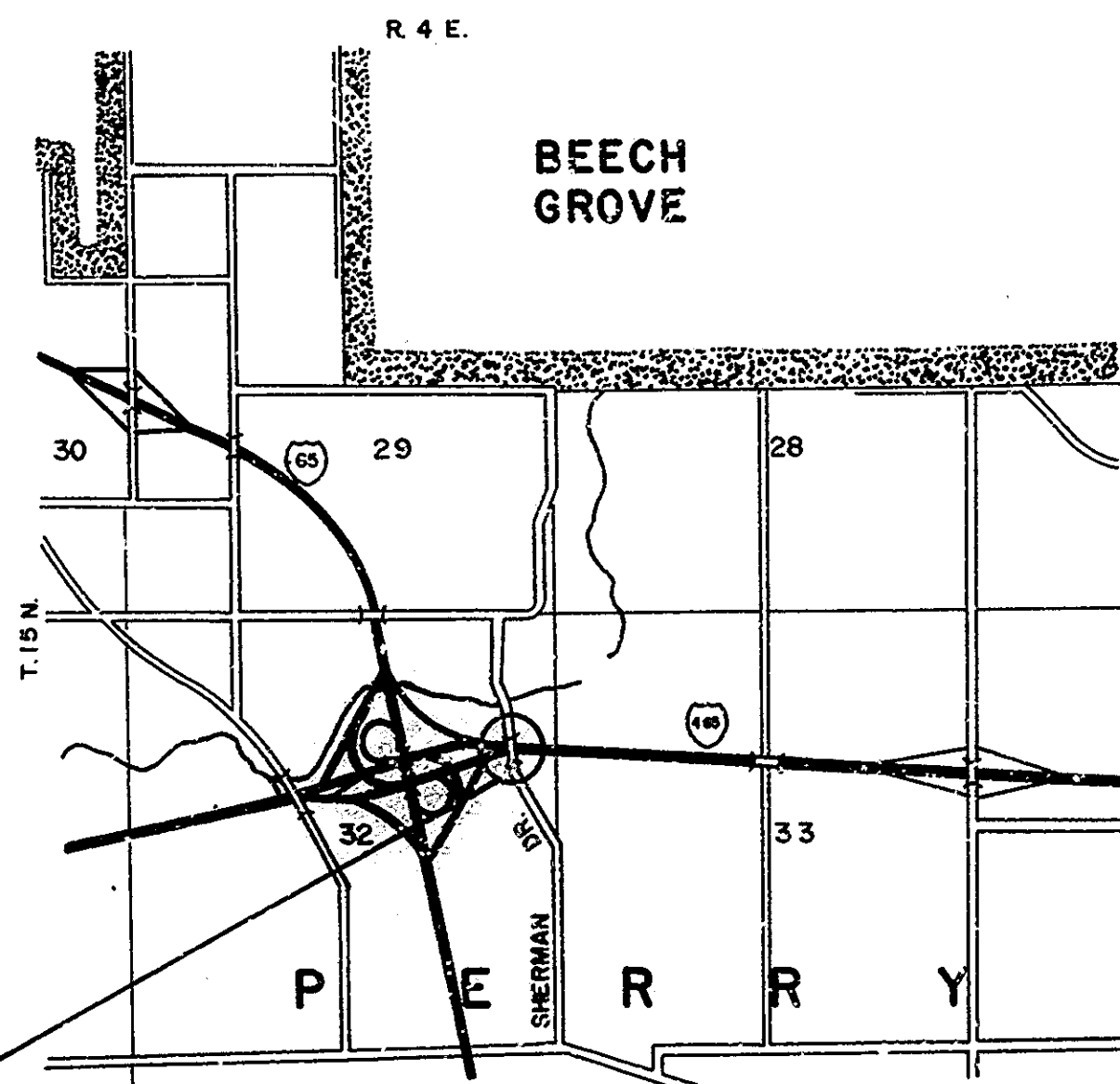
INDIANA DEPARTMENT OF HIGHWAYS

BRIDGE PLANS FOR SPANS OVER 20 FEET ON SHERMAN DRIVE PROJECT NO. IR-465-4(241)107

DECK RECONSTRUCTION AND OVERLAY ON STRUCTURE I-465-108-4403B LOCATED IN SEC. 32, T. 15 N., R. 4 E., MARION COUNTY.

INDEX CONTINUED					
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			
10	BRIDGE STD. C1	MISCELLANEOUS DETAILS	12-21-81	R 12-7-81	
	BRIDGE STD. C2	MISCELLANEOUS DETAILS			
11	BRIDGE STD. C3	MISCELLANEOUS DETAILS	12-21-81	R 12-7-81	
	BRIDGE STD. C4	MISCELLANEOUS DETAILS			
	BRIDGE STD. D	CASTING DETAILS ROADWAY DRAINS			
12	BRIDGE STD. D1	ADJUSTING FRAME DETAILS FOR ROADWAY DRAINS	7-18-83	R 6-30-82	
	BRIDGE STD. D2	ADJUSTING FRAME DETAILS FOR ROADWAY DRAINS			
	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. R2A	BRIDGE LIGHTING DETAILS			
	BRIDGE STD. R2B	BRIDGE LIGHTING DETAILS			
	BRIDGE STD. S1	MISCELLANEOUS STANDARDS			
	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.				
13	ROAD STD. SHEET A	STANDARD PAVEMENT JOINTS	*	R 9-4-84	
	ROAD STD. SHEET B	STANDARD PAVEMENT JOINTS			
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS			
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS			
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS			
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	ROAD STD. SHEET	MISCELLANEOUS STANDARDS			
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS			
14	ROAD STD. SHEET GR	GUARD RAIL CLASS	6-4-84	R 4-2-84	
	ROAD STD. SHEET GR 2	GUARD RAIL CLASS			
	ROAD STD. SHEET GR	GUARD RAIL CLASS			
	ROAD STD. SHEET GR	GUARD RAIL CLASS			
	ROAD STD. SHEET GR5	ALUMINUM GUARD RAIL DETAILS			
	ROAD STD. SHEET GR6	STEEL TUBE GUARD RAIL DETAILS			
15	ROAD STD. SHEET GR7	GUARD RAIL PIER CONNECTION DETAILS	5-21-82	R 4-1-82	
16	ROAD STD. SHEET GR8	STEEL BEAM GUARD RAIL	*	R 4-2-84	
	ROAD STD. SHEET GR9	ALUMINUM BEAM GUARD RAIL			
17	ROAD STD. SHEET GR10	GUARD RAIL BULKHEAD ENDS	*	R 2-1-85	
	ROAD STD. SHEET GR10A	GUARD RAIL BREAKAWAY CABLE TERM.			
	ROAD STD.				
18	ROAD STD. SHEET CR2	TEMPORARY CONCRETE BARRIER	*	R 6-1-84	
19	TRAFFIC STD. SHEET MT 3	TRAFFIC SIGN DETAILS	8-30-82	A JULY 1982	
20	ROAD STD. SHEET 1 DETOURS	STANDARD DETOUR SIGNS	*	R 2-1-85	
	ROAD STD. SHEET 1A DETOURS	STANDARD DETOUR SIGNS			
	R.O.D. STD. SHEET 1B DETOURS	STANDARD DETOUR SIGNS			
21	ROAD STD. SHEET 2 DETOURS	STANDARD DETOUR SIGNS	*	R 2-1-85	
22	ROAD STD. SHEET 2A DETOURS	STANDARD DETOUR SIGNS	*	R 2-1-85	
23	ROAD STD. SHEET 3 DETOURS	STANDARD DETOUR SIGNS	4-10-84	R 2-1-84	
	ROAD STD. SHEET 3A DETOURS	STANDARD DETOUR SIGNS			
24	ROAD STD. SHEET 4 DETOURS	STANDARD DETOUR SIGNS	12-8-83	R 10-3-83	
25	ROAD STD. SHEET 5 DETOURS	STANDARD DETOUR SIGNS	4-10-84	R 2-1-84	

TRAFFIC DATA			
A.D.T. (1983)		8460	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			



STRUCTURE: I-465-108-4403A

MARION COUNTY SCALE: NONE BUTLER, FAIRMAN & SEUFERT, INC. ENGINEERS CARMEL, INDIANA

INDIANA DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS DATED 1985 TO BE USED WITH THESE PLANS.

REVISIONS	
DATE	SHEET NO.
5-8-85	1.
10-16-85	1, 9.
11-12-85	1, 2, 9.

REVISIONS	
DATE	SHEET NO.

DATE: SEPT. 12, 1984
Robert J. Smith
 RECOMMENDED FOR APPROVAL
 WILLIAM B. ABBOTT
 CHIEF ENGINEER
 INDIANA DEPARTMENT OF HIGHWAYS

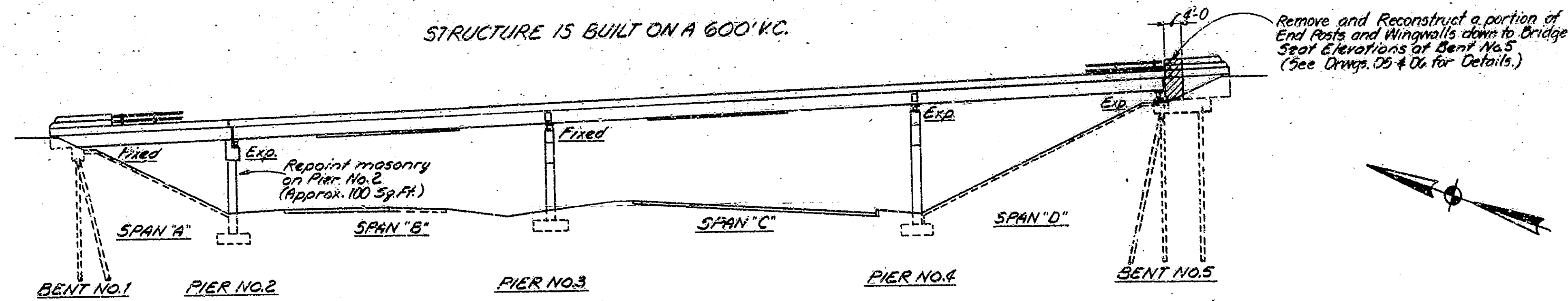


APPROVED: *[Signature]*
 CHIEF HIGHWAY ENGINEER

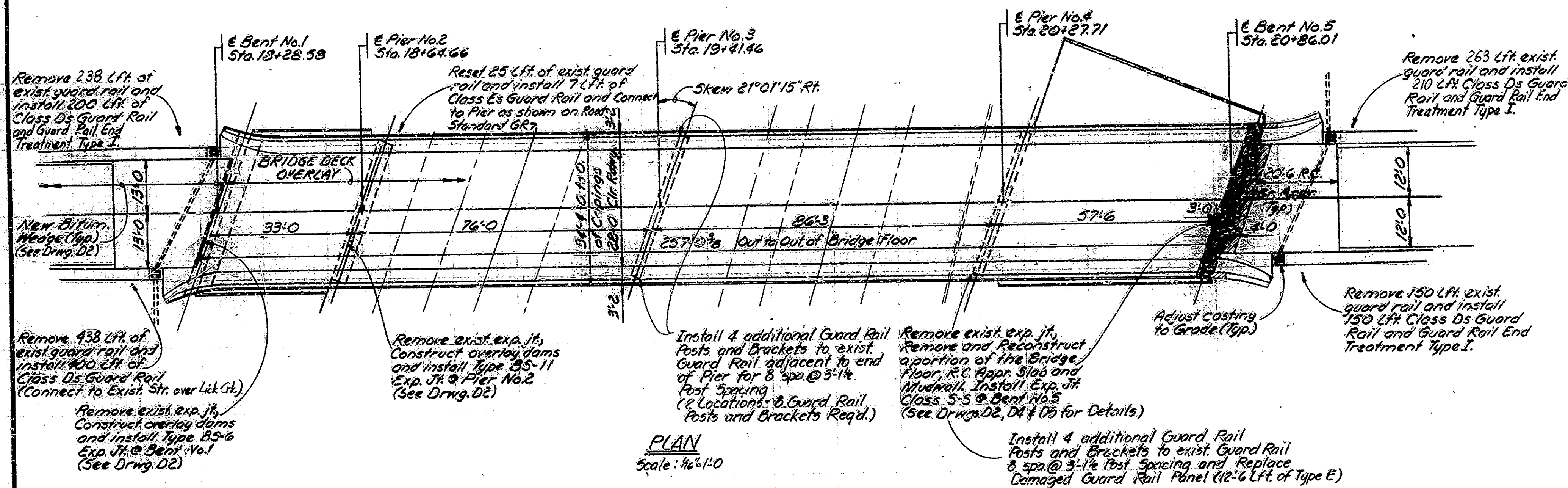
FEDERAL HIGHWAY ADMINISTRATIVE DEPARTMENT OF TRANSPORTATION
 APPROVED: _____
 DIVISION ADMINISTRATOR DATE _____

BRIDGE FILE: I-465-108-4403A

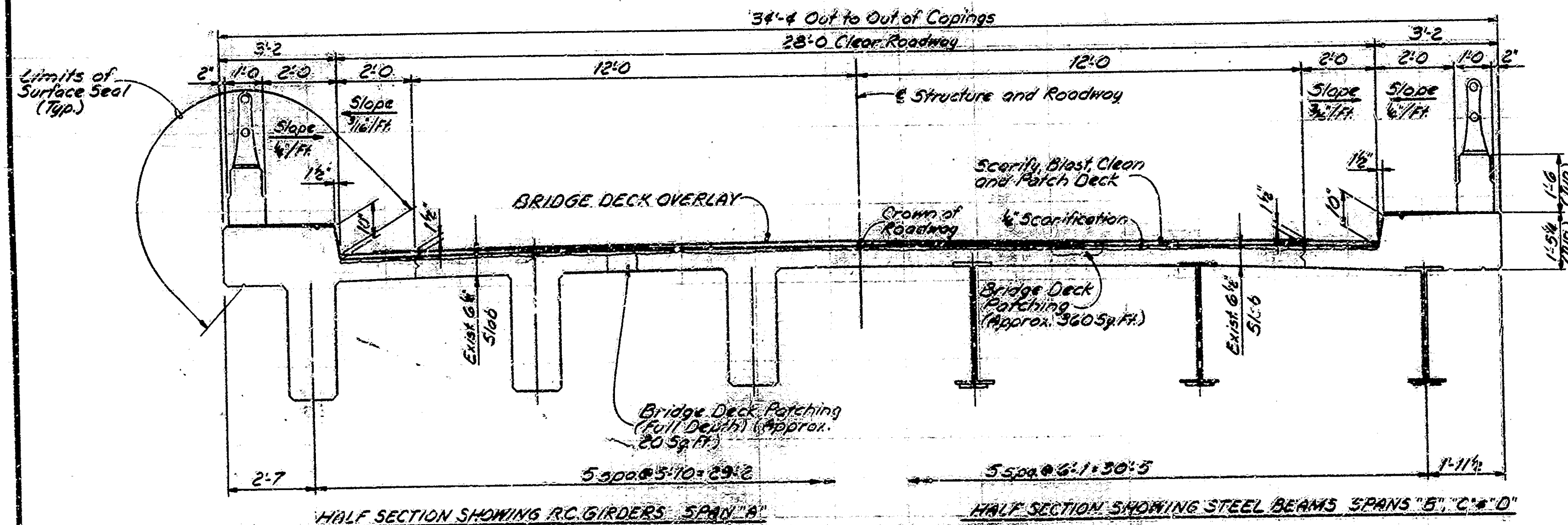
STRUCTURE IS BUILT ON A 600' W.C.



ELEVATION
Scale: 1/4" = 1'-0"



PLAN
Scale: 1/4" = 1'-0"



CROSS SECTION 1 TO ROADWAY
Scale: 1/2" = 1'-0"

GENERAL NOTES

Plans for the existing structure are on file in the Central Office as Bridge File: I-465-108-403 and are available on request.

Where new work is to be fitted to old work, the Contractor shall check all dimensions and conditions in the field and report any discrepancies to the Engineer and assume responsibility for their correctness and the fit of the new part to the old.

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.

Concrete in patches for deteriorated deck areas below specified depth shall be Modified Portland Cement Concrete or Special Class "A" Concrete. See the Special Provisions.

All bituminous material required in this contract shall be included in the pay item "Bituminous Mixture for Approaches" except Rock Coat which shall be paid for as a separate item.

Surface seal exposed concrete areas, including all vertical gutter faces, curbs, railings, copings, brackets, concrete end posts, top of reconstructed mudwall and tops of overlay dams as shown on the Plans with a penetrating epoxy sealer (Est Quantity = 5300 Sq. Ft.) (See the Special Provisions).

The length and quantity of bituminous wedging shown on the Plans is based on the use of Modified Portland Cement Concrete Overlay. If the Dense Portland Cement Concrete Overlay is used, see the Special Provisions.

Seal all joints and cracks in the approach pavement with a hot poured joint sealer before placing bituminous wedges. Cost to be included in cost of other items.

The boundaries of defined full depth removal areas shall be saw cut. All saw cuts to be made to a minimum depth of 1" below the original surface or to the top of reinforcing if cover is less than 1 inch.

See the Special Provisions for composition of concrete in overlay dams.

Concrete in full depth removal areas to be Class "A".

All removal equipment used for partial concrete removals of bridge 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. maximum 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.

Note: Structure will be closed to traffic during construction. Detour will be set by Indianapolis Department of Transportation.

GENERAL PLAN

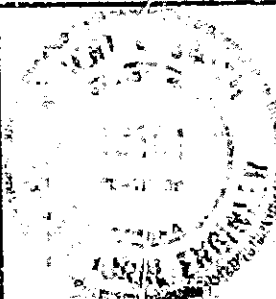
DECK RECONSTRUCTION AND OVERLAY
REINFORCED CONCRETE GIRDER
CONTINUOUS STEEL BEAM BRIDGE

4 SPANS @ 33'-0", 76'-0", 86'-3", 57'-6" SKEW 21°01'15" RT; 28'-0" CLR. RDWAY,
2'2" WALKS, ON SHERMAN DRIVE OVER I-465

INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

SCALE: AS NOTED DATE: 11/15/84
SUBMITTED FOR APPROVAL: Robert F. Smith

DRAWING: D1 OF 7 SHEET: 2 OF 25
PROJECT: IR-465-1(24)107
CONTRACT NO. B-15649
BRIDGE FILE: I-465-108-403A

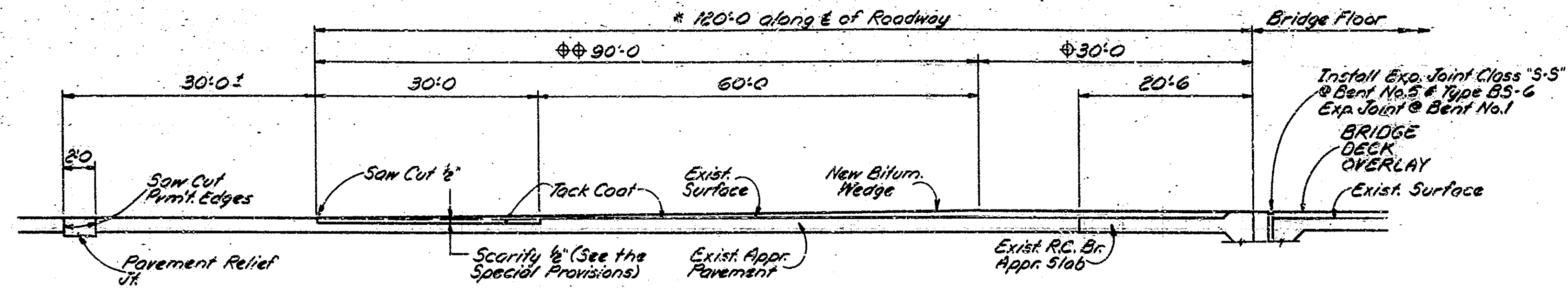


DESIGNED: J. Broad, C. B. Smith
DRAWN: D. McCoy, C. D. Steete
TRACED: C. W. D.

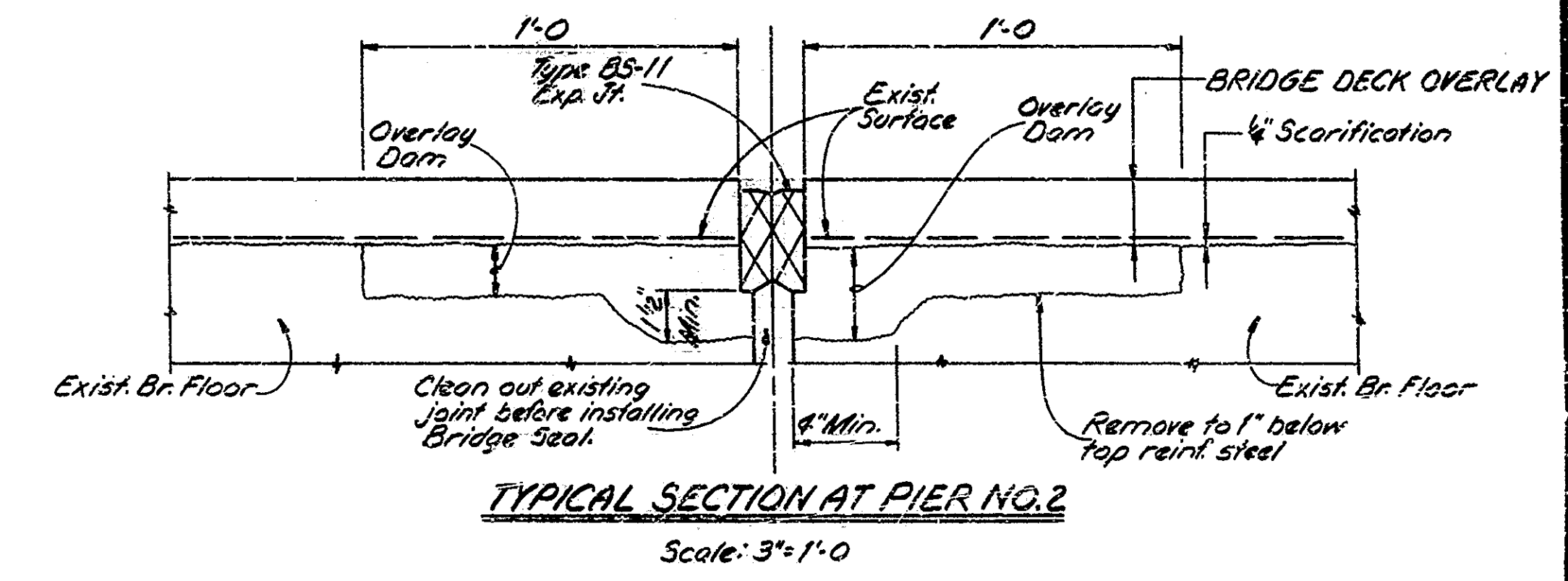
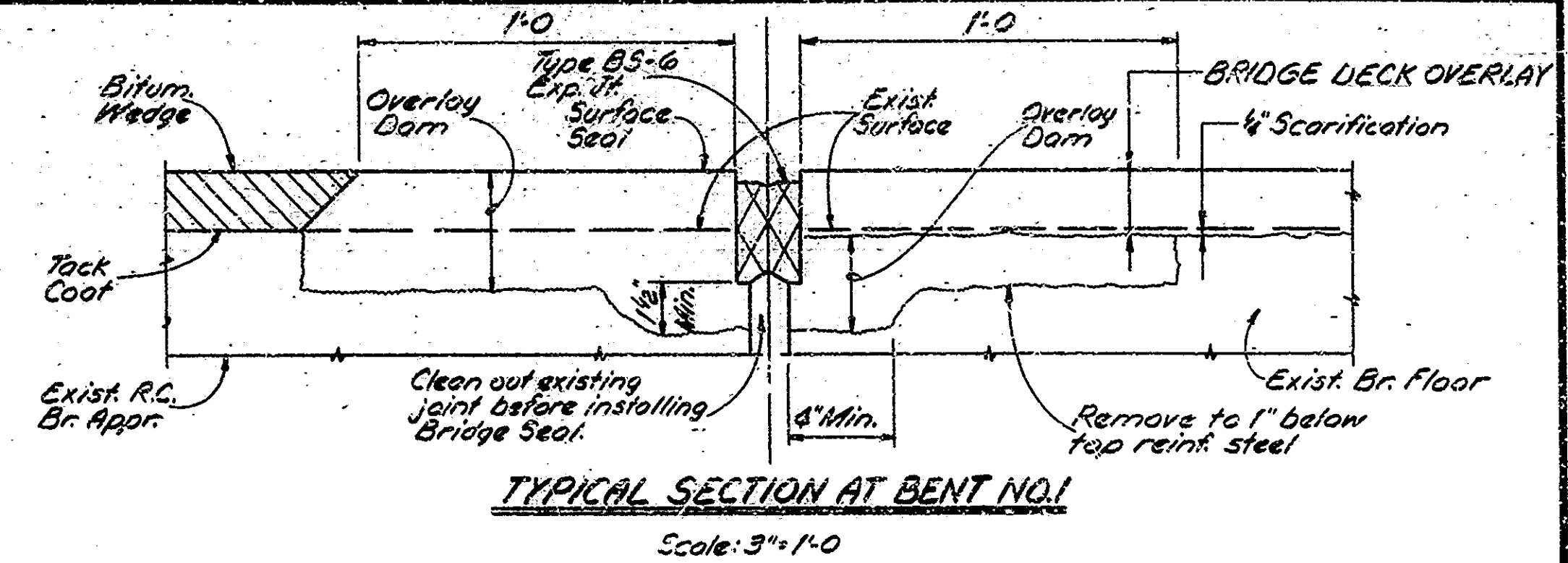
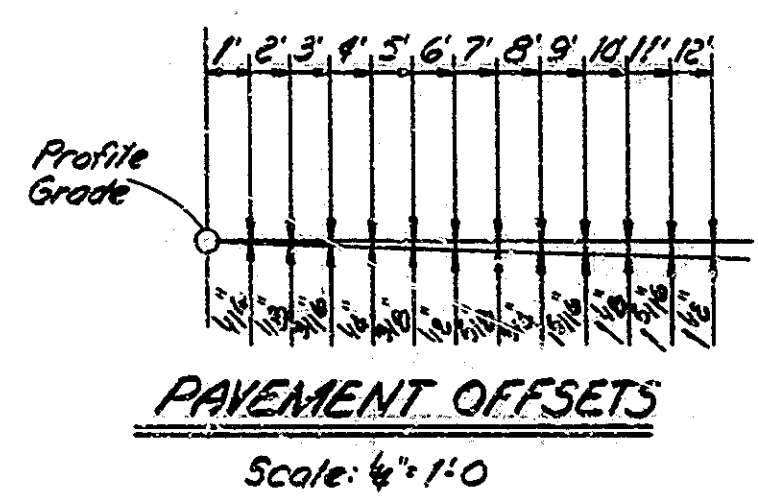
Rev. 11-12-85 Guard Rail Note.

Note: The pavement relief joint shall be constructed at the location shown on the Plans or at such other location as directed by the Engineer in the field.

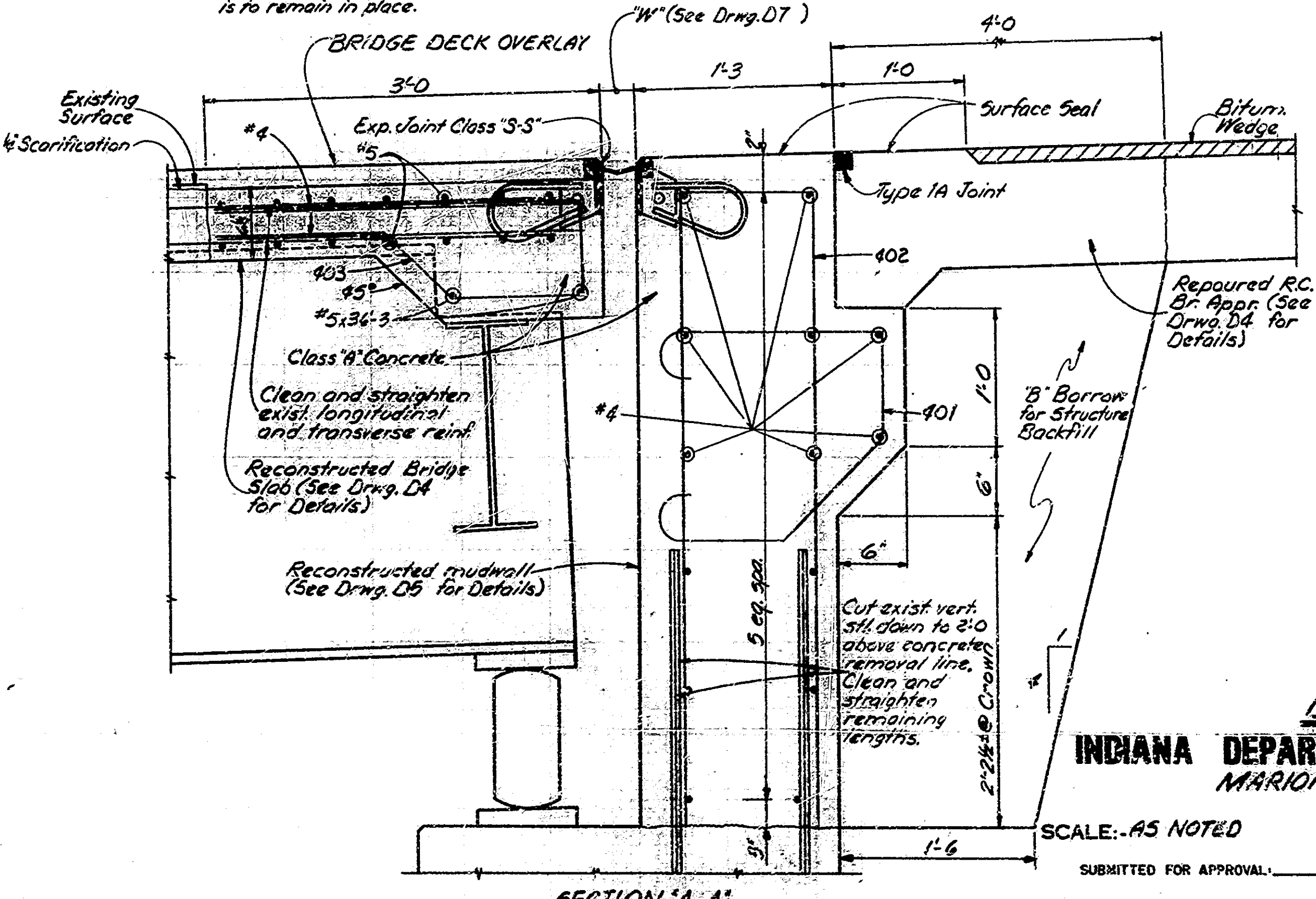
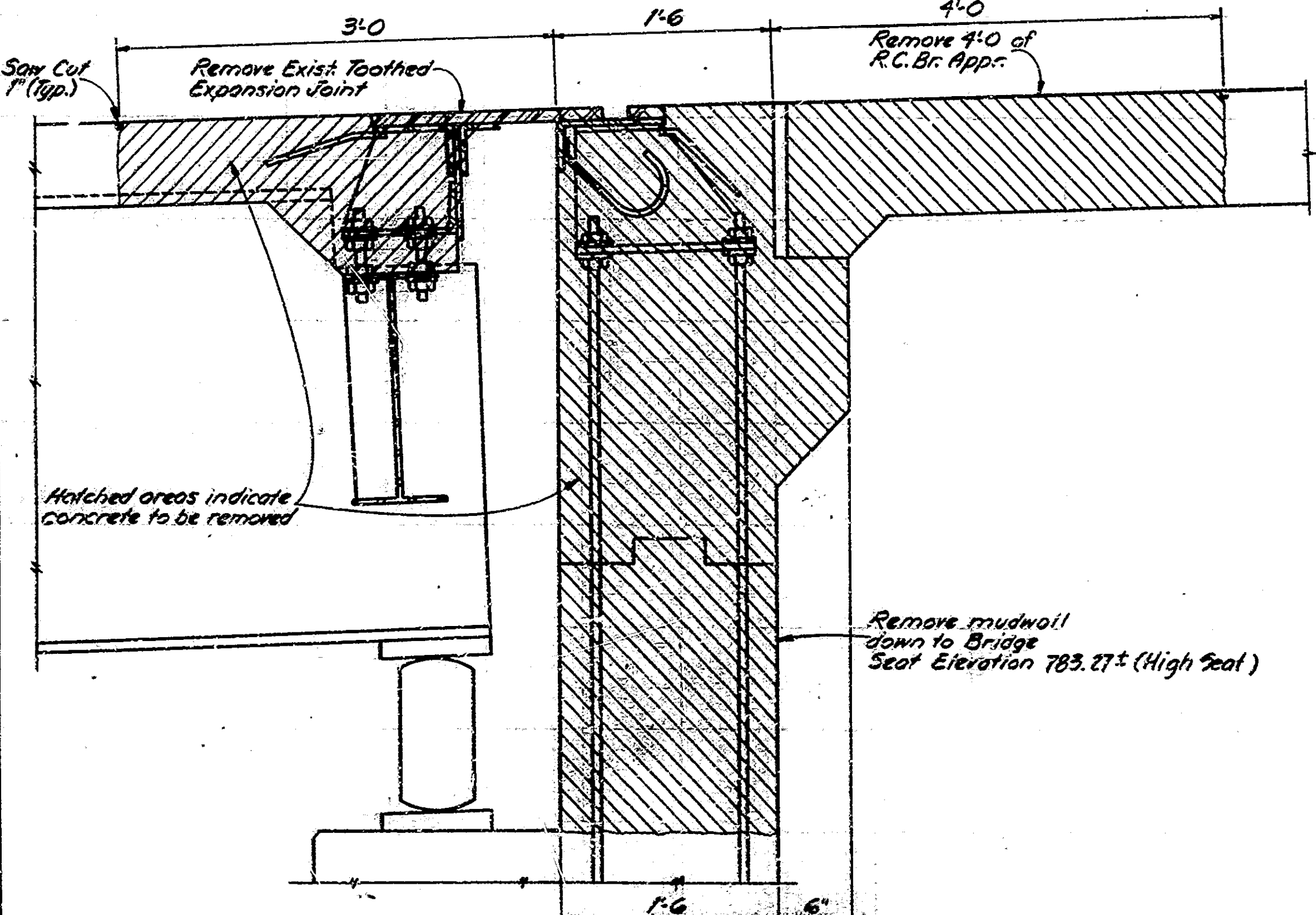
- Top of wedge shall be a continuation of bridge deck profile.
- Top of wedge shall be tapered uniformly to meet existing pavement.
- Dimension req'd with 1" Bridge Deck Overlay.
- (See the Special Provisions if 2" Bridge Deck Overlay is used.)



NOTE
The pay quantity for "Concrete Scarifying" shall include only the portion of the bridge deck which is to remain in place. Defined portions of the bridge floor removed for installation of expansion joints or replacement of deteriorated areas are not to be included in this pay item. Those undefined areas requiring full depth removal will still be included in the pay quantity for "Concrete Scarifying".



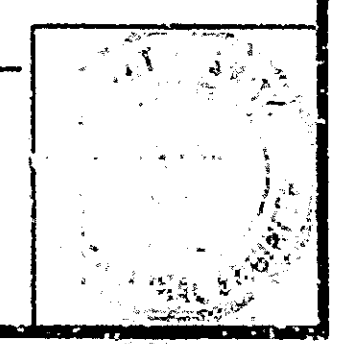
Note: All existing longitudinal and transverse reinf. steel in slab is to remain in place.



INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

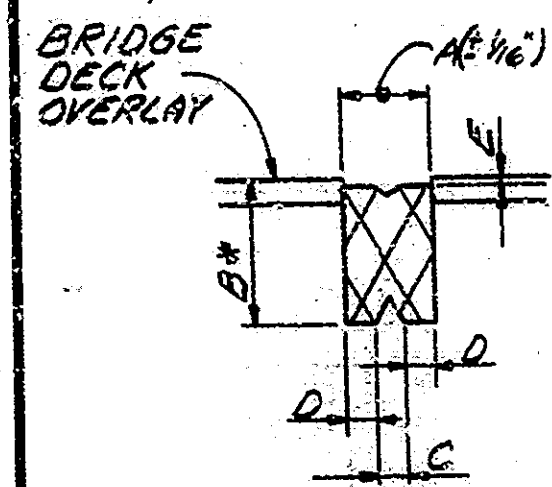
SCALE: AS NOTED DATE: 9/11/54
SUBMITTED FOR APPROVAL: Robert L. Arnold

DRAWING: D2 OF 7 SHEET: 3 OF 25
PROJECT: IR-465-8(11) 107
CONTRACT NO. B-15649
BRIDGE FILE: Z-465-103-1403A



Bridge Seal	A	B	C	D	E
BS-6	1 1/2"	3 1/2"	2 1/2"	1 1/2"	1 1/2"
BS-11	3 1/2"	2 1/2"	1 1/2"	1 1/2"	1 1/2"

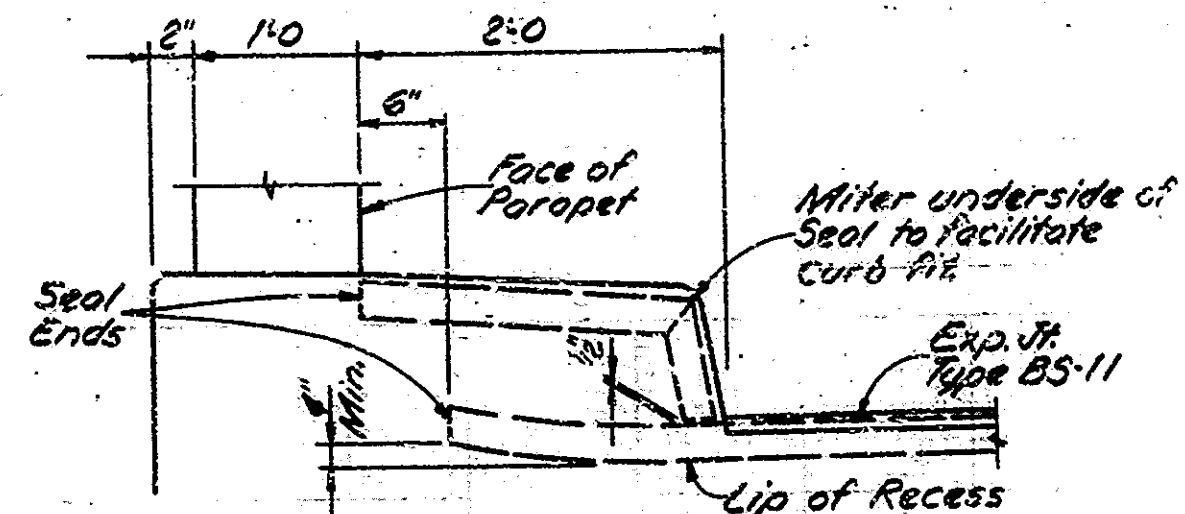
* To be determined in the field. (See the Special Provisions)



EXP. JOINT TYPE BS DETAILS

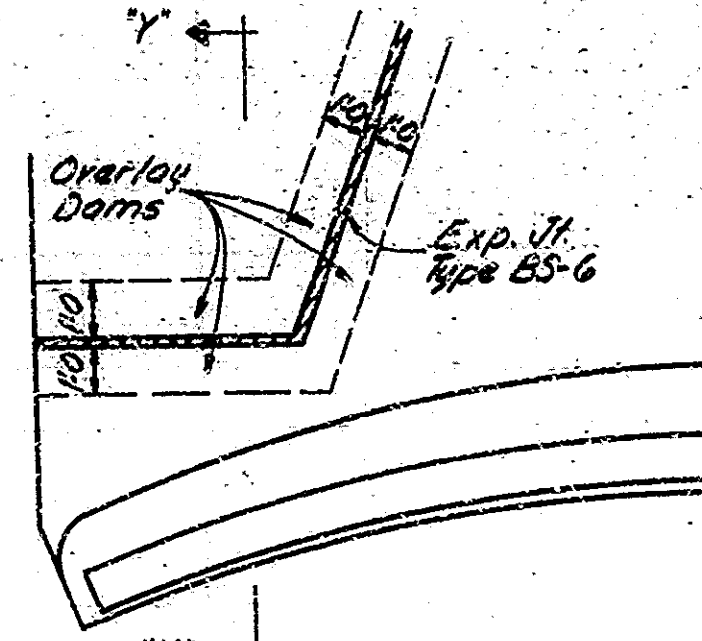
Not to Scale

Note: The cost of reconstructing curbs to install the seals shall be included in the cost of Expansion Joint Type BS.



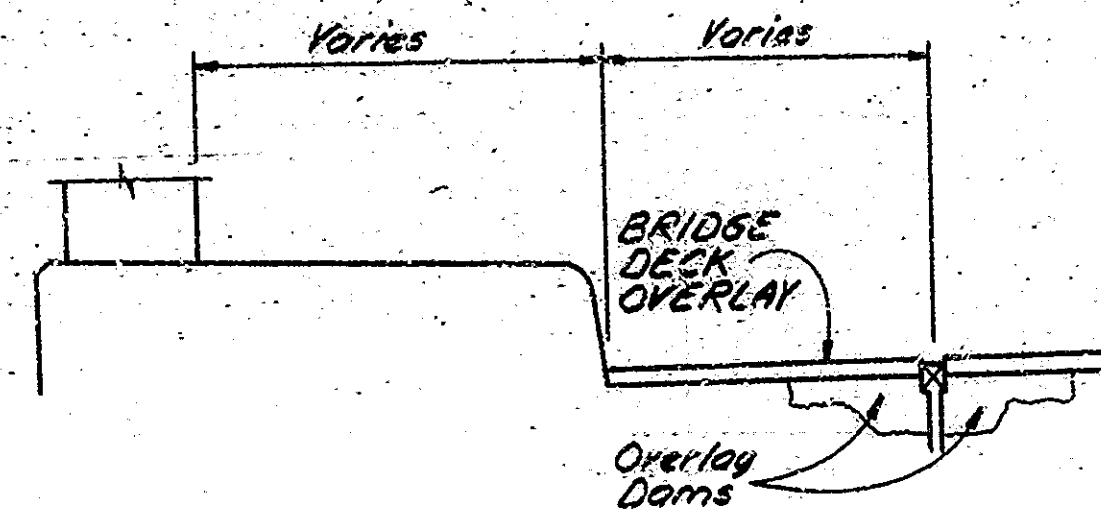
CURB SECTION AT PIER NO. 2

Scale: 1"=1'-0"



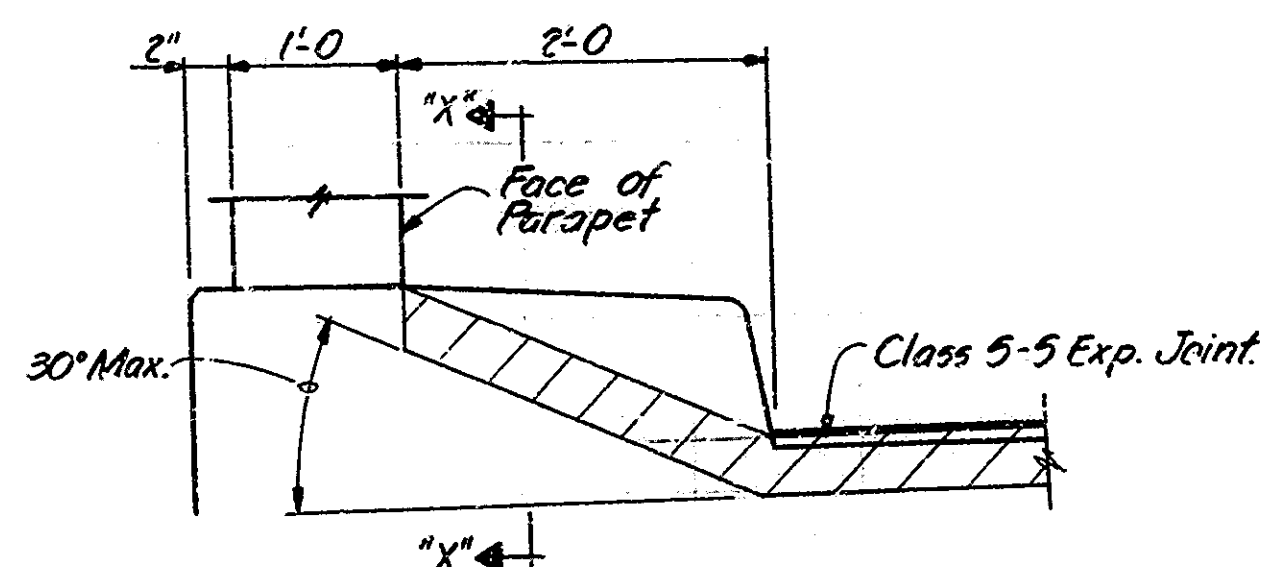
PLAN AT BENT NO. 1

Scale: 1/4"=1'-0"



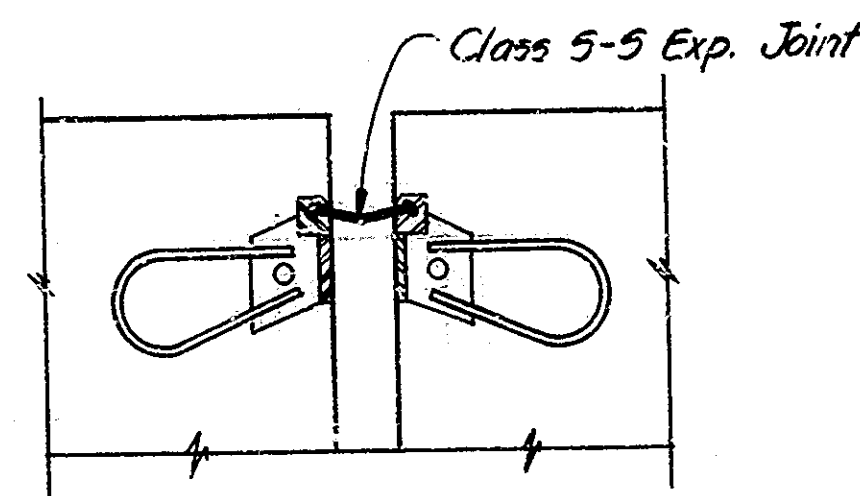
CURB SECTION "Y-Y"

Not to Scale



CURB SECTION AT BENT NO. 5

Scale: 1"=1'-0"



SECTION "X-X"

Not to Scale

CONSTRUCTION PROCEDURE

Erect warning signs and barricades and close Structure to traffic.
 Remove portions of Bridge Floor and R.C. Approach Slab.
 Remove mudwall and wingwalls.
 Scarify the remaining bridge floor to a depth of 1/4 inch.
 Remove the scarified dust.
 Remove all deteriorated concrete below the level of Scarification, around exposed reinforcing, along curbs inaccessible to scarifying equipment and as required for the construction of overlay dams.
 Reconstruct mudwall, wingwalls and R.C. Approach Slab.
 Repair slab removal areas and overlay dams to the level of scarification.
 Blast and clean all repaired and scarified deck areas.
 Construct overlay dams.
 Place the bridge deck patching and overlay as shown on the Plans and in accordance with the Special Provisions.
 Clean and seal exposed concrete surfaces as noted on the Plans with a penetrating epoxy sealer.
 Install BS expansion joint seals and Class S-5 Expansion Joint.
 Place the bituminous wedge and level courses and construct all other work shown on the Plans including the removal and installation of guard rail.
 The sequence of above notes does not necessarily indicate the sequence of operations.

MATERIAL NOTES

BRIDGE DECK OVERLAY: 1 1/2" Modified Portland Cement Concrete or 2 1/2" Dense Portland Cement Concrete (1 1/2" or 2 1/2" respectively above the original surface)
BITUMINOUS WEDGE: 110 Lbs./Sq. Yd. Bituminous Surface Type 11B over Variable Depth Bituminous Binder or Base.
PAVEMENT RELIEF JOINT: 110 Lbs./Sq. Yd. Bituminous Surface Type 11B over 1870 Lbs./Sq. Yd. Bituminous Base.

STANDARD DRAWINGS

BRIDGE ROAD	DESCRIPTION
C1	Reinforcing Bar Notes
D1	Adjusting Frame Details for Roadway Drains
C3	Joint Type IM
A	Pavement Mesh
GRa	Guard Rail Class Es
GRb	Guard Rail Pier Connection Details
GRc	Guard Rail Class Ds
GRd	Barred Ends
CBa	Temporary Concrete Barrier
1	Standard Detour Signs
2	Standard Detour Signs
2a	Standard Detour Signs
3	Standard Detour Signs
4	Standard Detour Signs
5	Standard Detour Signs
M1a	Sign Standards

INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

SCALE: AS NOTED

DATE: 9/12/54

SUBMITTED FOR APPROVAL:

Robert L. Arnold

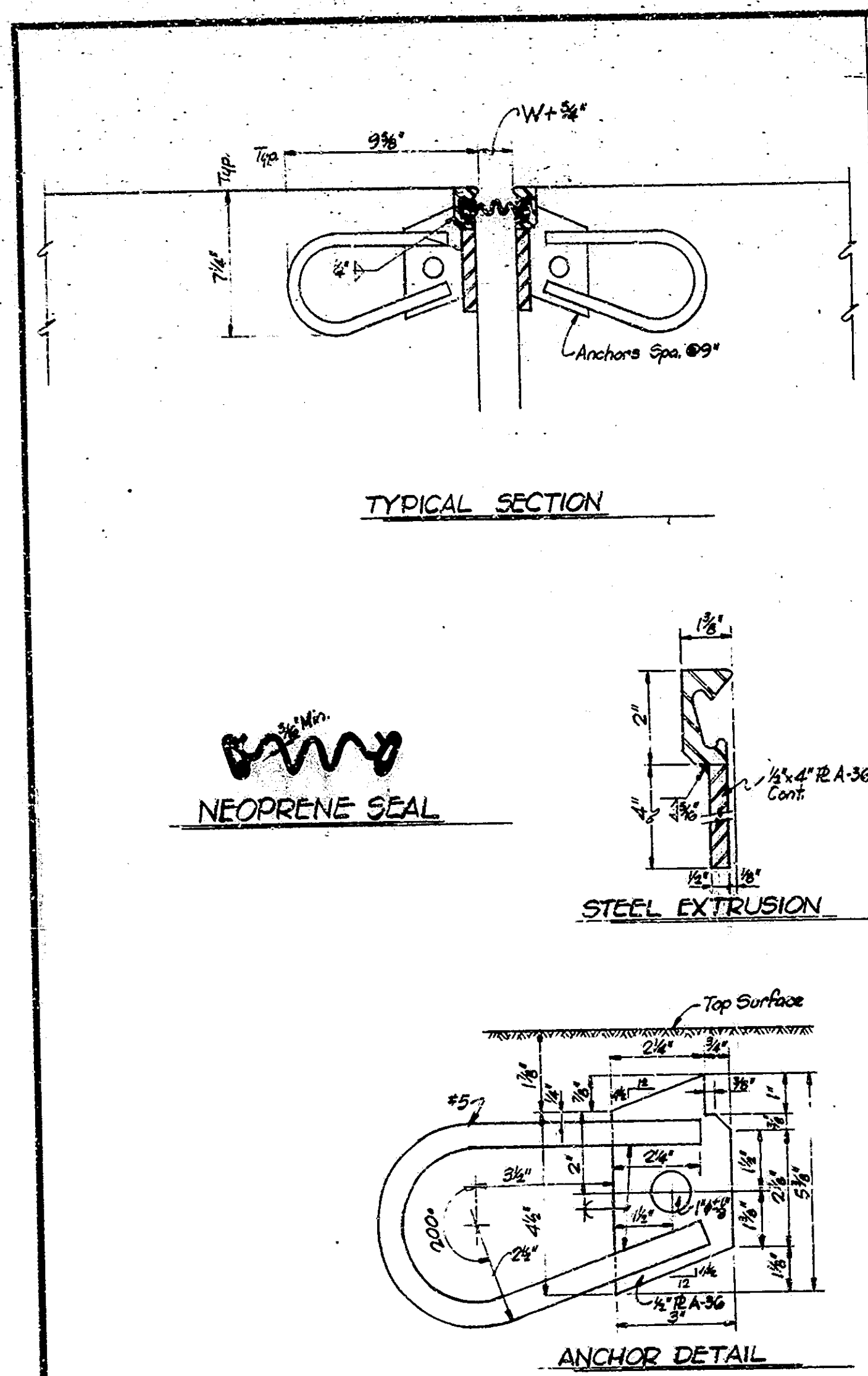
DRAWING: 03 OF 7 SHEET: 4 OF 25

PROJECT: I.R. 465-4 (04) 107

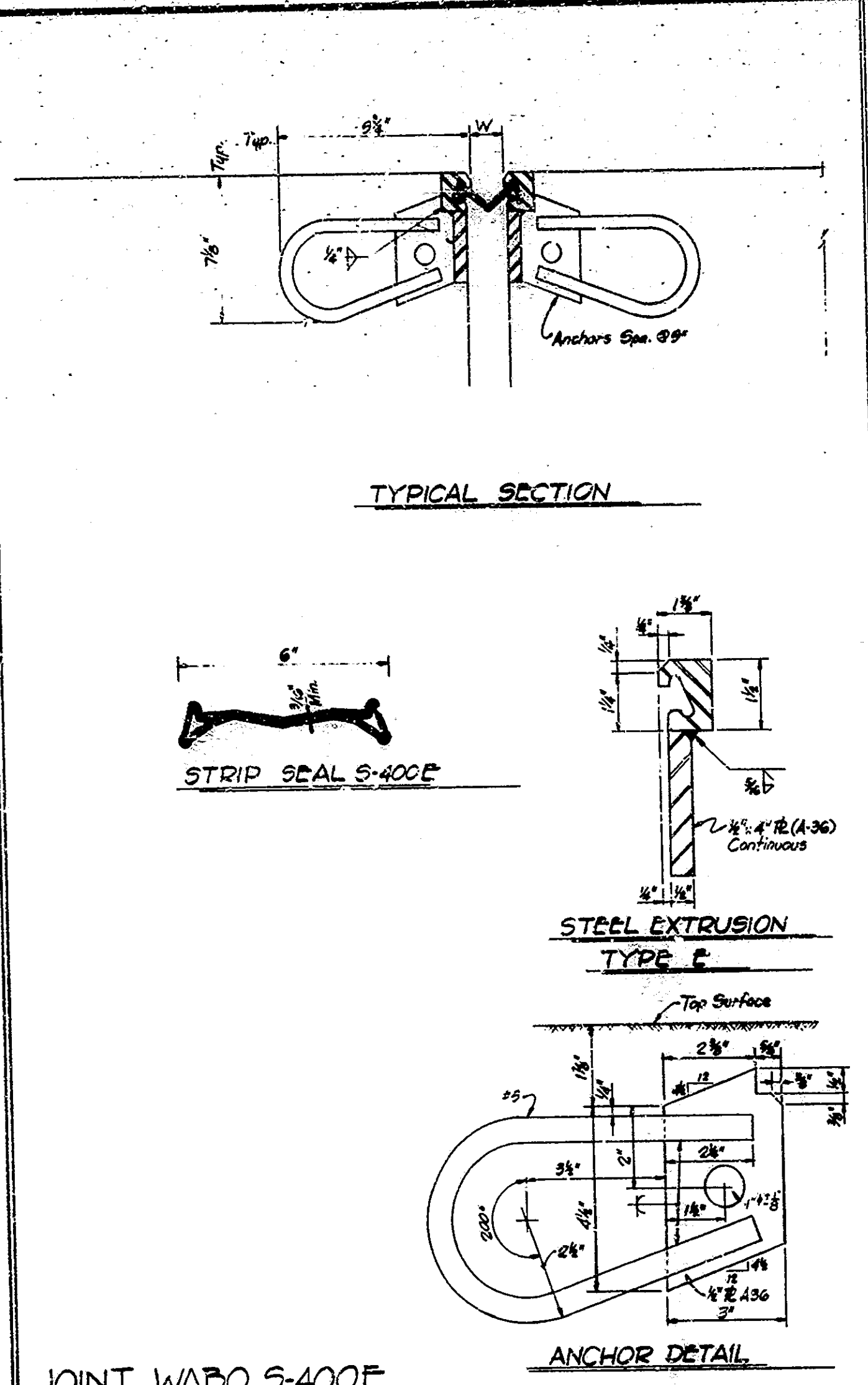
CONTRACT NO. B-75649

BRIDGE FILE: 2-465-103-1103A

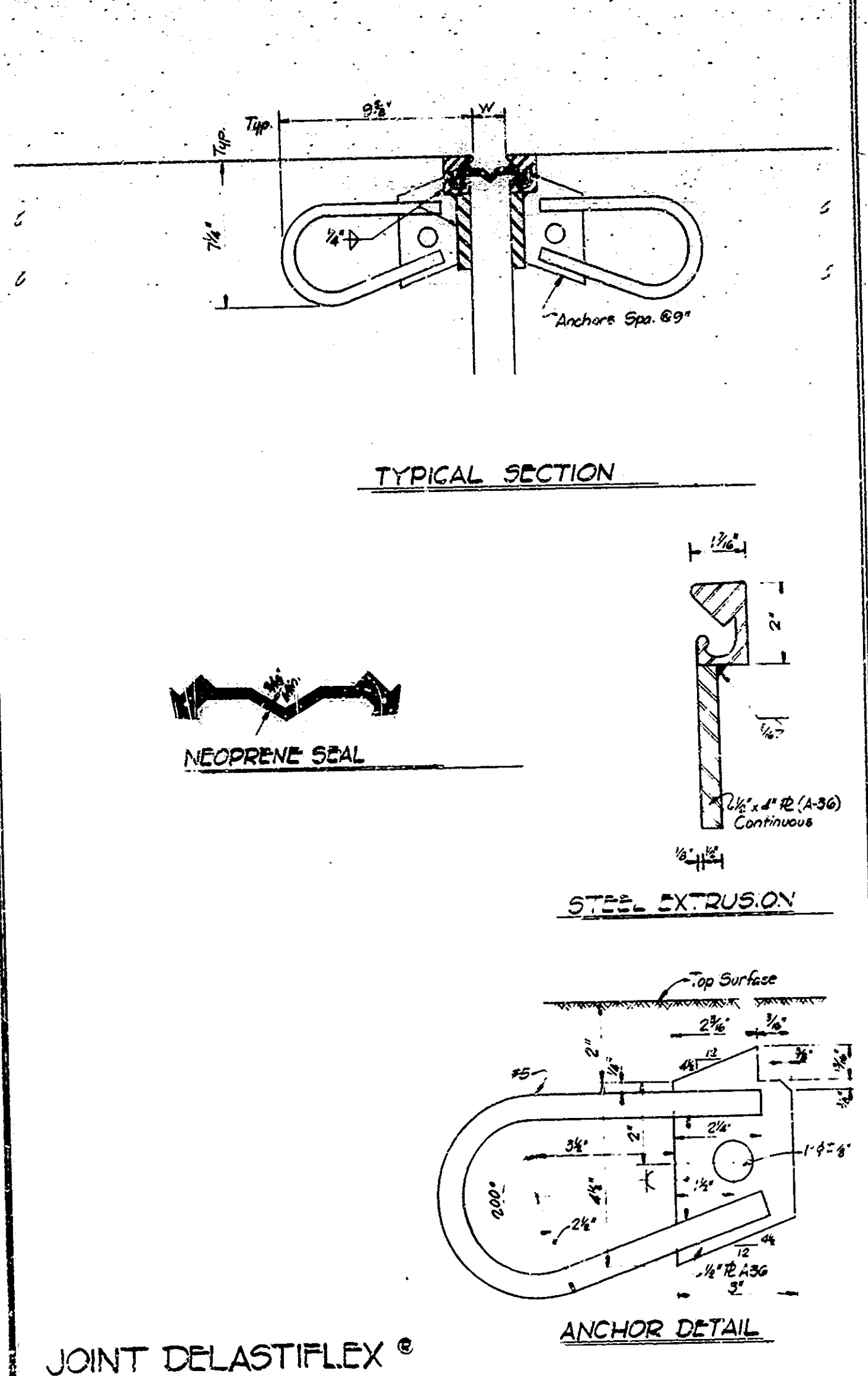
DESIGNED: J. Brown, R. Smith
 DRAWN: D. McKay, C.W.D. D. Shultz
 TRACED: C.W.D.



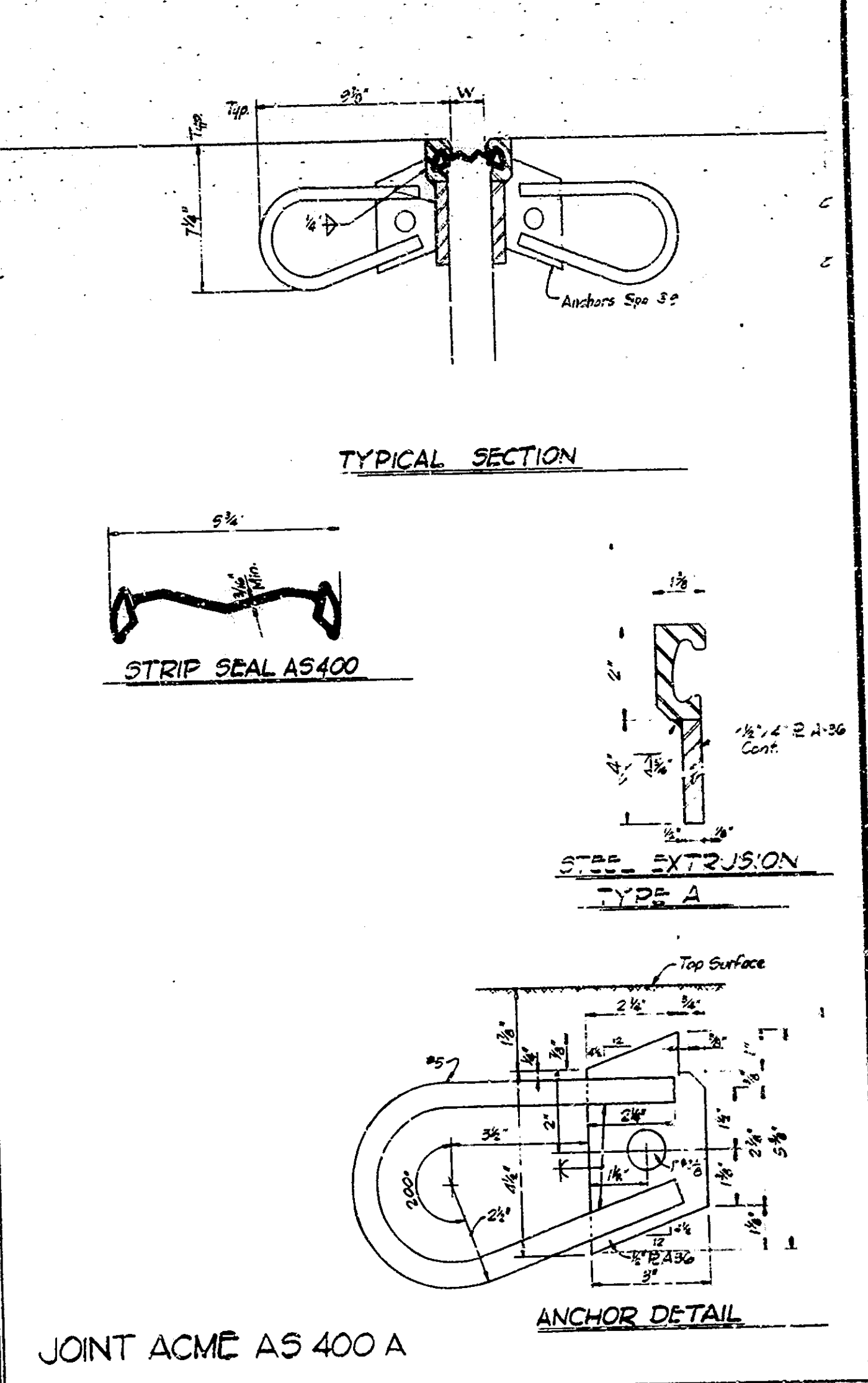
GENERAL TIRE GS-400



JOINT WABO S-400E



JOINT DELASTIFLEX



JOINT ACME AS 400 A

NOTES

SEE THE SPECIAL PROVISIONS FOR PROPERTIES OF MATERIALS.
 THE STRIP SEAL GLAND SHALL BE SIZED TO ACCOMMODATE 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 CONTINUOUS 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 PREPARED AND DELIVERED TO THE JOB SITE AS A COMPLETE CONTINUOUS UNIT FOR JOINT LENGTHS UP TO 50 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 T103.
 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.

Ambient Temperature	JOINT SETTING TABLE		
	DIMENSION "W"		
	Expansion Length		
	100'-200'	200'-300'	300'-400'
120°	2 1/2"	1 3/4"	1 1/2"
100°	2 3/4"	1 3/4"	1 1/2"
80°	2 3/4"	2 1/4"	1 3/4"
60°	3"	2 3/4"	2 1/4"
40°	3 1/2"	3 1/4"	2 3/4"
20°	3 3/4"	3 1/2"	3 1/4"
0°	3 3/4"	3 3/4"	4"

NOTE: EXTRUSIONS WITH HEIGHTS BETWEEN 1 1/2" 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
MARION COUNTY

SCALE: NONE DATE: 9/16/54
 SUBMITTED FOR APPROVAL: Robert Edward

DRAWING: 07 OF 7 SHEET: 8 OF 25
 PROJECT: SR-465-1(241)107
 CONTRACT NO. B-15649
 BRIDGE FILE: 2465-103-4205A



DESIGNED: CKD
 DRAWN: DAS 3/2/50 CKD
 TRACED: CKD

STRUCTURE PAY ITEMS				
CODE NO.	DESCRIPTION	UNIT	STRUCTURE	TOTAL QUANTITY
51002	CONCRETE CLASS C IN SUPERSTRUCTURE	CYS.		
51001	CONCRETE CLASS A IN SUPERSTRUCTURE	CYS.		3.9
51003	CONCRETE CLASS A IN SUBSTRUCTURE	CYS.		10.9
51010	CONCRETE CLASS B ABOVE FOOTINGS	CYS.		
51013	CONCRETE CLASS B IN FTGS	CYS.		
51875	SPECIAL CLASS A CONCRETE	SFT.		
51045	CONCRETE STRUCTURAL MEMBERS	LSUM		
51010	REINFORCING STEEL	LBS.		2160
51032	EPOXY COATED REINF. STEEL	LBS.		
51039	STRUCTURAL STEEL	LBS.		
51038	STRUCTURAL STEEL	LSUM		
51090	BRONZE PLATES	LBS.		
51070	ANCHOR PLATES (NK-AP 1)	EACH		
51075	ANCHOR PLATES (NK-AP 2)	EACH		
51080	ANCHOR PLATES (NK-AP 3)	EACH		
51085	ANCHOR PLATES (NK-AP 4)	EACH		
51112	ANCHOR BOLTS	EACH		
51088	TIE DOWN ASSEMBLY NK-UA	EACH		
51095	CAST IRON DRAIN PIPE, 4 IN.	LBS.		
51100	CAST IRON DRAIN PIPE, 6 IN.	LBS.		
51105	CAST IRON DRAIN PIPE, 8 IN.	LBS.		
51110	CAST IRON GRATES BASIN AND FITTINGS	LBS.		
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	NET EXCAVATION	CYS.		
51223	WATERWAY EXCAVATION	CYS.		
51224	WATERWAY EXCAVATION	LSUM		
51225	DRY EXCAVATION	CYS.		
51230	FOUNDATION EXCAVATION (UNCLASSIFIED)	CYS.		
51813	PNEUMATICALLY PLACED MORTAR	SFT.		100
51870	REPOINTING MASONRY IN STPS	SFT.		
51814	WELDED STEEL WIRE FABRIC	SFT.		
51859	PAINTING OLD STEEL BRIDGE	LSUM		
51881	EXPANSION JOINT TYPE BS2	LFT.		41
51885	EXPANSION JOINT TYPE BS6	LFT.		
51887	EXPANSION JOINT TYPE BS8	LFT.		
51888	EXPANSION JOINT TYPE BS9	LFT.		30
51890	EXPANSION JOINT TYPE BS11	LFT.		
51925	EXPANSION JOINT CLASS S-S	LFT.		34
51926	EXPANSION JOINT CLASS T-S	LFT.		
51874	OVERLAY DAM	SFT.		142

* Includes 173 Sys. Approach Scarifying

SUMMARIZED *D. Sheets* C'K'D _____
 TRACED *D. Sheets* C'K'D _____

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 FURN. TREATED	LFT.		
51150	TIMBER PILES DRIV. TREATED	LFT.		
51155	PILE SHELLS FURNISHED AND DRIVEN (12 INCH)	LFT.		
51160	PILE SHELLS FURNISHED AND DRIVEN (24 INCH)	LFT.		
51185	STEEL H PILES FURNISHED AND DRIVEN (8 RP 36)	LFT.		
51190	STEEL H PILES FURNISHED AND DRIVEN (10 RP 42)	LFT.		
51195	STEEL H PILES FURNISHED AND DRIVEN (12 RP 51)	LFT.		
51210	PILE ENCASMENT (CONCRETE)	LFT.		
51328	REMOVAL OF PRESENT STR. (PORTIONS)	LSUM		1
51330	REMOVAL OF PRESENT STR.	LSUM		
51335	TEMPORARY BRIDGE AND APPR.	LSUM		
51356	CONCRETE SLOPEWALL 5 INCH	SYS.		
51365	SLOPEWALL	SYS.		
51370	RIPRAP	SYS.		
51375	REVEIEMENT RIPRAP	TON		
51371	HANDLAID RIPRAP 12 INCH	SYS.		
51372	DUMPED RIPRAP	TON		
51374	PLASTIC FILTER CLOTH	SYS.		
51395	STEEL DRAIN PIPE (6 INCH)	LSUM		
51400	STEEL DRAIN PIPE (8 INCH)	LSUM		
51092	STEEL PIPE CONDUIT 1/2 INCH	LFT.		
51866	RIVETS REMOVED	EACH		
51864	PILES DRILLED HOLES	EACH		
51867	STRUCTURAL STEEL CUTTING	SIN		
51863	FIELD DRILLED HOLES IN CONCRETE	EACH		
51423	SURFACE SEAL #	LSUM		1
51842	BRIDGE DECK OVERLAY	SYS.		802
51843	BRIDGE DECK SURFACE	SYS.		
51847	BRIDGE DECK PATCHING	SFT.		360
51833	CONCRETE SCARIFYING	SYS.		366
51840	ADDITIONAL CONC SCARIFYING	SYS.		
51837	BLASTING AND CLEANING	SYS.		802
51838	FINISHING AND CURING	SYS.		802
	FULL DEPTH PATCHING	SFT.		20
	ADDITIONAL BRIDGE DECK OVERLAY	CYS.		5

* Estimated Quantity = 5300 SF. (See Special Provisions)

BITUM. MIXTURE FOR APPRS. (TONS)	
WEDGES	81
RELIEF JOINTS	11
TOTAL	92

MARCH 1982

APPROACH PAY ITEMS				
CODE NO.	DESCRIPTION	UNIT	STRUCTURE	TOTAL QUANTITY
02045	EXCAVATION FOR SUBGRADE TREATMENT	CYS.		
02020	UNCLASSIFIED EXCAVATION	CYS.		
52240	COMMON EXCAVATION	CYS.		
52245	BORROW	CYS.		
52250	B BORROW	CYS.		
52255	B BORROW FOR STRUCTURE BACKFILL	CYS.		10
52303	REMOVAL OF PAVEMENT	SYS.		24
02235	BREAKING PAVEMENT	SYS.		
52490	TERMINAL JOINT	LFT.		
52495	CONTRACTION JOINT, TYPE D-1	LFT.		
52280	CONC PAVEMENT REINFORCED (7 INCH)	SYS.		
52285	CONC PAVEMENT REINFORCED (8 INCH)	SYS.		
52290	CONC PAVEMENT REINFORCED (9 INCH)	SYS.		12.4
52300	CONC PAVEMENT REINFORCED (10 INCH)	SYS.		
06070	CONCRETE SIDEWALK	SYS.		
52305	TYPE P COMPACTED AGGREGATE FOR BASE (SIZE NO. 53)	TON		
52605	AGGREGATE FOR SHOULDER DRAINS	TON		
52610	AGGREGATE FOR UNDER DRAINS	CYS.		
52408	TYPE O COMPACTED AGGREGATE FOR BASE (SIZE NO. 53)	TON		
52310	SUBBASE	CYS.		
52315	BITUM. STABILIZED SUBBASE	TON		
52320	TYPE I, II, OR III BITUM. STABILIZED SUBBASE	TON		
52445	BITUMINOUS BASE	TON		
04260	BITUMINOUS BASE (TYPE 50)	TON		
52451	BITUMINOUS BINDER	TON		
52450	BITUMINOUS SURFACE	TON		
52456	BITUMINOUS MATERIAL FOR TACK COAT	SYS.		688
52461	BITUMINOUS MATERIAL FOR PRIME COAT	SYS.		
04351	SEAL COAT TYPE 5	SYS.		
04348	SEAL COAT TYPE 2	SYS.		
52470	BITUMINOUS MIXTURE FOR APPROACHES	TON		52
52475	BITUMINOUS MIXTURE FOR SHOULDER	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.		960
52520	GUARD RAIL, TYPE E	LFT.		19.5
52525	GUARD RAIL, TYPE F	LFT.		
52530	GUARD RAIL, TYPE G	LFT.		
52531	GUARD RAIL, TYPE H	LFT.		
52537	GUARD RAIL END TREATMENT	EACH		
06035	RESET GUARD RAIL	LFT.		25
52535	REMOVAL OF GUARD RAIL	LFT.		1087
52380	SODDING	SYS.		
52391	SODDING (NURSERY)	SYS.		
52385	MULCHED SEEDING "R"	SYS.		
06560	MULCHED SEEDING "U"	SYS.		
52382	MULCHED SEEDING (LEGUMES)	SYS.		
52383	SEED MIXTURE "R"	LBS.		
52384	SEED MIXTURE "U"	LBS.		
52388	SEED MIXTURE "CU"	LBS.		
52391	SEED MIXTURE (GRASS)	LBS.		
52400	MULCHING MATERIAL (WOOD CELLULOSE FIBER)	TON		
52405	FERTILIZER	TON		
52413	WATER	M.G.		
52415	AGRICULTURAL LIMESTONE	TON		

REVISIONS	
DATE	ITEM
10-16-85	52537 deleted; 52538 added.
11-12-85	52515, 52535, 52538.

Drawing
Not
Legible

APPROACH PAY ITEMS				
CODE NO.	DESCRIPTION	UNIT	STRUCTURE	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:O.052"FRS PERP.CS 6"	LFT.		
29000	PIPE:O.064"FBCCS 12"	LFT.		
52375	CONC CLASS A IN STRUCTURE	CYS.		
52376	CONC 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 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.		
52831	DRILLED HOLES FOR MUDJACKING	EACH		
52830	MATERIAL FOR MUDJACKING	CYS.		
99661	DO NOT SPRAY SIGNS	EACH		
	ADJUST CASTING TO GRADE	EACH		4
	GUARD RAIL POST AND BRACKET	EACH		12
52538	GUARD RAIL END TREATMENT TYPE I	EACH		3

APPROACH PAY ITEMS				
CODE NO.	DESCRIPTION	UNIT	STRUCTURE	TOTAL QUANTITY
06040	47" FENCE, F, FIELD	LFT.		
06045	48" FENCE, CHAIN LINK	LFT.		
52340	CONSTRUCTION SIGNS (TYPE A)	EACH		10
52345	CONSTRUCTION SIGNS (TYPE B)	EACH		4
52346	STD. BARRICADES (TYPE III-4)	EACH		2
52640	MAINTAINING TRAFFIC	LSUM		
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-2AR	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	DELINATOR WITH POST, TYPE D-1, 3 INCH	EACH		
06740	DELINATOR WITH POST, TYPE D-2, 3 INCH	EACH		
52825	FLEXIBLE DELINEATORS	EACH		
06770	DELINATOR POST	EACH		
06771	FLEXIBLE DELINATOR POST	EACH		
52366	TEMPORARY PAVEMENT MARKING TAPE	LFT.		
52367	TEMPORARY PAVEMENT MARKING PAINT	LFT.		
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		
52821	FLASHING ARROW SIGN	MKS.		995
06713	LINE, SOLID, WHITE, 4"	LFT.		995
06714	LINE, SOLID, YELLOW, 4"	LFT.		
06702	THERMOPLASTIC LINE, SKIP WHITE, 5"	LFT.		
06711	LINE, SKIP, WHITE, 4"	LFT.		
06712	LINE, SKIP, YELLOW, 4"	LFT.		
06718	REMOVAL OF LINE, SOLID, WHITE, 4"	LFT.		
06713	REMOVAL OF LINE, SOLID, YELLOW, 4"	LFT.		
06718	REMOVAL OF LINE, SKIP, WHITE, 4"	LFT.		
96900	REMOVAL OF LINE, SKIP, YELLOW, 4"	LFT.		
53058	REMOVAL OF THERMOPLASTIC LINE, SKIP, WHITE 5"	LFT.		
52536	TEMPORARY CONC. BARRIER	LFT.		
52819	TEMPORARY CROSSOVER TYPE "B"	EACH		

BRIDGE ESTIMATE OF QUANTITIES

INDIANA DEPARTMENT OF HIGHWAYS

MARION COUNTY

DATE 9/21/82

SUBMITTED FOR APPROVAL:

Robert J. Smith

PROJECT: IR-465-440107
 CONTRACT NO: B-15649
 BRIDGE FILE: I-465-108-4403A

SHEET 9 OF 25

END