

CONTRACT NO. B-13448

INDEX					
PROJECT	STRUCTURE	TYPE	SPAN	OVER	STATION
FR-132-5(5)	67-38-4833A	DECK RECONSTRUCTION AND OVERLAY CONTINUOUS REINFORCED CONCRETE GIRDER BRIDGE	5 SPANS 24'-0" 47'-0" 70'-0" 47'-0" 24'-0"	LIMBERLOST CREEK	C 150+70'H
SHEET NO.	SHEET DESIGNATION	SUBJECT			F.H.W.A. APPROVAL
1	(00)	TITLE AND INDEX			
2	(01)	GENERAL PLAN			
3	(02)	GENERAL NOTES AND DETAILS			
4	(03)	DETAILS			
5		ESTIMATE OF QUANTITIES			

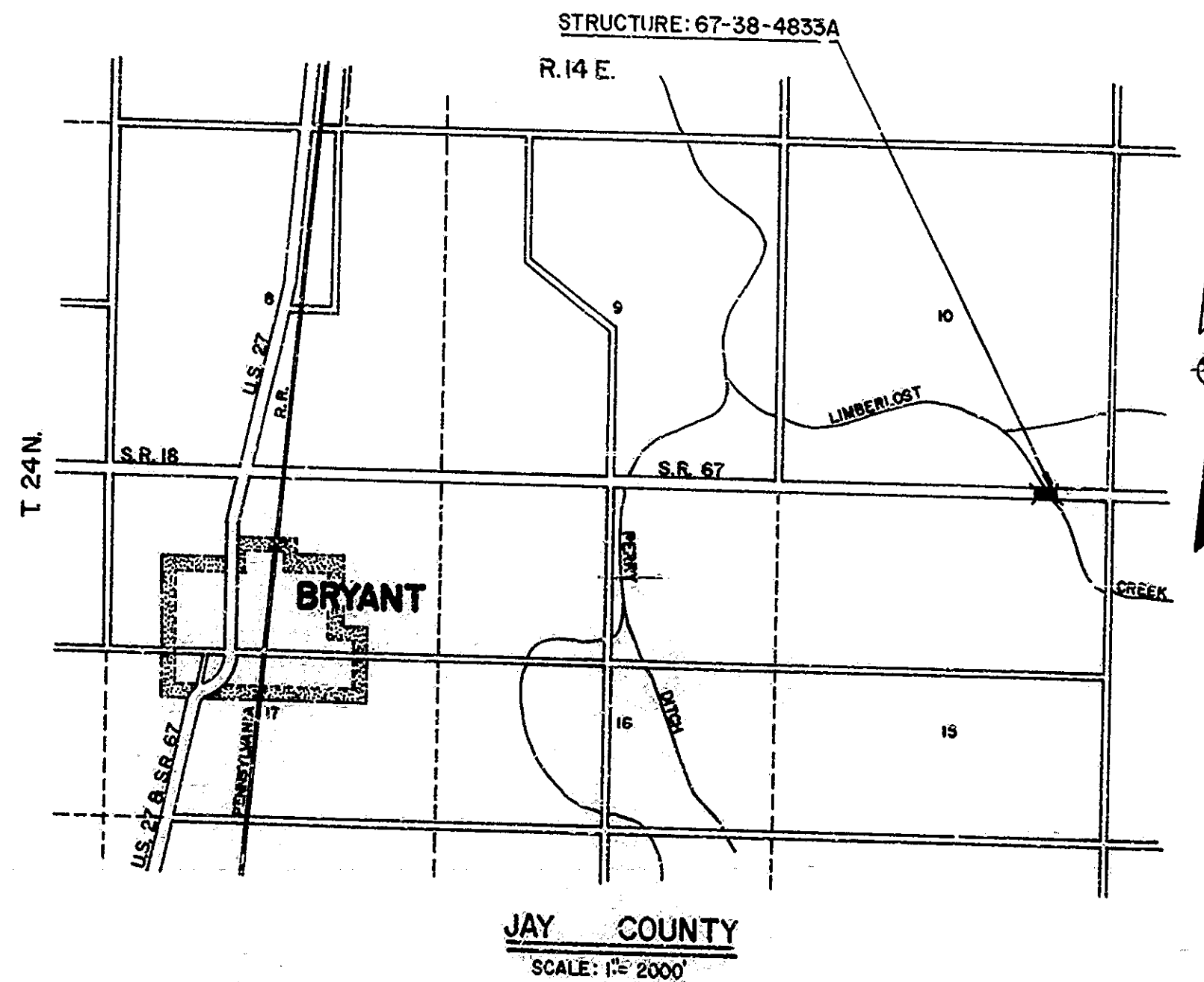
TRAFFIC DATA			
A.D.T. (1980)		2200	V.P.D.
A.D.T. (19 PROJECTED)			V.P.D.
D.H.V. (19 PROJECTED)			V.P.D.
TRUCKS		D.H.V.	% A.D.T. %
DESIGN SPEED			M.P.H.
ACCESS CONTROL			

NOTE:-
WHEREVER "INDIANA STATE HIGHWAY COMMISSION" APPEARS IN THESE PLANS, IT SHALL BE INTERPRETED AS "INDIANA DEPARTMENT OF HIGHWAYS" EXCEPT 1978 INDIANA STATE HIGHWAY COMMISSION SPECIFICATIONS SHALL BE USED.

STATE OF INDIANA
INDIANA STATE HIGHWAY COMMISSION

BRIDGE PLANS FOR SPANS OVER 20 FEET ON STATE ROAD NO. PROJECT NO. FR-132-5(5)

BRIDGE LENGTH: MI.
ROADWAY LENGTH: MI.
TOTAL LENGTH: MI.
MAX. GRADE: %



BUTLER, FAIRMAN & SEUFERT, INC.
ENGINEERS
CARMEL INDIANA

INDEX CONTINUED		STANDARD DRAWINGS		SUBJECT		F.H.W.A. APPROVAL	ADOPTED 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						
BRIDGE STD. C1	MISCELLANEOUS DETAILS						
BRIDGE STD. C2	MISCELLANEOUS DETAILS						
BRIDGE STD. C3	MISCELLANEOUS DETAILS						
BRIDGE STD. C4	MISCELLANEOUS DETAILS						
BRIDGE STD. D	CASTING DETAILS 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. PB10	TOLEBRATED FOR FABRICATION OF PRESTRESSED BEAMS						
BRIDGE STD. PB11	ELASTOMERIC BEARING PAD DETAILS						
BRIDGE STD. R2A	BRIDGE LIGHTING DETAILS						
BRIDGE STD. R2B	MISCELLANEOUS DETAILS						
BRIDGE STD. S1	STEEL SHOE DETAILS						
BRIDGE STD. T SHEET A	STANDARD TEMPORARY BRIDGE						
BRIDGE STD. T SHEET B	STANDARD TEMPORARY BRIDGE						
ROAD STD. SHEET A	STANDARD PAVEMENT JOINTS						
ROAD STD. SHEET B	STANDARD PAVEMENT JOINTS						
ROAD STD. SHEET MA	MISCELLANEOUS STANDARDS						
ROAD STD. SHEET MB	MISCELLANEOUS STANDARDS						
ROAD STD. SHEET MC	MISCELLANEOUS STANDARDS						
ROAD STD. SHEET MD	MISCELLANEOUS STANDARDS						
ROAD STD. SHEET ME	MISCELLANEOUS STANDARDS						
ROAD STD. SHEET MF	MISCELLANEOUS STANDARDS						
ROAD STD. SHEET MG	MISCELLANEOUS STANDARDS						
ROAD STD. SHEET MH	MISCELLANEOUS STANDARDS						
ROAD STD. SHEET MI	MISCELLANEOUS STANDARDS						
ROAD STD. SHEET MJ	MISCELLANEOUS STANDARDS						
ROAD STD. SHEET MK	MISCELLANEOUS STANDARDS						
ROAD STD. SHEET ML	MISCELLANEOUS STANDARDS						
ROAD STD. SHEET NM	MISCELLANEOUS STANDARDS						
ROAD STD. SHEET NP	MISCELLANEOUS STANDARDS						
ROAD STD. SHEET NQ	MISCELLANEOUS STANDARDS						
ROAD STD. SHEET NR	MISCELLANEOUS STANDARDS						
10B ROAD STD. SHEET CB-2	Temporary Concrete Barrier			6-3-81	R-6-1-81		
ROAD STD. SHEET GR	STANDARD BEINF. CONCRETE BOX CULVERTS						
ROAD STD. SHEET GR	STANDARD BEINF. CONCRETE CULVERTS						
ROAD STD. SHEET GR	GUARD RAIL CLASS						
ROAD STD. SHEET GR	GUARD RAIL CLASS						
ROAD STD. SHEET GR8	STEEL BEAM GUARD RAIL CLASS DS						
ROAD STD. SHEET GR5	ALUMINUM GUARD RAIL DETAILS			3-25-80	R-1-2-80		
ROAD STD. SHEET GR6	STEEL TUBE GUARD RAIL DETAILS			12-6-76	R-9-1-76		
ROAD STD. SHEET GR9	ALUMINUM BEAM GUARD RAIL CLASS DA						
ROAD STD. SHEET GR10	GUARD RAIL BULKED ENDS			5-17-79	R-2-1-79		
ROAD STD. SHEET GR10A	BREAKAWAY CABLE TERMINAL, TYPE A			6-6-80	R-6-1-80		
ROAD STD. SHEET 9	TRAFFIC SIGN DETAILS			5-15-81	R-5-2-81		
ROAD STD. SHEET 1 DETOURS	STANDARD DETOUR SIGNS			6-3-81	R-4-1-81		
ROAD STD. SHEET 1A DETOURS	STANDARD DETOUR SIGNS						
ROAD STD. SHEET 1B DETOURS	STANDARD DETOUR SIGNS						
ROAD STD. SHEET 2 DETOURS	STANDARD DETOUR SIGNS						
ROAD STD. SHEET 2A DETOURS	STANDARD DETOUR SIGNS			6-10-80	R-5-1-80		
ROAD STD. SHEET 3 DETOURS	STANDARD DETOUR SIGNS			8-25-81	R-8-3-81		
ROAD STD. SHEET 3A DETOURS	STANDARD DETOUR SIGNS			10-20-80	R-9-1-81		
ROAD STD. SHEET 4 DETOURS	STANDARD DETOUR SIGNS						
ROAD STD. SHEET 5 DETOURS	STANDARD DETOUR SIGNS			5-18-77	R-4-1-77		
ROAD STD. SHEET 5A DETOURS	STANDARD DETOUR SIGNS			10-20-80	R-7-1-80		

APPROVED *8-7-80*
Robert L. Smith
CHIEF HIGHWAY ENGINEER - INDIANA STATE HIGHWAY COMMISSION

13304
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL *8-6-80*
E. W. Walters
ENGINEER OF BRIDGE DESIGN, INDIANA STATE HIGHWAY COMMISSION

FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

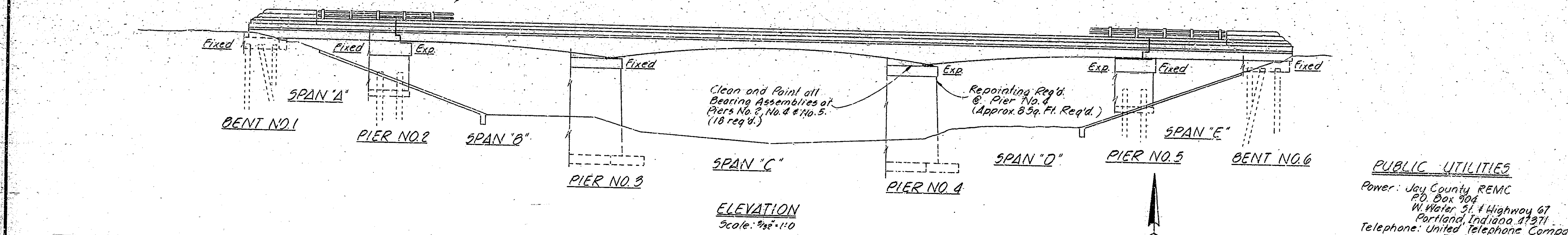
APPROVED: _____
DIVISION ADMINISTRATOR DATE _____

BRIDGE FILE: 67-38-4833A

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

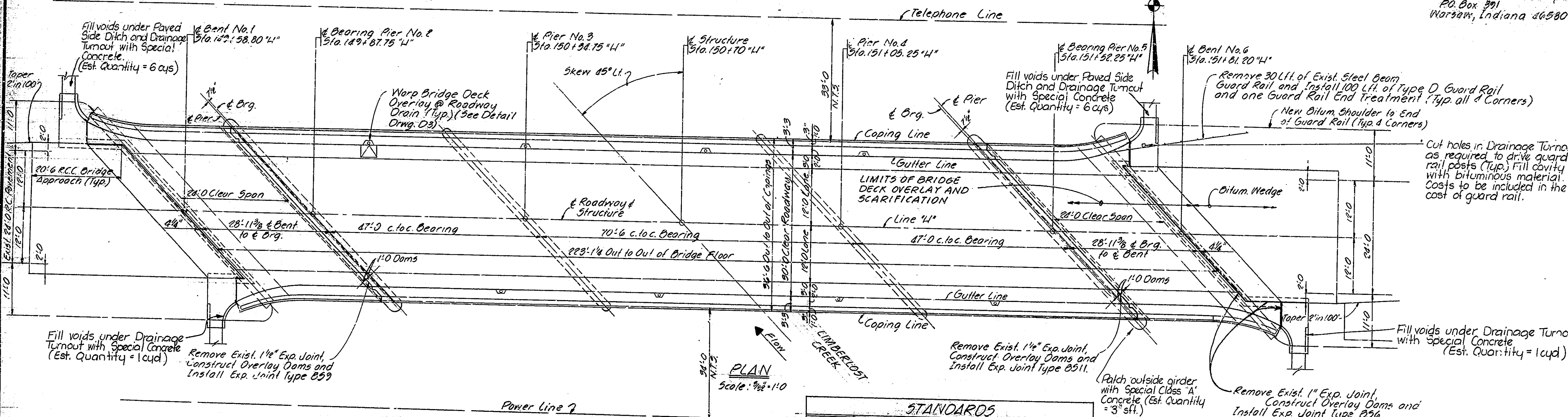
DATE	REVISIONS	SHEET NO.	DATE	REVISIONS	SHEET NO.
1-10-82	1,2,3,4,5		1-25-82	10A, 10B, Add.	

STRUCTURE IS BUILT ON A 100' VERTICAL CURVE

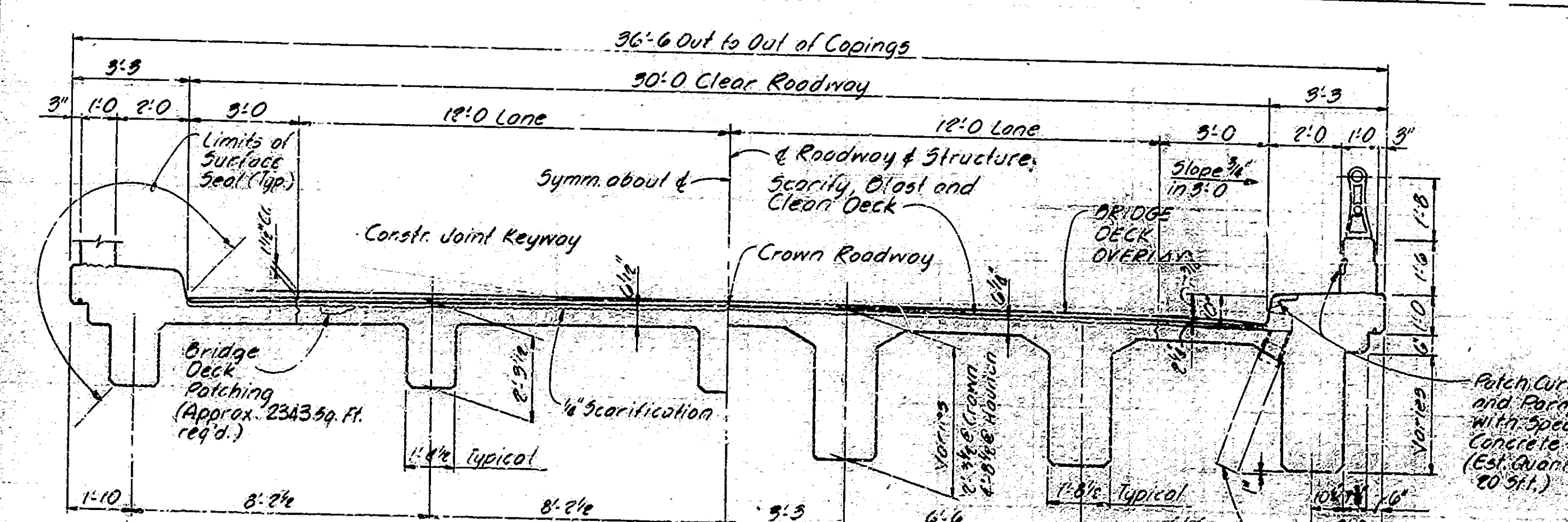


ELEVATION
Scale: 1/8" = 1'-0"

PUBLIC UTILITIES
Power: Jay County REMC
P.O. Box 904
Mt. Water, St. Highway 67
Portland, Indiana 47371
Telephone: United Telephone Company
P.O. Box 991
Warsaw, Indiana 46580



PLAN
Scale: 1/8" = 1'-0"



HALF-SECTIONS
Scale: 1/8" = 1'-0"

BRIDGE	ROAD	DESCRIPTION
CRB		Temporary Concrete Barrier
GR5		Aluminum Guard Rail Details
GR6		Steel Beam Guard Rail Class D5
GR9		Aluminum Beam Guard Rail Class D5
GR10		Guard Rail Bored Ends
GR10A		Guard Rail Bored Ends
GR10B		Guard Rail Bored Ends
GR10C		Guard Rail Bored Ends
GR10D		Guard Rail Bored Ends
GR10E		Guard Rail Bored Ends
GR10F		Guard Rail Bored Ends
GR10G		Guard Rail Bored Ends
GR10H		Guard Rail Bored Ends
GR10I		Guard Rail Bored Ends
GR10J		Guard Rail Bored Ends
GR10K		Guard Rail Bored Ends
GR10L		Guard Rail Bored Ends
GR10M		Guard Rail Bored Ends
GR10N		Guard Rail Bored Ends
GR10O		Guard Rail Bored Ends
GR10P		Guard Rail Bored Ends
GR10Q		Guard Rail Bored Ends
GR10R		Guard Rail Bored Ends
GR10S		Guard Rail Bored Ends
GR10T		Guard Rail Bored Ends
GR10U		Guard Rail Bored Ends
GR10V		Guard Rail Bored Ends
GR10W		Guard Rail Bored Ends
GR10X		Guard Rail Bored Ends
GR10Y		Guard Rail Bored Ends
GR10Z		Guard Rail Bored Ends

MATERIAL NOTES

BRIDGE DECK OVERLAY: 1 1/2" Modified Portland Cement Concrete or 2 1/4" Dense Portland Cement Concrete (1 1/2" or 2 1/4" respectively above the original surface.)

BITUMINOUS WEDGE: 110 Lbs./Sq. Yd. Bituminous Surface Type 110 over Variable Depth Bituminous Grader or Base.

PAVEMENT RELIEF JOINT: 110 Lbs./Sq. Yd. Bituminous Surface Type 110 over 1 1/2" Lbs./Sq. Yd. Bituminous Base.

BITUMINOUS SHOULDER: 200 Lbs./Sq. Yd. Bituminous Base Type 110.

Patch Cures, walks and Parapet Walls with Spec. Class "A" Concrete (Est. Quant. 20 sq ft.)

Extend C.T. Drain Pipes (See Detail Drg. D9)

Note: See Dwg. D2 for General Notes, Construction Procedure, Longitudinal Section showing Bitum. Wedge and Pavement Relief Joint and Traffic Maintenance Details.

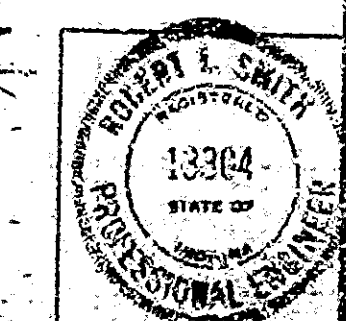
GENERAL PLAN
DECK RECONSTRUCTION AND OVERLAY
CONTINUOUS REINFORCED CONCRETE GIRDER BRIDGE
5 SPANS @ 28'-0, 47'-0, 70'-0, 47'-0 & 24'-0 SKEW 15° LT. 30'-0 CL. ROW, 2'-0 WALKS ON S. R. 67'S OVER LIMBERLOST CREEK
INDIANA STATE HIGHWAY COMMISSION
JAY COUNTY

SCALE: AS NOTED DATE: May 6, 1980

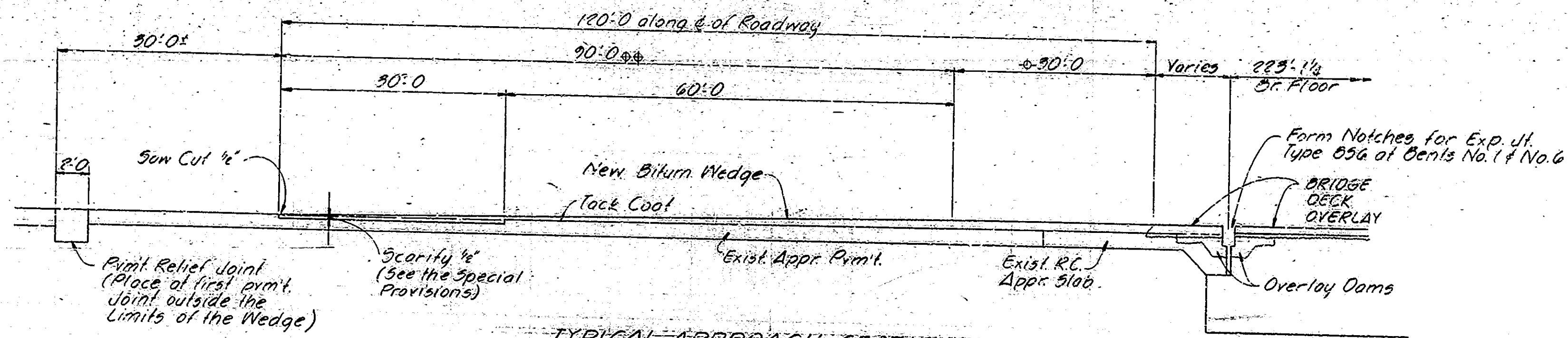
SUBMITTED FOR APPROVAL: Robert J. Smith

DESIGNED: JG CWD: ELS
DRAWN: DB CWD: DB
TRACED: LAD CWD: DB

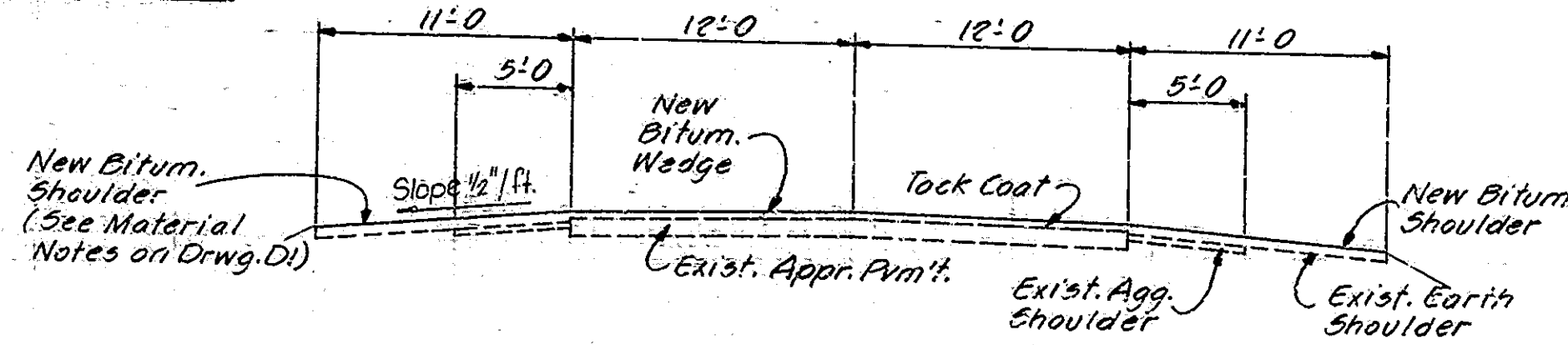
PROJECT: FR 152-5(5)
CONTRACT NO. B-1944B
BRIDGE FILE: 67-53-4352



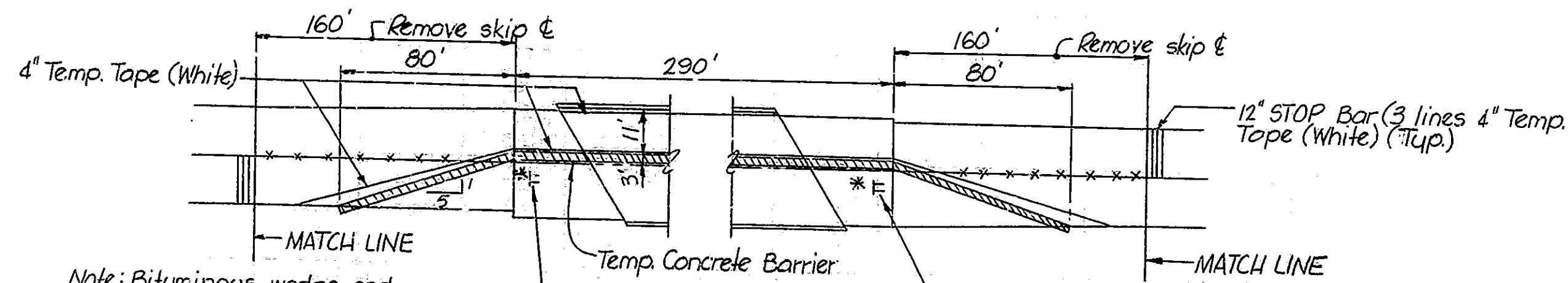
Top of wedge shall be a continuation of bridge deck profile.
 Top of wedge shall be tapered uniformly to meet existing pavement.



TYPICAL APPROACH SECTION

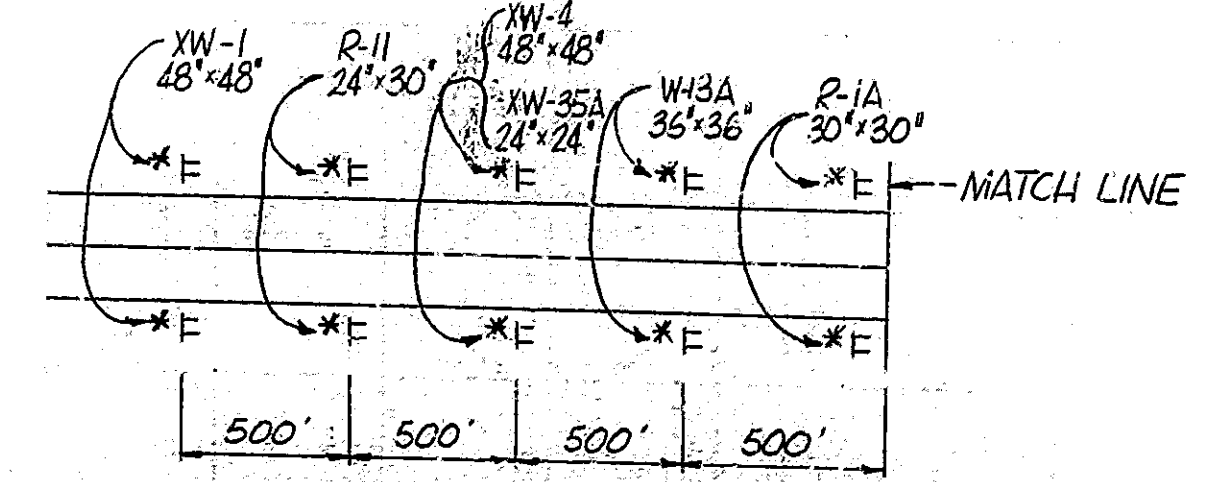


TYPICAL CROSS-SECTION THRU BITUMINOUS WEDGE



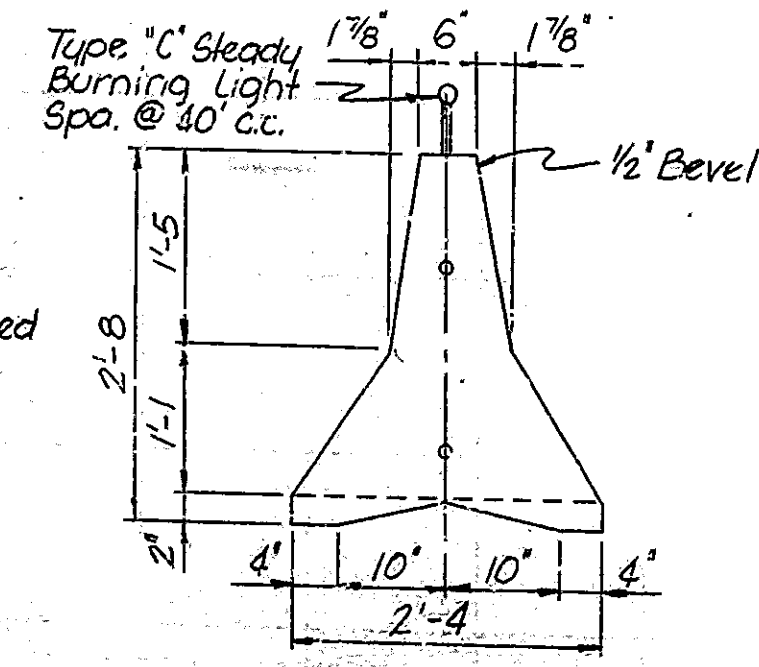
Note: Bituminous wedge and Pavement Relief Joints to be constructed while traffic is maintained by the use of flagmen.

TRAFFIC PLAN - PHASE I (Phase II opposite hand except stop bars)



* Low Intensity Flashing Yellow Light Type 'A' ADVANCE WARNING SIGNS

NOTE: The configuration of the Temporary Concrete Barrier as shown may be used or as detailed on Rd. Stat. CB2. See the Special Provisions.



TEMPORARY CONCRETE BARRIER Scale: 3/4\"/>

GENERAL NOTES

Plans for the existing structure are on file in the Central Office as Bridge File: 67-5-883 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 errors or 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. All existing non-full depth patches shall be removed.
 Concrete in patches for deteriorated deck areas below scarified depth shall be Modified Portland Cement Concrete or Special Class 'A' Concrete. See the Special Provisions.
 For the composition of concrete in overlay dams see the Special Provisions.
 All bituminous material required in this contract shall be included in the pay item "Bituminous Mixture for Approaches," except Tack Coat which shall be paid for as a separate item.
 Seal all exposed concrete surfaces as noted on the plans with a penetrating epoxy sealer. (Est. Quantity = 5050 sq. ft.) See the Special Provisions. Concrete in turnouts to be Class 'A'.

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

The length and quantity of bituminous wedging shown is based on the use of the Modified P.C.C. Overlay; see the Special Provisions.

CONSTRUCTION PROCEDURE

Install traffic control devices and close south half of the bridge to traffic.
 Scarify the entire bridge floor and a portion of the R.C. Bridge Approach to a depth of 1/8" inch. Remove 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 the overlay dams.
 Blast and clean all removal 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. Install BS expansion joint seals.
 Clean and seal exposed concrete surfaces as noted on the plans with a penetrating epoxy sealer.
 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.
 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 30 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.
 After all work is completed on the south half reverse the traffic control devices and close north half of bridge to traffic.
 When all work is completed on the north half, open structure to traffic.

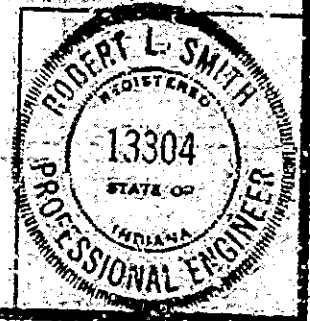
Note: See Drwg. 03 for additional details.

GENERAL NOTES AND DETAILS INDIANA STATE HIGHWAY COMMISSION

SCALE: NONE DATE: May 6, 1980

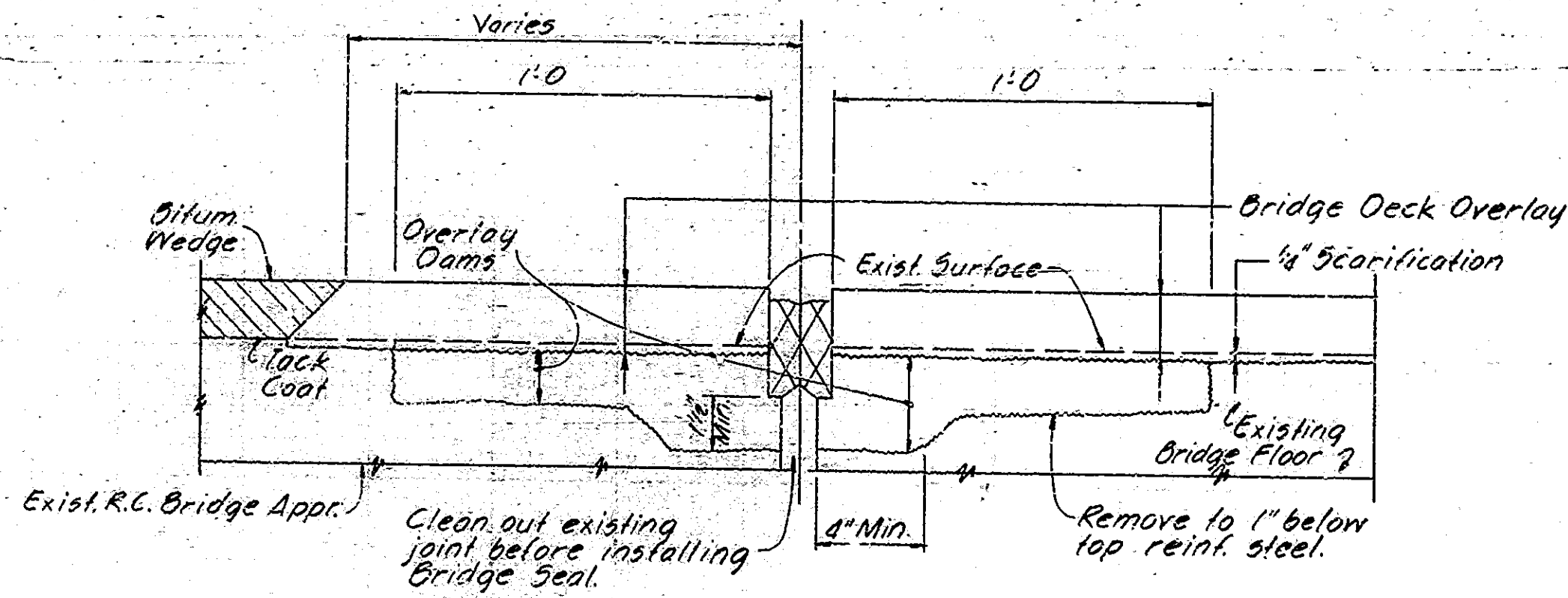
SUBMITTED FOR APPROVAL: Robert C. Smith

DRAWING: DE OF 3 SHEET: 3 OF 16
 PROJECT: FR-132-5(5)
 CONTRACT NO. B-13448
 BRIDGE FILE: 67-58-8833A

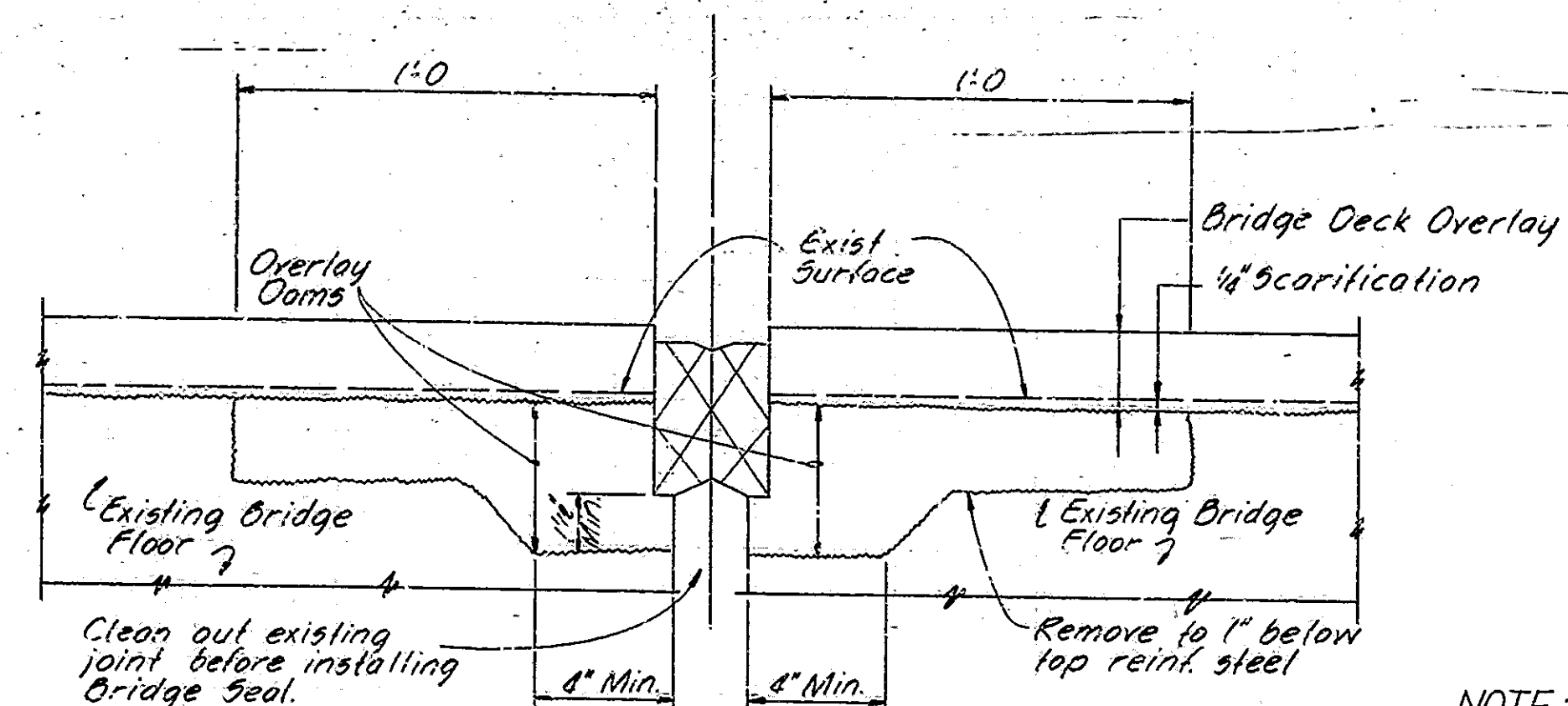


DESIGNED: JG	CKD: RLS
DRAWN: GFS	CKD: DM
TRACED: GFS	CKD: DM

Rev. 11-20-82. Gen. Notes, Const. Procedure Notes, Turnout Details deleted, Traffic Maintenance Details added.

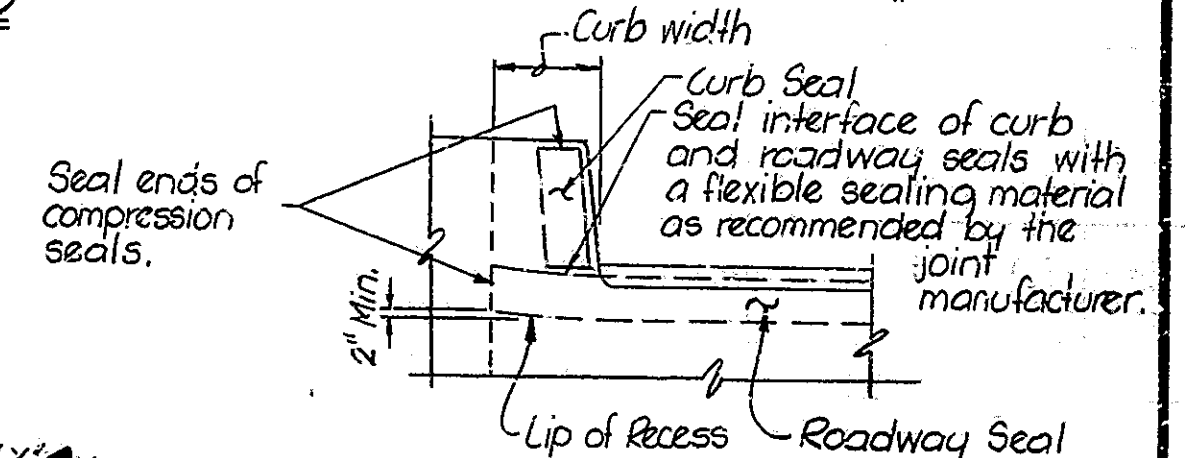


TYPICAL SECTION AT BENTS NO. 1 & NO. 6
Scale: 3"=1'-0"



TYPICAL SECTION AT PIERS NO. 2 & NO. 5
Scale: 3"=1'-0"

NOTE:
The cost of reconstructing curbs to install the seals shall be included in the cost of Exp. Jt. Type BS.



CURB SECTION AT DRAINAGE TURNOUT, BENTS No. 1 & No. 6
Scale: 1"=1'-0"

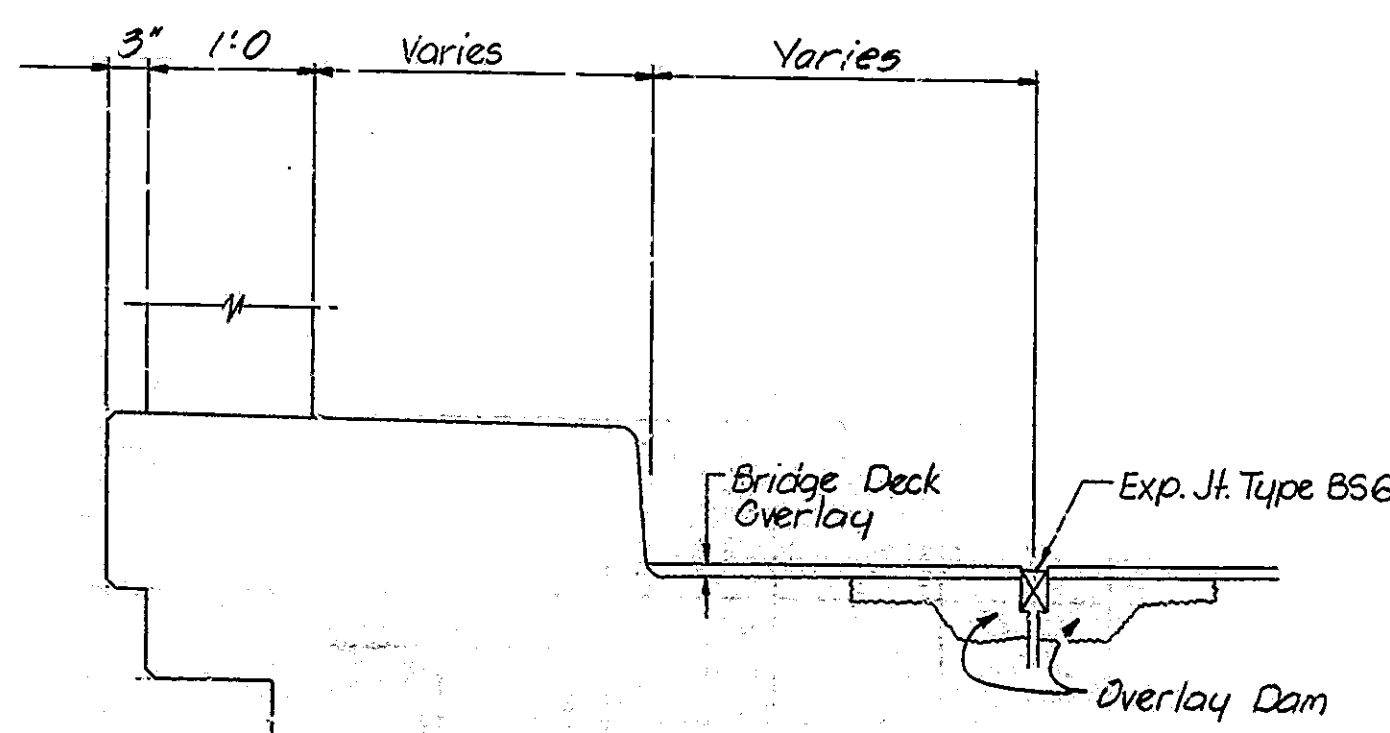
Note: Reconstruct curb to accommodate Bridge Seal. Cost to be included in the cost of Exp. Jt.

Bridge Seal	A	B	C	D	E
BS6	1 3/8"	* 1/2"	1 1/2"	3/8"	1/2"
BS9	2 3/8"	* 1 3/8"	1 1/2"	1/2"	3/8"
BS11	3 3/8"	* 2 3/8"	1 1/2"	1/2"	3/8"

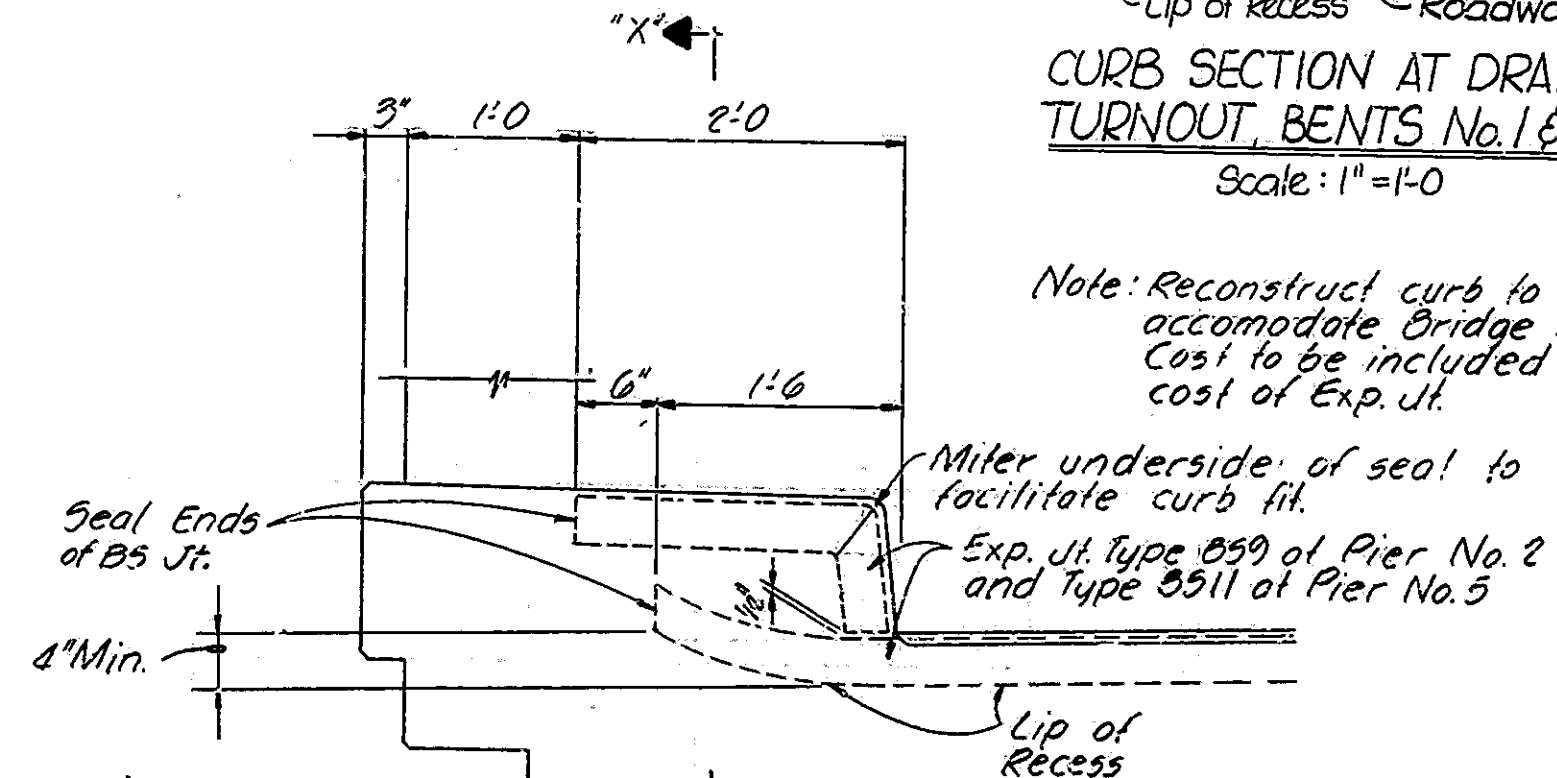
* To be determined in the field. (See the Special Provisions)



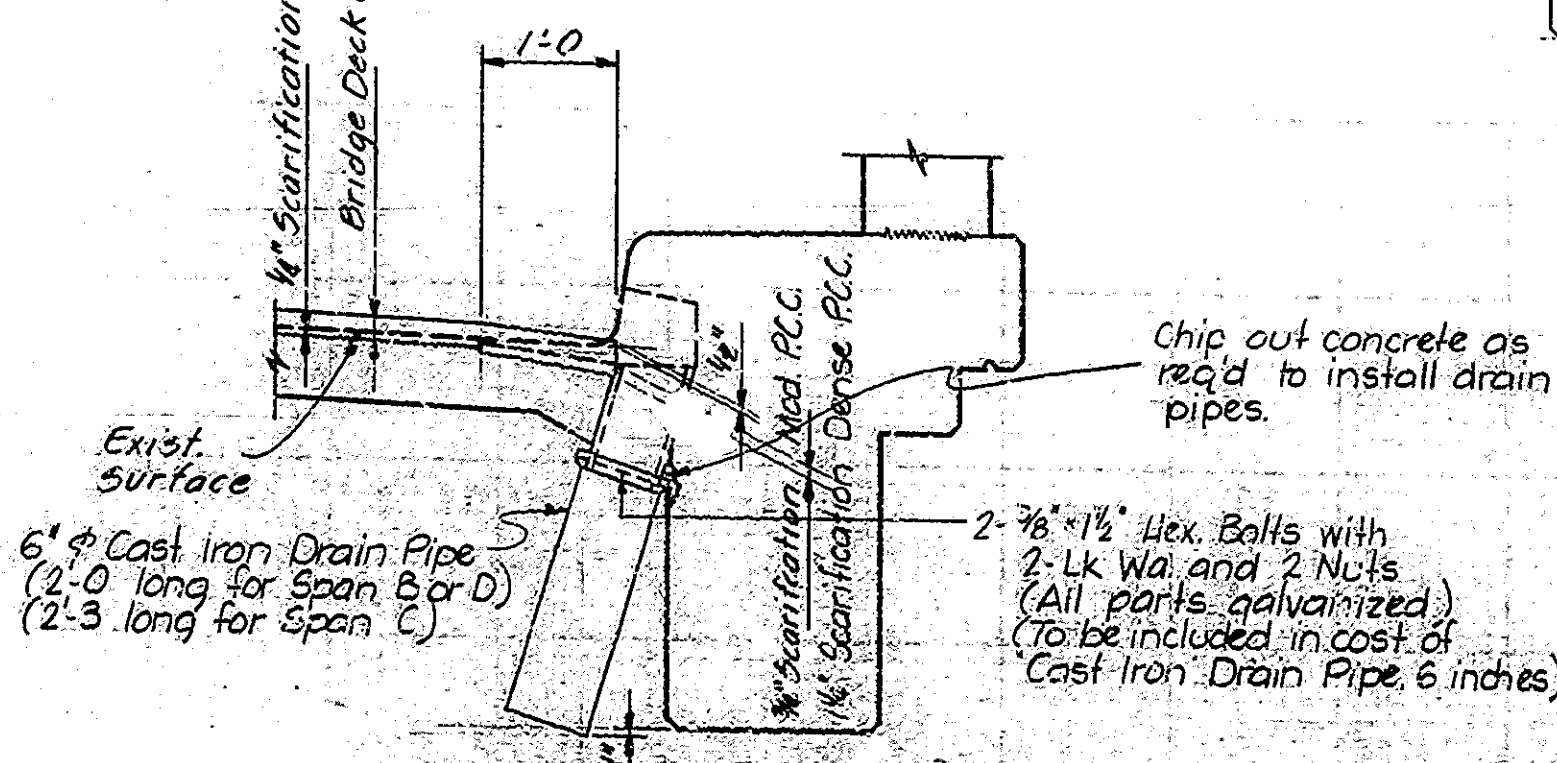
BRIDGE DECK OVERLAY



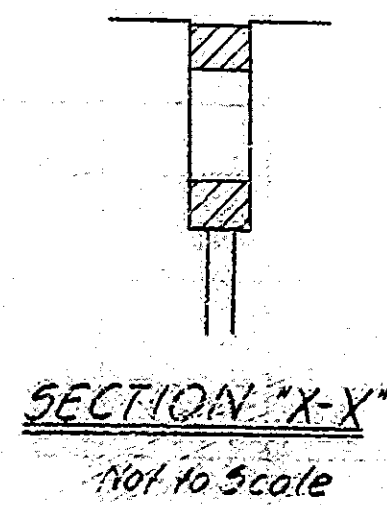
CURB SECTION AT BENTS NO. 1 & NO. 6
Scale: 1"=1'-0"



CURB SECTION AT PIERS NO. 2 & NO. 5
Scale: 1"=1'-0"



DRAINAGE OUTLET DETAILS
Scale: 3/4"=1'-0"



INDIANA STATE HIGHWAY COMMISSION
JAY COVINE

SCALE: AS NOTED DATE: May 6, 1980

SUBMITTED FOR APPROVAL: Robert J. Smith

DRAWING: 03 OF 3 SHEET: 4 OF 10
PROJECT: FR-192-5(5)
CONTRACT NO. B-1344B
BRIDGE FILE: 67-38-2299A



DESIGNED: JG	CHKD: RLS
DRAWN: OES	CHKD: DM
TRACES: OES	CHKD: DM

Rev: 1-20-82 Drainage Outlet Details, Curb Sec. @ Bents #1 & #6, Curb Sec. @ Drain Turnout added.

