

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

1
8

CRA-30S-03.61
STRUCTURE NO. 0361

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
CRA-30S-03.61
CRAWFORD COUNTY BRIDGE RECONSTRUCTION
POLK TOWNSHIP

CONVENTIONAL SIGNS

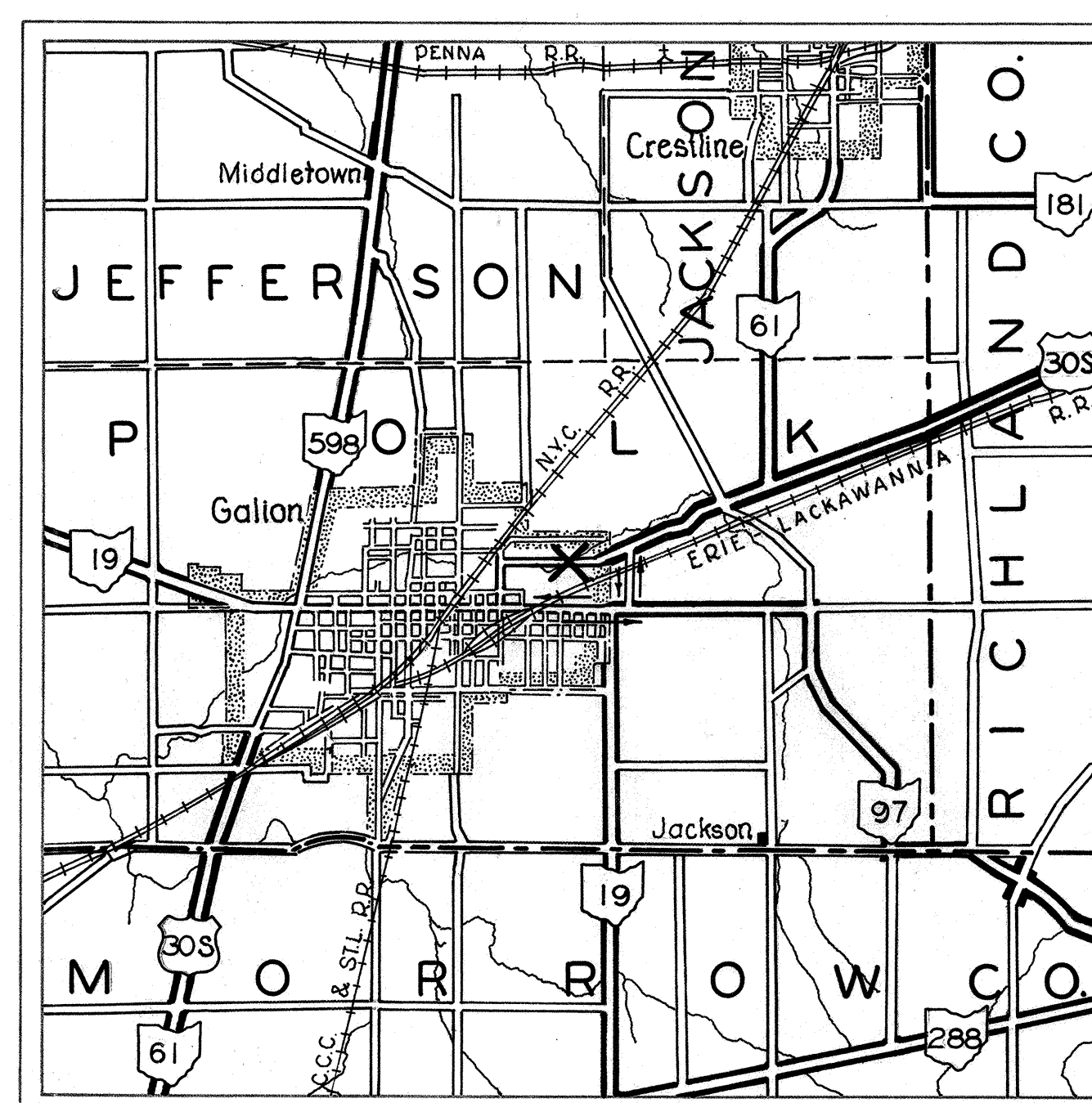
COUNTY LINE	-----	LIMITED ACCESS (ONLY)	----- LA
TOWNSHIP LINE	-----	RIGHT OF WAY (ONLY)	----- RW
SECTION LINE	-----	LIMITED ACCESS & RIGHT OF WAY	----- LA&RW
CORPORATION LINE	-----	EXISTING RIGHT OF WAY	-----
FENCE LINE (EXISTING)	-x-x-	PROPERTY LINE	-R- (IN EXISTING FENCE) -x-R-x-
CENTER LINE	352 353	RAILROAD	-----
TREES	○ (TO BE REMOVED)	GUARDRAIL (EXISTING)	-o-o- (PROPOSED)
UTILITY POLES	⊕ TELEPHONE ⊕ POWER ⊕ LIGHT ⊕		

INDEX OF SHEETS

TITLE SHEET	1
EXISTING STRUCTURE (INFORMATION ONLY)	2-5
PROPOSED STRUCTURE	6-8

LINE DATA

BEGIN	PROJECT	WORK
END	STA 190+60.80	STA 190+38.87
	STA 191+33.63	STA 191+55.57
GROSS LENGTH	72.83 LIN. FT.	116.70 LIN. FT.
NO ADDITIONS OR DEDUCTIONS		
NET LENGTH	72.83 LIN. FT.	116.70 LIN. FT.
	OR 0.013 MILES	OR 0.022 MILES



LOCATION MAP

Scale of Miles
1 in. = 1 mi.

PORTION TO BE IMPROVED
STATE AND FEDERAL HIGHWAYS
OTHER ROADS
DETOURS

1967 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.
THE RIGHT OF WAY FOR THIS IMPROVEMENT WILL BE PROVIDED BY THE STATE OF OHIO.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON THESE PLANS.

APPROVED *D.H. Cramer*
DATE 4-12-68 DIVISION DEPUTY DIRECTOR

APPROVED *C.H. Altwater*
DATE 4-16-68 ENGINEER OF BRIDGES

APPROVED *J.H. ...*
DATE 4-16-68 ENGINEER OF MAINTENANCE

APPROVED *W.H. ...*
DATE 4-16-68 DEPUTY DIRECTOR OF OPERATIONS

APPROVED *Thomas M. Major*
DATE 4-16-68 DEPUTY DIRECTOR OF PLANNING AND PROGRAMMING

APPROVED *R.W. Wilson*
DATE 4-16-68 FIRST ASSISTANT DIRECTOR

APPROVED *P.E. Masheter*
DATE 4-16-68 DIRECTOR OF HIGHWAYS

FILE N ^o	PROJECT DATE OF LETTING	CRA-30S-03.61
	CONTRACT N ^o	

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS			
BP-5	6-1-65	CSB-1-63	
GR-2A	1-1-67	SHEET 1 OF 5	12-8-65
MC-3	5-1-66		

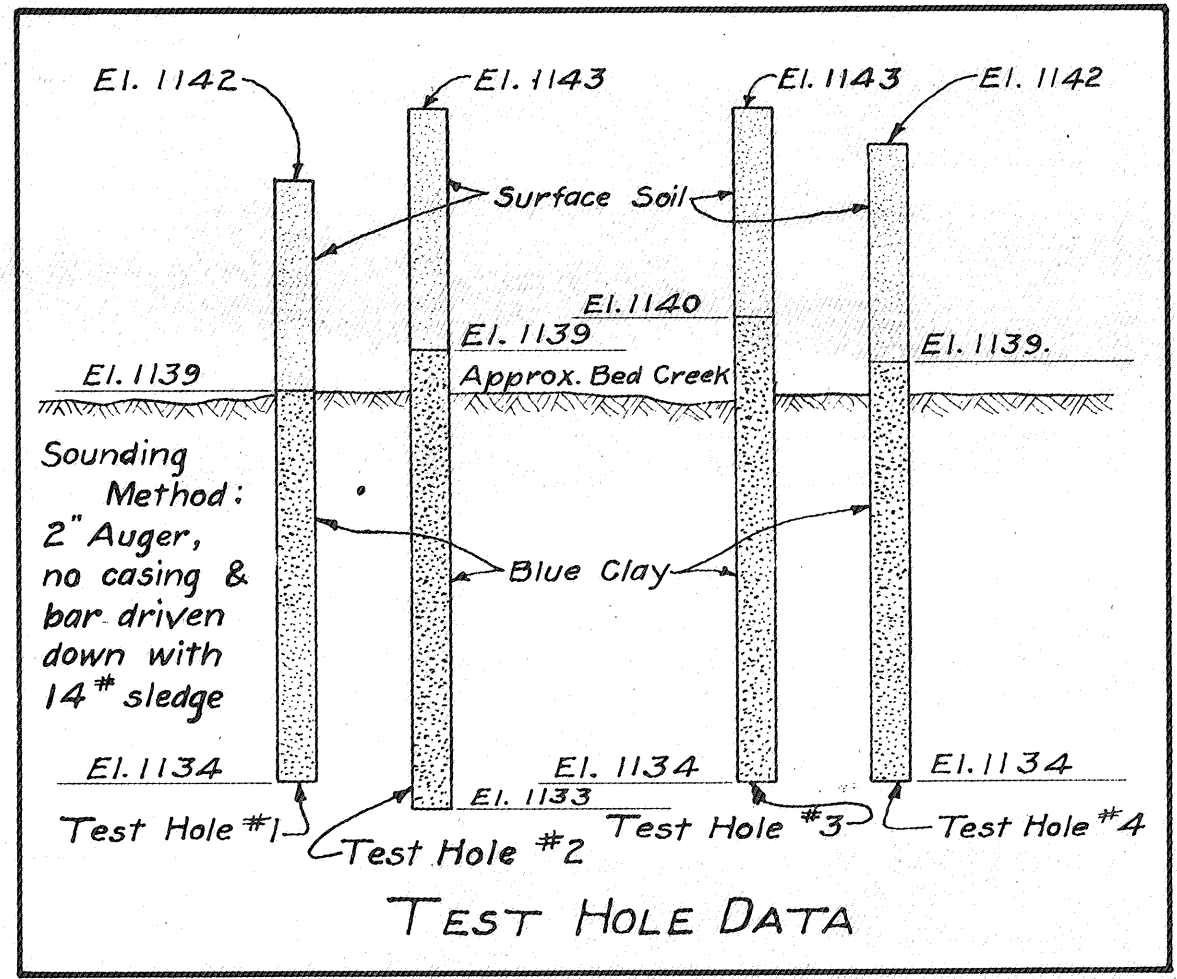
SUPPLEMENTAL SPECIFICATIONS			
808	1-13-67	931	5-25-67
812	1-1-67	927	8-7-67
825	12-19-67		
832	5-25-67		

FED. RD. DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR
10	OHIO	541-E	1932

2
8

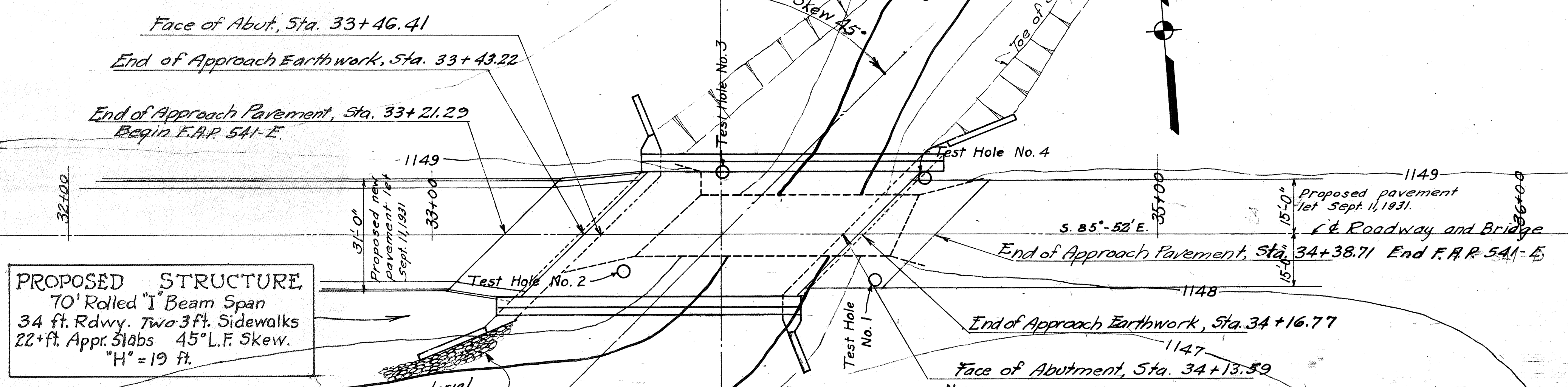
SH. (I.C.H.) 202 CRAWFORD SEC. GALION - BRIDGE COUNTY

FOR INFORMATION ONLY



Note: These soundings represent the information obtained, but the State of Ohio does not guarantee the correctness thereof.

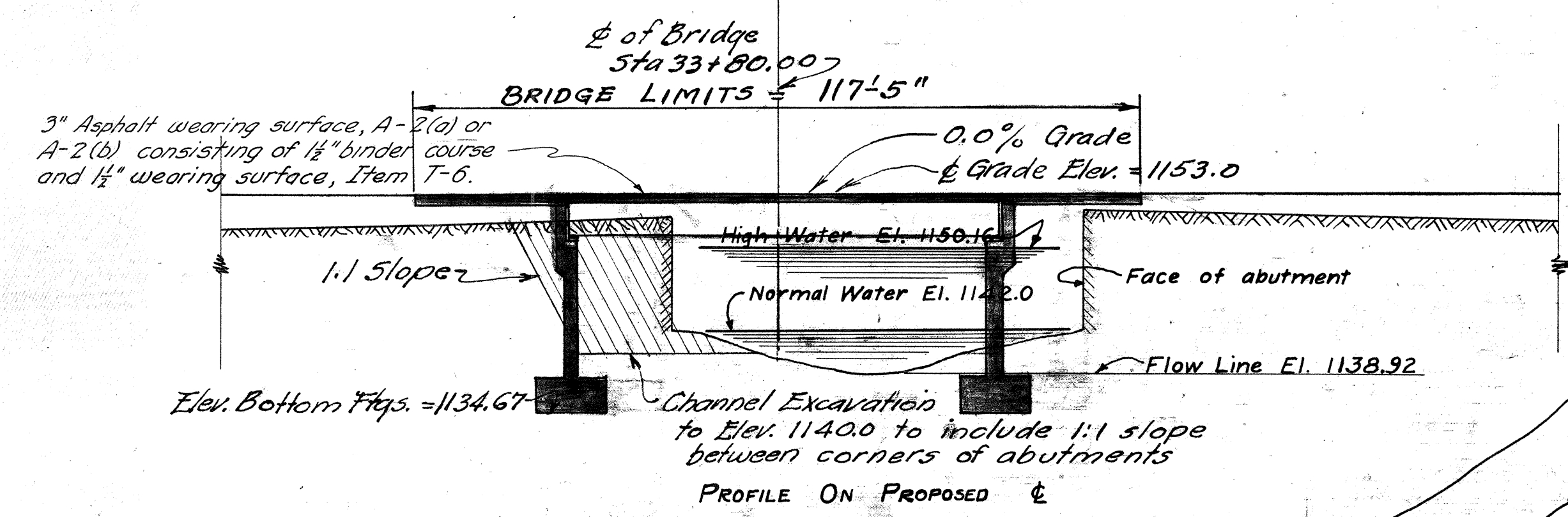
Divide area at southwest corner to be included in Roadway Project No. 362, let Sept. 11, 1931. Channel Excavation



PROPOSED STRUCTURE
70' Rolled "I" Beam Span
34 ft Rdwy. Two 3 ft Sidewalks
22+ft. Appr. Slabs 45° L.F. Skew.
"H" = 19 ft.

NOTE
Present bridge (shown in dashed lines) to be removed. - 56' steel span on North side and 66' span on South side - Low Truss, poor condition, not suitable for Temporary Bridge.
Abutments - sandstone, poor condition.
Roadway - 17'

DRAINAGE AREA = 10.5 Sq. Mi.



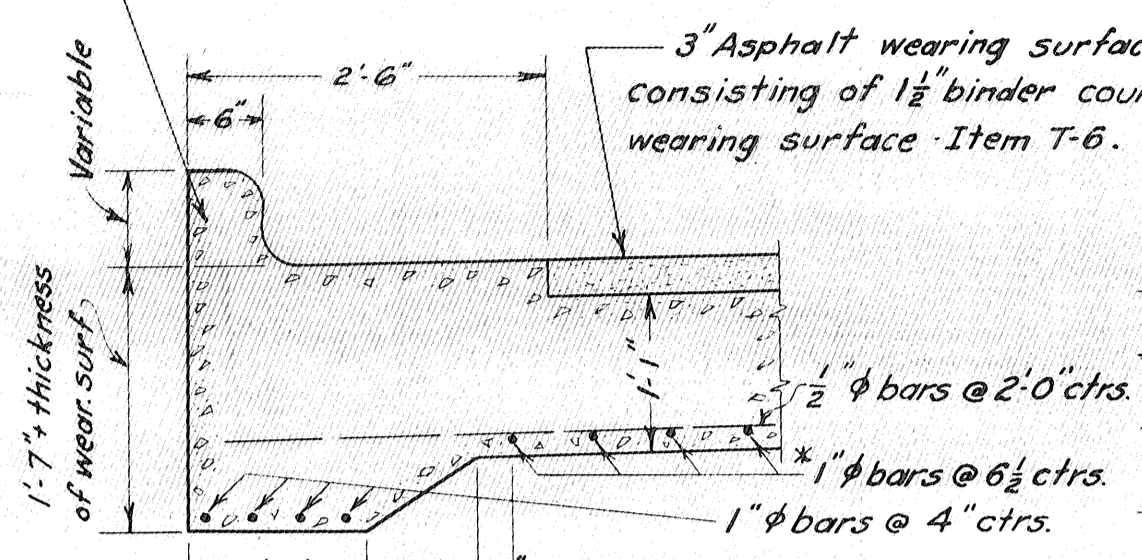
BRIDGE No. CR-30s-36

SITE PLAN
SH. (I.C.H.) 202 SEC. GALION
OLENTANGY CREEK
CRAWFORD COUNTY
STATE OF OHIO
SCALE: 1" = 20' MCH. 1931

Prepared Topography	Proposed Map
Subscribed	Designed
Reviewed	Checked
Revised	Approved

FOR INFORMATION ONLY

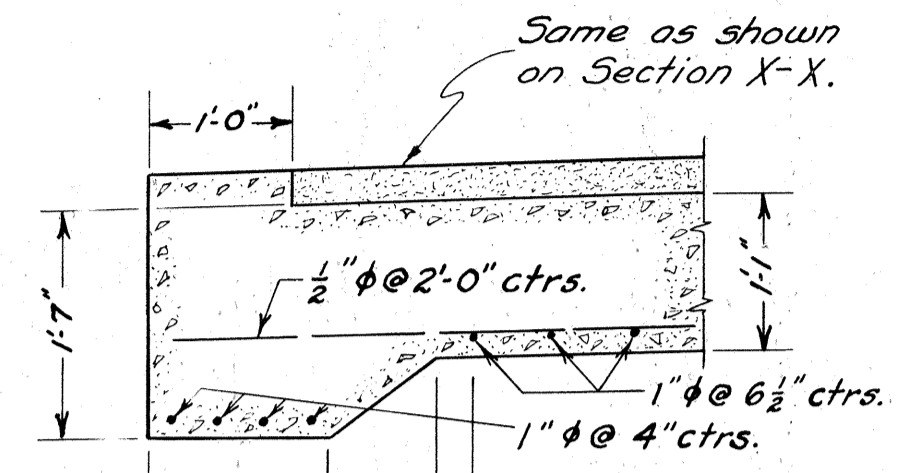
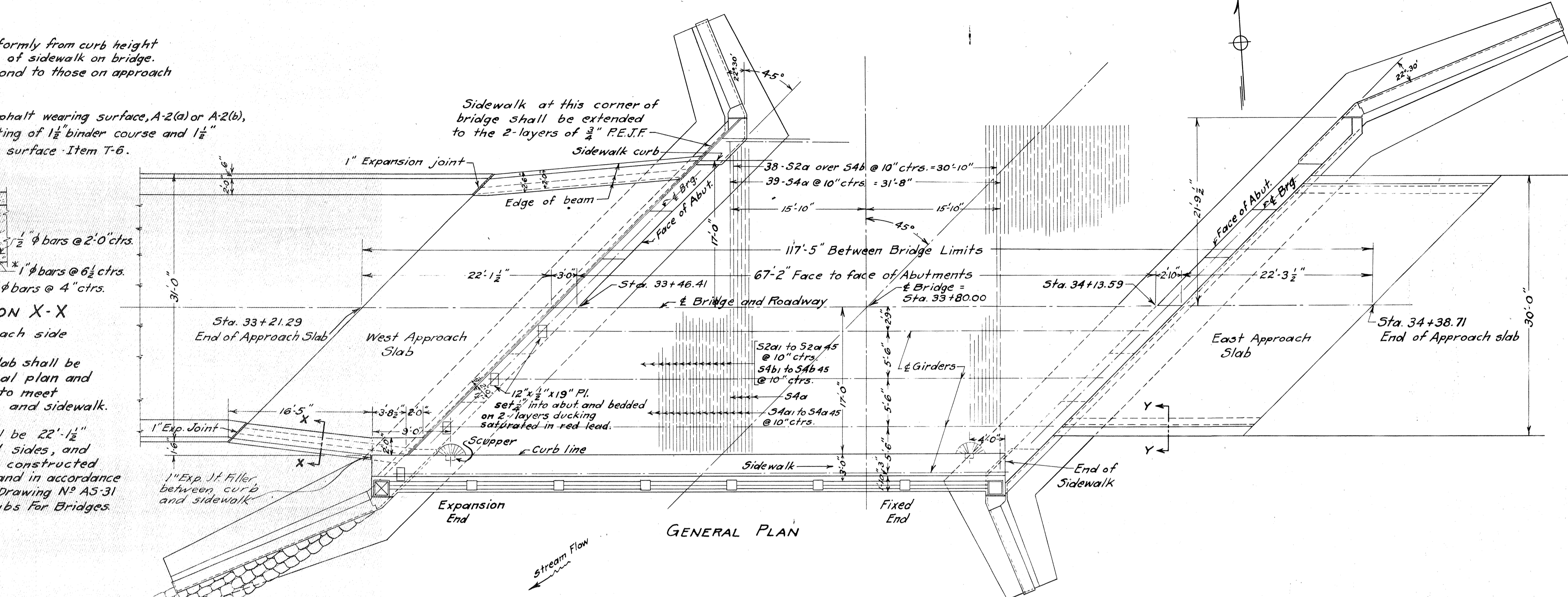
Curb height shall vary uniformly from curb height on approach pavement to top of sidewalk on bridge. Details of curb shall correspond to those on approach pavement.



SECTION X-X
* Fan out 9 bars on each side of West approach slab. Sides of approach slab shall be flared as shown on general plan and raised curbs constructed to meet approach pavement curbs and sidewalk.

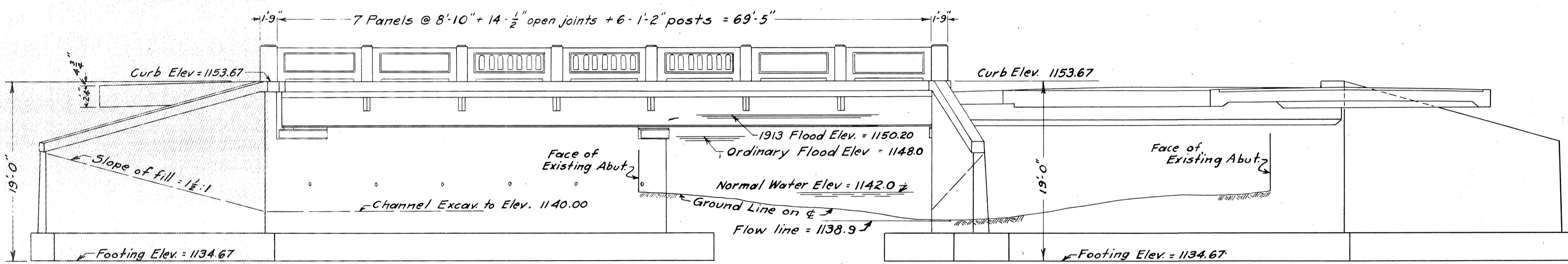
West Approach slab shall be 22'-1 1/2" long, 13" thick with flared sides, and separate wearing surface constructed as shown on this drawing and in accordance with details and notes on Drawing No. A5-31 for standard Approach Slabs for Bridges.

Sidewalk at this corner of bridge shall be extended to the 2-layers of 3/4" P.E.I.F.



SECTION Y-Y

East Approach Slab shall be 22'-3 1/2" long, 30'-0" wide and 13" thick with separate wearing surface constructed as shown on this drawing and in accordance with details and notes on Drawing No. A5-31 for Standard Approach Slabs for Bridges.



GENERAL ELEVATION

ESTIMATED QUANTITIES
SUBSTRUCTURE

Wet Excavation	550 Cu. Yds.
Dry Excavation	150 Cu. Yds.
Channel Excavation	948 Cu. Yds.
Timber Piling (to establish unit price)	1 Lin. Ft.
Cofferdams, sheeting and pumping	Lump Sum
Reinforcing Steel	13,830 Lbs.
Footing Concrete (1:6 1/2 mix)	180 Cu. Yds.
Wall concrete (1:6 1/2 mix)	188 Cu. Yds.
3/4" Prem. Exp. Joint Filler	460 Sq. Ft.
1/2" Prem. Exp. Joint Filler	150 Sq. Ft.
Type "B" Waterproofing, 36" wide	55 Sq. Yds.
12" - 24 oz. Folded Copper Strip	32 Lin. Ft.
13" Reinf. Concrete Approach Slabs (1:5 1/2 Mix)	155 Sq. Yds.
* Wearing Surface on Approach Slabs	138 Sq. Yds.
Removal of Existing Bridge	Lump Sum

SUPERSTRUCTURE

Structural Steel (Except Field Painting)	128,000 Lbs.
Reinforcing Steel	13,840 Lbs.
Concrete (1:5 1/2 mix)	100 Cu. Yds.
Concrete Railing Type SR-2-b (1:5 1/2 Mix)	145.8 Lin. Ft.
Wearing Surface (3" Asphalt A-2(a) or A-2(b), consisting of 1 1/2" binder course and 1 1/2" W.S.)	275.2 Sq. Yds.
Field Painting Structural Steel (two coats)	Lump Sum

GENERAL NOTES

All excavation below elevation 1142.0 not included in channel excavation shall be classified as "Wet Excavation". All excavation above elevation 1142.0 not included in channel excavation shall be classified as "Dry Excavation". Channel Excavation shall be made to an elevation of 1140.0. Existing W. abutment shall be removed and is classified as channel excavation.

Rip-Rap shall be placed as shown at south-west wing as directed by the Engineer. Stone from existing abutments to be used as rip-rap.

The existing bridge shall be carefully dismantled and piled at the disposal of the State of Ohio. All pins, bolts and nuts and small parts shall be placed in wooden boxes.

Concrete shall be 1:6 1/2 mix for abutment, footings, breast walls and approach slabs and 1:5 1/2 mix for superstructure and concrete railing.

Anchor bolt holes in East Abutment shall not be drilled until after girders are in place. Special care shall be used in placing reinforcing steel to allow sufficient space for anchor bolt holes without cutting the bars.

Chamfer all exposed edges 3/4" unless otherwise shown. Construction Joints. No horizontal construction joints other than those shown will be permitted. Vertical construction joints allowed only by special permission of the Engineer.

All construction joints in abutments above low water elevation shall be sealed on back with Type "B" waterproofing 36" wide.

* Same wearing surface as called for in superstructure quantities.

BRIDGE No. CR-305-36

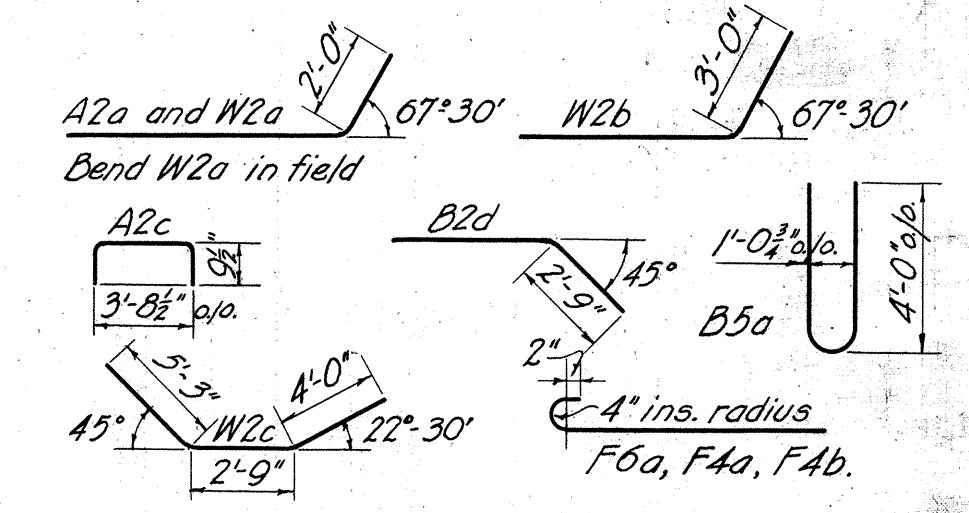
STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
GENERAL PLAN & ELEVATION NOTES & ESTIMATED QUANTITIES					
BRIDGE OVER OLENTANGY CREEK					
S. H. 202			CRAWFORD COUNTY		
SECTION GALION BRIDGE			STA. 33+80		
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
A.B.D.	H.E.D.		J.C.B.	H.C.C.	11/21/31
		O.J.M.			10/3/31

Revision: -> Estimated quantity of wall concrete Revised

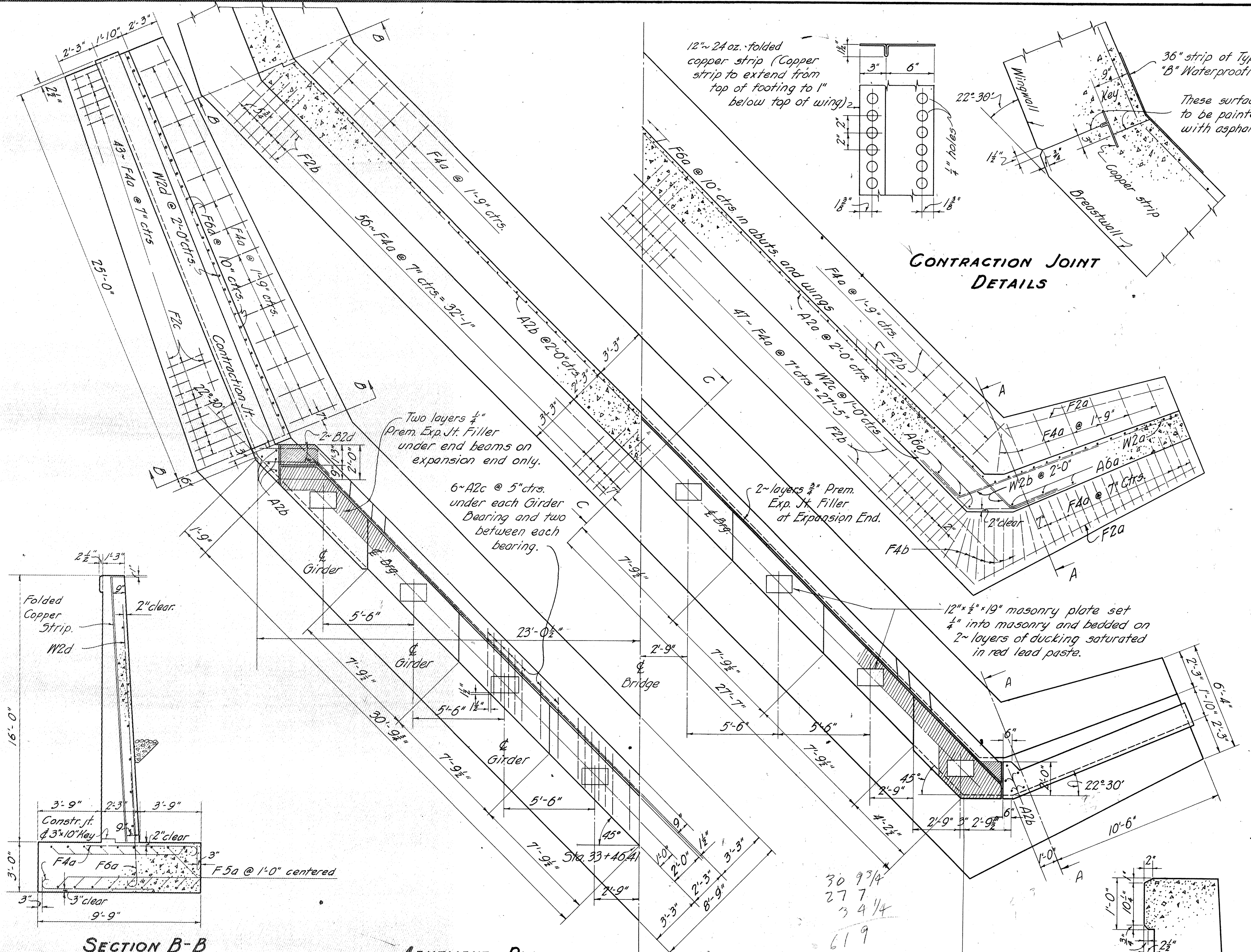
CRAWFORD COUNTY
S. H. 202 SEC. GALION BRIDGE

FOR INFORMATION ONLY

REINFORCING STEEL LIST					
Mark	Size	Shape	No.	Length	Weight
A6a	1/2" φ	St.	104	11'-0"	2341
A2a	1/2" φ	St.	12	35'-0"	281
A2b	1/2" φ	St.	12	31'-6"	253
A2c	1/2" φ	St.	124	5'-3"	435
B5a	3/4" φ	St.	60	8'-6"	767
B2a	1/2" φ	St.	8	32'-6"	174
B2b	1/2" φ	St.	8	4'-0"	21
B2c	1/2" φ	St.	8	29'-0"	155
B2d	1/2" φ	St.	8	6'-0"	32
F6a	1/2" φ	St.	234	7'-6"	3591
F5a	3/4" φ	St.	36	10'-0"	541
F4a	3/8" φ	St.	326	7'-6"	2553
F4b	3/8" φ	St.	16	8'-6"	142
F2a	1/2" φ	St.	16	15'-0"	160
F2b	1/2" φ	St.	32	35'-0"	748
F2c	1/2" φ	St.	16	26'-0"	278
W6a	1/2" φ	St.	16	14'-0"	458
W6b	1/2" φ	St.	14	9'-6"	272
W2a	1/2" φ	St.	12	16'-0"	128
W2b	1/2" φ	St.	20	12'-0"	160
W2c	1/2" φ	St.	22	12'-0"	176
W2d	1/2" φ	St.	10	24'-6"	164
TOTAL LBS. REINF. STEEL					13,830



BENDING DIAGRAMS



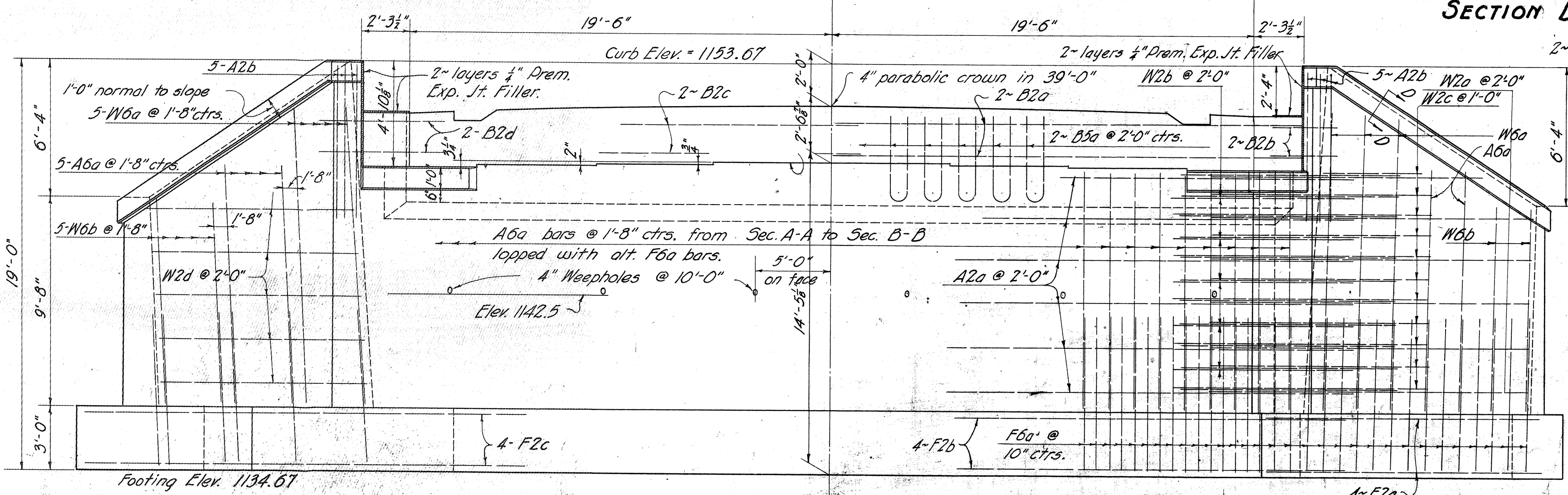
CONTRACTION JOINT DETAILS

SECTION B-B

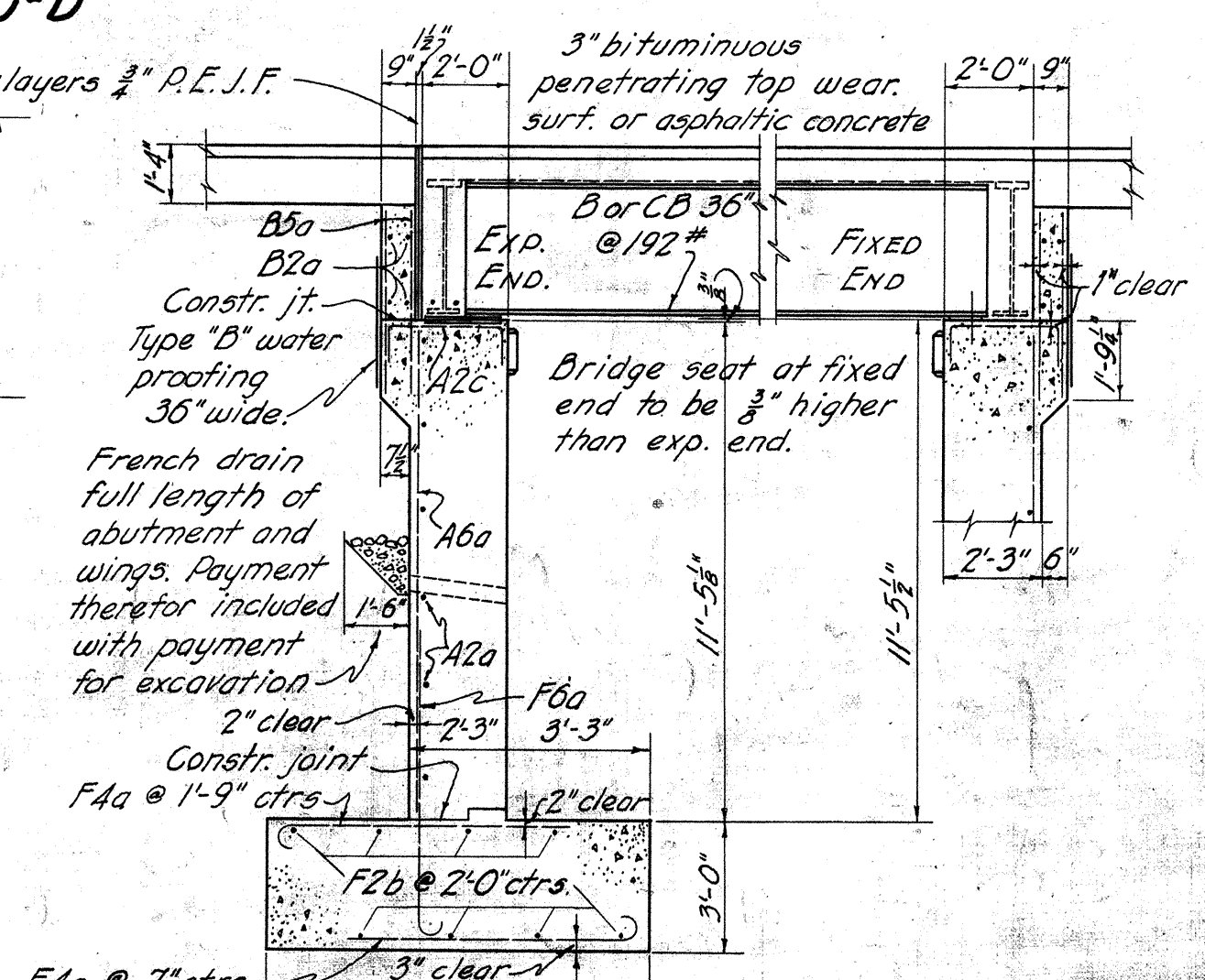
ABUTMENT PLAN
(EXPANSION END)

END VIEW OF WINGS

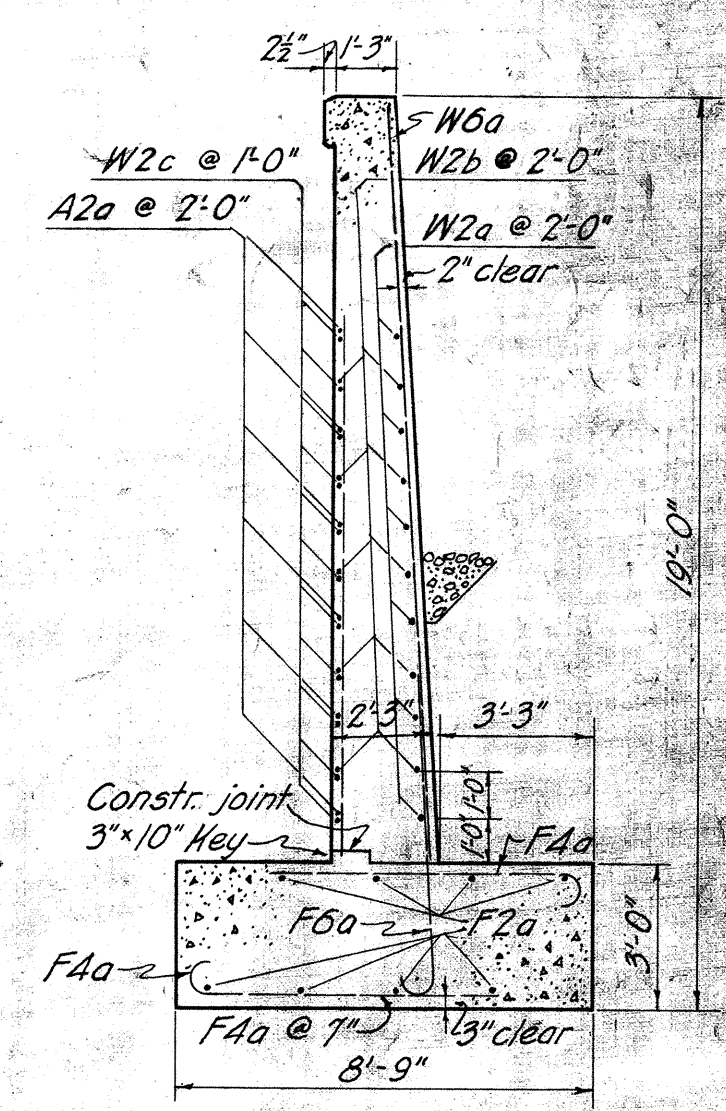
SECTION D-D



FRONT ELEVATION



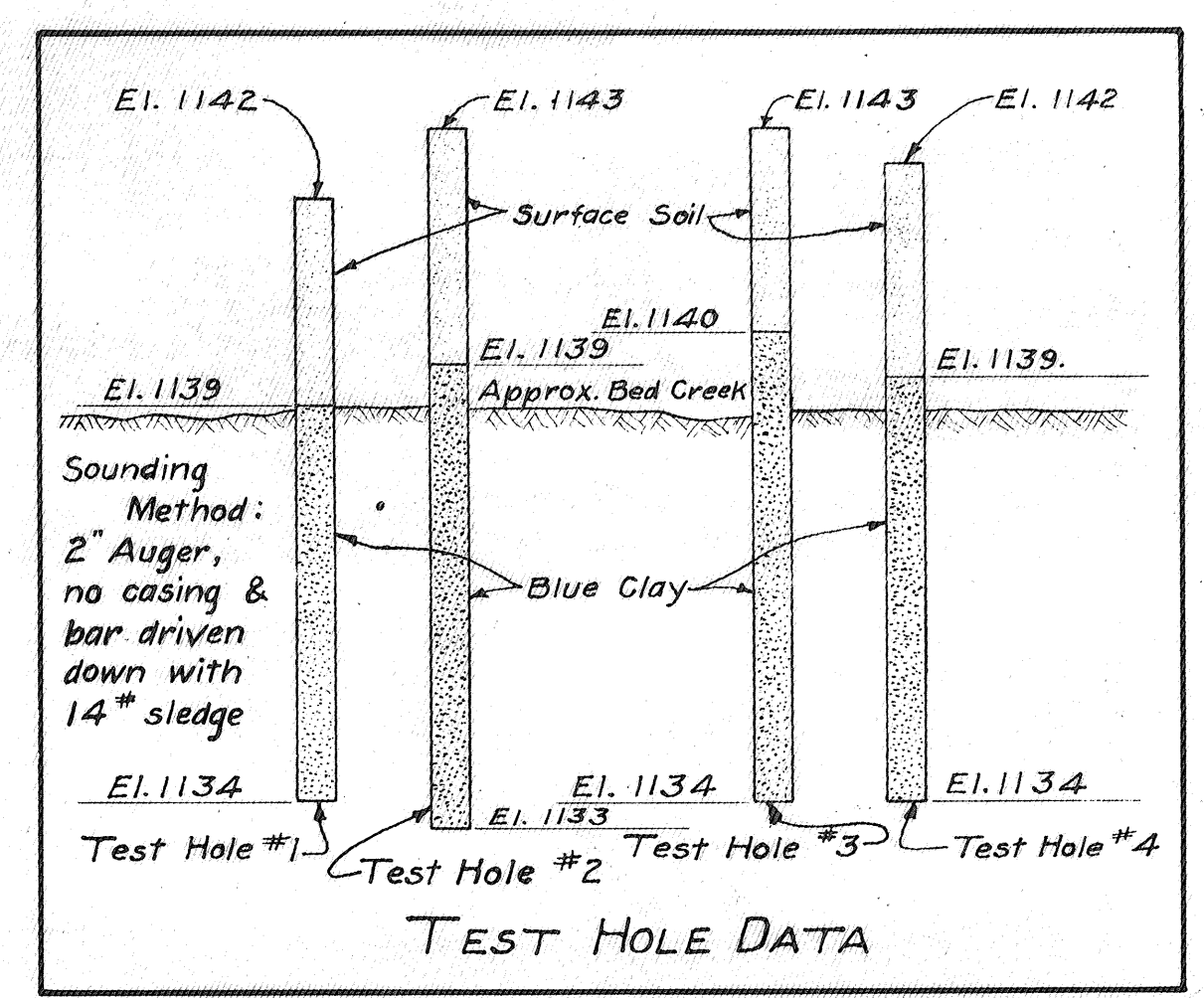
SECTION C-C



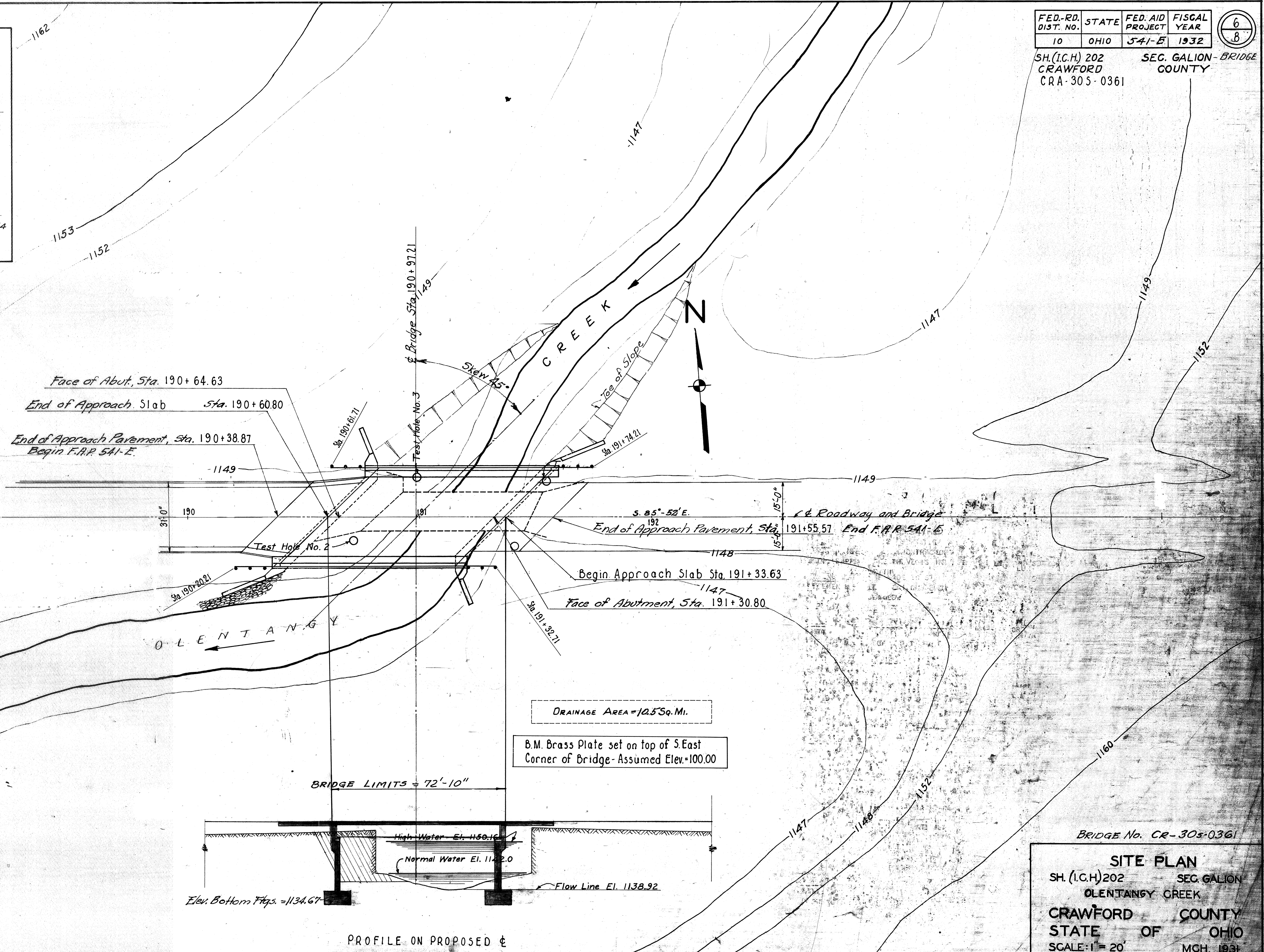
SECTION A-A

BRIDGE NO. CR-30s-36

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
SUBSTRUCTURE DETAILS					
BRIDGE OVER OLENTANGY CREEK					
S. H. 202.			CRAWFORD COUNTY		
SECTION GALION BRIDGE, STA. 33 + 80.00			BRIDGE, STA. 33 + 80.00		
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
A. B. B.	A. B. B.	A. B. B.	A. B. B.	A. B. B.	10/5/31



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BRIDGE No. CR-305-0361

SITE PLAN

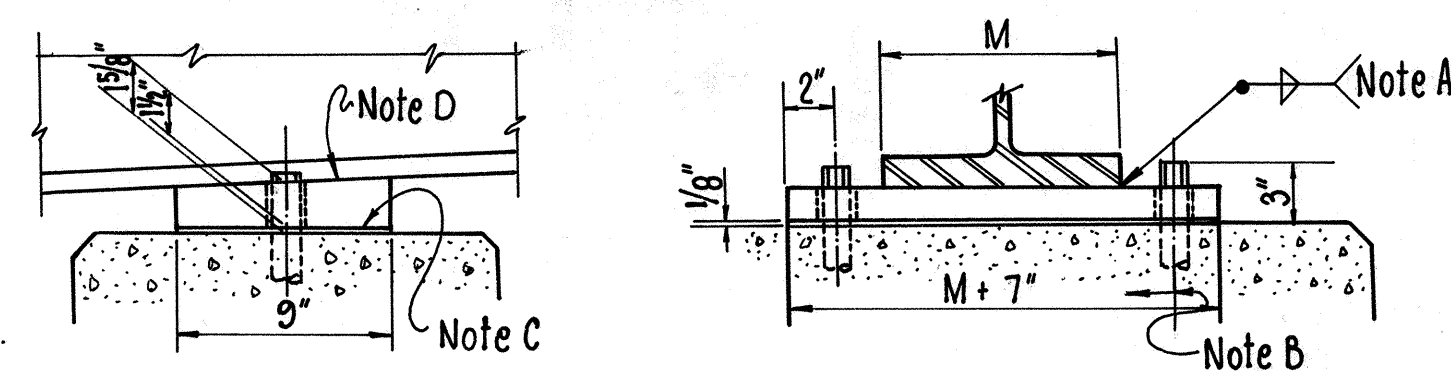
SH. (I.C.H.) 202 SEC. GALION
OLENTANGY CREEK

CRAWFORD COUNTY
STATE OF OHIO

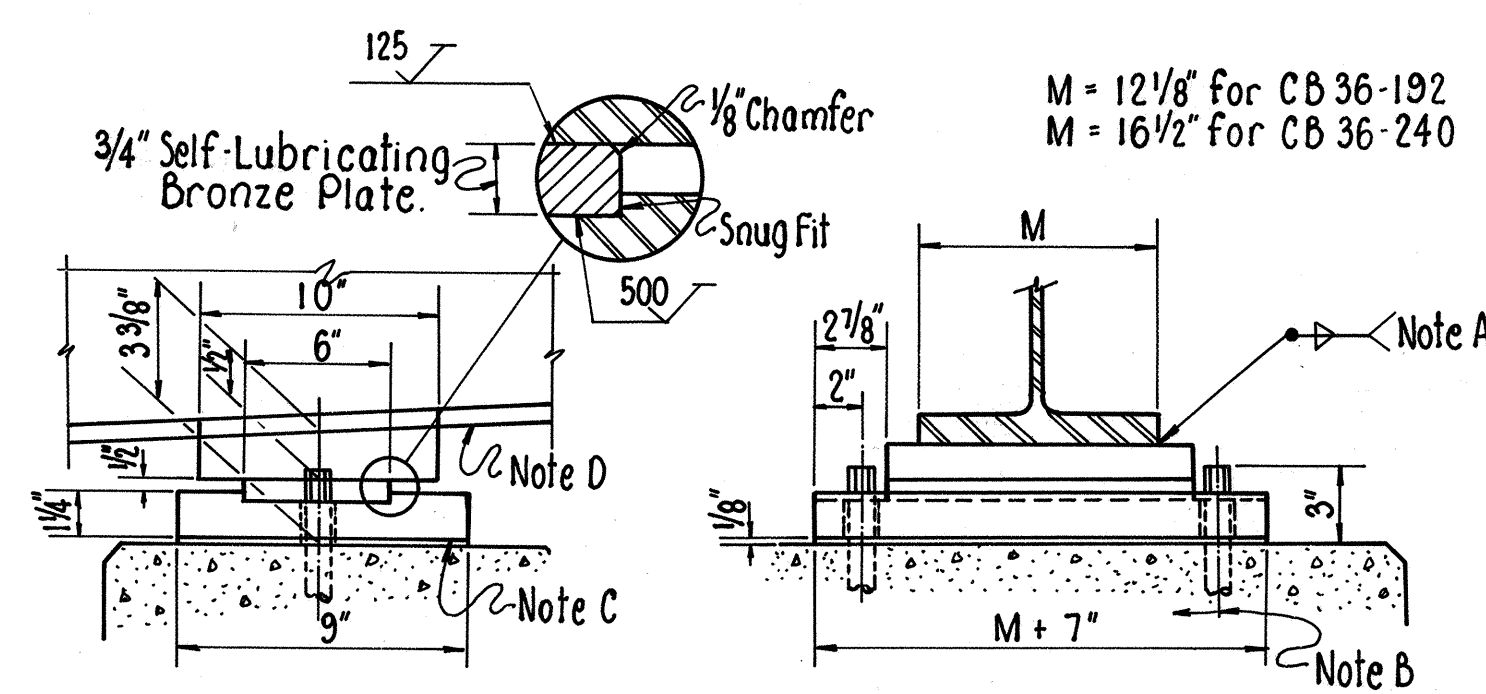
SCALE: 1" = 20' MCH. 1931

DESIGNED BY	PROPOSED WORK
REVISED 6-29-31	APPROVED

Note A: Fillet size same as flange or flange plate thickness but not larger than 1/2".
 Note B: 1/4" x 1'-7" Anchor bar (15/8" hole in plate).
 Note C: 1/8" sheet lead or preformed bearing pad.
 Note D: Furnish beveled plates for structures on grades of 0.50% or more.



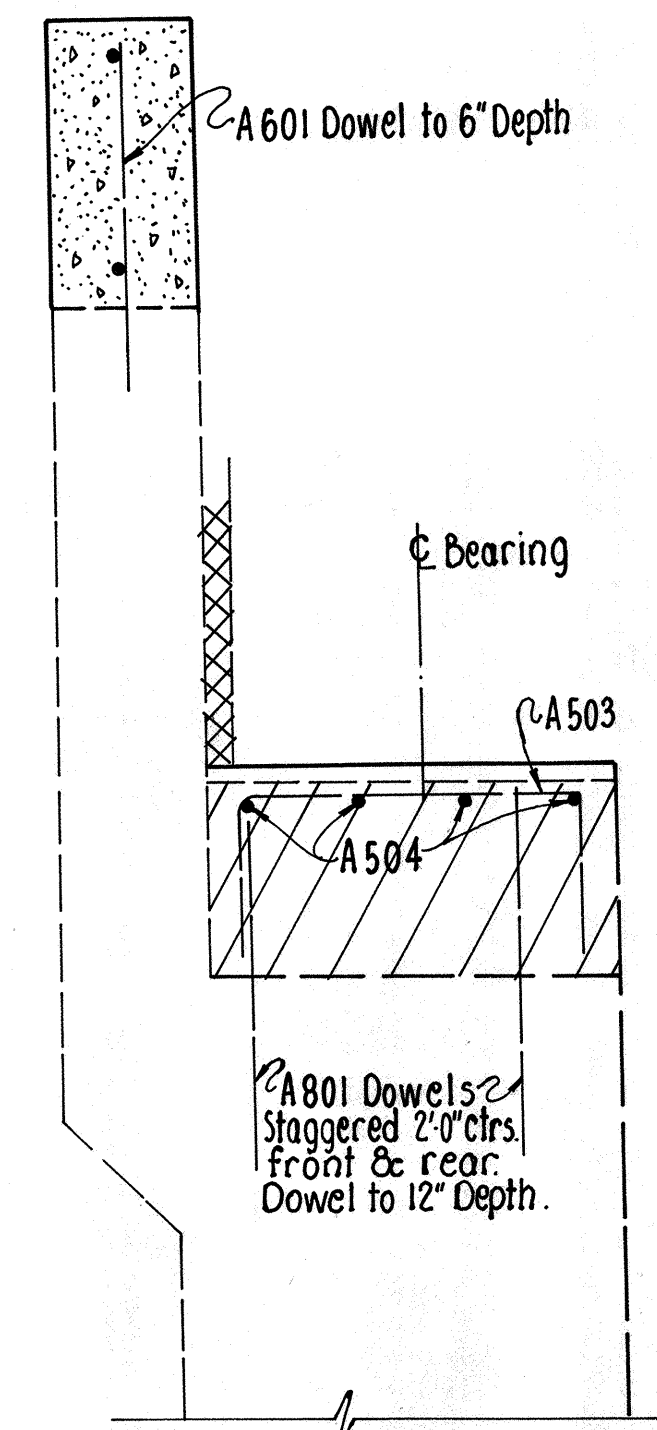
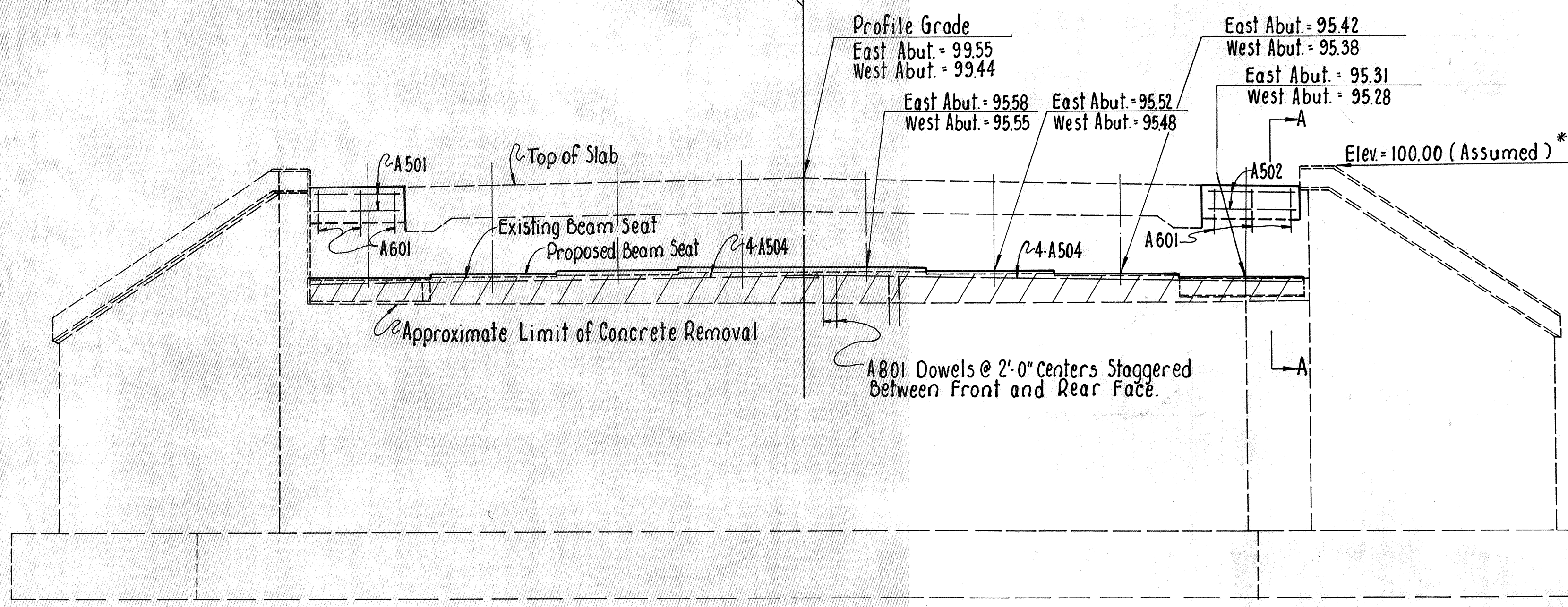
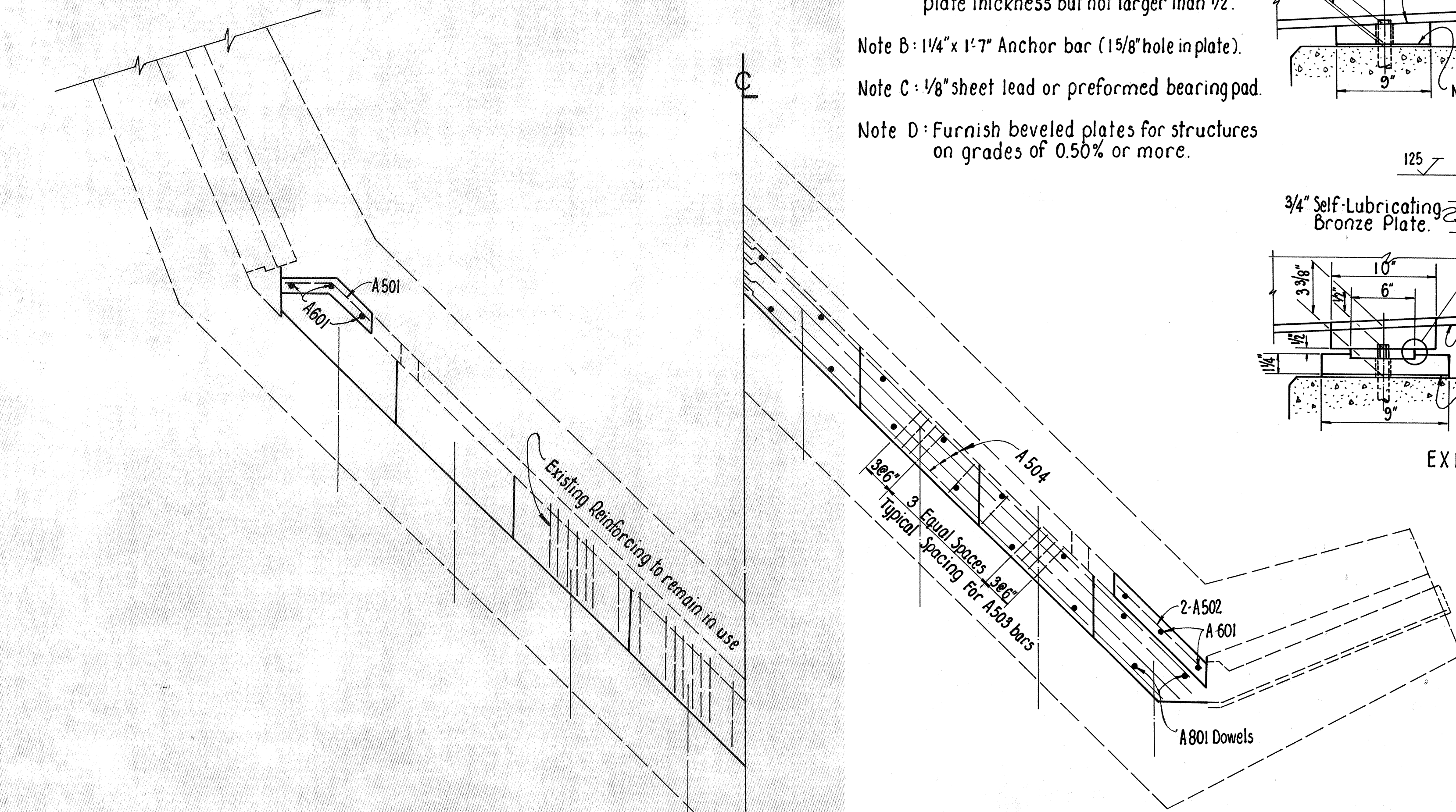
FIXED BEARING (F-100)



EXPANSION BEARING (E-100)

TRAFFIC

The bridge may be closed to traffic during the period from May 10, 1968 to June 30, 1968.



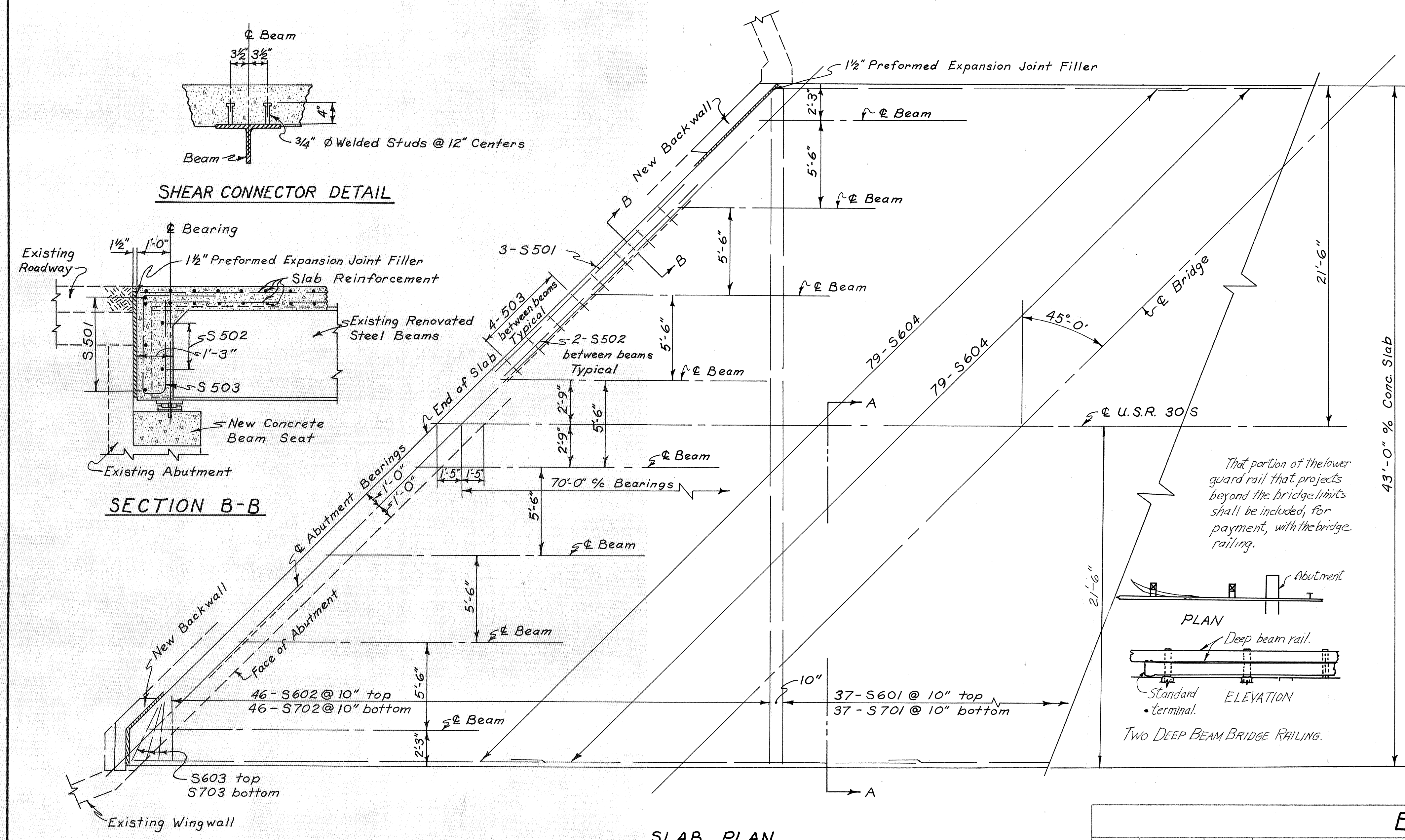
SECTION A-A

* B.M. Brass Plate set on top of S. East Corner of Bridge- Assumed Elev.=100.00

GENERAL NOTES

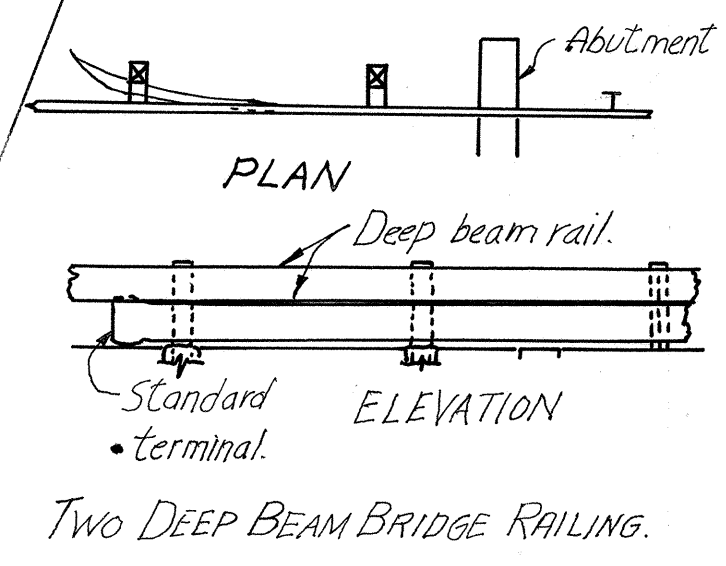
- FIELD OFFICE: THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF 105.152, PROVIDE A SUFFICIENT FIELD OF VIEW FOR THE APPROACHES TO THE BRIDGE DECK. THE CONTRACTOR SHALL MAINTAIN TRAFFIC ON THE APPROACHES AND BRIDGE DECK AT ALL TIMES DURING CONSTRUCTION OF THE BRIDGE. THE CONTRACTOR SHALL MAINTAIN SANITARY CONDITIONS AS PER 105.152. ALL MATERIALS AND METHODS SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION NO. 931.
- THE CONTRACTOR SHALL MAINTAIN THE BRIDGE DECK AT ALL TIMES DURING CONSTRUCTION OF THE BRIDGE. THE CONTRACTOR SHALL MAINTAIN SANITARY CONDITIONS AS PER 105.152. ALL MATERIALS AND METHODS SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION NO. 931.
- EXISTING STRUCTURAL STEEL: ALL EXISTING STRUCTURAL STEEL BEAMS AND DIAPHRAGMS SHALL BE REPAIRED OR REPLACED IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION NO. 832. THE CONTRACTOR SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION NO. 931.
- EXISTING STRUCTURE: WHEN NO LONGER NEEDED TO MAINTAIN TRAFFIC, THE EXISTING STRUCTURE SHALL BE CAREFULLY REMOVED. THE CONTRACTOR SHALL BE CAREFULLY REMOVED TO THE EXISTING STRUCTURAL STEEL WHICH IS TO BE RE-USED. ANY DAMAGED STRUCTURAL STEEL BEAMS SHALL BE REPAIRED BY THE CONTRACTOR, AND AT HIS OWN RISK TO THE SATISFACTION OF THE ENGINEER.
- THE CONTRACTOR SHALL REMOVE TO A DEPTH OF SIX (6) INCHES OR UNTIL SOUND CONCRETE IS REACHED, ALL CONCRETE UNDER THE BRIDGE DECK.
- CONCRETE: ALL CONCRETE SHALL BE PLACED AND FINISHED IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION NO. 931.
- REPAIRS: ALL REPAIRS TO THE BRIDGE DECK SHALL BE MADE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION NO. 931.
- TRAFFIC: THE BRIDGE MAY BE CLOSED TO TRAFFIC DURING THE PERIOD FROM MAY 10, 1968 TO JUNE 30, 1968.

CRA.-305-0361



REINFORCING STEEL LIST					
MARK	NO.	LENGTH	WEIGHT	SHP.	BENDING DIAGRAMS
SUPERSTRUCTURE					
S 501	12	31'-0"	388	S	
S 502	32	7'-9"	234	S	
S 503	64	9'-0"	601	B	
S 601	37	42'-8"	2371	S	
S 602	92	41'-10" to 4'-4"	3190	S	
S 603	6	4'-0"	36	S	
S 604	237	25'-5"	9048	S	
S 701	37	42'-8"	3227	S	
S 702	92	41'-10" to 4'-4"	4341	S	
S 703	6	4'-0"	49	S	
Total			23,485		
ABUTMENTS					
A 501	4	4'-11"	21	B	
A 502	4	5'-8"	24	S	
A 503	92	3'-4"	320	B	
A 504	16	29'-10"	498	S	
A 601	12	1'-8"	30	S	
A 801	60	1'-10"	294	S	
Total			1187		
REPLACEMENT BARS					
RE 501	1	6'-7"		S	
RE 601	1	6'-7"		S	
RE 701	1	7'-2"		S	

BAR SIZE: is indicated in the Bar Mark. The first digit where three digits are used and the first two digits where four are used indicate the bar size Number. For example: A 701 is a number 7 size bar. A 1002 is a number 10 size bar.



ESTIMATED QUANTITIES					
ITEM	TOTAL	UNIT	DESCRIPTION	ABUTS.	SUPER GEN.
202	10	Cu.Yds.	Portions of Existing Sub-structure Removed	10	
202	Lump	Sum.	Removal of Existing Concrete deck, - (Incl. Railing, Sidewalk & Bituminous Wearing Surface)		Lump
509	24,672	Lbs.	Reinforcing Steel	1,187	23,485
510	72	Each	Dowel Holes	72	
511	105	Cu.Yds.	Class "C" Concrete, Superstructure		105
511	12	Cu.Yds.	Class "E" Concrete, Abutments	12	
513	16	Unit.	Bearing Devices	16	
516	385	Sq.Ft.	1/2" Preformed Expansion Joint Filler AASHQM-153		385
517	145.67	Lin.Ft.	Railing (Two deep beam rails with steel posts, bolts & handrail), Galvanized		145.67
519	2329	Sq.Ft.	Patching Concrete	2329	
808	105	Units	Water-reducing, Set-retarding Admixture		105
812	1136	Each	Welded Stud Shear Connectors		1136
825	396	Sq.Yds.	Concrete Surface Treatment	28	368
832	Lump	Sum	Cleaning and Painting Existing Structural Steel		Lump
404	5	Cu.Yds.	Asphalt Concrete (70-85)		5
407	20	Gal.	Tack Coat, 702.02 RC-70 or RC-250, or 702.01 MS-2 or RS-1		20
606	79.33	lin.ft.	Guard Rail, Type 4		79.33
	Lump	Sum	Field Office		Lump
614	Lump	Sum	Maintaining Traffic		Lump

