

BRIDGE CONTRACT NO. 6274

INDEX						
PROJECT	STRUCTURE	TYPE	SPAN	OVER	STATION	CONTRACT NO.
F-307(9)	63-H-4697	CONTINUOUS R.C. GIRDER	44', 62', 44'	REDWOOD CREEK	316+55	6274
SHEET NO.	SHEET DESIGNATION		SUBJECT			
1	ONE SHEET		INDEX & TITLE SHEET			
2	ONE SHEET		TYPICAL CROSS SECTIONS			
3	ONE SHEET		SOIL BORINGS			
4	ONE SHEET		LAYOUT			
5	ONE SHEET		GENERAL PLAN			
6	ONE SHEET		DETAILS BENT NO. 1			
7	ONE SHEET		PIER NO. 2 & NO. 3 DETAILS			
8	ONE SHEET		DETAILS BENT NO. 4			
9	ONE SHEET		SUPERSTRUCTURE DETAILS			
10	ONE SHEET		SUPERSTRUCTURE DETAILS			
11	ONE SHEET		SUPERSTRUCTURE DETAILS			
12	ONE SHEET		SUMMARY			
13-14	TWO SHEETS		CROSS SECTIONS			

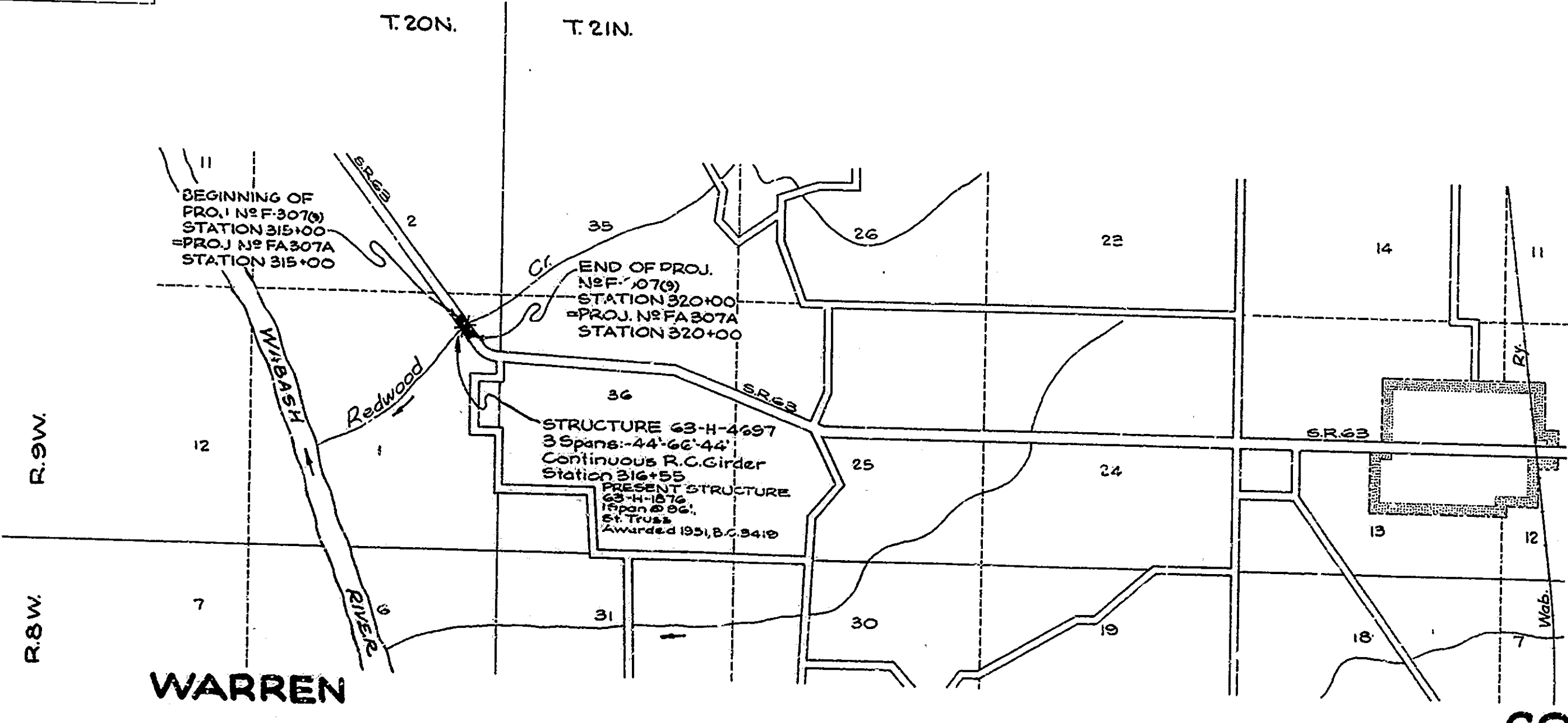
STATE OF INDIANA  
INDIANA STATE HIGHWAY COMMISSION

BRIDGE PLANS  
FOR SPANS OVER 20 FEET  
ON  
STATE ROAD NO. 63 SECTION H  
F.A. PROJECT NO. F-307(9)  
U.S. 136-U.S. 41 ROAD

BEGINNING AT A POINT ON SR. 63 APPROX. 1125' SOUTHWEST OF THE NORTH LINE OF SECTION 1 AND EXTENDING NORTHEAST A DISTANCE OF APPROX. 500' TO A POINT ON SR. 63 APPROX. 625' SOUTHWEST OF THE NORTH LINE OF SECTION 1, ALL IN SECTION 1, T. 20N. R. 9W, WARREN CO.  
ROADWAY LENGTH=0.066 MI. MAX. GRADE=-3.02 %  
BRIDGE LENGTH=0.028 MI.  
TOTAL LENGTH=0.094 MI.

SHEET NO.	SHEET DESIGNATION	SUBJECT	S.P.R. APPROVAL	ADDITIONAL DIVISION	BRIDGES OVER 20' SPAN			TOTAL SHEETS
					STATE	FISCAL YEAR	SHEET NO.	
4	IND.	F-307(9)	1961	1	1	1	25	

INDEX CONTINUED STANDARD DRAWINGS						
SHEET NO.	SHEET DESIGNATION	SUBJECT	S.P.R. APPROVAL	ADDITIONAL DIVISION	DATE	REVISION
15	BRIDGE STD. C1	STANDARD MISCELLANEOUS DETAILS	6-21-63	R-5-1-63		
	BRIDGE STD. C2	STANDARD MISCELLANEOUS DETAILS				
	BRIDGE STD. D	CASTING DETAILS, ROADWAY DRAIN				
	BRIDGE STD. F	ROADWAY DRAIN OUTLET DETAILS				
	BRIDGE STD. H	TYP. DETAILS OF THICK PAVEMENT & LOC. TOP OF SL				
	BRIDGE STD. I	TYP. DETAILS OF THICK PAVEMENT & LOCATING TOP OF SLOPE				
16A	BRIDGE STD. J	MISCELLANEOUS APPROACH DETAILS				
16	BRIDGE STD. M1	MISCELLANEOUS APPROACH DETAILS	6-21-63	R-5-1-63		
17	BRIDGE STD. M2	MISCELLANEOUS APPROACH DETAILS	8-12-61	R-5-1-61		
18	BRIDGE STD. M3	MISCELLANEOUS APPROACH DETAILS	1-17-62	R-8-27-62		
19	BRIDGE STD. P2	STANDARD CONCRETE PILE DETAILS				
19A	BRIDGE STD. R1A	ALUMINUM RAILING DETAILS				
19B	BRIDGE STD. R1B	STEEL RAILING DETAILS				
20	BRIDGE STD. S1	TYPICAL DETAILS FOR PLACING GRADE UNDER BRIDGE	3-28-63	R-1-1-63		
	BRIDGE STD. S2	TYPICAL DETAILS FOR PLACING SPECIAL FILLING MATERIAL				
21	BRIDGE STD. T SHEET A	STANDARD TEMPORARY BRIDGE	1-15-60	R-11-26-60		
22	BRIDGE STD. T SHEET B	STANDARD TEMPORARY BRIDGE	1-15-60	R-11-26-60		
	ROAD STD. SHEET A	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 MN	MISCELLANEOUS STANDARDS				
	ROAD STD. SHEET MO	MISCELLANEOUS STANDARDS				
	ROAD STD. SHEET MP	MISCELLANEOUS STANDARDS				
	ROAD STD. SHEET MQ	MISCELLANEOUS STANDARDS				
	ROAD STD. SHEET MR	MISCELLANEOUS STANDARDS				
	ROAD STD. SHEET S	MISCELLANEOUS STANDARDS CENTER DITCH INLETS				
	ROAD STD. SHEET T	MISCELLANEOUS STANDARDS				
	ROAD STD. SHEET U	MISCELLANEOUS STANDARDS				
	ROAD STD.	STANDARD STRUCTURE CONNECTIONS FOR EXTENSION				
	ROAD STD.	STANDARD REIN. CONC. BOX CULVERTS				
	ROAD STD.	STANDARD REIN. CONC. BOX CULVERTS-SK. END & WING				
	ROAD STD.	STANDARD REIN. CONC. CULVERTS-SLAB TOP TYPE (W.F.)				
	ROAD STD.	STANDARD REIN. CONC. CULVERTS-SLAB TOP TYPE (U.F.)				
	ROAD STD. SHEET GR	STANDARD GUARD RAIL				
	ROAD STD. SHEET GRI	BEAM GUARD RAIL				
	ROAD STD.	STANDARD REIN. CONCRETE ARCH-12' SPAN	6-8-61	R-3-28-61		
	ROAD STD.	STANDARD HEADWALLS				
	ROAD STD.	STANDARD STRUCTURAL PLATE ARCH				
	ROAD STD.	CONCRETE WINGS FOR STD. STRUCTURAL PLATE ARCHES				
	ROAD STD.	STANDARDS FOR SUPER ELEVATION & WIDENING OF CURVES				
24	ROAD STD. SHEET 2 DETOURS	STANDARD DETOUR SIGNS				
25	ROAD STD. SHEET 3 DETOURS	STANDARD DETOUR SIGNS				
25B	ROAD STD. SHEET 4 DETOURS	STANDARD DETOUR SIGNS				
25C	ROAD STD. SHEET 5 DETOURS	STANDARD DETOUR SIGNS	3-9-64	R-7-8-63		



TRAFFIC DATA	
A.D.T. (1960)	1250 V.P.D.
A.D.T. (1960 PROJECTED)	2000 V.P.D.
TRUCKS	19 %
DESIGN SPEED	60 M.P.H.
ACCESS CONTROL	NONE

WEST LEBANON  
(INC)

APPROVED 12-9-63  
C.E. Rummel  
CHIEF ENGINEER - INDIANA STATE HIGHWAY COMMISSION

APPROVED AND ADOPTED 12-3-60  
BY STATE HIGHWAY DEPARTMENT OF INDIANA  
C.E. Rummel  
CHIEF ENGINEER - STATE DEPARTMENT OF INDIANA

INDIANA STATE HIGHWAY COMMISSION  
STANDARD SPECIFICATIONS DATED 1963  
TO BE USED WITH THESE PLANS.

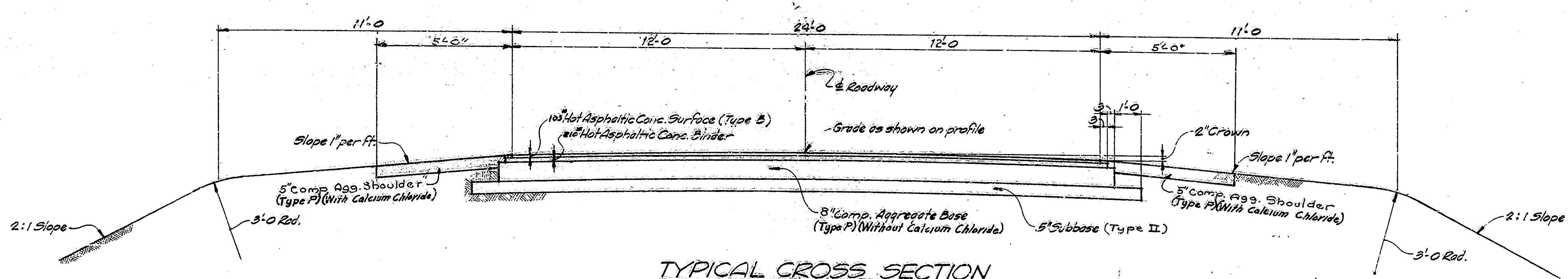
REVISIONS	
DATE	SHEET NO.
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8-7-64	12, 53, 12 + 25B Sheet 15A Added

RECOMMENDED FOR APPROVAL 11-21-60  
C.E. Rummel  
CHIEF ENGINEER - INDIANA STATE HIGHWAY COMMISSION

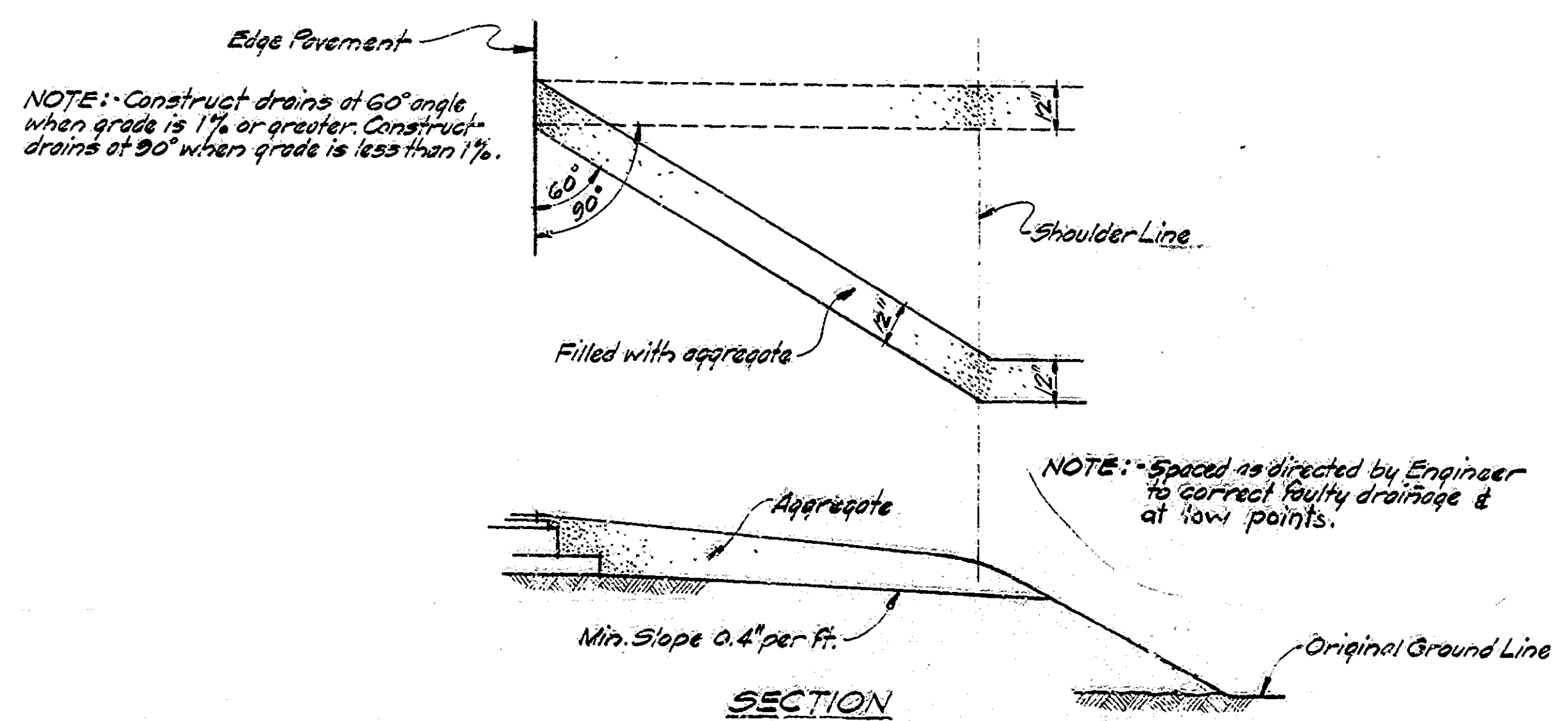
DEPARTMENT OF COMMERCE  
BUREAU OF PUBLIC ROADS  
APPROVED:  
DIVISION ENGINEER DATE:

BRIDGE FILE: 63-H-4697

BRIDGES OVER 20' SPAN					
FILE NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	F-307	1961	2	25



**TYPICAL CROSS SECTION**  
Scale: 1/2" = 1'-0"



**SECTION SHOULDER DRAINS**  
Scale: 3/8" = 1'-0"

**TYPICAL CROSS SECTION  
STATE HIGHWAY DEPARTMENT OF INDIANA**

SCALE: AS NOTED OCTOBER 13, 1960.

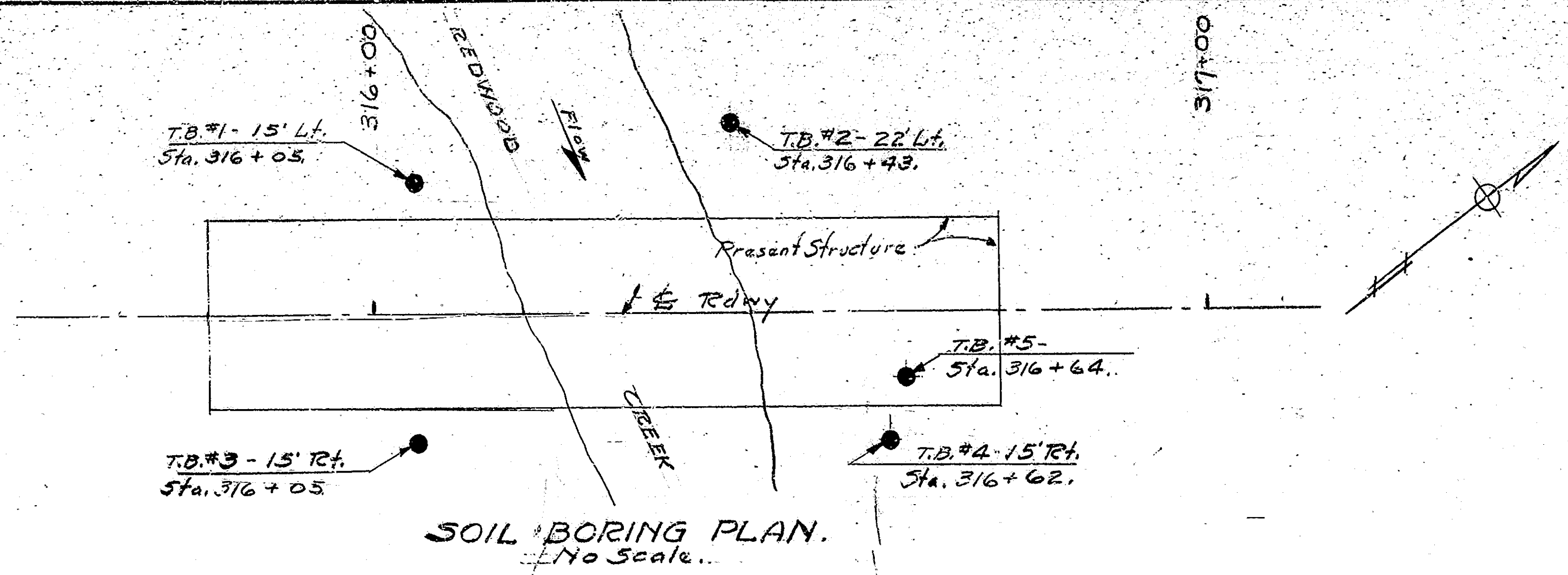
RECOMMENDED FOR APPROVAL: *C. R. Rummel*

DRAWING OF  
PROJECT: F-307  
BRIDGE CONTRACT NO. 6274  
BRIDGE FILE: 63-H-4697

DESIGNED	CKD
DRAWN: Mol 7/24/56	CKD 8/12/56
TRACED	CKD

Rev. 8-7-67 Without G.C. With 4-1854210

BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	2-307(9)	1967	3	25



BORING NO.		STATION		OFFSET		SURFACE ELEV.						
1		2		3		4		5				
316+05		316+43		315+99 to 316+10		316+62		316+64				
15' Lt.		22' Lt.		15' Rt.		15' Lt.		E. End N. Abutment.				
495.9		495.4		503.6 to 497.7		494.6		494.6				
ELEV.	Samp. No.	Samp. Elev.	N.	Description	Samp. No.	Samp. Elev.	N.	Description	Samp. No.	Samp. Elev.	N.	Description
505				Large SANDSTONE slabs interbedded with silty clay, sand gravel.								This hole was probed along the East end of North Abutment with Pick & Shovel and Auger.
500				(Probe hole dug with pick & shovel.)								Bottom of Abutment
495	1	493.9		Bottom of test hole - Top of rock which is sandstone with some shale seams.								Blue gray soft CLAY
490												
485												
480												
475												
470												
465												
460												

SOIL BORING LOG.  
Vert. Scale - 1" = 6'

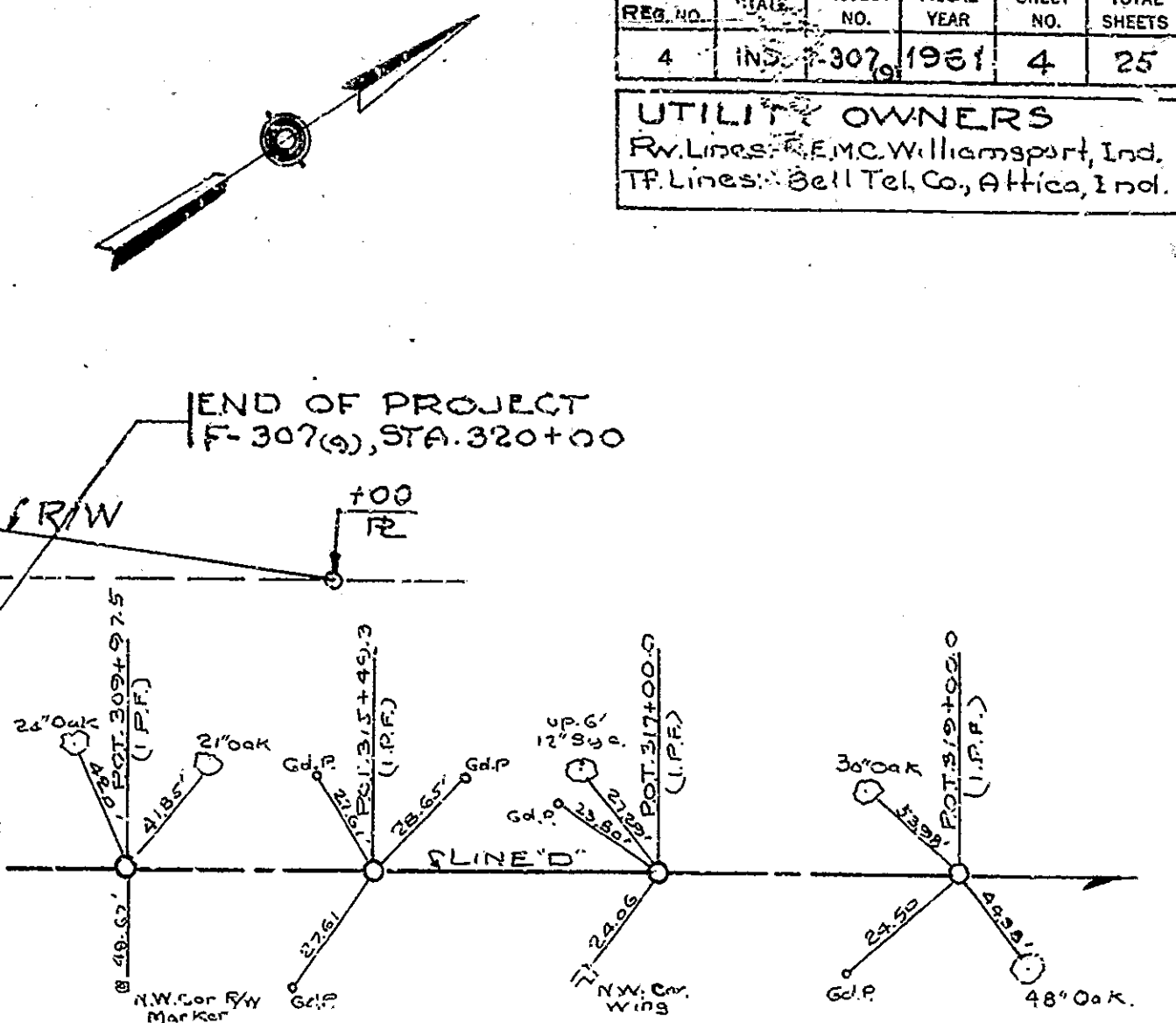
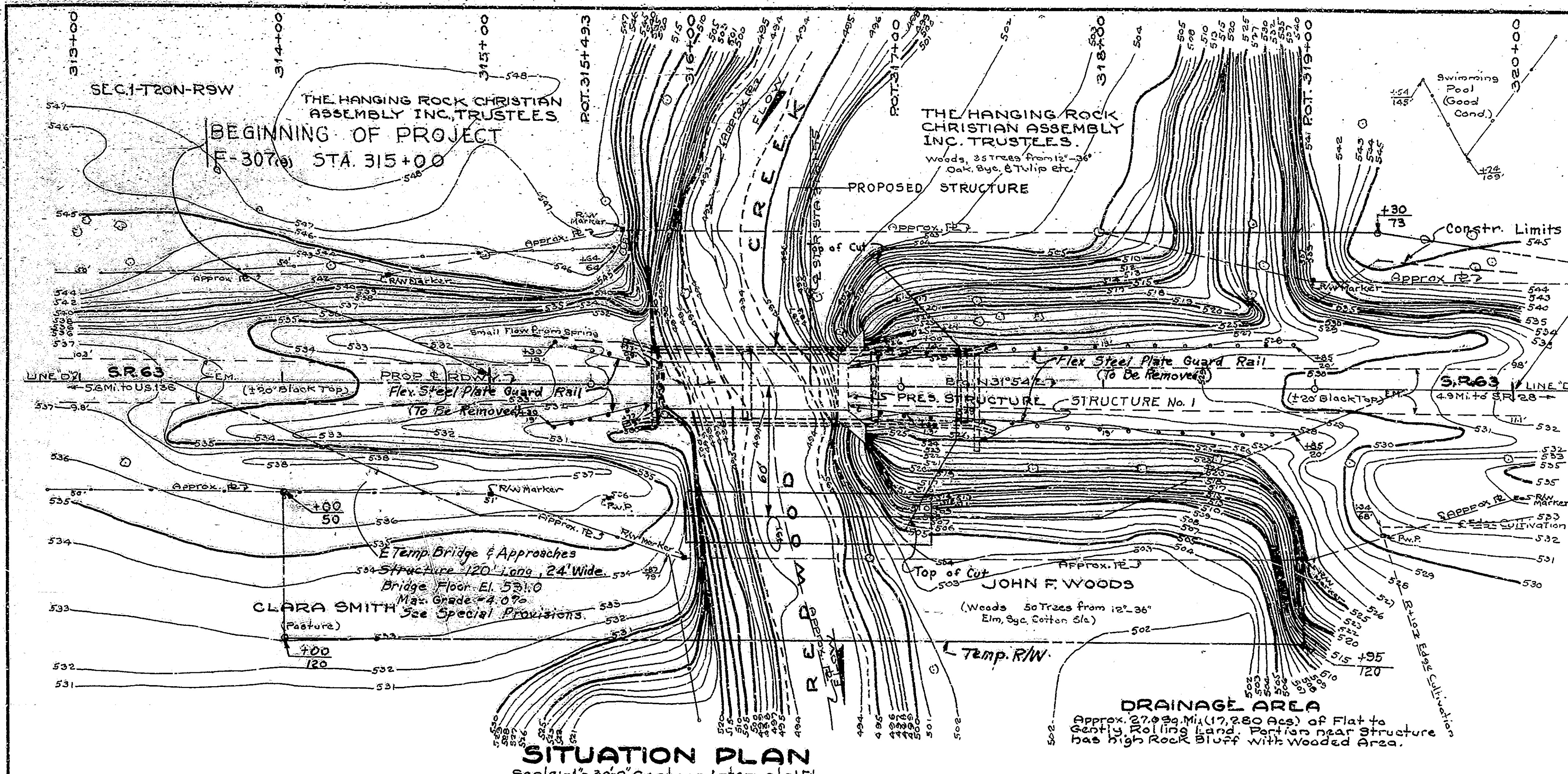
SOIL BORINGS.  
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: -  
RECOMMENDED FOR APPROVAL: *C. R. ...*  
OCTOBER 13, 1960  
DRAWING: OF  
PROJECT: F-307(9)  
BRIDGE CONTRACT NO. 6274  
BRIDGE FILE: 63-11-4697

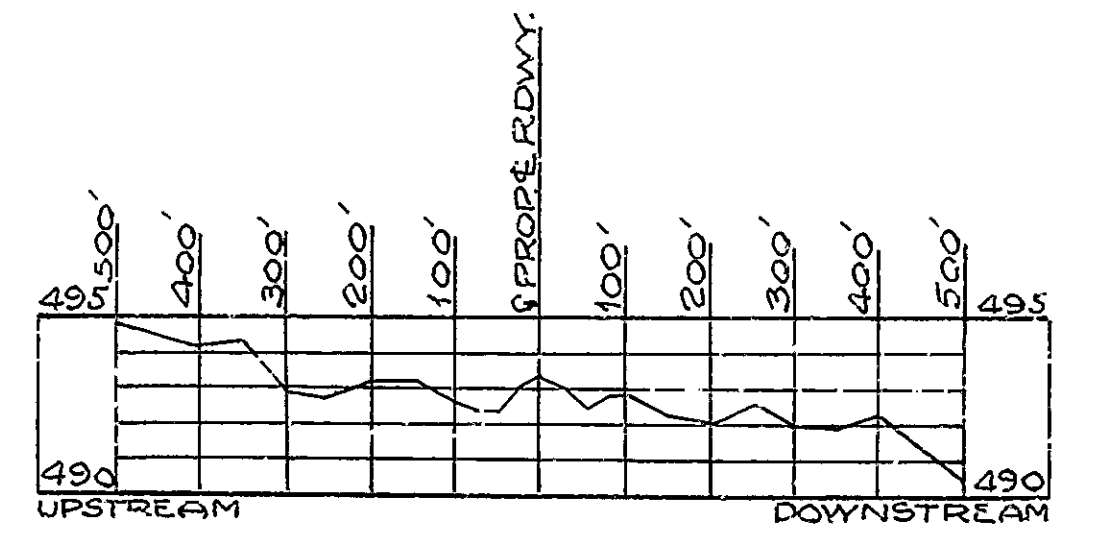
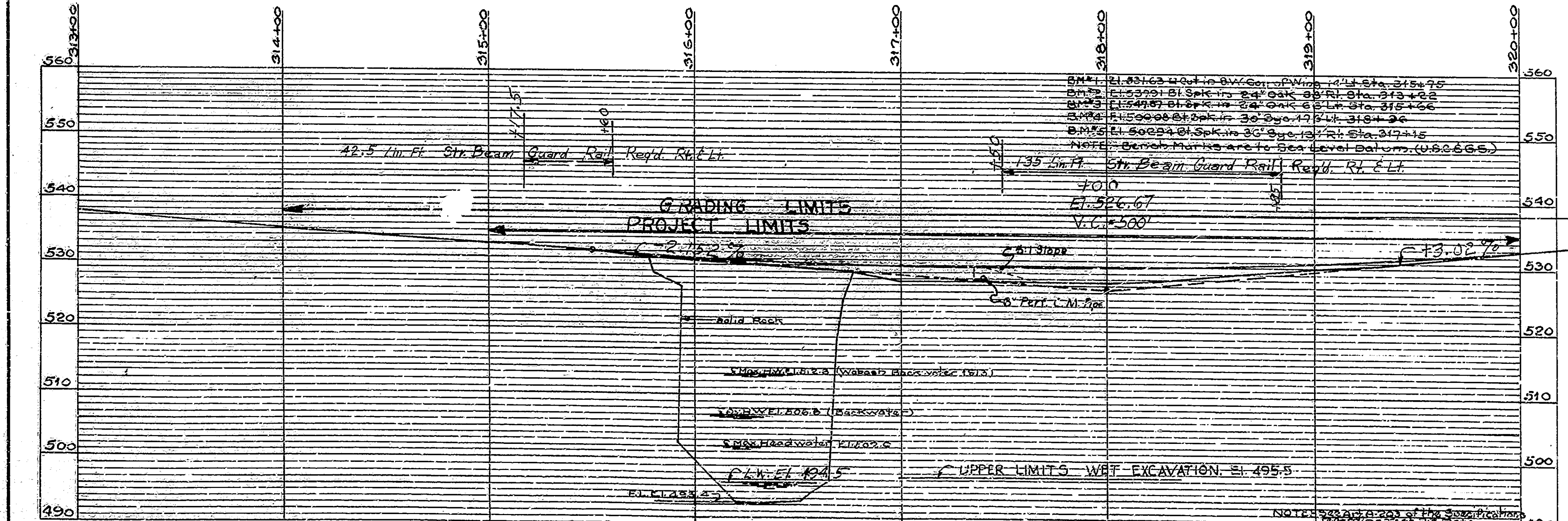
DESIGNED: CKD  
DRAWN: CKD  
TRACED: CKD

BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	F-307(a)	1961	4	25

UTILITY OWNERS  
 R.W. Lines: E.M.C. Williamsport, Ind.  
 T.P. Lines: Bell Tel. Co., Attica, Ind.



**PRESENT STRUCTURE**  
 Original Structure built by County, Repaired by State Highway Commission of Indiana in 1938 as 63-H-1876, Contract No 1385, and in 1951 as 63-H-1876-A, Contract No 3419. Steel Truss, @ 96'-0", 17'-9" Roadway, Square. Plans on File in Bridge Design Office.  
 STRUCTURAL STEEL WGT. APPROX. 32 TONS



**LAYOUT**  
**CONTINUOUS REINF. CONC. GIRDER BRIDGE**  
 3 SPANS: 44', 62', 44' 30'-0" ROADWAY  
 OVER REDWOOD CREEK ON STATE ROAD 63  
 STATE HIGHWAY DEPARTMENT OF INDIANA  
 WARREN COUNTY

SCALE: AS NOTED      OCTOBER 13, 1960.

RECOMMENDED FOR APPROVAL: *Ch. Rimmer*

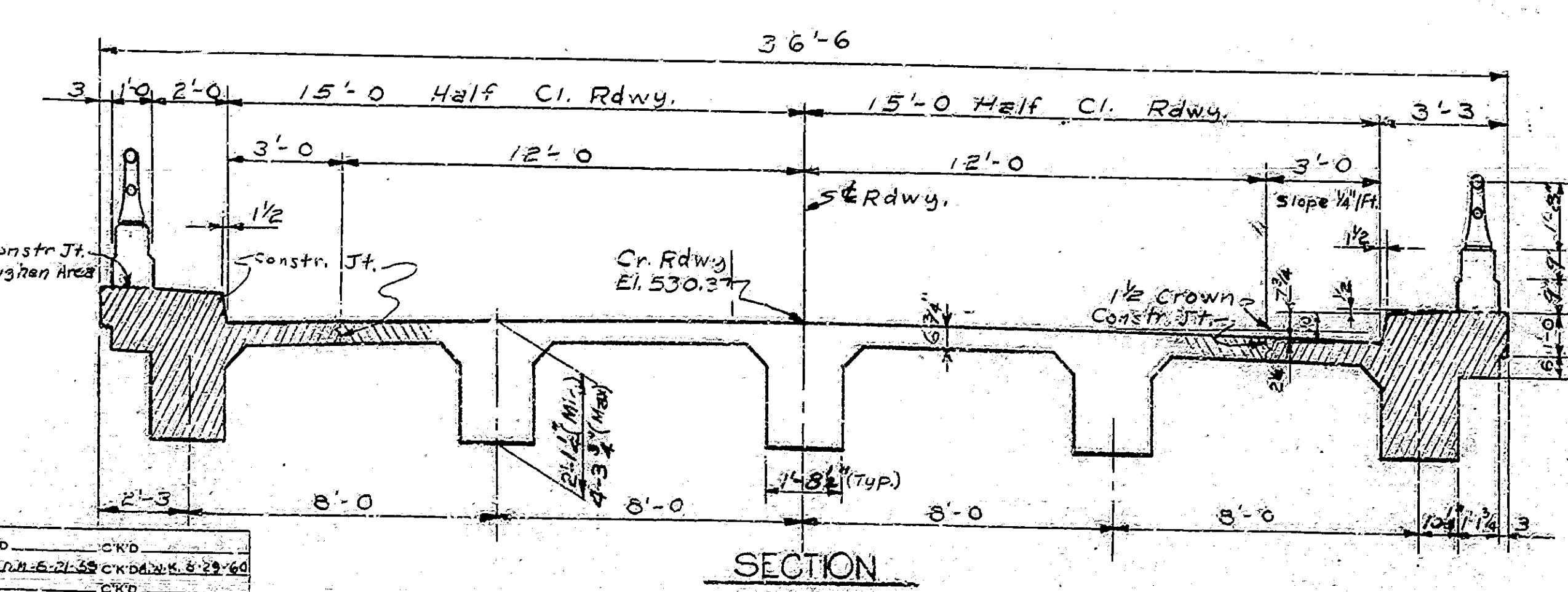
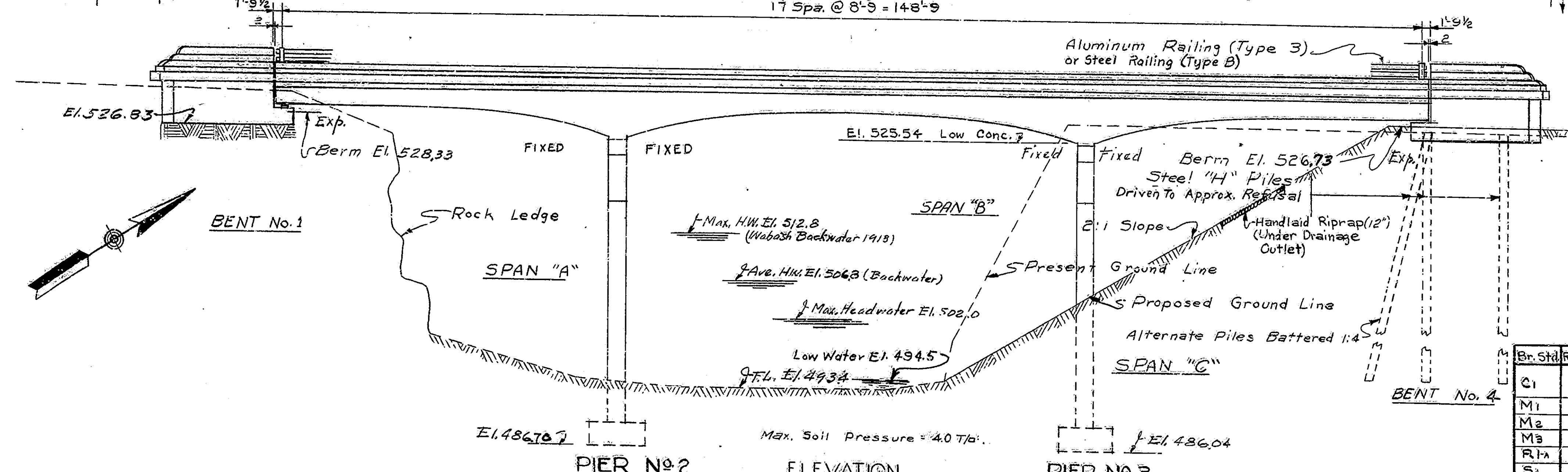
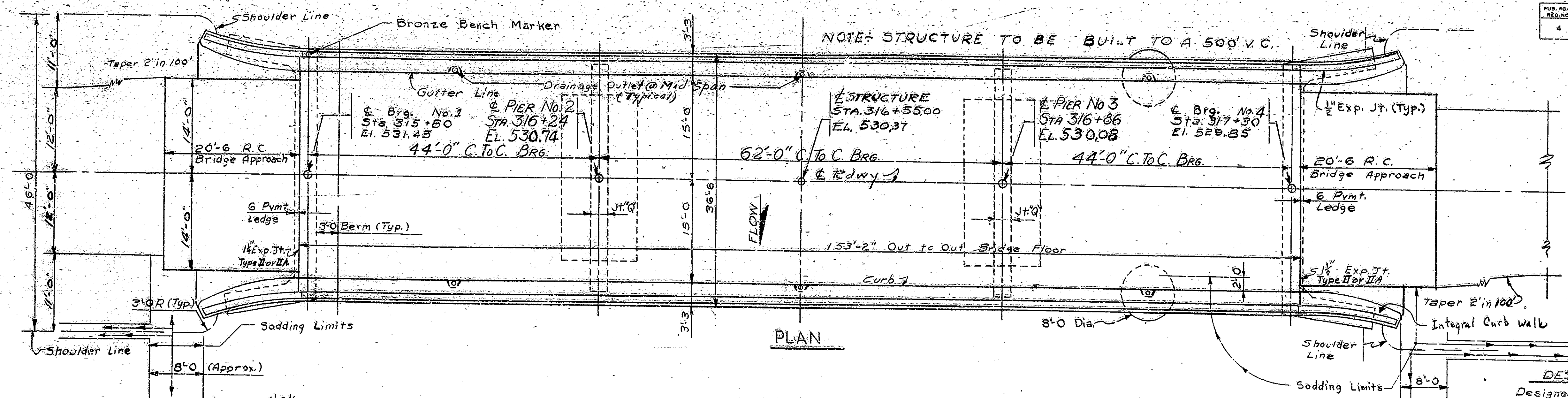
DRAWING: C-1 OF 8  
 PROJECT: F-307(a)      STATION: 316+55  
 BRIDGE CONTRACT NO. 6274  
 BRIDGE FILE: 63-H-4687

DESIGNED: C.W.C.  
 DRAWN: B.O.J. 6-17-59, C.W.C. EAF 6-22-59  
 TRACKED: W.F.B. 7-2-59, W.B. 8-17-59, S.C.

**PROFILE ON PROPOSED ROADWAY**  
 Scale: Horiz. 1"=30'-0", Vert. 1"=10'-0"

Rev. 11-27-63 Guard Rail & 6" Perf. C. M. Pipe  
 NOTE: FIELD NOTES, BOOK BR. 1725, Pages 1 to 31

BRIDGES OVER 20' SPAN					
BRIDGE NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	F-307	1961	5	25



**DESIGN DATA**

Designed for H20-516-44 loading in accordance with 1957 A.A.S.H.O. specifications, except floor slab designed for 16,000 lb. wheel load. Check for 1961 A.A.S.H.O. specifications.

**JOINT LEGEND**

Joint G indicates 1/2" Preformed Joint Filler Placed as shown on Pier Details.

1" Exp. Joint See Br. Std. J.

**TYPICAL CROSS SECTION**

See Sheet No. 2.

**STANDARD DRAWINGS**

Br. Std. Rd. Std.	Purpose
C1	Reinf. Bar Notes, Splicing Steel H Piles, & Rdwy. Drainage Outlets.
M1	R/W Marker & Pavement Offsets.
M2	Handlaid Riprap
M3	R.C. Bridge Approach Details.
R1a	Aluminum Railing Details (Type 3)
S1	Typical Details for placing special fill.
Ta	Standard Temporary Bridge
Tb	Standard Temporary Bridge
GR-1	Str. Beam Guard Rail.
SH-1	Std. Detour Signs.
SH-2	Std. Detour Signs.
R1-B	Steel Railing Details
J	1/4" Expansion Joint (Type II or III)

**GENERAL NOTES**

Depth of footings to be extended if found necessary. See Art. B 403.2(a) of Specifications.

Footings shall extend minimum of 6" into solid rock. Reinforcing steel not to be ordered until rock is uncovered. Piles shall have minimum bearing value shown on detail drawings. Determine pile lengths by Art. F 203 of Specifications. For details of Steel H Piles see Br. Std. C1.

Reinforcing steel covering shall be 1" bottom & 1 1/2" top floor slabs, 3 inches footings, except bottom steel which shall be 4 inches, and 2 inches in all other parts unless noted. Concrete in footings and pier stems to construction joint to be class "C". Concrete in superstructure, including railing, bent caps, and top of piers above construction joint to be class "B".

Continuous concrete pours shall be required between construction joints as shown on detail plans.

Waterproof wingwalls and mudwall in accordance with Specifications. Bevel forms 1/4" under copings; and chamfer exposed edges 1 inch unless noted.

6 Roadway drainage outlets to be placed as shown on this drawing. Stream bank and slopes around Bent No. 4 to be riprapped. Tolerance in position of pile head maximum 2 inches. All railings to be constructed perpendicular to grade.

See Special provisions for items included in this contract.

**GENERAL PLAN**

**CONTINUOUS REINF. CONC. GIRDER BRIDGE**

3 SPANS 44'-0" ~ 62'-0" ~ 44'-0"

OVER REDWOOD CREEK ON STATE ROAD 63

STATE HIGHWAY DEPARTMENT OF INDIANA

WARREN COUNTY

SCALE: 1/8" = 1'-0" UNLESS NOTED OCTOBER 13, 1960

RECOMMENDED FOR APPROVAL: *C.R. Kramer*

DRAWING: C2 OF 8

PROJECT: F-307 (9)

BRIDGE CONTRACT NO. 6274 STA. 316+55.00

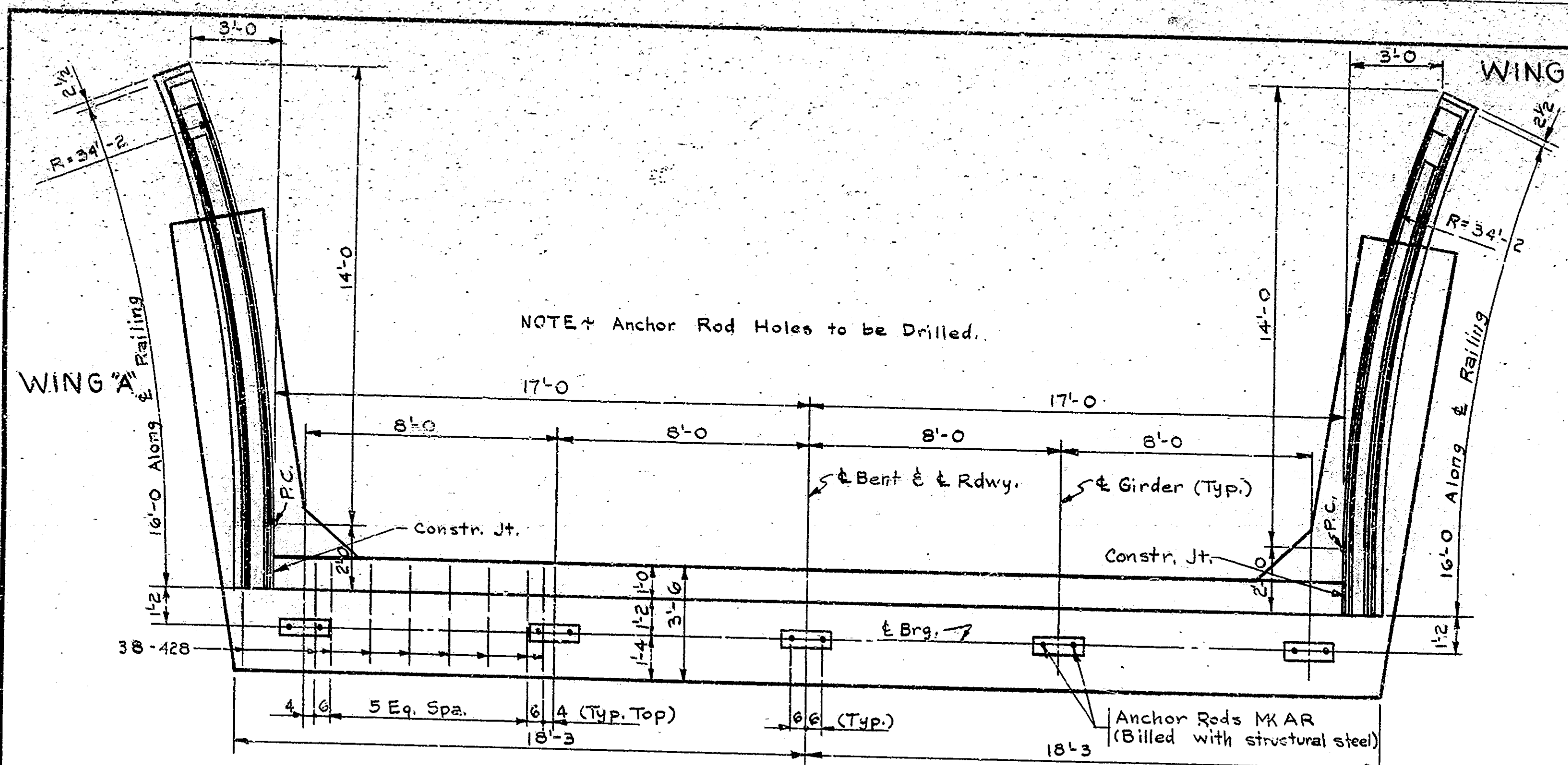
BRIDGE FILE: 63-H-4837

Rev. 11-27-63 Railing Details

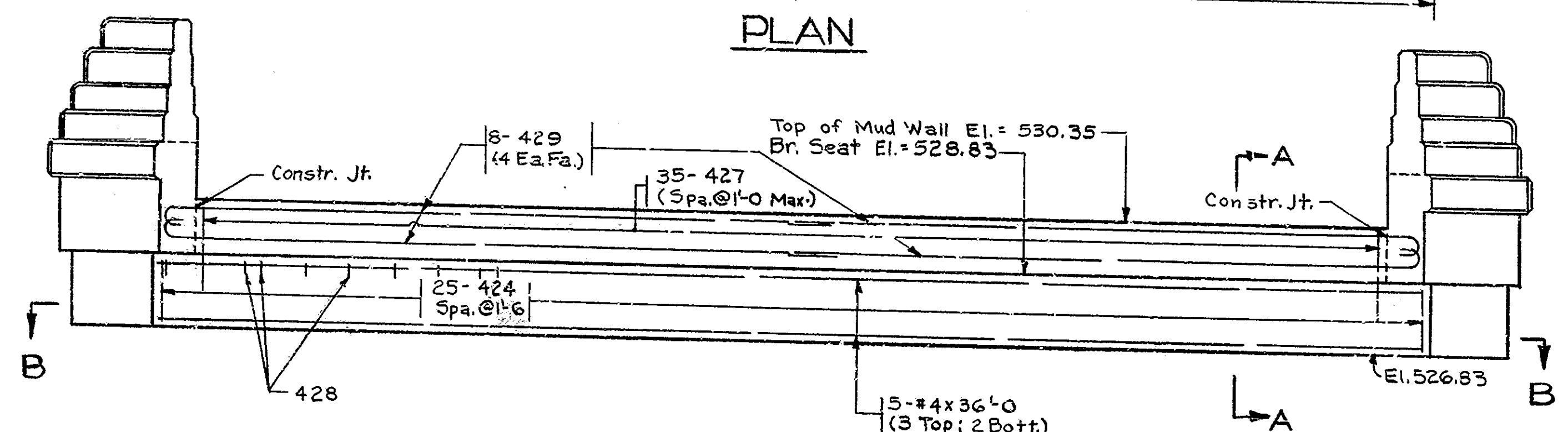
Rev. 8-7-64 Exp. Jt. II or III 1961 Spec. L.W.E.I.

DESIGNED: CKD  
 DRAWN: J.E. 7-35 CKD  
 CHECKED: CKD

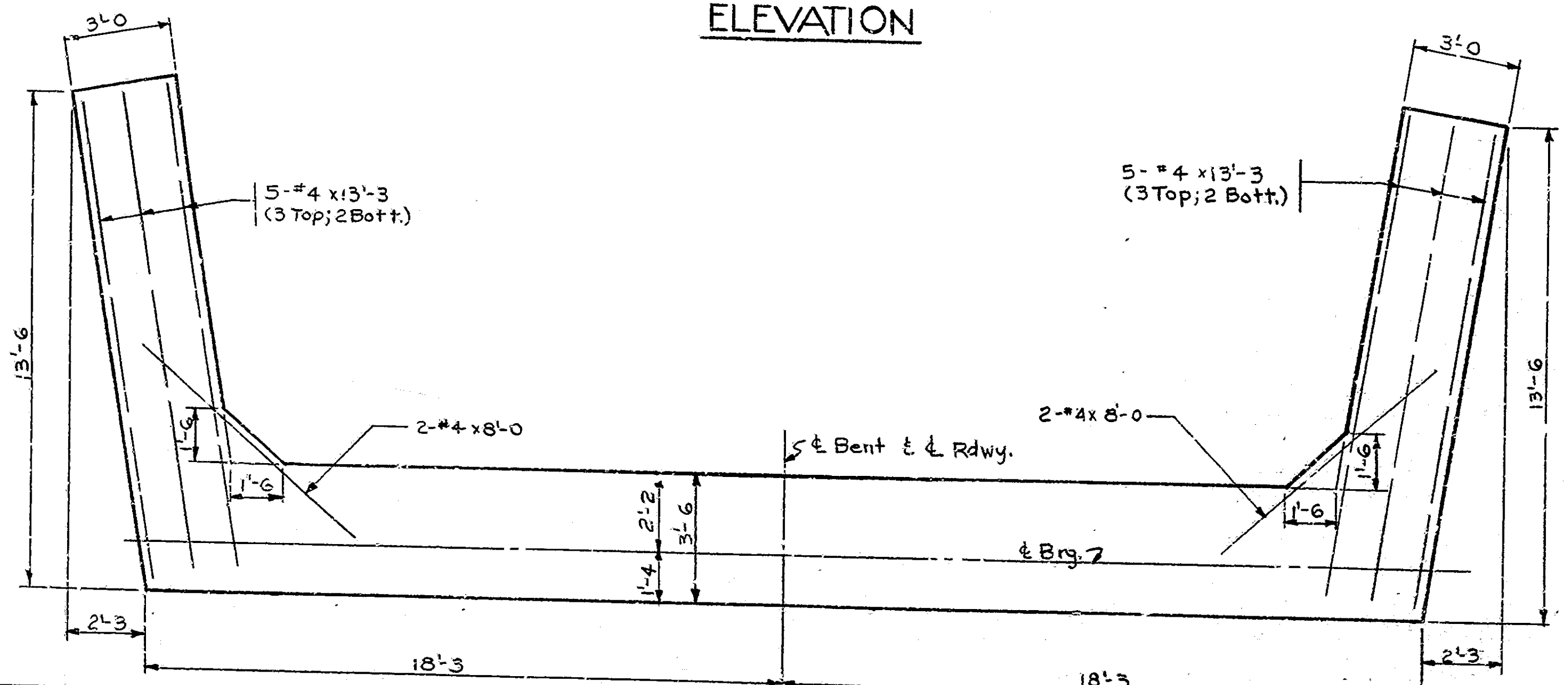
BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	F-307 (5)	1961	6	25



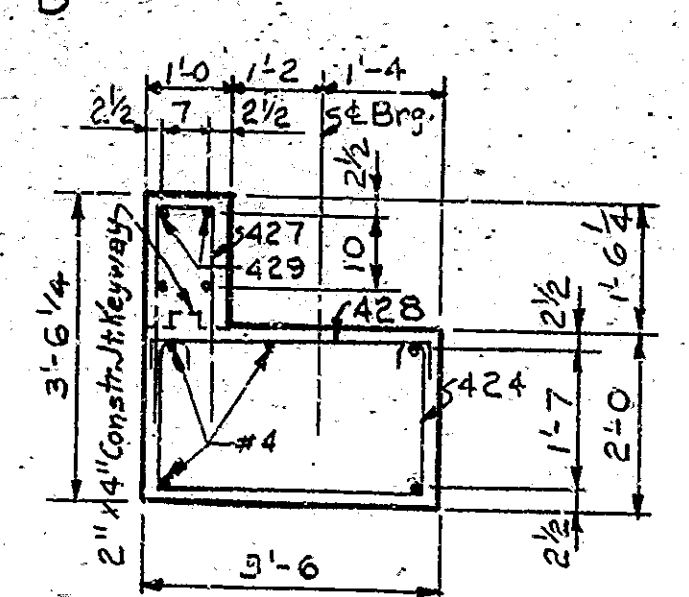
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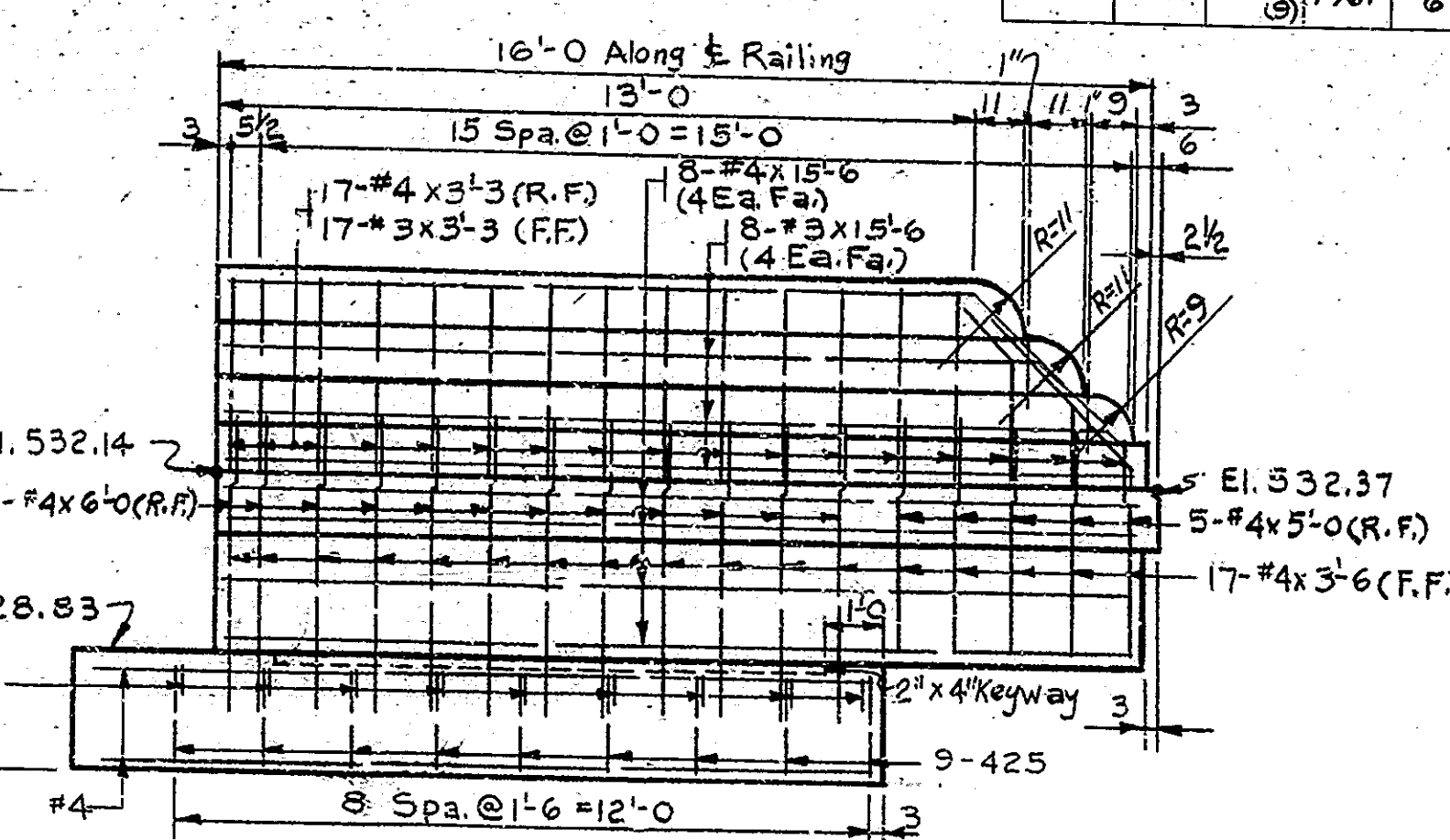
ELEVATION



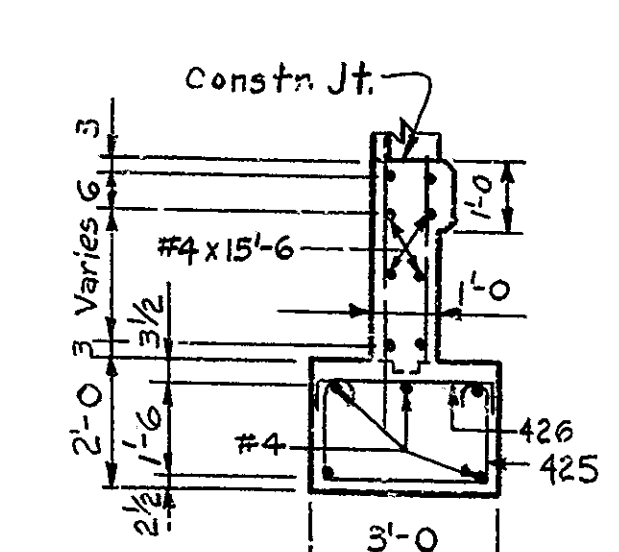
SECTION B-B



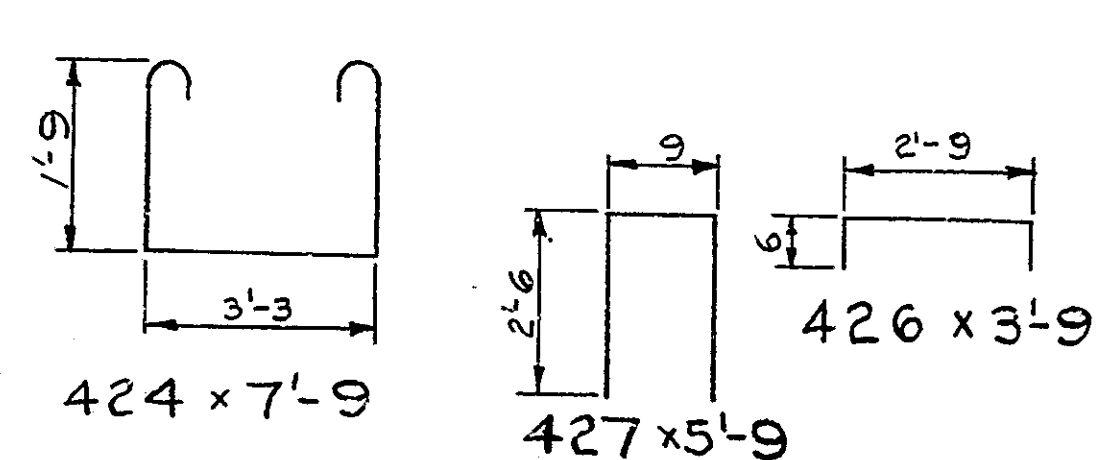
SECTION A-A



TYPICAL WING & RAILING DETAILS



WING SECTION



BILL OF MATERIALS  
BENT No. 1

REINFORCING STEEL			
SIZE & NO. OF MARK (BARS)	LENGTH	WEIGHT (LBS.)	
424	25	7.9	
425	18	7.3	
426	18	3.9	
427	35	5.9	
428	38	4.2	
429	8	19.3	
#4	5	36.0	
#4	16	13.6	
#4	10	13.3	
#4	4	8.0	
#4	24	6.0	
#4	10	3.0	
#4	34	3.6	
#4	34	3.3	
Total	No. 4	1285	
#3	16	15.6	
#3	34	9.3	
Total	No. 3	135	
TOTAL STEEL		1420	
CONCRETE		CYS.	
CLASS "F"		20.5	
RAILING CONC.		2.9	

NOTE: See Br. Std. C1 for Reinforcing Bar Notes.  
See Drawing C<sub>2</sub> for Railing Section.

DETAILS BENT No. 1  
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: 3/8" = 1'-0 UNLESS NOTED

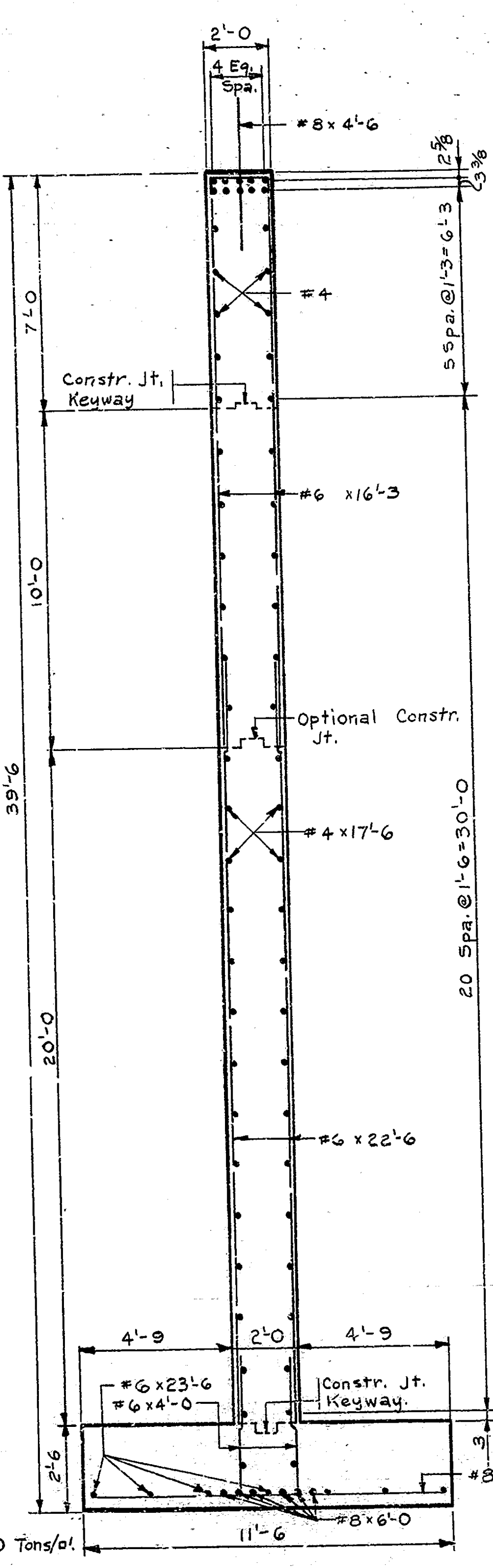
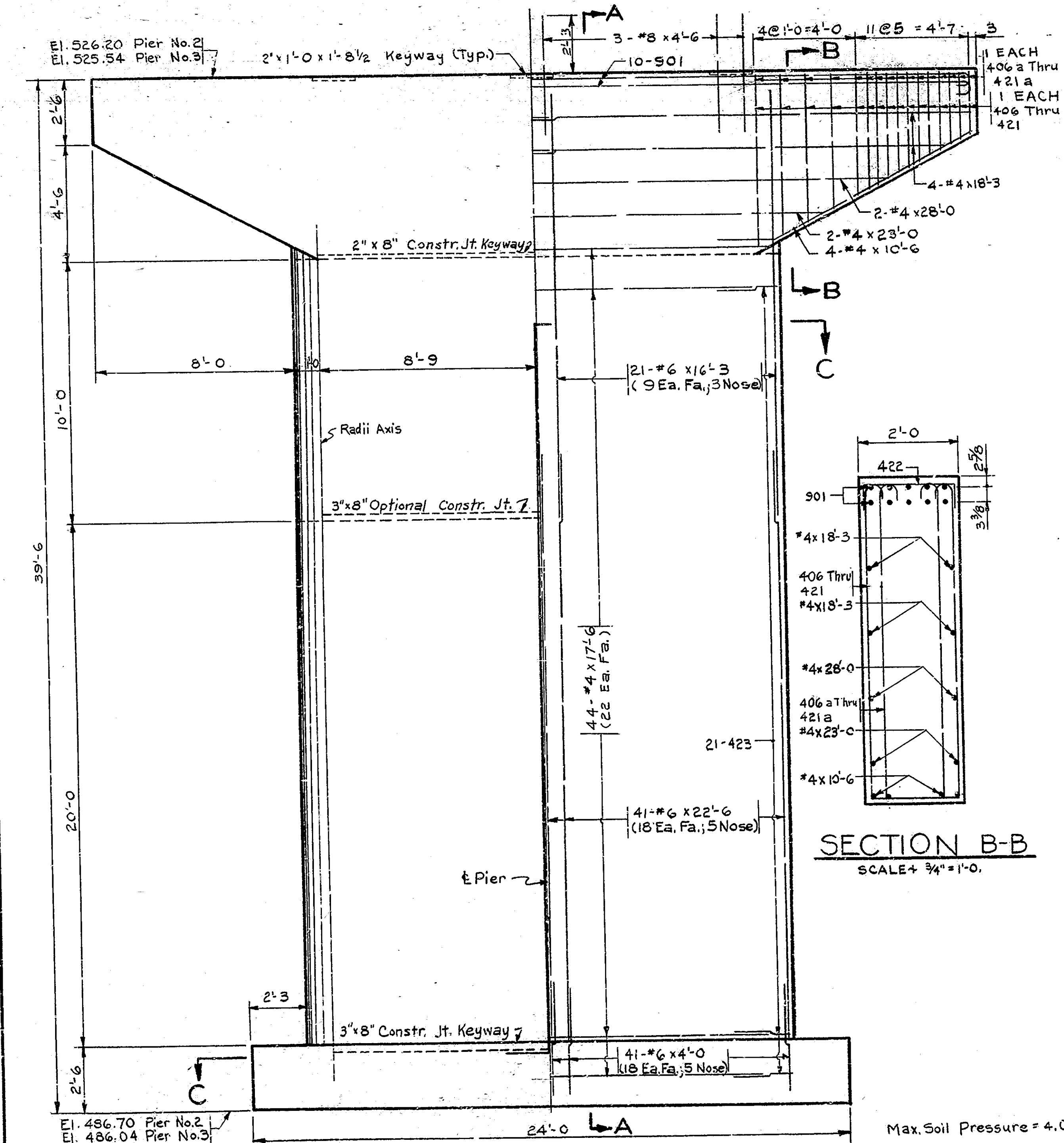
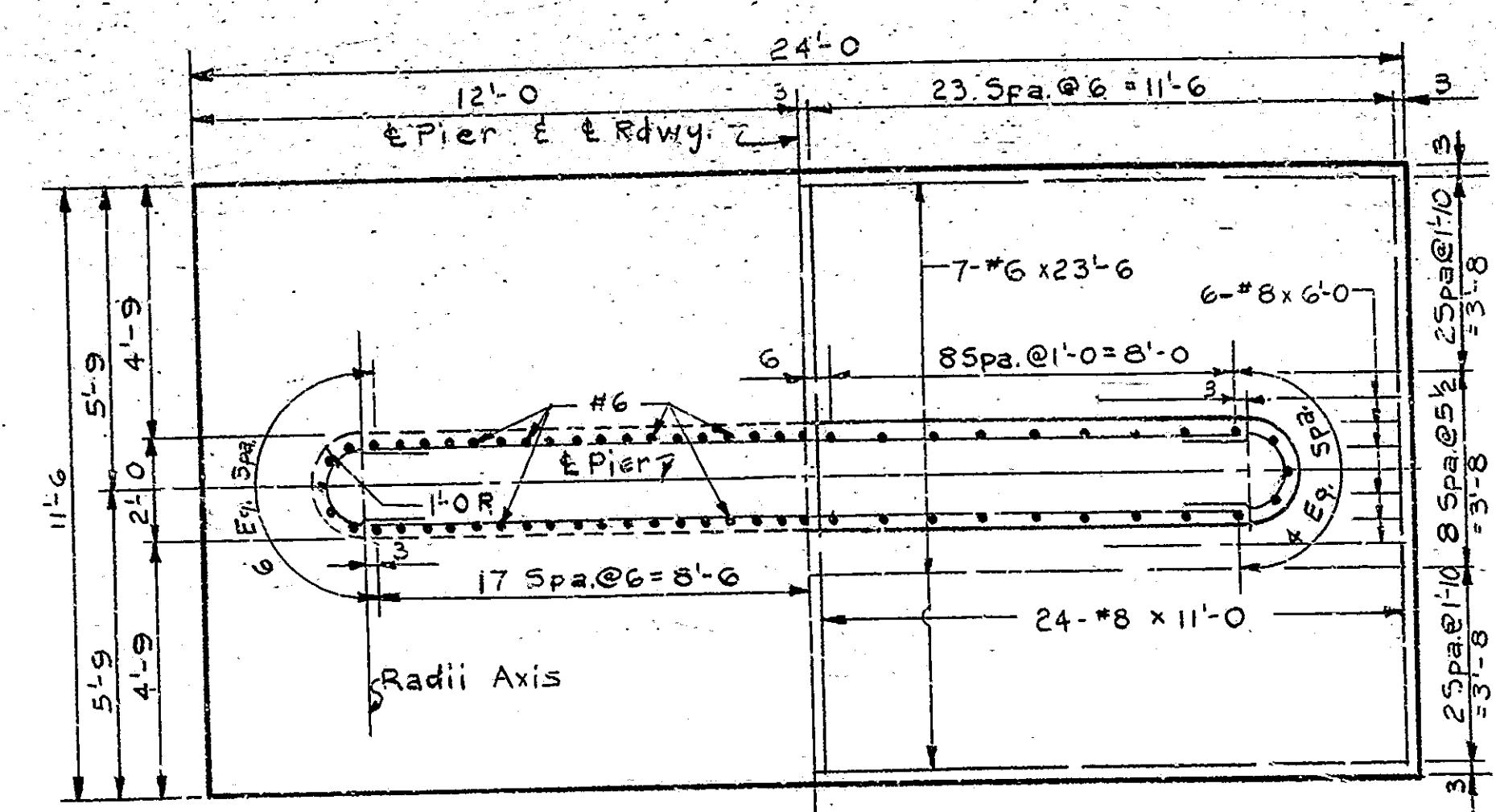
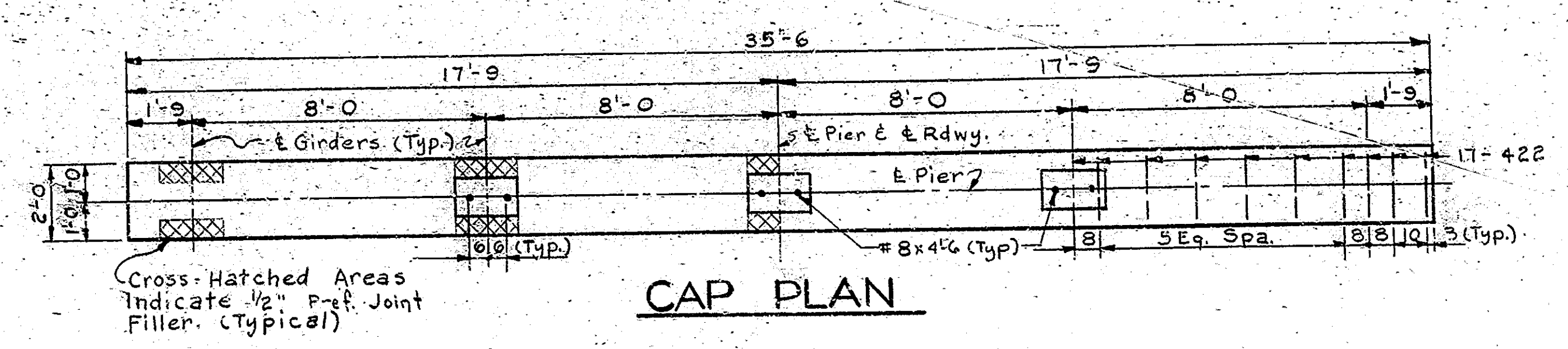
OCTOBER 13 1960

RECOMMENDED FOR APPROVAL: *C. R. Rummel*

DRAWING: C<sub>2</sub> OF 8  
PROJECT: F-307 (5)  
BRIDGE CONTRACT NO. 6274  
BRIDGE FILE: 63-H-4697

DESIGNED: H.D.S.:60 C.V.O. M.A.J. 63-60  
DRAWN: D.M.S.:60 C.V.O. M.A.J. 63-60  
TRACED: C.V.O.

BRIDGES OVER 20' SPAN					
PLAN ROAD	STATE	PROJECT	FISCAL	SHEET	TOTAL
NO.		NO.	YEAR	NO.	SHEETS
4	IND.	F-307(9)	1961	7	25



REINFORCING STEEL

SIZE & MARK	NO. OF BARS	LENGTH	WEIGHT (LBS.)
901	10	37'-6"	1275
#8	48	11'-0"	
#8	12	6'-0"	
#8	6	4'-6"	
Total No. 8			1674
#6	7	23'-6"	
#6	80	22'-6"	
#6	42	16'-3"	
#6	80	4'-0"	
Total No. 6			4456
406 Thru 421a			421a
422	33	2'-9"	
423	42	5'-6"	
#4	2	28'-0"	
#4	2	23'-0"	
#4	44	17'-6"	
#4	8	10'-6"	
Total No. 4			1401
TOTAL STEEL			8806
CONCRETE			
CLASS "F"			
CLASS "E" Above Fts.			
CLASS "E" Fts.			

BILL OF MATERIALS  
PIER NO. 2 (PIER NO. 3 SAME)

PIER NO. 2 & NO. 3 DETAILS  
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: 3/8" = 1'-0" UNLESS NOTED. OCTOBER 13, 1960

RECOMMENDED FOR APPROVAL: *C. R. Rummel*

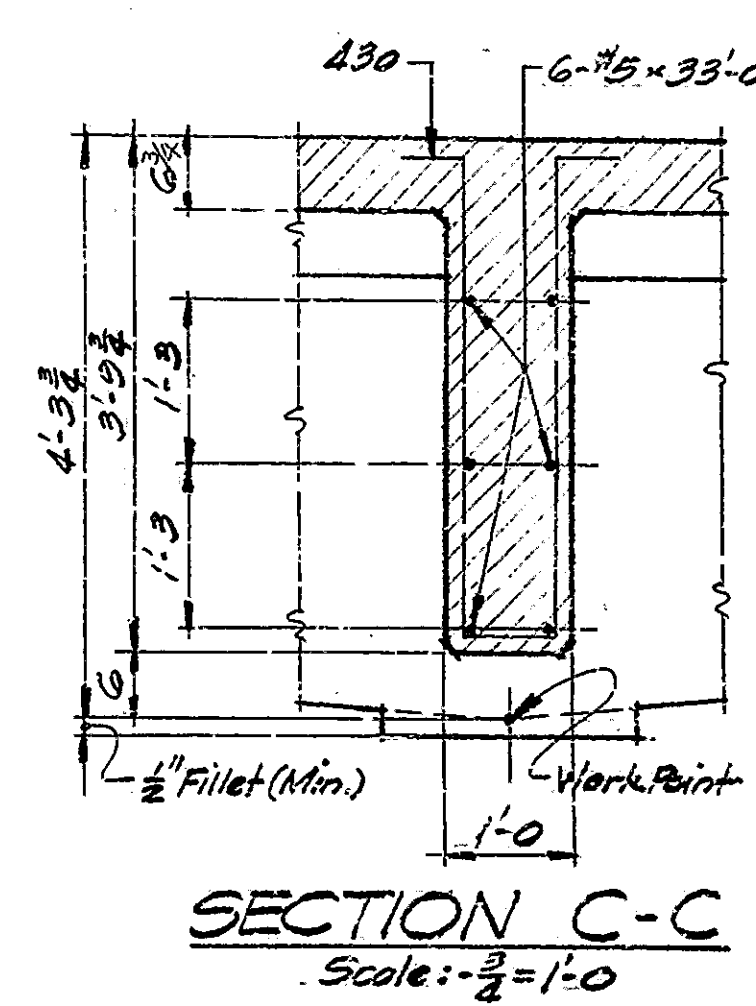
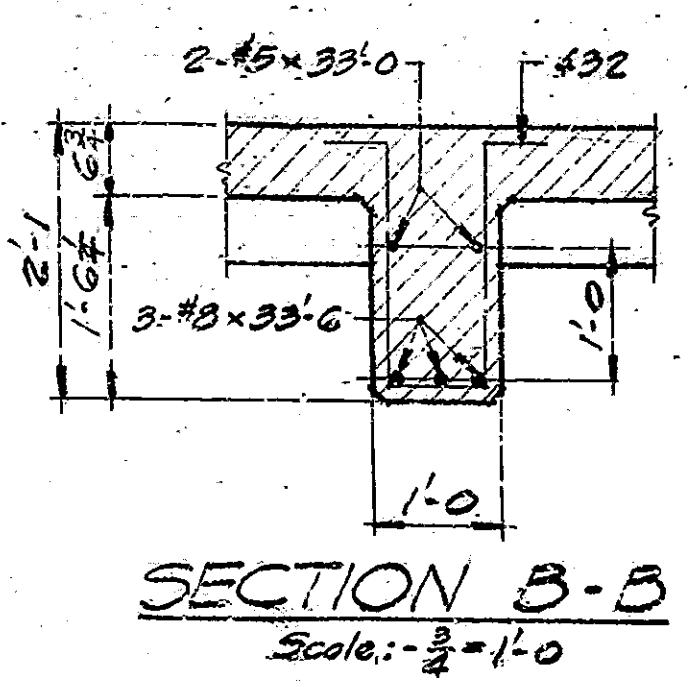
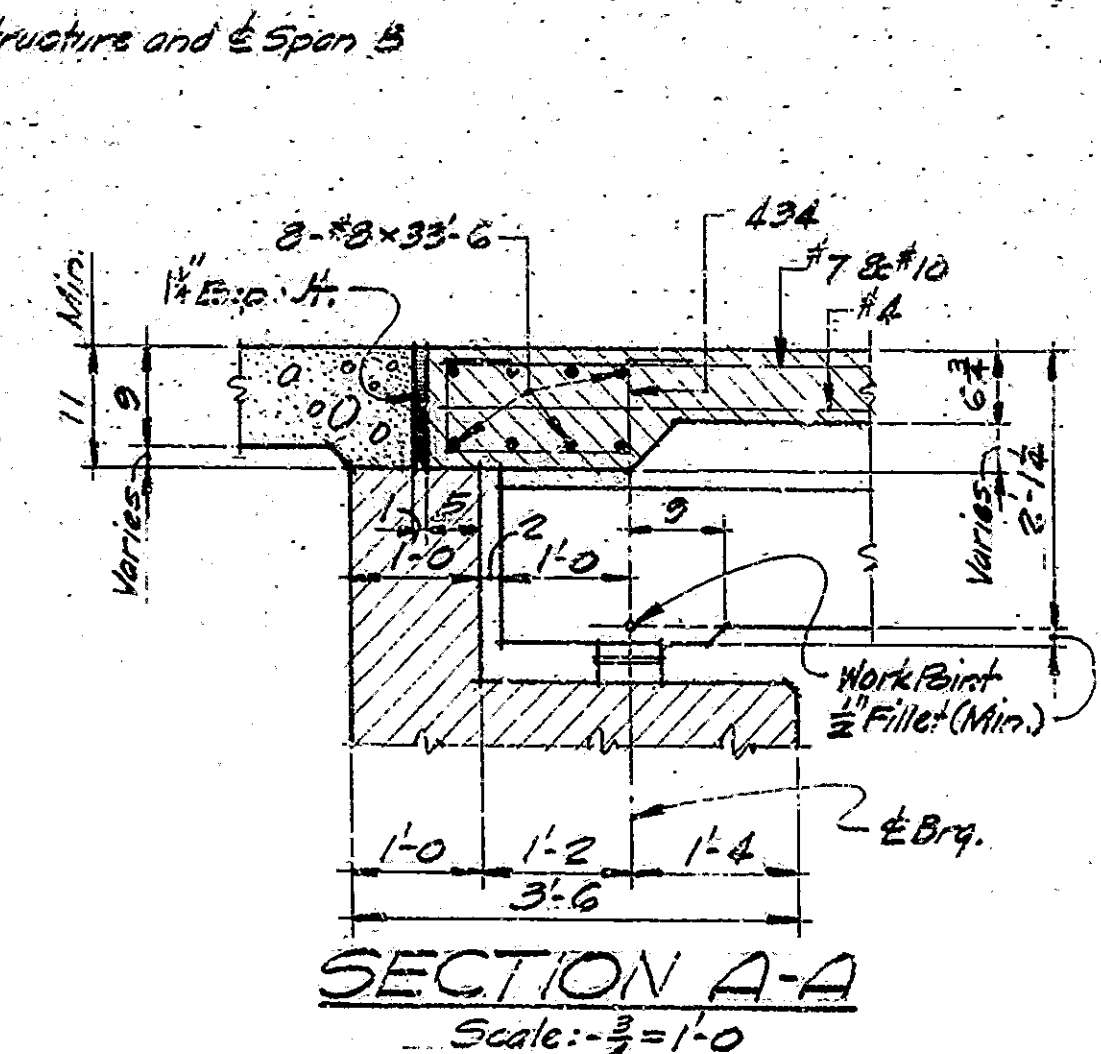
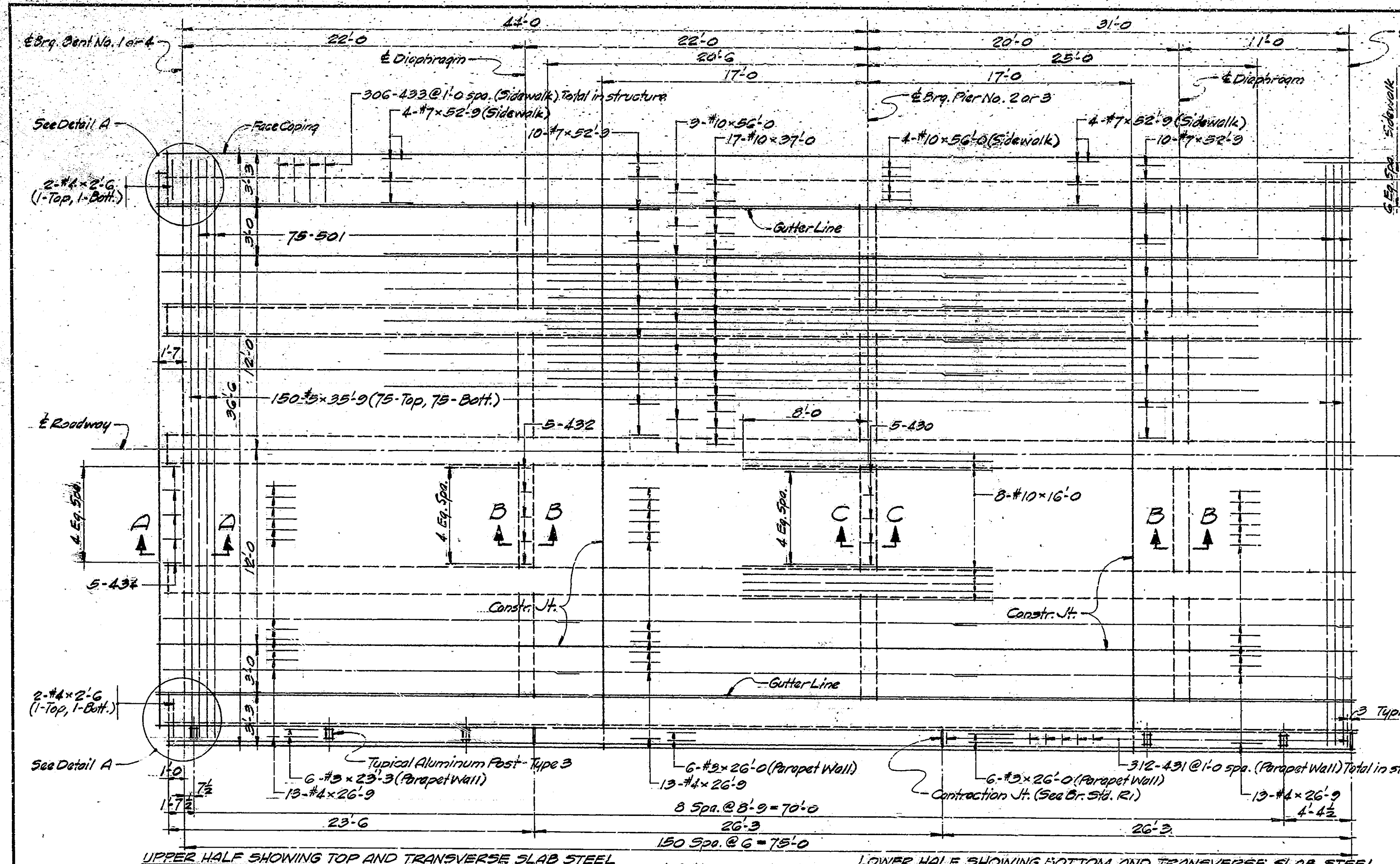
DRAWING: C4 OF 8  
PROJECT: F-307(9)  
BRIDGE CONTRACT NO. 6274  
BRIDGE FILE: 63-H-4697

DESIGNED: J.L.D. & J.W.C. BY A.M.K.  
DRAWN: B.M.A. & J.S.S. BY C.M.A. 9-7-60  
TRACED: C.K.D.



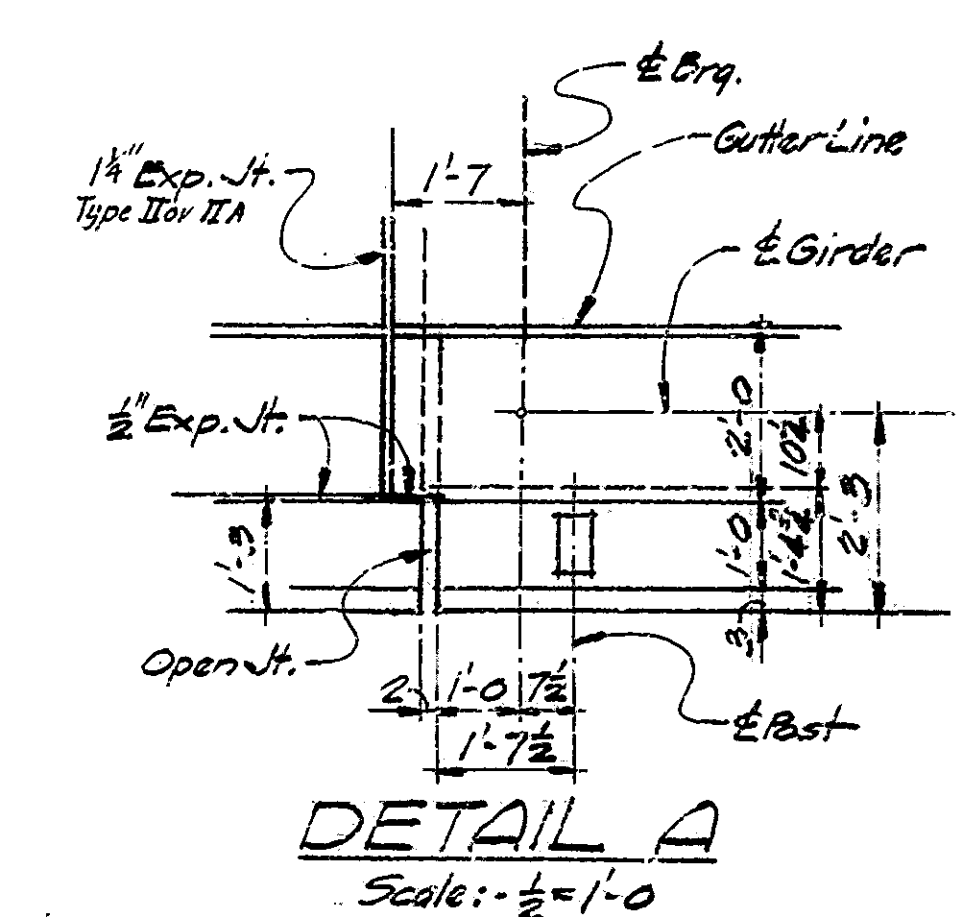
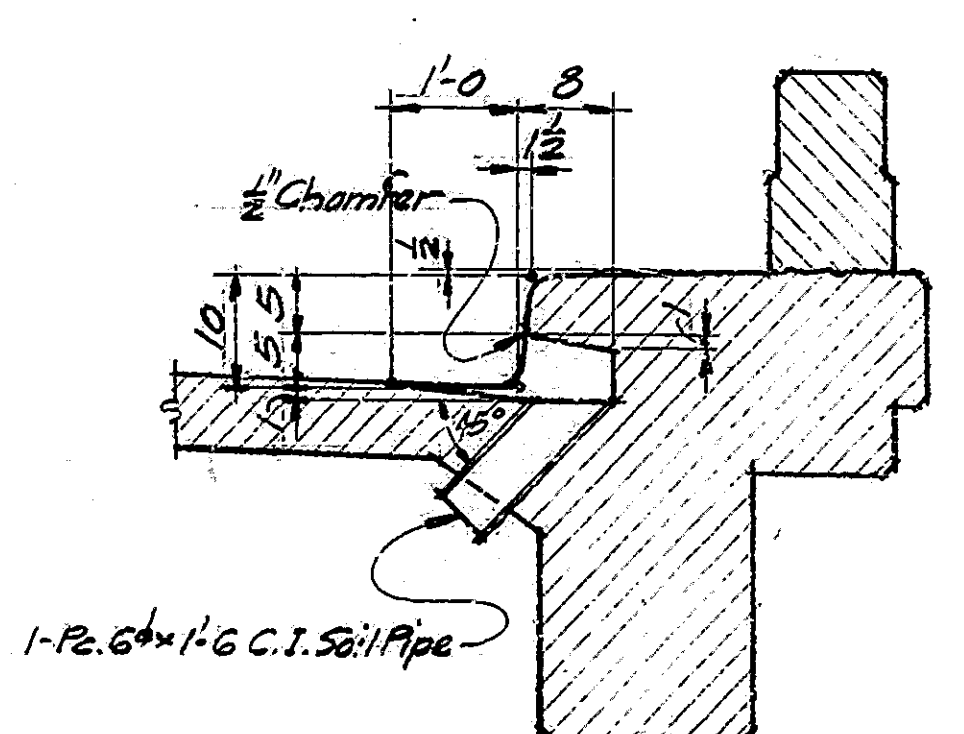
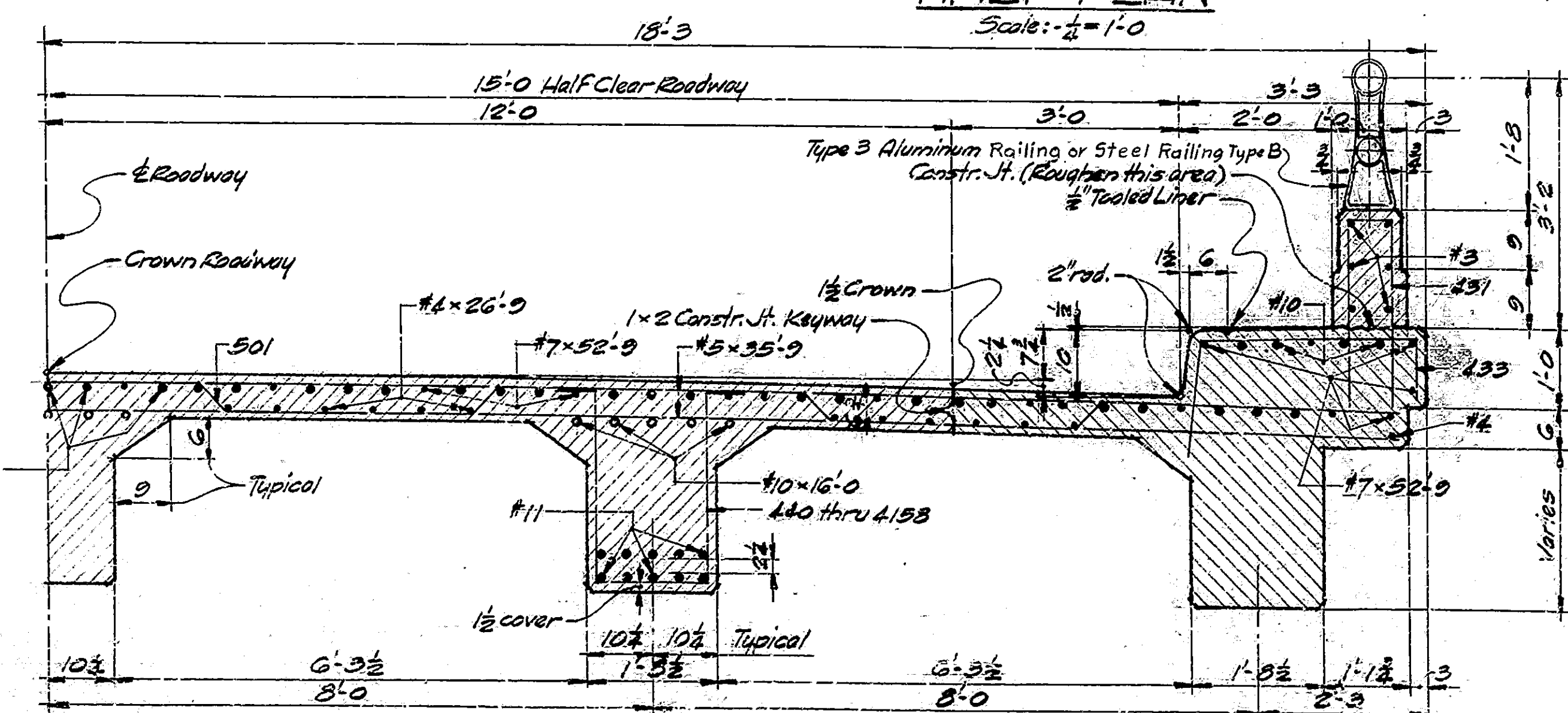


BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	F-307(1)	1961	9	25



**DESIGN DATA**  
 UNIT STRESSES:  $f_s = 20,000 \text{ psi}$ ,  $f_c = 1,200 \text{ psi}$   
 LIVE LOAD: -H500-44 with impact and distribution of loads in accordance with 1957 A.A.S.H.O. specifications.  
 DEAD LOAD: -Increased 35% per sq. ft. of roadway for future wearing surface. Slab designed with 1/2 inch wearing surface. Slab designed for 16,000 lb wheel load. Checked for 1961 A.A.S.H.O. Specifications.

UPPER HALF SHOWING TOP AND TRANSVERSE SLAB STEEL  
**HALF PLAN**  
 LOWER HALF SHOWING BOTTOM AND TRANSVERSE SLAB STEEL  
 Scale: 1/4" = 1'-0"



DESIGNED BY D. J. G. & C. O. M. S. J. S. 60  
 DRAWN BY M. L. 22-60 C. O. M. S. J. S. 60  
 TRACED BY C. W. O.

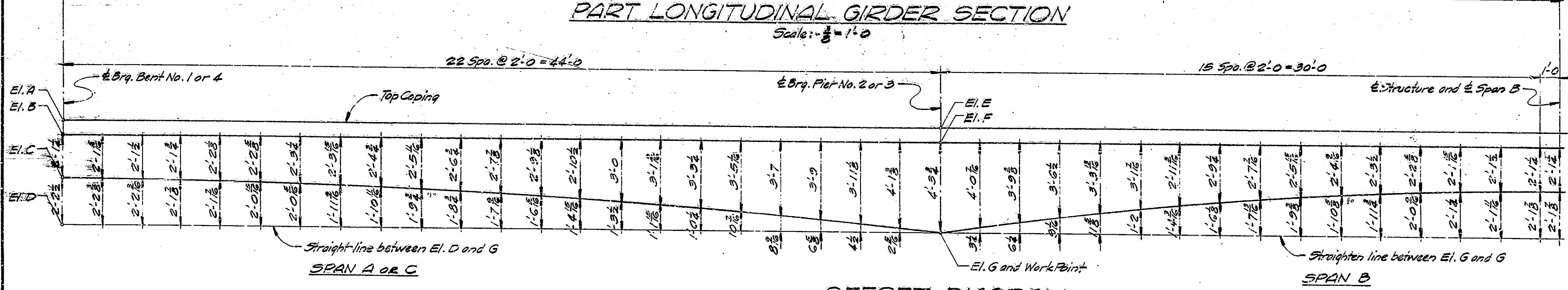
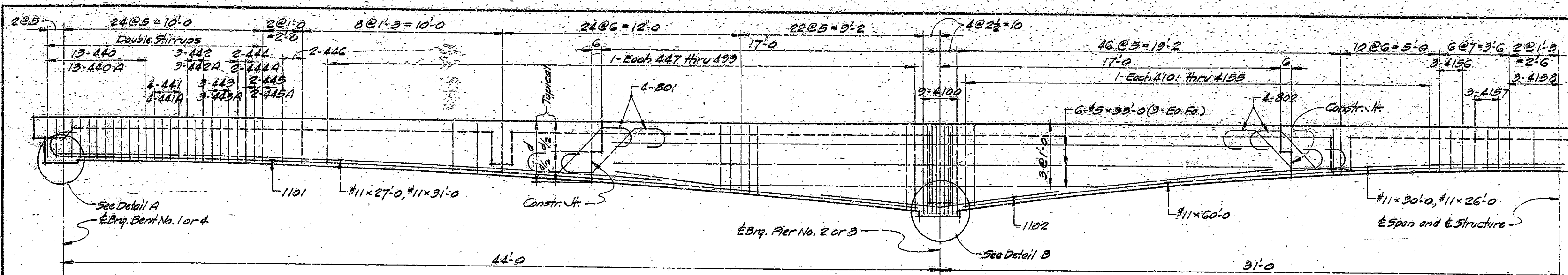
**TYPICAL HALF SECTION**  
 Scale: 1/4" = 1'-0"

**DRAINAGE OUTLET**  
 Scale: 1/2" = 1'-0"  
 For additional details see Br. Std. C1  
 For location of outlets see General Plan

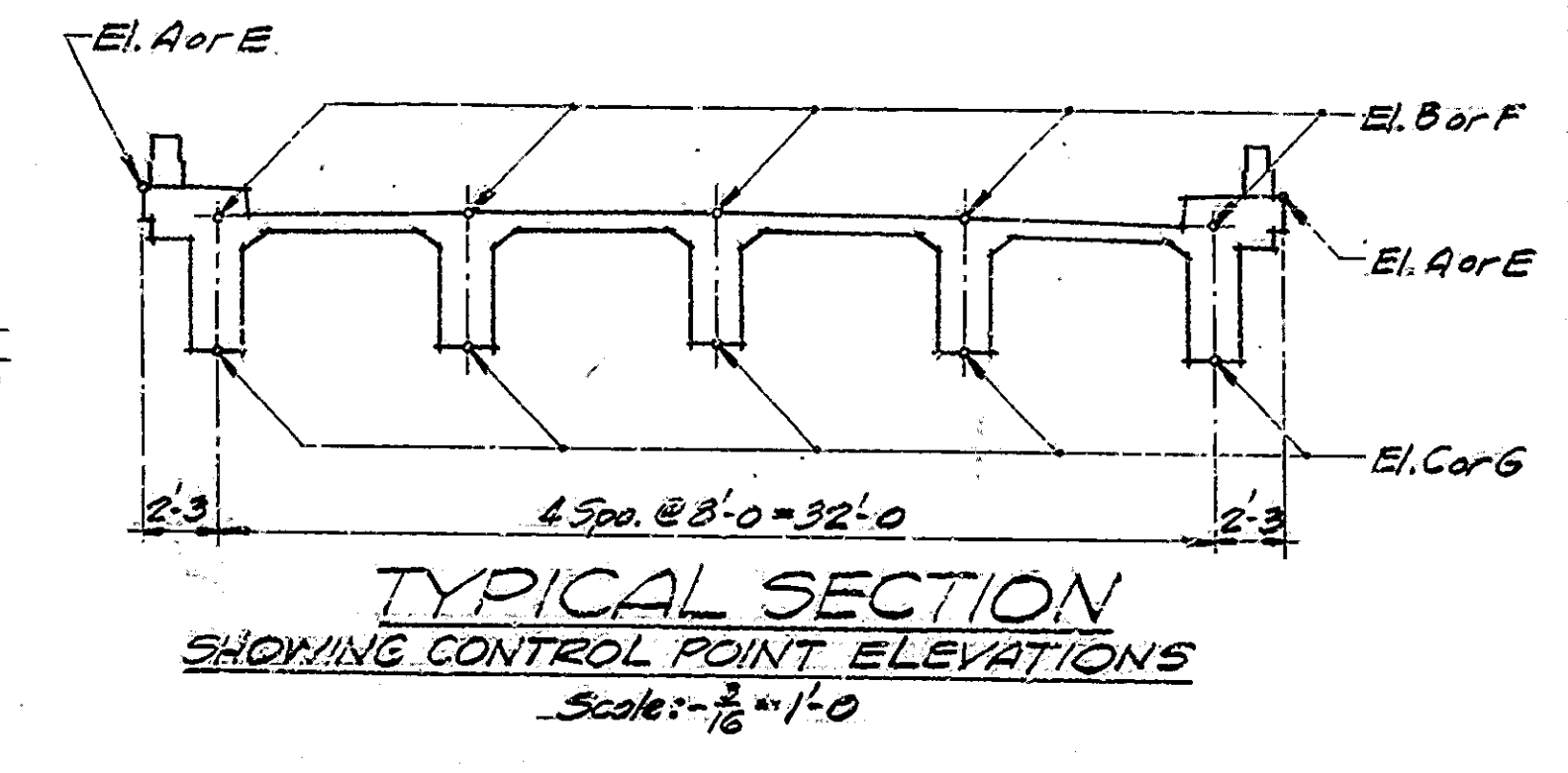
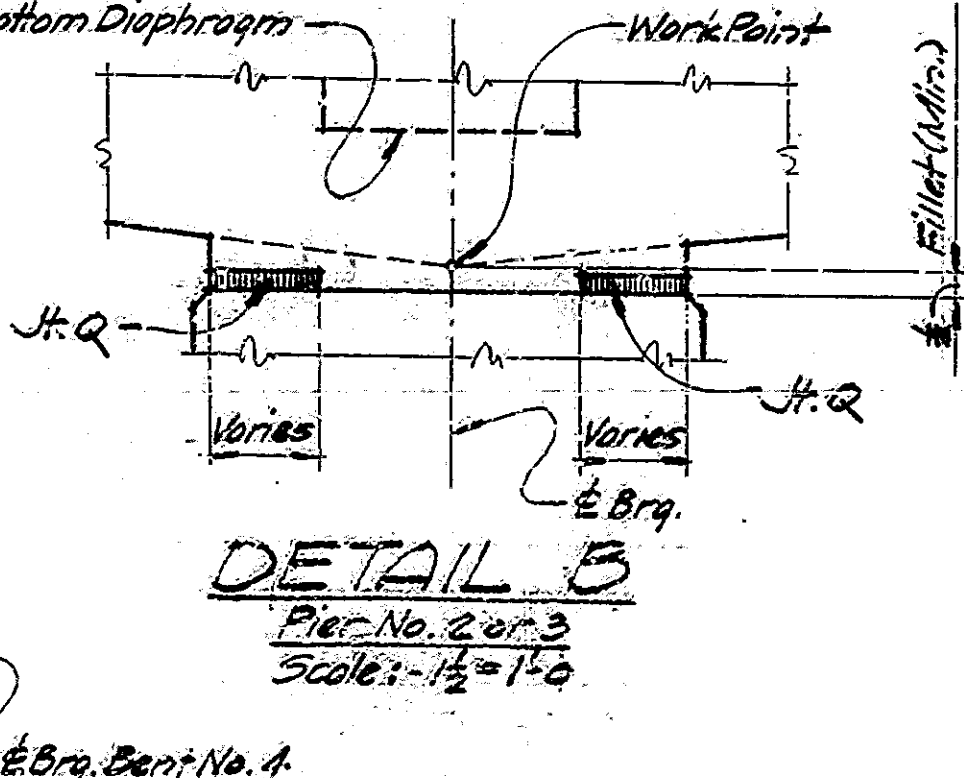
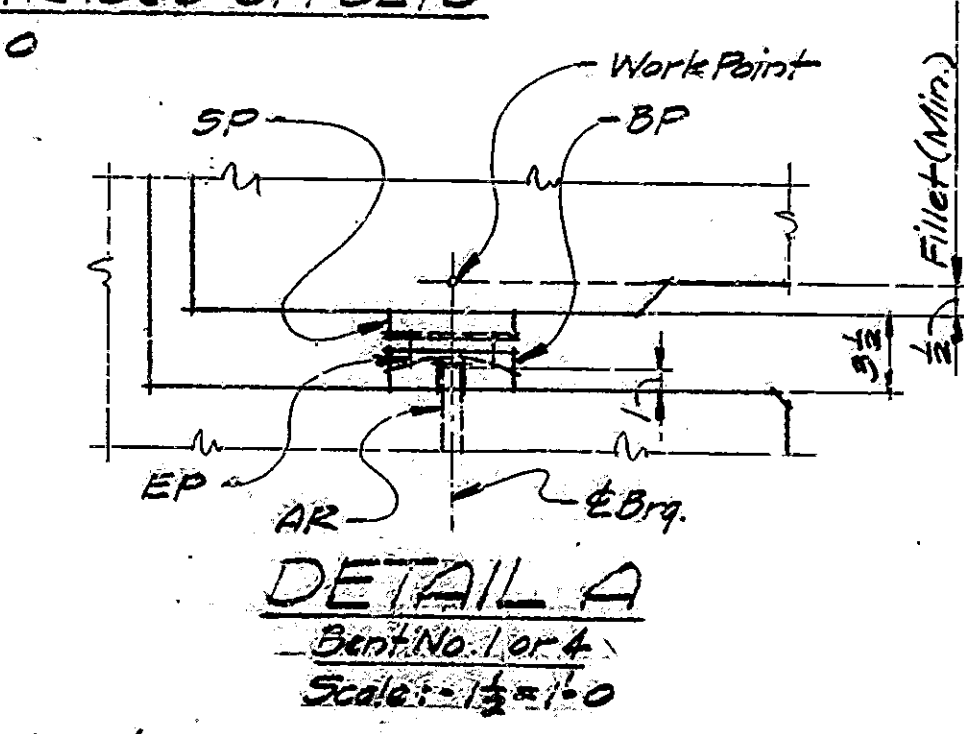
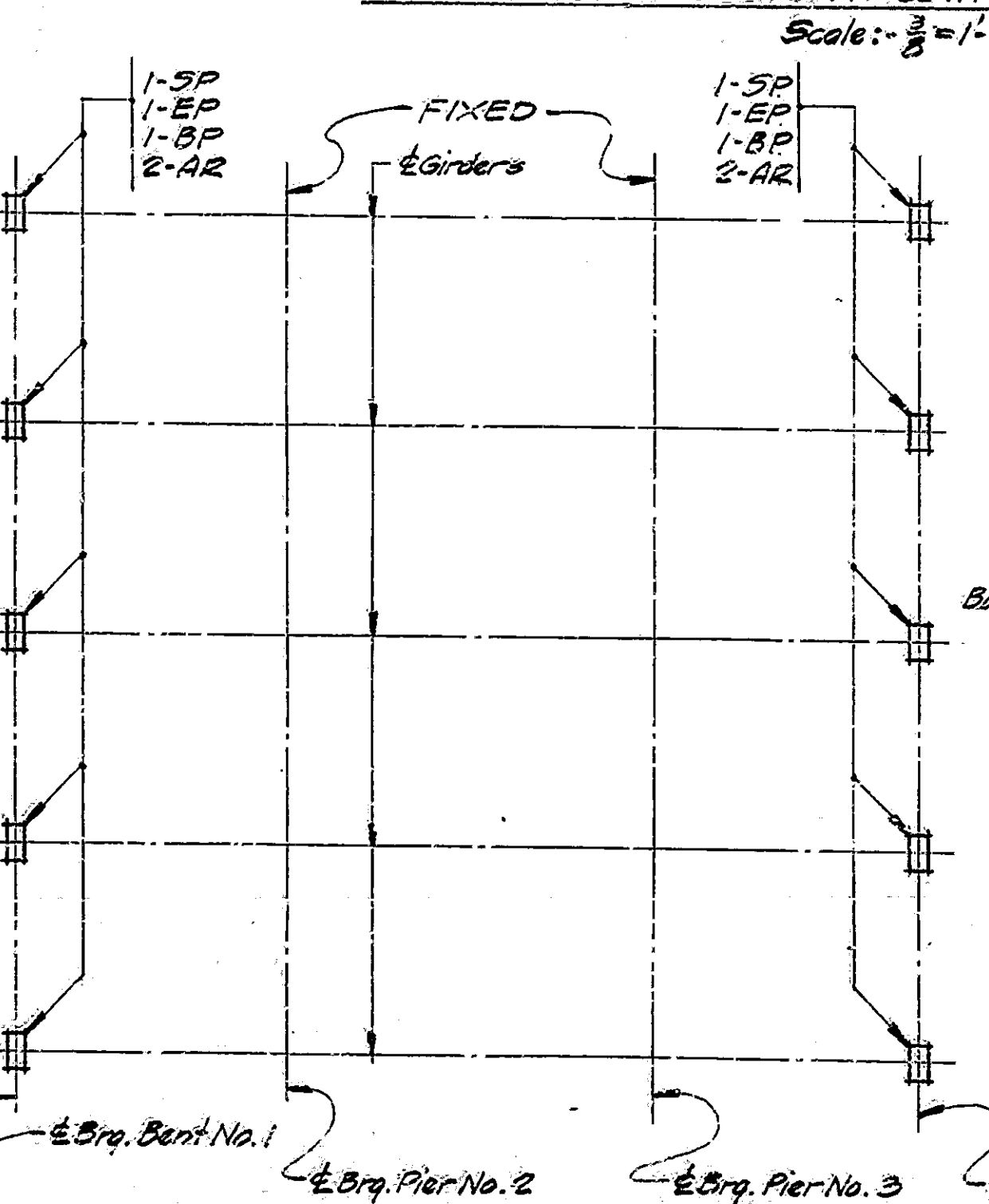
**SUPERSTRUCTURE DETAILS**  
**STATE HIGHWAY DEPARTMENT OF INDIANA**

SCALE: AS NOTED  
 OCTOBER 13, 1960  
 RECOMMENDED FOR APPROVAL: C. R. RUMBER  
 DRAWING: 6 OF 8  
 PROJECT: F-307(9)  
 BRIDGE CONTRACT NO. 6274  
 BRIDGE FILE: G3-H-4697  
 Rev. 8-7-64 Exp'dt Type II & III  
 Rev. 11-27-63 Side Thrusts & Railing

BRIDGES OVER 20' SPAN					
PUR. ROAD NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	F-307(9)	1961	10	25



Elevations		Elevations		Elevations		Elevations	
Point	Elevation	Point	Elevation	Point	Elevation	Point	Elevation
A	532.14	E	531.43	E	530.77	A	530.54
B	531.26	F	530.55	F	529.89	B	529.66
C	529.16	G	526.24	G	525.58	C	527.56
D	526.95					D	525.35
B	531.39	F	530.68	F	530.02	B	529.79
C	529.28	G	526.37	G	525.70	C	527.69
D	527.08					D	525.48
B	531.45	F	530.74	F	530.05	B	529.85
C	529.35	G	526.43	G	525.77	C	527.75
D	527.14					D	525.54
B	531.39	F	530.68	F	530.02	B	529.79
C	529.28	G	526.37	G	525.70	C	527.69
D	527.08					D	525.48
B	531.26	F	530.55	F	529.89	B	529.66
C	529.16	G	526.24	G	525.58	C	527.56
D	526.95					D	525.35



**ELEVATIONS**  
SHOWING CONTROL POINT ELEVATIONS  
No Scale

**SUPERSTRUCTURE DETAILS**  
**STATE HIGHWAY DEPARTMENT OF INDIANA**

SCALE: AS NOTED  
OCTOBER 13 1960  
RECOMMENDED FOR APPROVAL: *C.R. Rimmer*  
DRAWING: 67 OF 8  
PROJECT: F-307(9)  
BRIDGE CONTRACT NO. 6274  
BRIDGE FILE: G3-H-4607

DESIGNED: M.L.F. 30-60  
DRAWN: M.L.F. 30-60  
TRACED: CKC



ITEM	CONCRETE		RAILINGS CONCRETE CLASS F	REINFORCING STEEL (93# STD. WTS)												TOTALS	STRUCTURAL STEEL	CAST IRON	STEEL PILES 14"	RAILING TYPE 3 or B	BRONZE PLATES
	CLASS	CLASS		CLASS F	11(1/4")	10(1/2")	9(1")	8(1/2")	7(3/4")	6(3/4")	5(5/8")	4(3/4")	3(3/4")	2(3/4")							
	D	E			LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.							
CU. YDS.	CU. YDS.	CU. YDS.	CU. YDS.	CU. YDS.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	
<b>SUBSTRUCTURE</b>																					
BENT #1	20.5		2.9																		
PIER #2	15.4	42.8	25.6				1275	1674						1385	135						
PIER #3	16.4	42.8	23.6				1275	1674		4456				1401							
BENT #4	27.8		2.9					2143		4456				1401							
<b>SUPERSTRUCTURE</b>																					
	277.3		15.9				34760	24940		4213	9057			19677	14874	679					
<b>SPLICE BARS</b>																					
							117	90	32	23	16	34	28	16	6						
<b>TOTALS</b>																					
	356.4	85.6	51.2	21.7			34677	25030	2582	9729	9073	8946	22731	20276	953						

BRIDGES OVER 20' SPAN						
PUB. ROAD	STATE	PROJECT	FISCAL	SHEET		
REG. NO.	JND.	NO.	YEAR	NO.		
4	IND.	F307	1961	12	25	

SUMMARY			
ITEM	DESCRIPTION	UNIT	QUANTITY
1	Class F Concrete	Cu. Yds.	356.4
2	Class D Concrete	Cu. Yds.	
3	Class E Concrete above Footings	Cu. Yds.	85.6
4	Class E Concrete in Footings	Cu. Yds.	51.2
5	Railing Concrete	Lin. Ft.	
6	Reinforcing Steel	Lbs.	134199
7	Structural Steel	Lbs.	
8	Cast Iron	Lbs.	162
9	Unreated Timber Piles furnished	Lin. Ft.	
10	Unreated Timber Piles Driven	Lin. Ft.	
11	Furnishing Equipment for Driving Piles	Lump Sum	1
12	Wal Excavation	Cu. Yds.	250
13	Waterway Excavation	Cu. Yds.	1800
14	Common Excavation	Cu. Yds.	1400
15	Special Borrow	Cu. Yds.	
16	Grade B Special Borrow	Cu. Yds.	40
17	Sodding	Sq. Yds.	680
18	Mulched Seeding	Sq. Yds.	1970
19	Cement Concrete Pavement	Sq. Yds.	
20	Reinforced Cement Concrete Pavement	Sq. Yds.	128
21	Thickened Reinf. Cement Concrete Pavement	Sq. Yds.	
22	Aggregate for Compacted Aggregate Base	Tons	
23	Removal Present Structure	Lump Sum	1
24	Temporary Bridge and Approaches	Lump Sum	1
25	Warning Signs	Each	
26	Std. Barricades (Type A)	Each	2
27	Class D Concrete in Structures	Cu. Yds.	
28	R/W Markers	Each	2
29	Steel Pile Shells Furnished	Lin. Ft.	
30	Steel Pile Shells Driven	Lin. Ft.	
31	Railing Concrete (Parapet)	Cu. Yds.	21.7
32	Railing (Type 3 or B)	Lin. Ft.	304
33	Str. Beam Guard Rail	Lin. Ft.	355
34	Hot Asphaltic Conc. Binder	Tons	88
35	Hot Asp. Conc. Surface (Type B)	Tons	42
36	Comp. Aggregate Shoulder (Type P)	Tons	108
37	Subbase (Type II)	Cu. Yds.	150
38	Bronze Plates	Lbs.	235
39	Agg. for Shoulder Drains	Tons	3
40	Class "X" Excavation	Cu. Yds.	23
41	1/2" Expansion Joint (Type II)	Lin. Ft.	68
42	1/2" Expansion Joint	Lin. Ft.	64
43	Steel "H" Piles Furnished (60P42)	Lin. Ft.	360
44	Steel "H" Piles Driven (60P42)	Lin. Ft.	360
45	Hand Laid Riprap (12")	Sq. Yds.	11
46	6" Perf. C.M. Pipe (18 Ga.)	Lin. Ft.	36
47	Typical Sign Standards	Each	12
48	Standard Signs	Each	6
49	Compacted Aggregate Base (Type P)	Tons	435
50	Structural Steel	Lump Sum	1

BILL OF SPLICE BARS			
Size	Number	Pieces	Weight
11	2		117*
10	2		90*
9	1		32*
8	1		23*
7	1		16*
6	1		12*
5	1		8*
4	1		6*
3	1		4*
<b>Total Splice Bars</b>			<b>362*</b>

BILL OF MATERIALS FOR R.C. BRIDGE APPROACH					
Size	No. Pcs.	Length	No. Pcs.	Length	Weight
11	2	20'-6"			331
10	2	20'-6"			249
9	1	27'-6"			112
8	1				81
7	1				56
6	1				41
5	1				28
4	1				20
3	1				14
<b>Total Steel</b>					<b>3026*</b>

BARRICADES, BARRIERS, TRAFFIC SIGNS, & LIGHTS			
ITEM	UNIT	QUANTITY	ASSEMBLY
TYPICAL SIGN STANDARDS	Each	12	Signs XW-2 W-48, W-28A (20 MPH) XW-14 Torches
STD. BARRICADES (TYPE A)	Each	2	Barricades (Type A) Signs XR-1 XR-4
STD. SIGNS	Each	6	Lanterns Signs W-11 Signs W-35B (20 MPH)
BRIDGE (SUITABLE) BARRIERS	Each	2	Suitable Barriers Lanterns or Torches
STD. BARRICADES (TYPE B)	Each	2	Barricades (Type B) Signs 119 Lanterns or Torches
CONSTR. IDENT. SIGNS	Each	2	Signs XM-6 XM-7 XM-8

APPROACH STRUCTURES								
STRUCT. No	LOCATION	DESCRIPTION			CL. D CONC. IN STRUC.	REINF. STEEL LB.	CAST IRON LB.	REMARKS
		SIZE	KIND	LENGTH				
1	Sta. 317+40	6"	Perf. C.M. Pipe (18 Ga.)	36'				
<b>TOTALS</b>								

\*Not a pay item. Place as directed by the Engineer.  
Where sign standards are in unpaved areas the contractor may use two posts set three (3) feet in the ground.  
"W-35A" or "W-35B" safe speed to be determined by the Engineer at the site.  
Directional, advisory or warning signs shall be right hand or left hand as the location of the sign requires.

Total of Reinf. Steel carried to Structure Quantities

**SUMMARY**  
**STATE HIGHWAY DEPARTMENT OF INDIANA**

OCTOBER 13, 1960.

RECOMMENDED FOR APPROVAL: *J.P. Summers*  
ENGINEER OF BRIDGE DESIGN

PROJECT: **F-307(9)**  
BRIDGE CONTRACT NO. 6274  
BRIDGE FILE: **63-H-4697**

Rev. 8-7-64 Items 7, 22, 36, 41, 46, 49, 50  
Rev. 11-27-63 Items 1, 25, 32, 33, 39, 46, 47 & 48

STANDARD DRAWING NO. 15-6A (M.B. 10-16-60)  
TRACTION, E. 9-16-60, C.K. D.D.M. 9-16-60