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STATE OF OHIO DEPARTMENT OF HIGHWAYS LOR-254-0.00-B

F-U-1115 (2)

FED. RD. DIVISION	STATE	PROJECT	1/325
2	OHIO	F-U-1115 (2)	

LORAIN COUNTY
LOR-254-0.00-B

1963 SPECIFICATIONS

LINE DATA

F-1115(2)
NET LENGTH OF PROJECT 6650.23 LIN. FT. OR 1.259 MILES
NET LENGTH OF WORK 12874.12 LIN. FT. OR 2.438 MILES

U-1115(2)
NET LENGTH OF PROJECT 1784.0 LIN. FT. OR 3.378 MILES
NET LENGTH OF WORK 21,337.70 LIN. FT. OR 4.041 MILES

TOTAL NET LENGTH OF PROJECTS 24,490.00 LIN. FT. OR 4.638 MILES
TOTAL NET LENGTH OF WORK 34,208.82 LIN. FT. OR 6.478 MILES

FOR DETAILS OF LINE DATA SEE SHEET NO. 4

LORAIN COUNTY CITY OF AMHERST BROWNHelm & AMHERST TWP'S GRADE SEPARATION WITH THE N.Y.C. R.R. CO.

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR OF HIGHWAYS IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO.

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 NOT REQUIRE THE CLOSING OF THE HIGHWAY TO TRAFFIC AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THESE PLANS AND ESTIMATES.

APPROVED: D.W. Cunniff
DATE: 7-27-64 DIVISION DEPUTY DIRECTOR

APPROVED: R.H. Ahwater
DATE: 9-11-64 ENGINEER OF BRIDGES

APPROVED: R.N. Rickette
DATE: 9-15-64 ENGINEER OF LOCATION & DESIGN

APPROVED: P.E. Shultz
DATE: 9-15-64 DEPUTY DIRECTOR OF DESIGN & CONSTRUCTION

APPROVED: T.H. Bonard
DATE: 9-7-64 DEPUTY DIRECTOR OF RIGHT OF WAY

APPROVED: J.W. Wilam
DATE: 9-18-64 DEPUTY DIRECTOR OF PLANNING & PROGRAMMING

APPROVED: _____
DATE: _____ FIRST ASSISTANT DIRECTOR

APPROVED: P.B. Markel
DATE: 9/18/64 DIRECTOR OF HIGHWAYS

APPROVED: _____
DATE: _____ DIRECTOR SERVICE - SAFETY, CITY OF AMHERST

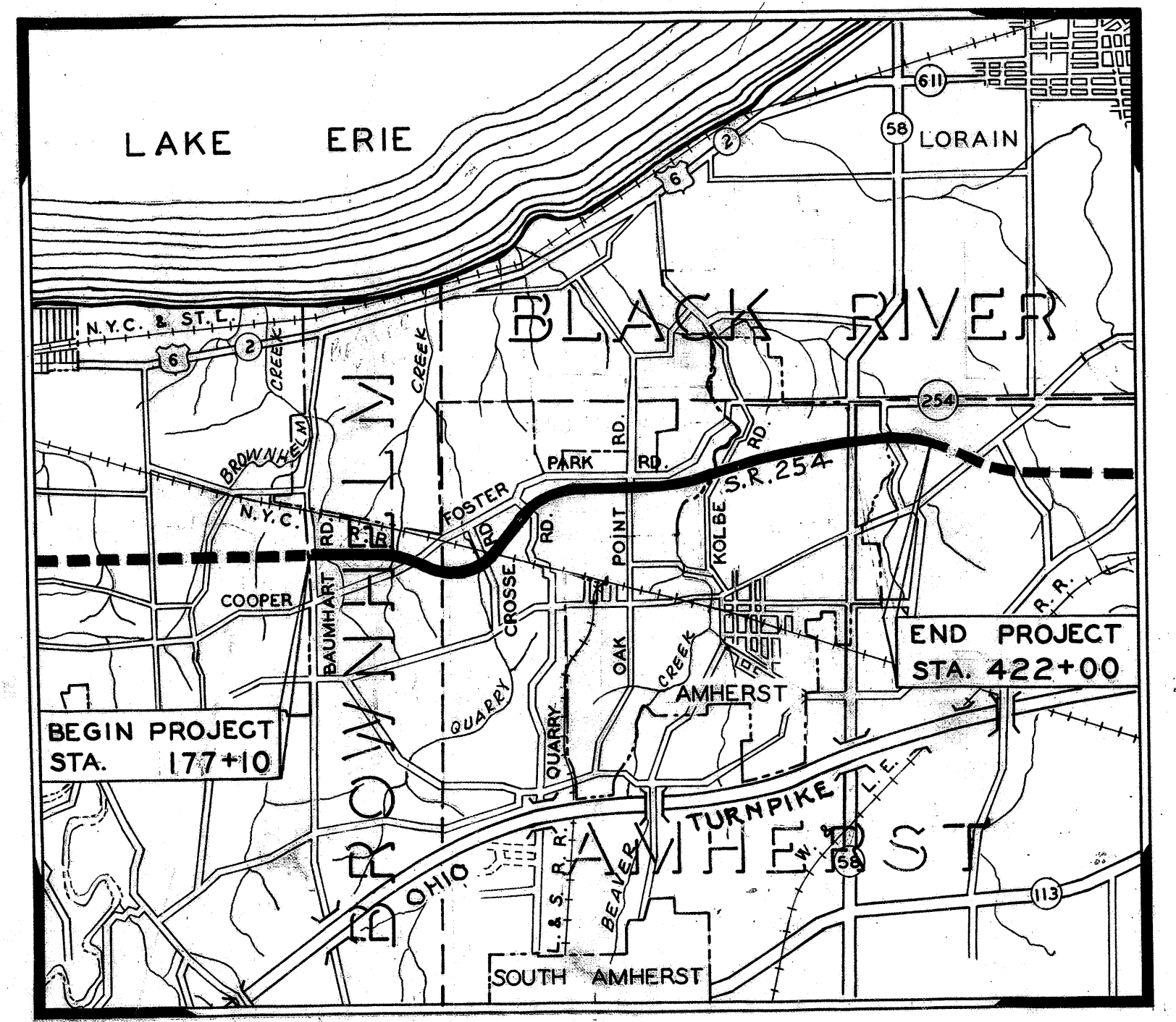
CONVENTIONAL SIGNS

- COUNTY LINE -----
- TOWNSHIP LINE -----
- LOT LINE -----
- CORPORATION LINE -----
- CENTER LINE -----
- FENCE LINE -----
- POLE LINE -----
- RAILROAD -----
- GUARD RAIL -----
- DRAIN PIPE -----
- RIGHT OF WAY LINE -----
- LIMITED ACCESS LINE -----
- LIMITED ACCESS AND RIGHT OF WAY LINE -----

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Sheet No. 261 revised 10-29-65



DELIVERY POINT N.Y.C. R.R.
AVERAGE HAUL FROM SIDING

AMHERST 2.7 MILES

SCALE IN MILES

PORTION TO BE IMPROVED
STATE HIGHWAYS
OTHER ROADS

SCALES

PLAN	1" = 50'
PROFILE - HORIZONTAL	1" = 50'
PROFILE - VERTICAL	1" = 10'
CROSS SECTIONS	1" = 10'

SUPPLEMENTAL SPECIFICATIONS

T-335	10-28-63
I-212	R. 6-23-61
S-307	8-23-60
I-124	R. 3-20-61
CE-101.04	5-22-56
S-101	7-12-62
I-127	R. 1-15-62
I-128	7-31-59
I-129	R. 4-5-61
M-107.18	R. 4-3-61

STANDARD DRAWINGS

B-T-70-71	11-15-60	I-8 C.B. No. 6	2-1-63	L-1	4-1-50	FACI-2	2-25-64	AS-1-54	7-5-62
B-T-71R	3-2-53	I-8 M.H. No. 1	2-1-63	L-3	4-1-50	I-8 M.H. NO. 1-A	2-1-63	AR-1-57	4-2-62
DR-1	1-3-55	I-8 M.H. No. 2	2-1-63	L-3-A	4-1-50	I-15 NO. 5-B	2-1-63	FSB-1-62	1-15-63
G-7.07	4-1-64	I-12	2-1-63	L.J. No. 1	7-1-55	I-15 NO. 6	2-1-63	SD-1-63, SH. 1-4	11-12-63
HW-E	2-1-63	I-14 G	1-22-52	RI-1	7-15-58	T-35	1-2-56		
I-1	11-15-60	I-15 No. 1	11-15-60	SP-53	6-30-61	F-2	2-1-63		
I-8 C.B. 2-2-A & B	2-1-63	I-15 No. 2-A	8-17-60	T.J.	9-12-60	F-3	2-1-63		
I-8 C.B. 2-3 & 2-4	2-1-63	I-21-23	8-1-56	FACI-1	2-25-64	I-8 C.B. No. 7	2-1-63		

PREPARED AND RECOMMENDED BY
SHAFFER PARRETT & ASSOCIATES
CONSULTING ENGINEERS
MANSFIELD OHIO WOOSTER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED: _____
DIVISION ENGINEER

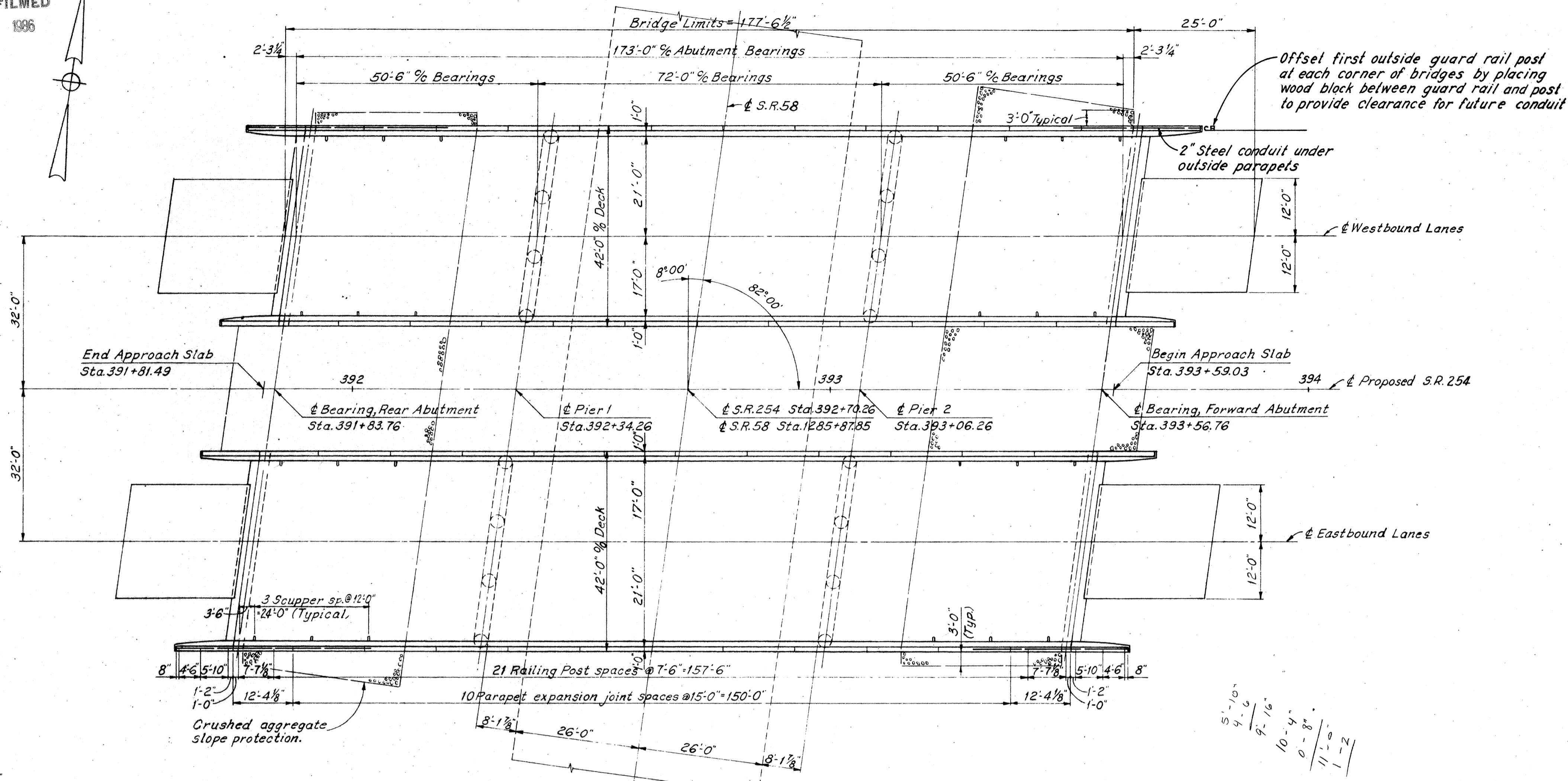
DATE _____

FILE NO. LORAIN COUNTY - LOR-254-0.00-B
DATE OF LETTING 19
CONTRACT NO. 316-2

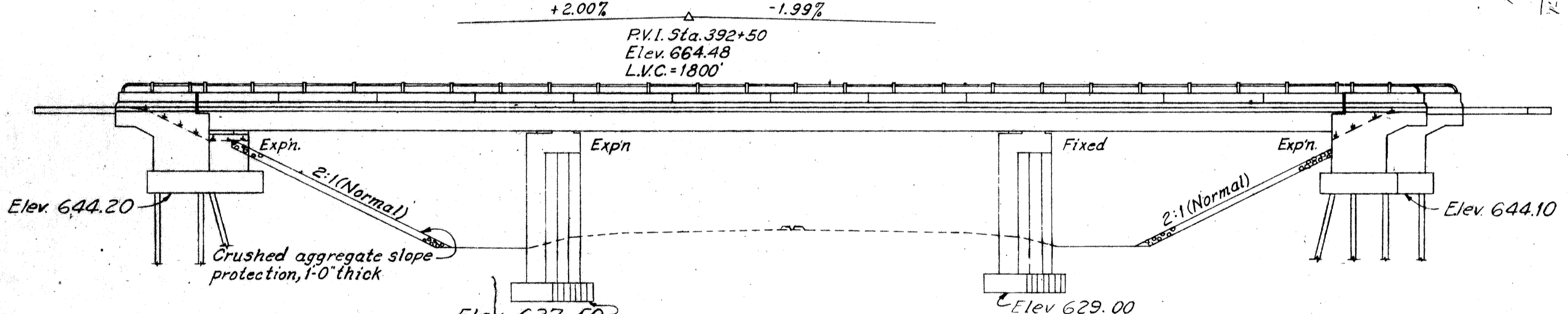
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LORAIN COUNTY
LOR - 254 - 0.00 - B



GENERAL PLAN



ELEVATION

ESTIMATED QUANTITIES - 2 BRIDGES				SUPER	ABUTS.	PIERS	GEN'L.
ITEM	TOTAL	UNIT	DESCRIPTION				
E-2	692	Cu.Yds.	Unclassified excavation				
E-2	22	Cu.Yds.	Shale excavation		435	257	
E-2	Lump	Sum	Cofferdams, cribs and sheeting			22	Lump
S-1	437	Cu.Yds.	Class C concrete, superstructure	437			
S-1	127	Cu.Yds.	Class C concrete, piers above footings			127	
S-1	75	Cu.Yds.	Class E concrete, pier footings			75	
S-1	315	Cu.Yds.	Class E concrete, abutments		315		
S-4	174,756	Lbs.	Reinforcing steel	121,145	18,916	34,695	
S-7	375,000	Lbs.	Structural steel	375,000			
S-8	375,000	Lbs.	Field painting of structural steel	375,000			
S-14	794.75	Lin. Ft.	Railing, L.P.S. A (aluminum rail supports and concrete parapet)	698.75	96.00		
S-16	Lump	Sum	First rest pile				Lump
S-18	660	Lin. Ft.	Steel piles, 12 BP53		660		
S-25	375	Lin. Ft.	Electric lighting system (2 galvanized steel conduit)	350	25		
S-29	61	Cu.Yds.	Porous backfill		61		
S-29	24	Each	Scuppers, including supports	24			
S-101	437	Each	Water-reducing, set-retarding admixture	437			
I-10	1014	Sq.Yds.	Crushed aggregate slope protection				1014
I-127	2	Each	Delineators, bracket-mounted, Type A-1	2			

GENERAL NOTES

UNIT STRESSES
 Design Loading - CF 400 (57)
 Concrete Class C - basic unit stress 1,333 psi.
 Concrete Class E - basic unit stress 1,133 psi.
 Structural Steel - ASTM A36 - basic unit stress 20,000 psi. (except piling) ASTM A7 and A373 steel not permitted.
 Reinforcing Steel - ASTM A15, A16, A160, Deformed, Intermediate or Hard Grade. Basic unit stress 20,000 psi, except spiral reinforcement may be plain Structural Grade with basic unit stress of 18,000 psi.

REFERENCE shall be made to Standard Drawings AS-1-54 (Revised 7-5-62) AR-1-57 (Revised 4-2-62), FSB-1-62 (Revised 1-15-63), SD-1-63, Sheets 1 thru 4 (dated 11-12-63) and to Supplemental Specifications 5-101 (dated 7-12-62), and 5.307 (dated 8-23-60) and I-12.7 of 1-15-62.

DESIGN SPECIFICATIONS: These structures conform to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57 together with current revisions thereof.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress up grade. The slab may be placed in sections, between transverse construction joints which are parallel to transverse reinforcing steel and are located near the center of any span.

WELDING of structural steel shall be Class "A" except as otherwise shown. Welds shown as field welds may, at the option of the Contractor, be made in the shop.

MACHINE FINISH: The concrete bridge deck shall be finished by the use of a finishing machine.

EXCAVATION QUANTITIES includes removal of fill material required for construction of the abutments.

PROCEDURE: The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutments and the piles driven.

ABUTMENT PILES shall be driven to firm contact with shale. If the length of penetration is approximately equal to the depth to shale according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec 5-18.05 is not less than the following value for a pile hammer of the indicated energy rating: 55 tons per pile using a 7000 ft. lb. hammer, 50 tons per pile using an 11,000 ft. lb. hammer, or 45 tons per pile using a 15,000 ft. lb. or greater hammer. If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 38 tons per pile.

PIER FOOTINGS shall extend a minimum of 3" into undisturbed shale or to the elevation shown, whichever is lower.

FOUNDATION BEARING PRESSURE: Pier footings are designed for a maximum bearing pressure of 4.7 tons per sq. ft.

CONTINUOUS BEAM SHOP ASSEMBLY: Reference paragraph 4, Sec. 5-7.12 of the Construction and Material Specifications, if rolled beams are field spliced only at supports, for the purpose of checking the fit-up of weld joint preparation, only two adjacent beams need be shop assembled at a time in their correct unloaded positions. All beams shall be assembled and match marked.

UTILITY LINES: All expense involved in relocating the affected utility lines shall be borne by the owners. The Contractor and Owners are requested to cooperate by arranging their work in such a manner that inconvenience to either will be held to a minimum.

MAINTENANCE AND PROTECTION OF TRAFFIC: Four lanes of traffic with a minimum horizontal width of 34'-0" shall be maintained on S.R. 58 at all times. The Contractor shall safeguard the travelling public by providing platforms, nets or other suitable protection above the travelled lanes. A minimum vertical clearance of 13'-6" shall be provided at all times.

SURFACE FINISH OF CONCRETE: The requirements of Sec. S-1.22, Rubbed Finish, shall apply to the entire superstructure except the top and bottom surfaces of safety curbs and roadway and the entire surface of piers and abutments except bridge seats, backwalls and the face of spill-through abutments between outside beams.

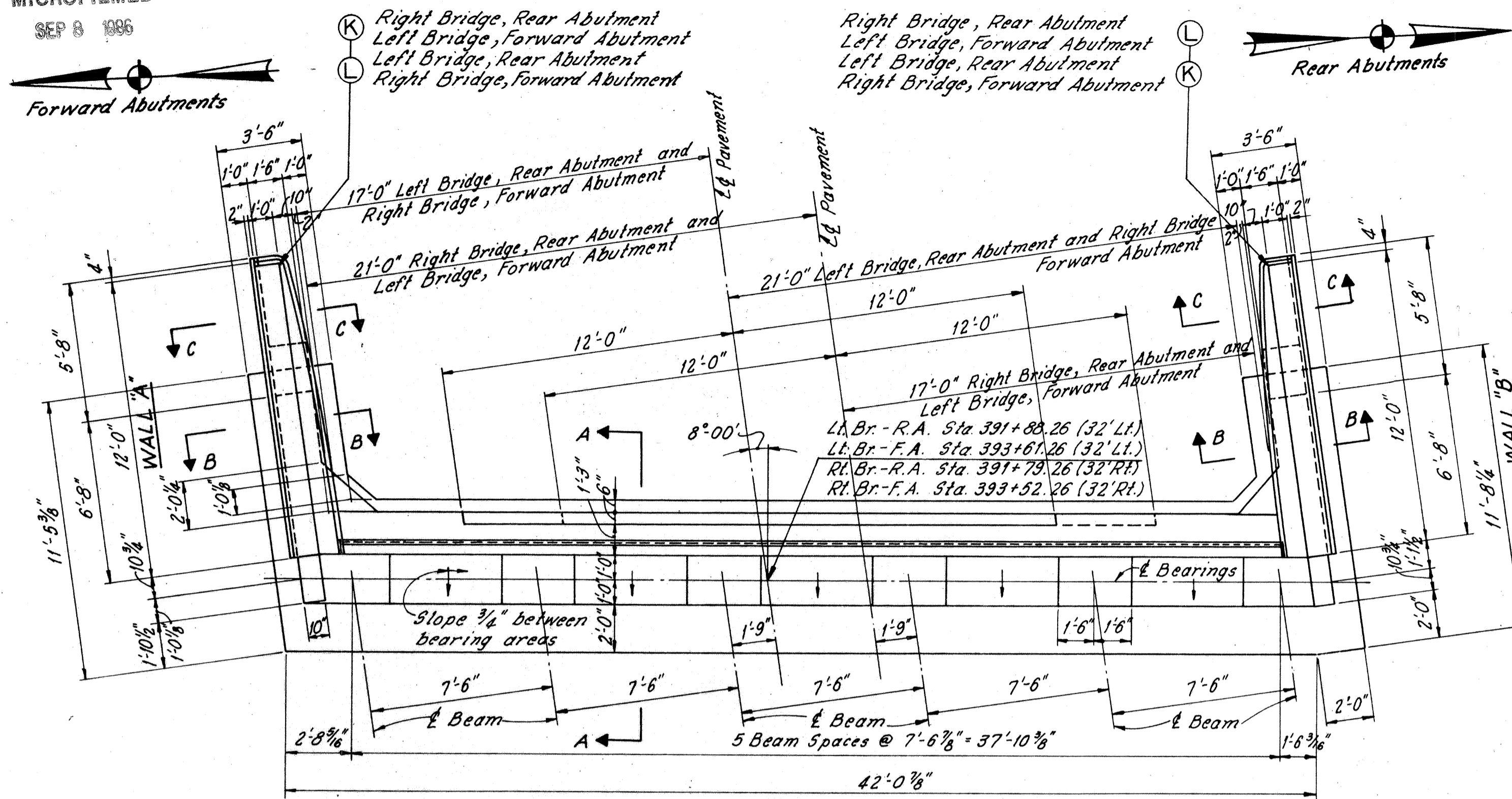
CONDUIT: Two-inch rigid galvanized steel conduit and fittings shall meet American Association Specifications for Rigid Steel Conduit, Designation C801, and shall be installed under parapets as shown. One #10 galvanized steel pull wire shall be installed in each conduit. All conduit and fittings shall be galvanized after threading. If field threads are required, they shall be painted with a zinc rich base paint prior to assembly. Connect conduit to ground rod outside bridge limits using one No. 1/0 7-strand soft annealed insulated copper cable with exothermic welded connections. Ground straps shall be used where electrical continuity of metal conduit is interrupted. Conduit shall be placed at the end of the structure by location or direction so that it will clear pavement and when extended will clear guard rail post. Ground rod to be solid wrought iron 1" x 10'-0". If a ground resistance of 15 ohms maximum is not obtained, either additional rods shall be driven 6' apart or sectional rods may be employed to obtain the specified low resistance ground at greater depth. Rods to be connected to conduit in parallel. The cost and installation of all conduit, fittings, ground cable, pull wire and ground rods shall be considered as paid for in the lump sum bid price paid for item S-25.

SHAFFER, PARRETT AND ASSOCIATES,
Consulting Engineers
MANSFIELD, OHIO.

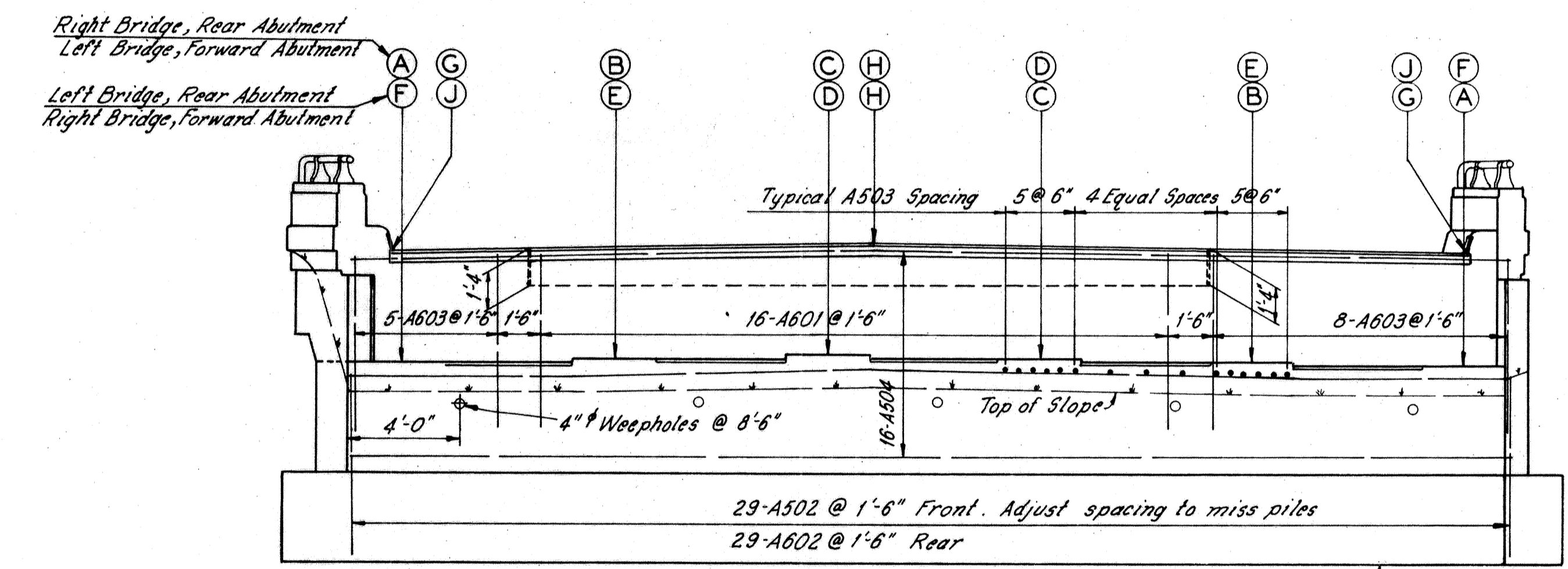
**GENERAL PLAN, GENERAL NOTES
AND ESTIMATED QUANTITIES**
BRIDGE NO. LOR-254-0742 L & R
OVER S.R. 58

LORAIN COUNTY STA. 391 + 81.49 TO STA. 393 + 59.03 S.R. 254

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RAK	J.C.Z.	J.R.B.	J.E.G.			

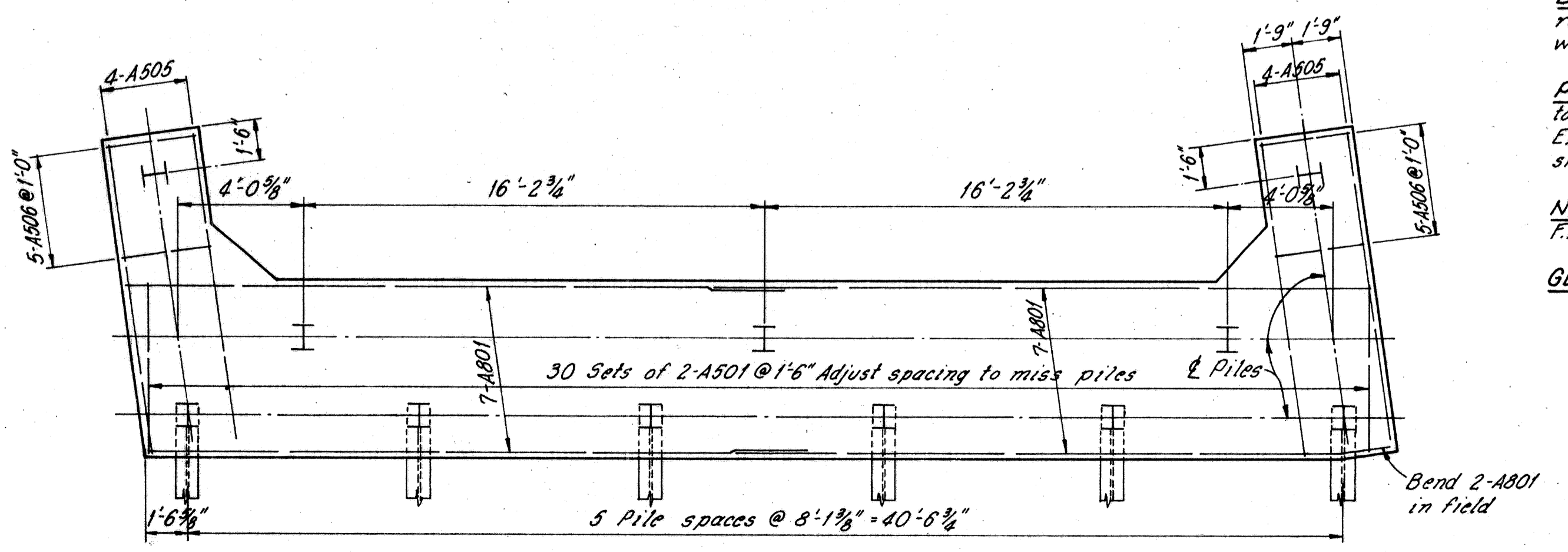


PLAN

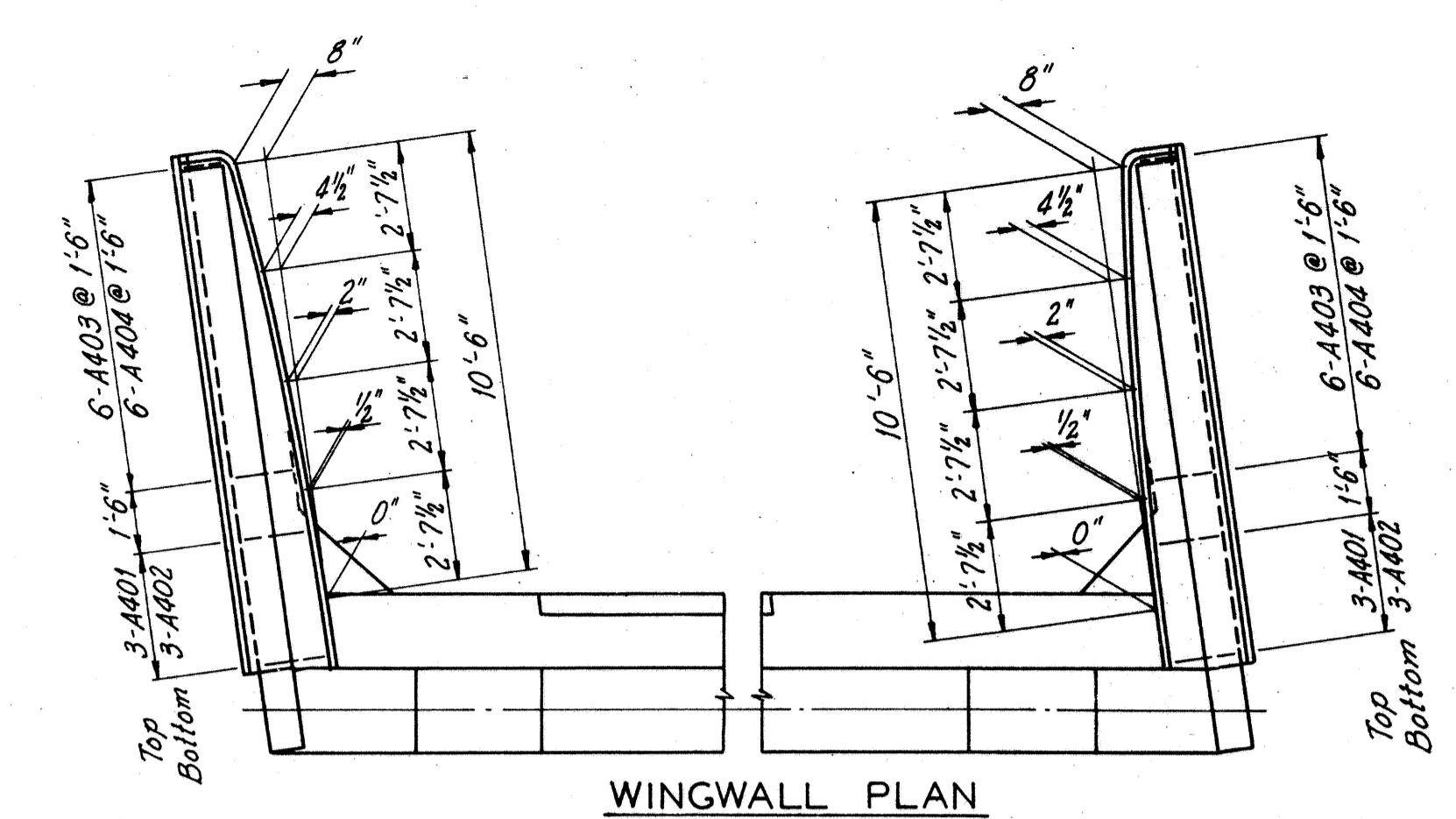


ELEVATION

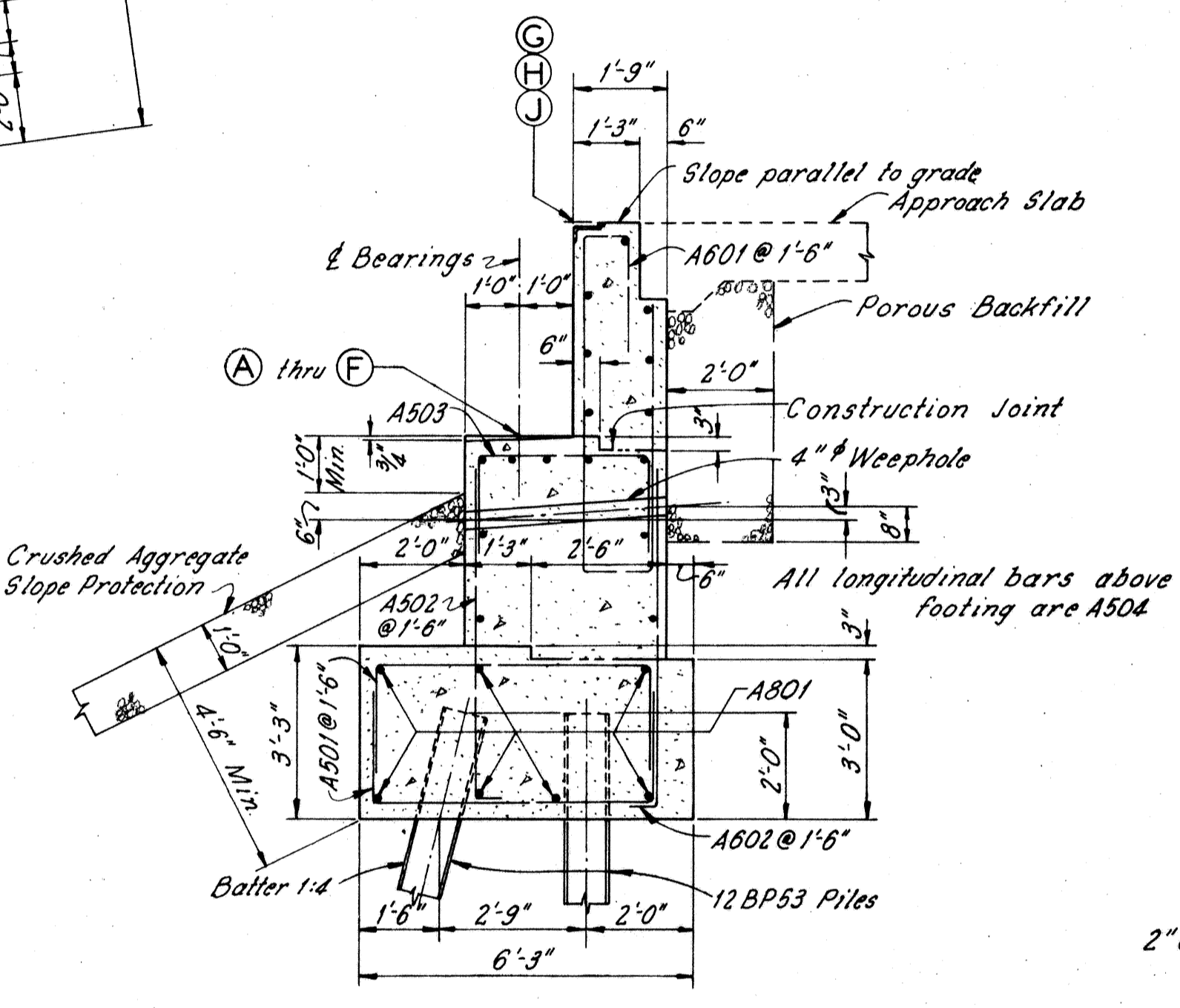
Piles omitted from Elevation View



FOOTING PLAN



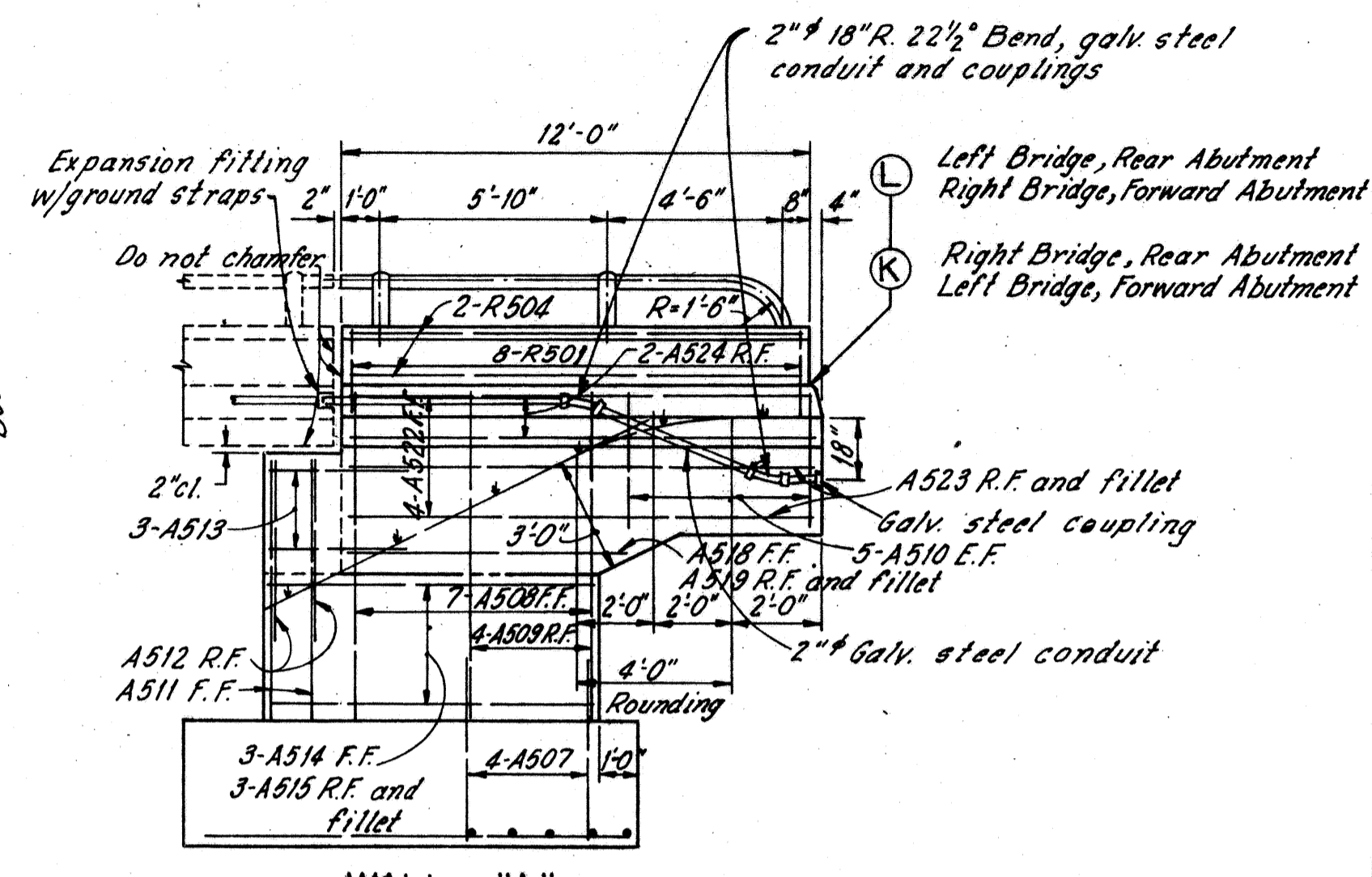
WINGWALL PLAN



SECTION A-A

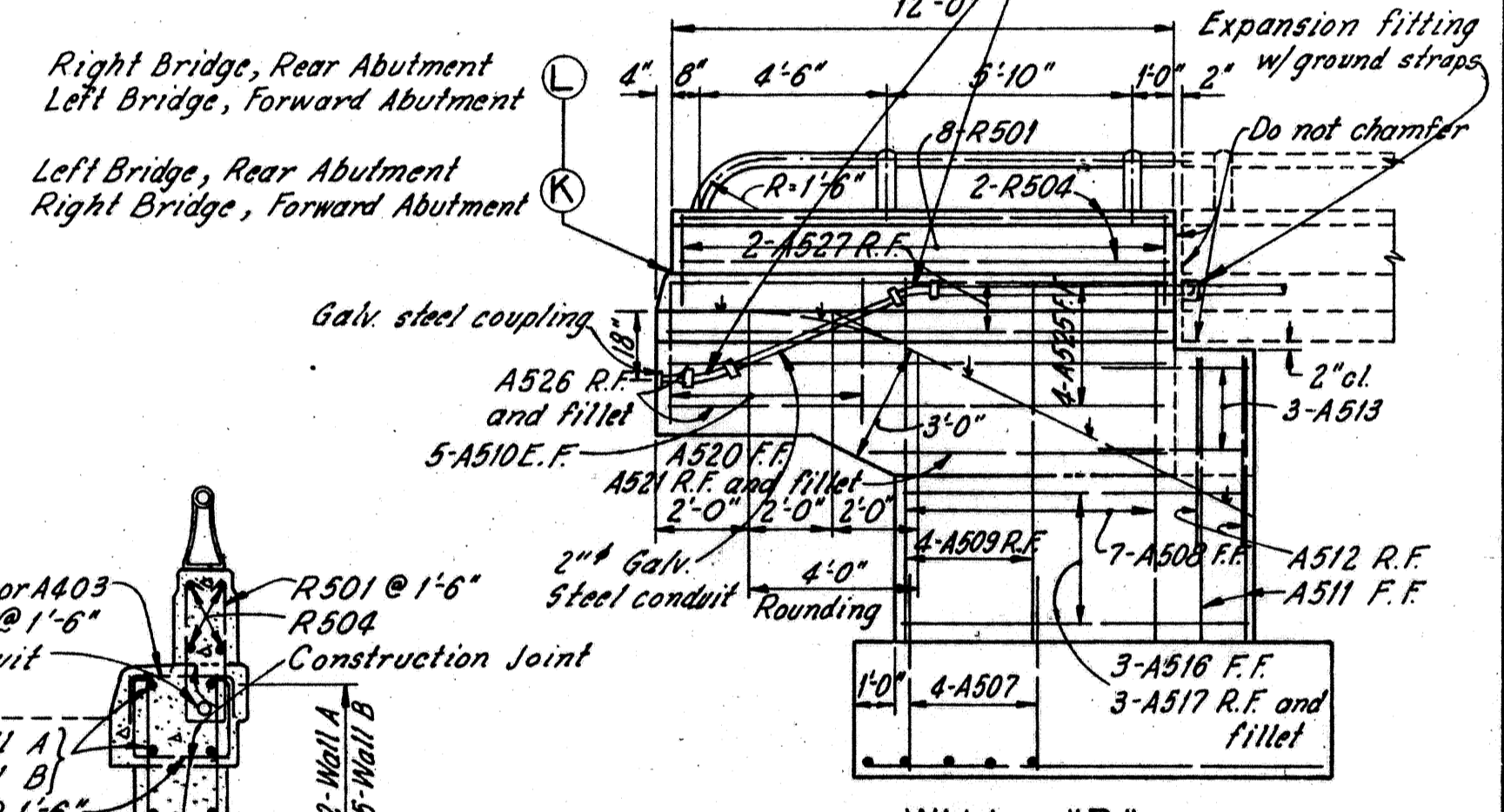
NOTES:

- CONCRETE:** All abutment concrete shall be Class "E" except parapet, which shall be Class "C".
- RAILING:** See AR-1-57 and Sheet 283. Tubing on abutment wingwalls shall be continuous.
- BRIDGE SEAT REINFORCING:** Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor bar holes.
- POROUS BACKFILL:** 2'-0" thick, shall extend upward to the approach slab and to the surface of the earth shoulders and for the full length of the abutment. Excavation therefor, in excess of that required for construction of the abutment, shall be considered as paid for in the bid price per cu. yd. paid for porous backfill.
- NOTATION:** F.F.-Front Face, R.F.-Rear Face, E.F.-Each Face, R.A.-Rear Abutment, F.A.-Forward Abutment, Lt. Br.-Left Bridge, Rt. Br.-Right Bridge.
- GENERAL NOTES:** See Sheet 283.



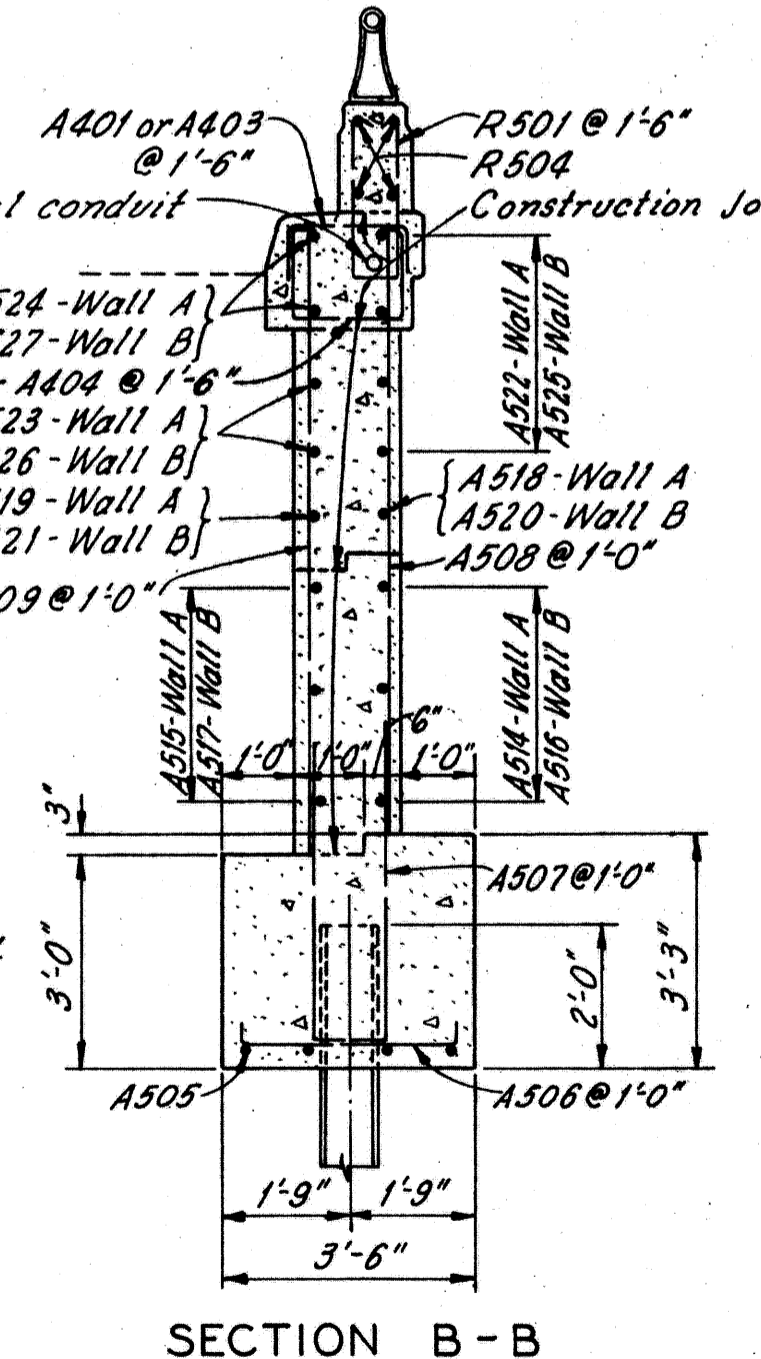
WALL "A"

Piles and curb reinforcing not shown

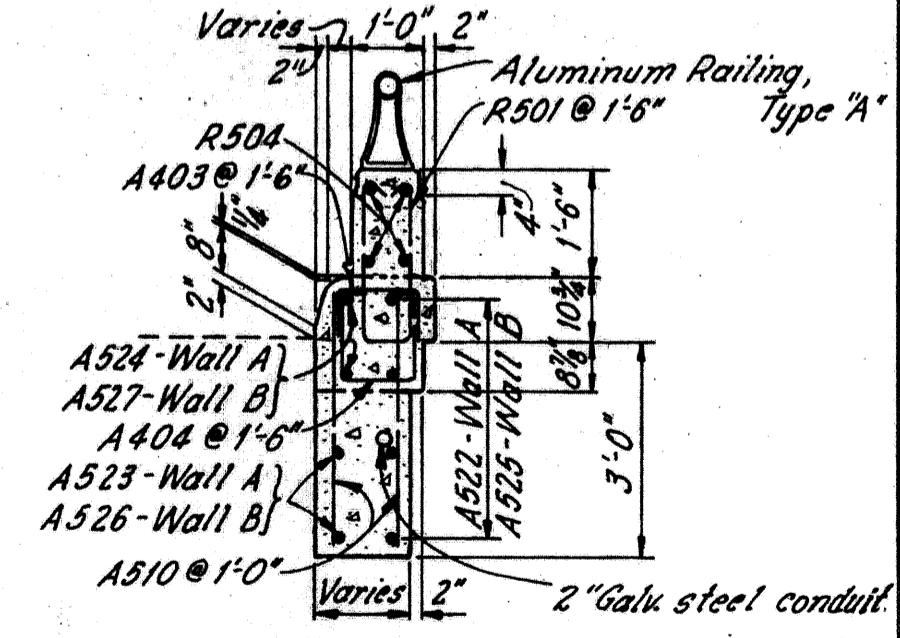


WALL "B"

Piles and curb reinforcing not shown



SECTION B-B



SECTION C-C

		(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(J)	(K)	(L)	(M)
LEFT BRIDGE	Rear Abutment	651.27	651.38	651.50	651.56	651.44	651.32	655.31	655.64	655.37	656.14	656.18	644.20
	Forward Abutment	651.17	651.29	651.41	651.47	651.36	651.24	655.21	655.55	655.29	656.03	656.11	644.10
RIGHT BRIDGE	Rear Abutment	651.25	651.37	651.48	651.55	651.43	651.32	655.29	655.62	655.36	656.12	656.19	644.20
	Forward Abutment	651.20	651.32	651.43	651.49	651.37	651.25	655.25	655.57	655.30	656.07	656.12	644.10

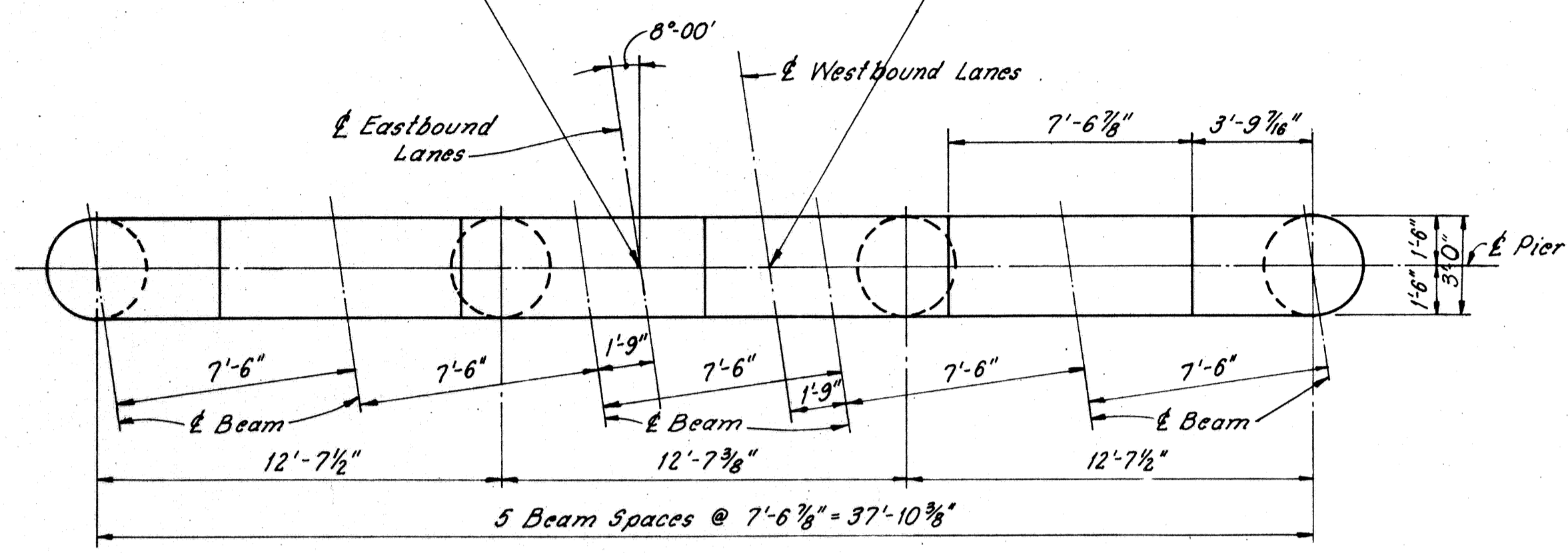
SHAFFER, PARRETT AND ASSOCIATES
Consulting Engineers
MANSFIELD, OHIO.

ABUTMENTS
BRIDGE NO. LOR-254-0742 L&R
OVER S.R. 58

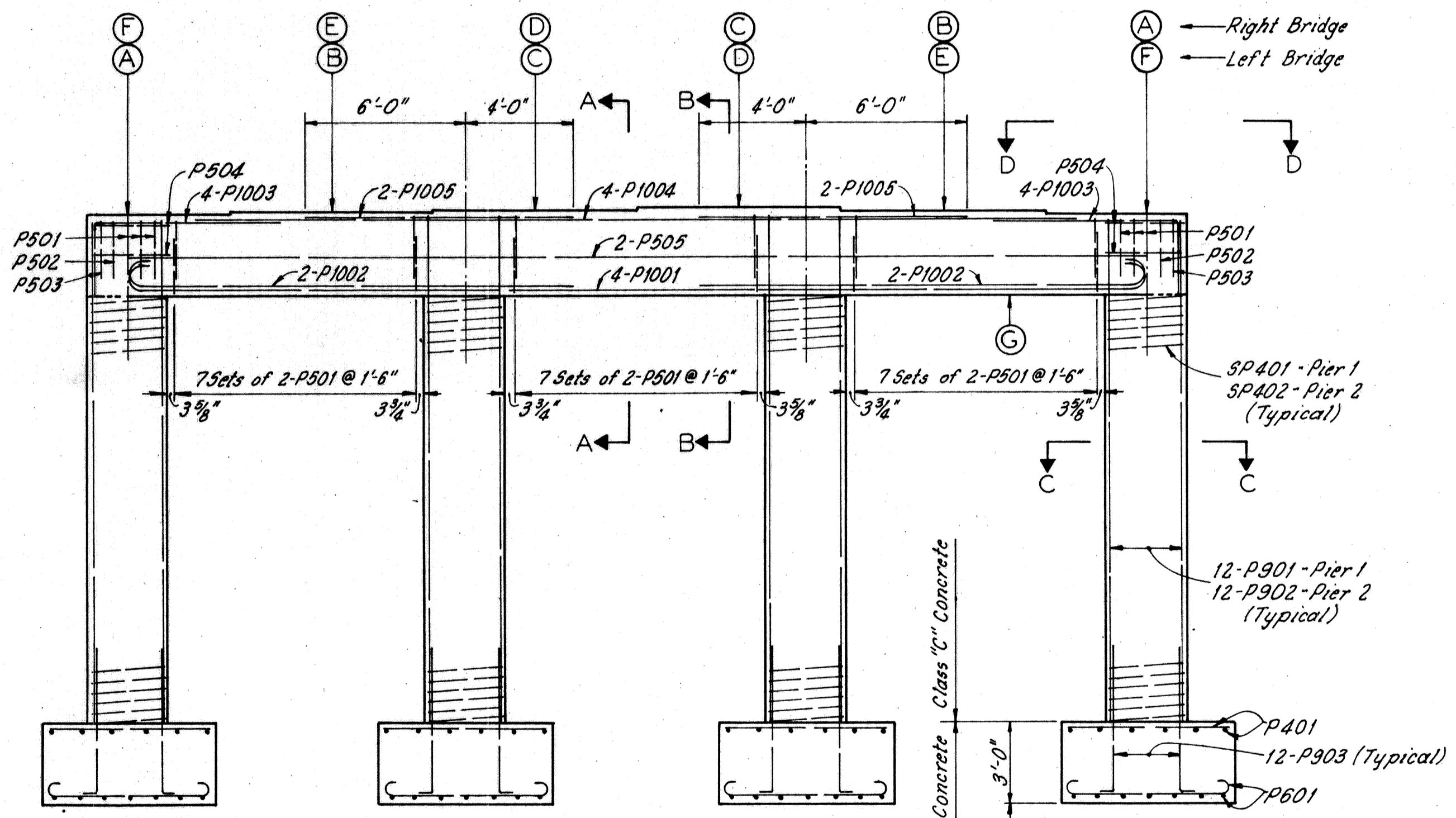
LORAIN COUNTY S.R. 254
STA. 391+81.49 TO STA. 393+59.03

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RAK	RAK	JEG	JEG			

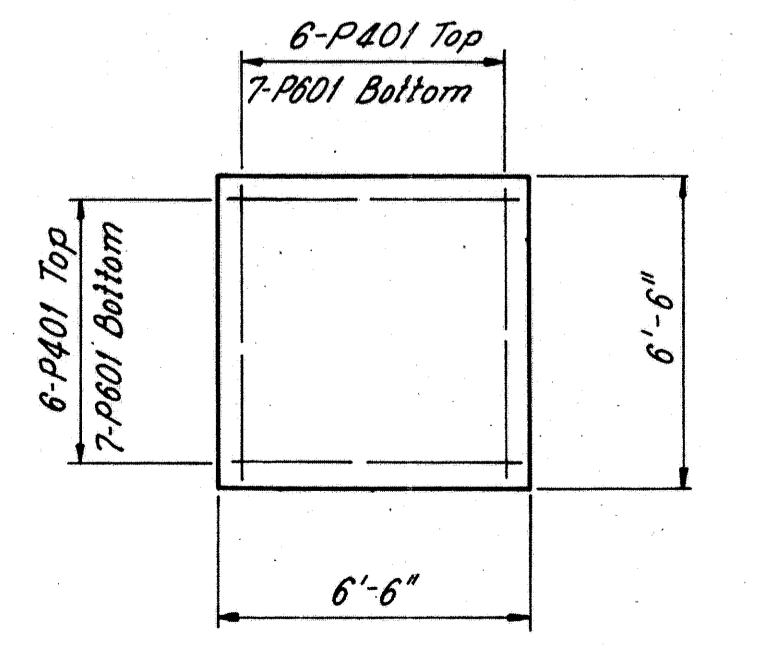
Pier 1 - Sta. 392+29.76 (32' Rt.) Right Bridge
 Pier 2 - Sta. 393+01.76 (32' Rt.) Right Bridge
 Pier 1 - Sta. 392+38.76 (32' Lt.) Left Bridge
 Pier 2 - Sta. 393+10.76 (32' Lt.) Left Bridge



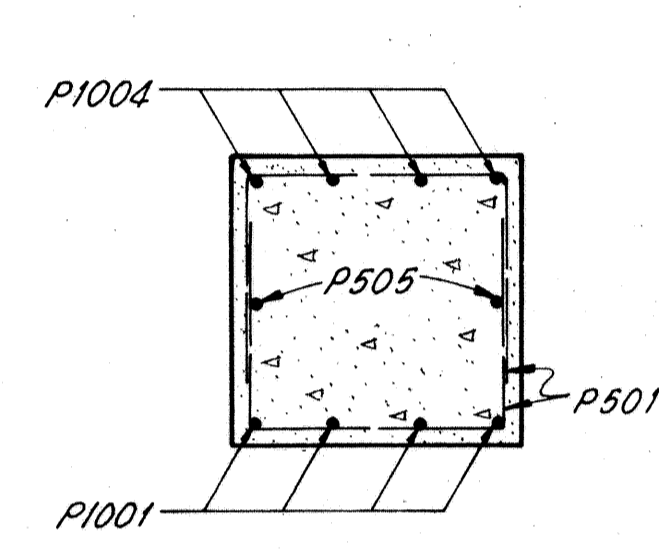
PLAN



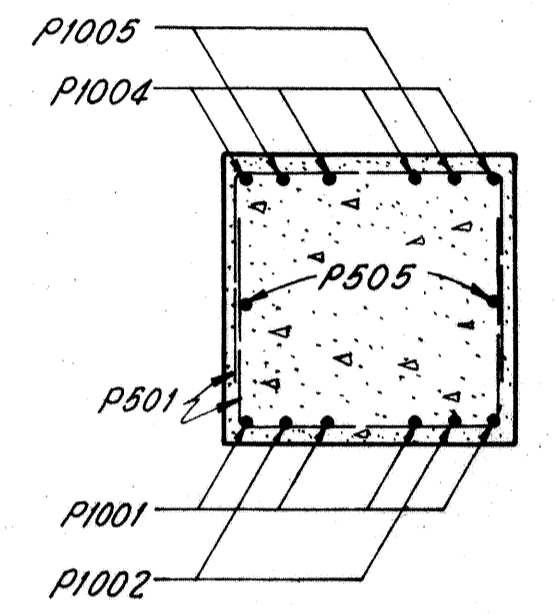
ELEVATION



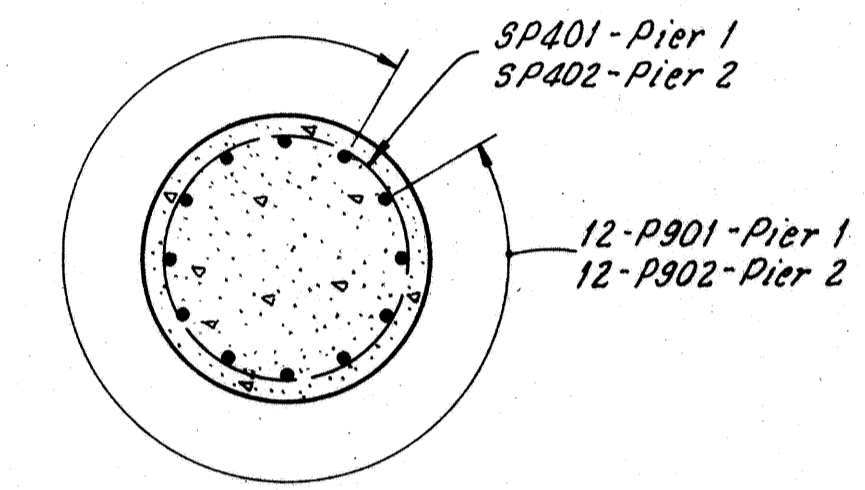
PLAN OF TYPICAL FOOTING



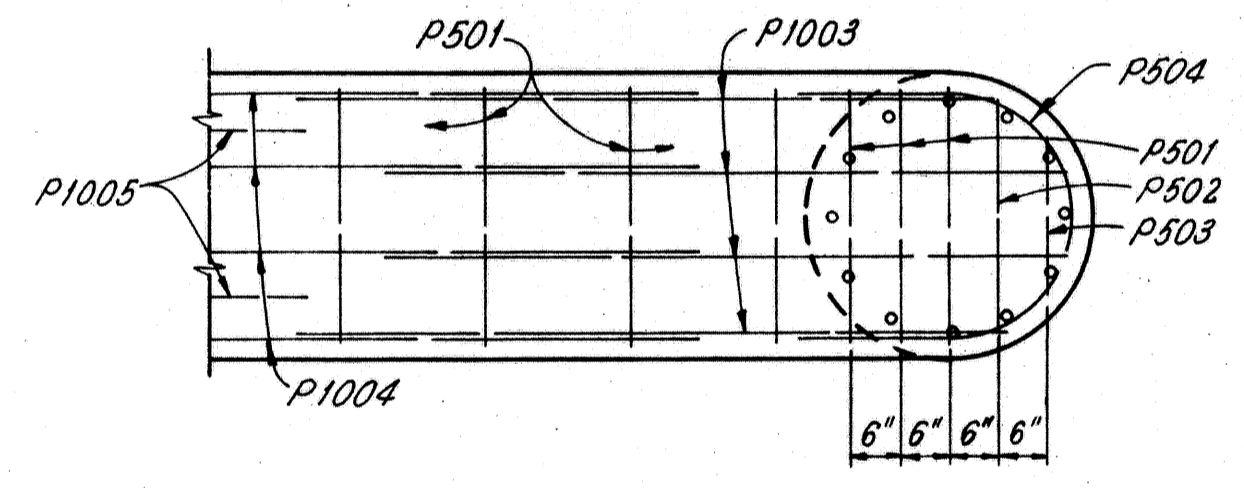
SECTION A-A



SECTION B-B



SECTION C-C



VIEW D-D

NOTES:

CONCRETE: All concrete for pier footings shall be Class "E." All pier concrete above footings shall be Class "C."

BRIDGE SEAT REINFORCING: Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with drilling of anchor bar holes.

GENERAL NOTES: See Sheet 283.

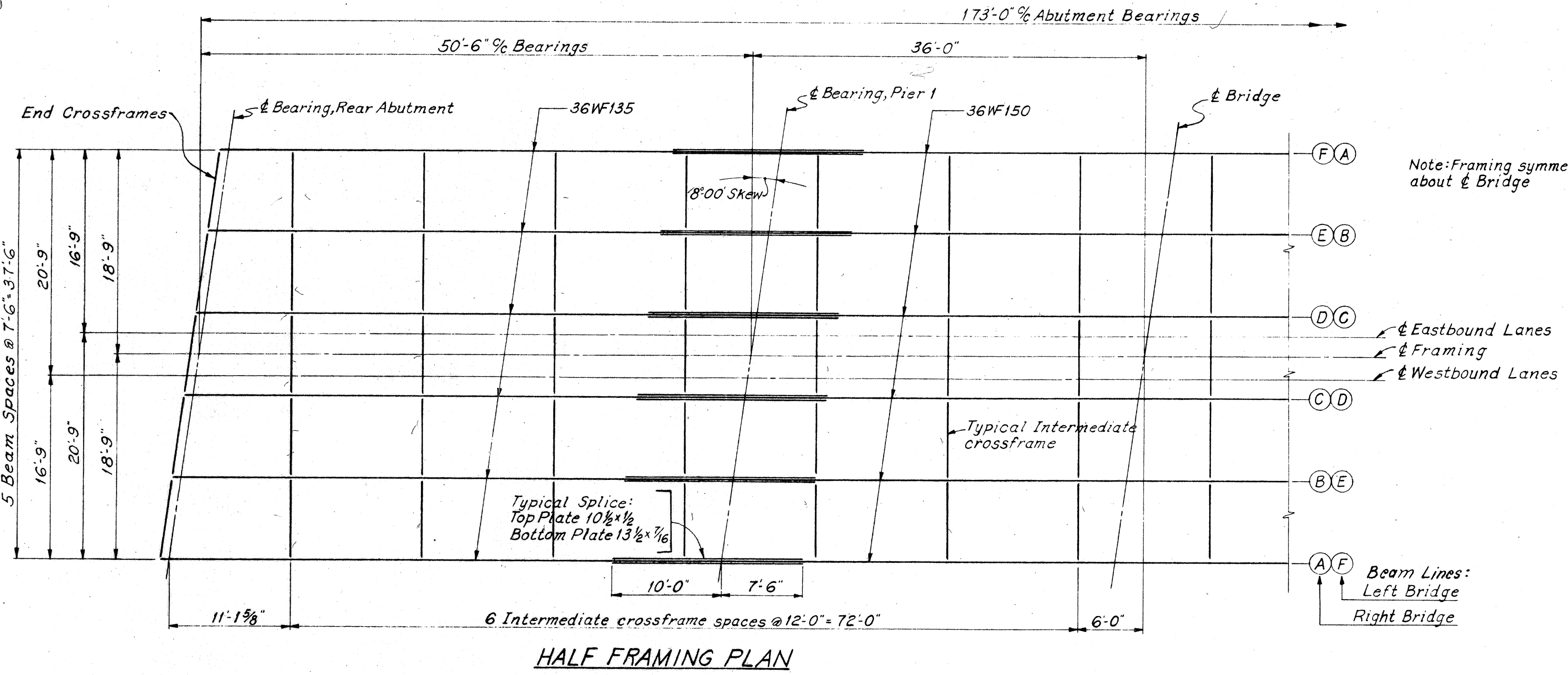
LOCATION	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
LEFT BRIDGE PIER 1	651.27	651.39	651.50	651.57	651.45	651.33	648.27	627.50
LEFT BRIDGE PIER 2	650.94	651.06	651.18	651.24	651.12	651.07	647.94	629.00
RIGHT BRIDGE PIER 1	651.26	651.38	651.50	651.56	651.45	651.33	648.26	627.50
RIGHT BRIDGE PIER 2	650.95	651.07	651.19	651.25	651.13	651.01	647.95	629.00

SHAFER, PARRETT AND ASSOCIATES
Consulting Engineers
MANSFIELD, OHIO.

PIERS
BRIDGE NO. LOR-254-0742 L & R
OVER S.R. 58

LORAIN COUNTY S.R. 254
STA. 391+81.49 TO STA. 393+59.03

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.A.K.	R.A.K.	J.E.G.	J.E.G.			



NOTES
CAMBERING of each beam is required in accordance with the following table:

	OUTSIDE BEAMS		INSIDE BEAMS	
	END SPANS	MIDDLE SPAN	END SPANS	MIDDLE SPAN
Deflection due to weight of steel	1/32	1/8	1/32	3/32
Deflection due to remaining dead load	3/16	3/16	1/8	3/8
Convexity required for vertical curve	3/32	3/16	3/32	3/16
Sum of deflection and convexity	5/16	7/8	1/4	2 1/2
Required camber	0	7/8	0	0

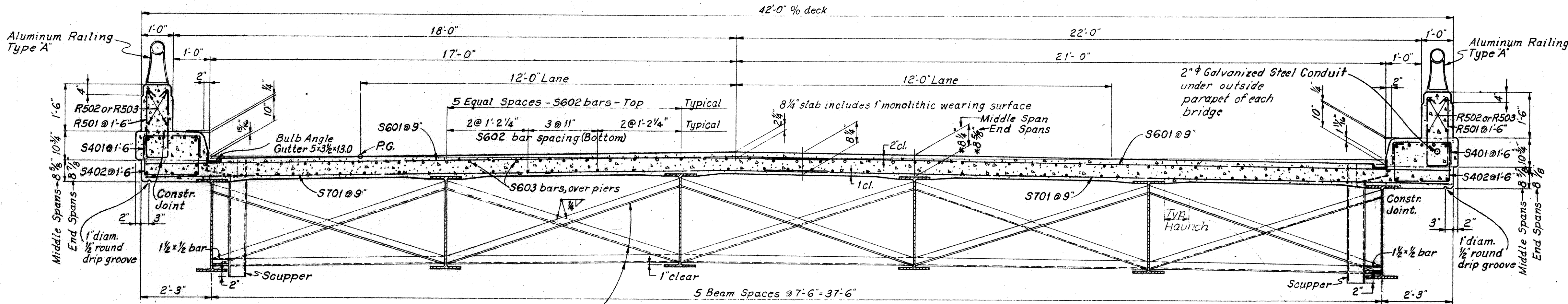
END CROSSFRAMES, END DAMS, GUTTERS, SCUPPERS, CURB PLATE DETAILS AND BEAM SPLICE DETAILS: See Std. Dwg. SD-1-63 Sheets 1 thru 4 of 4. For beam splices use R-1 1/2"

RAILING: See Std. Dwg. AR-1-57.
RAILING POST, PARAPET EXPANSION JOINT, AND SCUPPER SPACING: See Sheet 283

CONCRETE: All superstructure shall be Class "C".
BEARINGS: See Std. Dwg. FSB-1-62 for the following:
E-100 Abutments
E-200 Pier 1
F-200 Pier 2

BEAM SPLICE WELDING PROCEDURE:
1. Raise the abutment ends of the beams the amount 1 3/8"
2. Butt-weld the beam flanges and web, using the following sequence: make two passes on the web, then two on each flange, repeat using one or two passes at each location, until welds are completed.
3. Weld the bottom and top moment plates.
4. Lower the beam ends to final position.

GENERAL NOTES: See Sheet 283.

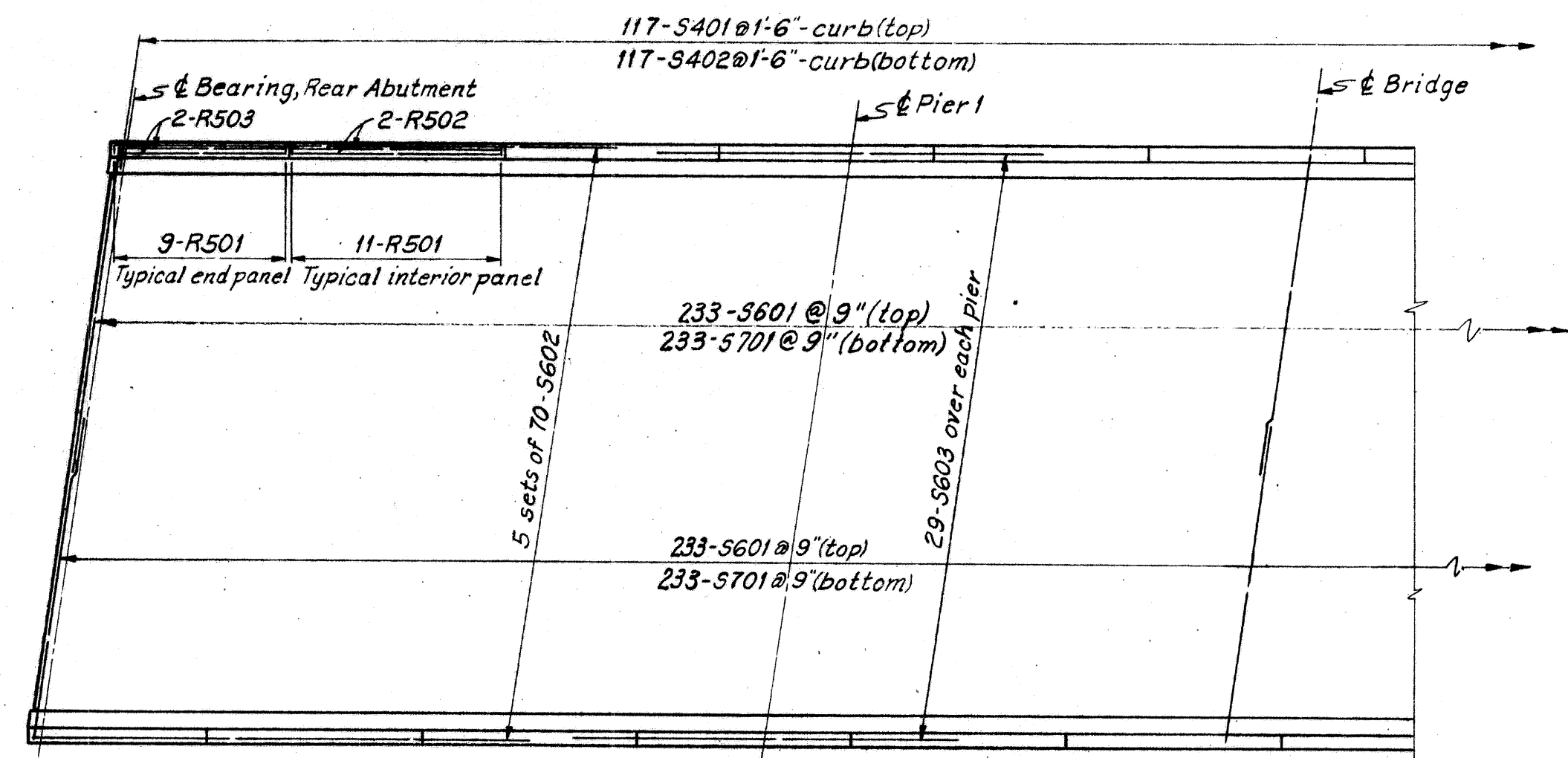


TRANSVERSE SECTION
Right Bridge shown
Left Bridge opposite hand

*These are nominal dimensions. The quantity of deck concrete to be paid for shall be based on these dimensions, even though deviation from them may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per Sec. 1.25 of the Construction and Material Specifications.

A typical haunch width shall be used for computing quantity of concrete. However the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.

All longitudinal bars S602 except as otherwise shown. Lap S602 bars 1'-11" minimum.
Intermediate crossframe angles 3 x 3 x 5/8. Weld both sides of vertical leg and top side of horizontal leg to beam with 1/4 continuous fillet weld.



HALF SLAB PLAN

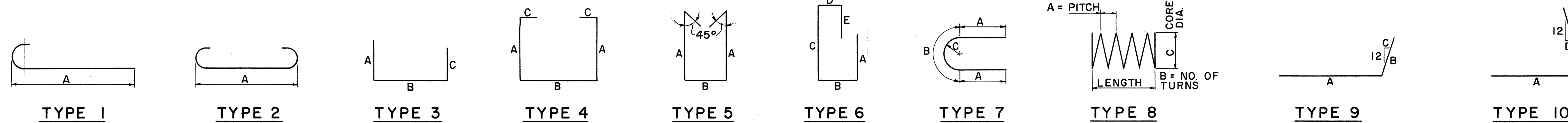
NOTE: Reinforcing symmetrical by rotation about ϵ Bridge.

SHAFFER, PARRETT AND ASSOCIATES
Consulting Engineers
MANSFIELD, OHIO.

SUPERSTRUCTURE
BRIDGE NO. LOR-254-0742 L & R
OVER S.R. 58

LORAIN COUNTY
S. R. 254
STA. 391+81.49 TO STA. 393+59.03

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RAK	RAK	JCZ	J.E.G.			



ABUTMENTS									
MARK	NO.	LENGTH	TYPE	A	B	C	D	E	WEIGHT
R501	64	5'-9"	5	2'-3"	8"				384
R504	32	11'-8"	Str.						*
A401	24	2'-9"	3	8"	1'-8"	8"			44
A402	24	4'-2"	4	1'-3"	1'-8"	4"			69
A403	48	(2)	3	8"	(1)	8"			76
A404	48	(3)	4	1'-3"	(1)	4"			127
A501	240	9'-4"	3	2'-2"	5'-3"	2'-2"			2,336
A502	116	6'-11"	3	6'-6"	6"	0"			837
A503	204	6'-10"	3	1'-10"	3'-5"	1'-10"			1,454
A504	64	41'-8"	Str.						2,781
A505	32	11'-0"	Str.						367
A506	40	3'-5"	3	4"	3'-0"	4"			143
A507	32	9'-10"	3	4'-4"	1'-2"	4'-7"			328
A508	56	8'-6"	Str.						496
A509	32	8'-9"	Str.						292
A510	80	3'-6"	Str.						292
A511	16	6'-9"	Str.						113
A512	16	4'-8"	Str.						79
A513	24	7'-5"	3	3'-7"	6"	3'-7"			186
A514	12	10'-3"	10	8'-3"	7"	1'-7"	1 1/16		128
A515	12	7'-1"	9	2'-8"	4'-6"	10 3/8			89
A516	12	7'-9"	9	6'-3"	1'-7"	1 1/16			97
A517	12	8'-2"	9	3'-0"	5'-3"	13 5/16			102
A518	4	9'-1"	10	7'-1"	7"	1'-7"	1 1/16		38
A519	4	9'-0"	9	4'-7"	4'-6"	10 3/8			38
A520	4	8'-6"	9	7'-0"	1'-7"	1 1/16			35
A521	4	8'-11"	9	3'-9"	5'-3"	13 5/16			37
A522	16	13'-11"	10	11'-11"	7"	1'-7"	1 1/16		232
A523	8	12'-7"	9	8'-2"	4'-6"	10 3/8	Bend in field		105
A524	8	11'-8"	Str.	Bend in field					97
A525	16	13'-1"	9	11'-7"	1'-7"	1 1/16			218
A526	8	13'-6"	9	8'-4"	5'-3"	13 5/16			113
A527	8	11'-11"	Str.	Bend in field					99
A601	64	14'-6"	6	4'-8"	1'-4"	6'-2"	10"	2'-2"	1,394
A602	116	6'-10"	3	6'-6"	6"	0"			1,191
A603	52	13'-5"	3	6'-2"	1'-4"	6'-2"			1,048
A801	56	23'-1"	Str.						3,451
TOTAL WEIGHT									18,916

- (1) 1'-7" to 1'-0" Vary 16 each by 3/2"
- (2) 2'-8" to 2'-1" Vary 16 each by 3/2"
- (3) 4'-3" to 3'-8" Vary 16 each by 3/2"

PIERS									
MARK	NO.	LENGTH	TYPE	A	B	C	D	E	WEIGHT
P401	192	6'-0"	Str.						770
P501	192	6'-9"	3	2'-2"	2'-8"	2'-2"			1,352
P502	8	6'-7"	3	2'-2"	2'-6"	2'-2"			55
P503	8	6'-0"	3	2'-2"	1'-11"	2'-2"			50
P504	16	7'-4"	7	1'-7"	4'-2"	1'-4"			122
P505	8	37'-10"	Str.						316
P601	224	7'-4"	2	6'-0"					2,467
P901	96	20'-7"	Str.						6,178
P902	96	18'-9"	Str.						6,120
P903	192	5'-11"	3	5'-6"	6"	0"			3,862
P1001	16	40'-8"	2	37'-10"					2,800
P1002	16	18'-0"	1	16'-7"					1,239
P1003	32	9'-9"	3	7'-0"	2'-10"	0"			1,343
P1004	16	32'-9"	Str.						2,255
P1005	16	10'-0"	Str.						688
SP401	8	17'-9"	8	4 1/2"	51	32"			2,671
SP402	8	15'-11"	8	4 1/2"	46	32"			2,407
TOTAL WEIGHT									34,695

REPLACEMENT BARS		
MARK	NO.	LENGTH
RE 400	1	5'-3"
RE 500	1	5'-7"
RE 600	4	5'-11"
RE 700	3	6'-3"
RE 800	1	6'-6"
RE 900	1	6'-10"
RE 1000	1	7'-2"

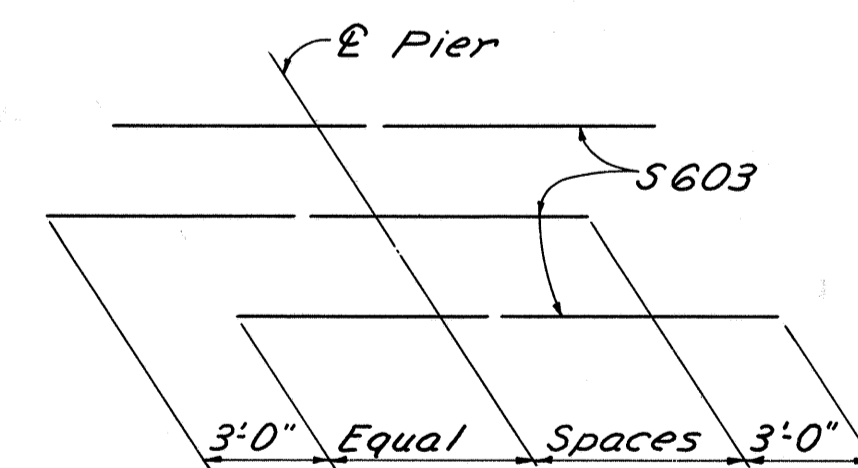


DIAGRAM SHOWING STAGGER OF S603 BARS OVER PIERS

SUPERSTRUCTURE									
MARK	NO.	LENGTH	TYPE	A	B	C	D	E	WEIGHT
R501	512	5'-9"	5	2'-3"	8"				3,071
R502	160	14'-8"	Str.						*
R503	32	12'-0"	Str.						*
S401	468	2'-9"	3	8"	1'-8"	8"			860
S402	468	4'-4"	4	1'-3"	1'-8"	4"			1,355
S601	932	22'-0"	Str.						30,797
S602	700	36'-5"	Str.						38,289
S603	116	27'-0"	Str.						4,704
S701	932	22'-1"	Str.						42,069
TOTAL WEIGHT									121,145

* These railing bars are included with Item S-14 for pavement.

NOTES:

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: A506 is a No. 5 size bar and P1001 is a No. 10 size bar.

SPIRAL REINFORCING BARS: The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap. The "No. of Turns" shown is the "Length" divided by the pitch, plus 3 turns (total number of closed coils), expressed as the nearest whole number. Spiral reinforcing bars shall not have deformations but shall in other respects conform to Item S-4. 1/2 closed coils shall be provided at the ends of each spiral unit. Four steel channel, tee or angle spacers, weighing approximately 0.68 lb. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 lb. per lin. ft., will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

SHAFFER, PARRETT AND ASSOCIATES Consulting Engineers MANSFIELD, OHIO.						
REINFORCING STEEL						
BRIDGE NO. LOR-254-0742 L&R						
OVER S.R. 58						
LORAIN COUNTY				S.R. 254		
STA. 391 + 81.49 TO STA. 393 + 59.03						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RAK.	J.R.B.	J.R.B.	J.E.G.			

DESIGN FILE: c:\dgn\lor2\l3\l3.dgn DATE: 16-AUG-1994 WORKSTATION: e

MAR 6 1994

DESIGN DESIGNATION

Table with 2 columns: Item and Value. Includes Current ADT (1994) = 20,280, Design Year ADT (2014) = 26,370, DHV = 2373, D = 57%, T = 12%, V = 55 MPH, Legal Speed = 55 MPH, Functional Classification Urban Principal Freeway.

DESIGN EXCEPTIONS

Table with 3 columns: Item, Required, Actual. Includes 1 - GRADED SHOULDER WIDTH 15' vs 12', 2 - HORIZONTAL CLEARANCE 10' vs 9.5'.

APPROVED MAY 11, 1993

CONVENTIONAL SIGNS

Table defining symbols for County Line, Township Line, Section Line, Corporation Line, Fence Line, Center Line, Trees, Stumps, Utility Poles, Limited Access (only), Right of Way (only), etc.

INDEX OF SHEETS

Table listing sheet titles and page numbers. Includes TITLE SHEET (1), SCHEMATIC PLAN (2-4), TYPICAL SECTIONS (5-13), GENERAL NOTES (14-16), GENERAL SUMMARY (17-18), SUB-SUMMARY (19-21), RESURFACING CALCULATIONS (22), PAVEMENT TRANSITIONING (23, 23A, 24), STORM WATER POLLUTION PREVENTION PLAN (25-27), S.R. 2 PLAN SHEETS (28-41), MISC. CROSS SECTIONS (42), PAVEMENT REPLACEMENT UNDER OAK POINT ROAD (43-49), PAVEMENT REPLACEMENT UNDER KOLBE ROAD (50-56), MEDIAN CROSS SECTIONS (57-68), KOLBE ROAD (69-73), TERRA LANE (74-78), PAVEMENT REPAIR DETAILS (79-80), APPROACH SLAB DETAILS (81-84), MEDIAN GUARDRAIL DETAILS AT BRIDGES (84A), CATCH BASIN REPLACEMENT SUB-SUMMARY (85), MISC. CATCH BASIN DETAILS AND QUANTITIES (86), EDGE DRAIN AND UNDERDRAIN SIGNING (87-91), DELINEATOR PLANS (102-104), RAISED PAVEMENT MARKERS (105), PAVEMENT MARKING DETAILS (106-107), MAINTENANCE OF TRAFFIC STRUCTURES OVER 20 FEET (144-217), R/W FENCE PLANS (218-222).

LINE DATA

Table with 2 columns: Description and Length. Includes BEGIN PROJECT - STA 185+00, END PROJECT - STA 422+00, NET PROJECT LENGTH 23700.00 LIN. FT. OR 4.489 MILES, ADD FOR WORK, STA 176+87 TO STA 185+00 (813.00 LIN. FT.), STA 422+00 TO STA 423+60 (160.00 LIN. FT.), WORK ON SIDEROADS (SEE SHT. 4) 6960.00 LIN. FT., NET WORK LENGTH 31633.00 LIN. FT. OR 5.991 MILES.

BRIDGES PREPARED BY: R.E. WARNER & ASSOCIATES CONSULTING ENGINEERS WEST LAKE, OHIO

Plan Prepared By: DISTRICT 3 DESIGN

Project LOR-2-3.50 LORAIN COUNTY Date of Letting 19 Contract No.

STATE OF OHIO DEPARTMENT OF TRANSPORTATION LOR-2-3.50 CITIES OF AMHERST & LORAIN BROWNHELM TOWNSHIP LORAIN COUNTY

Table with 2 columns: Item and Value. Includes LOR-2-3.50, NH-73(81), OHIO, FHWA REGION 5, FEDERAL PROJECT.

PROJECT DESIGNATION: LOR-2-3.48 APPEARING THROUGHOUT THIS PLAN SHALL BE CONSIDERED TO READ LOR-2-3.50 LIMITED ACCESS

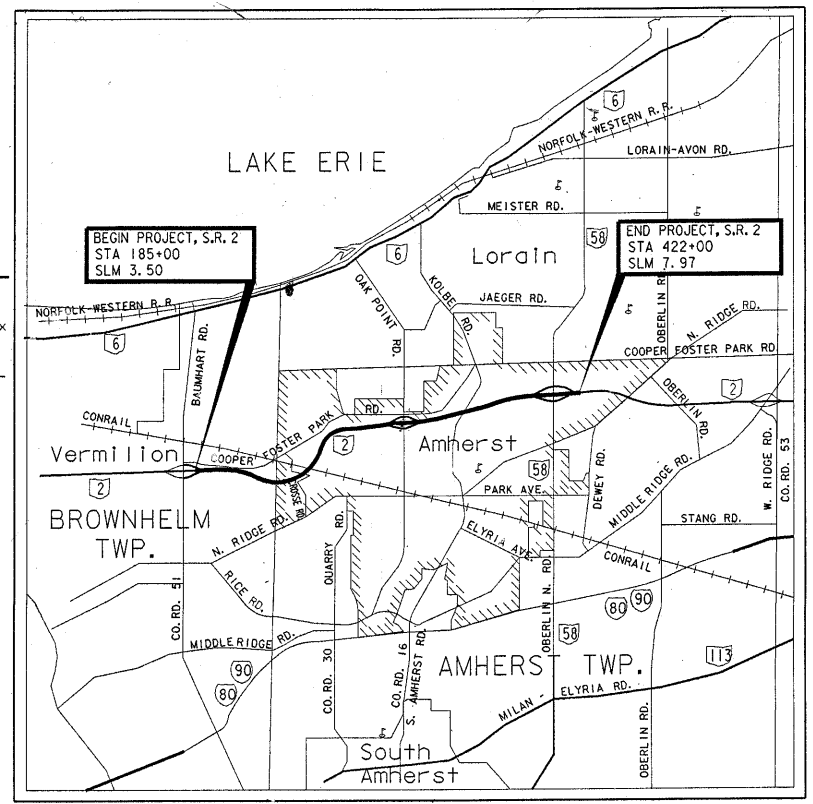
This improvement is especially designed for through traffic and has been declared a limited access highway or freeway by action of the Director in accordance with the provisions of Section 5511.02, Revised Code of Ohio.

1993 SPECIFICATIONS

The standard specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal shall govern this improvement.

I hereby approve these plans and declare that the making of this improvement will not require the closing to traffic of the highway, and that provisions for the maintenance and safety of traffic will be set forth on the plans and estimates.

"Under authority of section 4511.21, Division (1) of the revised code of Ohio, the revised Prima Facie speed limits as indicated herein are determined to be reasonable and safe, and are hereby established for the duration of this project. The Prima Facie speed limit or limits hereby established shall become effective when appropriate signs given notice thereof are erected."



LOCATION MAP SCALE IN MILES

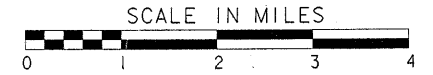


Table for SCALES. Includes Plan, Profile (Horizontal, Vertical), Cross Section (Horizontal, Vertical) scales in feet and inches.

UNDERGROUND UTILITIES TWO WORKING DAYS BEFORE YOU DIG Call 800-362-2764 (Toll Free) OHIO UTILITIES PROTECTION SERVICE NON-MEMBERS MUST BE CALLED DIRECTLY

SUPPLEMENTAL SPECIFICATIONS table with columns for specification number and date.

Approved Phillip J. Howard District Deputy Director of Transportation Date 8-23-94

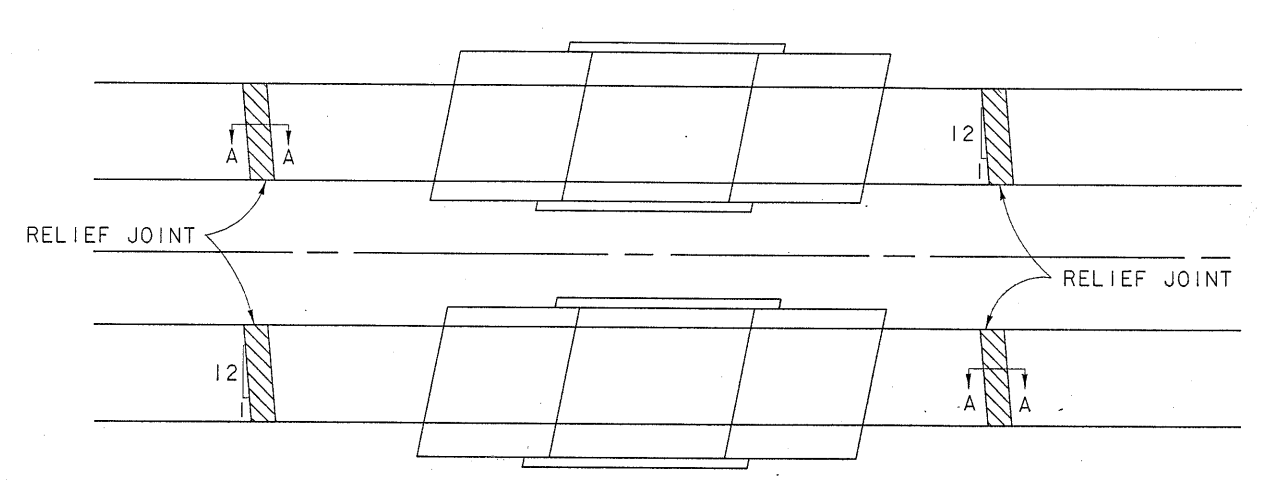
Approved E.D.H. ... Engineer, Bureau of Bridges and Structural Design Date 9/15/94

Approved Christopher L. ... Deputy Director of Design Date 9-30-94

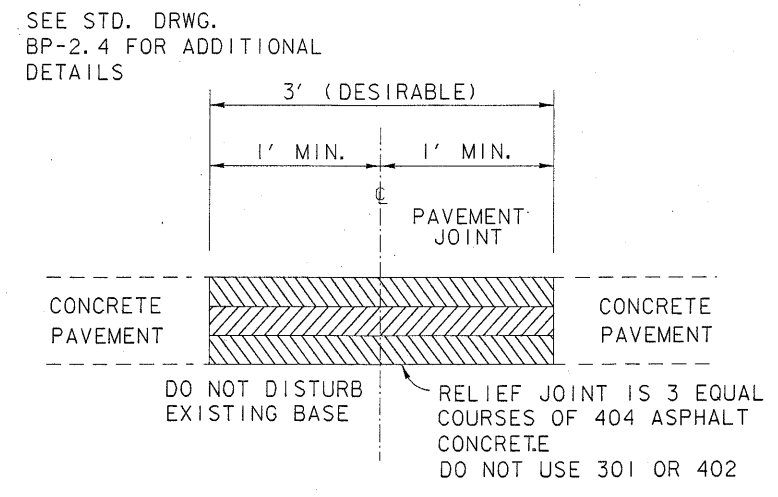
Approved Jerry ... Director, Department of Transportation Date 9-30-94

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS table with columns for drawing number, date, and description.

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION APPROVED DIVISION ADMINISTRATOR DATE TITLE SHEET



TYPICAL RELIEF JOINT LOCATION PLAN

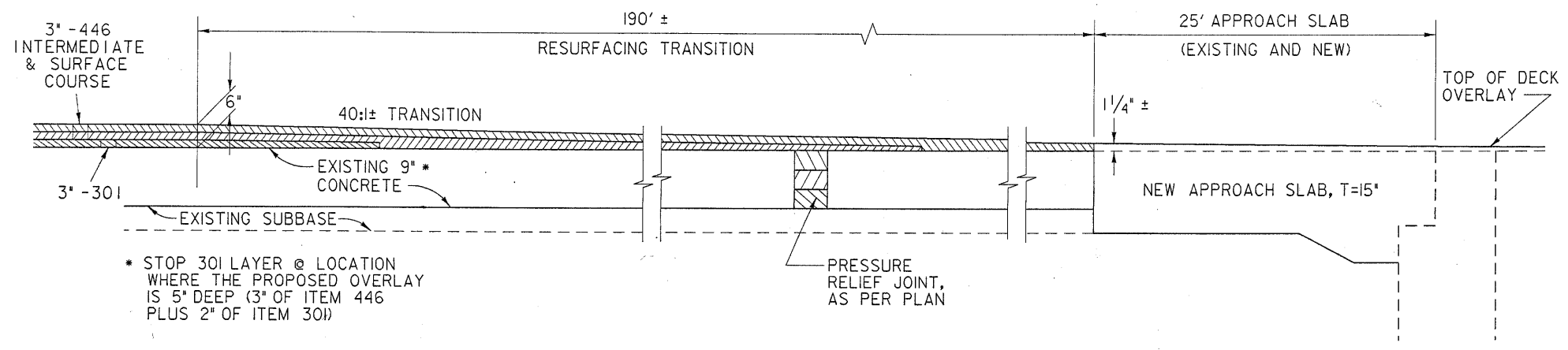


SECTION A-A
PRESSURE RELIEF JOINT
AS PER PLAN

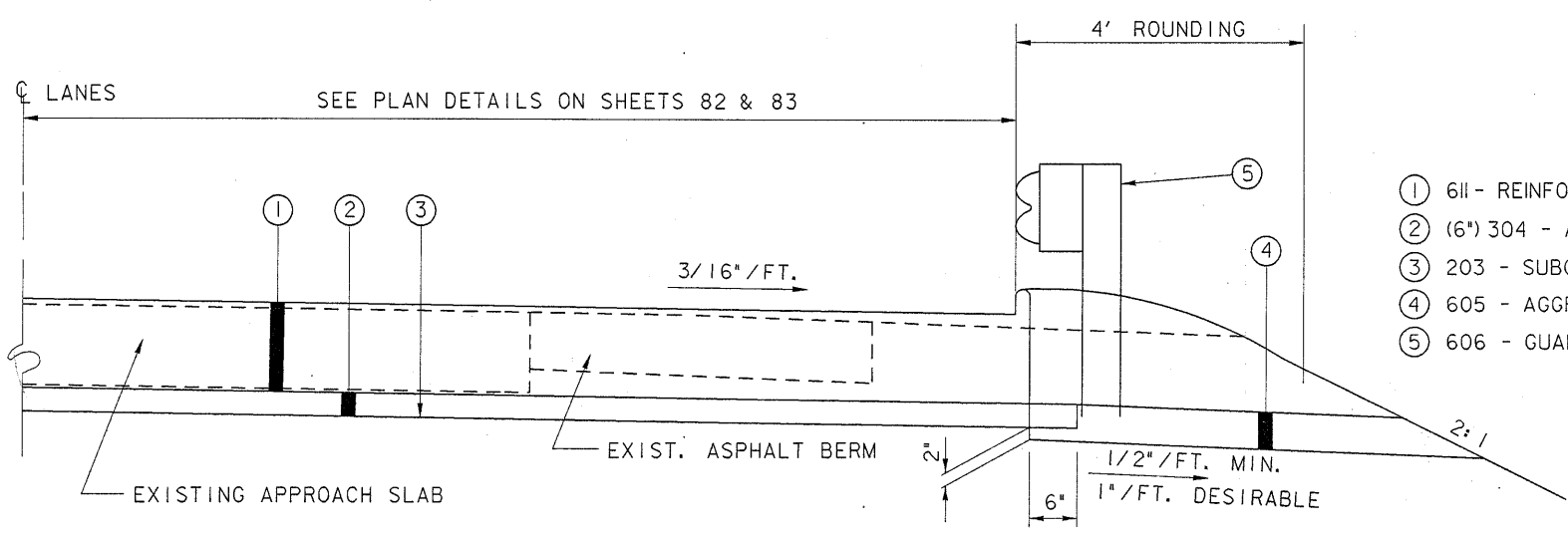
STRUCTURE	SPECIAL	SPECIAL	SPECIAL	605	605	603
	PRECAST REINFORCED CONCRETE OUTLET EACH	PRESSURE RELIEF JOINT, TYPE A LIN. FT.	PRESSURE RELIEF JOINT, TYPE A AS PER PLAN LIN. FT.	AGGREGATE DRAIN LIN. FT.	6" SHALLOW PIPE UNDER DRAIN 707.15 LIN. FT.	4" CONDUIT, TYPE F, 707.17 NON-PERFORATED ASTM D 3034 SDR 35, SS 931, OR SS 944 LIN. FT.
LOR-2-0459 LT & RT			96	60		
LOR-2-0646 LT & RT	4	96			104	100
LOR-2-0699	2	60			64	70
LOR-2-0742 LT & RT			96	60		
TOTALS	6	156	192	120	168	170

ITEM SPECIAL-PRESSURE RELIEF JOINT, TYPE A
TYPE A PRESSURE RELIEF JOINTS SHALL BE INSTALLED IN PAVEMENT @ EACH END OF STRUCTURES NO. LOR-2-646 AND LOR-2-0699 AS PER STD. DRWG. BP-2.3.

ITEM SPECIAL - PRESSURE RELIEF JOINT, AS PER PLAN
PRESSURE RELIEF JOINTS AS PER PLAN SHALL BE CONSTRUCTED AS PER DETAIL ON THIS SHEET.



DETAIL FOR TRANSITIONING RESURFACING TO NEW APPROACH SLAB



HALF APPROACH SLAB TYPICAL SECTION

LEGEND

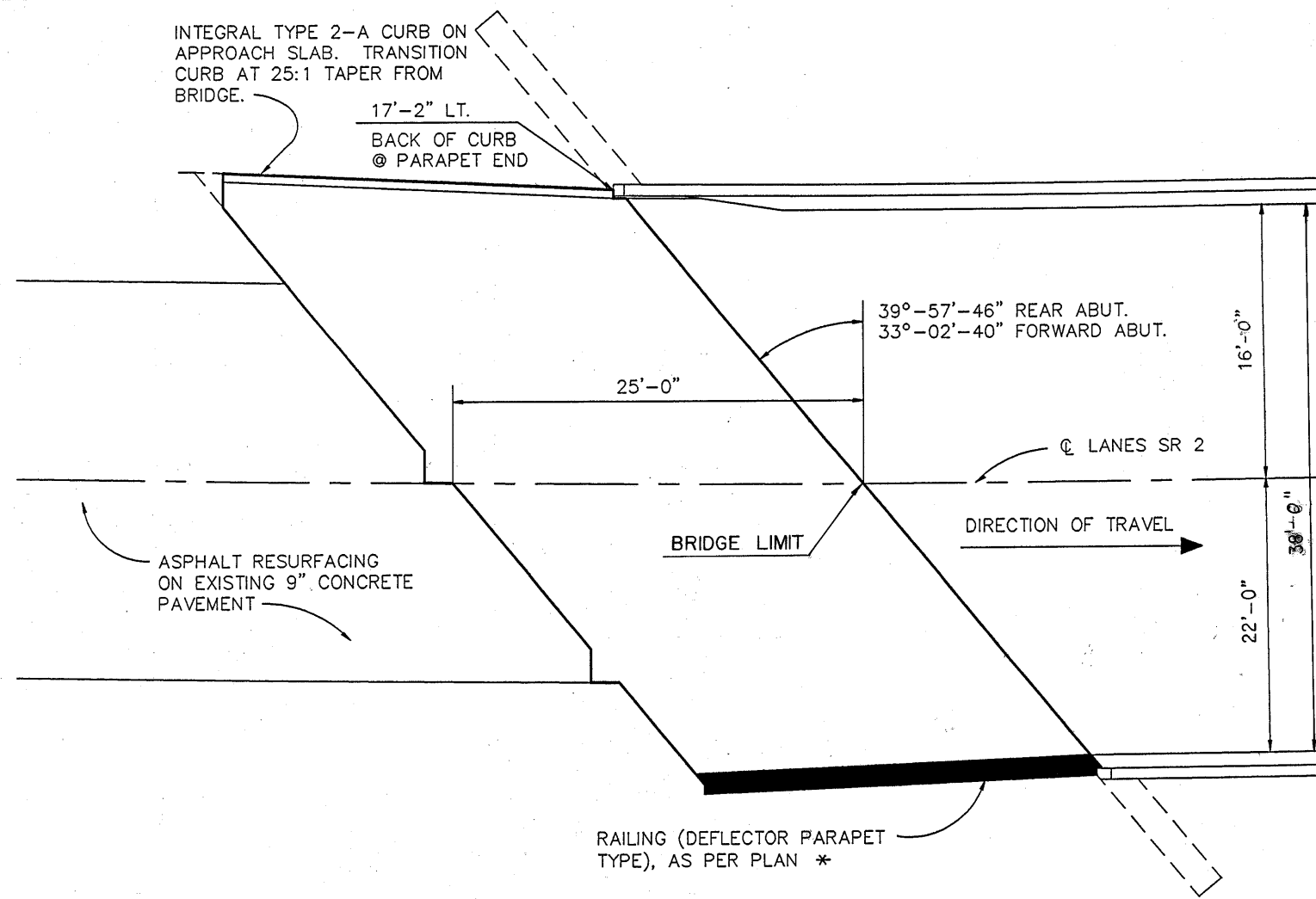
- ① 611 - REINFORCED CONCRETE APPROACH SLAB, T=15"
- ② (6") 304 - AGGREGATE BASE
- ③ 203 - SUBGRADE COMPACTION
- ④ 605 - AGGREGATE DRAIN
- ⑤ 606 - GUARDRAIL, TYPE 5

APPROACH SLAB QUANTITIES

STATION LIMITS	APPROACH SLAB QUANTITIES					
	202	203	203	304	605	611
	PAVEMENT REMOVED SQ. YD.	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION CU. YD.	SUBGRADE COMPACTION SQ. YD.	AGGREGATE BASE CU. YD.	AGGREGATE DRAINS LIN. FT.	REINFORCED CONCRETE APPROACH SLAB (T=15") SQ. YD.
S.R. 2 LOR-2-0459						
241+36.41 TO 241+61.74 LT	66.7	35.3	107	18.5	12	107
241+90.90 TO 242+15.58 RT	66.7	34.7	106	18.5	12	106
244+70.18 TO 244+95.51 LT	66.7	34.7	106	18.5	12	106
245+11.72 TO 245+36.40 RT	66.7	35.3	107	18.5	12	107
LOR-2-0646						
340+80.17 TO 341+05.17 LT	66.7	35.7	108	18.5	16	108
340+56.87 TO 340+81.87 RT	66.7	35.7	108	18.5	16	108
342+10.77 TO 342+35.77 LT	66.7	35.7	108	18.5	20	108
341+87.47 TO 342+12.47 RT	66.7	35.7	108	18.5	20	108
LOR-2-0742						
391+51.99 TO 391+76.99 RT	66.7	36.1	109	18	16	109
391+60.99 TO 391+85.99 LT	66.7	36.1	109	18	16	109
393+54.53 TO 393+79.53 RT	66.7	36.1	109	18	16	109
393+63.53 TO 393+88.53 LT	66.7	36.1	109	18	16	109
KOLBE RD: LOR-2-0649						
48+50.72 TO 48+75.72	89	-	92	15.8	12	92
51+24.29 TO 51+49.29	89	-	92	15.8	12	92
TERRA LANE: LOR-2-0699						
48+57.74 TO 48+82.74	89	*	92	15.7	12	92
51+02.26 TO 51+27.26	89	*	92	15.7	12	92
TOTALS	1156.4	427.2	1662	283	232	1662

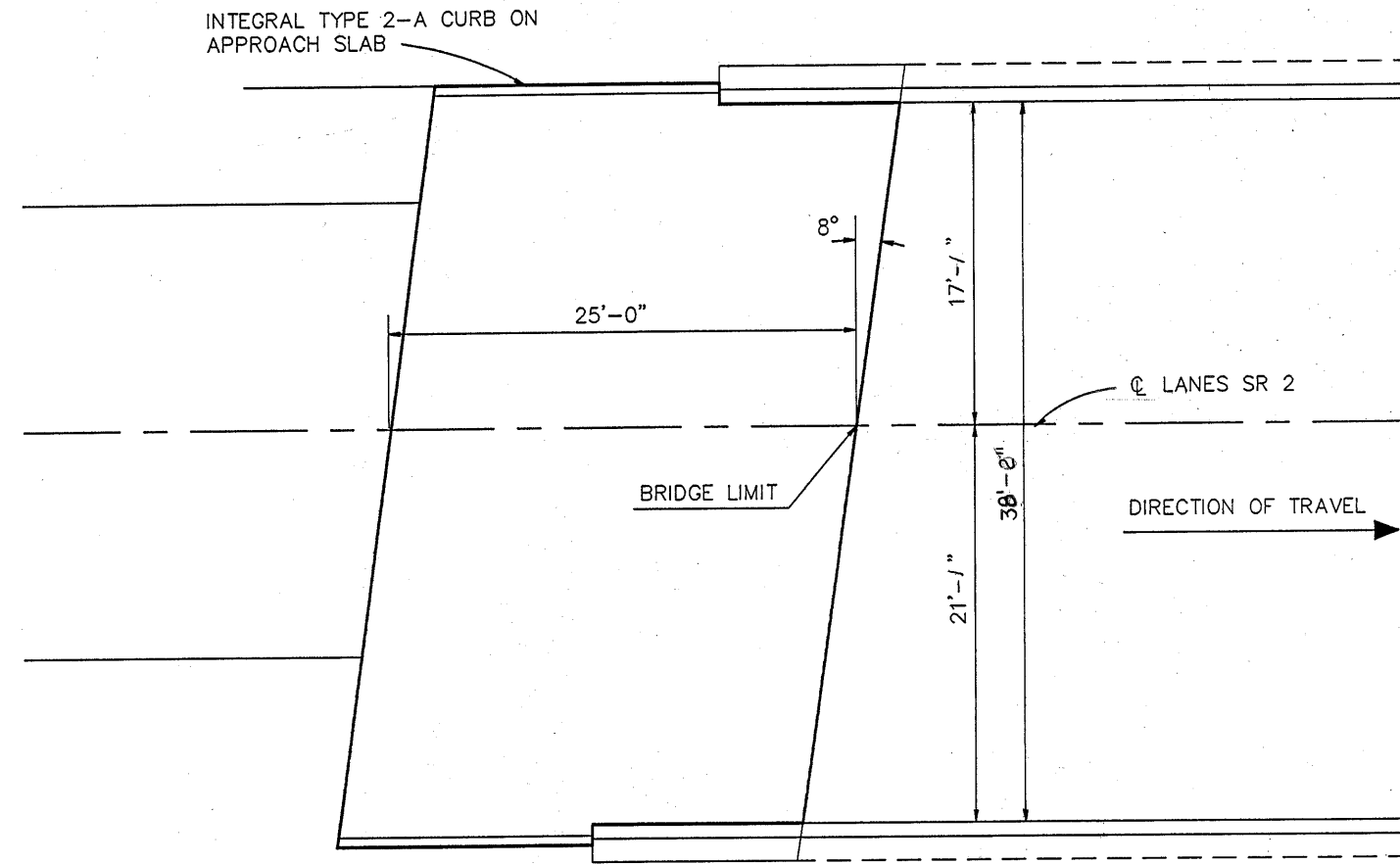
* INCLUDED WITH ROADWAY WORK

DESIGN FILE: C:\DGN\LOR2\2APS\LAB.DGN
WORKSTATION: DATE:



STRUCTURE NO. LOR-2-0459 LT. & RT.
OVER CROSSE RD. AND RAILROAD

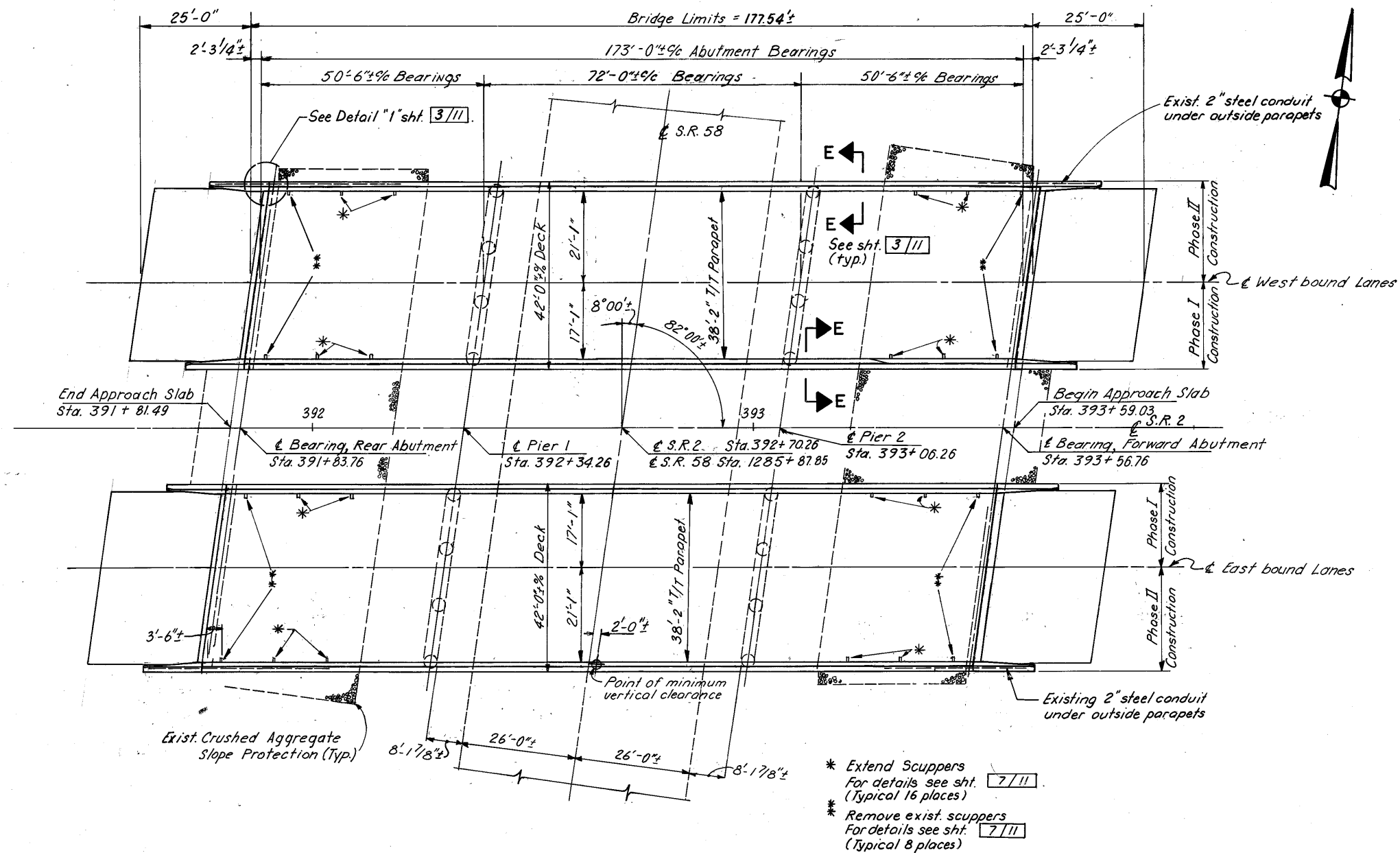
- * SEE SHEET 84 FOR DETAILS
- * SEE SHEET 16 FOR NOTE
- * SEE SHEET 30 FOR LOCATIONS



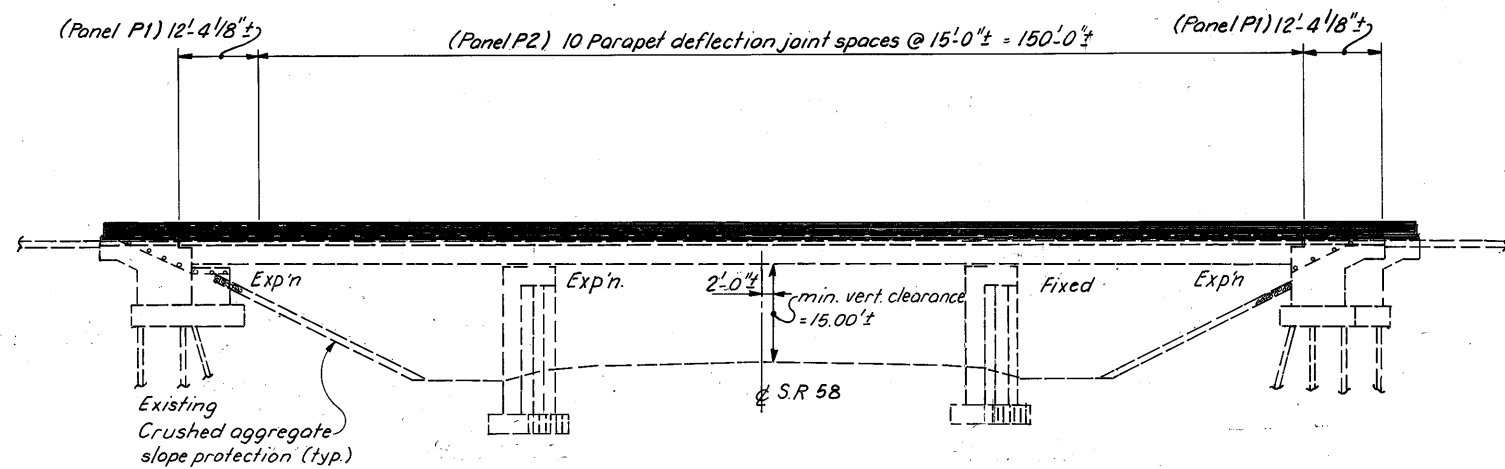
STRUCTURE NO. LOR-2-0742 LT. & RT.
OVER S.R. 58

- NOTE:
- 1) SEE STANDARD DRAWING AS-1-81 FOR ADDITIONAL DETAILS
 - 2) SEE SHEET 81 FOR QUANTITIES.
 - 3) SEE SHEET 82 FOR ADDITIONAL APPROACH SLAB DETAILS.

L2/APPSLAB2



GENERAL PLAN



ELEVATION

EXISTING STRUCTURE	
TYPE:	Twin Continuous Steel Beam with Reinforced Concrete Deck & Substructure.
SPANS:	50'-6"; 72'-0"; 50'-6" % Bearings
ROADWAY:	40'-0" f/f Parapets
LOAD FREQUENCY:	CF 400 (57)
SKEW:	8°-00' L.F.
ALIGNMENT:	Tangent
WEARING SURFACE:	Monolithic Concrete
APPROACH SLABS:	AS-1-54 (25' Long, Modified)
DATE BUILT:	1965
STRUCTURE FILE NO.:	4700279, 4700309

PROPOSED STRUCTURE	
PROPOSED WORK:	Concrete Overlay, Retrofit Existing Parapets, Replace Abutment Bearings, Remove Concrete at Parapet Joint to Provide Room for Expansion, Painting.
TYPE:	Twin Continuous Steel Beam with Reinforced Concrete Deck & Substructure
SPANS:	50'-6" ; 72'-0" ; 50'-6" % Bearings.
ROADWAY:	38'-2" t/t Parapet
LOAD FREQUENCY:	CF 400 (57)
SKEW:	8°-00' L.F.
ALIGNMENT:	Tangent
WEARING SURFACE:	Micro-Silica Concrete Deck Overlay
APPROACH SLABS:	AS-1-81 (25' Long)
AVERAGE DAILY TRAFFIC:	25980 (2014)
AVERAGE DAILY TRUCK TRAFFIC:	3118 (2014)

R.E. WARNER & ASSOCIATES
CONSULTING ENGINEERS
WESTLAKE, OHIO

GENERAL PLAN AND ELEVATION

BRIDGE NO. LOR-2-0742 L / R
OVER S.R. 58

DESIGN	DRAWN	TRACED	CHECKED	REVIEW	DATE	REVISED
SWR	GSC		CDW	ART	2/24/94	

PROPOSED WORK:

MAJOR WORK TO BE PERFORMED UNDER THIS CONTRACT CONSISTS OF MICRO-SILICA CONCRETE OVERLAY, INSTALLING STRIP SEAL EXPANSION JOINTS, REPLACING ABUTMENT BEARINGS, PLUGGING AND ABANDONING EXISTING SCUPPERS, EXTENDING EXISTING SCUPPERS, CONCRETE SEALING, TRIMMING ENDS OF BEAMS AND PAINTING OF SUPERSTRUCTURE. DETAILS OF THIS WORK ARE SHOWN IN THE PLANS.

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS:

A-1-69 DATED 6-12-69
AS-1-81 DATED (REVISED) 11-27-81
EXJ-4-87 DATED 1-20-94

AND SUPPLEMENTAL SPECIFICATIONS:

852 7-30-93
944 5-27-94

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1992, INCLUDING THE 1993 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE MANUAL.

DESIGN DATA:

LOAD FREQUENCY - CF 400 (57)
CONCRETE CLASS S - COMPRESSIVE STRENGTH 4500 P.S.I.
CONCRETE CLASS C - COMPRESSIVE STRENGTH 4000 P.S.I.
REINFORCING STEEL - ASTM A615, A616, A617 - GRADE 60 MINIMUM YIELD STRENGTH 60,000 P.S.I.

DECK PROTECTION METHOD:

SEALING OF CONCRETE SURFACES AND MICRO-SILICA CONCRETE OVERLAY.

MAINTENANCE OF TRAFFIC:

BRIDGE WORK SHALL BE COORDINATED WITH DISTRICT 3 ROADWAY WORK AND MAINTENANCE OF TRAFFIC REQUIREMENTS.

ITEM 202 - REMOVAL MISC.: SCUPPER REMOVAL

THIS ITEM SHALL BE USED TO PLUG AND REMOVE PORTIONS OF THE EXISTING SCUPPERS AS PER DETAILS IN THE PLAN.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER EACH FOR ITEM 202-REMOVAL, MISC.: SCUPPER REMOVAL WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM SPECIAL - SEALING OF CONCRETE SURFACES:

A CONCRETE SEALER SHALL BE APPLIED TO THE CONCRETE SURFACES SHOWN ON SHEETS 4/11 AND 5/11. SEE PROPOSAL FOR SURFACE PREPARATION REQUIREMENTS, APPLICATION RATES, MATERIAL REQUIREMENTS AND APPLICATION PROCEDURES.

UTILITY UNDER PARAPETS

THERE IS 2" GALVANIZED STEEL CONDUIT LOCATED UNDER OUTSIDE PARAPETS ON NORTH SIDE OF WESTBOUND LANES FOR ELECTRIC LIGHTING SYSTEM.

THE CONTRACTOR SHALL COMMENCE ANY WORK IN THIS AREA WITH EXTREME DUE CARE AND NOT TO DAMAGE THIS CONDUIT. ANY DAMAGE TO THIS CONDUIT BECAUSE OF CONTRACTORS NEGLIGENCE SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND TO THE APPROVAL OF THE ENGINEER.

TRAFFIC SIGNS:

DUE CARE SHALL BE EXERCISED NOT TO DAMAGE EXISTING TRAFFIC SIGNS OR ANY CONNECTIONS OF TRAFFIC SIGNS THAT ARE MOUNTED ON PARAPETS.

IN CASE OF DAMAGE TO THE EXISTING STRUCTURE, PARAPET OR SIGNS BECAUSE OF CONTRACTORS NEGLIGENCE, REPAIR OR REPLACEMENT SHALL BE MADE AT THE CONTRACTORS EXPENSE AND TO THE APPROVAL OF THE ENGINEER.

ITEM - 518 SCUPPER, VERTICAL EXTENSION, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL WORK NEEDED TO LENGTHEN SCUPPERS AS PER DETAILS IN THE PLAN.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER EACH FOR ITEM 518 - SCUPPER, VERTICAL EXTENSION, AS PER PLAN WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ADDITIONAL NOTES:

FOR ADDITIONAL NOTES SEE SHEET 120, AND 121

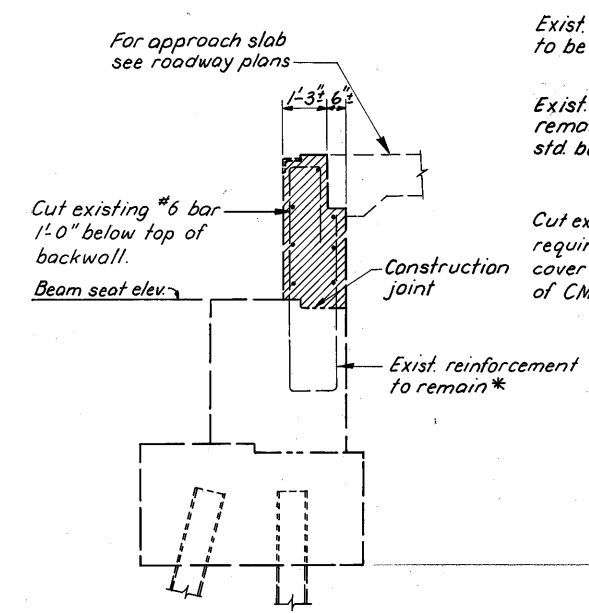
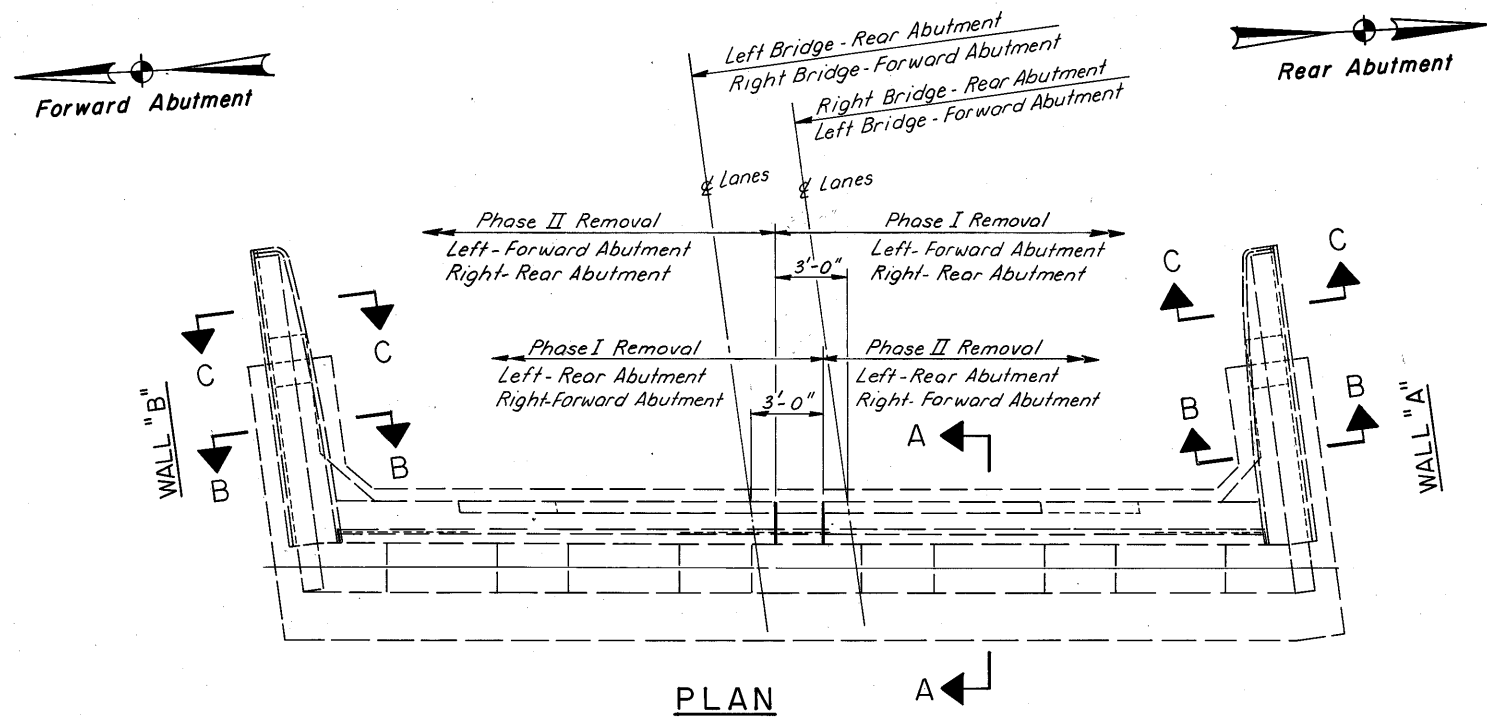
CALC. BY: <u>SWR</u>		DATE: <u>2/24/94</u>		ESTIMATED QUANTITIES				CHK'D BY: <u>CDW</u>		DATE: <u>2/24/94</u>	
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION				ABUTS	PIERS	SUPER.	GEN'L
202	11301	23	CU. YD.	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SEE SHT. 144)						23	
202	11301	60	CU. YD.	PORTIONS OF STRUCTURE REMOVED, ABUTMENTS, AS PER PLAN (SEE SHT. 144)				60			
202	98100	8	EACH	REMOVAL MISC.: SCUPPER REMOVAL						8	
509	15820	14016	POUND	EPOXY COATED REINFORCING STEEL, GRADE 60				7092		6724	200
510	11101	512	EACH	DOWEL HOLE, AS PER PLAN (SEE SHT. 144)						512	
511	34450	93	CU.YD.	CLASS S CONCRETE, MISCELLANEOUS (PARAPETS), AS PER PLAN (SEE SHT. 145)				51		42	
511	45701	40	CU.YD.	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (SEE SHT. 145)				40			
512	44400	6	SQ.YD.	TYPE B WATERPROOFING				6			
SPECIAL	51267510	944	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)(SEE PROPOSAL NOTE)				233		711	
513	15901	125	POUND	STRUCTURAL STEEL, REPLACEMENT OF DETERIORATED END CROSS FRAMES, AS PER PLAN (SEE SHT. 21b)				125			
513	21001	24	EACH	TRIMMING OF BEAM END, AS PER PLAN (SEE SHT. 144)						24	
SPECIAL	51400050	24280	SQ.FT.	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU (SEE PROPOSAL NOTE)						24280	
SPECIAL	51400056	24280	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU (SEE PROPOSAL NOTE)						24280	
SPECIAL	51400060	24280	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU (SEE PROPOSAL NOTE)						24280	
SPECIAL	51400066	24280	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU (SEE PROPOSAL NOTE)						24280	
516	11211	168	LIN. FT.	STRUCT'L. EXPAN. JT. INCLUDING ELASTOMERIC STRIP SEAL AS PER PLAN (SEE PROPOSAL NOTE)						168	
516	44101	24	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (2-3/8" X 8-1/2" X 12" LAMINATED ELASTOMERIC PAD W/ 2-1/4" X 9-1/2" X 13" STEEL LOAD PL) AS PER PLAN				24			
516	47000	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF STRUCTURE (SEE PROPOSAL NOTE)							
518	21201	144	CU.YD.	POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN (SEE SHT. 145)				144			
518	40001	180	LIN.FT.	6" PERFORATED CORRUGATED PLASTIC PIPE, AS PER PLAN (SEE SHT. 145)				180			
518	40011	228	LIN.FT.	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN (SEE SHT. 145)				228			
518	12701	16	EACH	SCUPPER, VERTICAL EXTENSION, AS PER PLAN (SEE SHT. 202)						16	
519	11101	140	SQ.FT.	PATCHING CONCRETE STRUCTURE, AS PER PLAN (SEE SHT. 145)				140			
SPECIAL	51922000	1480	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY (1.25" THICK)(SEE PROPOSAL NOTE)						1480	
SPECIAL	51922100	82	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS)(SEE PROPOSAL NOTE)						82	
SPECIAL	51922300	LUMP	LUMP	TEST SLAB (SEE PROPOSAL NOTE)							

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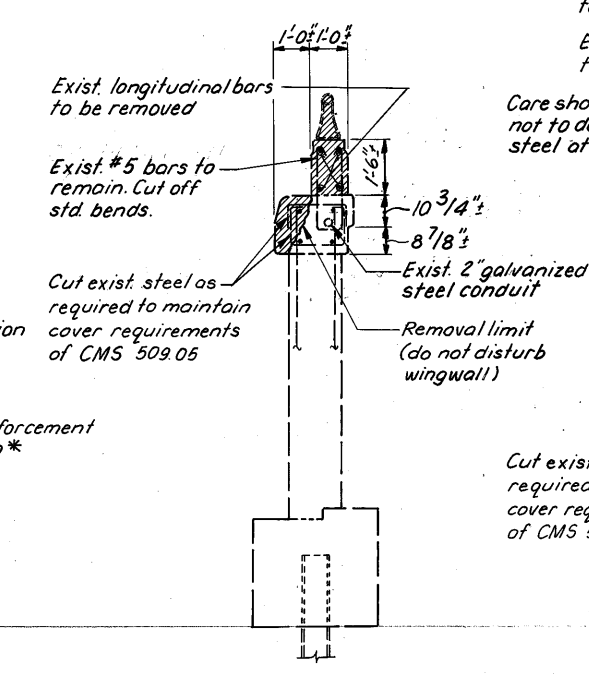
GENERAL NOTES AND ESTIMATED QUANTITIES

BRIDGE NO. LOR-2-0742 L/R
OVER S.R. 58

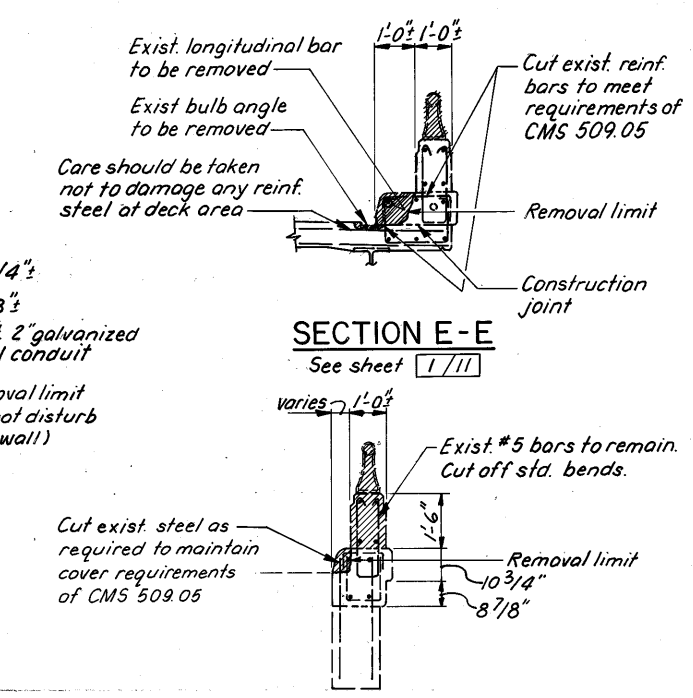
DESIGN	DRAWN	TRACED	CHECKED	REVIEW	DATE	REVISED
SWR	GSC		CDW	ART	2/24/94	



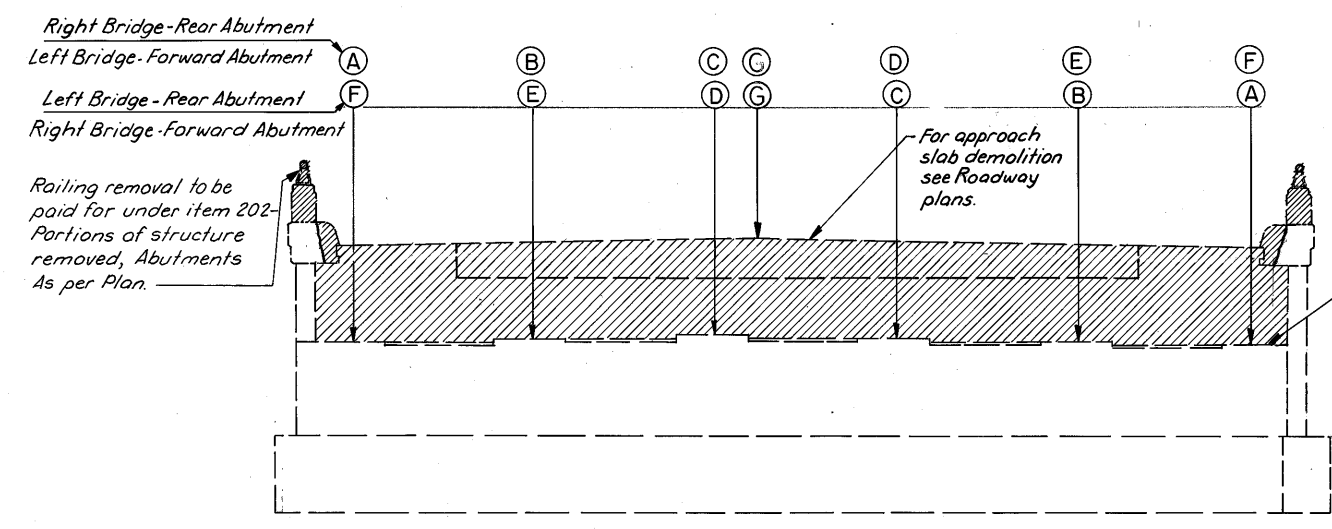
SECTION A-A



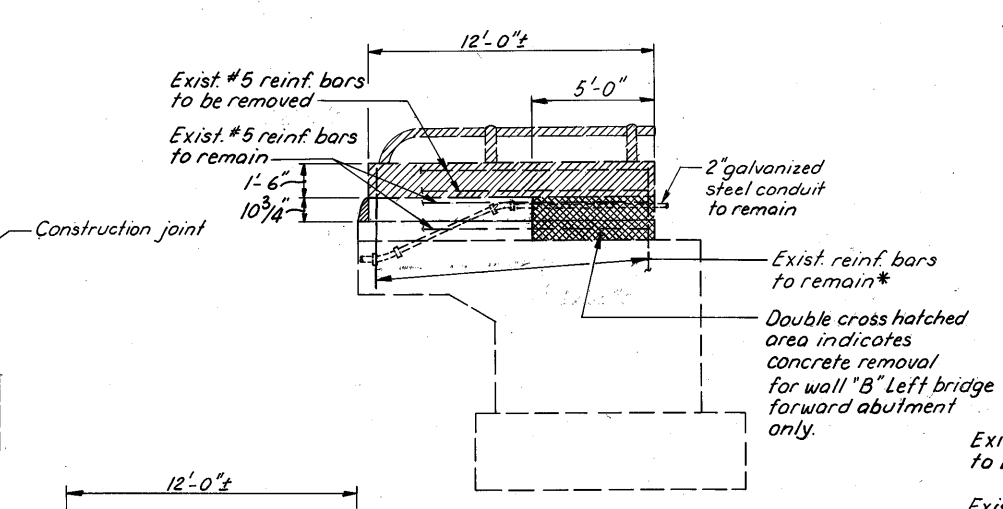
SECTION B-B



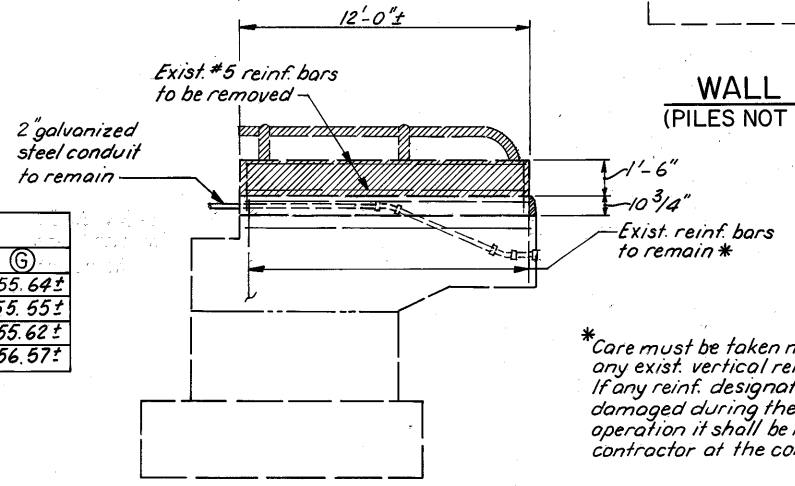
SECTION C-C



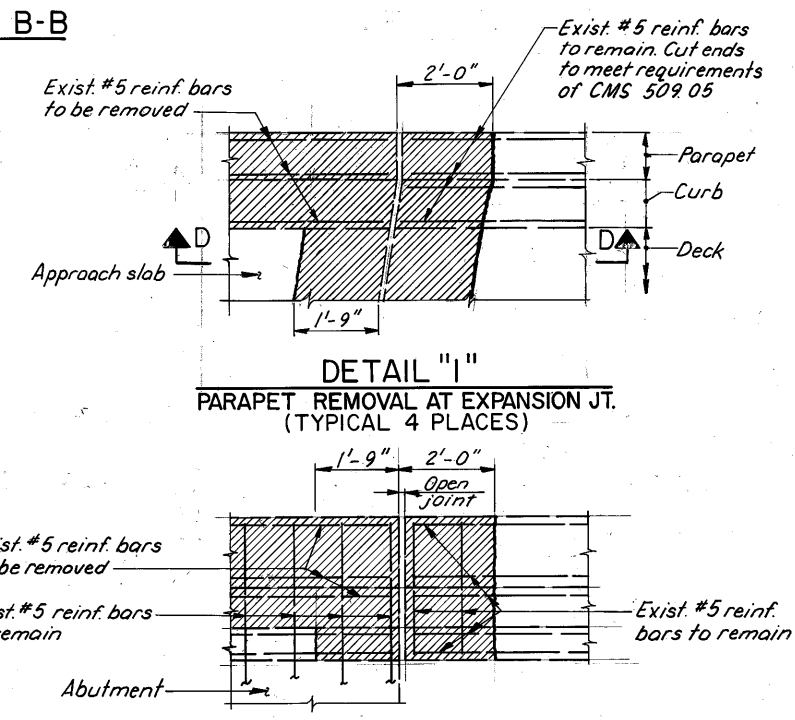
ELEVATION



WALL "B"
(PILES NOT SHOWN)



WALL "A"
(PILES NOT SHOWN)



SECTION D-D

TABLE OF EXISTING ELEVATIONS		(A)	(B)	(C)	(D)	(E)	(F)	(G)
LEFT BRIDGE	Rear Abutment	651.27±	651.38±	651.50±	651.56±	651.44±	651.32±	655.64±
	Forward Abutment	651.17±	651.29±	651.41±	651.47±	651.36±	651.24±	655.55±
RIGHT BRIDGE	Rear Abutment	651.25±	651.37±	651.48±	651.55±	651.43±	651.32±	655.62±
	Forward Abutment	651.20±	651.32±	651.43±	651.49±	651.37±	651.25±	656.57±

Note: For backwall demolition, concrete to be removed no further than the construction joint at the bridge seat.

LEGEND:

Indicates sections to be removed

*Care must be taken not to damage any exist. vertical reinforcements. If any reinf. designated to stay is damaged during the contractor's operation it shall be replaced by the contractor at the contractor's expense.

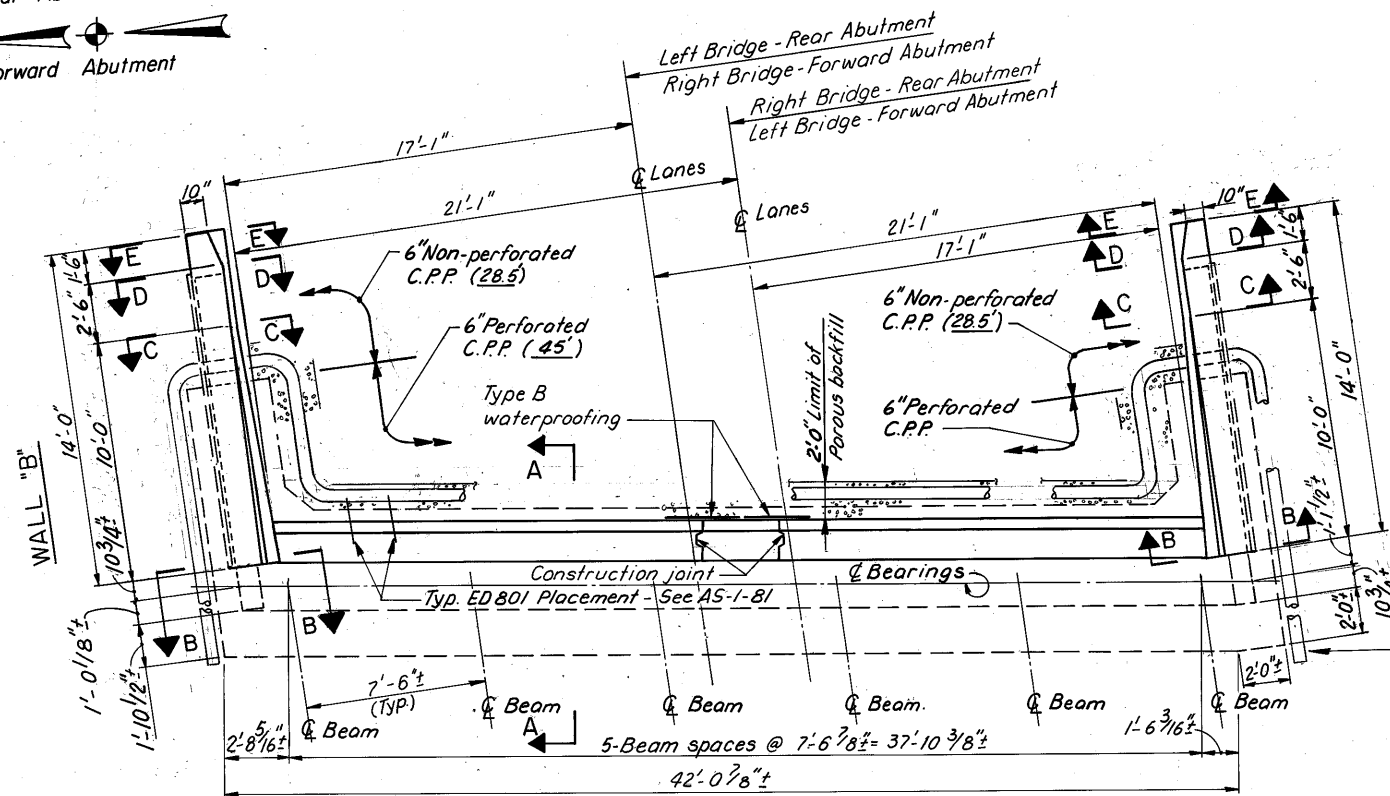
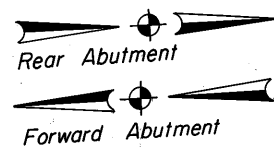
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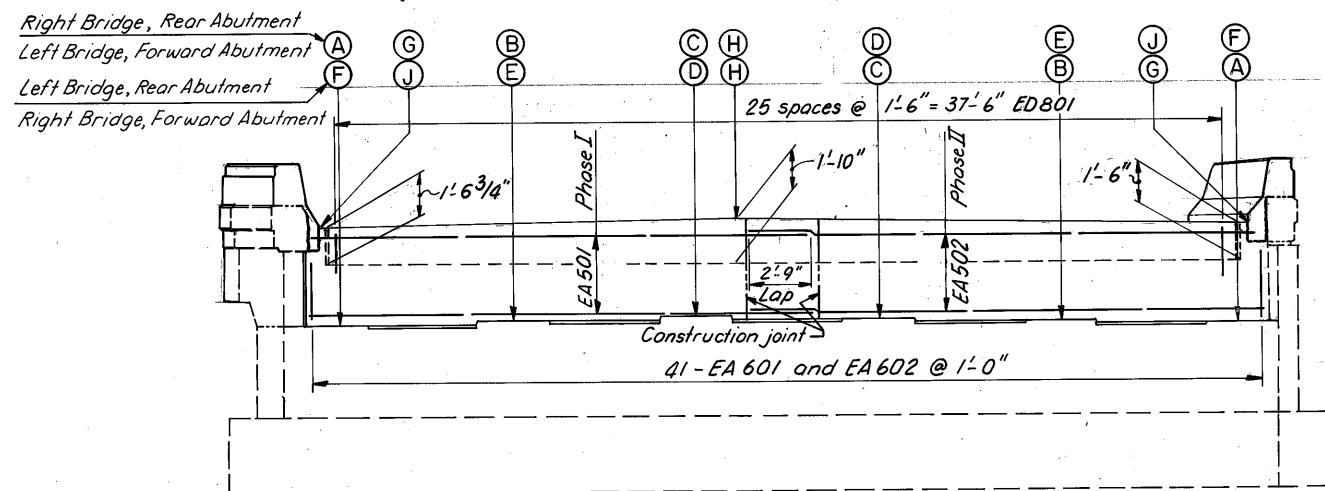
DEMOLITION

BRIDGE NO. LOR-2-0742 L / R
OVER S. R. 58

DESIGN	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
SWR	CCC	---	CDW	ART	2/24/94	-



PLAN

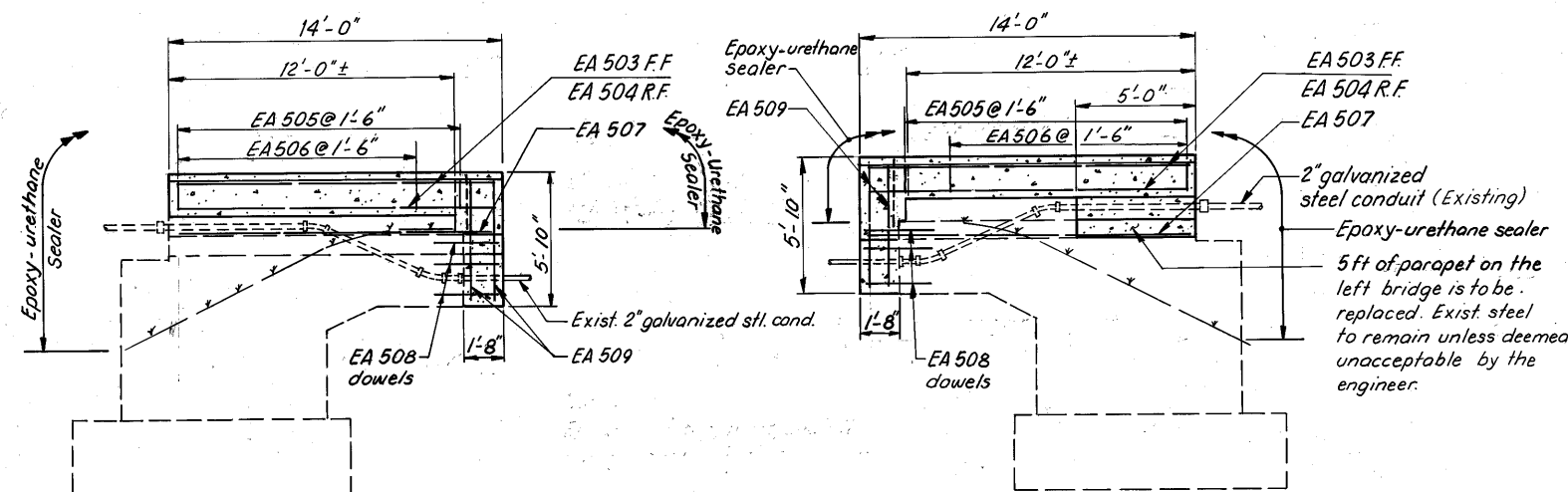


ELEVATION
(PILES NOT SHOWN)

LOCATION		A	B	C	D	E	F	G	H	J
LEFT BRIDGE	Rear Abutment	651.27	651.38	651.50	651.56	651.44	651.32	655.71	656.04	655.77
	Forward Abutment	651.17	651.29	651.41	651.47	651.36	651.24	655.68	656.01	655.74
RIGHT BRIDGE	Rear Abutment	651.25	651.37	651.48	651.55	651.43	651.32	655.84	656.11	655.78
	Forward Abutment	651.20	651.32	651.43	651.49	651.37	651.25	655.84	656.11	655.78

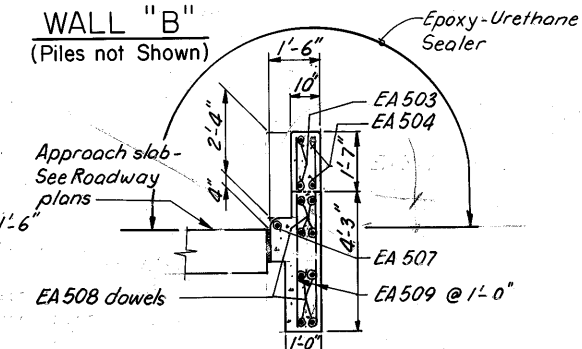
LEGEND:
F.F. - Front Face
R.F. - Rear Face

* Exist. reinforcing bars to remain.
Care must be taken not to damage any exist. vertical reinforcements. If any reinforcement designated to stay is damaged during the contractor's operation, it shall be replaced by the contractor at the contractor's expense.

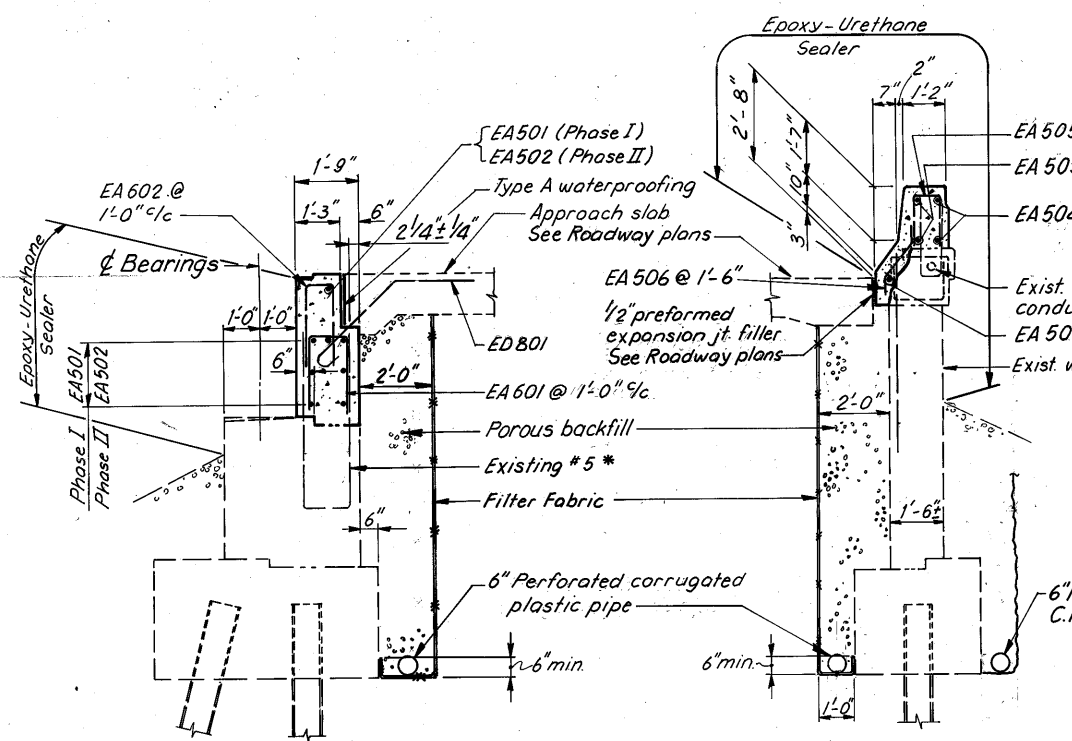


SECTION A-A
(Piles not Shown)

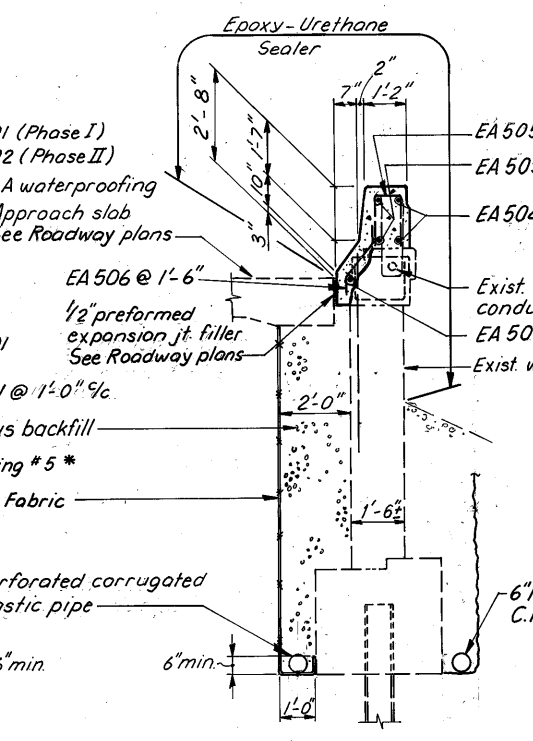
For termination of 6" C.P.P. see std. dwg. A-1-69. (Typ. ea end)



SECTION B-B



SECTION C-C



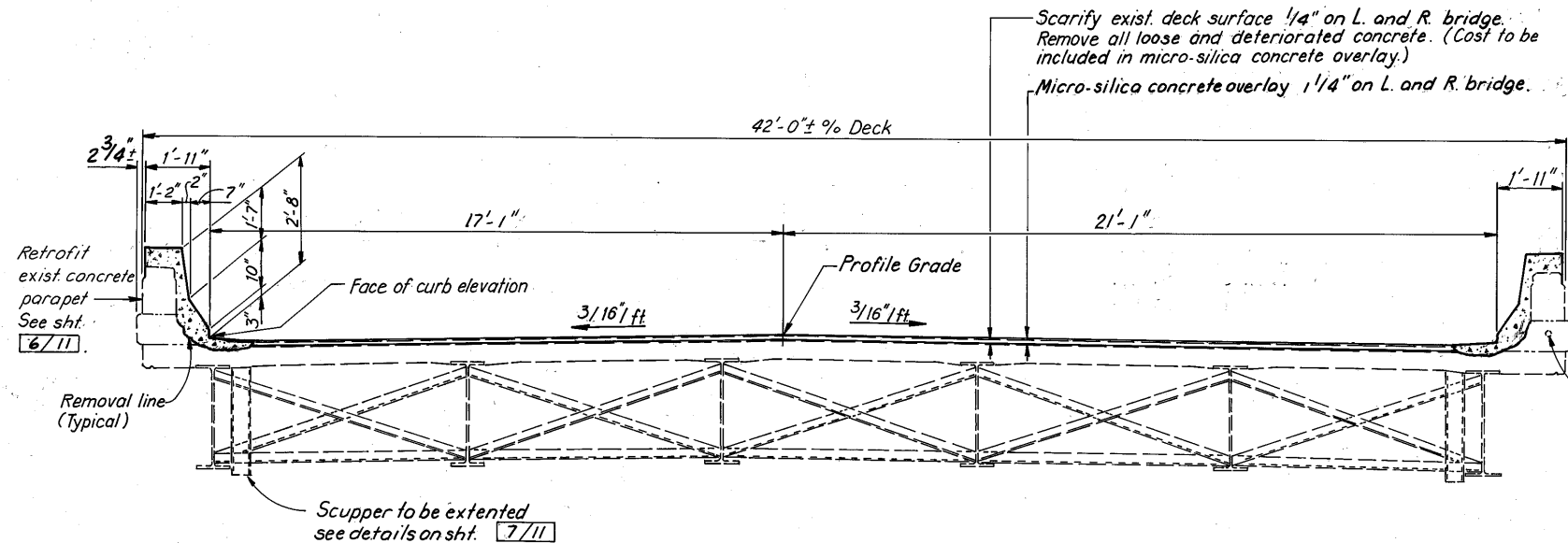
SECTION D-D

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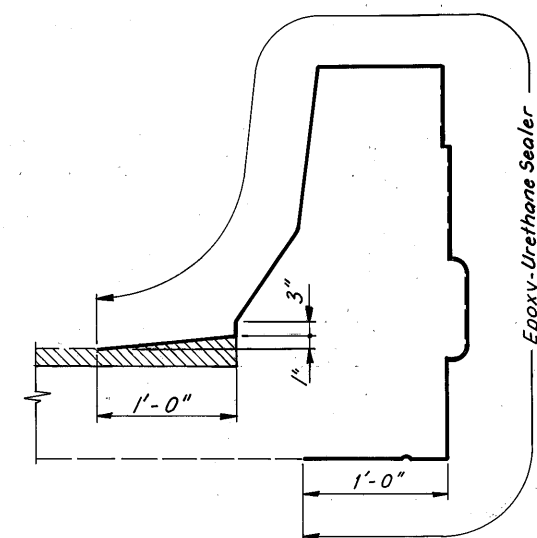
ABUTMENTS

BRIDGE NO. LOR-2-0742 L / R
OVER S. R. 58

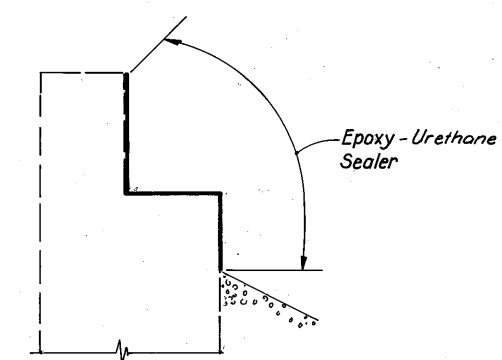
DESIGN	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
SWR	CCC	—	CDW	ART	2/24/94	



TRANSVERSE SECTION
RIGHT BRIDGE SHOWN
LEFT BRIDGE OPPOSITE HAND



DETAIL "1"
EPOXY SEALER AT PARAPET & DECK



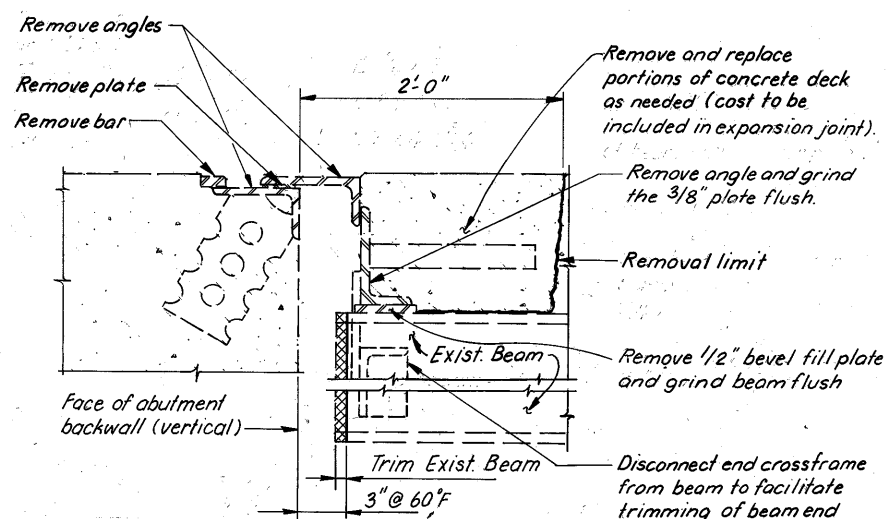
DETAIL "2"
EPOXY SEALER
AT ABUTMENT

PROPOSED DECK ELEVATIONS-LEFT BRIDGE

STATION	FACE OF CURB ELEV. (L)	PROFILE GRADE	FACE OF CURB ELEV. (R)
392 + 00	655.81	656.06	655.88
+ 25	655.83	656.08	655.90
+ 50	655.85	656.10	655.92
+ 75	655.83	656.08	655.90
393 + 00	655.81	656.06	655.88
+ 25	655.79	656.04	655.86
+ 50	655.77	656.02	655.84

PROPOSED DECK ELEVATIONS-RIGHT BRIDGE

STATION	FACE OF CURB ELEV. (L)	PROFILE GRADE	FACE OF CURB ELEV. (R)
392 + 00	655.94	656.12	655.87
+ 25	655.95	656.13	655.88
+ 50	655.97	656.15	655.90
+ 75	655.96	656.14	655.89
393 + 00	655.95	656.13	655.88
+ 25	655.94	656.12	655.87
+ 50	655.93	656.11	

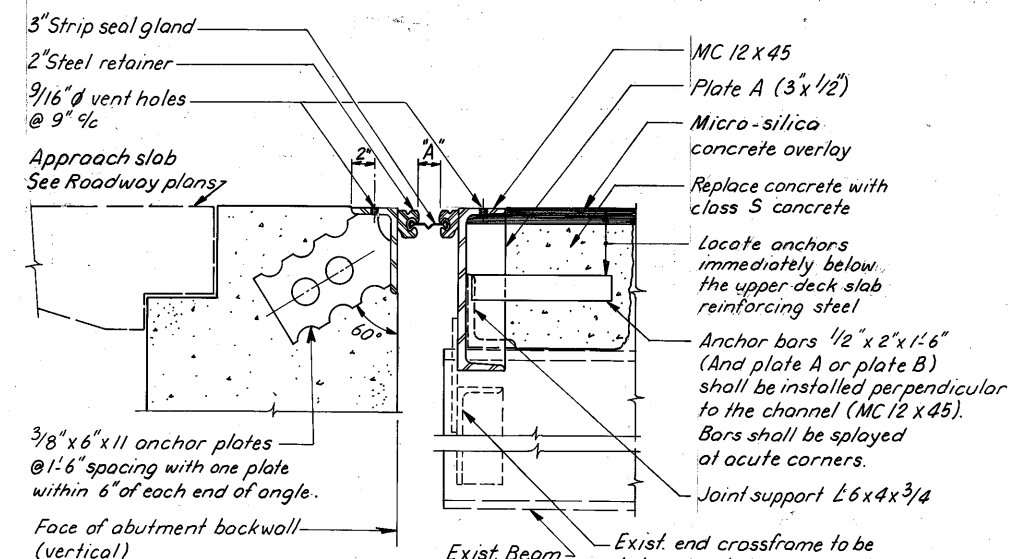


SECTION A-A
(EXISTING)

Note: Dimension "A" measured perpendicular to abutment bearings.

TEMPERATURE & ADJUSTMENT TABLE

TEMP	30°	40°	50°	60°	70°	80°	90°
"A"	1 7/8"	1 3/16"	1 1/16"	1 5/8"	1 1/2"	1 1/2"	1 1/2"

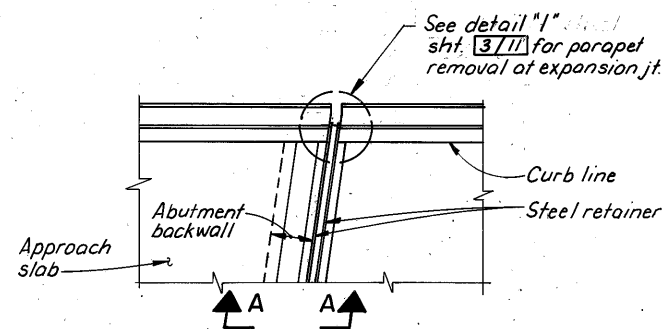


SECTION A-A
(PROPOSED)

Notes:

Remove and replace portions of concrete deck, parapet and approach slab, expansion joint and connections as needed to facilitate new 3" strip seal expansion joint as shown on plans and standard dwg. EXJ-4-87. Preserve all existing reinforcing steel.

Payment for all of the above shall be at the unit price bid per linear ft. for item 516 structural expansion joint as per plan including elastomeric strip seal, which shall include all labor, equipment, materials, and incidentals necessary to complete the above work.



PART PLAN AT ABUTMENT

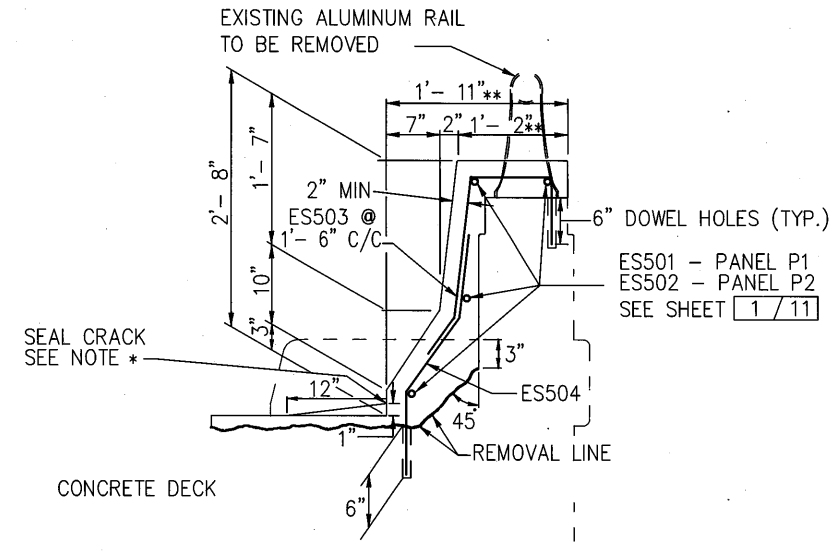
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5/11

**MICRO-SILICA CONCRETE OVERLAY
AND MISCELLANEOUS DETAILS**

BRIDGE NO. LOR-2-0742 L / R
OVER S.R. 58

DESIGN	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
SWR	CCC	—	CDW	ART	2/24/94	

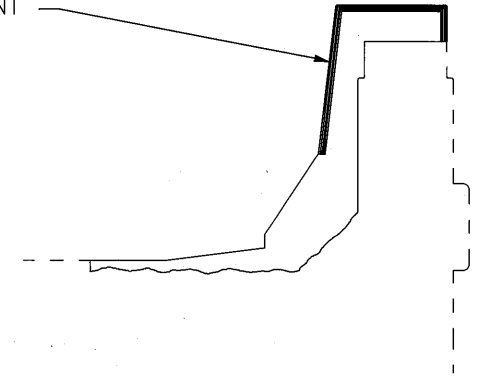


DETAIL "1"

NOTES

- * CRACK SEALING - WHEN CURING IS COMPLETED, SEAL CRACK WITH AN APPROVED HIGH MOLECULAR WEIGHT METHACRYLATE SEALER, THE SEALER SHALL BE PREPARED AND APPLIED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. INCLUDE COST WITH ITEM 511 CLASS S CONCRETE, MISCELLANEOUS (PARAPETS), AS PER PLAN.
 - ** THESE DIMENSIONS ARE DIFFERENT THAN STANDARD DRAWINGS BECAUSE OF FACING PARAPETS.
- REINFORCING BARS NEAR DEFLECTION JOINTS MAY NEED TO BE MOVED TO PROVIDE 2" OF CLEARANCE ON EACH SIDE OF THE DEFLECTION JOINTS.
- COST TO REMOVE EXISTING ALUMINUM RAIL SHALL BE INCLUDED IN ITEM 202 PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.
- ALL LOOSE AND UNSOUND CONCRETE IN THE AREA OF THE PARAPET TO BE FACED, SHALL BE REMOVED. ALL REMAINING SOUND CONCRETE SHALL THEN BE MECHANICALLY SCARIFIED 1/4" DEEP.
- IN LIEU OF THE BONDING GROUT SPECIFIED IN ITEM 511 CLASS S CONCRETE, MISCELLANEOUS (PARAPETS), AS PER PLAN, THE CONTRACTOR MAY ELECT TO THOROUGHLY DRENCH THE CONCRETE SURFACE WITH CLEAN WATER AND ALLOW IT TO DRY TO A DAMP CONDITION JUST BEFORE PLACING THE CONCRETE.

EXISTING DEFLECTION JOINTS SHALL BE EXTENDED COMPLETELY THROUGH THE PROPOSED FACING AND SHALL BE MADE BY FORMING THE 1/4" JOINTS SHALL BE SEALED 3/4" DEEP (MIN) WITH AN IMPREGNATED PRECOMPRESSED EXPANDING FOAM SEALANT TAPE KNOWN AS WILL-SEAL MANUFACTURED BY ILLBUCK/USA INC. MINN. OR A LOW DENSITY CLOSED CELL CROSSLINKED ETHYLENE VINYL ACETATE FOAM KNOWN AS EVAZOTE 50 MANUFACTURED BY E-POXY INDUSTRIES, RAVENA N.Y. INCLUDE WITH ITEM 511 CLASS S CONCRETE, MISCELLANEOUS (PARAPETS), AS PER PLAN FOR PAYMENT

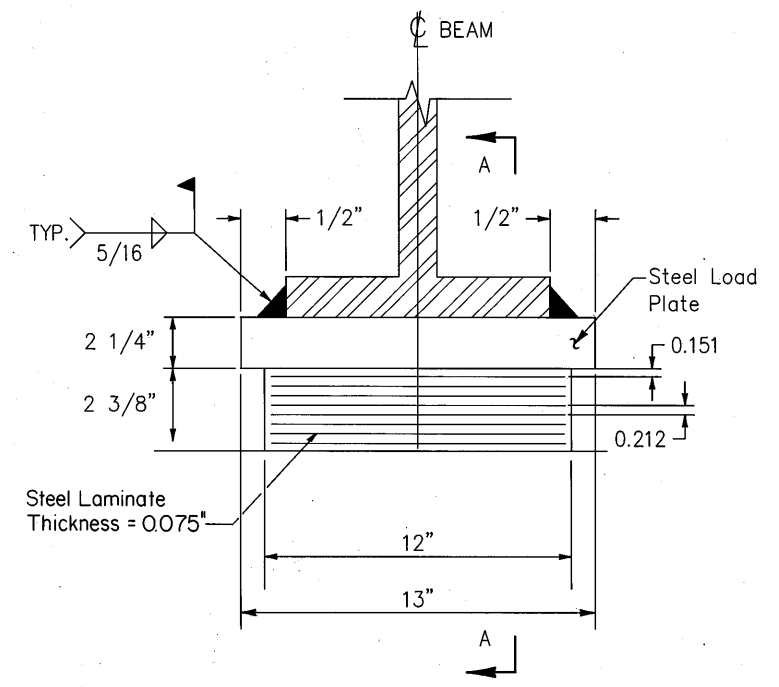


SECTION THROUGH DEFLECTION JOINT

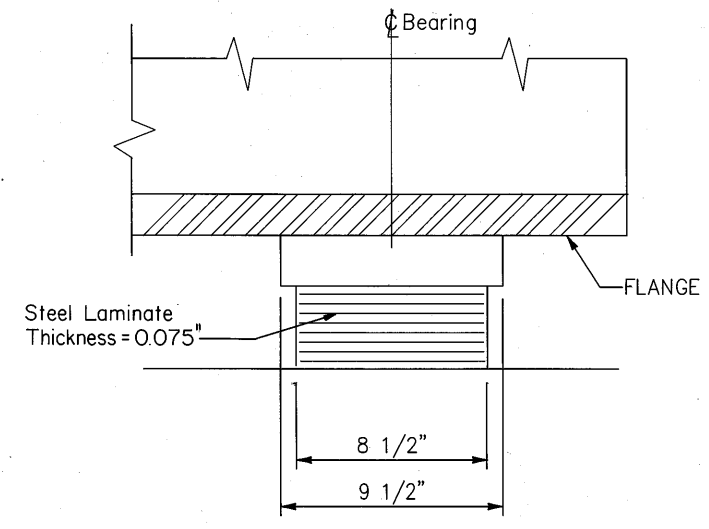
NOTES.

1. Replace abutment bearings only.
7 Internal Layers
Load Plate is Galvanized A36 Steel.
DL = 20K; LL = 44K
 2. Basis of Payment: The unit bid price shall include all materials, labor and incidentals necessary to furnish and install laminated elastomeric bearings expansion. Payment will be made at the contract price for Item 516, Each, Elastomeric Bearings with Internal Laminates and Load Plate (Neoprene).
 3. Load Plate: The steel load plate shall be bonded by vulcanization to the elastomer during the molding process. Steel Load Plates shall be 2 1/4 inches thick.
- Welding of the load plate to the superstructure shall be controlled so that the plate temperature at the elastomer bonded surface shall not exceed 300°F as determined by the use of pyrometric sticks or other temperature monitoring devices.

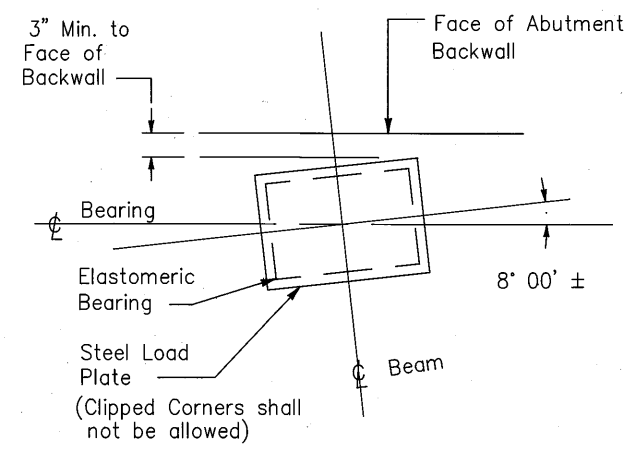
RETROFIT EXISTING CONCRETE PARAPET



LAMINATED ELASTOMERIC EXPANSION BEARING
50 DUROMETER



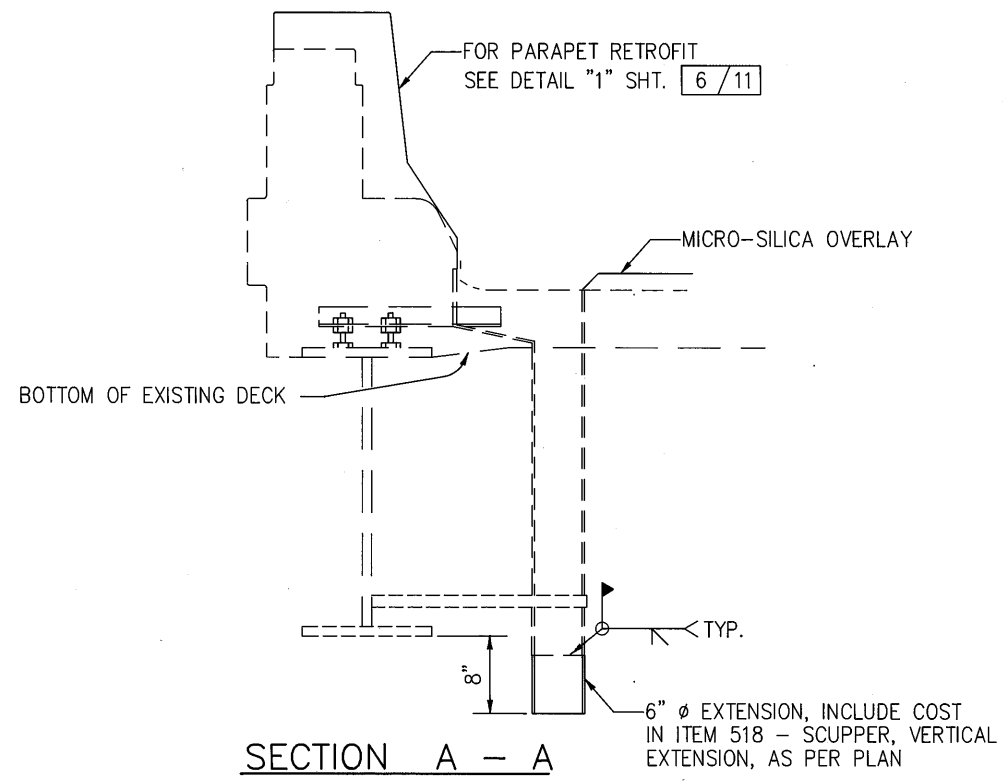
SECTION A-A



LAMINATED ELASTOMERIC BEARING ORIENTATION AT ABUTMENTS

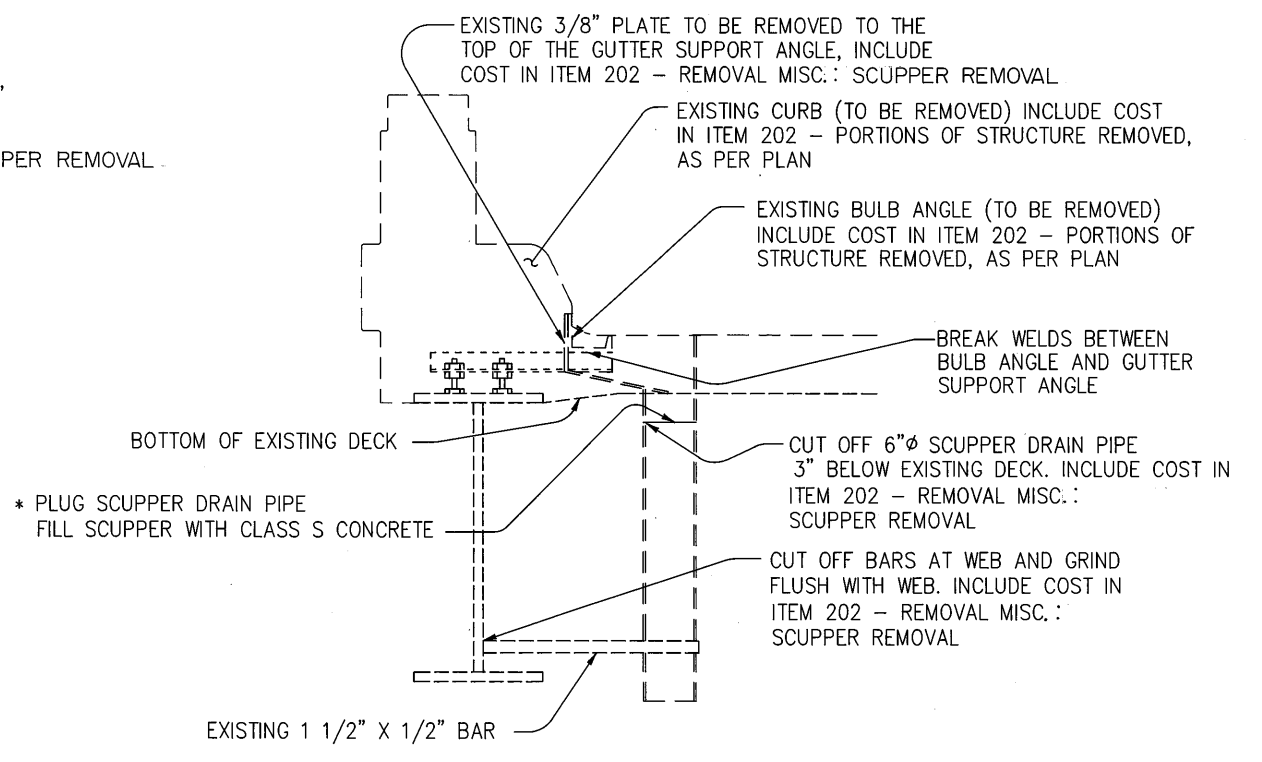
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MISCELLANEOUS DETAILS					
BRIDGE NO. LOR-2-0742 L/R OVER S. R. 58					
DESIGN	DRAWN	TRACED	CHECKED	REVIEWED	DATE
SWR	GSC	---	CDW	ART	2/24/94

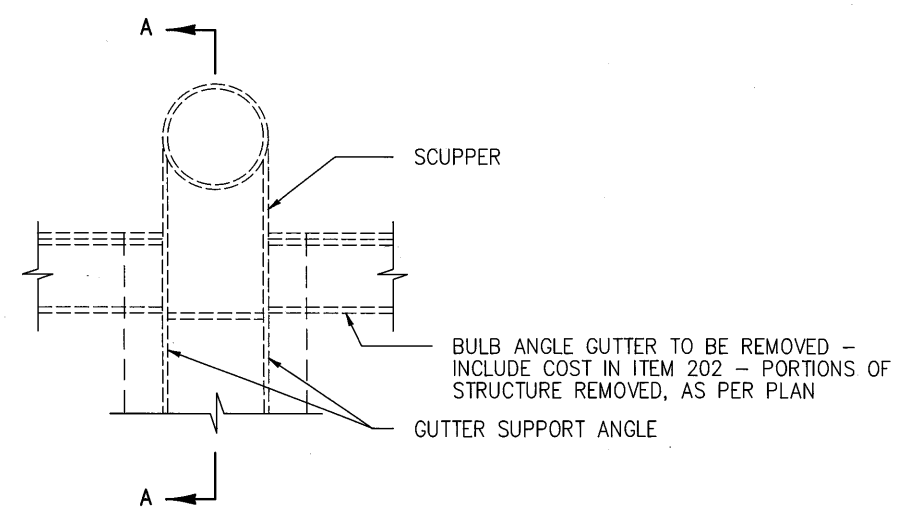


SECTION A - A
SCUPPER EXTENSION
(TYPICAL 16 PLACES)

* IF ANY SCUPPER WHICH HAS ALREADY BEEN PLUGGED, HAS CONCRETE BELOW CUT OFF LEVEL, BREAK OFF CONCRETE AND PATCH AREA SMOOTH. INCLUDE COST IN ITEM 202 - REMOVAL MISC.: SCUPPER REMOVAL.



SECTION A - A
REMOVAL AND PLUGGING EXISTING SCUPPER
(TYPICAL 8 PLACES)



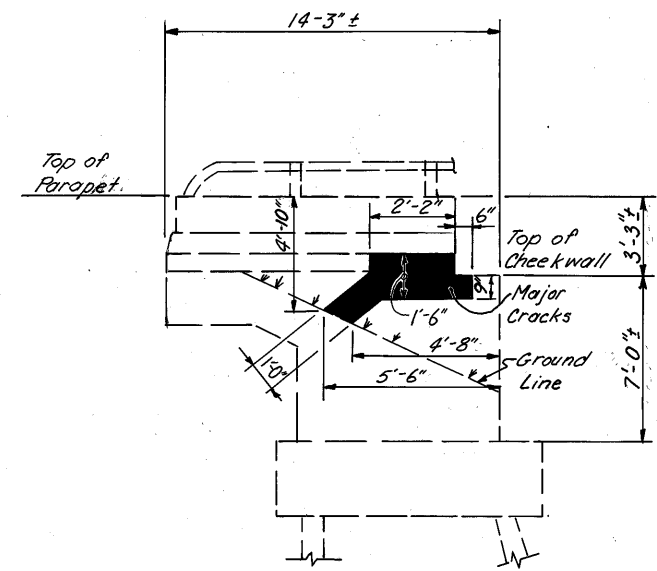
PLAN VIEW OF SCUPPER
AND BULB ANGLE GUTTER

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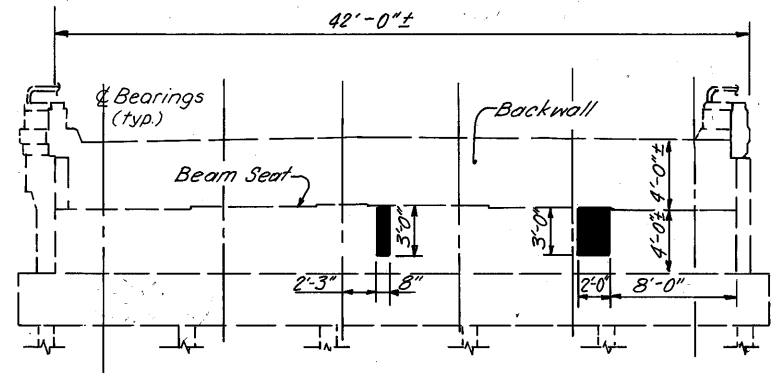
SCUPPER DETAILS

BRIDGE NO. LOR-2-0742 L/R
OVER S.R. 58

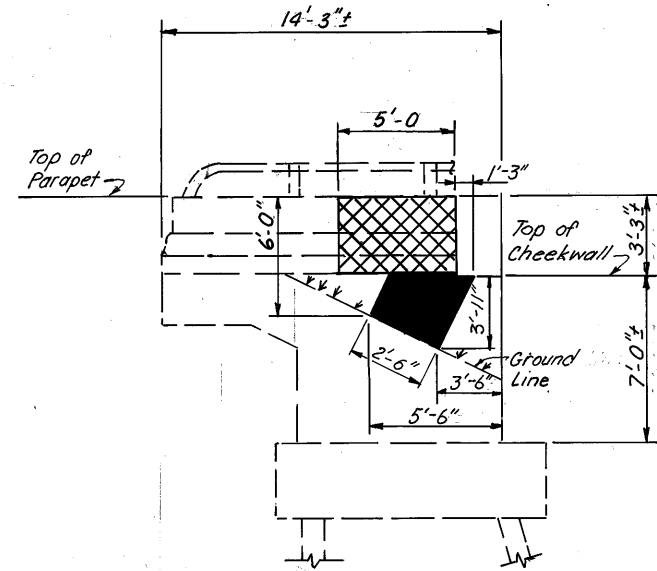
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SWR	GSC	-	CDW	ART	2/24/94	



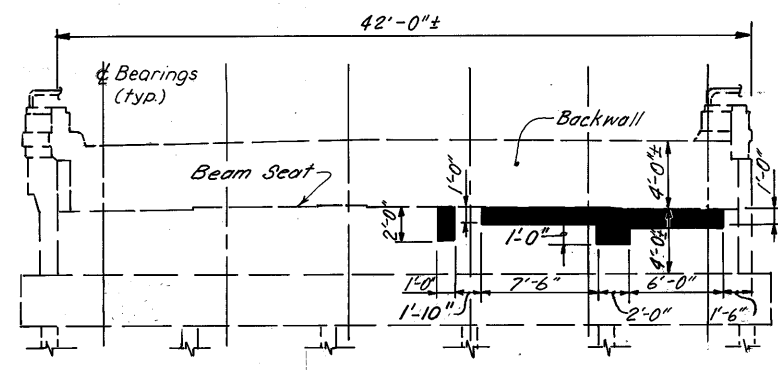
ELEVATION
SOUTH WINGWALL
REAR ABUTMENT-LEFT BRIDGE



ELEVATION
REAR ABUTMENT-LEFT BRIDGE

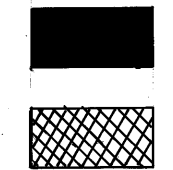


ELEVATION
NORTH WINGWALL
FORWARD ABUTMENT-LEFT BRIDGE



ELEVATION
FORWARD ABUTMENT-LEFT BRIDGE

LEGEND



Minor Cracks and Hollow Concrete to be Patched
Spalled Concrete to be removed. See sht. 3/11

ITEM 519 - Patching Conc. Structures
As Per Plan

Location	Unit	Measured Quantity
Rear Abutment	SQ. FT.	8
S. Wingwall, Rear Abutment	SQ. FT.	5
Forward Abutment	SQ. FT.	20
N. Wingwall, Forward Abut.	SQ. FT.	8
TOTAL	SQ. FT.	41

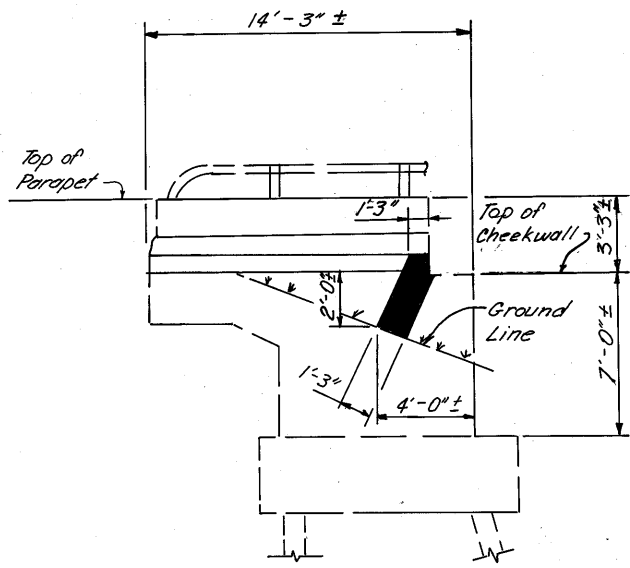
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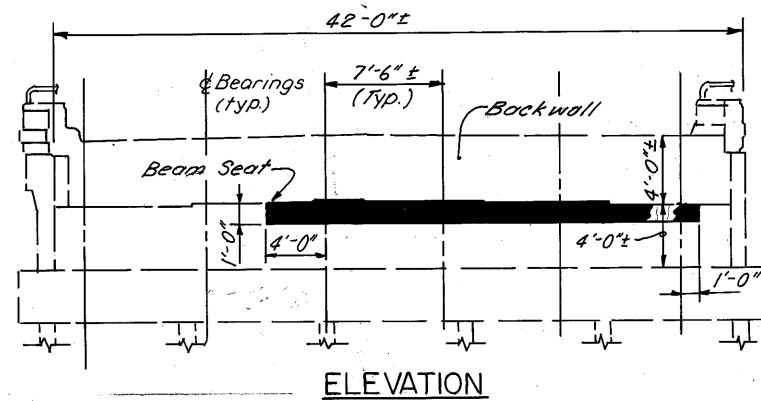
REPAIR DETAILS

BRIDGE NO. LOR-2-0742 L
OVER S.R. 58

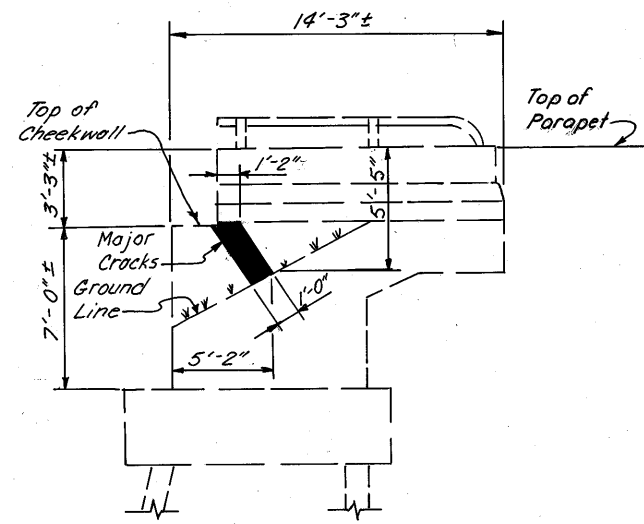
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SWR	GSC	—	CDW	ART	2/24/94	



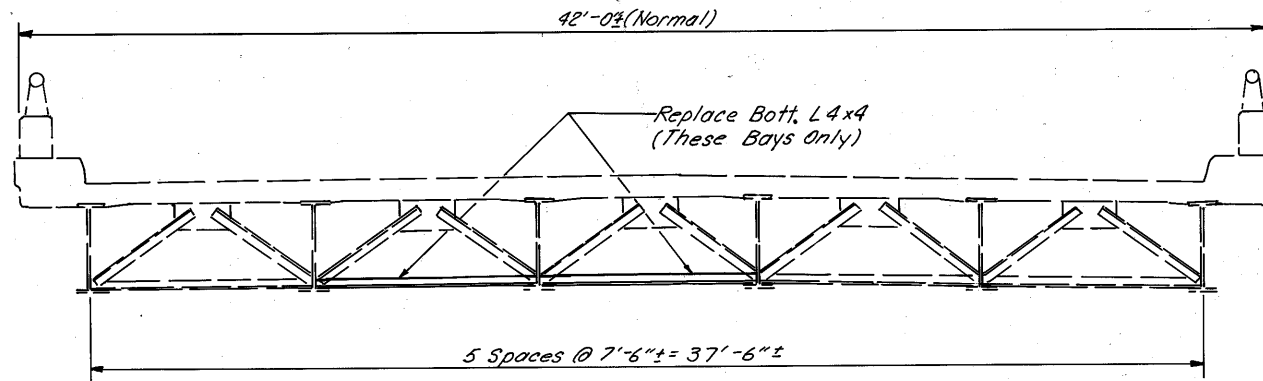
ELEVATION
SOUTH WINGWALL
REAR ABUTMENT-RIGHT BRIDGE



ELEVATION
REAR ABUTMENT-RIGHT BRIDGE



ELEVATION
NORTH WINGWALL
REAR ABUTMENT-RIGHT BRIDGE



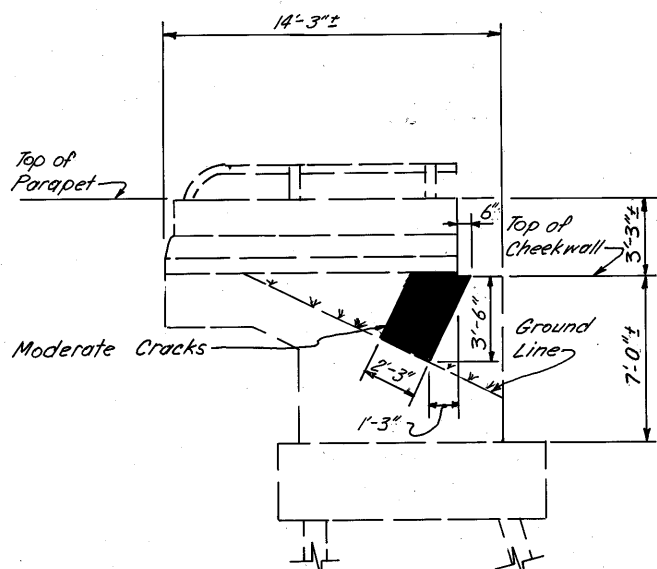
ELEVATION
END CROSSFRAME
REAR ABUTMENT RIGHT BRIDGE

Note:
Bottom chords in the bays indicated on the right rear abutment are to be replaced. Include cost in item 513 - Structural Steel, Replacement of Deteriorated End Crossframes As per plan.
Other chords in endframe are to remain.

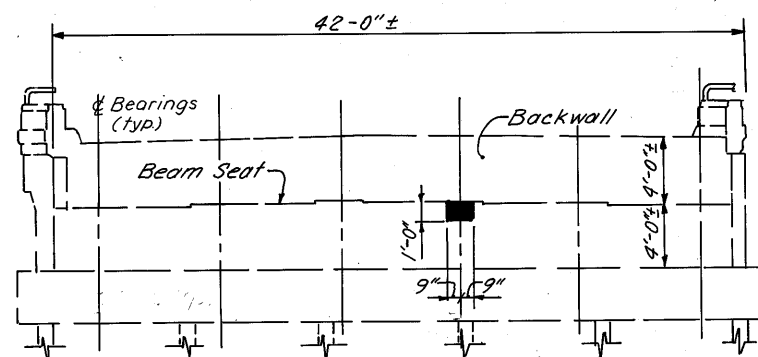
LEGEND



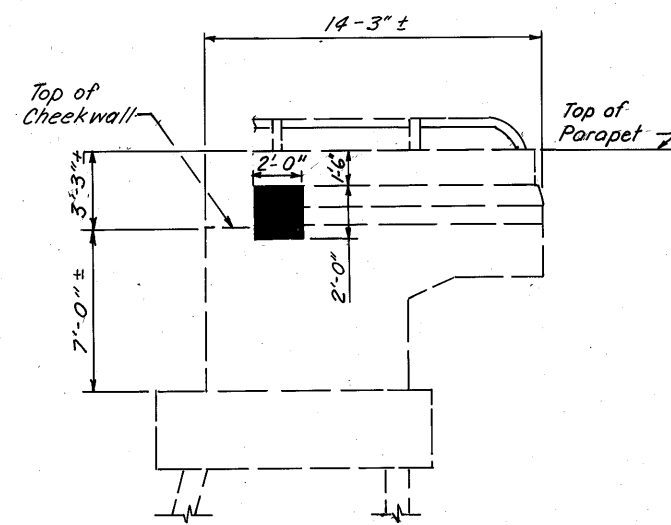
Minor Cracks and Hollow Concrete to be patched



ELEVATION
NORTH WINGWALL
FORWARD ABUTMENT-RIGHT BRIDGE



ELEVATION
FORWARD ABUTMENT-RIGHT BRIDGE



ELEVATION
SOUTH WINGWALL
FORWARD ABUTMENT-RIGHT BRIDGE

ITEM 519 - Patching Conc. Structures As Per Plan		
Location	Unit	Measured Quantity
Rear Abut. South Wingwall	Sq. Ft.	5
Rear Abut. Elevation	Sq. Ft.	28
Rear Abut. North Wingwall	Sq. Ft.	3
Fwd. Abut. North Wingwall	Sq. Ft.	9
Fwd. Abut. Elevation	Sq. Ft.	2
Fwd. Abut. South Wingwall	Sq. Ft.	4
Total	Sq. Ft.	51

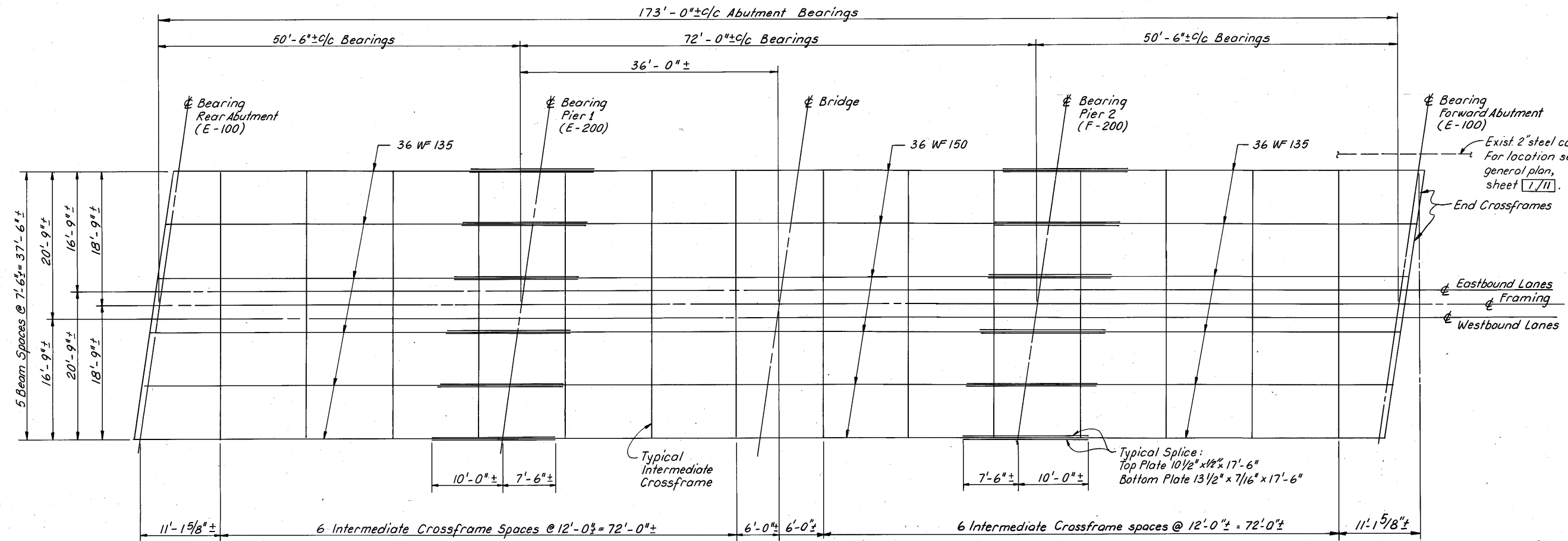
R.E. WARNER & ASSOCIATES
CONSULTING ENGINEERS
WESTLAKE, OHIO 44145

9/11

REPAIR DETAILS

BRIDGE NO. LOR-2-0742 R
OVER S.R. 58

DESIGN	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
SWR	GSC	—	CDW	ART	2/24/94	

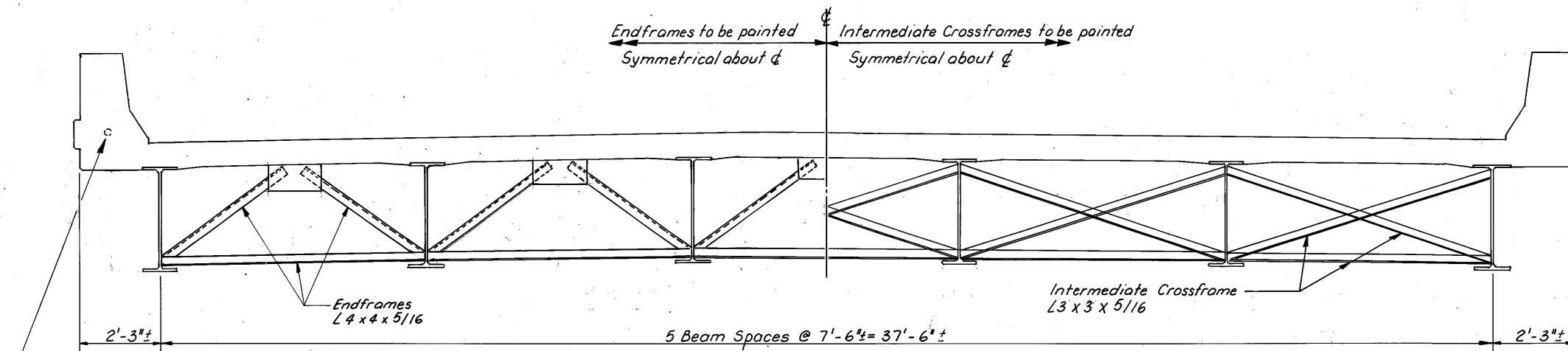


STEEL FRAMING PLAN

LEFT BRIDGE SHOWN
RIGHT BRIDGE OPPOSITE HAND

Vertical Clearance
15'-0"± Eastbound

Vertical Clearance
15'-0"± Westbound



Note:
Care shall be taken not to damage existing 2" steel conduit for electric lighting system under outside parapets (on left parapet of left bridge and on right parapet of right bridge).

TYPICAL SECTION

LEFT BRIDGE SHOWN
RIGHT BRIDGE OPPOSITE HAND

R.E. WARNER & ASSOCIATES
CONSULTING ENGINEERS
WESTLAKE, OHIO 44145

10/11

STRUCTURAL STEEL FOR PAINTING

BRIDGE NO. LOR-2-0742 L / R
OVER S.R. 58

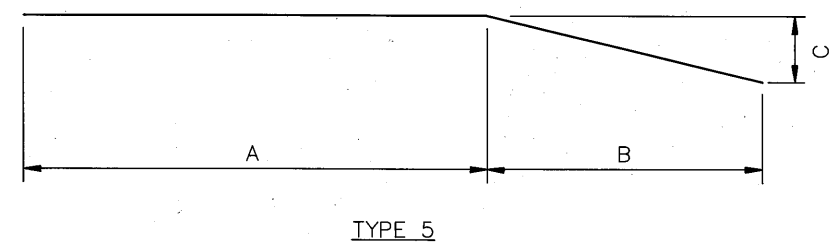
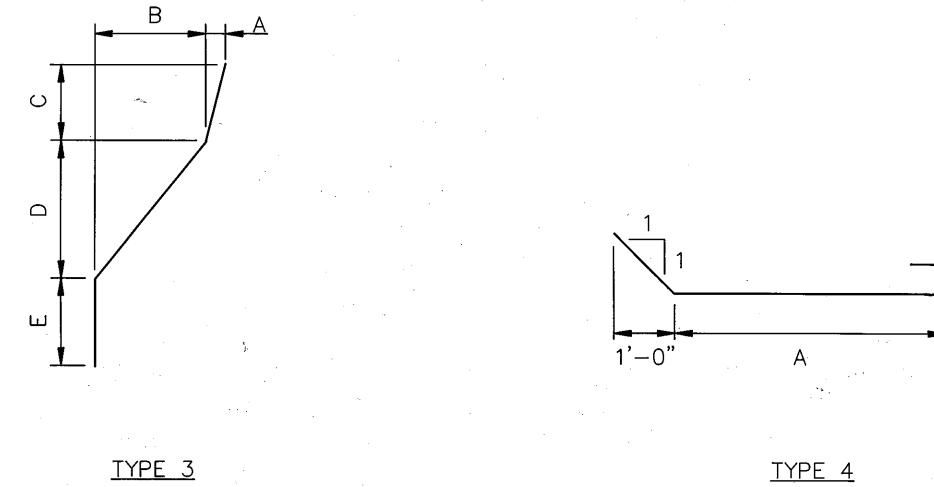
DESIGN	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
SWR	CCC	—	CDW	ART	2/24/94	

REINFORCING STEEL SCHEDULE

EPOXY COATED REINFORCEMENT ABUTMENTS										
MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	F
EA501	32	21'-3"	712	STR						
EA502	32	21'-3"	712	STR						
EA503	16	13'-2"	220	5	11'-9"	1'-4"	0'-5"			
EA504	16	13'-8"	228	STR						
EA505	72	3'-5"	260	1	1'-5"	0'-10"				
EA506	64	2'-0"	156	3	0"	0'-7"	0'-6"	0'-10"	0'-6"	
EA507	8	13'-8"	116	5	7'-0"	6'-8"	0'-5"			
EA508	64	2'-6"	168	STR						
EA509	32	5'-6"	184	STR						
EA601	164	5'-6"	1356	1	2'-2"	1'-5"				
EA602	164	6'-2"	1520	1	2'-9"	0'-11"				
ED801	104	5'-3"	1460	4	2'-11"					
		TOTAL	7092							

EPOXY COATED REINFORCEMENT SUPERSTRUCTURE										
MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	F
ES501	32	12'-0"	400	STR						
ES502	176	14'-8"	2696	STR						
ES503	556	3'-7"	2080	2	0'-7"	0'-10"	0'-2"	0'-3"	1'-5"	0'-5"
ES504	556	2'-8"	1548	3	0'-1"	0'-7"	0'-8"	0'-10"	0'-9"	
		TOTAL	6724							

ALL REINFORCING TO BE EPOXY COATED.

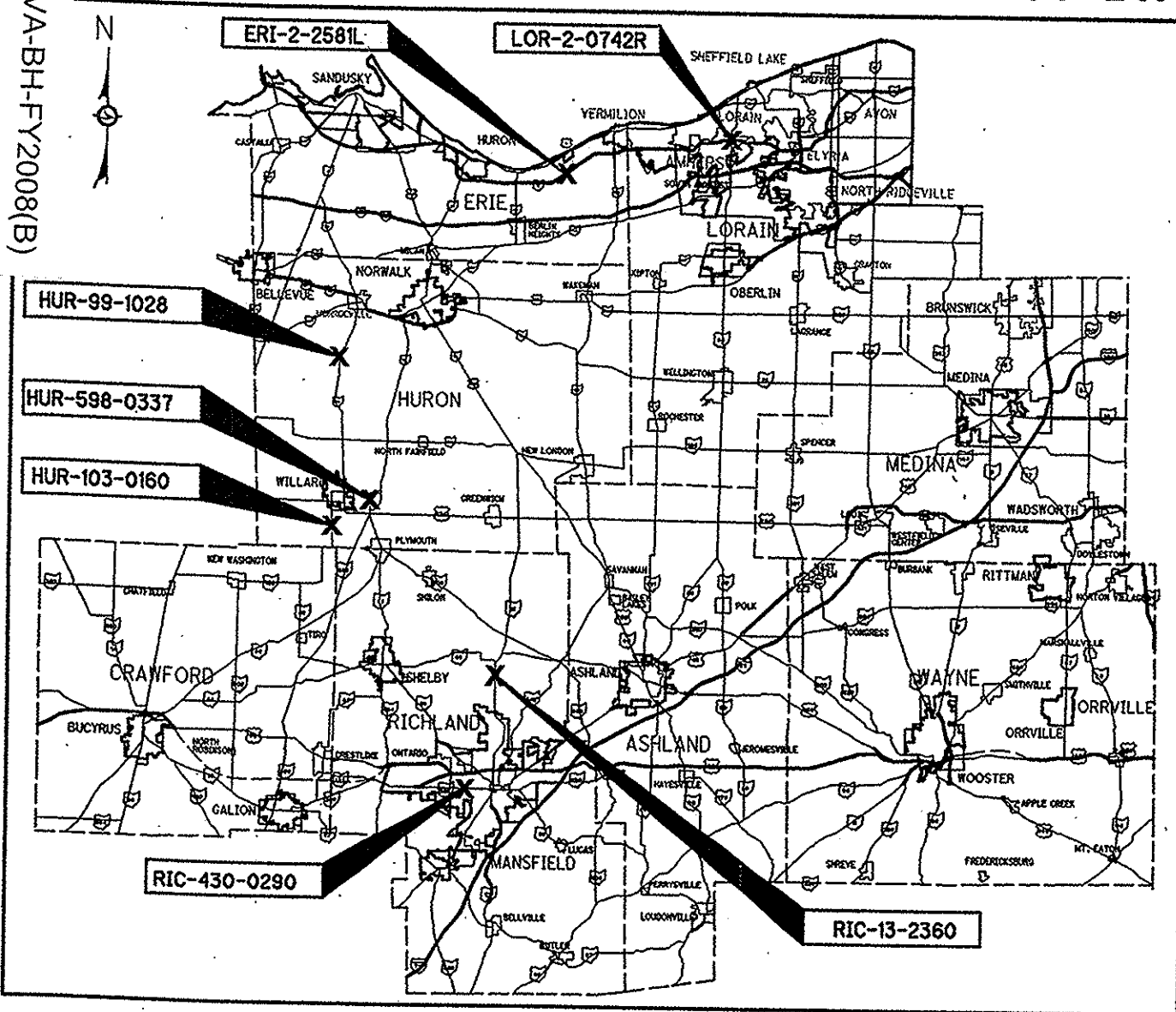


R.E. WARNER & ASSOCIATES CONSULTING ENGINEERS WESTLAKE OHIO						11 / 11
REINFORCING STEEL SCHEDULE						
BRIDGE NO. LOR-2-0742 L/R OVER S.R. 58						
DESIGN	DRAWN	TRACED	CHECKED	REVIEW	DATE	REVISED
SWR	SWR	---	CDW	ART	2/24/94	

D03 - VA-BH-FY2008(B)
 080192 PID - 77311
 Dist 3 3/5/2008

OHIO DEPARTMENT OF TRANSPORTATION

LOCATION MAP D03-BH-FY2008(B)



PROJECT DESCRIPTION:
 BRIDGE MAINTENANCE ITEMS INCLUDING OVERLAYING THE BRIDGE DECKS, MISCELLANEOUS CONCRETE REPAIR, SEALING CONSTRUCTION JOINTS AND RESURFACING APPROACHES.

PROJECT EARTH DISTURBED AREA = N/A (MAINTENANCE PROJECT)
 ESTIMATED CONTRACTOR EARTH DISTURBED AREA = N/A
 NOTICE OF INTENT EARTH DISTURBED AREA = N/A

2005 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

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 SHEETS 6 & 7.

INDEX OF SHEETS:

- 1 - TITLE SHEET
- 2-4 - GENERAL NOTES
- 5-7 - MAINTENANCE OF TRAFFIC NOTES
- 8-10 - GENERAL SUMMARY
- 11-12 - LOR-2-0742R
- 13-14 - ERI-2-2581L
- 15 - HUR-99-1028
- 16-18 - HUR-103-0160
- 19-21 - HUR-598-0337
- 22-23 - RIC-13-2360
- 24-30 - RIC-430-0290

LIMITED ACCESS (ERI-2-0742 & LOR-2-2581)
 THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

12/4/07 *John Hart*
 APPROVED DATE DISTRICT DEPUTY DIRECTOR OF TRANSPORTATION
 12-20-07 *James A. Brasley*
 APPROVED DATE DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO.
NON-FEDERAL

PID NO.
77311

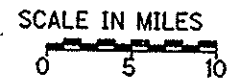
CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT
NONE

D03-BH-FY2008(B)

1
 30

TWO WORKING DAYS BEFORE YOU DIG
 call 800-362-2764
 TOLL FREE
 OHIO UTILITIES PROTECTION SERVICE
 NON-MEMBERS MUST BE CALLED DIRECTLY



	LATITUDE	LONGITUDE
LOR-2-0742R	N 41°24'50"	W 82°12'33"
ERI-2-2581L	N 41°22'39"	W 82°25'44"
HUR-99-1028	N 41°11'06"	W 82°43'30"
HUR-103-0160	N 41°01'08"	W 82°43'53"
HUR-598-0337	N 41°02'25"	W 82°40'54"
RIC-13-2360	N 40°51'58"	W 82°30'48"
RIC-430-0290	N 40°45'33"	W 82°33'22"

ENGINEER'S SEAL

SIGNED: *David C. Molleshott*
 DATE: 12/04/07

STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS			
BP-3.1	10-19-07	MT-35.10	4-20-01	MT-101.60	9-20-06	800	1-18-08
BP-9.1	4-15-05	MT-95.30	9-05-06	MT-105.10	10-18-02		
		MT-95.31	9-05-06	MT-105.11	10-18-02		
DBR-2-73	7-19-02	MT-95.32	9-05-06				
		MT-95.50	9-05-06			848	4-15-05
		MT-95.60	4-19-02				
TC-41.20	1-19-01	MT-96.10	4-19-02				
TC-52.10	1-19-07	MT-96.20	4-19-02				
TC-52.20	1-19-07	MT-96.25	4-20-01				
TC-73.10	1-19-07	MT-97.10	9-05-06				
		MT-101.20	10-18-02				
						SPECIAL PROVISIONS WATERWAY PERMIT N/A	

DESIGN FILE: I:\projects\77311\Struct\1111e.dgn
 WORKSTATION: dmollens DATE: 12/4/2007



EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND FROM FIELD OBSERVATION AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 & 105.02.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURES. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATION FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002, INCLUDING THE 2003, 2004, 2005 AND 2006 SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA:

CONCRETE CLASS C - COMPRESSIVE STRENGTH 4,000 PSI

CONCRETE CLASS S - COMPRESSIVE STRENGTH 4,500 PSI

EXISTING PLANS:

THE ORIGINAL CONSTRUCTION PLANS OF THE EXISTING BRIDGES ARE AVAILABLE UPON REQUEST AT THE DISTRICT 3 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION, ASHLAND, OH.

STRUCTURE #	PLAN NAME	DATE
LOR-2-0742R	LOR-254-0.00-B	1965
	LOR-2-3.50	1994
ERI-2-2581L	ERI-2-22.24	1972
HUR-99-1028	HUR-99-(9.91-10.35)	1967
HUR-103-0160	CRA-298-12.82, HUR-298-(1.33)(2.04), HUR-598-1.31	1961
HUR-598-0337	HUR-598-3.35	1960
RIC-13-2360	RIC-13-(23.23)(24.66)	1962
RIC-430-0290	RIC-430-(2.20-2.94)	1966

UTILITY LINES:

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA.

PLACING ASPHALT CONCRETE FEATHERING ON APPROACHES TO BRIDGES:

SPECIAL CARE SHALL BE TAKEN, WHEN PLACING THE ASPHALT CONCRETE FEATHERING TO EFFECT A SMOOTH TRANSITION FROM THE EXISTING APPROACH PAVEMENT TO THE BRIDGE DECK THE CONTRACTOR'S ATTENTION IS CALLED TO STANDARD DRAWING BP-3.1 FOR REQUIRED TOLERANCES.

COORDINATION OF WORK BETWEEN CONTRACTORS:

THE CONTRACTOR SHOULD BE AWARE THAT THERE MAY BE OTHER WORK BEING PERFORMED BY A SEPARATE CONTRACT. ERI-2-20.10 IS A RESURFACING PROJECT AND IS SCHEDULED TO BEGIN WORK IN THE FALL OF THE 2007 CONSTRUCTION SEASON. COORDINATION OF WORK IS THE RESPONSIBILITY OF THE CONTRACTOR.

CUT LINE CONSTRUCTION JOINT PREPARATION:

SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL IN PLACE. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN:

THESE ITEMS SHALL BE USED AT LOCATIONS IN THE PLAN.

THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF THE HAMMER SHALL BE APPROVED BY THE ENGINEER.

THE EXISTING REINFORCING STEEL SHALL BE PRESERVED AS INDICATED IN THE PLANS. EXISTING CONCRETE SHALL BE REMOVED IN A MANNER THAT WILL NOT CUT, ELONGATE, OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS NO HEAVIER THAN 90 POUND CLASS.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER CUBIC YARD FOR THE ABOVE ITEM, WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 202-BRIDGE RAILING REMOVED FOR REUSE:

THIS ITEM SHALL USED TO REMOVE THE EXISTING BRIDGE RAILING FOR REUSE AT THE LOCATION INDICATED IN THE PLAN. IF ANY EXISTING ITEM TO BE REUSED IS DEEMED BY THE ENGINEER TO BE NOT USEABLE BY THE REMOVAL OPERATION, THE CONTRACTOR SHALL REPLACE IT WITH NEW ITEMS OF THE SAME TYPE AT NO ADDITIONAL COST TO THE DEPARTMENT.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER FOOT OF THE ABOVE ITEM WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

DESIGN AGENCY
DISTRICT THREE
OFFICE OF PRODUCTION

DATE 12/07
REVIEWED RDN
STRUCTURAL FILE NUMBER
DRAWN DCM
REVISION
DESIGNED DCM
CHECKED DJV

GENERAL NOTES

D03-BH-FY2008(B)

DESIGN FILE: I:\projects\7731\Struct\Notes.dgn
WORKSTATION: dnollens DATE: 12/4/2007

ITEM 848 - SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (2 1/2" THICK):

ITEM 848 - SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN:

THESE ITEMS SHALL BE APPLIED TO THE DRIVING LANE OF THE DECK AND REAR APPROACH SLAB AT STRUCTURE LOR-2-0742R.

THESE ITEMS SHALL BE PERFORMED PER SUPPLEMENTAL SPECIFICATION " BRIDGE DECK REPAIR AND OVERLAY WITH CONCRETE USING HYDRODEMOLITION" WITH THE FOLLOWING REVISIONS:

THE THICKNESS OF THE CONCRETE OVERLAY REMOVED, PROPOSED OVERLAY AND THE DEPTH OF HYDRODEMOLITION SHALL BE AS SPECIFIED IN THE PLANS.

ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED BY ASTM C-127.

IN ADDITION TO THE ABOVE REQUIREMENTS, THE FOLLOWING REVISIONS SHALL APPLY:

(SEE 848.18) THE REMOVAL OPERATIONS SHALL NOT BEGIN IF SUSTAINED RAINS (5 HOURS OR MORE WITH BREAKS BETWEEN SHOWERS LESS THAN 1 1/2 HOURS) ARE PREDICTED WITHIN 48 HOURS OF COMMENCEMENT.

(SEE 848.21) THE FINAL DECK SOUNDING MAY TAKE PLACE WITHIN 24 HOURS OF A RAIN, AND THE DECK DOES NOT HAVE TO BE COMPLETELY DRY.

(SEE 848.23) FULL DEPTH REPAIR IS NOT REQUIRED IF LESS THAN ONE HALF OF THE ORIGINAL DECK CONCRETE THICKNESS IS SOUND.

(SEE 848.29) THE WET CURE TIME IS REDUCED FROM 72 HOURS TO 24 HOURS OR UNTIL A BEAM BREAK OF 600 PSI IS ACHIEVED, WHICHEVER IS GREATER. AFTER THE 24 HOUR WET CURE, THE FINISHED OVERLAY SURFACE SHALL BE CURED BY SPRAYING A UNIFORM APPLICATION OF CURING MATERIAL OF 705.07, TYPE 1 OR 1D, AS PER CMS 511.17 METHOD (B) MEMBRANE CURING. IF THE CURING COMPOUND CAN NOT BE PLACED WITHIN THE SAME SHORT TERM CLOSURE PERIOD AS THE OVERLAY, THE CONTRACTOR MAY ALLOW TRAFFIC ONTO THE OVERLAY, AND SHALL AT THE NEXT AVAILABLE SHORT TERM CLOSURE PERIOD, APPLY THE MEMBRANE CURING COMPOUND.

(SEE 848.29) TRAFFIC WILL NOT BE PERMITTED ON THE FINISHED OVERLAY SURFACE UNTIL AFTER THE COMPLETION OF THE 24 HOUR WET CURE, AND AFTER TWO TEST BEAMS HAVE ATTAINED AN AVERAGE MODULUS OF RUPTURE OF 600 PSI (4.2 Mpa).

(SEE 848.30) THE OVERLAY SURFACE EVAPORATION RATE REQUIREMENTS ARE IN EFFECT FROM 9:30 AM TO 11:00 PM. THEY ARE NOT IN EFFECT FROM 11:00 PM TO 9:30 AM.

(SEE 848.31) FOR EACH PHASE THE CONTRACTOR SHALL PROVIDE ENOUGH MATERIAL FOR TWO BEAM BREAKS EACH AT 12 HOURS, 24 HOURS, 36 HOURS, AND 48 HOURS. THE DEPARTMENT WILL PERFORM THE BEAM BREAK TESTS AND DOCUMENT THE TIME OF THE POUR, THE TIME OF THE BEAM BREAK TESTS, AND THE MODULUS OF RUPTURE FOR EACH BEAM UNTIL THE MODULUS OF RUPTURE OF THE TWO TESTS IS NOT LESS THAN 650 PSI (4.5 Mpa). TRAFFIC IS ALLOWED ON THE OVERLAY AT 600 PSI (4.2 Mpa).

ALL OTHER REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATION SHALL REMAIN IN EFFECT.

DESIGN AGENCY
DISTRICT THREE
OFFICE OF PRODUCTION

DATE
12/07
REVIEWED
RDN
STRUCTURAL FILE NUMBER

DRAWN
DCM
REVIEWED

DESIGNED
DCM
CHECKED
D.J.V

GENERAL NOTES

D03-BH-FY2008(B)

614 - MAINTAINING TRAFFIC FOR STRUCTURE LOR-2-0742R:

TWO LANES OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT THROUGH TRAFFIC ON THIS STRUCTURE SHALL HAVE A LANE CLOSURE AS PER STANDARD CONSTRUCTION DRAWING MT-95.30, FOR A MAXIMUM OF 59 CONSECUTIVE HOURS. THE 59 CONSECUTIVE HOURS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH HOUR BEYOND THE 59 CONSECUTIVE HOURS THAT THE HIGHWAY REMAINS IN A SINGLE LANE, THE CONTRACTOR WILL BE ASSESSED LIQUIDATED DAMAGES AS PER 108.07.

THE CLOSURE SHALL ONLY OCCUR FROM 6:00 P.M. FRIDAY TO 5:00 A.M. MONDAY.

NO CLOSURE SHALL OCCUR AFTER AUGUST 8, 2008.

NO EQUIPMENT OR MATERIAL SHALL BE LOCATED OTHER THAN BEHIND THE DRUMS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AS WELL AS IN ACCORDANCE WITH PART 7 OF THE OMTCD. PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO PROVIDE THIS METHOD OF TRAFFIC CONTROL SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

614 - MAINTAINING TRAFFIC FOR STRUCTURE ERI-2-2581L:

TWO LANES OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT THROUGH TRAFFIC ON THIS STRUCTURE SHALL HAVE LANE CLOSURES AS SHOWN ON SHEET 14, FOR A MAXIMUM OF 7 CONSECUTIVE CALENDAR DAYS. THE 7 CONSECUTIVE DAYS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE 7 CALENDAR DAYS THAT THE HIGHWAY REMAINS IN A SINGLE LANE, THE CONTRACTOR WILL BE ASSESSED LIQUIDATED DAMAGES AS PER 108.07.

NO LANE CLOSURES SHALL OCCUR AFTER JUNE 13, 2008

NO EQUIPMENT OR MATERIAL SHALL BE LOCATED OTHER THAN BEHIND THE DRUMS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AS WELL AS IN ACCORDANCE WITH PART 7 OF THE OMTCD. PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO PROVIDE THIS METHOD OF TRAFFIC CONTROL SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

614 - MAINTAINING TRAFFIC FOR STRUCTURE HUR-103-0160:

TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT THROUGH TRAFFIC ON THIS STRUCTURE SHALL HAVE A SIGNALIZED CLOSURE AS SHOWN ON SHEET 18 FOR A MAXIMUM OF 20 CONSECUTIVE CALENDAR DAYS (TOTAL BOTH PHASES). THE 20 CONSECUTIVE DAYS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE 20 CALENDAR DAYS THAT THE HIGHWAY REMAINS IN A SIGNALIZED CLOSURE, THE CONTRACTOR WILL BE ASSESSED LIQUIDATED DAMAGES AS PER 108.07.

NO LANE CLOSURES SHALL OCCUR PRIOR TO SEPTEMBER 15, 2008

NO EQUIPMENT OR MATERIAL SHALL BE LOCATED OTHER THAN BEHIND THE DRUMS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AS WELL AS IN ACCORDANCE WITH PART 7 OF THE OMTCD. PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO PROVIDE THIS METHOD OF TRAFFIC CONTROL SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

614 - MAINTAINING TRAFFIC FOR STRUCTURE RIC-13-2326:

TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT THROUGH TRAFFIC ON THIS STRUCTURE SHALL HAVE A SIGNALIZED CLOSURE AS SHOWN ON SHEET 23 FOR A MAXIMUM OF 28 CONSECUTIVE CALENDAR DAYS (TOTAL BOTH PHASES). THE 28 CONSECUTIVE DAYS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE 28 CALENDAR DAYS THAT THE HIGHWAY REMAINS IN A SIGNALIZED CLOSURE, THE CONTRACTOR WILL BE ASSESSED LIQUIDATED DAMAGES AS PER 108.07.

NO CLOSURE SHALL OCCUR BEFORE MAY 27, 2008.

NO EQUIPMENT OR MATERIAL SHALL BE LOCATED OTHER THAN BEHIND THE DRUMS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AS WELL AS IN ACCORDANCE WITH PART 7 OF THE OMTCD. PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO PROVIDE THIS METHOD OF TRAFFIC CONTROL SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

614 - MAINTAINING TRAFFIC FOR STRUCTURE RIC-430-0290:

ALL LANES OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT THROUGH TRAFFIC ON THIS STRUCTURE SHALL HAVE LANE CLOSURES (ONE LANE IN EACH DIRECTION SHALL REMAIN OPEN) AS PER SHEETS 26 - 30 AND AS PER STANDARD CONSTRUCTION DRAWING MT-95.31, MT-95.32 & MT-95.60, FOR A MAXIMUM OF 27 CONSECUTIVE CALENDAR DAYS FOR EACH PHASE CLOSURE. THE 27 CONSECUTIVE DAYS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE 27 CALENDAR DAYS THAT THE HIGHWAY REMAINS WITH THE SAME PHASE CLOSURE (ANY DIRECTION), THE CONTRACTOR WILL BE ASSESSED LIQUIDATED DAMAGES AS PER 108.07.

NO LANE CLOSURES SHALL OCCUR FROM JUNE 20, 2008 THRU JUNE 30, 2008, JULY 28, 2008 THRU AUGUST 3, 2008 AND SEPTEMBER 22, 2008 THRU SEPTEMBER 28, 2008.

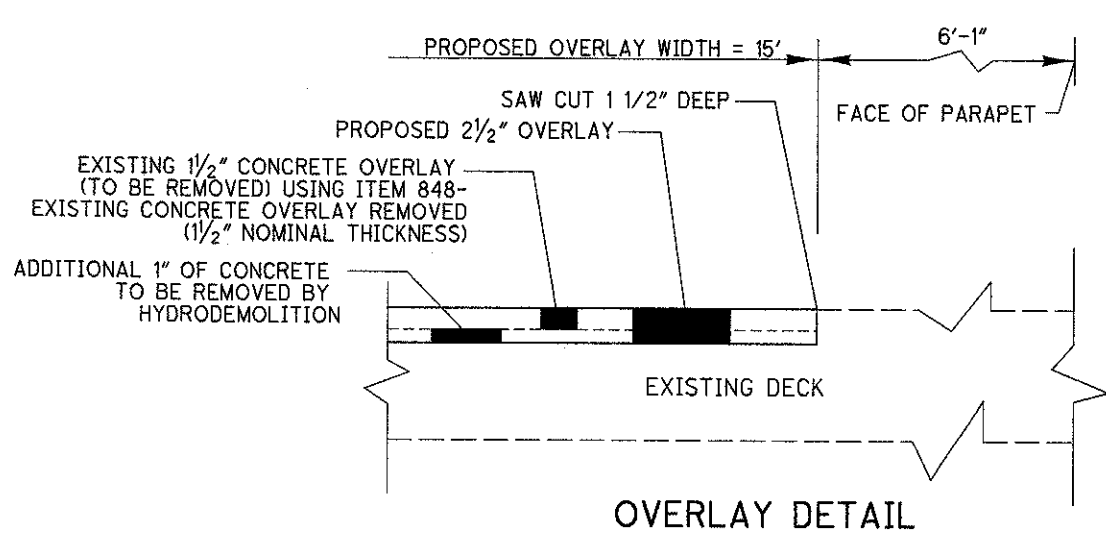
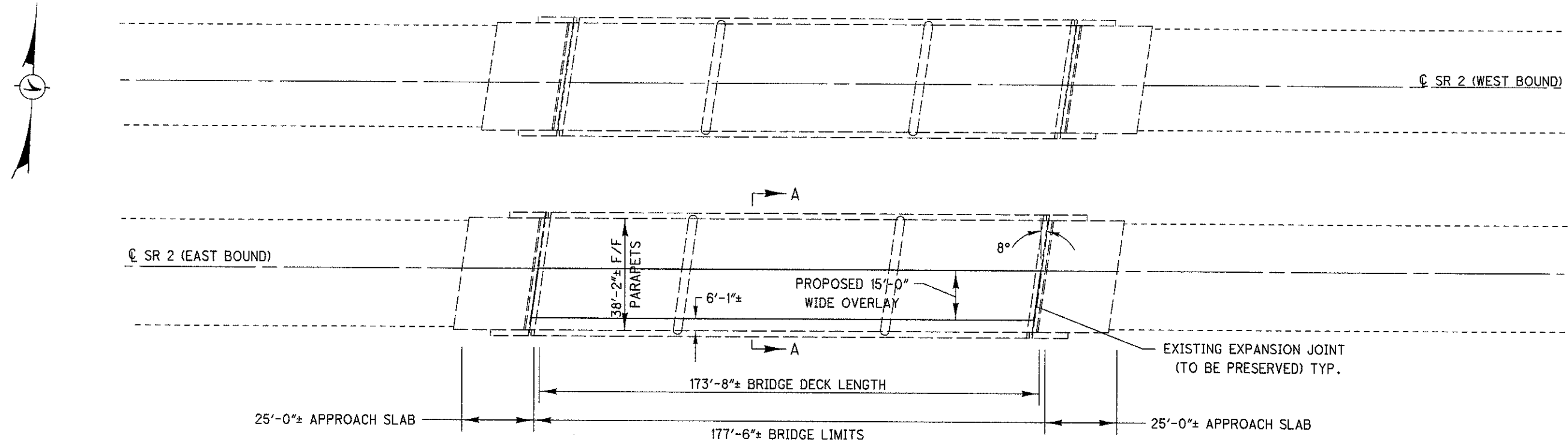
WORK ZONE PAVEMENT MARKINGS SHALL BE AS PER 740.06, TYPE I (REMOVABLE)

NO EQUIPMENT OR MATERIAL SHALL BE LOCATED OTHER THAN BEHIND THE DRUMS.

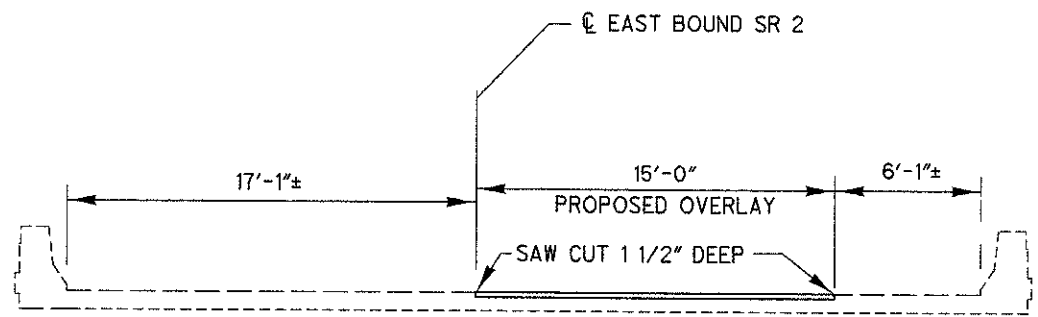
ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AS WELL AS IN ACCORDANCE WITH PART 7 OF THE OMTCD. PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO PROVIDE THIS METHOD OF TRAFFIC CONTROL SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

DESIGN FILE: I:\projects\773118\Structure\1.dgn
WORKSTATION: dmollens DATE: 12/4/2007

DESIGN AGENCY	DISTRICT THREE	
	OFFICE OF PRODUCTION	
	DATE	12/07
	REVIEWED	RDN
DESIGNED	DCM	DJV
	DCM	REVIEWED
DRAWN	DCM	REVIEWED
	DCM	REVIEWED
MAINTENANCE OF TRAFFIC NOTES		
D03-BH-FY2008(B)		
5 30		



PLAN VIEW



SECTION A-A
(RIGHT STRUCTURE ONLY)

ITEM	QUANTITY	UNIT	DESCRIPTION
618	810	FT	RUMBLE STRIPS, (ASPHALT CONCRETE)
646	.05	MILE	EDGE LINE, AS PER PLAN
646	.05	MILE	LANE LINE, AS PER PLAN
848	290	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (2 1/2" THICK)
848	290	SQ YD	SURFACE PREPARATION USING HYDRODEMOLITION
848	8	CU YD 1/4	3/4 SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN
848	9	SQ YD	HAND CHIPPING
848	LUMP		TEST SLAB
848	290	SQ YD	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (1 1/2" NOMINAL THICKNESS)
848	15	SQ YD	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY

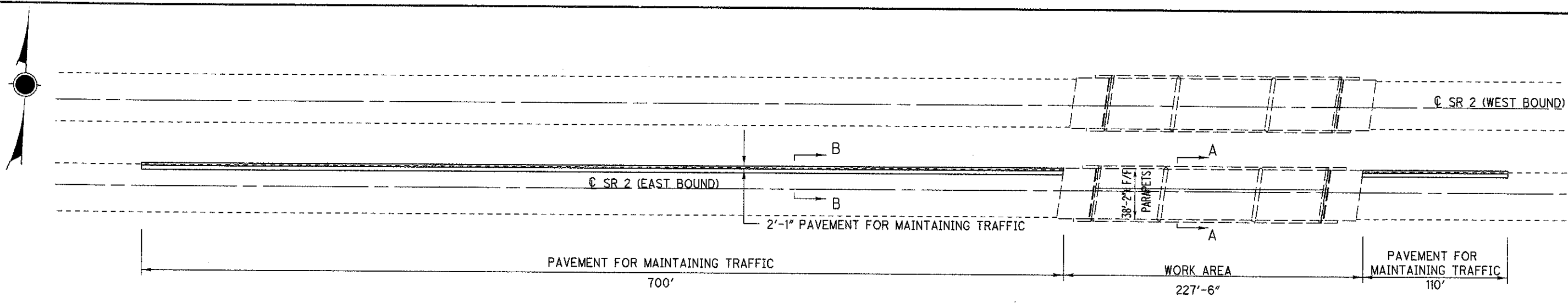
QUANTITIES CARRIED TO GENERAL SUMMARY

NOTES:

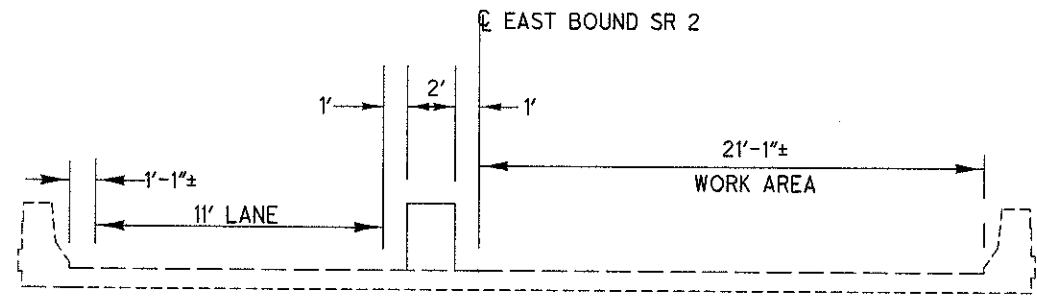
- 1) THE EXISTING APPROACH GUARDRAIL IS NOT SHOWN.
- 2) INSTALL PAVEMENT FOR MAINTAINING TRAFFIC AS SHOWN ON SHEET 12.
- 3) THE PROPOSED OVERLAY ELEVATION SHALL MATCH THE EXISTING OVERLAY ELEVATION.
- 4) SAW CUT EXISTING OVERLAY 1 1/2" DEEP AS SHOWN IN SECTION A-A. COST INCLUDED IN ITEM 848- EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (1 1/2" NOMINAL THICKNESS). NEW OVERLAY SHALL BE PLACED BETWEEN THE SAW CUTS.
- 5) OVERLAY LENGTH SHALL BE FROM EXPANSION JOINT TO EXPANSION JOINT.
- 6) REINSTALL RUMBLE STRIPS IN PAVED SHOULDER.

DESIGN FILES\PROJECTS\77311\STRUCT\LOR20742RSTR1.DGN
WORKSTAT\DD\LEN\DATE2/5/2007

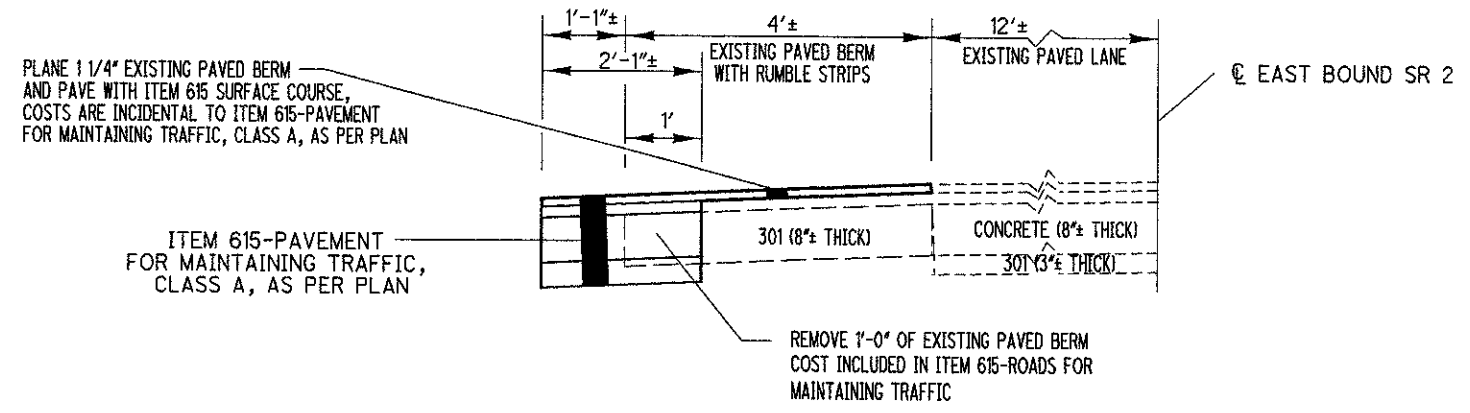
DESIGN AGENCY: DISTRICT THREE OFFICE OF PRODUCTION
 DATE: 12/07
 REVIEWED: RDN
 STRUCTURE FILE NUMBER: 4700309
 DRAWN: DCM
 REVISIONS:
 DESIGNED: DCM
 CHECKED: DJV
 PLAN VIEW
 LOR-2-0742R OVER S.R. 58
 D03-BH-FY2008 (B)
 1 / 2
 11 / 30



PLAN VIEW



SECTION A-A
(RIGHT STRUCTURE ONLY)



SECTION B-B

ITEM	QUANTITY	UNIT	DESCRIPTION
615	LUMP		ROADS FOR MAINTAINING TRAFFIC
615	188	SQ YD	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN

QUANTITIES CARRIED TO GENERAL SUMMARY

- NOTES:
- 1) THE EXISTING APPROACH GUARDRAIL IS NOT SHOWN.
 - 2) SEE STANDARD DRAWING MT-95.30 FOR DETAILS AND NOTES NOT SHOWN.

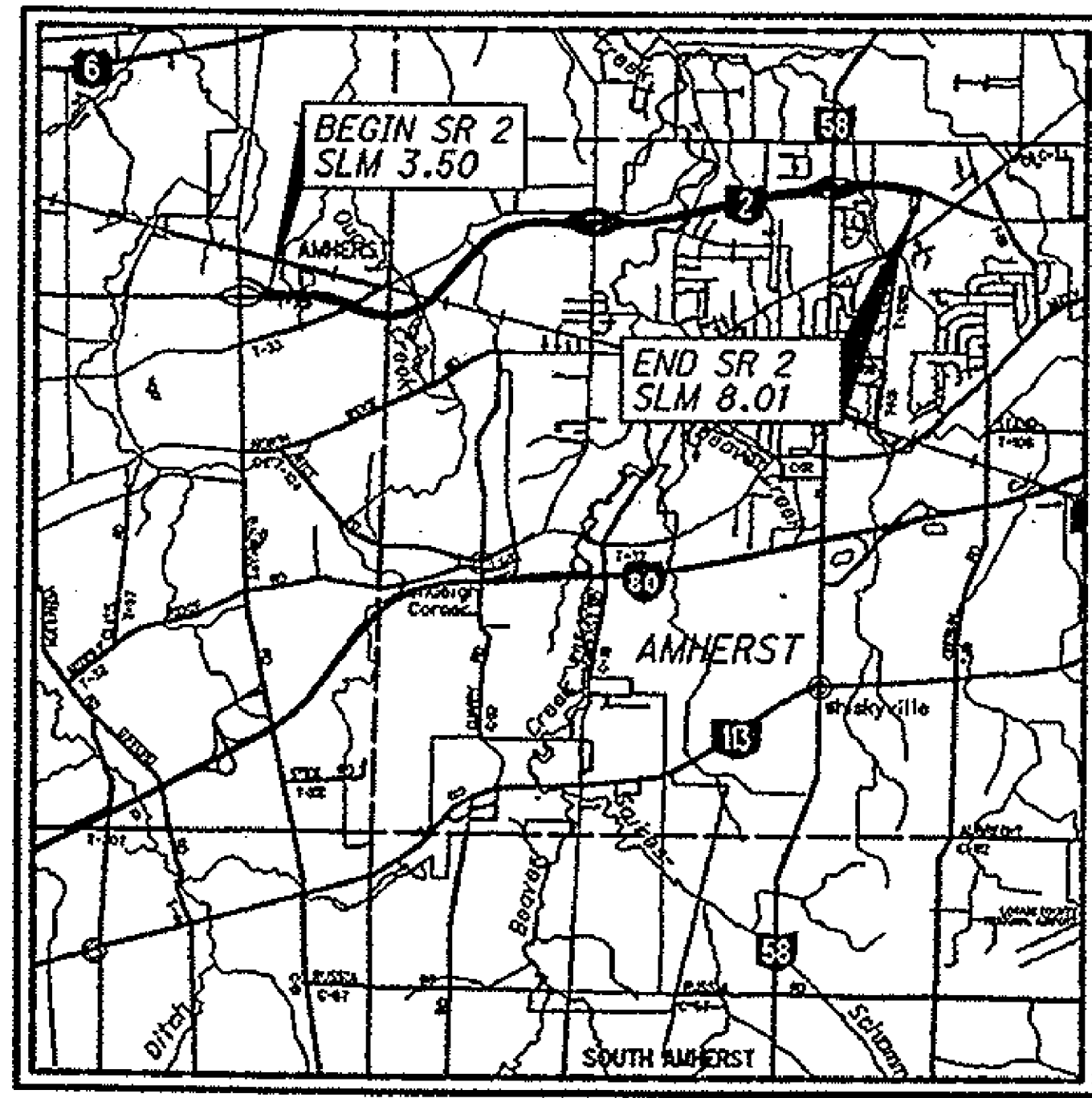
DESIGN FILES\PROJECTS\77311\STRUCT\LOR20742RMDT.DGN
WORK\STAT\DDG\LENS\12/5/2007

DESIGN AGENCY: DISTRICT THREE OFFICE OF PRODUCTION
 DATE: 12/07
 REVIEWED: RDN
 STRUCTURE FILE NUMBER: 4700309
 DRAWN: DCM
 REVISED:
 DESIGNED: DCM
 CHECKED: DJV
 MAINTENANCE OF TRAFFIC
 LOR-2-0742R OVER S.R. 58
 D03-BH-FY2008 (B)
 2 / 2
 12 / 30

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

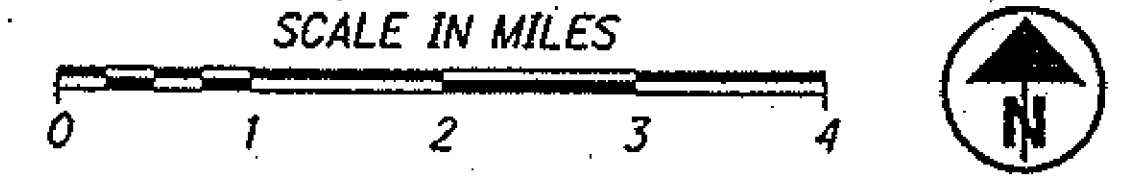
LOR-2-3.50

CITY OF AMHERST AMHERST TOWNSHIP BROWNHELM TOWNSHIP



LOCATION MAP

LATITUDE: 41°24'13" LONGITUDE: 82°16'24"



PORTION TO BE IMPROVED
INTERSTATE & DIVIDED HIGHWAY
UNDIVIDED STATE & FEDERAL ROUTES
OTHER ROADS

DESIGN DESIGNATION	3.82-5.86	5.86-7.42	7.42-8.10
CURRENT ADT (2009)	31560	38600	45900
DESIGN YEAR ADT (2021)	35360	41720	48070
DESIGN HOURLY VOLUME (2021)	3890	4590	5290
DIRECTIONAL DISTRIBUTION	0.60	0.58	0.60
TRUCKS (24 HOUR B&C)	0.14	0.11	0.10
DESIGN SPEED	65	65	65
LEGAL SPEED	65	65	65
DESIGN FUNCTIONAL CLASSIFICATION:	URBAN FREEWAY & EXPRESSWAY		

DESIGN EXCEPTIONS: NONE REQUIRED

INDEX OF SHEETS:

TITLE	
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SCHEMATIC PLAN	2
MAINLINE & RAMPS PAVING LIMITS	3-5
TYPICAL SECTIONS	6-9
GENERAL NOTES	10-11
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STRUCTURE DETAILS	32-40

PROJECT DESCRIPTION

RESURFACING INCLUDING PAVEMENT PLANING, PAVEMENT REPAIRS, TRAFFIC CONTROL ITEMS, AND STRUCTURE MAINTENANCE.

PROJECT EARTH DISTURBED AREA: N/A ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: N/A ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: N/A ACRES

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2008 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY, EXCEPT FOR RAMP CLOSURES AS SHOWN ON THE MAINTENANCE OF TRAFFIC SHEETS, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

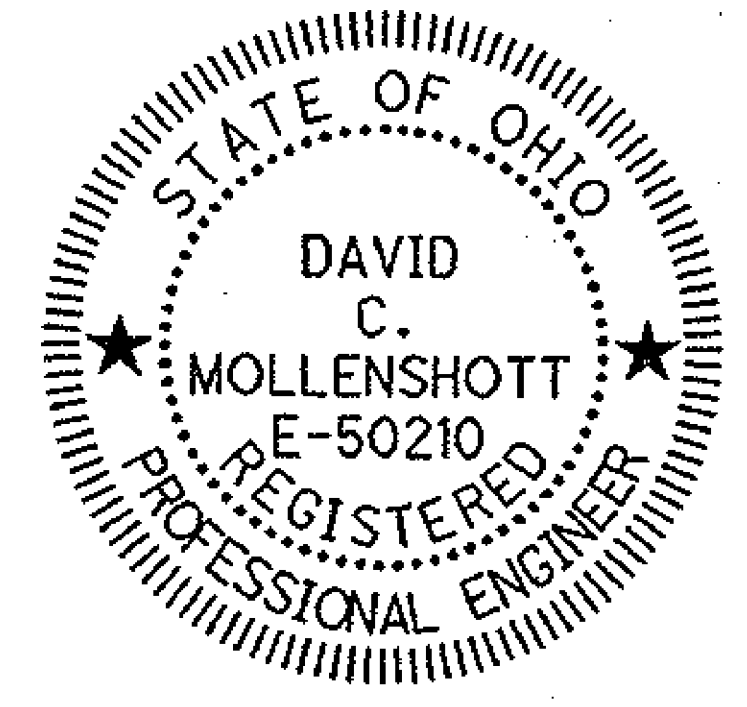
UNDER AUTHORITY OF SECTION 4511.21, DIVISION (H) OF THE OHIO REVISED CODE, THE REVISED PRIMA FACIA SPEED LIMITS AS INDICATED HEREIN ARE DETERMINED TO BE REASONABLE AND SAFE, AND ARE HEREBY ESTABLISHED FOR THE DURATION OF THIS PROJECT. THE PRIMA FACIA SPEED LIMIT OR LIMITS HEREBY ESTABLISHED SHALL BECOME EFFECTIVE WHEN APPROPRIATE SIGNS GIVING NOTICE THEREOF ARE ERECTED.

APPROVED: *John Hart, P.E.*
DATE: 10/20/08 DISTRICT DEPUTY DIRECTOR

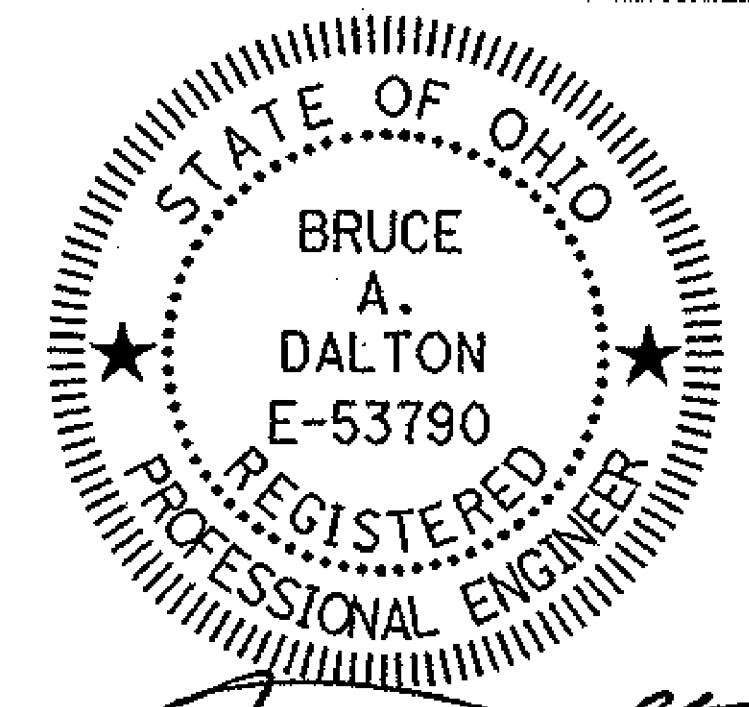
APPROVED: *Jane Burdette*
DATE: 10/30/08 DIRECTOR, DEPARTMENT OF TRANSPORTATION

DESIGN FILE: projects\23799\Roadway\sheets\23799\001001.dgn
WORKSTATION: kslay DATE: 10/20/2008

STRUCTURE/CULVERT ENGINEERS SEAL: ROADWAY ENGINEERS SEAL:



SIGNED: *David C. Mollenshott*
DATE: 10/20/08



SIGNED: *Bruce A. Dalton*
DATE: 10/20/08

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS
BP-2.1	07/18/08	MT-35.10	04/20/01	TC-41.20	01/19/01	800-2008 07/18/08
BP-2.5	07/18/08	MT-95.30	09/05/06	TC-42.20	07/16/04	
BP-3.1	10/19/07	MT-95.31	09/05/06	TC-52.10	01/19/07	832 04/25/06
BP-9.1	04/15/05	MT-95.32	09/05/06	TC-52.20	01/19/07	
		MT-95.50	09/05/06	TC-65.10	01/21/05	SA-7 04/15/05
DM-4.3	07/19/02	MT-97.10	09/05/06	TC-65.11	01/21/05	
DM-4.4	07/19/02	MT-98.10	10/19/07	TC-71.10	01/19/07	
		MT-98.11	10/19/07	TC-72.20	01/21/05	
		MT-98.20	10/19/07	TC-73.10	01/19/01	
		MT-98.22	10/19/07			
		MT-98.28	10/19/07			
		MT-98.29	10/19/07			
		MT-99.20M	01/30/95			
		MT-101.60	09/05/06			
		MT-105.10	10/18/02			
		MT-105.11	10/18/02			

SPECIAL PROVISIONS

SP 832 05/20/08

PLAN PREPARED BY:



UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

FEDERAL PROJECT NO. **E033(731)**
PID NO. **23799**
CONSTRUCTION PROJECT NO. **NONE**
RAILROAD INVOLVEMENT **NONE**
LOR-2-3.50
1/40

LOR-2-0649 SFN 4700155

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
512	10300	875	SQ YD	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	

LOR-2-0699 SFN 4700244

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
512	10300	1074	SQ YD	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	

LOR-2-0742L SFN 4700279

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
254	01000	1284	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE	
407	10000	153	GALLON	TACK COAT	
442	20200	75	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)	
615	10000	LUMP		ROADS FOR MAINTAINING TRAFFIC	
615	20001	243	SQ YD	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	
847	10201	580	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN (2 1/2 INCH THICK)	26, 27
847	20201	16	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), AS PER PLAN	26, 27
847	30000	LUMP		TEST SLAB	
847	30401	580	SQ YD	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (2 1/2 INCH NOMINAL THICKNESS)	26

LOR-2-0742R SFN 4700309

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
254	01000	934	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE	
407	10000	94	GALLON	TACK COAT	
442	20200	46	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)	
847	10201	290	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN (2 1/2 INCH THICK)	26, 27
847	20201	8	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), AS PER PLAN	26, 27
847	30000	LUMP		TEST SLAB	
847	30401	290	SQ YD	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (2 1/2 INCH NOMINAL THICKNESS)	26

DESIGN AGENCY
DISTRICT THREE
OFFICE OF PRODUCTION

DATE
9/08
REVIEWED
RDN

DRAWN
DCM
DESIGNED
DCM
CHECKED
DJV

STRUCTURE SUMMARY

LOR-2-3.50

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION:

847 DATED 4/15/05

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND FROM FIELD OBSERVATION AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 & 105.02.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURES. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATION FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002, INCLUDING THE 2003, 2004, 2005 AND 2006 SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DECK PROTECTION METHOD:

SUPERPLASTICIZED DENSE CONCRETE OVERLAY

HMWM RESIN SEALING

EXISTING PLANS:

THE ORIGINAL CONSTRUCTION PLANS OF THE EXISTING BRIDGES ARE AVAILABLE UPON REQUEST AT THE DISTRICT 3 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION, ASHLAND, OH.

STRUCTURE #	PLAN NAME	DATE
LOR-2-0459 L&R	LOR-2-3.31	1964
	LOR-2-3.50	1994
LOR-2-0586	LOR-2-5.86	1976
	LOR-2-3.50	1994
LOR-2-0646 L&R	LOR-2-3.31	1964
	LOR-2-3.50	1994
LOR-2-0649	LOR-2-3.31	1964
	LOR-2-3.50	1994
LOR-2-0699	LOR-2-3.31	1964
	LOR-2-3.50	1994
LOR-2-0742 L&R	LOR-2-3.31	1964
	LOR-2-3.50	1994

PLACING ASPHALT CONCRETE FEATHERING ON APPROACHES TO BRIDGES:

SPECIAL CARE SHALL BE TAKEN, WHEN PLACING THE ASPHALT CONCRETE BUTT JOINT TO EFFECT A SMOOTH TRANSITION FROM THE EXISTING APPROACH PAVEMENT TO THE BRIDGE DECK THE CONTRACTOR'S ATTENTION IS CALLED TO STANDARD DRAWING BP-3.1 FOR REQUIRED TOLERANCES.

ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN:

THE PAVEMENT FOR MAINTAINING TRAFFIC SHALL BE LEFT IN PLACE. THE PLANING AND RESURFACING OF THE EXISTING BERM ARE INCIDENTAL TO THIS ITEM.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER SQUARE YARD OF THE ABOVE ITEM WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 847 - EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (2 1/2" NOMINAL THICKNESS):

THIS ITEM SHALL BE USED TO REMOVE THE EXISTING OVERLAY AS PER DETAILS IN THE PLAN.

THE THICKNESS OF THE EXISTING CONCRETE OVERLAY TO BE REMOVED SHALL BE AS SPECIFIED IN THE PLANS.

THE EXISTING OVERLAY SHALL BE SAW CUT 1/2" DEEP AT THE LOCATIONS SHOWN IN THE PLAN.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER SQUARE YARD FOR THE ABOVE ITEMS WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 847 - SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN (2 1/2" THICK):

ITEM 847 - SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), AS PER PLAN:

THESE ITEMS SHALL BE APPLIED TO THE PASSING LANE OF THE DECK AT STRUCTURE LOR-2-0742R AND THE DRIVING AND PASSING LANES OF THE DECK AT STRUCTURE LOR-2-0742L.

THESE ITEMS SHALL BE PERFORMED PER SUPPLEMENTAL SPECIFICATION " BRIDGE DECK REPAIR AND OVERLAY WITH CONCRETE USING SCARIFICATION AND CHIPPING" WITH THE FOLLOWING REVISIONS:

THE THICKNESS OF THE EXISTING CONCRETE OVERLAY REMOVED AND PROPOSED OVERLAY SHALL BE AS SPECIFIED IN THE PLANS.

ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED BY ASTM C-127.

(CONTINUED)

DESIGN FILE: I:\projects\23799\Structure\strnotes.dgn
 WORKSTATION: kcaloy DATE: 10/17/2008

DESIGN AGENCY
 DISTRICT THREE
 OFFICE OF PRODUCTION

DATE
 9/08
 RDN
 STRUCTURAL FILE NUMBER

DCM
 DCM
 REVISED

DCM
 DCM
 CHECKED
 DJV

GENERAL NOTES

LOR-2-3.50

(CONTINUED)

ITEM 847 - SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN (2 1/2" THICK):

ITEM 847 - SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), AS PER PLAN:

IN ADDITION TO THE ABOVE REQUIREMENTS, THE FOLLOWING REVISIONS SHALL APPLY:

(SEE 847.17) THE REMOVAL OPERATIONS SHALL NOT BEGIN IF SUSTAINED RAINS (5 HOURS OR MORE WITH BREAKS BETWEEN SHOWERS LESS THAN 1/2 HOURS) ARE PREDICTED WITHIN 48 HOURS OF COMMENCEMENT.

(SEE 847.18) THE FINAL DECK SOUNDING MAY TAKE PLACE WITHIN 24 HOURS OF A RAIN, AND THE DECK DOES NOT HAVE TO BE COMPLETELY DRY.

(SEE 847.19) FULL DEPTH REPAIR IS NOT REQUIRED IF LESS THAN ONE HALF OF THE ORIGINAL DECK CONCRETE THICKNESS IS SOUND.

(SEE 847.25) THE WET CURE TIME IS REDUCED FROM 72 HOURS TO 24 HOURS OR UNTIL A BEAM BREAK OF 600 PSI IS ACHIEVED, WHICHEVER IS GREATER. AFTER THE 24 HOUR WET CURE, THE FINISHED OVERLAY SURFACE SHALL BE CURED BY SPRAYING A UNIFORM APPLICATION OF CURING MATERIAL OF 705.07, TYPE 1 OR 1D, AS PER CMS 511.17 METHOD (B) MEMBRANE CURING. IF THE CURING COMPOUND CAN NOT BE PLACED WITHIN THE SAME SHORT TERM CLOSURE PERIOD AS THE OVERLAY, THE CONTRACTOR MAY ALLOW TRAFFIC ONTO THE OVERLAY, AND SHALL AT THE NEXT AVAILABLE SHORT TERM CLOSURE PERIOD, APPLY THE MEMBRANE CURING COMPOUND.

(SEE 847.25) TRAFFIC WILL NOT BE PERMITTED ON THE FINISHED OVERLAY SURFACE UNTIL AFTER THE COMPLETION OF THE 24 HOUR WET CURE, AND AFTER TWO TEST BEAMS HAVE ATTAINED AN AVERAGE MODULUS OF RUPTURE OF 600 PSI (4.2 Mpa).

(SEE 847.26) THE OVERLAY SURFACE EVAPORATION RATE REQUIREMENTS ARE IN EFFECT FROM 9:30 AM TO 11:00 PM. THEY ARE NOT IN EFFECT FROM 11:00 PM TO 9:30 AM.

(SEE 847.27) FOR EACH PHASE THE CONTRACTOR SHALL PROVIDE ENOUGH MATERIAL FOR TWO BEAM BREAKS EACH AT 12 HOURS, 24 HOURS, 36 HOURS, AND 48 HOURS. THE DEPARTMENT WILL PERFORM THE BEAM BREAK TESTS AND DOCUMENT THE TIME OF THE POUR, THE TIME OF THE BEAM BREAK TESTS, AND THE MODULUS OF RUPTURE FOR EACH BEAM UNTIL THE MODULUS OF RUPTURE OF THE TWO TESTS IS NOT LESS THAN 650 PSI (4.5 Mpa). TRAFFIC IS ALLOWED ON THE OVERLAY AT 600 PSI (4.2 Mpa).

ALL OTHER REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATION SHALL REMAIN IN EFFECT.

- 614 - MAINTAINING TRAFFIC FOR STRUCTURE LOR-2-0459L:**
- 614 - MAINTAINING TRAFFIC FOR STRUCTURE LOR-2-0459R:**
- 614 - MAINTAINING TRAFFIC FOR STRUCTURE LOR-2-0646L:**
- 614 - MAINTAINING TRAFFIC FOR STRUCTURE LOR-2-0646R:**

TWO LANES OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT DURING WORKING HOURS WHEN A LANE MAY BE CLOSED AS PER STANDARD CONSTRUCTION DRAWING MT-95.30.

NO EQUIPMENT OR MATERIAL SHALL BE LOCATED OTHER THAN BEHIND THE DRUMS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

- 614 - MAINTAINING TRAFFIC FOR STRUCTURE LOR-2-0742R:**
- 614 - MAINTAINING TRAFFIC FOR STRUCTURE LOR-2-0742L:**

TWO LANES OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT THROUGH TRAFFIC ON THIS STRUCTURE SHALL HAVE A LANE CLOSURE AS PER STANDARD CONSTRUCTION DRAWING MT-95.30, FOR A MAXIMUM OF 59 CONSECUTIVE HOURS. THE 59 CONSECUTIVE HOURS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH HOUR BEYOND THE 59 CONSECUTIVE HOURS THAT THE HIGHWAY REMAINS IN A SINGLE LANE, THE CONTRACTOR WILL BE ASSESSED LIQUIDATED DAMAGES IN THE AMOUNT OF \$960 PER HOUR.

THE CLOSURE SHALL ONLY OCCUR FROM 6:00 P.M. FRIDAY TO 5:00 A.M. MONDAY. NO WEEKEND CLOSURE SHALL OCCUR WHEN THE CLEVELAND BROWNS PLAY A HOME GAME.

NO EQUIPMENT OR MATERIAL SHALL BE LOCATED OTHER THAN BEHIND THE DRUMS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

- 614 - MAINTAINING TRAFFIC FOR STRUCTURE LOR-2-0586:**

TWO WAY TRAFFIC ON TOP OF THE STRUCTURE SHALL BE MAINTAINED AT ALL TIMES EXCEPT DURING WORKING HOURS WHEN ONE LANE MAY BE CLOSED USING FLAGGERS, AS PER STANDARD DRAWING MT-97.10.

TWO LANES OF TRAFFIC UNDER THE STRUCTURE SHALL BE MAINTAINED AT ALL TIMES EXCEPT DURING WORKING HOURS WHEN A LANE MAY BE CLOSED AS PER STANDARD CONSTRUCTION DRAWING MT-95.30.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

- 614 - MAINTAINING TRAFFIC FOR STRUCTURE LOR-2-0649:**
- 614 - MAINTAINING TRAFFIC FOR STRUCTURE LOR-2-0699:**

TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT DURING WORKING HOURS WHEN ONE LANE MAY BE CLOSED USING FLAGGERS, AS PER STANDARD DRAWING MT-97.10.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

DESIGN FILE: i:\projects\237998\Structure\strnotes.dgn
WORKSTATION: ksalay DATE: 10/20/2008

DESIGN ASPECT
DISTRICT THREE
OFFICE OF PRODUCTION

DATE
9/08

REVIEWED
RDN

DRAWN
DCM

DESIGNED
DCM

CHECKED
DJV

GENERAL NOTES

LOR-2-3.50

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DESIGN FILE: i:\projects\23799\Struct\strinfor.dgn
 WORKSTATION:ksalay DATE:10/17/2008

STRUCTURE FILE NO.	BRIDGE NO.	LOCATION	SKEW	BRIDGE LIMITS	DECK WIDTH	PROPOSED WORK
4700031	LOR-2-0459L	OVER RAILROAD & ROAD	35° 55' 02" R.F.	304'-4"±	38'-0"±	SEAL DECK & FACE OF PARAPETS
4700066	LOR-2-0459R	OVER RAILROAD & ROAD	35° 55' 02" R.F.	300'-0"±	38'-0"±	SEAL DECK & FACE OF PARAPETS
4700082	LOR-2-0586	UNDER OAK POINT ROAD	0°	174'-6"±	40'-0"±	SEAL DECK, SIDEWALK, PIER COLUMNS & PIER CAP
4700090	LOR-2-0646L	OVER BEAVER CREEK	20° 00' L.F.	105'-7"±	38'-0"±	SEAL DECK & FACE OF PARAPETS AND TOP OF WINGWALLS
4700120	LOR-2-0646R	OVER BEAVER CREEK	20° 00' L.F.	105'-7"±	38'-0"±	SEAL DECK & FACE OF PARAPETS AND TOP OF WINGWALLS
4700155	LOR-2-0649	UNDER KOLBE ROAD	36° 03' 45" R.F.	248'-7"±	32'-1"±	SEAL DECK
4700244	LOR-2-0699	UNDER TERRA LANE ROAD	6° 20' R.F.	219'-6"±	32'-0"±	SEAL DECK & SIDEWALK
4700279	LOR-2-0742L	OVER S.R. 58	8° 00' L.F.	177'-6"±	38'-2"±	CONCRETE OVERLAY
4700309	LOR-2-0742R	OVER S.R. 58	8° 00' L.F.	177'-6"±	38'-2"±	CONCRETE OVERLAY IN PASSING LANE ONLY
4700333	LOR-2-0761	OVER TRIB. OF BEAVER CREEK	9° 45' L.F.			NO WORK

DESIGN AGENCY
 DISTRICT THREE
 OFFICE OF PRODUCTION

DATE
 9/08

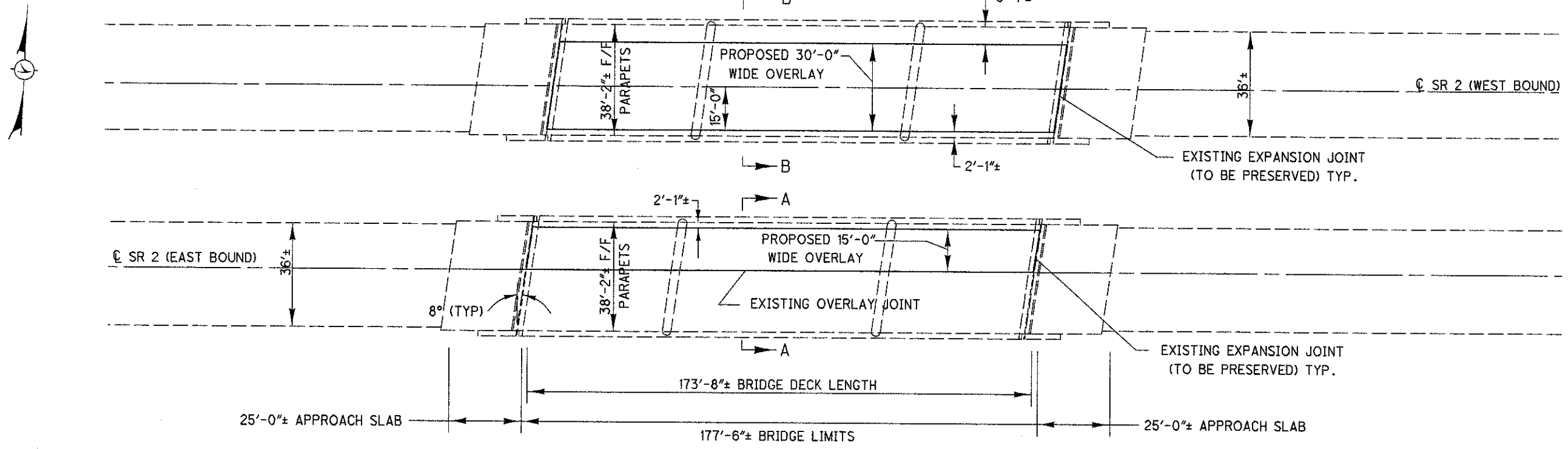
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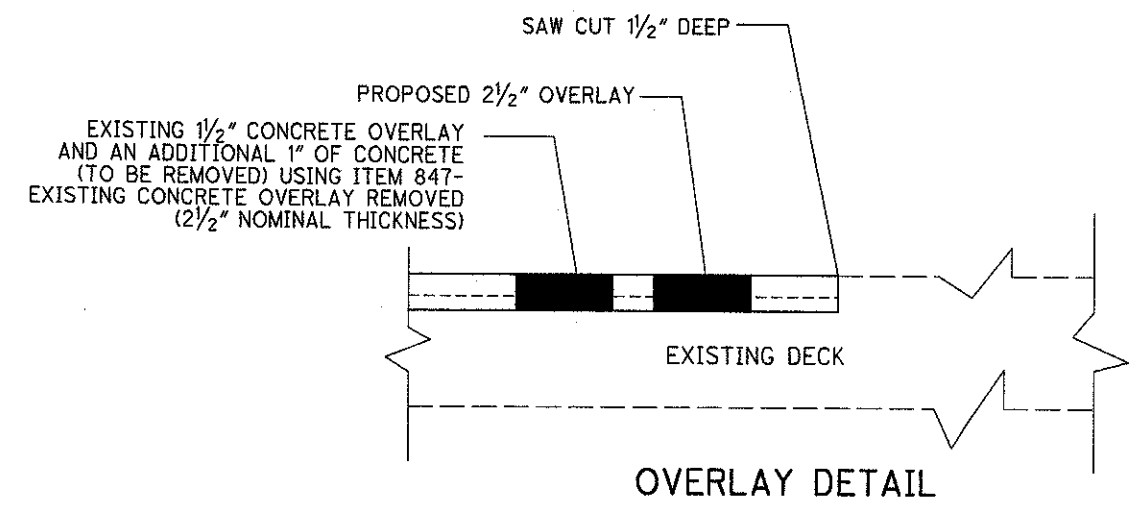
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STRUCTURE INFORMATION

LOR-2-3.50



PLAN VIEW



OVERLAY DETAIL

ITEM	QUANTITY		UNIT	DESCRIPTION
	LOR-2-0742L	LOR-2-0742R		
847	580	290	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN (2 1/2" THICK)
847	16	8	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), AS PER PLAN
847	LUMP	LUMP		TEST SLAB
847	580	290	SQ YD	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (2 1/2" NOMINAL THICKNESS)

NOTES:

- 1) THE EXISTING APPROACH GUARDRAIL IS NOT SHOWN.
- 2) INSTALL PAVEMENT FOR MAINTAINING TRAFFIC AS SHOWN ON SHEET 3/4.
- 3) THE PROPOSED OVERLAY ELEVATION SHALL MATCH THE EXISTING OVERLAY ELEVATION AND CROSS SLOPE.
- 4) SAW CUT EXISTING OVERLAY 1/2" DEEP AS SHOWN IN SECTION A-A AND B-B ON SHEET 2/4. COST INCLUDED IN ITEM 847- EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (2 1/2" NOMINAL THICKNESS). NEW OVERLAY SHALL BE PLACED BETWEEN THE SAW CUTS.
- 5) OVERLAY LENGTH SHALL BE FROM EXPANSION JOINT TO EXPANSION JOINT.

ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET

DESIGN FILES\PROJECTS\23799\STRUCT\LOR20742.DGN
 WORKSTAT\REINLAY DATE: 01/17/2008

DESIGN AGENCY
 DISTRICT THREE
 OFFICE OF PRODUCTION

DATE
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 RDN
 STRUCTURE FILE NUMBER
 4700279 & 4700309

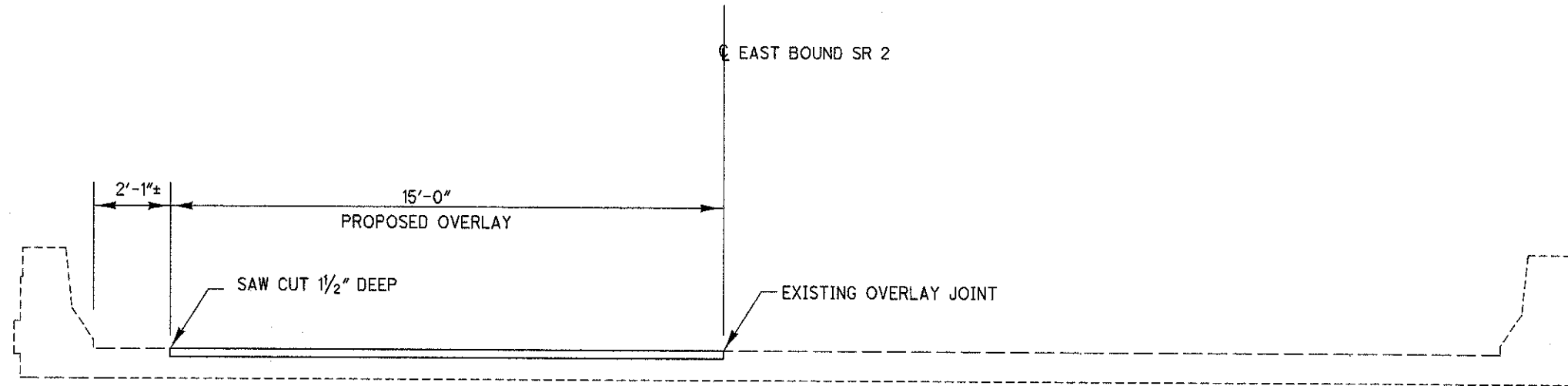
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PLAN VIEW
 LOR-2-0742 L&R OVER S.R. 58

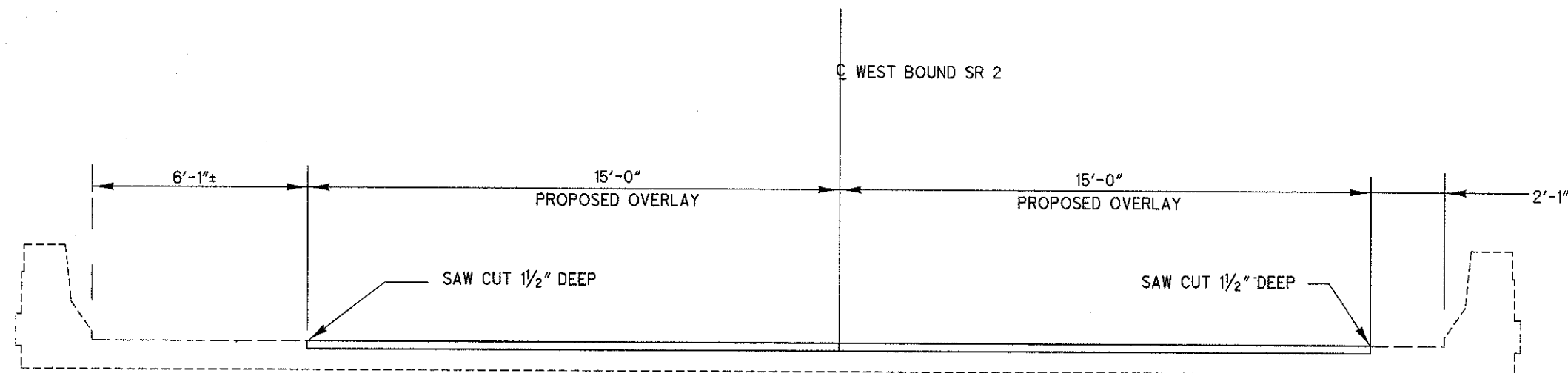
LOR-2-3.50

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SECTION A-A
(RIGHT STRUCTURE ONLY)



SECTION B-B
(LEFT STRUCTURE ONLY)

DESIGN FILE: I:\projects\23799\Struct\LOR20742.DGN
WORKSTATION:kstlay DATE:10/17/2008

DESIGN AGENCY
DISTRICT THREE
OFFICE OF PRODUCTION

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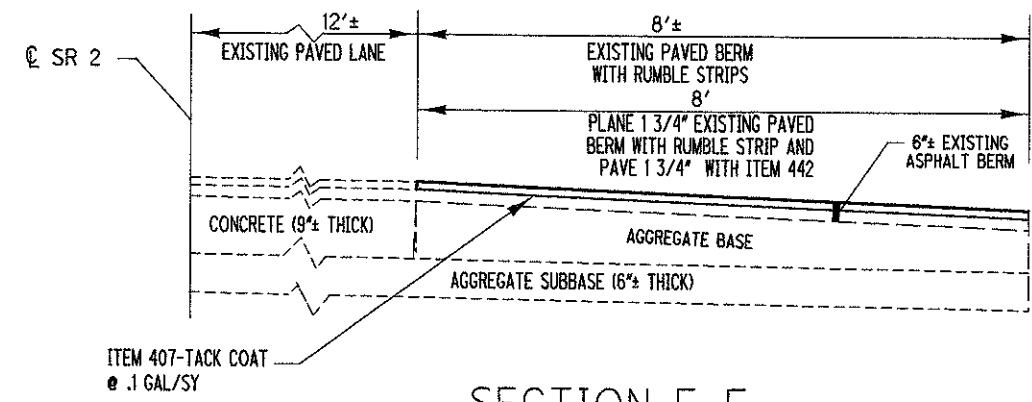
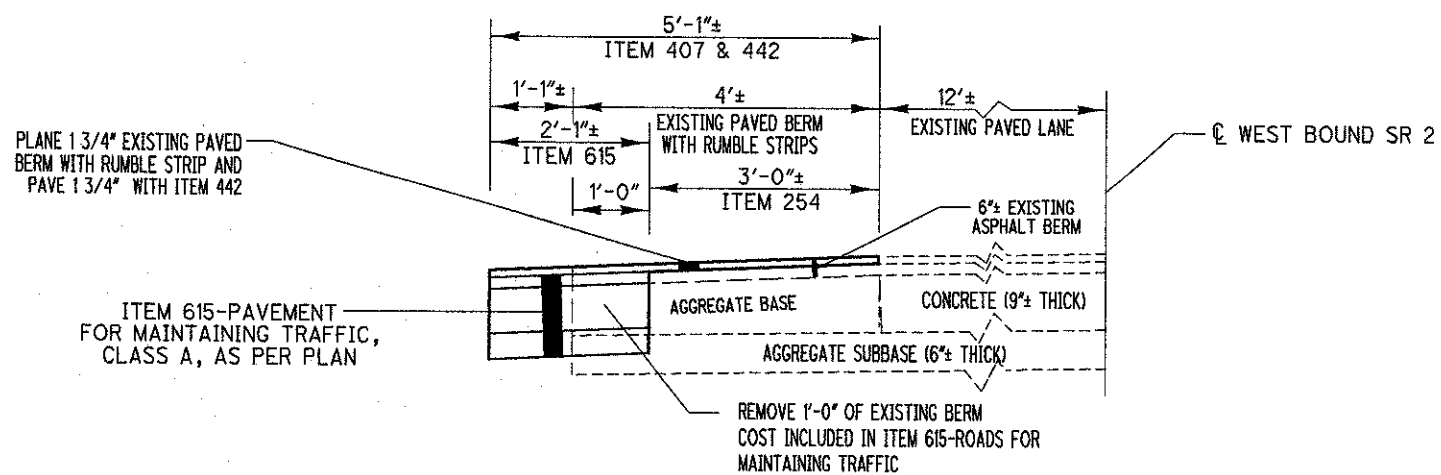
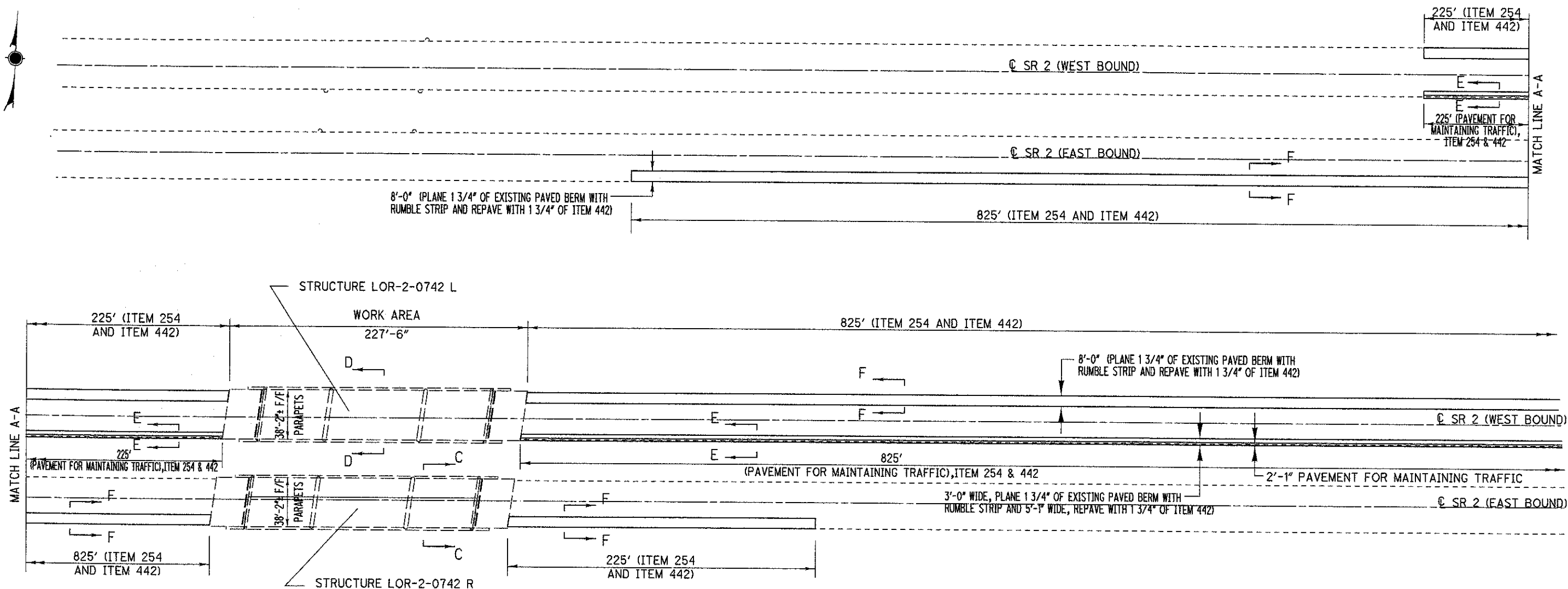
TRANSVERSE SECTION
LOR-2-0742 L&R OVER S.R. 58

LOR-2-3.50

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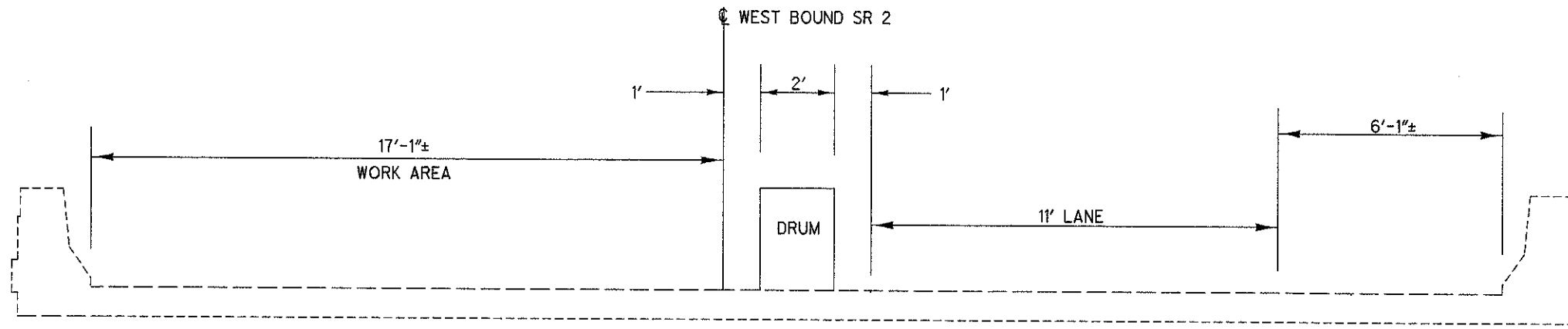
ITEM	QUANTITY		UNIT	DESCRIPTION
	LOR-2-0742L	LOR-2-0742R		
254	1284	934	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE
407	153	94	GALLON	TACK COAT
442	75	46	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)
615	LUMP			ROADS FOR MAINTAINING TRAFFIC
615	243		SQ YD	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN

- NOTES:
- 1) THE EXISTING APPROACH GUARDRAIL IS NOT SHOWN.
 - 2) SEE STANDARD DRAWING MT-95.30 FOR DETAILS AND NOTES NOT SHOWN.
 - 3) SEE SHEET 4/4 FOR SECTIONS C-C & D-D.

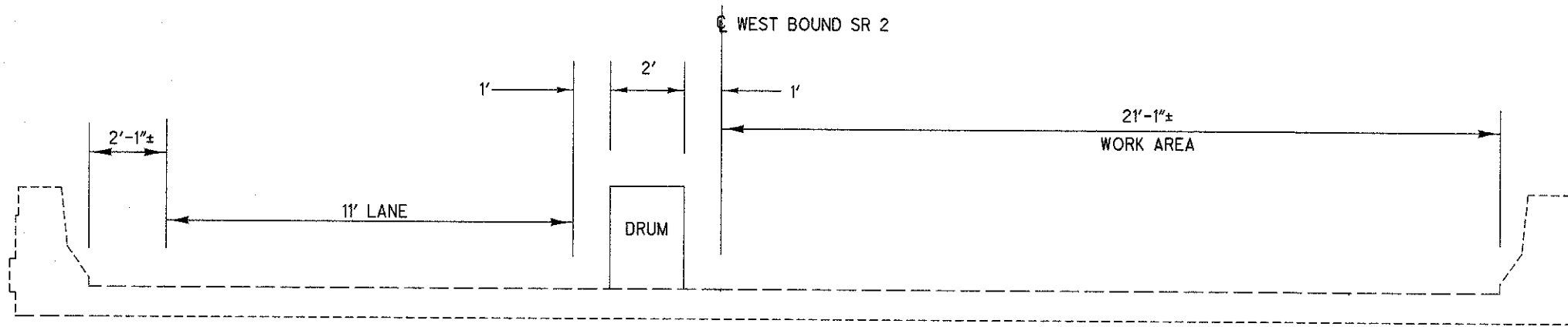
ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET

DESIGN AGENCY: DISTRICT THREE OFFICE OF PRODUCTION
 DATE: 9/08
 REVIEWED: RDN
 DRAWN: DCM
 DESIGNED: DCM
 CHECKED: DJV
 STRUCTURE FILE NUMBER: 4700279 & 4700309
 MAINTENANCE OF TRAFFIC
 LOR-2-0742 L&R OVER S.R. 58
 LOR-2-3.50
 3 / 4
 39 / 40

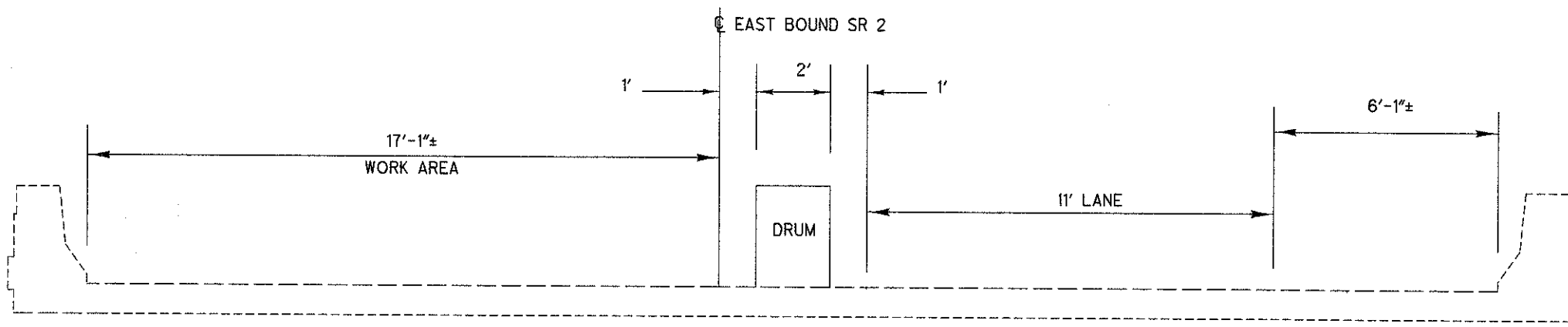
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WORKSTATION.LAY DATE: 10/17/2008



SECTION D-D
(LEFT STRUCTURE ONLY) (PHASE A)



SECTION D-D
(LEFT STRUCTURE ONLY) (PHASE B)



SECTION C-C
(RIGHT STRUCTURE ONLY) (PHASE A)

DESIGN AGENCY
DISTRICT THREE
OFFICE OF PRODUCTION

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MAINTENANCE OF TRAFFIC
LOR-2-0742 L&R OVER S.R. 58

LOR-2-3.50

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EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURES. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

UTILITIES

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA.

ROUTINE MAINTENANCE

BETWEEN THE TIME THAT BIDS ARE TAKEN AND THE START OF CONSTRUCTION, THE MAINTAINING AGENCY MAY ENTER UPON THE PROJECT AND PERFORM ROUTINE MAINTENANCE SUCH AS CRACK SEALING, PATCHING AND OTHER REPAIRS. THE EFFECTS, IF ANY, OF THE PERFORMANCE OF ROUTINE MAINTENANCE SHALL BE CONSIDERED AS INHERENT IN WORK OF THE CHARACTER PROVIDED FOR IN THE PLAN AND THE RESULTING CONDITIONS SHALL NOT BE CONSIDERED AS DIFFERING MATERIALLY FROM THOSE EXISTING AT THE TIME BIDS WERE TAKEN.

EXISTING PLANS

THE FOLLOWING EXISTING PLANS MAY BE INSPECTED IN THE ODOT DISTRICT 3 OFFICE IN ASHLAND, OHIO:

STRUCTURE NAME:	EXISTING PLAN NAME:	DATE:
LOR-2-0459 L&R	LOR-2-3.50	1994
LOR-2-0586	LOR-2-5.86	1976
LOR-2-0646 L&R	LOR-2-3.50	1994
LOR-2-0649	LOR-254-0.00-B	1964
LOR-2-0699	LOR-254-0.00-B	1964
LOR-2-0742 L&R	LOR-254-0.00-B	1964
LOR-2-0761	LOR-254-0.00-B	1964

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 8TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017, AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

DECK PROTECTION METHOD

TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN

PLACING ASPHALT CONCRETE FEATHERING ON APPROACHES TO BRIDGES

SPECIAL CARE SHALL BE TAKEN, WHEN PLACING THE ASPHALT CONCRETE BUTT JOINT TO CREATE A SMOOTH TRANSITION FROM THE EXISTING APPROACH PAVEMENT TO THE BRIDGE DECK OR APPROACH SLAB. THE CONTRACTOR'S ATTENTION IS CALLED TO STANDARD DRAWING BP-3.1 FOR REQUIRED TOLERANCES.

IN-STREAM WORK RESTRICTION

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO AVOID CONSTRUCTION IN AND/OR LIMIT DEMOLITION DEBRIS FROM ENTERING STREAMS OR WETLANDS. ANY MATERIAL THAT DOES FALL INTO STREAMS OR WETLANDS SHALL BE REMOVED AS SOON AS POSSIBLE.

ALL PROJECTS INVOLVING JURISDICTIONAL WATERS OF THE UNITED STATES (STREAMS, RIVERS, NON-ISOLATED WETLANDS) AND/OR ISOLATED WETLANDS ARE SUBJECT TO REGULATION UNDER SECTIONS 404 AND 401 OF THE CLEAN WATER ACT, AND POSSIBLY OHIO EPA ISOLATED WETLAND LAW. IT IS ANTICIPATED THAT NO IN-STREAM WORK, OR WORK UNDER THE STREAM'S ORDINARY HIGH WATER MARK (OHWM) WILL BE NEEDED. THEREFORE NO WATERWAY PERMITS HAVE BEEN GRANTED AND NO IN-STREAM WORK IS ALLOWED.

SHOULD WORK (EITHER TEMPORARY OR PERMANENT) IN THE STREAM BE NEEDED; IT WILL REQUIRE A PERMIT AND AUTHORIZATION BY THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE). THE CONTRACTOR SHALL NOT UTILIZE FILLS BELOW OHWM UNTIL SUCH ACTIVITY IS AUTHORIZED BY THE USACE. DETAILS OF THIS REQUIREMENT ARE DESCRIBED IN ODOT'S SUPPLEMENTAL SPECIFICATION 832.09.

USACE DEFINITION OF OHWM - THE ORDINARY HIGH WATER MARK IS THE LINE ON THE SHORES ESTABLISHED BY THE FLUCTUATIONS OF WATER AND INDICATED BY PHYSICAL CHARACTERISTICS SUCH AS A CLEAR, NATURAL LINE IMPRESSED ON THE BANK; SHELVEING; CHANGES IN THE CHARACTER OF THE SOIL; DESTRUCTION OF TERRESTRIAL VEGETATION; THE PRESENCE OF LITTER AND DEBRIS; OR THE APPROPRIATE MEANS THAT CONSIDER THE CHARACTERISTICS OF THE SURROUNDING AREAS.

ITEM 202 - REMOVAL MISC.: JOINT SEALER

THIS ITEM SHALL BE USED TO REMOVE THE EXISTING JOINT SEALER LOCATED BETWEEN THE APPROACH SLAB AND THE DECK OR BACKWALL.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER FOOT FOR THE ABOVE ITEM, WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM SPECIAL - PATCHING CONCRETE BRIDGE DECK, TYPE B OR C

USE THIS ITEM AT THE LOCATIONS INDICATED IN THE PLANS. QUANTITIES SHOWN IN THE PLANS ARE FOR ESTIMATING PURPOSES ONLY. EXACT DIMENSIONS AND LOCATIONS OF REPAIRS SHALL BE DETERMINED BY THE ENGINEER.

SEE PROPOSAL NOTE 512 FOR ADDITIONAL DETAILS.

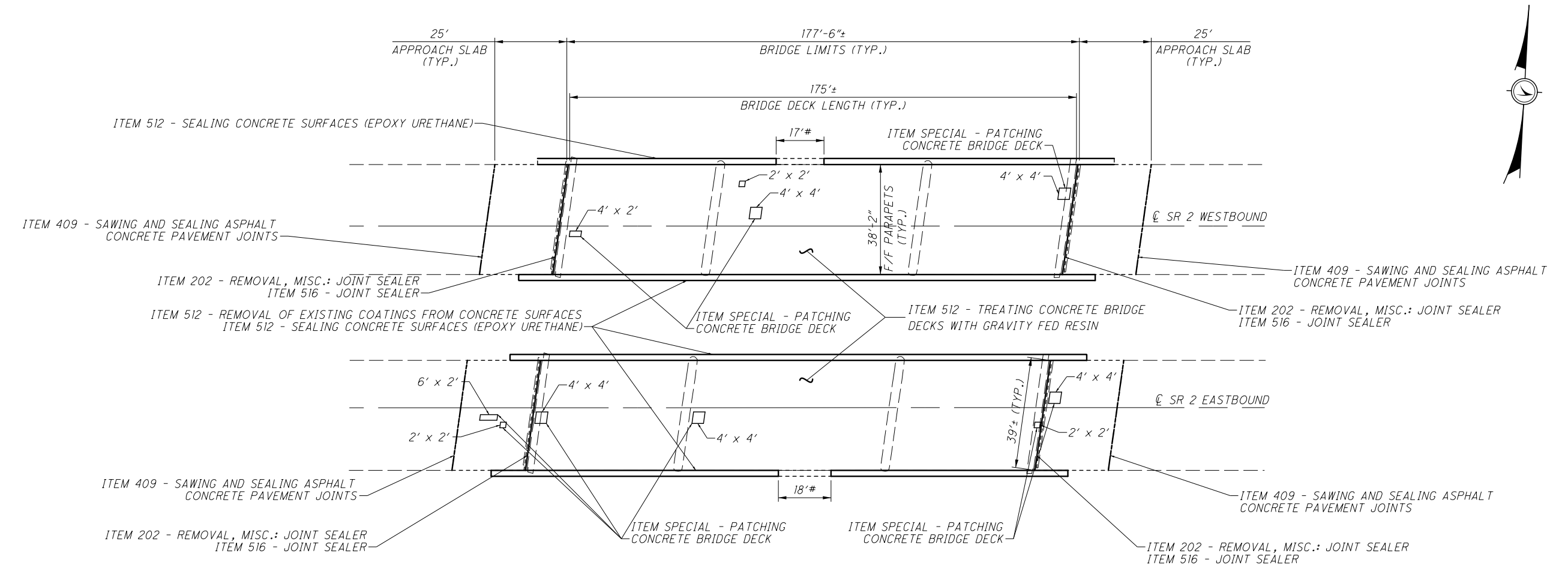
PAYMENT FOR ALL THE ABOVE ITEMS WILL BE MADE AT THE UNIT BID PRICE PER SQUARE YARD AND IS TO INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NEEDED TO COMPLETE THE ABOVE WORK.

ITEM 409 - SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS

THIS ITEM SHALL BE USED AT LOCATIONS INDICATED IN THE PLAN AND CONSISTS OF SAW CUTTING AND SEALING THE FINISHED SURFACE OF THE ASPHALT CONCRETE PAVEMENT.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE ABOVE ITEM.

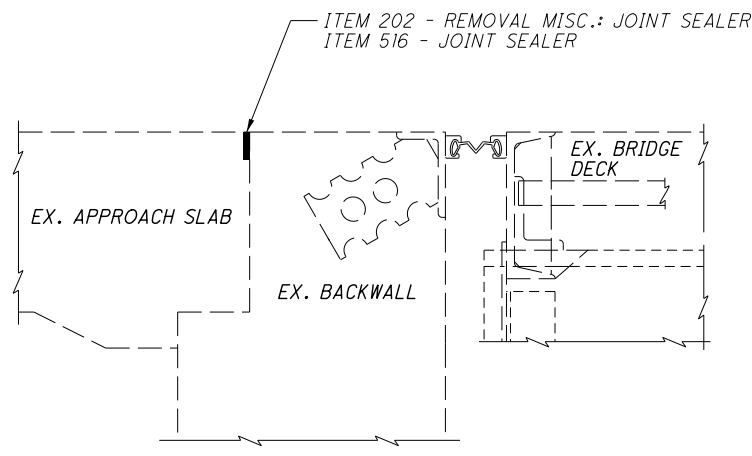
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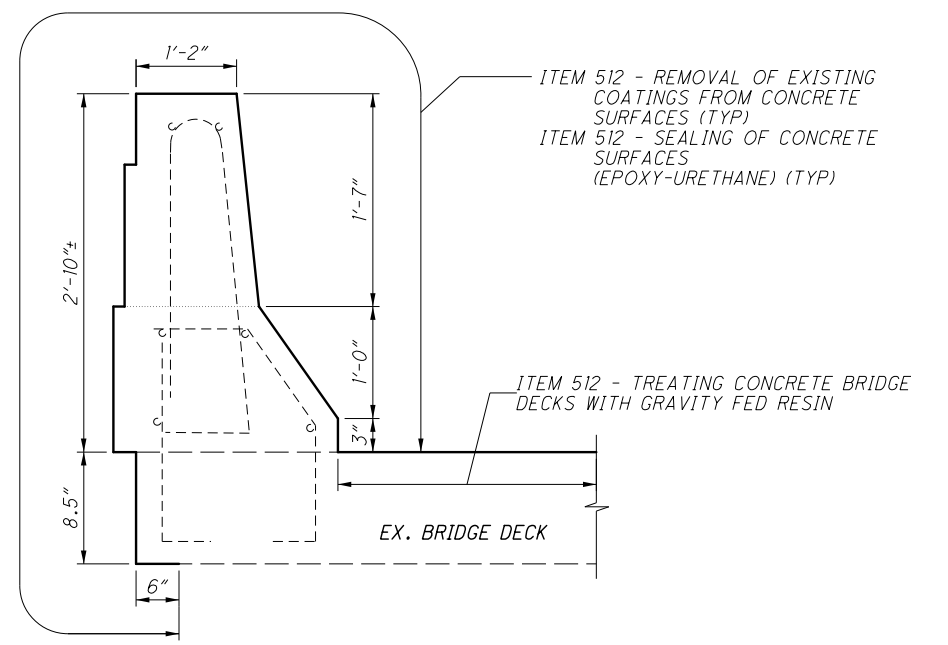
PLAN VIEW

- NOTES:
- 1) THE EXISTING APPROACH GUARDRAIL IS NOT SHOWN FOR CLARITY.
 - 2) THE CONCRETE REPAIRS SHOWN ARE APPROXIMATE. EXACT LOCATIONS AND DIMENSIONS OF REPAIRS ARE TO BE DETERMINED BY THE ENGINEER.
 - 3.) # SUSPEND AND RESUME PARAPET SEALING AT OVERHEAD SIGN.
 - 4.) SEAL ENTIRE BRIDGE DECK AND APPROACH SLABS WITH ITEM 512 - TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN. REMOVE EXISTING PAVEMENT MARKINGS WITH ITEM 512 - REMOVAL OF EXISTING PAVEMENT MARKING.
 - 5.) PERFORM ITEM 409 - SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS AFTER PROPOSED PAVEMENT IS PLACED AND ACCEPTED BY THE DEPARTMENT. ANY SAWED AND SEALED JOINTS REMOVED BY NEED OF UNSATISFACTORILY PLACED AND UNACCEPTED SURROUNDING ASPHALT CONCRETE WILL NOT BE PAID FOR BY THE DEPARTMENT, INCLUDING THE COST OF REMOVAL OF THE JOINT.

ITEM	QUANTITY		UNIT	DESCRIPTION
	LOR-2-0742L	LOR-2-0742R		
202	78	78	FT	REMOVAL MISC.: JOINT SEALER
409	78	78	FT	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS
512	342	341	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	954	954	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN
512	179	341	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES
512	684	684	FT	REMOVAL OF EXISTING PAVEMENT MARKING
516	78	78	FT	JOINT SEALER
SPECIAL	5	8	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B OR C



JOINT SEALER DETAIL



PARAPET SEALING DETAIL

DESIGN AGENCY
ODOT DISTRICT THREE
OFFICE OF ENGINEERING

DATE
05/2020

REVIEWED
KRB

STRUCTURE FILE NUMBER
4700279/4700309

DRAWN
JLL

CHECKED
ACW

DESIGNED
JLL

REVISED

STRUCTURE DETAILS
STRUCTURE LOR-2-7.42L&R
OVER LOR-58

LOR-2-3.86
PID No. 77537

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