

OFFICE OF THE WOOD COUNTY ENGINEER CONTINUOUS STEEL BEAM BRIDGE OVER THE PORTAGE RIVER

BRIDGE N° I-ROAD 463-SEC A

FREEDOM TOWNSHIP

WOOD COUNTY OHIO

ESTIMATED QUANTITIES

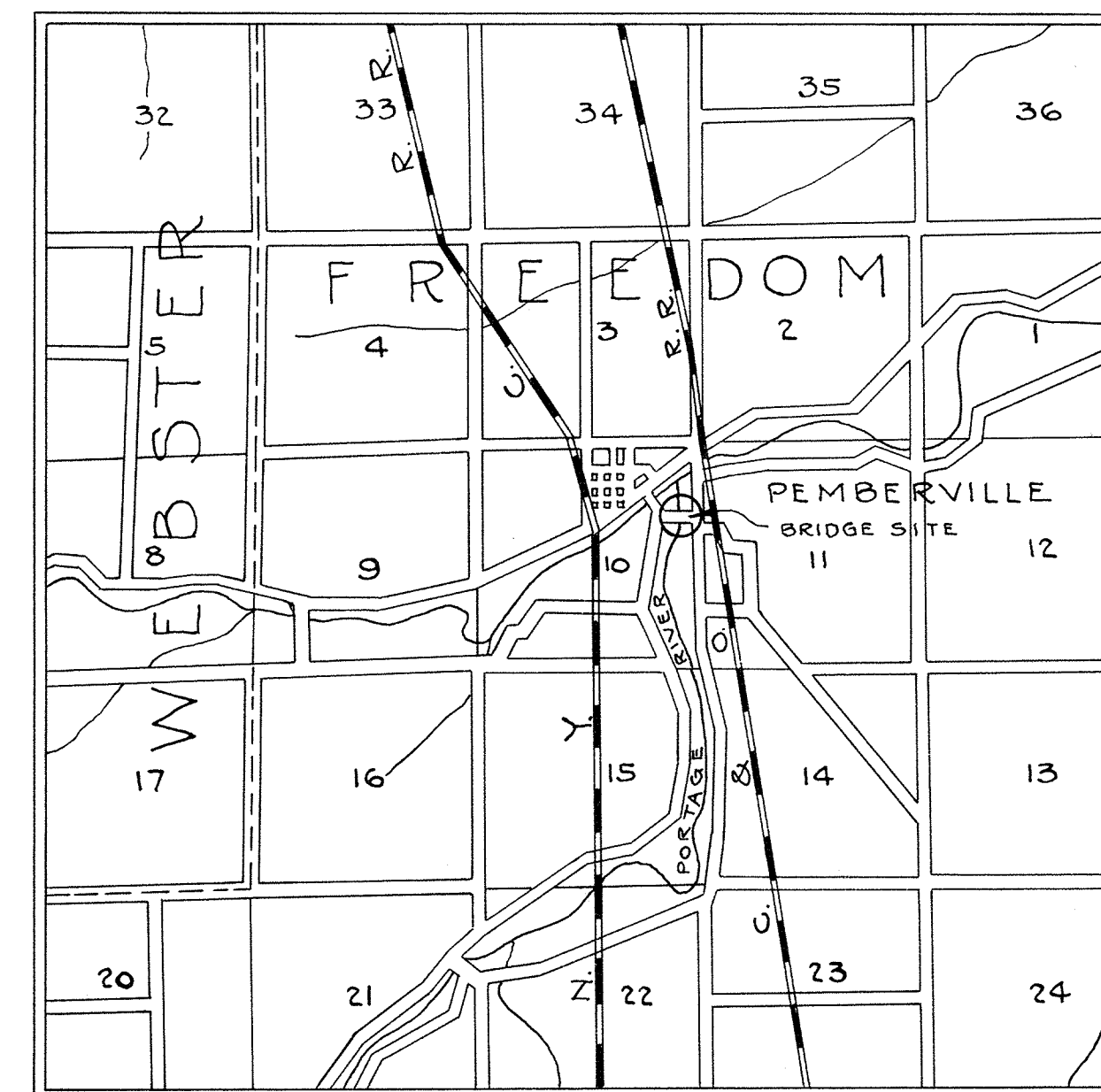
STRUCTURE		
Removing Present Steel Truss Span.....		Lump Sum
Removing Present Stone Masonry Walls (Machine Work).....	250	Cu. Yds.
Earth Excavation (Machine Work).....	540	" "
Earth Excavation (Hand Work).....	17	" "
Building Cofferdams.....		Lump Sum
Scuppers (Wood County Standard).....	8	Each
Rock Excavation for Pier Footers.....	33	Cu. Yds.
Concrete Footers class "E".....	82	" "
Concrete Abutments " ".....	60	" "
Concrete Piers " ".....	74	" "
Concrete Roadway Slab and Curbs Class "C".....	166	" "
Concrete Sidewalk Slabs (on Bridge) " "E".....	42	" "
Waterproofing - Type "B".....	40	Sq. Yds.
Reinforcing Steel (Placing only).....	35720	lbs.
Structural Steel Rockers, Bolsters (Placing only).....	5600	" "
Structural Steel Roadway Beams and Cross-Frames (Placing only).....	132880	" "
Structural Steel Expansion Dams (Placing only).....	4850	" "
Railing (Steel with Concrete Posts and painting Steel 2 Coats).....	315	Lin. Ft.
Painting All Structural Steel (2 Coats).....		Lump Sum
Porous Backfill.....	49	Cu. Yds.
Tamped Earth Backfill.....	296	" "
* Extending Present 12" V.S.P. at S.E. Corner of Bridge.....	8	Lin. Ft.
ROADWAY AND PAVEMENT		
* Removing Present Macadam Pavement.....	593	Sq. Yds.
* Roadway Embankment.....	768	Cu. Yds.
* Building New 9" Surface Treated Macadam Pavement.....	613	Sq. Yds.
* Finishing Berms and Slopes.....	1580	" "
* Building Concrete Sidewalks on Bridge Approaches class "E".....	38	" "
GENERAL		
* Sodding Slopes.....	700	Sq. Yds.
* Earth Barrow - Loaded and Hauled.....	507	Cu. Yds.
Removing Cofferdams.....		Lump Sum
Removing Trees & Stumps.....	4	Each
Building Barricades and Maintaining Lights.....		Lump Sum
Clean up Job Site.....		" "
Premium on Industrial Insurance.....		" "

NOTE:-

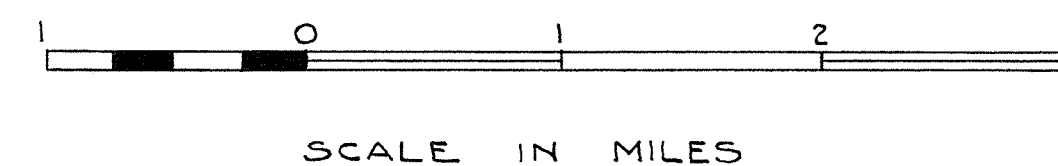
Those Items marked thus (*) are to be performed by Wood County Forces.

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LOCATION PLAN



The Standard Specifications of the State of Ohio, Department of Highways, in force at the time of Construction will govern this project.

I hereby approve these Plans and declare that the making of this improvement will require the closing to traffic of the Highway, and a Temporary Detour will be provided.

Approved this 22d day of January 1947.

Martin Perry Wood County Engineer
Ohio Professional Engineer Reg. No. 1516

We, the County Commissioners of Wood County, Ohio, do hereby approve these Plans and Specifications and Estimates as prepared by the County Engineer.

Approved this 22d day of Jan 1947.

D. H. Gross
C. E. Pettus
M. J. Spachy

County Commissioners
Wood County, Ohio.

Approved this 31 day of Dec 1946
Harry L. Williams Wood County Auditor.

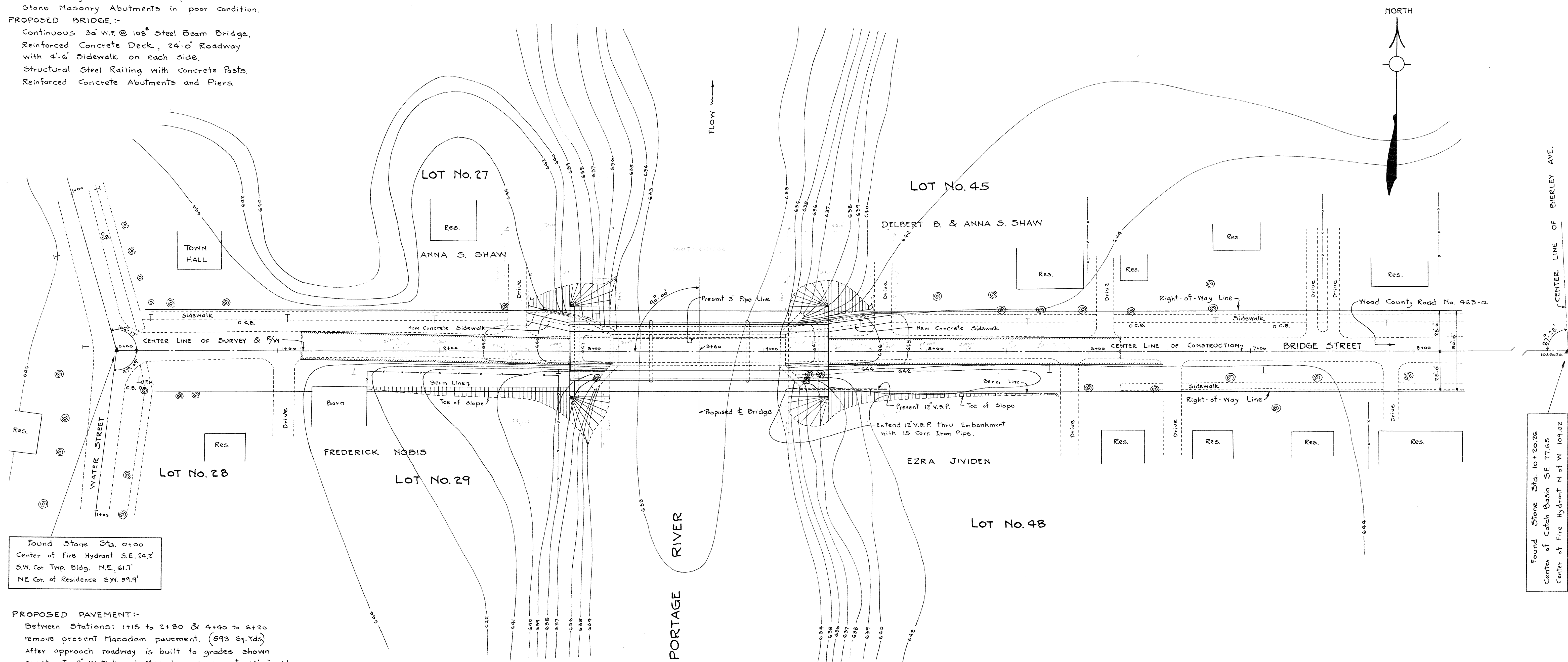
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PRESENT BRIDGE:-

Pratt Truss Span, 7 panels of 14'-9" = 103'-3" 5/8 End Pins.
16'-0" Roadway, Wood Block and plank Floor.
Stone Masonry Abutments in poor condition.

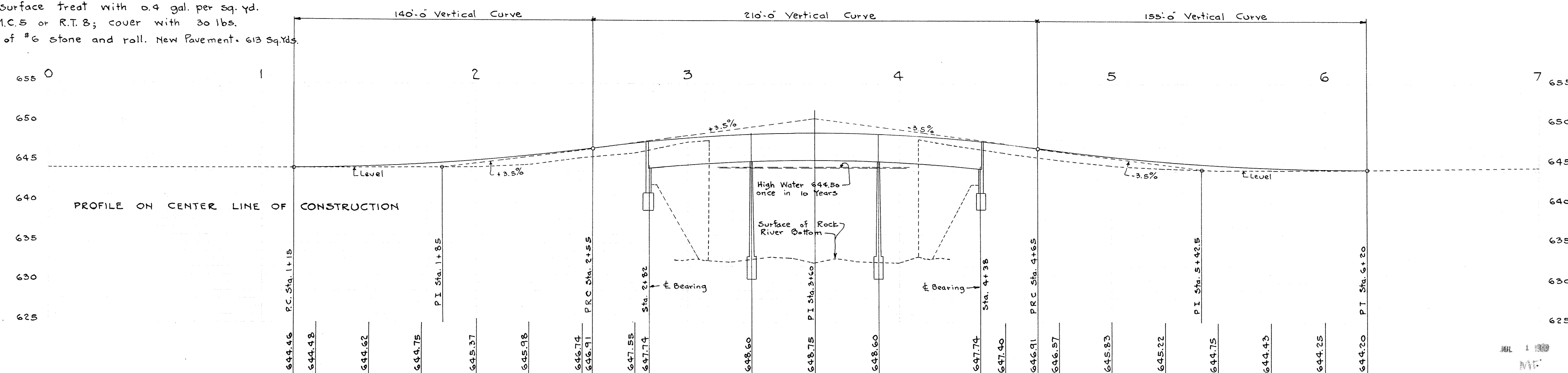
PROPOSED BRIDGE:-

Continuous 36" W.F. @ 108' Steel Beam Bridge.
Reinforced Concrete Deck, 24'-0" Roadway
with 4'-6" Sidewalk on each side.
Structural Steel Railing with Concrete Posts.
Reinforced Concrete Abutments and Piers.

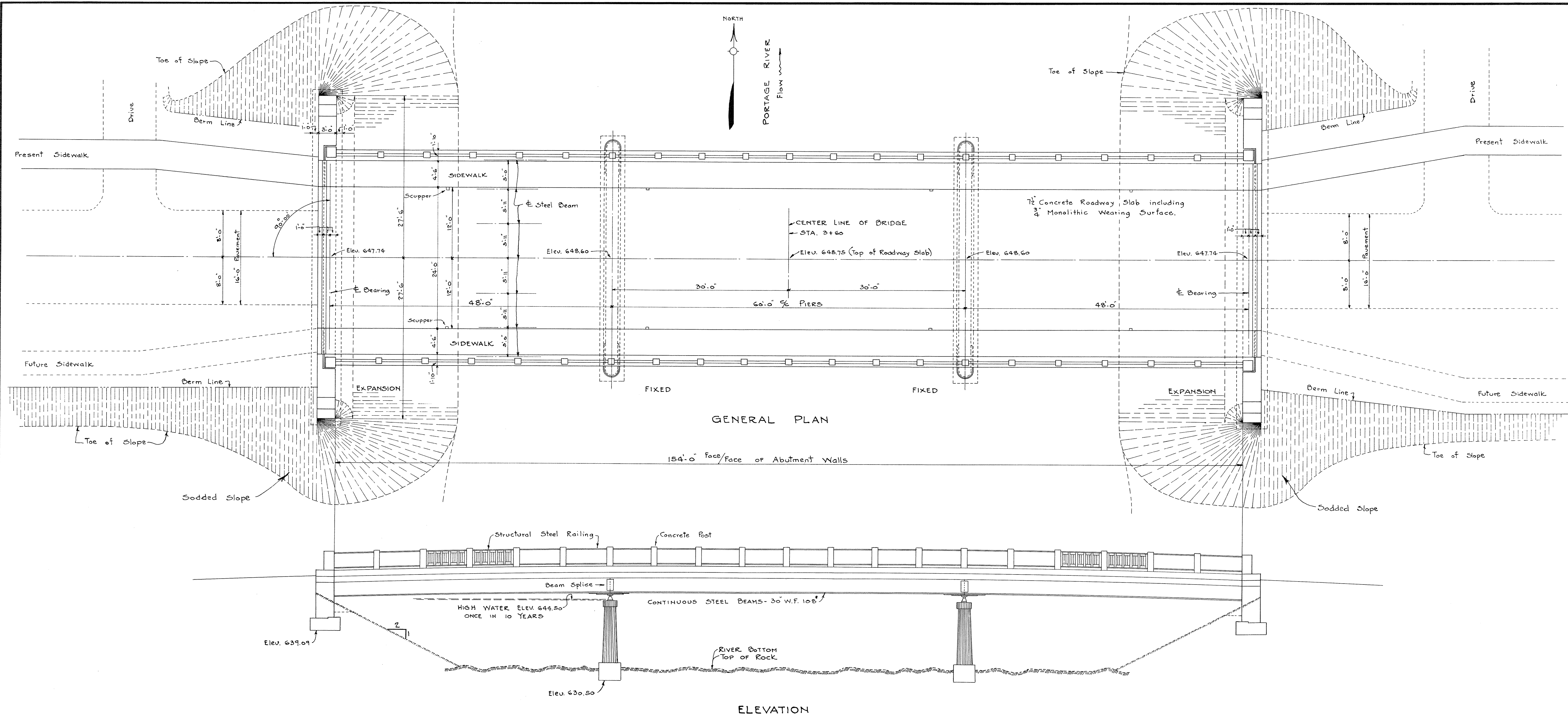


PROPOSED PAVEMENT:-

Between Stations 1+15 to 2+80 & 4+40 to 6+20
remove present Macadam pavement. (593 Sq.Yds)
After approach roadway is built to grades shown
construct 9" Water-bound Macadam pavement; 16'-0" wide,
apply Priming coat of 0.4 gal. per sq. yd. of M.C.1
or R.T.2; surface treat with 0.4 gal. per sq. yd.
of either M.C.5 or R.T.8; cover with 30 lbs.
per sq. yd. of #6 stone and roll. New Pavement 613 Sq.Yds.



SITE PLAN
CONTINUOUS STEEL BEAM BRIDGE
BRIDGE ST. PEMBERVILLE-OVER THE PORTAGE RIVER
BRIDGE NO. 1 ON ROAD NO. 463-SEC. A
FREEDOM TOWNSHIP - WOOD COUNTY, OHIO.
SHEET NO. 2 OF 11 SHEETS
WOOD COUNTY ENGINEER'S OFFICE
MARTIN BERRY - COUNTY ENGINEER
BOWLING GREEN, OHIO.



GENERAL NOTES

TYPE - Triple Span Continuous Steel Beam Bridge. Center Span 60'-0" $\frac{1}{2}$ Piers. Approach Spans 48'-0" Center of Bearing on Abutment to $\frac{1}{2}$ Pier. 24'-0" Roadway with 4'-6" Sidewalks on each side of Bridge.

LOADING - H15, State of Ohio, Dept. of Highways, Specifications for Design.

WEARING SURFACE - is $\frac{3}{4}$ " Concrete placed monolithically with Roadway Slab.

CAMBER - Bridge is to be built to grades shown on Sheet No. 2

ALL EXPOSED EDGES - shall be chamfered $\frac{3}{4}$ "

SPECIAL RUBBED SURFACE FINISH - shall be applied to Railing Posts & Curbs.

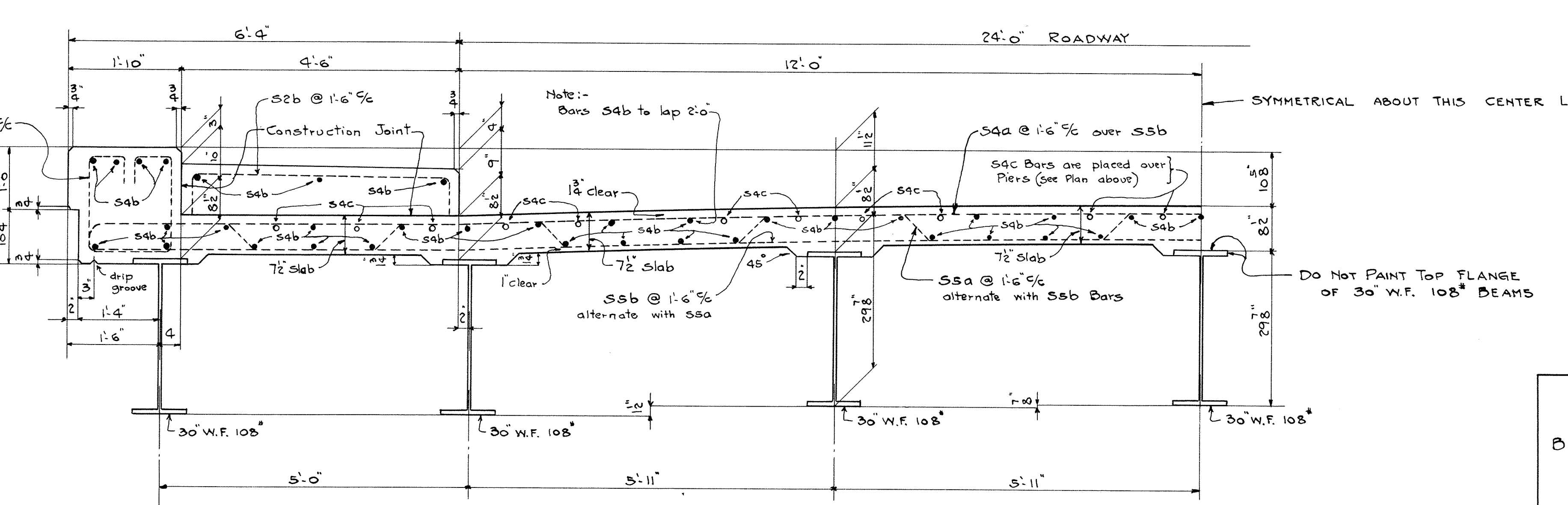
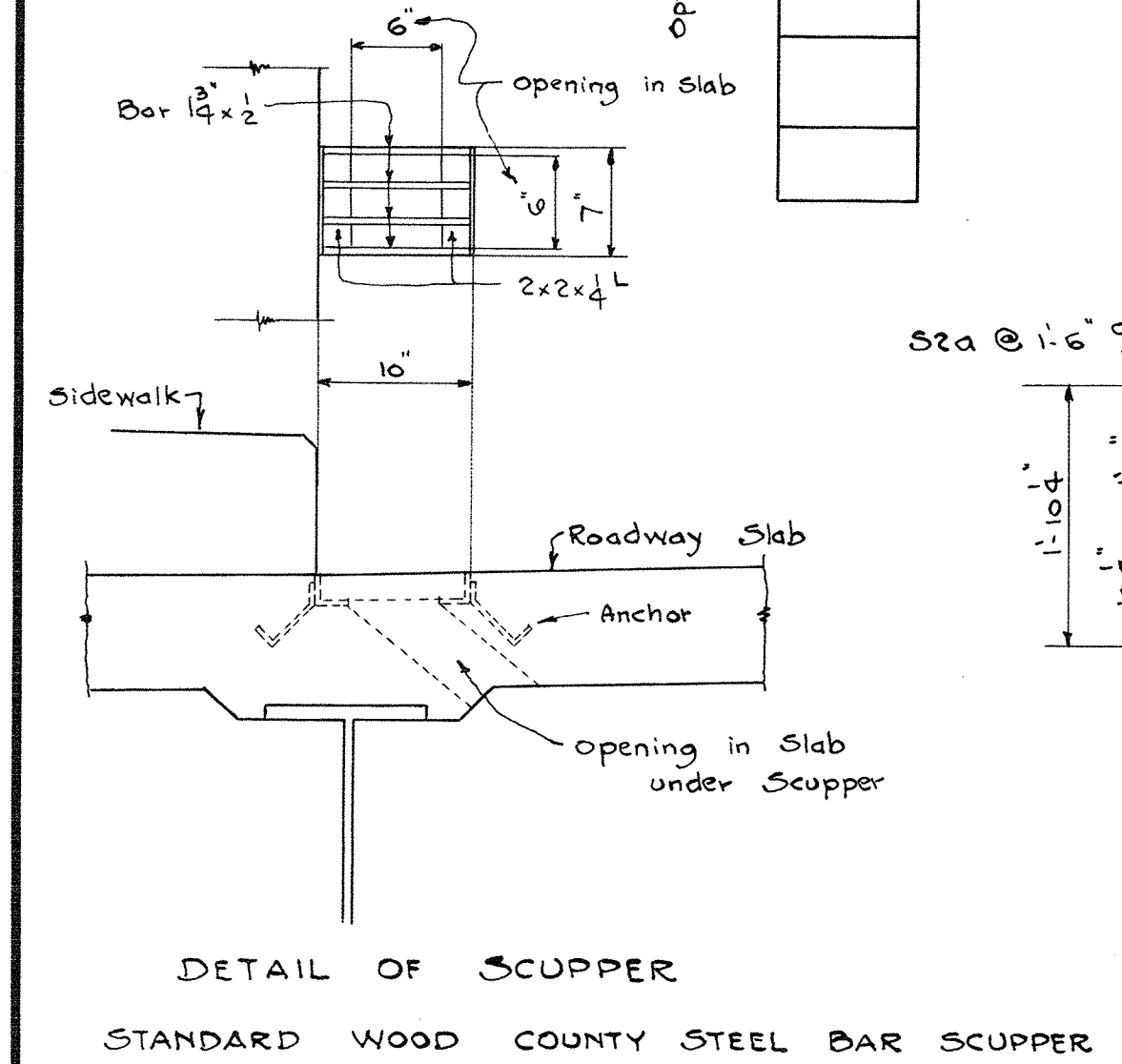
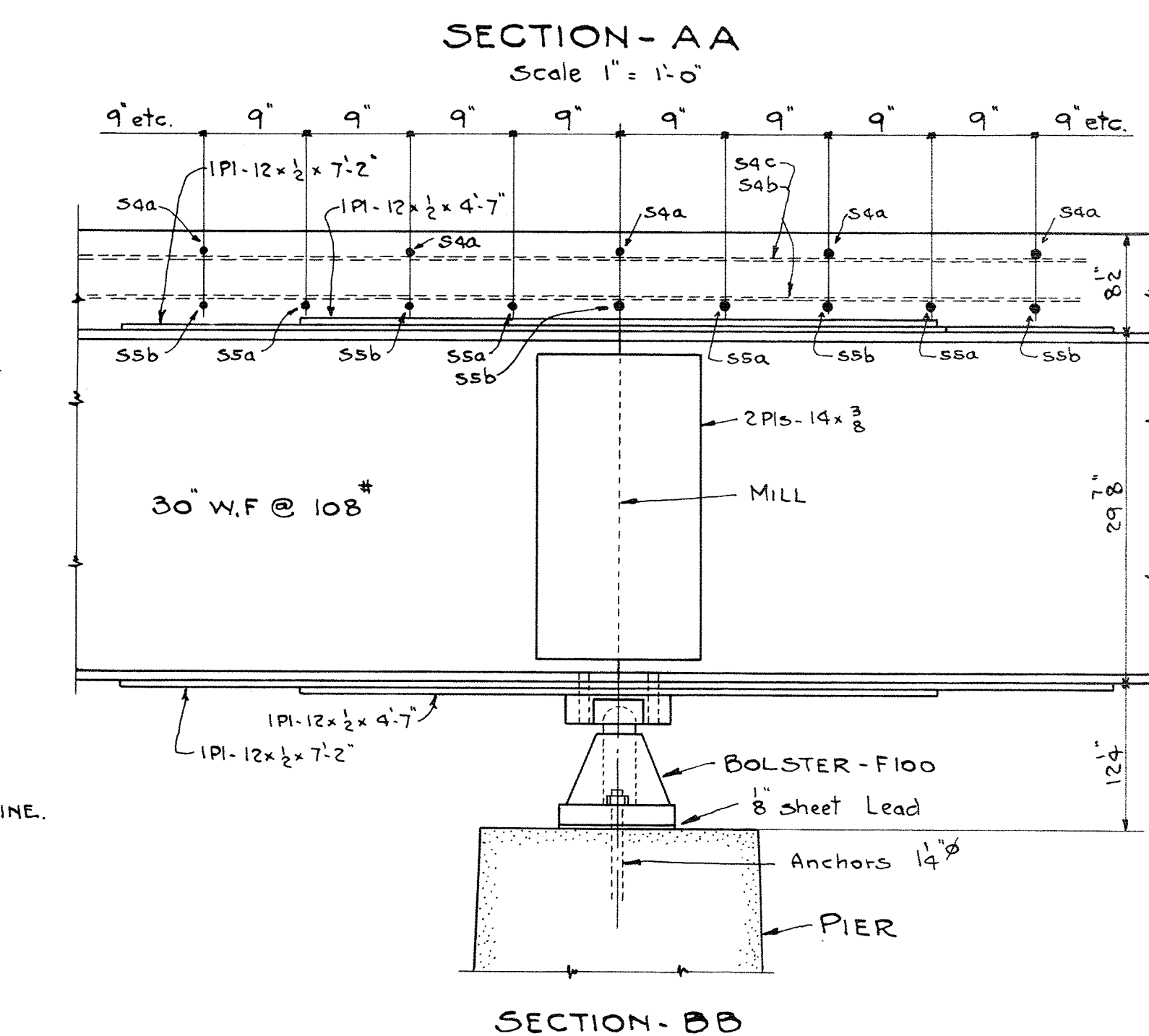
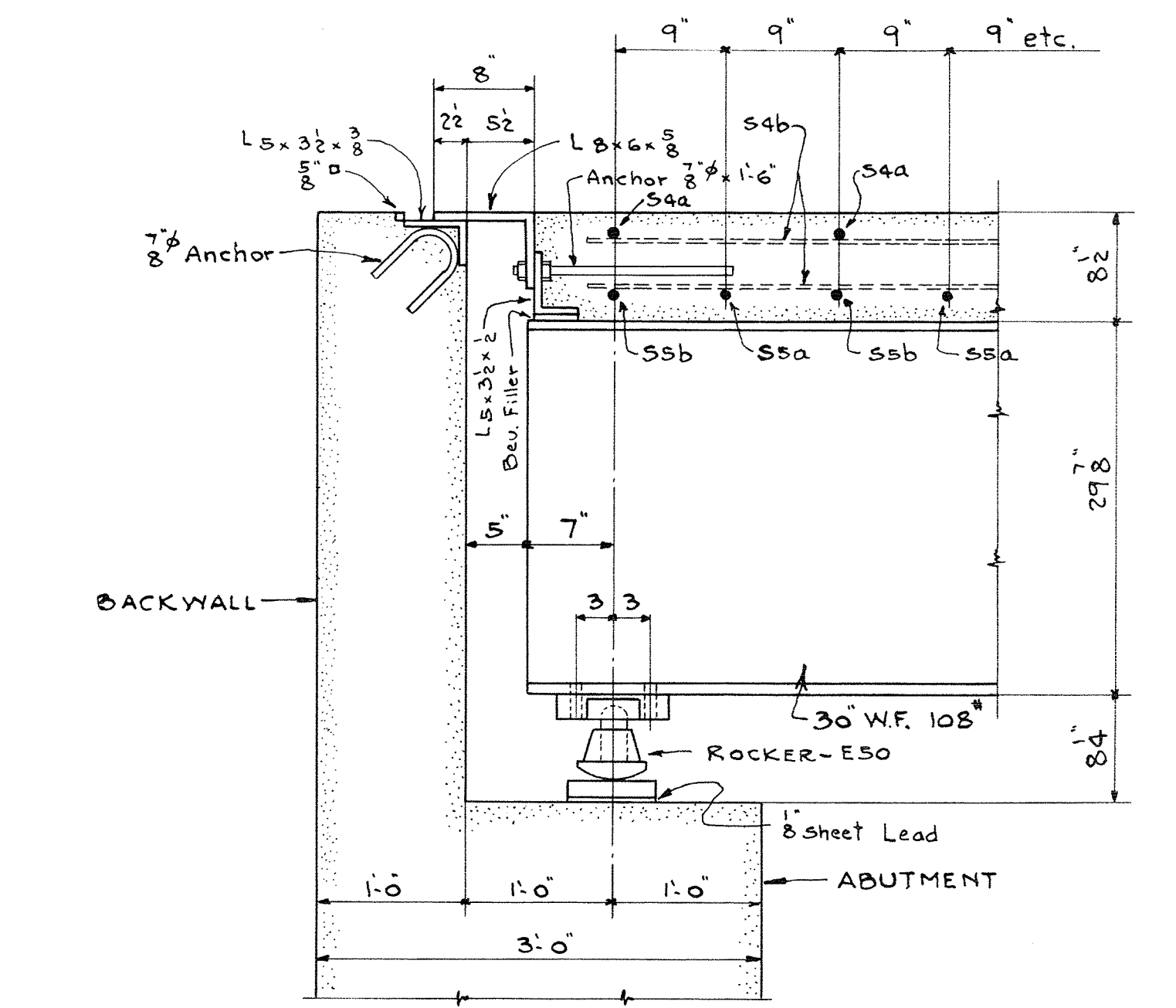
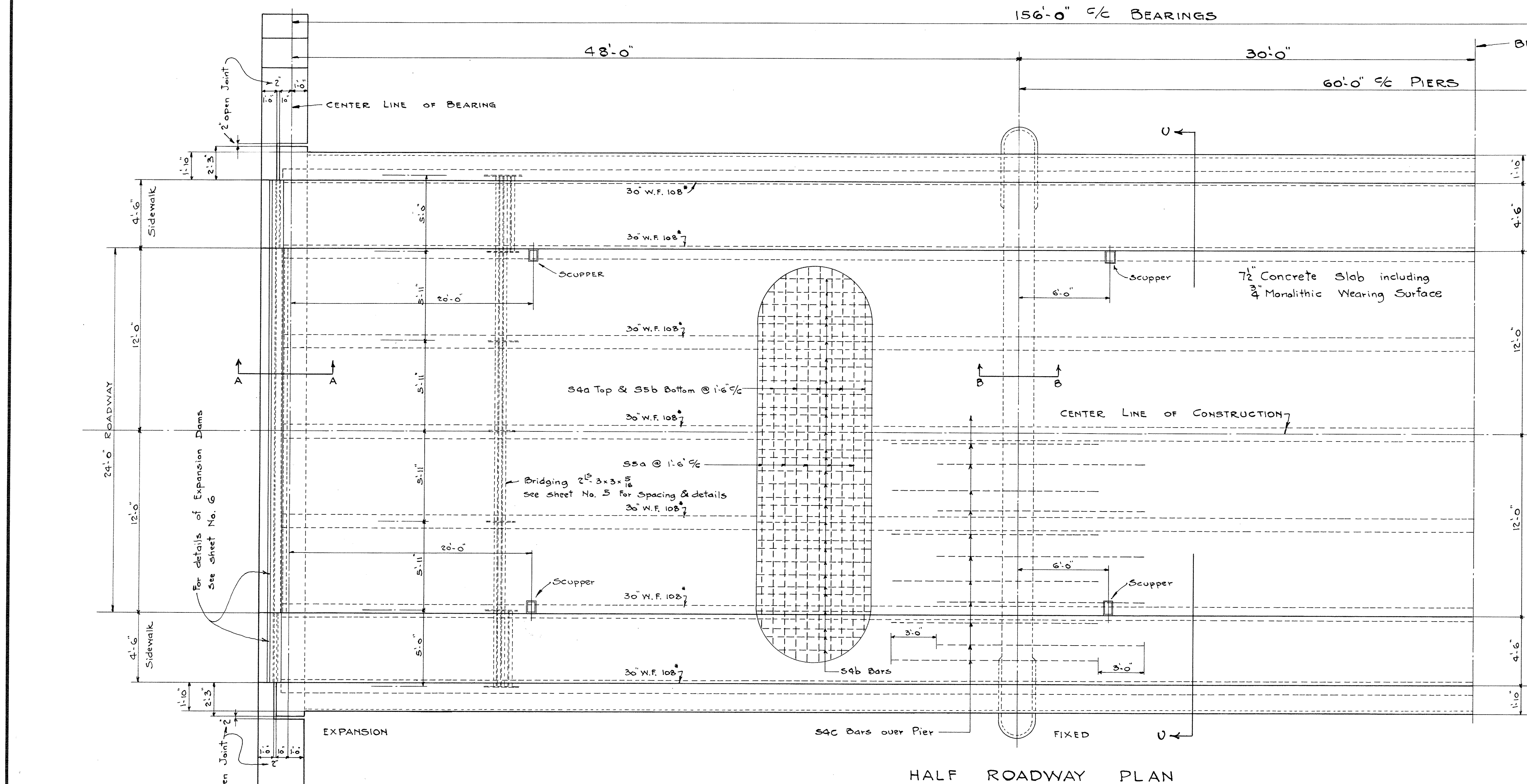
ORDINARY RUBBED SURFACE FINISH - shall be applied to Abutments & Piers.

SIDEWALK FINISH - The concrete after placing shall be struck off with a template and finished with a wood float to produce a Sandy Texture.

CONCRETE MIX:- Class "E" for Footers, Piers, Abutments, Sidewalk Slabs.
Class "C" for Roadway Slab, Curbs, Railing Posts.

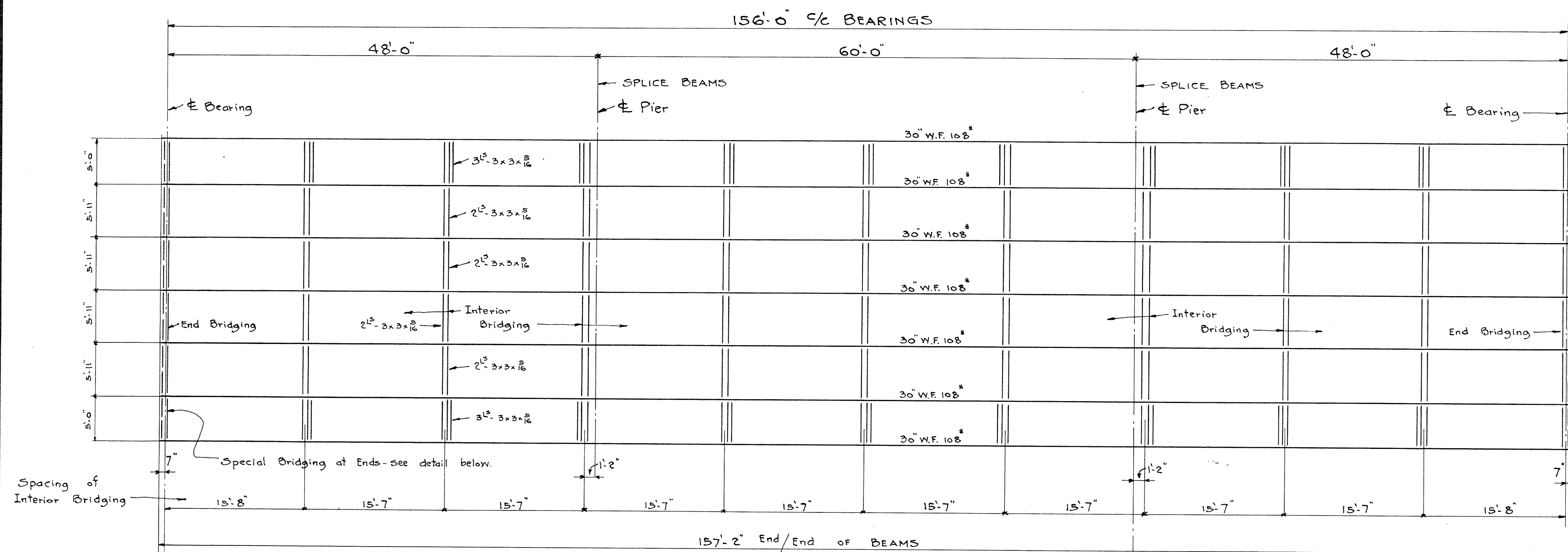
GENERAL PLAN AND ELEVATION
CONTINUOUS STEEL BEAM BRIDGE
BRIDGE STREET, PEMBERVILLE OVER THE PORTAGE RIVER
BRIDGE NO. 1 ON ROAD NO. 463-SEC. A
FREEDOM TOWNSHIP- WOOD COUNTY, OHIO.
SHEET NO. 3 OF 11 SHEETS

WOOD COUNTY ENGINEER'S OFFICE
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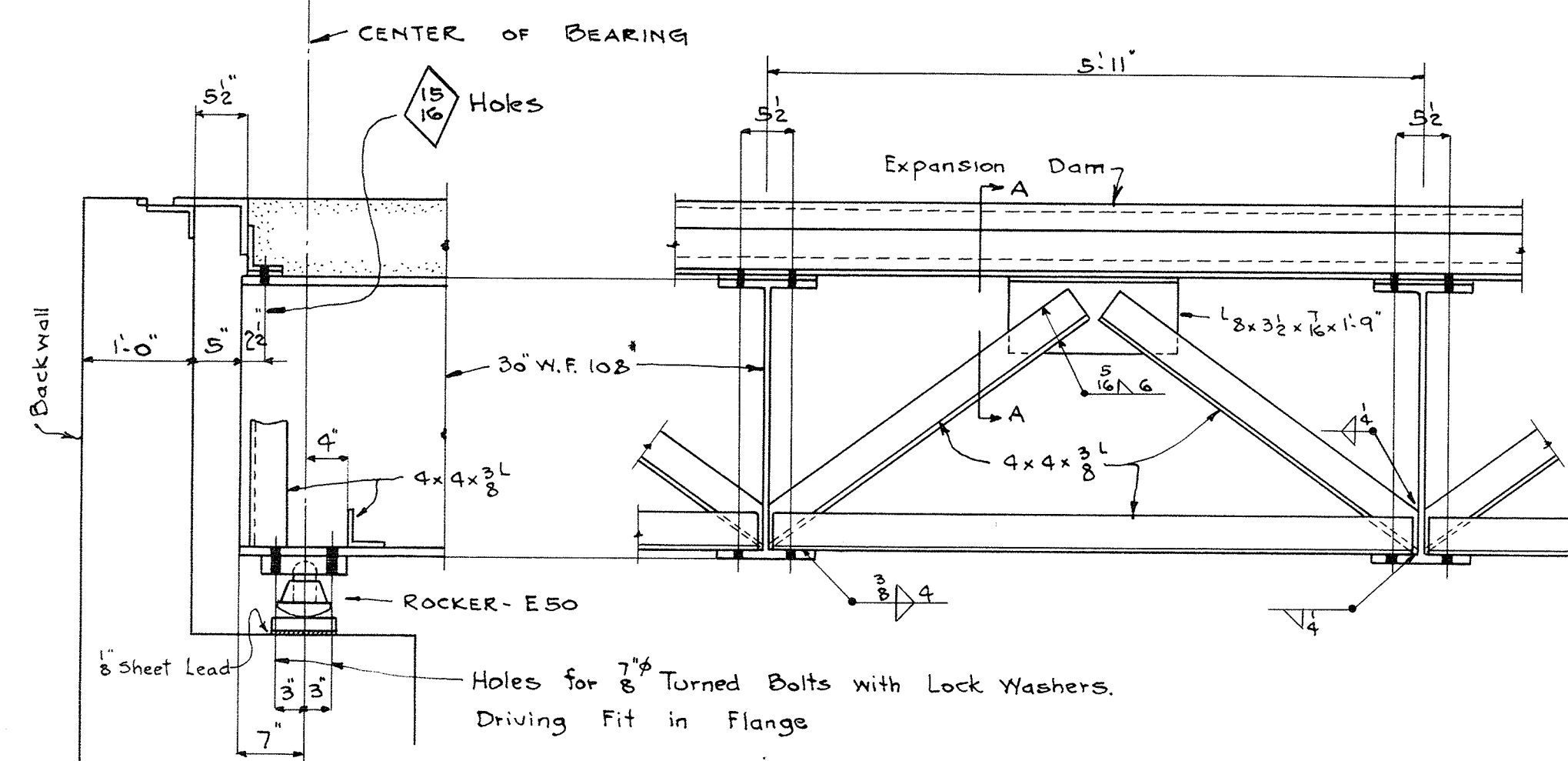
SUPERSTRUCTURE DETAILS
CONTINUOUS STEEL BEAM BRIDGE
 BRIDGE STREET, PEMBERVILLE OVER THE PORTAGE RIVER
 BRIDGE NO. 1 ON ROAD NO. 463-SEC. A
 FREEDOM TOWNSHIP - WOOD COUNTY, OHIO.
 SHEET NO. 4 OF 11 SHEETS

WOOD COUNTY ENGINEER'S OFFICE
 MARTIN BERRY - COUNTY ENGINEER
 BOWLING GREEN, OHIO.

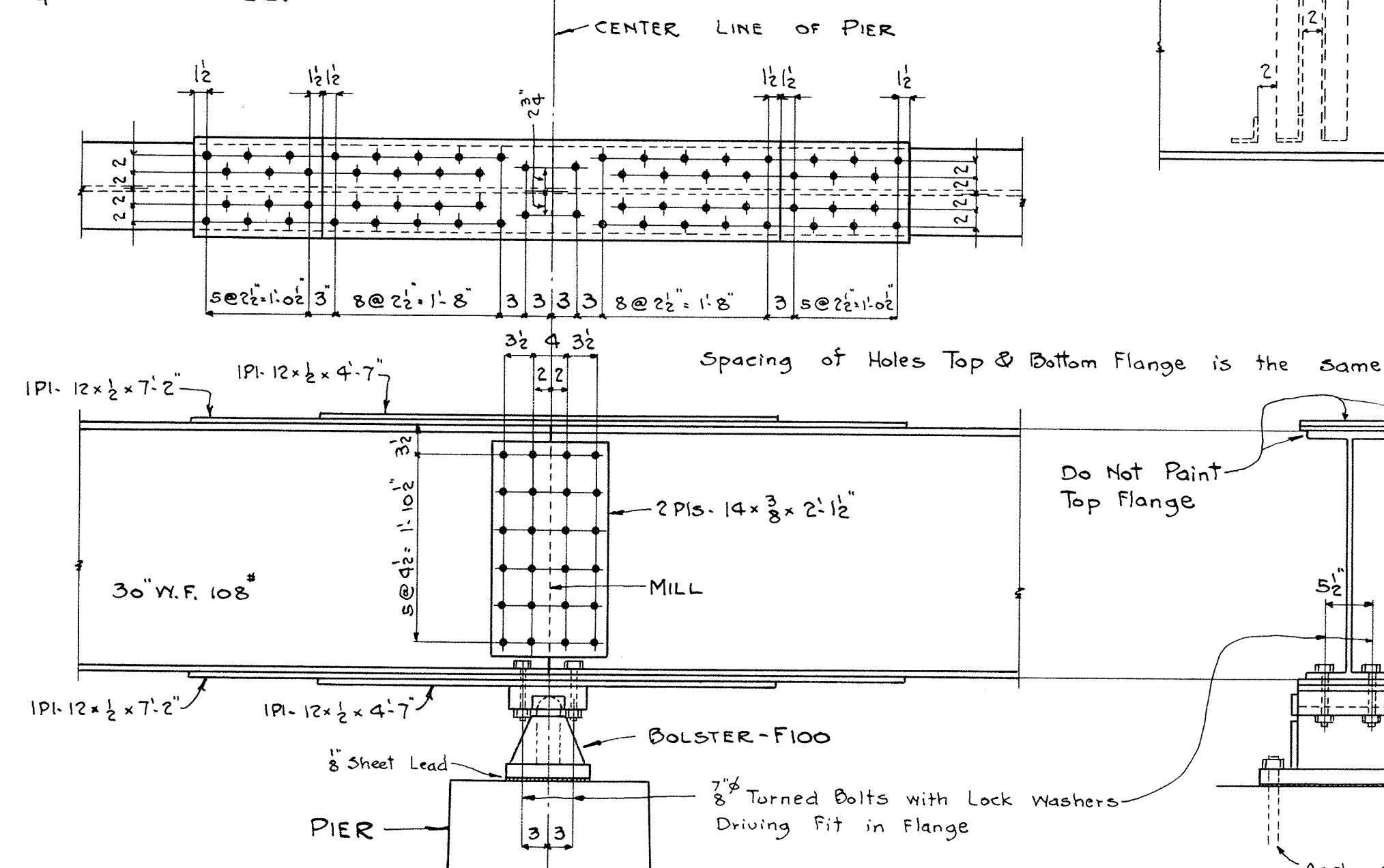
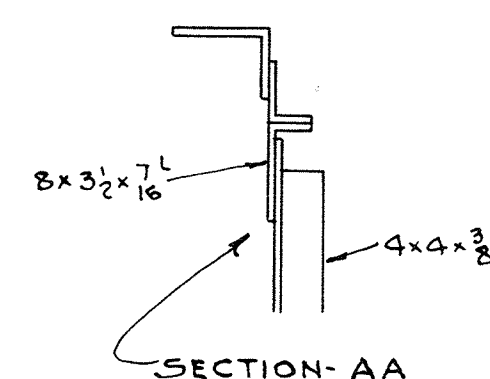


STRUCTURAL STEEL LAYOUT

End Span Beams to be Cambered	1 1/2"	at the MILL.
Center Span Beams to be Cambered	3/4"	at the MILL.

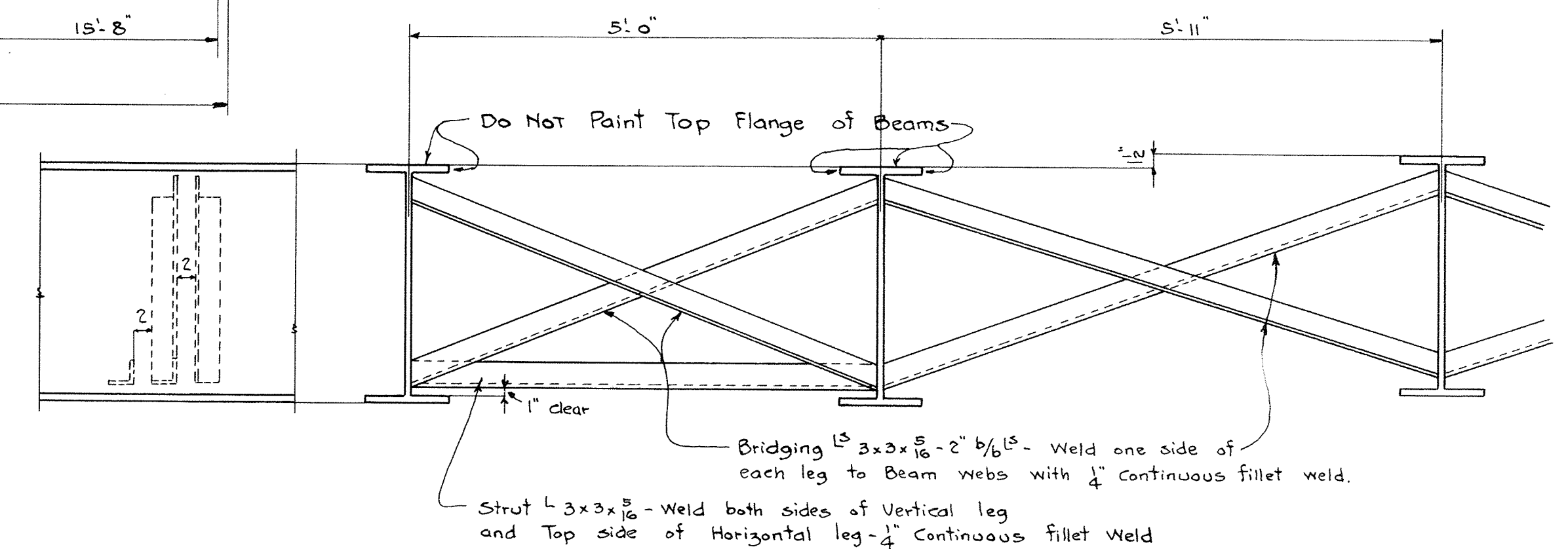


DETAILS OF END BRIDGING



All Holes are $\frac{15}{16}''$ except for Turned Bolts

DETAIL OF BEAM SPLICE OVER PIERS



DETAILS OF INTERIOR BRIDGING

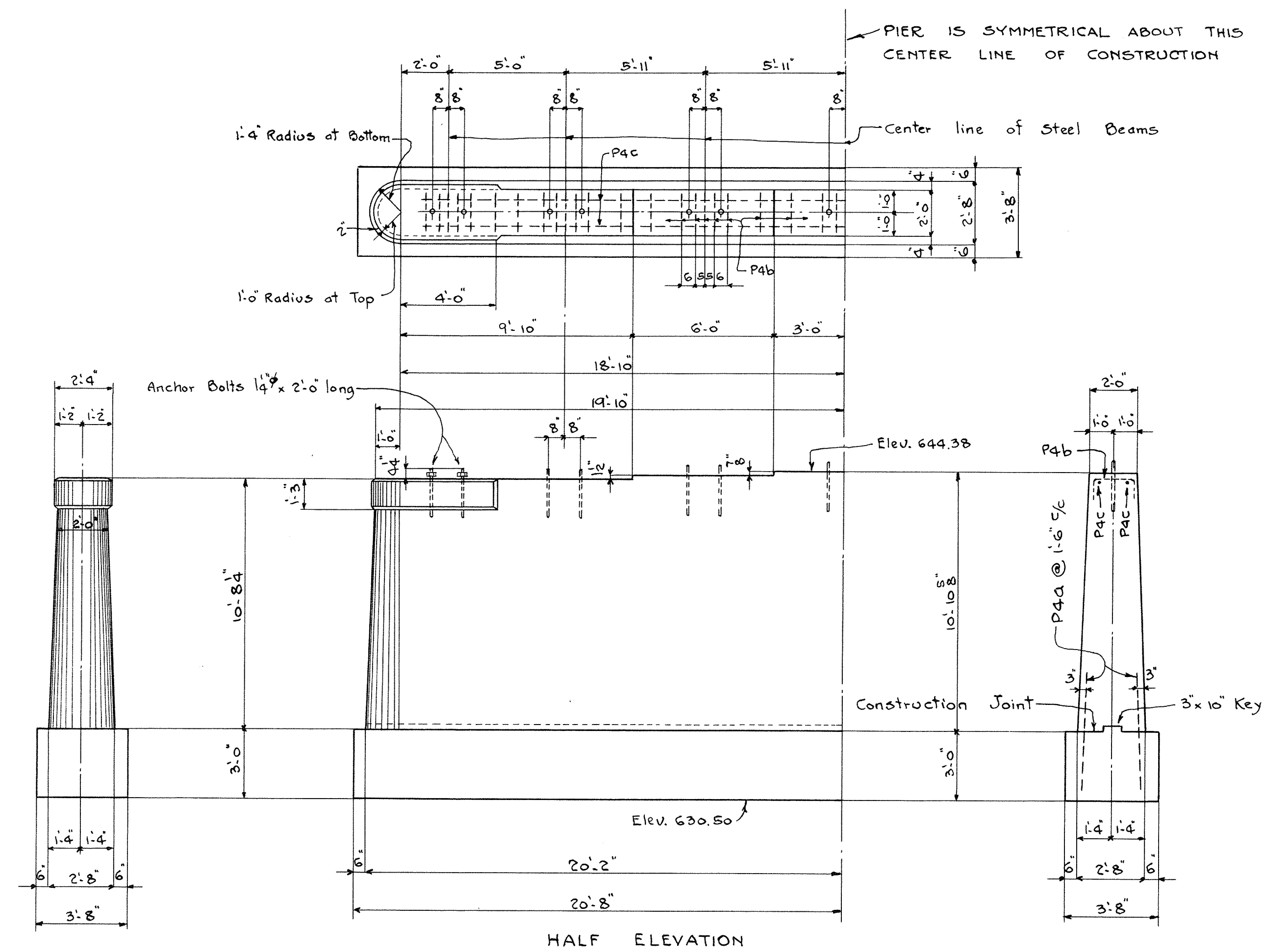
NOTES :-

Field Connections - $\frac{7}{8}$ " Rivets.
Shop Paint- One Coat Red Lead & Oil.

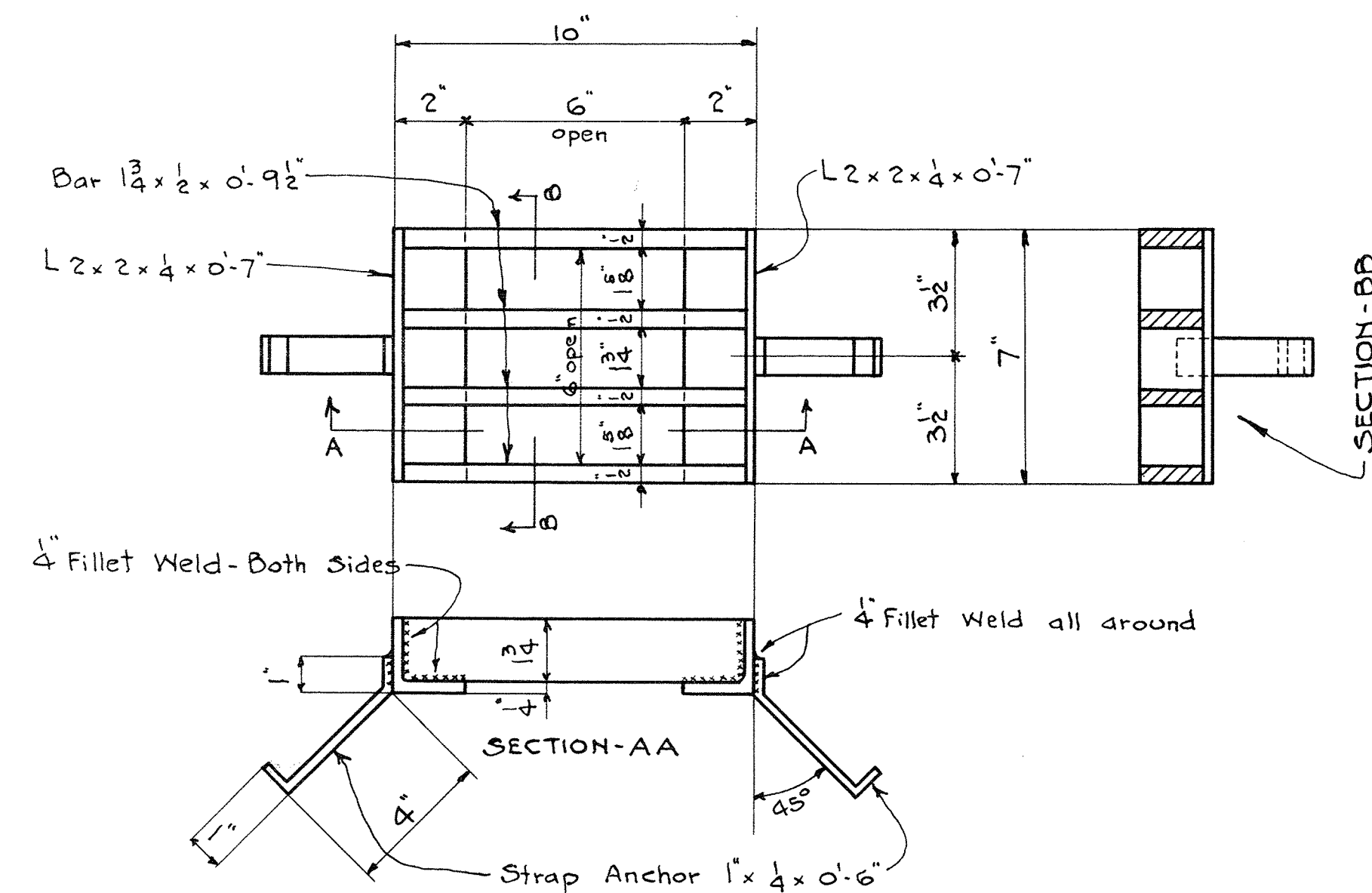
Shop Paint- One Coat Red Lead & Oil.

STRUCTURAL STEEL
CONTINUOUS STEEL BEAM BRIDGE
BRIDGE STREET, PEMBERVILLE OVER THE PORTAGE RIVER
BRIDGE NO. 1 ON ROAD NO. 463-SEC. A
FREEDOM TOWNSHIP- WOOD COUNTY, OHIO.
SHEET NO. 5 OF 11 SHEETS.

WOOD COUNTY ENGINEER'S OFFICE
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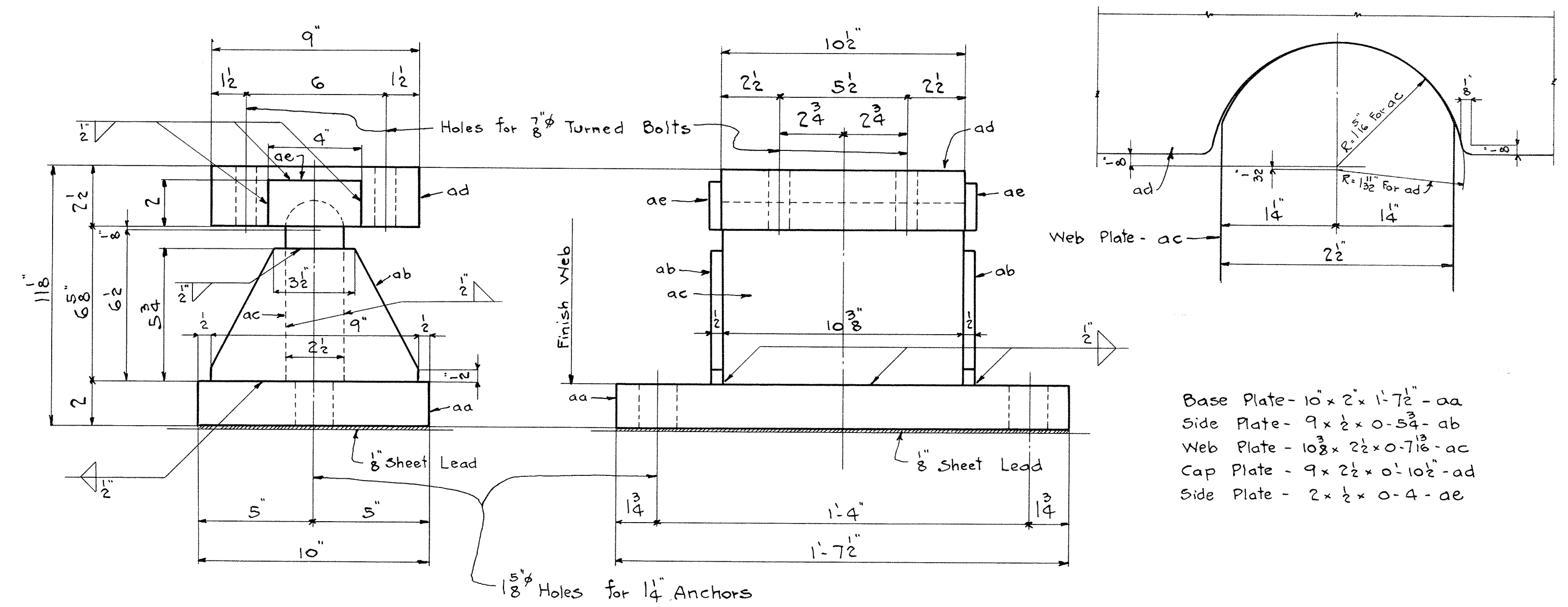


PIER DETAILS

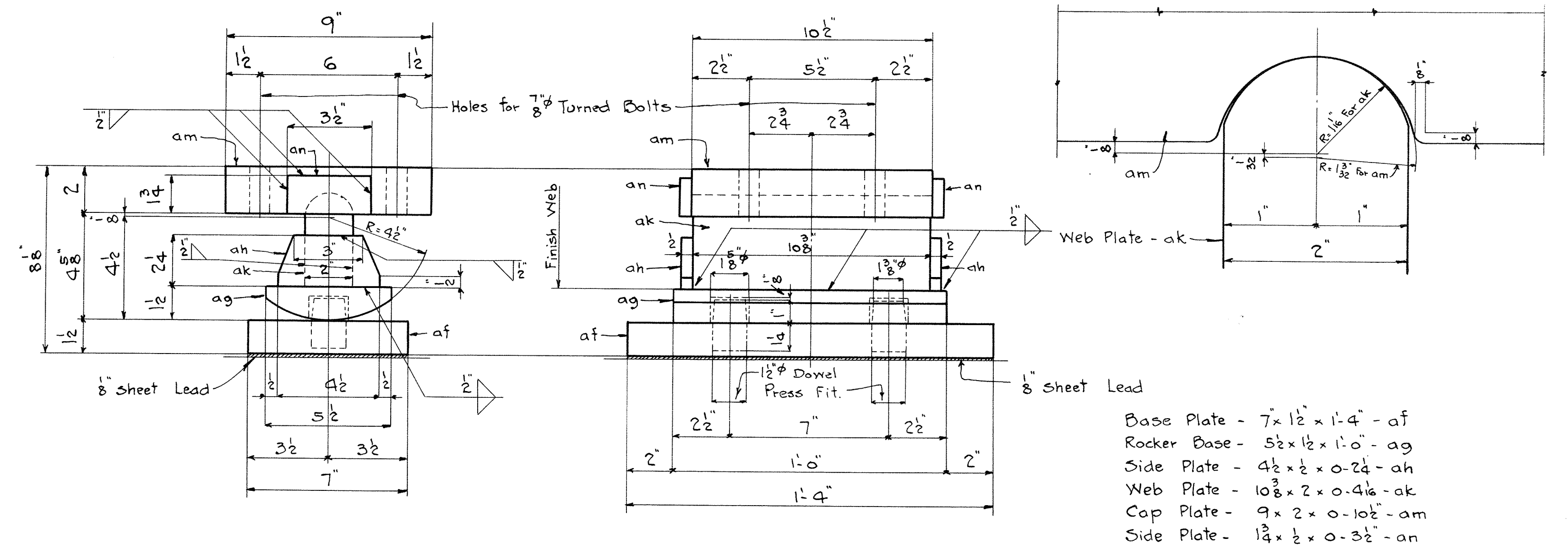


DETAIL OF STANDARD WOOD COUNTY SCUPPER
Material - Structural Steel - 8 Required

NOTE:-
Entire Scupper shall be hot galvanized double dipped after fabrication.



BOLSTER - F100 14 REQUIRED

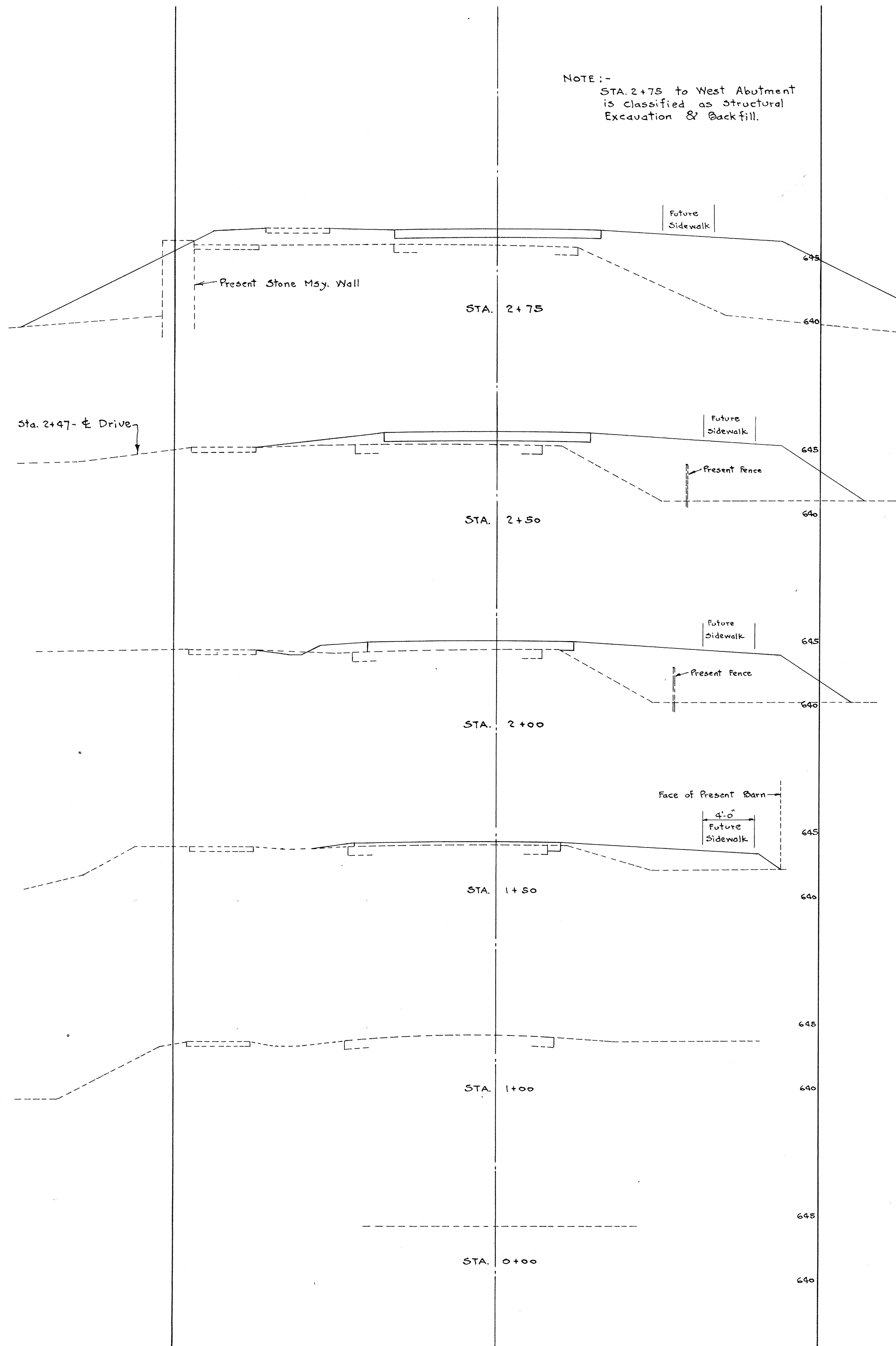


ROCKER - E50 14 REQUIRED

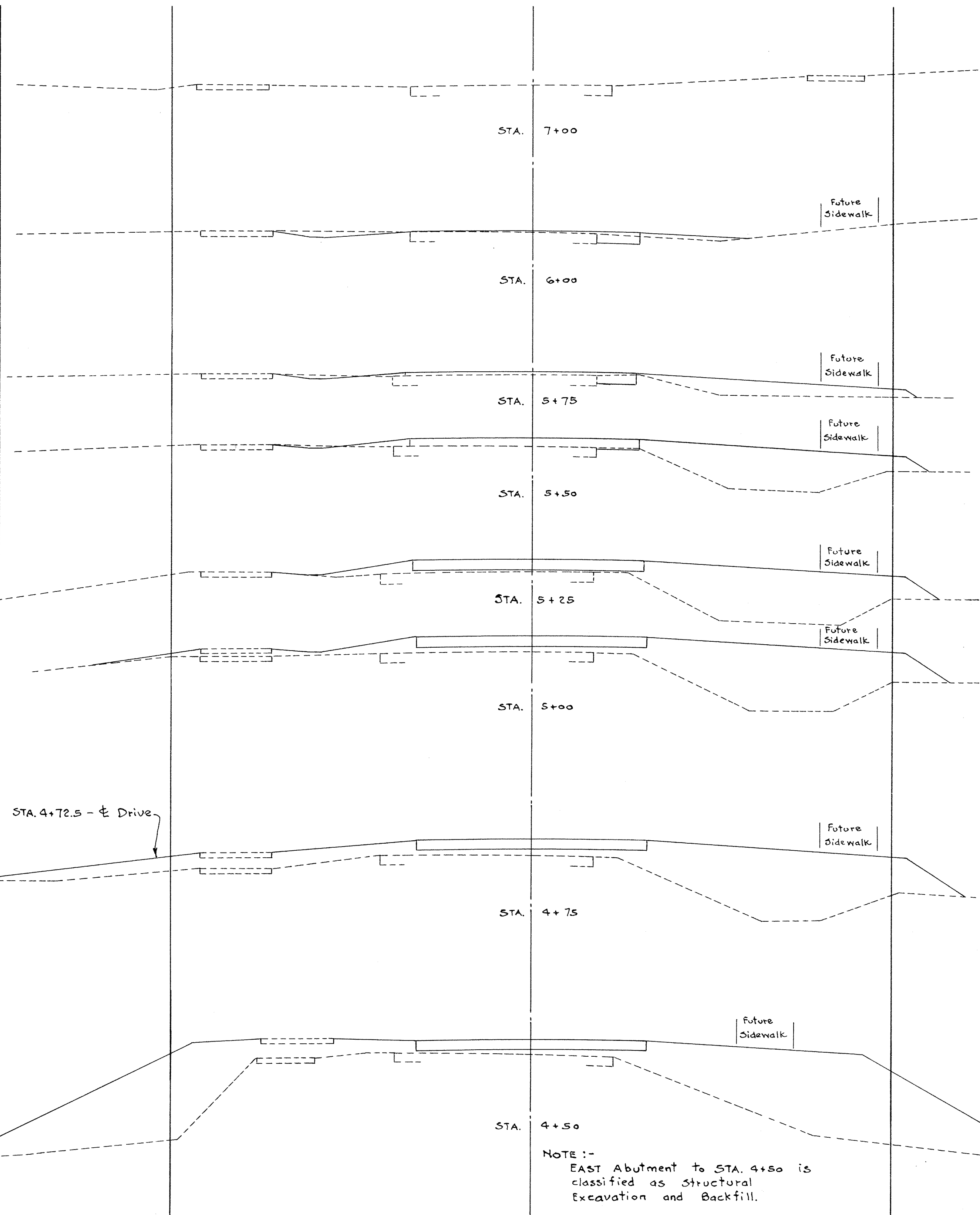
SCALE 3" = 1'-0"

PIERS - BOLSTERS - ROCKERS
CONTINUOUS STEEL BEAM BRIDGE
BRIDGE STREET, PEMBERTONVILLE OVER THE PORTAGE RIVER
BRIDGE NO. 1 ON ROAD NO. 463-SEC. A
FREEDOM TOWNSHIP - WOOD COUNTY, OHIO.
SHEET NO. 7 OF 11 SHEETS

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END AREA		CUBIC YARDS	
CUT	FILL	CUT	FILL
0	184		
0	87	126.0	
0	71	146.3	
0	21	88.2	
		19.5	



TOTAL ROADWAY FILL = 768 CU.YDS.

END AREA		CUBIC YARDS	
CUT	FILL	CUT	FILL
0	2	0.7	
0	17	8.8	
0	41	26.8	
0	63	48.2	
0	86	69.0	
0	114	92.7	
0	199	144.3	

ROADWAY SECTIONS
CONTINUOUS STEEL BEAM BRIDGE
BRIDGE STREET, PEMBERVILLE OVER THE PORTAGE RIVER
BRIDGE NO. 1 ON ROAD NO. 463- SEC. A
FREEDOM TOWNSHIP - WOOD COUNTY, OHIO.
SHEET NO. 10 OF 11 SHEETS

WOOD COUNTY ENGINEER'S OFFICE
MARTIN BERRY - COUNTY ENGINEER
BOWLING GREEN, OHIO.

Bridge St @ Portage River, Pemberville, O
No. 1 **BRIDGE AND CULVERT RECORD, WOOD COUNTY, OHIO**
Road No. 463 Section A Township Freedom Stream or ditch Portage R.
Miles from beginning of section Built 1948 Cost
Sgn 8758948

General Description

Clear span 48'-60' 48' Clear roadway 24' 0" Length of floor 160' 0" Width of bridge seat
Height of floor above bridge seat Height of floor above bottom chord
Shoe anchored to masonry with bolts. Bottom lateral bracing, end panel
Number of side walks 2 Width of sidewalks 4' 6" Right Skew None ft. Left Skew None
Wearing material on roadway Conc. On sidewalks Average depth of water High
Abutments, masonry or concrete Conc. Distance from grade of road to ditch bottom

STEEL ~~TRUSS~~ Deck Girder

Type Continuous Triple Span
Length c. to c. pins or bearings
Height c. to c. chords
Number of panels
Length of panel
Top Chord section
in middle panel
Lower Chord section
in middle panel
Length over all
Distance c. to c. of trusses
Number of spans
Distance c. to c. piers

STEEL LATTICE GIRDER

Type
Length over all
Distance c. to c. girders
Height b. to b. flanges
Distance top of abutment
to bottom of lower flange
Top flange section at center
of bridge
Section of bottom flange
at center of bridge
Number of spans
Distance c. to c. piers
Section of center
floor beam, if any

Floor System

Joists lines of inch I-beams
..... lines of inch channels
..... lines of nailing strips.
Do joists rest on top of floorbeams
Joists are fastened to floorbeams with
End joists rest on
Floor beams Size
Shape
Hangers Size
Shape

Maintenance Record

NATURE OF WORK	DATE	COST

1 - 463 - A

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R-2/1