

ESTIMATE OF QUANTITIES		
ITEM	QUANTITY	DESCRIPTION
E-2	52.0 CU. YD.	EXCAVATION FOR STRUCTURES (UNCLASSIFIED)
S-1	322 CU. YD.	CLASS "E" CONCRETE, FOOTINGS
S-1	826 CU. YD.	CLASS "C" CONCRETE, SUPERSTRUCTURE ABOVE FOOTINGS
S-1	110 CU. YD.	CLASS "C" CONCRETE, SUPERSTRUCTURE
S-3	422 SQ. YD.	TYPE "A" WATERPROOFING
S-4	50,242 LB.	REINFORCING STEEL
S-8	413,500 LB.	FIELD PAINTING OF STRUCTURAL STEEL
S-9	524 SQ. FT.	1/2" PREFORMED EXPANSION JOINT FILLER
S-9	346 LIN. FT.	16 OZ. COPPER FLASHING 4" WIDE
S-9	165 LIN. FT.	16 OZ. COPPER FLASHING 18" WIDE
S-9	18 LIN. FT.	PLASTIC CEMENT EXPANSION JOINT
S-29	224 CU. YD.	POROUS BACKFILL
S-29	55 LIN. FT.	8" BITUMINOUS COATED CORRUGATED METAL PIPE M-6.4(7)
S-29	270 LIN. FT.	8" PERM BITUMINOUS COATED CORRUGATED METAL PIPE M-6.4(7)
S-103	286 SQ. YD.	3 PLY MEMBRANE WATERPROOFING TYPE "B"
S-103	273 SQ. YD.	CLASS "C" CONCRETE PROTECTION-INCLUDING WIRE FABRIC, GROUT SEAL AND 4" BRICK PROTECTION
S-107	419,500 LB.	STRUCTURAL STEEL INCLUDING SHOES, ANCHOR BOLTS, EMBEDDED MASONRY PLATES, DRAINS & W. I. PIPE.
E-2	200 CU. YD.	SHALE EXCAVATION

# REMOVAL PLAN

FED. RD. DISTRICT	STATE	PROJECT	84 120
2	OHIO		

LAKE COUNTY  
LAK - 90 - 13.00

## GENERAL NOTES

SPECIFICATIONS: STATE OF OHIO, DEPARTMENT OF HIGHWAYS, CONSTRUCTION AND MATERIAL SPECIFICATIONS, DATED JANUARY 1, 1955. SUPPLEMENTAL SPECIFICATIONS No. S-103 REVISED FEBRUARY 16, 1955 AND No. S-107 REVISED FEBRUARY 16, 1955.

DESIGN: A.R.E.A. SPECIFICATIONS FOR STEEL RAILWAY BRIDGES, 1957  
LIVE LOAD: COOPERS E-72.

STRUCTURAL STEEL: WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION No. S-107.

ANCHOR BOLTS: HOLES FOR ANCHOR BOLTS SHALL BE DRILLED IN CONCRETE AFTER ERECTION OF STEELWORK.

CONCRETE: CONCRETE SHALL BE EITHER CLASS "C" OR CLASS "E" AS SHOWN ON THE DETAIL DRAWINGS. COARSE AGGREGATES SHALL BE IN ACCORDANCE WITH SEC. M-3.1 OR SEC. M-3.91. FINE AGGREGATES SHALL BE IN ACCORDANCE WITH SEC. M-2.1 (B&O RR REQUIREMENT). ALL EXPOSED EDGES SHALL BE CHAMFERED 3/4" x 3/4" UNLESS OTHERWISE NOTED. EXPOSED SURFACES OF WINGWALLS, ABUTMENTS AND CENTER PIER SHALL RECEIVE A RUBBED SURFACE FINISH - OTHER SURFACE FINISHES IN ACCORDANCE WITH ITEM S-1. CONCRETE SHALL NOT BE SUBJECTED TO STRAINS OR VIBRATIONS FROM TRAINS UNTIL IT HAS THE REQUIRED STRENGTH.

REINFORCING STEEL: ALL BARS SHALL BE DEFORMED, INTERMEDIATE GRADE BILLET STEEL IN ACCORDANCE WITH SEC. M-7.1. DIMENSIONS FOR EMBEDMENT AND BENDING DETAILS ARE TO CENTERLINES OF BARS. LAP BARS 30 BAR DIAMETERS UNLESS OTHERWISE SHOWN. LAP WELDED WIRE FABRIC AT LEAST 4 INCHES.

WATERPROOFING: TYPE "A" WATERPROOFING IN ACCORDANCE WITH ITEM S-3 SHALL BE APPLIED TO THE REAR FACE OF ABUTMENTS AND WINGWALLS. THE WATERPROOFING SHALL EXTEND FROM THE TOP OF FOOTINGS TO WITHIN 2 FEET OF THE TOP OF THE BACKWALLS, AND ONE FOOT OF THE TOP OF WINGWALLS AND ON PYLONS TO THE HEIGHT SHOWN ON THE PLANS. TYPE "B" AREA WATERPROOFING SHALL BE APPLIED TO DECK AS SHOWN ON THE DRAWINGS, IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION No. S-103.

POROUS BACKFILL: POROUS BACKFILL BEHIND WINGWALLS AND ABUTMENTS SHALL BE NO. 1 GRAVEL OR STONE AND SHALL EXTEND FROM THE LOWER DRAIN PIPE TO THE TOP OF DECK PAVEMENT OR TO SURFACE OF BACKFILL BEHIND THE WINGWALLS.

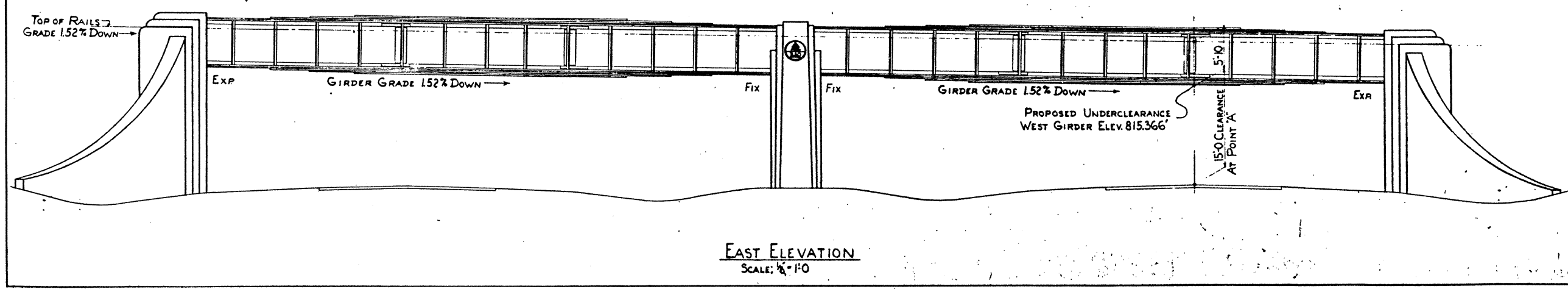
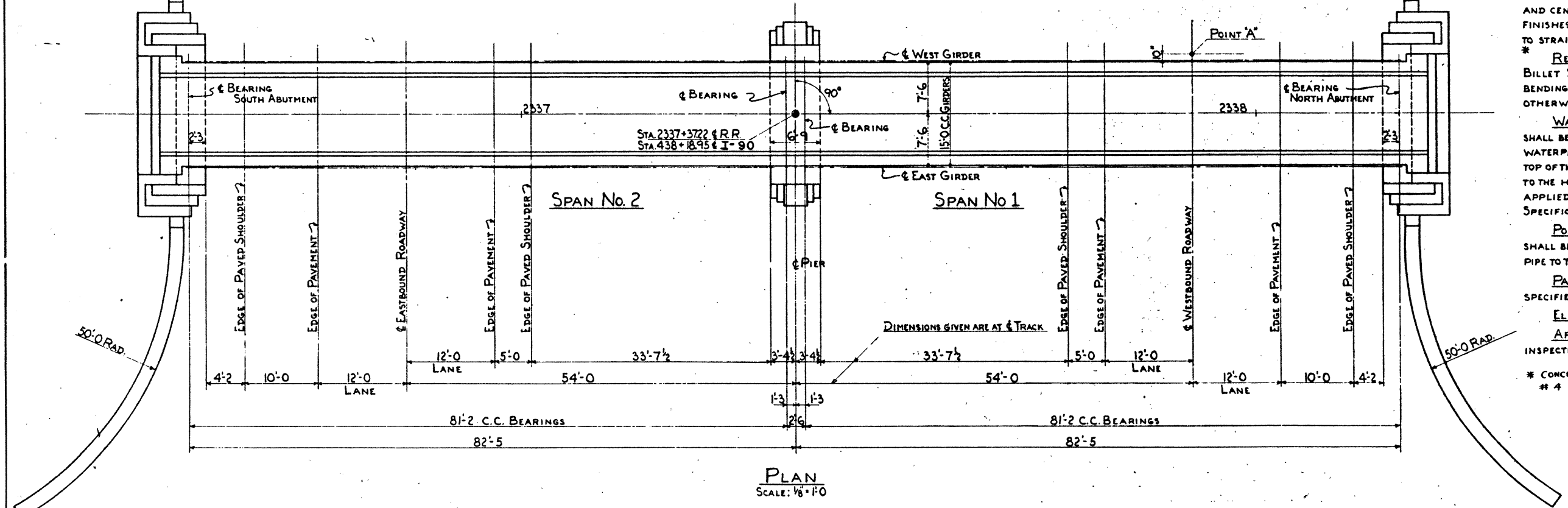
PAINTING: PAINTING SHALL BE IN ACCORDANCE WITH ITEM S-8 AND AS SPECIFIED ON DRAWING No. \_\_\_\_\_

ELEVATIONS: ELEVATIONS GIVEN REFER TO OHIO STATE HIGHWAYS DEPARTMENT DATUM.

APPROVAL & SHOP INSPECTION: APPROVAL OF SHOP DRAWINGS AND SHOP INSPECTION OF STRUCTURAL STEEL WILL BE DONE BY THE B&O RR.

\* CONCRETE IN WATERPROOFING PROTECTION SHALL BE CLASS "C" WITH # 4 COARSE AGGREGATE.

(RAILS AND BALLAST HAVE BEEN REMOVED)



REMOVAL PLAN					
STATE OF OHIO DEPARTMENT OF HIGHWAYS					
BRIDGE NO. LAK - 90 - 1599 I-90 UNDER B&O RAILROAD LAKE COUNTY STA. 438+18.95					
GENERAL PLAN					
DESIGNED	DRAWN	TRACED	CHECKED	REVISED DATE	REVISION