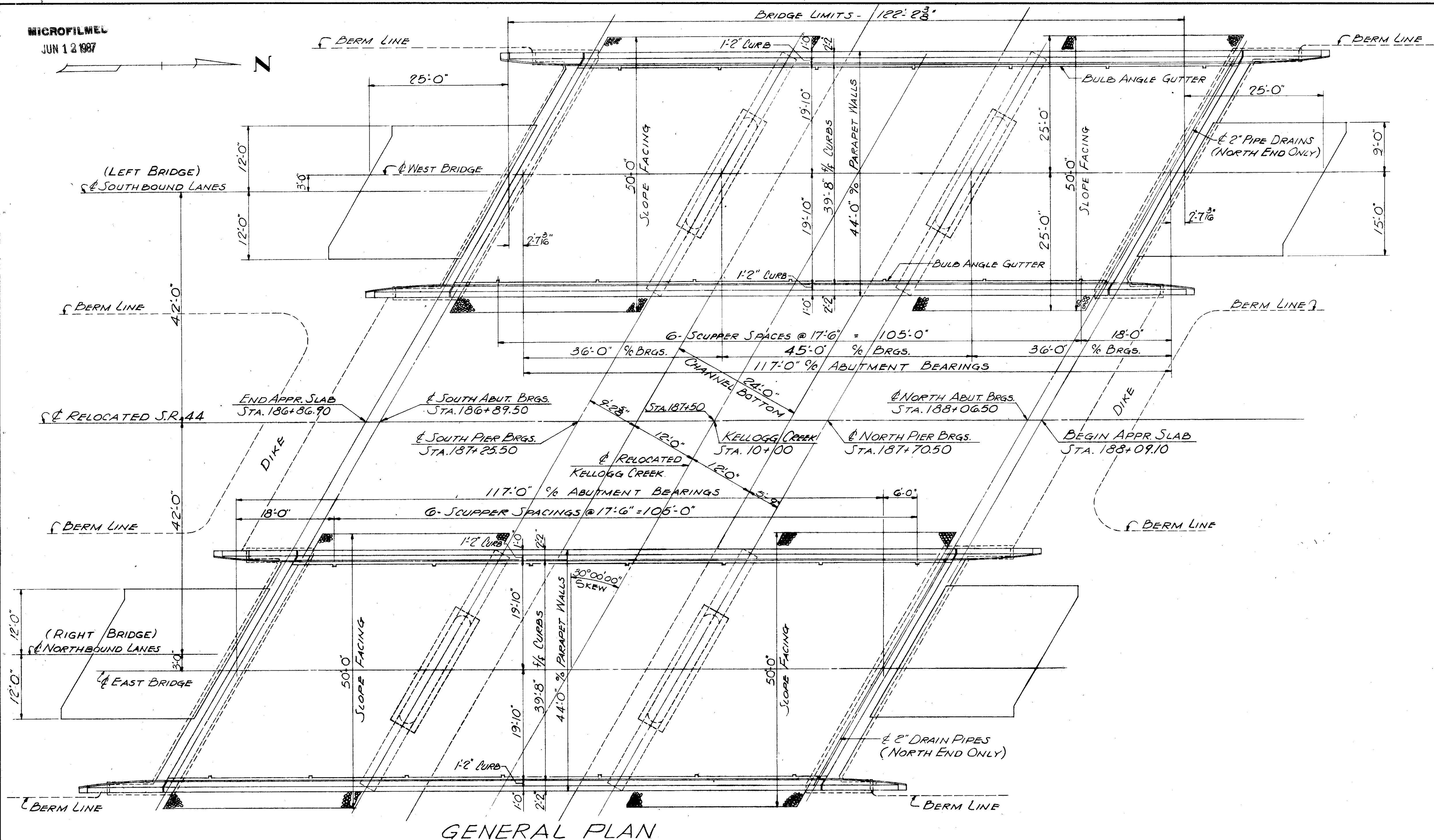


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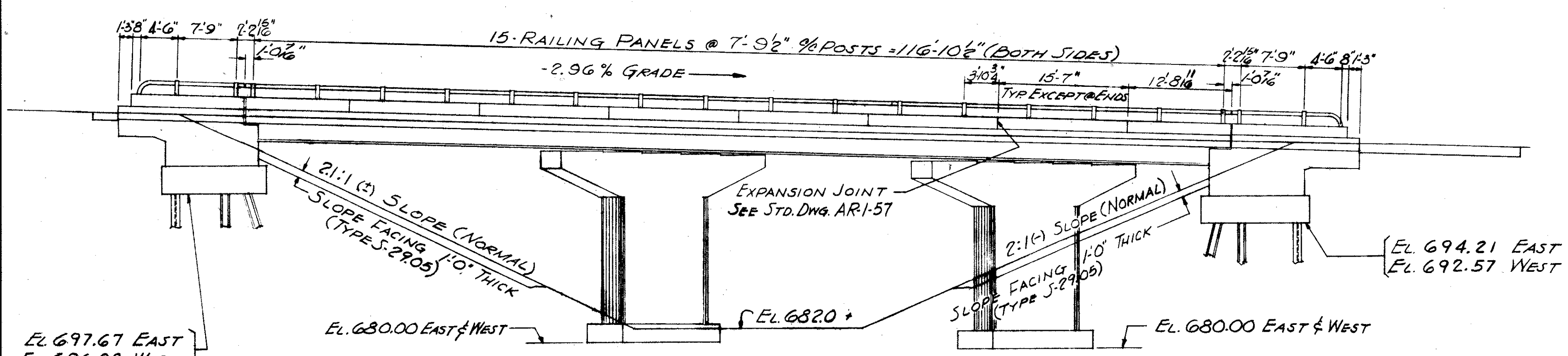
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

LAKE COUNTY
LAK-44-1.70

205
228



GENERAL PLAN



GENERAL ELEVATION

GENERAL NOTES

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS CSB-2-56 SHEETS 2 AND 3 REVISED 3-1-58, AND AR-1-57 REVISED 3-1-58, AND TO SUPPLEMENTAL SPECIFICATIONS S-114, ALUMINUM FOR BRIDGE RAILING, REVISED 8-1-57, AND AS-1-54 REVISED 12-1-54.

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE REQUIREMENTS OF "DESIGN SPECIFICATIONS FOR HIGHWAY STRUCTURES" OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS, DATED 9-1-57 TOGETHER WITH REVISIONS THEREOF DATED 2-21-58.

SLOPE FACING SHALL BE PROVIDED UNDER THE STRUCTURE AT BOTH ABUTMENTS. THE POROUS DRAIN MATERIAL SHALL BE 12" THICK AND SHALL EXTEND FROM THE FACE OF THE ABUTMENT DOWN TO THE INTERSECTION WITH THE EXISTING SHALE AND TRANSVERSELY TO 3 FEET OUTSIDE THE EDGE OF THE SUPERSTRUCTURE.

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. CLASS "B" WELDS ARE SHOWN THUS:

FOUNDATION BEARING PRESSURE: PIER FOOTINGS ARE DESIGNED FOR A MAXIMUM BEARING PRESSURE OF 6.10 TONS PER SQUARE FOOT.

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. S-18.05 IS NOT LESS THAN THE FOLLOWING VALUE FOR A PILE HAMMER OF THE INDICATED ENERGY RATING:

- 45 TONS PER PILE USING A 7,000 FT. LB. HAMMER
- 40 TONS PER PILE USING A 11,000 FT. LB. HAMMER
- 35 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 25 TONS PER PILE.

EXCAVATION QUANTITY INCLUDES THE REMOVAL OF FILL MATERIAL REQUIRED FOR THE CONSTRUCTION OF THE ABUTMENTS.

PIER FOOTINGS SHALL EXTEND A MINIMUM OF 3" INTO SOLID SHALE OR TO THE ELEVATION SHOWN, WHICHEVER IS LOWER.

CONCRETE DECK PLACING: IN ORDER TO FACILITATE WATER CURING OF THE CONCRETE OF THE DECK SLAB, THE PLACING OF CONCRETE SHALL PROGRESS UPGRADE. THE SLAB MAY BE PLACED IN SECTIONS, BETWEEN TRANSVERSE CONSTRUCTION JOINTS WHICH ARE NORMAL TO THE CENTERLINE OF BRIDGE AND ARE LOCATED NEAR THE CENTER OF ANY SPAN.

ESTIMATED QUANTITIES (TWO STRUCTURES)

ITEM	TOTAL	UNIT	DESCRIPTION	SUPER	ABUT.	PIER	GEN.
E-2	LUMP	SUM	COFFERDAMS, CRIBS & SHEETING				
E-2	500	Cu.Yds.	UNCLASSIFIED EXCAVATION		500		
E-2	98	Cu.Yds.	SHALE EXCAVATION			98	
S-1	316	Cu.Yds.	CLASS "D" CONCRETE, SUPERSTRUCTURE	316			
S-1	208	Cu.Yds.	CLASS "D" CONCRETE, PIERS ABOVE FTGS.			208	
S-1	36	Cu.Yds.	CLASS "E" CONCRETE, PIER FOOTINGS				36
S-1	336	Cu.Yds.	CLASS "E" CONCRETE, ABUTMENTS		336		
E-3	10,320	Cu.Yds.	CHANNEL EXCAVATION				10,320
S-4	199,773	LBS.	REINFORCING STEEL	94,071	23,896	21,786	
S-7	219,631	LBS.	STRUCTURAL STEEL	219,631			
S-8	219,631	LBS.	FIELD PAINTING OF STRUCTURAL STEEL	219,631			
S-14	587.12	Lin.Ft.	RAILING (ALUMINUM RAIL, SUPPORTS & CONCRETE PARAPET)	587.12			
S-16	LUMP	SUM	FIRST TEST PILE				LUMP
S-18	560	Lin.Ft.	STEEL PILES 12BP53		560		
S-29	75	Cu.Yds.	POROUS BACKFILL			75	
S-29	273	Cu.Yds.	SLOPE FACING (S-29.05 TYPE)				273

TRYGVE HOFF & ASSOCIATES
ENGINEERS
1922 EAST 107TH STREET CLEVELAND, OHIO

GENERAL PLAN & ELEVATION
GEN. NOTES & EST. QUANTITIES
BRIDGE NO. LAK-44-0353 L&R
S.R. 44 OVER KELLOGG CREEK
LAKE COUNTY S.R. 44
STA. 187+50

SCALE DATE
DESIGNED DRAWN TRACED CHECKED REVIEWED DATE REVISED
C.A.T. A.J. G.L.P. 8-19-58