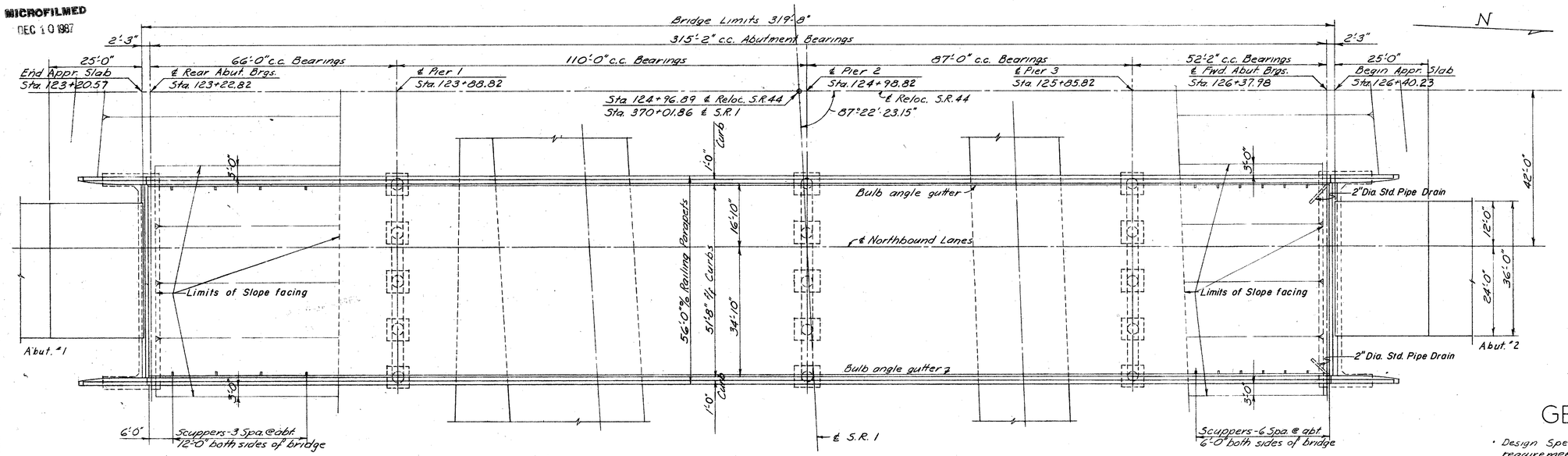
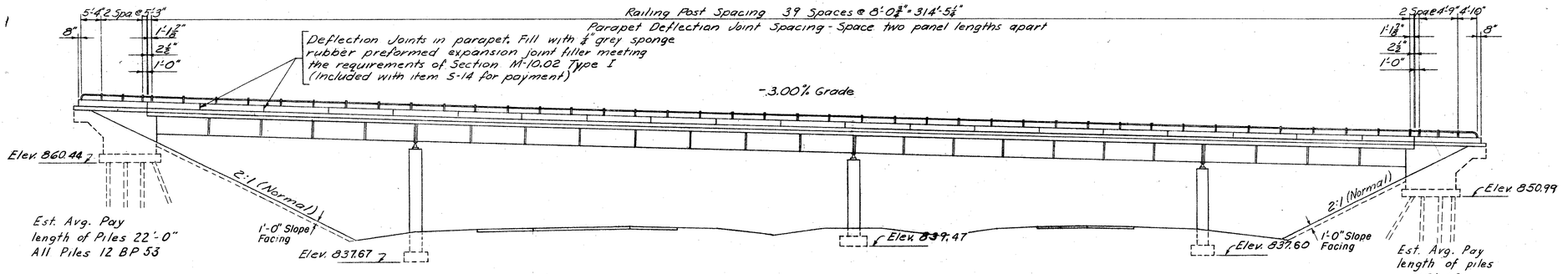
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	ACI-1103(21)	

408
488

LAKE COUNTY
SEC. LAK-1-12.89



GENERAL PLAN



ELEVATION

ESTIMATED QUANTITIES (EAST BRIDGE)

ITEM	TOTAL	UNIT	DESCRIPTION	SUPERSTR.	ABUTMENTS	PIERS	GENERAL		
E-2	661	Cu. Yds.	Unclassified Excavation		511	150			
E-2	125	Cu. Yds.	Shale Excavation			125			
S-1	549	Cu. Yds.	Class "C" Concrete, Superstructure	549					
S-1	138	Cu. Yds.	Class "C" Concrete, Pier Caps & Columns			138			
S-1	152	Cu. Yds.	Class "E" Concrete, Abutments above Footings		152				
S-1	183	Cu. Yds.	Class "E" Concrete, Footings		94	89			
S-4	231,889	Lbs.	Reinforcing Steel	159,769	20,663	51,457			
S-7	660,295	Lbs.	Structural Steel	660,295					
S-8	660,295	Lbs.	Field Painting of Structural Steel	660,295					
S-14	701.3	Lin. Ft.	Railing (Aluminum Rail & Supports, Conc. Parapet)	701.3					
S-16	Lump Sum		First Test Pile		Lump				
S-18	1,110	Lin. Ft.	Steel Piles 12 BP 53		1,110				
S-29	56	Cu. Yds.	Porous Backfill		56				
S-29	206	Cu. Yds.	Slope Facing (S-29.05 Type)				206		

42 tons per pile using a 7,000 ft. lb. hammer
34 tons per pile using a 11,000 ft. lb. hammer
32 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 for the abutments.

GENERAL NOTES

- Design Specifications - This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated September 1, 1957. together with revisions thereof dated 2-21-58.
- Loading - CF = 2000.
- Reference shall be made to Standard Drawings RB-1-55 (dated 3-1-55), AR-1-57 (dated 4-9-57) revised 3-1-58, and CSB-2-56 Sheet 3 (dated 12-3-56) revised 3-1-58. Supplemental Specification S-114 revised 8-1-57, I-127 revised 9-18-57.
- Welding of structural steel shall be Class "A" Except where shown thus (B→) class "B" will be permitted.
- Porous Drains, one foot thick, shall be provided at each end of bridges, as indicated on General Plan.
- Excavation Quantity includes the removal of fill material between surface of proposed embankment and bottom of abutment. Backfill behind abutments shall be made with material meeting the requirements of Sec. I-22 and shall be compacted in accordance with requirements for embankment compaction. Payment for backfill shall be included with unclassified excavation.
- Embankments to be placed to subgrade elevation for a distance of approximately 200 feet beyond the bridge limits after which excavation shall be made for the abutments.

Abutments should be placed as late as practical, with a minimum time lapse of 30 days between completion of the embankment and starting of work on the abutments.

- 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:

SEC. C-32 FED. AID PROJ. NO. ACI-1103 (21)

PREPARED BY
CAPITOL ENGINEERING ASSOCIATES, DILLSBURG, PA.
FOR
STATE OF OHIO
DEPARTMENT OF HIGHWAYS

GENERAL PLAN & ELEVATION
BRIDGE NO. LAK-1-1370
S.R. 1 UNDER RELOC. S.R. 44 (EAST BRIDGE)
LAKE COUNTY
STA. 370+01.86

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	REVISED
J. Morgan	J. Morgan		J.R.O.			

Sheet 2