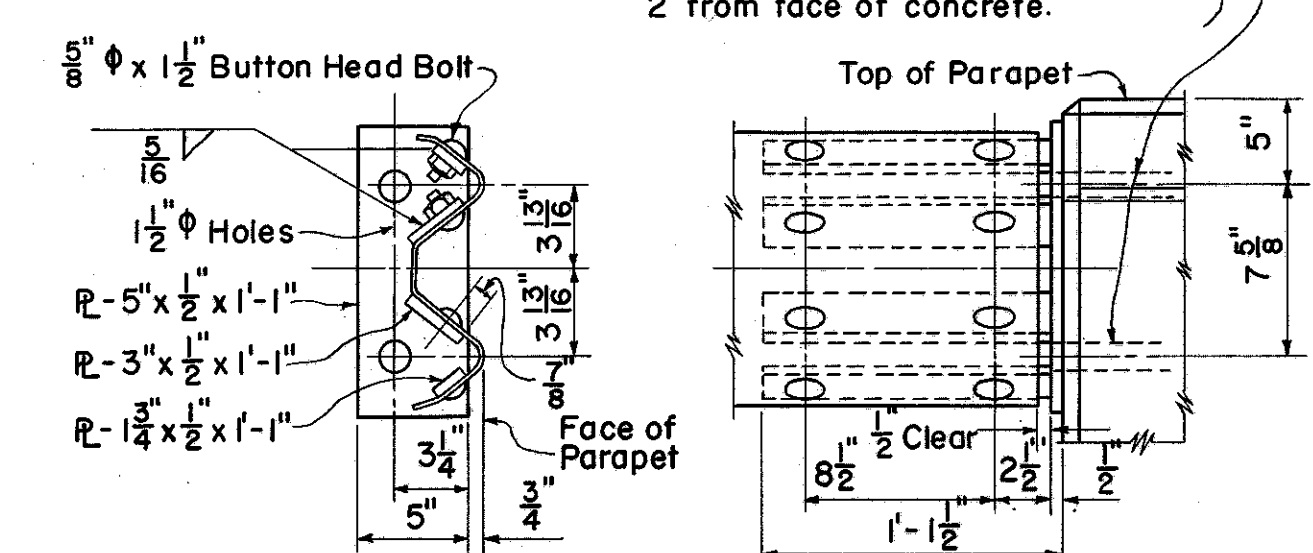


GENERAL PLAN

1 1/2 x 20" galvanized machine bolts with square heads and with minimum thread length of 3" Bolts to project 2" from face of concrete.



NOTE: Guard Rail End Connection Assembly shall be galvanized after welding.
GUARD RAIL DETAIL

GENERAL NOTES

Design Specification: 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.

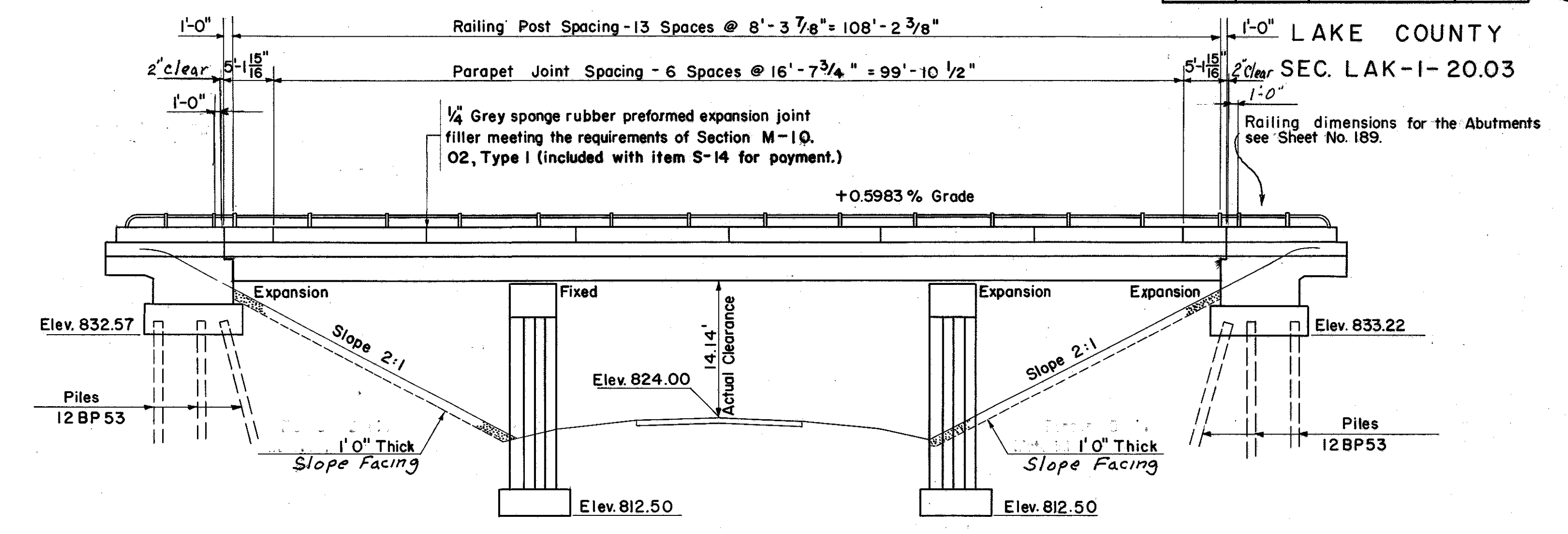
Reference shall be made to Standard Drawings CSB-2-56, sheets 2 & 3 of 6, revised 3-1-58 & AR-1-57, revised 3-1-58, also to Supplemental Specifications S-114 revised 8-1-57, also I-127 revised 11-16-57.

Slope Facing: (S-29.05) one foot thick extending from the face of the abutments down to the toe of the slopes and transversely three feet beyond the fascia of the structure on each side, shall be provided.

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:

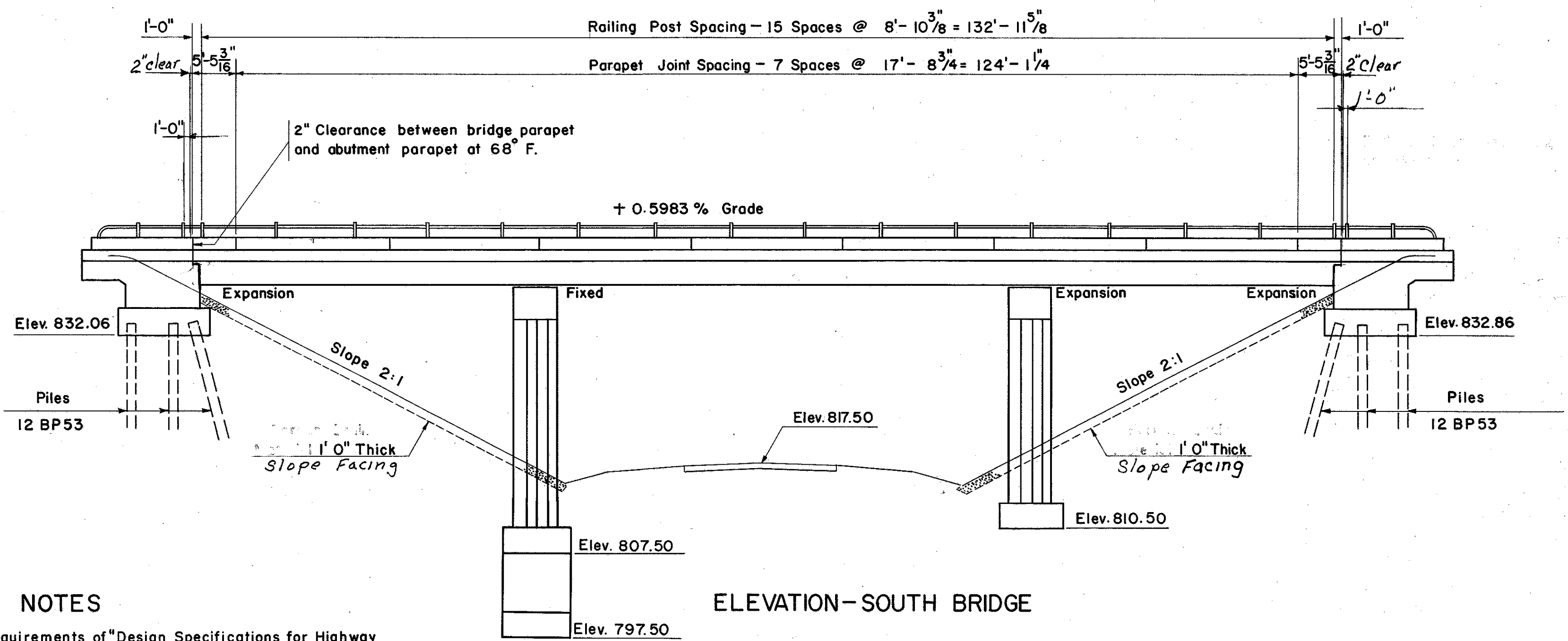
38 tons per pile using a 7,000 ft. lb. hammer.
29 tons per pile using a 11,000 ft. lb. hammer.
27 tons per pile using a 15,000 ft. lb. or greater hammer.

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 abutment piles.



ELEVATION-NORTH BRIDGE

TRAFFIC MAINTENANCE: The Contractor shall plan the construction operations so that two way traffic shall be maintained at all times except as noted on sheet 6. With a minimum vertical clearance of 13' above the roadway. The contractor shall safeguard vehicular traffic by providing platforms, nets or other suitable protection above the traveled roadway.



ELEVATION-SOUTH BRIDGE

PROCEDURE: At each Abutment, the embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the sub-grade for a distance of 100 feet back of the abutment, after which excavation shall be made for the abutment.

POROUS BACKFILL, 2 feet thick full length of the abutment shall extend up to the underside of the approach slab and outward to the wings. Excavation therefore, in excess of that required for the abutment shall be considered as included in the bid price per cu. yd. for porous backfill.

EXCAVATION QUANTITY includes the removal of fill material between the surface of the proposed embankment and the bottom of the abutment. Backfill behind the abutment 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 Item E-2.

SEC. C-34 FED. AID PROJ. NO. ACI-1103 (28)	
PREPARED BY CAPITOL ENGINEERING ASSOCIATES, DILLSBURG, PA. FOR	
STATE OF OHIO DEPARTMENT OF HIGHWAYS	
GENERAL PLAN AND ELEVATION BRIDGE NO. LAK-1-2012 S.R.1 OVER PAINE ROAD LAKE COUNTY	
STA. 708 + 55.10	
DESIGNED	REVISION
DRAWN H.B.	DATE
TRACED	
CHECKED	
REVISED	