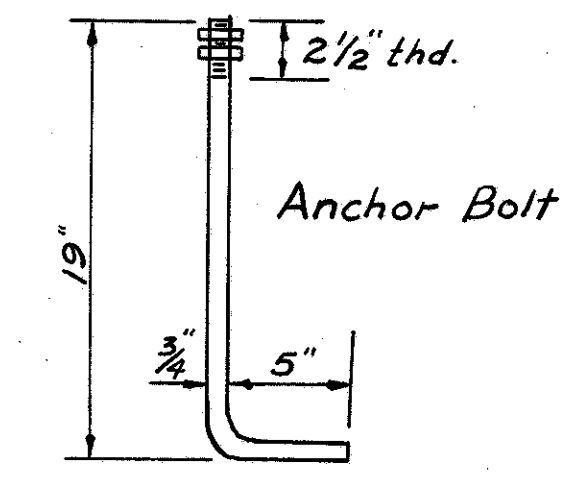
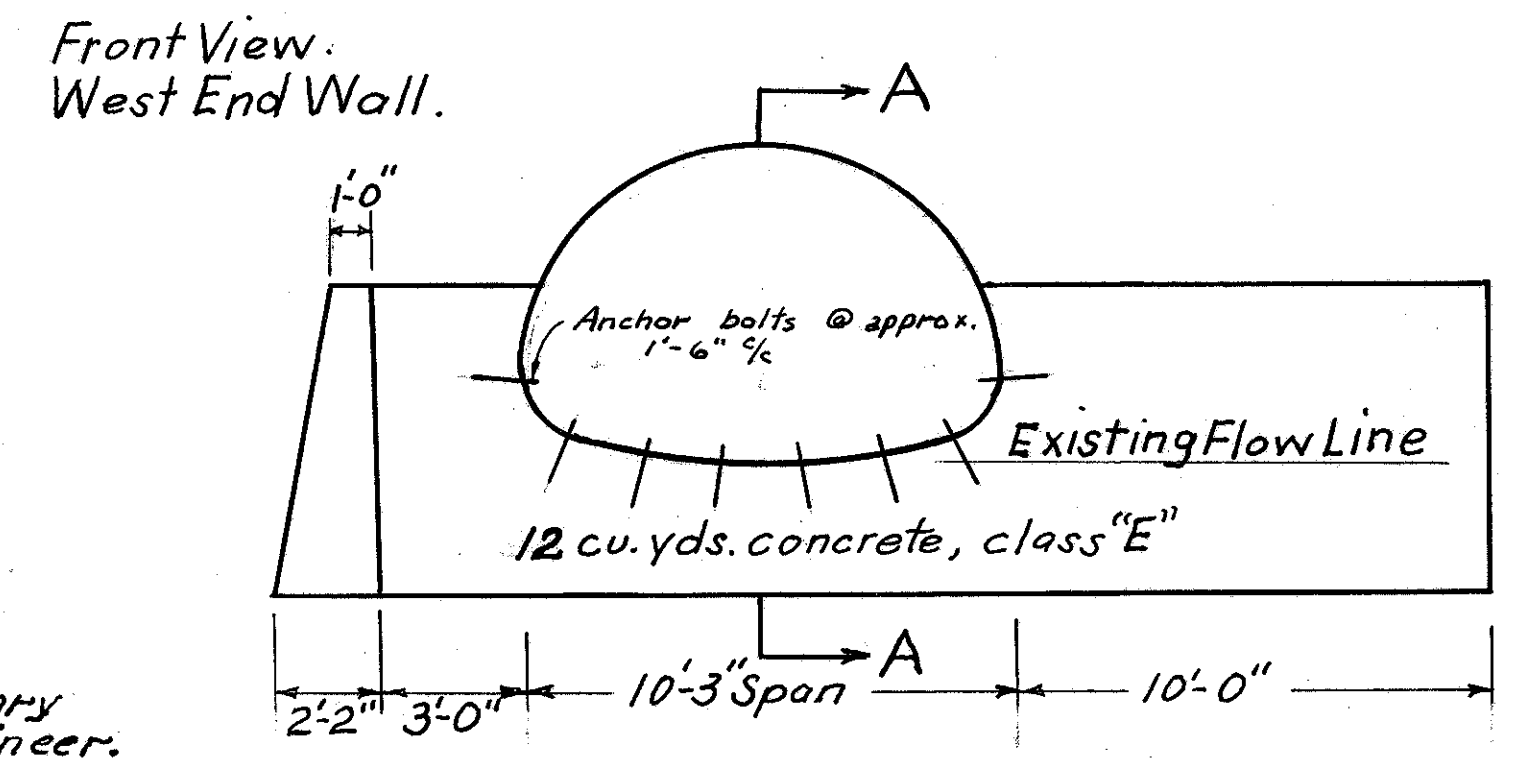
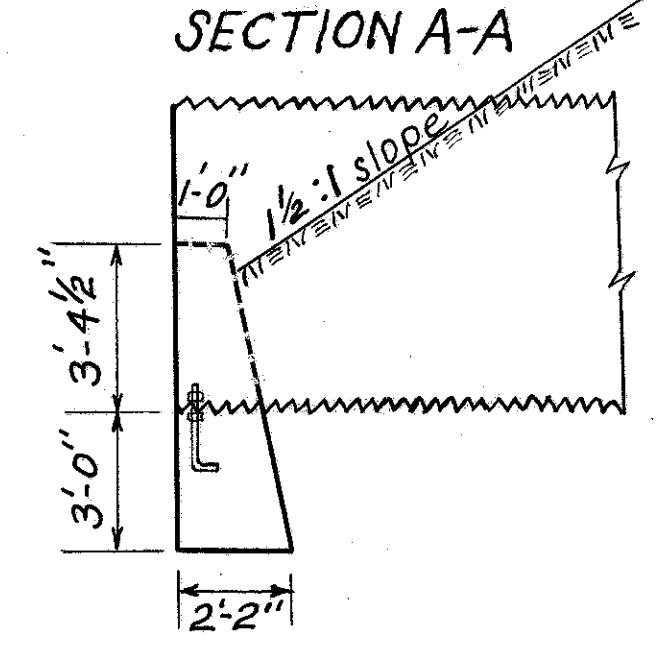
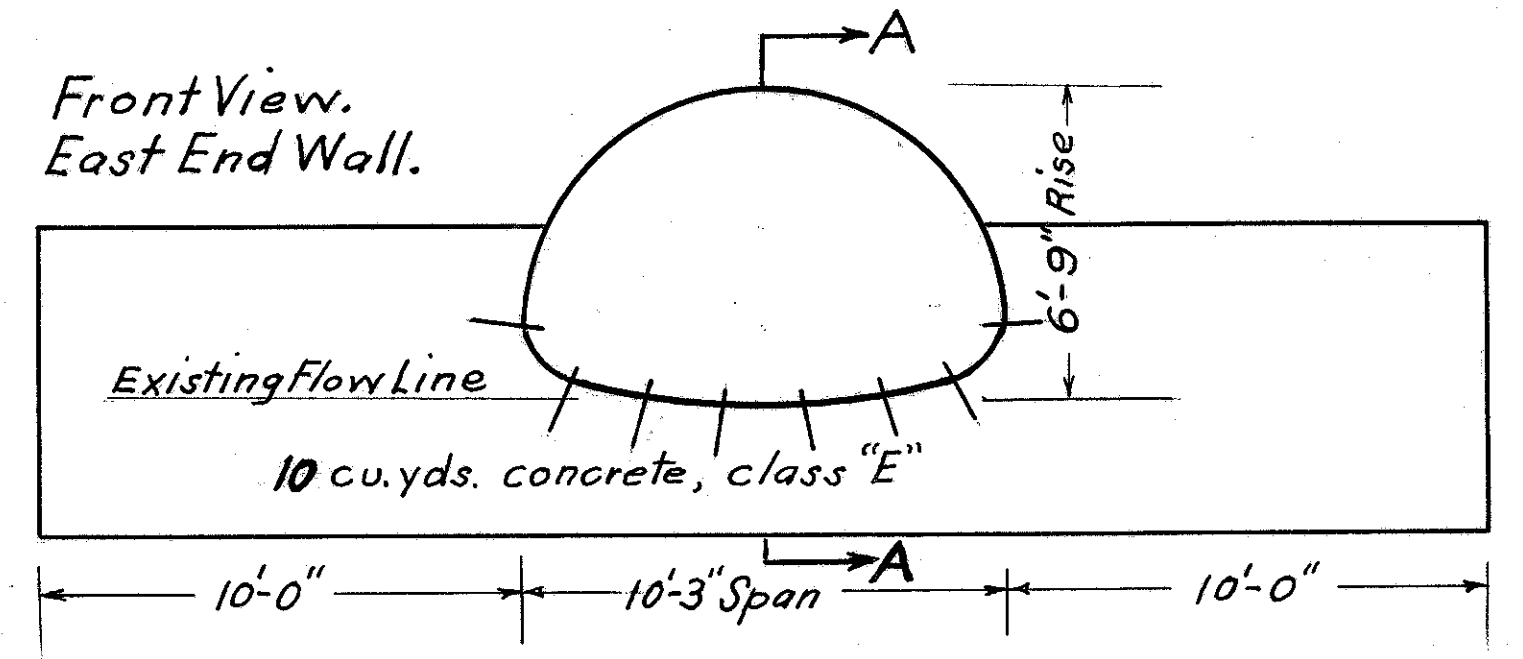
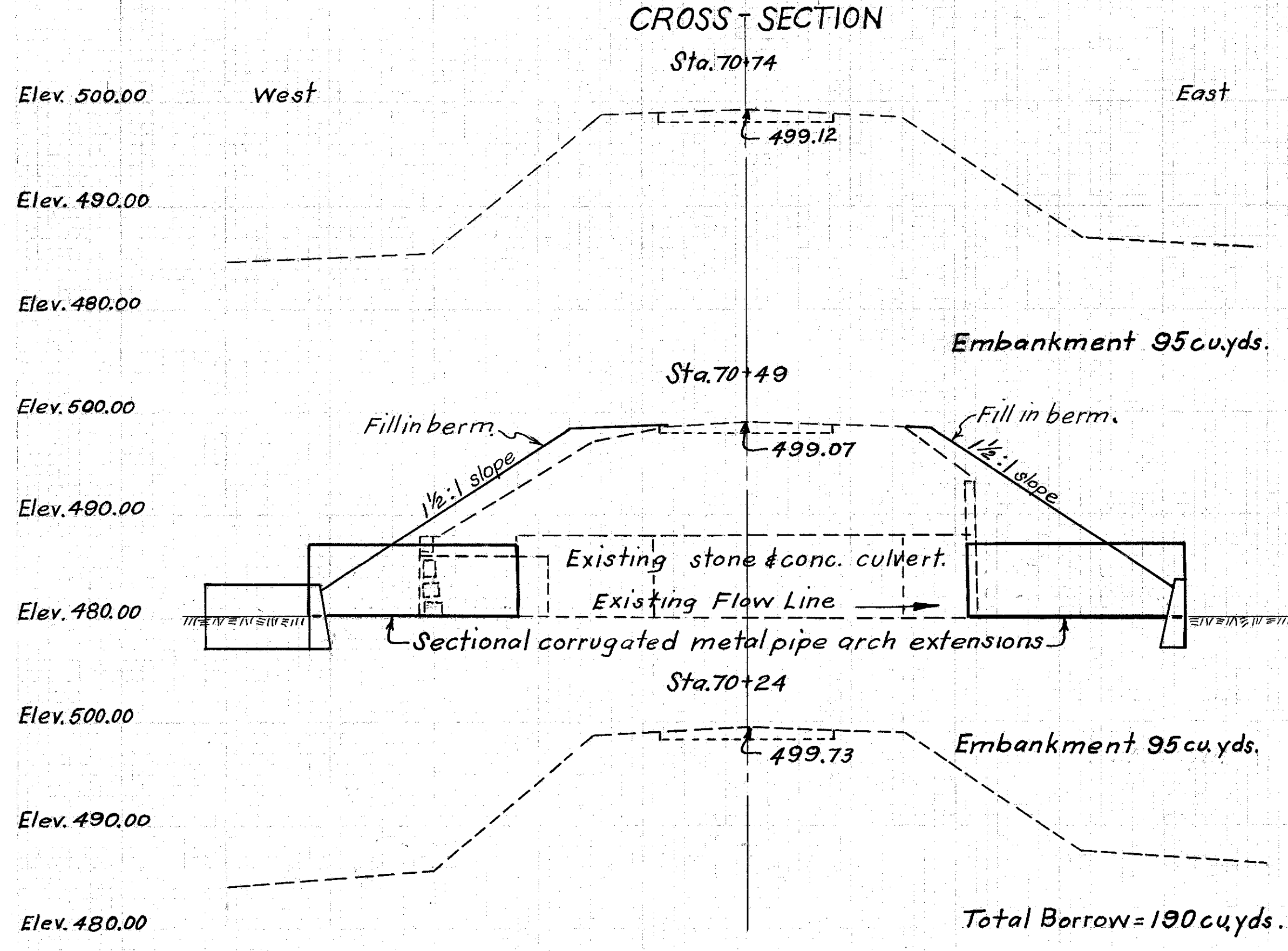


END WALL DETAIL for METAL PIPE ARCH CULVERT



Note: Connection of metal pipe to existing concrete extension, is to be either concrete collar or brick masonry and must be approved by the Engineer.



ESTIMATED QUANTITIES

ITEM NO	QUANTITIES	DESCRIPTION
E-2	30 cu. yds.	Excavation. (Wet)
E-4	190 cu. yds.	Borrow. (Backfill and embankment)
S-1	22 cu. yds.	Concrete, class "E". (Endwalls)
S-22	Lump	Removal of portion of existing structure. (Including all necessary excavation with the alteration and extension called for on the plans.)
S-28	40 lin. ft.	Sectional corrugated metal structure. Pipe arch (Span-10'-3" Rise-6'-9") Sec. M-64(g) Bottom plates 8 gage, remainder plates 10 gage
I-10	15 sq. yds.	Riprap. (Salvaged stone)
Special	Lump	Repair existing stone and concrete arch (Underpinning and patching)

EXISTING CULVERT DATA
 Type: Stone & Concrete Arch
 Span: 10'-0" Rise: 8'-0"
 Roadway: 44'-0" %
 Skew: 0°
 Condition: Concrete extensions Poor - Berms sliding

PROPOSED CULVERT DATA
 Type: Sec. Pipe Arch Extension
 Span: 10'-3" Rise: 6'-9"
 Roadway: 84'-0" %
 Skew: 0°

WORK REQUIRED:- Remove 72" corrugated metal pipe extension and portion of headwalls and wingwalls of existing stone and concrete arch culvert. Extend culvert by placing and connecting 20 lin. ft. of sectional corrugated metal pipe arch (Span 10'-3" Rise 6'-9") at each end, as shown per detail plan. Build endwalls and fill in berms. Grade area as shown by cross section.
 Repair existing stone and concrete arch culvert by underpinning and patching disintegrated areas to restore structure to its original lines and sections.
 Suitable salvaged stone and concrete to be used for riprap for bank protection and placed as directed by the Engineer.

GENERAL NOTES

Sectional corrugated metal pipe arch to meet the provisions of Sec. M-6.4 (9) of the Ohio Construction and Material Specifications. Basis for compensation and material measurements shall be as set forth in the specifications for the various items.
 Borrow: Borrow to be secured by the Contractor outside of the right of way limits.
 Masonry: Suitable waste masonry may be disposed of as bank protection at the direction of the Engineer.
 Traffic: The construction of this project will not require the closing to traffic of the highway and one lane shall be maintained at all times.
 Stored Material: 72"x10' C.M.P. to be carefully stored on side of road and be removed by the State Highway Maintenance Department.

Borrow: Limits of embankment shall be not more than 25 lin. ft. from E of culvert.