

Culvert Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc.

Thursday, Jul 9 2020

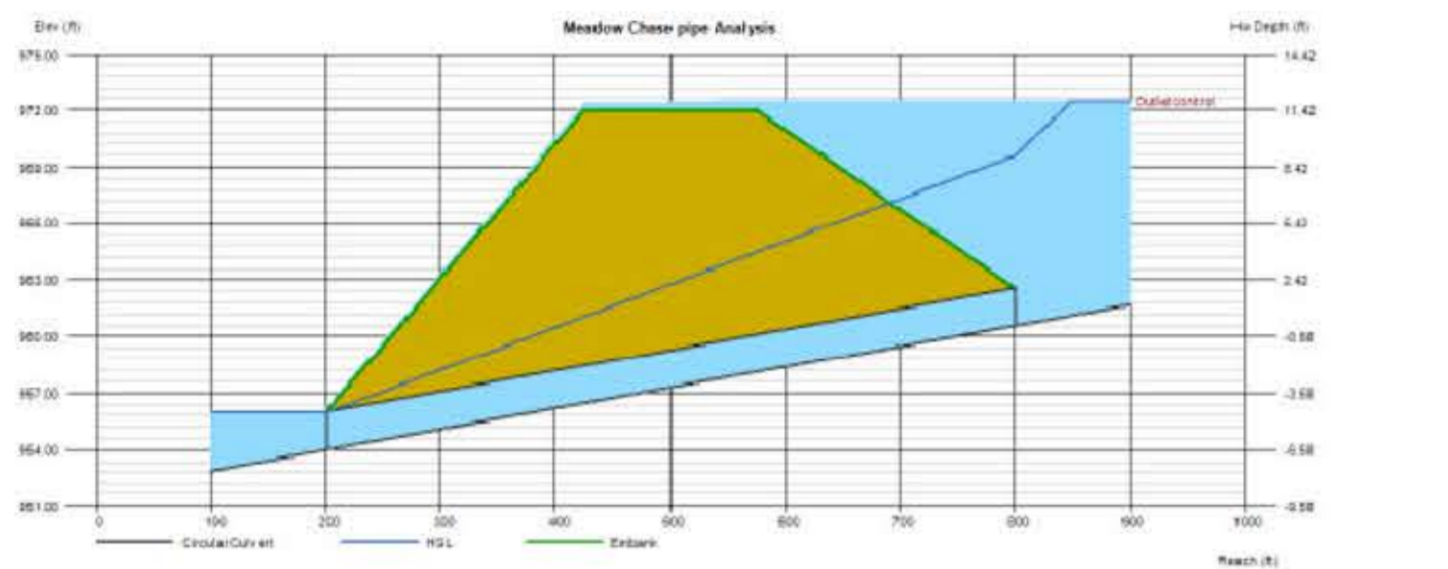
Meadow Chase pipe Analysis

Invert Elev Dn (ft) = 954.00
 Pipe Length (ft) = 600.00
 Slope (%) = 1.10
 Invert Elev Up (ft) = 960.58
 Rise (in) = 24.0
 Shape = Circular
 Span (in) = 24.0
 No. Barrels = 1
 n-Value = 0.013
 Culvert Type = Circular Concrete
 Culvert Entrance = Square edge w/headwall (C)
 Coeff. K,M,c,Y,K = 0.0098, 2, 0.0398, 0.67, 0.5

Calculations
 Qmin (cfs) = 44.73
 Qmax (cfs) = 44.73
 Tailwater Elev (ft) = (dc+D)/2

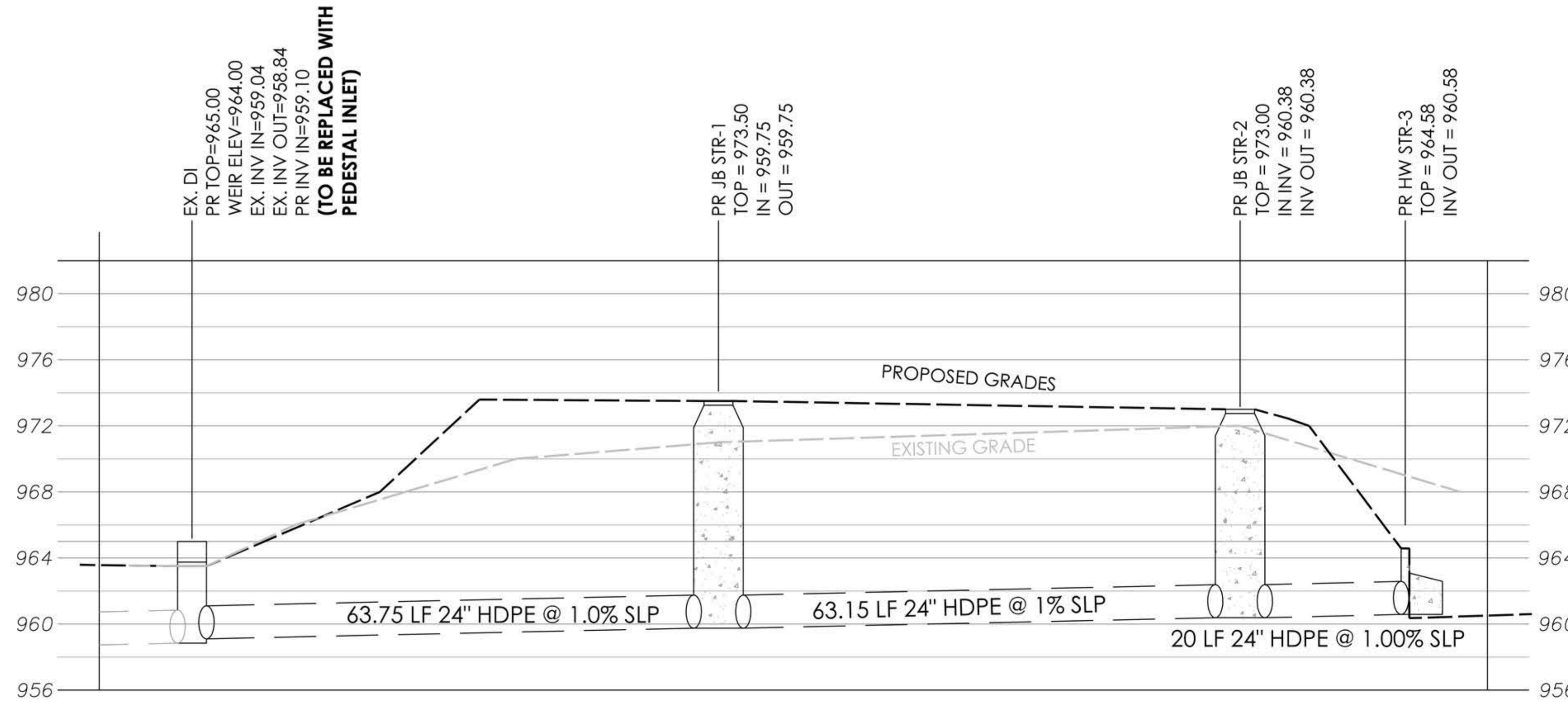
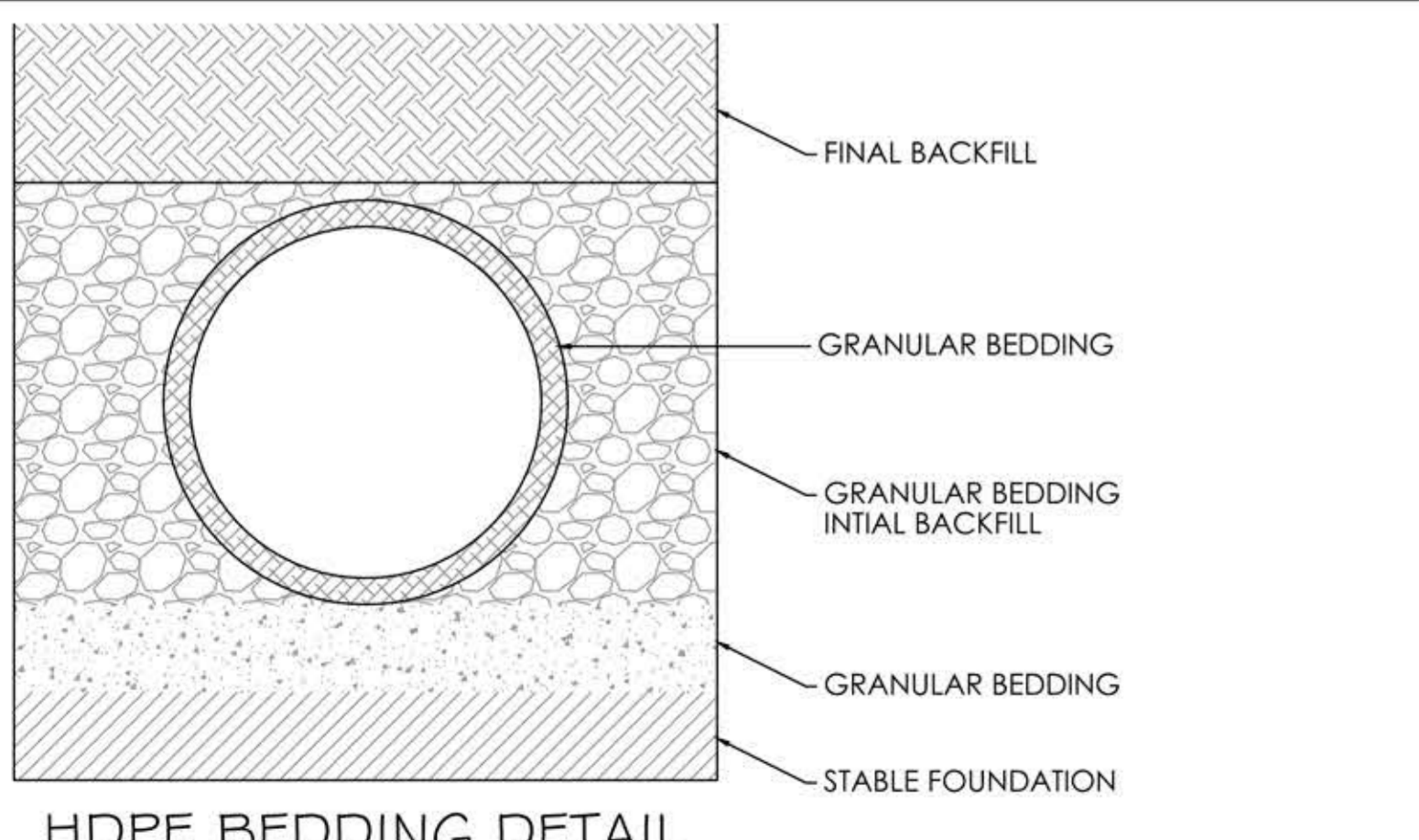
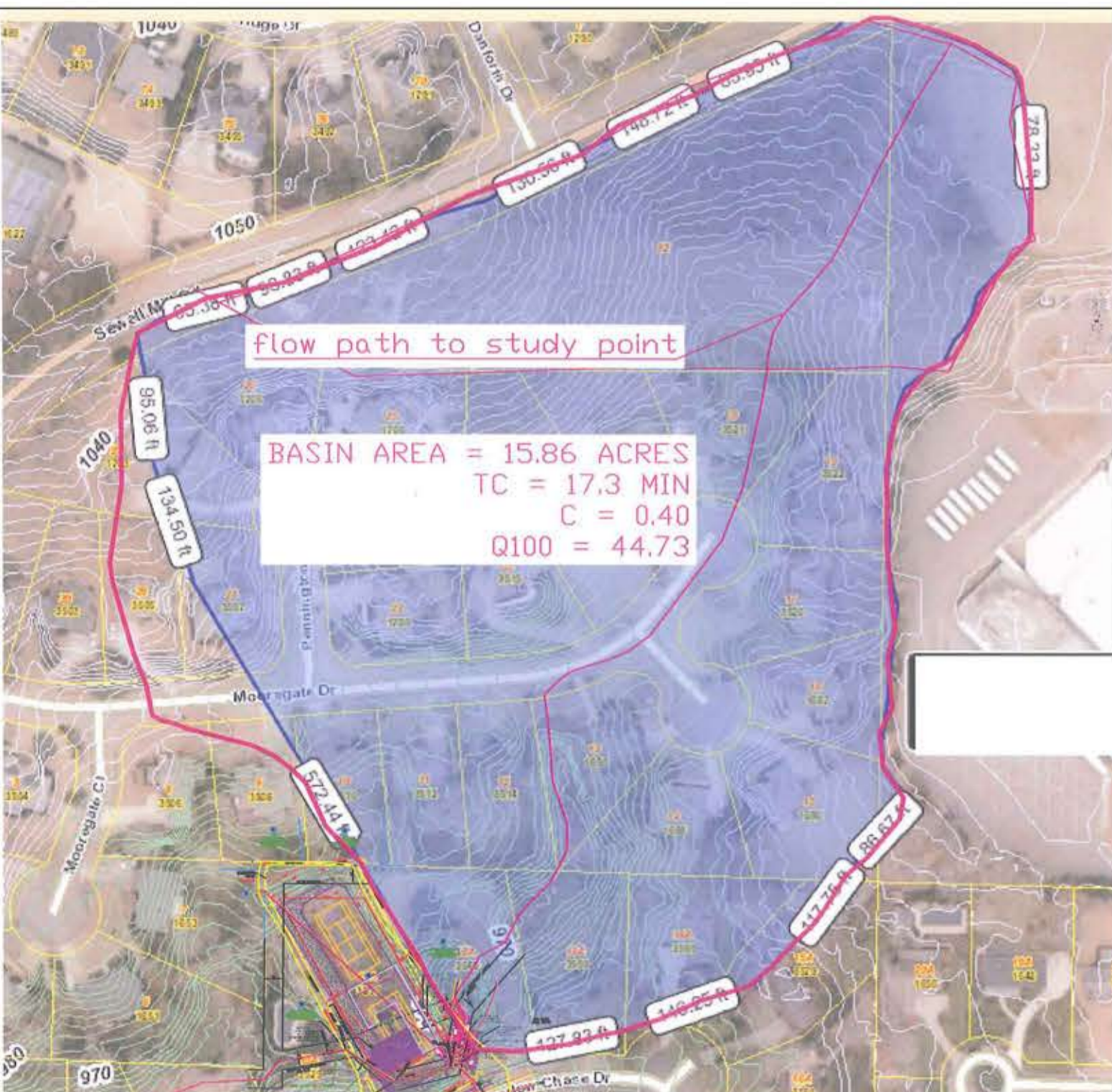
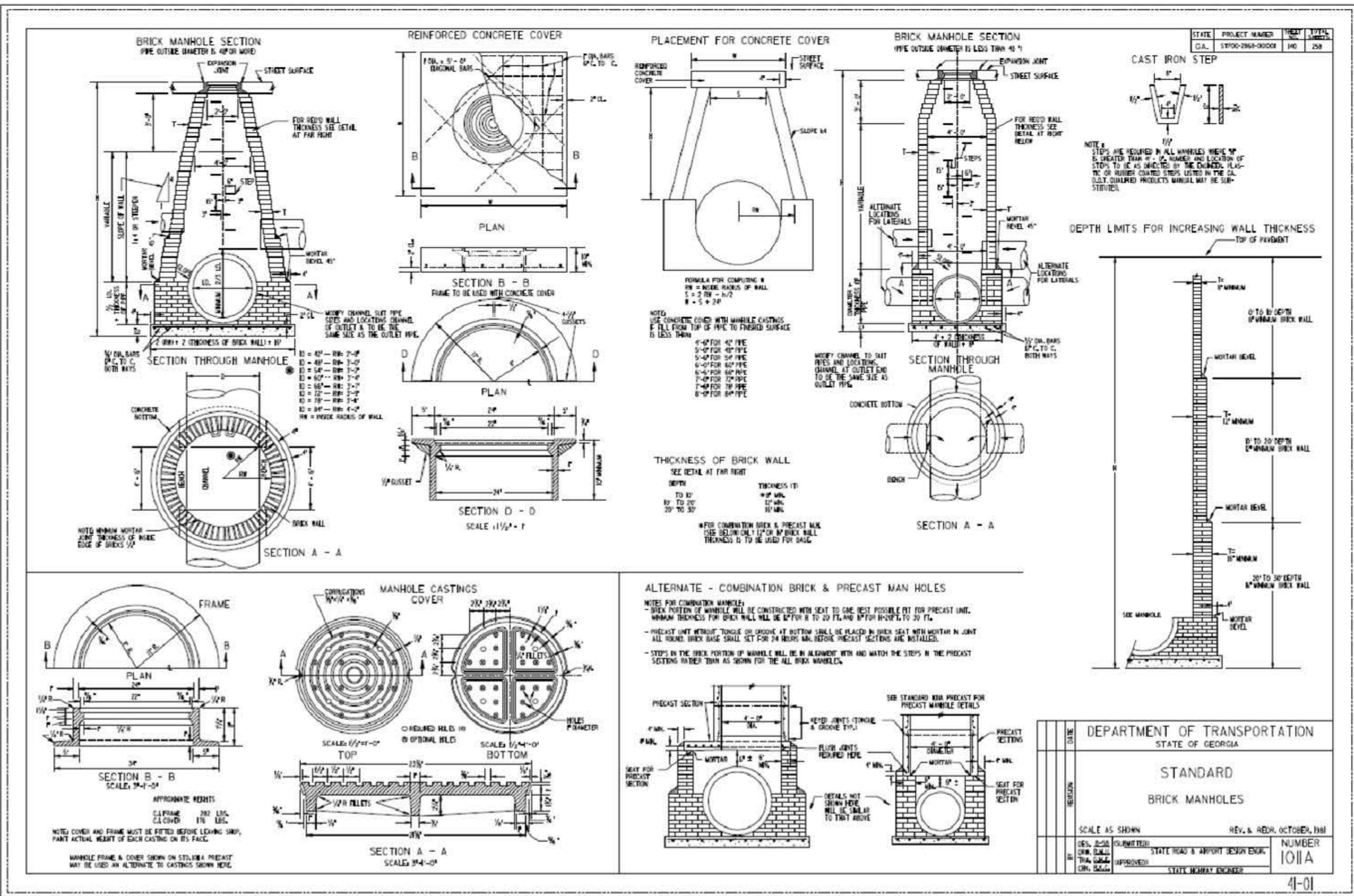
Highlighted
 Qtotal (cfs) = 44.73
 Qpipe (cfs) = 34.98
 Qovertop (cfs) = 9.75
 Veloc Dn (ft/s) = 11.19
 Veloc Up (ft/s) = 11.13
 HGL Dn (ft) = 955.96
 HGL Up (ft) = 969.58
 Hw Elev (ft) = 972.47
 Hw/D (ft) = 5.94
 Flow Regime = Outlet Control

Embankment
 Top Elevation (ft) = 972.00
 Top Width (ft) = 150.00
 Crest Width (ft) = 10.00



COBB COUNTY PIPE NOTES

- THE DEPARTMENT OF TRANSPORTATION, STATE OF GEORGIA STANDARD "PIPE CULVERTS" NUMBER 1030D, LATEST EDITION SHALL BE USED IN DETERMINING THE CLASS OF REINFORCED CONCRETE PIPE OR GAGE OF CORRUGATED STEEL PIPE OR TYPE 2 CORRUGATED ALUMINUM PIPE UNDER FILL AND THE METHOD OF BACK-FILLING. THE MINIMUM GAGE FOR CORRUGATED STEEL PIPE ALLOWED UNDER COBB COUNTY STANDARDS IS 12 (0.109 INCHES). ALL CORRUGATED STEEL PIPES ARE TO BE FULLY COATED. THE MINIMUM GAGE FOR TYPE 2 CORRUGATED ALUMINUM PIPE UNDER COBB COUNTY STANDARDS IS 14 (0.075 INCHES).
- FIELD JOINTS FOR CORRUGATED PIPE SHALL BE MADE WITH BANDS OF THE SAME GAGE METAL AND COATING AS THE CORRUGATED PIPE. BANDS SHALL BE OF THE HUGGER TYPE DESIGNED TO FULLY ENGAGE AT LEAST ONE ANNUAL CIRCUMFERENCE AT THE END OF EACH CORRUGATED PIPE AROUND ITS ENTIRE CIRCUMFERENCE. MINIMUM BAND WIDTH SHALL EQUAL THE CENTERLINE LENGTH OF FOUR (4) ANNUAL CORRUGATIONS. BANDS SHALL CONFORM TO CURRENT ASTM/AASHTO INDUSTRY STANDARDS AS TO SECURING BOLTS, THEIR NUMBER AND PLACEMENT.
- CONCRETE PIPE SECTIONS MAY BE JOINED WITH BITUMINOUS PLASTIC CEMENT JOINTS, RUBBER-TYPE GASKET JOINTS, O-RING GASKET JOINTS OR PRE-FORMED PLASTIC GASKET JOINTS. IN BITUMINOUS PLASTIC CEMENT JOINTS, THE ANNUAL SPACE SHALL BE FILLED WITH JOINT MATERIAL, AND THE INSIDE OF EACH JOINT WIPED SMOOTH. RUBBER-TYPE, O-RING, AND PRE-FORMED PLASTIC GASKET JOINTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- ALL CATCH BASINS, DROP INLETS OR OTHER DRAINAGE STRUCTURES SHALL COMPLY WITH THE LATEST STANDARDS APPROVED AND PROMULGATED BY THE GEORGIA DEPARTMENT OF TRANSPORTATION IN "STANDARDS SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES", LATEST EDITION.
- USE OF HDPE REQUIRES THE FOLLOWING:
 - Granular backfill to top of the pipe.
 - Depths no greater than ten (10) feet as measured to invert of pipe.
 - Installation must be outside County Right-of-Way.
 - Watertight bell and spigot gasketed joints must be provided.
 - 36-inch diameter or greater must be inspected and certified by a geotechnical engineer or a manufacturer's representative.
 - Smoothbore pipe only.



STORM SEWER PROFILE
 HORIZONTAL - 1"=10'
 VERTICAL - 1"=10'