

Section 17 – Underground Structures

CIP Bottomless Culvert: Pile Foundation/Footings on Rock

XS Sheet Numbers

XS17-051

Description of Component

The Cast-In-Place bottomless culverts with Piles/Footings on Rock are shown in the plan. It applies to two types of foundations: footing on rock and footing with piles. These underground structures with rock foundation or pile-footing can have earth cover with a range from 0 feet (top exposed to ground) to 20 feet (maximum). The spans range from 12 feet to 20 feet. The wall heights range from 6 feet to 15 feet.

Standard Drawing Features

There is one single plan sheet: Piles/Footings on Rock. It shows the reinforcement details for the walls and top slabs.

Design/General Notes

See User Guide for XS17-050 for details.

Additional Drawings Needed to Complete PS&E

District plans of highway drainage design

XS17-050-1: General Configurations, XS17-050-2: Walls, Slab and Pile Details and XS17-050-3: Foundation Details

Contract Specifications

Standard Specification Sections 49, 51, 52, 90

Restrictions on Use of Standard Drawings

See User Guide for XS17-050 for details.

Special Considerations

See User Guide for XS17-050 for details.