

**DRAFT**

**S-526A  
Gated Round Culverts**

**Revision** 12 October 2000 - Original Submission

**XY Coord** 894020 733125

**Location** Hillsboro northern impoundment at NE corner of the southern impoundment.

**Purpose** Northern impoundment discharge control structure.

**Notes** 1. Riprap requirements have not been verified with Geotech.

**Design Conditions**

Discharge (CFS)	700 cfs
Headwater Elevation	10.70 ft,NGVD
Tailwater Elevation	8.50 ft,NGVD

**Maximum Expected Stages**

Headwater Elevation	19.00 ft,NGVD
Tailwater Elevation	10.00 ft,NGVD

**Maximum Head Difference**

Maximum Headwater Elevation	17.20 ft,NGVD
Minimum Tailwater Elevation	8.00 ft,NGVD

**Culvert Data**

Number of Barrels	3
Barrel Type	Concrete
Barrel Diameter	6.0 feet
Barrel Length	70.0 feet
Barrel Invert Elevation	0.50 ft, NGVD
Type of Control	Slide Gate

**Canal Data**

Side Slopes Cotangent	2
Upstream Bottom Width	Pool feet
Upstream Bottom Elevation	1.00 ft,NGVD
Downstream Bottom Width	50.00 feet
Downstream Bottom Elevation	-3.00 ft,NGVD

**Riprap Requirements**

Design Barrel Velocity	8.3 fps
Design Riprap Velocity	11.00 feet
Riprap Protected Area	3,000 ft,NGVD
Riprap Thickness	2.5 feet
Riprap Bedding Thickness	1.0 ft,NGVD

**Control Protection Elevation** 20.00 ft,NGVD