

**DRAFT**

**S-510  
2-Bay Spillway**

**Revision** September 2000 - Original Submission  
**XY Coord** 844705 590490  
**Location** Southern boundary of C-9 impoundment, discharges into the C-9 Canal.  
**Purpose** C-9 Impoundment outflow for deliveries south.  
**Notes** 1. Riprap requirements have not been verified with Geotech.

**Design Conditions**

Discharge (CFS)	1,000 cfs
Headwater Elevation	6.25 ft,NGVD
Tailwater Elevation	5.75 ft,NGVD

**Maximum Expected Stages**

Headwater Elevation	12.75 ft,NGVD
Tailwater Elevation	6.50 ft,NGVD

**Maximum Head Difference**

Maximum Headwater Elevation	12.75 ft,NGVD
Minimum Tailwater Elevation	6.50 ft,NGVD

**Crest Data**

Shape	Ogee
Crest Elevation	-0.60 ft,NGVD
Ogee Flow Length	9.60 feet
Net Crest Length	40.00 feet
Number and Width of Piers	1 @ 3.25 feet
Approach Apron Elevation	-3.50 ft,NGVD
Approach Apron Width =	43.25 feet
Approach Apron Length =	6.85 feet

**Gate Data**

Weir Control	Slide Gates
Number of Gates	2
Gate Bay Width	20.00 feet
Gate Height	14.40 feet
Gate Clearance Elevation	13.75 ft,NGVD
Base of Breastwall Elevation	None

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**Stilling Basin Data**

Design Discharge	1,250 cfs
Apron Elevation	-5.00 ft,NGVD
Training Wall Elevation	6.50 ft,NGVD
Apron Length from Toe of Ogee to Toe of Endsill	19.75 feet
End Sill Elevation	-4.10 ft,NGVD
Slope from apron to Top of End Sill	5
Baffle Block Elevation	-3.90 ft,NGVD
Baffle Block Width	1.10 feet
Rows of Baffle Blocks	2.00
Distance from toe of Ogee to 1st Row of Baffle Blocks	9.90 feet
Distance from toe of Ogee to 2nd Row of Baffle Blocks	13.25 feet

**Canal Data**

Side Slopes Cotangent	3
Upstream Bottom Width	Pool feet
Upstream Bottom Elevation	-4.50 ft,NGVD
Downstream Bottom Width	50.00 feet
Downstream Bottom Elevation	-16.00 ft,NGVD

**Riprap Requirements**

Design Endsill Velocity	2.94 fps
Design Riprap Velocity	4.00 fps
Riprap Protected Area	1,600 sq-ft
Riprap Thickness	1.50 feet
Riprap Bedding Thickness	1.00 feet