

# DRAFT

## S-516 2-Bay Spillway

**Revisions** 14 September 2000 - Original submission

**XY Coord** 841740 583140

**Location** On C-503, just south of the Miami Canal (C-6) west of FPL Buffer

**Purpose** Controls Lake Okeechobee deliveries to SDCS with interim deliveries to C-4/2 canals and Biscayne Bay. Also provides seepage control for Pennsuco and recharge for NW Wellfield.

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

### Design Conditions

Discharge (CFS)	1,400 cfs
Headwater Elevation	5.65 ft,NGVD
Tailwater Elevation	5.40 ft,NGVD

### Maximum Expected Stages

Headwater Elevation	9.00 ft,NGVD
Tailwater Elevation	8.50 ft,NGVD

### Maximum Head Difference

Maximum Headwater Elevation	7.50 ft,NGVD
Minimum Tailwater Elevation	5.50 ft,NGVD

### Crest Data

Shape	Ogee
Crest Elevation	-5.40 ft,NGVD
Ogee Flow Length	15.30 feet
Net Crest Length	40.00 feet
Number and Width of Piers	1@3.25 feet
Approach Apron Elevation	-10.00 ft,NGVD
Approach Apron Width	43.25 feet
Approach Apron Length	11.05 feet

### Gate Data

Weir Control	Slide Gates
Number of Gates	2
Gate Bay Width	20.00 feet
Gate Height	15.40 feet
Gate Clearance Elevation	10.00 ft,NGVD
Base of Breastwall Elevation	N/A ft,NGVD

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**Stilling Basin Data**

Design Discharge	1,650 cfs
Apron Elevation	-11.00 ft,NGVD
Training Wall Elevation	8.50 ft,NGVD
Apron Length from Toe of Ogee to Toe of Endsill	28.80 feet
End Sill Elevation	-10.25 ft,NGVD
Slope from apron to Top of End Sill	5
Baffle Block Elevation	-9.40 ft,NGVD
Baffle Block Width	1.60 feet
Rows of Baffle Blocks	2
Distance from toe of Ogee to 1st Row of Baffle Blocks	13.30 feet
Distance from toe of Ogee to 2st Row of Baffle Blocks	17.65 feet

**Canal Data**

Side Slopes Cotangent	1
Upstream Bottom Width	Pool feet
Upstream Bottom Elevation	-11.00 ft,NGVD
Downstream Bottom Width	75.00 feet
Downstream Bottom Elevation	-12.50 ft,NGVD

**Riprap Requirements**

Design Endsill Velocity	2.49 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