Pump Station S-505C
Summary of Hydraulic Design Data

Revisions:
- 12 December 2000 – Original submission.

XY Coordinate[1] – 842300 630480
Location: Southwestern corner of C-11 Impoundment, north of Truck Stop.

Purpose/Operational Intent: Seepage Control
- Control water surface elevation in seepage collection canal C-511 for the C-11 Impoundment.

Design Condition:	Seepage Control	120 cfs

Pump Station Capacity Criteria:
- The design pump rate was determined by multiplying the seepage rate (0.0015 cfs/linear ft) times seepage canal length (16,000 ft) times a safety factor (5).

Number of Pumps	2	
Pump Mix Type and Size		
	Electric	2 @ 60 cfs

Mix Criteria:
- The pump station will have two bays; two identical 60-cfs pumps.
- The pump mix allows for an intermediate flow value of half capacity for lower seepage rates corresponding with lower impoundment stages.

Control:	Manned & Remote by SCADA

<u>Design Heads (ft.)</u>		
Normal (4.50 HW to 12.00 TW)	7.50	feet
Maximum (3.50 HW to 12.00 TW)	8.50	feet
<u>Intake Water Surface Elevations</u>		
Maximum Non-Pumping	8.00	ft-NGVD
Maximum Pumping	7.00	ft-NGVD
Start Pumping	5.10	ft-NGVD
Normal Drawdown	3.5 to 5.0	ft-NGVD
Minimum Drawdown	3.50	ft-NGVD
Minimum Non-Pumping	3.50	ft-NGVD
Channel Invert	-1.00	ft-NGVD
<u>Discharge Water Surface Elevations</u>		
Maximum Non-Pumping	15.0	ft-NGVD
Maximum Pumping	12.0	ft-NGVD
Normal Pumping	12.0	ft-NGVD
Minimum Pumping	3.50	ft-NGVD
Minimum Non-Pumping	3.50	ft-NGVD
Channel Invert	-1.00	ft-NGVD

Notes:
- [1] XY coordinates system used is NAD 83, Florida east, state plane
- All elevations are in feet, NGVD (National Geodetic Vertical Datum of 1929)
- Diesel generator is required for control station operations and electric pumps in cases of power outage.

Data Compiled from:
- Selected Plan features.