



07/16/2015

Mr. Justin Green
Florida Department of Environmental Protection
Siting Office
2600 Blair Stone Road
Tallahassee, Florida 32399-3000

Re: Seminole Electric Cooperative, Inc.
Seminole Generating Station, Putnam County Florida
Power Plant Certification No. PA 78-10
Post-Certification Amendment to Application

Dear Mr Green:

Pursuant to Section 403.5113(1)(a), Florida Statutes and Rule 62-17.205, Florida Administrative Code, please accept this letter and attachments as a post-certification amendment to the Seminole Electric Cooperative, Inc. ("Seminole") Site Certification Application ("Application") for the Seminole Generating Station (SGS) in Putnam County, Florida. This post-certification amendment addresses the addition of 57 specification stone to create an employee parking area in front of the Main Warehouse Building.

SGS plant staff has expressed the need to create an approximately 20 ft. by 60 ft. employee parking area made of 57 stone in front of the Main Warehouse Building, as there is currently no nearby parking area for warehouse employees. The new parking area will be located within Basin 1 in front of our Main Warehouse Building just north of the current paved entrance loop. The area is currently a grassy area underlain with limerock. The total area of coverage will be approximately 1,200 square feet. Runoff from the additional stone will be minor and drain into Detention Pond #1 within Basin 1.

I have attached a Google Earth location map of the warehouse with the approximate area of the 57 stone outlined in red. Also attached is a copy of the Basin 1 map, as well as a 2012 amendment with modeling information within the same basin. We have made no impervious surface additions within this basin since then. We feel that stormwater pond #1 has sufficient storage and attenuation capacity to accommodate the addition of approximately 1,200 square feet of 57 stone. The last attachment to this letter is email correspondence I had with Junhong Shi, from FDEP Northeast District, agreeing with our assessment.

If the FDEP Siting Office concurs, Seminole requests that this letter and its attachments be forwarded to all appropriate agencies and parties to the original certification proceeding as a permissible post-certification amendment to the Application. If you or any of the parties have any questions or concerns, or require additional information, please contact me at (813) 963-0994, ext 1281.

Sincerely,

Michael W. Lee,
Sr. Environmental Engineer

Cc: Lewis Snyder, Seminole



Warehouse Parking Lot

© 2015 Google

Google earth

Google Earth Pro

feet 300
meters 100



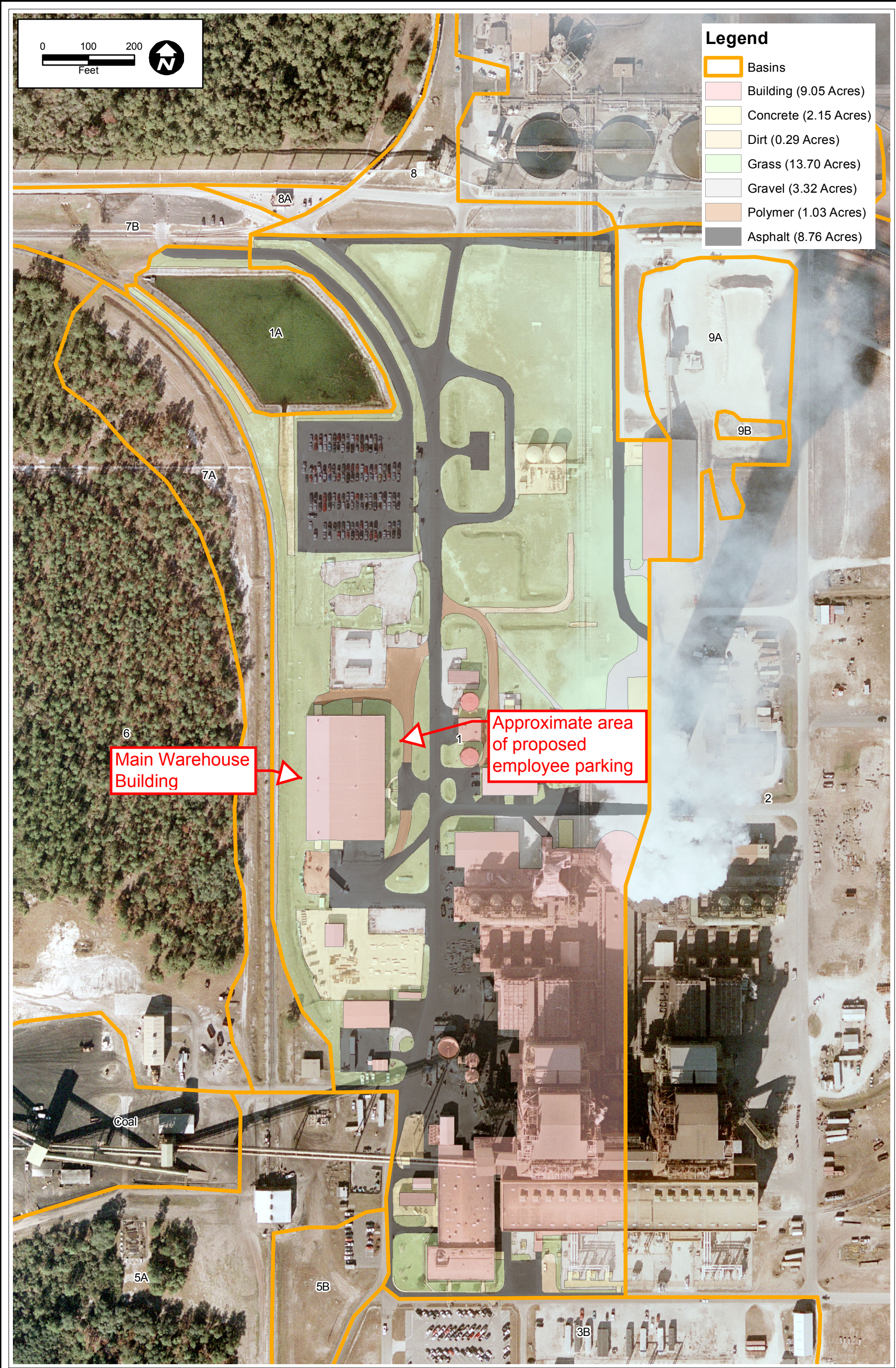


FIGURE XX.
TITLE

Sources: ECT,2010.



Florida Department of Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard, Jr.
Secretary

September 11, 2012

Sent by Electronic Mail – Document Access Verification Requested

Mr. Mike Roddy
Director, Environmental Affairs
Seminole Electric Coop., Inc.
16313 North Dale Mabry Highway
Tampa, FL 33688-2000

RE: Seminole Generating Station (PA 78-10)
Amendment Request (AM12-033)
Sidewalk Addition

Dear Mr. Roddy:

On August 20, 2012, the Florida Department of Environmental Protection (Department), Siting Coordination Office received a request from Seminole Electric Cooperative, Inc. (SECI) for an amendment to the Seminole Generation Station (SGS) Site Certification Application (SCA). The amendment request is for the construction of a new concrete sidewalk parallel to the contractor parking area.

Based on a review of the information submitted on August 20, 2012, the Department has determined that this proposal is an amendment to SGS's SCA pursuant to subsection 62-17.205(1), Florida Administrative Code (F.A.C.). The Department has no objections to the above request provided that:

1. SECI shall continue to comply with all existing requirements of its Conditions of Certification.
2. Consistent with Conditions IV. Construction, A. Stormwater Runoff and XXVIII. Stormwater, and Rules 62-330, 62-343, 40C-4 and 40C-42, F.A.C., SECI will comply with the requirements of the attached Stormwater Management System Maintenance Requirements.

The Department also notes that in the near future it will be initiating a modification pursuant to Section 403.516(1)(c), F.S., to update SGS's existing Conditions to incorporate a uniform set of general conditions consistent with recent site certifications. The above Stormwater Management System Plan will also be incorporated into the Conditions at that time.

The Department's order shall become final unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, Florida Statutes (F.S.), within **21** days of receipt of this order. The procedures for petitioning for a hearing are set forth below.

Persons affected by this order have the following options:

If you choose to accept the above decision by the Department concerning the postcertification amendment you do not have to do anything. This order is final and effective as of the date on the top of the first page of this order.

If you disagree with the decision, you may do one of the following:

1. File a petition for administrative hearing with the Department's Office of General Counsel within **21** days of receipt of this order; or
2. File a request for an extension of time to file a petition for hearing with the Department's Office of General Counsel within **21** days of receipt of this order. Such a request should be made if you wish to meet with the Department in an attempt to informally resolve any disputes without first filing a petition for hearing.

Please be advised that mediation of this decision pursuant to Section 120.573, F.S., is not available.

How to Request an Extension of Time to File a Petition for Hearing

For good cause shown, pursuant to subsection 62-110.106(4), F.A.C., the Department may grant a request for an extension of time to file a petition for hearing. Such a request must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, MS 35, Tallahassee, Florida, 32399-3000, within **21** days of receipt of this order. Petitioner, if different from the addressee, shall mail a copy of the request to the addressee at the time of filing. Timely filing a request for an extension of time tolls the time period within which a petition for administrative hearing must be made.

How to File a Petition for Administrative Hearing

A person whose substantial interests are affected by this order may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, MS 35, Tallahassee, Florida, 32399-3000, within **21** days of receipt of this order. Petitioner, if different from the addressee, shall mail a copy of the petition to the addressee at the time of filing. Failure to file a petition within this time period shall waive the right of anyone who may request an administrative hearing under Sections 120.569 and 120.57, F.S.

Pursuant to Sections 120.54(5)(b)4 and 120.569(2), F.S. and Rule 28-106.201, F.A.C., a petition for administrative hearing shall contain the following information:

- a) The name, address, and telephone number of each petitioner, the name, address, and telephone number of the petitioner's representative, if any, the site owner's name and address, if different from the petitioner, the DEP certification number for the facility, and the name and address of the facility;
- b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- c) An explanation of how each petitioner's substantial interests are or will be affected by the Department's action or proposed action;
- d) A statement of the material facts disputed by the petitioner, or a statement that there are no disputed facts;
- e) A statement of the ultimate facts alleged, including a statement of the specific facts the petitioner contends warrant reversal or modification of the Department's action or proposed action;
- f) A statement of the specific rules or statutes the petitioner contends requires reversal or modification of the Department's action or proposed action; and
- g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the Department to take with respect to the Department's action or proposed action.

This order is final and effective as of the date on the top of the first page of this order. Timely filing a petition for administrative hearing postpones the date this order takes effect until the Department issues either a final order pursuant to an administrative hearing or an order responding to supplemental information provided to the Department pursuant to meetings with the Department.

Judicial Review

Any party to this order has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, MS 35, Tallahassee, Florida 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within thirty days after this order is filed with the clerk of the Department (see below).

Questions

Any questions regarding the Department's review of this amendment request or upcoming modification should be directed to. Questions regarding legal issues should be referred to the Department's Office of General Counsel at (850) 245-2257. Contact with any of the above does not constitute a petition for administrative hearing or request for an extension of time to file a petition for administrative hearing.

Sincerely,



Cindy Mulkey
Administrator,
Siting Coordination Office

CC by email:

Greg Strong, FDEP: greg.strong@dep.state.fl.us

Khalid AlNahdy, FDEP: khalid.alnahdy@dep.state.fl.us

Jim Maher, FDEP: jim.maher@dep.state.fl.us

Robert Yarborough, SECI: RYarbrough@seminole-electric.com

Justin Gostnell, SECI: JGostnell@seminole-electric.com

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to §120.52
Florida Statutes, with the designated
Department Clerk, receipt of which is
hereby acknowledged.


Clerk

9-11-2012
Date

Service List: CC by email (Document Access Verification Requested)

Toni Sturtevant, Esquire
Department of Environmental Protection
3900 Commonwealth Blvd., M.S. 35
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kimberly.menchion@dot.state.fl.us

Stormwater Management System Maintenance Requirements

1. The following operational maintenance activities shall be performed on all approved systems on a regular basis or as needed:
 - a. Removal of trash and debris at inlets.
 - b. Inspection of inlets and outlets, as well as cleanout structures at the exfiltration trench and underdrain.
 - c. Observation and monitoring of how quickly the trench and underdrain recover following a storm event and fill with sediment.
 - d. Removal of sediments when the storage volume or conveyance capacity of the system is below design level or when the system is rendered ineffective on account of clogging/sedimentation of the trench bottom or underdrain pipe.
 - e. Stabilization and restoration of eroded areas to reduce sedimentation.
 - f. Removal of grass clippings to reduce clogging.
 - g. Aeration, tilling or replacement of soil beneath trench, if necessary, to restore percolation capability of the system.

The stormwater management system shall be inspected after each heavy rain, but at a minimum once per quarter.

2. Overflow structures and ditches must be inspected monthly, with the removal of trash, debris, silt and vegetation when necessary to insure proper drainage of stormwater ponds.
3. Oil and grease separators, skimmers or collection devices shall be provided, inspected and maintained on a regular basis by the Licensee to ensure that they are working properly and do not allow the discharge of oils or greases.
4. The operation and maintenance entity is required to provide for periodic inspections of the stormwater management system to insure that the system is functioning as designed and approved. If specified below or by Licensee condition, the entity shall submit inspection reports to the Department, certifying that the stormwater management system is operating as designed. In addition, the entity will state in the report what operational maintenance has been performed on the system. The reports shall be submitted to the Department as follows:
 - a. Inspection reports for exfiltration and pumped systems, if there is one, shall be submitted one year after the completion of construction and every two years thereafter on Form Number 62-343.900(6), Inspection Certification. A registered professional must sign and seal the report certifying the exfiltration or pumped system is operating as designed.
 - b. Other Systems. Any other type of stormwater management system shall be inspected by the operation and maintenance entity once within two years after the completion of construction and every two years thereafter to insure that the system is functioning as designed and approved. If a required inspection reveals that the system is not functioning as designed and approved, then within 14 days of that inspection the entity shall submit an inspection report to the Department. The operation and maintenance entity must maintain a record of each required inspection, including the date of the

inspection, the name, address, and telephone number of the inspector, and whether the system was functioning as designed and approved, and make such record available for inspection upon request by the Department during normal business hours.

- c. Systems in sensitive karst areas, if there is one, must be inspected monthly for the occurrence of sinkholes and solution pipes. The inspection reports for these systems must be submitted to the Department annually on Form Number 62-343.900(6), Inspection Certification.
5. If the stormwater management system is not functioning as designed and approved, operational maintenance must be performed immediately to restore the system. If operational maintenance measures are insufficient to enable the system to meet the design standards, the Licensee must either replace the system or construct an alternative design. In this situation, the Licensee must submit the design of the replacement system within sixty (60) days of the date the system was determined to be design deficient.
6. The Licensee shall immediately notify the Department by telephone whenever a serious problem occurs at this facility. Notification shall be made to the Northeast District Office at (904) 256-1700. Within 7 days of telephone notification, the Licensee shall submit to the Department a written report explaining the extent of the problem, its cause, and what actions have been or will be taken to correct the problem.



August 20, 2012

Ms. Cindy Mulkey
Florida Department of Environmental Protection
Siting Office
2600 Blair Stone Road
Tallahassee, Florida 32399-3000

Re: Seminole Electric Cooperative, Inc.
Seminole Generating Station, Putnam County FL
Power Plant Certification No. PA 78-10
Post-Certification Amendment to Application

Dear Ms. Mulkey:

Pursuant to Section 403.5113(1)(a), Florida Statutes and Rule 62-17.205, Florida Administrative Code, please accept this letter and attachments as a post-certification amendment to the Seminole Electric Cooperative, Inc. ("Seminole") Site Certification Application ("Application") for the Seminole Generating Station, Putnam County Florida. This post-certification amendment addresses the installation of a concrete sidewalk parallel to the contractor parking area.

This sidewalk will provide a safer walkway for contractors as they walk from their vehicles to the job site and will consist of two sections, measuring 90 and 150 feet respectively. The width of the sidewalk will be 5 feet. Runoff from the additional concrete will be minor and drain into Detention Pond #1. There are no wetlands in the vicinity of the sidewalk.

Attached is a report by Environmental Consulting and Technology calculating the additional runoff from the sidewalk and the capacity of Detention Pond #1. The results of the study lead Seminole to determine the addition of this sidewalk will not cause any adverse environmental impacts or require any changes to the existing Conditions of Certification for the Seminole Generating Station.

If the Department concurs, Seminole requests that this letter and its attachments be forwarded to all appropriate agencies and parties to the original certification proceeding as a permissible post-certification amendment to the Application. If you or any of the parties have any questions or concerns, or require additional information, please contact me at (813) 963-0994, ext 1224.

Sincerely,

Mike Roddy,
Director, Environmental Affairs

Cc: Justin Gostnell, Seminole
Robert Yarbrough, Seminole
Jim Alves, HG&S



Environmental Consulting & Technology, Inc.

July 23, 2012
ECT No. 120525-0100

Mr. Robert Yarbrough
Seminole Electric Company
P.O. Box 272000
Tampa, FL 33688-200

Subject: Seminole Electric Cooperative Inc.'s (SECI's) Seminole Generating Station (SGS) Concrete Sidewalk Stormwater Runoff

Dear Robert:

Environmental Consulting & Technology, Inc. (ECT), is submitting this hydraulic analysis to assess stormwater runoff from the proposed 1,200-square-foot (ft²) concrete sidewalks near the existing contractor parking lot.

BACKGROUND

To manage the stormwater from the newly constructed selective catalytic reduction (SCR) system at the SGS Units 1 and 2, Burns & McDonnell (B&M) conducted detention pond design and hydraulic calculations for stormwater ponds #1 and #2 (December 2006, B&M), which was reviewed and approved by the Florida Department of Environmental Protection (FDEP). The purpose of this hydraulic analysis is to ensure that the existing detention ponds are capable of handling the stormwater runoff from the proposed concrete sidewalks.

CONCRETE SIDEWALKS

SECI plans to construct two concrete walkways on mostly grassy areas adjacent to the contractor parking lot along the main entrance road. The width of the two sidewalks is 5 feet (ft), and the lengths are 90 and 150 ft, respectively (see Figure 1). The purpose of the concrete sidewalks is to provide walking safety from the parking lot for the contractors and plant personnel. The sidewalk addition will slightly increase the impervious surface area and thus more stormwater runoff to detention pond #1. To assure that the existing pond #1 has sufficient storage capacity to attenuate the runoff from the concrete walkways, ECT conducted a hydraulic/hydrologic analysis as described in the following paragraphs.

3701 Northwest
98th Street
Gainesville, FL
32606

(352)
332-0444

FAX (352)
332-6722

Y:\GDP-12\SECI\BC0723.DOCX.1

An Equal Opportunity/Affirmative Action Employer
www.ectinc.com

The proposed 1,200-ft² concrete sidewalks are located in stormwater basin #1, a 41.96-acre area that drains into a 3-acre wet detention pond. Table 1 presents the stage/area and stage/volume of stormwater pond #1.

Table 1. SECI SGS Pond #1 Stage-Area-Volume Data		
Elevation (ft-NGVD)	Area (acres)	Volume (acre-feet)
67.00	1.70	0.00
67.50	1.74	0.86
68.00	1.79	1.74
68.50	1.83	2.65
69.00	1.87	3.57
69.50	1.92	4.52
70.00	1.97	5.49
70.50	2.01	6.49
71.00	2.06	7.50
71.50	2.16	8.56
72.00	2.27	9.67
73.00	2.46	12.04
74.00	2.75	14.64
74.25	2.79	15.34
74.50	2.88	16.05
75.00	3.02	17.53
75.50	3.16	19.07
76.00	3.30	20.69

Source: ECT, 2012.

The discharge structure of retention pond #1 includes a 7-inch diameter bleed-down orifice with an invert elevation of 72.0 feet National Geodetic Vertical Datum (ft-NGVD), a 5- by 6-ft concrete drop inlet with an overflow elevation of 74.25 ft-NGVD, and a 20-ft-wide emergency spillway with a top elevation of 75.55 ft-NGVD. Attachment A presents the drawings of stormwater detention pond #1 and its flow control structure.

To evaluate the attenuation capacity of stormwater pond #1, hydraulic and hydrologic analyses were conducted, using the HEC-HMS model, for both the pre-SCR and post-

sidewalk conditions. Figure 2 shows the land use information for stormwater basin #1, including the proposed 1,200-ft² concrete sidewalks. Table 2 provides the curve number (CN) calculations for the pre-SCR and post-sidewalk conditions.

Table 2. CN Computation			
Land Use	CN	Area (acres)	
		Pre-SCR	Post-sidewalk
Grass	61	18.59	6.96
Gravel	85	8.06	1.22
Structures and pavement	98	15.31	27.27
Pond	100	0	3.30
Pond vicinity	70	0	3.21
Total area		41.96	41.96
Note: Composite CN pre-SCR = 79.1; post-sidewalk = 89.5.			
Source: ECT, 2012.			

The 27.13-acre structure and pavement area for the post-sidewalk condition includes 7.42 acres of buildings and sheds, 0.5 acre of tanks, and 19.35 acres of pavement. Both structure/pavement and gravel areas are considered impervious. The computed weighted CNs for the pre-SCR and post-sidewalk conditions are 79.1 and 89.5, respectively.

The results of the HEC-HMS modeling for mean annual maximum, 25-year, 24-hour and 100-year 24-hour storm events are presented in Attachment B and summarized in Table 3.

Table 3. HEC-HMS Model Results

Storm Event	Pond #1 Peak Discharge (cfs)		Post-sidewalk Pond #1 Peak Stage (ft)
	Pre-SCR	Post-sidewalk	
Average (4.5 inches)	49.5	30.8	74.78
25-year, 24-hour (8 inches)	96.9	82.8	75.36
100-year, 24-hour (10 inches)	124.3	108.7	75.60

Source: ECT, 2012.

The HEC-HMS results indicate that the peak discharge of pond #1 under the post-sidewalk condition is less than the peak discharge under the pre-SCR condition for mean annual maximum, 25-year, and 100-year storm events. In addition, the freeboard in pond #1 at peak stage under a 100-year storm event is 1.4 ft (stormwater pond #1 berm elevation is 77 ft-NGVD).

Therefore, the existing stormwater pond #1 has sufficient storage and attenuation capacity to accommodate the proposed sidewalk.

If you have any questions regarding this letter report, please contact me.

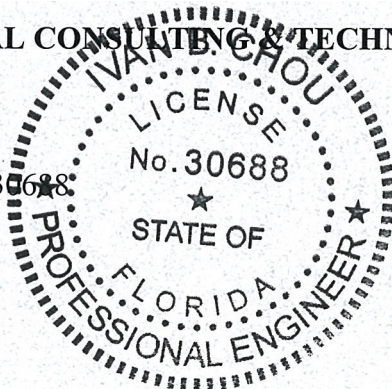
Sincerely,

ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.



Ivan B. Chou, P.E., 30688
Principal Engineer

IBC/dlm
Enclosures



Date

7-23-2012

FIGURES

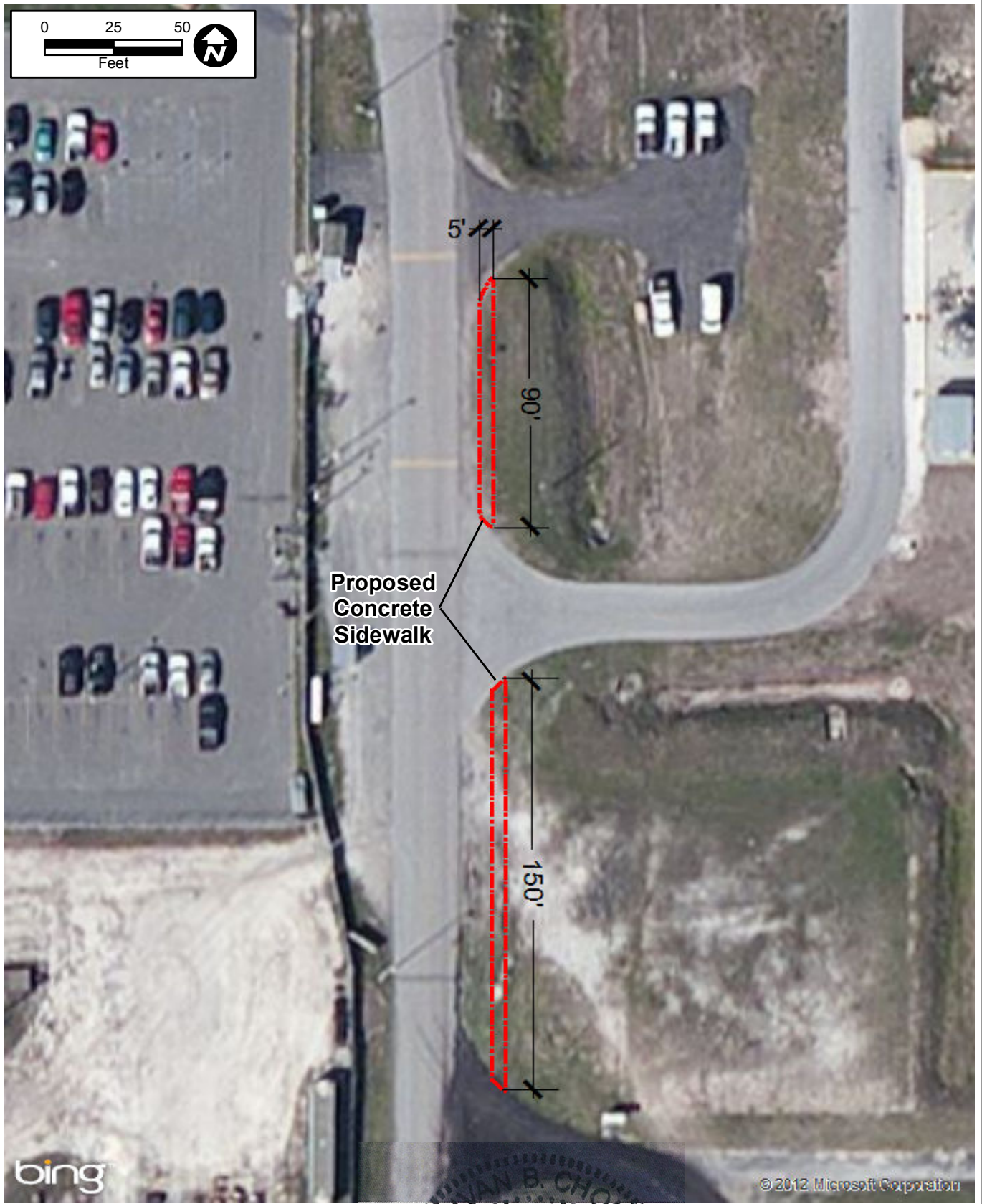
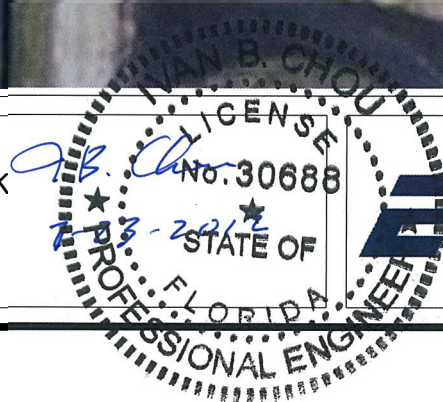


FIGURE 1.
PROPOSED CONCRETE SIDEWALK

Sources: ECT, 2012.



ECT Environmental Consulting & Technology, Inc.

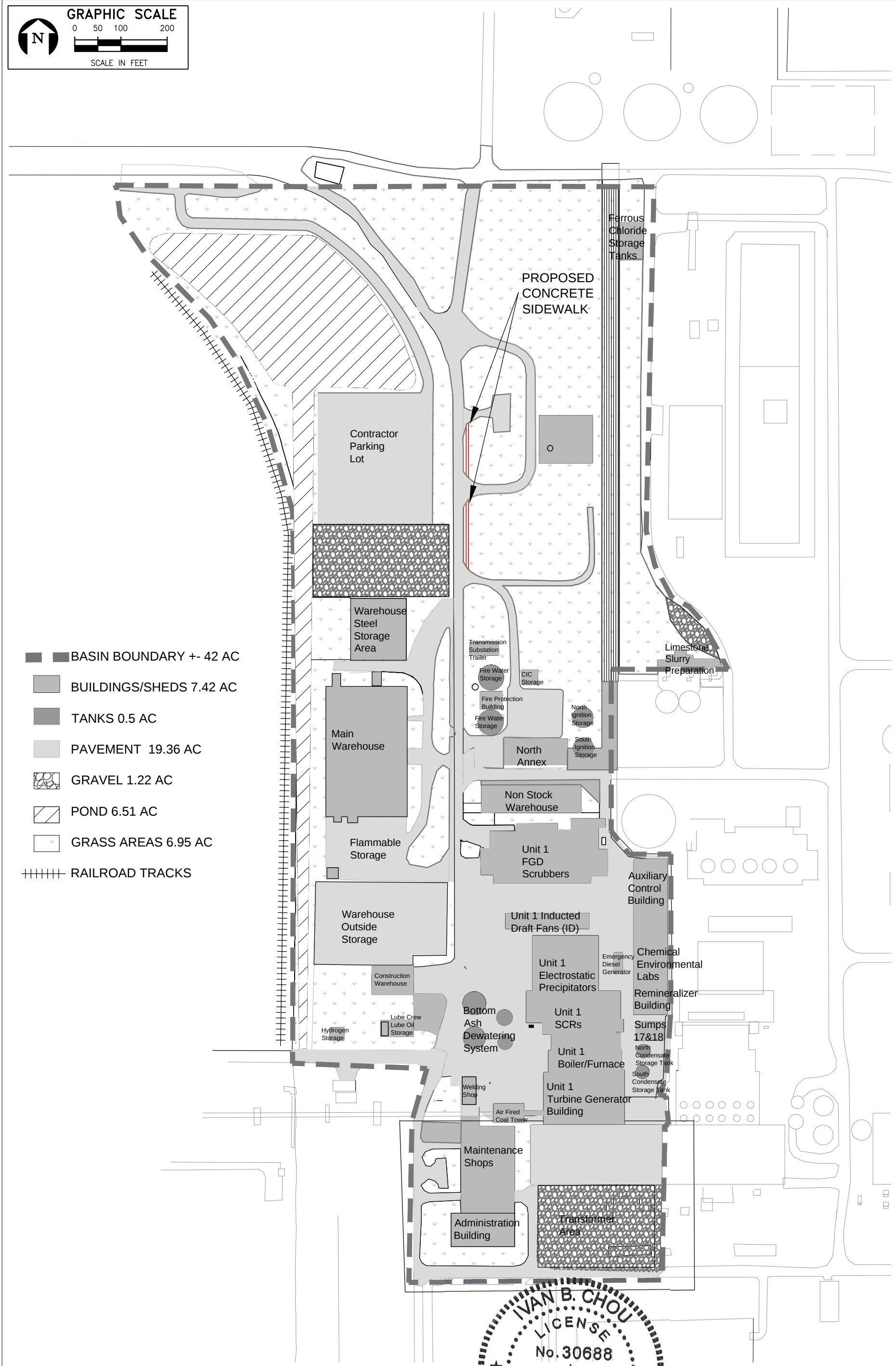
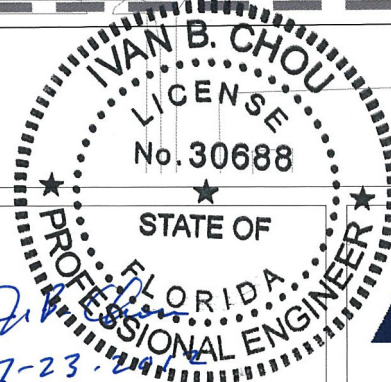


FIGURE 2.
SEMINOLE GENERATING STATION STORMWATER BASIN #1 LAND USE
SEMINOLE ELECTRIC COOPERATIVE, INC.

Source: ECT, 2010.



ECT Environmental Consulting & Technology, Inc.

ATTACHMENT A

STORMWATER DETENTION POND #1

PLANS AND SECTIONS



Seminole Generating Station

Palatka, Florida (Putnam County)

2006

41262

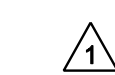
Contract Drawings

GENERAL DRAWINGS

DWG. NO.	TITLE
1C0150	COVER-INDEX
1C0151	LEGEND, ABBREVIATIONS, VICINITY MAP & NOTES

REFERENCE DRAWINGS

DWG. NO.	TITLE
1M146	FIRE PROTECTION PIPING-YARD
CM-35509-001-0035	PURGE WATER TREATMENT SYSTEM -
	TREATED PURGE WATER - PIPELINE ROUTING
SC-35169-001-0000	TELEPHONE CABLE LOCATION PLAN
SE-25003-001-0000	ELECTRIC UTILITY SERVICE FOR NEW WAREHOUSE



CIVIL DRAWINGS

DWG. NO.	TITLE
1C0152	OVERALL SITE PLAN
1C0153	DEMOLITION, FENCING & EROSION CONTROL PLAN - SHEET 1
1C0154	DEMOLITION, FENCING & EROSION CONTROL PLAN - SHEET 2
1C0155	GRADING PLAN - SHEET 1
1C0156	GRADING PLAN - SHEET 2
1C0157	GRADING SECTIONS (EAST)
1C0158	NOT USED
1C0159	NOT USED
1C0160	NOT USED
1C0161	NOT USED
1C0162	GRADING SECTIONS (WEST) - SHEET 1
1C0163	GRADING SECTIONS (WEST) - SHEET 2
1C0164	GRADING SECTIONS (WEST) - SHEET 3
1C0165	ROAD PROFILES
1C0166	MISCELLANEOUS DETAILS - SHEET 1
1C0167	MISCELLANEOUS DETAILS - SHEET 2
1C0168	MISCELLANEOUS DETAILS - SHEET 3
1C0169	NOT USED
1C0170	POND 1 (WEST) DETAILS - SHEET 1
1C0171	POND 1 (WEST) DETAILS - SHEET 2
1C0172	POND 2 (EAST) DETAILS - SHEET 1
1C0173	POND 2 (EAST) DETAILS - SHEET 2

ELECTRICAL DRAWINGS

DWG. NO.	TITLE
1E5600	ROADWAY LIGHTING PLAN
1E5601	LIGHTING AND FENCE GROUNDING DETAILS

ONE OR TWO CHARACTER DISCIPLINE DESIGNATOR (MAY NOT BE PRESENT IF CALLOUT AND TITLE ARE ON DRAWINGS WITHIN THE SAME DISCIPLINE)

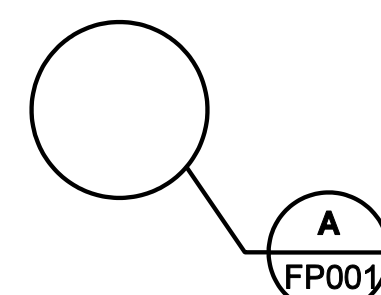
LETTER OR NUMBER DESIGNATOR

DRAWING SEQUENCE NUMBER INDICATES WHERE DETAIL IS SHOWN OR TAKEN FROM (MAY NOT BE PRESENT IF CALLOUT AND TITLE ARE ON THE SAME DRAWING)

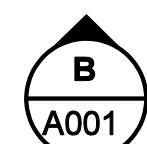
SECTION, DETAIL, AND ELEVATION SYMBOL IDENTIFIERS



SECTION CALLOUT EXAMPLE



DETAIL CALLOUT EXAMPLE



ELEVATION CALLOUT EXAMPLE

THE WORD "SECTION" MAY BE REPLACED WITH "ELEVATION" OR "DETAIL"

SECTION

SECTION, DETAIL, OR ELEVATION TITLE EXAMPLE

SECTION, DETAIL, AND ELEVATION IDENTIFICATION SYSTEM

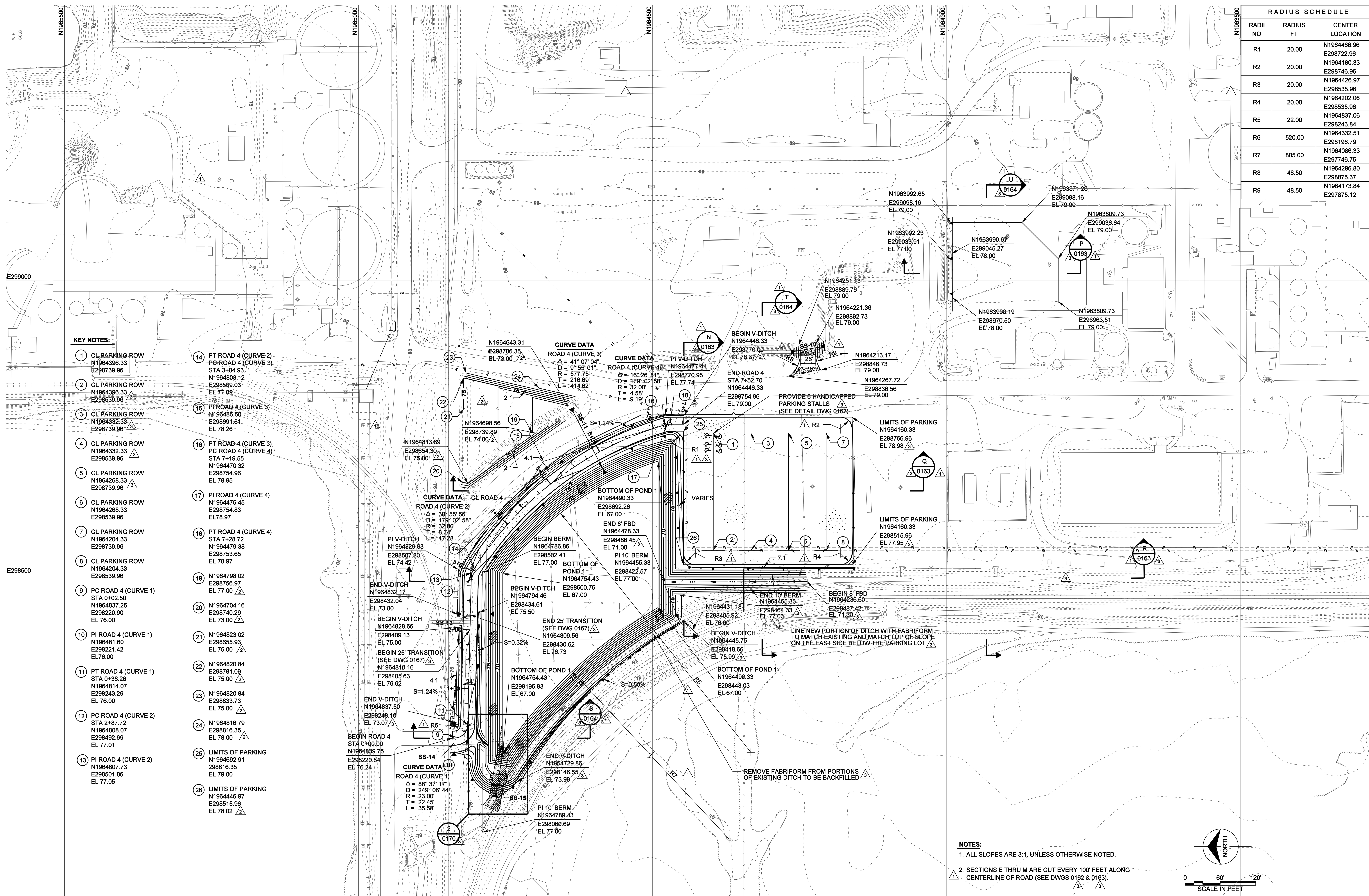
no.	date	by	ckd	description	no.	date	by	ckd	description
0	10/10/06	JCE	JWG	ISSUED FOR BID	12/12/06	JCE	JWG		REVISED CIVIL DRAWING LIST
1	12/12/06	JCE	JWG	DELETED REFERENCE DRAWINGS CE-25007-000-0006, CM-25007-000-0018, 1M145, 1M153, AND MECHANICAL DRAWING CM-35659-000-0001-0001	12/22/06	JCE	JWG		ISSUED AS BID AND FOR CONSTRUCTION
					8/27/07	JCE			CONFORMING TO CONSTRUCTION RECORDS



Units 1 & 2 - SGS Pollution Control Upgrade
Site Preparation
Contract #110

Cover - Index

RADIUS SCHEDULE		
RADI NO	RADIUS FT	CENTER LOCATION
R1	20.00	N1964466.96 E298722.96
R2	20.00	N1964180.33 E298746.96
R3	20.00	N1964426.97 E298535.96
R4	20.00	N1964202.06 E298535.96
R5	22.00	N1964837.06 E298243.84
R6	520.00	N1964332.51 E298196.79
R7	805.00	N1964086.33 E297746.75
R8	48.50	N1964296.80 E298875.37
R9	48.50	N1964173.84 E297875.12



no.	date	by	ckd	description	no.	date	by	ckd	description	no.	date	by	ckd	description	no.	date	by	ckd	description	no.	date	by	ckd	description	no.	date	by	ckd	description
0	10/10/06	JCE	JWG	ISSUED FOR BID																									
△	12/12/06	JCE	JWG	REMOVED DETAIL 3; REVISED RADI; REVISED SECTION CALLOUTS; REVISED NOTE 2	△	12/22/06	JCE	JWG	REMOVED SS-12, REVISED GRADING AND KEY NOTES																				
	12/22/06	JCE	JWG	ISSUED AS BID AND FOR CONSTRUCTION	△	12/22/06	JCE	JWG	ISSUED FOR PCO #1																				
						8/27/07	JCE		CONFORMING TO CONSTRUCTION RECORDS																				



9400 Ward Parkway, Kansas City, MO
Florida Certificate of Authorization Number: 253



IN PARTNERSHIP WITH THOSE WE SERVE

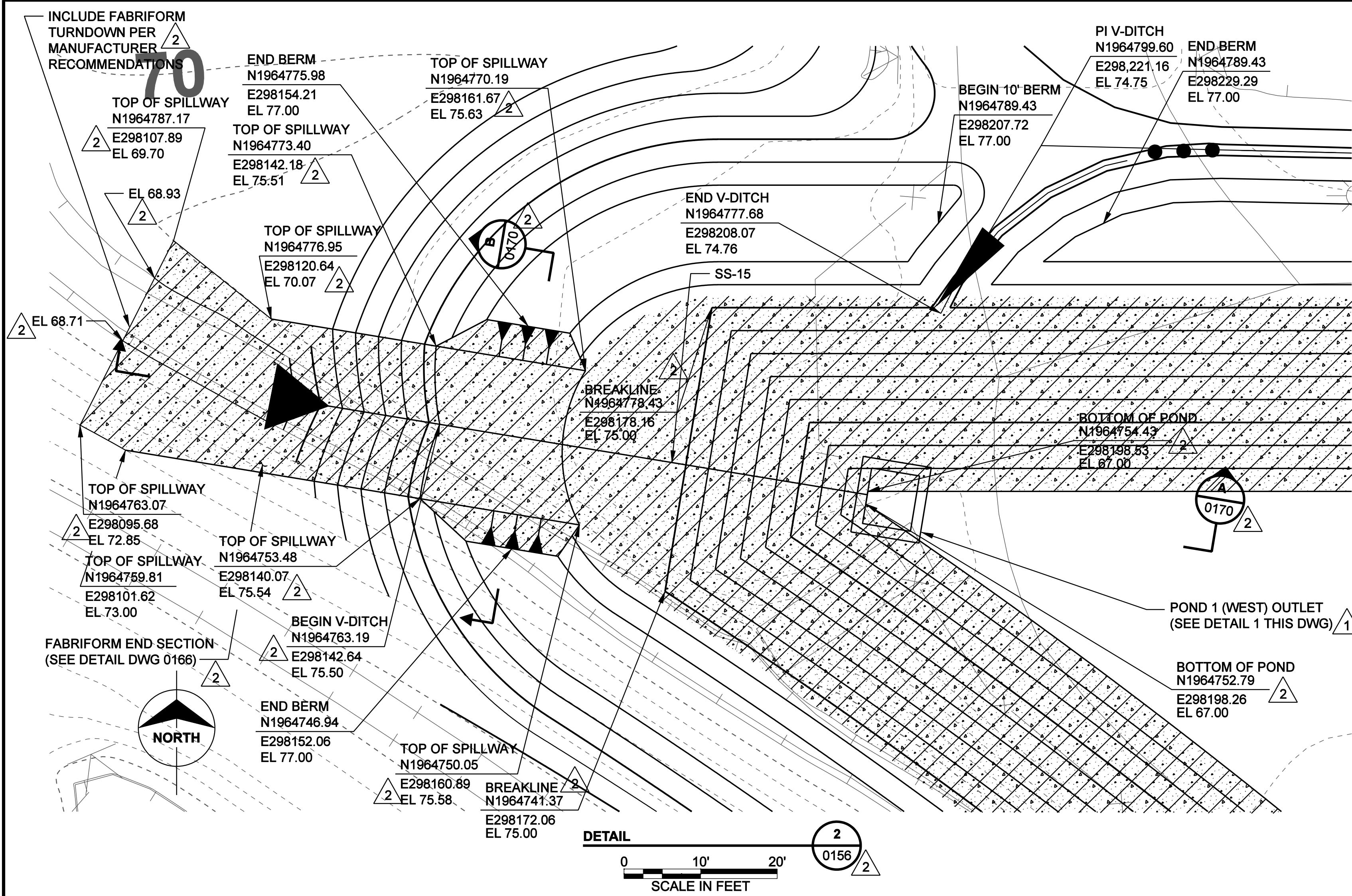
location: **SEMINOLE GENERATING STATION (UNIT 1 & 2)**

title: **GRADING PLAN - SHEET 2**

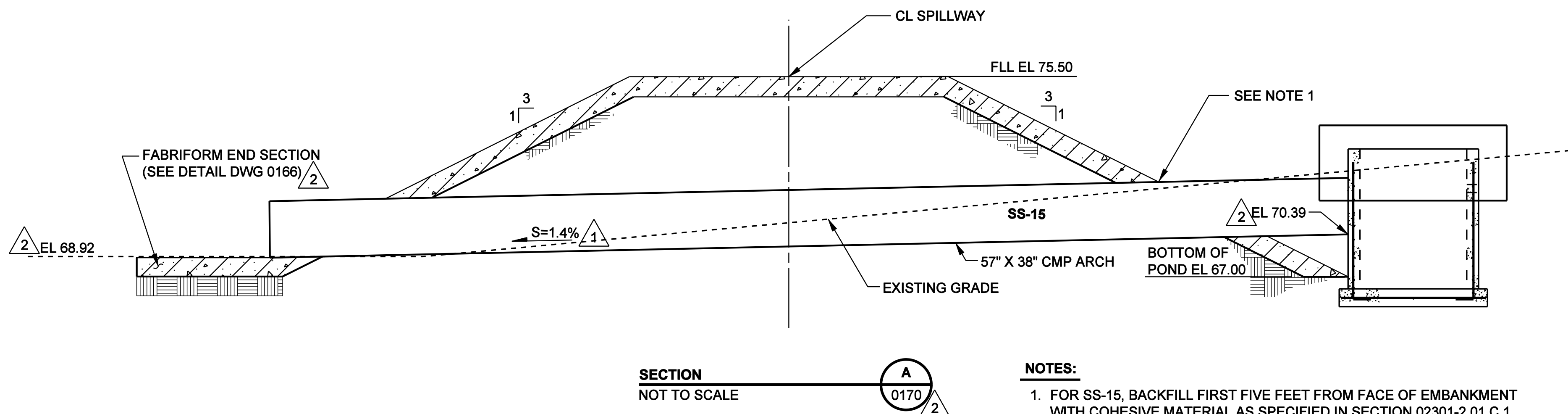
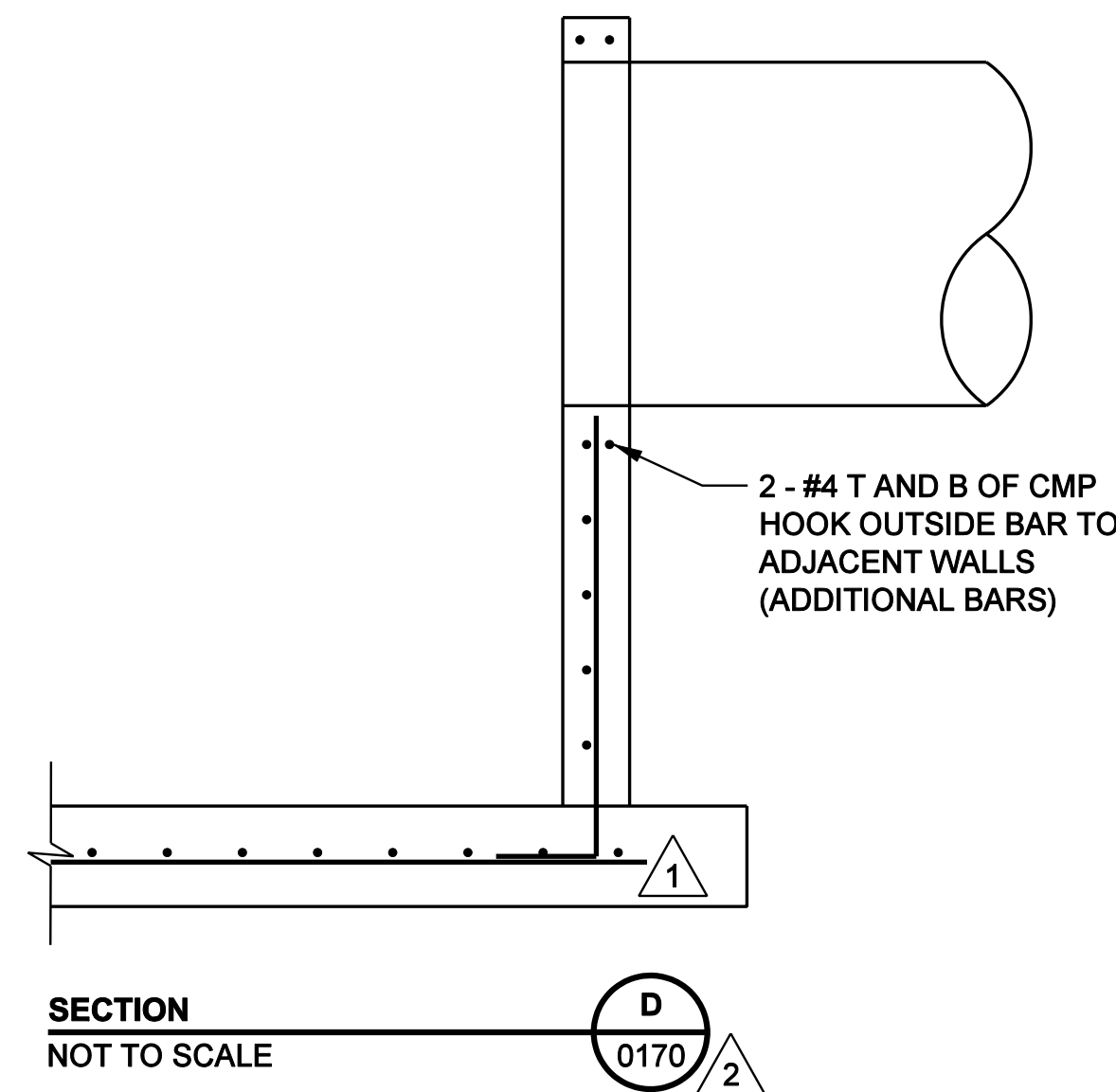
drawn: C. ALTES	date: AUGUST 1, 2006	project/contract no.: 41262/110	sh. ____ of ____
design: J. EICHENBERGER	date: JULY 31, 2006	1C0156	
checked: J. GANDER	date: SEPT 15, 2006		

system: _____

rev. **3**

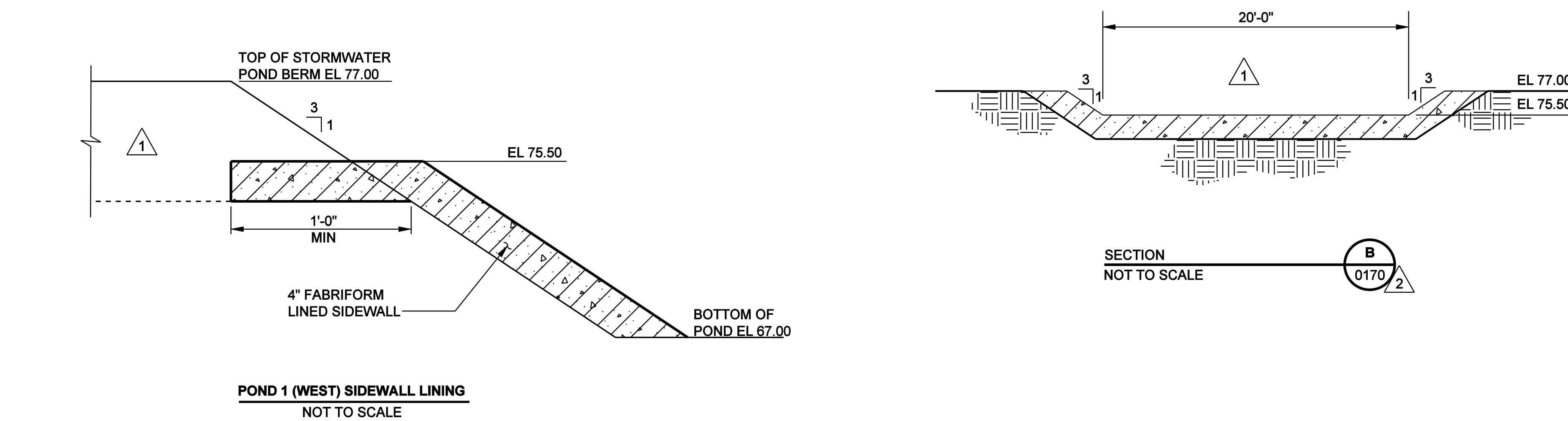


POND 1 (WEST) OUTLET STRUCTURE W/ 20' WEIR DETAIL

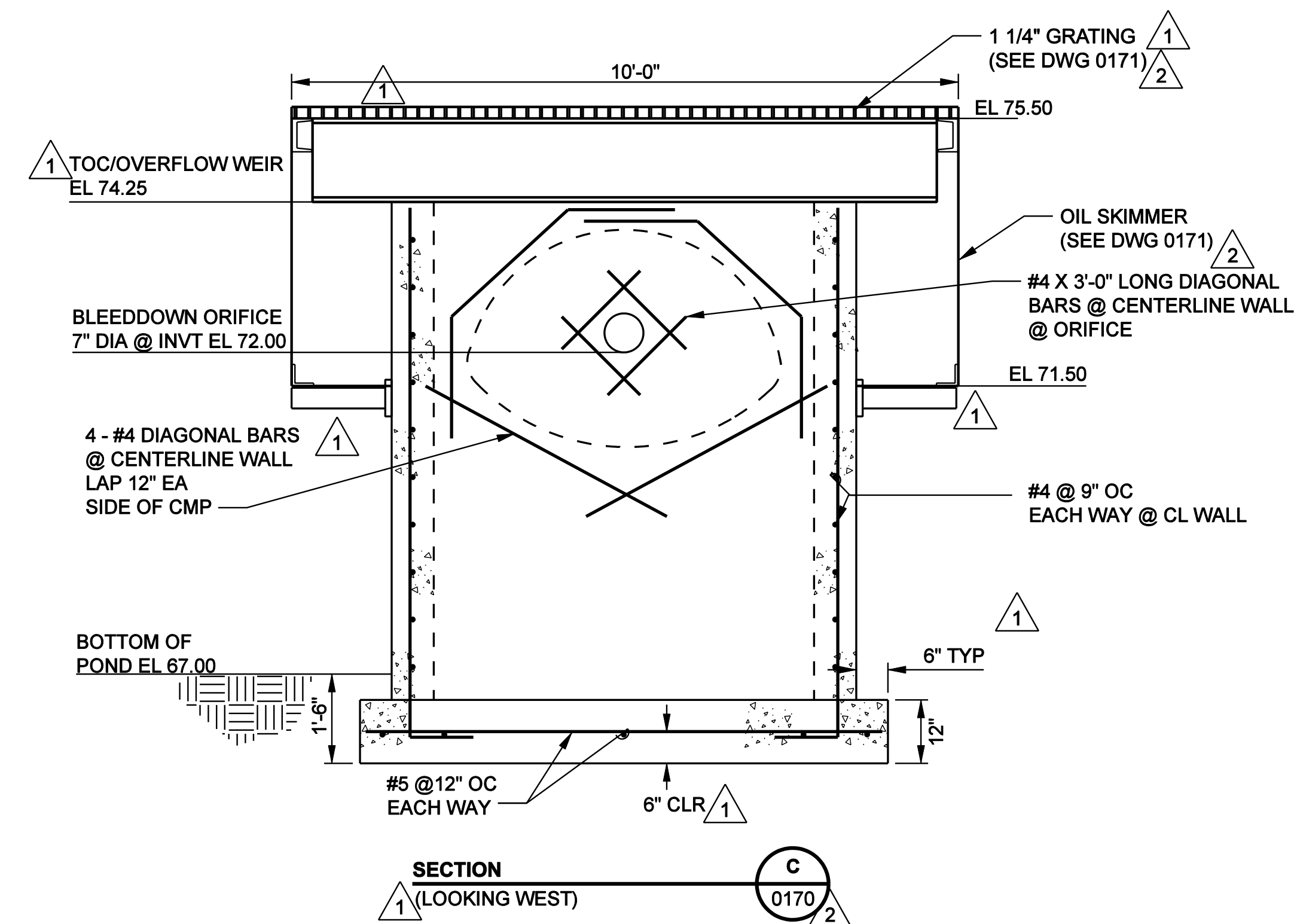
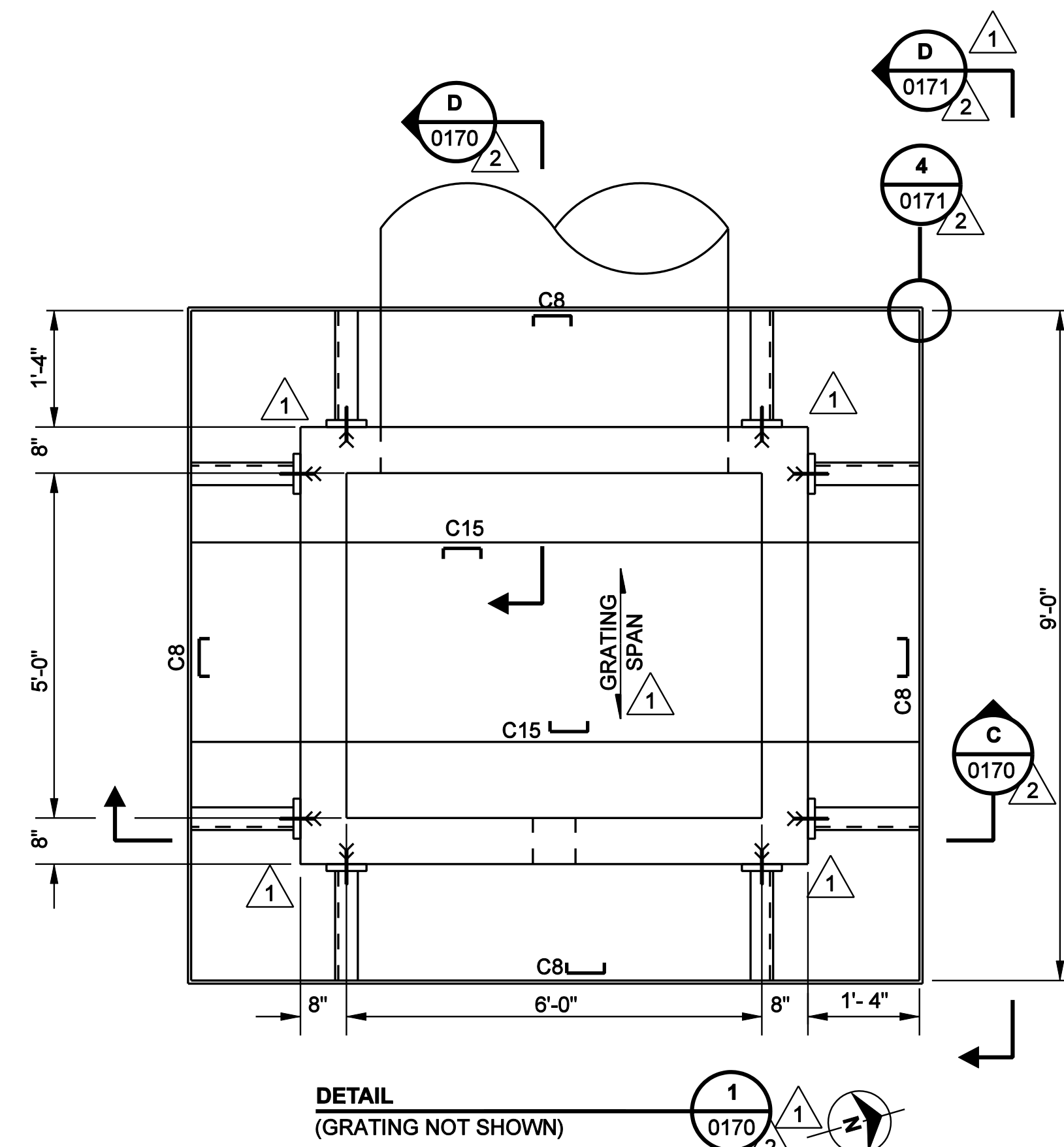


NOTES:

1. FOR SS-15, BACKFILL FIRST FIVE FEET FROM FACE OF EMBANKMENT WITH COHESIVE MATERIAL AS SPECIFIED IN SECTION 02301-2.01.C.1. DO NOT USE GRANULAR BEDDING MATERIAL IN FIRST FIVE FEET OF TRENCH.
2. AVERAGE GROUNDWATER ELEVATION FOR POND 1 (WEST) IS 72.25' (APPROX).



POND 1 (WEST) SIDEWALL LINING NOT TO SCALE



POND 1 (WEST) OUTLET DETAIL NOT TO SCALE

no.	date	by	ckd	description
0	10/10/06	JCE	JWG	ISSUED FOR BID
1	10/30/06	JCE	CLG	ADDED GRATING, CHANGED SLOPE OF SS-1
	10/31/06	JCE	CLG	ISSUED WITH ADDENDUM NO 1
	12/22/06	JCE	CLG	ISSUED AS BID AND FOR CONSTRUCTION

no.	date	by	ckd	description
2	8/27/07	JCE		CONFORMING TO CONSTRUCTION RECORDS

no.	date	by	ckd	description

no.	date	by	ckd	description

no.	date	by	ckd	description

no.	date	by	ckd	description

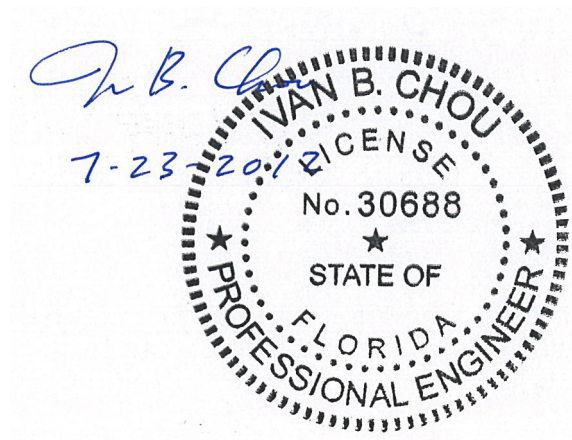
Burns & McDonnell
SINCE 1838
9400 Ward Parkway, Kansas City, MO
Florida Certificate of Authorization Number: 253

Seminole Electric COOPERATIVE, INC.
IN PARTNERSHIP WITH THOSE WE SERVE

location: SEMINOLE GENERATING STATION (UNIT 1 & 2)			
title: POND 1 (WEST) DETAILS - SHEET 1			
drawn: C. ALTES	date: AUGUST 1, 2006	project/contract no.: 41262/110	sh. ____ of ____
design: J. EICHENBERGER	date: JULY 31, 2006	dwg no: 1C0170	system:
checked: J. GANDER	date: SEPT 15, 2006		rev. 2

ATTACHMENT B

HEC-HMS MODEL INPUT/OUTPUT



HEC-HMS MODELING OF SEMINOLE – POND 1

INPUT

Design Storms

Precipitation	
Met Name: Mean Annual Maximum	
Method:	Type 2 v
*Depth (IN)	4.5

Precipitation

Met Name: 25 Yr 24 Hr

Method: Type 2

*Depth (IN) 8

Precipitation

Met Name: 100 Year 24 Hr

Method: Type 2

*Depth (IN) 10

Pre-SCR Condition

Basin Input

Subbasin		Loss	Transform	Options
Basin Name: Pre-SCR				
Element Name: Subbasin-1				
Description:	Pre-SCR Conditions			
Downstream:	--None--			
*Area (MI2)	0.06556			
Canopy Method:	--None--			
Surface Method:	--None--			
Loss Method:	SCS Curve Number			
Transform Method:	SCS Unit Hydrograph			
Baseflow Method:	--None--			

Subbasin		Loss	Transform	Options
Basin Name: Pre-SCR				
Element Name: Subbasin-1				
Initial Abstraction (IN)	0.528			
*Curve Number:	79.11			
*Impervious (%)	55.7			

Subbasin Loss Transform Options

Basin Name: Pre-SCR
Element Name: Subbasin-1

Graph Type: Standard

*Lag Time (MIN) 65

OUTPUT

Summary Table for Mean Annual Maximum: Pre-SCR Condition

The screenshot shows a software window titled "Summary Results for Subbasin 'Subbasin-1'". The window contains the following information:

Project: Seminole Pond #1 Analysis

Simulation Run: Pre-SCR Condition Subbasin: Subbasin-1

Start of Run: 17Jul2012, 00:00 Basin Model: Pre-SCR
End of Run: 19Jul2012, 00:00 Meteorologic Model: Mean Annual Maximum
Compute Time: 18Jul2012, 09:28:16 Control Specifications: Control 1

Volume Units: ☒ IN ☐ AC-FT

Computed Results

Peak Discharge :	49.53 (CFS)	Date/Time of Peak Discharge :	17Jul2012, 13:00
Total Precipitation :	4.50 (IN)	Total Direct Runoff :	3.56 (IN)
Total Loss :	0.94 (IN)	Total Baseflow :	0.00 (IN)
Total Excess :	3.56 (IN)	Discharge :	3.56 (IN)

Summary Table for 25-Yr, 24-Hr: Pre-SCR Condition

Summary Results for Subbasin "Subbasin-1"

Project: Seminole Pond #1 Analysis

Simulation Run: Pre-SCR Condition Subbasin: Subbasin-1

Start of Run: 17Jul2012, 00:00

End of Run: 19Jul2012, 00:00

Compute Time: 18Jul2012, 09:30:28

Basin Model: Pre-SCR

Meteorologic Model: 25 Yr 24 Hr

Control Specifications: Control 1

Volume Units: ☒ IN ☐ AC-FT

Computed Results

Peak Discharge : 96.92 (CFS)

Total Precipitation : 8.00 (IN)

Total Loss : 1.10 (IN)

Total Excess : 6.90 (IN)

Date/Time of Peak Discharge : 17Jul2012, 13:00

Total Direct Runoff : 6.90 (IN)

Total Baseflow : 0.00 (IN)

Discharge : 6.90 (IN)

Summary Table for 100-Yr, 24-Hr: Pre-SCR Condition

Summary Results for Subbasin "Subbasin-1"

Project: Seminole Pond #1 Analysis

Simulation Run: Pre-SCR Condition Subbasin: Subbasin-1

Start of Run: 17Jul2012, 00:00 Basin Model: Pre-SCR
End of Run: 19Jul2012, 00:00 Meteorologic Model: 100 Year 24 Hr
Compute Time: 18Jul2012, 09:33:37 Control Specifications: Control 1

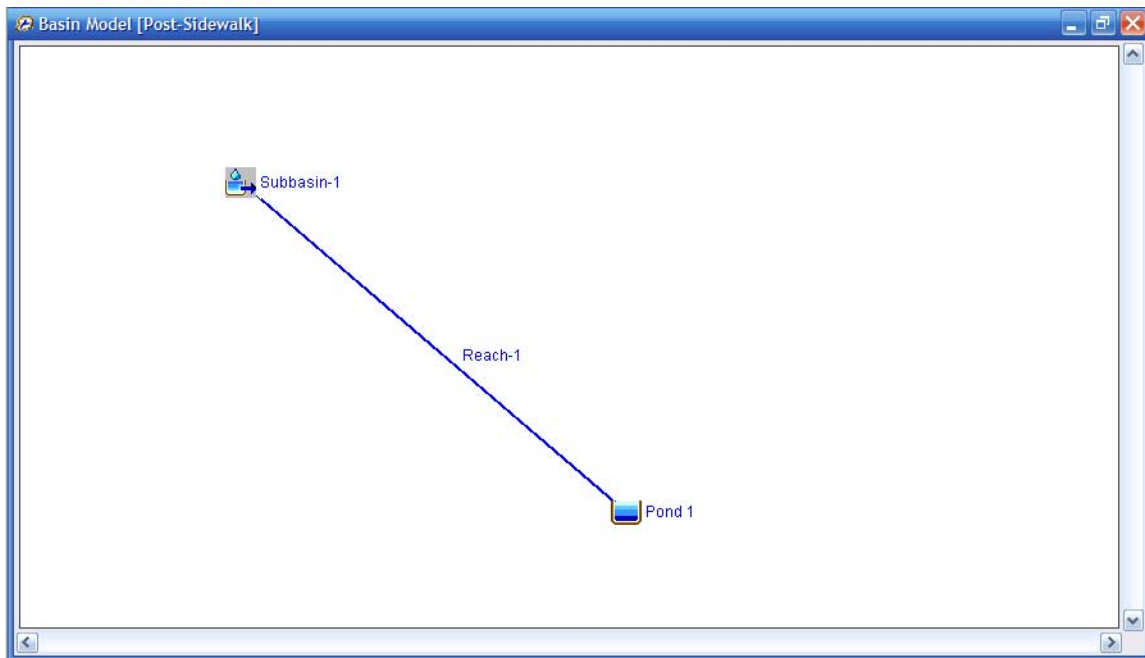
Volume Units: ☒ IN ☐ AC-FT

Computed Results

Peak Discharge :	124.35 (CFS)	Date/Time of Peak Discharge :	17Jul2012, 12:55
Total Precipitation :	10.00 (IN)	Total Direct Runoff :	8.85 (IN)
Total Loss :	1.15 (IN)	Total Baseflow :	0.00 (IN)
Total Excess :	8.85 (IN)	Discharge :	8.85 (IN)

Post-Sidewalk Condition

Basin Input



Subbasin		Loss	Transform	Options
Basin Name: Post-Sidewalk				
Element Name: Subbasin-1				
Description:				
Downstream:	Pond 1			
*Area (MI2)	0.06556			
Canopy Method:	--None--			
Surface Method:	--None--			
Loss Method:	SCS Curve Number			
Transform Method:	SCS Unit Hydrograph			
Baseflow Method:	--None--			

Subbasin		Loss	Transform	Options
Basin Name: Post-Sidewalk				
Element Name: Subbasin-1				
Initial Abstraction (IN)	0.235			
*Curve Number:	89.50			
*Impervious (%)	67.9			

Subbasin Loss Transform Options

Basin Name: Post-Sidewalk
Element Name: Subbasin-1

Graph Type: Standard

*Lag Time (MIN) 74

Reservoir Options	
Basin Name: Post-Sidewalk	
Element Name: Pond 1	
Description:	
Downstream:	--None--
Method:	Outflow Curve
Storage Method:	Elevation-Area-Discharge
*Elev-Area Function:	Stage-Area
*Elev-Dis Function:	Stage-Discharge
Primary:	Elevation-Discharge
Initial Condition:	Elevation
*Initial Elevation (FT)	72.0

Paired Data Table Graph	
Elevation (FT)	Area (AC)
67.00000	1.69940
67.50000	1.74280
68.00000	1.78610
68.50000	1.83030
69.00000	1.87450
69.50000	1.92050
70.00000	1.96640
70.50000	2.01120
71.00000	2.05590
71.50000	2.16340
72.00000	2.27090
73.00000	2.46340
74.00000	2.75360
74.25000	2.78630
74.50000	2.88440
75.00000	3.01520
75.50000	3.15780
75.55000	3.17206
75.60500	3.18776
76.00000	3.30040

Paired Data Table Graph	
Elevation (FT)	Discharge (CFS)
72.000	0.00
73.000	1.08
74.000	1.68
74.250	1.80
74.500	10.41
75.000	46.27
75.500	97.31
75.550	103.09
75.610	110.21
76.000	174.95

OUTPUT

Summary Table for Mean Annual Maximum: Post-Sidewalk Condition

The screenshot shows a software window titled "Summary Results for Reservoir 'Pond 1'". The window contains the following information:

Project: Seminole Pond #1 Analysis

Simulation Run: Post-Sidewalk Condition Reservoir: Pond 1

Start of Run: 17Jul2012, 00:00	Basin Model: Post-Sidewalk
End of Run: 19Jul2012, 00:00	Meteorologic Model: Mean Annual Maximum
Compute Time: 18Jul2012, 15:02:07	Control Specifications: Control 1

Volume Units: ☒ IN ☐ AC-FT

Computed Results

Peak Inflow : 52.21 (CFS)	Date/Time of Peak Inflow : 17Jul2012, 13:05
Peak Outflow : 30.84 (CFS)	Date/Time of Peak Outflow : 17Jul2012, 14:00
Total Inflow : 4.13 (IN)	Peak Storage : 7.2 (AC-FT)
Total Outflow : 3.29 (IN)	Peak Elevation : 74.78 (FT)

Summary Table for 25-Yr, 24-Hr: Post-Sidewalk Condition

Summary Results for Reservoir "Pond 1"

Project: Seminole Pond #1 Analysis

Simulation Run: Post-Sidewalk Condition Reservoir: Pond 1

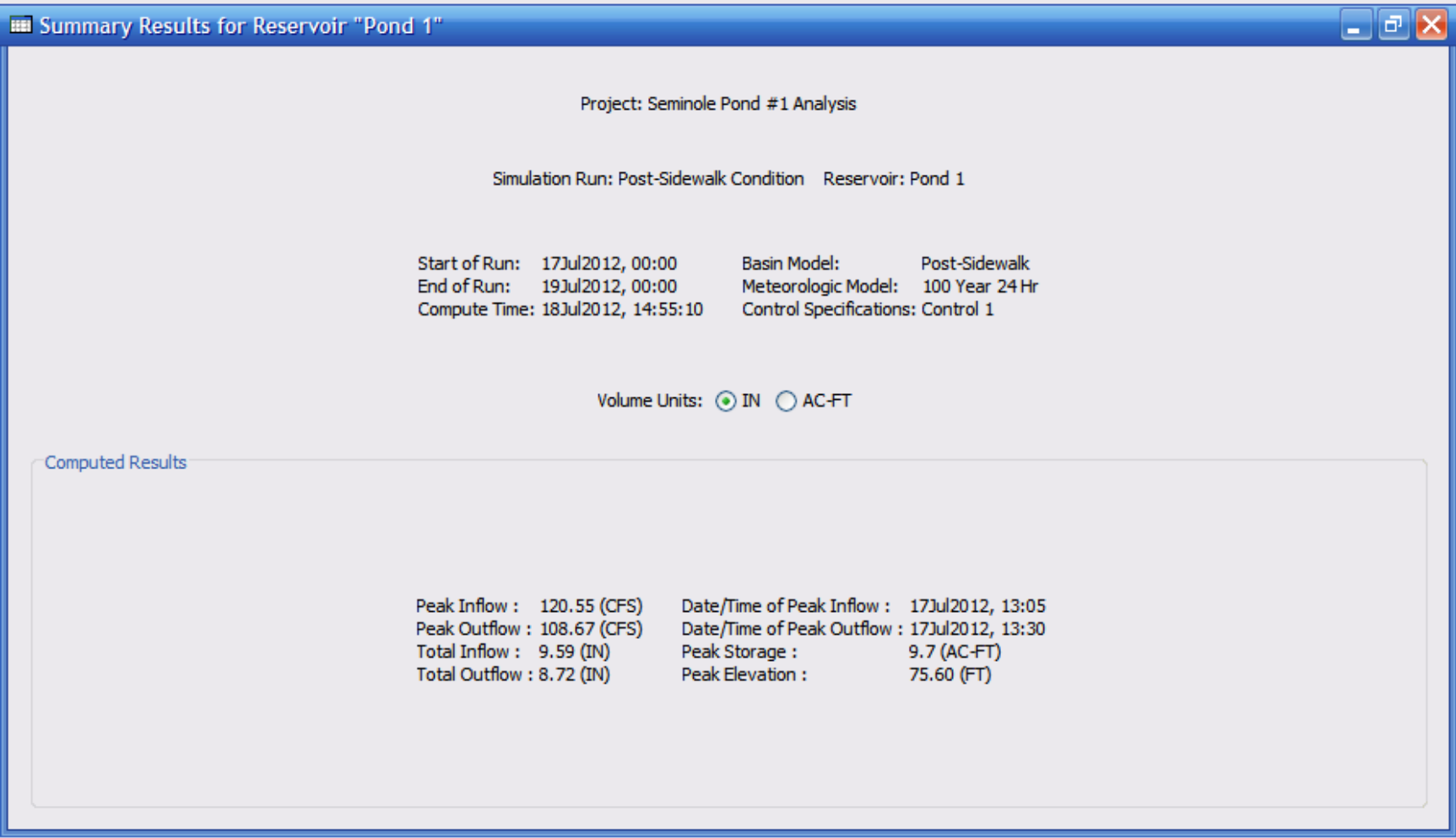
Start of Run: 17Jul2012, 00:00 Basin Model: Post-Sidewalk
End of Run: 19Jul2012, 00:00 Meteorologic Model: 25 Yr 24 Hr
Compute Time: 18Jul2012, 14:56:45 Control Specifications: Control 1

Volume Units: ☒ IN ☐ AC-FT

Computed Results

Peak Inflow : 95.75 (CFS) Date/Time of Peak Inflow : 17Jul2012, 13:05
Peak Outflow : 82.76 (CFS) Date/Time of Peak Outflow : 17Jul2012, 13:35
Total Inflow : 7.60 (IN) Peak Storage : 9.0 (AC-FT)
Total Outflow : 6.74 (IN) Peak Elevation : 75.36 (FT)

Summary Table for 100-Yr, 24-Hr: Post-Sidewalk Condition



From: [Shi, Junhong](#)
To: [Michael Lee](#)
Cc: [Bull, Robert \(Bobby\)](#); [Patel, Ashwin](#)
Subject: RE: SGS Warehouse Parking Lot
Date: Wednesday, July 15, 2015 4:01:46 PM

Michael,

I don't see problem for this project. But as usual, please make request to Siting Office, which will then forward your submittal to Distract office for review. Please let me know if you have any question.

Thank you,

June

Junhong Shi, P. E.II
Environmental Resource Permit
FDEP Northeast District
Junhong.Shi@dep.state.fl.us
(904)256-1645

If you have received an authorization from the ERP program, please click on the survey link (below) to provide us valuable feedback about your experience.



[Additional web resources:](#)



From: Michael Lee [mailto:MLee@seminole-electric.com]
Sent: Tuesday, July 14, 2015 3:59 PM
To: Shi, Junhong
Subject: re: SGS Warehouse Parking Lot

Jun,

SGS plant staff has requested to add an approximately 20' by 60' employee parking area

located within Basin 1 in front of our main warehouse building just north of the current paved entrance loop. The plan is to lay down 57 specification stone. This area is currently a grass area underlain with limerock. The total area of coverage will be approximately 1,200 square feet. Runoff from the additional stone will be minor and drain into Detention Pond #1 within Basin 1.

I have attached a copy of the Basin 1 map, as well as a 2012 amendment with modeling information within the same basin. We have made no impervious surface additions within this basin since then. We feel that stormwater pond #1 has sufficient storage and attenuation capacity to accommodate the addition of approximately 1,200 square feet of 57 specification stone.

I have attached a google earth location of the warehouse with the approximate area of the proposed 57 specification stone addition outlined in red.

Please advise and let me know your thoughts on this project. As always, please feel free to call or email if you have any questions or need further information.

Thank you,

Michael Lee, P.W.S.
Senior Environmental Engineer



16313 N. Dale Mabry Hwy.
Tampa, FL 33618
813.963.0994 x1281
MLee@seminole-electric.com

Michael Lee, P.W.S.
Senior Environmental Engineer



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