HILLSBOROUGH COUNTY
SOUTHEAST COUNTY LANDFILL
CAPACITY EXPANSION AREA SECTIONS 7 - 9
CERTIFICATION OF CONSTRUCTION COMPLETION

Prepared for:

HILLSBOROUGH COUNTY
SOLID WASTE MANAGEMENT DEPARTMENT

601 East Kennedy Boulevard
County Center, 24th Floor
Tampa, Florida 33602

Prepared by:

JONES EDMUNDS & ASSOCIATES, INC.
324 S. Hyde Park Avenue, Suite 250
Tampa, Florida 33606

JONES EDMUNDS
ENGINEERS | ARCHITECTS | SCIENTISTS

P.E. CERTIFICATE OF AUTHORIZATION #1841

June 2008

JONES EDMUNDS

June 17, 2008

Mr. R. Douglas Hyman, P.E.
Stormwater Engineer
Southwest District
Florida Department of Environmental Protection
13051 N Telecom Parkway
Temple Terrace, FL 33637-0926

Dept. Of Environmental Protection

JUN 19 2008

Southwest District

RE: Southeast County Landfill Cell Sections 7 -9
Certification of Construction Completion
DEP Permit No.: 29-0270881-001
JE Project No.: 08449-030-02

Mr. Hyman:

Jones Edmunds & Associates, Inc., on behalf of the Hillsborough County Solid Waste Management Department (SWMD), is pleased to provide the enclosed Certification of Construction Completion Report for the Southeast County Landfill (SCLF) Cell Sections 7 - 9. In accordance with Permit Number 29-0270881-001, General Condition 13 and Specific Condition 11, this Certification of Construction Completion is being submitted within 30 days of construction completion, which was June 12, 2008.

The enclosed completion report provides the Certification of Construction Completion including the following:

- Environmental Resource Permit As-Built Certification by a Registered Professional {DEP Form # 62-343.900(5)}
- Request for Transfer of Environmental Resource Permit Construction Phase to Operation Phase {DEP Form # 62-343.900(7)}
- Construction Completion Report
- Completion photographs
- Record Drawings (Drawings B1 – B-6, and Drawing 4, 4a, and 4b)
- As-Built Topographic Survey

Please let me know if you require any additional information.

Sincerely,

Joseph H. O'Neill, P.E.
Solid Waste Department Manager

Jason Timmons, P.E.
Project Engineer

cc: Patricia V. Berry, SWMD
Megan Miller, SWMD
Larry Ruiz, SWMD
Susan J. Pelz, FDEP
Ron Cope, HCEPC

T:\08449 - Hillsborough\030-01 SCLF General Services\4000 - Phase 4 Site A Capacity Exp \4300\Section 9 Const. Mgmt\3150 Correspondence Out\DEP\ERP-Section 7-9\ Completion Report\ConstructCompletion (Basin C)_Cover_Ltr.doc

324 South Hyde Park Avenue
Suite 250
Tampa, FL 33606

813.258.0703 Phone
813.254.6860 Fax
www.jonesedmunds.com

TABLE OF CONTENTS

ATTACHMENTS

PART I

ENVIRONMENTAL RESOURCE PERMIT AS-BUILT CERTIFICATION BY A REGISTERED PROFESSIONAL {DEP FORM # 62-343.900(5)}

Form #62-343.900(5), F.A.C.
Form Title: As-Built Certification by a Registered Professional
Effective Date: October 3, 1995

ENVIRONMENTAL RESOURCE PERMIT
AS-BUILT CERTIFICATION BY A REGISTERED PROFESSIONAL

Permit Number: 29-0270881-001

Project Name: HCSELF Cell Sections 7 - 9 (Basin C)

I hereby certify that all components of this surface water management system have been built substantially in accordance with the approved plans and specifications and are ready for inspection. Any substantial deviations (noted below) from the approved plans and specifications will not prevent the system from functioning as designed when properly maintained and operated. These determinations are based upon on-site observation of the system conducted by me or by my designee under my direct supervision and/or my review of as-built plans certified by a registered professional or Land Surveyor licensed in the State of Florida.

Joseph H. O'Neill
Name (please print)

Signature of Professional

Jones Edmunds & Associates, Inc.
Company Name

52049
Florida Registration Number

324 S Hyde Park Ave
Company Address

June 17, 2008
Date

Tampa, Florida 33615
City, State, Zip Code

813-258-0703
Telephone Number

(Affix Seal)

Dept. Of Environmental Protection
JUN 19 2008
Southwest District

Substantial deviations from the approved plans and specifications:

(Note: attach two copies of as-built plans when there are substantial deviations)

Within 30 days of completion of the system, submit two copies of the form to:

62-343.900(5)
On-Line Document
Formatted 12/01/97 kag

PART II

REQUEST FOR TRANSFER OF ENVIRONMENTAL RESOURCE PERMIT CONSTRUCTION PHASE TO OPERATION PHASE {DEP FORM # 62-343.900(7)}

Form #: 62-353.900(7)F.A.C.
Form Title: Request for Transfer to Operation Phase
Effective Date: September 25, 1995

Request for Transfer of Environmental Resource Permit Construction Phase to Operation Phase

(To be completed and submitted by the operating entity)

Florida Department of Environmental Protection

It is requested that Department Permit Number 29-0270881-001 authorizing the construction and operation of a surface water management system for the below mention project be transferred from the construction phase permittee to the operation phase operating entity.

Project: HCSELF Cell Sections 7 - 9 (Basin C)

From: Name: Joseph H. O'Neill, P.E., Agent, Jones Edmunds & Associates, Inc.
Address: 324 S. Hyde Park Ave., Suite 250
City: Tampa State: Florida Zip: 33606

To: Name: Hillsborough County Southeast County Landfill
Address: 15960 CR 672
City: Lithia State: Florida Zip: 33547

The surface water management facilities are hereby accepted for operation and maintenance in accordance with the engineers certification and as outlined in the restrictive covenants and articles of incorporation for the operating entity. Enclosed is a copy of the document transferring title of the operating entity for the common areas on which the surface water management system is located. Note that if the operating entity has not been previously approved, the applicant should contact the Department staff prior to filing for a permit transfer.

The undersigned hereby agrees that all terms and conditions of the permit and subsequent modifications, if any, have been reviewed, are understood and are hereby accepted. Any proposed modifications shall be applied for and obtained prior to such modification.

Operating Entity: Barry Boldissar

Name

Title: Director

Telephone: 813-272-5680

Enclosure

☒ copy of recorded transfer of title surface water management system
☒ Coy of plat(s)
☐ Copy of recorded restrictive covenants, articles of incorporation, and certificate of incorporation.

PART III

CONSTRUCTION COMPLETION REPORT

HILLSBOROUGH COUNTY
SOUTHEAST COUNTY LANDFILL
CAPACITY EXPANSION AREA SECTIONS 7 – 9

CERTIFICATION OF CONSTRUCTION COMPLETION

Project No.: 08449-030-02

Permit No.: 29-0270881-001

Prepared For:

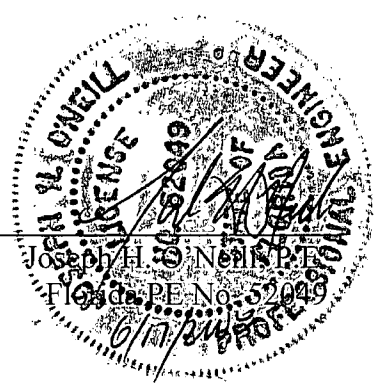
HILLSBOROUGH COUNTY
SOLID WASTE MANAGEMENT DEPARTMENT
601 East Kennedy Boulevard
County Center, 24th Floor
Tampa, Florida 33602

Engineer:

JONES EDMUNDS & ASSOCIATES, INC.
324 S. Hyde Park Avenue, Suite 250
Tampa, Florida 33606

Certificate of Authorization #1841

June 2008



Joseph H. O'Neill, P.E.
Florida P.E. No. 52049

1.0 INTRODUCTION

Jones Edmunds & Associates, Inc. (Jones Edmunds) developed construction documents and provided oversight for the construction of the Hillsborough County Southeast County Landfill (SCLF) Section 9 Capacity Expansion Project. The design plans submitted as part of the permit application were reviewed and approved by the Florida Department of Environmental Protection (DEP). An Environmental Resource Permit for Cell Sections 7 – 9 was issued on July 20, 2007 (DEP Permit No. 29-0270881-001). The Section 9 Capacity Expansion Project Notice to Proceed was issued to the Contractor on July 25, 2007.

The project included the activities related to Section 9 construction and modifications to Basin C. The construction activities for Section 9 included excavation, dewatering, stockpiling of excavated soils, improvements to the stormwater ditches, and placement of new box culverts that discharge into Basin C. The modifications to Basin C include converting the existing dry detention stormwater pond with effluent filtration into a wet detention system.

Onsite observation was performed by the Jones Edmunds resident project representative and Quality Environment Services, Inc. (QES), a subcontractor working under the direct supervision of Jones Edmunds. Jones Edmunds and QES worked in conjunction with the SCLF Operations Manager. Additional onsite observation and office support was provided by Jones Edmunds engineers and staff.

This report provides documentation demonstrating that the construction activity related to Landfill Cells 7 - 9 was completed in substantial conformance with Part IV of Chapter 373, F.S. and Chapter 40D-4, Florida Administration Code (FAC), the approved plans, and project specifications as required the DEP Environmental Resource Permit No. 29-0270881-001. Photographs of construction activities for the stormwater management systems for Section 7, 8 and 9 and Basin C modification construction are provided in Attachment 1.

2.0 CONSTRUCTION ACTIVITY SUMMARY

The construction of the SCLF Section 9 stormwater management systems and Basin C is described in the following sections.

2.1 SECTION 9 CONSTRUCTION

A Preconstruction Meeting for the Section 9 Capacity Expansion Project, that included the modifications to Basin C, was held on July 25, 2007. The DEP was notified of the meeting in accordance with Specific Condition 8 of the permit. The meeting was attended by representative of the DEP ERP Program.

As required in Specific Condition 9 of the permit, quarterly progress reports were submitted to the DEP beginning on July 1, 2007. The report outlined the activities completed during the previous quarter and a project of the work to be accomplished. These reports were dated June 29, 2007; October 1, 2007; December 31, 2007; and April 1, 2008.

Section 9 construction activities began with installation of a silt fence around the Section 9 construction site, the construction trailers, equipment lay down area, and the stockpile area. Two

staff gauges were installed in Mine Cuts No.1 and No. 2, which are located to the east and northeast of the construction area, respectively, to observe water elevations and possible dewatering effects on the mine cuts. Two additional staff gauges were also installed, one in Mine Cut No. 3 and one in Mine cut No. 4. The levels were monitored weekly in accordance with Specific Condition 33 of the permit. No significant change in water elevation was observed during the project. Staff gauge elevations were recorded beginning on August 24, 2007 to April 23, 2008. A plot of the staff gauge records are provided in Attachment 2.

Turbidity measurements were collected up to six times per week in Mine Cut No. 1. Turbidity was measured to monitor the performance of the sedimentation controls used during construction as directed in Specific Condition 16 of the permit. Starting on August 3, 2007, a total of eleven turbidity measurements were made before excavation started on August 20, 2007, to establish a background level. The background level was established at 10.12 NTUs. Since August 20, 2007, 191 turbidity measurements were recorded. No measurements exceeded the permit required limit of 29 NTUs above background levels (i.e. 39.12 NTUs). A plot of the turbidity measurements are provided in Attachment 2.

Dewatering operations for the Section 9 construction area, which began on October 3, 2007, were completed on February 14, 2008, after completion of excavation activities. Rainfall and groundwater that accumulated in the excavation was conveyed to the lower end of the excavation, by rim ditches, where it was pumped into the permitted dewatering Rapid Infiltration Basin (RIB) area. The stockpile for excavated soils and RIB were constructed and used in accordance with Drawings 4, 4A, and 4B of the construction drawings.

The 4 foot by 8 foot concrete box culverts were installed in early April of 2008. The access roadway construction around Section 9 was completed by early May of 2008. Construction of Drainage Swales 'A' & 'B' for Section 9 surface water runoff was completed by mid April, 2008.

A Decommissioning Plan submitted to the Department of Environmental Protection on August 10, 2007 called for the RIB basin to be graded and seeded when construction is completed. The RIB is currently within the SCLF active borrow area so final grades within this area have not been achieved. As the SCLF need borrow material, soil will be excavated from the stockpile and RIB area to lower the elevations. As it currently existing, both the Stockpile and the RIB area are surrounded by higher ground and berm that would prevent runoff from entering the adjacent mine cuts or run off-site. Thus, in our professional opinion, not fully implementing the Decommissioning plan at this time not needed.

2.2 BASIN C MODIFICATION CONSTRUCTION

Prior to any modifications or excavation of soil from Basin C, sediment samples for Basin C were collected and analyzed in accordance with Specific Condition 35 of the permit. The result of the analysis was provided in correspondence to DEP dated August 10, 2007. The sediment analysis result showed that the sediments were below the guidance limits and do not pose a threat of violation to surface or groundwater parameters. Thus soils from Basin C were excavated and staged within the stockpile area.

Basin C modifications began on mid March 14, 2008 and were completed on mid April, 2008. Basin C construction activities include excavation of existing berms, construction of berms for the modified Basin C area, construction of inlet/sedimentation basin area, and modification of the overflow/outlet structure.

The project involved modifications to an existing dry detention stormwater pond (basin) with effluent filtration (Basin C). Basin C was converted into a wet detention pond with a littoral zone. The pond was designed to have sufficient capacity to provide water quality pre-treatment and attenuation for a total contributing area of 61.7 acres. The pond can treat in excess of the first one inch of runoff from the 61.7 contributing area, and provide attenuation for the 25 year, 24-hour design storm event. A new emergency spillway was designed to prevent the Basin C perimeter berm from overtopping during extreme storm events and to discharge to the adjacent wetland deep mine cut. The spillway and the flow path from the spillway to the adjacent wetland are stabilized by grass on mature sandy soils.

2.3 RECORD DRAWINGS

The completed stormwater management systems for Section 9 and the Basin C modifications are shown in the Record Drawings provided in Attachment 3. Revisions to the permitted design drawings are marked by a cloud while deletions are marked with strikethroughs. All deviations were reviewed and approved by the Engineer of Record and are made part of this certified completion report.

A final as-built survey, completed by Southeastern Surveying, Inc., of the Section 9 stormwater system and Basin C modification is provided in Attachment 4.

3.0 COMPARISON OF PERMITTED CELL SECTION 7-9 CONDITIONS VERSUS COMPLETED CONDITIONS

The following is a listing of the changes made to the original permit, ERP Permit No. ERP Permit Nos. 29-0270881-001.

- In accordance with Specific Condition 23 of the permit, signs have been posted along the perimeter of the wet detention pond stating "Stormwater Treatment Pond – No mowing or spraying of aquatic vegetation allowed unless authorized by FDEP. Call 813/632-7600 for more information." As discussed with DEP in email correspondence dated April 4, 2008 the number of signs was reduced from a minimum of a sign every 100 feet to a total of seven signs located along the perimeter of Basin C.

- During construction layout of Basin C it was noted that the northern berm placement would have required the removal of several large oak trees. To accommodate leaving the oak trees in place, the northern berms were modified to go around the trees. Additional storage volume to gained by modifying the sideslopes on the westside of the Basin C from a 4(h):1(v) to a 3(h):1(v) sideslope. This modification was discussed with DEP prior to completion of Basin C and approval of the modification was allowed. The modified Basin C design was also used for the modeling used in ERP Permit No. 29-0270881-003.

A comparison of permitted and post-development storm peak discharges as well as post-development water quality treatment for Basin C is provided in Table 1.

Table 1. Comparison Table of Basin C Parameters

	Permitted Basin C		As-built Basin C	
Treatment Volume	Treatment for 1" of runoff from the contributing area is 231,891.0 ft^3 (5.32 ac-ft)		Treatment for 1" of runoff from the contributing area is 231,891.0 ft^3 (5.32 ac-ft)	
Total Capacity	**1)** For the 25-year, 24-hour storm, inflow to Basin C is 248 cfs with a total volume of 1,497,162 cubic feet (34.37 ac-ft). **2)** The post development runoff at the off-site discharge point had a total volume of 5,285,353 cubic feet (123.6 ac-ft)		**1)** For the 25-year, 24-hour storm, inflow to Basin C is 248 cfs with a total volume of 1,497,162 cubic feet (34.37 ac-ft). **2)** The post development runoff at the off-site discharge point had a total volume of 5,285,353 cubic feet (123.6 ac-ft)	
Littoral Zone	The littoral zone covers 36.8% (1.3 acres) of the pond surface.		The littoral zone covers 36.8% (1.3 acres) of the pond surface.	
Stage Areas	Elevation	Total Sq Ft	Elevation	Total Sq Ft
	120	65,498	120	63,930
	121	71,974	121	71,544
	121.7	104,406	121.7	115,606
	122	104,965	122	117,070
	123	126,577	123	136,924
	123.7	148,540	123.7	143,730
	124	149,411	124	148,683
	125	157,687	125	157,314
	126	165,528	126	165,487
	127	172,062	127	175,406
	128	179,032	128	179,553
	129	186,437	129	187,146
	130	193,842	130	195,658
Orifice Bleed Down Size	3 inches		3 inches	

The construction of the Section 9 and modifications to Basin C were completed in accordance with the general and specific conditions provided in ERP Permit Nos. 29-0270881-001 and 29-0270881-003.

All the as-built conditions were input into the permitted stormwater model for ERP Permit No. 29-0270881-003 (the latest stormwater model to include Section 7,8,&9 plus the runoff from the LTRF tank area. As shown in the calculations contained in Attachment 5, the stormwater calculations for discharge, littoral zone, treatment volume, and drawdown of treatment volume meet the permit requirements.

In summary, Basin C was constructed in accordance with the design intent and permit of the ERP and the modification made during construction did not alter the design intent or permit requirements.

ATTACHMENT 1

CONSTRUCTION COMPLETION PHOTOGRAPHS

Figure 1 - August 15, 2007 Basin C Construction photo looking to the east from Section 7 to Basin C.

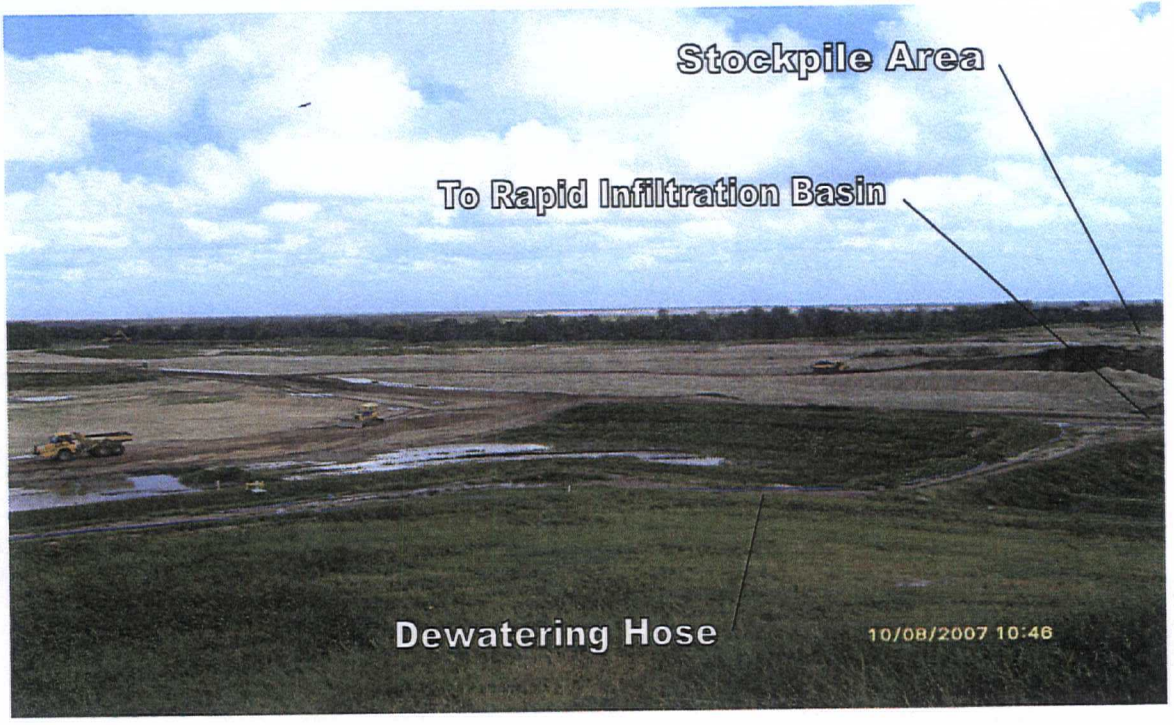


Figure 2 – October 8, 2007 Section 9 Construction photo showing rain water being dewatered to the Rapid Infiltration Basin.

Figure 3 – February 18, 2008 Basin C Construction photo shows Basin C prior to any modifications.

Figure 4 – March 24, 2008 Basin C Construction photo shows work beginning at Basin C.

Figure 5 – March 26, 2008 Basin C Construction photo shows formwork being built for the wings on the headwall for the box culvert.

Figure 6 – March 31, 2008 Basin C Construction photo shows Swale B earthwork and the formwork being built for the end treatment for the dual ADS pipes.

Figure 7 – April 3, 2008 Basin C Construction Photo –This photo shows Basin C modification construction.

Figure 8 – April 15, 2008 Basin C Construction Photo – This photo shows the weekly progress of Basin C modification.

Figure 9 – April 28, 2008 Basin C Construction Photo – This photo shows the weekly progress of Basin C modification and the placement of sod.

Figure 10 – June 9, 2008 Basin C Construction Photo – This photo shows a completed standpipe with skimmer.

Figure 11 – June 9, 2008 Basin C Construction Photo – This photo shows the inside of a completed standpipe with skimmer.

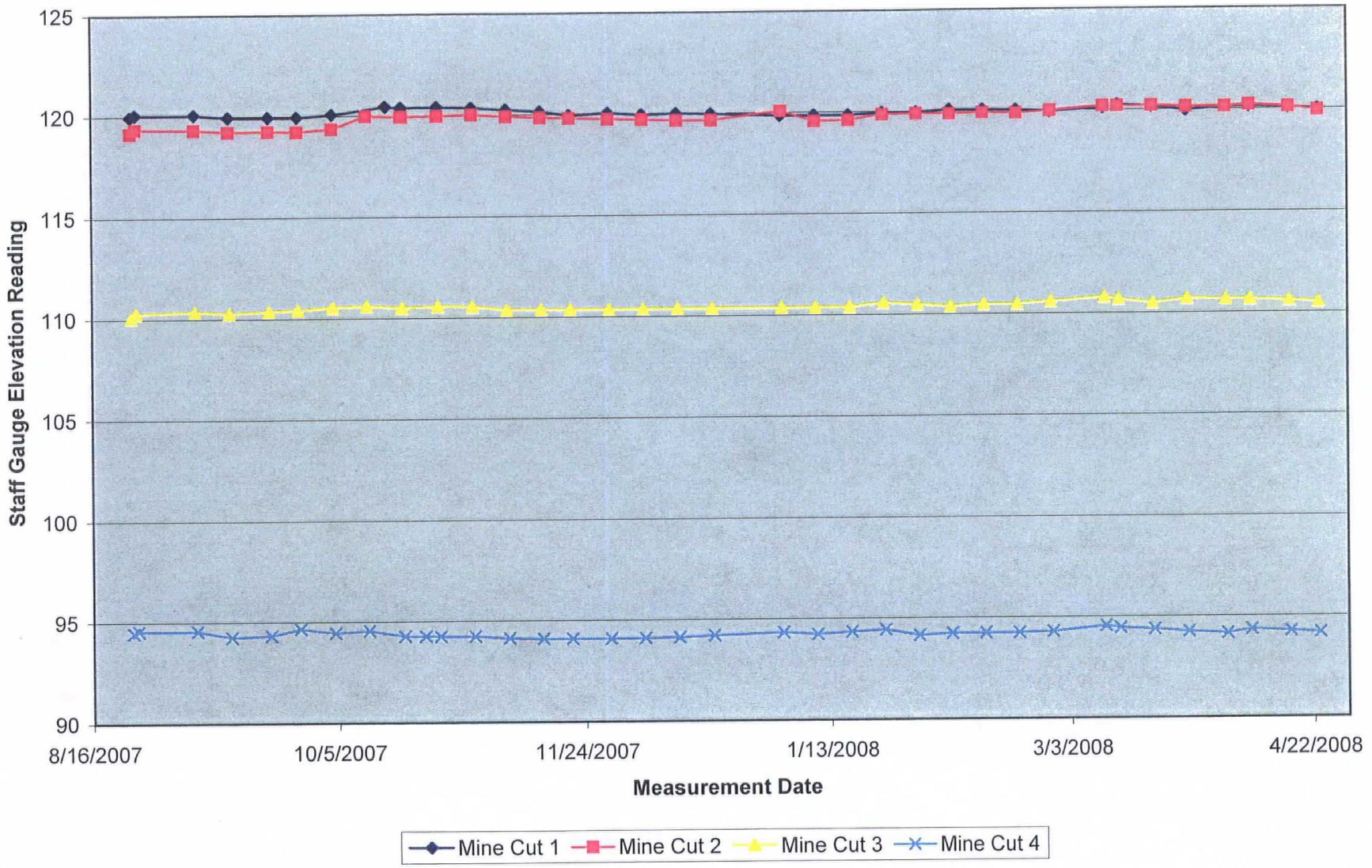
Figure 12 – June 9, 2008 Basin C Construction Photo – This photo shows the completed headwall for the box culvert leading into Basin C.

Figure 13 – June 9, 2008 Basin C Construction Photo – This photo shows the completed Swale B leading into Basin C.

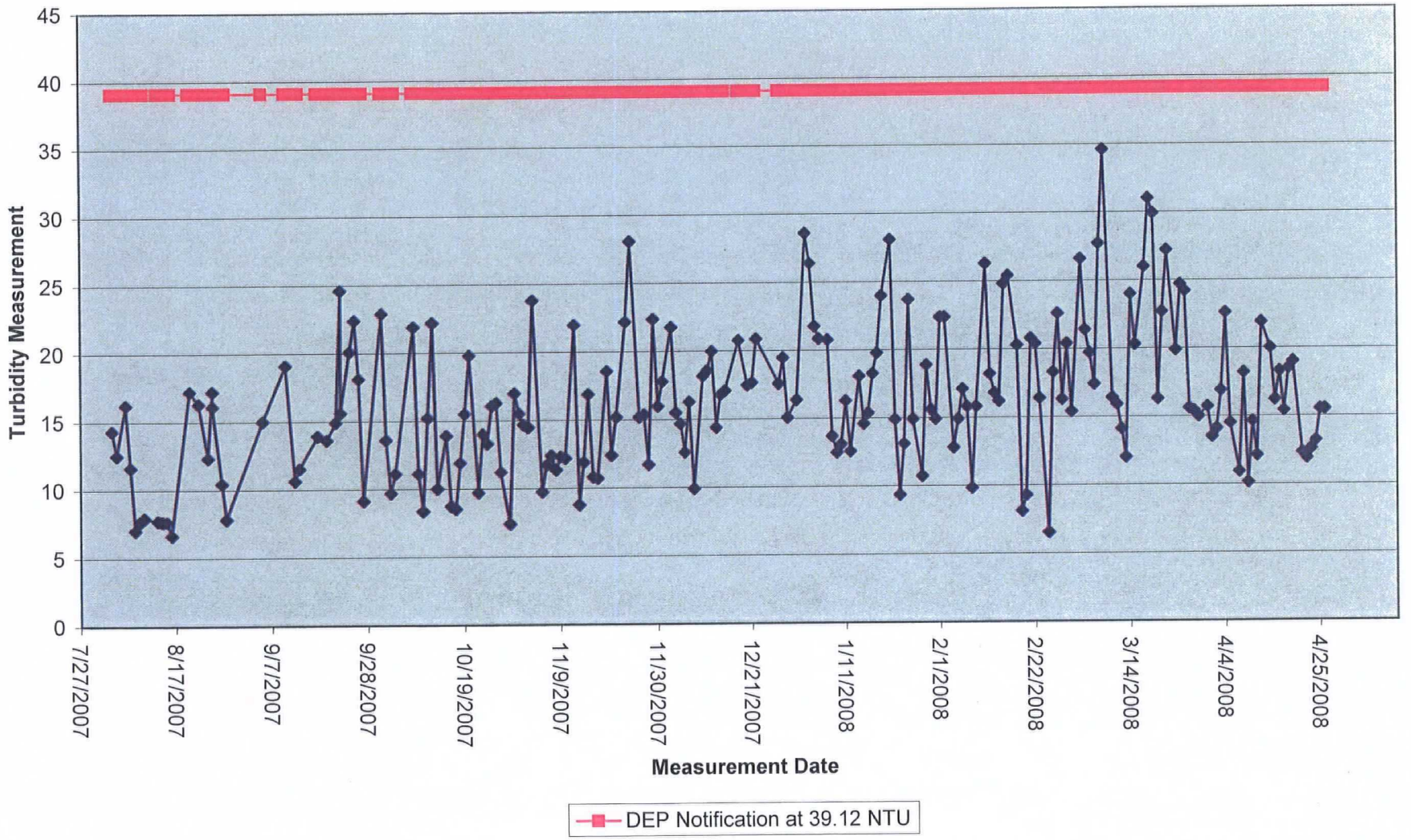
ATTACHMENT 2

STAFF GAUGE AND TURBIDITY MEASUREMENT RECORDS

Staff Gauge Measurement Summary Graph



Turbidity Measurement Summary Graph
(measured at Mine Cut 1)



ATTACHMENT 3

RECORD DRAWINGS

PROPERTY LINE

TH-42

TH-32

CONTRACTOR NOTE ON RAPID INFILTRATION BASIN (RIB)
CONTRACTOR/OWNER WILL MONITOR WATER LEVELS IN THE RIB TO ENSURE 6' OF FREEBOARD WILL BE MAINTAINED AT ALL TIMES. DEWATERING PUMPS WILL BE TURNED OFF TO ENSURE NO OFFSITE DISCHARGE WILL OCCUR FROM THE DEWATERING PROCESS AND/OR THE 25YR 24HR DESIGN STORM EVENT.

EXISTING BASIN "D"

1023' FROM PROPERTY LIMITS

200'

OFFSET FROM EDGE OF WATER (TYP.)

FUTURE ON-SITE BORROW AREA (NORTH OF FENCE LINE)

TH-35

TH-35A

TH-25

ON-SITE BORROW AREA ACCESS ROAD (ALTERNATE CONTRACT)

ON-SITE BORROW AREA (61.8 AC.)

GRAPHIC SCALE
0 150 300 600
SCALE IN FEET
1"=300'

SECTION 9 STOCKPILE AREA (4:1 SIDESLOPES) (12 AC.)

SECTION 9 RAPID RE-INFILTRATION DEWATERING AREA (11 AC.)

HAUL ROUTE FROM BASIN D TO STOCKPILE AREA

TH-71

TH-30

WASTE TIRE CHIP STORAGE PADS FOR SECTION 9 (NOT PART OF THIS PERMIT)

TH-70

TH-53

SECTION 9

TH-62

TH-69

TH-56

TH-59C

TH-59

TH-60C

TH-50

CONTRACTOR MATERIALS STORAGE AREA (SEE NOTE 2)

SECTION 8

TH-58

TH-19A

EXISTING LEACHATE TREATMENT AND RECLAMATION FACILITY

200' OFFSET FROM WATER (TYP)

SITE A CAPACITY EXPANSION AREA (147 AC.)

PROPOSED 4' X 8' BOX CULVERT

SECTION 7

TH-64

EXISTING BASIN "C"

BASIN C PROPOSED MODIFICATION

HAUL ROUTE FROM BASIN C TO STOCKPILE AREA (SEE NOTE 3)

EXISTING (2) 30"ø ADS N-12 PIPE (TO BE LOWERED)

TH-61

TH-65

FIELD OFFICES AREA (SEE NOTE 2)

PHASE I "I" CLASS I LANDFILL AREA (16Z AC.)

TH-1

TH-28 (2)

EXISTING BASIN "A"

EXISTING EVAPORATION AREA BASIN "G"

EXISTING BASIN "E"

EXISTING BASIN "F"

TH-38B

TH-66

TH-67

EXISTING EFFLUENT HOLDING BASIN AND MAIN LEACHATE PUMP STATION

PROPOSED 1" 1-1/2"ø PVC SCH 40 WATER SERVICE LINE AND TELEPHONE SERVICE LINE TO CONTRACTOR FIELD OFFICE TRAILER

CONTRACTOR TO FIELD VERIFY DEPTH AND LOCATION OF EXIST BURIED FORCEMAINS PRIOR TO 1/2"ø WATER/PHONE LINE INSTALLATION

TH-44

TH-24

TH-22A

TH-20A

EXISTING BASIN "B"

LANDFILL ENTRANCE

EXISTING LANDFILL SCALE HOUSE

ROADWAY LEGEND
PAVED ROADWAY
UNPAVED ROADWAY

NOTES:
1. TOPOGRAPHICAL INFORMATION COMPILED FROM EXISTING CONDITIONS SURVEY PERFORM BY PICKETT & ASSOCIATES DATED JULY 2006 AND ASBUILT COMPOSITE OF THE FINAL TOPO-SECTION 8 EXPANSION PERFORMED BY PICKETT & ASSOCIATES DATED JULY 2006.
2. SILT FENCE OR SMALL BERM, OR EQUAL EROSION CONTROL, AROUND ENTIRE AREA.
3. CONTRACTOR TO ESTABLISH BMP FOR EROSION CONTROL FROM ROADS TO/FROM BASIN C TO STOCKPILE AREA.

Dept. Of Environmental Protection
JUN 19 2008
Southwest District

RECORD DRAWINGS
JONES EDMUNDS

LTR.	DATE	REVISIONS	BY	APPRD.
1	6/5/08	RECORD DRAWINGS	DLW	JHO

DESIGNED JHO/RAS
DRAWN GRD
CHECKED JHO

JONES EDMUNDS
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
324 S HYDE PARK AVE, TAMPA, FLORIDA 33606 / (813) 258-0703

HILLSBOROUGH COUNTY
SOLID WASTE MANAGEMENT DEPARTMENT
SOUTHEAST COUNTY LANDFILL

SECTION 9 CAPACITY EXPANSION FACILITY SITE PLAN 1

CERTIFICATE OF AUTHORIZATION #1841
APPROVED BY
JOSEPH H. O'NEILL P.E.
P.E. # 052049

DATE 01/2007
PROJECT NO. 08449-021-01
SCALE AS SHOWN
DWG. NO. 4

Edited: 00/00/00 0:00 login N:\08449 Hillsborough County\021-SELF Section 9\Final Design Drawings\AS-BUILT\2008-05-27\08449021C-04-MASTER-SITE-PLAN4.dwgPlotted: 6/09/08 - pm dwhite

CONTRACTOR NOTE ON RAPID INFILTRATION BASIN (RIB):
CONTRACTOR/OWNER WILL MONITOR WATER LEVELS IN THE RIB TO ENSURE 6' OF FREEBOARD WILL BE MAINTAINED AT ALL TIMES. DEWATERING PUMPS MAY BE TURNED OFF TO ENSURE NO OFFSITE DISCHARGE WILL OCCUR FROM THE DEWATERING PROCESS AND/OR THE 25YR 24HR DESIGN STORM EVENT.

EXISTING BASIN "D"

TH-32

TH-94A

FROM PROPERTY 1023

200'

OFFSET FROM EDGE OF WATER (TYP)

120 125 130 135 140 145 150 155 160 165 170

HAUL ROUTE FROM BASIN C TO STOCKPILE AREA

TH-71

TH-70

TH-63

TH-62

SECTION 9

SECTION 8 (EXISTING)

TH-89

TH-56

TH-59C

TH-54

TH-68

TH-19

TH-194

CONTRACTOR MATERIALS STORAGE AREA (SEE NOTE 2)

TH-60DC

TH-60

SECTION 7 (EXISTING)

TH-64

FIELD OFFICES AREA (SEE NOTE 2)

EXISTING BASIN "C"

TH-61

PHASE I - VI CLASS I LANDFILL AREA (162 AC.)

TH-65

GRAPHIC SCALE
0 100 200 400
SCALE IN FEET

N

SECTION 9 STOCKPILE AREA (4:1 SIDESLOPES) (12 AC.)

SECTION 9 RAPID RE-INFILTRATION DEWATERING AREA (11 AC.)

EXISTING LEACHATE TREATMENT AND RECLAMATION FACILITY

Dept. Of Environmental Protection

JUN 19 2008

Southwest District

200' OFFSET FROM WATER (TYP)

SITE A CAPACITY EXPANSION AREA (147 AC.)

PROPOSED 4' X 8' BOX CULVERT

BASIN C PROPOSED MODIFICATION

HAUL ROUTE FROM BASIN C TO STOCKPILE AREA (SEE NOTE 3)

EXISTING (2) 30"ø ADS N-12 PIPE (TO BE LOWERED)

RECORD DRAWINGS

ROADWAY LEGEND
PAVED ROADWAY
UNPAVED ROADWAY

NOTES:
1) TOPOGRAPHICAL INFORMATION COMPILED FROM EXISTING CONDITIONS SURVEY PERFORM BY PICKETT & ASSOCIATES DATED JULY 2006 AND ASBUILT COMPOSITE OF THE FINAL TOPO-SECTION 8 EXPANSION PERFORMED BY PICKETT & ASSOCIATES DATED JULY 2006.
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LTR.	DATE	REVISIONS	BY	APPRD.
1	8/5/08	RECORD DRAWINGS	DLW	JHO

DESIGNED JHO/RAS
DRAWN GRD
CHECKED JHO

JONES EDMUNDS
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
324 S HYDE PARK AVE, TAMPA, FLORIDA 33606 / (813) 258-0703

HILLSBOROUGH COUNTY
SOLID WASTE MANAGEMENT DEPARTMENT
SOUTHEAST COUNTY LANDFILL

SECTION 9 CAPACITY EXPANSION FACILITY SITE PLAN 2

CERTIFICATE OF AUTHORIZATION #1841
APPROVED BY
JOSEPH H. O'NEILL P.E.
P.E. # 052049

DATE 01/2007
SCALE AS SHOWN
PROJECT NO. 08449-021-01
DWG. NO. 4A

Edited: 00/00/vv 0:00 login N:\08449 Hillsborough County\021-SELF Section 9\Final Design Drawings\AS-BUILT\2008-05-27\08449021101-C-04A-SITE SECT.dwg Plotted: 6/09/08 4:...pm dwhite

GRAPHIC SCALE
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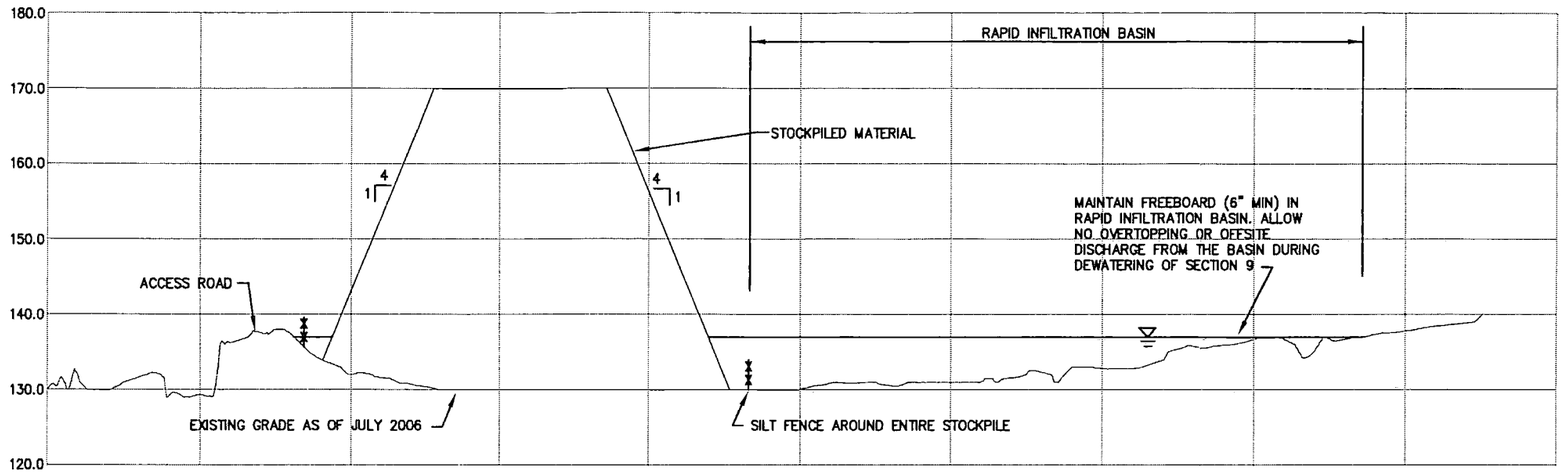
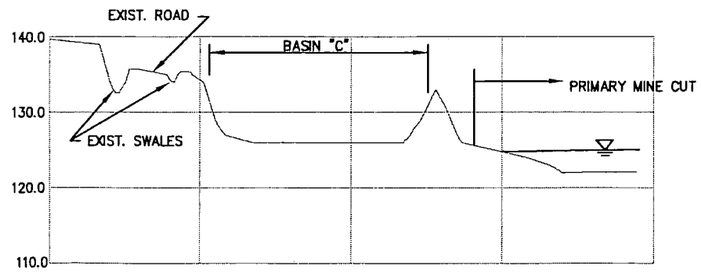


SECTION A (4A)
HORZ. 1"=100'
VERT. 1"=10'



SECTION B (4A)
HORZ. 1"=100'
VERT. 1"=10'

RECORD DRAWINGS

LTR.	DATE	REVISIONS	BY	APPRD.
1	6/3/08	RECORD DRAWINGS	DLW	JHO

DESIGNED JHO/RAS
DRAWN GRD
CHECKED JHO

JONES EDMUNDS
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
324 S HYDE PARK AVE, TAMPA, FLORIDA 33606 / (813) 258-0703

HILLSBOROUGH COUNTY
SOLID WASTE MANAGEMENT DEPARTMENT
SOUTHEAST COUNTY LANDFILL

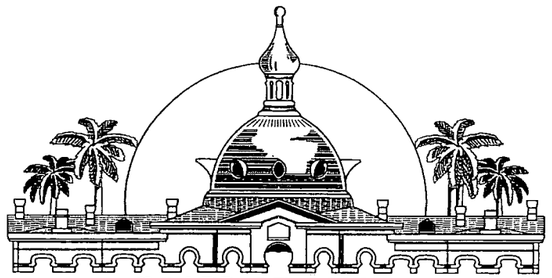
SECTION 9 CAPACITY EXPANSION
CROSS SECTIONS

CERTIFICATE OF AUTHORIZATION #1841
APPROVED BY
JOSEPH H. O'NEILL P.E.
P.E. # 052049

DATE 01/2007
SCALE AS SHOWN
PROJECT NO. 08449-021-01
DWG. NO. 4B

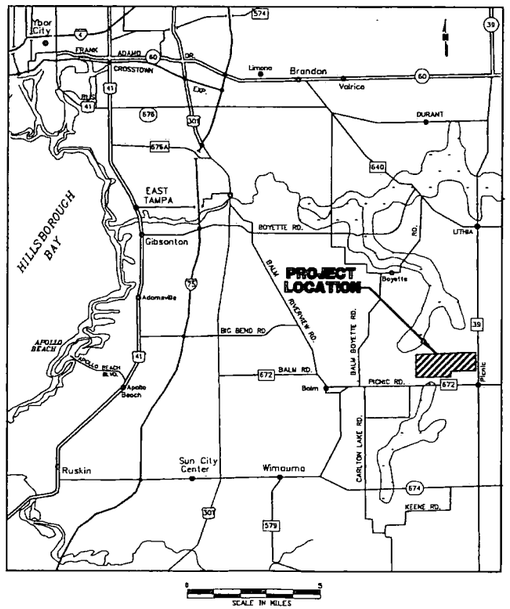
Edited: 00/00/00 0:00 login N:\08449 Hillsborough County\021-SELF Section 9\Final Design Drawings\AS-BUILT\2008-05-27\08449021101-C-04B-SITE-SECT.dwg Plotted: 6/16/08 1:29pm dwhite

SOUTHEAST COUNTY LANDFILL
BASIN C MODIFICATION
JANUARY, 2007
HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT
TAMPA, FLORIDA



BOARD OF COUNTY COMMISSIONERS

ROSE FERLITA, Commissioner
KEN HAGAN, Commissioner
KEVIN WHITE, Commissioner
AL HIGGINBOTHAM, Commissioner
JIM NORMAN, Commissioner
BRIAN BLAIR, Commissioner
MARK SHARPE, Commissioner



LOCATION MAP

Dept. Of Environmental Protection

JUN 19 2008

Southwest District

DRAWING NO.	DRAWING TITLE
B-1	COVER SHEET
B-2	LEGEND , ABBREVIATIONS AND GENERAL NOTES
B-3	FACILITY SITE PLAN
B-4	EXISTING CONDITIONS
B-5	GRADING PLAN
B-6	SECTION AND DETAILS

RECORD DRAWINGS

JONES EDMUNDS
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
324 S HYDE PARK AVE, TAMPA, FLORIDA 33606 / (813) 258-0703

CERTIFICATE OF AUTHORIZATION #1841
APPROVED BY
JOSEPH H. O'NEILL P.E.
052049

CIVIL LEGEND

	EXISTING TREE LINE
107	EXISTING CONTOUR
× 108.25	EXISTING GRADE SPOT EL
OH	EXISTING OVERHEAD ELECTRIC
X	EXISTING FENCE
	EXISTING FIBER OPTIC
LFM	EXISTING LEACHATE FORCE MAIN
	EXISTING UNDERGROUND ELECTRIC
	EXISTING CONCRETE
	EXISTING ASPHALT
	WETLANDS TO REMAIN
107	PROPOSED CONTOUR
SF	PROPOSED SILT FENCE
+ 108.25	PROPOSED GRADE SPOT EL
	STORMWATER FLOW
	EXISTING POWER POLE
	PROPERTY BOUNDARY
	EXISTING MITERED END SECTION
	EXISTING LIGHT POLE

ABBREVIATIONS

GENERAL

APPROX	APPROXIMATE, APPROXIMATELY
BLDG	BUILDING
BTM	BOTTOM
CB	CATCH BASIN
CHDPE	CORRUGATED HIGH DENSITY POLYETHYLENE
CM	CONCRETE MONUMENT
CO	COMPANY
CONC	CONCRETE
CONT	CONTINUOUS
CORR	CORRUGATED
DET	DETAIL
DOT	DEPARTMENT OF TRANSPORTATION (FLORIDA)
DIA	DIAMETER
DIM	DIMENSION
DWG	DRAWING
EA	EACH
EOL	EDGE OF LINER
ETC	ET CETERA
ENCL	ENCLOSE, ENCLOSURE
EL	ELEVATION
EQUIP	EQUIPMENT
EXIST	EXISTING
FDEP	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
FIN	FINISHED
FM	FORCE MAIN
GALV	GALVANIZED
GCL	GEOSYNTHETIC CLAY LINER
GFFR	GROUT FILLED FIBER REVETMENT
GR	GRADE
GS	GALVANIZED STEEL
HDPE	HIGH DENSITY POLYETHYLENE
HP	HIGH POINT
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
L	LENGTH
LCRS	LEACHATE COLLECTION REMOVAL SYSTEM
LDS	LEAK DETECTION SYSTEM
MAX	MAXIMUM
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MSL	(ABOVE) MEAN SEA LEVEL
MT	MOUNT
N/A	NOT APPLICABLE
N/AVAIL	NOT AVAILABLE
NGVD	NATIONAL GEODETIC VERTICAL DATUM
NIC	NOT IN CONTRACT
No	NUMBER
NP	NONPERFORATED
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OSHA	OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION
PC	POINT OF CURVE
PLS	PROFESSIONAL LAND SURVEYOR
PS	PUMP STATION
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
REF	REFERENCE
R/W	RIGHT OF WAY
REQD	REQUIRED
S	SLOPE
SCH	SCHEDULE
SDR	STANDARD DIMENSION RATIO
SHT	SHEET
SIM	SIMILAR
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
T	TANGENT
TBM	TURNING BENCH MARK
TYP	TYPICAL
USC&GS	UNITED STATES COASTAL AND GEODETIC SURVEY
USGS	UNITED STATES GEOLOGICAL SURVEY
WGT	WEIGHT
△	DELTA, ANGULAR CHANGE

GENERAL NOTES

1. SURVEY WAS PROVIDED BY PICKETT AND ASSOCIATES, INC. DATED JULY 2006. FOR SURVEY INFORMATION SEE SURVEYORS NOTES.

2. ANY NORTH AMERICA VERTICAL DATUM 1988 (NAVD 88) MONUMENT WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR SHALL NOTIFY:

   FLORIDA STATE GEODETIC ADVISOR

   RONNIE L. TAYLOR
   NOAA, NATIONAL GEODETIC SURVEY
   NATIONAL OCEAN SERVICE ADVISOR
   C/O BUREAU OF SURVEYS AND MAPPING, FLDEP
   3900 COMMONWEALTH BLVD, MAIL STOP 105
   TALLAHASSEE, FL 32399

   TELEPHONE: (850)245-2610
   FAX: (850)245-2545
   E-MAIL: Ronie.Taylor@noaa.gov

   IN THE EVENT THAT MR TAYLOR IS UNAVAILABLE, CONTACT:

   ASSISTANT GEODETIC ADVISOR

   RANDY WEGNER
   NOAA, NATIONAL GEODETIC SURVEY
   ASSISTANT NATIONAL OCEAN SERVICE ADVISOR
   BUREAU OF SURVEYS AND MAPPING
   3900 COMMONWEALTH BLVD, MAIL STOP 105
   TALLAHASSEE, FL 32399

   TELEPHONE: (850)245-2606
   E-MAIL: Randy.Wegner@dep.state.fl.us

3. THE CONTRACTOR SHALL PROVIDE A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA TO ESTABLISH THE CONSTRUCTION SITE LAYOUT, PERFORM TOPOGRAPHIC SURVEYS, AND PERFORM ALL OTHER REQUIRED SURVEYING SERVICES.

4. CONSTRUCTION MONUMENTS FOR VERTICAL AND HORIZONTAL CONTROL HAVE BEEN PROVIDED AT THE PROJECT SITE. THE CONTRACTOR SHALL VERIFY THE ACCURACY OF THESE MONUMENTS TO THEIR OWN SATISFACTION. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROPER VERTICAL AND HORIZONTAL ALIGNMENT OF CONSTRUCTED FACILITIES AND FINISHED GRADE.

5. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES (WHETHER OR NOT SHOWN ON THE PLANS) AFFECTING THEIR OWN WORK.

6. THE CONTRACTOR SHALL VERIFY ALL CLEARANCES PRIOR TO CONSTRUCTION.

7. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY WHEN CONFLICTS BETWEEN DRAWINGS AND ACTUAL CONDITIONS ARE DISCOVERED.

8. FIELD CONDITIONS MAY NECESSITATE SLIGHT ALIGNMENT AND GRADE DEVIATION OF THE PROPOSED CONSTRUCTION TO AVOID OBSTACLES, AS ORDERED BY THE ENGINEER. THE CONTRACTOR SHALL CONSTRUCT THE PROPOSED FACILITIES TO THE ORDERED DEVIATION WITHOUT INCREASE IN THE CONTRACT PRICE OR TIME.

9. THE CONTRACTOR SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE VARIOUS UTILITY COMPANIES IN ORDER TO PERMIT THE LOCATION OF EXISTING UNDERGROUND UTILITIES IN ADVANCE OF CONSTRUCTION. CONTACT SUNSHINE STATE ONE CALL AT 1-800-432-4770.

10. THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATIONS THEY MAY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS SHALL BE BASED.

11. ———, ?, & • ARE EXAMPLES OF DRAWING ELEMENTS WHICH HAVE BEEN SCREENED/SHADOWED TO INDICATE EXISTING CONDITIONS.

12. THE CONTRACTOR SHALL BE AWARE THAT THE CONSTRUCTION SITE IS ADJACENT TO ACTIVE LANDFILL CELLS, AND THAT LANDFILL GAS MAY MIGRATE ONTO THE CONSTRUCTION SITE. THE CONTRACTOR SHALL TAKE PROVEN MEANS TO PROTECT PERSONNEL AND FACILITIES FROM RELATED HAZARDS, INCLUDING EXPLOSION, ASPHYXIATION, AND POISONING DUE TO THE PRESENCE OF LANDFILL GASES.

13. THE CONTRACTOR SHALL NOT INTERFERE WITH FACILITY OPERATIONS. THE CONTRACTOR SHALL COORDINATE WITH AND NOTIFY THE OWNER A MINIMUM OF 48 HOURS IN ADVANCE OF ALL PLANNED UTILITY OUTAGES AND ROAD CROSSINGS.

14. THE CONTRACTOR SHALL REPLACE ALL EXISTING PAVING, STABILIZED EARTH, CURBS, DRIVEWAYS, SIDEWALKS, FENCES, MAILBOXES, GRASSING, SIGNS, AND OTHER IMPROVEMENTS WITH SAME TYPE OF MATERIAL THAT WAS REMOVED DURING CONSTRUCTION OR AS DIRECTED BY THE ENGINEER TO EQUAL OR BETTER CONDITION WITHOUT INCREASE IN THE CONTRACT PRICE OR TIME.

15. THE CONTRACTOR SHALL COMPLY WITH ALL TERMS, CONDITIONS, AND REQUIREMENTS OF ALL APPLICABLE PERMITS, INCLUDING FDEP AND WATER MANAGEMENT DISTRICT PERMITS FOR THE SITE.

16. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH EXISTING COUNTY DESIGN AND CONSTRUCTION STANDARDS UNLESS THOSE STANDARDS CONFLICT WITH THESE CONTRACT DOCUMENTS IN WHICH CASE THESE CONTRACT DOCUMENTS SHALL GOVERN. SUCH CONFLICTS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY.

17. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME FAMILIAR WITH THE OSHA EXCAVATION SAFETY STANDARDS AND TO ABIDE BY THEM AS COVERED UNDER THE FLORIDA TRENCH SAFETY ACT (LAWS OF FLORIDA 90-96) EFFECTIVE OCTOBER 1, 1990.

18. THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER A WRITTEN STATEMENT PRIOR TO BEGINNING WORK THAT HE/SHE WILL COMPLY WITH APPLICABLE TRENCH SAFETY STANDARDS.

19. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ENVIRONMENTAL PROTECTION DURING THE LIFE OF THE CONTRACT, INCLUDING THE WARRANTY PERIOD. THE CONTRACTORS' OPERATIONS SHALL COMPLY WITH FEDERAL, STATE, AND LOCAL REGULATIONS, INCLUDING THOSE PERTAINING TO WATER, AIR, SOLID WASTE, HAZARDOUS WASTE MATERIALS, OILY SUBSTANCES, AND NOISE POLLUTION. THE CONTRACTOR SHALL IMPLEMENT EROSION AND SEDIMENTATION CONTROL MEASURES AS NECESSARY TO COMPLY WITH THESE REGULATIONS FOR BOTH TEMPORARY AND PERMANENT CONSTRUCTION.

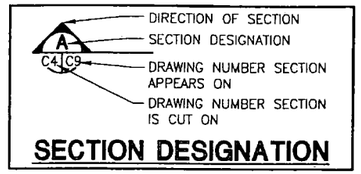
20. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL PROVIDE STORMWATER AND EROSION CONTROL PLANS TO PREVENT PONDING AND CONTROL EROSION AND RUNOFF. NO PONDING OF WATER SHALL BE ALLOWED. THE CONTRACTOR SHALL USE APPROVED CONSTRUCTION TECHNIQUES TO PREVENT EROSION AND SHALL BE RESPONSIBLE FOR ALL WORK, INCLUDING PROVIDING EQUIPMENT, LABOR, FILL, ETC NECESSARY TO REMEDIATE AND/OR RESTORE ALL AREAS IMPACTED BY CONSTRUCTION.

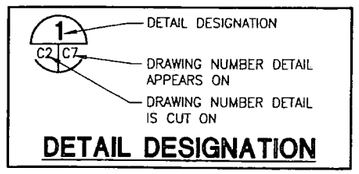
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING STORMWATER RUNOFF, SOLID WASTE, LANDFILL GAS, AND LEACHATE FROM ENTERING OR IMPACTING THE AREAS OF THE WORK. THE CONTRACTOR SHALL INSTALL AND MAINTAIN MANAGEMENT AND CONTROL DEVICES INCLUDING DIVERSION/COLLECTION BERMS, DITCHES, PUMPING STATIONS, WALLS, LINERS, ETC. TO COMPLY WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS WITHOUT INCREASE IN THE CONTRACT PRICE OR TIME.

22. THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH FOR ALL SURFACE WATER DRAINAGE STRUCTURES AND DITCHES DURING ALL PHASES OF CONSTRUCTION AND SHALL USE APPROVED CONSTRUCTION TECHNIQUES TO MANAGE STORMWATER SUCH THAT THE IMPACT TO CONSTRUCTION IS MINIMIZED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF DAMAGE DUE TO STORMWATER.

23. FDOT INDICES SHALL REFER TO THE "2004 FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS."

24. THE CONTRACTOR SHALL PROVIDE CONTROL AND MAINTENANCE OF TRAFFIC IN ACCORDANCE WITH FDOT INDEX 600 THROUGH 665, OSHA, AND OTHER APPLICABLE REGULATORY REQUIREMENTS AND AS NECESSARY TO PROVIDE FOR SITE SAFETY DURING CONSTRUCTION.





RECORD DRAWINGS

Dept. Of Environmental Protection

JUN 19 2008

Southwest District

LTR.	DATE	REVISIONS	BY	APPRD.
4	6/10/08	RECORD DRAWINGS	DLB	JHO
3	3/17/08	REVISED SHALE	JHO	JHO
2	1/29/08	REVISED BASIN "C"	DLB	ROD

DESIGNED JHO/RAS
DRAWN GRD
CHECKED JHO

JONES EDMUNDS
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821

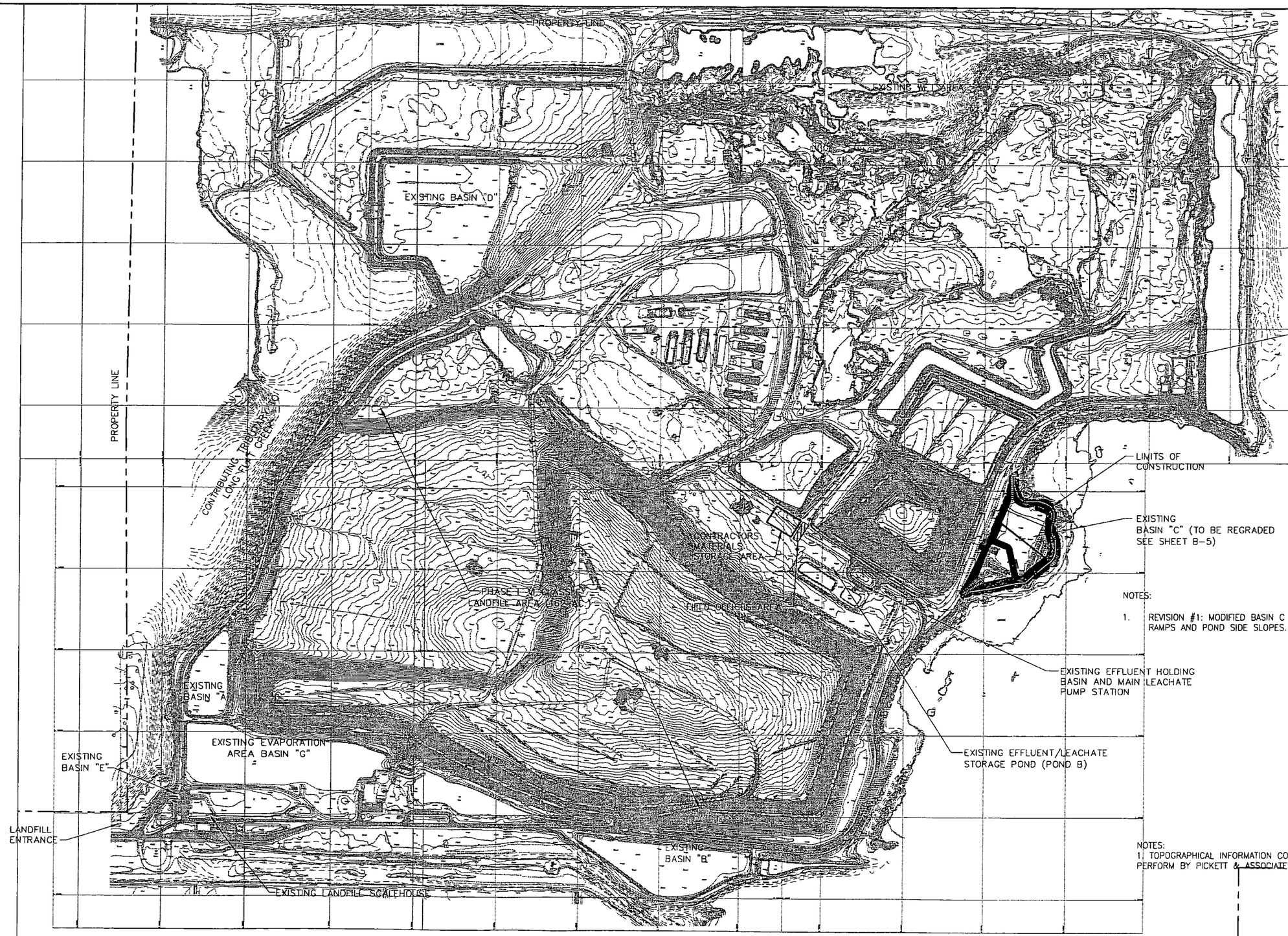
HILLSBOROUGH COUNTY
SOLID WASTE MANAGEMENT DEPARTMENT
SOUTHEAST COUNTY LANDFILL

BASIN C MODIFICATION
LEGEND , ABBREVIATIONS AND GENERAL NOTES

CERTIFICATE OF AUTHORIZATION #1841
APPROVED BY
JOSEPH H. O'NEILL P.E.
P.E. # 052049

DATE 01/2007
PROJECT NO. 08449-021-01
SCALE AS SHOWN
DWG. NO. B-2

Edited: 00/00/00 0.00 login N:\08449 Hillsborough County\022-SELF Misc Engineering\SECTION 9 ERP\2008-06-10\0844902101-BASIN REDESIGN 1-6.dwg Plotted: 6/10/08 7:31pm dwhite



GRAPHIC SCALE
0 150 300 600
SCALE IN FEET
1"=300'

RECORD DRAWINGS
RECORD DRAWINGS PREPARED BY JONES EDMUNDS
JOSEPH H. O'NEILL, P.E. P.E. No. 52049 JONES EDMUNDS

Dept. Of Environmental Protection
JUN 19 2008
Southwest District

NOTES:
1. REVISION #1: MODIFIED BASIN C GEOMETRY, BERM ALIGNMENT, ACCESS RAMPS AND POND SIDE SLOPES.

NOTES:
1. TOPOGRAPHICAL INFORMATION COMPILED FROM EXISTING CONDITIONS SURVEY PERFORM BY PICKETT & ASSOCIATES DATED JULY 2006

LTR.	DATE	REVISIONS	BY	APPRD.
3	6/10/08	RECORD DRAWINGS	DLW	JHO
2	3/17/08	REVISED SWMLE	JHO	JHO
1	1/28/08	REVISED BASIN "C"	DLW	ROD

DESIGNED JHO/RAS
DRAWN GRD
CHECKED JHO

JONES EDMUNDS
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821

HILLSBOROUGH COUNTY
SOLID WASTE MANAGEMENT DEPARTMENT
SOUTHEAST COUNTY LANDFILL

BASIN C MODIFICATION
FACILITY SITE PLAN

CERTIFICATE OF AUTHORIZATION #1841
APPROVED BY
JOSEPH H. O'NEILL P.E.
P.E. # 052049

DATE 01/2007
PROJECT NO. 08449-021-01
SCALE AS SHOWN
DWG. NO. B-3

Edited: 00/00/00 0:00 login N:\08449 Hillsborough County\022-SELF Misc Engineering\SECTION 9 ERP\2008-06-10\0844902101-BASIN REDESIGN 1-6.dwg Plotted: 6/10/08 7:31pm dwhite

CENTERLINE OF EXISTING SWALE AND TOE OF SLOPE OF EXISTING SECTION 7

CENTERLINE OF EXISTING SWALE

EXISTING SHELL ACCESS ROAD

EXISTING (2) 36"ø RCP
WEST INV ELEV = 129.34
EAST INV ELEV = 128.51

N 125,177.37
EL 134.55

EXISTING 6'-0"ø RCP STANDPIPE INLET STRUCTURE

6" PERFERATED PVC UNDER-DRAIN (TO BE REMOVED)

EXISTING 30"ø RCP
EAST INV ELEV = 121.31
WEST INV ELEV = 121.70
(TO REMAIN)

EXISTING JUNCTION MANHOLE (TO REMAIN)

EXISTING 48"ø RCP
EAST INV ELEV = 121.22
WEST INV ELEV = 121.39
WITH ENDWALL
(TO REMAIN)

STORMWATER FLOW ARROWS (TYP)

EXISTING BASIN "C"

PRIMARY MINE CUT

WETLAND DELINEATION LINE

GRAPHIC SCALE
0 20 40 80
SCALE IN FEET
1" = 40'-0"

Dept. Of Environmental Protection

JUN 19 2008

Southwest District

RECORD DRAWINGS
WITH THE KNOWLEDGE AND BELIEF OF THE CONTRACTOR OR THEIR SUBCONTRACTOR.
JOSEPH H. O'NEILL, P.E. P.E. No. 52049
JONES EDMUNDS

NOTES:

1. REVISION #1: MODIFIED BASIN C GEOMETRY, BERM ALIGNMENT, ACCESS RAMPS AND POND SIDE SLOPES.

NOTES:
1. TOPOGRAPHICAL INFORMATION COMPILED FROM EXISTING CONDITIONS SURVEY PERFORM BY PICKETT & ASSOCIATES DATED JULY 2006

LTR.	DATE	REVISIONS	BY	APPRD.
3	6/10/08	RECORD DRAWINGS	DJW	JHO
2	3/17/08	REVISED SWALE	JHO	JHO
1	1/25/08	REVISED BASIN "C"	DJW	RDD

DESIGNED JHO/RAS
DRAWN GRD
CHECKED JHO

JONES EDMUNDS
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821

HILLSBOROUGH COUNTY
SOLID WASTE MANAGEMENT DEPARTMENT
SOUTHEAST COUNTY LANDFILL

BASIN C MODIFICATION
EXISTING CONDITIONS

CERTIFICATE OF AUTHORIZATION #1841
APPROVED BY
JOSEPH H. O'NEILL P.E.
P.E. # 052049

DATE 01/2007
SCALE AS SHOWN
PROJECT NO. 08449-021-01
DWG. NO. B-4

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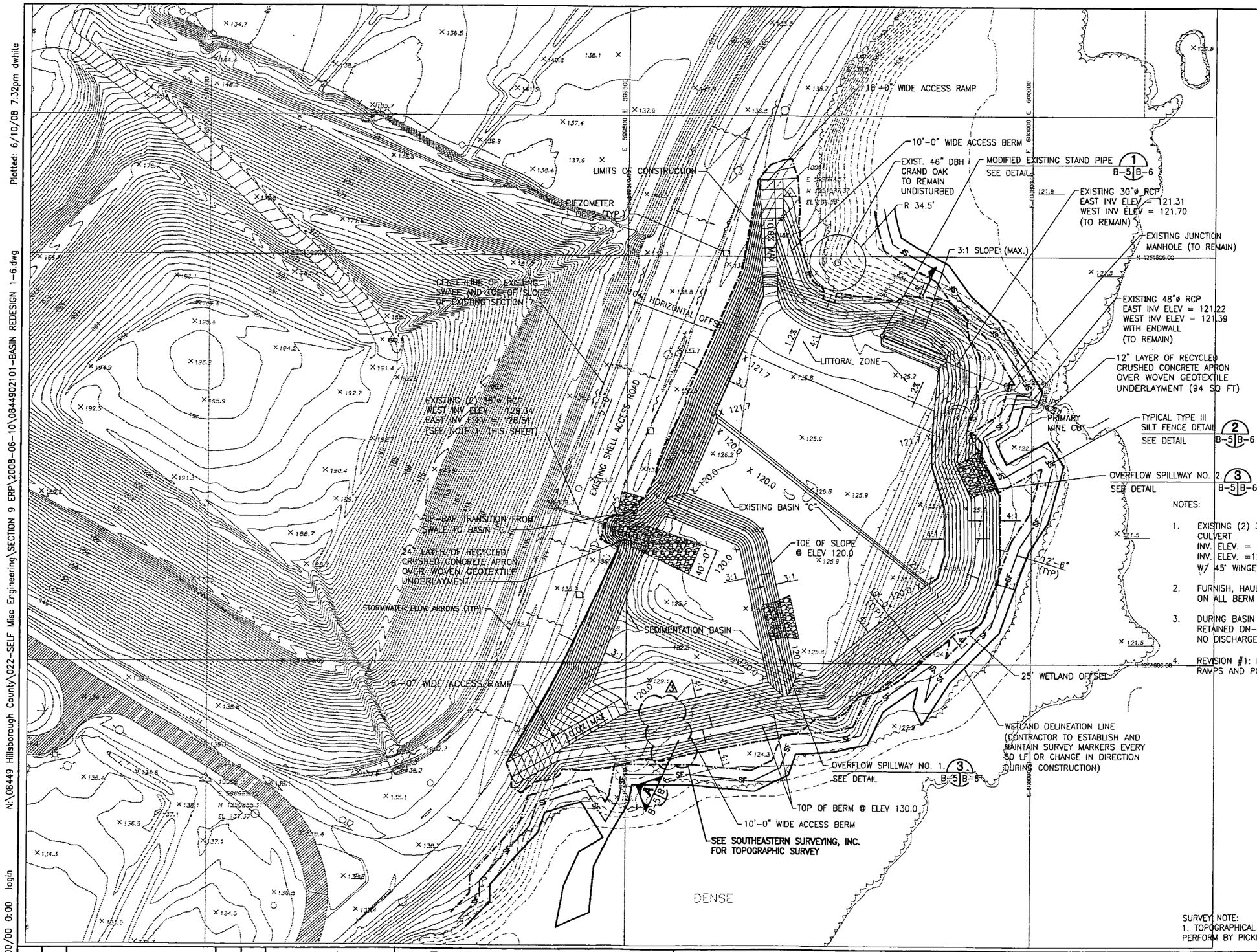

GRAPHIC SCALE

0 30 60 120

SCALE IN FEET
1" = 60'-0"

RECORD DRAWINGS

Dept. Of Environmental Protection

JUN 19 2008

Southwest District

NOTES:

1. EXISTING (2) 36"ø RCP TO BE REPLACED WITH 70 LF OF 4' X 8' BOX CULVERT
   INV. ELEV. = 130.0 WEST
   INV. ELEV. =129.0 EAST
   W/ 45° WINGED ENDWALLS FDOT INDEX 266 (IN SECTION 9 BID)
2. FURNISH, HAUL, AND PLACE SOD, PER SPECIFICATIONS SECTION 02990, ON ALL BERM SIDE SLOPES 4H:1V OR STEEPER AND THEIR TOP.
3. DURING BASIN C CONSTRUCTION DEWATERING, ALL WATER WILL BE RETAINED ON-SITE, CONTRACTOR TO PUMP TO DEWATERING AREA, WITH NO DISCHARGE TO STATE WATERS.
4. REVISION #1: MODIFIED BASIN C GEOMETRY, BERM ALIGNMENT, ACCESS RAMPS AND POND SIDE SLOPES.

SURVEY NOTE:
1. TOPOGRAPHICAL INFORMATION COMPILED FROM EXISTING CONDITIONS SURVEY PERFORM BY PICKETT & ASSOCIATES DATED JULY 2006

LTR.	DATE	REVISIONS	BY	APPRD.
1	6/10/08	RECORD DRAWINGS	DLS	JHO
2	3/17/08	REVISED SWALE	JHO	JHO
1	1/28/08	REVISED BASIN "C"	DLS	RDD

DESIGNED JHO/RAS
DRAWN GRD
CHECKED JHO

JONES EDMUNDS
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821

HILLSBOROUGH COUNTY
SOLID WASTE MANAGEMENT DEPARTMENT
SOUTHEAST COUNTY LANDFILL

BASIN C MODIFICATION GRADING PLAN

CERTIFICATE OF AUTHORIZATION #1841
APPROVED BY
JOSEPH H. O'NEILL P.E.
P.E. # 052049

DATE 01/2007
SCALE AS SHOWN
PROJECT NO. 08449-021-01
DWG. NO. B-5

Edited: 00/00/00 0:00 login
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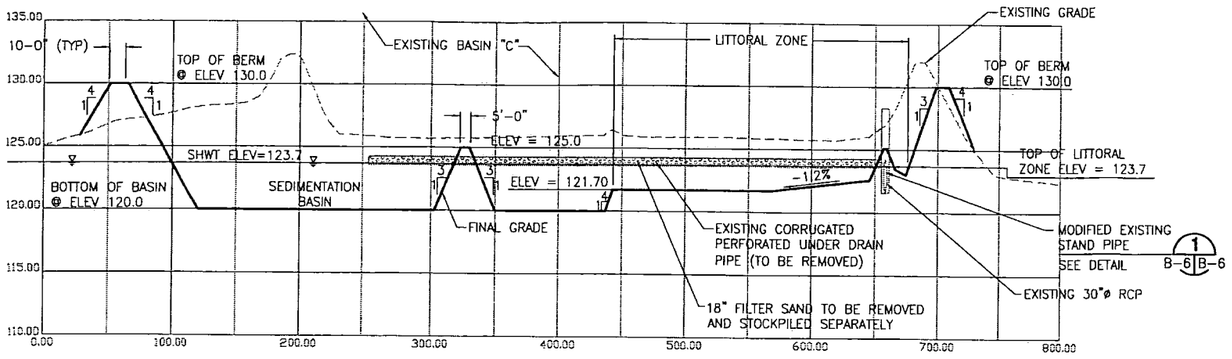
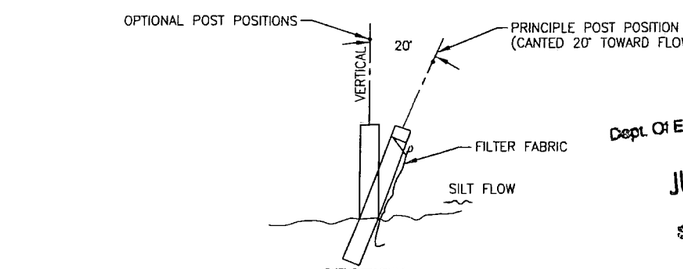
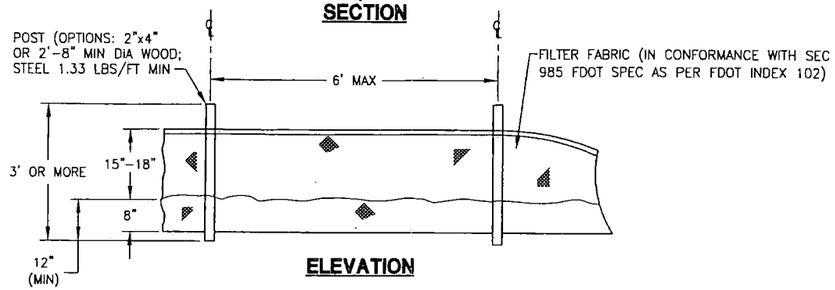


SECTION A
SCALE 1"=60'-0" HORZ
1"=6'-0" VERT
B-5 | B-6

NOTE:
FURNISH, HAUL, AND PLACE SOD, PER SPECIFICATIONS SECTION 02990, ON ALL BERM SIDE SLOPES 4H:1V OR STEEPER AND THEIR TOP.



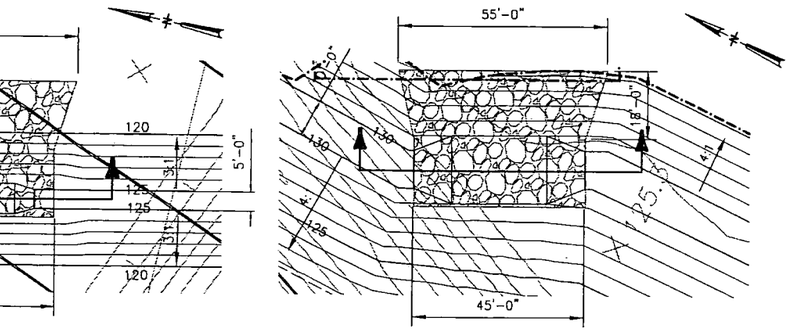
SECTION



ELEVATION

TYPICAL TYPE III SILT FENCE DETAIL 2
NTS
B-5 | B-6

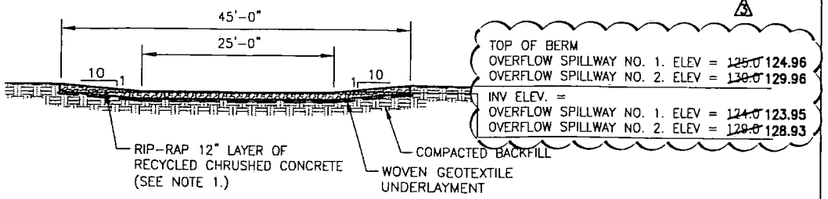
RECORD DRAWINGS



PLAN OVERFLOW SPILLWAY NO. 1.
SCALE 1"= 20'-0"

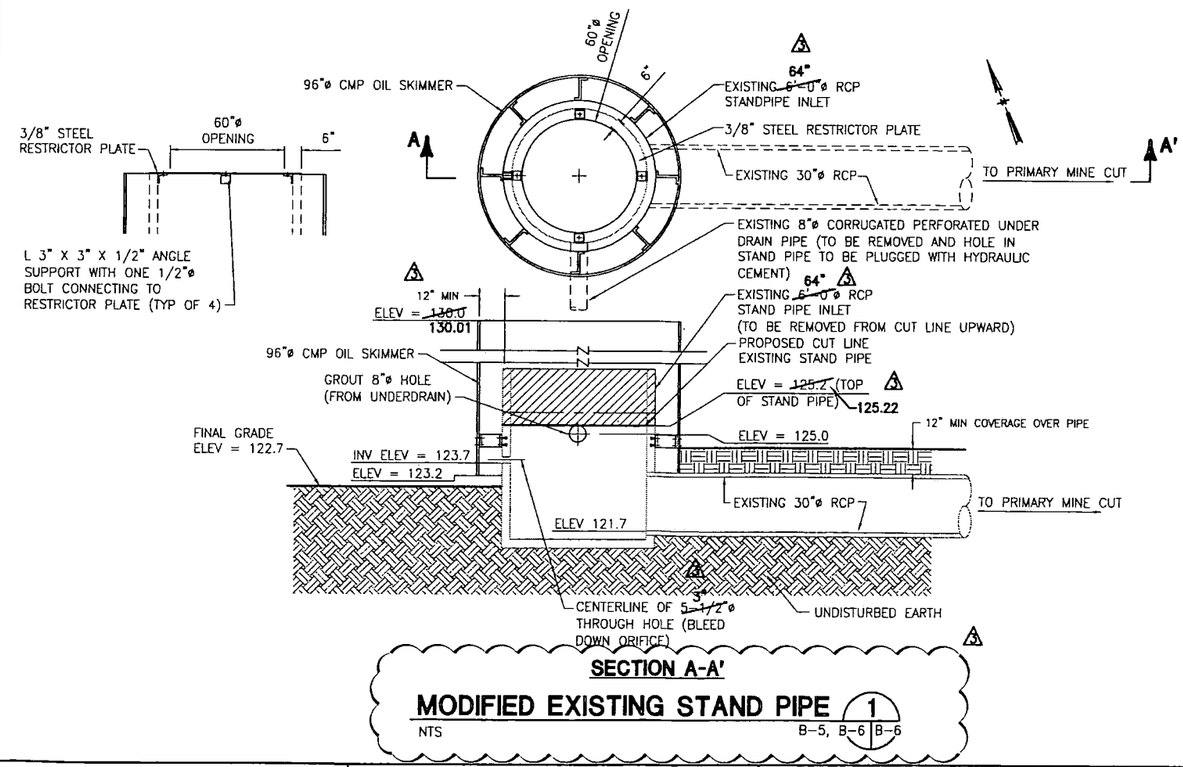
PLAN OVERFLOW SPILLWAY NO. 2.
SCALE 1"= 20'-0"

NOTE:
1. RIP-RAP USED SHALL BE RECYCLED CHRUSHED CONCRETE, GRANITE OR LIMESTONE 3 INCHES TO 8 INCHES IN DIAMETER WITH A MEDIAN OF 6 INCHES. WOVEN GEOTEXTILE SHALL MEET THE REQUIREMENTS OF SECTION 02771 OF THE PROJECT SPECIFICATIONS.



SECTION
NTS

OVERFLOW SPILLWAY NO. 1. AND 2. DETAIL 3
SCALE 1"= 10'-0"
B-5 | B-6



SECTION A-A'

MODIFIED EXISTING STAND PIPE 1
NTS
B-5, B-6 | B-6

LTR.	DATE	REVISIONS	BY	APPRD.
3	6/10/08	RECORD DRAWINGS	DLW	JHO
2	3/17/08	REVISED SHAPE	JHO	JHO
1	1/28/08	REVISED BASIN "C"	DLW	RDD

DESIGNED JHO/RAS
DRAWN GRD
CHECKED JHO

JONES EDMUNDS
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821

HILLSBOROUGH COUNTY
SOLID WASTE MANAGEMENT DEPARTMENT
SOUTHEAST COUNTY LANDFILL

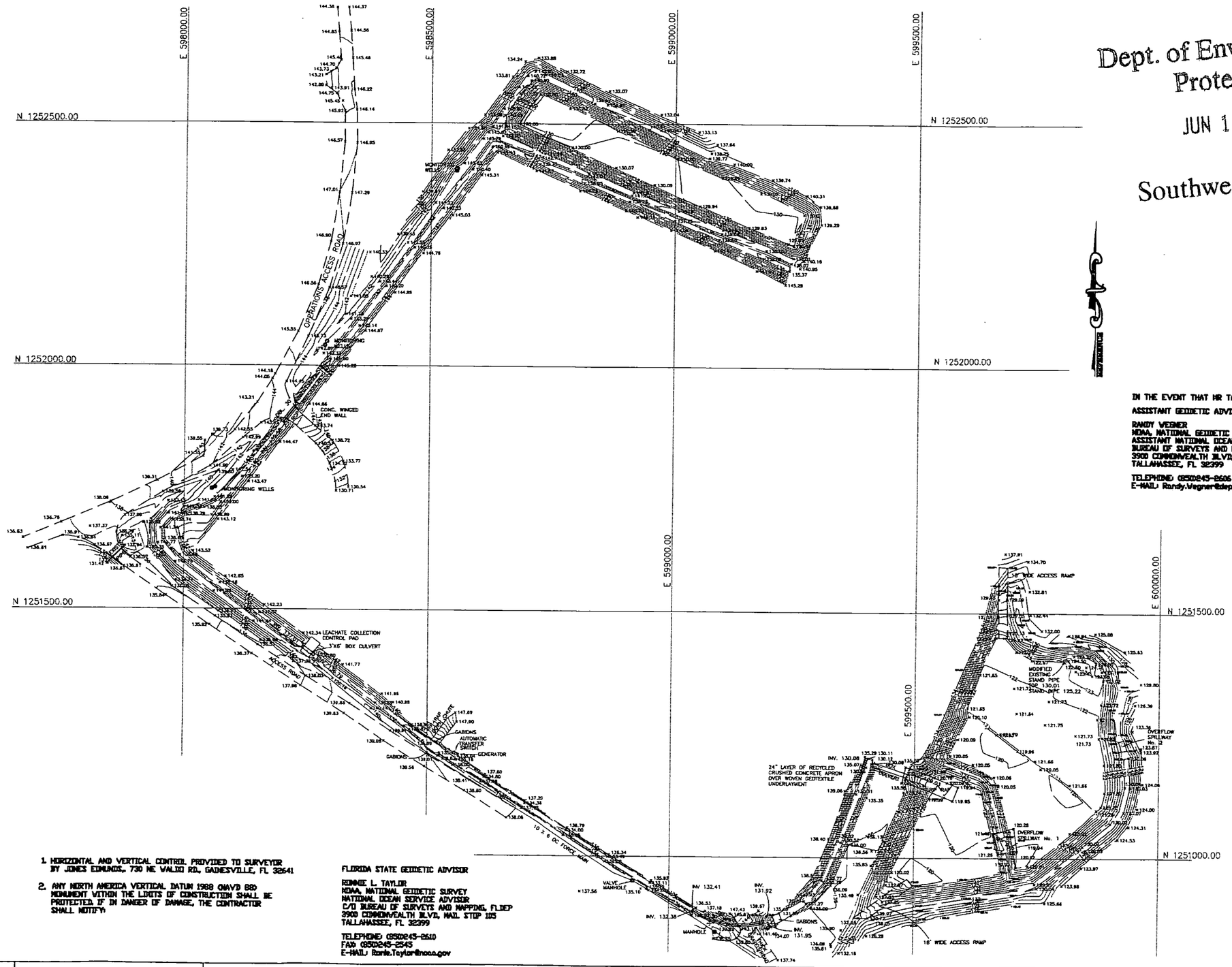
BASIN C MODIFICATION
SECTION AND DETAILS

CERTIFICATE OF AUTHORIZATION #1841
APPROVED BY
JOSEPH H. O'NEILL P.E.
P.E. # 052049

DATE 01/2007
PROJECT NO. 08449-021-01
SCALE AS SHOWN
DWG. NO. B-6

ATTACHMENT 4

AS-BUILT TOPOGRAPHIC SURVEY



1. HORIZONTAL AND VERTICAL CONTROL PROVIDED TO SURVEYOR BY JONES EDMUNDS, 730 NE WALDO RD, GAINESVILLE, FL 32641
2. ANY NORTH AMERICA VERTICAL DATUM 1988 (NAVD 88) MONUMENT WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR SHALL NOTIFY:

GRAPHIC SCALE : 1 INCH = 100 FT.

FLORIDA STATE GEODETIC ADVISOR

RONNIE L. TAYLOR
NOAA, NATIONAL GEODETIC SURVEY
NATIONAL OCEAN SERVICE ADVISOR
C/O BUREAU OF SURVEYS AND MAPPING, FLDEP
3900 COMMONWEALTH BLVD, MAIL STOP 105
TALLAHASSEE, FL 32399

TELEPHONE: (850)245-2610
FAX: (850)245-2543
E-MAIL: Ronie.Taylor@noaa.gov

Dept. of Environmental Protection

JUN 19 2008

Southwest District

IN THE EVENT THAT HR TAYLOR IS UNAVAILABLE, CONTACT:

ASSISTANT GEODETIC ADVISOR

RANDY WEGNER
NOAA, NATIONAL GEODETIC SURVEY
ASSISTANT NATIONAL OCEAN SERVICE ADVISOR
BUREAU OF SURVEYS AND MAPPING
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Southeastern Surveying, Inc.
601 N. St. Augustine Rd. Telephone: 229-259-9455
Valdosta, GA 31601 Fax: 229-259-9926
E-mail: bherring@sesurveying.com

THIS MAP IS NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

BARBARA L. HERRING, PMS #5194
PERFORMING LAND SURVEYING SERVICES
UNDER THE LICENSE BUSINESS NUMBER LB-0007091

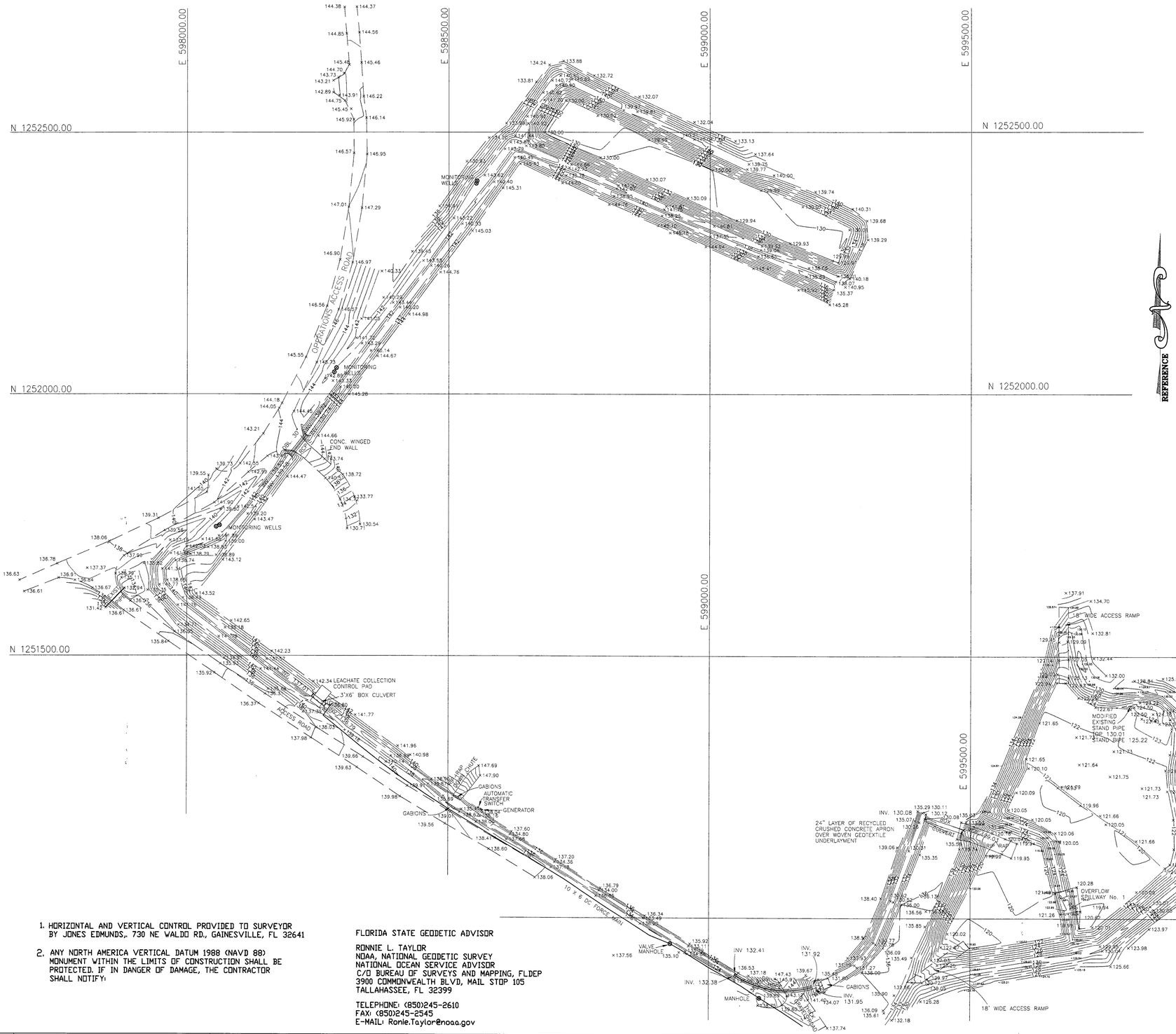
HILLSBOROUGH COUNTY
SOLID WASTE MANAGEMENT DEPARTMENT
SOUTHEAST COUNTY LANDFILL

TOPOGRAPHIC SURVEY OF
ACCESS ROADS AND STORM WATER DRAINAGE, BASIN C

DATE: MAY 28, 2008

SHEET 8 OF

1565458 (1)



REFERENCE

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2. ANY NORTH AMERICA VERTICAL DATUM 1988 (NAVD 88) MONUMENT WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR SHALL NOTIFY:

100 0 100 200

GRAPHIC SCALE : *1 INCH = 100 FT.*

FLORIDA STATE GEODETIC ADVISOR

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E-MAIL: Randy.Wegner@dep.state.fl.us

Dept. of Environmental Protection
JUN 19 2008
Southwest District

INSERTED INTO OCULUS
JUL 16 2008
INITIAL

Southeastern Surveying, Inc.
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BARBARA L. HERRING, PMS #6194
PERFORMING LAND SURVEYING SERVICES
UNDER THE LICENSE BUSINESS NUMBER LB-0007091

HILLSBOROUGH COUNTY
SOLID WASTE MANAGEMENT DEPARTMENT
SOUTHEAST COUNTY LANDFILL

TOPOGRAPHIC SURVEY OF ACCESS ROADS AND STORM WATER DRAINAGE, BASIN C

DATE: MAY 28, 2008

SHEET 8 OF

ATTACHMENT 5

ICPR STORMWATER MODEL CONFIRMATION

ICPR INPUT REPORT

Basins

Name: 10AcBasin
Group: BASE

Node: 10 Ac-node
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh256
Rainfall File: Flmod
Rainfall Amount(in): 8.400
Area(ac): 10.000
Curve Number: 90.00
DCIA(%): 0.00

Peaking Factor: 256.0
Storm Duration(hrs): 24.00
Time of Conc(min): 13.30
Time Shift(hrs): 0.00
Max Allowable Q(cfs): 999999.000

Name: 19AcBasin
Group: BASE

Node: 19 Ac-node
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh256
Rainfall File: Flmod
Rainfall Amount(in): 8.400
Area(ac): 19.120
Curve Number: 90.00
DCIA(%): 0.00

Peaking Factor: 256.0
Storm Duration(hrs): 24.00
Time of Conc(min): 12.60
Time Shift(hrs): 0.00
Max Allowable Q(cfs): 999999.000

Name: Area2
Group: BASE

Node: Area2
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh484
Rainfall File: Flmod
Rainfall Amount(in): 8.400
Area(ac): 26.000
Curve Number: 87.00
DCIA(%): 0.00

Peaking Factor: 484.0
Storm Duration(hrs): 24.00
Time of Conc(min): 23.90
Time Shift(hrs): 0.00
Max Allowable Q(cfs): 999999.000

Name: Basin 1
Group: BASE

Node: 1-node
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh256
Rainfall File: Flmod
Rainfall Amount(in): 8.400
Area(ac): 0.700
Curve Number: 86.00
DCIA(%): 0.00

Peaking Factor: 256.0
Storm Duration(hrs): 24.00
Time of Conc(min): 6.00
Time Shift(hrs): 0.00
Max Allowable Q(cfs): 999999.000

Basin North to storage tank

Name: Basin 2
Group: BASE

Node: 2-node
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh256
Rainfall File: Flmod
Rainfall Amount(in): 8.400

Peaking Factor: 256.0
Storm Duration(hrs): 24.00
Time of Conc(min): 6.00

Area(ac): 0.120
Curve Number: 78.00
DCIA(%): 0.00

Time Shift(hrs): 0.00
Max Allowable Q(cfs): 999999.000

existing dry pond southeast of storage tank

Name: Basin 4
Group: BASE

Node: 4-node
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh484
Rainfall File: Flmod
Rainfall Amount(in): 8.400
Area(ac): 0.500
Curve Number: 98.00
DCIA(%): 0.00

Peaking Factor: 484.0
Storm Duration(hrs): 24.00
Time of Conc(min): 6.00
Time Shift(hrs): 0.00
Max Allowable Q(cfs): 999999.000

storage tank area

Name: Basin 5
Group: BASE

Node: 5-node
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh256
Rainfall File:
Rainfall Amount(in): 8.400
Area(ac): 0.170
Curve Number: 82.00
DCIA(%): 0.00

Peaking Factor: 256.0
Storm Duration(hrs): 24.00
Time of Conc(min): 6.00
Time Shift(hrs): 0.00
Max Allowable Q(cfs): 999999.000

Name: Basin 6
Group: BASE

Node: 6-node
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh256
Rainfall File: Flmod
Rainfall Amount(in): 8.400
Area(ac): 0.170
Curve Number: 82.00
DCIA(%): 0.00

Peaking Factor: 256.0
Storm Duration(hrs): 24.00
Time of Conc(min): 6.00
Time Shift(hrs): 0.00
Max Allowable Q(cfs): 999999.000

swale south of storage tank area

Name: Basin 7
Group: BASE

Node: 7-node
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh256
Rainfall File: Flmod
Rainfall Amount(in): 8.400
Area(ac): 0.700
Curve Number: 87.00
DCIA(%): 0.00

Peaking Factor: 256.0
Storm Duration(hrs): 24.00
Time of Conc(min): 6.00
Time Shift(hrs): 0.00
Max Allowable Q(cfs): 999999.000

swale southeast of storage tank area to swale 3

Name: Basin-PrMineCut
Group: BASE

Node: PrMine Cut
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh256

Peaking Factor: 256.0

Rainfall File: Flmod
Rainfall Amount(in): 8.400
Area(ac): 112.300
Curve Number: 90.00
DCIA(%): 0.00

Storm Duration(hrs): 24.00
Time of Conc(min): 60.00
Time Shift(hrs): 0.00
Max Allowable Q(cfs): 999999.000

Name: BasinC
Group: BASE

Node: BasinC
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh256
Rainfall File: Flmod
Rainfall Amount(in): 8.400
Area(ac): 4.400
Curve Number: 98.00
DCIA(%): 0.00

Peaking Factor: 256.0
Storm Duration(hrs): 24.00
Time of Conc(min): 6.00
Time Shift(hrs): 0.00
Max Allowable Q(cfs): 999999.000

Name: Sect78
Group: BASE

Node: Sect78
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh484
Rainfall File: Flmod
Rainfall Amount(in): 8.400
Area(ac): 22.200
Curve Number: 87.00
DCIA(%): 0.00

Peaking Factor: 484.0
Storm Duration(hrs): 24.00
Time of Conc(min): 14.13
Time Shift(hrs): 0.00
Max Allowable Q(cfs): 999999.000

Name: Sect9
Group: BASE

Node: Sect9
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh484
Rainfall File: Flmod
Rainfall Amount(in): 8.400
Area(ac): 11.500
Curve Number: 87.00
DCIA(%): 0.00

Peaking Factor: 484.0
Storm Duration(hrs): 24.00
Time of Conc(min): 10.12
Time Shift(hrs): 0.00
Max Allowable Q(cfs): 999999.000

3/4 of Section 9

Name: Swale4Basin
Group: BASE

Node: swale4
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh256
Rainfall File: Flmod
Rainfall Amount(in): 8.400
Area(ac): 0.531
Curve Number: 90.00
DCIA(%): 0.00

Peaking Factor: 256.0
Storm Duration(hrs): 24.00
Time of Conc(min): 30.60
Time Shift(hrs): 0.00
Max Allowable Q(cfs): 999999.000

Name: WestSideBasin
Group: BASE

Node: WestSideCut
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh256
Rainfall File: Flmod
Rainfall Amount(in): 8.400
Area(ac): 0.280
Curve Number: 90.00
DCIA(%): 0.00

Peaking Factor: 256.0
Storm Duration(hrs): 24.00
Time of Conc(min): 19.75
Time Shift(hrs): 0.00
Max Allowable Q(cfs): 999999.000

==== Nodes ====

Name: 1-node
Group: BASE
Type: Stage/Area

Base Flow(cfs): 0.000

Init Stage(ft): 147.000
Warn Stage(ft): 149.000

south end of existing swale northeast to storage tank

Stage(ft)	Area(ac)
147.000	0.0001
148.000	0.0001
149.000	0.0001

Name: 10 Ac-node
Group: BASE
Type: Stage/Area

Base Flow(cfs): 0.000

Init Stage(ft): 119.300
Warn Stage(ft): 125.000

Stage(ft)	Area(ac)
119.300	10.0000
122.500	10.5000
123.500	11.0300
124.500	11.6000

Name: 19 Ac-node
Group: BASE
Type: Stage/Area

Base Flow(cfs): 0.000

Init Stage(ft): 106.700
Warn Stage(ft): 120.000

19.12

Stage(ft)	Area(ac)
106.700	19.1200
108.000	20.1000
111.000	21.1000
113.000	22.2000
115.000	23.3100
117.000	24.5000
120.000	25.7000

Name: 2-node
Group: BASE
Type: Stage/Area

Base Flow(cfs): 0.000

Init Stage(ft): 146.000
Warn Stage(ft): 149.750

existing dry pond southeast of storage tank

Stage(ft)	Area(ac)
146.000	0.0173
147.000	0.0235
148.000	0.0305
149.000	0.0429
150.000	0.0535

Name: 4-node
Group: BASE
Type: Stage/Area

Base Flow(cfs): 0.000

Init Stage(ft): 140.000
Warn Stage(ft): 145.750

storage tank area

Stage(ft)	Area(ac)
140.000	0.1213
141.000	0.1520
142.000	0.1833
143.000	0.2168
144.000	0.2508
145.000	0.2867
146.000	0.3238

Name: 5-node
Group: BASE
Type: Stage/Area

Base Flow(cfs): 0.000

Init Stage(ft): 145.000
Warn Stage(ft): 148.500

Stage(ft)	Area(ac)
145.000	0.0001
146.000	0.0001
147.000	0.0001
148.000	0.0001
149.000	0.0001

Name: 6-node
Group: BASE
Type: Stage/Area

Base Flow(cfs): 0.000

Init Stage(ft): 144.000
Warn Stage(ft): 148.750

swale south of storage tank

Stage(ft)	Area(ac)
144.000	0.0001
145.000	0.0001
146.000	0.0001
147.000	0.0001
148.000	0.0001
149.000	0.0001

Name: 7-node
Group: BASE
Type: Stage/Area

Base Flow(cfs): 0.000

Init Stage(ft): 143.000
Warn Stage(ft): 144.750

node southwest to storage tank

Stage(ft)	Area(ac)
143.000	0.0001
144.000	0.0001
145.000	0.0001

Name: Area2 Base Flow(cfs): 0.000 Init Stage(ft): 290.000
Group: BASE Warn Stage(ft): 298.000
Type: Stage/Area

Stage(ft)	Area(ac)
290.000	0.0001
291.000	0.0001
292.000	0.0001
293.000	0.0001
294.000	0.0001
295.000	0.0001
296.000	0.0001
297.000	0.0001
298.000	0.0001

Name: BasinC Base Flow(cfs): 0.000 Init Stage(ft): 124.900
Group: BASE Warn Stage(ft): 130.000
Type: Stage/Area

Stage(ft)	Area(ac)
123.700	3.3000
124.000	3.4100
125.000	3.6100
126.000	3.8000
127.000	4.0300
128.000	4.1200
130.000	4.4900

Name: BottomChute1 Base Flow(cfs): 0.000 Init Stage(ft): 140.000
Group: BASE Warn Stage(ft): 145.000
Type: Stage/Area

Stage(ft)	Area(ac)
140.000	0.0001
141.000	0.0001
142.000	0.0001
143.000	0.0001
144.000	0.0001
145.000	0.0001

Name: BottomChute3 Base Flow(cfs): 0.000 Init Stage(ft): 140.000
Group: BASE Warn Stage(ft): 145.000
Type: Stage/Area

Stage(ft)	Area(ac)
140.000	0.0001
141.000	0.0001
142.000	0.0001
143.000	0.0001
144.000	0.0001
145.000	0.0001

Name: Dischrg-Bound Base Flow(cfs): 0.000 Init Stage(ft): 90.000
Group: BASE Warn Stage(ft): 92.000
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	90.000
9999.00	90.000

Name: manhole-node Base Flow(cfs): 0.000 Init Stage(ft): 121.390
Group: BASE Warn Stage(ft): 126.000
Type: Stage/Area

Stage(ft)	Area(ac)
121.390	0.0001
121.500	0.0001
122.000	0.0001
126.000	0.0001

Name: P1-node Base Flow(cfs): 0.000 Init Stage(ft): 129.340
Group: BASE Warn Stage(ft): 135.000
Type: Stage/Area

Stage(ft)	Area(ac)
129.340	0.0001
130.000	0.0001
131.000	0.0001
132.000	0.0001
133.000	0.0001
134.000	0.0001
135.000	0.0001

Name: P2-node Base Flow(cfs): 0.000 Init Stage(ft): 128.510
Group: BASE Warn Stage(ft): 135.000
Type: Stage/Area

Stage(ft)	Area(ac)

128.510	0.0001
129.000	0.0001
130.000	0.0001
131.000	0.0001
132.000	0.0001
133.000	0.0001
135.000	0.0001

Name: PrMine Cut Base Flow(cfs): 0.000 Init Stage(ft): 121.600
Group: BASE Warn Stage(ft): 125.000
Type: Stage/Area

Stage(ft)	Area(ac)
121.900	106.0000
123.000	111.3000
124.000	116.9000
125.000	122.7000

Name: Sect78 Base Flow(cfs): 0.000 Init Stage(ft): 290.000
Group: BASE Warn Stage(ft): 298.000
Type: Stage/Area

Stage(ft)	Area(ac)
290.000	0.0001
291.000	0.0001
292.000	0.0001
293.000	0.0001
294.000	0.0001
295.000	0.0001
296.000	0.0001
297.000	0.0001
298.000	0.0001

Name: Sect9 Base Flow(cfs): 0.000 Init Stage(ft): 290.000
Group: BASE Warn Stage(ft): 300.000
Type: Stage/Area

Stage(ft)	Area(ac)
290.000	0.0001
291.000	0.0001
292.000	0.0001
293.000	0.0001
294.000	0.0001
295.000	0.0001
296.000	0.0001
297.000	0.0001
298.000	0.0001

Name: South-node Base Flow(cfs): 0.000 Init Stage(ft): 138.500

Warn Stage(ft): 145.000

Group: BASE
Type: Stage/Area

Stage(ft)	Area(ac)
138.500	0.0001
140.000	0.0001
141.000	0.0001
142.000	0.0001
143.000	0.0001
144.000	0.0001
145.000	0.0001

Name: swale4 Base Flow(cfs): 0.000 Init Stage(ft): 94.750
Warn Stage(ft): 109.000
Group: BASE
Type: Stage/Area

Stage(ft)	Area(ac)
94.750	0.2120
98.000	0.3700
101.000	0.5310
104.000	0.6900
109.000	0.8500

Name: WestSideCut Base Flow(cfs): 0.000 Init Stage(ft): 90.570
Warn Stage(ft): 102.000
Group: BASE
Type: Stage/Area

Stage(ft)	Area(ac)
90.570	0.1100
94.000	0.2800
98.000	0.3640
102.000	0.4500

==========
==== Operating Tables ====
==========

Name: Pump Group: BASE
Type: Rating Curve
Function: Head vs. Discharge

submersible pump from storage tank out to swale south of storage tank

Head(ft)	Discharge(cfs)
0.00	0.00
12.00	0.11

==========
==== Pipes ====
==========

Name: Culver1A
Group: BASE

From Node: PrMine Cut
To Node: 10 Ac-node

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	24.00	24.00
Rise(in):	24.00	24.00
Invert(ft):	121.680	120.980
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Length(ft): 100.00
Count: 1
Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.50
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

second pipe from Primary Mine Cut to the 10 acre mine cut

Name: Culvert1
Group: BASE

From Node: PrMine Cut
To Node: 10 Ac-node

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	24.00	24.00
Rise(in):	24.00	24.00
Invert(ft):	121.770	120.890
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Length(ft): 100.00
Count: 1
Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.50
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

one of two pipes from Primary Mine Cut to the 10 acre mine cut

---

Name: Culvert2
Group: BASE

From Node: 10 Ac-node
To Node: 19 Ac-node

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	24.00	24.00
Rise(in):	24.00	24.00
Invert(ft):	120.420	119.460
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Length(ft): 94.00
Count: 1
Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.50
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

one of two pipes from 10 acre mine cut to the 19 acre mine cut

Name:	Culvert2A	From Node:	10 Ac-node	Length(ft):	94.00
Group:	BASE	To Node:	19 Ac-node	Count:	1
				Friction Equation:	Average Conveyance
				Solution Algorithm:	Automatic
				Flow:	Both
				Entrance Loss Coef:	0.50
				Exit Loss Coef:	1.00
				Bend Loss Coef:	0.00
				Outlet Ctrl Spec:	Use dc or tw
				Inlet Ctrl Spec:	Use dn
				Stabilizer Option:	None

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	24.00	24.00
Rise(in):	24.00	24.00
Invert(ft):	120.450	119.400
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

second pipe from 10 acre mine cut to 19 acre mine cut

Name:	Culvert3	From Node:	19 Ac-node	Length(ft):	50.00
Group:	BASE	To Node:	swale4	Count:	1
				Friction Equation:	Average Conveyance
				Solution Algorithm:	Automatic
				Flow:	Both
				Entrance Loss Coef:	0.50
				Exit Loss Coef:	1.00
				Bend Loss Coef:	0.00
				Outlet Ctrl Spec:	Use dc or tw
				Inlet Ctrl Spec:	Use dn
				Stabilizer Option:	None

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	18.00	18.00
Rise(in):	18.00	18.00
Invert(ft):	107.040	106.770
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name:	Culvert4	From Node:	swale4	Length(ft):	50.00
Group:	BASE	To Node:	WestSideCut	Count:	1
				Friction Equation:	Average Conveyance
				Solution Algorithm:	Automatic
				Flow:	Both
				Entrance Loss Coef:	0.50
				Exit Loss Coef:	1.00
				Bend Loss Coef:	0.00
				Outlet Ctrl Spec:	Use dc or tw
				Inlet Ctrl Spec:	Use dn
				Stabilizer Option:	None

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	20.00	20.00
Rise(in):	20.00	20.00
Invert(ft):	95.400	94.880
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: Culvert4A
Group: BASE

From Node: swale4
To Node: WestSideCut

Length(ft): 50.00
Count: 1
Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.50
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	20.00	20.00
Rise(in):	20.00	20.00
Invert(ft):	95.400	94.880
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: northpipe-link
Group: BASE

From Node: 1-node
To Node: 5-node

Length(ft): 64.00
Count: 1
Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.50
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

	UPSTREAM	DOWNSTREAM
Geometry:	Vert Ellipse	Vert Ellipse
Span(in):	14.00	14.00
Rise(in):	23.00	23.00
Invert(ft):	148.000	146.000
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Upstream FHWA Inlet Edge Description:
Vertical Ellipse Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Vertical Ellipse Concrete: Square edge w/ headwall

pipe running under existing metal building southeast to storage tank

Name: Outlet Pipe
Group: BASE

From Node: WestSideCut
To Node: Dischrg-Bound

Length(ft): 50.00
Count: 1
Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular

Span(in):	48.00	48.00
Rise(in):	48.00	48.00
Invert(ft):	90.850	90.610
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Entrance Loss Coef: 0.50
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: Outlet Pipe2
Group: BASE
From Node: WestSideCut
To Node: Dischrg-Bound

Length(ft): 50.00
Count: 1
Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.50
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	48.00	48.00
Rise(in):	48.00	48.00
Invert(ft):	91.010	90.660
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: Pipe-link
Group: BASE
From Node: P1-node
To Node: P2-node

Length(ft): 50.00
Count: 1
Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.50
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

	UPSTREAM	DOWNSTREAM
Geometry:	Rectangular	Rectangular
Span(in):	96.00	96.00
Rise(in):	48.00	48.00
Invert(ft):	129.340	128.510
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Upstream FHWA Inlet Edge Description:
Rectangular Box: 30° to 75° wingwall flares

Downstream FHWA Inlet Edge Description:
Rectangular Box: 30° to 75° wingwall flares

Name: Pipe-PrMineCut
Group: BASE

From Node: manhole-node
To Node: PrMine Cut

Length(ft): 65.00
Count: 1
Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.50
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	48.00	48.00
Rise(in):	48.00	48.00
Invert(ft):	121.390	121.220
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: S24pipe-link
Group: BASE

From Node: 2-node
To Node: 5-node

Length(ft): 87.63
Count: 1
Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.50
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

	UPSTREAM	DOWNSTREAM
Geometry:	Vert Ellipse	Vert Ellipse
Span(in):	12.00	12.00
Rise(in):	18.00	18.00
Invert(ft):	148.000	147.000
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Upstream FHWA Inlet Edge Description:
Vertical Ellipse Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Vertical Ellipse Concrete: Square edge w/ headwall

pipe from existing pond to swale south of storage tank

Name: swpipe1-link
Group: BASE

From Node: 6-node
To Node: 7-node

Length(ft): 130.00
Count: 1
Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.50
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	24.00	24.00
Rise(in):	24.00	24.00
Invert(ft):	145.000	143.000
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

1st of 2 pipes from swale south of storage tank to swale southeast of storage tank

Name: SWpipe2-link From Node: 6-node Length(ft): 130.00
Group: BASE To Node: 7-node Count: 1
Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.50
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	24.00	24.00
Rise(in):	24.00	24.00
Invert(ft):	145.000	143.000
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

2nd of 2 pipes from swale south of storage tank to swale southeast of storage tank

==== Channels ====

Name: Channel2 From Node: P2-node Length(ft): 70.00
Group: BASE To Node: BasinC Count: 1
Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Contraction Coef: 0.000
Expansion Coef: 0.000
Entrance Loss Coef: 0.000
Exit Loss Coef: 0.000
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

	UPSTREAM	DOWNSTREAM
Geometry:	Trapezoidal	Trapezoidal
Invert(ft):	128.300	120.000
TClpInitZ(ft):	9999.000	9999.000
Manning's N:	0.035000	0.035000
Top Clip(ft):	0.000	0.000
Bot Clip(ft):	0.000	0.000
Main XSec:		
AuxElev1(ft):		
Aux XSec1:		
AuxElev2(ft):		
Aux XSec2:		
Top Width(ft):		
Depth(ft):		
Bot Width(ft):	15.000	34.000
LtSdSlp(h/v):	3.00	3.00
RtSdSlp(h/v):	3.00	3.00

Name: CombFlow-link From Node: South-node Length(ft): 350.00
Group: BASE To Node: P1-node Count: 1
Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both

	UPSTREAM	DOWNSTREAM
Geometry:	Trapezoidal	Trapezoidal
Invert(ft):	135.000	129.340

TClpInitZ(ft):	9999.000	9999.000	Contraction Coef:	0.000
Manning's N:	0.035000	0.035000	Expansion Coef:	0.000
Top Clip(ft):	0.000	0.000	Entrance Loss Coef:	0.000
Bot Clip(ft):	0.000	0.000	Exit Loss Coef:	0.000
Main XSec:			Outlet Ctrl Spec:	Use dc or tw
AuxElev1(ft):			Inlet Ctrl Spec:	Use dn
Aux XSec1:			Stabilizer Option:	None
AuxElev2(ft):				
Aux XSec2:				
Top Width(ft):				
Depth(ft):				
Bot Width(ft):	10.000	10.000		
LtSdSlp(h/v):	3.00	3.00		
RtSdSlp(h/v):	3.00	3.00		

Name: DownChute1 | From Node: Sect9 | Length(ft): 1300.00
Group: BASE | To Node: BottomChute1 | Count: 1

	UPSTREAM	DOWNSTREAM		
Geometry:	Trapezoidal	Trapezoidal	Friction Equation:	Average Conveyance
Invert(ft):	290.000	140.000	Solution Algorithm:	Automatic
TClpInitZ(ft):	9999.000	9999.000	Flow:	Both
Manning's N:	0.250000	0.250000	Contraction Coef:	0.000
Top Clip(ft):	0.000	0.000	Expansion Coef:	0.000
Bot Clip(ft):	0.000	0.000	Entrance Loss Coef:	0.000
Main XSec:			Exit Loss Coef:	0.000
AuxElev1(ft):			Outlet Ctrl Spec:	Use dc or tw
Aux XSec1:			Inlet Ctrl Spec:	Use dn
AuxElev2(ft):			Stabilizer Option:	None
Aux XSec2:				
Top Width(ft):				
Depth(ft):				
Bot Width(ft):	4.000	4.000		
LtSdSlp(h/v):	3.00	3.00		
RtSdSlp(h/v):	3.00	3.00		

Name: DownChute2 | From Node: Sect78 | Length(ft): 1300.00
Group: BASE | To Node: South-node | Count: 1

	UPSTREAM	DOWNSTREAM		
Geometry:	Trapezoidal	Trapezoidal	Friction Equation:	Average Conveyance
Invert(ft):	290.000	138.500	Solution Algorithm:	Automatic
TClpInitZ(ft):	9999.000	9999.000	Flow:	Both
Manning's N:	0.250000	0.250000	Contraction Coef:	0.000
Top Clip(ft):	0.000	0.000	Expansion Coef:	0.000
Bot Clip(ft):	0.000	0.000	Entrance Loss Coef:	0.000
Main XSec:			Exit Loss Coef:	0.000
AuxElev1(ft):			Outlet Ctrl Spec:	Use dc or tw
Aux XSec1:			Inlet Ctrl Spec:	Use dn
AuxElev2(ft):			Stabilizer Option:	None
Aux XSec2:				
Top Width(ft):				
Depth(ft):				
Bot Width(ft):	4.000	4.000		
LtSdSlp(h/v):	3.00	3.00		
RtSdSlp(h/v):	3.00	3.00		

Name: DownChute3 From Node: Area2 Length(ft): 675.00
Group: BASE To Node: BottomChute3 Count: 1

	UPSTREAM	DOWNSTREAM
Geometry:	Trapezoidal	Trapezoidal
Invert(ft):	290.000	140.000
TClpInitZ(ft):	9999.000	9999.000
Manning's N:	0.250000	0.250000
Top Clip(ft):	0.000	0.000
Bot Clip(ft):	0.000	0.000
Main XSec:		
AuxElev1(ft):		
Aux XSec1:		
AuxElev2(ft):		
Aux XSec2:		
Top Width(ft):		
Depth(ft):		
Bot Width(ft):	4.000	4.000
LtSdSlp(h/v):	3.00	3.00
RtSdSlp(h/v):	3.00	3.00

Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Contraction Coef: 0.000
Expansion Coef: 0.000
Entrance Loss Coef: 0.000
Exit Loss Coef: 0.000
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

Name: Spillway-channe From Node: BasinC Length(ft): 22.50
Group: BASE To Node: PrMine Cut Count: 1

	UPSTREAM	DOWNSTREAM
Geometry:	Trapezoidal	Trapezoidal
Invert(ft):	129.000	124.000
TClpInitZ(ft):	9999.000	9999.000
Manning's N:	0.035000	0.035000
Top Clip(ft):	0.000	0.000
Bot Clip(ft):	0.000	0.000
Main XSec:		
AuxElev1(ft):		
Aux XSec1:		
AuxElev2(ft):		
Aux XSec2:		
Top Width(ft):		
Depth(ft):		
Bot Width(ft):	25.000	30.000
LtSdSlp(h/v):	10.00	10.00
RtSdSlp(h/v):	10.00	10.00

Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Contraction Coef: 0.000
Expansion Coef: 0.000
Entrance Loss Coef: 0.000
Exit Loss Coef: 0.000
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

Name: Swale1 From Node: BottomChute1 Length(ft): 2000.00
Group: BASE To Node: South-node Count: 1

	UPSTREAM	DOWNSTREAM
Geometry:	Trapezoidal	Trapezoidal
Invert(ft):	140.000	135.000
TClpInitZ(ft):	9999.000	9999.000
Manning's N:	0.035000	0.035000
Top Clip(ft):	0.000	0.000
Bot Clip(ft):	0.000	0.000
Main XSec:		
AuxElev1(ft):		

Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Contraction Coef: 0.000
Expansion Coef: 0.000
Entrance Loss Coef: 0.000
Exit Loss Coef: 0.000
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn

Aux XSec1:		
AuxElev2(ft):		
Aux XSec2:		
Top Width(ft):		
Depth(ft):		
Bot Width(ft):	10.000	10.000
LtSdSlp(h/v):	3.00	3.00
RtSdSlp(h/v):	3.00	3.00

Stabilizer Option: None

Name: Swale3 From Node: BottomChute3 Length(ft): 2000.00
Group: BASE To Node: P1-node Count: 1

	UPSTREAM	DOWNSTREAM
Geometry:	Trapezoidal	Trapezoidal
Invert(ft):	140.000	129.340
TClpInitZ(ft):	9999.000	9999.000
Manning's N:	0.035000	0.035000
Top Clip(ft):	0.000	0.000
Bot Clip(ft):	0.000	0.000
Main XSec:		
AuxElev1(ft):		
Aux XSec1:		
AuxElev2(ft):		
Aux XSec2:		
Top Width(ft):		
Depth(ft):		
Bot Width(ft):	10.000	10.000
LtSdSlp(h/v):	3.00	3.00
RtSdSlp(h/v):	3.00	3.00

Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Contraction Coef: 0.000
Expansion Coef: 0.000
Entrance Loss Coef: 0.000
Exit Loss Coef: 0.000
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

Name: swale5-link From Node: 5-node Length(ft): 194.00
Group: BASE To Node: 6-node Count: 1

	UPSTREAM	DOWNSTREAM
Geometry:	Trapezoidal	Trapezoidal
Invert(ft):	145.000	144.000
TClpInitZ(ft):	9999.000	9999.000
Manning's N:	0.013000	0.013000
Top Clip(ft):	0.000	0.000
Bot Clip(ft):	0.000	0.000
Main XSec:		
AuxElev1(ft):		
Aux XSec1:		
AuxElev2(ft):		
Aux XSec2:		
Top Width(ft):		
Depth(ft):		
Bot Width(ft):	10.000	10.000
LtSdSlp(h/v):	3.00	3.00
RtSdSlp(h/v):	3.00	3.00

Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Contraction Coef: 0.000
Expansion Coef: 0.000
Entrance Loss Coef: 0.000
Exit Loss Coef: 0.000
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

Name: swale6-link From Node: 7-node Length(ft): 800.00
Group: BASE To Node: BottomChute3 Count: 1

	UPSTREAM	DOWNSTREAM
Geometry:	Trapezoidal	Trapezoidal
Invert(ft):	143.000	140.000
TClpInitZ(ft):	9999.000	9999.000
Manning's N:	0.013000	0.013000
Top Clip(ft):	0.000	0.000
Bot Clip(ft):	0.000	0.000
Main XSec:		
AuxElev1(ft):		
Aux XSec1:		
AuxElev2(ft):		
Aux XSec2:		
Top Width(ft):		
Depth(ft):		
Bot Width(ft):	10.000	10.000
LtSdSlp(h/v):	3.00	3.00
RtSdSlp(h/v):	3.00	3.00

Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Contraction Coef: 0.000
Expansion Coef: 0.000
Entrance Loss Coef: 0.000
Exit Loss Coef: 0.000
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

exiting southwest of storage tank to swale 3

==== Drop Structures ====

Name:
Group: BASE

From Node:
To Node:

Length(ft): 0.00
Count: 1

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	0.00	0.00
Rise(in):	0.00	0.00
Invert(ft):	0.000	0.000
Manning's N:	0.000000	0.000000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.000
Exit Loss Coef: 0.000
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: drop-strct-link
Group: BASE

From Node: BasinC
To Node: manhole-node

Length(ft): 165.00
Count: 1

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	30.00	30.00
Rise(in):	30.00	30.00
Invert(ft):	121.700	121.310
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.500
Exit Loss Coef: 1.000
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

pipe segment

*** Weir 1 of 2 for Drop Structure drop-strct-link ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Horizontal	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.200
Geometry:	Circular	Orifice Disc Coef:	0.600
Span(in):	3.00	Invert(ft):	123.700
Rise(in):	3.00	Control Elev(ft):	123.700

*** Weir 2 of 2 for Drop Structure drop-strct-link ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Horizontal	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.200
Geometry:	Circular	Orifice Disc Coef:	0.600
Span(in):	60.00	Invert(ft):	125.200
Rise(in):	60.00	Control Elev(ft):	125.200

==== Breaches ====

Name:		From Node:	Count: 1
Group:	BASE	To Node:	Flow: Both
Bottom Width(ft):	0.00	Water Surface Elev(ft):	0.000
Left Side Slope(h/v):	0.00	Breach Duration(hrs):	0.00
Right Side Slope(h/v):	0.00	Power Coef:	0.00
Bottom Breach Elev(ft):	0.000	Weir Discharge Coef:	0.000
Top Breach Elev(ft):	0.000		

==== Rating Curves ====

Name:	Pump	From Node: 4-node	Count: 1
Group:	BASE	To Node: 5-node	Flow: Both

	TABLE	ELEV ON(ft)	ELEV OFF(ft)
#1:	Pump	140.250	140.000
#2:		0.000	0.000
#3:		0.000	0.000
#4:		0.000	0.000

submersible pump within storage tank area

==== Hydrology Simulations ====

Name: new
Filename: T:\08449 - Hillsborough\030-02 SCLF General Services\5000 - Leachate Storage Tank ERP\510

Override Defaults: Yes
Storm Duration(hrs): 24.00

Rainfall File: Flmod
Rainfall Amount(in): 8.40

Time(hrs)	Print Inc(min)
24.000	2.00

Routing Simulations

Name: new Hydrology Sim: new
Filename: T:\08449 - Hillsborough\030-02 SCLF General Services\5000 - Leachate Storage Tank ERP\510

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 0.50 Delta Z Factor: 0.00250
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 150.00
Min Calc Time(sec): 0.2500 Max Calc Time(sec): 30.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
12.000	15.000
14.000	5.000
150.000	30.000

Group	Run
BASE	Yes

Boundary Conditions

ICPR
LINK AND NODE MAXIMUM WATER LEVELS AND FLOW

Post Development
Link Maximum Report (After Construction)

Name	Group	Simulation	Max Time Flow hrs	Max Flow cfs	Max Delta Q cfs	Max Time US Stage hrs	Max US Stage ft	Max Time DS Stage hrs	Max DS Stage ft
Channel2	BASE	new	12.34	237.037	-153.270	12.56	130.408	13.11	129.143
CombFlow-link	BASE	new	0.00	661.760	661.760	0.00	138.500	0.00	132.840
Culver1A	BASE	new	23.98	5.017	0.002	23.99	122.782	23.98	121.654
Culvert1	BASE	new	23.99	4.341	0.002	23.99	122.782	23.99	121.479
Culvert2	BASE	new	50.98	3.647	0.001	51.61	121.336	50.98	119.979
Culvert2A	BASE	new	51.17	3.444	0.001	51.61	121.336	51.17	119.893
Culvert3	BASE	new	113.23	4.431	0.004	113.23	108.286	113.23	107.578
Culvert4	BASE	new	113.19	2.216	0.001	113.19	96.145	113.19	95.308
Culvert4A	BASE	new	113.19	2.216	0.001	113.19	96.145	113.19	95.308
DownChute1	BASE	new	12.07	61.592	0.040	12.06	292.871	12.15	141.467
DownChute2	BASE	new	12.09	114.252	0.072	12.09	293.736	12.09	140.400
DownChute3	BASE	new	12.15	119.740	0.078	12.15	293.194	12.15	141.944
drop-strct-link	BASE	new	13.11	46.839	0.259	13.11	129.143	13.11	124.861
northpipe-link	BASE	new	12.01	3.684	0.014	12.01	149.208	12.01	146.520
Outlet Pipe	BASE	new	112.05	2.800	-0.001	113.74	91.488	112.05	91.054
Outlet Pipe2	BASE	new	113.23	1.632	0.001	113.74	91.488	113.23	90.974
Pipe-link	BASE	new	12.34	237.038	-33.498	12.34	134.659	12.34	130.176
Pipe-PrMineCut	BASE	new	13.11	46.839	1.141	13.11	124.861	13.11	123.271
Pump	BASE	new	7.26	0.000	0.000	23.99	142.187	12.07	145.751
S24pipe-link	BASE	new	18.61	0.017	-0.001	18.64	148.063	18.61	147.047
Spillway-channe	BASE	new	13.11	19.982	-0.031	13.11	129.143	13.11	124.129
Swale1	BASE	new	12.16	54.243	0.020	12.15	141.467	0.00	138.500
Swale3	BASE	new	12.23	120.346	-5.731	12.23	141.888	12.34	134.659
swale5-link	BASE	new	12.04	4.265	-0.035	12.07	145.751	12.07	145.730
swale6-link	BASE	new	12.06	8.337	-0.033	12.06	143.275	12.06	140.275
swpipe1-link	BASE	new	12.07	2.451	0.002	12.07	145.730	12.07	143.384
SWpipe2-link	BASE	new	12.07	2.451	0.002	12.07	145.730	12.07	143.384

Post Development
Node Maximum Report (After Construction)

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
1-node	BASE	new	12.01	149.208	149.000	0.0012	149	12.00	3.700	12.01	3.684
10 Ac-node	BASE	new	51.61	121.336	125.000	0.0006	449821	12.07	43.871	51.17	7.090
19 Ac-node	BASE	new	113.23	108.286	120.000	0.0001	879902	12.07	83.576	113.23	4.431
2-node	BASE	new	18.64	148.063	149.750	0.0003	1382	12.00	0.562	18.61	0.017
4-node	BASE	new	23.99	142.187	145.750	0.0003	8257	12.00	3.155	7.26	0.000
5-node	BASE	new	12.07	145.751	148.500	0.0005	1699	12.01	4.533	12.04	4.265
6-node	BASE	new	12.07	145.730	148.750	0.0012	2186	12.03	5.102	12.07	4.901
7-node	BASE	new	12.06	143.275	144.750	0.0001	4989	12.03	8.479	12.06	8.337
Area2	BASE	new	12.15	293.194	298.000	0.0012	7297	12.13	120.365	12.15	119.740
BasinC	BASE	new	13.11	129.143	130.000	-0.0008	191537	12.32	248.438	13.11	66.822
BottomChute1	BASE	new	12.15	141.467	145.000	0.0004	28742	12.07	61.592	12.16	54.243
BottomChute3	BASE	new	12.23	141.888	145.000	0.0009	36589	12.14	127.275	12.23	120.346
Dischrg-Bound	BASE	new	0.00	90.000	92.000	0.0000	10	113.23	4.432	0.00	0.000
manhole-node	BASE	new	13.11	124.861	126.000	-0.0012	212	13.11	46.839	13.11	46.839
P1-node	BASE	new	12.34	134.659	135.000	0.0170	40145	0.00	661.760	12.34	237.038
P2-node	BASE	new	12.56	130.408	135.000	0.0248	1727	12.34	237.038	12.34	237.037
PrMine Cut	BASE	new	23.99	122.782	125.000	0.0002	4802813	12.66	259.835	23.99	9.358
Sect78	BASE	new	12.09	293.736	298.000	0.0012	15494	12.03	119.519	12.09	114.252
Sect9	BASE	new	12.06	292.871	300.000	0.0012	12464	12.00	65.132	12.07	61.592
South-node	BASE	new	0.00	138.500	145.000	-0.0057	29043	12.11	166.279	0.00	661.760
swale4	BASE	new	113.19	96.145	109.000	0.0001	12304	113.23	4.431	113.19	4.432
WestSideCut	BASE	new	113.74	91.488	102.000	0.0001	6981	113.19	4.432	113.23	4.432

LITTORAL ZONE CALCULATION

JONES EDMUNDS
ENGINEERS | ARCHITECTS | SCIENTISTS

PROJECT NUMBER: 08499-030-02 SHEET 1 OF 1
PROJECT NAME: Hillsborough County ERP
BY: JRF DATE: 06/11/08
SUBJECT: LITTORAL ZONE CALCULATION
CHECKED BY: _____ DATE: _____

PROBLEM: VERIFY CONSTRUCTED LITTORAL ZONE MEETS LITTORAL ZONE REQUIREMENTS.

METHOD: AREA AT WATER TABLE ELEVATION (123.7 FT NGVD) = 143730 FT²

LITTORAL ZONE MINIMUM REQUIREMENT = 143730 FT² × 35% = 50305.5 FT²

CONSTRUCTED LITTORAL ZONE = 64,980 FT²

$$\frac{64{,}980 \text{ FT}^2}{143730 \text{ FT}^2} \times 100 = 45\ \%$$

SOLUTION: The CONSTRUCTED LITTORAL ZONE IS 45 % of The POND SURFACE WITH ELEVATIONS FROM 121.7 TO 123.7 FT NGVD, EXCEEDING ERP LITTORAL ZONE REQUIREMENT

TREATMENT VOLUME CALCULATION

JONES EDMUNDS
ENGINEERS | ARCHITECTS | SCIENTISTS

PROJECT NUMBER: 0849-030-01 SHEET 1 OF 1
PROJECT NAME: SECTION 5
BY: HHD DATE: 6/11/09
SUBJECT: CONFIRM TREATMENT VOLUMES
CHECKED BY: _____ DATE: _____

DETERMINE / RECONFIRM TREATMENT VOLUME

$V = \left(\sqrt{A_1 * A_2} + A_1 + A_2\right) 1/3$ EQUATION FOR TRUNCATED PYRAMID

FROM AS-BUILT SURVEY FROM SOUTHEASTERN CADD AREA TAKEN AND SHOWN BELOW

		ELEV	AREA
CONTROL ELEVATION (CE)	EL	123.7	143,730 SF
T.V. (18" + CE)	EL	125.2	158,948.6

EL 125 157,314
125.2 158,948.6
126 165,487

$TV = \left(\sqrt{158,948.6 * 143,730} + 143,730 + 158,948.6\right) \frac{1.5}{3}$

T.V. provided = 226,913 FT^3 (5.21 FT).

T.V. required = 224,049 (5.14 AC-FT)

61.72 AC x 1/12 = 5.14 AC-FT

T.V. provided > T.V. required

OK

DRAWDOWN CALCULATIONS

Drawdown Simulation

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
drawdown	BasinC	BASE	0.00	125.200	130.000	159977	16.467	0.289	0.0	0.0
drawdown	BasinC	BASE	0.25	125.475	130.000	162261	25.043	7.558	0.4	0.1
drawdown	BasinC	BASE	0.50	125.494	130.000	162396	4.783	8.341	0.7	0.2
drawdown	BasinC	BASE	0.75	125.466	130.000	162153	1.432	7.202	0.8	0.4
drawdown	BasinC	BASE	1.00	125.434	130.000	161890	0.594	6.016	0.8	0.5
drawdown	BasinC	BASE	1.25	125.406	130.000	161655	0.312	5.017	0.8	0.7
drawdown	BasinC	BASE	1.50	125.382	130.000	161451	0.059	4.203	0.8	0.8
drawdown	BasinC	BASE	1.75	125.361	130.000	161275	0.012	3.539	0.8	0.8
drawdown	BasinC	BASE	2.00	125.342	130.000	161125	0.010	3.005	0.8	0.9
drawdown	BasinC	BASE	2.25	125.327	130.000	160994	0.007	2.568	0.8	1.0
drawdown	BasinC	BASE	2.50	125.314	130.000	160886	0.007	2.224	0.8	1.0
drawdown	BasinC	BASE	2.75	125.302	130.000	160790	0.011	1.936	0.8	1.0
drawdown	BasinC	BASE	3.00	125.292	130.000	160705	0.004	1.695	0.8	1.1
drawdown	BasinC	BASE	3.25	125.283	130.000	160631	0.004	1.496	0.8	1.1
drawdown	BasinC	BASE	3.50	125.275	130.000	160566	0.004	1.328	0.8	1.1
drawdown	BasinC	BASE	3.75	125.268	130.000	160508	0.004	1.186	0.8	1.2
drawdown	BasinC	BASE	4.00	125.262	130.000	160456	0.004	1.065	0.8	1.2
drawdown	BasinC	BASE	4.25	125.256	130.000	160409	0.004	0.961	0.8	1.2
drawdown	BasinC	BASE	4.50	125.251	130.000	160367	0.003	0.871	0.8	1.2
drawdown	BasinC	BASE	4.75	125.246	130.000	160328	0.003	0.794	0.8	1.3
drawdown	BasinC	BASE	5.00	125.242	130.000	160293	0.003	0.726	0.8	1.3
drawdown	BasinC	BASE	5.25	125.238	130.000	160261	0.003	0.667	0.8	1.3
drawdown	BasinC	BASE	5.50	125.235	130.000	160231	0.002	0.615	0.8	1.3
drawdown	BasinC	BASE	5.75	125.231	130.000	160204	0.002	0.569	0.8	1.3
drawdown	BasinC	BASE	6.00	125.228	130.000	160179	0.002	0.530	0.8	1.3
drawdown	BasinC	BASE	6.25	125.225	130.000	160155	0.002	0.494	0.8	1.3
drawdown	BasinC	BASE	6.50	125.223	130.000	160132	0.002	0.462	0.8	1.3
drawdown	BasinC	BASE	6.75	125.220	130.000	160112	0.002	0.435	0.8	1.4
drawdown	BasinC	BASE	7.00	125.218	130.000	160092	0.001	0.410	0.8	1.4
drawdown	BasinC	BASE	7.25	125.216	130.000	160074	0.001	0.388	0.8	1.4
drawdown	BasinC	BASE	7.50	125.213	130.000	160056	0.001	0.369	0.8	1.4
drawdown	BasinC	BASE	7.75	125.211	130.000	160040	0.001	0.351	0.8	1.4
drawdown	BasinC	BASE	8.00	125.209	130.000	160024	0.001	0.336	0.8	1.4
drawdown	BasinC	BASE	8.25	125.208	130.000	160008	0.001	0.323	0.8	1.4
drawdown	BasinC	BASE	8.50	125.206	130.000	159994	0.001	0.312	0.8	1.4
drawdown	BasinC	BASE	8.75	125.204	130.000	159979	0.001	0.303	0.8	1.4
drawdown	BasinC	BASE	9.00	125.202	130.000	159966	0.001	0.296	0.8	1.4
drawdown	BasinC	BASE	9.25	125.201	130.000	159952	0.001	0.290	0.8	1.4
drawdown	BasinC	BASE	9.50	125.199	130.000	159938	0.001	0.289	0.8	1.4
drawdown	BasinC	BASE	9.75	125.198	130.000	159925	0.001	0.289	0.8	1.4
drawdown	BasinC	BASE	10.00	125.196	130.000	159912	0.001	0.289	0.8	1.4
drawdown	BasinC	BASE	10.25	125.194	130.000	159898	0.001	0.289	0.8	1.4

Drawdown Simulation

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
drawdown	BasinC	BASE	10.50	125.193	130.000	159885	0.001	0.289	0.8	1.5
drawdown	BasinC	BASE	10.75	125.191	130.000	159871	0.001	0.288	0.8	1.5
drawdown	BasinC	BASE	11.00	125.189	130.000	159858	0.001	0.288	0.8	1.5
drawdown	BasinC	BASE	11.25	125.188	130.000	159845	0.000	0.288	0.8	1.5
drawdown	BasinC	BASE	11.50	125.186	130.000	159831	0.000	0.288	0.8	1.5
drawdown	BasinC	BASE	11.75	125.185	130.000	159818	0.000	0.288	0.8	1.5
drawdown	BasinC	BASE	12.00	125.183	130.000	159804	0.000	0.288	0.8	1.5
drawdown	BasinC	BASE	12.25	125.181	130.000	159791	0.000	0.287	0.8	1.5
drawdown	BasinC	BASE	12.34	125.181	130.000	159786	0.000	0.287	0.8	1.5
drawdown	BasinC	BASE	12.42	125.180	130.000	159782	0.000	0.287	0.8	1.5
drawdown	BasinC	BASE	12.50	125.180	130.000	159778	0.000	0.287	0.8	1.5
drawdown	BasinC	BASE	12.59	125.179	130.000	159773	0.000	0.287	0.8	1.5
drawdown	BasinC	BASE	12.67	125.179	130.000	159769	0.000	0.287	0.8	1.5
drawdown	BasinC	BASE	12.75	125.178	130.000	159764	0.000	0.287	0.8	1.5
drawdown	BasinC	BASE	12.83	125.178	130.000	159760	0.000	0.287	0.8	1.5
drawdown	BasinC	BASE	12.92	125.177	130.000	159755	0.000	0.287	0.8	1.5
drawdown	BasinC	BASE	13.00	125.176	130.000	159751	0.000	0.287	0.8	1.5
drawdown	BasinC	BASE	13.09	125.176	130.000	159746	0.000	0.287	0.8	1.5
drawdown	BasinC	BASE	13.17	125.175	130.000	159742	0.000	0.287	0.8	1.5
drawdown	BasinC	BASE	13.25	125.175	130.000	159737	0.000	0.287	0.8	1.5
drawdown	BasinC	BASE	13.33	125.174	130.000	159733	0.000	0.287	0.8	1.5
drawdown	BasinC	BASE	13.42	125.174	130.000	159728	0.000	0.287	0.8	1.5
drawdown	BasinC	BASE	13.50	125.173	130.000	159724	0.000	0.287	0.8	1.5
drawdown	BasinC	BASE	13.58	125.173	130.000	159720	0.000	0.287	0.8	1.5
drawdown	BasinC	BASE	13.67	125.172	130.000	159715	0.000	0.287	0.8	1.5
drawdown	BasinC	BASE	13.75	125.172	130.000	159711	0.000	0.287	0.8	1.5
drawdown	BasinC	BASE	13.83	125.171	130.000	159706	0.000	0.286	0.8	1.5
drawdown	BasinC	BASE	13.92	125.171	130.000	159702	0.000	0.286	0.8	1.5
drawdown	BasinC	BASE	14.00	125.170	130.000	159697	0.000	0.286	0.8	1.5
drawdown	BasinC	BASE	14.50	125.167	130.000	159671	0.000	0.286	0.8	1.5
drawdown	BasinC	BASE	15.00	125.164	130.000	159644	0.000	0.286	0.8	1.6
drawdown	BasinC	BASE	15.50	125.160	130.000	159617	0.000	0.285	0.8	1.6
drawdown	BasinC	BASE	16.00	125.157	130.000	159591	0.000	0.285	0.8	1.6
drawdown	BasinC	BASE	16.50	125.154	130.000	159564	0.000	0.285	0.8	1.6
drawdown	BasinC	BASE	17.00	125.151	130.000	159538	0.000	0.285	0.8	1.6
drawdown	BasinC	BASE	17.50	125.148	130.000	159511	0.000	0.284	0.8	1.6
drawdown	BasinC	BASE	18.00	125.144	130.000	159485	0.000	0.284	0.8	1.6
drawdown	BasinC	BASE	18.50	125.141	130.000	159458	0.000	0.284	0.8	1.6
drawdown	BasinC	BASE	19.00	125.138	130.000	159432	0.000	0.283	0.8	1.7
drawdown	BasinC	BASE	19.50	125.135	130.000	159405	0.000	0.283	0.8	1.7
drawdown	BasinC	BASE	20.00	125.132	130.000	159379	0.000	0.283	0.8	1.7
drawdown	BasinC	BASE	20.50	125.128	130.000	159352	0.000	0.282	0.8	1.7

Drawdown Simulation

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
drawdown	BasinC	BASE	21.00	125.125	130.000	159326	0.000	0.282	0.8	1.7
drawdown	BasinC	BASE	21.50	125.122	130.000	159300	0.000	0.282	0.8	1.7
drawdown	BasinC	BASE	22.00	125.119	130.000	159273	0.000	0.281	0.8	1.7
drawdown	BasinC	BASE	22.50	125.116	130.000	159247	0.000	0.281	0.8	1.7
drawdown	BasinC	BASE	23.00	125.112	130.000	159221	0.000	0.281	0.8	1.7
drawdown	BasinC	BASE	23.50	125.109	130.000	159195	0.000	0.280	0.8	1.8
drawdown	BasinC	BASE	24.00	125.106	130.000	159168	0.000	0.280	0.8	1.8
drawdown	BasinC	BASE	24.50	125.103	130.000	159142	0.000	0.280	0.8	1.8
drawdown	BasinC	BASE	25.00	125.100	130.000	159116	0.000	0.279	0.8	1.8
drawdown	BasinC	BASE	25.50	125.097	130.000	159090	0.000	0.279	0.8	1.8
drawdown	BasinC	BASE	26.00	125.093	130.000	159064	0.000	0.279	0.8	1.8
drawdown	BasinC	BASE	26.50	125.090	130.000	159038	0.000	0.279	0.8	1.8
drawdown	BasinC	BASE	27.00	125.087	130.000	159012	0.000	0.278	0.8	1.8
drawdown	BasinC	BASE	27.50	125.084	130.000	158985	0.000	0.278	0.8	1.9
drawdown	BasinC	BASE	28.00	125.081	130.000	158959	0.000	0.278	0.8	1.9
drawdown	BasinC	BASE	28.50	125.078	130.000	158933	0.000	0.277	0.8	1.9
drawdown	BasinC	BASE	29.00	125.075	130.000	158907	0.000	0.277	0.8	1.9
drawdown	BasinC	BASE	29.50	125.071	130.000	158882	0.000	0.277	0.8	1.9
drawdown	BasinC	BASE	30.00	125.068	130.000	158856	0.000	0.276	0.8	1.9
drawdown	BasinC	BASE	30.50	125.065	130.000	158830	0.000	0.276	0.8	1.9
drawdown	BasinC	BASE	31.00	125.062	130.000	158804	0.000	0.276	0.8	1.9
drawdown	BasinC	BASE	31.50	125.059	130.000	158778	0.000	0.275	0.8	1.9
drawdown	BasinC	BASE	32.00	125.056	130.000	158752	0.000	0.275	0.8	2.0
drawdown	BasinC	BASE	32.50	125.053	130.000	158726	0.000	0.275	0.8	2.0
drawdown	BasinC	BASE	33.00	125.050	130.000	158701	0.000	0.274	0.8	2.0
drawdown	BasinC	BASE	33.50	125.046	130.000	158675	0.000	0.274	0.8	2.0
drawdown	BasinC	BASE	34.00	125.043	130.000	158649	0.000	0.274	0.8	2.0
drawdown	BasinC	BASE	34.50	125.040	130.000	158623	0.000	0.273	0.8	2.0
drawdown	BasinC	BASE	35.00	125.037	130.000	158598	0.000	0.273	0.8	2.0
drawdown	BasinC	BASE	35.50	125.034	130.000	158572	0.000	0.273	0.8	2.0
drawdown	BasinC	BASE	36.00	125.031	130.000	158547	0.000	0.273	0.8	2.0
drawdown	BasinC	BASE	36.50	125.028	130.000	158521	0.000	0.272	0.8	2.1
drawdown	BasinC	BASE	37.00	125.025	130.000	158495	0.000	0.272	0.8	2.1
drawdown	BasinC	BASE	37.50	125.022	130.000	158470	0.000	0.272	0.8	2.1
drawdown	BasinC	BASE	38.00	125.019	130.000	158444	0.000	0.271	0.8	2.1
drawdown	BasinC	BASE	38.50	125.016	130.000	158419	0.000	0.271	0.8	2.1
drawdown	BasinC	BASE	39.00	125.012	130.000	158393	0.000	0.271	0.8	2.1
drawdown	BasinC	BASE	39.50	125.009	130.000	158368	0.000	0.270	0.8	2.1
drawdown	BasinC	BASE	40.00	125.006	130.000	158343	0.000	0.270	0.8	2.1
drawdown	BasinC	BASE	40.50	125.003	130.000	158317	0.000	0.270	0.8	2.1
drawdown	BasinC	BASE	41.00	125.000	130.000	158292	0.000	0.269	0.8	2.2
drawdown	BasinC	BASE	41.50	124.997	130.000	158265	0.000	0.269	0.8	2.2

Drawdown Simulation

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
drawdown	BasinC	BASE	42.00	124.994	130.000	158239	0.000	0.269	0.8	2.2
drawdown	BasinC	BASE	42.50	124.991	130.000	158212	0.000	0.268	0.8	2.2
drawdown	BasinC	BASE	43.00	124.988	130.000	158185	0.000	0.268	0.8	2.2
drawdown	BasinC	BASE	43.50	124.985	130.000	158159	0.000	0.268	0.8	2.2
drawdown	BasinC	BASE	44.00	124.982	130.000	158132	0.000	0.267	0.8	2.2
drawdown	BasinC	BASE	44.50	124.979	130.000	158106	0.000	0.267	0.8	2.2
drawdown	BasinC	BASE	45.00	124.976	130.000	158079	0.000	0.267	0.8	2.2
drawdown	BasinC	BASE	45.50	124.973	130.000	158053	0.000	0.266	0.8	2.3
drawdown	BasinC	BASE	46.00	124.970	130.000	158026	0.000	0.266	0.8	2.3
drawdown	BasinC	BASE	46.50	124.967	130.000	158000	0.000	0.266	0.8	2.3
drawdown	BasinC	BASE	47.00	124.964	130.000	157974	0.000	0.266	0.8	2.3
drawdown	BasinC	BASE	47.50	124.961	130.000	157947	0.000	0.265	0.8	2.3
drawdown	BasinC	BASE	48.00	124.958	130.000	157921	0.000	0.265	0.8	2.3
drawdown	BasinC	BASE	48.50	124.955	130.000	157895	0.000	0.265	0.8	2.3
drawdown	BasinC	BASE	49.00	124.952	130.000	157869	0.000	0.264	0.8	2.3
drawdown	BasinC	BASE	49.50	124.949	130.000	157842	0.000	0.264	0.8	2.3
drawdown	BasinC	BASE	50.00	124.946	130.000	157816	0.000	0.264	0.8	2.4
drawdown	BasinC	BASE	50.50	124.943	130.000	157790	0.000	0.263	0.8	2.4
drawdown	BasinC	BASE	51.00	124.940	130.000	157764	0.000	0.263	0.8	2.4
drawdown	BasinC	BASE	51.50	124.937	130.000	157738	0.000	0.263	0.8	2.4
drawdown	BasinC	BASE	52.00	124.934	130.000	157711	0.000	0.262	0.8	2.4
drawdown	BasinC	BASE	52.50	124.931	130.000	157685	0.000	0.262	0.8	2.4
drawdown	BasinC	BASE	53.00	124.928	130.000	157659	0.000	0.262	0.8	2.4
drawdown	BasinC	BASE	53.50	124.925	130.000	157633	0.000	0.261	0.8	2.4
drawdown	BasinC	BASE	54.00	124.922	130.000	157607	0.000	0.261	0.8	2.4
drawdown	BasinC	BASE	54.50	124.919	130.000	157581	0.000	0.261	0.8	2.5
drawdown	BasinC	BASE	55.00	124.916	130.000	157555	0.000	0.260	0.8	2.5
drawdown	BasinC	BASE	55.50	124.913	130.000	157529	0.000	0.260	0.8	2.5
drawdown	BasinC	BASE	56.00	124.910	130.000	157504	0.000	0.260	0.8	2.5
drawdown	BasinC	BASE	56.50	124.907	130.000	157478	0.000	0.259	0.8	2.5
drawdown	BasinC	BASE	57.00	124.904	130.000	157452	0.000	0.259	0.8	2.5
drawdown	BasinC	BASE	57.50	124.901	130.000	157426	0.000	0.259	0.8	2.5
drawdown	BasinC	BASE	58.00	124.898	130.000	157400	0.000	0.259	0.8	2.5
drawdown	BasinC	BASE	58.50	124.895	130.000	157375	0.000	0.258	0.8	2.5
drawdown	BasinC	BASE	59.00	124.892	130.000	157349	0.000	0.258	0.8	2.5
drawdown	BasinC	BASE	59.50	124.889	130.000	157323	0.000	0.258	0.8	2.6
drawdown	BasinC	BASE	60.00	124.886	130.000	157298	0.000	0.257	0.8	2.6
drawdown	BasinC	BASE	60.50	124.883	130.000	157272	0.000	0.257	0.8	2.6
drawdown	BasinC	BASE	61.00	124.880	130.000	157246	0.000	0.257	0.8	2.6
drawdown	BasinC	BASE	61.50	124.877	130.000	157221	0.000	0.256	0.8	2.6
drawdown	BasinC	BASE	62.00	124.874	130.000	157195	0.000	0.256	0.8	2.6
drawdown	BasinC	BASE	62.50	124.871	130.000	157170	0.000	0.256	0.8	2.6