



**SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE PERMIT NO. 49-01210-P
DATE ISSUED: November 30, 2015**

PERMITTEE: CITY OF KISSIMMEE
101 NORTH CHURCH STREET
KISSIMMEE, FL 34741

PROJECT DESCRIPTION: This Environmental Resource Permit Modification authorizes construction and operation of a stormwater management system serving 2.98 acres of government development for a project known as Emory Avenue Stormwater Pond.

PROJECT LOCATION: OSCEOLA COUNTY, SEC 21 TWP 25S RGE 29E

PERMIT DURATION: See Special Condition No:1.

This is to notify you of the District's agency action for Permit Application No. 150728-17, dated July 28, 2015. This action is taken pursuant to the provisions of Chapter 373, Part IV, Florida Statutes (F.S).

Based on the information provided, District rules have been adhered to and an Environmental Resource Permit is in effect for this project subject to:

1. Not receiving a filed request for a Chapter 120, Florida Statutes, administrative hearing.
2. the attached 18 General Conditions (See Pages : 2 - 4 of 5),
3. the attached 12 Special Conditions (See Pages : 5 - 5 of 5) and
4. the attached 6 Exhibit(s)

Should you object to these conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights," we will assume that you concur with the District's action.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY THAT this written notice has been mailed or electronically transmitted to the Permittee (and the persons listed in the attached distribution list) this , in accordance with Section 120.60(3), F.S. Notice was also electronically posted on this date through a link on the home page of the District's website (my.sfwmd.gov/Permitting).

BY: 
Charles Walter, P.G.
Regulatory Administrator
Orlando Service Center

GENERAL CONDITIONS

1. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with Rule 62-330.315, F.A.C. Any deviations that are not so authorized shall subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S. (2012).
2. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the Agency staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.
3. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the "State of Florida Erosion and Sediment Control Designer and Reviewer Manual" (Florida Department of Environmental Protection and Florida Department of Transportation June 2007), and the "Florida Stormwater Erosion and Sedimentation Control Inspector's Manual" (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.
4. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the Agency a fully executed Form 62-330.350(1), "Construction Commencement Notice" indicating the expected start and completion dates. If available, an Agency website that fulfills this notification requirement may be used in lieu of the form.
5. Unless the permit is transferred under Rule 62-330.340, F.A.C., or transferred to an operating entity under Rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms and conditions of the permit for the life of the project or activity.
6. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:
 - a. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex- "Construction Completion and Inspection Certification for Activities Associated With a Private Single-Family Dwelling Unit"[Form 62-330.310(3)]; or
 - b. For all other activities- "As-Built Certification and Request for Conversion to Operational Phase" [Form 62-330.310(1)].
 - c. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.
7. If the final operation and maintenance entity is a third party:
 - a. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as- built certification, whichever comes first, the permittee shall submit, as applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.3 of Applicant's Handbook Volume I) as filed with the Department of State, Division of Corporations and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.
 - b. Within 30 days of submittal of the as- built certification, the permittee shall submit "Request for Transfer of Environmental Resource Permit to the Perpetual Operation Entity" [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.
8. The permittee shall notify the Agency in writing of changes required by any other regulatory agency that

GENERAL CONDITIONS

require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.

9. This permit does not:
 - a. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in Chapter 62-330, F.A.C.;
 - b. Convey to the permittee or create in the permittee any interest in real property;
 - c. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or
 - d. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.
10. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.
11. The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.
12. The permittee shall notify the Agency in writing:
 - a. Immediately if any previously submitted information is discovered to be inaccurate; and
 - b. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.
13. Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.
14. If any prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, work involving subsurface disturbance in the immediate vicinity of such discoveries shall cease. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section, at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Such subsurface work shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and notification shall be provided in accordance with Section 872.05, F.S.
15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.
16. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other

GENERAL CONDITIONS

uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.

17. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the Agency will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.
18. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with Rule 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

SPECIAL CONDITIONS

1. The construction phase of this permit shall expire on **11/30/2020**
2. Operation and maintenance of the stormwater management system shall be the responsibility of the City of Kissimmee.
3. Discharge Facilities:

As shown on Pages 3-6 of Exhibit No. 2.
4. Lake side slopes shall be no steeper than 4:1 (horizontal:vertical) to a depth of two feet below the control elevation. Side slopes shall be nurtured or planted from 2 feet below to 1 foot above control elevation to insure vegetative growth, unless shown on the plans.
5. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.
6. Prior to initiating construction activities associated with this Environmental Resource Permit (ERP), the permittee is required to hold a pre-construction meeting with field representatives, consultants, contractors, District Environmental Resource Compliance (ERC) staff, and any other local government entities as necessary.

The purpose of the pre-construction meeting is to discuss construction methods, sequencing, best management practices, identify work areas, staking and roping of preserves where applicable, and to facilitate coordination and assistance amongst relevant parties.

To schedule a pre-construction meeting, please contact ERC staff from the Orlando Service Center at (407) 858-6100 or via e-mail at: pre-con@sfwmd.gov. When sending a request for a pre-construction meeting, please include the application number, permit number, and contact name and phone number.

7. Flood plain compensation storage for this phase of construction shall be constructed and operational prior to the placement of any fill between the average wet season water table elevation and the 100 year flood elevation that would adversely affect the rights of others.
8. The exhibits and special conditions in this permit apply only to this application. They do not supersede or delete any requirements for other applications covered in Permit No. 49-01210-P unless otherwise specified herein.
9. Minimum building floor elevation: See Exhibit 5
10. Minimum road crown elevation: See Exhibit 5
11. Minimum road crown elevation: See Exhibit 5
12. The following are exhibits to this permit. Exhibits noted as incorporated by reference are available on the District's ePermitting website (<http://my.sfwmd.gov/ePermitting>) under this application number.
Exhibit No. 1 Location Map
Exhibit No. 2 Drainage Plans, Pages 1 - 14
Exhibit No. 3 Water Quality, Pages 1-2
Exhibit No. 4 Allowable Discharge Calculations, Page 1
Exhibit No. 5 Summary of Flood Routing Results, Page 1
Exhibit No. 6 Flood Plain Compensation, Pages 1-2

Last Date For Agency Action: December 1, 2015

INDIVIDUAL ENVIRONMENTAL RESOURCE PERMIT STAFF REPORT

Project Name: Emory Avenue Stormwater Pond
Permit No.: 49-01210-P
Application No.: 150728-17
Application Type: Environmental Resource (Construction/Operation Modification)
Location: Osceola County, S21/T25S/R29E
Permittee : City Of Kissimmee
Operating Entity : City Of Kissimmee
Project Area: 2.98 acres
Permit Area: 2.98 acres
Project Land Use: Government
Drainage Basin: LAKE TOHOPEKALIGA
Receiving Body: Lake Tohopekilaga via Stormwater Pond and Emory Avenue Ditch
Special Drainage District: NA
Conservation Easement To District : No
Sovereign Submerged Lands: No

PROJECT SUMMARY:

This Environmental Resource Permit Modification authorizes construction and operation of a stormwater management system serving 2.98 acres of government development for a project known as Emory Avenue Stormwater Pond.

This modification is for construction of a wet detention stormwater pond with diversion weir, and outfall control structure that will provide flood storage and water quality treatment for the existing Emory Avenue Ditch.

The Pond will provide water quality treatment and compensatory storage for future upstream development within the contributing drainage basin to the Emory Avenue Ditch.

The datum conversion equation from the previously approved Application No. 020311-13 datum in NGVD '29, is NAVD '88 = NGVD '29 -0 .94'.

Issuance of this permit constitutes certification of compliance with state water quality standards in accordance with Rule 62-330.062 Florida Administrative Code (F.A.C.).

PROJECT EVALUATION:**PROJECT SITE DESCRIPTION:**

The project will be located just to the west of the existing Emory Avenue Ditch on a vacant lot along Emory Avenue, between Martin Luther King Blvd. and Mabbette St. Refer to Exhibit 1 for a location map.

There are no wetlands or other surface waters located within the project area or affected by this project.

BACKGROUND:

The existing Emory Avenue Ditch conveys stormwater from mostly closed secondary stormwater systems over an approximately six square mile urbanized landscape to Lake Tohopekaliga. Previously issued Application No. 020311-13 authorized improvements including piping and ditch bottom inlets. Subsequent improvements were intended to maximize the conveyance of the ditch while providing needed bank stabilization.

WATER QUANTITY :**Discharge Rate :**

This modification is for a 2.98 acre project that involves the construction of an offline wet detention stormwater pond that will provide flood storage and water quality treatment for the existing Emory Avenue Ditch and as such is not limited to a specific discharge rate. Most importantly and as shown in Exhibit 4, there should be no increase in the peak discharge rate from the system as a result of the project.

Discharge Storm Frequency : 10 YEAR-3 DAY

Design Rainfall : 9.51 inches

Finished Floors :

As shown in Exhibit No.5, the improvements will cause no net rise in 100-year, 72-hour peak stages upstream of the Martin Luther King Jr. Boulevard, West King Boulevard, and Mabbette Street crossings of the Emory Avenue Ditch.

Building Storm Frequency : 100 YEAR-3 DAY

Design Rainfall : 14.95 inches

Road Design :

As shown in Exhibit No.5, the improvements will cause no net rise in 10-year, 24-hour peak stages upstream of the Martin Luther King Jr. Boulevard, West King Boulevard, and Mabbette Street crossings of the Emory Avenue Ditch.

Road Storm Frequency : 10 YEAR-1 DAY

Design Rainfall: 5.5 inches

Parking Lot Design :

As shown in Exhibit No.5, the improvements will cause no net rise in 10-year, 24-hour peak stages upstream of the Martin Luther King Jr. Boulevard, West King Boulevard, and Mabbette Street crossings of the Emory Avenue Ditch.

Flood Plain/Compensating Storage:

The permittee submitted calculations to demonstrate that the proposed project provides 9.72 AF of 100-year flood plain storage to offset future City of Kissimmee project floodplain encroachment within the same basin. Please see Exhibit 6.

Displaced Volume	Compensating Volume	100-Year Stage Elevation
0 ac-ft	9.72 ac-ft	63.45 ft-NAVD 88

Control Elevation :

Basin	Area (Acres)	Ctrl Elev (ft, NAVD 88)	WSWT Ctrl Elev (ft, NAVD 88)	Method Of Determination
Post-Pond	2.73	55	55.00	Adjacent Canal Control Elevation

WATER QUALITY :

No adverse impacts are anticipated as a result of the proposed project.

Water quality treatment for the greater of 1 inch over the basin area or 2.5 inches times the percentage of imperviousness is provided in the wet detention pond (Exhibit 3).

Pursuant to Appendix E of Volume II, the water quality treatment volume provided includes an additional 50% treatment volume above the requirements in Section 4.2 of Volume II to provide reasonable assurance that the project will (not have an adverse impact on the quality of the downstream receiving body/ provide net improvement to water quality in the downstream water body.

In addition to the required water quality treatment volume, the applicant provided pollutant loading calculations to demonstrate that the storm water management system reduces the post development loading of total phosphorous to levels less than the loadings generated under the predevelopment condition. The pollutant loading calculations are based upon the removal characteristics associated with the system.

Basin	Treatment Method		Vol Req.d (ac-ft)	Vol Prov'd
Post-Pond	Treatment	Wet Detention	.75 acres .34	1.65

CERTIFICATION, OPERATION, AND MAINTENANCE:

Pursuant to Chapter 62-330.310 Florida Administrative Code (F.A.C.), Individual Permits will not be converted from the construction phase to the operation phase until construction completion certification of the project is submitted to and accepted by the District. This includes compliance with all permit conditions, except for any long term maintenance and monitoring requirements. It is suggested that the permittee retain the services of an appropriate professional registered in the State of Florida for periodic observation of construction of the project.

For projects permitted with an operating entity that is different from the permittee, it should be noted that until the construction completion certification is accepted by the District and the permit is transferred to an acceptable operating entity pursuant to Sections 12.1-12.3 of the Applicant's Handbook Volume I and Section 62-330.310, F.A.C., the permittee is liable for operation and maintenance in compliance with the terms and conditions of this permit.

In accordance with Section 373.416(2), F.S., unless revoked or abandoned, all stormwater management systems and works permitted under Part IV of Chapter 373, F.S., must be operated and maintained in perpetuity.

The efficiency of stormwater management systems, dams, impoundments, and most other project components will decrease over time without periodic maintenance. The operation and maintenance entity

must perform periodic inspections to identify if there are any deficiencies in structural integrity, degradation due to insufficient maintenance, or improper operation of projects that may endanger public health, safety, or welfare, or the water resources. If deficiencies are found, the operation and maintenance entity will be responsible for correcting the deficiencies in a timely manner to prevent compromises to flood protection and water quality. See Section 12.4 of Applicant's Handbook Volume I for Minimum Operation and Maintenance Standards.

RELATED CONCERNS:**Water Use Permit Status:**

The applicant has indicated that dewatering is required for construction of this project.

The applicant has demonstrated that proposed dewatering qualifies for the permit by rule under Rule 40E-2.061, F.A.C.

This permit does not release the permittee from obtaining all necessary Water Use authorization(s) prior to the commencement of activities which will require such authorization, including construction dewatering and irrigation.

CERP:

The proposed project is not located within or adjacent to a Comprehensive Everglades Restoration Project component.

Right-Of-Way Permit Status:

A District Right-of-Way Permit is not required for this project.

Historical/Archeological Resources:

The District has received correspondence from the Florida Department of State, Division of Historical Resources indicating that no significant archaeological or historical resources are recorded in the project area and the project is therefore unlikely to have an effect upon any such properties.

DEO/CZM Consistency Review:

The issuance of this permit constitutes a finding of consistency with the Florida Coastal Management Program.

Third Party Interest:

No third party has contacted the District with concerns about this application.

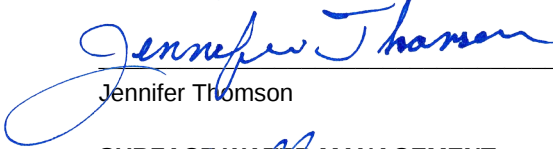
Enforcement:

There has been no enforcement activity associated with this application.

STAFF REVIEW:

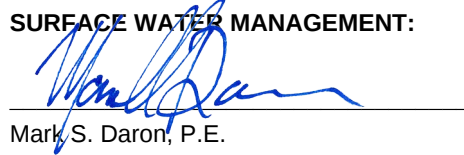
DIVISION APPROVAL:

NATURAL RESOURCE MANAGEMENT:


Jennifer Thomson

DATE: November 24, 2015

SURFACE WATER MANAGEMENT:


Mark S. Daron, P.E.

DATE: November 24, 2015

NOTICE OF RIGHTS

As required by Sections 120.569 and 120.60(3), Fla. Stat., the following is notice of the opportunities which may be available for administrative hearing or judicial review when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Not all of the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Fla. Stat. Persons seeking a hearing on a SFWMD decision which affects or may affect their substantial interests shall file a petition for hearing with the Office of the District Clerk of the SFWMD, in accordance with the filing instructions set forth herein, within 21 days of receipt of written notice of the decision, unless one of the following shorter time periods apply: (1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Fla. Stat.; or (2) within 14 days of service of an Administrative Order pursuant to Section 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of written notice through mail, electronic mail, or posting that the SFWMD has or intends to take final agency action, or publication of notice that the SFWMD has or intends to take final agency action. Any person who receives written notice of a SFWMD decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

If the District takes final agency action which materially differs from the noticed intended agency decision, persons who may be substantially affected shall, unless otherwise provided by law, have an additional Rule 28-106.111, Fla. Admin. Code, point of entry.

Any person to whom an emergency order is directed pursuant to Section 373.119(2), Fla. Stat., shall comply therewith immediately, but on petition to the board shall be afforded a hearing as soon as possible.

A person may file a request for an extension of time for filing a petition. The SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and that the SFWMD and any other parties agree to or oppose the extension. A timely request for an extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

FILING INSTRUCTIONS

A petition for administrative hearing must be filed with the Office of the District Clerk of the SFWMD. Filings with the Office of the District Clerk may be made by mail, hand-delivery, or e-mail. Filings by facsimile will not be accepted. A petition for administrative hearing or other document is deemed filed upon receipt during normal business hours by the Office of the District Clerk at SFWMD headquarters in West Palm Beach, Florida. The District's normal business hours are 8:00 a.m. – 5:00 p.m., excluding weekends and District holidays. Any document received by the Office of the District Clerk after 5:00 p.m. shall be deemed filed as of 8:00 a.m. on the next regular business day. Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the District Clerk, P.O. Box 24680, West Palm Beach, Florida 33416.

- Filings by hand-delivery must be delivered to the Office of the District Clerk. Delivery of a petition to the SFWMD's security desk does not constitute filing. It will be necessary to request that the SFWMD's security officer contact the Office of the District Clerk. An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by e-mail must be transmitted to the Office of the District Clerk at clerk@sfwmd.gov. The filing date for a document transmitted by electronic mail shall be the date the Office of the District Clerk receives the complete document. A party who files a document by e-mail shall (1) represent that the original physically signed document will be retained by that party for the duration of the proceeding and of any subsequent appeal or subsequent proceeding in that cause and that the party shall produce it upon the request of other parties; and (2) be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed.

INITIATION OF AN ADMINISTRATIVE HEARING

Pursuant to Sections 120.54(5)(b)4. and 120.569(2)(c), Fla. Stat., and Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD in legible form and on 8 1/2 by 11 inch white paper. All petitions shall contain:

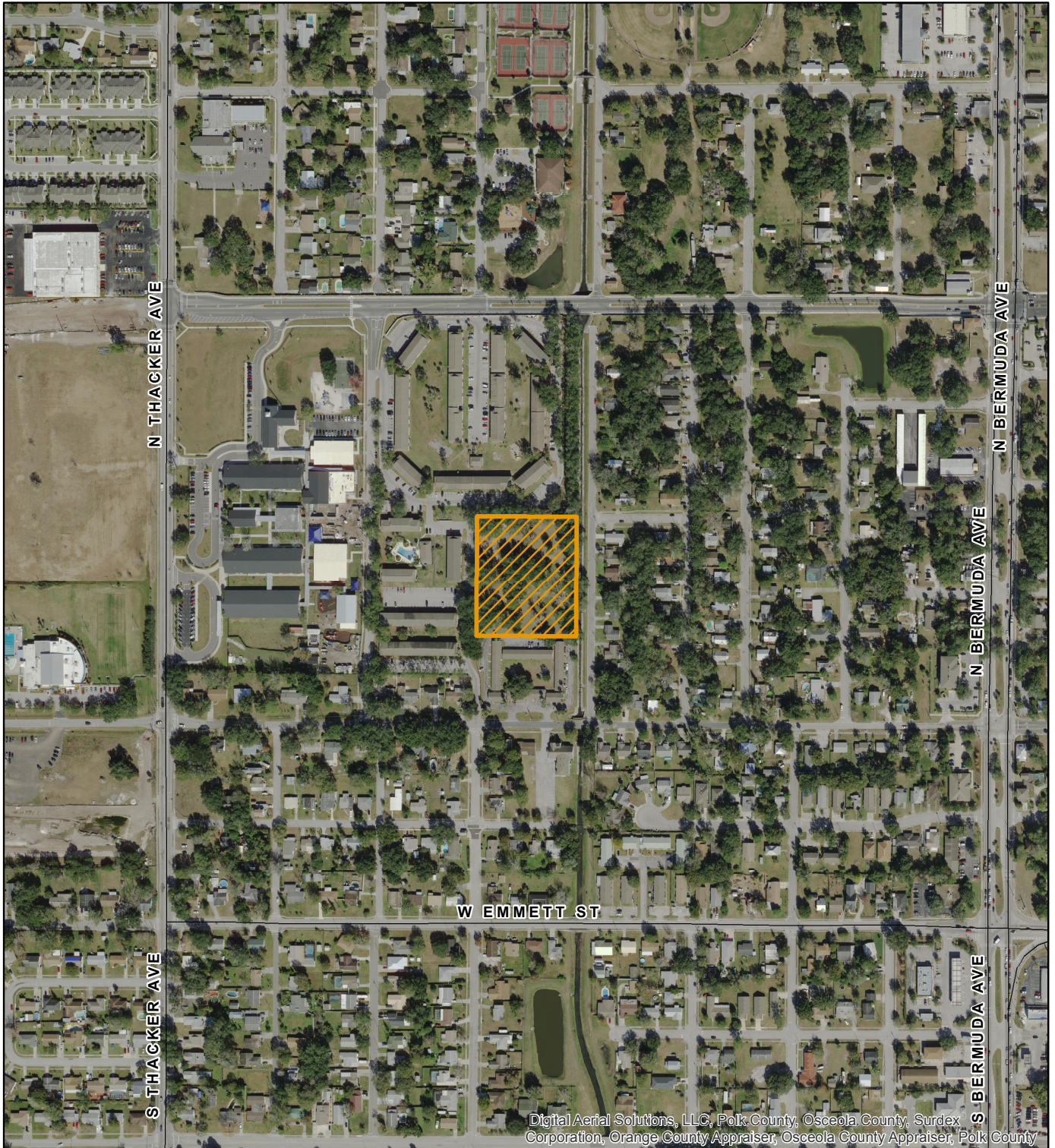
1. Identification of the action being contested, including the permit number, application number, SFWMD file number or any other SFWMD identification number, if known.
2. The name, address, any email address, any facsimile number, and telephone number of the petitioner and petitioner's representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the SFWMD's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the SFWMD's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the SFWMD to take with respect to the SFWMD's proposed action.

MEDIATION

The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401–.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

RIGHT TO SEEK JUDICIAL REVIEW

Pursuant to Section 120.68, Fla. Stat., and in accordance with Florida Rule of Appellate Procedure 9.110, a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal with the Office of the District Clerk of the SFWMD in accordance with the filing instructions set forth herein within 30 days of rendition of the order to be reviewed, and by filing a copy of the notice with the clerk of the appropriate district court of appeal.



Digital Aerial Solutions, LLC, Polk County, Osceola County, Surdex Corporation, Orange County Appraiser, Osceola County Appraiser, Polk County

Exhibit No: 1

Exhibit Created On:
2015-10-28

OSCEOLA COUNTY, FL

REGULATION DIVISION

Project Name: EMORY AVENUE STORMWATER
POND



0 390 780
Feet



Application

Permit No: 49-01210-P

Application Number: 150728-17



South Florida Water Management District



CITY OF KISSIMMEE
PUBLIC WORKS AND ENGINEERING DEPARTMENT
CONSTRUCTION PLANS FOR
EMORY AVENUE
STORM WATER MANAGEMENT POND
PARCEL ID: 21-25-29-1402-0001-0010

SHEET REVISIONS			
DATE	BY		DESCRIPTION

KEY SHEET REVISIONS		
DATE	BY	DESCRIPTION

NOTE:
THE SCALE OF THESE PLANS MAY HAVE
CHANGED DUE TO REPRODUCTION

For Design Standards Modifications
click on "Design Standards" at the following web site:
<http://www.dot.state.fl.us/rddesign/>

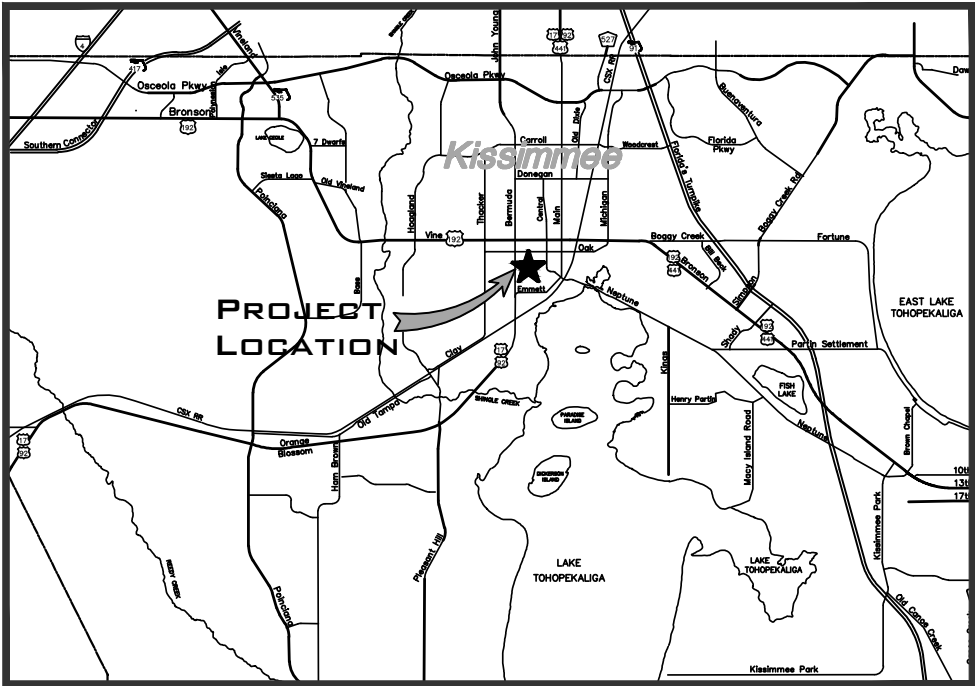
GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION, DESIGN
STANDARDS DATED 2014, AND STANDARD SPECIFICATIONS
FOR ROAD AND BRIDGE CONSTRUCTION DATED 2014, AS
AMENDED BY CONTRACT DOCUMENTS.

CITY OF KISSIMMEE

JIM SWAN
WANDA Y. RENTAS
SARA SHAW
JOSE A. ALVAREZ
ART OTERO

MAYOR
VICE MAYOR
MAYOR PRO-TEM
COMMISSIONER
COMMISSIONER

PROPERTY OWNER:
CITY OF KISSIMMEE
101 N. CHURCH STREET
KISSIMMEE, FL 34741
(407) 847-2821



INDEX	
SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
1A	BOUNDARY & TOPOGRAPHIC SURVEY
2	GENERAL NOTES
3	DRAINAGE MAP
4	SUMMARY OF QUANTITIES
5	STORM WATER DRAINAGE POND PLAN
6	CONTROL STRUCTURE 1A DETAILS
7	CONTROL STRUCTURE 1A ISOMETRIC VIEW
8	CONTROL STRUCTURE 1B DETAILS
9 - 16	MISC. DETAILS
17 - 19	CROSS SECTIONS
20	STORM WATER POLLUTION PREVENTION PLAN
21	EROSION CONTROL PLAN
22 - 24	EROSION CONTROL DETAILS
25	UTILITY ADJUSTMENT PLAN
26	TREE PROTECTION & REMOVAL PLAN
27	TREE MITIGATION PLAN

DRC COMMENT RESPONSE

DATE: 4/9/2015

ROADWAY SHOP DRAWINGS TO BE SUBMITTED TO:

CONSTRUCTION MANAGER

PLANS PREPARED BY:

OSCEOLA ENGINEERING INCORPORATED
CERTIFICATE OF AUTHORIZATION NUMBER: DD026255
1025 10TH STREET, SAINT CLOUD, FL 34769
PHONE 407.891.0452 FAX 407.891.9173

ENGINEER OF RECORD: JOHN E. MOODY, P.E.
P.E. NUMBER: NO. 48927

SURVEYOR OF RECORD: W. TURNER WALLIS IV, PSM
COMPANY: JOHNSTON'S SURVEYING INC.

DRC #15-00002

SHEET NO.

1

- DEMOLITION & MISC. NOTES:**

- PAVING, GRADING & DRAINAGE NOTES:**

- EROSION CONTROL/WATER QUALITY**
MANAGEMENT NOTES:

1. STOCKPILING MATERIAL
NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY.
2. EXPOSED AREA LIMITATION
THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL NOT EXCEED 40 ACRES SO LONG AS THIS OPERATION WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT OF SEDIMENTS.
3. INLET PROTECTION
INLETS AND CATCH BASINS SHALL BE PROTECTED FROM SEDIMENT LADEN STORM RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.
4. TEMPORARY SEEDING
AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN THIRTY DAYS SHALL BE SEEDDED WITH A QUICK GROWING SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED, AND WILL NOT LATER COMPETE WITH THE PERMANENT GRASSING. THE RATE OF SEEDING SHALL BE 30 LBS. PER ACRE.

5. TEMPORARY SEEDING AND MULCHING: SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN 4 ABOVE, SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDS AREA TO A DEPTH OF FOUR INCHES.

6. TEMPORARY GRASSING: THE SEEDED OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED AS REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER.

7. TEMPORARY REGRASSING: IF, AFTER FOURTEEN DAYS, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75% GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATION COVER.

8. MAINTENANCE: ALL FEATURES OF THE PROJECT SHALL BE CONSTRUCTED TO PREVENT EROSION AND SEDIMENT AND SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION PROPERLY WITHOUT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT.

9. DUST ABATEMENT: DUST SHALL BE CONTROLLED WITH USE OF WATER AND CALCIUM CHLORIDE

10. SODDING OF RETENTION POND SIDE SLOPES SHOULD BE ACCOMPLISHED AS SOON AS POSSIBLE FOLLOWING COMPLETION OF GRADING TO MINIMIZE EROSION POTENTIAL.

11. AT A MINIMUM, THE RETENTION/DETENTION STORAGE AREA MUST BE EXCAVATED TO ROUGH GRADE PRIOR TO BUILDING CONSTRUCTION OR PLACEMENT OF IMPERVIOUS SURFACE WITHIN THE AREA TO BE SERVED BY THOSE FACILITIES. TO PREVENT REDUCTION IN STORAGE VOLUME AND PERCOLATION RATES, ALL ACCUMULATED SEDIMENT MUST BE REMOVED FROM THE STORAGE AREA PRIOR TO FINAL GRADING AND STABILIZATION.

12. AT A MINIMUM SILT FENCE SHALL BE PLACED AROUND ALL AREAS DISTURBED AS A PART OF THE WORKS TO INSURE AGAINST POLLUTING, SILTING OR DISTURBING TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING WETLAND. IF DURING CONSTRUCTION THE PROPOSED EROSION CONTROL SYSTEM DOES NOT PERFORM SATISFACTORILY, ALTERNATIVES AND ADDITIONAL MEASURES SHALL BE IMPLEMENTED BY THE CONTRACTOR IN ORDER TO COMPLY WITH CITY OF KISSIMMEE AND S.F.W.M.D. EROSION PROTECTION STANDARDS.

13. CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR ALL EROSION PROTECTION COSTS, INCLUDING ANY COSTS ASSOCIATED WITH COMPLIANCE ISSUES AND ENFORCEMENT ACTIONS.

As-built drawings shall be submitted to the City of Kissimmee Public Works and Engineering Department, but not until all construction items are in place and complete. The as-built drawings are to be a true representation of elements that exist as a result of a completed construction project. Plans should show any and all changes to design made during construction.

As-built plans must include all information in the approved construction plans including standards, details, utility sheets, and data tables. They should show as-built locations, elevations, and changes in a contrasting manner, such as color, bold, or highlighted on copies of the original construction plans. Nothing is to be blocked out, only XXX out. The as-built plans must be submitted on 24"x 36" sheets. The cover sheet and sheets with as-built data or changes are to be labeled as "As-built".

A Certification Statement is required on the Cover Sheet to certify the as-built conditions. As-built drawings must be certified by a registered Land Surveyor and must be dated and signed. Each sheet that has an as-built change must be stamped, dated, and signed by a registered Land Surveyor licensed in the state of Florida.

Sample Certification Statement:
I hereby certify that the "As-built" data contained in these drawings was collected under my supervision and to the best of my knowledge represents the conditions as they exist on this project, and that the construction generally conforms to the requirements set forth in the approved construction plans. As-built elevations shall be designated to the nearest 0.01 feet.

Provide final invert elevations for all storm sewers and culverts. Show pipe location if different than what's shown on the approved construction plans. Verify and show any and all ditch grades placed. Provide spot elevations for ditches and swales. Any cross sections included in the approved construction plans will require as-built cross sections to be submitted.

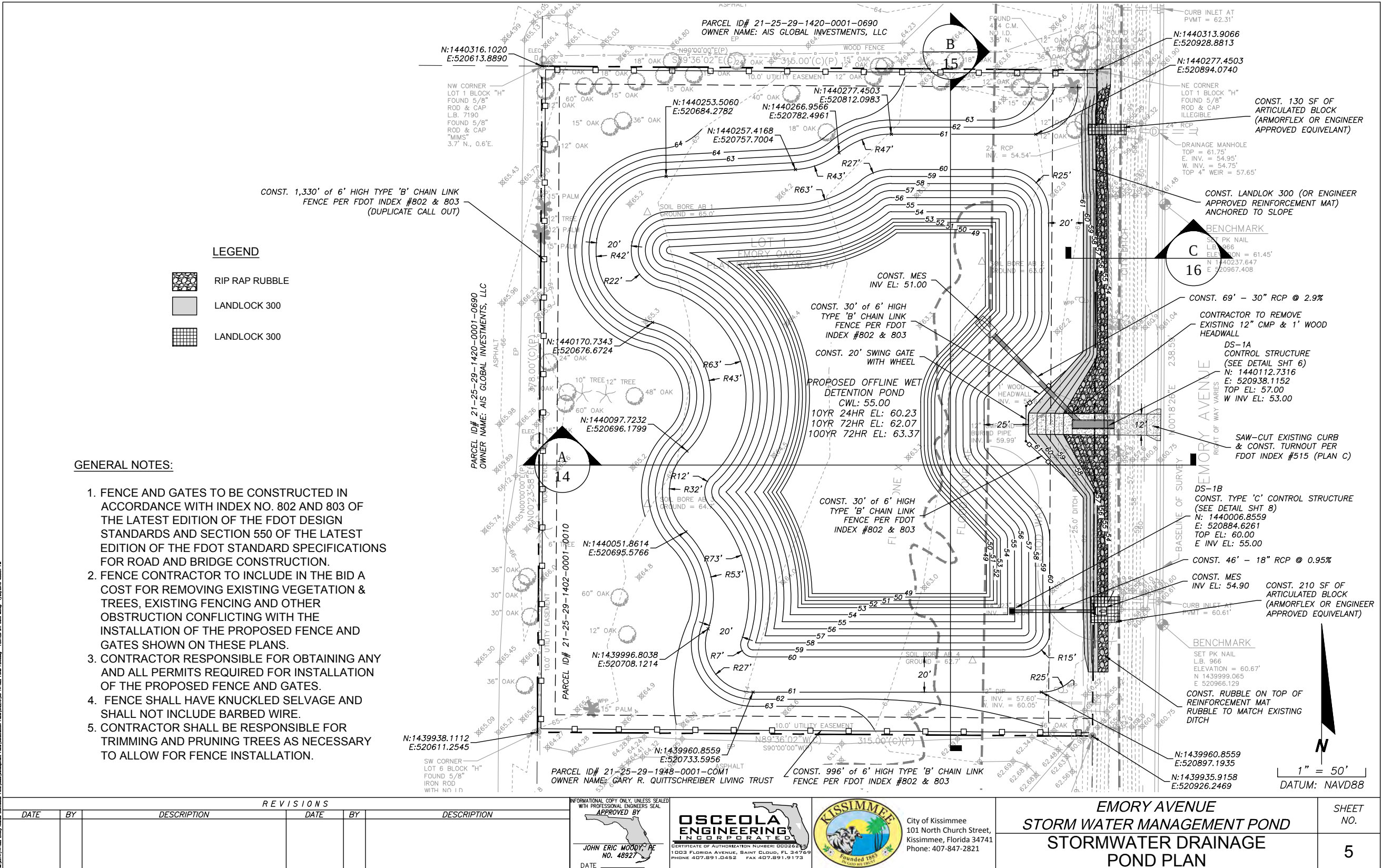
Show final locations of all inlets, manholes and pipes. Provide the as-built station and offset. Verify and show locations of items such as paved side ditches, rip-rap dimensions, etc. Provide final rim elevations for all beehive inlets, grates, and castings. Indicate type and size of storm sewer structures placed (example: inlet box or manhole). Specify type of storm sewer castings used.

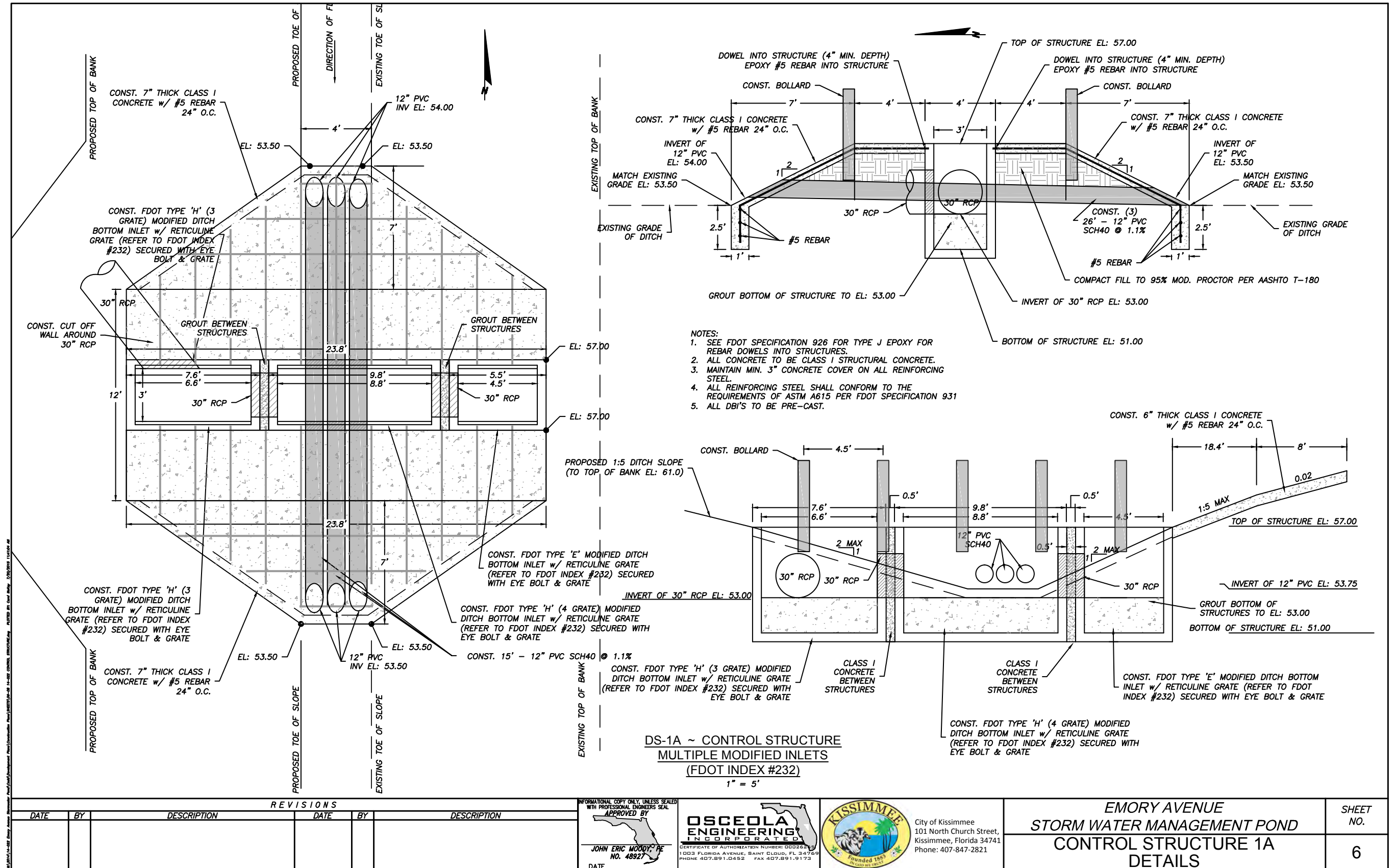
Verify sumped catch basin structures by providing bottom of box elevations. If inlet castings were to be sumped, verify the elevation and note it on the as-built plans. Verify and show all as-built storm pipe length, size, material, class and slope. Show horizontal and vertical location of subsurface drainage pipes (underdrains). Headwalls or end sections are to be clearly noted and shown.

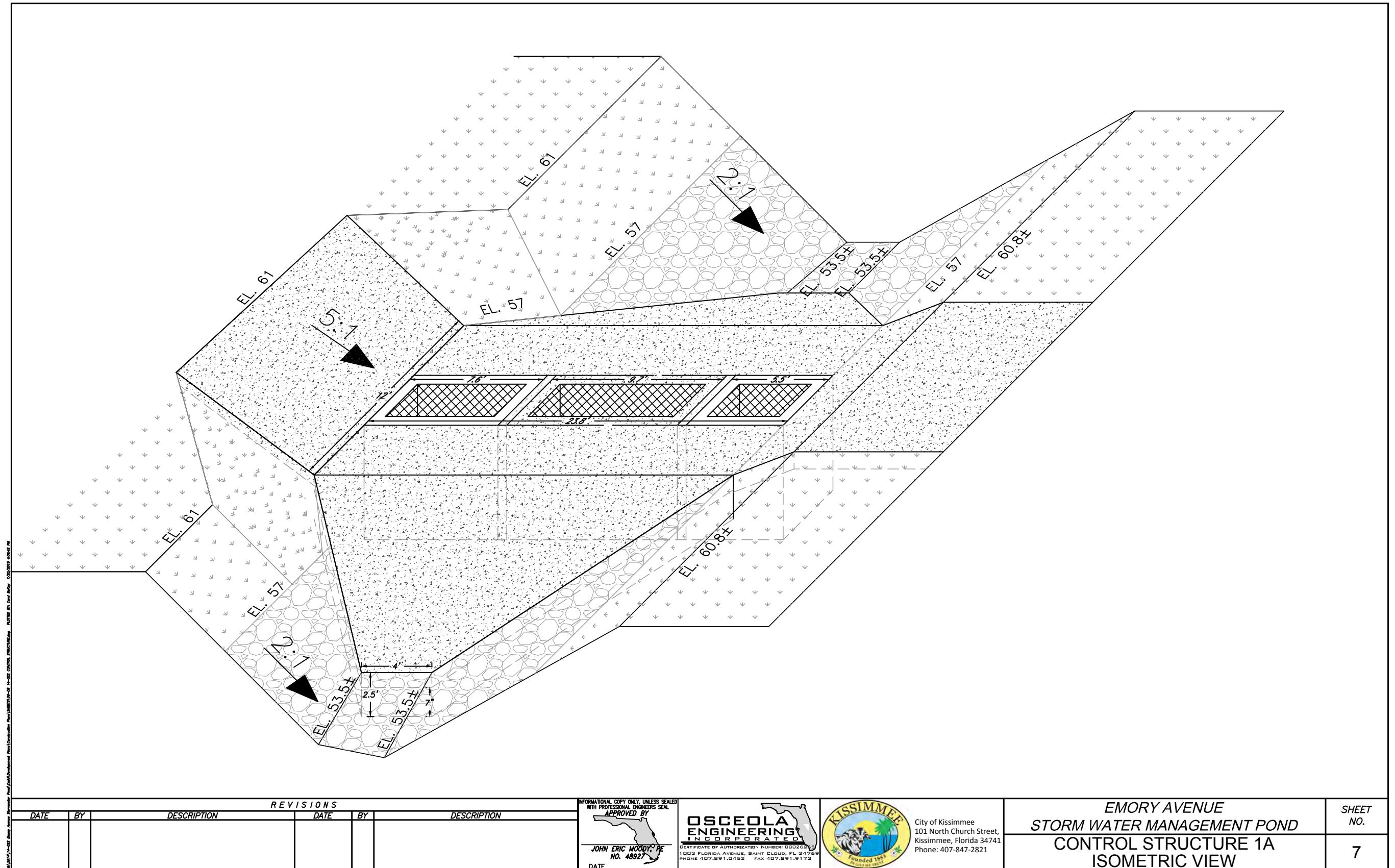
Utilities

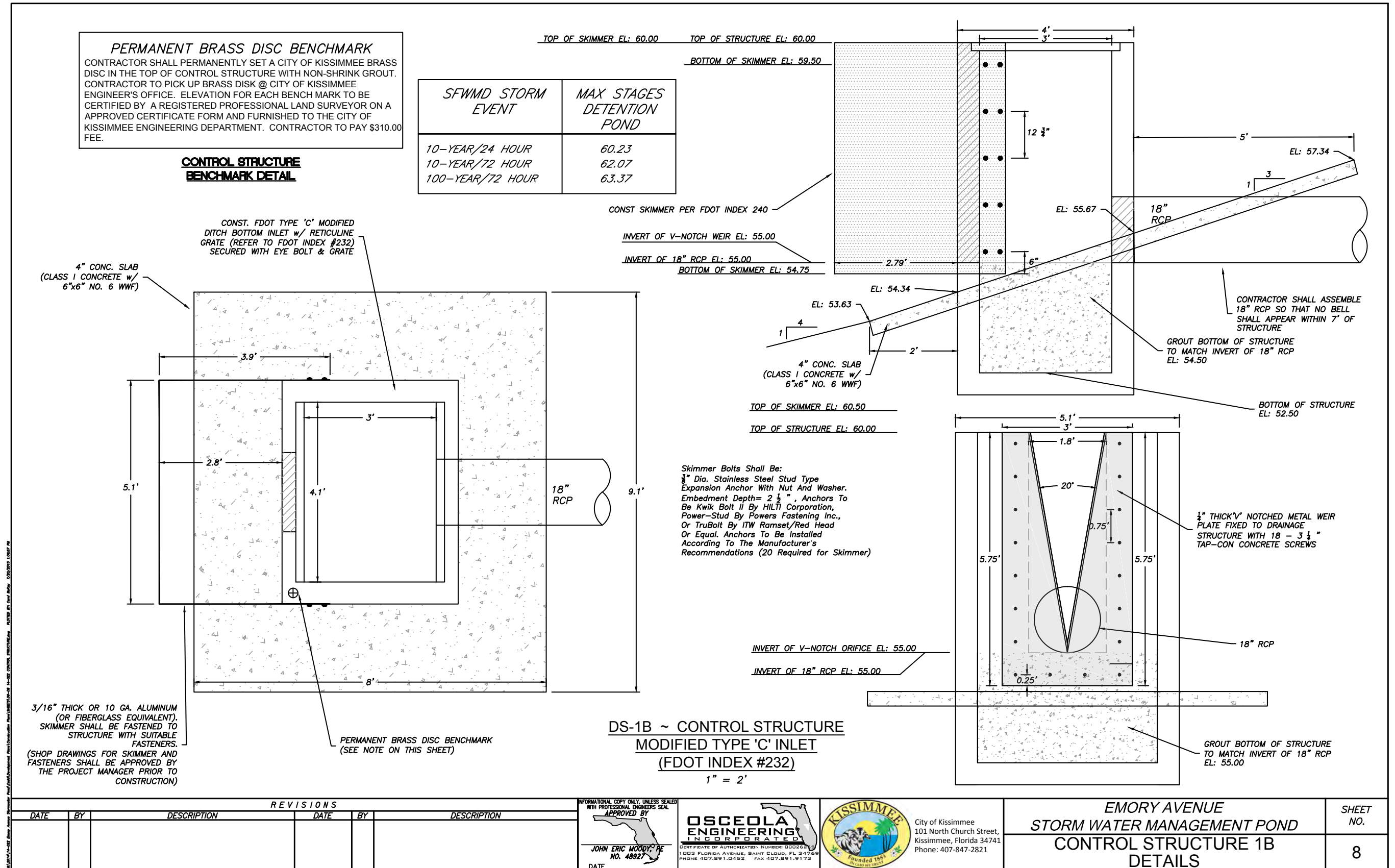
Any changes to utility locations should be noted and verified. Include an approved set of municipal owned sanitary sewer and water main as-built sheets. Provide as-built data for private sanitary sewer and water systems located within the right-of-way. Show relocated utility pole locations.

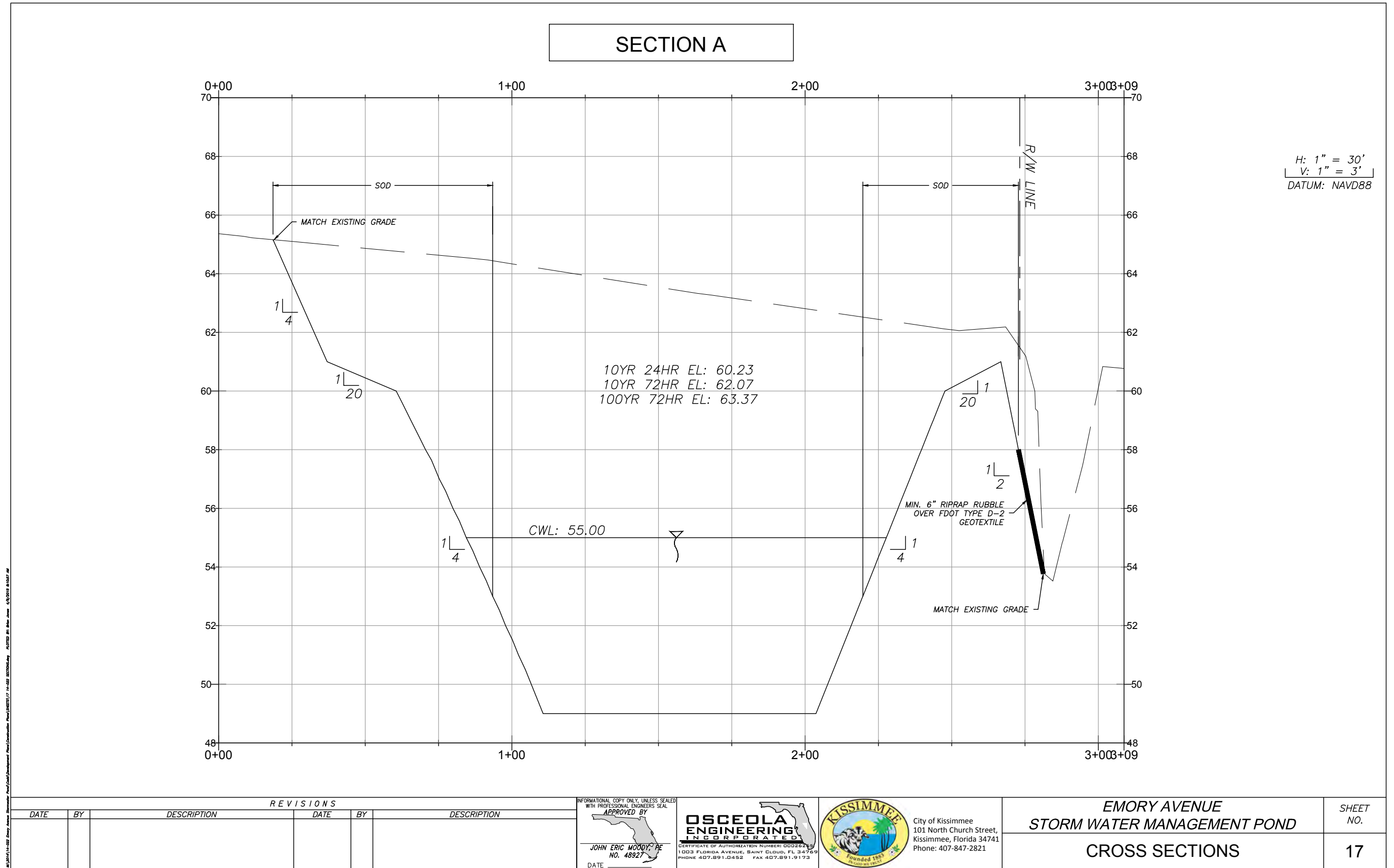
REVISIONS						INFORMATIONAL COPY ONLY, UNLESS SEALED WITH PROFESSIONAL ENGINEERS SEAL						EMORY AVENUE STORM WATER MANAGEMENT POND		SHEET NO.	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			OSCEOLA ENGINEERING, INC. CERTIFICATE OF AUTHORIZATION NUMBER: GDS26259 1003 FLORIDA AVENUE, SAINT CLOUD, FL 34709 PHONE 407.891.0452 FAX 407.891.9173		City of Kissimmee 101 North Church Street, Kissimmee, Florida 34741 Phone: 407-847-2821		GENERAL NOTES		2	

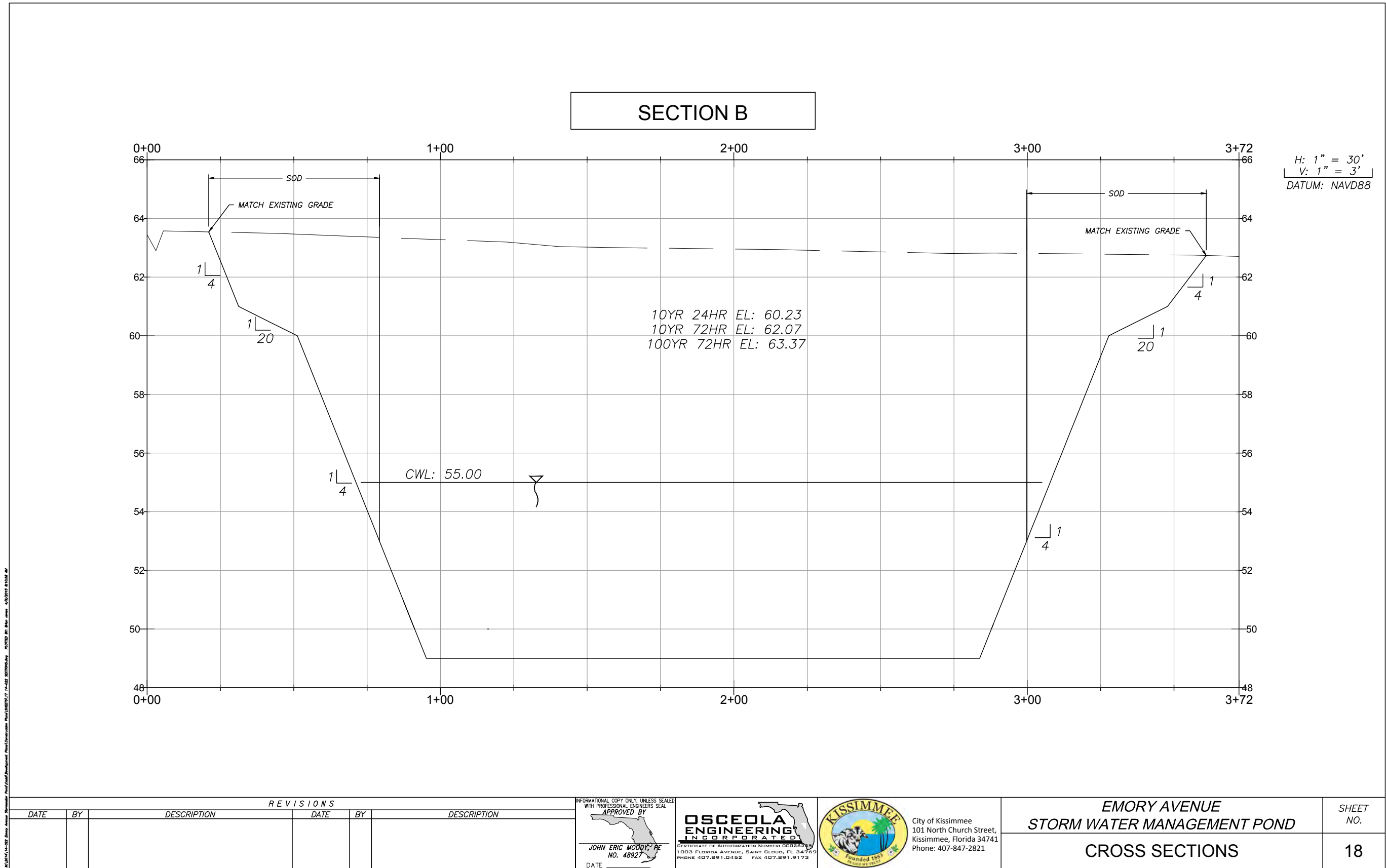






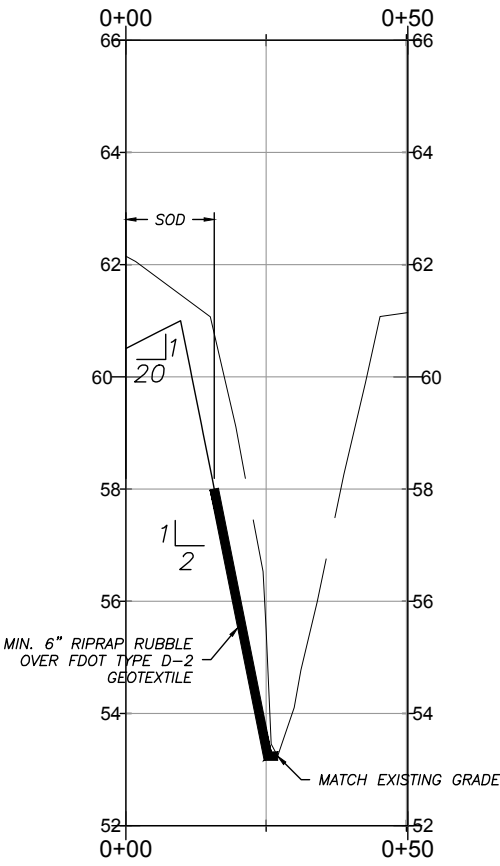






SECTION C

H: 1" = 30'
V: 1" = 3'
DATUM: NAVD88



\\s04141-002 Emory Avenue Stormwater Pond\Drawings\Plan\SECTION C.dwg PLOTTED BY: John Jones 5/9/2018 8:05:08 AM

REVISIONS						INFORMATIONAL COPY ONLY. UNLESS SEALED WITH PROFESSIONAL ENGINEER'S SEAL  DATE _____	 CERTIFICATE OF AUTHORIZATION NUMBER: 00026213 1003 FLORIDA AVENUE, SAINT CLOUD, FL 34769 PHONE 407.891.0452 FAX 407.891.9173	 City of Kissimmee 101 North Church Street, Kissimmee, Florida 34741 Phone: 407-847-2821	EMORY AVENUE STORM WATER MANAGEMENT POND	SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				CROSS SECTIONS	19

STORMWATER POLLUTION PREVENTION PLAN

STORMWATER POLLUTION PREVENTION PLAN:

PROJECT NAME AND LOCATION:
EMORY AVENUE STORM WATER MANAGEMENT POND

THE PROJECT IS LOCATED ALONG THE WEST SIDE OF EMORY AVENUE APPROX. 260 LF NORTH OF MABBETTE STREET

OWNER NAME AND ADDRESS:

CITY OF KISSIMMEE
101 NORTH CHURCH STREET
KISSIMMEE, FL 34741

SITE DESCRIPTION:

1. THIS PROJECT WILL CONSIST OF STORM WATER POND AND STORM WATER INFRASTRUCTURE CONSTRUCTION.
2. SOIL DISTURBING ACTIVITIES WILL INCLUDE: INSTALLATION OF STORM WATER INFRASTRUCTURE AND STORM WATER POND.

SITE AREA:

THE SITE IS APPROXIMATELY 2.73± ACRES OF WHICH 2.2± ACRES WILL BE DISTURBED BY CONSTRUCTION ACTIVITIES.

SEQUENCE OF MAJOR CONSTRUCTION ACTIVIES:

1. INSTALL PERIMETER CONTROL INCLUDING SILT FENCES, TURBIDITY BARRIERS, ROCK BAGS AND SYNTHETIC BALES AS REQUIRED.
2. CONSTRUCT POND AND INSTALL STORM WATER INFRASTRUCTURE
3. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE, REMOVE ANY TEMPORARY DIVERSION SWALES/DIKES AND RESEED/SOD AS REQUIRED

NAME OF RECEIVING WATERS AND DISCHARGE POINTS:

1. STORMWATER RUNOFF FROM BASIN 1
WILL BE DIRECTED TO AND ULTIMATELY DISCHARGE TO LAKE TOHOPEKALIGA.

CONTRACTOR RESPONSIBILITIES:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT BEST MANAGEMENT PRACTICES (BMP'S) TO CONTROL EROSION AND TURBIDITY CAUSED BY STORMWATER RUNOFF.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL AND MAINTAIN PROPER CONTROLS TO PROVIDE THE PROTECTION AS REQUIRED BY ALL FEDERAL, STATE, AND LOCAL LAWS.
3. THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE IMPLEMENTED BY THE CONTRACTOR AS REQUIRED TO MEET THE EROSION AND TURBIDITY REQUIREMENTS IMPOSED ON THE PROJECT SITE BY THE REGULATORY AGENCIES.
4. CONTRACTOR SHALL UNDERTAKE ADDITIONAL MEASURES REQUIRED TO BE IN COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS.
5. DEPENDING ON THE NATURE OF MATERIALS AND METHODS OF CONSTRUCTION, THE CONTRACTOR MAY BE REQUIRED TO ADD FLOCCULENTS TO THE RETENTION SYSTEM PRIOR TO PLACING THE SYSTEM INTO OPERATION.

EROSION AND SEDIMENT CONTROLS (BMP'S):

STABILIZATION PRACTICES:

1. STOCKPIILING MATERIAL: NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORM WATER COLLECTION FACILITY.
2. TEMPORARY SEEDING AND MULCHING: SLOPES STEEPER THAN 3:1 SHALL RECEIVE APPROXIMATELY 70-90 LBS 1000 SQ. FT SECTION OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA TO ADEQUATELY PREVENT MOVEMENT OF THE SEED AND MULCH.
3. PERMANENT SODDING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO RECEIVE FINAL GRASSING TREATMENT IN 30 DAYS SHALL BE SODDED.

STRUCTURAL PRACTICES:

1. SILT FENCE: FILTER FABRIC BARRIER CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
 - a. WHERE THE SIZE OF THE DRAINAGE AREA IS NO GREATER THAN 0.25 ACRE PER 100 FEET OF SILT FENCE LENGTH AND MAXIMUM SLOPE GRADIENT BEHIND THE BARRIER IS 50 PERCENT (2:1).
 - b. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.
2. SYNTHETIC BALE BARRIER: SYNTHETIC BALE BARRIER SHALL BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
 - a. WHERE THE SIZE OF THE DRAINAGE AREA IS NO GREATER THAN 0.9 ACRE PER 100 FEET OF BARRIER LENGTH AND MAXIMUM SLOPE GRADIENT BEHIND THE BARRIER IS 50 PERCENT (2:1).
 - b. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.
 - c. WHERE EFFECTIVENESS IS REQUIRED FOR LESS THAN 30 MONTHS.
 - d. UNDER NO CIRCUMSTANCES SHOULD THE SYNTHETIC BALE BARRIERS BE CONSTRUCTED IN STREAMS OR IN SWALES WHERE THERE IS A POSSIBILITY OF A WASHOUT.

STORMWATER MANAGEMENT CONTROLS:

1. INLET PROTECTION: INLETS AND CATCH BASINS WHICH DISCHARGE DIRECTLY OFFSITE SHALL BE PROTECTED FROM SEDIMENT-LADEN STORM RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.
2. OUTLET PROTECTION: SILT FENCE AND SYNTHETIC BALES ARE TO BE INSTALLED IMMEDIATELY DOWNSTREAM OF OUTLETS OF ALL PIPES AND PAVED CHANNEL SECTIONS WHERE RUNOFF FLOW COULD CAUSE EROSION AND SEDIMENTATION ACCUMULATION.
3. THE PROPOSED STORMWATER PONDS 2 AND 3 SHALL BE USED AS THE SEDIMENT BASIN, TO BE CONSTRUCTED TO SERVE ANY DISTURBED AREA GREATER THAN 5 ACRES.
4. ALL SEDIMENT COLLECTED IN THE STORMWATER POND / SEDIMENT BASIN MUST BE REMOVED UPON FINAL STABILIZATION.

POTENTIAL POLLUTANTS CONTROLS:

1. WASTE DISPOSAL - WASTE MATERIAL IS TO BE DISPOSED INTO CONSTRUCTION DUMPSTERS MEETING ALL LOCAL AND STATE WASTE MANAGEMENT REGULATIONS.
2. OFFSITE VEHICULAR TRACKING - A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED TO HELP REDUCE VEHICULAR TRACKING OF SEDIMENTS TO ADJACENT PAVED SURFACES. EXISTING PAVED SURFACES TO BE SWEEP AS NECESSARY.
3. HAZARDOUS WASTE - THE SITE SUPERINTENDENT SHALL BE RESPONSIBLE FOR DISPOSING OF ANY HAZARDOUS WASTE MATERIAL IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
4. SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS LOCATED ON-SITE AS NEEDED. SANITARY WASTE TO BE DISPOSED OF IN ACCORDANCE WITH STATE AND LOCAL WASTE REGULATIONS.

TIMING OF CONTROL MEASURES:

1. AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITES, THE SILT FENCES AND SYNTHETIC BALES, STABILIZED CONSTRUCTION ENTRANCE AND SEDIMENT BASIN WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE.
2. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORATRILY OR PERMANENTLY CEASED.
3. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, THAT AREA SHALL BE STABILIZED PERMANENTLY.
4. AFTER THE ENTIRE SITE IS STABLIZED, THE ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE RETENTION PONDS /SEDIMENT BASINS AND ANY EARTH DIKE/SWALES SHALL BE REGRADED AND STABILIZED.

POTENTIAL NON-STORMWATER DISCHARGES:

ALL NON-STORMWATER DISCHARGES WILL BE DIRECTED TO THE SEDIMENT BASINS PRIOR TO DISCHARGE.

1. WATER FROM WATER LINE AND FIRE HYDRANT FLUSHING
2. PAVEMENT WASH WATER (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIAL HAVE OCCURRED)
3. UNCONTAMINATED GROUNDWATER ASSOCIATED WITH DEWATERING ACTIVITIES

INSPECTION AND INSPECTION DOCUMENTATION:

1. A QUALIFIED INSPECTOR (PROVIDED BY THE OPERATOR) SHALL INSPECT ALL POINTS OF DISCHARGE, DISTURBED AREAS, AREAS USED FOR ON-SITE STORAGE OF MATERIALS, STRUCTURAL CONTROLS, AND VEHICULAR ACCESS LOCATIONS AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.50 INCHES OR GREATER.
2. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN.

MAINTENANCE PLAN:

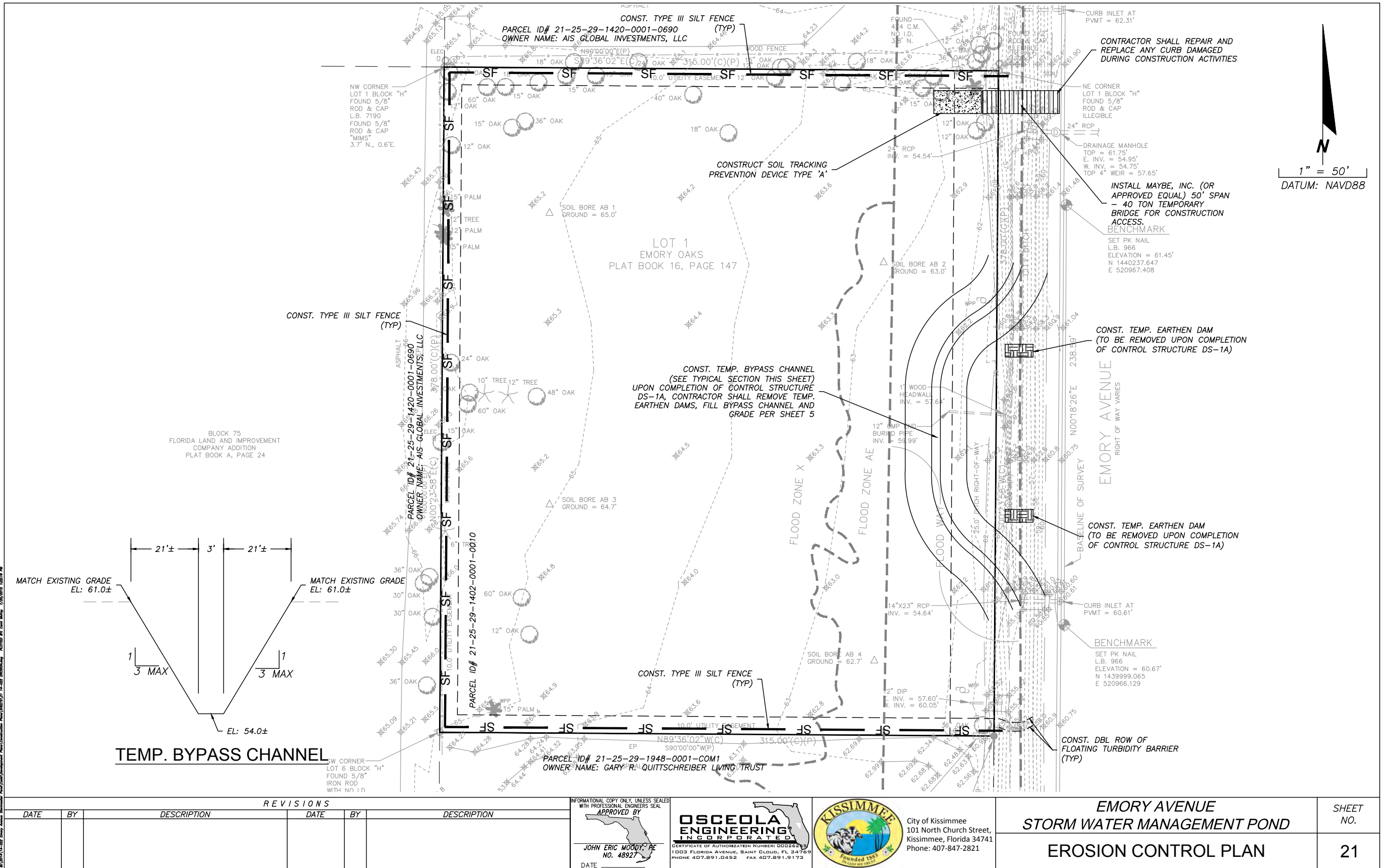
1. BASED ON RESULTS OF THE INSPECTIONS, ALL MAINTENANCE OPERATIONS SHALL BE DONE IN A TIMELY MANNER, BUT IN NO CASE LATER THAN 7 CALENDAR DAY FOLLOWING THE INSPECTION.
2. BUILT UP SEDIMENT SHALL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
3. SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY ON THE GROUND.
4. SEDIMENT TRAPS/BASINS SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, AND BUILT-UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY OR AT THE END OF THE JOB.
5. TEMPORARY AND PERMANENT SEEDING AND PLANTING SHALL BE INSPECTED FOR BARE SPOTS, WASHOUTS, HEALTHY GROWTH AND COMPLIANCE WITH STATE AND LOCAL REQUIREMENTS.

ADDITIONAL EROSION CONTROL NOTES:

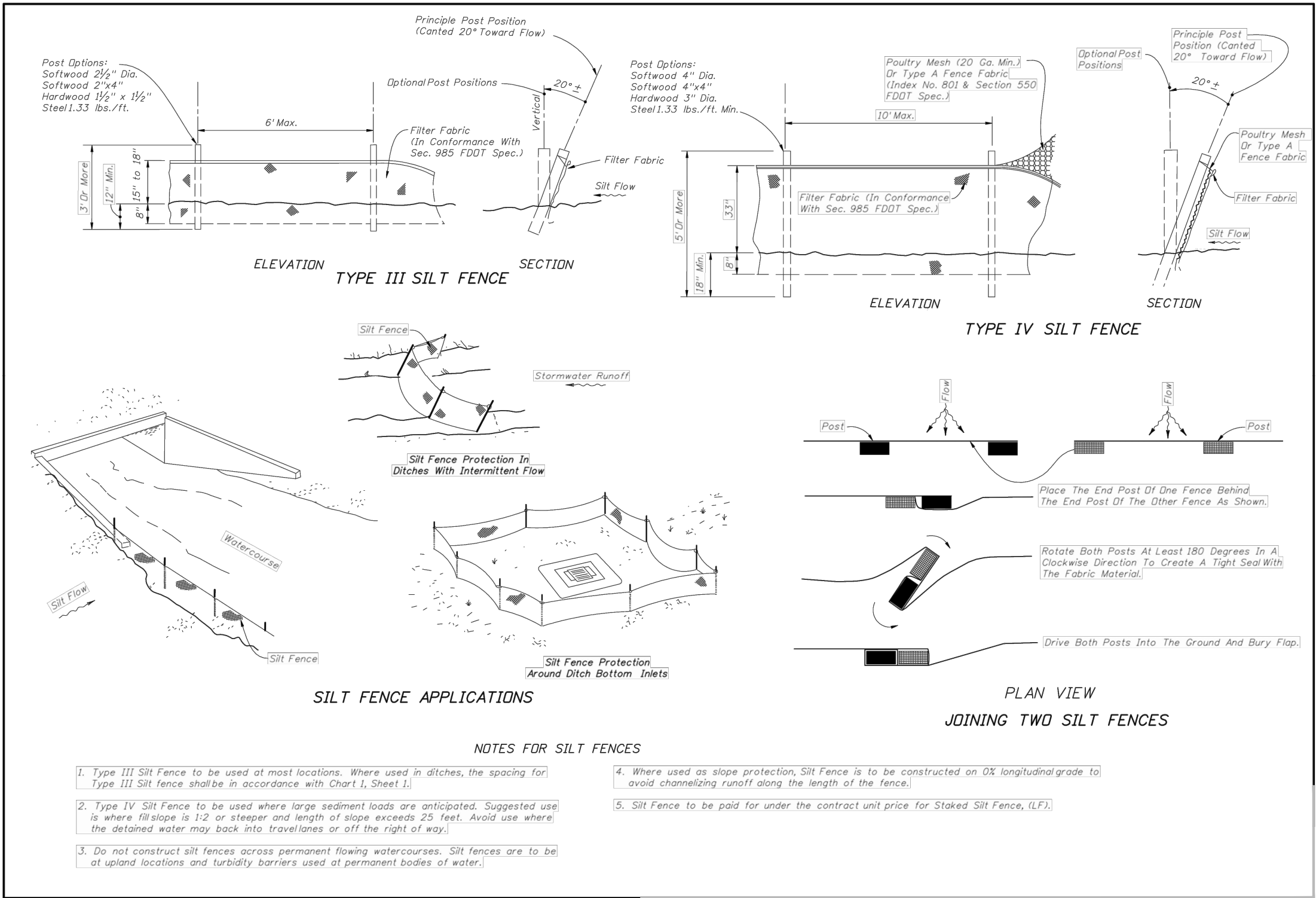
1. DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO INSURE AGAINST POLLUTING, SILTING OR DISTURBING TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING SURFACE WATERS. SUCH MEASURES SHALL BE APPROVED BY THE PROJECT ENGINEER AND MAY INCLUDE, BUT NOT LIMITED TO, CONSTRUCTION OF TEMPORARY EROSION CONTROL STRUCTURES SUCH AS SEDIMENT BASINS, SEDIMENT CHECKS, OR SILT BARRIERS.
2. SODDING OF DETENTION PONDS SHOULD BE ACCOMPLISHED AS SOON AS POSSIBLE FOLLOWING COMPLETION OF GRADING TO MINIMIZE EROSION POTENTIAL.
3. AT A MINIMUM, THE RETENTION/DETENTION STORAGE AREA MUST BE EXCAVATED TO ROUGH GRADE PRIOR TO CONSTRUCTION OR PLACEMENT OF IMPERVIOUS SURFACE WITHIN THE AREA TO BE SERVED BY THOSE FACILITIES. TO PREVENT REDUCTION IN STORAGE VOLUME AND PERCOLATION RATES, ALL ACCUMULATED SEDIMENT MUST BE REMOVED FROM THE STORAGE AREA PRIOR TO FINAL GRADING AND STABILIZATION.
4. IF DURING CONSTRUCTION, THE PROPOSED EROSION CONTROL SYSTEM DOES NOT PERFORM SATISFACTORILY, ALTERNATIVES AND ADDITIONAL METHODS OF PROTECTION SHALL BE IMPLEMENTED BY THE CONTRACTOR IN ORDER TO COMPLY WITH S.F.W.M.D., AND THE CITY OF KISSIMMEE EROSION PROTECTION STANDARDS. CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR ALL EROSION CONTROL COSTS INCLUDING ANY COSTS ASSOCIATED WITH COMPLIANCE ISSUES AND ENFORCEMENT ACTIONS.
5. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A DETAILED EROSION CONTROL PLAN TO THE CITY OF KISSIMMEE FOR REVIEW AND APPROVAL A MINIMUM OF 2 WORKING DAYS PRIOR TO THE PRECONSTRUCTION MEETING. AT A MINIMUM, THE EROSION CONTROL PLAN SHALL PROPOSE SILT SCREEN OR STAKED SYNTHETIC BALES AND TURBIDITY BARRIERS, IN ACCORDANCE WITH THE CONSTRUCTION PLANS.
6. THE CONTRACTOR SHALL REPLACE SYNTHETIC HAY BALES EVERY 6 MONTHS AND SILT FENCE EVERY 12 MONTHS.
7. EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH FDOT INDEX 102.

AK 150728-17-002 Emory Avenue Stormwater Pond Civil Development Plans 150728-17-002 2007-08-09

R E V I S I O N S						INFORMATIONAL COPY ONLY, UNLESS SEALED WITH PROFESSIONAL ENGINEERS SEAL  DATE _____	 CERTIFICATE OF AUTHORIZATION NUMBER: 00026263 PHONE 407.891.0452 FAX 407.891.9173	 City of Kissimmee 101 North Church Street, Kissimmee, Florida 34741 Phone: 407-847-2821	EMORY AVENUE STORM WATER MANAGEMENT POND	SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				STORMWATER POLLUTION PREVENTION PLAN	20



4/15/2014 14:42:22 Emily Jones - Stormwater Pond/Creek Development - Area Construction - Plan 150728-17 14-022 150728-17.dwg PLT0728 01 Emily Jones 4/9/2015 8:11:14 AM



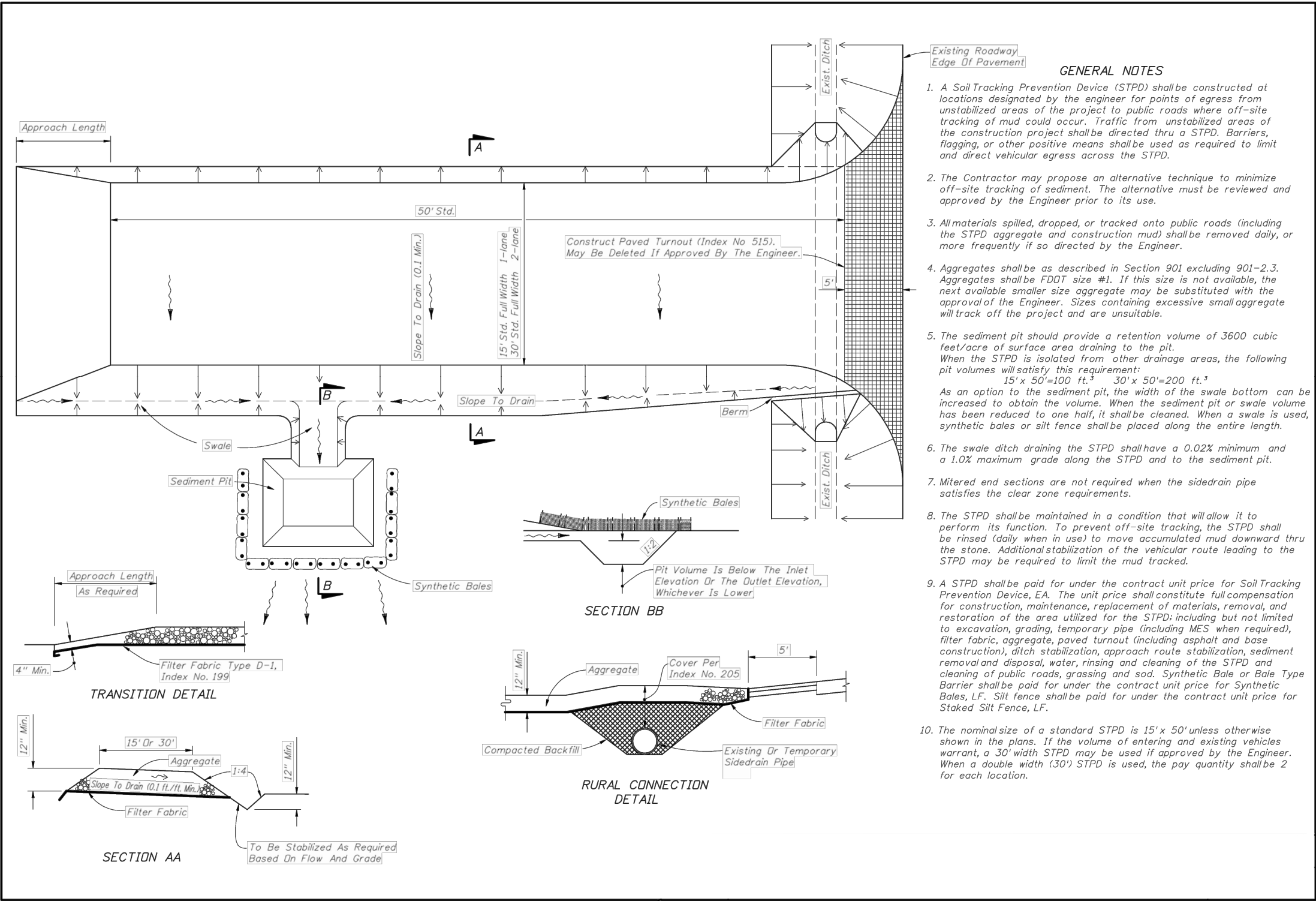
NOTES FOR SILT FENCES

1. Type III Silt Fence to be used at most locations. Where used in ditches, the spacing for Type III Silt fence shall be in accordance with Chart 1, Sheet 1.
2. Type IV Silt Fence to be used where large sediment loads are anticipated. Suggested use is where fill slope is 1:2 or steeper and length of slope exceeds 25 feet. Avoid use where the detained water may back into travel lanes or off the right of way.
3. Do not construct silt fences across permanent flowing watercourses. Silt fences are to be at upland locations and turbidity barriers used at permanent bodies of water.
4. Where used as slope protection, Silt Fence is to be constructed on 0% longitudinal grade to avoid channelizing runoff along the length of the fence.
5. Silt Fence to be paid for under the contract unit price for Staked Silt Fence, (LF).

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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION						



Exhibit 2



REVISIONS						EMORY AVENUE STORM WATER MANAGEMENT POND EROSION CONTROL DETAILS	SHEET NO. 24
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		

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APPROVED BY

JOHN ERIC MOODY, P.E.
NO. 48927

DATE

OSCEOLA ENGINEERING, INC.

CERTIFICATE OF AUTHORIZATION NUMBER 00026293

10013 FLORIDA AVENUE, SAINT CLOUD, FL 34789

PHONE 407.891.0452 FAX 407.891.9173

KISSIMMEE

City of Kissimmee
101 North Church Street,
Kissimmee, Florida 34741
Phone: 407-847-2821

TABLE 3
EMORY AVENUE STORMWATER POND
POND STAGE VS. STORAGE RELATIONSHIPS

POND STAGE VS. STORAGE RELATIONSHIP			
Pond	Stage (ft-NAVD)	Area (ac.)	Cumulative Storage (ac-ft.)
Pond 1	55	0.75	0
	56	0.82	0.78
	57	0.90	1.65
	58	0.98	2.59
	59	1.07	3.62
	60	1.16	4.73
	61	1.64	6.13

Provided WQV from Table 5 = 1.65 ac-ft

Stage of provided WQV from the table above = EL. 57 NAVD88

**TABLE 5
EMORY AVENUE STORMWATER POND
WATER QUALITY CALCULATIONS**

POST POND BASIN

- 1-inch Over Basin Area = 2.73 ac. x 1 inch x $\frac{1\text{ft}}{12}$ = 0.23 ac-ft
- 2.5-inch over percent impervious of site =
2.73 ac. – (1.61 acres of lakes) = 1.12 ac.
1.12 ac. – 0.37 ac. of pervious = 0.75 acres of impervious
 $\frac{.75}{1.12} = 0.67$
0.67 x 2.5 inches = 1.67 inches
1.67 inches x 1/12 (2.73 acres – 1.61 acres of lakes) = 0.16 ac-ft

Greater of Above = 0.23 ac-ft

50% Increase in Water Quality Volume = 0.34 ac-ft

Required Water Quality Volume = 0.34 ac-ft

Provided Water Quality Volume = 1.65 ac-ft

Excess Water Quality Volume = 1.65 - 0.34 = 1.31 ac-ft

PHOSPHORUS LOADING ANALYSIS

In the existing condition, the basin area is can be categorized as trees/woods. Based on that land use, the annual phosphorus loading rate is 0.19 kg/yr.

In the proposed condition, the basin area can be categorized as open space and stormwater pond. With the proposed use the annual phosphorus loading rate is expected to be 0.10 kg/yr.

TABLE 9
EMORY AVENUE STORMWATER POND
ALLOWABLE DISCHARGE CALCULATIONS

A pre-development peak discharge rate analysis was performed for the 10-year/72-hour storm event. The existing site discharges via sheet flow into the Emory Avenue ditch and continues to Mabbette Street. Please refer to Figure 6 for a pre-development basin map showing the existing site topography and drainage characteristics. adICPR model was established using the existing site hydrologic characteristics as well as the characteristics of the Emory Avenue ditch. Please refer to Section 3 for all adICPR input and output data. The results of the model are summarized below.

10 year 72 Hour Storm - Peak Discharge Rate Summary		
Condition	Node ID	Peak Discharge Rate (cfs)
Existing	Mabbette D/S	469.96
Proposed	Mabbette D/S	469.33

In the post-development condition, control structure DS-1A (found within the Emory Avenue ditch) diverts water to the proposed off-line detention pond. DS-1B(found within the proposed pond) releases this water through a “V” notched weir plate . As summarized in the table above and demonstrated in Section 4, the proposed improvements decrease the peak discharge rate of the ditch system during the 10-yr/72-hr storm event.

Table 2
Summary of Flood Routing Results

Location	Storm Event	Existing Conditions Peak Stage (ft NAVD88)	Post-Development Peak Stage (ft NAVD88)
MLK Jr BLVD (Upstream)	1-Inch	57.44	57.75
	Mean Annual	60.24	60.38
	10-year/24-hour	60.82	60.97
	10-year/72-hour	63.06	63.06
	100-year/72-hour	65.07	65.05
W. King Street	1-Inch	57.09	57.54
	Mean Annual	59.56	59.77
	10-year/24-hour	60.09	60.32
	10-year/72-hour	62.15	62.15
	100-year/72-hour	63.45	63.43
Mabbette Street (Upstream)	1-Inch	56.62	56.61
	Mean Annual	58.83	58.81
	10-year/24-hour	59.44	59.43
	10-year/72-hour	61.75	61.75
	100-year/72-hour	63.05	63.05

5.0 Flood Protection

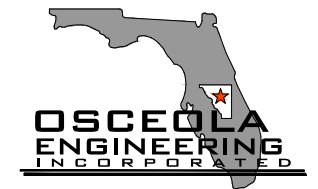
Due to the limited size and volume of the proposed pond, no reduction in 100-year flood stages in the Emory Avenue Ditch would be realized as a result of its construction/implementation. One benefit that would be realized is that 100-year compensating storage volume would be created to offset unavoidable floodplain encroachment for future City projects within the basin.

The 100-year compensating storage volume being created is 9.72 ac-ft. This volume is between the ditch influenced seasonal high elevation of 55.0 feet NAVD and the average elevation of the existing ground within the footprint of the proposed pond at elevation 63.0 feet NAVD.

Furthermore the calculations show that the introduction of the structure within the channel cross section will not increase 100-year flood stages of the ditch.

6.0 Summary of Results and Conclusion

The recommended improvements, as demonstrated in this report, will cause no net rise to the 100-year flood stages upstream of the Martin Luther King Jr. Boulevard crossing while provided water quality treatment for all storm events producing runoff from the contributing basin located upstream of the proposed diversion structure. The proposed improvements are in compliance with the requirements set forth by SFWMD and the City of Kissimmee. The stormwater improvements will provide 1.32 acre-ft of water quality to accommodate future improvements in the Emory Avenue Ditch basin. Furthermore the pond provides 9.72 ac-ft of 100-year compensating storage volume for future municipal



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project:

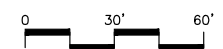
Emory Avenue Storm Water Pond

drawing:

Post-Development Floodplain Storage

location:

Sec 21, Twp 25 S, Rng 29 E.
Kissimmee, Florida



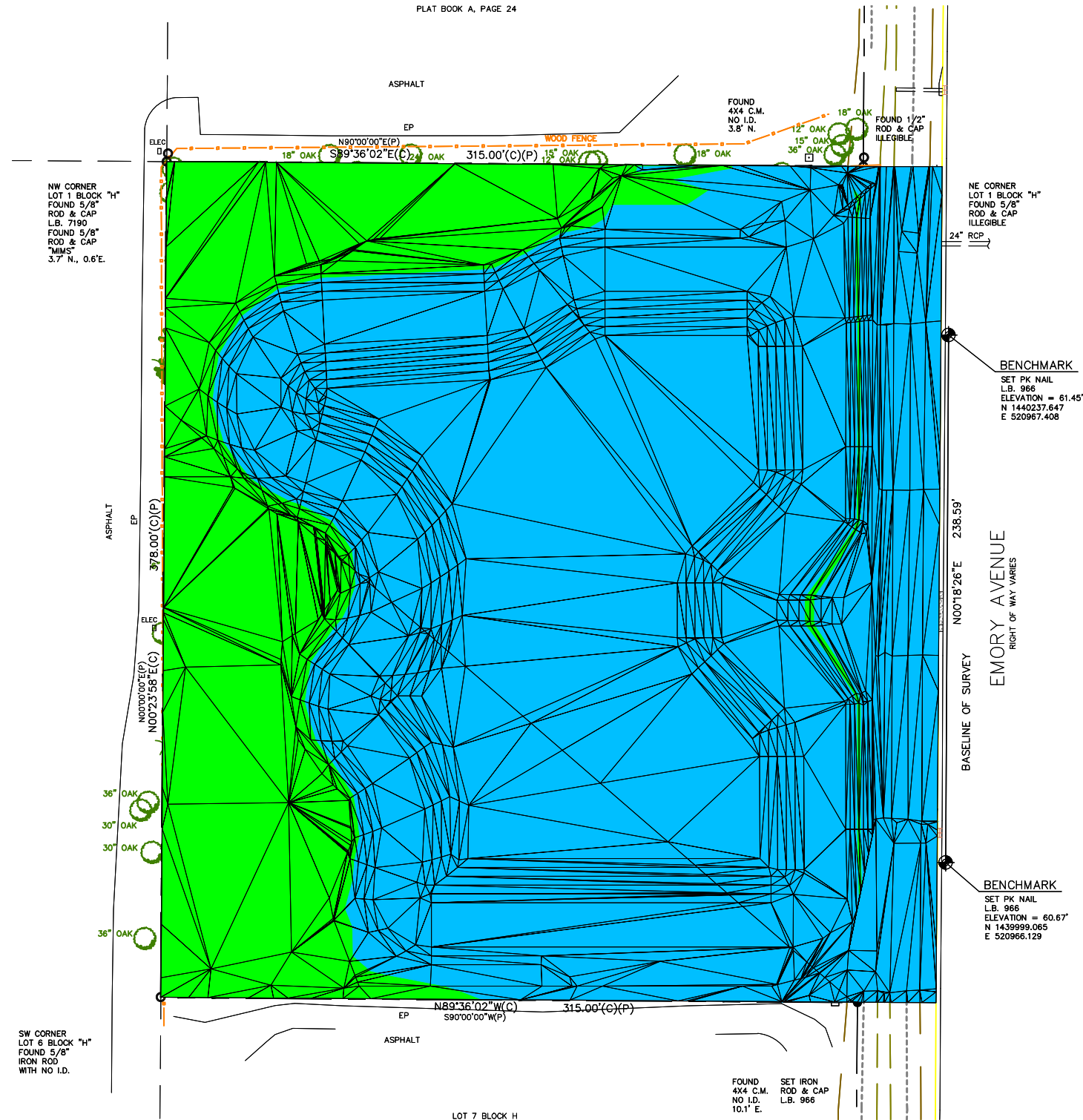
Scale: 1" = 60'

Date: August 31, 2015

FIGURE 10

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DATUM: NAVD88



TIN

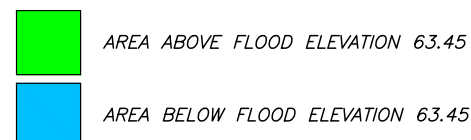
Triangular Irregular Network. A TIN surface is the most common method of interpolating elevation data. The points are connected into triangles that are used to interpolate for contours, and to generate profiles and cross-sections. The lines that make up the surface triangulation are called TIN lines. See also 3D face.

TIN volume surface

A differential surface created from a composite of points based on base and comparison surface. Also known as a differential surface.

BASE SURFACE
EXIST. GROUND

NET VOLUMETRIC DIFFERENCE
 19,692 Cu. Yd. BETWEEN EL: 55.00 AND EL: 63.45



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EMORY AVENUE STORMWATER POND

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Permit No: 49-01210-P

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