



**SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE
STANDARD GENERAL PERMIT NO. 36-07287-P
DATE ISSUED: May 13, 2010**

Form #0941
08/95

PERMITTEE: TOWN OF FORT MYERS BEACH, FLORIDA
PUBLIC WORKS DEPARTMENT
2523 ESTERO BLVD
FORT MYERS BEACH, FL 33931

PROJECT DESCRIPTION: This application is a request for an Environmental Resource Permit authorizing Construction and Operation of a surface water management system serving 10.38 acres of public road right-of-way project within a 49.14-acre project limit area covering residential and commercial development known as Basin Based Neighborhood Improvements, with discharge into Matanzas Pass via the proposed improved conveyance system.

PROJECT LOCATION: LEE COUNTY, SEC 19 TWP 46S RGE 24E

PERMIT DURATION: See Special Condition No:1. See attached Rule 40E-4.321, Florida Administrative Code.

This is to notify you of the District's agency action concerning Notice of Intent for Permit Application No. 091019-6, dated October 19, 2009. This action is taken pursuant to Rule 40E-1.603 and Chapter 40E-40, Florida Administrative Code (F.A.C.).

Based on the information provided, District rules have been adhered to and an Environmental Resource General 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 19 General Conditions (See Pages 2 - 4 of 6),
- 3 the attached 16 Special Conditions (See Pages 5 - 6 of 6) and
- 4 the attached 5 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 a "Notice of Rights" has been mailed to the Permittee (and the persons listed in the attached distribution list) no later than 5:00 p.m. on this 13th day of May, 2010, in accordance with Section 120.60(3), Florida Statutes.

BY:

Ricardo A. Valera, P.E.
Director, LWC Regulatory Division
Lower West Coast Service Center

Certified mail number 7006 2150 0002 5479 3896

NOTICE OF RIGHTS

As required by Sections 120.569(1), and 120.60(3), Fla. Stat., 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 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 District decision which does or may determine their substantial interests shall file a petition for hearing with the District Clerk 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 Subsection 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of either written notice through mail, or electronic mail, or posting that the District has or intends to take final agency action, or publication of notice that the District 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.

Filing Instructions

The Petition must be filed with the Office of the District Clerk of the SFWMD. Filings with the District Clerk may be made by mail, hand-delivery or facsimile. **Filings by e-mail will not be accepted.** Any person wishing to receive a clerked copy with the date and time stamped must provide an additional copy. A petition for administrative hearing is deemed filed upon receipt during normal business hours by the District Clerk at SFWMD headquarters in West Palm Beach, Florida. Any document received by the office of the SFWMD Clerk after 5:00 p.m. shall be 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 SFWMD Clerk, P.O. Box 24680, West Palm Beach, Florida 33416.
- Filings by hand-delivery must be delivered to the Office of the SFWMD Clerk. **Delivery of a petition to the SFWMD's security desk does not constitute filing. To ensure proper filing, it will be necessary to request the SFWMD's security officer to contact the Clerk's office.** An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by facsimile must be transmitted to the SFWMD Clerk's Office at (561) 682-6010. Pursuant to Subsections 28-106.104(7), (8) and (9), Fla. Admin. Code, a party who files a document by facsimile represents that the original physically signed document will be retained by that party for the duration of that proceeding and of any subsequent appeal or subsequent proceeding in that cause. Any party who elects to file any document by facsimile shall 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 with the clerk as a result. The filing date for a document filed by facsimile shall be the date the SFWMD Clerk receives the complete document.

Initiation of an Administrative Hearing

Pursuant to 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 and 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, District file number or any other SFWMD identification number, if known.
2. The name, address 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.

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 extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

If the District takes action with substantially different impacts on water resources from the notice of intended agency decision, the persons who may be substantially affected shall have an additional point of entry pursuant to Rule 28-106.111, Fla. Admin. Code, unless otherwise provided by law.

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 Sections 120.60(3) and 120.68, Fla. Stat., 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 pursuant to Florida Rule of Appellate Procedure 9.110 in the Fourth District Court of Appeal or in the appellate district where a party resides and filing a second copy of the notice with the SFWMD Clerk within 30 days of rendering of the final SFWMD action.

GENERAL CONDITIONS

1. All activities authorized by this permit shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit and Part IV, Chapter 373, F.S.
2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.
3. Activities approved by this permit shall be conducted in a manner which does not cause violations of State water quality standards. The permittee shall implement best management practices for erosion and pollution control to prevent violation of State water quality standards. Temporary erosion control shall be implemented prior to and during construction, and permanent control measures shall be completed within 7 days of any construction activity. Turbidity barriers shall be installed and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the permitted work. Turbidity barriers shall remain in place at all locations until construction is completed and soils are stabilized and vegetation has been established. All practices shall be in accordance with the guidelines and specifications described in Chapter 6 of the Florida Land Development Manual; A Guide to Sound Land and Water Management (Department of Environmental Regulation, 1988), incorporated by reference in Rule 40E-4.091, F.A.C. unless a project-specific erosion and sediment control plan is approved as part of the permit. Thereafter the permittee shall be responsible for the removal of the barriers. The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.
4. The permittee shall notify the District of the anticipated construction start date within 30 days of the date that this permit is issued. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the District an Environmental Resource Permit Construction Commencement Notice Form Number 0960 indicating the actual start date and the expected construction completion date.
5. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis utilizing an annual status report form. Status report forms shall be submitted the following June of each year.
6. Within 30 days after completion of construction of the permitted activity, the permittee shall submit a written statement of completion and certification by a professional engineer or other individual authorized by law, utilizing the supplied Environmental Resource/Surface Water Management Permit Construction Completion/Certification Form Number 0881A, or Environmental Resource/Surface Water Management Permit Construction Completion Certification - For Projects Permitted prior to October 3, 1995 Form No. 0881B, incorporated by reference in Rule 40E-1.659, F.A.C. The statement of completion and certification shall be based on onsite observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the District that the system is ready for inspection. Additionally, if deviation from the approved drawings are discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawings. All surveyed dimensions and elevations shall be certified by a registered surveyor.
7. The operation phase of this permit shall not become effective: until the permittee has complied with the requirements of condition (6) above, and submitted a request for conversion of Environmental Resource Permit from Construction Phase to Operation Phase, Form No. 0920; the District determines the system to be in compliance with the permitted plans and specifications; and the entity approved by the District in accordance with Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit

GENERAL CONDITIONS

Applications within the South Florida Water Management District, accepts responsibility for operation and maintenance of the system. The permit shall not be transferred to such approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall initiate transfer of the permit to the approved responsible operating entity if different from the permittee. Until the permit is transferred pursuant to Section 40E-1.6107, F.A.C., the permittee shall be liable for compliance with the terms of the permit.

8. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by that portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of the phase or portion of the system to a local government or other responsible entity.
9. For those systems that will be operated or maintained by an entity that will require an easement or deed restriction in order to enable that entity to operate or maintain the system in conformance with this permit, such easement or deed restriction must be recorded in the public records and submitted to the District along with any other final operation and maintenance documents required by Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit applications within the South Florida Water Management District, prior to lot or units sales or prior to the completion of the system, whichever comes first. Other documents concerning the establishment and authority of the operating entity must be filed with the Secretary of State, county or municipal entities. Final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local government entity. Failure to submit the appropriate final documents will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system and any other permit conditions.
10. Should any other regulatory agency require changes to the permitted system, the permittee shall notify the District in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.
11. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and Chapter 40E-4 or Chapter 40E-40, F.A.C.
12. The permittee is hereby advised that Section 253.77, F.S. states that a person may not commence any excavation, construction, or other activity involving the use of sovereign or other lands of the State, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereign lands or other state-owned lands.
13. The permittee must obtain a Water Use permit prior to construction dewatering, unless the work qualifies for a general permit pursuant to Subsection 40E-20.302(3), F.A.C., also known as the "No Notice" Rule.
14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any system authorized by the permit.
15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit

GENERAL CONDITIONS

application, including plans or other supporting documentation, shall not be considered binding, unless a specific condition of this permit or a formal determination under Section 373.421(2), F.S., provides otherwise.

16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of a permitted system or the real property on which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of Rules 40E-1.6105 and 40E-1.6107, F.A.C.. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations prior to the sale, conveyance or other transfer of the system.
17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.
18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the appropriate District service center.
19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.

SPECIAL CONDITIONS

1. The construction phase of this permit shall expire on May 13, 2015.
2. Operation of the surface water management system shall be the responsibility of the permittee.
3. The permittee shall be responsible for the correction of any erosion, shoaling or water quality problems that result from the construction or operation of the surface water management system.
4. Measures shall be taken during construction to insure that sedimentation and/or turbidity violations do not occur in the receiving water.
5. The District reserves the right to require that additional water quality treatment methods be incorporated into the drainage system if such measures are shown to be necessary.
6. Facilities other than those stated herein shall not be constructed without an approved modification of this permit.
7. 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.
8. The permittee shall provide routine maintenance of all of the components of the surface water management system in order to remove all trapped sediments/debris. All materials shall be properly disposed of as required by law. Failure to properly maintain the system may result in adverse flooding conditions.
9. This permit is issued based on the applicant's submitted information which reasonably demonstrates that adverse water resource related impacts will not be caused by the completed permit activity. Should any adverse impacts caused by the completed surface water management system occur, the District will require the permittee to provide appropriate mitigation to the District or other impacted party. The District will require the permittee to modify the surface water management system, if necessary, to eliminate the cause of the adverse impacts.
10. The permittee acknowledges that, pursuant to Rule 40E-4.101(2), F.A.C., a notice of Environmental Resource or Surface Water Management Permit may be recorded in the county public records. Pursuant to the specific language of the rule, this notice shall not be considered an encumbrance upon the property.
11. If 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, the permitted project should cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The permittee, or other designee, should contact the Florida Department of State, Division of Historical Resources, Review and Compliance Section at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Project activities should not resume without verbal and/or written authorization from the Division of Historical Resources. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, Florida Statutes.
12. The permittee shall utilize the criteria contained in the Construction Pollution Prevention Plan (Exhibit 4.0) and on the applicable approved construction drawings for the duration of the project's construction activities.
13. The Urban Stomwater Management Plan shall be implemented in accordance with Exhibit 5.0.
14. The following exhibits for the permit are incorporated by reference herein and are located in the permit file. In addition, these exhibits can be viewed on the District's ePermitting website under this application

SPECIAL CONDITIONS

number.

Exhibit 4.0 (pages 1-10) - Construction Pollution Prevention Plan
Exhibit 5.0 (pages 1-5) - Urban Stormwater Management Program

15. No construction dewatering is authorized.
16. The authorization for construction of the surface water management system is issued pursuant to the water quality net improvement provisions referenced in Rule Section 40E-4.303(1), Florida Administrative Code; therefore, the state water quality certification is waived.

Last Date For Agency Action: May 14, 2010

GENERAL ENVIRONMENTAL RESOURCE PERMIT STAFF REPORT

Project Name: Basin Based Neighborhood Improvements

Permit No.: 36-07287-P

Application No.: 091019-6

Application Type: Environmental Resource (New General Permit)

Location: Lee County, S19/T46S/R24E

Permittee : Town Of Fort Myers Beach, Florida

Operating Entity : Permittee

Project Area: 49.14 acres

Project Land Use: Other

Drainage Basin: GULF OF MEXICO

Sub Basin: SAN CARLOS BAY

Receiving Body: Matanzas Pass

Class: CLASS III

Special Drainage District: NA

Conservation Easement To District : No

Sovereign Submerged Lands: No

PROJECT PURPOSE:

This application is a request for an Environmental Resource Permit authorizing Construction and Operation of a surface water management system serving 10.38 acres of public road right-of-way project within a 49.14-acre project limit area covering residential and commercial development known as Basin Based Neighborhood Improvements, with discharge into Matanzas Pass via the proposed improved conveyance system.

PROJECT EVALUATION:**PROJECT SITE DESCRIPTION:**

The project consists of improvements within the existing right-of-ways (ROWs) on Estero Boulevard (Blvd) and on 6 (six) separate streets that all intersect Estero Blvd to the west of Matanzas Pass Preserve in the Town of Fort Myers Beach, Lee County. The 6 streets are as follows: Pearl Street, Delmar Avenue, Fairweather Lane, Mango Street, Tropical Shores Way, and Miramar Avenue. A location map is attached as Exhibit 1.0.

There are no permitted surface water management facilities within the project area. The existing conditions within the ROW area pre-dates current District permitting requirements. The topography is flat with small elevation changes between the ROW and adjacent land parcels. In general, the existing ROWs represent typical rural roadway section adjacent to residential and commercial developments. The existing sections do not contain a continuous or functioning roadside ditch system. As such, no roadside conveyance (swales or culverts) exist to effectively convey stormwater flows, other than across the roadway pavement section once an "inertial" water depth is achieved. This condition results in intermittent flooding of the roads. Currently, stormwater runoff from the ROWs discharges directly into tidal waters of Matanzas Pass without treatment.

There is one mangrove dominated wetland located to the east of Mango Street. The project proposes to better the existing conditions by providing pre-treatment to the stormwater conveyed into the wetland. There are no wetland or other surface water (OSW) impacts associated with the proposed project.

PROPOSED PROJECT:

The applicant proposes to provide flooding related improvements to protect property and reduce traffic related impacts within the 10.38-acre ROW and 38.76-acre surrounding property. The surface water management system (SWMS) for the entire 49.14-acre project area was divided into six (6) street or system names: Pearl Street, Delmar Avenue, Fairweather Lane, Mango Street, Estero-Bayview, and Estero-Tropical Shores. Exhibit 2.1 contains additional information related to each basin's contributing area.

The SWMS design involves adding a limited number of inlets/associated conveyance pipes and some pavement grade modifications within the ROW. Due to the overall topography within the project area, only limited areas will have pavement grades modified. The majority of existing ROW grades will be maintained as a result of this project. The proposed project results in reducing the amount of flooding on existing roads, however, limited overland flows across the pavement are still anticipated. The proposed improvements are contained within the existing ROWs. The site details are attached as Exhibit 2.0.

The proposed water quality improvement is achieved via adding structural water quality improvement devices to the proposed SWMS. Within the Pearl Street, Delmar Avenue, Fairweather Lane, Estero-Bayview, and Estero-Tropical Shores basins water quality treatment will be provided by a "Stormceptor", or equivalent device designed to remove 80% of the Total Suspended Solids (TSS). Within the Mango Street basin water quality treatment will be provided by a "Grate Inlet Skimmer Box" manufactured by Suntree Technologies, or equivalent, which is designed to remove hydrocarbons with limited solids removal. Details of the proposed water quality treatment devices are provided in Exhibits 2.3 and 2.4.

LAND USE:

- The category "Other" indicates the existing residential and commercial area covered within the 49.14-acre project limit.
- The category "Right-of-Way" indicates the existing public right-of-way area covered within the 49.14-acre project limit.

Construction:**Project:**

	This Phase	Total Project	
Other	38.76	38.76	acres
Right-Of-Way	10.38	10.38	acres
Total:	49.14	49.14	

WATER QUANTITY :**Discharge Rate :**

The proposed project discharges to a tidal water body. Details of the discharge rates from each basin are provided in Exhibit 2.2.

WATER QUALITY :

The existing SWMS does not provide treatment within the 6 basins. As a result of this project, discharge from the six basins will be directed into structural water quality treatment devices: either a "Stormceptor" (or equivalent) or "Grate Inlet Skimmer Box" (or equivalent) device. These devices provide additional water quality treatment over the existing conditions.

In addition to these elements the applicant will be implementing a Construction Pollution Prevention Plan during construction activities and an Urban Stormwater Management Program during post construction activities to address nutrients within the existing ROW, and long term maintenance of the proposed SWMS. These elements are attached as Exhibits 4.0 and 5.0 and will be implemented in accordance with Special Conditions 12 and 13.

The proposed project results in a net improvement to water quality.

WETLANDS:

The proposed project is adjacent to one mangrove dominated wetland located to the east of Mango Street which ends just short of the shoreline at Matanzas Pass. It is dominated by red, white and black mangroves, as well as buttonwoods. Gumbo limbo and seagrape were also present as native species. The wetland also contains several exotic/invasive vegetative species, including: carrotwood, Brazilian pepper, rosary pea, strangler fig, Australian pine, seaside mahoe, and wedelia. A formal wetland delineation has been submitted to the District under Application Number 100406-12 for this adjacent property.

The most northern portion of the wetland is owned by the Sea Grape Bay Condominium Association. It remains unclear if this portion of the wetland was placed under a conservation easement as no public documentation of such easement was discovered. This portion of the wetland was well maintained and relatively free of exotic vegetation. The southern most portion of the wetland is owned by James Jamieson and Robert Linehan. It was platted for development, and since the Town of Fort Myers Beach has no domain over the area, no conservation easement will be recorded as a result of this project. This portion of the wetland contains up to 50% exotic vegetative species as well as various amounts of trash. Please see the wetland ownership map attached as Exhibit 3.0.

For the improvements associated with Mango Street (please see the proposed project section of this staff report) that outfall to the area encompassing the wetland, this project proposes to improve to the existing conditions. Currently, the existing subsurface system collects and conveys untreated stormwater to the existing outfall location directly into the wetland. Under the proposed condition, a filtering insert ("Grate

Inlet Skimmer Box," by Suntree Technologies, Inc.) will be placed within the existing inlets so that inflows will be provided with treatment at the point of entrance to the existing conveyance system. In addition, the proposed 18" pipe will have its grated inlet such that the more frequent and low flow storms will be captured and treated through the existing modified inlet system. As such, no direct or secondary wetland impacts will be assessed for this project.

Wildlife Issues:

The proposed roadway improvements do not contain preferred habitat for wetland-dependent endangered or threatened wildlife species or species of special concern. No wetland-dependent endangered/threatened species or species of special concern were observed onsite, and submitted information indicates that potential use of the site by such species is minimal. This permit does not relieve the applicant from complying with all applicable rules and any other agencies' requirements if, in the future, endangered/threatened species or species of special concern are discovered on the site.

CERTIFICATION AND MAINTENANCE OF THE WATER MANAGEMENT SYSTEM:

It is suggested that the permittee retain the services of a Professional Engineer registered in the State of Florida for periodic observation of construction of the surface water management (SWM) system. This will facilitate the completion of construction completion certification Form #0881 which is required pursuant to Section 10 of the Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District, and Rule 40E-4.361(2), Florida Administrative Code (F.A.C.).

Pursuant to Chapter 40E-4 F.A.C., this permit may not be converted from the construction phase to the operation phase until certification of the SWM system is submitted to and accepted by this District. Rule 40E-4.321(7) F.A.C. states that failure to complete construction of the SWM system and obtain operation phase approval from the District within the permit duration shall require a new permit authorization unless a permit extension is granted.

For SWM systems permitted with an operating entity who is different from the permittee, it should be noted that until the permit is transferred to the operating entity pursuant to Rule 40E-1.6107, F.A.C., the permittee is liable for compliance with the terms of this permit.

The permittee is advised that the efficiency of a SWM system will normally decrease over time unless the system is periodically maintained. A significant reduction in flow capacity can usually be attributed to partial blockages of the conveyance system. Once flow capacity is compromised, flooding of the project may result. Maintenance of the SWM system is required to protect the public health, safety and the natural resources of the state. Therefore, the permittee must have periodic inspections of the SWM system performed to ensure performance for flood protection and water quality purposes. If deficiencies are found, it is the responsibility of the permittee to correct these deficiencies in a timely manner.

RELATED CONCERNS:

Water Use Permit Status:

The applicant has indicated that no irrigation water will be required for the project.

The applicant has indicated that dewatering is not required for construction of this project.

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, unless the work qualifies for a No-Notice Short-Term Dewatering permit pursuant to Chapter 40E-20.302(3) or is exempt pursuant to Section 40E-2.051, FAC.

CERP:

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

Potable Water Supplier:

Not Applicable

Waste Water System/Supplier:

Not Applicable

Right-Of-Way Permit Status:

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

DRI Status:

This project is not a DRI.

Historical/Archeological Resources:

The District has received correspondence from the Florida Department of State, Division of Historical Resources indicating that the agency has no objections to the issuance of this permit.

DCA/CZM Consistency Review:

The District has not received a finding of inconsistency from the Florida Department of Environmental Protection or other commenting agencies regarding the provisions of the federal Coastal Zone Management Plan.

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:



Laura Layman

DATE: 5/12/10

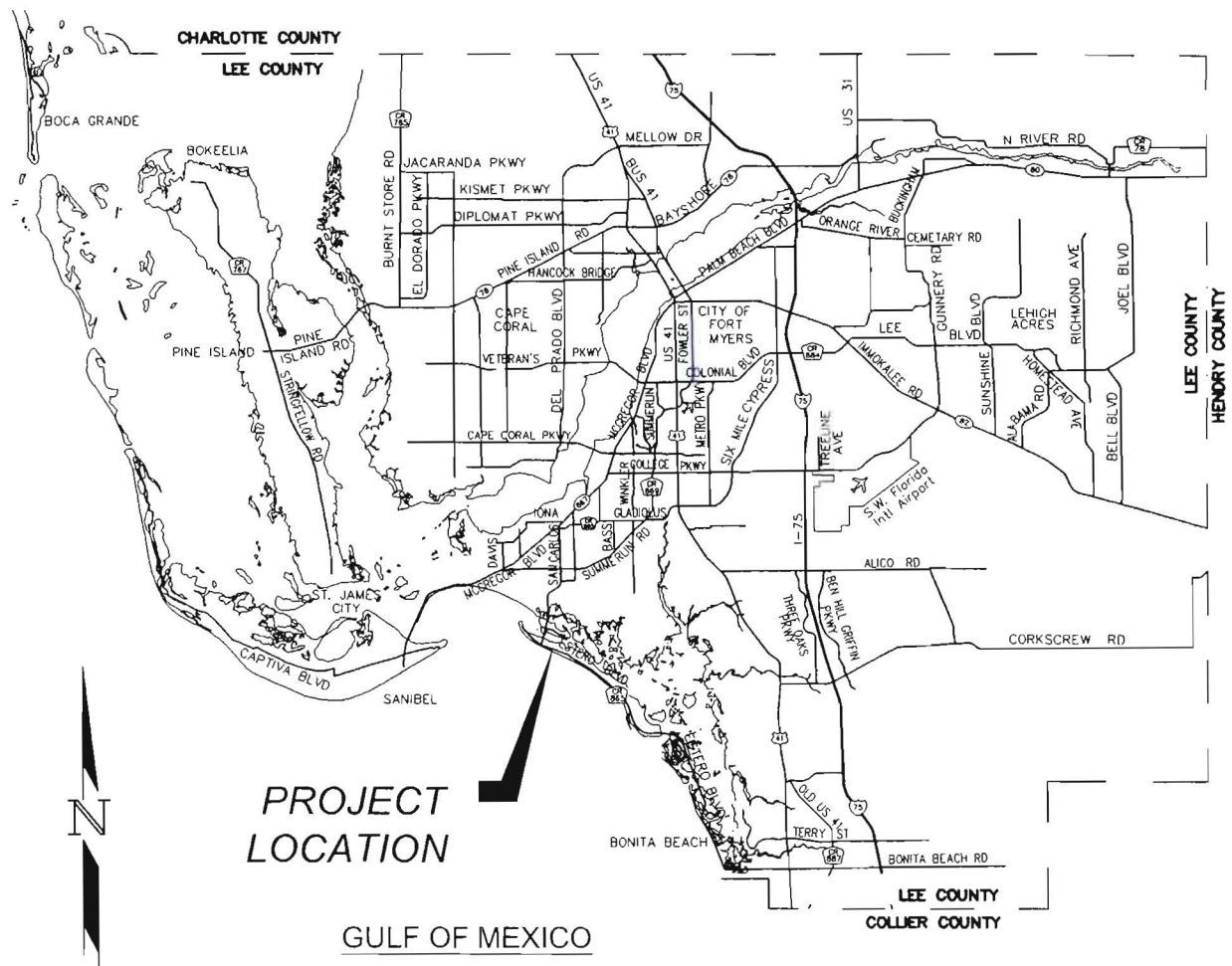
SURFACE WATER MANAGEMENT:



William Foley, P.E.

DATE: 5/12/10

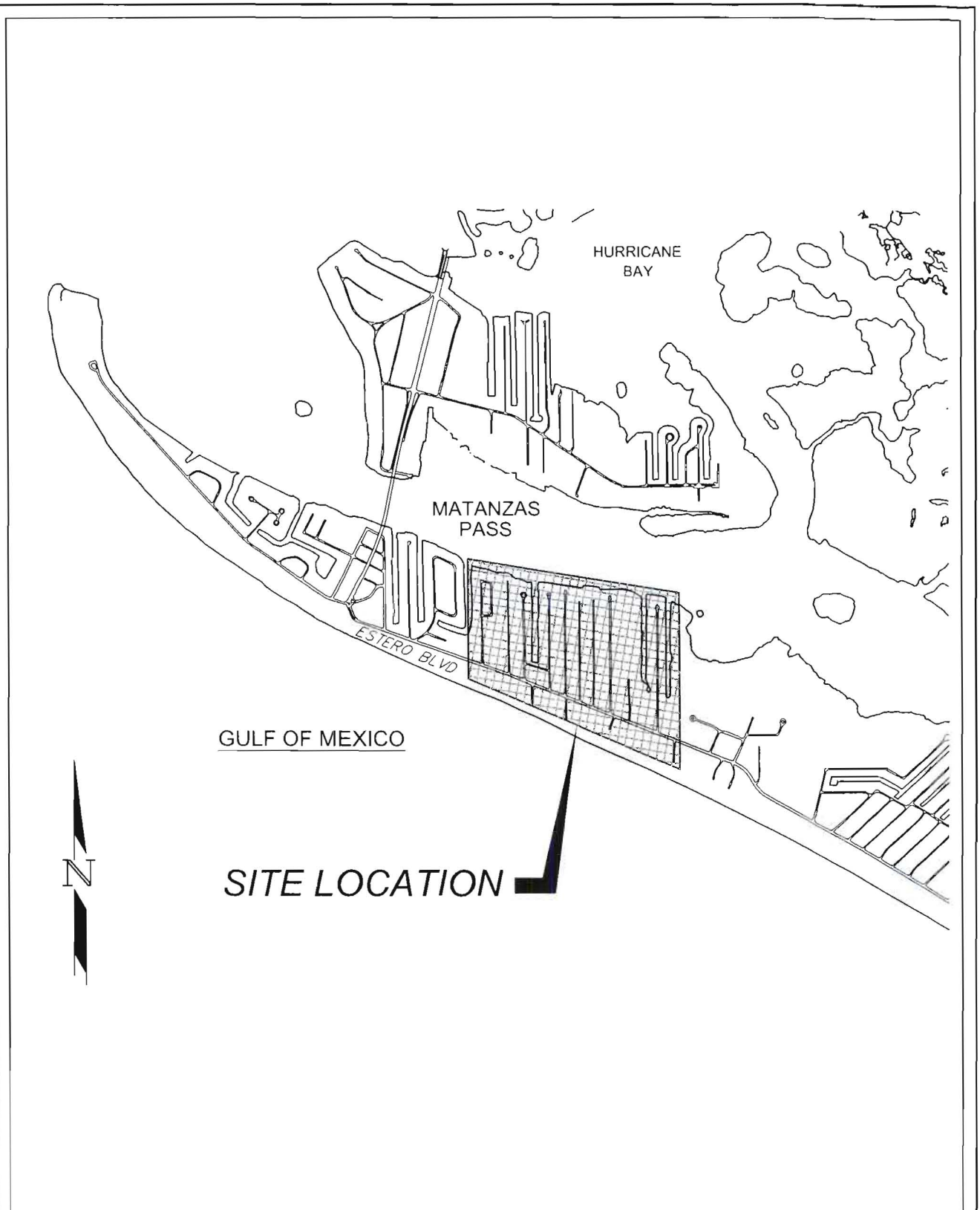
S:\ENGINEERING PROJECTS\F40\H40E_1609-48-P\DWG\PERMIT\08-1063-COVER.dwg (LOCATION MAP) Jan 11, 2010 - 11:48am jharman



LOCATION MAP
TOWN OF FORT MYERS BEACH
FEMA HMGP 1609 - 48 - R
FORT MYERS BEACH, LEE COUNTY, FLORIDA
APPLICATION NUMBER: 091019-6

ECT
Environmental Consulting & Technology, Inc.
4100 CENTER POINTE DRIVE, SUITE 112
FORT MYERS, FLORIDA 33916
Tel (239) 277-0003 Fax (239) 277-1211

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SITE MAP
TOWN OF FORT MYERS BEACH
FEMA HMGP 1609 - 48 - R
FORT MYERS BEACH, LEE COUNTY, FLORIDA
APPLICATION NUMBER: 091019-6

ECT
Environmental Consulting & Technology, Inc.
4100 CENTER POINTE DRIVE, SUITE 112
FORT MYERS, FLORIDA 33916
Tel (239) 277-0003 Fax (239) 277-1211

LIST OF UTILITY SERVICE AREAS:

POWER
FLORIDA POWER AND LIGHT
15634 WINKLER ROAD
FORT MYERS, FLORIDA 33908
(239) 415-1302

WATER
TOWN OF FORT MYERS BEACH
2623 ESTERO BOULEVARD
FORT MYERS BEACH, FLORIDA 33931
(239) 786-0202

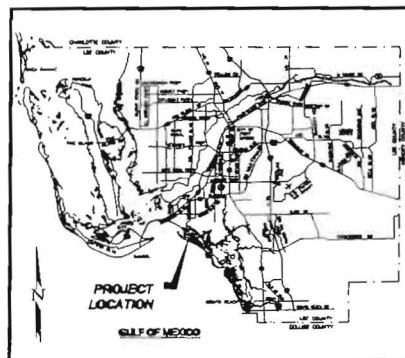
SEWER
LEE COUNTY UTILITIES
1500 MONROE STREET
FORT MYERS, FLORIDA 33906
(239) 533-8181

NATURAL GAS
TECO / PEOPLES GAS
5901 ENTERPRISE PARKWAY
FORT MYERS, FLORIDA 33906
(239) 880-6507

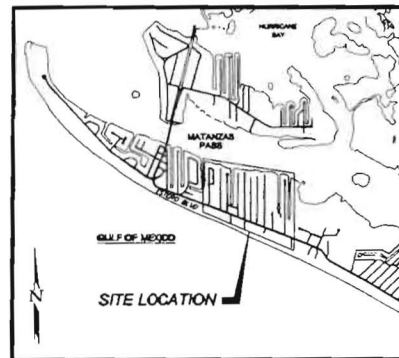
TELEPHONE
EMBARK / UNITED TELEPHONE-FLORIDA
P. O. BOX 370
FORT MYERS, FLORIDA 33901
(239) 336-2011

CABLE
COMCAST CABLE
1418 SE 10TH STREET
CAPE CORAL, FLORIDA 33906
(239) 874-2020

PLANS FOR BASIN BASED NEIGHBORHOOD FLOOD MITIGATION AND STORMWATER QUALITY IMPROVEMENT PROJECT TOWN OF FORT MYERS BEACH SECTION 19, TOWNSHIP 46 SOUTH, RANGE 24 EAST LEE COUNTY, FLORIDA



PROJECT LOCATION MAP
NOT TO SCALE



PROJECT SITE MAP
NOT TO SCALE

INDEX OF DRAWINGS

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C-02	ABBREVIATIONS, LEGENDS AND STANDARD NOTES
C-03	DRAINAGE BASIN MAP
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C-06 & C-07	PLAN, PROFILE AND CROSS SECTIONS - GASTEGO DRIVE
C-08 & C-09	PLAN, PROFILE AND CROSS SECTIONS - MIRAMAR STREET
C-10 & C-11	PLAN, PROFILE AND CROSS SECTIONS - OHIO AVENUE
C-12	PLAN, PROFILE AND CROSS SECTIONS - BAYVIEW DRIVE
C-13 & C-14	PLAN, PROFILE AND CROSS SECTIONS - VIRGINIA AVENUE
C-15 & C-16	PLAN, PROFILE AND CROSS SECTIONS - PEARL STREET
C-17 & C-18	PLAN, PROFILE AND CROSS SECTIONS - DELMAR AVENUE
C-19 & C-20	PLAN, PROFILE AND CROSS SECTIONS - FAIRWEATHER LANE
C-21 & C-22	PLAN, PROFILE AND CROSS SECTIONS - MANGO STREET
C-23	PLAN, PROFILE AND CROSS SECTIONS - CHAPEL STREET
C-24 & C-25	PLAN, PROFILE AND CROSS SECTIONS - TROPICAL SHORES WAY
C-26	PLAN, PROFILE AND CROSS SECTIONS - AVENUE C
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C-28	PLAN, PROFILE AND CROSS SECTIONS - PALM AVENUE
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C-30	PLAN, PROFILE AND CROSS SECTIONS - GOTTAGE AVENUE
C-31	PLAN, PROFILE AND CROSS SECTIONS - CHAPEL STREET (GULF SIDE)
C-32	PLAN, PROFILE AND CROSS SECTIONS - SOUTH ESTERO BLVD.
C-33	PLAN, PROFILE AND CROSS SECTIONS - SOUTH ESTERO BLVD.
C-34	PLAN, PROFILE AND CROSS SECTIONS - SOUTH ESTERO BLVD.
C-35	PLAN, PROFILE AND CROSS SECTIONS - SOUTH ESTERO BLVD.
C-40	SOILS MAP
C-41	FLUGGS MAP
C-42	AERIAL MAP

PREPARED FOR: FORT MYERS BEACH TOWN COUNCIL

LARRY KIKER MAYOR
BOB RAYMOND VICE MAYOR
TOM BABCOCK COUNCIL MEMBER
JO LIST COUNCIL MEMBER
ALAN MANDEL COUNCIL MEMBER

PREPARED BY:
ECT
Environmental Consulting & Technology, Inc.
4100 CENTER POINT DRIVE, SUITE 112
FORT MYERS, FLORIDA 33916
Tel (239) 277-0000 Fax (239) 277-1211
http://www.ectinc.com
CA06032

The stormwater management system(s) indicated on this plan was last used on April 2016 and was approved for installation in accordance with the SWPMD permit (Application No. 07010-05). Approval is given that other stormwater management systems may be subsequently installed.

BRIDLEY & VANCE, P.E.
REGISTERED PROFESSIONAL ENGINEER

DATE

BRIDLEY & VANCE, P.E.
REGISTERED PROFESSIONAL ENGINEER
C-01

FEDERAL COST-SHARE FUNDING SOURCE:

FEMA HMGP 1809 - 48 - R
DEM ID No.: 09HM-37-09-46-02-017

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (LATEST EDITION), UNLESS OTHERWISE SPECIFIED. ALL TYPICAL DETAILS ARE EITHER: PER FDOT - "DESIGN STANDARDS" (LATEST EDITION), LEE COUNTY UTILITIES (SEWER), TOWN OF FORT MYERS BEACH (WATER), OR THE MANUFACTURER (PROPRIETARY PRODUCTS) - UNLESS OTHERWISE SPECIFIED.

REVISIONS

NO.	DATE	REVISION	BY	APPROVED

ECT PROJECT No.: 06 -1063

DEPARTMENT OF PUBLIC WORKS

TERRANCE "TERRY" STEWART, TOWN MANAGER
CATHIE LEWIS, PUBLIC WORKS DIRECTOR

2623 ESTERO BOULEVARD
FORT MYERS BEACH, FLORIDA 33931
TELEPHONE (239) 786-0828 & FAX (239) 786-0829

SECT	SECTION
SEW	SEWER
SHF.	SHEET
SHFC	SPECIFICATION
SO.	SOLAR
ST.	STREET
STA.	STATION
STEAM	STEEL
STANDARD	STANDARD
SYM	SYMMETRICAL
TOE	TOE OF SLOPE
TOP	TOP OF BANK
TRM	THICK
TEL	TELEPHONE
TEMP	TEMPERATURE
TRANS.	TRANSFORMER
TYPE	TYPICAL
UNIT	UNITED STATES POSTAL SERVICE
UTL	UTILITY LAYOUT
VERT	VERTICAL
W	WATER
W/M	WATER MAIN
W/O	W/O
WO	WOOD
WT	WEIGHT
WY	WY
W.Y.	WATER YARD

HATCH PATTERNS

SURVEYS and MONUMENTATION

WASTE MANAGEMENT and DISPOSAL

THE CONTRACTOR SHALL MAINTAIN ON THE WORK SITE A CURRENT COPY OF ANY PERMITS NECESSARY FOR CONSTRUCTION AND AN UPDATED SET OF TIE-BACK DRAWINGS. THE CONTRACTOR SHALL SUBMIT TO THE TOWN ENGINEER FOR REVIEW AND APPROVAL THE DEPTHS OF ALL CONSTRUCTED IMPROVEMENTS AND PROVIDE ONE (1) COPY TO THE PROJECT ENGINEER.

THE CONTRACTOR SHALL OBTAIN PRE-CONSTRUCTION PHOTOGRAPHS AND VIDEO OF THE EXISTING SITE BEFORE THE COMPLETION OF THE CONSTRUCTION AREAS AND ADJACENT PROPERTIES. THE VIDEO SHALL INCLUDE SPECIFIC ATTENTION TO EXIST SUCH THAT THE TOWN ENGINEER CAN IDENTIFY ANY EXISTING DEFECTS OR DAMAGE TO THE ADJACENT PROPERTIES. A COPY OF THE PHOTOGRAPHS SHALL BE PROVIDED TO THE TOWN ON A CD BY 10:00 FORWARD AND A COPY OF THE VIDEO SHALL BE PROVIDED TO THE TOWN BY 10:00 FORWARD. THE TOWN ENGINEER SHALL REVIEW THE COMPLETION OF RESTORATION ACTIVITIES. THE CONTRACTOR SHALL OBTAIN POST-CONSTRUCTION PHOTOGRAPHS AND VIDEO TO DOCUMENT THE COMPLETION OF THE RESTORATION ACTIVITIES AND THE TOWN SHALL REVIEW THE SAME IN THE SAME FASHION AS ABOVE AND PROVIDED TO THE TOWN.

[illegible]

ALL JOISTS AND STEEL BEAM JOINTS SHALL BE REINFORCED CONCRETE PIPE (RCP) UNLESS OTHERWISE NOTED ON THE PLANS. ALL CONCRETE PIPE SHALL CONFORM TO ASTM C-76 FOR RCP OR ASTM A-900 FOR STEEL PIPE. ALL JOINTS SHALL USE RUBBER GASKETS (INSURED OR PREFORMED PLASTIC (ELLIPTICAL)) BE WEARER PER FOOT SPEE KATING, AND LIFTING MOLES SHALL NOT BE PROHIBITED.

THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR EACH PAIR OF JOIST FOR REVIEW AND APPROVAL BY THE DISTRICT ENGINEER PRIOR TO FABRICATION. ALL JOISTS ARE TO BE PROVIDED WITH PER FOOT DIAMOND NOCK (LATEST EDITION).

DURING CONSTRUCTION, CRATE LIDS AND JOINTS ARE OPENINGS SHALL BE IMMEDIATELY PROTECTED TO PREVENT DEBRIS AND SEDIMENT FROM ENTERING INTO

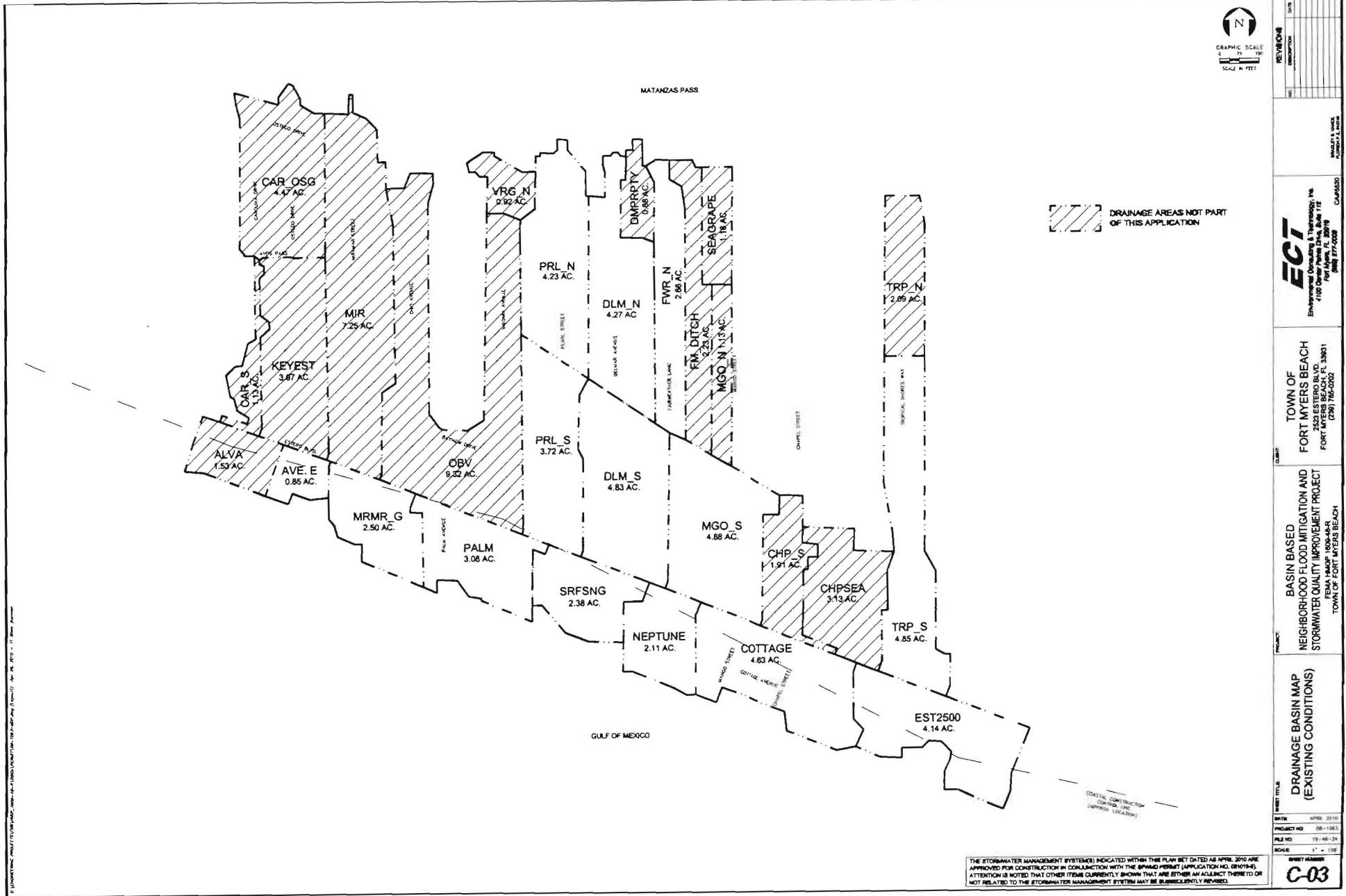
ALL BACKFILLING SHALL BE PLACED IN WORKING CHUTE BOX (3") LOOSE LIMITS AND COMPACTED TO A MINIMUM OF 98% MAXIMUM DENSITY PER ASTM 1557, EXCEPT AS OTHERWISE PROVIDED OR INDICATED.

ALL SURFACES SHALL BE EVENLY AND SMOOTHLY BETWEEN THE INDICATED GRADES.

A 2'-12" ALLOWANCE (OVER EXCAVATION) SHALL BE PROVIDED FOR ALL AREAS TO BE SODDED FROM GRADE SHOWN AS FINISHED GRADE TO THAT OF TOP OF SOOT.

THE CONTRACTION SHALL PROVIDE COMPLIANT IN-PLACE DENSITY TESTS (1 PER 100 ± SQUARE FEET) TO THE PROJECT ENGINEER FOR THE UNDERLAY BASE AREAS PRIOR TO

[illegible]



THE STORMWATER MANAGEMENT SYSTEM(S) INDICATED WITHIN THIS PLAN SET DATED AS APRIL 2010 ARE APPROVED FOR CONSTRUCTION IN CONJUNCTION WITH THE SPILLAGE PERMIT (APPLICATION NO. 091019-6). ATTENTION IS NOTED THAT OTHER ITEMS CURRENTLY SHOWN THAT ARE EITHER AN EJECTA THEREON OR NOT RELATED TO THE STORMWATER MANAGEMENT SYSTEM MAY BE SUBSEQUENTLY REVISED.

DATE	04/08/2010										
PROJECT NO.	08-1061										
FILE NO.	19-08-24										
SCALE	1" = 100'										
PROJECT NAME	DRAINAGE BASIN MAP (EXISTING CONDITIONS)										
PROJECT	BASIN BASED NEIGHBORHOOD FLOOD MITIGATION AND STORMWATER QUALITY IMPROVEMENT PROJECT										
CLIENT	FEMA 1840P 1009-08-04 FORT MYERS BEACH, FL 33901 TOWN OF FORT MYERS BEACH										
DESIGNER	TOWN OF FORT MYERS BEACH										
REVISIONS	<table> <tr> <th>NO.</th><th>DESCRIPTION</th></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>	NO.	DESCRIPTION								
NO.	DESCRIPTION										
ECT Environmental Consulting & Technology, Inc. 4100 Center Avenue Drive, Suite 112 Fort Myers, FL 33909 (888) 877-0008 CAP0000											
C-03											



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C-12

**PLAN, PROFILE AND
CROSS SECTIONS
BAYVIEW DRIVE**

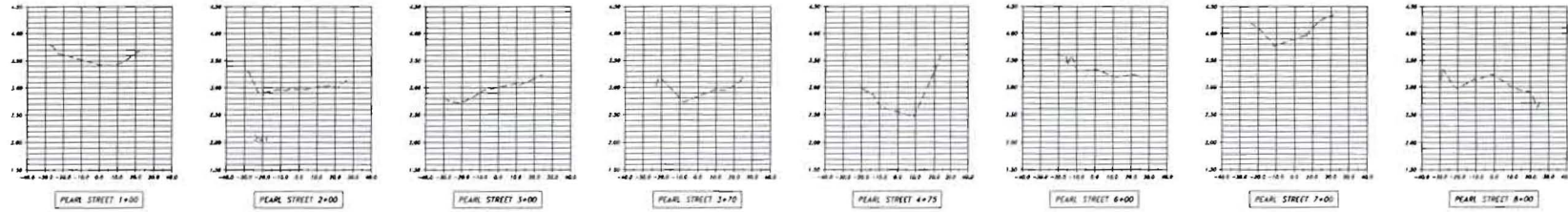
**BASIN BASED
NEIGHBORHOOD FLOOD MITIGATION AND
STORMWATER QUALITY IMPROVEMENT PROJECT**
FEMA #HQP-1004-BR
TOWN OF FORT MYERS BEACH

**TOWN OF
FORT MYERS BEACH**
2623 ESTERO BLVD.
FORT MYERS BEACH, FL 33901
(239) 785-0202

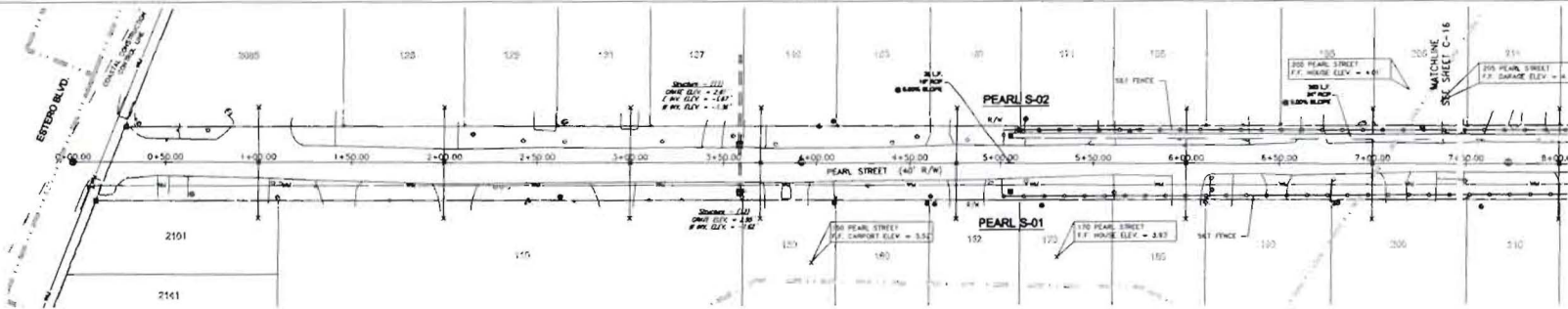
EET
Environmental Consulting & Technology, Inc.
4100 Cedar Point Drive, Suite 112
Fort Myers, FL 33913
(813) 877-0008

BRADLEY B. VANCE
ALABAMA 7 L. 64378

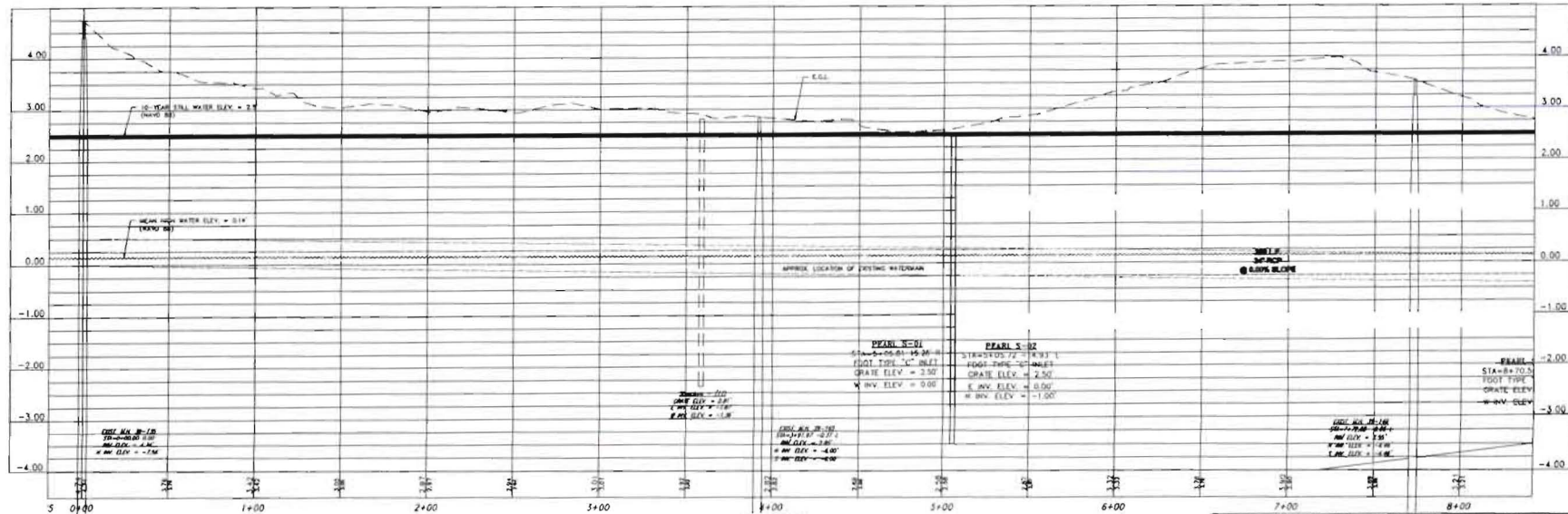
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SECTIONS
SCALE: 1"=30' HORIZ.
1"=1' VERT.



PLAN
SCALE: 1"=30'



PROFILE
SCALE: 1"=30' HORIZ.
1"=1' VERT.

THE STORMWATER MANAGEMENT SYSTEM(S) INDICATED WITHIN THIS PLAN SET DATED APRIL 2010 ARE APPROVED FOR CONSTRUCTION IN CONJUNCTION WITH THE BRINARD PERMIT (APPLICATION NO. 09018-6). ATTENTION IS NOTED THAT OTHER (THAN CURRENTLY SHOWN) THAT ARE EITHER AN ADJUNCT THERE TO OR NOT RELATED TO THE STORMWATER MANAGEMENT SYSTEM MAY BE SUBSEQUENTLY REVISED.

GRAPHIC SCALE
0 10 20
SCALE IN FEET

REVISION	DATE

DESIGNED BY
CHECKED BY
APPROVED BY

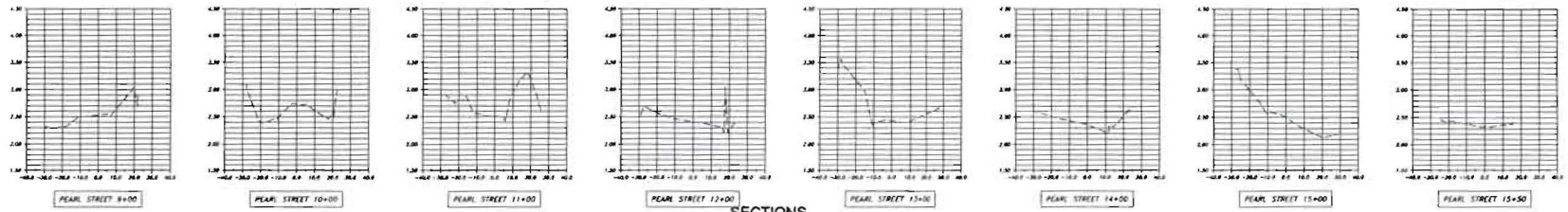
ECT
Environmental Consulting & Technology, Inc.
4100 South Pine Drive, Suite 110
Fort Myers, FL 33907
(813) 777-0000

TOWN OF
FORT MYERS BEACH
2003 ESTERO BLVD.
FORT MYERS BEACH, FL 33901
(239) 765-0000

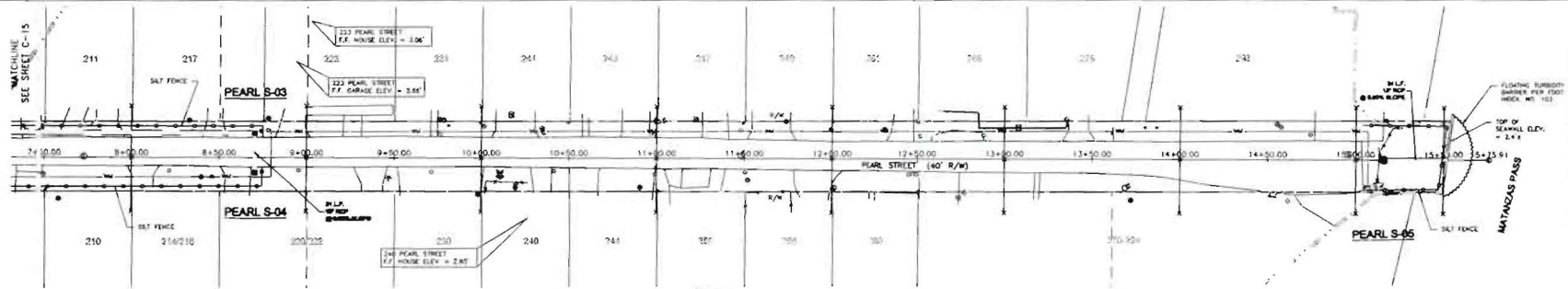
BASIN BASED
NEIGHBORHOOD FLOOD MITIGATION AND
STORMWATER QUALITY IMPROVEMENT PROJECT
PEARL STREET
TOWN OF FORT MYERS BEACH

PLAN, PROFILE AND
CROSS SECTIONS
PEARL STREET

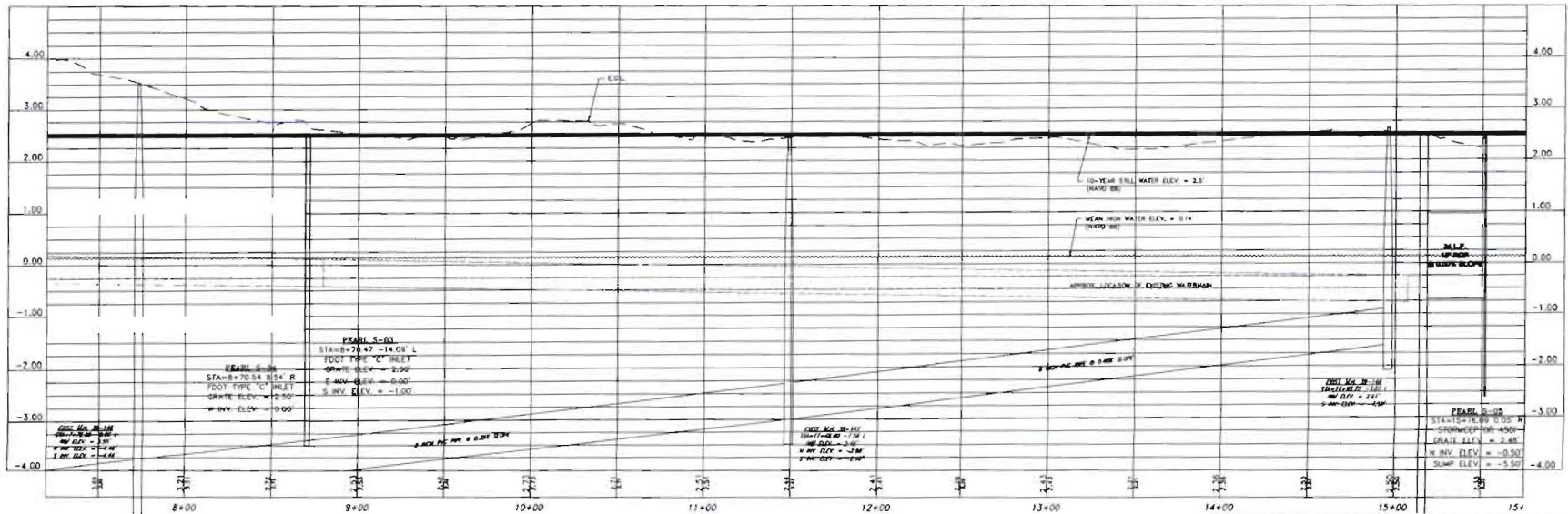
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PROJECT NO.: 09-1967
FILE NO.: 10-10-24
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SHEET NUMBER
C-15



SECTIONS
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1"=1' VERT



PLAN
SCALE: 1"=30'

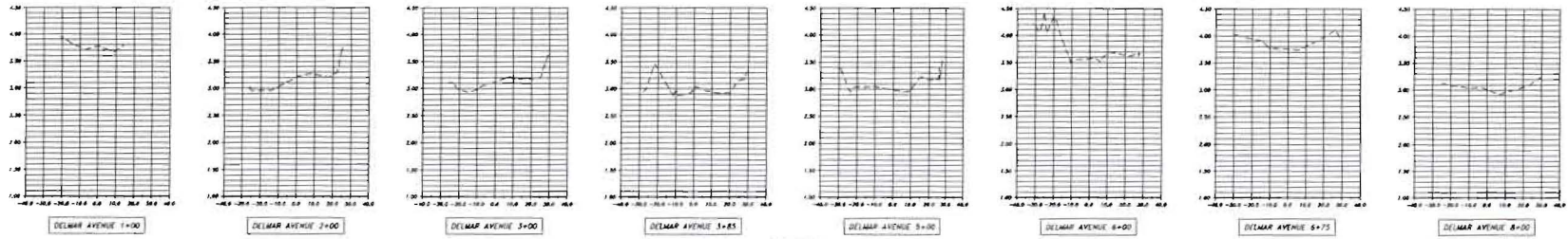


PROFILE
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1"=1' VERT

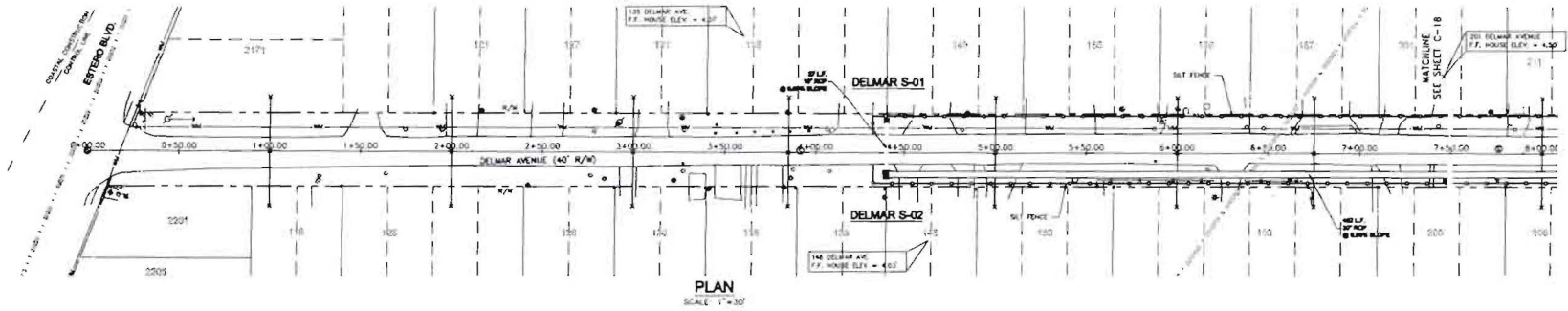
THE STORMWATER MANAGEMENT SYSTEM(S) INDICATED WITHIN THIS PLAN SET (DATED APRIL 2010) ARE APPROVED FOR CONSTRUCTION IN CONJUNCTION WITH THE SHAD PERMIT (APPLICATION NO. 0810164). ATTENTION IS NOTED THAT OTHER ITEMS CURRENTLY SHOWN THAT ARE EITHER AN ALIEN THREAT TO OR NOT RELATED TO THE STORMWATER MANAGEMENT SYSTEM MAY BE SUBSEQUENTLY PROVIDED.

ECT Environmental Consulting & Technology, Inc. 4100 Grand Pointe Drive, Suite 117 Fort Myers, FL 33907 (941) 877-0009 CADD/3D	REVISIONS NO. DESCRIPTION DATE
	TOWN OF FORT MYERS BEACH 2533 ESTERO BLVD. FORT MYERS BEACH, FL 33901 (941) 762-0002
PROJECT PLAN, PROFILE AND CROSS SECTIONS PEARL STREET BASIN BASED NEIGHBORHOOD FLOOD MITIGATION AND STORMWATER QUALITY IMPROVEMENT PROJECT FEMA MAP 1504-4-R TOWN OF FORT MYERS BEACH	SHEET TITLE DATE: APRIL 2010 PROJECT NO.: 08-1001-1 FILE NO.: 18-100-24 SCALE: AS SHOWN

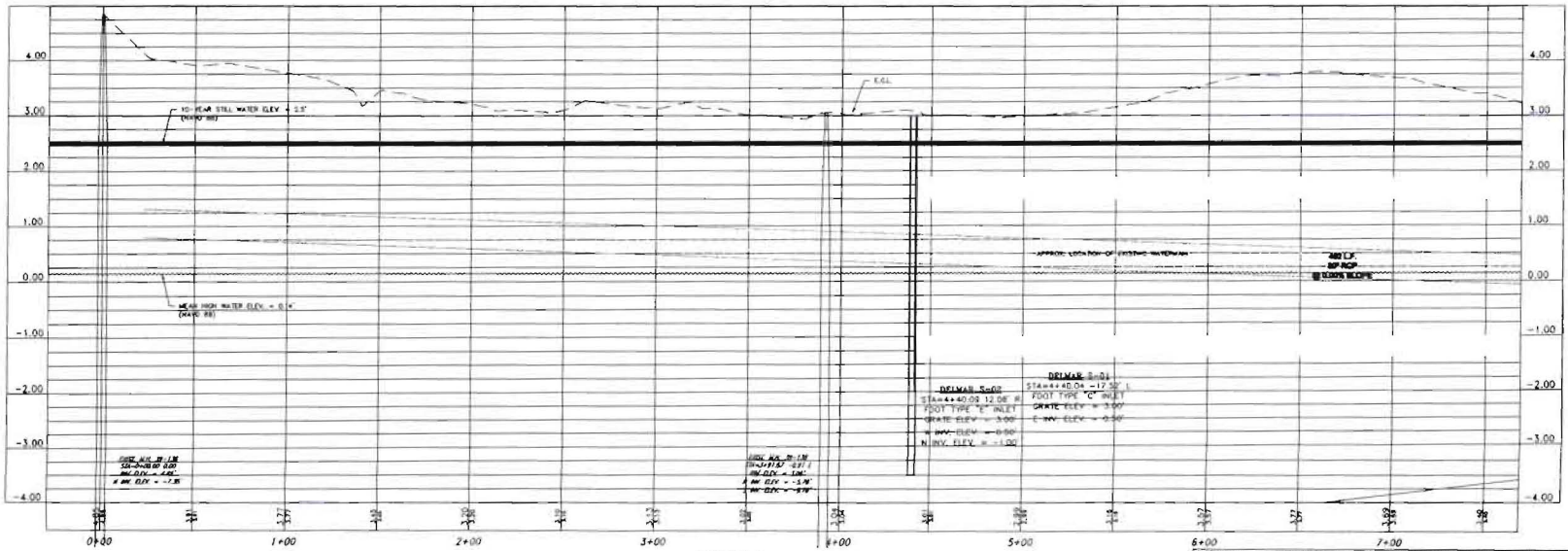
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SECTIONS
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1"=1' VERT.



PLAN
SCALE: 1"=30'

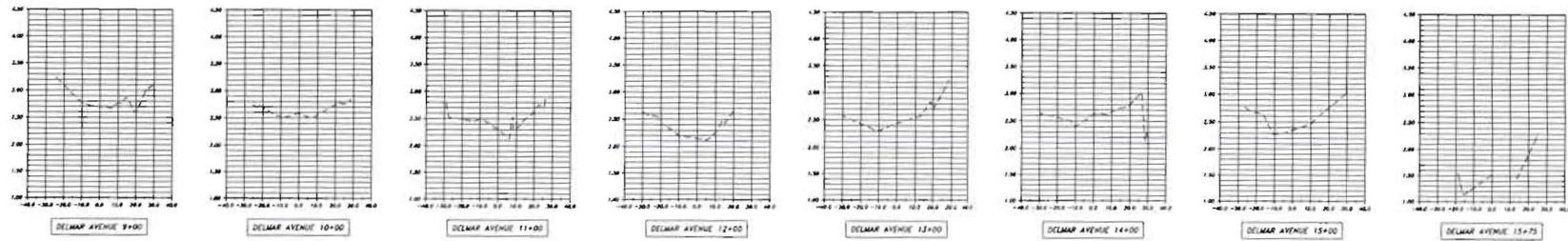


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1"=1' VERT.

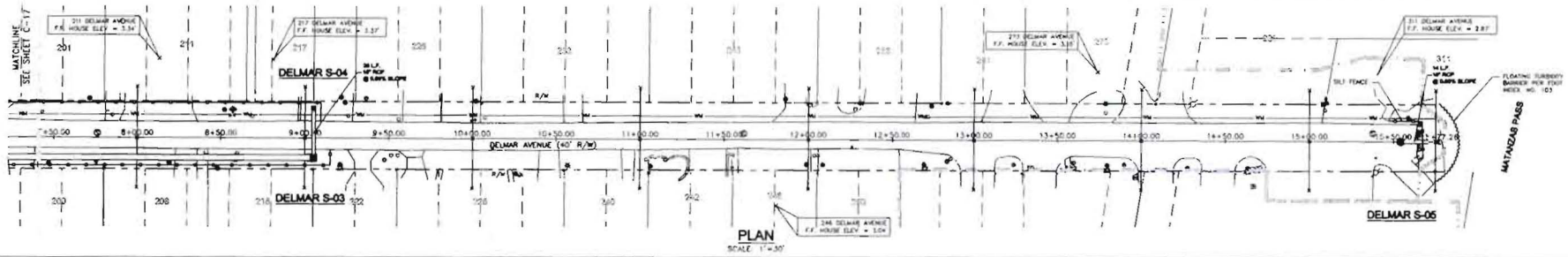
THE STORMWATER MANAGEMENT SYSTEM(S) INDICATED WITHIN THIS PLAN SET DATED AS APRIL 2010 ARE APPROVED FOR CONSTRUCTION IN CONJUNCTION WITH THE SPREAD PERMIT (APPLICATION NO. 08018-6). ATTENTION IS NOTED THAT OTHER ITEMS CURRENTLY SHOWN THAT ARE EITHER AN ADJUSTMENT THERETO OR NOT RELATED TO THE STORMWATER MANAGEMENT SYSTEM MAY BE SUBSEQUENTLY REVISED.

PROJECT NO.	08-1281
FILE NO.	18-88-24
SCALE	AS SHOWN
DATE	APRIL 2010
PROJECT NAME	BASIN BASED NEIGHBORHOOD FLOOD MITIGATION AND STORMWATER QUALITY IMPROVEMENT PROJECT
PROJECT LOCATION	PORT MYERS BEACH, FL 33851
PROJECT OWNER	TOWN OF PORT MYERS BEACH
PROJECT ENGINEER	ECT Environmental Consulting & Technology, Inc. 4100 Ocean Avenue Drive, Suite 112 Fort Myers Beach, FL 33931 (941) 877-0228
PROJECT NO.	08-1281
FILE NO.	18-88-24
SCALE	AS SHOWN
DATE	APRIL 2010
PROJECT NAME	BASIN BASED NEIGHBORHOOD FLOOD MITIGATION AND STORMWATER QUALITY IMPROVEMENT PROJECT
PROJECT LOCATION	PORT MYERS BEACH, FL 33851
PROJECT OWNER	TOWN OF PORT MYERS BEACH
PROJECT ENGINEER	ECT Environmental Consulting & Technology, Inc. 4100 Ocean Avenue Drive, Suite 112 Fort Myers Beach, FL 33931 (941) 877-0228

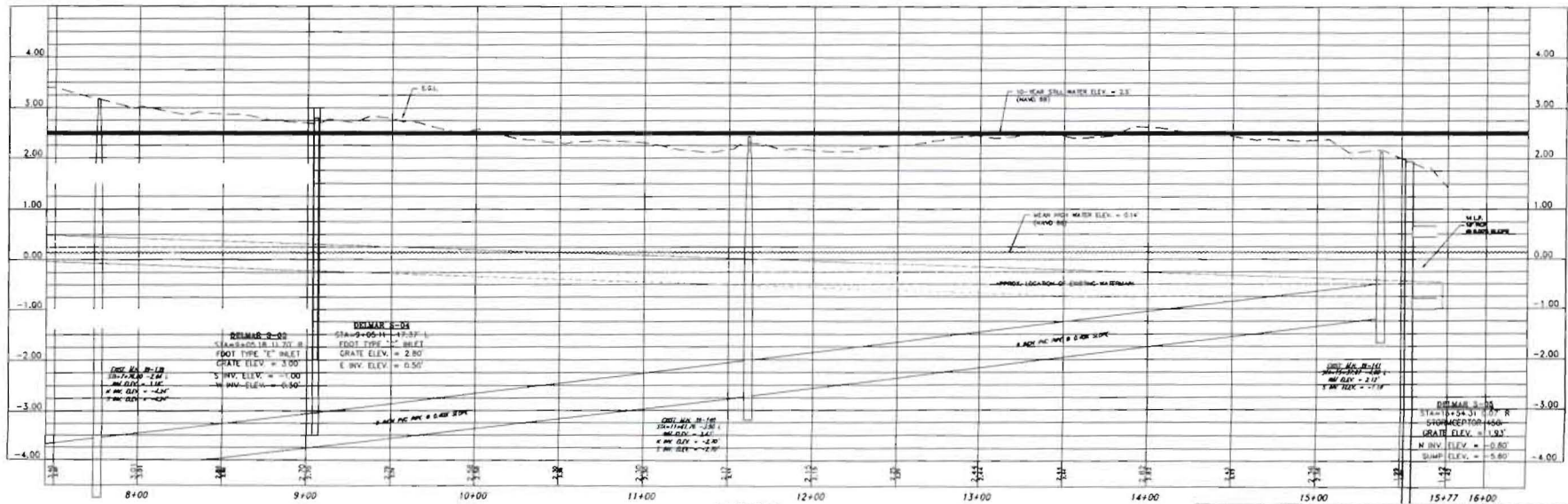
C-17



SECTIONS
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1"=1' VERT



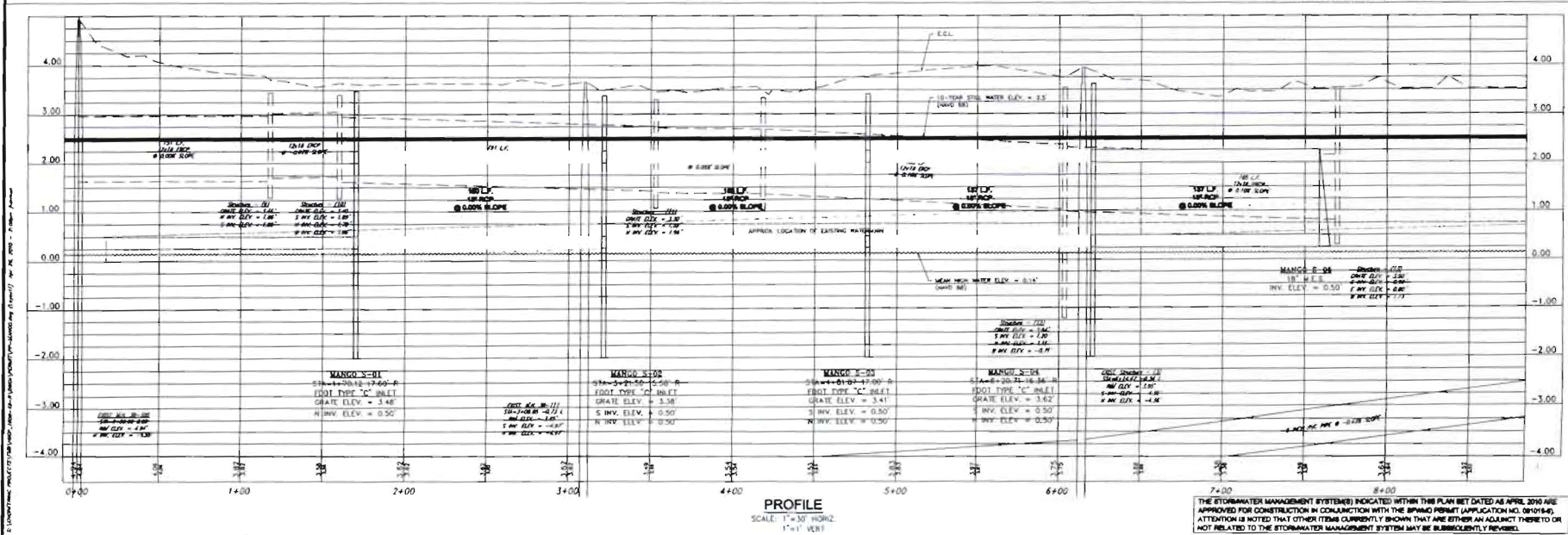
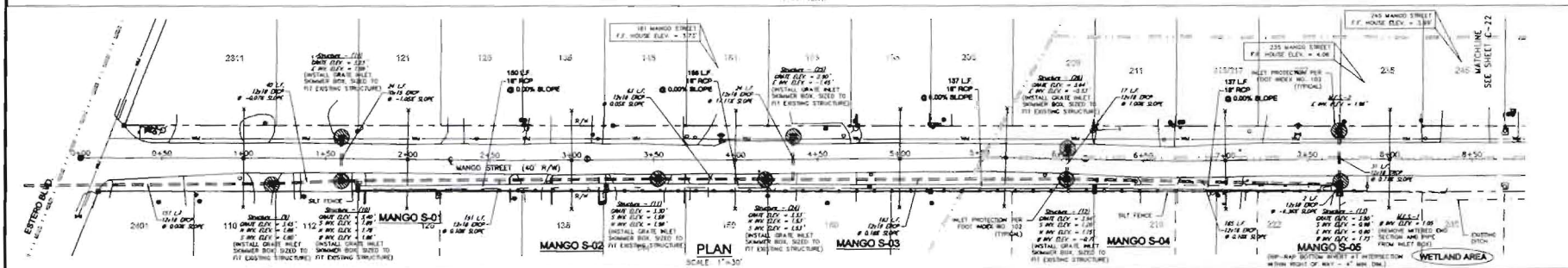
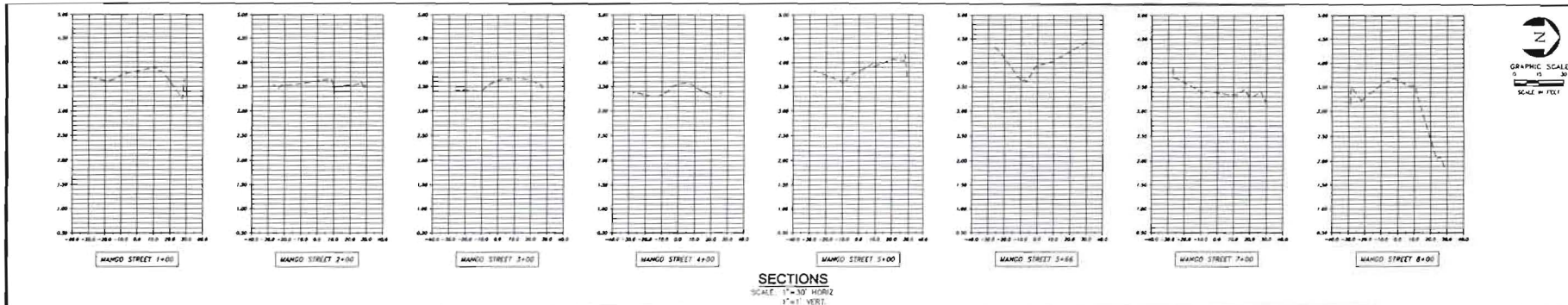
PLAN
SCALE: 1"=30'



PROFILE
SCALE: 1"=30' HORIZ
1"=1' VERT

THE STORMWATER MANAGEMENT SYSTEM(S) INDICATED WITHIN THIS PLAN SET DATED APRIL 2010 ARE APPROVED FOR CONSTRUCTION IN CONJUNCTION WITH THE SWMM PERMIT (APPLICATION NO. 09019-6). ATTENTION IS NOTICED THAT OTHER (TYPICAL) SYSTEMS SHOWN THAT ARE EITHER AN ALTERNATE THERE-TO OR NOT RELATED TO THE STORMWATER MANAGEMENT SYSTEM MAY BE SUBSEQUENTLY REVISED.

REVISIONS DATE DESCRIPTION BY	
PROJECT: TOWN OF FORT MYERS BEACH 2023 ESTERO BLVD FORT MYERS BEACH, FL 33901 (239) 765-0202	
BASIN BASED NEIGHBORHOOD FLOOD MITIGATION AND STORMWATER QUALITY IMPROVEMENT PROJECT FEMA MAP# 1509-04-01 TOWN OF FORT MYERS BEACH	
PLAN, PROFILE AND CROSS SECTIONS DELMAR AVENUE	
SHEET NO. PROJECT NO. FILE NO. SCALE	DATE: APRIL 2010 PROJECT NO: 09-1063 FILE NO: 15-44-24 SCALE: AS SHOWN
C-18	



THE STORMWATER MANAGEMENT SYSTEM(S) INDICATED WITHIN THIS PLAN SET DATED AS APRIL 2010 ARE APPROVED FOR CONSTRUCTION IN CONJUNCTION WITH THE SWAMP PERMIT (APPLICATION NO. 091019-6). ATTENTION IS NOTED THAT OTHER ITEMS CURRENTLY SHOWN THAT ARE EITHER AN ADJACENT THERE TO OR NOT RELATED TO THE STORMWATER MANAGEMENT SYSTEM MAY BE SUBSEQUENTLY REVISED.

ECT
Environmental Consulting & Technology, Inc.
1000 E. 1st Avenue, Suite 118
Fort Myers, FL 33901
Phone: 813-777-0000

PROJECT
TOWN OF FORT MYERS BEACH
NEIGHBORHOOD FLOOD MITIGATION AND
STORMWATER QUALITY IMPROVEMENT PROJECT
MANGO STREET

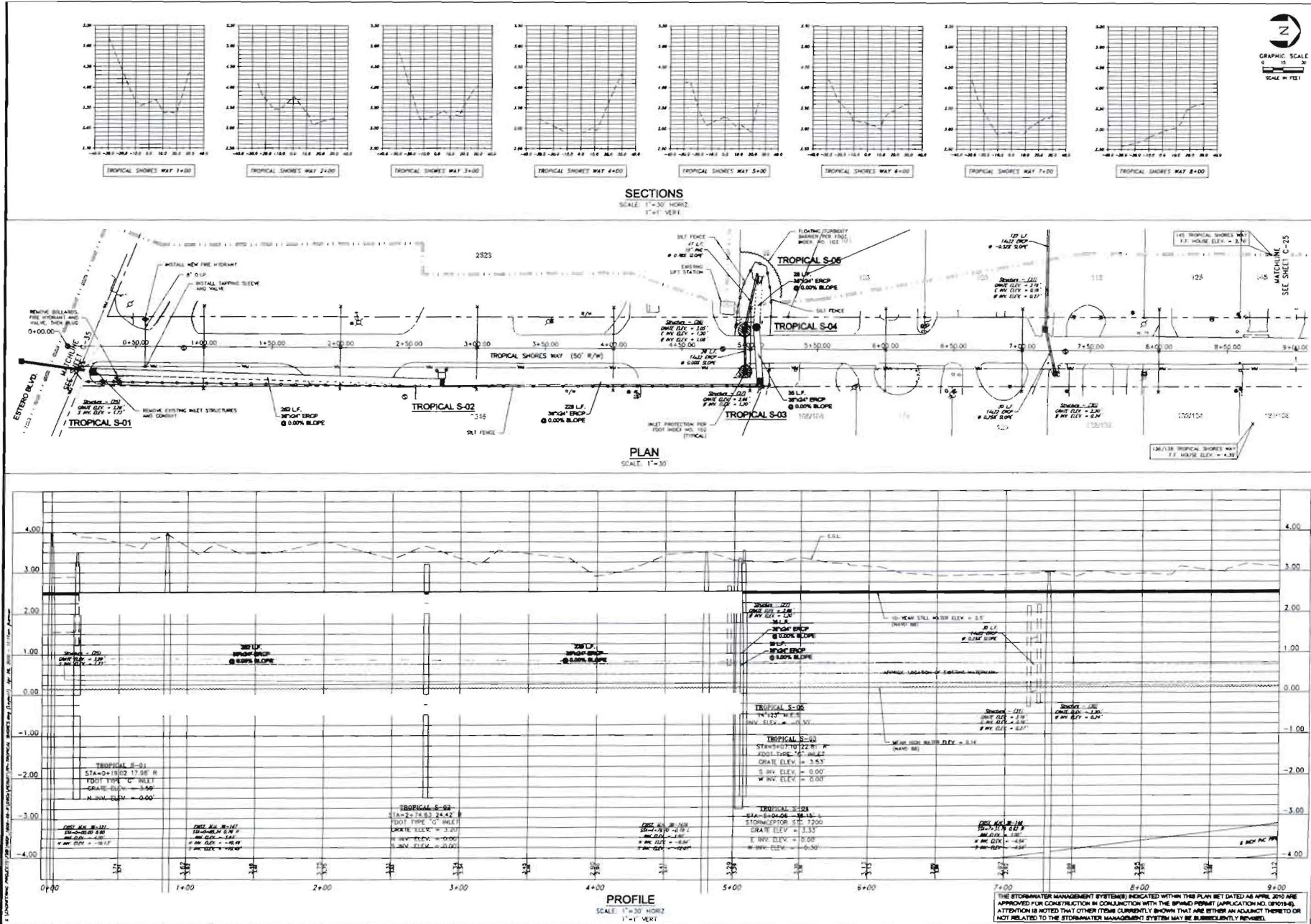
DATE: APRIL 2010
PROJECT NO.: 091019-6
PLANNED BY: FORT MYERS BEACH
SCALE: 1"=30' HORIZ
1"=1' VERT

REVISIONS

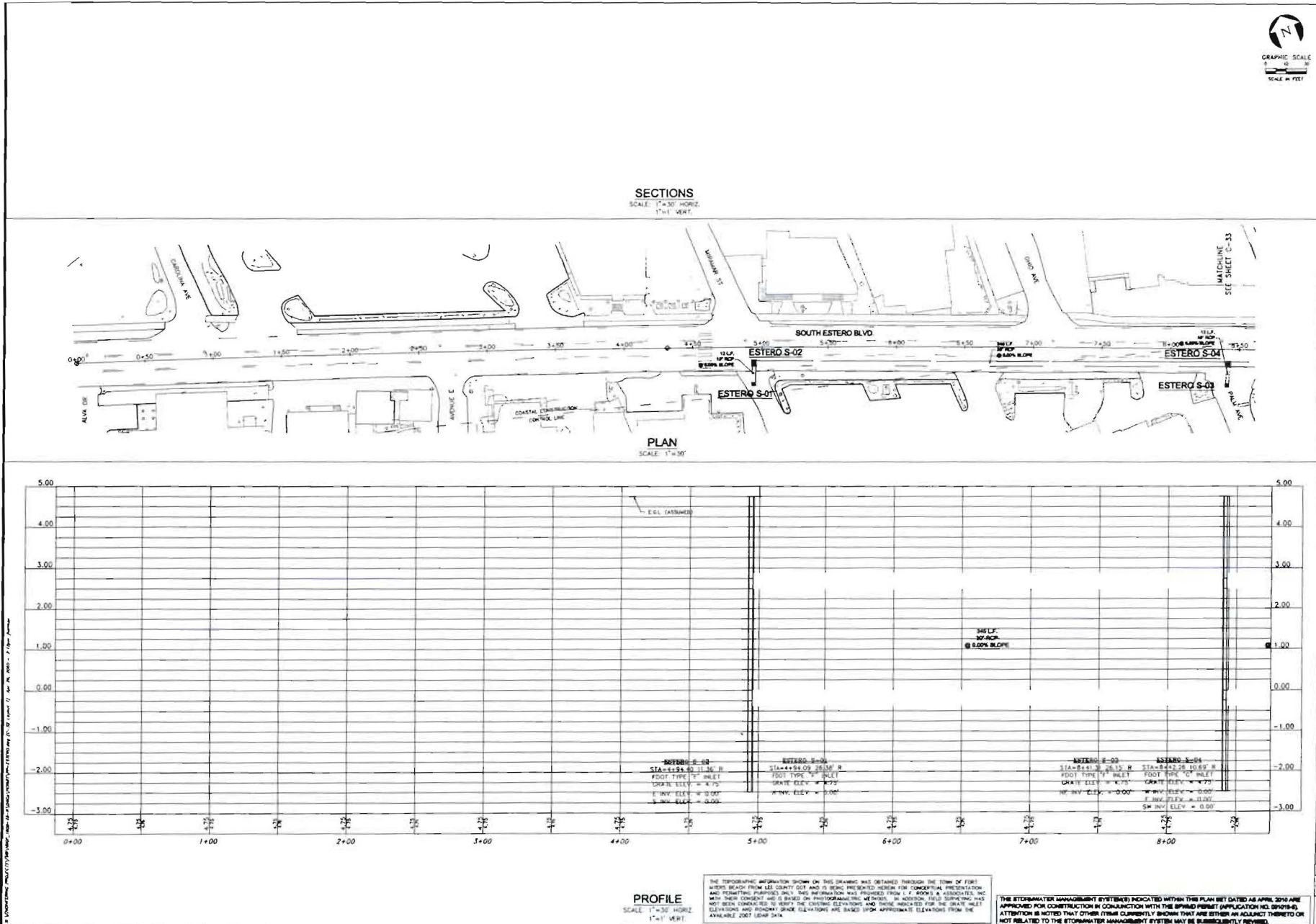
NO.	DATE	DESCRIPTION
1	04/10/10	ISSUED FOR PERMIT

SHEET NUMBER
C-21

PROJECT NO.: 091019-6
PLANNED BY: FORT MYERS BEACH
SCALE: 1"=30' HORIZ
1"=1' VERT



ECT Environmental Consulting & Technology, Inc. 4100 Grand Prairie Drive, Suite 119 Fort Worth, Texas 76133 (817) 777-0038							
TOWN OF FORT MYERS BEACH 2520 ESTERO BLVD. FORT MYERS BEACH, FL 33901 (239) 755-0002	PROJECT BASIN BASED NEIGHBORHOOD FLOOD MITIGATION AND STORMWATER QUALITY IMPROVEMENT PROJECT FPM MAP# 1009-46-R TOWN OF FORT MYERS BEACH						
PLAN, PROFILE AND CROSS SECTIONS TROPICAL SHORES WAY	REVISIONS <table border="1"> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> <tr> <td>1</td> <td>ISSUED FOR PERMIT</td> <td>APRIL 2010</td> </tr> </table>	NO.	DESCRIPTION	DATE	1	ISSUED FOR PERMIT	APRIL 2010
NO.	DESCRIPTION	DATE					
1	ISSUED FOR PERMIT	APRIL 2010					
DATE APRIL 2010 PROJECT NO. 08-1383 FILE NO. 18-44-24 SCALE AS SHOWN	DESIGN NUMBER C-24						



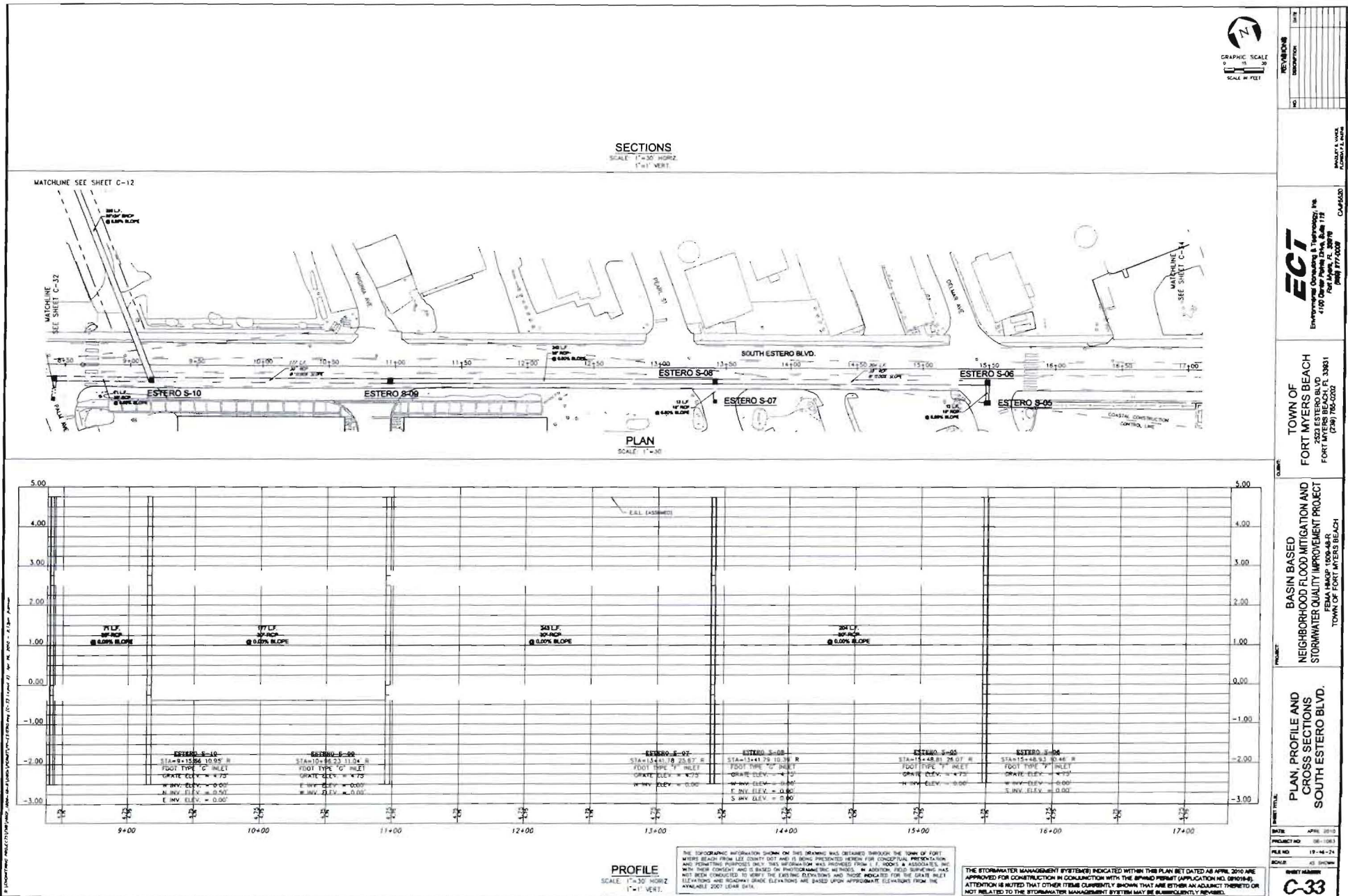
The information shown on this drawing was obtained through the Town of Fort Myers Beach and is being presented herein for conceptual presentation and permitting purposes only. No information was provided from J.P. Rouse & Associates, Inc. with their consent and is based on photogrammetric methods. In addition, field surveying and not been conducted to verify the existing elevations and those indicated for the grate inlet elevations and roadway grade elevations are based upon approximate elevations from the available 2007 lidar data.

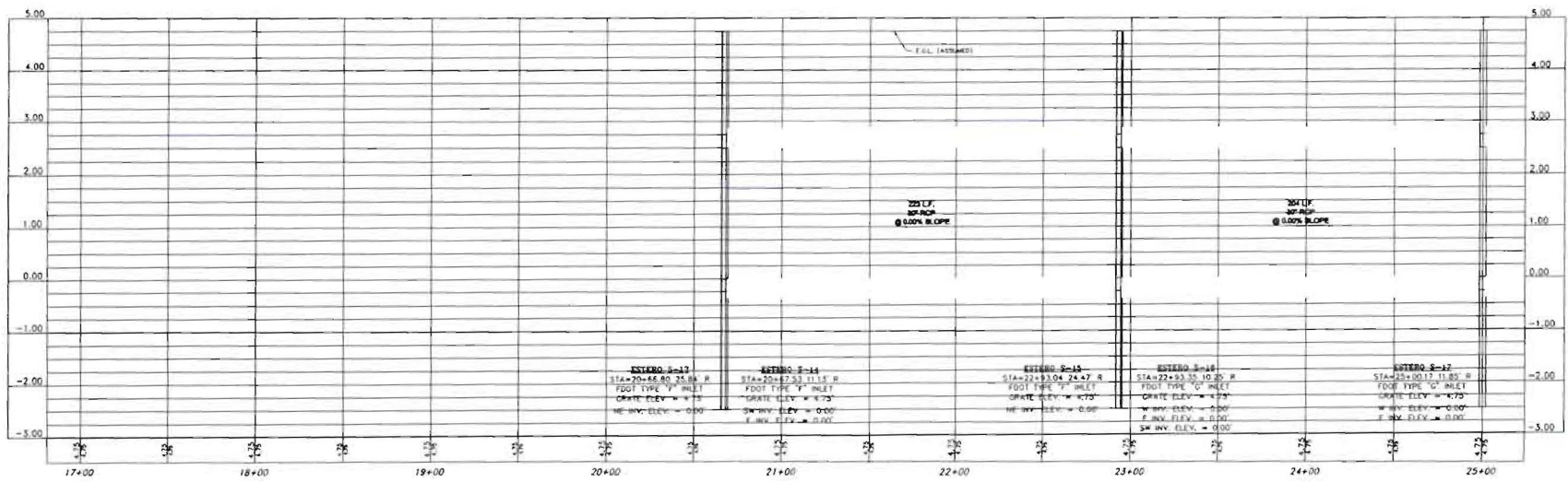
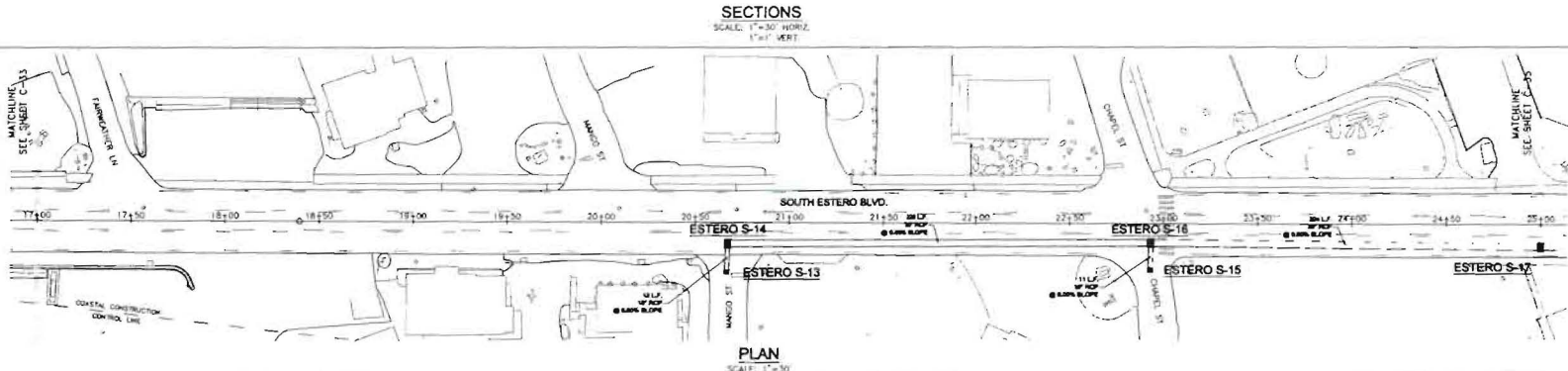
THE INFORMATION MANAGEMENT SYSTEMS INDICATED WITHIN THIS PLAN SET DATED AS APRIL 2016 ARE APPROVED FOR CONSTRUCTION IN CONJUNCTION WITH THE SPREAD PERMIT APPLICATION NO. 2016-04. ATTENTION IS NOTED THAT OTHER ITEMS CURRENTLY SHOWN THAT ARE EITHER AN ADJUNCT THERETO OR NOT RELATED TO THE STORMWATER MANAGEMENT SYSTEM MAY BE SUBSEQUENTLY REVISED.

THE STORMWATER MANAGEMENT SYSTEMS INDICATED WITHIN THIS PLAN SET DATED AS APRIL 2016 ARE APPROVED FOR CONSTRUCTION IN CONJUNCTION WITH THE SPREAD PERMIT APPLICATION NO. 2016-04. ATTENTION IS NOTED THAT OTHER ITEMS CURRENTLY SHOWN THAT ARE EITHER AN ADJUNCT THERETO OR NOT RELATED TO THE STORMWATER MANAGEMENT SYSTEM MAY BE SUBSEQUENTLY REVISED.

REVISIONS DATE DESCRIPTION BY CHECKED DATE	
CLIENT TOWN OF FORT MYERS BEACH 2520 ESTERO BLVD FORT MYERS BEACH, FL 33901 (239) 775-0002	
PROJECT BASIN BASED NEIGHBORHOOD FLOOD MITIGATION AND STORMWATER QUALITY IMPROVEMENT PROJECT FEMA MAP 1809-BA-15 TOWN OF FORT MYERS BEACH	
DATE APRIL 2016 PROJECT NO. 06-1063 FILE NO. 19-06-14 SCALE AS SHOWN	
SHEET NUMBER C-32	

ECT
Engineering Consulting & Technology, Inc.
4100 Gulf Pkwy E., Suite 110
Fort Myers, FL 33907
(888) 877-0002





PROFILE
SCALE: 1"=30' HORIZ.
1"=1' VERT.

THE TOPOGRAPHIC INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED THROUGH THE TOWN OF FORT MYERS BEACH FROM LEE COUNTY AND IS BEING PRESENTED HEREIN FOR CONCEPTUAL PRESENTATION AND INFORMATION PURPOSES ONLY. THIS INFORMATION WAS PROVIDED FROM LEE COUNTY'S ASSOCIATED GIS WITH THEIR CONSENT AND IS BASED ON PHOTOGRAMMETRIC METHODS. IN ADDITION, FIELD SURVEYS HAVE NOT BEEN CONDUCTED TO VERIFY THE EXISTING ELEVATIONS AND THEREFORE INDICATED FOR THE GROUND INLET ELEVATIONS AND ROADWAY GRADE ELEVATIONS ARE BASED UPON APPROXIMATE ELEVATIONS FROM THE AVAILABLE 2007 LEASER DATA.

THE STORMWATER MANAGEMENT (SWM) INDICATED WITHIN THIS PLAN SET DATED APRIL 2010 ARE APPROVED FOR CONSTRUCTION IN CONJUNCTION WITH THE SWM PERMIT (APPLICATION NO. 091018-0). ATTENTION IS NOTED THAT OTHER ITEMS CURRENTLY SHOWN THAT ARE EITHER AN ADDUCT THERE TO OR NOT RELATED TO THE STORMWATER MANAGEMENT SYSTEM MAY BE INADEQUATELY REMOVED.



REVISION	DATE
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ECT
Environmental Consulting & Technology, Inc.
4100 Ocean Pkwy Drive, Suite 110
Fort Myers, FL 33909
Phone: 239-502-2020
Fax: 239-502-2021
CA#6650

TOWN OF FORT MYERS BEACH
2021 EST. 11.15.20
FORT MYERS BEACH, FL 33901
(239) 785-0202

**BASIN BASED
NEIGHBORHOOD FLOOD MITIGATION AND
STORMWATER QUALITY IMPROVEMENT PROJECT**
AREA: FORT MYERS BEACH
TOWN OF FORT MYERS BEACH

**PLAN, PROFILE AND
CROSS SECTIONS
SOUTH ESTERO BLVD.**

DATE:	APRIL 2010
PROJECT NO.:	08-1043
FILE NO.:	19-44-24
SCALE:	AS SHOWN
SHEET NO.:	C-34

LAND USE TABLE

Basin Based Neighborhood Improvements

Application No: 091019-6

STREET or SYSTEM NAME	BASIN ID	TOTAL BASIN AREA (Acres)	PUBLIC RIGHT OF WAY (Acres)	PRIVATE COMMERCIAL PROPERTY (Acres)	PRIVATE RESIDENTIAL PROPERTY (Acres)
PEARL STREET	PRL N	4.23	0.78	0.00	3.45
	PRL S	3.72	0.77	0.52	2.42
		7.95	1.55	0.52	5.88
DELMAR AVENUE	DLM N	4.27	0.85	0.00	3.42
	DLM S	4.83	0.94	0.84	3.05
		9.10	1.79	0.84	6.47
FAIRWEATHER LANE	FWR N	2.66	0.83	0.00	1.84
MANGO STREET	MGO S	4.88	0.99	0.72	3.18
ESTERO-BAYVIEW	AVE E	0.85	0.24	0.41	0.20
	MIRMR G	2.50	0.27	1.81	0.42
	PALM	3.08	0.61	2.48	0.00
	SRFSNG	2.38	0.40	1.98	0.00
		8.81	1.51	6.67	0.62
ESTERO-TROPICAL	NEPTUNE	2.11	0.12	1.99	0.00
	COTTAGE	4.63	1.15	1.21	2.27
	EST2500	4.14	0.89	3.25	0.00
	TRP S	4.85	1.54	1.71	1.59
		15.74	3.71	8.16	3.87

TOTAL AREA = 49.14 acres

Exhibit 2.1
Application 091019-6
1 of 1

Computed Flowrate (Q):

$$Q = (1/2") (1/12) (\text{Basin Area}) / (T_c)$$

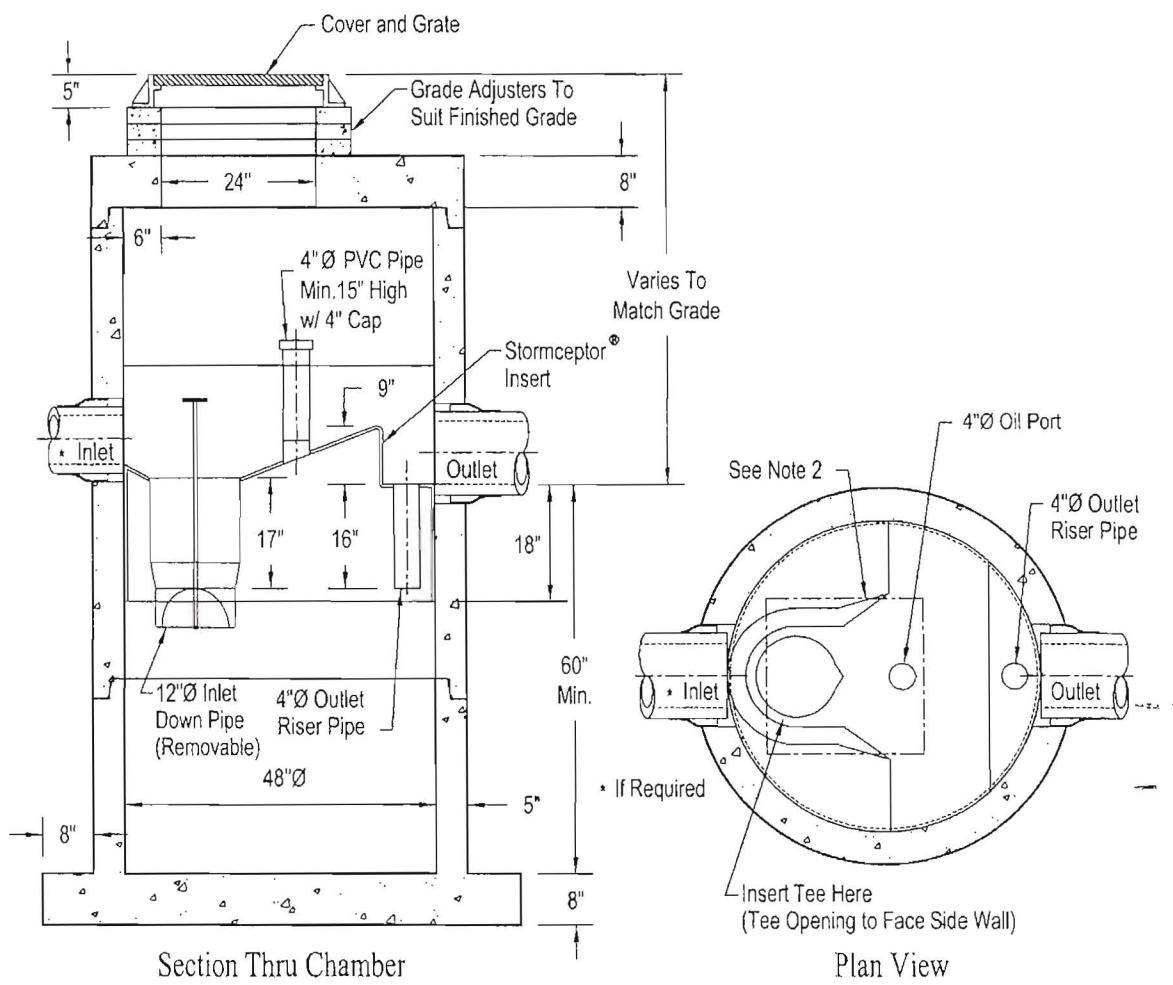
Times of Concentration (Tc):

$$T_c (\text{overland}) = 20 \text{ minutes}$$

$$T_c (\text{roadway}) = (\text{street length}) / (0.25 \text{ feet/second})$$

Basin Name	Basin Area (in acres)	Street Length (in feet)	Discharge Rate Q (in cfs)
Pearl Street	7.95	1500	2.00
Delmar Avenue	9.10	1500	2.20
Fairweather Lane	2.66	800	1.10
Estero-Bayview	8.81	1300	2.50
Estero-Tropical Shores	15.74	1300	4.50

STC 450i Precast Concrete Stormceptor® (450 U.S. Gallon Capacity)

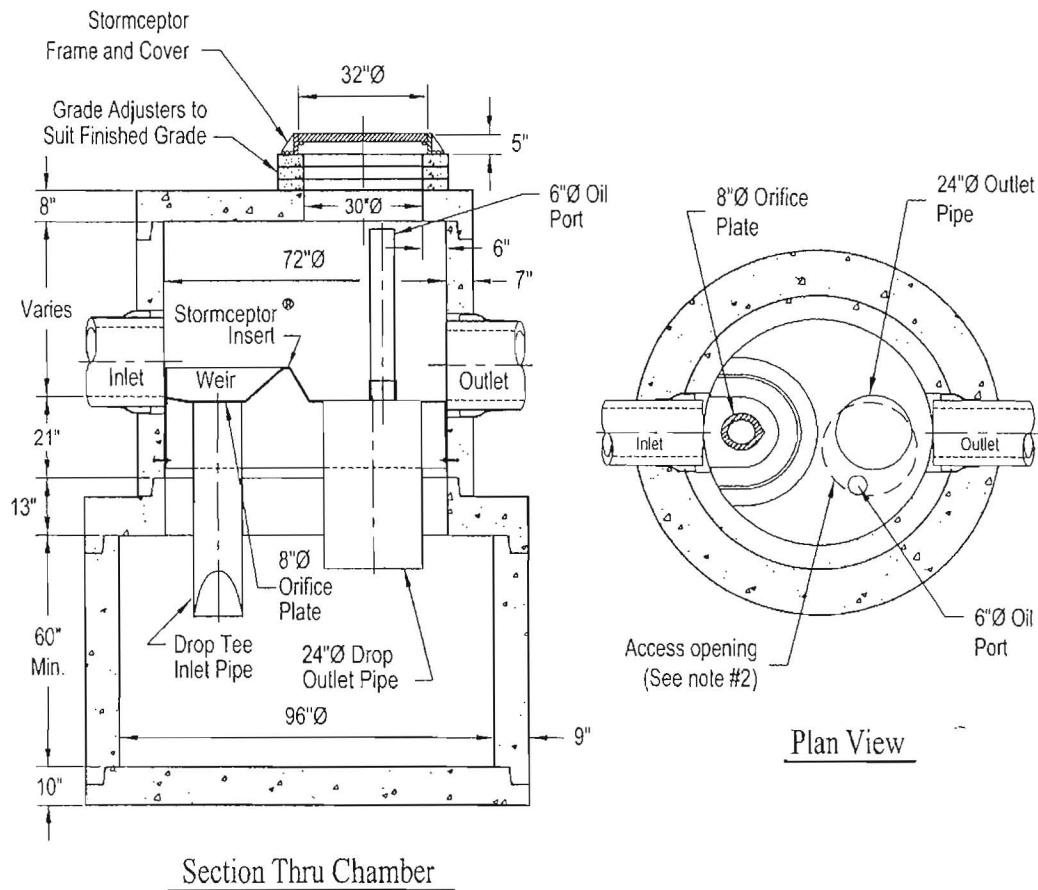


Notes:

1. The Use Of Flexible Connection is Recommended at The Inlet and Outlet Where Applicable.
2. The Cover Should be Positioned Over The Inlet Drop Pipe and The Oil Port.
3. The Stormceptor System is protected by one or more of the following U.S. Patents: #4985148, #5498331, #5725760, #5753115, #5849181, #6068765, #6371690.
4. Contact a Concrete Pipe Division representative for further details not listed on this drawing.

Rinker 027

STC 2400 Precast Concrete Stormceptor®
(2400 U.S. Gallon Capacity)

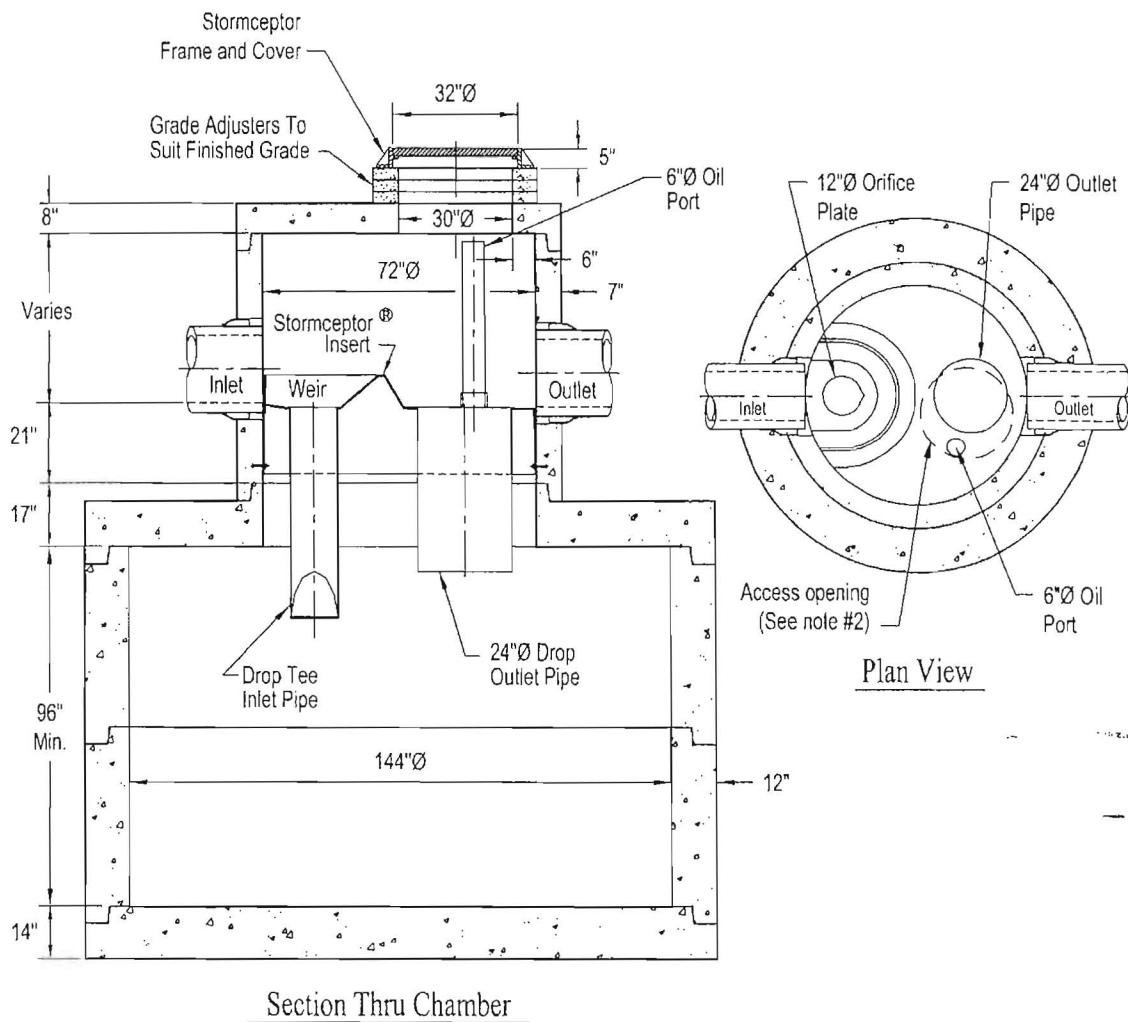


Notes:

1. The Use Of Flexible Connection is Recommended at The Inlet and Outlet Where Applicable.
2. The Cover Should be Positioned Over The Outlet Drop Pipe and The Oil Port.
3. The Stormceptor System is protected by one or more of the following U.S. Patents: #4985148, #5498331, #5725760, #5753115, #5849181, #6068765, #6371690.
4. Contact a Concrete Pipe Division representative for further details not listed on this drawing.

Rinker 031

STC 7200 Precast Concrete Stormceptor[®]
(7200 U.S. Gallon Capacity)



Notes:

1. The Use Of Flexible Connection is Recommended at The Inlet and Outlet Where Applicable.
2. The Cover Should be Positioned Over The Outlet Drop Pipe and The Oil Port.
3. The Stormceptor System is protected by one or more of the following U.S. Patents: #4985148, #5498331, #5725760, #5753115, #5849181, #6068765, #6371690.
4. Contact a Concrete Pipe Division representative for further details not listed on this drawing.

Rinker 035



798 Clearlake Road, Cocoa, FL 32922
Ph: 321-637-7552 FAX: 321-637-7554
www.suntreetech.com

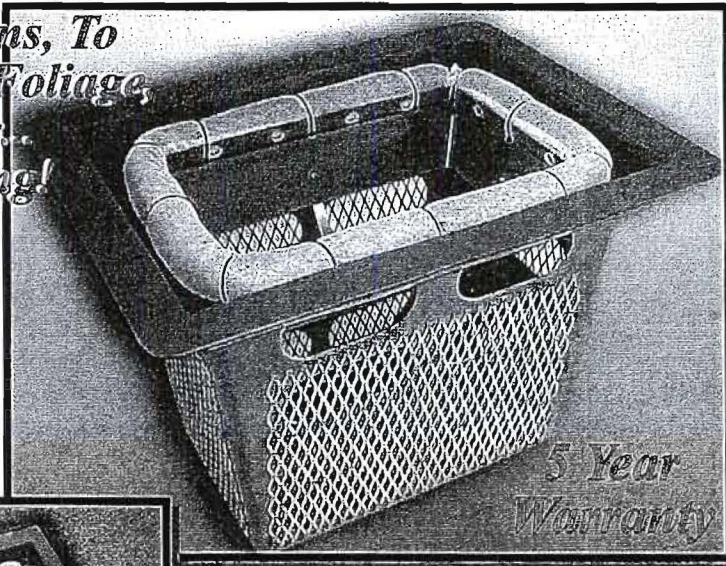
Grate Inlet Skimmer Box

Captures Everything From Hydrocarbons, To Sediment, To Foliage, To Litter... Everything!

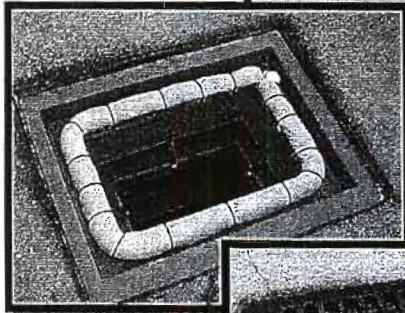
Stormwater Treatment System For A Grated Inlet

Installs Quickly

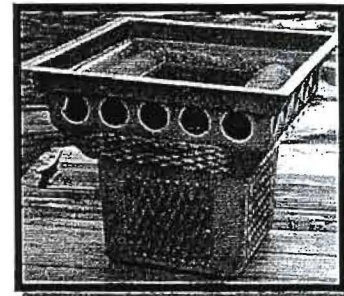
- Remove the grate
- Drop in the filter
- Replace the grate



Patented



Will Not Impede The Designed Flow Of The Inlet

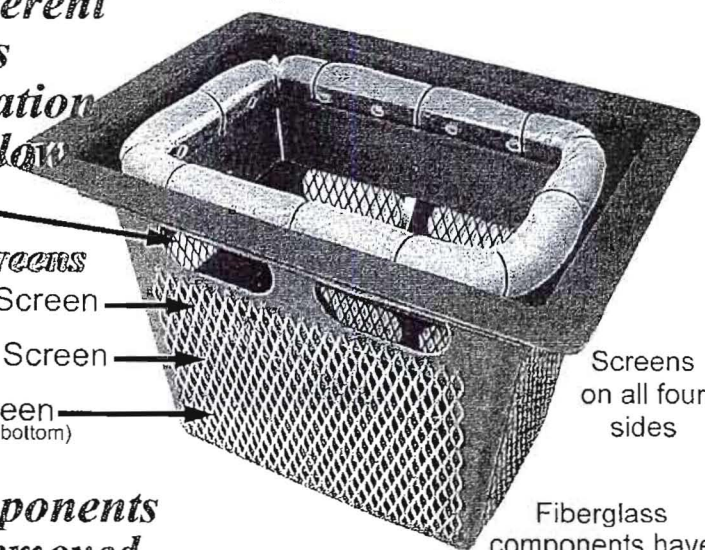


Custom Sizes... No Problem

***Multi-Stage Filtration
Screens of Different
Sieve Sizes
Optimize Filtration
And Water Flow***

Grate Inlet Skimmer Box Special Features

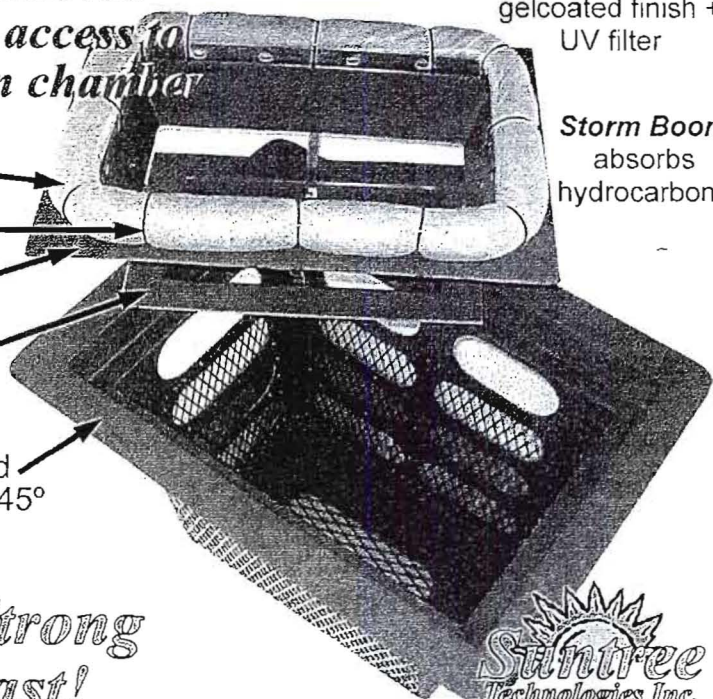
- Bypass Openings
- ***Stainless Steel Screens***
- Coarse Sieve Size Screen
- Medium Sieve Size Screen
- Fine Sieve Size Screen
(Fine sieve size screen also on bottom)



Screens
on all four
sides

***Interior components
are easily removed
to allow easy access to
lower filtration chamber***

- Storm Boom
- Zip Tie
- Skimmer Tray
- Deflection Shield
- Flange is reinforced
with knitted 1808 $\pm 45^\circ$
biaxial fiberglass



Fiberglass
components have
gelcoated finish +
UV filter

Storm Boom
absorbs
hydrocarbons

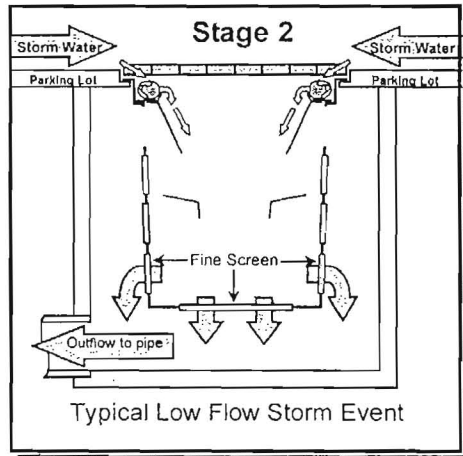
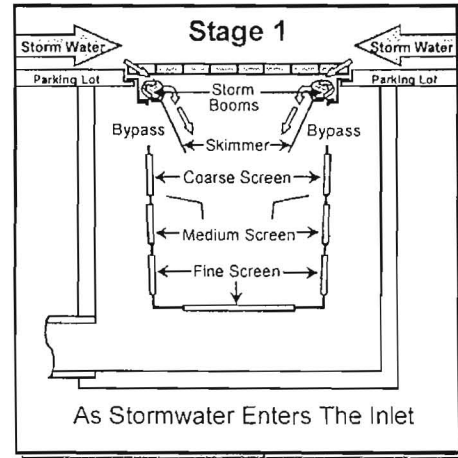
***Built Strong
To Last!***

Suntree
Technologies Inc.

Grate Inlet Skimmer Box — Functional Description

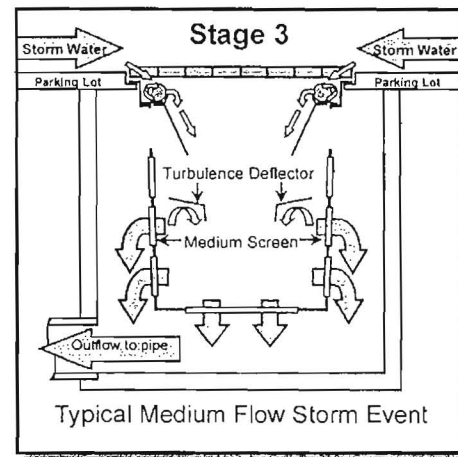
Multi-Stage Filtration Utilizes Screens Of Different Sieve Sizes To Optimize Filtration And Water Flow

Stage 1: As stormwater enters the inlet through the grate it comes in contact with and passes through a **Storm Boom** located around the top perimeter of the **Grate Inlet Skimmer Box**. After making contact with the **Storm Boom**, the stormwater flows down into the lower filtration chamber which is equipped with 3 different sieve size filtration screens and bypass openings.



Stage 2: Throughout the entire storm event, stormwater continues to come in contact with the **Storm Boom** and then flow into the lower filtration chamber, adjacent to the fine sieve size screens. The fine sieve size screens are sized to be able to capture sediment such as sand, clay, phosphates, etc. A sand filter quickly forms across the bottom which has the potential to capture the finest of particles.

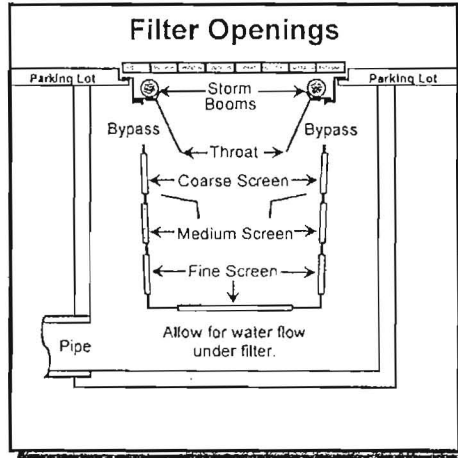
Stage 3: As the storm event increases in intensity the water level in the **Grate Inlet Skimmer box** rises to a level adjacent to the medium sieve size screens and the **turbulence deflector**. The medium screen provides additional flow with less chance of obstruction than the fine screen. The **turbulence deflector** dramatically reduces the turbulence in the lower filtration chamber, which allows sediment to continue to settle, without re-suspending sediment that has previously been captured.



Suntree
Technologies Inc.

Grate Inlet Skimmer Box - Sizing and Flow Rates

**Custom Sizes
No Problem**



The maximum flow rate of a Grate Inlet Skimmer Box is determined by the amount of flow that can pass through the throat, the exception is found only in very large units.

To determine the minimum flow rate of a Grate Inlet Skimmer Box, consider only the potential flow through the throat and bypass. If the potential flow through the throat is less than the potential flow through the bypass, then the throat determines the minimum flow. If the potential water flow through the bypass is less than that of the throat, then the bypass determines the minimum flow. **Filtered Flow**

represents the potential flow rate through all screens, and does not include the potential flow through the bypass. Water flow through the bypass happens only when the flow rate through the grate exceeds the flow rate through all the screens.

Flow Rate Table For 8 different Models

Model Number	Dimensions of the flange around the top of the Grate Inlet Skimmer Box			Flow Rate (cubic feet per second)		
	Width (inches)	Length (inches)	Depth (inches)	Throat	Filtered Flow	Bypass Flow
GISB-L-24-24-25	24	24	25	4.4	14.9	6.7
GISB-A-24-37-25	24	37	25	10.2	21.1	8.7
GISB-C-28-37-25	28	37	25	12.2	19.4	7.4
GISB-J-24-41-25	24	41	25	12	24.6	10
GISB-NK-32-32-25	32	32	25	12.5	19.1	10.3
GISB-36-36-25	36	36	25	18.8	23.4	13.4
GISB-D-36-48-18	36	48	18	33.2	26.3	13.3
GISB-G-52-58-18	52	58	18	89.3	40.1	25

♦ The yellow blocks represent the minimum flow rates.
♦ Filtered flow is based on unobstructed screens.

Drawings and flow specifications for any size Grate Inlet Skimmer Box is available upon request.



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TOWN OF FORT MYERS BEACH

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Fort Myers Beach, Florida
(239) 765 - 0202



WETLAND OWNERSHIP MAP

BASIN BASED NEIGHBORHOOD IMPROVEMENTS

HMGP 1609 - 48 - R SFWMD App# 091019-6

Exhibit 3.0

Application No. 091019-6

Page 1 of 1

**APPLICATION 091019-6
PERMIT 36-07287-P**

**EXHIBIT 4.0
Pages 1-10 of 10
Construction Pollution Prevention
Plan**

**EXHIBIT 5.0
Pages 1-5 of 5
Urban Stormwater Management
Program**

INCORPORATED BY REFERENCE

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Permit No: 36-07287-P

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