



**INVITATION FOR BID
(IFB) #10-1476-OV
Coral Shores Canal Dredging, Bradenton,
Manatee County, FL (Project No. 6054901 6.2)**

Manatee County, a political subdivision of the State of Florida, (hereinafter the "County") will receive sealed bids from individuals, corporations, partnerships, and other legal entities organized under the laws of the State of Florida or authorized to conduct business in the State of Florida.

NON-MANDATORY INFORMATION CONFERENCE

In order to insure that all prospective bidders have sufficient information and understanding of the County's needs, an **Information Conference** will be held **April 8, 2010 @ 2:00 PM.** **Location: Manatee County Public Works Department, 1022 26th Avenue East, Conference Room "B", Bradenton, FL 34205.** Attendance is not mandatory, but is highly encouraged.

Ref: B.04 An Inspection of the project site shall be acknowledged in Section 00300, Bid Form, page 00300-1.

DEADLINE FOR CLARIFICATION REQUESTS: April 21, 2010 at 5:00 PM
(Reference Bid Article A.06)

TIME AND DATE DUE: May 5, 2010 @ 2:00 PM
Manatee County Purchasing, 1112 Manatee Avenue West, Bradenton, FL 34205

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Important Note: Lobbying is prohibited (reference Bid Article A.08)

FOR INFORMATION CONTACT:
Olga Valcich (941) 708-7527/olga.valcich@mymanatee.org

AUTHORIZED FOR RELEASE: 

SECTION 00010
INFORMATION TO BIDDERS

A.01 OPENING LOCATION

These bids will be **publicly opened** at **Manatee County Purchasing, 1112 Manatee Avenue West, Suite 803, Bradenton, Florida 34205** in the presence of County officials at the time and date stated, or soon thereafter. All bidders or their representatives are invited to be present.

Any bids received after the stated time and date will not be considered. It shall be the sole responsibility of the bidder to have their bid delivered to the Manatee County Purchasing Division for receipt on or before the stated time and date. If a bid is sent by U.S. Mail, the bidder shall be responsible for its timely delivery to the Purchasing Division. Bids delayed by mail shall not be considered, shall not be opened at the public opening, and arrangements shall be made for their return at the respondent's request and expense.

A.02 SEALED & MARKED

One original and two copies of your **signed bid** shall be submitted in one **sealed package**, clearly marked on the outside **"Sealed Bid #10-1476-OV – Coral Shores Canal Dredging, Bradenton, Manatee County, FL."**

Address package to: Manatee County Purchasing Division
 1112 Manatee Avenue West, Suite 803
 Bradenton, Florida 34205

A.03 SECURING OF DOCUMENTS

Complete individual copies of the bidding documents for the project and/or products can be obtained, free of charge, at the Manatee County Public Works Department located at: 1022 26th Avenue East, Bradenton, FL 34208: 941-708-7450, Extension 7349 between the hours of 8:00 AM to 4:00 PM, Monday through Friday, exception of holidays. Complete set of the bidding document must be used in preparing bids. The County assumes no responsibility for errors and misinterpretations resulting from the use of incomplete sets of bidding document.

A.04 BID DOCUMENTS

Bids on <http://www.mymanatee.org> , Bid documents and the Notices of Source Selection related to those Bids are available for download in a portable document format (.PDF) file on the Manatee County web page on the Purchasing tab under "Bids." You may view and print these files using Adobe Acrobat software. You may download a free copy of this software (Adobe) from the County's web page if you do not have it. **Manatee County collaborates with the Manatee Chamber of Commerce** on distributing solicitations using the RFP Tool web page on the Chambers website: <http://www.ManateeChamber.com> to post Bid documents in a portable document

A.04 BID DOCUMENTS (Continued)

format (.PDF) file. This step is in addition to the posting on Manatee County Government web pages.

Manatee County may also use an internet service provider to distribute Bids. A link to that service, <http://www.DemandStar.com>, is provided on this website under the Tab "DemandStar". Participation in the DemandStar system is not a requirement for doing business with Manatee County.

Note: The County posts the Notice of Source Selection seven calendar days prior to the effective date of the award.

IT IS THE RESPONSIBILITY OF EACH VENDOR, PRIOR TO SUBMITTING THEIR BID, TO CONTACT THE MANATEE COUNTY PURCHASING OFFICE (see contact information on page one of this document) TO DETERMINE IF ADDENDA WERE ISSUED AND TO MAKE SUCH ADDENDA A PART OF THEIR BID .

A.05 MODIFICATION OF BID SPECIFICATIONS

If a bidder wishes to recommend changes to the bid specifications, the bidder shall furnish in writing, data and information necessary to aid the County in evaluating the request to modify the specifications. The County is not obligated to make any changes to the bid specifications. Unless an addendum is issued, the bid specifications shall remain unaltered. **Bidders must fully comply with the bid specifications, terms, and conditions.**

A.06 DEADLINE FOR CLARIFICATION REQUESTS

April 21, 2010 @ 5:00 PM shall be the deadline to submit all inquiries, suggestions, or requests concerning interpretation, clarification or additional information pertaining to the Invitation for Bids to the Manatee County Purchasing Office.

This deadline has been established to maintain fair treatment for all potential bidders, while maintaining the expedited nature of the Economic Stimulus that the contracting of this work may achieve.

A.07 CLARIFICATION & ADDENDA

Each bidder shall examine all Invitation for Bids documents and shall judge all matters relating to the adequacy and accuracy of such documents. Any inquiries, suggestions or requests concerning interpretation, clarification or additional information pertaining to the Invitation for Bids shall be made through the Manatee County Purchasing Office. The County shall not be responsible for oral interpretations given by any County employee, representative, or others. The issuance of a written addendum is the only official method whereby interpretation, clarification or additional information can be given.

A.07 CLARIFICATION & ADDENDA (Continued)

If any addenda are issued to this Invitation for Bid, the County will Broadcast the addenda on the Demand Star distribution system to "Planholders" on this web service, and post the documents on the Purchasing Division's web page at <http://www.myanatee.org> which can be accessed by clicking on the "Purchasing" button and then clicking on the "Bids" button. It shall be the responsibility of each bidder, prior to submitting their bid, to contact Manatee County Purchasing (see contact on page 1) to determine if addenda were issued and to make such addenda a part of their bid.

A.08 LOBBYING

After the issuance of any Invitation For Bid, prospective bidders, or any agent, representative or person acting at the request of such bidder shall not contact, communicate with or discuss any matter relating in any way to the Invitation For Bid with any officer, agent or employee of Manatee County other than the Purchasing Director or as directed in the Invitation For Bid. This prohibition begins with the issuance of any Invitation For Bid, and ends upon execution of the final contract or when the invitation has been canceled. Violators of this prohibition shall be subject to sanctions as provided in the Manatee County Purchasing Code.

The County reserves the right to amend or to add to the names listed as persons to contact. All amendments or additions to the names listed as persons to contact shall be issued by the Purchasing Division, in writing.

A.09 UNBALANCED BIDDING PROHIBITED

Manatee County recognizes that large and/or complex projects will often result in a variety of methods, sources and prices; however, where in the opinion of the County such variation does not appear to be justified, given bid specifications and industry and market conditions, the bid will be presumed to be unbalanced. Examples of unbalanced bids will include:

1. Bids showing omissions, alterations of form, additions not specified or required conditional or unauthorized alternate bids.
2. Bids quoting prices that substantially deviate, either higher or lower, from those included in the bids of competitive bidders for the same line item unit costs.
3. Bids where the unit costs offered are in excess of or below reasonable cost analysis values.

In the event the County determines that a bid is presumed unbalanced, it will request the opportunity to, and reserves the right to, review all sources quotes, bids, price lists, letters of intent, etc., which the bidder obtained and upon which the bidder relied upon to develop the bid. The County reserves the right to reject as non-responsive any

A.09 UNBALANCED BIDDING PROHIBITED (Continued)

presumptive unbalanced bids where the bidder is unable to demonstrate the validity and/or necessity of the unbalanced unit costs.

A.10 FRONT END LOADING OF BID PRICING PROHIBITED

Prices offered for performance and/or acquisition activities to occur early in the project schedule, such as: mobilization, clearing and grubbing; or maintenance of traffic, that are substantially higher than pricing of competitive bidders within the same portion of the project schedule, will be presumed to be front end loaded. Front end loaded bids could reasonably appear to be an attempt to obtain unjustified early payments creating a risk of insufficient incentive for the Contractor to complete the work or otherwise creating an appearance of an under-capitalized bidder.

In the event the County determines that a bid is presumed to be front end loaded, it will request the opportunity to, and reserves the right to, review all source quotes, bids, price lists, letters of intent, etc., which the bidder obtained and upon which the bidder relied upon to develop the pricing or acquisition timing for these bid items. The County reserves the right to reject as non-responsive any presumptive front end loaded bids where the bidder is unable to demonstrate the validity and/or necessity of the front end loaded costs.

A.11 WITHDRAWAL OF OFFERS

Vendors may withdraw offers as follows: a) Mistakes discovered before the opening of a solicitation may be withdrawn by written notice from the bidder submitting the offer. This request must be received in the office designated for receipt of offers in the solicitation document prior to the time set for delivery and opening of the offers. A copy of the request shall be retained and the unopened offer returned to that vendor. b) After the responses to a solicitation are opened or a selection has been determined, but before a contract is signed, a vendor alleging a material mistake of fact may be permitted to withdraw their offer if: (1) the mistake is clearly evident on the solicitation document; or (2) the bidder submits evidence which clearly and convincingly demonstrates that a mistake was made. Request to withdraw and offer must be in writing and approved by the Purchasing Official.

A.12 IRREVOCABLE OFFER

Any bid may be withdrawn up until the date and time set for opening of the bid. Any bid not so withdrawn shall, upon opening, constitute an irrevocable offer for a period of 90 days to sell to Manatee County the goods or services set forth in the attached specifications until one or more of the bids have been duly accepted by the County.

A.13 BID EXPENSES

All expenses for making bids to the County are to be borne by the bidder.

A.14 RESERVED RIGHTS

The County reserves the right to accept or reject any and/or all bids, to waive irregularities and technicalities, and to request resubmission. Also, the County reserves the right to accept all or any part of the bid and to increase or decrease quantities to meet additional or reduced requirements of the County. Any sole response received by the first submission date may or may not be rejected by the County depending on available competition and current needs of the County. For all items combined, the bid of the lowest responsive, responsible bidder will be accepted, unless all bids are rejected. The lowest responsible bidder shall mean **that bidder who makes the lowest bid to sell goods and/or services of a quality which** conforms closest to or most exceeds the quality of goods and/or services set forth in the attached specifications or otherwise required by the County, and who is fit and capable to perform the bid as made.

To be responsive, a bidder shall submit a bid which conforms in all material respects to the requirements set forth in the Invitation For Bid. To be a responsible bidder, the bidder shall have the capability in all respects to perform fully the contract requirements, and the tenacity, perseverance, experience, integrity, reliability, capacity, facilities, equipment, and credit which will assure good faith performance. Also, the County reserves the right to make such investigation as it deems necessary to determine the ability of any bidder to furnish the service requested. Information the County deems necessary to make this determination shall be provided by the bidder. Such information may include, but shall not be limited to: current financial statements, verification of availability of equipment and personnel, and past performance records.

A.15 APPLICABLE LAWS

Bidder must be authorized to transact business in the State of Florida. All applicable laws and regulations of the State of Florida and ordinances and regulations of Manatee County will apply to any resulting agreement. Any involvement with any Manatee County procurement shall be in accordance with Manatee County Purchasing Code of Laws as amended. Any actual or prospective bidder who is aggrieved in connection with the solicitation or award of a contract may protest to the Board of County Commissioners of Manatee County as required in Section 2-26/61 of the Purchasing Code.

A protest with respect to this Invitation For Bid shall be submitted in writing prior to the scheduled opening date of this bid, unless the aggrieved person did not know and could not have been reasonably expected to have knowledge of the facts giving rise to such protest prior to the scheduled opening date of this bid. The protest shall be submitted within seven calendar days after such aggrieved person knows or could have reasonably been expected to know of the facts giving rise thereto.

A.16 COLLUSION

By offering a submission to this Invitation For Bid, the bidder certifies that he has not divulged, discussed or compared their bid with other bidder, and has not colluded with any other bidder or parties to this bid whatsoever. Also, bidder certifies, and in the case

A.16 COLLUSION (Continued)

of a joint bid each party thereto certifies as to their own organization, that in connection with this bid:

- a. any prices and/or cost data submitted have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices and/or cost data, with any other bidder or with any competitor;
- b. any prices and/or cost data quoted for this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder, prior to the scheduled opening, directly or indirectly to any other bidder or to any competitor;
- c. no attempt has been made or will be made by the bidder to induce any other person or firm to submit or not to submit a bid for the purpose of restricting competition;
- d. the only person or persons interested in this bid, principal or principals is/are named therein and that no person other than therein mentioned has any interest in this bid or in the contract to be entered into; and
- e. no person or agency has been employed or retained to solicit or secure this contract upon an agreement or understanding or a commission, percentage, brokerage, or contingent fee excepting bona fide employees or established commercial agencies maintained by bidder for purpose of doing business.

A.17 CODE OF ETHICS

With respect to this bid, if any bidder violates or is a party to a violation of the Code of Ethics of Manatee County per Manatee County Purchasing Code Ordinance 08-43, Article 3, Ethics in Public Contracting, and/or the State of Florida per Florida Statutes, Chapter 112, Part III, Code of Ethics for Public Officers and Employees, such bidder may be disqualified from performing the work described in this bid or from furnishing the goods or services for which the bid is submitted and shall be further disqualified from submitting any future bids for work or for goods or services for Manatee County. The County anticipates that all statements made and materials submitted in a bid will be truthful. If a bidder is determined to be untruthful in its bid or any related presentation, such bidder may be disqualified from further consideration regarding this Invitation For Bid.

A.18 BID FORMS

Bids must be submitted on attached County forms, although additional pages may be attached. **Bidders must fully complete all pages of the Bid Forms for both Bid A and Bid B. Bid Forms must be executed by an authorized signatory who has the legal authority to make the offer and bind the company. Bidders must fully comply with all specifications, terms and conditions.**

A.19 LEGAL NAME

Bids shall clearly indicate the legal name, address and telephone number of the bidder. Bids shall be signed above the typed or printed name and title of the signer. The signer must have the authority to bind the bidder to the submitted bid.

A.20 DRUG FREE WORK PLACE

The Manatee County Board of County Commissioners adopted a policy regarding bidders maintaining a Drug Free Work Place, prohibiting the award of bids to any person or entity that has not submitted written certification to the County that it has complied with those requirements. A Drug Free Work Place Certification Form is attached to this bid for this purpose.

A.21 BE GREEN

All Bidders are encouraged to use as many environmentally preferable "green" products, materials, supplies, etc. as possible in order to promote a safe and healthy environment. Environmentally preferable are products or services that have a reduced adverse effect on the environment. Provide detail of your organization's initiative and its ability to meet the goal of environmental sustainability.

A.22 PUBLIC CONTRACTING AND ENVIRONMENTAL CRIMES

A person or affiliate who has been placed on the State's convicted vendor list following a conviction for a public entity crime, as that term is defined in Florida Statute § 287.133, may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Florida Statute § 287.017 for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted list.

In addition, the Manatee County Code prohibits the award of any contract to any person or entity who/which has, within the past 5 years, been convicted of, or admitted to in court or sworn to under oath, a public entity crime or of any environmental law that, in the reasonable opinion of the purchasing official, establishes reasonable grounds to believe the person or business entity will not conduct business in a responsible matter.

A.22 PUBLIC CONTRACTING AND ENVIRONMENTAL CRIMES (Continued)

To insure compliance with the foregoing, the Code requires all persons or entities desiring to contract with the County to execute and file with the purchasing official an affidavit, executed under the pain and penalties of perjury, confirming that person, entity and any person(s) affiliated with the entity, does not have such a record and is therefore eligible to seek and be awarded business with the County.

In the case of a business entity other than a partnership or a corporation, such affidavit shall be executed by an authorized agent of the entity. In the case of a partnership, such affidavit shall be executed by the general partner(s). A Public Contracting and Environmental Crimes Certification is attached for this purpose.

A.23 DISCOUNTS

Any and all discounts must be incorporated in the prices contained in the bid and not shown separately. The prices as shown on the bid form shall be the price used in determining award.

A.24 TAXES

Manatee County is exempt from Federal Excise and State Sales Taxes. (F.E.T. Exempt Cert. No. 59-78-0089K; FL Sales Tax Exempt Cert. NO 85-8012622206C-6); therefore, the vendor is prohibited from delineating a separate line item in his bid for any sales or service taxes. Nothing herein shall affect the vendor's normal tax liability.

A.25 DESCRIPTIVE INFORMATION

Unless otherwise specifically provided in the specifications, all equipment, materials and articles incorporated in the work covered by this contract shall be new and of the most suitable grade for the purpose intended. Unless otherwise specifically provided in the specifications, reference to any equipment, material, article or patented process, by trade name, brand name, make or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition.

A.26 AMERICANS WITH DISABILITIES ACT

The Board of County Commissioners of Manatee County, Florida, does not discriminate upon the basis of any individual's disability status. This non-discrimination policy involves every aspect of the County's functions including one's access to, participation, employment, or treatment in its programs or activities. Anyone requiring reasonable accommodation for an **Information Conference** or **Bid Opening** should contact the person named on the first page of this bid document at least twenty-four (24) hours in advance of either activity.

A.27 EQUAL EMPLOYMENT OPPORTUNITY CLAUSE

Manatee County, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 and the Regulations of the Department of Commerce (15 CFR, Part 8) issued pursuant to such Act, hereby notifies all vendors that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this advertisement and will not be discriminated against on the grounds of race, color or national origin in consideration for an award.

A.28 MBE/WBE

The State of Florida, **Office of Supplier Diversity** provides the certification process and the database for identifying certified MBE/WBE firms. This service may be directly accessed at: <http://www.osd.dms.state.fl.us/iframe.htm>

If you have any questions regarding this State service, please contact their office at (850) 487-0915.

A.29 MATHEMATICAL ERRORS

In the event of multiplication/extension error(s), the unit price shall prevail. In the event of addition error(s) the extension totals will prevail. All bids shall be reviewed mathematically and corrected, if necessary, using these standards, prior to additional evaluation.

A.30 DISCLOSURE

Upon receipt, all inquires and responses to inquires related to this Invitation for Bid become "Public Records" and are subject to public disclosure consistent with Chapter 119, Florida Statutes.

Bids become "Public Records" ten (10) days after the bid opening or if an award decision is made earlier than this time as provided by Florida Statue 119.071. No announcement or review of the bid documents shall be conducted at the public opening of the bids.

Based on the above, Manatee County will receive bids at the date and time stated, and will make public at the opening the names of the business entities of all that submitted an offer and any amount presented as a total offer without any verification of the mathematics or the completeness of the offer. Upon the expiration of the statutory term for exemption the actual documents may be inspected or copied. When County staff have completed a mathematic validation and inspected the completeness of the offers, tabulation shall be posted on www.mymanatee.org.

NOTE: ANY OR ALL STATEMENTS CONTAINED IN THE FOLLOWING SECTIONS: BASIS OF AWARD, TERMS AND CONDITIONS OF THE CONTRACT, OR SPECIFICATIONS, WHICH VARY FROM THE INFORMATION TO BIDDERS, SHALL HAVE PRECEDENCE.

END OF SECTION

SECTION 00020
BASIS OF AWARD

B.01 BASIS OF AWARD

Award shall be to the most responsive, responsible bidder meeting specifications and having the lowest Total Bid Price for **Bid "A"**, or the lowest Total Bid Price for **Bid "B"**, for the requirements listed on the Bid Form for the Work as set forth in this Invitation For Bid. Bid Prices shall include costs for furnishing all labor, equipment and/or materials for the completion of the Work in accordance with and in the manner set forth and described in the Contract Documents to the County's satisfaction within the prescribed time.

Two schedules for Completion of the Work shall be considered. Each bid for completion by the specified stated time shall be offered as a separate "Total Bid Price". The County has the sole authority to select the bid based on the Completion Time which is in the best interest of the County. Only one award shall be made.

In evaluating bids, the County shall consider the qualifications of the bidders; and if required, may also consider the qualifications of the subcontractors, suppliers, and other persons and organizations proposed. County may also consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work.

Whenever two or more bids are equal with respect to price, quality and service, the bid received from a local business shall be given preference in award. Whenever two or more bids which are equal with respect to price, quality and service are received, and both bids and neither of these bids are received from a local business, the award shall be determined by a chance drawing conducted by the Purchasing Office and open to the public.

Local business is defined as a business duly licensed and authorized to engage in the sale of goods and/or services to be procured, which has a place of business in Manatee County with full time employees at that location.

B.02 SUBCONTRACTORS

Subcontractors shall be bound by the terms and conditions of this contract insofar as it applies to their Work, but this shall not relieve the prime contractor from the full responsibility of the County for the proper completion of all Work to be executed under this contract.

The employment of unauthorized aliens by any vendor is considered a violation of Section 274 (e) of the Immigration and Employment Act. If the vendor knowingly employs unauthorized aliens, such violation shall be cause for unilateral cancellation of this agreement.

B.03 QUALIFICATIONS OF BIDDERS

Each bidder must secure all licenses required (in accordance with Chapter 489 Florida Statutes) for the Work which is the subject of this bid; and, upon request, shall submit a true copy of all applicable licenses.

Contractor shall have a minimum of five (5) years experience in dredging with dredge sizes of 5,000 yds or more. References and details shall be provided in the Contractor's Questionnaire included as Section 00430.

To demonstrate qualifications to perform the Work, each bidder must be prepared to submit within five days of County's request; written evidence such as financial data, previous experience, present commitments and other such data as may be requested. Bidder must be able to provide evidence of Bidder's qualification to do business in the state of Florida. Each bidder shall submit as a portion of their bid, a completed Contractor's Questionnaire included as Section 00430.

Minimum insurance limits of Marine Insurance are included for this project. In addition to the requirement for normal liability and workers compensation insurance, when the work extends to the water, on a boat or barge, Protection and Indemnity (P&I) coverage is required. In accordance with state regulations for marine contractors, contractor and/or subcontractor must carry Longshoremen's & Harbor Workers' Compensation (33 U.S.C.A. sec. 901) coverage for its employees and Jones Act coverage (46 U.S.C.A. sec. 688) if there are "seamen".

A complete list of all subcontractors proposed for any portion of the Work may be requested of any Bidder deemed necessary by the Owner. Subcontracts shall be awarded only to those subcontractors considered satisfactory by the Owner.

B.04 INSPECTION OF SITE

Prior to submission of a bid, each bidder shall visit the site to become familiar with all conditions that may affect services that are required to completely execute the full intent of these specifications. Location of project: Coral Shores, Bradenton, Manatee County, FL. Site visit shall be acknowledged in Section 00300, Bid Form, page 00300-1.

B.05 PREPARATION OF CONTRACT

A written notice confirming award or recommendation thereof will be forwarded to the Successful Bidder accompanied by the required number of unsigned counterparts of the Agreement. Within 10 days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement with any other required documents to County. (Note: Contract must be approved in accordance with the Manatee County Code of Laws, Chapter 2-26, Manatee County Purchasing Ordinance and the Standard and Procedures approved by the County Administrator).

END OF SECTION

SECTION 00030
GENERAL TERMS AND CONDITIONS OF THE CONTRACT

C.01 CONTRACT FORMS

The agreement resulting from the acceptance of a bid shall be in the form of the agreement stated in this bid.

C.02 ASSIGNMENT OF CONTRACT

Contractor shall not assign, transfer, convey, sublet or otherwise dispose of this Contract or of his right, title, or interest therein, or his power to execute such Contract, or to assign any monies due or to become due there under to any other person, firm or corporation unless first obtaining the written consent of the County. The giving of such consent to a particular subcontractor assignment shall not dispense with the necessity of such consent to any further or other assignment.

C.03 COMPLETION OF WORK

The Work will be completed and ready for final inspection within the specified calendar days from the date the Contract Time commences to run. Two bids shall be considered based on **Bid "A" 300 calendar days** and **Bid "B" based on 360 calendar days**. The County has the sole authority to select the bid based on the Completion Time which is in the best interest of the County. Only one award shall be made.

C.04 LIQUIDATED DAMAGES

If the Contractor refuses or fails to prosecute the Work, or any separable part thereof, with such diligence as will hinder its completion within the time specified, the County may seek damages. The actual damages for delay will be impossible to determine and in lieu thereof, the Contractor shall pay to the Owner the sum of **\$1,423.00** as fixed, agreed, and liquidated damages for each calendar day of the delay until the Work is finally accepted by the County and the Contractor and his Surety shall be liable for the amount thereof.

C.05 PAYMENT

Contractor may apply for partial payment on monthly estimates, based on the amount of Work done or completed in compliance with the provisions of the Contract. Contractor shall submit an application, on a form provided or approved by the County, of an approximate estimate of the proportionate value of the Work done, items and locations of the Work performed up to and including the last day of the period then ending. The County will then review said estimate and make any necessary revisions so that the estimate can receive approval for payment. If the Contractor and the County do not agree on the approximate estimate of the proportionate value of the Work done for any pay period, the determination of the County will be binding. The amount of said estimate after deducting any required retainage and all previous payments shall be due and payable to the Contractor within 20 days after the pay estimate has been approved by the County. It is the Contractor's responsibility for the care of the materials.

C.05 PAYMENT (Continued)

Any damage to or loss of said materials is the full responsibility of the Contractor. Any Periodical Pay Estimate signed by the Contractor shall be final as to the Contractor for any or all work covered by the Periodical Pay Estimate. Any requests for payment of materials stored on site must be accompanied with a paid receipt. The Contractor warrants and guarantees that title to all work, materials and equipment covered by any application for payment, whether incorporated in the project or not, will pass to the County at the time of payment free and clear of all liens, claims, security interests and encumbrances (hereafter referred to as "Liens").

The Contractor agrees to furnish an affidavit stating that all laborers, material men, and subcontractors have been paid on the project for Work covered by the application for payment and that a partial or complete release of lien, as may be necessary, be properly executed by the material men, laborers, subcontractors on the project for Work covered by the application for payment, sufficient to secure the County from any claim whatsoever arising out of the aforesaid Work.

When the Contractor has completed the Work in compliance with the terms of the Contract Documents, he shall notify the County in writing that the project is ready for final inspection. The County will then advise the Contractor as to the arrangements for final inspection and what Work, if any, is required to prepare the project or a portion thereof for final inspection. When the County determines the project or portion thereof is ready for final inspection, the County shall perform same. Upon completion of final inspection, the County will notify Contractor of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies. When all such errors have been corrected, a final re-inspection will be made. The process will be repeated until, in the opinion of the County, the project has been completed in compliance with the terms of the Contract Documents.

When final acceptance has been made by the County, the County will make final payment of the Contract amount, plus all approved additions, less approved deductions and previous payments made. The Contract will be considered complete when all work has been finished, the final inspection made, approved as-builts received, and the project finally accepted in writing by the County. The Contractor's responsibility shall then terminate except as otherwise stated.

C.06 RETAINAGE

A **retainage** of 2.5% of the total contract amount shall be withheld from payments after 75% completion of the Work. Upon substantial completion, this retainage shall be reduced to 1% of the total contract amount plus such amount as the Owner may reasonably deem necessary to repair, replace, complete or correct any damaged, defective, incorrect or incomplete work. Upon final acceptance, the remaining retainage shall be included in the final payment.

C.07 WARRANTY AND GUARANTEE PROVISIONS

All work, materials, and equipment furnished as defined herein shall be guaranteed and warranted by the contractor for a minimum period of three (3) years, unless otherwise specified, from final acceptance by the Owner to be free from defects due either to faulty materials or equipment or faulty workmanship.

All materials, equipment, and workmanship furnished and installed by the contractor is warranted and guaranteed by the contractor to be such as to meet the required standards and to accomplish the purpose and function of the project as defined, detailed, and specified herein.

The Owner shall, following discovery thereof, promptly give written notice to the contractor of faulty materials, equipment, or workmanship within the period of the guarantee and the contractor shall promptly replace any part of the faulty equipment, material, or workmanship at his own cost. These warranty and guarantee provisions create no limitations on the Owner as to any claims or actions for breach of guaranty or breach of warranty that the Owner might have against parties other than the contractor, and do not constitute exclusive remedies of the Owner against the contractor.

C.08 ROYALTIES AND PATENTS

The contractor shall pay all royalties and license fees for equipment or processes in conjunction with the equipment and/or services being furnished. Contractor shall defend all suits or claims for infringement of any patent, trademark or copyright, and shall save the County harmless from loss on account thereof, including costs and attorney's fees.

C.09 AUTHORIZED PRODUCT REPRESENTATION

The contractor, by virtue of submitting the name and specifications of a manufacturer's product, will be required to furnish the named manufacturer's product. Failure to perform accordingly may, in the County's sole discretion, be deemed a breach of contract, and shall constitute grounds for the County's immediate termination of the contract.

C.10 REGULATIONS

It shall be the responsibility of the bidder to assure compliance with any OSHA, EPA and/or other federal or state of Florida rules, regulations or other requirements, as each may apply.

C.11 CANCELLATION

Any failure of the contractor to furnish or perform the Work (including, but not limited to, commencement of the Work, failure to supply sufficient skilled workers or suitable materials or equipment) in accordance with the contract, the County may order the stop of the Work, or any portion thereof, until the cause for such order has been eliminated. If the contractor persistently fails to perform the Work in accordance with the contract, the County reserves the right to terminate the contract and select the next qualified bidder or re-advertise this procurement in part or in whole. The County reserves the right to cancel all or any undelivered or unexecuted portion of this contract with or without cause.

C.12 INDEMNIFICATION

The contractor covenants and agrees to indemnify and save harmless the County, its agents and employees, from and against all claims, suits, actions, damages, causes of action, or judgments arising out of the terms of the resulting agreement for any personal injury, loss of life, or damage to the property sustained as a result of the performance or non-performance of services or delivery of goods; from and against any orders, judgments, or decrees, which may be entered against the County, its agents or employees; and from and against all costs, attorney's fees, expenses and other liabilities incurred in the defense of any such claim, suit or action, and the investigation thereof. Nothing in the award, resulting agreement, contract or Purchase Order shall be deemed to affect the rights, privileges and immunities of the County as set forth in Florida Statute Section 768.28.

C.13 MANUALS, SCHEMATICS, HANDBOOKS

All manuals, schematics and handbooks shall be provided which are applicable to the equipment delivered. An operators manual, parts manual and technician manual must also be provided. Parts lists (manuals) must include OEM part numbers for items not manufactured by the bidder. Vendor shall furnish two (2) copies of each.

C.14 INSURANCE

The contractor will not commence work under a contract until all insurance under this section and such insurance coverage as might be required by the County has been obtained. The contractor shall obtain, and submit to Purchasing within 10 calendar days of request, at his expense, the following minimum amounts of insurance (inclusive of any amounts provided by an umbrella or excess policy):

a. Workers' Compensation/Employers' Liability

Part One - There shall be no maximum limit (other than as limited by the applicable statute) for liability imposed by Florida Workers' Compensation Act or any other coverage required by the contract documents which are customarily insured under Part One of the standard Workers' Compensation Policy.

C.14 INSURANCE (Continued)

Part Two - The minimum amount of coverage required by the contract documents which are customarily insured under Part Two of the standard Workers' Compensation Policy shall be:

<u>\$100,000</u>	(Each Accident)
<u>\$500,000</u>	(Disease-Policy Limit)
<u>\$100,000</u>	(Disease-Each Employee)

b. Commercial General Liability

The limits are to be applicable only to work performed under this contract and shall be those that would be provided with the attachment of the Amendment of Limits of Insurance (Designated Project or Premises) endorsement (ISO Form CG 25 03) a Commercial General Liability Policy with the following minimum limits.

General Aggregate:

Products/Completed Operations Aggregate	<u>\$1,000,000</u>
Personal and Advertising Injury	<u>\$300,000</u>
Each Occurrence	<u>\$300,000</u>
Fire Damage (Any One Fire)	<u>\$Nil</u>
Medical Expense (Any One Person)	<u>\$Nil</u>

c. Business Auto Policy

Each Occurrence Bodily Injury and	
Property Damage Liability Combined	<u>\$300,000</u>
Annual Aggregate (if applicable):	<u>\$1,000,000</u>

d. Owners Protective Liability Coverage

The minimum OPC Policy limits per occurrence and, if subject to an aggregate, annual aggregate to be provided by the contractor shall be the same as the amounts shown above as the minimum per occurrence and general policy aggregate limits respectively required for the Commercial General Liability coverage. The limits afforded by the OPC Policy and any excess policies shall apply only to the Owner and the Owner's officials, officers, agents and employees and only to claims arising out of or in connection with the work under this contract.

e. Property Insurance

If this contract includes construction of or additions to above ground buildings or structures, contractor shall provide "**Builder's Risk**" insurance with the minimum amount of insurance to be 100% of the value of such addition(s), building(s), or structure(s).

C.14 INSURANCE (Continued)**f. Installation Floater**

If this contract does not include construction of or additions to above ground building or structures, **but does involve** the installation of machinery or equipment, contractor shall provide an "**Installation Floater**" with the minimum amount of insurance to be 100% of the value of such addition(s), building(s), or structure(s).

g. Certificates of Insurance and Copies of Policies

Certificates of Insurance in triplicate evidencing the insurance coverage specified in the six above paragraphs a., b., c., d., e., and f., shall be filed with the Purchasing Director before operations are begun. The required certificates of insurance shall name the types of policy, policy number, date of expiration, amount of coverage, companies affording coverage, and also shall refer specifically to the bid number, project title and location of project. Insurance shall remain in force at least one year after completion and acceptance of the project by the County, in the amounts and types as stated herein, with coverage for all products and services completed under this contract.

ADDITIONAL INSURED: The contractor shall name Manatee County as additional insured in each of the applicable policies.

If the initial insurance expires prior to the completion of operations and/or services by the contractor, renewal certificates of insurance and required copies of policies shall be furnished by the contractor and delivered to the Purchasing Director thirty (30) days prior to the date of their expiration.

Nothing herein shall in any manner create any liability of the County in connection with any claim against the contractor for labor, services, or materials, or of subcontractors; and nothing herein shall limit the liability of the contractor or contractor's sureties to the County or to any workers, suppliers, material men or employees in relation to this contract.

C.15 BID BOND/CERTIFIED CHECK

By offering a submission to this Invitation For Bid, the bidder agrees should the bidder's bid be accepted, to execute the form of contract and present the same to Manatee County for approval within 10 days after being notified of the awarding of the contract. The bidder further agrees that failure to execute and deliver said form of contract **within 10 days** will result in damages to Manatee County and as guarantee of payment of same a bid bond/certified check shall be enclosed within the submitted sealed bid in the amount of five (5%) percent of the total amount of the bid.

C.15 BID BOND/CERTIFIED CHECK (Continued)

The bidder further agrees that in case the bidder fails to enter into a contract, as prescribed by Manatee County, the bid bond/certified check accompanying the bid shall be forfeited to Manatee County as agreed liquidated damages. If the County enters into a contract with a bidder, or if the County rejects any and/or all bids, accompanying bond will be promptly returned.

C.16 PERFORMANCE AND PAYMENT BONDS

The successful bidder shall furnish surety bonds as security for faithful performance of the contract awarded as a result of this bid, and for the payment of all persons performing labor and/or furnishing material in connection therewith. Surety of such bonds shall be in an amount equal to the bid award (100% each) and from a duly authorized and nationally recognized surety company, authorized to do business in Florida, satisfactory to this County. The attorney-in-fact who signs the bonds must file with the bonds a certificate and effective dated copy of power-of-attorney. (Reference Florida Statute 255.05)

Furnishing the performance and payment bonds shall be requisite to execution of a contract with the County. Said performance and payment bonds will remain in force for the duration of the contract with the premiums paid by the contractor. Failure of successful bidder to execute such contract and to supply the required bonds shall be just cause for annulment of the award.

The County may then contract with another acceptable bidder or re-advertise this Invitation For Bid. If another bidder is accepted, and notice given within 90 days after the opening of bids, this acceptance shall bind the bidder as though they were originally the successful bidder.

Failure of the County at any time, to require performance by the contractor of any provisions set out in the contract will in no way affect the right of the County, thereafter, to enforce the provisions. Bonds to remain in effect for one year after final payment becomes due.

C.17 NO DAMAGES FOR DELAY

No claim for damages or any claim other than for an extension of time shall be made or asserted against the County by reason of any delays. The Contractor shall not be entitled to an increase in the Total Contract Price or payment or compensation of any kind from the County or direct, indirect, consequential impact or other costs, expenses for damages, including but not limited to costs of acceleration or inefficiency arising because of delay, disruption, interference or hindrance from any

C.17 NO DAMAGES FOR DELAY (Continued)

cause whatsoever; provided, however, that this provision shall not preclude recovery or damages by the Contractor for hindrance or delays due solely to fraud, bad faith, or active interference on part of the County or its agents. Otherwise, the Contractor shall only be entitled to extensions of the Contract Time as the sole and exclusive remedy for such resulting delay, in accordance with and to the extend specifically provided above.

C.18 NO INTEREST

Any monies not paid by the County when claimed to be due to the Contractor under this Contract shall not be subject to interest including prejudgment interest. Any monies not paid by the County when claimed to be due to the Contractor for damages awarded in the case of construction delays shall not be subject to prejudgment interest.

C.19 CONSTRUCTION OF CONTRACT

This Contract and the rights and responsibilities hereunder shall not be construed more strongly against either party, regardless of the extent to which such party may have participated in the preparation hereof.

END OF SECTION

SECTION 00100
BID SUMMARY

D.01 THE WORK

Location of Work: Coral Shores, Bradenton, Manatee County, FL.

The Work shall include all labor, materials, equipment tools, and services necessary and required for hydraulic or mechanical dredging and removal of approximately 10, 432 cubic yards of sediments from within residential canals and waterways of Coral Shores, Bradenton, Manatee County, Florida.

The work shall also include drying of the sediments through the use of sea-based operations, and hauling, delivery and placement of such sediments at Manatee County Landfill.

The Contractor shall perform the work complete, in place and ready for continuous service and shall include any repairs, replacements, and / or restoration required as a result of damages caused prior to acceptance by the Owner.

The Contractor shall furnish and install all materials equipment and labor which is reasonably and properly inferable and necessary for the proper completion of the work, whether specifically indicated in the Contract Documents or not.

D.02 SUBCONTRACTORS, SUPPLIERS AND OTHERS

The identity of subcontractors, suppliers, and other persons and organizations (including those who are to furnish the principal items of material and equipment) may be requested by the County for each bid item from any of the Bidders; and the Bidder shall respond within five days after the date of such request. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such subcontractor, supplier, persons or organization if requested by County. If County, after due investigation, has reasonable objection to any proposed subcontractor, supplier, other person or organization, County may, before the Notice of Award is given, request the apparent successful Bidder to submit an acceptable substitute without an increase in Contract Price or Contract Time.

If apparent successful Bidder declines to make any such substitution, County may award the contract to the next lowest qualified Bidder that proposes to use acceptable subcontractors, suppliers, and other persons who County does not make written objection to Contractor shall not be required to employ any subcontractor, supplier, other person or organization who Contractor has reasonable objection to.

D.02 SUBCONTRACTORS, SUPPLIERS AND OTHERS (Continued)

Subcontractors shall be bound by the terms and conditions of this contract insofar as it applies to their Work, but this shall not relieve the prime contractor from the full responsibility to the County for the proper completion of all Work to be executed under this contract.

D.03 BIDS

Bids are to be submitted in triplicate, one original and two copies, upon the County supplied forms. All blank spaces must be filled in as noted with amounts extended and totaled and no changes shall be made in the wording of the forms or in the items mentioned therein. In the event a change is made in your submittal, the Bidder shall write its initials by the change. Any bid may be rejected which contains any omissions, alterations, irregularities of any kind, or which shall in any manner fail to conform to bid requirements.

A bid made by an individual, either in his/her own or proper person or under a trade or firm name, shall be executed under the individual's signature. If made by a partnership, the bid shall be executed by two or more of the general partners. If made by a corporation, the bid shall be executed by its President or other legally authorized corporate officer or agent.

D.04 EXAMINATION OF CONTRACT DOCUMENTS AND SITE

It is the responsibility of each Bidder before submitting a Bid, to (a) examine the Bid Documents thoroughly; (b) visit the site to become familiar with local conditions that may affect cost, progress, performance, or furnishing of the Work; (c) consider federal, state, and local codes, laws, and regulations that may affect costs, progress, performance, or furnishing of the Work; (d) study and carefully correlate Bidder's observations with the Bid Documents; and (e) notify County of all conflicts, errors, or discrepancies in the Bid Document.

The accuracy of the existing utility locations shown on the plans is approximate and without express or implied warranty. Each Bidder may, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests and studies, and obtain any additional information and data which pertain to the physical conditions at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the Work and which Bidder deems necessary to determine his Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of the Contract Documents.

D.04 EXAMINATION OF CONTRACT DOCUMENTS AND SITE (Continued)

County will provide each Bidder access to the site to conduct such explorations and tests. Bidder shall fill all holes, clean up and restore the site to its former condition upon completion of such explorations. The lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and other lands designated for use by Contractor in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by Contractor. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by County unless otherwise provided in the Contract Documents.

D.05 MATERIALS AND WORKMANSHIP

All materials and apparatus required for this Work, except as specifically specified otherwise, shall be new, of first class quality, and shall be furnished, delivered, connected and finished in every detail. Construction shall be prescribed by good industry practice and in accordance with manufacturer's recommendations for the type being installed.

Use skilled workman trained and experienced in the necessary trades and who are completely familiar with the specified requirements and the methods needed for proper performance of the Work of this section.

D.06 REGULATIONS AND MATERIAL DISPOSAL

It shall be the responsibility of the contractor to assure compliance with any OSHA, EPA, federal, state, and/or local rules, regulations or other requirements as each may apply.

D.07 DISCRETIONARY WORK

This Bid Item entails minor increases (that may be directed by staff) to existing bid item quantities or minor modification items not bid which were unforeseen and necessary during the construction to provide a safe, complete project in accordance with Bid Documents. (This will not affect the requirement for change orders involving major modifications to the project.) Payment for all Work under this item shall be made only at the County's discretion in order to satisfactorily complete the project. In general, this item is for unanticipated conflicts and/or design changes required during construction which are necessary to complete the project without changing the initial scope of Work and without costly delays.

END OF SECTION

SECTION 00150

MANATEE COUNTY LOCAL PREFERENCE LAW AND VENDOR REGISTRATION**E.01 Vendor Registration**

All vendors are encouraged to register with Manatee County using the on-line "Vendor Registration" web page on www.mymanatee.org.

Enclosed are a copy of the current Manatee County law that details the County's Local Preference and the County's definition of a Local Business.

If you assert that your firm meets the stated definition of a Local Business, we ask that in addition to registering on the County's Web page, you fill out the attached **"Affidavit As To Local Business Form"** that is included in this section, have the completed document notarized, and mail the original to the following address: Manatee County Administration Center, 1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205.

Your cooperation in registering your business with Manatee County will enhance our opportunities to identify sources for goods and services, plus identify Local Businesses. This information is used for soliciting quotations up to \$250,000.00 and for competitive solicitations of larger purchases.

You will note that Manatee County collaborates with the Manatee Chamber of Commerce, posting bids on www.manateechamber.com as well as using the same vendor categories for registration.

Our staff can assist you with your registration as needed. Our office hours are 8:00 A.M. to 5:00 P.M., Monday through Friday on regular business days. Please call (941) 749-3014 if you wish to have a purchasing staff member assist you.

Quick steps to registration: **www.mymanatee.org**

A link to "Purchasing" is listed under "Quick Links" on page one of the County Web Site.

On the left hand side of the Purchasing Web page, click on "Vendor Registration".

This will bring up the Vendor Registration form for on-line input. Please note that the definition of a "Local Business" changed on March 17, 2009. The Web page will be updated to include the current Law which has been provided in this section of the bid.

Thank you for reviewing this information and considering registering your business with Manatee County. Registration is not mandatory; however, by taking the time to register, you are helping the County to provide timely notifications of quotation, bid and proposal opportunities to your business.

E.02 Section 2-26-6. Local preference, tie bids, local business defined.

(a) Whenever a responsible local business bidder and a responsible non-local business bidder are found, upon the opening of bids, to have both submitted the lowest responsive bid, the bid of the local bidder shall be awarded the contract. Should more than one responsible local business bidder match the responsible non-local business bidder's lowest responsive bid, or should no responsible local business bidder match the lowest responsive bid but two or more responsible non-local business bidders submit lowest responsive bids for equal amounts, then the award of the contract shall be determined by a chance drawing, coin toss, or similar tie-breaking method conducted by the purchasing office and open to the public. Any bidders seeking to be recognized as local businesses for purposes of this local business preference provision may be required by the terms of the bid announcement to certify they meet the definition of local business set forth in this section, and to register as a local business with the county in the manner prescribed by the county to facilitate the county's ability to track the award of contracts to local businesses and to allow the county to provide future notifications to its local businesses concerning other bidding opportunities.

(b) Nothing herein shall be deemed to prohibit the inclusion of requirements with respect to operating and maintaining a local place of business in any invitation for bids when the bidder's location materially affects the provisions of the services or supplies that are required by the invitation.

(c) Local business is defined as a business legally authorized to engage in the sale of the goods and/or services to be procured, and which certifies within its bid that for at least six (6) months prior to the announcement of the solicitation of bids it has maintained a physical place of business in Manatee, Desoto, Hardee, Hillsborough, Pinellas or Sarasota County with at least one full-time employees at that location.

(d) Each solicitation for bids made by the county shall contain terms expressly describing the local business preference policies of the county, and shall provide that by electing to submit a bid pursuant to a request for bids, all bidders are deemed to understand and agree to those policies.

(e) For all contracts for architecture, professional engineering, or other professional services governed by Florida Statute § 287.055, the Consultants' Competitive Negotiation Act, the county shall include the local business status of a firm among the factors considered when selecting which firms are "most highly qualified." In determining which firm is the "most qualified" for purposes of negotiating a satisfactory contract, preference shall be given to a local business where all other relevant factors are equal.

(f) Local preference shall not apply to the following categories of contracts:

1. Goods or services provided under a cooperative purchasing agreement or similar "piggyback" contract;
2. Contracts for professional services subject to Florida Statute § 287.055, the Consultants' Competitive Negotiation Act, except as provided for in subsection (e) above;

E.02 Section 2-26-6. Local preference, tie bids, **local business defined.** (Continued)

3. Purchases or contracts which are funded, in whole or in part, by a governmental or other funding entity, where the terms and conditions of receipt of the funds prohibit the preference;
 4. Purchases or contracts made pursuant to a non-competitive award process, unless otherwise provided by this section;
 5. Any bid announcement which specifically provides that the general local preference policies set forth in this section are suspended due to the unique nature of the goods or services sought, the existence of an emergency as found by either the county commission or county administrator, or where such suspension is, in the opinion of the county attorney, required by law.
- (g) To qualify for local preference under this section, **a local business must certify to the County that it:**
1. Has not within the five years prior to the bid announcement admitted guilt or been found guilty by any court or state or federal regulatory enforcement agency of violation of any criminal law, or a law or administrative regulation regarding fraud;
 2. Is not currently subject to an unresolved citation or notice of violation of any Manatee County Code provision, except citations or notices which are the subject of a current legal appeal, as of the date of the bid announcement;
 3. Is not delinquent in the payment of any fines, liens, assessments, fees or taxes to any governmental unit or taxing authority within Manatee County, except any such sums which are the subject of a current legal appeal.

Ref: Ordinance 09-21 and 09-23 **PASSED AND DULY ADOPTED** in open session, with a quorum present and voting, on the 17th day of March, 2009.

END OF SECTION

**MANATEE COUNTY GOVERNMENT
AFFIDAVIT AS TO LOCAL BUSINESS
(Complete and Initial Items B-F)**

A. Authorized Representative

I, [name] _____, am the [title] _____

and the duly authorized representative of: [name of business] _____
_____, and that I possess direct personal knowledge to make informed responses to these certifications and the legal authority to make this Affidavit on behalf of myself and the business for which I am acting; and by electing to submit a bid pursuant to this Invitation for Bids, shall be deemed to understand and agree to the local business preference policies of Manatee County; and that I have the direct knowledge to state that this firm complies with all of the following conditions to be considered to be a Local Business as required by the Manatee County Code of Law, Section 2-26-6.

B. Place of Business: I certify that the above business is legally authorized to engage in the sale of goods and/or services and has a physical place of business in Manatee, DeSoto, Hardee, Hillsborough, Pinellas or Sarasota County with at least one (1) fulltime employee at that location. The physical address of the location which meets the above criteria is: _____ [Initial] _____

C. Business History: I certify that business operations began at the above physical address with at least one fulltime employee on [date] _____ [Initial] _____

D. Criminal Violations: I certify that within the past five years of the date of this Bid announcement, this business has not admitted guilt nor been found guilty by any court or local, state or federal regulatory enforcement agency of violation of any criminal law or administrative regulation regarding fraud. [Initial] _____

E. Citations or Code Violations: I certify that this business is not currently subject to any unresolved citation or notice of violation of any Manatee County Code provision, with the exception of citations or notices which are the subject of a legal current appeal within the date of this bid announcement. [Initial] _____

F. Fees and Taxes: I certify that within this business is not delinquent in the payment of fines, liens, assessments, fees or taxes to any governmental unit or taxing authority within Manatee County, with the exception of those which are the subject of a legal current appeal. [Initial] _____

Each of the above certifications is required to meet the qualification of "Local Business" under Manatee County Code of Law, 2-26-6.

Signature of Affiant _____

STATE OF FLORIDA

COUNTY OF _____

Sworn to (or affirmed) and subscribed before me this _____ day of _____, 20____, by (name of person making statement).

(Notary Seal) Signature of Notary: _____

Name of Notary (Typed or Printed) _____

Personally Known ____ OR Produced Identification ____ Type of Identification Produced _____

Submit executed copy to Manatee County Purchasing, Suite 803, 1112 Manatee Avenue W., Bradenton, FL 34205.

BID FORM
SECTION 00300

For: IFB #10-1476-OV Coral Shores Canal Dredging, Bradenton, Manatee County, FL (Project No. 6054901 6.2)

TOTAL BID PRICE "A": \$ _____
Based on a Completion Time of <u>300</u> calendar days
TOTAL BID PRICE "B": \$ _____
Based on a Completion Time of <u>360</u> calendar days

Two schedules for Completion of the Work shall be considered. Each bid for completion by the specified stated time shall be offered as a separate "Total Bid Price". The County has the sole authority to select the bid based on the Completion Time which is the best interest of the County. Only one award shall be made.

We, the undersigned, hereby declare that we have carefully reviewed the bid documents, and with full knowledge and understanding of the aforementioned herewith submit this bid, meeting each and every specification, term, and condition contained in the Invitation for Bids.

We understand that the bid technical specifications, terms, and conditions in their entirety shall be made a part of any agreement or contract between Manatee County and the successful bidder. Failure to comply shall result in contract default, whereupon, the defaulting contractor shall be required to pay for any and all re-procurement costs, damages, and attorney fees as incurred by the County.

Communications concerning this Bid shall be addressed as follows:

Person's Name: _____

Address: _____ Phone: _____

Date: _____ FLContractorLicense# _____

Bidder is a WBE/MBE Vendor? _____ Certification _____

COMPANY'S NAME: _____

AUTHORIZED SIGNATURE(S): _____

Name and Title of Above Signer(s) _____

CO. MAILING ADDRESS: _____

STATE OF INCORPORATION _____ (if applicable)

TELEPHONE : () _____ FAX: () _____

Email address: _____

Acknowledge Addendum No. _____ Dated: _____ Acknowledge Addendum No. _____ Dated _____

SIGN AND CONFIRM DATE OF PROJECT VISIT: _____ DATE: _____

BID FORM

(Submit in Triplicate)

Section 00300

(BID "A")

**Coral Shores Canal Dredging, Bradenton, Manatee County, FL
(Project No. 6054901 6.2) Based on Completion Time of 300
Calendar Days**

ITEM	DESCRIPTION	U/M	EST. QTY.	UNIT PRICE	EXTENDED PRICE
1	Mobilization	LS	1	\$	\$
2	Erosion and Sedimentation Control	LS	1	\$	\$
3	Manatee Safety Measures	LS	1	\$	\$
4	Dredging*	CY	10,332	\$	\$
5	Surveying	LS	1	\$	\$
	SUBTOTAL BASE COST				
6	Discretionary Work				\$50,000.00
	TOTAL BID "A" PRICE - Based on Completion Time of <u>300</u> Calendar Days				\$

***Dredging quantity shown is an estimate of quantity of material to be removed to achieve the limits, lines and grades shown in the permits. Contractor shall determine the method of construction (mechanical or hydraulic) which will be the most cost effective.**

Authorized Signature: _____

Bidder (Please Print): _____

BID FORM

(Submit in Triplicate)

Section 00300

(BID "B")

**Coral Shores Canal Dredging, Bradenton, Manatee County, FL
(Project No. 6054901 6.2) Based on Completion Time of 360
Calendar Days**

ITEM	DESCRIPTION	U/M	EST. QTY.	UNIT PRICE	EXTENDED PRICE
1	Mobilization	LS	1	\$	\$
2	Erosion and Sedimentation Control	LS	1	\$	\$
3	Manatee Safety Measures	LS	1	\$	\$
4	Dredging*	CY	10,332	\$	\$
5	Surveying	LS	1	\$	\$
	SUBTOTAL BASE COST				
6	Discretionary Work				\$50,000.00
	TOTAL BID "A" PRICE - Based on Completion Time of <u>360</u> Calendar Days				\$

***Dredging quantity shown is an estimate of quantity of material to be removed to achieve the limits, lines and grades shown in the permits. Contractor shall determine the method of construction (mechanical or hydraulic) which will be the most cost effective.**

Authorized Signature: _____

Bidder (Please Print): _____

**SWORN STATEMENT
THE FLORIDA TRENCH SAFETY ACT**

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR BY AN OFFICER AUTHORIZED TO ADMINISTER OATHS.

1. This Sworn Statement is submitted with IFB No. #10-1476-OV
2. This Sworn Statement is submitted by _____
whose business address is _____
and, if applicable, its Federal Employer Identification Number (FEIN) is _____. If
the entity has no FEIN, include the Social Security Number of the individual signing this
sworn statement _____.
3. Name of individual signing this Sworn Statement is: _____,
Whose relationship to the above entity is: _____.
4. The Trench Safety Standards that will be in effect during the construction of this project shall
include, but are not limited to: Laws of Florida, Chapters 90-96, TRENCH SAFETY ACT, and
OSHA RULES AND REGULATIONS 29 CFR 1926.650 Subpart P, effective October 1, 1990.
5. The undersigned assures that the entity will comply with the applicable Trench Safety Standards
and agrees to indemnify and hold harmless the Owner and Engineer, and any of their agents or
employees from any claims arising from the failure to comply with said standard.
6. The undersigned has appropriated the following costs for compliance with the applicable
standards:

Trench Safety Measure (Description)	Units of Measure (LF, SY)	Unit Quantity	Unit Cost	Extended Cost
a. _____	_____	_____	\$ _____	_____
b. _____	_____	_____	\$ _____	_____
c. _____	_____	_____	\$ _____	_____
d. _____	_____	_____	\$ _____	_____

7. The undersigned intends to comply with these standards by instituting the following procedures:

THE UNDERSIGNED, in submitting this Bid, represents that they have reviewed and considered all available geotechnical information and made such other investigations and tests as they may deem necessary to adequately design the trench safety system(s) to be utilized on this project.

(AUTHORIZED SIGNATURE / TITLE)

SWORN to and subscribed before me this ____ day of _____, 20____.
(impress official seal)

Notary Public, State of Florida
My commission expires: _____

SECTION 00430
CONTRACTOR'S QUESTIONNAIRE
 (Submit in Triplicate)

The Bidder warrants the truth and accuracy of all statements and answers herein contained.
 (Include additional sheets if necessary.)

THIS QUESTIONNAIRE MUST BE COMPLETED AND SUBMITTED WITH YOUR BID.

1. LICENSE # and COMPANY'S NAME: _____
 CO. PHYSICAL ADDRESS: _____
 TELEPHONE NUMBER: (____) _____ FAX (____) _____

2. Bidding as an; individual; a partnership; a corporation; a joint venture; ____

3. If a partnership: list names and addresses of partners; if a corporation: list names of officers, directors, shareholders, and state of incorporation; if joint venture: list names and address of ventures' and the same if any venture are a corporation for each such corporation, partnership, or joint venture:

4. Your organization has been in business (under this firm's name) as a _____
 For how many years? _____

5. Describe and give the date and owner of the last three government projects you've completed which are similar in cost, type, size, and nature as the one proposed (for a public entity). Include contact name and phone number:

6. Have you ever been assessed liquidated damages under a contract during the past five (5) years? If so, state when, where (contact name, address, and phone number) and why.

7. Have you ever failed to complete work awarded to you? If so, state when, where (Contact name, address, phone number) and why?

8. Have you ever been debarred or prohibited from bidding on a governmental entity's construction project? If yes, name the entity and describe the circumstances:

9. Name three individuals, governmental entities, or corporations for which you have performed similar work and to which you refer. Include contact name and phone number:

1.

2.

3.

10. What specific steps have you taken to examine the physical conditions at or contiguous to the site, including but not limited to, the location of existing underground facilities?

11. What specific physical conditions, including, but not limited to, the location of existing underground facilities have you found which will, in any manner, affect cost, progress, performance, or finishing of the work?

12. Will you subcontract any part of this Work? If so, describe which major portion(s):

13. If any, list (with contract amount) WBE/MBE to be utilized:

14. What equipment do you own to accomplish this Work?

15. What equipment will you purchase/rent for the Work? (Specify which)

16. Provide detail of your organization's initiative to meet the goal of encouraging and promoting environmentally preferable "green" products. **Reference Article A.22, "Be Green", Section 00010 "Information To Bidders".**

17. List the following in connection with the Surety which is providing the Bond(s):

Surety's Name: _____

Surety's Address: _____

Name, address and phone number of Surety's resident agent for service of process in Florida:

Phone: (____) _____

SECTION 00491
Drug Free Work Place Certification
 SWORN STATEMENT PURSUANT TO RESOLUTION R-93-22
 DRUG FREE WORK PLACES

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

This sworn statement is submitted to the Manatee County Board of County Commissioners by _____

[Print individual's name and title]

for _____

Whose business address is _____

?

and (if applicable) its Federal Employer Identification Number (FEIN) is _____
 (If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: _____)

I understand that no person or entity shall be awarded or receive a county contract for public improvements, procurement of goods or services (including professional services) or a county lease, franchise, concession or management agreement, or shall receive a grant of county monies unless such person or entity has submitted a written certification to the County that it will provide a drug free work place by:

(1) providing a written statement to each employee notifying such employee that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance as defined by .893.02(4), Florida Statutes, as the same may be amended from time to time, in the person's or entity's work place is prohibited specifying the actions that will be taken against employees for violation of such prohibition. Such written statement shall inform employees about:

(i) the dangers of drug abuse in the work place;

(ii) the person's or entity's policy of maintaining a drug free environment at all its work places, including but not limited to all locations where employees perform any task relating to any portion of such contract, business transaction or grant;

(iii) any available drug counseling, rehabilitation, and employee assistance programs; and

(iv) the penalties that may be imposed upon employees for drug abuse violations.

2) Requiring the employee to sign a copy of such written statement to acknowledge his or her receipt of same and advice as to the specifics of such policy. Such person or entity shall retain the statements signed by its employees. Such person or entity shall also post in a prominent place at all of its work places a written statement of its policy containing the foregoing elements (i) through (iv).

(3) Notifying the employee in the statement required by subsection (1) that as a condition of employment the employee will:

- (i) abide by the terms of the statement; and
- (ii) notify the employer of any criminal drug statute conviction for a violation occurring in the work place no later than five (5) days after such a conviction.

(4) Notifying the County within ten (10) days after receiving notice under subsection (3) from an employee or otherwise receiving actual notice of such conviction.

(5) Imposing appropriate personnel action against such employee up to and including termination; or requiring such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement, or other appropriate agency.

(6) Making a good faith effort to continue to maintain a drug free work place through implementation of sections (1) through (5) stated above.

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR MANATEE COUNTY IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT ANY CONTRACT OR BUSINESS TRANSACTION SHALL PROVIDE FOR SUSPENSION OF PAYMENTS, OR TERMINATION, OR BOTH, IF THE CONTRACTING OFFICER OR THE COUNTY ADMINISTRATOR DETERMINES THAT:

- (1) Such person or entity has made false certification.
- (2) Such person or entity violates such certification by failing to carry out the requirements of sections (1), (2), (3), (4), (5), or (6) or Resolution R-01-36 Section 4, E (1) (a) or
- (3) Such a number of employees of such person or entity have been convicted of violations occurring in the work place as to indicate that such person or entity has failed to make a good faith effort to provide a drug free work place as required by Resolution R-01-36 Section 4, E (1) (a).

(Signature)

STATE OF FLORIDA

COUNTY OF _____

Sworn to and subscribed before me this _____ day of _____, 2009
by _____.

Personally known _____ OR produced identification _____

_____ My commission expires _____

Notary Public Signature

[Print, type or stamp Commissioned name of Notary Public]

PUBLIC CONTRACTING AND ENVIRONMENTAL CRIMES CERTIFICATION**SWORN STATEMENT PURSUANT TO ARTICLE 5,
MANATEE COUNTY PURCHASING CODE**

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

This sworn statement is submitted to the Manatee County Board of County Commissioners by

_____ [print individual's name and title]

_____ for _____
[print name of entity submitting sworn statement]

Whose business is: _____

and (if applicable) its Federal Employer Identification Number (FEIN) is _____. If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: _____

I understand that no person or entity shall be awarded or receive a county contract for public improvements, procurement of goods or services (including professional services) or a county lease, franchise, concession or management agreement, or shall receive a grant of county monies unless such person or entity has submitted a written certification to the County that it has not:

- (1) been convicted of bribery or attempting to bribe a public officer or employee of Manatee County, the State of Florida, or any other public entity, including, but not limited to the Government of the United States, any state, or any local government authority in the United States, in that officer's or employee's official capacity; or
- (2) been convicted of an agreement or collusion among bidders or prospective bidders in restraint of freedom of competition, by agreement to bid a fixed price, or otherwise; or
- (3) been convicted of a violation of an environmental law that, in the sole opinion of the County's Purchasing Director, reflects negatively upon the ability of the person or entity to conduct business in a responsible manner; or
- (4) made an admission of guilt of such conduct described in items (1), (2) or (3) above, which is a matter of record, but has not been prosecuted for such conduct, or has made an admission of guilt of such conduct, which is a matter of record, pursuant to formal prosecution. An admission of guilt shall be construed to include a plea of nolo contendere; or
- (5) where an officer, official, agent or employee of a business entity has been convicted of or has admitted guilt to any of the crimes set forth above on behalf of such and entity and pursuant to the direction or authorization of an official thereof (including the person committing the offense, if he is an official of the

business entity), the business shall be chargeable with the conduct herein above set forth. A business entity shall be chargeable with the conduct of an affiliated entity, whether wholly owned, partially owned, or one which has common ownership or a common Board of Directors. For purposes of this Form, business entities are affiliated if, directly or indirectly, one business entity controls or has the power to control another business entity, or if an individual or group of individuals controls or has the power to control both entities. Indicia of control shall include, without limitation, interlocking management or ownership, identity of interests among family members, shared organization of a business entity following the ineligibility of a business entity under this Article, or using substantially the same management, ownership or principles as the ineligible entity.

Any person or entity, who claims that this Article is inapplicable to him/her/s/it because a conviction or judgement has been reversed by a court of competent jurisdiction, shall prove the same with documentation satisfactory to the County's Purchasing Director. Upon presentation of such satisfactory proof, the person or entity shall be allowed to contract with the County.

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR MANATEE COUNTY IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT ANY CONTRACT OR BUSINESS TRANSACTION SHALL PROVIDE FOR SUSPENSION OF PAYMENTS, OR TERMINATION, OR BOTH, IF THE CONTRACTING OFFICER OR THE COUNTY ADMINISTRATOR DETERMINES THAT **SUCH PERSON OR ENTITY HAS MADE FALSE CERTIFICATION.**

[Signature]

STATE OF FLORIDA

COUNTY OF _____

Sworn to and subscribed before me this _____ day of _____, 2009 by _____.

Personally known _____ OR produced _____
[Type of identification]

My commission expires _____
Notary Public Signature

[Print, type or stamp Commissioned name of Notary Public]

Signatory Requirement - In the case of a business entity other than a partnership or a corporation, this affidavit shall be executed by an authorized agent of the entity. In the case of a partnership, this affidavit shall be executed by the general partner(s). In the case of a corporation, this affidavit shall be executed by the corporate president.

SECTION 00500
FORM OF AGREEMENT
BETWEEN THE
COUNTY OF MANATEE, FLORIDA
AND THE CONTRACTOR AS IDENTIFIED BELOW
ON THE BASIS OF A STIPULATED UNIT COST CONTRACT PRICE

THIS AGREEMENT is made and entered into by and between the COUNTY OF MANATEE, a political subdivision of the state of Florida, hereinafter referred to as the "COUNTY" and _____, hereinafter referred to as the "CONTRACTOR," duly authorized to transact business in the state of Florida, with offices located at _____.

Article 1. WORK

CONTRACTOR shall furnish all labor, materials, supplies, and other items required to complete the Work for IFB No. **IFB#10-1476-OV, Coral Shores Canal Dredging, Bradenton, Manatee County, FL** in strict accordance with Contract Documents and any duly authorized subsequent addenda thereto, all of which are made a part hereof.

Article 2. ENGINEER

The County of Manatee, Project Management Department, is responsible as the COUNTY and **AECOM USA, Inc.** hereinafter referred to as "ENGINEER," designed this project and is responsible for technical/engineering reviews and decisions. The ENGINEER is a member of the COUNTY'S project management team which is collectively responsible in ensuring the Work is completed in accordance with the Contract Documents. All communications involving this project will be addressed to:

County of Manatee
Public Works Department
Project Management Division
Attn: Mr. Chuck Froman
IFB#10-1476-OV
1022 26th Avenue East
Bradenton, FL 34208
Phone (941) 708-7450, Ext. 7333

AECOM, USA, Inc.
Engineer of Record
5971 CattleRidge Boulevard
Suite 200
Sarasota, FL 34232
Phone (941) 377-8858

Where the terms ENGINEER and/or COUNTY are used in the Contract Documents, it shall mean the COUNTY'S project management team.

Article 3. CONTRACTOR'S REPRESENTATIONS

In order to induce COUNTY to enter into this Agreement, CONTRACTOR makes the following representations:

- 3.1 CONTRACTOR has familiarized itself with the nature and extent of the Bid Documents, Work, site, locality and all local conditions and laws and regulations that in any manner may affect cost, progress, performance or furnishing of the Work.
- 3.2 CONTRACTOR has studied carefully all drawings of the physical conditions upon which CONTRACTOR is entitled to rely.
- 3.3 CONTRACTOR has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests, reports and studies which pertain to the physical conditions at or contiguous to the site or which otherwise may affect the cost, progress, performance or furnishing of the Work as CONTRACTOR considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Bid Documents; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by CONTRACTOR for such purposes.
- 3.4 CONTRACTOR has reviewed and checked all information and data shown or indicated on the Bid Documents with respect to existing underground facilities at or contiguous to the site and assumes responsibility for the accurate location of said underground facilities. Any additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said underground facilities conducted by the CONTRACTOR will be done at the CONTRACTOR'S expense.

- 3.5 CONTRACTOR has correlated the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Bid.
- 3.6 CONTRACTOR has given COUNTY written notice of all conflicts, errors or discrepancies that have been discovered in the Bid Documents and the written resolution thereof by OWNER is acceptable to CONTRACTOR.
- 3.7 CONTRACTOR shall schedule and perform the Work subject to COUNTY'S approval and shall hold COUNTY harmless from all liabilities incurred due to CONTRACTOR'S failure to coordinate with the COUNTY.

Article 4. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire Agreement between COUNTY and CONTRACTOR concerning the Work consist of the following:

- 4.1 This Agreement and Bid Document **IFB#10-1476-OV**
- 4.2 Performance and/or other Bonds and Insurance Certificate(s)
- 4.3 Drawings (not attached)
- 4.4 Addenda numbers _____ to _____, inclusive.
- 4.5 CONTRACTOR'S Bid Form and any other information submitted by Contractor prior to Notice of Award.

- 4.6 The following which may be delivered or issued after the effective date of the Agreement and are not attached hereto: all written Change Orders and other documents amending, modifying, or supplementing the Contract Documents.
- 4.7 The documents listed in paragraphs above are attached to this Agreement (except as noted otherwise above). There are no Contract Documents other than those listed above in this Article 4.

Article 5. MISCELLANEOUS

- 5.1 Terms used in this Agreement are defined in Article 1 of the General Conditions.
- 5.2 No assignment by a party hereto of any rights under or interest in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, monies that may become due and monies that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law); and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignee from any duty or responsibility under the Contract Documents.
- 5.3 COUNTY and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents.

The OWNER will pay, and the CONTRACTOR will accept in full consideration for the performance of the Work (IFB No. #10-1476-OV Coral Shores Canal Dredging, Bradenton, Manatee County, Florida) subject to additions and deductions as provided therein, the sum of _____ Dollars and Cents (\$ _____) for Bid "____" based on Completion Time of _____ calendar days and the sum of \$1,423.00 as liquidated damages for each calendar day of delay.

CONTRACTOR

BY: _____
Signature

Name and Title of Signer (printed)

Date: _____

MANATEE COUNTY GOVERNMENT

BY: _____ For the County
Signature

R. C. "Rob" Cuthbert, CPM, CPPO, Purchasing Official
Name and Title of Signer

Date: _____

SECTION 00700
GENERAL CONDITIONS

ARTICLE I - DEFINITIONS

Whenever used in the Bid Documents, the following terms have the meaning indicated which are applicable to both the singular and plural thereof:

Addendum - Written or graphic instruments issued prior to the opening of bids which clarify or change the bidding documents or the contract documents.

Agreement - The written Agreement between County and Contractor covering the Work to be performed; other contract documents are attached to the Agreement and made a part thereof as provided therein.

Written Amendment - A written amendment of the contract documents, signed by County and Contractor on or after the effective date of the Agreement and normally dealing with the non-engineering or non-technical rather than strictly work related aspects of the contract documents.

Application for Payment - The form accepted by Project Representative which is to be used by Contractor in requesting progress or final payments and which is to include such supporting documentation as is required by the contract documents.

Award - Acceptance of the bid from the person, firm, or corporation which in the County's sole and absolute judgment will under all circumstances best serve the public interest. Award shall be made by a majority vote of a quorum of Manatee County Board of County Commissioners in open session; or by the Purchasing Official in accordance with Ordinance 09-52, Manatee County Purchasing Ordinance.

Bid - The offer of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

Bidder - One who submits a bid directly to the County, as distinct from a sub-bidder, who submits a bid to a Bidder.

Bidding Documents - Consists of the Invitation For Bid, which includes but is not limited to: the bid form, drawings, Contract Documents, terms and conditions, and the proposed contract documents (including all Addenda issued prior to receipt of bids); and becomes a part of the Agreement.

Bonds - Performance and payment bonds and other instruments of security.

Change Order - A document recommended by Project Representative which is signed by Contractor and County and authorizes an addition, deletion, or revision in the Work or an adjustment in the contract price or the contract time, issued on or after the effective date of the Agreement.

Compensable Delay - Any delay beyond the control and without the fault or negligence of the Contractor resulting from County-caused changes in the Work, differing site conditions, suspensions of the Work, or termination for convenience by County.

Contract Documents - The Agreement, Addenda (which pertain to the contract documents), Contractor's bid (including documentation accompanying the bid and any post-bid documentation submitted prior to the Notice of Award), the bonds, the specifications and the drawings, together with all amendments, modifications and supplements issued on or after the effective date of the Agreement.

Contract Price - The monies payable by County to Contractor under the contract documents as stated in the Agreement.

Contract Time - The number of days or the date stated in the Notice to Proceed for the completion of the Work.

Contractor - The person, firm or corporation with whom County has entered into an Agreement.

Days - All references to days are to be considered calendar days except as specified differently.

Defective - An adjective which when modifying the work refers to work that is unsatisfactory, faulty or deficient, or does not conform to the contract documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the contract documents, or has been damaged prior to Project Representative's recommendation of final payment (unless responsibility for the protection thereof has been assumed by County).

Discretionary – Payment for all work that shall be made only at the County's discretion in order to satisfactorily complete the project in accordance with the Plans and Specifications.

Drawings - The drawings which show the character and scope of the Work to be performed and which have been prepared or approved by Engineer and are referred to in the bidding and contract documents.

Effective Date of the Agreement - The date indicated in the Agreement on which it becomes effective (date of execution).

Excusable Delay - Any delay beyond the control and without the negligence of the Contractor, the County, or any other contractor caused by events or circumstances such as, but not limited to, acts of God or of the public enemy, fires, floods, freight embargoes, acts of government other than County, or epidemics. Labor disputes and above average rainfall shall give rise only to excusable delays.

Float or Slack Time - The time available in the progress schedule during which an unexpected activity can be completed without delaying substantial completion of the Work.

Inexcusable Delay - Any delay caused by events or circumstances within the control of the Contractor, such as inadequate crewing, slow submittals, etc., which might have been avoided by the exercise of care, prudence, foresight, or diligence on the part of the Contractor.

Non-prejudicial Delay - Any delay impacting a portion of the Work within the available total float or slack time and not necessarily preventing completion of the Work within the contract time.

Notice of Award - The written notice to the successful bidder stating Award has been approved by the Board of County Commissioners; or by the Purchasing Official in accordance with Ordinance 09-52, Manatee County Purchasing Code.

Notice of Intent to Award - The written notice to the apparent low bidder stating Award has been recommended with final Award to be authorized by the Board of County Commissioners.

Notice to Proceed - Written notice by County (after execution of contract) to Contractor fixing the date on which the contract time will commence to run and on which Contractor shall start to perform (ten (10) days from date of such notice) Contractor's obligations under the contract documents.

County - Manatee County, Florida, Board of County Commissioners.

Preconstruction Conference - Prior to starting the Work, a meeting scheduled by County with Contractor to review the Work schedules, to establish procedures for handling shop drawings and other submissions, for processing periodical pay estimates, and such other matters as may be pertinent to the project.

Prejudicial Delay - Any excusable or compensable delay impacting the Work and exceeding the total float available in the progress schedule, thus preventing completion of the Work within the contract time unless the Work is accelerated.

Pre-operation Testing - All field inspections, installation checks, water tests, performance tests and necessary corrections required of Contractor to demonstrate that individual components of the work have been properly constructed and do operate in accordance with the contract documents for their intended purposes.

Project - The total construction of which the Work to be provided under the contract documents may be the whole or a part as indicated elsewhere in the contract documents.

Project Representative - The authorized representative of County who is assigned to the project or any part thereof.

Shop Drawings - All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for Contractor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a supplier and submitted by Contractor to illustrate material or equipment for some portion of the Work.

Specifications - Those portions of the contract documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

Subcontractor - An individual or corporation having a direct contact with Contractor or with any other subcontractor for the performance of a part of the Work at the site. Such person or firm has contractual relations with the Contractor, not with the County.

Substantial Completion - The Work (or a specified part thereof) has progressed to the point when, in the opinion of the Engineer as evidenced by Engineer's definitive certificate of Substantial Completion, it is sufficiently complete in accordance with contract documents so that the work can be utilized for the purposes for which it is intended; or if there be no such certificate issued, when final payment is due.

Successful Bidder - The lowest qualified, responsible and responsive bidder to whom an award is made.

Supplier - A manufacturer, fabricator, supplier, distributor, materialman or vendor.

Underground Facilities - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments and any encasement containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

Unit Price Work - Work to be paid for on the basis of unit prices.

Work - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the contract documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the contract documents.

Work Directive Change - A written directive to contractor, issued on or after the effective date of the Agreement and signed by County and recommended by Project Representative ordering an addition, deletion or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed or to emergencies. A work directive change may not change the contract price or the contract time; but is evidence that the parties expect that the change directed or documented by a work directive change will be incorporated in a subsequently issued change order following negotiations by the parties as to its effect, if any, on the contract price or contract time.

ARTICLE 2 - PRELIMINARY MATTERS

Computation of Time: When time is referred to in the contract documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or legal holiday, such day will be omitted from the computation.

- 2.1 The Contractor must submit a proposed schedule of the Work at the preconstruction conference. The purpose of this schedule is to enable the County to govern the Work, to protect the functions of the local government and its citizens and to aid in providing appropriate surveillance. The County shall have the right to reschedule work provided such rescheduling is in accord with the remainder of terms of the contract. The schedule shall show, as a minimum, the approximate dates on which each segment of the work is expected to be started and finished, the proposed traffic flows during each month, the anticipated earnings by the Contractor for each month and the approximate number of crews and equipment to be used. The County, after necessary rescheduling and obtaining additional information for specific purposes, shall review and approve the schedule. The Contractor shall also forward to the County, as soon as practicable after the first day of each month, a summary report of the progress of the various parts of the work under the contract, in fabrication and in the field, stating the existing status, estimated time of completion and cause of delay, if any. Together with the summary report, the Contractor shall submit any necessary revisions to the original schedule for the County's review and approval. In addition, more detailed schedules may be required by the County for daily traffic control.
- 2.2 A Notice to Proceed may be given at any time within thirty (30) days after the effective date of the Agreement. The contract time will commence at the time specified in such notice. Contractor shall start to perform the Work on the date specified in the notice to proceed, but no work shall be done at the site prior to the date on which the contract time commences to run.
- 2.3 If at any time the materials and appliances to be used appear to the County as insufficient or improper for securing the quality of work required or the required rate of progress, the County may order the Contractor to increase his efficiency or to improve the character of his work and the Contractor shall conform to such an order. The failure of the County to demand any increase of such efficiency or any improvement shall not release the County from his obligation to secure the quality of work or the rate of progress necessary to complete the Work within the limits imposed by the contract. The County may require the Contractor to remove from the Work such employees as the County deems incompetent, careless, insubordinate or otherwise objectionable, or whose continued employment on the Work is deemed to be contrary to the County's interest.
- 2.4 The County reserves the right to let other Contracts in connection with this Work. The Contractor shall afford other Contractors reasonable opportunity for the introduction and storage of their materials and execution of their Work, and promptly connect and coordinate the Work with theirs.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, RE-USE

- 3.1 The contract documents comprise the entire Agreement between County and Contractor concerning the work. The contract documents are complementary; what is called for by one is as binding as if called for by all. The contract documents will be construed in accordance with the laws and ordinances of the State of Florida and the County of Manatee.

Should a conflict exist within the contract documents, the precedence in ascending order of authority are as follows: 1) Standard Printed Contract Documents, 2) Special Conditions, 3) General Conditions and 4) Drawings. Note: Computed dimensions shall govern over scaled dimensions.

- 3.2 It is the intent of the contract documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the contract documents. Any work, materials or equipment that may reasonably be inferred from the contract documents as being required to produce the intended result will be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe work, materials, or equipment, such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or laws or regulations in effect at the time of opening of bids, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the contract documents) shall be effective to change the duties and responsibilities of County, Contractor or Engineer, or any of their agents or employees from those set forth in the Contract Documents.

- 3.3 The contract documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:

- 3.3.1 A Formal Written Amendment
- 3.3.2 A Change Order
- 3.3.3 Administrative Contract Adjustment (ACA)

- 3.4 In addition, the requirements of the contract documents may be supplemented and minor variations and deviations in the Work may be authorized in one or more of the following ways:

- 3.4.1 Discretionary Work – Field Directive
- 3.4.2 Engineer's approval of a Shop Drawing or sample.

ARTICLE 4 - CONTRACTOR'S RESPONSIBILITIES

- 4.1 Contractor shall keep on the Work at all times during its progress a competent resident superintendent; who shall be the Contractor's representative at the site and shall have authority to act on behalf of Contractor. All communications given to the superintendent shall be as binding as if given to Contractor.
- 4.2 Contractor shall provide competent, suitable qualified personnel to survey and lay out the Work and perform construction as required by the contract documents. Contractor shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto and except as otherwise indicated in the contract documents, all Work at the site shall be performed during regular working hours and Contractor will not permit overtime work or the performance of work on Saturday, Sunday or legal holiday without County's written consent given after prior notice to Engineer (at least 72 hours in advance).
- 4.2.1 Contractor shall pay for all additional engineering charges to the County for any overtime work which may be authorized. Such additional engineering charges shall be a subsidiary obligation of Contractor and no extra payment shall be made by County on account of such overtime work. At County's option, overtime costs may be deducted from Contractor's monthly payment request or Contractor's retainage prior to release of final payment.
- 4.3 Unless otherwise specified, Contractor shall furnish and assume full responsibility for all bonds, insurance, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.
- 4.4 All materials and equipment shall be of good quality and new, except as otherwise provided in the contract documents. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instruction of the applicable supplier except as otherwise provided in the contract documents.
- 4.5 Contractor shall be fully responsible to County for all acts and omissions of the subcontractors, suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with Contractor just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents shall create any contractual relationship between County or Engineer and any such subcontractor, supplier or other person or organization, nor shall it create any obligation on the part of County to pay or to see to the payment of any monies due any such subcontractor, supplier or other person or organization.

- 4.6 Permits: Unless otherwise provided, Contractor shall obtain and pay for all construction permits and licenses. County shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work.
- 4.7 During the progress of the Work, Contractor shall keep the premises free from accumulation of waste materials rubbish and other debris resulting from the Work. At the completion of the Work, Contractor shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery and surplus materials and shall leave the site clean and ready for occupancy by County. Contractor shall restore to original conditions all property not designated for alteration by the Contract Documents.
- 4.8 Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.
- 4.9 Safety and Protection: Contractor shall comply with the Florida Department of Commerce Safety Regulations and any local safety regulations. Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of and shall provide the necessary protection to prevent damage, injury or loss to:
- 4.9.1 all employees on the work and other persons and organizations who may be affected thereby;
 - 4.9.2 all the work and materials and equipment to be incorporated therein, whether in storage on or off the site; and
 - 4.9.3 other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and underground facilities not designated for removal, relocation or replacement in the course of construction.

Contractor shall comply with all applicable laws and regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall provide and maintain all passageways, guard fences, lights and other facilities for the protection required by public authority or local conditions. Contractor shall provide reasonable maintenance of traffic way for the public and preservation of the County's business, taking into full consideration all local conditions. Contractor's duties and responsibilities for the safety and protection of the work shall continue until such time as all the work is completed.

- 4.10 Emergencies: In emergencies affecting the safety or protection of persons or the work or property at the site or adjacent thereto, Contractor, without special instruction or authorization from Engineer or County, is obligated to act to prevent threatened damage, injury or loss. Contractor shall give County prompt written notice if Contractor believes that any significant changes in the work or variations from the contract documents have been caused thereby. If Owner determines that a change in the contract documents is required because of the action taken in response to an emergency, a Work Directive Change or Change Order will be issued to document the consequences of the changes or variation.
- 4.11 For substitutes not included with the bid, but submitted after the effective date of the Agreement, Contractor shall make written application to Engineer for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application will also contain an itemized estimate of all costs and delays or schedule impacts that will result directly or indirectly from review, acceptance and provisions of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which will be considered by the Engineer in evaluating the proposed substitute. Engineer may require Contractor to furnish at Contractor's expense, additional data about the proposed substitute. In rendering a decision, County/Engineer and Contractor shall have access to any available float time in the construction schedule. In the event that substitute materials or equipment not included as part of the bid, but proposed after the effective date of the agreement, are accepted and are less costly than the originally specified materials or equipment, then the net difference in cost shall be credited to the County and an appropriate change order executed.
- 4.11.1 If a specific means, method, technique, sequence of procedure of construction is indicated in or required by the contract documents, Contractor may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to Engineer if Contractor submits sufficient information to allow Engineer to determine that the substitute proposed is equivalent to that indicated or required by the contract documents.
- 4.11.2 Engineer will be allowed a reasonable time within which to evaluate each proposed substitute. Engineer will be the sole judge of acceptability and no substitute will be ordered, installed or utilized without Engineer's prior written acceptance which will be evidenced by either a change order or an approved shop drawing. County may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- 4.11.3 Contractor shall reimburse County for the charges of Engineer and Engineer's Consultants for evaluating each proposed substitute submitted after the effective date of the Agreement and all costs resulting from any delays in the work while the substitute was undergoing review.

- 4.12 The Contractor shall furnish, free of charge, all labor, stakes, surveys, batter boards for structures, grade lines and other materials and supplies and shall set construction stakes and batter boards for establishing lines, position of structures, slopes and other controlling points necessary for the proper prosecution of the construction work. Where rights-of-way, easements, property lines or any other conditions which make the lay-out of the project or parts of the project critical are involved, the Contractor will employ a competent surveyor who is registered in the State of Florida for lay-out and staking. These stakes and marks shall constitute the field control by and in accord with which the Contractor shall govern and execute the work. The Contractor will be held responsible for the preservation of all stakes, marks and if for any reason any of the stakes or marks or batter boards become destroyed or disturbed, they will be immediately and accurately replaced by the Contractor.
- 4.13 The Contractor has, by careful examination, satisfied himself as to the nature and location of the work and all other matters which can in any way affect the work under this contract, including, but not limited to details pertaining to boring, as shown on the drawings, are not guaranteed to be more than a general indication of the materials likely to be found adjacent to holes bored at the site of the work, approximately at the locations indicated. The Contractor shall examine boring data, where available, and make his own interpretation of the subsoil investigations and other preliminary data, and shall base his bid on his own opinion of the conditions likely to be encountered. In no event shall an extension of time be considered for any conditions that existed at the time of bidding, nor shall the Contractor receive extra compensation for completion of the project as intended by the drawings and in keeping with the contract documents. No verbal agreement or conversation with any officer, agent or employee of the County, before or after the execution of this contract, shall affect or modify any of the terms or obligations herein contained.
- 4.14 If the Contractor, in the course of the work, finds that the drawings and/or Contract Documents cannot be followed, he shall immediately inform the County in writing, and the County shall promptly check the accuracy of the information. Any work done after such discovery, until any necessary changes are authorized, will be done at the Contractor's risk.

ARTICLE 5 - OWNER'S RESPONSIBILITIES

- 5.1 County shall furnish the data required of County under the contract documents promptly and shall make payments to the Contractor within a reasonable time (no more than 45 days) after the Work has been accepted by the County. The form of all submittals, notices, change orders and other documents permitted or required to be used or transmitted under the contract documents shall be determined by the County/Engineer. Standard County forms shall be utilized.
- 5.2 The County shall provide the lands upon which the Work under this contract is to be done, except that the Contractor shall provide all necessary additional land required for the erection of temporary construction facilities and storage of his materials, together with right of access to same.

- 5.3 The County shall have the right to take possession of and use any completed portions of the work, although the time for completing the entire work or such portions may not have expired, but such taking possession and use shall not be deemed an acceptance of any work not completed in accordance with the Contract Documents.

ARTICLE 6 - CHANGES IN THE WORK

- 6.1 Without invalidating the Agreement and without notice to any surety, County may, at any time, order additions, deletions or revisions in the Work. These will be authorized by a written amendment, a change order, or a work directive change. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the contract documents (except as otherwise specifically provided).
- 6.2 Contractor shall not be entitled to an increase in the contract price or an extension of the contract time with respect to any Work performed that is not required by the contract documents as amended, modified and supplemented.
- 6.3 County and Contractor shall execute appropriate change orders (or written amendments) covering changes in the Work which are ordered by County, or which may be required because of acceptance of defective Work.
- 6.4 At any time Engineer may request a quotation from Contractor for a proposed change in the Work and within twenty-one (21) calendar days after receipt, Contractor shall submit a written and detailed proposal for an increase or decrease in the contract price or contract time for the proposed change. Engineer shall have 21 calendar days after receipt of the detailed proposal to respond in writing. The proposal shall include an itemized estimate of all costs and time for performance that will result directly or indirectly from the proposed change. Unless otherwise directed, itemized estimates shall be in sufficient detail to reasonably permit an analysis by Engineer of all material, labor, equipment, subcontracts, overhead costs and fees, and shall cover all Work involved in the change, whether such Work was deleted, added, changed or impacted. Notwithstanding the request for quotation, Contractor shall carry on the Work and maintain the progress schedule. Delays in the submittal of the written and detailed proposal will be considered non-prejudicial.

ARTICLE 7 - CHANGE OF CONTRACT PRICE

- 7.1 The contract price constitutes the total compensation (subject to authorized adjustments) payable to Contractor for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at his expense without change in the contract price.
- 7.2 The contract price may only be changed by change order or by a written amendment. Any claim for an increase or decrease in the contract price shall be based on written notice delivered by the party making the claim to the other party. Notice of the amount of the claim with supporting data shall be delivered within ten (10) days from the beginning of such occurrence and shall be accompanied by claimant's written statement that the amount claimed covers all known amounts (direct, indirect and consequential) to which the claimant is entitled as a result of the occurrence of said event.

- 7.3 The value of any Work covered by a change order or of any claim for an increase or decrease in the contract price shall be determined in one of the following ways (at County's discretion):
- 7.3.1 Where the Work involved is covered by unit prices contained in the contract documents, cost will be determined by application of such unit prices to the quantities of the items involved.
 - 7.3.2 By mutual acceptance of lump sum.
 - 7.3.3 On the basis of the cost of the Work, plus a 20% Contractor's fee for overhead and profit. (Contractor shall submit an itemized cost breakdown together with supporting data.)
- 7.4 Either County or Contractor may make a claim for an adjustment in the contract price. The unit price of an item of unit price Work shall be subject to re-evaluation and adjustment under the following conditions:
- 7.4.1 If the total cost of a particular item of unit price Work amounts to 5% or more of the contract price and the variation in the quantity of the particular item of unit price Work performed by Contractor differs by more than 15% from the estimated quantity of such item indicated in the Agreement; and
 - 7.4.2 If there is no corresponding adjustment with respect to any other item of Work; and
 - 7.4.3 If a Contractor believes that it has incurred additional expense as a result thereof; or
 - 7.4.4 If County believes that the quantity variation entitles it to an adjustment in the unit price; or
 - 7.4.5 If the parties are unable to agree as to the effect of any such variations in the quantity of unit price Work performed.

ARTICLE 8 - CHANGE OF CONTRACT TIME

- 8.1 Contract time may only be changed by a change order or a written amendment. Any claim for an extension or shortening of the contract time shall be based on written notice delivered by the party making the claim to the other party. Notice of the extent of the claim with supporting data shall be delivered within fifteen (15) days from detection or beginning of such occurrence and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event.

- 8.2 The contract time will be extended in an amount equal to time lost due to delays beyond the control of Contractor. Such delays shall include, but not be limited to, acts or neglect by County or others performing additional work; or to fires, floods, epidemics, abnormal weather conditions or acts of God.
- 8.3 All time limits stated in the contract documents are of the essence.

ARTICLE 9 - WARRANTY, TEST/INSPECTION, CORRECTION

- 9.1 Contractor warrants (for a minimum period of three years or as otherwise stated herein) and guarantees to County that all work will be in accordance with the contract documents and will not be defective; that County, representatives of County, governmental agencies with jurisdictional interests will have access to the work at reasonable time for their observation, inspecting and testing (Contractor shall give Engineer timely notice of readiness of the work for all required approvals and shall assume full responsibility, including costs, in obtaining required tests, inspections, and approval certifications and/or acceptance, unless otherwise stated by County).
- 9.2 If any work (including work of others) that is to be inspected, tested, or approved is covered without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation. Such uncovering shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice. Neither observations by Engineer nor inspections, tests, or approvals by others shall relieve Contractor from Contractor's obligations to perform the work in accordance with the contract documents.
- 9.3 If the work is defective, or Contractor fails to supply sufficient skilled workers, or suitable materials or equipment, or fails to furnish or perform the work in such a way that the completed work will conform to the contract documents, County may order Contractor to stop the work, or any portion thereof and terminate payments to the Contractor until the cause for such order has been eliminated. Contractor shall bear all direct, indirect and consequential costs for satisfactory reconstruction or removal and replacement with non-defective work, including, but not limited to fees and charges of engineers, architects, attorneys and other professionals and any additional expenses experienced by County due to delays to other Contractors performing additional work and an appropriate deductive change order shall be issued. Contractor shall further bear the responsibility for maintaining schedule and shall not be entitled to an extension of the contract time and the recovery of delay damages due to correcting or removing defective work.
- 9.3.1 If Contractor fails within seven (7) days after written notice to correct defective work, or fails to perform the work in accordance with the contract documents, or fails to comply with any other provision of the contract documents, County may correct and remedy any such deficiency. To the extent necessary to complete corrective and remedial action, County may exclude Contractor from all or part of the site, take possession of all or part of the work, Contractor's tools, construction equipment and machinery at the site or for which County has paid

Contractor but which are stored elsewhere. All direct, indirect and consequential costs of County in exercising such rights and remedies will be charged against Contractor in an amount approved as to reasonableness by Engineer and a change order will be issued incorporating the necessary revisions.

- 9.3.2 If within three years after the date of completion or such longer period of time as may be prescribed by laws or regulations or by the terms of any applicable special guarantee required by the contract documents, any work is found to be defective, Contractor shall promptly, without cost to County and in accordance with County's written instructions, either correct such defective work or if it has been rejected by County, remove it from the site and replace it with non-defective work. If Contractor does not promptly comply with the terms of such instruction, County may have the defective work corrected/removed and all direct, indirect and consequential costs of such removal and replacement will be paid by Contractor.

ARTICLE 10 - SUSPENSION/TERMINATION OF WORK

- 10.1 County may, at any time and without cause, suspend the work or any portion thereof for a period of not more than ninety (90) days by written notice to Contractor, which will fix the date on which work will be resumed. Contractor shall be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to any suspension if Contractor makes an approved claim therefore.
- 10.2 County may terminate the contract if Contractor commences a voluntary case under any chapter of the Bankruptcy Code or any similar action by filing a petition under any other federal or state law relating to the bankruptcy or insolvency; if a petition is filed against the Contractor under any chapter of the Bankruptcy Code or similar relief under any other federal or state law; if Contractor persistently fails to perform the work in accordance with the contract documents; if Contractor disregards laws or regulations of any public body having jurisdiction or the Engineer; or otherwise violates in any substantial way any provisions of the contract.
- 10.2.1 County may, after giving Contractor (and the surety, if there is one) seven (7) days written notice and to the extent permitted by laws and regulations, terminate the services of Contractor; exclude Contractor from the site and take possession of the work and of all Contractor's tools, construction equipment and machinery at the site and use the same to the full extent they could be used (without liability to Contractor for trespass or conversion); incorporate in the work all materials and equipment stored at the site or for which county has paid Contractor but which are stored elsewhere, and finish the work as County may deem expedient. In such case, Contractor shall not be entitled to receive any further payment beyond an amount equal to the value of material and equipment not incorporated in the work, but delivered and suitably stored, less the aggregate of payments previously made. If the direct and indirect costs of completing the work exceed the unpaid balance of the contract price, Contractor shall pay the difference to County. Such costs incurred by County shall be verified by County and incorporated in

a change order; but in finishing the work, County shall not be required to obtain the lowest figure for the work performed. Contractor's obligations to pay the difference between such costs and such unpaid balance shall survive termination of the Agreement.

- 10.3 If, through no act or fault of Contractor, the work is suspended for a period of more than ninety (90) days by County or under an order of court or other public authority, or Engineer fails to act on any application or fails to pay Contractor any sum finally determined to be due; then Contractor may, upon seven (7) days written notice to County terminate the Agreement and recover from County payment for all work executed, any expense sustained plus reasonable termination expenses. In lieu of terminating the Agreement, if Engineer has failed to act on any application of payment or County has failed to make any payment as aforesaid, Contractor may upon seven (7) days written notice to County stop the work until payment of all amounts then due.

ARTICLE 11 - CONTRACT CLAIMS

- 11.1 The rendering of a decision by Engineer with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment) will be a condition precedent to any exercise by County or Contractor of such right or remedies as either may otherwise have under the contract documents or by laws or regulations in respect of any such claim, dispute or other matter. No action, either at law or at equity, shall be brought in connection with any such claim, dispute or other matter later than thirty (30) days after the date on which County/Engineer has rendered such written decision in respect thereof. Failure to bring an action within said thirty (30) day period shall result in Engineer's decision being final and binding on the Contractor. In no event may any such action be brought after the time at which instituting such proceedings would be otherwise barred by the applicable statute of limitations.
- 11.2 Before bringing any action in court pertaining to any claim, dispute or other matter in question(s) arising out of or relating to the contract documents or the breach thereof, or Engineer's final decision, except for claims which have been waived by the making and acceptance of final payment, the Contractor shall first submit written notice(s) of contract claims to the Purchasing Official for a decision; the Contractor may request a conference with the Purchasing Official. Claims include, without limitation, disputes arising under the contract and those based upon breach of contract, mistake, misrepresentation, or other cause for modification or revision. Contract claims shall use the process detailed in Section 2-26-63, Manatee County Purchase Code, Ordinance 09-52.

ARTICLE 12 - RESIDENT PROJECT REPRESENTATIVE - DUTIES, RESPONSIBILITIES

- 12.1 Resident Project Representative is Engineer/County's Agent, who will act as directed by and under the supervision of the Engineer, and who will confer with County/Engineer regarding his actions. Resident Project Representative's dealing in matters pertaining to the on-site work shall, in general, be only with the

County/Engineer and Contractor and dealings with subcontractors shall only be through or with the full knowledge of Contractor.

12.2 Resident Project Representative will:

- 12.2.1 Review the progress schedule, schedule of shop drawing submissions and schedule of values prepared by Contractor and consult with County/Engineer concerning their acceptability.
- 12.2.2 Attend preconstruction conferences. Arrange a schedule of progress meetings and other job conferences as required in consultation with County/Engineer and notify those expected to attend in advance. Attend meetings and maintain and circulate copies of minutes thereof.
- 12.2.3 Serve as County/Engineer's liaison with Contractor, working principally through Contractor's superintendent and assist him in understanding the intent of the contract documents. As requested by County/Engineer, assist in obtaining additional details or information when required at the job site for proper execution of the Work.
- 12.2.4 Receive and record date of receipt of shop drawings and samples, receive samples which are furnished at the site by Contractor and notify County/Engineer of their availability for examination.
- 12.2.5 Advise County/Engineer and Contractor or his superintendent immediately of the commencement of any work requiring a shop drawing or sample submission if the submission has not been approved by the County/Engineer.
- 12.2.6 Conduct on-site observations of the work in progress to assist County/Engineer in determining if the work is proceeding in accordance with the contract documents and that completed work will conform to the contract documents.
- 12.2.7 Report to County/Engineer whenever he believes that any work is unsatisfactory, faulty or defective or does not conform to the contract documents, or does not meet the requirements of any inspections, tests or approvals required or if work has been damaged prior to final payment; and advise County/Engineer when he believes work should be corrected or rejected or should be uncovered of observation or requires special testing, inspection or approval.
- 12.2.8 Verify that tests, equipment and system start-ups and operating and maintenance instructions are conducted as required by the contract documents and in the presence of the required personnel, and that Contractor maintains adequate records thereof; observe, record and report to Engineer appropriate details relative to the test procedures and start-ups.

- 12.2.9 Accompany visiting inspectors representing public or other agencies having jurisdiction over the project; record the outcome of these inspections and report to County/Engineer.
- 12.2.10 Transmit to Contractor, County/Engineer's clarifications and interpretations of the contract documents.
- 12.2.11 Consider and evaluate Contractor's suggestions or modifications in drawings or Contract Documents and report them with recommendations to County/Engineer.
- 12.2.12 Maintain at the job site orderly files for correspondence, reports of job conferences, shop drawings and sample submissions, reproductions of original contract documents including all addenda, change orders, field orders, additional drawings issued subsequent to the execution of the contract, County/Engineer's clarifications and interpretations of the contract documents, progress reports and other project related documents.
- 12.2.13 Keep a diary or log book, recording hours on the job site, weather conditions, data relative to questions of extras or deductions; list of visiting officials and representatives or manufacturers, fabricators, suppliers and distributors; daily activities, decisions, observations in general and specific observations in more detail as in the case of observing test procedures. Send copies to County/Engineer.
- 12.2.14 Record names, addresses and telephone numbers of all Contractors, subcontractors and major suppliers of materials and equipment.
- 12.2.15 Furnish County/Engineer periodic reports as required of progress of the work and Contractor's compliance with the approved progress schedule and schedule of shop drawing submissions.
- 12.2.16 Consult with County/Engineer in advance of scheduling major tests, inspections or start of important phases of the work.
- 12.2.17 Report immediately the occurrence of any accident.
- 12.2.18 Review applications for payment with Contractor for compliance with the established procedure for their submission and forward them with recommendations to County/Engineer, noting particularly their relation to the schedule of values, work completed and materials and equipment delivered at the site but not incorporated in the work.
- 12.2.19 During the course of the work, verify that certificates, maintenance and operations manuals and other data required to be assembled and furnished by Contractor are applicable to the items actually installed, and deliver this material to County/Engineer for his review prior to final acceptance of the work.

- 12.2.20 Before County/Engineer issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction.
- 12.2.21 Conduct final inspection in the company of County/Engineer and Contractor and prepare a final list of items to be completed or corrected.
- 12.2.22 Verify that all items on final list have been completed or corrected and make recommendations to County/Engineer concerning acceptance.
- 12.3 Except upon written instructions of County/Engineer, Resident Project Representative.
- 12.3.1 Shall not authorize any deviation from the contract documents or approve any substitute materials or equipment;
- 12.3.2 Shall not exceed limitations on County/Engineer's authority as set forth in the contract documents;
- 12.3.3 Shall not undertake any of the responsibilities of Contractor, Subcontractors or Contractor's Superintendent, or expedite the work;
- 12.3.4 Shall not advise on or issue directions relative to any aspect of the means, methods, techniques, sequences or procedures of construction unless such is specifically called for in the contract documents;
- 12.3.5 Shall not advise on or issue directions as to safety precautions and programs in connection with the work;
- 12.3.6 Shall not authorize County to occupy the project in whole or in part; and
- 12.3.7 Shall not participate in specialized field or laboratory tests.

ARTICLE 13 - APPRENTICES

- 13.1 If Successful Contractor employs Apprentices, he shall be governed and shall fully comply with the provisions of Florida State Statute 446.011.

END OF SECTION

**SWORN STATEMENT
THE FLORIDA TRENCH SAFETY ACT**

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR BY AN OFFICER AUTHORIZED TO ADMINISTER OATHS.

1. This Sworn Statement is submitted with IFB No. #10-1476-OV
2. This Sworn Statement is submitted by _____
whose business address is _____
and, if applicable, its Federal Employer Identification Number (FEIN) is _____. If
the entity has no FEIN, include the Social Security Number of the individual signing this
sworn statement _____.
3. Name of individual signing this Sworn Statement is: _____,
Whose relationship to the above entity is: _____.
4. The Trench Safety Standards that will be in effect during the construction of this project shall include, but are not limited to: Laws of Florida, Chapters 90-96, TRENCH SAFETY ACT, and OSHA RULES AND REGULATIONS 29 CFR 1926.650 Subpart P, effective October 1, 1990.
5. The undersigned assures that the entity will comply with the applicable Trench Safety Standards and agrees to indemnify and hold harmless the Owner and Engineer, and any of their agents or employees from any claims arising from the failure to comply with said standard.
6. The undersigned has appropriated the following costs for compliance with the applicable standards:

Trench Safety Measure (Description)	Units of Measure (LF, SY)	Unit Quantity	Unit Cost	Extended Cost
a. _____	_____	_____	\$ _____	_____
b. _____	_____	_____	\$ _____	_____
c. _____	_____	_____	\$ _____	_____
d. _____	_____	_____	\$ _____	_____

7. The undersigned intends to comply with these standards by instituting the following procedures:

THE UNDERSIGNED, in submitting this Bid, represents that they have reviewed and considered all available geotechnical information and made such other investigations and tests as they may deem necessary to adequately design the trench safety system(s) to be utilized on this project.

(AUTHORIZED SIGNATURE / TITLE)

SWORN to and subscribed before me this ____ day of _____, 20____.
(impress official seal)

Notary Public, State of Florida
My commission expires: _____

SECTION 00430
CONTRACTOR'S QUESTIONNAIRE
 (Submit in Triplicate)

The Bidder warrants the truth and accuracy of all statements and answers herein contained.
 (Include additional sheets if necessary.)

THIS QUESTIONNAIRE MUST BE COMPLETED AND SUBMITTED WITH YOUR BID.

1. LICENSE # and COMPANY'S NAME: _____
 CO. PHYSICAL ADDRESS: _____
 TELEPHONE NUMBER: (____) _____ FAX (____) _____

2. Bidding as an; individual; a partnership; a corporation; a joint venture; ____

3. If a partnership: list names and addresses of partners; if a corporation: list names of officers, directors, shareholders, and state of incorporation; if joint venture: list names and address of ventures' and the same if any venture are a corporation for each such corporation, partnership, or joint venture:

4. Your organization has been in business (under this firm's name) as a _____
 For how many years? _____

5. Describe and give the date and owner of the last three government projects you've completed which are similar in cost, type, size, and nature as the one proposed (for a public entity). Include contact name and phone number:

6. Have you ever been assessed liquidated damages under a contract during the past five (5) years? If so, state when, where (contact name, address, and phone number) and why.

7. Have you ever failed to complete work awarded to you? If so, state when, where (Contact name, address, phone number) and why?

8. Have you ever been debarred or prohibited from bidding on a governmental entity's construction project? If yes, name the entity and describe the circumstances:

9. Name three individuals, governmental entities, or corporations for which you have performed similar work and to which you refer. Include contact name and phone number:

1.

2.

3.

10. What specific steps have you taken to examine the physical conditions at or contiguous to the site, including but not limited to, the location of existing underground facilities?

11. What specific physical conditions, including, but not limited to, the location of existing underground facilities have you found which will, in any manner, affect cost, progress, performance, or finishing of the work?

12. Will you subcontract any part of this Work? If so, describe which major portion(s):

13. If any, list (with contract amount) WBE/MBE to be utilized:

14. What equipment do you own to accomplish this Work?

15. What equipment will you purchase/rent for the Work? (Specify which)

16. Provide detail of your organization's initiative to meet the goal of encouraging and promoting environmentally preferable "green" products. **Reference Article A.22, "Be Green", Section 00010 "Information To Bidders".**

17. List the following in connection with the Surety which is providing the Bond(s):

Surety's Name: _____

Surety's Address: _____

Name, address and phone number of Surety's resident agent for service of process in Florida:

Phone: (____) _____

SECTION 00491
Drug Free Work Place Certification
 SWORN STATEMENT PURSUANT TO RESOLUTION R-93-22
 DRUG FREE WORK PLACES

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

This sworn statement is submitted to the Manatee County Board of County Commissioners by _____

[Print individual's name and title]

_____ for _____

Whose business address is _____?

and (if applicable) its Federal Employer Identification Number (FEIN) is _____
 (If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: _____).

I understand that no person or entity shall be awarded or receive a county contract for public improvements, procurement of goods or services (including professional services) or a county lease, franchise, concession or management agreement, or shall receive a grant of county monies unless such person or entity has submitted a written certification to the County that it will provide a drug free work place by:

(1) providing a written statement to each employee notifying such employee that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance as defined by .893.02(4), Florida Statutes, as the same may be amended from time to time, in the person's or entity's work place is prohibited specifying the actions that will be taken against employees for violation of such prohibition. Such written statement shall inform employees about:

- (i) the dangers of drug abuse in the work place;
- (ii) the person's or entity's policy of maintaining a drug free environment at all its work places, including but not limited to all locations where employees perform any task relating to any portion of such contract, business transaction or grant;
- (iii) any available drug counseling, rehabilitation, and employee assistance programs; and
- (iv) the penalties that may be imposed upon employees for drug abuse violations.

2) Requiring the employee to sign a copy of such written statement to acknowledge his or her receipt of same and advice as to the specifics of such policy. Such person or entity shall retain the statements signed by its employees. Such person or entity shall also post in a prominent place at all of its work places a written statement of its policy containing the foregoing elements (i) through (iv).

(3) Notifying the employee in the statement required by subsection (1) that as a condition of employment the employee will:

- (i) abide by the terms of the statement; and
- (ii) notify the employer of any criminal drug statute conviction for a violation occurring in the work place no later than five (5) days after such a conviction.

(4) Notifying the County within ten (10) days after receiving notice under subsection (3) from an employee or otherwise receiving actual notice of such conviction.

(5) Imposing appropriate personnel action against such employee up to and including termination; or requiring such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement, or other appropriate agency.

(6) Making a good faith effort to continue to maintain a drug free work place through implementation of sections (1) through (5) stated above.

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR MANATEE COUNTY IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT ANY CONTRACT OR BUSINESS TRANSACTION SHALL PROVIDE FOR SUSPENSION OF PAYMENTS, OR TERMINATION, OR BOTH, IF THE CONTRACTING OFFICER OR THE COUNTY ADMINISTRATOR DETERMINES THAT:

- (1) Such person or entity has made false certification.
- (2) Such person or entity violates such certification by failing to carry out the requirements of sections (1), (2), (3), (4), (5), or (6) or Resolution R-01-36 Section 4, E (1) (a) or
- (3) Such a number of employees of such person or entity have been convicted of violations occurring in the work place as to indicate that such person or entity has failed to make a good faith effort to provide a drug free work place as required by Resolution R-01-36 Section 4, E (1) (a).

(Signature)

STATE OF FLORIDA

COUNTY OF _____

Sworn to and subscribed before me this _____ day of _____, 2009
by _____.

Personally known _____ OR produced identification _____

_____ My commission expires _____

Notary Public Signature

[Print, type or stamp Commissioned name of Notary Public]

PUBLIC CONTRACTING AND ENVIRONMENTAL CRIMES CERTIFICATION**SWORN STATEMENT PURSUANT TO ARTICLE 5,
MANATEE COUNTY PURCHASING CODE**

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

This sworn statement is submitted to the Manatee County Board of County Commissioners by

[print individual's name and title]

_____ for _____
[print name of entity submitting sworn statement]

Whose business is: _____

and (if applicable) its Federal Employer Identification Number (FEIN) is _____. If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: _____

I understand that no person or entity shall be awarded or receive a county contract for public improvements, procurement of goods or services (including professional services) or a county lease, franchise, concession or management agreement, or shall receive a grant of county monies unless such person or entity has submitted a written certification to the County that it has not:

- (1) been convicted of bribery or attempting to bribe a public officer or employee of Manatee County, the State of Florida, or any other public entity, including, but not limited to the Government of the United States, any state, or any local government authority in the United States, in that officer's or employee's official capacity; or
- (2) been convicted of an agreement or collusion among bidders or prospective bidders in restraint of freedom of competition, by agreement to bid a fixed price, or otherwise; or
- (3) been convicted of a violation of an environmental law that, in the sole opinion of the County's Purchasing Director, reflects negatively upon the ability of the person or entity to conduct business in a responsible manner; or
- (4) made an admission of guilt of such conduct described in items (1), (2) or (3) above, which is a matter of record, but has not been prosecuted for such conduct, or has made an admission of guilt of such conduct, which is a matter of record, pursuant to formal prosecution. An admission of guilt shall be construed to include a plea of nolo contendere; or
- (5) where an officer, official, agent or employee of a business entity has been convicted of or has admitted guilt to any of the crimes set forth above on behalf of such and entity and pursuant to the direction or authorization of an official thereof (including the person committing the offense, if he is an official of the

business entity), the business shall be chargeable with the conduct herein above set forth. A business entity shall be chargeable with the conduct of an affiliated entity, whether wholly owned, partially owned, or one which has common ownership or a common Board of Directors. For purposes of this Form, business entities are affiliated if, directly or indirectly, one business entity controls or has the power to control another business entity, or if an individual or group of individuals controls or has the power to control both entities. Indicia of control shall include, without limitation, interlocking management or ownership, identity of interests among family members, shared organization of a business entity following the ineligibility of a business entity under this Article, or using substantially the same management, ownership or principles as the ineligible entity.

Any person or entity, who claims that this Article is inapplicable to him/her's/it because a conviction or judgement has been reversed by a court of competent jurisdiction, shall prove the same with documentation satisfactory to the County's Purchasing Director. Upon presentation of such satisfactory proof, the person or entity shall be allowed to contract with the County.

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR MANATEE COUNTY IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT ANY CONTRACT OR BUSINESS TRANSACTION SHALL PROVIDE FOR SUSPENSION OF PAYMENTS, OR TERMINATION, OR BOTH, IF THE CONTRACTING OFFICER OR THE COUNTY ADMINISTRATOR DETERMINES THAT **SUCH PERSON OR ENTITY HAS MADE FALSE CERTIFICATION.**

[Signature]

STATE OF FLORIDA
COUNTY OF _____

Sworn to and subscribed before me this _____ day of _____, 2009 by
_____.

Personally known _____ OR produced _____
[Type of identification]

My commission expires _____
Notary Public Signature

[Print, type or stamp Commissioned name of Notary Public]

Signatory Requirement - In the case of a business entity other than a partnership or a corporation, this affidavit shall be executed by an authorized agent of the entity. In the case of a partnership, this affidavit shall be executed by the general partner(s). In the case of a corporation, this affidavit shall be executed by the corporate president.

SECTION 00500
FORM OF AGREEMENT
BETWEEN THE
COUNTY OF MANATEE, FLORIDA
AND THE CONTRACTOR AS IDENTIFIED BELOW
ON THE BASIS OF A STIPULATED UNIT COST CONTRACT PRICE

THIS AGREEMENT is made and entered into by and between the COUNTY OF MANATEE, a political subdivision of the state of Florida, hereinafter referred to as the "COUNTY" and _____, hereinafter referred to as the "CONTRACTOR," duly authorized to transact business in the state of Florida, with offices located at _____.

Article 1. WORK

CONTRACTOR shall furnish all labor, materials, supplies, and other items required to complete the Work for IFB No. **IFB#10-1476-OV, Coral Shores Canal Dredging, Bradenton, Manatee County, FL** in strict accordance with Contract Documents and any duly authorized subsequent addenda thereto, all of which are made a part hereof.

Article 2. ENGINEER

The County of Manatee, Project Management Department, is responsible as the COUNTY and **AECOM USA, Inc.** hereinafter referred to as "ENGINEER," designed this project and is responsible for technical/engineering reviews and decisions. The ENGINEER is a member of the COUNTY'S project management team which is collectively responsible in ensuring the Work is completed in accordance with the Contract Documents. All communications involving this project will be addressed to:

County of Manatee
 Public Works Department
 Project Management Division
 Attn: Mr. Chuck Froman
 IFB#10-1476-OV
 1022 26th Avenue East
 Bradenton, FL 34208
 Phone (941) 708-7450, Ext. 7333

AECOM, USA, Inc.
 Engineer of Record
 5971 CattleRidge Boulevard
 Suite 200
 Sarasota, FL 34232
 Phone (941) 377-8858

Where the terms ENGINEER and/or COUNTY are used in the Contract Documents, it shall mean the COUNTY'S project management team.

Article 3. CONTRACTOR'S REPRESENTATIONS

In order to induce COUNTY to enter into this Agreement, CONTRACTOR makes the following representations:

- 3.1 CONTRACTOR has familiarized itself with the nature and extent of the Bid Documents, Work, site, locality and all local conditions and laws and regulations that in any manner may affect cost, progress, performance or furnishing of the Work.
- 3.2 CONTRACTOR has studied carefully all drawings of the physical conditions upon which CONTRACTOR is entitled to rely.
- 3.3 CONTRACTOR has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests, reports and studies which pertain to the physical conditions at or contiguous to the site or which otherwise may affect the cost, progress, performance or furnishing of the Work as CONTRACTOR considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Bid Documents; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by CONTRACTOR for such purposes.
- 3.4 CONTRACTOR has reviewed and checked all information and data shown or indicated on the Bid Documents with respect to existing underground facilities at or contiguous to the site and assumes responsibility for the accurate location of said underground facilities. Any additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said underground facilities conducted by the CONTRACTOR will be done at the CONTRACTOR'S expense.

- 3.5 CONTRACTOR has correlated the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Bid.
- 3.6 CONTRACTOR has given COUNTY written notice of all conflicts, errors or discrepancies that have been discovered in the Bid Documents and the written resolution thereof by OWNER is acceptable to CONTRACTOR.
- 3.7 CONTRACTOR shall schedule and perform the Work subject to COUNTY'S approval and shall hold COUNTY harmless from all liabilities incurred due to CONTRACTOR'S failure to coordinate with the COUNTY.

Article 4. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire Agreement between COUNTY and CONTRACTOR concerning the Work consist of the following:

- 4.1 This Agreement and Bid Document **IFB#10-1476-OV**
- 4.2 Performance and/or other Bonds and Insurance Certificate(s)
- 4.3 Drawings (not attached)
- 4.4 Addenda numbers _____ to _____, inclusive.
- 4.5 CONTRACTOR'S Bid Form and any other information submitted by Contractor prior to Notice of Award.

- 4.6 The following which may be delivered or issued after the effective date of the Agreement and are not attached hereto: all written Change Orders and other documents amending, modifying, or supplementing the Contract Documents.
- 4.7 The documents listed in paragraphs above are attached to this Agreement (except as noted otherwise above). There are no Contract Documents other than those listed above in this Article 4.

Article 5. MISCELLANEOUS

- 5.1 Terms used in this Agreement are defined in Article 1 of the General Conditions.
- 5.2 No assignment by a party hereto of any rights under or interest in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, monies that may become due and monies that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law); and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignee from any duty or responsibility under the Contract Documents.
- 5.3 COUNTY and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents.

The OWNER will pay, and the CONTRACTOR will accept in full consideration for the performance of the Work (**IFB No. #10-1476-OV Coral Shores Canal Dredging, Bradenton, Manatee County, Florida**) subject to additions and deductions as provided therein, the sum of _____ Dollars and Cents (\$ _____) for Bid "____" based on Completion Time of _____ calendar days and the sum of **\$1,423.00** as liquidated damages for each calendar day of delay.

CONTRACTOR

BY: _____
Signature

Name and Title of Signer (printed)

Date: _____

MANATEE COUNTY GOVERNMENT

BY: _____ For the County
Signature

R. C. "Rob" Cuthbert, CPM, CPPO, Purchasing Official
Name and Title of Signer

Date: _____

SECTION 00700
GENERAL CONDITIONS

ARTICLE I - DEFINITIONS

Whenever used in the Bid Documents, the following terms have the meaning indicated which are applicable to both the singular and plural thereof:

Addendum - Written or graphic instruments issued prior to the opening of bids which clarify or change the bidding documents or the contract documents.

Agreement - The written Agreement between County and Contractor covering the Work to be performed; other contract documents are attached to the Agreement and made a part thereof as provided therein.

Written Amendment - A written amendment of the contract documents, signed by County and Contractor on or after the effective date of the Agreement and normally dealing with the non-engineering or non-technical rather than strictly work related aspects of the contract documents.

Application for Payment - The form accepted by Project Representative which is to be used by Contractor in requesting progress or final payments and which is to include such supporting documentation as is required by the contract documents.

Award - Acceptance of the bid from the person, firm, or corporation which in the County's sole and absolute judgment will under all circumstances best serve the public interest. Award shall be made by a majority vote of a quorum of Manatee County Board of County Commissioners in open session; or by the Purchasing Official in accordance with Ordinance 09-52, Manatee County Purchasing Ordinance.

Bid - The offer of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

Bidder - One who submits a bid directly to the County, as distinct from a sub-bidder, who submits a bid to a Bidder.

Bidding Documents - Consists of the Invitation For Bid, which includes but is not limited to: the bid form, drawings, Contract Documents, terms and conditions, and the proposed contract documents (including all Addenda issued prior to receipt of bids); and becomes a part of the Agreement.

Bonds - Performance and payment bonds and other instruments of security.

Change Order - A document recommended by Project Representative which is signed by Contractor and County and authorizes an addition, deletion, or revision in the Work or an adjustment in the contract price or the contract time, issued on or after the effective date of the Agreement.

Compensable Delay - Any delay beyond the control and without the fault or negligence of the Contractor resulting from County-caused changes in the Work, differing site conditions, suspensions of the Work, or termination for convenience by County.

Contract Documents - The Agreement, Addenda (which pertain to the contract documents), Contractor's bid (including documentation accompanying the bid and any post-bid documentation submitted prior to the Notice of Award), the bonds, the specifications and the drawings, together with all amendments, modifications and supplements issued on or after the effective date of the Agreement.

Contract Price - The monies payable by County to Contractor under the contract documents as stated in the Agreement.

Contract Time - The number of days or the date stated in the Notice to Proceed for the completion of the Work.

Contractor - The person, firm or corporation with whom County has entered into an Agreement.

Days - All references to days are to be considered calendar days except as specified differently.

Defective - An adjective which when modifying the work refers to work that is unsatisfactory, faulty or deficient, or does not conform to the contract documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the contract documents, or has been damaged prior to Project Representative's recommendation of final payment (unless responsibility for the protection thereof has been assumed by County).

Discretionary – Payment for all work that shall be made only at the County's discretion in order to satisfactorily complete the project in accordance with the Plans and Specifications.

Drawings - The drawings which show the character and scope of the Work to be performed and which have been prepared or approved by Engineer and are referred to in the bidding and contract documents.

Effective Date of the Agreement - The date indicated in the Agreement on which it becomes effective (date of execution).

Excusable Delay - Any delay beyond the control and without the negligence of the Contractor, the County, or any other contractor caused by events or circumstances such as, but not limited to, acts of God or of the public enemy, fires, floods, freight embargoes, acts of government other than County, or epidemics. Labor disputes and above average rainfall shall give rise only to excusable delays.

Float or Slack Time - The time available in the progress schedule during which an unexpected activity can be completed without delaying substantial completion of the Work.

Inexcusable Delay - Any delay caused by events or circumstances within the control of the Contractor, such as inadequate crewing, slow submittals, etc., which might have been avoided by the exercise of care, prudence, foresight, or diligence on the part of the Contractor.

Non-prejudicial Delay - Any delay impacting a portion of the Work within the available total float or slack time and not necessarily preventing completion of the Work within the contract time.

Notice of Award - The written notice to the successful bidder stating Award has been approved by the Board of County Commissioners; or by the Purchasing Official in accordance with Ordinance 09-52, Manatee County Purchasing Code.

Notice of Intent to Award - The written notice to the apparent low bidder stating Award has been recommended with final Award to be authorized by the Board of County Commissioners.

Notice to Proceed - Written notice by County (after execution of contract) to Contractor fixing the date on which the contract time will commence to run and on which Contractor shall start to perform (ten (10) days from date of such notice) Contractor's obligations under the contract documents.

County - Manatee County, Florida, Board of County Commissioners.

Preconstruction Conference - Prior to starting the Work, a meeting scheduled by County with Contractor to review the Work schedules, to establish procedures for handling shop drawings and other submissions, for processing periodical pay estimates, and such other matters as may be pertinent to the project.

Prejudicial Delay - Any excusable or compensable delay impacting the Work and exceeding the total float available in the progress schedule, thus preventing completion of the Work within the contract time unless the Work is accelerated.

Pre-operation Testing - All field inspections, installation checks, water tests, performance tests and necessary corrections required of Contractor to demonstrate that individual components of the work have been properly constructed and do operate in accordance with the contract documents for their intended purposes.

Project - The total construction of which the Work to be provided under the contract documents may be the whole or a part as indicated elsewhere in the contract documents.

Project Representative - The authorized representative of County who is assigned to the project or any part thereof.

Shop Drawings - All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for Contractor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a supplier and submitted by Contractor to illustrate material or equipment for some portion of the Work.

Specifications - Those portions of the contract documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

Subcontractor - An individual or corporation having a direct contact with Contractor or with any other subcontractor for the performance of a part of the Work at the site. Such person or firm has contractual relations with the Contractor, not with the County.

Substantial Completion - The Work (or a specified part thereof) has progressed to the point when, in the opinion of the Engineer as evidenced by Engineer's definitive certificate of Substantial Completion, it is sufficiently complete in accordance with contract documents so that the work can be utilized for the purposes for which it is intended; or if there be no such certificate issued, when final payment is due.

Successful Bidder - The lowest qualified, responsible and responsive bidder to whom an award is made.

Supplier - A manufacturer, fabricator, supplier, distributor, materialman or vendor.

Underground Facilities - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments and any encasement containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

Unit Price Work - Work to be paid for on the basis of unit prices.

Work - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the contract documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the contract documents.

Work Directive Change - A written directive to contractor, issued on or after the effective date of the Agreement and signed by County and recommended by Project Representative ordering an addition, deletion or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed or to emergencies. A work directive change may not change the contract price or the contract time; but is evidence that the parties expect that the change directed or documented by a work directive change will be incorporated in a subsequently issued change order following negotiations by the parties as to its effect, if any, on the contract price or contract time.

ARTICLE 2 - PRELIMINARY MATTERS

Computation of Time: When time is referred to in the contract documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or legal holiday, such day will be omitted from the computation.

- 2.1 The Contractor must submit a proposed schedule of the Work at the preconstruction conference. The purpose of this schedule is to enable the County to govern the Work, to protect the functions of the local government and its citizens and to aid in providing appropriate surveillance. The County shall have the right to reschedule work provided such rescheduling is in accord with the remainder of terms of the contract. The schedule shall show, as a minimum, the approximate dates on which each segment of the work is expected to be started and finished, the proposed traffic flows during each month, the anticipated earnings by the Contractor for each month and the approximate number of crews and equipment to be used. The County, after necessary rescheduling and obtaining additional information for specific purposes, shall review and approve the schedule. The Contractor shall also forward to the County, as soon as practicable after the first day of each month, a summary report of the progress of the various parts of the work under the contract, in fabrication and in the field, stating the existing status, estimated time of completion and cause of delay, if any. Together with the summary report, the Contractor shall submit any necessary revisions to the original schedule for the County's review and approval. In addition, more detailed schedules may be required by the County for daily traffic control.
- 2.2 A Notice to Proceed may be given at any time within thirty (30) days after the effective date of the Agreement. The contract time will commence at the time specified in such notice. Contractor shall start to perform the Work on the date specified in the notice to proceed, but no work shall be done at the site prior to the date on which the contract time commences to run.
- 2.3 If at any time the materials and appliances to be used appear to the County as insufficient or improper for securing the quality of work required or the required rate of progress, the County may order the Contractor to increase his efficiency or to improve the character of his work and the Contractor shall conform to such an order. The failure of the County to demand any increase of such efficiency of any improvement shall not release the County from his obligation to secure the quality of work or the rate of progress necessary to complete the Work within the limits imposed by the contract. The County may require the Contractor to remove from the Work such employees as the County deems incompetent, careless, insubordinate or otherwise objectionable, or whose continued employment on the Work is deemed to be contrary to the County's interest.
- 2.4 The County reserves the right to let other Contracts in connection with this Work. The Contractor shall afford other Contractors reasonable opportunity for the introduction and storage of their materials and execution of their Work, and promptly connect and coordinate the Work with theirs.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, RE-USE

- 3.1 The contract documents comprise the entire Agreement between County and Contractor concerning the work. The contract documents are complementary; what is called for by one is as binding as if called for by all. The contract documents will be construed in accordance with the laws and ordinances of the State of Florida and the County of Manatee.

Should a conflict exist within the contract documents, the precedence in ascending order of authority are as follows: 1) Standard Printed Contract Documents, 2) Special Conditions, 3) General Conditions and 4) Drawings. Note: Computed dimensions shall govern over scaled dimensions.

- 3.2 It is the intent of the contract documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the contract documents. Any work, materials or equipment that may reasonably be inferred from the contract documents as being required to produce the intended result will be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe work, materials, or equipment, such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or laws or regulations in effect at the time of opening of bids, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the contract documents) shall be effective to change the duties and responsibilities of County, Contractor or Engineer, or any of their agents or employees from those set forth in the Contract Documents.

- 3.3 The contract documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:

- 3.3.1 A Formal Written Amendment
- 3.3.2 A Change Order
- 3.3.3 Administrative Contract Adjustment (ACA)

- 3.4 In addition, the requirements of the contract documents may be supplemented and minor variations and deviations in the Work may be authorized in one or more of the following ways:

- 3.4.1 Discretionary Work – Field Directive
- 3.4.2 Engineer's approval of a Shop Drawing or sample.

ARTICLE 4 - CONTRACTOR'S RESPONSIBILITIES

- 4.1 Contractor shall keep on the Work at all times during its progress a competent resident superintendent; who shall be the Contractor's representative at the site and shall have authority to act on behalf of Contractor. All communications given to the superintendent shall be as binding as if given to Contractor.
- 4.2 Contractor shall provide competent, suitable qualified personnel to survey and lay out the Work and perform construction as required by the contract documents. Contractor shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto and except as otherwise indicated in the contract documents, all Work at the site shall be performed during regular working hours and Contractor will not permit overtime work or the performance of work on Saturday, Sunday or legal holiday without County's written consent given after prior notice to Engineer (at least 72 hours in advance).
 - 4.2.1 Contractor shall pay for all additional engineering charges to the County for any overtime work which may be authorized. Such additional engineering charges shall be a subsidiary obligation of Contractor and no extra payment shall be made by County on account of such overtime work. At County's option, overtime costs may be deducted from Contractor's monthly payment request or Contractor's retainage prior to release of final payment.
- 4.3 Unless otherwise specified, Contractor shall furnish and assume full responsibility for all bonds, insurance, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.
- 4.4 All materials and equipment shall be of good quality and new, except as otherwise provided in the contract documents. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instruction of the applicable supplier except as otherwise provided in the contract documents.
- 4.5 Contractor shall be fully responsible to County for all acts and omissions of the subcontractors, suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with Contractor just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents shall create any contractual relationship between County or Engineer and any such subcontractor, supplier or other person or organization, nor shall it create any obligation on the part of County to pay or to see to the payment of any monies due any such subcontractor, supplier or other person or organization.

- 4.6 Permits: Unless otherwise provided, Contractor shall obtain and pay for all construction permits and licenses. County shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work.
- 4.7 During the progress of the Work, Contractor shall keep the premises free from accumulation of waste materials rubbish and other debris resulting from the Work. At the completion of the Work, Contractor shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery and surplus materials and shall leave the site clean and ready for occupancy by County. Contractor shall restore to original conditions all property not designated for alteration by the Contract Documents.
- 4.8 Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.
- 4.9 **Safety and Protection**: Contractor shall comply with the Florida Department of Commerce Safety Regulations and any local safety regulations. Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of and shall provide the necessary protection to prevent damage, injury or loss to:
- 4.9.1 all employees on the work and other persons and organizations who may be affected thereby;
 - 4.9.2 all the work and materials and equipment to be incorporated therein, whether in storage on or off the site; and
 - 4.9.3 other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and underground facilities not designated for removal, relocation or replacement in the course of construction.

Contractor shall comply with all applicable laws and regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall provide and maintain all passageways, guard fences, lights and other facilities for the protection required by public authority or local conditions. Contractor shall provide reasonable maintenance of traffic way for the public and preservation of the County's business, taking into full consideration all local conditions. Contractor's duties and responsibilities for the safety and protection of the work shall continue until such time as all the work is completed.

- 4.10 Emergencies: In emergencies affecting the safety or protection of persons or the work or property at the site or adjacent thereto, Contractor, without special instruction or authorization from Engineer or County, is obligated to act to prevent threatened damage, injury or loss. Contractor shall give County prompt written notice if Contractor believes that any significant changes in the work or variations from the contract documents have been caused thereby. If Owner determines that a change in the contract documents is required because of the action taken in response to an emergency, a Work Directive Change or Change Order will be issued to document the consequences of the changes or variation.
- 4.11 For substitutes not included with the bid, but submitted after the effective date of the Agreement, Contractor shall make written application to Engineer for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application will also contain an itemized estimate of all costs and delays or schedule impacts that will result directly or indirectly from review, acceptance and provisions of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which will be considered by the Engineer in evaluating the proposed substitute. Engineer may require Contractor to furnish at Contractor's expense, additional data about the proposed substitute. In rendering a decision, County/Engineer and Contractor shall have access to any available float time in the construction schedule. In the event that substitute materials or equipment not included as part of the bid, but proposed after the effective date of the agreement, are accepted and are less costly than the originally specified materials or equipment, then the net difference in cost shall be credited to the County and an appropriate change order executed.
- 4.11.1 If a specific means, method, technique, sequence of procedure of construction is indicated in or required by the contract documents, Contractor may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to Engineer if Contractor submits sufficient information to allow Engineer to determine that the substitute proposed is equivalent to that indicated or required by the contract documents.
- 4.11.2 Engineer will be allowed a reasonable time within which to evaluate each proposed substitute. Engineer will be the sole judge of acceptability and no substitute will be ordered, installed or utilized without Engineer's prior written acceptance which will be evidenced by either a change order or an approved shop drawing. County may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- 4.11.3 Contractor shall reimburse County for the charges of Engineer and Engineer's Consultants for evaluating each proposed substitute submitted after the effective date of the Agreement and all costs resulting from any delays in the work while the substitute was undergoing review.

- 4.12 The Contractor shall furnish, free of charge, all labor, stakes, surveys, batter boards for structures, grade lines and other materials and supplies and shall set construction stakes and batter boards for establishing lines, position of structures, slopes and other controlling points necessary for the proper prosecution of the construction work. Where rights-of-way, easements, property lines or any other conditions which make the lay-out of the project or parts of the project critical are involved, the Contractor will employ a competent surveyor who is registered in the State of Florida for lay-out and staking. These stakes and marks shall constitute the field control by and in accord with which the Contractor shall govern and execute the work. The Contractor will be held responsible for the preservation of all stakes, marks and if for any reason any of the stakes or marks or batter boards become destroyed or disturbed, they will be immediately and accurately replaced by the Contractor.
- 4.13 The Contractor has, by careful examination, satisfied himself as to the nature and location of the work and all other matters which can in any way affect the work under this contract, including, but not limited to details pertaining to boring, as shown on the drawings, are not guaranteed to be more than a general indication of the materials likely to be found adjacent to holes bored at the site of the work, approximately at the locations indicated. The Contractor shall examine boring data, where available, and make his own interpretation of the subsoil investigations and other preliminary data, and shall base his bid on his own opinion of the conditions likely to be encountered. In no event shall an extension of time be considered for any conditions that existed at the time of bidding, nor shall the Contractor receive extra compensation for completion of the project as intended by the drawings and in keeping with the contract documents. No verbal agreement or conversation with any officer, agent or employee of the County, before or after the execution of this contract, shall affect or modify any of the terms or obligations herein contained.
- 4.14 If the Contractor, in the course of the work, finds that the drawings and/or Contract Documents cannot be followed, he shall immediately inform the County in writing, and the County shall promptly check the accuracy of the information. Any work done after such discovery, until any necessary changes are authorized, will be done at the Contractor's risk.

ARTICLE 5 - OWNER'S RESPONSIBILITIES

- 5.1 County shall furnish the data required of County under the contract documents promptly and shall make payments to the Contractor within a reasonable time (no more than 45 days) after the Work has been accepted by the County. The form of all submittals, notices, change orders and other documents permitted or required to be used or transmitted under the contract documents shall be determined by the County/Engineer. Standard County forms shall be utilized.
- 5.2 The County shall provide the lands upon which the Work under this contract is to be done, except that the Contractor shall provide all necessary additional land required for the erection of temporary construction facilities and storage of his materials, together with right of access to same.

- 5.3 The County shall have the right to take possession of and use any completed portions of the work, although the time for completing the entire work or such portions may not have expired, but such taking possession and use shall not be deemed an acceptance of any work not completed in accordance with the Contract Documents.

ARTICLE 6 - CHANGES IN THE WORK

- 6.1 Without invalidating the Agreement and without notice to any surety, County may, at any time, order additions, deletions or revisions in the Work. These will be authorized by a written amendment, a change order, or a work directive change. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the contract documents (except as otherwise specifically provided).
- 6.2 Contractor shall not be entitled to an increase in the contract price or an extension of the contract time with respect to any Work performed that is not required by the contract documents as amended, modified and supplemented.
- 6.3 County and Contractor shall execute appropriate change orders (or written amendments) covering changes in the Work which are ordered by County, or which may be required because of acceptance of defective Work.
- 6.4 At any time Engineer may request a quotation from Contractor for a proposed change in the Work and within twenty-one (21) calendar days after receipt, Contractor shall submit a written and detailed proposal for an increase or decrease in the contract price or contract time for the proposed change. Engineer shall have 21 calendar days after receipt of the detailed proposal to respond in writing. The proposal shall include an itemized estimate of all costs and time for performance that will result directly or indirectly from the proposed change. Unless otherwise directed, itemized estimates shall be in sufficient detail to reasonably permit an analysis by Engineer of all material, labor, equipment, subcontracts, overhead costs and fees, and shall cover all Work involved in the change, whether such Work was deleted, added, changed or impacted. Notwithstanding the request for quotation, Contractor shall carry on the Work and maintain the progress schedule. Delays in the submittal of the written and detailed proposal will be considered non-prejudicial.

ARTICLE 7 - CHANGE OF CONTRACT PRICE

- 7.1 The contract price constitutes the total compensation (subject to authorized adjustments) payable to Contractor for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at his expense without change in the contract price.
- 7.2 The contract price may only be changed by change order or by a written amendment. Any claim for an increase or decrease in the contract price shall be based on written notice delivered by the party making the claim to the other party. Notice of the amount of the claim with supporting data shall be delivered within ten (10) days from the beginning of such occurrence and shall be accompanied by claimant's written statement that the amount claimed covers all known amounts (direct, indirect and consequential) to which the claimant is entitled as a result of the occurrence of said event.

- 7.3 The value of any Work covered by a change order or of any claim for an increase or decrease in the contract price shall be determined in one of the following ways (at County's discretion):
- 7.3.1 Where the Work involved is covered by unit prices contained in the contract documents, cost will be determined by application of such unit prices to the quantities of the items involved.
 - 7.3.2 By mutual acceptance of lump sum.
 - 7.3.3 On the basis of the cost of the Work, plus a 20% Contractor's fee for overhead and profit. (Contractor shall submit an itemized cost breakdown together with supporting data.)
- 7.4 Either County or Contractor may make a claim for an adjustment in the contract price. The unit price of an item of unit price Work shall be subject to re-evaluation and adjustment under the following conditions:
- 7.4.1 If the total cost of a particular item of unit price Work amounts to 5% or more of the contract price and the variation in the quantity of the particular item of unit price Work performed by Contractor differs by more than 15% from the estimated quantity of such item indicated in the Agreement; and
 - 7.4.2 If there is no corresponding adjustment with respect to any other item of Work; and
 - 7.4.3 If a Contractor believes that it has incurred additional expense as a result thereof; or
 - 7.4.4 If County believes that the quantity variation entitles it to an adjustment in the unit price; or
 - 7.4.5 If the parties are unable to agree as to the effect of any such variations in the quantity of unit price Work performed.

ARTICLE 8 - CHANGE OF CONTRACT TIME

- 8.1 Contract time may only be changed by a change order or a written amendment. Any claim for an extension or shortening of the contract time shall be based on written notice delivered by the party making the claim to the other party. Notice of the extent of the claim with supporting data shall be delivered within fifteen (15) days from detection or beginning of such occurrence and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event.

- 8.2 The contract time will be extended in an amount equal to time lost due to delays beyond the control of Contractor. Such delays shall include, but not be limited to, acts or neglect by County or others performing additional work; or to fires, floods, epidemics, abnormal weather conditions or acts of God.
- 8.3 All time limits stated in the contract documents are of the essence.

ARTICLE 9 - WARRANTY, TEST/INSPECTION, CORRECTION

- 9.1 Contractor warrants (for a minimum period of three years or as otherwise stated herein) and guarantees to County that all work will be in accordance with the contract documents and will not be defective; that County, representatives of County, governmental agencies with jurisdictional interests will have access to the work at reasonable time for their observation, inspecting and testing (Contractor shall give Engineer timely notice of readiness of the work for all required approvals and shall assume full responsibility, including costs, in obtaining required tests, inspections, and approval certifications and/or acceptance, unless otherwise stated by County).
- 9.2 If any work (including work of others) that is to be inspected, tested, or approved is covered without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation. Such uncovering shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice. Neither observations by Engineer nor inspections, tests, or approvals by others shall relieve Contractor from Contractor's obligations to perform the work in accordance with the contract documents.
- 9.3 If the work is defective, or Contractor fails to supply sufficient skilled workers, or suitable materials or equipment, or fails to furnish or perform the work in such a way that the completed work will conform to the contract documents, County may order Contractor to stop the work, or any portion thereof and terminate payments to the Contractor until the cause for such order has been eliminated. Contractor shall bear all direct, indirect and consequential costs for satisfactory reconstruction or removal and replacement with non-defective work, including, but not limited to fees and charges of engineers, architects, attorneys and other professionals and any additional expenses experienced by County due to delays to other Contractors performing additional work and an appropriate deductive change order shall be issued. Contractor shall further bear the responsibility for maintaining schedule and shall not be entitled to an extension of the contract time and the recovery of delay damages due to correcting or removing defective work.
- 9.3.1 If Contractor fails within seven (7) days after written notice to correct defective work, or fails to perform the work in accordance with the contract documents, or fails to comply with any other provision of the contract documents, County may correct and remedy any such deficiency. To the extent necessary to complete corrective and remedial action, County may exclude Contractor from all or part of the site, take possession of all or part of the work, Contractor's tools, construction equipment and machinery at the site or for which County has paid

Contractor but which are stored elsewhere. All direct, indirect and consequential costs of County in exercising such rights and remedies will be charged against Contractor in an amount approved as to reasonableness by Engineer and a change order will be issued incorporating the necessary revisions.

- 9.3.2 If within three years after the date of completion or such longer period of time as may be prescribed by laws or regulations or by the terms of any applicable special guarantee required by the contract documents, any work is found to be defective, Contractor shall promptly, without cost to County and in accordance with County's written instructions, either correct such defective work or if it has been rejected by County, remove it from the site and replace it with non-defective work. If Contractor does not promptly comply with the terms of such instruction, County may have the defective work corrected/removed and all direct, indirect and consequential costs of such removal and replacement will be paid by Contractor.

ARTICLE 10 - SUSPENSION/TERMINATION OF WORK

- 10.1 County may, at any time and without cause, suspend the work or any portion thereof for a period of not more than ninety (90) days by written notice to Contractor, which will fix the date on which work will be resumed. Contractor shall be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to any suspension if Contractor makes an approved claim therefore.
- 10.2 County may terminate the contract if Contractor commences a voluntary case under any chapter of the Bankruptcy Code or any similar action by filing a petition under any other federal or state law relating to the bankruptcy or insolvency; if a petition is filed against the Contractor under any chapter of the Bankruptcy Code or similar relief under any other federal or state law; if Contractor persistently fails to perform the work in accordance with the contract documents; if Contractor disregards laws or regulations of any public body having jurisdiction or the Engineer; or otherwise violates in any substantial way any provisions of the contract.
- 10.2.1 County may, after giving Contractor (and the surety, if there is one) seven (7) days written notice and to the extent permitted by laws and regulations, terminate the services of Contractor; exclude Contractor from the site and take possession of the work and of all Contractor's tools, construction equipment and machinery at the site and use the same to the full extent they could be used (without liability to Contractor for trespass or conversion); incorporate in the work all materials and equipment stored at the site or for which county has paid Contractor but which are stored elsewhere, and finish the work as County may deem expedient. In such case, Contractor shall not be entitled to receive any further payment beyond an amount equal to the value of material and equipment not incorporated in the work, but delivered and suitably stored, less the aggregate of payments previously made. If the direct and indirect costs of completing the work exceed the unpaid balance of the contract price, Contractor shall pay the difference to County. Such costs incurred by County shall be verified by County and incorporated in

a change order; but in finishing the work, County shall not be required to obtain the lowest figure for the work performed. Contractor's obligations to pay the difference between such costs and such unpaid balance shall survive termination of the Agreement.

- 10.3 If, through no act or fault of Contractor, the work is suspended for a period of more than ninety (90) days by County or under an order of court or other public authority, or Engineer fails to act on any application or fails to pay Contractor any sum finally determined to be due; then Contractor may, upon seven (7) days written notice to County terminate the Agreement and recover from County payment for all work executed, any expense sustained plus reasonable termination expenses. In lieu of terminating the Agreement, if Engineer has failed to act on any application of payment or County has failed to make any payment as aforesaid, Contractor may upon seven (7) days written notice to County stop the work until payment of all amounts then due.

ARTICLE 11 - CONTRACT CLAIMS

- 11.1 The rendering of a decision by Engineer with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment) will be a condition precedent to any exercise by County or Contractor of such right or remedies as either may otherwise have under the contract documents or by laws or regulations in respect of any such claim, dispute or other matter. No action, either at law or at equity, shall be brought in connection with any such claim, dispute or other matter later than thirty (30) days after the date on which County/Engineer has rendered such written decision in respect thereof. Failure to bring an action within said thirty (30) day period shall result in Engineer's decision being final and binding on the Contractor. In no event may any such action be brought after the time at which instituting such proceedings would be otherwise barred by the applicable statute of limitations.
- 11.2 Before bringing any action in court pertaining to any claim, dispute or other matter in question(s) arising out of or relating to the contract documents or the breach thereof, or Engineer's final decision, except for claims which have been waived by the making and acceptance of final payment, the Contractor shall first submit written notice(s) of contract claims to the Purchasing Official for a decision; the Contractor may request a conference with the Purchasing Official. Claims include, without limitation, disputes arising under the contract and those based upon breach of contract, mistake, misrepresentation, or other cause for modification or revision. Contract claims shall use the process detailed in Section 2-26-63, Manatee County Purchase Code, Ordinance 09-52.

ARTICLE 12 - RESIDENT PROJECT REPRESENTATIVE - DUTIES, RESPONSIBILITIES

- 12.1 Resident Project Representative is Engineer/County's Agent, who will act as directed by and under the supervision of the Engineer, and who will confer with County/Engineer regarding his actions. Resident Project Representative's dealing in matters pertaining to the on-site work shall, in general, be only with the

County/Engineer and Contractor and dealings with subcontractors shall only be through or with the full knowledge of Contractor.

12.2 Resident Project Representative will:

- 12.2.1 Review the progress schedule, schedule of shop drawing submissions and schedule of values prepared by Contractor and consult with County/Engineer concerning their acceptability.
- 12.2.2 Attend preconstruction conferences. Arrange a schedule of progress meetings and other job conferences as required in consultation with County/Engineer and notify those expected to attend in advance. Attend meetings and maintain and circulate copies of minutes thereof.
- 12.2.3 Serve as County/Engineer's liaison with Contractor, working principally through Contractor's superintendent and assist him in understanding the intent of the contract documents. As requested by County/Engineer, assist in obtaining additional details or information when required at the job site for proper execution of the Work.
- 12.2.4 Receive and record date of receipt of shop drawings and samples, receive samples which are furnished at the site by Contractor and notify County/Engineer of their availability for examination.
- 12.2.5 Advise County/Engineer and Contractor or his superintendent immediately of the commencement of any work requiring a shop drawing or sample submission if the submission has not been approved by the County/Engineer.
- 12.2.6 Conduct on-site observations of the work in progress to assist County/Engineer in determining if the work is proceeding in accordance with the contract documents and that completed work will conform to the contract documents.
- 12.2.7 Report to County/Engineer whenever he believes that any work is unsatisfactory, faulty or defective or does not conform to the contract documents, or does not meet the requirements of any inspections, tests or approvals required or if work has been damaged prior to final payment; and advise County/Engineer when he believes work should be corrected or rejected or should be uncovered of observation or requires special testing, inspection or approval.
- 12.2.8 Verify that tests, equipment and system start-ups and operating and maintenance instructions are conducted as required by the contract documents and in the presence of the required personnel, and that Contractor maintains adequate records thereof; observe, record and report to Engineer appropriate details relative to the test procedures and start-ups.

- 12.2.9 Accompany visiting inspectors representing public or other agencies having jurisdiction over the project; record the outcome of these inspections and report to County/Engineer.
- 12.2.10 Transmit to Contractor, County/Engineer's clarifications and interpretations of the contract documents.
- 12.2.11 Consider and evaluate Contractor's suggestions or modifications in drawings or Contract Documents and report them with recommendations to County/Engineer.
- 12.2.12 Maintain at the job site orderly files for correspondence, reports of job conferences, shop drawings and sample submissions, reproductions of original contract documents including all addenda, change orders, field orders, additional drawings issued subsequent to the execution of the contract, County/Engineer's clarifications and interpretations of the contract documents, progress reports and other project related documents.
- 12.2.13 Keep a diary or log book, recording hours on the job site, weather conditions, data relative to questions of extras or deductions; list of visiting officials and representatives or manufacturers, fabricators, suppliers and distributors; daily activities, decisions, observations in general and specific observations in more detail as in the case of observing test procedures. Send copies to County/Engineer.
- 12.2.14 Record names, addresses and telephone numbers of all Contractors, subcontractors and major suppliers of materials and equipment.
- 12.2.15 Furnish County/Engineer periodic reports as required of progress of the work and Contractor's compliance with the approved progress schedule and schedule of shop drawing submissions.
- 12.2.16 Consult with County/Engineer in advance of scheduling major tests, inspections or start of important phases of the work.
- 12.2.17 Report immediately the occurrence of any accident.
- 12.2.18 Review applications for payment with Contractor for compliance with the established procedure for their submission and forward them with recommendations to County/Engineer, noting particularly their relation to the schedule of values, work completed and materials and equipment delivered at the site but not incorporated in the work.
- 12.2.19 During the course of the work, verify that certificates, maintenance and operations manuals and other data required to be assembled and furnished by Contractor are applicable to the items actually installed, and deliver this material to County/Engineer for his review prior to final acceptance of the work.

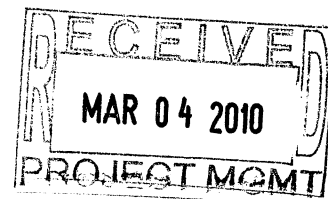
- 12.2.20 Before County/Engineer issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction.
- 12.2.21 Conduct final inspection in the company of County/Engineer and Contractor and prepare a final list of items to be completed or corrected.
- 12.2.22 Verify that all items on final list have been completed or corrected and make recommendations to County/Engineer concerning acceptance.
- 12.3 Except upon written instructions of County/Engineer, Resident Project Representative.
- 12.3.1 Shall not authorize any deviation from the contract documents or approve any substitute materials or equipment;
- 12.3.2 Shall not exceed limitations on County/Engineer's authority as set forth in the contract documents;
- 12.3.3 Shall not undertake any of the responsibilities of Contractor, Subcontractors or Contractor's Superintendent, or expedite the work;
- 12.3.4 Shall not advise on or issue directions relative to any aspect of the means, methods, techniques, sequences or procedures of construction unless such is specifically called for in the contract documents;
- 12.3.5 Shall not advise on or issue directions as to safety precautions and programs in connection with the work;
- 12.3.6 Shall not authorize County to occupy the project in whole or in part; and
- 12.3.7 Shall not participate in specialized field or laboratory tests.

ARTICLE 13 - APPRENTICES

- 13.1 If Successful Contractor employs Apprentices, he shall be governed and shall fully comply with the provisions of Florida State Statute 446.011.

END OF SECTION

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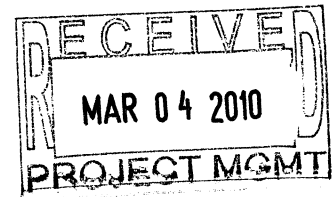
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FDEP Permit (41-0272903-002)
Geotechnical Investigation Report (prepared by PSI)
Turbidity Monitoring and BMPs



e.

SECTION 01005

GENERAL REQUIREMENTS

PART 1

GENERAL

1.01 SCOPE AND INTENT

A. Description

The work to be done consists of the furnishing of all labor, materials and equipment, and the performance of all work included in this Contract.

B. Work Included

The Contractor shall furnish all labor, superintendence, materials, plant, power, light, heat, fuel, water, tools, appliances, equipment, supplies, shop drawings, working drawings and other means of construction necessary or proper for performing and completing the work. He shall obtain and pay for all required permits necessary for the work, other than those permits such as the FDEP permit and ACOE permit which have already been obtained. He shall perform and complete the work in the manner best calculated to promote rapid construction consistent with safety of life and property and to the satisfaction of the Engineer, and in strict accordance with the Contract Documents. The Contractor shall clean up the work and maintain it during and after construction, until accepted, and shall do all work and pay all costs incidental thereto. He shall repair or restore all structures and property that may be damaged or disturbed during performance of the work.

The cost of incidental work described in these General Requirements, for which there are no specific Contract Items, shall be considered as part of the general cost of doing the work and shall be included in the prices for the various Contract Items. No additional payment will be made therefore.

The Contractor shall provide and maintain such modern plant, tools, and equipment as may be necessary, in the opinion of the Engineer, to perform in a satisfactory and acceptable manner all the work required by this Contract. Only equipment of established reputation and proven efficiency shall be used. The Contractor shall be solely responsible for the adequacy of his workmanship, materials and equipment, prior approval of the Engineer notwithstanding.

C. Public Utility

The Contractor shall protect all public utility installations and structures from damage during the work. Access across any buried public utility installation or structure shall be made only in such locations and by means approved by the Engineer. The Contractor shall so arrange his operations as to avoid any damage to these facilities. All required protective devices and construction shall be provided by the Contractor at his expense. All existing public infrastructure damaged by the Contractor which are shown on the Plans or have been located in the field by the utility shall be repaired by the Contractor, at his expense, as approved by the Engineer. No separate payment shall be made for such protection or repairs to public utility installations or structures.

It is the intent of this project that the work be constructed while minimizing impact to existing public facilities which may be located in the vicinity of new construction. The Contractor shall develop his work plan for executing the work to accommodate the protection of existing facilities.

The Contractor shall give written notice to Owner and other governmental utility departments and other owners of public utilities of the location of his proposed construction operations, at least forty-eight hours in advance of breaking ground in any area or on any unit of the work. This can be accomplished by making the appropriate contact with the "Sunshine State One-Call of Florida, Inc. Call Center ("Call Sunshine") and per all requirements provided for in the Florida Underground Facilities Damage Prevention and Safety Act (Florida Statutes, Title XXXIII, Chapter 556).

The maintenance, repair, removal, relocation or rebuilding of public utility installations and structures, when accomplished by the Contractor as herein provided, shall be done by methods approved by the Engineer.

1.02 PLANS AND SPECIFICATIONS

A. Plans

When obtaining data and information from the Plans, figures shall be used in preference to scaled dimensions, and large scale drawings in preference to small scale drawings.

B. Copies Furnished to Contractor

The Contractor shall furnish each of the subcontractors, manufacturers, and material men such copies of the Contract Documents as may be required for their work. Additional copies of the Plans and Specifications, when requested, may be furnished to the Contractor at cost of reproduction.

C. Supplementary Drawings

When, in the opinion of the Engineer, it becomes necessary to explain more fully the work to be done or to illustrate the work further or to show any changes which may be required, drawings known as Supplementary Drawings, with specifications pertaining thereto, will be prepared by the Engineer and five paper prints thereof will be given to the Contractor.

D. Contractor to Check Plans and Data

The Contractor shall verify all dimensions, quantities and details shown on the Plans, Supplementary Drawings, Schedules, Specifications or other data received from the Engineer, and shall notify him of all errors, omissions, conflicts, and discrepancies found therein. Failure to discover or correct errors, conflicts or discrepancies shall not relieve the Contractor of full responsibility for unsatisfactory work; faulty construction or improper operation resulting there from nor from rectifying such conditions at his own expense. He will not be allowed to take advantage of any errors or omissions, as full instructions will be furnished by the Engineer, should such errors or omissions be discovered. All schedules are given for the convenience of the Engineer and the Contractor and are not guaranteed to be complete. The Contractor shall assume all responsibility for the making of estimates of the size, kind, and quality of materials and equipment included in work to be done under the Contract.

E. Specifications

The Technical Specifications consist of three parts: General, Products, and Execution. The General Section contains General Requirements which govern the work. Products and Execution modify and supplement these by detailed requirements for the work and shall always *govern* whenever there appears to be a conflict.

F. Intent

All work called for in the Specifications applicable to this Contract, but not shown on the Plans in their present form, or vice versa, shall be of like effect as if shown or mentioned in both. Work not specified in either the Plans or in the Specifications, but involved in carrying out their intent or in the complete and proper execution of the work, is required and shall be performed by the Contractor as though it were specifically delineated or described.

The apparent silence of the Specifications as to any detail, or the apparent omission from them of a detailed description concerning any work to be done and materials to be furnished, shall be regarded as meaning that only the best general practice is to prevail and that only material and workmanship of the best quality is to be used, and interpretation of these Specifications shall be made upon that basis.

The inclusion of the Related Requirements (or work specified elsewhere) in the General part of the specifications is only for the convenience of the Contractor, and shall not be interpreted as a complete list of related Specification Sections.

1.03 MATERIALS AND EQUIPMENT

A. Manufacturer

The names of proposed manufacturers, material men, suppliers and dealers who are to furnish materials, fixtures, equipment, appliances or other fittings shall be submitted to the Engineer for approval.

All transactions with the manufacturers or subcontractors shall be through the Contractor.

B. Service of Manufacturer's Engineer

The Contract prices for equipment shall include the cost of furnishing (as required by equipment specifications sections) a competent and experienced engineer or superintendent who shall represent the manufacturer and shall assist the Contractor, when required, to install, adjust, test and place in operation the equipment in conformity with the Contract Documents.

1.04 INSPECTION AND TESTING

General

Inspection and testing of materials will be performed by the Contractor unless otherwise specified.

The Contractor's testing personnel shall make the necessary inspections and tests and the reports thereof shall be in such form as will facilitate checking to determine compliance with the Contract Documents. Three (3) copies of the reports shall be submitted and authoritative certification thereof must be furnished to the Engineer as a prerequisite for the acceptance of any material or equipment.

The Contractor shall be fully responsible for the proper operation of equipment during tests and instruction periods and shall neither have nor make any claim for damage which may occur to equipment prior to the time when the Owner formally takes over the operation thereof.

1.05 TEMPORARY STRUCTURES

Temporary Fences

If, during the course of the work, it is necessary to remove or disturb any fence or part thereof, the Contractor shall, at his own expense, if so ordered by the Engineer, provide a suitable temporary fence which shall be maintained until the permanent fence is replaced. The Engineer shall be solely responsible for the determination of the necessity for providing a temporary fence and the type of temporary fence to be used.

1.06 TEMPORARY SERVICES

The Contractor shall keep on site, at each location where work is in progress, a completely equipped first aid kit and shall provide ready access thereto at all times when people are employed on the work

1.07 LINES AND GRADES

A. Grade

All work under this Contract shall be constructed in accordance with the lines and grades shown on the Plans, or as given by the Owner/Engineer. The full responsibility for keeping alignment and grade shall rest upon the Contractor.

B. Safeguarding Marks

The Contractor shall safeguard all points, stakes, grade marks, monuments and bench marks made or established on the work, bear the cost of reestablishing them if disturbed, and bear the entire expense of rectifying work improperly installed due to not maintaining or protecting or to removing without authorization such established points, stakes and marks.

The Contractor shall safeguard all existing and known property corners, monuments and marks adjacent to but not related to the work and, if required, shall bear the cost of reestablishing them if disturbed or destroyed.

C. Datum Plane

All elevations indicated or specified refer to the Mean Sea Level Datum of the NGVD 1929 Datum.

1.08 ADJACENT STRUCTURES AND LANDSCAPING

A. Responsibility

The Contractor shall also be entirely responsible and liable for all damage or injury as a result of his operations to all other adjacent public and private property, structures of any kind and appurtenances thereto met with during the progress of the work. The cost of protection, replacement in their original locations and conditions or payment of damages for injuries to such adjacent public and private property and structures affected by the work, whether or not shown on the Plans, and the removal, relocation and reconstruction of such items called for on the Plans or specified shall be included in the various Contract Items and no separate payments will be made therefore. Where such public and private property, structures of any kind and appurtenances thereto are not shown on the Plans and when, in the opinion of the Engineer, additional work is deemed necessary to avoid interference with the work, payment therefore will be made as provided for in the General Conditions.

Contractor is expressly advised that the protection of structures, boat ramps, docks, seawalls, etc. and related work adjacent and in the vicinity of his operations, wherever they may be, is solely his responsibility. Conditional inspection of such structures in the immediate vicinity of the project which may reasonably be expected to be effected by the work shall be performed by and be the responsibility of the Contractor.

Contractor shall, before starting operations, make an examination of the adjacent structures, facilities, etc., and record by notes, measurements, photographs, etc., conditions which might be aggravated by the dredging operations. Repairs or replacement of all conditions disturbed by the construction shall be made to the satisfaction of the Owner and the satisfaction of the Engineer. This does not preclude conforming to the requirements of the insurance underwriters. Copies of surveys, photographs, reports, etc., shall be given to the Engineer.

1.09 PROTECTION OF WORK AND PUBLIC

A. Barriers and Lights

During the prosecution of the work, the Contractor shall put up and maintain at all times such barriers and lights as will effectually prevent accidents. The Contractor shall provide suitable barricades, appropriately colored warning lights, "danger" or "caution" signs and watchmen at all places where the work causes obstructions to the normal traffic or constitutes in any way a hazard to the public, in accordance with state and local requirements.

B. Smoke Prevention

A strict compliance with ordinances regulating the production and emission of smoke will be required. No open fires will be permitted.

C. Noise

The Contractor shall eliminate noise to as great an extent as practicable at all times. Air compressing plants shall be equipped with silencers and the exhaust of all engines or other power equipment shall be provided with mufflers. In the vicinity of hospitals and schools, special care shall be used to avoid noise or other nuisances. The Contractor shall strictly observe all local regulations and ordinances covering noise control.

Except in the event of an emergency, no night or weekend operations shall be permitted.

D. Access to Public Services

Neither the materials excavated nor the materials or plant used in the construction of the work shall be so placed as to prevent free access to all fire hydrants, valves or manholes.

E. Dust prevention

The Contractor shall prevent dust nuisance from his operations or from traffic by keeping the temporary staging areas sprinkled with water when needed.

1.10 CLEANING

A. During Construction

During construction of the work, the Contractor shall, at all times, keep the site of the work and adjacent premises as free from material, debris and rubbish as is practicable and shall remove the same from any portion of the site if, in the opinion of the Engineer, such

material, debris, or rubbish constitutes a nuisance or is objectionable.

The Contractor shall remove from the site all of his surplus materials and temporary structures when no further need therefore develops.

B. Final Cleaning

At the conclusion of the work, all equipment, tools, temporary structures and materials belonging to the Contractor shall be promptly taken away, and he shall remove and promptly dispose of all water, dirt, rubbish or any other foreign substances.

The Contractor shall thoroughly clean all equipment and materials installed by him.

1.11 MISCELLANEOUS

A. Protection Against Siltation and Bank Erosion

1. The Contractor shall arrange his operations to minimize siltation and bank erosion on construction sites and on existing or proposed water courses and drainage ditches.
2. The Contractor, at his own expense, shall remove any siltation deposits and correct any erosion problems as directed by the Engineer which results from his construction operations.

B. Protection of Wetland Areas

The Contractor shall properly dispose of all surplus material, including soil, in accordance with Local, State and Federal regulations. Under no circumstances shall surplus material be disposed of in wetland areas as defined by the Florida Department of Environmental Protection or Southwest Florida Water Management District

C. Existing Facilities

The work shall be so conducted to maintain existing facilities in operation insofar as is possible. Requirements and schedules of operations for maintaining existing facilities in service during construction shall be as described in the Special Provisions.

D. Use of Chemicals

All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant, or of other classification, must show approval of either EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with instructions.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01010 SUMMARY OF WORK

PART 1 – GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS/REQUIREMENTS INCLUDED

- A. The completed Work will provide dredging of residential canals and waterways in Coral Shores Subdivision, Manatee County, Florida. The work shall include the mechanical and/or hydraulic removal of sediment; dewatering, drying, loading of dredge sediment into contractor provided sealed trucks and the transportation and disposal of the dredge sediment to Manatee County landfill, all erosion and turbidity control, final cleanup, and restoration of any disturbed area within the project.
- B. The Contractor shall furnish all surveying, working drawings, labor, materials, equipment, tools, services and incidentals necessary to complete all work required by these Specifications and as shown on the Contract Drawings.
- C. The Contractor shall perform the work complete, in place and ready for continuous service and shall include any repairs, replacements, and/or restoration required as a result of damages caused prior to acceptance by the Owner.
- D. The Contractor shall furnish and install all materials, equipment and labor which is reasonably and properly inferable and necessary for the proper completion of the work, whether specifically indicated in the Contract Documents or not.

1.02 CONTRACTS

Construct all the Work under a single contract.

1.03 WORK SEQUENCE

- A. The methods, means, sequences and techniques used for construction of the work are the sole responsibility of the Contractor. The intent of the Owner is to have construction of this project completed in an orderly manner which meets the following objectives:
 - 1. The Contractor shall develop a work plan that allows for systematic construction of the work while limiting impacts to adjacent residents and public at large. The Contractor's detailed work plan shall be presented to the Owner and the Engineer at the pre-construction conference for review and comment and must be approved by Manatee County.
 - 2. The sequence of work plan shall incorporate full restoration of access to public waterways and public boat ramps disturbed by dredge operations in an ongoing manner.
 - 3. It is the County's requirement that the Contractor develops a sequencing plan that will allow the period of construction for each finger canal not to exceed three months from commencement of dredge to final completion and beneficial use of each finger canal.
 - 4. The sequence of work plan shall include a process by which the contractor provides advanced notice to residents along each finger canal regarding the specific timing of work to be performed; construction activities that may impact access to private property, boating and the timing of short term interruption. The Contractor shall hand deliver a project information document to each area resident who may be impacted by the work. The Contractor shall provide a draft of the project notice document to the Owner for review and comment.
 - 5. The Contractor shall develop a specific sequence of work plan for construction and provide that plan to the owner for review and acceptance as a part of the pre-construction conference.

- B. The Contractor shall construct the work in stages, and to accommodate the adjacent canal's property owners access to the docking and mooring facilities during the construction period; and coordinate the construction schedule and operations with the Owner's Representative.
- C. The Contractor shall, construct the Work in stages to provide for public convenience and not close off public use of any boating/docking facility during dredging operations.

1.04 CONSTRUCTION AREAS

- A. The work of this project is to take place within the public waterways of Manatee County within the Coral Shores Subdivision. The Contractor shall: Limit his use of the dredging areas for work, to allow for:
 - 1. Public Use.
- B. Assume full responsibility for the protection and safekeeping of products under this Contract, stored on the site
- C. The Contractor shall be fully responsible for the security and safekeeping of all materials, equipment and appurtenances required for construction of the work. The Contractor shall not store materials, equipment or appurtenances on the job site except for those items which are under the direct supervision of the Contractor's staff and which are necessary to the work being performed on the specific day in question. Move any stored products under the Contractor's control, which interfere with operations of the Owner or adjacent residents.
- D. Obtain and pay for the use of additional storage of work areas needed for Contractor operations.

1.05 OWNER ACCEPTANCE

- A. It is assumed that portions of the Work will be completed prior to completion of the entire Work. Upon completion of dredge operation for each individual canal, if the Owner, at its sole discretion, desires to accept the individual canal, the Contractor will be issued a dated certificate of completion and acceptance for each individual canal. The Owner will assume ownership and begin beneficial use of the individual finger canal on that date. The Owner has the option of not accepting the entire work as a whole until it is completed, and approved by the Engineer and Owner.

1.06 PARTIAL OWNER ACCEPTANCE

The Contractor shall schedule his operations for completion of portions of the Work, as designated, for the Owner's acceptance prior to substantial completion of the entire work.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01012

MANATEE SAFETY MEASURES

PART 1 - GENERAL

1.01 DESCRIPTION

The work specified in this section consists of Manatee Safety Measures. The work shall include provisions is to educate personnel on water related activities for the presence of manatee(s) proper construction practices and temporary signage during dredging activities.

1.02 EXECUTION

- A. The Contractor shall instruct all personnel associated with the project of the potential presence of manatee(s) and the need to avoid collisions with manatees. All construction personnel are required for observing water-related activities for the presence of manatee(s).
- B. The Contractor shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees, which are protected under the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act of 1978. The Contractor may be held responsible for manatee (s) harmed, harassed, or killed as a result of construction activities.
- C. Contractor shall install siltation barriers that are made of material in which manatee (s) cannot become entangled, shall be properly secured, and shall be monitored regularly to avoid manatee(s) entrapment. Barriers shall not block manatee (s) entry to or exit from essential habitat.
- D. All Contractor vessels associated with the construction of the project shall operate a "no wake/idle" speed at all times while in water where the draft of the vessel provides less than four feet clearance from the bottom and that vessels shall follow routes of deep water whenever possible.
- E. If a manatee(s) is sighted within 100 yards of the project area, all appropriate precautions shall be implemented by the Contractor to ensure protection of the manatee (s). These precautions shall include the operation of all moving/equipment no closer than 50 feet of a manatee(s). Operation of any equipment closer than 50 feet to a manatee{s} shall necessitate immediate shutdown of that equipment. Activities will not resume until the manatee (s) has departed the project area of its own volition.
- F. Any collision with and/or injury to a manatee shall be reported immediately to the Manatee County Project Manager in writing and to the Manatee Hotline" at 1-888-404-FWCC (1-800-404-3922). Collision and/or injury should also be reported to the U. S. Fish and Wildlife Service in Jacksonville (1-904-232-2580) for north Florida or Vero Beach (1- 561-562-3909) in south Florida.
- G. Temporary signs concerning manatee (s) shall be posted prior to and during construction/dredging activities. All signs are to be removed by the Contractor upon completion of the project. A sign measuring at least 3 feet by 4 feet which reads Caution: Manatee Area will be posted in a location prominently visible to water related construction crews. A second sign should be posted if vessels are associated with the construction, and should be placed visible to the vessel operator. The second sign should be at least 8 inches by 11 inches, which reads:

"Caution: Manatee Habitat. Idle speed is required if operating a vessel in the construction area. All equipment must be shutdown if a manatee (5) comes within 50 feet of the operation. A collision with and/or injury to a manatee(s) shall be reported immediately to the Florida Marine Patrol at 1-888404-FWCC (1-800-404-3922) and the U.S. Fish and Wildlife Service at (1-904-232-2580) for north Florida or (1-561-562-3909) for south Florida."

- H. Verification (photos) that signs have been installed at designated locations shall be provided to Manatee County and to the FWS and the Corps before commencement of dredging operations. Signs and pilings remain the responsibility of the Contractor and are to be maintained for the life of the project in a manner acceptable to the Corps of Engineers.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

PART 1 - GENERAL**1.01 WORK PROGRESS**

The Contractor shall furnish personnel and equipment which will be efficient, appropriate and adequately sized to secure a satisfactory quality of work and a rate of progress which will insure the completion of the work within the time stipulated in the Contract. If at any time such personnel appears to the Engineer to be inefficient, inappropriate, or insufficient for securing the quality of work required for producing the rate of progress aforesaid, he may order the Contractor to increase the efficiency, change the character, or increase the personnel and equipment and the Contractor shall conform to such order. Failure of the Engineer to give such order shall in no way relieve the Contractor of his obligations to secure the quality of the work and rate of progress required.

1.02 PRIVATE LAND

The Contractor shall not enter or occupy private land, except by permission of the affected property owner.

1.03 WORK LOCATIONS

Work shall be located substantially as indicated on the drawings, but the Engineer reserves the right to make such modifications in locations as may be found desirable to avoid interference with existing structures or for other reasons.

1.04 CARE AND PROTECTION OF PROPERTY

- A. The Contractor shall be responsible for the preservation of all public and private property and shall use every precaution necessary to prevent damage thereto. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work on the part of the Contractor, such property shall be restored by the Contractor, at his expense, to a condition equal or better to that existing before the damage was done, or he shall make good the damage in another manner acceptable to the Engineer.
- B. Along the location of this work, all fences, walks, bushes, trees, shrubbery, docks, piling, moorings, ramps and other physical features shall be protected and restored in a thoroughly workmanlike manner unless otherwise shown on the drawings. Fences and other features removed by the Contractor shall be replaced in the location indicated by the Engineer as soon as conditions permit. All grass areas beyond the limits of construction which have been damaged by the Contractor shall be re-graded and sodded to equal or exceed original conditions.
- C. Trees close to the work which drawings do not specify to be removed shall be boxed or otherwise protected against injury. The Contractor shall trim all branches that are liable to damage because of his operations, but in no case shall any tree be cut or removed without prior notification to the Engineer. All injuries to bark, trunk, limbs and roots of trees shall be repaired by dressing, cutting and painting according to approved methods, using only approved tools and materials.
- D. The protection, removal and replacement of existing physical features along the line of work shall be a part of the work under the Contract and all costs in connection therewith shall be included in the unit and/or lump sum prices established under the bid items.

1.05 MAINTENANCE OF TRAFFIC

Obstructions due to construction that will prevent the normal flow of boat traffic during an extended construction stoppage, for any reason, shall be minimized. In the event an extended construction stoppage is found to be necessary, Contractor shall, at his own expense, provide normal boat traffic flow during extended construction stoppage. Extended stoppage will be defined by the Engineer.

1.06 CLEAN UP

During the course of the work, the Contractor shall keep the site of his operations in as clean and neat a condition as is possible. He shall dispose of all residues resulting from the construction work and at the conclusion of the work, and shall remove and haul away any surplus dredge, broken pavement, lumber, equipment, temporary structures and any other refuse remaining from the construction operations and shall leave the entire site of the work in a neat and orderly condition.

1.07 COOPERATION WITHIN THIS CONTRACT

All firms or persons authorized to perform any work under this Contract shall cooperate with the General Contractor and his subcontractors or trades and shall assist in incorporating the work of other trades where necessary or required.

1.08 PROTECTION OF CONSTRUCTION AND EQUIPMENT

All structures shall be protected in a manner approved by the Engineer. Should any or parts of the structures become heaved, cracked, or otherwise damaged, all such damaged portions of the work shall be completely repaired and made good by the Contractor, at his own expense and to the satisfaction of the Engineer. If, in the final inspection of the work, any defects, faults, or omissions are found, the Contractor shall cause the same to be repaired or removed and replaced by proper materials and workmanship without extra compensation for the materials and labor required. Further, the Contractor shall be fully responsible for the satisfactory maintenance and repair of the construction and other work undertaken herein, for at least the warranty period described in the Contract.

PART 2 PRODUCTION (NOT USED)

PART 3 EXEUTION (NOT USED)

END OF SECTION

PART 1 - GENERAL**1.01 PERMITS**

Upon notice of award, the Contractor shall immediately apply for all applicable permits not previously obtained by the Owner to do the work from the appropriate governmental agency or agencies. No work shall commence until all applicable permits have been obtained and copies delivered to the Engineer. The costs for obtaining all permits shall be borne by the Contractor.

1.02 SUSPENSION OF WORK DUE TO WEATHER

Refer to FOOT Standards and Specifications Book, Section 8.

1.06 HURRICANE PREPAREDNESS PLAN

- A. Within 30 days of the date of Notice to Proceed, the Contractor shall submit to the Engineer and Owner a Hurricane Preparedness Plan. The plan should outline the necessary measures which the Contractor proposes to perform at no additional cost to the Owner in case of a hurricane warning.
- B. In the event of inclement weather, or whenever Engineer shall direct, Contractor shall insure that he and his Subcontractors shall carefully protect work and materials against damage or injury from the weather. If, in the opinion of the Engineer, any portion of work or materials is damaged due to the failure on the part of the Contractor or Subcontractors to protect the work, such work and materials shall be removed and replaced at the expense of the Contractor.

1.07 POWER SUPPLY

Electricity as may be required for construction and permanent power supply shall be secured and purchased by the Contractor.

1.08 ADDITIONAL PROVISIONS

- A. Before commencing work, the Contractor shall notify the Engineer in writing, at least 10 calendar days in advance of the date he proposes to commence such work.
- B. The Contractor shall provide, at his own expense, all necessary temporary facilities for access to and for protection of, all existing facilities. The Owner's personnel must have ready access at all times to the existing facilities. The Contractor is responsible for all damage to existing structures, equipment and facilities caused by his construction operations and must repair all such damage when and as ordered by the Engineer.

1.09 CONSTRUCTION CONDITIONS

The Contractor shall strictly adhere to the specific requirements of the governmental unit (s) and/or agency (ies) having jurisdiction over the work. Wherever there is a difference in the requirements of a jurisdictional body and these Specifications, the more stringent shall apply.

1.10 PUBLIC NUISANCE

- A. The contractor shall not create a public nuisance including but not limited to encroachment on adjacent lands, flooding of adjacent lands, *excessive* noise or dust.
- B. Sound levels must meet Manatee County Ordinance #87-34, (which amends Ordinance 81-3, The Manatee County Noise Control Ordinance). Sound levels in excess of such ordinance are sufficient cause to have the work halted until equipment can be quieted to these levels. Work stoppage by the Engineer or County for excessive noise shall not relieve the Contractor of the other portions of this specification including, but not limited to contract time and contract price.
- C. No extra charge may be made for time lost due to work stoppage resulting from the creation of a public nuisance.

1.11 FUEL STORAGE & FILLING

- A. If the contractor is storing fuel on site, or doing his own fuel filling of portable equipment (other than hand-held equipment) he is responsible for any required response, clean-up or reporting required, at no additional cost to the county.
- B. The Contractor shall prepare and submit a fuel storage / spill abatement plan prior to start of construction if required.

PART 2 PRODUCTION (NOT USED)
PART 3 EXEUTION (NOT USED)

END OF SECTION

PART 1 GENERAL**1.01 REQUIREMENTS INCLUDED**

- A. Contractor shall provide and pay for field surveying service required for the project.
- B. The Contractor shall furnish and set all necessary stakes to establish the lines and grades as shown on the Contract Drawings and layout each portion of the Work of the Contract.
 - 1. All survey work required in execution of Project
 - 2. All costs of construction layout shall be included in the unit and lump sum prices contained in the respective divisions of the Contract Bid Form.
 - 3. Civil, structural or other professional engineering services specified or required to execute Contractor's construction methods.

1.02 QUALIFICATIONS OF SURVEYOR AND ENGINEER

All construction staking shall be conducted by or under the supervision of a Florida Registered Professional Surveyor and Mapper. The Contractor shall be responsible for the layout of all such lines and grades, which will be subject to verification by the Engineer.

1.03 SURVEY REFERENCE POINTS

- A. Existing basic horizontal and vertical control points for the Project are designated on the Contract Drawings.
- B. Locate and protect all survey monumentation, property corners and project control points prior to starting work and preserve all permanent reference points during construction. All costs associated with the replacement of all survey monumentation, property corners and project control points shall be borne by the Contractor.

Make no changes or relocations without prior written notice to Engineer.

Report to Engineer when any reference point is lost or destroyed, or requires relocation' because of necessary changes in grades or locations.

Require surveyor to replace project control points which may be lost or destroyed. Establish replacements based on original survey control.

1.04 PROJECT SURVEY REQUIREMENTS

The Contractor shall establish temporary bench marks as needed, referenced to data established by survey control points.

- A. The Contractor shall prepare a pre-dredge survey (survey of existing conditions). The survey shall be prepared by a Florida registered land surveyor. The pre-dredge survey shall be based on the design baseline and bench mark(s) established for this project. The Contractor shall add the design dredge template and calculate dredge quantities for proposed dredge operations. Six (6) certified copies shall be provided to the County prior to beginning of dredge activities.
- B. The Contractor shall immediate notify the County of any discrepancies between the Permit Drawings and permitted dredge volumes and the existing conditions.
- C. The Contractor shall prepare post-dredge surveys for each finger canal, prepared by a Florida registered land surveyor. The Contractor shall add the dredge template to the post-

dredge surveys. Three (3) certified copies shall be provided to the County with each monthly pay request and six (6) certified copies shall be provided prior to project closeout.

- D. The Certified Surveys provided with each partial pay request shall show the area for which payment is requested. Contractor shall not remove any equipment from dredge area until such time as the partial pay request and post dredge survey for each finger canal have been approved by the Engineer.
- E. Each submitted survey shall have cross-sections every 100 feet, with cross-sectional elevations every 10 feet or every change in contour and include the dredge template on the cross-sections. The baseline of survey shall be based on the survey prepared for the County.
- F. Canal bottom elevations shall be obtained through use of conventional survey rod with a minimum 8-inch diameter rod stop/plate. **Digitally obtained depth information through use of electronic depth sounder will not be accepted.**
- G. The Contractor shall notify the County at least 24 hours in advance of the post dredge field survey for each individual finger canal.
- H. The County shall keep a weekly updated progress survey as the project progresses.
- I. It is intended that each canal will remain open to two-way boat traffic during the duration of construction within that canal.
- J. PVC stakes shall be placed at the limits of dredging visible at the surface every 100 feet and 10 foot off seawall or docks within each canal

1.05 PROJECT SURVEY REQUIREMENTS

Maintain a complete, accurate log of all control and survey work as it progresses.

The Contractor shall employ a Professional Engineer or Surveyor registered in the State of Florida to verify survey data and properly prepare record drawings per Section 01720.

1.05 SUBMITTALS

Submit certificate signed by the Professional Surveyor and Mapper certifying that elevations and locations of improvements are in conformance, or nonconformance, with Contract Documents. PART

PART 2 PRODUCTION (NOT USED)

PART 3 EXEUTION (NOT USED) END OF SECTION

PART 1 - GENERAL**1.01 DESCRIPTION OF WORK**

- A. Payment for the work to be completed under this project will be based upon the unit prices bid by the Contractor and shown in the Contractors Schedule of Quantities and Unit Price Bid Form provided with the Contractors bid.
- B. It is the intent of the Owner to make payment for construction associated with the Project using the Pay Items in the Proposal, and specify method of measurement and payment for all listed Pay Items. As may be noted below, incidental work which may be associated with a specific Pay Item is to be included in the cost proposed by the bidding contractor for that Pay Item. It is not the intent of the Owner to allow for additional compensation beyond those Pay Items included in the Schedule of Quantities and Unit Prices Bid Form submitted by the Contractor. It is therefore important that all Bidders fully acquaint themselves with all Plans, Specifications, County Standard Details, and other details pertaining to the Work.
- C. Work not shown or called out in either the Plans or the Specifications, but necessary in carrying out the intent of the Project or in the complete and proper execution of the Work, is required and shall be performed by the CONTRACTOR as though it were specifically delineated or described. No additional compensation will be considered for this associated and necessary Work.
- D. Damage caused by the construction activities to existing facilities including docks, boat ramps, piling, seawalls and all other infrastructure shall be the sole responsibility of the CONTRACTOR. No additional payment will be made for replacement or restoration of these components.

1.02 SUBMITTALS

- A. Informational:
 - 1. Schedule of Payment Forms: Submit on Manatee County Standard Forms PMD-1 (Application for Payment), PMD-2 (Pay Application Schedule), PMD-3 (Pay Application Schedule of Stored Materials) with Schedule of Quantities and Unit Prices bid documentation, for approval by the Owner.
 - 2. Monthly Progress Payments:
 - a. Submit request for monthly progress payment in accordance with the measurement and payment requirements of this section of the specifications, the general conditions, and the agreement for approval by the Owner.
 - b. Monthly applications for payment shall be provided to the Owner showing work completed through and including the 25th of the pay month in question.
 - 3. Final Application for Payment.
 - a. Submit request for final payment upon completion of all work required by the contract including dredging, hauling, restoration, as-built drawings and maintenance documentation, complete. A final application for payment will not be reviewed by the Owner until all work under the contract is complete. Utilize Manatee County Standard Forms PMD-8 (Certificate of Substantial Completion) and PMD-9 (Final Reconciliation, Warranty Period declaration and Contractor's Affidavit) as a part of the final payment application process.

1.03 APPLICATION FOR PAYMENT

- A. Transmittal Summary Form: Attach one Summary Form with each detailed Application for Payment. Execute certification by authorized officer of Contractor.
- B. Use detailed Application for Payment Form as approved by the Owner.
- C. Preparation:
 - 1. Calculate payment using measured lump sum quantities and unit price bid values to reach pay item based upon that work actually constructed or furnished to the nearest cent.
 - 2. List each Change Order and Written Amendment executed prior to date of submission as separate line item. Totals to equal those shown on the Transmittal Summary Form for each schedule as applicable.
 - 3. Submit Application for Payment, including a Transmittal Summary Form and detailed Application for Payment Form(s).

1.04 MEASUREMENT - GENERAL

- A. Materials that are specified for measurement by the cubic yard measured in the vehicle shall be hauled in vehicles of such type and size that actual contents may be readily and accurately determined. Unless all vehicles are of uniform capacity, each vehicle must bear a plainly legible identification mark indicating its water level capacity. Vehicles shall be loaded to at least their water level capacity. Loads hauled in vehicles not meeting above requirements or loads of a quantity less than the capacity of the vehicle, measured after being leveled off as above provided, will be subject to rejection, and no compensation will be allowed for such material.
- B. Quantities to be paid will be based on field measurements made by the Contractor and verified by the Owner. If field surveys are required to verify field measurements, they shall be at the cost of the Contractor.

1.03 ESTIMATED QUATITIES

The quantities shown are approximate and are given only as a basis of calculation upon which the award of the Contract is to be made. The Owner/Engineer does not assume any responsibility for the final quantities, nor shall the Contractor claim misunderstanding because of such estimate of quantities. Final payment will be made only for satisfactorily completed quantity of each item.

1.04 WORK OUTSIDE AUTHORIZED LIMITS

- A. No payment will be made for work constructed outside of authorized limits of the work.

1.05 AREA MEASUREMENTS

In the measurement of items to be paid for on the basis of area of finished work, the lengths and/or widths to be used in the calculations shall be the final dimensions measured along the surface of the completed work within the neat lines shown or designated.

1.06 MEASUREMENTS AND PAYMENT

A. GENERAL

1. The Contractor shall receive and accept the compensation provided in his Proposal and defined in the Agreement as full payment for furnishing all materials and all labor, tools and equipment, for performing all operations necessary to complete the work under the project. It is the intent of these contract documents that any cost for which compensation is not directly provided by a bid item shall be prorated and included in the bid item for which they are required.
2. The prices stated *in* the Contractors Schedule of Quantities and Unit Prices Bid Form includes all costs and expenses for taxes, labor, materials, equipment, commissions, transportation charges and expenses, patent fees and royalties, labor for handling material during inspection together with any and all other costs and expenses for performing and completing the work as shown on the plans and specified herein. The basis of payment for any item at the unit price shown in the bid form shall be in accordance with the description of that item in this Section. All work performed shall be in strict accordance with these specifications.
3. No separate payment will be made for the following items; the cost of such work shall be included in the applicable contract pay items of work. including compliance with requirements of FDEP or any other agency:
 - a. Shop drawings, working drawings or other contractor documentation.
 - b. Clearing and grubbing, including removal of sidewalks, driveways, curbs, curb and gutter, pavement and pavement base.
 - c. Excavation, including shoring, sheeting and bracing as required by OSHA trench excavation safety standards.
 - d. Dewatering and proper disposal of all water.
 - e. Backfill and proper compaction, including suitable fill and all grading.
 - f. Traffic and pedestrian control as required to complete the work and described in Section 01570.
 - g. Protection, repair, replacement or relocation of existing utilities, including services laterals, not designated in the Contract Documents for relocation.
 - h. Replacement or restoration of paved or unpaved roadways, grass and shrubbery plots outside of established pay limits.
 - i. Or specifically provided for in a pay item.
 - j. Removing and disposing of waste material due to construction, including but not limited to valve boxes and hydrants that need to be removed from abandoned water mains.
 - k. Cleanup and restoring the job site to its original condition, which includes but is not necessarily limited to restoring the ground surface to its original grade.
 - l. Any material and equipment required to be installed and used for the tests.
 - m. Coordination with all Federal, State and Local agencies and utilities.
 - n. Tree trimming as required by Manatee County or any other agency.
 - o. Furnishing and installing suitable temporary fences, as directed by the Owner, to adequately secure areas protected by a permanent fence when that permanent fence must be removed. The temporary fence shall remain in place until the permanent fence is replaced.
 - p. Maintaining red-line drawings of changes to construction plans, to be submitted to the Owner.

- B. The Contractor's attention is again called to the fact that the quotations for the various items of work are intended to establish a total price for completing the work in its entirety. Should the Contractor feel that the cost for any item of work has not been established by the Proposal or Contract Pay Items, he shall include the cost for that work in some other applicable bid item, so that his proposal for the project does reflect his total price for completing the work in its entirety.
- C. The quantities for payment under this Agreement shall be determined by actual measurement of the completed items, in place, ready for service and accepted by the Owner, in accordance with the applicable method of measurement, thereof. A representative of the Contractor shall witness all field measurements. Measurements shall be accomplished to the following accuracy unless otherwise specified:

Item	Measurement Accuracy	Method of Measurement
CY	CY	Cubic Yard-Field Measure by Owner within limits specified or shown
EA	Each	Each-Field Count by Owner
LF	Foot	Linear-Foot-Field Measure by Owner
LS	One	Lump Sum-Unit is one; no measurement will be made
SF	Square Foot	Square Foot
SY	Square Yard	Square Yard
TO	0.1 Ton	Ton-Weight Measure by Scale (2,000 pounds)

- D. All work shall be in accordance with the Technical Specifications and Standard Details herein. All materials shall be in accordance with the Material Specifications herein. All materials shall be furnished by the Contractor.

1.07 BID ITEM DESCRIPTIONS

The following bid items establish a breakdown of the work to be performed under this project. The bid item description; method of measurement and basis for payment are listed below for each of the bid items that are a part of this project:

A. Bid Item 1: MOBILIZATION-DEMobilIZATION.

1. Description: The Contractor shall furnish all labor, materials, equipment and services to perform those operations necessary for the movement of personnel, equipment, supplies and incidentals to and from the project site. Also include the costs of bonds, maintenance of boat traffic and other pre-construction and post-construction expenses necessary for the start and conclusion of the Work under this Contract Item. The cost of all other work as shown, specified, directed or required for the expressed intent of the project that is not specifically included under other Contract Items shall also be included under this Contract Item. The value of Bid Item 1 shall not exceed 10% of the total value of the project.

2. Measurement and Payment for Mobilization/Demobilization: Shall be made at the Contract Lump Sum Bid Price in accordance with the following schedule:

Table No.1

Percent of Original Amount Earned	Allowable Percent of the Lump Sum price for Mobilization/Demobilization
5	25
10	30
25	40
50	60
75	80
100	100

B. Bid Item 2: Erosion and Sedimentation Control

1. Description: Under this contract Pay Item, the Contractor shall furnish all labor, equipment and materials required measurements to control erosion on the project and in areas outside the project area where work is accomplished in conjunction with the project, so as to prevent pollution of water, detrimental effects of public or private property adjacent to the project area and damage to work on the project. These measures will consist of construction and maintenance of temporary erosion control features or, where practical, the construction and maintenance of permanent erosion control features.
2. Measurement and Payment for Erosion and Sedimentation Control: Shall be made at the Contract Lump Sum Bid Price.

C. Bid Item 3: Manatee Safety Measures

1. Description: Under this contract Pay item, the Contractor shall furnish all labor, equipment and materials for Manatee safety measures. The work shall include provisions to educate personnel on water related activities for the presence of manatee (s), proper construction practices and temporary signage during dredging activities.
2. Measurement and Payment for Manatee Safety Measures: Shall be made at the Contract Lump Sum Bid Price

D. Bid Item 4: Dredging

1. Description: Under this contract Pay Item, the Contractor shall furnish all labor, equipment and materials to mechanically and / or hydraulically dredge sediment to a pre-determined depth and width as indicated on the plans, dewatering, loading, transport and disposal of dredge sediment to the Manatee County Landfill and turbidity installation of sediment barriers or devices to control turbidity and monitoring.
2. Measurement and Payment for Dredging: Shall be made at the unit price bid per

cubic yard of dredge, measured and accepted.

E. Bid Item 5: Surveying

1. Description: Under this contract Pay Item, the Contractor shall furnish all labor, equipment and materials to perform surveying prior, during, and after dredging operations within the canals of Coral Shores Subdivision, Manatee County. The work shall include required pre and post dredge surveys, construction layout survey, monumentation and final record survey.
2. Measurement and Payment for Survey: Shall be made at the Contract Lump Sum Bid Price.

PART 2	PRODUCTION (NOT USED)
PART 3	EXEUTION (NOT USED)

END OF SECTION

SECTION 01152 REQUESTS FOR PAYMENT

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

Submit Applications for Payment to the Project Manager or as directed at the preconstruction meeting, in accordance with the schedule established by Conditions of the Contract and Agreement between Owner and Contractor.

1.02 FORMAT AND DATA REQUIRED

- A. Submit payment requests in the form provided by the Owner with itemized data typed in accordance with the Bid Form.
- B. Provide construction photographs in accordance with Contract Documents.

1.03 SUBSTANTIATING DTA FOR PROGRESS PAYMENTS

- A. When the Owner or the Engineer requires substantiating data, Contractor shall submit suitable information with a cover letter.
- B. Submit one copy of data and cover letter for each copy of application.

1.04 PREPARATION OF APPLICATION FOR FINAL PAYMENT

Fill in application form as specified for progress payments.

1.05 SUBMITTAL PROCEDURE

- A. Submit applications for payment at the times stipulated in the Agreement.
- B. Number: Three (3) copies of each application; all signed and certified by the Contractor.

PART 2 PRODUCTION (NOT USED)
PART 3 EXEUTION (NOT USED)

END OF SECTION

SECTION 01153

CHANGE ORDER PROCEDURES

PART 1 - GENERAL

1.01 DEFINITION

- A. Change Order: Major change in contract scope or time that must be approved by the Board.
- B. Administrative Change Adjustment Minor change order under 10% of project cost or 20% time does not have to be Board approved.
- C. Field Directive Change: Change to contract quantity that does not require a change of scope or time extension.

1.02 REQUIREMENTS INCLUDED

- A. The Contractor shall promptly implement change order procedures:
 - 1. Provide full written data required to evaluate changes.
 - 2. Maintain detailed records of work done on a time-and-material/force account basis.
 - 3. Provide full documentation to Engineer on request.
- B. The Contractor shall designate a member of the Contractor's organization who:
 - 1. Is authorized to accept changes to the Work.
 - 2. Is responsible for informing others in the Contractor's employ of the authorized changes into the Work.
- C. The Board of County Commissioners executes all Change Orders.

1.03 PRELIMINARY PROCEDURES

- A. Project Manager may initiate changes by submitting a Request to Contractor. Request will include:
 - 1. Detailed description of the change, products, costs and location of the change in the project.
 - 2. Supplementary or revised Drawings and Specifications.
 - 3. The projected time extension for making the change.
 - 4. A specified period of time during which the requested price will be considered valid.
 - 5. Such request is for information only and is not an instruction to execute the changes, or to stop work in progress.
- B. Contractor may initiate changes by submitting a written notice to the Project Manager, containing:
 - 1. Description of the proposed changes.
 - 2. Statement of the reason for making the changes.
 - 3. Statement of the effect on the Contract Sum and the Contract Time.
 - 4. Statement of the effect on the work of separate contractors.

5. Documentation supporting any change in Contract Sum or Contract Time, as appropriate.

1.04 FIELD DIRECTIVE CHANGE

- A. In lieu of a Change Order, the Project Manager may issue a Field Directive change for the Contractor to proceed with additional work within the original intent of the Project.
- B. Field Directive change will describe changes in the work, with attachments of backup information to define details of the change.
- C. Contractor must sign and date the Field Directive change to indicate agreement with the terms therein.

1.05 DOCUMENTATION OF PROPOSALS AND CLAIMS

- A. Support each quotation for a lump sum proposal and for each unit price which has not previously been established, with sufficient substantiating data to allow the Engineer/Owner to evaluate the quotation
- B. On request, provide additional data to support time and cost computations:
 1. Labor required.
 2. Equipment required.
 3. Products required.
 - a. Recommended source of purchase and unit cost.
 - b. Quantities required.
 4. Taxes, insurance and bonds.
 5. Credit for work deleted from Contract, similarly documented.
 6. Overhead and profit.
 7. Justification for any change in Contract Time
- C. Support each claim for additional costs and for work done on a time-and-material/force account basis, with documentation as required for a lump-sum proposal, plus additional information.
 1. Name of the Owner's authorized agent who ordered the work and date of the order.
 2. Date and time work was performed and by whom.
 3. Time record, summary of hours work and hourly rates paid.
 4. Receipts and invoices for:
 - a. Equipment used, listing dates and time of use.
 - b. Products used, listing of quantities.
 - c. Subcontracts.

1.06 PREPARATION OF CHANGE ORDERS

- A. Manager will prepare each Change Order.
- B. Change Order will describe changes in the Work, both additions and deletions, with attachments as necessary to define details of the change.
- C. Change Order will provide an accounting of the adjustment in the Contract Sum and in the Contract Time.

1.07 LUMP SUM/FIXED PRICE CHANGE ORDER

- A. Project Manager initiates the form, including a description of the changes involved and attachments based upon documents and proposals submitted by the Contractor, or requests from the Owner, or both.
- B. Once the form has been completed, all copies should be sent to Contractor for approval.. After approval by Contractor, all copies should be sent to Owner for approval. The Owner will distribute executed copies after approval by the Board of County Commissioners.

1.08 UNIT PRICE CHANGE ORDER

- A. Contents of Change Orders will be based on, either:
 - 1. Owner's definition of the scope of the required changes.
 - 2. Contractor's Proposal for a change, as approved by the Owner.
 - 3. Survey of completed work.
- B. The amounts of the unit prices to be:
 - 1. Those stated in the Agreement.
 - 2. Those mutually agreed upon between Owner and Contractor.

1.09 TIME AND MATERIAL/FORCE ACCOUNT CHANGE ORDER/CONSTRUCTION CHANGE AUTHORIZATION

- A. At completion of the change, Contractor shall submit itemized accounting and supporting data as provided in the Article "Documentation of Proposals and Claims" of this Section.
- B. Engineer will determine the allowable cost of such work, as provided in General Conditions and Supplementary Conditions.
- C. Engineer will sign and date the Change Order to establish the change in Contract Sum and in Contract Time.
- D. Owner and Contractor will sign and date the Change Order to indicate their agreement therewith.

1.10 CORRELATION WITH CONTRACTOR'S SUBMITTALS

- A. Periodically revise Schedule of Values and Application for Payment forms to record each change as a separate item of work] and to record the adjusted Contract Sum.
- B. Periodically revise the Construction Schedule to reflect each change in Contract Time. Revise sub schedules to show changes for other items of work affected by the changes.
- C. Upon completion of work under a Change Order, enter pertinent changes in Record Documents.

END OF SECTION

SECTION 01200

PROJECT MEETINGS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Owner or Engineer shall schedule the pre-construction meeting, periodic progress meetings and special meetings, if required, throughout progress of work.
- B. Representatives of contractors, subcontractors and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.
- C. The Contractor shall attend meetings to ascertain that work is expedited consistent with Contract Documents and construction schedules.

1.02 PRE-CONSTRUCTION MEETING

- A. Attendance:
 - 1. Owner's Engineer.
 - 2. Owner's Project Manager
 - 3. Contractor.
 - 4. Resident Project Representative.
 - 5. Related Labor Contractor's Superintendent.
 - 6. Major Subcontractors.
 - 7. Major Suppliers.
 - 8. Others as appropriate.
- B. Suggested Agenda:
 - 1. Distribution and discussion of:
 - a. List of major subcontractors.
 - b. Projected Construction Schedules.
 - c. Coordination of Utilities
 - 2. Critical work sequencing.
 - 3. Project Coordination.
 - a. Designation of responsible personnel.
 - b. Emergency contact persons with phone numbers.
 - 4. Procedures and processing of:
 - a. Field decisions.
 - b. Submittals.
 - c. Change Orders.
 - d. Applications for Payment.
 - 5. Procedures for maintaining Record Documents.
 - 6. Use of premises:
 - a. Office, work and storage areas.
 - b. Owner's REQUIREMENTS.
 - 7. Temporary utilities.
 - 8. Housekeeping procedures.
 - 9. Liquidated damages.
 - 10. Equal Opportunity Requirements.
 - 11. Laboratory testing.
 - 12. Project / Job meetings: Progress meeting, other special topics as needed.

PART 2 PRODUCTION (NOT USED)

PART 3 EXEUTION (NOT USED)

END OF SECTION

PART 1 - GENERAL**1.01 GENERAL**

Construction under this contract must be coordinated with the Owner and accomplished in a logical order to maintain utilization and flow through existing facilities and public properties and rights-of-way and to allow construction to be completed within the time allowed by Contract Documents and in the manner set forth in the Contract.

1.02 CONSTRUCTION SCHEDULING GENERAL PROVISIONS

- A. No work shall be done between 7:00 p.m. and 7:00 a.m. or on weekends or legal holidays without written permission of the Owner. However, emergency work may be done without prior permission.
- B. Existing docks and boat ramp facilities shall remain in operation during the life of the project. Due to potential health hazards and requirements of the State of Florida and the U.S. Environmental Protection Agency, existing facilities must be maintained in operation.
- D. The Contractor shall be fully responsible for providing all temporary, electrical hook-ups, lighting, temporary structure, or other materials, equipment and systems required to maintain the existing facilities operational.
- E. The Contractor shall designate an authorized representative of his firm who shall be responsible for development and maintenance of the schedule and of progress and payment reports. This representative of the Contractor shall have direct project control and complete authority to act on behalf of the Contractor in fulfilling the commitments of the Contractor's schedule.

1.03 PROGRESS OF THE WORK

The work shall be executed with such progress as may be required to prevent any delay to the general completion of the work. The work shall be executed at such times and in or on such parts of the project and with such forces, materials and equipment to assure completion of the work in the time established by the Contract and in the manner set forth in the Contract.

PART 2 PRODUCTS**2.01 GENERAL REQUIREMENTS**

- A. The Contractor shall submit a critical path schedule as described herein.
- B. The planning, scheduling, management and execution of the work are the sole responsibility of the Contractor. The progress schedule requirement is established to allow Engineer to review Contractor's planning, scheduling, management and execution of the work; to assist Engineer in evaluating work progress and make progress payments and to allow other contractors to cooperate and coordinate their activities with those of the Contractor.

C. The County allows work on one individual finger canal at a time. The contractor shall not begin work on second finger canal until such time that the post-dredge survey for the first canal has been approved by the County. The contractor's planning and schedule shall reflect this requirement.

2.02 FORM OF SCHEDULES

- A. Prepare schedules using the latest version of Microsoft Project, or other Owner approved software, in the form of a horizontal bar chart diagram. The diagram shall be time-scaled and sequenced by work areas. Horizontal time scale shall identify the first work day of each week.
- B. Activities shall be at least as detailed as the Schedule of Values. Activity durations shall be in whole working days. In addition, man-days shall be shown for each activity or tabulated in an accompanying report.
- C. Diagrams shall be neat and legible and submitted on sheets at least 8-1/2 inches by 11 inches suitable for reproduction. Scale and spacing shall allow space for notations and future revisions.

2.03 CONTENT OF SCHEDULES

- A. Each monthly schedule shall be based on data as of the last day of the current pay period.
- B. Description for each activity shall be brief, but convey the scope of work described.
- C. Activities shall identify all items of work that must be accomplished to achieve substantial completion, such as items pertaining to Contractor's installation and testing activities; items pertaining to the approval of regulatory agencies; contractor's time required for submittals, fabrication and deliveries; the time required by Engineer to review all submittals as set forth in the Contract Documents; items of work required of Owner to support pre-operational, startup and final testing; time required for the relocation of utilities. Activities shall also identify interface milestones with the work of other contractors performing work under separate contracts with Owner.
- D. Schedules shall show the complete sequence of construction by activities. Dates for beginning and completion of each activity shall be indicated as well as projected percentage of completion for each activity as of the first day of each month.
- E. Submittal schedule for shop drawing review, product data, and samples shall show the date of Contractor submittal and the date approved submittals will be required by the Engineer, consistent with the time frames established in the Specifications.
- F. For Contract change orders granting time extensions, the impact on the Contract date(s) shall equal the calendar-day total time extension specified for the applicable work in the Contract change orders.
- G. For actual delays, add activities prior to each delayed activity on the appropriate critical path(s). Data on the added activities of this type shall portray all steps leading to the delay and shall further include the following: separate activity identification, activity description indicating cause of the delay, activity duration consistent with whichever set of dates below applies, the actual start and finish dates of the delay or, if the delay is not finished, the actual start date and estimated completion date.
- H. For potential delays, add an activity prior to each potentially delayed activity on the appropriate critical path(s). Data for added activities of this type shall include alternatives available to mitigate the delay including acceleration alternatives and further show the following: separate activity identification, activity description indicating cause of the potential delay and activity duration equal to zero work days.

2.04 SUPPORTING NARRATIVE

- A. Status and scheduling reports identified below shall contain a narrative to document the project status, to explain the basis of Contractor's determination of durations, describe the Contract conditions and restraints incorporated into the schedule and provide an analysis pertaining to potential problems and practical steps to mitigate them.
- B. The narrative shall specifically include:
 - 1. Actual completion dates for activities completed during the monthly report period and actual start dates for activities commenced during the monthly report period.
 - 2. Anticipated start dates for activities scheduled to commence during the following monthly report period.
 - 3. Changes in the duration of any activity and minor logic changes.
 - 4. The progress along the critical path in terms of days ahead or behind the Contract date.
 - 5. If the Monthly Status Report indicates an avoidable delay to the Contract completion date or interim completion dates as specified in the Agreement, Contractor shall identify the problem, cause and the activities affected and provide an explanation of the proposed corrective action to meet the milestone dates involved or to mitigate further delays.
 - 6. If the delay is thought to be unavoidable, the Contractor shall identify the problem, cause, duration, specific activities affected and restraints of each activity.
 - 7. The narrative shall also discuss all change order activities whether included or not in the revised/current schedule of legal status. Newly introduced change order work activities and the CPM path(s) that they affect, must be specifically identified. All change order work activities added to the schedule shall conform to the sequencing and Contract Time requirements of the applicable Change Order.
 - 8. Original Contract date(s) shall not be changed except by Contract change order. A revision need not be submitted when the foregoing situations arise unless required by Engineer. Review of a report containing added activities will not be construed to be concurrence with the duration or restraints for such added activities; instead the corresponding data as ultimately incorporated into the applicable Contract change order shall govern.
 - 9. Should Engineer require additional data, this information shall be supplied by Contractor within 10 calendar days.

2.05 SUBMITTALS

- A. Contractor shall submit estimated and preliminary progress schedules (as identified in the Terms and Conditions of the Contract and the General Conditions), monthly status reports, a start-up schedule and an as-built schedule report all as specified herein.
- B. All schedules, including estimated and preliminary schedules, shall be in conformance with the Contract Documents.
- C. The finalized progress schedule discussed in the Contract Documents shall be the first monthly status report and as such shall be in conformance with all applicable specifications contained herein.
- D. Monthly Status Report submittals shall include three copies of a time-scaled (days after notice to proceed) diagram showing all contract activities and supporting narrative. The

initial detailed schedule shall use the notice to proceed as the start date. The finalized schedule, if approved by Owner, shall be the work plan to be used by the contractor for planning, scheduling, managing and executing the work.

- E. The schedule diagram shall be formatted as above. The diagram shall include (1) all detailed activities included in the preliminary and estimated schedule submittals, (2) calendar days prior to substantial completion, (3) summary activities for the remaining days. The critical path activities shall be identified, including critical paths for interim dates, if possible.
- F. The Contractor shall submit monthly progress schedules with each month's application for payment.
- G. Contractor shall submit three monthly status reports which will be retained by the Owner and Engineer.

2.06 MONTHLY STATUS REPORTS

- A. Contractor shall submit three copies of detailed schedule status reports on a monthly basis with the Application for Payment. The first such status report shall be submitted with the first Application for Payment and include data as of the last day of the pay period. The Monthly Report shall include a "marked-up" copy of the latest detailed schedule of legal status and a supporting narrative including updated information as described above. The Monthly Report will be reviewed by Engineer and Contractor at a monthly schedule meeting and Contractor will address Engineer's comments on the subsequent monthly report. Monthly status reports shall be the basis for evaluating Contractor's progress.
- B. The "marked-up" diagram shall show, for the latest detailed schedule of legal status, percentages of completion for all activities, actual start and finish dates and remaining durations, as appropriate. Activities not previously included in the latest detailed schedule of legal status shall be added, except that contractual dates will not be changed except by change order. Review of a marked-up diagram by Engineer will not be construed to constitute concurrence with the time frames, duration, or sequencing for such added activities; instead the corresponding data as ultimately incorporated into an appropriate change order shall govern.

2.07 REVISIONS

- A. All revised Schedule Submittals shall be made in the same form and detail as the initial submittal and shall be accompanied by an explanation of the reasons for such revisions, all of which shall be subject to review by Engineer and concurrence by Owner. The revision shall incorporate all previously made changes to reflect current as-built conditions. Minor changes to the approved submittal may be approved at monthly meetings; a minor change is not considered a revision in the context of this paragraph.
- B. A revised schedule submittal shall be submitted for review when required by Engineer.

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01370

SCHEDULE OF VALUES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall submit to the Engineer a Schedule of Values, using Manatee County Standard Payment forms, allocated to the various portions of the work, within 10 days after date of Notice to Proceed.
- B. The schedule of values breakdown shall reflect the unit prices for each bid items bid by the Contractor and accepted by the Owner for performance of the various unit price work items under the project. The contractor shall utilize Manatee County Project Management Forms PDM-1, PDM-2 and PDM-3 in preparing application for payment and schedule of values documentation for the project.
- C. The Schedule of Values shall be used only as the basis for the Contractor's Applications for Payment.

1.02 FORM AND CONTENT OF SCHEDULE OF VALUES

- A. Schedule of Values will be considered for approval by Engineer upon Contractor's request. Identify schedule with:
 - 1. Title of Project and location.
 - 2. Project number.
 - 3. Name and address of Contractor.
 - 4. Contract designation.
 - 5. Date of submission
- B. Schedule of Values shall list installed value of the component parts of the work in sufficient detail to serve as a basis for computing values for progress payments during construction.
- C. Follow the bid sheets included in this Contract Documents as the format for listing component items for unit price bid items.
- D. The sum of all values listed in the schedule shall equal the total Contract sum.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01380

CONSTRUCTION PHOTOGRAPHS

PART 1 - GENERAL

1.01 REQUIREMENTS NCLUDED

- A. The Contractor shall employ a competent photographer to take construction record photographs or perform video, recording including furnishing a/l labor, materials, equipment and incidentals necessary to obtain photographs and/or video recordings of all construction areas.
- B. Preconstruction record information shall consist of video recordings on digital video disks (DVD).
- C. Construction progress information shall consist of photographs and digital photographs on a recordable compact disc (CD-R).

1.02 QUALIFICATIONS

- A. All photography shall be done by a competent camera operator who is fully experienced and qualified with the specified equipment.
- B. For the video recording, the audio portion should be done by a person qualified and knowledgeable in the specifics of the Contract, who shall speak with clarity and diction so as to be easily understood.

1.03 PROJECT PHOTOGRAPHS

- A. Provide two prints of each photograph with each pay application.
- B. Provide one recordable compact disc with digital photographs with each pay application.
- C. Negatives:
 - 1. All negatives shall remain the property of photographer.
 - 2. The Contractor shall require that photographer maintain negatives or protected digital files for a period of two years from date of substantial completion of the project.
 - 3. Photographer shall agree to furnish additional prints to Owner and Engineer at commercial rates applicable at time of purchase. Photographer shall also agree to participate as required in any litigation requiring the photographer as an expert witness.
- D. The Contractor shall pay all costs associated with the required photography and prints. Any parties requiring additional photography or prints shall pay the photographer directly.
- E. All project photographs shall be a single weight, color image. All finishes shall be smooth surface and glossy and all prints shall be 8 inches x 10 inches.
- F. Each print shall have clearly marked on the back, the name of the project, the orientation of view, the date and time of exposure, name and address of the photographer and the photographers numbered identification of exposure.

- G. All project photographs shall be taken from locations to adequately illustrate conditions prior to construction, or conditions of construction and state of progress. The Contractor shall consult with the Engineer at each period of photography for instructions concerning views required.

1.04 VIDEO RECORDINGS

- A. Video, recording shall be done along all routes that are scheduled for construction. *Video*, recording shall include full, recording of both sides of all canals plus 10 feet on each side on which construction is to be performed. All video recording shall be in full color.
- B. A complete view, in sufficient detail with audio description of the exact location shall be provided.
- C. The engineering plans shall be used as a reference for stationing in the audio portion of the recordings for easy location identification.
- D. Two complete sets of video recordings shall be delivered to the Engineer on digital video disks (*DVD*) for the permanent and exclusive use of the Engineer prior to the start of any construction on the project.
- E. All video recordings shall contain the name of the project, the date and time of the video, recording, the name and address of the photographer and any other identifying information required.
- F. Construction shall not start until preconstruction video recordings are completed, submitted and accepted by the Engineer. In addition, no progress payments shall be made until the preconstruction video recordings are accepted by the Engineer.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01410

TESTING AND TESTING LABORATORY SERVICES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

Contractor shall employ and pay for the services of an independent testing laboratory to perform turbidity testing specifically indicated on the Contract Documents or called out in the Specifications or permits. Contractor shall cooperate fully with the laboratory to facilitate the execution of its required services.

1.02 LIMITATION OF AUTHORITY OF TESTING LABORATORY

Laboratory is not authorized to:

1. Release, revoke, alter or enlarge on requirements of Contract Documents.
2. Approve or accept any portion of the Work.
3. Perform any duties of the Contractor.

1.03 CONTRACTOR'S RESPONSIBILITIES

Employ and pay for the services of a qualified independent testing laboratory to perform, sampling and testing required.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01570

TRAFFIC AND PEDESTRIAN CONTROL

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall be responsible for providing safe and expeditious movement of boat traffic through construction zones. A construction zone is defined as the immediate areas of actual construction and all adjacent or staging areas which are used by the Contractor and which interfere with the boating activities.
- B. The Contractor shall remove temporary equipment and facilities when no longer required, restore grounds to original or to specified conditions.

1.02 TRAFFIC CONTROL

- A. The Contractor shall develop and implement a traffic and pedestrian control plan for the specific requirements of this project. The plan shall provide for the continuous safe passage of boats, pedestrians, access to public property, access by emergency vehicles and other traffic and pedestrian movements with the vicinity of the work site and temporary staging area.
- B. The necessary traffic control shall include, but not be limited to, such items as proper construction warning signs, signals, lighting devices, markings, barricades, channelization and hand signaling devices. The Contractor shall be responsible for installation and maintenance of all devices for the duration of the construction period. The Contractor shall utilize the appropriate traffic plan from the FDOT Maintenance of Traffic Standards, Series 600 of the FDOT Roadway & Traffic Design Standards, Latest Edition.
- C. The Contractor shall be responsible for removal, relocation, or replacement of any traffic control devices in the temporary staging area which exists as part of the normal traffic control scheme. Any such actions shall be performed by the Contractor under the supervision and in accordance with the instructions of the applicable highway department unless otherwise specified.
- D. The Engineer will consult with the Owner immediately on any vehicular or pedestrian safety or efficiency problem incurred as a result of construction of the project.
- E. The Contractor shall provide ready access to docks in the project area during dredging operations. The Contractor shall be responsible for coordinating this work with affected homeowners.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01580 PROJECT IDENTIFICATION AND SIGNS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Furnish, install and maintain County project identification signs.
- B. Remove signs on completion of construction.
- C. Allow no other signs to be displayed except for traffic control and safety

1.02 PROJECT IDENTIFICATION SIGN (COUNTY)

- A. Two (2) painted sign, of not less than 32 square feet (3 square meters) area, with painted graphic content to include:
 - 1. Title of Project.
 - 2. Name of Owner.
 - 3. Names and titles of authorities as directed by Owner.
 - 4. Prime Contractor.
- B. Graphic design, style of fettering and colors: As approved by the Engineer and subject to approval of the Owner.
- C. Erect each sign at a location as defined and approved by the Engineer and the Owner.

1.03 INFORMATIONAL SIGNS

- A. Painted signs with painted lettering, or standard products.
 - 1. Size of signs and lettering: as required by regulatory agencies, or as appropriate to usage.
 - 2. Colors: as required by regulatory agencies, otherwise of uniform colors throughout project.
- B. Erect at appropriate locations to provide required information.

1.04 QUALITY ASSURANCE

- A. Sign Painter: Professional experience in type of work required.
- B. Finishes, Painting: Adequate to resist weathering and fading for scheduled construction period.

PART 2 PRODUCTS

2.01 **SIGN MATERIALS**

- A. Structure and Framing: May be new or used, wood or metal, in sound condition structurally adequate to work and suitable for specified finish.
- B. Sign Surfaces: Exterior softwood plywood with medium density overlay, standard large sizes to minimize joints.
 - 1. Thickness: As required by standards to span framing members, to provide even, smooth surface without waves or buckles.
- C. Rough Hardware: Galvanized.
- D. Paint: Exterior quality, as specified in the Contract Documents.

PART 3 EXECUTION

3.01 **PROJECT IDENTIFICATION SIGN**

- A. Paint exposed surface or supports, framing and surface material; one coat of primer and one coat of exterior paint.
- B. Paint graphics in styles, size and colors selected.

3.02 **SIGN MAINTENANCE**

The Contractor shall maintain signs and supports in a neat, clean condition; repair damages to structures, framing or sign.

3.03 **SIGN REMOVAL**

The Contractor shall remove signs, framing, supports and foundations at completion of project.

END OF SECTION

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

Comply with requirements stated in Conditions of the Contract and in Specifications for administrative procedures in closing out the work.

1.02 SUBSTANTIAL COMPLETION

- A. The Contractor shall submit the following items when the Contractor considers the work to be substantially complete:
 - 1. A written notice that the work, or designated portion thereof, is substantially complete.
 - 2. A list of items to be completed or corrected.
- B. Within a reasonable time after receipt of such notice, the Engineer and Owner shall make an inspection to determine the status of completion.
- C. Project record documents must be submitted before the project shall be considered substantially complete.
- D. If the Engineer determines that the work is not substantially complete:
 - 1. The Engineer shall notify the Contractor in writing, stating the reasons.
 - 2. The Contractor shall remedy the deficiencies in the work and send a second written notice of substantial completion to the Engineer.
 - 3. The Engineer shall re-inspect the work.
- E. When the Engineer finds that the work is substantially complete:
 - 1. He shall prepare and deliver to the Owner a tentative Certificate of Substantial Completion (Manatee County Project Management Form PMD-8) with a tentative list of the items to be completed or corrected before final payment.
 - 2. The Engineer shall consider any objections made by the Owner as provided in Conditions of the Contract. When the Engineer considers the work substantially complete, he will execute and deliver to the Owner and the Contractor a definite Certificate of Substantial Completion (Manatee County Project Management Form PMD-8) with a revised tentative list of items to be completed or corrected.

1.03 FINAL INSPECTION

- A. Contractor considered the work to be completed, he shall submit written certification stating that:
 - 1. The Contract Documents have been reviewed.
 - 2. The work has been inspected for compliance with Contract Documents.
 - 3. The work has been completed in accordance with Contract Documents.
 - 4. The equipment and systems have been tested in the presence of the Owner's representative and are operational.
 - 5. The work is completed and ready for final inspection.

- B. The Engineer shall make an inspection to verify the status of completion after receipt of such certification.
- C. If the Engineer determines that the work is incomplete or defective:
 - 1. The Engineer shall promptly notify the Contractor in writing, listing the incomplete or defective work.
 - 2. The Contractor shall take immediate steps to remedy the stated deficiencies and send a second written certification to Engineer that the work is complete.
 - 3. The Engineer shall re-inspect the work.
- D. Upon finding the work to be acceptable under the Contract Documents, the Engineer shall request the Contractor to make closeout submittals.
- E. For each additional inspection beyond a total of three (3) inspections for substantial and final completion due to the incompleteness of the work, the Contractor shall reimburse the Owner for the Engineer's fees.

1.04 CONTRACTOR'S CLOSEOUT SUBMITTALS TO ENGINEER

- A. Project Record Documents (prior to substantial completion).
- B. Warranties and Bonds.
- C. Evidence of Payment and Release of Liens: In accordance with requirements of General and Supplementary Conditions.
- D. Certification letter from Florida Department of Transportation and Manatee County Department of Transportation, as applicable.
- E. Final Reconciliation, Warranty Period Declaration, and Contractor's Affidavit (Manatee County Project Management Form PMD-9).

1.05 FINAL ADJUSTMENT TO ACCOUNTS

- A. Submit a final statement of accounting to the Engineer.
- B. Statement shall reflect all adjustments to the Contract Sum:
 - 1. The original Contract Sum.
 - 2. Additions and deductions resulting from:
 - a. Previous Change Orders
 - b. Unit Prices
 - c. Penalties and Bonuses
 - d. Deductions for Liquidated Damages
 - e. Other Adjustments
 - 3. Total Contract Sum, as adjusted.
 - 4. Previous payments.
 - 5. Sum remaining due.
- C. Project Management shall prepare a final Change Order, reflecting approved adjustments to the Contract Sum which were not previously made by Change Orders.

1.06 FINAL APPLIATION FOR PAYMENT

Contractor shall submit the final Application for Payment in accordance with procedures and requirements stated in the Conditions of the Contract.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

PART 1 - GENERAL**1.01 REQUIREMENTS INCLUDED**

- A. Contractor shall maintain at the site for the Owner one record copy of:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - 5. Engineer's field orders or written instructions.
 - 6. Approved shop drawings, working drawings and samples.
 - 7. Field test records.
 - 8. Construction photographs.

1.02 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Store documents and samples in Contractor's field office apart from documents used for construction.
 - 1. Provide files and racks for storage of documents.
 - 2. Provide locked cabinet or secure storage space for storage of samples.
- B. File documents and samples in accordance with CSI format.
- C. Maintain documents in a clean, dry, legible, condition and in good order. Do not use record documents for construction purposes.
- D. Make documents and samples available at all times for inspection by the Engineer.

1.03 MARKING DEVICES

Provide felt tip marking pens for recording information in the color code designated by the Engineer.

1.04 RECORDING

- A. Label each document "PROJECT RECORD" in neat large printed letters.
- B. Record information concurrently with construction progress.
- C. Do not conceal any work until required information is recorded.
- D. Drawings; legibly mark to record actual construction:
 - 1. Field changes of dimension and detail
 - 2. Changes made by Field Order or by Change Order
 - 3. Details not on original contract drawings

1.05 SUBMITTAL

- A. Prior to substantial completion and, deliver signed and sealed Record Documents and Record Drawings to the Engineer. These will be reviewed and verified by the inspector. If there are any required changes or additions, these shall be completed and the entire signed and sealed set resubmitted prior to final pay application.
- B. The Contractor shall employ a Professional Engineer or Surveyor registered in the State of Florida to verify survey data and properly prepare record drawings. Record drawings shall be certified by the professional(s) (Engineer or Surveyor licensed in Florida), as stipulated by the Land Development Ordinance and submitted on signed and dated mylar drawings together with a recordable compact disk (CD).
- C. The CD shall contain media in AutoCad Version 12 or later, or in any other CAD program compatible with AutoCad in DWG or DXF form. All fonts, line types, shape files or other pertinent information used in the drawing and not normally included in AutoCad shall be included on the media with a text file or attached noted as to its relevance and use.
- D. Accompany submittal with transmittal letter, containing:
 - 1. Date.
 - 2. Project title and number.
 - 3. Contractor's name and address.
 - 4. Title and number of each Record Document.
 - 5. Signature of Contractor or his authorized representative.

Note: The data required to properly prepare these record drawings shall be obtained at the site, at no cost to the County by the responsible design professional or his/her duly appointed representative. The appointed representative shall be a qualified employee of the responsible design professional or a qualified inspector retained by the responsible design professional on a project-by-project basis.

PART 2 STANDARDS

2.01 MINIMUM RECORD DRAWING STANDARDS FOR ALL RECORD

DRAWINGS SUBMITTED TO MANATEE COUNTY

- A. Record drawings shall be submitted to at least the level of detail in the contract documents. It is anticipated that the original contract documents shall serve as at least a background for all record information. Original drawings in CAD format may be requested of the Engineer.
- B. Drawings shall meet the criteria of paragraph 1.04 D above.

PART 3 EXECUTION (NOT USED)

END OF SECTION

PART 1 - GENERAL**1.01 REQUIREMENTS INCLUDED**

- A. Compile specified warranties and bonds.
- B. Compile specified service and maintenance contracts.
- C. Co-execute submittals when so specified.
- D. Review submittals to verify compliance with Contract Documents.
- E. Submit to Engineer for review and transmittal to Owner.

1.02 SUBMITTAL REQUIREMENTS

- A. Assemble warranties, bonds and service and maintenance contracts, executed by each of the respective manufacturers, suppliers and subcontractors.
- B. Number of original signed copies required: Two each.
- C. Table of Contents: Neatly typed, in orderly sequence. Provide complete information for each item.
 - 1. Product or work item.
 - 2. Firm, with name of principal, address and telephone number.
 - 3. Scope.
 - 4. Date of beginning of warranty, bond or service and maintenance contract.
 - 5. Duration of warranty, bond or service maintenance contract.
 - 6. Provide information for Owner's personnel:
 - a. Proper procedure in case of failure.
 - b. Instances which might affect the validity of warranty or bond.
 - 7. Contractor, name of responsible principal, address and telephone number.

1.03 FORM OF SUBMITTALS

- A. Prepare in duplicate packets.
- B. Format:
 - 1. Size 8-1/2 inch x 11 inch punched sheets for standard 3-ring binder. Fold larger sheets to fit into binders.
 - 2. Cover: Identify each packet with typed or printed title "WARRANTIES AND BONDS". List:
 - a. Title of Project.
 - b. Name of Contractor.
- C. Binders: Commercial quality, three-ring, with durable and cleanable plastic covers.

1.04 TIME OF SUBMITTALS

- A. Make submittals within ten days after date of substantial completion and prior to final request for payment.
- B. For items of work, where acceptance is delayed materially beyond date of substantial completion, provide updated submittal within ten days after acceptance, listing date of acceptance as start of warranty period.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

DIVISION 2 SITE PREPARATION

SECTION 02202 DREDGING

SECTION 02270 EROSION AND SEDIMENTATION CONTROL

PART 1 - GENERAL

1.01 DESCRIPTION

The work specified in this Section consists of mechanical and/or hydraulic dredging of sediments to a pre-determined depth and width as indicated on the plans, dewatering, loading, transport and disposal of dredge sediment to Manatee County Landfill, installation of turbidity/sediment barriers or devices to control turbidity, and turbidity monitoring.

1.02 RELATED WORK SPECIFIED ELSEWHERE

Erosion and Sedimentation Control: 02270.

1.03 SUBMITTALS

- A. Shop Drawings on turbidity barriers proposed to be used.
- B. Pre-dredge Survey. Refer to Section 01050.
- C. Post-dredge Survey. Refer to Section 01050.
- D. Required Turbidity Monitoring Reports (Per FDEP/ACOE Permits).
- E. Contractor's Proposed Haul Route.
- F. Testing. Refer to Section 01410.

PART 2 – PRODUCTS

2.01 DREDGING

- C. All dredging operations shall conform to the requirements listed herein. In addition, all work shall be performed in accordance with all provisions and conditions of the permits issued by Florida Department of Environmental Protection (FDEP). **This permit is for sea-based de-watering operations only.**
- D. The work specified under this section consists of the excavation of sediment by mechanical and/or hydraulic means as indicated on the plans.
- E. The Contractor shall be responsible for construction activities within the lines and grades shown on the plans. The Contractor shall take extreme care not to damage existing seawalls, docks, moorings, and mangrove trees. The Contractor shall dredge no closer than 10 feet from seawall, docks, and retaining walls.

- F. The Contractor shall be responsible to prepare a video recording of the existing conditions and post dredge of the dredging area and the temporary staging area. One copy shall be submitted to the Engineer prior to project closeout.
- G. The Contractor shall not under dredge by greater than 6 inches, and over dredge by more than 6 inches beyond the elevations and contours identified in the Permit.
- H. **The County only allows dredging operations within one finger canal, at any given time. The post dredge as-built for the finger canal must be approved by the County prior to contractor de-mobilizing from that canal and start of dredging operation within the next canal.**
- H. The Contractor shall be responsible for damages as a result of direct contact with physical features or as a result of excavating beyond the lines and grades shown on the plans. All repairs to damaged docks and seawalls shall be made within two (2) weeks of the date that damage occurred.
- I. The Contractor shall be responsible for the removal of any material that accumulates in the channel or boat basin after initial establishment of the proposed template at no additional cost, and prior to final acceptance.
- J. The Contractor shall be responsible for the removal of all material and equipment and restore the temporary staging area to its original condition or better.
- K. The Contractor shall not violate the Water Quality Standards as specified in Chapter 17-3, 17-4 and 17-25 Florida Administrative Codes, including but not limited to: 17-3.02 Minimum Conditions of All Waters, Times and Places; 17-3.05 Water Quality Standards; Specifics; and 17-3.09 Criteria: Class III Waters - Recreation, Propagation and Management of Fish and Wildlife. A contract time extension will not be granted due to turbidity violations.
- L. Within 30 days of the date of Notice to Proceed, the Contractor shall submit to the Engineer and Owner a Hurricane Preparedness plan. The plan should outline the necessary measures which the Contractor proposes to perform at no additional cost to the Owner in case of a hurricane warning.

In the event of hurricane weather or force winds, Contractor shall remove all dredging operation equipment from within the project limits. Contractor shall insure that he and his subcontractors shall carefully protect work and materials against damage or injury from the weather. If, in the opinion of the Engineer, any portion of work or materials is damaged due to the failure on the part of the Contractor or Subcontractor such work shall be redone or replaced at the expense of the Contractor.

2.02 HYDRAULIC/MECHANICAL DREDGING

The Contractor shall dewater the dredged sediment by means of a barge mounted mobile dewatering system and transported to a public boat ramp or a spoil transfer area as indicated in the plans.

2.03 HAULING AND DISPOSAL

Hauling shall be in sealed trucks over a Contractor designated, County approved haul route to Manatee County Landfill. Any roadway damage along the haul route from spoil transportation shall be repaired per FDOT or County Standards at no cost to Owner or Engineer. All disposal material placed in landfill

shall be in compliance with "Test methods for Evaluating Solid Wastes, Physical Chemical Method" METHOD 9095 (Paint filter Liquids Test) (EPA Publication No.SW-846).

2.04 SEDIMENT DEWATERING

All dredged sediment shall meet Manatee County Landfill requirements for disposal at those facilities. The Contractor shall use sea based operations for drying of sediment prior to transfer to Manatee County Landfill. Devices used for sea based operations may include use of Geotubes, Rotary Fan Press, Belt Press, Hydro Cyclone or other such devices on barges.

PART 3 EXECUTION (NOT USED)

END OF SECTION

PART 1 - GENERAL

1.01 DESCRIPTION

The work specified in this Section consists of measures required to control erosion on the project and in areas outside the project area where work is accomplished in conjunction with the project, so as to prevent pollution of water, detrimental effects of public or private property adjacent to the project area and damage to work on the project. These measures will consist of construction and maintenance of temporary erosion control features or, where practical, the construction and maintenance of permanent erosion control features.

1.02 CONTROL OF CONTRACTOR'S OPERATIONS WHICH MAY RESULT IN WATER POLLUTION

- A. Take sufficient precautions to prevent pollution of canals, boat basin, intercoastal waterways and other water impoundments, with fuels, oils, bitumen, calcium chloride, or other harmful materials. Conduct and schedule operations so as to avoid or otherwise minimize pollution or siltation of such streams, etc. and to avoid interference with movement of migratory fish. Do not dump the residue from dust collectors or washers into any water body.
- B. Construction operations in rivers, streams, lakes, tidal waters, reservoirs, canals, and other impoundments shall be restricted to those areas where it is necessary to perform filling or excavation to accomplish the work shown in the Contract Documents and to those areas which must be entered to construct temporary or permanent structures. As soon as conditions permit, promptly clear rivers, streams, and impoundments of all obstructions placed therein or caused by construction operations.
- C. Except as necessary for construction, do not deposit excavated material in rivers, streams, canals, or impoundments, or in a position close enough thereto, to be washed away by high water or runoff.
- D. Where pumps are used to remove highly turbid waters from enclosed construction areas such as cofferdams or forms, treat the water prior to discharge into State waters. Pump the water into grassed swales, appropriate vegetated areas, or sediment basins, or confine it by an appropriate enclosure such as siltation curtains when other methods are not considered appropriate. Do not contaminate state waters.
- E. Do not disturb lands or water outside the limits of construction, except as may be found necessary to complete work.

1.03 START OF WORK

Do not start work until erosion control measures are in place.

PART 2 – PRODUCTS

2.01 GENERAL

- A. No testing of materials used in construction of temporary erosion control features will be required.
- B. Materials used for the construction of the temporary erosion and sedimentation control measures not to be incorporated into the completed project may be new or used.

PART 3 - EXECUTION

3.01 GENERAL

- A. Temporary erosion control features shall consist of, but not be limited to, temporary grassing, temporary sodding, temporary mulching, sandbagging, slope drains, sediment basins, artificial coverings, berms, baled hay or straw, floating silt barriers, staked silt barriers and staked silt fences. Design details for some of these items may be found in the Water Quality Section of the applicable edition of the FDOT Roadway and Traffic Design Standards, dated 2008.
- B. Incorporate permanent erosion control features into the project at the earliest practical time. Correct conditions, using temporary measures, which develop during construction to control erosion prior to the time it is practical to construct permanent control features.
- C. Construct temporary and permanent erosion and sediment control measures to prevent the pollution of adjacent water ways in conformance with the laws, rules and regulations of Federal, State and local agencies.

3.02 INSTALLATION

- A. Temporary Silt Fences and Staked Silt Barriers: This work shall consist of furnishing, installing, maintaining and removing staked turbidity barriers in accordance with the manufacturer's directions, these specifications and the details as shown in FDOT Roadway and Traffic Design Standards, dated 2008.
- B. Floating Silt Barriers: This work shall consist of Installing, maintaining, and removal of floating silt barriers to contain turbidity that may occur as the result of dredging, filling, or other construction activities in waters of the State. The type barrier used, the deployment and maintenance of the barrier will be such as to minimize dispersion of turbid waters from the construction site. Alternate methods or materials may be used provided that compliance with applicable permit conditions and State water quality standards are maintained.

3.03 REMOVAL OF TEMPORARY EROSION CONTROL FEATURES

In general, remove or incorporate into the soil any temporary erosion control features existing at the time of construction of the permanent erosion control features in such a manner that there will be no detrimental effect.

3.04 **MAINTENANCE OF EROSION CONTROL FEATURES**

General: Provide routine maintenance of permanent and temporary erosion control features until the project is completed and accepted.

END OF SECTION



Florida Department of Environmental Protection

Southwest District Office
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

FEB 10 2010

Manatee County Public Works
c/o Wayne Roberts, Deputy Director
1026 26th Ave. East
Bradenton, FL 34208

FEB 10 2010

File No.: 41-0272903-002, Manatee County

Dear Mr. Roberts:

Thank you for your request to the Department for authorization to maintenance dredge approximately 10,432 cubic yards of material within residential canals contiguous with Sarasota Bay, a Class III Outstanding Florida Waterbody. The project site is located at Coral Shores Subdivision, Bradenton Beach, Section 12, Township 35 South, Range 16 East, in Manatee County.

This type of activity requires a regulatory authorization for construction and operation of the project pursuant to Part IV, Chapter 373, Florida Statutes (F.S.), unless otherwise exempt by statute or rule, proprietary authorization to use state-owned submerged lands Chapters 253 and 258, F.S., and federal authorization for works in waters of the United States through the State Programmatic General Permit (SPGP) program. Your request has been reviewed for all three authorizations. The authorizations you have been granted are listed below. Please read each section carefully. Your project may not have qualified for all three authorizations. If your project did not qualify for one or more of the authorizations, that specific section will advise you how to obtain it. You may NOT commence your project without all three authorizations. If you change the project from what you submitted, the authorization(s) granted may no longer be valid at the time of commencement of the project. Please contact us prior to beginning your project if you wish to make any changes.

REGULATORY REVIEW - APPROVED

Pursuant to Part IV, Chapter 373, F.S., and based upon the forms, drawings, and documents submitted on January 5, 2010, the proposed project appears to qualify as an activity which is exempt from the need for a Department Environmental Resource regulatory permit under 40D-4.051(8)(d), Florida Administrative Code (F.A.C.). A copy of the applicable language for this exemption is attached. This determination is based solely on the information provided to the Department and the statutes and rules in effect when the application was submitted and is effective only for the specific activity proposed. This determination shall automatically expire if site conditions materially change or the governing statutes or rules are amended. In addition, any substantial modifications in your plans should be submitted to the Department for review, as changes may result in a permit being required. In any event, this determination shall expire after one year.

This determination that your activity qualifies for an exemption does not relieve you from the need to comply with all applicable water quality standards during the construction and operation of the facility. Activities conducted under this exemption must be constructed and operated using appropriate best

management practices and in a manner which does not cause water quality violations, pursuant to Rule 62-302, F.A.C.

The determination that your project qualifies as an exempt activity pursuant to Rule 40D-4.051(8)(d), F.A.C. may be revoked if the installation is substantially modified, if the basis for the exemption is determined to be materially incorrect, or if the installation results in water quality violations. Any changes made in the construction plans or location of the project may necessitate a permit or certification from the Department. Therefore, you are advised to contact the Department before beginning the project and before beginning any work in waters or wetlands, which is not specifically described in your submittal.

Authority for review- Part IV of Chapter 373, F.S., Title 62, F.A.C. and in accordance to operating agreements executed between the Department and the Water Management Districts, as referenced in Chapter 62-113, F.A.C.

PROPRIETARY REVIEW – APPROVED

Please be advised that any use of sovereign submerged lands without specific prior authorization from the Board of Trustees will be considered a violation of Chapter 253, Florida Statutes and may subject the affected upland riparian property owners to legal action as well as potential fines for the prior unauthorized use of sovereign land.

As your project meets the provisions of Rule 18-21.005(1)(c), F.A.C., this letter is your authorization to use state-owned submerged land (if applicable) for the construction of your project, as required by Chapter 253.77, F.S., and Chapters 18-20 and 18-21, F.A.C.

Authority for review - Chapter 253 and Chapter 258, F. S., and Chapter 18-21, F.A.C. and Chapter 18-20, F.A.C. (if located in an aquatic preserve), and Section 62-343.075, F.A.C. as required.

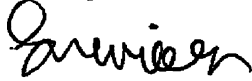
SPGP REVIEW – APPROVED

Your project has been reviewed for compliance with a State Programmatic General Permit (SPGP). Your proposed activity, as outlined on the attached drawings, is in compliance with the SPGP program. U.S. Army Corps of Engineers (USACOE) specific conditions (attached) apply to your project. No further permitting for this activity is required by the USACOE. The authority granted under this SPGP expires July 24, 2011. Your project must be completed prior to this expiration date.

Authority for review - an agreement with the USACOE entitled "Coordination Agreement Between the U.S. Army Corps of Engineers (Jacksonville District) and the Florida Department of Environmental Protection or Duly Authorized Designee, State Programmatic General Permit," Section 10 of the Rivers and Harbor Act of 1899, and Section 404 of the Clean Water Act.

Please see the copies of the exemption attached to this letter and note that all specific conditions in the rule must be met in order to qualify for this exemption. If you have any questions, please contact Greg Nieboer at (813) 632-7600, extension 360. When referring to this project, please use the file number listed above.

Sincerely,



Greg Nieboer
Environmental Specialist II
Environmental Resource Management



Tom Glancy
Environmental Specialist II
Environmental Resource Management

cc: AECOM
A.H. Ezazi, P.E.
5971 Cattleridge Blvd., Suite 200
Sarasota, FL 24232

Enclosures:

Chapter 40D-4.051(8)(d), F.A.C.
Notice of Rights of Substantially Affected Persons
General Consent Conditions for Use of Sovereignty Submerged Lands
General Conditions for Federal Authorization for SPGP IV-R1
Standard Manatee Construction Conditions
Attachment "A" For Discretionary Publication

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this exemption, including all copies, was mailed before the close of business on 2/10/10, to the above listed persons.

FILING AND ACKNOWLEDGMENT

FILED, on this date, under 120.52(7) of the Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk ERobinson Date 2/10/10

Chapter 40D-4.051(8)(d), F.A.C.

In accordance with the provisions of Section 403.813(2), F.S., no permit shall be required under Chapters 40D-4, 40D-40 or 40D-400, Florida Administrative Code for the following activities:

(d) The performance of maintenance dredging of existing manmade canals, channels, basins, berths, intake and discharge structures, and previously dredged portions of natural water bodies within drainage rights-of-way or drainage easements which have been recorded in the public records of the county, where the spoil material is to be removed and deposited on a self-contained, upland spoil site which will prevent the escape of the spoil material into waters of the state, provided that no more dredging is performed than is necessary to restore the canals, channels, basins, berths, and intake and discharge structures, and previously dredged portions of natural water bodies, to original design specifications, provided that the work is conducted in compliance with Section 370.12(2)(d), F.S., provided that no significant impacts occur to previously undisturbed natural areas, and provided that control devices for return flow and best management practices of erosion and sediment control are utilized to prevent bank erosion and scouring and to prevent turbidity, dredged material, and toxic or deleterious substances from discharging into adjacent waters during maintenance dredging. Further, for maintenance dredging of previously dredged portions of natural water bodies within recorded drainage rights-of-way or drainage easements, an entity that seeks an exemption must notify the department or water management district, as applicable, at least 30 days prior to dredging and provide documentation of original design specifications or configurations where such exist. This exemption shall apply to all canals and previously dredged portions of natural water bodies within recorded drainage rights-of-way or drainage easements constructed before April 3, 1970, and to those canals and previously dredged portions of natural water bodies constructed on or after April 3, 1970, pursuant to all necessary state permits. This exemption shall not apply to the removal of a natural or manmade barrier separating a canal or canal system from adjacent wetlands or other surface waters. Where no previous permit has been issued by the Board of Trustees of the Internal Improvement Trust Fund, the Department, the District or the United States Army Corps of Engineers for construction or maintenance dredging of the existing manmade canal, channel, basin, berth or intake or discharge structure, such maintenance dredging shall be limited to a depth of no more than 5 feet below mean low water.

RIGHTS OF AFFECTED PARTIES

This letter acknowledges that the proposed activity is exempt from Environmental Resource Permitting requirements under Chapter 403.813(2)(g), F.S., and Chapter 40D-4.051(8)(d), F.A.C. This determination is final and effective on the date filed with the Clerk of the Department unless a sufficient petition for an administrative hearing is timely filed under sections 120.569 and 120.57 of the Florida Statutes as provided below. If a sufficient petition for an administrative hearing is timely filed, this determination automatically becomes only proposed agency action subject to the result of the administrative review process. Therefore, on the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department. The procedures for petitioning for a hearing are set forth in the attached notice.

This determination is based on the information you provided the Department and the statutes and rules in effect when the application was submitted and is effective only for the specific activity proposed. This determination shall automatically expire if site conditions materially change or the governing statutes or rules are amended. In addition, any substantial modifications in your plans should be submitted to the Department for review, as changes may result in a permit being required. In any event, this determination shall expire after one year.

Be advised that your neighbors and other parties who may be substantially affected by the proposed activity allowed under this determination of exemption have a right to request an administrative hearing on the Department's decision that the proposed activity qualifies for this exemption. Because the administrative hearing process is designed to re-determine final agency action on the application, the filing of a petition for an administrative hearing may result in a final determination that the proposed activity is not authorized under the exemption established under Chapter 403.813(2)(g), F.S., and Chapter 40D-4.051(8)(d), F.A.C.

The Department will not publish notice of this determination. Publication of this notice by you is optional and is not required for you to proceed. However, in the event that an administrative hearing is held and the Department's determination is reversed, proceeding with the proposed activity before the time period for requesting an administrative hearing has expired would mean that the activity was conducted without the required permit.

If you wish to limit the time within which all substantially affected persons may request an administrative hearing, you may elect to publish, at your own expense, the enclosed notice (Attachment A) in the legal advertisement section of a newspaper of general circulation in the county where the activity is to take place. A single publication will suffice.

If you wish to limit the time within which any specific person(s) may request an administrative hearing, you may provide such person(s), by certified mail, a copy of this determination, including Attachment A. For the purposes of publication, a newspaper of general circulation means a newspaper meeting the requirements of sections 50.011 and 50.031 of the Florida Statutes. In the event you do publish this notice, within seven days of publication, you must provide to the following address proof of publication issued by the newspaper as provided in section 50.051 of the Florida Statutes. If you provide direct written notice to any person as noted above, you must provide to the following address a copy of the direct written notice.

SUBMERGED LANDS AND ENVIRONMENTAL RESOURCES PROGRAM
GENERAL CONSENT CONDITIONS FOR USE OF SOVEREIGNTY SUBMERGED LANDS

Chapter 18-21.004(7), F.A.C., provides that all authorizations granted by rule or in writing under Rule 18-21.005, F.A.C., except those for aquaculture activities and geophysical testing, shall be subject to the general conditions as set forth in paragraphs (a) through (i) below. The general conditions shall be part of all authorizations under this chapter, shall be binding upon the grantee, and shall be enforceable under Chapter 253 or Chapter 258, Part II, F.S.

Chapter 18-21.004(7), F.A.C., General Conditions for Authorizations:

(a) Authorizations are valid only for the specified activity or use. Any unauthorized deviation from the specified activity or use and the conditions for undertaking that activity or use shall constitute a violation. Violation of the authorization shall result in suspension or revocation of the grantee's use of the sovereignty submerged land unless cured to the satisfaction of the Board.

(b) Authorizations convey no title to sovereignty submerged land or water column, nor do they constitute recognition or acknowledgment of any other person's title to such land or water.

(c) Authorizations may be modified, suspended or revoked in accordance with their terms or the remedies provided in Sections 253.04 and 258.46, F.S., or Chapter 18-14, F.A.C.

(d) Structures or activities shall be constructed and used to avoid or minimize adverse impacts to sovereignty submerged lands and resources.

(e) Construction, use, or operation of the structure or activity shall not adversely affect any species which is endangered, threatened or of special concern, as listed in Rules 68A-27.003, 68A-27.004, and 68A-27.005, F.A.C.

(f) Structures or activities shall not unreasonably interfere with riparian rights. When a court of competent jurisdiction determines that riparian rights have been unlawfully affected, the structure or activity shall be modified in accordance with the court's decision.

(g) Structures or activities shall not create a navigational hazard.

(h) Structures shall be maintained in a functional condition and shall be repaired or removed if they become dilapidated to such an extent that they are no longer functional. This shall not be construed to prohibit the repair or replacement subject to the provisions of Rule 18-21.005, F.A.C., within one year, of a structure damaged in a discrete event such as a storm, flood, accident, or fire.

(i) Structures or activities shall be constructed, operated, and maintained solely for water dependent purposes, or for non-water dependent activities authorized under paragraph 18-21.004(1)(f), F.A.C., or any other applicable law.

[NOTE: These conditions were adopted in rule March 8, 2004, and replace the previous General Consent Conditions.]

(3/08/2004)

GENERAL CONDITIONS FOR FEDERAL AUTHORIZATION FOR SPGP IV-R1

1. The time limit for completing the work authorized ends on July 24, 2011.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with general condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature and mailing address of the new owner in the space provided below and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Further Information:

1. Limits of this authorization.
 - a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.
 - c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal projects.
2. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:
 - a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
 - b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
 - c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

- d. Design or Construction deficiencies associated with the permitted work.
 - e. Damage claims associated with any future modification, suspension, or revocation of this permit.
3. Reliance on applicant's data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
 4. Reevaluation of permit decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
 - a. You fail to comply with the terms and conditions of this permit
 - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 3 above).
 - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.
 5. Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office and if you fail to comply with such directive this office may in certain situations (such as those specified in 33 CER 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.
 6. When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE-SIGNATURE)

(DATE)

(NAME-PRINTED)

(ADDRESS)

STANDARD MANATEE CONDITIONS FOR IN-WATER WORK 2009

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

- a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.
- b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.
- d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
- e. Any collision with or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida.
- f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Awareness signs that have already been approved for this use by the Florida Fish and Wildlife Conservation Commission (FWC) must be used (see MyFWC.com). One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8 1/2" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities.

CAUTION: MANATEE HABITAT

All project vessels

IDLE SPEED / NO WAKE

**When a manatee is within 50 feet of work
all in-water activities must**

SHUT DOWN

Report any collision with or injury to a manatee:

Wildlife Alert:

1-888-404-FWCC(3922)

cell *FWC or #FWC



**ATTACHMENT "A" FOR DISCRETIONARY PUBLICATION OF NOTICE OF DETERMINATION
OF QUALIFICATION FOR AN EXEMPTION**

In the Matter of an Application
for a Determination of Qualification
for an Exemption by:

Manatee County Public Works
c/o Wayne Roberts, Deputy Director
1026 26th Ave. East
Bradenton, FL 34208

File No.: 41-0272903-002, Manatee County

The Department of Environmental Protection gives notice that it has received a request for authorization by Manatee County to maintenance dredge approximately 10,432 cubic yards of material within residential canals contiguous with Sarasota Bay, a Class III Outstanding Florida Waterbody. The project site is located at Coral Shores Subdivision, Bradenton Beach, Section 12, Township 35 South, Range 16 East, in Manatee County. The Department has determined that the project qualifies for an exemption established under 40D-4.051(8)(d), F.A.C.

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the F.S. The petition must contain the information set forth below and must be filed (received by the clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000.

Mediation is not available.

If a timely and sufficient petition for an administrative hearing is filed, other persons whose substantial interests will be affected by the outcome of the administrative process have the right to petition to intervene in the proceeding. Intervention will be permitted only at the discretion of the presiding officer upon the filing of a motion in compliance with rule 28-106.205 of the Florida Administrative Code.

In accordance with rule 62-110.106(3), F.A.C., petitions for an administrative hearing must be filed within 21 days of publication of the notice or receipt of written notice, whichever occurs first. Under rule 62-110.106(4) of the F.A.C., a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000 prior to the applicable deadline. 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. Upon motion by the requesting party showing that the failure to file a request for an extension of time before the deadline was the result of excusable neglect, the Department may also grant the requested extension of time.

The petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition for an administrative hearing within the appropriate time period shall constitute a waiver of that right.

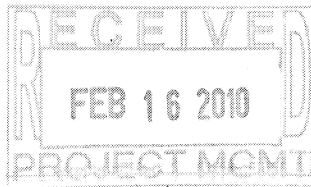
A petition that disputes the material facts on which the Department's action is based must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests are or will be affected by the agency determination;
- (c) A statement of when and how the petitioner received notice of the agency decision;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action;
- (f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts on which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301, F.A.C.

Under sections 120.569(2) (c) and (d) of the Florida Statutes, a petition for administrative hearing shall be dismissed by the agency if the petition does not substantially comply with the above requirements or is untimely filed.

Complete copies of all documents relating to this determination of exemption are available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, at the Department's Southwest District Office, 13051 North Telecom Parkway, Temple Terrace, FL 33637-0926.



SEDIMENT ASSESSMENT REPORT

For

**Coral Shores
Bradenton, Manatee County
Florida**

Prepared for

**BOYLE ENGINEERING CORPORATION
5971 Cattleridge Boulevard
Suite 200
Sarasota, Florida 34232
(941) 923-6353**

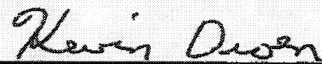
Prepared by

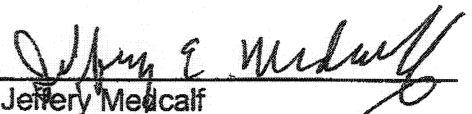
**PROFESSIONAL SERVICE
INDUSTRIES, INC.
5801 Benjamin Center Drive, Suite 112
Tampa, Florida 33634**

813-886-1075

PSI PROJECT NO.: 552-6G154

October 18, 2006


Kevin Owen
Senior Environmental Scientist


Jeffery Medcalf
Principal Consultant

October 18, 2006

Boyle Engineering
5971 Cattleridge Boulevard
Suite 200
Sarasota, Florida 34232
(941) 923-6353

Attn: Mr. R. J. Ezazi, PE
Principal Engineer

Re: Sediment Assessment Report
Coral Shores
Bradenton, Manatee County, Florida
PSI Project No. 552-6G154

Dear Mr. Ezazi:

In accordance with our agreement, Professional Service Industries, Inc. (PSI) has performed a Sediment Assessment at the above referenced canal system for Boyle Engineering (Client).

Thank you for choosing PSI as your consultant for this project. If you have any questions, or if we can be of additional service, please call us at (813) 886-1075.

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.



Kevin Owen
Senior Environmental Scientist

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APPENDICES

- Appendix A - Laboratory Report
- Appendix B - FDEP MLW Determinations



1.0 PROJECT UNDERSTANDING

Manatee County is evaluating the need for, and requirements for, dredging certain channels in the Coral Shores area of Bradenton, Florida. Manatee County retained Boyle Engineering Corporation (Boyle Engineering) to prepare preliminary plans for the proposed dredging. As part of this design effort, PSI was contracted to Boyle Engineering to perform certain geotechnical sampling of the Coral Shores canal system sediments.

PSI sampled the Coral Shores canal system to characterize the channel sediment in relation to the previous maintenance dredge depth. The previous maintenance dredge depths were evaluated to determine to what depth the canals could be dredged under the Florida Department of Environmental Protection (FDEP) permit exemption for maintenance dredging. The scope of services implemented for this project was prepared in general accordance with the requirements of PSI proposal to Boyle Engineering dated August 15, 2006 and the FDEP's *Temporary Guidance for Documentation of Previous Dredge Depth for Exemptions, October 2003*.

2.0 AUTHORIZATION

Authorization to provide this assessment was given on August 17, 2006 via a signed copy of a Task Order No. 8 issued by Boyle Engineering to PSI. PSI implemented the scope of services in general accordance with Proposal No. 552-G6230 dated August 15, 2006 from PSI to Boyle Engineering.

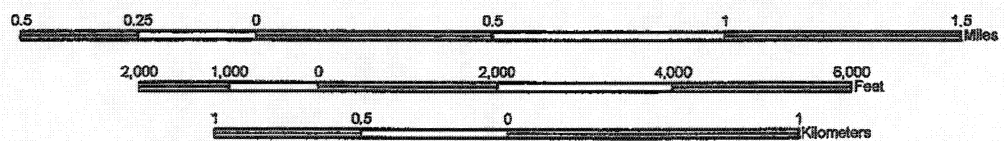
3.0 PROJECT LOCATION

The Coral Shores canal system consists of a series of north-south trending canals in a residential area south of Cortez Road West and Kingston Road in Bradenton, Florida. The project area is located in Section 12, Township 35 South, Range 16 East in Manatee County, Florida (see **Figure 1**). The canal system is tidally influenced and flows into the Intra-Coastal Waterway.

In this project, four segments of the Coral Shores canal system were sampled. These segments were located (from east to west):

- Between Mangrove Point Road and Nassau Road;
- Between Nassau Road and Mangrove Point Road (on the east) and Coral Boulevard (on the west);
- Between Coral Boulevard and Bimini Drive; and
- Between Bimini Drive and Mt. Vernon Drive.





Manatee
County

PROJECT NO.
552-6G154

DRAWN BY
PAY

DATE CREATED
9/28/2006
SCALE 1:24,000



5801 Benjamin Center Drive
Suite 112
Tampa, Florida 33634
(813)886-1075
(813)249-0301 fax



FIGURE 1 - USGS VICINITY MAP
CORAL SHORES
BRADENTON, MANATEE COUNTY, FLORIDA



REFERENCE: THE 2004 AERIAL PHOTOGRAPH WAS OBTAINED FROM I ABINS

[illegible]

PROJECT NO.
552-6G154

DRAWN BY
PAV

DATE CREATED
9/28/2006
SCALE 1:10,000





5801 Benjamin Center Drive
Suite 112
Tampa, Florida 33634
(813)886-1075
(813)248-0301 fax



FIGURE 2 - SITE VICINITY MAP
CORAL SHORES
BRADENTON, MANATEE COUNTY, FLORIDA



SAMPLE DATA
 **BASE**
 **SAMPLE**

Country	Number of people
China	1,800
India	1,500
U.S.	1,200
Japan	1,000

5801 Benjamin Center Drive
Suite 112
Tampa, Florida 33634
(813)888-1075
(813)249-0301 fax



FIGURE 3 - SAMPLE LOCATION MAP
CORAL SHORES
BRADENTON, MANATEE COUNTY, FLORIDA

surveyed topographic benchmarks established on the seawall by Bassett Surveying & Mapping, Inc. This measurement established the water level at the time of the sampling. Water levels for sampling at times between the benchmark measurements were obtained by a straight-line extrapolation of these water level data.

The FDEP Division of State Lands in Tallahassee was contacted to obtain the official Mean Low Water (MLW) elevations at the Coral Shores canal system. The FDEP MLW determination for the Coral Shores canal system is presented in Appendix B. The elevation was provided by the FDEP referenced to the NAVD 88 datum and was converted to NGVD 1929 datum for this report.

The sediment samples were collected from the approximate center of the canal at each sample location. At each sample location, the pontoon boat was anchored to prevent movement during the sampling event. The depth of the water at each location was measured by lowering a ½-inch diameter PVC tube to the canal bottom. At a number of locations, the water depths at approximately 1/3 of the canal width from the east shore and 1/3 of the canal width from the west shore were measured to allow a profile of the water depth and elevation of the canal bottom to be developed across the canal. The measured water depths and elevations of the sediment surfaces measured are presented in Table 1. All elevations are referenced to the NGVD 1929 datum.

The thickness of the sediments was determined based upon the depth of hand refusal of the coring apparatus. When refusal was obtained, the sediment thickness was calculated by subtracting the length of the core string above the water surface and the depth of the water from the entire length of the core string used at that location. The water depth, sediment thickness, and elevation of the bottom of the soft sediments are presented in Table 2. The elevation of the soft bottom (based upon hand refusal of the core) was taken as the previous maintenance dredge depth for the canal system.

After each plastic core tube was extracted, the height of the core sample retained in the core tube was measured. This height was divided by the four-foot total length of the core to obtain the percent recovery of the core. The core recovery data are also presented in Table 2.

The core samples were combined based upon sample location to generate eight composite sediment samples for geotechnical analysis. The eight composites were formed as followed:

- Locations L24, L3, and L-4 between Mangrove Point Road and Nassau Road;
- Locations L-5 and L-6 between Nassau Road and Mangrove Point Road (on the east) and Coral Boulevard (on the west);
- Locations L-7, L-8, L-9, and L-10 between Nassau Road and Mangrove Point Road (on the east) and Coral Boulevard (on the west);



Table 1. Coral Shores Water Depths and Sediment Surface Elevations

1/3 channel width on East				Channel Center			1/3 channel on west					
Core ID	Date	Time	Water Surface Elevation	Water depth (in.)	Water depth (ft.)	Sediment surface elevation	Water depth (in.)	Water depth (ft.)	Sediment surface elevation	Water depth (in.)	Water depth (ft.)	Sediment surface elevation
L7	9/6/06	1:20 PM	2.11	74.50	6.21	-4.10	82.70	6.89	-4.78	57.50	4.79	-2.68
L8	9/6/06	1:45 PM	1.98	81.50	6.79	-4.81	90.00	7.50	-5.52	75.20	6.27	-4.29
L9	9/6/06	2:10 PM	1.90	73.00	6.08	-4.18	92.30	7.69	-5.79	72.50	6.04	-4.14
L10	9/6/06	2:20 PM	1.78	61.00	5.08	-3.30	68.20	5.68	-3.90	53.20	4.43	-2.65
L11	9/7/06	10:30 AM	1.95	69.70	5.81	-3.86	84.00	7.00	-5.05	61.00	5.08	-3.13
L12	9/7/06	10:40 AM	2.00	68.25	5.69	-3.69	70.70	5.89	-3.89	64.20	5.35	-3.35
L13	9/7/06	11:00 AM	2.09	73.50	6.13	-4.04	83.70	6.98	-4.89	67.00	5.58	-3.49
L14	9/7/06	11:10 AM	2.15	72.25	6.02	-3.87	88.00	7.33	-5.18	81.50	6.79	-4.64
L15	9/7/06	11:25 AM	2.22	63.50	5.29	-3.07	86.75	7.23	-5.01	68.50	5.71	-3.49
L16	9/7/06	12:00 PM	2.33	63.5	5.29	-2.96	83.2	6.93	-4.60	74.2	6.18	-3.85
L17	9/7/06	12:10 PM	2.34	76	6.33	-3.99	81	6.75	-4.41	70.5	5.88	-3.54
L18	9/7/06	12:25 PM	2.37	76.2	6.35	-3.98	84.5	7.04	-4.67	78	6.50	-4.13
L19	9/7/06	1:05 PM	2.47	52.7	4.39	-1.92	79.5	6.63	-4.16	55.5	4.63	-2.16
L20	9/7/06	1:15 PM	2.50	74.5	6.21	-3.71	87.7	7.31	-4.81	73.2	6.10	-3.60
L21	9/7/06	1:30 PM	2.30	55	4.58	-2.28	81.2	6.77	-4.47	74.5	6.21	-3.91
L22	9/7/06	1:45 PM	2.16	73.2	6.10	-3.94	81	6.75	-4.59	63.2	5.27	-3.11

L11 and L12 the directions are 1/3 north and 1/3 south, rather than east or west

Table 2. Sediment Depth and Recovery Data

Core ID	Date	Time	Water Surface Elevation	Water depth (in.)	Water depth (ft.)	Sediment surface elevation	Water Surface to Refusal (in.)	Sediment thickness (ft.)	Sediment bottom elevation	Core Recovery (in.)	Core Recovery (ft.)	Percent Recovery (%)
Bench	Mark	11:40 AM	2.4									
L1	9/6/06	11:53 AM	2.36	70.10	5.84	-3.48	116.00	9.67	-13.15	None	none	none
L2	9/6/06	12:00 PM	2.33	84.25	7.02	-4.69	112.30	9.36	-14.05	None	none	none
L3	9/6/06	12:20 PM	2.30	90.70	7.56	-5.26	119.70	9.98	-15.23	0.30	0.03	1%
L4	9/6/06	12:30 PM	2.27	81.50	6.79	-4.52	109.80	9.15	-13.67	10.50	0.88	22%
Bench	Mark	12:40 PM	2.20									
L5	9/6/06	12:50 PM	2.17	74.00	6.17	-4.00	101.75	8.48	-12.48	13.50	1.13	28%
L6	9/6/06	1:06 PM	2.13	81.50	6.79	-4.66	99.50	8.29	-12.95	11.50	0.96	24%
L7	9/6/06	1:20 PM	2.11	82.70	6.89	-4.78	97.50	8.13	-12.91	2.50	0.21	5%
Bench	Mark	1:35 PM	2.04									
L8	9/6/06	1:45 PM	1.98	90.00	7.50	-5.52	106.50	8.88	-14.40	11.50	0.96	24%
L9	9/6/06	2:10 PM	1.90	92.30	7.69	-5.79	100.00	8.33	-14.13	none	None	none
L10	9/6/06	2:20 PM	1.78	68.20	5.68	-3.90	84.00	7.00	-10.90	7.50	0.63	16%
Bench	Mark	2:40 PM	1.67									
Bench	Mark	10:17 AM	1.88									
L11	9/7/06	10:30 AM	1.95	84.00	7.00	-5.05	132.80	11.07	-16.12	19.50	1.63	41%
L12	9/7/06	10:40 AM	2.00	70.70	5.89	-3.89	104.30	8.69	-12.58	17.75	1.48	37%
L13	9/7/06	11:00 AM	2.09	83.70	6.98	-4.89	105.50	8.79	-13.68	8.50	0.71	18%
L14	9/7/06	11:10 AM	2.15	88.00	7.33	-5.18	116.80	9.73	-14.92	14.00	1.17	29%
L15	9/7/06	11:25 AM	2.22	86.75	7.23	-5.01	125.00	10.42	-15.43	14.75	1.23	31%
Bench	Mark	11:40 AM	2.30									
L16	9/7/06	12:00 PM	2.33	83.2	6.93	-4.60	104.5	8.71	-13.31	10.25	0.85	21%
L17	9/7/06	12:10 PM	2.34	81	6.75	-4.41	99.5	8.29	-12.70	6.75	0.56	14%
L18	9/7/06	12:25 PM	2.37	84.5	7.04	-4.67	109.3	9.11	-13.78	10.5	0.88	22%
Bench	Mark	12:35 PM	2.38		0.00	2.38		0.00	2.38		0.00	0%
Bench	Mark	12:50 PM	2.42									
L19	9/7/06	1:05 PM	2.47	79.5	6.63	-4.16	148	12.33	-16.49	20.25	1.69	42%
L20	9/7/06	1:15 PM	2.50	87.7	7.31	-4.81	121.5	10.13	-14.93	8.5	0.71	18%
L21	9/7/06	1:30 PM	2.30	81.2	6.77	-4.47	100	8.33	-12.80	9	0.75	19%
L22	9/7/06	1:45 PM	2.16	81	6.75	-4.59	94.3	7.86	-12.45	9.25	0.77	19%
Bench	Mark	2:00 PM	2.02									
L23	9/7/06	2:00 PM	2.02	80.5	6.71	-4.69	111	9.25	-13.94	13.25	1.10	28%
L24	9/7/06	2:15 PM	1.88	86.5	7.21	-5.33	139	11.58	-16.91	9.5	0.79	20%

- Locations L-19, L-20, and L-21 between Coral Boulevard and Bimini Drive;
- Locations L-22 and L-23 between Coral Boulevard and Bimini Drive;
- Locations L-11, L-12, and L-13, between Bimini Drive and Mt. Vernon Drive;
- Locations L-14 and L-15 between Bimini Drive and Mt. Vernon Drive; and
- L-16, L-17, and L-18 between Bimini Drive and Mt. Vernon Drive.

Physical analysis of bulk sediment was performed by PSI Tampa's material testing laboratory. These tests consisted of a sieve grain size analysis (performed in general accordance with American Standard Testing Method (ASTM) Procedure D422), a hydrometer analysis (performed in general accordance with ASTM Procedure T88) and percent organic content analysis (performed in general accordance with ASTM Procedure T267). Since custody of the samples was never relinquished by PSI, chain-of-custody control was not needed.

5.0 FIELD RESULTS

The field measurements obtained during the September 6 and September 7, 2006 sampling activities are presented in **Table 1**, **Table 2**, and **Table 3**. **Table 1** presents the water surface elevation, water depth and the elevation of the canal bottom sediments at the time of the sample collections, relative to the NGVD 1929 datum. As indicated in **Table 1**, the surface of the canal bottom sediments vary from a minimum elevation of -1.92 feet (i.e. 1.92 feet below mean sea level) to a maximum of approximately -5.79 feet (i.e. 5.79 feet below mean sea level). In reference to MLW, the surface of the canal bottom sediments range from approximately 3.25 to 5.56 feet below MLW (see **Table 3**).

Table 2 presents the water surface elevation, the depth of the water, the elevation of the surface of the canal bottom sediments, the thickness of the soft sediments, the elevation of the base of the soft sediments and the core recovery data. In general, the loss of sediments from the core sampler was significant. These losses can be attributed to the fine-grained nature of the upper sediments, the static and dynamic pressures inside the tube (friction, water pressure and atmospheric pressure), and compaction of the sample during the hammering process. At Locations L-1 and L-2, no samples were recovered, while at Locations L-3 and L-7, less than 0.5 foot of sediment sample was collected. At these almost backwater-like areas, the sediments appeared to be quite soft during sampling and probably consisted on relatively large percentages of silt and clay-sized sediments.

As indicated in **Table 2**, the soft sediments that overly the previous maintenance dredge surface are quite thick. The measured thickness of these soft sediments accumulated above the previous maintenance dredge depth ranged from approximately 7.0 feet to



12.33 feet. The depth to the previous maintenance dredge surface was therefore quite deep, ranging from approximately -10.90 feet (i.e. 10.9 feet below mean sea level) to -16.49 feet (i.e. 16.49 feet below mean sea level) as referenced to the NAGVD 1929 datum. Referenced to the MLW level, the previous maintenance dredge elevations ranged from approximately 10.67 to 16.68 feet below MLW (**see Table 3**).

The FDEP exemption for maintenance dredging allows sediments to be dredged to a depth of 5.0 feet below MLW. A maintenance dredge to this depth would involve dredging the canals at most locations an additional 1.5 feet or less below the current canal depth. Since a maintenance dredge to this depth would only allow removal of a relatively small portion of the accumulated sediments, Manatee County should consider consulting with the FDEP concerning the potential for applying for a permit to dredge to a greater depth to clear these canals. As part of that consultation, approval should be requested to dredge to greater depths under the permit exemption based upon the findings of this report.

6.0 LABORATORY PHYSICAL RESULTS

Laboratory analysis consisted of sieve grain-size analysis, hydrometer analysis, and percent organic content of the eight composite samples. The results of these analyses are presented in **Table 4** with the full laboratory results are included in **Appendix A**. A physical assessment of the core samples indicates that the canal bottom is generally clayey, sandy sediments with shells throughout underlain by natural hard bottom. Percent organics was minimal (i.e. less than 10%) in all composite samples. In all composite samples, the percentage of silt was less than 10% of the sample. Given the minimal percent organic content and percent silt, chemical analysis of the sediments may not be needed to obtain the maintenance dredge exemption.

The conclusions of the physical analysis cannot be applied to upper portion of the segment of the canal system between Mangrove Point Road and Nassau Road. Since no sediment samples were collected in those cores, this segment should be resampled. Given the nature of the sediments in that area, a ponar-type grab sampler should be utilized to augment the core sample collection for sediment characterization.



Table 4. Grain size and percent organic analysis

Composite Core IDs	% sand	% Silt	% Clay	% Organic	Soil Description
L1					No Core Recovery
L2					No Core Recovery
L3, L4 & L24	72.6	2.6	24.8	2.1	Clayey sand with shell and organics
L5 & L6	84.3	2.1	13.6	0.8	Clayey sand with shell and organics
L7, L8, L8p & L10	75.7	4.2	20.1	1.1	Clayey sand with shell and organics
L11, L12, & L13	74.1	1.6	24.3	Insufficient Sample	Dark gray Clayey sand with shell and organics
L14 & L15	74.2	3.2	22.6	0.9	Brown clayey sand with shell and organics
L16, L17 & L18	73.9	3.3	22.8	0.8	Clayey sand with shell and organics
L19, L20 & L21	72.8	2.7	24.5	2.5	Dark gray clayey sand with shell and organics
L22 & L23	73.2	3.3	23.5	1.3	Light gray clayey sand with shell and organics

Table 3. Sediment Surface and Maintenance Dredge Elevations Relative to Mean Low Water (MLW). All elevations relative to NGVD 1929 datum.

Core ID	Mean Low Water (ft.)	Soft Sediment surface elevation	Sediment Surface Below MLW (ft)	Soft Sediment bottom elevation	Sediment Bottom Below MLW (ft)	Maintenance Dredge Depth Below MLW (ft)
L1	-0.23	-3.48	-3.25	-13.15	-12.92	-12.92
L2	-0.23	-4.69	-4.46	-14.05	-13.82	-13.82
L3	-0.23	-5.26	-5.03	-15.23	-15.00	-15.00
L4	-0.23	-4.52	-4.29	-13.67	-13.44	-13.44
L5	-0.23	-4.00	-3.77	-12.48	-12.25	-12.25
L6	-0.23	-4.66	-4.43	-12.95	-12.72	-12.72
L7	-0.23	-4.78	-4.55	-12.91	-12.68	-12.68
L8	-0.23	-5.52	-5.29	-14.40	-14.17	-14.17
L9	-0.23	-5.79	-5.56	-14.13	-13.90	-13.90
L10	-0.23	-3.90	-3.67	-10.90	-10.67	-10.67
L11	-0.23	-5.05	-4.82	-16.12	-15.89	-15.89
L12	-0.23	-3.89	-3.66	-12.58	-12.35	-12.35
L13	-0.23	-4.89	-4.66	-13.68	-13.45	-13.45
L14	-0.23	-5.18	-4.95	-14.92	-14.69	-14.69
L15	-0.23	-5.01	-4.78	-15.43	-15.20	-15.20
L16	-0.23	-4.60	-4.37	-13.31	-13.08	-13.08
L17	-0.23	-4.41	-4.18	-12.70	-12.47	-12.47
L18	-0.23	-4.67	-4.44	-13.78	-13.55	-13.55
L19	-0.23	-4.16	-3.93	-16.49	-16.26	-16.26
L20	-0.23	-4.81	-4.58	-14.93	-14.70	-14.70
L21	-0.23	-4.47	-4.24	-12.80	-12.57	-12.57
L22	-0.23	-4.59	-4.36	-12.45	-12.22	-12.22
L23	-0.23	-4.69	-4.46	-13.94	-13.71	-13.71
L24	-0.23	-5.33	-5.10	-16.91	-16.68	-16.68

7.0 CONCLUSIONS

On September 6 and September 7, 2006, PSI scientists sampled the sediments at 24 locations within the Coral Shores canal system. From this sampling, eight composite core samples were subjected to sieve and hydrometer grain size analysis and percent organic content analysis. The following conclusions are based upon the field and laboratory observations and analyses performed during this investigation.

- The surface of the canal bottom sediments vary from a minimum elevation of -1.92 feet (i.e. 1.92 feet below mean sea level) to a maximum of approximately -5.79 feet (i.e. 5.79 feet below mean sea level). The surface of the canal bottom sediments ranged from approximately 3.25 to 5.56 feet below MLW.
- The measured thickness of these soft sediments accumulated above the previous maintenance dredge depth ranged from approximately 7.0 feet to 12.33 feet.
- The depth to the previous maintenance dredge surface was quite deep, ranging from approximately -10.90 feet (i.e. 10.9 feet below mean sea level) to -16.49 feet (i.e. 16.49 feet below mean sea level). The previous maintenance dredge elevations ranged from approximately 10.67 to 16.68 feet below MLW.
- The FDEP exemption for maintenance dredging allows sediments to be dredged to a depth of 5.0 feet below MLW. Since a maintenance dredge to this depth would only allow removal of a relatively small portion of the accumulated sediments (1 ½ feet or less), Manatee County should consider consult with the FDEP for approval to dredge to a greater depth to clear these canals.
- An assessment of the core samples indicates that the canal bottom is generally clayey, sandy sediments with shells throughout underlain by natural hard bottom.
- Percent organics was minimal (i.e. less than 10%) in all composite samples. In all composite samples, the percentage of silt was less than 10% of the sample. Given the minimal percent organic content and percent silt, chemical analysis of the sediments may not be needed to obtain the maintenance dredge exemption.
- The conclusions of the physical analysis cannot be applied to the upper portion of the segment of the canal system between Mangrove Point Road and Nassau Road. Since no sediment samples were collected in those cores, this segment should be resampled.

The conclusions and assessments presented in this report are based upon the conditions that were present at the time and location of the field sampling efforts with the sampling equipment utilized.

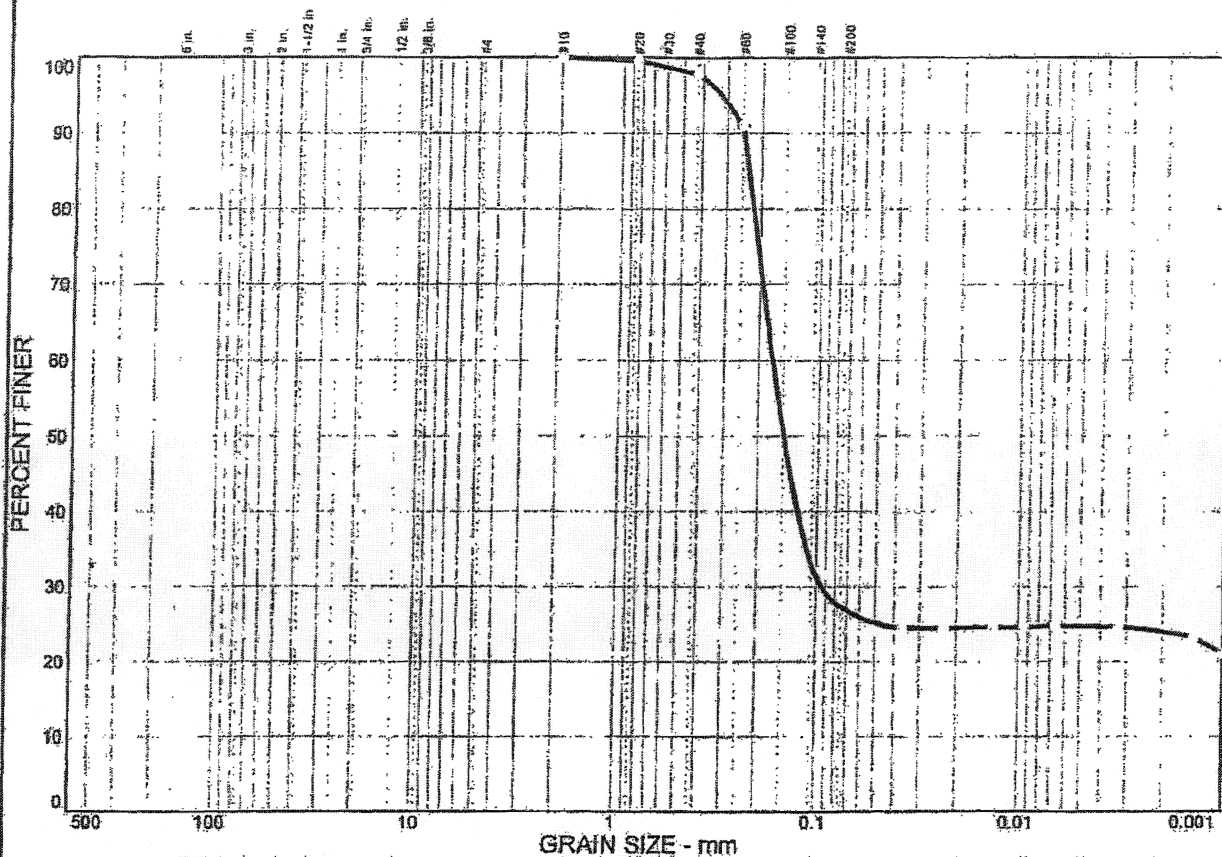


APPENDIX A

Laboratory Report



Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	0.0	72.6	2.6	24.8

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	99.6		
#40	97.9		
#60	91.0		
#140	10.1		
#200	7.4		

(no specification provided)

Material Description
Silty sand With Shell And Organics

Atterberg Limits
 PL= LL= PI=

Coefficients
 D₈₅= 0.232 D₆₀= 0.170 D₅₀= 0.148
 D₃₀= 0.0944 D₁₆= D₁₀=
 C_u=

Classification
 USCS= AASHTO=

Remarks

Sample No.: 3,4,24

Location: Coral Shores

Source of Sample:

Date: 9-28-06

Elev./Depth: 0-4'

**Professional
Service
Industries**

Client: Boyle Engineering
Project: Coral Shores

Project No: 552-6G154

Figure

(1)

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

PARTICLE SIZE ANALYSIS WORKSHEET

1-1-10-113
 1-1-10-113
 1-1-10-113
 1-1-10-113

Specific Gravity _____ s = _____ Technician _____ Date 7-19-96
 Original Sample _____ P (_____) Minus No. 10 Mat. _____ E = _____ %

Sieve Analysis

Sieve Size	1/2"	3/8"	#40	#60	#100	#140	#200	#280
Wt. Retained(g)								
% Retained								
% Pass								
% Pass (Total)								

Hygroscopic Water

Tare No.	00
Tare + Air Dry(g)	61.82
Tare + Oven Dry(g)	61.80
Wt. Water(g)	0.02
Tare Wt.(g)	51.70
Oven Dry Soil(g)	10.10
Hygroscopic Wt(%)	0.196
Correction Factor	0.980

Hydrometer Analysis

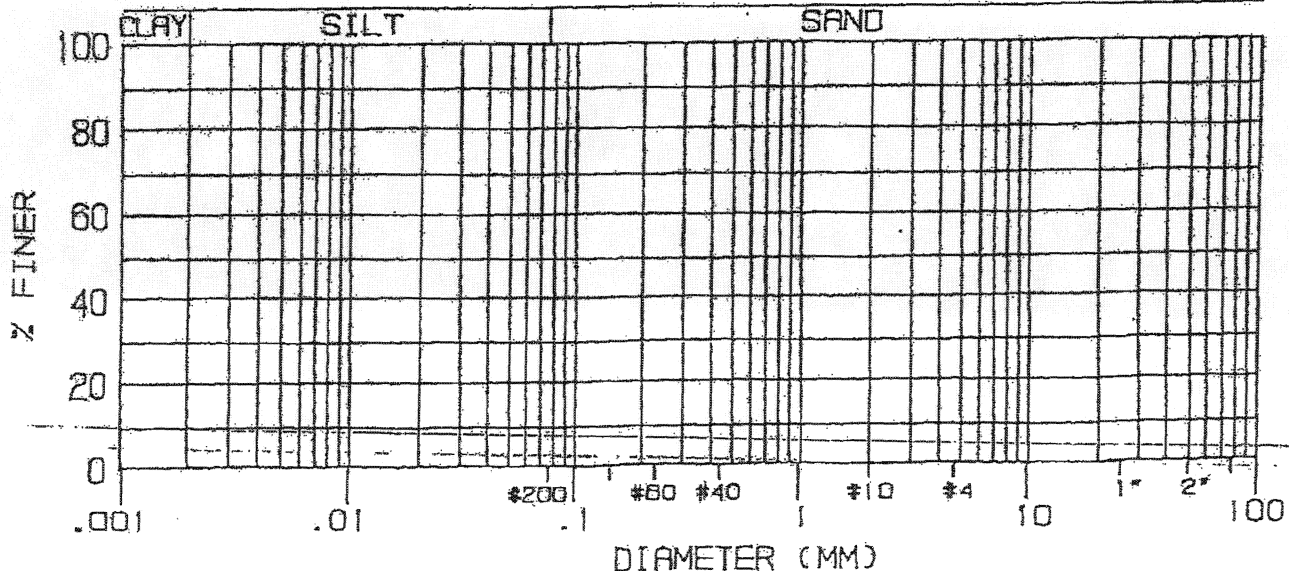
Time Started _____

Time, (mins)	2	5	15	30	60	250	1440	2880
Actual Reading	11	13	13	13	13	10		11
Compass Correction								
Correction Applied, R								
Temp. (°C)	21.2	26.2	26.3	27.1	27.5	21.9	25.7	25.5
Depth, L(cm)								
Value of K								
Dia. of Soil, D(mm)								
Soil Flour, F(%)								
% Flour (Total)								

Minus No. 10 Material

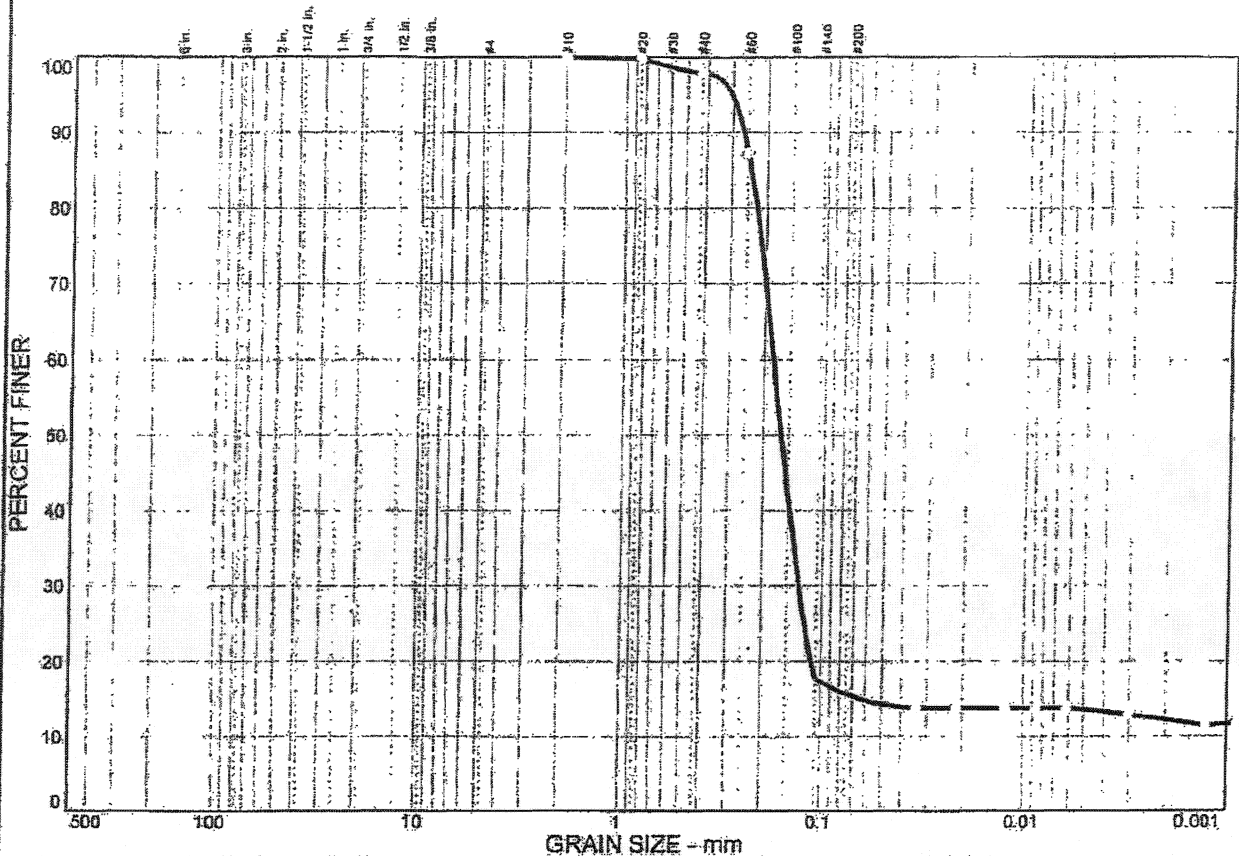
Tare No.	28
Tare + Air Dry(g)	151.67
Tare Wt.(g)	51.66
Air Dry Wt.(g)	90.01
Oven Dry, W(g)	87.81

After Wash 144.16 51.66 = 92.5%



Clay _____ % Silt _____ % Sand _____ %

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	0.0	84.3	2.1	13.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	99.8		
#40	97.9		
#60	87.3		
#140	8.2		
#200	6.7		

(no specification provided)

Material Description

Silty Sand With Shell And Organics

Atterberg Limits
 PL= LL= PI=

Coefficients
 D₈₅= 0.241 D₆₀= 0.180 D₅₀= 0.163
 D₃₀= 0.131 D₁₅= 0.0625 D₁₀=
 C_u= C_c=

Classification
 USCS= AASHTO=

Remarks

Sample No.: 5.6

Location: Coral Shores

Source of Sample:

Date: 9-29-06

Elev./Depth: 0-4'

**Professional
Service
Industries**

Client: Boyle Engineering
Project: Coral Shores

Project No: 552-6G154

Figure

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

PARTICLE SIZE ANALYSIS WORKSHEET

Specific Gravity _____ z = _____ Technician _____ Date _____
 Original Sample _____ E (_____) Minus No. 10 Mat. _____ E = _____ %

Sieve Analysis

Sieve Size	16"	10"	#4	#10	#20	#40	#60	#100	#200
Wt. Retained (g)									
% Retained									
% Pass									
% Finer (Total)									

Hygroscopic Water

Test No.	V
Ther. + Air Dry (g)	5.230
Ther. + Oven Dry (g)	29.27
Wt. Water (g)	0.01
Ther. Wt (g)	44.26
Oven Dry Soil (g)	11.03
Hygroscopic, W (%)	1.02
Correction Factor	1.000

Hydrometer Analysis

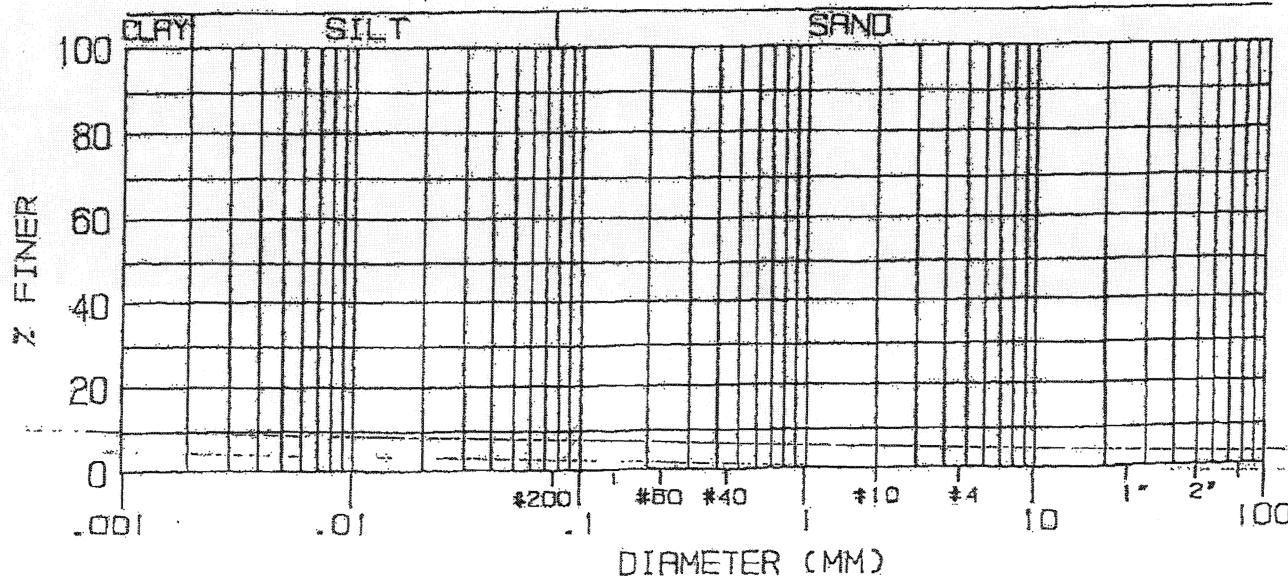
Time Started _____

Time, (Type)	2	5	15	30	60	250	1440	2880
Actual Reading	12	17	17	15	13	11	10	10
Composite Correction								
Correction Applied, X								
Temp. (°C)	26.3	26.3	26.1	26.1	26.3	26.7	25.7	25.5
Depth, L (cm)								
Value of K								
Dia. of Soil, D (mm)								
Soil Finer, F (%)								
% Finer (Total)								

Minus No. 10 Material

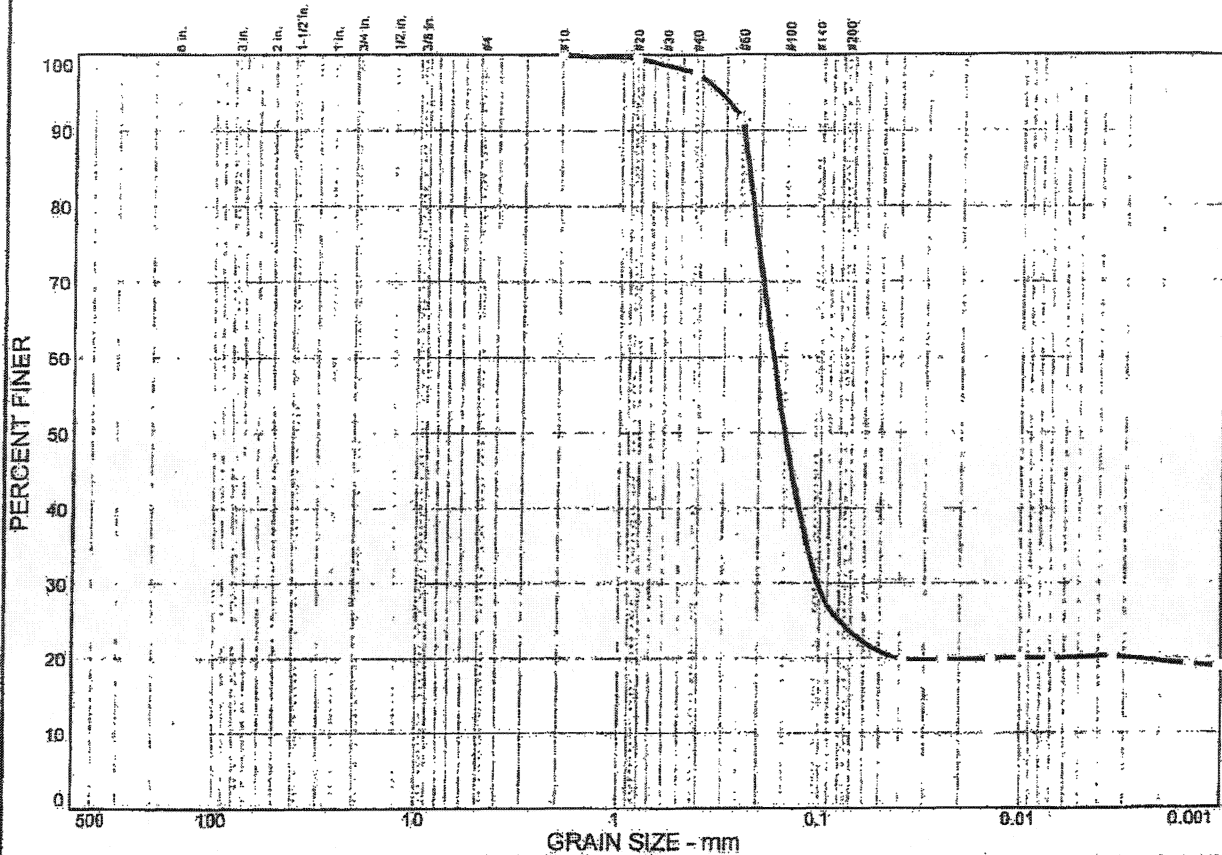
Test No.	JJ
Ther. + Air Dry (g)	150.34
Ther. Wt (g)	50.24
Air Dry Wt (g)	100.10
Oven Dry, W (g)	72.00

RYTER WASH 14359-5324:952



Clay _____ % Silt _____ % Sand _____ %

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	0.0	75.7	4.2	20.1

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	99.6		
#40	97.6		
#60	91.5		
#140	6.8		
#200	4.1		

Material Description
Silty Sand with Shell And Organics

Atterberg Limits
 PL= LL= PI=

Coefficients
 D₈₅= 0.232 D₆₀= 0.171 D₅₀= 0.150
 D₃₀= 0.102 D₁₅= D₁₀=
 C_u= C_c=

Classification
 USCS= AASHTO=

Remarks

* (no specification provided)

Sample No.: 7,8,9p,10
Location: Coral Shores

Source of Sample:

Date: 9-28-06
Elev./Depth: 0-4'

**Professional
Service
Industries**

Client: Boyle Engineering
Project: Coral Shores

Project No: 552-6G154

Figure

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

PARTICLE SIZE ANALYSIS WORKSHEET

Specific Gravity _____ g = _____ Technician _____ Date _____
 Original Sample _____ g) Minus No. 10 Mat. _____ g = _____ %

Sieve Analysis

Sieve Size	1/2"	3/8"	No. 10	No. 20	No. 40	No. 60	No. 100	No. 200
Wt. Retained (g)								
% Retained								
% Pass								
% Finer (Total)								

Hygroscopic Water

Test No.	X
Mass + Air Dry (g)	60.64
Mass + Oven Dry (g)	102.63
Wt. Water (g)	
Mass Wt. (g)	50.60
Oven Dry Soil (g)	
Hygroscopic Wt. (%)	11.99%
Correction Factor	100

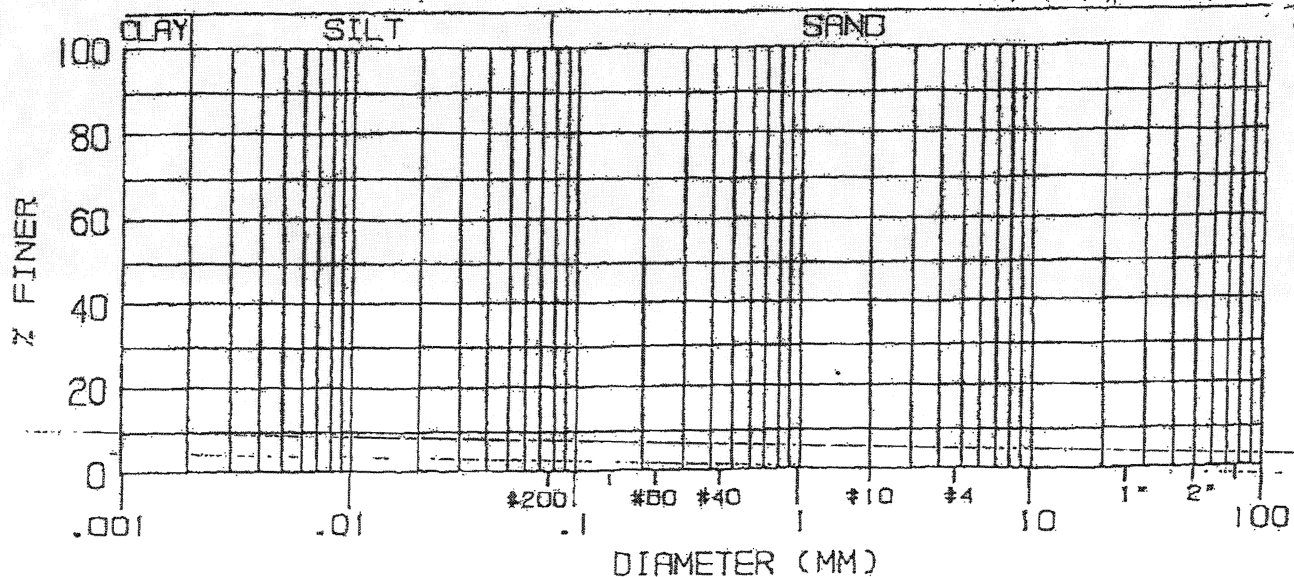
Hydrometer Analysis

Time Started _____

Time, T (sec)	2	5	15	30	60	250	1000	2880
Actual Reading	7	9	1	3	7	9	9	3
Composite Correction								
Correction Applied, %								
Temp. (°C)	24.3	28.5	22.4	24.1	26.1	27.9	25.7	25.1
Depth, L (cm)								
Value of K								
Dia. of Soil, D (mm)								
Soil Factor, F (%)								
% Finer (Total)								

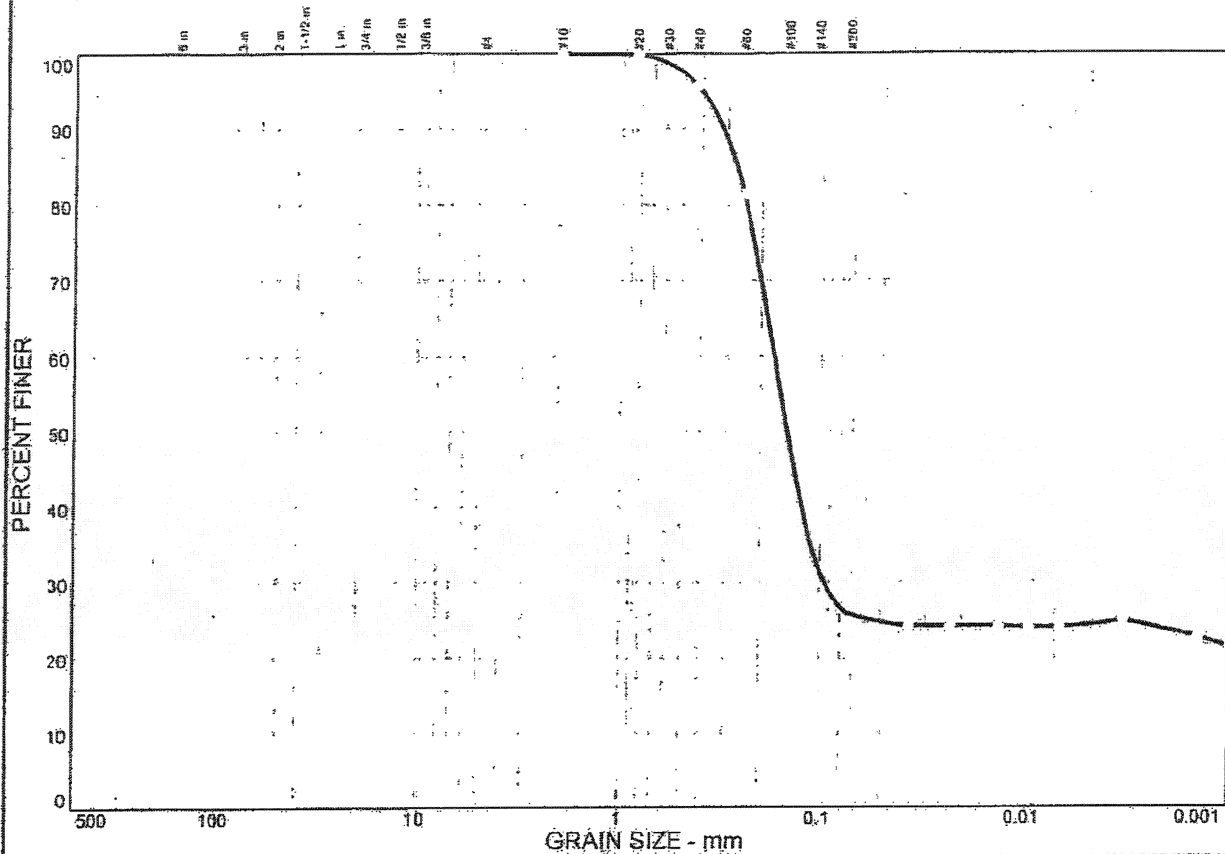
Minus No. 10 Material

Test No.	53
Mass + Air Dry (g)	112.50
Mass Wt. (g)	49.45
Air Dry Wt. (g)	100.65
Oven Dry, Wt. (g)	11.15



Clay _____ % Silt _____ % Sand _____ %

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	0.0	74.1	1.6	24.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	100.0		
#40	95.6		
#60	81.4		
#140	8.4		
#200	7.2		

* (no specification provided)

Material Description

Dark Gray Silty Sand With Shell And Organics

PL=

Atterberg Limits

LL=

PI=

Coefficients

D₈₅= 0.272

D₆₀= 0.173

D₅₀= 0.147

D₃₀= 0.0957

D₁₅=

D₁₀=

C_u=

C_c=

Classification

USCS=

AASHTO=

Remarks

Sample No.: 11,12,13

Source of Sample:

Date: 9-28-06

Location: Coral Shores

Elev./Depth: 0-4'

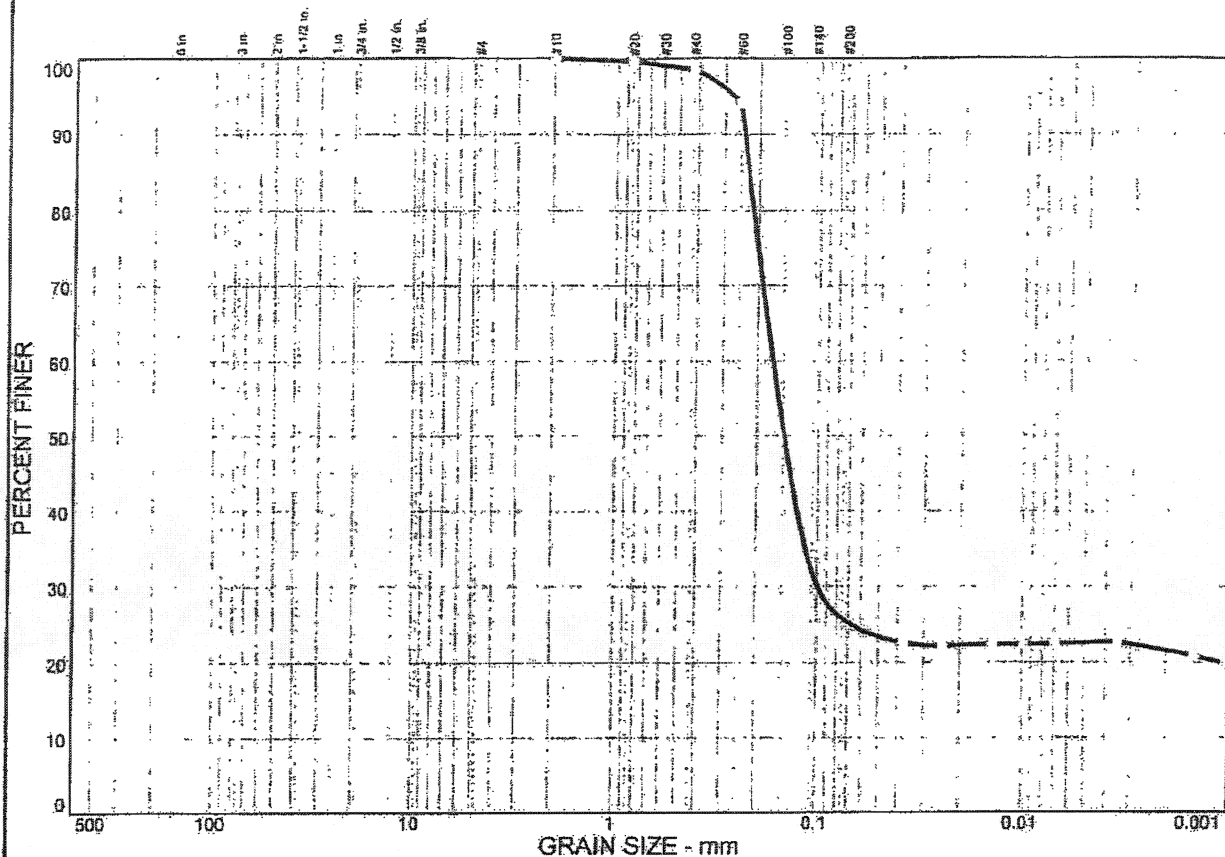
**Professional
Service
Industries**

Client: Boyle Engineering
Project: Coral Shores

Project No: 552-6G154

Figure

Particle Size Distribution Report



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PARTICLE SIZE ANALYSIS WORKSHEET

Specific Gravity _____ s = _____ Technician _____ Date _____
 Original Sample _____ g (_____ g) Minus No.10 Mat. _____ g = _____ %

Gravimetric Analysis

Test No.	%	%	#4	#10	#40	#60	#100	#200
Retained (g)			2	.28	1.52	1.91	9.1	97.27
Retained								
Wt.								
Wt. (Total)								

Hygroscopic Water

Test No.	1
Test + Air Dry (g)	10.1
Test + Oven Dry (g)	10.141
Wt. Water (g)	
Test Wt. (g)	10.1
Oven Dry Soil (g)	
Hygroscopic, W (%)	
Correction Factor	

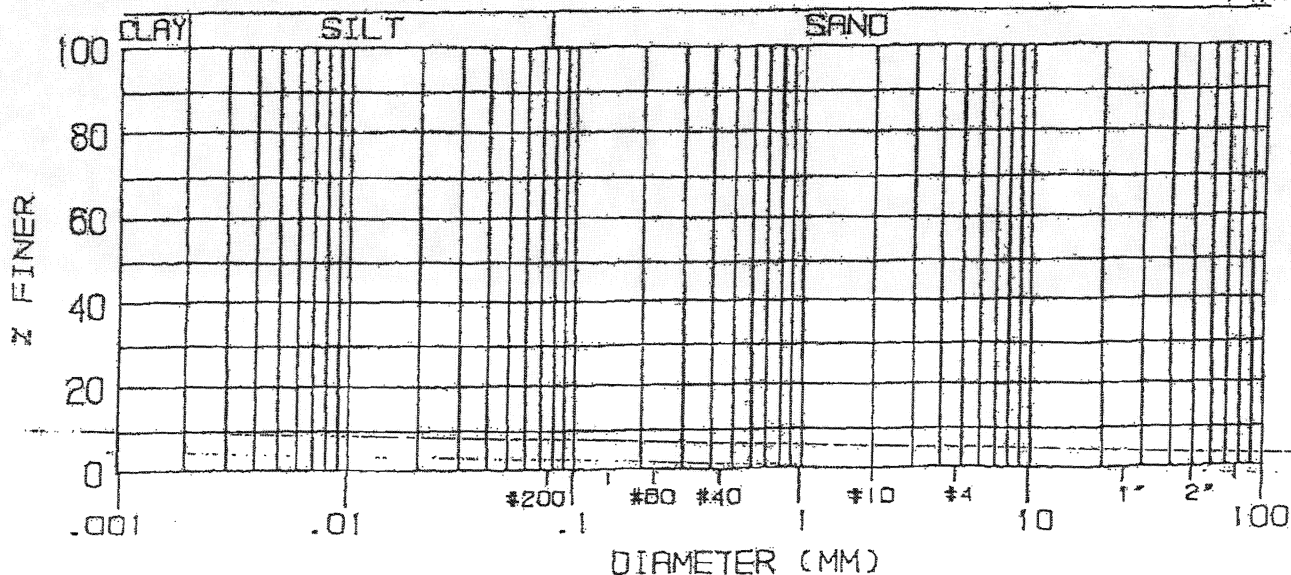
Drometer Analysis

Time Started _____

Time, (Minutes)	2	5	15	30	60	250	1440	2880
Initial Reading	11	11	11	11	11	11	11	11
Compensate Correction								
Correction Applied, R								
Temp. (°C)	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2
pH, (Lose)								
Value of K								
Wt. of Soil, D (mm)								
Soil Flour, W (%)								
Flour (Total)								

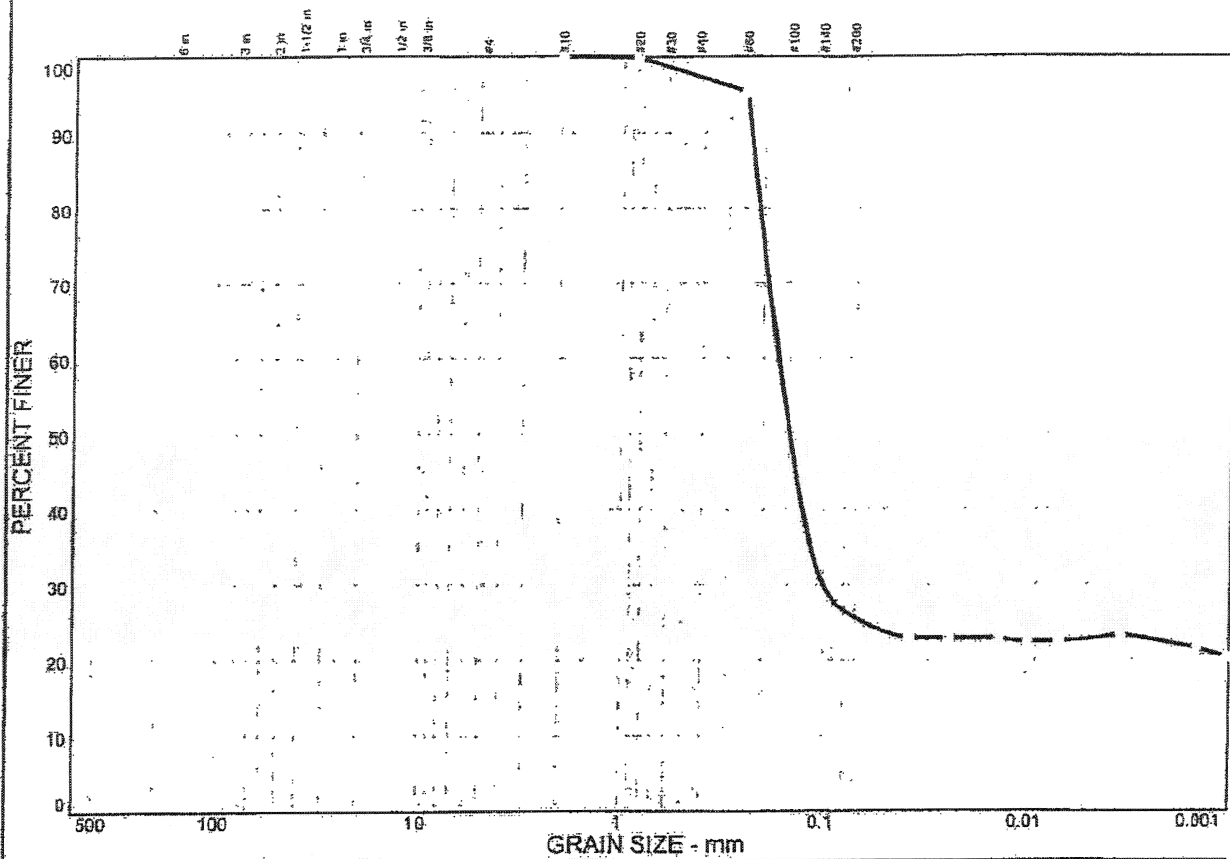
Minus No.10 Material

Test No.	T
Test + Air Dry (g)	10.139
Test Wt. (g)	10.139
Air Dry Wt. (g)	10.139
Oven Dry, W (g)	10.139



Clay _____ % Silt _____ % Sand _____ %

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	0.0	73.9	3.3	22.8

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	100.0		
#60	95.4		
#140	7.1		
#200	4.0		

Material Description
Light Gray Silty Sand With Shell And Organics

Atterberg Limits
 PL= LL= PI=

Coefficients
 D₈₅= 0.234 D₆₀= 0.169 D₅₀= 0.149
 D₃₀= 0.101 D₁₅= D₁₀=
 C_u= C_c=

Classification
 USCS= AASHTO=

Remarks

(no specification provided)

Sample No.: 16,17,18
Location: Coral Shores

Source of Sample:

Date: 9-28-06
Elev./Depth: 0-4'

**Professional
Service
Industries**

Client: Boyle Engineering
Project: Coral Shores

Project No: 552-6G154

Figure _____

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

PARTICLE SIZE ANALYSIS WORKSHEET

Specific Gravity _____ g = _____ Technician _____ Date _____
 Original Sample _____ g (_____ g) Minus #10 Mat. _____ g = _____ %

Gravimetric Analysis

sieve size	%	%	#4	#10	#40	#60	#100	#200
Retained			0	75	157	411	234	26.52
Retained								
Pass								
Filter (Total)								

Hydroscopic Water

Tare No.	
Tare + Air Dry (g)	61.33
Tare + Oven Dry (g)	60.33
Wt. Water (g)	
Tare Wt. (g)	51.31
Oven Dry Soil (g)	
Hygroscopic, W (%)	
Correction Factor	

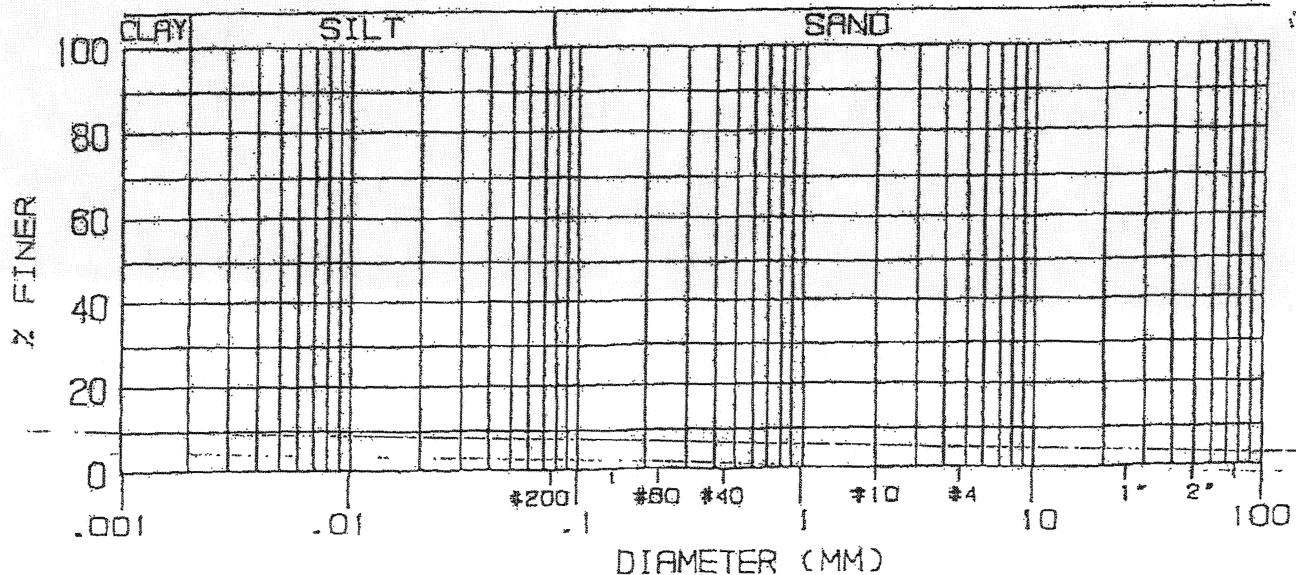
Drum Analysis

Time Started _____

Time, (min)	2	5	15	30	60	4-10 #250	4-10 #440	4-10 #2880
Coarse Retention	11	11	11	11	11	11	11	11
Coarse Correction								
Correction Applied, %								
Temp. (°C)	25.4	25.4		25.4	25.4	25.4	25.4	25.4
Yth, L (in)			25.4					
Value of K								
Wt. of Soil, D (g)								
Soil Flow, P (%)								
Flow (Total)								

Minus #10 Material

Tare No.	57
Tare + Air Dry (g)	51.33
Tare Wt. (g)	51.33
Air Dry Wt. (g)	51.33
Oven Dry, W (g)	51.33



Clay _____ % Silt _____ % Sand _____ %

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

PARTICLE SIZE ANALYSIS WORKSHEET

Specific Gravity _____ g = _____ Technician _____ Date _____
 Original Sample _____ g (_____) Minus No. 10 Mat. _____ g = _____ %

Sieve Analysis

Sieve Size	1/2"	No. 10	No. 20	No. 40	No. 60	No. 100	No. 200
Wt. Retained(g)		82	73	7.06	1.44	0.23	0.76
% Retained							
% Pass							
% Finer (Total)							

Hygroscopic Water

Tare No.	1
Tare + Air Dry(g)	10.16
Tare + Oven Dry(g)	6.12
WT. Water(g)	4.04
Tare Wt.(g)	2.07
Oven Dry Soil(g)	
Hygroscopic Wt(%)	1.12
Correction Factor	2.31

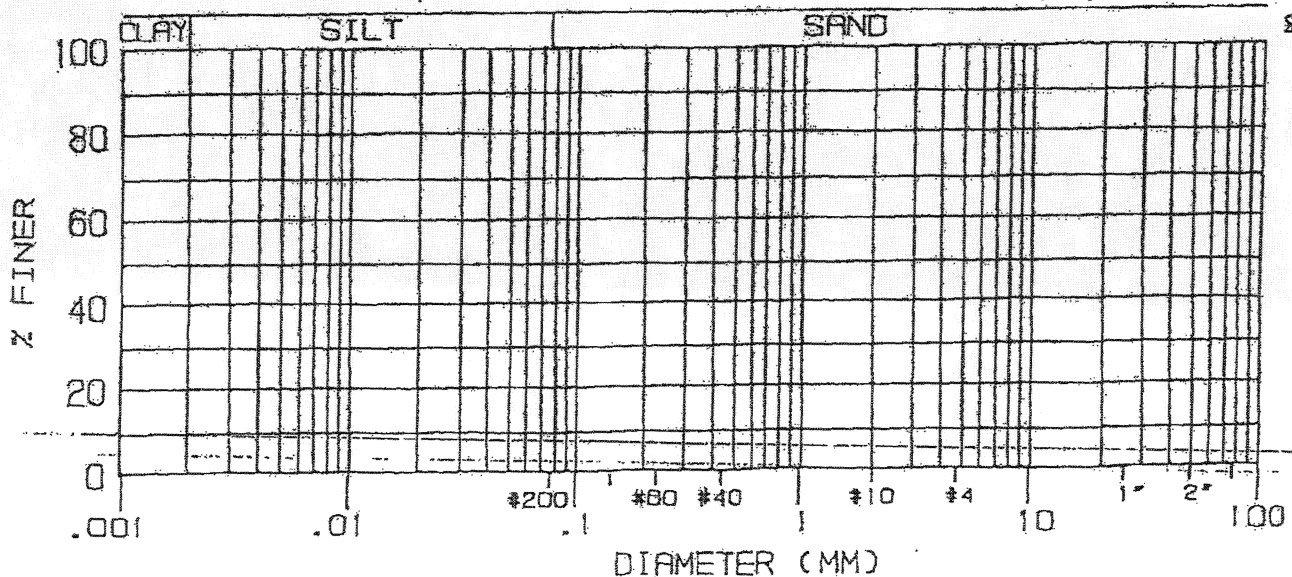
Hydrometer Analysis

Time Started _____

Time, (Minutes)	2	5	15	30	60	250	1440	2880
Actual Reading	17	17	17	15	11	7	3	1
Correction Factor								
Correction Applied, %								
Temp. (°C)	20	20	20	20	20	20	20	20
Depth, L(cm)								
Value of K								
Dis. of Sol. D(mm)								
Soil Flour, P(%)								
% Flour (Total)								

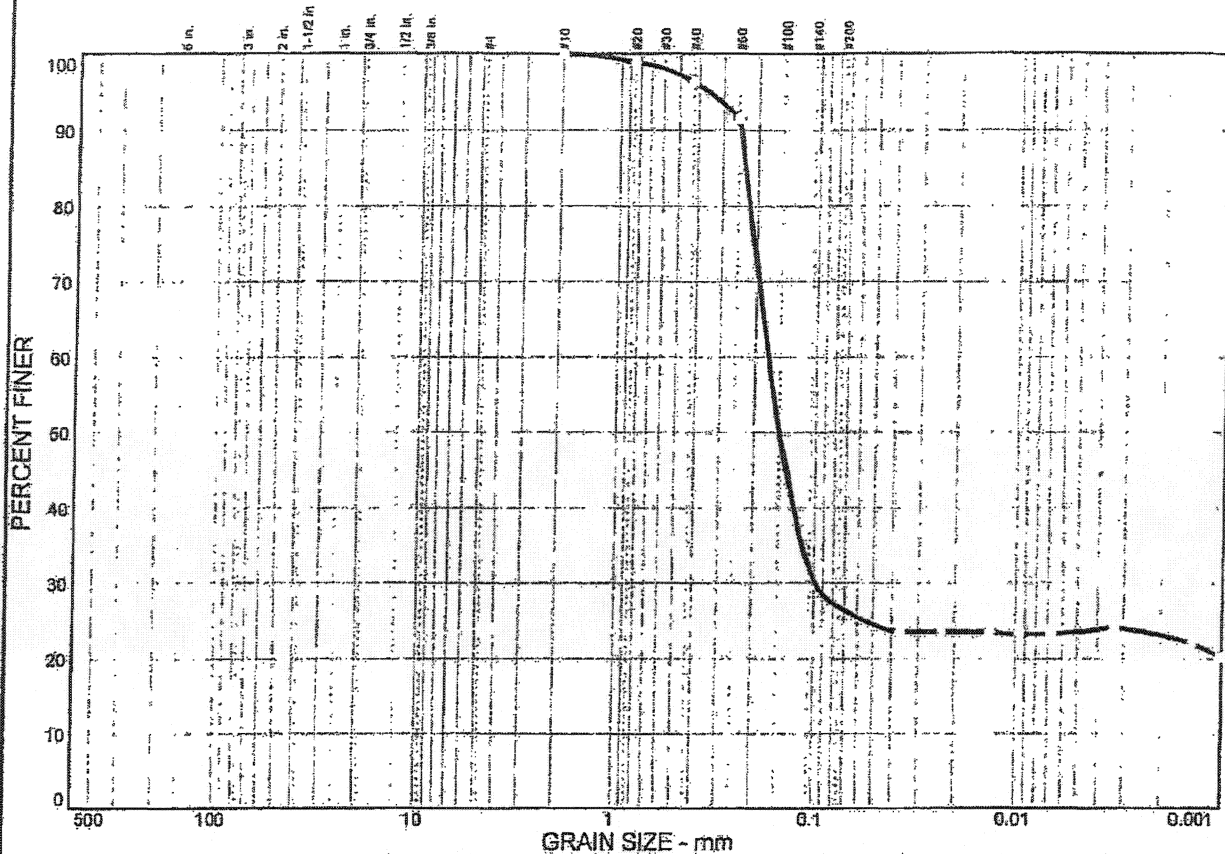
Minus No. 10 Material

Tare No.	2
Tare + Air Dry(g)	10.16
Tare Wt.(g)	2.07
Air Dry Wt.(g)	8.09
Oven Dry Wt.(g)	7.14



Clay _____ % Silt _____ % Sand _____ %

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	0.0	73.2	3.3	23.5

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	98.8		
#40	96.2		
#60	91.5		
#140	10.9		
#200	6.0		

* (no specification provided)

Material Description
Light Gray Silty Sand With Shell And Organics

Atterberg Limits
 PL= LL= PI=

Coefficients
 D₈₅= 0.212 D₆₀= 0.172 D₅₀= 0.150
 D₃₀= 0.0986 D₁₅= D₁₀=
 C_u= C_c=

Classification
 USCS= AASHTO=

Remarks

Sample No.: 22.23
Location: Coral Shores

Source of Sample:

Date: 9-28-06
Elev./Depth: 0-4'

**Professional
Service
Industries**

Client: Boyle Engineering
Project: Coral Shores

Project No: 552-6G154

Figure

(3)

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PARTICLE SIZE ANALYSIS WORKSHEET

Specific Gravity _____ s = _____ Technician _____ Date _____
Original Sample _____ g) Minus No. 10 Mat. _____ g = _____ %

Sieve Analysis

Sieve Size	1/2"	3/8"	3/16"	3/32"	1/16"	1/32"	1/64"	1/128"
Wt. Retained(g)			8	175	395	775	2751	9436
% Retained								
% Pass								
% Pass (Total)								

Hygroscopic Water

Tare No.	21
Tare + Air Dry(g)	60.95
Tare + Oven Dry(g)	60.98
Wt. Water(g)	C
Tare Wt.(g)	51.10
Oven Dry Soil(g)	
Hygroscopic Wt(%)	
Correction Factor	

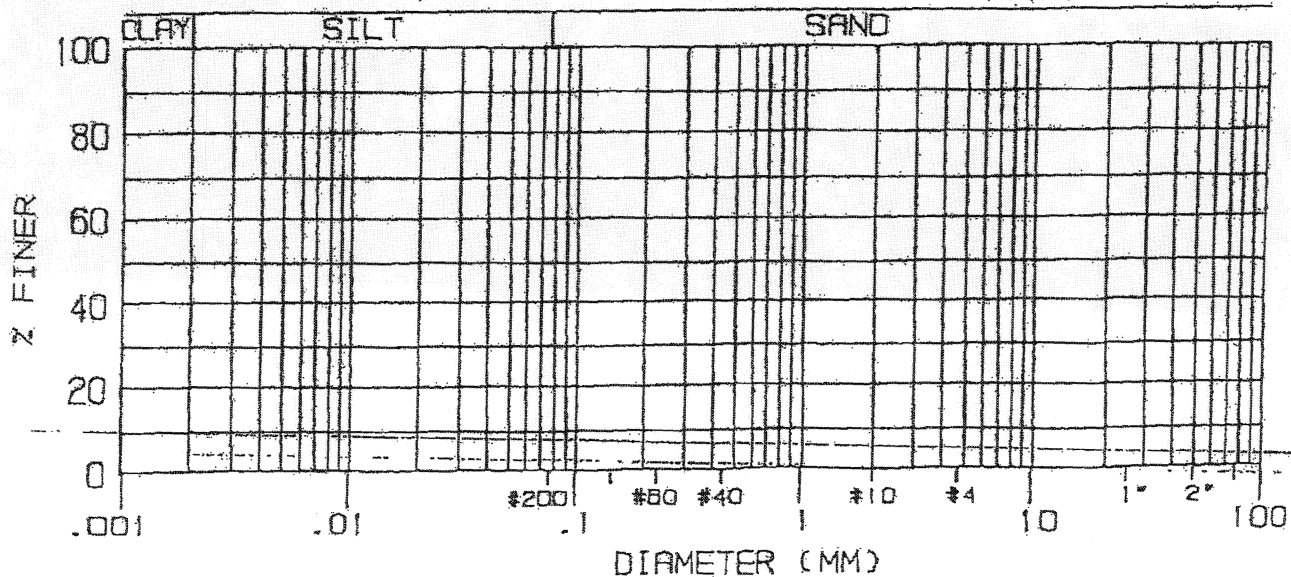
Hydrometer Analysis

Time Started

Time, (min)	2	5	15	30	60	250	1440	2880
Actual Reading	17	10	13	13	13	11	10	
Coarsest Correction								
Correction Applied, %								
Temp. (°C)	25.3	25.3	25.3	25.4	25.5	25.8	25.8	25.3
Depth, L(cm)								
Value of K								
Dia. of Soil, D(mm)								
Soil Fiber, P(%)								
% Finer (Total)								

Minus No. 10 Material

Tare No.	2
Tare + Air Dry(g)	15.15
Tare Wt.(g)	51.10
Air Dry Wt.(g)	15.15
Oven Dry, W(g)	



Project Number: 552-6G154

Date: 10/5/2006

Project Name: Coral Shores

Tested By: MS

Lab Number: 20441

Entered By: KC

Borring #:

3,4,24	5,6	14,15
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Organic

Tare #	16	13	12	
Wt. Tare & Soil BC	56.47	52.76	58.08	gm
Wt. Tare & Soil DC	55.90	52.59	57.82	gm
Wt. organic	0.57	0.17	0.26	gm
WT. Tare	29.50	32.50	29.25	gm
WT. soil	26.97	20.26	28.83	gm
%organic	2.1	0.8	0.9	%

Classification Criteria

%+4	#REF!	D60	
% SAND	#REF!	D30	
%-200	0.0	D10	
LL	0	CU	
PI	0	CC	
OC%	#REF!		

Classification

--

Soil Description: _____

Project Number: 552-6G154

Date: 10/5/2006

Project Name: Coral Shores

Tested By: MS

Lab Number: 20441

Entered By: KC

Boring #:

13 1/2 ft

23,24	19,20,21	7,8,9,10	16,17,18
-------	----------	----------	----------

Organic

Tare #

Wt. Tare & Soil BC

Wt. Tare & Soil DC

Wt. organic

Wt. Tare

Wt. soil

%organic

10	5	3	6	
59.68	37.57	34.74	38.30	gm
59.31	37.12	34.56	38.18	gm
0.37	0.45	0.18	0.12	gm
31.24	19.80	18.06	22.92	gm
28.44	17.77	16.68	15.38	gm
1.3	2.5	1.1	0.8	%

Classification Criteria

%+4	#REF!	D60	
% SAND	#REF!	D30	
%-200	0.0	D10	
LL	0	CU	
PI	0	CC	
OC%	#REF!		

Classification

Soil Description:

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
DETERMINATION OF ORGANIC CONTENT IN SOIL

BY LOSS ON IGNITION

FM 1-T267

Lab # 2001

Corr. 1 Shift

DATE:	9-27-16			
PROJECT NO.:	552 - 66154			
TESTED BY:				
CAN NO.:	CC	2B	FF	27
LAB NO.:				
SAMPLE NO.:	23, 24	19, 20, 21	7, 8, 9, 10	16, 17, 18
TEXTURE:				
% ORGANIC:				
pH:				
A. CRUCIBLE NO.	10	5	3	6
B. TOTAL WT. (SOIL & CRUCIBLE)	59.68	37.57	34.74	38.30
C. BURNED WT. (SOIL & CRUCIBLE)	59.31	37.12	34.56	38.19
D. ORGANIC WT. (B-C)				
E. CRUCIBLE WT.	31.24	19.80	18.06	22.92
F. SOIL WT. (C-E)				
G. % ORGANIC MATTER (D/F)				

$$G = \frac{B-C}{B-E}$$

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
**DETERMINATION OF ORGANIC CONTENT IN SOIL
 BY LOSS ON IGNITION**
FM 1-T267

DATE:	6-28-96			
PROJECT NO.:	F.S.D. 4615-4			
TESTED BY:				
CAN NO.:	00	00	55	
LAB NO.:				
SAMPLE NO.:	3, 4, 24	5, 6	14, 15	
TEXTURE:				
% ORGANIC:				
pH:				
A. CRUCIBLE NO.	16	13	12	
B. TOTAL WT. (SOIL & CRUCIBLE)	56.47	52.46	58.08	
C. BURNED WT. (SOIL & CRUCIBLE)	55.97	52.59	57.82	
D. ORGANIC WT. (B-C)				
E. CRUCIBLE WT.	29.50	32.50	29.25	
F. SOIL WT. (C-E)				
G. % ORGANIC MATTER (D/F)				

$$G = \frac{B-C}{B-E}$$

GRAIN SIZE DISTRIBUTION TEST REPORT

PROFESSIONAL SERVICE INDUSTRIES, INC.

Project No. <u>552-6G154</u>		Date: <u>#####</u>
Project: <u>Coral Shores</u>		
Sample Location: <u>3,4,24</u>		
Soil Description: <u>Gray Silty Sand With Shell</u>		
Soil Classification: <u>0</u>	LL <u> </u>	PI <u> </u>
NMC % <u>52.2</u>		
GRAIN SIZE DISTRIBUTION <p>The graph plots Percent Finer (Y-axis, 0.0 to 100.0) against Grain Size in mm (X-axis, logarithmic scale from 10 to 0.01). The curve shows that 93.7% of the sample is finer than 0.075mm (No. 200 sieve) and 0.2% is finer than 0.075mm (No. 60 sieve). The data points plotted are: (10mm, 100%), (4.75mm, 100%), (2.0mm, 100%), (0.85mm, 100%), (0.6mm, 95%), (0.425mm, 90%), (0.25mm, 40%), (0.15mm, 10%), (0.075mm, 6%).</p>		
% Gravel 0.2	% Sand 93.7	%-200 6.0
D60	D30	D10 CC CU

Project Number: 552-6G154

Date: 9/22/2006

Project Name: Coral Shores

Tested By: MS

Sample ID 3,4,24

Entered By: KC

Moisture content

Tare #	H	
Wt. Tare & Wet Soil	441.04	gm
Wt. Tare & Dry Soil	307.00	gm
Wt. of Water	134.04	gm
Tare Wt.	50.28	gm
Wt. Dry Soil	256.72	gm
NMC %	52.2	%

Washed Sieve Analysis

Tare#	H	
Wt. Tare & Dry Soil BW	307.00	gm
Wt. Tare & Dry Soil AW	291.78	gm
Tare Wt.	50.28	gm
Wt. Dry Soil BW	256.72	gm
Wt. Dry Soil AW	241.50	gm
% passing	5.9	%

Organic

Tare #		
Wt. Tare & Soil BC		gm
Wt. Tare & Soil DC		gm
Wt. organic	0.00	gm
Wt. Tare		gm
Wt. soil	0.00	gm
% organic		%

Sieve	Sieve Size Opening mm	Weight Retained gms	Finer by Weight %
3/8	9.525	0.00	100.0
4	4.75	0.59	99.8
10	2	1.58	99.4
20	0.85	2.96	98.8
40	0.425	7.02	97.3
60	0.25	21.53	91.6
100	0.15	164.59	35.9
140	0.106	236.20	8.0
200	0.075	241.20	6.0
Total Wt.		256.72	0.0

Classification Criteria

% +4	0.2	D60	
% SAND	93.7	D30	
% -200	6.0	D10	
LL		CU	
PI		CC	
OC%			

Classification

Soil Description: Gray Silty Sand With Shell

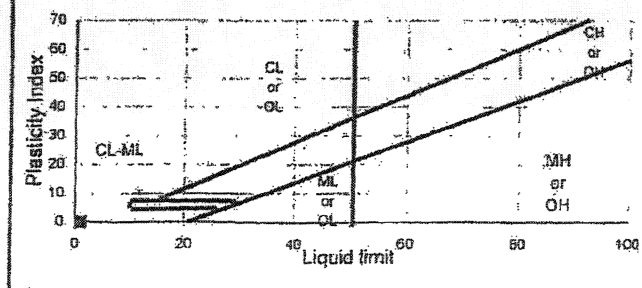
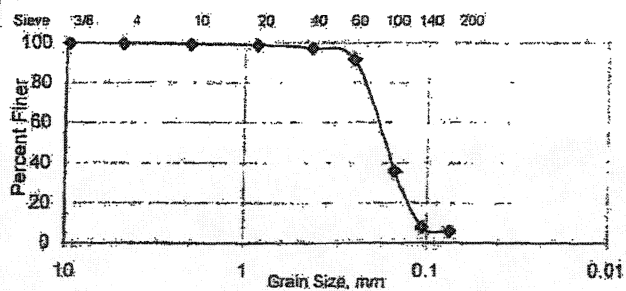
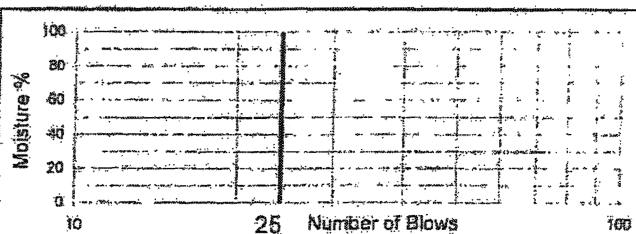
Plastic limit

Tare #	1	2	
Wt. Tare & Wet Soil			gm
Wt. Tare & Dry Soil			gm
Wt. of Water	0.00	0.00	gm
Tare Wt.			gm
Wt. Dry Soil	0.00	0.00	gm
Moisture	#DIV/0!	#DIV/0!	%
Ave %			

Liquid Limit Analysis

Tare #			
Blows (N)			

Wt. Tare & Wet Soil (gm)			
Wt. Tare & Dry Soil (gm)			
Wt. Tare			
Moisture %	#DIV/0!	#DIV/0!	
Liquid Limit:			
Plastic Index			

**DO NOT EVER CHANGE THESE CELLS****Determination of Soil Classification**

GRAIN SIZE DISTRIBUTION TEST REPORT

PROFESSIONAL SERVICE INDUSTRIES, INC.

Project No. <u>552-6G154</u>		Date: <u>#####</u>
Project: <u>Coral Shores</u>		
Sample Location: <u>5,6</u>		
Soil Description: <u>Gray Silty Sand With Shell</u>		
Soil Classification: <u>0</u>	LL <u> </u>	PI <u> </u>
NMC % 45.4		
GRAIN SIZE DISTRIBUTION		
<p>The graph plots Percent Finer (Y-axis, 0.0 to 100.0) against Grain Size in mm (X-axis, logarithmic scale from 10 to 0.01). The curve shows that 100% of the sample is finer than 10mm, 94.4% is finer than 0.6mm, and 5.6% is finer than 0.075mm. The data points plotted are: (10, 100.0), (4.75, 100.0), (2.0, 100.0), (0.85, 100.0), (0.6, 94.4), (0.425, 88.0), (0.25, 22.0), (0.15, 5.6), (0.075, 5.6), and (0.06, 5.6).</p>		
% Gravel	% Sand	%-200
0.0	94.4	5.6
D60	D30	D10
		CC
		CU

Project Number: 552-6G154

Date: 9/22/2006

Project Name: Coral Shores

Tested By: MS

Sample ID 5,6

Entered By: KC

Moisture content

Tare #	00	
Wt. Tare & Wet Soil	490.12	gm
Wt. Tare & Dry Soil	353.28	gm
Wt. of Water	136.84	gm
Tare Wt.	51.70	gm
Wt. Dry Soil	301.58	gm
NMC %	45.4	%

Plastic limit

Tare #	1	2	
Wt. Tare & Wet Soil			gm
Wt. Tare & Dry Soil			gm
WT. of Water	0.00	0.00	gm
Tare WT.			gm
WT. Dry Soil	0.00	0.00	gm
Moisture	#DIV/0!	#DIV/0!	%
Ave %			

Washed Sieve Analysis

Tare #	00	
Wt. Tare & Dry Soil BW	353.28	gm
Wt. Tare & Dry Soil AW	336.63	gm
Tare Wt.	51.70	gm
Wt. Dry Soil BW	301.58	gm
Wt. Dry Soil AW	284.93	gm
% passing	5.5	%

Liquid Limit Analysis

Tare #			
Blows (N)			
Wt. Tare & Wet Soil (gm)			
Wt. Tare & Dry Soil (gm)			
WT. Tare			
Moisture %	#DIV/0!	#DIV/0!	
Liquid Limit:			
Plastic index			

Organic

Tare #		
Wt. Tare & Soil BC		gm
Wt. Tare & Soil DC		gm
Wt. organic	0.00	gm
WT. Tare		gm
WT. soil	0.00	gm
% organic		%

Sieve	Sieve Size Opening mm	Weight Retained gms	Finer by Weight %
3/8	9.525	0.00	100.0
4	4.75	0.00	100.0
10	2	0.16	99.9
20	0.85	0.85	99.7
40	0.425	8.84	97.7
60	0.25	36.85	87.8
100	0.15	237.43	21.3
140	0.106	280.53	7.0
200	0.075	284.72	5.6
Total Wt.		301.58	0.0

Classification Criteria

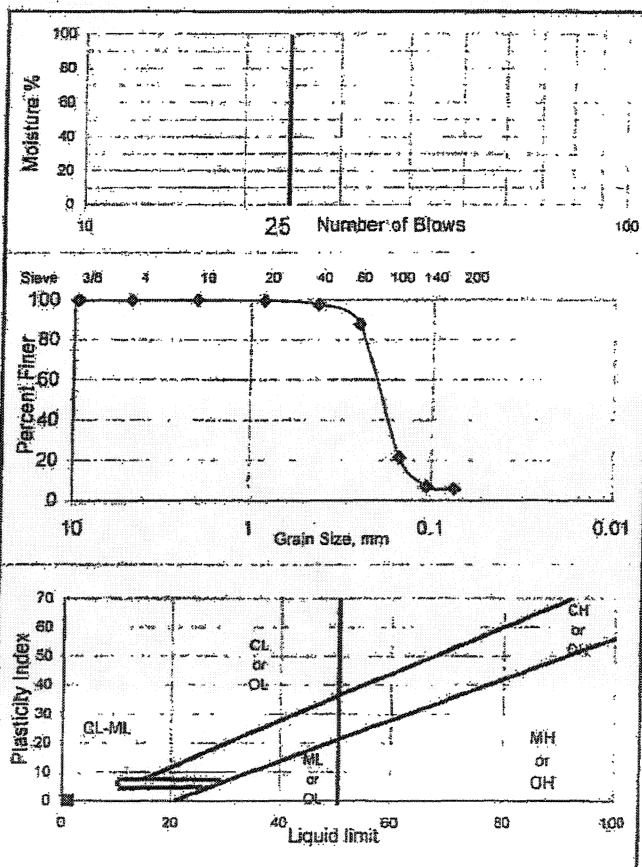
% #4	0.0	D60	
% SAND	94.4	D30	
% #200	5.6	D10	
LL		CU	
PI		CC	
OC%			

Classification

Soil Description: Gray Silty Sand With Shell

DO NOT EVER CHANGE THESE CELLS

Determination of Soil Classification



GRAIN SIZE DISTRIBUTION TEST REPORT

PROFESSIONAL SERVICE INDUSTRIES, INC.

Project No. <u>552-6G154</u>		Date: <u>#####</u>																							
Project: <u>Coral Shores</u>																									
Sample Location: <u>7, 8, 8P, 10</u>																									
Soil Description: <u>Gray Silty Sand With Shell</u>																									
Soil Classification: <u>0</u>		LL <u> </u>	PI <u> </u>																						
NMC % 30.7																									
GRAIN SIZE DISTRIBUTION																									
<p>The graph plots Percent Finer (Y-axis, 0.0 to 100.0) against Grain Size in mm (X-axis, logarithmic scale from 10 to 0.01). The curve shows that 96.8% of the sample is sand (finer than 0.6mm) and 3.2% is finer than 0.075mm.</p> <table border="1" style="margin-top: 10px;"> <caption>Grain Size Distribution Data Points</caption> <thead> <tr> <th>Grain Size (mm)</th> <th>Percent Finer (%)</th> </tr> </thead> <tbody> <tr><td>10</td><td>100.0</td></tr> <tr><td>4.75</td><td>100.0</td></tr> <tr><td>2.0</td><td>100.0</td></tr> <tr><td>0.85</td><td>100.0</td></tr> <tr><td>0.6</td><td>96.8</td></tr> <tr><td>0.425</td><td>96.8</td></tr> <tr><td>0.25</td><td>96.8</td></tr> <tr><td>0.15</td><td>96.8</td></tr> <tr><td>0.075</td><td>3.2</td></tr> <tr><td>0.075</td><td>0.0</td></tr> </tbody> </table>				Grain Size (mm)	Percent Finer (%)	10	100.0	4.75	100.0	2.0	100.0	0.85	100.0	0.6	96.8	0.425	96.8	0.25	96.8	0.15	96.8	0.075	3.2	0.075	0.0
Grain Size (mm)	Percent Finer (%)																								
10	100.0																								
4.75	100.0																								
2.0	100.0																								
0.85	100.0																								
0.6	96.8																								
0.425	96.8																								
0.25	96.8																								
0.15	96.8																								
0.075	3.2																								
0.075	0.0																								
% Gravel 0.0		% Sand 96.8																							
D60		D30																							
		D10																							
		CC																							
		CU																							

Project Number: 552-6G154

Date: 9/22/2006

Project Name: Coral Shores

Tested By: MS

Sample ID 7, 8, 8P, 10

Entered By: KC

Moisture content

Tare #	JJ	
Wt. Tare & Wet Soil	487.13	gm
Wt. Tare & Dry Soil	384.52	gm
Wt. of Water	102.61	gm
Tare Wt.	50.24	gm
Wt. Dry Soil	334.28	gm
NMC %	30.7	%

Washed Sieve Analysis

Tare#	JJ	
Wt. Tare & Dry Soil BW	384.52	gm
Wt. Tare & Dry Soil AW	373.81	gm
Tare Wt.	50.24	gm
Wt. Dry Soil BW	334.28	gm
Wt. Dry Soil AW	323.57	gm
% passing	3.2	%

Organic

Tare #		
Wt. Tare & Soil BC		gm
Wt. Tare & Soil DC		gm
Wt. organic	0.00	gm
WT. Tare		gm
WT. soil	0.00	gm
% organic		%

Sieve	Sieve Size Opening mm	Weight Retained gms	Finer by Weight %
3/8	9.525	0.00	100.0
4	4.75	0.00	100.0
10	2	1.06	99.7
20	0.85	2.85	99.1
40	0.425	9.22	97.2
60	0.25	29.39	91.2
100	0.15	209.08	37.5
140	0.106	315.62	5.6
200	0.075	323.52	3.2
Total Wt.		334.28	0.0

Classification Criteria

% +4	0.0	D60	
% SAND	96.8	D30	
% -200	3.2	D10	
LL		CU	
PI		CC	
OC%			

Classification

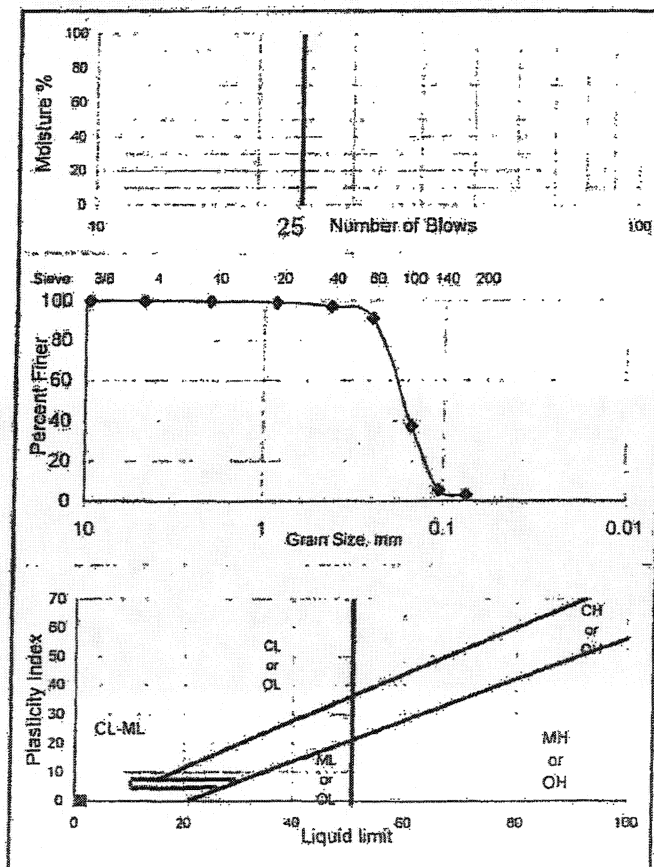
Soil Description: Gray Silty Sand With Shell

Plastic limit

Tare #		
Wt. Tare & Wet Soil		gm
Wt. Tare & Dry Soil		gm
WT. of Water	0.00	0.00 gm
Tare WT.		gm
WT. Dry Soil	0.00	0.00 gm
Moisture Ave %	#DIV/0!	#DIV/0! %

Liquid Limit Analysis

Tare #		
Blows (N)		
Wt. Tare & Wet Soil (gm)		
Wt. Tare & Dry Soil (gm)		
WT. Tare		
Moisture %	#DIV/0!	#DIV/0!
Liquid Limit		
Plastic Index		

**DO NOT EVER CHANGE THESE CELLS****Determination of Soil Classification**

GRAIN SIZE DISTRIBUTION TEST REPORT

PROFESSIONAL SERVICE INDUSTRIES, INC.

Project No. 552-6G154

Date: #####

Project: Coral Shores

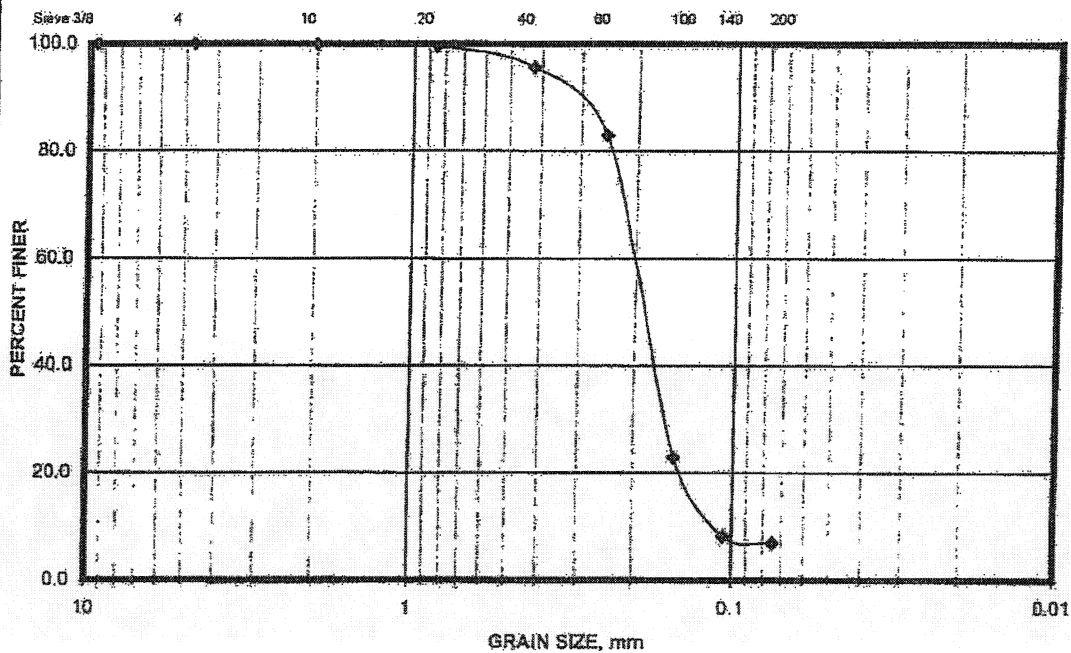
Sample Location: 11, 12, 13

Soil Description: Dark Gray Silty Sand With Shell

Soil Classification: 0 LL PI

NMC % 52.0

GRAIN SIZE DISTRIBUTION



% Gravel

0.0

D60

% Sand

93.1

D10

%-200

6.9

CU

D30

CC

Project Number: 552-6G154

Date: 9/22/2006

Project Name: Coral Shores

Tested By: MS

Sample ID 11, 12, 13

Entered By: KC

Moisture content

Tare #	59	
Wt. Tare & Wet Soil	522.55	gm
Wt. Tare & Dry Soil	380.97	gm
Wt. of Water	161.58	gm
Tare Wt.	50.29	gm
Wt. Dry Soil	310.68	gm
NMC %	52.0	%

Plastic limit

Tare #	1	2	
Wt. Tare & Wet Soil			gm
Wt. Tare & Dry Soil			gm
Wt. of Water	0.00	0.00	gm
Tare Wt.			gm
Wt. Dry Soil	0.00	0.00	gm
Moisture	#DIV/0!	#DIV/0!	%
Ave %			

Washed Sieve Analysis

Tare#	59	
Wt. Tare & Dry Soil BW	360.97	gm
Wt. Tare & Dry Soil AW	339.64	gm
Tare Wt.	50.29	gm
Wt. Dry Soil BW	310.68	gm
Wt. Dry Soil AW	289.35	gm
% passing	6.9	%

Liquid Limit Analysis

Tare #			
Blows (N)			
Wt. Tare & Wet Soil (gm)			
Wt. Tare & Dry Soil (gm)			
Wt. Tare			
Moisture %	#DIV/0!	#DIV/0!	
Liquid Limit:			Plastic index

Organic

Tare #		
Wt. Tare & Soil BC		gm
Wt. Tare & Soil DC		gm
Wt. organic	0.00	gm
Wt. Tare		gm
Wt. soil	0.00	gm
% organic		%

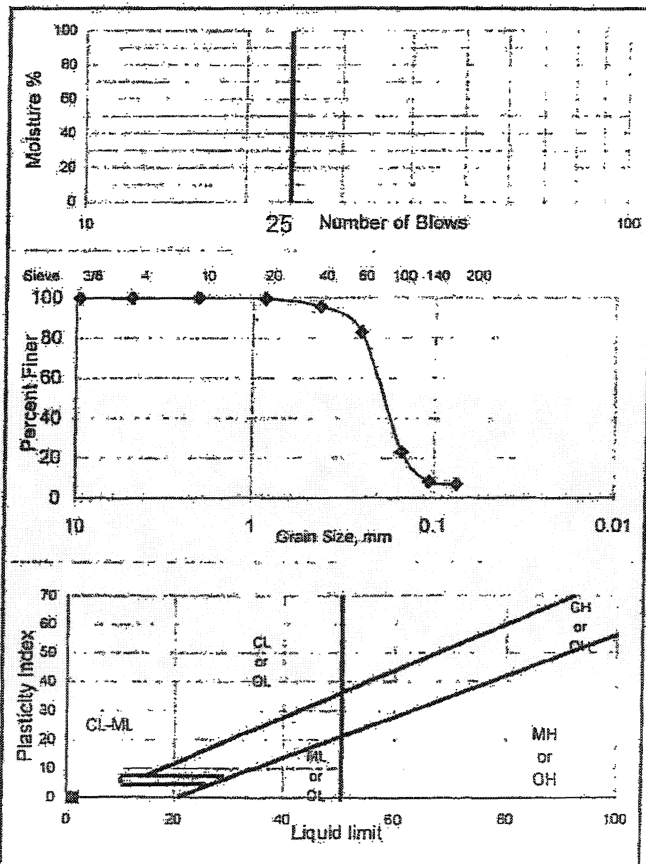
Sieve	Sieve Size Opening mm	Weight Retained gms	Finer by Weight %
3/8	9.525	0.00	100.0
4	4.75	0.00	100.0
10	2	0.21	99.9
20	0.85	1.46	99.5
40	0.425	13.54	95.6
60	0.25	52.99	82.9
100	0.15	239.61	22.9
140	0.106	285.24	8.2
200	0.075	289.21	6.9
Total Wt.		310.68	0.0

Classification Criteria

% #4	0.0	D60	
% SAND	93.1	D30	
% #200	6.9	D10	
LL		CU	
PI		CC	
OC%			

Classification

Soil Description: Dark Gray Silty Sand With Shell

DO NOT EVER CHANGE THESE CELLS**Determination of Soil Classification**

GRAIN SIZE DISTRIBUTION TEST REPORT

PROFESSIONAL SERVICE INDUSTRIES, INC.

Project No. <u>552-6G154</u>		Date: <u>#####</u>																								
Project: <u>Coral Shores</u>																										
Sample Location: <u>14, 15</u>																										
Soil Description: <u>Gray / Brown Silty Sand With Shell</u>																										
Soil Classification: <u>0</u> LL <u> </u> PI <u> </u>																										
NMC % <u>24.2</u>																										
GRAIN SIZE DISTRIBUTION <p>The graph plots Percent Finer (Y-axis, 0.0 to 100.0) against Grain Size in mm (X-axis, 10 to 0.01). A secondary top X-axis shows sieve numbers: 4, 10, 20, 40, 60, 100, 140, 200. The curve is a smooth line connecting data points.</p> <table border="1" style="margin-top: 10px; width: 100%;"> <caption>Grain Size Distribution Data Points</caption> <thead> <tr> <th>Grain Size (mm)</th> <th>Percent Finer (%)</th> </tr> </thead> <tbody> <tr><td>10</td><td>100.0</td></tr> <tr><td>4.75</td><td>100.0</td></tr> <tr><td>2.0</td><td>100.0</td></tr> <tr><td>0.85</td><td>100.0</td></tr> <tr><td>0.6</td><td>97.8</td></tr> <tr><td>0.425</td><td>97.8</td></tr> <tr><td>0.25</td><td>40.0</td></tr> <tr><td>0.15</td><td>10.0</td></tr> <tr><td>0.075</td><td>2.2</td></tr> <tr><td>0.06</td><td>2.2</td></tr> <tr><td>0.05</td><td>2.2</td></tr> </tbody> </table>			Grain Size (mm)	Percent Finer (%)	10	100.0	4.75	100.0	2.0	100.0	0.85	100.0	0.6	97.8	0.425	97.8	0.25	40.0	0.15	10.0	0.075	2.2	0.06	2.2	0.05	2.2
Grain Size (mm)	Percent Finer (%)																									
10	100.0																									
4.75	100.0																									
2.0	100.0																									
0.85	100.0																									
0.6	97.8																									
0.425	97.8																									
0.25	40.0																									
0.15	10.0																									
0.075	2.2																									
0.06	2.2																									
0.05	2.2																									
% Gravel 0.0	% Sand 97.8	%-200 2.2																								
D60	D30	D10 CC CU																								

Project Number: 552-6G154

Date: 9/22/2006

Project Name: Coral Shores

Tested By: MS

Sample ID 14, 15

Entered By: KC

Moisture content

Tare #	55	
Wt. Tare & Wet Soil	442.22	gm
Wt. Tare & Dry Soil	365.82	gm
Wt. of Water	76.40	gm
Tare Wt.	50.66	gm
Wt. Dry Soil	315.16	gm
NMC %	24.2	%

Plastic limit

Tare #	1	2	
Wt. Tare & Wet Soil			gm
Wt. Tare & Dry Soil			gm
Wt. of Water	0.00	0.00	gm
Tare Wt.			gm
Wt. Dry Soil	0.00	0.00	gm
Moisture	#DIV/0!	#DIV/0!	%
Ave %			

Washed Sieve Analysis

Tare#	55	
Wt. Tare & Dry Soil BW	365.82	gm
Wt. Tare & Dry Soil AW	358.80	gm
Tare Wt.	50.66	gm
Wt. Dry Soil BW	315.16	gm
Wt. Dry Soil AW	308.14	gm
% passing	2.2	%

Liquid Limit Analysis

Tare #			
Blows (N)			

Wt. Tare & Wet Soil (gm)			
Wt. Tare & Dry Soil (gm)			
Wt. Tare			
Moisture %	#DIV/0!	#DIV/0!	

Liquid Limit:

Plastic Index

Organic

Tare #		
Wt. Tare & Soil BC		gm
Wt. Tare & Soil DC		gm
Wt. organic	0.00	gm
Wt. Tare		gm
Wt. soil	0.00	gm
% organic		%

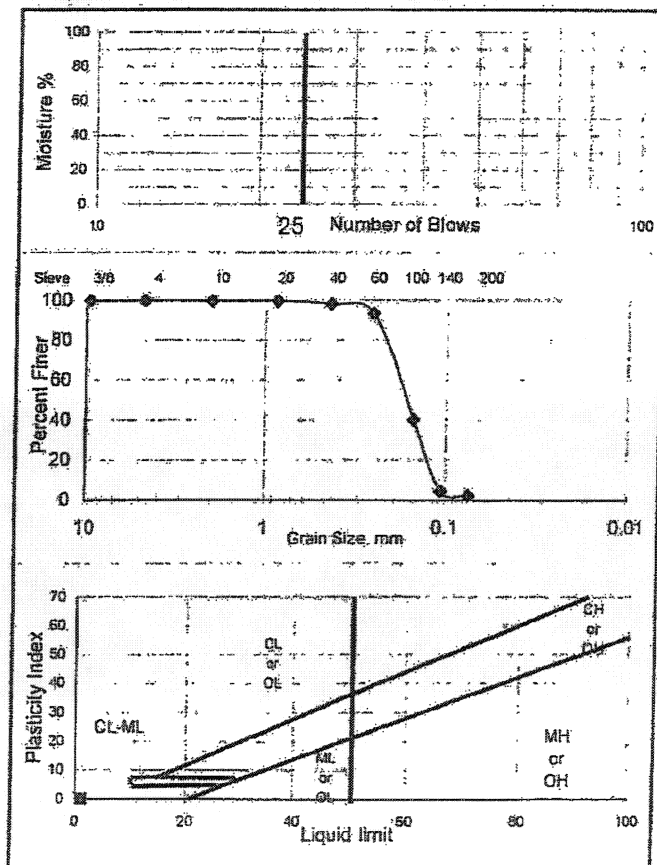
Sieve	Sieve Size Opening mm	Weight Retained gms	Finer by Weight %
3/8	9.525	0.00	100.0
4	4.75	0.00	100.0
10	2	0.28	99.9
20	0.85	0.67	99.8
40	0.425	5.96	98.1
60	0.25	20.72	93.4
100	0.15	188.47	40.2
140	0.106	301.23	4.4
200	0.075	308.13	2.2
Total Wt.		315.16	0.0

Classification Criteria

% #4	0.0	D60	
% SAND	97.8	D30	
% #200	2.2	D10	
LL		CU	
PI		GC	
OC%			

Classification

Soil Description: Gray / Brown Silty Sand With Shell

**DO NOT EVER CHANGE THESE CELLS****Determination of Soil Classification**

GRAIN SIZE DISTRIBUTION TEST REPORT

PROFESSIONAL SERVICE INDUSTRIES, INC.

Project No. 552-6G154

Date: #####

Project: Coral Shores

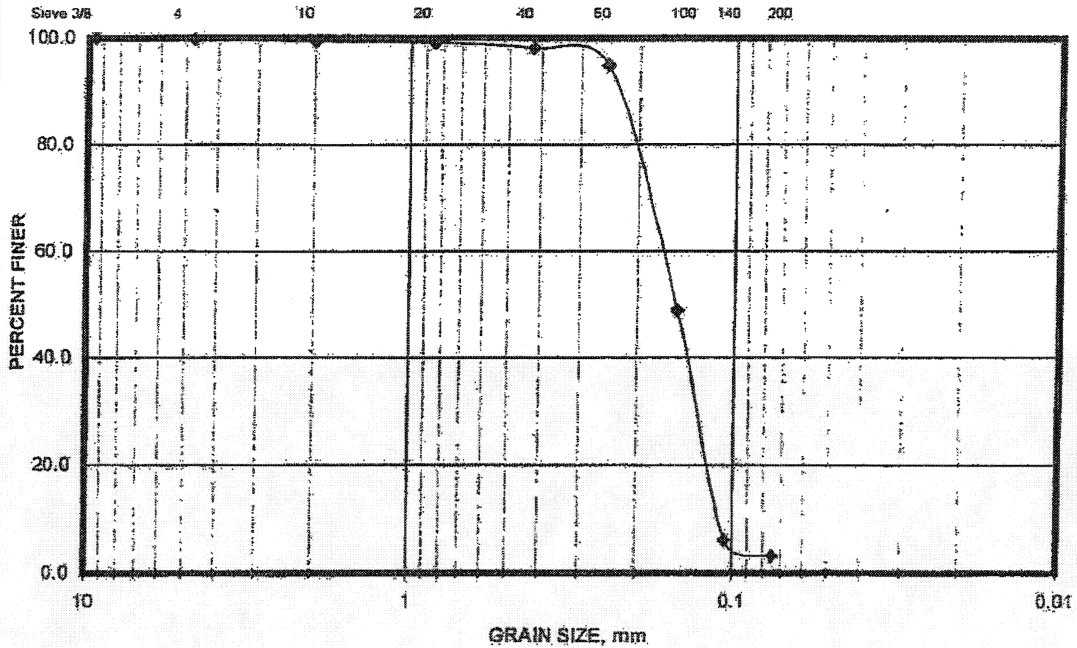
Sample Location: 16, 17, 18

Soil Description: Gray Silty Sand With Shell

Soil Classification: 0 LL PI

NMC % 26.3

GRAIN SIZE DISTRIBUTION



% Gravel

0.2

D60

% Sand

96.6

D10

%-200

3.2

CU

CC

D30

Project Number: 552-6G154

Date: 9/22/2006

Project Name: Coral Shores

Tested By: MS

Sample ID 16, 17, 18

Entered By: KC

Moisture content

Tare #	R	
Wt. Tare & Wet Soil	400.57	gm
Wt. Tare & Dry Soil	327.80	gm
Wt. of Water	72.87	gm
Tare Wt.	50.90	gm
Wt. Dry Soil	276.90	gm
NMC %	26.3	%

Washed Sieve Analysis

Tare#	R	
Wt. Tare & Dry Soil BW	327.80	gm
Wt. Tare & Dry Soil AW	319.04	gm
Tare Wt.	50.90	gm
Wt. Dry Soil BW	276.90	gm
Wt. Dry Soil AW	268.14	gm
% passing	3.2	%

Organic

Tare #		
Wt. Tare & Soil BC		gm
Wt. Tare & Soil DC		gm
Wt. organic	0.00	gm
WT. Tare		gm
WT. soil	0.00	gm
% organic		%

Sieve	Sieve Size Opening mm	Weight Retained gms	Finer by Weight %
3/8	9.525	0.00	100.0
4	4.75	0.61	99.8
10	2	1.84	99.3
20	0.85	2.68	99.1
40	0.425	5.26	98.1
60	0.25	13.97	95.0
100	0.15	141.57	48.9
140	0.106	260.01	6.1
200	0.075	268.12	3.2
Total Wt.		276.90	0.0

Classification Criteria

% + #4	0.2	D60	
% SAND	96.6	D30	
% #200	3.2	D10	
LL		CU	
PI		CC	
OC%			

Classification

Soil Description: Gray Silty Sand With Shell

Plastic limit

Tare #	1	2	
Wt. Tare & Wet Soil			gm
Wt. Tare & Dry Soil			gm
WT. of Water	0.00	0.00	gm
Tare WT.			gm
WT. Dry Soil	0.00	0.00	gm
Moisture	#DIV/0!	#DIV/0!	%
Ave %			

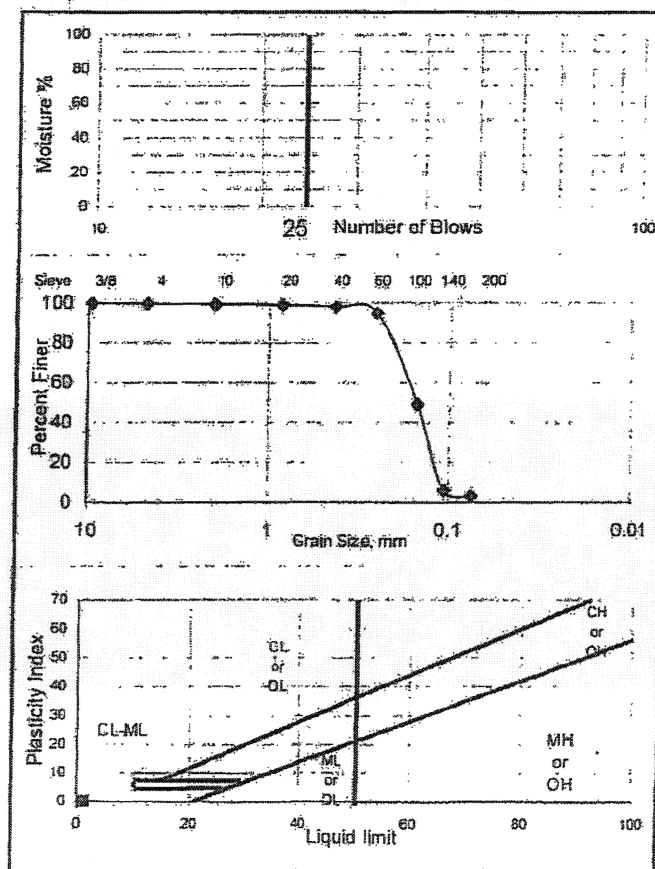
Liquid Limit Analysis

Tare #			
Blows (N)			

Wt. Tare & Wet Soil (gm)			
Wt. Tare & Dry Soil (gm)			
WT. Tare			
Moisture%	#DIV/0!	#DIV/0!	

Liquid Limit:

Plastic index



DO NOT EVER CHANGE THESE CELLS

Determination of Soil Classification

GRAIN SIZE DISTRIBUTION TEST REPORT

PROFESSIONAL SERVICE INDUSTRIES, INC.

Project No. <u>552-6G154</u>		Date: <u>#####</u>													
Project: <u>Coral Shores</u>															
Sample Location: <u>19, 20, 21</u>															
Soil Description: <u>Gray Silty Sand With Shell</u>															
Soil Classification: <u>0</u>		LL <u> </u>	PI <u> </u>												
NMC % <u>59.5</u>															
GRAIN SIZE DISTRIBUTION															
<table border="1" style="margin-top: 10px; width: 100%; border-collapse: collapse;"> <caption>Grain Size Distribution Data Points</caption> <thead> <tr> <th>Sieve / Size (mm)</th> <th>Percent Finer (%)</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>100.0</td> </tr> <tr> <td>4.75</td> <td>100.0</td> </tr> <tr> <td>0.6</td> <td>91.5</td> </tr> <tr> <td>0.25</td> <td>40.0</td> </tr> <tr> <td>0.075</td> <td>8.4</td> </tr> </tbody> </table>				Sieve / Size (mm)	Percent Finer (%)	10	100.0	4.75	100.0	0.6	91.5	0.25	40.0	0.075	8.4
Sieve / Size (mm)	Percent Finer (%)														
10	100.0														
4.75	100.0														
0.6	91.5														
0.25	40.0														
0.075	8.4														
% Gravel <u>0.1</u>		% Sand <u>91.5</u>													
D60		CC													
D30		CU													
D10		% -200 <u>8.4</u>													

Project Number: 552-6G154

Date: 9/22/2006

Project Name: Coral Shores

Tested By: MS

Sample ID 19, 20, 21

Entered By: KC

Moisture content

Tare #	32	
Wt. Tare & Wet Soil	474.82	gm
Wt. Tare & Dry Soil	316.59	gm
Wt. of Water	158.23	gm
Tare Wt.	50.58	gm
Wt. Dry Soil	266.01	gm
NMC %	59.5	%

Washed Sieve Analysis

Tare#	32	
Wt. Tare & Dry Soil BW	316.59	gm
Wt. Tare & Dry Soil AW	294.19	gm
Tare Wt.	50.58	gm
Wt. Dry Soil BW	266.01	gm
Wt. Dry Soil AW	243.61	gm
% passing	8.4	%

Organic

Tare #		
Wt. Tare & Soil BC		gm
Wt. Tare & Soil DC		gm
Wt. organic	0.00	gm
Wt. Tare		gm
Wt. soil	0.00	gm
% organic		%

Sieve	Sieve Size Opening mm	Weight Retained gms	Finer by Weight %
3/8	9.525	0.00	100.0
4	4.75	0.22	99.9
10	2	1.02	99.6
20	0.85	2.89	98.9
40	0.425	7.45	97.2
60	0.25	21.13	92.1
100	0.15	159.92	39.9
140	0.106	237.71	10.6
200	0.075	243.60	8.4
Total Wt.		266.01	0.0

Classification Criteria

%+ #4	0.1	D60	
% SAND	91.5	D30	
% #200	8.4	D10	
LL		CU	
PI		CC	
OC%			

Classification

Soil Description: Gray Silty Sand With Shell

Plastic limit

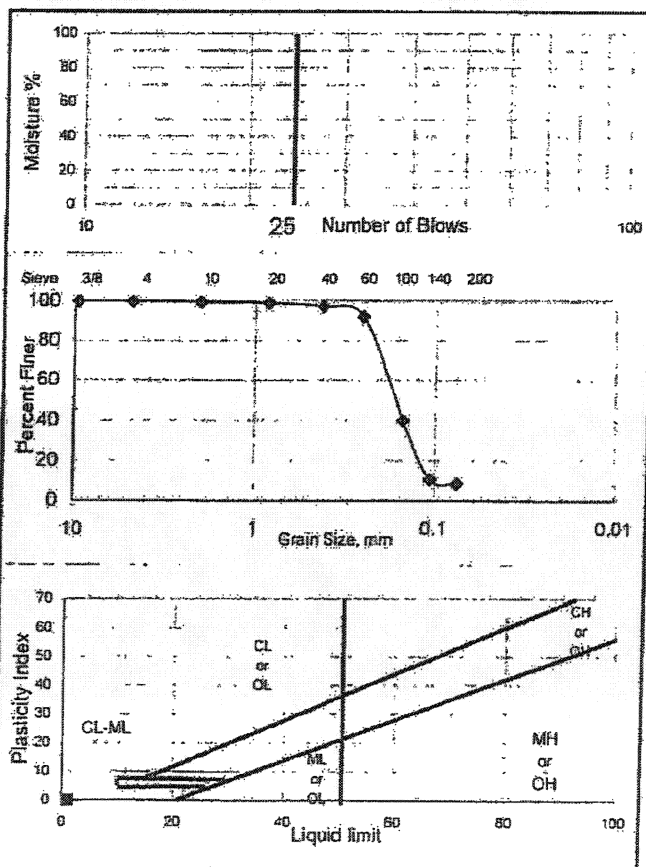
Tare #	1	2	
Wt. Tare & Wet Soil			gm
Wt. Tare & Dry Soil			gm
Wt. of Water	0.00	0.00	gm
Tare Wt.			gm
Wt. Dry Soil	0.00	0.00	gm
Moisture Ave %	#DIV/0!	#DIV/0!	%

Liquid Limit Analysis

Tare #			
Blows (N)			
Wt. Tare & Wet Soil (gm)			
Wt. Tare & Dry Soil (gm)			
Wt. Tare			
Moisture %	#DIV/0!	#DIV/0!	

Liquid Limit:

Plastic Index

**DO NOT EVER CHANGE THESE CELLS**

Determination of Soil Classification

GRAIN SIZE DISTRIBUTION TEST REPORT

PROFESSIONAL SERVICE INDUSTRIES, INC.

Project No. <u>552-6G154</u>		Date: <u>#####</u>
Project: <u>Coral Shores</u>		
Sample Location: <u>22, 23</u>		
Soil Description: <u>Gray Silty Sand With Shell</u>		
Soil Classification:	<u>0</u>	LL <u> </u> PI <u> </u>
NMC % <u>30.5</u>		
GRAIN SIZE DISTRIBUTION 		
% Gravel	% Sand	%-200
0.4	94.2	5.4
D60	D30	CU
	D10	CC

Project Number: 552-6G154

Date: 9/22/2006

Project Name: Coral Shores

Tested By: MS

Sample ID 22, 23

Entered By: KC

Moisture content

Tare #	17	
Wt. Tare & Wet Soil	389.65	gm
Wt. Tare & Dry Soil	310.24	gm
Wt. of Water	79.41	gm
Tare Wt.	49.72	gm
Wt. Dry Soil	260.52	gm
NMC %	30.5	%

Washed Sieve Analysis

Tare#	17	
Wt. Tare & Dry Soil BW	310.24	gm
Wt. Tare & Dry Soil AW	296.34	gm
Tare Wt.	49.72	gm
Wt. Dry Soil BW	260.52	gm
Wt. Dry Soil AW	246.62	gm
% passing	5.3	%

Organic

Tare #		
Wt. Tare & Soil BC		gm
Wt. Tare & Soil DC		gm
Wt. organic	0.00	gm
Wt. Tare		gm
Wt. soil	0.00	gm
% organic		%

Sieve	Sieve Size Opening mm	Weight Retained gms	Finer by Weight %
3/8	9.525	0.00	100.0
4	4.75	0.96	99.6
10	2	4.97	98.1
20	0.85	9.30	96.4
40	0.425	16.83	93.7
60	0.25	28.28	89.1
100	0.15	119.00	54.3
140	0.106	236.31	9.3
200	0.075	246.41	5.4
Total Wt.		260.52	0.0

Classification Criteria

% #4	0.4	D60	
% SAND	94.2	D30	
% #200	5.4	D10	
LL		CU	
PI		CC	
OC%			

Classification

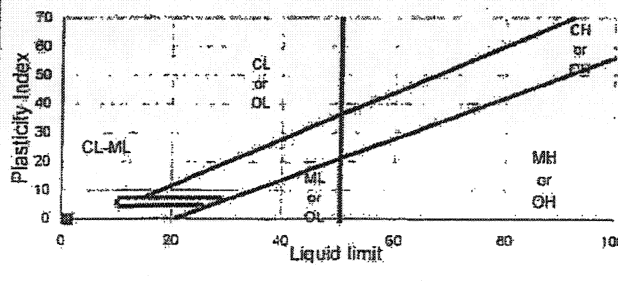
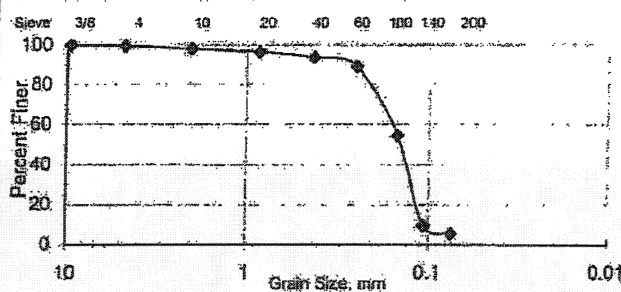
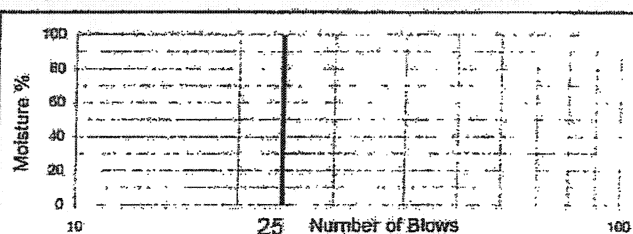
Soil Description: Gray Silty Sand With Shell

Plastic limit

Tare #	1	2	
Wt. Tare & Wet Soil			gm
Wt. Tare & Dry Soil			gm
Wt. of Water	0.00	0.00	gm
Tare Wt.			gm
Wt. Dry Soil	0.00	0.00	gm
Moisture Ave %	#DIV/0!	#DIV/0!	%

Liquid Limit Analysis

Tare #			
Blows (N)			
Wt. Tare & Wet Soil (gm)			
Wt. Tare & Dry Soil (gm)			
Wt. Tare			
Moisture %	#DIV/0!	#DIV/0!	
Liquid Limit			
Plastic Index			

**DO NOT EVER CHANGE THESE CELLS**

Determination of Soil Classification

GRAIN SIZE ANALYSIS

CLIENT _____ DATE _____

PROJECT NAME _____ PROJECT NO. _____

GRADATION ANALYSIS FOR

- ☐ Soil Classification
☐ Concrete Aggregates

Pan No.	1	2	3	4
Sample Location or No.	11.12.18	11.12.18	11.12.18	11.12.18
Sample Desc. or Unified Classification				
Wet Soil - Can	300.56	300.56	300.56	300.56
Dry Soil - Can	360.97	360.97	360.97	360.97
Weight Water	161.5%	161.5%	161.5%	161.5%
Tare Weight Can	50.39	50.39	50.39	50.39
Weight Dry Soil	310.58	310.58	310.58	310.58
Moisture Content %				
Dry Soil - Can	289.50	289.50	289.50	289.50
Dry Soil	289.50	289.50	289.50	289.50
% Passing				

DRILL BIT SIZE			GRAMS			GRAMS			GRAMS			GRAMS		
C.A.	SOIL	P.A.		Ret.	Pass		Ret.	Pass		Ret.	Pass		Ret.	Pass
3	3/4		0			0			0			0		
2 1/2	3/8		5			5			5			5		
2	4		51			51			51			51		
1 1/2	10		155			155			155			155		
1	20	3/8	21			21			21			21		
3/4	40	4	7.5			7.5			7.5			7.5		
1/2	60	8	2.5			2.5			2.5			2.5		
3/8	100	15	1.5			1.5			1.5			1.5		
4	140	30	25			25			25			25		
8	200	50	5			5			5			5		
16	270	100												
	PAN	PAN	2			2			2			2		

Pertinent Observations

Tested By _____

GRAIN SIZE ANALYSIS

CLIENT _____ DATE _____

PROJECT NAME _____ PROJECT NO. _____

GRADATION ANALYSIS FOR

☐ Soil Classification
☐ Concrete Aggregates

☐ Boring Samples
☐ Asphalt Aggregates

☐ Fill Samples
☐ Natural Soil

Pan No.				
Sample Location or No.				
Sample Desc. or Unified Classification				
Wet Soil - Can				
Dry Soil - Can	362.77	721.1	32	716.27
Weight Water	7.4			
Tare Weight Can	50.77			
Weight Dry Soil		721.1	32	716.27
Moisture Content %				
Dry Soil - Can	721.1	319.04	294.15	716.27
Dry Soil	408.74			
% Passing				

U.S. Sieve Size			GRAMS		GRAMS		GRAMS		GRAMS	
C.A.	Soil	F.A.	Ret.	Pass	Ret.	Pass	Ret.	Pass	Ret.	Pass
3	3/4									
2 1/2	3/8									
2	4									
1 1/2	10									
1	20	3/8								
3/4	40	4								
1/2	60	8								
3/8	100	15								
4	140	30								
8	200	50								
16	270	100								
	PAN	PAN								

Pertinent Observations _____

Tested By _____

APPENDIX B
FDEP MLW Determinations





DIVISION OF STATE LANDS
BUREAU OF SURVEY & MAPPING
3900 Commonwealth Blvd., MS 105
Tallahassee, Florida 32399-3000
Phone (850) 245-2606 Fax (850) 245-2645

FAX

COVER SHEET

DELIVER FAX TRANSMISSION TO:

Name: Kevin Owen
Of: PSI
Fax #: 813 245 0301 Phone #: _____
Subject: _____
Date: 10/17/06
Pages: 3 Pages (including cover sheet)

Name of Sender: Alvin Glen**COMMENTS:**



Department of

Environmental Protection

Jeb Bush
Governor

Marjorie Stoneman Douglas Building
3900 Commonwealth Boulevard MS 105
Tallahassee, FL 32399-3000
Phone 850-245-2606 Fax 850-245-2645

Colleen Castille
Secretary

Mean High Water Procedure Approval

Date: October 17, 2006

Surveyor's Name: _____ Business Name: _____

Address: _____

Phone: _____ County: _____ Point Identification Number: 438

Job #/Name: 1315 LA-500N Client Name: _____

USGS 7.5-Minute Quad Map Name: PALMETTO

Mean High Water (MHW): 0.49 ft Mean Low Water (MLW): -1.18 ft

Datum: NAVD 88

Unit of measurement: Feet Tidal Epoch: 1983 - 2001

Procedure: Extend the above MHW height to job site.

Source of Data: The Land Boundary Information System internet web site (www.labins.org)

This form constitutes approval of the method to be used to survey the mean high water line within one half mile of the point identified above.

Retain this form for record keeping. Submit a copy of it with the completed survey to the Bureau of Survey and Mapping within 90 days of the completion of the survey.

Contacts:

Division of State Lands
Bureau of Surveying and Mapping
Mean High Water Section
(850)245-2606

More Protection, Less Process
Website: www.dep.state.fl.us



Department of

Environmental Protection

Jeb Bush
Governor

Marjorie Stoneman Douglas Building
3900 Commonwealth Boulevard MS 105
Tallahassee, FL 32399-3000
Phone 850-245-2606 Fax 850-245-2645

Colleen Castille
Secretary

Mean High Water Procedure Approval

Date: October 17, 2006

Surveyor's Name: _____ Business Name _____

Address: _____

Phone: _____ County: _____ Point Identification Number: 412

Job #/Name: Coral Spines Client Name: _____

USGS 7.5-Minute Quad Map Name: BRADENTON BEACH

Mean High Water (MHW) : 0.22 ft Mean Low Water (MLW): -1.22 ft

Datum: NAVD 88

Unit of measurement: Feet Tidal Epoch: 1983 - 2001

Procedure: Extend the above MHW height to job site.

Source of Data: The Land Boundary Information System internet web site (www.labins.org)

This form constitutes approval of the method to be used to survey the mean high water line within one half mile of the point identified above.

Retain this form for record keeping. Submit a copy of it with the completed survey to the Bureau of Survey and Mapping within 90 days of the completion of the survey.

Contact:

Division of State Lands
Bureau of Surveying and Mapping
Mean High Water Section
(850)245-2606

More Protection, Less Process
Website: www.dep.state.fl.us

Questions concerning the VERTCON process may be mailed to NGS

Latitude: 27 27 18.26 N

Longitude: 82 39 18.79 W

NAVD 88 height: -1.22 FT

datum shift (NAVD 88 minus NGVD 29): -0.991 feet

Converted to NGVD 29 height: -0.229 feet

FEB 16 2010

Manatee County Waterways - Turbidity Monitoring Criteria

1. The Manatee County Project Management office shall be notified 48 hours prior to commencing the dredging operation (941) 708-7450. At that time, County staff will arrange an on-site inspection to insure that all preliminary dredging procedures (i.e., installation of best management practices and turbidity monitoring stations, etc.) have been adhered to.
2. Two rows of turbidity curtains shall be used during the entire dredging operation. For activities within upland cut canals, curtains shall extend across the mouth of the canal. For activities within coastal streams and bays, curtains shall surround the project limits. In all instances, curtains shall be staked in place, shall reach the submerged bottom at all times, and shall be flush against the shoreline for a minimum of ten feet.

The type of turbidity curtain (Type 1, 2, or 3) to be utilized shall be determined by project location and normal water flow. For projects located in coastal streams and bays, navigational markers identifying the turbidity curtains may also be required.

3. Turbidity monitoring stations shall be established at specific locations and maintained throughout the duration of the project. The following locations are examples; actual station locations are to be established as needed to provide more accurate monitoring.

Monitoring Site 1: Outside mouth of northeast canal and within 20 feet of canal.

Monitoring Site 2: Outside mouth of east canal and within 20 feet south of project.

Monitoring Site 3: Outside mouth of central canal and within 20 feet south of project.

Monitoring Site 4: Outside mouth of westerly canal and within 20 feet south of project.

Monitoring Site 5: Outside mouth of southern canal and within 20 feet westerly end of the project.

Background Site: A minimum of 100 feet outside the limits of the project area.

A minimum of 2 background sites will be established around projects that extend into a body of water that is influenced by the tides. All monitoring stations will be marked with a temporary buoy. Turbidity monitoring stations cannot be relocated without specific written permission from Manatee County Project Management Department.

It is expected that the party responsible for monitoring will be an experienced professional affiliated with the selected general contractor.

4. Monitoring for turbidity as measured in Nephelometric Turbidity Units (NTU) shall be conducted for the duration of the project. Sampling will commence at the initiation of dredging activities and continue until the project is completed. Daily

sampling will occur one hour prior to construction start-up, at four-hour intervals throughout the day, and one hour after construction ceases for the day.

Samples will be collected from mid-depth above the submerged bottom. Sampling will be restricted to the axis of the visible plume. If no plume is visible, samples will be collected at the intersection of the mixing zone boundary and a line parallel with the water current and extending from the source of turbidity.

5. Monitoring station data shall be submitted on a daily basis to Manatee County Project Management Department by phone at (941) 708-7450, facsimile at (941) 708-7549, or in writing at Manatee County Project Management Department, 1026 26th Avenue East Bradenton, FL. 34208. Monitoring data submitted by spoken word on the phone shall also be submitted in writing within five calendar days.
6. All samples will be analyzed by using a turbidity meter. Collected samples must be analyzed immediately. The following information must be recorded for each sample taken and submitted in a Monitoring Report:
 - a. Site number;
 - b. Recorded turbidity measurements (NTU);
 - c. Dates and time of day when the sample was collected;
 - d. Total depth and sample depth
 - e. Antecedent weather conditions, including wind direction and velocity; and
 - f. Tidal stage and/or flow direction.
7. In addition to the above-mentioned information, each Monitoring Report must include the following:
 - a. A statement of methodology including types of sampling equipment and analytical instrumentation, preservation, and handling;
 - b. FDEP Exemption Number;
 - c. A map indicating numbered locations of all sampling sites
 - d. Copies of the Quality Assurance/Quality Control log; and
 - e. The printed name, address, and telephone number of the lab and/or
8. The Contractor shall comply with the following Quality Assurance/Quality Control requirements for each sample collected:
 - a. All turbidity analysis shall be performed on instruments approved by this office
 - b. The instrument must be recalibrated after a maximum of ten analyses and/or after every time the instrument has been turned on
 - c. A duplicate analysis must be performed for all single samples analyzed. A minimum of one duplicate analysis must be performed for every ten samples analyzed

- d. Calibrations must be performed against a fixed standard and a prepared standard and must follow a zero adjustment against a blank
- e. All calibration procedures must be recorded in a permanent log book and copies must be submitted with the data; and
- f. Date and time of collection, date and time of analyses, warm-up time, and the printed name of the analyst must be included in the log.

9. **Should monitoring reveal that the reading at any monitoring station exceeds the background station reading by 29 NTU, then all dredging activities associated with the project shall cease immediately.** Corrective measures must immediately be taken to rectify this problem (i.e., ensure that turbidity curtains are installed properly and are functioning correctly). Any such occurrence shall be reported immediately to Manatee County Project Management Department at (941) 708-7450.

10. Turbidity curtains shall not be removed until authorization has been given by County staff.

4.06 SILT FENCE

(ES BMP 1.06)

Definition

A temporary sediment barrier consisting of a filter fabric stretched across and attached to supporting posts and entrenched. There are two types. The silt fence is a temporary linear filter barrier constructed of synthetic filter fabric, posts, and, depending upon the strength of the fabric used, wire fence for support. The filter barrier is constructed of stakes and burlap or synthetic filter fabric.

Purposes

1. To intercept and detain small amounts of sediment from disturbed areas during construction operations.
2. To decrease the velocity of sheet flows and low-to-moderate level channel flows.

Conditions When Practice Applies

1. Below disturbed areas where erosion would occur in the form of sheet and rill erosion.
2. Where the size of the drainage area is no more than 1/4 acre per 100 feet (1.3 ha /100 m) of silt fence length; the maximum slope length behind the barrier is 100 feet (30 m); and the maximum gradient behind the barrier is 50 percent (2:1).
3. In minor swales or ditch lines where the maximum contributing drainage area is no greater than 2 acres (0.8 ha).
4. Under no circumstances should silt fences be constructed in live streams or in swales or ditch lines where flows are likely to exceed one cubic foot per second (cfs)(0.03 m³ / sec.). See Design Criteria for further clarification.

Planning Considerations

Silt fences can trap a much higher percentage of suspended sediments than can straw bales and may be preferable to straw barriers in many cases. While the failure rate of silt fences is lower than that of straw barriers, this failure rate is still due mainly to improper installation. The most effective application is to install two parallel silt fences spaced a minimum of three feet apart. The installation and maintenance methods outlined here can improve performance.

Filter barriers are inexpensive structures composed of burlap or standard weight synthetic filter fabric stapled to wooden stakes. Flow rates through burlap filter barriers are slightly slower and filtering efficiency is significantly higher than for straw bale barriers.

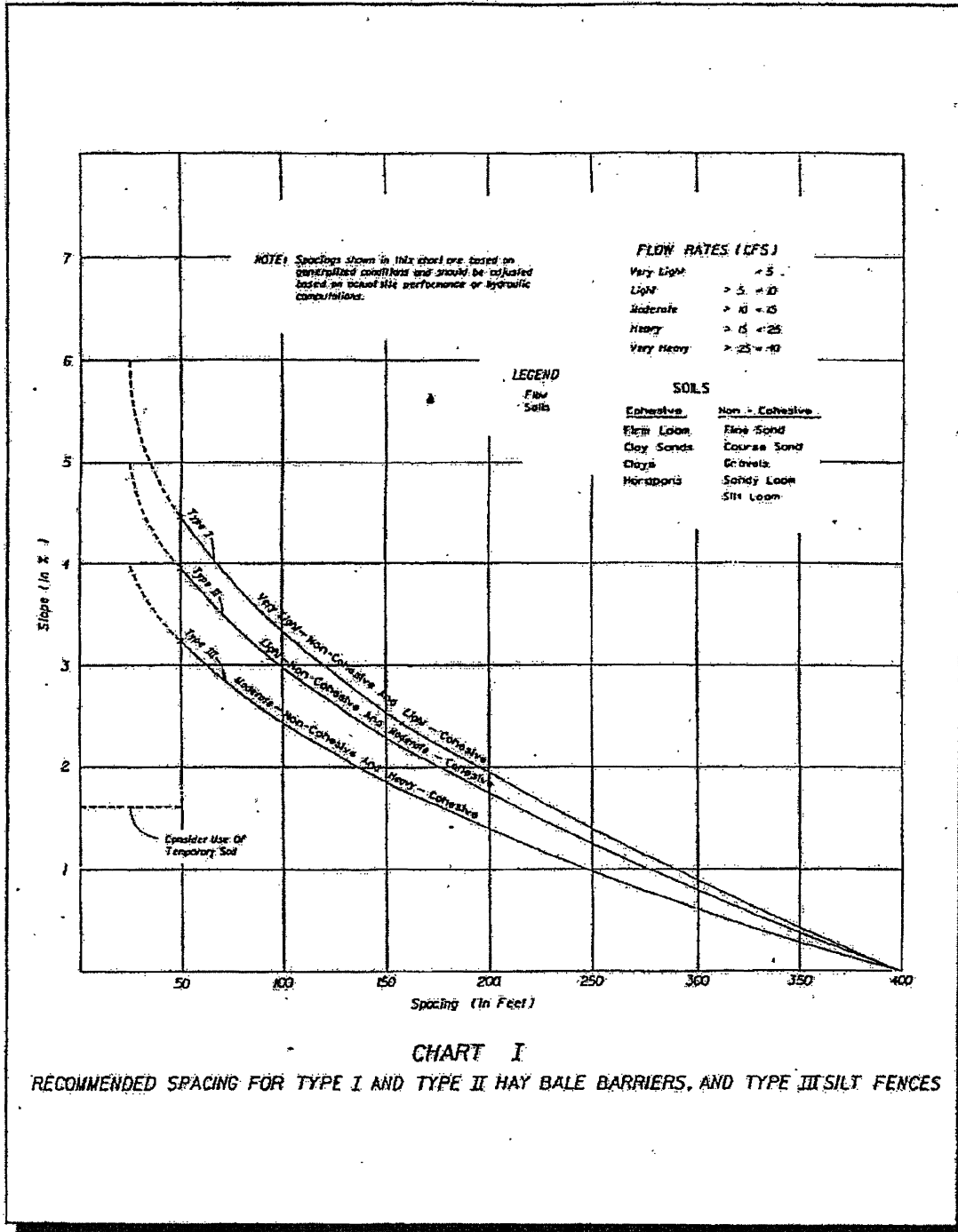


Plate 4.06a FDOT Standard Index 102, Chart 1
Source: FDOT Roadway and Traffic Design Standards

Chapter 4 – Best Management Practices for Erosion and Sediment Control

Silt fences composed of a wire support fence and an attached synthetic filter fabric slow the flow rate significantly but have a higher filtering efficiency than burlap. Both woven and non-woven synthetic fabrics are commercially available. The woven fabrics generally display higher strength than the non-woven fabrics. When tested under acid and alkaline water conditions, most of the woven fabrics increase in strength. There are a variety of reactions among the non-woven fabrics. The same is true of testing under extensive ultraviolet radiation. Permeability rates vary regardless of fabric type. While all of the fabrics demonstrate very high filtering efficiencies for sandy sediments, there is considerable variation among both woven and non-woven fabrics when filtering the finer silt and clay particles.

Design Criteria

1. No formal design is required for many small projects and for minor and incidental applications. For channel flow applications refer to FDOT Standard Index 102, Chart 1 (Plate 4.06a) for guidance on recommended spacing.
2. Filter barriers shall have an expected usable life of 3 months. They are applicable in ditch lines, around drop inlets, and at temporary locations where continuous construction changes the earth contour and runoff characteristics and where low or moderate flows (not exceeding 1 cfs) ($0.03 \text{ m}^3 / \text{sec.}$) are expected.
3. Silt fences, because they have much lower permeability than burlap filter barriers, have their applicability limited to situations in which only sheet or overland flows are expected. They normally cannot filter the volumes of water generated by channel flows, and many fabrics do not have sufficient structural strength to support the weight of water ponded behind the fence line. Their expected usable life is 6 months.

Construction Specifications

Materials

1. Synthetic filter fabric shall be a pervious sheet of propylene, nylon, polyester, or polyethylene yarn. Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of 6 months of expected usable construction life at a temperature range of 0° F to 120° F (-17C to 49C).
2. Burlap shall be 10 ounces per square yard (340 g/m^2) fabric.
3. Posts for silt fences shall be either 4 inch (10 cm) diameter wood, or 1.33 pounds per linear foot (2 kg/m) steel with a minimum length of 5 feet (1.5 m). Steel posts shall have projections for fastening wire to them.
4. Stakes for filter barriers shall be 1" x 2" ($2.5 \times 5 \text{ cm}$) wood (preferred), or equivalent metal with a minimum length of 3 feet (90 cm).

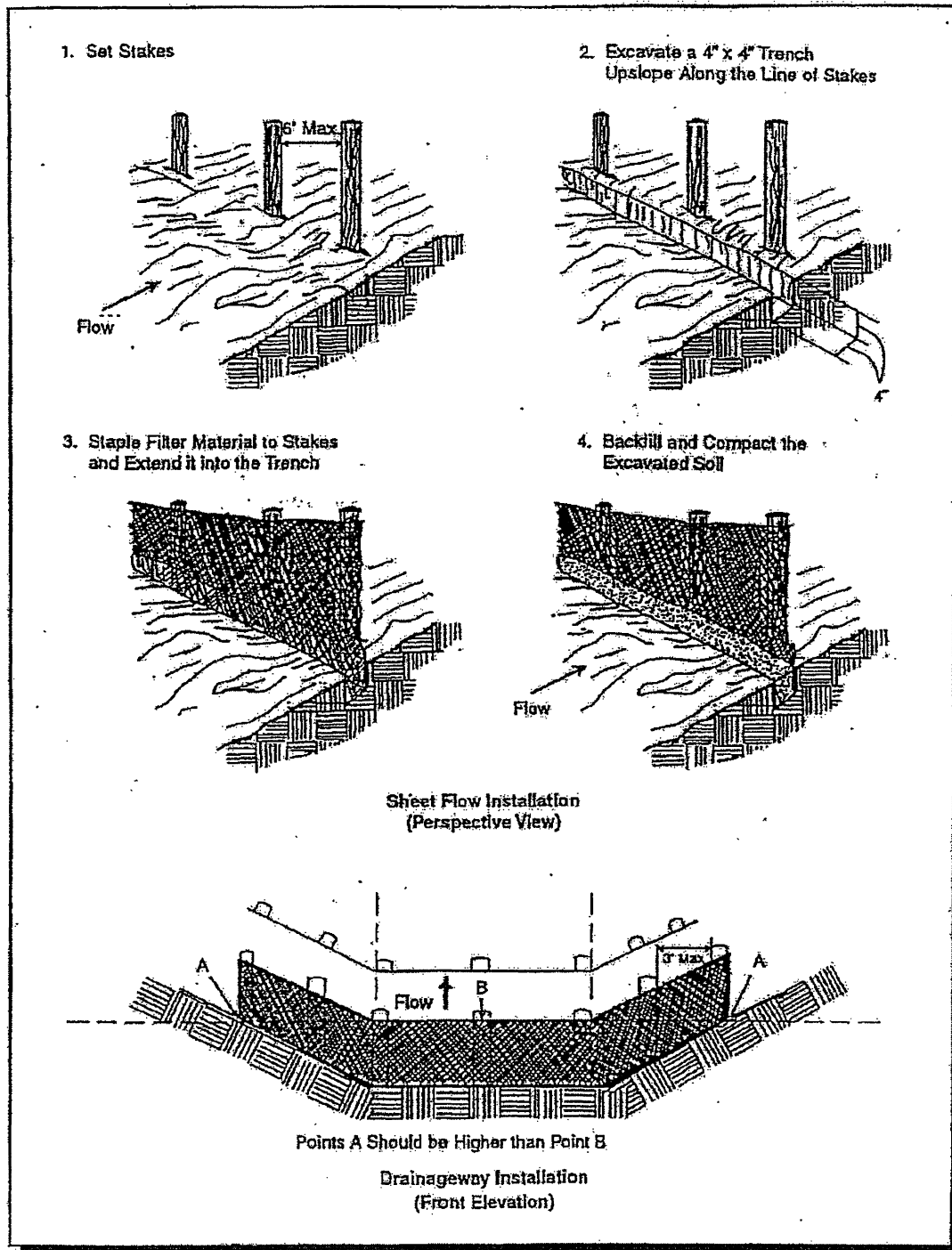


Plate 4.06b Construction of a Filter Barrier
Source: NRCS

Chapter 4 - Best Management Practices for Erosion and Sediment Control

5. Wire fence reinforcement for silt fences using standard strength filter cloth shall be a minimum of 36 inches (90 cm) in height, a minimum of 14 gauge and shall have a maximum mesh spacing of 6 inches (15 cm).

Sheet Flow Applications: Filter Barrier

This sediment barrier may be constructed using burlap or standard strength synthetic filter fabric. It is designed for low or moderate flows not exceeding 1 cfs. (0.03 m³ / sec.). (See Plate 4.06b)

1. The height of a filter barrier shall be a minimum of 15 inches (38 cm) and shall not exceed 18 inches (45 cm).
2. Burlap or standard strength synthetic filter fabric shall be purchased in a continuous roll and cut to the length of the barrier to avoid the use of joints (and thus improve the strength and efficiency of the barrier).
3. The stakes shall be spaced a maximum of 3 feet (90 cm) apart at the barrier location and driven securely into the ground a minimum of 8 inches (20 cm).
4. A trench shall be excavated approximately 4 inches (10 cm) wide and 4 inches (10 cm) deep along the line of stakes and upslope from the barrier.
5. The filter material shall be stapled to the wooden stakes, and 8 inches (20 cm) of the fabric shall be extended into the trench. Heavy duty wire staples at least 1/2 inch (13 mm) long, hog rings, or tie wire shall be used. Filter material shall not be stapled to existing trees.
6. The trench shall be backfilled and the soil compacted over the filter material.
7. Filter barriers shall be removed when they have served their useful purpose, but not before the upslope area has been permanently stabilized.

Sheet Flow Application: Silt Fence

This sediment barrier uses standard strength or extra strength synthetic filter fabrics. It is designed for situations in which only sheet or overland flows are expected. (See Plate 4.06d)

1. The height of a silt fence shall not exceed 36 inches (90 cm). Higher fences may impound volumes of water sufficient to cause failure of the structure.
2. The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth shall be spliced as described in item No. 8 below.

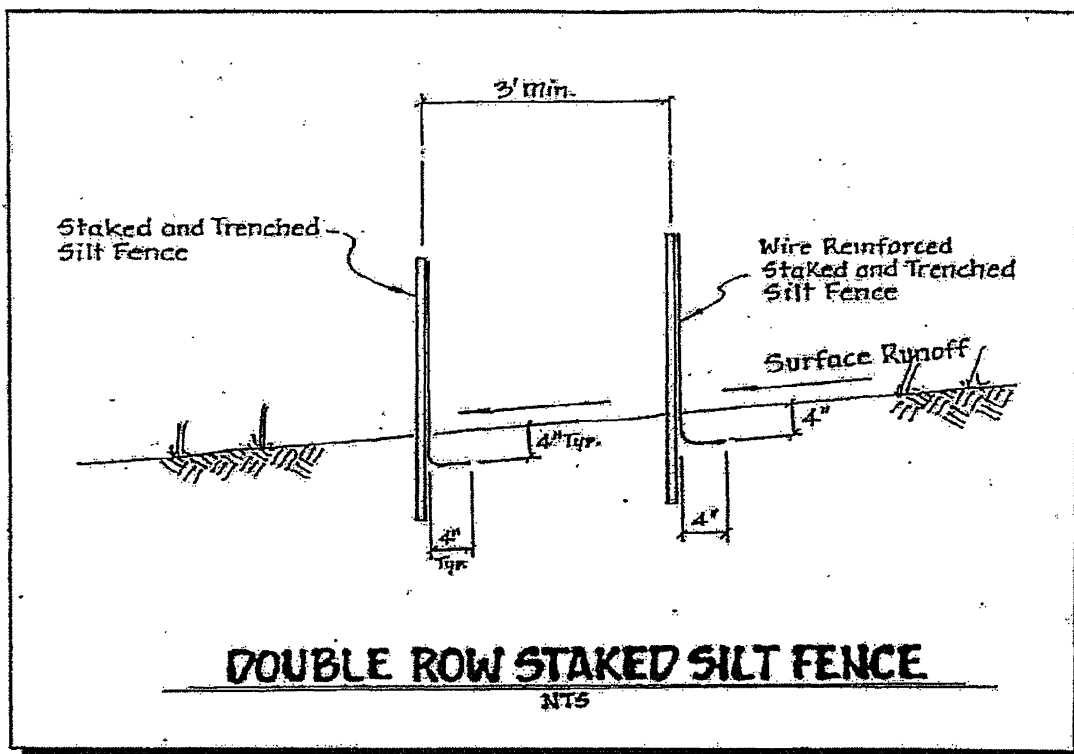


Plate 4.06c Double-Row Staked Silt Fence

Source: Reedy Creek Improvement District

3. Posts shall be spaced a maximum of 10 feet (3 m) apart at the barrier location and driven securely into the ground a minimum of 12 inches (30 cm). When extra strength fabric is used without the wire support fence, post spacing shall not exceed 6 feet (1.8 m).
4. A trench shall be excavated approximately 4 inches (10 cm) wide and 4 inches (10 cm) deep along the line of posts and upslope from the barrier.
5. When standard strength filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire staples at least 1 inch (25 mm) long, tie wires, or hog rings. The wire shall extend into the trench a minimum of 2 inches (5 cm) and shall not extend more than 36 inches (90 cm) above the original ground surface.
6. The standard strength filter fabric shall be stapled or wired to the fence, and 8 inches (20 cm) of the fabric shall be extended into the trench. The fabric shall not extend more than 36 inches (90 cm) above the original ground surface.

Chapter 4 - Best Management Practices for Erosion and Sediment Control

7. When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric is stapled or wired directly to the posts with all other provisions of item No. 6 applying.
8. When attaching two silt fences together, place the end post of the second fence inside the end post of the first fence. Rotate both posts at least 180 degrees on a clockwise direction to create a tight seal with the filter fabric. Drive both posts into the ground and bury the flap. (See Plate 4.06g).
9. The trench shall be backfilled and the soil compacted over the filter fabric.
10. The most effective application consists of a double row of silt fences spaced a minimum of three feet apart. The three foot separation is so that if the first row collapses it will not fall on the second row. Wire or synthetic mesh is may be used to reinforce the first row. (See Plate 4.06c).
11. When used to control sediments from a steep slope, silt fences should be placed away from the toe of the slope for increased holding capacity. (See Plate 4.06f)
11. Silt fences shall be removed when they have served their useful purpose, but not before the upslope area has been permanently stabilized.

Channel Flow Applications

1. If a filter barrier is to be constructed across a ditch line or swale, the barrier shall be of sufficient length such that the bottom of the end sections of fence are higher in elevation than the top of the center section to eliminate end flow. The plan configuration shall resemble an arc or horseshoe with the ends oriented upslope. (See Plate 4.06b).
2. Use FDOT Standard Index 102, Chart 1 (Plate 4.06a) as a guide for spacing.
3. The remaining steps for installing a filter barrier for sheet flow applications apply here.

Maintenance

1. Silt fences and filter barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately.
2. Should the fabric on a silt fence or filter barrier decompose or become ineffective before the end of the expected usable life and the barrier still be necessary, the fabric shall be replaced promptly.
3. Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately one-half the height of the barrier.

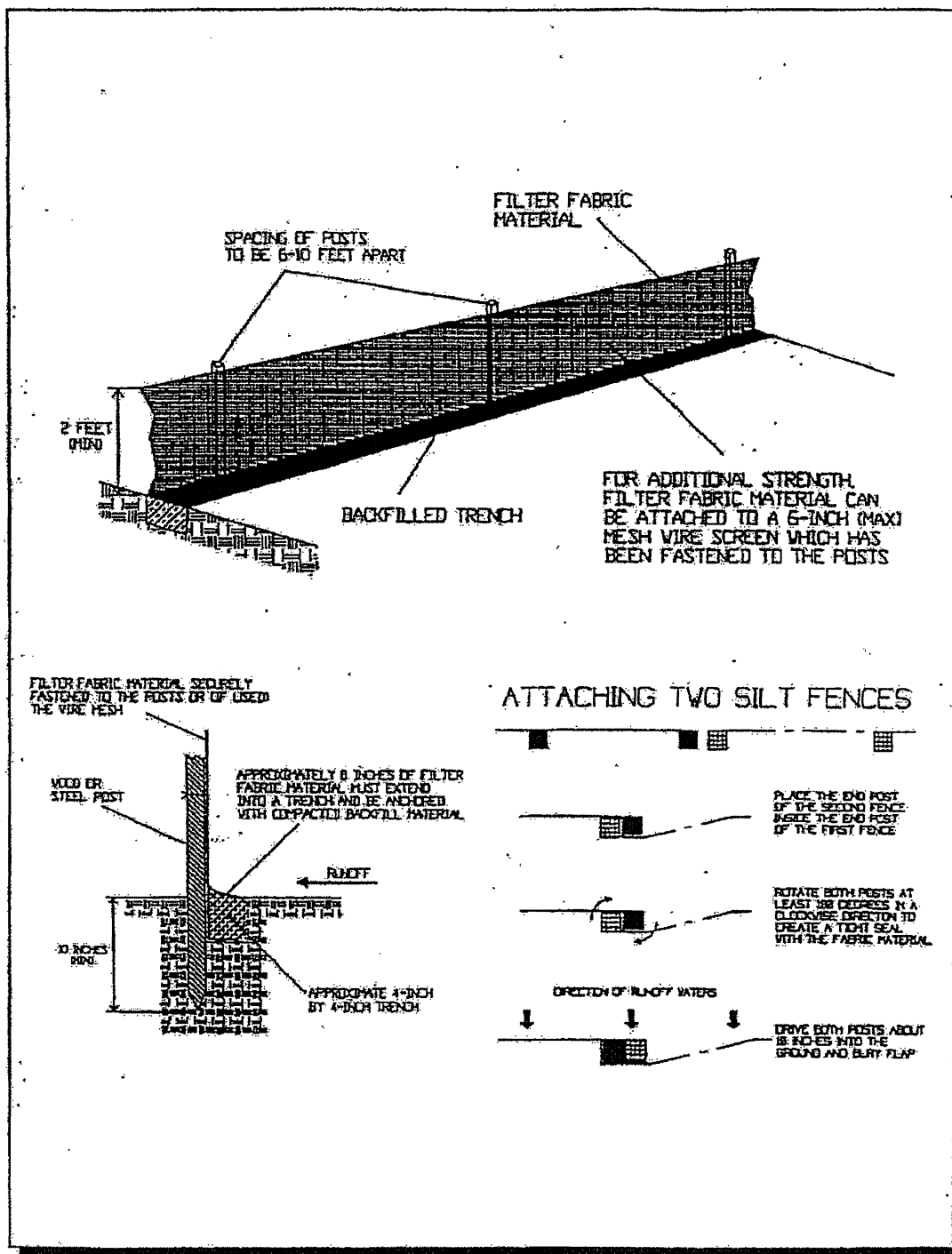


Plate 4.06d Installing a Filter Fabric Silt Fence
Source: HydroDynamics, Inc.

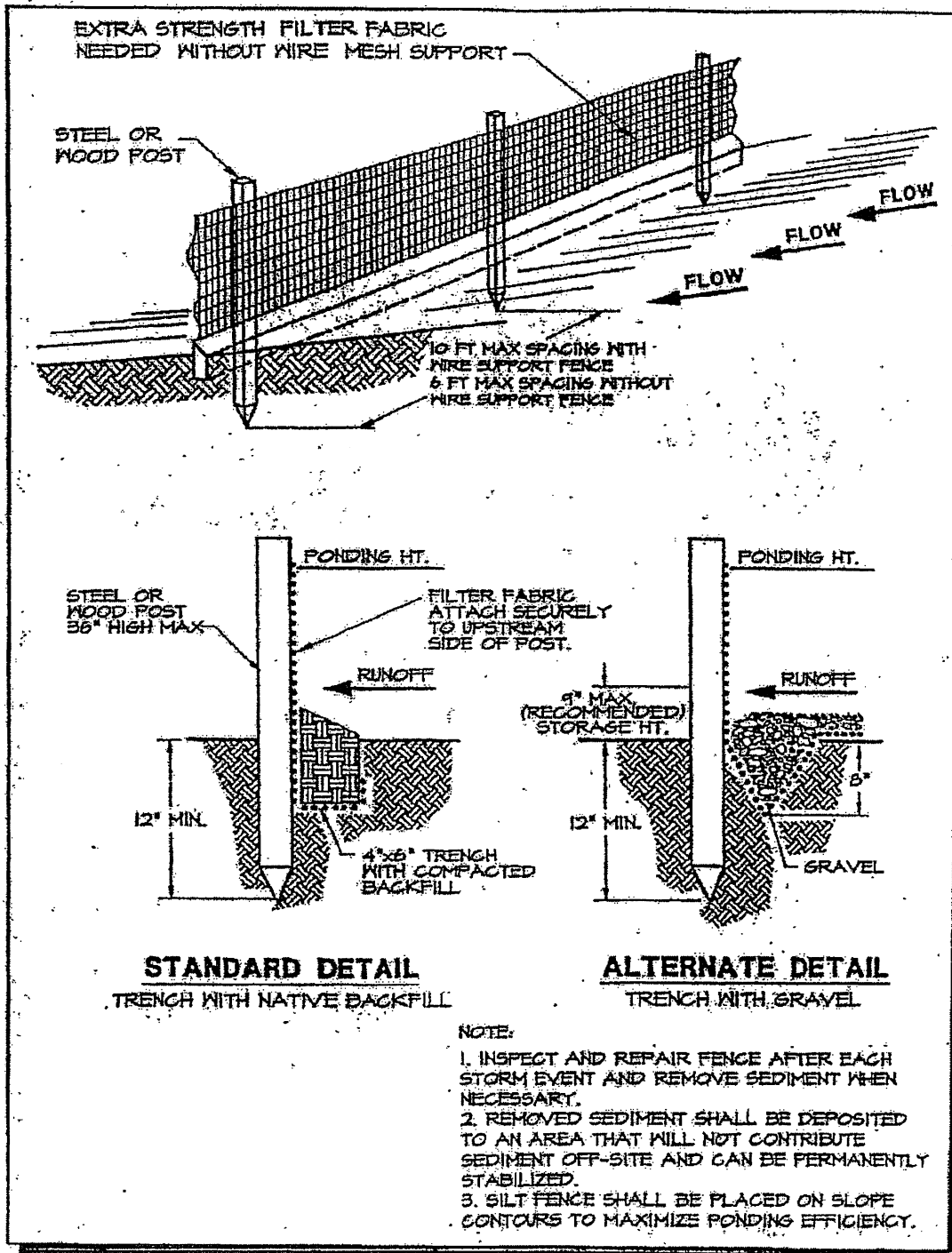


Plate 4.06e Silt Fence
Source: Erosion Draw

4. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform with the existing grade, prepared, and seeded.

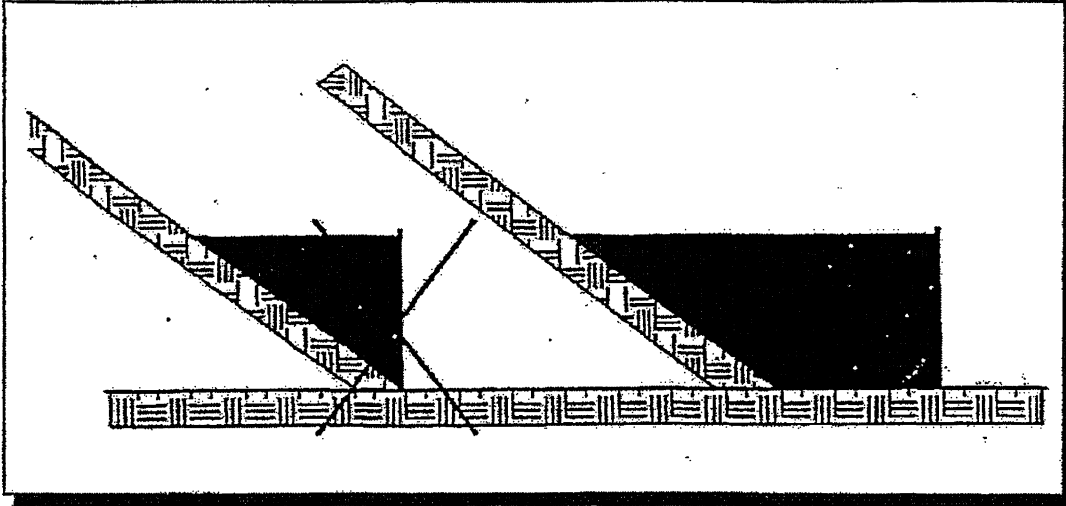


Plate 4.06f Proper Placement of a Silt Fence at the Toe of a Slope
Source: HydroDynamics, Inc.

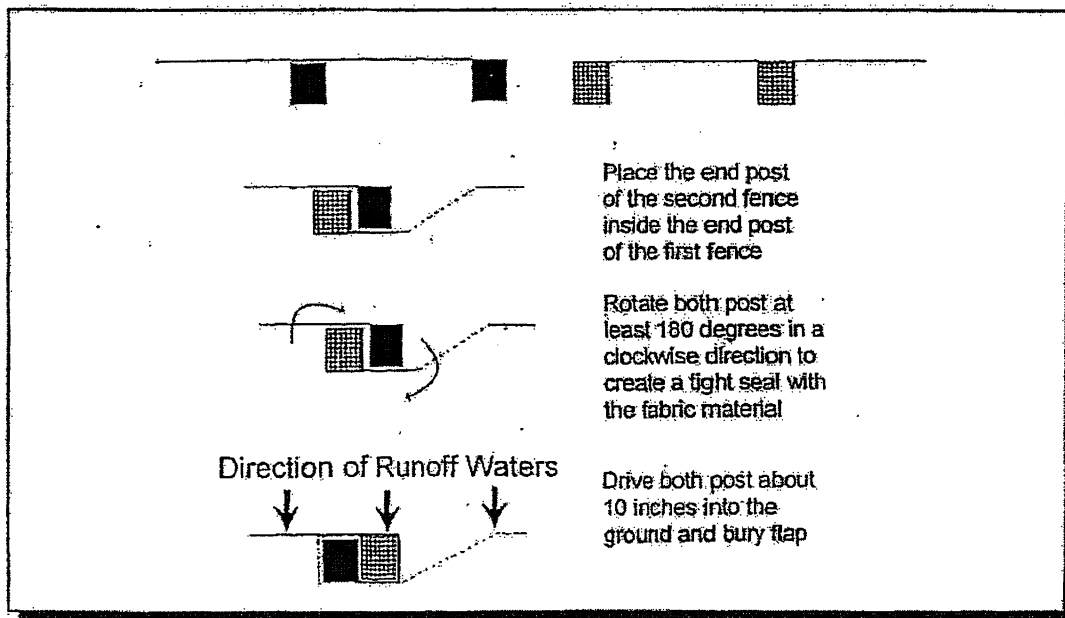


Plate 4.06g Attaching Two Silt Fences
Source: HydroDynamics, Inc.

4.45 FLOATING TURBIDITY BARRIER

Definition

A floating geotextile material which minimizes sediment transport from a disturbed area adjacent to or within a body of water.

Purpose

To provide sedimentation protection for a watercourse from up-slope land disturbance where conventional erosion and sediment controls cannot be used, or from dredging or filling within the watercourse.

Conditions Where Practice Applies

Applicable to non-tidal and tidal watercourses where intrusion into the watercourse by construction activities has been permitted and subsequent sediment movement is unavoidable.

Planning Considerations

Soil loss into a watercourse results in long-term suspension of sediment. In time, the suspended sediment may travel large distances and affect widespread areas. A turbidity curtain is designed to deflect and contain sediment within a limited area and provide enough residence time so that soil particles will fall out of suspension and not travel to other areas.

Turbidity curtain types must be selected based on the flow conditions within the water body, whether it be a flowing channel, lake, pond, or a tidal watercourse. The specifications contained within this practice pertain to minimal and moderate flow conditions where the velocity of flow may reach 5 feet (1.5 m) per second (or a current of approximately 3 knots). For situations where there are greater flow velocities or currents, a qualified engineer and product manufacturer should be consulted.

Consideration must also be given to the direction of water movement in channel flow situations. Turbidity curtains are not designed to act as water impoundment dams and cannot be expected to stop the flow of a significant volume of water. They are designed and installed to trap sediment, not to halt the movement of water itself. In most situations, turbidity curtains should not be installed across channel flows.

In tidal or moving water conditions, provisions must be made to allow the volume of water contained within the curtain to change. Since the bottom of the curtain is weighted and external anchors are frequently added, the volume of water contained within the curtain will be much greater at high tide versus low tide and measures must be taken to prevent the curtain from submerging. In addition to allowing slack in the curtain to rise and fall, water must be allowed to flow through the curtain if the curtain is to remain in roughly the same place and maintain the same shape. Normally, this is achieved by constructing part of the curtain from a heavy woven filter fabric. The fabric allows the water to pass through the curtain, but retains the sediment particles. Consideration should be given to the volume

of water that must pass through the fabric and sediment particle size when specifying fabric permeability.

Sediment which has been deflected and settled out by the curtain may be removed if so directed by the on-site inspector or the permitting agency. However, consideration must be given to the probable outcome of the procedure - will it create more of a sediment problem by resuspension of particles and by accidental dumping of the material by the equipment involved? It is, therefore, recommended that the soil particles trapped by a turbidity curtain only be removed if there has been a significant change in the original contours of the effected area in the watercourse. Regardless of the decision made, soil particles should always be allowed to settle for a minimum of 6-12 hours before their removal by equipment or before removal of a turbidity curtain.

It is imperative that the intended function of the other controls in this chapter, to keep sediment out of the watercourse, be the strategy used in every erosion control plan. However, when proximity to the watercourse makes successfully mitigating sediment loss impossible, the use of the turbidity curtain during land disturbance is essential. ***Under no circumstances shall permitted land disturbing activities create violations of water quality standards!***

Design Criteria

1. Type I configuration (see Plate 4.45a) should be used in protected areas where there is no current and the area is sheltered from wind and waves.
2. Type II configuration (see Plate 4.45a) should be used in areas where there may be small to moderate current running (up to 2 knots or 3.5 feet (1 m) per second) and/or wind and wave action can affect the curtain.
3. Type III configuration (see Plate 4.45b) should be used in areas where considerable current (up to 3 knots or 5 feet (1.5 m) per second) may be present, where tidal action may be present, and/or where the curtain is potentially subject to wind and wave action.
4. Turbidity curtains should extend the entire depth of the watercourse whenever the watercourse in question is not subject to tidal action and/or significant wind and wave forces. This prevents silt laden water from escaping under the barrier, scouring and resuspending additional sediments.
5. In tidal and/or wind and wave action situations, the curtain should never be so long as to touch the bottom. A minimum 1 foot (30 cm) "gap" should exist between the weighted lower end of the skirt and the bottom at "mean" low water. Movement of the lower skirt over the bottom due to tidal reverses or wind and wave action on the flotation system may fan and stir sediments already settled out.
6. In tidal and/or wind and wave action situations, it is seldom practical to extend a turbidity curtain depth lower than 10 to 12 feet (3 to 4 m) below the surface, even in deep water. Curtains which are installed deeper than this will be subject to very large loads with consequent strain on curtain materials and the mooring system.

Chapter 4 - Best Management Practices for Erosion and Sediment Control

In addition, a curtain installed in such a manner can "billow up" toward the surface under the pressure of the moving water, which will result in an effective depth which is significantly less than the skirt depth.

7. Turbidity curtains should be located parallel to the direction of flow of a moving body of water. Turbidity curtains should not be placed across the main flow of a significant body of moving water.
8. When sizing the length of the floating curtain, allow an additional 10 - 20% variance in the straight line measurements. This will allow for measuring errors, make installing easier and reduce stress from potential wave action during high winds.
9. An attempt should be made to avoid an excessive number of joints in the curtain; a minimum continuous span of 50 feet (15 m) between joints is a good "rule of thumb."
10. For stability reasons, a maximum span of 100 feet (30 m) between anchor or stake locations is also a good rule to follow.
11. The ends of the curtain, both floating upper and weighted lower, should extend well up into the shoreline, especially if high water conditions are expected. The ends should be secured firmly to the shoreline to fully enclose the area where sediment may enter the water.
12. When there is a specific need to extend the curtain to the bottom of the watercourse in tidal or moving water conditions, a heavy woven pervious filter fabric may be substituted for the normally recommended impervious geotextile. This creates a "flow-through" medium which significantly reduces the pressure on the curtain and will help to keep it in the same relative location and shape during the rise and fall of tidal waters.
13. Typical alignments of turbidity curtains can be seen in Plate 4.45c. The number and spacing of external anchors may vary depending on current velocities and potential wind and wave action; manufacturer's recommendations should be followed.
14. Be certain that the type, location, and installation of the barrier is as shown on the approved plan and permit. Additional permits may be required in navigable waterways, especially when the barrier creates an obstruction.

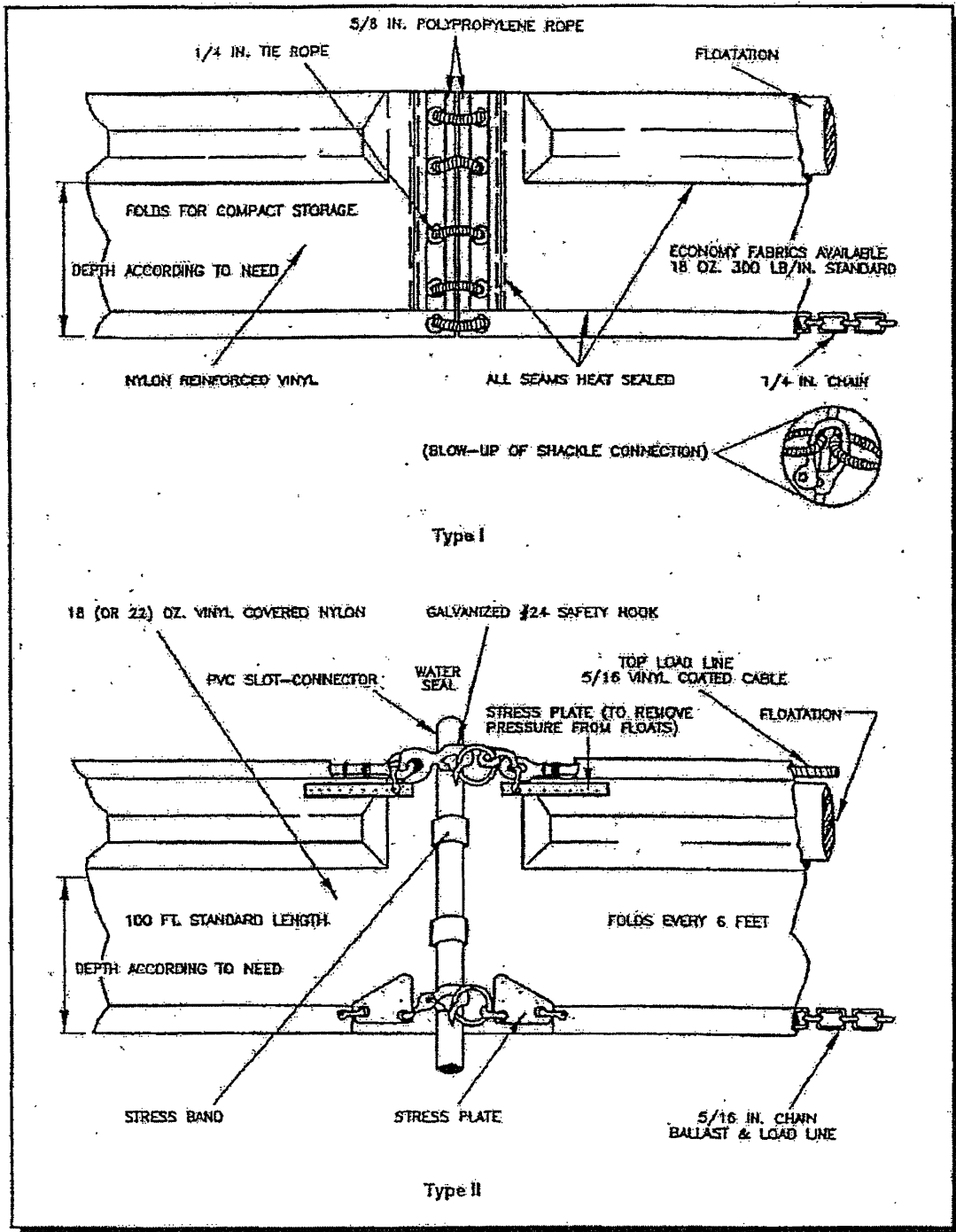


Plate 4.45a Type I and II Floating Turbidity Barriers

Source: American Boom and Barrier Corporation

Construction Specifications

Materials

1. Barriers should be a bright color (yellow or "international" orange are recommended) that will attract the attention of nearby boaters.
2. The curtain fabric must meet the minimum requirements noted in Table 3.27-A.
3. Seams in the fabric shall be either vulcanized welded or sewn, and shall develop the full strength of the fabric.
4. Floatation devices shall be flexible, buoyant units contained in an individual floatation sleeve or collar attached to the curtain. Buoyancy provided by the floatation units shall be sufficient to support the weight of the curtain and maintain a freeboard of at least 3 inches (8 cm) above the water surface level. (See Plate 4.45c)
5. Load lines must be fabricated into the bottom of all floating turbidity curtains. Type II and Type III must have load lines also fabricated into the top of the fabric. The top load line shall consist of woven webbing or vinyl-sheathed steel cable and shall have a break strength in excess of 10,000 pounds (4.5 t). The supplemental (bottom) load-line shall consist of a chain incorporated into the bottom hem of the curtain of sufficient weight to serve as ballast to hold the curtain in a vertical position. Additional anchorage shall be provided as necessary. The load lines shall have suitable connecting devices which develop the full breaking strength for connecting to load lines in adjacent sections (See Plates 4.45a and 4.45b which portray this orientation).
6. External anchors may consist of 2 x 4 inch (5 x 10 cm) or 2-1/2 inch (6 cm) minimum diameter wooden stakes, or 1.33 pounds/linear foot (2 kg/m) steel posts when Type I installation is used; when Type II or Type III installations are used, bottom anchors should be used.
7. Bottom anchors must be sufficient to hold the curtain in the same position relative to the bottom of the watercourse without interfering with the action of the curtain. The anchor may dig into the bottom (grappling hook, plow or fluke-type) or may be weighted (mushroom type) and should be attached to a floating anchor buoy via an anchor line. The anchor line would then run from the buoy to the top load line of the curtain. When used with Type III installations, these lines must contain enough slack to allow the buoy and curtain to float freely with tidal changes without pulling the buoy or curtain down and must be checked regularly to make sure they do not become entangled with debris. As previously noted, anchor spacing will vary with current velocity and expected wind and wave action; manufacturer's recommendations should be followed. See orientation of external anchors and anchor buoys for tidal installation in Plate 4.45b.

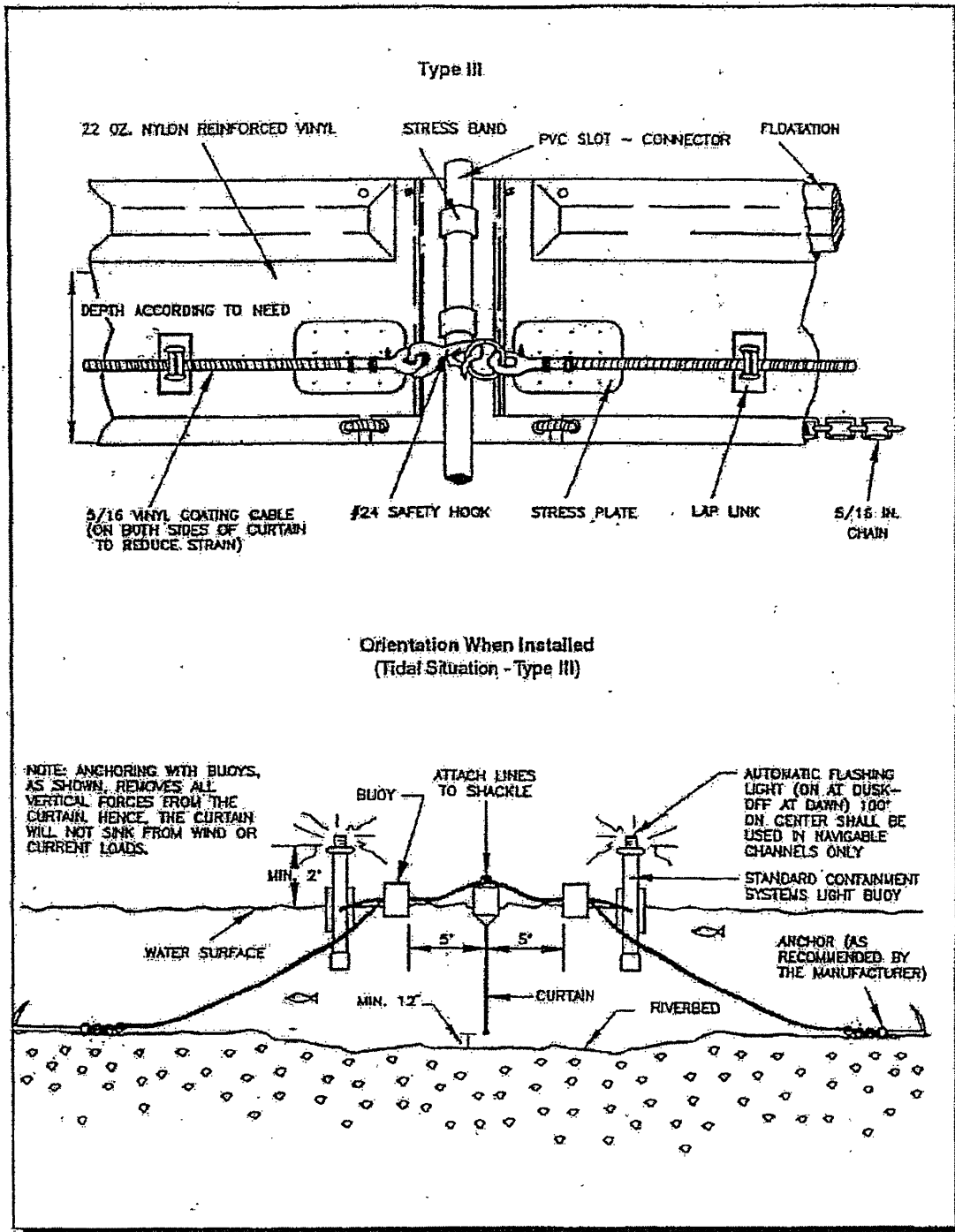


Plate 4.45b Type III Floating Turbidity Barrier

Source: American Boom and Barrier Corporation and VDOT Standard Sheets

Installation

1. In the calm water of lakes or ponds (Type I installation) it is usually sufficient to merely set the curtain end stakes or anchor points (using anchor buoys if bottom anchors are employed), then tow the curtain in the furled condition out and attach it to these stakes or anchor points. Following this, any additional stakes or buoyed anchors required to maintain the desired location of the curtain may be set and these anchor points made fast to the curtain. Only then, the furling lines should be cut to let the curtain skirt drop.
2. In rivers or in other moving water (Type II and Type III installations) it is important to set all the curtain anchor points. Care must be taken to ensure that anchor points are of sufficient holding power to retain the curtain under the expected current conditions, before putting the furled curtain into the water. Anchor buoys should be employed on all anchors to prevent the current from submerging the flotation at the anchor points. If the moving water into which the curtain is being installed is tidal and will subject the curtain to currents in both directions as the tide changes, it is important to provide anchors on both sides of the curtain for two reasons:
 - a) Curtain movement will be minimized during tidal current reversals.
 - b) The curtain will not overrun the anchors pull them out when the tide reverses.

When the anchors are secure, the furled curtain should be secured to the upstream anchor point and then sequentially attached to each next downstream anchor point until the entire curtain is in position. At this point, and before unfurling, the "lay" of the curtain should be assessed and any necessary adjustments made to the anchors. Finally, when the location is ascertained to be as desired, the furling lines should be cut to allow the skirt to drop.

3. Always attach anchor lines to the flotation device, not to the bottom of the curtain. The anchoring line attached to the flotation device on the downstream side will provide support for the curtain. Attaching the anchors to the bottom of the curtain could cause premature failure of the curtain due to the stresses imparted on the middle section of the curtain.
4. There is an exception to the rule that turbidity curtains should not be installed across channel flows; it occurs when there is a danger of creating a silt buildup in the middle of a watercourse, thereby blocking access or creating a sand bar. Curtains have been used effectively in large areas of moving water by forming a very long-sided, sharp "V" to deflect clean water around a work site, confine a large part of the silt-laden water to the work area inside the "V" and direct much of the silt toward the shoreline. Care must be taken, however, not to install the curtain perpendicular to the water current.
5. See Plate 4.45c for typical installation layouts.

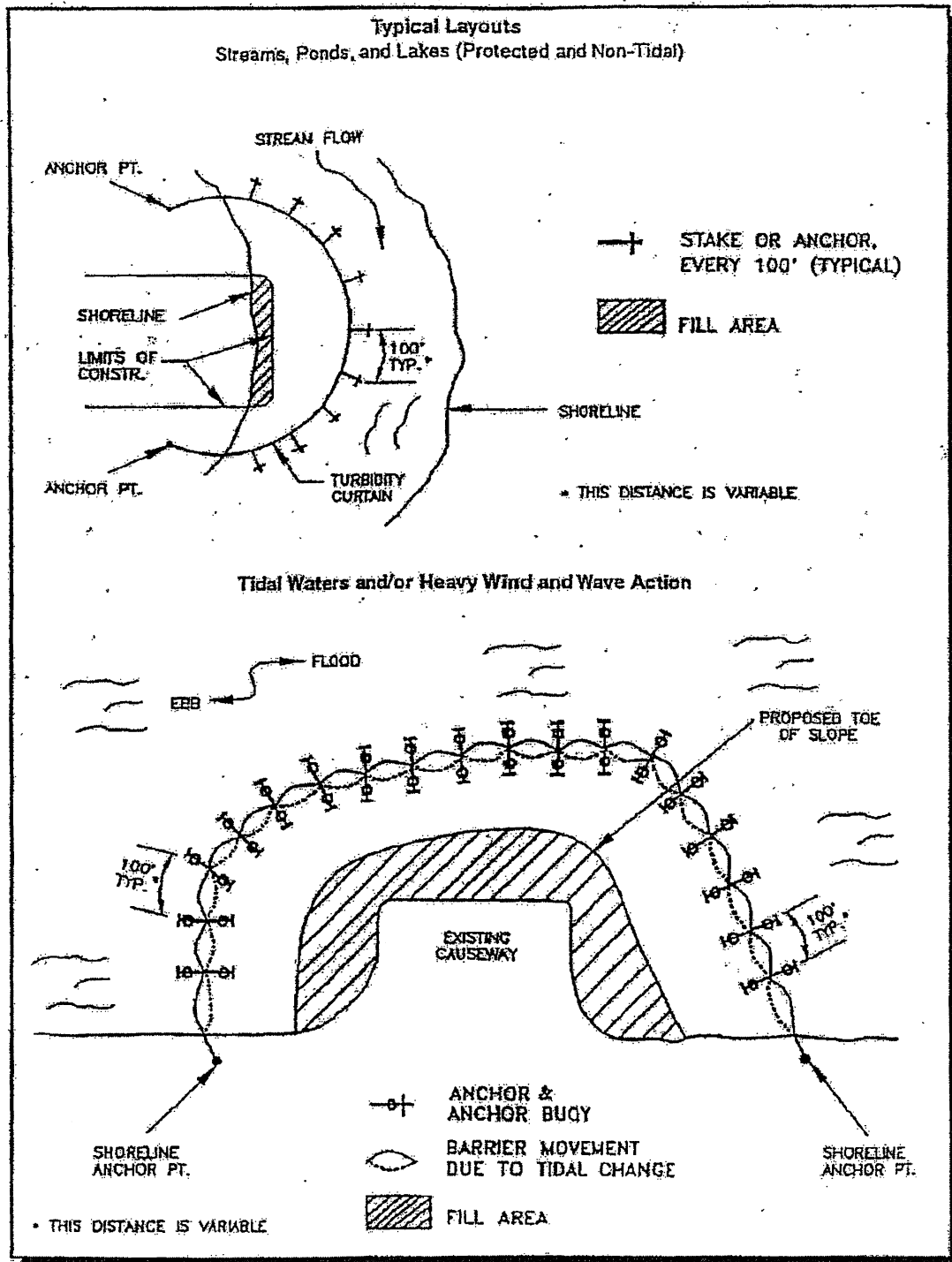


Plate 4.45c Typical Installation Layouts
Source: FDOT Roadway and Traffic Design Standards

Chapter 4 - Best Management Practices for Erosion and Sediment Control

6. The effectiveness of the barrier can be increased by installing two parallel curtains, separated at regular intervals by 10' (3 m) long wooden boards or lengths of pipe.

Removal

1. Care should be taken to protect the skirt from damage as the turbidity curtain is dragged from the water.
2. The site selected to bring the curtain ashore should be free of sharp rocks, broken cement, debris, etc. so as to minimize damage when hauling the curtain over the area.
3. If the curtain has a deep skirt, it can be further protected by running a small boat along its length with a crew installing furling lines before attempting to remove the curtain from the water.

Maintenance

1. The developer/owner shall be responsible for maintenance of the filter curtain for the duration of the project to ensure the continuous protection of the watercourse.
2. Should repairs to the geotextile fabric become necessary, there are normally repair kits available from the manufacturers; manufacturer's instructions must be followed to ensure the adequacy of the repair.
3. When the curtain is no longer required as determined by the inspector, the curtain and related components shall be removed in such a manner as to minimize turbidity. Sediment shall be removed and the original depth (or plan elevation) restored before removing the curtain. Remaining sediment shall be sufficiently settled before removing the curtain. Any spoils must be taken to an upland area and stabilized.

4.05 STRAW BALE BARRIER **(ES BMP 1.05)**

Definition

A temporary sediment barrier consisting of a row of entrenched and anchored straw bales.

Purposes

1. To intercept and detain small amounts of sediment from disturbed areas of limited extent.
2. To decrease the velocity of sheet flows and low-to-moderate level channel flows.

Conditions Where Practice Applies

1. Below disturbed areas subject to sheet and rill erosion.
2. Where the size of the drainage area is no greater than 1/4 acre per 100 feet (1.3 ha/100 m) of barrier length; the maximum slope length behind the barrier is 100 feet (30 m); and the maximum slope gradient behind the barrier is 50 percent (2:1).
3. In minor swales or ditch lines where the maximum contributing drainage area is no greater than 2 acres (0.8 ha).
4. Where effectiveness is required for less than 3 months.
5. Under no circumstances should straw bale barriers be constructed in streams or in swales where there is a possibility of a washout.

Planning Considerations

Improper use of straw bale barriers has been a major problem. Straw bale barriers have been used in streams and drainageways where high water velocities and volumes have destroyed or impaired their effectiveness. Improper placement and installation of the barriers, such as staking the bales directly to the ground with no soil seal or entrenchment, has allowed undercutting and end flow. This has resulted in additions instead of removal of sediment from runoff waters. Finally, inadequate maintenance lowers the effectiveness of these barriers. Trapping efficiencies of carefully installed straw bale barriers on one project in Virginia dropped from 57 percent to 16 percent in one month due to lack of maintenance.

There are serious questions about the continued use of straw bale barriers as they are presently installed and maintained. Averaging approximately \$3 to \$6 per linear foot installed (\$10 to \$20 / m) the thousands of straw bale barriers used annually in Florida represent sufficient expense that optimum installation procedures should be emphasized. If such procedures are carefully followed, straw bale barriers can be quite effective.

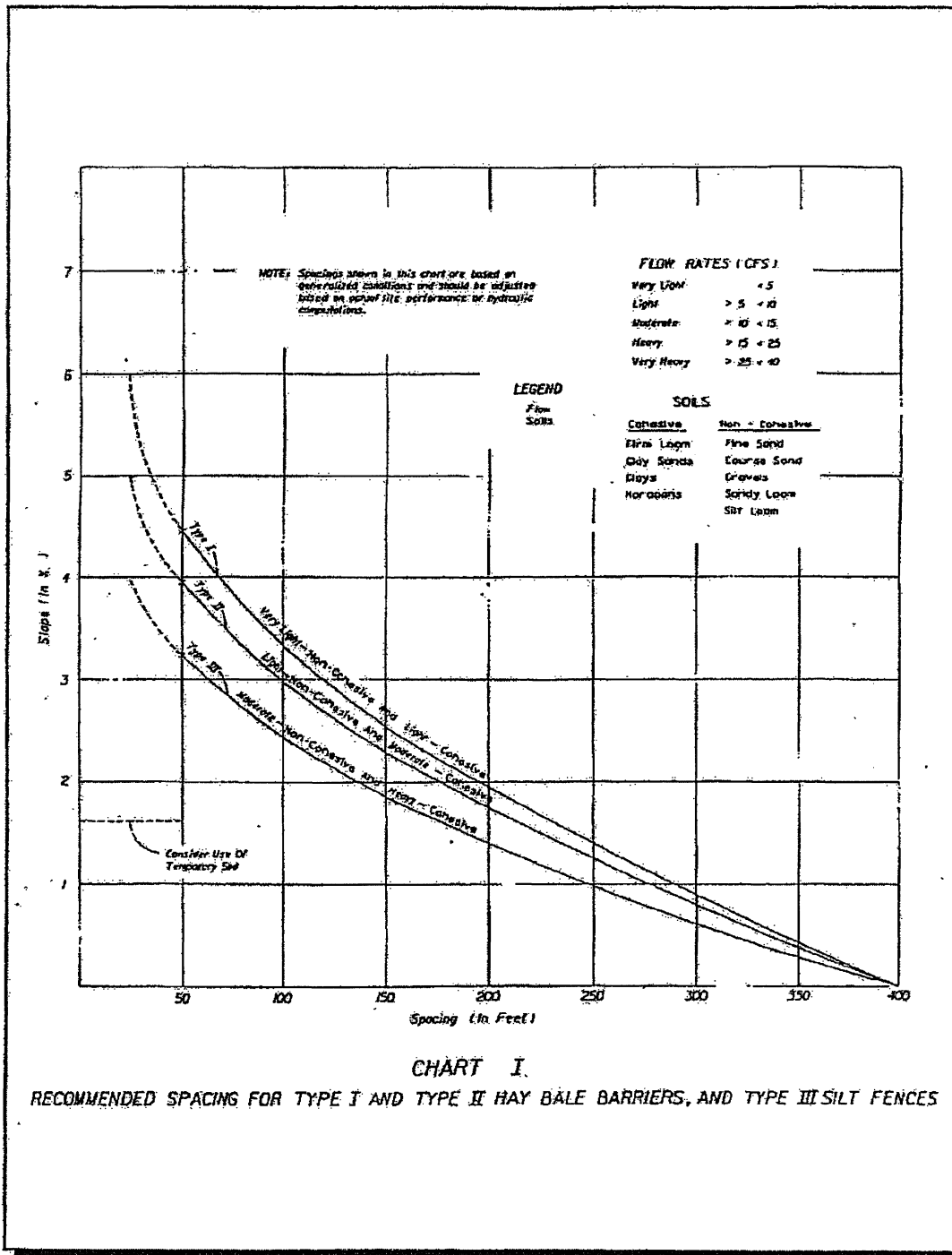


Plate 4.05a FDOT Standard Index 102, Chart 1

Source: FDOT Erosion and Sediment Control Handbook

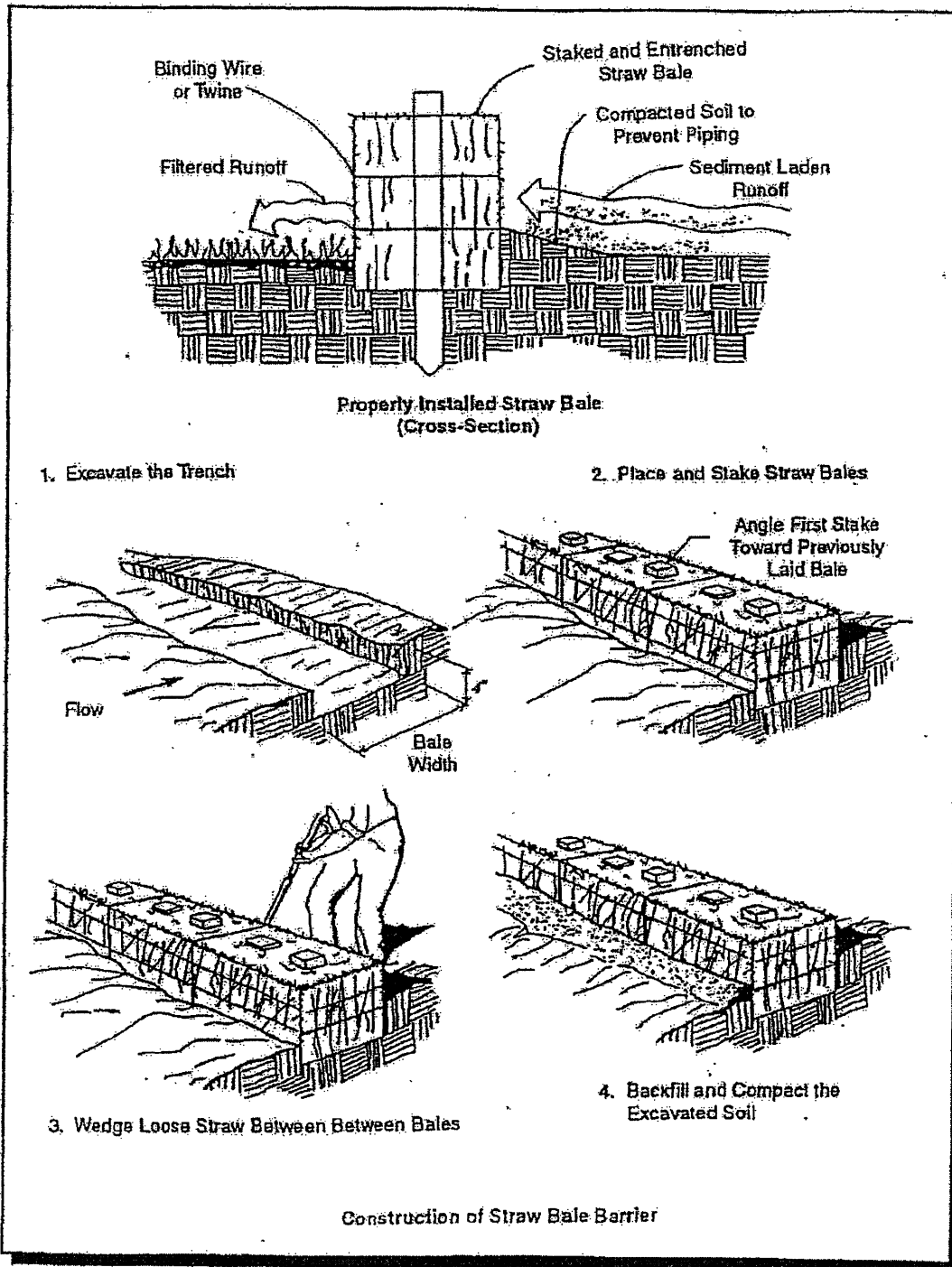


Plate 4.05b Construction of a Straw Bale Barrier
Source: NRCS

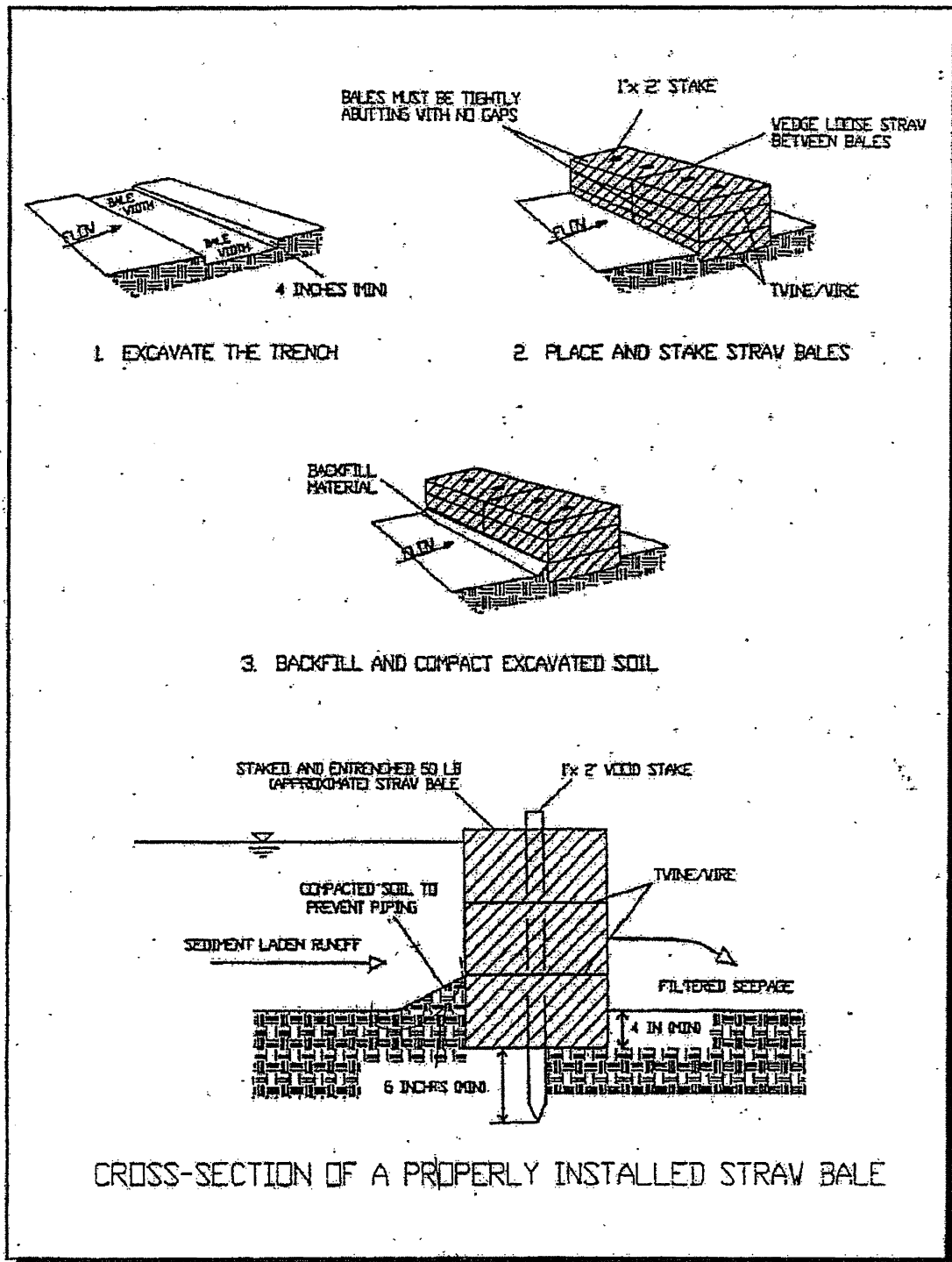


Plate 4.05c Installation of Straw Bales
Source: HydroDynamics, Inc.

Design Criteria

A formal design is not required for many small projects and for minor or incidental applications. For larger projects refer to Figure 4.05a (FDOT Standard Index 102, Chart 1) for guidance on recommended spacing.

Construction Specifications

Sheet Flow Applications

1. Bales shall be placed in a single row, lengthwise on the contour, with ends of adjacent bales tightly abutting each other.
2. All bales shall be either wire-bound or string-tied. Straw bales shall be installed so that bindings are oriented around the sides rather than along the tops and bottoms of the bales (in order to prevent deterioration of the bindings). (See Plate 4.05b)
3. The barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of 4 inches (10 cm). After the bales are staked and chinked, the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be built up to 4 inches (10 cm) against the uphill side of the barrier (See Plate 4.05c)
4. Each bale shall be securely anchored by at least two 2" x 2" (5 cm x 5 cm) minimum wooden stakes or two #5 (16 mm) minimum rebars at least 3 feet (0.9 m) driven through the bale. The first stake in each bale shall be driven toward the previously laid bale to force the bales together. Stakes or rebars shall be driven deep enough into the ground to securely anchor the bales. Straw bale barriers placed on paved surfaces may be secured by placing heavy sand bags on top, and/or by bracing with 2 x 4's (5 x 10 cm). (See Plate 4.05d)
5. The gaps between bales shall be chinked (filled by wedging) with straw to prevent water from escaping between the bales. (See Plate 4.05b) Loose straw scattered over the area immediately uphill from a straw bale barrier tends to increase barrier efficiency.
6. When bales are installed at the toe of a slope, they should be placed away from the slope for increased storage capacity. (See Plate 4.05e)
7. Inspection shall be frequent and repair or replacement shall be made promptly as needed.
8. Straw bale barriers shall be removed when they have served their usefulness, but not before the upslope areas have been permanently stabilized.

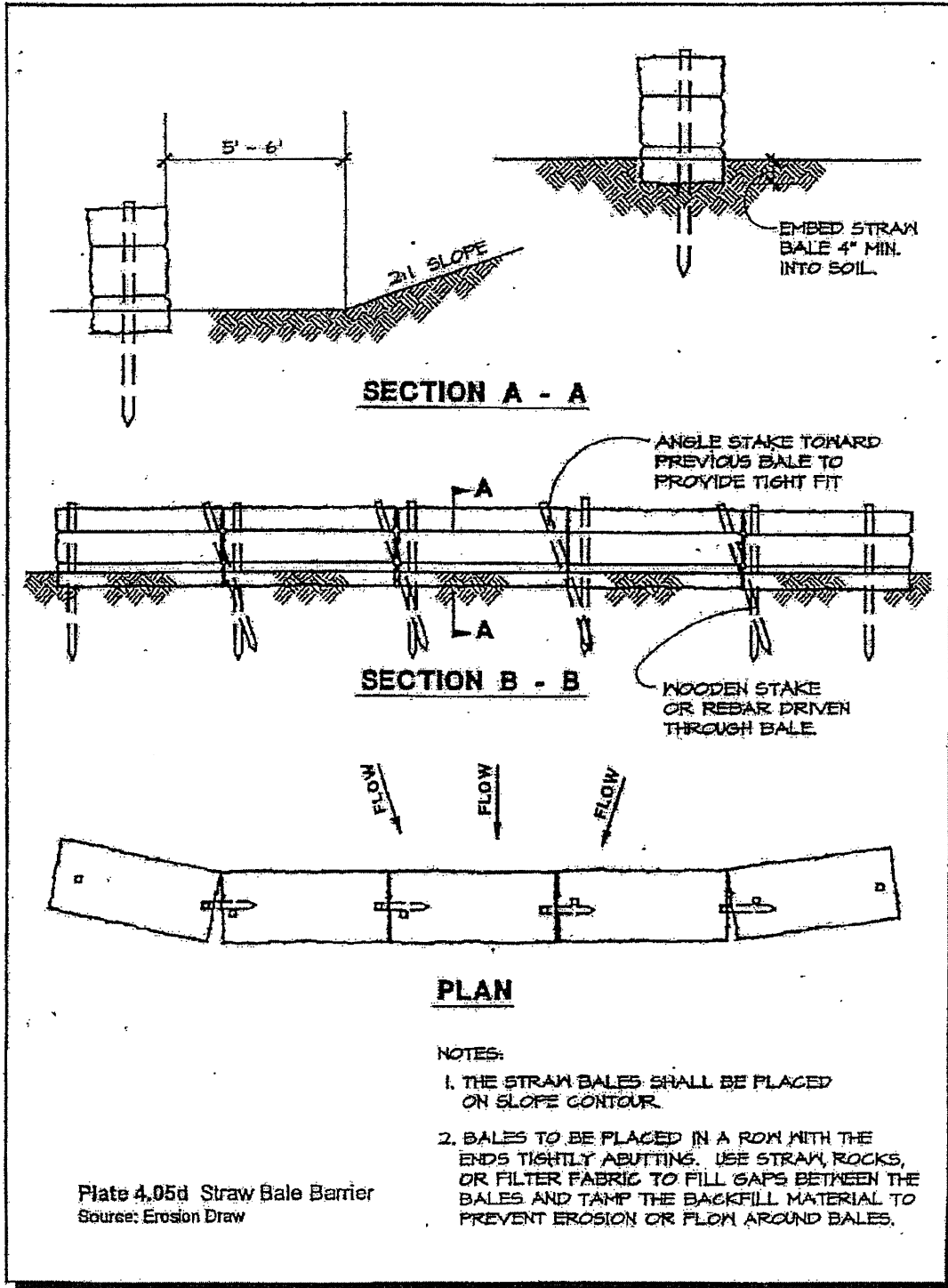


Plate 4.05d Straw Bale Barrier
Source: Erosion Draw

Plate 4.05d Straw Bale Barrier
Source: Erosion Draw

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Channel Flow Applications

1. Bales shall be placed in a single row, lengthwise, oriented perpendicular to the contour, with ends of adjacent bales tightly abutting each other.
2. The remaining steps for installing a straw bale barrier for sheet flow applications apply here, with the following addition.
3. The barrier shall be extended to such a length that the bottoms of the end bales are higher in elevation than the top of the lowest middle bale to assure that sediment-laden runoff will flow either through or over the barrier, but not around it. (See Plate 4.05f)

Maintenance

1. Straw bale barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
2. Close attention shall be paid to the repair of damaged bales, end runs and undercutting beneath bales.
3. Necessary repairs to barriers or replacement of bales shall be accomplished promptly.
4. Sediment deposits should be removed after each rainfall. They must be removed when the level of deposition reaches approximately one-half the height of the barrier.
5. Any sediment deposits remaining in place after the straw bale barrier is no longer required shall be dressed to conform to the existing grade, prepared, and seeded.

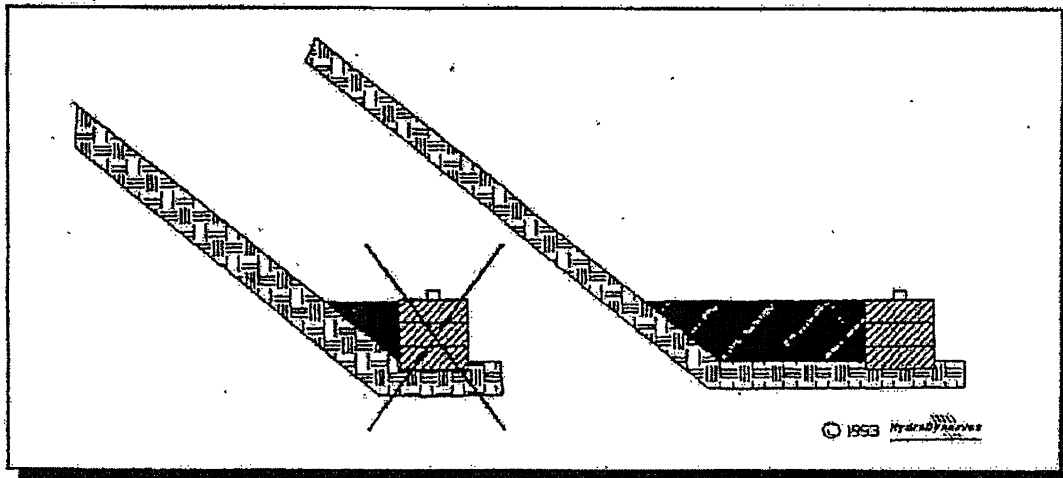
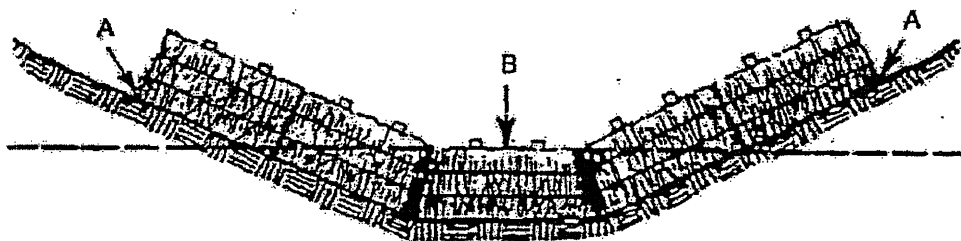


Plate 4.05e Proper Placement of Straw Bales at the Toe of a Slope
Source: HydroDynamics, Inc.



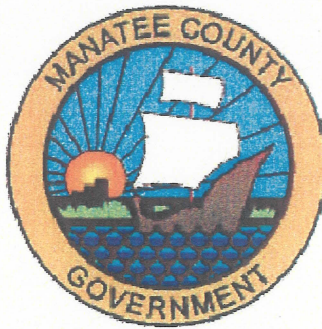
Points A Should be Higher than Point B

PROPER PLACEMENT OF STRAW BALE BARRIER IN DRAINAGE WAY

Plate 4.05f Proper Placement of Straw Bale Barrier in a Drainage Way

Source: Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant

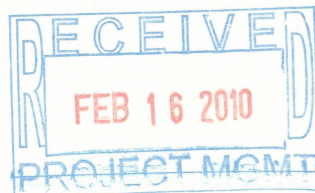
CORAL SHORES MAINTENANCE DREDGING



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CONSTRUCTION DRAWINGS

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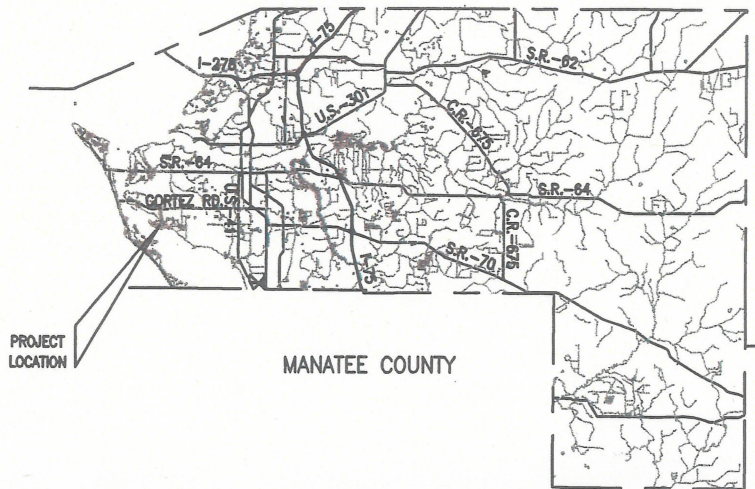
<u>Description</u>	<u>Sheet</u>
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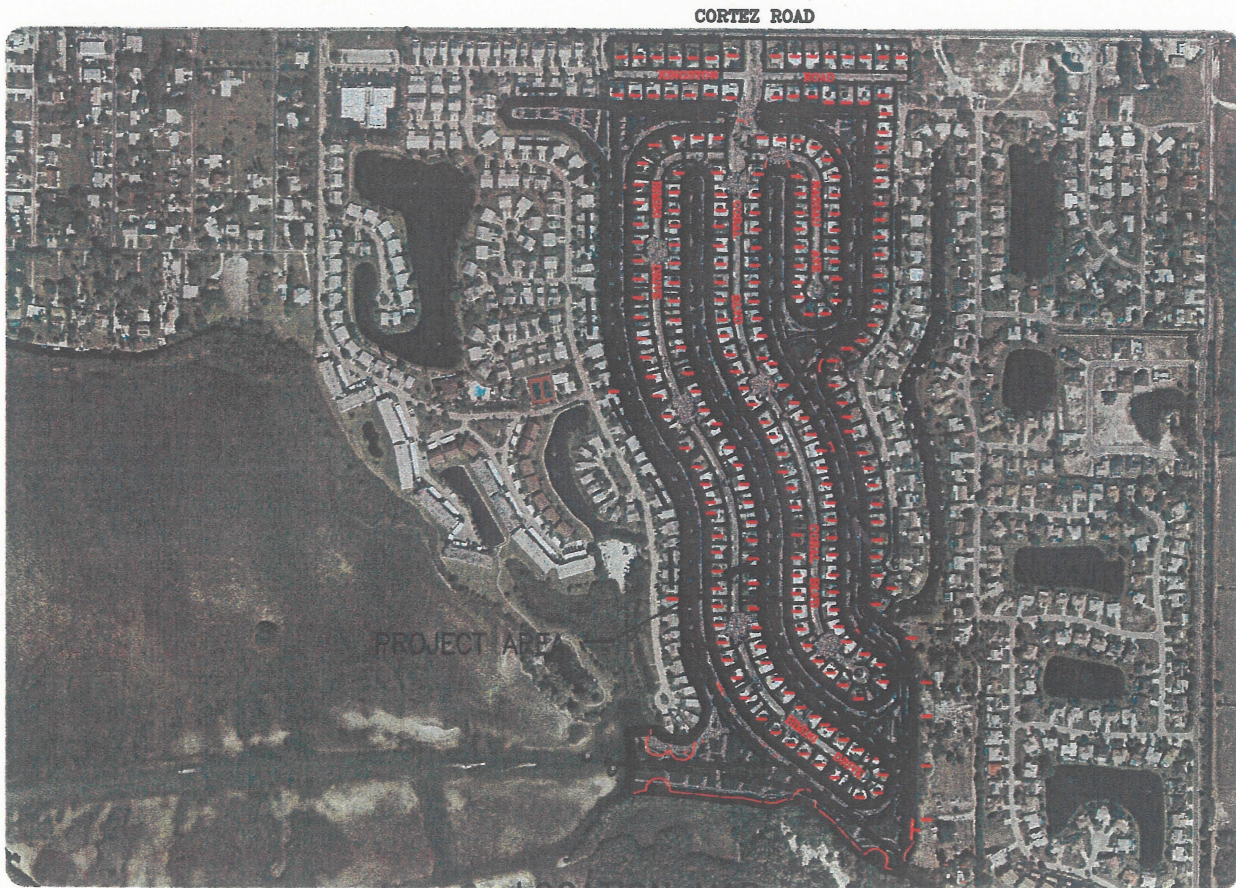
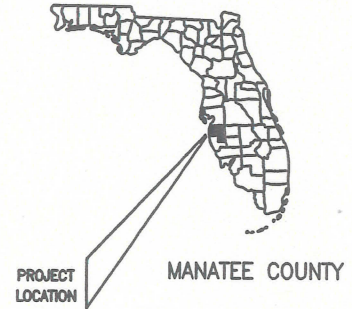
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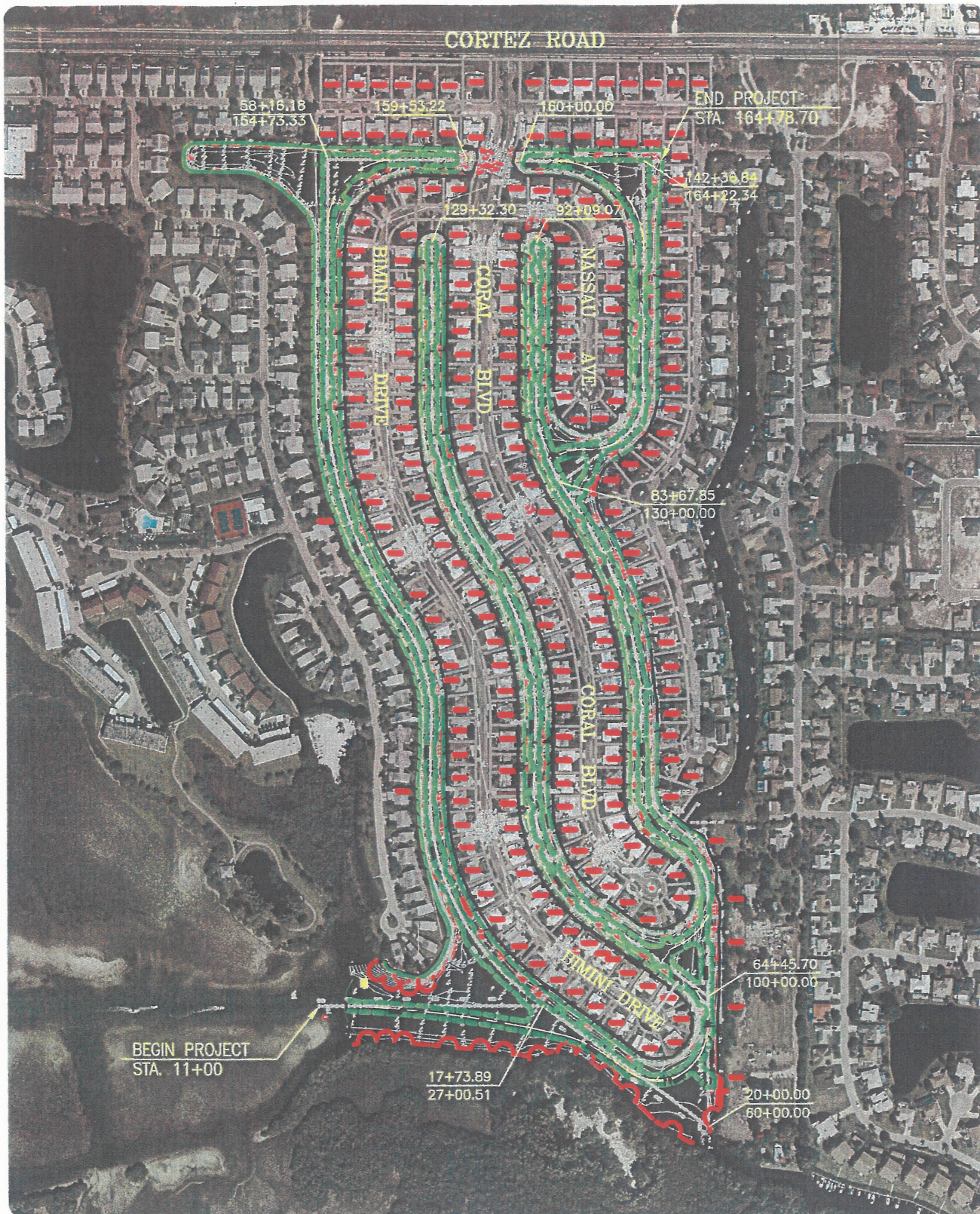
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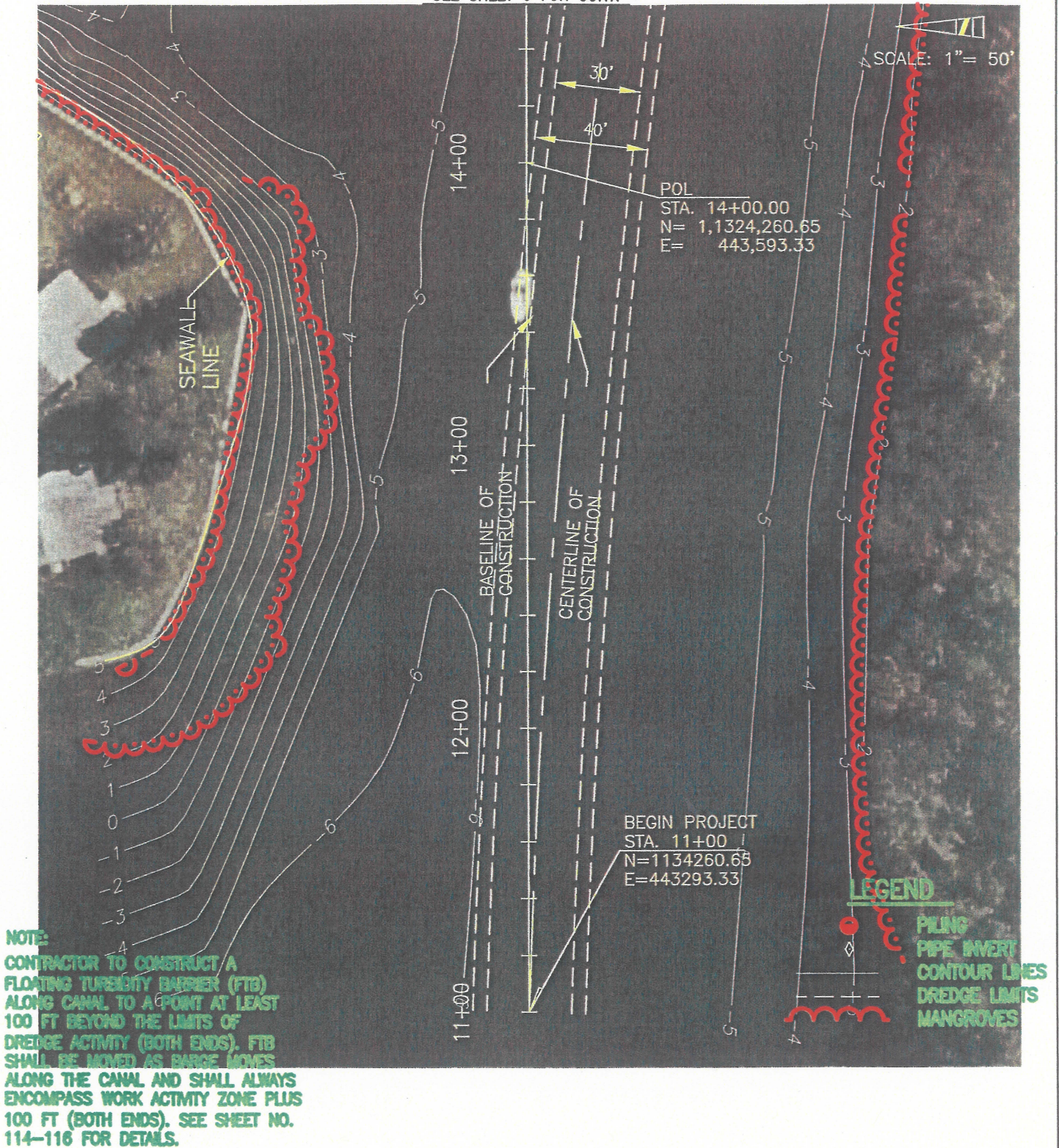
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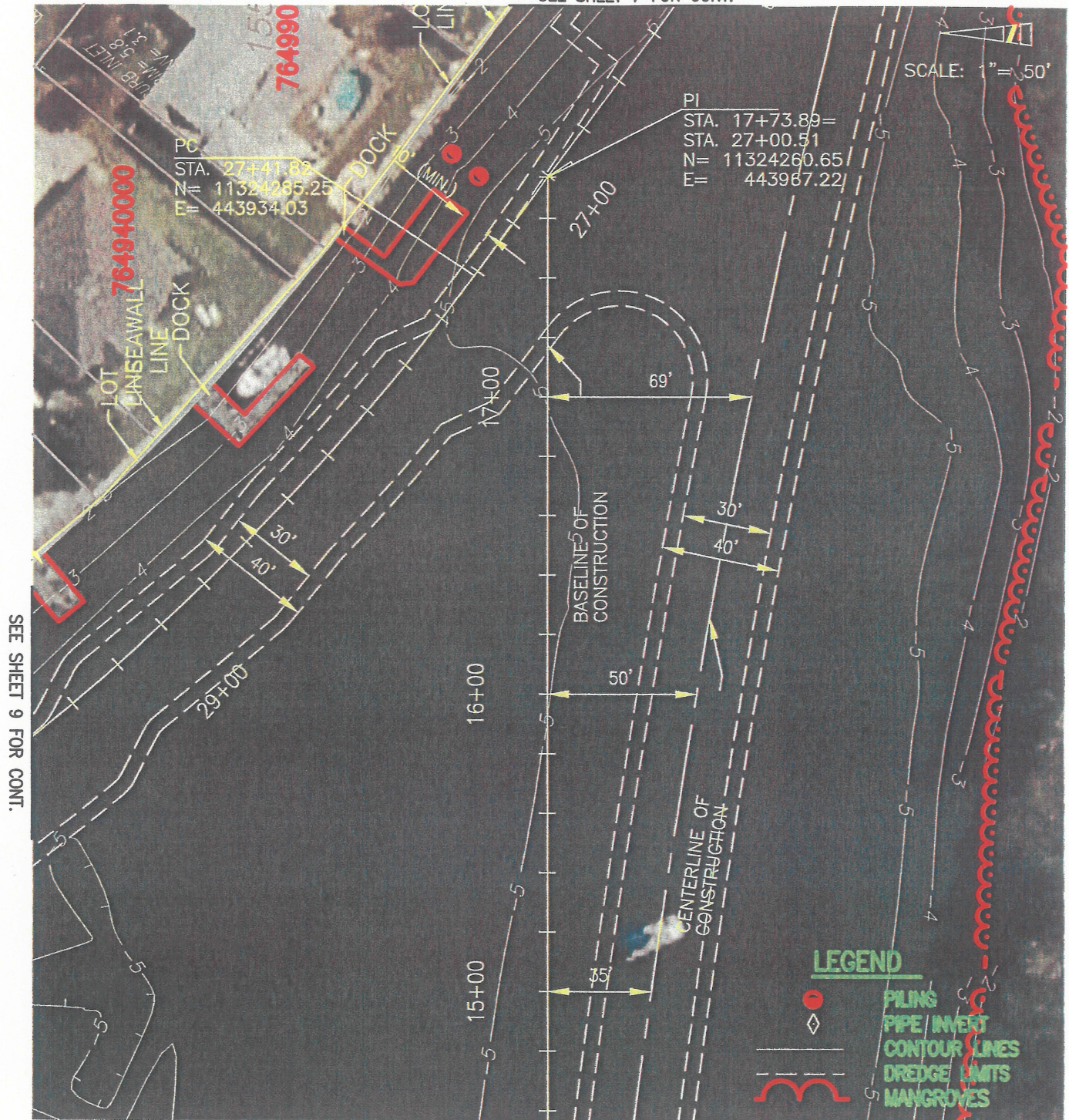
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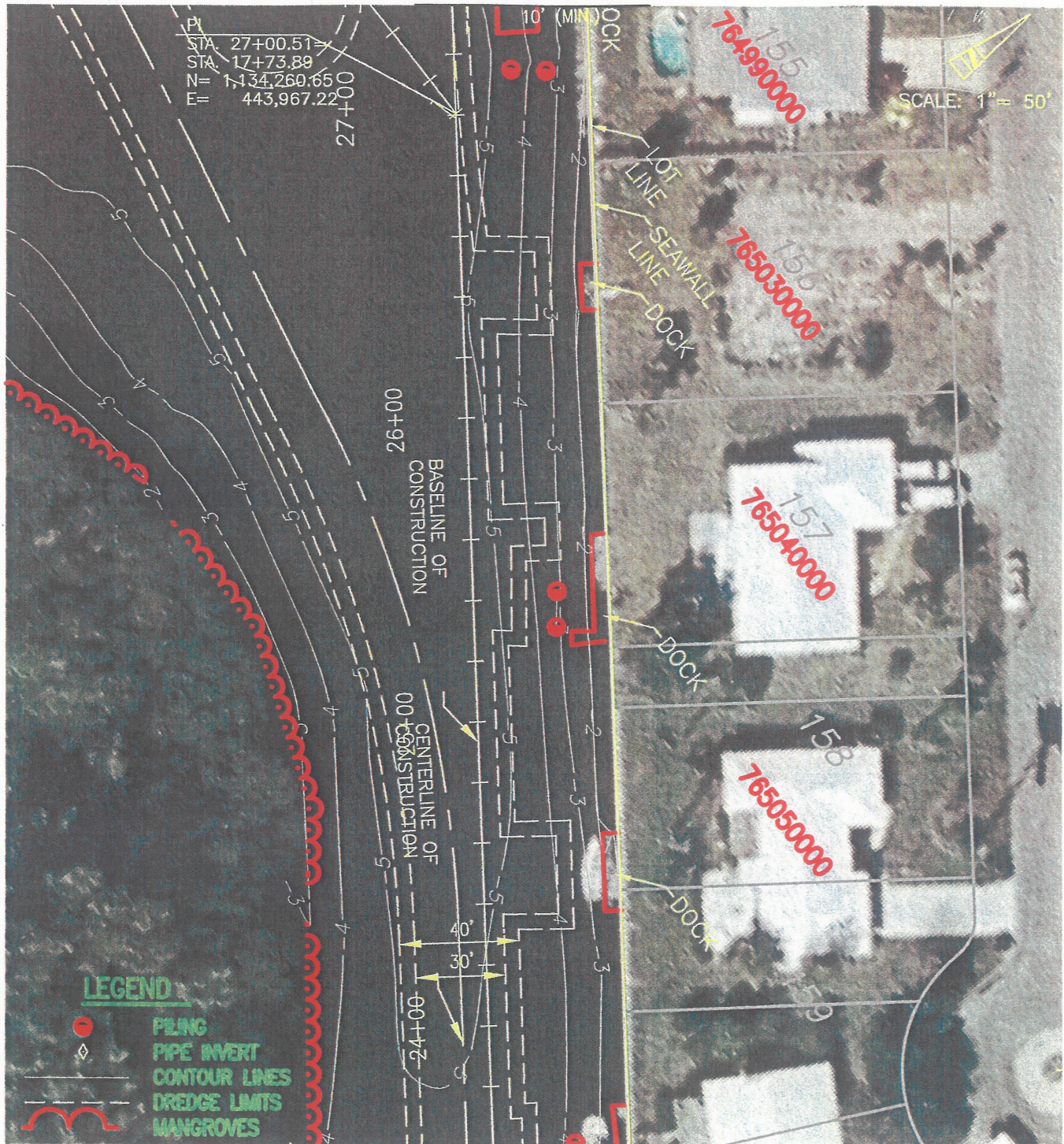
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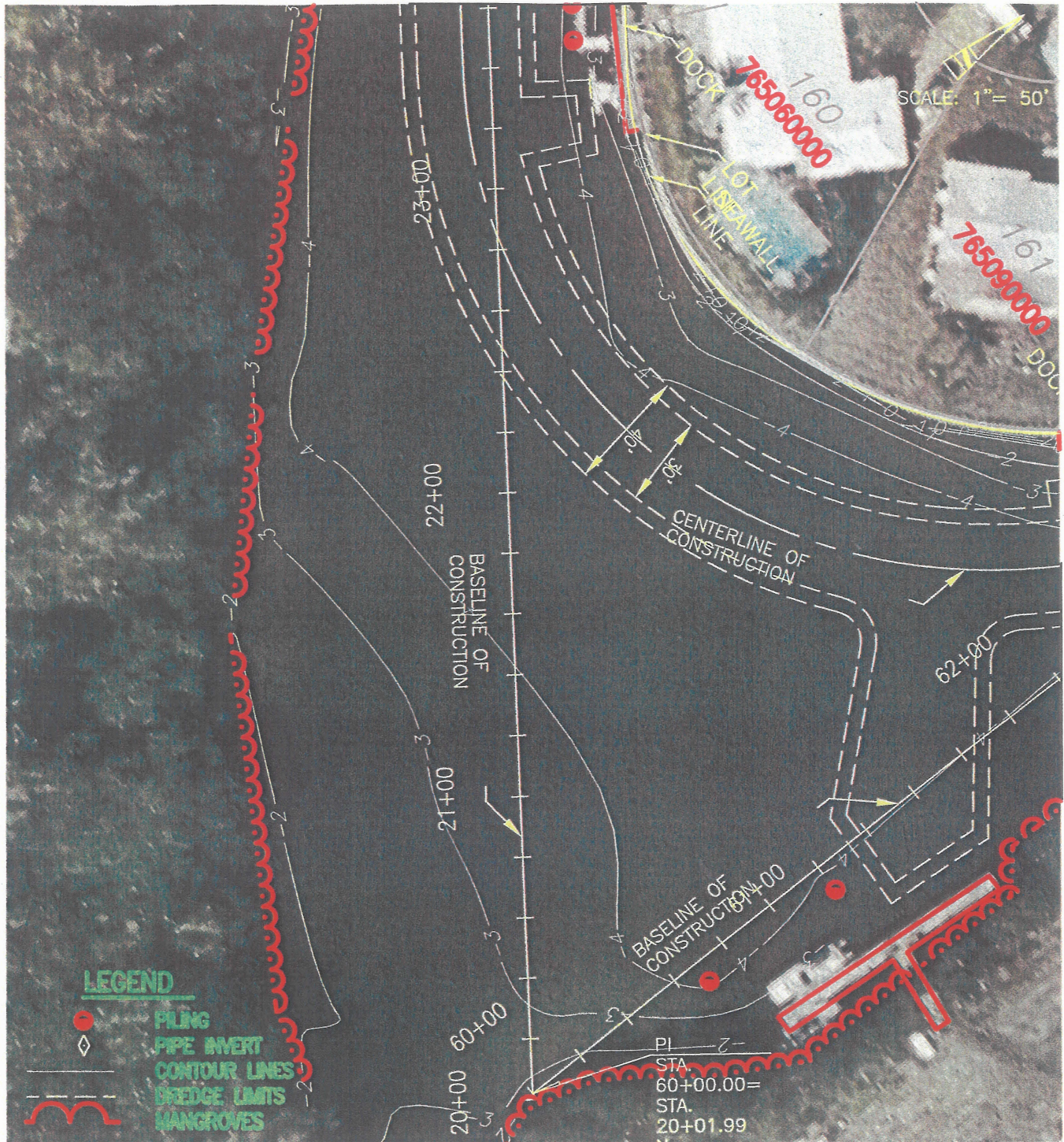
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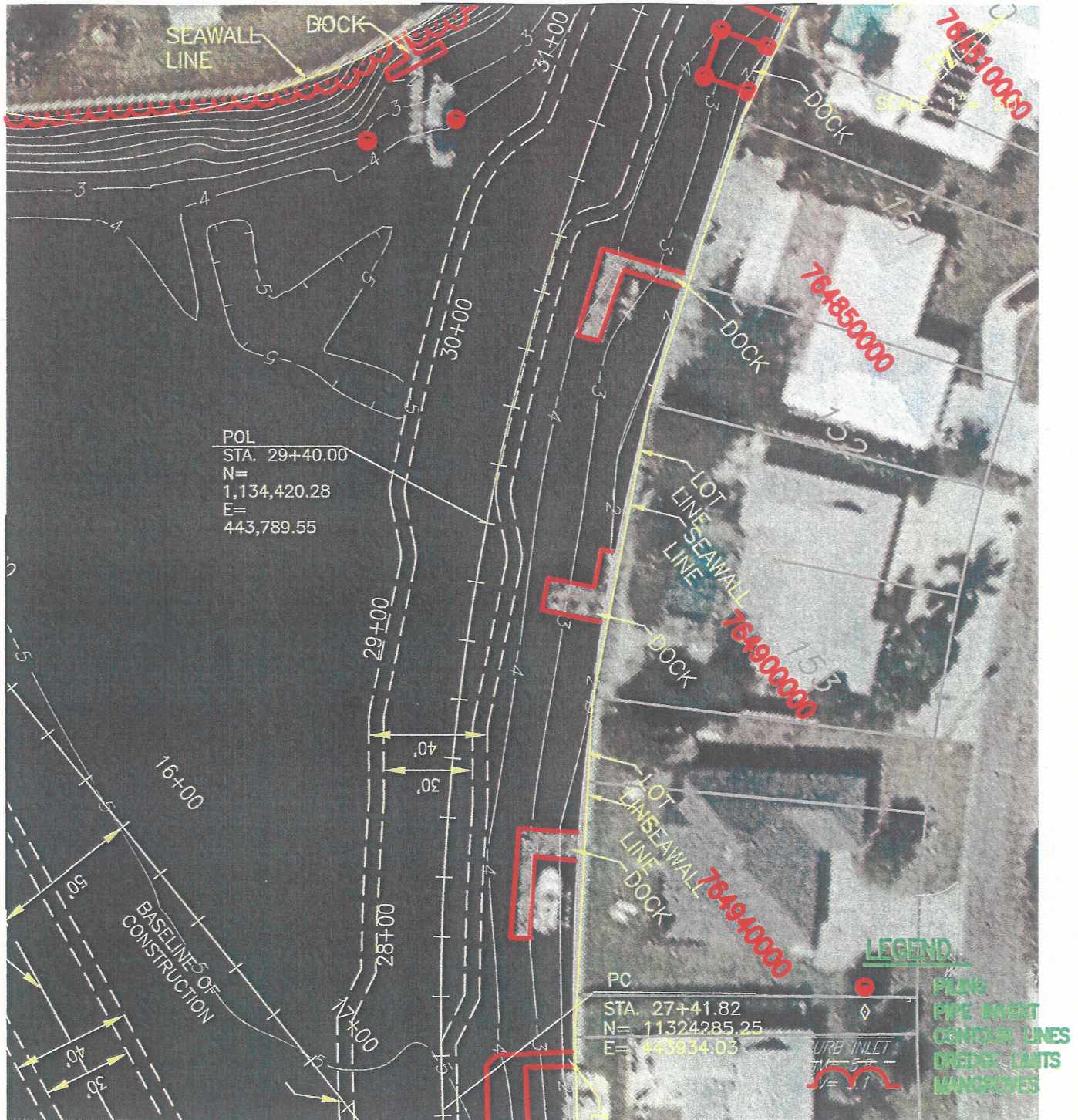
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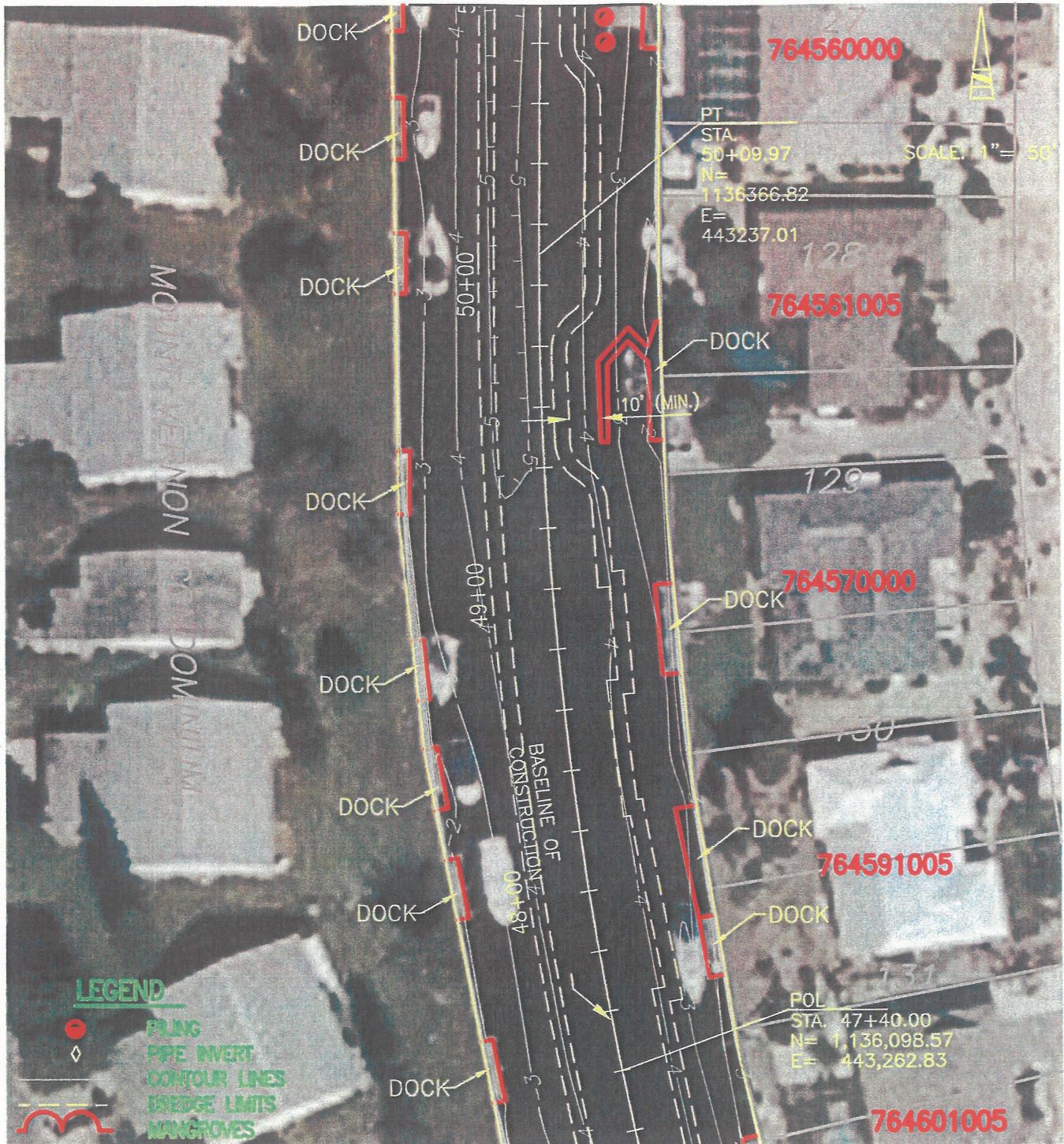
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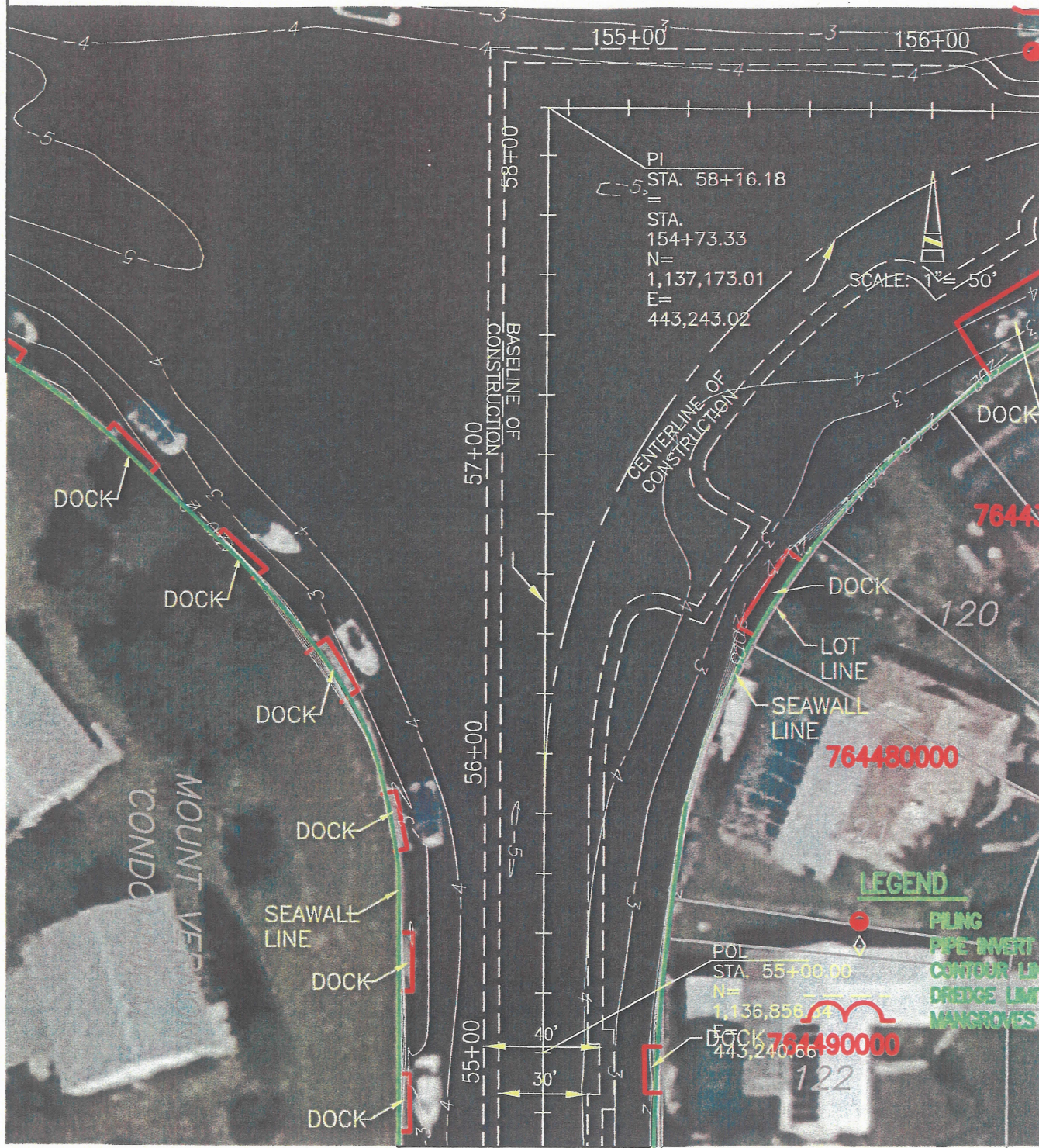
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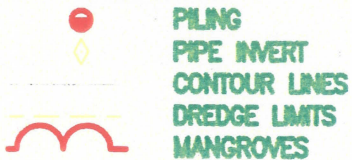
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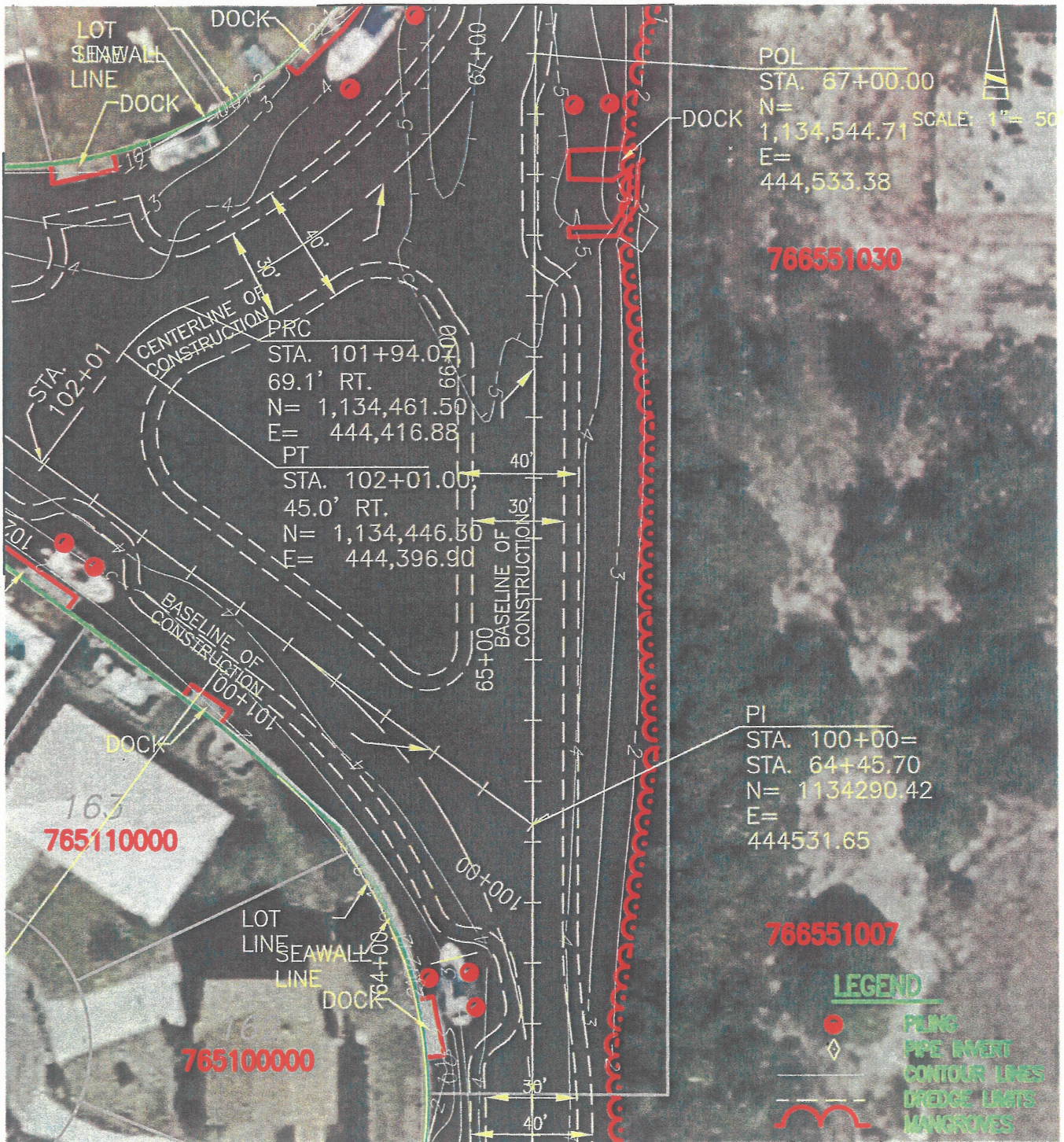
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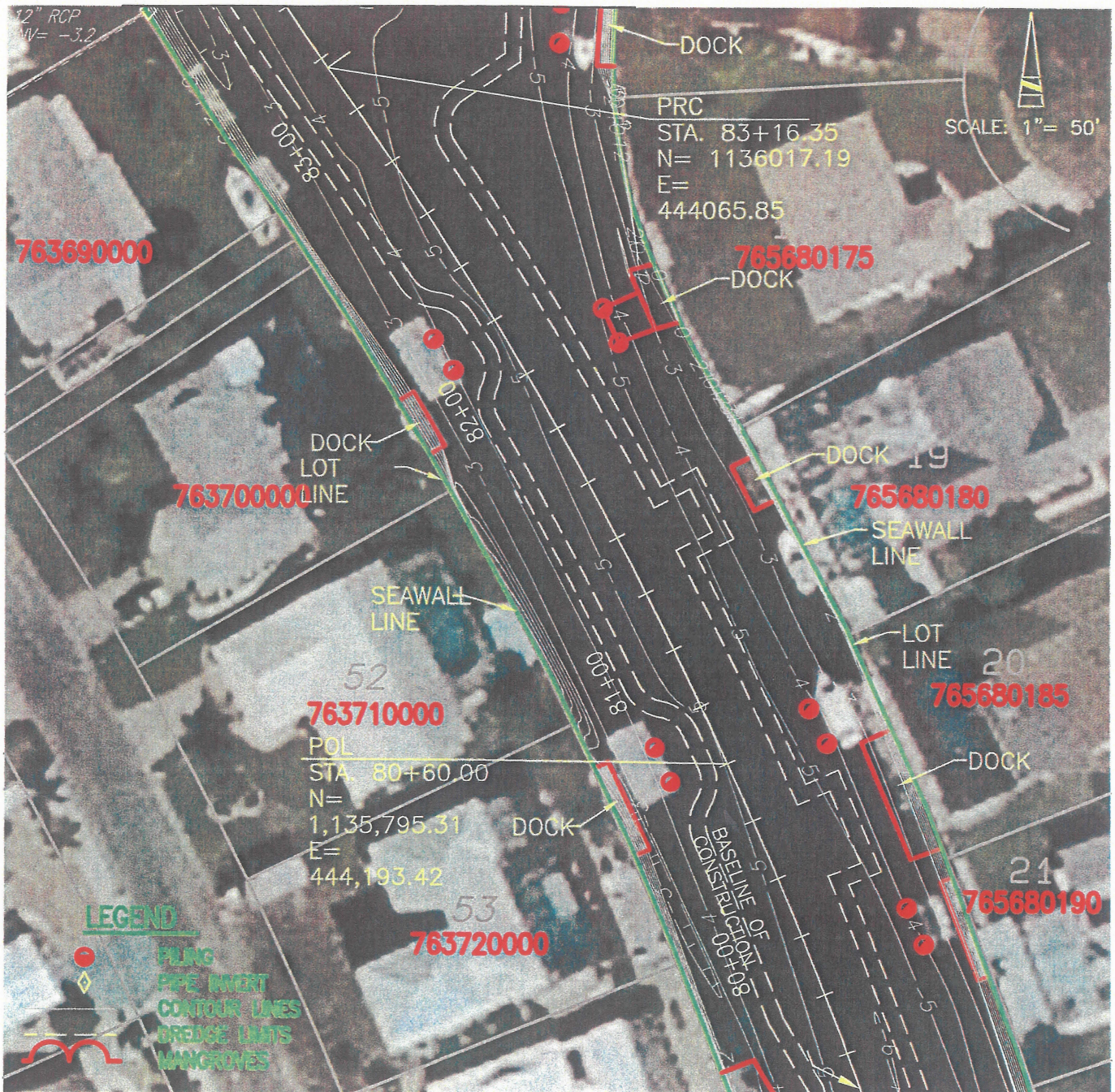
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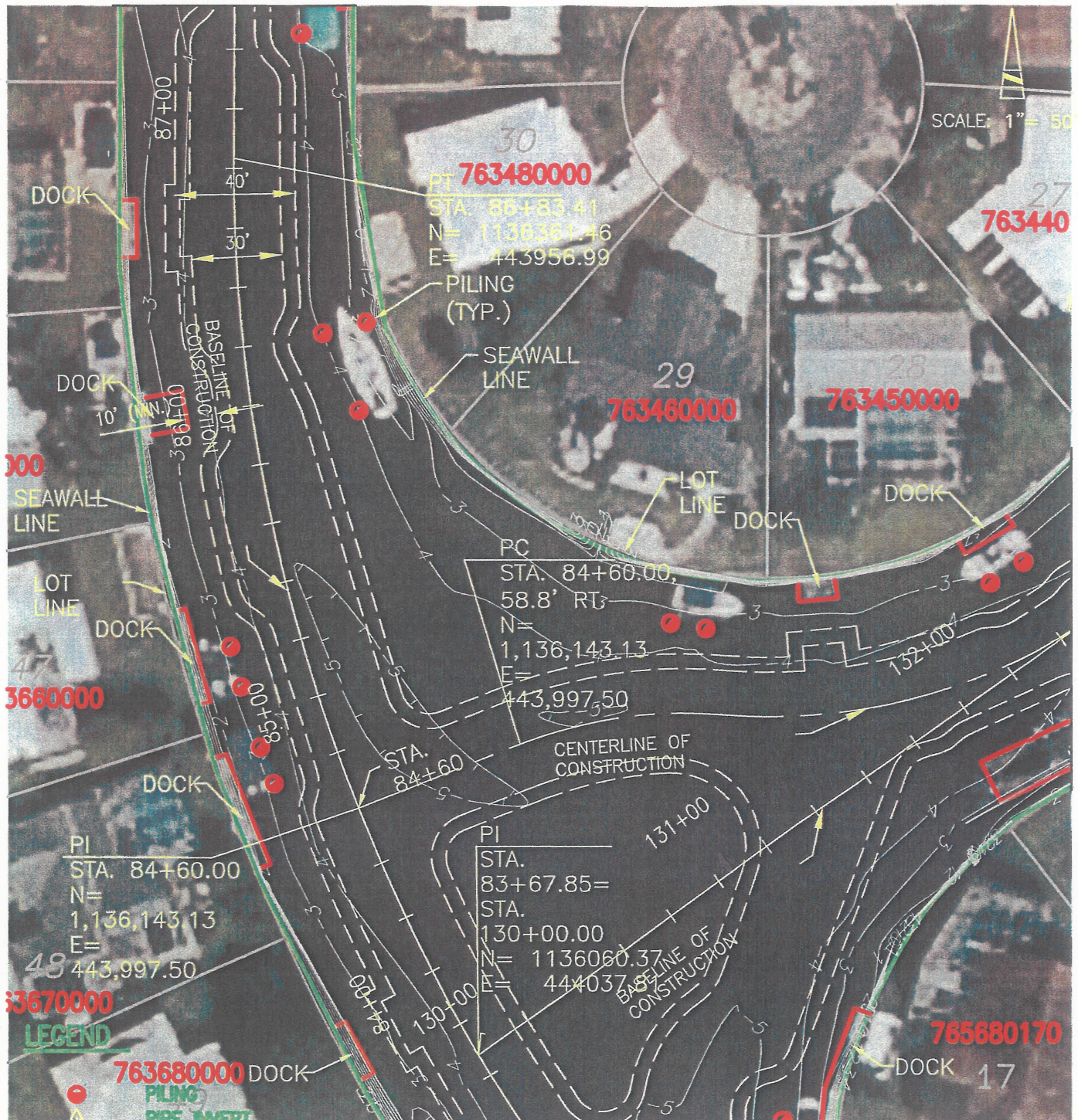
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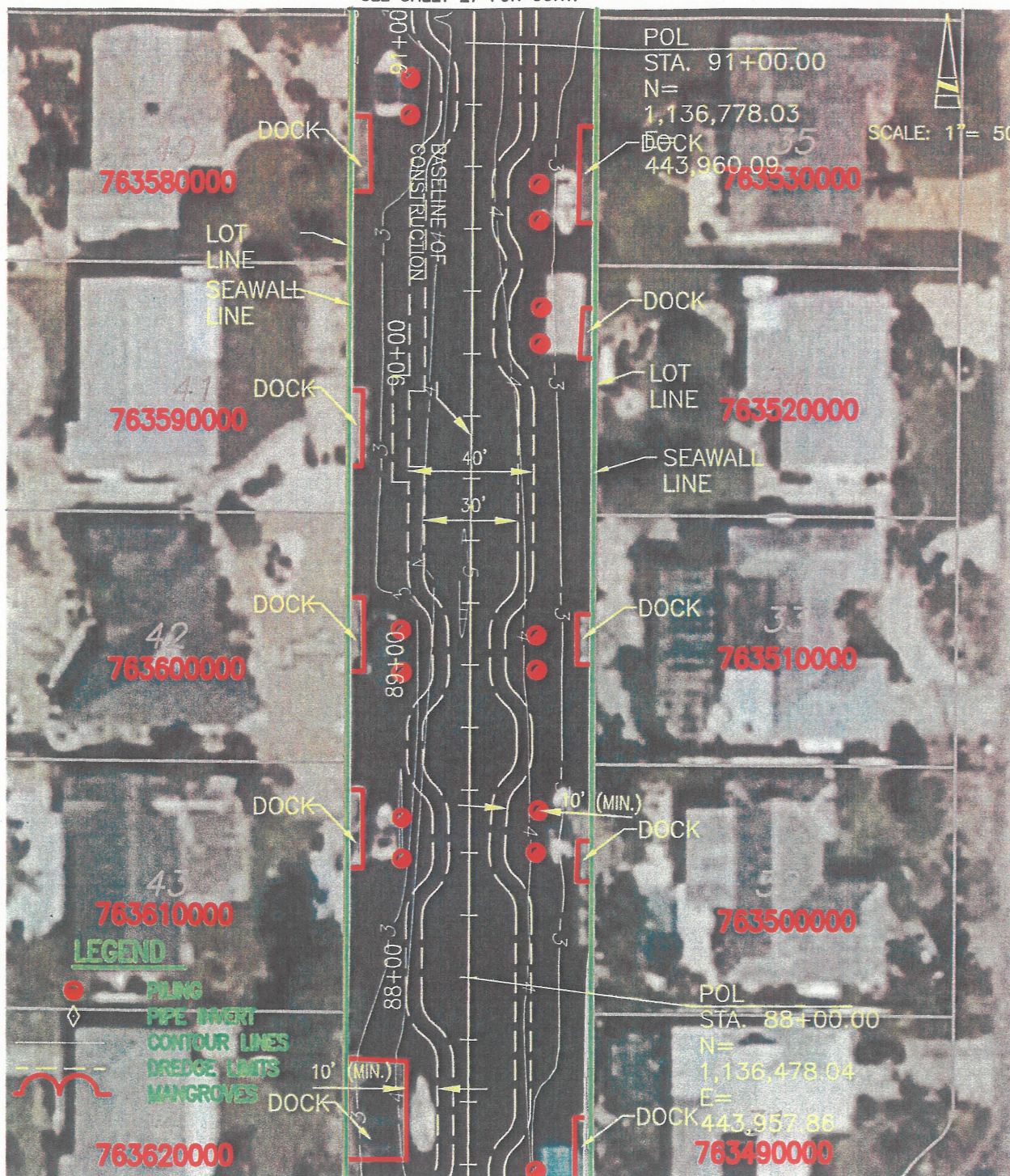
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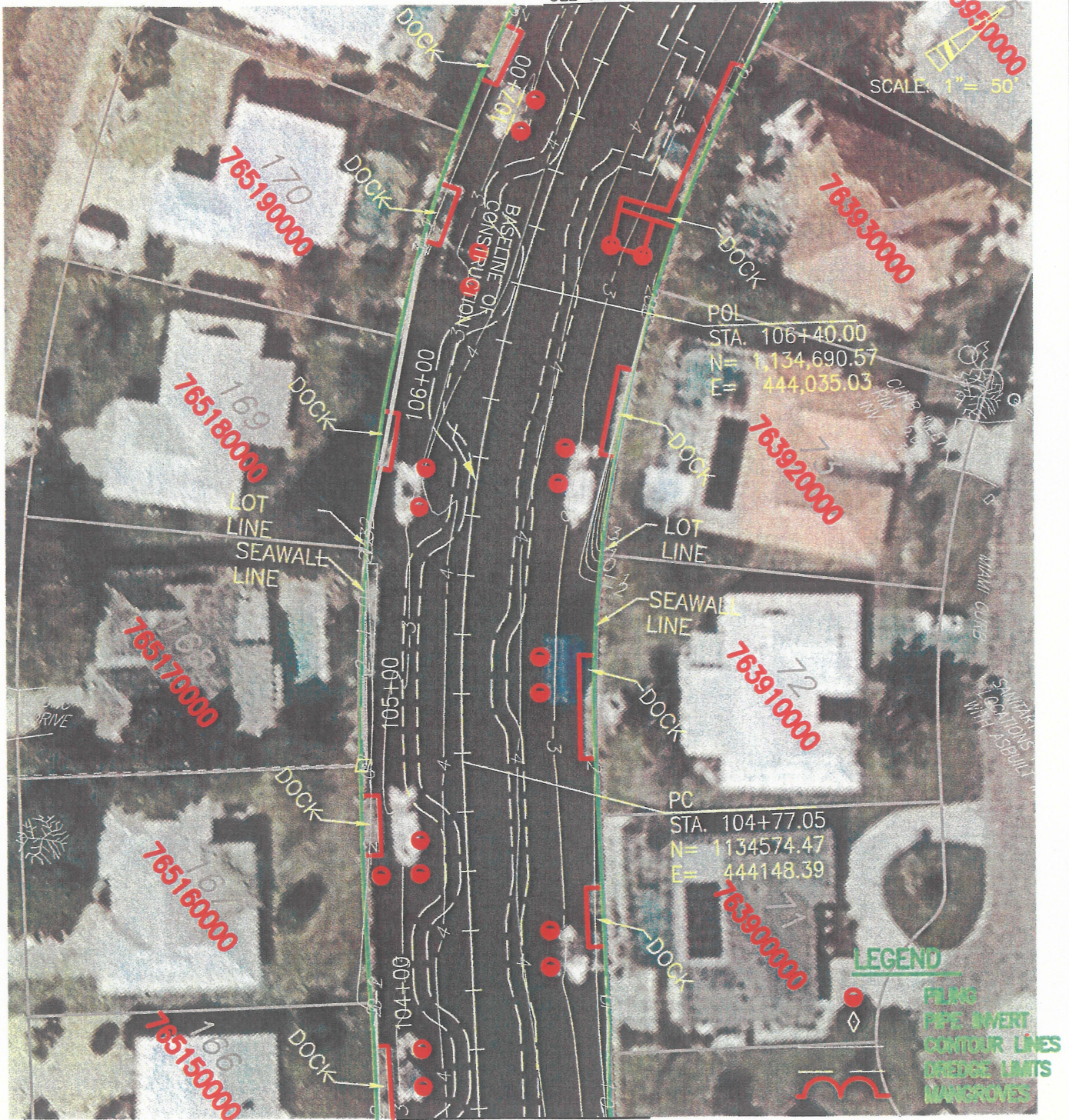
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Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

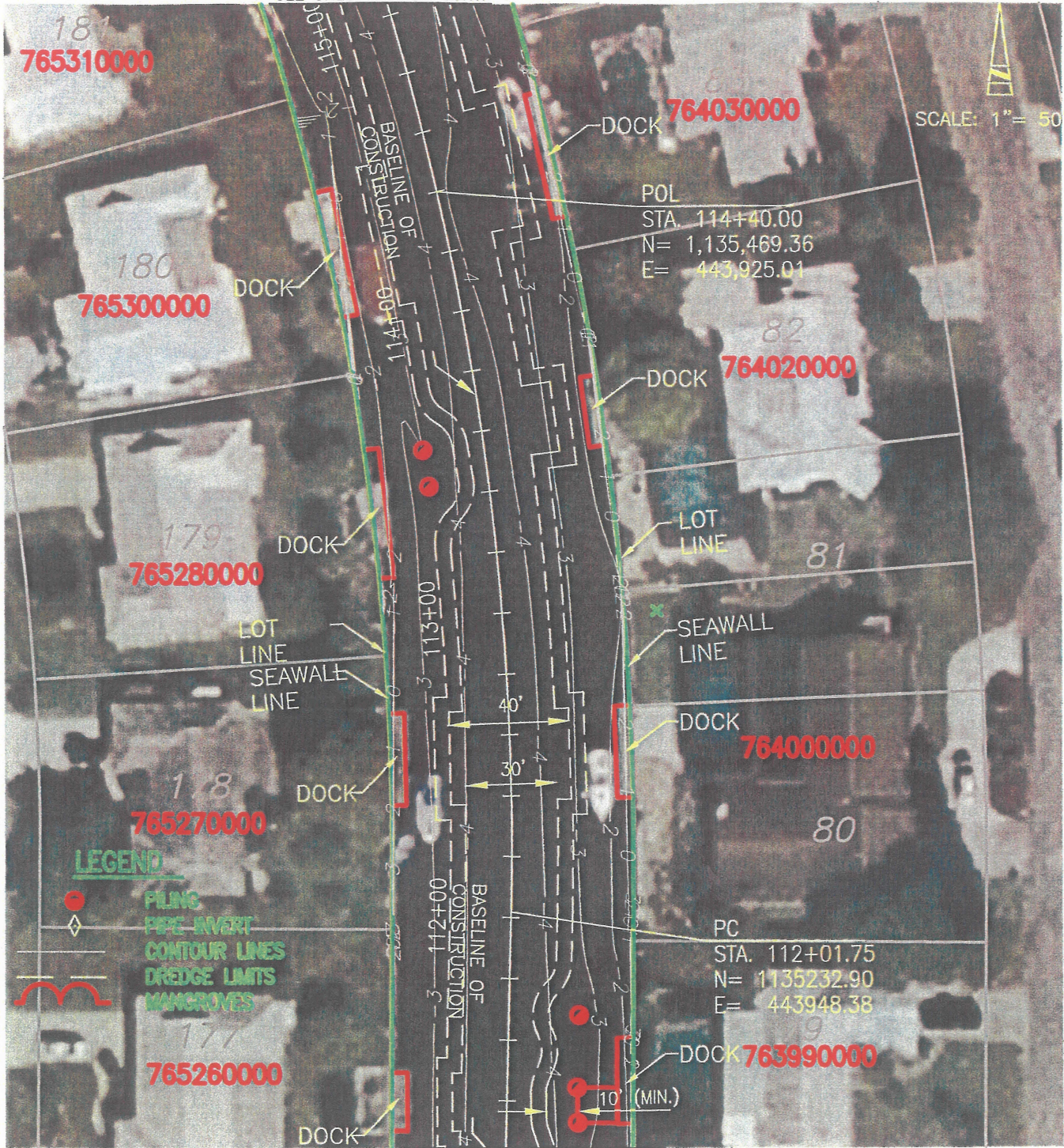
PLAN VIEW

Date: December 2009

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5971 Cattle Ridge Boulevard, Suite 200
Sarasota, Florida 34232
T 941.377.8858 F 941.371.2569
FL Engineering Business No. EB-38
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SEE SHEET 32 FOR CONT.



SEE SHEET 30 FOR CONT.

Applicant: Manatee County
 Water Body: Coral Shores
 County: Manatee
 Datum: N.G.V.D. 1929

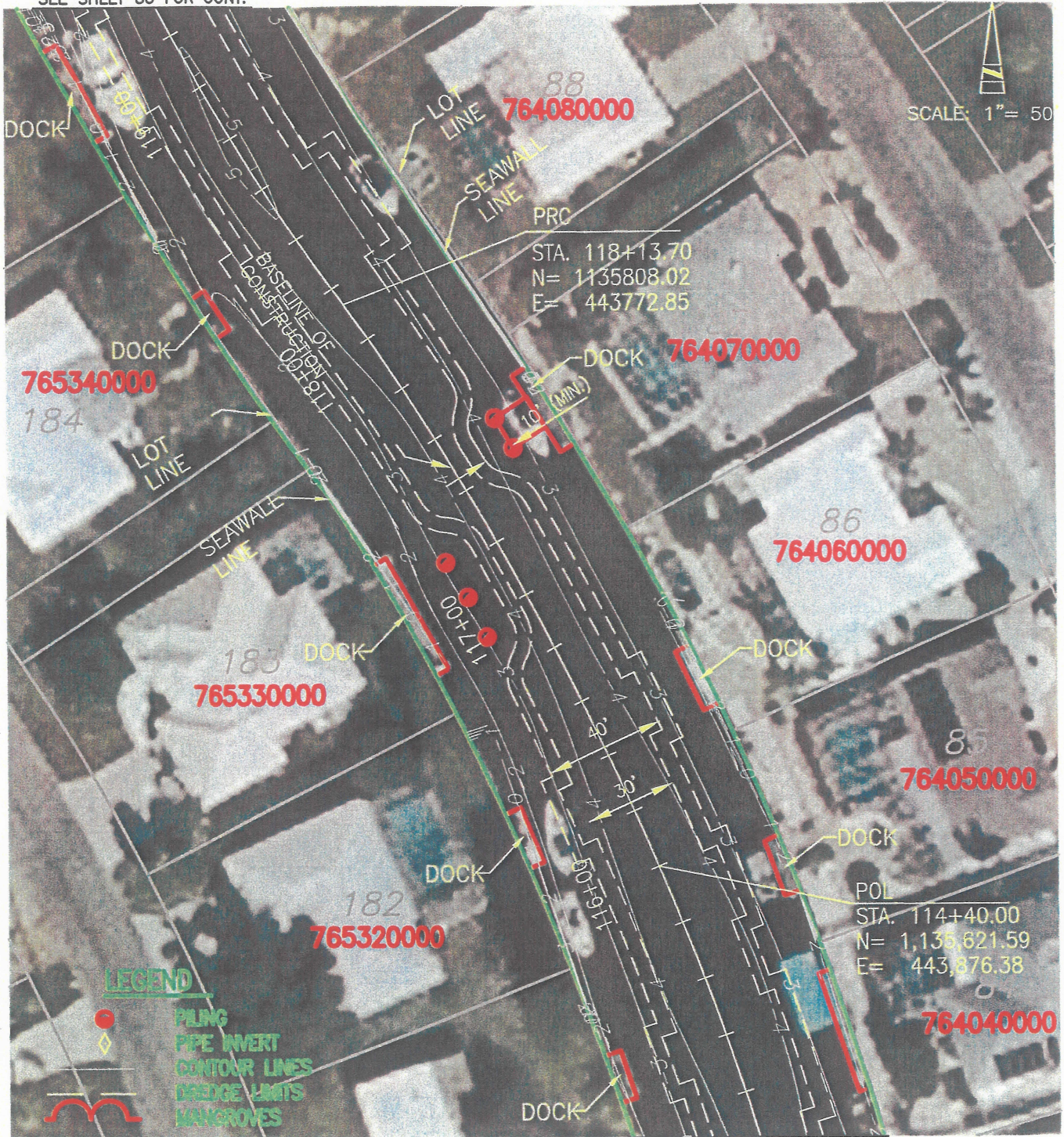
PLAN VIEW

Date: December 2009

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 T 941.377.8858 F 941.371.2569
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SEE SHEET 33 FOR CONT.



SEE SHEET 31 FOR CONT.

Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

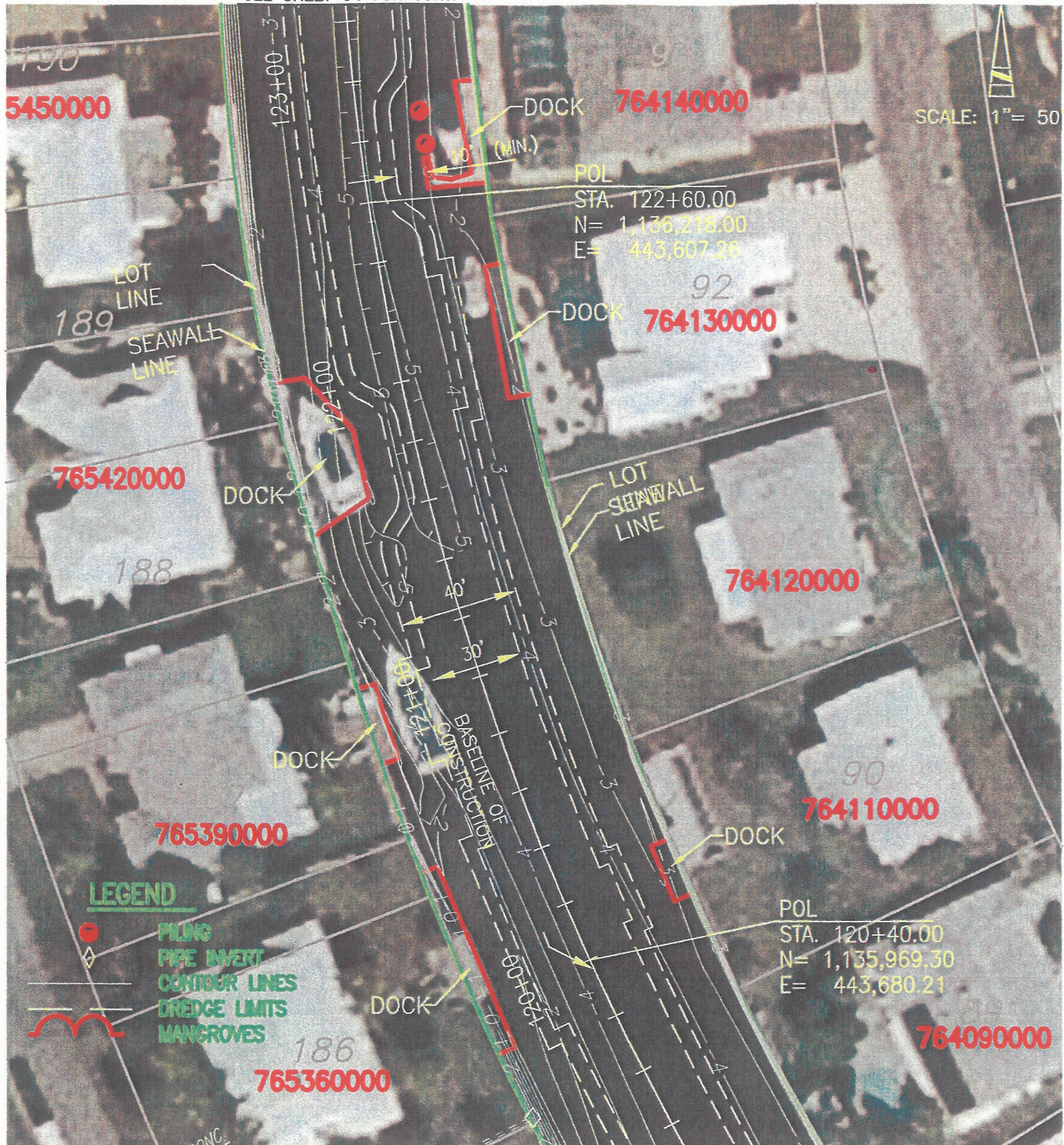
PLAN VIEW

Date: December 2009

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SEE SHEET 34 FOR CONT.



SEE SHEET 32 FOR CONT.

Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

PLAN VIEW

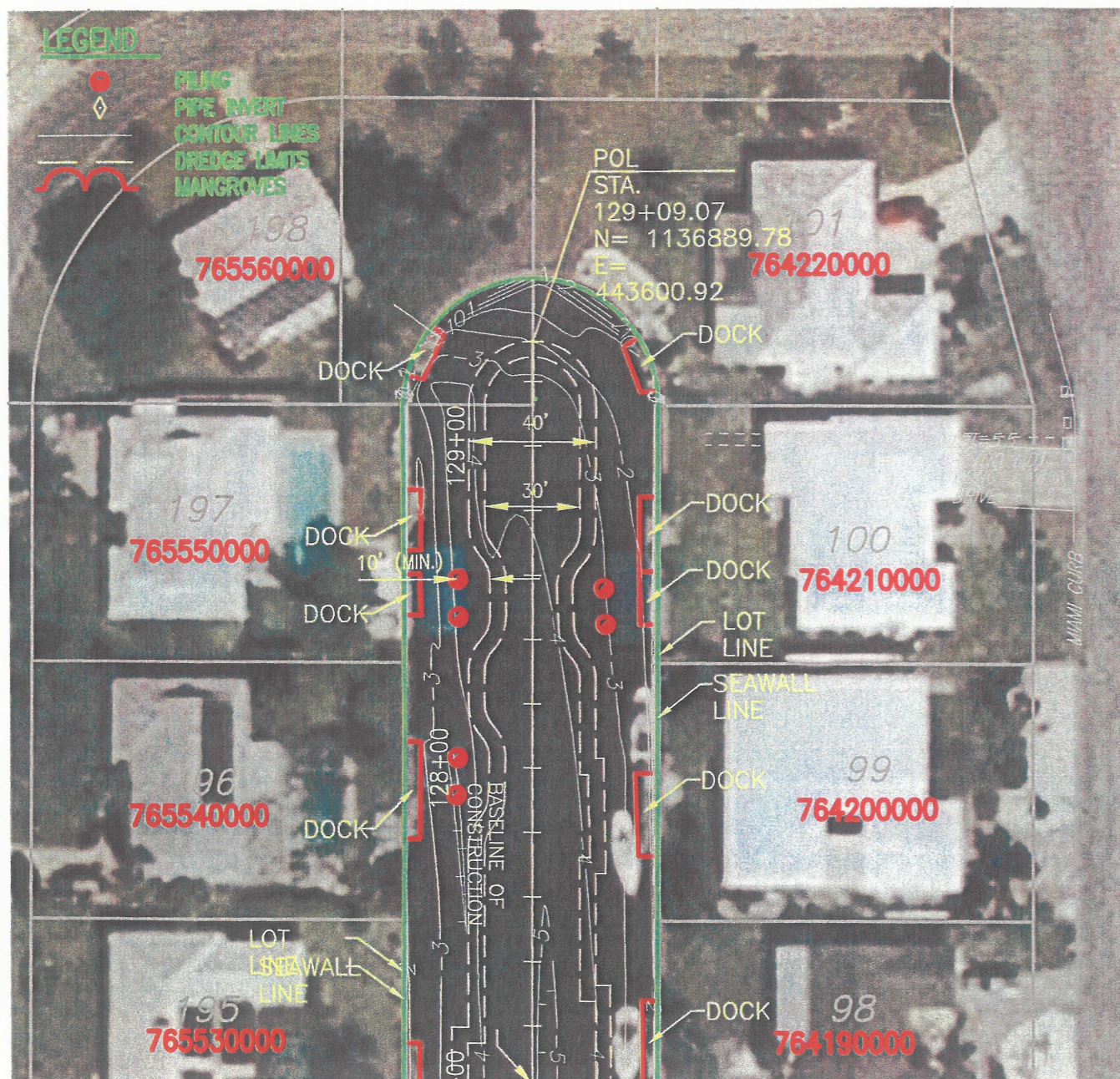
Date: December 2009

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SCALE: 1" = 50'



SEE SHEET 34 FOR CONT.

Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

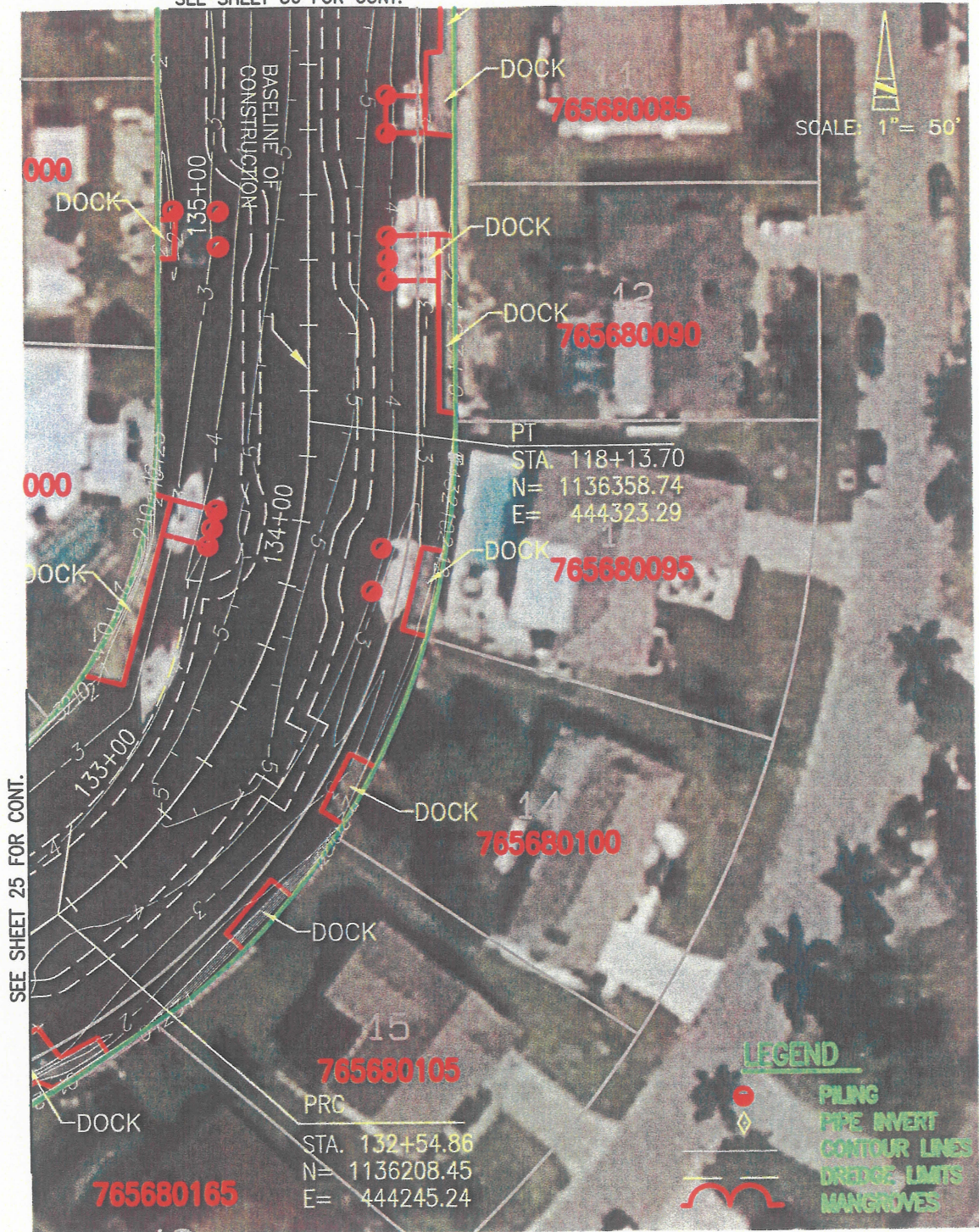
PLAN VIEW

Date: December 2009

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SEE SHEET 36 FOR CONT.



Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

PLAN VIEW

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21
763380000

DOCK

10' (MIN.)

139+00

22
763390000

DOCK

138+00

23
763400000

DOCK

40'

30'

137+00

PILING (TYP.)

763410000

DOCK

763420000

DOCK

136+00

POL
STA. 136+40.00
N= 1,136,828.08
E= 444,326.79

DOCK

765680065

PILING

DOCK

765680070

DOCK

765680075

POL
STA. 136+40.00
N= 1,136,568.09
E= 444,324.85

DOCK

765680080

LEGEND

PILING
PIPE INVERT
CONTOUR LINES
DREDGE LIMITS
MANGROVES

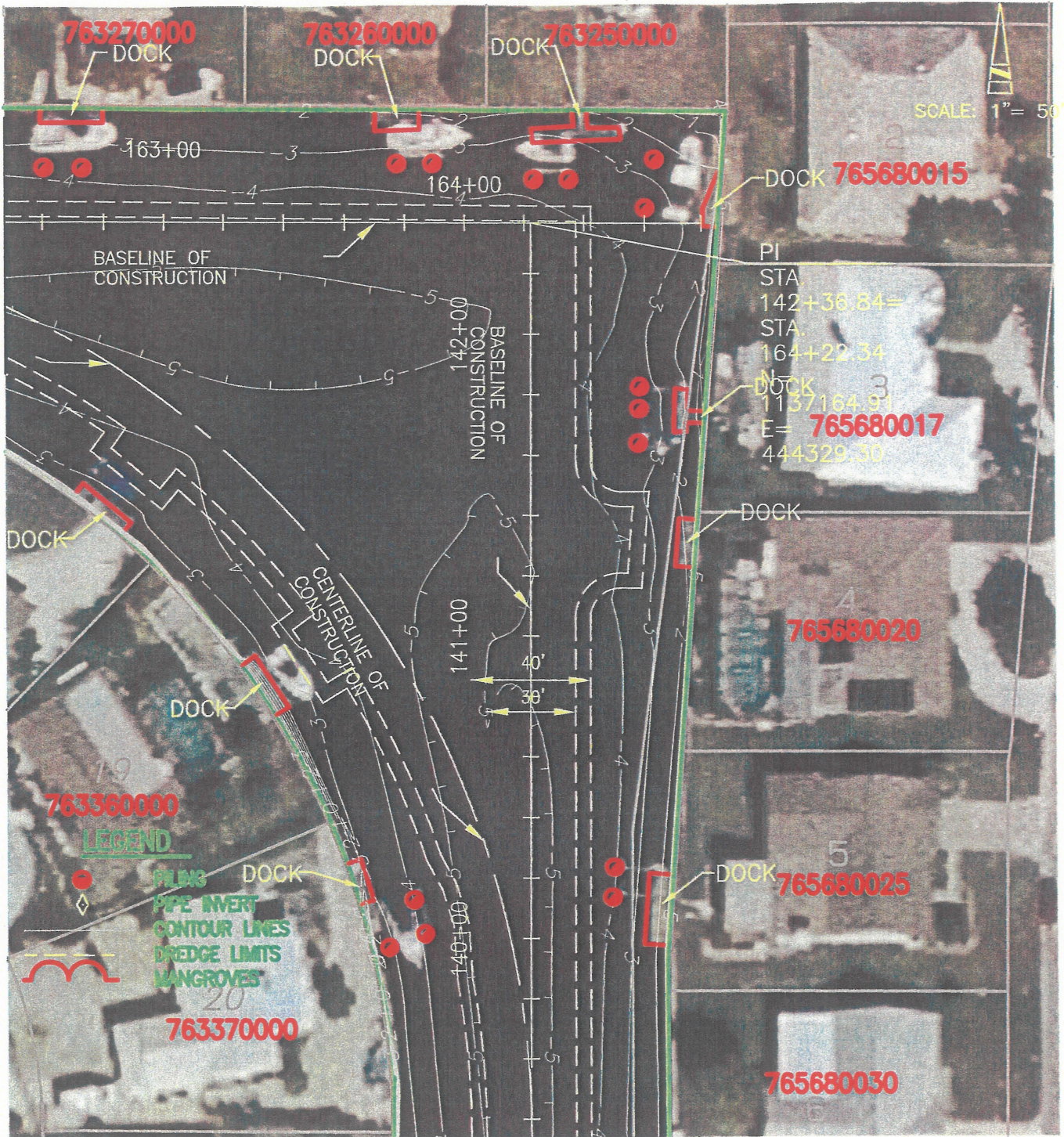
DOCK

Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

Date: December 2009

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SEE SHEET 39 FOR CONT.



SEE SHEET 37 FOR CONT.

Applicant: Manatee County
 Water Body: Coral Shores
 County: Manatee
 Datum: N.G.V.D. 1929

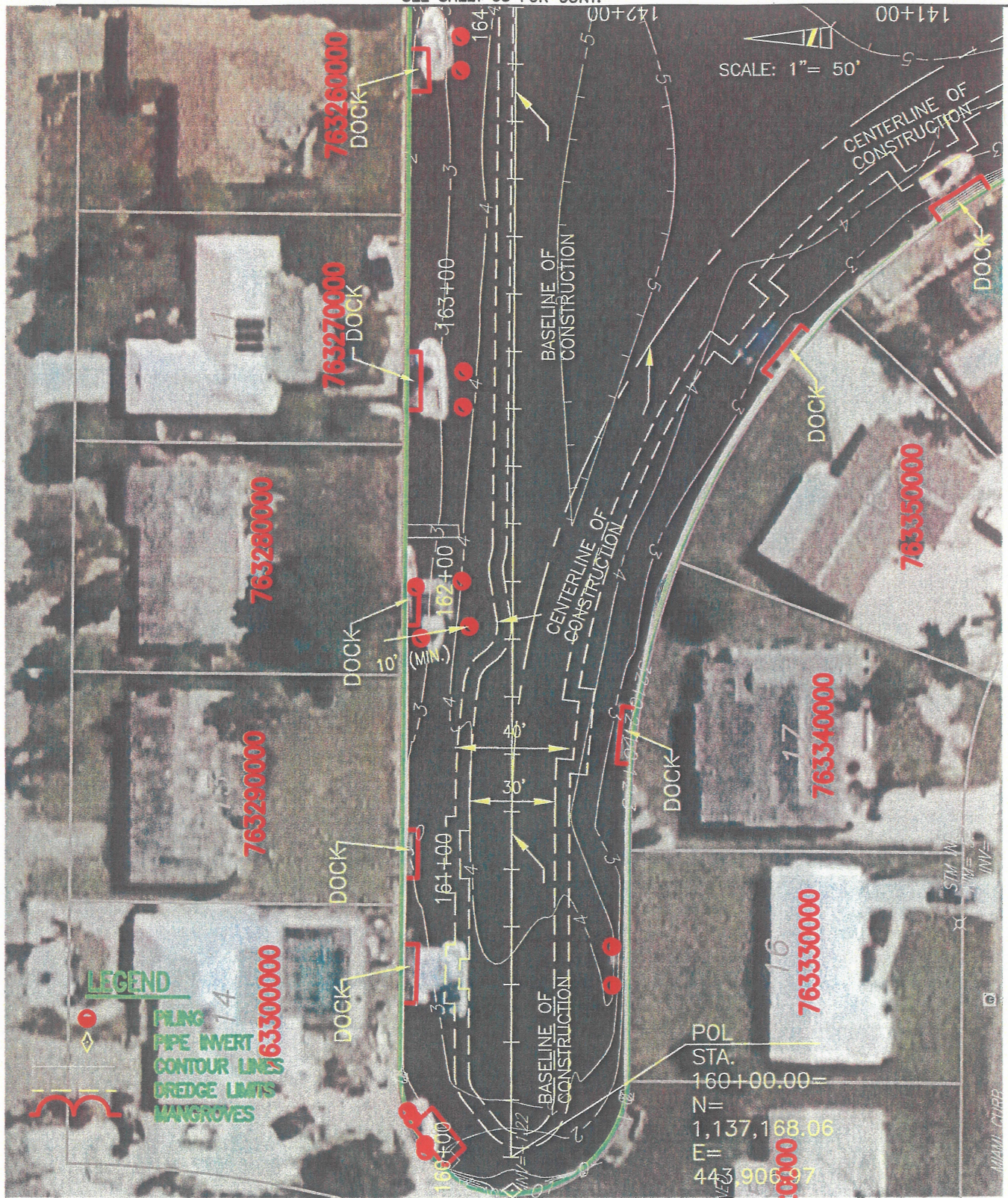
PLAN VIEW

Date: December 2009

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 FL Engineering Business No. EB-38
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SEE SHEET 38 FOR CONT.



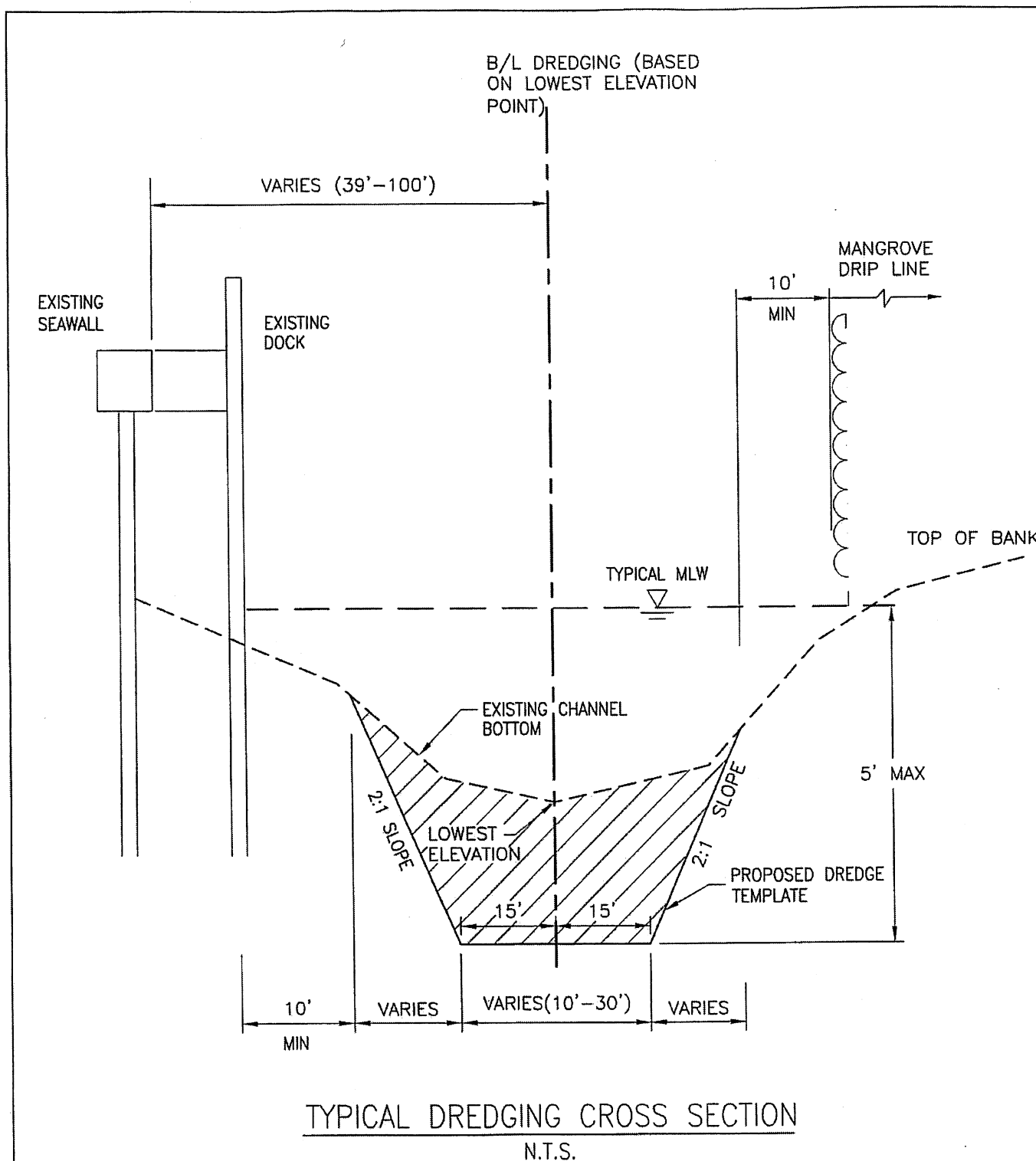
Applicant: Manatee County
 Water Body: Coral Shores
 County: Manatee
 Datum: N.G.V.D. 1929

PLAN VIEW

Date: December 2009

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 FL Engineering Business No. EB-38
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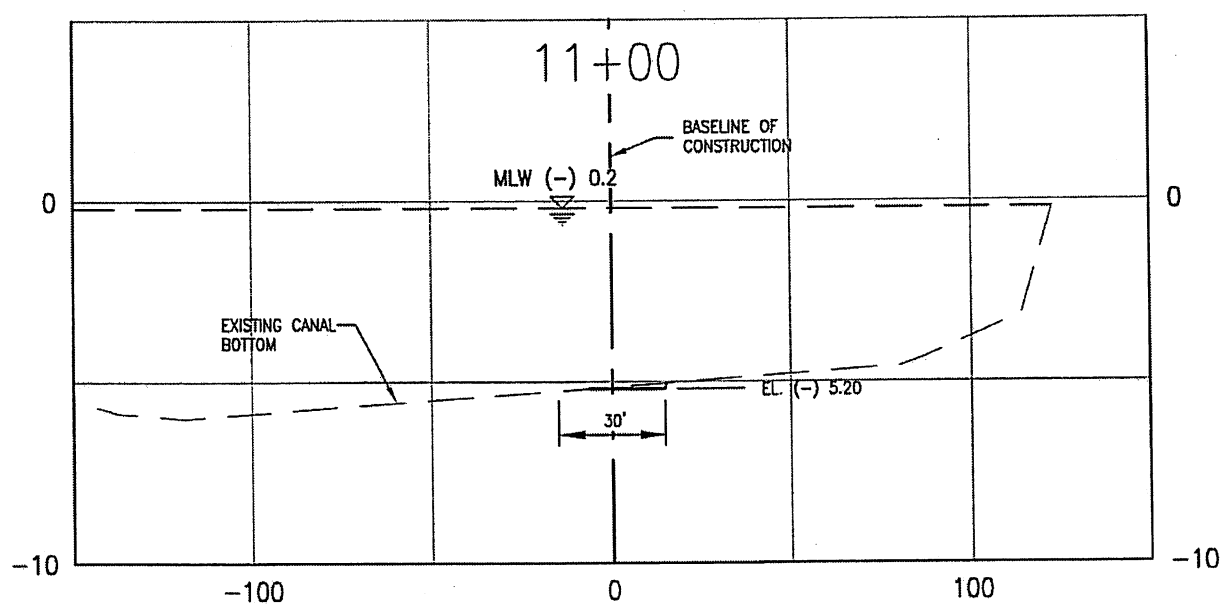
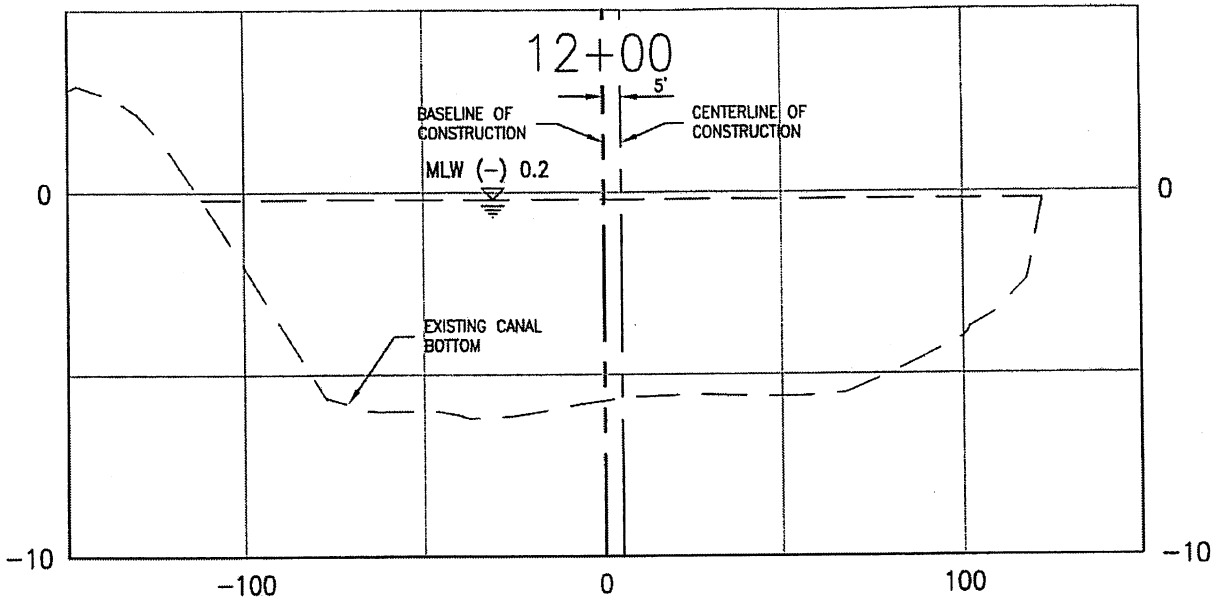


Applicant: Manatee County
 Water Body: Coral Shores
 County: Manatee
 Datum: N.G.V.D. 1929

TYPICAL SECTION
 Date: December 2009

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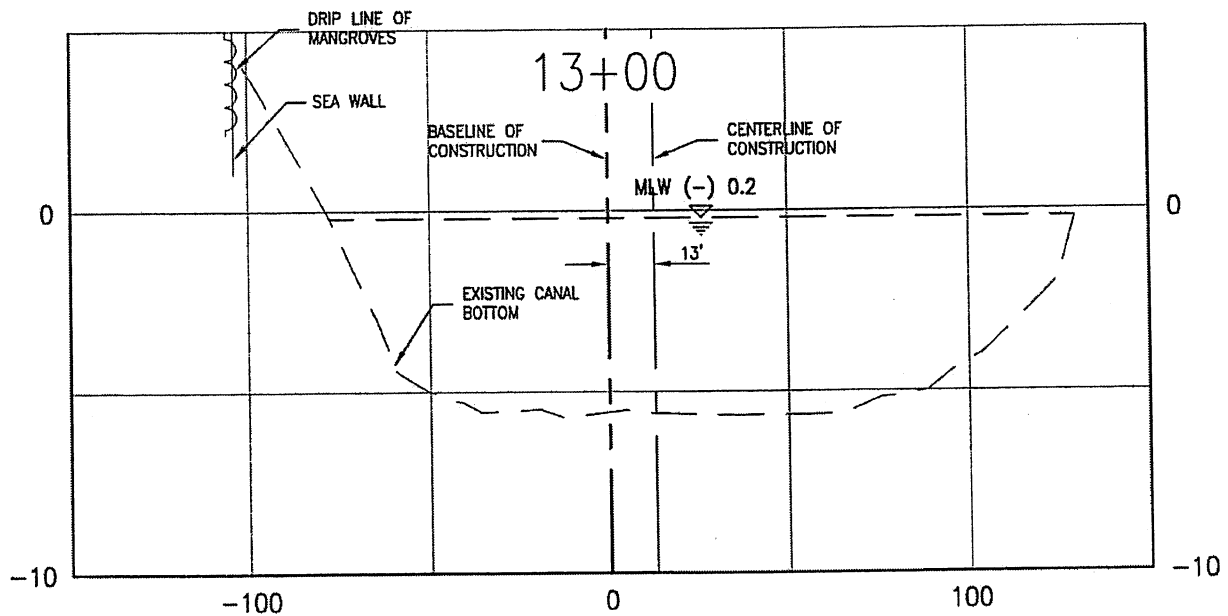
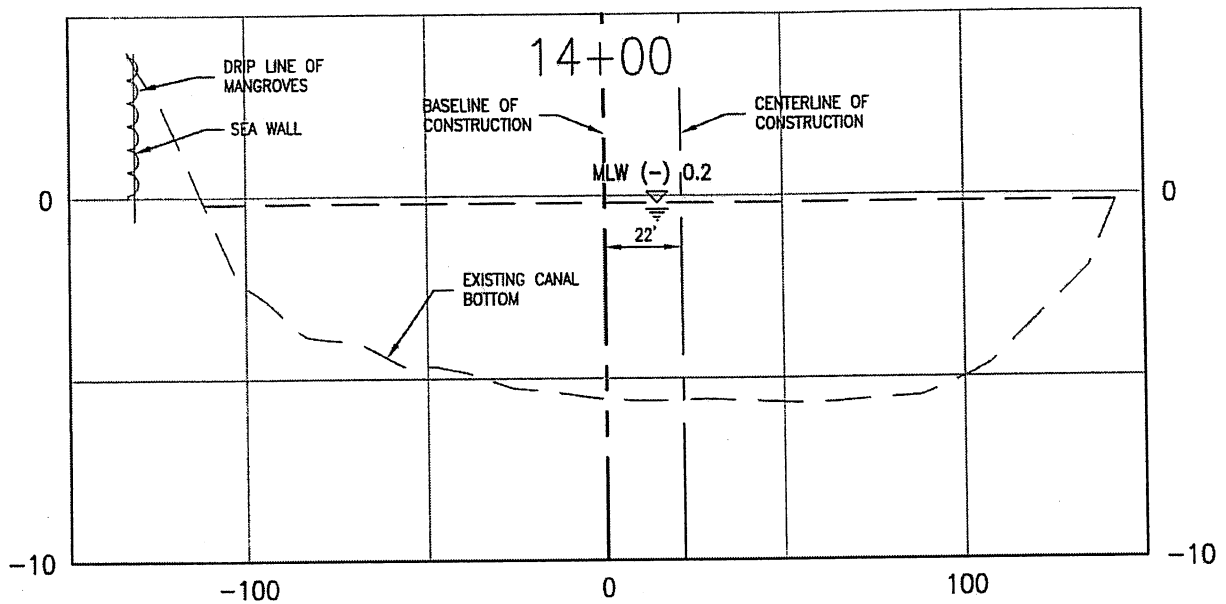


SCALE: 1' = 50' HORIZ.
SCALE: 1' = 5' VERT.

Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

CROSS-SECTIONS
Date: December 2009

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5971 Cattle Ridge Boulevard, Suite 200
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SCALE: 1' = 50' HORIZ.
SCALE: 1' = 5' VERT.

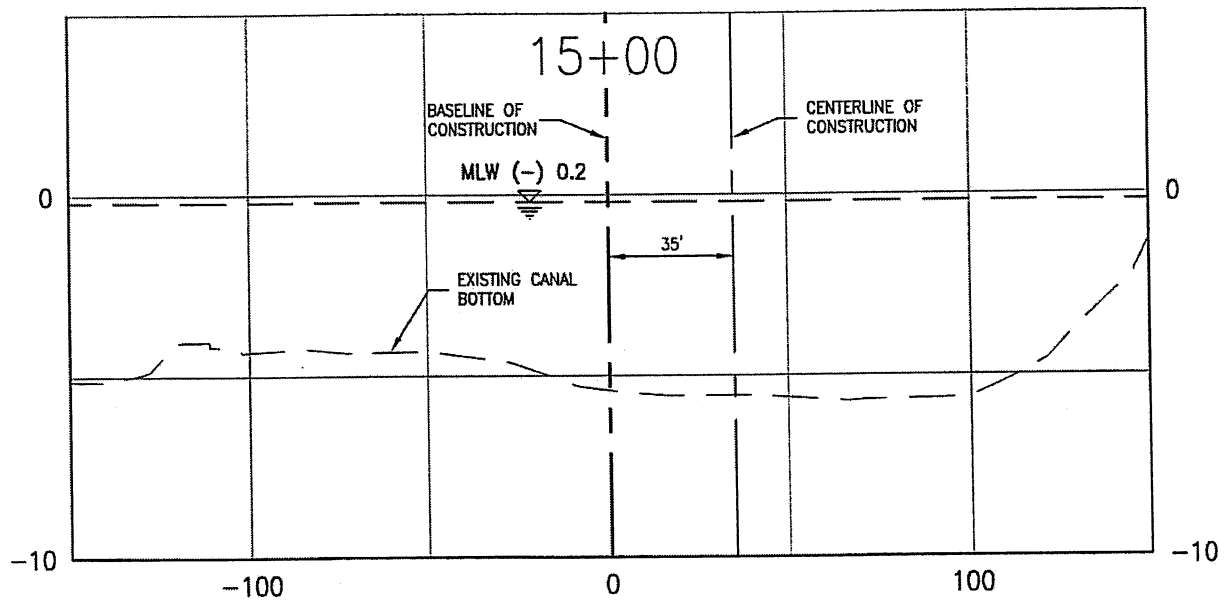
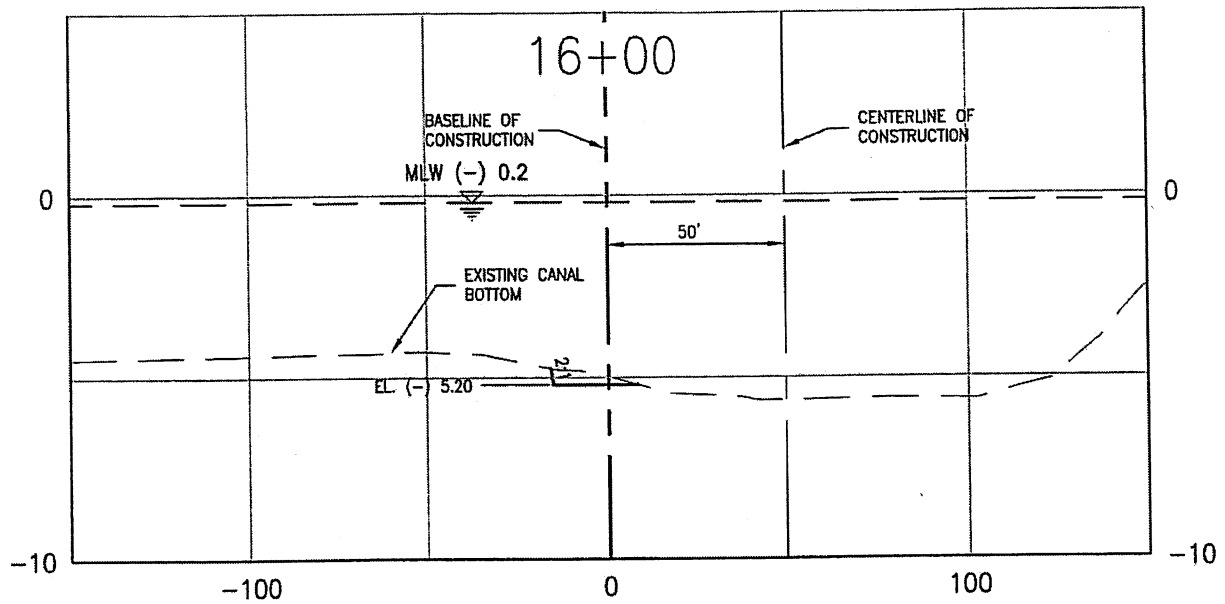
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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SCALE: 1' = 50' HORIZ.
SCALE: 1' = 5' VERT.

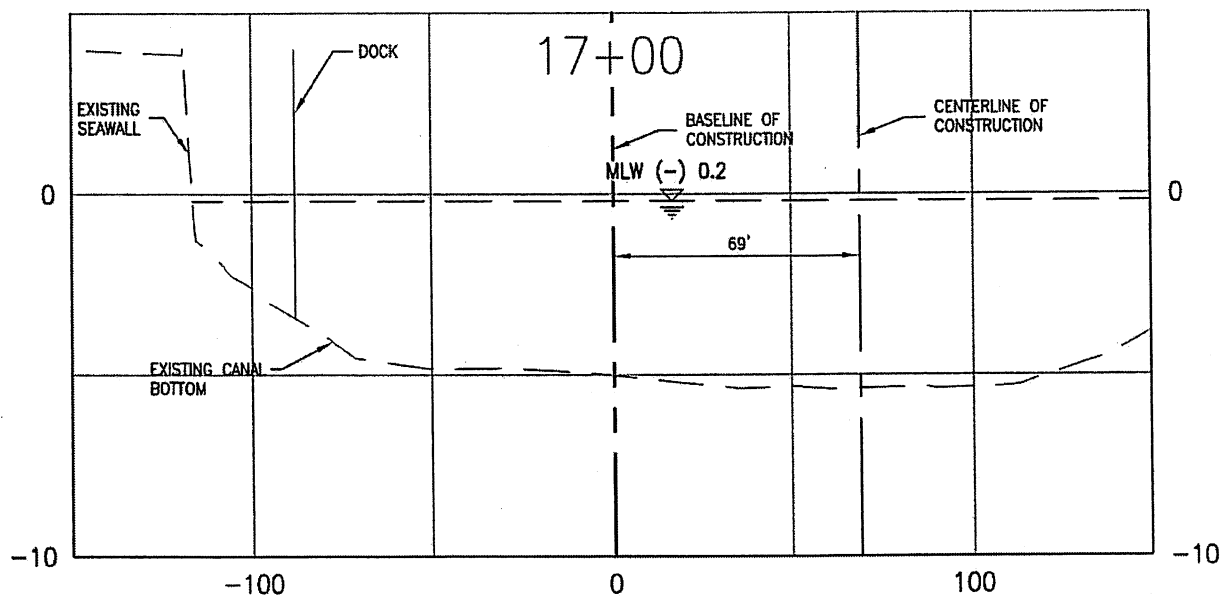
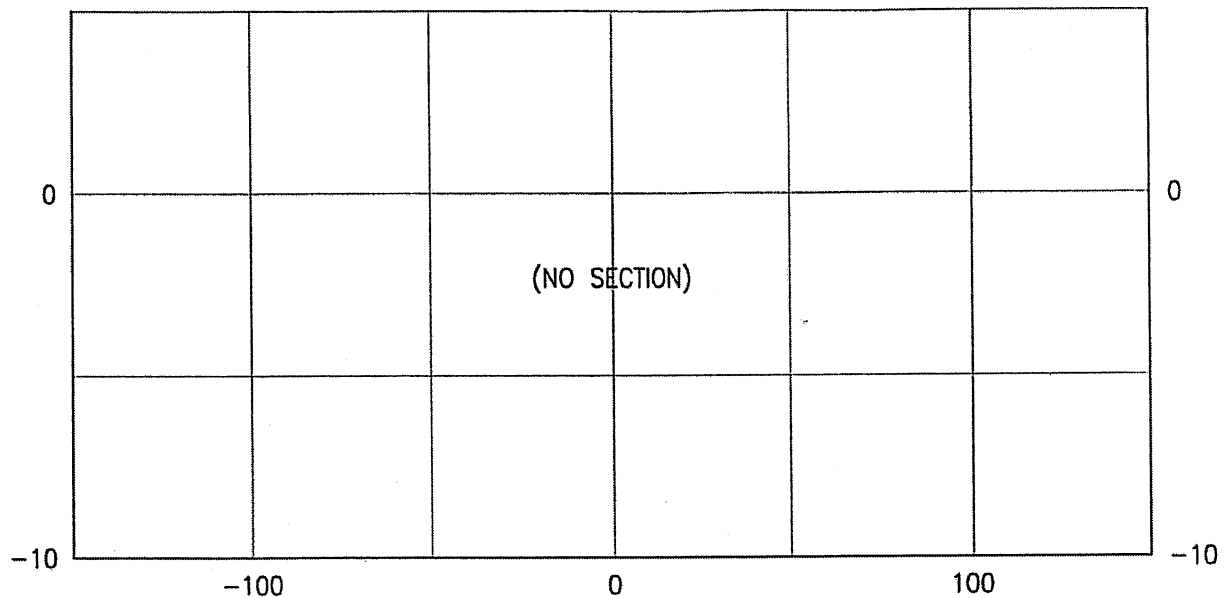
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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SCALE: 1' = 50' HORIZ.
SCALE: 1' = 5' VERT.

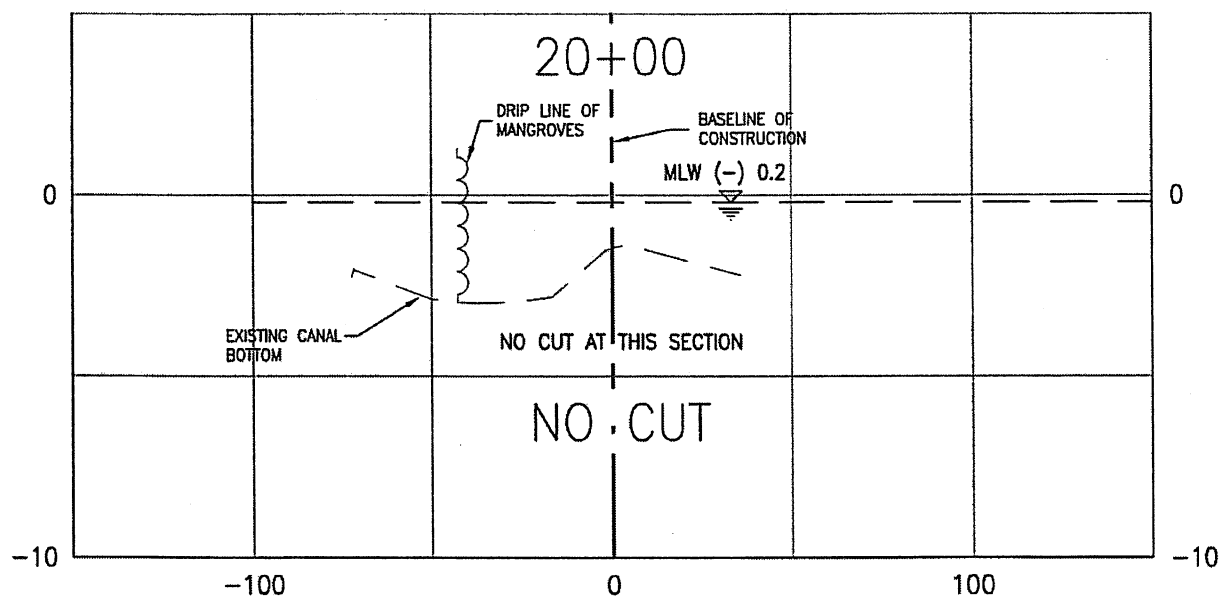
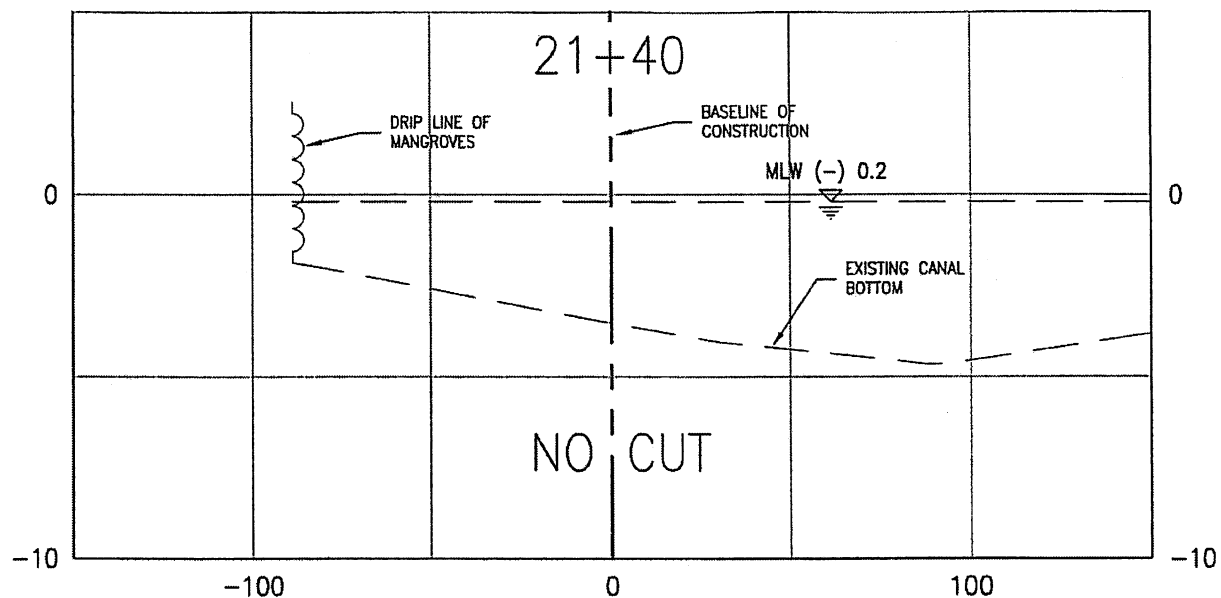
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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SCALE: 1" = 50' HORIZ.

SCALE: 1" = 5' VERT.

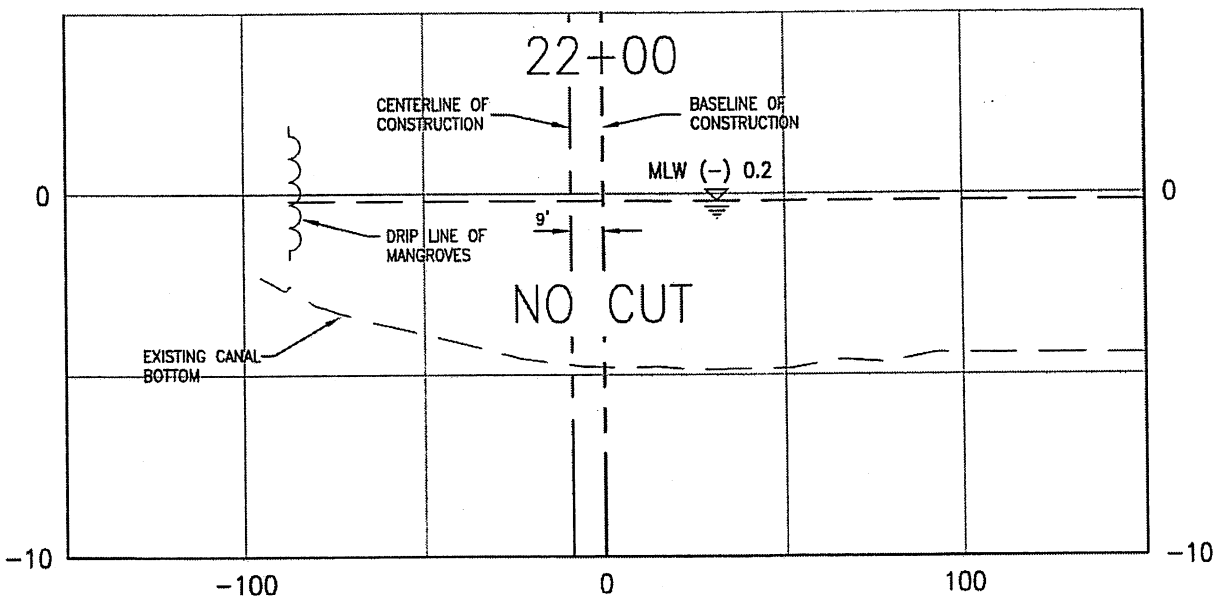
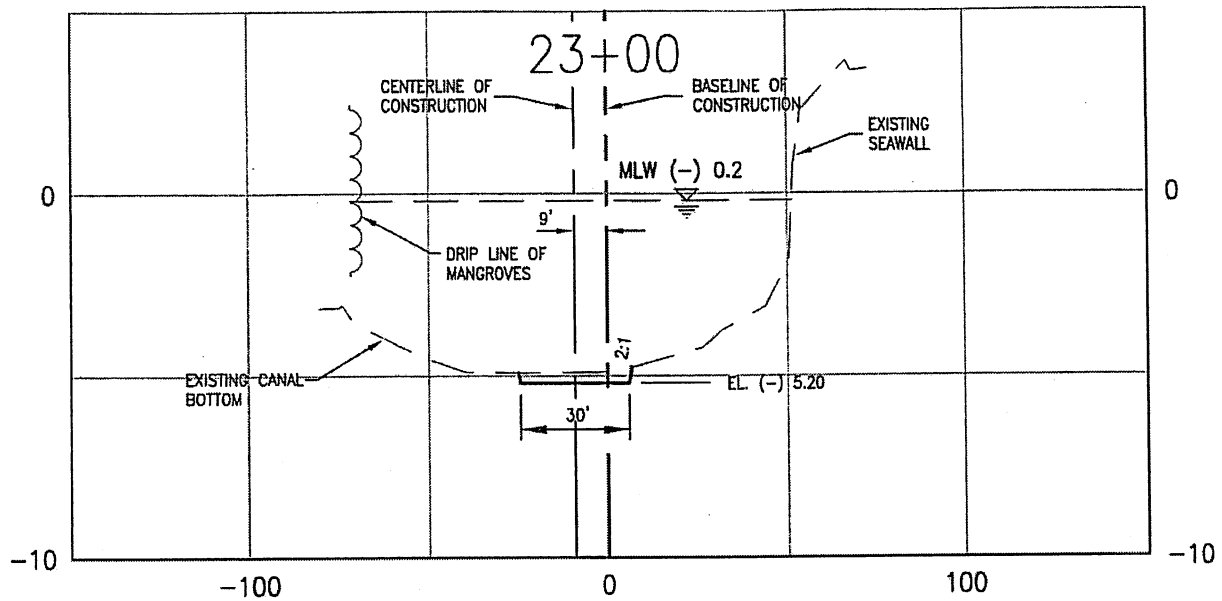
Applicant: Manatee County
 Water Body: Coral Shores
 County: Manatee
 Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

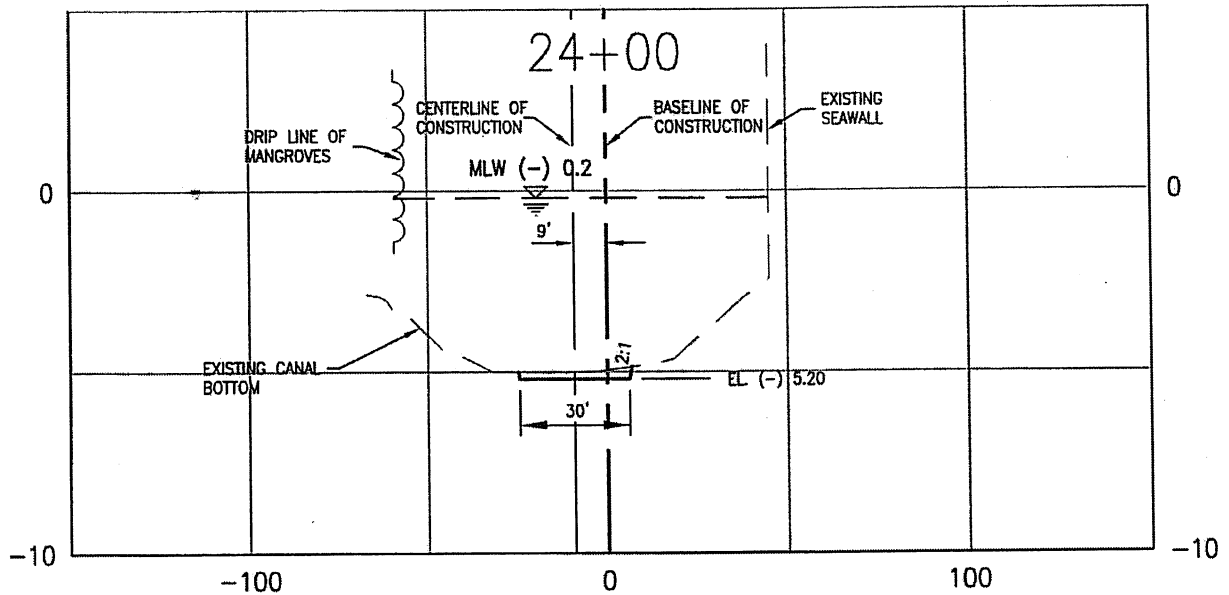
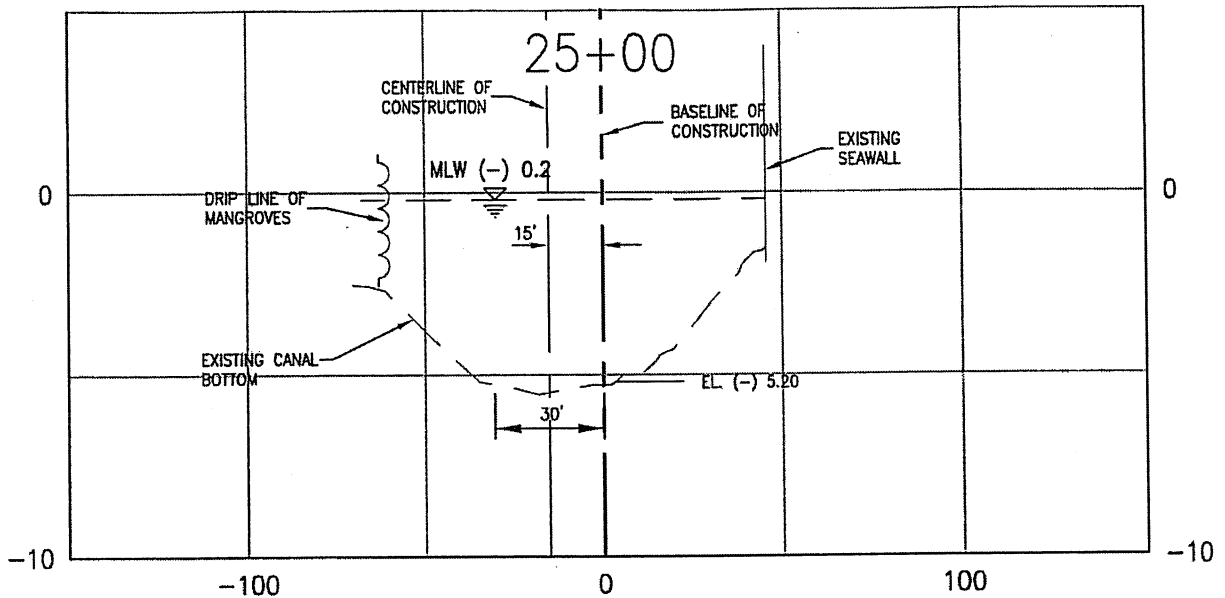
Applicant: Manatee County
 Water Body: Coral Shores
 County: Manatee
 Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

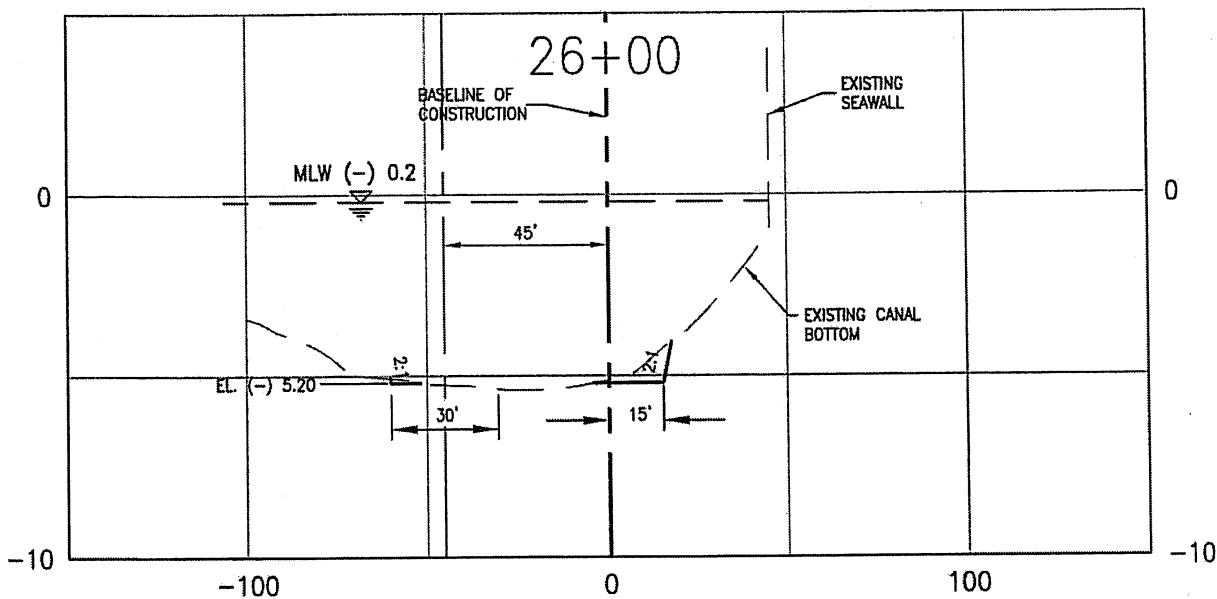
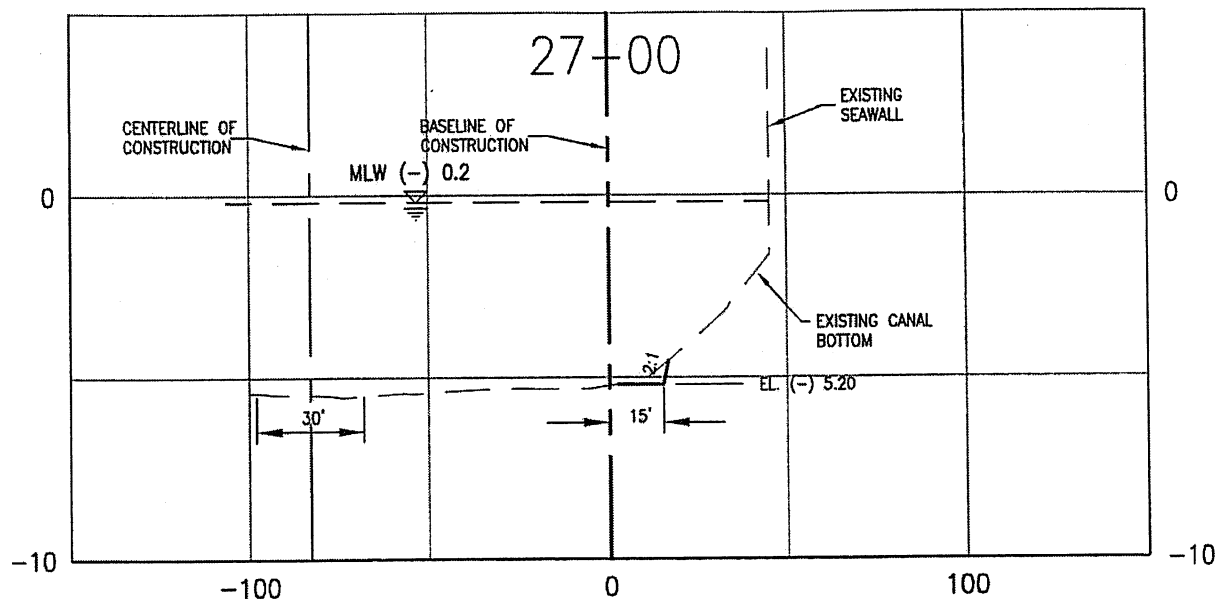
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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FL Engineering Business No. EB-38
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SCALE: 1' = 50' HORIZ.
SCALE: 1' = 5' VERT.

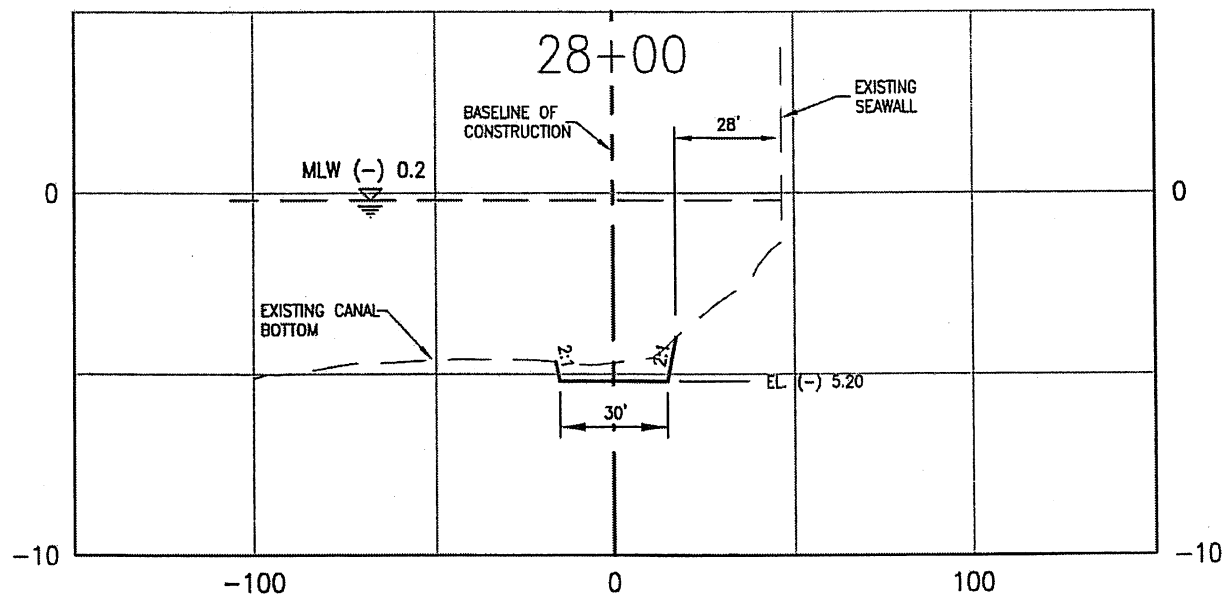
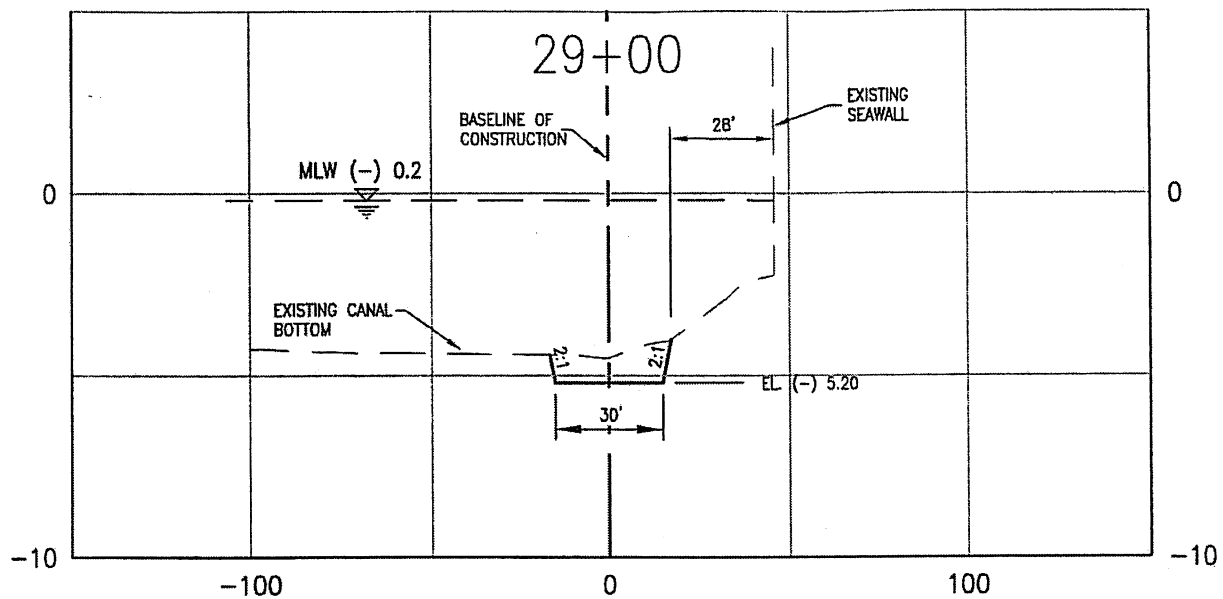
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

AECOM

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5971 Cotteridge Boulevard, Suite 200
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T 941.377.8858 F 941.371.2569
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SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

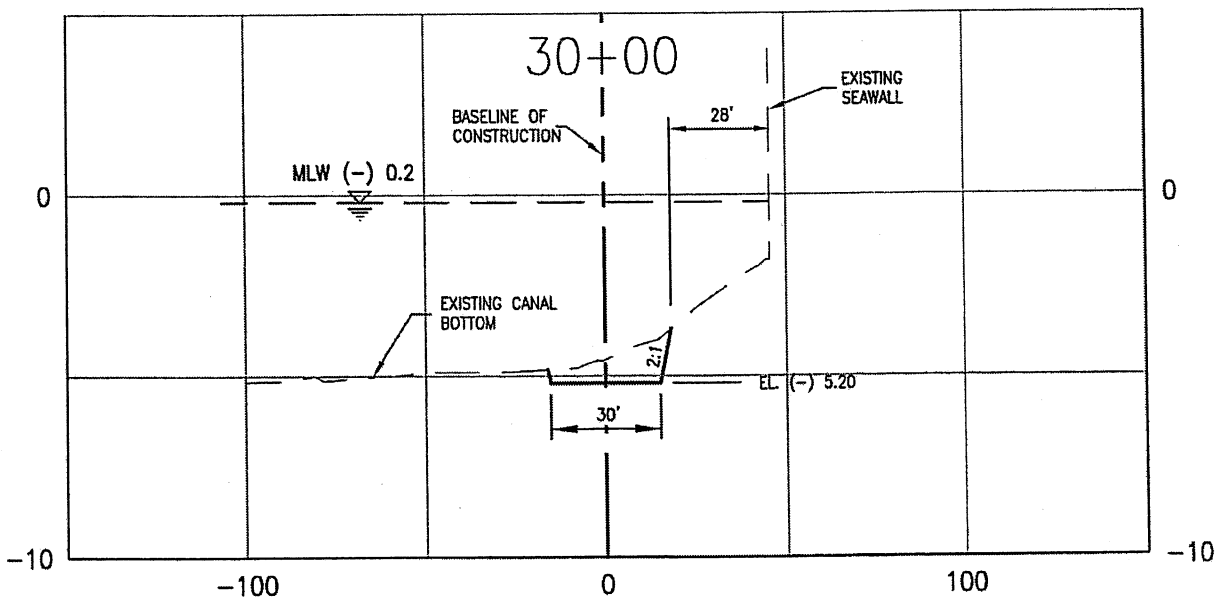
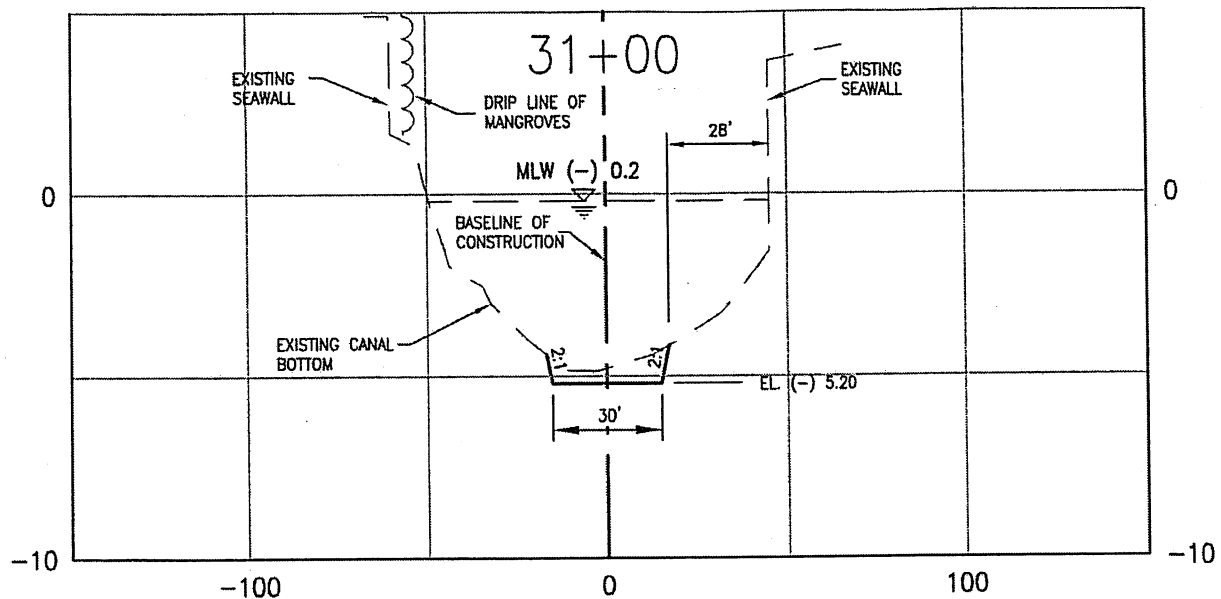
Applicant: Manatee County
 Water Body: Coral Shores
 County: Manatee
 Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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SCALE: 1' = 50' HORIZ.
SCALE: 1' = 5' VERT.

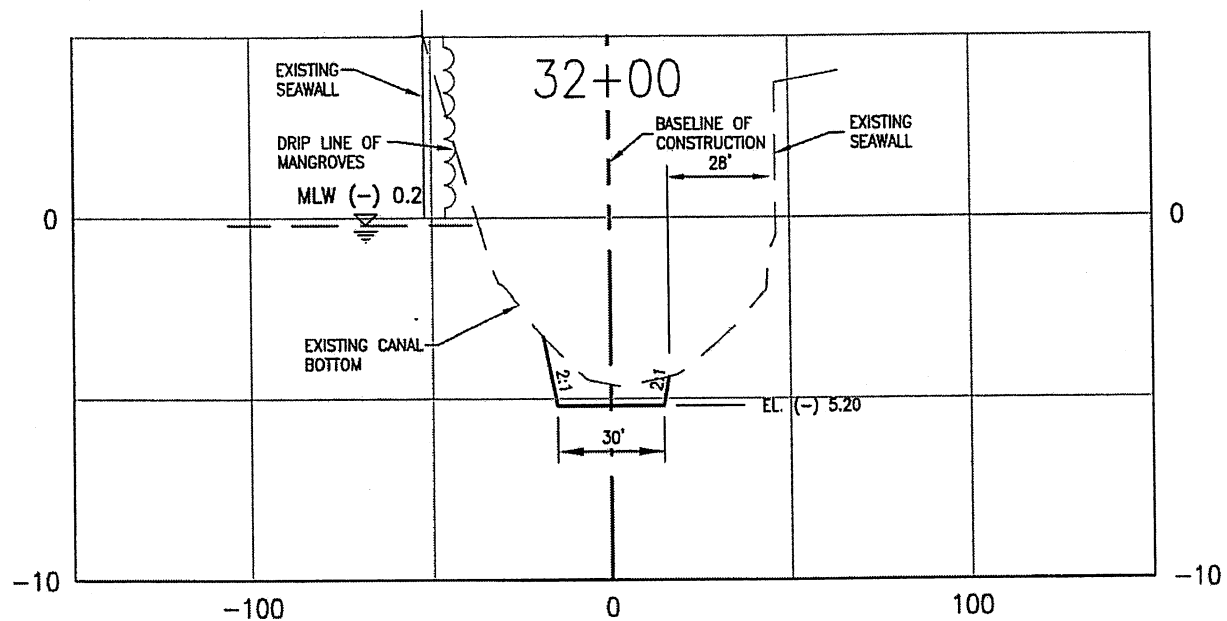
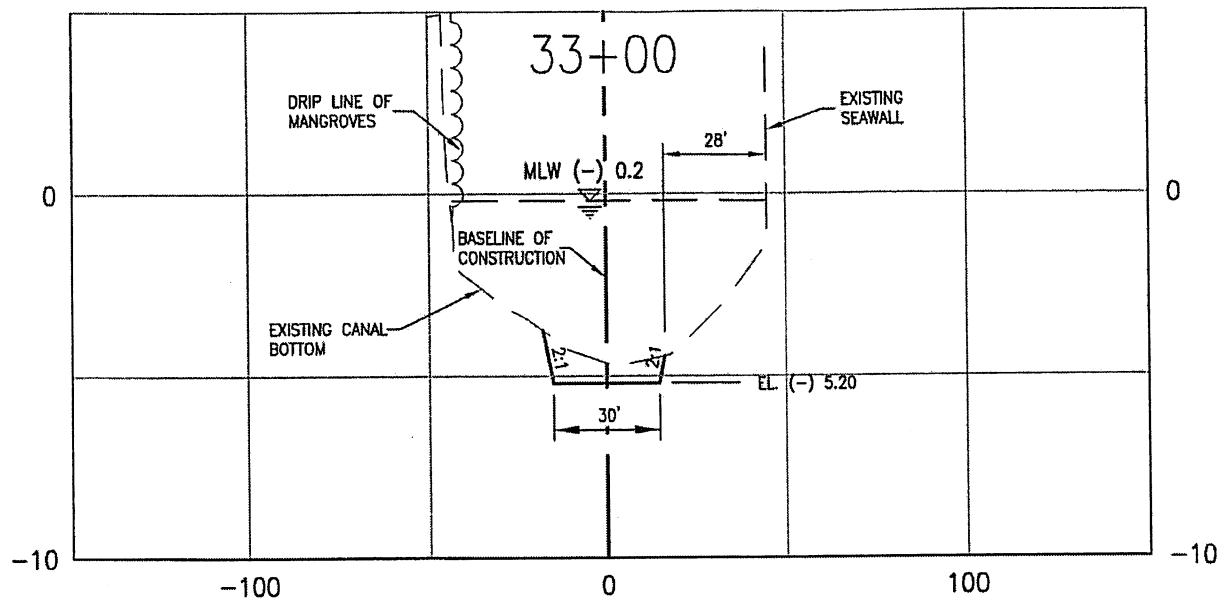
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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www.aecom.com



SCALE: 1" = 50' HORIZ.

SCALE: 1" = 5' VERT.

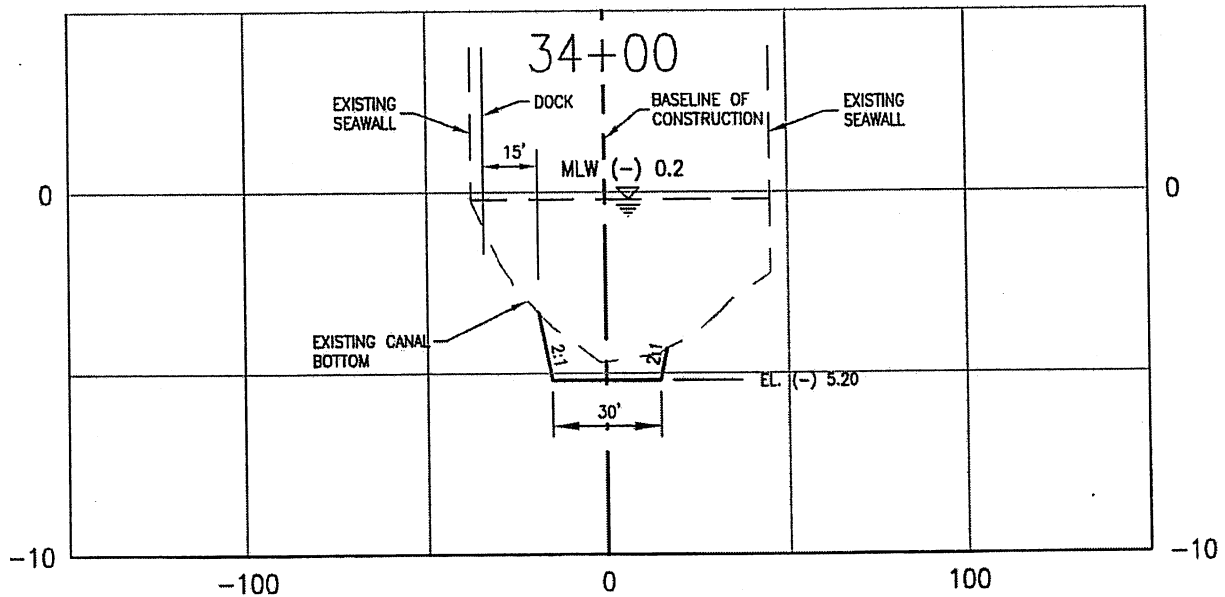
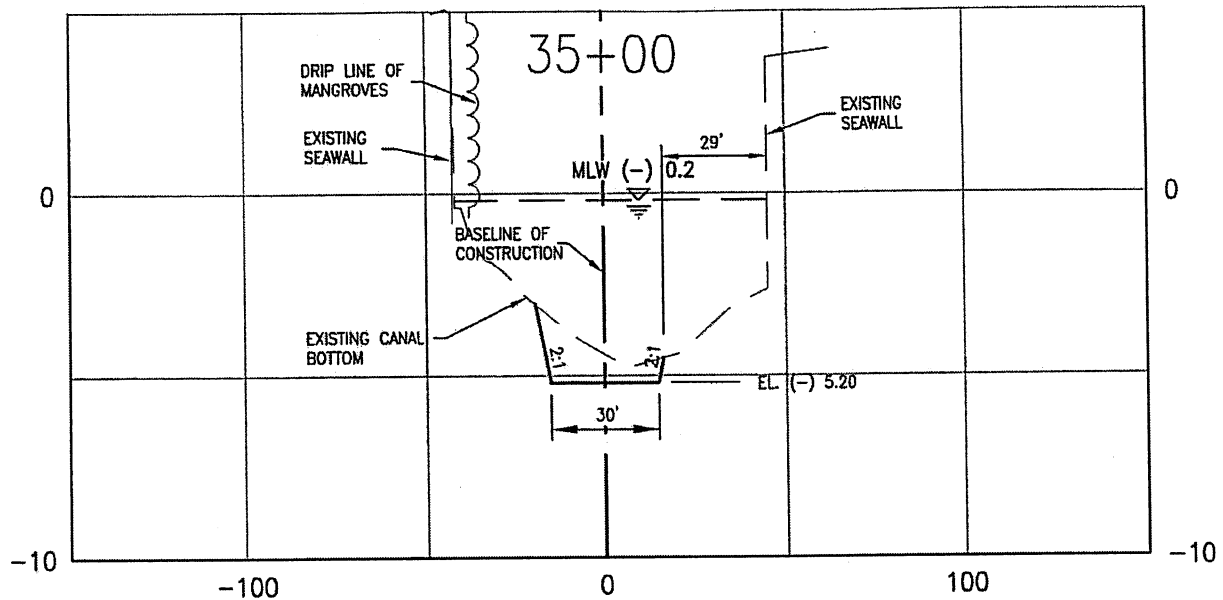
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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FL Engineering Business No. EB-38
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SCALE: 1' = 50' HORIZ.
SCALE: 1' = 5' VERT.

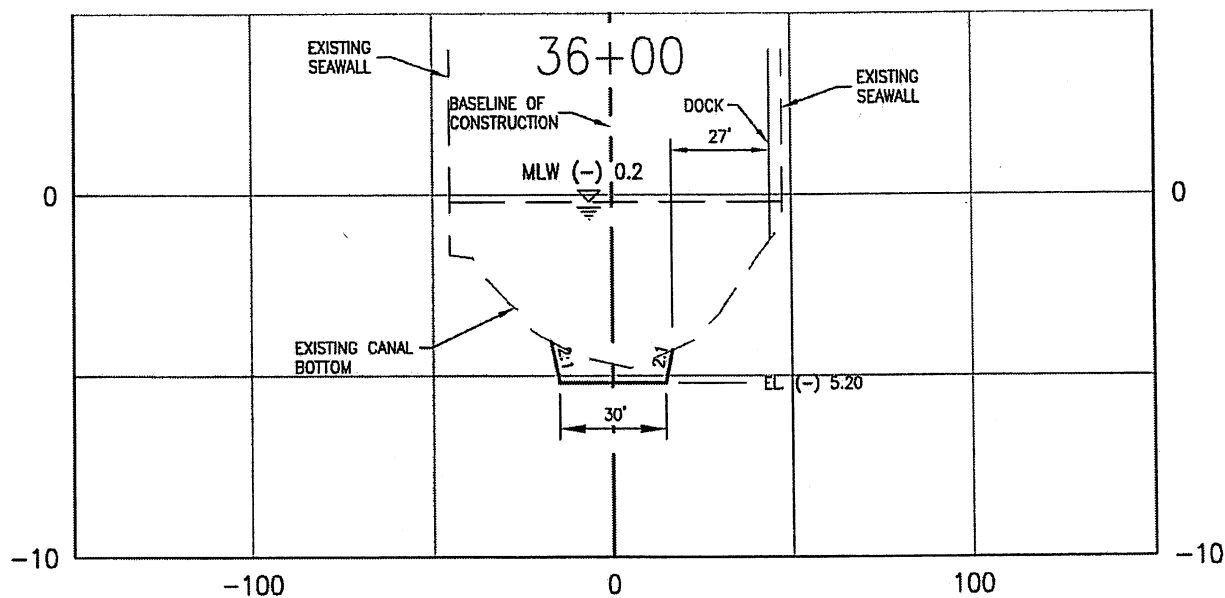
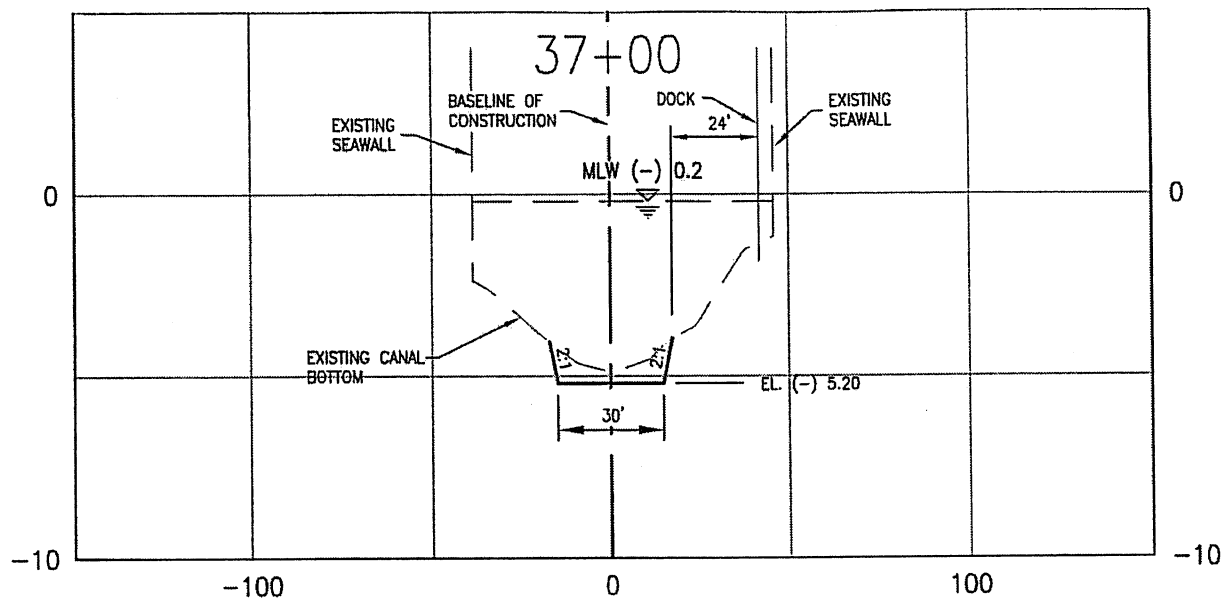
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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FL Engineering Business No. EB-38
www.aecom.com



SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

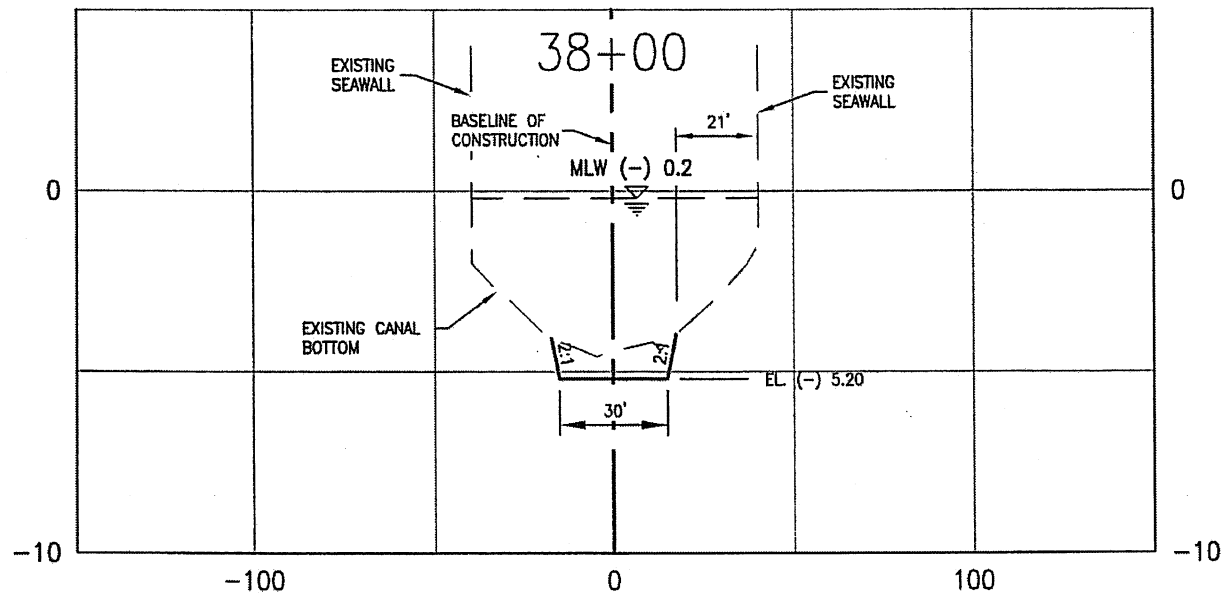
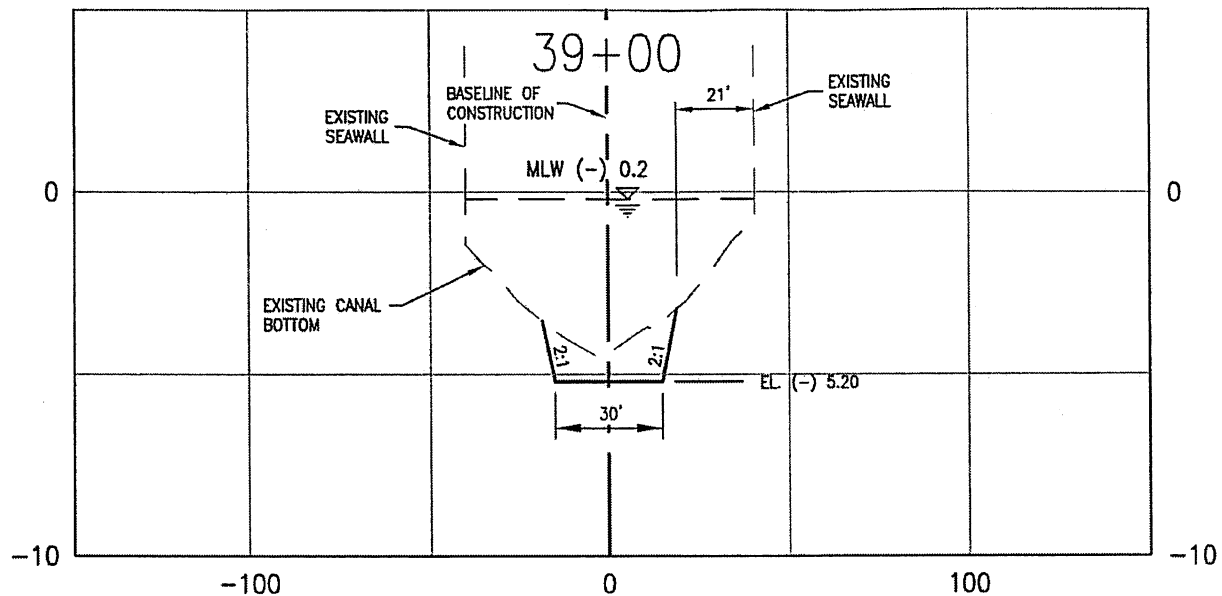
Applicant: Manatee County
 Water Body: Coral Shores
 County: Manatee
 Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

AECOM

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 Sarasota, Florida 34232
 T 941.377.8858 F 941.371.2569
 FL Engineering Business No. EB-38
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SCALE: 1"= 50' HORIZ.
SCALE: 1"= 5' VERT.

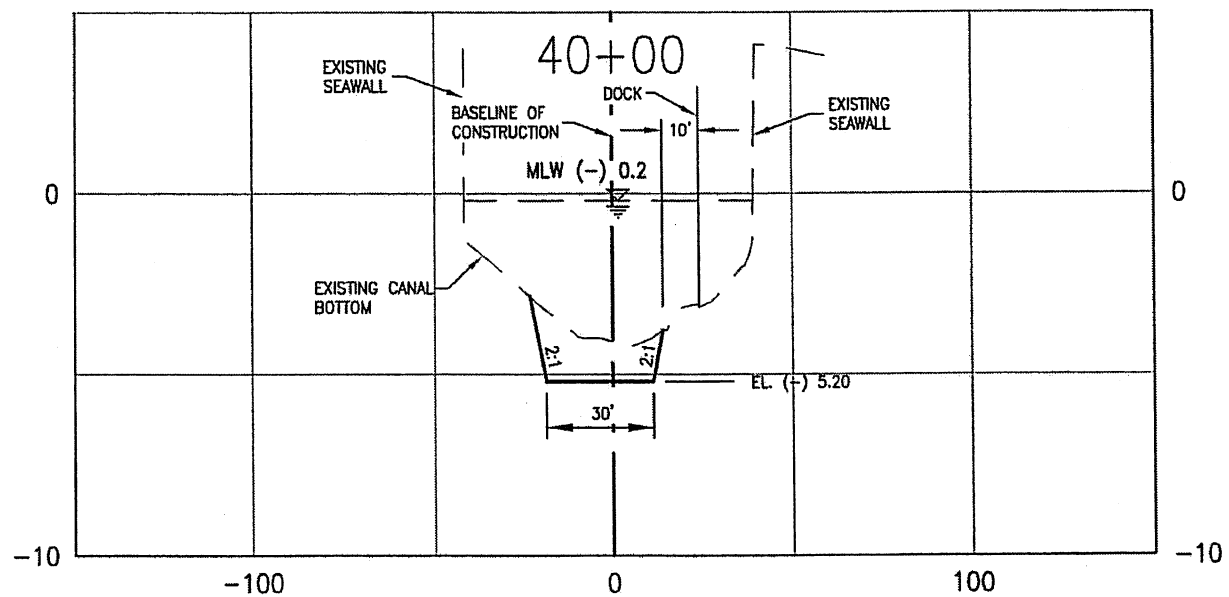
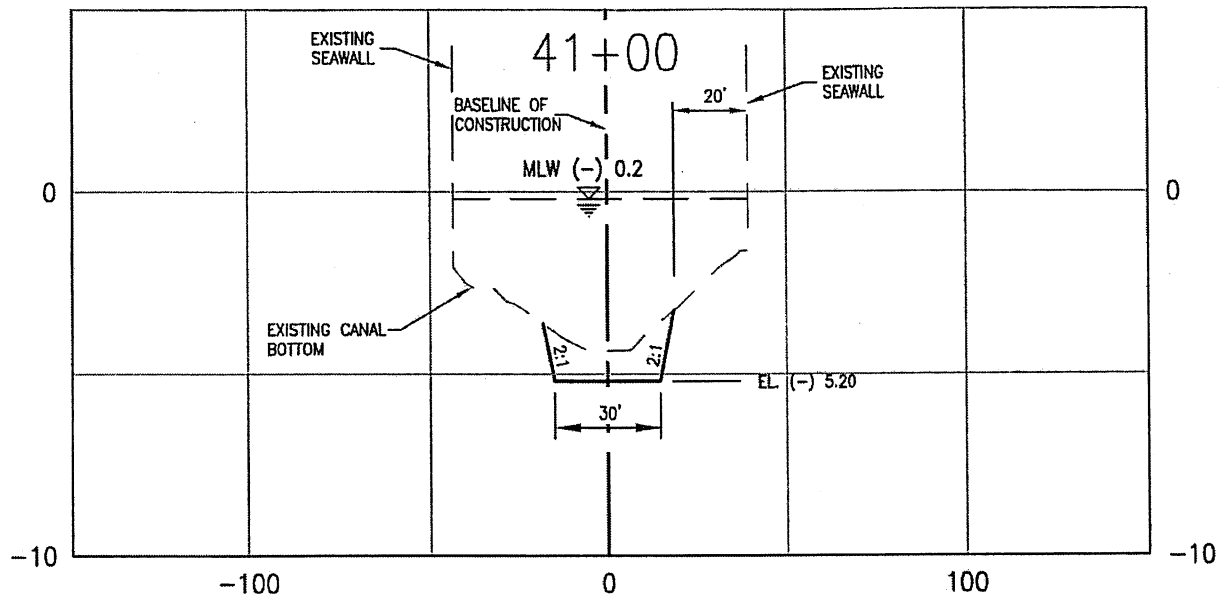
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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Sarasota, Florida 34232
T 941.377.8858 F 941.371.2569
FL Engineering Business No. EB-38
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SCALE: 1"= 50' HORIZ.
SCALE: 1"= 5' VERT.

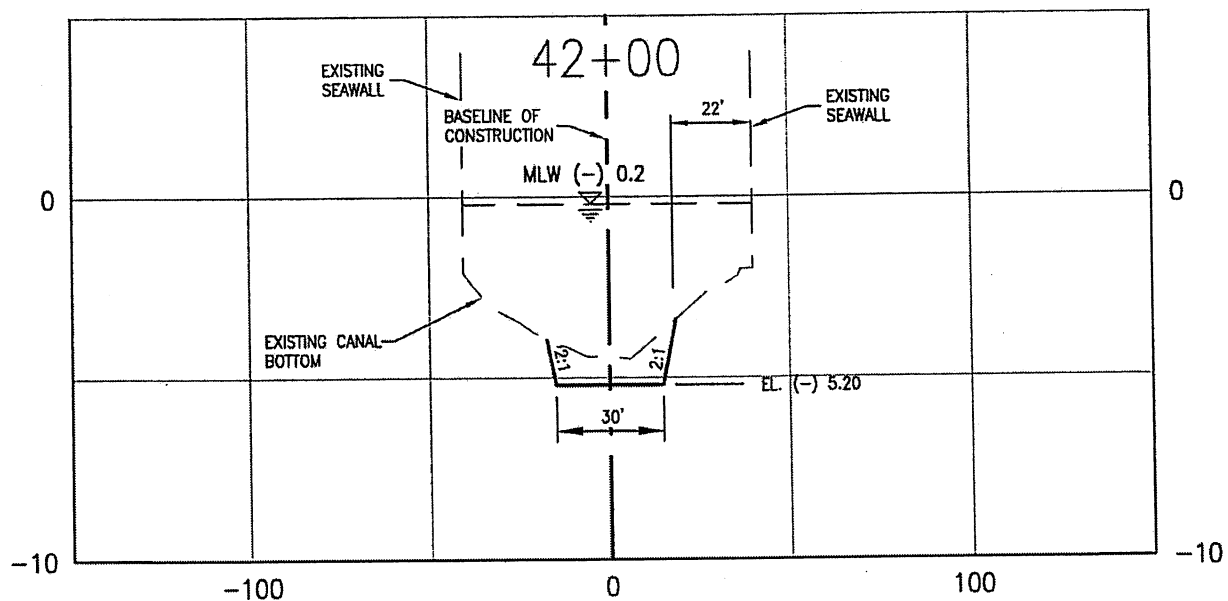
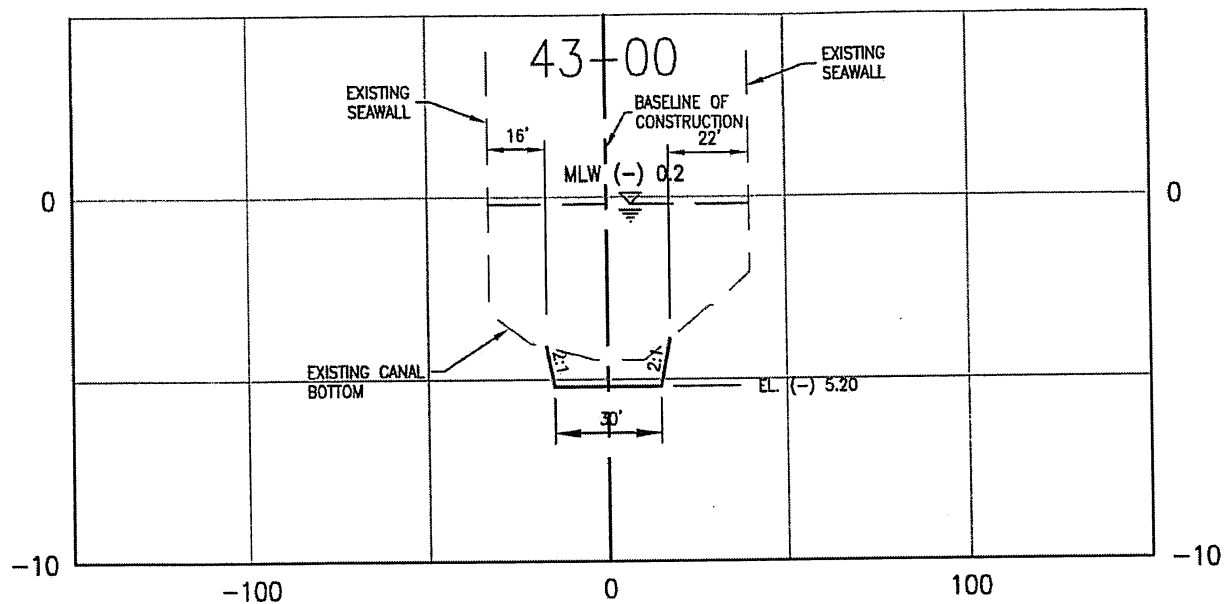
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

AECOM

AECOM USA, Inc.
5971 Cattle Ridge Boulevard, Suite 200
Sarasota, Florida 34232
T 941.377.8858 F 941.371.2589
FL Engineering Business No. EB-38
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SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

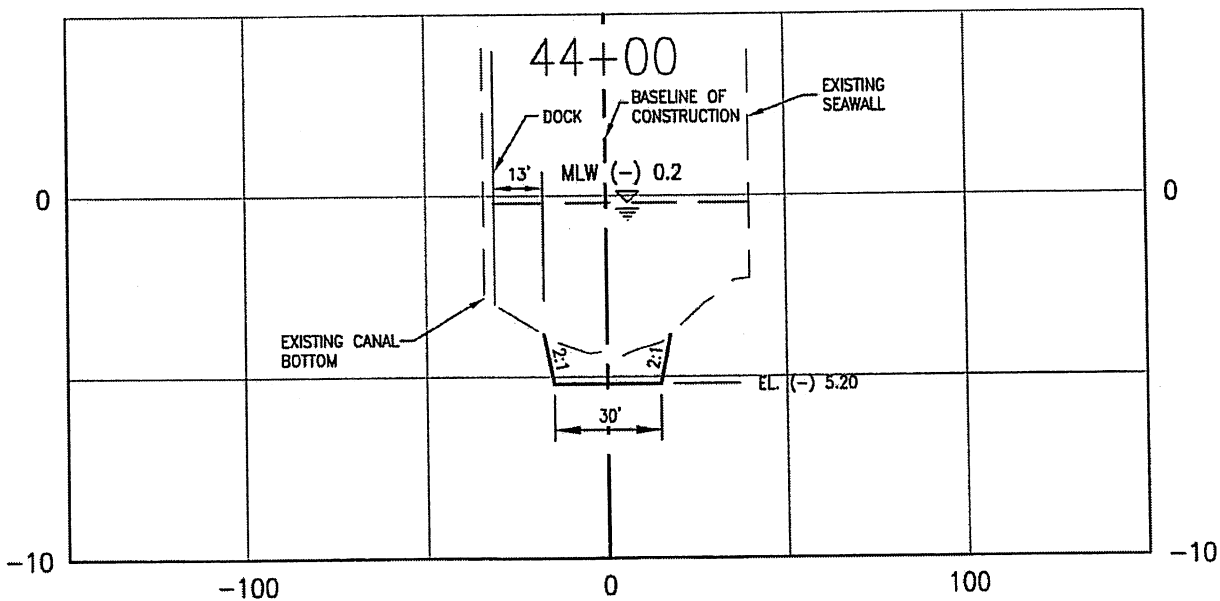
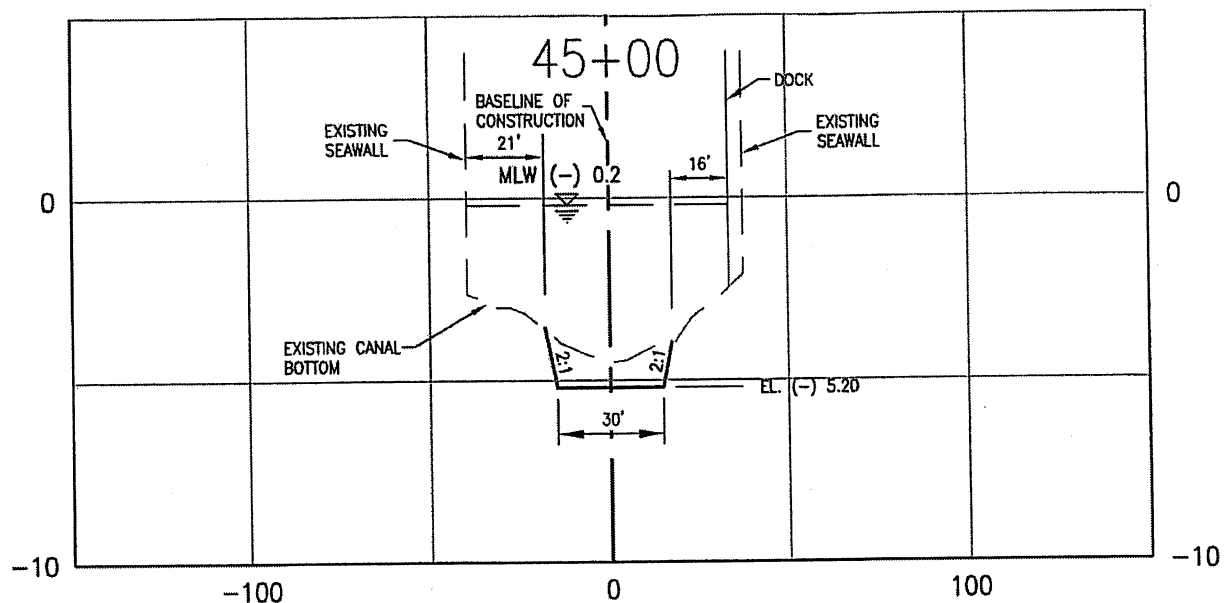
Applicant: Manatee County
 Water Body: Coral Shores
 County: Manatee
 Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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 FL Engineering Business No. EB-38
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SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

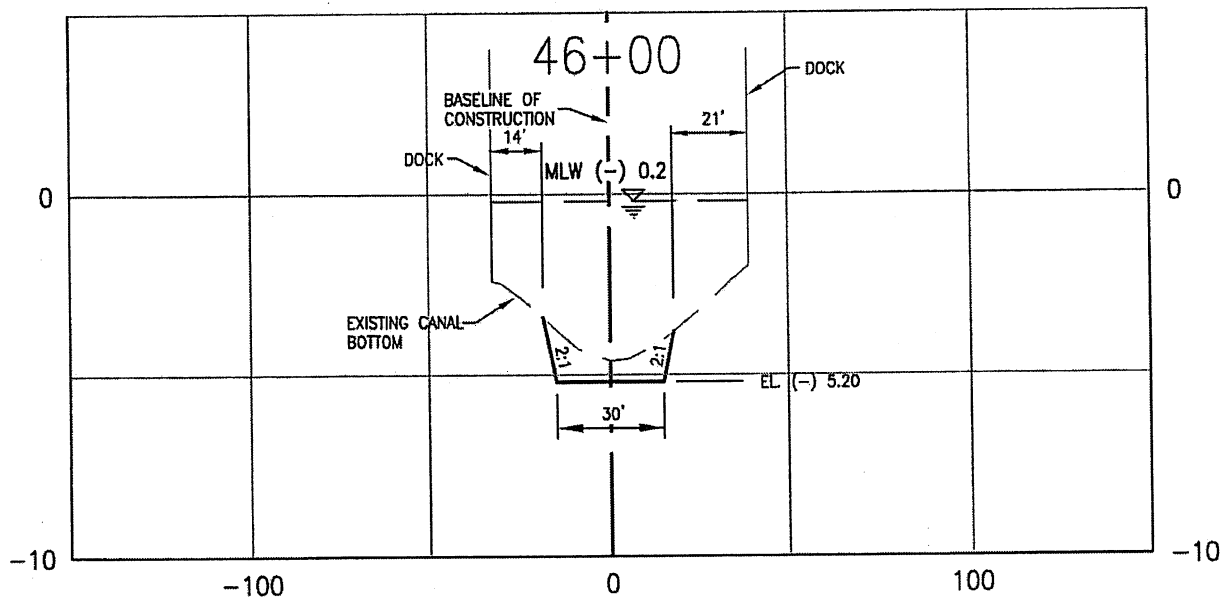
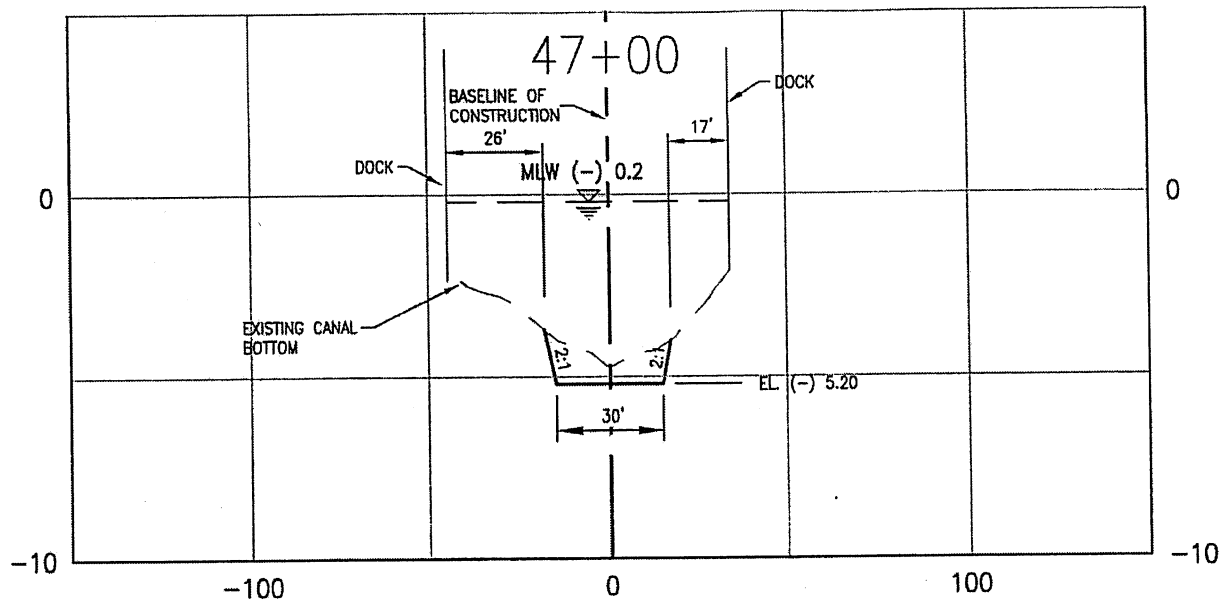
Applicant: Manatee County
 Water Body: Coral Shores
 County: Manatee
 Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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 T 941.377.8858 F 941.371.2569
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SCALE: 1"= 50' HORIZ.
SCALE: 1"= 5' VERT.

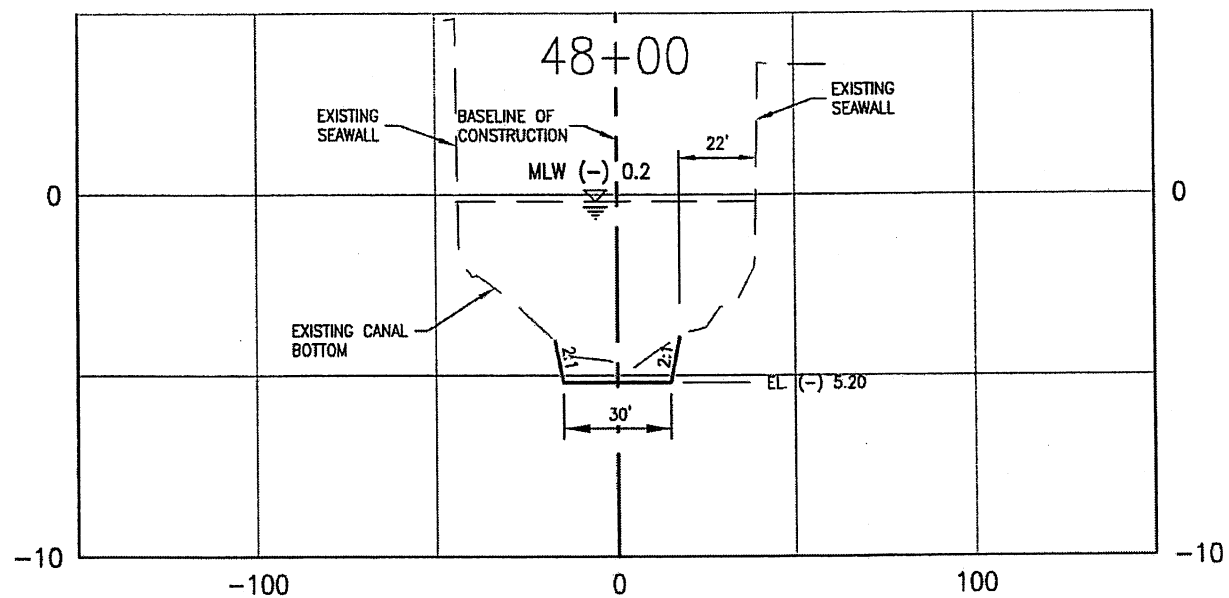
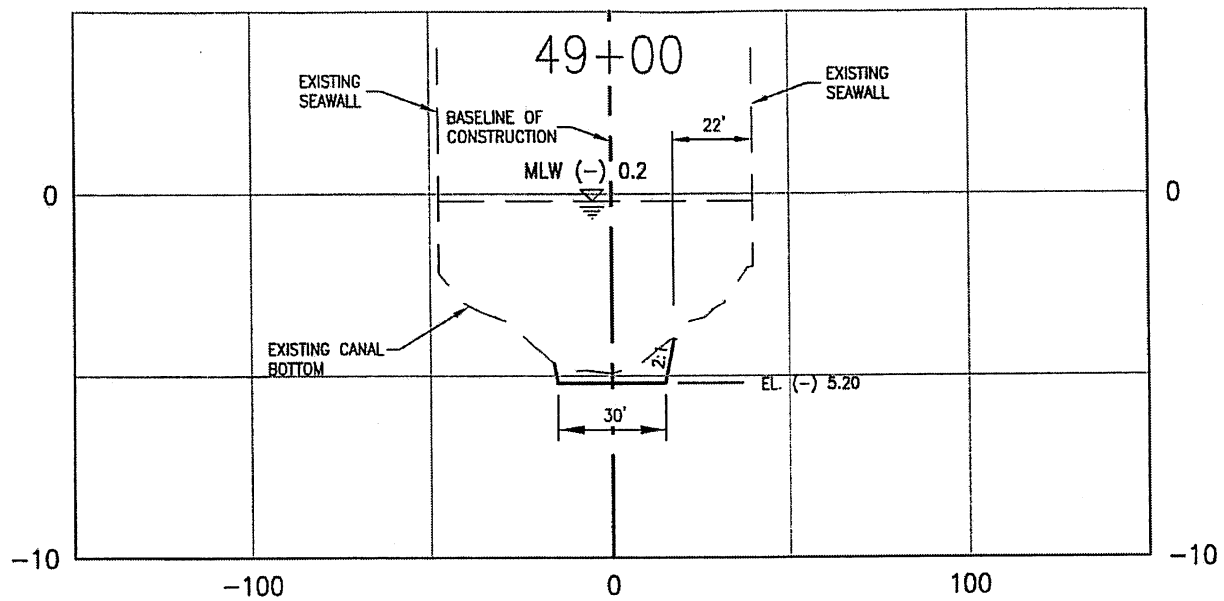
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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SCALE: 1" = 50' HORIZ.

SCALE: 1" = 5' VERT.

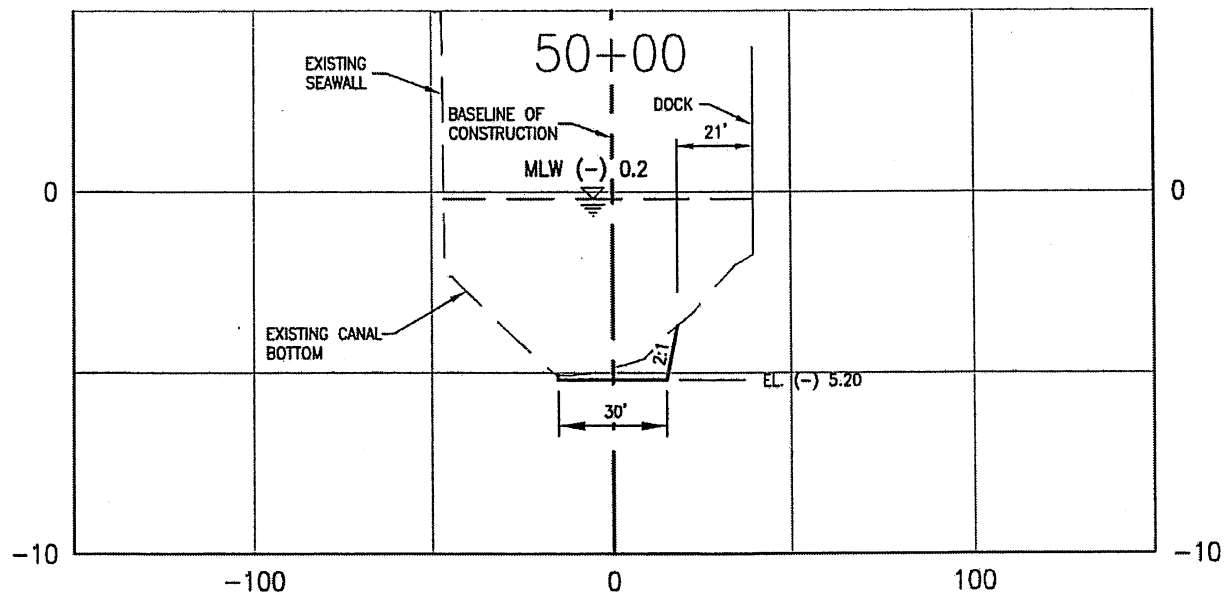
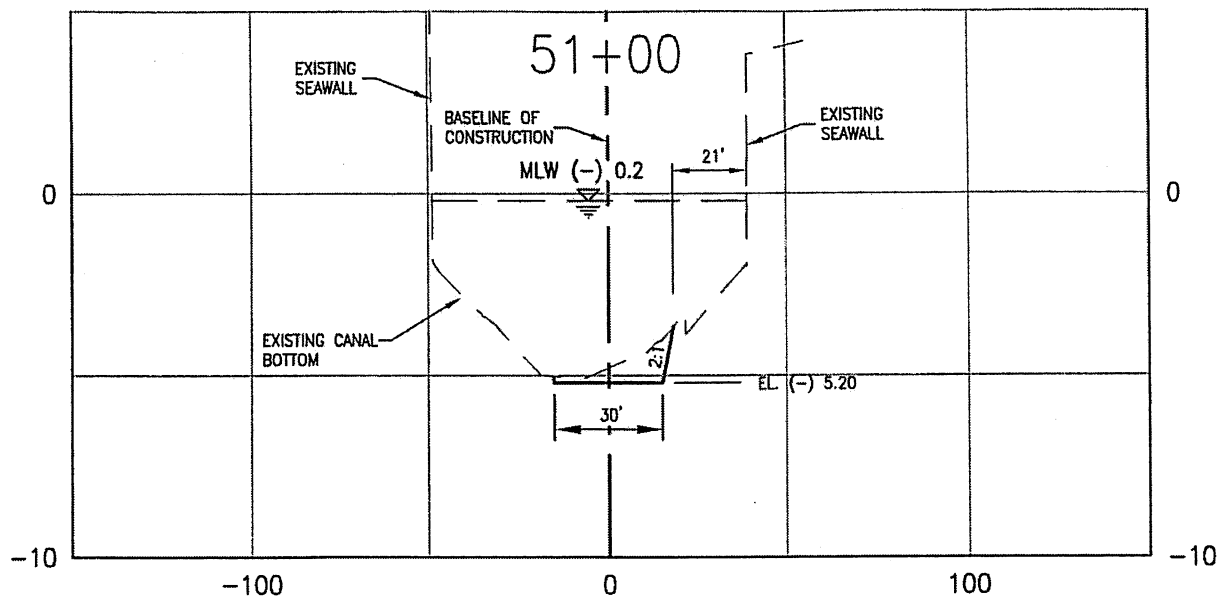
Applicant: Manatee County
 Water Body: Coral Shores
 County: Manatee
 Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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 FL Engineering Business No. EB-38
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SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

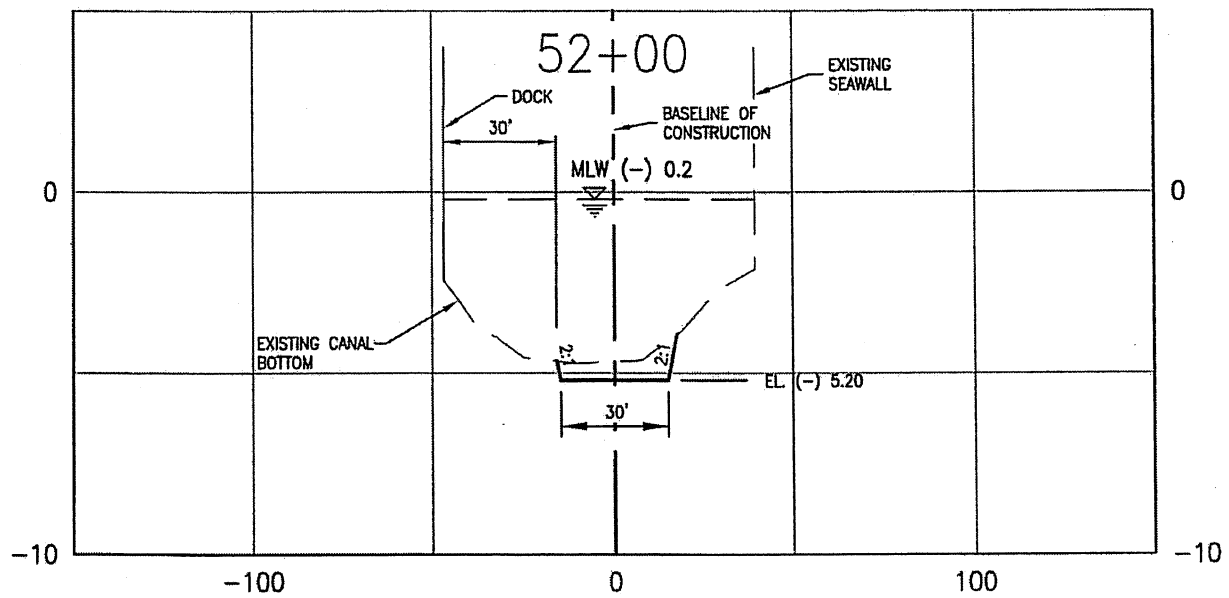
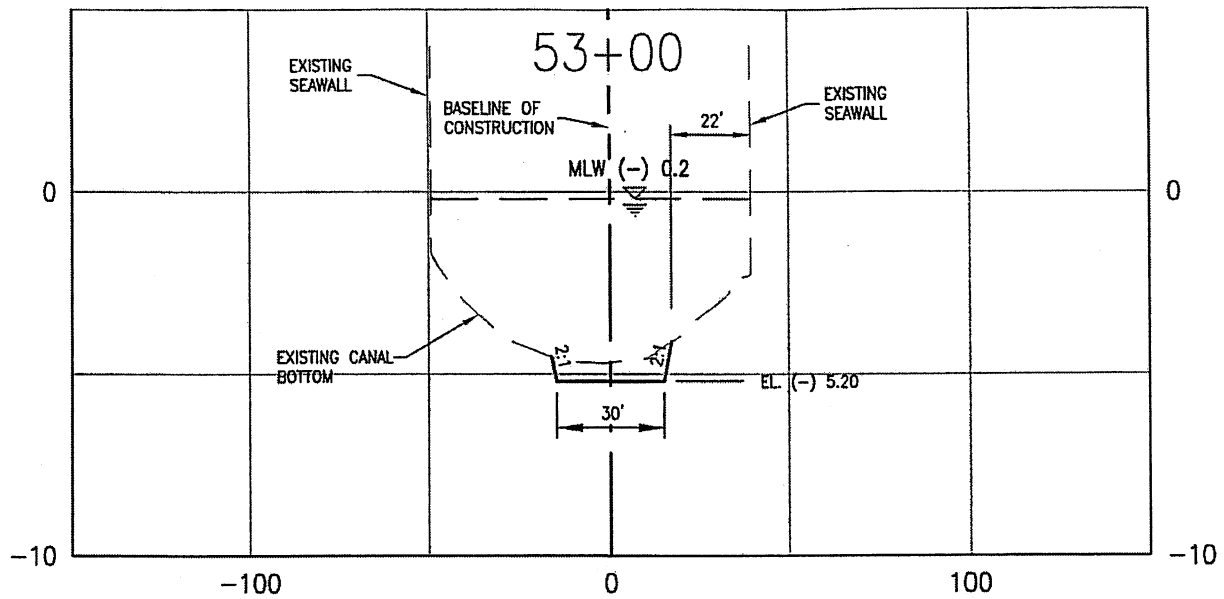
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

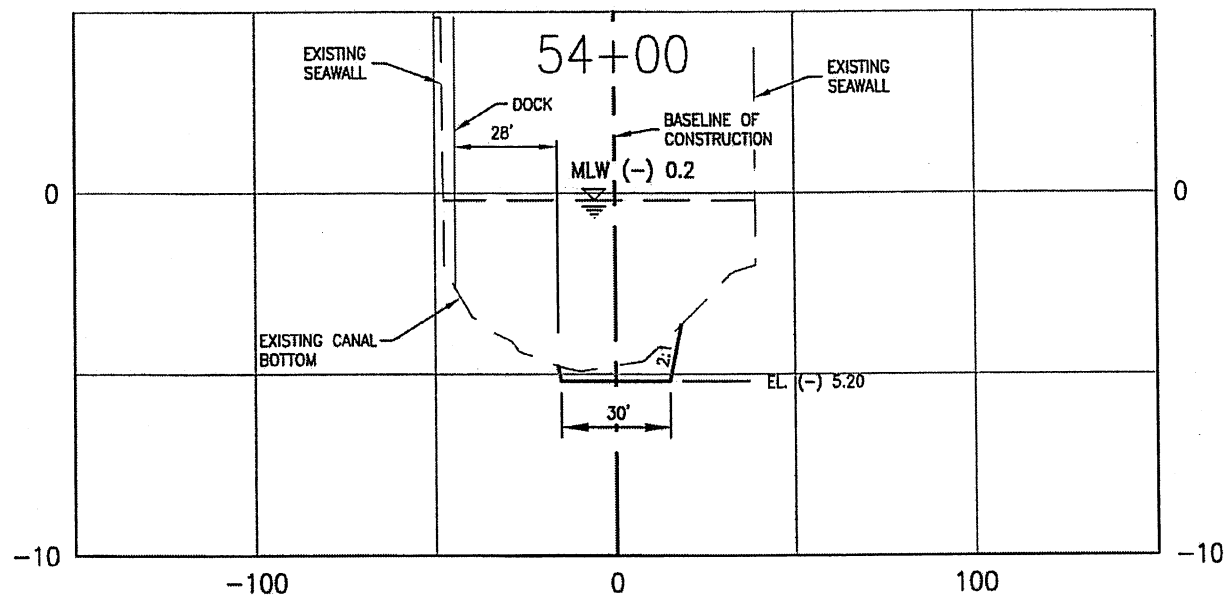
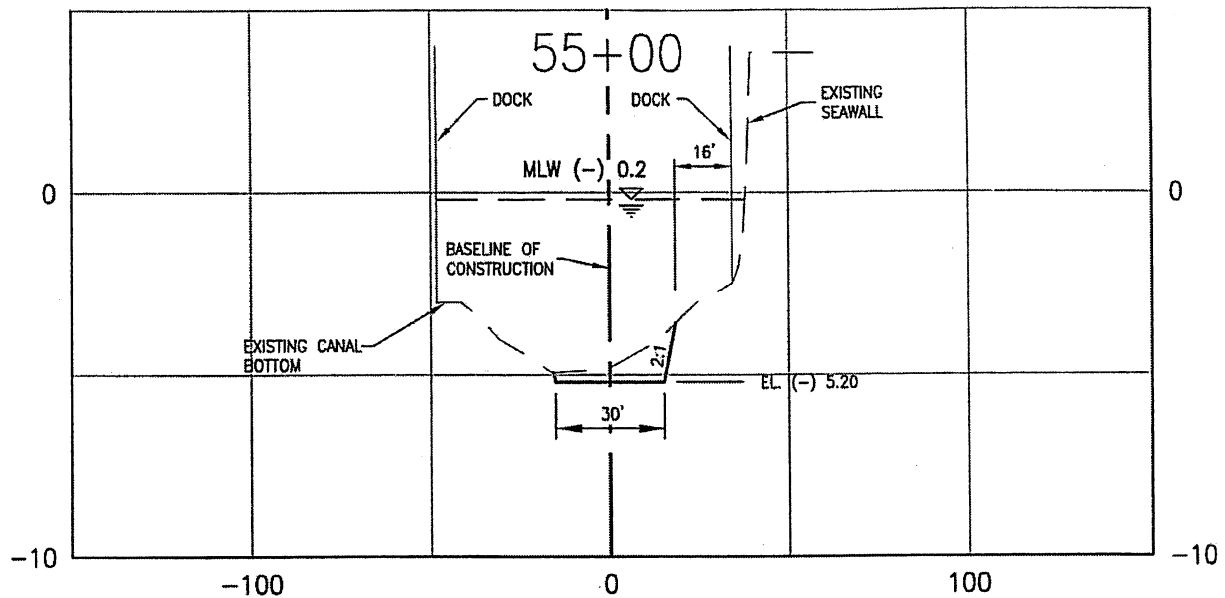
Applicant: Manatee County
 Water Body: Coral Shores
 County: Manatee
 Datum: N.G.V.D. 1929

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SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

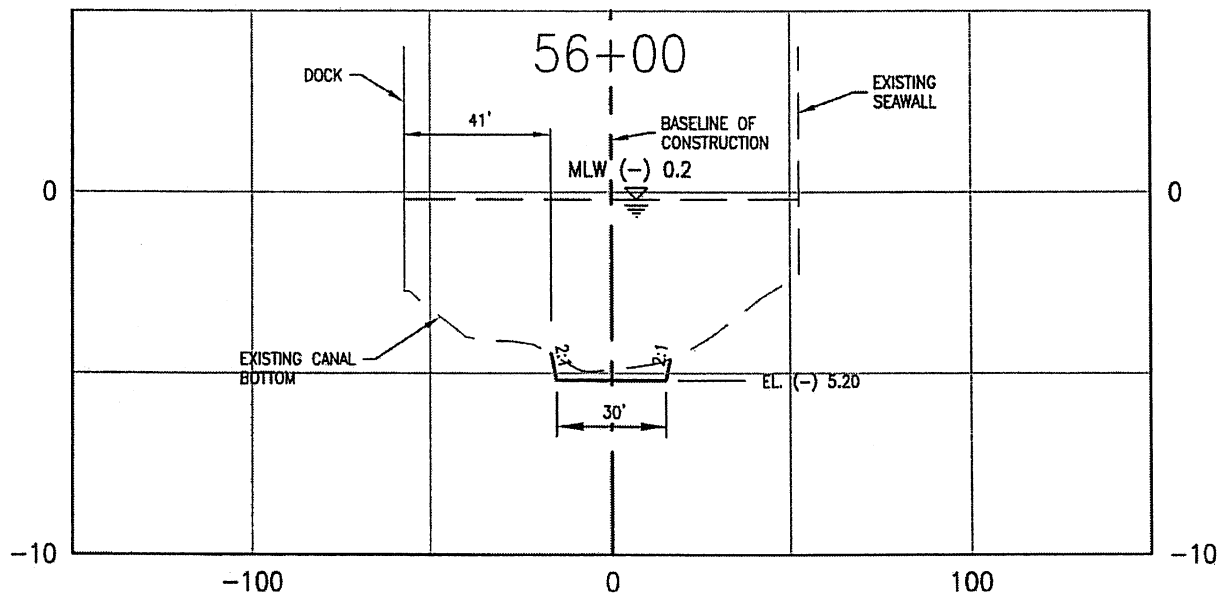
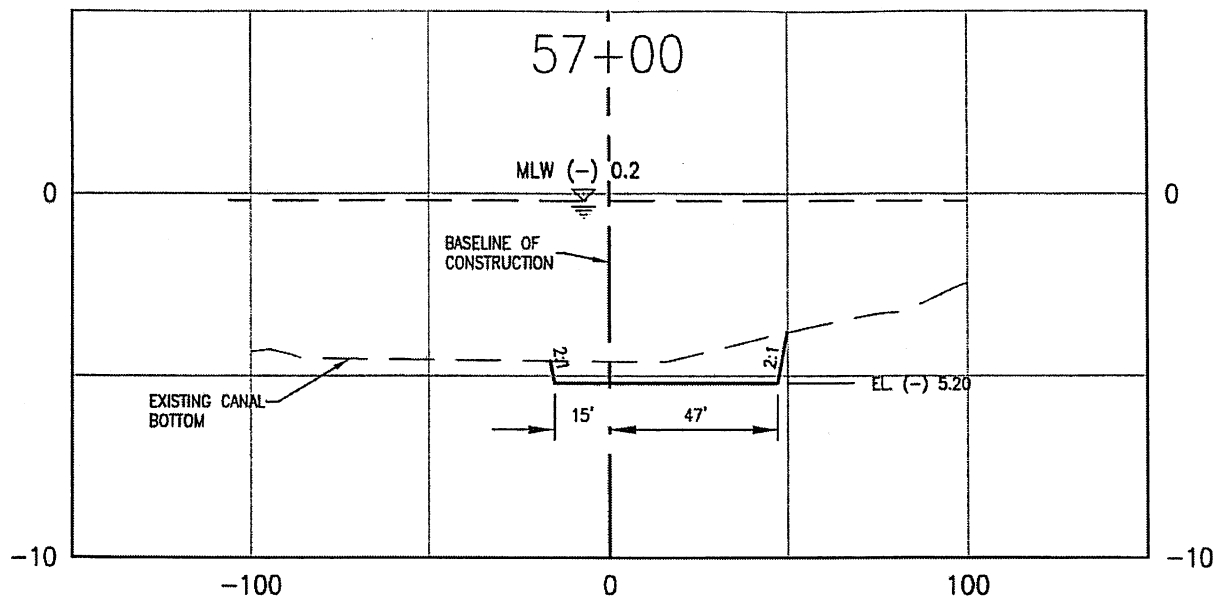
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

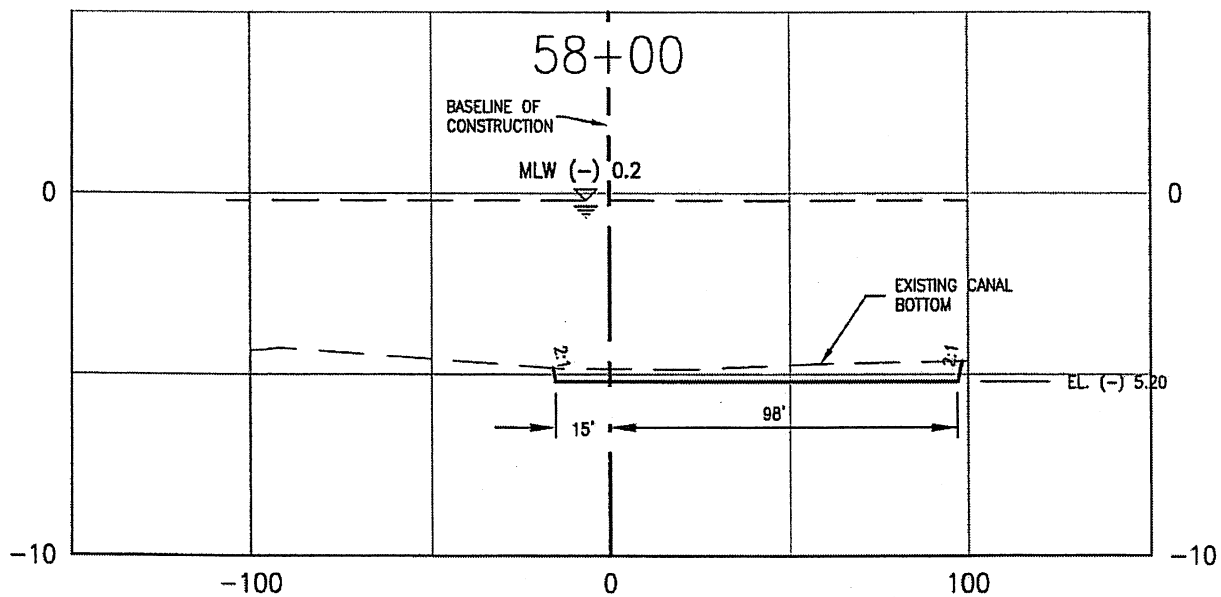
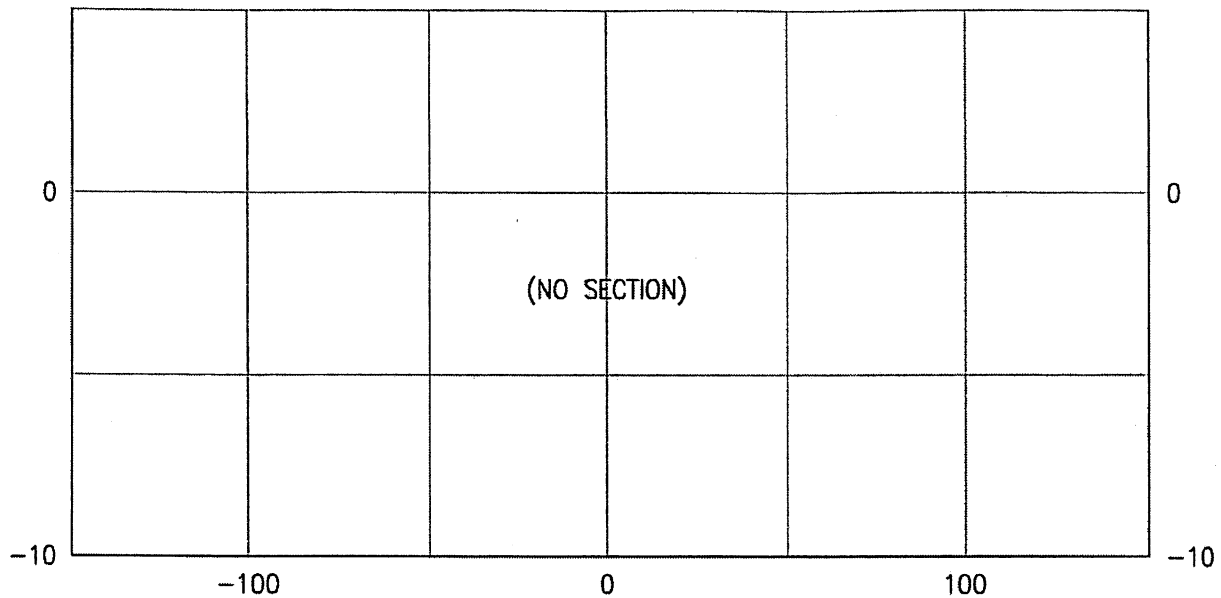
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

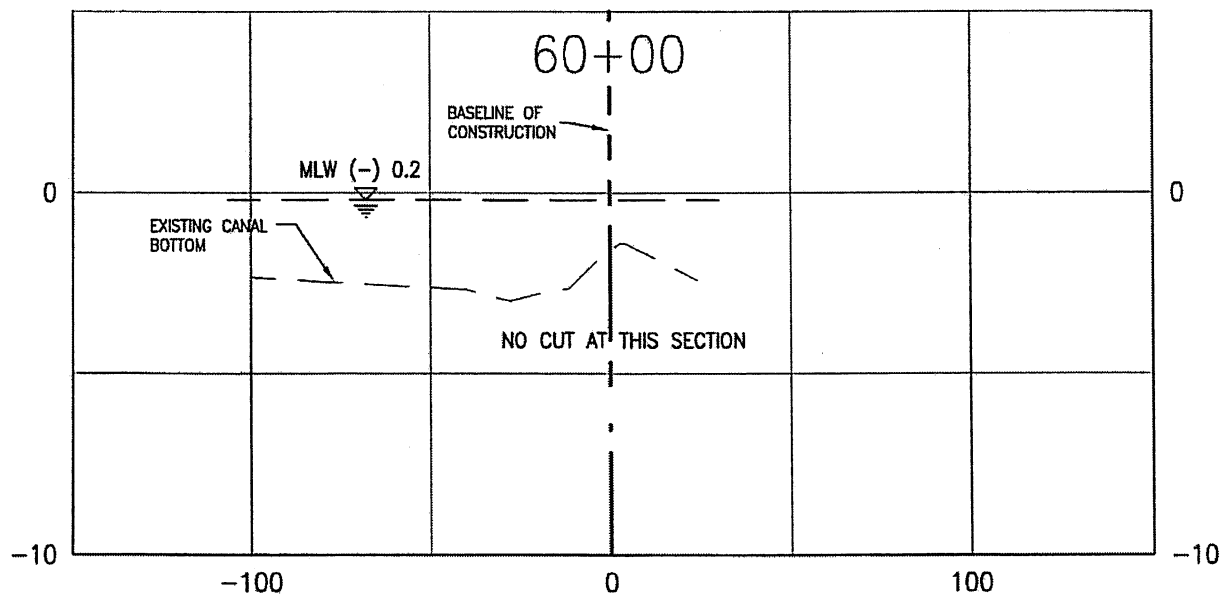
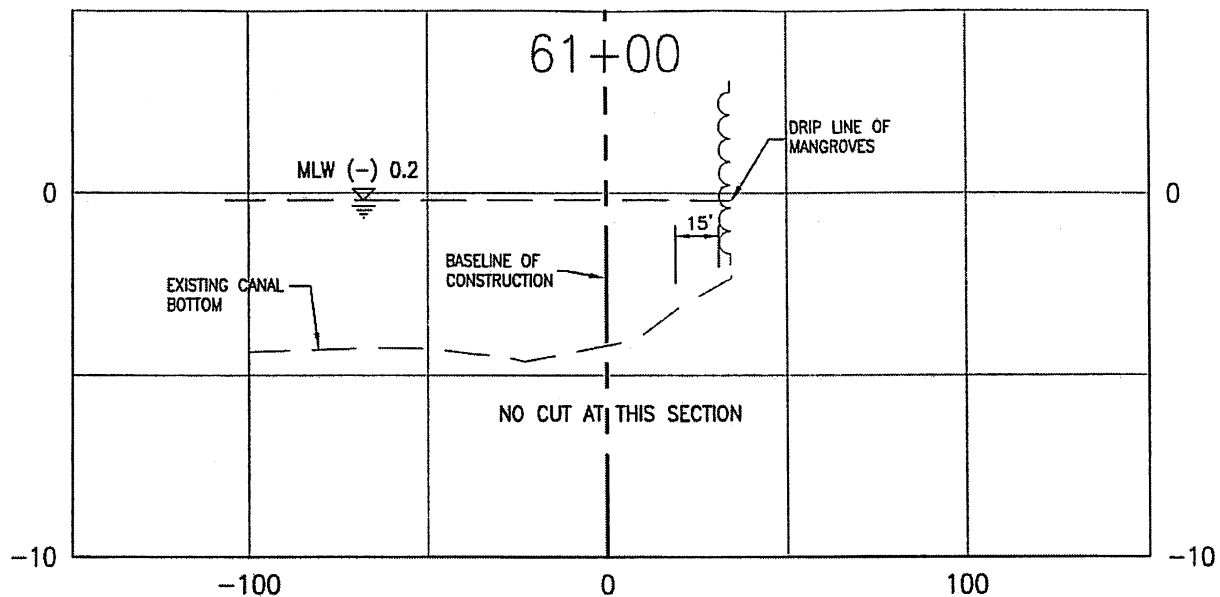
Applicant: Manatee County
 Water Body: Coral Shores
 County: Manatee
 Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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 5971 Cottle Ridge Boulevard, Suite 200
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 T 941.377.8858 F 941.371.2560
 FL Engineering Business No. EB-38
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SCALE: 1" = 50' HORIZ.

SCALE: 1" = 5' VERT.

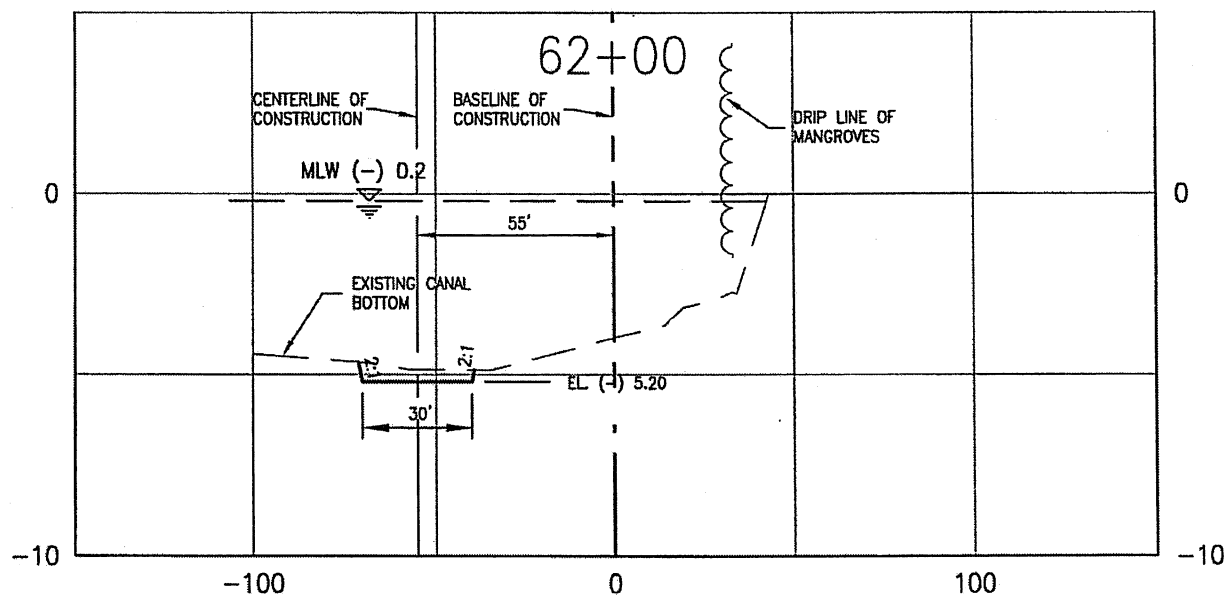
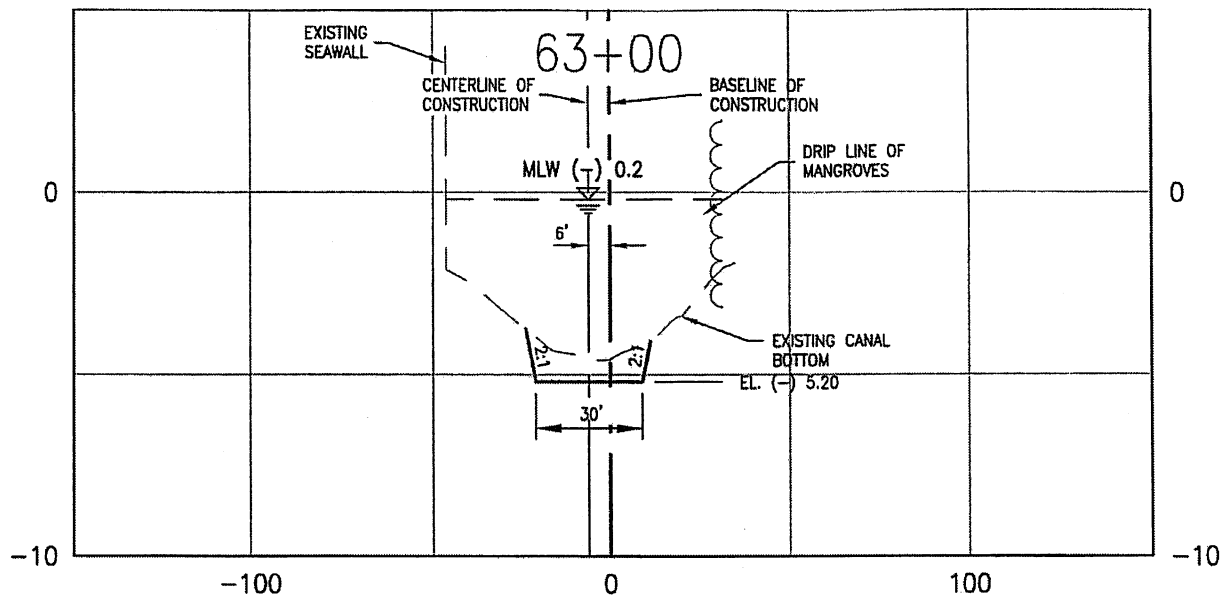
Applicant: Manatee County
 Water Body: Coral Shores
 County: Manatee
 Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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 5971 Cattle Ridge Boulevard, Suite 200
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 T 941.377.8358 F 941.371.2569
 FL Engineering Business No. EB-38
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SCALE: 1" = 50' HORIZ.

SCALE: 1" = 5' VERT.

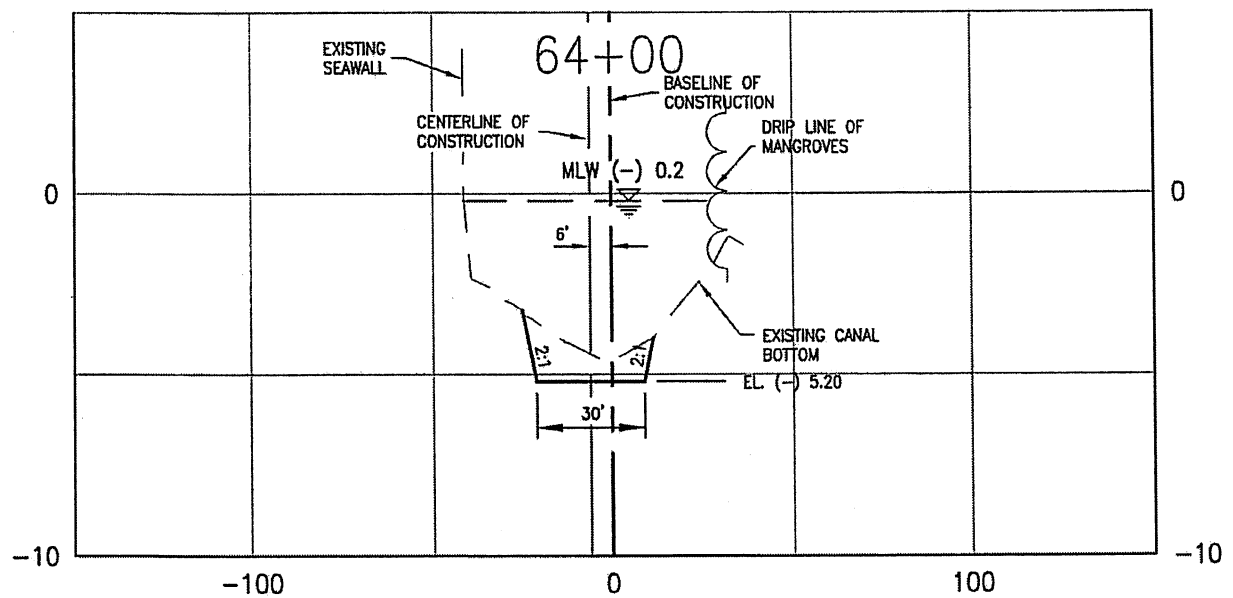
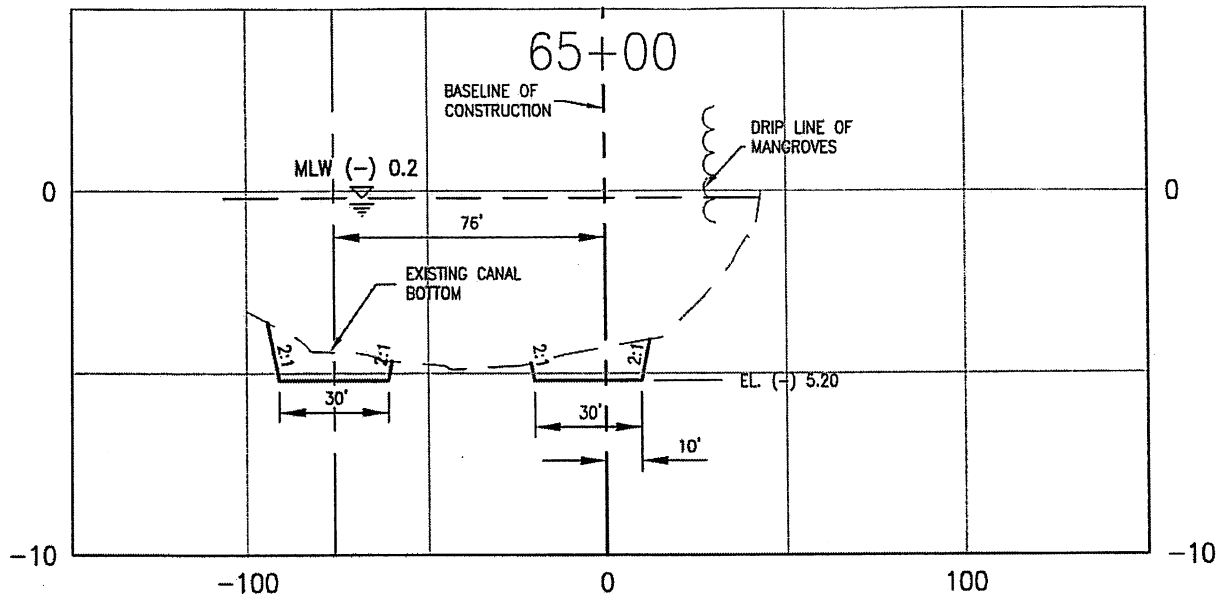
Applicant: Manatee County
 Water Body: Coral Shores
 County: Manatee
 Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

AECOM

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 5971 Cottle Ridge Boulevard, Suite 200
 Sarasota, Florida 34232
 T 941.377.8858 F 941.371.2569
 FL Engineering Business No. EB-35
 www.aecom.com



SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

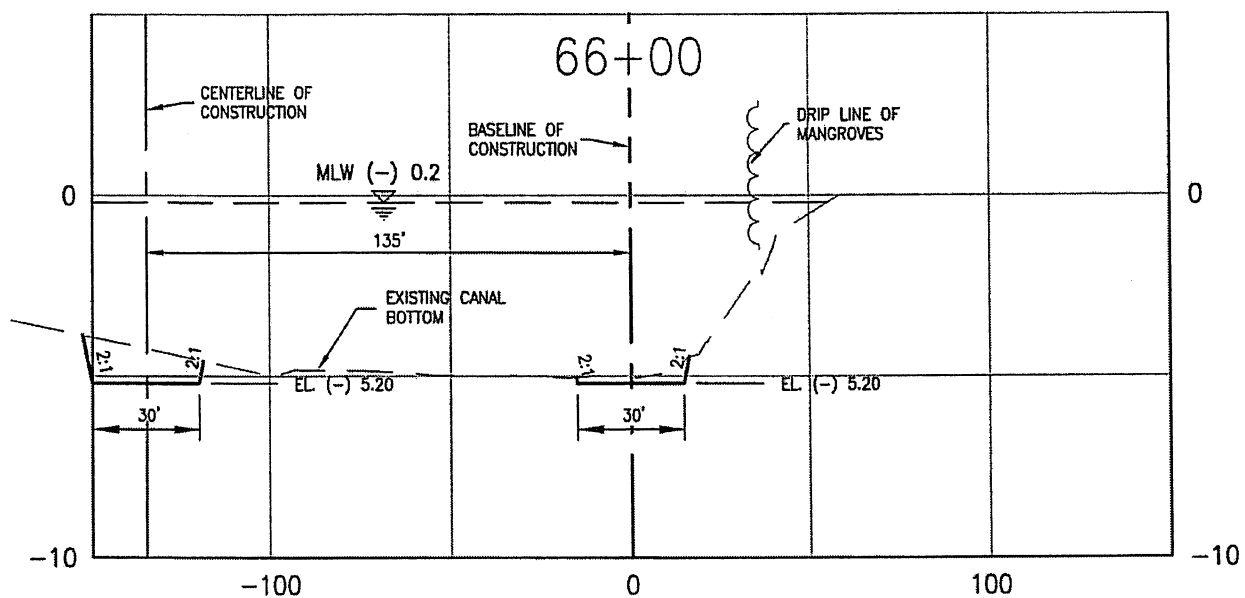
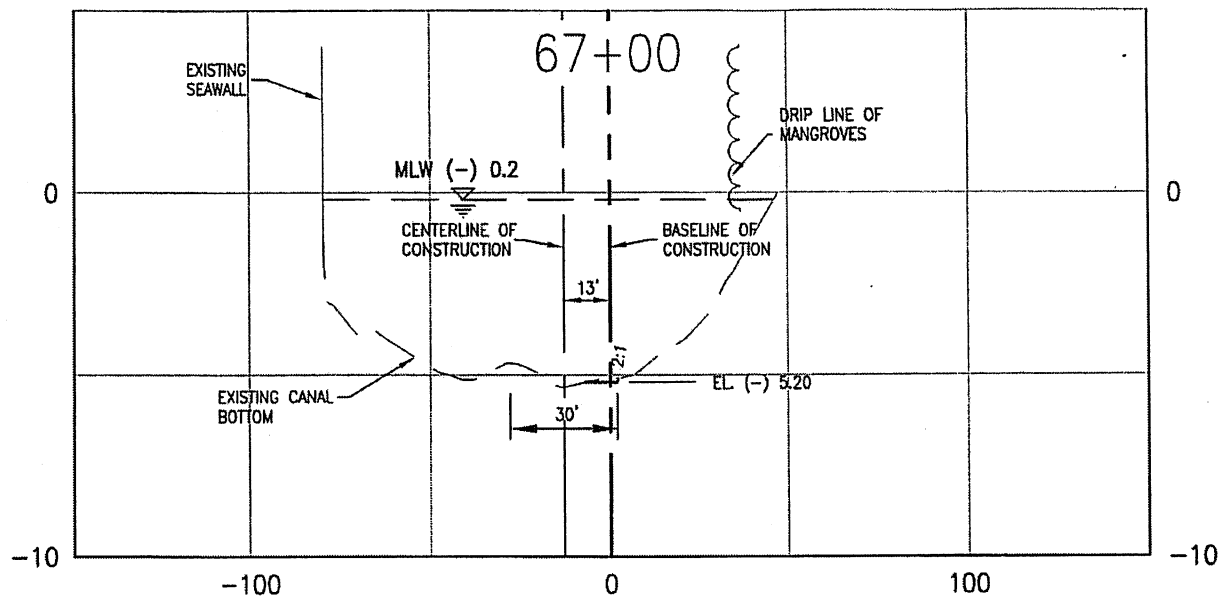
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
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CROSS-SECTIONS

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5971 Cutleridge Boulevard, Suite 200
Sarasota, Florida 34232
T 941.377.8858 F 941.371.2560
FL Engineering Business No. EB-38
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SCALE: 1" = 50' HORIZ.

SCALE: 1" = 5' VERT.

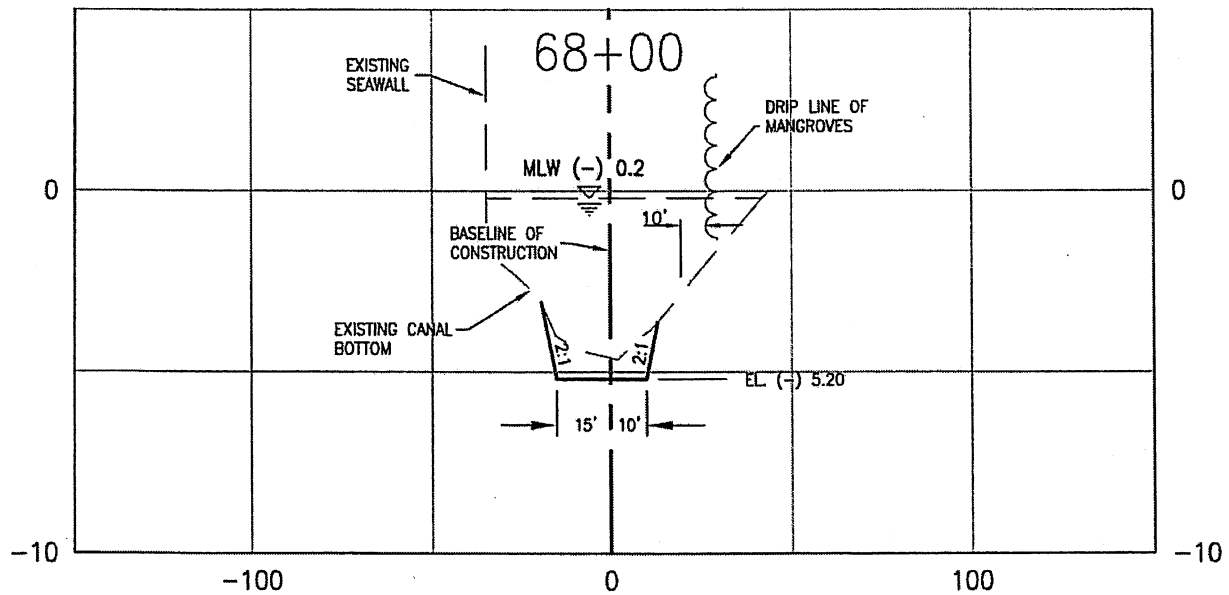
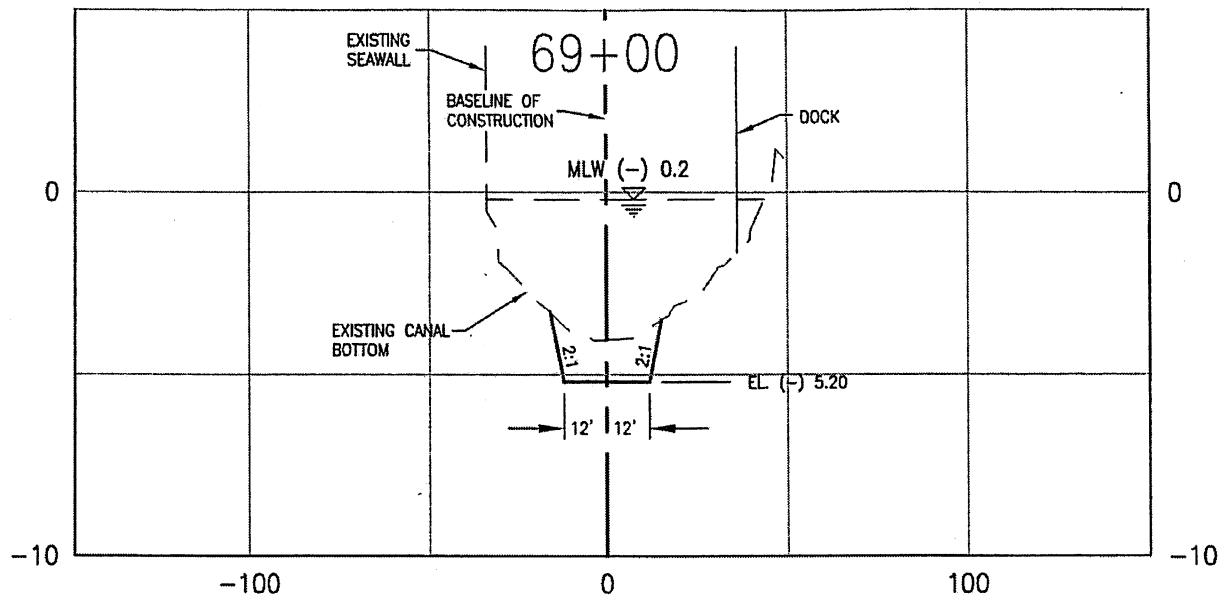
Applicant: Manatee County
 Water Body: Coral Shores
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SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

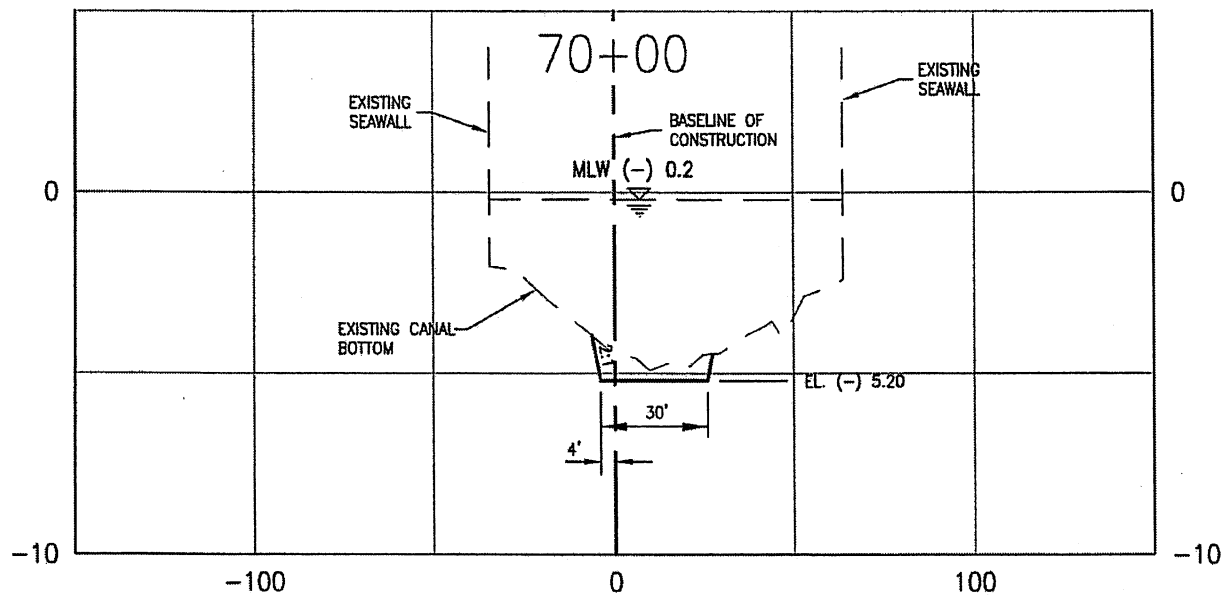
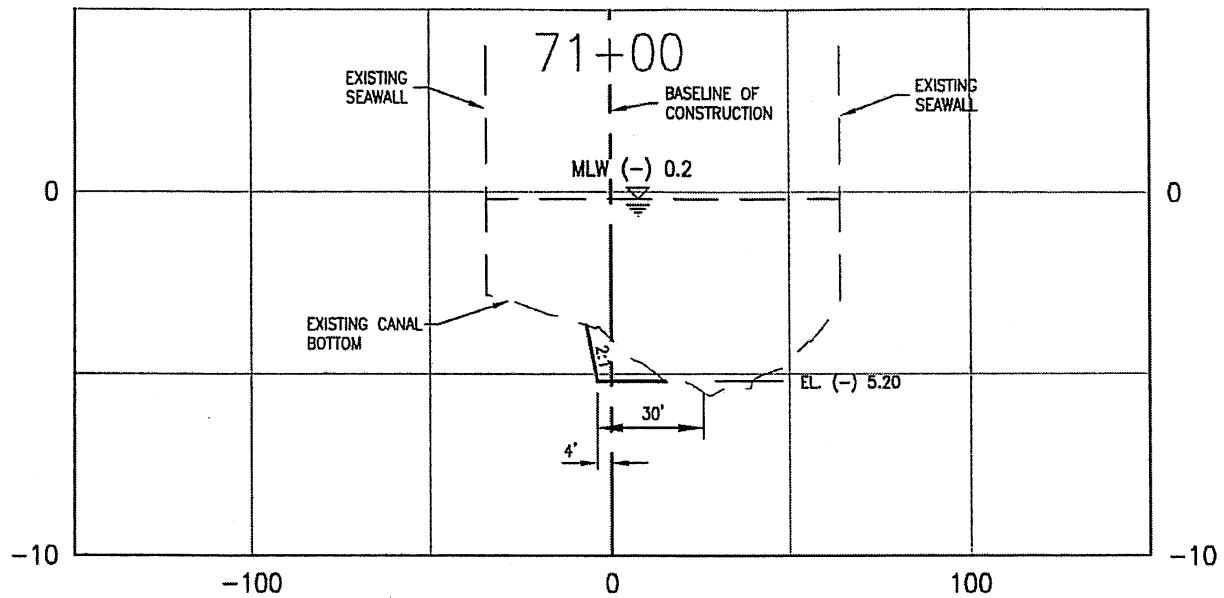
Applicant: Manatee County
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SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

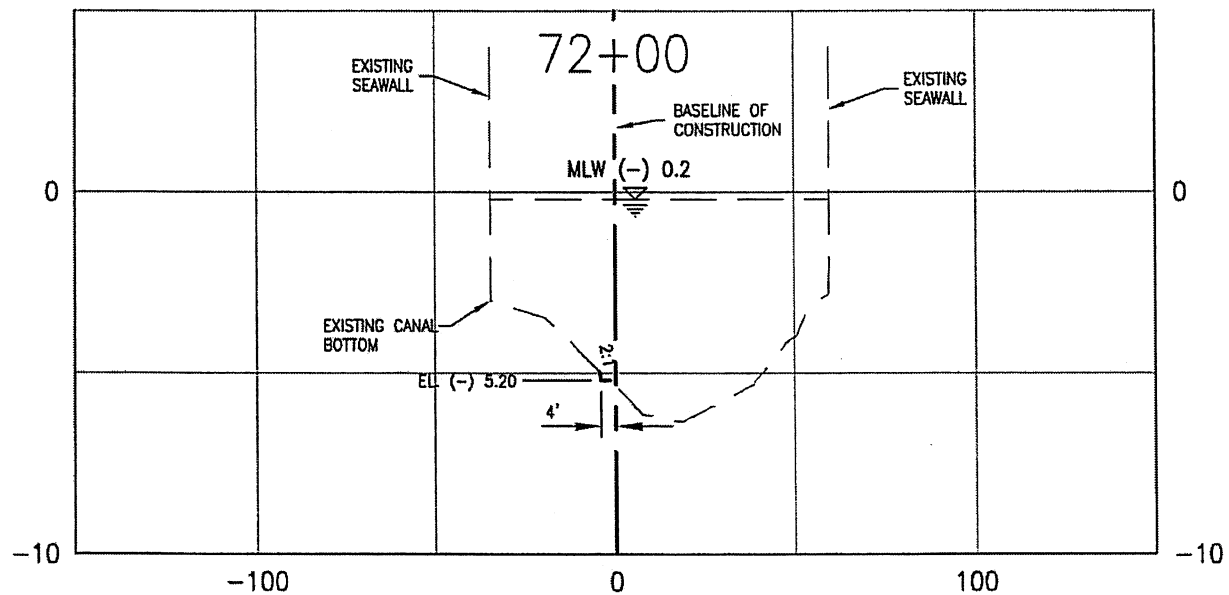
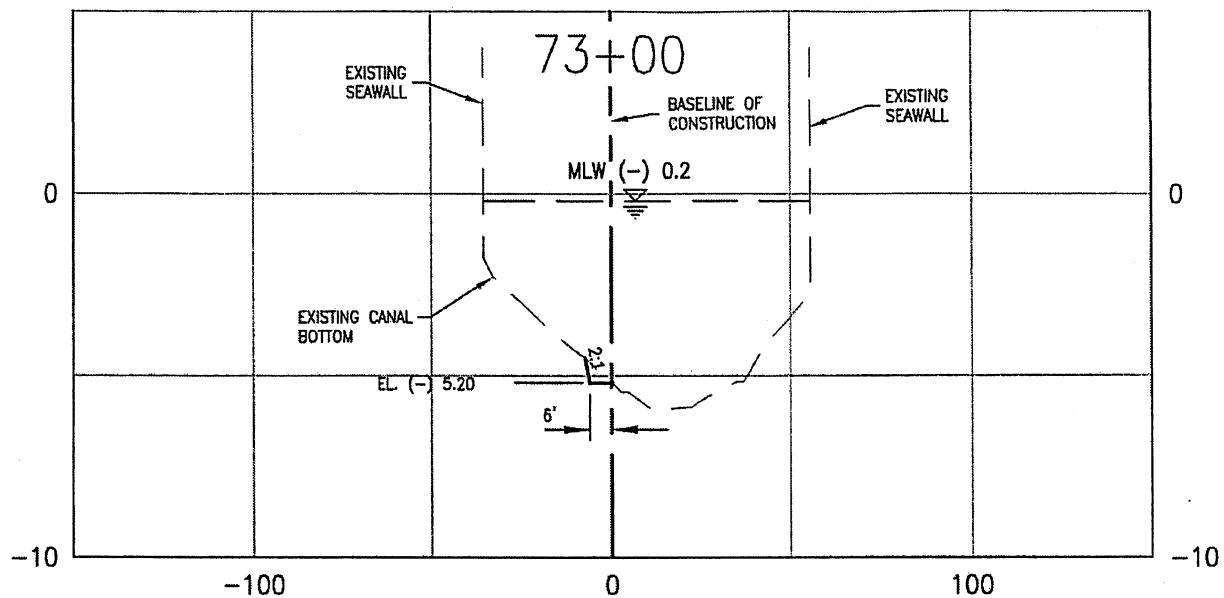
Applicant: Manatee County
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SCALE: 1' = 50' HORIZ.

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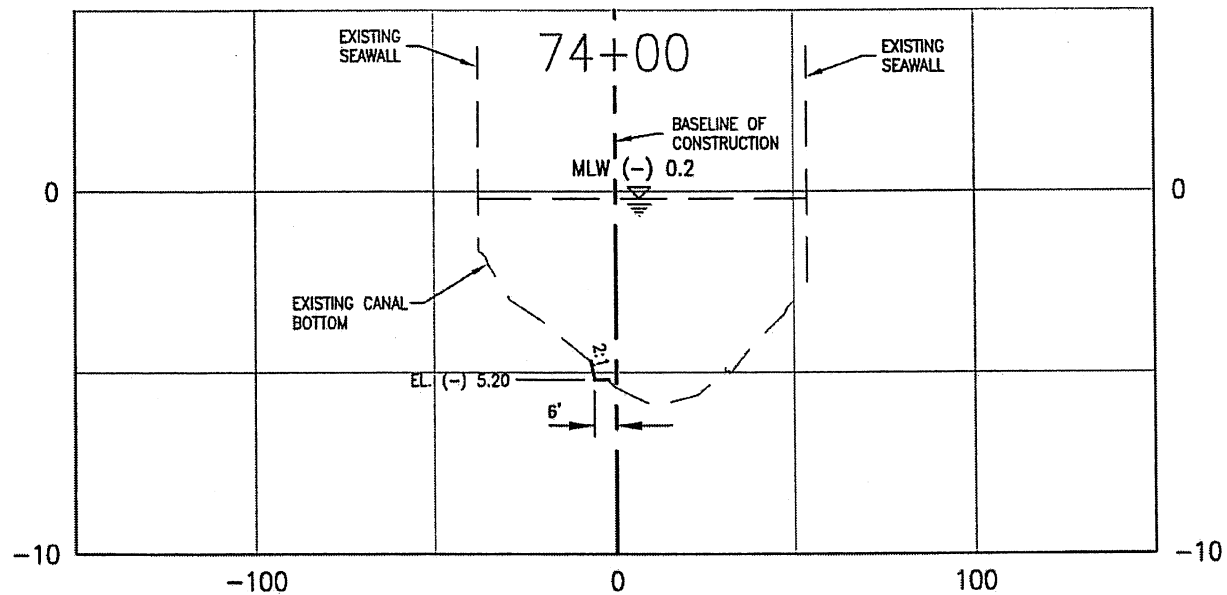
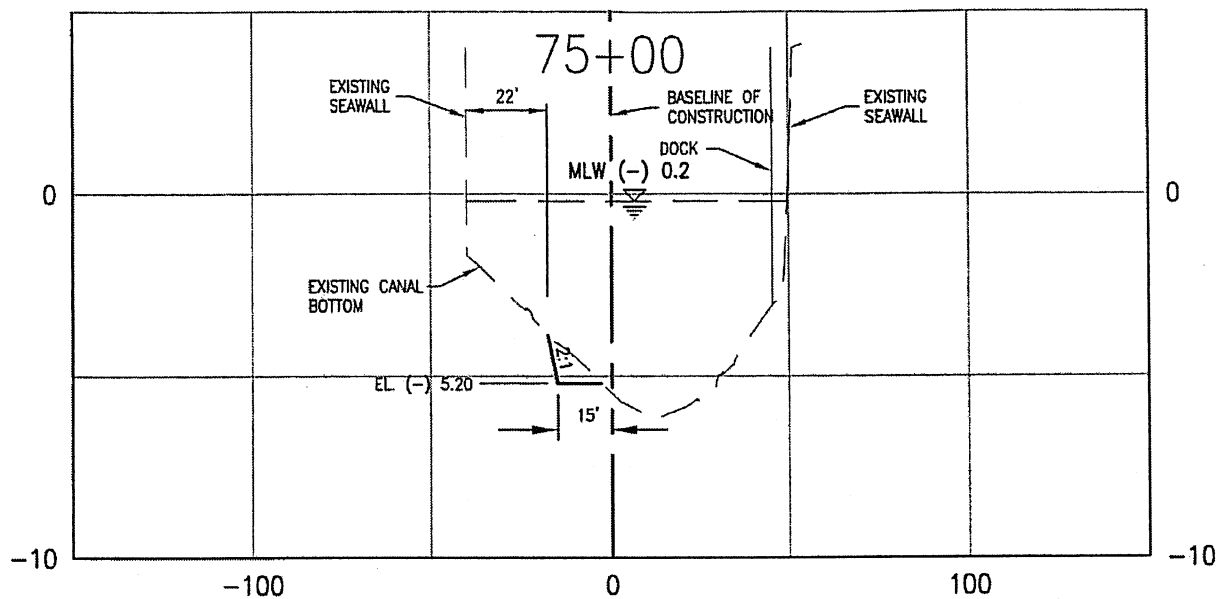
Applicant: Manatee County
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SCALE: 1' = 50' HORIZ.

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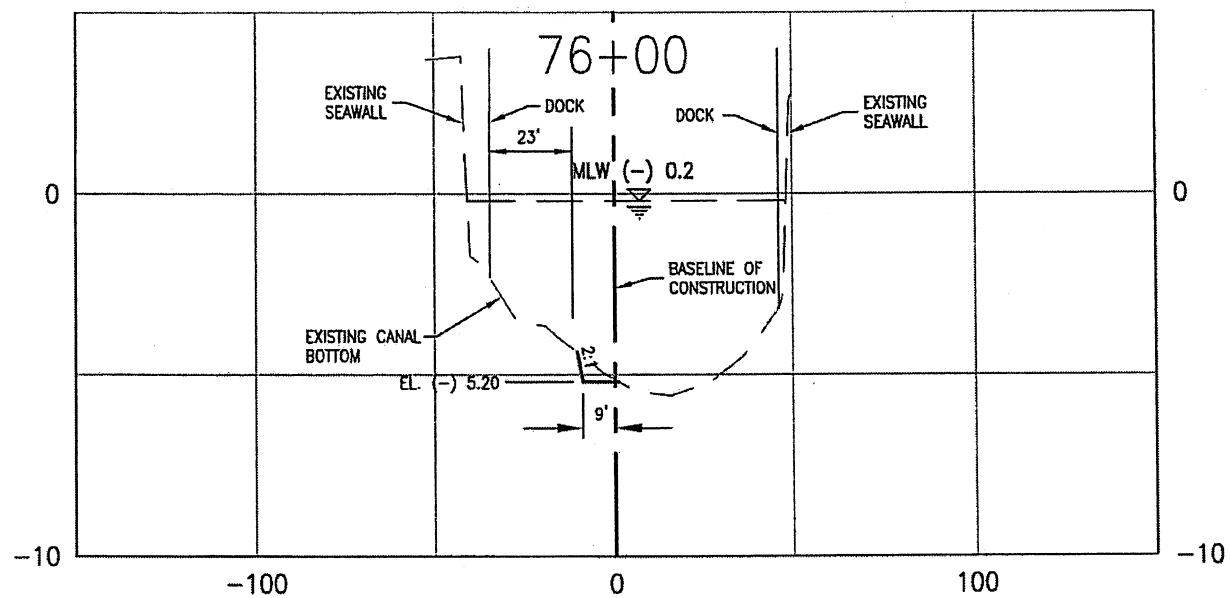
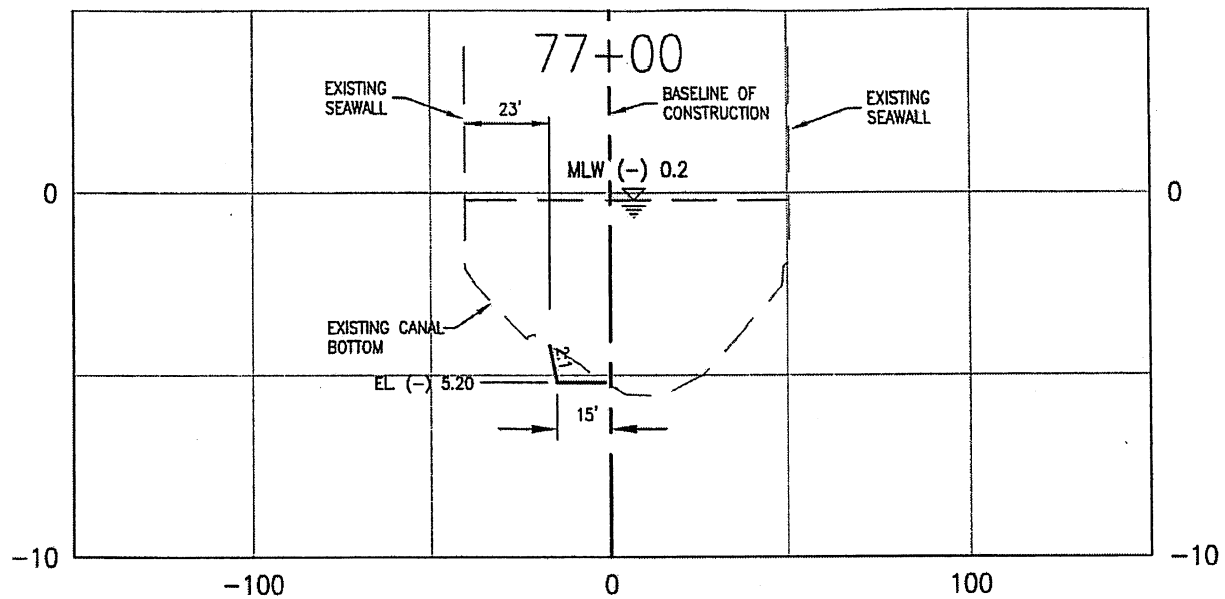
Applicant: Manatee County
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SCALE: 1" = 50' HORIZ.

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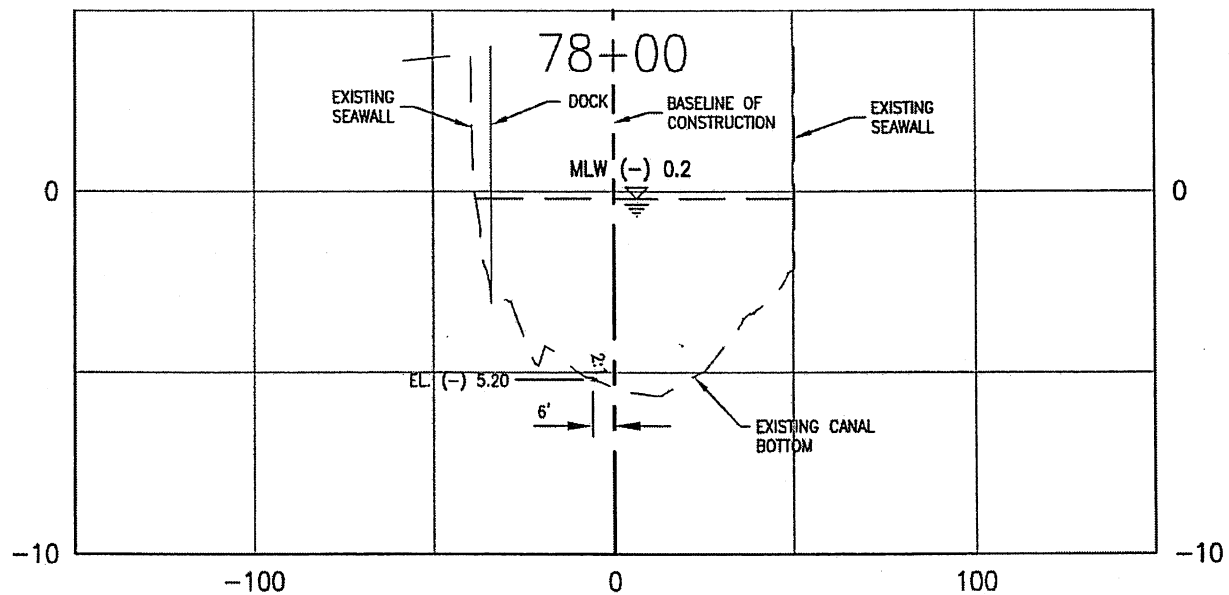
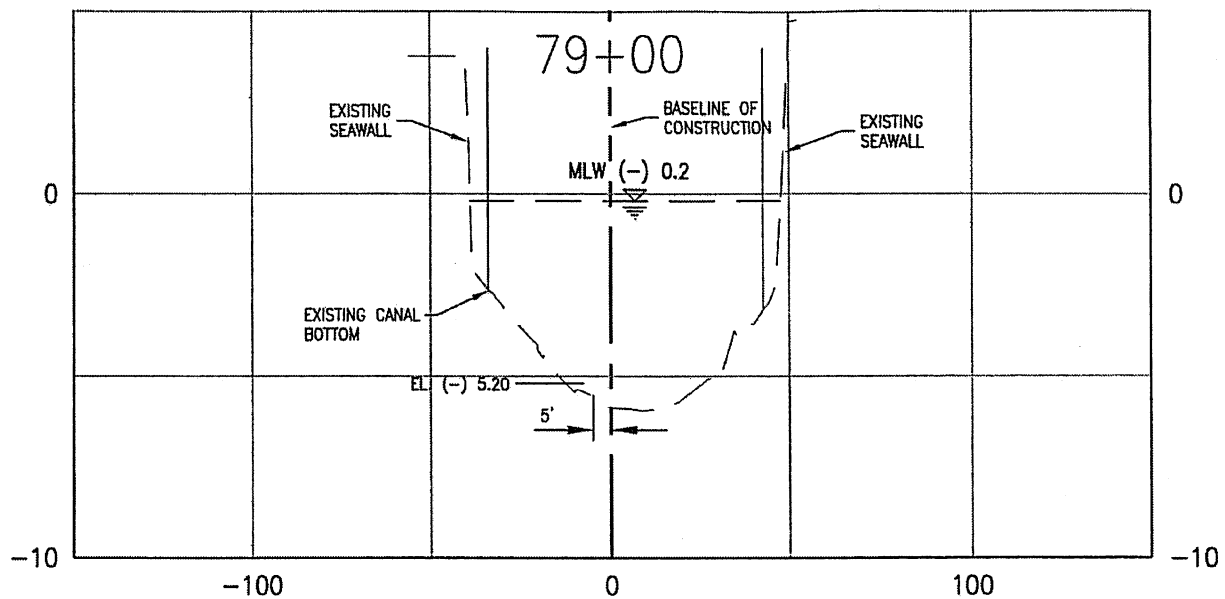
Applicant: Manatee County
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County: Manatee
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SCALE: 1' = 50' HORIZ.

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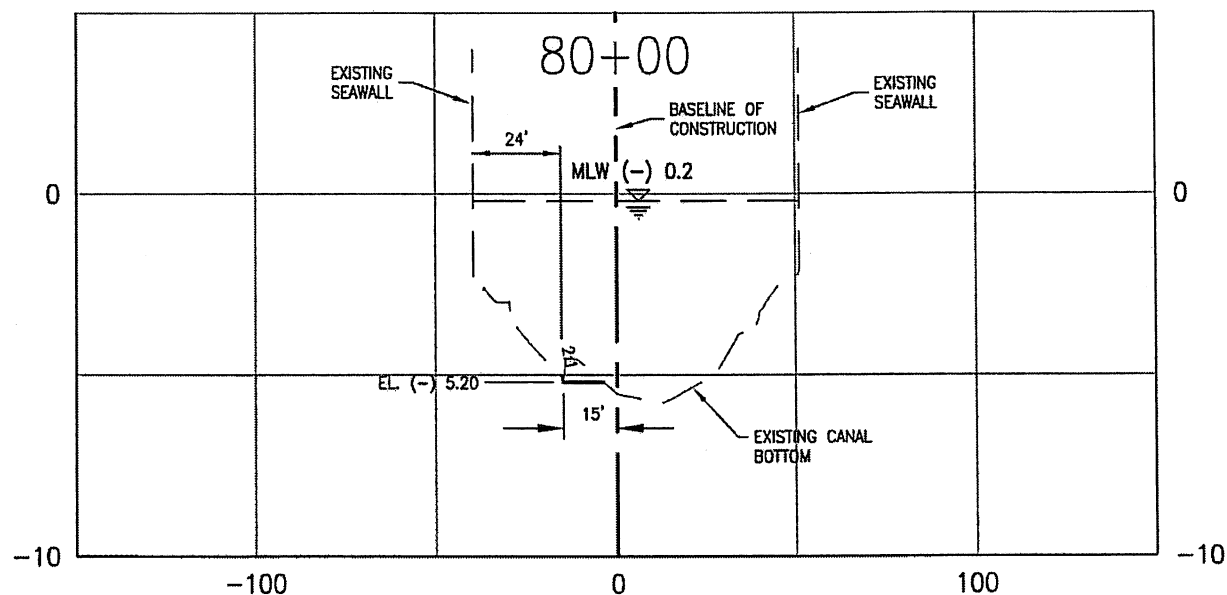
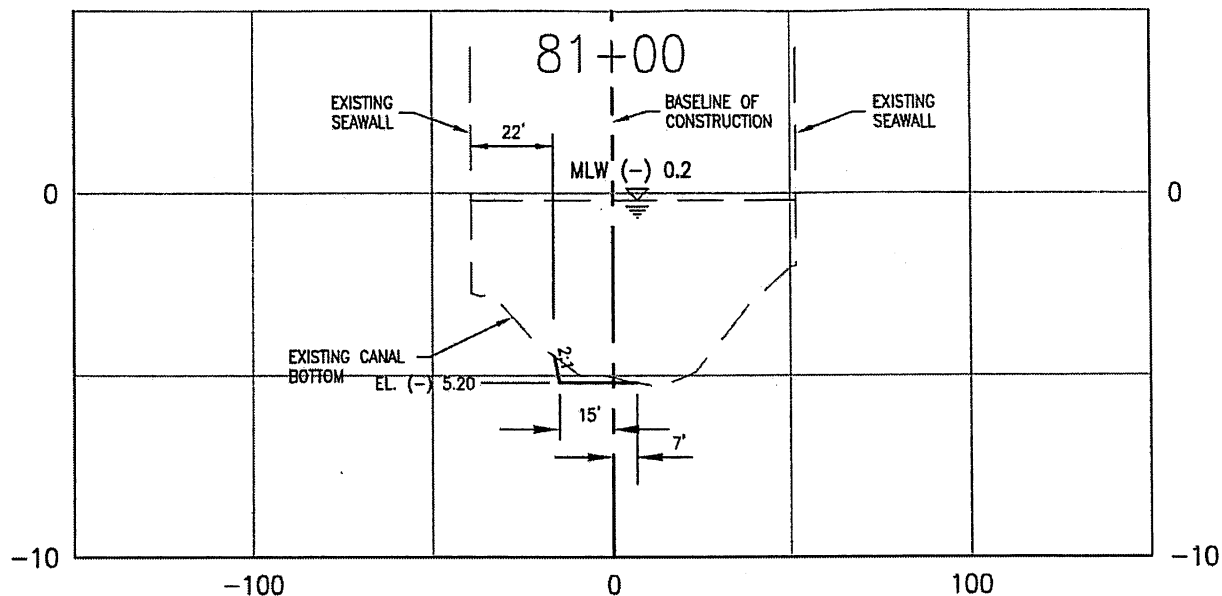
Applicant: Manatee County
 Water Body: Coral Shores
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 Datum: N.G.V.D. 1929

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SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

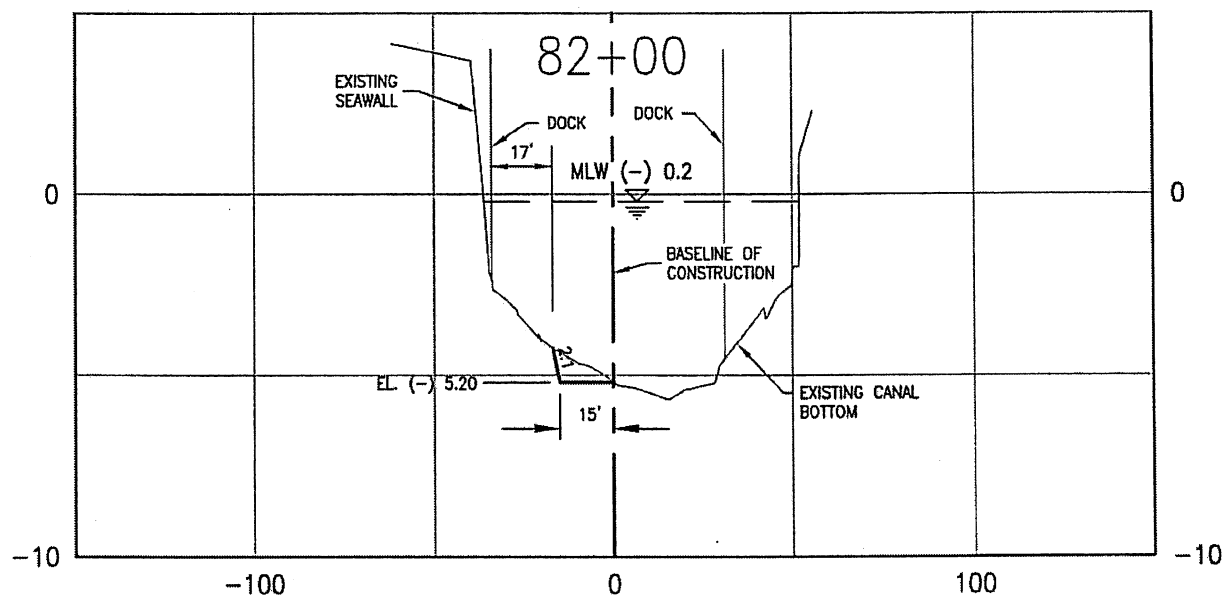
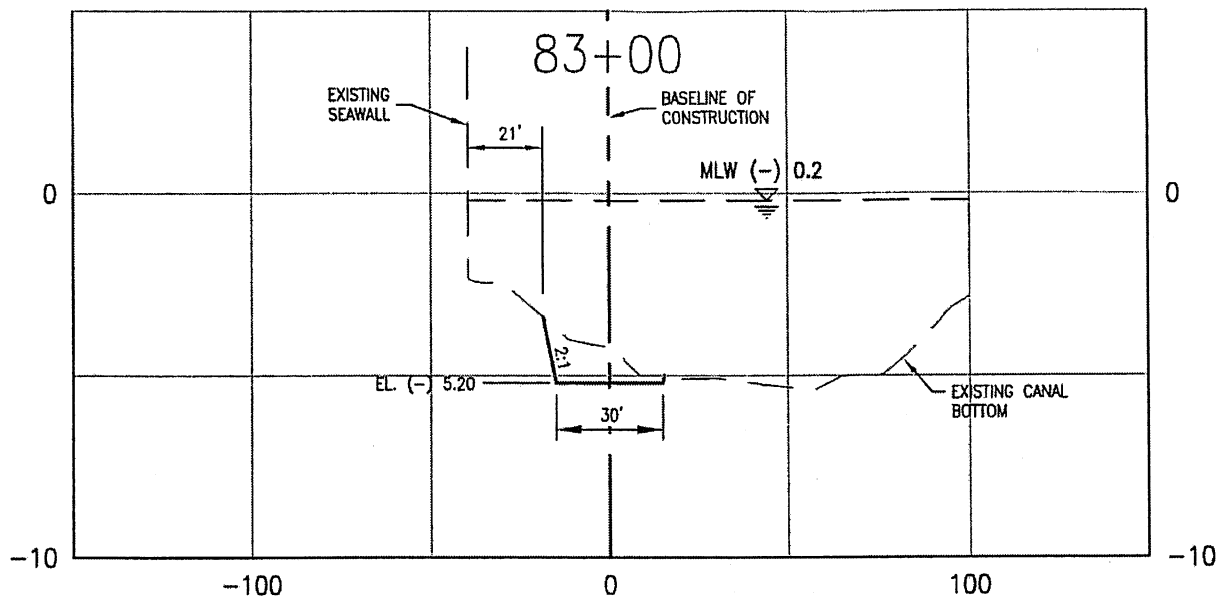
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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FL Engineering Business No. EB-38
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SCALE: 1"= 50' HORIZ.

SCALE: 1"= 5' VERT.

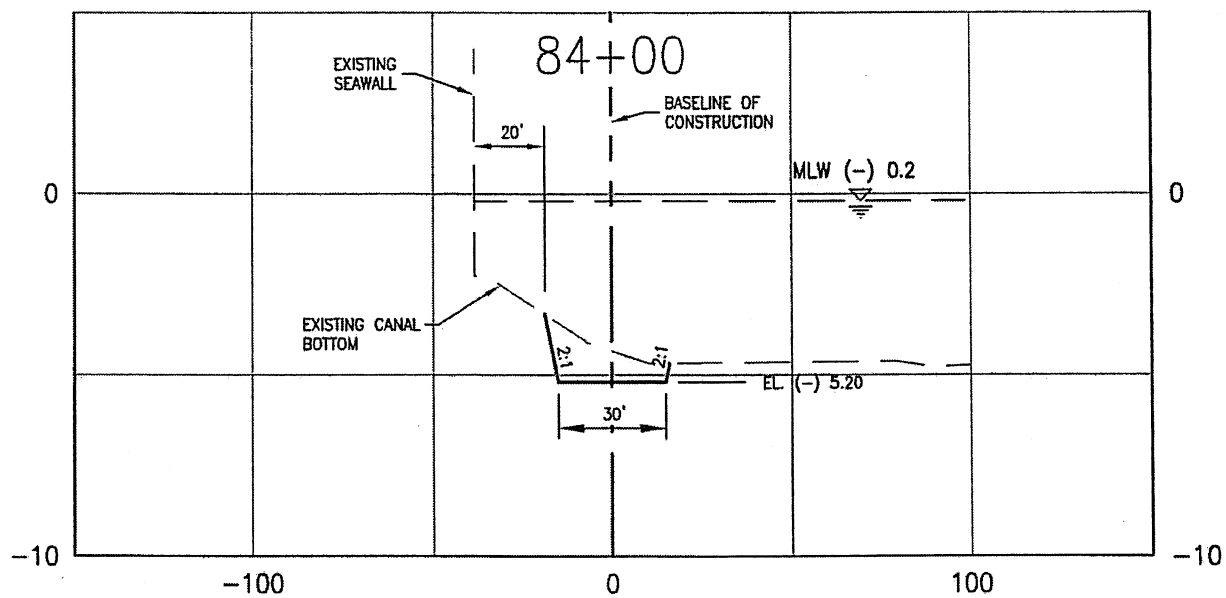
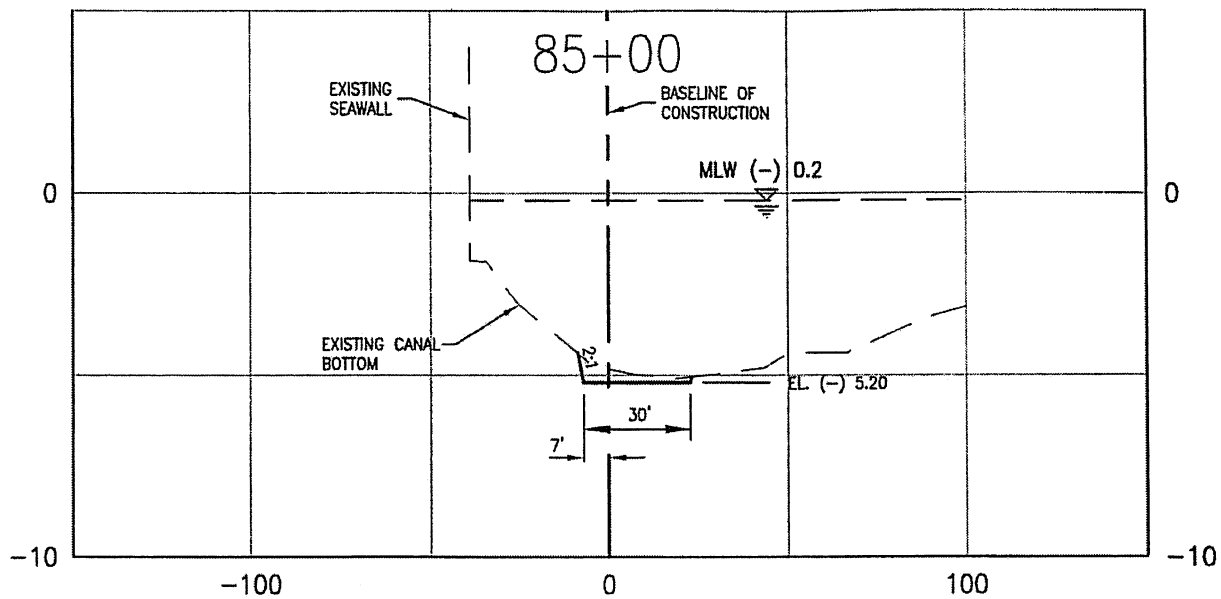
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

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SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

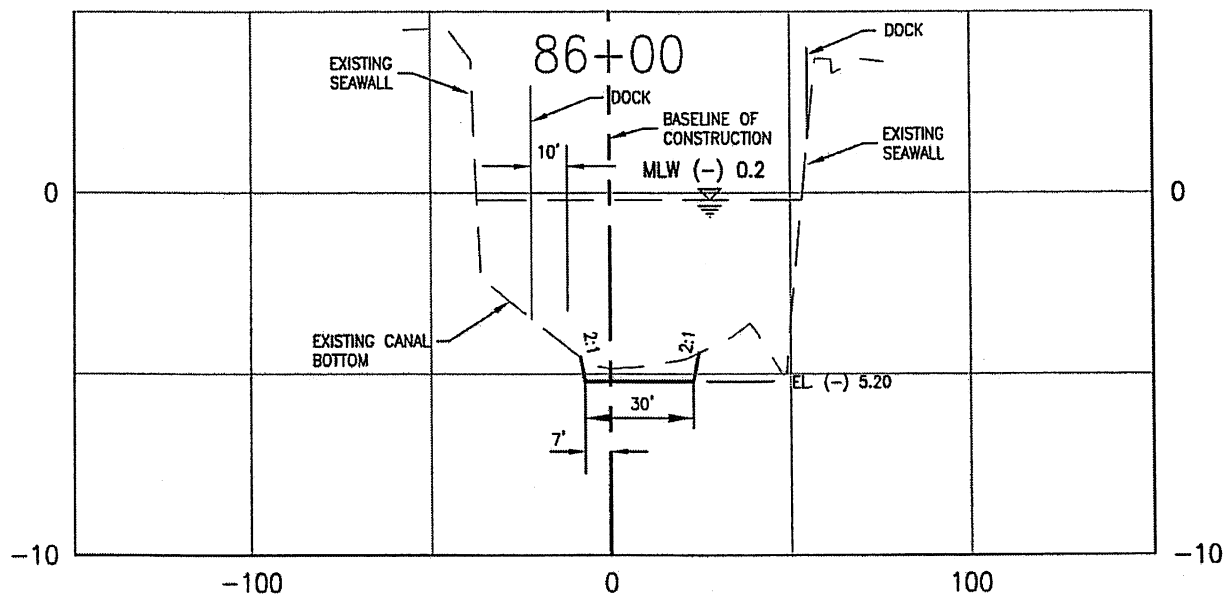
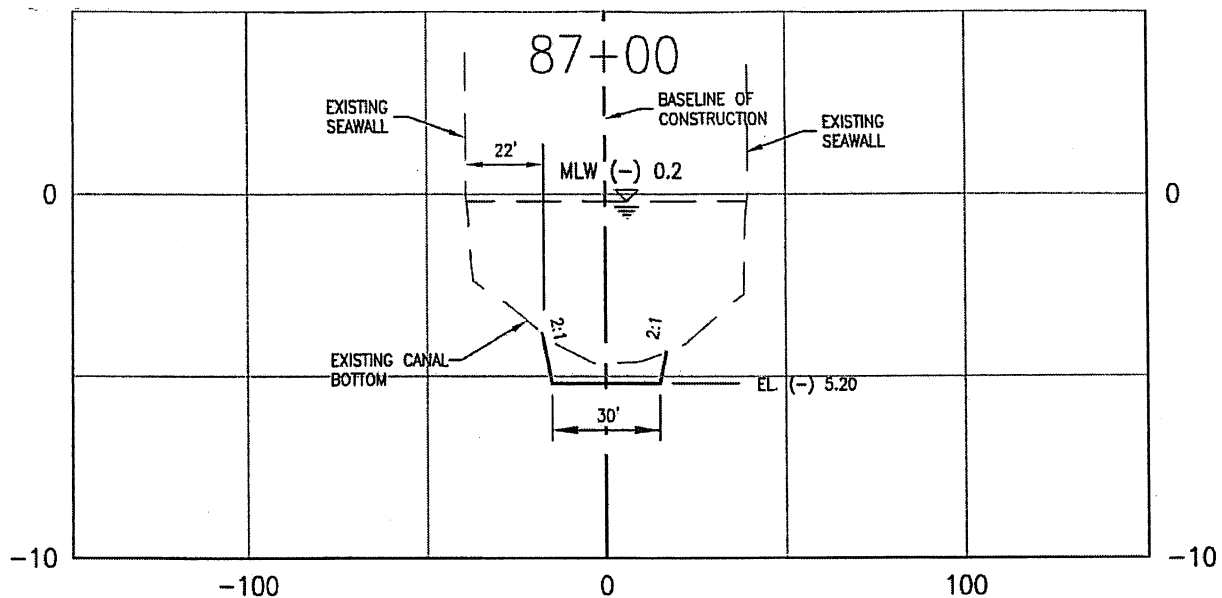
Applicant: Manatee County
 Water Body: Coral Shores
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 T 941.377.8858 F 941.371.2569
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SCALE: 1" = 50' HORIZ.

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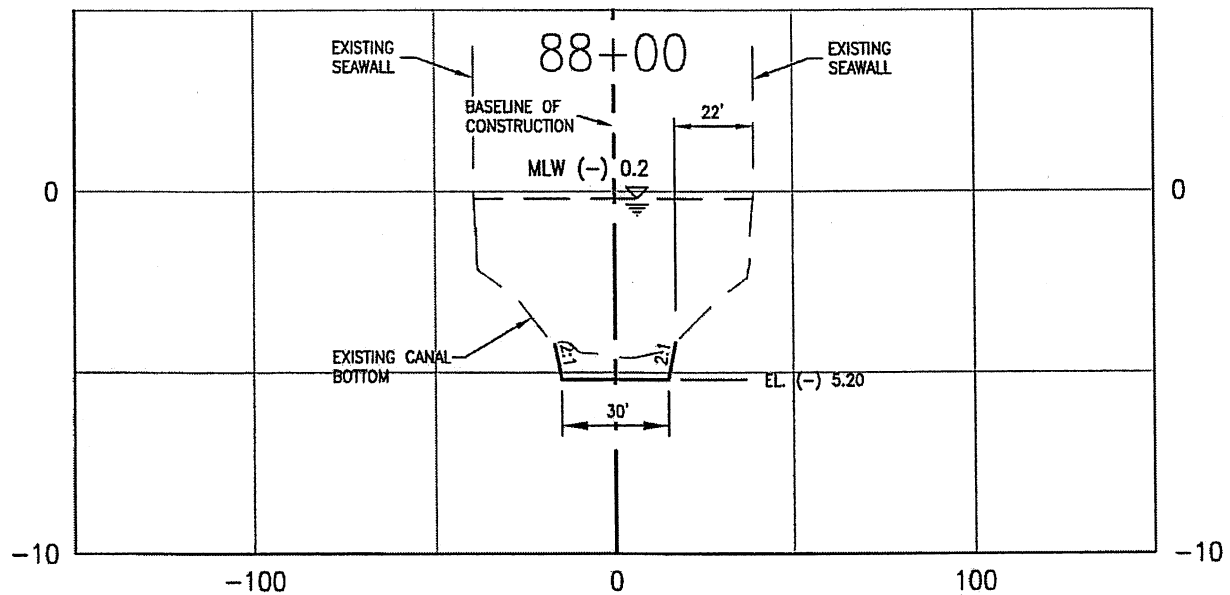
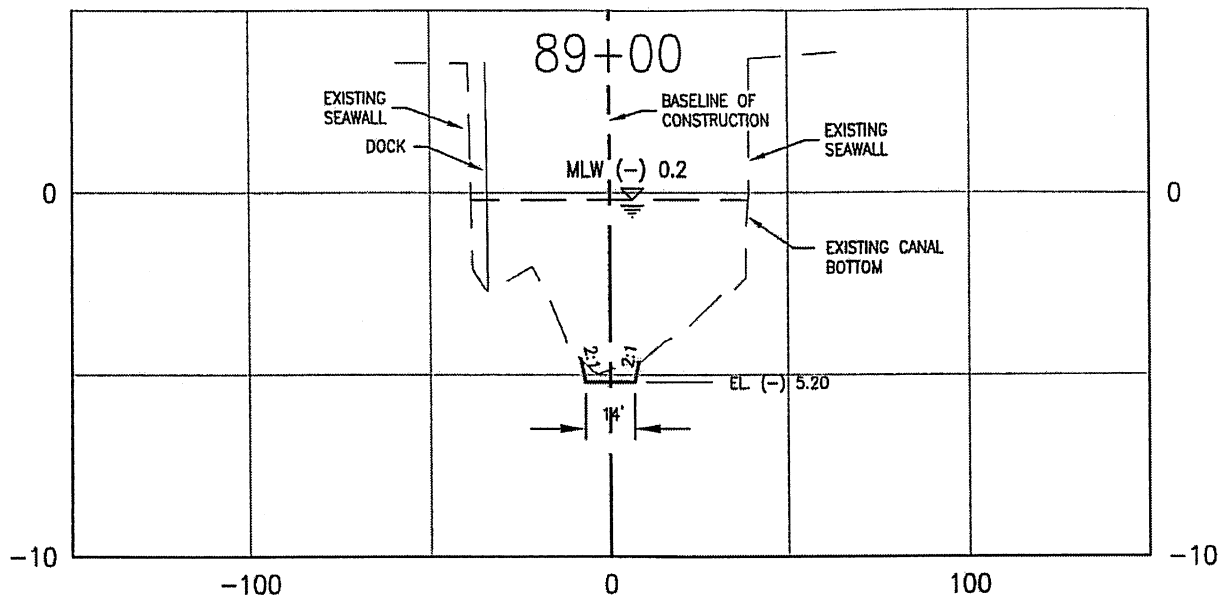
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
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CROSS-SECTIONS

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T 941.377.8858 F 941.371.2569
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SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

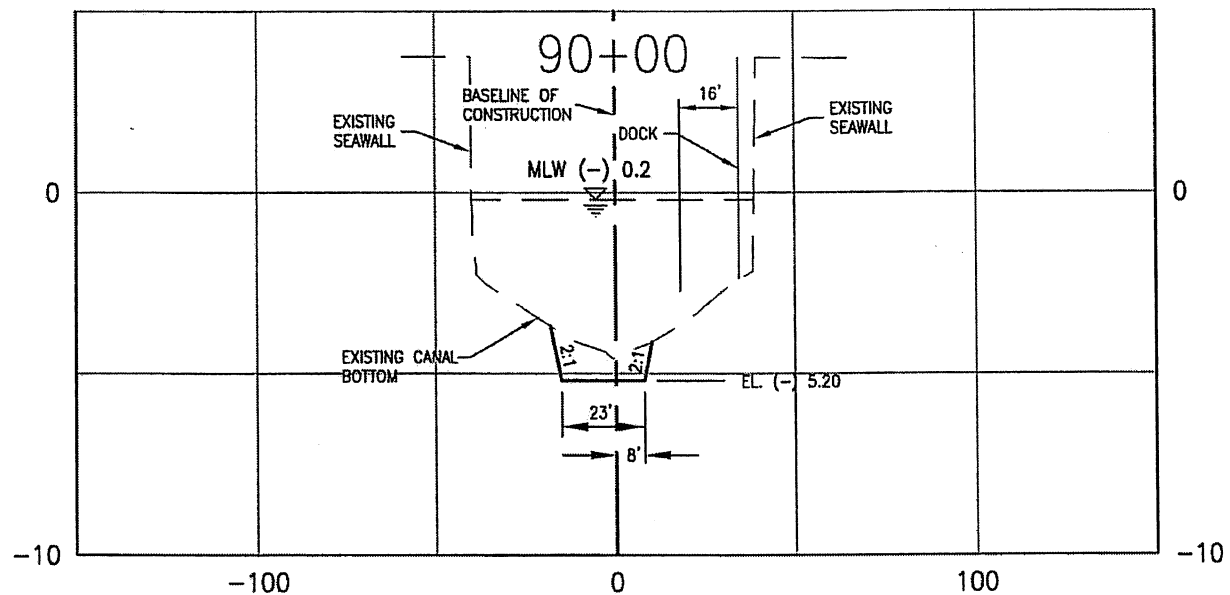
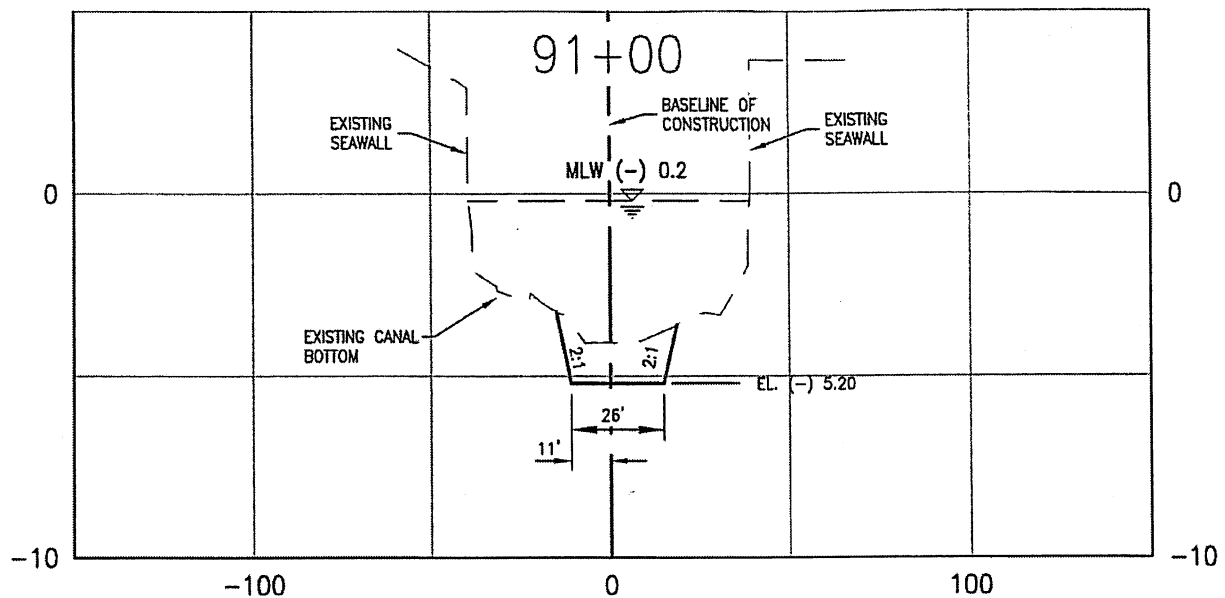
Applicant: Manatee County
 Water Body: Coral Shores
 County: Manatee
 Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

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 5871 Cattle Ridge Boulevard, Suite 200
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 T 941.377.8858 F 941.371.2589
 FL Engineering Business No. EB-38
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SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

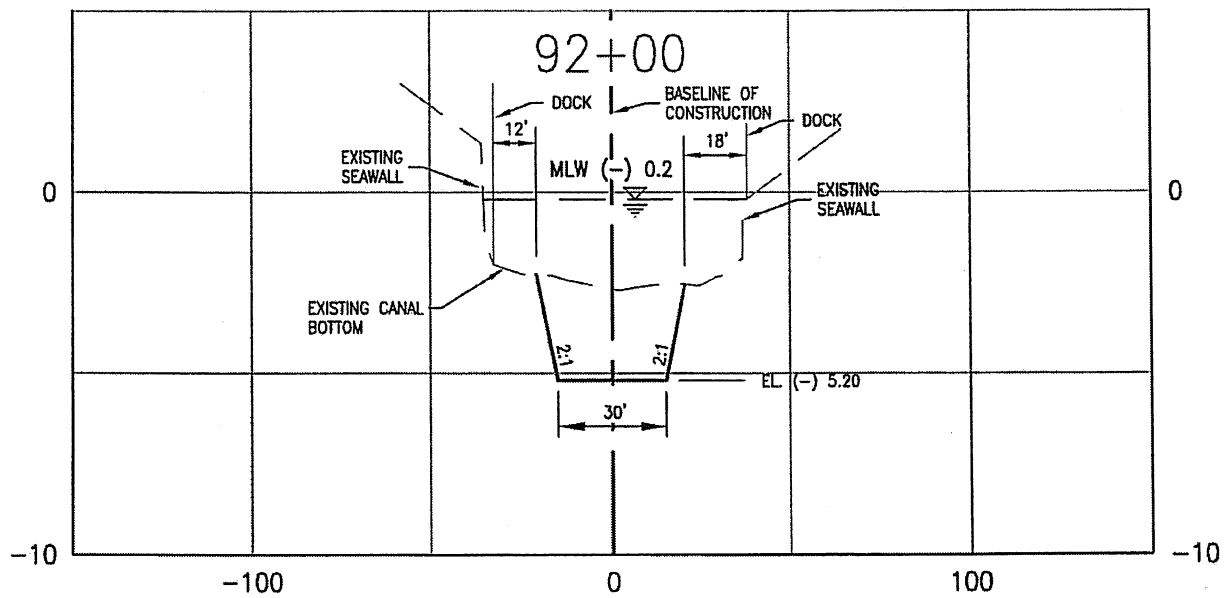
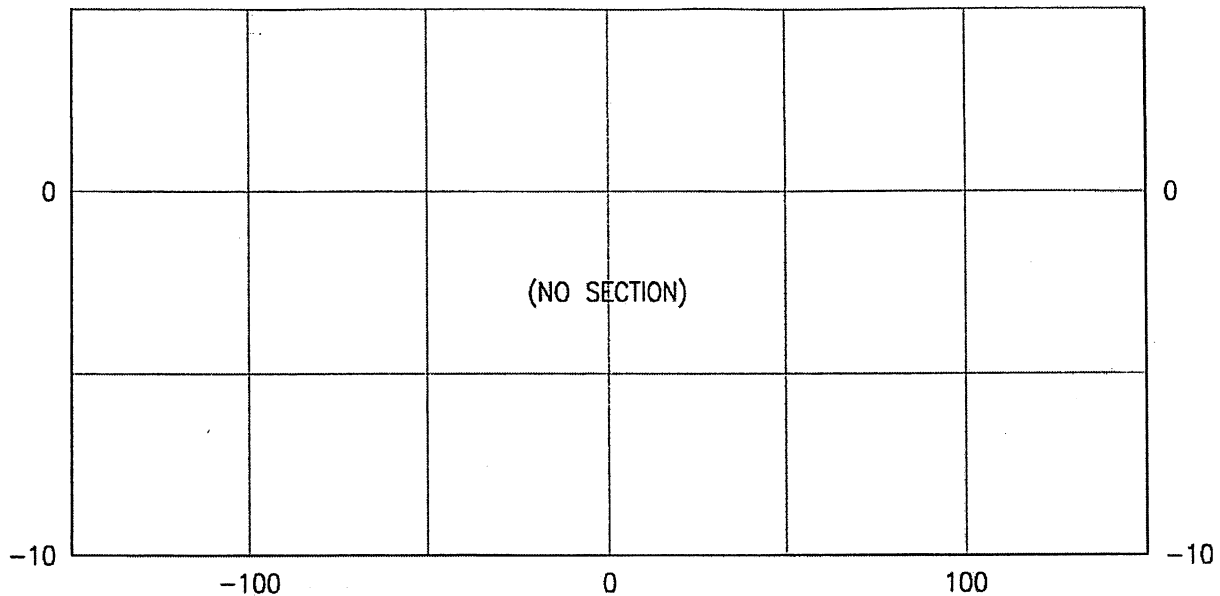
Applicant: Manatee County
 Water Body: Coral Shores
 County: Manatee
 Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

AECOM

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 5671 Cattle Ridge Boulevard, Suite 200
 Sarasota, Florida 34232
 T 941.377.8858 F 941.371.2569
 FL Engineering Business No. EB-38
 www.aecom.com



SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

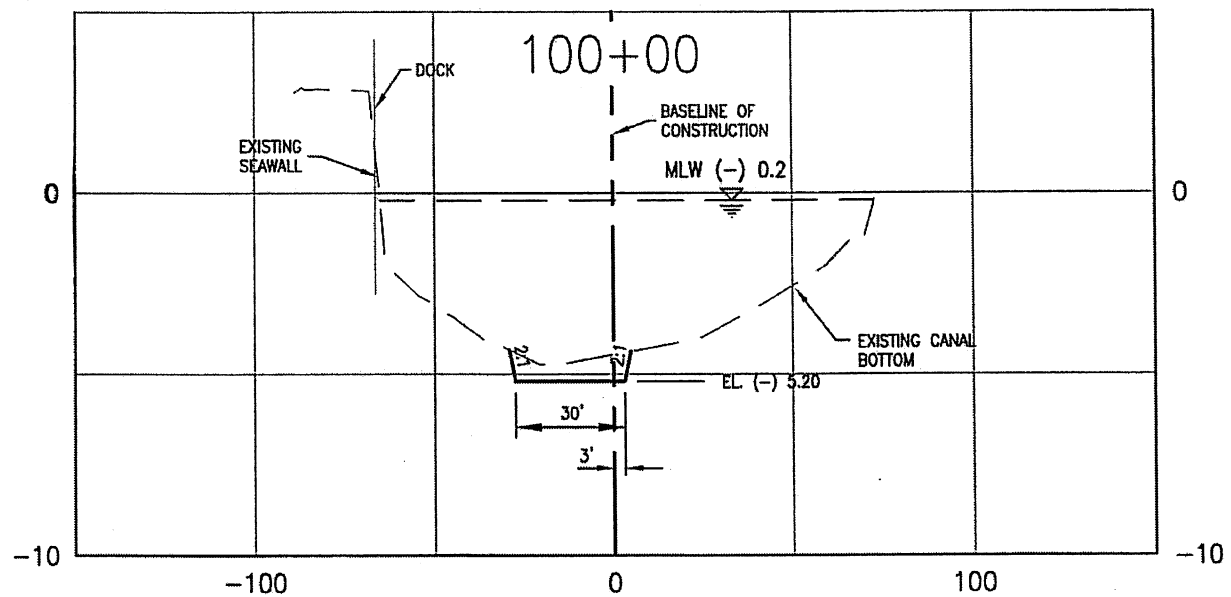
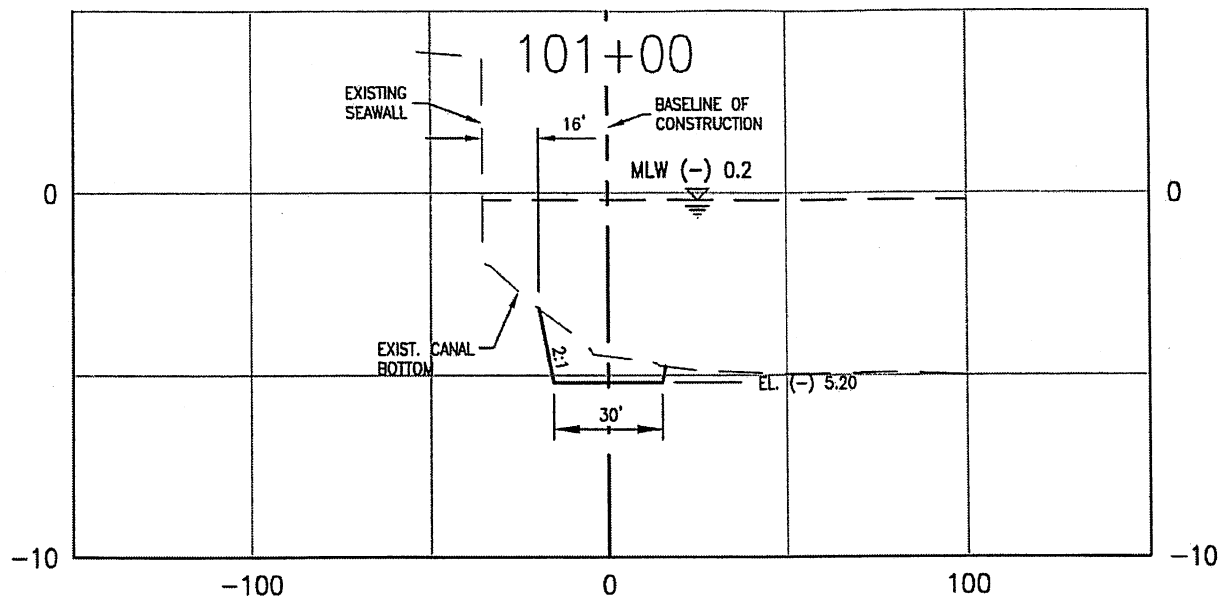
Applicant: Manatee County
 Water Body: Coral Shores
 County: Manatee
 Datum: N.G.V.D. 1929

CROSS-SECTIONS

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AECOM

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SCALE: 1' = 50' HORIZ.
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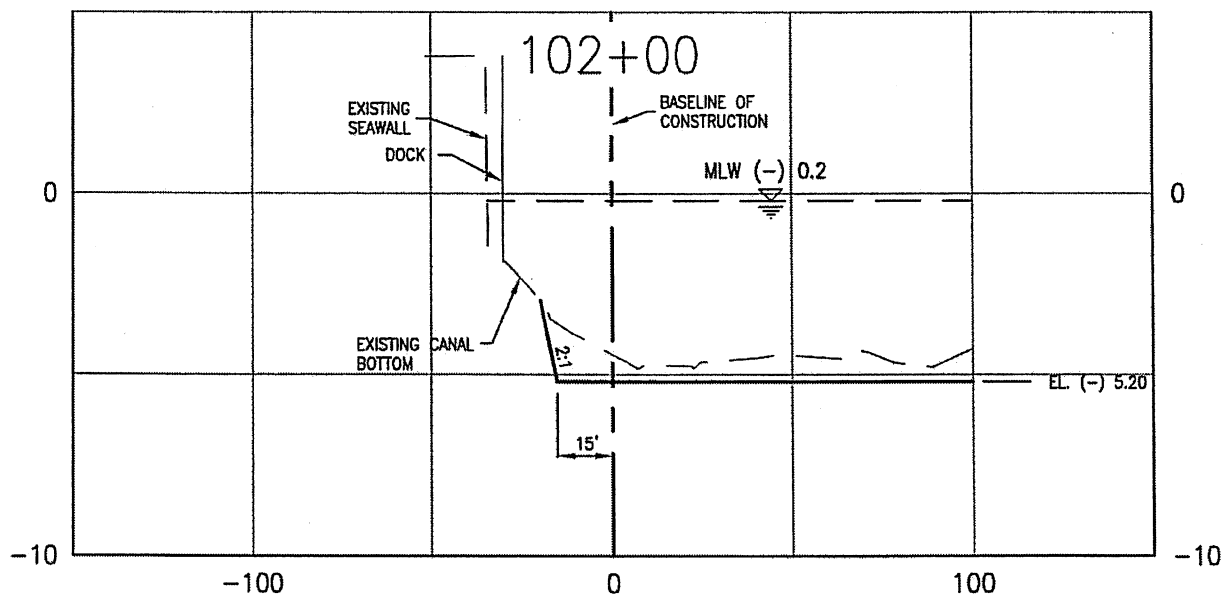
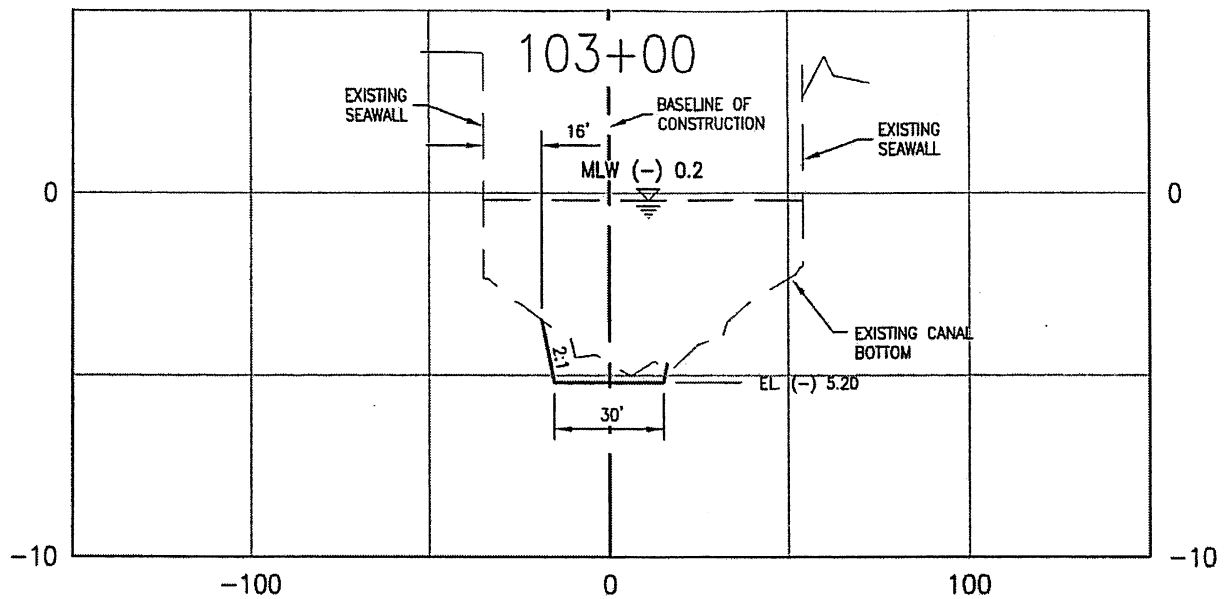
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

CROSS-SECTIONS

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Sarasota, Florida 34232
T 941.377.8858 F 941.371.2560
FL Engineering Business No. EB-38
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SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

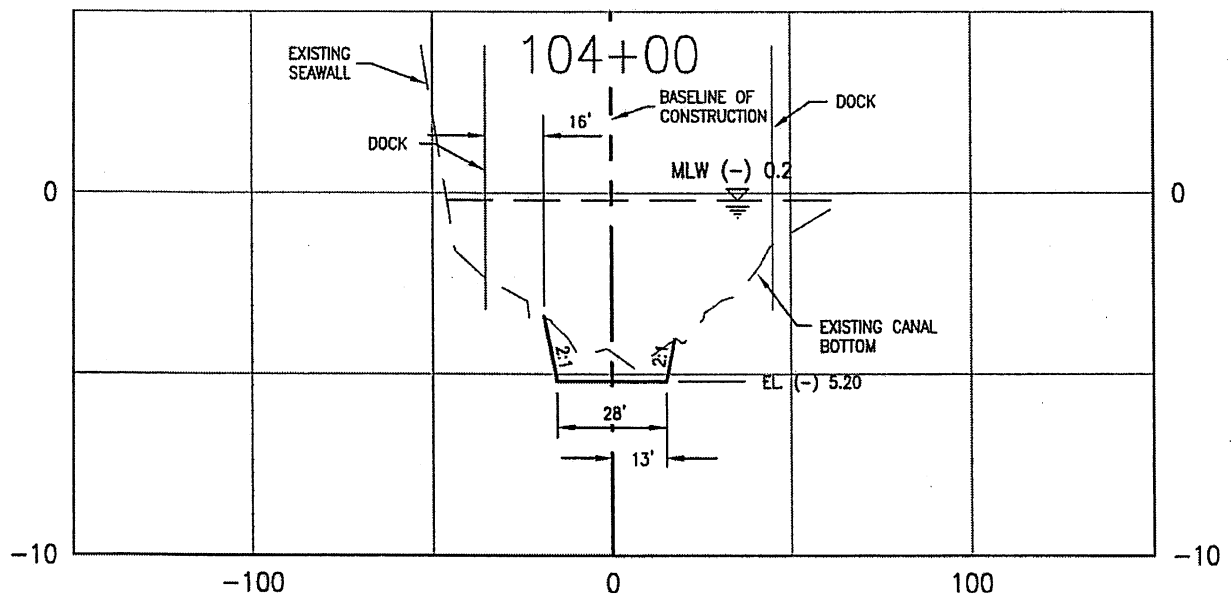
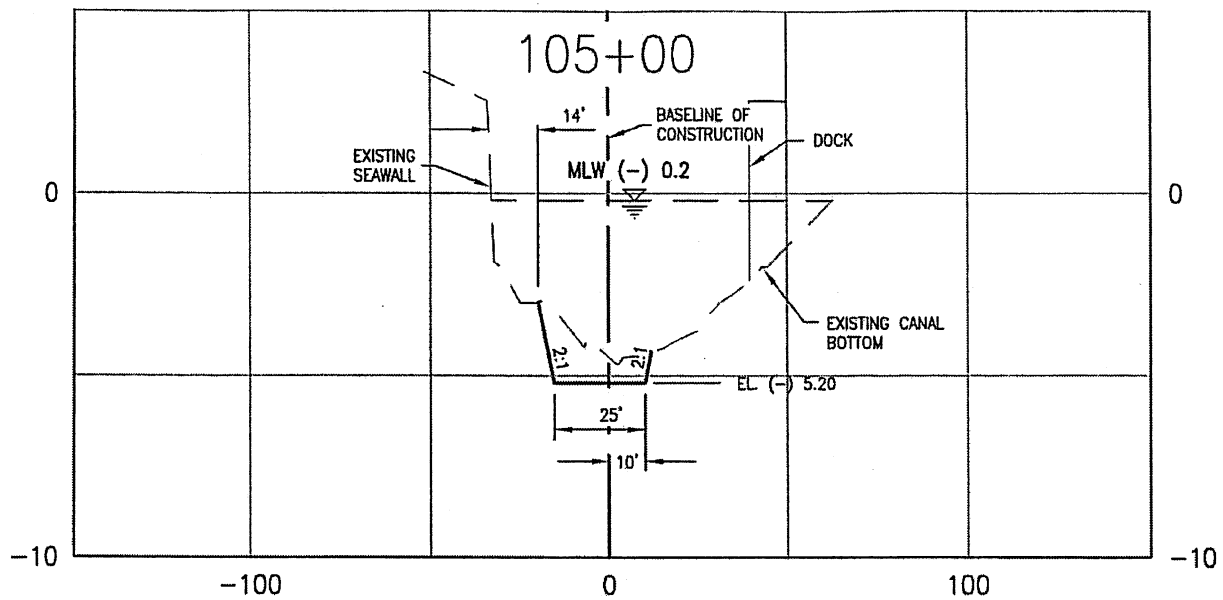
Applicant: Manatee County
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SCALE: 1' = 50' HORIZ.
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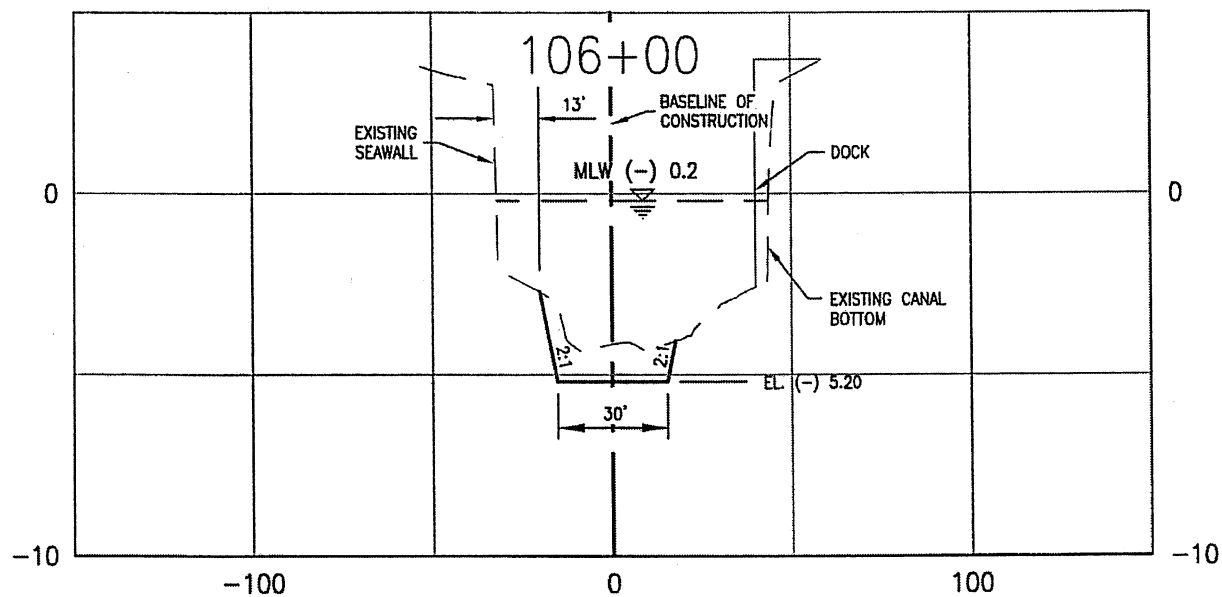
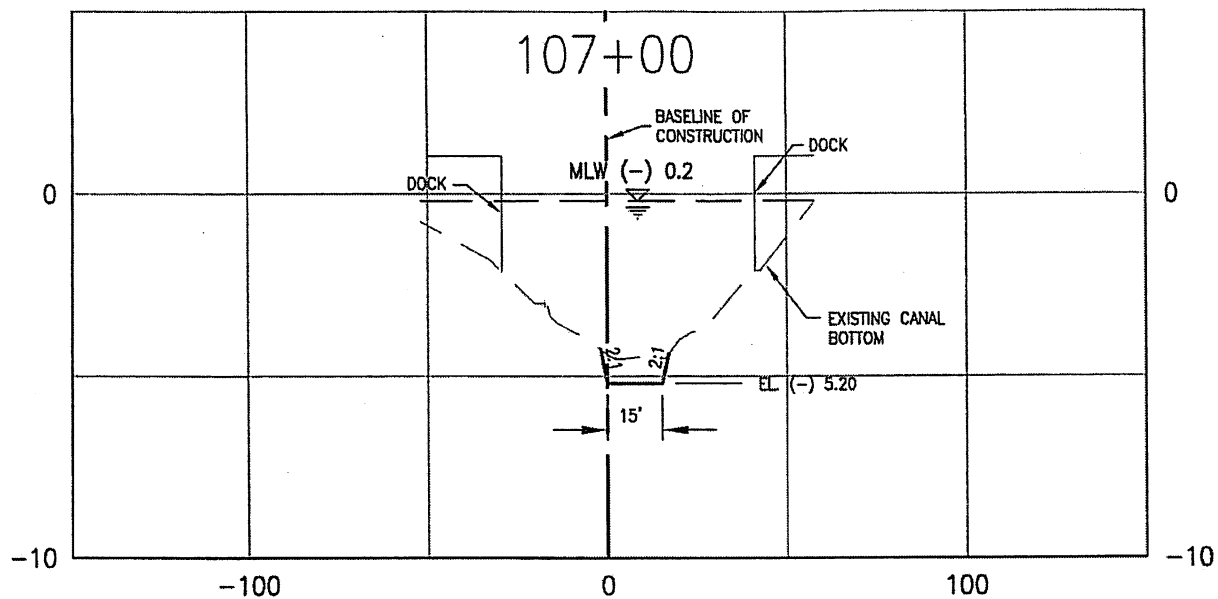
Applicant: Manatee County
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SCALE: 1" = 50' HORIZ.

SCALE: 1" = 5' VERT.

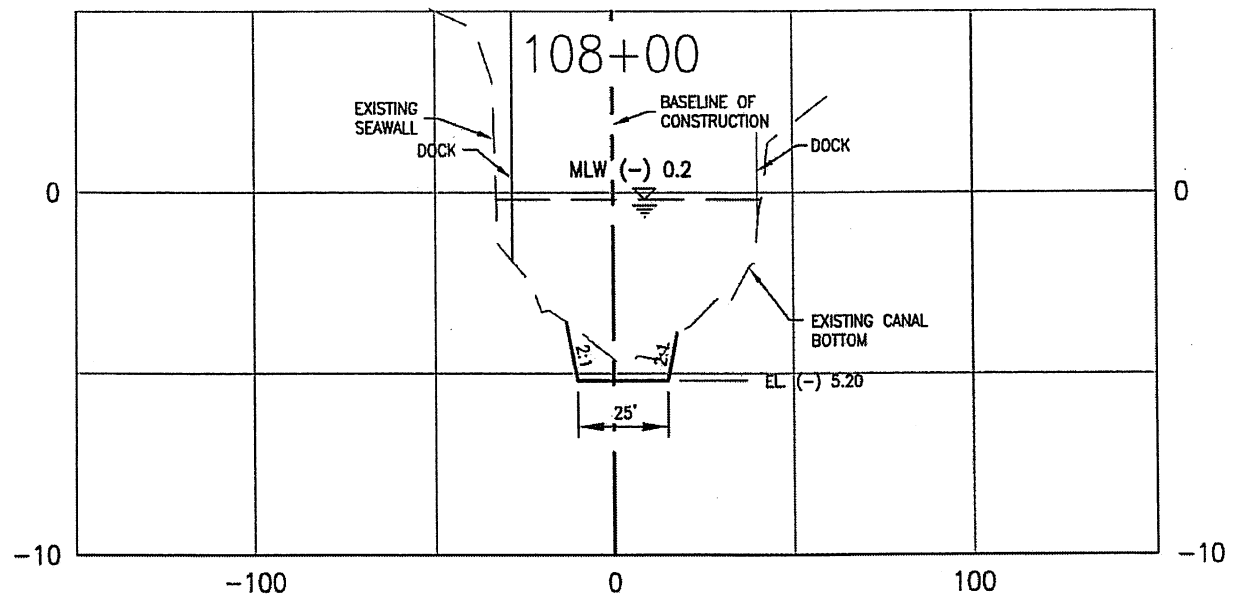
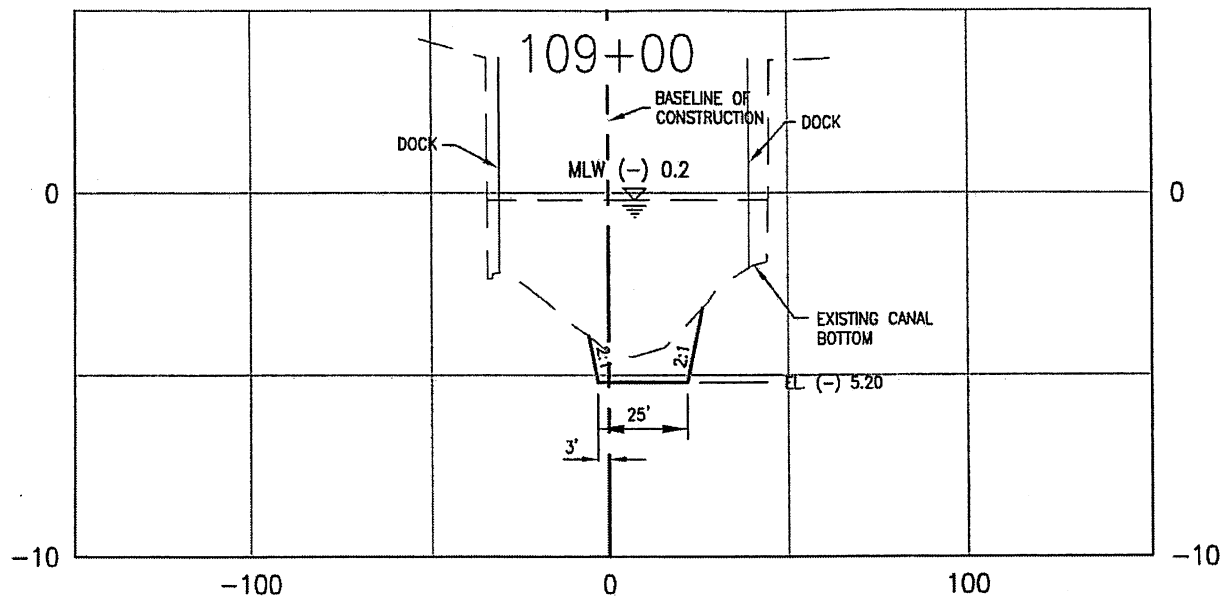
Applicant: Manatee County
 Water Body: Coral Shores
 County: Manatee
 Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

AECOM

AECOM USA, Inc.
 5871 Cattle Ridge Boulevard, Suite 200
 Sarasota, Florida 34232
 T 941.377.8858 F 941.371.2568
 FL Engineering Business No. EB-38
 www.aecom.com



SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

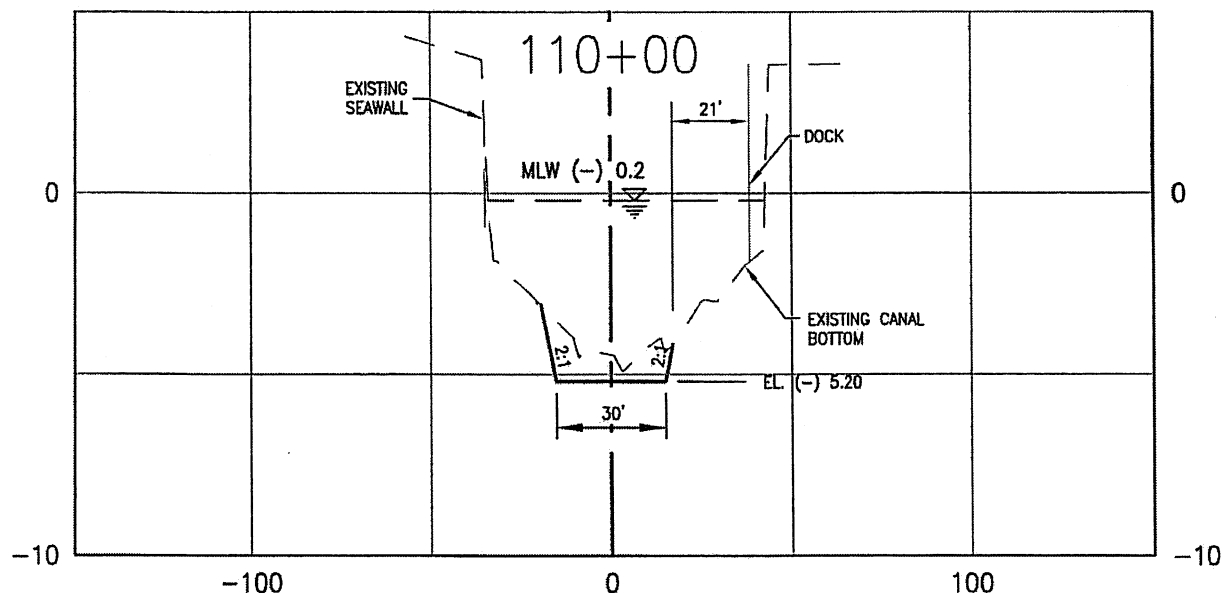
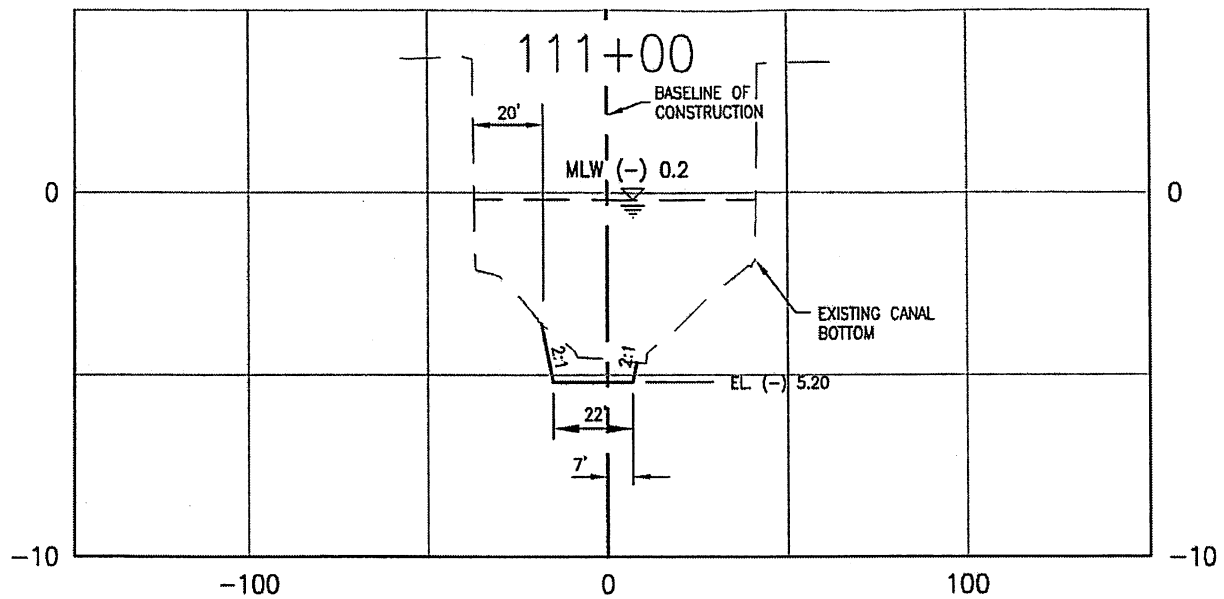
Applicant: Manatee County
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 5971 Collieridge Boulevard, Suite 200
 Sarasota, Florida 34232
 T 941.377.8658 F 941.371.2569
 FL Engineering Business No. EB-38
 www.aecom.com



SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

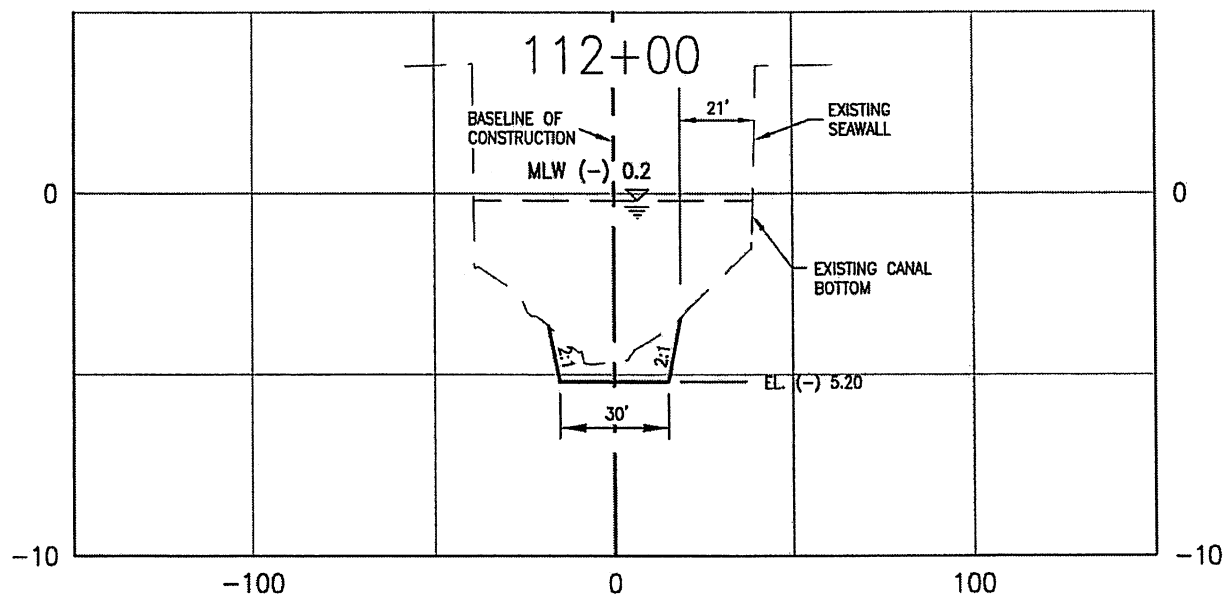
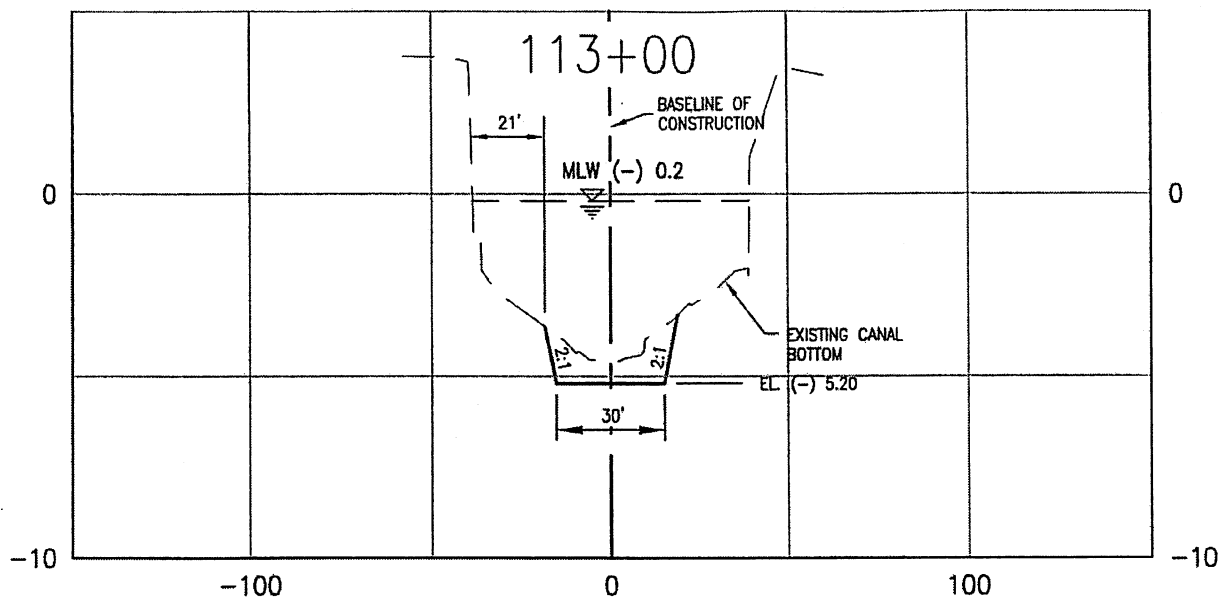
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

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SCALE: 1' = 50' HORIZ.
SCALE: 1' = 5' VERT.

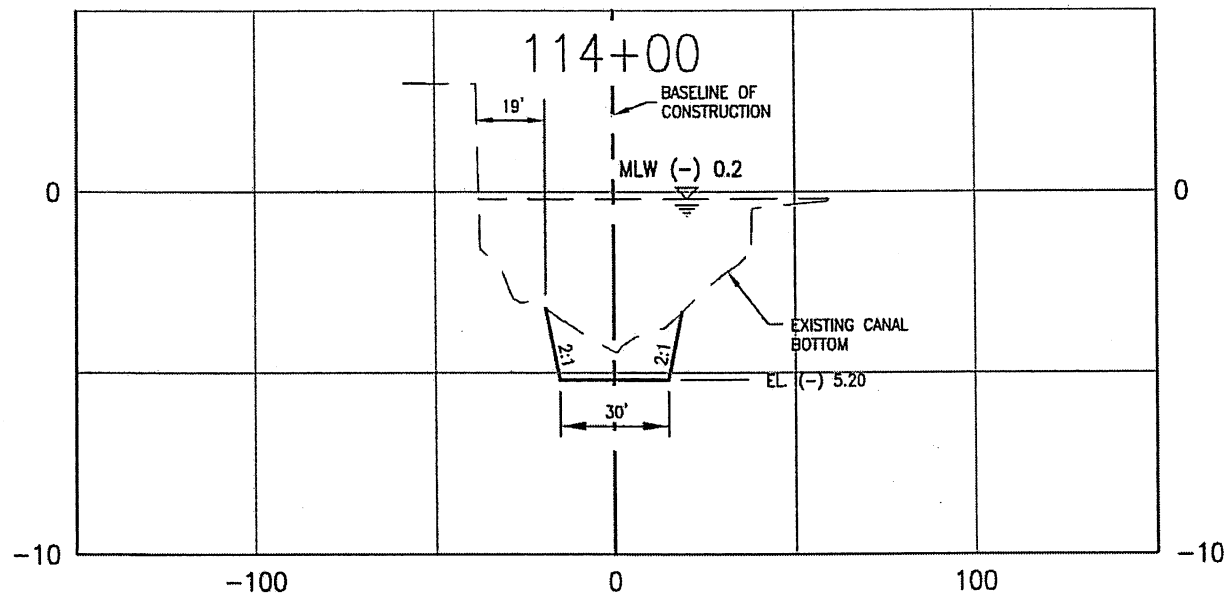
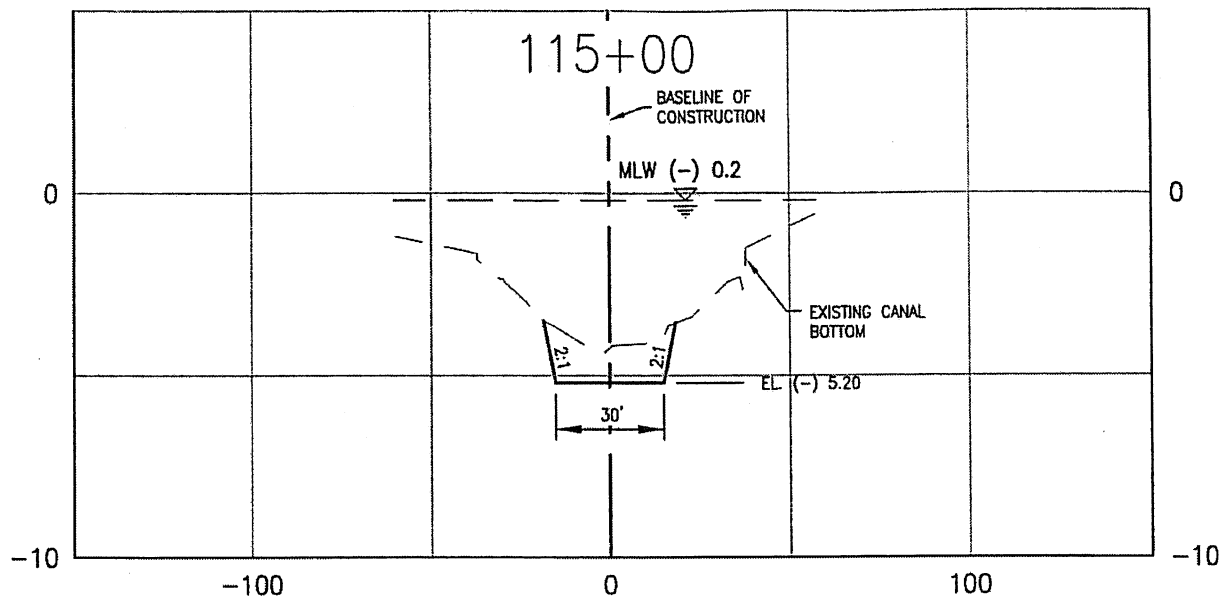
Applicant: Manatee County
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SCALE: 1' = 50' HORIZ.

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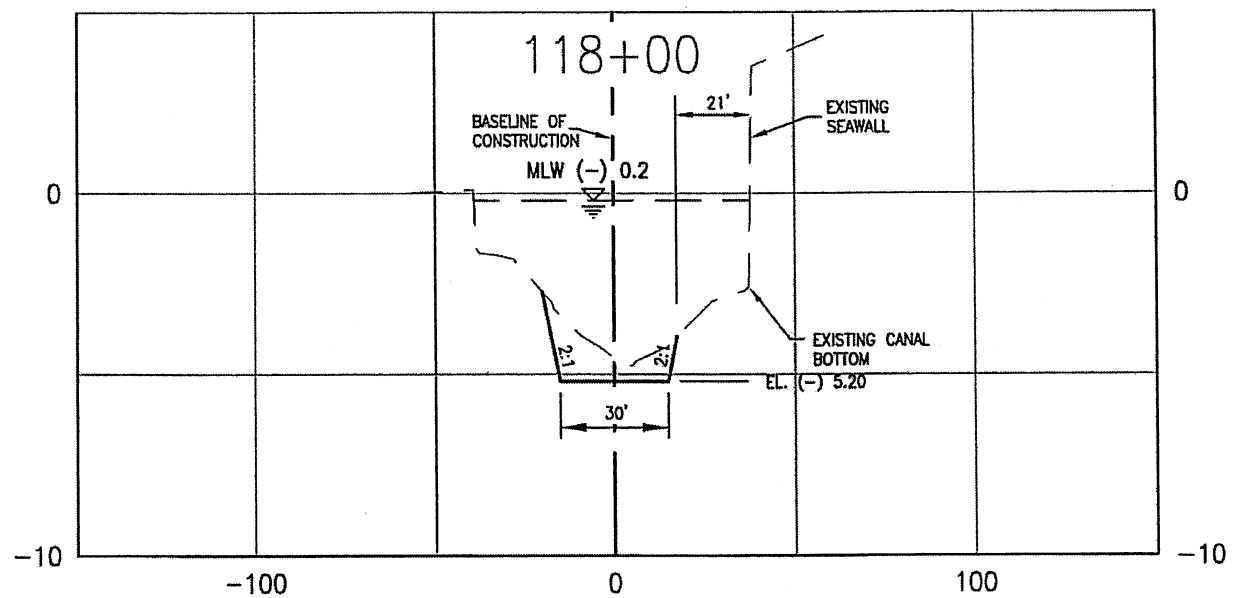
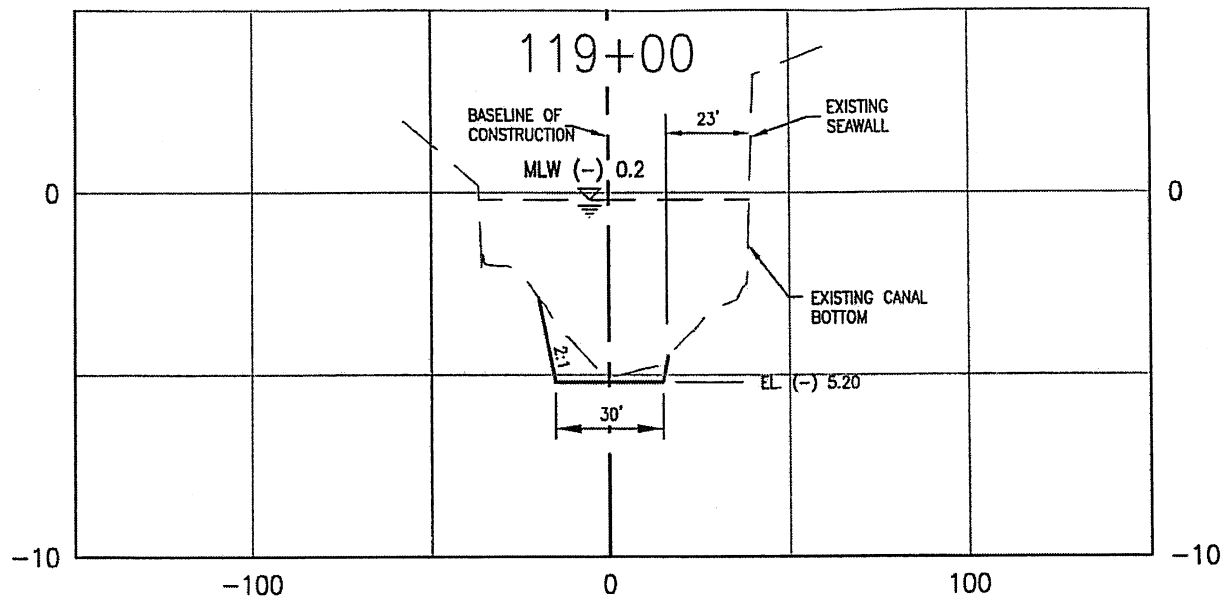
Applicant: Manatee County
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SCALE: 1" = 50' HORIZ.

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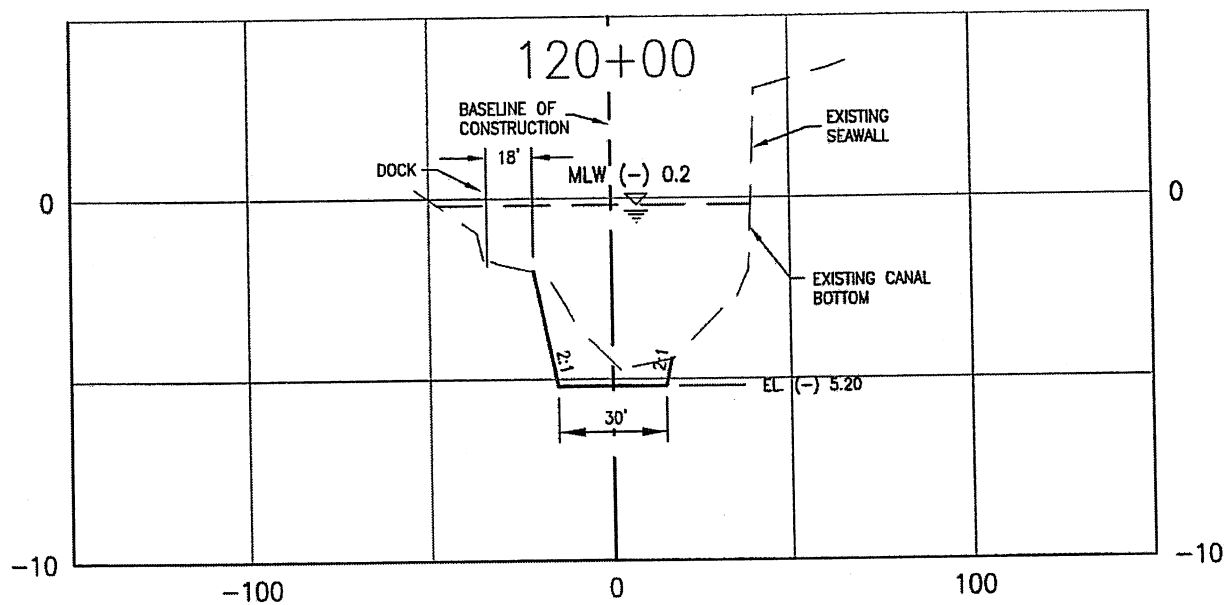
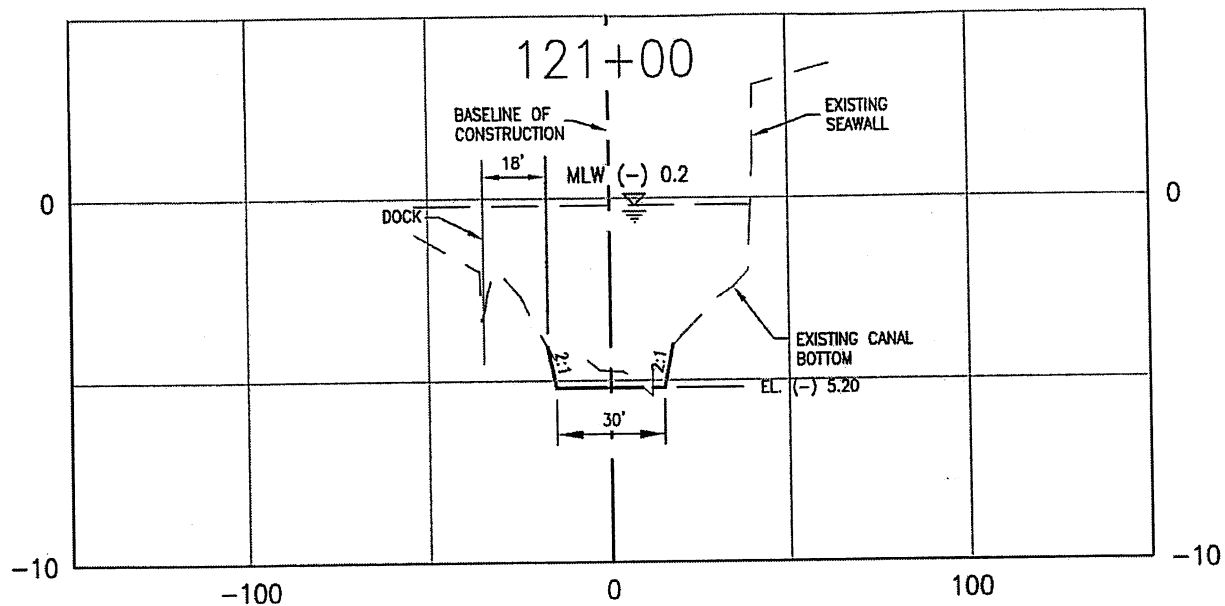
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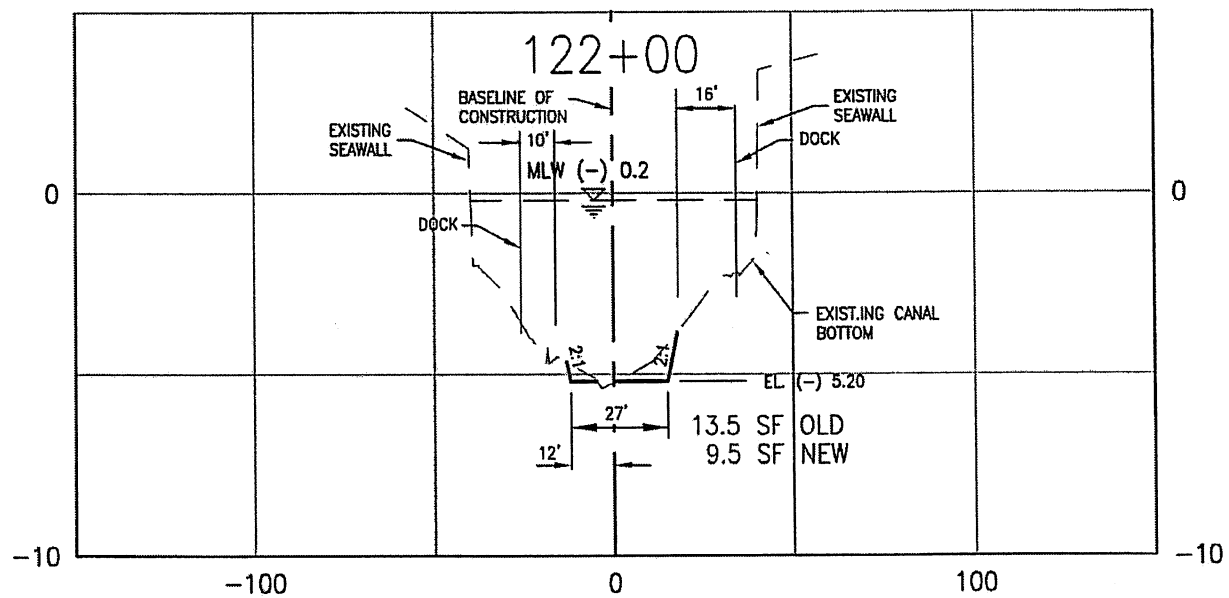
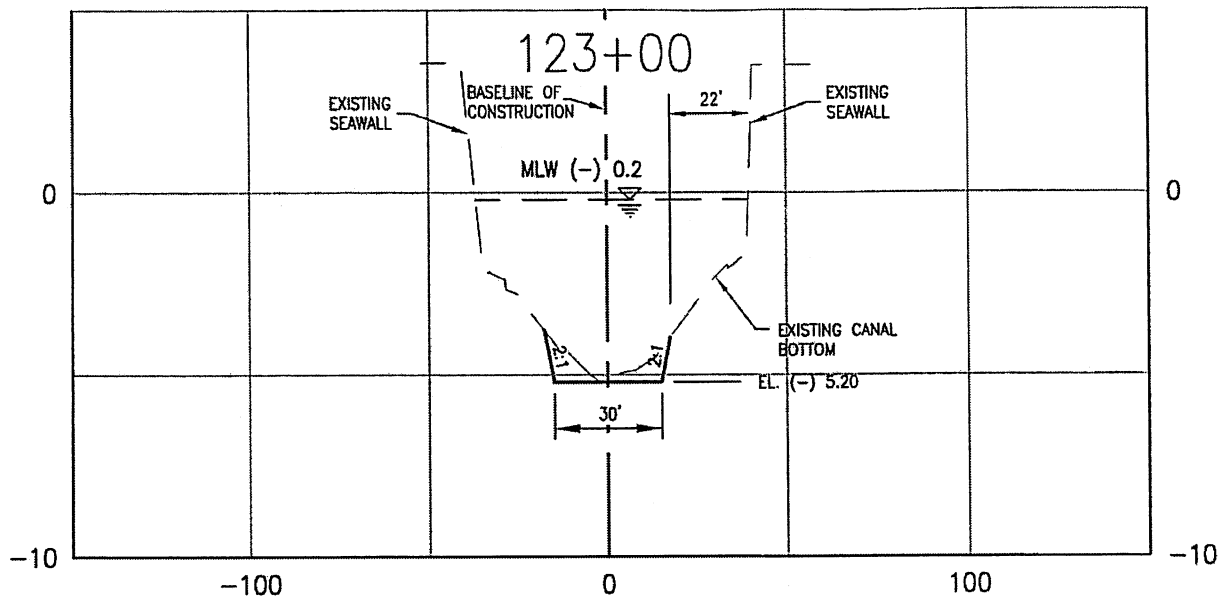
Applicant: Manatee County
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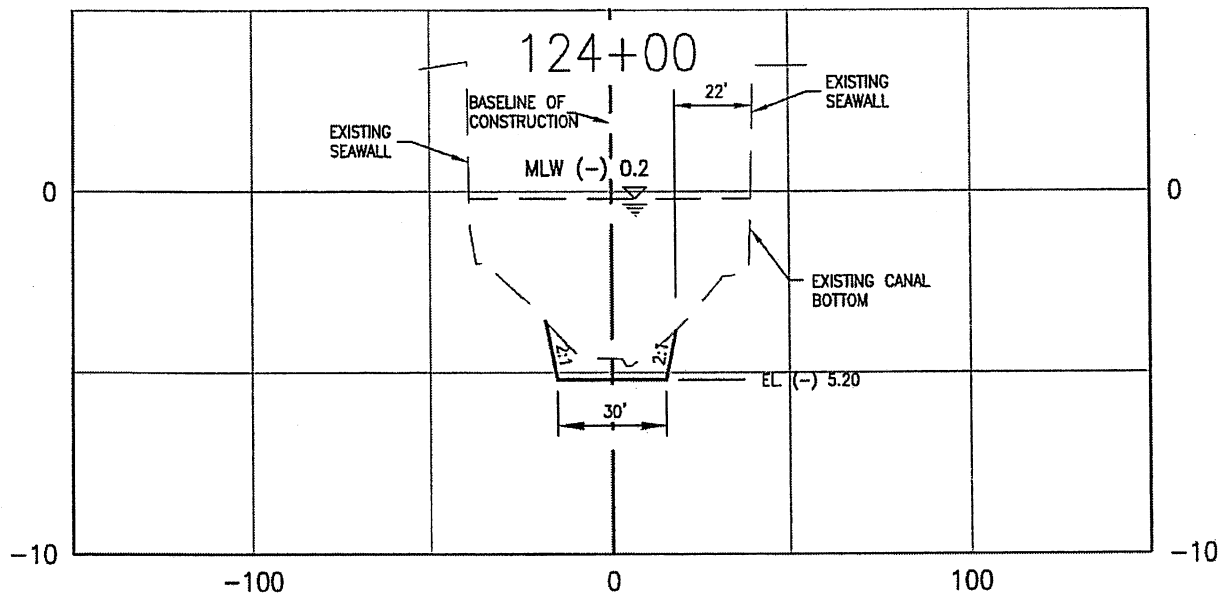
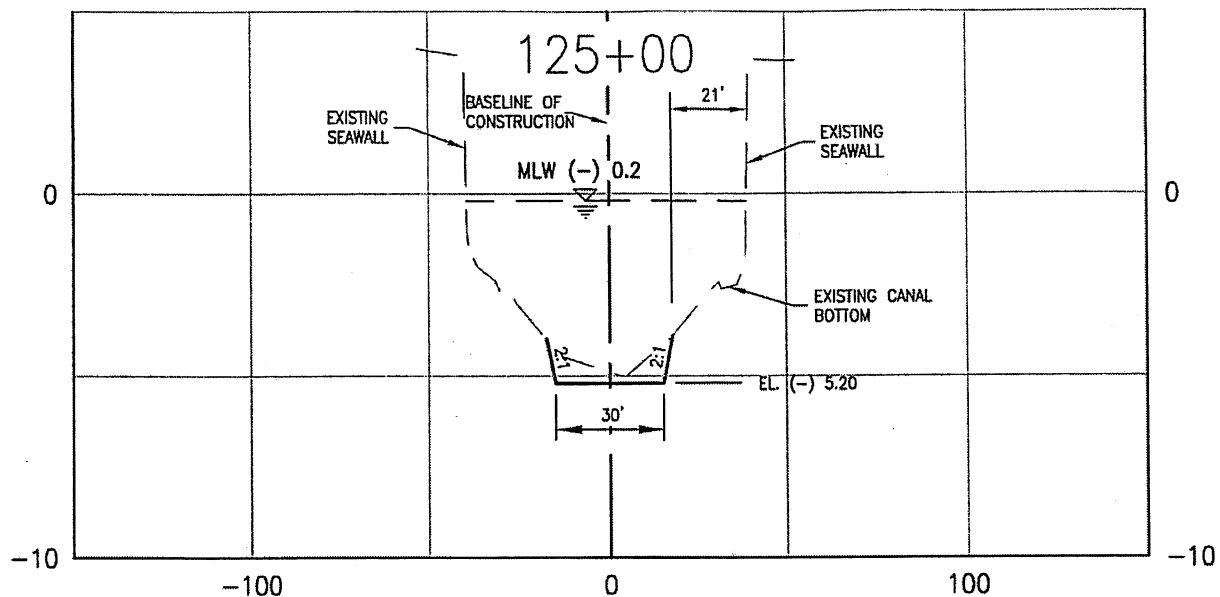
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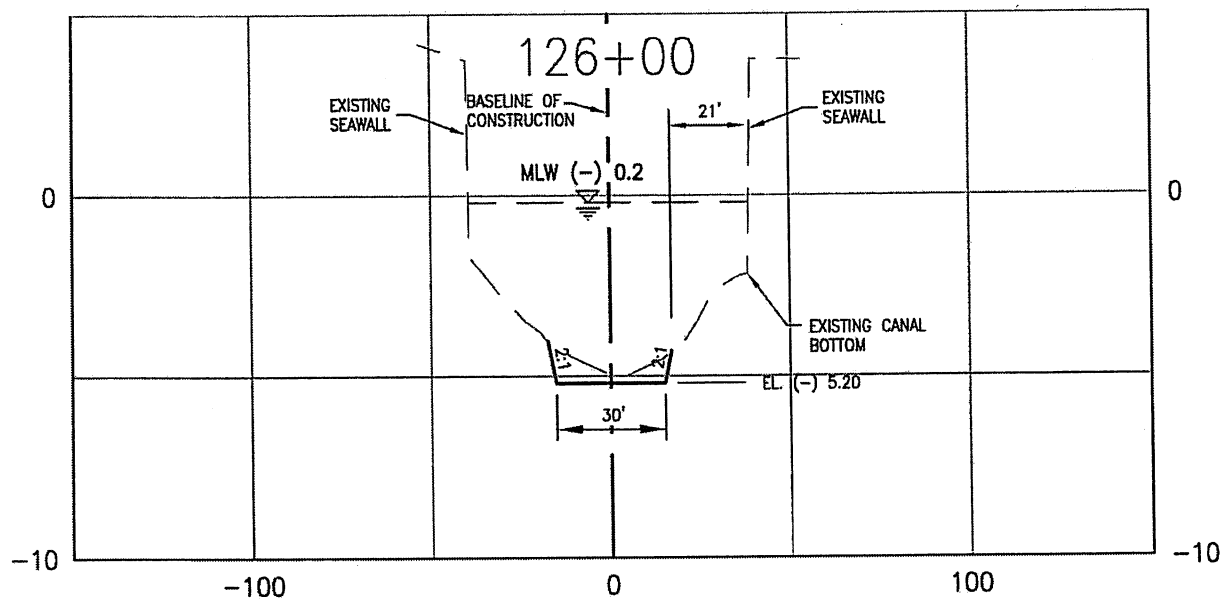
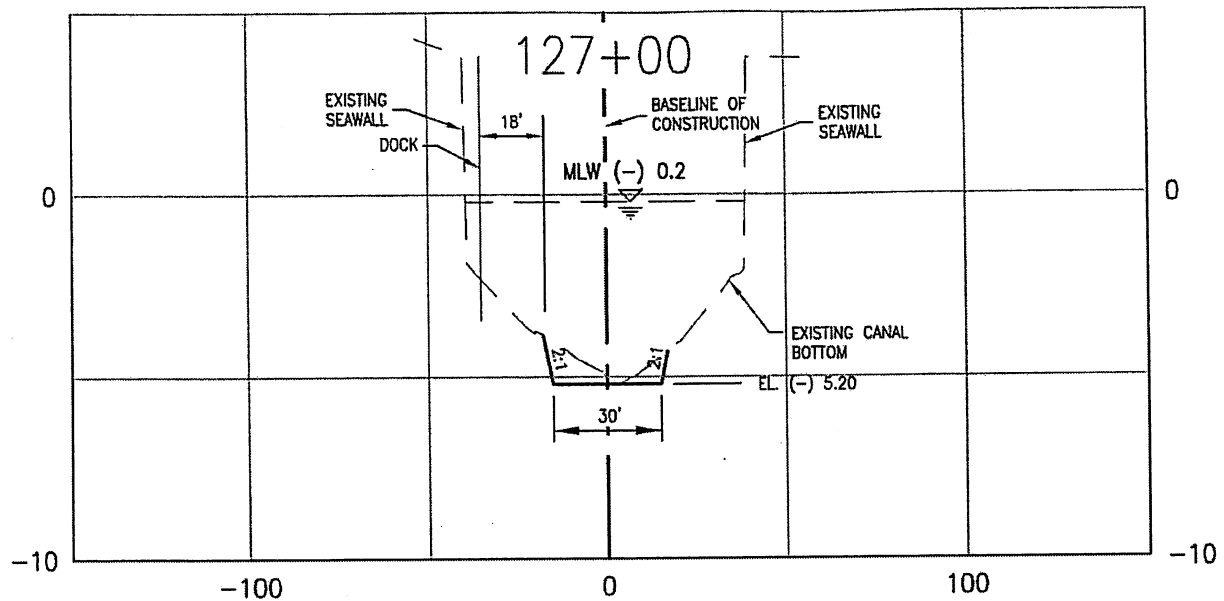
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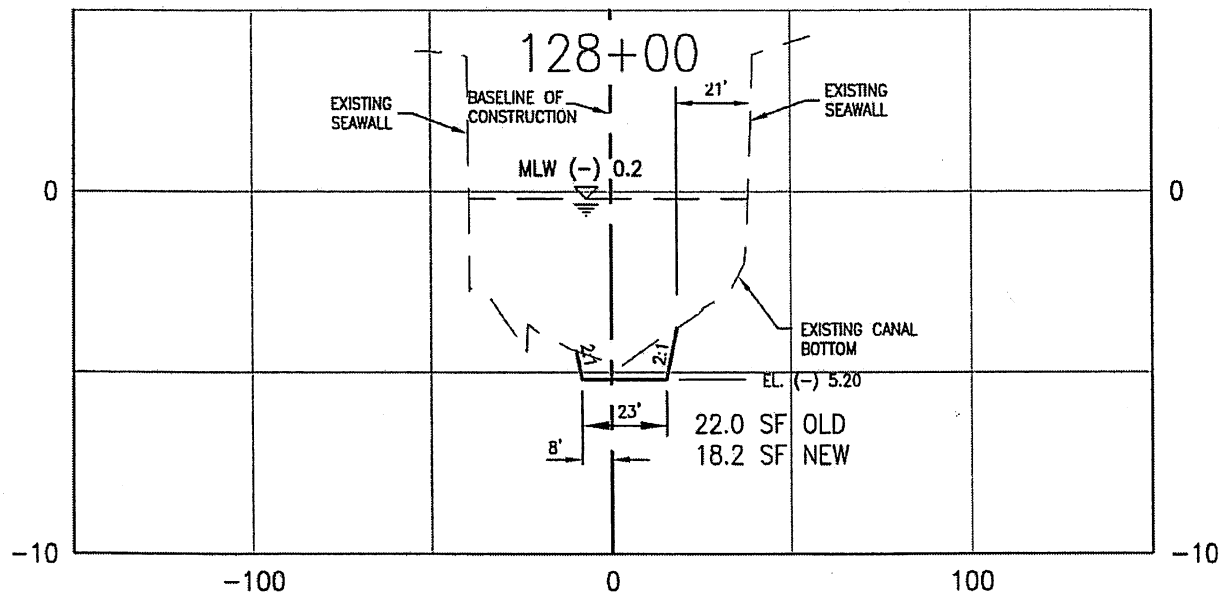
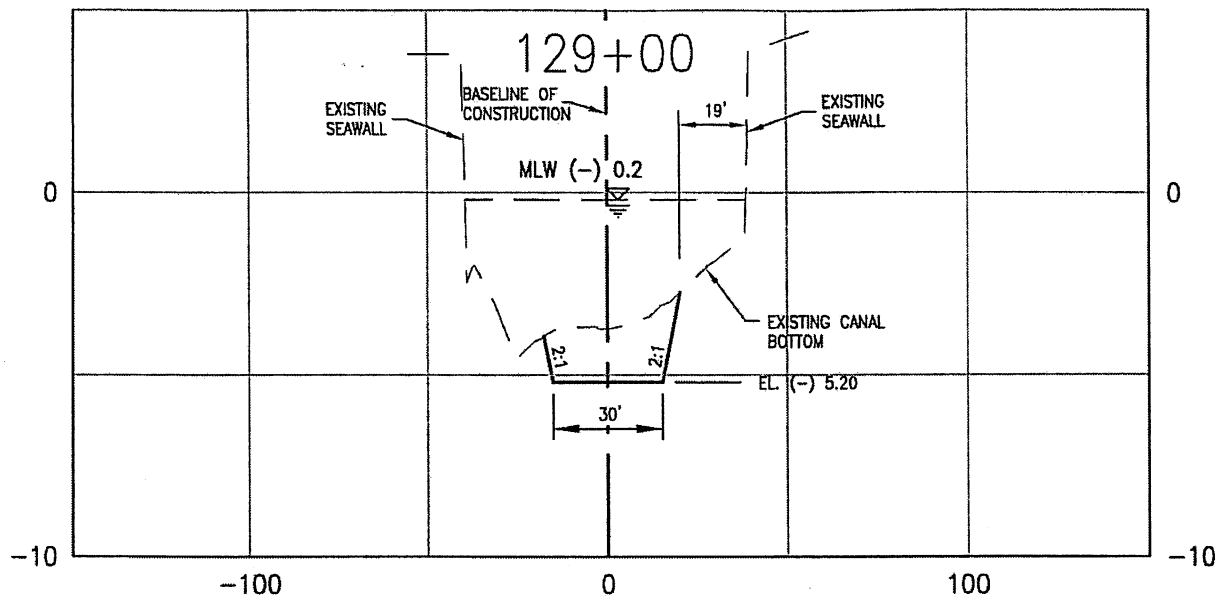
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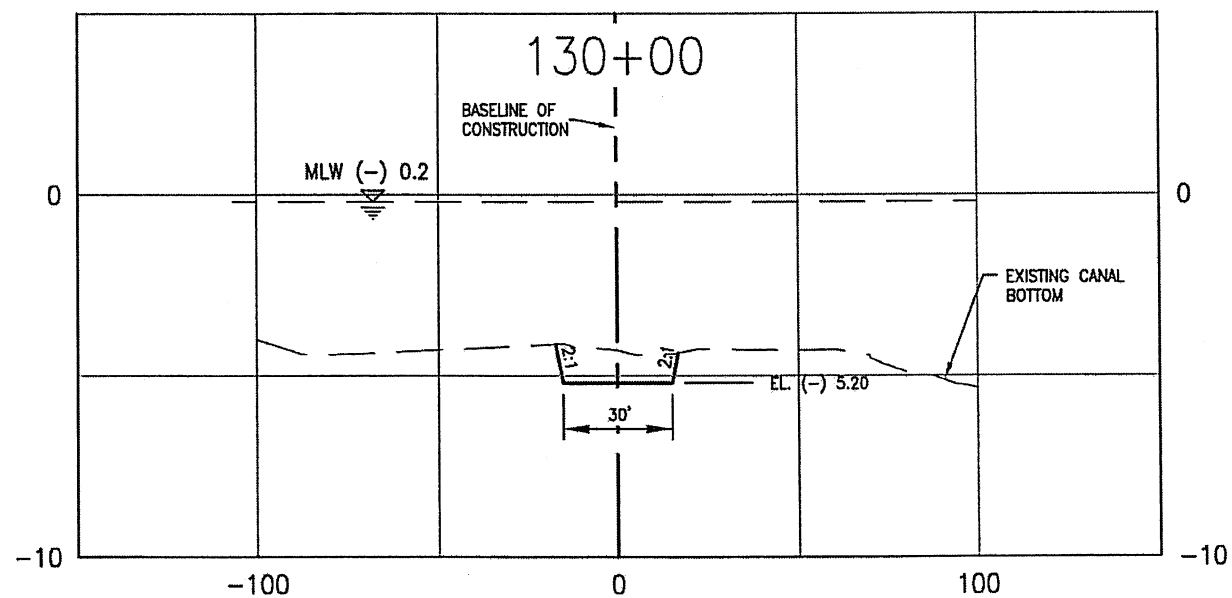
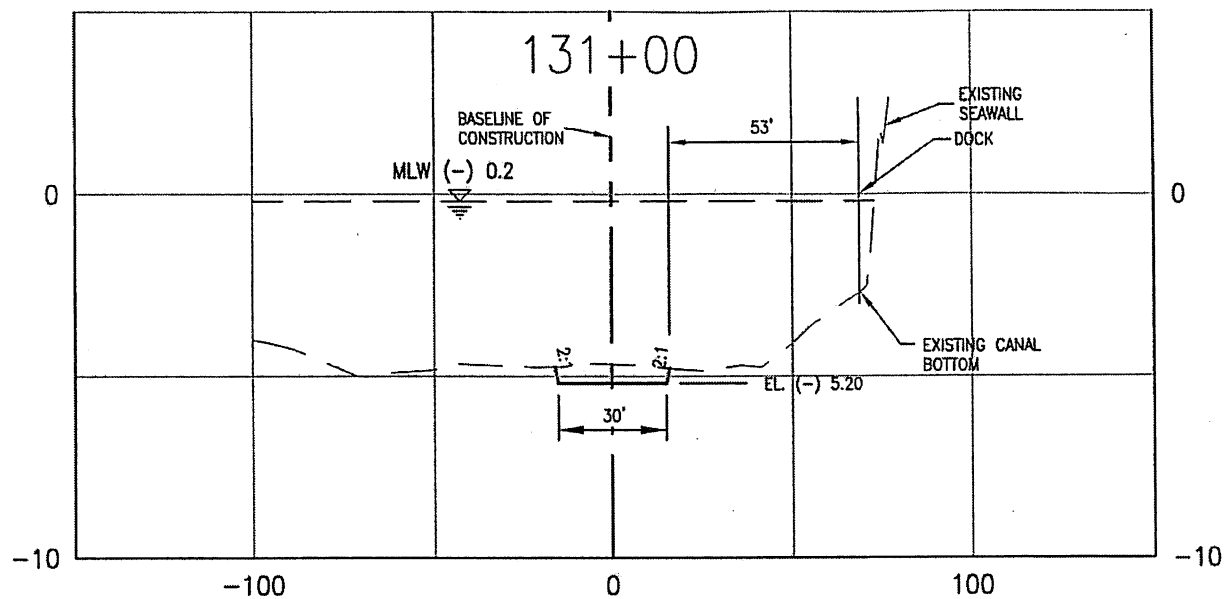
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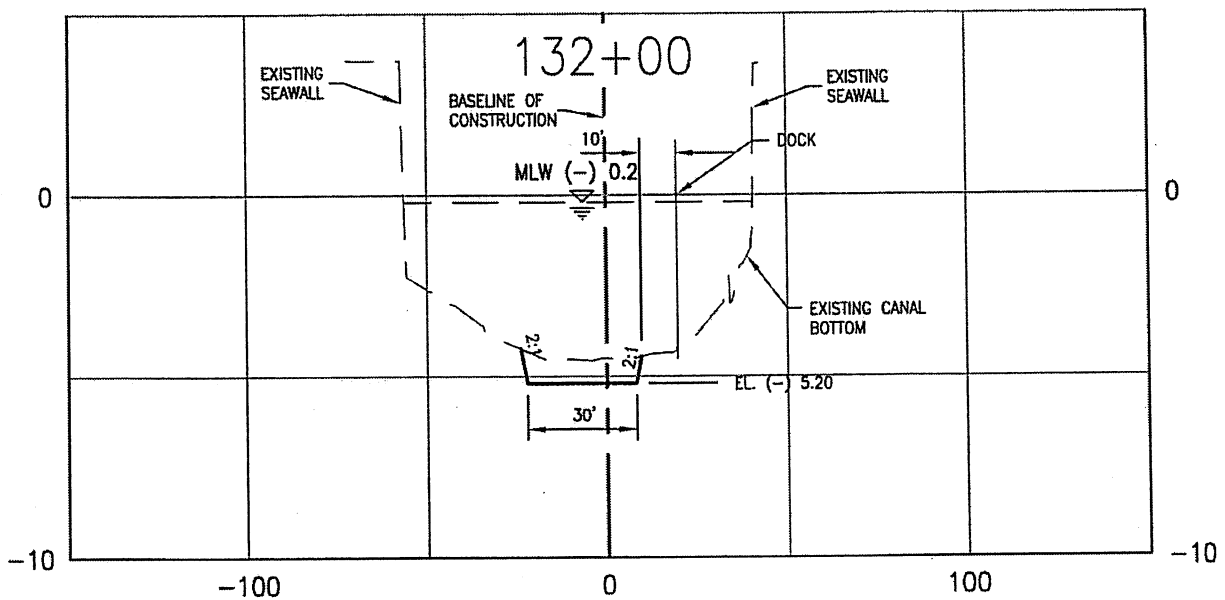
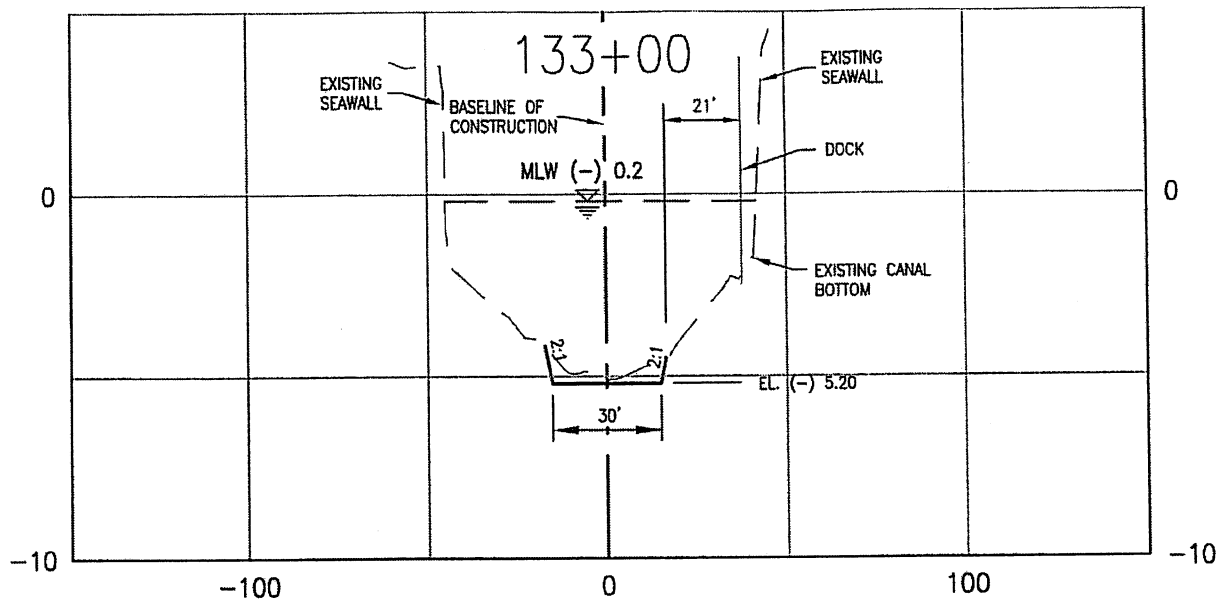
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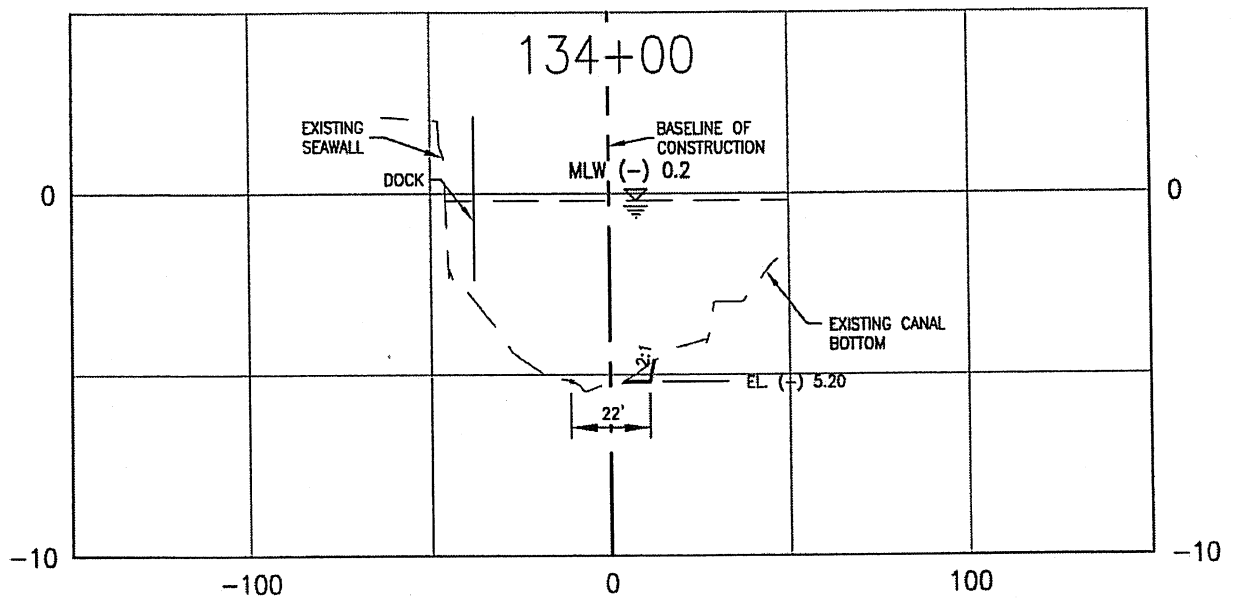
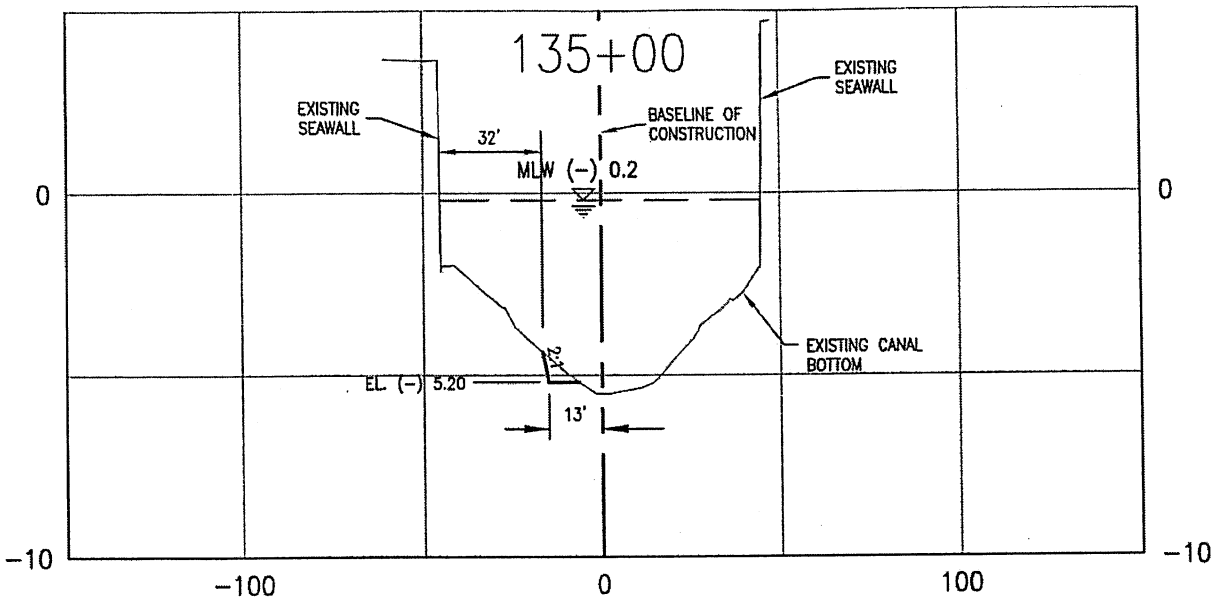
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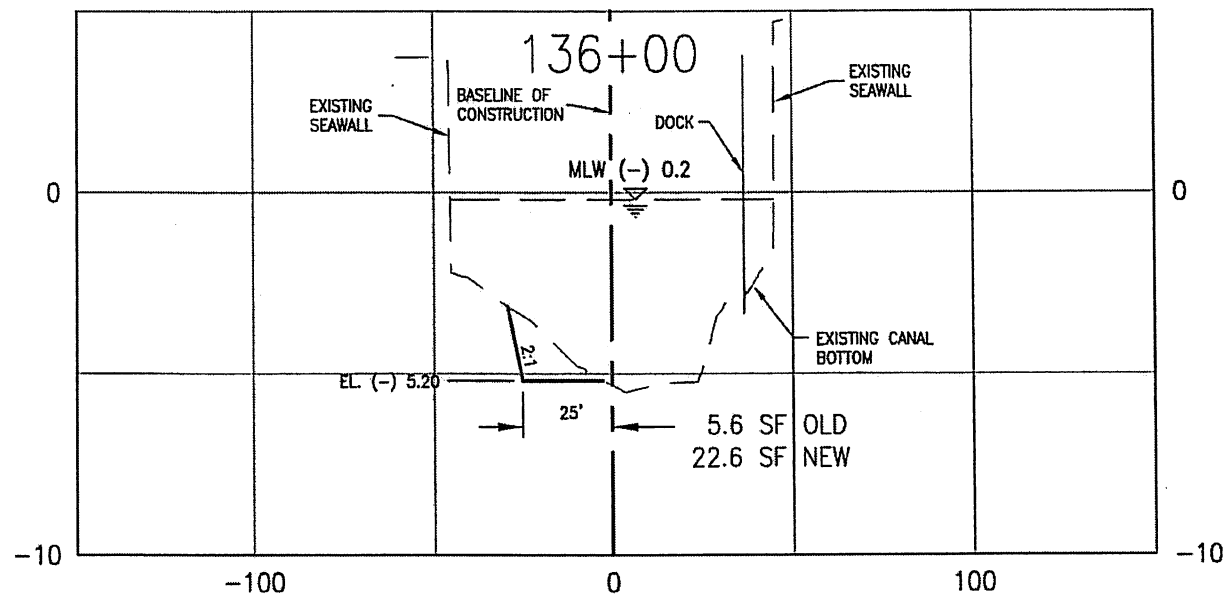
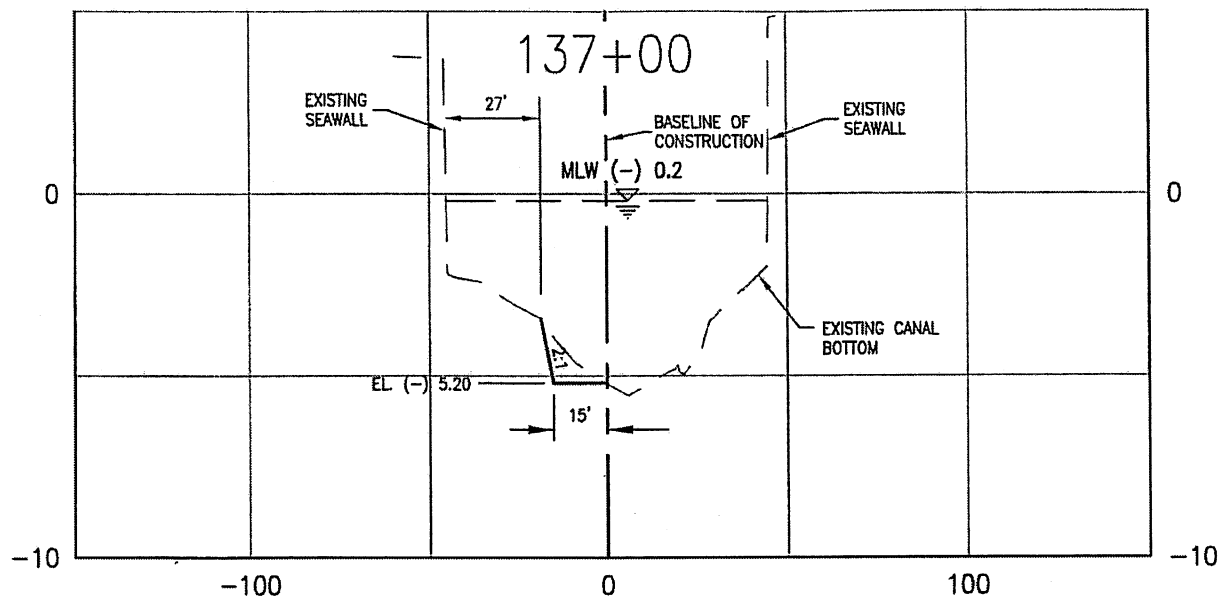
Applicant: Manatee County
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T 941.377.8858 F 941.371.2569
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SCALE: 1' = 50' HORIZ.

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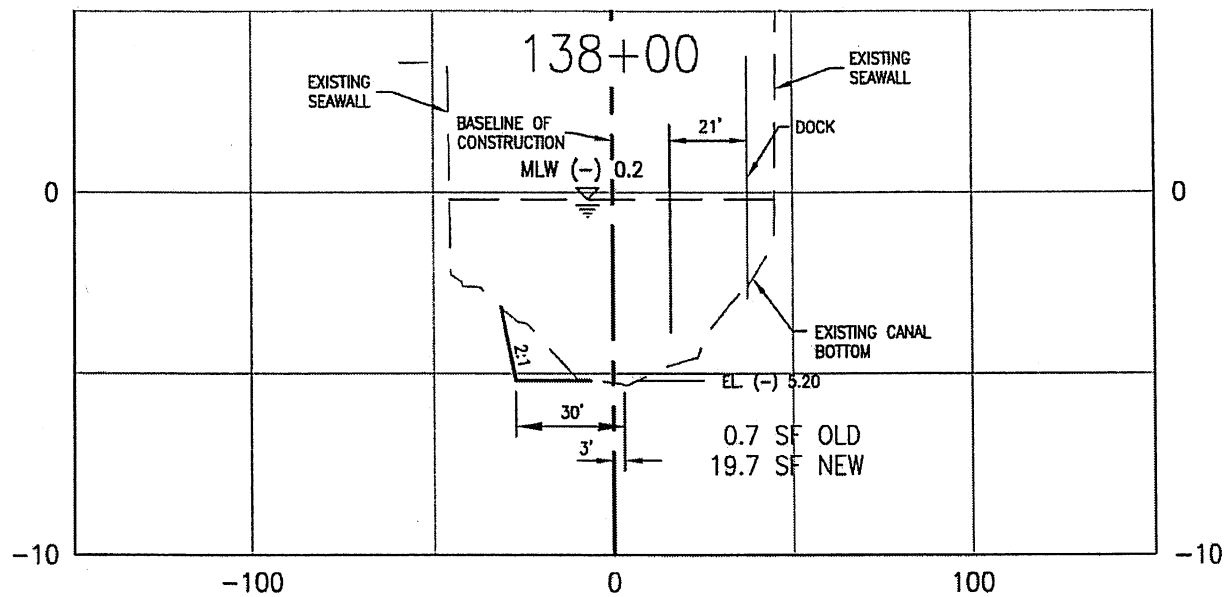
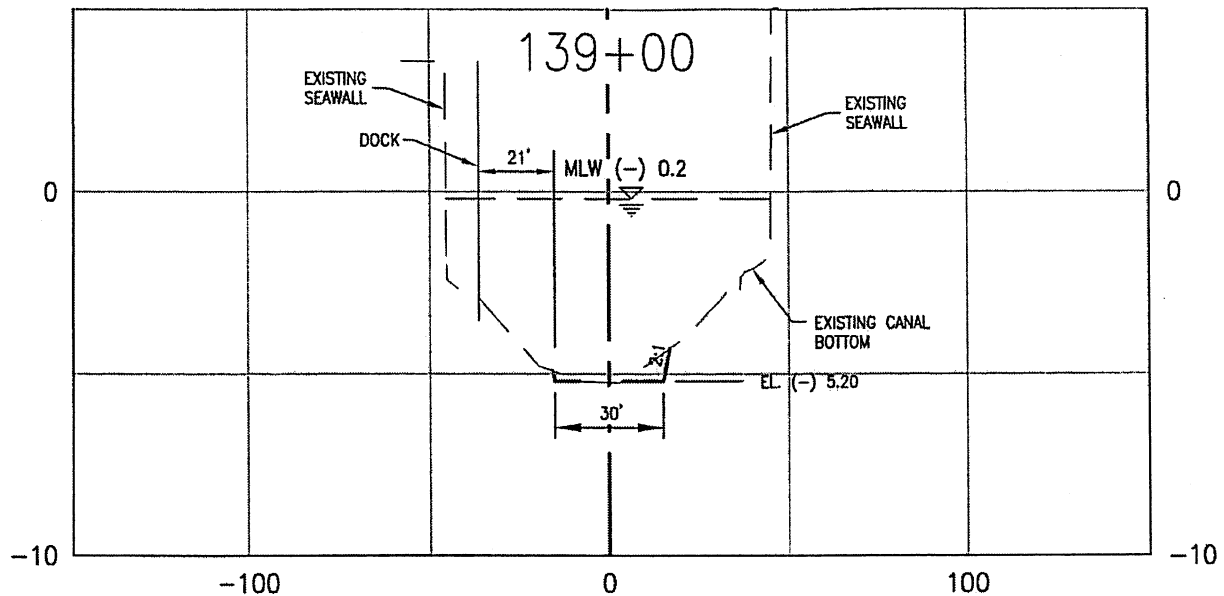
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
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AECOM

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5671 Cottle Ridge Boulevard, Suite 200
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T 941.377.8858 F 941.371.2569
FL Engineering Business No. EB-38
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SCALE: 1"= 50' HORIZ.

SCALE: 1"= 5' VERT.

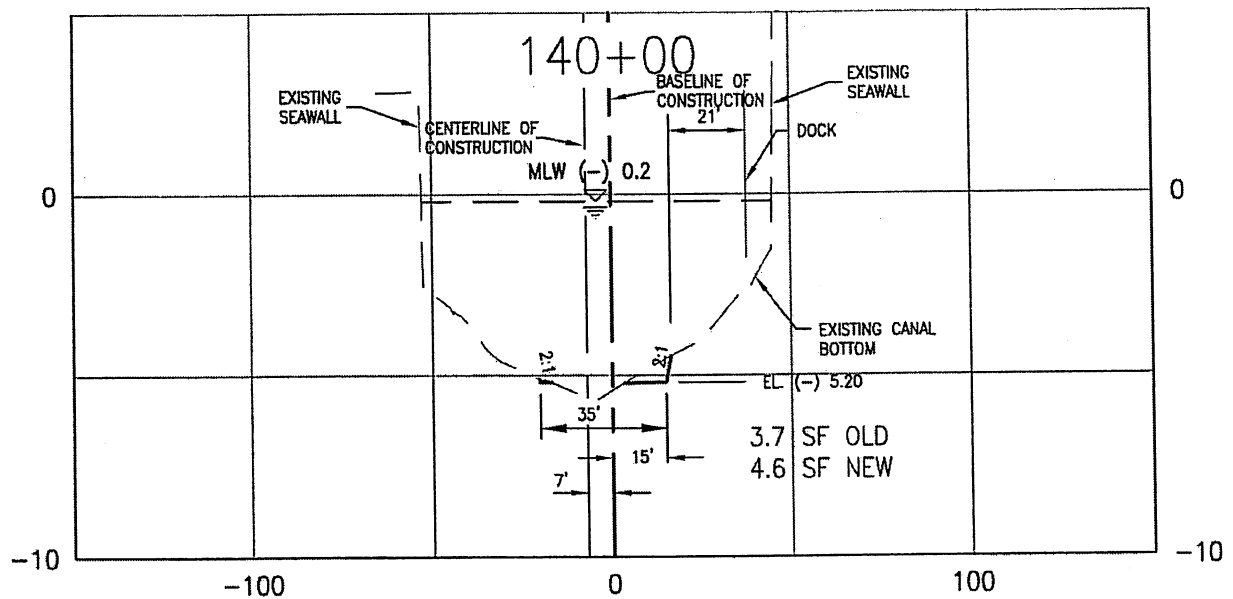
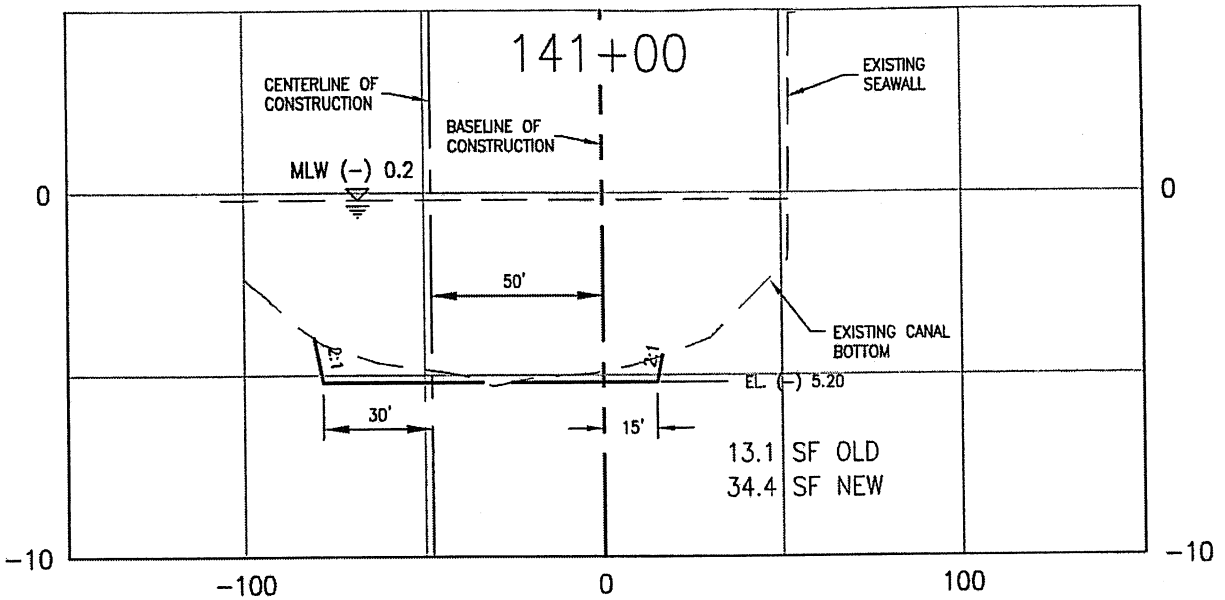
Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

CROSS-SECTIONS

Date: December 2009

AECOM

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5871 Cottle Ridge Boulevard, Suite 200
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T 941.377.8858 F 941.371.2569
FL Engineering Business No. EB-38
www.aecom.com



SCALE: 1' = 50' HORIZ.
SCALE: 1' = 5' VERT.

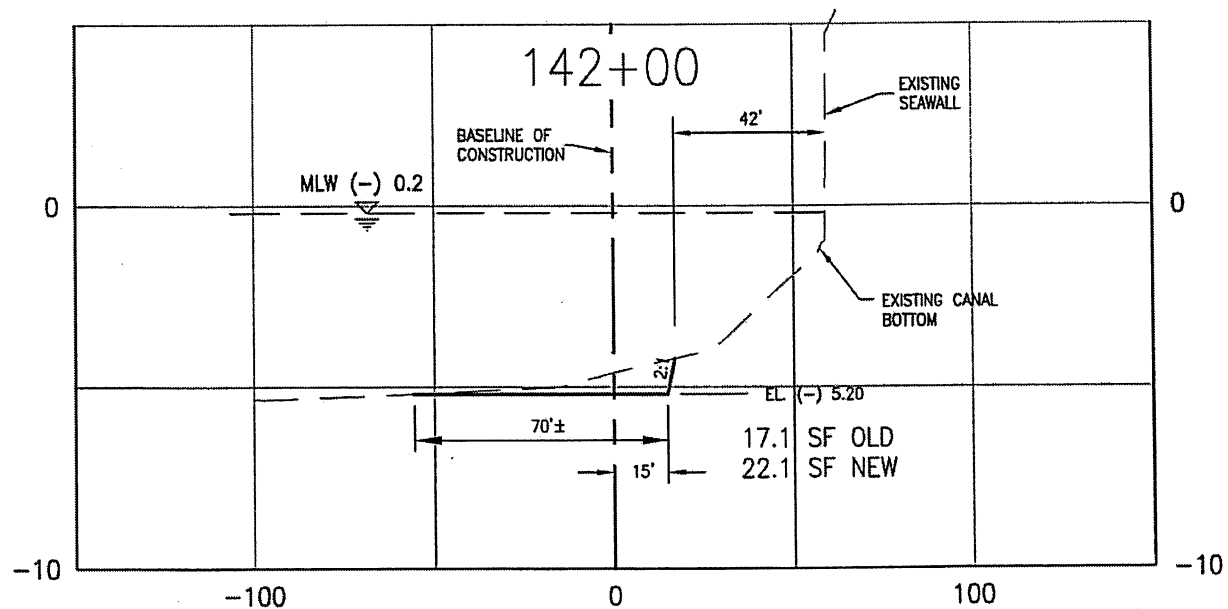
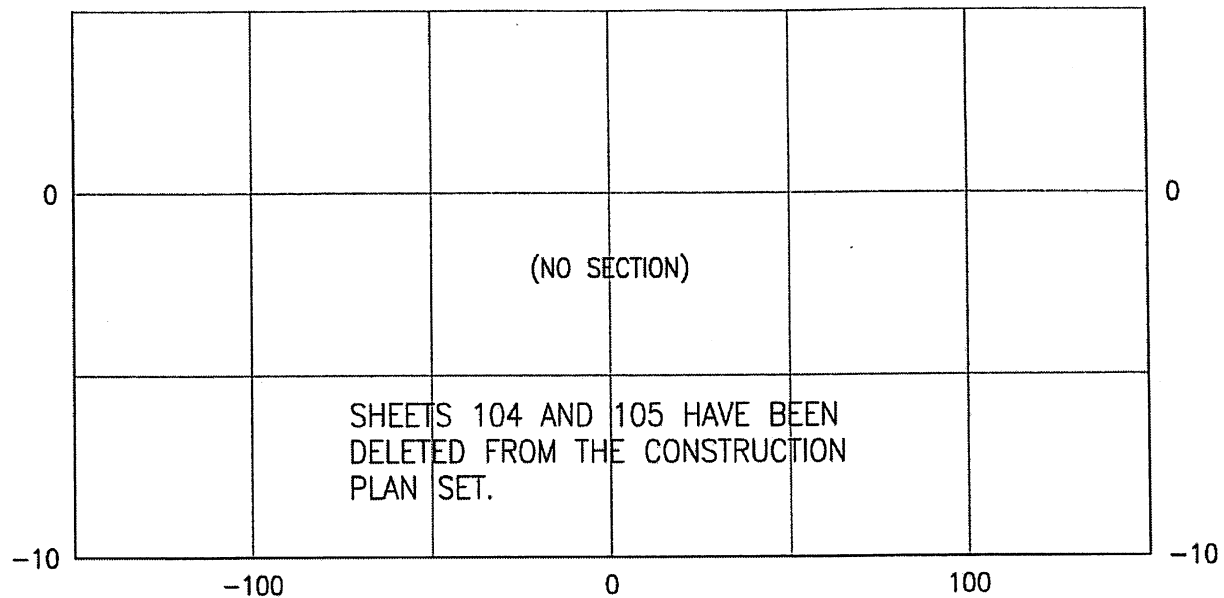
Applicant: Manatee County
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INTENTIONALLY
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Applicant: Manatee County
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County: Manatee
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CROSS-SECTIONS

Date: December 2009

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5971 Cottle Ridge Boulevard, Suite 200
Sarasota, Florida 34232
T 841.377.8858 F 841.371.2569
FL Engineering Business No. EB-38
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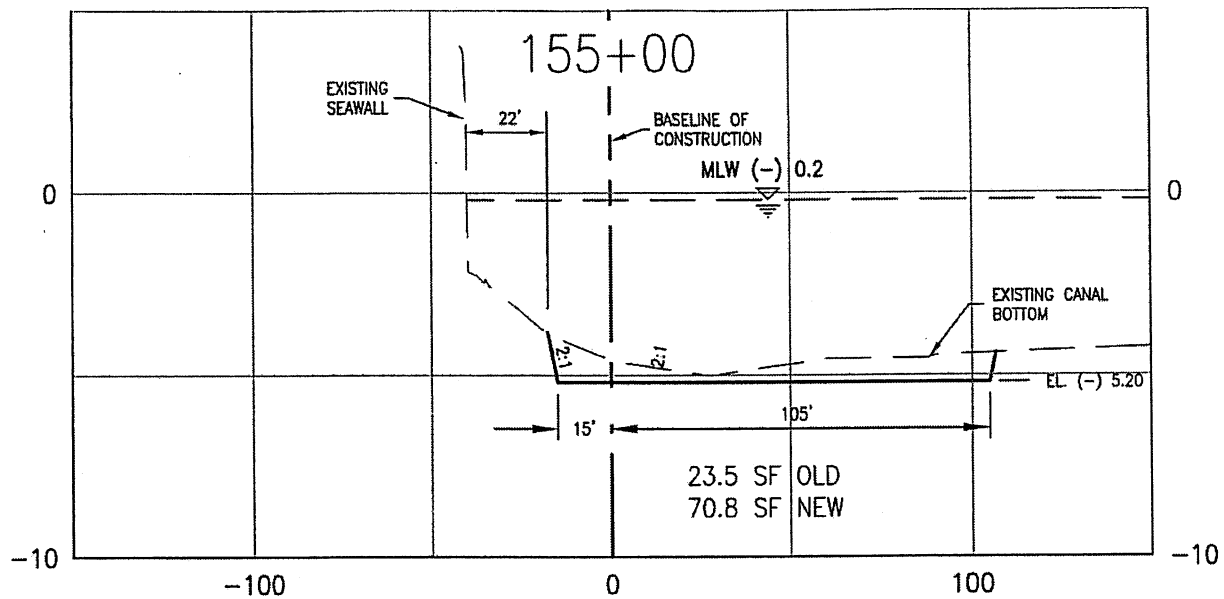
Applicant: Manatee County
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NO SECTION

SCALE: 1' = 50' HORIZ.

SCALE: 1' = 5' VERT.

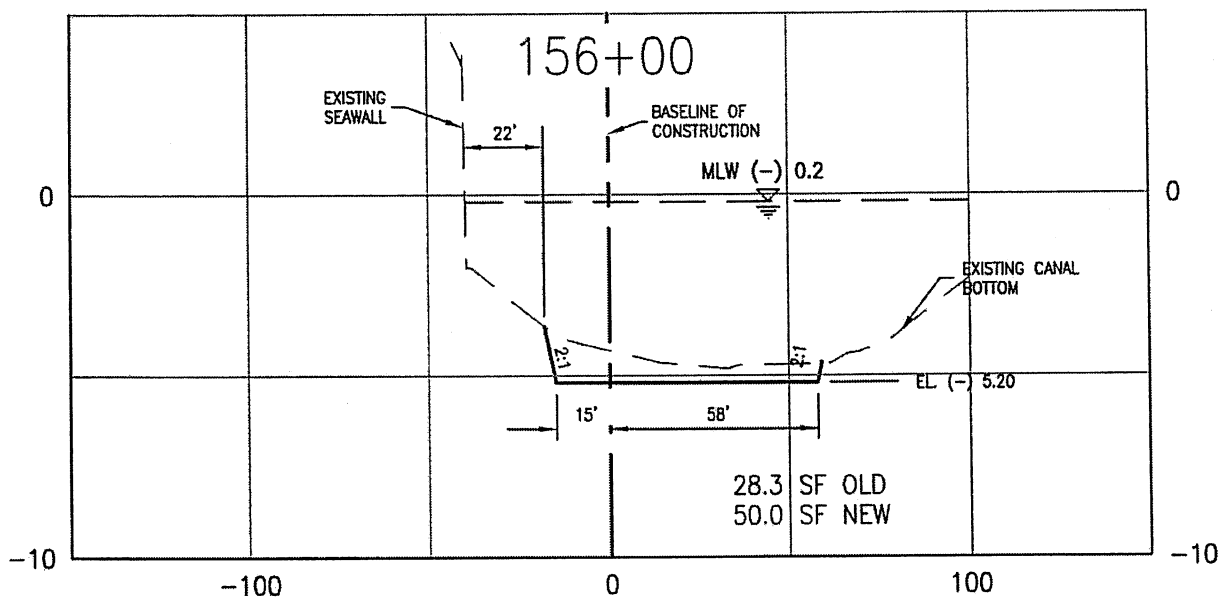
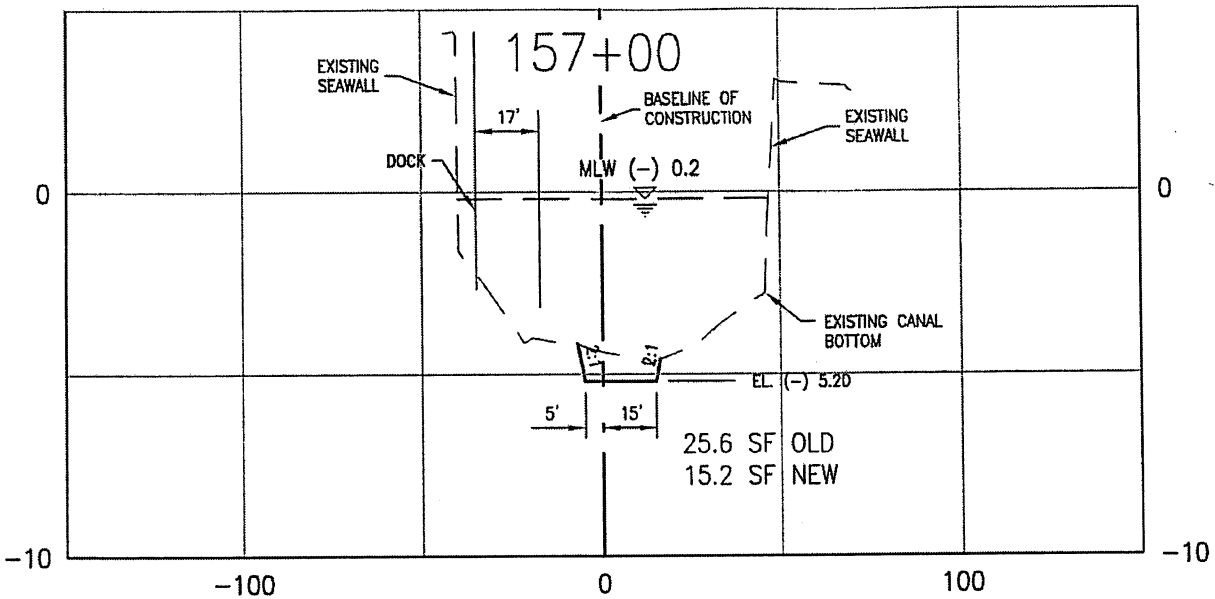
Applicant: Manatee County
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SCALE: 1' = 50' HORIZ.
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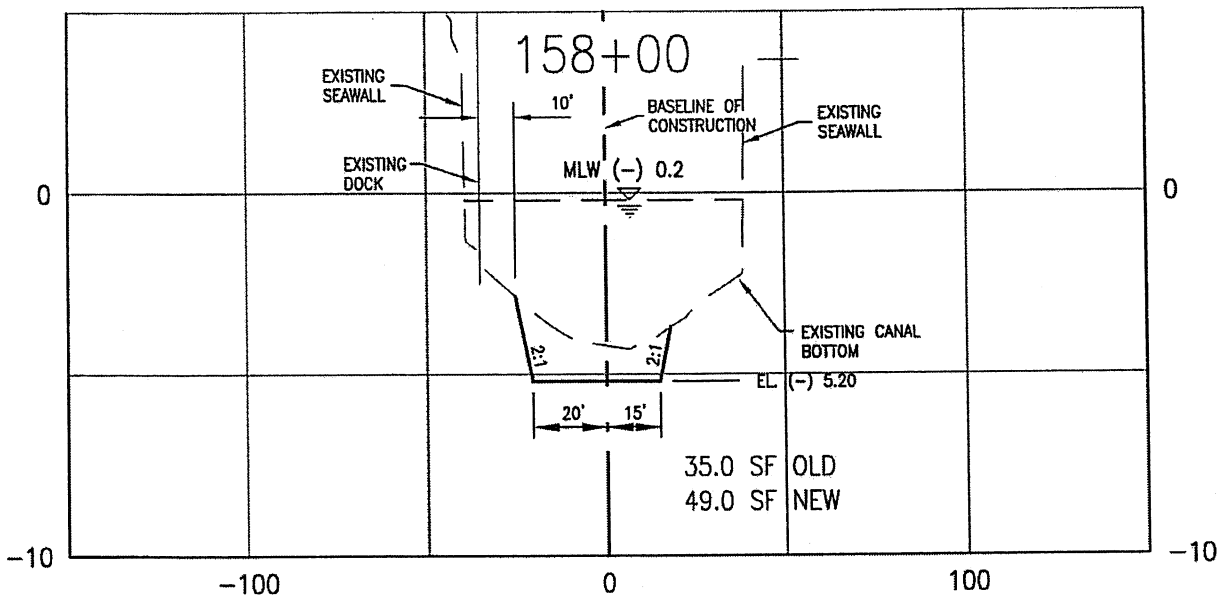
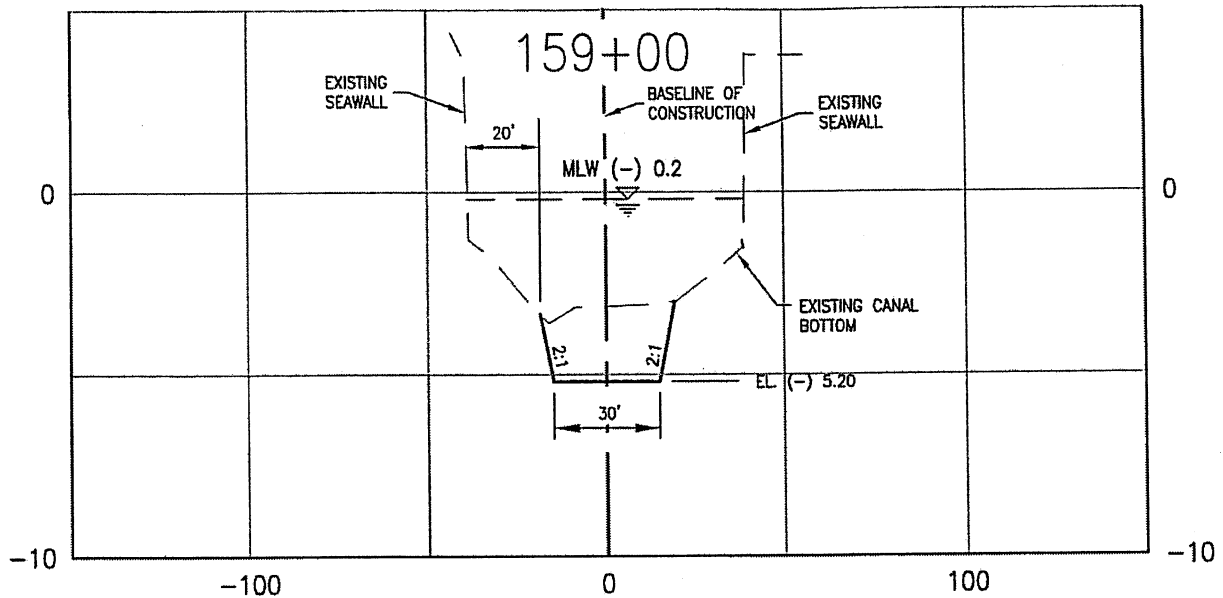
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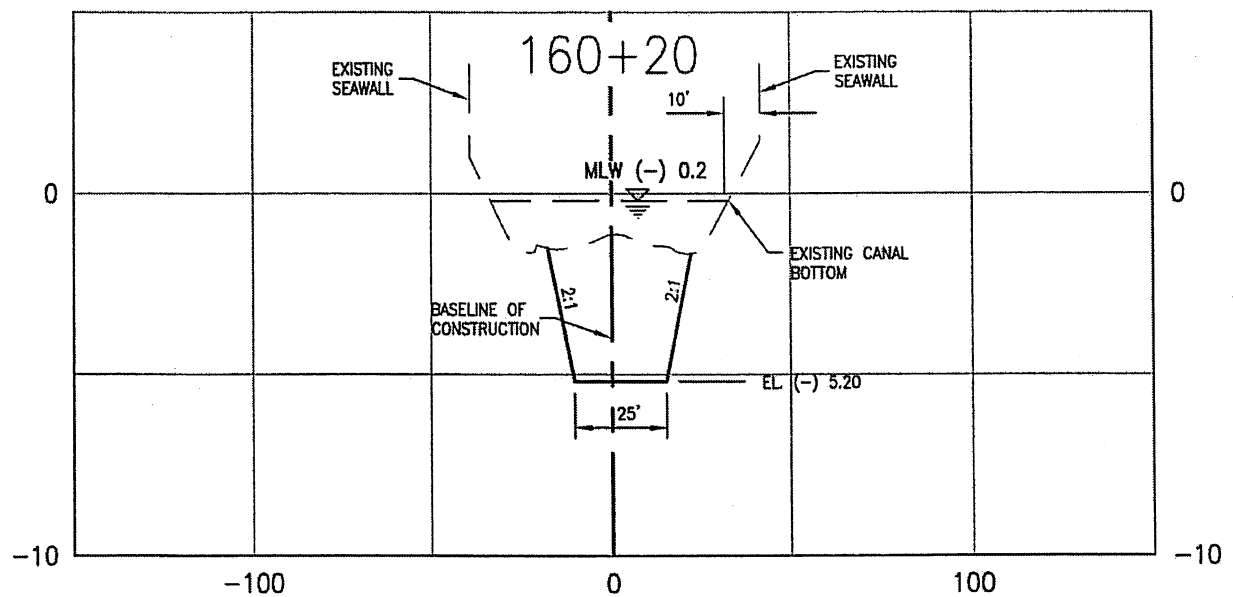
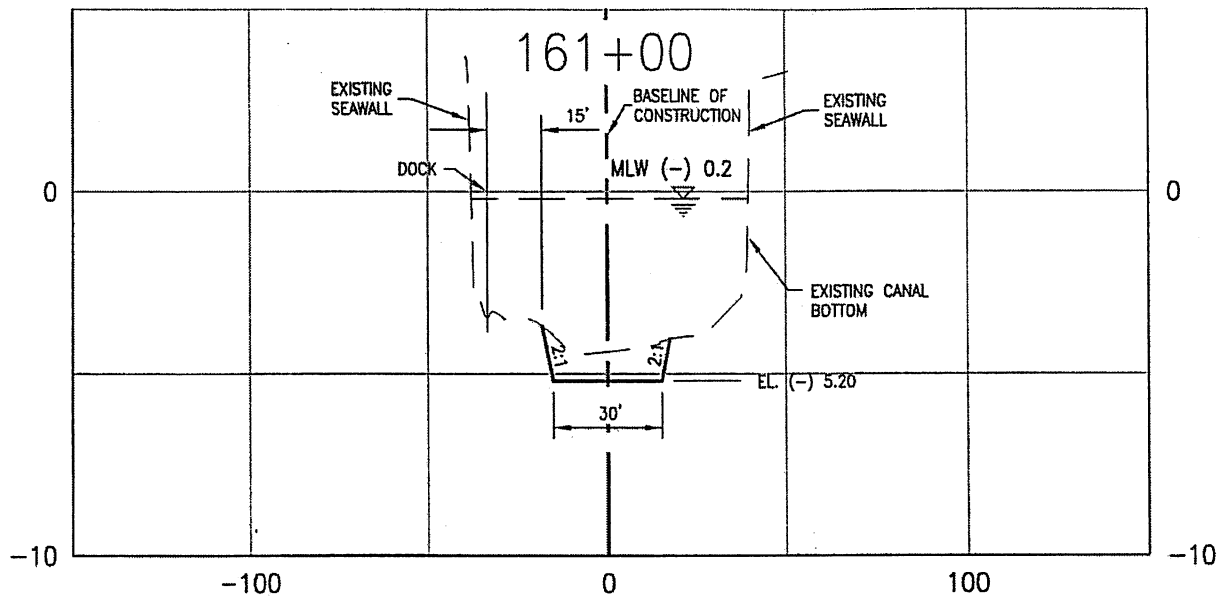
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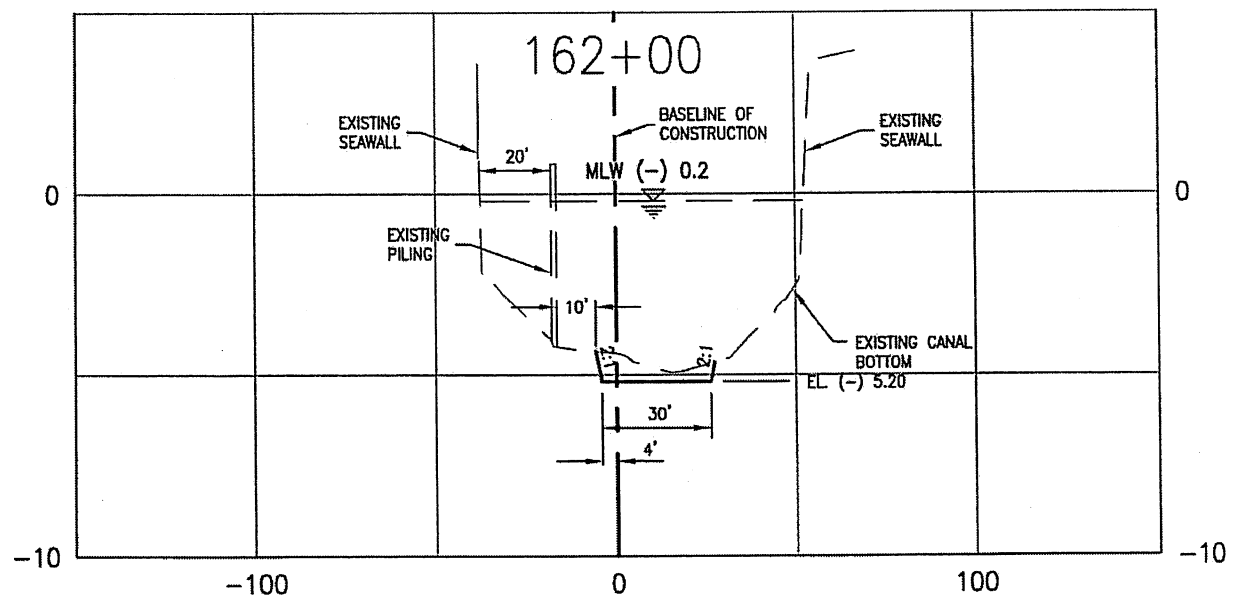
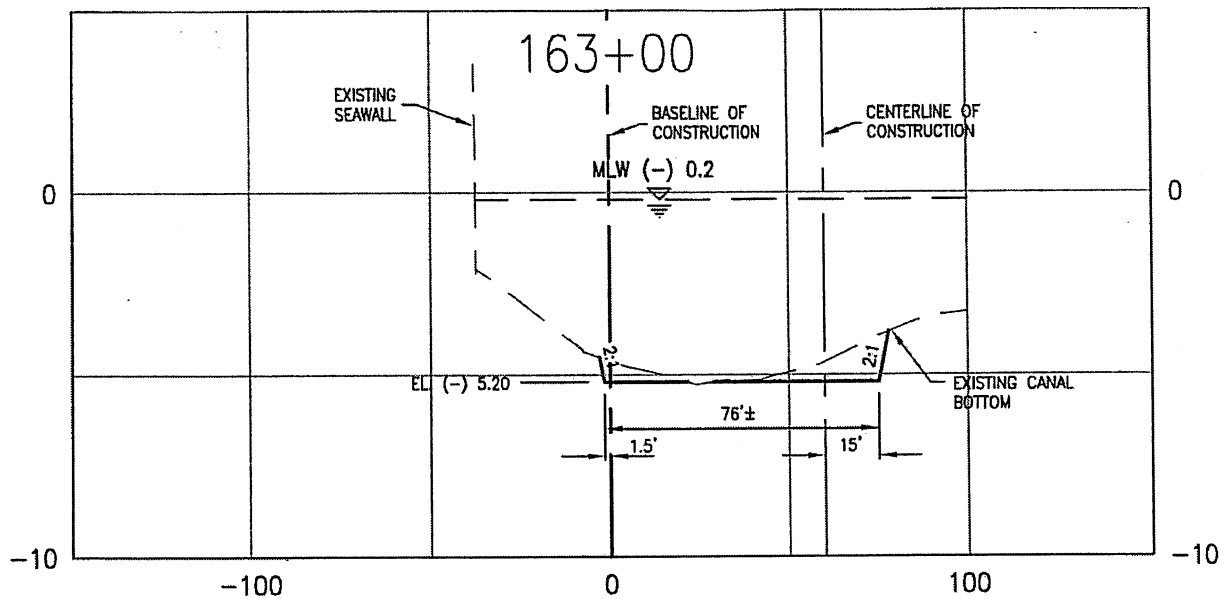
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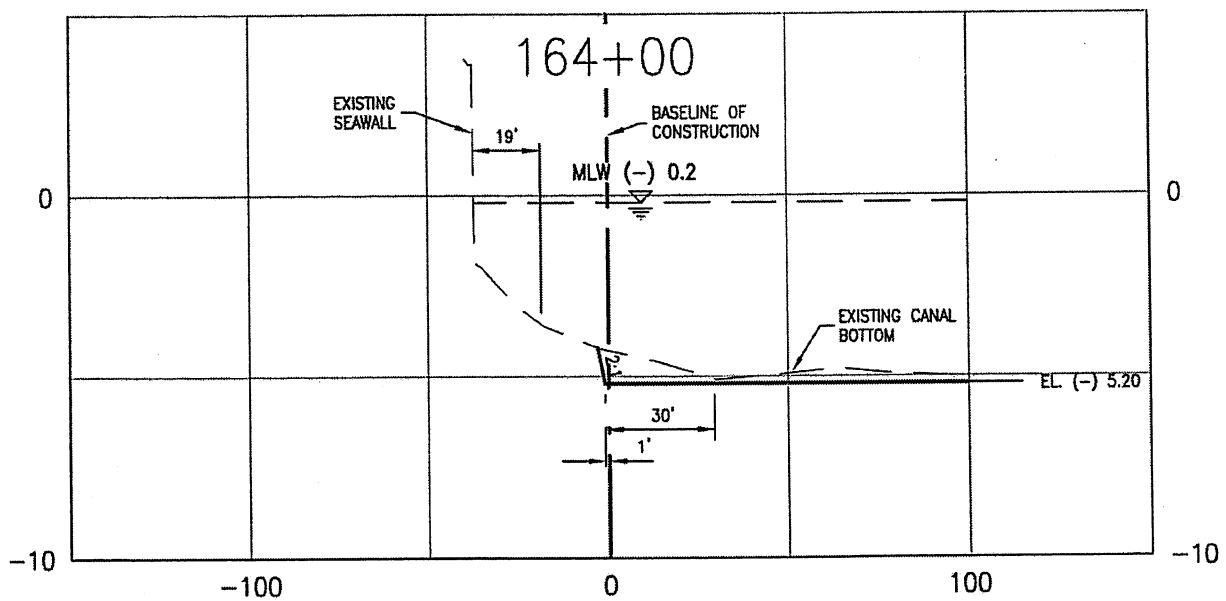
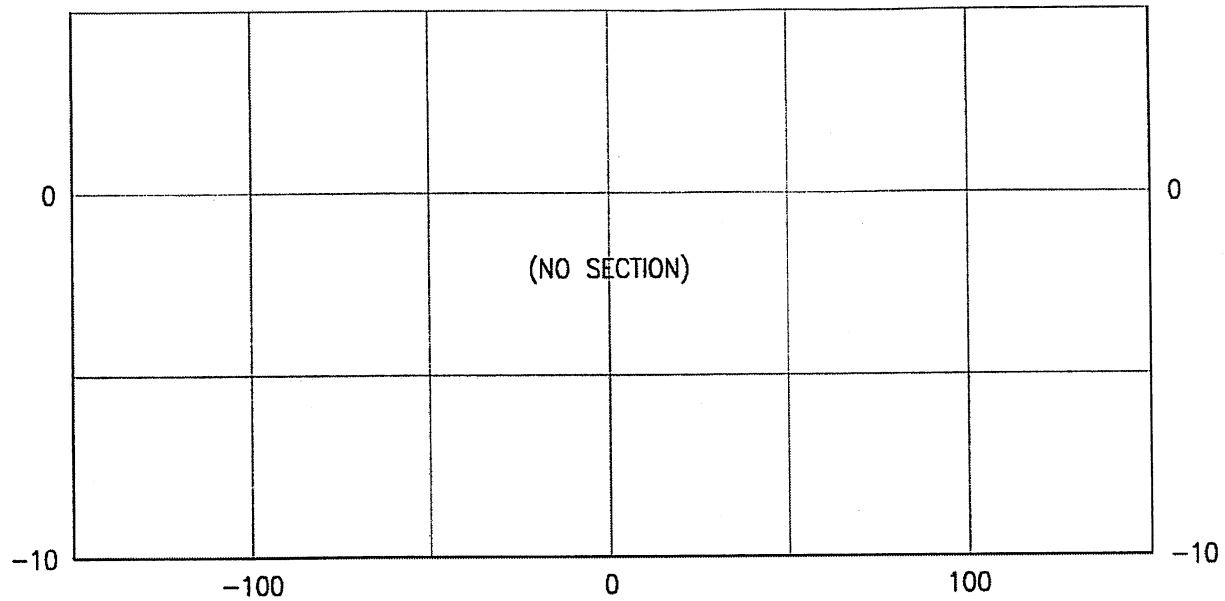
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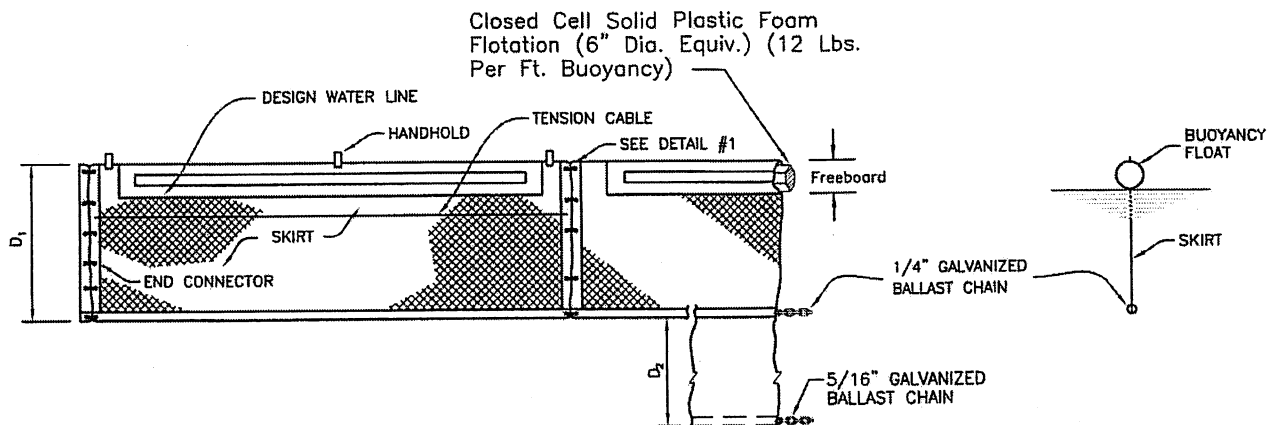
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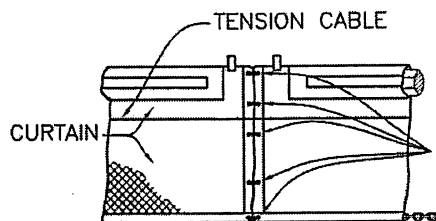
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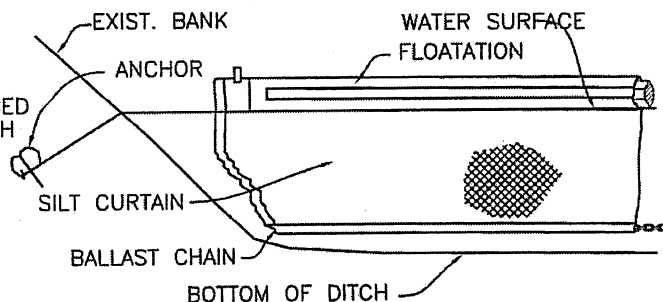


D_1 = 5' Std. (Single Panel For Depths 5' or Less).
 D_2 = 5' Std. (Additional Panel For Depths 5').
 Curtain To Reach Bottom Up To Depths Of 10 Feet.
 Two(2) Panels To Be Used For Depths Greater Than
 10 Feet Unless Special Depth Curtains Specifically Called
 For In The Plans Or As Determined By The Engineer.

TYPICAL CENTER-TENSION SILT CURTAIN

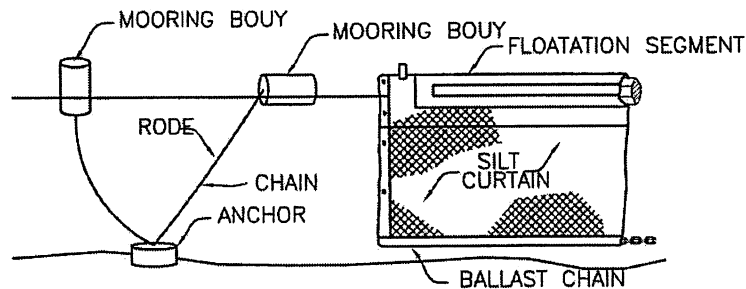


SILT CURTAIN CONNECTION



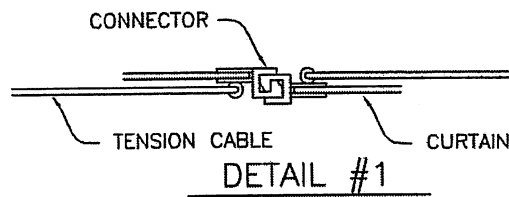
SILT CURTAIN MOORING

LAND BASED



SILT CURTAIN MOORING

OPEN WATERS



NOTE:
 Detail #1 shows aluminum extrusion connectors
 recommended for joining silt curtain sections.

Applicant: Manatee County
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TUBIDITY BARRIER
 Date: December 2009

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GUIDE LINES FOR USE

1) Anchor curtain in a semi-circular or UOshaped configuration around intended working area. Ends of curtain should be anchored adjacent to sea wall. The required work radius of the configuration is determined by the total length of curtain for the project.

SEE FIGURE 1.

2) The recommended mooring system consists of an anchor, chain, anchor rode (line or cable) and mooring and crown bouy. The curtain is to be anchored on shore with suitable anchor material (iron rod, etc.) and 1/2" polypropylene line properly fastened to curtain. Curtain anchored off-shore is to consist of a mooring bouy fastened to the curtain with 1/2" polypropylene line. An anchor with a minimum weight of 25 pounds shall be fastened to the mooring bouy by chain and rode. A crown bouy is attached to anchor with 1/2" polypropylene line. the character of the bottom sediment/vegetation at deploy- ment site must be established to determine type of anchors used. Convenient anchor points on outer limits of site should also be noted. Anchor weight should be adjusted if current velocities increase.

3) Max. allowable clearance of 6" between the lower edge of skirt and wisting bottom in the disposal area at highest high tide. (SEE FIGURE 2)

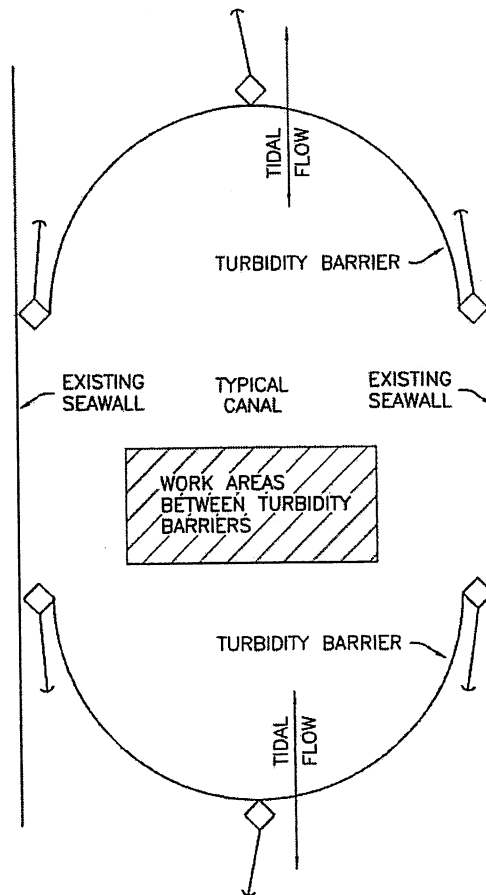


FIGURE 1

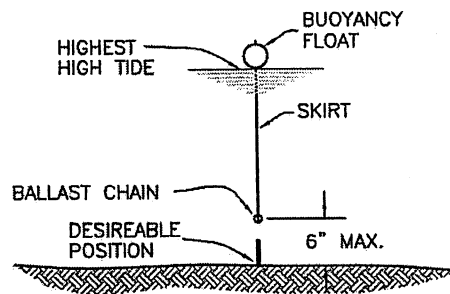


FIGURE 2

Applicant: Manatee County
Water Body: Coral Shores
County: Manatee
Datum: N.G.V.D. 1929

TUBIDITY BARRIER
Date: December 2009

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- 4) After unfurled curtain has been anchored, check to ensure the skirt is not twisted around floatation.
- 5) If the barrier needs to be repositioned or moved to next work area, repeat steps 1, 2, 3 and 4.
- 6) Replace worn or broken anchor lines, repair leaking connectors and tears in curtain fabric. Improper maintenance will decrease curtains effectiveness.
- 7) After project is complete, curtain is to be refurled, anchoring and mooring system recovered, and curtain returned for repacking and storage.
- 8) Specifications for silt curtain are:
 - A) Length—100 ft.
 - B) Skirt depth—5 ft.
 - C) Fabric shall be nylon reinforced PVC material or equivalent, with tensile strength of 300 lb/in, fabric weight of 18 oz/sq yd tear strength of 100 lbs and tensile strength after abrasion of greater than 200 lb/in.
 - D) Ballast chain shall be 1/4" or greater galvanized chain.
 - E) End connectors shall be fastened with 3/8" polypropylene line (600 lb. tensile strength).
 - F) Floatation segment shall be expanded polystyrene (4" dia. minimum, 5 lbs ft buoyancy).
- 9) Tension cable shall be 9/16" dia. vinyl sheeted EAW steel cable (9800 lbs breaking strength with galvanized connectors).

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**Manatee
County**

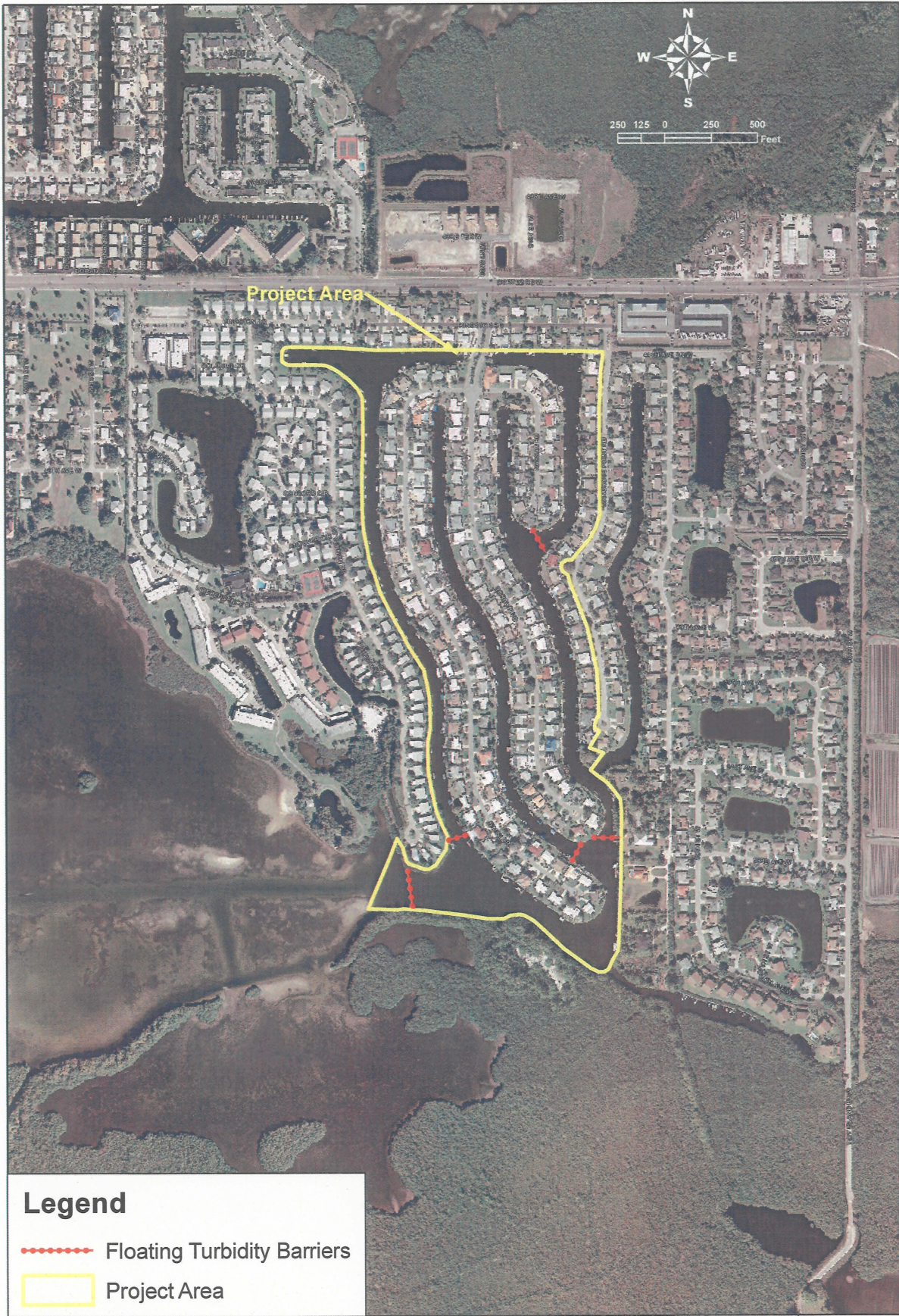
**Manatee County
Coral Shores Dredging**

**Project Area & Temporary
Staging Aerial Map**

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Figure
1

Project Number
22146.00



**Manatee
County**

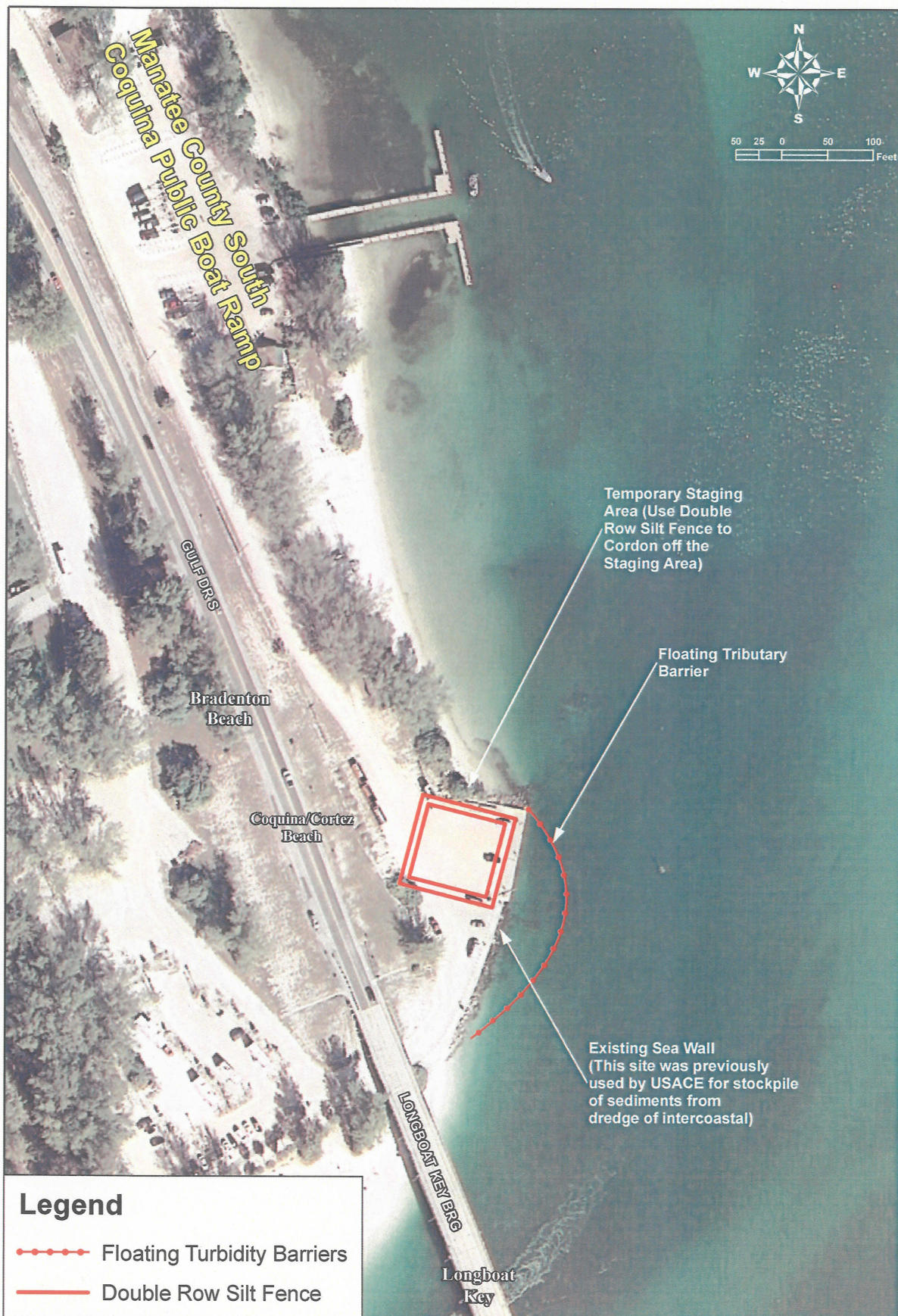
**Manatee County
Coral Shores Dredging**

Floating Turbidity Barriers Map

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Figure
2

Project Number
22146.00



Manatee County

Manatee County
Coral Shores Dredging
Temporary Staging Area South
Coquina Boat Ramp Map

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Figure
3
Project Number
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