

THE GOLDSTEIN ENVIRONMENTAL LAW FIRM, P.A.
Brownfields, Transactions, Due Diligence, Development, Permitting, Cleanups & Compliance

2100 Ponce de Leon Boulevard, Suite 710
Coral Gables, Florida 33134
Telephone: (305) 777-1680
www.goldsteinenvlaw.com

Brett C. Brumund, Esq.
Direct Dial: (305) 640-5300
Email: bbrumund@goldsteinenvlaw.com

October 31, 2024

Via Email Only

Mr. Don Donaldson, County Administrator
Martin County
2401 SE Monterrey Road
Stuart, FL 34996

Re: Request for Designation of the Property Located at 9670 Southwest Marine Way, Stuart, Florida 34997, identified by Parcel Number 13-39-40-000-00020-5, as a Green Reuse Area Pursuant to Florida's Brownfields Redevelopment Act

Dear Mr. Donaldson:

On behalf of 9670 SW Marine Way, LLC ("Marine Way"), an affiliate of Ferreira Construction Co. Inc., we are pleased to submit the enclosed request for designation of the above-referenced parcel (the "Subject Property"), as a Green Reuse Area pursuant to section 376.80(2)(c), Florida Statutes, of Florida's Brownfields Redevelopment Act. When fully developed, the Subject Property will include a 12,000-square-foot warehouse for marine construction equipment, a 7,800 square foot office building, a 10,200-square foot boat ramp, a 49,500-square foot stormwater dry detention basin, a 17,000-square foot gravel parking area, and 58,400-square feet of green space. The completed project will have an estimated cost of approximately \$8.9 million. Property cards and legal descriptions depicting the Subject Property's location are enclosed at Attachment A.

Marine Way is applying for this designation to utilize an important state economic and regulatory assistance program available to developers and local governments in situations where the risk of contamination is demonstrated to overwhelm key opportunities for land revitalization and job growth. In this instance, there is onsite contamination with dieldrin and lead from historical agricultural and boat operations at the Subject Property that has significantly complicated redevelopment efforts and created a host of logistical, design, engineering, and construction concerns for Marine Way. These

Mr. Don Donaldson, County Administrator
October 31, 2024
Page 2

concerns can be easily mitigated with the assistance and resources offered by Florida's Brownfields Program and come at no cost to the County.

In considering a request for designation as a Green Reuse Area under Florida's Brownfields Redevelopment Act, a local government must evaluate and apply the criteria set forth in section 376.80(2)(c), Florida Statutes. As reflected in the Statement of Eligibility incorporated herein at Attachment B, Marine Way meets such statutory criteria. Accordingly, based on the foregoing, we respectfully request that staff recommend approval. Of course, as you evaluate the application and supporting materials, please feel free to contact us with any questions or should further information be required. Thank you.

Very truly yours,

THE GOLDSTEIN ENVIRONMENTAL LAW FIRM, P.A.

A handwritten signature in blue ink, appearing to read "Brett C. Brumund", with a long horizontal line extending to the right.

Brett C. Brumund, Esq.
/bcb

Enclosures

cc: Kimberlee Levee, Chief of Staff, Martin County
9670 SW Marine Way, LLC
Michael R. Goldstein, Esq., Environmental Counsel for 9670 SW Marine Way, LLC

Attachment A

Basic Info

PIN 13-39-40-000-004-00020-5	AIN 59908	Situs Address 9670 SW MARINE WAY STUART FL	Website Updated 10/29/24
--	---------------------	--	------------------------------------

General Information

CHANGE MAILING ADDRESS		SIGN UP FOR PROPERTY FRAUD ALERT	
Property Owners 9670 SW MARINE WAY LLC	Parcel ID 13-39-40-000-004-00020-5	Use Code/Property Class 4900 - 4900 Open Storage Junk Yard	
Mailing Address 12800 US HIGHWAY 1 #300 JUNO BEACH FL 33408	Account Number 59908	Neighborhood 51500 Kanner W of 95	
Tax District DISTRICT THREE MSTU	Property Address 9670 SW MARINE WAY STUART FL	Legal Acres 7.75	
	Legal Description THE SOUTH ONE-HALF OF THE NORTH ONE-HALF...	Ag Use Size (Acre\Sq Ft) N/A	

Current Value

Year	Land Value	Improvement Value	Market Value	Value Not Taxed	Assessed Value	Total County Exemptions	County Taxable Value
2024	\$ 849,400	\$ 600	\$ 850,000	\$ 0	\$ 850,000	\$ 0	\$ 850,000

Market values shown on the website reflect market conditions as of January 1st, the statutory assessment date. We are prohibited by law from relying on sales that occur after the January 1 assessment date. Therefore, market values shown on the website do not reflect today's market conditions, but rather the market conditions last year. In addition, the statutes require the county Property Appraiser to deduct for typical costs of sale (which include expenses such as commissions, title insurance, appraisals, inspection fees, etc.) when arriving at market value for tax purposes. That is why the market value for tax purposes is different from what a property would sell for today.

Current Sale

Sale Date 12/15/23	Grantor (Seller) FERREIRA CONSTRUCTION SOUTHERN DIVISION CO INC	Doc Num 3050755
Sale Price \$ 1,000,000	Deed Type Warranty Deed	Book & Page <u>3412 2363</u>

Legal Description

THE SOUTH ONE-HALF OF THE NORTH ONE-HALF OF LOT 4 LYING EAST OF CANAL TROPICAL FRUIT FARMS SEC 13-39-40 ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 3 PAGE 6 PUBLIC RECORDS PALM BEACH NOW MARTIN COUNTY FLORIDA (UNITY OF TITLE OR 3051/1038)

The legal description is intended for general information only. The Property Appraiser assumes no responsibility for the uses or interpretations of the legal description.

Improvements

PIN 13-39-40-000-004-00020-5	AIN 59908	Situs Address 9670 SW MARINE WAY STUART FL	Website Updated 10/29/24
--	---------------------	--	------------------------------------

Use Code/Property Class N/A	Total Finished Area 0 SF	Max Stories 0
---------------------------------------	------------------------------------	-------------------------

Features/Yard Items

Type	Qty	Size	Unit of Measure	Year Blt
Fencing - Chain Link	1	348	Linear Feet	2009

Exhibit A

Legal Description

The South 1/2 of the North 1/2 of Lot 4, East of Canal, Section 13, Township 39 South, Range 40 East, according to the Plat of Tropical Fruit Farms, as recorded in Plat Book 3, Page 6, Public Records of Palm Beach (now martin) County, Florida; Encompassing 8.22 acres

Attachment B

Green Reuse Area Designation Eligibility Statement

9670 SW Marine Way Green Reuse Area
9670 Southwest Marine Way, Stuart, Florida 34997
Parcel No. 13-39-40-000-004-00020-5

9670 SW Marine Way LLC (the “Applicant”)¹ proposes to redevelop and rehabilitate the parcel of land located at 9670 Southwest Marine Way, Stuart, Florida 34997, identified by Parcel No. 13-39-40-000-004-00020-5 (the “Subject Property”) with an approximately 12,000-square-foot warehouse for marine construction equipment, a 7,800 square foot office building, a 10,200-square foot boat ramp, a 49,500-square foot stormwater dry detention basin, a 17,000-square foot gravel parking area, and 58,400-square feet of green space (the “Project”). As demonstrated herein, the Project meets all five of the applicable designation criteria set forth at § 376.80(2)(c), Florida Statutes.² In addition, the Subject Property meets the definition of a “brownfield site” pursuant to § 376.79(4), Florida Statutes.

I. Subject Property Satisfies the Statutory Criteria for Designation

1. Agreement to Redevelop the Brownfield Site. As the first requirement for designation, Florida Statutes § 376.80(2)(c)(1) provides that “[a] person who owns or controls a potential brownfield site is requesting the designation and has agreed to rehabilitate and redevelop the brownfield site.”

The Applicant satisfies this criterion in that it owns the Subject Property and has agreed to redevelop and rehabilitate it.³ Accordingly, the Applicant meets this first criterion.

2. Economic Productivity. As the second requirement for designation, Florida Statutes § 376.80(2)(c) provides that “[t]he rehabilitation and redevelopment of the proposed brownfield site will result in economic productivity of the area, along with the creation of at least 5 new permanent jobs at the brownfield site that are full-time equivalent positions not associated with the implementation of the rehabilitation agreement or an agreement and that are not associated with redevelopment project demolition or construction activities pursuant to the redevelopment of the proposed brownfield site or area.

The Applicant satisfies this criterion in that, first, the Project will result in significant economic productivity of the area. The budget for rehabilitation and redevelopment is approximately \$9 million, which will be spent in part on local labor, contractors, consultants, construction materials, furnishings, land and infrastructure improvements, and impact fees. This work will support approximately 20 temporary construction jobs over the period of development. The construction workers will spend a percentage of their salaries with local merchants who, in turn, will reinvest locally in their respective businesses, as well as the businesses of other local merchants. The Applicant further satisfies this criterion in that approximately 30 new permanent full-time equivalent positions will be created at the Subject Property. For all the reasons discussed herein, the Applicant meets this second criterion.

3. Consistency with Local Comprehensive Plan and Permittable Use under Local Land Development Regulations. As the third requirement for designation, Florida Statutes § 376.80(2)(c)(3) provides that “[t]he redevelopment of the proposed brownfield site is consistent with the local comprehensive plan and is a permittable use under the applicable local land development regulations.”

¹ The Applicant is affiliated with Ferreira Construction Co. Inc., which will be the Subject Property user when redevelopment is complete.

² A copy of § 376.80, Florida Statutes, can be found at [Exhibit A](#) to this Eligibility Statement.

³ See [Exhibit B](#), Warranty Deed.

The Applicant satisfies this criterion in that Parcel No. 13-39-40-000-004-00020-5 is designated as a General Agricultural District (“AG-20A”) and as a Waterfront General Commercial District (“WGC”) on Martin County’s future land use map, which permits the Subject Property’s redevelopment for marine construction equipment as described above.⁴ A WGC future land use category is intended to accommodate businesses centered around water-dependent and water-related uses like what the Applicant plans for the Subject Property.⁵ This consistency and permitability is further evidenced by Martin County’s issuance of a Revised Minor Site Plan Approval Order.⁶ For these reasons, the Applicant meets this third criterion.

4. Public Notice and Comment. Florida Statutes § 376.80(2)(c)(4) stipulates that “[n]otice of the proposed rehabilitation of the brownfield area has been provided to neighbors and nearby residents of the proposed area to be designated, and the person proposing the area for designation has afforded to those receiving notice the opportunity for comments and suggestions about rehabilitation. Notice pursuant to this subsection must be posted in the affected area.” Additional notice requirements pertaining to applicants other than a governmental entity can be found at Florida Statutes § 376.80(1)(c)(4)(b) and consist of publication in a newspaper of general circulation in the area, publication in ethnic newspapers or local community bulletins, and announcement at a scheduled meeting of the local governing body before the actual public hearing.

The Applicant satisfies all applicable notice and opportunity to comment requirements established by Florida Statutes § 376.80(2)(c)(4) and § 376.80(1)(c)(4)(b) as follows:

- (i) notice is being posted at the Subject Property;*
- (ii) notice is being published in The Stuart News;*
- (iii) notice is being published on the Stuart community bulletin section of Craigslist; and*
- (iv) a community meeting will be held on November 5, 2024, at the Courtyard Stuart, 7615 SW Lost River Road, Stuart, FL 34997, from 5:30 p.m. to 7:00 p.m.*

All notices will substantially contain the following narrative:

Representatives for 9670 SW Marine Way, LLC, will hold a community meeting, on November 5, 2024, at the Courtyard Stuart, 7615 SW Lost River Road, Stuart, FL 34997, from 5:30 p.m. to 7:00 p.m., for the purpose of affording interested parties the opportunity to provide comments and suggestions about the potential designation of land located at 9670 Southwest Marine Way, Stuart, Florida 34997, Parcel Number 13-39-40-000-004-00020-5, as a Brownfield Area. The designation is being made pursuant to Section 376.80, Florida Statutes, of Florida’s Brownfield Redevelopment Act, and will involve two public hearings before the Martin County Board of County Commissioners. The community meeting will also address future development and rehabilitation activities planned for the site.

For more information regarding the community meeting, including directions, the dates of the two public hearings, or to provide comments and suggestions regarding designation, development, or rehabilitation at any time before or after the meeting date, please contact Brett C. Brumund, who can be reached by phone at (305) 640-5300, by email at bbrumund@goldsteinemlaw.com, and/or U.S. Mail at The Goldstein Environmental Law Firm, P.A., 2100 Ponce de Leon Blvd., Suite 710, Coral Gables, FL 33134.

Proof of publication and posting will be provided to Martin County.

⁴ Martin County Land Development Regulations, Arti. 3, Div. 2, Section 3.10

⁵ Martin County Land Development Regulations, Art. 3, Div. 3, Sec. 3.58.2

⁶ See Exhibit C for a Revised Minor Site Plan Approval Order concerning the Subject Property.

5. Reasonable Financial Assurance. As the fifth requirement for designation, Florida Statutes § 376.80(2)(c)(5) provides that “[t]he person proposing the area for designation has provided reasonable assurance that he or she has sufficient financial resources to implement and complete the rehabilitation agreement and redevelopment plan.”

The total capital budget of over \$8.9 million for the Project may be fully funded through, but may not be limited to, any combination of the financial resources of the Applicant, its partners, as well as possible financing by major financial institutions. Based on the current financial position of the Applicant, a proven history of leveraging assets with other capital sources, an impressive track record of success, and a staff of highly experienced and sophisticated development professionals, the Applicant has provided reasonable assurance that it has sufficient financial resources to implement and complete the rehabilitation agreement and redevelopment plan.⁷ It therefore satisfies this fifth criterion.

II. Subject Property Meets the Definition of Brownfield Site

Section 376.79(4), Florida Statutes, defines “brownfield site” to mean “. . . real property, the expansion, redevelopment, or reuse of which may be complicated by actual or perceived environmental contamination.” The facts here evidence that the Subject Property falls within the definition of the term “brownfield site” in that there is actual soil and groundwater contamination present that will require continued site assessment and site rehabilitation to fully delineate and address. Specifically, site assessment activities conducted at the Subject Property revealed the presence of toxaphene and arsenic-contaminated soil over the majority upland portion of the site above Florida Department of Environmental Protection (“FDEP”) soil cleanup target levels as well as dieldrin and toxaphene in the groundwater in the north central portion of the site above FDEP groundwater cleanup target levels.⁸ The Subject Property was historically used for agricultural purposes, including row crop cultivation and nursery use, which is likely the source of both soil and groundwater impacts. Agricultural use is commonly associated with the application of chemical pesticides and herbicides, including those containing toxaphene and dieldrin. These chemicals can accumulate in soil over time and tend to persist until removed or treated. The presence of remnant environmental contamination both from historical agricultural uses will be further evaluated and addressed by the Applicant during the redevelopment process.

As a result of the historical uses of the Subject Property, there was and is actual contamination that the Applicant must carefully manage during redevelopment at great legal and financial risk. More specifically, actual contamination at the Subject Property has complicated redevelopment efforts for the Applicant by imposing design⁹ and construction¹⁰ changes on the Project that would not be required but for the presence of contamination. The presence of actual contamination also increases the Applicant’s exposure to environmental and regulatory liability with respect to the Project and makes it materially more expensive and

⁷ See Exhibit D for a letter from the Applicant confirming that sufficient financial resources are available to cover remaining redevelopment and rehabilitation costs to ensure completion of the Project.

⁸ See Exhibit E for an excerpt from the October 15, 2024, Soil Management Plan prepared for FDEP’s review.

⁹ The discovery of soil and groundwater contamination requires rethinking how stormwater is managed at the property and how stormwater structures, such as dry detention ponds, swales, and exfiltration trenches are built and operated. Martin County, for example, will not allow stormwater to drain through contaminated soil or into groundwater in a way that spreads an existing groundwater plume.

¹⁰ Because soil contamination has been documented on the Subject Property, one such design change is the rethinking of how stormwater is managed at the property and how stormwater structures, such as dry detention ponds, swales, and exfiltration trenches are built and operated. This concern has become so acute that FDEP issued detailed guidance written to address this issue and help overcome the complexity posed by actual and potential contamination impacting redevelopment. The guidance document is enclosed at Exhibit F.

time consuming to move forward. Accordingly, this designation, if granted, will allow the Applicant to access limited but important state-based economic incentives to help underwrite the costs associated with managing the environmental risk as well as, generally, to put the Project on more certain financial ground. In this sense, the designation will not only play a critical role in the successful redevelopment of the Subject Property, but also in the larger revitalization efforts for this area of Martin County.

Finally, the investigation and remediation of the contamination itself adds another major level of complexity as it will require close and constant oversight by FDEP. The regulatory process associated with remediation can be lengthy, complicated, uncertain, and without guaranteed end points. Accordingly, the Applicant has no assurance that as it moves forward with the Project the total cost of cleanup will not in fact ultimately exceed what is currently projected. Such uncertainty constitutes an *acute* form of redevelopment complexity that goes to the heart of the Florida Brownfields Program and underscores why incentives are so important for sites and projects exactly like this one. Assessment, remediation, and closure will be an expensive and lengthy process that will require the Applicant to carefully manage the contamination during redevelopment, imposing great legal and financial risk to incorporate design and construction changes on the Project that would not be required but for the presence of actual contamination.

Based on all the foregoing, the Subject Property clearly falls within the definition of “brownfield site” as set forth in § 376.79(4), Florida Statutes.

III. Conclusion

The Applicant has demonstrated that the Subject Property meets the definition of a “brownfield site” and that it satisfies the five statutory criteria for designation. Accordingly, designation of the Subject Property as a Brownfield Area pursuant to § 376.80(2)(c), Florida Statutes, of Florida’s Brownfield Redevelopment Act is appropriate.

Exhibit A

Select Year:

The 2024 Florida Statutes

[Title XXVIII](#)

NATURAL RESOURCES; CONSERVATION,
RECLAMATION, AND USE

[Chapter 376](#)

POLLUTANT DISCHARGE PREVENTION
AND REMOVAL

[View Entire
Chapter](#)

376.80 Brownfield program administration process.—

(1) The following general procedures apply to brownfield designations:

(a) The local government with jurisdiction over a proposed brownfield area shall designate such area pursuant to this section.

(b) For a brownfield area designation proposed by:

1. The jurisdictional local government, the designation criteria under paragraph (2)(a) apply, except if the local government proposes to designate as a brownfield area a specified redevelopment area as provided in paragraph (2)(b).

2. Any person, other than a governmental entity, including, but not limited to, individuals, corporations, partnerships, limited liability companies, community-based organizations, or not-for-profit corporations, the designation criteria under paragraph (2)(c) apply.

(c) Except as otherwise provided, the following provisions apply to all proposed brownfield area designations:

1. Notification to department following adoption.—A local government with jurisdiction over the brownfield area must notify the department, and, if applicable, the local pollution control program under s. [403.182](#), of its decision to designate a brownfield area for rehabilitation for the purposes of ss. [376.77-376.86](#). The notification must include a resolution adopted by the local government body. The local government shall notify the department, and, if applicable, the local pollution control program under s. [403.182](#), of the designation within 30 days after adoption of the resolution.

2. Resolution adoption.—The brownfield area designation must be carried out by a resolution adopted by the jurisdictional local government, which includes a map adequate to clearly delineate exactly which parcels are to be included in the brownfield area or alternatively a less-detailed map accompanied by a detailed legal description of the brownfield area. For municipalities, the governing body shall adopt the resolution in accordance with the procedures outlined in s. [166.041](#), except that the procedures for the public hearings on the proposed resolution must be in the form established in s. [166.041\(3\)\(c\)2](#). For counties, the governing body shall adopt the resolution in accordance with the procedures outlined in s. [125.66](#), except that the procedures for the public hearings on the proposed resolution must be in the form established in s. [125.66\(5\)\(b\)](#).

3. Right to be removed from proposed brownfield area.—If a property owner within the area proposed for designation by the local government requests in writing to have his or her property removed from the proposed designation, the local government must grant the request.

4. Notice and public hearing requirements for designation of a proposed brownfield area outside a redevelopment area or by a nongovernmental entity. Compliance with the following provisions is required before designation of a proposed brownfield area under paragraph (2)(a) or paragraph (2)(c):

a. At least one of the required public hearings must be conducted as closely as is reasonably practicable to the area to be designated to provide an opportunity for public input on the size of the area, the objectives for rehabilitation, job opportunities and economic developments anticipated, neighborhood residents' considerations, and other relevant local concerns.

b. Notice of a public hearing must be made in a newspaper of general circulation in the area, must be made in ethnic newspapers or local community bulletins, must be posted in the affected area, and must be announced at a scheduled meeting of the local governing body before the actual public hearing.

(2)(a) *Local government-proposed brownfield area designation outside specified redevelopment areas.*—If a local government proposes to designate a brownfield area that is outside a community redevelopment area, enterprise zone, empowerment zone, closed military base, or designated brownfield pilot project area, the local government shall provide notice, adopt the resolution, and conduct public hearings pursuant to paragraph (1)(c). At a public hearing to designate the proposed brownfield area, the local government must consider:

1. Whether the brownfield area warrants economic development and has a reasonable potential for such activities;
2. Whether the proposed area to be designated represents a reasonably focused approach and is not overly large in geographic coverage;
3. Whether the area has potential to interest the private sector in participating in rehabilitation; and
4. Whether the area contains sites or parts of sites suitable for limited recreational open space, cultural, or historical preservation purposes.

(b) *Local government-proposed brownfield area designation within specified redevelopment areas.*—Paragraph (a) does not apply to a proposed brownfield area if the local government proposes to designate the brownfield area inside a community redevelopment area, enterprise zone, empowerment zone, closed military base, or designated brownfield pilot project area and the local government complies with paragraph (1)(c).

(c) *Brownfield area designation proposed by persons other than a governmental entity.*—For designation of a brownfield area that is proposed by a person other than the local government, the local government with jurisdiction over the proposed brownfield area shall provide notice and adopt a resolution to designate the brownfield area pursuant to paragraph (1)(c) if, at the public hearing to adopt the resolution, the person establishes all of the following:

1. A person who owns or controls a potential brownfield site is requesting the designation and has agreed to rehabilitate and redevelop the brownfield site.
2. The rehabilitation and redevelopment of the proposed brownfield site will result in economic productivity of the area, along with the creation of at least 5 new permanent jobs at the brownfield site that are full-time equivalent positions not associated with the implementation of the brownfield site rehabilitation agreement and that are not associated with redevelopment project demolition or construction activities pursuant to the redevelopment of the proposed brownfield site or area. However, the job creation requirement does not apply to the rehabilitation and redevelopment of a brownfield site that will provide affordable housing as defined in s. [420.0004](#) or the creation of recreational areas, conservation areas, or parks.
3. The redevelopment of the proposed brownfield site is consistent with the local comprehensive plan and is a permissible use under the applicable local land development regulations.
4. Notice of the proposed rehabilitation of the brownfield area has been provided to neighbors and nearby residents of the proposed area to be designated pursuant to paragraph (1)(c), and the person proposing the area for designation has afforded to those receiving notice the opportunity for comments and suggestions about rehabilitation. Notice pursuant to this subparagraph must be posted in the affected area.
5. The person proposing the area for designation has provided reasonable assurance that he or she has sufficient financial resources to implement and complete the rehabilitation agreement and redevelopment of the brownfield site.

(d) *Negotiation of brownfield site rehabilitation agreement.*—The designation of a brownfield area and the identification of a person responsible for brownfield site rehabilitation simply entitles the identified person to negotiate a brownfield site rehabilitation agreement with the department or approved local pollution control program.

(3) When there is a person responsible for brownfield site rehabilitation, the local government must notify the department of the identity of that person. If the agency or person who will be responsible for the coordination

changes during the approval process specified in subsections (4), (5), and (6), the department or the affected approved local pollution control program must notify the affected local government when the change occurs.

(4) Local governments or persons responsible for rehabilitation and redevelopment of brownfield areas must establish an advisory committee or use an existing advisory committee that has formally expressed its intent to address redevelopment of the specific brownfield area for the purpose of improving public participation and receiving public comments on rehabilitation and redevelopment of the brownfield area, future land use, local employment opportunities, community safety, and environmental justice. Such advisory committee should include residents within or adjacent to the brownfield area, businesses operating within the brownfield area, and others deemed appropriate. The person responsible for brownfield site rehabilitation must notify the advisory committee of the intent to rehabilitate and redevelop the site before executing the brownfield site rehabilitation agreement, and provide the committee with a copy of the draft plan for site rehabilitation which addresses elements required by subsection (5). This includes disclosing potential reuse of the property as well as site rehabilitation activities, if any, to be performed. The advisory committee shall review any proposed redevelopment agreements prepared pursuant to paragraph (5)(i) and provide comments, if appropriate, to the board of the local government with jurisdiction over the brownfield area. The advisory committee must receive a copy of the executed brownfield site rehabilitation agreement. When the person responsible for brownfield site rehabilitation submits a site assessment report or the technical document containing the proposed course of action following site assessment to the department or the local pollution control program for review, the person responsible for brownfield site rehabilitation must hold a meeting or attend a regularly scheduled meeting to inform the advisory committee of the findings and recommendations in the site assessment report or the technical document containing the proposed course of action following site assessment.

(5) The person responsible for brownfield site rehabilitation must enter into a brownfield site rehabilitation agreement with the department or an approved local pollution control program if actual contamination exists at the brownfield site. The brownfield site rehabilitation agreement must include:

(a) A brownfield site rehabilitation schedule, including milestones for completion of site rehabilitation tasks and submittal of technical reports and rehabilitation plans as agreed upon by the parties to the agreement.

(b) A commitment to conduct site rehabilitation activities under the observation of professional engineers or geologists who are registered in accordance with the requirements of chapter 471 or chapter 492, respectively. Submittals provided by the person responsible for brownfield site rehabilitation must be signed and sealed by a professional engineer registered under chapter 471, or a professional geologist registered under chapter 492, certifying that the submittal and associated work comply with the law and rules of the department and those governing the profession. In addition, upon completion of the approved remedial action, the department shall require a professional engineer registered under chapter 471 or a professional geologist registered under chapter 492 to certify that the corrective action was, to the best of his or her knowledge, completed in substantial conformance with the plans and specifications approved by the department.

(c) A commitment to conduct site rehabilitation in accordance with department quality assurance rules.

(d) A commitment to conduct site rehabilitation consistent with state, federal, and local laws and consistent with the brownfield site contamination cleanup criteria in s. [376.81](#), including any applicable requirements for risk-based corrective action.

(e) Timeframes for the department's review of technical reports and plans submitted in accordance with the agreement. The department shall make every effort to adhere to established agency goals for reasonable timeframes for review of such documents.

(f) A commitment to secure site access for the department or approved local pollution control program to all brownfield sites within the eligible brownfield area for activities associated with site rehabilitation.

(g) Other provisions that the person responsible for brownfield site rehabilitation and the department agree upon, that are consistent with ss. [376.77-376.86](#), and that will improve or enhance the brownfield site rehabilitation process.

(h) A commitment to consider appropriate pollution prevention measures and to implement those that the person responsible for brownfield site rehabilitation determines are reasonable and cost-effective, taking into

account the ultimate use or uses of the brownfield site. Such measures may include improved inventory or production controls and procedures for preventing loss, spills, and leaks of hazardous waste and materials, and include goals for the reduction of releases of toxic materials.

(i) Certification that the person responsible for brownfield site rehabilitation has consulted with the local government with jurisdiction over the brownfield area about the proposed redevelopment of the brownfield site, that the local government is in agreement with or approves the proposed redevelopment, and that the proposed redevelopment complies with applicable laws and requirements for such redevelopment. Certification shall be accomplished by referencing or providing a legally recorded or officially approved land use or site plan, a development order or approval, a building permit, or a similar official document issued by the local government that reflects the local government's approval of proposed redevelopment of the brownfield site; providing a copy of the local government resolution designating the brownfield area that contains the proposed redevelopment of the brownfield site; or providing a letter from the local government that describes the proposed redevelopment of the brownfield site and expresses the local government's agreement with or approval of the proposed redevelopment.

(6) Any contractor performing site rehabilitation program tasks must demonstrate to the department that the contractor:

(a) Meets all certification and license requirements imposed by law; and

(b) Will conduct sample collection and analyses pursuant to department rules.

(7) During the cleanup process, if the department or local program fails to complete review of a technical document within the timeframe specified in the brownfield site rehabilitation agreement, the person responsible for brownfield site rehabilitation may proceed to the next site rehabilitation task. However, the person responsible for brownfield site rehabilitation does so at its own risk and may be required by the department or local program to complete additional work on a previous task. Exceptions to this subsection include requests for "no further action," "monitoring only proposals," and feasibility studies, which must be approved prior to implementation.

(8) If the person responsible for brownfield site rehabilitation fails to comply with the brownfield site rehabilitation agreement, the department shall allow 90 days for the person responsible for brownfield site rehabilitation to return to compliance with the provision at issue or to negotiate a modification to the brownfield site rehabilitation agreement with the department for good cause shown. If an imminent hazard exists, the 90-day grace period shall not apply. If the project is not returned to compliance with the brownfield site rehabilitation agreement and a modification cannot be negotiated, the immunity provisions of s. [376.82](#) are revoked.

(9) The department is specifically authorized and encouraged to enter into delegation agreements with local pollution control programs approved under s. [403.182](#) to administer the brownfield program within their jurisdictions, thereby maximizing the integration of this process with the other local development processes needed to facilitate redevelopment of a brownfield area. When determining whether a delegation pursuant to this subsection of all or part of the brownfield program to a local pollution control program is appropriate, the department shall consider the following. The local pollution control program must:

(a) Have and maintain the administrative organization, staff, and financial and other resources to effectively and efficiently implement and enforce the statutory requirements of the delegated brownfield program; and

(b) Provide for the enforcement of the requirements of the delegated brownfield program, and for notice and a right to challenge governmental action, by appropriate administrative and judicial process, which shall be specified in the delegation.

The local pollution control program shall not be delegated authority to take action on or to make decisions regarding any brownfield site on land owned by the local government. Any delegation agreement entered into pursuant to this subsection shall contain such terms and conditions necessary to ensure the effective and efficient administration and enforcement of the statutory requirements of the brownfield program as established by the act and the relevant rules and other criteria of the department.

(10) Local governments are encouraged to use the full range of economic and tax incentives available to facilitate and promote the rehabilitation of brownfield areas, to help eliminate the public health and

environmental hazards, and to promote the creation of jobs and economic development in these previously run-down, blighted, and underutilized areas.

(11)(a) The Legislature finds and declares that:

1. Brownfield site rehabilitation and redevelopment can improve the overall health of a community and the quality of life for communities, including for individuals living in such communities.
2. The community health benefits of brownfield site rehabilitation and redevelopment should be better measured in order to achieve the legislative intent as expressed in s. ~~376.78~~.
3. There is a need in this state to define and better measure the community health benefits of brownfield site rehabilitation and redevelopment.
4. Funding sources should be established to support efforts by the state and local governments, in collaboration with local health departments, community health providers, and nonprofit organizations, to evaluate the community health benefits of brownfield site rehabilitation and redevelopment.

(b) Local governments may and are encouraged to evaluate the community health benefits and effects of brownfield site rehabilitation and redevelopment in connection with brownfield areas located within their jurisdictions. Factors that may be evaluated and monitored before and after brownfield site rehabilitation and redevelopment include, but are not limited to:

1. Health status, disease distribution, and quality of life measures regarding populations living in or around brownfield sites that have been rehabilitated and redeveloped.
2. Access to primary and other health care or health services for persons living in or around brownfield sites that have been rehabilitated and redeveloped.
3. Any new or increased access to open, green, park, or other recreational spaces that provide recreational opportunities for individuals living in or around brownfield sites that have been rehabilitated and redeveloped.
4. Other factors described in rules adopted by the Department of Environmental Protection or the Department of Health, as applicable.

(c) The Department of Health may and is encouraged to assist local governments, in collaboration with local health departments, community health providers, and nonprofit organizations, in evaluating the community health benefits of brownfield site rehabilitation and redevelopment.

(12) A local government that designates a brownfield area pursuant to this section is not required to use the term “brownfield area” within the name of the brownfield area designated by the local government.

History.—s. 4, ch. 97-277; s. 3, ch. 98-75; s. 11, ch. 2000-317; s. 2, ch. 2004-40; s. 44, ch. 2005-2; s. 7, ch. 2006-291; s. 5, ch. 2008-239; s. 2, ch. 2014-114; s. 11, ch. 2023-309.

Exhibit B



Recorded in Martin County, FL 12/21/2023 12:13 PM
Carolyn Timmann, Clerk of the Circuit Court & Comptroller
Rec Fees: \$18.50 Deed Tax: \$7,000.00
CFN#3050755 BK 3412 PG 2363 PAGE 1 of 2

Copy

Prepared by and return to:

Robert A. Burson
Attorney at Law
Robert A. Burson, P.A.
Post Office Box 1620
Stuart, FL 34995
772-286-1616
File Number: 23-055
Will Call No.: CH Box 39
Consideration: \$1,000,000.00

[Space Above This Line For Recording Data]

Warranty Deed

This Warranty Deed made this 15th day of December, 2023 between Ferreira Construction Co. Inc., a New Jersey corporation formerly known in Florida as Ferreira Construction Southern Division Co. Inc. whose post office address is 31 Tannery Road, Branchburg, NJ 08876, grantor, and 9670 SW Marine Way LLC, a Florida limited liability company whose post office address is 12800 US Highway One, Suite 300, Juno Beach, FL 33408, grantee:

(Whenever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, trusts and trustees)

Witnesseth, that said grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in **Martin County, Florida** to-wit:

South 1/2 of the North 1/2 of Lot 4, East of Canal, Section 13, Township 39 South, Range 40 East, according to the plat of Tropical Fruit Farms, as recorded in Plat Book 3, page 6, Public Records of Palm Beach (now Martin) County, Florida

Parcel Identification Number: 13-39-40-000-004-00020.50000

Subject to taxes for 2023 and subsequent years; covenants, conditions, restrictions, easements, reservations and limitations of record, if any.

Together with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to **December 31, 2023**.

In Witness Whereof, grantor has hereunto set grantor's hand and seal the day and year first above written.

Copy Copy Copy

DoubleTime®

copy

Signed, sealed and delivered in our presence:

Ferreira Construction Co., Inc., a New Jersey corporation

By: [Signature]
Nelson Ferreira, President

Witness Name: Kelsey Intoppa
Witness Address: _____

Witness Name: [Signature]
Witness Address: Josephine L. Burson

(Corporate Seal)

State of Florida
County of Palm Beach

The foregoing instrument was acknowledged before me by means of physical presence or online notarization, this 15 day of December, 2023 by Nelson Ferreira, President of Ferreira Construction Co., Inc., a New Jersey corporation, on behalf of the corporation. He is personally known to me or has produced _____ as identification.

[Notary Seal]



[Signature]
Notary Public
Printed Name: Josephine L. Burson
My Commission Expires: 5-9-2025

Exhibit C



MARTIN COUNTY

BOARD OF COUNTY COMMISSIONERS

2401 S.E. MONTEREY ROAD • STUART, FL 34996

DOUG SMITH
STACEY HETHERINGTON
HAROLD E. JENKINS II
SARAH HEARD
EDWARD V. CIAMPI

Commissioner, District 1
Commissioner, District 2
Commissioner, District 3
Commissioner, District 4
Commissioner, District 5

DON G. DONALDSON, P.E. County Administrator
SARAH W. WOODS County Attorney

TELEPHONE (772) 288-5400
WEBSITE www.martin.fl.us

This document may be reproduced upon request in an alternative format by contacting the County ADA Coordinator (772) 320-3131, the County Administration Office (772) 288-5400, Florida Relay 711, or by completing our accessibility feedback form at www.martin.fl.us/accessibility-feedback.

September 22, 2023

Melissa Corbett, P.E.
The MilCor Group, Inc.
10975 S. Federal Highway
Hobe Sound, FL 33455

via Electronic Mail

Project No.: R060-018
Record No.: DEV2022080004
Project Name: Ferreira Marine Way Revised Minor Final Site Plan
Re: Post-Approval Completion

Dear Ms. Corbett:

Congratulations! The Martin County Growth Management Department has found the Post-Approval packet for this project to be complete. In order to schedule your Pre-Construction Meeting, a Pre-Construction Meeting Request Form needs to be submitted to the Martin County Engineering (Public Works) Department at least five (5) business days prior to scheduling the meeting for the above-mentioned project. All changes/updates to the information provided are the responsibility of the Engineer of Record to notify the Martin County Public Works Department.

The Pre-Construction Meeting Request Form can be found on www.martin.fl.us by searching "Pre-Construction Meeting" and clicking on "Construction Phase of Project." Please have the Engineer of Record contact Carol Higgins with the Martin County Public Works Department at (772) 288-5462 to schedule the Pre-Construction Meeting.

Enclosed please find the following items:

- Recorded Development Order
- Receipts for site compliance fees, advertising costs, and recording costs

If you have any questions, please contact me at bcounsel@martin.fl.us or (772) 288-5500.

Sincerely,

A handwritten signature in cursive script that reads "Barbara Counsellor". The signature is written in black ink and is positioned above the typed name.

Barbara Counsellor, Senior Planner
Project Coordinator

BC/ld

Enclosures

Copy: Dictino Garcia (via e-mail)

Exhibit D



9670 SW Marine Way LLC
12800 Us Highway One
Suite 300
Juno Beach, Fl 33408

October 24, 2024

Mr. Don Donaldson, County Administrator
Martin County Board of County Commissioners
2401 SW Monterey Road
Stuart, FL 34996

Re: Demonstration of Reasonable Financial Assurances in Connection with Application for Brownfield Area Designation for 9670 SW Marine Way LLC

Dear Mr. Donaldson:

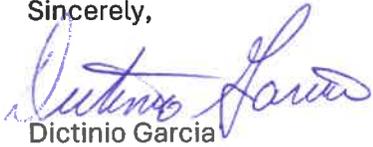
This letter is being submitted in connection with the pending brownfield area designation request for 9670 SW Marine Way, LLC (the “Company”) that is being filed with Martin County (the “County”) by The Goldstein Environmental Law Firm, P.A. The purpose of this letter is to provide reasonable assurance that the Company has sufficient financial resources to implement the rehabilitation and redevelopment plan (the “Project”) for the property identified by County parcel number 13-39-40-000-004-00020-5 (the “Subject Property”). Accordingly, please note the following:

- The Company acquired the Subject Property and owns the fee outright.
- The Company is adequately capitalized and has sufficient liquidity or access to financing to fund the expected \$8.9 million cost to rehabilitate and redevelop the Subject Property.
- The Company and its affiliates have significant experience developing, constructing, and managing mixed-use projects, including the Project’s first phase, and has cultivated relationships with financial institutions necessary to raise additional capital as needed.

In addition, in my capacity as Senior Vice President for the Company and based upon my personal knowledge, I certify that the Company has sufficient financial resources to implement and complete the rehabilitation agreement and redevelopment plan at the Subject Property as referenced above.

Thank you in advance for your continuing assistance with this matter and for the County's support for this important project.

Sincerely,

A handwritten signature in blue ink, appearing to read "Dictinio Garcia". The signature is fluid and cursive, with the first name being more prominent.

Dictinio Garcia
Senior Vice President

Exhibit E

SOIL MANAGEMENT PLAN

**Ferreira Marine Way Site (ERIC_11407)
9670 SW Marine Way
Stuart, Florida 34997**

Prepared for:

**Florida Department of Environmental Protection
Southeast District Office
3301 Gun Club Road, MSC 7210-1
West Palm Beach, Florida 33406**

On behalf of:

**Ferreira Construction
31 Tannery Road
Branchburg, New Jersey 08876**

Prepared By:

**Langan Engineering and Environmental Services, LLC
525 Okeechobee Boulevard, Suite 910
West Palm Beach, Florida 33401
FBPE Registry No. 00006601**



**Tyler Smith, PE
Senior Staff Engineer**

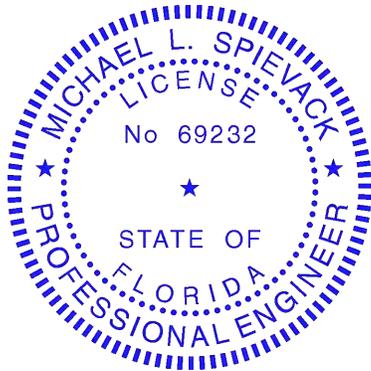


**Michael Spievack, PE
Senior Project Manager**

LANGAN

**15 October 2024
341016601**

I, Michael Spievack, P.E. #69232, certify that I currently hold an active license in the State of Florida and am competent through education or experience to provide the engineering service contained in this Soil Management Plan. I further certify that in my professional judgment, this report meets the requirements of Chapter 62-780, Florida Administrative Code, and was prepared by me or under my responsible charge. Moreover, I certify that Langan Engineering and Environmental Services, LLC holds an FBPE Registry No. 00006601 to provide the engineering service.



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY MICHAEL L. SPIEVACK,
P.E. ON 10/15/2024.
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND
SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

TABLE OF CONTENTS

1.0	INTRODUCTION	1
	1.1 Site and Vicinity Description.....	1
	1.2 Project Description	1
	1.3 Human and Ecological Receptors	1
	1.4 Physical Setting	2
	1.4.1 Topography.....	2
	1.4.2 Geology	2
	1.4.3 Hydrology	2
2.0	BACKGROUND	2
	2.1 Historical Environmental Assessments	2
3.0	SOIL MANAGEMENT PLAN	3
	3.1 Relocation of Surficial Soil (from Upper Two Feet).....	4
	3.2 Relocation of Soil from Below Two Feet	4
	3.3 Grubbed, Organic or Silty Material.....	5
	3.4 Soil Blending	5
	3.5 Imported Material.....	6
	3.6 Exported Material	6
	3.7 Soil Handling.....	6
4.0	ENGINEERING CONTROLS	7
5.0	NOTIFICATION AND REPORTING.....	7
6.0	SOIL EROSION AND DUST CONTROL	8

FIGURES

Figure 1	USGS Site Location Map
Figure 2	Proposed Development Plan
Figure 3	Site Map
Figure 4	Soil Management Plan – Surface to Two Feet Bls
Figure 5	Soil Management Plan – Below Two Feet Bls

APPENDICES

Appendix A	Development Plans
Appendix B	Geotechnical Reports
Appendix C	Historical Soil and Groundwater Analytical Data

1.0 INTRODUCTION

On behalf of Ferreira Construction (the Owner), Langan Engineering and Environmental Services, LLC provides this Soil Management Plan (SMP) to the Florida Department of Environmental Protection (FDEP) for the Ferreira Marine Way project at 9670 SW Marine Way near Stuart, Florida (the site). The site is identified by the FDEP as ERIC_11407.

The purpose of this SMP is to facilitate the permit approval process for site development and to provide protocols for the proper characterization, management, and relocation of excavated contaminated soil during development in support of No Further Action with Conditions (NFAC) closure, pursuant to Subsection 62-780.680(II), Florida Administrative Code (FAC), including a restriction on groundwater use and construction of engineering controls (i.e., concrete and asphalt paving, two feet of clean fill, and a concrete bulkhead) to restrict direct contact with soil above the Direct Exposure Commercial/Industrial (DEC/I) Soil Cleanup Target Level (SCTL) or to prevent soil containing contaminant concentrations exceeding the Leachability Based on Groundwater Criteria (LBGC) SCTL from leaching into the groundwater or surface water. This SMP was prepared in accordance with FDEP's *Guidance for Preparation of Soil Management Plans*, dated May 2022.

1.1 Site and Vicinity Description

The approximately 7.75-acre site, identified by the Martin County Property Appraiser as parcel 13-39-40-000-004-00020-5, is in an agricultural, commercial, and industrial area near the City of Stuart and in unincorporated Martin County, Florida. The site is bound by Southwest 96th Street to the north and the St. Lucie Canal to the west and is approximately 1.2 miles west of the intersection of Southwest Kanner Highway and Pratt Whitney Road. A United States Geological Survey (USGS) Site Location Map is included as **Figure 1**.

1.2 Project Description

According to information provided by the Owner, the proposed development will consist of an approximately 7,900-square-foot, one-story office building, an approximately 12,000-square-foot warehouse, a boat ramp, parking lots, a gravel lot, and landscaped areas. A bulkhead will also be installed adjoining the St. Lucie River.

The site will also be improved with a stormwater management system, which will consist of interconnected solid piping and catch basins across the site that convey stormwater to a dry detention basin on the southern boundary. A copy of the site development plan is included in **Appendix A**. The proposed project layout and features are shown on **Figure 2**.

1.3 Human and Ecological Receptors

Potential human receptors include the workers at the facility. Human exposure to groundwater is negligible because the groundwater at the site is not and will not be used for drinking water or irrigation.

According to the National Wetlands Inventory mapper, there are no existing ponds or wetlands on-site; however, St. Lucie Canal, an approximate 1503-acre riverine, adjoins the site to the west.

1.4 Physical Setting

This section includes a brief overview of the topographic, geological, and hydrogeological conditions. This information is provided to predict pathways and direction of potential contaminant migration.

1.4.1 Topography

Based on available data, the average elevation of the site is approximately +20 feet National American Vertical Datum of 1988 (NAVD). The site is generally flat, except for the western portion, which slopes toward St. Lucie Canal.

1.4.2 Geology

According to a *Geotechnical Services Report*, dated 29 July 2005, and *Geotechnical Engineering Report*, dated 23 October 2014, both prepared by Dunkelberger Engineering & Testing, Inc. (Dunkelberger), a division of Terracon, the subsurface consists of a surficial layer of white and orange to brown fine to medium sand with root or shell fragments to three feet below land surface (bls), underlain by gray to brown clayey fine to medium sand extending to depths up to seven feet bls. Below, a layer of brown to light gray silty fine sand with shell fragments was reported, which extended to the boring termination at depths up to 30 feet bls. **Appendix B** contains a copy of the geotechnical reports prepared by Dunkelberger.

1.4.3 Hydrology

Based on a *Groundwater Monitoring Report*, dated 31 July 2024, prepared by Kimley-Horn and Associates, Inc (KHA), the overall groundwater flow was reported to the northwest, and the groundwater table was reported between elevation +12.83 and +13.63 feet NAVD, which varies from 5.82 to 6.98 feet bls.

2.0 BACKGROUND

Based on a review of FDEP online public records and information provided by the Owner, we understand the site was agricultural land for approximately 60 years until 1986. Subsequently, the site operated as a tugboat maintenance facility until purchased by GEMBLA, LLC in 2005. In 2023, the site was purchased by the Owner.

2.1 Historical Environmental Assessments

A review of FDEP online public records indicated that KHA completed environmental assessments at the site since at least 2005.

In August 2006, a combined *Site Assessment Report* and *Remedial Action Plan*, prepared by KHA, was submitted to the FDEP. Soil sampling identified toxaphene, an organochlorine pesticide, above the DEC/I or LBGC SCTL and arsenic above the Direct Exposure Residential (DER) SCTL. The toxaphene impacts exceeding the DEC/I or LBGC SCTL were generally delineated to the surficial soil (upper two feet) across the site. At the time, no impacts were identified in groundwater samples above the Groundwater Cleanup Target Levels (GCTL). Although the report

included recommendations to remove impacted soil, no documentation was identified in FDEP records indicating the recommendations in the *Remedial Action Plan* were implemented.

In September 2008, KHA initiated semi-annual groundwater monitoring, with the groundwater samples collected being analyzed for toxaphene. In March 2009, dieldrin, also an organochlorine pesticide, was added to the groundwater monitoring plan.

On 23 October 2014, an *Interim Source Removal Plan* was submitted to the FDEP by KHA. The *Interim Source Removal Plan* recommended soil excavations as part of a proposed development of the site as a marina, including 7,300 cubic yards (CY) of contaminated soil from the marina basin and a proposed dry retention area; 470 CY of contaminated soil from proposed exfiltration trenches; 75 CY of contaminated soil around monitoring well MW-106; and 21,100 CY of soil with no documented contamination from the marina basin and proposed dry retention area.

The FDEP approved the *Interim Source Removal Plan* in correspondence dated 5 November 2014. However, due to the change in ownership and proposed site use, the *Interim Source Removal Plan* was not implemented until April 2019, when only 75 CY of soil surrounding MW-106 were excavated. KHA submitted a *Source Removal Report*, dated 30 July 2019, which was approved by the FDEP in correspondence dated 12 September 2019.

Semi-annual groundwater monitoring for toxaphene and dieldrin has continued through July 2024.

A Site Map is included as **Figure 3**. Historical analytical tables are provided in **Appendix C**.

3.0 SOIL MANAGEMENT PLAN

According to *Engineering Plans and Specifications for Ferreira Marine Way*, dated 28 August 2023, prepared by The Milcor Group, Inc., a Division of Haley Ward, the existing grade elevation on the eastern portion of the site ranges between +19.0 feet NAVD and +20.3 feet NAVD, and the western portion of the site is roughly at elevation +20.0 ft NAVD, but slopes to approximately +12.0 NAVD at the bank of the St. Lucie Canal.

The minimum finished floor elevation (FFE) of the proposed one-story office building and one-story warehouse are +24.53 feet NAVD and 24.03 feet NAVD, respectively. The final grade of the parking areas and sidewalks ranges from approximately +20 to +24 ft NAVD, and the landscaped areas range from approximately +20.5 to +23 ft NAVD. As such, development will generally raise the site elevation up to 4.5 feet above the existing grade. However, excavations will be required to install utilities, a bulkhead, the stormwater drainage system, and dry retention basins, which extend to depths up to +10.50 ft NAVD. Limited excavations will also be required to install the two-foot-thick soil cap within the landscaped areas. Excavations extending deeper than +10.5 ft NAVD are limited, but necessary to construct the boat ramp on the southwestern portion of the site, which extends to +0.53 feet NAVD.

Based on the information provided by the owner, we estimate 18,100 CY of soil to be needed to raise the grade of the building pads, parking lot, sidewalks, and proposed gravel area.

The site will be subject to institutional controls restricting the site to commercial/industrial use and engineering controls to prevent human exposure to soil with contaminant concentrations above the DEC/I SCTL or to prevent soil containing concentrations of contaminants above the LBGC SCTL from leaching into the groundwater. These engineering controls may be impervious surfaces (building pads, concrete, and asphalt) or permeable surfaces consisting of a two-foot-thick soil cap. Additionally, a bulkhead will be installed on the western portion of the site to potentially reduce the migration of groundwater impacts off-site into the St. Lucie Canal.

3.1 Relocation of Surficial Soil (from Upper Two Feet)

The surficial soil (upper two feet) across the site is generally impacted with toxaphene at concentrations exceeding the LBGC or DEC/I SCTL. As such, excavated soil in the upper two feet during development will only be reused under an impervious surface (e.g., concrete or asphalt) and above the known high groundwater table elevation. If soil with toxaphene concentrations exceeding the LBGC SCTL cannot be capped in place with an impervious surface, the soil should be excavated to the water table and relocated on-site under an impervious surface above the known high groundwater table elevation or disposed of off-site. The extent of the soil impacts within the upper two feet is shown on **Figure 4**.

We estimate 16,700 CY of soil will be needed to raise the grade beneath the building pads, asphalt parking lot, and concrete sidewalks, and approximately 3,200 CY of surficial soil is anticipated to be generated during development. As such, surficial soil generated for the installation of the two-foot-thick soil cap within the landscaped areas (1,100 CY), installation of stormwater management system and dry retention basin (1,400 CY), construction of the boat ramp and bulkhead (700 CY), and any other surficial soil generated during development (e.g., water, sewer, power, and communication utilities) could be reused beneath the building pads or other impermeable surfaces (asphalt parking lot, sidewalks, and thoroughfares), provided the soil is geotechnically suitable, as determined by the geotechnical engineer of record or others. Relocated soil must only be reused above the known high groundwater table. The anticipated excavation areas and proposed building pad for the relocated soil are shown on **Figure 4**.

Should soil not be deemed acceptable for reuse or excess soil remains after development, the soil shall be exported in accordance with Section 3.6 below.

3.2 Relocation of Soil from Below Two Feet

Soil with contaminant concentrations below the LBGC and DEC/I SCTL can be reused anywhere on-site, including as a permeable engineering cover. The soil generated below the surficial soil (upper two feet) is generally free of contaminant concentrations exceeding the LBGC or DEC/I SCTL, except for the areas identified on **Figure 5**. As such, the soil generated below two feet bls and outside of the impacted areas, can be reused anywhere on-site including as a permeable

engineering cover. The impacted soil can be reused on-site but must be placed under an impervious surface (e.g., concrete or asphalt) and above the known high groundwater table. The extent of soil impacts below the surficial soil to the approximate groundwater table (six feet bls) are shown on **Figure 5**.

As mentioned above, we estimate 16,700 CY of soil will be needed to raise the building pads, asphalt parking lot, and concrete sidewalks, and approximately 4,500 CY of soil is anticipated to be generated below two feet bls. Soil generated below two feet bls for the construction of the boat ramp (2,700 CY) and dry detention basin (1,000 CY), and installation of the stormwater management system (800 CY), may also be reused beneath the building pads or other impermeable surfaces (e.g., parking lots and sidewalks).

Additionally, approximately 1,400 CY of soil will be needed to grade the gravel lot. Soil with contaminant concentrations below the LBGC and DEC/I SCTL may be reused to raise the gravel lot, which is anticipated to consist of four inches of gravel underlain with a minimum 12-inch-thick aggregate base. The anticipated excavation areas and proposed building pad for the relocated soil are shown on **Figure 5**.

If soil with concentrations below the LBGC or DEC/I SCTL is proposed to be reused as part of the two-foot-thick soil cap, the soil shall be sampled in accordance with a FDEP Whitepaper *Stockpile Sampling for Soil Reuse at a Site*, dated December 2020. Should soil not be deemed acceptable for reuse or excess soil remain after development, the soil shall be exported in accordance with Section 3.6 below.

3.3 Grubbed, Organic or Silty Material

The upper six inches of soil contains vegetation, including grass, weeds, shrubs, etc. Before development, the site will be cleared and grubbed (i.e., removing the upper six inches of soil and vegetation). The grubbed material should be stockpiled separately because it contains vegetation, which may cause the material to be geotechnically unsuitable for reuse beneath a structural site feature, as determined by the geotechnical engineer of record or others. However, the material may be reused in landscaped areas if contaminant concentrations are below the LBGC and DEC/I SCTL. Should the material not be deemed acceptable for reuse, the material shall be exported in accordance with Section 3.6 below.

3.4 Soil Blending

The surficial soil generally contains contaminant concentrations exceeding the LBGC or DEC/I SCTL; therefore, soil blending may be completed to address the surficial soil impacts across the site. If utilized, soil blending will be completed with an RM3000 Rotary Mixer (or equivalent) in accordance with FDEP's *Guidance for Soil Reuse Involving Soil Blending Activities at Chapter 62-780, F.A.C., Sites*, dated May 2022. To verify the soil has been sufficiently blended and that the resulting soil meets applicable cleanup target levels, confirmation soil sampling shall be collected in accordance with FDEP's *Guidance for Soil Reuse Involving Soil Blending Activities at Chapter 62-780, F.A.C., Sites*, dated May 2022. If post-blend

ing confirmation samples indicate blending did not reduce contaminant concentrations below the LBGC and DEC/I SCTL, the soil will be evaluated for potential reuse under an impervious surface or additional imported, clean fill will be added, and the soil will be re-blended and re-sampled.

3.5 Imported Material

As discussed above, site elevation will be raised up to 4.5 feet during development; as such, imported clean material is required to raise the overall grade of the site. Additionally, we anticipate that at least 10 inches of crushed limestone (or similar) base material will be used as a geotechnically stable layer directly under the concrete building pad, asphalt, and concrete paved areas. Therefore, we estimate at least 6,700 CY of crushed limestone (or equivalent) will be used under the building pad, parking areas, sidewalks, and thoroughfares. We note these estimates do not consider the fill material, washed, crushed stone (typically Number 57 stone) to be imported to the site to backfill around subsurface utilities (e.g., drainage, water, and sewer pipes).

The clean material should be imported from a quarry; however, the contractor, with approval from the Owner, may select a different source for the imported fill due to economic reasons or other considerations. Should this option be chosen, Langan will evaluate the source of imported material and confirm the material meets the clean fill criteria via laboratory analytical testing (the parameters to be analyzed will depend on the source of the fill material).

All imported fill truck tickets must be provided to Langan to be submitted to the FDEP as part of an SMP Implementation Report in accordance with Chapter 62-780, FAC.

3.6 Exported Material

All excavated material is anticipated to be reused on-site and not exported. Although not anticipated, if required, unsuitable excess soil must be transported to a Class I landfill. The transportation and disposal of exported impacted material must be documented with a manifest and trucking receipt. The transport of contaminated soil must be performed by a FDEP-licensed waste hauler. Loaded transport vehicles leaving the site will be appropriately lined, securely covered, cleaned, manifested, and placarded in accordance with appropriate local, state, and federal requirements, including Florida Department of Transportation (FDOT) regulations and Martin County ordinances.

3.7 Soil Handling

The contractor will follow the general procedures outlined below for handling soil during soil management activities.

- The contractor, when necessary, will temporarily stockpile excavated soil on-site until the soil can be relocated. The relocation of soil will be concurrent with development. Soil may not be stockpiled for more than 90 days, pursuant to Subsection 62-780.525(7).

- All soil generated on-site must be stockpiled on and covered with Visqueen (e.g., three-mil polyvinyl liner) and bermed to prevent rainwater from eroding soil into unlined areas.
- Soil movement shall be documented and tracked on-site by the contractor. Documentation will include GPS or surveyed coordinates of the origin and destination of the excavated material, the elevations of the destination area before and after the placement of the clean or impacted soil, the depth of reuse, and the type and thickness of the cover material.

4.0 ENGINEERING CONTROLS

The Owner has elected to pursue NFAC closure; therefore, the site will be subjected to institutional controls restricting the site to commercial/industrial use only and restricting the use of the groundwater within the site boundaries. Engineering controls must be installed for soils exceeding the DEC/I or LBGC SCTL to prevent direct exposure or prevent leaching of contaminants from soil into the groundwater or surface water. The material below the LBGC and DEC/I SCTL may be reused anywhere on-site, including as a permeable engineering cover. Material exceeding the LBGC SCTL or DEC/I SCTL may only be reused under an impervious surface or a permeable engineering control (DEC/I SCTL exceedances only), and above the known high groundwater table.

Additionally, the Owner is installing a bulkhead along the St. Lucie Canal on the western portion of the site. The bulkhead will be considered an engineering control and will act as a cut-off wall to potentially reduce the migration of groundwater impacts off-site into the St. Lucie Canal.

Following development, the site will predominantly consist of impervious surfaces (building pads, sidewalks, and asphalt parking areas). The remainder of the site (e.g., landscaped areas and gravel lot) will be capped with a two-foot-thick soil cap. The impervious surfaces and soil cap will serve as engineering controls to prevent human exposure to the soil.

5.0 NOTIFICATION AND REPORTING

Contractors working at the site will be notified of the requirements of this SMP. Langan will notify the FDEP at least three days before beginning earthwork activities. Langan personnel will monitor soil management activities (daily, weekly, or less frequently), depending on construction phasing and scheduling, and observe construction activities for compliance with the SMP. The oversight visits are required to verify that the SMP was appropriately implemented. Observation reports will be prepared to document soil management activities after each site visit. The reports will include the following information:

- Date,
- Weather conditions,
- Earthwork progress,
- Site activities associated with soil management, and
- Photographic documentation and site sketches, as necessary.

Langan will prepare an SMP Implementation Report for the FDEP's review at the completion of earthwork activities and construction to summarize all soil management,

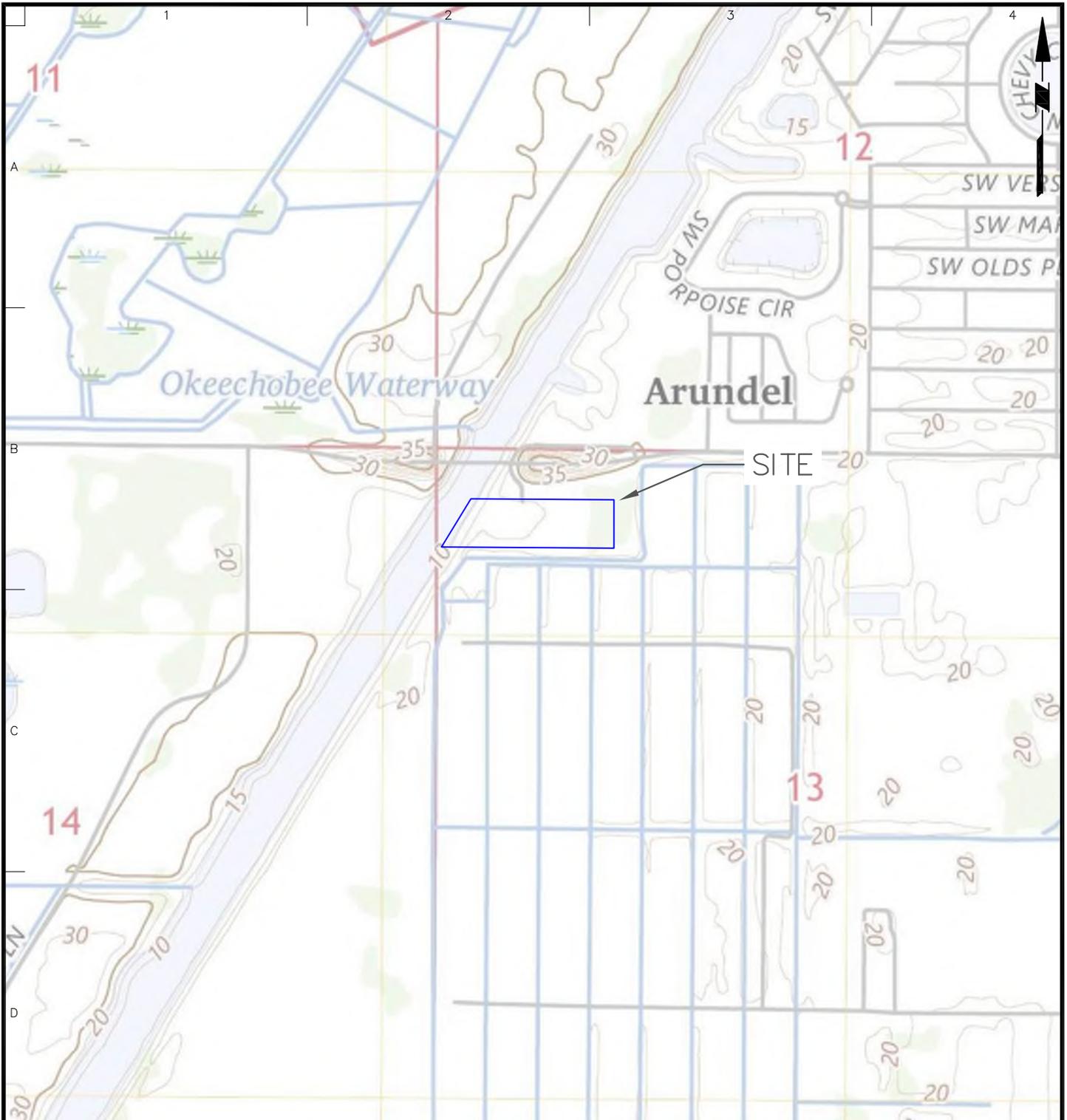
track soil movement, and engineering controls implementation. When the SMP activities are complete, Langan will submit a report documenting the soil relocation, imported material type and quantity, trucking tickets and disposal manifests, placement of material in temporary stockpiles and GPS coordinates, final placement of reused material, and actions taken for controlling nuisance and dust, if such actions are required.

6.0 SOIL EROSION AND DUST CONTROL

Site erosion and sediment control will be conducted in accordance with the Soil Erosion and Sediment Control Plan (SESCP) described in Sheet 3 of *Engineering Plans and Specifications for Ferreira Marine Way*, dated 28 August 2023. The SESCO provides locations and details for the proposed floating turbidity barrier, silt fencing, entrance, and egress for the site during construction activities. The SESCO is included in **Appendix A**.

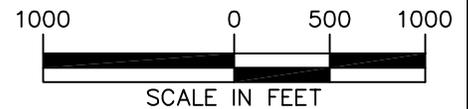
During development, the contractor shall provide proper and efficient measures to prevent construction activities from producing fugitive dust in amounts that are harmful to persons and animals, damaging to property, hazardous to vehicular traffic, or cause a nuisance to persons living nearby or occupying buildings in the vicinity of the limits of work. Dust control measures may include, but are not limited to, utilizing water trucks and covering stockpiles with polyvinyl liner, should be implemented to prevent windblown or construction-generated dust in accordance with the SESCO, Stormwater Pollution Prevention Plan (SWPPP), and applicable specifications.

FIGURES



LEGEND

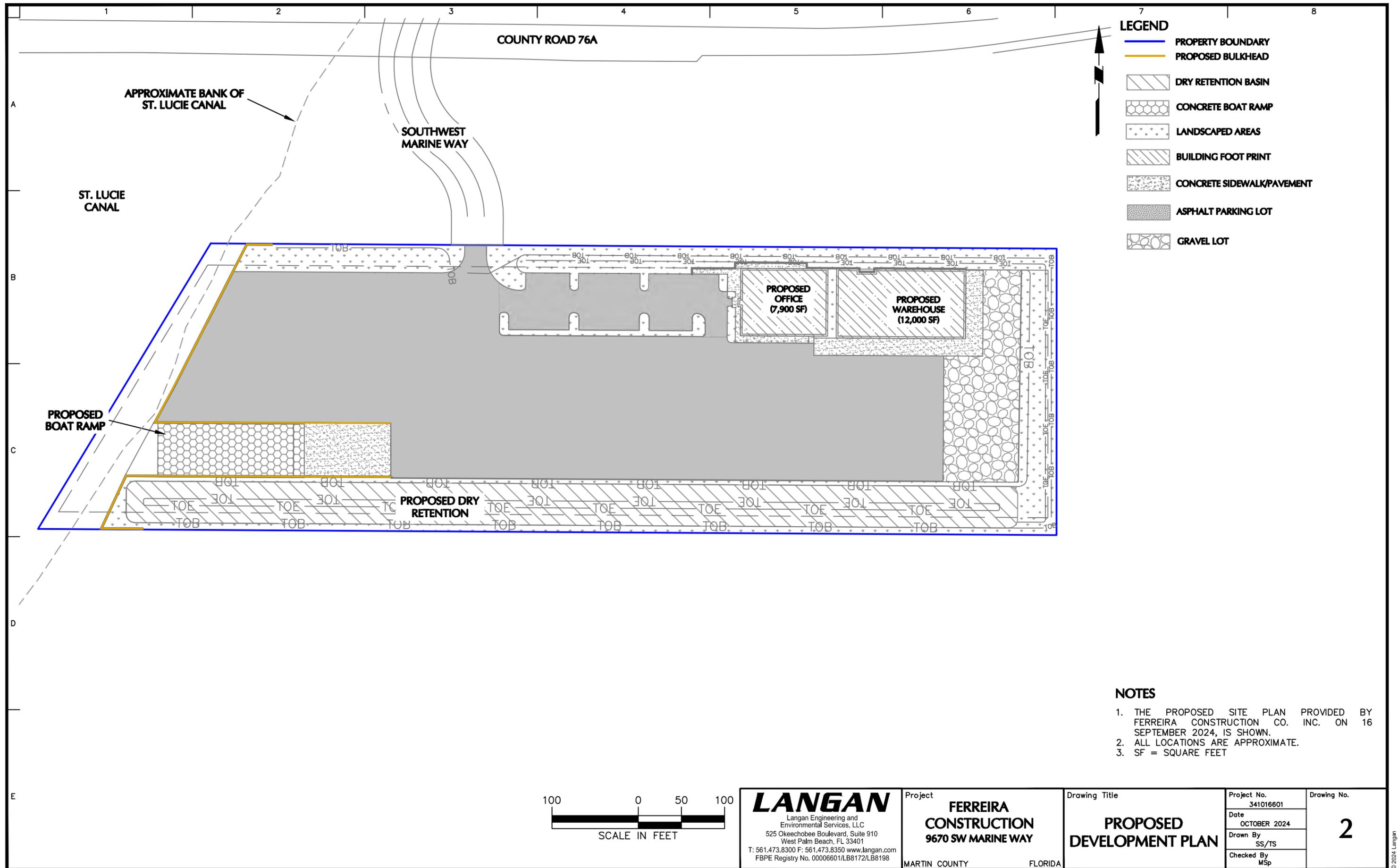
 **PROPERTY BOUNDARY**

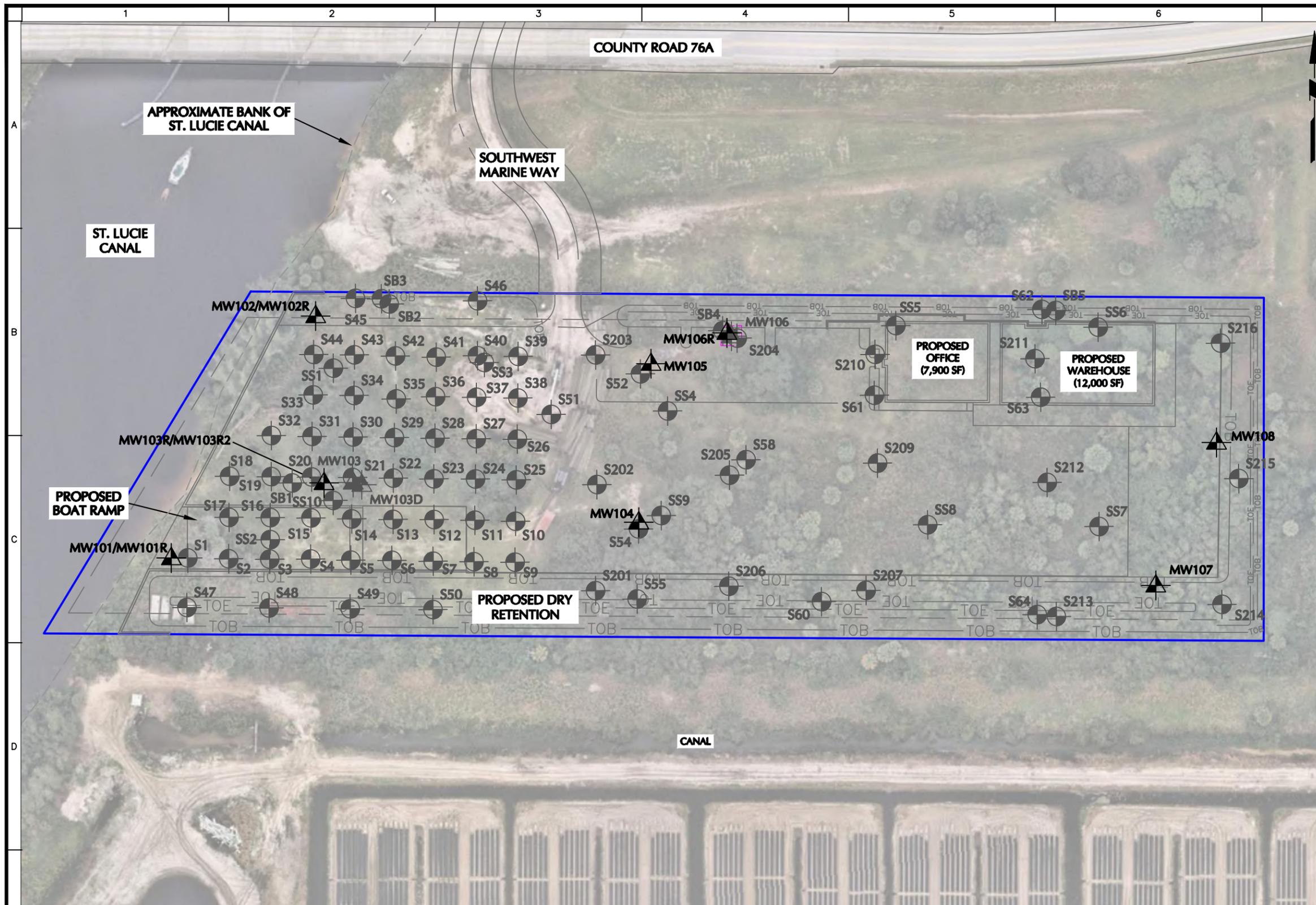


NOTES

1. BASEMAP IS UNITED STATES GEOLOGICAL SURVEY (USGS) 7.5-MINUTE TOPOGRAPHIC MAP, INDIANTOWN SOUTHEAST, FLORIDA, DATED 2024

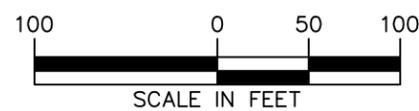
<p>LANGAN Langan Engineering and Environmental Services, LLC 525 Okeechobee Boulevard, Suite 910 West Palm Beach, FL 33401 T: 561.473.8300 F: 561.473.8350 www.langan.com FBPE Registry No. 00006601/LB8172/LB8198</p>	Project	Drawing Title	Project No.	1
		FERREIRA CONSTRUCTION	341016601	
		9670 SW MARINE WAY	OCTOBER 2024	
		STUART	SS/TS	
	MARTIN COUNTY	FLORIDA	Checked By	
			MSp	



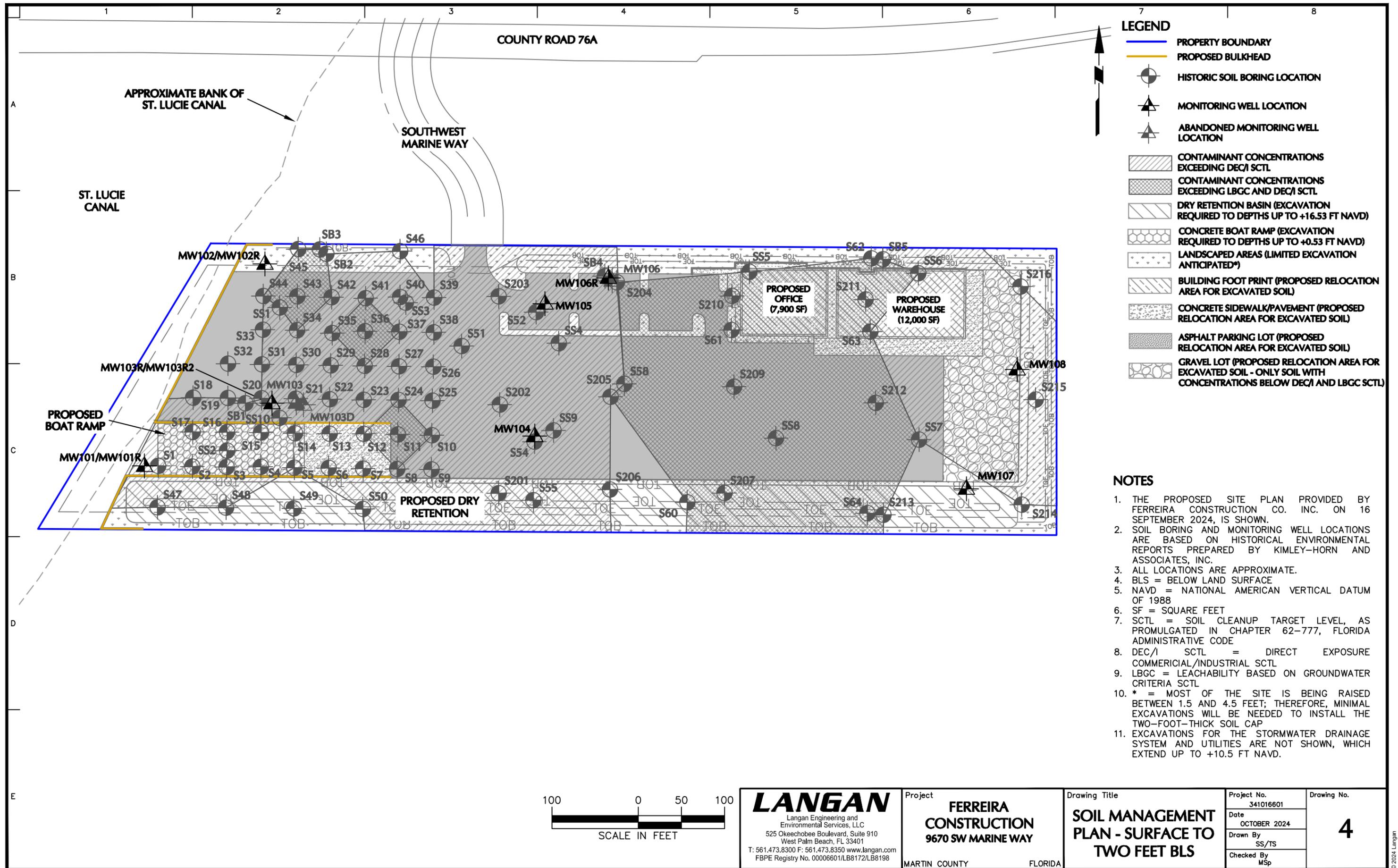


- LEGEND**
- PROPERTY BOUNDARY
 - HISTORIC SOIL BORING LOCATION
 - MONITORING WELL LOCATION
 - ABANDONED MONITORING WELL LOCATION
 - - - SOURCE REMOVAL AREA (APRIL 2019)

- NOTES**
1. THE PROPOSED SITE PLAN PROVIDED BY FERREIRA CONSTRUCTION CO. INC. ON 16 SEPTEMBER 2024, IS SHOWN.
 2. BASEMAP AERIAL FROM NEARMAP DATED 6 NOVEMBER 2023.
 3. SOIL BORING AND MONITORING WELL LOCATIONS ARE BASED ON HISTORICAL ENVIRONMENTAL REPORTS PREPARED BY KIMLEY-HORN AND ASSOCIATES, INC.
 4. ALL LOCATIONS ARE APPROXIMATE.
 5. SF = SQUARE FEET

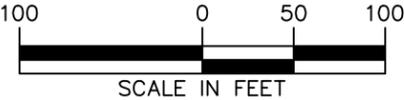


LANGAN Langan Engineering and Environmental Services, LLC 525 Okeechobee Boulevard, Suite 910 West Palm Beach, FL 33401 T: 561.473.8300 F: 561.473.8350 www.langan.com FBPE Registry No. 00006601/LB8172/LB8198	Project	FERREIRA CONSTRUCTION 9670 SW MARINE WAY		Drawing Title	Project No.	Drawing No.
	MARTIN COUNTY	FLORIDA		SITE MAP	341016601	3
				Checked By		
				MSp		

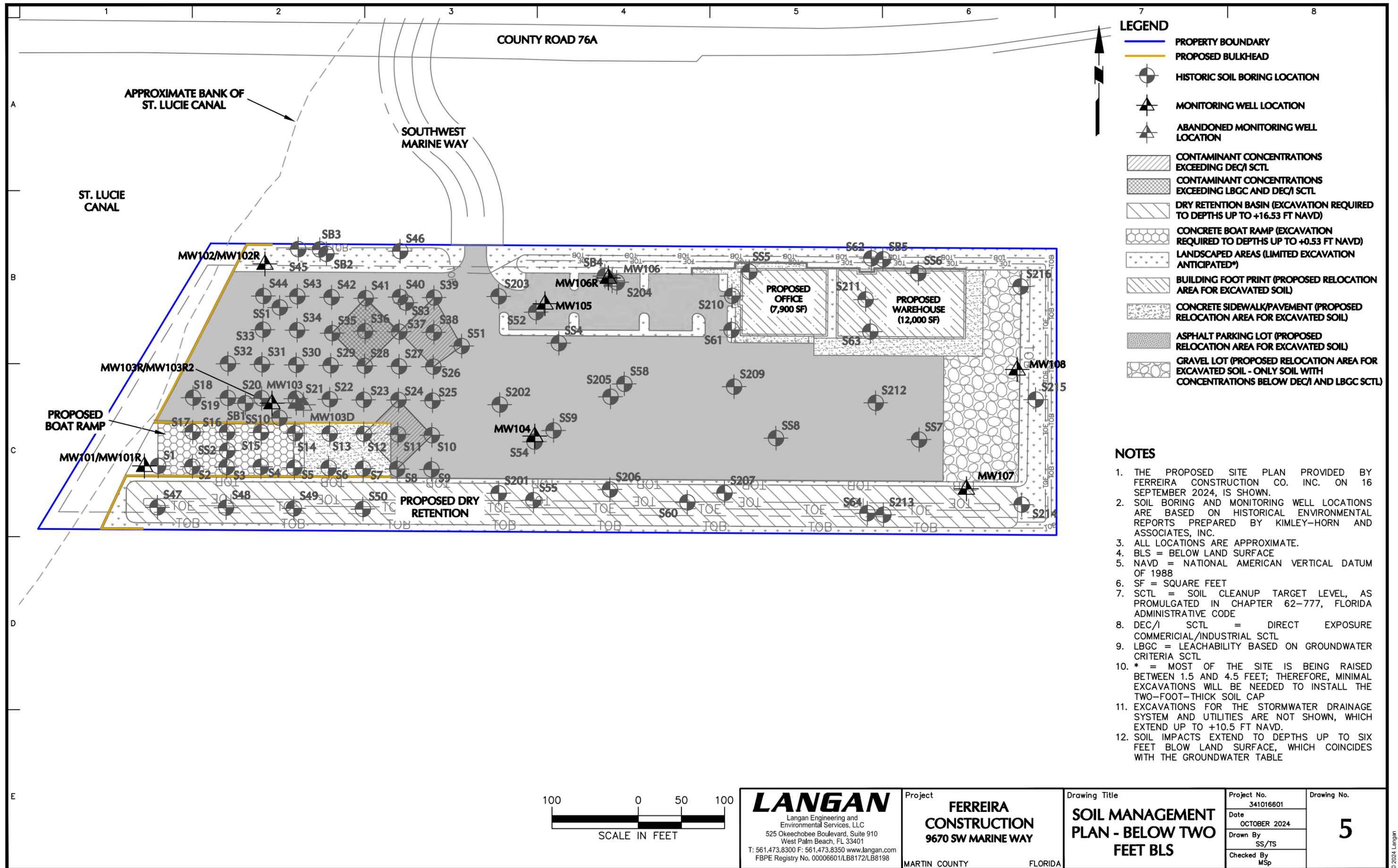


- LEGEND**
- PROPERTY BOUNDARY
 - PROPOSED BULKHEAD
 - HISTORIC SOIL BORING LOCATION
 - MONITORING WELL LOCATION
 - ABANDONED MONITORING WELL LOCATION
 - CONTAMINANT CONCENTRATIONS EXCEEDING DEC/I SCTL
 - CONTAMINANT CONCENTRATIONS EXCEEDING LBGC AND DEC/I SCTL
 - DRY RETENTION BASIN (EXCAVATION REQUIRED TO DEPTHS UP TO +16.53 FT NAVD)
 - CONCRETE BOAT RAMP (EXCAVATION REQUIRED TO DEPTHS UP TO +0.53 FT NAVD)
 - LANDSCAPED AREAS (LIMITED EXCAVATION ANTICIPATED*)
 - BUILDING FOOT PRINT (PROPOSED RELOCATION AREA FOR EXCAVATED SOIL)
 - CONCRETE SIDEWALK/PAVEMENT (PROPOSED RELOCATION AREA FOR EXCAVATED SOIL)
 - ASPHALT PARKING LOT (PROPOSED RELOCATION AREA FOR EXCAVATED SOIL)
 - GRAVEL LOT (PROPOSED RELOCATION AREA FOR EXCAVATED SOIL - ONLY SOIL WITH CONCENTRATIONS BELOW DEC/I AND LBGC SCTL)

- NOTES**
1. THE PROPOSED SITE PLAN PROVIDED BY FERREIRA CONSTRUCTION CO. INC. ON 16 SEPTEMBER 2024, IS SHOWN.
 2. SOIL BORING AND MONITORING WELL LOCATIONS ARE BASED ON HISTORICAL ENVIRONMENTAL REPORTS PREPARED BY KIMLEY-HORN AND ASSOCIATES, INC.
 3. ALL LOCATIONS ARE APPROXIMATE.
 4. BLS = BELOW LAND SURFACE
 5. NAVD = NATIONAL AMERICAN VERTICAL DATUM OF 1988
 6. SF = SQUARE FEET
 7. SCTL = SOIL CLEANUP TARGET LEVEL, AS PROMULGATED IN CHAPTER 62-777, FLORIDA ADMINISTRATIVE CODE
 8. DEC/I SCTL = DIRECT EXPOSURE COMMERCIAL/INDUSTRIAL SCTL
 9. LBGC = LEACHABILITY BASED ON GROUNDWATER CRITERIA SCTL
 10. * = MOST OF THE SITE IS BEING RAISED BETWEEN 1.5 AND 4.5 FEET; THEREFORE, MINIMAL EXCAVATIONS WILL BE NEEDED TO INSTALL THE TWO-FOOT-THICK SOIL CAP
 11. EXCAVATIONS FOR THE STORMWATER DRAINAGE SYSTEM AND UTILITIES ARE NOT SHOWN, WHICH EXTEND UP TO +10.5 FT NAVD.



<p>LANGAN Langan Engineering and Environmental Services, LLC 525 Okeechobee Boulevard, Suite 910 West Palm Beach, FL 33401 T: 561.473.8300 F: 561.473.8350 www.langan.com FBPE Registry No. 00006601/LB8172/LB8198</p>	<p>Project FERREIRA CONSTRUCTION 9670 SW MARINE WAY</p>	<p>Drawing Title SOIL MANAGEMENT PLAN - SURFACE TO TWO FEET BLS</p>	<p>Project No. 341016601</p>	<p>Drawing No. 4</p>
	<p>MARTIN COUNTY FLORIDA</p>	<p>Date OCTOBER 2024</p>	<p>Drawn By SS/TS</p>	<p>Checked By MSP</p>

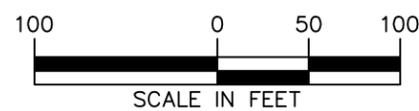


LEGEND

- PROPERTY BOUNDARY
- PROPOSED BULKHEAD
- HISTORIC SOIL BORING LOCATION
- MONITORING WELL LOCATION
- ABANDONED MONITORING WELL LOCATION
- CONTAMINANT CONCENTRATIONS EXCEEDING DEC/1 SCTL
- CONTAMINANT CONCENTRATIONS EXCEEDING LBGC AND DEC/1 SCTL
- DRY RETENTION BASIN (EXCAVATION REQUIRED TO DEPTHS UP TO +16.53 FT NAVD)
- CONCRETE BOAT RAMP (EXCAVATION REQUIRED TO DEPTHS UP TO +0.53 FT NAVD)
- LANDSCAPED AREAS (LIMITED EXCAVATION ANTICIPATED*)
- BUILDING FOOT PRINT (PROPOSED RELOCATION AREA FOR EXCAVATED SOIL)
- CONCRETE SIDEWALK/PAVEMENT (PROPOSED RELOCATION AREA FOR EXCAVATED SOIL)
- ASPHALT PARKING LOT (PROPOSED RELOCATION AREA FOR EXCAVATED SOIL)
- GRAVEL LOT (PROPOSED RELOCATION AREA FOR EXCAVATED SOIL - ONLY SOIL WITH CONCENTRATIONS BELOW DEC/1 AND LBGC SCTL)

NOTES

1. THE PROPOSED SITE PLAN PROVIDED BY FERREIRA CONSTRUCTION CO. INC. ON 16 SEPTEMBER 2024, IS SHOWN.
2. SOIL BORING AND MONITORING WELL LOCATIONS ARE BASED ON HISTORICAL ENVIRONMENTAL REPORTS PREPARED BY KIMLEY-HORN AND ASSOCIATES, INC.
3. ALL LOCATIONS ARE APPROXIMATE.
4. BLS = BELOW LAND SURFACE
5. NAVD = NATIONAL AMERICAN VERTICAL DATUM OF 1988
6. SF = SQUARE FEET
7. SCTL = SOIL CLEANUP TARGET LEVEL, AS PROMULGATED IN CHAPTER 62-777, FLORIDA ADMINISTRATIVE CODE
8. DEC/1 SCTL = DIRECT EXPOSURE COMMERCIAL/INDUSTRIAL SCTL
9. LBGC = LEACHABILITY BASED ON GROUNDWATER CRITERIA SCTL
10. * = MOST OF THE SITE IS BEING RAISED BETWEEN 1.5 AND 4.5 FEET; THEREFORE, MINIMAL EXCAVATIONS WILL BE NEEDED TO INSTALL THE TWO-FOOT-THICK SOIL CAP
11. EXCAVATIONS FOR THE STORMWATER DRAINAGE SYSTEM AND UTILITIES ARE NOT SHOWN, WHICH EXTEND UP TO +10.5 FT NAVD.
12. SOIL IMPACTS EXTEND TO DEPTHS UP TO SIX FEET BLOW LAND SURFACE, WHICH COINCIDES WITH THE GROUNDWATER TABLE



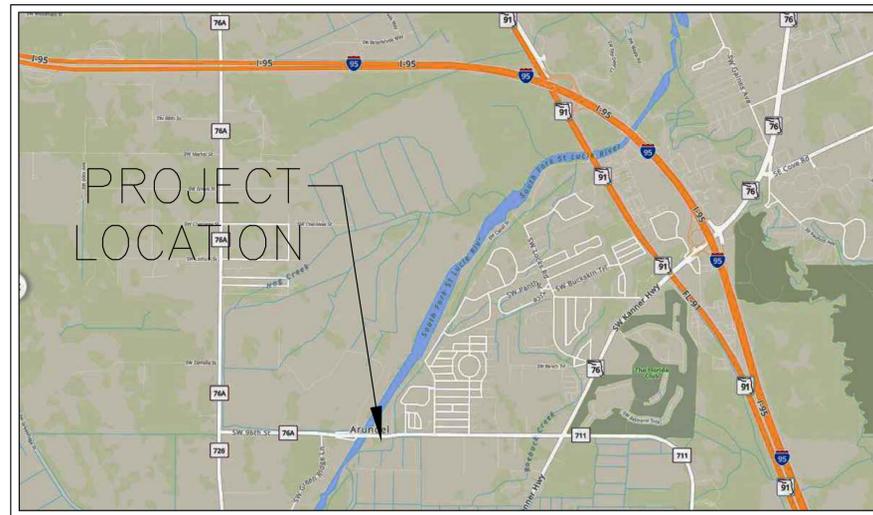
<p>LANGAN Langan Engineering and Environmental Services, LLC 525 Okeechobee Boulevard, Suite 910 West Palm Beach, FL 33401 T: 561.473.8300 F: 561.473.8350 www.langan.com FBPE Registry No. 00006601/LB8172/LB8198</p>	<p>Project FERREIRA CONSTRUCTION 9670 SW MARINE WAY</p>	<p>Drawing Title SOIL MANAGEMENT PLAN - BELOW TWO FEET BLS</p>	<p>Project No. 341016601</p>	<p>Drawing No. 5</p>
	<p>MARTIN COUNTY FLORIDA</p>	<p>Date OCTOBER 2024</p>	<p>Drawn By SS/TS</p>	<p>Checked By MSP</p>

**APPENDIX A
DEVELOPMENT PLANS**

ENGINEERING PLANS AND SPECIFICATIONS FOR FERREIRA MARINE WAY SECTION 13, TOWNSHIP 39 SOUTH, RANGE 40 EAST MARTIN COUNTY, FLORIDA

SHEET INDEX

<u>SHEET NUMBER</u>	<u>SHEET TITLE/DESCRIPTION</u>
1	COVER
2	LEGEND
3	CLEARING AND EROSION CONTROL PLAN
4	HORIZONTAL CONTROL PLAN
5	PAVING, GRADING, DRAINAGE PLAN
6	SECTIONS
7	PAVING, GRADING , DRAINAGE DETAILS A
8	PAVING, GRADING , DRAINAGE DETAILS B
9	UTILITY PLAN
9A	OFF-SITE MILLING AND OVERLAY PLAN
10	UTILITY DETAILS A
11	UTILITY DETAILS B
12	LIFT STATION DETAILS
13	HEAVY EQUIPMENT ACCESS (AUTO TURN)
14	NOTES
15	SIGNAGE, PAVEMENT & MARKINGS
A-1	BUILDING ELEVATIONS
E-1	FLOOR PLAN
LA1	LANDSCAPE PLAN
LA2	EXISTING TREE DISPOSITION PLAN
LA3	LANDSCAPE DETAILS & SPECIFICATIONS
IRR-1	IRRIGATION PLAN
IRR-2	IRRIGATION SCHEDULE & DETAILS
E1-E4	ELECTRICAL
BLK 1-2	BULKHEAD PLANS
S-1	STRUCTURAL DETAILS



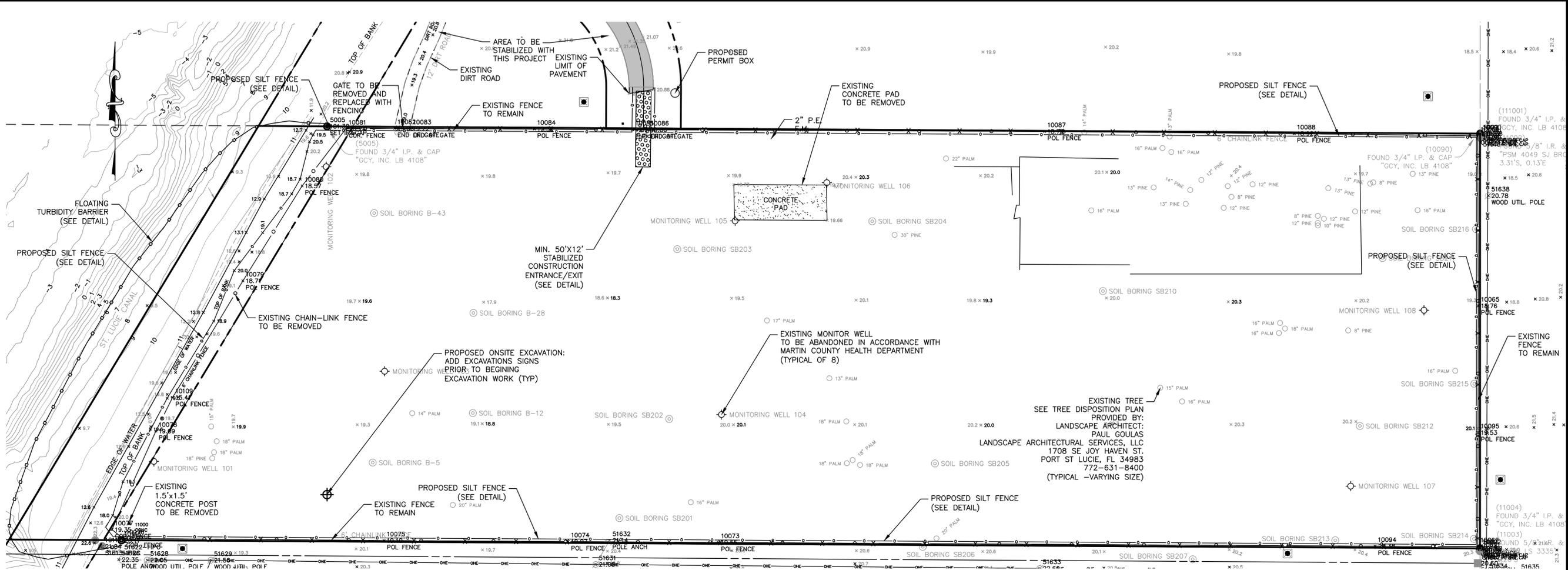
LOCATION MAP

NO.	DATE	REVISION	BY
1	02-15-23	REVISE PER MC GROWTH MANAGEMENT COMMENTS	SMB

THE MILCOR GROUP, INC.
A DIVISION OF:
HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
10975 SE FEDERAL HIGHWAY
HOBE SOUND, FL 33455
725 SE PORT ST LUCIE BLVD
UNIT 104
PORT ST. LUCIE, FL 34984
PH: (772) 223-8850
WWW.THEMILCORGROUP.COM
WWW.HALEYWARD.COM
ENGINEERING BUSINESS REGISTRY: 32864



FERREIRA MARINE WAY
MARTIN COUNTY, FLORIDA



GENERAL NOTES:

- CONTRACTOR MUST INSTALL TURBIDITY CONTROL DEVICES AND TEMPORARY BARRIERS AT THE LIMITS OF CONSTRUCTION PRIOR TO ANY CONSTRUCTION ACTIVITIES.
- TEMPORARY BARRIER SHALL BE PLACED ALONG THE SHORELINE PROTECTION ZONE PRIOR TO CONSTRUCTION ACTIVITIES.

TYPE I FLOATING TURBIDITY BARRIER

NOTE:

- CONTRACTOR TO FIELD VERIFY LOCATION SIZE AND DEPTH OF ALL EXISTING UTILITY AND DRAINAGE INFRASTRUCTURE PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR TO NOTIFY ENGINEER/INSPECTOR 48 HOURS BEFORE ANY INSPECTION.
- ALL COMMUNICATIONS WITH ANY OF THE MUNICIPALITIES MUST GO THROUGH THE ENGINEER'S OFFICE.
- PROPERTY CORNERS SHALL BE LOCATED BY A LICENSED LAND SURVEYOR AND CLEARLY MARKED IN THE FIELD PRIOR TO THE PRE-CONSTRUCTION MEETING FOR THE DEVELOPMENT.
- AUTHORIZATION TO INSTALL EROSION CONTROL DEVICES AND PRESERVE BARRICADES WILL BE GRANTED AT THE PRE-CONSTRUCTION MEETING. A SATISFACTORY INSPECTION OF THE PRESERVE BARRICADES SHALL BE RECEIVED PRIOR TO CLEARING AND INSTALLATION OF SILT FENCE.
- NO ADDITIONAL LAND CLEARING SHALL COMMENCE UNTIL A SATISFACTORY INSPECTION OF THE EROSION CONTROL BARRICADES HAS BEEN OBTAINED BY THE PUBLIC WORKS DEPARTMENT.
- ALL CONSTRUCTION BARRICADES AND SILT FENCING WILL REMAIN IN PLACE AND BE MONITORED FOR COMPLIANCE BY THE PERMIT HOLDER DURING CONSTRUCTION ACTIVITIES.
- PRIOR TO SCHEDULING A FINAL ENVIRONMENTAL INSPECTION FOR THE INFRASTRUCTURE, ALL BARRICADES AND EROSION CONTROL DEVICES SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
- CONTRACTOR MUST USE SITE STABILIZATION METHODS, SUCH AS, BUT NOT LIMITED TO, SEEDING, WETTING, AND MULCHING WHICH MINIMIZE AIRBORNE DUST AND PARTICULATE EMISSIONS GENERATED BY CONSTRUCTION ACTIVITY. SUCH METHODS SHALL BE COMPLETED PROGRESSIVELY AND ACTIVELY MAINTAINED AS VEGETATION REMOVAL OCCURS WITHIN A GIVEN AREA OF A SITE. AT THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL INFORM THE COUNTY WHICH VEGETATION REMOVAL METHODS WILL BE CONDUCTED AND THE PLAN TO MINIMIZE AIRBORNE DUST AND PARTICULATE EMISSIONS.
- ALL EROSION AND SEDIMENT CONTROLS SHALL MEET NPDES POLLUTION PREVENTION REQUIREMENTS, IN ACCORDANCE WITH THE STATE OF FLORIDA "NPDES GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES".
- A SITE OPERATOR'S NPDES INSPECTION REPORT SHALL BE MAINTAINED ON SITE FOR THE DURATION OF THE CONSTRUCTION FOR USE BY THE APPROVED INSPECTION PERSONNEL TO MONITOR AND DOCUMENT SITE CONDITIONS. THE OWNER SHALL SUPPLY DAILY INSPECTIONS OF THE WORK, ALONG WITH THE CONTRACTOR'S ON SITE SUPERINTENDENT, MARTIN COUNTY, THE ENGINEER OF RECORD, AND ENGINEER'S NPDES CERTIFIED INSPECTOR, WILL PROVIDE PERIODIC INSPECTIONS.
- ALL EROSION AND SEDIMENTATION CONTROL FACILITIES TO BE INSPECTED BY THE CONTRACTOR DAILY AND ANY DAMAGED OR DEFICIENT AREAS TO BE REPAIRED IMMEDIATELY.
- AT COMMENCEMENT OF CONSTRUCTION FOR THE PROJECT THE SILT FENCE SHALL BE INSTALLED AND MAINTAINED ALONG THE PERIMETER AND ALL EROSION AND SEDIMENTATION CONTROL FACILITIES SHALL REMAIN IN PLACE UNTIL FINAL INSPECTION AND CERTIFICATION OF COMPLETION OF CONSTRUCTION.
- CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH MARTIN COUNTY MINIMUM DESIGN AND CONSTRUCTION STANDARDS AND F.D.O.T. ROAD AND BRIDGE STANDARDS.
- DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
- THE CONTRACTOR SHALL PROVIDE SILT SCREENS OR OTHER SUCH SEDIMENT CONTROL MEASURES DURING CONSTRUCTION. THE SELECTED SEDIMENT CONTROL MEASURES SHALL BE INSTALLED LANDWARD OF THE WETLAND AND UPLAND PRESERVE AROUND ALL PROTECTED WETLANDS.
- ALL AREAS SHALL BE STABILIZED AND VEGETATED IMMEDIATELY AFTER CONSTRUCTION TO PREVENT EROSION INTO THE WETLANDS AND UPLAND BUFFER ZONES. STABILIZATION TO BE SOO, SAME AS DISTURBED.
- ENGINEERING DEPARTMENT AND GROWTH MANAGEMENT DEPARTMENT ENVIRONMENTAL DIVISION STAFF ARE TO BE NOTIFIED 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION OF AUTHORIZED IMPACTS TO WETLANDS AND/OR WETLAND BUFFERS AS SHOWN ON THE APPROVED PLANS.
- DISTURBED AREAS SHALL BE STABILIZED WITHIN 30 DAYS. STABILIZATION SHALL BE BY SEEDING OR SODDING.

TYPE III SILT FENCE

NOTE:

- ALL EROSION AND SEDIMENT CONTROLS SHALL MEET NPDES POLLUTION PREVENTION REQUIREMENTS, IN ACCORDANCE WITH THE STATE OF FLORIDA "NPDES GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES".
- A SITE OPERATOR'S NPDES INSPECTION REPORT SHALL BE MAINTAINED ON SITE FOR THE DURATION OF THE CONSTRUCTION FOR USE BY THE APPROVED INSPECTION PERSONNEL TO MONITOR AND DOCUMENT SITE CONDITIONS. THE OWNER SHALL SUPPLY DAILY INSPECTIONS OF THE WORK, ALONG WITH THE CONTRACTOR'S ON SITE SUPERINTENDENT, MARTIN COUNTY, THE ENGINEER OF RECORD, AND ENGINEER'S NPDES CERTIFIED INSPECTOR, WILL PROVIDE PERIODIC INSPECTIONS.
- ALL EROSION AND SEDIMENTATION CONTROL FACILITIES TO BE INSPECTED BY THE CONTRACTOR DAILY AND ANY DAMAGED OR DEFICIENT AREAS TO BE REPAIRED IMMEDIATELY.
- AT COMMENCEMENT OF CONSTRUCTION FOR THE PROJECT THE SILT FENCE SHALL BE INSTALLED AND MAINTAINED ALONG THE PERIMETER AND ALL EROSION AND SEDIMENTATION CONTROL FACILITIES SHALL REMAIN IN PLACE UNTIL FINAL INSPECTION AND CERTIFICATION OF COMPLETION OF CONSTRUCTION.
- CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH MARTIN COUNTY MINIMUM DESIGN AND CONSTRUCTION STANDARDS AND F.D.O.T. ROAD AND BRIDGE STANDARDS.
- DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
- THE CONTRACTOR SHALL PROVIDE SILT SCREENS OR OTHER SUCH SEDIMENT CONTROL MEASURES DURING CONSTRUCTION. THE SELECTED SEDIMENT CONTROL MEASURES SHALL BE INSTALLED LANDWARD OF THE WETLAND AND UPLAND PRESERVE AROUND ALL PROTECTED WETLANDS.
- ALL AREAS SHALL BE STABILIZED AND VEGETATED IMMEDIATELY AFTER CONSTRUCTION TO PREVENT EROSION INTO THE WETLANDS AND UPLAND BUFFER ZONES. STABILIZATION TO BE SOO, SAME AS DISTURBED.
- ENGINEERING DEPARTMENT AND GROWTH MANAGEMENT DEPARTMENT ENVIRONMENTAL DIVISION STAFF ARE TO BE NOTIFIED 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION OF AUTHORIZED IMPACTS TO WETLANDS AND/OR WETLAND BUFFERS AS SHOWN ON THE APPROVED PLANS.
- DISTURBED AREAS SHALL BE STABILIZED WITHIN 30 DAYS. STABILIZATION SHALL BE BY SEEDING OR SODDING.

CONSTRUCTION SIGN DETAIL

Warning Construction Site No Trespassing

EXCAVATION SIGN DETAIL

DANGER OPEN EXCAVATION

LEGEND

CONSTRUCTION WARNING SIGNS

EXCAVATION SIGNS

TYPE III SILT FENCE APPLICATIONS

- TYPE III SILT FENCE TO BE USED AT MOST LOCATIONS, WHERE USED IN DITCHES, THE SPACING FOR TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL (LATEST EDITION)
- TYPE IV SILT FENCE TO BE USED WHERE LARGE SEDIMENT LOADS ARE ANTICIPATED. SUGGESTED USE IS WHERE FILL SLOPE IS 1:2 OR STEEPER AND LENGTH OF SLOPE EXCEEDS 25 FEET. AVOID USE WHERE THE DETAINED WATER MAY BACK INTO TRAVEL LANES OR OFF THE RIGHT OF WAY.
- DO NOT CONSTRUCT SILT FENCE ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
- WHERE USED AS SLOPE PROTECTION, SILT FENCE IS TO BE CONSTRUCTED ON 0% LONGITUDINAL GRADE TO AVOID CHANNELIZING RUNOFF ALONG THE LENGTH OF THE FENCE.

STABILIZED CONSTRUCTION ENTRANCE

FERREIRA MARINE WAY
MARTIN COUNTY, FLORIDA

THE MILCOR GROUP, INC.
A DIVISION OF:
HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
10975 SE FEDERAL HIGHWAY
HOBE SOUND, FL 33455
725 SE PORT ST LUCIE BLVD
UNIT 104
PORT ST. LUCIE, FL 34984
PH: (772) 223-8850
WWW.THEMILCORGROUP.COM
WWW.HALEYWARD.COM
ENGINEERING BUSINESS REGISTRY: 32664

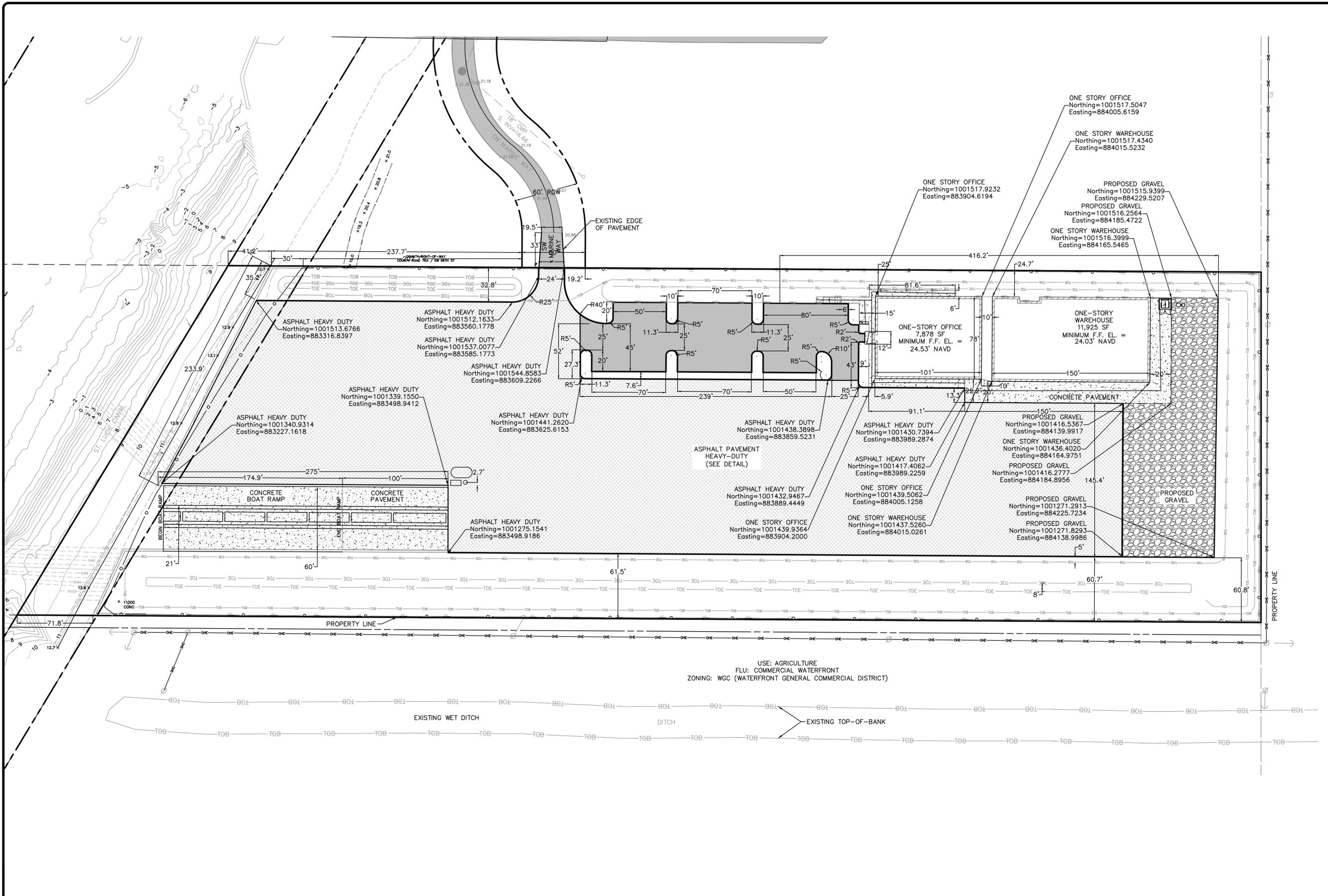
CLEARING AND EROSION CONTROL PLAN

FERREIRA MARINE WAY
MARTIN COUNTY, FLORIDA

PROFESSIONAL ENGINEERING

SHEET NO. 3

P:\FL\2011525-Ferreira-Construction\F0401-Ferreira Marine Way Site Revisions-MGC\02-CAD-Files\Marine Way Marine Way - Standard\BASE.dwg, PRINTED BY: dowens ON Mon, Aug 28 2023



USE: AGRICULTURE
FLU: COMMERCIAL WATERFRONT
ZONING: WGC (WATERFRONT GENERAL COMMERCIAL DISTRICT)

NO.	DATE	REVISION
02-13-23		REVISE PER US SAFETY MANAGEMENT COMMENTS
		SMB

80
40
0
40
VERTICAL DATUM NAVD 88
(IN FEET)
1 inch = 40 ft.

DRWN: D.O.
PROJECT: F0401
FILE: BASE.dwg
DATE: 9-23-2021

THE MILCOR GROUP, INC.
A DIVISION OF:
HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
10975 SE FEDERAL HIGHWAY
HOBE SOUND, FL 33455
725 SE PORT ST LUCIE BLVD
UNIT 104
PORT ST. LUCIE, FL 34984
PH: (772) 223-8850
WWW.THEMILCORGROUP.COM
WWW.HALEYWARD.COM
ENGINEERING BUSINESS REGISTRY: 32864

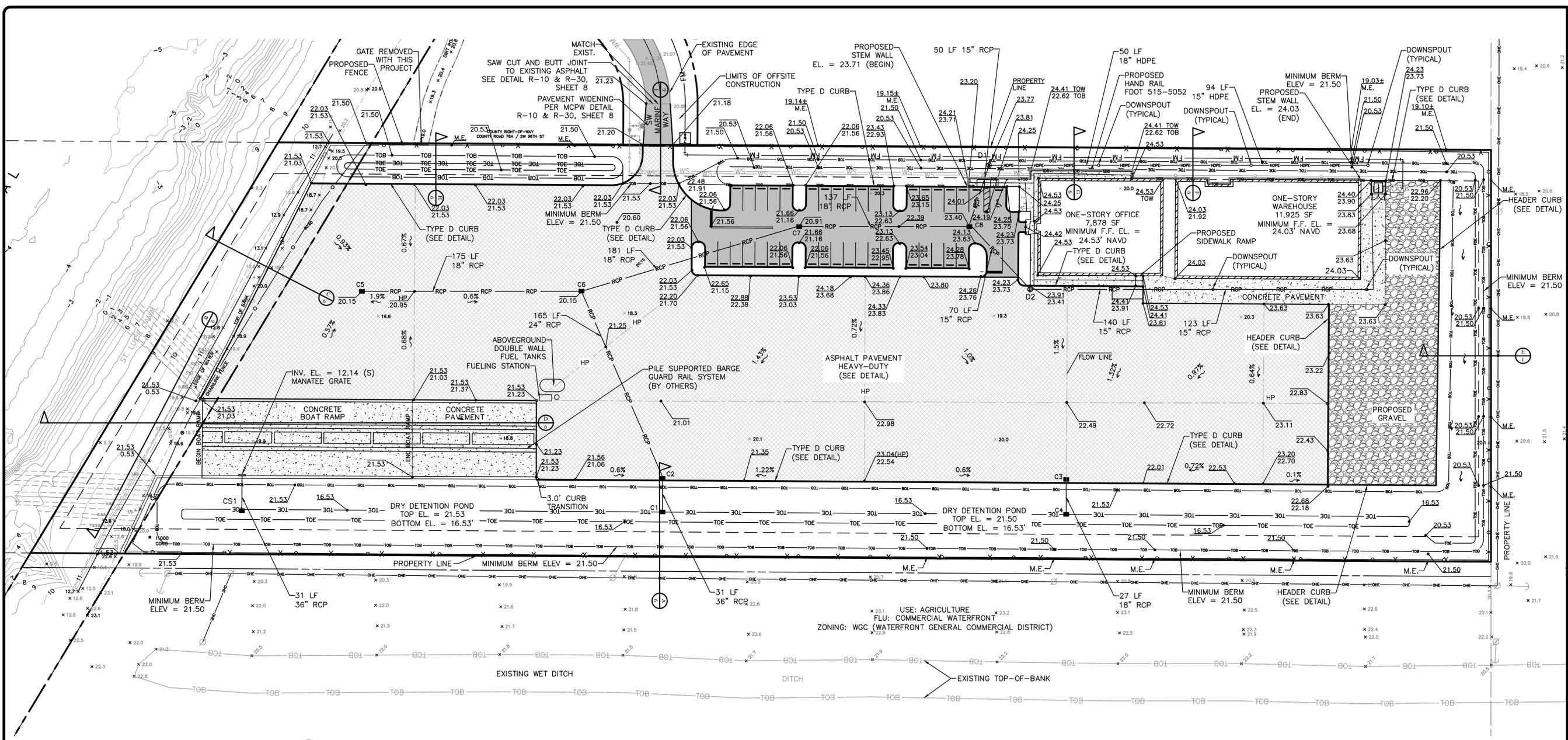
HORIZONTAL CONTROL PLAN
FERREIRA MARINE WAY
MARTIN COUNTY, FLORIDA



SHEET NO.
4

FERREIRA MARINE WAY
MARTIN COUNTY, FLORIDA

P:\FL\2011525-Ferreira-Marine Way Site Revisions-MGC\02-CAD-Files\Marine Way\Marine Way - Standard\BASE.dwg, PRINTED BY: dowens ON Mon, Aug 28 2023

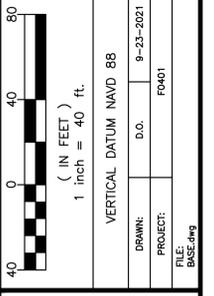


- (R50) TYPE C INLET
- C1-TYPE G DITCH BOTTOM INLET
RIM EL. 16.53
INV EL. 11.94 (N)
BOT. EL. 10.44
- C2-TYPE E CURB INLET
FDOT SUPERLOAD RATED
SEE NOTE 6
(CAST IRON GRATE)
RIM EL. 20.56
INV EL. 14.90 (N)
INV EL. 12.25 (S)
BOT. EL. 13.06
- C3-TYPE C CURB INLET
FDOT SUPERLOAD RATED
SEE NOTE 6
(CAST IRON GRATE)
RIM EL. 21.56
INV EL. 13.00 (S)
BOT. EL. 11.50
- C4-TYPE G DITCH BOTTOM INLET
RIM EL. 16.53
INV EL. 12.75 (N)
BOT. EL. 11.25
- C5-TYPE C CATCH BASIN
FDOT SUPERLOAD RATED
SEE NOTE 6
RIM EL. 20.15
INV EL. 15.85 (E)
INV EL. 14.31
- C6-TYPE C CATCH BASIN
FDOT SUPERLOAD RATED
SEE NOTE 6
RIM EL. 20.15
INV EL. 16.75 (E)
INV EL. 15.85 (W)
INV EL. 14.90 (S)
BOT. EL. 13.40
- C7-TYPE C CATCH BASIN
RIM EL. 20.91
INV EL. 16.75 (W)
INV EL. 16.75 (E)
BOT. EL. 15.25
- C8-TYPE C CATCH BASIN
RIM EL. 23.40
INV EL. 16.75 (W)
INV EL. 18.79 (NE)
INV EL. 19.13 (SE)
BOT. EL. 15.25
- CS1-TYPE G DITCH BOTTOM INLET
(SEE DETAIL SHEET 7)
- (3) DRAINAGE MANHOLE 4' DIA
- D1-DRAINAGE MANHOLE
RIM EL. 23.77
INV EL. 18.79 (E)
INV EL. 18.79 (S)
BOT EL. 17.29
- D2-DRAINAGE MANHOLE
FDOT SUPERLOAD RATED
SEE NOTE 6
RIM EL. 23.91
INV EL. 19.13 (E)
INV EL. 19.13 (W)
BOT EL. 17.63

PERIMETER BERM NOTE:
THE MINIMUM PERIMETER BERM ON THIS PROPERTY SHALL BE MAINTAINED AT ELEVATION 21.50 NAVD-88.

- NOTE:
1. CONTRACTOR TO FIELD VERIFY LOCATION SIZE AND DEPTH OF ALL EXISTING UTILITY AND DRAINAGE INFRASTRUCTURE PRIOR TO BEGINNING CONSTRUCTION.
 2. ANY CHANGES TO THE FINISH FLOOR ELEVATIONS (FFE) MUST BE APPROVED BY THE ENGINEER BEFORE VERTICAL CONSTRUCTION BEGINS.
 3. THE FINISH FLOOR ELEVATIONS (FFE) IS THE LOWEST POINT OF THE STRUCTURE. THIS INCLUDES BUT NOT LIMITED TO THE GARAGE.
 4. CONTRACTOR TO NOTIFY ENGINEER/INSPECTOR 48 HOURS BEFORE ANY INSPECTION.
 5. ALL COMMUNICATIONS WITH ANY OF THE MUNICIPALITIES MUST GO THROUGH THE ENGINEER'S OFFICE.
 6. INLET AND GRATE TO HAVE FDOT SUPERLOAD RATING OF 150,000 POUNDS.
 7. EMBANKMENTS SHALL BE PLACED IN SUCCESSIVE LAYERS, APPROXIMATELY (8) INCHES IN THICKNESS FOR THE ENTIRE WIDTH OF THE EMBANKMENT. PER MARTIN COUNTY STORM WATER MANAGEMENT AND FLOOD PROTECTION STANDARDS FOR DESIGN REVIEW, SECTION 1.3.
 8. WITHIN THE STORM WATER MANAGEMENT AREAS CLEARED, ALL STUMPS SHALL BE REMOVED, AND ALL ROOTS SHALL BE REMOVED TO A DEPTH OF AT LEAST (12) INCHES BELOW THE FINISHED GRADING LINE. PER MARTIN COUNTY STORM WATER MANAGEMENT AND FLOOD PROTECTION STANDARDS FOR DESIGN REVIEW, SECTION 1.3.

NO.	DATE	REVISION	BY
01	02-13-23	REVISE PER US GROWTH MANAGEMENT COMMENTS	SMB



THE MILCOR GROUP, INC.
A DIVISION OF:
HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
10975 SE FEDERAL HIGHWAY
HOBE SOUND, FL 33455
725 SE PORT ST LUCIE BLVD
UNIT 104
PORT ST. LUCIE, FL 34984
PH: (772) 223-8850
WWW.THEMILCORGROUP.COM
WWW.HALEYWARD.COM
ENGINEERING BUSINESS REGISTRY: 32864

PAVING, GRADING, AND DRAINAGE PLAN

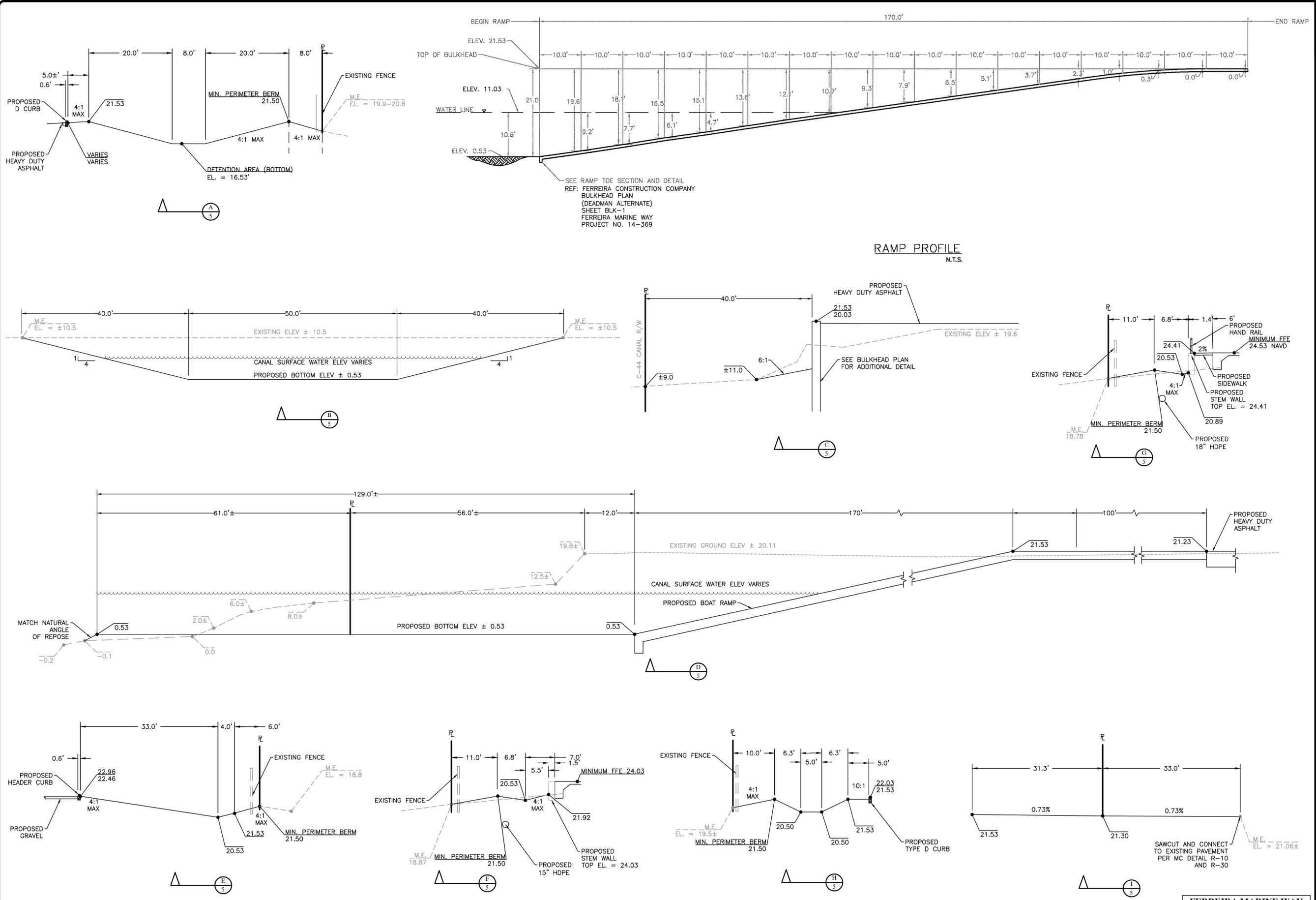
Ferreira Marine Way
MARTIN COUNTY, FLORIDA



SHEET NO.
5

Ferreira Marine Way
MARTIN COUNTY, FLORIDA

P:\FL\2011525-Ferreira_Construction\F0401-Ferreira Marine Way Site Revisions-MGC\02-CAD-Files\Marine Way\Marine Way - Standard\BASE.dwg, PRINTED BY: dowens ON Mon, Aug 28 2023



NO.	DATE	REVISIONS	BY
02-13-23		REVISE MIN BERM ELEVATION = 21.50 NAVD/SMB	

D.O. 9-23-2021
 PROJECT: F0401
 FILE: BASE.dwg

VERTICAL DATUM NAVD 88
 (IN FEET)
 1 inch = 10 ft.

THE MILCOR GROUP, INC.
 A DIVISION OF:
HALEY WARD
 ENGINEERING | ENVIRONMENTAL | SURVEYING
 10975 SE FEDERAL HIGHWAY
 HOBE SOUND, FL 33455
 725 SE PORT ST LUCIE BLVD
 UNIT 104
 PORT ST. LUCIE, FL 34984
 PH: (772) 223-8850
 WWW.THEMILCORGROUP.COM
 WWW.HALEYWARD.COM
 ENGINEERING BUSINESS REGISTRY: 32864

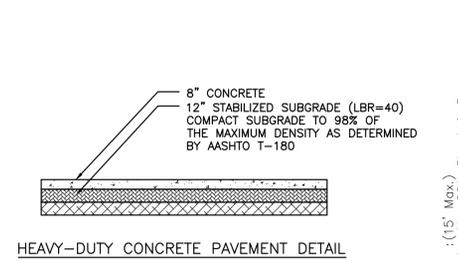
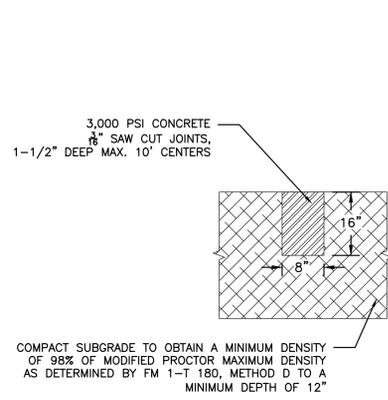
SECTIONS
FERREIRA MARINE WAY
 MARTIN COUNTY, FLORIDA

PROFESSIONAL ENGINEERING
 STATE OF FLORIDA
 No. 58292
 MAR 14 2023

SHEET NO. 6

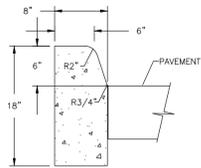
FERREIRA MARINE WAY
 MARTIN COUNTY, FLORIDA

P:\FL\2011525-Ferreira-Marine-Way-Site-Revisions-MGC-02-CAD-Files\Marine-Way-Standard\BASE.dwg - Standard\BASE.dwg - PRINTED BY: dowens ON Mon, Aug 28 2023



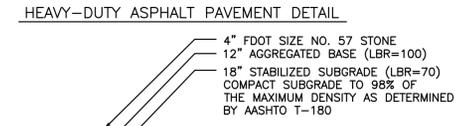
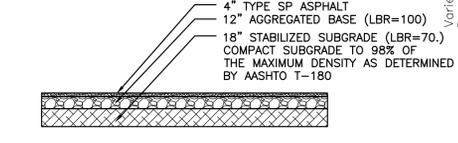
COMPACT SUBGRADE TO OBTAIN A MINIMUM DENSITY OF 98% OF MODIFIED PROCTOR MAXIMUM DENSITY AS DETERMINED BY FM 1-T 180, METHOD D TO A MINIMUM DEPTH OF 12"

HEADER CURB

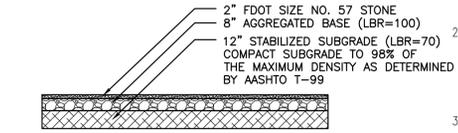


- GENERAL NOTES:
1. THE CONCRETE FOR CURBS SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI.
 2. ALL CURBS SHALL HAVE CONTRACTION JOINTS AND SHALL BE CONSTRUCTED AT INTERVALS NOT TO EXCEED 10'-0" ON CENTERS FOR ALL CURBS.

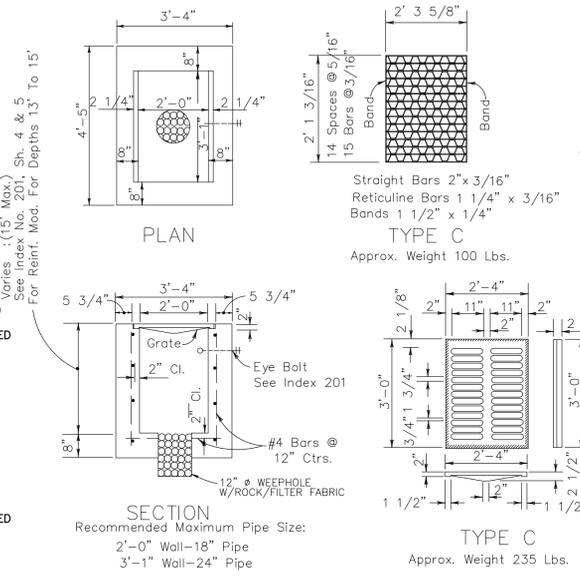
TYPE D CURB



GRAVEL DETAIL

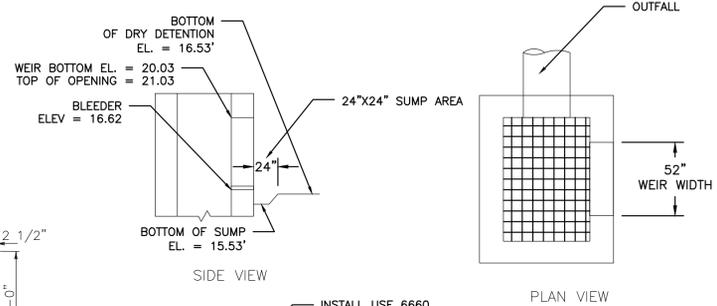


STANDARD-DUTY ASPHALT PAVEMENT DETAIL



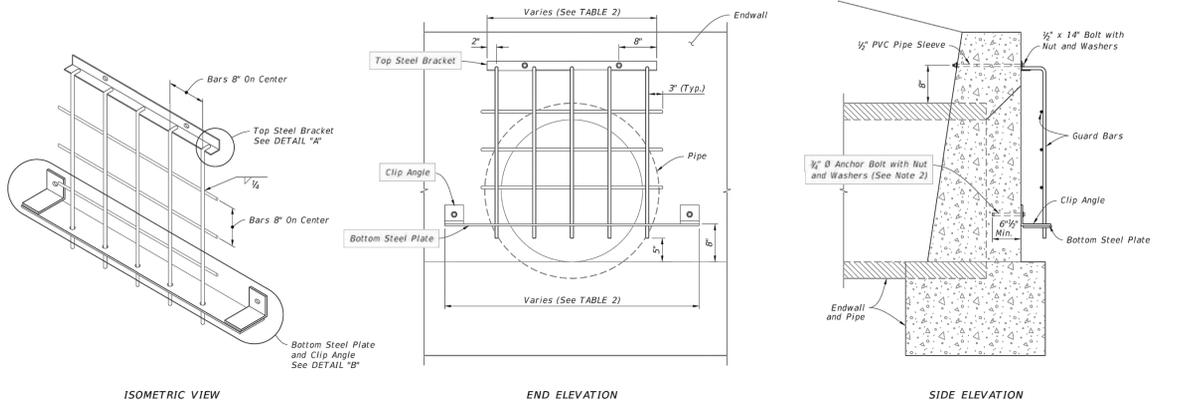
- NOTES:
1. FDOT TYPE "D" CURB SHALL NOT BE ACCEPTABLE FOR THE OUTSIDE OF A TRAVEL LANE.
 2. ALL CURB, CURB AND GUTTER, AND SIDEWALK MATERIALS AND CONSTRUCTION NOT SHOWN HEREIN SHALL BE IN ACCORDANCE WITH APPLICABLE FDOT STANDARD SPECIFICATIONS 520 AND FDOT STANDARD SERIES INDEX 300.
 3. FIBER-REINFORCED CONCRETE FOR CURBS AND SIDEWALKS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS.
 4. A DESIRED 8 FEET SHALL BE MAINTAINED BETWEEN EDGE OF TRAVEL LANE AND SIDEWALK WHERE CURB AND GUTTER DOES NOT EXIST (MINIMUM SHALL BE 4.5 FEET, UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER).

NOTE:
FOR INLETS IN F CURB, INSTALL USF 5130-6168 FRAME AND GRATE.
FOR INLETS IN VALLEY GUTTER, INSTALL USF 5113-6194 FRAME AND GRATE.
FOR INLETS IN GRASSED AREAS, INSTALL USF 6210 OR USF 6606 AS SPECIFIED
ALL INLETS TO HAVE 18" SUMP.



TYPE "C" INLET
PER FDOT INDEX NO. 425-052

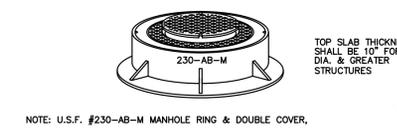
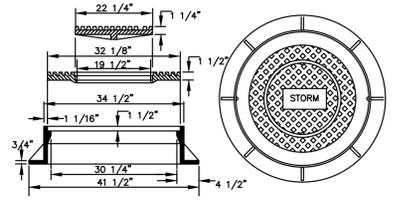
10



SINGLE GUARD
(30" Pipe Shown)

Pipe Dia. (in)	Top Steel Bracket	Bottom Steel Plate	Number of Holes	Number of Vert. Bars	Number of Horiz. Bars	Horizontal Bars Size	Weight lbs.
18	2'-4"	3'-6"	4	4	1	1/2"	48
24	3'-0"	4'-0"	5	5	2	1/2"	58
30	3'-0"	4'-6"	5	5	3	1/2"	74
36	3'-8"	5'-0"	6	6	4	1/2"	90
42	4'-4"	5'-6"	7	7	5	1/2"	111

- NOTES:
1. Construct guards only at locations specifically called for in Plans.
 2. Anchor Bolts (Galvanized): Use C-I-P Hex Head bolts or fully threaded adhesive anchors, installed in accordance with Specification 416.

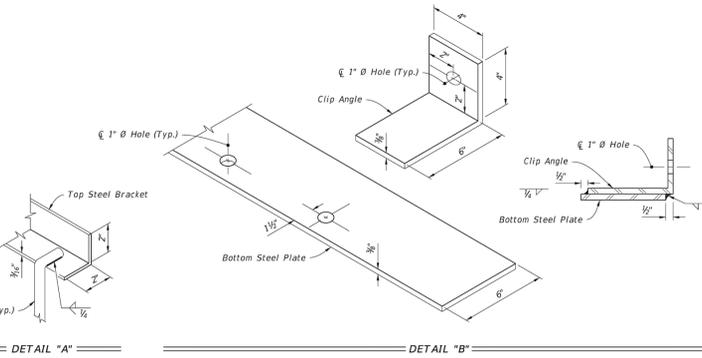


- NOTE: U.S.F. #230-AB-M MANHOLE RING & DOUBLE COVER.
- NOTES:
1. U.S.F. #230-AB-M MANHOLE RING & DOUBLE COVER. APPROX. TOTAL WEIGHT 605 POUNDS.
 2. MANHOLE COVER SHALL BE IMPRINTED WITH "STORM SEWER" AND WITH NOTES "CONFINED SPACE".
 3. PAVED AREAS - SET FRAMES AT FINISHED GRADE, UNPAVED AREAS - SET FRAMES AT FINISHED GRADE + 0.15.

TYPE	'A'	'B'	'C'	'D'	'E'	'F'
4" DIA	4'-0"	8"	8"	#5012°C.C.E.W.	#5012°C.C.E.W.	6'-4"
5" DIA	5'-0"	8"	8"	#5012°C.C.E.W.	#5012°C.C.E.W.	7'-4"
6" DIA	6'-0"	8"	8"	#5012°C.C.E.W.	#5012°C.C.E.W.	8'-4"
7" DIA	7'-0"	8"	8"	#5012°C.C.E.W.	#5012°C.C.E.W.	9'-4"

DRAINAGE STRUCTURE

3



MANATEE GRATE DETAIL

1

NO.	DATE	REVISIONS	BY
02-13-23		REVISE CONTROL STRUCTURE PER MC COMMENTS	SMB

FILE	PROJECT	D.O.	DATE
BASE.dwg	F0401		9-23-2021

THE MILCOR GROUP, INC.
A DIVISION OF:
HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
10975 SE FEDERAL HIGHWAY
HOBE SOUND, FL 33455
725 SE PORT ST LUCIE BLVD
UNIT 104
PORT ST. LUCIE, FL 34984
PH: (772) 223-8850
WWW.THEMILCORGROUP.COM
WWW.HALEYWARD.COM
ENGINEERING BUSINESS REGISTRY: 32864

PAVING, GRADING, AND DRAINAGE DETAILS A
FERREIRA MARINE WAY
MARTIN COUNTY, FLORIDA

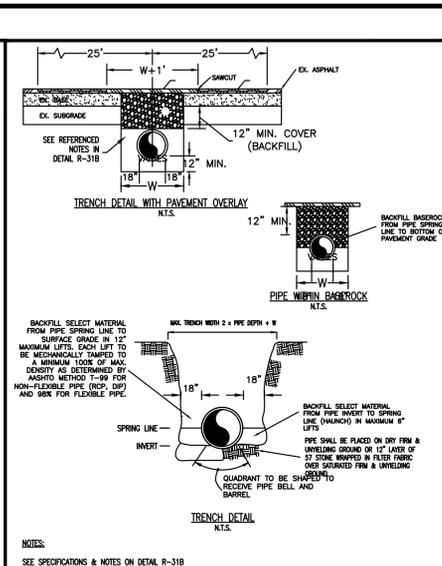
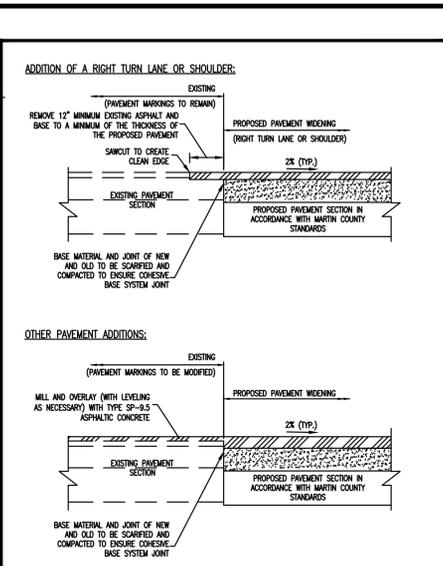
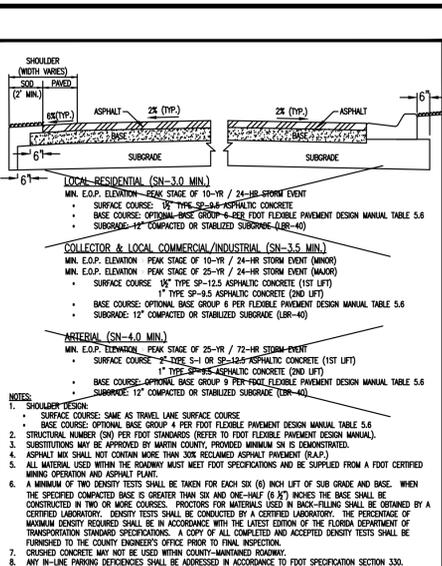
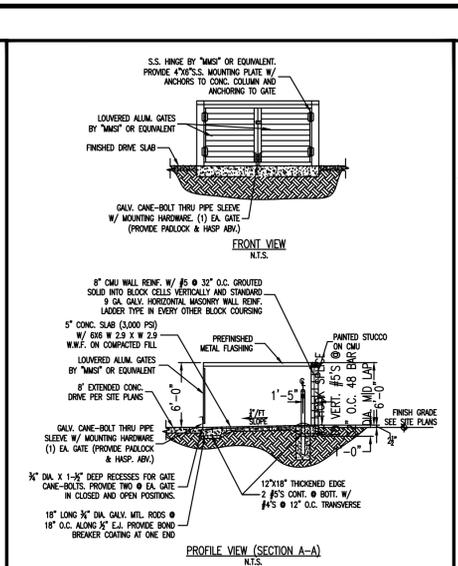
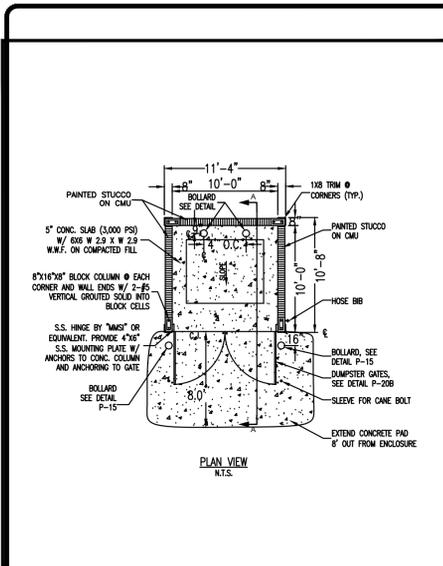


SHEET NO.

7

FERREIRA MARINE WAY
MARTIN COUNTY, FLORIDA

P:\FL\2011525-Ferreira-Marine Way Site Revisions-MGC-02-CAD-Files\Marine Way\Standard\BASE.dwg - Standard\BASE.dwg - PRINTED BY: dowens ON Mon, Aug 28 2023



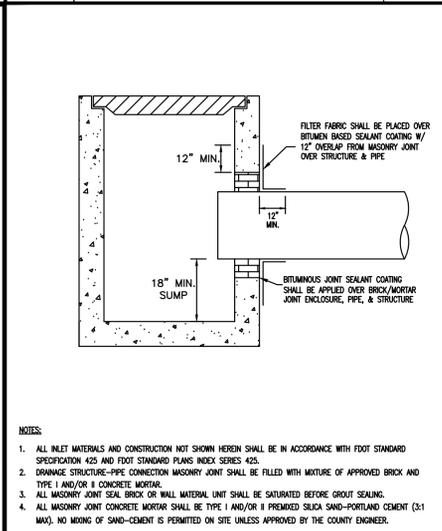
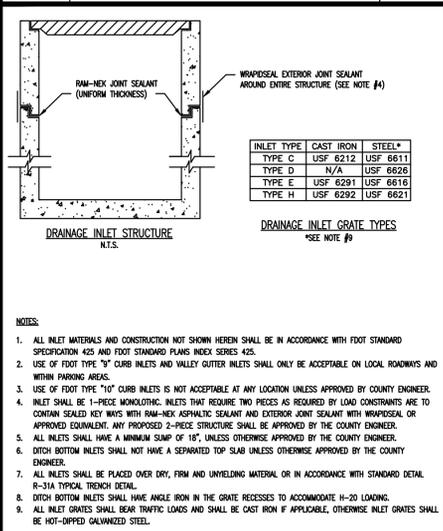
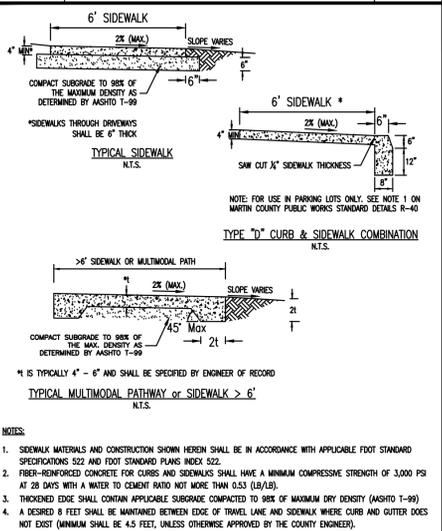
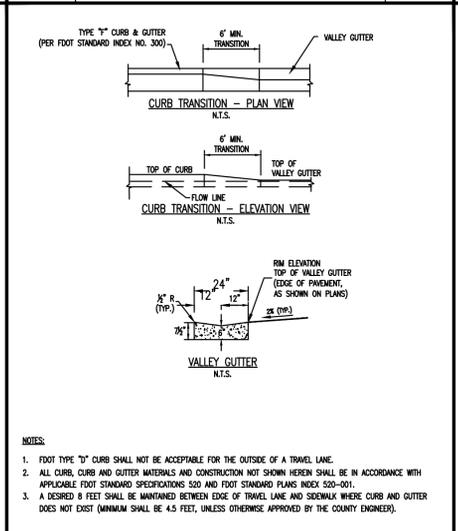
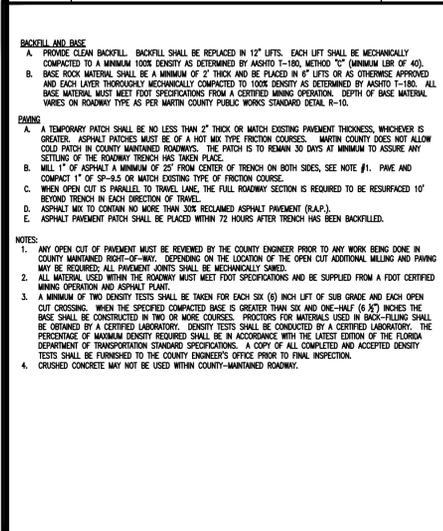
MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS
DUMPSTER ENCLOSURE
DETAIL P-20A
DATE: 12/03/19

MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS
DUMPSTER ENCLOSURE
DETAIL P-20B
DATE: 12/03/19

MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS
FLEXIBLE PAVEMENT
DETAIL R-10
DATE: 12/03/19

MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS
PAVEMENT WIDENINGS
DETAIL R-30
DATE: 12/03/19

MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS
TYPICAL OPEN CUT TRENCH
DETAIL R-31A
DATE: 12/03/19



MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS
TYPICAL OPEN CUT TRENCH
DETAIL R-31B
DATE: 12/03/19

MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS
CURB & GUTTER
DETAIL R-40
DATE: 12/03/19

MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS
SIDEWALK
DETAIL R-41
DATE: 12/03/19

MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS
LOCAL ROAD INLET
DETAIL R-50
DATE: 12/03/19

MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS
PIPE - STRUCTURE CONNECTION
DETAIL R-60
DATE: 12/03/19

NO.	DATE	REVISION
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

VERTICAL DATUM NAVD 88
D.O. 9-23-2021
DRAWN: F4041
PROJECT: F4041
FILE: BASE.dwg
DATE: 12/03/19

THE MILCOR GROUP, INC.
A DIVISION OF:
HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
10975 SE FEDERAL HIGHWAY
HOBE SOUND, FL 33455
725 SE PORT ST LUCIE BLVD
UNIT 104
PORT ST. LUCIE, FL 34984
PH: (772) 223-8850
WWW.THEMILCORGROUP.COM
WWW.HALEYWARD.COM
ENGINEERING BUSINESS REGISTRY: 32664

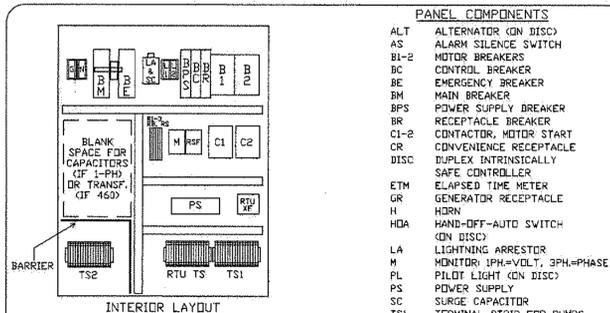
PAVING, GRADING, AND DRAINAGE DETAILS B

FERREIRA MARINE WAY
MARTIN COUNTY, FLORIDA

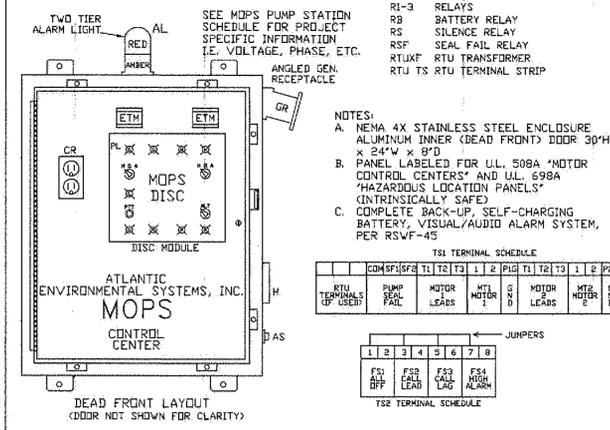
SHEET NO. 8

FERREIRA MARINE WAY
MARTIN COUNTY, FLORIDA

P:\FL\2011525-Ferreira_Marine_Way_Site_Revisions-MGC\02-CAD_Files\Marine_Way\Marine_Way - Standard\Base.dwg, PRINTED BY: dowens ON Mon, Aug 28 2023

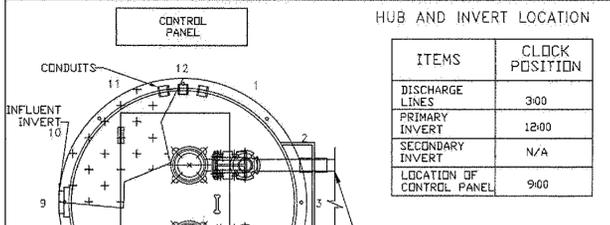


- PANEL COMPONENTS**
- ALT ALTERNATOR (CN DISC)
 - AS ALARM SILENCE SWITCH
 - BI-2 MOTOR BREAKERS
 - BC CONTROL BREAKER
 - BE EMERGENCY BREAKER
 - BM MAIN BREAKER
 - BPS POWER SUPPLY BREAKER
 - BR RECEPTACLE BREAKER
 - CI-2 CONTACTOR, MOTOR START
 - CR CONVENIENCE RECEPTACLE
 - DISC DUPLEX INTRINSICALLY SAFE CONTROLLER
 - ETH ELAPSED TIME METER
 - GR GENERATOR RECEPTACLE
 - H HORN
 - HDA HAND-OFF-AUTO SWITCH (CN DISC)
 - LA LIGHTNING ARRESTOR
 - M MONITOR (PH-VOLTY, 3PH-PHASE)
 - PL PILOT LIGHT (CN DISC)
 - PS POWER SUPPLY
 - SC SURGE CAPACITOR
 - TS1 TERMINAL STRIP FOR PUMPS
 - TS2 TERMINAL STRIP FOR FLDATS
 - RI-3 RELAYS
 - RB BATTERY RELAY
 - RS SILENCE RELAY
 - RSF SEAL FAIL RELAY
 - RTUK RTU TRANSFORMER
 - RTU TS RTU TERMINAL STRIP

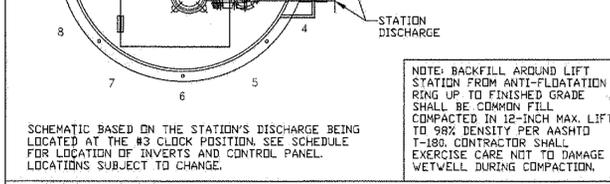


MOPS CONTROL CENTER

CONTROL CENTER DESIGNED AND MANUFACTURED TO MEET ALL D.E.P. REQUIREMENTS. SEE SCHEDULE FOR ELECTRICAL SERVICE REQUIREMENTS.



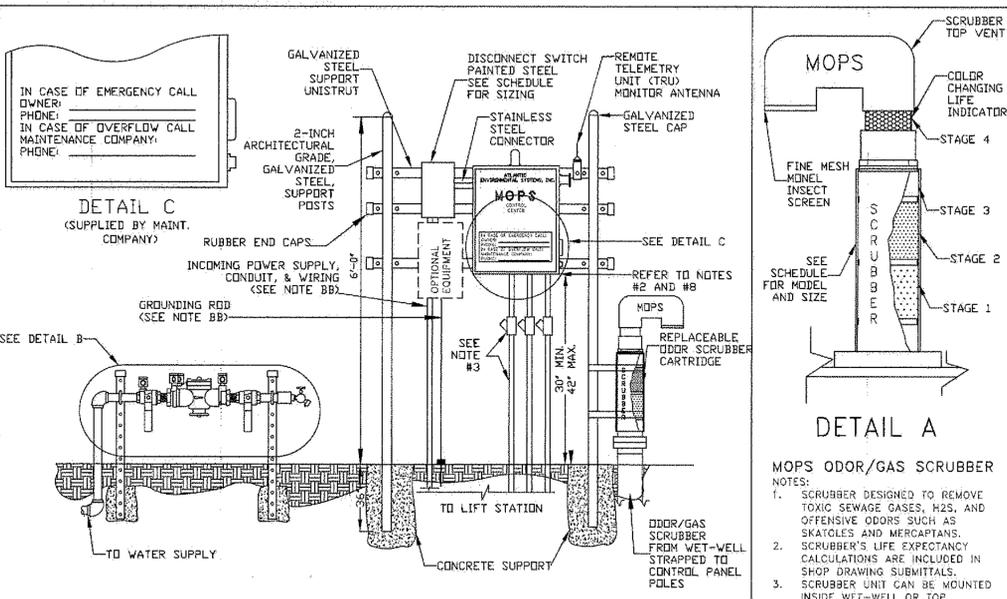
ITEMS	CLOCK POSITION
DISCHARGE LINES	300
PRIMARY INVERT	1200
SECONDARY INVERT	N/A
LOCATION OF CONTROL PANEL	900



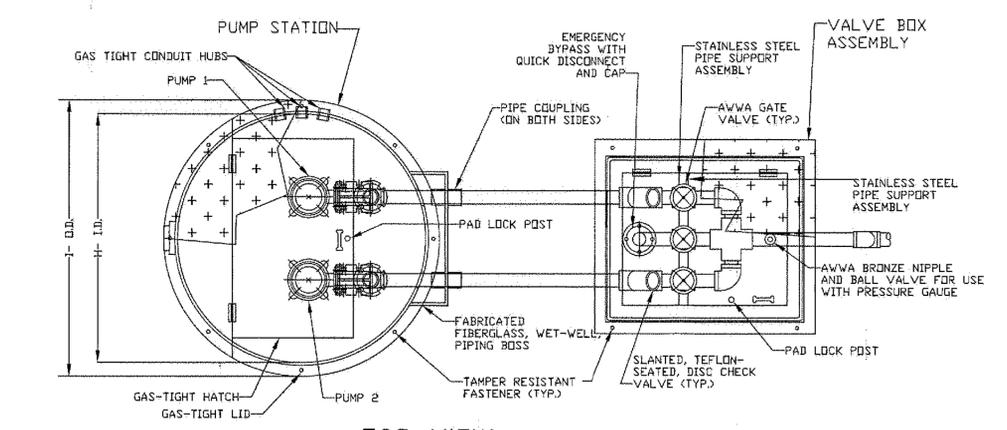
MATERIALS			MATERIALS		
ITEM	QTY	DESCRIPTION	ITEM	QTY	DESCRIPTION
A	1	3/4" x 24" STAINLESS STEEL NIPPLE	F	1	3/4" APPROVED BACKFLOW PREVENTER
B	2	3/4" x 1" STAINLESS STEEL 90° ELBOW	G	1	3/4" x 4" STAINLESS STEEL NIPPLE
C	2	1" x 1" x 40" SS SUPPORT BRACKET	H	1	3/4" x 3/4" STAINLESS STEEL COUPLING
D	2	SUPPORT BRACKET CAPS P/N 843	I	1	3/4" BRONZE HOSE 8/86
E	2	3/4" STAINLESS STEEL PIPE BOLTS	J	1	3/4" VACUUM BREAKER

DETAIL B
R.P.Z. BACKFLOW PREVENTER ASSEMBLY DETAIL

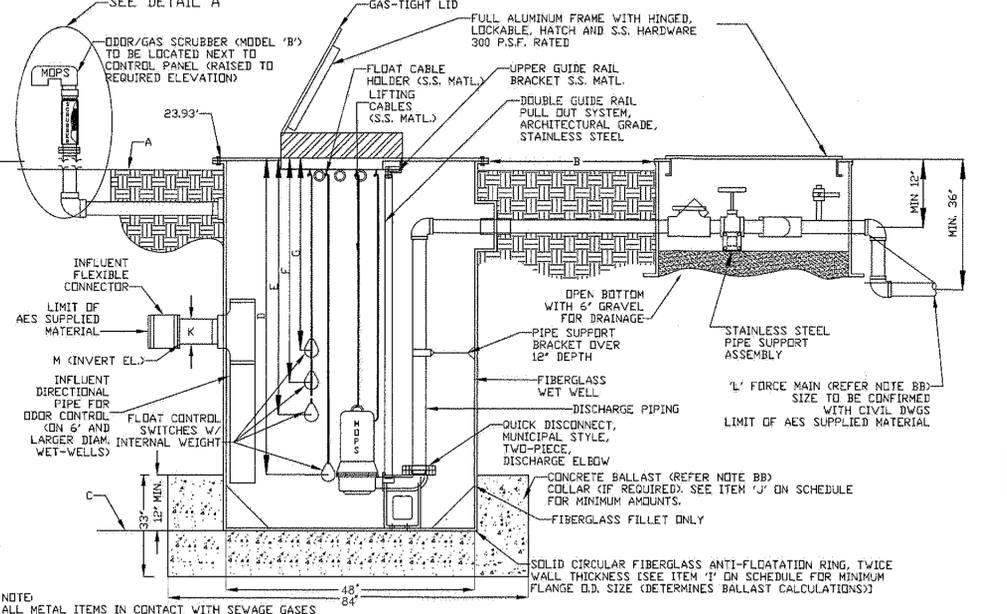
U.S.C. AND A.S.S.E. APPROVED N.T.S.



CONTROL CENTER ASSEMBLY AND INSTALLATION N.T.S.



TOP VIEW N.T.S.



SECTION VIEW N.T.S.

MOPS PRIVATE SERIES

MANUFACTURED ODORLESS PUMP STATION
ATLANTIC ENVIRONMENTAL SYSTEMS, INC.
LAKE WORTH, FL 33461
PH: (561) 547-8080 FAX: (561) 547-3999 © 2000

THIS DRAWING AND THE DESIGN CONTAINED HEREIN IS PROPRIETARY AND IS TO REMAIN THE PROPERTY OF ATLANTIC ENVIRONMENTAL SYSTEMS, INC. THIS DRAWING AND DESIGN SHOULD BE USED ONLY FOR THE PURPOSE FOR WHICH IT IS INTENDED, AND ONLY WITH WRITTEN AUTHORIZATION FROM ATLANTIC ENVIRONMENTAL SYSTEMS, INC. ANY REPRODUCTION IN WHOLE OR IN PART, WITHOUT PERMISSION FROM ATLANTIC ENVIRONMENTAL SYSTEMS, INC. WOULD VIOLATE ATLANTIC ENVIRONMENTAL SYSTEMS' COPYRIGHTS.

MOPS PUMP STATION SCHEDULE

MOPS SERIES	ITEM DESCRIPTION	QTY	MODEL DESIGNATION
INITIAL DESIGN FLOW (G.P.M.)	100 YEAR FLOOD ELEVATION	21	23.4'
INITIAL DESIGN HEAD (T.D.H.)	25 YEAR FLOOD ELEVATION	81	20.57'
SECONDARY DESIGN FLOW (G.P.M.)	A GRADE ELEVATION	33	23.93'
SECONDARY DESIGN HEAD (T.D.H.)	B TOP ELEVATION OF WET WELL	48	23.93'
RATED PERFORMANCE SPEED	C BOTTOM ELEVATION OF WET WELL	3450 RPM	13.93'
RATED MOTOR HORSEPOWER	D ALL PUMPS OFF ELEVATION	3.0	16.30'
SUBMERSIBLE PUMP TYPE (P-1,P-2)	E LEAD PUMP ON ELEVATION	GRINDER	17.00'
PUMP MODEL NUMBER	F LAG PUMP ON ELEVATION	MOPS	17.50'
SERVICE ENTRANCE VOLTAGE	G HIGH ALARM ELEVATION	208	18.00'
SERVICE ENTRANCE PHASE	H INSIDE DIAMETER OF WET-WELL	3	48"
CONTROL CENTER FULL LOAD AMPS	I OUTSIDE DIAMETER OF ANTI-FLOATATION RING	31	84"
NEMA 3R PAINTED STEEL DISCONNECT SWITCH, RATED AMPS	J MINIMUM CUBIC FEET OF CONCRETE BALLAST (CU YDS)	60	3.5 CY
WET WELL SCOURER SYSTEM	K INVERT PIPE DIAMETER	N/A	6"
REMOTE STATION MONITOR (TELEMETRY)	L FORCE MAIN DIAMETER	W/ SA	2"
ON-SITE GENERATOR SYSTEM	M PRIMARY INVERT ELEVATION	N/A	18.91'
	N SECONDARY INVERT ELEVATION	N/A	N/A

MOPS EQUIPMENT IDENTIFICATION	QTY.	MODEL DESIGNATION
MOPS PUMP STATION	1	B22-48120-C-3.0
MOPS VALVE BOX ASSEMBLY (VBA)	1	VBA-22
MOPS ODOR/GAS SCRUBBER (OGS)	1	OGS-B
MOPS R.P.Z. ASSEMBLY	1	75
MOPS CONTROL CENTER	1	PSC-222-3.0
MOPS DISCONNECT SWITCH	1	FDS-60-3-2-PS
MOPS CONTROL CENTER MOUNTING ASSEMBLY	1	CCMA-22GA
MOPS WET WELL SCOURER SYSTEM	0	N/A
MOPS REMOTE STATION MONITOR	1	PROVIDED WITH SERVICE AGREEMENT
1st YEAR SERVICE/MAINTENANCE CONTRACT	1	LEVEL 1 WITH REMOTE MONITOR
MOPS ON-SITE GENERATOR SYSTEM	0	N/A
MOPS FIELD SERVICE WORK	1	CONTROL INSTALLATION & START-UP

MOPS PUMP STATION COMPLIANCE NOTES

- THIS PUMP STATION DESIGN COMPLIES WITH THE FOLLOWING REQUIRED STANDARDS:
- STATE OF FLORIDA ENVIRONMENTAL PROTECTION STANDARDS
 - FLORIDA ADMINISTRATIVE CODE (F.A.C.): 62-640.400- COLLECTION AND TRANSMISSION SYSTEMS
 - NATIONAL ELECTRIC CODE (NEC) CLASS 1, DIVISION 1, GROUP D- HAZARDOUS LOCATIONS
 - UNDERWRITER'S LABORATORIES (U.L.) 508A-MOTOR CONTROL CENTERS AND U.L. 698A-INTRINSICALLY SAFE CONTROL CENTERS
 - RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES (1997 EDITION).

1. PUMPS ARE RATED BY FACTORY MUTUAL FOR CLASS 1, DIVISION 1, GROUP D ATMOSPHERES AS REQUIRED BY NEC.
2. THE CONTROL CENTER INCORPORATES INTRINSICALLY SAFE RELAYS AND IS LISTED TO UL698A INTRINSICALLY SAFE FOR CLASS 1, DIVISION 1 ATMOSPHERES.
3. THE CONDUIT PROVIDED, ALONG WITH CONDUIT GAS-SEAL-OFFS, ARE RATED FOR CLASS 1, DIVISION 1 LOCATIONS.
4. THE WASTEWATER PUMPS AND THE CONTROL CENTER INCORPORATE A MECHANICAL SEAL FAILURE DETECTION AND NOTIFICATION SYSTEM.
5. THE CONTROL CENTER INCLUDES EITHER A REMOTE TELEMETRY UNIT (RTU) OR A SELF-CHARGING, BACK-UP ALARM SYSTEM TO OPERATE ON POWER FAILURE.
6. THE PUMP STATION INCORPORATES AN ODORLESS DESIGN WITH A SCRUBBER SYSTEM TO CONTROL TOXIC GASES AND ODORS FOR COMPLIANCE TO F.A.C. 62-604.400.
7. THE BOTTOM OF THE TOP RIM ELEVATION OF PUMP STATION MUST BE LOCATED AT A HIGHER ELEVATION THAN THE 25 YEAR FLOOD ELEVATION. THE LISTED 25 YEAR FLOOD ELEVATION PROVIDED BY SITE CIVIL ENGINEER.
8. THE BOTTOM ELEVATION OF THE MOPS CONTROL CENTER MUST BE LOCATED AT A HIGHER ELEVATION THAN THE 100 YEAR FLOOD ELEVATION. THE LISTED 100 YEAR FLOOD ELEVATION PROVIDED BY THE SITE CIVIL ENGINEER.

MOPS ENGINEERING NOTES

- AA. THE HORSEPOWER SHOWN ON THE SCHEDULE IS A MINIMUM HORSEPOWER REQUIREMENT BASED ON THE STATION'S DESIGN CRITERIA AND THE REQUIRE TORQUE. (LOWER RATED HORSEPOWER EQUIPMENT WILL NOT BE ACCEPTABLE.)
- BB. THESE ITEMS ARE NOT SUPPLIED BY A.E.S. WITH THE MOPS STATION.
- CC. INVERT ELEVATIONS BASED ON INSIDE BOTTOM OF PIPE.
- DD. THE MOPS CONTROL ASSEMBLY CONSISTS OF THE FOLLOWING: CONTROL CENTER DISCONNECT SWITCH, MOUNTING ASSEMBLY, ELECTRICAL CONDUITS, AND SEAL-OFF. THESE ITEMS MUST BE SUPPLIED AND INSTALLED BY THE MOPS PUMP STATION MANUFACTURER TO VALIDATE MOPS WARRANTY PROGRAM.

THE MOPS WASTEWATER PUMP STATION DESIGN AND EQUIPMENT SHOWN ON THIS DRAWING HAS BEEN REVIEWED, PERMITTED, AND CERTIFIED AS COMPLYING WITH ALL THE STATE OF FLORIDA D.E.P. AND LOCAL REQUIREMENTS. ANY SUBSTITUTION FROM THIS DESIGN MAY REQUIRE NEW PERMITS, APPLICATION FEES, AND ENGINEERING SERVICES FOR RE-CERTIFICATION AND DESIGN REVIEW.

10975 SE FEDERAL HIGHWAY
HOBE SOUND, FL 33455
725 SE PORT ST LUCIE BLVD
UNIT 104
PORT ST. LUCIE, FL 34984
PH: (772) 223-8850
WWW.THEMILCORGROUP.COM
WWW.HALEYWARD.COM
ENGINEERING BUSINESS REGISTRY: 32664

LIFT STATION DETAILS

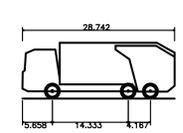
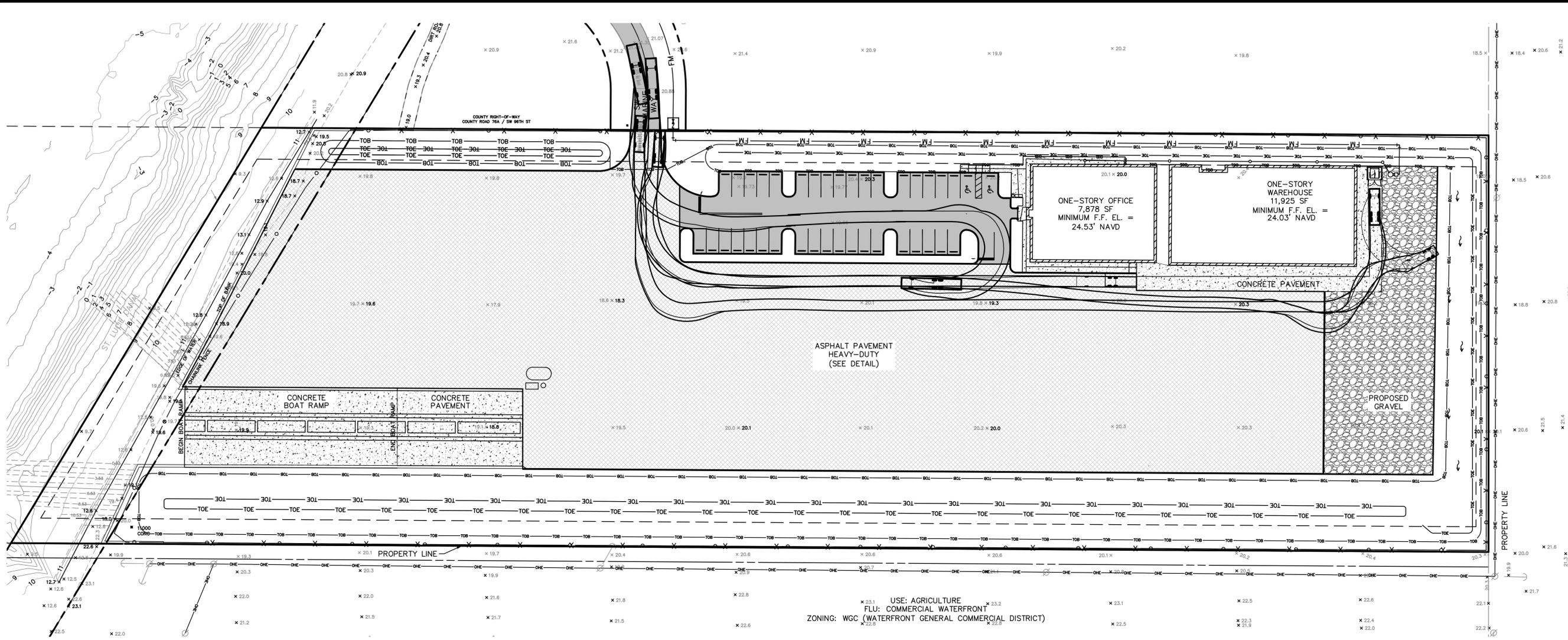
FERREIRA MARINE WAY

MARTIN COUNTY, FLORIDA

SHEET NO.

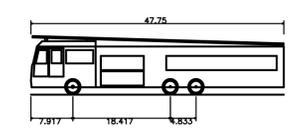
12

P:\FL\2011525-Ferreira_Construction\F0401-Ferreira Marine Way Site Revisions-MGC\02-CAD_Files\Marine Way\Marine Way - Standard\BASE.dwg, PRINTED BY: dowens ON Mon, Aug 28 2023



Mack TerraPro Low Entry 6x4 LEU 613 + Wayne Phoenix III 25Yd
 Overall Length 28.742ft
 Overall Width 8.000ft
 Overall Body Height 10.481ft
 Min Body Ground Clearance 1.311ft
 Track Width 8.000ft
 Lock-to-lock time 6.00s
 Curb to Curb Turning Radius 34.000ft

28'-8 GARBAGE TRUCK



E-ONE HP95 Mid Mount
 Overall Length 47.750ft
 Overall Width 8.333ft
 Overall Body Height 11.000ft
 Min Body Ground Clearance 1.353ft
 Track Width 8.333ft
 Lock-to-lock time 6.00s
 Max Wheel Angle 45.00

47'-0 FIRE TRUCK

NO.	DATE	REVISIONS PER MC GROWTH MANAGEMENT	BY

80
40
0
40

(IN FEET)
1 inch = 40 ft.

VERTICAL DATUM NAVD 88

DRAWN: D.O. 9-23-2021
PROJECT: F0401
FILE: BASE.dwg

THE MILCOR GROUP, INC.
A DIVISION OF:
HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
10975 SE FEDERAL HIGHWAY
HOBE SOUND, FL 33455
725 SE PORT ST LUCIE BLVD
UNIT 104
PORT ST. LUCIE, FL 34984
PH: (772) 223-8850
WWW.THEMILCORGROUP.COM
WWW.HALEYWARD.COM
ENGINEERING BUSINESS REGISTRY: 32664

HEAVY EQUIPMENT ACCESS (AUTO TURN)

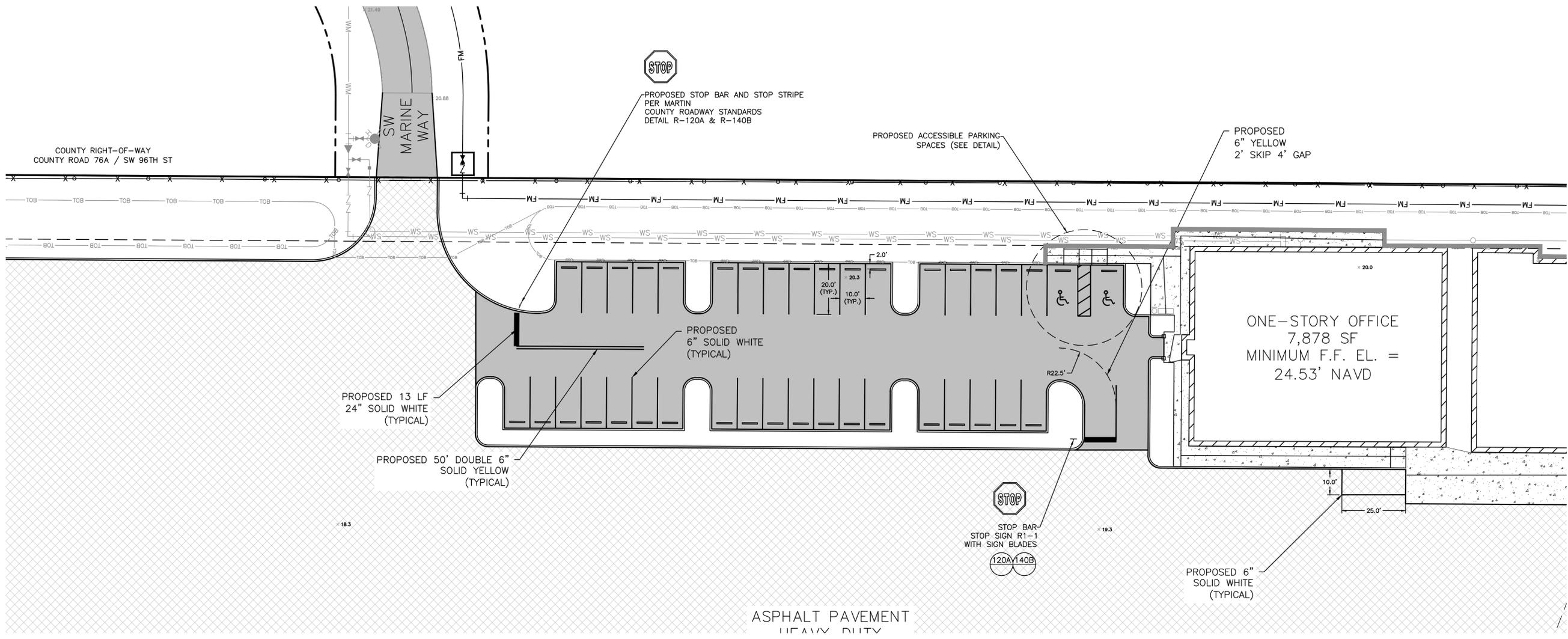
FERREIRA MARINE WAY
MARTIN COUNTY, FLORIDA



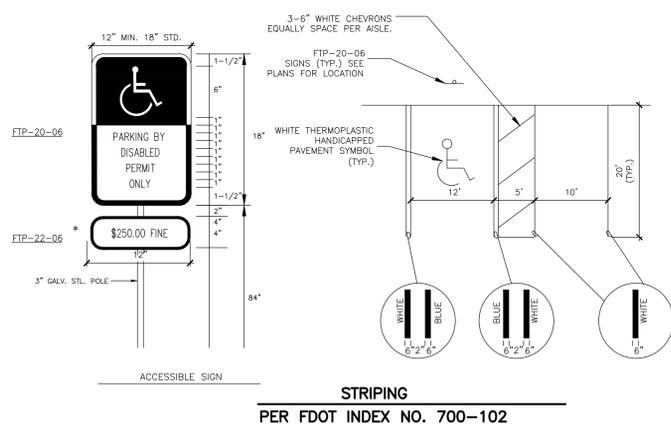
SHEET NO.
13

FERREIRA MARINE WAY
MARTIN COUNTY, FLORIDA

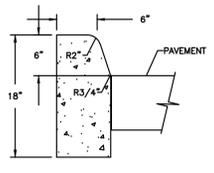
P:\FL\2011525-Ferreira-Construction\F0401-Ferreira-Marine Way Site Revisions-MGC\02-CAD_Files\Marine Way\Marine Way - Standard\BASE.dwg, PRINTED BY: dowens ON Mon, Aug 28 2023



NOTES:
 1. ALL STRIPING AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE MOST STRINGENT OF MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, FDOT, AND LOCAL MUNICIPALITY REGULATIONS.

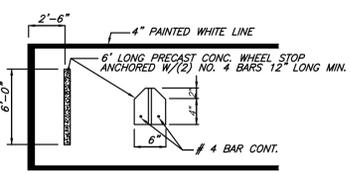


STRIPING
 PER FDOT INDEX NO. 700-102



GENERAL NOTES:
 1. THE CONCRETE FOR CURBS SHALL BE COMPRESSIVE STRENGTH OF 3000 PSI. ALL CURBS SHALL HAVE CONSTRUCTION JOINTS AND SHALL BE CONSTRUCTED AT INTERVALS NOT TO EXCEED 10'-0\"/>

D CURB
 PER FDOT INDEX NO. 520-001



CONCRETE WHEEL STOP DETAIL
 NOTE: SEE SITE PLAN FOR PARKING SPACE SIZE AND FOR WHEEL STOP LOCATIONS. PAINT WHEEL STOP SASH YELLOW

MAINTENANCE OF TRAFFIC CONTROL DEVICES

TRAFFIC SIGNS ON PRIVATELY MAINTAINED ROADS ARE THE RESPONSIBILITY OF THE MAINTAINING ENTITY, TYPICALLY, THE HOMEOWNERS OR PROPERTY OWNERS ASSOCIATION. WHERE PRIVATELY MAINTAINED ROADS INTERSECT STATE OR COUNTY MAINTAINED ROADS, THE TRAFFIC SIGNS (SUCH AS STREET NAME "BLADES" AND REGULATORY SIGNS) AND WARNINGS (SUCH AS STOP SIGNS) SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER AND CURRENT USER ENTITY NOT THE COUNTY OR THE STATE. PRIOR TO THE MARTIN COUNTY SHERIFF'S OFFICE PATROLLING ON PRIVATE ROADS, AN AGREEMENT FOR TRAFFIC CONTROL ON PRIVATE ROADS MUST BE EXECUTED WITH MARTIN COUNTY. THE HOMEOWNERS OR PROPERTY OWNERS ASSOCIATION SHALL SUBMIT A CERTIFICATION OF COMPLIANCE WITH THESE REGULATIONS PRIOR TO THE EXECUTION OF THE AGREEMENT FOR TRAFFIC CONTROL ON PRIVATE ROADS. THE CERTIFICATION MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA.

THE DESIGN AND MANUFACTURING OF ALL SIGNING AND MARKINGS REQUIRED FOR THE OPERATION OF THE CONNECTION (SUCH AS STOP SIGNS AND STOP SIGNS FOR THE CONNECTION) SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER AND CURRENT ENTITY RESPONSIBLE FOR THE CONNECTION, OR GOVERNMENT ENTITY HAVING JURISDICTION OVER THE CONNECTION, ROAD, OR INTERSECTION OF THE COUNTY ROAD REGARDLESS OF THE OWNER OF THE RIGHT-OF-WAY AS PROVIDED IN CHAPTER 316, FLORIDA STATUTES.

ALL TRAFFIC CONTROL DEVICES INSTALLED ON COUNTY OR PRIVATELY MAINTAINED ROADS SHALL BE IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD PLANS, AND THESE STANDARDS.

PLACEMENT OF TRAFFIC CONTROL DEVICES

PER FLORIDA STATUTE 316.0747, THE PLACEMENT OR POSITION OF TRAFFIC CONTROL DEVICES ALONG ROADS WHERE THE PUBLIC IS LIMITED, INCLUDING THOSE DEVICES INSTALLED ON PRIVATE PROPERTY, SHALL MEET THE STANDARDS ADOPTED BY THE FDOT, WHICH INCLUDES THOSE IDENTIFIED IN THE MUTCD. IF THE STANDARD POSITION CANNOT BE ATTAINED DUE TO UNWARRANTED OBSTRUCTIONS, ALTERNATIVE PLACEMENT MAY BE PERMITTED BY THE COUNTY ENGINEER.

MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS
 TRAFFIC CONTROL
 R-140A
 DATE: 12/03/19

SIGNS AND MARKINGS

INSTALLATION OF STOP SIGNS SHALL BE IN ACCORDANCE WITH THE SECTION 28.04 OF THE MUTCD. MULTI-WAY STOP SIGNS SHALL BE PLACED ONLY IF APPLICABLE IN ACCORDANCE WITH SECTION 28.07 OF THE MUTCD. STOP SIGNS ARE USED TO INDICATE THAT TRAFFIC IS ALWAYS REQUIRED TO STOP AND SHOULD NEVER BE USED TO STOP OR CALL TRAFFIC FLOW. STOP SIGNS SHALL BE OCTAGONAL AND AT LEAST 30 INCHES HIGH BY 30 INCHES WIDE WITH WHITE DRAWING GRADE SHEETING BACKGROUND AND CLEAR RED ELECTRODUT OVERLAY OR SLIPRESISTENT WITH CLEAR ULTRAVIOLET RESISTANT OVERLAY.

A STOP BAR OR LINE IS REQUIRED AT EACH LOCATION WHERE A STOP SIGN EXISTS. THE STOP BAR SHALL CONSIST OF A SOLID 24-INCH WIDE WHITE THERMOPLASTIC LINE THAT EXTENDS ACROSS THE APPROACH LANES TO INDICATE THE POINT AT WHICH THE STOP IS INTENDED OR REQUIRED TO BE MADE.

YIELD SIGNS SHALL BE USED ONLY TO CONTROL MERGE MOVEMENTS AND TO ASSIGN THE RIGHT OF WAY AT THE ENTRANCE OF A ROUNDABOUT INTERSECTION. YIELD SIGNS ARE TRIANGULAR AND SHALL BE AT LEAST 36 INCHES ALONG EACH SIDE WITH WHITE DRAWING GRADE SHEETING BACKGROUND AND CLEAR RED ELECTRODUT OVERLAY OR SLIPRESISTENT WITH CLEAR ULTRAVIOLET RESISTANT OVERLAY.

NO RIGHT TURN OR NO LEFT TURN SIGNS SHOULD BE PLACED WHERE THEY WILL BE MOST EASILY SEEN BY ROAD USERS WHO MIGHT BE INTENDING TO TURN. THESE SIGNS ARE THE ONLY SIGNS (OTHER THAN THE SUPPLEMENTAL PLATES) PERMITTED TO BE PLACED ON THE POST IN CONJUNCTION WITH A STOP OR YIELD WHEN LOCATED ON OR NEAR THE RIGHT CORNER OF THE INTERSECTION. TURN PROHIBITION SIGNS SHALL BE AT LEAST 24 INCHES HIGH BY 24 INCHES WIDE WITH WHITE DRAWING GRADE SHEETING BACKGROUND AND CLEAR RED ELECTRODUT OVERLAY OR SLIPRESISTENT WITH CLEAR ULTRAVIOLET RESISTANT OVERLAY.

SPEED LIMIT SIGNS SHALL BE ESTABLISHED IN ACCORDANCE WITH THE FDOT SPEED ZONING FOR HIGHWAYS, ROADS, AND STREETS IN FLORIDA. SPEED LIMIT SIGNS SHALL BE AT LEAST 30 INCHES HIGH BY 24 INCHES WIDE WITH WHITE DRAWING GRADE SHEETING BACKGROUND AND CLEAR RED ELECTRODUT OVERLAY OR SLIPRESISTENT WITH CLEAR ULTRAVIOLET RESISTANT OVERLAY. THE MINIMUM POSTED SPEED IN MARTIN COUNTY IS 25 MPH; HOWEVER, SCHOOL ZONES MAY BE POSTED AT 20 MPH.

ONLY SCHOOL WARNING SIGNS, INCLUDING THE "SCHOOL" PORTION OF THE SCHOOL SPEED LIMIT SIGN AND INCLUDING ANY SUPPLEMENTAL PLATES USED IN ASSOCIATION WITH THESE WARNING SIGNS, SHALL HAVE A FLUORESCENT YELLOW-GREEN BACKGROUND WITH A BLACK LEGEND AND BORDER.

ALL OTHER WARNING SIGNS SHALL HAVE A FLUORESCENT YELLOW BACKGROUND WITH A BLACK LEGEND AND BORDER.

THE DEAD END SIGN (OR FLAG ON A STREET NAME) BLADE SHALL BE USED AT THE ENTRANCE OF A SINGLE ROAD OR STREET THAT TERMINATES IN A DEAD END OR CUL-DE-SAC.

THE NO OUTLET SIGN (OR FLAG ON A STREET NAME) BLADE SHALL BE USED AT THE ENTRANCE TO A ROAD OR ROAD NETWORK FROM WHICH THERE IS NO OTHER EXIT.

THE TOP PORTION OF THE PARKING BY DISABLED PERMIT ONLY SIGN SHALL DISPLAY WHITE REFLECTIVE LEGEND AND BORDER WITH A BLUE REFLECTIVE BACKGROUND, THE BOTTOM PORTION OF THE SIGN SHALL DISPLAY AN OPaque BLACK LEGEND AND BORDER WITH A REFLECTIVE WHITE BACKGROUND. SIGN FABRICATION SHALL CONSIST OF ONE PANEL.

MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS
 TRAFFIC CONTROL
 R-140B
 DATE: 12/03/19

CROSSWALK

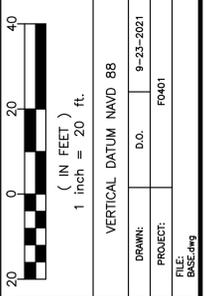
SIGN DETAILS

W11-2, W16-7P, W16-9P, R1-1

NOTES:
 1. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION 711.
 2. MID-BLOCK CROSSWALK MARKINGS SHALL BE WHITE SPECIAL EMPHASIS.
 3. STOP-CONTROLLED CROSSWALK MARKINGS SHALL BE STANDARD.
 4. PUBLIC SIDEWALK CURB RAMPS AND DETECTABLE WARNING SURFACES SHALL BE DESIGNED IN ACCORDANCE WITH FDOT STANDARD PLANS INDEX 522. DETECTABLE WARNING SURFACES SHALL BE CAST IN PLACE ANHOR TILE OR APPROVED EQUAL AND BRICK RED IN COLOR. BOLT OR SCREW DOWN TYPES ARE PROHIBITED.
 5. CROSSWALK WARNING SIGNAGE SHALL BE YELLOW, UNLESS CROSSWALK IS LOCATED IN A SCHOOL ZONE WHERE LIME-GREEN SHALL BE USED.
 6. SIGN INSTALLATION SHALL BE PER TRAFFIC CONTROL DETAIL, R-140A.
 7. MAY BE INCREASED TO 24\"/>

MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS
 CROSSWALK
 R-120A
 DATE: 12/03/19

NO.	DATE	REVISIONS PER MC GROWTH MANAGEMENT	SMB	BY
02-13-23				

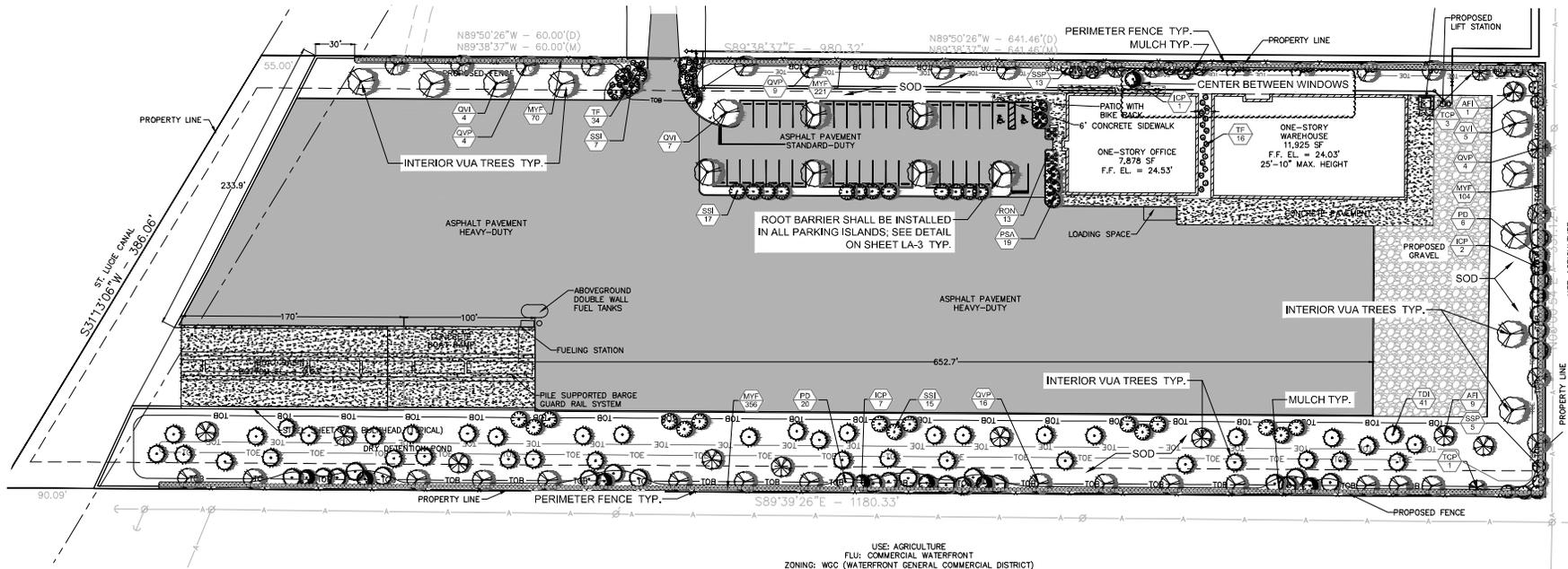


THE MILCOR GROUP, INC.
 A DIVISION OF:
HALEY WARD
 ENGINEERING | ENVIRONMENTAL | SURVEYING
 10975 SE FEDERAL HIGHWAY
 HOBE SOUND, FL 33455
 725 SE PORT ST LUCIE BLVD
 UNIT 104
 PORT ST. LUCIE, FL 34984
 PH: (772) 223-8850
 WWW.THEMILCORGROUP.COM
 WWW.HALEYWARD.COM
 ENGINEERING BUSINESS REGISTRY: 32664

SIGNAGE, PAVEMENT & MARKINGS
Ferreira Marine Way
 MARTIN COUNTY, FLORIDA



SHEET NO.



USE: AGRICULTURE
 FLU: COMMERCIAL WATERFRONT
 ZONING: WCG (WATERFRONT GENERAL COMMERCIAL DISTRICT)

Project Team
 Landscape Architect
 Brandon White | Owner
 772.854.1331 | bwhite@bc-f.com
 Paul Goulas | Owner
 772.851.8491 | pgoulas@bc-f.com
 1708 SE Jay Haven Street
 Port St. Lucie, FL 34984
 Civil Engineer

FERREIRA MARINE WAY
 MARTIN COUNTY, FLORIDA
 Landscape Plan

PLANT SCHEDULE:

PARKING/VUA TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	CALIPER
	AF1	10	Acer rubrum 'Florida Flame'	Florida Flame Red Maple	45G	12' HT	6'W	5 CT, SP	Native	3" Caliper
	QV1	16	Quercus virginiana	Southern Live Oak	45G	12' HT	6'W	6 CT, SP	Native	3" Caliper
	SSI 39 (13 CREDITS)		Sabal palmetto	Cabbage Palmetto	FG	14'-22' CT		HVY CAL, SLK, SP	Native	
	TDI	41	Taxodium distichum	Bald Cypress	FG	12' HT	6'W	SP	Native	3" Caliper
PERIMETER TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	CALIPER
	ICP 10		Ilex cassine	Dahoon Holly	30G	10' HT	4'W	3 CT, F, SP	Native	2" Caliper
	PD	26	Pinus elliptica densa	Slash Pine	FG	10' HT	4'W	3 CT, F, SP	Native	2" Caliper
	QVP	32	Quercus virginiana	Southern Live Oak	30G	10' HT	5'W	5 CT, SP	Native	2" Caliper
	SSP 18 (6 CREDITS)		Sabal palmetto	Cabbage Palmetto	FG	10'-18' CT		MIX HTS, HC, SP	Native	
	TCP	4	Tabebeua cariba	Yellow Tabebeua	30G	10' HT	5'W	4 CT, F, SP	Non-native	2" Caliper
SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	
	MYF	742	Myrcianthes fragrans	Simpson's Stopper	3G	24" HT	18"W	F	Native	
	PSA	19	Pennisetum setaceum	White Fountain Grass	3G	24" HT	18"W	F	Non-native	
	RON	13	Rondeletia leucophylla	Panama Rose	3G	24" HT	24"W	F	Florida Friendly	
	TF	50	Tripsacum dactyloides	Fakahatchee Grass	3G	24" HT	24"W	F	Native	
SOD	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	
	SOD	TBD	Paspalum notatum	Bahia Grass	SOD			Free of Weeds and Pests	Florida Friendly	36" o.c.

98% TREES ARE NATIVE
 96% SHRUBS ARE NATIVE

SITE & LANDSCAPE DATA :

Area	Perimeter (L.F.)	Area (S.F.)	Planting Area (S.F.)
Site	1,180.33	119,225.00	119,225.00
Parking	1,180.33	119,225.00	119,225.00
Office	1,180.33	119,225.00	119,225.00
Warehouse	1,180.33	119,225.00	119,225.00
Perimeter	1,180.33	119,225.00	119,225.00

SITE TREE REQUIREMENTS

357,854 DIV. BY 2,500 = 143 TREES

TREE REQUIREMENTS

VEHICULAR USE AREA PERIMETER = 2,303 L.F.

2,303 L.F. DIV. BY 30 = 77 TREES

INTERIOR VEHICULAR USE AREAS = 182,387 SF

(INCLUDES PARKING, ASPHALT, GRAVEL, & BOAT RAMP AREAS)

198,320 DIV BY 5,000 = (40)-500 S.F. REQUIRED PLANTING AREAS

140 (2) = 40 INTERIOR TREES REQUIRED

TOTAL TREES REQUIRED: 157 TREES

SHRUB REQUIREMENTS

VEHICULAR USE AREA PERIMETER = 2,303 L.F.

2,303 DIV. BY 3 = 768 SHRUBS

TOTAL SHRUBS REQUIRED: 768 SHRUBS

TOTAL TREES PROVIDED: 157 TREES

TOTAL SHRUBS PROVIDED: 789 TREES

*65 INTERIOR VUA TREES PLACED ALONG THE PERIMETER

Digitally signed by
 Paul A. Goulas
 Date: 2023.08.17
 09:38:48 -0400
 Adobe Acrobat
 version:
 2023.003.20269



Required Xeriscape Points:

- 51% or more of the grass areas are made up of drought-tolerant grass species 10 points
- 51% or more of the required shrubs are made up of drought-tolerant species 10 points
- 51% or more of the required trees are made up of drought-tolerant species 10 points
- Utilization of moisture sensing controller other than a non-sensor override device 5 points
- Utilization of mulch other than cypress mulch 5 points
- Utilization of compacted mulch with a 3" min. depth in all planted areas 10 points
- 50 Total Points

LANDSCAPE NOTES :

- Alternative plant species for required landscape may be permitted subject to review and approval by the Martin County Growth Management Department prior to installation.
 - All prohibited exotic or invasive species shall be removed from the entire site prior to the issuance of a Certificate of Occupancy.
 - All required landscaping shall be installed prior to the issuance of a Certificate of Occupancy.
 - No Cypress Mulch is to be used on site. Eucalyptus or Midlandcypress Mulch is to be used in a 3" consistent layer in all planting beds.
 - Enhanced landscaping beyond minimum requirements will conform to all applicable sections of the Martin County Landscape Development Regulations. As-built drawings will be submitted to Martin County Growth Management with Certification of Landscaping Installation and Maintenance.
 - This plan has been designed to meet the tree planting requirements contained within the FPL document entitled "Plant the Right Tree in the Right Place".
 - For existing or proposed utilities, no tree shall be planted where it could, at mature height conflict with overhead power lines.
 - Large trees (height at maturity of more than 30') shall be planted no closer than a horizontal distance of 30' from the nearest overhead power line.
 - Medium height trees (height at maturity between 20' and 30') shall be offset at least 20' and small trees (height at maturity of less than 20') require no offset.
 - No tree shrubs, hedges or vines shall be planted within 5' of an existing or proposed utility pole, guy wire or pad-mounted transformer.
 - Palms should be planted at a distance equal to or greater than the average trunk length plus two (2) feet from power lines.
 - Tree species shall be selected as to minimize conflicts with existing or proposed utilities.
 - Encroachments into required buffer zones and landscape areas by vehicles, boats, mobile homes or trailers shall not be permitted, and required landscape areas shall not be used for the storage or sale of materials or products or the parking of vehicles and equipment.
 - The property owner, or successors in interest, or agent, if any, shall be jointly and severally responsible for the following:
 - Regular maintenance of all landscaping to be kept alive and in good condition and in a way that presents a healthy, neat, and orderly appearance. All landscaping shall be maintained free from disease, pests, weeds, and litter. Maintenance shall include weeding, watering, fertilizing, pruning, mowing, edging, mulching and other maintenance, as needed and in accordance with acceptable horticultural practices;
 - Repair or replacement of required walls, fences, or structures to a structurally sound condition;
 - Regular maintenance, repair or replacement, where necessary, of any screening or buffering required by this division;
 - Perpetual maintenance to prohibit the re-establishment of harmful exotic species within landscaping and preservation areas; and
 - Replacement of any required landscaping in easement areas that may be disturbed by future maintenance.
- Irrigation Notes:**
- Adequate irrigation of landscaped areas shall be provided for the first full growing season and continue thereafter only as necessary to maintain required vegetation in good and healthy condition.
 - Irrigation systems shall conform to the following standards. Irrigation systems shall be continuously maintained in working order and shall be designed not to overflow water zones or to water impervious areas.
 - No irrigation system shall be installed or maintained abutting any public street which causes water from the system to overspray onto the roadway or to strike passing vehicular traffic.

Date	Iss.	Description
5.31.21	PG	1st Submittal
8.16.23	PG	Revised per Comment

PAUL GOULAS, RLA
 FLORIDA REG. # LA6666807

Drawn By: PG
 Checked By: PG
 Municipal Project:
 Scale:
 NORTH
 SCALE: 1" = 40'
 0 20' 40' 80'
LA-1

DRAWING INDEX:

- LA-1: OVERALL PLAN, LANDSCAPE DATA, & PLANT SCHEDULE**
- LA-2: TREE INVENTORY & DISPOSITION PLAN**
- LA-3: LANDSCAPE DETAILS & SPECIFICATIONS**

LANDSCAPE SPECIFICATIONS:

PART 1: GENERAL CONDITIONS

- 1.01 **SCOPE:**
 - A. The Contractor shall include the supplying and installing of all shrubs, vines, and ground cover together with all necessary labor, equipment, tools and materials, and shall be responsible for all condition, execution and maintenance of the finished work.
- 1.02 **AGENCY STANDARDS:**
 - A. Grades and standards of plant materials to be used shall be those in name, size, condition and graded Bases as is better stated in: Grades and Standards of Florida Plant Materials published by the State of Florida Department of Agriculture, Tallahassee, Florida.

- 1.03 **SITE EXAMINATION:**
 - A. The Landscape Contractor shall personally examine the site and fully acquaint himself with all of the existing conditions in order that no mis-understanding may afterwards arise as to the character or extent of the work to be performed, nor shall he be held responsible for any mis-understanding which may be caused by any mis-statement or omission in the drawings or documents, or should the Landscape Contractor be in doubt as to their meaning, the Landscape Architect shall be notified and all determine the actions necessary in each case.
- 1.04 **ERRORS AND OMISSIONS:**
 - A. The plant list is a part of the drawings and is furnished as a convenience. The plant list indicates the name, size and quantity of specific plant materials as called for and is located on the drawings. The Landscape Contractor is responsible for his own quality control, and any discrepancy between drawings and plant list shall be considered as each party's error.
 - B. The Landscape Contractor shall not take advantage of errors or omissions in the specifications or contract drawings. Full attention will be given. Faulty errors are discovered. Upon the discovery of any discrepancies in, or omissions from the drawings or documents, or should the Landscape Contractor be in doubt as to their meaning, the Landscape Architect shall be notified and all determine the actions necessary in each case.

- 1.05 **EXECUTION OF THE WORK:**
 - A. The Landscape Contractor shall have his labor forces controlled and directed by a foreman well versed in plant material, planting methods, mowing techniques, and coordination between job and nursery in order to execute installation correctly and in a timely manner.
 - B. The Landscape Contractor shall provide a competent fully-qualified foreman to be in constant communication with the Contractor's agent on the work. The foreman shall be familiar with all readings and thoroughly understand the Plans, Specifications and other Contract Documents. If the Superintendent is a contractor, he shall be responsible for the supervision of the work.
 - C. The Landscape Contractor shall be available for any meetings with the Owner and/or Landscape Architect during implementation of the job. Any additional work or changes required on a daily basis shall be the responsibility of the Landscape Contractor.

- 1.06 **PROTECTION OF PLANT AND PROPERTY:**
 - A. The Landscape Contractor shall protect all materials and work against injury from any cause and shall assume and maintain all necessary safeguards for the protection of the public. He shall be held responsible for any damage or injury to persons or property which may occur as a result of his fault or the negligence of his work, or the negligence of his sub-contractors or suppliers.
- 1.07 **CHANGES AND EXTRA:**
 - A. The Contractor shall not work on any changes or "extras" in the project until a written agreement has been reached with the Owner. Any additional work or changes required on a daily basis shall be the responsibility of the Landscape Contractor.

- 1.08 **WARRANTY:**
 - A. The Landscape Contractor shall furnish a written guarantee warranting all materials, workmanship and plant materials, except trees, in a period of ONE (1) YEAR from the time of installation and acceptance by the Landscape Architect and Owner. Said plant shall be guaranteed to grow to full maturity and to be free from any diseases, insect damage, or other causes of plant death. All plant materials shall be alive and in satisfactory condition and growth for each specific kind of plant at the time of the guarantee period. The guarantee period shall be for each specific kind of plant at the time of the guarantee period. The guarantee shall be for each specific kind of plant at the time of the guarantee period. The guarantee shall be for each specific kind of plant at the time of the guarantee period.
 - B. As an end of the specified guarantee period, any plant required under this contract that is dead or in a satisfactory condition, as determined by the Landscape Architect, shall be replaced. The Landscape Contractor shall be responsible for the full replacement cost of plant materials for the full replacement and shall be responsible for the full replacement cost of plant materials for the full replacement and shall be responsible for the full replacement cost of plant materials for the full replacement.

- 1.09 **CARE AND MAINTENANCE:**
 - A. The Landscape Contractor shall be responsible for the care and maintenance of all plant materials and irrigation when applicable until acceptance by the Owner or Landscape Architect.
 - B. The Owner agrees to execute the instructions for care and maintenance.

- 1.10 **SAFETY:**
 - A. It shall be the responsibility of the Landscape Contractor to protect all persons from injury and to avoid property damage. Adequate warning devices shall be placed and maintained during the progress of the work.
 - B. It shall be the contractor's responsibility to conform to all local, state, and federal safety laws and codes including the Federal Occupational Safety and Health Act (OSHA).

- 1.11 **CONTRACTOR QUALIFICATION:**
 - A. The Owner may require the applicant contractor (s) to qualify himself/herself as a responsible entity by furnishing any or all of the following documentary data:
 - 1. A financial statement showing assets and liabilities of the company current to date.
 - 2. A list of references from 10 credible persons of the same scope and nature.
 - 3. Personnel names and address of place of business.
 - 4. The number of regular employees of the organization and length of time the organization has been in business under the present name.

- 1.12 **INSURANCE AND BONDING:**
 - A. The contractor (s) shall hold proof of insurance for this job for the time period that the work is done. The minimum amount of insurance on all the \$300,000.00 per person and \$300,000.00 per aggregate as required by owner and agreed in the contract.
 - B. The contractor (s) shall hold proof of insurance for this job for the time period that the work is done. The minimum amount of insurance on all the \$300,000.00 per person and \$300,000.00 per aggregate as required by owner and agreed in the contract.

- 1.13 **PERMITS AND CONTRACTS:**
 - A. All contracts shall secure and pay for all permits and contracts required by the local jurisdiction.

- 1.14 **PLANT MATERIALS:**
 - A. Complete list of plants is shown on the drawings, including a schedule of quantities, sizes, and such other requirements deemed necessary. In the event discrepancies occur, the specifications on the drawings shall govern.
 - B. Substitutions: Substitutions of plant material and/or changes in size or spacing of materials shall be permitted if the contractor has written authorization from the Owner or the Landscape Architect. If plant material is not of sufficient size to meet applicable codes, a letter of variance from the applicable agency must be obtained by the Contractor prior to installation of any change order. If material of smaller size is to be accepted, the quantity of material shall be increased, at the satisfaction of the Owner, to meet the intent of the Contract.
 - C. All plant materials shall have a habit of growth that is normal for the species and shall be healthy, vigorous and equal to or exceed the measurements specified in the plant list, which are the minimum acceptable sizes. Plants shall be measured before cutting and branches in normal position. Any necessary pruning shall be done at the time of planting.
 - D. All plant materials shall be nursery grown, unless otherwise noted. Florida #1 or better shall comply with all current inspections, grading standards and plant regulations set forth by the Florida Department of Agriculture's Grades and Standards for Nursery Plants, most current addition and changes and standards for Nursery Plants, most current addition.
 - E. Plants that do not have the normal balance of height and spread specified for the respective plant shall not be acceptable.
 - F. The Landscape Contractor shall install each plant to display to best site.
 - G. Adjustments may be required if plants are not installed properly or as approved by the Landscape Architect at no additional cost to owner.

- 2.02 **INSPECTION:**
 - A. The Landscape Architect and Owner may inspect trees and shrubs at place of growth or at any before delivery for compliance with requirements for genus, species, variety, size and quality. The Landscape Architect and Owner retain the right to further inspect trees and shrubs for size and condition of trunk and root system, variety, type and branch details, and to reject unsatisfactory or defective material at any time during progress of work. Rejected plant materials shall be immediately removed from project.

- 2.03 **PROTECTION OF PLANT MATERIALS:**
 - A. Balled and burlapped plants (B & B) shall be dug with firm natural ball of earth of sufficient density and depth to support the stems and bearing all roots necessary for full recovery of the plant. B&B shall be firmly supported with burlap strips and bound with cotton rope or wire mesh. All burlapped plants shall be baled.
 - B. Plants with trunks, damaged or insufficient rootballs will be rejected.
 - C. All plant material shall be protected from possible break injury by branches. All plants transported by open trucks shall be adequately covered to prevent wilting, drying or damage to plants.
 - D. Plants which cannot be planted immediately on delivery to the site shall be covered with moist soil, or other protection from the drying of wind and sun. All plants shall be watered as required by the Landscape Contractor or its Agents.

- 2.04 **STORAGE:**
 - A. All plant materials shall be stored on the site in designated areas, specified by the Landscape Architect or Owner's agent.
 - B. No plant material shall be stored longer than seven-two (72) hours unless approved by the Landscape Architect and Owner's agent.
 - C. The Landscape Architect reserves the right to reject any plant materials not in conformance with these specifications.
 - D. All rejected material shall be immediately removed from the site and replaced with acceptable material at no cost to the Owner.

- 2.05 **PROTECTION DURING PLANTING:**
 - A. Trees moved by which or whose shall be thoroughly protected from chain saws, gridding or bark damage by means of burlap, wood boards or other approved methods. Bark shall NOT be attached to the tree with nails.

- 2.06 **PLANTING SOIL:**
 - A. Planting soil shall be free of all debris such as existing roots and soil of old plants, stumps, rocks, sticks or other foreign material which may be detrimental to plant growth.

- 2.07 **FERTILIZER:**
 - A. Commercial fertilizer shall comply with the state fertilizer laws. Nitrogen shall not be less than 4% from organic source. Inorganic chemical nitrogen shall not be derived from the sodium form of nitrate. Fertilizer shall not be used on the site except as directed on original containers, each bearing the manufacturer's guaranteed analysis. Any fertilizer that becomes caked or otherwise damaged at the time of application shall be rejected.

- 2.08 **MULCH:**
 - A. Mulch material shall be clean, dry, free of weeds, seeds and pests, maintained at the time of application to prevent wind displacement. Cypress sawdust shall be prohibited.
 - B. All trees and shrubs shall receive 1/2 inch immediately after planting and 1/4 inch thereafter, applied in a "dough" or "mound" on top of the soil surface or "mounded" to local jurisdiction.

- 2.09 **DISIGN:**
 - A. The Landscape Contractor shall exercise care in digging and other work so as not to damage existing work, including overhead wires, underground pipes and cables and the pipes and hydrants of existing systems. Should any such damage occur, the Contractor shall be responsible for the full replacement and shall be responsible for the full replacement cost of plant materials for the full replacement.

- 2.10 **GRADING:**
 - A. Grading for drainage, seeding, etc., to within 4 inches of the finished grade to be provided by other.
 - B. It shall be the responsibility of the Landscape Contractor to protect the final grading during the course of landscape installation so as to long and planting areas to their proper elevations in relation to walls, paving, drainage structures, and other site conditions. The site grading plan shall be checked prior to installation of such material and other conditions "NOT" be modified.

- 2.11 **PLANTING:**
 - A. Planting shall take place during favorable weather conditions.
 - B. The Contractor shall call for utility locations and ascertain the location of all utilities and easements so proper precautions can be taken not to damage or encroach on them.
 - C. Tree planting shall be located where it is shown on the plan. No planting holes shall be dug until the proposed locations have been checked on the plan.
 - D. Excavation holes shall extend to the required subgrade as specified on the planting diagrams located in the planting plans. Planting holes shall be circular in outline and shall have a grade which conforms to the aforementioned "Tree and Shrub Planting Diagrams".

- 2.12 **INSURANCE AND BONDING:**
 - A. A representative number of planting pits (a minimum of one in every 25 feet throughout the entire site) shall be tested for proper drainage. See Landscape Plan for complete testing methods and requirements.
 - B. Planting pits shall be excavated to the following dimensions and refilled with a mixture of 1/2 (50) planting soil (70% existing native soil), 1/4 (25) garden material (1 gal. 12" x 12" x 12" min.), 1/4 (25) garden material (1 gal. 20" x 20" x 20" min.), 1/4 (25) garden material (1 gal. 30" x 30" x 20" min.). Fill 1/2 inch with mulch and depth of ball shall 12" min.
 - C. No watering or tamping of soil shall be initiated until the area has been deemed of existing soil. All plant materials, except grass, weeds, debris, stones, etc. and the ground has been brought to an even grade, with concrete drainage away from buildings and towards ditches and waterways and approved by the Landscape Architect or owner's rep.
 - D. Each plant shall be placed in its hole as indicated as specified for trees, shrubs, and vines.
 - E. All plants shall be set to ultimate finished grade. No fill shall be permitted around trunks or stems. All excess soil, rocks, etc., shall be removed from sites and top of ball and removed from site before filling.
 - F. All burlap ribbons shall be removed from trees and shrubs before planting.
 - G. Excess excavation (fill) from all holes shall be removed from the site, at an additional expense to Owner.

- 2.13 **PRUNING:**
 - A. Pruning shall be performed by hand, thoroughly washed in during planting operations and with a clean saw or shears at all times for clean sections. Sticker areas shall be top-dressed with 2" of mulch over top of rootball and left in a neat, clean manner.
 - B. Remove dead and broken branches from all plant material. Prune to retain typical growth habit of individual plants with as much height and spread as possible in a manner which preserve the plant's natural character.
 - C. Make all cuts with sharp instruments both with thumb or segment branch, in such a manner as to insure direction of stems. Cuts made at right angles to line of growth will not be permitted.
 - D. Remove all trimmings from site.

- 2.14 **SPACING DETAIL:**
 - A. Spacing shall be as indicated on the drawings.
 - B. All plants shall be spaced to meet the intent of the drawings.
 - C. All plants shall be spaced to meet the intent of the drawings.
 - D. All plants shall be spaced to meet the intent of the drawings.

- 2.15 **DRAINAGE TESTING DETAIL:**
 - A. Drainage testing shall be performed in accordance with the specifications.
 - B. Drainage testing shall be performed in accordance with the specifications.
 - C. Drainage testing shall be performed in accordance with the specifications.

- 2.16 **GROUND COVER PLANTING DETAIL:**
 - A. Ground cover planting shall be performed in accordance with the specifications.
 - B. Ground cover planting shall be performed in accordance with the specifications.
 - C. Ground cover planting shall be performed in accordance with the specifications.

- 2.17 **GRADING DETAIL:**
 - A. Grading shall be performed in accordance with the specifications.
 - B. Grading shall be performed in accordance with the specifications.
 - C. Grading shall be performed in accordance with the specifications.

- 2.18 **DRAINAGE TESTING DETAIL:**
 - A. Drainage testing shall be performed in accordance with the specifications.
 - B. Drainage testing shall be performed in accordance with the specifications.
 - C. Drainage testing shall be performed in accordance with the specifications.

- 2.19 **GROUND COVER PLANTING DETAIL:**
 - A. Ground cover planting shall be performed in accordance with the specifications.
 - B. Ground cover planting shall be performed in accordance with the specifications.
 - C. Ground cover planting shall be performed in accordance with the specifications.

- 3.04 **CURING:**
 - A. All trees over 6" (6) feet in height shall, immediately after setting to proper grade, be girdled with three sets of two strands, No. 12 gauge galvanized galvanized iron, in tripod fashion, See Detail.
 - B. Wind shield netting is direct contact with the tree ball shall be covered with an approved protection device.
 - C. All contact points, wires shall be fastened in such a manner as to avoid girdling, cracking, spots, etc.
 - D. Stake & brace of trees larger than 12" cal. See Detail.
 - E. Stakes shall be 2" diameter of sufficient length to adequately support each tree.
 - F. Ties used for guying trees shall be galvanized or cadmium plated and shall be of adequate size and strength to properly maintain tall guy wires.

- 3.05 **WATER:**
 - A. Each plant or tree shall be thoroughly watered after planting. Watering of all newly installed plants shall be the responsibility of the Landscape Contractor until acceptance by the Owner.
 - B. See General Notes Landscape Plan for water source.

- 3.06 **SOIL:**
 - A. The Landscape Contractor shall test all areas indicated on the drawings.
 - B. It shall be the responsibility of the Landscape Contractor to provide all landscape areas, including all lawns, driveways, sidewalks, steps, and other areas.
 - C. The soil shall be firm, loam texture, having a compacted grade of grass with good root development. If it contains no rocks, weeds, or any other objectionable vegetation, fungus, insects, or diseases. The soil introduced on the soil shall be good earth, free from stones and debris.
 - D. Before being dug and filled, the soil shall have been tamped at least three times with a hand trowel, with the final trowel not more than seven days before the soil is set. The soil shall be tamped on all uniform directions.
 - E. A level trowel with all four elements to be applied at the rate of 40 lbs. per 1,000 sq. ft. prior to laying soil.
 - F. Soil shall not be laid with closely abutting, staggered joints with a tamped roller, even surface.
 - G. The finished grade of all areas after settlement shall be 1/4 inch below the top of abutting walks, paving and wood borders to allow for building up.

- 3.07 **SEEDING:**
 - A. The Landscape Contractor shall remove all vegetation and rocks larger than 1" (1) in diameter from areas to be seeded, scarify the area, then apply fertilizer at a rate of 500 lbs. per acre.
 - B. Application: Argentine Berse Grass seed - 200 Pounds per acre mixed with common fescue Bermuda seed - 30 lbs. per acre. All other seed materials shall be applied per the manufacturer's instructions.
 - C. Roll immediately after seeding with a minimum 500 pound roller, then apply straw mulch at the rate of 2,000 pounds per acre.
 - D. Apply fertilizer at the rate of 100 lbs. per acre 45-60 days after seeding.

- 3.08 **CLEANING UP:**
 - A. The contractor shall at all times keep the premises free from accumulations of waste materials or rubbish caused by his employees or work, the plant or other materials "boom down" when completed with the work.
 - B. Maintenance shall begin immediately after each plant is installed and shall continue until all planting has been completed by the Owner or Landscape Architect. Maintenance shall include watering, weeding, removal of dead materials, weeding plants to grow grades or correct positions, spraying, restoration of planting source and any other necessary operations.

- 3.09 **PROTECTION:**
 - A. Proper protection to be used shall be provided and any damage resulting from planting operations shall be repaired promptly.
 - B. Replacement of plants during the maintenance period shall be the responsibility of the Contractor, including variation of damage on the part of others, lighting, or humans force winds, until final acceptance.
 - C. In the event that weeds or other undesirable vegetation becomes prevalent, it shall be the Contractor's responsibility to remove them.
 - D. Trees or other plant material which fall or blow down during the maintenance period shall be replaced by the Contractor at an additional expense to the Owner, the only exception being humane force winds.

- 3.10 **COMPLETION, INSPECTION AND ACCEPTANCE:**
 - A. Completion of the work shall mean the full and exact compliance and conformity with the provisions required to be met in the Drawings and the Specifications, including the complete removal of all plant, debris, soil or other wastes created by the Landscape Contractor.
 - B. Inspection of work to determine compliance of contract, and/or the possible replacement of plants, will be made by the Owner and/or Landscape Architect at the conclusion of planting and at the request of the Landscape Contractor.
 - C. All plant material shall be alive and in good growing condition for each specified kind of plant at the time of acceptance. The report of each plant according to Florida codes and standards shall be provided or better than that called for in the Contract and in these Specifications at the time of final inspection and acceptance.
 - D. After inspection, the Landscape Contractor will be notified by the Owner of the acceptance of all plant material and workmanship exclusive of the possible replacement of plants accepted at guarantee.

- 3.11 **DRAINAGE CHANNELS:**
 - A. Drainage channels shall be installed in accordance with the specifications.
 - B. Drainage channels shall be installed in accordance with the specifications.
 - C. Drainage channels shall be installed in accordance with the specifications.

- 3.12 **PRIOR TO PLANTING ALL PLANTING PITS SELECTED FOR TESTING SHALL BE TESTED IN THE FOLLOWING MANNER:**
 - A. EACH PLANTING PIT TO THE MINIMUM SPECIFIED SIZE.
 - B. FILL PLANTING PIT WITH TWELVE INCHES (12") OF WATER, IF THE WATER LEVEL DROPS FOUR (4") OR MORE WITHIN FOUR (4) HOURS, THE DRAINAGE IS SUFFICIENT AND A DRAINAGE CHANNEL IS NOT REQUIRED. IF THE WATER LEVEL DROPS LESS THAN FOUR INCHES (4") WITHIN THE FOUR (4) HOURS, THE DRAINAGE CHANNEL IS REQUIRED.
 - C. WHEN REQUIRED, THE DRAINAGE CHANNELS MUST EXTEND DOWN THROUGH THE NON POUROUS SOIL INTO POUROUS SOIL. (SEE DETAIL).
 - D. ALL MATERIAL REMOVED FROM THE DRAINAGE CHANNELS SHALL BE DISCARDED.
 - E. WHEN BACKFILLING PLANTING PITS WITH PLANTING MIXTURE, CARE MUST BE TAKEN TO KEEP THE CONSISTENCY OF THE SOIL MIX. SAME THROUGHOUT THE PLANTING PIT AND DRAINAGE CHANNEL.

- 3.13 **PLANTING DETAIL:**
 - A. Planting shall be performed in accordance with the specifications.
 - B. Planting shall be performed in accordance with the specifications.
 - C. Planting shall be performed in accordance with the specifications.

- 3.14 **GRADING DETAIL:**
 - A. Grading shall be performed in accordance with the specifications.
 - B. Grading shall be performed in accordance with the specifications.
 - C. Grading shall be performed in accordance with the specifications.

- 3.15 **DRAINAGE TESTING DETAIL:**
 - A. Drainage testing shall be performed in accordance with the specifications.
 - B. Drainage testing shall be performed in accordance with the specifications.
 - C. Drainage testing shall be performed in accordance with the specifications.

- 3.16 **GROUND COVER PLANTING DETAIL:**
 - A. Ground cover planting shall be performed in accordance with the specifications.
 - B. Ground cover planting shall be performed in accordance with the specifications.
 - C. Ground cover planting shall be performed in accordance with the specifications.

- 3.17 **GRADING DETAIL:**
 - A. Grading shall be performed in accordance with the specifications.
 - B. Grading shall be performed in accordance with the specifications.
 - C. Grading shall be performed in accordance with the specifications.

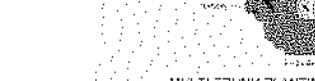
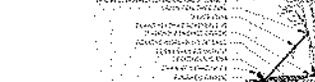
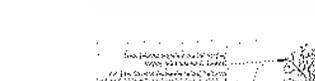
- 3.18 **DRAINAGE TESTING DETAIL:**
 - A. Drainage testing shall be performed in accordance with the specifications.
 - B. Drainage testing shall be performed in accordance with the specifications.
 - C. Drainage testing shall be performed in accordance with the specifications.

- 3.19 **GROUND COVER PLANTING DETAIL:**
 - A. Ground cover planting shall be performed in accordance with the specifications.
 - B. Ground cover planting shall be performed in accordance with the specifications.
 - C. Ground cover planting shall be performed in accordance with the specifications.

- 3.20 **GRADING DETAIL:**
 - A. Grading shall be performed in accordance with the specifications.
 - B. Grading shall be performed in accordance with the specifications.
 - C. Grading shall be performed in accordance with the specifications.

- 3.21 **DRAINAGE TESTING DETAIL:**
 - A. Drainage testing shall be performed in accordance with the specifications.
 - B. Drainage testing shall be performed in accordance with the specifications.
 - C. Drainage testing shall be performed in accordance with the specifications.

- 3.22 **GROUND COVER PLANTING DETAIL:**
 - A. Ground cover planting shall be performed in accordance with the specifications.
 - B. Ground cover planting shall be performed in accordance with the specifications.
 - C. Ground cover planting shall be performed in accordance with the specifications.



Project Team

Landscape Architect

Brandon White | Owner
774.854.1331 | brandon@brw.com

Paul Goulas | Owner
772.653.6902 | paul@brw.com

1708 SE Jay Haven Street
Port St. Lucie, FL 34953

Civil Engineer

THE MLCOR GROUP, INC.
1015 W. PALM BLVD. SUITE 100
PORT ST. LUCIE, FL 34953
TEL: 772.335.2222
FAX: 772.335.2222

FERREIRA MARINE WAY

MARTIN COUNTY, FLORIDA

Landscape Details & Specifications

Revisions			
Date	Int.	PG	Description
5.31.21	PG	1st	Submittal

PAUL GOULAS, R.L.A.
FLORIDA REG. # LA6866807

Drawn By: PG
Checked By: PG
Municipal Project:
Scale:

LA-3

Exhibit F

FINAL DRAFT

**Considerations for Stormwater Features within
Contaminated Sites**

**Florida Department of Environmental Protection
Division of Waste Management
District & Business Support Program
Tallahassee, FL**

Problem Statement:

Conditional Site Rehabilitation Completion Orders (CSRCOs) under Rule 62-780.680(2) or (3), F.A.C. may restrict construction of new and/or alteration of existing stormwater management systems (SWMS). The State supports reuse of contaminated sites and recognizes that new construction requires placement of SWMS to appropriately manage runoff from impervious surfaces. Contaminated sites may require expansion of the impervious areas (new building foundations, parking, pavement, access roads, etc.) and may trigger modification of the existing SWMS.

In the case of contaminated sites that qualify for a conditional site rehabilitation completion order (CSRCO), the planning for potential areas on the site for future SWMS is important so as not to violate the possible engineering control, or otherwise cause contamination to circumvent the control and spread contamination to either previously uncontaminated areas or offsite. If such a spread or impact occurred, it would render the CSRCO void.

Goal:

The construction or modification of SWMS should not affect contamination at the site (cause leaching from soil or mobilize the groundwater contaminant plume). In some cases, the construction of SWMS may be addressed prior to closure and the restriction removed from the CSRCO. Please note that adequate demonstration must be provided that neither the currently proposed or any future modification of the SWMS will exacerbate the contamination at the site. Potential future development including the type and location of the SWMS should be evaluated. Guidance on addressing SWMS construction prior to closure is provided below.

For situations where prior SWMS evaluation is not possible, this guidance can also assist in obtaining approval for the construction of a new or modification of an existing SWMS on a contaminated site following closure.

SWMS - Design & Best Practices at Contaminated Soil and/or Groundwater Sites in Relation to CSRCOs

The placement, design and use of stormwater structures, ponds, and pathways is a critical part of a plan to prevent the spread of pollution at known contaminated sites due to the potential to cause leaching from soils or to create a hydraulic head to spread contamination in groundwater across the site or off site to previously uncontaminated areas.

In general, stormwater structures, ponds and pathways are to be placed in previously non-contaminated areas of a site to prevent and/or reduce the possibility of causing the contamination to spread or increase due to leaching or hydraulic head conditions.

Dry Pond vs Wet Pond. Subject to comments and requirements of the SWMS reviewing agencies, as appropriate, dry ponds should be designed to recover within 72 hours of a rain event. Dry ponds with underdrains should recover within 36 hours. It is recommended that the bottom of the dry pond be at least 2 ft above the Seasonal High-Water Table (SHWT). Wet ponds have to recover to their static elevation within a certain timeframe (usually noted in the construction application) and the pond bottom is below the SHWT.

SWMS must be designed with site groundwater elevation data in mind to not adversely affect the contaminated areas of the site. A sufficient number of wells or piezometers must be used, and groundwater elevation contour maps developed to accurately demonstrate the direction of

groundwater flow at the site. The stormwater design may only be placed in specific areas in such a way to not impact or cause movement of contamination.

Further consideration is needed to evaluate the placement of engineering controls, to clearly define the appropriate or available locations for the construction of SWMS.

The following questions should be considered during the planning stages of the SWMS

- What will be the type of the future development, residential or commercial?
- Because of the land use and size as well as the underlying lithology, what type of stormwater system will work better:
 - a. Wet detention system
 - b. Detention with effluent filtration
 - c. Lined detention pond or vault
 - d. Dry system (retention pond)
 - e. Underground exfiltration (subterranean gallery)
 - f. Sand chimney
- What is the extent and depth of the groundwater plume in the restrictive area?
- Is the restriction for the use of groundwater and/or irrigation wells?
- Is soil contamination under an engineering control (EC) and will the EC be breached?
- Will dewatering during construction of the SWMS affect plume migration?
- How will the water from the dewatering operations be disposed (e.g., onsite management, sanitary sewer, generic permit, NPDES)?

Groundwater:

A mounding model can be used to support that a SWMS installed some distance or location away from the plume will not cause the plume to migrate. Approved models and design requirements must be consistent with the agencies responsible for reviewing the SWMS application.

Prior to Closure

- a. Depth to contaminant if a demonstration is provided that groundwater is at a depth that the infiltration from the SWMS will not cause the plume to migrate, then it may be possible to remove the stormwater restriction from the CSRCO. The demonstration or modeling should be based upon the appropriate design storm event usually 100-yr/24-hour or 25-year/24-hour depending on the type of system (open or closed) and the reviewing agency requirements. The SWMS should be engineered to impact only the upper surficial aquifer.
- b. Plume in relationship to confining layer – If groundwater contamination is below a competent confining layer, stormwater restrictions should not be necessary. However, language may need to be included in the CSRCO that the confining unit cannot be breached in the construction of the SWMS.
- c. If construction of the SWMS will occur on top of the plume and cannot be addressed by a. or b. above, then the CSRCO can specify that any SWMS construction will require use of a liner thereby eliminating the need for subsequent Department (Waste Management) approval. Please note that lined ponds are for storage/evaporation and need to have outflow structures. The outflow should direct runoff to areas away from the contamination.

Subsequent to Closure

SWMS constructed on top of the groundwater plume will require a liner unless a. and b. from “Prior Closure Section” above can be demonstrated.

SWMS constructed upgradient, cross-gradient or downgradient, and within 500 feet of the plume will require a mounding analysis be submitted to determine if the mound intersects the plume.

Soil:

If soil contamination is present, the impact of the proposed SWMS on potential leaching or direct exposure must be addressed.

If soils exceed the Leachability Soil Cleanup Target Level (L-SCTL), Synthetic Precipitation Leachate Procedure (SPLP, EPA Method SW-846-1312) testing can be conducted prior to closure to demonstrate that the contamination will not leach and the restriction on SWMS can be removed. An appropriate number of samples should be collected from different lithologies and the highest concentrations within those lithologic units used in the SPLP analysis. A minimum of three samples per lithologic unit is recommended, but additional samples may be required depending on the size of the impacted area.

If a dry pond is to be constructed on top of soil that exceeds the direct exposure soil cleanup target level, the pond bottom must have an engineering control in place to mitigate the exposure risk. This could be in the form of a 2-foot clean fill barrier, impermeable liner, or the use of an alternative soil cleanup target level for an appropriate exposure scenario. The control would be included in the Institutional Control Registry and documented in the CSRCO.

Dewatering

Pursuant to Rule 62-621.300(2), F.A.C., coverage under this generic permit constitutes authorization to discharge groundwater from dewatering operations through a point source to surface waters of the State. Please ensure that the parameters of concern in the groundwater restricted area are below the surface water criteria. See Chart 1 below.

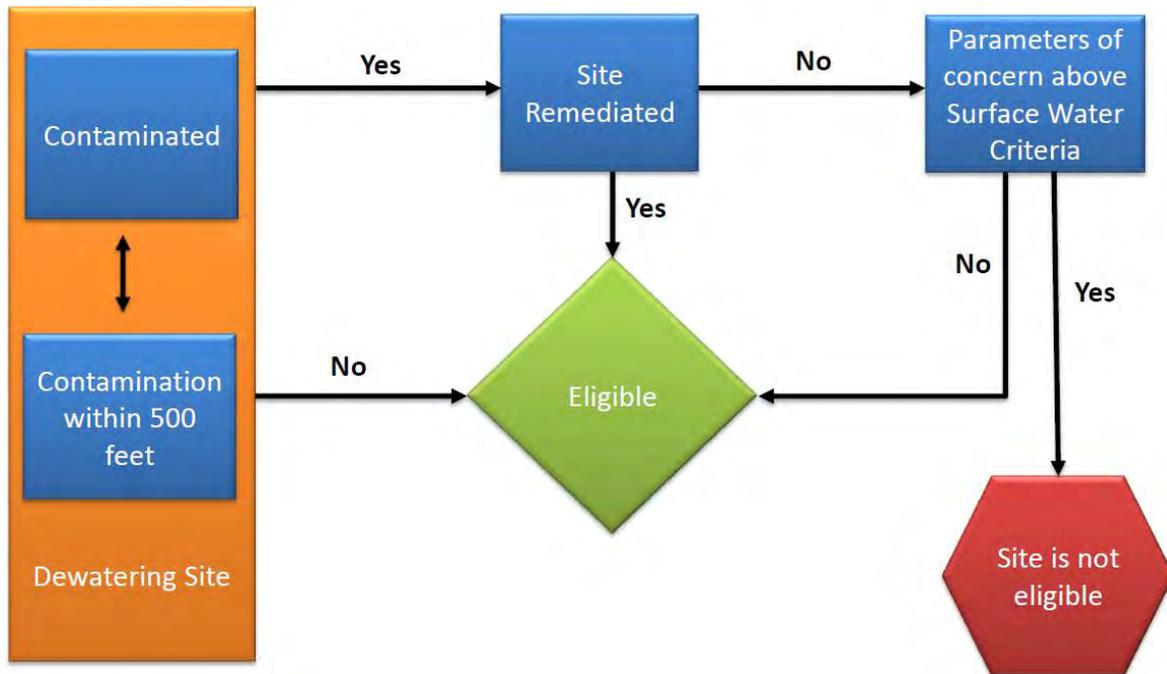


Chart 1. Decision tree for dewatering at contaminated sites. Provided by the Southwest District.

If the site does not qualify for a non-contaminated site permit, then an option is to contact the appropriate lead government agency for approvals to discharge to the sanitary sewer. The Dewatering permit is processed by DEP District Offices.

Further Consideration

It may be prudent to label areas acceptable and non-acceptable to stormwater structures, ponds, and pathways as part of the draft CSRCO Process. This in effect would be a secondary restrictive area(s) for non-acceptable future stormwater structure construction zones. The primary restrictive area would be the contaminated area(s) itself. Each CSRCO site would have specific maps which specifically designates these areas and defines the extent of contamination and the restricted area(s). The secondary restrictive area map would create a future stormwater use map for each site.

For additional information please contact Lynn Walker at Lynn.Walker@floridadep.gov or 850-245-7502. You may also contact the contributors listed below.

References:

- a. *Operating Agreement Concerning Regulations under Part IV, Chapter 373 F.S. between SWFWMD and DEP*
- b. *SWFWMD Environmental Resource Permit Applicant Handbook Volume II, effective June 1, 2018*
- c. *DEP-NWFWMD ERP References and Design Aids*

Contributors

Lanita "Lynn" Walker, P.E.
District & Business Support Program
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399
850-245-7502
Lynn.Walker@floridadep.gov

Alex Webster, P.G.
Cleanup Section Supervisor
FDEP Northwest District
160 West Government St, Suite 308
Pensacola, FL 32502
850-595-0664
Alex.Webster@floridadep.gov

Yanisa G. Angulo, P.E., Environmental Administrator
Permitting and Waste Cleanup Program
Florida Department of Environmental Protection-Southwest District
13051 N. Telecom Parkway, Suite #101
Temple Terrace, FL 33637
Direct: 813-470-5757 | Main: 813-470-5700
Yanisa.Angulo@floridadep.gov

Simone Core, Professional Engineer II
Permitting & Waste Cleanup Program Southwest District
Florida Department of Environmental Protection
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926
813-470-5753
Simone.Core@floridadep.gov

John R. Segó, P.G.
Permitting & Waste Cleanup Program Southwest District
Florida Department of Environmental Protection
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926
Phone: 813-470-5756
John.R.Sego@FloridaDEP.gov

Dale Melton, Environmental Specialist III
Permitting and Waste Cleanup Program
Florida Department of Environmental Protection - Central District
3319 Maguire Blvd., Suite 232, Orlando, FL 32803-3767
407-897-4326
Dale.Melton@floridadep.gov

Indar Jagnarine, P.E.
Florida Department of Environmental Protection
Southeast District – West Palm Beach
3301 Gun Club Road, MSC 7210-1
West Palm Beach, FL 33406-3007
Office: 561-681-6640
Main: 561-681-6600
Indarjit.Jagnarine@floridadep.gov

Missy Palcic, Professional Engineer III
Waste Cleanup Program Coordinator
FDEP - Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, FL 32256
904-256-1544
Merrilee.L.Palcic@floridadep.gov

Craig Parke, Professional Geologist II
FDEP - Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, FL 32256
904-256-1542
Craig.Parke@FloridaDEP.gov