

May 5, 2020

Ms. Linda Sunderland  
Broward County Environmental Protection  
& Growth Management Department  
1 North University Drive, Suite 201  
Plantation, FL 33324

**RE: NSU Port Parcel**  
**TCG Project No. 14-0080.001**

Dear Ms. Sunderland:

Please accept this correspondence as an application to authorize the above referenced project. The project site is a 5.11-acre undeveloped parcel, including 4.21 acres of mangrove wetlands. The proposed project includes the filling of 4.21 acres of wetlands for the construction of commercial warehouse and associated parking and drainage structures. A credit purchase is proposed at Everglades Mitigation Bank for unavoidable wetland impacts. Please see the attached information for your review:

The following information is included for your review:

- Letter of Authorization
- Executed ERL application
- Ownership information
- Alternatives Analysis
- Avoidance & Minimization
- WATER scores
- Drainage plans and calculations
- Project Plans (11x17)

It is anticipated that the information included within this submittal will be sufficient for your review and assignment to staff for review. If you have any further questions or comments, please feel free to contact my office at (954) 782-1908, or via email at [kathryn@thechappellgroup.com](mailto:kathryn@thechappellgroup.com).

Sincerely,

**THE CHAPPELL GROUP, INC.**

*Kathryn Bongarzone*

Kathryn Bongarzone  
Senior Project Biologist

714 East McNab Road, Pompano Beach, FL 33060 tel. 954.782.1908 fax. 954.782.1108 [www.thechappellgroup.com](http://www.thechappellgroup.com)

Environmental Consultants | Marina & Wetland Permitting | Mitigation Design & Monitoring | T & E Species Surveys



ENVIRONMENTAL PROTECTION DEPARTMENT – Biological Resources Division
Mailing Address: 1 North University Drive, Suite 301, Plantation, Florida 33324
954-519-1230 • FAX 954-519-1412

ENVIRONMENTAL RESOURCE LICENSE APPLICATION FORM

SEND APPLICATIONS TO: Environmental Protection Department, Biological Resources Division,
115 S. Andrews Avenue, Room 240A, Fort Lauderdale, Florida 33301

SECTION I: Application Checklist

The following information is required for works in the surface waters or wetlands of Broward County. Initial application packages that do not include the applicable information below may not be accepted. Upon review of the application, additional information may be required. If you have questions regarding the application form or required information, please call 519-1230 for assistance.

Basic information necessary to be included with all applications

- A completed notarized application form with all the requested applicable information
The correct EPD application processing fee (see attached fee schedule revised 12/03)
Proof of ownership or sufficient interest in the project property; and,
A location / street map with the project site identified;
A sketch and legal description of the subject property, preferably sealed, clearly depicting the existing site conditions
Four sets of legible plan view and cross-sectional signed and sealed drawings clearly depicting the existing and proposed conditions;
accurate dimensions of length and width for all structures over water measured from the wet face of the seawall panel (seawall cap, docks, boardwalks, boatlifts, floating docks, etc.);
Mean High Water Level (MHW), Mean Low Water Level (MLW), and the elevation of the substrate, (referenced to NGVD or Mean Sea Level);
the height of the proposed dock above MHW;
width of water body; and
rip-rap (if applicable) at a 2H:1V slope; and
Benthic resources (seagrasses, oysters, etc) surveys for all projects east of US 1

SECTION II- Project Information

Project location

Street address: Access Road, east of NE 7th Ave.
City: Dania Beach
Folio number: 504226000021
Project name: NSU Port Parcel
Zip Code: 33004
Township/Section/Range: 50/26/42
Total site acreage: 5.11

Provide details of the proposed activities in, on, over surface waters or wetlands: The proposed project is the filling of 4.21 acres of a mangrove wetland and 0.26 acres of surface waters to develop a commercial warehouse.

List any previous ACOE, Environmental Resource Permits, and/or Environmental Resource Licenses for the site: \_\_\_\_\_

List times, dates and attendees for any pre-application meetings with regulatory staff

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### **SECTION III- Contact Information**

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#### **Owner of Land**

Name: Shlomo Melloul

Title and Company: Managing Member, Port 1850, LLC

Street address: 1210 Stirling Road, Unit 8A City, State, Zip: Dania Beach, FL 33004

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

#### **Applicant** (To be completed if an entity or individual other than the owner is proposing the project)

Name \_\_\_\_\_

Title and Company: \_\_\_\_\_

Street address: \_\_\_\_\_ City, State, Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

**Note: Approval from the land owner is required**

#### **Contractor to do work** (Note: If not yet known, this information must be provided prior to construction commencement)

Name: \_\_\_\_\_

Title and Company: \_\_\_\_\_

Street address: \_\_\_\_\_ City, State, Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

#### **Agent Consultant to secure permit** (if different from contractor)

Name: Tyler Chappell

Title and Company: Vice President, The Chappell Group, Inc.

Street address: 714 E McNab Road City, State, Zip: Pompano Beach, FL 3306

Telephone: 954-782-1908 Fax: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

**SECTION IV: Project Specific Information**

**Part 1: Docks**

Not applicable:  X

**A- Provide the following information for the any existing docks at the site:**

B- Length \_\_\_\_\_ Width: \_\_\_\_\_ Total Area: \_\_\_\_\_ sq. ft.

C- Width of structure as measured from the wet face of the seawall panel: \_\_\_\_\_ feet

D- Total Area of existing dock on or over surface waters and/or wetlands: \_\_\_\_\_ sq. ft.

Number, Length and Width of finger piers (if applicable): \_\_\_\_\_

# of existing slips: \_\_\_\_\_ wet \_\_\_\_\_ dry \_\_\_\_\_

# of vessels at the site: \_\_\_\_\_ Draft of vessels at the site \_\_\_\_\_

**B- Provide the following information for any proposed docks at the site:**

Length \_\_\_\_\_ Width: \_\_\_\_\_ Total Area: \_\_\_\_\_ sq. ft.

Width of structure as measured from the wet face of the seawall panel: \_\_\_\_\_ feet

Total Area of proposed dock on or over surface waters and/or wetlands: \_\_\_\_\_ sq. ft.

Number, Length and Width of finger piers (if applicable): \_\_\_\_\_

# of proposed dry slips: \_\_\_\_\_ # of proposed wet slips: \_\_\_\_\_ Drafts of proposed vessels: \_\_\_\_\_

**Note:** Any over-water structure with a width of 8 feet and a length greater than 100 feet requires riprap under the portion of the structure which exceeds 100'. Any over-water structure with a width greater than 8 feet requires riprap under the entire structure.

**Additional information necessary for multifamily docking facilities, marinas and dry stacks**

- Documentation of the existing and proposed number of slips at the facility
- Clearly label and number the existing and proposed number of slips on the plan view drawings
- If sewage pump-out facilities, fueling facilities, and/or liveboards are proposed provide detailed containment, maintenance, and management plans for each proposed amenity and include the locations of each on the drawings
- Total linear feet of shoreline owned by the applicant
- Proposed upland site plan if upland work is proposed
- A bathymetric survey of the project area referenced to mean low water.
- A benthic resources (seagrasses, oysters, etc) surveys performed between May 1 and September 30

**Part 2: Seawalls**

Not applicable:  X

**Type of construction** (check all applicable): footer  batter piles  new construction  New wall

removal and replacement in front of existing  Replacement in same footprint as existing

New wall where no wall previously existed

If removal and replacement, the distance of the new wall panel from existing wet face: \_\_\_\_\_ ft.

Length: \_\_\_\_\_ ft Width of cap over water: \_\_\_\_\_ ft Wall Type: \_\_\_\_\_

**Additional information necessary for seawall projects**

- The location of and distance from the existing seawall face in relation to the adjacent seawalls or permanent structures
- Natural limerock riprap with 1-2 foot diameter at a 2 horizontal: 1 vertical slope ratio beginning at one foot above mean high water is required for projects in tidal waters where no wall previously existed

**Part 3: Dredging and/or filling in Surface Waters**

Not applicable: \_\_\_\_\_

Fill: 0.26 acres      Fill volume: 10,000 cu yards  
Dredging: \_\_\_\_\_ acres      Dredge volume: \_\_\_\_\_ cu yards  
Max. depth of dredging: \_\_\_\_\_ NGVD      Seasonal HWL (for fresh water projects): \_\_\_\_\_ NGVD  
Reason for dredging and/or filling: Filling of surface waters for commercial warehouse.

**Additional information necessary for dredge and fill projects**

- A detailed description of the methodology and sequencing of dredging activities, turbidity control and monitoring and disposal of spoil material (including locations, volumes, retention plans and locations/dimensions of disposal cells).
- The required lake slopes of 4 horizontal : 1 vertical to a minimum of 4 feet below the ordinary high water shown on the drawings
- Detailed and specific description of the baseline bathymetry for the project and adjacent waters

**Part 4: Mangrove Trimming**

Not applicable: X

*Note: If ONLY mangrove trimming or alteration is proposed, please use the application provided at: <http://www.dep.state.fl.us/water/wetlands/forms/mangrove/trimapp.doc>*

Number per species of mangroves to be trimmed: [ ] Red      [ ] Black      [ ] White  
Number per species of mangroves to be removed: [ ] Red      [ ] Black      [ ] White  
Present height: \_\_\_\_\_ ft \_\_\_\_\_ inches      Diameter (dbh): \_\_\_\_\_      aerial coverage: \_\_\_\_\_ acres  
Proposed height: \_\_\_\_\_ ft \_\_\_\_\_ inches      Diameter (dbh): \_\_\_\_\_      aerial coverage: \_\_\_\_\_ acres  
Reason for alteration: \_\_\_\_\_

**Part 5: Wetlands**

Not applicable: \_\_\_\_\_

**Please indicate the boundaries of the jurisdictional wetlands on the drawings and attach a preliminary Unified Wetland Mitigation Assessment Methodology (UMAM) assessment.**

Amount of wetlands on site: - 4.21 acres - (show wetlands on drawings)  
How was this determined: Mangrove wetland delineated using GPS  
Has EPD conducted a wetland jurisdictional determination on the property? [ X ]no [ ]yes (if yes, attach a copy)  
Wetland Fill: 4.21 acres      Fill volume: 100,000 cu yards  
Wetlands Excavation: \_\_\_\_\_ acres      Excavation volume: \_\_\_\_\_ cu yards  
Max. Depth of Excavation: \_\_\_\_\_ NGVD      Seasonal HWL: \_\_\_\_\_ NAVD

**Additional information necessary for wetland mitigation projects**

- A mitigation plan which, at a minimum, includes details of the mitigation area, proposed grading contours at 1-foot intervals, and monitoring, maintenance and planting plans,
- Any encumbrances within the Conservation Easement area identified on the plans
- Preliminary UMAM calculations

**Part 6: Voluntarily Created Wetlands**

Not applicable: X

Current site conditions: \_\_\_\_\_  
Excavation: \_\_\_\_\_ sq ft      \_\_\_\_\_ acres  
Excavation volume: \_\_\_\_\_ cu yards      Max. depth of excavation: \_\_\_\_\_ NGVD  
Fate of excavated material: \_\_\_\_\_  
Is a connection to existing surface waters proposed? Yes \_\_\_\_\_ No \_\_\_\_\_

**SECTION V- Certifications and Signatures**

**Part 1: Owner/ Applicant Certification**

By signing below, I Shlomo Melloul certify the following:  
Printed Name or Owner or Applicant

- a) I understand this is an application and not a permit, and that work prior to approval is a violation
- b) I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete and accurate.
- c) I further certify that I possess the authority to undertake the proposed activities.
- d) I understand that I may have to provide additional information/data that may be necessary to show that the proposed project will comply with Sections 27-331 through 27-341, titled Aquatic and Wetland Resource Protection, of the Natural Resource Protection Code.
- e) Should the information I provide not be adequate for review, I understand that the Department is not obligated to issue a comprehensive Completeness Summary.
- f) In addition, I agree to provide entry to the project site, for inspectors with proper identification, for the purpose of reviewing the site as covered by the scope of Sections 27-331 through 27-341, titled Aquatic and Wetland Resource Protection, of the Natural Resource Protection Code.
- g) Further, I hereby acknowledge the obligation and responsibility for obtaining all of the required federal, state and local permits before commencement of construction activities.
- h) If a license is issued, I agree, or I agree on behalf of the applicant, to construct and maintain the project in compliance with the license conditions, unless the Department authorizes transfer of the license to another entity
- i) **I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S. and 18 U.S.C. Section 1001.**
- j) Should an EPD Environmental Resource License be granted, I hereby certify that I will comply with all general and specific conditions of that license and with the Broward County Natural Resource Protection Code (Chapter 27, Ord. 90-49, as amended).

*Shlomo Melloul*  
Signature of Applicant/Owner

4-20-2020  
Date

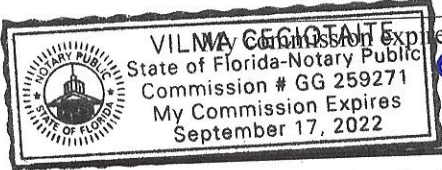
Shlomo Melloul  
Typed / Printed Name of Applicant

Managing Member, Port 1850, LLC  
Corporate Title (if applicable)

Notarization: STATE OF Florida  
The foregoing instrument was acknowledged before me this 24 day of April 2020 by Vilma Cecotait, who is personally known to me or who has produced \_\_\_\_\_ as identification.

COUNTY OF Broward

Vilma Cecotait  
Name, Notary Public, State of Florida  
Commission Number: 89259271



Commission Expires: 09 17 2022

**Part 2: Agent/Contractor Authority-** The applicant/owner should only sign this section if he/she is authorizing the contractor or consultant to act on his/her behalf.

Certification: By signing below I hereby designate

Individual Name (printed): \_\_\_\_\_

Company Name: \_\_\_\_\_  
as the agent in the processing of this application to furnish supplemental information and support of the application. In addition, I authorized the agent to bind me, or my Corporation, to perform any requirements which may be necessary to procure to permit for authorization indicated above.

\_\_\_\_\_  
Signature of Applicant/Owner

\_\_\_\_\_  
Date

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**Part 3: Authorized Agent Certification** – If Part 2 above is completed by the applicant this section should be certified by the agent/contractor authorized in Part 2 above

By signing below I \_\_\_\_\_ certify the following:  
Printed Name of Agent

- a) I understand this is an application and not a permit, and that work prior to approval is a violation
- b) I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete and accurate.
- d) I understand that I may have to provide additional information/data that may be necessary to show that the proposed project will comply with Sections 27-331 through 27-341, titled Aquatic and Wetland Resource Protection, of the Natural Resource Protection Code.
- e) Should the information I provide not be adequate for review, I understand that the Department is not obligated to issue a comprehensive Completeness Summary.
- f) In addition, I agree to provide entry to the project site, for inspectors with proper identification, for the purpose of reviewing the site as covered by the scope of Sections 27-331 through 27-341, titled Aquatic and Wetland Resource Protection, of the Natural Resource Protection Code.
- g) Further, I hereby acknowledge the obligation and responsibility for obtaining all of the required federal, state and local permits before commencement of construction activities.
- h) If a license is issued, I agree on behalf of the applicant, to construct and maintain the project in compliance with the license conditions, unless the Department authorizes transfer of the license to another entity
- i) **I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S. and 18 U.S.C. Section 1001.**
- j) Should an EPD Environmental Resource License be granted, I hereby certify that I will comply with all general and specific conditions of that license and with the Broward County Natural Resource Protection Code (Chapter 27, Ord. 90-49, as amended.)

---

Signature of Agent

Date

---

Name of Corporation/Business/Etc.

Corporate Title (if applicable)

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**Part 4: Contractor Certification** – If different from the authorized agent above

By signing below I \_\_\_\_\_ certify the following:  
Printed Name of Contractor

- a) I understand this is an application and not a permit, and that work prior to approval is a violation
- b) I hereby acknowledge the obligation and responsibility for obtaining all of the required federal, state and local permits before commencement of construction activities.
- c) If a license is issued, I agree on behalf of the applicant, to construct and maintain the project in compliance with the license conditions, unless the Department authorizes transfer of the license to another entity
- d) **I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S. and 18 U.S.C. Section 1001.**
- e) Should an EPD Environmental Resource License be granted, I hereby certify that I will comply with all general and specific conditions of that license and with the Broward County Natural Resource Protection Code (Chapter 27, Ord. 90-49, as amended.)

---

Signature of Contractor

Date

---

Name of Corporation/Business/Etc.

Corporate Title (if applicable)

April 17, 2020

Broward County Environmental Protection  
& Growth Management Department  
1 North University Drive, Suite 201  
Plantation, FL 33324

South Florida Water Management District  
3301 Gun Club Road  
West Palm Beach, FL 33406

U.S. Army Corps of Engineers  
4400 PGA Boulevard, Suite 500  
Palm Beach Gardens, FL 33410

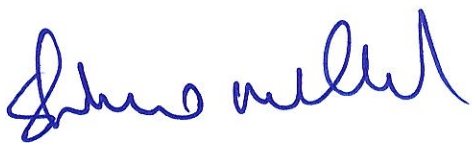
**RE: NSU Port Parcel**  
**Letter of Authorization**

To Whom It May Concern:

As Managing Member of Port 1850, LLC, owner of parcel no. 504226-00-0021, I hereby authorize The Chappell Group, Inc. to process the necessary environmental permit applications and to submit any pertinent information on my behalf.

If you have any questions or comments please forward them to the Chappell Group, Inc.

Sincerely,



Shlomo Melloul  
Managing Member, Port 1850, LLC

Cc: Mr. Nick Zweber, The Chappell Group, Inc.



[Department of State](#) / [Division of Corporations](#) / [Search Records](#) / [Detail By Document Number](#) /

## Detail by Entity Name

Florida Limited Liability Company  
PORT 1850 LLC

### Filing Information

**Document Number** L19000225555  
**FEI/EIN Number** 84-3073169  
**Date Filed** 09/05/2019  
**State** FL  
**Status** ACTIVE

### Principal Address

67 N federal hwy  
DANIA BEACH, FL 33004

Changed: 04/24/2020

### Mailing Address

67 N federal hwy  
DANIA BEACH, FL 33004

Changed: 04/24/2020

### Registered Agent Name & Address

melloul, shlomo  
67 N federal hwy  
DANIA BEACH, FL 33004

Name Changed: 04/24/2020

Address Changed: 04/24/2020

### Authorized Person(s) Detail

#### **Name & Address**

Title MGR

MELLOUL, SHLOMO  
67 N federal hwy  
DANIA BEACH, FL 33004

Title Manager

man, moshe

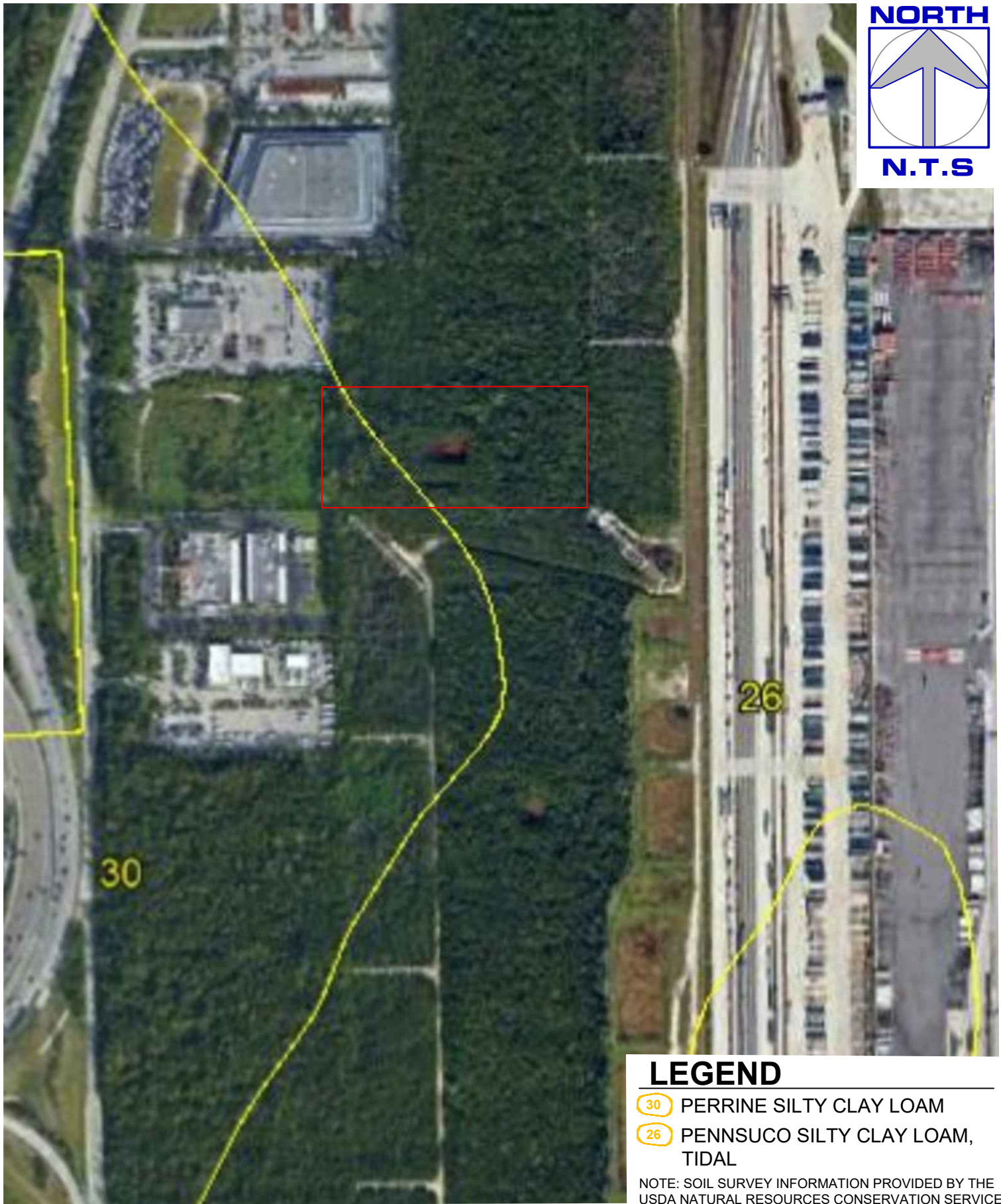
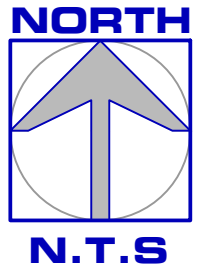
20046 ne 36th place  
Aventura, FL 33180

**Annual Reports**

<b>Report Year</b>	<b>Filed Date</b>
2020	04/24/2020

**Document Images**

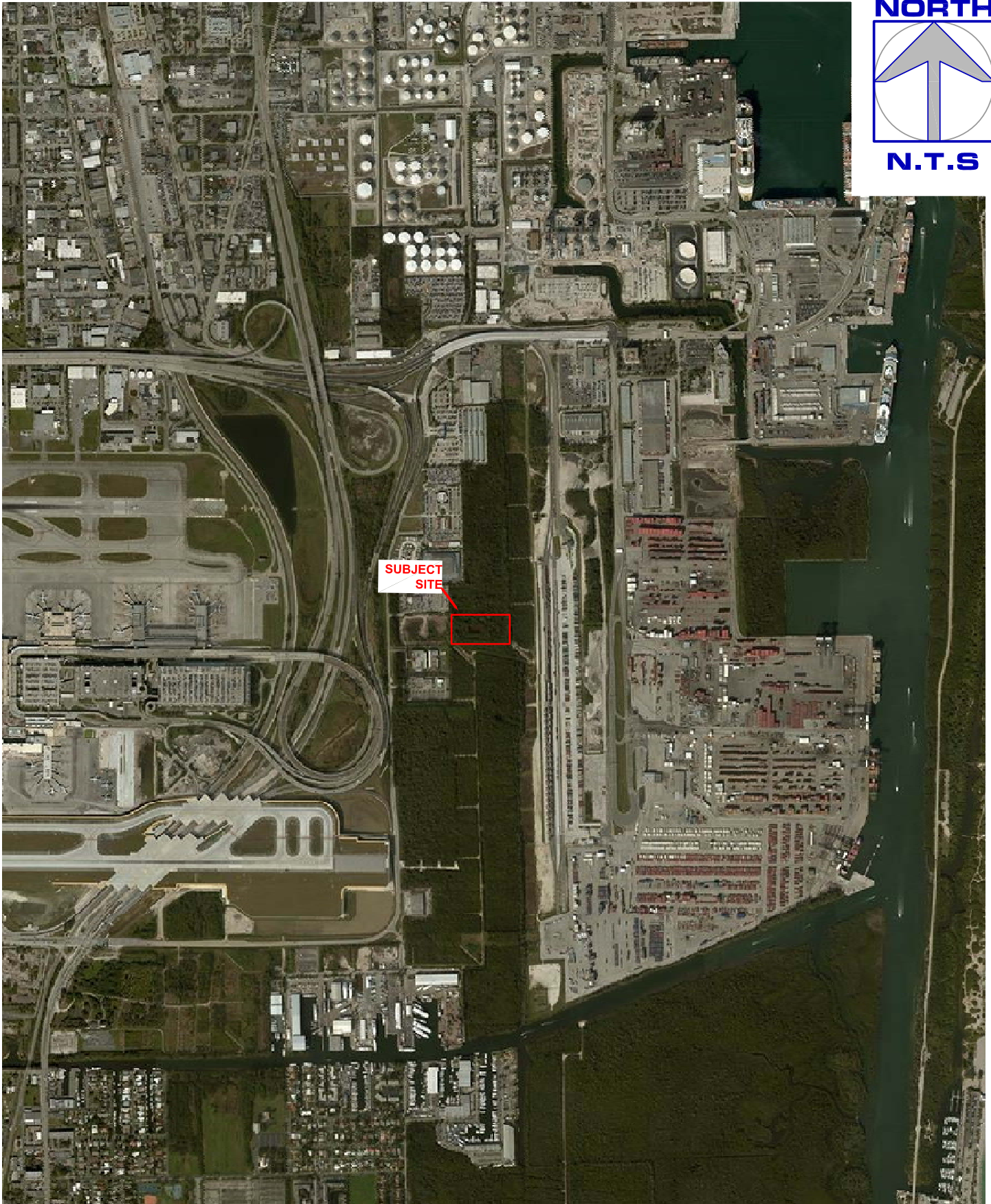
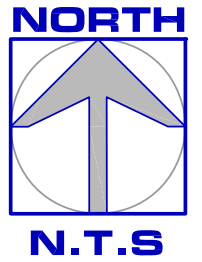
<a href="#">04/24/2020 -- ANNUAL REPORT</a>	<a href="#">View image in PDF format</a>
<a href="#">09/05/2019 -- Florida Limited Liability</a>	<a href="#">View image in PDF format</a>



## LEGEND

- 30 PERRINE SILTY CLAY LOAM
- 26 PENNSUCO SILTY CLAY LOAM, TIDAL

NOTE: SOIL SURVEY INFORMATION PROVIDED BY THE USDA NATURAL RESOURCES CONSERVATION SERVICE.



**THE Chappell GROUP INC.**

714 East McNab Road  
 Pompano Beach, Florida 33060  
 tel. 954.782.1908  
 fax. 954.782.1108 [www.thechappellgroup.com](http://www.thechappellgroup.com)

- Environmental Consultants
- Marina & Wetland Permitting
- Mitigation Design & Monitoring
- T&E Species Surveys
- Phase I ESAs

NSU PORT PROPERTY

PREPARED FOR:  
 SHLOMO MELLOUL

LOCATION MAP		
Date: 9/12/2019	Sheet:	of:
Proj No.: 14-0080,002	1	1

**NSU Port Parcel  
Project Avoidance & Minimization Summary  
TCG Project No. 14-0080.002**

The proposed NSU Port Parcel project consists of the construction of a commercial warehouse with required parking, drainage and associated infrastructure. The project site consists of a 5.11 acre vacant property located east of NE 7th Avenue and west of an existing Florida Power and Light transmission easement in Dania Beach, Broward County, Florida, more specifically identified as Broward County Folio No. 5042-26-00-0021. The parcel is surrounded by undeveloped parcels. The majority of the property consists of mangrove wetlands with a fringe of disturbed uplands on the west side. Elevations reflect the uplands at elevations between 2.0-4.0' NAVD, and wetlands at and below an approximate elevation of 0.2' NAVD. There are approximately  $\pm 4.21$  acres of mangroves and  $\pm 0.26$  acres of surface waters on site. The existing wetland onsite was delineated by The Chappell Group staff, on September 13, 2019.

The uplands consist of non-native canopy species including Brazilian pepper (*Schinus terebinthifolius*), earleaf acacia (*Acacia auriculiformis*) and Australian pine (*Casuarina equisetifolia*). The wetland area contains obligate wetland vegetation and hydric soils with standing water, serving as evidence of wetland hydrology. The interior of the site displays some evidence of previous alteration, with two (2) small open water areas and channelized ditches in the center and western half of the site. Excavated material from these areas is present onsite, with a few linear and curvilinear areas existing at elevations 6-8" above the surroundings. These areas contain transitional and upland vegetation, primarily Australian pine, but exist at wetland elevations with wetland soil characteristics. This summary serves as a narrative on the avoidance and minimization of impacts as reviewed and included to the greatest extent possible for the proposed project. Due to the nature and location of the wetlands, complete avoidance is not a viable alternative as the project would not be a financially feasible development.

Prior to application submittal, various considerations and efforts were made in an effort to avoid and or minimize potential onsite, offsite and secondary wetland impacts. During the initial due diligence of the project development, site access was designated to be within the platted easement in the northwest corner of the subject site. This requirement allows for access through the upland portion of the site and avoids any additional impacts through the adjacent eastern parcels.

Due to the existing low elevations of the site, 42.0' wide perimeter berms are required around the entire site. These required berms account for 1.76 acres of the 5.11-acre site, or  $\pm 34\%$  of the site. Per a review of the parking and setback requirements for the proposed overall development, the overall size of the development footprint could not be reduced from the current proposed plans. For the site to be economically viable, the

remaining 3.35 acres of the site is necessary to be filled and impacts cannot be avoided.

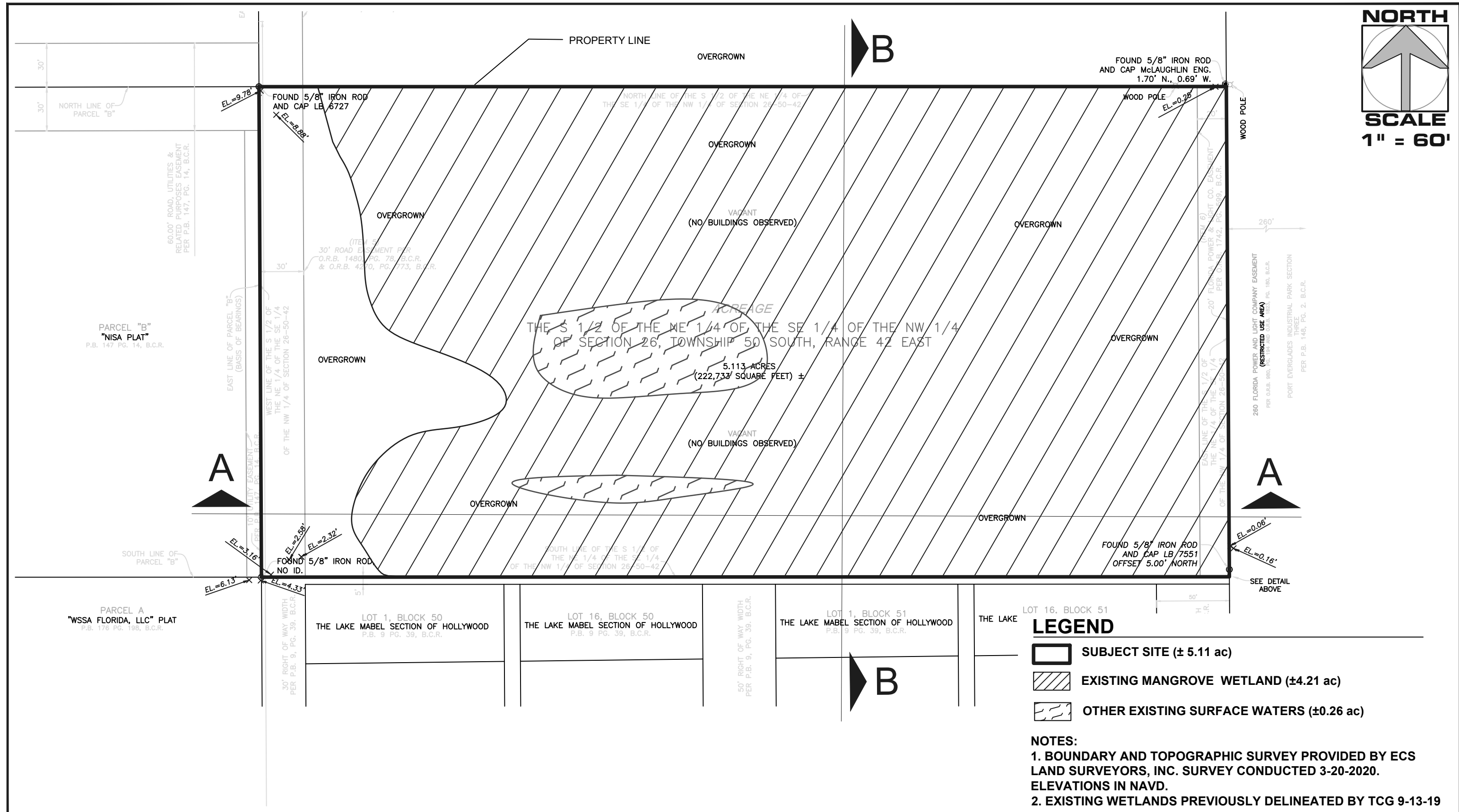
To assess the existing quality and function of the existing mangroves, a WATER analysis was conducted for the existing wetlands. Please see Appendix C for the WATER analysis, as also summarized below:

Existing Conditions – 4.21-acre mangrove wetland

**WATER Scores**

	<b>Impact W-1 (4.21 ac)</b>
Cumulative Score	30
Maximum Possible Score	54
WATER = Cumulative Score/Maximum Possible Score	0.56
Credit Determination SSE (1.02) x WATER x Impact Acreage	2.4
	Total Credits

Mitigation to offset the unavoidable impacts is proposed through a credit purchase of 2.4 saltwater credits at Everglades Mitigation Bank.



**LEGEND**

- SUBJECT SITE (± 5.11 ac)
- EXISTING MANGROVE WETLAND (±4.21 ac)
- OTHER EXISTING SURFACE WATERS (±0.26 ac)

**NOTES:**

1. BOUNDARY AND TOPOGRAPHIC SURVEY PROVIDED BY ECS LAND SURVEYORS, INC. SURVEY CONDUCTED 3-20-2020. ELEVATIONS IN NAVD.
2. EXISTING WETLANDS PREVIOUSLY DELINEATED BY TCG 9-13-19

THIS DRAWING AND ALL APPURTENANT MATTER CONTAINS INFORMATION PROPRIETARY TO THE CHAPPELL GROUP, INC. AND IS LOANED SUBJECT TO RETURN UPON DEMAND AND MUST NOT BE REPRODUCED, COPIED, LOANED, REVEALED, NOR LISTED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS SPECIFICALLY FURNISHED WITHOUT EXPRESSED WRITTEN CONSENT OF THE CHAPPELL GROUP, INC.  
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**THE Chappell GROUP INC.**

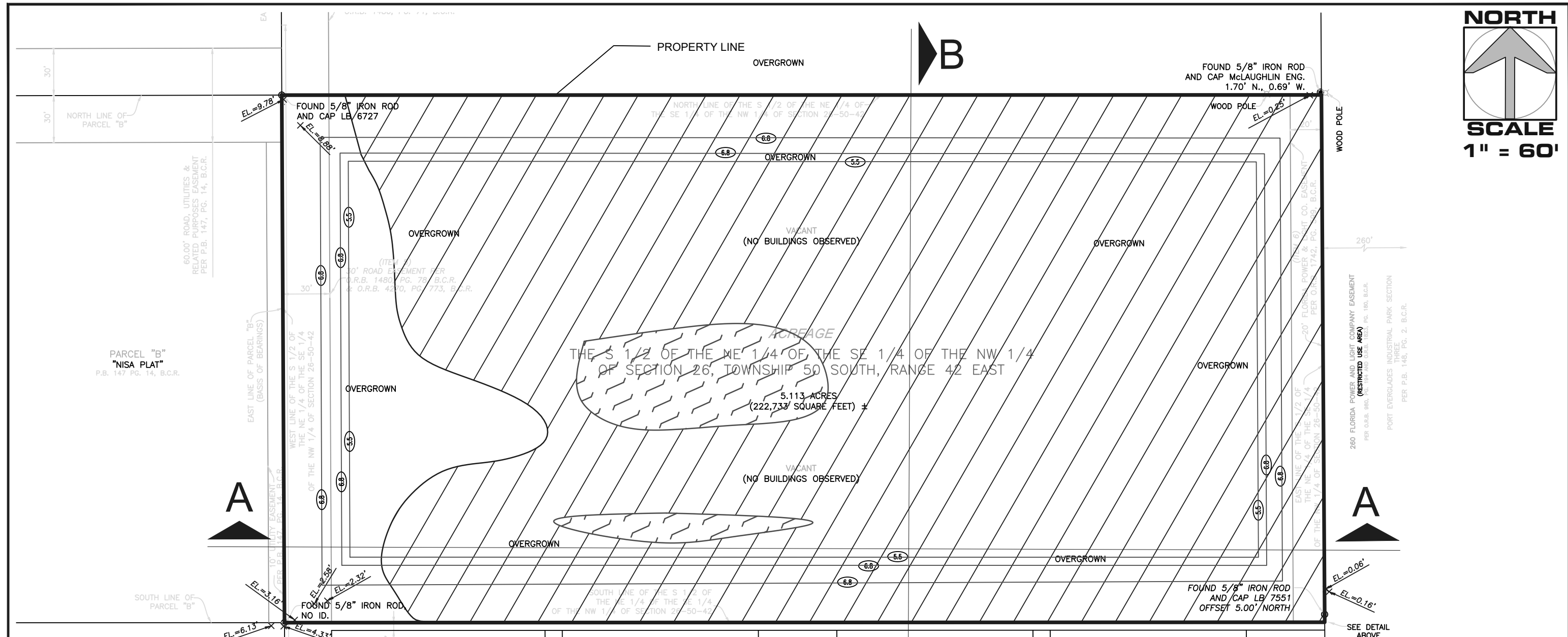
714 East McNab Road  
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- Environmental Consultants
- Marina & Wetland Permitting
- Mitigation Design & Monitoring
- T&E Species Surveys
- Phase I ESAs

**NSU PORT PARCEL**

PREPARED FOR:  
**SHLOMO MELLOUL**

EXISTING CONDITIONS		
Date: 4/17/2020	Sheet : <b>1</b>	of : <b>5</b>
Proj No.: 14-0080.002		



**LEGEND**

- SUBJECT SITE (± 5.11 ac)**
- WETLAND IMPACT-FILL (±4.21 ac - ±40,752 yds<sup>3</sup>)**
- SURFACE WATER IMPACT-FILL (±0.26 ac - ±3,355 yds<sup>3</sup>)**

- NOTES:**
1. BOUNDARY AND TOPOGRAPHIC SURVEY PROVIDED BY ECS LAND SURVEYORS, INC. SURVEY CONDUCTED 3-20-2020. ELEVATIONS IN NAVD.
  2. EXISTING WETLANDS PREVIOUSLY DELINEATED BY TCG 9-13-19
  3. FILL QUANTITY (yds<sup>3</sup>) ESTIMATE FOR PERMIT PURPOSES ONLY

THIS DRAWING AND ALL APPURTENANT MATTER CONTAINS INFORMATION PROPRIETARY TO THE CHAPPELL GROUP, INC. AND IS LOANED SUBJECT TO RETURN UPON DEMAND AND MUST NOT BE REPRODUCED, COPIED, LOANED, REVEALED, NOR LISTED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS SPECIFICALLY FURNISHED WITHOUT EXPRESSED WRITTEN CONSENT OF THE CHAPPELL GROUP, INC.  
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**THE Chappell GROUP INC.**

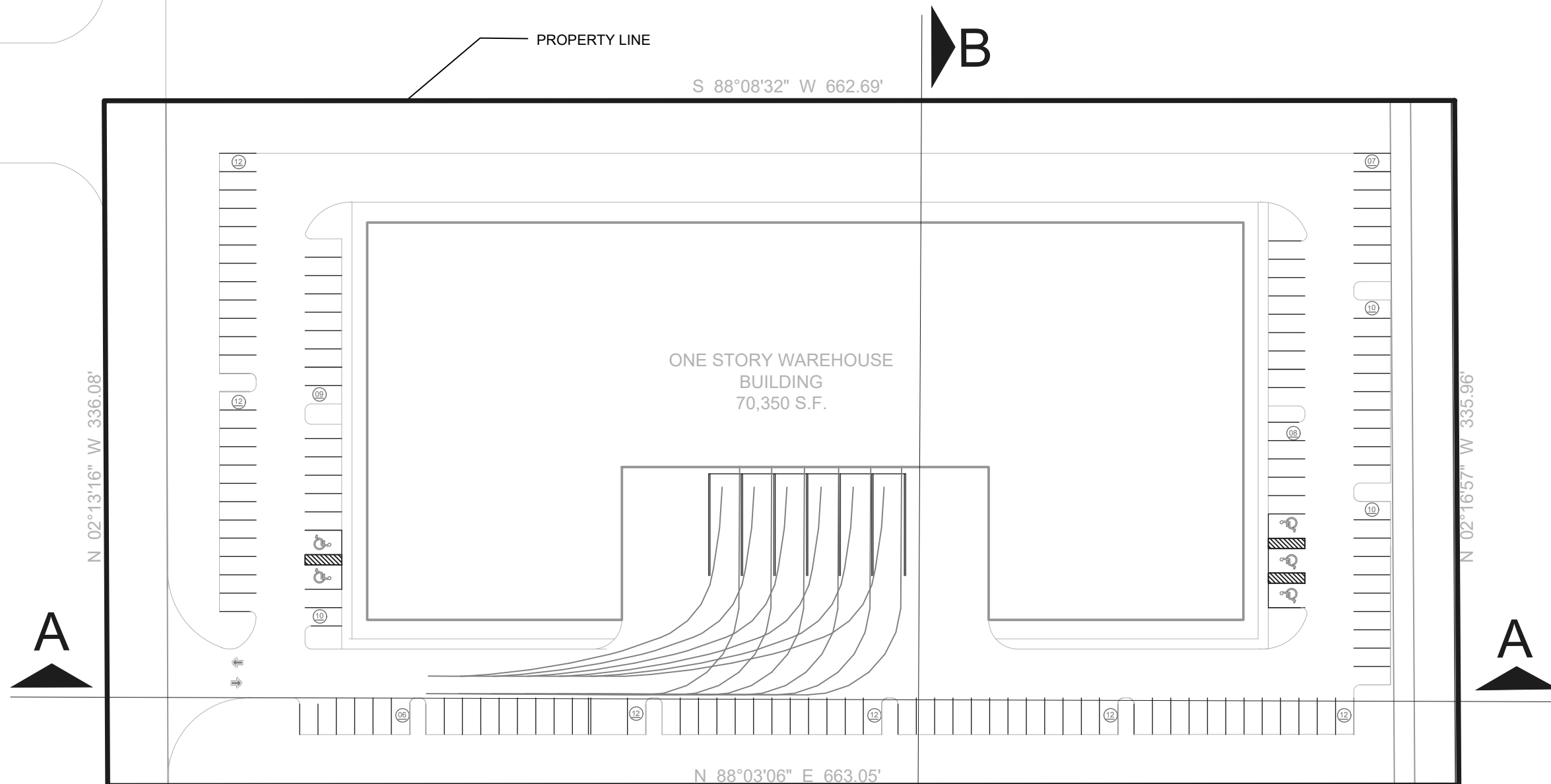
714 East McNab Road  
Pompano Beach, Florida 33060  
tel. 954.782.1908  
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**NSU PORT PARCEL**

PREPARED FOR:  
**SHLOMO MELLOUL**

DREDGE & FILL PLAN		
Date: 4/17/2020	Sheet : <b>2</b>	of : <b>5</b>
Proj No.: 14-0080.002		



**LEGEND**

SUBJECT SITE (± 5.11 ac)

**NOTES:**

1. SITE PLAN PROVIDED BY PASQUALE KURITZKY ARCHITECTURE, INC.
2. BOUNDARY AND TOPOGRAPHIC SURVEY PROVIDED BY ECS LAND SURVEYORS, INC. SURVEY CONDUCTED 3-20-2020. ELEVATIONS IN NAVD.
3. EXISTING WETLANDS PREVIOUSLY DELINEATED BY TCG 9-13-19

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**NSU PORT PARCEL**

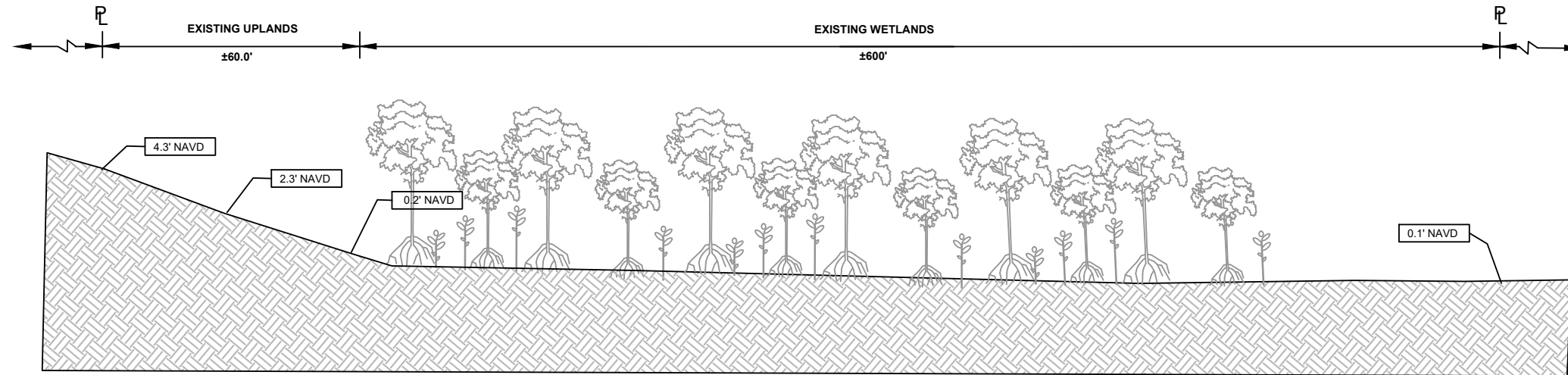
PREPARED FOR:  
SHLOMO MELLOUL

PROPOSED CONDITIONS

Date: 4/17/2020	Sheet : <b>3</b>	of : <b>5</b>
Proj No.: 14-0080.002		

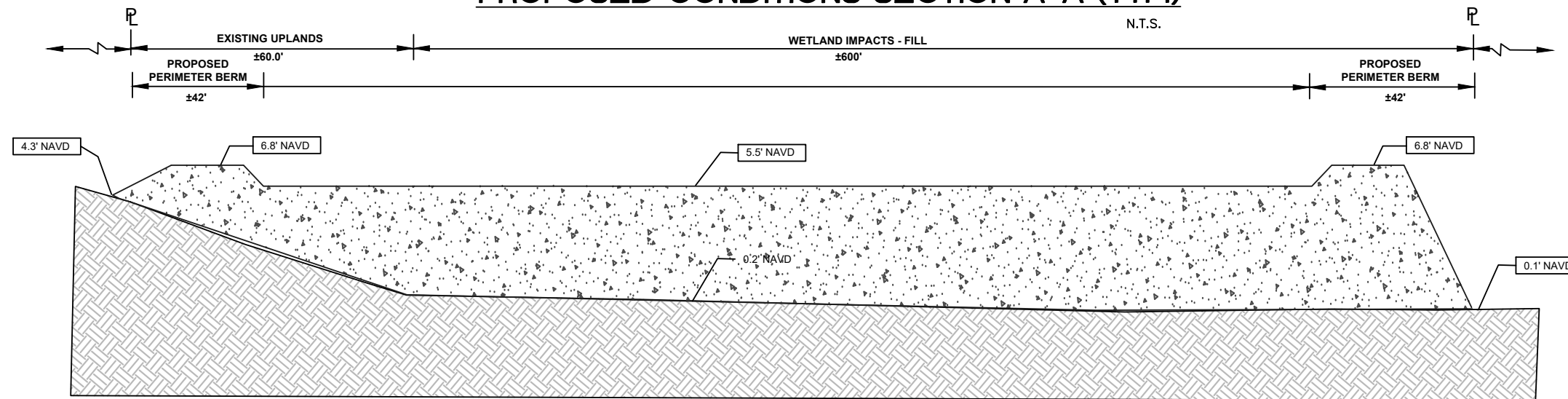
## EXISTING CONDITIONS SECTION A-A (TYP.)

N.T.S.



## PROPOSED CONDITIONS SECTION A-A (TYP.)

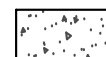
N.T.S.



### LEGEND



**EXISTING SUBSTRATE**



**WETLAND IMPACT-FILL (±40,752 yds<sup>3</sup>)**

**\*NOTE FILL QUANTITY (yds<sup>3</sup>) ESTIMATE FOR PERMIT PURPOSES ONLY**

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## NSU PORT PARCEL

PREPARED FOR:  
SHLOMO MELLOUL

### SECTIONS

Date: 4/17/2020	Sheet : <b>4</b>	of : <b>5</b>	
Proj No.: 14-0080.002			

**NSU Port Parcel  
Alternatives Analysis  
TCG Project No. 14-0080.002**

**Purpose and Need:**

The proposed NSU Port Parcel project consists of the proposed filling of existing jurisdictional wetlands to accommodate a proposed warehouse development. The overall project purpose is the construction of a commercial warehouse in Broward County, Florida with proximity (2 miles) to Port Everglades to fill a need for the operation of the Port. The subject site is currently vacant, consists of a disturbed upland and mangrove wetlands and is zoned for industrial use.

**Preferred Alternative:**

The preferred alternative is an undeveloped parcel totaling ±5.11-acres located east of NE 7th Avenue and west of an existing Florida Power and Light transmission easement in Dania Beach, Broward County, Florida. (Property ID #5042-26-00-0021). The majority of the property consists of mangrove wetlands, with a fringe of disturbed uplands on the western portion of the site. Observed vegetation onsite consisted mainly of red mangrove (*Rhizophora mangle*) and black mangrove (*Avicennia germinans*). Non-native canopy species present onsite included Brazilian pepper (*Schinus terebinthifolius*), earleaf acacia (*Acacia auriculiformis*) and Australian pine (*Casuarina equisetifolia*). The wetland area contains obligate wetland vegetation and hydric soils with standing water, serving as evidence of wetland hydrology. The interior of the site displays some evidence of previous alteration, with two (2) small open water areas and channelized ditches in the center and western half of the site. Excavated material from these areas is present onsite, with a few linear and curvilinear areas existing at elevations 6-8" above the surroundings. These areas contain transitional and upland vegetation, primarily Australian pine, but exist at wetland elevations with wetland soil characteristics. The parcel is surrounded by undeveloped parcels.

The mitigation plan includes a credit purchase of 2.4 saltwater credits at the Everglades Mitigation Bank.

Following the selection of this parcel for the project's purpose, numerous site plan options were evaluated. Due to the proposed construction of a commercial warehouse and the required berms, parking and traffic routing, the filling of the entire site is required for the site to be feasible.

## **Alternative Analysis**

Prior to preparation of site plan alternatives for the subject site, preliminary research was thoroughly conducted to identify potential off-site alternatives for the proposed project. Research revealed that existing, vacant parcels within the immediate vicinity of the project site were largely unavailable for purchase, included wetlands onsite, had unreasonable acquisition costs, or were platted for other uses. An alternative analysis was performed to identify and evaluate project alternatives that would meet the overall project purpose and needs. The analysis area consists of the portion of Broward County adjacent to Port Everglades. Property size, availability for acquisition, wetland impacts, cost, city zoning, and transportation access were included in the criteria used to evaluate the alternatives (Exhibit A).

ALTERNATIVE 1: Parcel 504235230010 located at 480 E. Dania Beach Boulevard is an undeveloped parcels in Dania Beach that is currently listed for sale. This parcel totals 2.14 acres which is not enough land for the proposed project. Additionally, this parcel is zoned as RS-12000 for single-family residential, and appears to contain wetlands.

ALTERNATIVE 2: Parcel 504226000120 located at NE 7<sup>th</sup> Ave, is a vacant, undeveloped parcel that is 6.3 acres with sufficient ingress/egress access and proximity to Port Everglades. The parcel is in unincorporated Florida, so the zoning is unknown, and the parcel appears to contain wetlands. The parcel is owned by Broward County Board of County Commissioners and is not currently available for purchase. The unique shape of the parcel would also require the site plan to be modified and would possibly not meet the size requirement of the project.

ALTERNATIVE 3: Parcel 504234510010 located at NE 10<sup>th</sup> Street is a 7.5 -acre vacant parcel in Dania Beach zoned for industrial use. Although the parcel would be of sufficient size for the proposed project, it is owned by the Broward County Board of County Commissioners and is not currently available for purchase. There is currently no ingress/egress to the site, so an access agreement would also need to be made with Broward County for access to NE 10<sup>th</sup> Street through parcel 504234510011.

ALTERNATIVE 4: Parcel 504223000221 located on South Federal Highway in Dania Beach is a 5.36-acre vacant property. This parcel would be of sufficient size for the proposed project. However, the parcel is owned by the Broward County Board of County Commissioners and is zoned as PEDD, or Port Everglades Development District for future use by the county and there is currently no ingress/egress to the site.

ALTERNATIVE 5: Parcel 504234430020 located on Taylor Lane, Dania Beach is a 1.15-acre parcel, located in close proximity to Port Everglades. This parcel is privately owned and is not currently for sale, but last sold for \$3,600,000, which is almost 5 times

the cost of the subject parcel. There is currently no ingress/egress to the site, so an access agreement would be required. The site is not of sufficient size for the proposed project and could potentially contain wetlands.

### **No-Action Alternative**

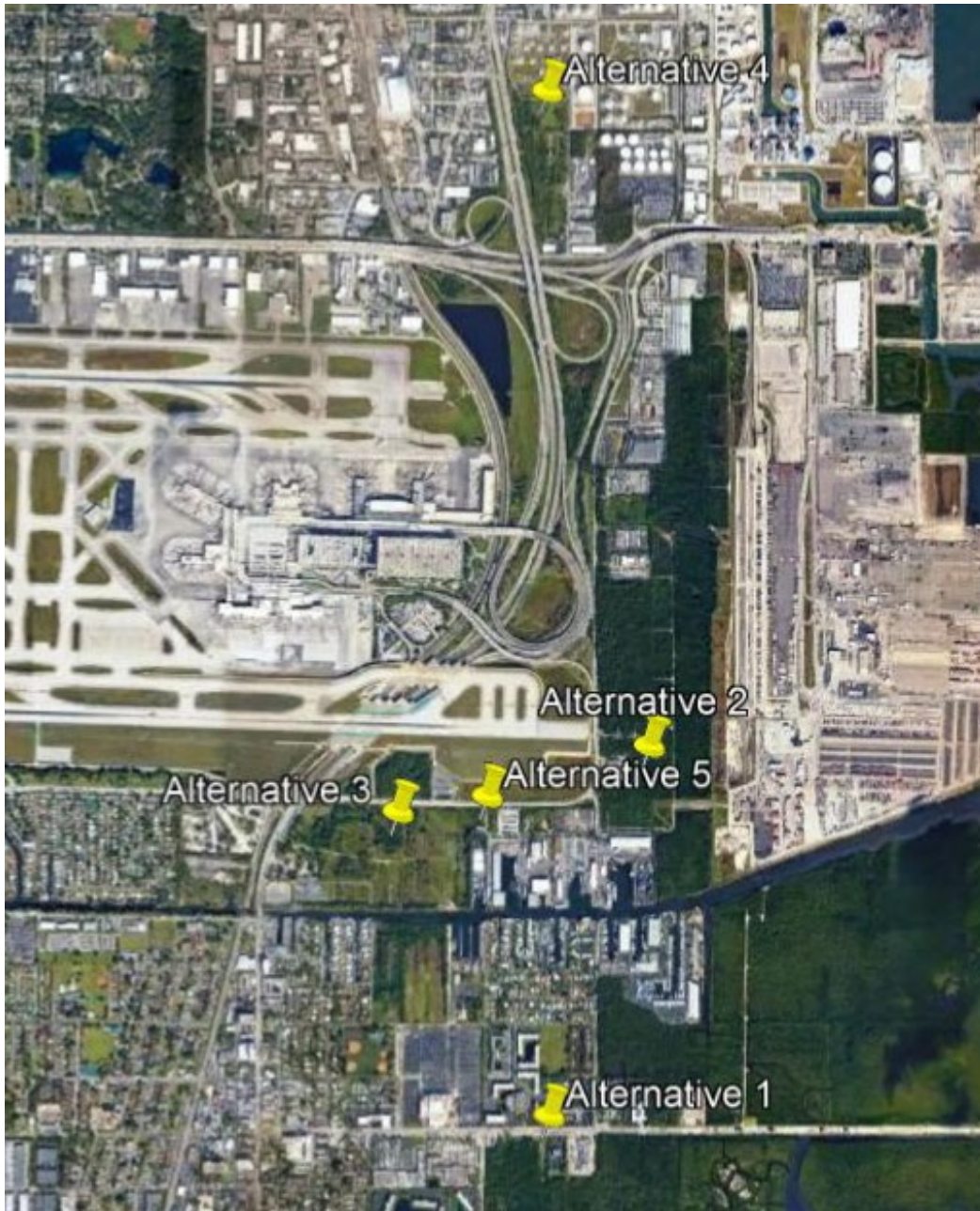
The no action alternative would not allow for the development of the eastern 4.11 acres of the subject site. This would greatly impact the feasibility of the project. Although wetland impacts would not occur, the project would be significantly impacted, and the needs of the community would not be met.

### Alternative Analysis Summary

Category	Practicability Factor	Preferred Alternative	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
<b>Availability</b>	Existing zoning appropriate for zoning change?	Yes	Yes	Yes	Yes	Yes	Yes
	Available for acquisition?	Owned by the applicant	No	No	No	No	No
<b>Cost</b>	Reasonable acquisition costs?	Owned by the applicant	No	No	No	No	No
	Costs feasible for mitigating impacts to historic and cultural resources found onsite?	No historic or cultural resources found onsite	Unknown	Unknown	Unknown	Unknown	Unknown
	Other costs feasible?	Yes (installation of buffers)	Yes (likely wetland mitigation)	Yes (likely wetland mitigation)	Yes (construct ingress/egress infrastructure)	Yes (construct ingress/egress infrastructure)	No (purchase of parcel is over budget, thus no monies for development)
<b>Existing Technology</b>	Topography and other site conditions feasible for construction of project?	Yes	Yes	No (Shape of parcel would require redesign)	Yes	Yes	No
<b>Logistics</b>	Sufficient parcel size?	Yes	No	Yes	Yes	Yes	No
	Availability of utilities?	Yes	Yes	Yes	Yes	No	No
	Availability for access?	Yes	Yes	Yes	No	No	No

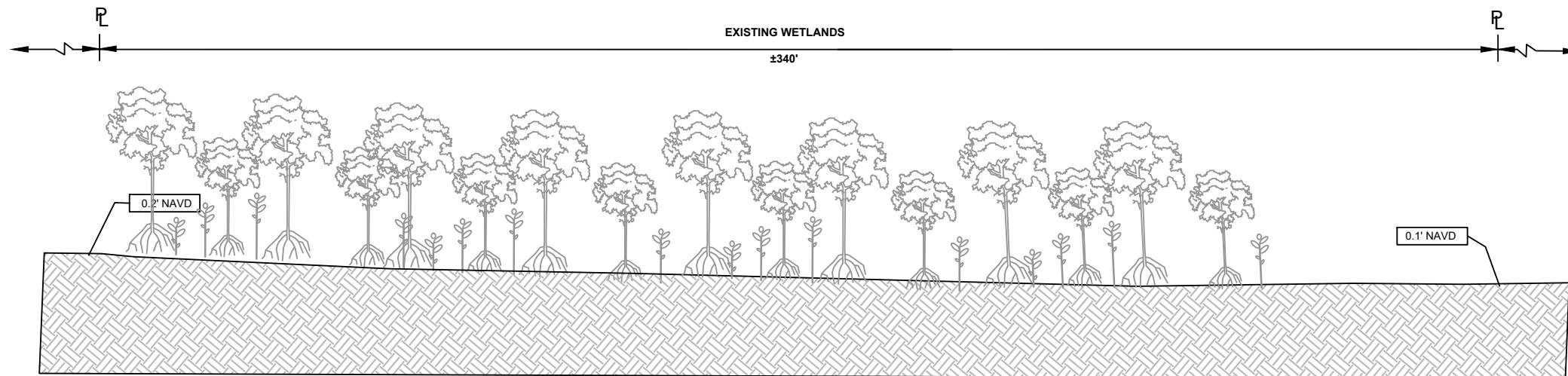
The majority of the alternatives were unavailable for acquisition, contain wetlands or are of insufficient parcel size. Considering the development of the proposed warehouse, as well as parking and drainage requirements, the use of offsite alternatives is not feasible. The proposed onsite site plan has been designed to accommodate all related components (parking, drainage, traffic, landscape buffering requirements etc.) in such a manner to minimize potential impacts to existing resources. The selection of another alternative site would be unsuitable in terms of size, availability for acquisition, wetland impacts, cost, city zoning, and transportation access. Although the preferred alternative includes wetland impacts associated with its development, the applicant is proposing the purchase of mitigation credits from the Everglades Mitigation Bank to offset all functional losses. Therefore, the selected site is the Least Environmentally Damaging Practicable Alternative based on the unavailability of alternate parcels and the minimum impacts proposed onsite.

**EXHIBIT A  
ALTERNATIVES MAP**



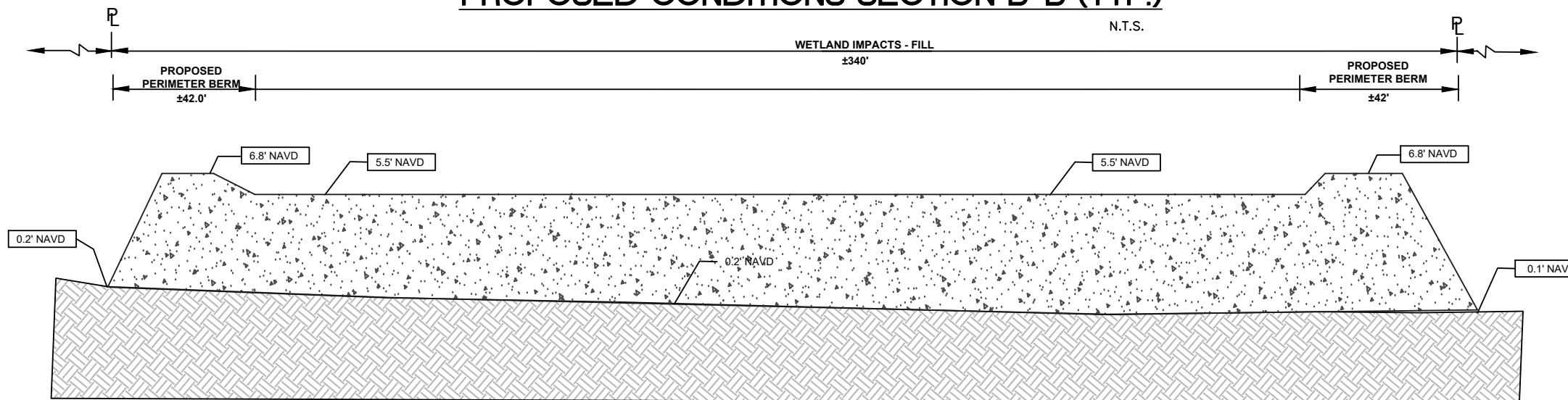
## EXISTING CONDITIONS SECTION B-B (TYP.)

N.T.S.



## PROPOSED CONDITIONS SECTION B-B (TYP.)

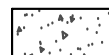
N.T.S.



### LEGEND



**EXISTING SUBSTRATE**



**WETLAND IMPACT-FILL (±40,752 yds<sup>3</sup>)**

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## NSU PORT PARCEL

PREPARED FOR:  
SHLOMO MELLOUL

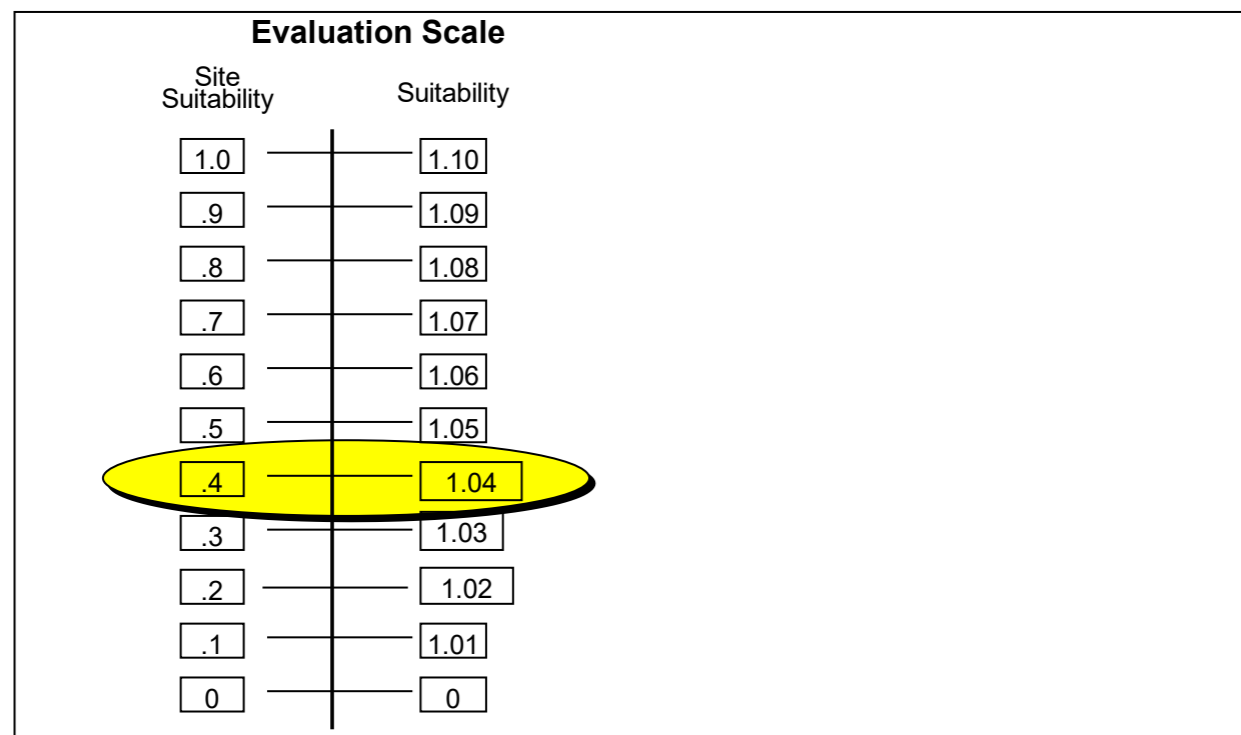
### SECTIONS

Date: 4/17/2020	Sheet : <b>5</b>	of : <b>5</b>	
Proj No.: 14-0080.002			

# Mitigation Bank Site Suitability Evaluation (MBSE) Matrix

Parameters		Project Name: NSU Port Property	
Parameter	Scoring Criteria	Ratings	Score
1. Adjacent to lands or waters of regional Importance and results in identifiable ecological benefits to adjacent lands or waters.	State Park, OFW, AP, and including but not limited to Special Waters on at least 1 boundary	1	1
	Adjacent lands contain no special designation or undesignated special value	0	
2. Property is within boundary of an acknowledged state, local or regional acquisition program	Property is within boundary of an acquisition program	1	0
	Property is not within boundary of an acquisition program	0	
3. Property contains ecological or geological features consistently considered by regional Scientist, or federal and state agencies to be unusual, unique or rare in the region and is of sufficient size	Property qualifies	1	0
	Property does not qualify	0	
4. Property designated as being of critical state or federal concern and/or contains special designations,	Property contains at least 1 special designation.	1	1
	Property contains no special designations.	0	
5. Property important to acknowledged restoration efforts	Property is important.	1	0
	Property is not important.	0	
6. Ownership and control of the property.	Property is privately owned.	1	1
	Property is publicly owned.	0	
7. Threatened , Endangered & Species of Special Concern Presence of animal species (faunal) found on site	Documented Presence of Species on site	1	0
	No documented Presence of species on site.	0	
8. Threatened , Endangered & Listed Species Presence of plant species (floral) found on site	Documented Presence of Species on site	1	0
	No documented Presence of species on site.	0	
9. Threat of loss or destruction from development activities. ( <i>Development Pressure</i> )	High probability of development.	1	1
	Low probability of development.	0	
10. Extent to which lands are subject to Local, State, and Federal dredge and fill/ ERP Regulations	Property is not regulated.	1	0
	Property is regulated.	0	
Value Cumulative Score (CS)			<b>4</b>

The Mitigation Bank Site Suitability Evaluation Matrix is designed to provide a quantifiable means of determining the number of mitigation credits that should be assigned to a bank for "value" related parameters. Value related parameters are human values determined to be important to society; and therefore are not measurable in a purely functional analysis. Functional analysis will only measure the degree of functional ecological improvement (degree of ecological improvement) resulting from mitigation activities. The SS Evaluation measures and provides credit for societal values that separate one mitigation bank from another as required by Ch. 62-342 .470 (a) (b) (e) (f) (g) (h) (i) F.A.C.. The SS evaluation is not to be utilized in conjunction with a functional analysis methodology which also utilizes value related parameters in its analysis.



Site Suitability Matrix		
Maximum Possible Score (MPS)		10
Cumulative Score (CS)		<b>1.04</b>

**EPA, USACOE, USF & W, FDEP, NMFS, SFWMD, Dade DERM, FPL, CH**  
**3-Apr-96**

After Calculating the Site Suitability Score determine the Site Suitability Multiplier by utilizing the Evaluation Scale to the left. The Site Suitability Multiplier is to be multiplied times the number of the Functional Mitigation Credits, resulting from the (W.A.T.E.R.) Functional Assessment of the Mitigation Bank, to determine the number of Site Suitability Credits to be assigned to the Mitigation Bank.

# W.A.T.E.R. - Wetland Assessment Technique for Environmental Reviews

## Mitigation Bank Wetland Function Evaluation Matrix

Based on WBI, WQI, WRAP, HGM and 4th Priority Project Name: NSU Port Property  
EPA, FDEP, ACOE, NMFS, USF & W, SFWMD & Dade County

Project name: NSU Port Property

Data collected on:

Scoring conducted by:

Parameter/ Function	Scoring Criteria	Ratings	Polygon	
			4.21 ac	
<b>1. Fish &amp; Wildlife Functions</b> Apply to freshwater, saltwater, brackish and mitigation systems				
a. Waterfowl, wading birds, wetland dependent, or aquatic birds of prey. (Mit. Bank - High specie count w/ low pop. #'s score 1)	7 or more species commonly observed	3	1	
	3-6 species commonly observed	2		
	1-2 species commonly observed	1		
	0 species commonly observed	0		
b. Fish (Mit. Bank - High specie count w/ low pop. #'s score 1) Restoration that causes 12% pop. Increases-higher score)	7 or more species commonly observed	3	0	
	3-6 species commonly observed	2		
	1-2 species commonly observed	1		
	0 species commonly observed	0		
c. Mammals (Mit. Bank - High specie count w/ low pop. #'s score 1) Restoration that causes 12% pop. Increases-higher score)	Top predator (carnivore) &/or large mammals	3	2	
	Medium sized mammals , (adult weight > 6 lbs.)	2		
	Small animals (rodents, etc.) , (adult weight < 6 lbs.)	1		
	0 species present	0		
d. Aquatic macroinvertebrates, amphibians (Mit. Bank - High specie count w/ low pop. #'s score 1) Restoration that causes 12% pop. Increases-higher score)	7 or more species commonly observed	3	1	
	3-6 species commonly observed	2		
	1-2 species commonly observed	1		
	0 species commonly observed	0		
e. Aquatic reptiles (Mit. Bank - High specie count w/ low pop. #'s score 1) Restoration that causes 12% pop. Increases-higher score)	Large species observed	3	1	
	Aquatic turtles	2		
	Snakes & lizards	1		
	No evidence of species present	0		
<b>2. Vegetative Functions</b> Apply to freshwater, saltwater, brackish and mitigation systems				
a. Overstory/shrub canopy	Desirable trees/shrub healthy & providing appropriate habitat (seedlings present) & no inappropriate species	3	2	
	Desirable trees/shrubs exhibit signs of stress (no seedlings) few inappropriate species present	2		
	Inappropriate trees/shrubs shading or overcoming desirable tree/shrubs	1		
	Very little or no desirable tree/shrubs present (evidence suggests there should be)	0		
b. Vegetative ground cover	Assessment area exhibits <2% inappropriate herbaceous ground cover for specific wetland systems and groundcover is present	3	2	
	Assessment area contains >2% but <30% inappropriate herbaceous groundcover, or lack of groundcover >2% but < 30%	2		
	Assessment area contains >30% to <70% inappropriate herbaceous groundcover, or lack of ground cover >30% to <70%	1		
	Assessment area >70% inappropriate herbaceous groundcover or lack of groundcover >70%	0		
c. Periphyton mat coverage	Periphyton (Blue-green algae) present with average mat thickness >1 1/4 in. (measure active & dead layer)	3	0	
	Periphyton (Blue-green algae) present with average mat thickness between 3/4 in. to 1 1/4 in. (active & dead layer)	2		
	Periphyton (Blue-green algae) present with average mat thickness between 1/4 in. to 3/4 in. (active & dead layer)	1		
	Periphyton (Blue-green algae) not present or if present with average thickness of 0.0 to 1/4 in. (active & dead layer)	0		
d. Category 1 and Category 2 exotic plants or (non-native) species	< (or = to) 1 % exotic plant cover	3	2	
	>1 % to 10 % exotic plant cover	2		
	>10 % to 65 % exotic plant cover	1		
	> 65 % exotic plant cover	0		
e. Habitat diversity (vegetative) (within assessment area)	>3 native species communities on site within assessment area	3	2	
	2 or 3 native specie communities on site within assessment area	2		
	1 native species community with 75 % to 90 % coverage within assessment area	1		
	1 native species community has > 90 % coverage within assessment area	0		
f. Biological diversity within 3000 feet (approximately 1/2 mile from edge of assessment area)	> 3 alternative habitats available (including upland)	3	2	
	2 to 3 alternative habitats	2		
	1 alternative habitat	1		
	Same habitat type, or inappropriate / impacted	0		

# W.A.T.E.R. - Wetland Assessment Technique for Environmental Reviews

## Mitigation Bank Wetland Function Evaluation Matrix

Based on WBI, WQI, WRAP, HGM and 4th Priority Project Name: NSU Port Property  
EPA, FDEP, ACOE, NMFS, USF & W, SFWMD & Dade County

Project name: NSU Port Property

Data collected on:

Scoring conducted by:

Parameter/ Function	Scoring Criteria	Ratings	Polygon	
			4.21 ac	
<b>3. Hydrologic Functions</b>				
a. Surface water hydrology / sheet flow <i>Apply to freshwater, saltwater, brackish and mitigation systems</i>	Major connection ( <i>Flowing water/ river or floodplain/ uniform flow through natural systems</i> )	3	1	
	Moderate connection ( <i>Natural restriction of flow or Flowing water due to hydrologic engineering</i> )	2		
	Minor connection ( <i>Runoff collection point, or uneven flow due to berms, ditches, roadways etc.</i> )	1		
	Hydrologically isolated, no net lateral movement	0		
b. Hydroperiod (normal year) fresh systems	> 8 months inundated with no reversals & every year drydown	3		
	>5 months < 8 months or >5 years continuous inundation (look for strong water stains on persistent vegetation)	2		
	>1 month < 5 months, with possible reversals (look for soft or less distinct water stains on persistent vegetation)	1		
	< 4 weeks cumulative annual inundation or < 2 weeks continuous inundation	0		
b-1 Alternate to b. for Short Hydroperiod (normal year) fresh systems:	>10 weeks of continuous inundation including soil saturation	3		
	> 6 weeks but <10 weeks of continuous inundation including soil saturation	2		
	>2 weeks but <6 weeks of inundation, including soil saturation	1		
	<2 weeks of continuous inundation	0		
b-2 Alternate to b. for Saltwater, brackish (tidal) systems	Inundated by >90% high tides	3	3	
	Inundated by "spring" high tides (bi-monthly)	2		
	Inundated by "extreme high" tides only (biannually)	1		
	Inundated by storm surges only	0		
b-3 Alternate to b. for High Marsh ( <i>Juncus-Distichlis</i> )	Inundated by high "spring" tides (monthly) and flushed by fresh water sheetflow every 10 days average	3		
	Inundated by high "spring" tides (monthly) and flushed by fresh water sheetflow every 30 days on the average	2		
	Inundated by high "spring" tides (monthly) and exposed to rain only	1		
	Inundated by >50% high tides and exposed to rain only	0		
b-4 Alternate to b. for Riverine systems	Inundated by high tides (daily) and/or receives and maintains fresh water at least into first half of dry season	3		
	Inundated by high tides (daily) and/or receives and maintains fresh water during rainy season only	2		
	Inundated by high tides (daily) and/or receives fresh water but does not maintain (reversal) during rainy season	1		
	Inundated by spring tides (bi-monthly) and/or experiences frequent reversals of fresh water (flashy)	0		
<b>3. Hydrologic Functions continued</b>				
c. Hydropattern (fresh system)	>1 ft. water depth for at least 2.5 months and <6 in. for >1 month (measure water mark/ lichen line), or water depth ideal for specific wetland system.	3		
	>6 in to 1 ft. for at least 2.5 months (measure water mark/ lichen line) or water depth borderline over or under for specific wetland system	2		
	<6 in. for at least 2.5 months (measure water mark/ lichen line) or water depth incorrect for specific wetland system	1		
	<6 in. in association with either canals, ditches, swales, culverts, pumps, and/or wellfields, or these factors cause water depth to be too deep for specific system.	0		
c-1 Alternate to c. for Saltwater, brackish (tidal) systems	>1 ft. water depth <2 ft. on 90% high tides	3	3	
	> 6 in. water depth <1 ft. on >50% high tides	2		
	< 6 in. water depth, but > than saturated	1		
	Saturated by saline water table only	0		
c-2 Alternate to c. for High Marsh ( <i>Juncus-Distichlis</i> )	>10 in. water depth <2 ft. on regular basis during growing season	3		
	>5 in. to 10in. water depth on regular basis during growing season	2		
	>1 in. to 5 in. water depth on regular basis during growing season	1		
	>0.0 in. to 1 in. water depth sporadically during growing season	0		
c-3 Alternate to c. for Riverine systems	>2 ft. water depth (main channel) <6 ft. for 8 months	3		
	>2 ft. water depth (main channel) <4 ft. for 6 months	2		
	>1 ft. water depth (main channel) <2.5 ft. for 4 months	1		
	<1 ft. water depth, but dry for >4 weeks (dry season)	0		

# W.A.T.E.R. - Wetland Assessment Technique for Environmental Reviews

## Mitigation Bank Wetland Function Evaluation Matrix

Based on WBI, WQI, WRAP, HGM and 4th Priority Project Name: NSU Port Property  
EPA, FDEP, ACOE, NMFS, USF & W, SFWMD & Dade County

Project name: NSU Port Property  
Data collected on:  
Scoring conducted by:

Parameter/ Function	Scoring Criteria	Ratings	Polygon	
			4.21 ac	
<b>3. Hydrologic Functions continued</b>				
d. Water Quality	No indication of poor water quality (lab testing required, all values within acceptable range)	3	1	
	No visual indicators of poor water quality observed (1 value just over or under acceptable range)	2		
	Visual indicators of poor water quality questionable (2 values over or under acceptable range)	1		
	Visual indicators of poor water quality observed or lab verified (values are out of acceptable range)	0		
e. Intactness of historic topography (soil disturbance)	Unaltered	3	3	
	Slightly altered soil disturbance, < 10% of assessment area	2		
	Moderately altered soil disturbance, < 25% of assessment area	1		
	Extremely altered soil disturbance, may exceed 50% of assessment area	0		
f. Soils, organic (fresh systems)	Organic soil classified hydric soil >12 in. or any thickness over bedrock/caprock with perched water table and either condition covering >90% of surface area	3		
	Organic soil classified hydric soil >6 in. but <12 in. and covering >90% of surface area	2		
	Organic soil classified hydric soil >1 in. but <6 in. and covering >50% but <90% of surface area	1		
	Organic soil classified non-hydric soil <1 in. for >50% of surface area	0		
f-1 Alternate to f. for <i>Freshwater, saltwater systems</i>	Sandy soil classified hydric soil with distinct mottling and concretions present in greater than 40% of horizon.	3		
	Sandy soil classified hydric soil with mottling and concretions present in > 20% but < 40% of horizon.	2		
	Sandy soil classified hydric soil with light or sparse mottling and concretions < 2 mm diameter or < 20% of horizon.	1		
	Sandy soil exhibits strong evidence of disturbance or mechanical manipulations or is fill material.	0		
f-2 Alternate to f. for <i>Freshwater, saltwater, brackish (tidal) systems</i>	Calcareous loam >12 in. and >90 % of surface area	3	2	
	Calcareous loam >6 in. to <12 in. and >90% of surface area	2		
	Calcareous loam >1 in. to <6 in. and covering >50% but <90% of surface area	1		
	Calcareous loam <1 in. for >50% of surface area	0		
<b>4. Salinity Parameters Apply to freshwater, saltwater, brackish, hypersaline and mitigation systems - Choose 1</b>				
a. Optimum salinity for fresh systems during growing season based on mean high salinity for a normal year. <i>Apply to freshwater systems within 5 miles of the coast</i>	<2 parts per thousand (ppt)	3		
	2 to 3 parts per thousand (ppt)	2		
	4 to 5 parts per thousand (ppt)	1		
	>5 parts per thousand (ppt)	0		
a-1. Alternate to a. Optimum salinity for brackish systems during growing season based on mean high salinity for a normal year. <i>Apply to brackish (tidal) systems only</i>	6 to 8 parts per thousand (ppt)	3	2	
	9 to 13 parts per thousand (ppt)	2		
	14 to 16 parts per thousand (ppt)	1		
	>16 parts per thousand (ppt)	0		
a-2. Alternate to a. Optimum salinity for saline systems during growing season based on mean high salinity for a normal year. <i>Apply to saline marsh (tidal) systems only</i>	17 to 19 parts per thousand (ppt)	3		
	20 to 22 parts per thousand (ppt)	2		
	23 to 25 parts per thousand (ppt)	1		
	>25 parts per thousand (ppt)	0		
a-3. Alternate to a. Optimum salinity for hypersaline systems during growing season based on mean high salinity for a normal year. <i>Apply to hypersaline (tidal) systems only</i>	26 to 41 parts per thousand (ppt)	3		
	42 to 46 parts per thousand (ppt)	2		
	47 to 51 parts per thousand (ppt)	1		
	>51 parts per thousand (ppt)	0		
a-4 Alternate to a. Optimum salinity for riverine/tidal creek system during growing season based on mean high salinity for a normal year. <i>Apply to riverine systems only</i>	bottom (lower) third between 12 to 25 ppt	3		
	middle third between 5 to 11 ppt.			
	upper (top) third between 0 to 4 ppt.			
	bottom (lower) third between 25 to 32 ppt	2		
	middle third between 6 to 24 ppt.			
	upper (top) third between 0 to 5 ppt.			
	bottom (lower) third between 30 to 40 ppt	1		
	middle third between 8 to 29 ppt.			
upper (top) third between 0 to 7 ppt.				
bottom (lower) third between 35 to 50 ppt	0			
middle third between 10 to 34 ppt.				
upper (top) third between 0 to 9 ppt.				

Cotleur Hearing, Inc.  
W.A.T.E.R. created by: Bill L. Maus  
11/1/1998

Cumulative Score (SC)	30
Maximum Possible Score (MPS)	54.00
W.A.T.E.R. = Cumulative Score/Maximum Possible Score	0.56
Credit Determination = SSI (1.02) x Impact Ac(4.21) x WATER (.56)	2.4

Total Salt Water Credits=

2.4