June 14, 2021

Ms. Michelle Decker
Broward County Environmental Protection and Management Division
1 North University Drive, Mailbox 201,
Plantation, FL 33324-2038

RE: NSU Port Parcel
TCG Project No. 14.0080.002
ERL No. DF20-1121

Dear Ms. Decker:

The Chappell Group, Inc. (TCG) is in receipt of your email Request for Additional Information (RAI) dated May 26, 2020, regarding the above referenced project and provides the following response(s) to your requests. Your comments related to the proposed project are noted followed a response in bold:

[1] The proposed project appears to include adjacent upland work that may require a Surface Water Management License or similar approval from the County's Environmental Engineering and Licensing Program. Please contact Johana Narvaez at 954-519-0318 or jnarvaez@broard.org to discuss potential licensing requirements.

Response: A surface Water license application will be submitted once the wetland impacts are finalized with the environmental permit.

[2] Please clarify the volume of dredge/fill material to be placed/removed on site. The application shows a fill volume of 100,000 cubic yards and the exhibits show 40,752 cubic yards. In addition, please clarify if there will be any excavation in order to fill the site with soil appropriate for commercial use.

Response: Please see revised plans attached. ~34,120 cubic yards of fill are proposed.

[3] The wetland area will need to be adjusted to more closely fit conditions seen on site. Please use the 2018 LiDAR data as a guide to help delineate the wetland line. If field verification is required please let me know.

Response: Wetland line adjusted and agreed upon by county staff on 5/20/2021.

[4] The avoidance and minimization summary includes a description of 42' wide berms which will use ~34% of the site. Why are these required? What size building is

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necessary for the development? How much parking is necessary? The summary did not include an in depth description of why this entire site needs to be filled. As the Broward County Code of Ordinances states, "There shall be a presumption that higher quality wetlands shall receive greater protection and enhancement than lower quality wetlands."

Response: The plans have been revised to avoid and preserve 25% of the highest quality wetlands on the eastern portion of the site. The proposed wetland fill has been reduced from 4.21 acres to 2.92 acres. The berms are necessary to avoid any secondary impacts on the adjacent properties. The building is a one story warehouse with the required number of parking slips, per code.

[5] Provide a description and/or analysis of how the hydrology of the surrounding wetland areas will be impacted by this project. Any potential impacts will need to be mitigated.

Response: Hydrology will be impaired from the project parcel to the undeveloped mangrove wetland parcel to the north and to the east. The parcel to the west is already filled and cleared, and the parcel to the south has been partially filled and cleared for a utility access road. Mitigation will be sufficed with the purchase of 1.576 saltwater credits from the Everglades Mitigation Bank, along with the preservation of 1.3 acres of existing mangrove wetlands onsite.

[6] Please describe how the adjacent wetlands will be protected. Will the berms be planted to prevent erosion into the surrounding wetland areas?

Response: Silt fences and turbidity curtains will be installed prior to construction and will encompass the entire project area. Yes, the berms will be planted to prevent any erosion.

[7] There is also a designation of a "Local Area of Particular Concern" (LAPC No. 97) which includes a portion of the property. Any impacts to the LAPC must be approved by the Board of County Commissioners with the revision of the LAPC boundary. Please contact the Broward County Planning Council for additional information regarding this process.

Response: Once the wetland impacts have been finalized, the LAPC will be revised with the Board of County Commissioners.

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If you have any further questions or comments, please feel free to contact my office at (954) 782-1908 or via email at emily@thechappellgroup.com.

Sincerely,
THE CHAPPELL GROUP, INC.

Emily Rodriguez

Emily Rodriguez
Senior Project Biologist

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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 ±4.21 acres of mangroves and ±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 ±34% of the site. The plans have been revised to reduce the amount of proposed impacts from 4.21 acres to 2.92 acres.

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

Existing Conditions – 4.21-acre mangrove wetland

WATER Scores

	Impact W-1 (2.92 ac)
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	1.67
	Total Credits

Functional Loss: 1.67

Preservation and Enhancement (1.3 acres)

Score Current	**Score w/ Preservation**	**Category**
6	8	Location/Landscape Support
6	7	Water Environment
6	8	Community Structure

Functional Gain: 0.094

FL-FG = 1.67-0.094= 1.576 Remaining FL

Mitigation to offset the unavoidable impacts is proposed through a credit purchase of 1.576 saltwater credits at Everglades Mitigation Bank.

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NSU Port Parcel
Mitigation Plan
TCG Project No. 14-0080.002

The proposed NSU Port Parcel project consists of the construction of a commercial warehouse on a 5.11 acre parcel located east of NE 7th Avenue and west of an existing Florida Power and Light transmission easement in Dania Beach, Broward County, Florida. The parcel is more specifically identified as Broward County Folio No. 5042-26-00-0021. The project site consists mainly 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 ±4.21 acres of mangroves and ±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. 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.

During the course of regulatory review, the original proposed site plan was reduced in scope from 4.2 acres to 2.92 acres to avoid impacts to an additional 1.3 acres of wetlands. As such, the proposed onsite mitigation plan includes the enhancement and preservation of approximately 31% of the wetlands onsite. Remaining impacts not offset by the onsite preservation will be mitigated through the purchase of credits at an approved mitigation bank. To assess the quality of the existing wetlands, a WATER analysis was conducted to compare the overall existing and proposed post-project function of each. See the summary tables below and the attached WATER worksheets. A summary table is included below.

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Existing Wetlands

Existing Conditions – 2.92-acre mangrove wetland

	Impact W-1 (2.92 ac)
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	1.67
	Total Credits

Functional Loss: 1.67

Preservation and Enhancement (1.3 acres)

Score Current	Score w/ Preservation	Category
6	8	Location/Landscape Support
6	7	Water Environment
6	8	Community Structure

Functional Gain: 0.094

FL-FG = 1.67-0.094= 1.576 Remaining FL

C: EMB Purchase of credits

Therefore, the purchase of 1.576 credits from the Everglades Mitigation Bank is proposed to offset the unavoidable direct impacts to 2.92 acres of existing wetlands in addition to the preservation and enhancement of 1.3 acres of wetlands.

Each of the required mitigation plan components required are addressed below:

1. **Objectives:** The proposed onsite mitigation component will be designed to maximize the opportunity to avoid and minimize potential impacts to jurisdictional wetlands present onsite. The proposed mitigation area is located within the largest contiguous wetland area present onsite and will include the enhancement by removal of exotic species and the preservation by a conservation easement of approximately 1.3 acres of saltwater wetlands. The preservation and enhancement will result in a high-quality wetland system that is common within Broward County and the surrounding watershed. The proposed mitigation system will address all project-related saltwater wetland impacts onsite in a manner that relies more heavily on preservation and will also address the Broward County goal of maintaining a reasonable percentage of wetland function within the county limits.

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2. **Site Selection:** The proposed preservation and enhancement area is situated in the eastern portion of the subject site and is bordered by undeveloped lots to the north, south, east, and west.

   The applicant is only requesting that the preservation and enhancement portion of the mitigation requirements be approved as permittee-responsible onsite mitigation. All remaining mitigation requirements are proposed through the use of an approved mitigation bank servicing the impact area. Onsite mitigation through the proposed preservation and enhancement of existing wetlands would be environmentally preferable within the existing watershed rather than taking all mitigation to an approved mitigation bank.

3. **Site Protection Instrument:** The project site is privately owned and will be operated long term in conjunction with the commercial development. Additionally, the preserved and enhanced area of wetlands will be perpetually preserved under a joint conservation easement.

4. **Baseline Information:** Existing site conditions, including detailed soil analyses, vegetative cover, WATER analyses and jurisdictional wetland boundaries have been documented and verified by the project consultant and regulatory agencies, with valid wetland determinations currently in place. Existing conditions, including hydrology, soils and vegetative cover will be used as baseline comparisons for the proposed onsite mitigation component.

5. **Determination of Credits:** Upon final agency approval of the previously submitted WATER analyses utilized to identify mitigation requirements, all project related impacts not addressed through the onsite mitigation component will be addressed through credit purchase at an approved mitigation bank servicing the impact area. Credit determination will be conducted through the permitted assessment methodology, the WATER analysis as approved for the Everglades Mitigation Bank.

6. **Mitigation Work Plan:** The proposed onsite mitigation component will consist of the enhancement and preservation of 1.3 acres of existing wetland. The proposed mitigation area will be maintained via the removal of exotic species and continued monitoring and maintenance. The mitigation area will continue to be directly connected to the existing wetland system, allowing for natural recruitment of flora and fauna. The mitigation area will be monitored and maintained in accordance with the Mitigation & Monitoring Plan submitted for the project to include measurable success criteria, vegetation control and monitoring protocols.

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7. **Maintenance Plan:** The mitigation area will be monitored and maintained in accordance with the Mitigation & Monitoring Plan submitted for the project. The Monitoring & Maintenance Plan includes multiple components associated with the species removal and long-term adaptive management of the mitigation area. The plan includes measurable success criteria, vegetation control, data collection, monitoring frequency and reporting protocols.

8. **Performance Standards:** The mitigation area will be monitored and maintained in accordance with the Mitigation & Monitoring Plan submitted for the project. Every annual monitoring event will involve assessing the current vegetative assemblage and total percent coverage of species by utilizing transects. Species coverage within each sub-habitat type within the mitigation area will be assessed using random quadrats. Meandering transects will also be performed along the perimeter of the area for supplemental observations and to ensure complete coverage. Therefore, measurable success criteria will include maintaining exotic/nuisance vegetation at 2 percent or less during the annual monitoring events.

9. **Monitoring Requirements:** The mitigation area will be monitored and maintained in accordance with the Mitigation & Monitoring Plan submitted for the project. Monitoring will include a Time-Zero report conducted upon grading and planting, followed by annual monitoring for a period of five (5) years. A total of six (6) reports (annual and time zero) will be submitted to the DEP, and BCEPGMD.

10. **Long-term Management Plan:** The onsite mitigation area will be monitored for a period of five (5) years and maintained in perpetuity by the permittee.

11. **Adaptive Management Plan:** The proposed monitoring plan for the onsite mitigation area includes adaptive management procedures for the monitoring and maintenance requirements, including data analysis, and additional monitoring effort.

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NSU Port Parcel
Onsite Wetland Monitoring and Maintenance Plan
TCG Project No. 14-0080.002

The proposed onsite wetland enhancement and preservation plan includes 1.3 acres of existing mangrove wetlands. The proposed plan includes the enhancement of 1.3 acres of existing wetlands through the removal of exotic and nuisance vegetation and preservation through a conservation easement. The mitigation component demonstrates avoidance and minimization of wetland impacts to the greatest extent possible through the enhancement and preservation of 1.3 acres of wetland, and the purchase of 1.576 mitigation credits for impacting 2.92 acres of existing wetlands. Overall, the proposed wetland preserve area will result in a high quality, wetland system to offset impacts to an existing wetland system.

1. During construction and upon the final grading, the site will be reviewed by an appropriate environmental professional to determine if the wetland preserve area has potential water quality problems such as high levels of turbidity and make recommendations for corrective action. Upon completion of the earthwork, as-built surveys will be reviewed by an appropriate environmental professional.

2. The quantitative monitoring of the wetland preserve area will include three (3) random one-meter quadrat samples along three (3) permanent transects to determine the percent aerial coverage and survival rate of installed and naturally recruited herbaceous and woody species. Percent coverage in selected locations will be determined and survival rate will be established. Monitoring transects will be set and a permanent stake will be installed at each permanent transect to ensure accurate reporting of the percent aerial coverage and survivability.

3. Panoramic photographic locations will be established to provide supplemental data for the annual monitoring reports. Photographic stations and the location of the monitoring transects are shown on the monitoring plan.

4. One (1) staff gauge will be placed within the onsite wetland preserve area as depicted in the monitoring plan. The staff gauge will be recorded monthly on approximately the same day each month, and the monthly readings will be included in the annual monitoring reports.

5. Incidental observations of fish and wildlife will be recorded on each monitoring event.

6. Quantitative monitoring will be completed quarterly and annually for five years. A total of five (5) reports plus the time zero report will be submitted to the DEP, and a total of twenty (20) reports plus the time zero report will be submitted to BCEPGMD.

7. Measurable success criteria shall include 80% coverage by native wetland plant species within the first two years of the monitoring period. In addition, ≤ 2% coverage by nuisance/exotic species will be maintained within the wetland preserve area. If the

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required percent coverage is not achieved in the first two (2) years, then corrective action will be taken to achieve these requirements. Nuisance/exotic species will be maintained within the area and cannot exceed 2% coverage within the wetland preserve area. Maintenance will be performed as needed to ensure that this requirement is achieved.

8. Maintenance will be conducted on a quarterly or "as needed" basis, depending on the needs of the wetland area as determined through the ongoing monitoring effort. Species to be eradicated include cattail, primrose willow, melaleuca, Brazilian pepper, torpedo grass, Australian pine, shoe-button ardisia, earleaf acacia, schefflera and any other exotic/nuisance species as listed by Florida Exotic Pest Plant Council (EPPC). Trash and unnatural debris will be removed as needed.

9. Upon completion of the five (5) year monitoring and maintenance program, the managing entity will be responsible for the ongoing and perpetual maintenance of the wetland mitigation area.

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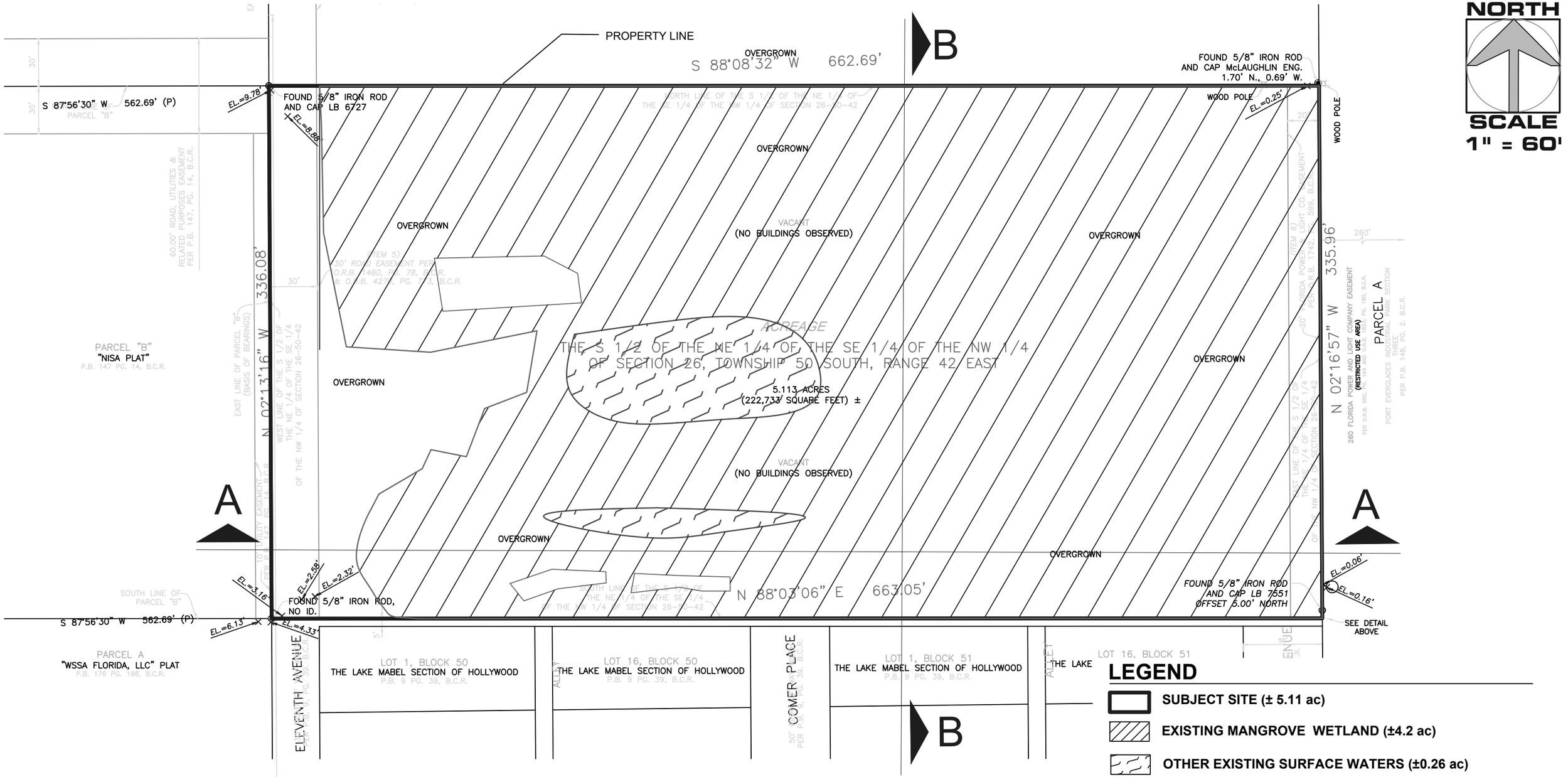

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- *Tree Surveys/Appraisals*

NSU PORT PARCEL

PREPARED FOR:
SHLOMO MELLOUL

EXISTING CONDITIONS

Date:	Sheet :	of :
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NORTH

SCALE
1" = 60'

ACREAGE
A PORTION OF THE N 1/2 OF THE NE 1/4 OF THE SE 1/4 OF THE NW 1/4 OF SECTION 26-50-42

(ITEM 5)
30' ROAD EASEMENT PER O.R.B. 1480, PG. 71, B.C.R.

PROPERTY LINE

OVERGROWN

FOUND 5/8" IRON ROD AND CAP LB 6727

EL.=8.88'

NORTH LINE OF THE S 1/2 OF THE NE 1/4 OF THE SE 1/4 OF THE NW 1/4 OF SECTION 26-50-42

FOUND 5/8" IRON ROD AND CAP McLAUGHLIN ENG. 1.70' N., 0.69' W.

166.46'

WOOD POLE

EL.=0.25'

WOOD POLE

6.8 5.8 5.5

OVERGROWN

VACANT
(NO BUILDINGS OBSERVED)

OVERGROWN

260'

(ITEM 5)
30' ROAD EASEMENT PER O.R.B. 1480, PG. 78, B.C.R.
& O.R.B. 4270, PG. 733, B.C.R.

30'

WEST LINE OF THE S 1/2 OF THE NE 1/4 OF THE NW 1/4 OF SECTION 26-50-42

ACREAGE
THE S 1/2 OF THE NE 1/4 OF THE SE 1/4 OF THE NW 1/4 OF SECTION 26, TOWNSHIP 50 SOUTH, RANGE 42 EAST

5.113 ACRES
(222,733 SQUARE FEET) ±

OVERGROWN

OVERGROWN

VACANT
(NO BUILDINGS OBSERVED)

A

A

OVERGROWN

OVERGROWN

6.8 5.5

SOUTH LINE OF THE S 1/2 OF THE NE 1/4 OF THE SE 1/4 OF THE NW 1/4 OF SECTION 26-50-42

EL.=0.06'

EL.=0.16'

FOUND 5/8" IRON ROD AND CAP LB 7551 OFFSET 5.00' NORTH

SEE DETAIL ABOVE

EL.=8.58'

EL.=2.32'

3.16'

FOUND 5/8" IRON ROD, NO ID.

EL.=4.33'

50' RIGHT OF WAY WIDTH PER P.B. 9, PG. 39, B.C.R.

LOT 1, BLOCK 50
THE LAKE MABEL SECTION OF HOLLYWOOD
P.B. 9 PG. 39, B.C.R.

LOT 16, BLOCK 50
THE LAKE MABEL SECTION OF HOLLYWOOD
P.B. 9 PG. 39, B.C.R.

50' RIGHT OF WAY WIDTH PER P.B. 9, PG. 39, B.C.R.

LOT 1, BLOCK 51
THE LAKE MABEL SECTION OF HOLLYWOOD
P.B. 9 PG. 39, B.C.R.

LOT 16, BLOCK 51
THE LAKE MABEL SECTION OF HOLLYWOOD
P.B. 9 PG. 39, B.C.R.

50' RIGHT OF WAY WIDTH P.B. 9, PG. 39, B.C.R.

B

B

260 FLORIDA POWER AND LIGHT COMPANY EASEMENT (RESTRICTED USE AREA) PER O.R.B. 9900, PG. 1, B.C.R. & PER O.R.B. 9900, PG. 180, B.C.R.

PORT EVERGLADES INDUSTRIAL PARK SECTION THREE PER P.B. 148, PG. 2, B.C.R.

LEGEND

- SUBJECT SITE (± 5.11 ac)
- WETLAND IMPACT-FILL (±2.92 ac - ±34,120 yds³)
- SURFACE WATER IMPACT-FILL (±0.26 ac - ±3,355 yds³)
- WETLANDS TO BE PRESERVED (± 1.3 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
3. FILL QUANTITY (yds³) ESTIMATE FOR PERMIT PURPOSES ONLY

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NSU PORT PARCEL

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SHLOMO MELLOUL

DREDGE & FILL PLAN

Date:	Sheet :	of :
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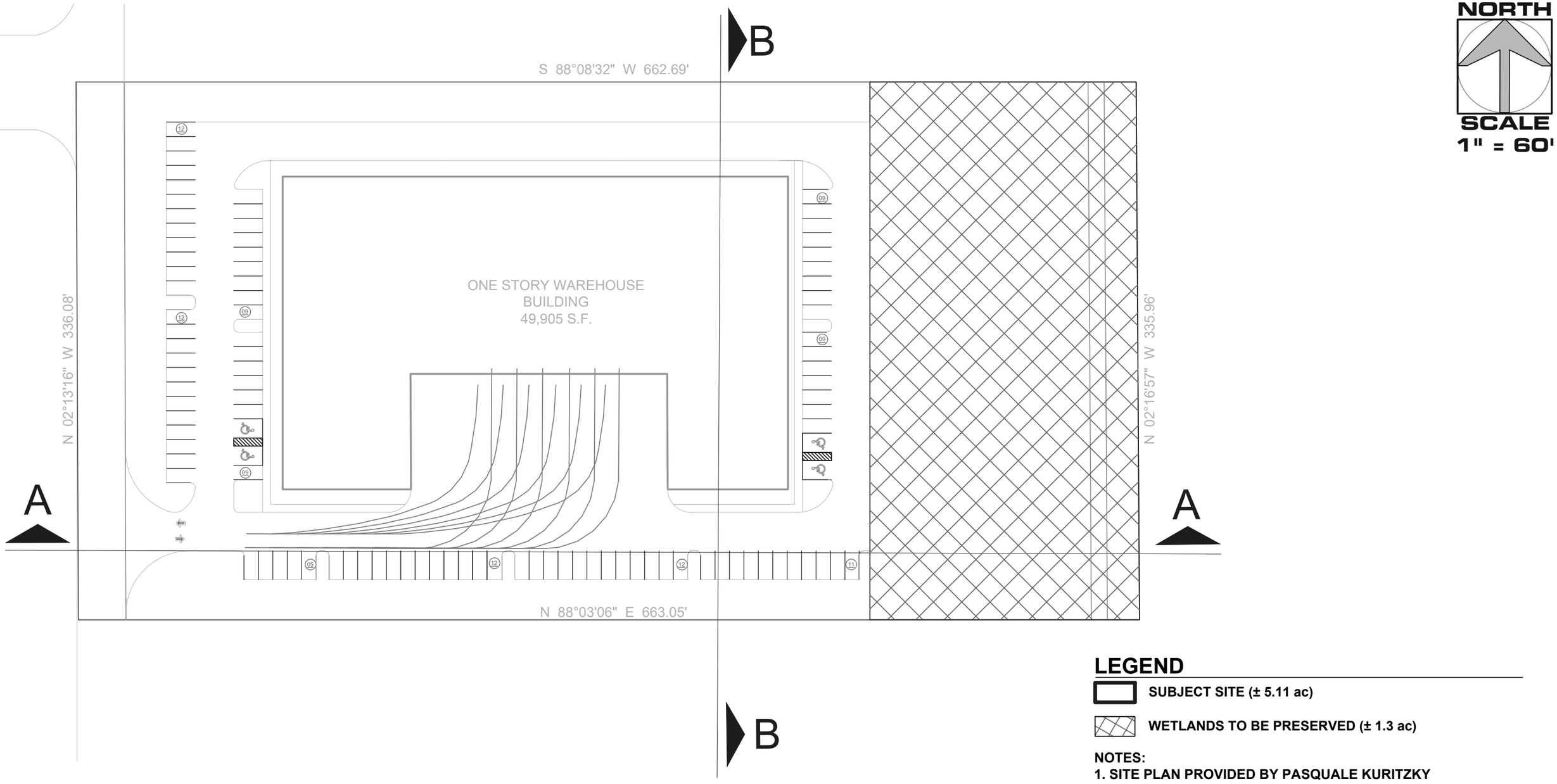

LEGEND

SUBJECT SITE (± 5.11 ac)

WETLANDS TO BE PRESERVED (± 1.3 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:	Sheet :	of :
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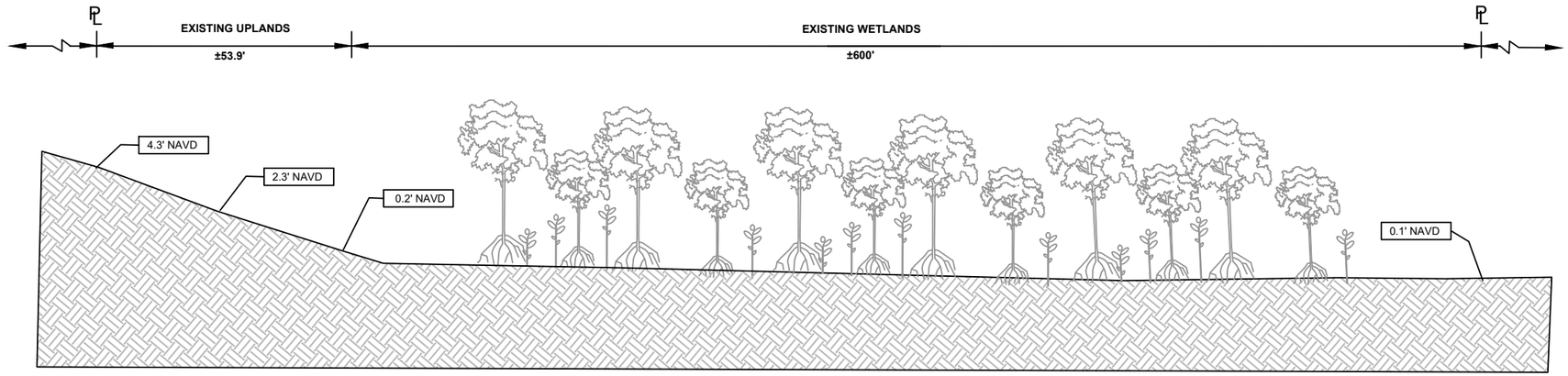
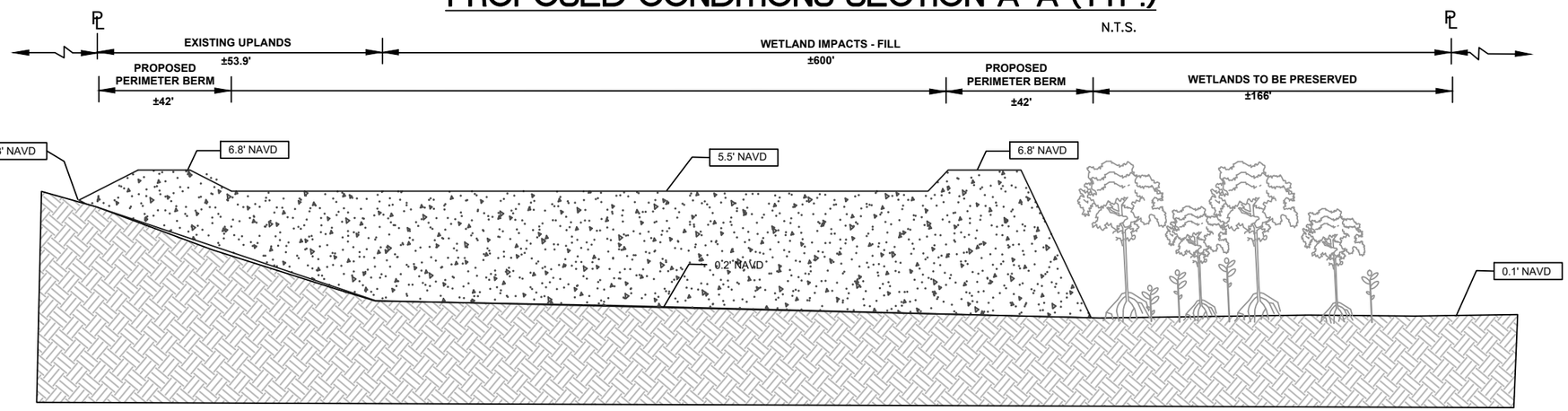
EXISTING CONDITIONS SECTION A-A (TYP.)

N.T.S.



PROPOSED CONDITIONS SECTION A-A (TYP.)

N.T.S.



LEGEND

EXISTING SUBSTRATE

WETLAND IMPACT-FILL (±34,120 yds³)

***NOTE FILL QUANTITY (yds³) ESTIMATE FOR PERMIT PURPOSES ONLY**

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NSU PORT PARCEL

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SHLOMO MELLOUL

SECTIONS

Date:	Sheet :	of :
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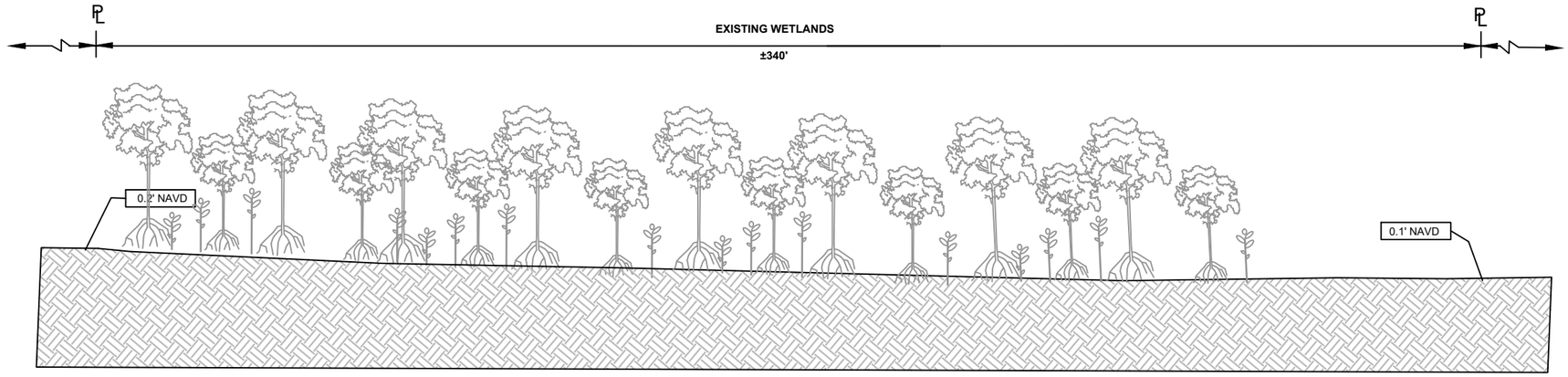
Proj No.: 14-0080.002		

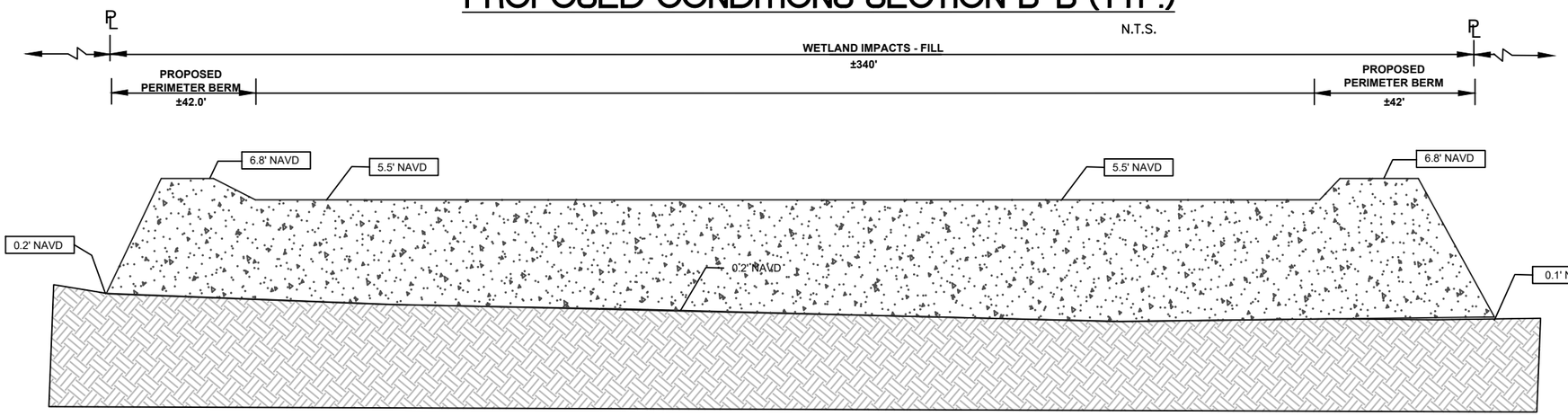
EXISTING CONDITIONS SECTION B-B (TYP.)

N.T.S.



PROPOSED CONDITIONS SECTION B-B (TYP.)

N.T.S.



LEGEND

EXISTING SUBSTRATE

WETLAND IMPACT-FILL (±34,120 yds³)

***NOTE FILL QUANTITY (yds³) ESTIMATE FOR PERMIT PURPOSES ONLY**

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NSU PORT PARCEL

PREPARED FOR:

SHLOMO MELLOUL

SECTIONS

Date:	Sheet :	of :
5/20/2021	5	5
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PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
NSU Port Parcel		Resortation and Enhancement Area

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6120-Mangrove Swamp		Mitigation	1.3 acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

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 ±4.21 acres of mangroves and ±0.26 acres of surface waters on site.

Assessment area description

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).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
	Not unique-mangrove wetlands occur regionally throughout South Florida

Functions	Mitigation for previous permit/other historic use
Habitat, forage, roosting, nursery for native species	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Racoon, turtles, snakes, wading birds	Infrequent transient use by protect species due to commerial activity in the near by areas.

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
NSU Port Parcel		Preservation and Enhancement Area
Impact or Mitigation	Assessment conducted by:	Assessment date:
Mitigation		

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		w/o pres or current	with
.500(6)(a) Location and Landscape Support	* Invasive plant species * Downstream benefits provided to fish and wildlife * Hydologic connectivity * Dependency of downstream habitats on quanity or quality of discharges	6	8
.500(6)(b)Water Environment (n/a for uplands)	* Use by animals with hydrologic requirements *Plant Community composition associated by water quality *Water quality for the type of community	6	7
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	* Appropriate/desirable species * Invasive/exotic plant species * Plants' condition * Regeneration/recruitment	6	8

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres	with
	0.6	0.760

If preservation as mitigation,
Preservation adjustment factor = 1
Adjusted mitigation delta = 0.16

For impact assessment areas
FL = delta x acres =

Delta = [with-current]
0.16

If mitigation
Time lag (t-factor) = 1.14
Risk factor = 1.50

For mitigation assessment areas
RFG = delta/(t-factor x risk) = 0.16/(1.14 x 1.5) = 0.094

November 6, 2020

Mr. Shlomo Melloul
Port 1850, LLC
1210 Stirling Road, Unit 8A
Dania Beach, Florida 33004

Subject: **Florida Bonneted Bat (*Eumops floridanus*) Limited Roost Survey**
Port 1850, LLC Property (±5.11 Acres)
Dania Beach, Broward County, Florida
E Sciences Project Number 2-1337-001

Dear Mr. Melloul:

E Sciences, Incorporated (E Sciences) is pleased to provide this report for the Florida bonneted bat (FBB) limited roost survey that we conducted at the Port 1850, LLC property (Site) located in Dania Beach, Broward County, Florida (see **Attachment 1 - Location Map**).

Background Information

The Site is ±5.11 acres in size and is located east of NE 7th Avenue and north of Access Road in Dania Beach, Broward County, Florida (Folio Number 504226000021). The Site contains ±4.21 acres of dense mangrove wetlands and a ±0.26-acre open water pond. The western fringe consists of disturbed uplands predominantly composed of nuisance/exotic vegetation. There are no manmade structures within the Site.

The proposed development will include vegetative clearing throughout the Site except for the eastern 25%. Port 1850, LLC (Client) is in the process of obtaining a regulatory permit from the U.S. Army Corps of Engineers (USACE). Since the Site is located within the U.S. Fish and Wildlife Service's (USFWS) South Florida Urban Bat Area, a limited FBB roost survey is required by USFWS to determine if FBB are present within the site. On October 21, 2020, the Client authorized E Sciences to perform a limited roost survey to evaluate the potential presence of FBB within the ±4.21 acres of dense mangrove wetlands and ±0.26-acre open water pond at the site.

Methods and Findings

Two E Sciences biologists conducted a limited roost survey within the Site on October 28, 2020. The survey was conducted in accordance with the USFWS *Florida Bonneted Bat Consultation Guidelines* published on October 22, 2019. Per USFWS guidance, FBB cannot roost in trees within densely forested areas. Therefore, the survey area was limited to those trees in proximity to the open water pond within the central portion of the site (see **Attachment 2 – Survey Map**).

The trees within proximity to the open water pond were visually inspected with binoculars and were remotely measured with a laser-range finder to determine heights. The trees in proximity to the pond were found to be predominantly red mangroves (*Rhizophora mangle*), with lesser inclusions by black mangrove (*Avicennia germinans*) and green buttonwood (*Conocarpus erectus*) (see **Attachment 3 – Photolog**). These trees were determined to be under 33 feet in height and under eight inches in trunk diameter, which is below the minimum size thresholds for FBB roosting per USFWS guidelines. A small number of red mangrove trees were observed with trunk diameters between 8-10 inches; however, these trees were 25 feet or less in height, and the trunks were below eight inches in trunk diameter at 10 feet above ground. Cavities suitable for bat roosting were note observed within these trees along the pond perimeter; the smaller sizes of these trees prohibited the presence of cavities.

Summary

The proposed development of the Site will include vegetative clearing throughout 75% of the Site. E Sciences conducted a limited FBB roost survey within the forested area immediately surrounding the interior pond), as the remainder of the densely forested site contained no adjacent open areas required for FBB roosting. No trees suitable for FBB roosting were identified within this area, and no cavities were observed.

Please note that this survey represents conditions encountered at the time of the survey. The potential exists for bats to colonize trees within this project area between now and the time of construction. Therefore, it is recommended that language be included in the construction documents to address potential encounters with FBB during construction, including stopping work that could affect the bats and contacting the appropriate city staff or otherwise designated person.

If you have any questions or need additional assistance, please do not hesitate to contact us at 954-484-8500.

Sincerely,
E SCIENCES, INCORPORATED

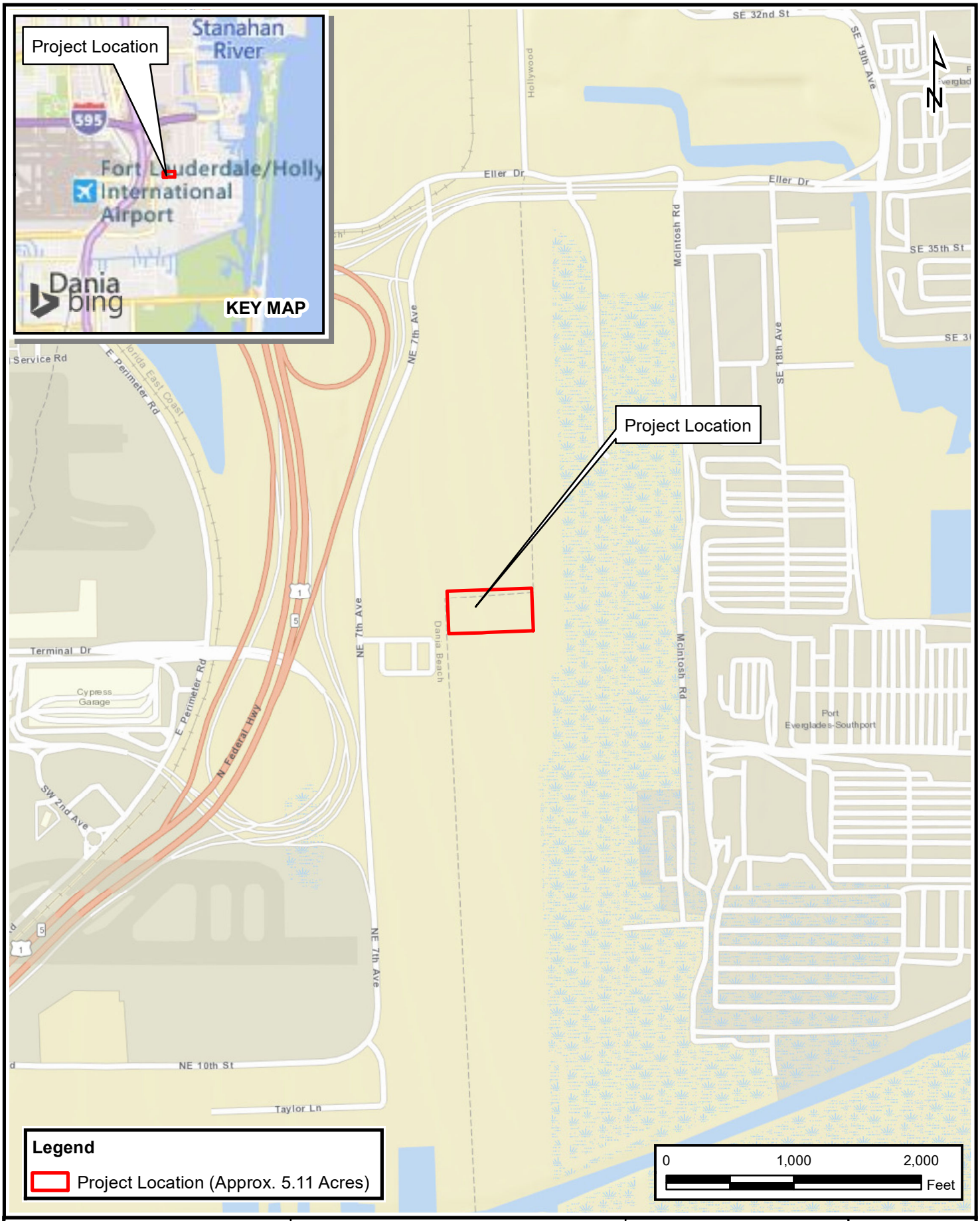
Camille Schillizzi
Staff Scientist

Justin Freedman
Associate/Senior Scientist

Attachments:

1 - Location Map
2 - Survey Map
3 - Photolog

Attachment 1-
Location Map



C:\Users\cschillizzi\Desktop\For\For Brian\Dania Beach Bat Survey\Location Map.mxd By:

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FL Engineering Lic. #8691
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Suite 106
Dania Beach, FL 33004
www.esciencesinc.com
Phone: 954-484-8500
Fax: 954-484-5146

PROJECT NUMBER: 2-1337-001

Florida Bonneted Bat Limited Roost Survey

Port 1850 Site (Folio Number 504226000021)
Dania Beach, Broward County, Florida

Location Map

SCALE: 1 "=1,000 '

DATE: 10/28/2020

FIGURE

1

Attachment 2 –
Survey Map

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Florida Bonneted Bat Limited Roost Survey

Port 1850 Site (Folio Number 504226000021)
Dania Beach, Broward County, Florida

Survey Map

SCALE: 1 "=100 '

DATE: 10/28/2020

FIGURE

2

Attachment 3 –
Photo Documentation Log

PHOTO DOCUMENTATION LOG

Photo 1
Overview of the northwest corner of the pond, facing southwest. Note the presence of red mangrove *(Rhizophora mangle*), black mangrove (*Avicennia germinans*), and green buttonwood (*Conocarpus erectus*) trees.

Photo 2
Overview of the northwest corner of the pond, facing northwest. Mangrove trees were below 25 feet tall and under eight inches in trunk diameter and therefore were not suitable for bat roosting per USWS guidelines.

PHOTO DOCUMENTATION LOG

Photo 3
Overview of linear open water feature to the north of the pond, facing west. Note this area was also devoid of trees above the suitable size thresholds for bat roosting per USFWS.

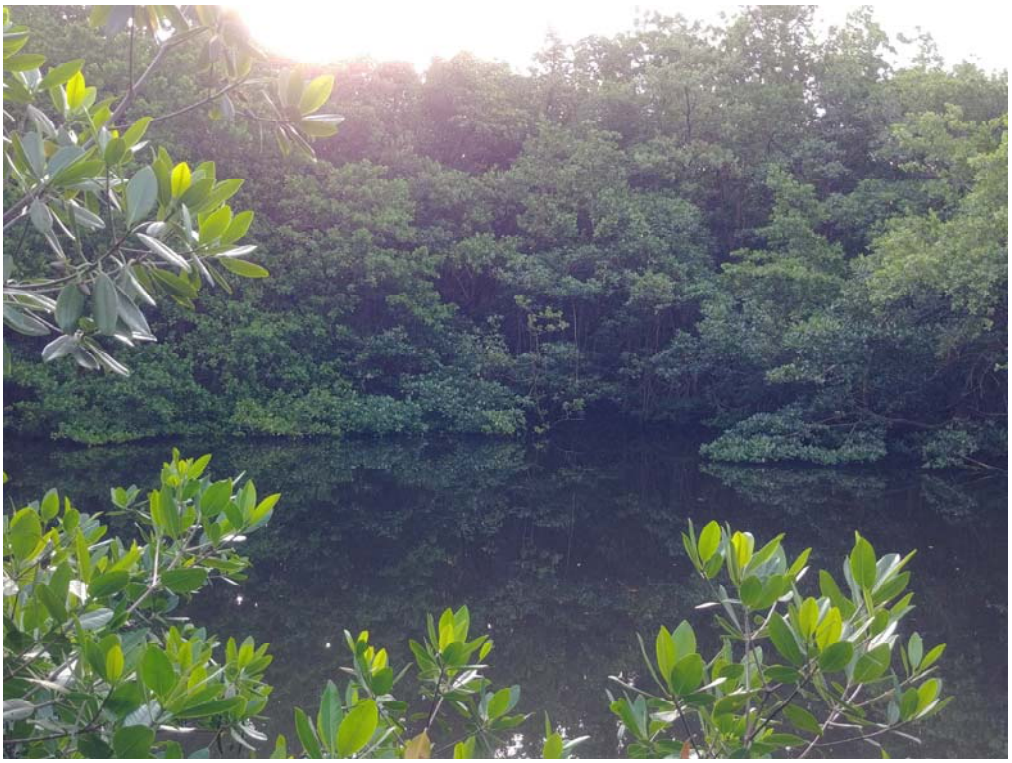

Photo 4
Overview of mangroves along the east side of the pond, facing east. Mangrove trees were below 25 feet tall and under eight inches in trunk diameter and therefore were not suitable for bat roosting.

PHOTO DOCUMENTATION LOG

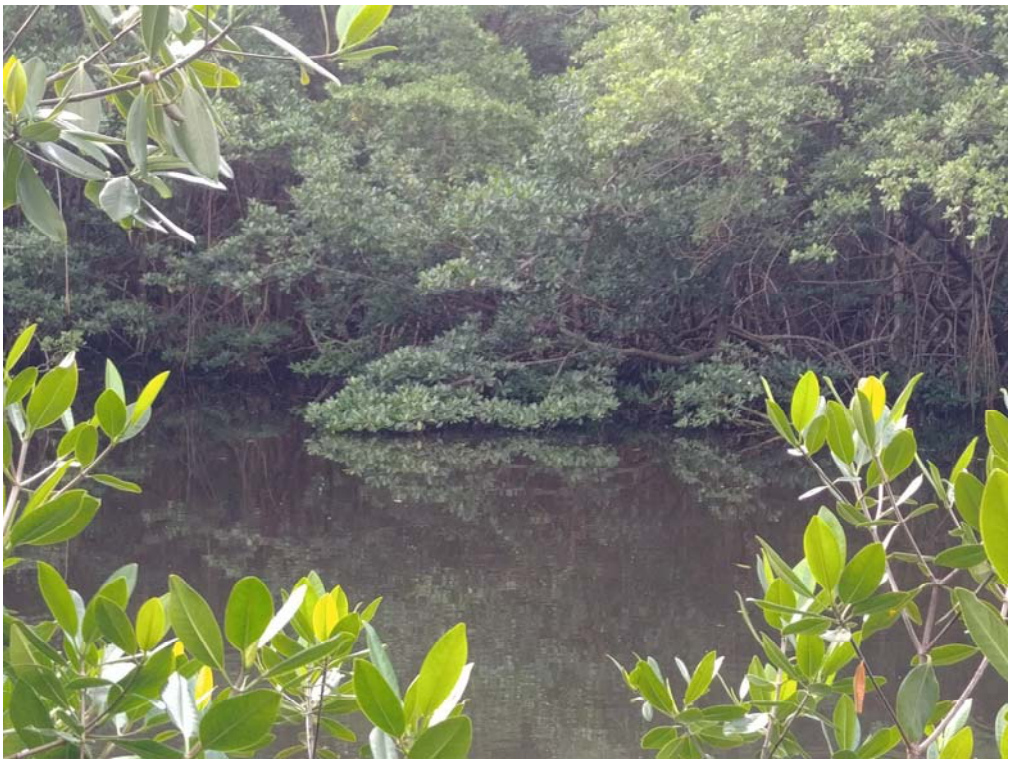

Photo 5
Overview of mangroves along the south side of the pond, facing south. Mangrove trees were below 25 feet tall and under eight inches in trunk diameter and therefore were not suitable for bat roosting.

Photo 6
Overview of mangroves along the west side of the pond, facing west. Mangrove trees were below 25 feet tall and under eight inches in trunk diameter and therefore were not suitable for bat roosting.