

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Progress Report Form
Exhibit A

DEP Agreement No.:	R1819		
Grantee Name:	University of Florida		
Grantee Address:	207 Grinter Hall, PO Box 115500, Gainesville, FL 32611		
Grantee's Grant Manager:	Dr. Savanna Barry	Telephone No.:	352-325-6080
Project Title:	Permitting Living Shorelines for Two Exposed Coastal Roads in Cedar Key, FL		
Reporting Period:	1/7/2019 – 6/21/2019		
Task 3: Permit Preparation and Submittal and Public Participation Status: <i>Completed</i> Task 3 activities commenced early in the project. The first public meeting was initiated early on to make stakeholders aware of the grant and orient them to the details involved in the permitting process. This initial meeting occurred on 1/25/2019 and planning for the meeting (including reserving the meeting space and sending save the date emails) began on 1/7/2019. The second stakeholder meeting occurred on 5/31/2019 and outlined permit plans, timelines for next steps after submission, and final signoff on the project from landowners involved in the project. Agendas, minutes, and lists of attendees are provided as attachments to this report. The public engagement aspect of this project also required many individual emails, phone calls, and personal meetings with landowners and other stakeholders. These took place throughout the duration of the project. Permit preparation activities included incorporating feedback from agencies received during the pre-application phase (Task 2), finalizing project plans, conducting sediment compatibility analyses, and finalizing project narratives. Final copies of these permit applications are attached to this report. Attachments to this report: - Hour tracking log for PI Barry for Task 3 - Stakeholder meeting agendas, minutes, and attendee lists (two (2) meetings in total) - Complete permit applications DEP and USACE for each shoreline project (four (4) applications in total) Identify any delays or problems encountered: We encountered some difficulties related to private landowners' objections to the project. These objections were based on misunderstandings about the scope and intent of the projects and originated from landowners who were either new to the project group due to a property sale or who had not participated in previous workshops (prior to this grant). These difficulties were able to be resolved in a timely manner. Therefore, we were still able to complete Deliverable 3 on time.			

This report is submitted in accordance with the reporting requirements of DEP Agreement No. R1819 and accurately reflects the activities associated with the project.



Signature of Grantee's Grant Manager

6/26/2019

Date

Task 3 Hour Log for PI Barry

Task #	Date	Activity
3	1/7/2019	reserving meeting room for community meeting and sending meeting announcement
3	1/25/2019	stakeholder meeting prep, meeting time, and meeting debrief with Co-PI
3	1/26/2019	follow up emails with stakeholders after meeting
3	1/28/2019	writing up meeting minutes from stakeholder meeting #1
3	1/31/2019-2/1/2019	follow up emails with stakeholders after meeting
3	2/4/2019	stakeholder follow up meeting and meeting prep
3	2/18/2019	writing stakeholder update emails
3	2/25/2019	phone calls with stakeholders
3	2/25/2019	Airport Rd. stakeholder meeting and follow-up emails
3	2/28/2019	emails with stakeholders
3	3/2/2019	Meeting with local expert re: stakeholder question
3	3/1/2019	stakeholder meeting and follow-up emails
3	3/18/2019	emails with stakeholders
3	3/19/2019	emails with stakeholders
3	3/27/2019	meeting with County BOCC stakeholder
3	3/29-4/12/2019	working with UF legal team on homeowner right of entry agreement - emails, calls
3	4/12-4/29/2019	Stakeholder emails and meeting scheduling
3	5/9/2019	emails and phone calls with permitting agencies and contractors
3	5/13/2019	preparation of Right of Entry Agreements, individual homeowner emails
3	5/16/2019	stakeholder meeting planning call
3	5/19/2019	stakeholder meeting - Mr. Carlin
3	5/20/2019	stakeholder phone calls
3	5/21/2019	phone call with permitting agency, phone calls with stakeholder
3	5/21/2019	meeting with stakeholder - Doris Hellerman
3	5/22/2019	stakeholder meeting planning phone call and agenda drafting, emails to stakeholders
3	5/28/2019	agenda review and editing
3	5/29/2019	finalizing workshop materials
3	5/30/2019	legal document emails

3	5/31/2019	Airport Rd. mangrove scoping site visit
3	5/31/2019	final preparation for stakeholder meeting - printing, flip chart development, set-up
3	5/31/2019	stakeholder meeting and room breakdown/cleanup
3	5/31/2019	stakeholder meeting debrief and preparation of minutes
3	6/4/2019	provide stakeholder feedback to contractors
3	6/4/2019-6/20/2019	finalize signatures with homeowners, provide input on final permit application drafts
TOTAL TASK 3 HOURS for PI Barry = 65 TOTAL TASK 3 HOURS for PI Barry charged to sponsor = 45		



FLORIDA DEPARTMENT OF
Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Ron DeSantis
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Electronic Submission
Application for an Individual or Conceptual Permit

You have successfully submitted an Application for an Individual or Conceptual Permit in accordance with Part IV of Chapter 62-330 F.A.C.. Your request was received on June 21, 2019.

Below is a copy of the details of your request for your records.

Facility Information

Site Name: Airport Road Shoreline Restoration
Address Line 1: Airport Road
Address Line 2:
City/State/Zip Code: Cedar Key, FL 32625

Mailing Address

Address Line 1: 552 1st St
Address Line 2: PO Box 878
City/State/Zip Code: Cedar Key, FL 32625 5108

Applicant

Company Name: UF IFAS NATURE COAST BIOLOGICAL STATION
Title:
Name: SAVANNA BARRY
Address Line 1: PO Box 878
Address Line 2:
City/State/Zip Code: Cedar Key, FL 32625 0878
Phone Number: (804) 305-6014
Extension:
Cell Number:
Fax Number:
E-mail Address: savanna.barry@ufl.edu

Agent

Company Name: Wood Environment & Infrastructure Solutions, Inc.
Title: Senior Engineer
Name: Sean King
Address Line 1: 404 SW 140th Ter
Address Line 2:
City/State/Zip Code: Newberry, FL 32669 3654
Phone Number: (352) 333-6604
Extension:
Cell Number:
Fax Number:
E-mail Address: sean.king@woodplc.com

Property Owner

Name: Bobby Wilder
Address Line 1: PO Box 202
Address Line 2:
City/State/Zip Code: Cedar Key, FL 32625 0202
Phone Number: (352) 543-6966
Extension:
Cell Number:
Fax Number:
E-mail Address: ahmEEGP@aol.com

Name: Barbara Jackson
Address Line 1: PO Box 291567
Address Line 2:
City/State/Zip Code: Kerrville, TX 78029 1567
Phone Number: (214) 908-5486
Extension:
Cell Number:
Fax Number:
E-mail Address: bejacks@wt.net

Name: Michael and Heather Carlin
Address Line 1: 8598 139th Ln
Address Line 2:
City/State/Zip Code: Seminole, FL 33776 2916
Phone Number: (727) 480-4595
Extension:

Cell Number:
Fax Number:
E-mail Address: carlininfo@aol.com

Name: Edith Thompson
Address Line 1: PO Box 1127
Address Line 2:
City/State/Zip Code: Defuniak Springs, FL 32435 1127
Phone Number: (505) 470-7311
Extension:
Cell Number:
Fax Number:
E-mail Address: kschultzsfnm@gmail.com

Name: Griffen Pope and Maggie
Address Line 1: 1389 S Shore Dr
Address Line 2:
City/State/Zip Code: Fleming Island, FL 32003 7014
Phone Number: (111) 111-1111
Extension:
Cell Number:
Fax Number:
E-mail Address: maggiegriffin85@yahoo.com

Consultant

Name: Shannon McMorrow
Address Line 1: 4004 SW 140th Terrace
Address Line 2:
City/State/Zip Code: Newberry, FL 32669
Phone Number: (352) 284-7094
Extension:
Cell Number:
Fax Number:
E-mail Address: shannon.mcmorrow@woodplc.com

Project Information

Tax Parcel Identification Number(s):
Anticipated Commencement Date: 12/01/2019
Anticipated Completion Date: 01/31/2020
Project Name (including Phase): Airport Rd Shoreline Restore

This project **IS NOT** part of a larger plan of development or sale.

Project or project phase area (in acres): 6.31

Impervious or semi-impervious area (excluding wetlands and other surface waters): 0

In: ACRES

Volume of water the system is capable of impounding (in acre-feet): 0

The total number of proposed new (not existing) in-water boat slips (including mooring areas and boat lifts): 0

Total area of work (dredging, filling, construction, alteration, or removal) in, on, or over wetlands or other surface waters: 0.6

In: ACRES

Total volume of material to be dredged (in cubic yards): 0

Total volume of material to be filled (in cubic yards): 1430

Pre-Application Meetings:

Agency	Date	Location	Attendees
FDEP	Feb 2019	Email/Phone	Janice Price (FDEP), Wood, UF

Project Description:

See Attachments

Waterbodies Information:

Daughtry Bayou

DEP Permits:

None.

Other Permits:

Attachments:

File Description: SWERP Supporting Document - Section A File Name: 62-330_060_sec_a_app_Airport.pdf File Hash: 23ca30f36183b710c6810e631ab547ff3e6c4a1e512396cb888475dad667db28
File Description: SWERP Supporting Document - Plans S and S File Name: Airport Rd Design Plan final - certified.pdf File Hash: e691748a1da64142884eca21ef53da12a57e7f41527fa143ad7d6f2bdf05f5fc
File Description: SWERP Supporting Document - Applicant Signature File Name: UF Applicant Signature.pdf File Hash: ff715c8f8caab119a090988580047a006b07941f522c82474e7d7b0177bacbfb

File Description: SWERP Supporting Document - Land Owner Signature
File Name: Airport Rd. Landowner Compiled Signature Pages for ERP.pdf
File Hash: 32a18b109aceef46c672bc1e2c0cc51dbdd5821ac39855567fc126195d4944bc

File Description: SWERP Supporting Document - Project Narrative
File Name: Airport Rd Project Narrative final.pdf
File Hash: 1cacd8c22e2f7ed220e1ea6c1893afea5115b8a4e5f76d4d8a2c8c5d274fcfe0

File Description: Section D - Within Surface Waters
File Name: 62-330_060_sec_d_not_sf_DOS Final.pdf
File Hash: 3ef871760b30823d50c2a320df611a7ff5abc938aff880b90843fe7e52581d8e

File Description: Section C - In On or Over Wetlands Other Surface Waters
File Name: 62-330_060_sec_c_wetlands_DOS Final.pdf
File Hash: 61efa61e95ae6efd4ff8563cc2411c530c2f24d473bd0061d456b6e9bb29eecb

Notification Submitted By

Name: Shannon McMorro
Phone Number: (352) 284-7094
E-mail Address: shannon.mcmorrow@woodplc.com

All information submitted was certified true, accurate, and correct to the best of the knowledge of the person whose name appears above.

If you have any questions or concerns about the information contained in this report, please contact the Division of Water Resource Management at (850) 245-8336 or by e-mail at ERP_eApps@dep.state.fl.us.



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Electronic Submission
Application for an Individual or Conceptual Permit
Section D - Supplemental Information for Works or Activities within Surface Waters

Proposed Activities:

	Pier, dock, wharf, mooring field, marina, (including dry storage associated with a boat launch), boat ramp, ski course or other boating-related activity.
X	Breakwater, groin, jetty, shoreline stabilization structures, artificial reefs, intake or discharge structures, subaqueous utility lines or other submerged structures.
	Bridge, causeway, culverted crossing, other traversing work or Structure.
	Dredging (for navigation channels, boat basins or other purposes) or filling in surface waters.
	Any other structures, works or other in-water activities.

Boating Related:

This project **DOES NOT** construction of any boat ramp or launch area.

	Existing	Proposed
Square Ft Over the Water	0	0
# of Wet Slips (Permanent)	0	0
# of Wet Slips (Temporary)	0	0
# of Dry Slips	0	0
Live-Aboard Slips	0	0
Fueling Facilities	0	0
Sewage Pump-outs	0	0
Other boating-related supplies or services (e.g. boat maintenance or washdown areas, fish cleaning stations, etc.)	0	0



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Electronic Submission
Application for an Individual or Conceptual Permit
Section F - Application for Authorization to Use State-Owned Submerged Lands

Type of Authorization Requested:

Exceptions:

	Construction or maintenance of a county water or sewer system under Section 153.04 F.S.
	Removal of material from the area adjacent to an intake or discharge structure under 403.813(1)(f), F.S.
	Removal of organic detrital material under Section 403.813(1)(r) or (u), F.S.
	Construction of floating vessel platforms under Section 403.813(1)(s), F.S.
	Trimming or alteration of mangroves under Sections 403.9321 through 403.9334, F.S.

Consent by Rule:

	Section 403.813(1), F.S., paragraphs (a); (b), provided that the structure is the only dock or pier on a parcel and it is not a private residential multi-family dock with three or more slips.
	Section 403.813(1), F.S., paragraphs (c); (d); (e); (f), provided that no severance fee is required under Rule 18-21.011, F.A.C., and the existing activity has a valid Board of Trustees authorization.
	Section 403.813(1), F.S., paragraphs (g); (h); (i), provided that no private residential multi-family dock or pier is constructed.
	Section 403.813(1), F.S., paragraph (k), provided that any channel markers delineate existing and authorized or permitted navigation channels.

Letter of Consent:

	One minimum-size private residential single-family dock (see definition in Rule 18-21.003, F.A.C.).
	Private residential single-family or multi-family docks, piers, boat ramps, and similar existing and proposed activities that cumulatively preempt no more than

	10 square feet of sovereignty submerged land for each linear foot of the applicant's riparian shoreline, along sovereignty submerged land on the affected waterbody within a single plan of development (see "preempted area" definition in Rule 18-21.003, F.A.C.).
	Private channels that provide access to an upland single-family or multi-family residential parcel and that measures no more than 10 square feet of sovereignty submerged land for each linear foot of the applicant's riparian shoreline along sovereignty submerged land on the affected waterbody within a single plan of development.
	Seawalls, bulkheads, or other shoreline stabilization structures no more than three feet waterward of mean or ordinary high water.
	Placement, replacement, or repair of riprap, groins, breakwaters, or intake and discharge structures no more than ten feet waterward of the line of mean or ordinary high water.
	Restoration and nourishment of naturally occurring sandy beaches, including borrow areas to be used for five years or less.
	Artificial reefs or fish attractors that are constructed for public use.
	Public docks or piers that are exempt from permit requirements under Section 403.813(1), F.S., or that qualify as minimum-size docks or piers or are less than or equal to the 10:1 preempted area to shoreline ratio; public boat ramps; public channels; or public swimming areas, provided that all such structures or activities are owned and operated by governmental entities and any revenues collected are used solely for operation and maintenance of the structure or adjacent public recreational facilities.
	Ski course buoys and ski jumps not associated with revenue-generating water skiing activities.
	Removal of wrecked, abandoned or derelict vessels or structures.
X	Habitat restoration.

Lease:

	Private residential single-family or multi-family docks or piers, other docks or piers, boat ramps, or other similar activities that do not qualify for a letter of consent.
	Private residential multi-family docks designed or used to moor three or more vessels within aquatic preserves.
	Docks designed or used to moor ten or more vessels in Monroe County.
	Commercial/industrial docks, as defined in Rule 18-18.004, F.A.C., in Biscayne Bay Aquatic Preserve, as required by paragraph 18-18.006(3)(c), F.A.C.
	All revenue-generating activities.
	Oil and gas exploration and development.
	Open-water mooring fields.
	Mining.

Easement:

	Utility crossings and rights of way.
	Road and bridge crossings and rights of way, including such structures built prior to the need to obtain an easement when proposed for modification or repair.
	Groins, breakwaters, and shoreline protection structures, except when constructed as part of a docking facility that requires a lease.
	Public navigation projects other than public channels.
	Private residential channels that do not qualify for a letter of consent, and channels that provide access to revenue-generating facilities in uplands.
	Oil, gas and other pipelines.
	Intake and discharge structures more than 10 feet waterward of the mean or ordinary high water line.
	Spoil disposal sites.
	Borrow areas that will be used for longer than five years for beach nourishment.
	Public water management projects other than public channels.
	Treasure salvage (Cultural Resource Recovery).

Application for Individual and Conceptual Approval Environmental Resource Permit and Authorization to Use State-Owned Submerged Lands

Florida Department of Environmental Protection/
Water Management Districts

Effective June 1, 2018



Instructions for Use of This Form:

This form is designed to assist you in submitting a complete application. All applications must include Section A- General Information for All Activities. Sections B through H list typical information that is needed based on the proposed activities and are only required as applicable. Part 1-C of Section A will guide you to the correct sections needed based on your proposed activities. Applicants are advised to consult Chapter 62-330, F.A.C., and the Environmental Resource Permit Applicant's Handbooks Volumes I and II for information regarding the ERP permitting process and requirements while preparing their application. Internet addresses for Chapter 62-330, F.A.C., and the Applicant's Handbook, Agency contact information, and additional instructions for this form can be found in Attachment 1.

What Sections of the Application Must I Fill Out?

Type of Activity	Section A	Section B	Section C	Section D	Section E	Section F	Section G	Section H
Fill in wetlands or waters for a single family residence?	Y	Y	N	N	N	N	N	N
Docks, shoreline stabilization, seawalls associated with a single family residence?	Y	Y	N	N	N	Y, as needed	N	N
Wetland impacts (other than association with an individual residence)?	Y	N	Y	N	N	N	N	N
Boating facilities, a marina, jetty, reef, or dredging?	Y	N	Y	Y	N	Y, as needed	N	N
Any work on state owned submerged land?	Y	N	Y	N	N	Y	N	N
Construction of a stormwater management system?	Y	N	Y, as needed	N	Y	N	N	N
Constructing a mitigation bank?	Y	N	Y	N	Y, as needed	N	Y	N
Creating a mine?	Y	N	Y, as needed	N	N	N	N	Y

Note- if you are required to provide Section B, then you do not have to provide any other Sections, unless the activities are on state-owned submerged lands. In that case, Section F will also be required.

If you have any questions, or would like assistance completing this form, please contact the staff of the nearest office of either the Florida Department of Environmental Protection (DEP) or a Water Management District (WMD) (see Attachment 2).

Section A: General Information for All Activities

Part 1: Name, Application Type, Location, and Description of Activity

A. Name of project, including phase if applicable: ***Airport Road Shoreline Restoration***

B. This is for (check all that apply):

- ☒ Construction and operation of **new** works, activities, and/ or a stormwater management system
- ☐ **Conceptual Approval** of proposed works, activities and/ or a stormwater management system
- ☐ Modification or alteration of **existing** works, activities, and/or a stormwater management system. Provide the existing DEP or WMD permit #, if known: Note: Minor modifications do not require completion of this form, and may instead be requested by letter in accordance with section 6.2 of Applicant's Handbook Volume I.
- ☐ **Maintenance or repair** of works, activities, and/ or a stormwater management system previously permitted by the DEP or WMD. Provide existing permit #, if known:
- ☐ Abandonment or removal of works, activities, and/ or a stormwater management system.
Provide existing DEP or WMD permit #, if known:
- ☐ Operation of an **existing unpermitted** work, activity, and/or stormwater management system.
- ☐ Construction of additional phases of a permitted work, activity, or system.
Provide the existing DEP or WMD permit #, if known:

C. **List the type of activities proposed. Check all that apply, and provide the supplemental information requested in each of the referenced application sections.** Please also reference Applicant's Handbook Volumes I and II for the type of information that may be needed.

- ☐ Activities associated with one single-family residence, duplex, triplex, or quadruplex that do not qualify for an exemption or a General Permit: **Provide the information requested in Section B. Do not complete Section C.**
- ☒ Activities within wetlands or surface waters, or within 25 feet of a wetland or surface water, (not including the activities associated with an individual single-family residence). Examples include dredging, filling, outfall structures, docks, piers, over-water structures, shoreline stabilization, mitigation, reclamation, and restoration/enhancement. **Provide the information requested in Section C.**

- ☒ Activities within navigable or flowing surface waters such as a multi-slip dock or marina, dry storage facility, dredging, bridge, breakwaters, reefs, or other offshore structures: **In addition to Section C, also provide the information requested in Section D.**
- ☒ Activities that are (or may be) located within, on, or over state-owned submerged lands (See Chapter 18-21, F.A.C. <https://www.flrules.org/gateway/ChapterHome.asp?Chapter=18-21>): **In addition to Section B or C, also provide the information requested in Section F.**
- ☐ Construction or alteration of a stormwater management system serving residential, commercial, transportation, industrial, agricultural, or other land uses, or a solid waste facility (excluding mines that are regulated by DEP). **Provide the information requested in Section E.**
- ☐ Creation or modification of a Mitigation Bank (refer to Chapter 62-342, F.A.C. <https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-342>): **Provide the information requested in Section G.**
- ☐ Mines (as defined in Section 2.0 of Applicant's Handbook Volume I) that are regulated by the DEP: **Provide the information requested in Section H.**
- ☐ Other, describe: Please contact the Agency to determine which additional sections of the application are needed. See Attachment 2 for Agency contacts.

D. Describe in general terms the proposed project, system, works, or other activities. For permit modifications, please briefly describe the changes requested to the permit:

The shoreline along Airport Road has eroded over time leading to loss of wetland and other estuarine habitats. This project will restore shoreline habitats and improve erosion control by regrading the shore in eroded areas, planting dune and marsh vegetation, and installing oyster reef breakwaters. See Project Narrative for more details.

E. Project/Activity Street/Road Address or other location (if applicable): **Airport Road**
 City: **Cedar Key** County(ies): **Levy** Zip: **32625**

Note: For utility, road, or ditch/canal activities, provide a starting and ending point using street names and nearest house numbers or provide length of project in miles along named streets or highways.

F. Project location map and Section, Township, and Range information (use additional sheets if needed):

Please attach a location map showing the location and boundaries of the proposed activity in relation to major intersections or other landmarks. The map should also contain a north arrow and a graphic scale; show Section(s), Township(s), and Range(s); and must be of sufficient detail to allow a person unfamiliar with the site to find it.

Section(s): **31** Township: **15S** Range: **13E** Land Grant name, if applicable:

G. Latitude (DMS) **29° 8'9.16"N** Longitude (DMS) **83° 2'40.54"W** (Taken from central location of the activity). Explain source for obtaining latitude and longitude (i.e. U.S.G.S. Quadrangle Map, GPS, online resource): **Google Earth Center of Project Area**

H. Tax Parcel Identification Number(s):

Parcel ID	Owner Name	Address	City	State	Zip
0042300000	GRIFFIN POPE & MARGARETT -TR-	1389 S SHORE DR	FLEMING ISLAND	FL	32003
004200020B	PARKER NANCY	PO BOX 268	CEDAR KEY	FL	32625
004200020C	MOREY TIMOTHY E	8909 SW 61ST AVE	GAINESVILLE	FL	32608
00420002BA	STATE OF FLORIDA	1109 S MARION AVE	LAKE CITY	FL	32025
0042401400	JOCELYN ROBIN	PO BOX 736	CEDAR KEY	FL	32625
0891700000	WILDER BOBBY J - TRUSTEE-	PO BOX 202	CEDAR KEY	FL	32625
0891700100	CARLIN MICHAEL D, CARLIN HEATHER J	8598 139TH LN	SEMINOLE	FL	33776
0892100000	STUBBS MILTON W TRUST	1224 NW 22ND ST	GAINESVILLE	FL	32605
0892300100	PHILLIPS ALICE A	PO BOX 701	CEDAR KEY	FL	32625
0892500000	SCHULZ SARAH M -TR-	C/O THOMASON, PO BOX 1127	DEFUNIAK SPRINGS	FL	32435
0892600000	LARRY J, KING ANNA K	4750 NE 180TH AVE	WILLISTON	FL	32696
2149800000	PETRIE GRANVILLE, PETRIE FRANKIE	1113 VICTORY GARDEN DR	TALLAHASSEE	FL	32301
0892200000	JACKSON BARBARA K TRS	PO BOX 5048	OVILLA	TX	75154
0892400000	DAY CARMEN LEE	13164 SW 164TH AVE	CEDAR KEY	FL	32625
2082600100	EGRET'S PASS HOMEOWNERS ASSOCIATION	C/O CHARLES R NELSON, PO BOX 160	CEDAR KEY	FL	32625

See Appendix F for Tax Parcel Identification Numbers for the Project Area and Adjacent Properties.

[Number may be obtained from property tax bill or from the county property appraiser's office; if on multiple parcels, provide multiple Tax Parcel Identification Numbers]

I. Directions to Site (from major roads; include distances and landmarks as applicable): **Take SR 24 west to Cedar Key. At Chevron Station turn right on Whiddon Avenue, continue on Whiddon Ave turning right after the School. Turn left Gulf Blvd, then right onto Airport Road, go over the bridge. The Project Site starts approximately 100 feet south of the bridge. See Figure 1, Project Location Map, and Figure 2, UF Shoreline Restoration Projects Map in the Project Narrative.**

J. Project area or phase area: **6.31 acres (Zone A = 4.20 acres; Zone B = 2.11 acres)**

K. Name of waterbody(ies) (if known) in which activities will occur or into which the system will discharge:
Daughtry Bayou, Gulf of Mexico

The following questions (M-O) are not applicable to activities related to an individual single-family residence, including a dock, pier, and/or seawall associated with that residence.

L. Is it part of a larger plan of development or sale? ☐ yes ☒ no

M. Impervious or semi-impervious area excluding wetlands and other surface waters (if applicable):
Not Applicable- no impervious or semi-impervious area are proposed.

acres or square feet

N. Volume of water the system is capable of impounding (if applicable):
Not Applicable

Normal Pool: acre-feet. Depth ft.
Maximum Pool: acre-feet. Depth ft.

Part 2: Supplemental Information, and Permit History

A. Is this an application to modify an existing Environmental Resource Permit or to construct or implement for part of a multi-phase project, such as a project with a Conceptual Approval permit? ☐ Yes ☒ No (If you answered "yes", please provide permit numbers below):

Agency	Date	Permit/Application No.	Project Name

B. Indicate if there have been any **pre-application meeting(s)** with the DEP, WMD, or delegated local government, or other discussions, meetings, or coordination with other stakeholders or agencies about the proposed project, system or activity. If so, please provide the date(s), location(s) of the meeting, and the name(s) of Agency staff that attended the meeting(s):

Agency	Date	Location	Meeting Attendees
FDEP	Feb-March 2019	Email/Phone	Janice Price (FDEP), Wood, UF

- C. **Attach a depiction (plan and section views), which clearly shows the works or other activities proposed to be constructed.** Use multiple sheets, if necessary, a scale sufficient to show the location and type of works, and include a north arrow and a key to any symbols used. **Specific information to be included in the plans is based on the activities proposed and is further described in Sections B-H.** However, supplemental information may be required based on the specific circumstances or location of the proposed works or other activities.

See - Appendix A - Construction Drawings.

- D. Processing Fee: **Please submit the application processing fee along with this application form and supplemental information.** Processing fees vary based on the size of the activity, the type of permit applied for, and the reviewing Agency. Please reference Appendix D of Applicant's Handbook Volume I to determine the appropriate fee.

Part 3: Applicant and Associated Parties Information

Instructions: Please complete the following sections. For corporations, list a person who is a registered agent or officer of the corporation who has the legal authority to bind the corporation.

A. Applicant (Entity Must Have Sufficient Real Property Interest)

☒ This is a Contact Person for Additional Information

Last Name: **Barry** First Name: **Savanna** Middle Initial: **C**
Title: **Regional Specialized Agent** Company: **University of Florida/IFAS Extension**
Address: **552 1st Street, P.O. Box 878**
City: **Cedar Key** State: **FL** Zip: **32625**
Home Telephone: Work Telephone: **352-325-6080**
Cell Phone: **804-305-6014**
E-mail Address: **savanna.barry.ufl.edu**
Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

B. Land Owner(S) (If Different or in Addition to Applicant)

See Attached Land Owner Signature Pages

☐ Check here if land owner is also a co-applicant

Last Name: First Name: Middle Initial:
Title: Company:
Address:
City: State: Zip:
Home Telephone: Work Telephone:
Cell Phone:
E-mail Address:
Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

C. Operation and Maintenance Entity(see Applicant's Handbook I, Section 12.3)

Last Name: **Barry** First Name: **Savanna** Middle Initial: **C**
Title: **Regional Specialized Agent** Company: **University of Florida/IFAS Extension**
Address: **552 1st Street, P.O. Box 878**
City: **Cedar Key** State: **FL** Zip: **32625**
Home Telephone: Work Telephone: **352-325-6080**
Cell Phone: **804-305-6014**
E-mail Address: **savanna.barry.ufl.edu**
Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

E. Registered Professional Consultant

☒ This is a contact person for additional information

Last Name: **King** First Name: **Sean** Middle Initial: **A**
Title: **Senior Engineer** Company: **Wood Environment & Infrastructure, Inc.**
Address: **404 SW 140 th Terrace**
City: **Newberry** State: **FL** Zip: **32669**
Home Telephone: Work Telephone: **352-333-6604**
Cell Phone: **352-256-6667**
E-mail Address: sean.king@woodplc.com

Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

If necessary, please add additional pages for other contacts and property owners related to this project.

F. Real Property Interest – See Attached Signature Pages From Home Owners

- a. Permits are only issued to entities having sufficient real property interest as described in Section 4.2.3(d) of Applicant's Handbook Volume I. **Please attach evidence of the applicant's real property interest over the land upon which the activities subject to the application will be conducted, including mitigation areas (if applicable).** Refer to Sections 4.2.3(d)-(e) for sufficient real property interest documentation.
- b. For activities that require a recorded notice in accordance with rule 62-330.090(7), F.A.C., please provide either the complete legal description of the property or a copy of the pages of the document recorded in the public records that contains the complete legal description. If the land upon which the proposed activities are to occur is not owned by the applicant, the applicant must also provide copies of any right-of-way, leases, easements, or other legal agreement which authorizes the applicant to perform the activities on those lands.

Part 4: Signatures and Authorization to Access Property

Instructions: For multiple applicants please provide a separate Part 4 for each applicant. For corporations, the application must be signed by a person authorized to bind the corporation. A person who has sufficient real property interest (see Section 4.2.3(d) of Applicant's Handbook Volume I) is required in (B) to authorize access to the property, except when the applicant has the power of eminent domain.

A. By signing this application form, I am applying for the permit and any proprietary authorizations identified above, according to the supporting data and other incidental information filed with this application. I am familiar with the information contained in this application and represent that such information is true, complete and accurate. I understand this is an application and not a permit, and that work prior to approval is a violation. I understand that this application and any permit issued or proprietary authorization issued pursuant thereto does not relieve me of any obligation for obtaining any other required federal, state, water management district, or local permit prior to commencement of construction. I agree to operate and maintain the permitted system unless the permitting agency authorizes transfer of the permit to a different responsible operation and maintenance entity. 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.

Typed/Printed Name of Applicant or
Applicant's Authorized Agent

Signature of Applicant or Applicant's
Authorized Agent

Date

(Corporate Title if applicable)

B. Certification of Sufficient Real Property Interest And Authorization For Staff To Access The Property:

I certify that:

☐ **I possess sufficient real property interest in or control, as defined in Section 4.2.3 (d) of Applicant's Handbook Volume I**, over the land upon which the activities described in this application are proposed and I have legal authority to grant permission to access those lands. I hereby grant permission, evidenced by my signature below, for staff of the Agency to access, inspect, and sample the lands and waters of the property as necessary for the review of the proposed works and other activities specified in this application, upon advance notice. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review, inspection, and/ or sampling. Further, if a permit is granted, upon advance notice, I agree to provide entry to the project site for such agents or personnel with proper identification to determine compliance with permit conditions and permitted plans and specifications.

OR

☐ I represent an entity having **the power of eminent domain and condemnation authority**, and I/we shall make appropriate arrangements to enable staff of the Agency to legally access, inspect, and sample the property as described above.

Typed/Printed Name

Signature

Date

(Corporate Title if applicable)

C. Designation of Authorized Agent (If Applicable):

I hereby designate and authorize _____ to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirements which may be necessary to procure the permit or authorization indicated above. 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.

Typed/Printed Name of Applicant

Signature of Applicant

Date

(Corporate Title if applicable)

Section D: Supplemental Information for Works or Activities Within Surface Waters (Other Than a Single-Family Project)

Instructions: This section is to be completed for projects that involve works such as dredging of channels, breakwaters, jetties, shoreline protection structures, reefs, piers, marinas and other docking facilities, bridges, causeways, and other structures) or activities within surface waters that involve boating activities or that will, or have the potential to, substantively alter water flow and circulation or affect the bottom profile of open surface waters. This section is not intended for activities associated with individual single-family residential property or activities that are located entirely within wetlands.

This section must be used in conjunction with sections A and C. Activities that occur (or that may occur) on state-owned submerged lands will also require section F. Other sections may also be required, based on the scope of the proposed activities. All items required under this section are in addition to those required under other sections, as applicable.

Part I: General Project Information

Please identify all proposed activities (select all that apply):

- ☐ Pier, dock, wharf, mooring field, marina (including dry storage associated with a boat launch), boat ramp, ski course or other boating-related activity
- ☒ Breakwater, groin, jetty, shoreline stabilization structures, artificial reefs, intake or discharge structures, subaqueous utility lines, or other submerged structures
- ☐ Bridge, causeway, culverted crossing, or other traversing work or structure
- ☐ Dredging (for navigation channels, boat basins, or other purposes) or filling in surface waters
- ☐ Any other structures, works, or other in-water activities

A. Piers, Docks, Boat Ramps, Marinas, Mooring Fields, And Other Boating-Related Activities

☒ Not applicable

1. Please provide a detailed description of the proposed activities and uses of the facility; include a description of the existing activities and uses, if applicable. For example, "reconfigure existing 20-slip multifamily residential docking facility to create a 35-slip commercial marina with boat ramp, 4 temporary mooring areas and a fuel dock":
2. Does the proposed facility, including existing structures and activities, consist *solely* of a pier, observation platform, or other over-water structure that will not accommodate the mooring of vessels or any other boating-related activities?
☐ Yes (Skip to question #8) ☐ No
3. Please describe the types and the maximum size (length and draft) of vessels expected to use or proposed to be mooring at the facility.
4. Please complete the table below. Information provided should concur with that provided on the plans/drawings:



TOTALS:	Existing	Proposed
Square Feet* over the water		
# of wet slips (permanent**)		
# of wet slips (temporary***)		
# of dry slips****		

* Total square footage of all structures (fixed or floating) over wetlands or surface waters

** Slips and other areas designed for overnight or longer-term mooring

*** Short-term mooring areas, such as accessory docks, fuel docks, etc.

**** Includes upland boat storage, such as trailer parking spaces and dry storage racks

5. Is there is at least one foot of clearance at mean low water between the top of all submerged resources (such as seagrass beds, corals, etc.) or the submerged bottom (if such resources are absent) and the deepest draft of any vessels expected to use the proposed facility, along the route(s) of ingress/egress between the proposed facility and a marked navigation channel? *If vessels will not have this clearance, the applicant may be required to provide other assurances that the project will not cause adverse secondary, cumulative and/or water quality impacts.*

☐ Yes, vessels will have at least 1' clearance at MLW ☐ No/I'm not sure

6. Please specify whether the facility will provide:

Liveaboard slips: ☐ Yes; Number: ☐ No

Fueling facilities: ☐ Yes; Number: ☐ No

Sewage pump-outs: ☐ Yes; Number: ☐ No

Other boating-related supplies or services (e.g. boat maintenance or washdown areas, fish cleaning stations, etc.): ☐ Yes; Describe: ☐ No

7. Did you answer "yes" to any item in question #6, above?

☐ Yes; please complete the items below ☐ No; (Skip to question #8)

Please provide a facility management plan to address maintenance and unexpected spills of fuels or other pollutants. This plan should include, at a minimum, the following information, as applicable to the proposed project/activities:

- ☐ An education plan for all employees as it relates to fueling, sewage and gray water pump-out operations, waste management, and facility maintenance;
- ☐ A spill response plan for fuel and oil that clearly identifies spill response procedures, responsible parties and emergency contact telephone numbers, and containment and cleanup equipment;
- ☐ Locations of fuel shut-off valves and (if floating docks are utilized) assurance that if floating docks separate, fuel lines will not continue to discharge fuel into surface waters;
- ☐ Plan for maintenance of gray water collection and return systems;
- ☐ Plan for maintenance of garbage and fish cleaning systems to prevent disposal into wetlands or other surface waters;

8. Please describe the design and type(s) of materials that will be used to construct the proposed facility (check all that apply):

Main pier/access walkways: ☐ Piling-supported ☐ Floating ☐ Wharf/bulkhead

Finger piers (if applicable): ☐ Piling-supported ☐ Floating

Other Structures (please list and describe):

Pilings: ☐ treated wood; type (e.g. CCA, ACQ, etc.), if known:

If pilings will be of treated wood materials, will they be completely wrapped (in sleeves of impermeable PVC, plastic, or similar material) from at least one foot below the mud line to at least one foot above the mean high water line (or seasonal high water line in non-tidal waters)? ☐ Yes ☐ No

☐ concrete/steel ☐ plastic/composite ☐ other

Decking: ☐ wood ☐ plastic/composite ☐ grated ☐ floating docks/other

B. Breakwaters, Jetties, Groins, Artificial Reefs, Intake or Discharge Structures, Subaqueous Utility Lines, or Other Submerged Structures ☐ Not applicable

1. Please describe the nature and purpose of the proposed structure(s). For example, "construct a 200-foot-long, 20 foot wide offshore breakwater to protect a restored living shoreline from waves and boat wakes from the nearby channel":

In order to address shoreline erosion along Airport Road, the University of Florida (UF) is proposing to implement a living shoreline project along approximately 2000 feet of shoreline that was damaged by Hurricane Hermine in 2016. This restoration project includes the installation of oyster breakwater structures parallel to the shoreline for additional erosion protection and habitat improvement. See detailed information regarding breakwater structures in Project Narrative.

Please see Figure 1, Project Location Map.

2. Please describe the design and type(s) of structures that are proposed (check all that apply):

☒ Breakwater (structures generally designed to attenuate wave energy and typically located entirely waterward of, and oriented parallel or oblique to the shoreline)

Oyster reef breakwaters will be installed at or slightly above the mean lower low water (MLLW) elevation of -2.26 ft (NAVD88). The breakwater structures will consist of Pallet Balls manufactured by Reef Innovations Inc. Each breakwater structure will include 2 rows of 12 Pallet Balls (24 total). Each Pallet Ball is 4 ft in diameter and 2.75 ft tall. Each breakwater structure will be approximately 50 ft long and 8 ft wide. The units will be spaced approximately 10 ft apart, except near the kayak launch which will have a 20 ft gap. See Project Narrative for details.

- ☐ Jetty or groin (structures generally designed to alter longshore currents or sediment transport, and typically extending waterward from the shore at an angle perpendicular or oblique to the shoreline)
- ☐ Seawall or revetment (hardened shoreline stabilization structure located along the shoreline)
- ☐ Artificial reef, fish attractor or similar structure
- ☐ Submerged intake, outfall, utility line, or similar structure
- ☐ Other; please describe:

3. Please provide a description of the existing erosional or depositional conditions of at the site, including amounts of natural and artificial shoreline, type(s) of vegetation, rates of erosion/deposition, and supporting documentation, such as surveys, rectified aerials, or other photographs:

Aerial photography shows the existing site conditions as of February 2016. Patches of marsh vegetation, several mangroves, and low density oyster beds are the primary habitats remaining along the shoreline. Since this aerial photograph was taken rock riprap material has been placed along the southeast side of Airport Road within the northern portion of the project site. The riprap placement and related construction activities have significantly reduced the extent of marsh vegetation in this area.

Please refer to the Construction Plans in Appendix A and the Project Narrative and associated figures of aerial photography, existing land use, and natural resources.

4. Please provide a detailed description of all proposed activities that includes, at a minimum, the following information, as applicable:

- a. ☒ Summary of the proposed construction materials, method(s), and equipment (including types and drafts of vessels that will be used)

The proposed restoration project along Airport Road will use suitable fill material to regrade the shoreline, plant dune and marsh vegetation species (*Spartina patens* and *S. alterniflora*) and install oyster reef breakwater structures.

The design elevations for the low marsh community will be from 0 ft to 2.5 ft (NAVD88) and the high marsh community will be from 2.5 ft to 5.0 ft. Elevations greater than 5.0 ft will be planted with dune species. Existing patches of marsh vegetation and mangroves will be left intact.

Oyster reef breakwaters will be installed at or slightly above the mean lower low water (MLLW) elevation of -2.26 ft (NAVD88). The breakwater structures will consist of Pallet Balls manufactured by Reef Innovations Inc. Each breakwater structure will include 2 rows of 12 Pallet Balls (24 total). Each Pallet Ball is 4 ft in diameter and 2.75 ft tall. Each breakwater structure will be approximately 50 ft long and 8 ft wide. The units will be spaced approximately 10 ft apart, except near the kayak launch which will have a 20 ft gap.

Please refer to the Construction Plans in Appendix A and the Project Narrative.

- b. ☒ Description of proposed turbidity control and monitoring method(s), and other best management practices

During construction, sediment control best management practices including installation of turbidity curtains and silt fencing will be utilized to protect surface waters

- c. ☒ Description of any proposed measures for the protection of listed species and their habitats

Impacts to mangroves and oyster beds will be avoided. Oyster beds and existing marsh vegetation located within the proposed footprint of fill will be relocated prior to construction, therefore, the proposed project will not impact any of the existing ecological resources within the project site. In addition, the proposed project is intended to increase salt marsh and oyster bed habitat.

The project site is not within any identified critical habitat (USFWS 2019; NOAA Fisheries 2019). The proposed project will not result in modification to existing EFH. During construction, sediment control best management practices including installation of turbidity curtains and silt fencing will be utilized to protect surface waters; therefore, long-term impacts to the managed species in the project vicinity would be minimized. Lifecycle functions will not be affected by the proposed activities.

5. Please describe how the project will be designed and constructed in a manner that will not cause adverse effects to navigation. Include the following, as applicable:

- a. ☒ Descriptions vessels (if any) customarily using the water body in the vicinity of the project, including representative types (e.g. sail, motor, etc.), sizes (length, width, draft), and use (e.g. recreational, commercial, military, etc.)

All proposed activities will occur less than 200 feet from the shoreline. Vessels that may use the water body in the vicinity of the project area include kayaks and small motorized boats.

- b. ☒ Scaled and dimensioned drawings or aerial photographs depicting the proposed structures or activities in relation to existing structures and navigation channels, or other documents that provide assurance that the project will not unreasonably infringe upon local navigation

Please refer to the Construction Plans in Appendix A and Figure 3, Aerial Photography Map.

- c. ☒ The minimum navigation clearance, at mean low water for all proposed submerged structures

Not applicable.

- d. ☒ Proposed navigational safety features (advisory signs, lighting, etc.) for structures

A kayak launch will be installed within an open area on the west side of the project site. There will be a larger gap between the oyster reef breakwater structures in this area to allow for safe kayak access. Signage will be installed to mark the kayak launch area.

- e. ☒ If structures are proposed within 100 feet of any navigation channel or shipping fairway, provide an assessment of the navigational safety requirements or recommendations for the proposed project, from the U.S. Coast Guard, if available

Not applicable.

C. Bridge, Causeway, Culvert, Traversing Work, or Structure ☒ Not applicable

1. Please describe the nature and purpose of the proposed structure(s), works, or activities. For example, "construct a 30-foot-wide, piling-supported bridge to support a 2-lane road":
2. Will the proposed structure(s) support or accommodate motorized vehicular traffic?
☐ Yes ☐ No (for pedestrian or non-motorized traffic, only)
3. Please describe the design and type(s) of structures that are proposed (check all that apply):

- ☐ free-spanning bridge (i.e. with no supporting structures in wetlands or surface waters)
☐ piling-supported (or trestle) bridge
☐ causeway
☐ culverted crossing
☐ other traversing work or structure; please describe:

Pilings/supports:

- ☐ Not applicable
☐ treated wood; type (e.g. CCA, ACQ, etc.), if known:
☐ concrete/steel ☐ other

If pilings will be of treated wood materials, will they be completely wrapped (in sleeves of impermeable PVC, plastic, or similar material) from at least one foot below the mud line to at least one foot above the mean high water line (or seasonal high water line in non-tidal waters)?

- ☐ Yes ☐ No

Surface:

- ☐ pavement (concrete or asphalt) ☐ grated ☐ wood ☐ other

If the roadway will support motorized vehicular traffic, please provide a detailed description of how stormwater and other potential sources of runoff and pollution will be managed. Include supporting calculations, figures, or other documents, prepared by a Florida-registered professional, if applicable: ☐ Not applicable

Fill and design:

- ☐ Earthen fill; please describe type, specifications, and source (if known):

☐ Riprap or other armored revetment; please describe type, specifications, and source (if known) of proposed materials:

☐ Vegetated shoreline; please describe species, sizes, planting spacing (on-center) and elevations (relative to mean or ordinary high and low water), application methods, and source (if known), as applicable, of all proposed plants, sod, or seed:

Culverts:

☐ Box ☐ round/elliptical ☐ other

☐ Please describe, in detail, the number, type, and dimensions of all proposed culverts:

Other works or structures:

☐ Please describe, in detail, the purpose, design, and dimensions of all other proposed traversing work or structures:

4. Please provide a detailed description of the proposed construction activities that includes, at a minimum, the following information, as applicable:

- a. ☐ Summary of the proposed construction method(s) and equipment, including types of vessels or vehicles
- b. ☐ A detailed plan for all proposed turbidity control and monitoring method(s), at all dredging or filling locations, and at proposed spoil offloading, disposal, or dewatering locations
- c. ☐ Description of any proposed measures for the protection of listed species and their habitats, including statements of whether all work will be limited exclusively to daylight hours
- d. ☐ For causeways, culverts, and traversing works, a description of construction methods and sequencing that ensures that construction of the proposed project will not impound waters, cause flooding, or cause adverse impacts to wetlands or surface waters, including surface water flows or levels

5. Please describe how the project will be designed and constructed to avoid adverse effects to navigation. Include the following, as applicable:

- a. ☐ Descriptions of representative types of vessels (if any) customarily using the water body in the vicinity of the project, including
- b. ☐ Scaled and dimensioned drawings or aerial photographs depicting the proposed structures or activities in relation to existing structures and navigation channels, or other documents that provide assurance that the project will not unreasonably infringe upon local navigation
- c. ☐ The minimum navigational clearance beneath the proposed structure(s), at mean (or ordinary) high water
- d. ☐ The minimum navigational clearance, at mean low water for all proposed submerged structures (if applicable)
- e. ☐ If within 100 feet of a federally maintained or regulated navigation channel or shipping fairway, an assessment of the navigational safety requirements or recommendations (advisory signs, lighting, etc.) for the proposed project from the U.S. Coast Guard

D. Dredging (For Navigation Basins, Channels, Or Other Purposes) and/or Filling ☒ Not applicable

1. Please describe the nature and purpose of the proposed dredging or filling activities. For example, "dredge a 1,000 foot long, 50 foot wide navigation channel to a depth of six feet mean low water, to serve a commercial marina":
2. Please provide a detailed description of all proposed dredging and filling activities that includes, at a minimum, the following information, as applicable:
 - a. ☐ Summary of the proposed dredging and filling method(s) (e.g. clamshell, hydraulic, etc.) and equipment, including types of vessels
 - b. ☐ A detailed plan for all proposed turbidity control and monitoring method(s) at all dredging or filling locations, and at proposed spoil offloading, disposal, or dewatering locations
 - c. ☐ Description of any proposed measures for the protection of listed species and their habitats, including statements of whether all work will be limited exclusively to daylight hours
3. Please describe how the project will be designed and constructed to avoid adverse effects to navigation. Include the following, as applicable:
 - a. ☐ Descriptions of representative types of vessels (if any) customarily using the water body in the vicinity of the project, including
 - b. ☐ Scaled and dimensioned drawings or aerial photographs depicting the proposed structures or activities in relation to existing structures and navigation channels, or other documents that provide assurance that the project will not unreasonably infringe upon local navigation
 - c. ☐ A description of construction methods and sequencing that ensures that the proposed project will not obstruct local navigation during construction
 - d. ☐ If within 100 feet of a federally maintained or regulated navigation channel or shipping fairway, an assessment of the navigational safety requirements or recommendations (advisory signs, lighting, etc.) for the proposed project, from the U.S. Coast Guard
 - e. ☐ For projects that include in-water filling of submerged lands, the minimum navigation clearance at mean low water for all proposed fill areas (if applicable)
4. For dredging projects, please describe how dredged spoil material will be managed and disposed. At a minimum, this description should include:
 - a. ☐ Grain size distribution and silt/clay content percentage of the material proposed to be dredged (the reviewing agency may require additional sediment testing, based upon the percentage of silt/clay sediments)
 - b. ☐ Proposed dredging, pumping, and outfall design, including turbidity containment, pipe hydraulic specifications and spillway placement and hydraulic design
 - c. ☐ Calculations regarding the spoil area volume requirements including bulking factors, surface overflow rate, settling times, freeboard, etc.
 - d. ☐ Description of how spoil material will be ultimately disposed of, including proposed stabilization methods and post-closure storm retention/detention capacity
 - e. ☐ If flocculents, coagulants, or other additives are proposed (to aid with dewatering or settling), provide the names, descriptions, Material Safety Data Sheets, proposed application rates, and ecotoxicity data and testing methods for all such additives

Part II: Hydrographic Information

The following information is necessary to determine whether the proposed activities may cause or contribute to a violation of state water quality standards. This information is required for activities or facilities that may either add pollutants to, or result in an adverse change to the patterns of flow, circulation, erosion, deposition, or littoral transport of a waterbody. Additional information may be required, such as water and sediment testing data, tidal conditions, tidal current measurements, bathymetric surveys, and simulations of hydrodynamic conditions and water quality, to fully assess the potential adverse impacts associated with your project. Please complete and provide all items as appropriate for your proposed project. Failure to do so may delay the processing of your application.

1. **Complete item 1. only if you are not providing additional information under Part II, with your application.** *Selecting options here does not relieve you of the need to submit information at a later time, if necessary to fully assess the potential adverse environmental impacts associated with your project.* I certify that, (check as appropriate for your project):

☒ I have been informed by the reviewing agency, during a pre-application meeting or conference, that hydrographic information, testing, and/or hydrographic analysis will not be required for my project. *Please identify the date and location of the meeting and the agency staff members who participated.*

Janice Price at FDEP indicated on a phone call that the proposed project at Airport Road would not require hydrographic information, testing or hydrographic analysis.

☐ My project consists solely of the modification, construction, or operation of a docking facility that will accommodate the mooring of fewer than 10 vessels, including dry storage, when associated with a boat ramp or launch, **AND I have not been previously informed by the reviewing agency that hydrographic information will be required.**

☐ I am submitting a certification from a Florida-registered professional clearly stating that, due to the design, nature, and/or location of the proposed structures, works, or other activities, that the project does not have the potential to add pollutants to, or result in an adverse change to, the patterns of flow, circulation, erosion, deposition, or littoral transport of a waterbody; **AND I have not been previously informed by the reviewing agency that hydrographic information will be required.** *A copy of the Florida-registered professional's certification must be included with this application.*

If none of the above apply, please provide all applicable items listed in items 2. through 7., below, based on the specific works or activities proposed for construction, alteration, maintenance, abandonment, or removal, as part of your project. In addition, a hydrographic report (including complete hydrodynamics and water quality analysis) may be necessary based upon the particulars of your project.

2. All structures or works

- a. ☐ Existing water body bathymetry and shoreline topography, if applicable
- b. ☐ Structural details for the proposed structure(s)
- c. ☐ Sediment grain size distribution and silt/clay content percentage within project area and adjacent areas
- d. ☐ For activities in tidal waters, mean high and low water elevations, range, and periodicity

3. Piers, docks, wharves, marinas, mooring fields, and other boating-related activities (refer to Applicant's Handbook, Volume I, s. 10.2.4) ☐ Not applicable
- a. ☐ Details of existing and proposed systems including all dimensions (length, width, depth), location of junctions, connections to open waters, and dead-end(s), if applicable.
 - b. ☐ Site-specific characteristics of the wind field
 - c. ☐ For tidal systems, provide the longest path length, phase lag, and the flow amplitude (at mid-tide) between the head or center of the system to open waters
 - d. ☐ For non-tidal systems, provide the water surface elevation difference between the head (or center) and mouth of the system, and provide representative flow conditions at selected locations
 - e. ☐ Estimate the time needed to reduce the concentration of a hypothetical conservative pollutant, placed at the head of the system, to ten percent (10%) of initial
 - f. ☐ Verify (e.g. by using a tracer dye) the model(s) used to determine the advective/dispersive characteristics of the system. Provide a concentration gradient map depicting the size, distance of travel, and time of dispersion to the 10% concentration isopleth
4. Breakwaters, groins, jetties, seawalls, and revetments ☐ Not applicable
- a. ☐ Monthly averaged wave height, direction, and period for the project area shoreline
 - b. ☐ Wind data (direction and velocity) for project area
 - c. ☐ Estimate the mean annual and mean monthly littoral drift direction and volume
 - d. ☐ Existing structures within the zone of influence of proposed structures
 - e. ☐ Existing shoreline topography – dune crest to offshore bar break
 - f. ☐ Estimated changes in littoral transport, erosion, and deposition rates and patterns due to the proposed structures
5. Bridges, causeways, and culverts ☐ Not applicable
- a. ☐ For tidal waters, the maximum, minimum, and mean flow volumes and amplitudes, at ebb and flood tide
 - b. ☐ For non-tidal waters, the maximum, minimum, and mean flow volume and amplitude and mean range and periodicity of the water level variation
 - c. ☐ Existing circulation patterns in the waterway at the location of the proposed structure
 - d. ☐ Culvert or channel dimensions, cross-sectional area, and invert elevations
 - e. ☐ Maximum design discharge, and change in flow due to change in culvert or channel cross-section, if applicable
 - f. ☐ Drainage basin map and backwater calculations for area served by culvert, if applicable
 - g. ☐ Existing and proposed flow cross-sections and volumes at high and low water, for specified storm (flood) events, if applicable
6. Basins, channels, residential canals, and canal networks ☐ Not applicable
- a. ☐ Maximum and mean tidal flow rates for ebb and flood along the channel
 - b. ☐ Baseline bathymetry for the existing channel and adjacent areas
 - c. ☐ Detailed descriptions of all areas of erosion and deposition, including existing deeps that can result in debris traps and zones of stratified water
7. Outfalls and intakes ☐ Not applicable

- a. ☐ Design maximum and normal operational flows for the outfall/intake and criteria used
- b. ☐ Dimensions and invert elevations for the proposed structures
- c. ☐ Details of the construction at the shoreline/waterline intercept

Part III: Plans

Provide plan and section view drawings that clearly show the facility, structure, or other works to be constructed, as applicable for the proposed project. Drawings must be signed and sealed by a Florida-registered professional, and must be of a scale sufficient to show the location and dimensions of all works. Use multiple sheets, if necessary. This information is **in addition to** that required under Section C (and others, if applicable) of the application.

1. All structures

Plan-view drawings should include the following, as applicable to the proposed activity:

- a. ☒ The location and orientation of all corresponding section, profile, and detail drawings
- b. ☒ Location of the riparian upland parcel or property boundary lines, if applicable
- c. ☒ Mean high water line (MHWL), ordinary high water line (OHWL), or safe upland line (SUL)
- d. ☒ Complete dimensions (length, width, height) of all structures, works, or other activities in, on, or over wetlands or surface waters, including existing structures within 100 feet of the proposed facility
- e. ☐ Separate and label square footage of structure over wetlands, open water, and uplands
- f. ☒ Existing and proposed water depths throughout project area – isobaths or spot elevations must be clearly labeled with depths depicted in relation to mean low water (MLW), controlled water elevation (in non-tidal waters where the water is fairly controlled), mean annual low water (in other non-tidal waters), or an established vertical datum
- g. ☒ Show proposed turbidity, erosion, and sedimentation control locations

Please refer to the Construction Plans in Appendix A.

Section- and profile-view drawings should include the following, as applicable to the proposed activity:

- a. ☒ Complete dimensions of all proposed structures, including elevation above mean high water or ordinary high water (as applicable)
- b. ☐ Water depth at mooring sites (mean low water, ordinary low water, or seasonal low water)
- c. ☒ In tidal areas – approximate tidal range

2. Piers, docks, marinas, boat ramps, and other docking or boating-related facilities ☐ Not applicable

Plan-view drawings should include the following, as applicable to the proposed activity:

- a. ☐ Show and label width of deck planks and plank spacing, or if grated decking is to be used, provide technical specifications
- b. ☐ Show the locations of all proposed sewage pumpouts, fuel pumps, and spill cleanup equipment
- c. ☐ Show the locations of all proposed informational signage (manatee awareness, fueling safety, etc.)
- d. ☐ Number each slip

- e. ☐ Width of waterway and the location of the navigation channel and water depths (in relation to MLW) and distance along the most direct route(s) between the facility and the nearest marked navigation channel(s)

Section- and profile-view drawings should include the following, as applicable to the proposed activity:

- a. ☐ Elevation of the structure above MHWL (tidal waters) or OHWL (non-tidal waters), and water depth at mooring sites and the bottom of the boat ramp (if applicable)
b. ☐ Structural details of all proposed pilings, anchors, moorings, buoys, and similar structures

3. Basins, channels, and other dredging and/or filling works or activities ☐ Not applicable

Plan-view drawings should include the following:

- a. ☐ The location, boundaries, and water depths (in relation to MLW) of all nearby navigation channels
b. ☐ The locations and detail drawings of all proposed navigational safety markers (signs, lights, etc.) for the structure(s)
c. ☐ The location, dimensions, and engineering specifications (including BMPs) for all proposed dredged material offloading, management, and disposal sites, if applicable

Section- and profile-view drawings should include the following, as applicable to the proposed activity:

- a. ☐ Representative section and/or profile views of all proposed structures that clearly show the existing and proposed depths, widths, and side slopes of all dredge and fill areas in relation to MHWL and MLWL (tidal waters), OHWL (non-tidal waters), and the submerged bottom, at representative locations

4. Groins, jetties, seawalls, revetments, and artificial reefs ☐ Not applicable

Plan-view drawings should include the following:

- a. ☐ The location and water depths (in relation to MLW) of all nearby navigation channels
b. ☐ The locations and detail drawings of all proposed navigational safety markers (signs, lights, etc.) for the structure(s)

Section- and profile-view drawings should include the following, as applicable to the proposed activity:

- a. ☐ Representative section and/or profile views of all proposed structures that clearly show the height, width and side slopes of each structure in relation to MHWL and MLWL (tidal waters), OHWL (non-tidal waters), and the submerged bottom, at representative locations

5. Bridges, causeways, culverted crossings, and other traversing works or structures ☐ Not applicable

Plan-view drawings should include the following, as applicable to the proposed activity:

- a. ☐ Width of waterway and the location, orientation, and water depths (in relation to MLW) of the navigation channel (if applicable)

- b. ☐ Dimensions and technical specifications of the road, decking, or other surface, including drainage features, if applicable

Section- and profile-view drawings should include the following, as applicable to the proposed activity:

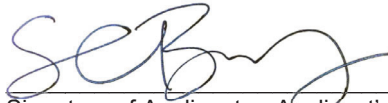
- a. ☐ Elevation of the structure above MHWL (tidal waters) or OHWL (non-tidal waters)
- b. ☐ Representative sections through the culvert or channel

A. By signing this application form, I am applying for the permit and any proprietary authorizations identified above, according to the supporting data and other incidental information filed with this application. I am familiar with the information contained in this application and represent that such information is true, complete and accurate. I understand this is an application and not a permit, and that work prior to approval is a violation. I understand that this application and any permit issued or proprietary authorization issued pursuant thereto does not relieve me of any obligation for obtaining any other required federal, state, water management district, or local permit prior to commencement of construction. I agree to operate and maintain the permitted system unless the permitting agency authorizes transfer of the permit to a different responsible operation and maintenance entity. 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.

Savanna Barry

Typed/Printed Name of Applicant or
Applicant's Authorized Agent

University of Florida
(Corporate Title if applicable)


Signature of Applicant or Applicant's
Authorized Agent

6/21/2019

Date

B. Certification of Sufficient Real Property Interest And Authorization For Staff To Access The Property:

I certify that:

☒ I possess sufficient real property interest in or control, as defined in Section 4.2.3 (d) of Applicant's Handbook Volume I, over the land upon which the activities described in this application are proposed and I have legal authority to grant permission to access those lands. I hereby grant permission, evidenced by my signature below, for staff of the Agency to access, inspect, and sample the lands and waters of the property as necessary for the review of the proposed works and other activities specified in this application, upon advance notice. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review, inspection, and/or sampling. Further, if a permit is granted, upon advance notice, I agree to provide entry to the project site for such agents or personnel with proper identification to determine compliance with permit conditions and permitted plans and specifications.

OR

☐ I represent an entity having the power of eminent domain and condemnation authority, and I/we shall make appropriate arrangements to enable staff of the Agency to legally access, inspect, and sample the property as described above.

Typed/Printed Name

Signature

Date

(Corporate Title if applicable)

C. Designation of Authorized Agent (If Applicable):

I hereby designate and authorize Univ. of FL to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirements which may be necessary to procure the permit or authorization indicated above. 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.

Shulz

B. Land Owner(S) (If Different or in Addition to Applicant)

☐ Check here if land owner is also a co-applicant

Last Name: Thompson First Name: Edith Middle Initial:
Title: Company:
Address: PO BOX 1127
City: DEFUNIAK SPRINGS State: FL Zip: 32435
Home Telephone: Work Telephone:
Cell Phone: 505-470-7311
E-mail Address: kschulzsfnm@gmail.com

B. Certification of Sufficient Real Property Interest And Authorization For Staff To Access The Property:

I certify that:

☒ I possess sufficient real property interest in or control, as defined in Section 4.2.3 (d) of Applicant's Handbook Volume I, over the land upon which the activities described in this application are proposed and I have legal authority to grant permission to access those lands. I hereby grant permission, evidenced by my signature below, for staff of the Agency to access, inspect, and sample the lands and waters of the property as necessary for the review of the proposed works and other activities specified in this application, upon advance notice. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review, inspection, and/or sampling. Further, if a permit is granted, upon advance notice, I agree to provide entry to the project site for such agents or personnel with proper identification to determine compliance with permit conditions and permitted plans and specifications.

OR

☐ I represent an entity having the power of eminent domain and condemnation authority, and I/we shall make appropriate arrangements to enable staff of the Agency to legally access, inspect, and sample the property as described above.

Edith S Thompson
Typed/Printed Name

Edith S Thompson
Signature

5/24/2019
Date

(Corporate Title if applicable)

C. Designation of Authorized Agent (If Applicable):

I hereby designate and authorize Univ. of FL to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirements which may be necessary to procure the permit or authorization indicated above. 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.

Form 62-330.060(1) - Application for Individual and Conceptual Approval Environmental Resource Permit and Authorization to Use State-Owned Submerged Lands
Incorporated by reference in subsection 62-330.060(1), F.A.C. (June 1, 2018)

Section A, Page 9 of 10

Edith S Thompson
Typed/Printed Name of Applicant

Edith S Thompson
Signature of Applicant

5/24/2019
Date

(Corporate Title if applicable)

Carlin

B. Land Owner(S) (If Different or in Addition to Applicant)

☐ Check here if land owner is also a co-applicant

Last Name: Carlin

First Name: Michael and Heather

Middle Initial:

Title:

Company:

Address: 8598 139TH LN

City: SEMINOLE

State: FL

Zip: 33776

Home Telephone:

Work Telephone:

Cell Phone: 727-480-4595

E-mail Address: carlininfo@aol.com

Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

B. Certification of Sufficient Real Property Interest And Authorization For Staff To Access The Property:

I certify that:

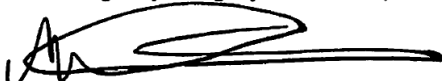
☒ I possess sufficient real property interest in or control, as defined in Section 4.2.3 (d) of Applicant's Handbook Volume I, over the land upon which the activities described in this application are proposed and I have legal authority to grant permission to access those lands. I hereby grant permission, evidenced by my signature below, for staff of the Agency to access, inspect, and sample the lands and waters of the property as necessary for the review of the proposed works and other activities specified in this application, upon advance notice. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review, inspection, and/or sampling. Further, if a permit is granted, upon advance notice, I agree to provide entry to the project site for such agents or personnel with proper identification to determine compliance with permit conditions and permitted plans and specifications.

OR

☐ I represent an entity having the power of eminent domain and condemnation authority, and I/we shall make appropriate arrangements to enable staff of the Agency to legally access, inspect, and sample the property as described above.

Michael Carlin

Typed/Printed Name


Signature

Date

6-19-19

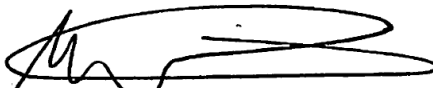
(Corporate Title if applicable)

C. Designation of Authorized Agent (If Applicable):

I hereby designate and authorize Univ. of FL to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirements which may be necessary to procure the permit or authorization indicated above. 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.

Michael Carlin

Typed/Printed Name of Applicant


Signature of Applicant

Date

6-19-19

(Corporate Title if applicable)

Griffen

B. Land Owner(S) (If Different or in Addition to Applicant)

☐ Check here if land owner is also a co-applicant

Last Name: Griffen First Name: Pope and Maggie Middle Initial:
Title: Company:
Address: 1389 S SHORE DR
City: FLEMING ISLAND State: FL Zip: 32003
Home Telephone: Work Telephone:
Cell Phone:
E-mail Address: maggiegriffin85@yahoo.com

Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

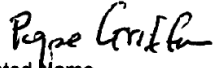
B. Certification of Sufficient Real Property Interest And Authorization For Staff To Access The Property:

I certify that:

☒ I possess sufficient real property interest in or control, as defined in Section 4.2.3 (d) of Applicant's Handbook Volume I, over the land upon which the activities described in this application are proposed and I have legal authority to grant permission to access those lands. I hereby grant permission, evidenced by my signature below, for staff of the Agency to access, inspect, and sample the lands and waters of the property as necessary for the review of the proposed works and other activities specified in this application, upon advance notice. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review, inspection, and/ or sampling. Further, if a permit is granted, upon advance notice, I agree to provide entry to the project site for such agents or personnel with proper identification to determine compliance with permit conditions and permitted plans and specifications.

OR

☐ I represent an entity having the power of eminent domain and condemnation authority, and I/we shall make appropriate arrangements to enable staff of the Agency to legally access, inspect, and sample the property as described above.

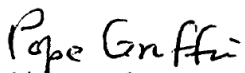

Typed/Printed Name
Margaret T. Griffin
(Corporate Title if applicable)


Signature
Margaret T. Griffin

5/31/19
Date

C. Designation of Authorized Agent (If Applicable):

I hereby designate and authorize Univ. of FL to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirements which may be necessary to procure the permit or authorization indicated above. 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.


Typed/Printed Name of Applicant
Margaret T. Griffin
(Corporate Title if applicable)


Signature of Applicant
Margaret T. Griffin

5/31/19
Date

Jackson

B. Land Owner(S) (If Different or in Addition to Applicant)

☐ Check here if land owner is also a co-applicant

Last Name: JACKSON First Name: BARBARA Middle Initial: K
Title: TRUSTEE - J.L. KIRK, JR. RESIDUAL TRUST Company:
Address: PO Box 291567
City: KERRVILLE, TX 78029-1567 State: TX Zip: 78029-1567
Home Telephone: Work Telephone: 214-908-5486
Cell Phone: 214-908-5486
E-mail Address: bejacks@wt.net

Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

B. Certification of Sufficient Real Property Interest And Authorization For Staff To Access The Property:

I certify that:

☒ I possess sufficient real property interest in or control, as defined in Section 4.2.3 (d) of Applicant's Handbook Volume I, over the land upon which the activities described in this application are proposed and I have legal authority to grant permission to access those lands. I hereby grant permission, evidenced by my signature below, for staff of the Agency to access, inspect, and sample the lands and waters of the property as necessary for the review of the proposed works and other activities specified in this application, upon advance notice. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review, inspection, and/or sampling. Further, if a permit is granted, upon advance notice, I agree to provide entry to the project site for such agents or personnel with proper identification to determine compliance with permit conditions and permitted plans and specifications.

OR

☐ I represent an entity having the power of eminent domain and condemnation authority, and I/we shall make appropriate arrangements to enable staff of the Agency to legally access, inspect, and sample the property as described above.

Typed/Printed Name

BARBARA KIRK JACKSON, PhD

Signature

[Signature]

Date

6/5/2019

(Corporate Title if applicable)

TRUSTEE JOSEPH L. KIRK, JR. RESIDUAL TRUST

C. Designation of Authorized Agent (If Applicable):

I hereby designate and authorize Univ. of FL to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirements which may be necessary to procure the permit or authorization indicated above. 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.

Form 62-330.060(1) - Application for Individual and Conceptual Approval Environmental Resource Permit and Authorization to Use

State-Owned Submerged Lands

Incorporated by reference in subsection 62-330.060(1), F.A.C. (June 1, 2018)

Section A, Page 9 of 10

Typed/Printed Name of Applicant

BARBARA KIRK JACKSON, PhD
(Corporate Title if applicable)

Signature of Applicant

[Signature]

Date

6/5/2019

TRUSTEE JOSEPH L. KIRK, JR. RESIDUAL TRUST
(Corporate Title if applicable)

Wilder

B. Land Owner(S) (If Different or in Addition to Applicant)

☐ Check here if land owner is also a co-applicant

Last Name: **WILDER** First Name: **BOBBY** Middle Initial: **J**
Title: _____ Company: _____
Address: **PO BOX 202**
City: **CEDAR KEY** State: **FL** Zip: **32625**
Home Telephone: **352-543-6946** Work Telephone: **352-489-4400**
Cell Phone: **352-812-7692**
E-mail Address: **AHMSEGP@AOL.COM**

Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

B. Certification of Sufficient Real Property Interest And Authorization For Staff To Access The Property:

I certify that:

☒ I possess sufficient real property interest in or control, as defined in Section 4.2.3 (d) of Applicant's Handbook Volume I, over the land upon which the activities described in this application are proposed and I have legal authority to grant permission to access those lands. I hereby grant permission, evidenced by my signature below, for staff of the Agency to access, inspect, and sample the lands and waters of the property as necessary for the review of the proposed works and other activities specified in this application, upon advance notice. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review, inspection, and/ or sampling. Further, if a permit is granted, upon advance notice, I agree to provide entry to the project site for such agents or personnel with proper identification to determine compliance with permit conditions and permitted plans and specifications.

OR

☐ I represent an entity having the power of eminent domain and condemnation authority, and I/we shall make appropriate arrangements to enable staff of the Agency to legally access, inspect, and sample the property as described above.

BOBBY J. WILDER
Typed/Printed Name


Signature

6-19-19
Date

(Corporate Title if applicable)

C. Designation of Authorized Agent (If Applicable):

I hereby designate and authorize Univ. of FL to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirements which may be necessary to procure the permit or authorization indicated above. 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.

BOBBY J. WILDER
Typed/Printed Name of Applicant


Signature of Applicant

6-19-19
Date

(Corporate Title if applicable)

King

B. Land Owner(S) (If Different or in Addition to Applicant)

☐ Check here if land owner is also a co-applicant

Last Name: King

First Name: Larry and Anna

Middle Initial: J and K

Title: owners

Company:

Address: 4750 NE 180 Avenue

City: Williston

State: Florida

Zip: 32696

Home Telephone: 352-528-2276

Work Telephone: Anna 352-528-5010

Cell Phone: L 352-339-1064 / A 352-339-0901

E-mail Address: cookieking1@gmail.com

Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

B. Certification of Sufficient Real Property Interest And Authorization For Staff To Access The Property:

I certify that:

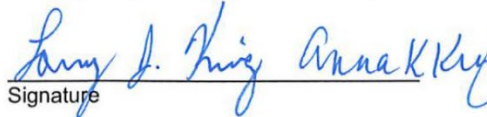
☒ I possess sufficient real property interest in or control, as defined in Section 4.2.3 (d) of Applicant's Handbook Volume I, over the land upon which the activities described in this application are proposed and I have legal authority to grant permission to access those lands. I hereby grant permission, evidenced by my signature below, for staff of the Agency to access, inspect, and sample the lands and waters of the property as necessary for the review of the proposed works and other activities specified in this application, upon advance notice. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review, inspection, and/or sampling. Further, if a permit is granted, upon advance notice, I agree to provide entry to the project site for such agents or personnel with proper identification to determine compliance with permit conditions and permitted plans and specifications.

OR

☐ I represent an entity having the power of eminent domain and condemnation authority, and I/we shall make appropriate arrangements to enable staff of the Agency to legally access, inspect, and sample the property as described above.

Larry J. King Anna K. King

Typed/Printed Name



Signature

Date 6-14-19

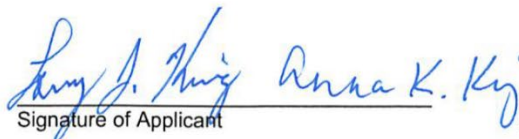
(Corporate Title if applicable)

C. Designation of Authorized Agent (If Applicable):

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Larry J. King / Anna K. King

Typed/Printed Name of Applicant



Signature of Applicant

Date

6-14-19

(Corporate Title if applicable)

Parker

B. Land Owner(S) (If Different or in Addition to Applicant)

☐ Check here if land owner is also a co-applicant

Last Name: Parker

First Name: Nancy

Middle Initial: N

Title:

Company:

Address: P.O. BOX 268

City: Cedar Key

State: FL

Zip: 32625

Home Telephone:

Work Telephone:

Cell Phone: 352-325-0860

Home

E-mail Address:

phileparker@bell-south.net 352-543-0963

Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

B. Certification of Sufficient Real Property Interest And Authorization For Staff To Access The Property:

I certify that:

☒ I possess sufficient real property interest in or control, as defined in Section 4.2.3 (d) of Applicant's Handbook Volume I, over the land upon which the activities described in this application are proposed and I have legal authority to grant permission to access those lands. I hereby grant permission, evidenced by my signature below, for staff of the Agency to access, inspect, and sample the lands and waters of the property as necessary for the review of the proposed works and other activities specified in this application, upon advance notice. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review, inspection, and/ or sampling. Further, if a permit is granted, upon advance notice, I agree to provide entry to the project site for such agents or personnel with proper identification to determine compliance with permit conditions and permitted plans and specifications.

OR

☐ I represent an entity having the power of eminent domain and condemnation authority, and I/we shall make appropriate arrangements to enable staff of the Agency to legally access, inspect, and sample the property as described above.

Typed/Printed Name

Nancy N. Parker

Signature

Nancy N. Parker

Date

6-17-19

(Corporate Title if applicable)

C. Designation of Authorized Agent (If Applicable):

I hereby designate and authorize Univ. of FL to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirements which may be necessary to procure the permit or authorization indicated above. 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.

Typed/Printed Name of Applicant

Signature of Applicant

Nancy N. Parker

Date

6-17-19

(Corporate Title if applicable)

Phillips

B. Land Owner(S) (If Different or in Addition to Applicant)

☐ Check here if land owner is also a co-applicant

Last Name: Phillips First Name: Alice Middle Initial:
Title: Company:
Address: PO BOX 701
City: CEDAR KEY State: FL Zip: 32625
Home Telephone: Work Telephone:
Cell Phone:
E-mail Address: alice.oakley47@gmail.com

Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

B. Certification of Sufficient Real Property Interest And Authorization For Staff To Access The Property:

I certify that:

☒ I possess sufficient real property interest in or control, as defined in Section 4.2.3 (d) of Applicant's Handbook Volume I, over the land upon which the activities described in this application are proposed and I have legal authority to grant permission to access those lands. I hereby grant permission, evidenced by my signature below, for staff of the Agency to access, inspect, and sample the lands and waters of the property as necessary for the review of the proposed works and other activities specified in this application, upon advance notice. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review, inspection, and/or sampling. Further, if a permit is granted, upon advance notice, I agree to provide entry to the project site for such agents or personnel with proper identification to determine compliance with permit conditions and permitted plans and specifications.

OR

I represent an entity having the power of eminent domain and condemnation authority, and I/we shall make appropriate arrangements to enable staff of the Agency to legally access, inspect, and sample the property as described above.

Typed/Printed Name
ALICE A PHILLIPS

Signature


Date *5/21/2019*

Corporate Title if applicable)

C. Designation of Authorized Agent (If Applicable):

I hereby designate and authorize Univ. of FL to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirements which may be necessary to procure the permit or authorization indicated above. 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.

Typed/Printed Name of Applicant
ALICE A PHILLIPS
(Corporate Title if applicable)

Signature of Applicant


5/21/2019
Date

Stubbs

B. Land Owner(S) (If Different or in Addition to Applicant)

☐ Check here if land owner is also a co-applicant

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Home Telephone: 352-376-5395 Work Telephone: 352-267-4653 Scott Stubbs cell
Cell Phone:
E-mail Address:

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B. Certification of Sufficient Real Property Interest And Authorization For Staff To Access The Property:

I certify that:

☒ I possess sufficient real property interest in or control, as defined in Section 4.2.3 (d) of Applicant's Handbook Volume I, over the land upon which the activities described in this application are proposed and I have legal authority to grant permission to access those lands. I hereby grant permission, evidenced by my signature below, for staff of the Agency to access, inspect, and sample the lands and waters of the property as necessary for the review of the proposed works and other activities specified in this application, upon advance notice. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review, inspection, and/or sampling. Further, if a permit is granted, upon advance notice, I agree to provide entry to the project site for such agents or personnel with proper identification to determine compliance with permit conditions and permitted plans and specifications.

OR

☐ I represent an entity having the power of eminent domain and condemnation authority, and I/we shall make appropriate arrangements to enable staff of the Agency to legally access, inspect, and sample the property as described above.

Betty R Stubbs Betty R Stubbs 6-2-2019
Typed/Printed Name Signature Date

(Corporate Title if applicable)

C. Designation of Authorized Agent (If Applicable):

I hereby designate and authorize Univ. of FL to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirements which may be necessary to procure the permit or authorization indicated above. 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.

Betty R Stubbs Betty R Stubbs 6-2-2019
Typed/Printed Name of Applicant Signature of Applicant Date

(Corporate Title if applicable) f

PLEASE NOTE US MAIL ADDRESS:
TIMOTHY E. MOREY
8909 SW 61 AVE
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☐ Check here if land owner is also a co-applicant

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C. Operation and Maintenance Entity(see Applicant's Handbook I, Section 12.3)

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D. Co-Applicant (If Different or In Addition to Applicant and Owner)

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Home Telephone:
Cell Phone:
E-mail Address:

Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

E. Registered Professional Consultant

☒ This is a contact person for additional information

Last Name: McMorrow First Name: Shannon Middle Initial:
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Cell Phone: 352-333-3634
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F. Environmental Consultant

Form 62-330.060(1) - Application for Individual and Conceptual Approval Environmental Resource Permit and Authorization to Use
State-Owned Submerged Lands
Incorporated by reference in subsection 62-330.060(1), F.A.C. (June 1, 2018)

Section A, Page 7 of 10

☒ This is a contact person for additional information

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First Name: Sean
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State: FL
Work Telephone: 352-332-3318

Middle Initial:
Zip: 32669

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G. Agent Authorized to Secure Permit (If Different from Consultant)

Last Name: N/A
Title:
Address:
City:
Home Telephone:
Cell Phone:
E-mail Address:

First Name:
Company:
State:
Work Telephone:

Middle Initial:
Zip:

Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

If necessary, please add additional pages for other contacts and property owners related to this project.

H. Real Property Interest

- a. Permits are only issued to entities having sufficient real property interest as described in Section 4.2.3(d) of Applicant's Handbook Volume I. **Please attach evidence of the applicant's real property interest over the land upon which the activities subject to the application will be conducted, including mitigation areas (if applicable).** Refer to Sections 4.2.3(d)-(e) for sufficient real property interest documentation.
- b. For activities that require a recorded notice in accordance with rule 62-330.090(7), F.A.C., please provide either the complete legal description of the property or a copy of the pages of the document recorded in the public records that contains the complete legal description. If the land upon which the proposed activities are to occur is not owned by the applicant, the applicant must also provide copies of any right-of-way, leases, easements, or other legal agreement which authorizes the applicant to perform the activities on those lands.

Part 4: Signatures and Authorization to Access Property

Instructions: For multiple applicants please provide a separate Part 4 for each applicant. For corporations, the application must be signed by a person authorized to bind the corporation. A person who has sufficient real property interest (see Section 4.2.3(d) of Applicant's Handbook Volume I) is required in (B) to authorize access to the property, except when the applicant has the power of eminent domain.

A. By signing this application form, I am applying for the permit and any proprietary authorizations identified above, according to the supporting data and other incidental information filed with this application. I am familiar with the information contained in this application and represent that such information is true, complete and accurate. I understand this is an application and not a permit, and that work prior to approval is a violation. I understand that this application and any permit issued or proprietary authorization issued pursuant thereto does not relieve me of any obligation for obtaining any other required federal, state, water management district, or local permit prior to commencement of construction. I agree to operate and maintain the permitted system unless the permitting agency authorizes transfer of the permit to a different responsible operation and maintenance entity. 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.

Savanna Barry, University of Florida

Typed/Printed Name of Applicant or
Applicant's Authorized Agent

Timothy E. Morey
Signature of Applicant or Applicant's
Authorized Agent

6/20/2019
Date

(Corporate Title if applicable)

B. Certification of Sufficient Real Property Interest And Authorization For Staff To Access The Property:

I certify that:

☒ I possess sufficient real property interest in or control, as defined in Section 4.2.3 (d) of Applicant's Handbook Volume I, over the land upon which the activities described in this application are proposed and I have legal authority to grant permission to access those lands. I hereby grant permission, evidenced by my signature below, for staff of the Agency to access, inspect, and sample the lands and waters of the property as necessary for the review of the proposed works and other activities specified in this application, upon advance notice. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review, inspection, and/ or sampling. Further, if a permit is granted, upon advance notice, I agree to provide entry to the project site for such agents or personnel with proper identification to determine compliance with permit conditions and permitted plans and specifications.

OR

☐ I represent an entity having the power of eminent domain and condemnation authority, and I/we shall make appropriate arrangements to enable staff of the Agency to legally access, inspect, and sample the property as described above.

TIMOTHY E. MOREY
Typed/Printed Name

Timothy E. Morey
Signature

6/20/2019
Date

(Corporate Title if applicable)

C. Designation of Authorized Agent (If Applicable):

I hereby designate and authorize Univ. of FL to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirements which may be necessary to procure the permit or authorization indicated above. 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.

TIMOTHY E. MURPHY
Typed/Printed Name of Applicant

Timothy E. Murphy
Signature of Applicant

6/20/2019
Date

(Corporate Title if applicable)



Airport Road Shoreline Restoration Project

Project Narrative

Prepared in collaboration with:

University of Florida

UF|IFAS Nature Coast Biological Station
552 1st Street, P.O. Box 878
Cedar Key, FL 32625

Prepared by:

Wood Environment & Infrastructure Solutions, Inc.

404 SW 140th Terrace
Gainesville, FL 32601

A handwritten signature in blue ink that reads 'Sean King'.

Prepared by:
Sean King, PhD, PE
Senior Engineer

A handwritten signature in blue ink that appears to read 'Shannon McMorrow'.

Reviewed by:
Shannon McMorrow
Senior Scientist

Wood Project No.: 6063190317

University No.: 1900681316

June 2019

Airport Road Shoreline Restoration Project

Project Narrative

Cedar Key, Florida

Project # 1900681316 | University of Florida

Prepared in collaboration with:

University of Florida

UF/IFAS Nature Coast Biological Station, 552 1st Street, P.O. Box 878, Cedar Key, FL 32625

Prepared by:

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404 SW 140th Terrace

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June 2019

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List of acronyms

DHR	Division of Historical Resources
EFH	Essential Fish Habitat
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FLUCCS	Florida Land Use Cover Classification System
FNAI	Florida Natural Areas Inventory
ft	feet
MHHW	Mean Higher High Water
MHWL	Mean High Water Line
MLLW	Mean Lower Low Water

NAVD88	North American Vertical Datum of 1988
NOAA	National Oceanic and Atmospheric Administration
NMFS	National Marine Fisheries
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
SRWMD	Suwannee River Water Management District
UF	University of Florida
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
Wood	Wood Environment & Infrastructure Solutions, Inc.

1.0 Introduction

1.1 Purpose

Wood Environment & Infrastructure Solutions, Inc. (Wood) was authorized by the University of Florida (UF) under Purchase Order Number 1900681316 to develop project documents and coordinate permitting activities for a shoreline restoration project along Airport Road in Cedar Key, Florida.

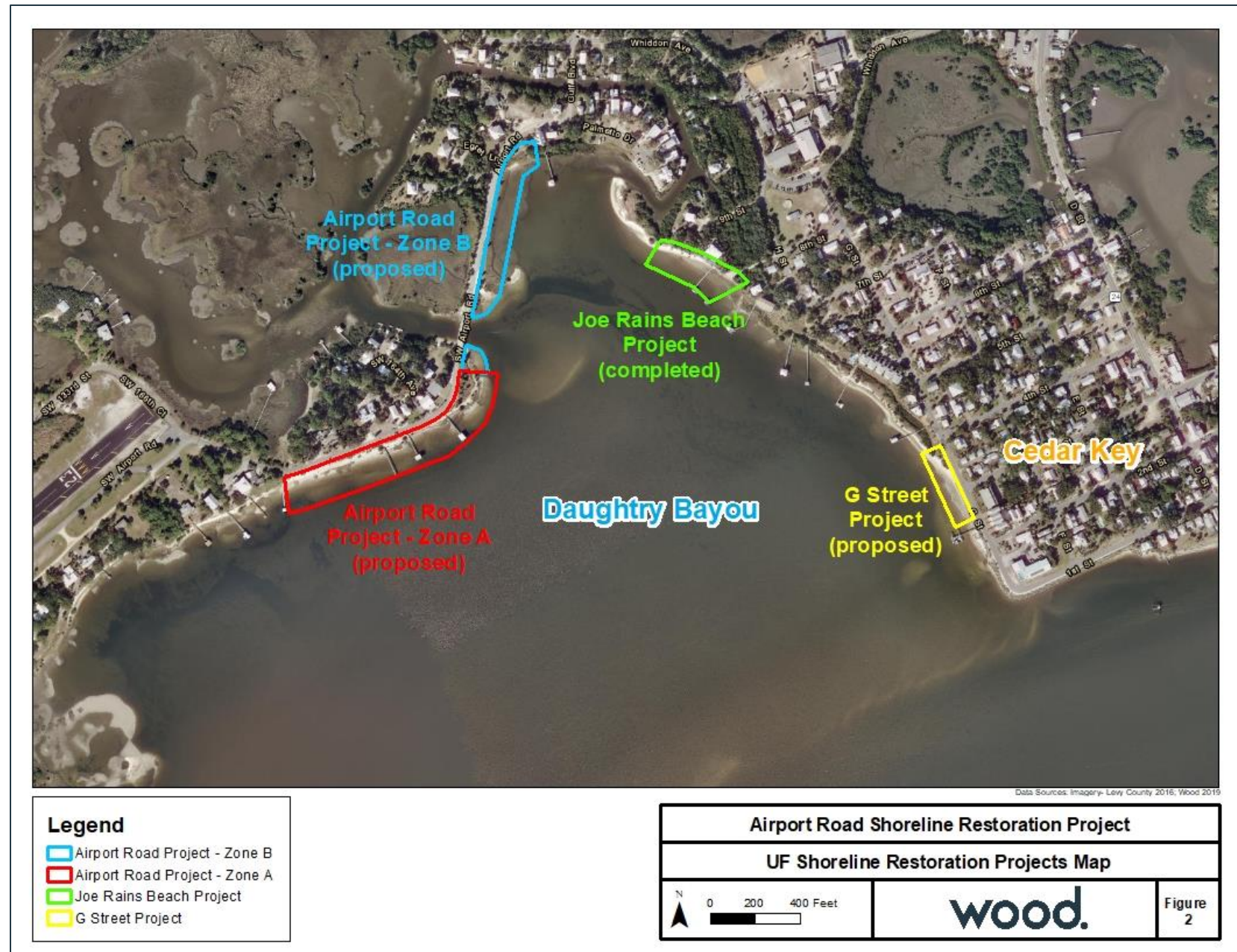
The shoreline along Airport Road has eroded over time leading to loss of wetland and other estuarine habitats. In 2016 Hurricane Hermine caused further erosion along this shoreline and significant damage to Airport Road. This project will restore shoreline habitats and improve erosion control by filling and regrading the shore in eroded areas, planting dune and marsh vegetation, and installing oyster reef breakwaters.

1.2 Background

Shoreline erosion is an ongoing issue in many developed coastal areas with impacts to private property, public infrastructure, and fish and wildlife habitats. The concept of 'living shorelines' is an emerging restoration approach that uses natural materials such as marsh vegetation and oyster reefs to stabilize shorelines and enhance estuarine habitats (Bilkovic et al. 2017). In order to address shoreline erosion along Airport Road, UF is proposing to implement a living shoreline project along approximately 2,000 feet of shoreline that was damaged by Hurricane Hermine in 2016 (Figure 1). The project site is split into two zones (Zone A and Zone B). For Zone A, this restoration project will place clean fill material along this shoreline to create appropriate elevations relative to water levels for dune and marsh vegetation communities. Oyster breakwater structures will be installed parallel to the shoreline for additional erosion protection and habitat improvement. For Zone B, the project will include planting dune and marsh vegetation on the existing shoreline and clean fill placement in a small upland area to create appropriate elevations for additional dune plantings.

Researchers from UF have been working with local stakeholders since 2013 to plan and implement living shoreline restoration projects along Daughtry Bayou in Cedar Key, Florida (Figure 2). The first project was at Joe Rains Beach which is located just east of the proposed Airport Road project. The Joe Rains Beach project focused on an approximately 400-foot section of shoreline that had experienced significant erosion over recent decades. The shoreline restoration project was modeled after a natural marsh and oyster area immediately to the southeast of the project site, which was observed to dissipate wave energy and inhibit erosion during tropical storm conditions. Since the Joe Raines Beach project was successfully implemented in 2017, UF researchers have held several public meetings with local stakeholders to develop two additional shoreline restoration projects in Cedar Key: along G Street and Airport Road. This narrative is for the Airport Road project.





2.0 Project Narrative

The proposed restoration project along Airport Road will use suitable fill material to recontour the shoreline, plant dune and marsh vegetation, and install oyster reef breakwater structures. The combination of a vegetated shoreline and oyster reef breakwaters is expected to significantly reduce erosion and improve the stability of the shoreline in this area while restoring estuarine habitats.

Aerial photography shows the existing site conditions as of February 2016 (Figures 3A and 3B). Patches of marsh vegetation, several mangroves, and low density oyster beds are the primary habitats remaining along the shoreline (see the following Ecological and Cultural Resources section for more information about the existing habitats). Since this aerial photograph was taken, rock riprap material has been placed along the southeast side of Airport Road within the northern portion of the project site. The riprap placement and related construction activities have modified the shoreline elevations and reduced the extent of marsh vegetation in this area.

UF developed a conceptual plan for Zone A of the proposed Airport Road shoreline restoration project in collaboration with stakeholders at several public meetings (Figure 4). The plan incorporates the stakeholders support for filling and regrading the shoreline to create appropriate elevations for dune and marsh vegetation. An area on the western side of the project site will be left unvegetated as an open beach area to launch kayaks. Oyster reef breakwater structures will be installed parallel to the shoreline. UF also developed plans for a smaller project (Zone B) in collaboration with stakeholders.

See construction plans for details regarding fill material placement, planting zones, oyster reef breakwater structure placement, and sediment and erosion controls (Appendix A).

2.1 Dune and Marsh Communities

Observations from the Joe Rains Beach project indicated that elevations between approximately -0.25 ft and 1.5 ft (NAVD88) supported a low marsh community dominated by smooth cordgrass (*Spartina alterniflora*). Elevations above 1.5 ft supported a high marsh community dominated by salt hay cordgrass (*Spartina patens*) and elevations below -0.25 ft were primarily oyster and mud flats.

The design elevations for the low marsh community will be from 0 ft to 1.5 ft (NAVD88) and the high marsh community will be from 1.5 ft to 4.0 ft. These areas will be planted with smooth cordgrass and salt hay cordgrass, respectively. Elevations greater than 4.0 ft will be planted with dune species, primarily sea oats (*Uniola paniculata*). For Zone A, the proposed shoreline recontouring will result in approximately 0.26 acres of low marsh, 0.37 acres of high marsh, and 0.37 acres of dune vegetation communities along the shoreline. For Zone B, proposed fill placement in an upland area will result in 0.05 acres of dune vegetation and marsh vegetation will be planted at existing grade in bare areas with appropriate elevations.

Suitable sediment fill material will be used to recontour the shoreline and create appropriate elevations for shoreline vegetation communities. The total volume of proposed sediment fill material will be up to 1,800 cubic yards, with up to 1,300 cubic yards placed below the mean high water level (MHWL; 1.21 feet NAVD88). See Appendix B for the sediment compatibility analysis.

Existing marsh vegetation will either be avoided during fill placement or harvested prior to fill placement and replanted at appropriate elevations following fill placement. Existing mangroves above 2 ft tall that are anticipated to survive the proposed fill placement will be left in place. Existing mangroves less than 2 ft tall

or those that are not anticipated to survive the proposed fill placement will be harvested and relocated (as approved by the Florida Department of Environmental Protection (FDEP)). New mangroves that colonize the restored shoreline post-construction will be managed according to the mangrove management plan. See the proposed mangrove management plan for more details (Appendix C).

2.2 Oyster Reef Structures

Oyster reef breakwaters will be installed at or slightly above the mean lower low water (MLLW) elevation of -2.26 ft (NAVD88). The breakwater structures will consist of Pallet Balls manufactured by Reef Innovations Inc. Each breakwater structure will include 2 rows of 12 Pallet Balls (24 total). Each Pallet Ball is 4 ft in diameter and 2.75 ft tall. Each breakwater structure will be approximately 50 ft long and 8 ft wide. The units will be spaced approximately 10 ft apart, except near the kayak launch which will have a 20 ft gap. Signage will be installed to mark the kayak launch area.

There will be 16 breakwater structures that include 384 Pallet Balls total. The volume of each Pallet Ball is 0.33 cubic yards. The total fill volume for the proposed Pallet Balls will be up to 130 cubic yards.

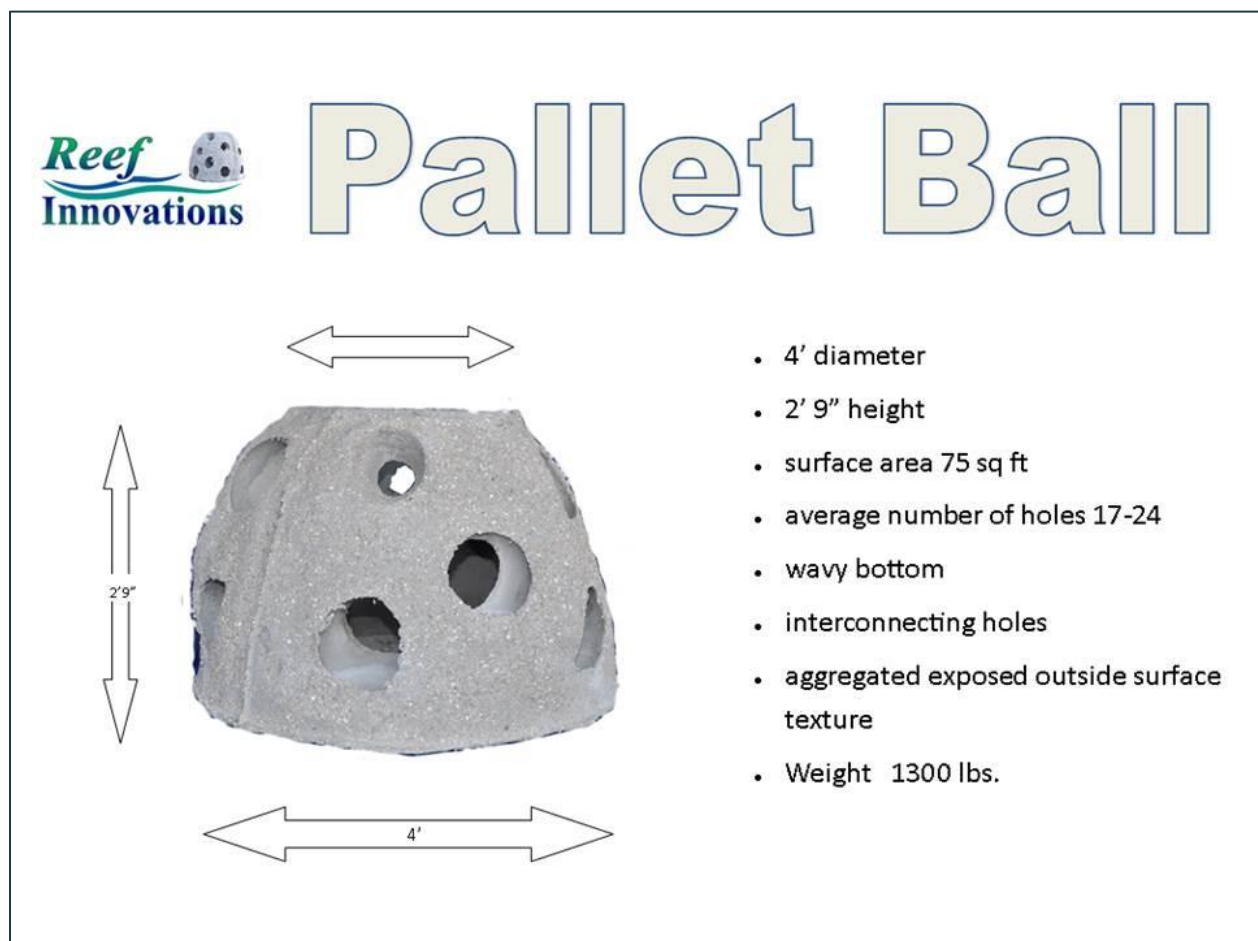






Figure 3B. Aerial Photography Map – Zone B (developed by UF)

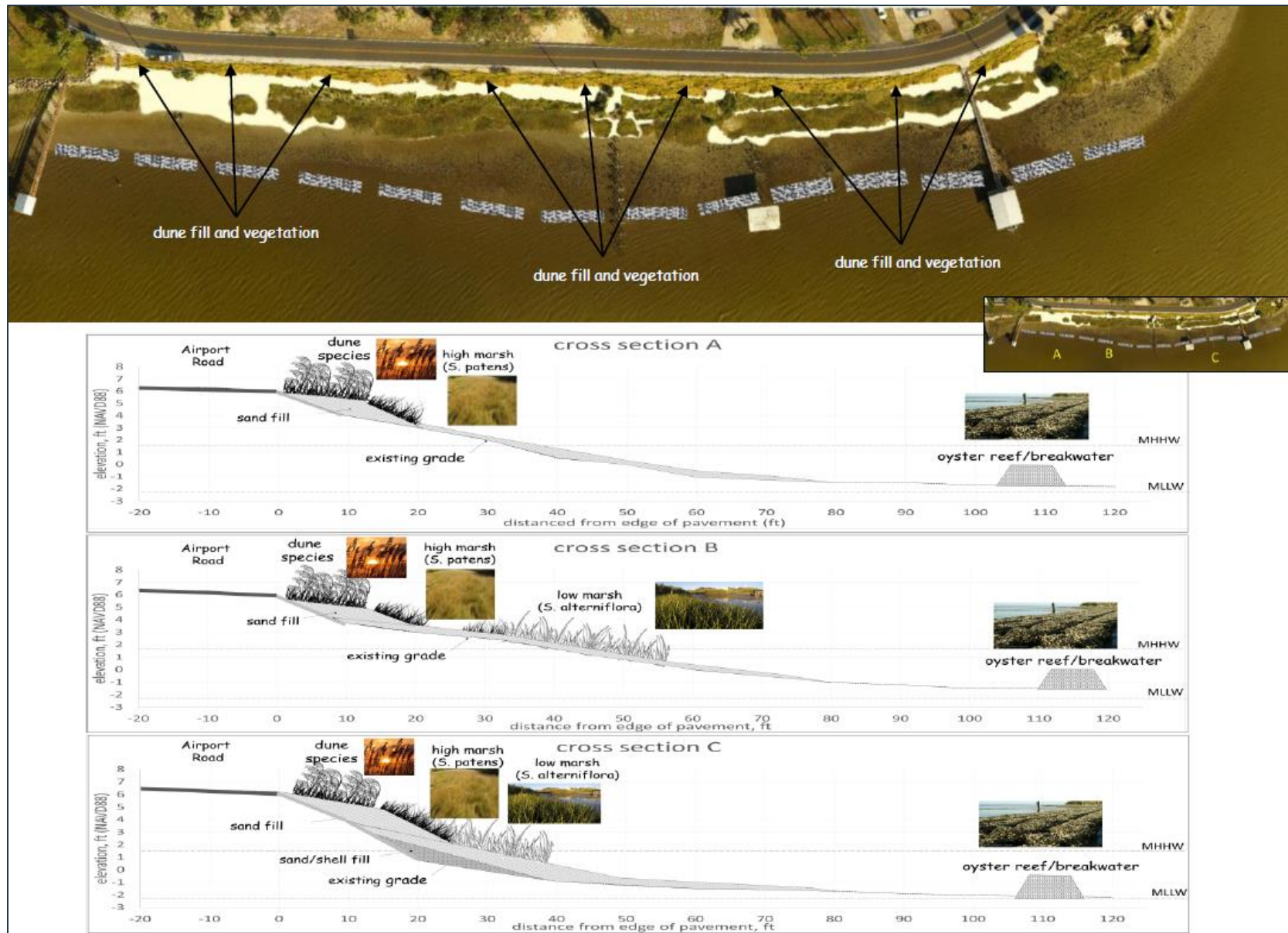


Figure 4. Conceptual Plan with Cross-Sections for the Airport Road Shoreline Restoration Project (developed by UF)

3.0 Ecological and Cultural Resources

3.1 Existing Ecological Resources

Coastal wetlands in Cedar Key consist of salt marshes and mangrove swamps. Salt marsh and mangrove swamp wetland ecosystems provide habitat for both terrestrial and aquatic flora and fauna. Fish and birds predominantly rely on coastal wetlands as nurseries for their young. Furthermore, wetland ecosystems assist in the improvement of water quality by removing excess nutrients and pollutants from stormwater runoff through retention in wetland soils and sequestration in wetland plants (Mitsch 2000).

Prior to performing onsite assessments, Wood scientists performed a desktop survey of Zone A and UF scientists performed a desktop survey of Zone B. According to the Florida Land Cover Classification System (FLUCCS) land use map developed by the Suwannee River Water Management District (SRWMD) in 2014 the project site is classified as low density residential, County maintained road, and Gulf of Mexico (Figures 5A and 5B). According to the United States Fish and Wildlife Service's (USFWS) National Wetlands Inventory (NWI) map from 2016, the project site consists of estuarine and marine wetland and estuarine and marine deep water (Figures 6A and 6B). The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soils map from 2012 classifies the project site soils as Zolfo sand, Wulfert muck, and Immokalee fine sand, which are hydric soils (Figures 7A and 7B).

Site Characterization

Ecological resources for Zone A were assessed by Wood scientists on January 24, 2019, via pedestrian survey. Wood scientists mapped the extent of the ecological resources using a handheld Trimble GPS unit with sub-meter accuracy. Ecological resources included oyster beds, mangroves, mud flats and marsh vegetation (Figure 8A). UF scientists assessed Zone B in June 2019 (Figure 8B)

The entire project site is exposed during low tide, therefore, seagrass presence is highly unlikely. During the January 24, 2019 survey, Wood scientists confirmed that no seagrasses were present within the project site.

Zone A contains multiple patches of native salt marsh. Native salt marsh vegetation included smooth cordgrass, salt hay cordgrass, Christmas berry (*Lycium carolinianum*), glasswort (*Salicornia virginica*), and saltweed (*Philoxerus vermicularis*). Black mangroves (*Avicennia germinans*) were distributed throughout the shoreline, most densely located in the eastern portion of the project site. A low-density oyster bar extends almost the entire length of the site, becoming discontinuous towards the westernmost dock. The estimated density of live oysters was approximately 15-20%. Based on review of aerial photographs and discussion with local stakeholders, the oyster beds within the project site have recently developed and were not present last year. New rip-rap has been added by the Florida Department of Transportation (FDOT) along the road on the east side of the project site.

UF scientists performed a survey for epibenthos within Zone A site during low tide between February and April 2019. Scientists walked thirty-one 30-meter long transects oriented perpendicular to the shoreline. Transects were spaced 10 meters apart. Field work was conducted at low tide when the seabed was widely exposed. Along each transect line, a 1-meter wide belt sample survey was conducted from the start of the transect line to the high tide line. All species of vegetation located in the belt sample were recorded. A quarter meter quadrat was placed at the end of the belt sample (the start of the intertidal zone) and all floral and faunal species located in the quadrat were identified. This quadrat sample was done every 5 meters until the end of the transect line. If the last quadrat was more than 2 meters from the end of the

transect, then a final quadrat sample was taken at the 30-meter mark. Any species that could not be readily identified in the field were collected and later identified in the laboratory. A list of observed species is presented in Appendix D.

Threatened and Endangered Species Assessment

Wood scientists used multiple methods to assess protected species and their critical habitat. First, a desktop survey was completed to identify whether the project site falls within critical habitat reported for listed species and if any listed species are documented to occur or likely to occur in the vicinity of the project site utilizing the Florida Natural Areas Inventory (FNAI) Biodiversity Matrix (2019). If the project site fell within reported critical habitat, then it was assumed that the species might occur in the project site. Second, Wood scientists looked for signs of protected species (scat, burrows, calls, etc.) while conducting the ecological resources assessment. In addition, field notes included information on the actual habitat where collected. That information can be evaluated in relation to habitat requirements of the potential protected species in the area.

The FNAI Biodiversity Matrix website (2019) was consulted to determine if any listed or rare species are likely to occur in the vicinity of the project site. This search revealed that no state or federally listed species are documented or likely to occur in the vicinity of the project site (FNAI 2019). The project site is not within any identified critical habitat (USFWS 2019; NOAA Fisheries 2019).

Essential Fish Habitat Assessment

Essential Fish Habitat (EFH) is defined as those waters and substrates necessary to support fish for spawning, breeding, feeding, or growth to maturity. The concept of EFH was established in 1996 with the reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act, which requires the cooperation of NOAA Fisheries, eight regional Fishery Management Councils, federal and state agencies, resource users, and others to protect, conserve, and enhance EFH. The Gulf of Mexico Fishery Management Council is responsible for the conservation and management of fish stocks within the federal waters of the Gulf of Mexico. The Gulf of Mexico Fisheries Management Council is responsible for the development of fishery management plans and amendments to ensure sustainable fisheries. Implementation of the regulations, including federal requirements for permits for some fisheries, is the responsibility of National Oceanic and Atmospheric Administration (NOAA) Fisheries.

Wood scientists identified fish habitats present within the project site during the ecological resources assessment. Based on literature review and on-site investigation, three habitats in the vicinity of the project site are classified as EFH (mangrove, soft bottom, and oyster reefs). The literature review identified species within the following groups: reef fish, coastal migratory pelagics, and shrimp; as species that may utilize the project site (NMFS, 2015).

The proposed project will not result in modification to existing EFH. Impacts on mangroves and oyster beds will be avoided. In addition, the proposed project is intended to increase salt marsh and oyster bed habitat. During construction, sediment control best management practices including installation of turbidity curtains and silt fencing will be utilized to protect surface waters; therefore, long-term impacts to the managed species in the project vicinity would be minimized. Lifecycle functions will not be affected by the proposed activities.

Avoidance, Minimization and Protection Measures

The proposed project will avoid areas of existing ecological resources including mangroves and is intended to expand the extent of the salt marsh vegetation along the shoreline. Any living oysters and native dune and marsh vegetation located within the proposed footprint of fill will be harvested prior to construction and replaced in appropriate locations following construction. Existing mangroves above 2 ft tall that are anticipated to survive the proposed fill placement will be left in place. Existing mangroves less than 2 ft tall or those that are not anticipated to survive the proposed fill placement will be harvested and relocated (as approved by FDEP) (Appendix C). Therefore, the proposed project will not permanently impact any of the existing ecological resources within the project site.

During construction, erosion control best management practices will be implemented including the use of floating and staked turbidity curtains and silt fencing to protect the adjacent surface waters. See construction plans for additional details on sediment and erosion controls (Appendix A).

Standard Manatee Conditions for In-Water Work (USFWS 2011) and the Sea Turtle and Smalltooth Sawfish Construction Conditions (NMFS 2006) will be implemented during construction.





Figure 5B. Existing Land Use Map – Zone B (developed by UF)

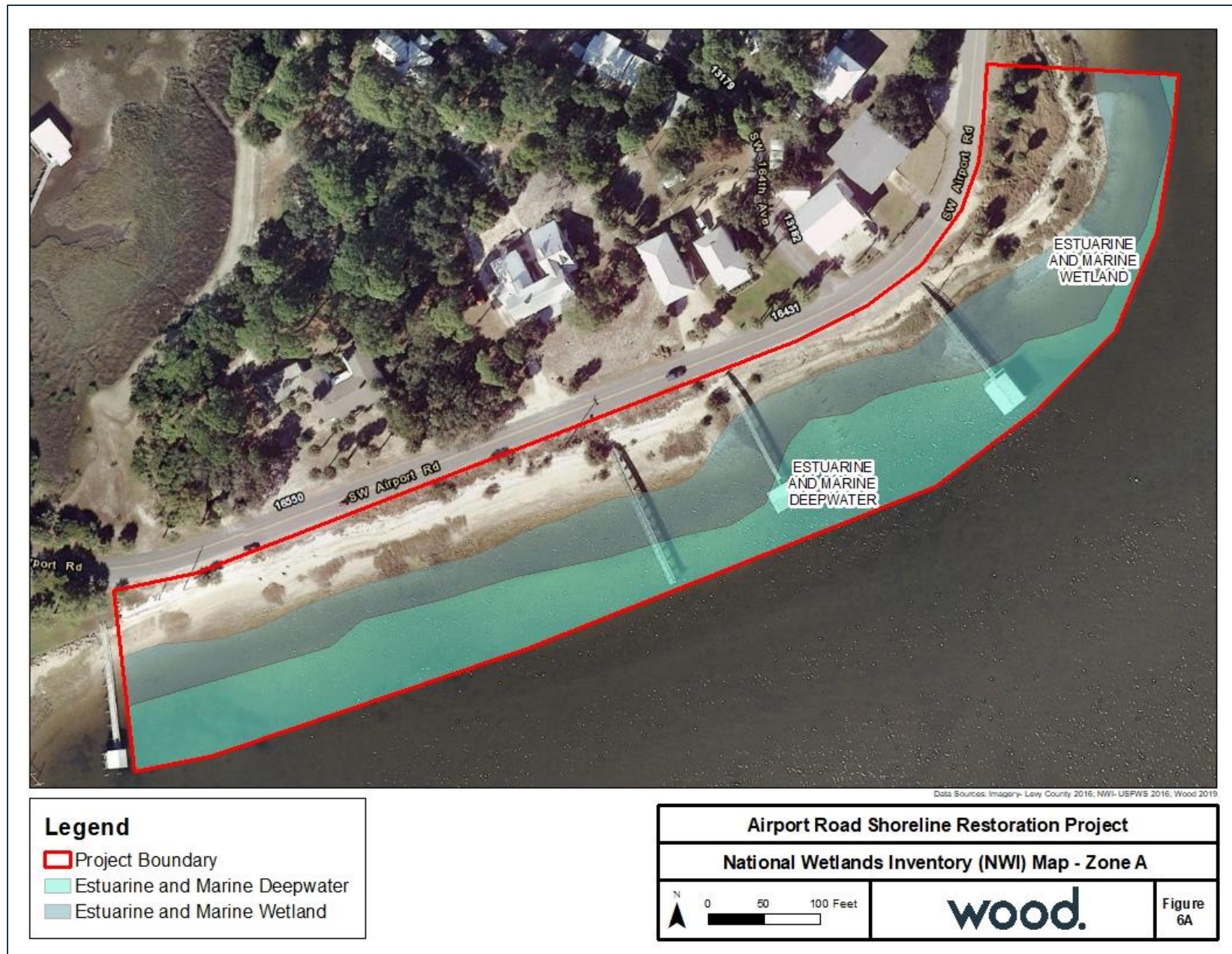




Figure 6B. National Wetlands Inventory (NWI) Map – Zone B (developed by UF)





Figure 7B. NRCS Soils Map – Zone B (developed by UF)



Airport Road Shoreline Restoration Project – Zone B

Ecological Resources and Vegetation Cover Map

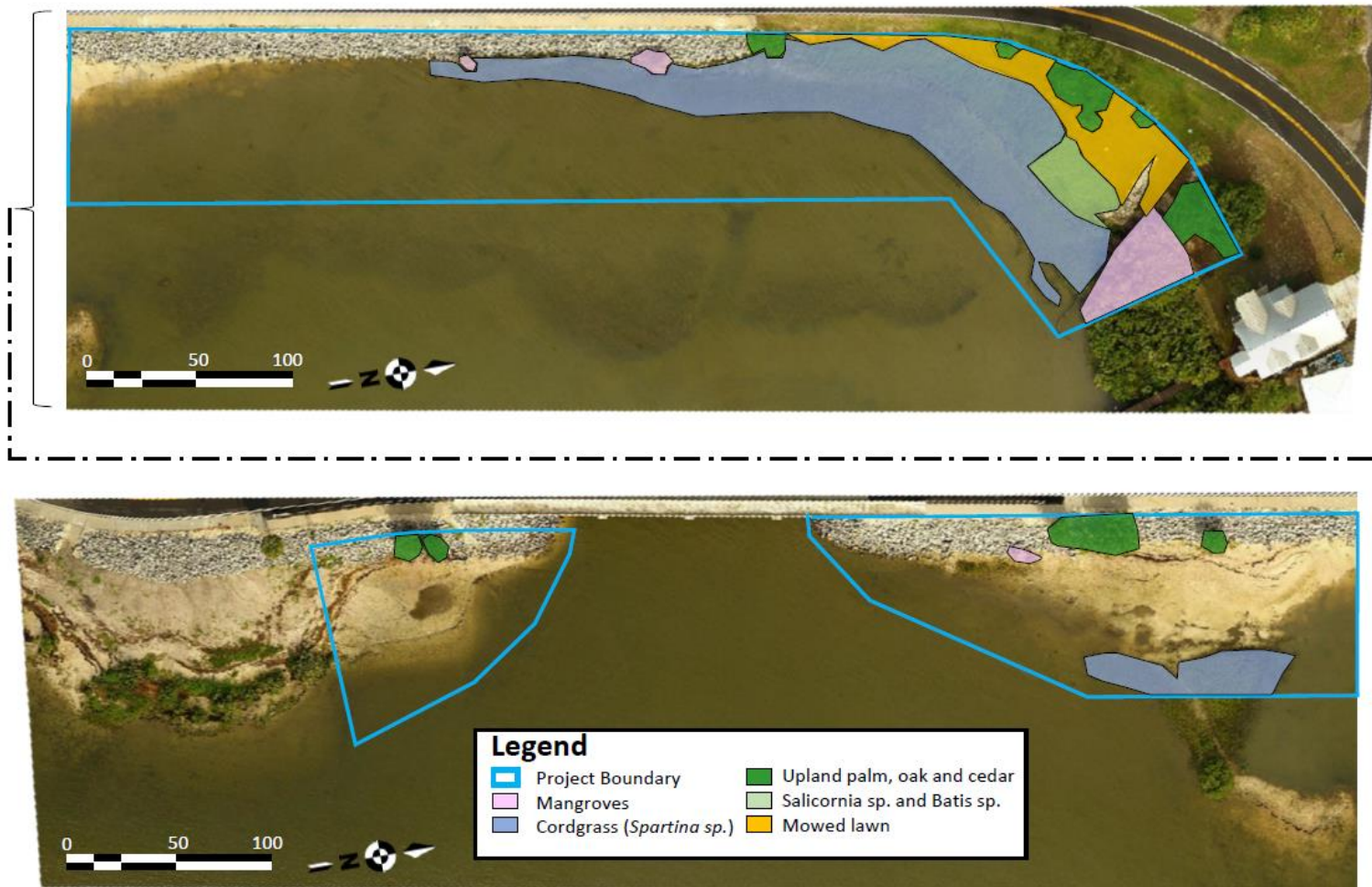


Figure 8B. Ecological Resources Map – Zone B (developed by UF)

3.2 Cultural Resources

The Florida Division of Historical Resources (DHR) reviews development projects to ensure compliance with state and federal preservation laws mandating consideration of a project's impact on historic and archaeological resources.

DHR compliance department confirmed that the proposed project is unlikely to affect historic properties on March 13, 2019 (Appendix E).

4.0 Permitting Requirements

Based on the details of the proposed restoration project, Wood anticipates this work would require a United States Army Corps of Engineers (USACE) Standard Permit and a Environmental Resource Permit through the FDEP. Construction is anticipated to begin at the end of 2019 or beginning of 2020. This section includes information to address the USACE and FDEP permitting requirements. FDEP and USACE must ensure the proposed project is not contrary to the public interest. FDEP and USACE have similar, yet different, public interest tests. The following sections address both the state (Section 4.1) and federal (Section 4.2) public interest concerns. Furthermore, USACE must ensure that the proposed project is the least environmentally damaging alternative; that still satisfies the objectives of the project. Section 4.3 presents an alternatives analysis to address this concern.

4.1 Florida State Public Interest Test:

(a) Whether the activity will adversely affect the public health, safety, or welfare or the property of others;

Water Quality

The proposed project will have a beneficial effect on water quality through stabilization of the shoreline and reduced erosion, as well as water filtration by shellfish which are anticipated to colonize the proposed structures. Best management practices will be implemented to ensure applicable water quality requirements not be violated during construction.

Hazardous/Solid Waste

The proposed project will not generate hazardous materials or hazardous waste and will not affect the transfer, storage, or transportation of pollutants.

Shellfish Harvesting

The proposed project is anticipated to have beneficial effect to shellfish harvesting. The proposed living shoreline will provide desirable habitat for shellfish species and improve water quality.

Flooding/Water Quantity

The proposed project is not anticipated to have any effects to flooding. The placement of fill material and vegetation along the shoreline will help protect the shoreline and road from future erosion and flooding.

Environmental Impact to Off-site Property

The proposed project is being developed in coordination with the property owners. The property owners are co-applicants on this permit.

(b) Whether the activity will adversely affect the conservation of fish and wildlife, including endangered or threatened species, or their habitats;

The proposed project is anticipated to have a beneficial effect on the conservation of fish and wildlife, including endangered and threatened species, or their habitats. Living shorelines protect, restore and enhance natural shoreline habitat and maintain coastal processes. Shorebirds and water birds are more abundant and diverse on unarmoured segments of coastline than armoured sections. Florida Fish and Wildlife Conservation Commission's (FWC) Coastal Wildlife Conservation Initiative (CWCI) is actively supporting and promoting the installation of living shorelines rather than armoured shoreline stabilization for their benefits to fish and wildlife.

(c) Whether the activity will adversely affect navigation or the flow of water or cause harmful erosion or shoaling;

The proposed project is anticipated to have no adverse effects to navigation or the flow of water. All work will be construction from the shore. Furthermore, beneficial effects to shoreline erosion are anticipated. Airport Road has experienced significant erosion over recent decades. The shoreline restoration project was modeled after natural marsh and oyster areas around Cedar Key, which were observed to dissipate wave energy and inhibit erosion during tropical storm conditions.

A kayak launch will be installed within an open area on the west side of the project site. There will be a larger gap between the oyster reef breakwater structures in this area to allow for safe kayak access. Signage will be installed to mark the kayak launch area.

(d) Whether the activity will adversely affect the fishing or recreational values or marine productivity in the vicinity of the activity;

The proposed project is anticipated to have a beneficial effect on the conservation of fish and wildlife, or their habitats. Living shorelines protect, restore and enhance natural shoreline habitat and maintain coastal processes. Shorebirds and water birds are more abundant and diverse on unarmoured segments of coastline than armoured sections. Beneficial effects to recreational values are anticipated. The proposed project is intended to have a beneficial effect on habitat; therefore, it is anticipated that the proposed project will benefit recreation including fishing and birding. Furthermore, a beach and kayak launch are proposed as part of the project, which will facilitate recreational use and access.

(e) Whether the activity will be of a temporary or permanent nature;

The proposed project is permanent in nature.

(f) Whether the activity will adversely affect or will enhance significant historical and archaeological resources under the provisions of Section 267.061, F.S.;

The proposed project is not likely to adversely affect significant historical and archaeological resources. DHR and SHPO have concurred with this assessment. Furthermore, any resources discovered during construction will be immediately reported.

(g) The current condition and relative value of functions being performed by areas affected by the proposed activity.

The proposed project is anticipated to have beneficial effects on the relative value of functions being performed by the area. The current functions being provided by the area include limited shoreline protection, minimal above water habitat, recreation uses such as bird watching, and kayak access. The proposed project is intended to improve all of the current functions. It is anticipated that creating a living shoreline will improve water quality, enhance shoreline protection from erosion, and enhance ecological functions of the saltmarsh and oyster reef community.

4.2 Federal public interest test and 33 CFR 320.4 (a)

Conservation

A beneficial effect on the conservation of fish and wildlife, including endangered and threatened species, or their habitats is anticipated. Living shorelines protect, restore and enhance natural shoreline habitat and maintain coastal processes. Shorebirds and water birds are more abundant and diverse on unarmoured segments of coastline than armoured sections. Florida Fish and Wildlife Conservation Commission's (FWC) Coastal Wildlife Conservation Initiative (CWCI) is actively supporting and promoting the installation of living shorelines rather than armoured shoreline stabilization for their benefits to fish and wildlife.

Economics

Beneficial effects to the economy are anticipated. The Cedar Key economy is driving by tourism and fishing. Living shorelines are more aesthetically pleasing than the alternative armoured shoreline stabilization; therefore, the proposed project will be beneficial for the Cedar Key economy.

Aesthetics

Beneficial effects to the aesthetic values of the Airport Road shoreline are anticipated through improvements to water clarity and improvement to habitats.

General environmental concerns

No environmental concerns associated with the proposed project are anticipated. The proposed project is intended to provide an overall benefit to the environment.

Wetlands

Beneficial effects to wetlands are anticipated. The proposed project is intended to expand coastal wetland habitat and reduce erosion.

Historic properties

No adverse effects on significant historical and archaeological resources are anticipated. DHR and SHPO have concurred that the proposed project is not likely to adversely affect cultural and historic resources. Furthermore, any resources discovered during construction will be immediately reported.

Fish and wildlife values

The proposed project is intended to provide long term benefits for the conservation of fish and wildlife, although, there may be short-term adverse effects during construction. Long term benefits include improved habitat and reduced erosion. Short-term adverse effects to fish and wildlife may include temporary impacts to vegetation, and increased turbidity; however, these impacts are being minimized through the relocation of vegetation and use of turbidity curtains.

Flood hazards

No effects to flood hazards are anticipated. The placement of fill material and vegetation along the shoreline and breakwaters will help protect the shoreline and road from future erosion and flooding.

Floodplain values

No effects to floodplain values are anticipated.

Land use

No effects on land use are anticipated. The land use will remain unchanged.

Navigation

No adverse effects to navigation are anticipated. All work will be constructed from the shore. The proposed kayak launch will facilitate kayak access to the bay.

Shore erosion and accretion

Beneficial effects to shoreline erosion and accretion are anticipated. The Airport Road project site has experienced significant erosion over recent decades. The shoreline restoration project was modeled after natural marsh and oyster areas around Cedar Key, which were observed to dissipate wave energy and inhibit erosion during tropical storm conditions.

Recreation

Beneficial effects to recreational values are anticipated. The proposed project is intended to have a beneficial effect on habitat; therefore, it is anticipated that the proposed project will benefit recreation including fishing and birding. The proposed kayak launch will facilitate kayak access. Additionally, the proposed project includes a beach area for recreational use.

Water supply and conservation

No adverse effect to water supply and conservation is anticipated.

Water quality

Beneficial effects on water quality are anticipated, through the reduction in shoreline erosion as well as water filtration by shellfish which are anticipated to colonize the proposed structures. BMPs will be implemented to ensure applicable water quality requirements are not violated. The permittee will install turbidity curtains and silt fencing during construction and visually monitor turbidity daily during construction.

Energy needs

No effect to energy needs is anticipated.

Safety

No effect on safety is anticipated. The proposed work will comply with all applicable Occupational Safety and Health Administration guidelines and standards.

Food and fiber production

No effect on food and fiber production is anticipated.

Mineral needs

No effect on mineral needs is anticipated.

Considerations of property ownership

No effect on property ownership is anticipated. The proposed project is being developed in coordination with the property owners. The property owners are co-applicants on this permit.

In general, the needs and welfare of the people

The proposed project will fulfill the needs and welfare of the people through increased shoreline stabilization, water quality, aesthetic and recreational values, and economic benefits.

4.3 Alternatives Analysis

The evaluation below illustrates that the proposed project is the least environmentally damaging and practical alternative to achieve the objectives of the project. The objectives of the proposed project are to restore shoreline habitats and their functions, increase recreational value, and improve erosion control.

Preferred Alternative

As described in this narrative, the preferred alternative would involve filling and regrading the shoreline to create appropriate elevations for dune and marsh vegetation, while including an unvegetated area as an open beach and kayak launch. Oyster reef breakwater structures will be installed parallel to the shoreline.

No-Action Alternative

The No-Action alternative would leave Airport Road shoreline in its existing condition. Erosion along the existing beach would likely continue, further reducing dune and marsh ecological communities, as well as reducing the recreational beach area. The No-Action alternative does not meet the objectives of the project.

Armoring Alternative

An armoring alternative would involve installation of a hardened shoreline along Airport Road. The armoring alternative would require installation of hardened structures along the road, thus reducing the shoreline habitat. The armoring would fulfil the project objective of erosion control; however, this alternative would not meet the objectives of restoring shoreline habitats or recreational beach area.

5.0 References

- Bilkovic, D.M., M.M. Mitchell, M.K. La Peyre, and J.D. Toft. 2017. Living Shorelines – The Science and Management of Nature-Based Coastal Protection. CRC Press, Boca Raton, FL.
- Florida Natural Areas Inventory (FNAI). 2019. FNAI Biodiversity Matrix Query Results. Website: <https://www.fnai.org/biointro.cfm>.
- Florida Fish and Wildlife Conservation Commission (FWC). 2011b. Standard Manatee Conditions for In-water Work.
- Mitsch, W.J. and J.G. Gosselink. 2000. Wetlands. 3rd Edition. New York, NY.
- National Marine Fisheries Service (NMFS). 2006. Sea Turtle and Smalltooth Sawfish Construction Conditions. Website: http://www.saj.usace.army.mil/Portals/44/docs/regulatory/sourcebook/permitting/general_permit/s/SPGP/SPGP/IV_attach14_SmalltoothSawfish-SeaTurtles.pdf.
- National Marine Fisheries Service (NMFS). 2015. Essential Fish Habitat – Gulf of Mexico. Website: https://sero.nmfs.noaa.gov/habitat_conservation/documents/efh_gmfmc_ver082015.pdf.
- National Oceanic and Atmospheric Association (NOAA) Fisheries. 2019. Critical Habitat Maps. Website: https://sero.nmfs.noaa.gov/maps_gis_data/protected_resources/critical_habitat/index.html.
- OAI (Olsen Associates, Inc.). 2007. Feasibility Study of Beach Improvements – 1st and G Streets Cedar Key, FL. Prepared for the City of Cedar Key and the Florida Department of Environmental Protection.
- United States Department of Agriculture (USDA). 2012. Natural Resources Conservation Service (NRCS) Web Soil Survey. Website: <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>.
- United States Fish and Wildlife Service (USFWS). 2019. USFWS Critical Habitat On-line Mapper. Website: <https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77>.



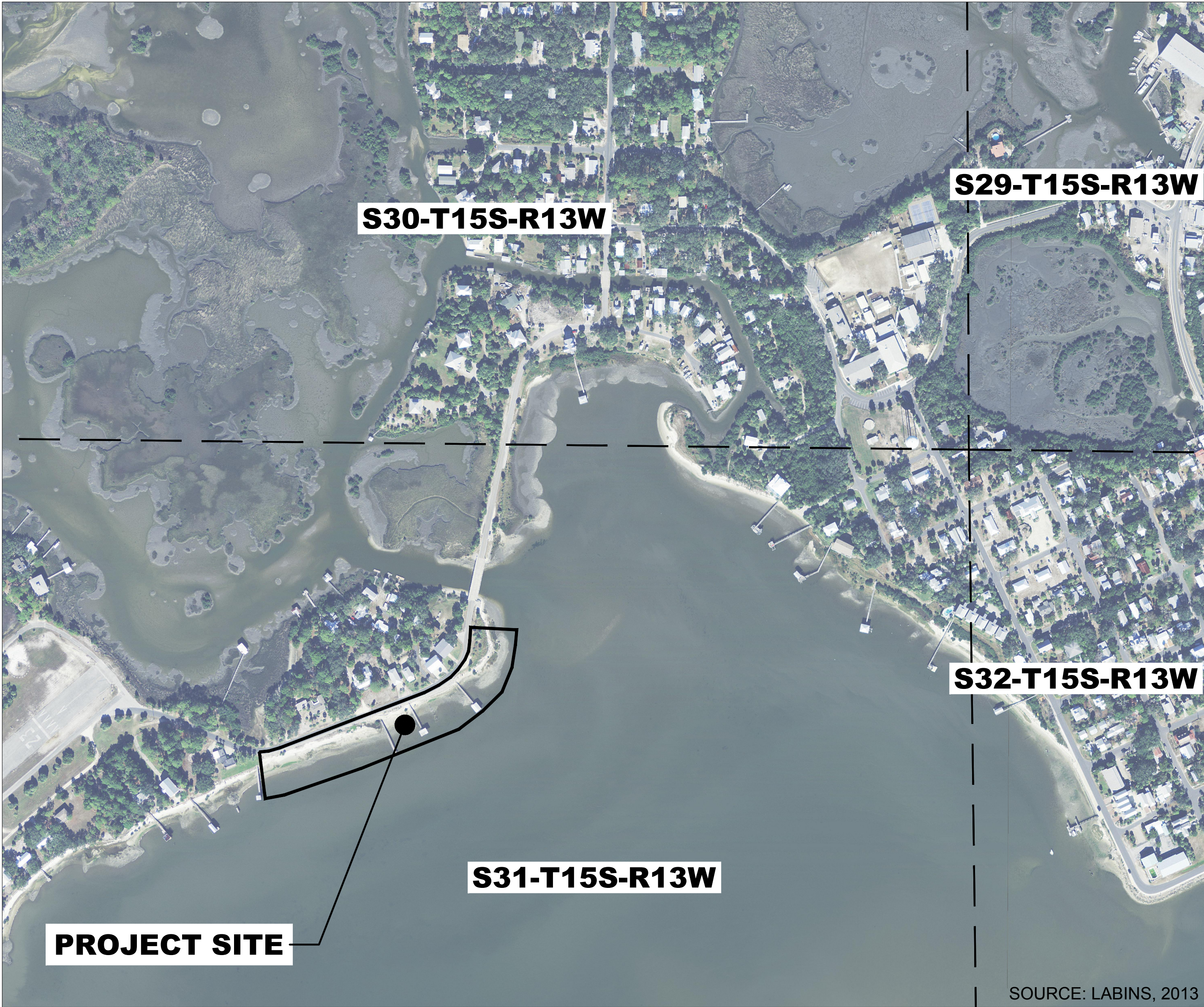
Appendix A

Construction Plans

Zone A

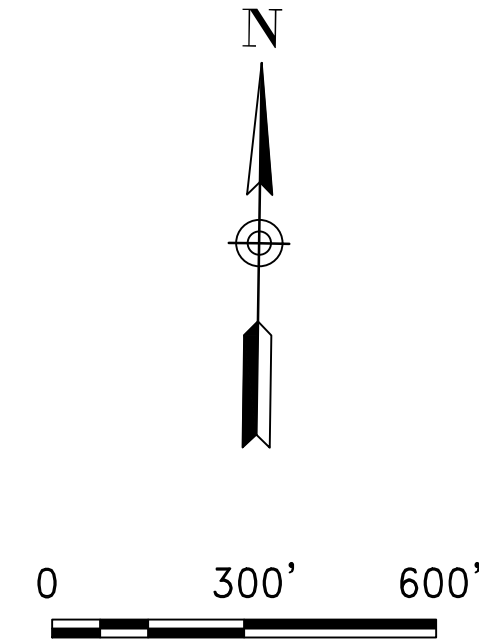
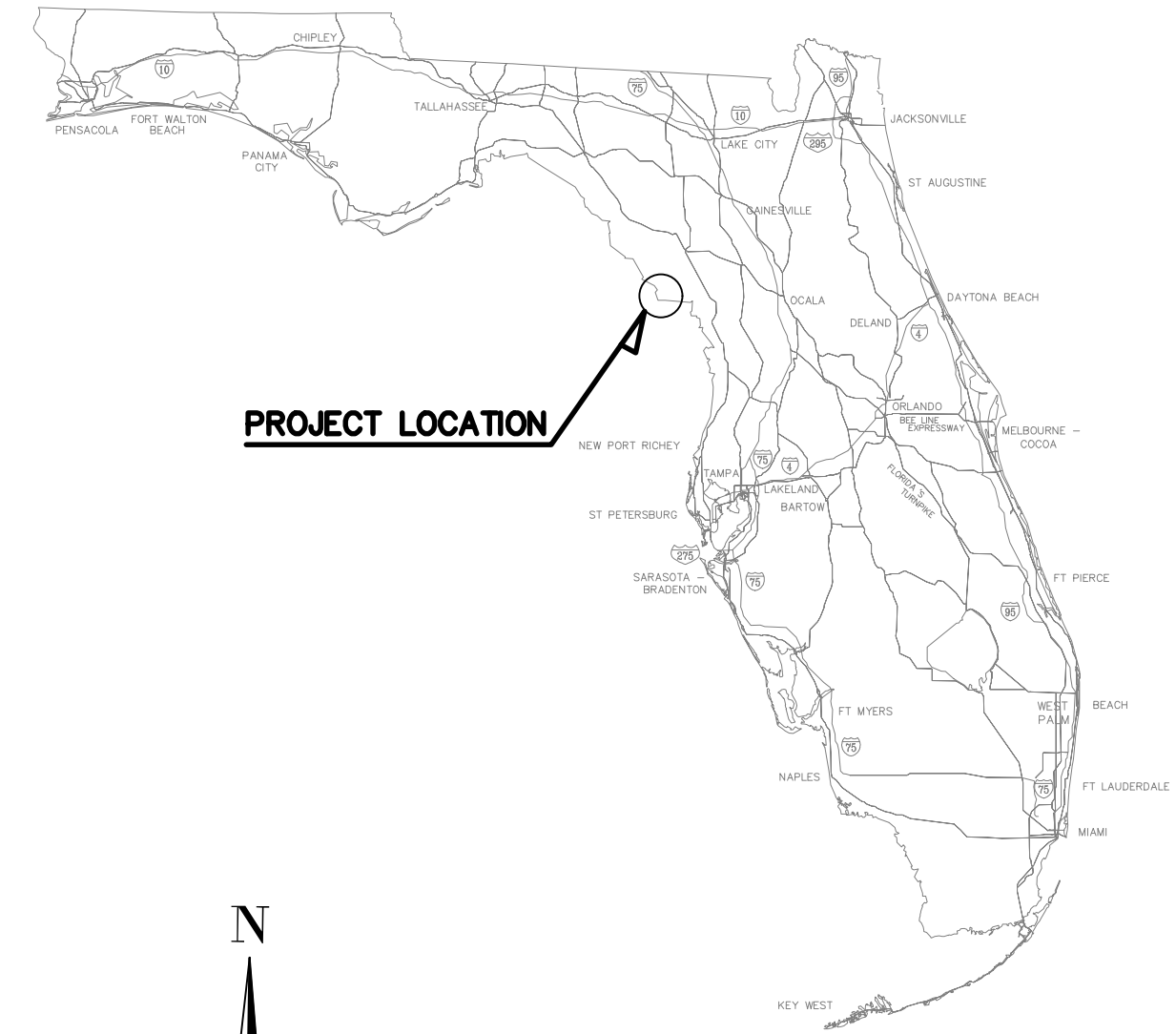
GENERAL SCOPE OF SITE WORK
FOR
PERMITTING AND IMPLEMENTATION
OF
AIRPORT ROAD SHORELINE RESTORATION
CEDAR KEY, FLORIDA
LOCATED IN
SECTIONS 31 TOWNSHIP 15 SOUTH RANGE 13 WEST

SHEET LIST TABLE	
SHEET NO.	SHEET TITLE
C100	COVER SHEET
C101	GENERAL NOTES & ABBREVIATIONS
C201	EXISTING SITE PLAN
C202	PROPOSED SITE PLAN
C203	PLANTING PLAN
C204	PROPOSED CROSS SECTION
C205	EROSION AND SEDIMENT CONTROL PLAN
C206	EROSION AND SEDIMENT CONTROL DETAILS



VICINITY MAP
SUNSHINE STATE ONE CALL OF FLORIDA
CALL BEFORE YOU DIG
1-800-432-4770

1. CALL 1-800-432-4770 TWO FULL BUSINESS DAYS (BUT NOT MORE THAN FIVE) BEFORE DIGGING TO FIND OUT WHERE BURIED FACILITIES (ELECTRIC, GAS, TELECOMMUNICATIONS, CABLE WATER, SEWER) AR LOCATED.
2. WAIT THE REQUIRED TIME FOR THE SITE TO BE LOCATED AND MARKED WITH COLOR-CODED PAINT, FLAG OR STAKES AND CONFIRM THAT THE SITE HAS BEEN LOCATED.
3. RESPECT AND PROTECT THE MARKS DURING THE PROJECT, IF MARKS ARE DESTROYED, REQUEST A NEW LOCATE TICKET.
4. .DIG SAFELY, USING EXTREME CAUTION WHEN DIGGING WITHIN 24 INCHES ON EITHER SIDE OF THE MARKS TO AVOID HITTING THE BURIED UTILITY LINES.



LEGEND
--- SECTION/TOWNSHIP/RANGE
BOUNDARY LINES
— PROJECT BOUNDARY

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN CHANGED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

GOVERNING SPECIFICATIONS:
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP);
U.S. ARMY CORPS OF ENGINEERS (USACE)
IN THE EVENT OF A CONFLICT, THE MOST RESTRICTIVE APPLIES.

PLANS PREPARED BY:

wood.
WOOD ENVIRONMENT AND INFRASTRUCTURE SOLUTIONS, INC.
404 SW 140TH TERRACE,
GAINESVILLE, FLORIDA 32669-3000
TEL: (352) 332-3318 FAX: (352) 333-6622
WEBSITE: WWW.WOODPLC.COM
EMAIL: Sean.King@woodplc.com
ENGINEER OR RECORD: SEAN KING, PH.D., P.E. (FL80372)
CERTIFICATE OF AUTHORIZATION: FL 5392

CLIENT:

UF IFAS
UNIVERSITY of FLORIDA

UFIFAS NATURE COAST BIOLOGICAL STATION
552 1ST STREET, P.O. BOX 878
CEDAR KEY, FLORIDA 32625
OFFICE: (352) 352-6080

wood.

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TEL: (352) 332-3318
CERTIFICATE OF AUTHORIZATION
LICENSE NUMBER 5392

SEAN A. KING, P.E.
FLORIDA P.E. #80372
ENGINEER OF RECORD

PROJECT:
**AIRPORT ROAD
SHORELINE
RESTORATION
PROJECT**

CLIENT:
UF IFAS
UNIVERSITY of FLORIDA

WOOD PROJECT No.:
6063-19-0317

REVISIONS			
NO.	DATE	BY	APPROVED

DESIGNED BY:	SAK
DRAWN BY:	RJL
CHECKED BY:	RJW
APPROVED BY:	SAK
DATE:	6/10/2019

SHEET TITLE:
COVER SHEET

SHEET NUMBER:	REV. #
C100	
SHEET 1 OF 8 SHEETS	

	1	2	3	4	5	6
E	PROJECT DESCRIPTION		C. SITE WORK	E. ENVIRONMENTAL PROTECTION		
	THE PROJECT INVOLVES THE RESTORATION OF SHORELINE HABITATS AND IMPROVED EROSION CONTROL BY REGRADING THE SHORE IN ERODED AREAS, PLANTING DUNE AND MARSH VEGETATION, AND INSTALLING OYSTER BREAKWATERS.		1. ACCESS TO THE JOBSITE AND RELATED ACTIVITIES WILL BE DESIGNATED BY THE PROJECT MANAGER.	1. THE MONITORING OF WATER AREAS AFFECTED BY PROJECT ACTIVITIES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.		
	NOTES:		2. SECURITY OF SITES WILL BE THE CONTRACTOR'S RESPONSIBILITY.	2. THE CONTRACTOR'S METHODS WILL PROTECT SURFACE WATER AREAS FROM DAMAGE DUE TO EROSION, SEDIMENTATION AND TURBID DISCHARGES. THERE WILL BE NO STORAGE OR STOCKPILING OF EQUIPMENT, TOOLS, OR MATERIALS ALONG THE SHORELINE WITHIN THE LITTORAL ZONE.		
	A. GENERAL NOTES		3. THE CONTRACTOR IS EXPECTED TO CONTAIN ALL PROJECT ACTIVITIES WITHIN PROJECT AREAS INDICATED ON THE DRAWINGS. AT NO TIME WILL THE CONTRACTOR DISTURB SURROUNDING PROPERTIES OR TRAVEL ON SURROUNDING PROPERTIES WITHOUT WRITTEN CONSENT FROM THE PROPERTY OWNER. ANY REPAIR OR RECONSTRUCTION OF DAMAGED AREAS IN SURROUNDING PROPERTIES WILL BE REPAIRED BY THE CONTRACTOR IMMEDIATELY. ALL COST FOR REPAIRS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION WILL BE PROVIDED BY UF.	3. THE CONTRACTOR WILL KEEP PROJECT ACTIVITIES UNDER SURVEILLANCE, MANAGEMENT, AND CONTROL TO MINIMIZE INTERFERENCE WITH, DISTURBANCE TO, AND DAMAGE OF FISH AND WILDLIFE.		
D	1. PROJECT OWNERS NAMES AND ADDRESSES:		4. THE CONTRACTOR WILL PROTECT ALL VEGETATION LOCATED INSIDE AND OUTSIDE THE PROJECT AREA.	4. THE PROPOSED PROJECT WILL NOT MODIFY EXISTING EFH. IMPACTS TO MANGROVES AND OYSTER BEDS WILL BE AVOIDED. IN ADDITION, THE PROPOSED PROJECT WILL INCREASE SALT MARSH AND OYSTER BED HABITAT.		
	UF IFAS NATURE COAST BIOLOGICAL STATION (UF)		5. ALL DEBRIS AND REFUSE FROM PROJECT ACTIVITIES WILL BE REMOVED TO LEGAL OFFSITE DISPOSAL AREAS BY THE CONTRACTOR.	F. PERMIT REQUIREMENTS		
	552 1ST STREET, P.O. BOX 878 CEDAR KEY, FLORIDA 32625		D. TEMPORARY EROSION AND SEDIMENT CONTROL	1. ALL WORK WILL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) AND U.S. ARMY CORPS OF ENGINEERS (USACE) PERMITS.		
	2. PROJECT LOCATION:		1. CONTRACTOR SHALL INSTALL PRIOR TO AND MAINTAIN DURING CONSTRUCTION ALL SEDIMENT CONTROL MEASURES AS REQUIRED TO RETAIN ALL SEDIMENTS ON THE SITE. IMPROPER SEDIMENT CONTROL MEASURES MAY RESULT IN CODE ENFORCEMENT VIOLATIONS.	2. THE CONTRACTOR WILL BE PROVIDED COPIES OF ANY PERMITS AND CONDITIONS PRIOR TO COMMENCEMENT OF PROJECT ACTIVITIES.		
C	CEDAR KEY, LEVY COUNTY, FLORIDA LAT: 29°08'08.93" N LONG: 83°02'39.71" W		2. NO EARTHWORK OR CLEARING AND GRUBBING SHALL BE PERFORMED UNTIL SILT FENCE AND FLOATING TURBIDITY CURTAINS ARE INSTALLED.	3. CONTRACTOR WILL REVIEW AND COMPLY WITH THE APPLICABLE REGULATIONS, ORDINANCES, REQUIREMENTS, AND LIMITATIONS SET FORTH IN THE PERMITS BY THE VARIOUS GOVERNMENT AGENCIES HAVING JURISDICTION OVER THE WORK.		
	3. AREA ESTIMATES: PROJECT AREA ≈ 3.07 AC		3. SILT FENCE AND FLOATING TURBIDITY CURTAINS ARE TO BE PLACED AS SHOWN AND/OR DIRECTED BY PROJECT MANAGER'S DESIGNATED REPRESENTATIVE.	ABBREVIATIONS		
	4. THE TYPES OF SOIL DISTURBANCE ACTIVITIES INCLUDE: FILL, GRADING, PLANTING, OYSTER REEF STRUCTURE PLACEMENT, AND INSTALLATION OF TURBIDITY CURTAINS AND SILT FENCING.		4. EROSION CONTROL MEASURES WILL BE INSPECTED AT LEAST DAILY, AFTER EACH RAIN AND REPAIRED BY THE GENERAL CONTRACTOR. CLEAN OUT OF SEDIMENT CONTROL STRUCTURES WILL BE PERFORMED BY THE CONTRACTOR WHEN SEDIMENT HAS ACCUMULATED TO ONE-HALF (1/2) FULL FOR SILT FENCE AND TURBIDITY CURTAINS.	EFH FDEP FDOT IFAS NAVD NOAA OHSA USACE UF USFWS WOOD		
	5. THE CONTRACTOR WILL VISIT THE SITE AND BE RESPONSIBLE FOR HAVING ASCERTAINED LOCAL CONDITIONS SUCH AS LOCATION, ACCESSIBILITY, AND GENERAL CHARACTER OF THE SITE, AND EXTENT OF SITE WORK. THE CONTRACTOR WILL FULLY EXAMINE ALL DRAWINGS AND PERMITS RELATED TO THE WORK REQUIRED AND PREVAILING EXISTING CONDITIONS. NO ALLOWANCES WILL BE MADE FOR THE CONTRACTOR'S FAILURE TO AVAIL HIMSELF OF INFORMATION.		5. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING SEDIMENT AND EROSION CONTROL MEASURES TO PROVIDE OPTIMUM SEDIMENT AND EROSION CONTROL. SEDIMENT AND EROSION CONTROL MEASURES SHALL COMPLY WITH CHAPTER 6 OF THE FLORIDA DEVELOPMENT MANUAL.	ESSENTIAL FISH HABITAT FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION FLORIDA DEPARTMENT OF TRANSPORTATION INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES THE NORTH AMERICAN VERTICAL DATUM NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION UNITED STATES ARMY CORPS OF ENGINEERS UNIVERSITY OF FLORIDA U.S. FISH AND WILDLIFE SERVICE WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.		
B	6. THE CONTRACTOR IS RESPONSIBLE FOR ANY INCIDENTAL MATERIALS, EQUIPMENT OR OTHER WORK NECESSARY TO COMPLETE THE SITE WORK AS SHOWN ON THE PLANS.		6. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION OF PROJECT MANAGER'S DESIGNATED REPRESENTATIVE.			
	7. CONTRACTOR TO ASSUME RESPONSIBILITY TO CONFORM TO ALL GENERAL NOTES AND SPECIFICATIONS.		7. EROSION CONTROL MEASURES DESCRIBED SHALL BE MAINTAINED UNTIL DUNE AND MARSH VEGETATION ON PLANTED SLOPE IS SUFFICIENTLY ESTABLISHED TO BE AN EFFECTIVE EROSION DETERRENT. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES UPON ESTABLISHMENT OF PERMANENT VEGETATION OR PROJECT COMPLETION, WHICHEVER IS LATER.			
	8. TYPICAL DETAILS ARE SHOWN TO ILLUSTRATE THE ENGINEER'S INTENT AND ARE NOT PRESENTED AS DIRECTIVE ON MEANS AND METHODS OR AS A SOLUTION TO ALL PROBLEMS ENCOUNTERED IN THE FIELD. THE CONTRACTOR MAY ALTER THE MEANS AND METHODS TO SUIT FIELD CONDITIONS. IN THE EVENT OF CONFLICT OR THE NEED FOR CLARIFICATION, THE CONTRACTOR WILL CONTACT THE PROJECT MANAGER PRIOR TO COMMENCEMENT OF THE WORK.		8. ALL PLANTING SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION SPECIFICATIONS.			
	9. DEVIATIONS FROM THESE DRAWINGS ARE NOT PERMITTED WITHOUT THE CONSENT OF THE PROJECT MANAGER. THE CONTRACTOR WILL NOTIFY THE PROJECT MANAGER OF ANY DISCREPANCIES IN THE DRAWING PRIOR TO PROCEEDING.		9. SILT FENCE AND TURBIDITY CURTAINS SHALL MEET THE REQUIREMENTS OF FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) DESIGN STANDARDS 2010, INDEX NO. 102 AND 103.			
A	10. THE DIMENSIONS AND LOCATION OF THE PROPOSED IMPROVEMENTS SHOWN HEREIN ARE APPROXIMATE.		10. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.			
	11. ELEVATIONS AND COORDINATES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AND THE NORTH AMERICAN HORIZONTAL DATUM OF 1983, 2011 ADJUSTMENT [NAVD83 (2011)] EXPRESSED IN THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA WEST ZONE 902.		11. NOTIFY PROJECT MANAGER 24 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.			
	B. SAFETY					
	1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR SITE SAFETY ASSOCIATED WITH THE WORK AND WILL PROVIDE SAFE ACCESS TO ALL WORK AREAS AND MAINTAIN A SAFE AND SECURE WORK ENVIRONMENT AT ALL TIMES. THE CONTRACTOR WILL BE RESPONSIBLE FOR ASSURING SAFETY BOTH TO WORKERS AND THE PUBLIC DURING PROJECT ACTIVITIES.					
	2. THE CONTRACTOR WILL RECOGNIZE AND ABIDE BY ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) SAFETY STANDARDS.					

wood.

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NEWBERRY, FL 32669
TEL: (352) 332-3318
CERTIFICATE OF AUTHORIZATION
LICENSE NUMBER 5392

SEAN A. KING, P.E.
FLORIDA P.E. #80372
ENGINEER OF RECORD

PROJECT:
**AIRPORT ROAD
SHORELINE
RESTORATION
PROJECT**

CLIENT:
UF|IFAS
UNIVERSITY of FLORIDA

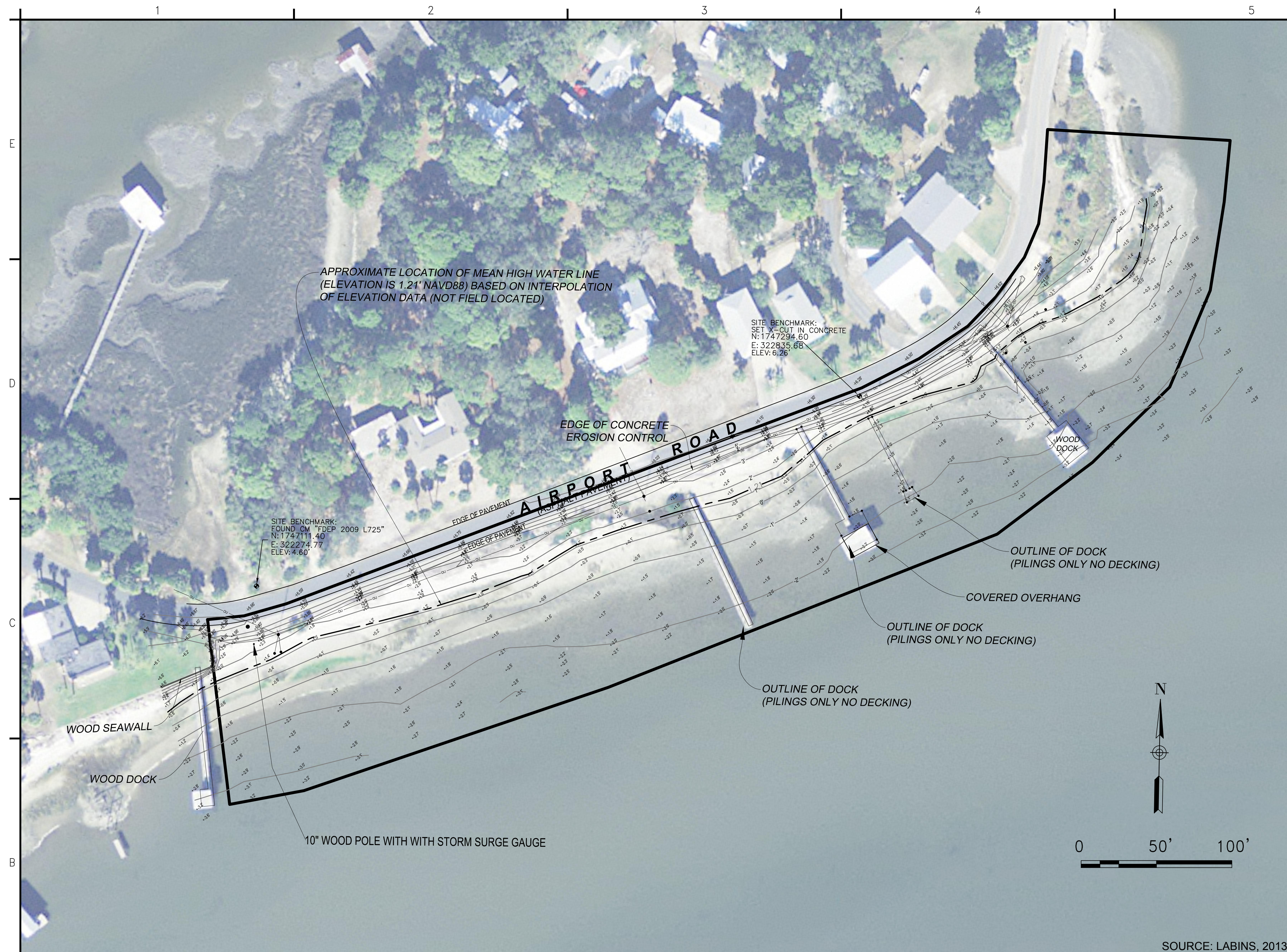
WOOD PROJECT No.:
6063-19-0317

REVISIONS			
NO.	DATE	BY	APPROVED

DESIGNED BY:	SAK
DRAWN BY:	RJL
CHECKED BY:	RJW
APPROVED BY:	SAK
DATE:	6/10/2019

SHEET TITLE:
**GENERAL NOTES
&
ABBREVIATIONS**

SHEET NUMBER:	REV. #
C101	
SHEET 2 OF 8 SHEETS	



LEGEND

— PROJECT BOUNDARY

— 2.1' — EXISTING CONTOURS

● UTILITY POLE

2' N NATURAL GROUND SPOT ELEVATION OR HARD PAVEMENT SPOT ELEVATION

— OVERHEAD UTILITY LINE

○ SIGN

● WOOD DOCK PILING

SURVEY CONDUCTED BY:
WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC
550 NORTHLAKE BLVD., SUITE 1000
ALTAMONTE SPRINGS, FL 32701

FIELD SURVEY COMPLETED ON:
JANUARY 24, 2019

SURVEYOR'S NOTES:

1. THIS MAP OF TOPOGRAPHIC SURVEY IS NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

2. COORDINATES AND SUBSEQUENT MAPPING SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT [NAD83(2011)], EXPRESSED IN THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA WEST ZONE 902, US SURVEY FEET, BASED ON GLOBAL POSITIONING SYSTEM (GPS) MEASUREMENTS TO THE NATIONAL GEODETIC SURVEY (NGS) REFERENCE STATION LISTED BELOW.

DESIGNATION - LEWISPORT AZ MK
PID - AR1884
NORTHING: 1,747,275.59
EASTING: 321,653.71
ELEVATION: 4.88'

3. ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) BASED ON TIES TO LEWISPORT AZ MK AND THE NATIONAL GEODETIC SURVEY (NGS) REFERENCE STATIONS LISTED BELOW.

DESIGNATION - L 725 DESIGNATION - P 725
PID - DM2800 PID - DM2798
ELEVATION: 4.60' ELEVATION: 4.13'

GO TO [HTTPS://WWW.NGS.NOAA.GOV](https://www.ngs.noaa.gov) FOR ADDITIONAL INFORMATION REGARDING THE ABOVE LISTED REFERENCE STATIONS.

4. POSITIONAL HORIZONTAL AND VERTICAL ACCURACY OF CONTROL POINTS ESTABLISHED IN THE COURSE OF THIS SURVEY IS ±0.05' BASED ON REDUNDANT MEASUREMENTS TO THE NATIONAL GEODETIC SURVEY REFERENCES STATIONS IDENTIFIED ABOVE.

5. UNDERGROUND IMPROVEMENTS SUCH AS FOUNDATIONS AND UTILITIES WERE NOT LOCATED. ALL UNDERGROUND UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE AND WERE DETERMINED FROM VISIBLE SURFACE FEATURES INDICATING UNDERGROUND LINES SUCH AS MANHOLES, VALVES, CATCH BASINS AND CLEAN OUTS. THERE ARE ADDITIONAL UNDERGROUND IMPROVEMENTS. ACTUAL LOCATION, SIZE OR DEPTH OF LINES SHOULD BE VERIFIED WITH THE INDIVIDUAL UTILITY COMPANY PRIOR TO EXCAVATION OR CONSTRUCTION.

6. THIS SURVEY DOES NOT ADDRESS THE IDENTIFICATION OR LOCATION OF JURISDICTIONAL WETLANDS OR SOVEREIGN LANDS THAT MAY OR MAY NOT LIE WITHIN OR ADJACENT TO THE LANDS SURVEYED.

7. FOR PURPOSES OF CLARITY ALL SPOT ELEVATIONS AND OTHER TOPOGRAPHICAL DATA MAY NOT BE SHOWN HEREON. THIS DATA IS AVAILABLE IN ELECTRONIC FORMAT IN WOOD FILE "6063190317 - CEDAR KEYS TOPO.DWG" AND HAS BEEN FURNISHED TO THE CLIENT.

8. LANDS SHOWN HEREON WERE NOT ABSTRACTED BY THIS FIRM FOR MATTERS OF RECORD, SUCH AS EASEMENTS, RIGHT OF WAY, OWNERSHIP OR OTHER INSTRUMENTS OF RECORD, THIS IS NOT A BOUNDARY SURVEY.

9. THIS IS NOT A BOUNDARY SURVEY.

10. CERTIFIED FOR THE EXCLUSIVE USE OF THE UNIVERSITY OF FLORIDA.

wood.

404 SW 140TH TERRACE
NEWBERRY, FL 32669
TEL: (352) 332-3318
CERTIFICATE OF AUTHORIZATION
LICENSE NUMBER 5392

SEAN A. KING, P.E.
FLORIDA P.E. #80372
ENGINEER OF RECORD

PROJECT:
**AIRPORT ROAD
SHORELINE
RESTORATION
PROJECT**

CLIENT:
UF IFAS
UNIVERSITY OF FLORIDA

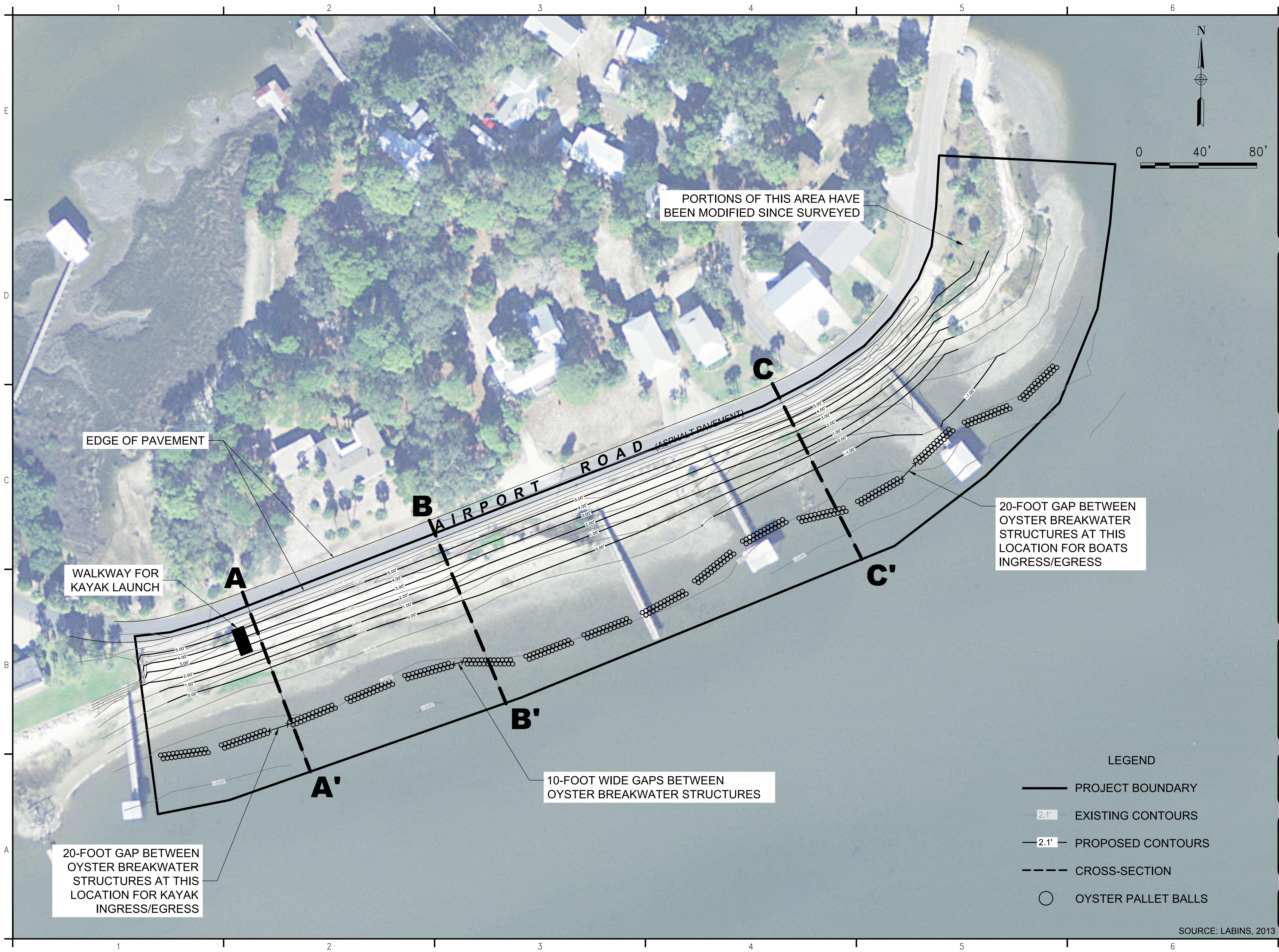
WOOD PROJECT No.:
6063-19-0317

REVISIONS			
NO.	DATE	BY	APPROVED

DESIGNED BY:	SAK
DRAWN BY:	RJL
CHECKED BY:	RJW
APPROVED BY:	SAK
DATE:	6/10/2019

SHEET TITLE:
**EXISTING
SITE PLAN**

SHEET NUMBER:	REV. #
C201	
SHEET 3 OF 8 SHEETS	



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NEWBERRY, FL 32669
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PROJECT:
**AIRPORT ROAD
SHORELINE
RESTORATION
PROJECT**

CLIENT:

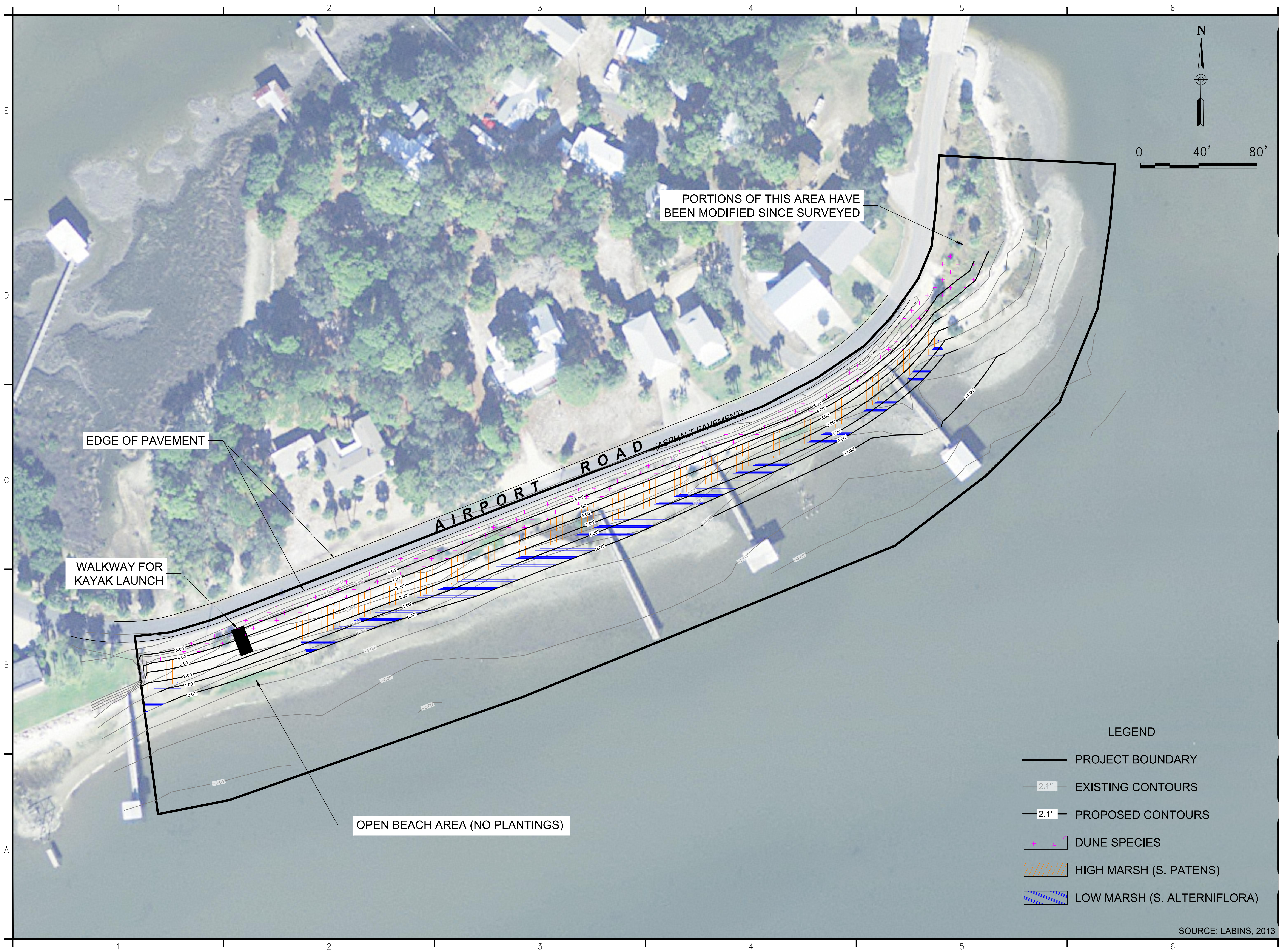
WOOD PROJECT No.:
6063-19-0317

REVISIONS			
NO.	DATE	BY	APPROVED

DESIGNED BY:	SAK
DRAWN BY:	RJL
CHECKED BY:	RJW
APPROVED BY:	SAK
DATE:	6/10/2019

SHEET TITLE:
**PROPOSED
SITE PLAN**

SHEET NUMBER:	REV. #
C202	
SHEET 4 OF 8 SHEETS	



PORTIONS OF THIS AREA HAVE
BEEN MODIFIED SINCE SURVEYED

EDGE OF PAVEMENT

WALKWAY FOR
KAYAK LAUNCH

OPEN BEACH AREA (NO PLANTINGS)

LEGEND

- PROJECT BOUNDARY
- 2.1' EXISTING CONTOURS
- 2.1' PROPOSED CONTOURS
- DUNE SPECIES
- HIGH MARSH (S. PATENS)
- LOW MARSH (S. ALTERNIFLORA)

wood.

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UF IFAS
UNIVERSITY of FLORIDA

WOOD PROJECT No.:
6063-19-0317

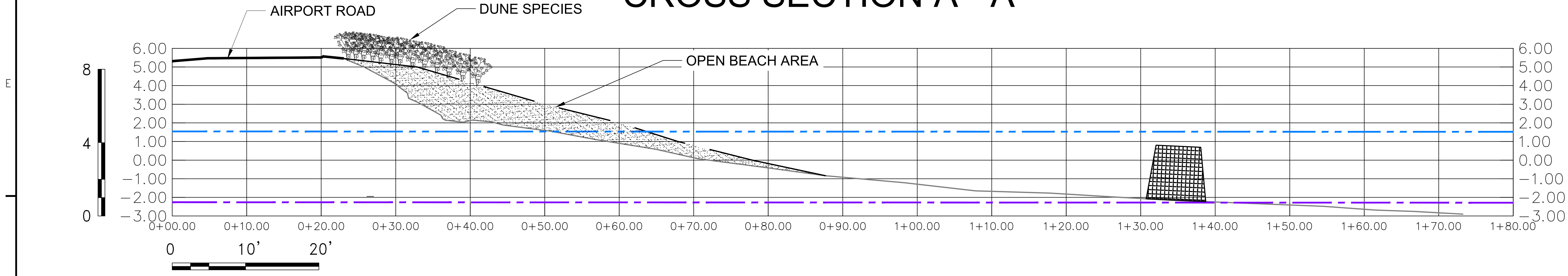
REVISIONS			
NO.	DATE	BY	APPROVED

DESIGNED BY:	SAK
DRAWN BY:	RJL
CHECKED BY:	RJW
APPROVED BY:	SAK
DATE:	6/10/2019

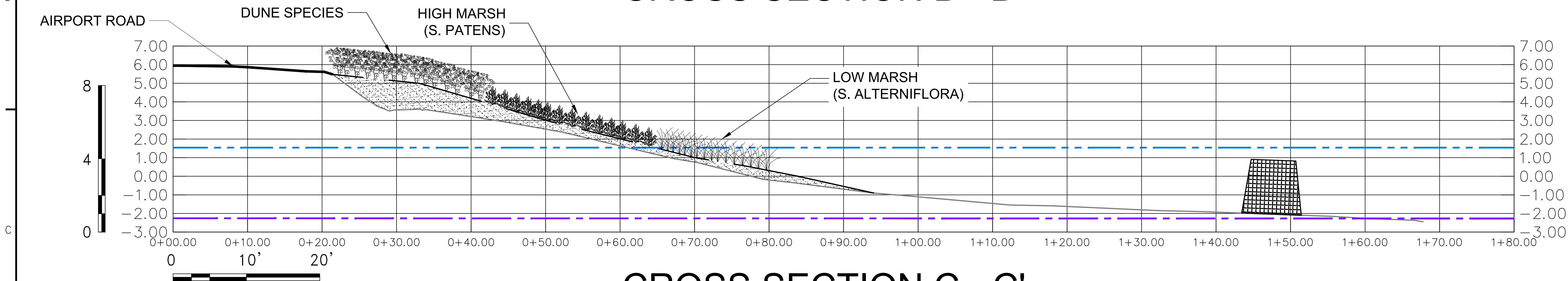
SHEET TITLE:
**PLANTING
PLAN**

SHEET NUMBER:	REV. #
C203	
SHEET 5 OF 8 SHEETS	

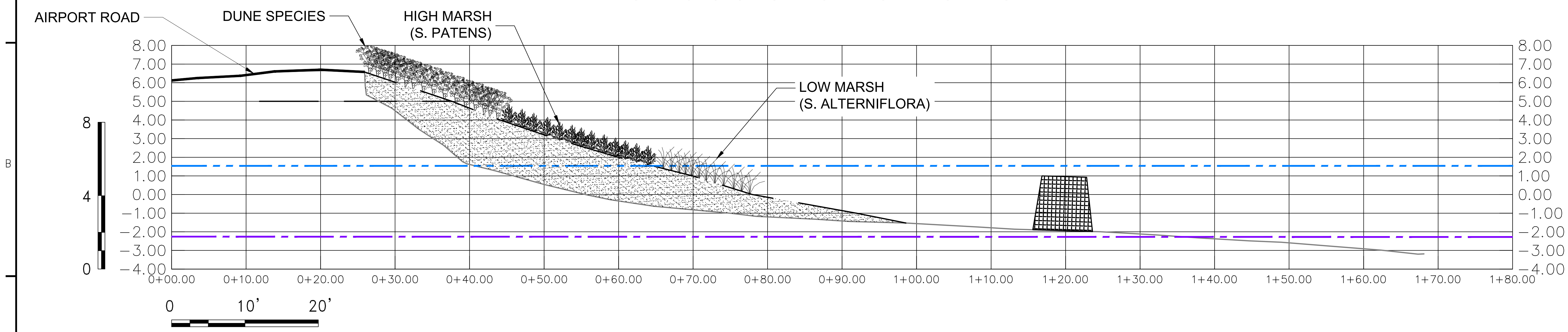
CROSS SECTION A - A'



CROSS SECTION B - B'



CROSS SECTION C - C'



LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- SAND FILL
- OYSTER PALLET BALLS
- MEAN HIGHER HIGH WATER (MHHW) = 1.54'
- MEAN LOWER LOW WATER (MLLW) = -2.26'

wood.

404 SW 140TH TERRACE
NEWBERRY, FL 32669
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CERTIFICATE OF AUTHORIZATION
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**AIRPORT ROAD
SHORELINE
RESTORATION
PROJECT**

CLIENT:
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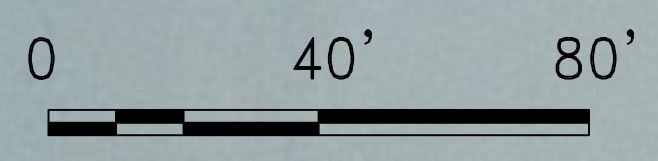
WOOD PROJECT No.:
6063-19-0317

REVISIONS			
NO.	DATE	BY	APPROVED

DESIGNED BY:	SAK
DRAWN BY:	RJL
CHECKED BY:	RJW
APPROVED BY:	SAK
DATE:	6/10/2019

SHEET TITLE:
**PROPOSED
CROSS SECTION**

SHEET NUMBER:	REV. #
C204	
SHEET 6 OF 8 SHEETS	



wood.

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NEWBERRY, FL 32669
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SHORELINE
RESTORATION
PROJECT**

CLIENT:
UF IFAS
UNIVERSITY OF FLORIDA

WOOD PROJECT No.:
6063-19-0317

REVISIONS			
NO.	DATE	BY	APPROVED

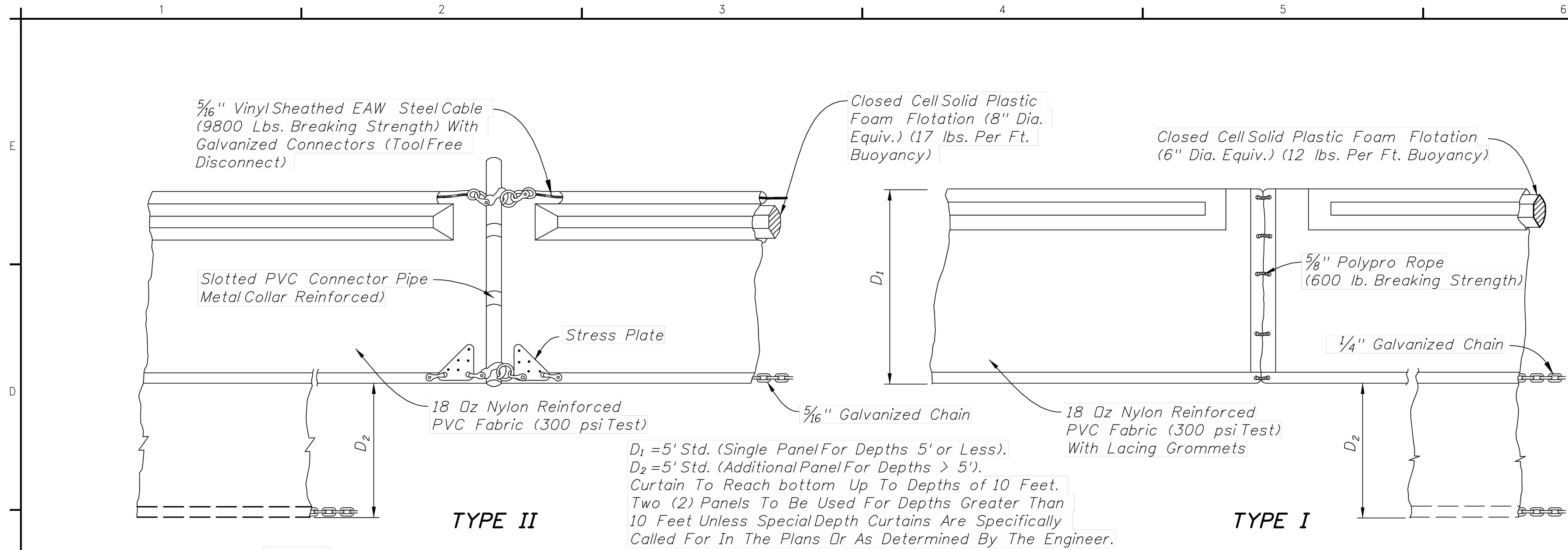
DESIGNED BY:	SAK
DRAWN BY:	RJL
CHECKED BY:	RJW
APPROVED BY:	SAK
DATE:	6/10/2019

SHEET TITLE:
**EROSION AND
SEDIMENT
CONTROL PLAN**

SHEET NUMBER:	REV. #
C205	
SHEET 7 OF 8 SHEETS	

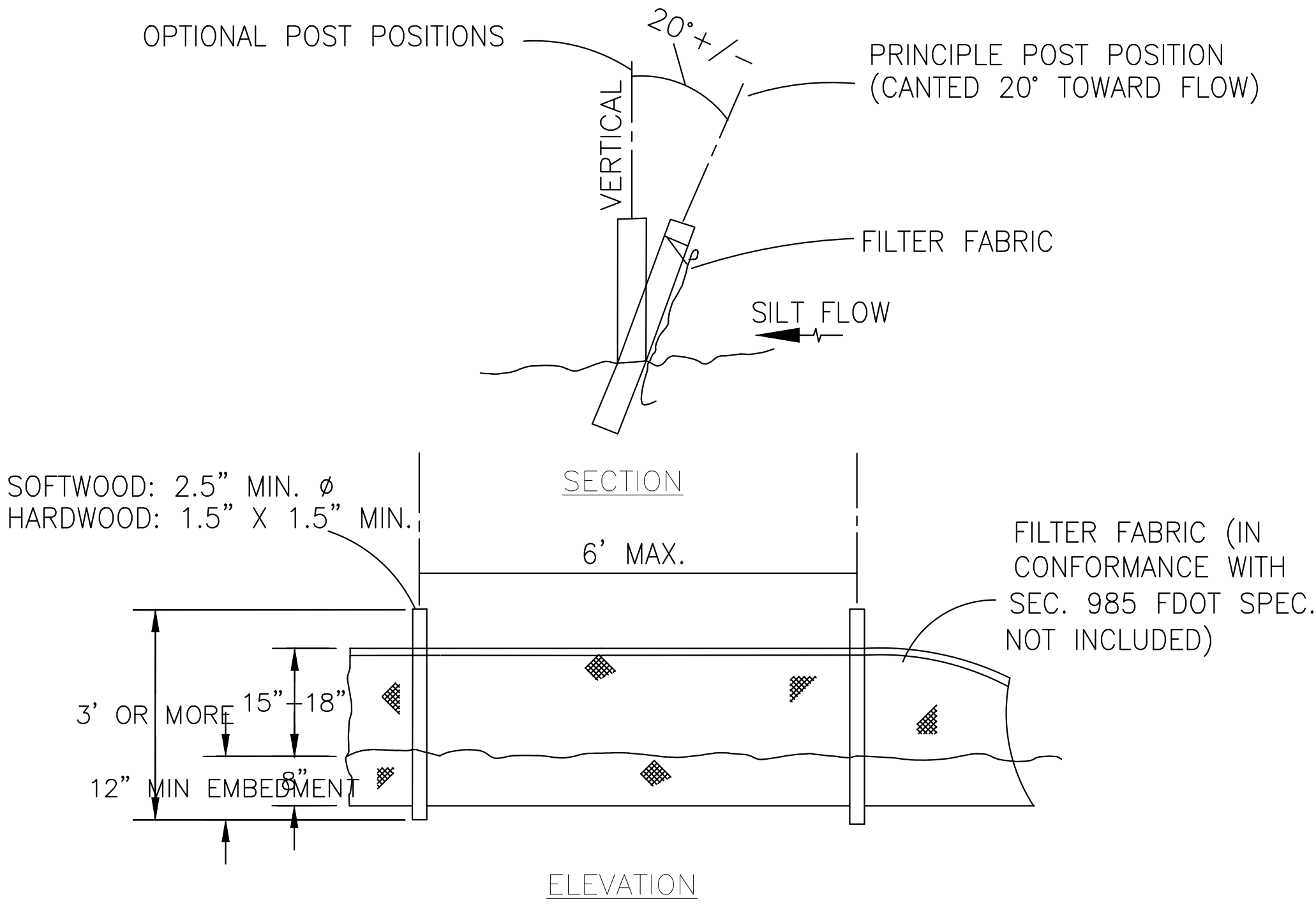
LEGEND

- PROJECT BOUNDARY
- EXISTING CONTOURS
- SILT FENCE
- FLOATING TURBIDITY BARRIER



NOTICE:
COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

FLOATING TURBIDITY BARRIERS



wood.

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NEWBERRY, FL 32669
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FLORIDA P.E. #80372
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PROJECT:
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SHORELINE
RESTORATION
PROJECT**

CLIENT:
UF IFAS
UNIVERSITY of FLORIDA

WOOD PROJECT No.:
6063-19-0317

REVISIONS			
NO.	DATE	BY	APPROVED

DESIGNED BY:	SAK
DRAWN BY:	RJL
CHECKED BY:	RJW
APPROVED BY:	SAK
DATE:	6/10/2019

SHEET TITLE:
**EROSION AND
SEDIMENT
CONTROL DETAILS**

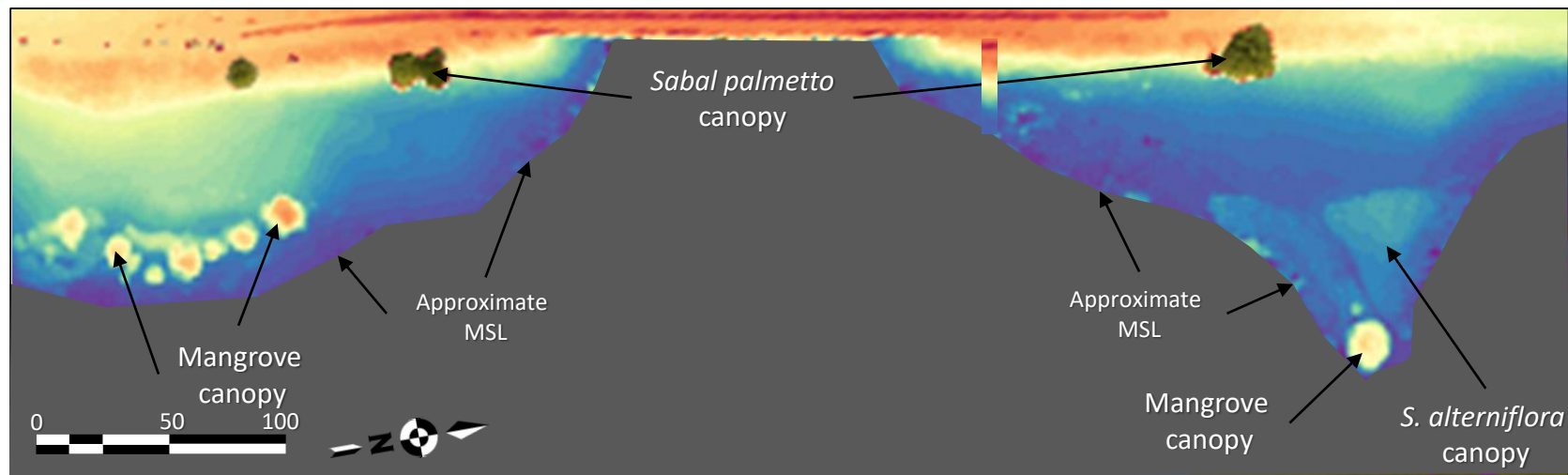
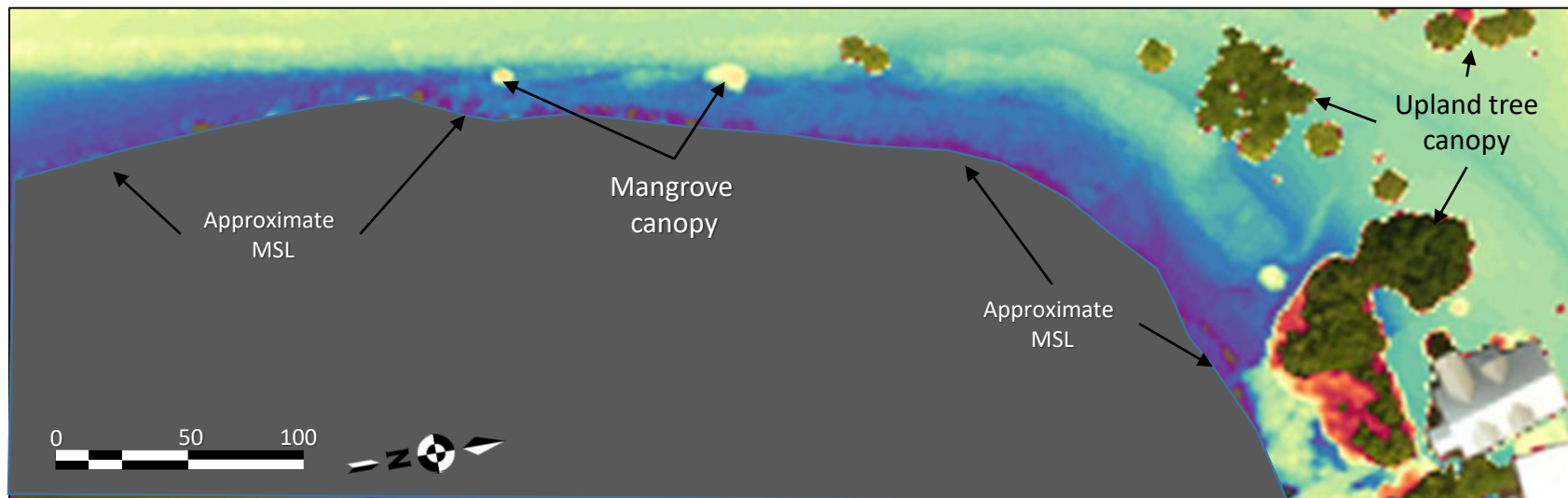
SHEET NUMBER:	REV. #
C206	
SHEET 8 OF 8 SHEETS	



Appendix A
Construction Plans
Zone B
(developed by UF)

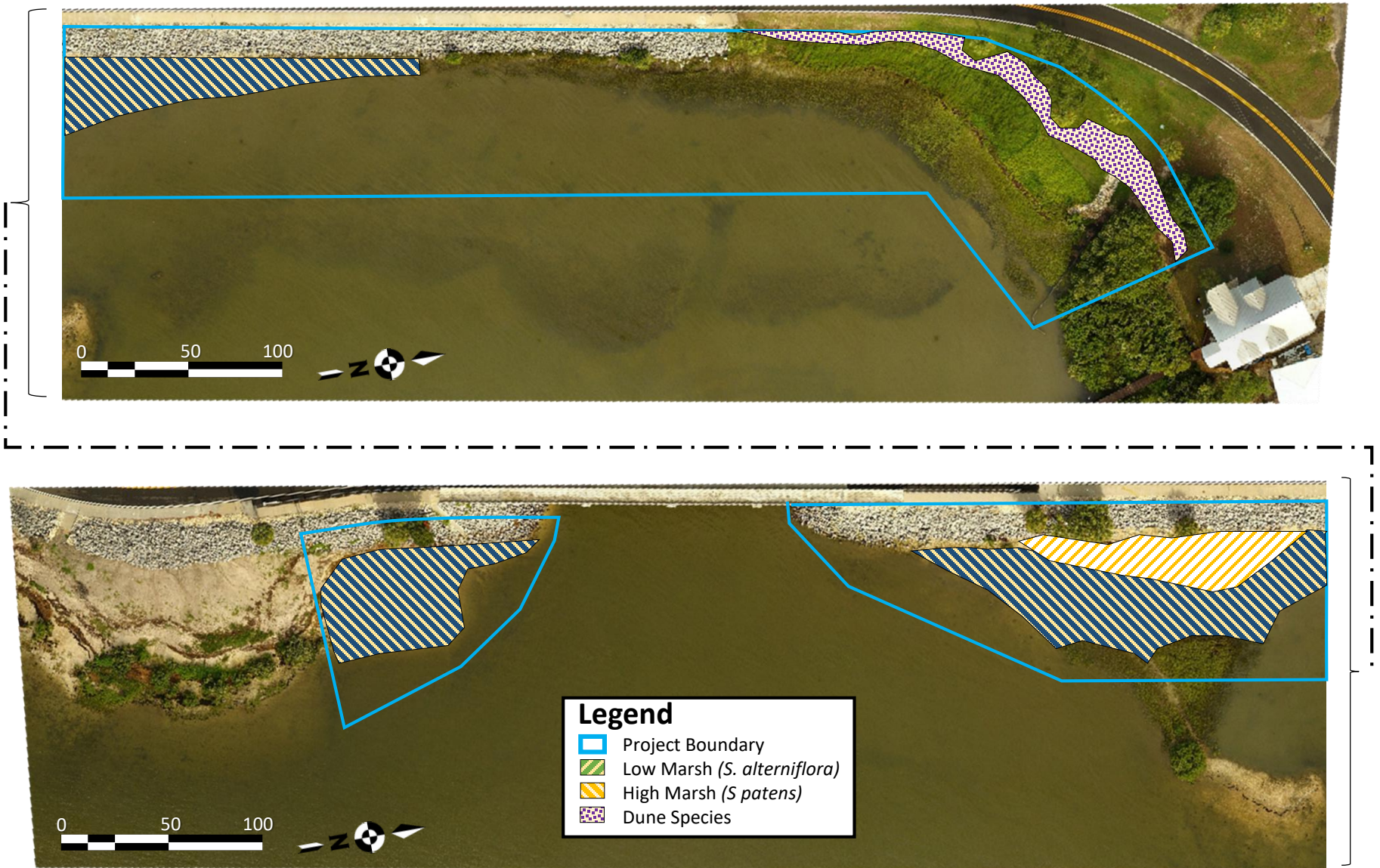
Airport Road Shoreline Restoration Project – Zone B

Digital Surface Model



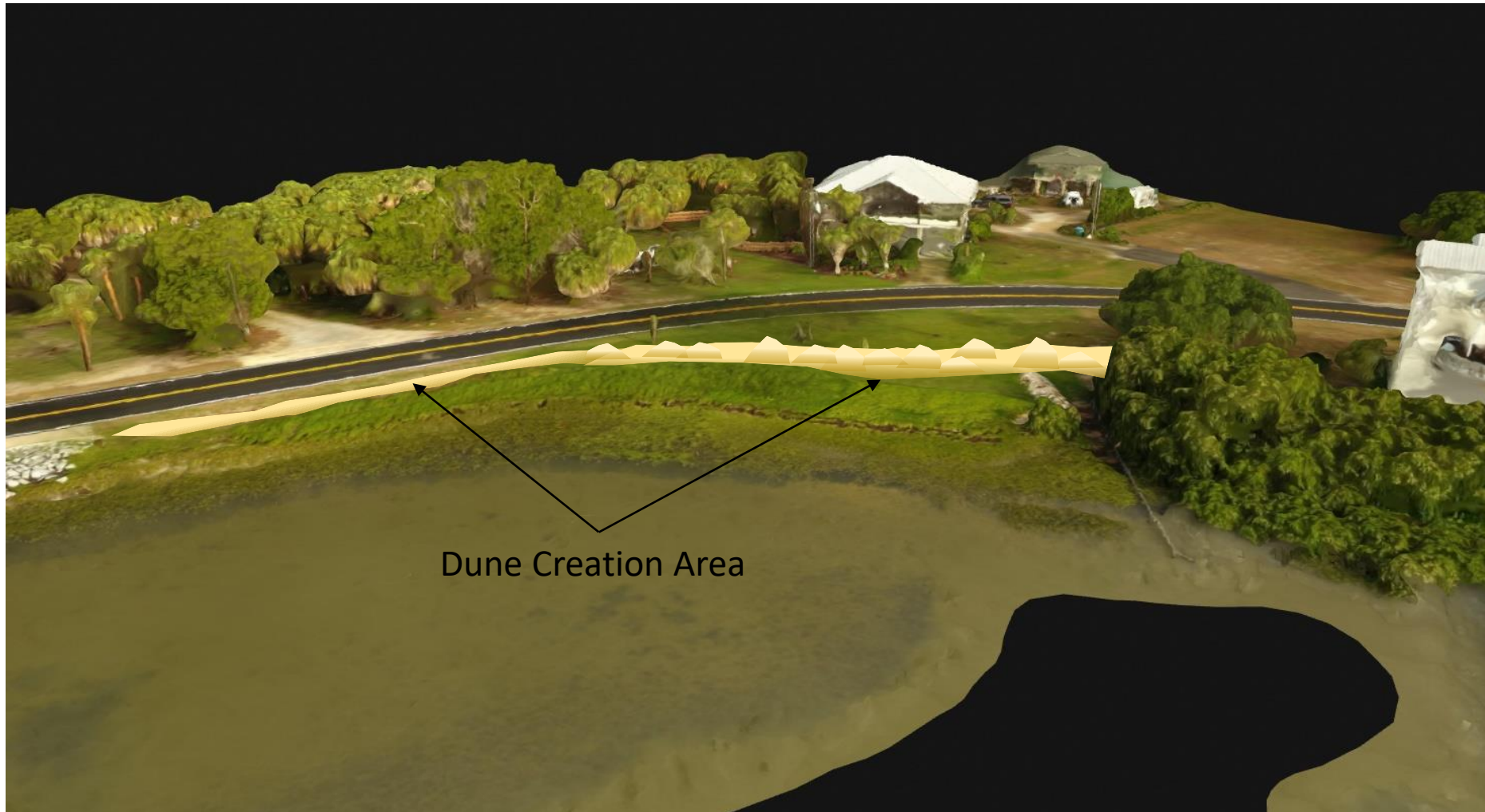
Airport Road Shoreline Restoration Project – Zone B

Vegetation Planting Areas



Airport Road Shoreline Restoration Project – Zone B

Conceptual Placement of Sand Fill and Dune Plantings



Airport Road Shoreline Restoration Project – Zone B

Approximate Location of Sand Fill Placement. All fill placed above MHHW (1.54 NAVD88)
(fill area $\sim 2,250 \text{ ft}^2$, volume 75 yd^3)



Airport Road Shoreline Restoration Project – Zone B

Approximate Location of Dune Community

Dune Planting Area (species to be planted *Uniola paniculata*, *Muhlenbergia filipes*, *Sesuvium portulacastrum*,
Distichlis spicata, *Ipomoea pes-capre*)



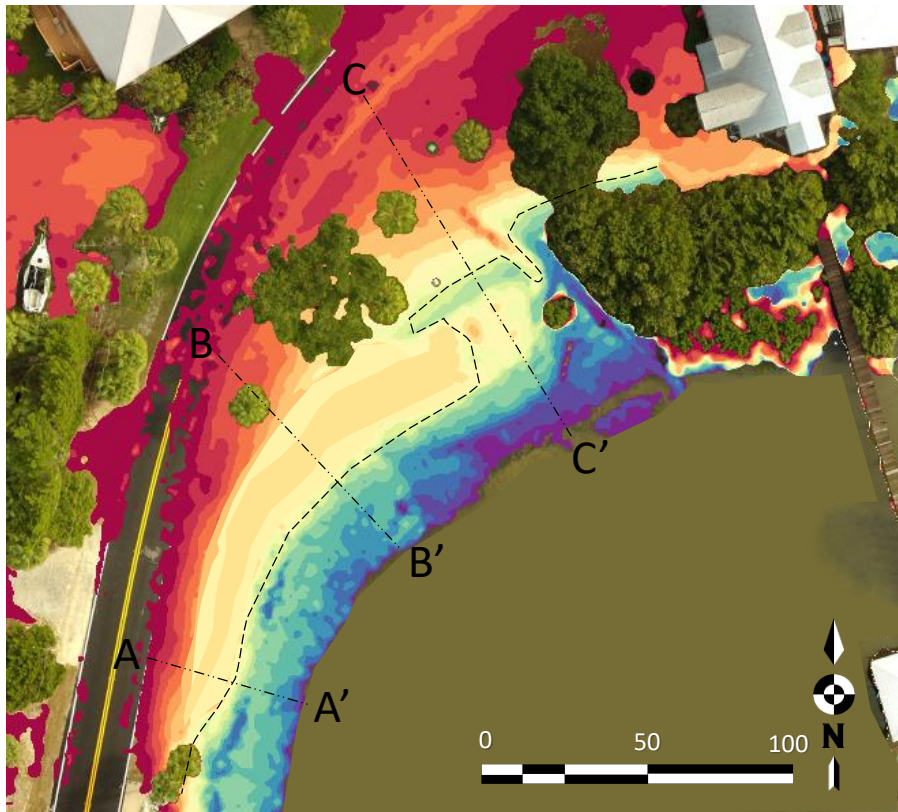
Airport Road Shoreline Restoration Project – Zone B

Approximate Pre and Post Project Contour

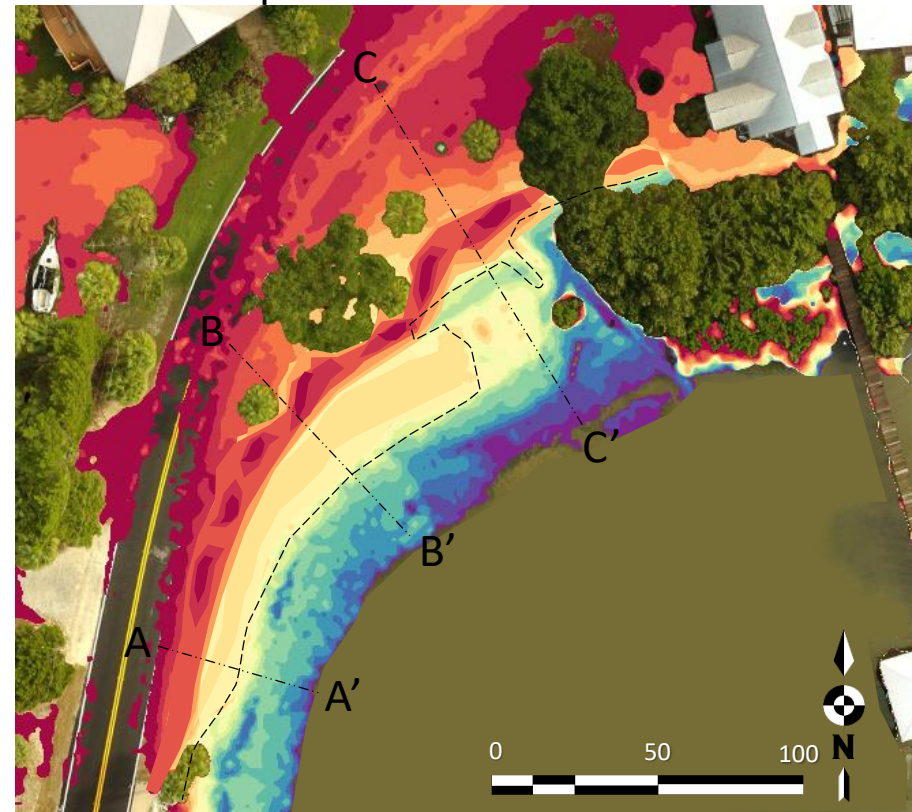
Imagery collected from drone and ground truthed using laser level referenced to local benchmark.

All areas not shaded are below 0.0' or above 4.0ft NAVD88

existing DSM contour

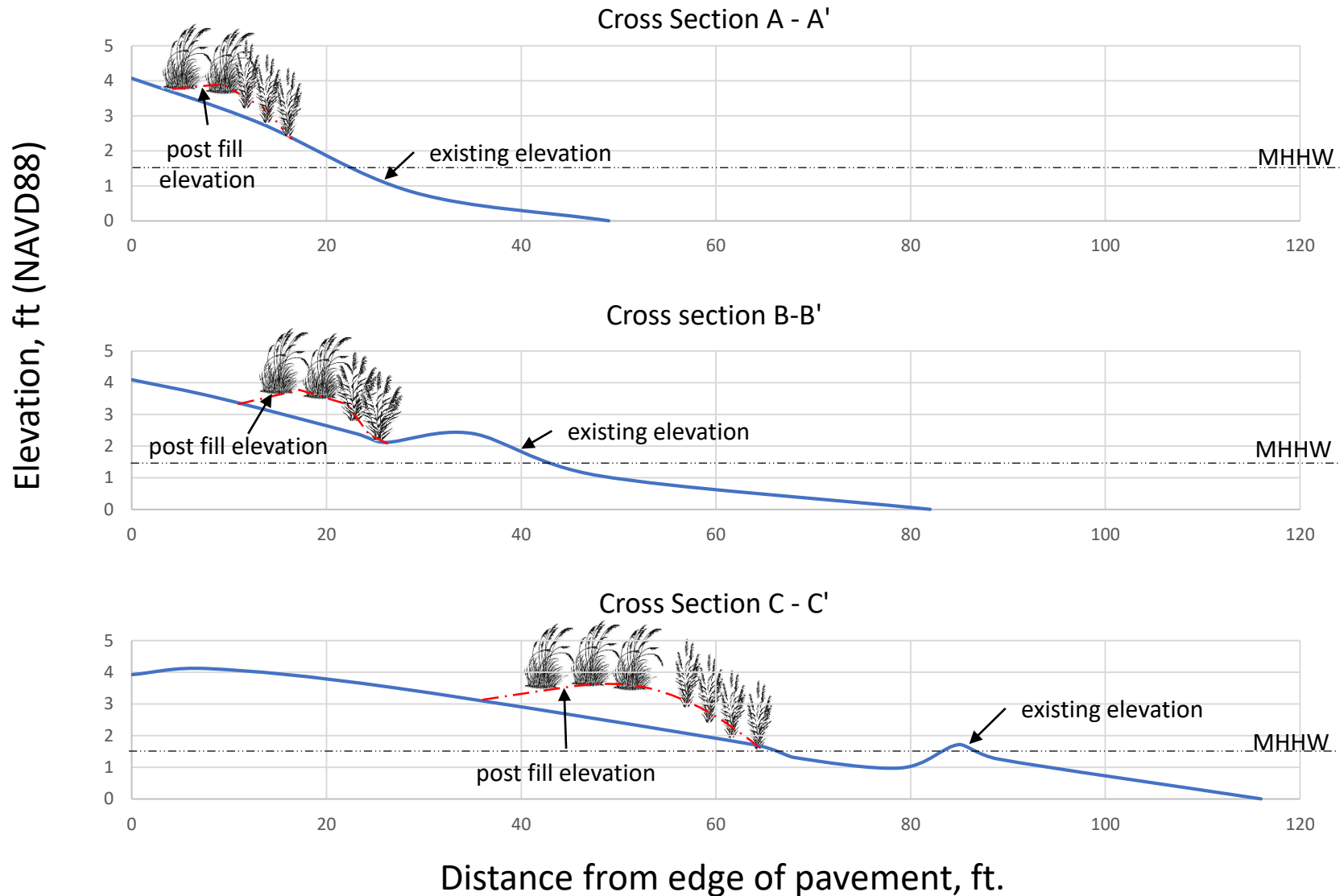


post fill DSM contour



Airport Road Shoreline Restoration Project – Zone B

Dune Planting area Cross Sections



Appendix B

Sediment Compatibility Analysis

(developed by UF)

Based on conversation with FDEP staff, samples collected from Joe Rains Beach will be used to represent the physical characteristics of the beach fill site (Figure A1). At that location, soils samples were collected above the mean high-water line (High), at the upper edge of the intertidal zone (Upper), 0.5' above mean sea level (low) and 0.5' below mean sea level (sub).

Carbonate content, as characterized by the percent fraction of sample retained on the #10 (2mm sieve) that was exclusively composed of shell, were as follows: High 1.2%, Upper 2.2%, low 2.0% and sub 2.9%.

Munsell color of moist samples collected from the four locations at Joe Rains Beach were as follows: High 2.5Y 7/2, Upper 2.5Y 7/2, Low 2.5Y 6/2, and sub 2.5Y 5/2



Figure A1. Location of Joe Rains Beach relative to proposed G-Street and Airport Road project sites.

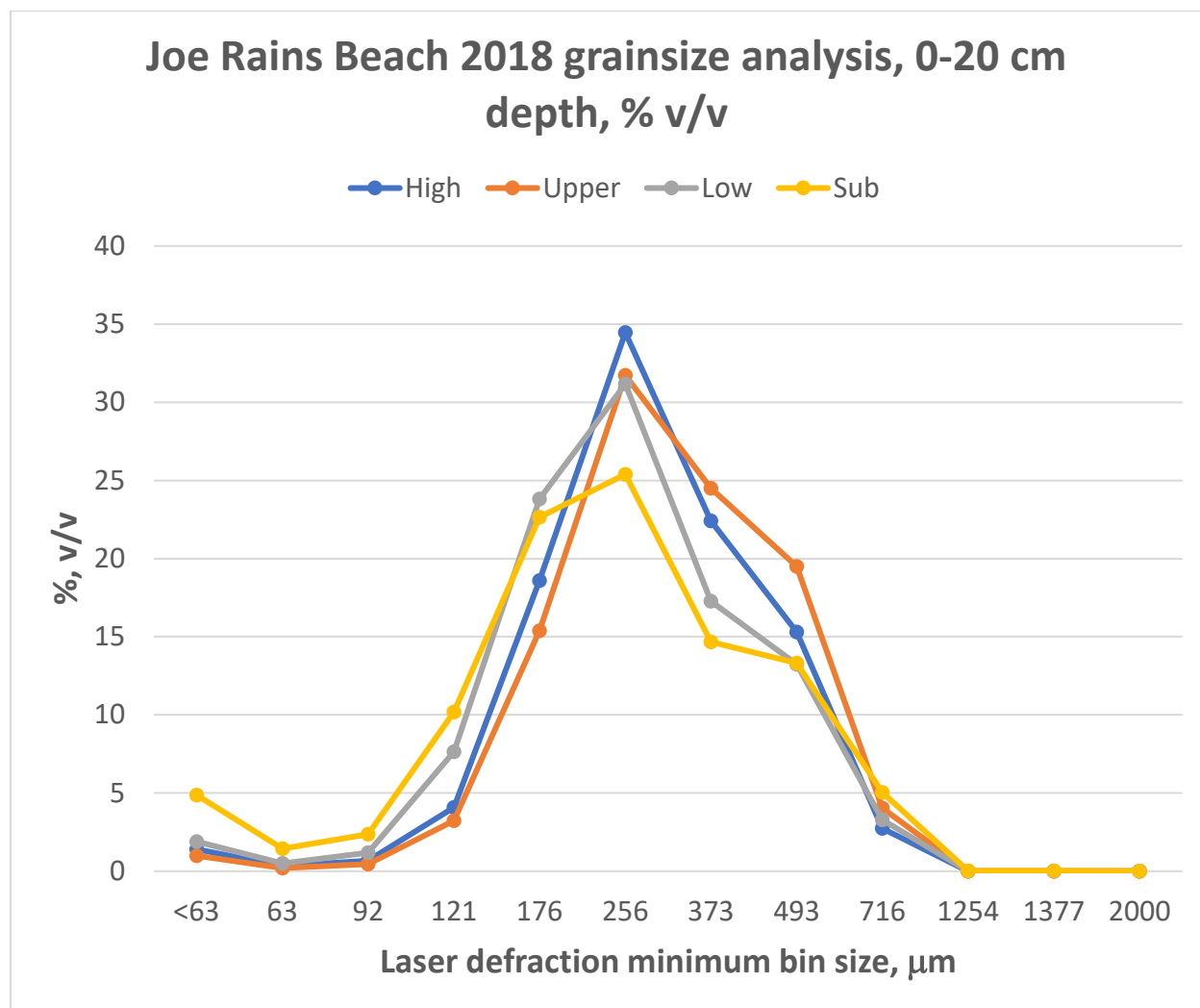


Figure A2. Grain size distribution of samples collected at High, Upper, Low and sub locations along Joe Rains Beach. Cedar Key Florida

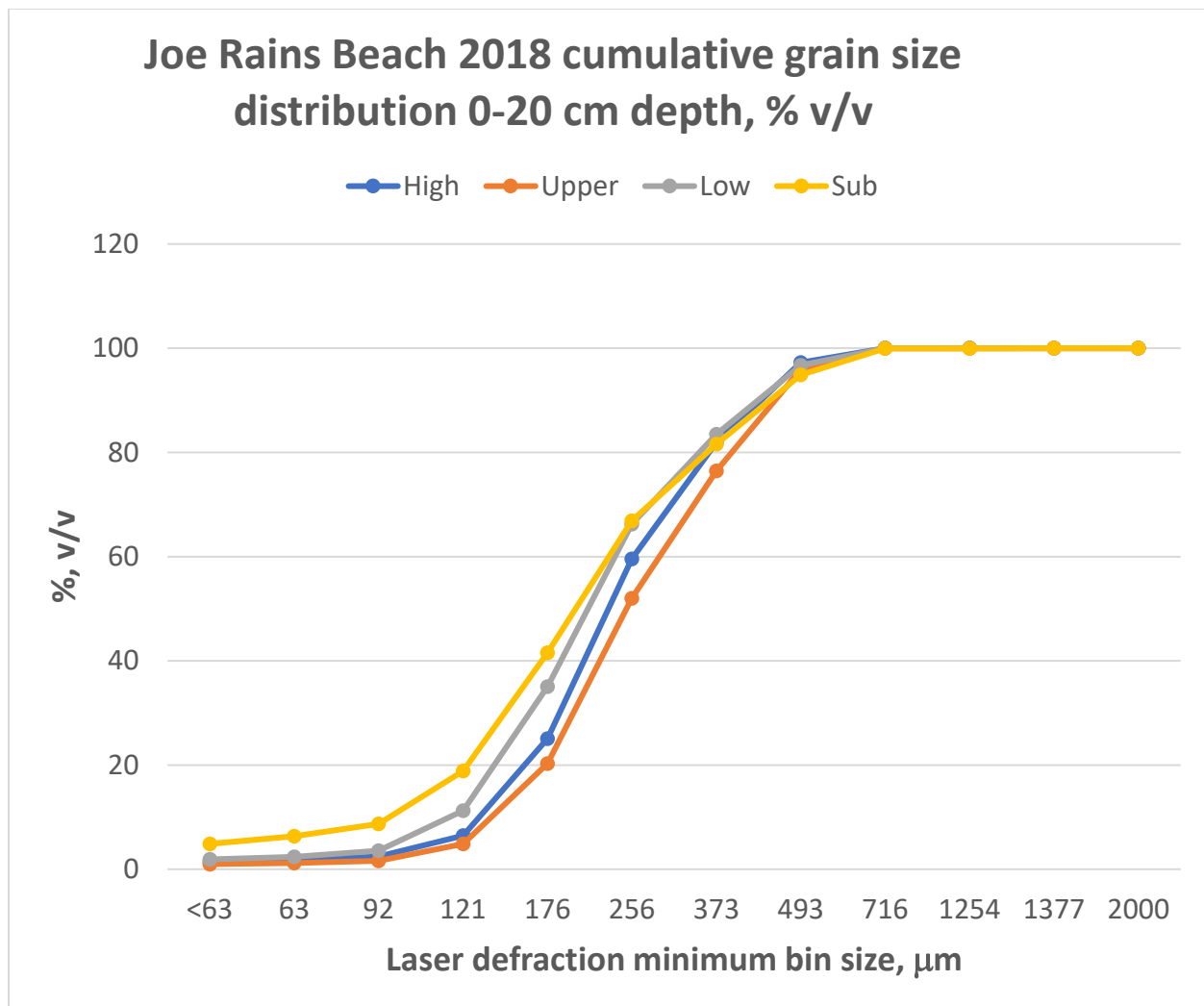


Figure A3. Cumulative grain size distribution of samples collected at High, Upper, Low and sub locations along Joe Rains Beach, Cedar Key, Florida.

f. A sediment Quality Assurance/Quality Control (QA/QC) plan that will ensure that the sediment to be used for beach restoration or nourishment will meet the standards set forth in Rule 62B-41.007, F.A.C.

The following draft sediment QAQC plan is proposed:

SEDIMENT QUALITY CONTROL/QUALITY ASSURANCE PLAN
FOR BEACH OR DUNE RESTORATION USING AN UPLAND SAND SOURCE

University of Florida

Airport Road Shoreline Restoration Project

6/21/2019

A. INTRODUCTION

Pursuant to Fla. Admin. Code r. 62B-41.008 (1) (k) 4.b., permit applications for inlet excavation, beach restoration, or nourishment shall include a quality control/assurance plan that will ensure that the sediment from the borrow areas to be used in the project will meet the standard in Fla. Admin. Code r. 62B-41.007(2)(j). To protect the environmental functions of Florida's beaches, only beach compatible fill shall be placed on the beach or in any associated dune system. Beach compatible fill is material that maintains the general character and functionality of the material occurring on the beach and in the adjacent dune and coastal system.

The Department has received the results of geotechnical investigations that provide adequate data concerning the character of the sediment and the quantities available within the spatial limits of the upland sand source(s). The Department has received an analysis of the existing or native sediment and the sediment within the permitted upland sand source(s), that demonstrates its compatibility with the naturally occurring beach sediment in accordance with Fla. Admin. Code r. 62B-41.007(2)(j).

Based upon this information, the Department of Environmental Protection (Department) has determined that use of the sediment from the upland sand source(s) will maintain the general character and functionality of the sediment occurring on the beach and in the adjacent dune and coastal system. Furthermore, this information provides sufficient quality control/quality assurance (QC/QA) that the mean grain size and carbonate content of the sediment from the upland sand source(s) will meet the requirements of Fla. Admin. Code r. 62B-41.007(2)(j); hence, additional QC/QA procedures are not required for these sediment parameters during construction.

This plan outlines the responsibilities of each stakeholder in the project as they relate to the placement of beach compatible material on the beach. These responsibilities are in response to the possibility that non-beach compatible sediments may exist within the upland sand source(s) and could be unintentionally placed on the beach. The QC Plan specifies the minimum construction management, inspection and reporting requirements placed on the Contractor and enforced by the Permittee, to ensure that sediment from the upland sand source(s) to be used in the project meet the compliance specifications. The QA Plan specifies the minimum construction oversight, inspection and reporting requirements to be undertaken

by the Permittee or the Permittee's On-Site Representative to observe, sample, and test the placed sediments to verify the sediments are in compliance.

B. SEDIMENT QUALITY SPECIFICATIONS

The sediment from the upland sand source(s) is similar in Munsell color and grain size distribution to the material in the existing coastal system at the beach placement site. The Department and the Permittee acknowledge that it is possible that discrete occurrences of non-beach compatible sediments may exist within the permitted upland sand source(s) that do not comply with the limiting parameters of Fla. Admin. Code r. 62B-41.007(2)(j) 1. – 5., or vary in Munsell color from the composite value. Furthermore, the Department may consider more restrictive values for the sediment parameters to ensure that the sediment from the upland sand source(s) is similar in color and grain size distribution to the sediment in the existing coastal system at the beach placement site. Therefore, fill material compliance specifications for the sediment from the upland sand source(s) proposed for this project are provided in Table 1.

The compliance specifications take into account the variability of sediment on the native or reference beach, and are values which may reasonably be attained given what is known about the upland sand source(s). Beach fill material which falls outside of these limits will be considered unacceptable and subject to remediation.

Table 1- Sediment Compliance Specifications

Sediment Parameter	Parameter Definition	Compliance Value
Max. Silt Content	passing #230 sieve equivalent	$\leq 5\%$
Max. Shell Content*	retained on #4 sieve	$\leq 5\%$
Munsell Color Value	moist Value (chroma = 2 or less)	7 or lighter
The beach fill material shall not contain construction debris, toxic material, other foreign matter, coarse gravel or rocks.		

*Shell Content is used as the indicator of fine gravel content for the implementation of quality control/quality assurance procedures.

C. QUALITY CONTROL PLAN

The contract documents shall incorporate the following technical requirements, or equivalent language that addresses the sediment quality monitoring on the beach, and, if necessary, remedial actions. The Permittee will seek to enforce these contract requirements during the execution of work. The Contractor's Quality Control Plan shall be submitted for review and acceptance by the Permittee. This Plan shall also address sediment quality assurance by including: (1) the specific sampling frequency and testing methodology to be provided, (2) the name, address and point of contact for the Licensed Testing Laboratory to be used for the required collection of samples and laboratory testing, and (3) how the

Contractor intends to assess compliance with the Sediments Compliance Specifications as shown in Table 1 above.

The characteristics of the in-situ materials in the upland sand source(s) are indicated in the geotechnical data, including the boring logs and grain size distribution curves. The characteristics of the processed material are also included with the geotechnical data. However, the Contractor should be aware that it is possible for material of differing characteristics to be present and that the mining process may correspondingly require revisions to produce beach compatible sand consistent with the Sediment Compliance Specifications in Table 1.

1. Assessment at Upland Sand Source. The material shall be observed while the material is being loaded into the trucks for transport to the Project Area. Both the Supplier and the Permittee will have benchmark samples labeled with the permit number, "Benchmark Sample", date collected, site name and information on where the sample was attained. The benchmark sample shall be material that has been deemed beach compatible in accordance with the Sediment Compliance Specifications and shall serve as the minimum requirement for the material being placed on the beach. If any material appears to be non-compliant, it shall be set aside for testing and/or further processing and not transported to the beach.

If a sample does not meet the Sediment Compliance Specifications in Table 1, then the material represented by that sample shall not be transported to the Construction Area.

2. Beach Observation. The Contractor will continuously visually monitor the sediment being placed on the beach. An assessment will be made during placement at a minimum of once every two truckloads. This assessment will consist of handling the fill material to ensure that it is predominantly sand and to note the physical characteristics, and assure the material meets the Sediment Compliance Specifications in Table 1. If noncompliant sediment is placed on the beach, the Contractor will immediately cease placement until verified as beach compatible and verbally notify the Permittee's Onsite Representative, providing the time, location, and description of the noncompliant sediment. The Contractor will take the appropriate remediation actions as directed by the Permittee.

D. QUALITY ASSURANCE PLAN

The Permittee will seek to enforce the construction contract and Department permits related to sediment quality. In order to do so, the following steps shall be followed:

1. Construction Observation. Construction observation by the Permittee's On-Site Representative will be performed daily during periods of active construction. The Permittee's On-Site Representative will collect a sediment sample to visually assess grain size, Munsell color, shell content, and silt content against the benchmark sample. The observation will include handling the fill material to ensure that it is predominantly sand to note the physical characteristics and assure the material meets the sediment compliance parameter specified in this Plan. If deemed necessary, quantitative assessments of the sand will be conducted for grain size, silt content, shell content and Munsell color.

2. On-Site Representative. The Permittee will provide on-site observation by individuals with training or experience in beach nourishment and construction inspection and testing, and who are knowledgeable of the project design and permit conditions. The Project Supervisor will actively coordinate with the

Permittee's On-Site Representative, who may be an employee or sub-contractor of the Permittee. Communications will take place between the Project Supervisor and the Permittee's On-Site Representative on at least a weekly basis.

3. Pre-Construction Meeting. The project QC/QA Plan will be discussed as a matter of importance at the pre-construction meeting. The Contractor will be required to acknowledge the goals and intent of the above described QC/QA Plan, in writing, prior to commencement of construction.

4. Project Daily Reports. The Permittee's On-Site Representative will review the Project Daily Reports which will characterize the nature of the sediments encountered at the upland sand source and placed along the project shoreline with specific reference to moist sand color and the occurrence of rock, rubble, shell, silt or debris.

5. On Call. The Project Supervisor will be continuously on call during the period of construction for the purpose of making decisions regarding issues that involve QC/QA Plan compliance.

6. Addendums. Any addendum or change order to the Contract between the Permittee and the Contractor will be evaluated to determine whether or not the change in scope will potentially affect the QC/QA Plan.

7. Post-Construction Sampling for Laboratory Testing. To assure that the fill material placed on the beach was adequately assessed by the borrow area investigation and design, the Project Supervisor will conduct assessments of the sediment as follows:

a. Post-construction sampling of each acceptance section and testing of the fill material will be conducted to verify that the sediment placed on the beach meets the expected criteria/characteristics provided during from the geotechnical investigation and borrow area design process. Upon completion of constructed beach or dune, the Project Supervisor will collect two (2) duplicate sand samples from each project area (G-Street, Airport Road Zone A and Airport Road Zone B) to quantitatively assess the grain size distribution, moist Munsell color, shell content, and silt content for compliance. The Project Supervisor will collect the sediment samples of a minimum of 1 U.S. pint (at least 200 grams) each from the bottom of a test hole a minimum of 12 inches deep within the limits of the constructed area. The Project Supervisor will note the existence of any layering or rocks within the test hole. One sample will be sent for laboratory analysis while the other sample will be archived by the Permittee. All samples and laboratory test results will be labeled with the Project name, FDEP Reference project area location, date sample was obtained."

b. All samples will be evaluated for visual attributes (Munsell color and shell content), sieved using a 2mm sieve and then analyzed using a laser diffraction method to provide equivalent US Standard Sieve Numbers, 14, 18, 25, 35, 45, 60, 80, 120, 170, and 230.

c. A summary table of the sediment samples and test results for the sediment compliance parameters shall accompany the complete set of laboratory testing results. The column headings will include: Sample Number; Mean Grain Size (mm); Silt Content (%); Shell Content (%); Munsell Color Value; and a column stating whether each sample MET or FAILED the compliance values found in Table 1. A statement of how the placed fill material compares to the sediment analysis and volume calculations from the sand search investigation and borrow area design shall be included in the sediment testing

results report. The Permittee will submit sediment testing results and analysis report to the Department within 90 days following living shoreline construction.

d. In the event that a section of beach contains fill material that is not in compliance with the sediment compliance specifications, then the Department will be notified. Notification will indicate the volume, aerial extent and location of any unacceptable beach areas and remediation planned.

E. REMEDIATION

1. **Compliance Area.** If a sample does not meet the compliance value for construction debris, other foreign material, coarse gravel, or rock the Permittee shall determine the aerial extent of the noncompliant beach fill material and remediate regardless of the extent of the noncompliant material. If a sample is noncompliant for the silt content, shell content, or Munsell color, and the aerial extent exceeds 5,000 square feet of beach berm or 100 linear feet of dune for dune-only projects, the Permittee shall remediate.

2. **Notification.** If an area of newly constructed beach or dune does not meet the sediment compliance specifications, then the Department (JCPCompliance@dep.state.fl.us) will be notified. Notification will indicate the aerial extent and location of any areas of noncompliant beach fill material and remediation planned. The results of any remediation will be reported to the Department following completion of the remediation activities and shall indicate the volume of noncompliant fill material removed and replaced.

3. **Sampling to determine extent.** In order to determine if an area greater than 5,000 square feet of beach berm or 100 linear feet of dune for dune-only projects is noncompliant, the following procedure will be performed by the Permittee's Project Supervisor:

- a. Upon determination that the first sediment sample is noncompliant, at minimum, five (5) additional sediment samples will be collected at a maximum 25-foot spacing in all directions and assessed. If the additional samples are also noncompliant, then additional samples will be collected at a 25-foot spacing in all directions until the aerial extent is identified.
- b. The samples will be visually compared to the acceptable sand criteria. If deemed necessary by the Engineer, quantitative assessments of the sand will be conducted for grain size, silt content, shell content, and Munsell color using the methods outlined in section D.7.b. Samples will be archived by the Permittee.
- c. A site map will be prepared depicting the location of all samples and the boundaries of all areas of noncompliant fill.
- d. The total square footage will be determined.
- e. The site map and analysis will be included in Project Daily Report.

4. **Actions.** The Permittee or Permittee's Project Supervisor shall have the authority to determine whether the material placed on the beach is compliant or noncompliant. If placement of noncompliant material occurs, the Contractor will be directed by the Permittee or Permittee's Engineer on the necessary corrective actions. Should a situation arise during construction that cannot be corrected by the remediation methods described within this QC/QA Plan, the Department will be notified. The remediation actions for each sediment parameter are as follows:

- a. Silt: blending the noncompliant fill material with compliant fill material within the adjacent construction berm or dune sufficiently to meet the compliance value, or removing the noncompliant fill material and replacing it with compliant fill material.

- b. Shell: blending the noncompliant fill material with compliant fill material within the adjacent construction berm or dune sufficiently to meet the compliance value or removing the noncompliant fill material and replacing it with compliant fill material.
- c. Munsell color: blending the noncompliant fill material with compliant fill material within the adjacent construction berm or dune sufficiently to meet the compliance value or removing the noncompliant fill material and replacing it with compliant fill material.
- d. Coarse gravel: screening and removing the noncompliant fill material and replacing it with compliant fill material.
- e. Construction debris, toxic material, or other foreign matter: removing the noncompliant fill material and replacing it with compliant fill material.
- f.

All noncompliant fill material removed from the beach will be transported to an appropriate upland disposal facility located landward of the Coastal Construction Control Line or returned to the upland mine.

5. Post-Remediation Testing. Re-sampling shall be conducted following any remediation actions in accordance with the following protocols:

- a. Within the boundaries of the remediation actions, samples will be taken at maximum of 25-foot spacing.
- b. The samples will be visually compared to the acceptable sand criteria. If deemed necessary by the Engineer, quantitative assessments of the sand will be conducted for grain size, silt content, and Munsell color using the methods outlined in section D.7.b. Samples will be archived by the Permittee.
- c. A site map will be prepared depicting the location of all samples and the boundaries of all areas of remediation actions.

6. Reporting. A post-remediation report containing the site map, sediment analysis, and volume of noncompliant fill material removed and replaced will be submitted to the Department within 7 days following completion of remediation activities.

All reports or notices relating to this permit shall be emailed and sent to the Department at the following locations:

DEP Bureau of Beaches & Coastal Systems

JCP Compliance Officer

Mail Station 300

3900 Commonwealth Boulevard

Tallahassee, Florida 32399-3000

phone: (850) 414-7716

e-mail: JCP_Compliance@dep.state.fl.us

Appendix C

Mangrove Management Plan

Mangrove Management Plan- UF Cedar Key Shoreline Restoration Projects

The shorelines along Airport Road (Figure 1) and G Street in Cedar Key (Figure 2) have eroded over time leading to loss of wetland and other estuarine habitats. In 2016 Hurricane Hermine caused further erosion along these shorelines. University of Florida (UF) is coordinating with adjacent property owners to restore these erode shorelines. These proposed living shoreline projects will restore shoreline habitats and improve erosion control by re-grading the shorelines in eroded areas, planting dune and marsh vegetation, and installing oyster reef breakwater structures. Riparian property owners along the shorelines are supportive of herbaceous vegetation to help stabilize sediment and reduce erosion, but are concerned that the proposed restoration activities will create suitable habitat for mangrove establishment. The property owners wish to maintain their riparian right of view and other water front access rights, through implementation of a mangrove management plan.

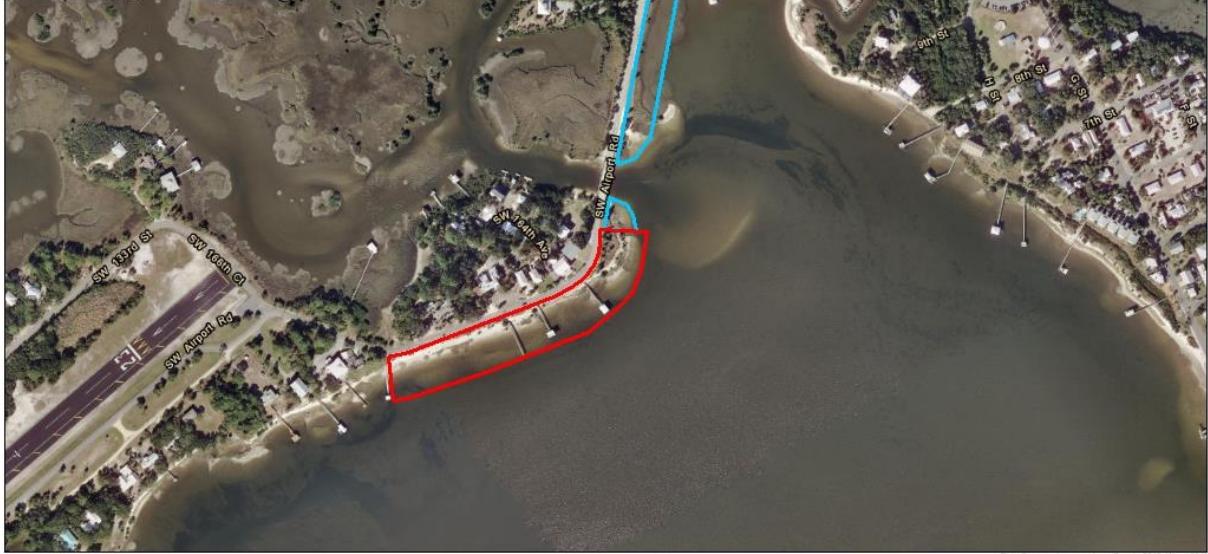
There are three species of mangroves: red mangrove (*Rhizophora mangle*), black mangrove (*Avicennia germinans*), and white mangrove (*Laguncularia racemosa*). All three species propagate through seeds that can sprout while still on the trees and drop into the soft bottom around the base or are transported to other suitable habitat. Seedling recruitment is often dependant on seeds landing at a suitable elevation within the intertidal zone and in areas of lower wave energy. Modifying shoreline elevation, installing marsh vegetation and mitigating wave energy using oyster reef breakwater structures can all result in increased trapping of seeds and success of mangrove seedling recruitment.

The Florida state 1996 Mangrove Trimming and Preservation Act (MTPA) limits the removal, defoliation, or destruction of mangroves; while providing waterfront property owners their riparian right of a view and other rights of riparian ownership through allowing trimming. This act rightfully balances the ecological benefits and services mangroves provide with the riparian rights granted to property owners; however, this is generally intended for shorelines that either already have or could naturally recruit mangroves. The fact that a living shoreline approach to stabilizing an actively eroding shoreline could greatly encourage mangrove establishment in areas that presently would not likely recruit mangroves seriously limits most property owners' willingness to participate. Therefore, to maintain interest and support of a marsh-based living shoreline approach (in contrast to a shoreline armoring approach), these property owners require a mangrove management plan that more fully protects their shoreline views and access.

Under this permit application, the property owners will implement a mangrove management plan, which will allow for the removal of any newly established mangroves within the project area (See Figure 1 and Figure 2), while protecting all existing mangroves, and not adversely affecting the integrity of the constructed native dune and marsh communities. UF and the riparian property owners will be the responsible party for the following:

- All existing mangroves within the project area that are not otherwise approved for removal will be marked with metal tags, their GPS coordinates will be determined and photographs of each mangrove with adequate georeference points will be documented prior to construction. These "existing mangroves" will not be removed but may be trimmed in accordance with the MTPA through the typical process currently available to property owners (through activities independent of this permit).
- To prevent the establishment of new mangroves within the project area, property owners will be encouraged to regularly harvest seeds and seedlings within the project area. UF will educate property owners on the value of proactive management, i.e., the need to remove mangroves before they become large and begin to negatively impact marsh vegetation.
- New mangroves seeds and seedlings with minimal root mass that can be removed without significantly disturbing the soil will be uprooted (likely 0-2' height). New mangroves that have more extensive roots will be cut off as close to the sediment surface as possible (likely 2-4' height). All harvested seeds, seedlings and cuttings will be removed from the project area.

- New mangroves that reach a height of four (4) feet or more may no longer be removed and must be managed under the MPTA or a modified management plan proposed and approved by the Florida Department of Environmental Protection



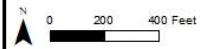
Date Sources: Imagery: Lanny County 2016; Wood 2016

Legend

- Zone A Project Boundary
- Zone B Project Boundary

Airport Road Shoreline Restoration Project

Project Location Map



wood.

Figure
1



Data Sources: Imagery- Levy County 2016; Wood 2019

Legend
 Project Boundary

G Street Shoreline Restoration Project	
Project Location Map	
 0 100 200 Feet	
Figure 1	

Appendix D

Epibenthic Survey Species List

Airport Road Shoreline

Floral Survey

Rhodophyta (Red Algae)

Gracilaria caudata
Gracilaria cylindrica
Gracilaria tikvahiae

Chlorophyta (Green Algae)

Enteromorpha flexuosa
Enteromorpha prolifera
Ulva lactuca

Terrestrial Plants

Sea Purslane - *Sesuvium portulacastrum*
Black Mangrove - *Avicennia germinans*
Zoysia Grass – *Zoysia matrella*
St. Augustine Grass - *Stenotaphrum secundatum*
Christmas Berry – *Lycium carolinianum*
Smooth Cordgrass - *Spartina alterniflora*
Sea Blite – *Suaeda linearis*
Sea Myrtle – *Baccharis halimifolia*
Silverhead - *Philoxerus vermicularis*
Seashore Paspalum – *Paspalum vaginatum*
Cabbage Palm - *Sabal palmetto*
Railroad Vine – *Ipomoea pes-caprae*

Faunal Survey

Gastropods

Impressed Odostome – *Boonea impressa*
Bruised Nassa – *Nassarius vibex*
Tampa Oyster Drill - *Eupleura tampaensis*
Oyster Dove Snail - *Parvanachis ostreicola*
Florida Cerith - *Cerithium atratum*
Marsh Periwinkle - *Littoraria irrorata*
Lunar Dove Snail - *Astyris lunata*
Dwarf Olive - *Olivella lactea*
Slipper Snail - *Crepidula fornicata*
Florida Crown Conch - *Melongena corona*
Banded Tulip - *Fasciolaria lilium*
Mangelia – *Kurtziella* sp.

Bivalvia

Eastern Oyster - *Crassostrea virginica*

Ribbed Mussel - *Geukensia demissa*

Clam - *Mercenaria campechiensis*

Crustacea

Oystershell Mud Crab - *Panopeus simpsoni*

Common Barnacle - *Semibalanus balanoides*

Green Porcelain Crab - *Petrolisthes armatus*

Longclaw Hermit Crab - *Pagurus longicarpus*

Bigclaw Snapping Shrimp - *Alpheus heterochaelis*

Fiddler Crab – *Uca sp.*

Amphipods – *Amphipoda sp.*

Urochordata

Rough Tunicate - *Styela plicata*

Arthropoda

Horseshoe Crab – *Limulus Polyphemus*

Echinodermata

Brittle Star - *Ophiophragmus moorei*

Appendix E

Cultural Resources Letter from the Division of Historical Resources



FLORIDA DEPARTMENT *of* STATE

RON DESANTIS
Governor

LAUREL M. LEE
Secretary of State

Shannon McMorro
Wood

March 13, 2019

RE: DHR Project File No.: 2019-1145, Received by DHR: February 22, 2018
Project: *Airport Rd and G-St Living Shorelines*
County: Levy

To Whom It May Concern:

Our office has reviewed the above-referenced project and provided comments as part of a Due Diligence review for the applicant in advance of applying for a state permit. Please note that our comments may change if additional information is presented for this project when the state permit application is received. This letter does not constitute a review under Section 106 of the *National Historic Preservation Act*.

Based on the information we have received, it is the opinion of this office that the proposed project is unlikely to affect historic properties. However, since unexpected finds may occur during ground disturbing activities, we request that the applicant has a plan in place in the event of inadvertent cultural resource discoveries:

- If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The applicant shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section at (850)-245-6333. Project activities shall not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, *Florida Statutes*.

If you have any questions, please contact Eric Griffis, Historic Sites Specialist, by email at Eric.Griffis@dos.myflorida.com, or by telephone at 850.245.6366 or 800.847.7278.

Sincerely,

For
Timothy A Parsons, Ph.D.
Director, Division of Historical Resources
& State Historic Preservation Officer



Appendix F

Adjacent Property Owner Map and Table



Data Sources: Imagery Levy County 2016, University of Florida GeoPlan Center Florida Parcel Data Statewide 2017, Wood 2019

Legend

- Zone A
- Zone B
- 500 ft Buffer
- Parcels

Airport Road Shoreline Restoration Project

Adjacent Property Owners Map and Table



wood.

Map ID	Parcel ID	Owner Name	Address	City	State	Zip	Map ID	Parcel ID	Owner Name	Address	City	State	Zip
1	004130010A	LEVY COUNTY SCHOOL BOARD	PO DRAWER 129	BRONSON	FL	32621	42	0892400000	DAY CARMEN LEE	13164 SW 164TH AVE	CEDAR KEY	FL	32625
2	0042000000	UGWUOKE RAWN ELLEN	PO BOX 135	BLAIRSTOWN	NJ	7825	43	0892500000	SCHULZ SARAH M TRS	C/O THOMOSON, PO BOX 1127	DEFUNIAK SPRINGS	FL	32435
3	0042000100	ALLEN ALICE	PO BOX 260427	TAMPA	FL	33685	44	0892600000	JONES STEVEN D	PO BOX 1267	MCCORMICK	SC	29835
4	004200010J	THOMAS DAVID E JR	PO BOX 1097	DUNEDIN	FL	34697	45	0892900000	SCHULZ SARAH M TRS	C/O THOMOSON, PO BOX 1127	DEFUNIAK SPRINGS	FL	32435
5	004200010K	CALLAHAN MICHAEL T	16351 SW WHIDDON AVE	CEDAR KEY	FL	32625	46	0893000000	JUBITZ MOLLY E	PO BOX 76	CEDAR KEY	FL	32625
6	004200020A	COMPTON ADRIAN TERRELL	223 SE 127TH ST	NEWBERRY	FL	32669	47	0893100000	SOLANO ROBERT L	11229 E RIVERVIEW DR	RIVERVIEW	FL	33569
7	004200020B	PARKER NANCY	PO BOX 268	CEDAR KEY	FL	32625	48	0893100100	BARRY CHARLES T	318 MILL RD	HAMPTON	NH	3842
8	004200020C	MOREY TIMOTHY E	8909 SW 61ST AVE	GAINESVILLE	FL	32608	49	2081700000	VOINCHE CHARLES L	207 STEPHENS ST	LAFAYETTE	LA	70506
9	00420002AA	HINSHAW RANDALL H	4631 HOPKINS GAP RD	HARRISONBURG	VA	22802	50	2081800000	MHATRE ANITA U	165 SW VISION GLENN	LAKE CITY	FL	32025
10	00420002BA	STATE OF FLORIDA	1109 S MARION AVE	LAKE CITY	FL	32025	51	2081900000	MHATRE AJAY U	165 SW VISION GLENN	LAKE CITY	FL	32025
11	0042200000	LEVY BOCC	PO DRAWER 310	BRONSON	FL	32621	52	2082000000	HOWELL PAMELA B BLAIR	108 WEDGEWOOD CIR	ELIZABETHTON	TN	37643
12	0042300000	GRIFFIN POPE & MARGARETT TRS	1389 S SHORE DR	FLEMING ISLAND	FL	32003	53	2082100000	POPOVICH ARTHUR T	16675 CORNER LAKE DR	ORLANDO	FL	32820
13	0042400000	CEDAR KEY PROPERTIES LLC	40 SE 11TH AVE	OCALA	FL	34471	54	2082200000	NELSON CHARLES R	PO BOX 160	CEDAR KEY	FL	32625
14	0042400200	BERZON KAYE L	8138 NW 77TH PL	CHIEFLAND	FL	32626	55	2082300000	LAWRENCE GERALD C JR	PO BOX 912	CEDAR KEY	FL	32625
15	00424002BB	STATE OF FLA	22802 S MARION AVE	LAKE CITY	FL	32025	56	2082500000	GROSS ALLEN P	200 BELLA HARBOR CT, 2-114	PALM COAST	FL	32137
16	0042401200	WRAY MARK D	7600 NE GINNIE SPRINGS RD	HIGH SPRINGS	FL	32643	57	2082600000	PARKER PHILIP E	PO BOX 268	CEDAR KEY	FL	32625
17	0042401400	JOCELYN ROBIN	PO BOX 736	CEDAR KEY	FL	32625	58	2082600100	EGRETS PASS HOMEOWNERS ASSOCI	C/O CHARLES R NELSON, PO BOX 160	CEDAR KEY	FL	32625
18	0042600100	SALT RAYSON JOHN	138 S 580 W	HEBRON	IN	46341	59	2090100000	TEISS CHELSEA LEE	PO BOX 1004	CEDAR KEY	FL	32625
19	0042600200	GORDON-HARDY ALICE W	1625 SW 6TH TER	GAINESVILLE	FL	32601	60	2090200000	WELBERRY ROBERT J	16330 SW 129TH LN	CEDAR KEY	FL	32625
20	0886900200	LARA JOHNNY RAY	1265 WHIDDON AVE	CEDAR KEY	FL	32625	61	2090400000	HINSHAW RANDALL H	4631 HOPKINS GAP RD	HARRISONBURG	VA	22802
21	0887000000	GRADY PATRICK-TTEE	6658 CR 625	BUSHNELL	FL	33513	62	2149800000	PETRIE GRANVILLE	1113 VICTORY GARDEN DR	TALLAHASSE	FL	32301
22	0887000100	GRADY PATRICK-TTEE	6658 CR 625	BUSHNELL	FL	33513	63	2149900000	OSCAR V MURPHY ENTERPRISES INC	14840 W HWY 40	OCALA	FL	34481
23	0887100000	BISHOP MACK	PO BOX 488	CEDAR KEY	FL	32625	64	2150000000	OSCAR V MURPHY ENTERPRISES LLC	14840 W HWY 40	OCALA	FL	34481
24	0887400000	MORRISON CHRISTOPHER B	317 NE 4TH STREET	WEBSTER	FL	33597	65	2150100000	HUYGHERBAERT MARC L & JOSEPHIN	110 S GEORGE ST	MILTONVALE	KS	67466
25	0887400100	WOODARD GLORIA	317 NE 4TH AVE	WEBSTER	FL	33597	66	0889500000	SYKES SCOTT J	2808 BALDWIN MILL RD	BALDWIN	MD	21013
26	0889900000	CAMPBELL PHILLIP A	PO BOX 381	CEDAR KEY	FL	32625	67	0889600000	MALINOWSKI DAVID A	1158 WHIDDON AVE	CEDAR KEY	FL	32625
27	0889900100	CAMPBELL PHILLIP A	PO BOX 381	CEDAR KEY	FL	32625	68	0889600100	TELGEN DOUGLA	16380 HODGES AVE	CEDAR KEY	FL	32625
28	0889900200	LEIGHTON EWAN	270 SEA DUNES DR	MELBOURNE BEACH	FL	32951	69	0889700000	MEDEIROS DAVID E	16109 WALL ST	HOUSTON	TX	77040
29	0890000000	SKARUPSKI BRYAN	PO BOX 129	CEDAR KEY	FL	32625	70	0889800000	SANCHEZ ART	PO BOX 445	FERNANDINA BCH	FL	32035
30	0890100000	GARRETT NIN	1210 WHIDDON AVE	CEDAR KEY	FL	32625	71	0890700000	MONIF GILES R G	17121 LAKEWOOD DR	OMAHA	NE	68123
31	0890200000	LEIGHTON EWAN	270 SEA DUNES DR	MELBOURNE BEACH	FL	32951	72	0890800000	WATFORD WILLIAM M TRS	238 BELINDA DR	DELAND	FL	32720
32	0890200100	ALLEN JOSEPH	1274 WHIDDON AVE	CEDAR KEY	FL	32625	73	0890800100	VICKERS JUNE	751 HUMMINGBIRD WAY, APT 7	NORTH PALM BEACH	FL	33408
33	0890200200	LEIGHTON EWAN	270 SEA DUNES DR	MELBOURNE BEACH	FL	32951	74	0890900000	MOORE JAMES	PO BOX 96	LENOIR CITY	TN	37771
34	0891700000	WILDER BOBBY J -TRUSTEE-	PO BOX 202	CEDAR KEY	FL	32625	75	0890900100	CRUMPLEY JAMES R	255 JENKINS RD NE	CLEVELAND	TN	37312
35	0891700100	CARLIN MICHAEL D, CARLIN HEATHER J	8598 139TH LN	SEMINOLE	FL	33776	76	0891000000	ISLAND CITY ENTERPRISES LLC	PO BOX 979	CEDAR KEY	FL	32625
36	0891700200	STATE OF FLORIDA DOT	1109 SOUTH MARION AVENUE	LAKE CITY	FL	32025	77	0891000100	EL JEBEL EAST LLC	3940 NW 16TH BLVD, BLDG B	GAINESVILLE	FL	32605
37	0891800000	FEHMERLING ERICH GOTTLIEB	PO BOX 71	CEDAR KEY	FL	32625	78	0891000200	ISLAND CITY ENTERPRISES LLC	PO BOX 979	CEDAR KEY	FL	32625
38	0892000000	MITCHELL LISA HELEN	PO BOX 351	CEDAR KEY	FL	32625	79	0891100000	WATFORD WILLIAM M JR	238 BELINDA DR	DELAND	FL	32720
39	0892100000	STUBBS MILTON W TR	1224 NW 22ND ST	GAINESVILLE	FL	32605	80	0891100100	WARWICK HENRY GLYN	1149 PALMETTO DR	CEDAR KEY	FL	32625
40	0892200000	JACKSON BARBARA K TRS	PO BOX 5048	OVILLA	TX	75154	81	0891200000	SCHLEEDE JOHN F	PO BOX 979	CEDAR KEY	FL	32625
41	0892300100	PHILLIPS ALICE A	PO BOX 701	CEDAR KEY	FL	32625							

Data Sources: University of Florida GeoPlan Center Florida Parcel Data Statewide 2017, Wood 2019

Airport Road Shoreline Restoration Project

Adjacent Property Owners Map and Table

wood.

ELECTRONIC SIGNATURE REPORT

Florida Professional Engineer Licensee: Sean A. King, P.E.

Florida Professional Engineer License Number: 80372

Amec Foster Wheeler Project Number: 6063-19-0317

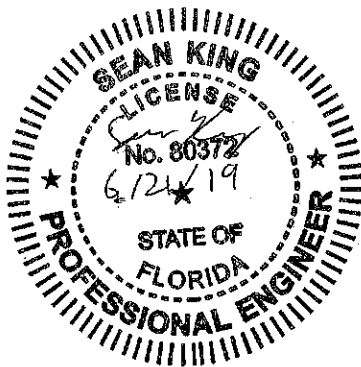
Client Name: University of Florida

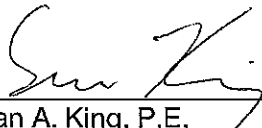
Project Name: Airport Road Shoreline Restoration Project

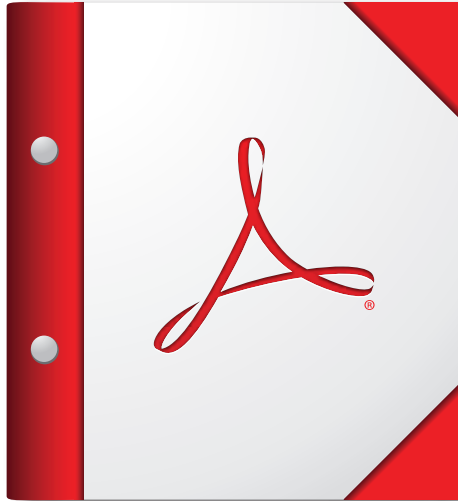
List of the Electronically Signed and Sealed Engineering Documents:

DESCRIPTION	SHA-1 AUTHENTICATION CODE
<u>Permitting Plans:</u>	
Airport Road Shoreline Restoration Plans	897d41e675b1b8502da6057c3b8bc1355fa19687
Total Sheets - 8	

Florida Professional Engineer Signature, Seal, and Date:

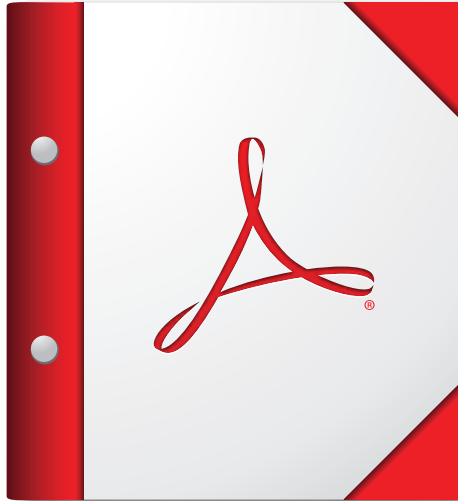


 6/21/19
Sean A. King, P.E. Date
Senior Engineer
Florida P.E. #80372
Wood Environment & Infrastructure Solutions, Inc.
404 SW 140th Terrace
Newberry, FL 32669
Certificate of Authorization #5392



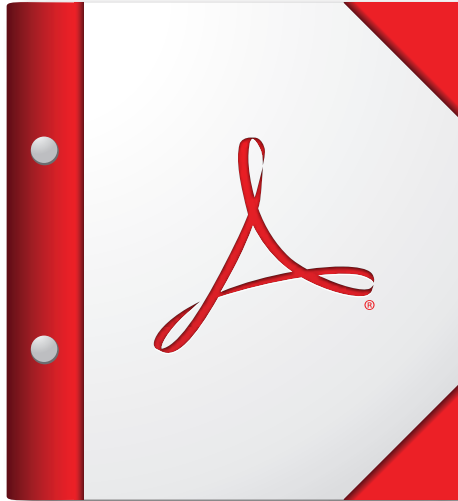
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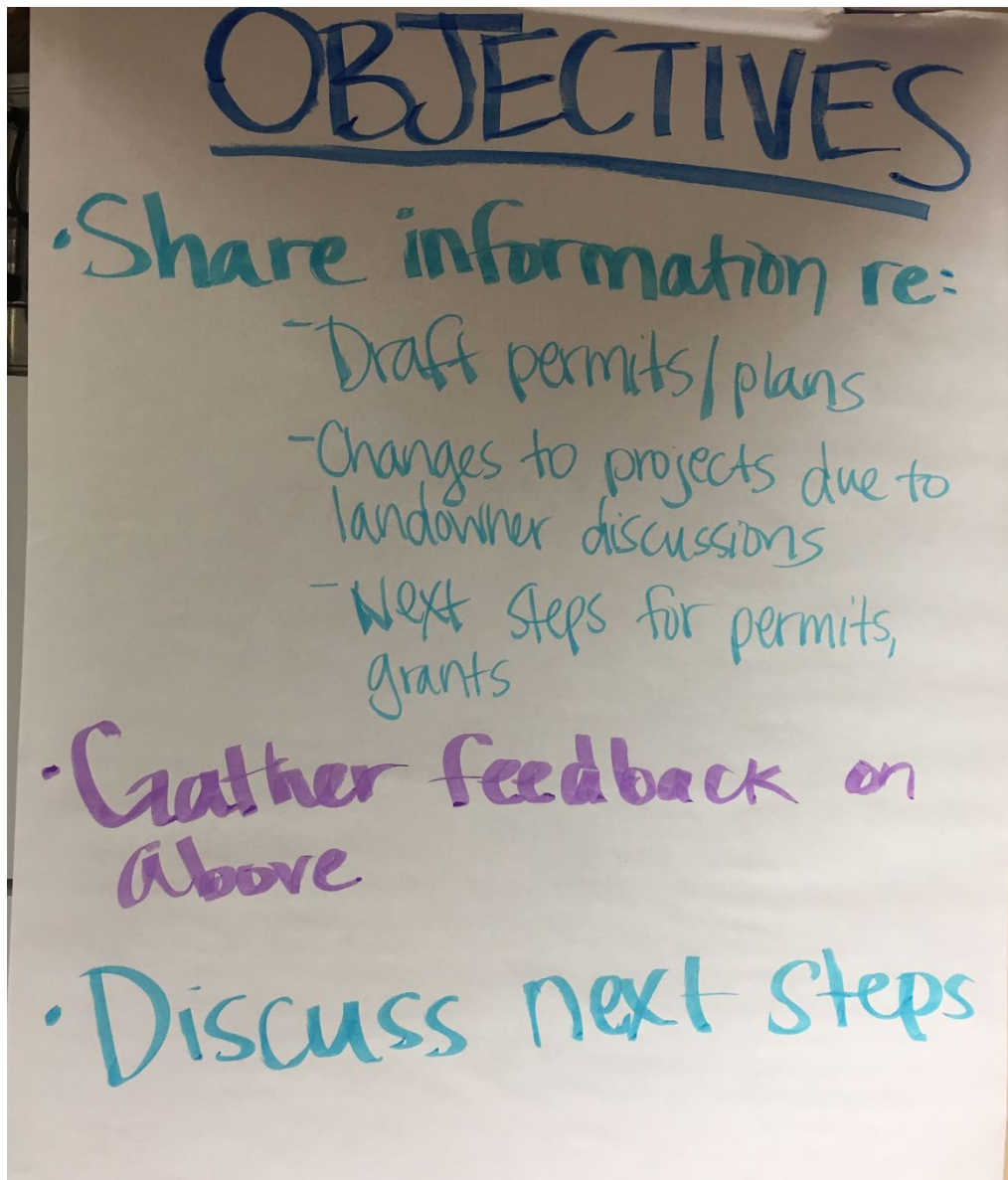
Daughtry Bayou Shoreline Project Stakeholder Meeting

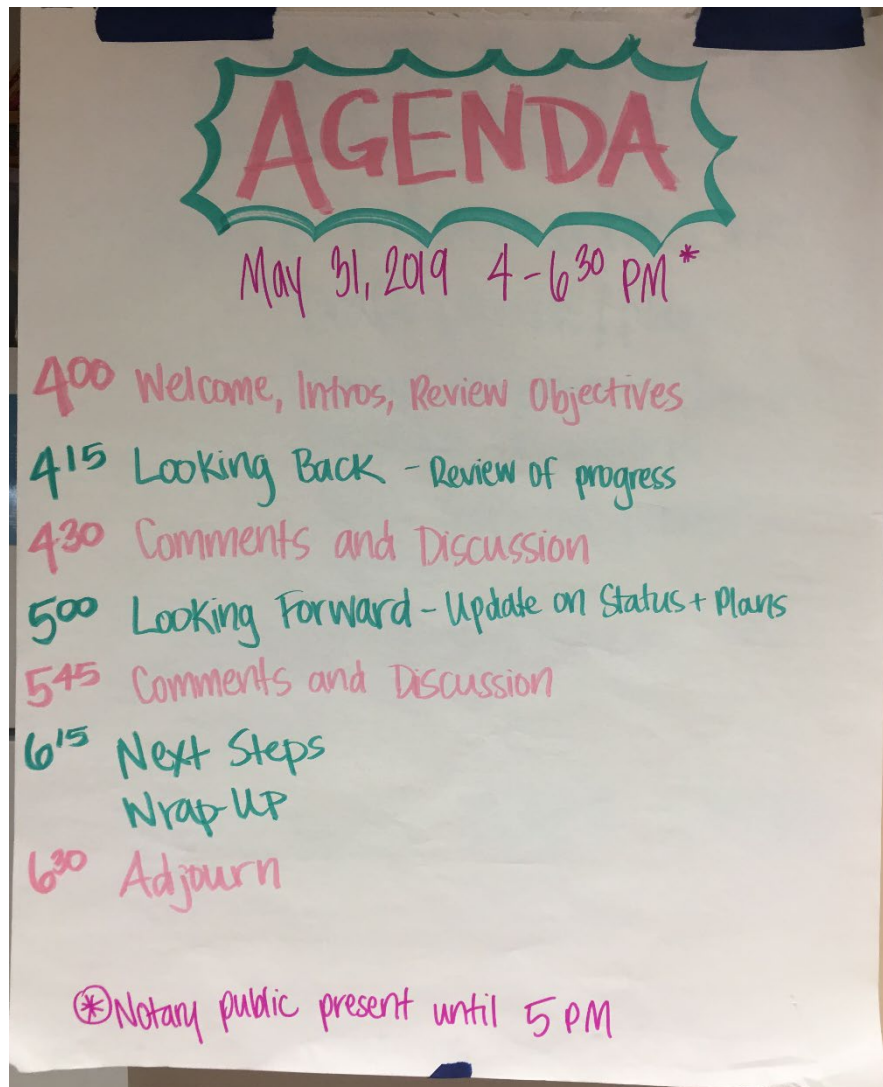
May 31, 2019

Cedar Key Public Library, 4 - 6:30 PM

Meeting Objectives

1. Share information about:
 - a. Draft permit documents
 - b. Changes to project designs to address landowner comments
 - c. Grants, permitting, and landowner documents
2. Gather feedback on draft plans, etc.
3. Discuss next steps for project planning and construction



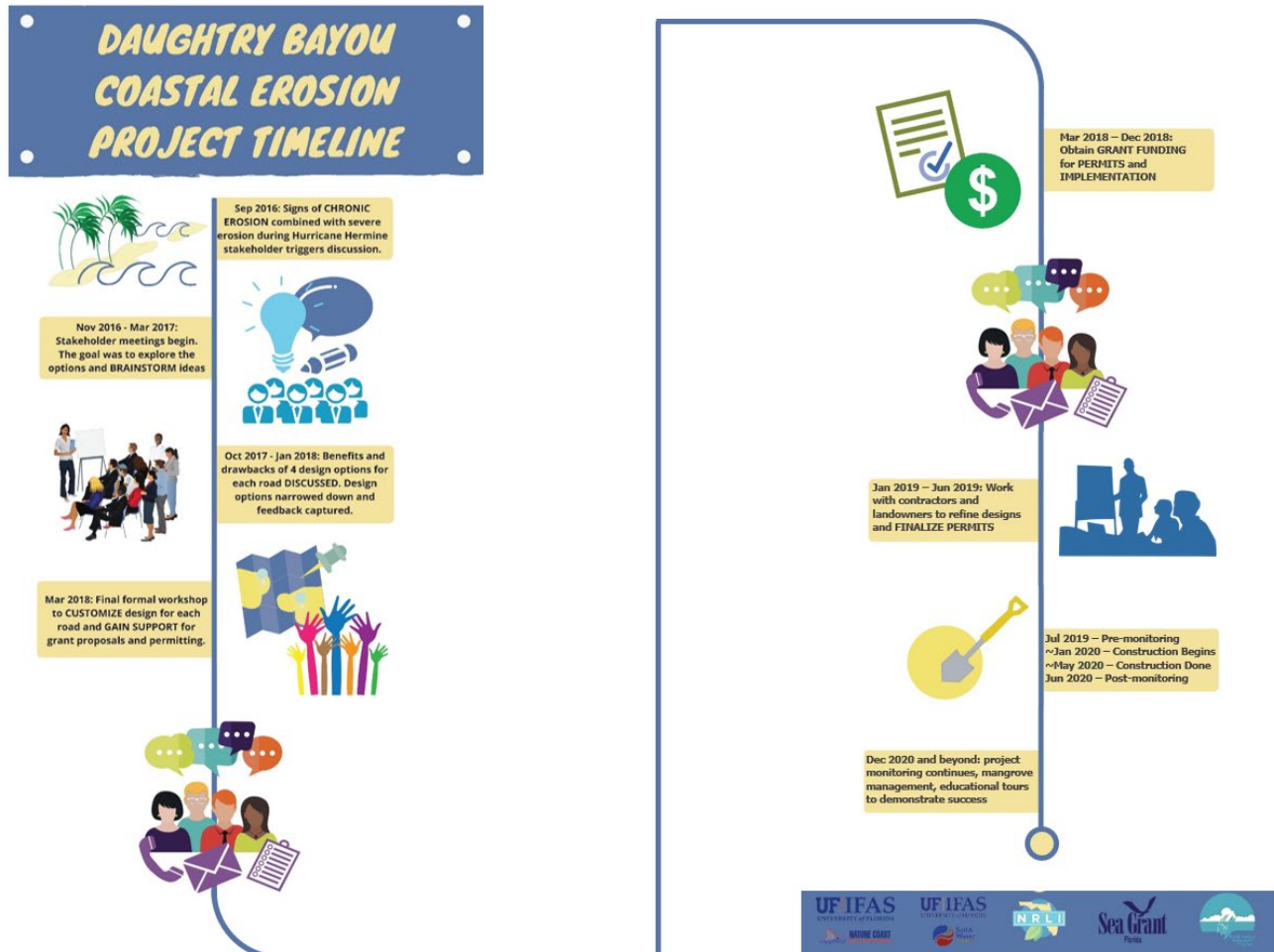


4:00 Welcome, Introductions

There were several new attendees at the workshop. After introducing Savanna Barry, Mark Clark, and Wendy-Lin Bartels, all attendees introduced themselves and said one thing they are looking forward to this summer. Several people mentioned going on trips or having family visit – sounds like everyone is in for a great summer 😊.

4:15 Looking Back

Savanna lead the group in a discussion about where we started and how far we have come. The project team reiterated gratitude to property owners for hanging in with the process and getting us to this point. We covered the timeline handout (see below) to remind people of past meetings and our goals at those meetings. The meeting on 5/31/2019 was the 6th meeting in the series.



Savanna gave a status update about where the two projects are, in general. These can be summarized as follows:

- The Airport Rd. project appears to be moving ahead mostly as planned, with a few minor modification requests from property owners. Several signatures are still pending but the majority of signatures have been submitted already. There are a few items that will need to be discussed/confirmed with owners in the later part of the discussion (see below).
- G Street – plan to moving ahead with modifications, assuming agreement of property owners in the remaining segment of the project (those properties NW of the dock).
 - o The main reason for the major modification to the G Street project was that the joint owners of the dock decided that the uncertainties related to the project were too great to continue to consider being involved. There was a discussion about messages between Savanna and the dock owners and how the process played out. In the end, the project team could not come up with a plan that sufficiently addressed the dock owners’ concerns. There was a request to hear the email exchange but the facilitator did not think that would be a productive use of time and moved us past that discussion.
 - o Therefore, the best option is to move ahead with the portion of the project that does not include the dock owners’ parcel, nor the City parcel.

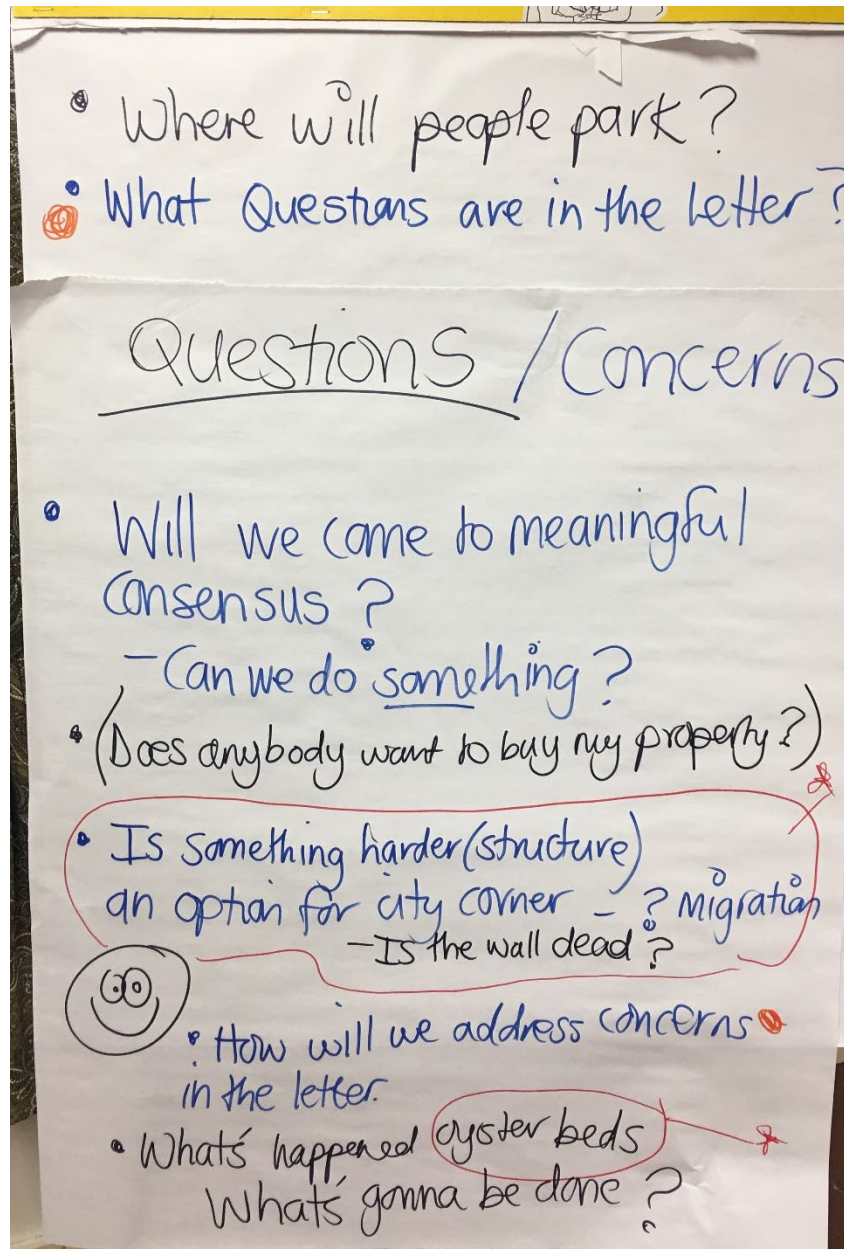
Previous Meetings

- Mar 2017 - Kick-off
- Oct/Nov 2017 - 2 Design meetings
- Mar 2018 - Planning Wrap-up
- Jan 2019 - Permitting Kick-off
- May 2019 - Permitting / "Moving Ahead"

- Savanna also noted that there will be some media coverage/press releases about the grant-related work – she wanted to make sure all know that these will be occurring. Please contact Savanna directly if you have any questions or concerns related to media coverage.

4:30 Stakeholder comments and debrief of process to date

Everyone went around the circle and asked a question or made a comment about the process and/or project. The list of questions and comments made during this portion was recorded on a flip chart to be answered later.



5:00 Looking Forward

Mark Clark went over the updated project diagrams and next steps for the project, allowing Q&A throughout. We covered:

- Engineer drawings of Airport Rd – fill, plantings, reef balls, turbidity control – full pdf can be viewed at: <http://bit.ly/2w5GB7f> (drafts as of May 31, 2019 – revisions in progress based on comments from workshop and other homeowner meetings).
- Modified conceptual drawing of G Street (below) – help attendees understand how we can adjust the project even with loss of two southern properties.
 - There was a relatively extended discussion about how the southern portion of the project could still move forward but this discussion could not result in that outcome because it would require either agreement from all (not possible) or a continued conflict that could lead to more discomfort for all involved. UF stressed that their role is to facilitate and organize this process and that the intent is to help solve a problem, not start a conflict. Therefore, UF did not see the value in further pursuing something that was not agreeable to landowners and would like to continue to work with the interested/willing parties.
 - But it was evident that many were disappointed to see the extent to which the G Street project was modified. There were several questions about how robust the new design would be, and the project team conceded that the project would indeed be less robust, although we have bolstered the marsh area to the extent possible with the funding and other constraints we have.



- Permitting timeline
 - Finalize signatures – Crystal Sharp was present to help as a notary, can still get her to notarize documents at City Hall any time
 - June 21 – submit permits
 - Public comment and response period
 - Further information requests and eventual approval (hopefully by the fall)

Next Steps for Permitting



May-Jun - Finalize landowner agreement-
consent

Jun 21 - deadline to submit initial permit
applications

Jul-Aug - DEP and Army Corps initial
review, requests for further info,
public comment period

Sept (?) - Permits granted -or- requests
for further information continue
for another round (or two, or four...)

- Mangrove Management Plan – importance of continual maintenance – outline the draft plan with verbal approval from DEP.
 - o Key points of the mangrove management plan are that mangroves that recruit into the project area can be removed up until they reach 4 ft tall. Once they are taller than that, they can only be trimmed under the existing law. It is estimated that mangroves in Cedar Key would take approximately 2 years to reach a height of 4 ft. Therefore, annual removals will be the best strategy for property owners (or more frequently, if possible). Mangroves 0-2ft tall can be removed by pulling up from the ground, whereas mangroves 2-4ft should be removed by cutting off the trunk at the sediment level. Another key point is that removal is the responsibility of the landowners. These can be through the formation of a group, or on an individual basis, as property owners wish.

Mangrove Management

Existing trees

- Small subset will be removed/relocated
- Others identified, catalogued. Must stay but can be trimmed under existing rules

New Trees ("Recruits")

- Proactive management will be key (i.e., remove at least annually)
- minimize disturbance to marsh

Seedling Removal Guidelines

<u>Height</u>	<u>Method</u>
0-2 ft	Uproot by hand
2-4 ft	Cut off at sand surface
4+ ft	<u>Cannot</u> remove, must manage under existing trimming laws

5:45 Stakeholder Feedback

The Q&A portion continued with Mark and Savanna responding to questions that had been raised earlier as well as going through project specifics with landowners that were present.

Questions/discussion included:

- Talking about the height of the breakwaters along Airport Rd. – they will be 3’ tall and will be visible about 85-90% of the time (high tide will cover them but really only at peak high). There was a discussion about shortening them but there would be a significant loss of protection value with them being shorter. The Airport Rd. owners in attendance agreed that protection was more important than having them be only visible more like 50-60% of the time, especially since they will be mostly covered with oysters given time and that it would be safer for navigation if they were visible more of the time. Decided to keep the original height of 3’.
- Breakwater placement on Airport Rd. – wider gaps requested in a few spots for boat and/or kayak access. Will be addressed in the next revision to the plans.
- Kayak launch on Airport Rd. will only be installed if County agrees to maintain a trash can and the launch, as well as allow parking by the air strip. If not, then the kayak launch will not go in but we are going to permit it since it will be easier to modify the permit to take it out later if needed. Savanna will follow up with the County about the kayak launch, etc.
- Discussion about other landowners joining the Airport Rd. project
- Several items for Mark and Savanna to follow up on (see list below).

6:15 Next steps

Briefly wrap-up the meeting with next steps for the grant funding timeline and how the group would like to stay in touch. The group said they were fine with email updates and perhaps a construction kick-off meeting when the projects get ready to actually begin.

6:30 Adjourn

GRANT TIMELINE

May-Jul - Paperwork
2019

Jul-Dec 2019 - Pre-Project Monitoring
Fish, Vegetation, nutrient,
Sediment surveys
- ~monthly sampling visits

Jan-May 2020 - Initial construction

- oysters/breakwaters → sand fill
- turbidity barrier up ↓ plantings

May 2020 - Apr 2021 - Post-Project Monitoring
- Supplemental plantings if
needed
* Mangrove management

~ May 2020 - Educational/demonstration "tours"
- Apr 2021 and site visits

Next Steps of Permitting

- Can group be kept informed of the negative (or positive) public comments / process going fwd.

- Email updates from Savanna.

~ Perhaps Kick-off meeting

Follow Up

G-sheet

- Joe ask Wendy to send

- Find the letter to group

Share

(1)

(3)

If hurricane
then what?

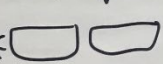
- Revisions to engineers

- Mr Miller (2)

+ Land Owners.

Airport Rd - parking?

- Can any rip rap be removed? FDOT

(cookie) Can we negotiate the 10 feet between -
20 feet *  (right)

- What about lowering the reef balls ~~(2.5)~~

- Is Rip rap going to force storm tide to Phill

Meeting Attendance

First Name	Last Name
Savanna	Barny
Mark	Clark
Nendy-Lin	Bartels
Rebecca	Gallagher
Pope	Griffin
Maggie	Griffin
SHADER	MILLEN
Bel Sandra	Heckler
Doreen	Bauer
Phil	Parker
Joe & Guzette	Hembree
Beth	Mize
James	Carter
Rob	Cserne
Cookie	King
Doris	Hellerman
Jim + Niki	Mason
Sue	Wilson

Daughtry Bayou Shoreline Erosion Meeting

January 25, 2019

4 – 6 PM

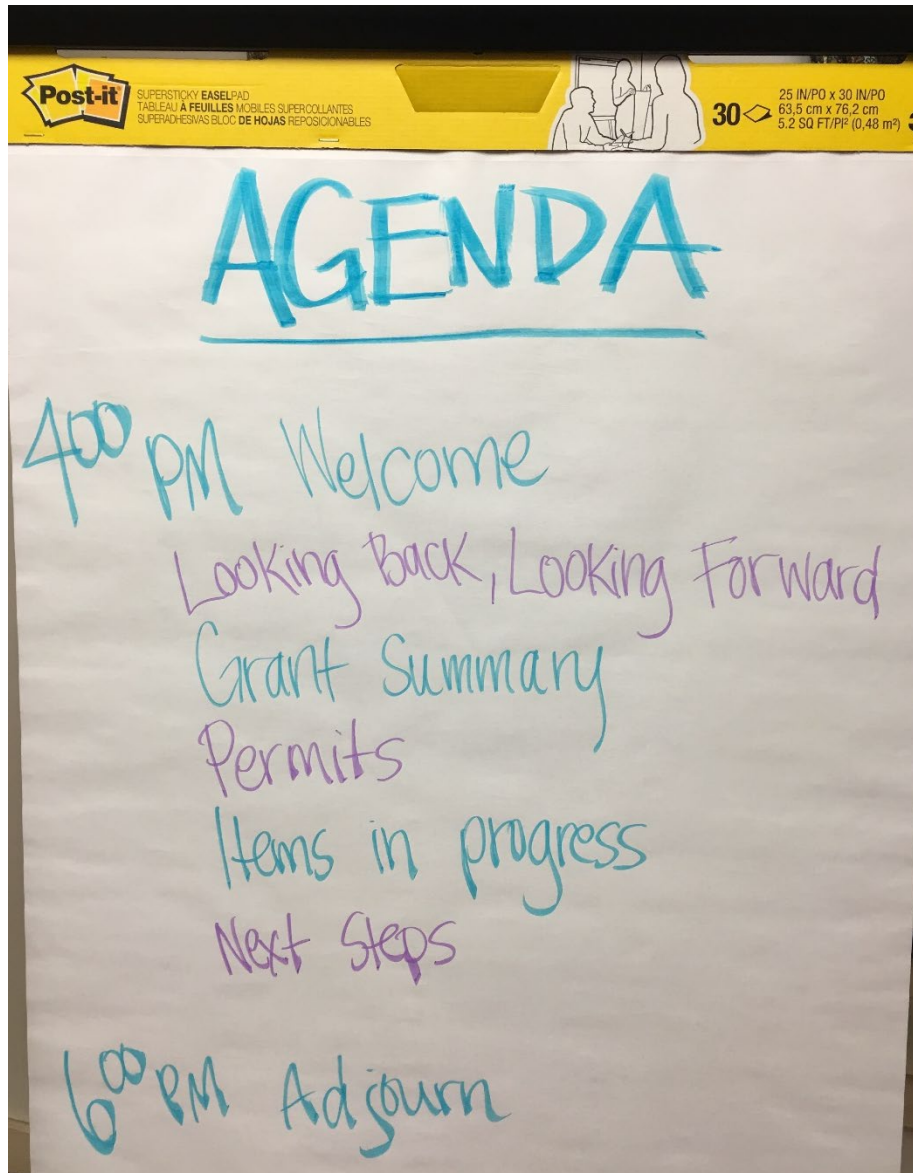
Cedar Key Public Library

Attendance:

Savanna Barry and Mark Clark – meeting leads
Barbara Jackson (remote attendance)
Beth Mizell
Bill Heckler
Cookie King
Doris Hellerman
Frank Offerle
Jim Wortham
Joe Hembree
Joe Waechter
Mandy Offerle
Mike Allen
Mike Carlin
Phil Parker
Robert Csere
Sam Gibbs
Sandy Heckler
Sue Colson
Andrew Gude
James Custer
Nickie Rucker
Bill Rucker
Carol Carlin

Agenda:

4 PM Welcome and introductions
Looking back, looking forward
Grant funding summary
Permits
Items in progress
Next steps
6 PM Adjourn



Welcome and Introductions

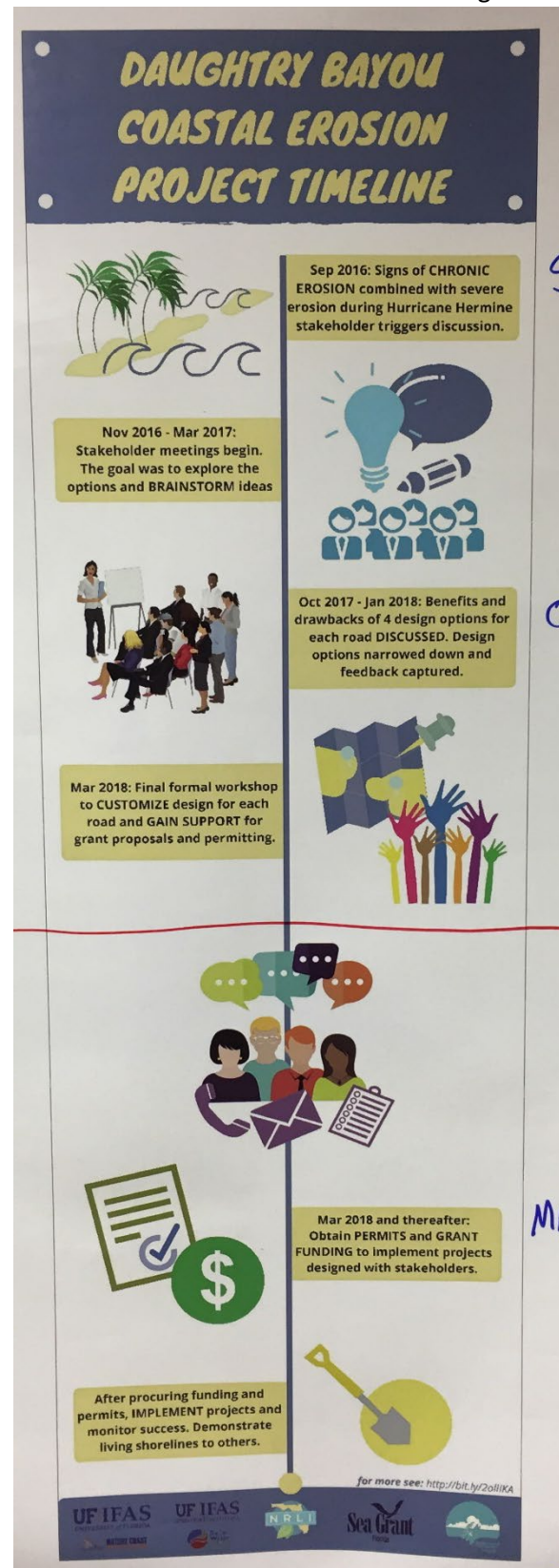
There were several new attendees to the process and it had been approximately 10 months since the last meeting so this meeting started out with intros and each person said one thing positive that had happened to them since the last meeting.

Looking Back, Looking Forward

Savanna asked attendees who have been to most or all of the meetings to catch up the newer folks on where we started and what we had worked on since Sept 2016. Some notes from that discussion are below:

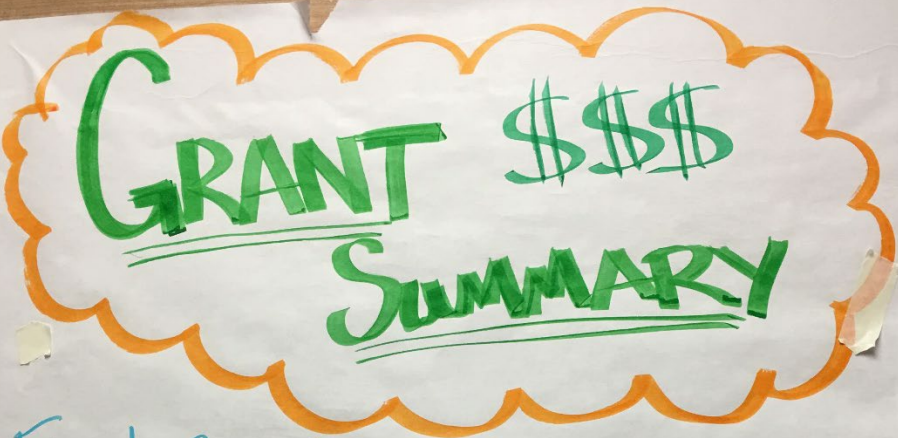
- One person noted that looking “way back” they remembered that a project was attempted on G Street and failed for multiple reasons but that they hoped since we were getting closer this time something could move forward

- Another person noted that Cedar Key does not receive a lot of outside attention or funding for projects like cities such as New York and Charleston that get a lot of attention
- Several people noted that they enjoyed the meeting process and working together with UF to try to find a solution that could work
- Savanna reviewed the project timeline and pointed out key steps along the way to remind people about the following steps:
 - o Sep 2016 – initial discussion where most agreed something needed to be done to address erosion problems on G Street and Airport Rd., as recently highlighted by impacts of Hurricane Hermine
 - o Mar 2017 – visioning meeting where the range of erosion control options was presented and narrowed down
 - o Oct 2017 – design meetings where a range of conceptual designs were presented, discussed, and refined
 - o Jan 2018 – Due to low attendance by Airport Rd landowners at Oct meetings, a special focus group for them was added to the process to get their feedback
 - o Mar 2018 – refinement and customization of conceptual design for both G Street and Airport Rd. Direction to Mark and Savanna to pursue permits and funding.
 - o Jan 2019 – today, meeting to discuss grants we have obtained and next steps toward bringing projects closer to reality



Summary of Grant Funding

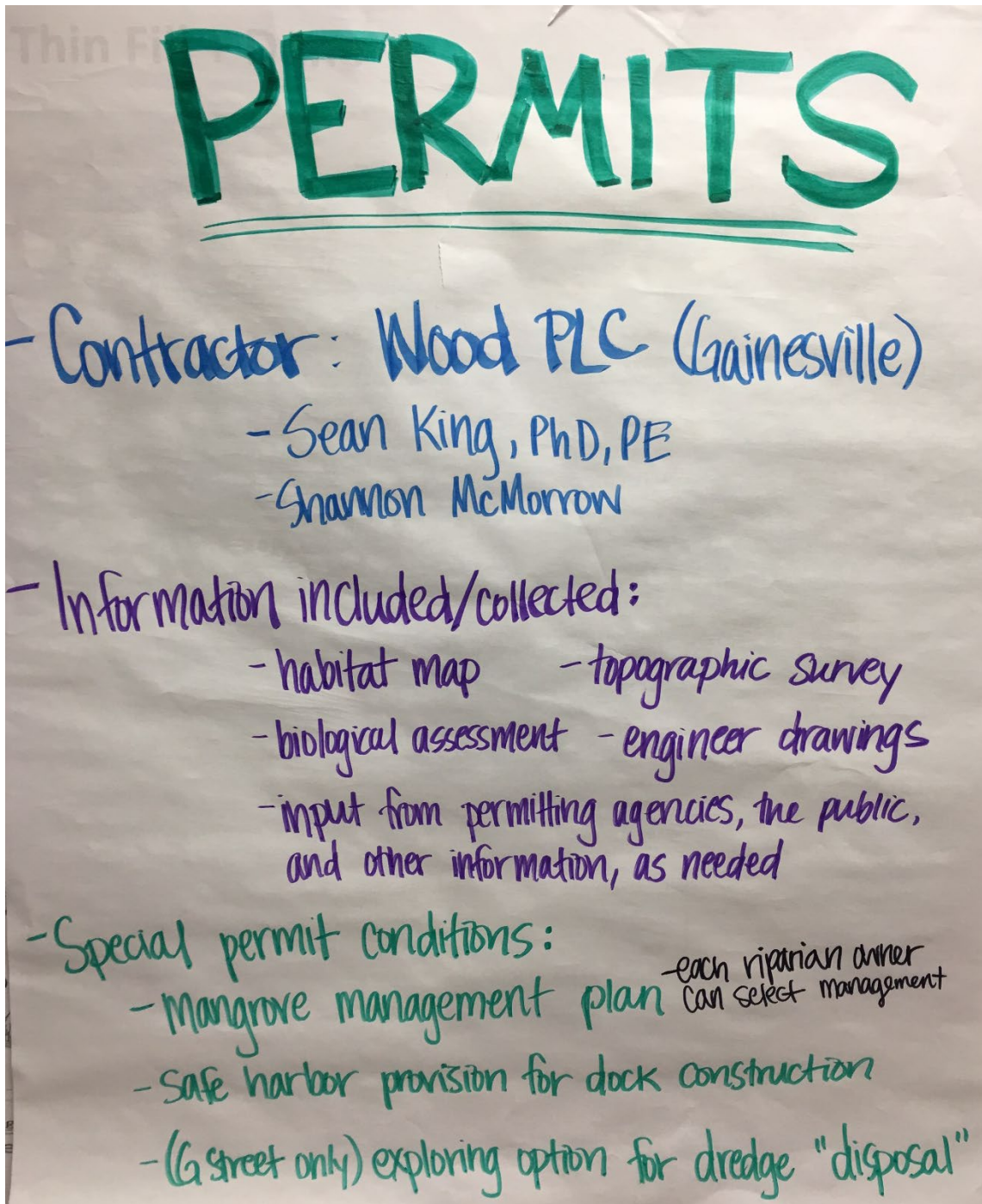
Mark and Savanna have spent time since the last meeting (Mar 2018) preparing and submitting applications for external funding. The photo below is a breakdown of grant funding they have either received or that is pending for the project. The EPA and FWC funds are still pending due to several reasons, including the government shutdown, the need to obtain landowner consent, and general contracting delays that are typical. The DEP Resilience Planning Grant is underway and is the funding source for the permitting (discussed later). In general, the most important point about the funding is that it requires no outside match from landowners or the City. So, we have the opportunity to make these projects a reality without any monetary buy-in from local sources.



<u>GRANT</u> \$\$\$\$ <u>SUMMARY</u>	
Florida Coastal Management Program	\$ 41,187
Resilience Planning Grant (DEP)	\$ 41,024
EPA Gulf of Mexico Program	\$ 384,732
State Wildlife Grants (FL Fish + Wildlife)	\$ 60,000
Total	\$526,943

Permitting Discussion

Mark took the lead on describing the steps necessary to obtain permits for the shoreline projects. The DEP grant mentioned above has given us the resources we need to hire a consulting firm with the necessary capabilities to prepare the permit applications. The consulting firm is Wood PLC in Gainesville and our contacts on the project are Sean King, PE, PhD and Shannon McMorrow.



At this point someone asked what was meant by permit application. Mark explained that it is the complete set of information that we must compile and send to the Florida Department of Environmental Protection (DEP) and US Army Corps of Engineers (USACE) in order to get approval to construct anything that will be placed in or have an influence on the coastal zone. He also explained that obtaining a permit requires an entity or group of entities to be the “applicant” – this is discussed in more detail later.

In order to obtain the permit, these agencies (DEP and USACE) require several pieces of information, including:

- Habitat maps
- Biological assessment
- Topographic survey
- Engineer drawings (overhead and cross-section views)
- Any other pieces of information agency staff request during the application review period, including a public notice and comment period, more details about the site conditions, etc.

The application period could last several months and in extreme cases multiple years. The permit application will be submitted no later than June 30th but could go in as early as late May if all goes well.

At this point there were several questions for clarification about the topographic survey, including why it was needed and if the results would be shared. The survey is required by the state for permitting because the mean high tide line is a required aspect of the project drawings and cannot be omitted. One attendee pointed out that they had a recent survey and wanted to make sure the results matched. Savanna replied that she had provided a copy of the survey in question to the contractors and they acknowledged they received it. Mark replied that the mean high tide line at the time of the permit application is the one in question and that the mean high tide line moves, which is why DEP requires it to be mapped out each time a permit is submitted. If the permit application period is long enough, they may even require a new survey if they deem enough time has passed. This part of the process is unavoidable because of the permitting requirements. The survey results will be shared with everyone when we receive them (likely some time in the first week of Feb).

There was further discussion about the significance of the mean high tide line as it pertains to riparian ownership rights. For background, the mean high tide line is the boundary between private (upland) property and state/public (submerged) property. As the mean high tide line migrates in or out, property lines change. This is referred to as an ambulatory boundary or ambulatory property line. The concern about the mean high tide line according to the landowners is that it could negatively affect their property rights. However, until we have the results of the survey this is not something that we could comment on further in this meeting except to say that anyone who has riparian ownership within the project areas will have to consent before the construction (and ideally the permitting) can move forward.

After those discussions, Mark and Savanna moved on to remind folks of the special permit conditions that are to be included in the permit applications. These include:

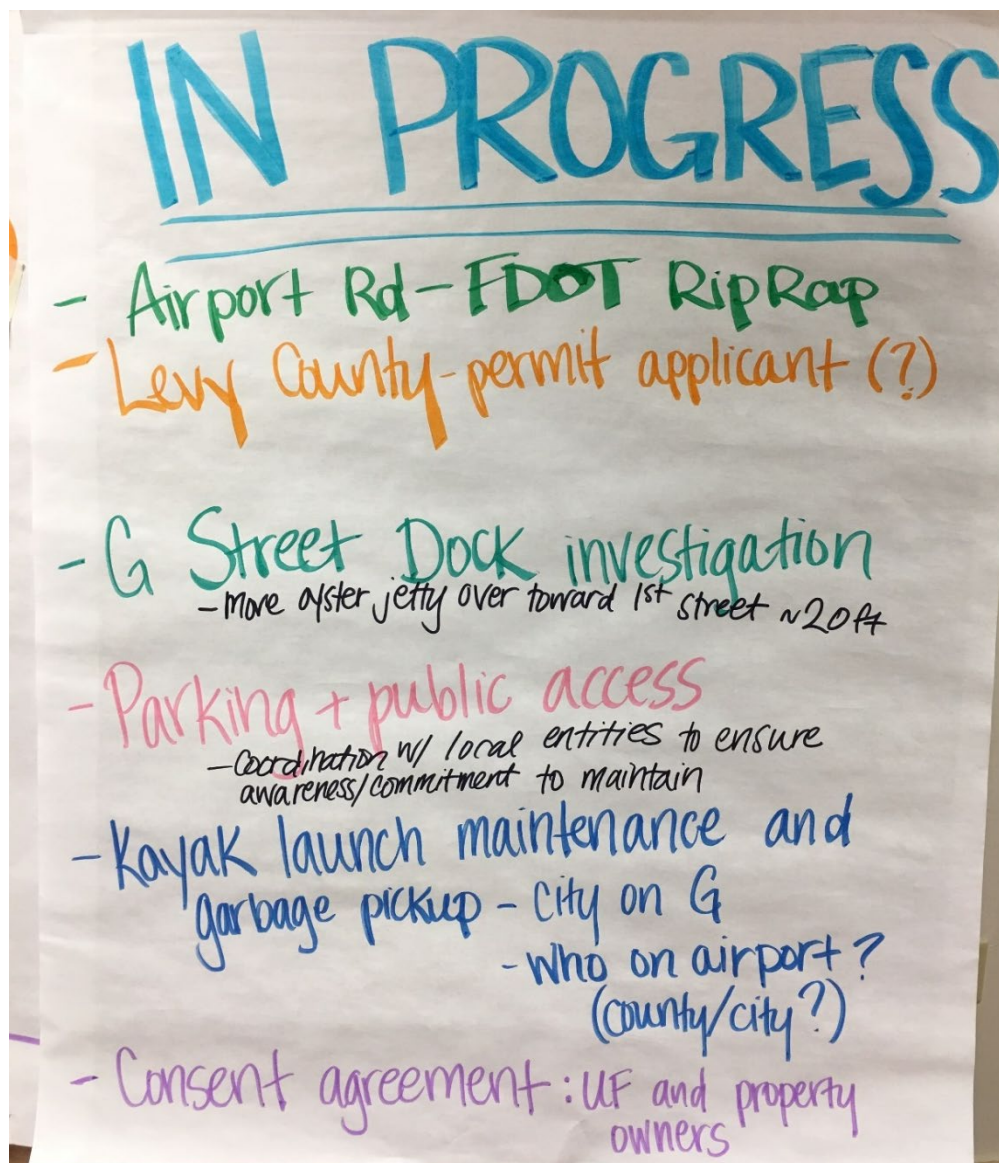
- a mangrove management plan whereby property owners who want to remove mangroves by mechanical means would be granted permission to do so as long as the permit is maintained in “operational” status (typically begins 5 years after the granting of the initial construction

permit). Landowners wishing to maintain this right after the initial 5 years would need to work together to form an HOA or another group that would hold on to and keep the mangrove management permit active

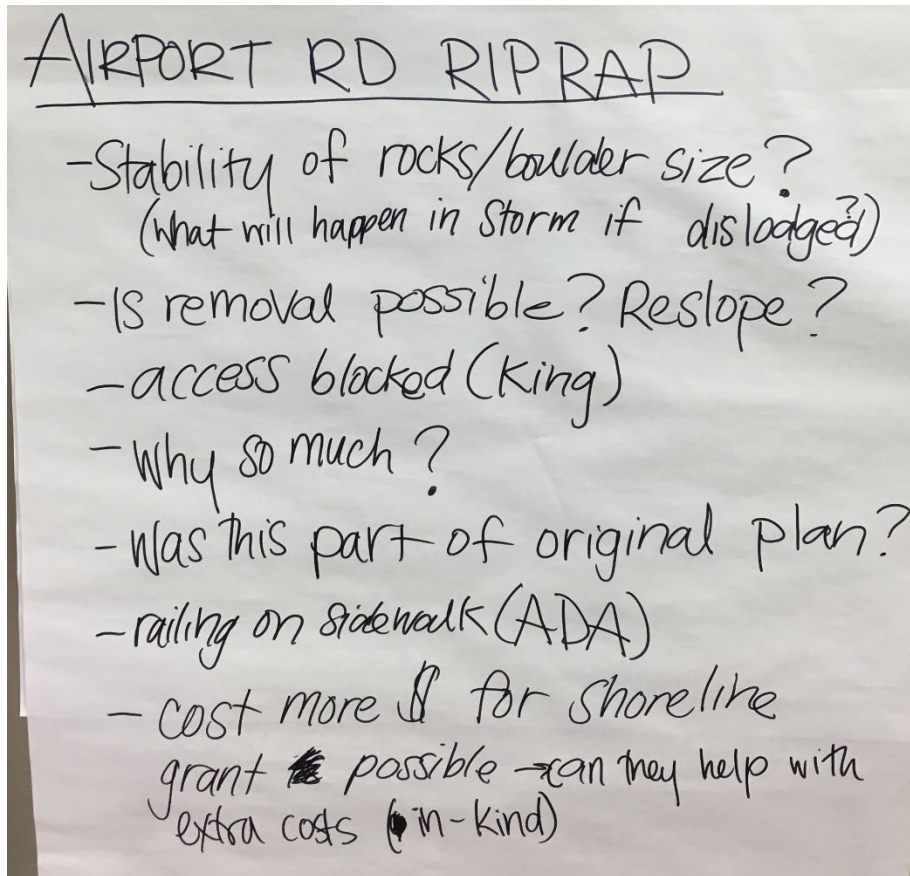
- safe harbor provision for docks, allowing upland property owners to maintain the ability to construct a dock across the project area at some future date
- the opportunity for the City to designate the end of G Street as an area where suitable sands from the dredging of the outer marina channel could be placed. This will continually nourish the G Street shoreline into the future and greatly reduce costs for the City in terms of maintenance dredging.

Items in Progress

There are several pending items that Mark and Savanna wanted to discuss with the group for the purposes of updates or gaining feedback.



The first item was the fact that FDOT unexpectedly placed 450 linear feet of riprap along Airport Rd, in front of the four houses closest to the bridge. Savanna was able to make contact with the supervisor from FDOT and they are planning a meeting to discuss how the rip-rap could be modified to interfere less with the shoreline enhancement project for Airport Rd. The group had several questions or points of clarification they want Mark and Savanna to broach with them during the meeting, set for Feb 4th around 10 AM. These points are captured in the photo below.



The next item on the list was regarding working with Levy County on permitting. There are several reasons why this would be beneficial:

- it would create continuity in case homes sell and streamline the process of the paperwork
- the County owns both roads so the projects are in their interest
- the County is eligible for significantly reduced permitting fees that would help save \$

Savanna had a preliminary meeting about this where the County seemed open to the idea but wanted Mark and Savanna to provide more information and present formally at a County Commission meeting before agreeing. At such time this presentation is appropriate, Mark and Savanna will go before the Levy County Commission.

The next item was regarding the investigation of the predicted effect the G Street project might have on the dock. There are multiple owners of the dock and typically because they are based out of town we communicate by email. It was requested that we include the most recent correspondence with these minutes. A copy of the email from Mr. White and my reply to him can be read below. In a nutshell, there

is concern that a shoreline enhancement project would risk silting in the end of the dock on G Street and have negative impacts to navigability. It has been requested by Mr. White and other owners of the dock that Mark and Savanna look into this issue formally. Until we received the permitting grant, we did not have the resources to hire qualified people to do the work. The consultants we have hired are investigating the risk to the dock and will provide information about their conclusions soon. Depending on those conclusions, we will work with the dock owners directly to determine the best path forward. If project modifications are needed, they will be pursued.

The screenshot shows an Outlook email window. The title bar reads "Re: Good News and Update - Cedar Key Shoreline Projects - Message (HTML)". The ribbon includes "File", "Message", and "Help". The "Message" tab is active, showing icons for "Delete", "Archive", "Reply", "Reply All", "Forward", "Move", "Mark Unread", "Categorize", "Follow Up", "Translate", "Read Aloud", and "Zoom". Below the ribbon, the email header shows the sender's profile picture (WR) and name "White, Richard A. <RAWHITE@southernco.com>". The subject is "Re: Good News and Update - Cedar Key Shoreline Projects". The "To" field lists "Barry, Savanna C". The "Cc" field lists "Joe Hembree; Cedar Key Hamil; Jeanne Hamil; Wendy; Betty Jo Hodge; Suzette Hembree; Clark, Mark W; Selby - Cedar Key Joan & Ralph; Richard White; White Crawford". A status bar at the bottom indicates "You replied to this message on 1/24/2019 11:00 PM." The email body contains the following text:

Savanna -

We will not be able to attend the meeting January 25th. We would like the meeting minutes or notes you produce to include our position - as owners of property directly affected. At present, we do not support the project for reasons that include but are not limited to those explained below.

We remain concerned that the only engineering study you have presented (The G Street Feasibility Study found at this link <https://ncbs.ifas.ufl.edu/extension/dealing-with-coastal-erosion/upcoming-erosion-control-projects/daughtry-bayou/g-street/> [ncbs.ifas.ufl.edu] - the Olsen Study) states on page 60:

"Successful dock designs require access to open water and adequate depths; as such, the objectives of a dock at this location are inherently incompatible with engineering designs which seek to construct a beach in the dock's vicinity. This is particularly true in the present case whereby dock length, location, and elevation were finalized and permitted prior to consideration of potential public beach improvements. The location of this dock greatly limits (prescribes) the placement and orientation of the coastal structures necessary to develop a modest recreational beach and likewise ensure navigational functionality of the boat dock."

All the conceptual designs presented thus far appear to fall into the "incompatible" category described in your feasibility study. Such an incompatibility would lead us to oppose such designs. The most recent design we've seen actually appeared to locate more proposed beach even closer to our dock than other designs - increasing our apprehension.

We have suggested that you engage coastal geologists and engineers that can produce a design that will harden G Street to erosion while assuring us that if any sand is used in your proposal it doesn't end up being transported under our dock making it useless.

We don't understand how the conceptual designs you propose to present in permits overcome the incompatibility described in the Olsen Study. This appears to be a conceptual issue that should be resolved before permits are pursued.

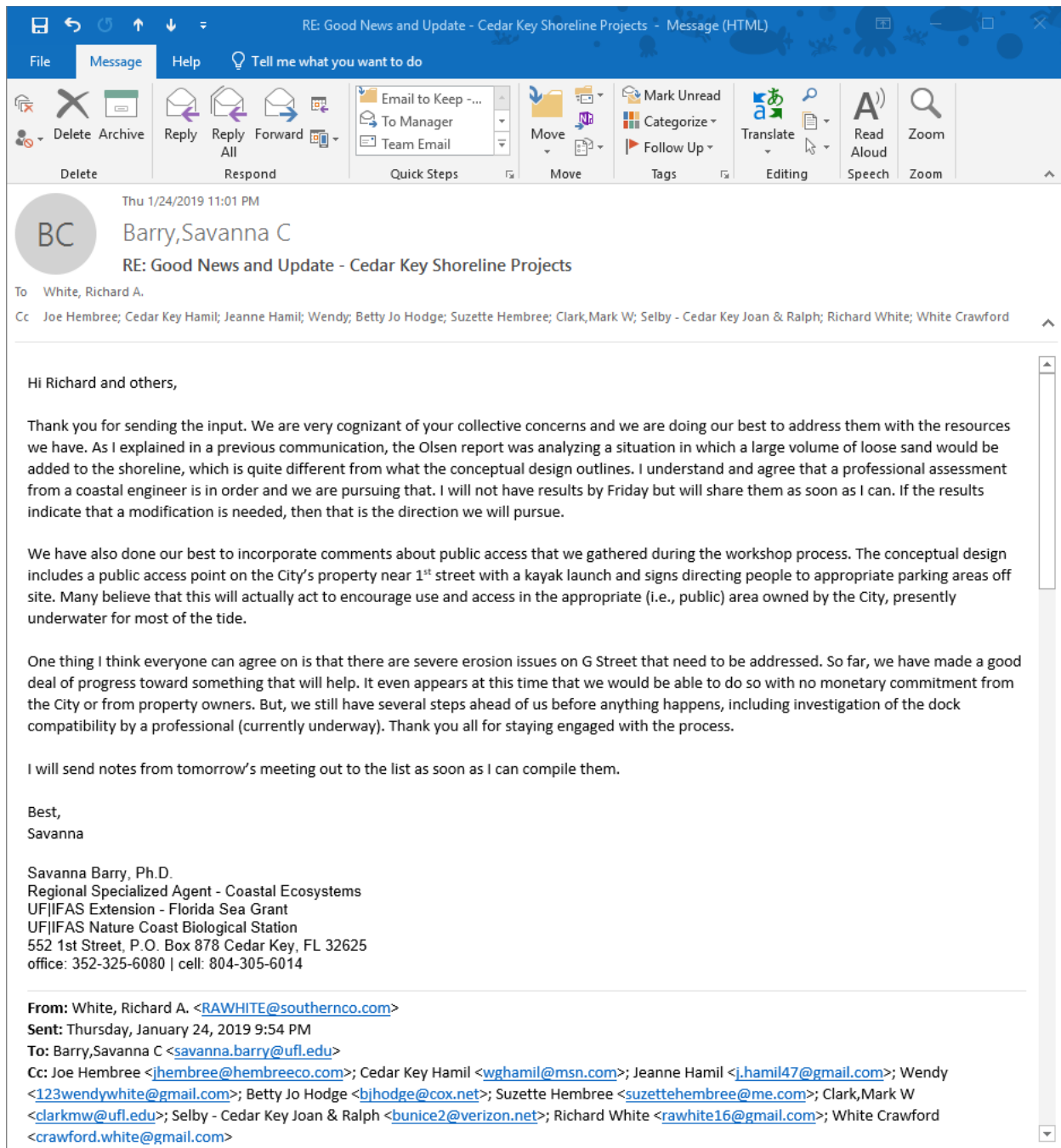
We presume your suggestion that "an engineer" could provide a "professional judgement" that your design would not interfere with our dock would also not contradict the existing study but reconcile in detail any new conclusion with the original Olsen study. We would expect any new "opinion" to be based on a new study as thorough as the original study and include the results of computer modeling of your designs.

In addition, we are concerned with proposals that would likely increase public traffic around our dock or across our property.

Thank you for including these concerns in the meeting notes published for the January 25th meeting.

Richard & Wendy White

Reply:



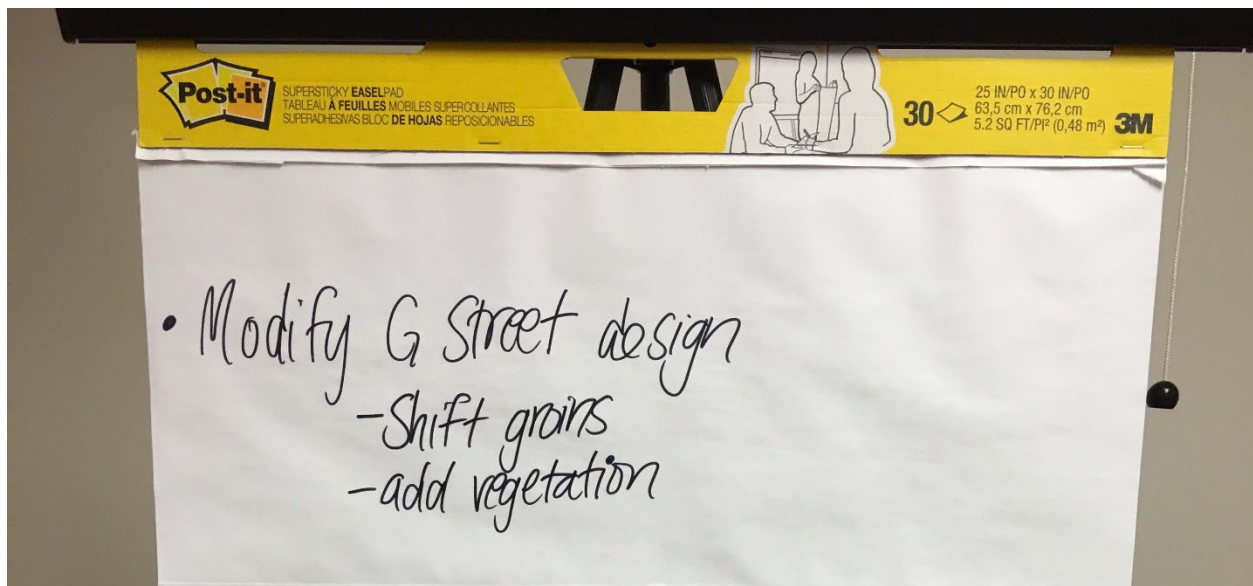
The next item was regarding parking and public access. Some meeting attendees were concerned that Mark and Savanna had not coordinated sufficiently with local entities. Savanna recounted the efforts she and Mark, sometimes with the help of property owners or local officials, have made so far to explore several options for additional parking, maintenance of the kayak launches, garbage collection, signage directing people to appropriate parking areas, etc. These discussions are still underway with the county and if no one will commit to maintaining the kayak launch on Airport Rd. then that might have to go away. The City will be responsible for maintain the kayak launch on G Street because it is on their property. It was also brought up that parking and enforcement are local issues that are receiving a lot of

local discussion and that the City is making a bigger effort to enforce recently. Mark and Savanna renewed their commitment to continue to work with local entities regarding the public access points.

The final item of discussion on the in-progress list was regarding the consent agreement landowners will have to sign before UF can accept the rest of the grant money to construct the projects. The University of Florida will not sign onto grant contracts for the construction dollars without some measure of assurance that we can follow through on our grant deliverables. Therefore, the UF legal department is drafting an agreement that Savanna and Mark will need to meet with landowners and gain signatures on in order to be able to move forward past the permit phase.

At this point in the meeting, a landowner on G Street brought forward strong and clear objections to the G Street design. It was clear that Mark and Savanna had misunderstood the landowner's thoughts on the project and completely missed the objections. The discussion touched on previous concerns about surveys and the mean high tide line, as well as the request to leave mangroves on certain sections of property and perhaps include more plants on that section. Mark and Savanna expressed sincere apologies about the misunderstanding and also the intention to work directly with the landowner to address the concerns. At this time, there is still the ability to modify the projects and based on the brief discussion in the meeting (short notes below) it seems likely that the landowner's desires can be incorporated and likely result in a stronger shoreline protection design. However, this will not be clear until individual meetings with landowners are complete. There was another landowner that requested a small modification to the placement of one of the shoreline elements on G Street. Again, this is a project modification that can easily be made and now is the time to incorporate these changes (before the engineer drawings are made).

The suggestion that the process switch to a direct engagement with property owners was made and Mark and Savanna agreed that would be the majority of the interaction until the next meeting, which will probably be in late May, around the time that the permit application is almost complete and ready to be submitted.



Finally, there were several questions about what would happen if no agreement could be reached on G Street.

- Could we at least still get the permits?
 - o Yes, the City or the University would have to be the applicant but we could at least submit permits so they could be on hand in case an agreement was reached in the future. However, it would mean that the grant funding is at risk and there is no guarantee that they would be approved if there were still strong landowner objections.
- What would happen to the grant money if G Street was off the table?
 - o At least a small portion of Airport Rd (the section with the riprap) could move ahead because that grant is separate (\$60,000) from the other grant money. The large pot of money is tied to both projects so it would be very difficult or impossible to separate the Airport Rd money out from the G Street money, especially because doing 2 projects at once makes them more economical. If it came down to it, it would be worth asking but the chances are not good that it would happen. That said, if Airport Rd still wanted to move ahead even if we lose this current grant we can always apply for more grants for just Airport Rd. in the future.

Next Steps

Savanna and Mark will:

- follow up with landowners about the consent agreement and any fine-tuning to the project designs
- provide results of biological assessments, topographic survey, and other documents from the consultants as they become available
- continue to engage local partners about the public access items
- meet with the Airport Rd. FDOT personnel on Feb 4th
- connect with dock owners to follow up about the coastal engineer's findings and ideas for moving forward
- continue to communicate via the email list with any key status updates
- be available if anyone wants to meet further to discuss anything about the project