



Professional Engineers, Planners & Land Surveyors

May 18, 2022

Mr. Dirk A. Danley, Jr., AICP, Senior Planner
Lee County Department of Community Development
1500 Monroe Street
Fort Myers, Florida 33901

**REFERENCE: OWL CREEK RESERVE MINOR RPD
DCI2021-00011
Post Sufficiency Response**

Dear Dirk:

This letter is written in response to the sufficiency letter dated April 14, 2022, which identified the following issues to be addressed during the substantive review prior to hearing.

With this letter we are submitting the following items which are referenced in the below analysis for ease of review.

1. Updated Submerged Aquatic Vegetation Survey
2. Manatee Protection Plan Assessment (previously submitted)
3. Private Multi-Slip Docking Facility and Tidal Lagoon Plans and Details (previously submitted)
4. Canoe-Kayak Launch Details (previously submitted)
5. Overall Site Bathymetry with Contours
6. Overall Site Bathymetry Text

Comment 1: Proposed dredging for the multi-slip docking facility is inconsistent with Lee Plan policy 128.4.8. Policy 128.4.8 states, "Boat access facilities should be located in areas of maximum physical advantage. Adequate existing water depths between the proposed facility and any navigational channel, inlet, or deep water, are preferred, as new dredging is discouraged." This project as designed requires dredging to obtain water depth of -4MLWL. Furthermore, Lee Plan policy 128.4.6 requires that proposed boat access facilities and expansion of existing facilities be evaluated in accordance with Section 8, Marine Facility Siting Requirements, of the Lee County Manatee Protection Plan (MPP). Per Section 8 of the MPP, a facility must first meet success criteria for both seagrass and water depth to qualify for boat slips.

Comment 2: Proposed dredging for the multi-slip docking facility is inconsistent with Policy 128.4.7 states "Boat access facilities, including multi-slip docking facilities and boat ramps which would disturb or destroy wetlands or grassbeds must demonstrate a pressing need for the proposed facility and must provide for continued use by the general public." The project proposes wetland impacts for the use of private multi-slip docking facility.

Response: The referenced Lee Plan Policies are provided below for reference.

POLICY 128.4.6: Proposed boat access facilities and expansion of existing facilities will be evaluated in

accordance with the Lee County MPP, dated June 17, 2004 and approved by the Board of County Commissioners on June 29, 2004. Specifically, Section 8 of the MPP, Marine Facility Siting Requirements, will be used to determine the appropriate number of slips as defined by the MPP for each new project or allowable expansion.

Response: Specific to Section 8 of the MPP, the success criteria for seagrass and water depth is met. In the report dated October 7, 2021 HWA was unable to find any seagrasses within the footprint of either the proposed docks, the dredging limits for the basin, or the access channel. This mapping was completed on September 24, 2021 during seagrass growing season. In addition, an updated depth survey was conducted that mapped the top of the silt layer. A survey rod was placed at select locations to map the thickness of the silt. It varied but when added to the top of silt recorded electronically the depths on the average are at or deeper than the -4' MLW criteria. There is only one area where the depth is less than -4' MLW with a hard bottom. This is a shoal area that runs parallel to the access channel. As allowed in the Manatee Protection Plan this would constitute the minimal dredging required to secure access to the site. Dredging is not prohibited in the Manatee Protection Plan and the term "minimal" is not defined.

POLICY 128.4.7: Boat access facilities, including multi-slip docking facilities and boat ramps which would disturb or destroy wetlands or grassbeds must demonstrate a pressing need for the proposed facility and must provide for continued use by the general public.

Response: There are no direct impacts to grassbeds associated with the multi-slip docking facility. The Tidal Lagoons, which are proposed for multiple purposes, impact disturbed low quality wetlands (7.64± acres). The pressing need for these impacts is to create opportunity for the establishment of native vegetation in the littoral zones for nutrient uptake and the greater potential for seagrass establishment in the shallower water where light penetration has a greater chance of reaching the bottom. Additional benefits include a reduction in the upstream flood elevations during tropical events by adding an additional discharge outlet for Trout Creek.

POLICY 128.4.8: Boat access facilities should be located in areas of maximum physical advantage (e.g. adequate water depth). Adequate existing water depths between the proposed facility and any navigational channel, inlet, or deep water, are preferred, as new dredging is discouraged.

Response: While new dredging is discouraged, it is not prohibited. The shorelines of the Caloosahatchee River are naturally shallow and the locations with nice deep water close to shore are very limited. While it is understood that dredging should be discouraged, particularly if there are direct resource impacts, this also needs to be balanced against the ongoing need for water access and leveraging every reasonable opportunity to create this access.

Net Gain of Wetland Function

The proposed private multi-slip docking facility completely avoids any impacts to grassbeds and minimally impacts disturbed low quality wetlands (7.64± acres). Mitigation for these impacts is permissible with the state resulting in a net gain of more productive wetlands. The areas to be impacted provide for a very low environmental contribution and no true natural function. These minimal impacts will be mitigated by preservation and enhancement of 106.36± acres of onsite wetlands and creation of an 11.83± acre tidal lagoon/flushing basin with 2.88± acres of littoral marsh around its perimeter (1.86± acres of the littoral marsh are within the tidal lagoon/flushing basin).

This tidal lagoon serves multiple purposes. The tidal lagoon area will be dredged to -1 Mean Lower Low Water which will naturally recruit submerged and emergent vegetation, resulting in 12.85± acres of significantly expanded intertidal wetland fringe creating habitat for wading birds and a breeding ground for fisheries. It increases the open channel flow out of Trout creek, reducing the potential for flooding upstream. The SFWMD permit calculations for the overall development site demonstrate 5.8 surplus functional gain credits further demonstrating the net gain of wetland function on the property as a result

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Owl Creek Reserve Minor RPD - DCI2021-00011

May 18, 2022
Page 3 of 6

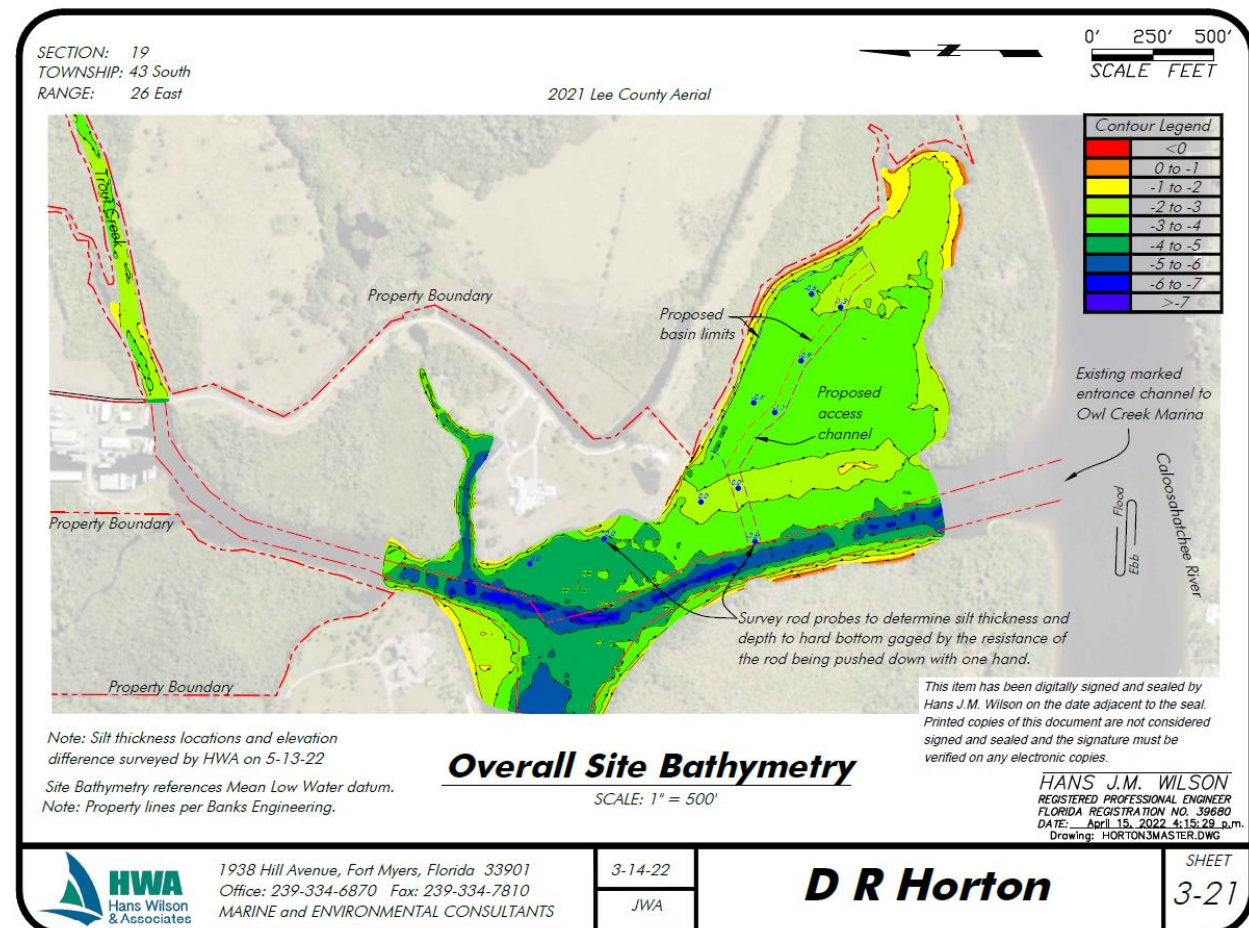
of the proposed project.

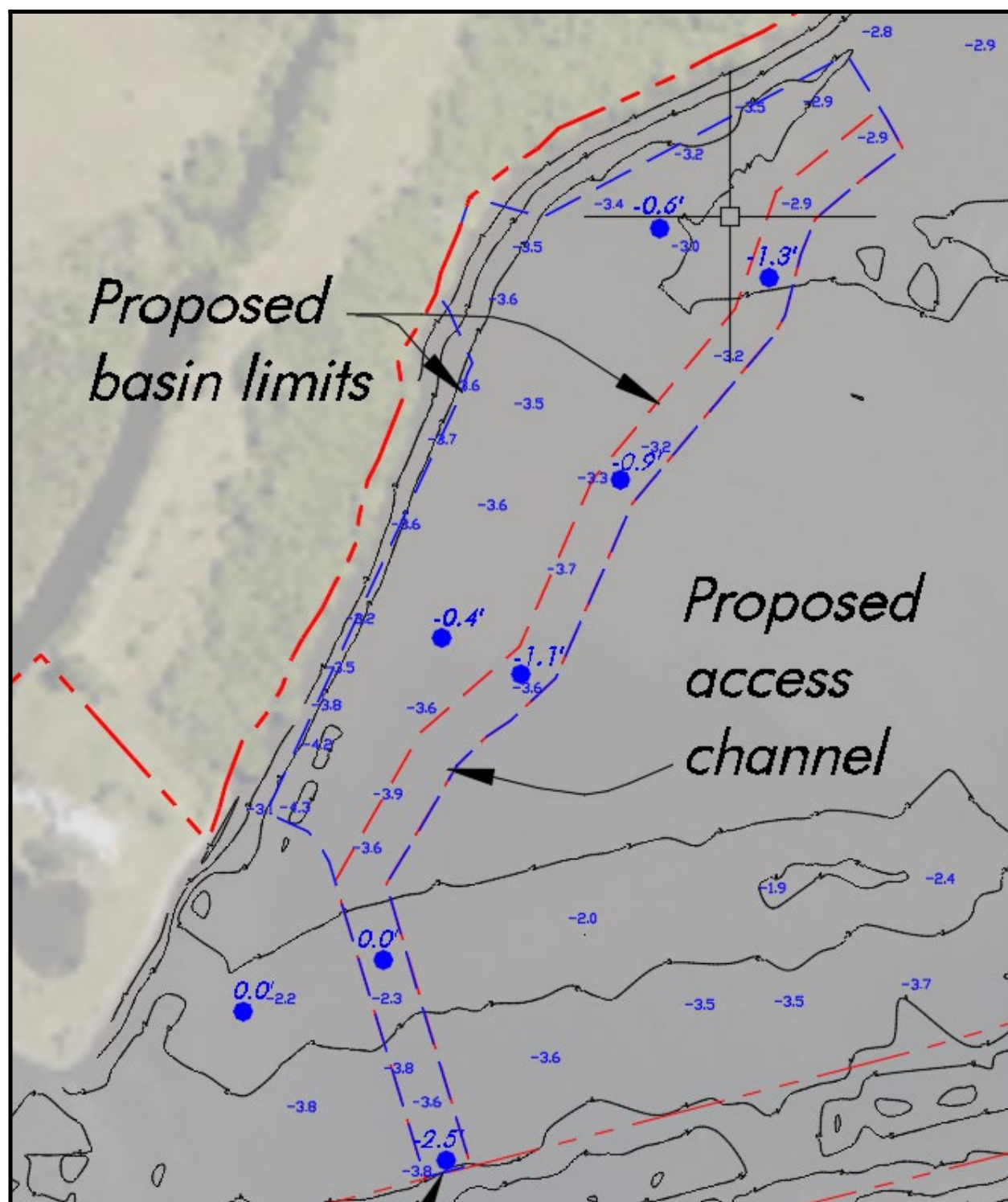
Seagrass

Please refer to Submerged Aquatic Vegetation (SAV) survey completed 9-24-21 during seagrass growing season. There is no seagrass or submerged aquatic vegetation within the private multi-slip docking facility basin or entrance channel. The soils below the surface are too soft to support growth or stabilization of seagrass roots and extremely low water clarity with little to no light penetrating results in very low chance for seagrass to photosynthesize and survive. This is unfortunate considering the site's location within the easternmost portion of the Small-tooth Sawfish Critical Habitat area. The proposed 12.85± acre tidal lagoon described above will provide Small-tooth Sawfish habitat within the Critical Habitat area where none currently exists, resulting in a net gain.

Water Depth

Please see the updated Bathymetric Survey completed on 5-11-22. The survey shows an existing marked channel that runs north from the river to Owl Creek Boat Works, located on the west side of the subject property. The channel has water depths of -5 and -6 MLW. The proposed multi-slip docking facility and 50' wide access channel will connect to the existing Owl Creek Boat Works channel. Minimal dredging is proposed to avoid unnecessary scour of the bottom from prop wash and to allow the use of the slips and boat slips year round. The dredging also provides sufficient water depth for the long-term use of the private multi-slip docking facility, reducing maintenance dredging frequency and providing better clearance for any potential manatees occupying the site. Although new dredging is discouraged by Policy 128.4.8, it is not prohibited. The proposed location of the private multi-slip docking facility is protected from boat wakes generated by vessels operating in the Caloosahatchee River Water. It is also protected from wind waves and has a very short travel distance to the river.





Above is a close up of the electronic survey, including spot depths from the survey and survey rod readings depicting the silt layer. Each blue dot shows the thickness of the silt. If you deduct the silt layer and refer strictly to hard bottom in almost all locations we are at or deeper than -4' MLW, with the exception of the shallow bar that needs to be crossed to get to the interior waterway. I would tender that this qualifies as the minimal dredging required to secure access to the site.

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Owl Creek Reserve Minor RPD - DCI2021-00011

May 18, 2022
Page 5 of 6

Number of Boat Slips

The Florida Power and Light plant, about 3.5 miles away, is located on the Caloosahatchee River and discharges warm water into the Orange River. Manatee abundance and mortality at the project site is relatively low but ranks as Conditional according to the Manatee Protection Plan. The subject property is located east of State Road 31 Bridge and not located within the Caloosahatchee River Area of Special Concern. Please refer to the Lee County Division of Natural Resources Manatee Protection Plan (MPP) Assessment attached which ranked the project as Conditional category allowing 330 boat slips. According to the MPP the subject site is allowed 5 slips per 100 linear feet of shoreline. The private multi-slip docking facility design provides slips for approximately 25% of the residents in the development desiring boat access, the minimal amount. The site plan has a total of 96 proposed residential slips, which is well under the maximum number of 330 slips allowed. The applicant agrees that upon approval of the rezoning, the remaining 234 slips will not be transferred as credits.

Public Use and Pressing Need

Although the above analysis demonstrates no net loss of wetland function and no impact on grassbeds, there is a pressing need for the proposed facility and the proposed development includes the creation of a public canoe/kayak launch providing access to Trout Creek connecting to the Caloosahatchee River for continued use by the general public. The launch is located on the flushing channel which provides a connection to Trout Creek or the option to pass through 10'x92'± culvert and access the tidal lagoon which connects to the private multi-slip docking facility area and Owl Creek Boat Works channel connection to the Caloosahatchee River. Several existing Lee Plan Policies encourage public access to the Caloosahatchee and a public canoe/kayak launch (Policies 27.3.2, 27.3.3, 27.4.2, Objective 29.6, Policies 29.6.2, 29.6.3, 29.6.4, 29.7.1, and 82.1.2). The proposed development meets the demonstrated pressing need for a public canoe/kayak launch and furthers the Goals, Objectives and Policies of the Lee Plan. The demand for boating access is underserved in Lee County. Population growth for Lee County, with an estimated population of 787,976 (July, 2021), is around 4% from April 2020. Charlotte County, our immediate neighbor to the north, has similar population growth rate, demographics and natural resources in terms of open waters and coastlines. The University of Florida – Sea Grant performed a study of “Marine Boating Access for 2010 through 2050 for Charlotte County” (report #TP-186) and estimated that vessel registrations in Charlotte County will increase 38%. There will be a need for 1,118 additional boat slips by 2050. Lee County has a much larger population with a similar growth rate and a ratio of one vessel for six residents. Given observations that the amount of available water access facilities is relatively consistent, it can be concluded that there will be an increase in demand (pressing need) for additional wet and dry slips. By allowing the project to provide its own private multi-slip docking facility, the residents will not be utilizing public facilities, creating opportunity for 96 boaters, that may otherwise not live on the water, to access our waterways. This is creating at least some equity in access for the population of Lee County.

If you have any questions or I may be of further assistance, please do not hesitate to contact me at (239) 770-2527 or shewitt@bankseng.com.

Sincerely,
BANKS ENGINEERING



Stacy Ellis Hewitt, AICP
Director of Planning

Attachments

Mr. Dirk A. Danley, Jr., AICP, Senior Planner
Owl Creek Reserve Minor RPD - DCI2021-00011

May 18, 2022
Page 6 of 6

SEH:jms

Attachments

cc: Russell Schropp
Richard Akin
Becky Sweigert
Steve Boutelle
Joseph Adams



Marine Engineers and Environmental Consultants

October 25, 2021

To: Project File

Hans Wilson
From: Hans Wilson, P.E.

Subject: **Owl Creek Development – Seagrass Survey Report**

Introduction - On September 24, 2021, Hans Wilson & Associates (HWA) conducted an environmental assessment at the proposed marina basin and entrance channel associated with the Owl Creek Development. The site is located on the north side of the Caloosahatchee River at 17900 Owl Creek Drive, within Section 19, Township 43 South, Range 26 East, in Lee County, Florida.

The purpose of this site visit was to complete a benthic survey and map any seagrasses that could be in the impact area. Seagrass surveys must be completed during seagrass growing season, June 1st through September 30th. If a survey is not completed during the growing season, the U.S. Army Corps of Engineers (COE) will assume you DO have seagrasses at your project location and you will be required to construct to the standards set forth in "Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat" (USACE/NMFS 2017). This means a dock elevation at +5' Mean High Water, which can make vessel access difficult.

Area Description – The project site is located along the north bank of the Caloosahatchee River at the outfalls of Owl and Trout Creeks. There is an existing marked channel that runs north to south from the Caloosahatchee River to Owl Creek Boat Yard. The water had a visibility of almost zero, with light penetration less than 1 to 2 feet. The substrate of the project area was extremely mucky, made up of broken shells, mud/silt, and debris.

Methodology – An engineer and a biologist were deployed to the site, setting PVC pipes via DGPS to define the proposed dredging footprint of the basin and channel and the survey area. The biologist was deployed to swim transects within the proposed survey area. The biologist swam the perimeter of the area, then began transects running north and south, then doubled over with transects running east and west. The PVC pipes that were placed in the water were used as points of reference to keep transects straight and consistent.

In addition, five ponar grab samples were taken within the footprint of the survey area at select locations marked with DGPS for replication if necessary. The samples were photographed before and after washing through the sieve. Finally, the biologist took random samples of the substrate to show via photos the consistency of the bottom.

D.R Horton

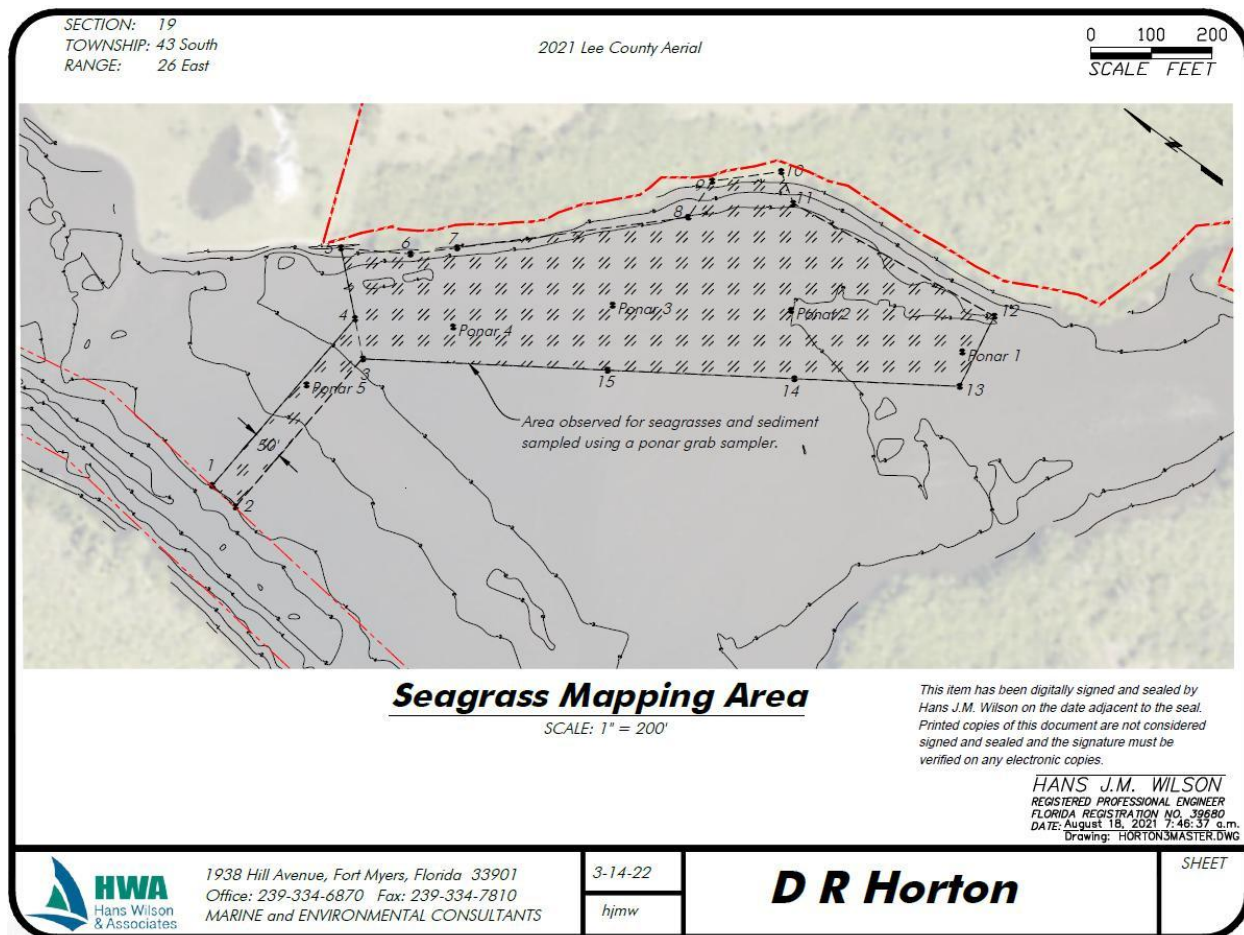
Owl Creek Development, Lee County Florida (HWA File – Horton3)

Seagrass Report

Page 2 of 5

Survey Results – The substrate of the project area was extremely mucky, consisted of broken shells, mud/silt, and debris. The site had unsuitable conditions for seagrass growth, which include poor water visibility. The bottom soils were too soft to support the growth and stabilization of seagrass roots. Adjacent to the site were seagrass test plots installed by Sea and Shoreline. None of the caged housings exhibited any seagrass growth.

Summary – After surveying the entirety of the proposed dredging footprint, it is our professional opinion that seagrass is not present. Seagrass is very unlikely to grow or survive in this area mainly from the poor visibility and water depths approaching -4' Mean Low Water. The bottom substate is unconsolidated making the establishment of seagrass roots/rhizomes difficult.



D.R Horton
Owl Creek Development, Lee County Florida (HWA File – Horton3)
Seagrass Report
Page 3 of 5



Ponar grab sample #1, on the left, and washed on the right with only shell fragments and organic debris evidenced in the substrate.



Ponar grab sample #2, on left and washed on the right. Similar results.



Ponar grab sample #3, on left and washed on the right. Bivalves were all dead.

*D.R Horton
Owl Creek Development, Lee County Florida (HWA File – Horton3)
Seagrass Report
Page 4 of 5*



Ponar grab sample #4, black goopy muck on the left and shell fragments when washed through the sieve on the right.



Ponar grab sample #5, similar substrate, shell fragments and remnants of bivalves.

*D.R Horton
Owl Creek Development, Lee County Florida (HWA File – Horton3)
Seagrass Report
Page 5 of 5*



This is a typical example of the substrate that constitutes the bottom within the footprint of the propose marina basin and entrance channel. Hand grab samples were consistently the same, fine silty sand, with organics and shell fragments.

Stacy Hewitt

From: Hans Wilson <hans@hanswilson.com>

From: Haynes, Lesli <LHaynes@leegov.com>

Sent: Wednesday, June 17, 2020 10:17 AM

To: Paul Owen <powen@dexbender.com>

Cc: Boutelle, Stephen <SBoutelle@leegov.com>

Subject: RE: LCMPP Analysis Request

Hi Paul,

It was nice speaking with you this morning. As stated, we had evaluated these 3 parcels as one project and based on current data and conditions, they rank as **Conditional**. I've attached the full score sheet and a map. In the map, you will see the qualified shoreline highlighted in purple. Mitigation measures for new slips at this property include but are not limited to: 1. Standard manatee construction conditions; 2. Manatee education activities as required per section 8.4.5; and 3. Funding for enhanced marine law enforcement per section 8.4.5. Note that the MPP determination does not alleviate the need to comply with zoning and all other applicable local, state and federal regulations, some or all of which may be more restrictive. Let me know if you need any additional information.

Thank you,
Lesli

5/10/2019

Facility	Corps reach	Shore ft	existing "slips"	ratio	rounded	Slips per 100'	max slip	expansion
Owl Creek_TalonVentures (3parcels)	32	6,595	0	65.95	66	5	330	
transferred rights				0	0			

Lesli Haynes
Marine Environmental Specialist, Sr
Lee County Natural Resources
Marine Services
1500 Monroe Street
Ft. Myers, Fl 33901
239-533-8566
lhaynes@leegov.com

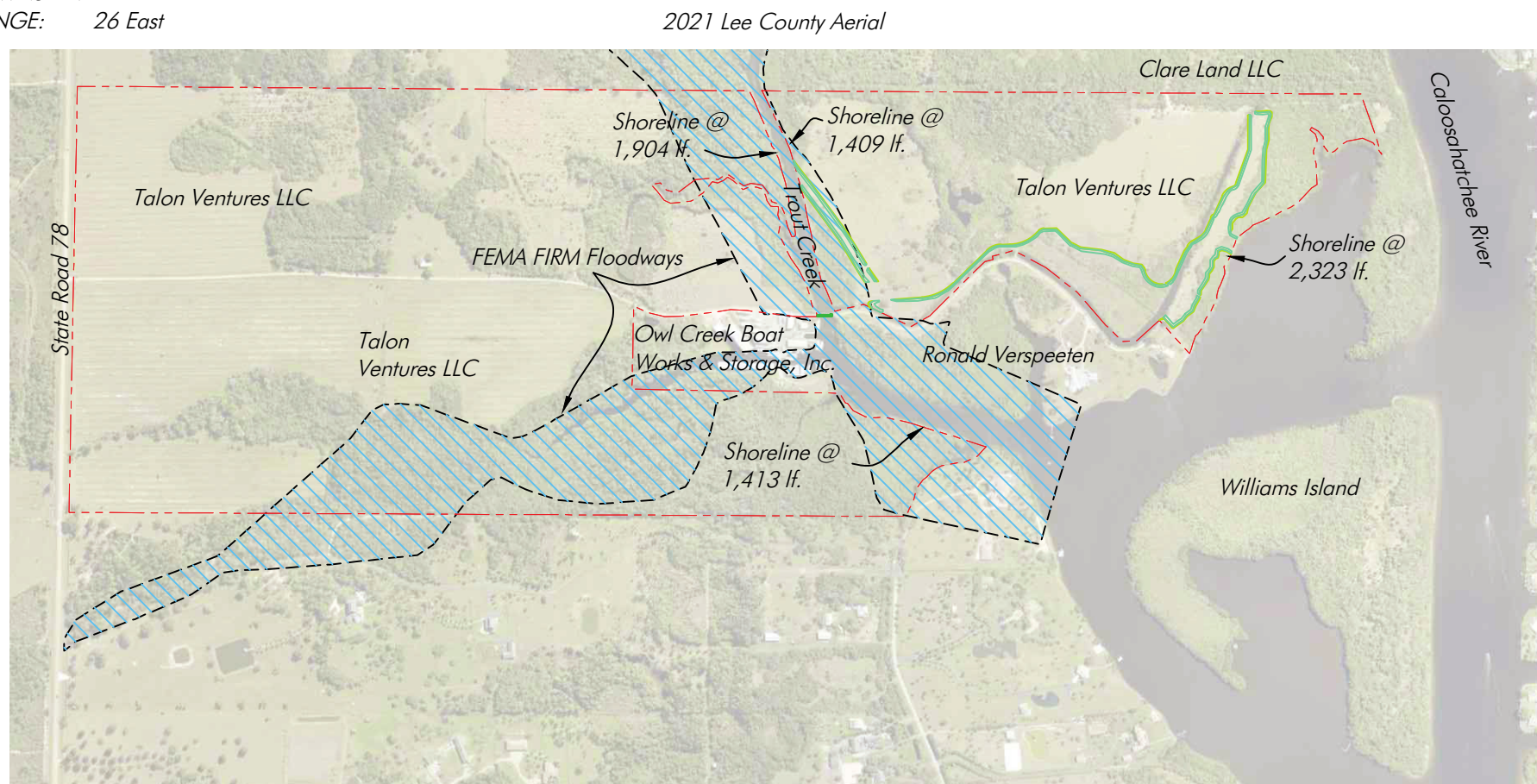
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Under Florida law, email addresses are public records. If you do not want your email address released in response to a public records request, do not send electronic mail to this entity. Instead, contact this office by phone or in writing.

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East



0' 500' 1,000'
SCALE FEET



Overall Site Plan

SCALE: 1" = 1,000'

Total project shoreline @ 7,049 lf.

Note: Property lines per Lee County Property Appraiser

PERMIT PLANS, NOT FOR CONSTRUCTION

This item has been digitally signed and sealed by
Hans J.M. Wilson on the date adjacent to the seal.
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signed and sealed and the signature must be
verified on any electronic copies.

HANS J.M. WILSON
REGISTERED PROFESSIONAL ENGINEER
FLORIDA REGISTRATION NO. 39680
DATE: March 14, 2022 4:18:08 p.m.
Drawing: HORTON3MASTER.DWG



1938 Hill Avenue, Fort Myers, Florida 33901
Office: 239-334-6870 Fax: 239-334-7810
MARINE and ENVIRONMENTAL CONSULTANTS

3-14-22

JWA

D R Horton

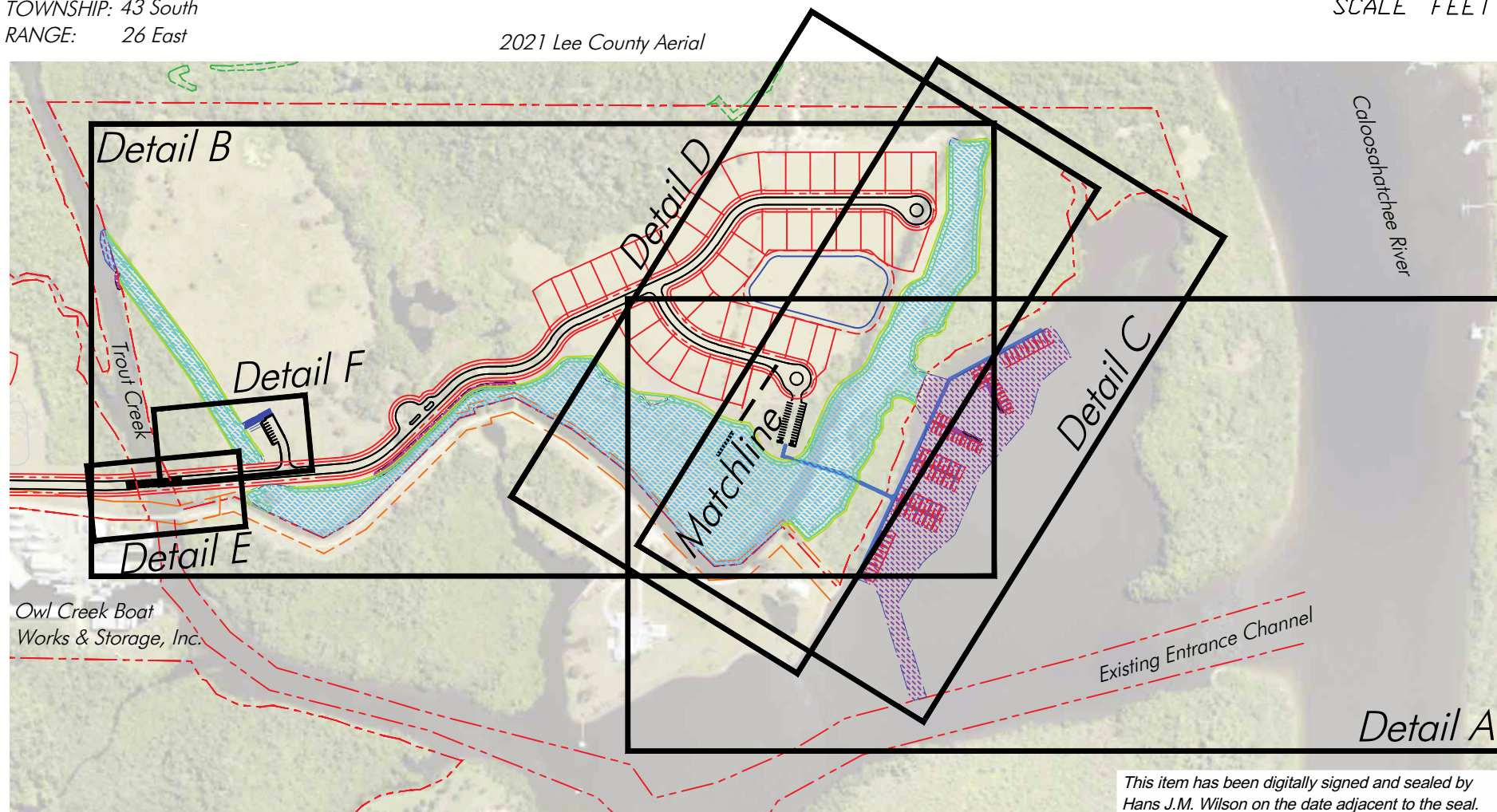
SHEET
2-21

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

2021 Lee County Aerial



0' 250' 500'
SCALE FEET



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Total project shoreline @ 7,049 lf.

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Proposed Site Plan

SCALE: 1" = 500'

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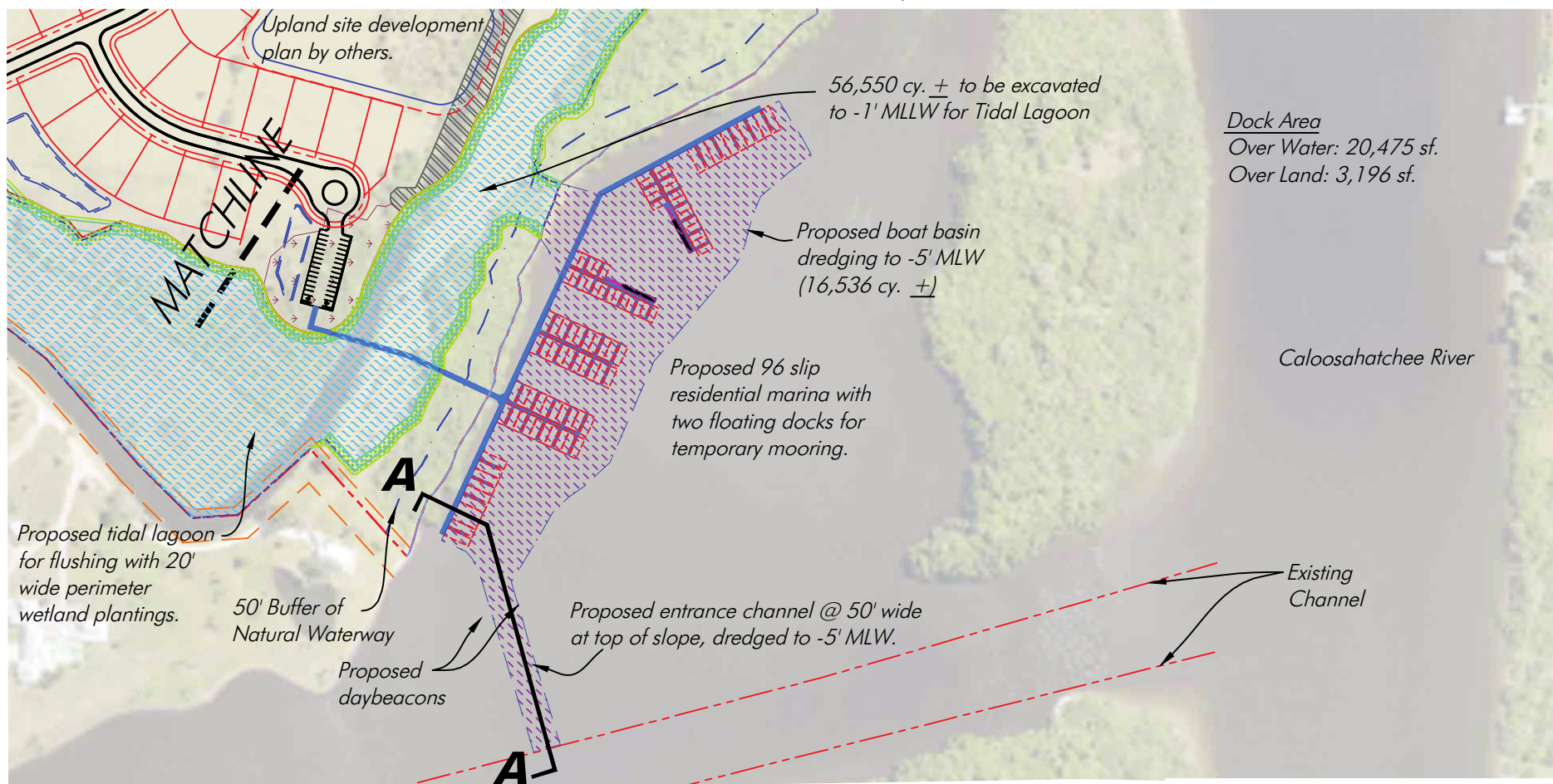
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4-21

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

2021 Lee County Aerial



0' 150' 300'
SCALE FEET



Detail A - Proposed Dock Plan

SCALE: 1" = 300'

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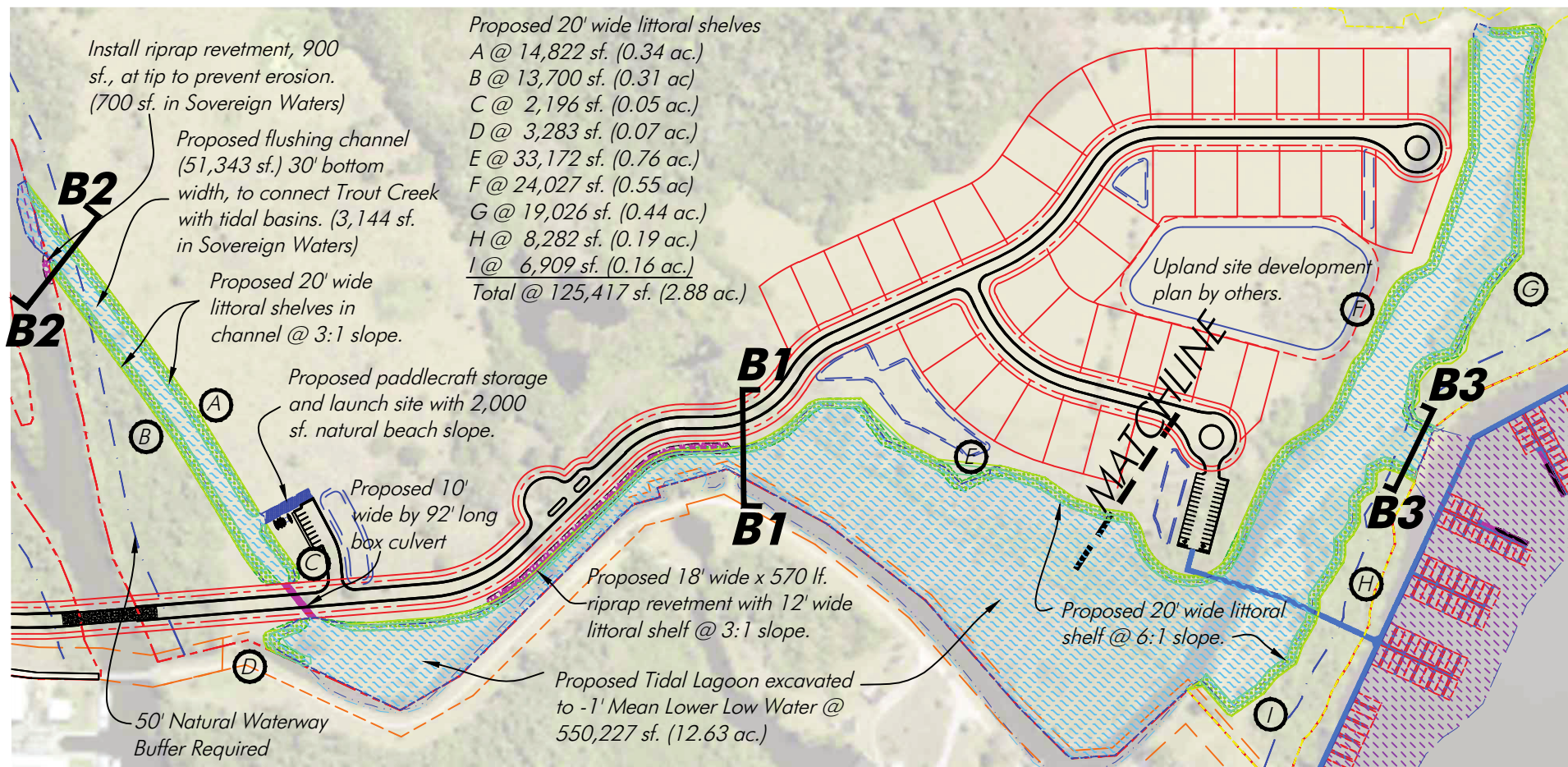
D R Horton

SHEET
5-21

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

2021 Lee County Aerial

0' 150' 300'
SCALE FEET



Notes: Depths reference MLW based on DEP Tide Station 872-5520.

MHW @ 0.06' NAVD.

MLW -0.89' NAVD

MLLW @ -1.04' NAVD.

Note: Property lines per Lee County Property Appraiser

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Detail B - Tidal Lagoon/Tidal Channel

SCALE: 1" = 300'

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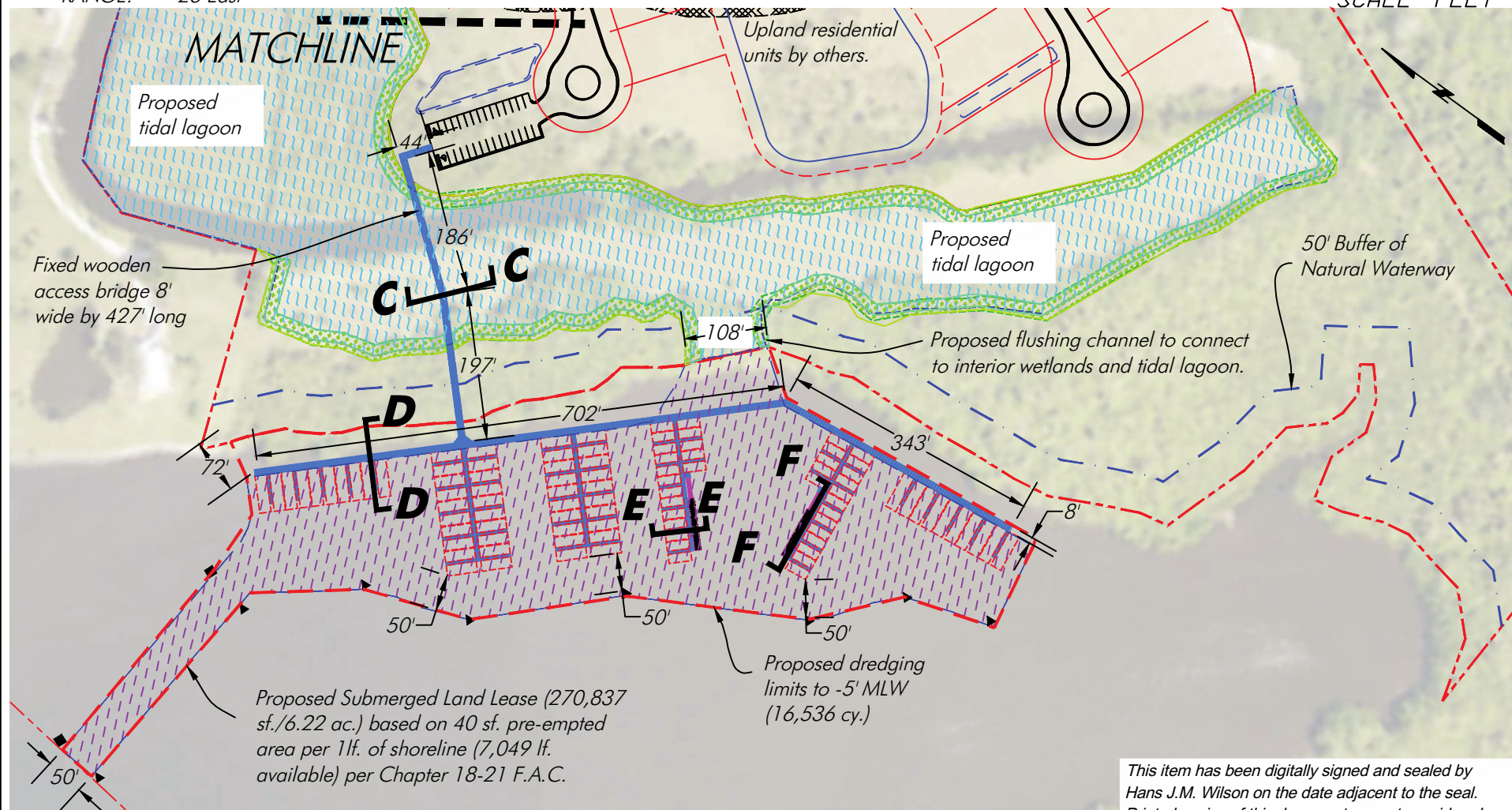
D R Horton

SHEET
6-21

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

2021 Lee County Aerial

0 100 200
SCALE FEET



Detail C - Proposed Dredging Plan

SCALE: 1" = 200'

Note: Property lines per Lee County Property Appraiser
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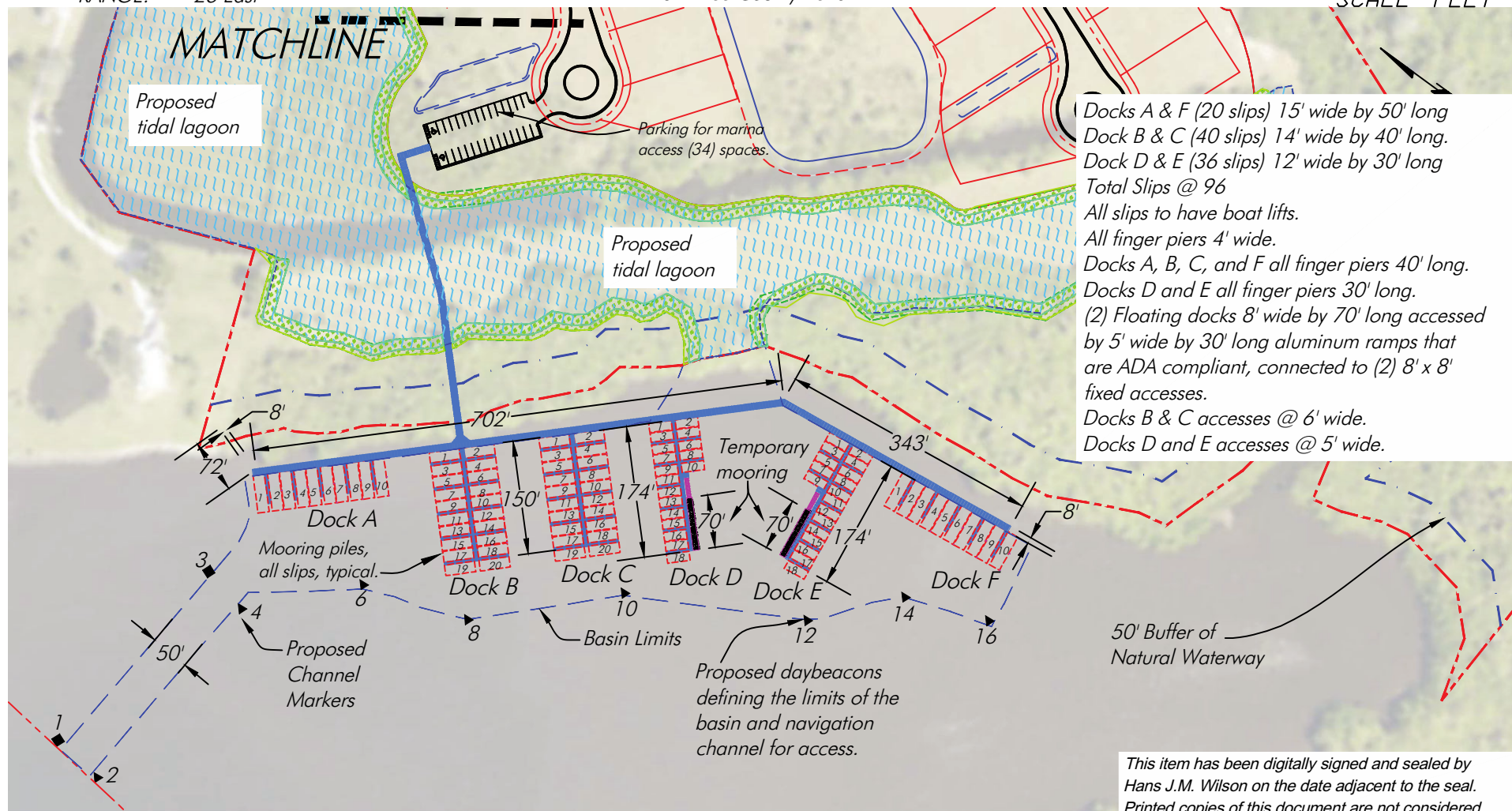
D R Horton

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8-21

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

2021 Lee County Aerial

0 100 200
SCALE FEET



Detail C - Proposed Marina Plan

SCALE: 1" = 200'

Note: Property lines per Lee County Property Appraiser

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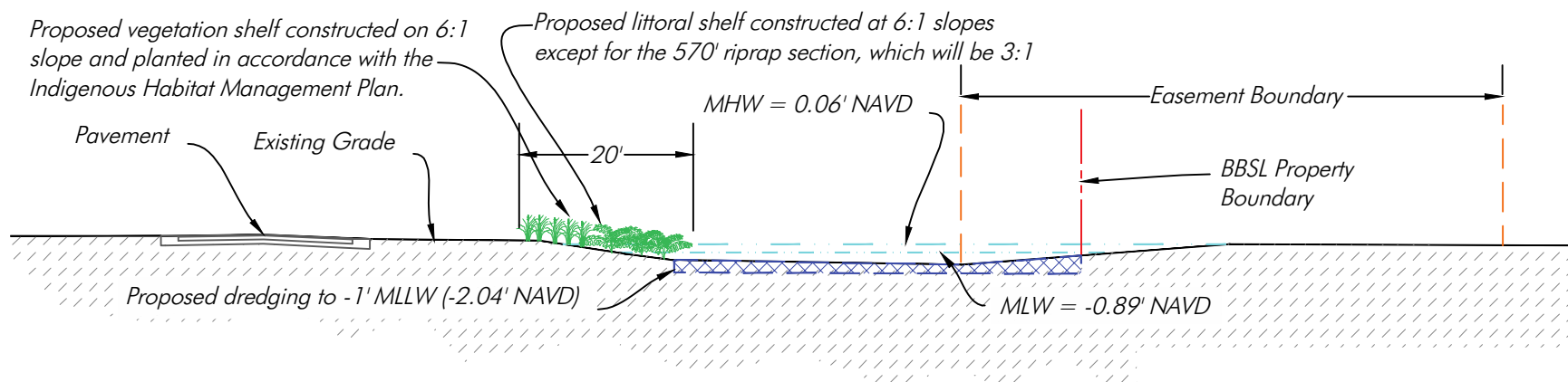
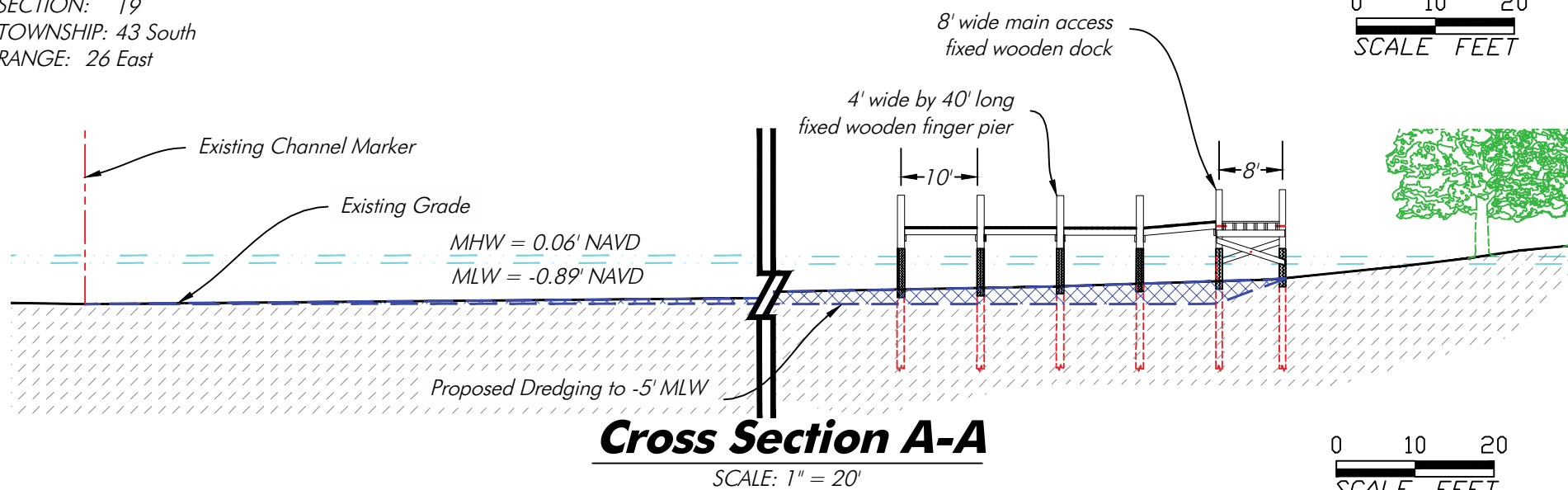
3-14-22

JWA

D R Horton

SHEET
9-21

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East



Notes: Depths reference MLW based on DEP Tide Station 872-5520.
MHW @ 0.06' NAVD.
MLW -0.89' NAVD
MLLW @ -1.04' NAVD.

Note: Property lines per Lee County Property Appraiser

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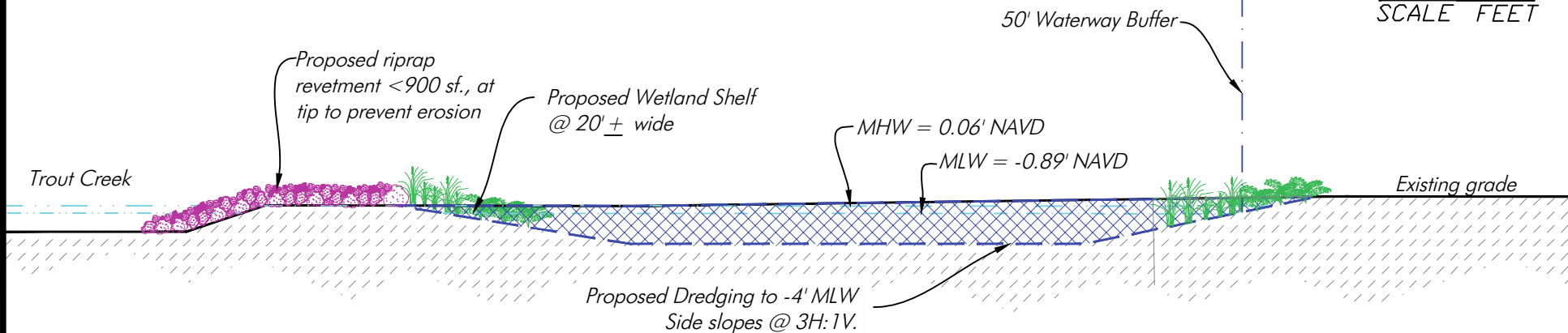
D R Horton

SHEET

13-21

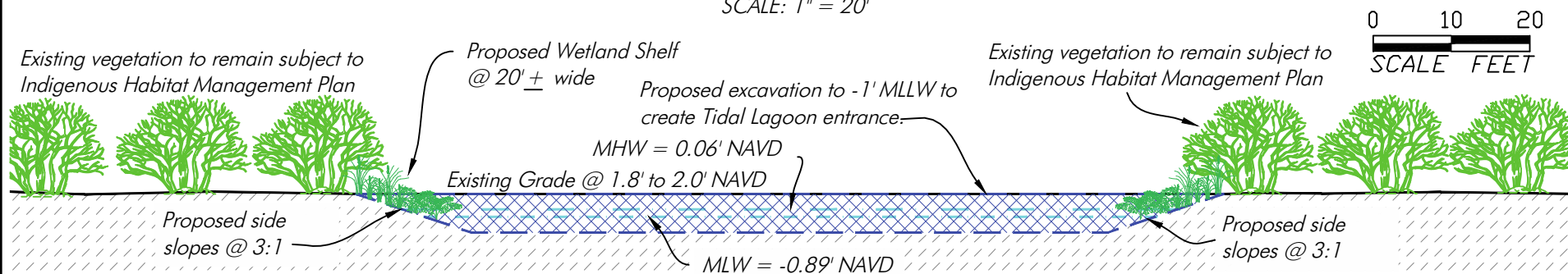
SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

0 10 20
SCALE FEET



Cross Section B2-B2

SCALE: 1" = 20'



0 10 20
SCALE FEET

Cross Section B3-B3

SCALE: 1" = 20'

Notes: Depths reference MLW based on DEP Tide Station 872-5520.
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MLW -0.89' NAVD
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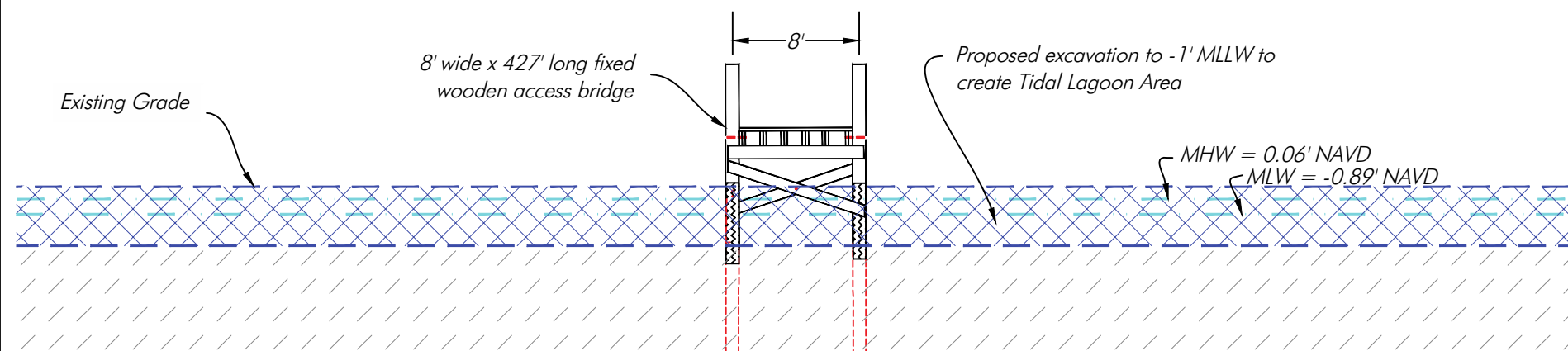
JWA

D R Horton

SHEET
14-21

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

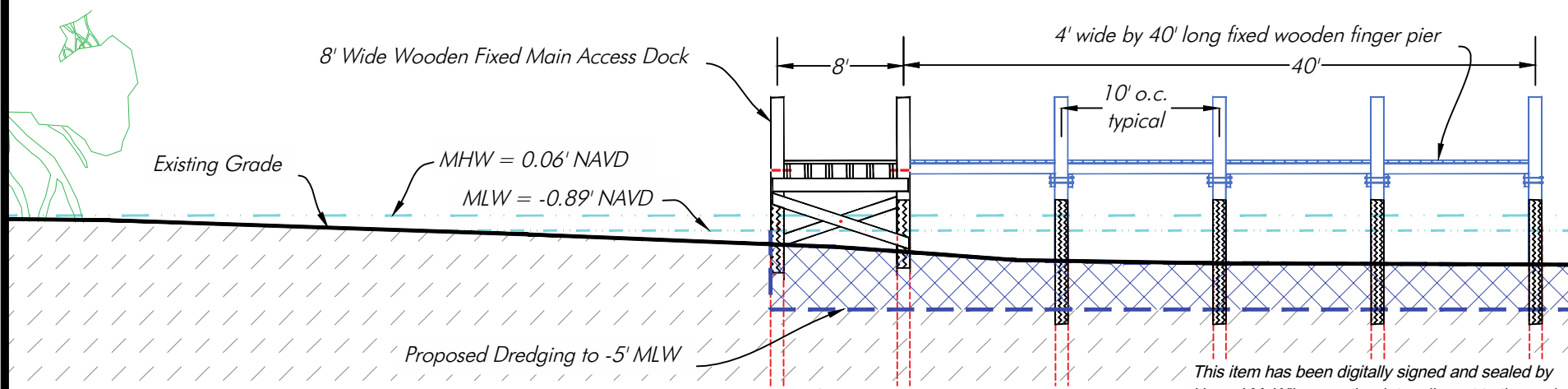
0 5 10
SCALE FEET



Cross Section C-C

SCALE: 1" = 10'

0 5 10
SCALE FEET



Cross Section D-D

SCALE: 1" = 10'

Notes: Depths reference MLW based on DEP Tide Station 872-5520.

MHW @ 0.06' NAVD.

MLW -0.89' NAVD

MLLW @ -1.04' NAVD.

PERMIT PLANS, NOT FOR CONSTRUCTION

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HANS J.M. WILSON
REGISTERED PROFESSIONAL ENGINEER
FLORIDA REGISTRATION NO. 39680
DATE: March 14, 2022 4:18:08 p.m.
Drawing: HORTON3MASTER.DWG



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Office: 239-334-6870 Fax: 239-334-7810
MARINE and ENVIRONMENTAL CONSULTANTS

3-14-22

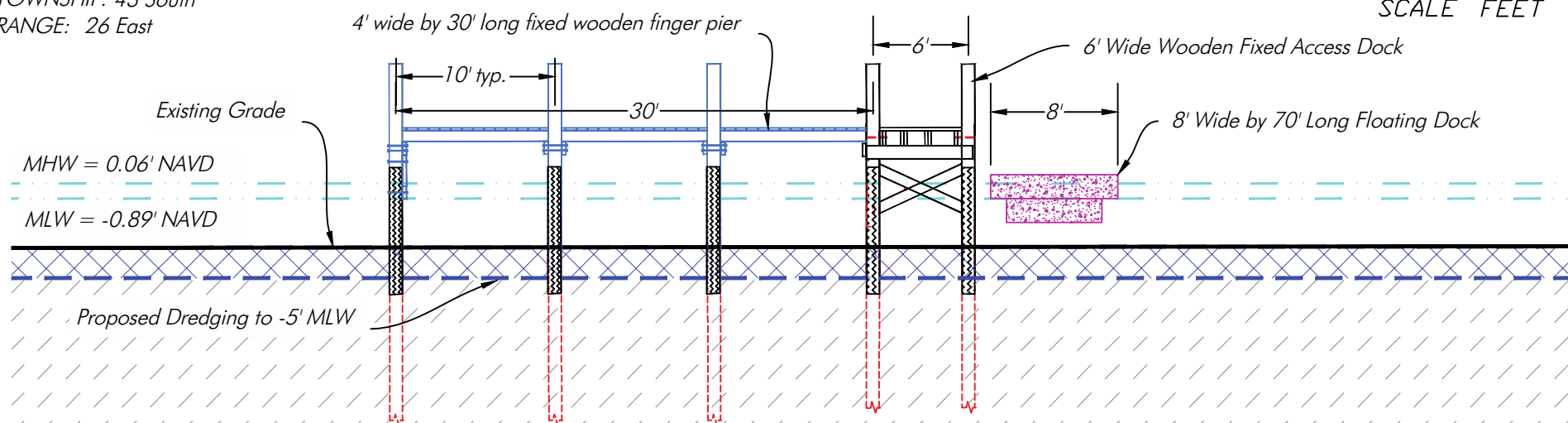
JWA

D R Horton

SHEET
15-21

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

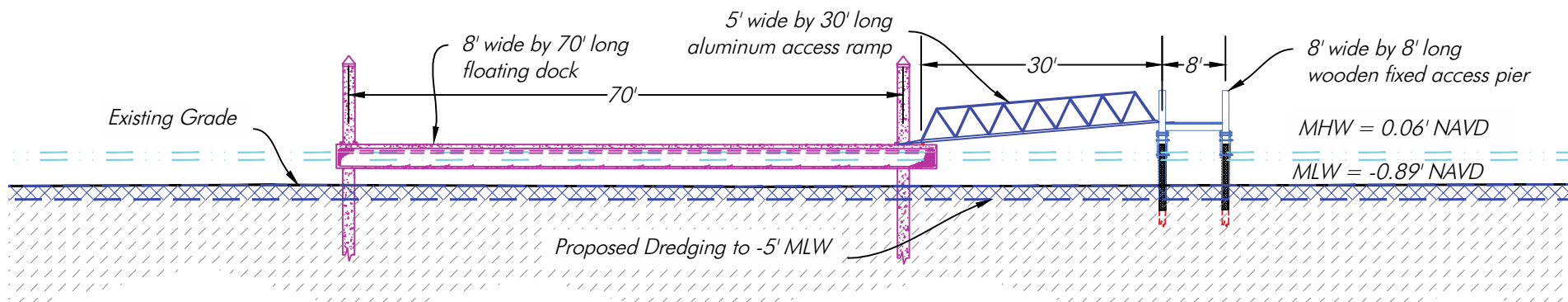
0 5 10
SCALE FEET



Cross Section E-E

SCALE: 1" = 10'

0 10 20
SCALE FEET



Cross Section F-F

SCALE: 1" = 20'

Notes: Depths reference MLW based
on DEP Tide Station 872-5520.
MHW @ 0.06' NAVD.
MLW -0.89' NAVD
MLLW @ -1.04' NAVD.

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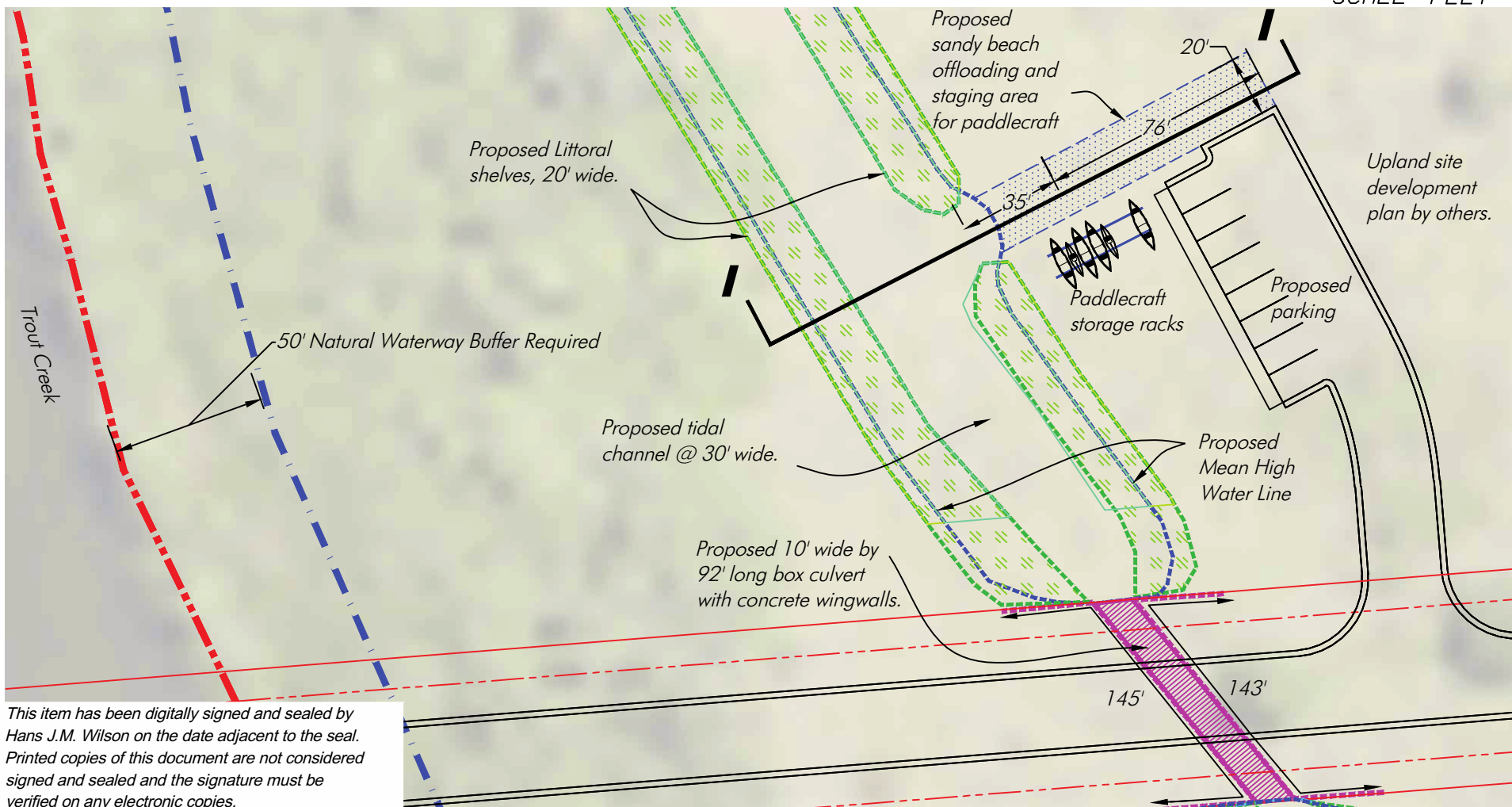
SHEET

16-21

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

2019 Lee County Aerial

0' 25' 50'
SCALE FEET



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Detail F - Proposed Paddlecraft Ramp

SCALE: 1" = 50'

Note: Property lines per Lee County Property Appraiser

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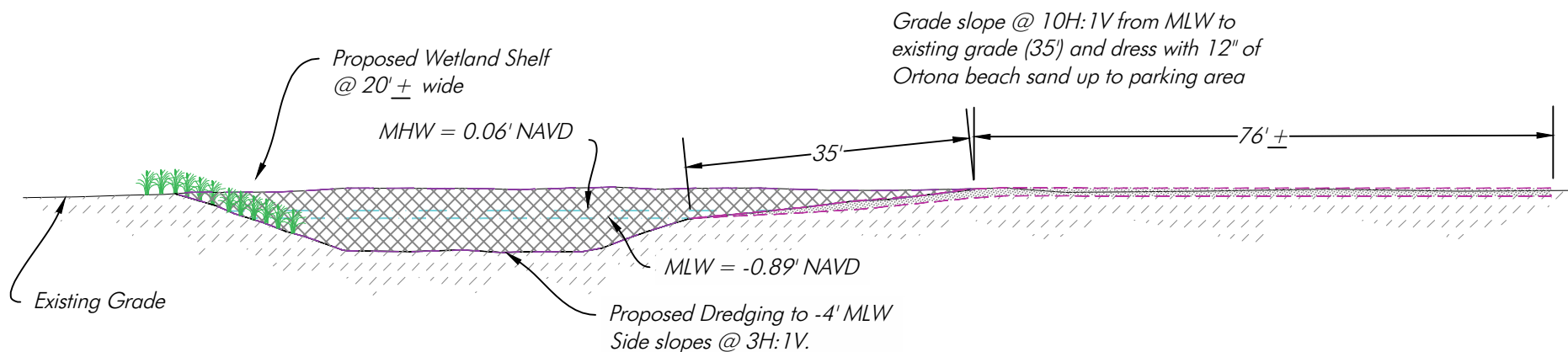
JWA

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SHEET
12-21

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

0 10 20
SCALE FEET



Cross Section I-I

SCALE: 1" = 20'

Notes: Depths reference MLW based
on DEP Tide Station 872-5520.

MHW @ 0.06' NAVD.

MLW -0.89' NAVD

MLLW @ -1.04' NAVD.

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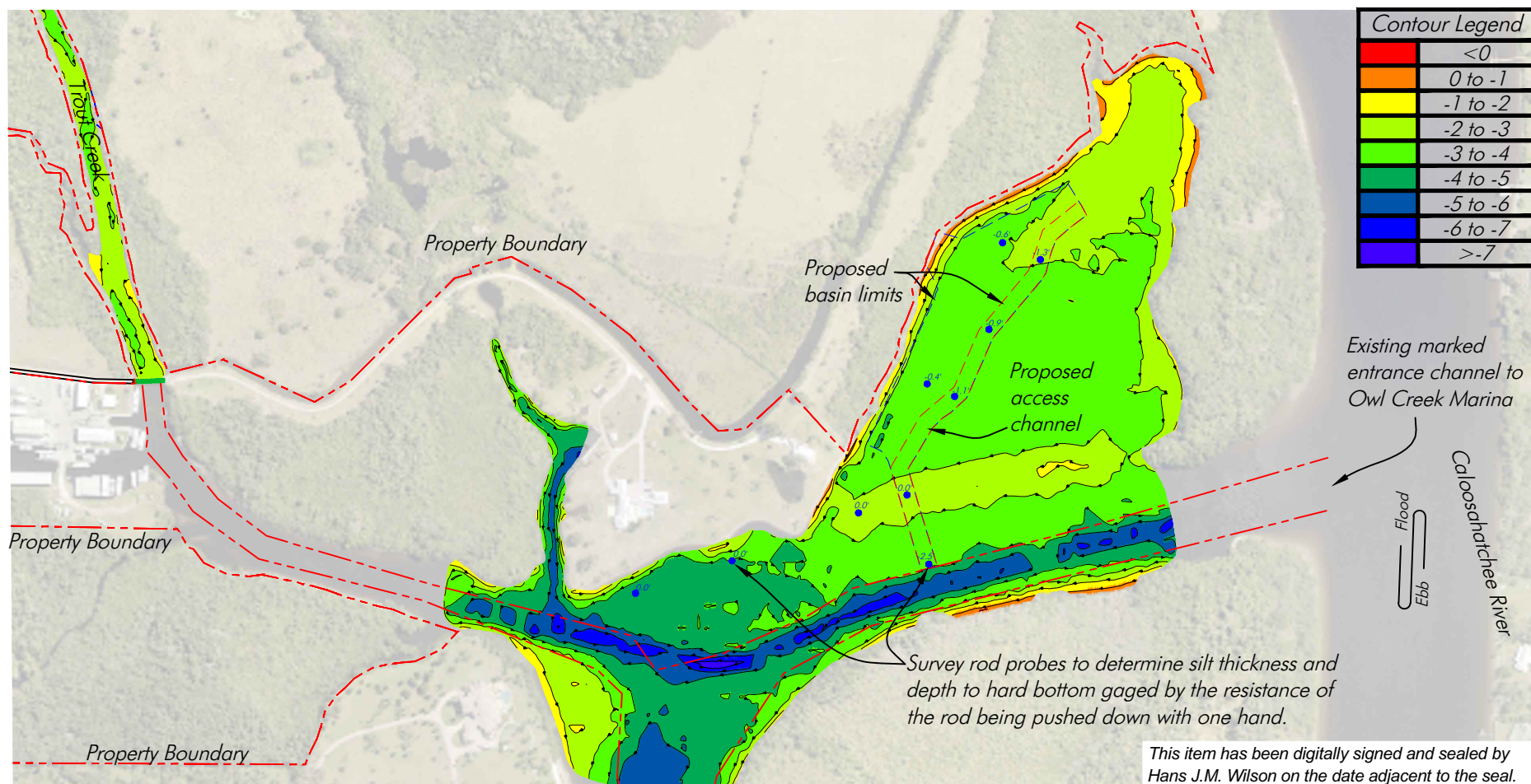
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SHEET
18-21

SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

2021 Lee County Aerial

0' 250' 500'
SCALE FEET



Note: Silt thickness locations and elevation difference surveyed by HWA on 5-13-22

Site Bathymetry references Mean Low Water datum.
Note: Property lines per Banks Engineering.

Overall Site Bathymetry

SCALE: 1" = 500'

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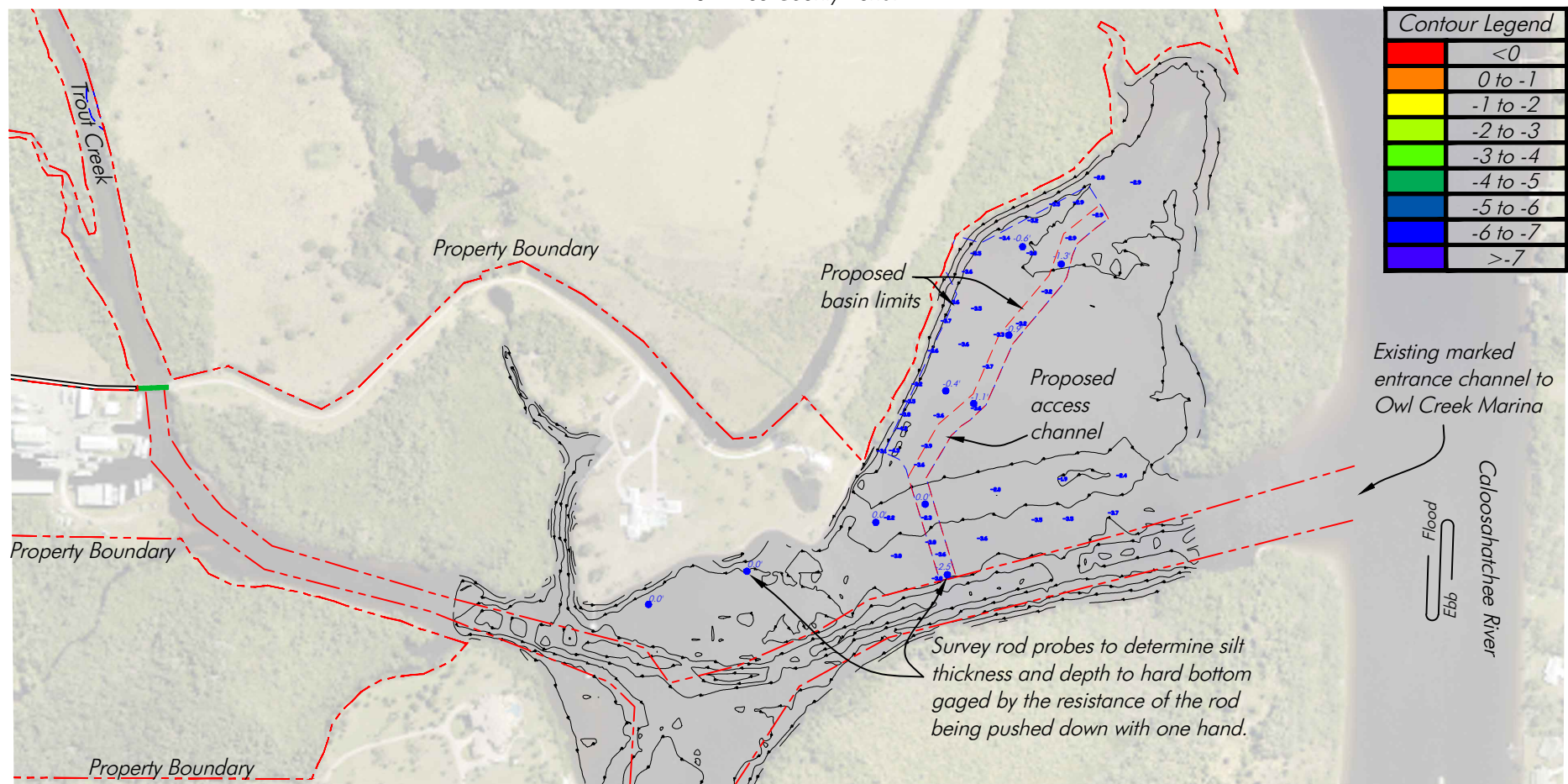
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SECTION: 19
TOWNSHIP: 43 South
RANGE: 26 East

2021 Lee County Aerial

0' 250' 500'
SCALE FEET



Overall Site Bathymetry

SCALE: 1" = 500'

Note: Silt thickness locations and elevation difference surveyed by HWA on 5-13-22

Site Bathymetry references Mean Low Water datum.
Note: Property lines per Banks Engineering.

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