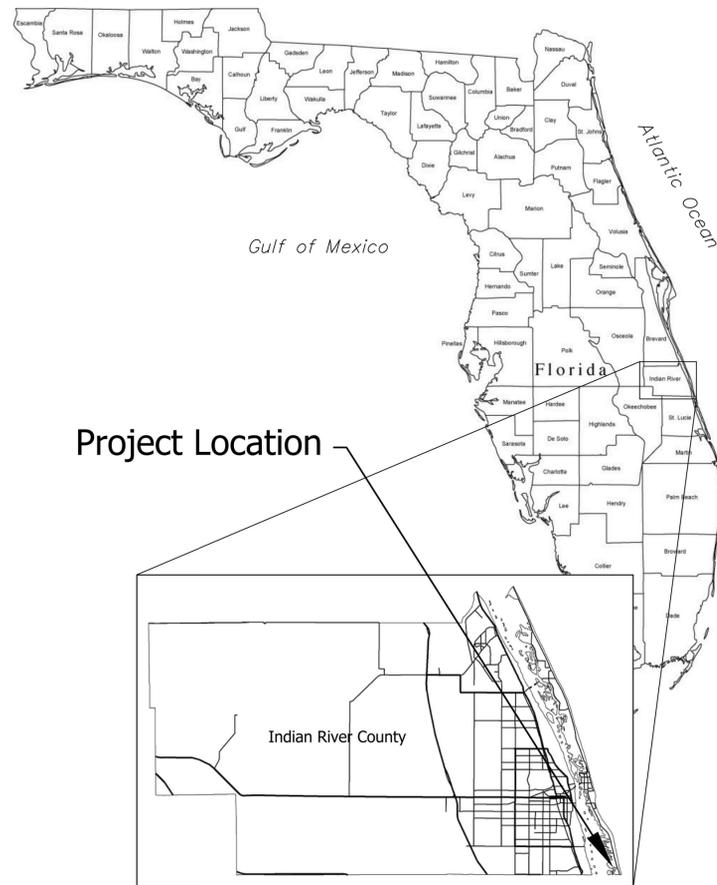


Round Island Park Emergency and Heavy Equipment Beach Access Indian River County, Florida

LOCATION MAP



Not to Scale

INDEX

- Sheet 1 - Cover / Location Map / Site Map / General Notes
- Sheet 2 - Plan View / Construction Access Locations and Site Data
- Sheet 3 - Profile and Plan View (Sta. 0+00 to 3+00), Calculations, and Notes
- Sheet 4 - Profile and Plan View (Sta. 3+00 to 6+10) and Details
- Sheet 5 - Section Views, Seagrape Mitigation Plan, and Details

GENERAL NOTES

1. Survey area lies in Flood Zone "VE" (EL. 14') and "AO" (1' depth) per Flood Insurance Rate Map No. 12061C0379H and 12061C0390H, effective date December 4, 2012. NOTE: site lies in CBRS area Unit P10A established 10/01/1983 per USFWS CBRS Mapper.
2. Surveys by Oceanside Solutions were performed on the dates shown on these drawings.
3. Shell Rock Road Access consists of a minimum of 8 inches of shell rock with minimum 12 inches of Type B LBR40 over compacted approved beach compatible sand.
4. Compact existing soil beneath the cement areas to 95% maximum density.

ATTENTION

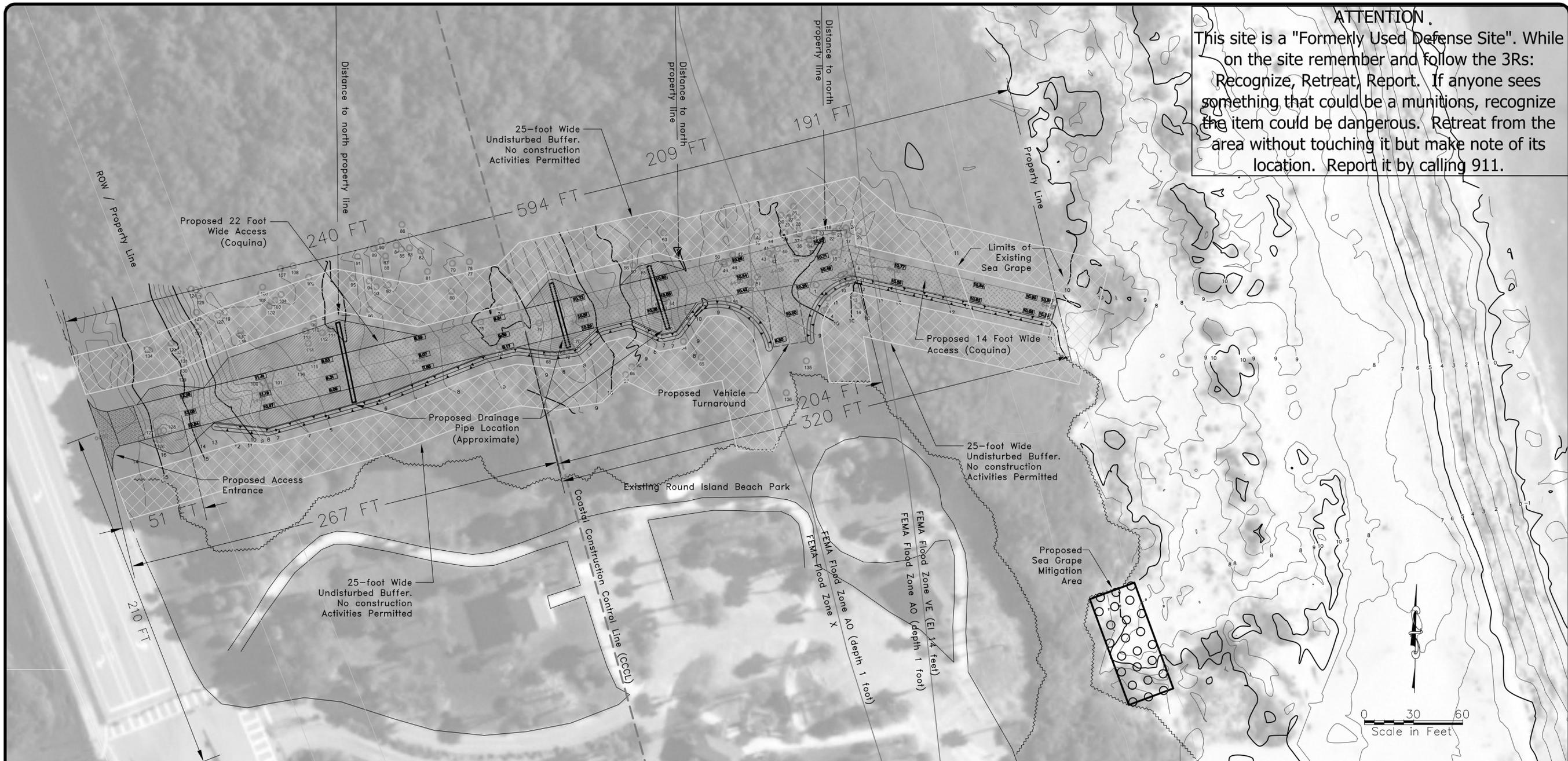
This site is a "Formerly Used Defense Site". While on the site remember and follow the 3Rs: Recognize, Retreat, Report. If anyone sees something that could be a munitions, recognize the item could be dangerous. Retreat from the area without touching it but make note of its location. Report it by calling 911.

Site Map



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Site Data

Owner and Applicant:	Indian River County 1801 27th Street Vero Beach, FL 32960 Contact: Robert Skok, Infrastructure PM Ph: (772) 226-1931	Property Tax ID No.: 3340340000100000012.1 Gross Property Acreage: 94.16 Acreage between Round Island Ocean Park and North Property: 4.29 Area and percent of site as open space: 1.99 acres; 4.6% Area and percent of site as impervious space: 0.01 acres; 2.4% Area and percent of site as building coverage: 0.0 acres; 0.0%
Engineer:	Stephen W. Boehning, P.E., CFM Coastal Waterways Design & Engineering, LLC 601 21st Street, Suite 300 Vero Beach, FL 32960	Land Use / Zoning: RS-3 Future Land Use: REC Proposed Use: Recreation
Survey:	Joseph Doto, PSM Oceanside Solutions 1180 South Patrick Drive Satellite, FL 32937	Applicable Flood Zones: ZONE X, ZONE VE (EI, 14 NAVD), ZONE AO (Depth 1 Foot), Coastal Barrier Resource Area (CBRS)
Property Address:	2200 S HIGHWAY A1A Vero Beach, FL 32963	Expected Construction Commencement: Summer 2020 Expected Construction Completion: Fall 2020

LEGEND

	Existing Cabbage Palm (sabal palmetto) Tree
	25-foot undisturbed buffer - no construction activity permitted
	Existing Elevation Contour

Environmental Impacts

- Seventy-four (74) Palm Trees Impacted; Trees in proximity of proposed construction are designated on the Plan View on Sheet 3 and 4. Refer to the legend.
- No lighting (permanent or temporary) are proposed.

Administrative Permit Criteria - Parks and Playgrounds
 IRC Code of Ordinances Section 971.40(7)(d)

- No off-street parking or loading areas of buildings and structures shall be located closer than twenty (20) feet to any property line abutting a residentially designated district.
 - Any recreational use equipped with lighting to allow the use of the facility after sunset shall be designed such that:
 - All lights are shielded from shining into residentially designated adjacent properties; and
 - Hours of operation and/or special design techniques are used to mitigate noise impacts, especially during evening and nighttime hours.
 - Buffering of the project shall be sufficient to not adversely affect adjacent property.
- Proposed improvements do not include any permanent or temporary lighting (See "Environmental Impacts" note No. 2, above).**
Proposed improvements are located a minimum 136 feet from adjacent property. Existing vegetation buffers the site improvements (See Sheet 1).

Parking Spaces

Not Applicable

Required Permits

- Indian River County:
- Site Plan Approval - Administrative (Permit Application this Submittal)
 - Tree Removal (Separate Permit Application)
 - Land Clearing (Separate Permit Application)
- Florida Department of Transportation (FDOT) Driveway Permit 2020-A-490-00024
- Florida Department of Environmental Protection (FDEP)
- Coastal Construction Control Line (CCCL) Permit (Permit No.: IR-989)
 - Environmental Resource (ERP) Permit (Permit No.: 31-0389909-001-EI)
- US Army Corps of Engineers (USACE) - USACE staff indicates no permit required.

Improvement Purpose

The proposed shell material access road allows heavy equipment access to the south County beaches for the County to perform health and safety related activities (fish kill cleanup, emergency rescue, etc.) and provide construction access (beach and dune renourishment projects). Beach access for heavy equipment to the south County beach region does not currently exist. The adjacent Round Island Beach Park access is designed for non-commercial vehicles and its narrow width with restricted radius and raised curbing limits access by necessary heavy construction equipment.

STEPHEN W. BOEHNING, P.E. DATE
 FL. P.E. NO. 52201

REVISION

LDP/DEP Changes 4/22/20
DEP RAI Changes 7/9/20
LDP RAI Changes 7/11/20
Final Design Dwg 9/3/20
Permit/USACE Note 10/7/20

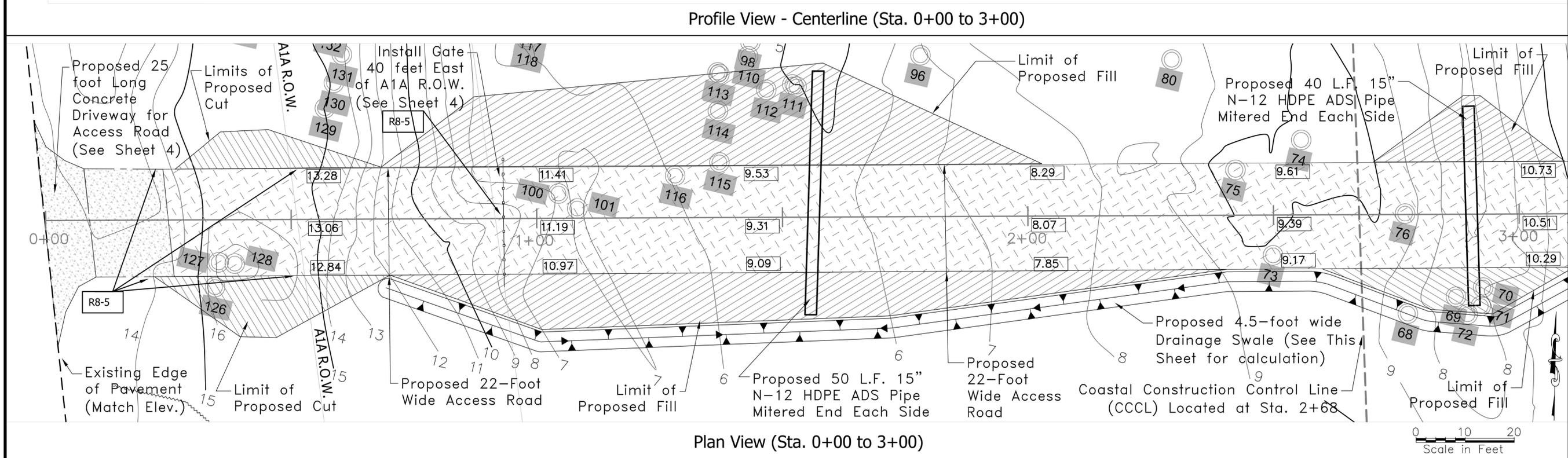
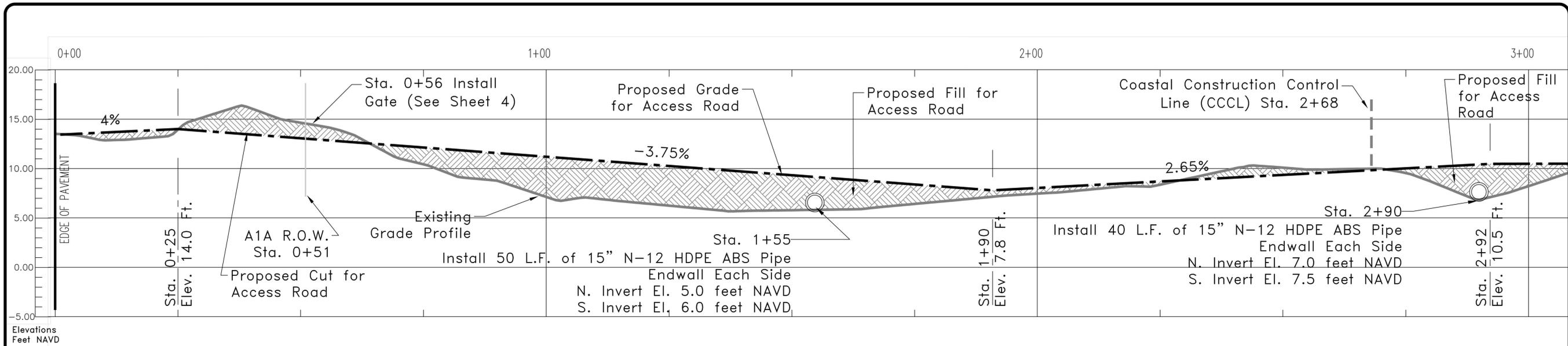
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Round Island Park Emergency and Heavy Equipment Beach Access
 Indian River County, Florida

Plan View/Construction Access Locations and Site Data

Engineer	SWB
Checked	SWB
Date	11/15/2019
Scale	AS NOTED
Project Number	2041803
Sheet Number	



Stormwater Calculations

Stabilized Area

Total Proposed Stabilized Area = 12,718 s.f.

70% of Proposed Stabilization Area = 8,903 s.f.

Stormwater Calculations

Impervious Area: Area of Improvement

Proposed Stabilization Area = 8,903 s.f.

Add Concrete = 550 s.f.

Total Area of New Improvement = 9,453 s.f.

1-inch rainfall x 0.083 feet = 785 c.f.

1.5-inch rainfall x 0.125 feet = 1,182 c.f.

Treatment Area:

530 l.f. x 4.5-feet wide x 1-foot deep x .5 = 1,193 c.f.

Cut/Fill Calculation

Cut/Fill	begin Sta.	end Sta.	Distance from CCCL (feet)	quantity (cy)
Fill	0+00	0+25	-	59
Cut	0+25	0+65	-	-348
Fill	0+65	1+90	-	1088
Cut	1+90	2+68	-	-78
CCCL	2+68	2+68	-	-
Fill	2+68	3+10	42	312
Cut	3+10	3+30	62	-20
Fill	3+30	3+75	107	334
Fill	3+75	4+50	182	556
Cut	4+50	4+70	202	-20
Fill	4+70	5+30	262	247
Fill	5+30	6+05	337	-75
Fill	6+05	6+12	344	17
Project Quantities				cubic yards
Total Cut				-541
Total Fill				2612
Total Project Net (Fill)				2071
Quantities Seaward of CCCL				cubic yards
Total CCCL Cut				-115
Total CCCL Fill				1465
Total CCCL Net (Fill)				1350

Tree / Vegetation Impacts

Tree / Vegetation Impacted	Size	Quantity removed
Palm Tree (sabal palmetto)	> 10' height	63 each
Sea Grape (coccoloba uvifera)	mature	1,230 square feet

Note: Includes Fifteen (15) Palm Trees Impacted Landward of the CCCL

Tree and Vegetation Notes:

- Contractor shall remove all nuisance exotic vegetation within the limits of the proposed construction as shown on these drawings.
- Impacts to trees and vegetation beyond those included in the above table and beyond the construction limits shown in these plans is not permitted. Any impacts beyond the limits described above shall be reported to the Engineer.
- Contractor shall be responsible for temporary irrigation of the Seagrape mitigation area (refer to sheet 5). Refer to the contract specifications for required timing to establish vegetation.
- Contractor shall notify Engineer of impacts to any small-diameter specimen trees [e.g. Stoppers (Eugenia spp.), FL Privet (Forestiera segregata), and wild lime (Zanthoxylum fagara)]

Project Notes:

- Proposed access road shall be constructed with 8-inch thick cemented coquina shell base with 12-inch thick Type B Stabilization LBR40 on compacted approved beach quality sand, seaward of the Coastal Construction Control Line (Sta. 2+68).
- Proposed culverts shall be 15-inch ADS HP Pipe Culvert Round.
- No proposed work seaward of the Coastal Construction Control Line shall be performed seaward of the dunes. All work shall be from the seaward limit of the seagrape vegetation line, landward.
- Proposed fill seaward of the CCCL shall be clean compacted material similar in nature to the material at the site. Proposed excavated material seaward of the CCCL shall remain on site and seaward of the CCCL.
- Best Management Practices (BMP) shall be utilized for erosion control during construction. All disturbed areas not including the roadway shall receive sod in accordance with the Technical Specifications.
- Vegetation seaward of the CCCL that is proposed to be removed includes cabbage palms (sabal palmetto) and sea grapes (coccoloba uvifera) and exotic vegetation within the limits of the proposed construction as shown on these drawings. Vegetation landward of the CCCL that is proposed to be removed includes cabbage palms (sabal palmetto) and exotic vegetation within the limits of the proposed construction as shown on these drawings.
- Storage location of fill and excavated material shall be within the proposed turnaround area after clearing and grubbing activities are completed. Additional material storage area may be allocated by the County within the Round Island Beach Park and immediately adjacent to the proposed turnaround area, only upon written authorization and after County approval of Contractor installed soil and erosion control mechanisms.

LEGEND

86 Existing Cabbage Palm (sabal palmetto) Tree

10.29 Proposed Grade Elevation

8 Existing Elevation Contour

R5-10a Proposed Signage Designation (MUTCD)

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STEPHEN W. BOEHNING, P.E. DATE
FL. P.E. NO. 52201

REVISION

LDP/DEP Changes 4/22/20

DOT Gate Moved 6/22/20

DEP RAI Changes 7/9/20

LDP RAI Changes 7/11/20

Final Design Dwg 9/3/20

Gate/USACE Note 10/7/20

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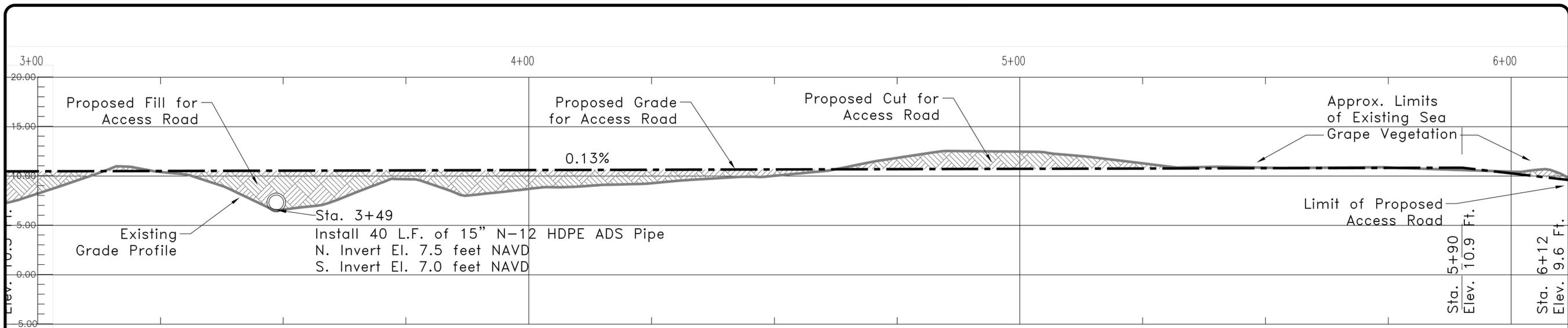
Round Island Park Emergency and Heavy Equipment Beach Access
Indian River County, Florida

Profile and Plan View (Sta. 0+00 to 3+00)

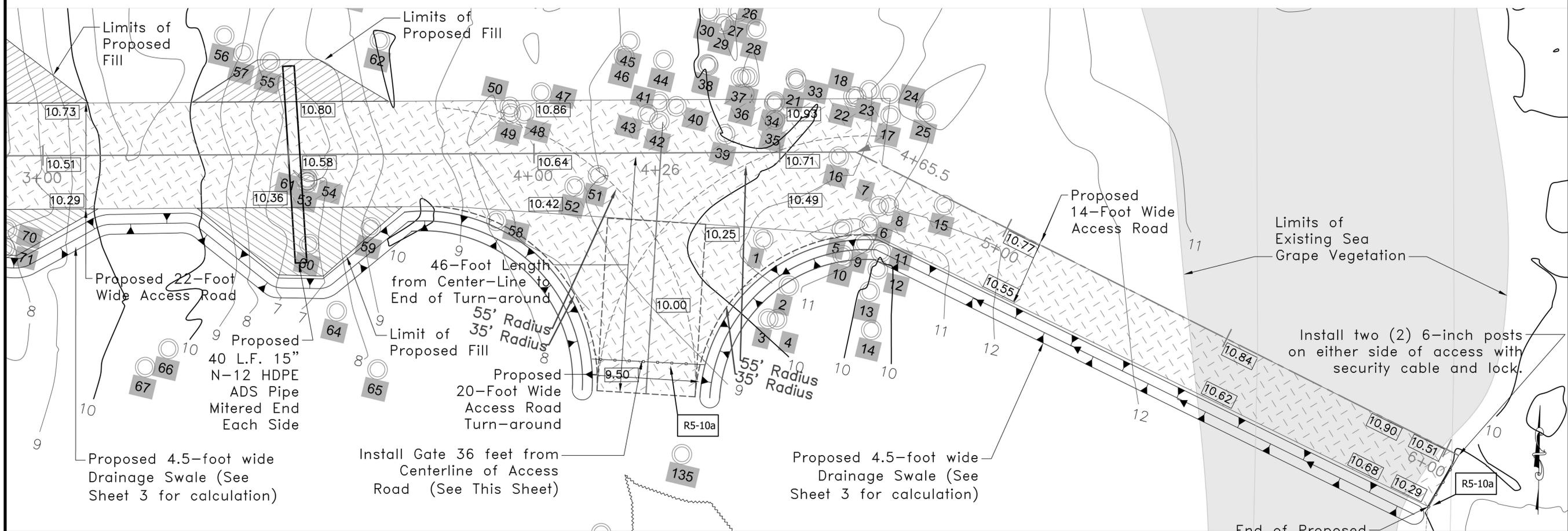
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SWB
Checked
SWB
Date
11/15/2019
Scale
AS NOTED
Project Number
2041803
Sheet Number

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of 5 Sheets

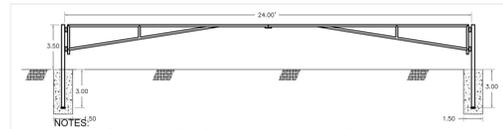


Profile View - Centerline (Sta. 3+00 to 6+10)



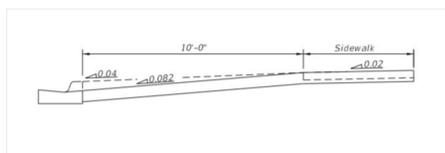
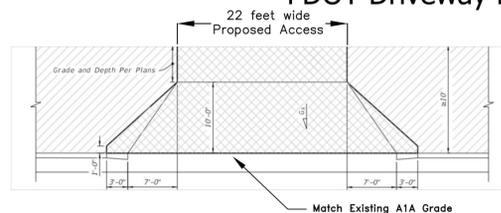
Plan View (Sta. 3+00 to 6+10)

Double Leaf Swing Barrier Gate



- NOTES:
 1. Install Double Manual Swing Gate at park entrance and at end of turn-around as shown on Sheet 3 and Sheet 4. Both gates shall be painted Safety Yellow. All support and receiver posts shall be painted Safety Yellow.
 2. Gate shall be Sentinel Manual Swing Barrier gates as Manufactured by Guardian Traffic Systems, or equal. Contact sales@tigerfeetstore.com for additional information.

FDOT Driveway Detail (Index 522-003)



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- LEGEND**
- Existing Cabbage Palm (sabal palmetto) Tree
 - Proposed Grade Elevation
 - Existing Elevation Contour
 - Proposed Signage Designation (MUTCD)

STEPHEN W. BOEHNING, P.E. DATE
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REVISION
LDP/DEP Changes 4/22/20
DEP RAI Changes 7/9/20
LDP RAI Changes 7/11/20
Final Design Dwg 9/3/20
Add USACE Note 10/7/20

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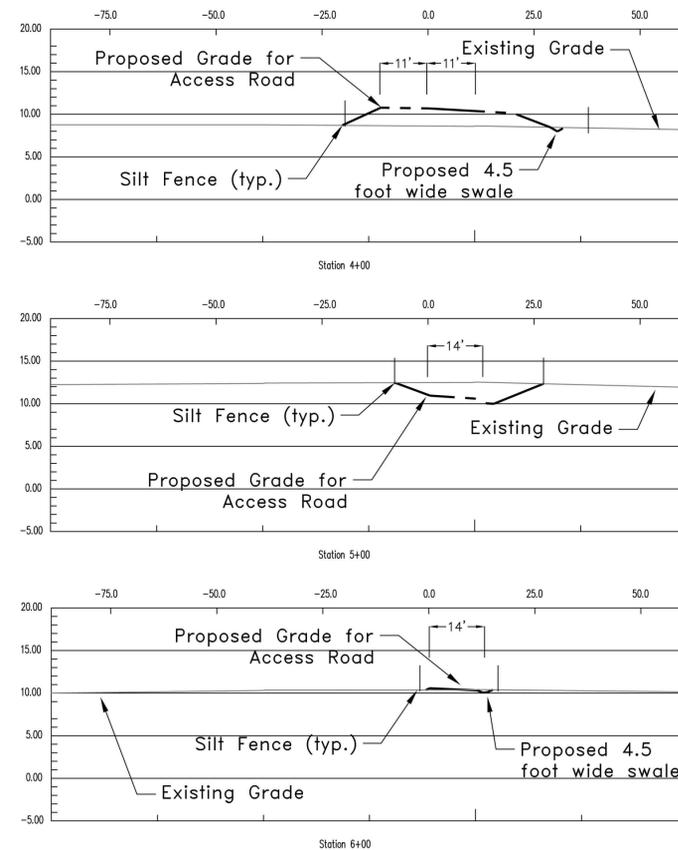
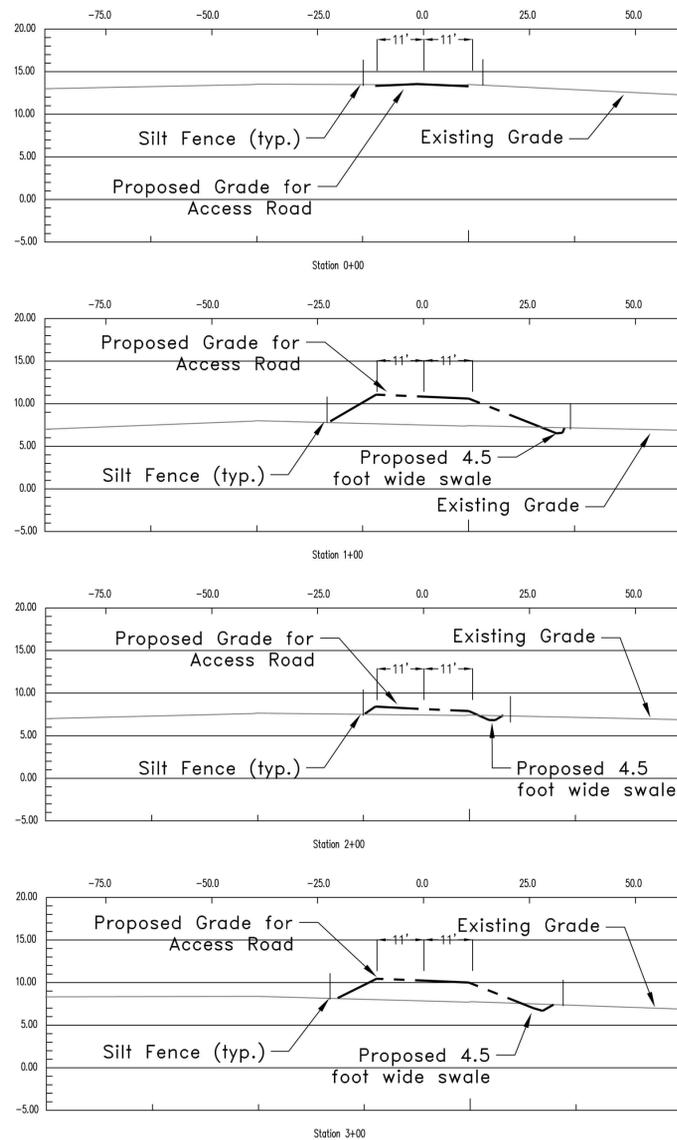
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Profile and Plan View (Sta. 3+00 to 6+00)

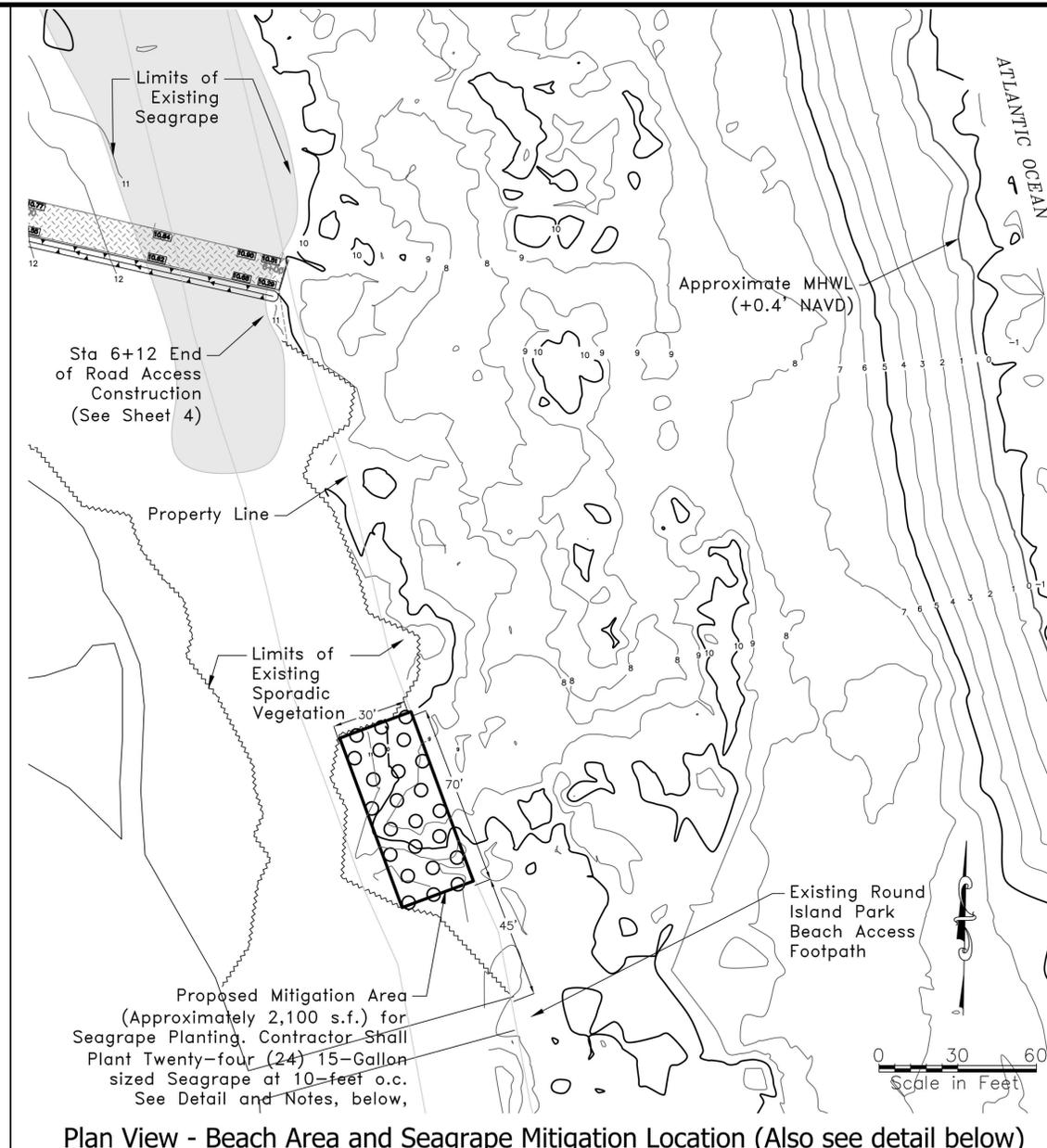
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of 4 Sheets

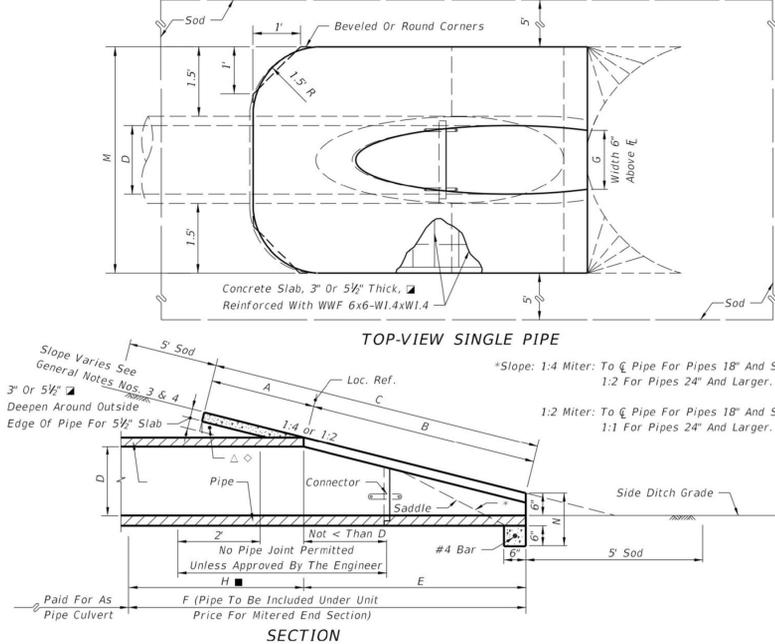


Section Views

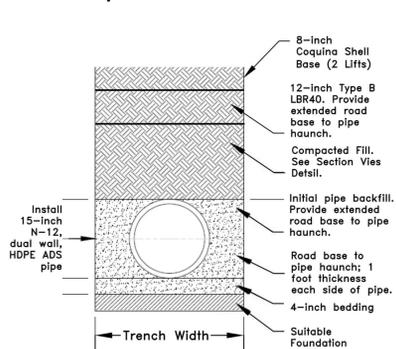


Plan View - Beach Area and Seagrape Mitigation Location (Also see detail below)

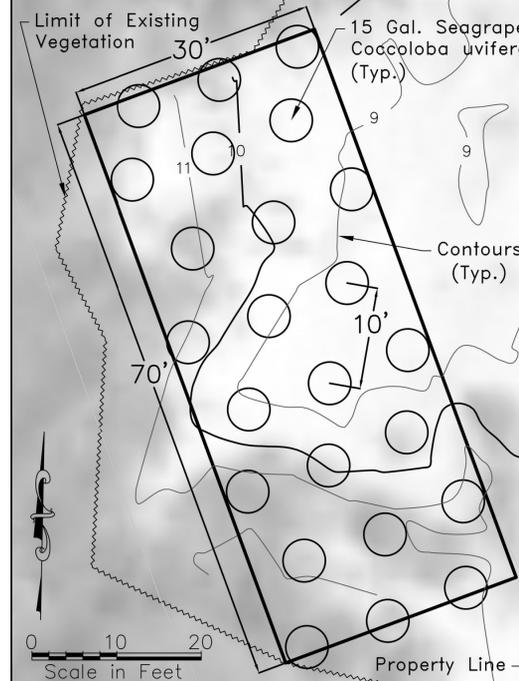
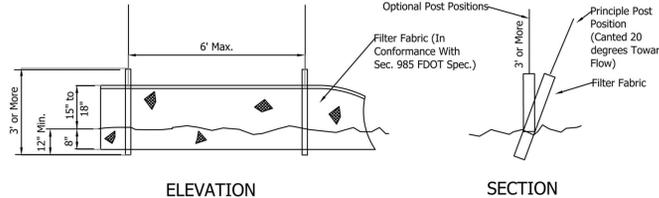
Concrete Mitered End Section Detail



Pipe Backfill Detail



Silt Fence Detail



- Planting Plan Notes:
- Proposed access road impacts a seagrape vegetated area totaling 1,270 s.f. (including a 5-foot wide construction buffer on either side of the access road and associated improvements).
 - Proposed Mitigation Area is located as shown on the above plan titled "Plan View - Beach Area and Seagrape Mitigation Location" with an area of 2,100 s.f. located on the County park property in a location void of native vegetation.
 - Contractor Shall Plant Twenty-four (24) 15-Gallon/17-inch sized Seagrape (*Coccoloba uvifera*), measuring a minimum 5-feet high from the bottom of the nursery pot, at 10-feet on center, within the proposed Seagrape Mitigation Location. Contractor shall not impact existing native vegetation. Engineer shall designate alternative location for planting if planting will result in impacts to native vegetation.

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Section Views, Seagrape Mitigation Plan, and Details

Engineer	SWB
Checked	SWB
Date	11/15/2019
Scale	AS NOTED
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Sheet Number	5

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