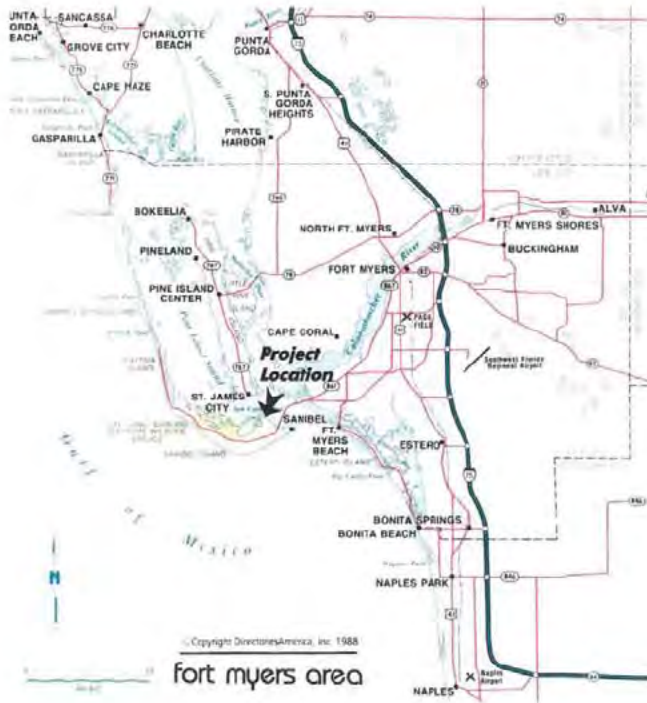


SECTION: 13  
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 RANGE: 22E

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**Vicinity Map**  
 SCALE: 1" = 10 mile



**Location Map**  
 SCALE: 1" = 4000'

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**Project Location Maps**

08-30-16

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4/14

SECTION: 13  
TOWNSHIP: 46S  
RANGE: 22E

Lee County Aerial 2016

0 50 100  
SCALE FEET

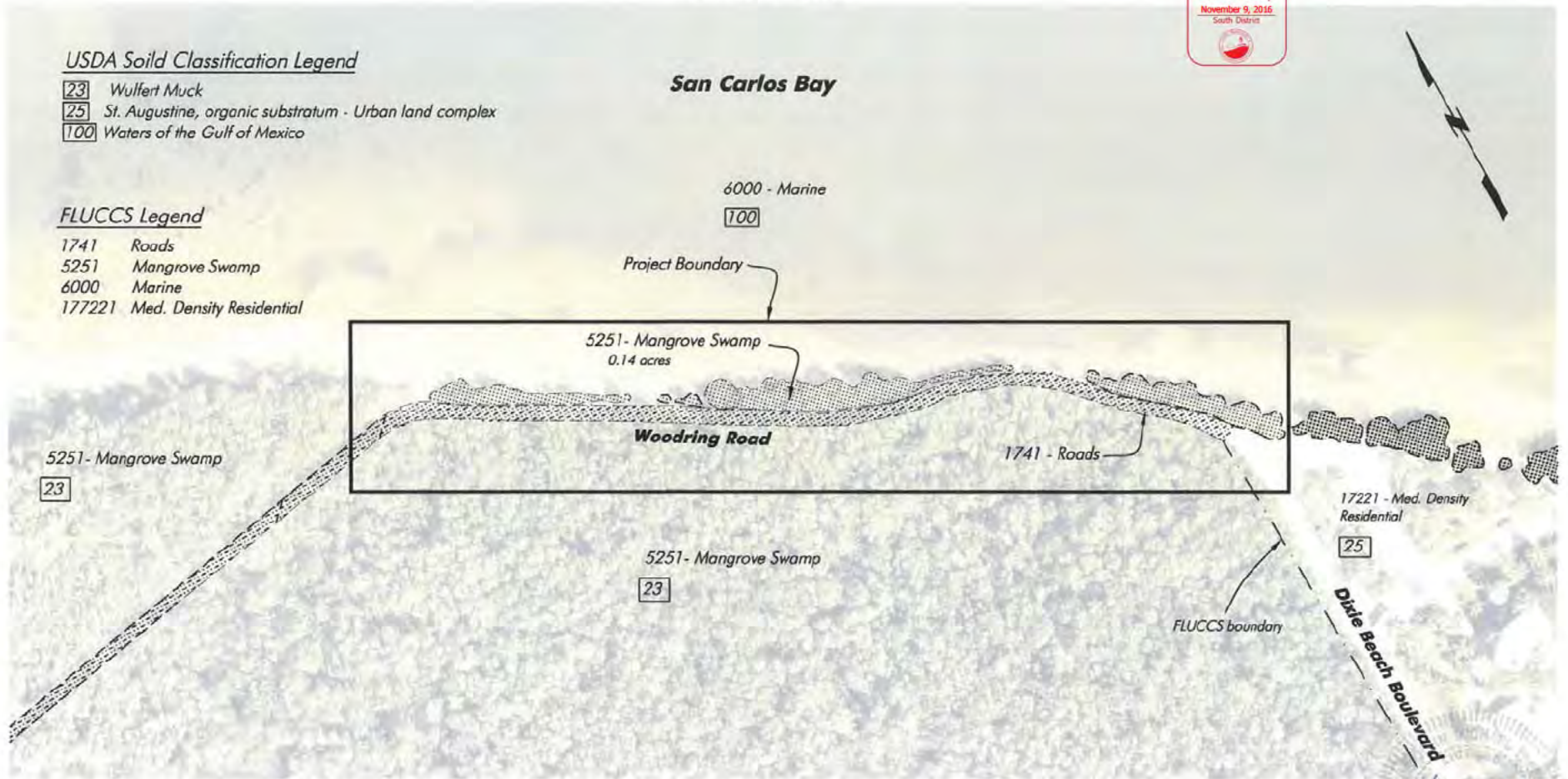


USDA Soild Classification Legend

- 23 Wulfert Muck
- 25 St. Augustine, organic substratum - Urban land complex
- 100 Waters of the Gulf of Mexico

FLUCCS Legend

- 1741 Roads
- 5251 Mangrove Swamp
- 6000 Marine
- 177221 Med. Density Residential



Soils information per U.S.D.A. Soil Conservation Service - Soil Survey of Lee County, Florida.  
FLUCCS information per FDEP Map Direct website.

No. 23  
  
**HANS J.M. WILSON**  
 REGISTERED PROFESSIONAL ENGINEER  
 FLORIDA REGISTRATION NO. 39680  
 CA. LIC. NO. 8518  
 DATE: October 28, 2016 2:26:07 p.m.  
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**Fluccs - Soils Map**

Scale 1" = 100'

10-07-16

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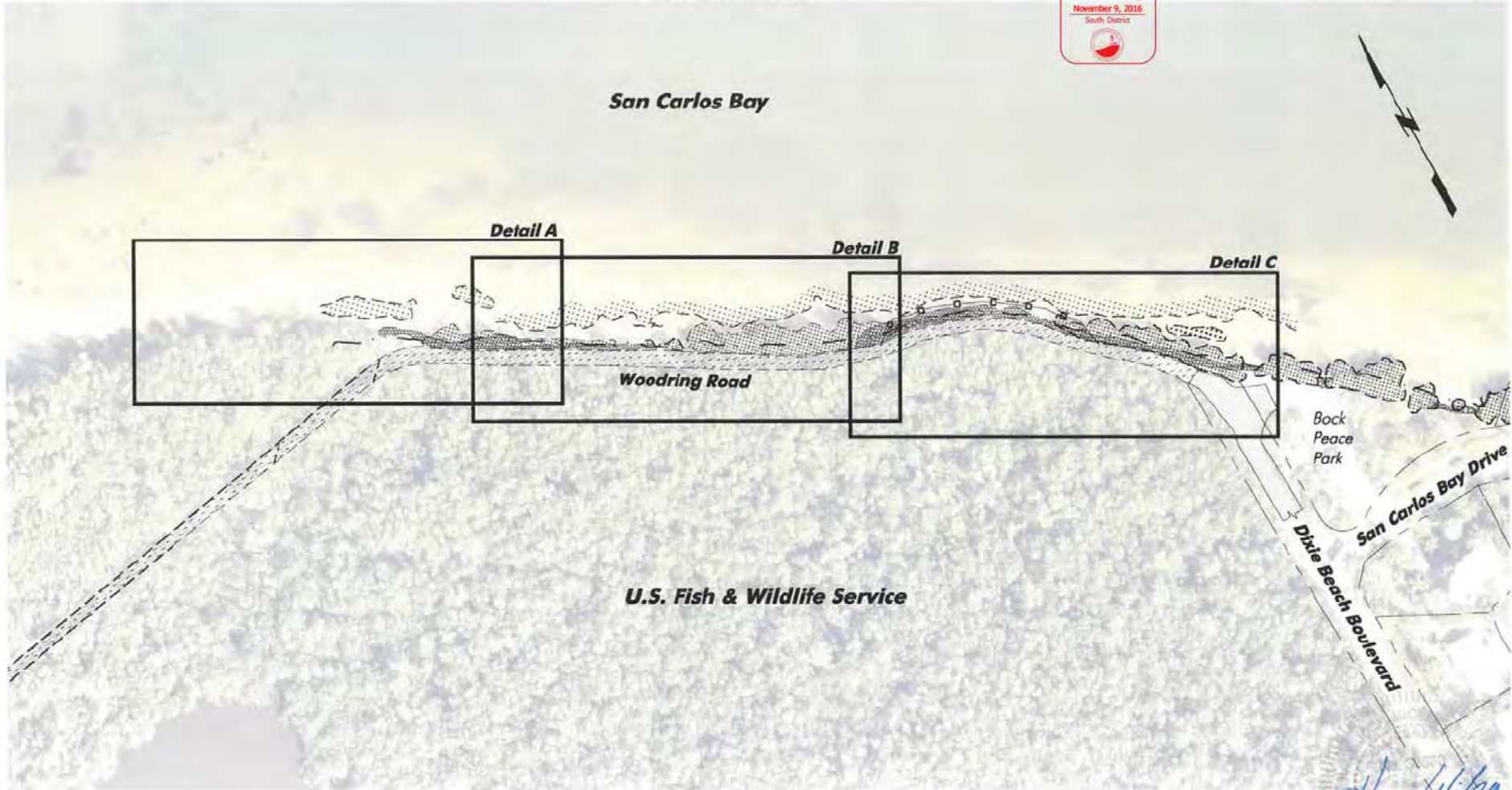
2/4

SECTION: 13  
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RANGE: 22E

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0 50 100  
SCALE FEET



*Hans J.M. Wilson*  
**HANS J.M. WILSON**  
REGISTERED PROFESSIONAL ENGINEER  
FLORIDA REGISTRATION NO. 36680  
CA. LIC. NO. 8519  
DATE: October 26, 2016 2:56:07 p.m.  
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### Overall Site Plan

Scale 1" = 100'

9-16-16

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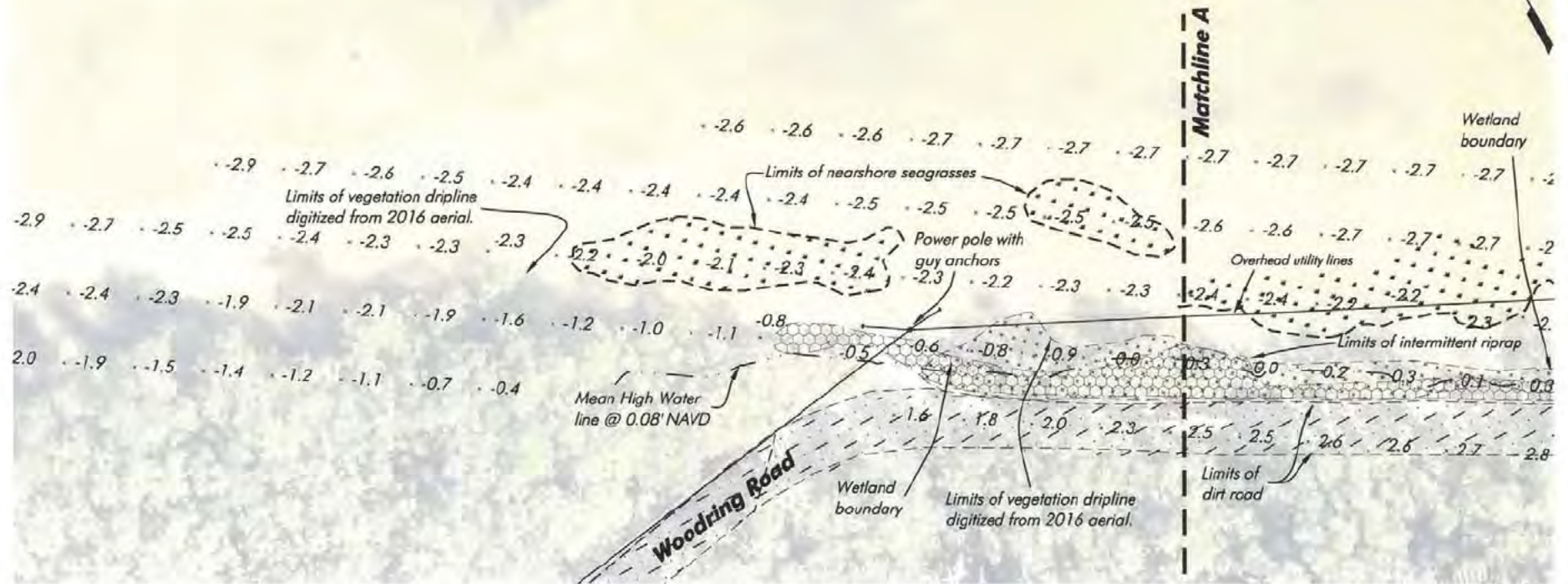
SHEET

3/4

SECTION: 13  
 TOWNSHIP: 46S  
 RANGE: 22E

Lee County Aerial 2016

0 15 30  
 SCALE FEET



Note: Depths and elevations reference NAVD 1988. Mean High Water line elevation based on DEP Tide Interpolation Point ID: 1082. MHW @ 0.08 NAVD, MLW @ -1.45' NAVD.

*Hans J.M. Wilson*  
**HANS J.M. WILSON**  
 REGISTERED PROFESSIONAL ENGINEER  
 FLORIDA REGISTRATION NO. 39686  
 CA. LIC. NO. 8519  
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**Detail A - Existing Plan**

Scale 1" = 30'

9-29-16

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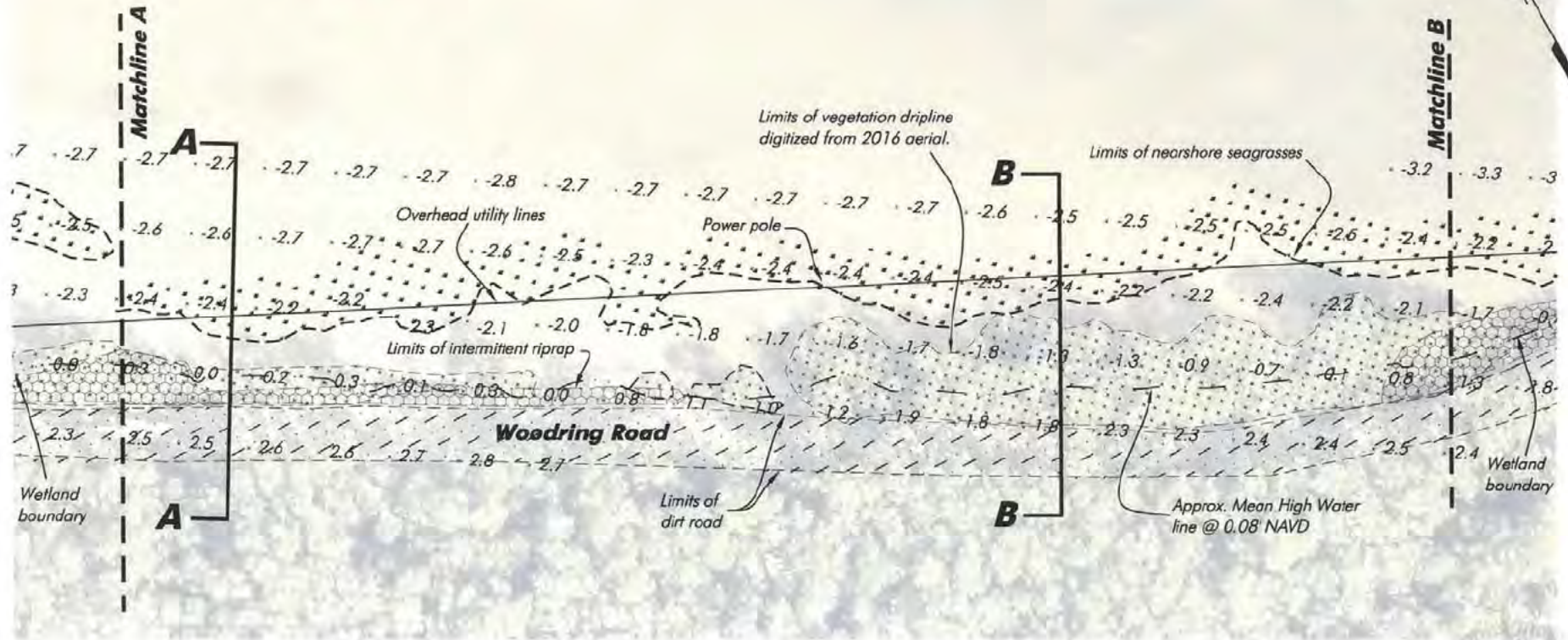
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8/4

SECTION: 13  
TOWNSHIP: 46S  
RANGE: 22E



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**Detail B - Existing Plan**

Scale 1" = 30'

7-21-16

hjmw

**City of Sanibel**

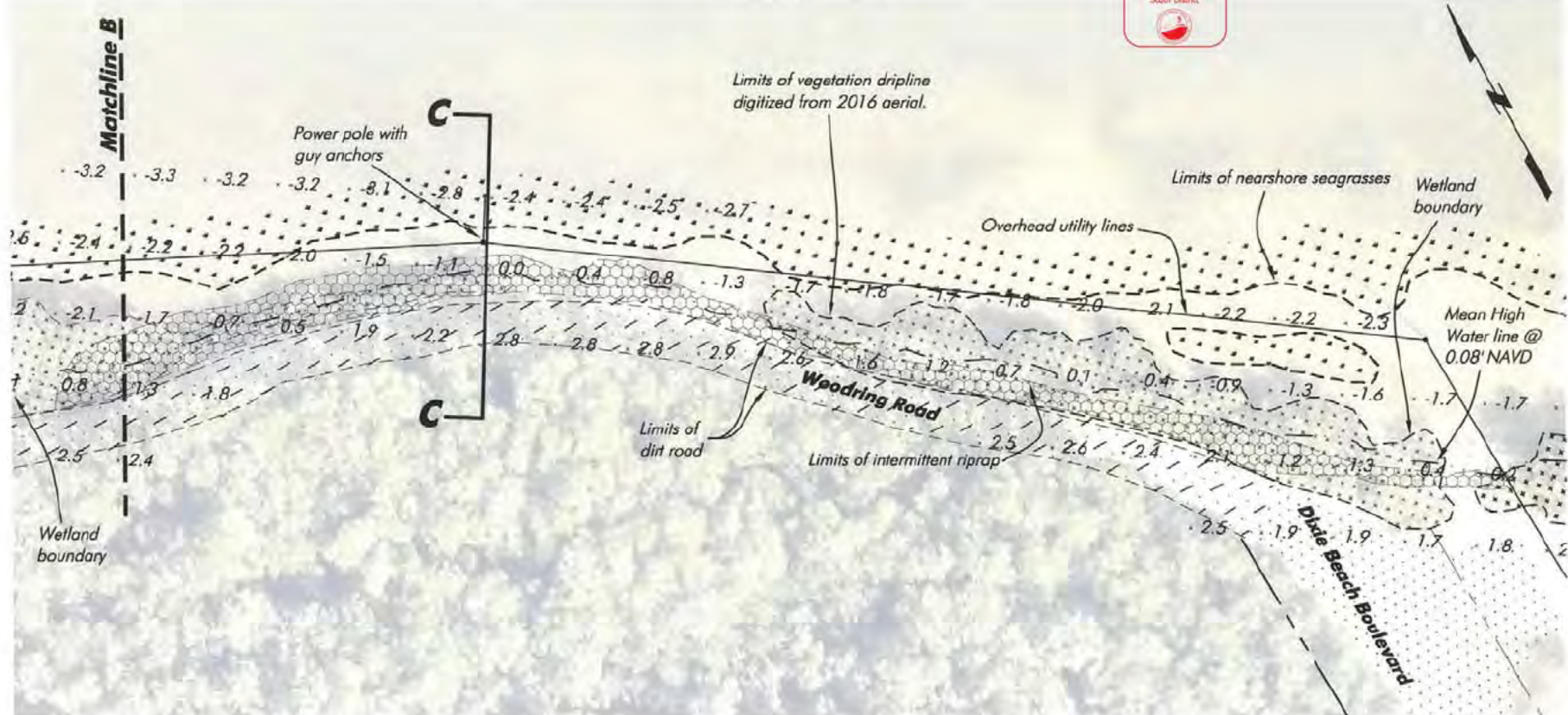
*Hans J.M. Wilson*  
HANS J.M. WILSON  
REGISTERED PROFESSIONAL ENGINEER  
FLORIDA REGISTRATION NO. 39680  
CA. LIC. NO. 8519  
DATE: October 28, 2016 2:50:07 p.m.  
Drawing: SANMASTER.DWG  
11/8/16

SHEET  
5/19

SECTION: 13  
 TOWNSHIP: 46S  
 RANGE: 22E

0 15 30  
 SCALE FEET

Lee County Aerial 2016



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 HANS J.M. WILSON  
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**Detail C - Existing Plan**

Scale 1" = 30'

7-11-16

TM

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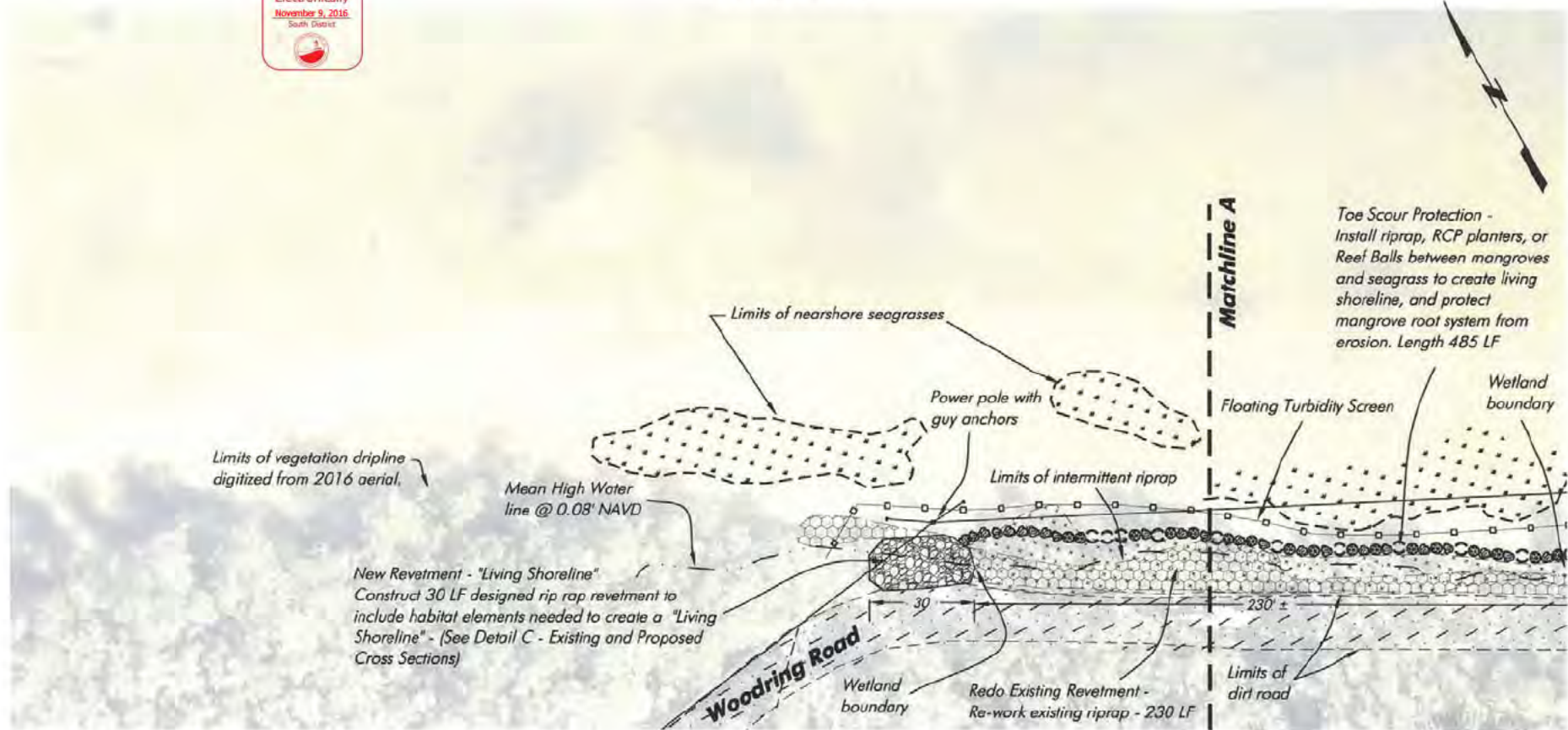
6/4

SECTION: 13  
TOWNSHIP: 46S  
RANGE: 22E



Lee County Aerial 2016

0 15 30  
SCALE FEET



Toe Scour Protection -  
Install riprap, RCP planters, or  
Reef Balls between mangroves  
and seagrass to create living  
shoreline, and protect  
mangrove root system from  
erosion. Length 485 LF

New Revetment - "Living Shoreline"  
Construct 30 LF designed rip rap revetment to  
include habitat elements needed to create a "Living  
Shoreline" - (See Detail C - Existing and Proposed  
Cross Sections)

Note: Depths and elevations reference NAVD 1988. Mean  
High Water line elevation based on DEP Tide Interpolation  
Point ID: 1082. MHW @ 0.08 NAVD, MLW @ -1.45' NAVD.

*Hans J.M. Wilson*  
HANS J.M. WILSON  
REGISTERED PROFESSIONAL ENGINEER  
FLORIDA REGISTRATION NO. 39680  
CA. LIC. NO. 8519  
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**Detail A - Proposed Plan**

Scale 1" = 30'

08-29-16

mpf

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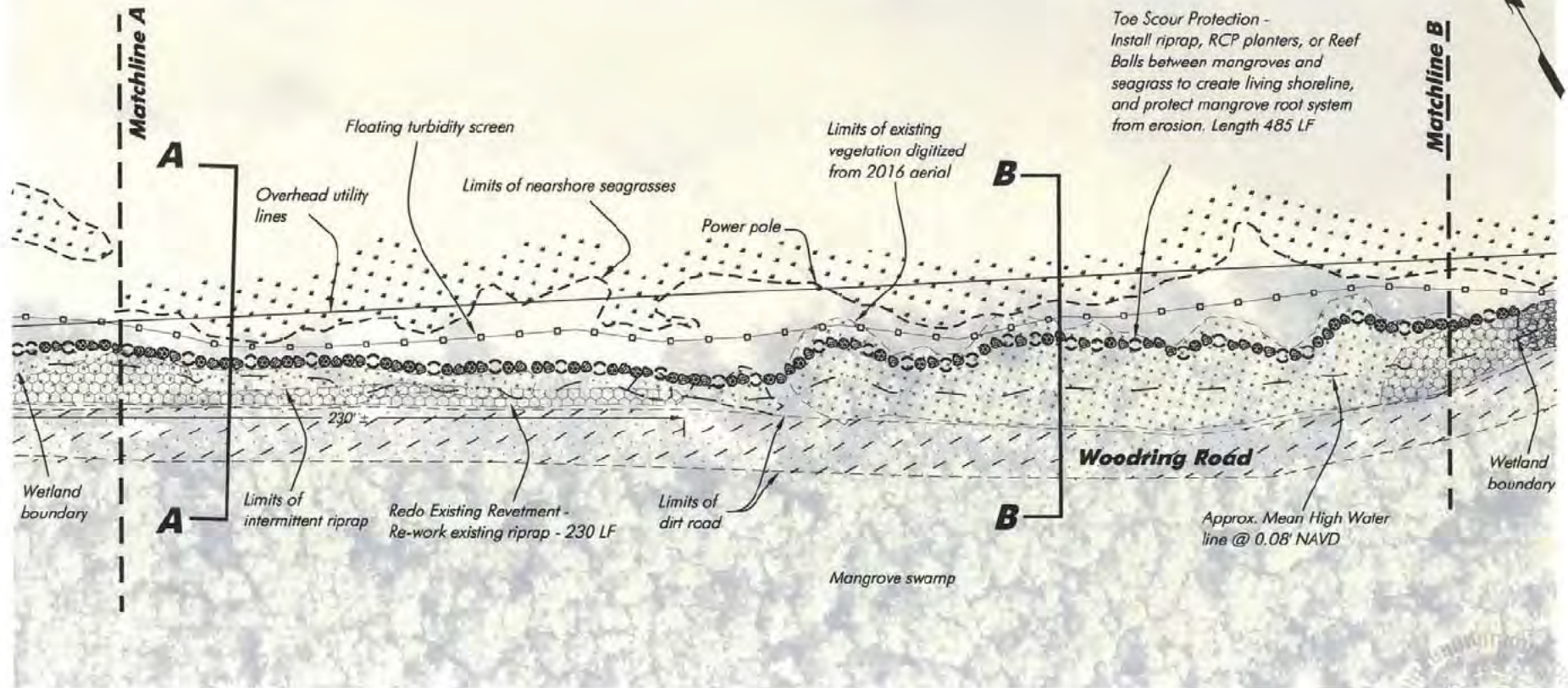
7/4

SECTION: 13  
TOWNSHIP: 46S  
RANGE: 22E



Lee County Aerial 2016

0 15 30  
SCALE FEET



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**Detail B - Proposed Plan**

Scale 1" = 30'

08-30-16

mpt

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8/4

*Hans J.M. Wilson*  
HANS J.M. WILSON  
REGISTERED PROFESSIONAL ENGINEER  
FLORIDA REGISTRATION NO. 39660  
CA. LIC. NO. 8519  
DATE: October 26, 2016 2:56:07 p.m.  
Drawing: SANMASTER.DWG

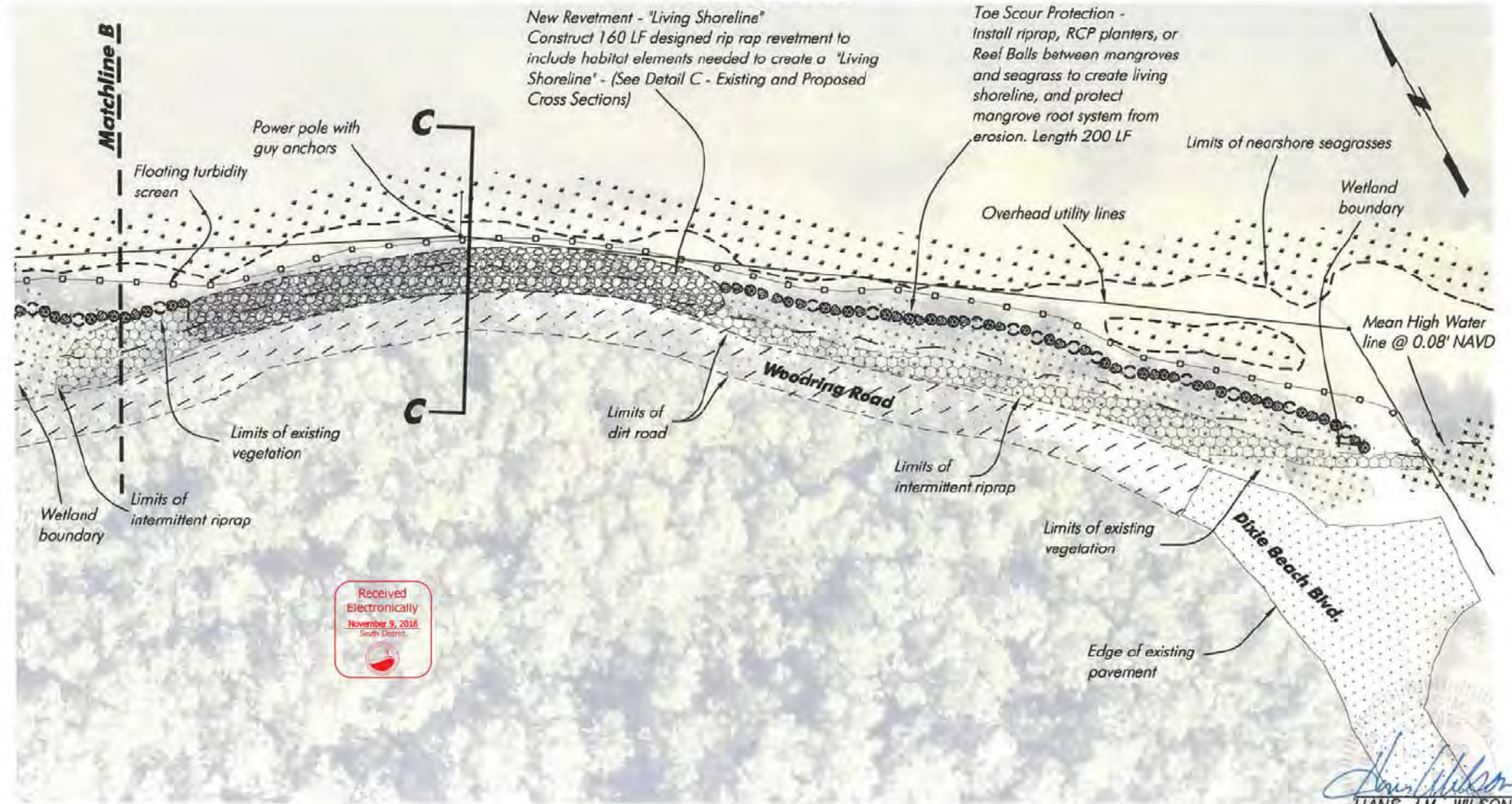
11/8/16



SECTION: 13  
 TOWNSHIP: 46S  
 RANGE: 22E

0 15 30  
 SCALE FEET

Lee County Aerial 2016



**New Revetment - "Living Shoreline"**  
 Construct 160 LF designed rip rap revetment to include habitat elements needed to create a "Living Shoreline" - (See Detail C - Existing and Proposed Cross Sections)

**Toe Scour Protection** - Install riprap, RCP planters, or Reef Balls between mangroves and seagrass to create living shoreline, and protect mangrove root system from erosion. Length 200 LF

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*Hans J.M. Wilson*  
**HANS J.M. WILSON**  
 REGISTERED PROFESSIONAL ENGINEER  
 FLORIDA REGISTRATION NO. 39680  
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**HWA**  
 Hans Wilson & Associates  
 1938 Hill Avenue, Fort Myers, Florida 33901  
 Office: 239-334-6870 Fax: 239-334-7810  
 MARINE and ENVIRONMENTAL CONSULTANTS

**Detail C - Proposed Plan**  
 Scale 1" = 30'

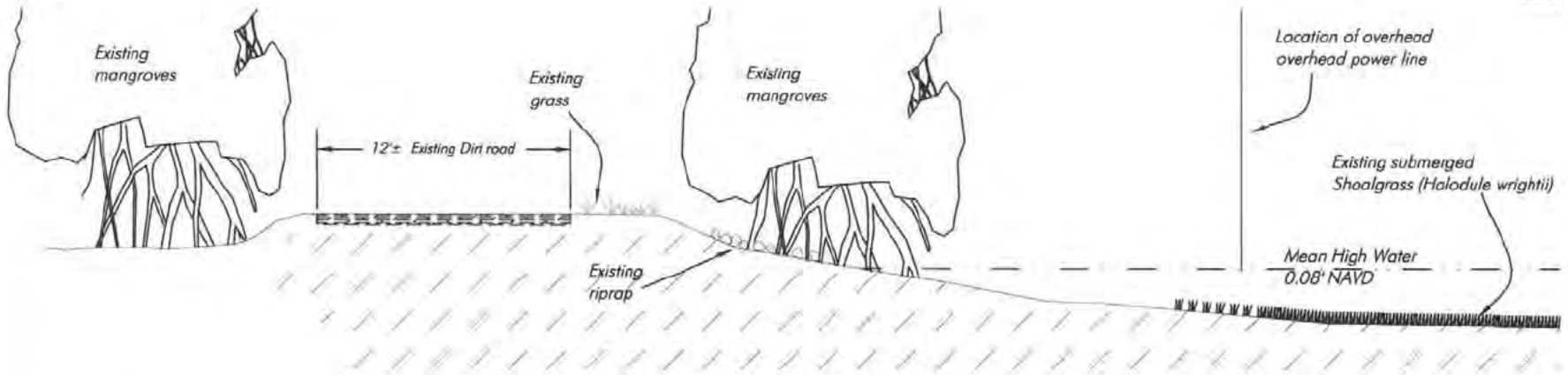
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 9/4

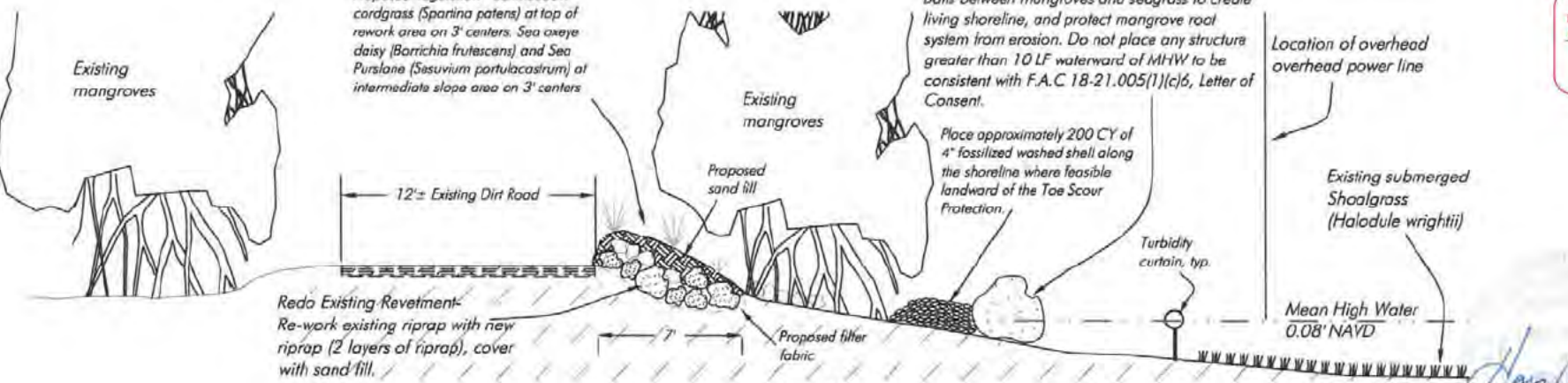
SECTION: 13  
TOWNSHIP: 46S  
RANGE: 22E

0 2.5 5  
SCALE FEET



**Section A-A Existing**

Scale 1" = 5'



**Section A-A Proposed**

Scale 1" = 5'

Proposed Vegetation - Saltmeadow cordgrass (*Spartina patens*) at top of rework area on 3' centers. Sea oxeye daisy (*Barrichia frutescens*) and Sea Purslane (*Sesuvium portulacastrum*) at intermediate slope area on 3' centers

Toe Scour Protection - Install (36" dia. +) riprap, RCP planters, or Reef Balls between mangroves and seagrass to create living shoreline, and protect mangrove root system from erosion. Do not place any structure greater than 10 LF waterward of MHW to be consistent with F.A.C 18-21.005(1)(c)6, Letter of Consent.

Place approximately 200 CY of 4" fossilized washed shell along the shoreline where feasible landward of the Toe Scour Protection.

Redo Existing Revetment- Re-work existing riprap with new riprap (2 layers of riprap), cover with sand fill.



*Hans J.M. Wilson*  
HANS J.M. WILSON  
REGISTERED PROFESSIONAL ENGINEER  
FLORIDA REGISTRATION NO. 39680  
CA. LIC. NO. 8519  
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**Detail A Existing and Proposed Cross Sections**

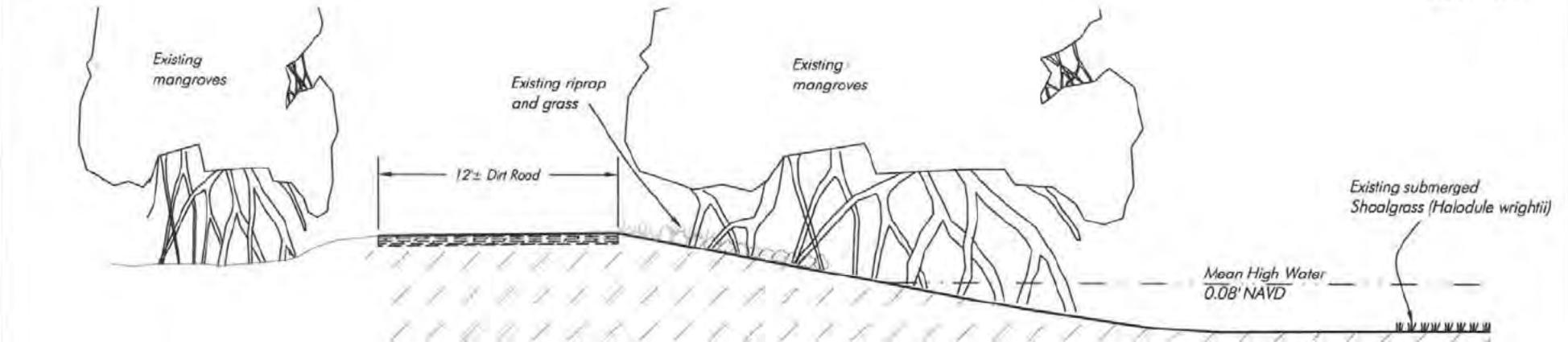
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SECTION: 13  
TOWNSHIP: 46S  
RANGE: 22E

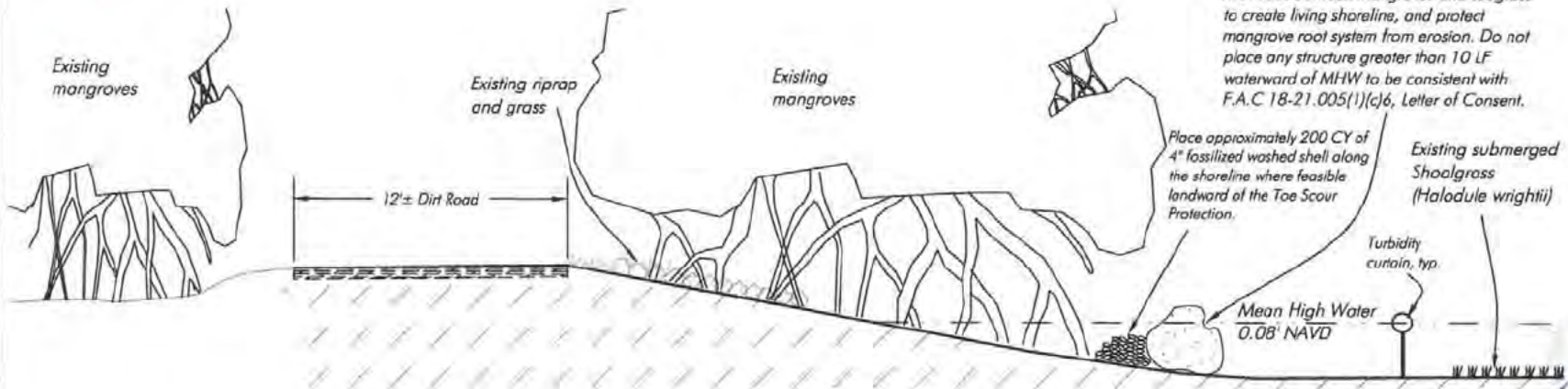
0 2.5 5  
SCALE FEET



**Section B-B Existing**

Scale 1" = 5'

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**Section B-B Proposed**

Scale 1" = 5'

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HANS J.M. WILSON  
REGISTERED PROFESSIONAL ENGINEER  
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**Detail B Existing and Proposed Cross Sections**

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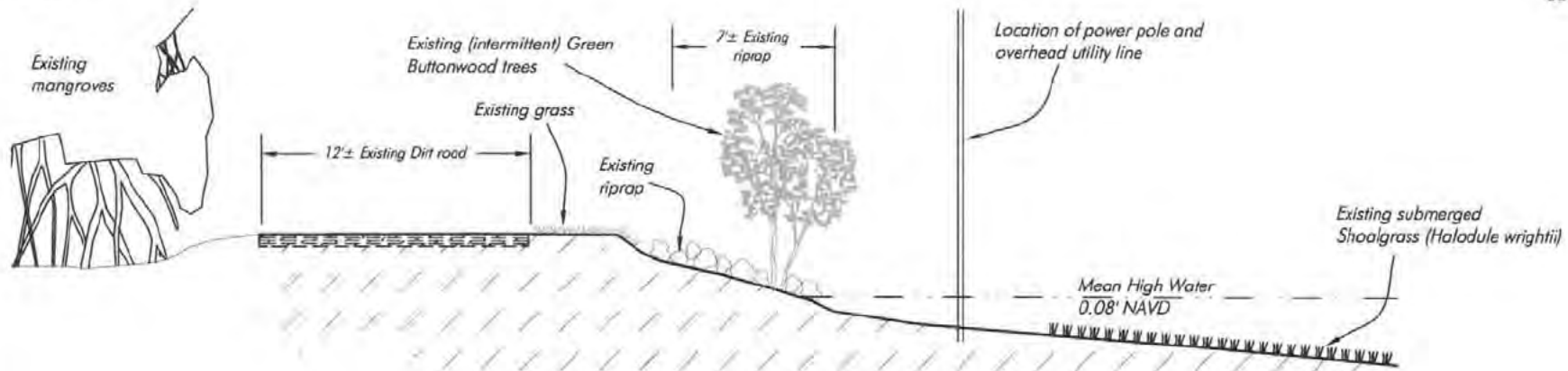
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1/4

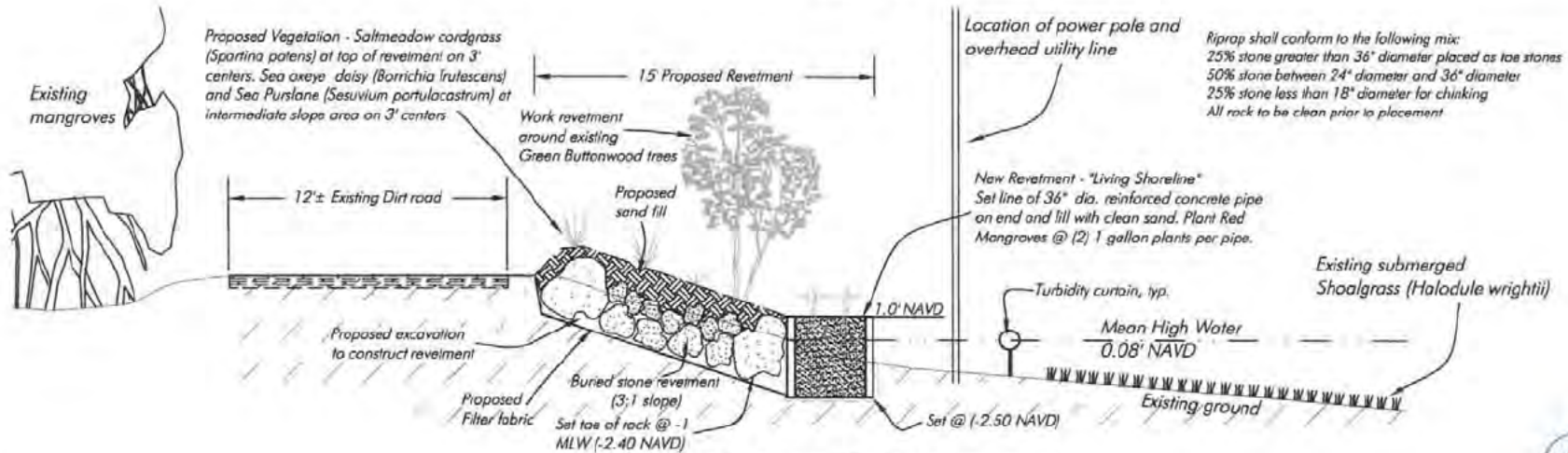
SECTION: 13  
TOWNSHIP: 46S  
RANGE: 22E

0 2.5 5  
SCALE FEET



**Section C-C Existing**

Scale 1" = 5'



**Section C-C Proposed**

Scale 1" = 5'

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Riprap shall conform to the following mix:  
25% stone greater than 36" diameter placed as toe stones  
50% stone between 24" diameter and 36" diameter  
25% stone less than 18" diameter for chinking  
All rock to be clean prior to placement

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**Detail C Existing and Proposed Cross Sections**

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*Hans Wilson*  
HANS J.M. WILSON  
REGISTERED PROFESSIONAL ENGINEER  
FLORIDA REGISTRATION NO. 39680  
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Drawing: SANGMASTER.DWG

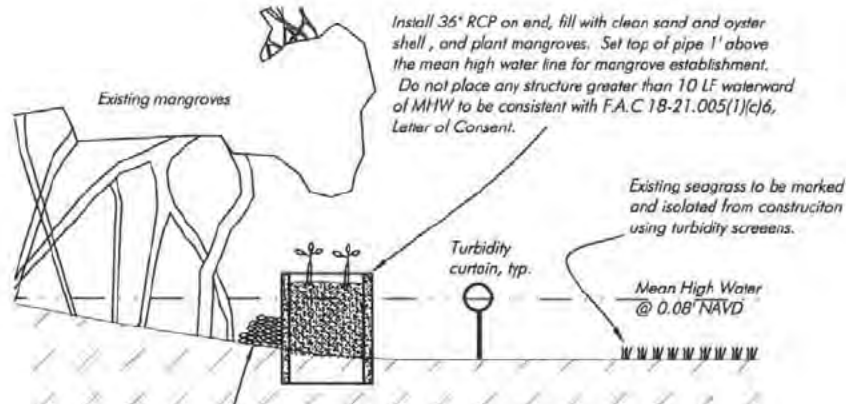
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SECTION: 13  
TOWNSHIP: 46S  
RANGE: 22E

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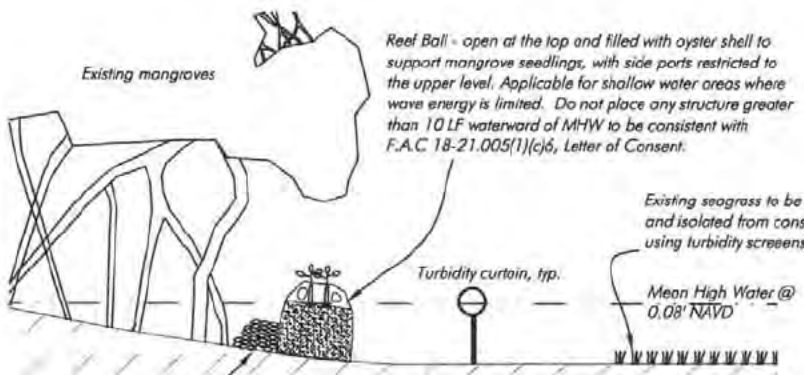
0 2.5 5  
SCALE FEET



**Option - A**

Scale 1" = 5'

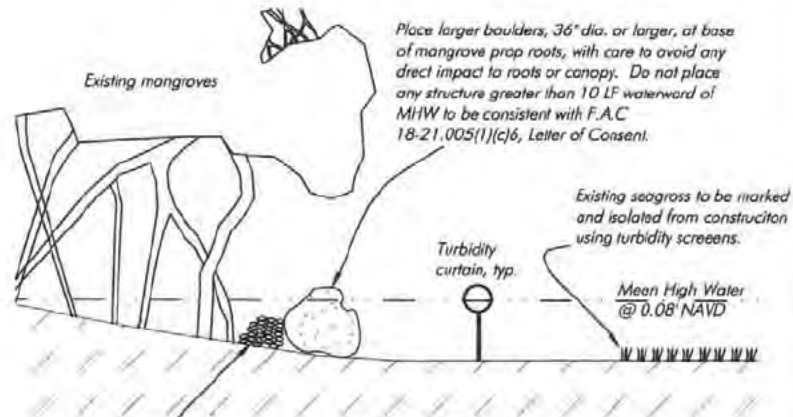
Place approximately 200 CY of 4" fossilized washed shell along the shoreline where feasible landward of the Toe Scour Protection.



**Option - C**

Scale 1" = 5'

Place approximately 200 CY of 4" fossilized washed shell along the shoreline where feasible landward of the Toe Scour Protection.



**Option - B**

Scale 1" = 5'

Place approximately 200 CY of 4" fossilized washed shell along the shoreline where feasible landward of the Toe Scour Protection.

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**Optional Material Details**

Scale 1" = 30'

8-29-16

hjmw

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*Hans J.M. Wilson*  
HANS J.M. WILSON  
REGISTERED PROFESSIONAL ENGINEER  
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13/14

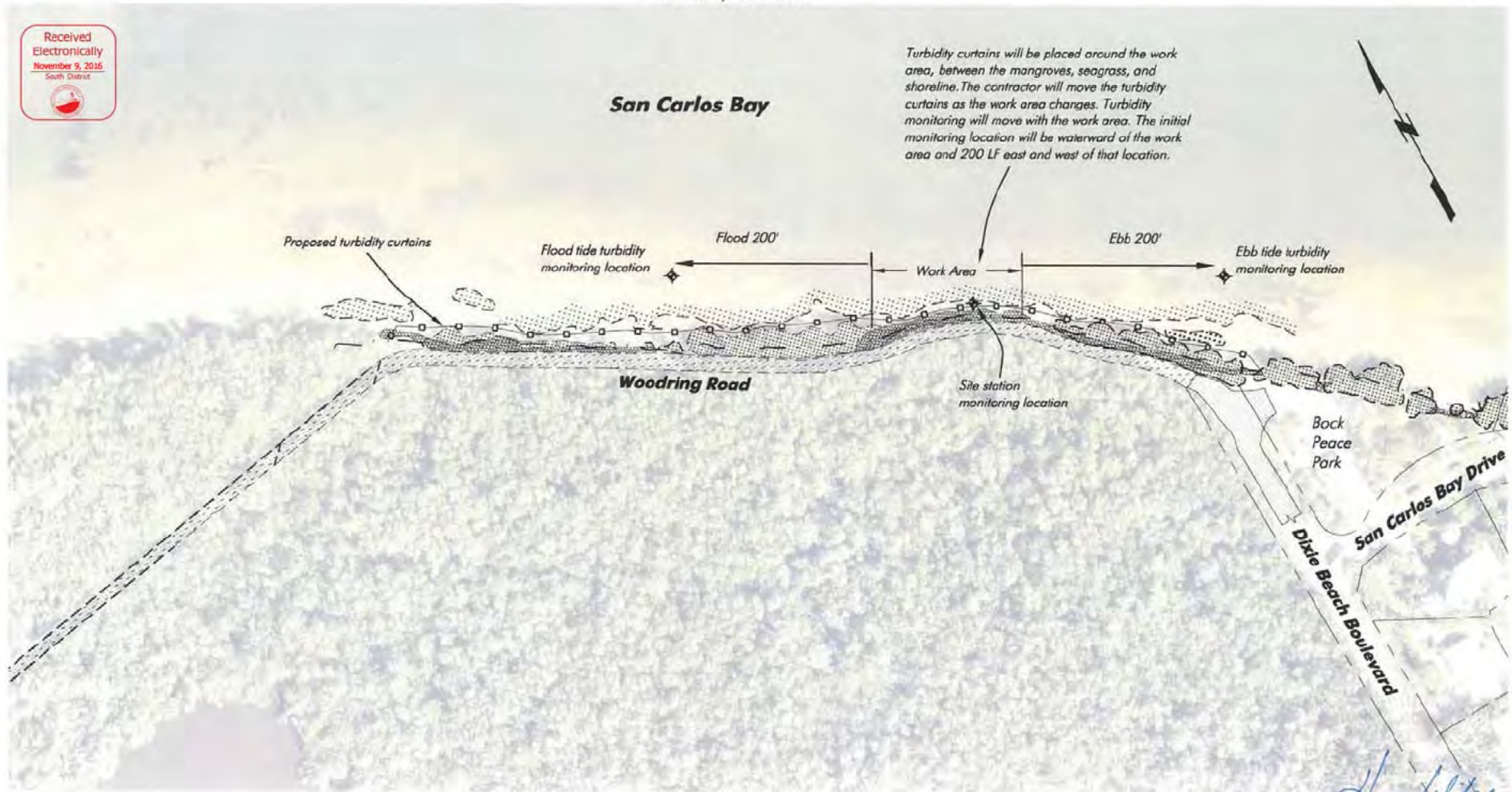
SECTION: 13  
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0 50 100  
 SCALE FEET



Turbidity curtains will be placed around the work area, between the mangroves, seagrass, and shoreline. The contractor will move the turbidity curtains as the work area changes. Turbidity monitoring will move with the work area. The initial monitoring location will be waterward of the work area and 200 LF east and west of that location.



*Hans J.M. Wilson*  
**HANS J.M. WILSON**  
 REGISTERED PROFESSIONAL ENGINEER  
 FLORIDA REGISTRATION NO. 39880  
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**Proposed Turbidity Controls**

Scale 1" = 100'

10-28-16

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