

LOCAL, STATE & FEDERAL STATUTES NOTE:

CONSTRUCTION WILL COMPLY WITH LOCAL, STATE AND FEDERAL RULES AND STATUTES.

THIS INCLUDES BUT IS NOT LIMITED TO:

1. OSHA PART 1926 CFR 29, SAFETY & HEALTH REGULATIONS FOR CONSTRUCTION. US CLEAN WATER ACT (CWA) SECTION 402 (p)(6) NPDES MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES NFPA, FIRE PREVENTION CODE HANDBOOK RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES (A.K.A. TEN STATE STANDARDS)
2. FS CHAPTER 553, PART II - ACCESSIBILITY BY HANDICAPPED PERSONS
3. 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN
4. FS CHAPTER 553, PART III - TRENCH SAFETY ACT
5. FS CHAPTER 553, PART III - TRENCH SAFETY ACT FS CHAPTER 553, PART IV - FLORIDA BUILDING CODE.
6. CHAPTER 62-555 F.A.C.
7. CHAPTER 62-604 F.A.C.
8. CHAPTER 40D F.A.C, RULES OF THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
9. F.S. SECTION 403.0885 NPDES THE FLORIDA BUILDING CODE
10. MANUAL OF UNIFORM MINIMUM STANDARDS FOR THE DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAY SYSTEM.
11. IT IS THE INTENT OF THE PLANS TO COMPLY WITH LOCAL, STATE & FEDERAL STATUTES. HOWEVER, THIS DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO MEET CODES, STATUTES & RULES. THE CONTRACTOR SHALL INFORM THE ENGINEER IF THERE IS ANY QUESTION ABOUT THE INTENT OF THE PLANS AND THE REQUIREMENTS OF THE CODES, RULES & STATUTES.

PROJECT SYNOPSIS:

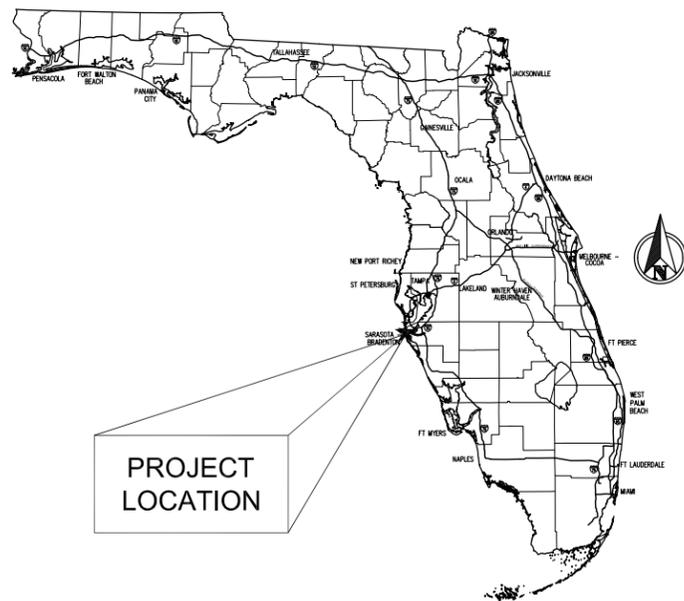
THIS PROJECT INCLUDES THE CONSTRUCTION OF TIMBER WALKWAY ELEMENTS, SUCH AS BOARDWALKS AND OBSERVATION DECKS.

ROOKERY AT PERICO SEAGRASS ADVANCE MITIGATION (TIMBER PEDESTRIAN WALKWAY ELEMENTS)

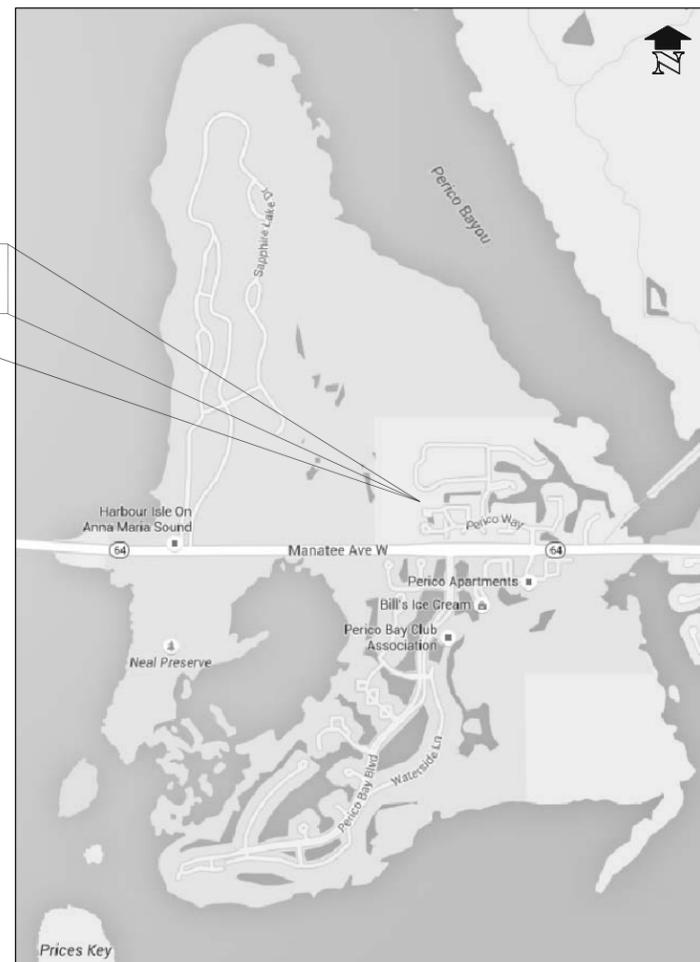
INDEX OF DRAWINGS

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MISCELLANEOUS DETAILS	8

LOCATION MAP



VICINITY MAP



SECTIONS 26 & 27, TOWNSHIP 34S, RANGE 16E



OWNER INFORMATION:
MANATEE COUNTY BOARD OF COMMISSIONERS
1112 MANATEE AVENUE WEST
BRADENTON, FL 34205



Integrated Engineering Solutions for Florida's Water Environments
3868 SUN CITY CENTER BLVD., SUN CITY CENTER, FL 33573 TEL: (813) 633-2100
COMPANY CERTIFICATE OF AUTHORIZATION 25990



TAMPA CONTRACTING SERVICES, INC.
11010 US 41 NORTH, PALMETTO, FL 34221
TEL: (841) 721-7711 FAX: (841) 721-7733

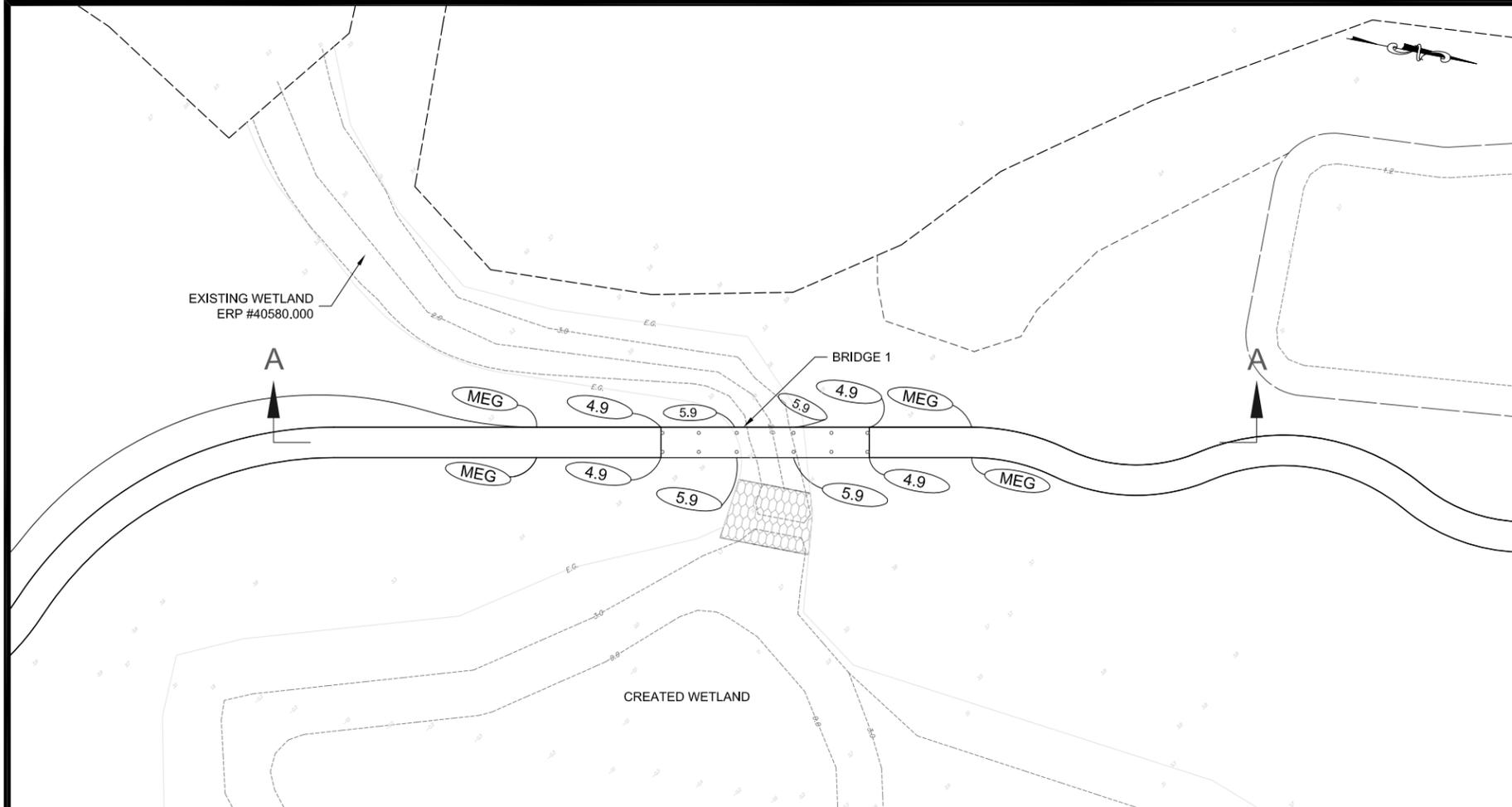
ISSUED TO: CONTRACTOR
DATE ISSUED: MAY 22, 2015
NOT FOR CONSTRUCTION

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NOT VALID - UNLESS SIGNED & EMBOSSED BY A REGISTERED ENGINEER

NO.	BY	DATE	DESCRIPTION
DESIGNED BY:	PTN	DATE:	S T R
DRAWN BY:	PTN	MAY 22, 2015	26 & 27 34S 16E
CHECKED BY:	AHS	APPROVED BY:	JOB NO: 1215008
			PARCEL ID #

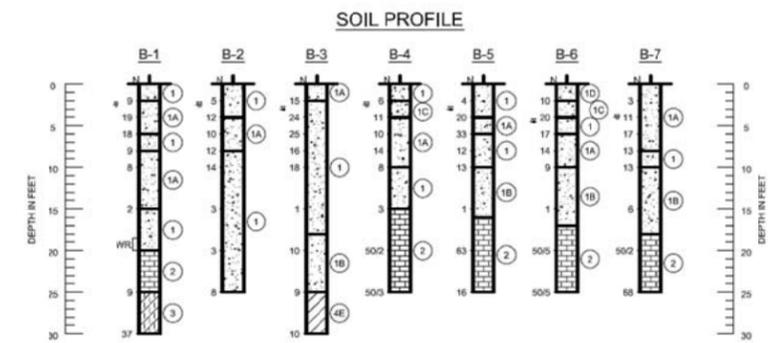
MARK J. FLINT, P.E. #38827 ENGINEER OF RECORD

THIS LINE IS ONE INCH LONG WHEN PLOTTED FULL SCALE



LEGEND

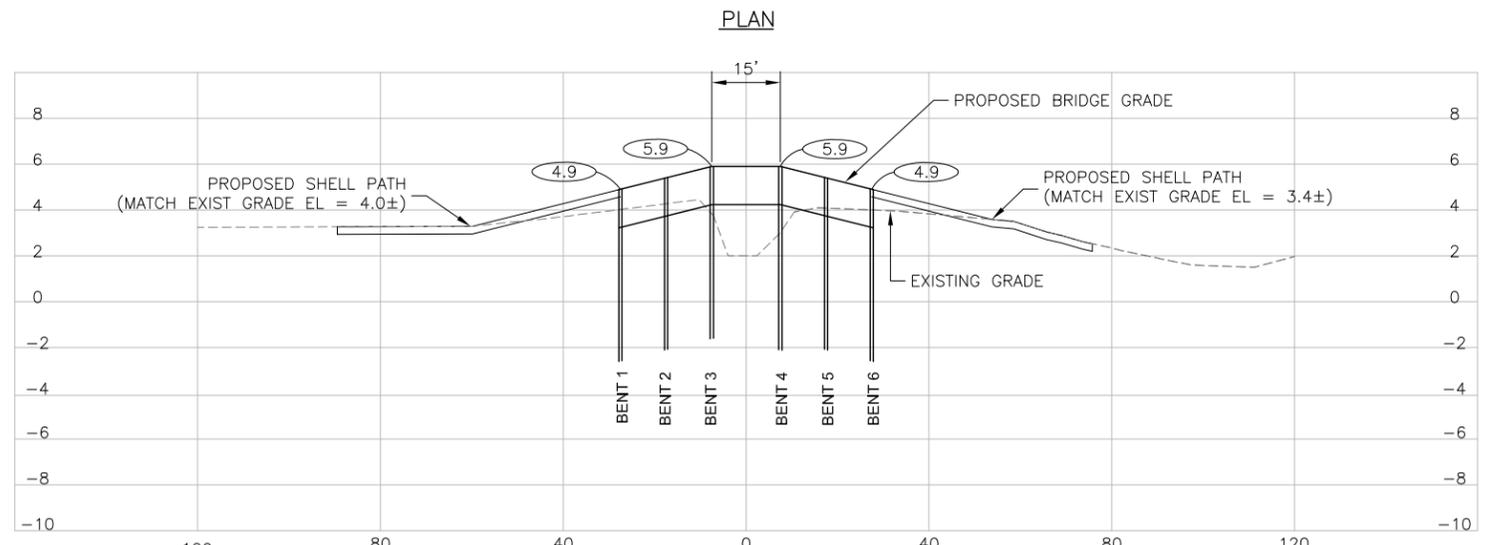
①	Dark Gray to Gray to Brown to Dark Brown to White SAND to SAND WITH GR (SP15P-S14)	A	trace grass root pieces (approx. 1/4 inch diameter)
②	White Weathered LIMESTONE	B	with shell fragments
③	Light Gray Silty CLAY (CL)	C	with tree root pieces (approx. 1/2 inch diameter)
④	Light Greenish Gray CLAY (CL/CH)	D	with limrock pieces
		E	with sand seams
		SP	Unified Soil Classification System (ASTM D 2488) Group Symbol As Determined By Visual Review
		GL	Groundwater Level
		N	SPT N-Value In Blows/Foot For 12 Inches Of Penetration (unless otherwise noted)
		SO4	Number Of Blows For 4 Inches Of Penetration
		WR	Fall Under Weight Of Rod



SPT Boring N-Value (Blow/Foot)

Granular Materials		Sils and Clays	
Relative Density	Safety Hammer SPT N-value (Blow/Foot)	Consistency	Safety Hammer SPT N-value (Blow/Foot)
Very Loose	Less than 4	Very Soft	Less than 2
Loose	4 - 10	Soft	2 - 4
Medium Dense	10 - 30	Firm	4 - 8
Dense	30 - 50	Stiff	8 - 15
Very Dense	Greater than 50	Very Stiff	15 - 30
		Hard	Greater than 30

- Soil Profile Notes:**
- The profiles depicted are of a generalized nature to highlight the major subsurface stratification features and material characteristics. The soil profiles include soil description, stratifications and penetration resistances. The stratifications shown on the boring profiles represent the conditions only at the actual boring location. Variations may occur and should be expected between boring locations. The stratifications represent the approximate boundary between subsurface materials and the actual transition may be gradual.
 - Groundwater levels generally fluctuate during periods of prolonged drought and extended rainfall and may be affected by man-made influences. In addition, a seasonal effect will also occur in which higher groundwater levels or temporary perched conditions are normally recorded in rainy seasons.
 - SPT borings performed utilizing a safety hammer.



- NOTES:**
- MAINTAIN A MINIMUM 6" OF CLEARANCE BETWEEN ALL WALKWAY CAPS AND MUDLINE.
 - PILE DESIGN BASED ON STRUCTURAL LOAD (LIVE LOAD AND DEAD LOAD) OF TIMBER COMPONENTS, (1) 1600-LB VEHICLE, AND (2) 200-LB PERSONS. AXIAL LOADS (E.G., WIND AND WAVE CURRENTS) WERE NOT CONSIDERED.
 - A STRUCTURAL LOAD SAFETY FACTOR OF 1.5 WAS USED.

SECTION A-A
TIMBER WALKWAY 1 DETAIL
 HALF SIZE 1"=10' (HORIZ.) 1"=2' (VERT.)
 FULL SIZE 1"=20' (HORIZ.) 1"=4' (VERT.)

SUMMARY OF PILE REQUIREMENTS

BENT NO.	MIN. PILE EMBEDMENT (FT)	PROPOSED EXPOSURE (FT)	MIN. LENGTH (FT)	PROP. LENGTH (FT)
1	5	2.17	7.17	8
2	5	2.17	7.17	8
3	5	3.00	8.00	8
4	5	2.90	7.90	8
5	5	2.17	7.17	8
6	5	2.17	7.17	8

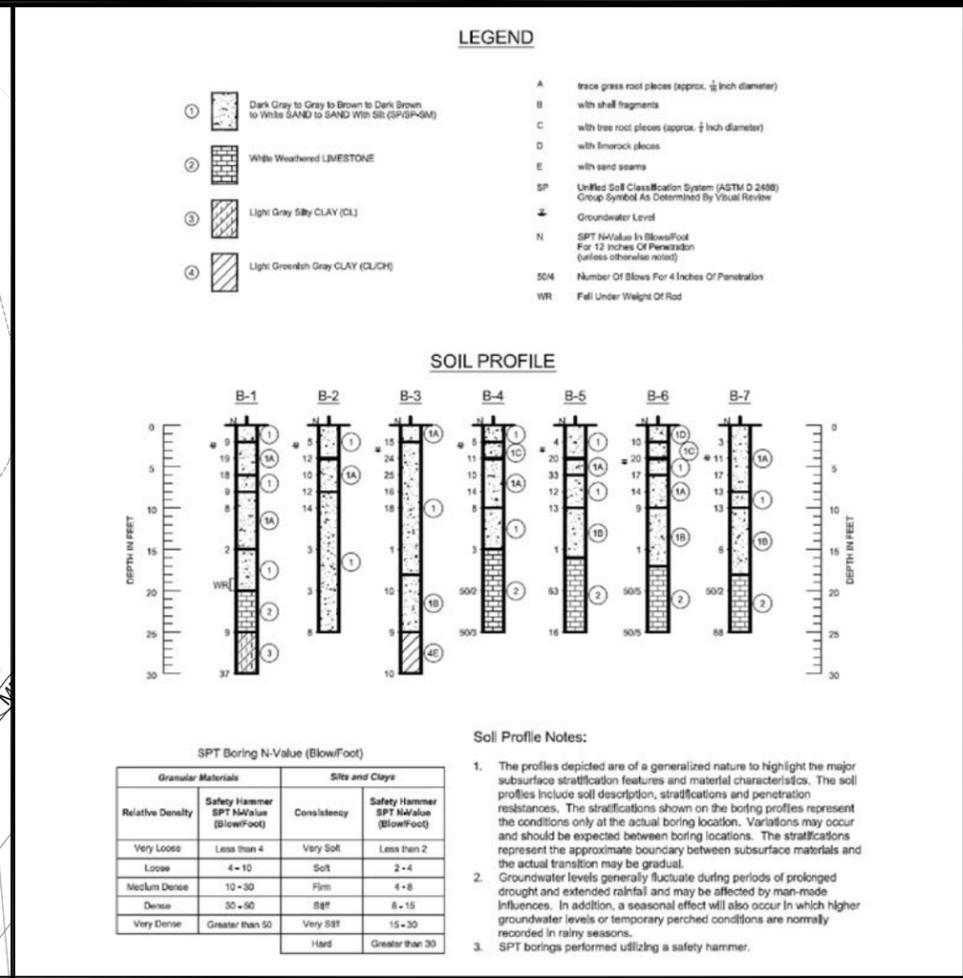
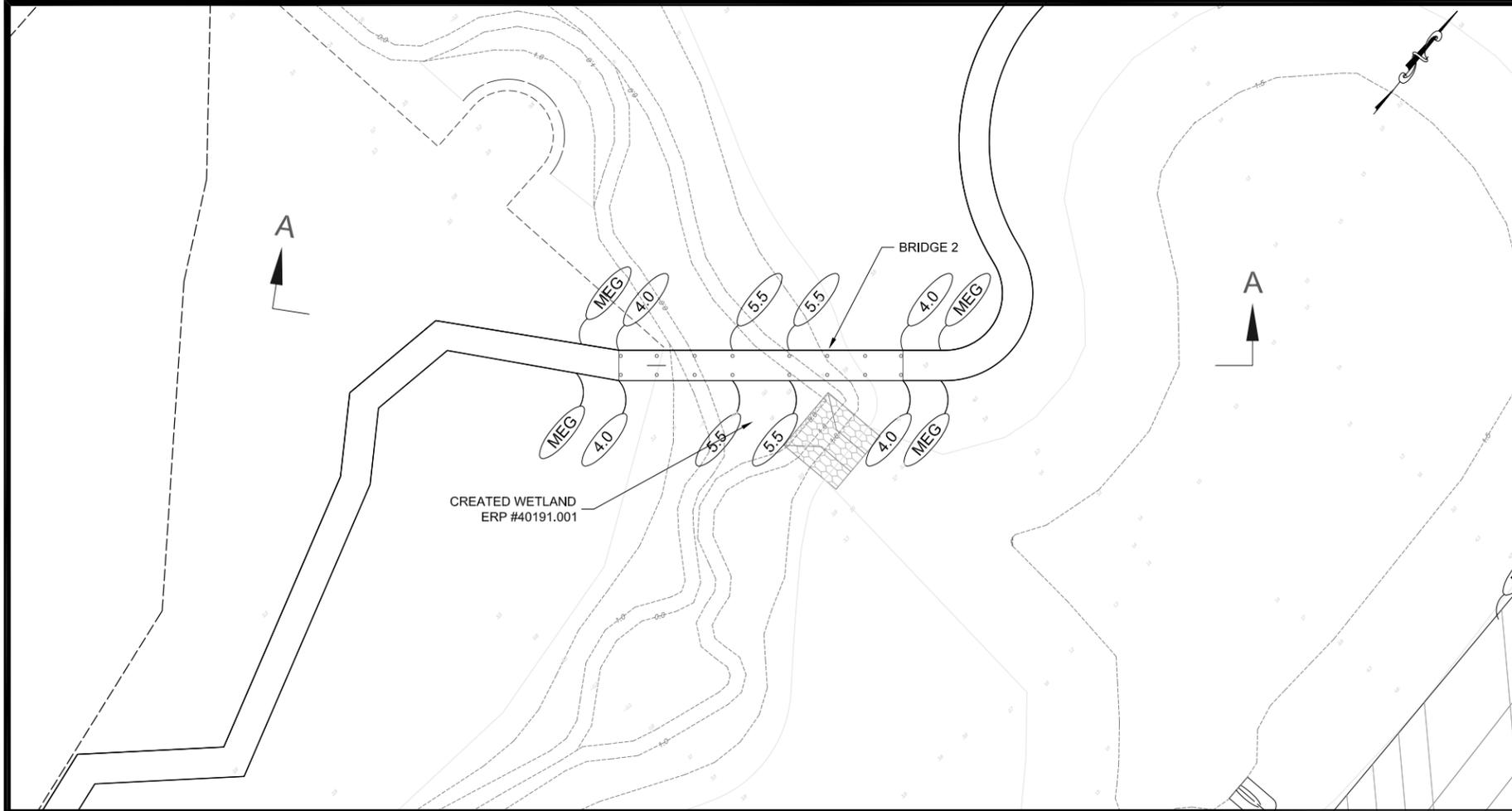
NO.	DATE	DESCRIPTION
1	05/22/2015	ISSUED FOR PERMIT
2	05/22/2015	REVISED PER COMMENTS
3	05/22/2015	REVISED PER COMMENTS

DRAWN BY: HCL
 CHECKED BY: MUF
 APPROVED BY: MUF
 DATE: MAY 22, 2015
 JOB NO.:

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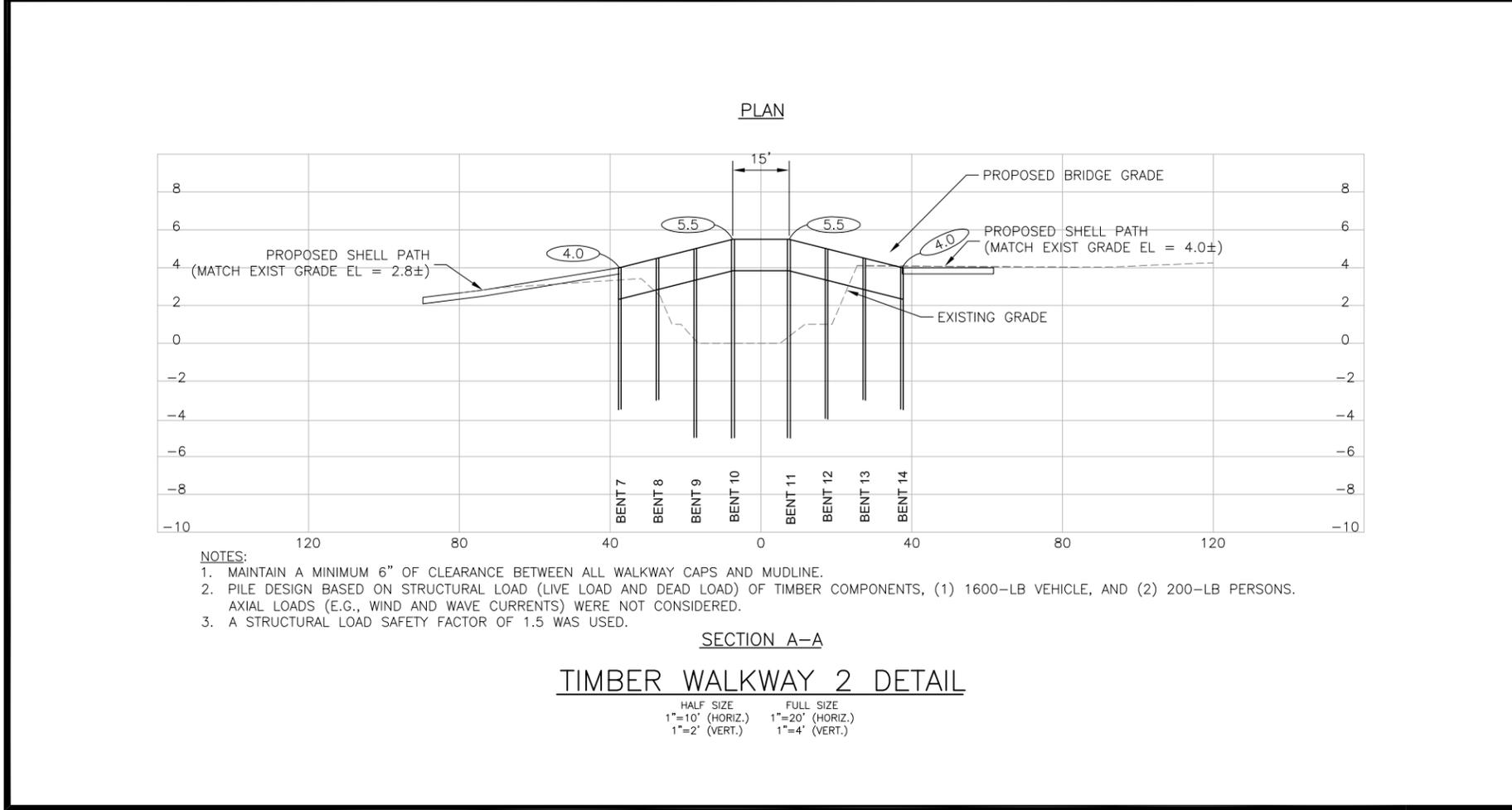
ROCKERY AT PERICO SEAGRASS ADVANCE MITIGATION

WATERMARK ENGINEERING GROUP, INC.
 3888 SUN CITY CENTER BLVD., SUN CITY CENTER, FL 33573
 TEL: (813) 653-2100 CERTIFICATE OF AUTHORIZATION 25990



NO.	DATE	DESCRIPTION	BY	DATE	DESCRIPTION	BY
1						
2						
3						
4						
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7						
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DATE: MAY 22, 2015
 DRAWN BY: PTN
 CHECKED BY: HCL
 APPROVED BY: MUF
 JOB NO.:
 MUF

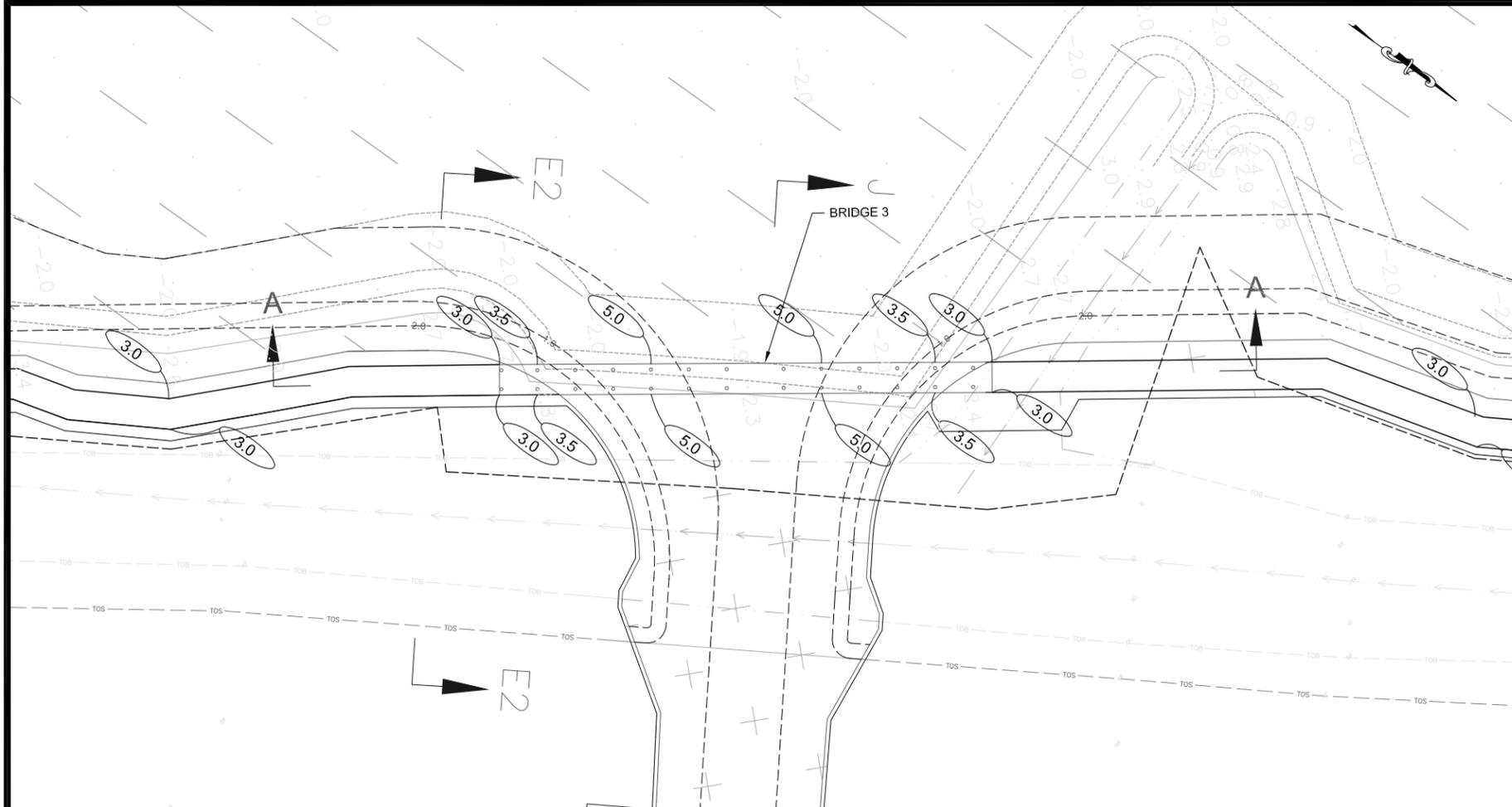


SUMMARY OF PILE REQUIREMENTS

BENT NO.	MIN. PILE EMBEDMENT (FT)	PROPOSED EXPOSURE (FT)	MIN. LENGTH (FT)	PROP. LENGTH (FT)
7	5	2.17	7.17	8
8	5	2.17	7.17	8
9	6.5	4.90	11.40	12
10	6.5	5.47	11.97	12
11	6.5	5.18	11.68	12
12	6	4.00	10.00	10
13	5	2.17	7.17	8
14	5	2.17	7.17	8

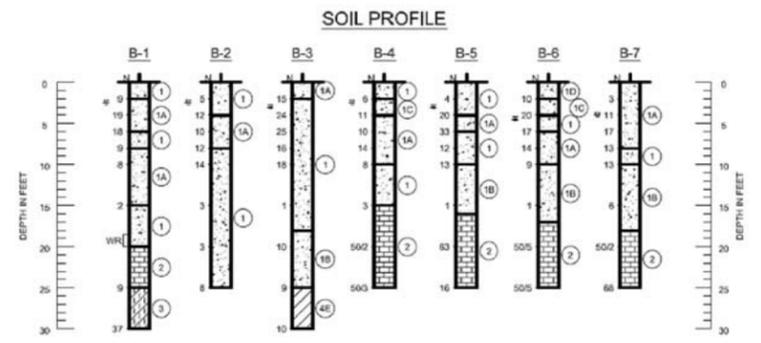
PLAN AND PROFILE
ROCKERY AT PERICO SEAGRASS ADVANCE MITIGATION

WATERMARK ENGINEERING GROUP, INC.
 3888 SUN CITY CENTER BLVD., SUN CITY CENTER, FL 33573
 TEL: (813) 652-1100 CERTIFICATE OF AUTHORIZATION 25990



LEGEND

①	Dark Gray to Gray to Brown to Dark Brown to White SAND to SAND With SB (SP10F-50F)	A	Trace grass root pieces (approx. 1/8 inch diameter) with shell fragments
②	White Weathered LIMESTONE	B	with tree root pieces (approx. 1/4 inch diameter)
③	Light Gray Silty CLAY (CL)	C	with broken pieces
④	Light Greenish Gray CLAY (CLCH)	D	with sand seams
		E	with sand seams
		SP	Unified Soil Classification System (ASTM D 2486) Group Symbol As Determined By Visual Review
		GL	Groundwater Level
		N	SPT N-Value In Blow/Foot For 12 Inches Of Penetration (unless otherwise noted)
		SN4	Number Of Blows For 4 Inches Of Penetration
		WR	Fall Under Weight Of Rod



SPT Boring N-Value (Blow/Foot)

Granular Materials		Sils and Clays	
Relative Density	Safety Hammer SPT N-Value (Blow/Foot)	Consistency	Safety Hammer SPT N-Value (Blow/Foot)
Very Loose	Less than 4	Very Soft	Less than 2
Loose	4 - 10	Soft	2 - 4
Medium Dense	10 - 30	Stiff	4 - 8
Dense	30 - 50	Stiff	8 - 15
Very Dense	Greater than 50	Very Stiff	15 - 30
		Hard	Greater than 30

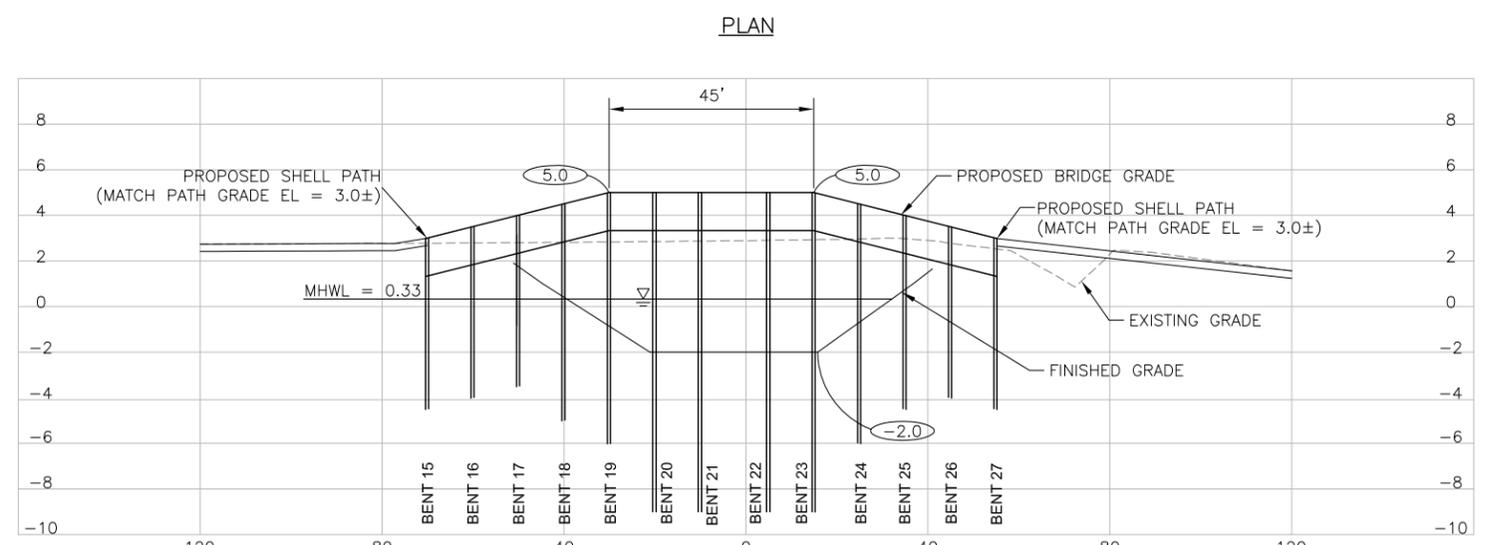
- Soil Profile Notes:**
- The profiles depicted are of a generalized nature to highlight the major subsurface stratification features and material characteristics. The soil profiles include soil description, stratifications and penetration resistances. The stratifications shown on the boring profiles represent the conditions only at the actual boring location. Variations may occur and should be expected between boring locations. The stratifications represent the approximate boundary between subsurface materials and the actual transition may be gradual.
 - Groundwater levels generally fluctuate during periods of prolonged drought and extended rainfall and may be affected by man-made influences. In addition, a seasonal effect will also occur in which higher groundwater levels or temporary perched conditions are normally recorded in rainy seasons.
 - SPT borings performed utilizing a safety hammer.

NO.	DESCRIPTION	DATE	BY	PTN	DATE	BY
1	ISSUED FOR PERMIT	MAY 22, 2015	PTN	PTN	MAY 22, 2015	PTN
2	REVISED					
3	REVISED					
4	REVISED					
5	REVISED					
6	REVISED					
7	REVISED					
8	REVISED					
9	REVISED					
10	REVISED					

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 MARK A. FLINT, P.E. (PROVIDER NUMBER)

PLAN AND PROFILE
ROCKERY AT PERICO SEAGRASS ADVANCE MITIGATION

WATERMARK ENGINEERING GROUP, INC.
 3888 SUN CITY CENTER BLVD., SUN CITY CENTER, FL 33573
 TEL: (813) 655-2100 CERTIFICATE OF AUTHORIZATION 25990

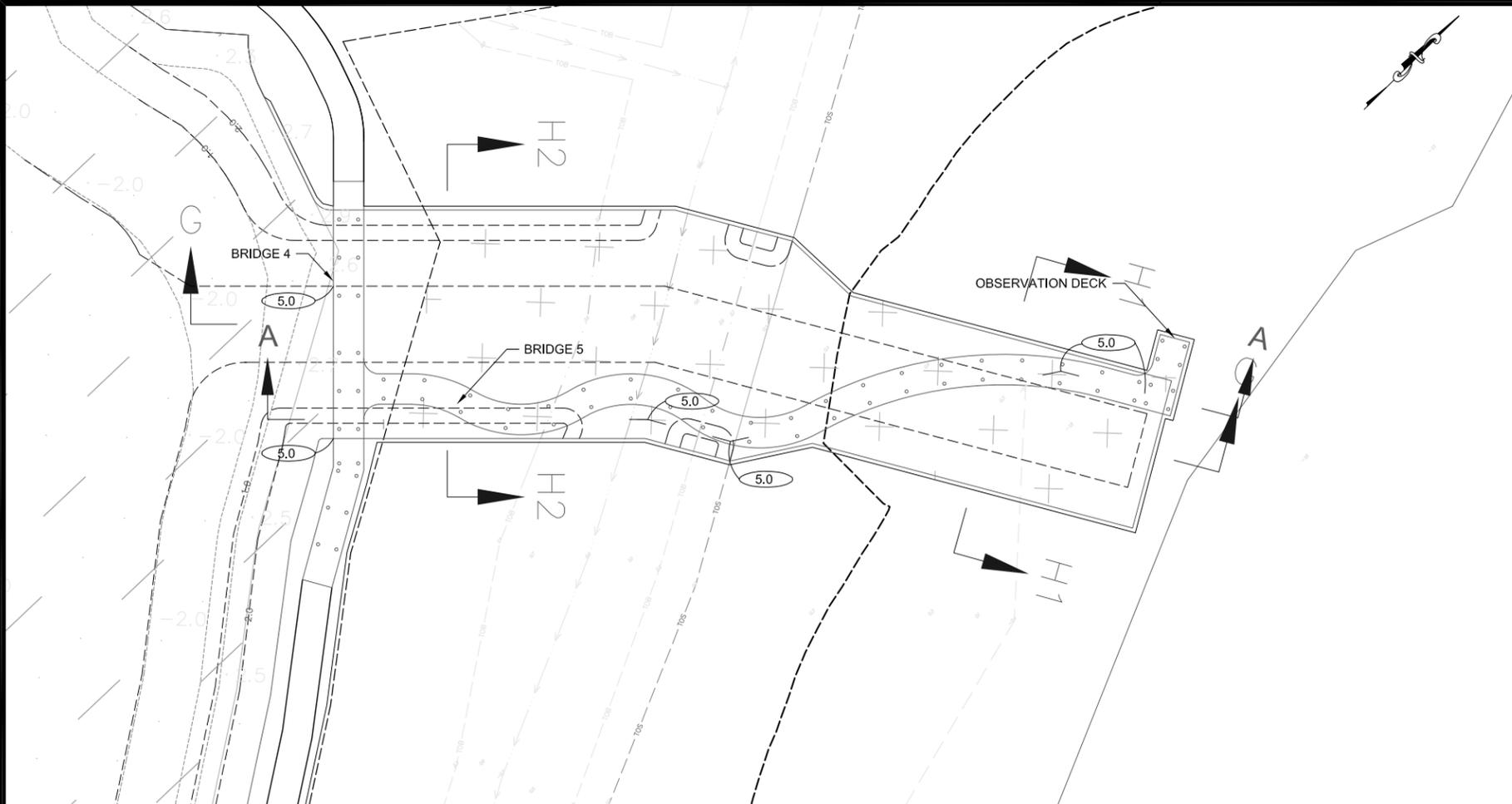


- NOTES:**
- MAINTAIN A MINIMUM 6" OF CLEARANCE BETWEEN ALL WALKWAY CAPS AND MUDLINE.
 - PILE DESIGN BASED ON STRUCTURAL LOAD (LIVE LOAD AND DEAD LOAD) OF TIMBER COMPONENTS, (1) 1600-LB VEHICLE, AND (2) 200-LB PERSONS. AXIAL LOADS (E.G., WIND AND WAVE CURRENTS) WERE NOT CONSIDERED.
 - A STRUCTURAL LOAD SAFETY FACTOR OF 1.5 WAS USED.

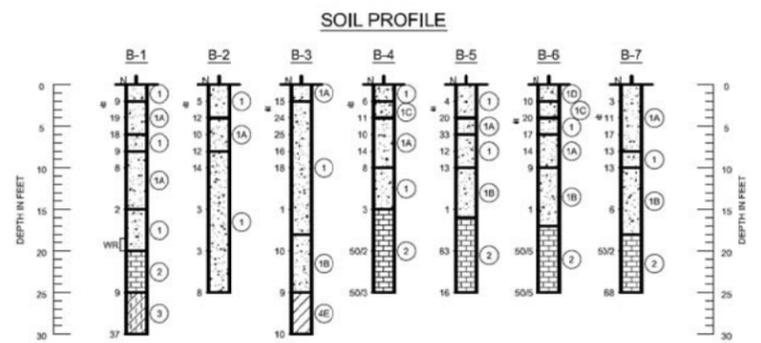
SECTION A-A
TIMBER WALKWAY 3 DETAIL
 HALF SIZE 1"=10' (HORIZ.) 1"=2' (VERT.)
 FULL SIZE 1"=20' (HORIZ.) 1"=4' (VERT.)

SUMMARY OF PILE REQUIREMENTS

BENT NO.	MIN. PILE EMBEDMENT (FT)	PROPOSED EXPOSURE (FT)	MIN. LENGTH (FT)	PROP. LENGTH (FT)
15	5	2.17	7.17	8
16	5	2.17	7.17	8
17	5	2.29	7.29	8
18	5	4.12	9.12	10
19	5	5.86	10.86	12
20	7	6.96	13.96	14
21	7	6.96	13.96	14
22	7	6.96	13.96	14
23	7	6.96	13.96	14
24	5	5.24	10.24	12
25	5	3.32	8.32	10
26	5	2.17	7.17	8
27	5	2.17	7.17	8



- ### LEGEND
- ① Dark Gray to Gray to Brown to Dark Brown to White SAND to SAND With GR (SP1SP-GM)
 - ② White Weathered LIMESTONE
 - ③ Light Gray Silty CLAY (CL)
 - ④ Light Greenish Gray CLAY (CL/CH)
 - A trace grass root pieces (approx. 1/4 inch diameter) with shell fragments
 - B with tree root pieces (approx. 1/2 inch diameter) with limonite pieces
 - C with sand seams
 - SP Unified Soil Classification System (ASTM D 2488) Group Symbol As Determined By Visual Review
 - Groundwater Level
 - N SPT N-Value In Blow/Foot For 12 Inches Of Penetration (unless otherwise noted)
 - SD4 Number Of Blows For 4 Inches C' Penetration
 - WR Fall Under Weight Of Rod

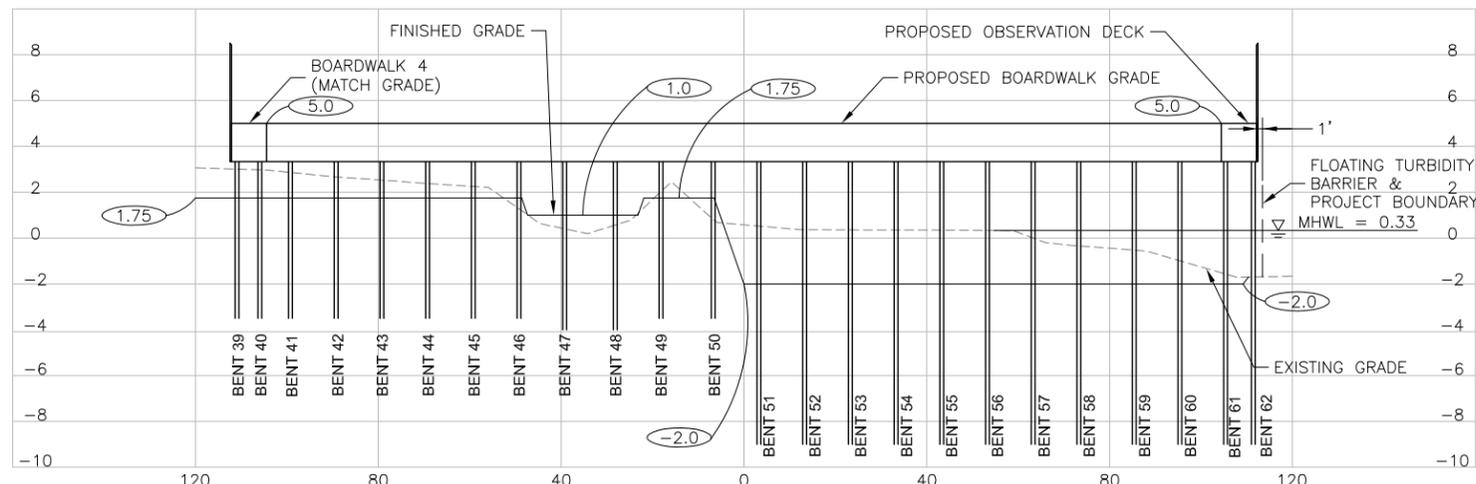


SPT Boring N-Value (Blow/Foot)

Granular Materials		Silt and Clays	
Relative Density	Safety Hammer SPT N-Value (Blow/Foot)	Consistency	Safety Hammer SPT N-Value (Blow/Foot)
Very Loose	Less than 4	Very Soft	Less than 2
Loose	4 - 10	Soft	2 - 4
Medium Dense	10 - 30	Firm	4 - 8
Dense	30 - 50	Stiff	8 - 15
Very Dense	Greater than 50	Very Stiff	15 - 30
		Hard	Greater than 30

- #### Soil Profile Notes:
- The profiles depicted are of a generalized nature to highlight the major subsurface stratification features and material characteristics. The soil profiles include soil description, stratifications and penetration resistances. The stratifications shown on the boring profiles represent the conditions only at the actual boring location. Variations may occur and should be expected between boring locations. The stratifications represent the approximate boundary between subsurface materials and the actual transition may be gradual.
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 - SPT borings performed utilizing a safety hammer.

PLAN



- #### NOTES:
- MAINTAIN A MINIMUM 6" OF CLEARANCE BETWEEN ALL WALKWAY CAPS AND MUDLINE.
 - PILE DESIGN BASED ON STRUCTURAL LOAD (LIVE LOAD AND DEAD LOAD) OF TIMBER COMPONENTS, (1) 1600-LB VEHICLE, AND (2) 200-LB PERSONS. AXIAL LOADS (E.G., WIND AND WAVE CURRENTS) WERE NOT CONSIDERED.
 - A STRUCTURAL LOAD SAFETY FACTOR OF 1.5 WAS USED.

SECTION A-A
TIMBER WALKWAY 5 DETAIL
 HALF SIZE 1"=10' (HORIZ.) 1"=2' (VERT.)
 FULL SIZE 1"=20' (HORIZ.) 1"=4' (VERT.)

SUMMARY OF PILE REQUIREMENTS

BENT NO.	MIN. PILE EMBEDMENT (FT)	PROPOSED EXPOSURE (FT)	MIN. LENGTH (FT)	PROP. LENGTH (FT)
39	5	3.25	8.25	10
40	5	3.25	8.25	10
41	5	3.25	8.25	10
42	5	3.25	8.25	10
43	5	3.25	8.25	10
44	5	3.25	8.25	10
45	5	3.25	8.25	10
46	5	3.25	8.25	10
47	5	4.00	9.00	10
48	5	4.00	9.00	10
49	5	3.25	8.25	10
50	5	3.25	8.25	10
51	7	7.00	14.00	14
52	7	7.00	14.00	14
53	7	7.00	14.00	14
54	7	7.00	14.00	14
55	7	7.00	14.00	14
56	7	7.00	14.00	14
57	7	7.00	14.00	14
58	7	7.00	14.00	14
59	7	7.00	14.00	14
60	7	7.00	14.00	14
61	7	7.00	14.00	14
62	7	6.70	13.70	14

NO.	DATE	DESCRIPTION	BY	DATE	DESCRIPTION	BY

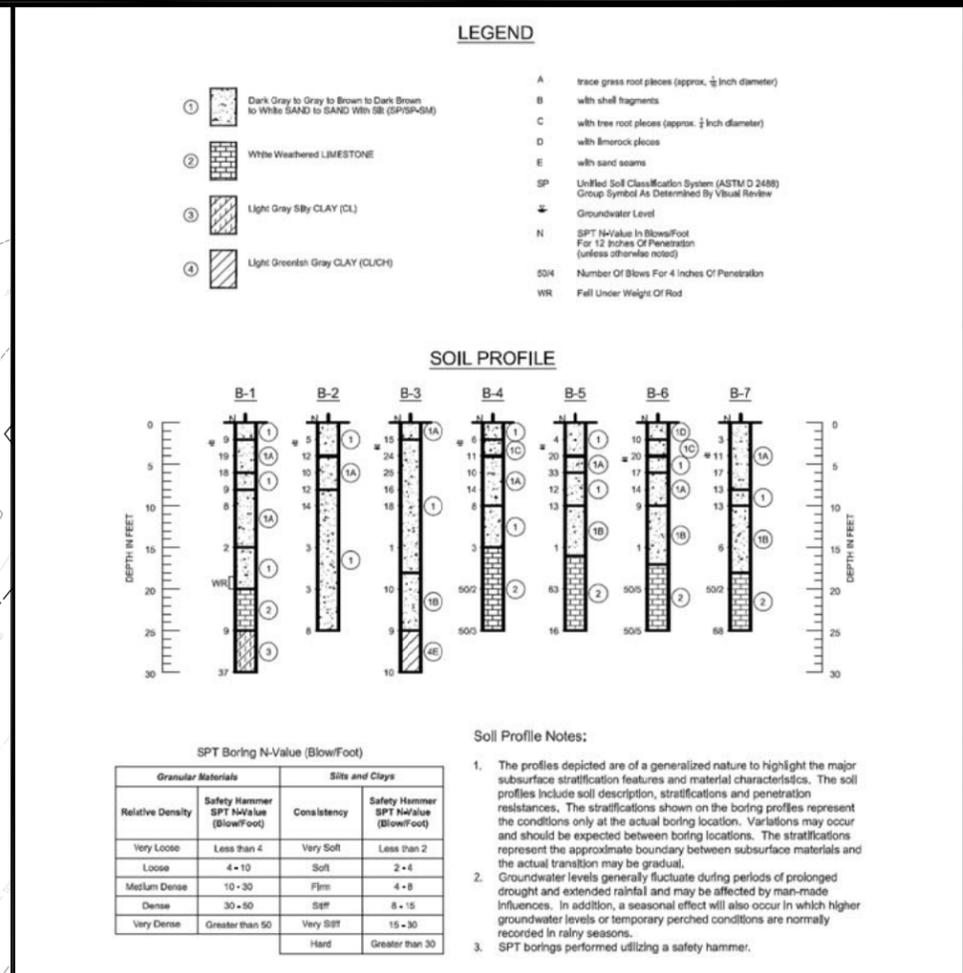
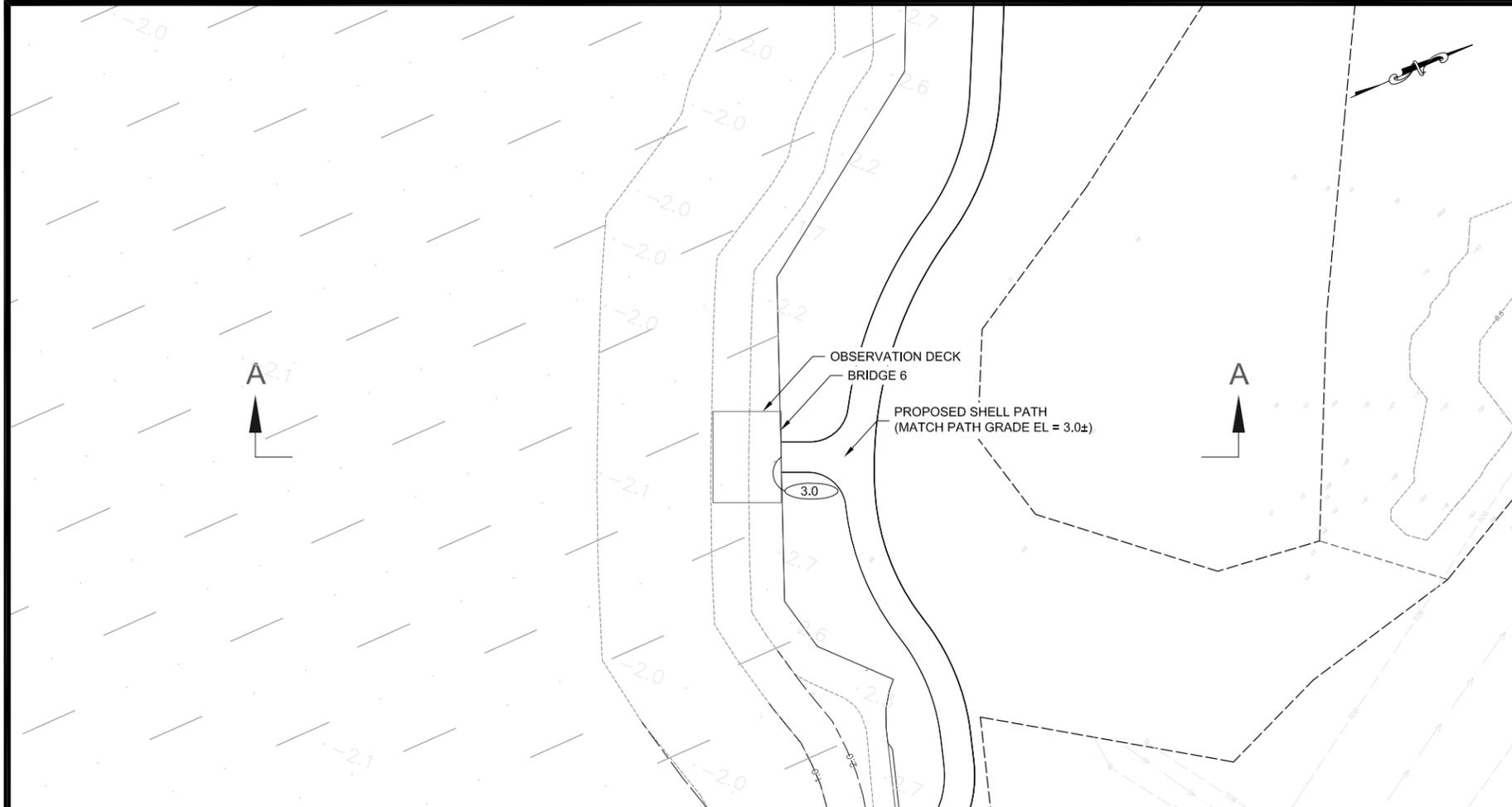
DATE: MAY 22, 2015
 DRAWN BY: MUF
 CHECKED BY: MUF
 APPROVED BY: MUF

PLAN AND PROFILE

ROCKERY AT PERICO SEAGRASS ADVANCE MITIGATION

WATERMARK ENGINEERING GROUP, INC.
 3888 SUN CITY CENTER BLVD., SUN CITY CENTER, FL 33573
 TEL: (813) 652-1100 CERTIFICATE OF AUTHORIZATION 25990

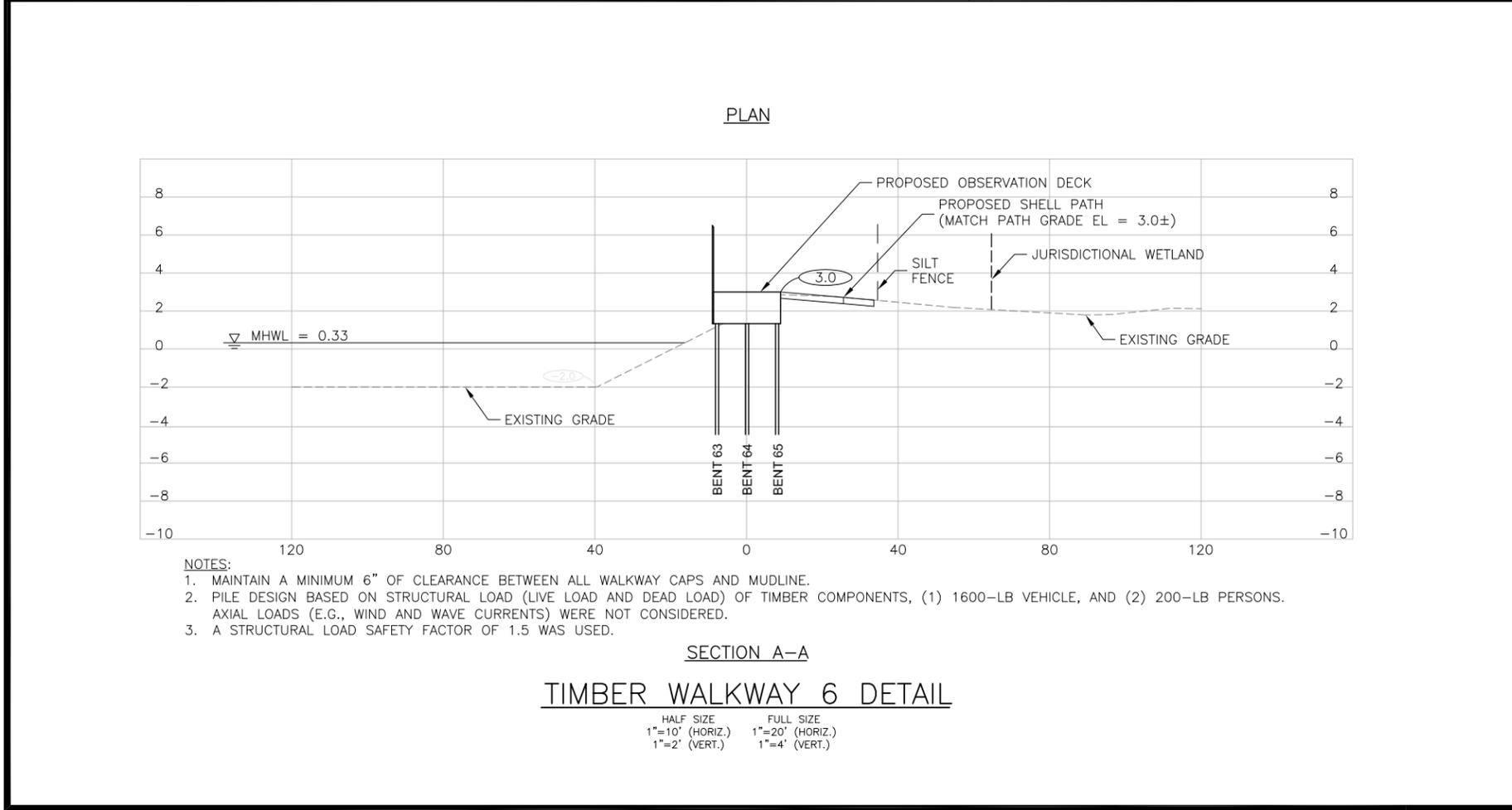




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DESIGNED BY: []
CHECKED BY: []
DATE: []
SCALE: []
JOB NO.: []

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 MARK A. FULT, P.E. (PROJ. NUMBER OF RECORD)

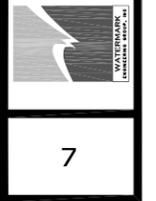


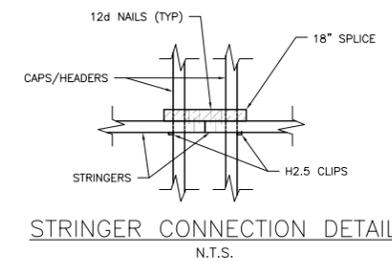
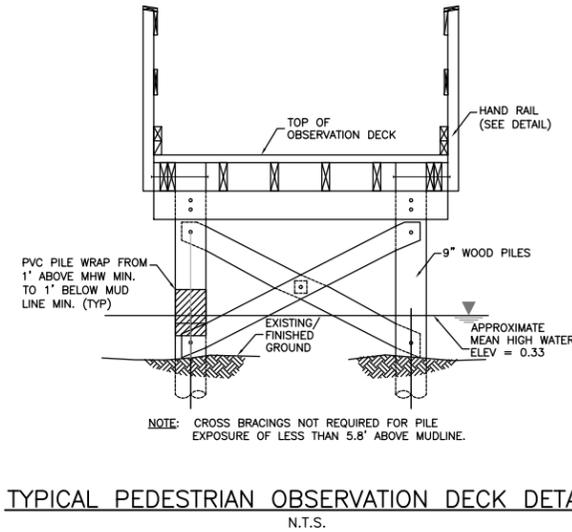
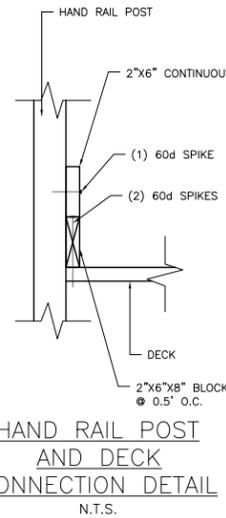
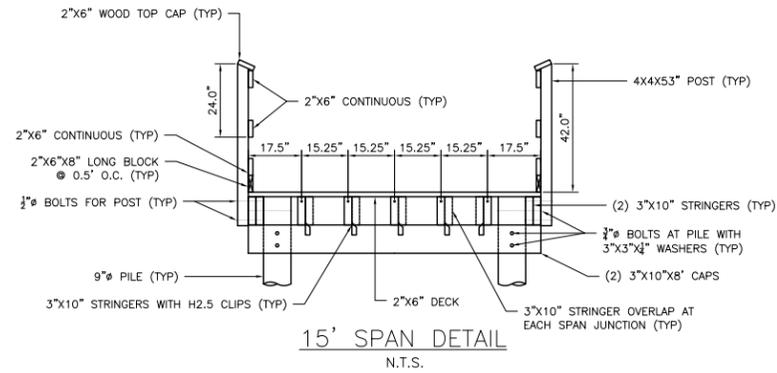
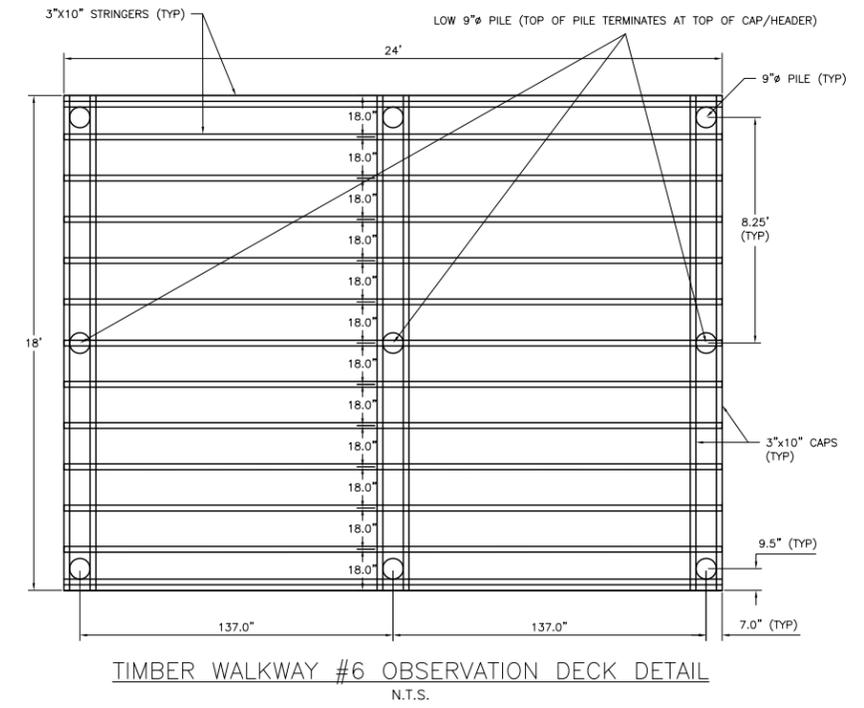
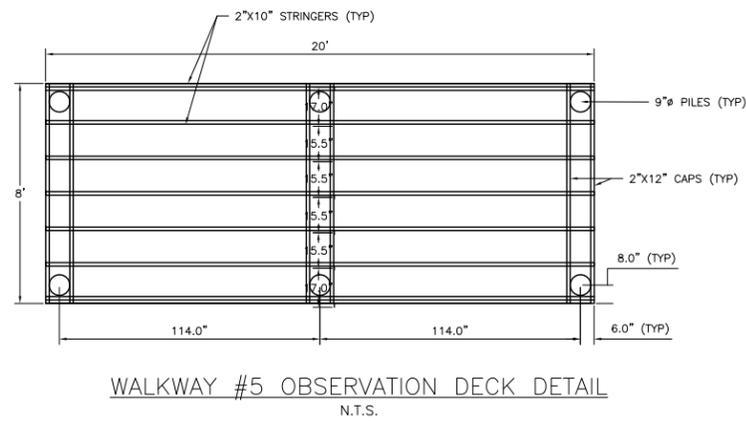
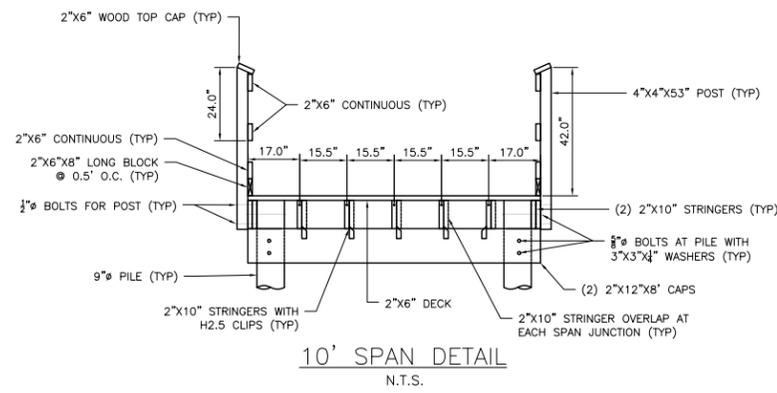
SUMMARY OF PILE REQUIREMENTS

BENT NO.	MIN. PILE EMBEDMENT (FT)	PROPOSED EXPOSURE (FT)	MIN. LENGTH (FT)	PROP. LENGTH (FT)
63	5	2.17	7.17	8
64	5	2.17	7.17	8
65	5	2.17	7.17	8

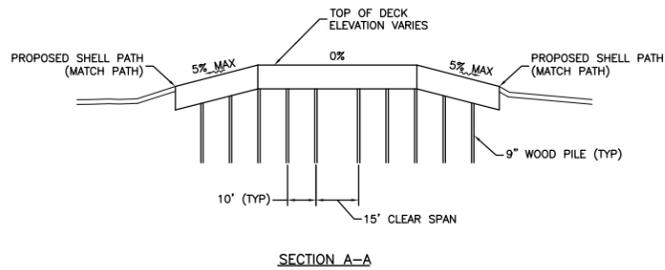
ROOKERY AT PERICO
 SEAGRASS ADVANCE
 MITIGATION

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 3888 SUN CITY CENTER BLVD., SUN CITY CENTER, FL 33573
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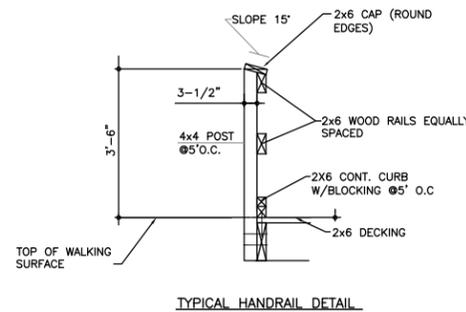
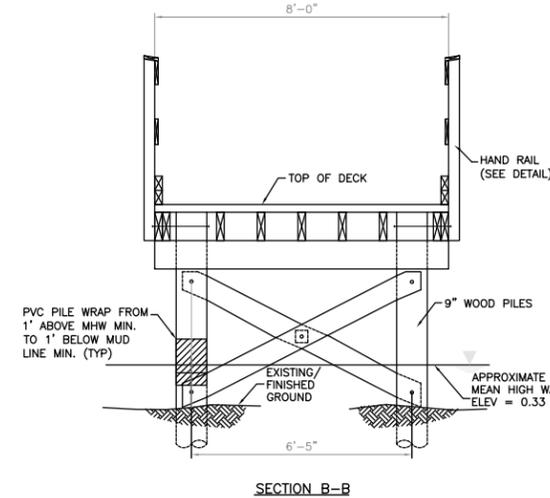




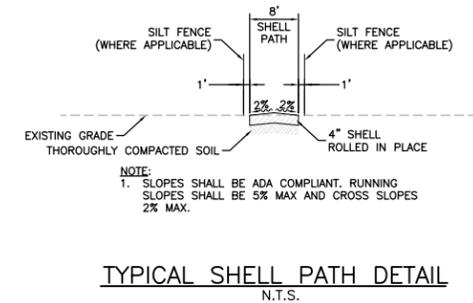
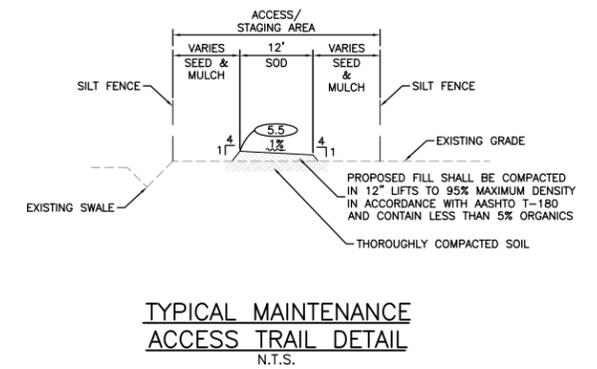
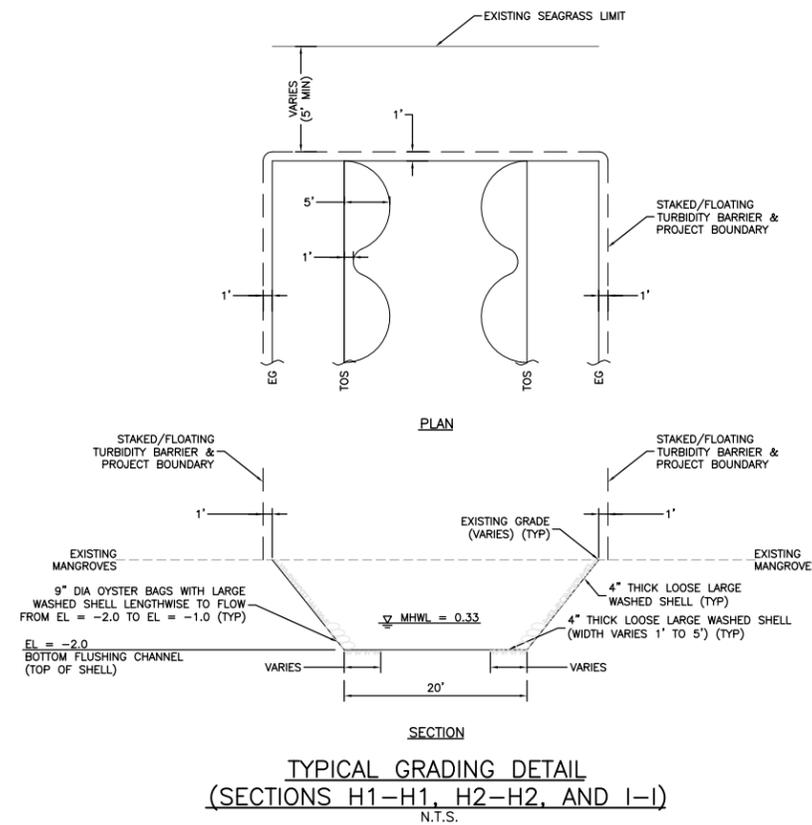
- TIMBER WALKWAY AND OBSERVATION DECK MATERIAL NOTES:**
- PILES: 9" DIAMETER 2.5 CCA SYP X ____' LONG, WRAPPED.
 - ALL TIMBERS: NO. 1 SYP OR BETTER.
 - CAPS (2"x12"): 0.6 CCA S4S AT 10' LONG SPANS WITH (2) 3/8" DIAMETER BOLTS PER PILE.
 - CAPS (3"x10"): 0.6 CCA S4S AT 15' LONG SPANS WITH (2) 3/4" DIAMETER BOLTS PER PILE.
 - STRINGER: 2"x10" S4S FOR 10' SPANS; 3"x10" S4S FOR 15' LONG SPANS WITH (1) 3/4" SS BOLT THROUGH PILE AT DOUBLE EXTERIOR STRINGERS. INTERIOR STRINGERS ARE TO BE SECURED TO CAPS WITH SIMPSON H2.5 SS CLIPS.
 - DECKING: 2"x6" 0.4 ACQ WITH (2) #10X3" SS RINGSHANK SCREWS PER STRINGER.
 - HANDRAIL POSTS: 0.4 ACQ WITH (2) 1/2" SS THROUGH BOLTS.
 - MID AND TOP RAILS: 0.4 ACQ WITH (2) SS #10X3" RINGSHANK SCREWS.
 - TOP CAP: 2"x6" WOOD WITH (1) #10X3" SS RINGSHANK SCREW PER POST AND AT 16" O.C. INTO TOP RAIL.



- NOTES:**
- SLOPES SHALL BE ADA COMPLIANT. RUNNING SLOPES SHALL BE 5% MAX AND CROSS SLOPES 2% MAX.
 - SEE TIMBER WALKWAY 1, 2, 3, 4, 5, OR 6 DETAIL FOR ADDITIONAL INFORMATION.
 - CROSS BRACINGS NOT REQUIRED FOR PILE EXPOSURE OF LESS THAN 5.8' ABOVE MUDLINE.



TYPICAL TIMBER WALKWAY DETAIL
N.T.S.



NO.	DESCRIPTION	DATE	BY	PTN	DATE
1	ISSUED FOR PERMIT	MAY 22, 2015	HCL	MLF	
2	REVISIONS				

MISCELLANEOUS DETAILS

ROOKEY AT PERICO SEAGRASS ADVANCE MITIGATION

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