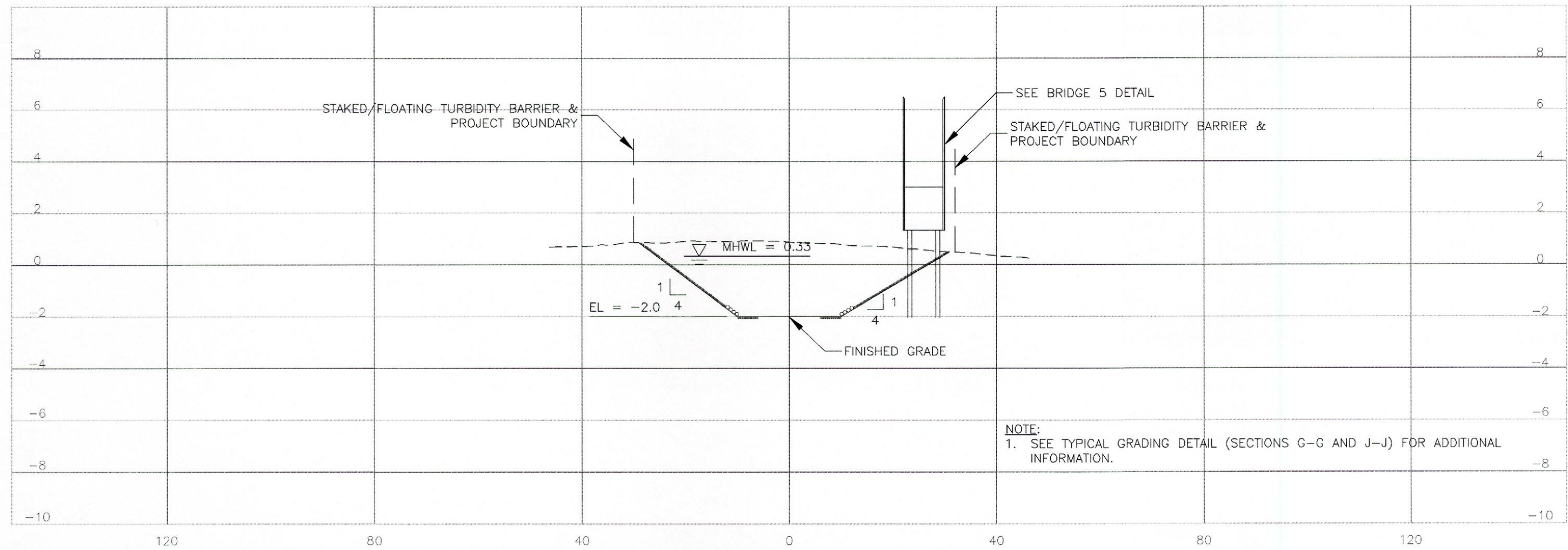
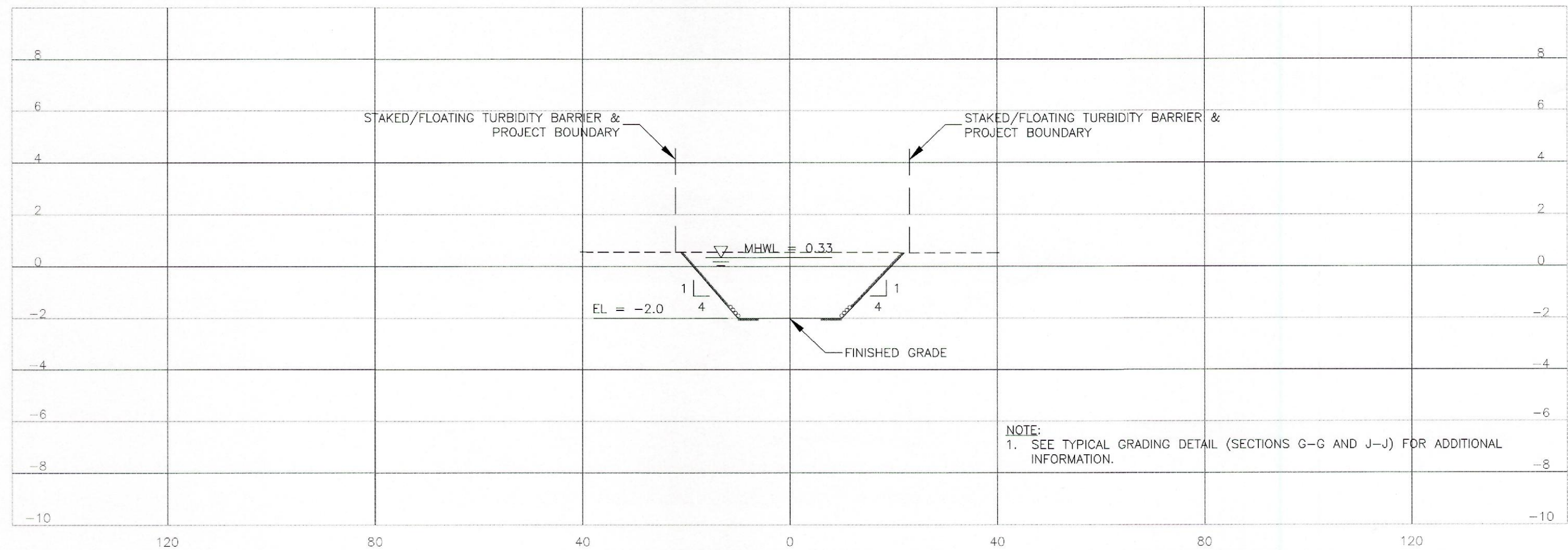


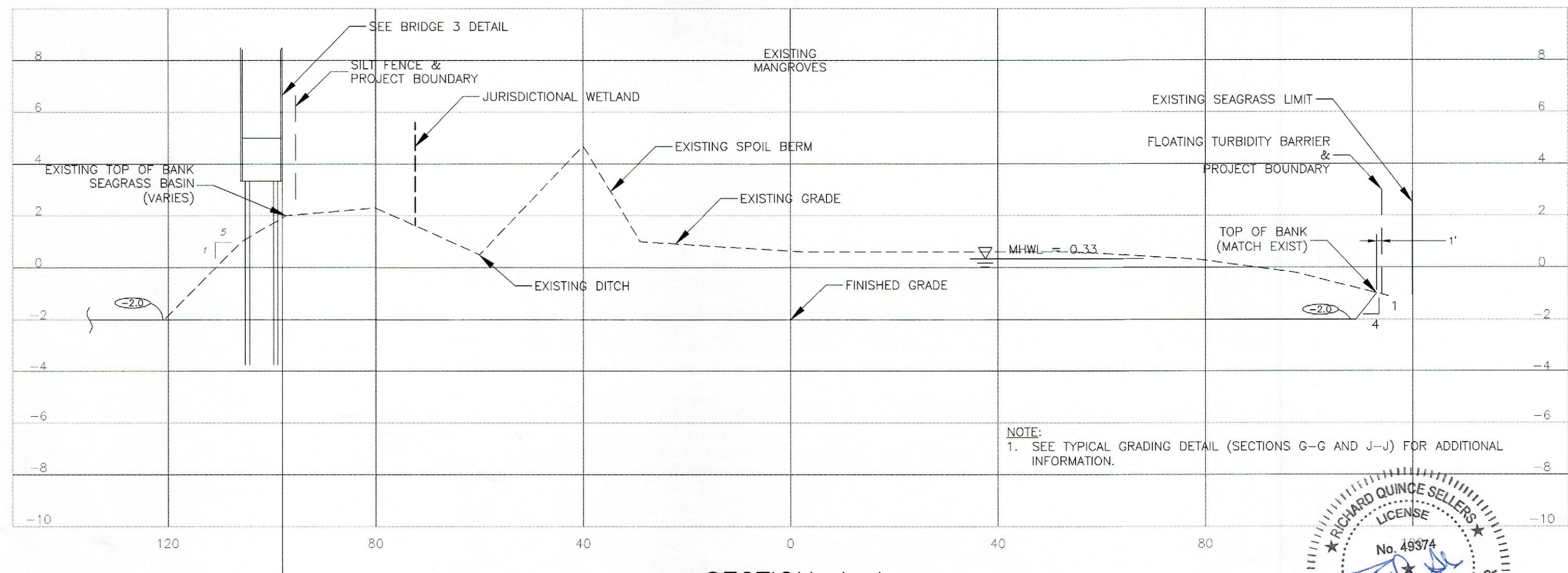
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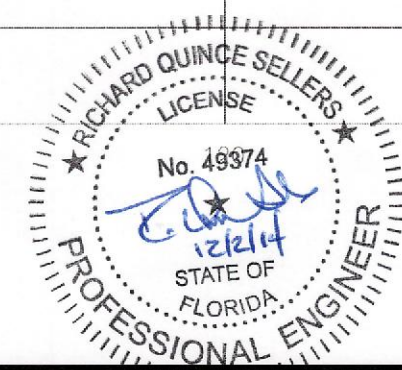
SECTION H2-H2
1"=20' (HORIZ.)
1"=4' (VERT.)



SECTION I-I
1"=20' (HORIZ.)
1"=4' (VERT.)



SECTION J-J
1"=20' (HORIZ.)
1"=4' (VERT.)



REV.	DESCRIPTION	DATE	DRAWN BY
1	REVISE SECTIONS H2, J	10/18/14	AS/102871

LEAD DESIGNER:	REVIEWED BY:
ISSUE DESCRIPTION:	CONSTRUCTION PLANS
ISSUE DATE:	OCTOBER 2014



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CLIENT: MANATEE COUNTY
BOARD OF COUNTY COMMISSIONERS
PROJECT: ROOKERY AT PERICO
SEAGRASS ADVANCE MITIGATION

GRADING CROSS SECTIONS

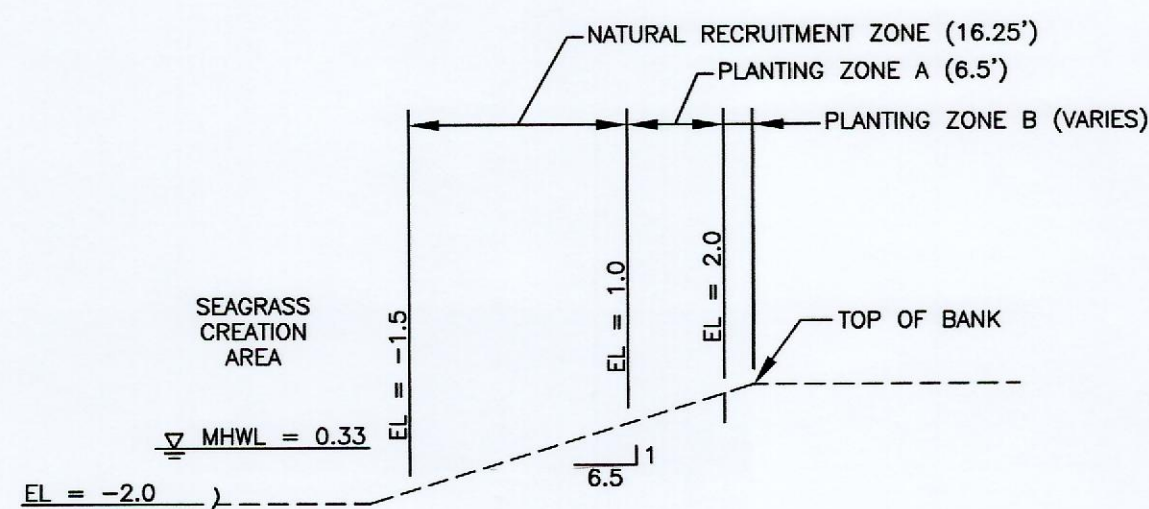
R. QUINCE SELLERS, P.E.
FLORIDA LICENSE NO. 49374
PROJECT NUMBER: 215510541
SHEET NUMBER: 8 OF 14

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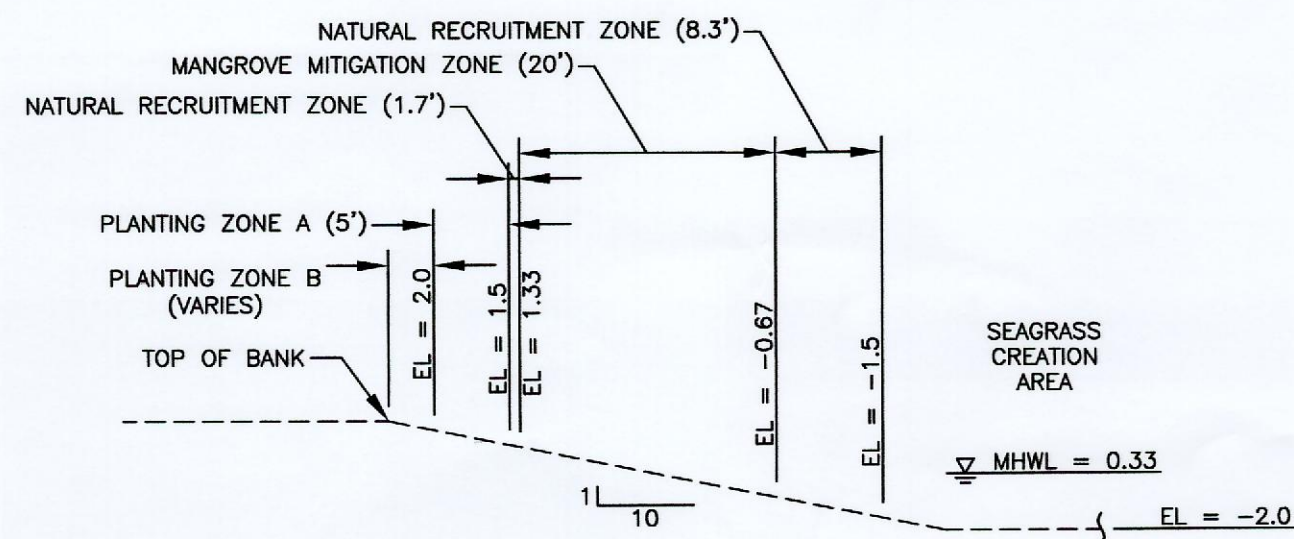
Seagrass Basin Slope Planting Specifications								
Stratum	Common Name	Scientific Name	Elevation Range (feet NAVD)	Percentage of Total Area Per Species by Elevation Range	Area (sq. ft.) within Elevation Range	Average Spacing (O.C.)	Quantity	Size (minimum)
ZONE A								
Ground Cover	Seashore paspalum	<i>Paspalum vaginatum</i>	1.25 - 1.50	40	4,869	2	487	LN-4"
			1.50 - 1.75	30	7,668	2	575	LN-4"
	Seapurslane	<i>Sesuvium portulacastrum</i>	1.25 - 1.50	30	4,869	2	365	LN-4"
	Seacoast marshelder	<i>Iva imbricata</i>	1.25 - 1.50	25	4,869	2	304	LN-4"
	Saltmeadow cordgrass	<i>Spartina patens</i>	1.50 - 1.75	15	7,668	2	288	LN-4"
	Sand Cordgrass	<i>Spartina bakeri</i>	1.50 - 1.75	30	7,668	2	575	LN-4"
			1.75 - 2.00	60	7,712	2	1157	LN-4"
	Sea oxeeye	<i>Borrchia frutescens</i>	1.25 - 1.50	5	4,869	2	61	LN-4"
			1.50 - 1.75	10	7,668	2	192	LN-4"
			1.75 - 2.00	40	7,712	2	771	LN-4"
Stratum	Common Name	Scientific Name	Elevation Range (feet NAVD)	Percentage of Total Area Per Species by Stratum	Area (sq. ft.) within Elevation Range	Average Spacing (O.C.)	Quantity	Size (minimum)
ZONE B								
Ground Cover	Bahiagrass	<i>Paspalum notatum</i>	2.0+	100	59,802	NA	59,802	Sod
Shrubs	Jamaica Caper	<i>Capparis jamaicensis</i>	2.0+	10	59,802	10	60	7-gal
	White Stopper	<i>Eugenia axillaris</i>	2.0+	15	59,802	10	90	7-gal
	Spanish Stopper	<i>Eugenia foetida</i>	2.0+	10	59,802	10	60	7-gal
	Florida Privet	<i>Forestiera segregata</i>	2.0+	15	59,802	10	90	3-gal
	Necklace Pod	<i>Sophora tomentosa</i> var. <i>truncata</i>	2.0+	5	59,802	10	30	3-gal
	Spanish Bayonet	<i>Yucca aloifolia</i>	2.0+	15	59,802	10	90	7-gal
Trees	Varnishleaf	<i>Dodonaea viscosa</i>	2.0+	15	59,802	10	90	3-gal
	White indigoberry	<i>Randia aculeata</i>	2.0+	15	59,802	10	90	3-gal
	Gumbo Limbo	<i>Bursera simaruba</i>	2.0+	10	59,802	20	15	15-gal
	Cabbage palm	<i>Sabal palmetto</i>	2.0+	5	59,802	2	7	10-ft (min) CT
	Green buttonwood	<i>Conocarpus erectus</i>	2.0+	20	59,802	20	30	7-gal
	Green buttonwood	<i>Conocarpus erectus</i>	2.0+	15	59,802	20	22	15-gal
	Strangler fig	<i>Ficus aurea</i>	2.0+	10	59,802	20	15	15-gal
	Jamaica Caper	<i>Capparis jamaicensis</i>	2.0+	10	59,802	20	15	15-gal
	Seagrape	<i>Coccoloba uvifera</i>	2.0+	30	59,802	20	45	15-gal

Mangrove Mitigation Zone Planting Specifications							
Stratum	Common Name	Scientific Name	Elevation Range (feet NAVD)	Percentage of Total Area Per Species	Area (sq. ft.) within Elevation Range	Average Spacing (O.C.)	Size (minimum)
Ground Cover	Saltmarsh cordgrass	<i>Spartina alterniflora</i>	-0.67 - 1.33	100	21,780	3	2,420 BR
Trees	Red mangrove	<i>Rhizophora mangle</i>	-0.67 - 0.33	100	10,973	10	110 3-gal
	Red mangrove	<i>Rhizophora mangle</i>	-0.67 - 0.33	100	10,973	5	439 propagule
	Black mangrove	<i>Avicennia germinans</i>	0.33 - 1.33	100	10,807	10	108 LN-2"

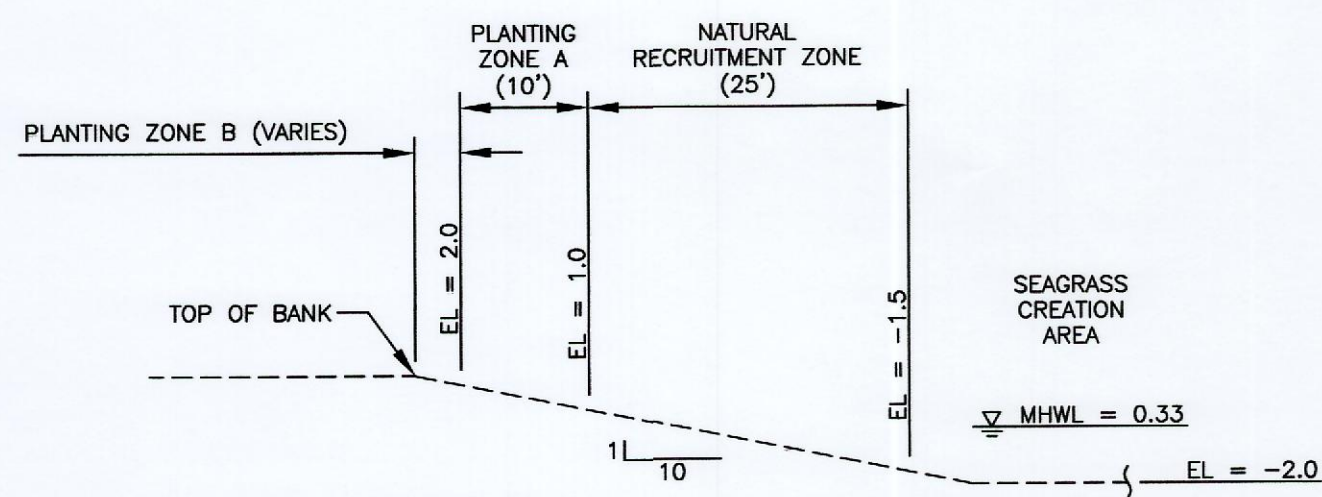
Rookery Island Planting Zone Specifications							
Stratum	Common Name	Scientific Name	Elevation Range (feet NAVD)	Percentage of Total Area Per Species	Area (sq. ft.) within Elevation Range	Average Spacing (O.C.)	Size (minimum)
Trees	Red mangrove	<i>Rhizophora mangle</i>	0.20	100	4,889	5	45 3-gal



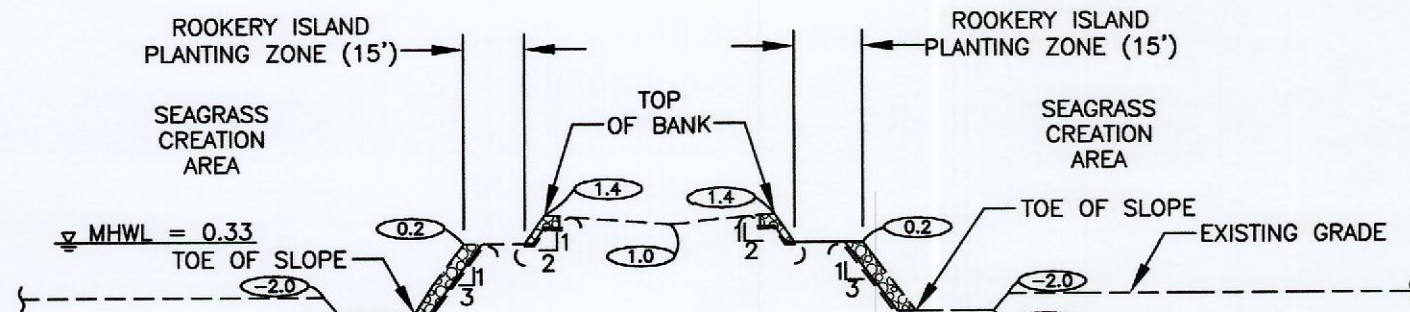
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(SECTIONS E1-E1 AND E2-E2)
N.T.S.



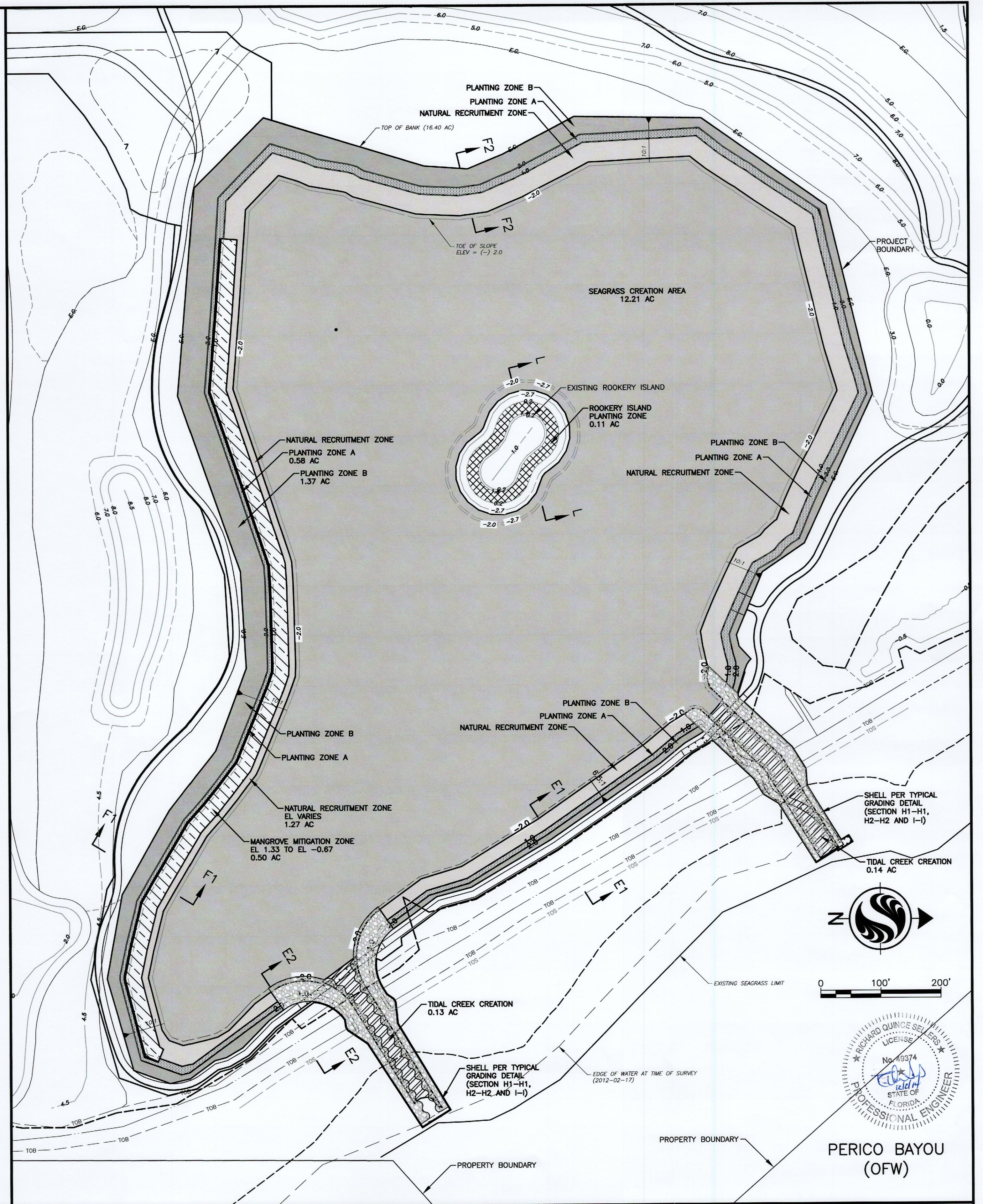
TYPICAL PLANTING DETAIL
(SECTION F1-F1)
N.T.S.



TYPICAL PLANTING DETAIL
(SECTION F2-F2)
N.T.S.



TYPICAL PLANTING DETAIL
(SECTION L-L)
N.T.S.



REV	DESCRIPTION	DATE	DRAWN BY	LEAD DESIGNER	REVIEWED BY	ISSUE DESCRIPTION	ISSUE DATE
1	REVISE PLANTING ZONE A AREA, ADD SHELL AREA	10/18/14	AS/102871			CONSTRUCTION PLANS	OCTOBER 2014



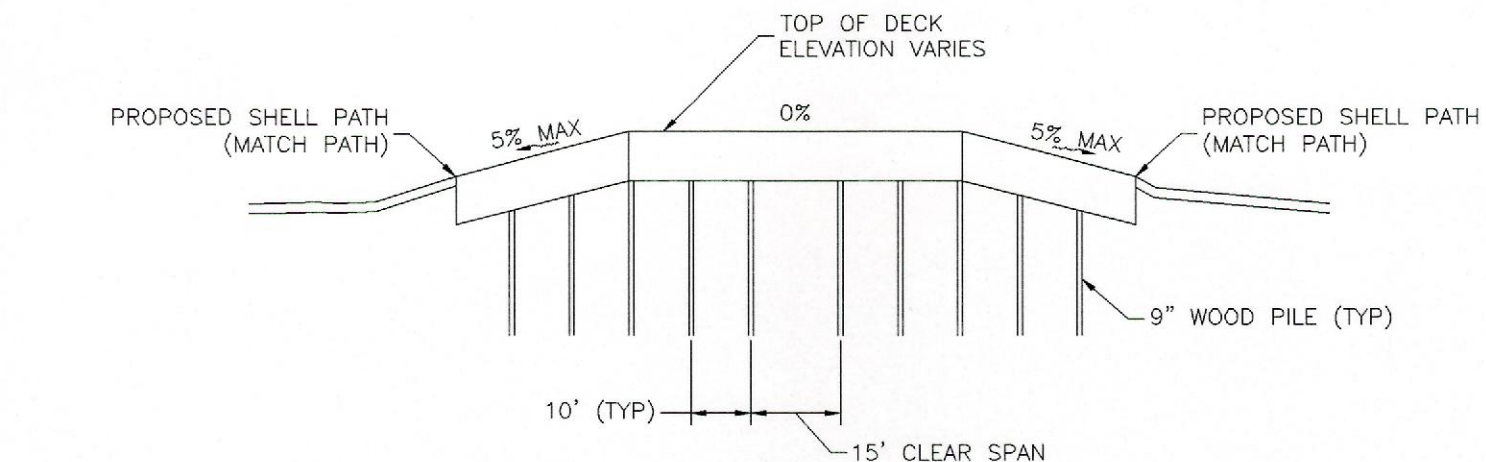
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CLIENT: MANATEE COUNTY
BOARD OF COUNTY COMMISSIONERS
PROJECT: ROOKERY AT PERICO
SEAGRASS ADVANCE MITIGATION

MITIGATION AND PLANTING
PLAN AND DETAILS

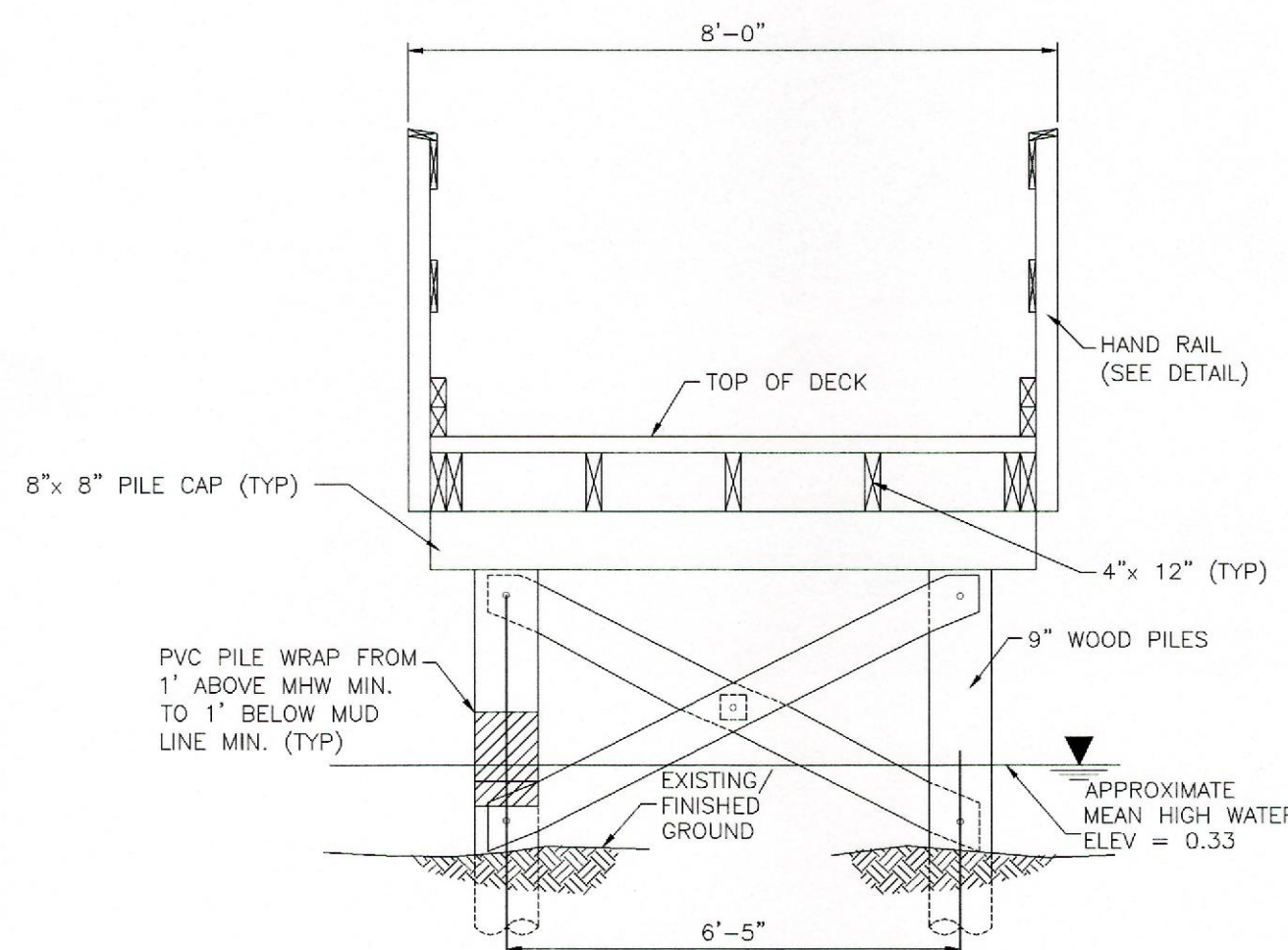
R. QUINCE SELLERS, P.E.
FLORIDA LICENSE NO. 49374
PROJECT NUMBER: 215510541
SHEET NUMBER: 10 OF 14

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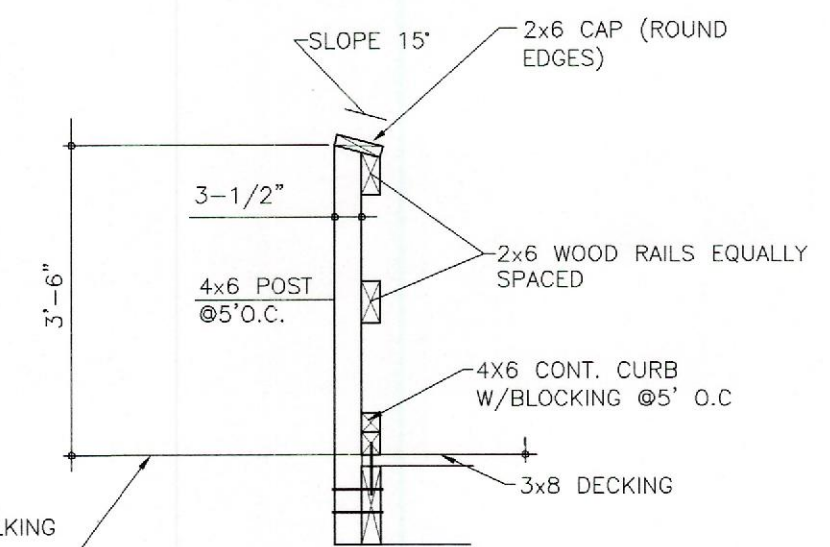


SECTION A-A

NOTE:
1. SLOPES SHALL BE ADA COMPLIANT. RUNNING SLOPES SHALL BE LESS THAN 5% AND CROSS SLOPES LESS THAN 2%.
2. SUBJECT TO CHANGE BASED ON STRUCTURAL DESIGN BY OTHERS.
3. SEE TYPICAL BOARDWALK 1, 2, 3, 4, 5, OR 6 DETAIL FOR ADDITIONAL INFORMATION.

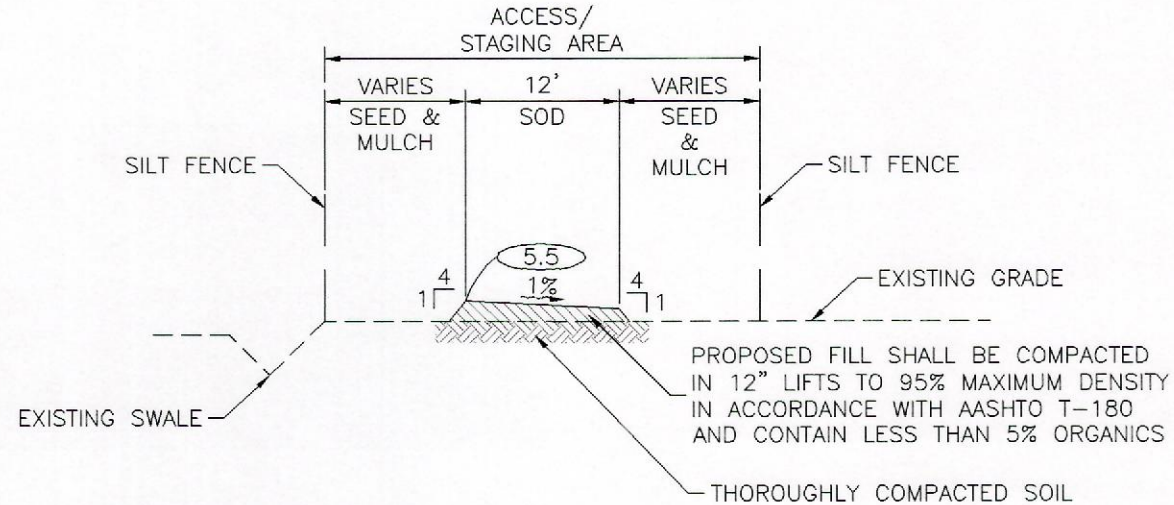


SECTION B-B

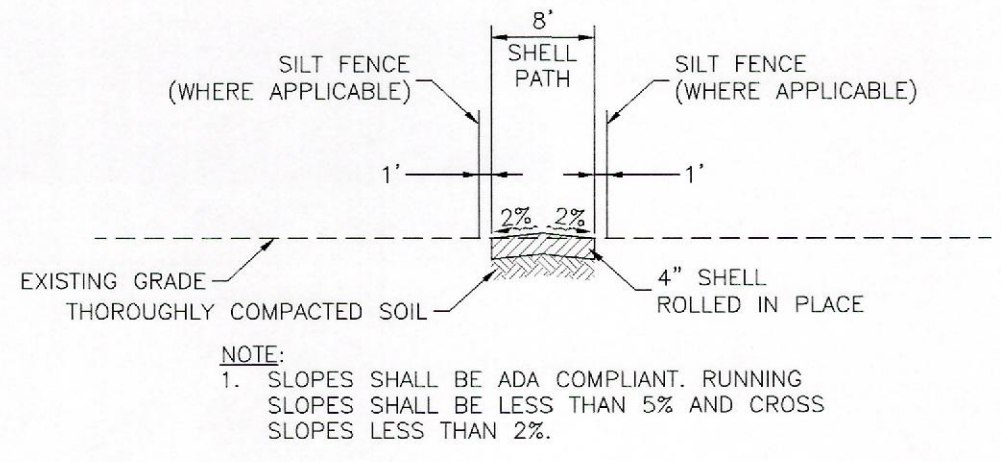


NOTE:
1. SUBJECT TO CHANGE BASED ON STRUCTURAL DESIGN BY OTHERS.

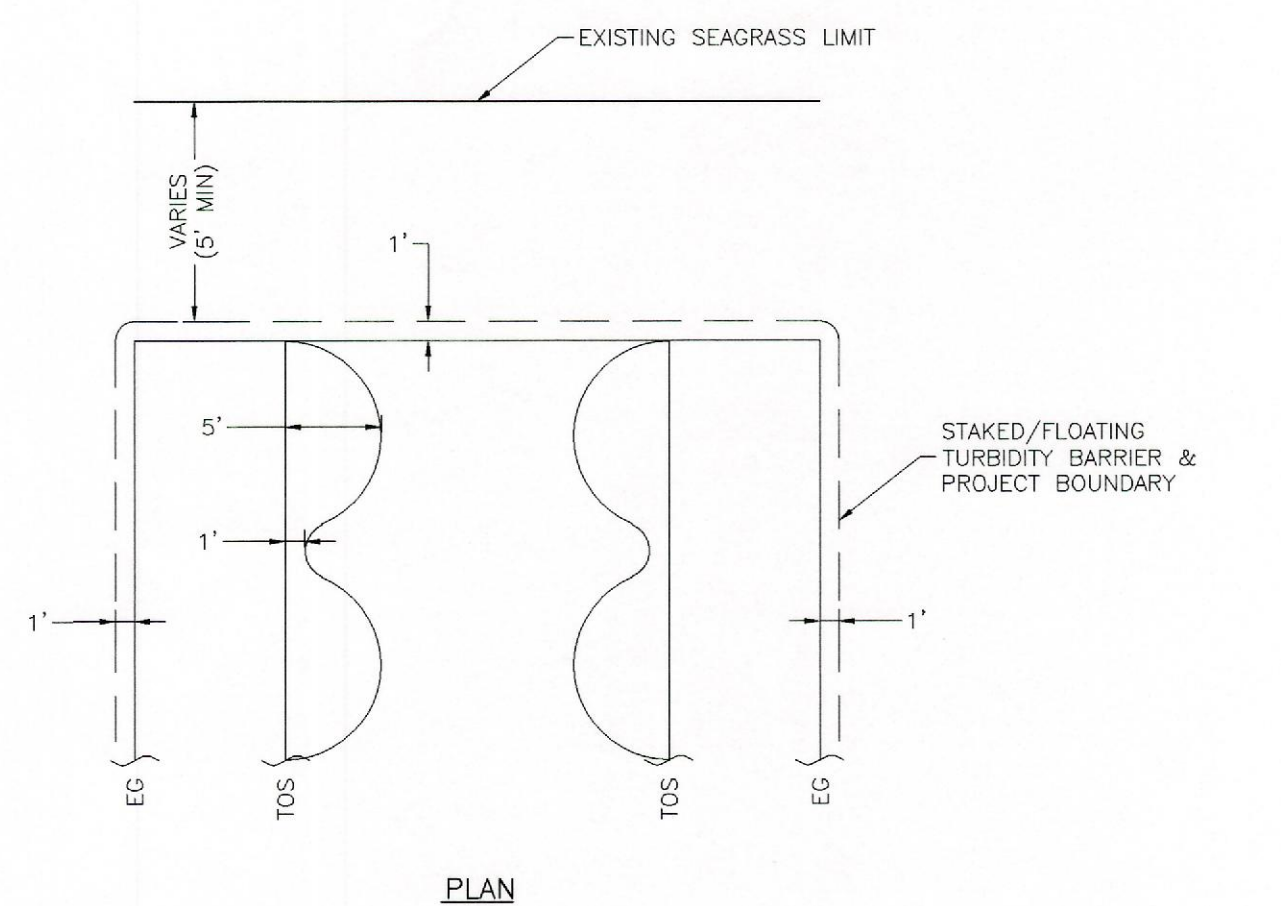
TYPICAL HANDRAIL DETAIL



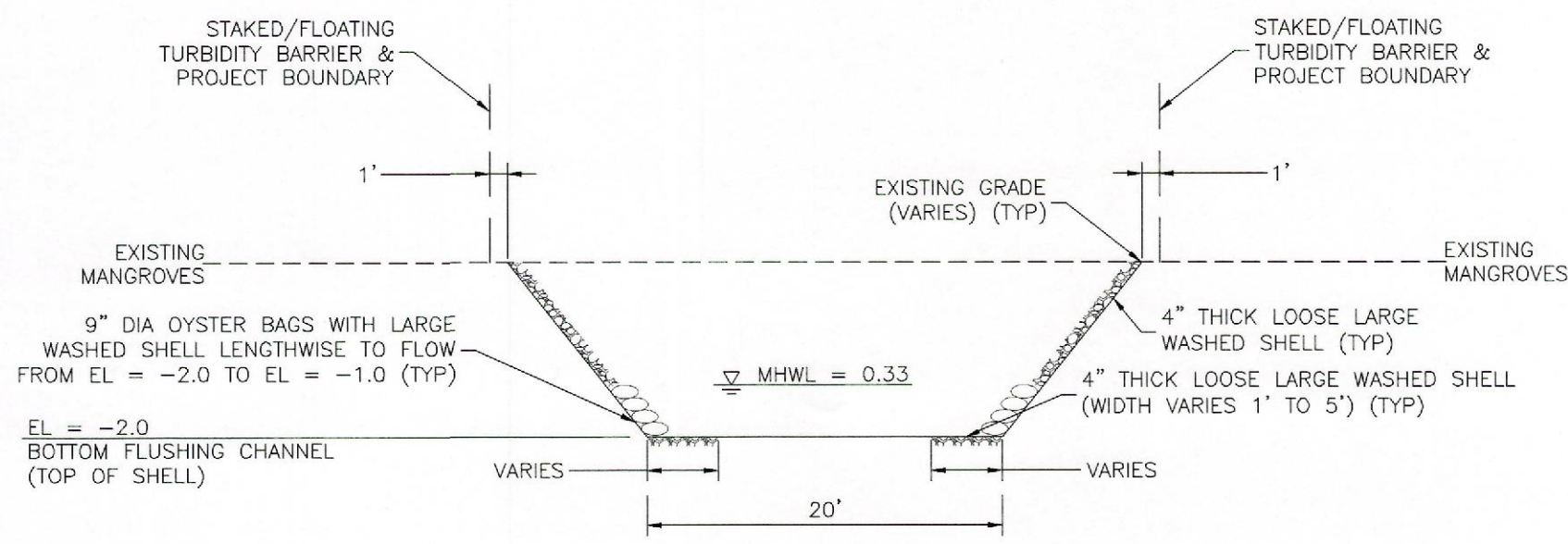
TYPICAL MAINTENANCE ACCESS TRAIL DETAIL
N.T.S.



TYPICAL SHELL PATH DETAIL
N.T.S.



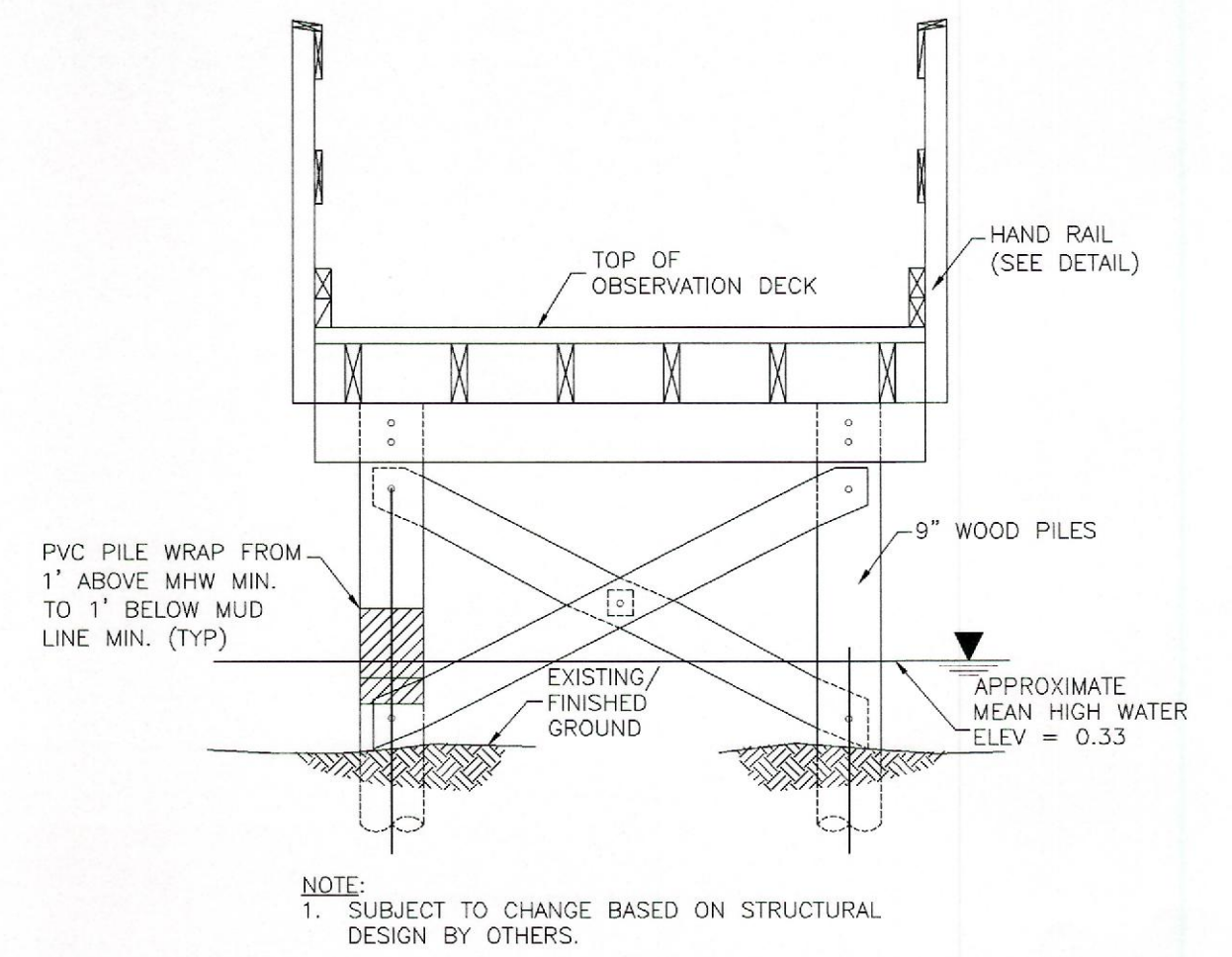
PLAN



SECTION

TYPICAL GRADING DETAIL
(SECTIONS H1-H1, H2-H2, AND I-I)
N.T.S.

TYPICAL PEDESTRIAN BRIDGE DETAIL
N.T.S.



TYPICAL PEDESTRIAN OBSERVATION DECK DETAIL
N.T.S.



REV.	DESCRIPTION	DATE	DRAWN BY
1	REVISE BRIDGE DETAILS	10/18/14	AS/102871

LEAD DESIGNER:	REVIEWED BY:
ISSUE DESCRIPTION:	CONSTRUCTION PLANS
ISSUE DATE:	OCTOBER 2014

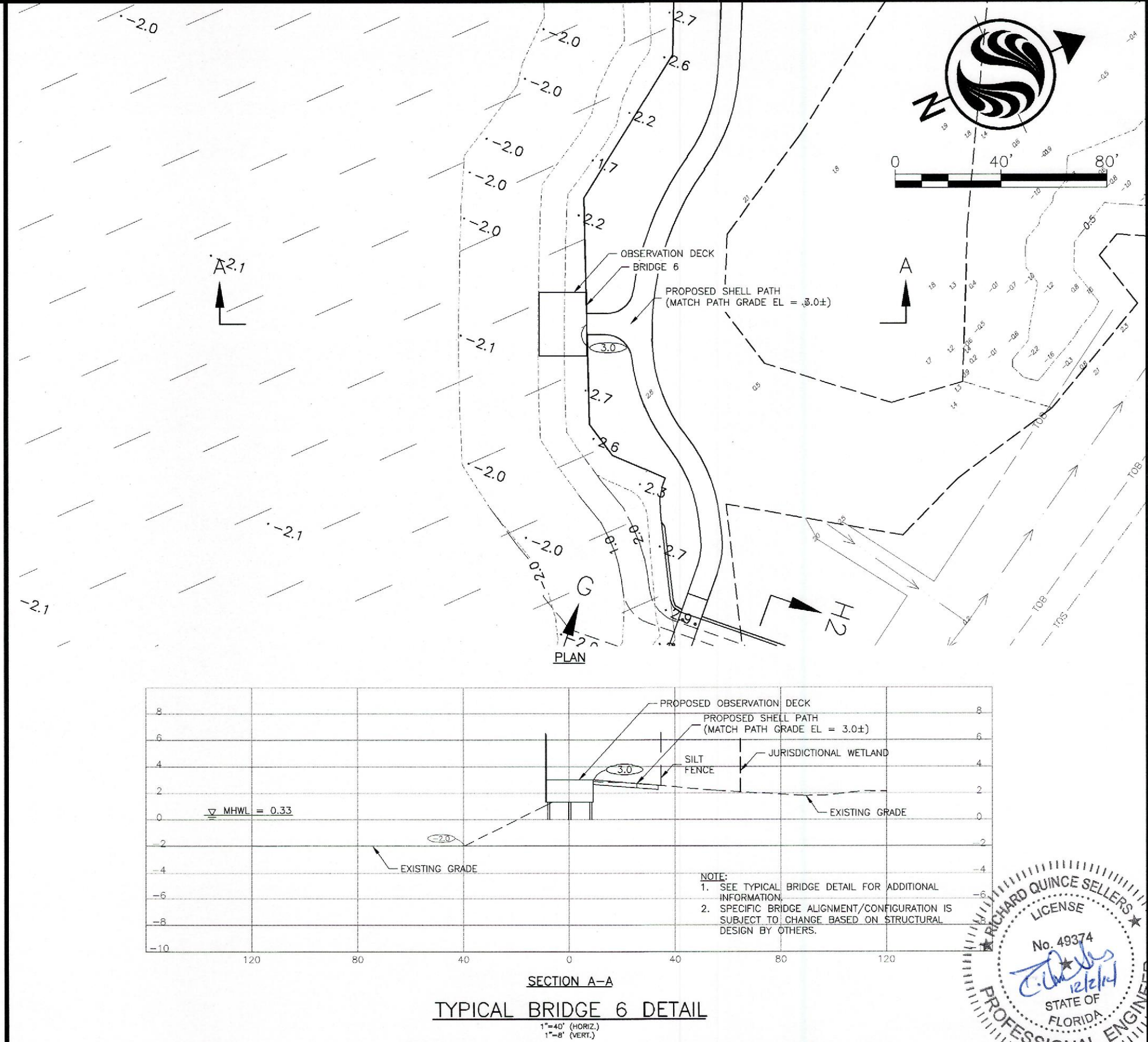
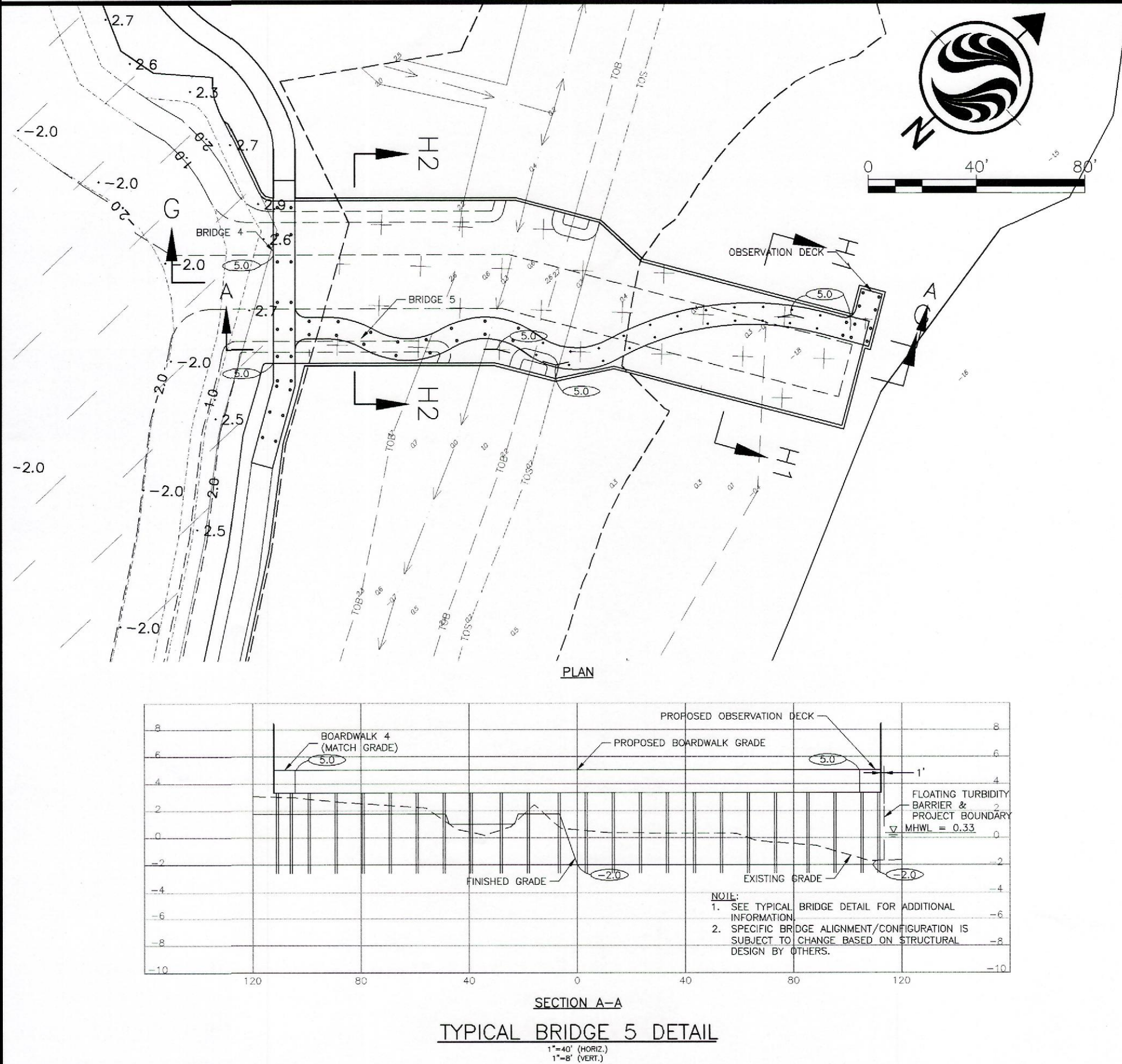
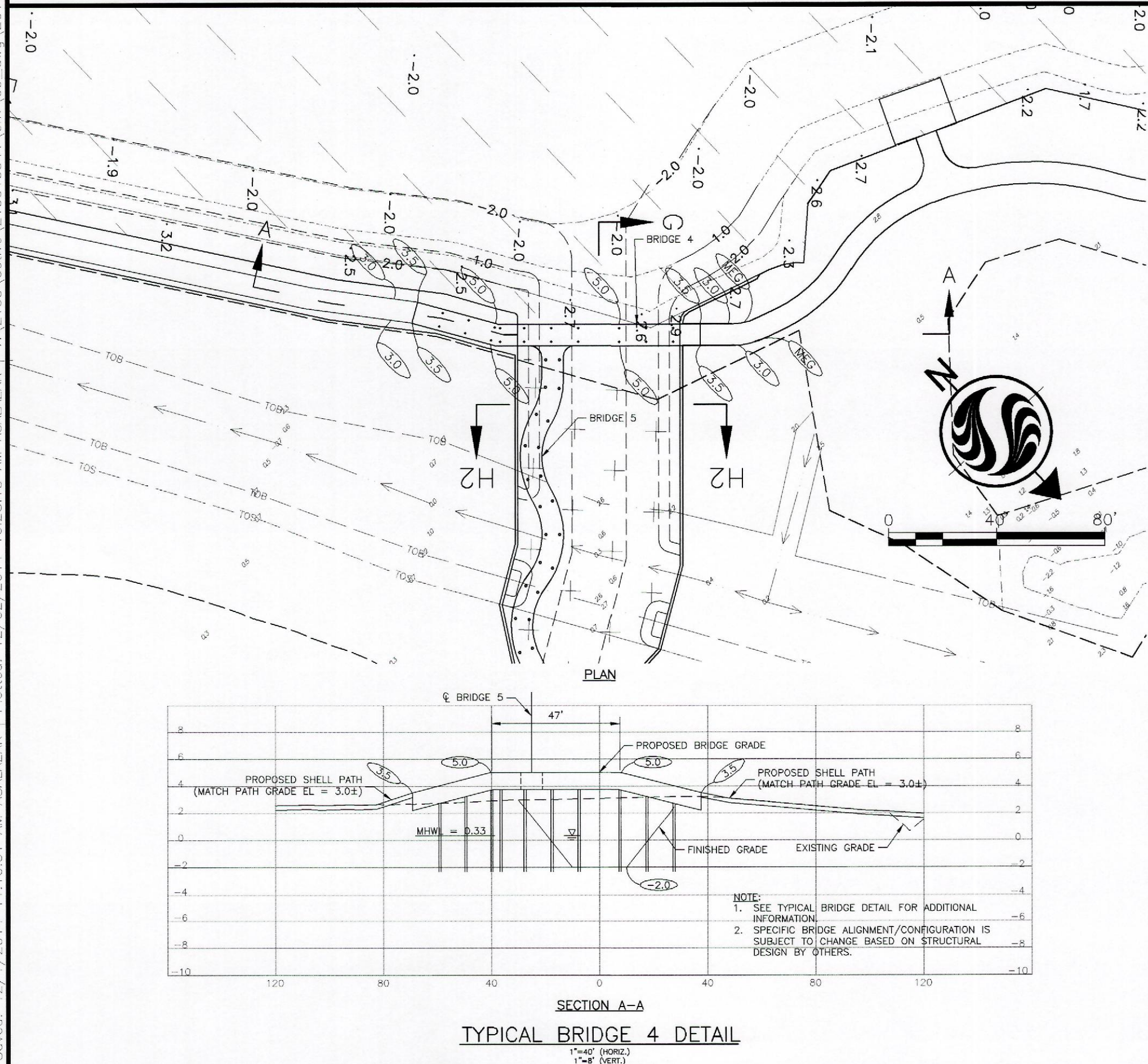
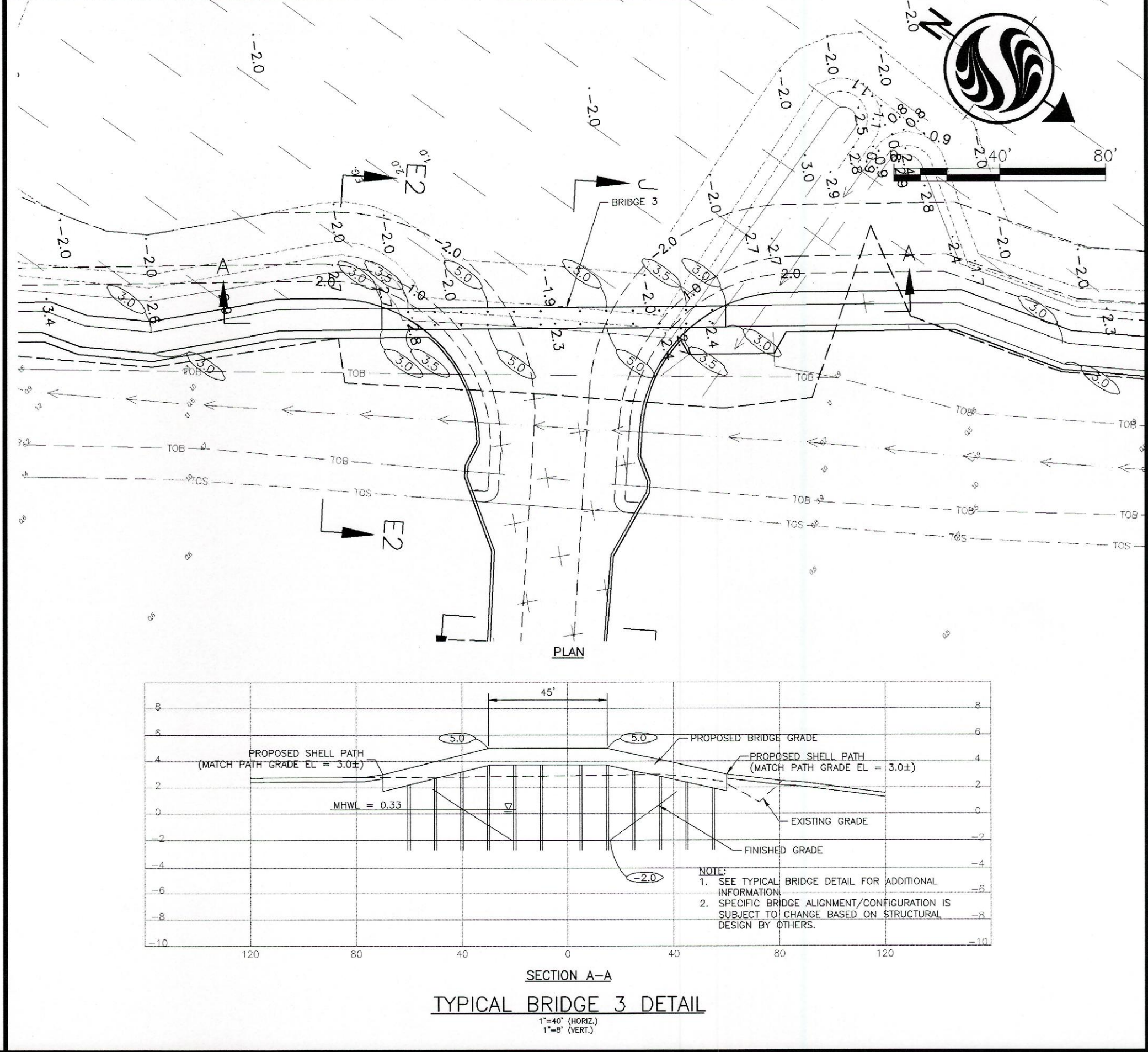
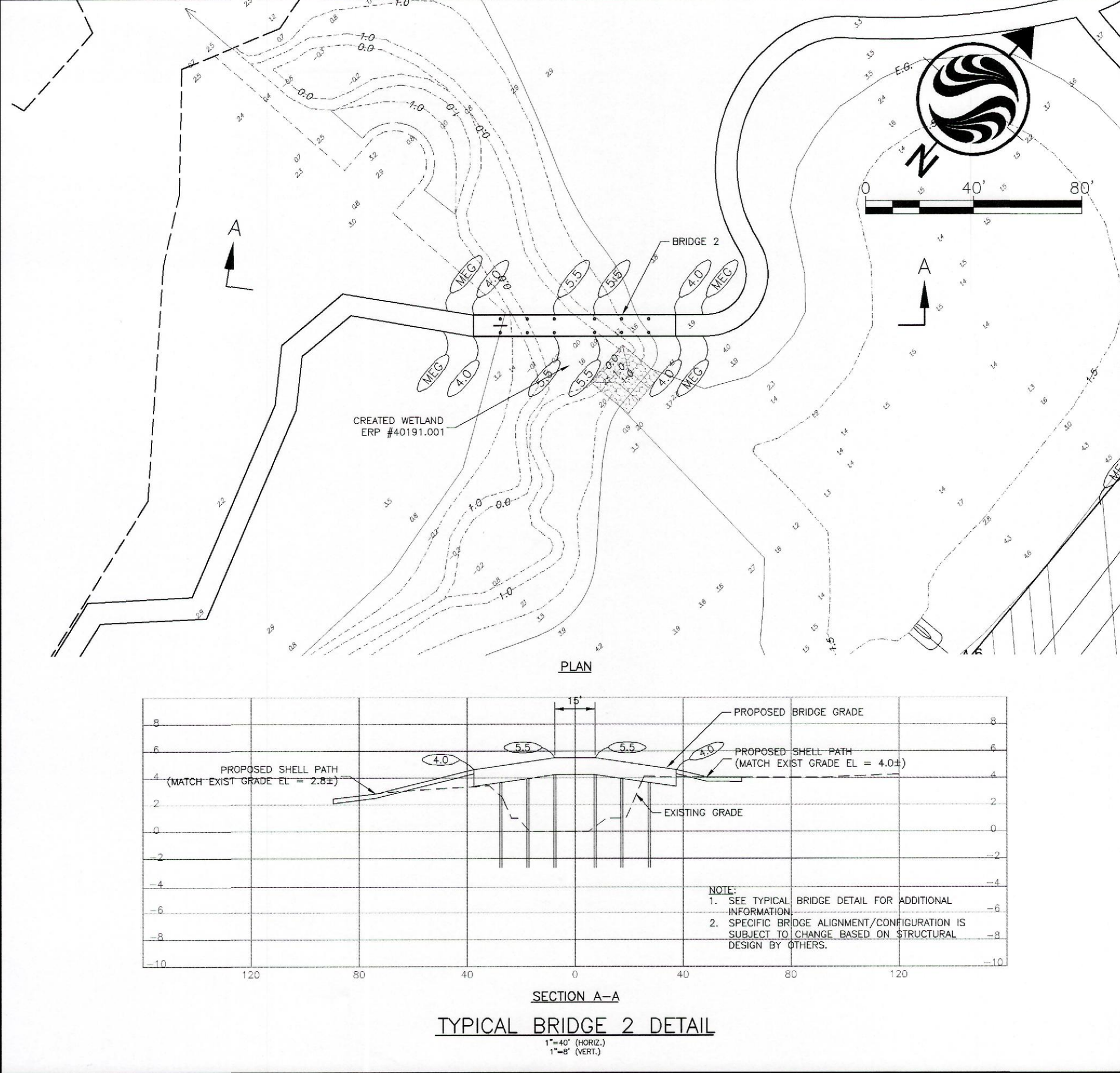
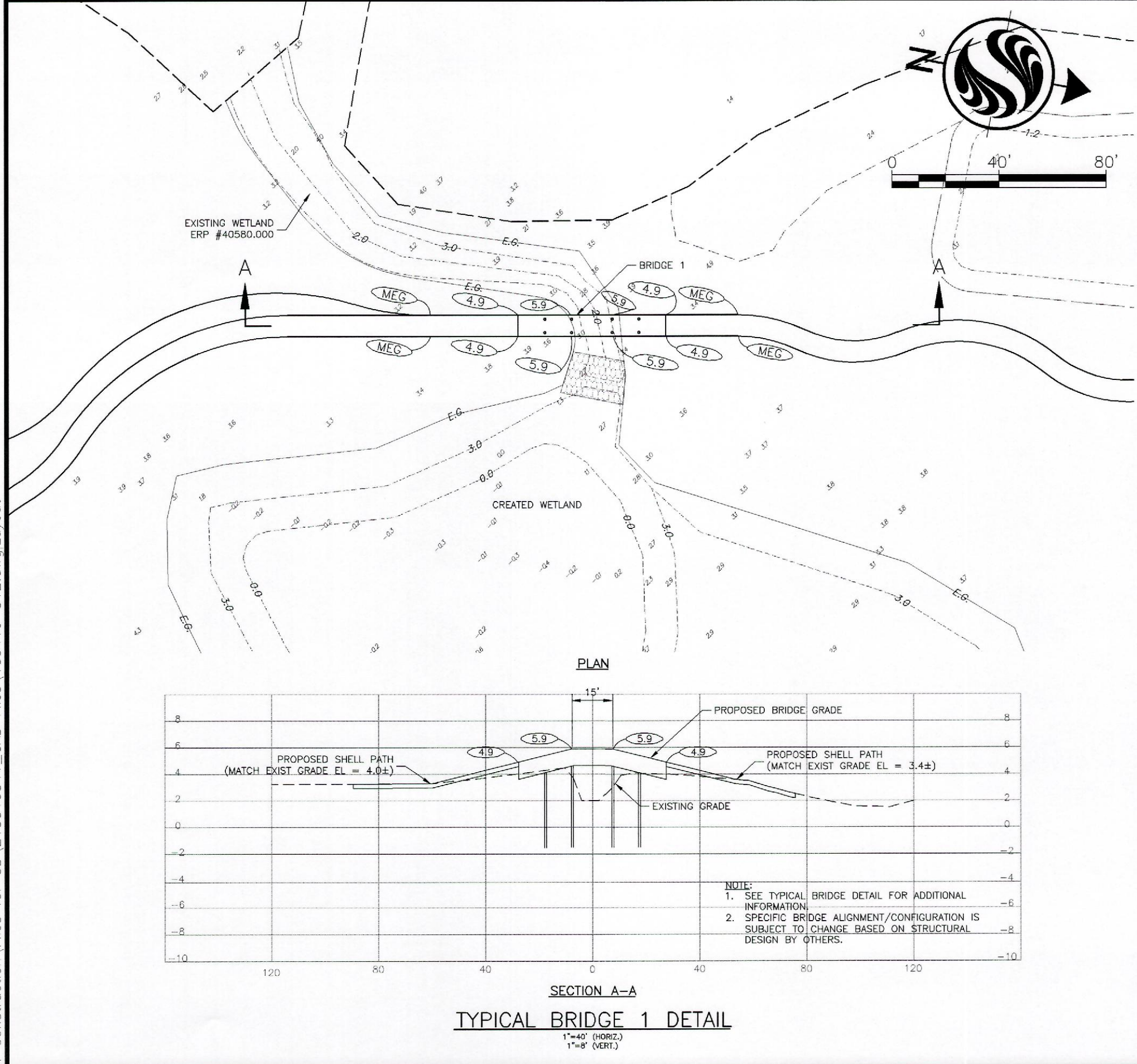


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CLIENT: MANATEE COUNTY BOARD OF COUNTY COMMISSIONERS
PROJECT: ROOKERY AT PERICO SEAGRASS ADVANCE MITIGATION

TITLE: MISCELLANEOUS DETAILS

R. QUINCE SELLERS, P.E.
FLORIDA LICENSE NO. 49374
PROJECT NUMBER: 215510541
SHEET NUMBER: 11 OF 14



1	REVISE BRIDGE DETAILS	10/18/14	AS/102871
REV. NO.	REVISION DESCRIPTION	REV. DATE	DRAWN BY

LEAD DESIGNER:	REVIEWED BY:
ISSUE DESCRIPTION:	CONSTRUCTION PLANS
ISSUE DATE:	OCTOBER 2014



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SEAGRASS ADVANCE MITIGATION

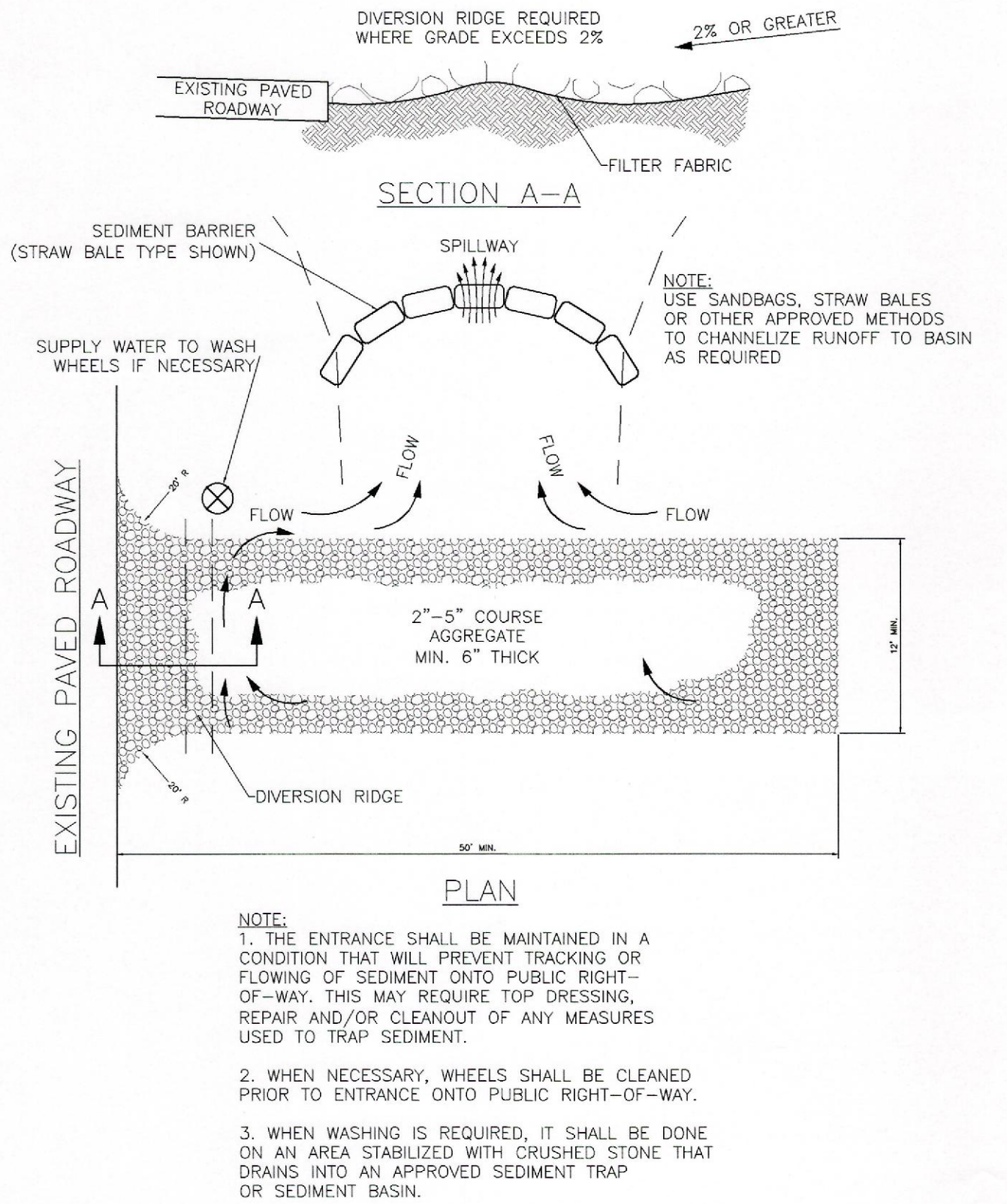
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R. QUINCE SELLERS, P.E.
FLORIDA LICENSE NO. 49374
PROJECT NUMBER: 215510541
SHEET NUMBER: 12 OF 14

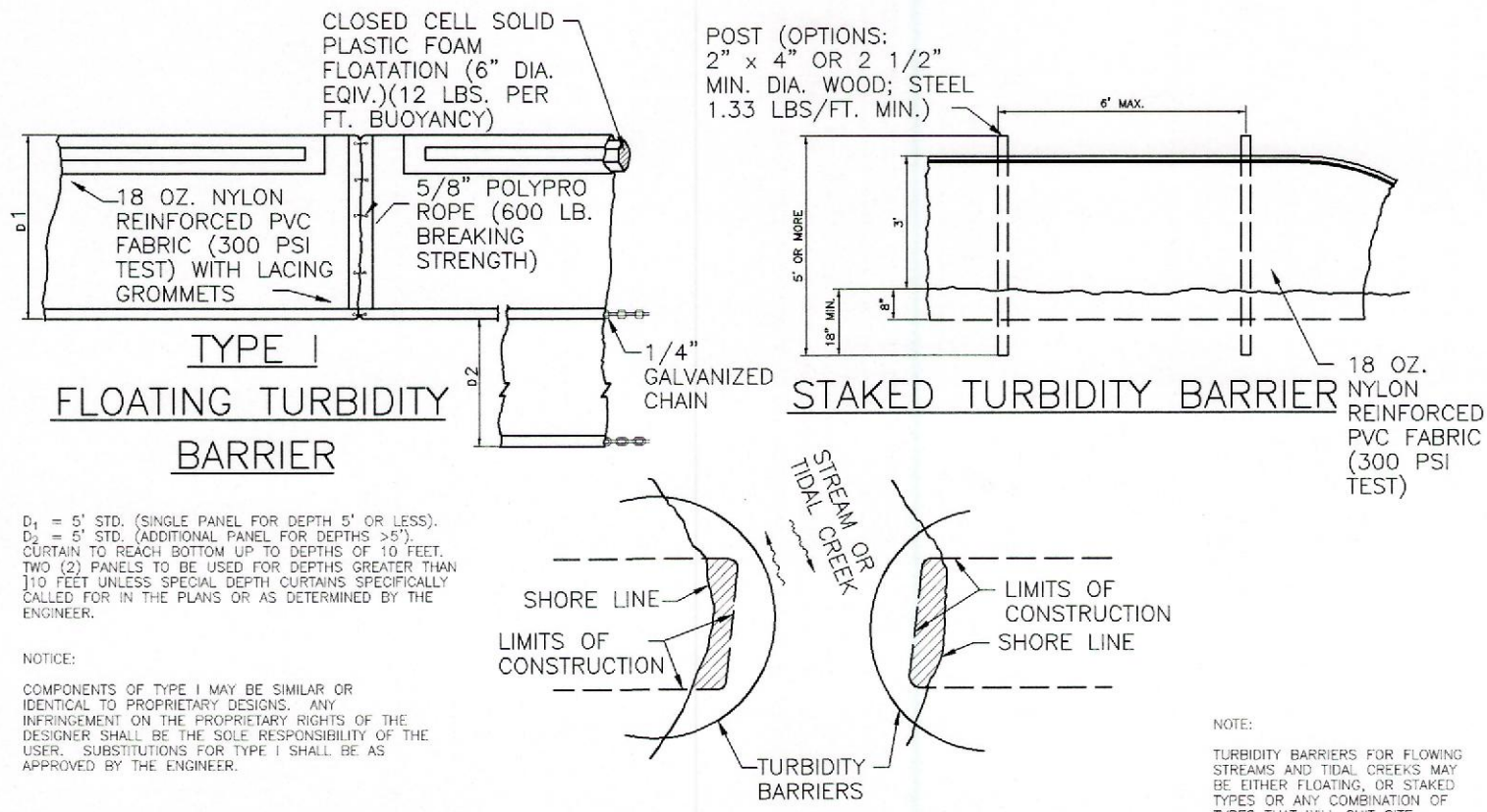
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NOTES:

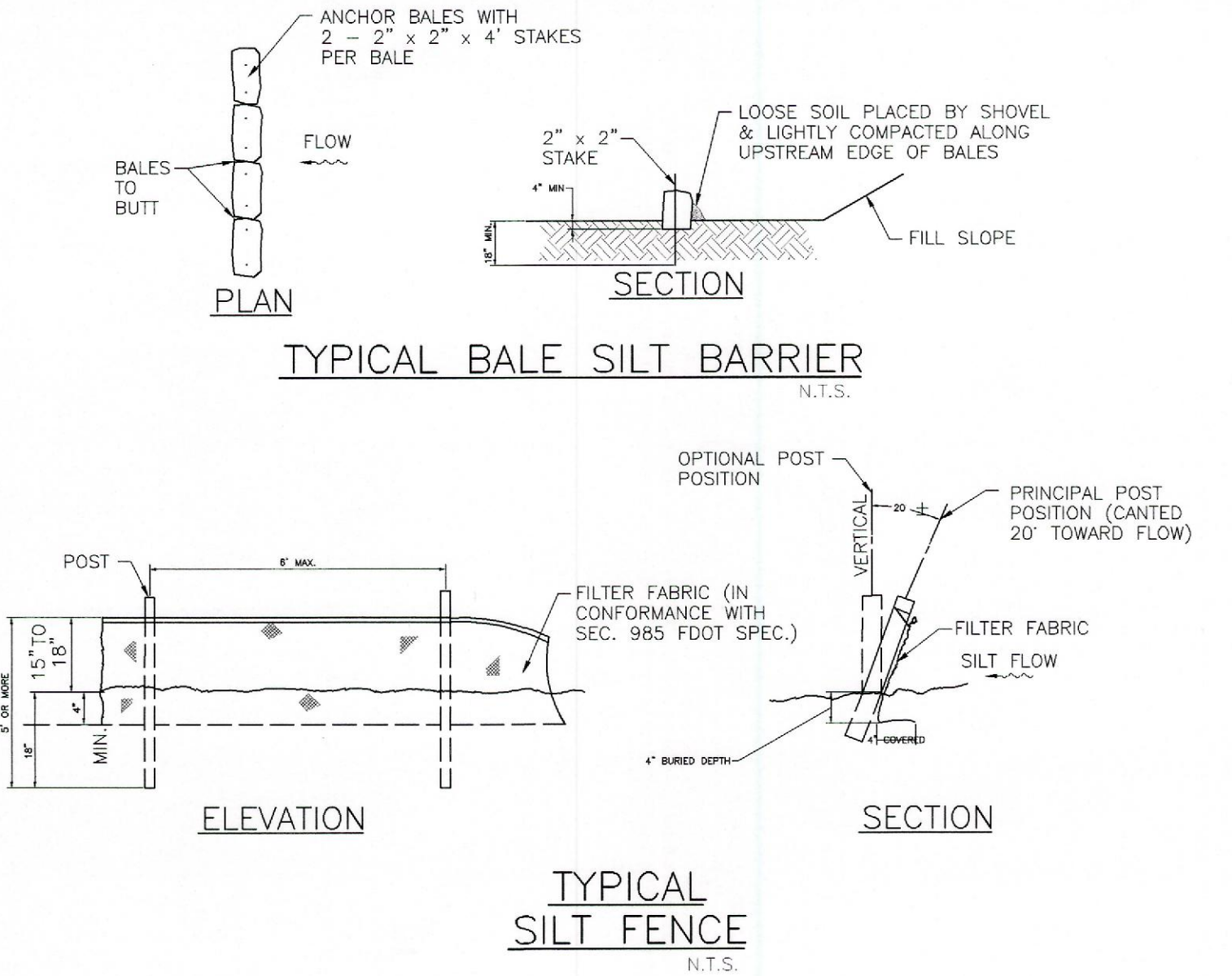
1. THE CONTRACTOR SHALL ABIDE ALL APPLICABLE CONDITIONS OF THE REGULATORY AGENCY PERMITS AND HAVE COPIES OF THE PERMITS ON SITE. IF IT IS NECESSARY FOR GROUNDWATER DEWATERING TO DISCHARGE OFFSITE, THEN THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITTING FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP). THE CONTRACTOR SHALL BEAR ALL RESPONSIBILITY AND COSTS FOR OBTAINING AND/OR MODIFYING ALL APPLICABLE PERMITTING FOR THE DISCHARGE OF GROUNDWATER DEWATERING AND FOR COMPLYING WITH ALL SWFWMD AND FDEP PERMITTING CONDITIONS.
2. THE CONTRACTOR SHALL STAGE CONSTRUCTION IN PHASES WHENEVER POSSIBLE TO MINIMIZE SOIL LOSS AND CONTROL EROSION.
3. THE CONTRACTOR SHALL PROVIDE A STABILIZED CONSTRUCTION ENTRANCE TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEEPED AS REQUIRED TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SHALL BE COVERED WITH A TARPULIN.
4. THE CONTRACTOR SHALL CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT AND SHALL USE WATER, STRAW MULCH, OR OTHER SUITABLE MATERIAL AS REQUIRED.
5. AT A MINIMUM, SILT FENCES, OR EQUIVALENT SEDIMENT CONTROLS ARE REQUIRED FOR ALL SIDESLOPE AND DOWNSLOPE BOUNDARIES OF THE CONSTRUCTION AREA.
6. ALL CONSTRUCTION DEWATERING (IF NECESSARY) SHALL BE CONTAINED ONSITE AND ALLOWED TO INFILTRATE THE SOIL UNLESS FDEP PERMITTING IS OBTAINED FOR OFFSITE DISCHARGE. ALL DEWATERING GROUNDWATER DISCHARGE SHALL BE ROUTED THROUGH A TEMPORARY SEDIMENT SUMP PRIOR TO DISCHARGE TO WETLANDS, OTHER SURFACE WATER, OR OFFSITE. THE GENERAL PROCESS OF THE DEWATERING SYSTEM, AS DEPICTED HEREIN, SHALL BE ADHERED TO DURING CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL APPLICABLE APPROVALS FOR ANY MODIFICATIONS HE PROPOSES.
7. THE DEWATERING SYSTEM SHALL USE A PUMP AND PIPING THAT IS LESS THAN 6 INCHES IN DIAMETER AND OPERATE LESS THAN A TOTAL OF SIX MONTHS. ANY DEVIATION FROM THIS REQUIREMENT SHALL REQUIRE A WATER USE PERMIT. THE COST OF A WATER USE PERMIT AND ASSOCIATED MATERIALS SHALL BE BORNE BY THE CONTRACTOR.
8. THE CONTRACTOR SHALL ERECT SILT FENCE, STAKED HAY BALES, STAKED TURBIDITY BARRIERS, AND FLOATING TURBIDITY BARRIERS PRIOR TO COMMENCEMENT OF EXCAVATION/GRADING ACTIVITY.
9. REQUIRED EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSTALLED AND MAINTAINED AS REQUIRED THROUGHOUT THE DURATION OF THE CONSTRUCTION PROJECT.
10. ALL EROSION PROTECTION SHALL BE MAINTAINED BY THE CONTRACTOR IN COMPLIANCE WITH SWFWMD, MANATEE COUNTY, AND NPDES PERMIT REQUIREMENTS THROUGHOUT THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL INSPECT THE EROSION CONTROL DEVICES WEEKLY AND WITHIN 4 HOURS AFTER EACH RAINFALL EVENT OF 0.5 INCHES OR MORE. ALL MAINTENANCE SHALL BE PERFORMED WITHIN 24 HOURS OF INSPECTION.
11. ALL PRACTICABLE AND NECESSARY EFFORTS SHALL BE TAKEN DURING CONSTRUCTION TO CONTROL AND PREVENT EROSION AND TRANSPORT OF SEDIMENT MATERIAL TO INLETS, WETLANDS, AND OFFSITE AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RESTORATION EFFORTS THAT MAY BE REQUIRED.
12. EROSION AND SEDIMENT CONTROL DEVICES (SILT FENCE, TURBIDITY BARRIERS, ETC.) ARE DEPICTED IN APPROXIMATE LOCATIONS AND SHALL BE ADJUSTED AS NECESSARY WITH THE DIRECTION OF THE PROJECT ECOLOGIST.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF ALL EROSION AND SEDIMENT CONTROL DEVICES AT THE COMPLETION OF THE PROJECT.
14. ALL EXCAVATION, AND ACCESS TO AND FROM CONSTRUCTION AREAS SHALL BE WITHIN THE LIMITS OF THE PROJECT AREA (I.E., NO ACCESS FROM PERICO BAYOU, ETC.).



TEMPORARY CONSTRUCTION
ENTRANCE DETAIL
N.T.S.



TURBIDITY BARRIER APPLICATIONS
TURBIDITY BARRIERS
N.T.S.



CONSTRUCTION SURFACE WATER MANAGEMENT PLAN (CSWMP) CERTIFICATION

OWNER/APPLICANT SIGNATURE _____ DATE _____
OWNER: _____
TITLE: _____
COMPANY: _____



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CLIENT: MANATEE COUNTY
BOARD OF COUNTY COMMISSIONERS
PROJECT: ROOKERY AT PERICO
SEAGRASS ADVANCE MITIGATION

BEST MANAGEMENT PRACTICES

R. QUINCE SELLERS, P.E.
FLORIDA LICENSE NO. 49374
PROJECT NUMBER: 215510541
SHEET NUMBER: 13 OF 14

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MANATEE AVENUE WEST (S.R.#64)

LEGEND

- STAKED/FLOATING TURBIDITY BARRIER
- SILT FENCE
- TREE PROTECTION BARRICADE

CONSTRUCTION SURFACE WATER MANAGEMENT PLAN (CSWMP) CERTIFICATION

OWNER/APPLICANT SIGNATURE _____ DATE _____
OWNER:
TITLE:
COMPANY:

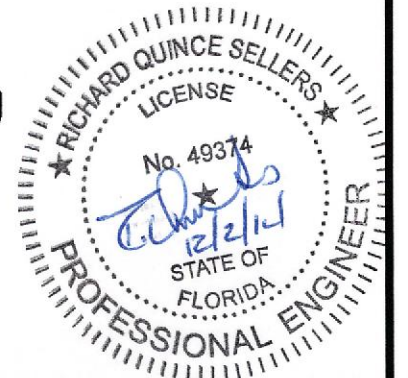
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ISSUE DESCRIPTION: CONSTRUCTION PLANS
ISSUE DATE: _____
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SEAGRASS ADVANCE MITIGATION

BEST MANAGEMENT PRACTICES



R. QUINCE SELLERS, P.E.
FLORIDA LICENSE NO. 49374
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