

GENERAL NOTES (CONT'D)

25.3. CONCRETE COVER:

- CAST-IN-PLACE CONCRETE CAP - 3 IN.
- PRECAST SHEET PILING - 3 IN.
- CAST-IN-PLACE DEADMAN - 4 IN.

CONCRETE COVER DIMENSIONS SHOWN IN THE PLANS DO NOT INCLUDE PLACEMENT AND FABRICATION TOLERANCES UNLESS SHOWN AS "MINIMUM COVER". SEE SPECIFICATIONS SECTION 415 FOR ALLOWABLE TOLERANCES. ALL DIMENSIONS PERTAINING TO THE LOCATION OF REINFORCING STEEL ARE TO CENTERLINE OF BAR EXCEPT WHERE CLEAR DIMENSION IS NOTED TO FACE OF CONCRETE.

25.4. PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CONCRETE EDGES EXCEPT AS OTHERWISE NOTED.

25.5. VINYL SHEET PILING: REFER TO DETAILS AND SHOP DRAWINGS AS PROVIDED BY THE FABRICATOR.

26. APPLIED FINISH COATING:

- 26.1. A CLASS 5 FINISH COATING SHALL BE APPLIED TO THE TOP AND SIDES OF THE SEAWALL CAP IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION 400 AND 975.
- 26.2. THE CLASS 5 COATING SHALL BE IN THE FDOT APPROVED PRODUCTS LIST.
- 26.3. PAYMENT FOR THE CLASS 5 COATING IS INCLUDED IN THE COST OF CONCRETE.

27. CONSTRUCTION/EXPANSION/CONTRACTION JOINTS:

- 27.1. CONSTRUCTION, EXPANSION OR CONTRACTION JOINTS WILL BE PERMITTED ONLY AT THE LOCATIONS AS INDICATED IN THE PLANS, VINYL WALL DETAILS OR SHOP DRAWINGS. ADDITIONAL CONSTRUCTION JOINTS OR ALTERATIONS TO THOSE SHOWN SHALL REQUIRE APPROVAL OF THE ENGINEER.

28. ANCHOR BAR TIE-ROD:

- 28.1. REFER TO THE VINYL WALL DETAILS OR THE SHOP DRAWINGS AS PROVIDED BY THE WALL FABRICATOR FOR THE TYPE AND MATERIAL OF BAR AND INSTALLATION DETAILS.
- 28.2. FOR ADDITIONAL CORROSION PROTECTION, THE ANCHOR BAR SHALL HAVE A SECONDARY SYSTEM INSTALLED AND SHALL BE TAPECOAT 20 HOT APPLIED COAL TAR TAPE OR APPROVED EQUAL SYSTEM MEETING FDOT STANDARD SPECIFICATION 926-8 FOR TYPE M COMPOUND AND AMERICAN WATER WORKS ASSOCIATION (AWWA) C203 STANDARD.
- 28.3. INSTALLATION OF THE CORROSION PROTECTION SYSTEM TO BE IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATIONS.
- 28.4. A MINIMUM OF 2' OF SOIL COVER IS REQUIRED BEFORE HEAVY EQUIPMENT CAN PASS OVER THE ANCHOR BARS.
- 28.5. THE ANCHOR BARS ARE TO BE PROTECTED WHEN STORED ON SITE AND SHALL BE SUPPORTED OR PROTECTED AS FILL IS BEING PLACED AND COMPACTED IN ORDER TO AVOID DEFORMATION OF THE BARS.
- 28.6. EXCESSIVELY DEFORMED TIE ROD ANCHOR BARS AS DETERMINED BY THE ENGINEER SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE COUNTY.
- 28.7. FOR CORROSION SYSTEM DAMAGE, THE CONTRACTOR SHALL SUBMIT REPAIR PROCEDURES TO THE ENGINEER FOR REVIEW AND APPROVAL.

29. CONSTRUCTION SEQUENCE:

- 29.1. THE CONTRACTOR SHALL COORDINATE WITH THE PALMA SOLA

BAY YACHT CLUB FOR CONSTRUCTION PHASING. REMOVAL AND REPLACEMENT OF THE SEAWALL HAS BEEN DIVIDED INTO CONSTRUCTION PHASE SECTIONS. THE DOCKS INCLUDED IN A CONSTRUCTION PHASE WILL BE CLOSED TO COMPLETE THE WORK.

29.2. WORK IS TO BE SUBSTANTIALLY COMPLETED AND ACCEPTED FOR EACH PHASE PRIOR TO ALLOWING THE DOCKS CLOSED TO BE PUT BACK IN SERVICE.

- 29.3. THE FOLLOWING PHASING IS RECOMMENDED AND WILL BE COORDINATED WITH THE PALMA SOLA BAY YACHT CLUB:
 - A. PHASE 1 INCLUDES WALL SEGMENTS 1 TO 6 AND DOCKS 1 TO 5. (183 FT. OF WALL CONSTRUCTION)
 - B. PHASE 2 INCLUDES WALL SEGMENTS 7 TO 9 AND DOCKS 6 TO 9. (180 FT. OF WALL CONSTRUCTION)
 - C. PHASE 3 INCLUDES WALL SEGMENTS 10 TO 15 AND DOCKS 10 TO 12. (216 FT. OF WALL CONSTRUCTION)

30. VINYL SHEET PILE DATA:

- 30.1. REFER TO THE VINYL WALL DETAILS AND SHOP DRAWINGS AS PROVIDED BY THE WALL FABRICATOR.
- 30.2. VINYL SHEET PILE SECTION = ESP 8.5 AS PROVIDED BY EVERLAST SYNTHETIC PRODUCTS, LLC OR APPROVED EQUAL.
- 30.3. DESIGN WALL EXPOSED HEIGHT = 6'- 0".
- 30.4. MAXIMUM ANCHOR SPACING = 7'-0" OR AS APPROVED BY THE WALL FABRICATOR.

31. SOIL DESIGN PARAMETERS:

- 31.1. REFER TO GETOECHNICAL INVESTIGATION REPORT PREPARED BY TERRACON, DATED NOVEMBER 19, 2018.

32. EMBANKMENT:

- 32.1. REFER TO FDOT STANDARD SPECIFICATIONS 120 AND 125 FOR MATERIAL, INSTALLATION AND TESTING REQUIREMENTS.
- 32.2. EMBANKMENT MATERIAL TO BE PLACED BEHIND THE SEAWALL TO REPLACE THE LOSS OF SOIL DUE TO THE DAMAGED WALL AND TO BRING UP TO THE NEW ELEVATION OF THE SEAWALL CAP.
- 32.3. PAYMENT WILL BE BY TRUCK METHOD OR OTHER SUITABLE METHOD AS APPROVED BY THE ENGINEER. PLAN QUANTITY IS BASED ON LEVELING MATERIAL TO THE NEW CAP ELEVATION AND REPLACING LOST MATERIAL.

33. PERFORMANCE TURF:

- 33.1. INSTALL BAHIA SOD TO THE DISTURBED AREAS IN ACCORDANCE TO FDOT STANDARD INDEX 570.
- 33.2. DISTURBED AREAS INCLUDE THE AREAS TO REGRADE THE SLOPE ADJACENT TO THE RETAINING WALL REPLACEMENT AND FOR THE EXCAVATION FOR THE TIE BACK ANCHORS AND DEADMAN.
- 33.3. MEASUREMENT AND PAYMENT IS BASED ON PLAN QUANTITY FOR AN AREA DETERMINED BY THE PERIMETER SURROUNDING THE EXCAVATION NEEDED FOR THE DEADMAN AND TIE BACKS TO THE SEAWALL FOR THE LENGTH OF THE SEAWALL TO BE REPLACED.
- 33.4. THE QUANTITY IS BASED ON AN APPROXIMATE AREA OF 580' LONG X 20' WIDE AREA = 11,600 SF = 1290 SY.
- 33.5. ANY OTHER AREA DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED AT NO EXPENSE TO THE COUNTY.

34. SURVEY MARKER:

- 34.1. A NATIONAL OCEAN SURVEY BENCH MARK SURVEY DISK WITH THE NUMBER STAMPED **6233A** IS LOCATED ON THE TOP OF

CAP AT THE WEST END OF THE SEAWALL NEAR DOCK 1 WITH COORDINATES OF N 27° 29' 12.10" W 082° 38' 37.49". THE RECORDED ELEVATION IS 1.99 FT. (NAVD88). THIS BENCH MARK IS A VERTICAL ORDER FIRST CLASS II TIDAL BENCH MARK.

34.2. 31.2. REMOVE THE SURVEY DISK AND SEND TO THE MANATEE COUNTY SURVEYOR, TODD BOYLE, SURVEY DIVISION MANAGER, 1112 MANATEE AVE WEST, BRADENTON, FLORIDA, 34205, (941) 749-3024 EXT. 3024. todd.boyle@mymanatee.org.

35. TIMBER DOCKS:

- 35.1. THE PALMA SOLA BAY YACHT CLUB OWNS AND OPERATES 12 BOAT DOCKS ALONG THE WALL. 9 DOCKS ARE STATIONARY TIMBER DOCKS AND THE REMAINING 3 ARE FLOATING DOCKS. THE 3 FLOATING DOCKS INCLUDE TIMBER PLATFORM SECTIONS ATTACHED TO THE WALL. AN ALUMINUM GANGWAY SPANS BETWEEN THE FLOATING DOCKS AND TIMBER PLATFORMS FOR ACCESS.

- 35.2. TIMBER PILES AND TIMBER DOCK SECTIONS ADJACENT TO THE EXISTING SEAWALL ARE TO BE REMOVED AND DISPOSED OF AS NEEDED BY THE CONTRACTOR IN ORDER TO INSTALL THE NEW SEAWALL. APPROXIMATELY 30 TIMBER PILES ARE TO BE REMOVED.

- 35.3. STATIONARY TIMBER DOCKS (DOCKS 2-7 AND 9-11):
 - A. FOR ACCESS TO THE SEAWALL, REMOVE THE TIMBER DECKING AND STRINGERS FOR THE FIRST SPAN FROM THE EXISTING SEAWALL.
 - B. DUE TO THE POOR CONDITION OF THE REMAINING SECTIONS OF THE DOCKS, REPLACEMENT SECTIONS ARE NOT INCLUDED IN THE PLANS.

C. THE PALMA SOLA BAY YACHT CLUB WILL PROVIDE DESIGN AND CONSTRUCTION ON THE REPLACEMENT OF THE 9 STATIONARY TIMBER DOCKS. THIS IS NOT PART OF THIS CONTRACT. NOTE THAT PILE INSTALLATION ADJACENT TO THE NEW SEAWALL WILL BE REQUIRED TO FOLLOW THE VINYL SEAWALL FABRICATOR RECOMMENDATIONS.

- 35.1. FLOATING DOCK TIMBER PLATFORMS (DOCKS 1, 8 AND 12):
 - A. FOR ACCESS TO THE SEAWALL, REMOVE THE TIMBER PLATFORM DECKING AND STRINGERS ADJACENT TO THE SEAWALL.

B. FLOATING DOCKS TO REMAIN. ALUMINUM GANGWAYS ARE TO BE MOVED AND STORED ON SITE TO ALLOW REPLACEMENT OF THE SEAWALL.

C. PILE INSTALLATION FOR THE PLATFORMS ADJACENT TO THE NEW SEAWALL WILL FOLLOW THE VINYL SEAWALL FABRICATOR RECOMMENDATIONS.

- 35.1. EQUIPMENT AND SERVICES ATTACHED TO THE PILES OR DECK SECTIONS TO BE REMOVED ARE TO BE MOVED AND/OR CAPPED AS NECESSARY. COORDINATE WITH THE PALMA SOLA BAY YACHT CLUB FOR STORAGE OF LOOSE ITEMS.

- 35.2. GATES AND GATES FRAMES ARE TO BE REMOVED. REPLACEMENT WILL BE BY PALMA SOLA BAY YACHT CLUB OWNERS. COORDINATE WITH OWNERS ON LOCKS.

36. FISH CLEANING STATION:

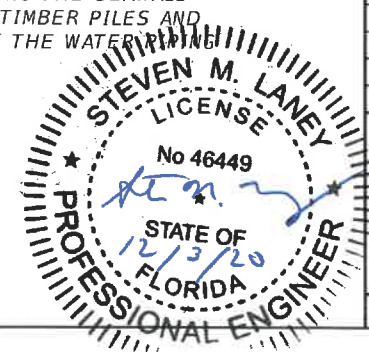
- 36.1. A FISH CLEANING STATION IS LOCATED ALONG THE SEAWALL BETWEEN DOCKS 7 AND 8. REMOVE THE TIMBER PILES AND ASSOCIATED TIMBER ELEMENTS. REMOVE THE WATER MAINS AND CAP.



PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1022 14th Avenue East, Bradenton, FL 34208

**PORTSUENO PARK
SOUTH SEAWALL REPLACEMENT
GENERAL NOTES (2 OF 3)**

NO.	REVISION DESCRIPTION	DATE
1	NOTE: AS ADJUSTED	12/5/20
PROJECT #	6081101	
SURVEY #	0000	
SEC./TWN./RGE	28/33S/18E	
SCALE	N.T.S.	
SURVEYED	By Hyatt	10/2018
DESIGNED	SML	08/2019
DRAWN	SML	10/2019
CHECKED		
STEVEN M. LANEY, P.E. FLORIDA P.E. # 46449		
Signature & Date		
SHEET 3 OF 28		



I:\Projects\Palma Sola Yacht Basin Retaining Wall\South Wall\07_DWG_Palmsola Sola Ref Wall_South Wall_01.dwg General Notes (2 of 3), 12/3/2020 11:42 AM Steven Laney, 11, ANS Full Sheet B (11.00 x 17.00 Inches)

**PORTOSUENO PARK
SOUTH SEAWALL REPLACEMENT
GENERAL NOTES (3 OF 3)**

GENERAL NOTES (CONT'D)

37. LIGHT POLES:

- 37.1. THE WOOD LIGHT POLE AT DOCK 1 AND THE WOOD LIGHT AND SERVICE POLE AT DOCK 5 ARE TO REMAIN. STABILIZE DURING CONSTRUCTION AND SAFEGUARD UTILITY CONNECTIONS.
- 37.2. A WOOD LIGHT POLE HAS BEEN REMOVED AND STORED BETWEEN DOCKS 11 AND 12. DO NOT REMOVE POLE AND SAFEGUARD ELECTRIC CONDUIT.

38. PALM TREES:

- 38.1. ALL PALM TREES TO REMAIN. PROTECT DURING CONSTRUCTION.
- 38.2. ADJUST TIE-BACKS TO AVOID DAMAGE TO TREES AS SHOWN IN THE VINYL WALL DETAILS AND/OR SHOP DRAWINGS.
- 38.3. CONTRACTOR TO REPLACE DAMAGED PALM TREES AT OWN EXPENSE

39. DOCK SERVICE POSTS:

- 39.1. THE MAJORITY OF THE DOCKS HAVE SERVICE POSTS INSTALLED ON THE SHORE. THE POSTS INCLUDE WATER AND ELECTRIC SERVICES AND INCLUDE A LIGHT ON TOP.
- 39.2. STABILIZE THE SERVICE POSTS DURING CONSTRUCTION. CAP LINES AS NEEDED.

40. UTILITY WATER SERVICE AND METER:

- 40.1. A MANATEE COUNTY SINGLE WATER SERVICE W/BFP AND METER IS LOCATED AT STATION 304+75 APPROXIMATELY 23' LEFT. THE SERVICE IS LOCATED NEAR DOCK 11.
- 40.2. ADJUST TIE-BACKS TO AVOID DAMAGE TO WATER SERVICE AND WATER METER. REFER TO THE VINYL WALL DETAILS AND/OR SHOP DRAWINGS.
- 40.3. PROTECT AND STABILIZE WATER SERVICE AND METER DURING CONSTRUCTION. EXISTING GROUND ELEVATION TO BE MAINTAINED DURING BACKFILL INSTALLATION TO NEW SEAWALL TOP OF CAP.

41. UTILITIES:

- 41.1. FOR UTILITY LOCATIONS, CALL SUNSHINE 811.
- 41.2. A FRONTIER UNDERGROUND CABLE IS LOCATED NORTH OF THE NORTH CURB OF ALHAMBRA DRIVE. NOTIFY FRONTIER PRIOR TO WORKING NEAR THEIR FACILITIES WHEN EXCAVATING AND INSTALLING THE SEAWALL TIE-BACK DEADMEN.
- 41.3. FRONTIER EMERGENCY CONTACT IS: JOHN PLOTT AT (941) 906-6706 AND john.plott@ftr.com.

42. EXISTING ROCK RUBBLE RIP RAP:

- 42.1. EXISTING ROCK RUBBLE RIP RAP IS LOCATED AT THE EAST END OF THE SEAWALL.
- 42.2. TEMPORARILY MOVE AS NEEDED TO PROVIDE ACCESS DURING INSTALLATION OF THE NEW SEAWALL.
- 42.3. RESET RIP RAP ADJACENT TO THE NEW SEAWALL AT THE EXISTING ELEVATIONS AND WITHOUT DAMAGE TO THE NEW WALL

43. STORM PIPE:

- 43.1. REFER TO EXTRA DEPTH CONCRETE CAP DETAILS FOR STORM PIPE AT OUTLET ENDS.

- 43.2. INSTALL INLET PROTECTION SYSTEM FOR 2 STORM DRAINAGE CURB DROP INLETS ON ALHAMBRA DRIVE. SEE EROSION CONTROL PLANS FOR DETAILS

44. FLAG POLE, PALMA SOLA BAY YACHT CLUB SIGN AND MONUMENT AND PALMA SOLA PARK MARQUEE:

- 44.1. SAFEGUARD THE FLAG POLE, PALMA SOLA BAY YACHT CLUB SIGN AND MONUMENT AND PALMA SOLA PARK MARQUEE.
- 44.2. IF DAMAGED, REPAIR OR REPLACE AT CONTRACTOR EXPENSE.

45. TIMBER POST AND BEAM FENCE:

- 45.1. REMOVE THE TIMBER POST AND BEAM FENCE AS NEEDED AND SET ASIDE FOR REPLACEMENT. ONLY REMOVE SECTIONS AS NEEDED IN THE ACTIVE CONSTRUCTION PHASE.
- 45.2. REINSTALL TIMBER POST AND BEAM FENCE AS CLOSE TO THE ORIGINAL LOCATION AS POSSIBLE AFTER INSTALLATION OF EMBANKMENT.
- 45.3. PAYMENT TO BE INCLUDED WITH PAY ITEM 110-73 REMOVE EXISTING BULKHEAD.

46. TURBIDITY BARRIER AND SILT FENCE:

- 46.1. REFER TO EROSION CONTROL DETAILS.

47. MANATEE PROTECTION AND SEA TURTLE AND SMALLTOOTH SAWFISH CONDITIONS:

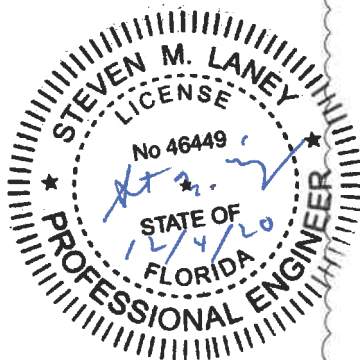
- 47.1. REFER TO EROSION CONTROL DETAILS.

48. PLAN DIMENSIONS:

- 48.1. ALL DIMENSIONS IN THESE PLANS ARE MEASURED IN FEET EITHER HORIZONTALLY OR VERTICALLY UNLESS OTHERWISE NOTED.



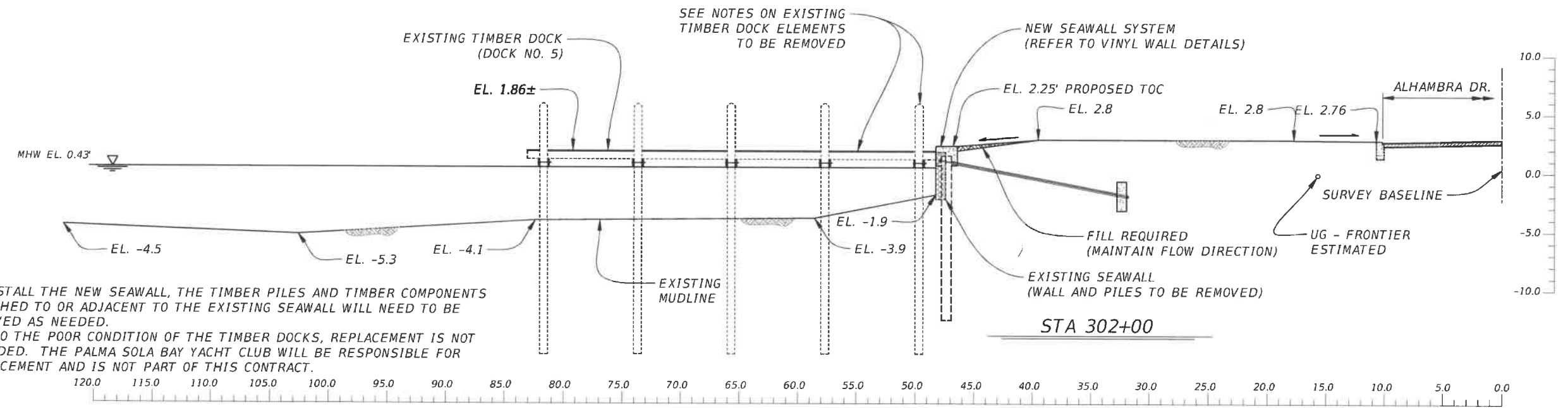
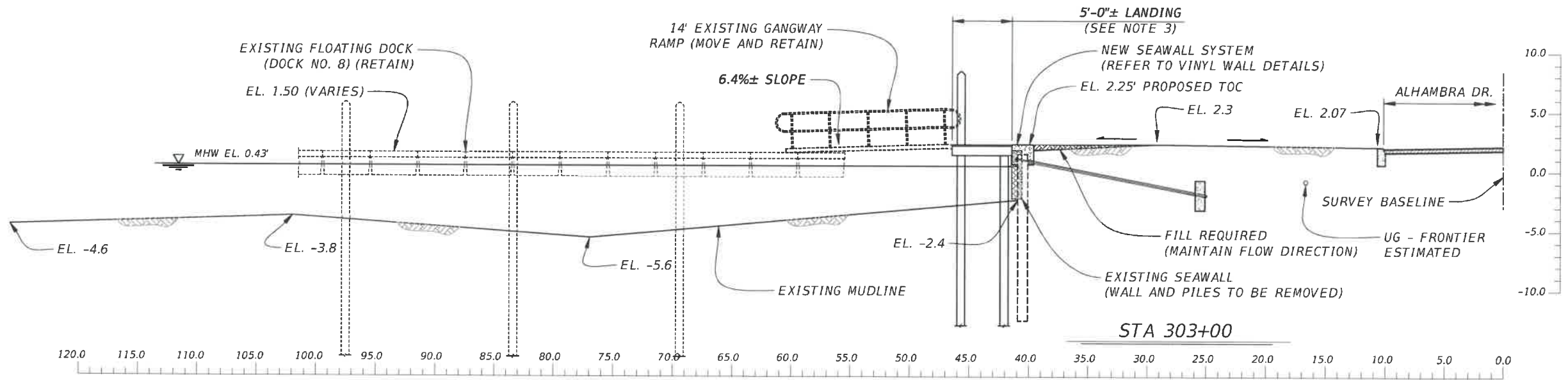
SUMMARY OF QUANTITIES			
ITEM No.	ITEM	UNIT	QUANTITY
104-10-3	SEDIMENT BARRIER	LF	700.00
104-11	FLOATING TURBIDITY BARRIER	LF	1600.00
104-18	INLET PROTECTION SYSTEM	EA	2
110-1-1	CLEARING AND GRUBBING	AC	0.50
110-73	REMOVE EXISTING BULKHEAD	LF	579.00
120-6	EMBANKMENT	CY	110.00
125-3	SELECT BEDDING MATERIAL	CY	10.00
400-4-8	CONCRETE CLASS IV, BULKHEAD CAP (Standard)	CY	65.52
400-4-8	CONCRETE CLASS IV, BULKHEAD CAP (Extra Depth)	CY	2.44
400-4-8	CONCRETE CLASS IV, DEADMAN (85)	CY	16.40
400-4-8	CONCRETE CLASS IV, CLOSURE POUR (2)	CY	1.40
415-1-8	REINFORCING STEEL, BULKHEAD CAP (Standard)	LB	9011
415-1-8	REINFORCING STEEL, BULKHEAD CAP (Extra Depth)	LB	210
415-1-8	REINFORCING STEEL, DEADMAN (85)	LB	2,043
415-1-8	REINFORCING STEEL, CLOSURE POUR (2)	LB	126
415-87	ANCHOR BAR, STEEL (85) (1 - 1" DIA. HDG ROD W PVC SLEEVE)	EA	85
455-135	VINYL SHEET PILING, ESP 8.5 - 14' LONG'	SF	8,106.00
570-1-2	PERFORMANCE TURF, SOD	SY	1290.00



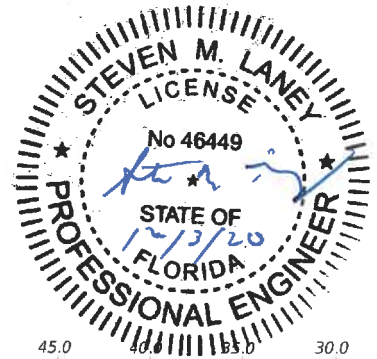
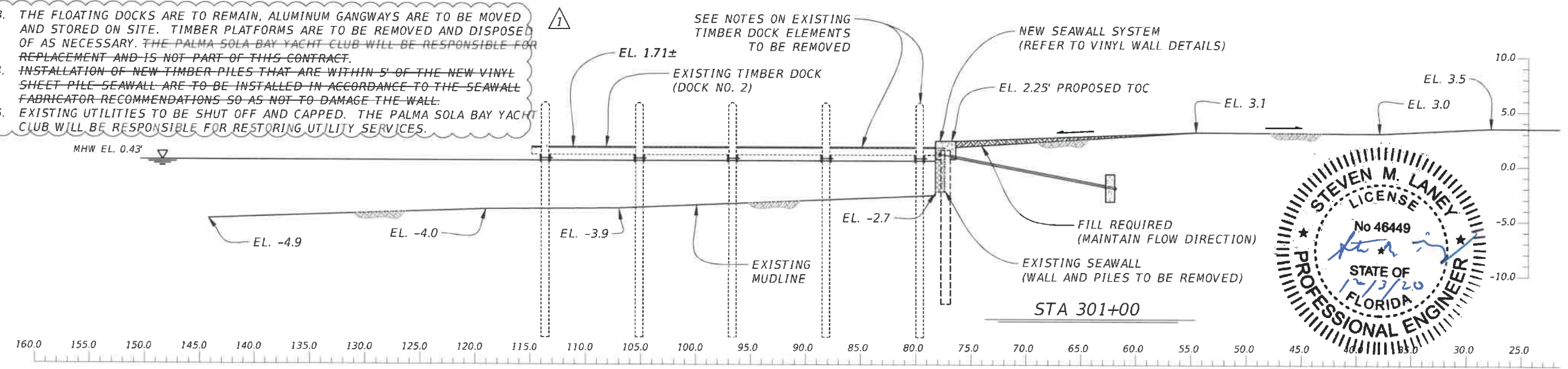
DATE	12/4/20
BY	SML
REVISION DESCRIPTION	ADJUSTED PAY ITEM QUANTITIES
NO.	1
PROJECT #	6081101
SURVEY #	0000
SEC./TWN./RGE	28/33S/18E
SCALE	N.T.S
SURVEYED	By: Hyatt 10/2018
DESIGNED	SML 08/2019
DRAWN	SML 04/2020
CHECKED	
STEVEN M. LANEY, P.E. FLORIDA P.E. # 46449	
Signature & Date	
SHEET 4 OF 28	

F:\Projects\Palma Sola Yacht Basin\Reinforcing Wall South\Wall 07 DWG\Palma Sola Ref. Wall South\Wall 01.dwg General Notes (3 of 3) 12/4/2020 3:26 PM Steven Laney, 1:17, ANSI Toll Based B (1,100 x 17,000 In=feet)

**PORTUENNO PARK
SOUTH SEAWALL REPLACEMENT**
TYPICAL SECTIONS (1 OF 2)



- NOTES:
1. TO INSTALL THE NEW SEAWALL, THE TIMBER PILES AND TIMBER COMPONENTS ATTACHED TO OR ADJACENT TO THE EXISTING SEAWALL WILL NEED TO BE REMOVED AS NEEDED.
 2. DUE TO THE POOR CONDITION OF THE TIMBER DOCKS, REPLACEMENT IS NOT INCLUDED. THE PALMA SOLA BAY YACHT CLUB WILL BE RESPONSIBLE FOR REPLACEMENT AND IS NOT PART OF THIS CONTRACT.
 3. THE FLOATING DOCKS ARE TO REMAIN, ALUMINUM GANGWAYS ARE TO BE MOVED AND STORED ON SITE. TIMBER PLATFORMS ARE TO BE REMOVED AND DISPOSED OF AS NECESSARY. THE PALMA SOLA BAY YACHT CLUB WILL BE RESPONSIBLE FOR REPLACEMENT AND IS NOT PART OF THIS CONTRACT.
 4. INSTALLATION OF NEW TIMBER PILES THAT ARE WITHIN 5' OF THE NEW VINYL SHEET PILE SEAWALL ARE TO BE INSTALLED IN ACCORDANCE TO THE SEAWALL FABRICATOR RECOMMENDATIONS SO AS NOT TO DAMAGE THE WALL.
 5. EXISTING UTILITIES TO BE SHUT OFF AND CAPPED. THE PALMA SOLA BAY YACHT CLUB WILL BE RESPONSIBLE FOR RESTORING UTILITY SERVICES.



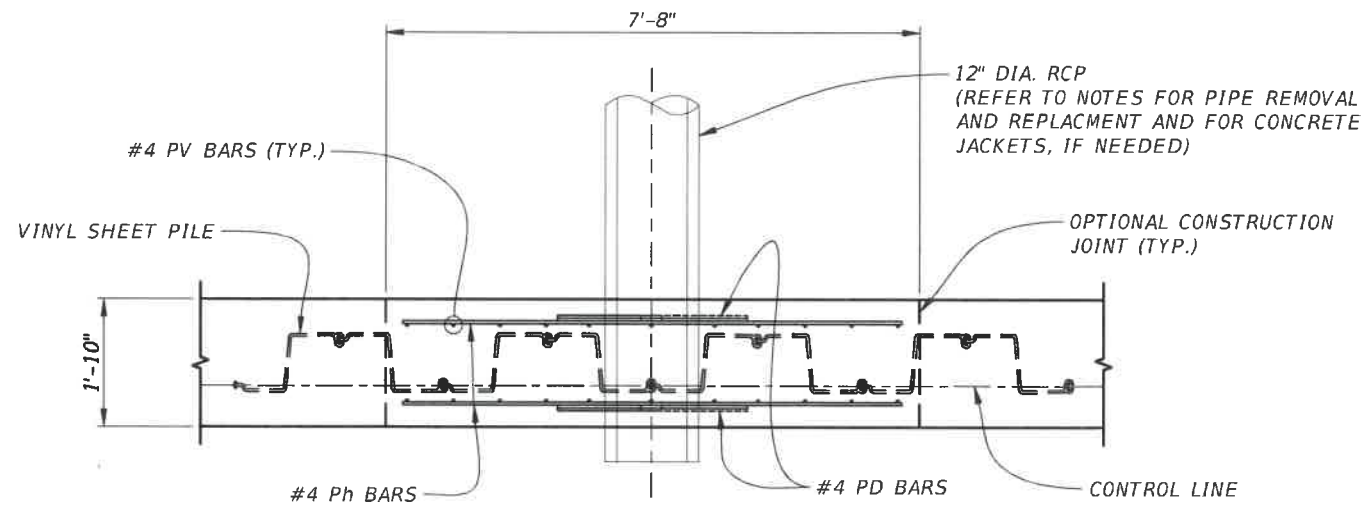
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BY	SML
REVISION DESCRIPTION	NOTES ADJUSTED
NO.	1
PROJECT #	8081101
SURVEY #	0000
SEC./TWN./RGE	28/33S/18E
SCALE	1" = 10'
SURVEYED	Hyatt 10/2018
DESIGNED	SML 08/2019
DRAWN	SML 10/2019
CHECKED	
STEVEN M. LANEY, P.E. FLORIDA P.E. # 46449	
Signature & Date	

**PORTOSUENO PARK
SOUTH SEAWALL REPLACEMENT
DETAILS (1 OF 3)**

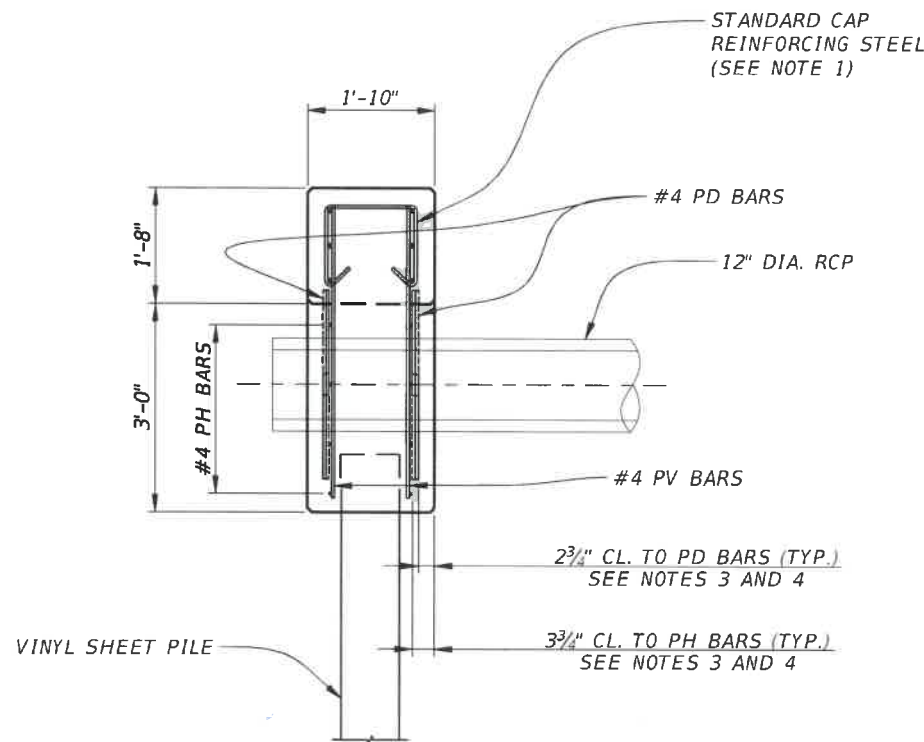
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SURVEY #	0000		
SEC./TWN./RGE	28/33S/18E		
SCALE	3/8" = 1'		
	BY	DATE	
SURVEYED	Hyatt	10/2018	
DESIGNED	SML	08/2019	
DRAWN	SML	10/2019	
CHECKED			
STEVEN M. LANEY, P.E.			
FLORIDA P.E. # 46449			
Signature & Date			

NOTES:

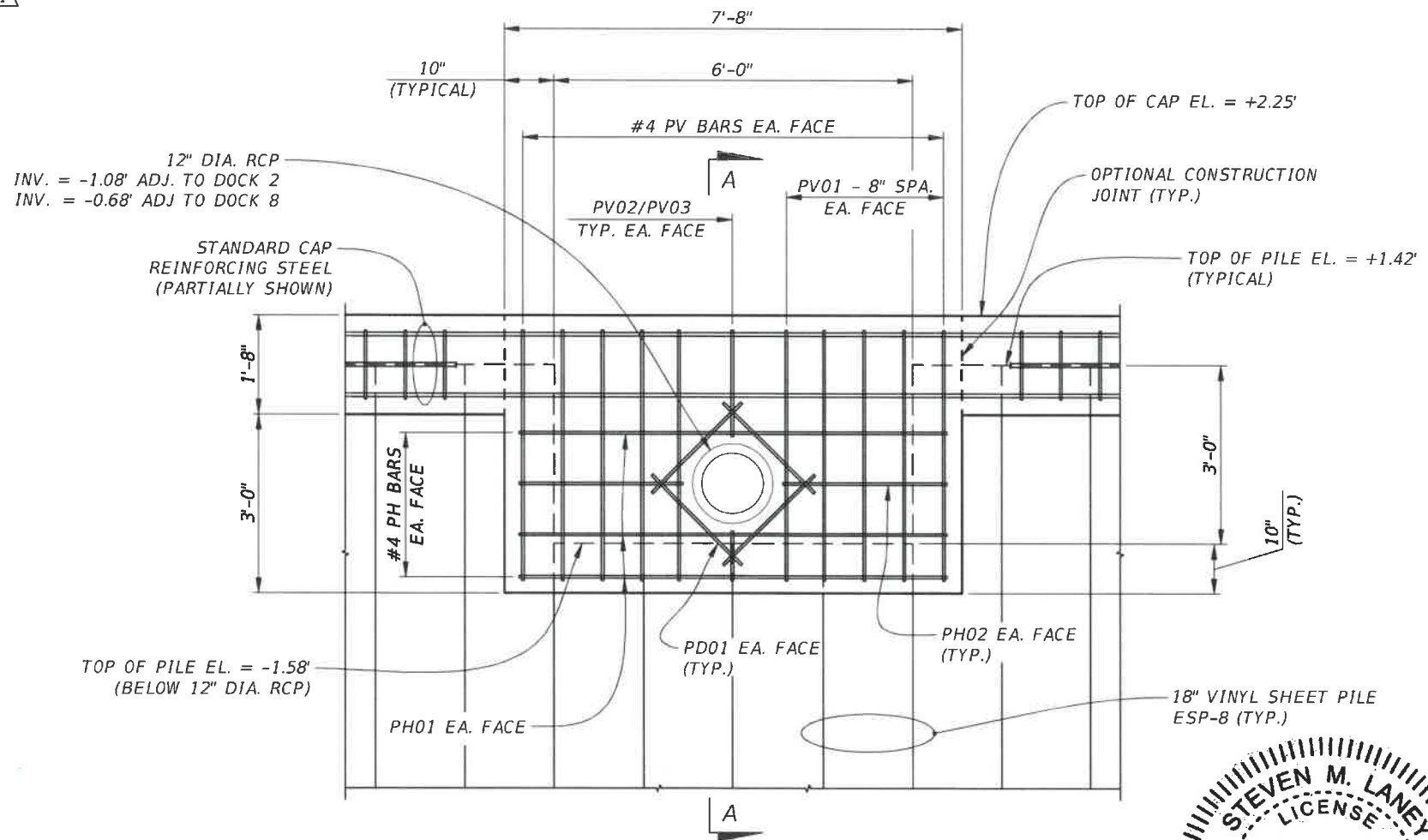
- THE DETAILS ON THIS SHEET ARE FOR THE EXTRA DEPTH CONCRETE CAPS OVER THE 12" DIA. STORM DRAIN PIPE ADJACENT TO DOCK 2 AND DOCK 8. REFER TO THE DETAILS PROVIDED BY ESP FOR THE 22" WIDE X 20" DEEP STANDARD CONCRETE CAP.
- SOME REINFORCING STEEL FOR THE STANDARD CONCRETE CAP MAY NOT BE SHOWN FOR CLARITY.
- CONCRETE CLEARANCE TO PH BARS IS 3 3/4" AND IS BASED ON PV BARS TIED TO THE #6 BARS IN THE STANDARD CAP. ADJUST AS NEEDED.
- REINFORCING STEEL CLEARANCE FOR THE PIPE IN THE EXTRA DEPTH CAP IS 2" FOR ALL BARS.
- CONSTRUCTION SEQUENCE FOR 12" DIA. RCP STORM DRAIN PIPE:
 - REMOVE END SECTION OF EXISTING 12" DIA. RCP STORM DRAIN PIPE.
 - WITH THE STORM DRAIN PIPE OUT OF THE WAY, INSTALL THE VINYL SHEET PILING TO THE ELEVATIONS BELOW THE INVERT ELEVATIONS AS SHOWN.
 - RE-INSTALL THE END SECTION OF STORM DRAIN PIPE IF THE EXISTING PIPE IS IN GOOD CONDITION. IF THE EXISTING SECTION OF PIPE IS IN POOR CONDITION, RE-INSTALL A NEW SECTION OF PIPE. REFER TO FDOT STANDARD SPECIFICATION 430.
 - USE GASKETS IN ACCORDANCE TO FDOT STANDARD SPECIFICATION 430 TO RECONNECT THE EXISTING PIPE SECTION OR USE A CONCRETE JACKET. REFER TO FDOT STANDARD INDEX 430-001 FOR CONCRETE JACKET DETAILS. PAYMENT TO BE INCLUDED IN THE COST OF CONCRETE FOR THE SHEET PILE CAPS.
 - CONSTRUCT THE CONCRETE CAP WALL SECTION OVER THE PIPE AS SHOWN IN THE DETAILS ON THIS SHEET.
- PAYMENT FOR THE REMOVAL AND REPLACEMENT OF THE PIPE IS INCLUDED IN THE COST OF CONCRETE FOR THE SHEET PILE CAPS.
- PAYMENT FOR NEW PIPE MATERIAL, IF REQUIRED, WILL BE PAID UNDER PAY ITEM NO. 430-74-112 FIELD DIRECTIVE.



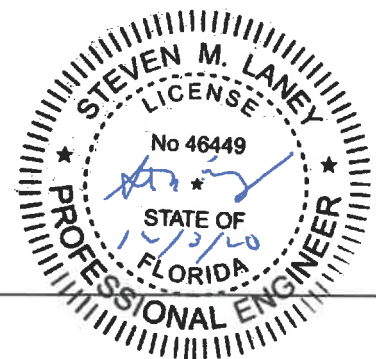
12" DIA. RCP SHEET PILE AND CAP MODIFICATION PARTIAL PLAN
(Scale: 3/8" = 1')



SECTION A-A
(Scale: 3/8" = 1')



12" DIA. RCP SHEET PILE AND CAP MODIFICATION PARTIAL ELEVATION
(Scale: 3/8" = 1')



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**PORTOSUENO PARK
SOUTH SEAWALL REPLACEMENT
ESP DETAILS (1 OF 5)**

General Design & Construction Notes:

Material:

General Design:

- 1.) All materials shall be as noted unless local codes provide a stricter guideline i.e. greater strength, durability, etc. It is the contractor's responsibility to understand and comply with these codes.
- 2.) No pipe penetration (drainage, utilities, etc.) information has been provided. If penetration through the sheet piles is required contractor is to submit a detail for review.

Sheet Pile:

- 1.) Sheet pile material shall be ESP 8.5 as provided by Everlast Synthetic Products, LLC.
- 2.) This design is based on the specific properties of Everlast synthetic sheet piling which are proprietary to Everlast Synthetic Products, LLC 1000 Wyncote Parkway, Suite 100, Woodstock, GA 30189. Any substitution of the specified product will invalidate this design. This drawing is being furnished for use on this specific project only. Any party accepting this document does so in confidence and agrees that it shall not be duplicated whole or in part, nor disclosed to others without the consent of Everlast Synthetic Products, LLC.

Steel:

- 1.) Tie-rods, channels, reinforcing steel and plates shall be hot dipped galvanized per ASTM A-153 with 2 ounces of zinc per square foot. All steel fasteners shall be stainless steel (grade 304 or 316).
- 2.) Tie-rod washers (plate, ogee, fender or New York dock) shall have a minimum outer diameter of four times the rod/bolt diameter. Beveled washers shall be used for tie-rods installed at an incline.
- 3.) All reinforcing steel to have a minimum yield strength of 60 ksi.

Concrete:

- 1.) Concrete to have a 28-day compressive strength of 5,000 psi.
- 2.) Concrete mix to have a max. w/c ratio of 0.4.
- 3.) Concrete to be vibrated to minimize air voids.
- 4.) Concrete to be formed, poured & cured per ACI 318 standards.

Backfill:

- 1.) Backfill material is to be free-draining sand or gravel (SP, SW, GP or GW) per ASTM D-2487 and compacted a minimum of 95% per ASTM D-698.
- 2.) If a fine grained, non-cohesive soil (fine sands, "sugar sand", etc.) is to be used, a geotextile is to be placed between sheet pile and soil before backfill installation.



4085 Devereux Chase
Roswell, GA 30075
678.315.1751
CA#: 30632

Scale: NTS

Date: 9/4/19

Project:
Bulkhead Design
Palma Sola Yacht Basin
South Wall
Bradenton, FL

Revisions

Sheet 1 of 10

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Design:

- 1.) Design is based on soil properties as noted in typical sections.
- 2.) If actual soil or site conditions differ from that noted in drawings, the engineer shall be notified immediately for a possible redesign.
- 3.) Design does not account for presence of underground springs or wells. If these conditions exist the engineer shall be notified immediately for the need of a redesign.

Installation:

Safety:

- 1.) Installation to be conducted according to all applicable OSHA and local codes. It is the contractor's responsibility to understand and comply with these codes.
- 2.) Contractor to contact appropriate utility(s) before construction commences.

Geotechnical:

- 1.) Design was based on Universal Engineering Sciences report no. 0330.1800039.0000, dated Apr. 18, 2018.
- 2.) At a minimum, the contractor shall probe along the alignment of the sheet pile (approx. every 5') to determine the potential of any soil variation or obstructions.

Sheet Pile:

- 1.) Sheet piles shall be vibrated or driven for placement. No jetting will be allowed without written approval from the engineer.
- 2.) Sheet pile shall penetrate to depth shown in the plans.
- 3.) After driving sheet pile and attaching wale, saw piling off at a true plane indicated on the plans. Final elevations are to be within one (1) inch of established elevation.
- 4.) 20' return walls to be provided at ends of all bulkheads to provide flanking protection.

Concrete Cap/Wale:

- 1.) $\frac{3}{4}$ " Expansion joints are to be located at no greater than 49' intervals.
- 2.) Expansion joints are to be located no closer than 10' from corners/turns.
- 3.) Two contraction joints are to be evenly spaced between expansion joints.
- 4.) Contraction joints shall be 1" depth saw cut with cut being sealed by 20H epoxy adhesive and Miter/Topcoat 200 as noted in joint detail, sheet B.
- 5.) All reinforcing steel to have a minimum cover of 3".

Deadman:

- 1.) All deadmen are to be constructed and positioned according to the attached plans.
- 2.) If using threaded tie-rod, no less than three (3) full threads shall extend beyond the outside face of the nuts.

Documentation:

- 1.) Contractor shall provide written documentation after the end of the work day certifying all piles have been driven to the required depths. If any piles are unable to be driven to the required depths, contractor shall notify the owner and engineer immediately.



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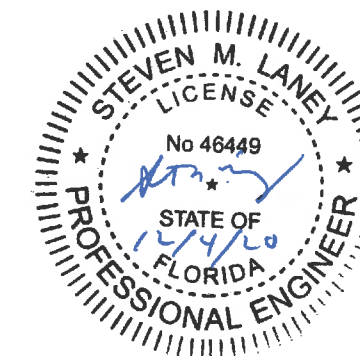
Project:
Bulkhead Design
Palma Sola Yacht Basin
South Wall
Bradenton, FL

Revisions

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REVISION DESCRIPTION	ADJUSTED VIEWS				
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PROJECT #	6081101
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SURVEY #	0000
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DESIGNED	SML	08/2019
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DRAWN	SML	10/2019
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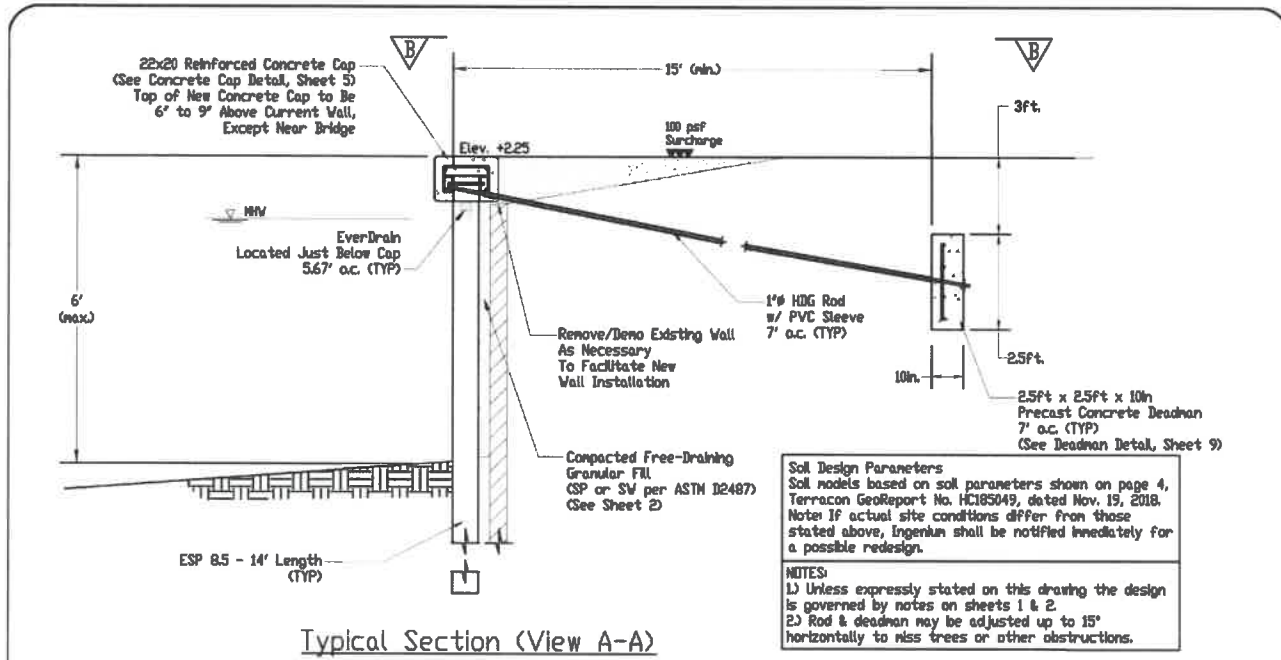
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**PORTOUSUENO PARK
SOUTH SEAWALL REPLACEMENT
ESP DETAILS (2 OF 5)**



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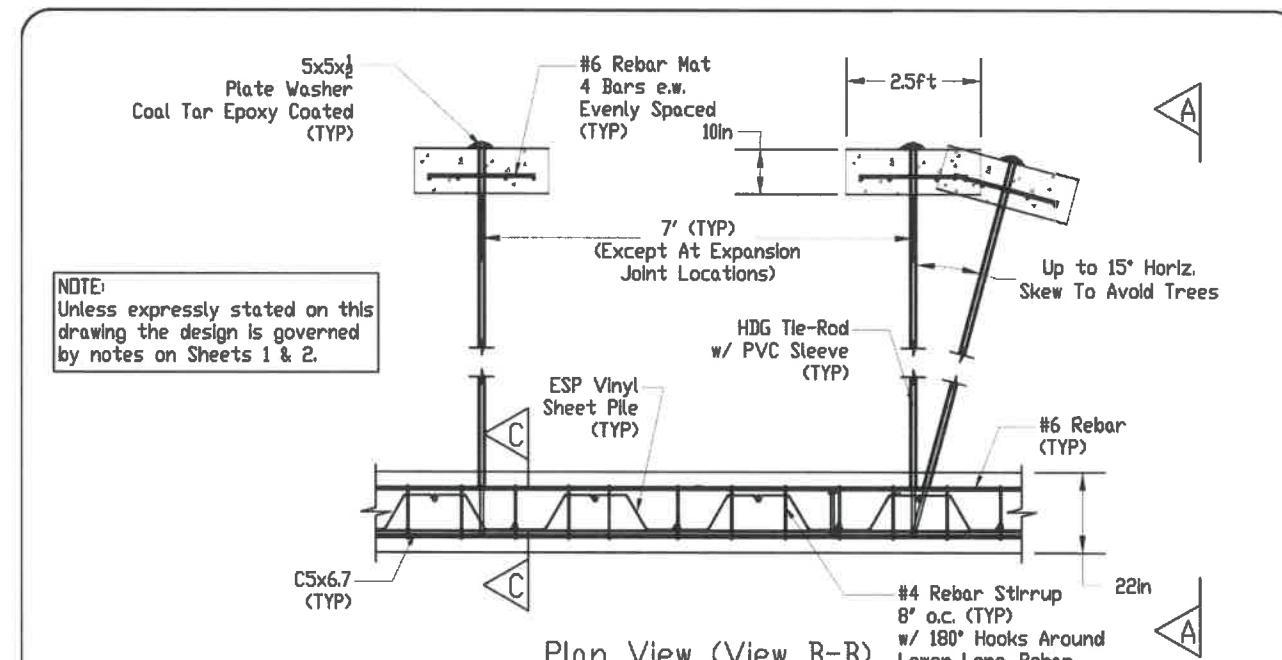
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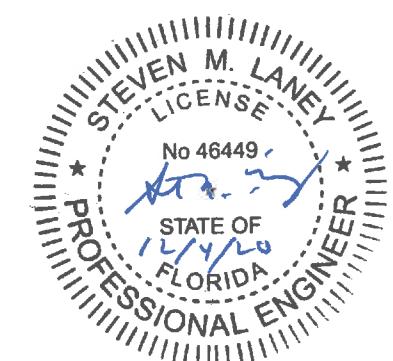
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SCALE	As Noted							
SURVEYED	Hyatt	10/2018	DESIGNED	SML	08/2018	DRAWN	SML	10/2019
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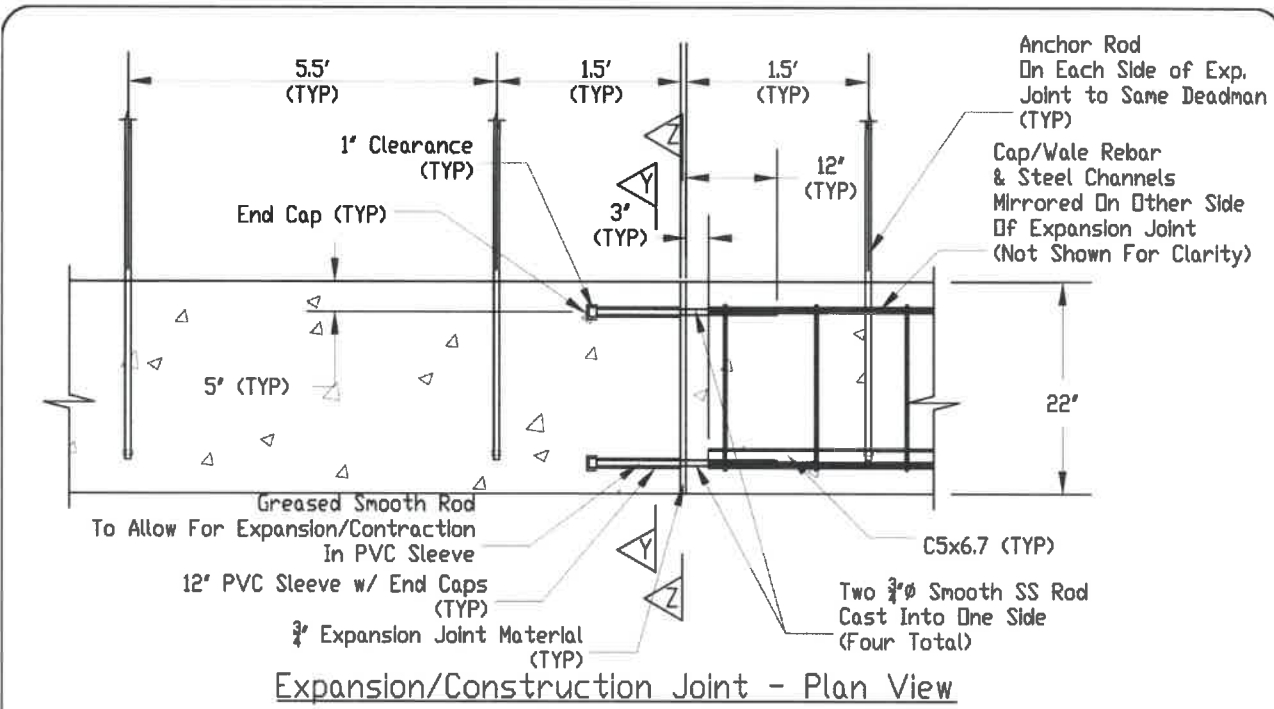
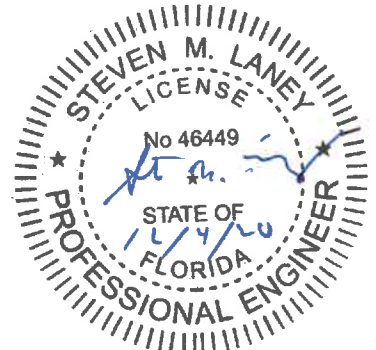
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**PORTUENNO PARK
SOUTH SEAWALL REPLACEMENT
ESP DETAILS (3 OF 5)**

DATE	12/4/20
BY	SML
REVISION DESCRIPTION	ADJUSTED VIEWS

PROJECT #	6081101
SURVEY #	0000
SEC./TWN./RGE	28/33S/18E
SCALE	As Noted
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DESIGNED	SML 08/2019
DRAWN	SML 10/2019
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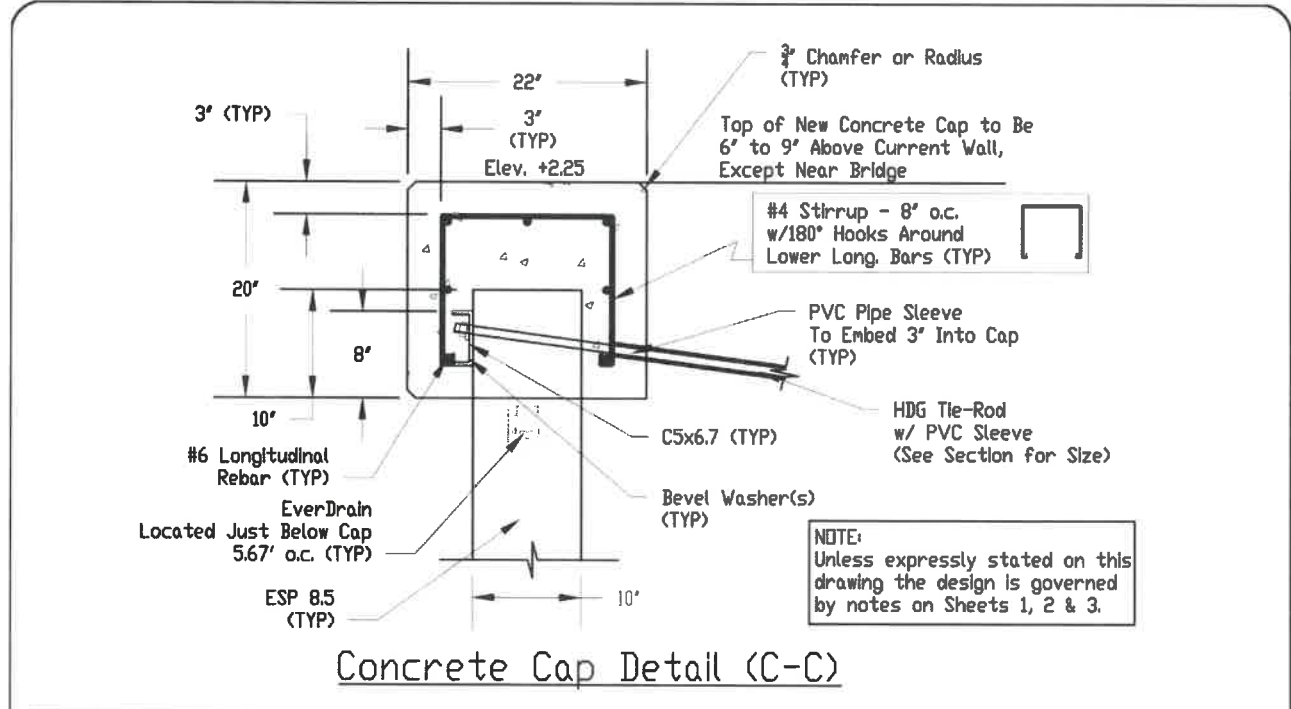
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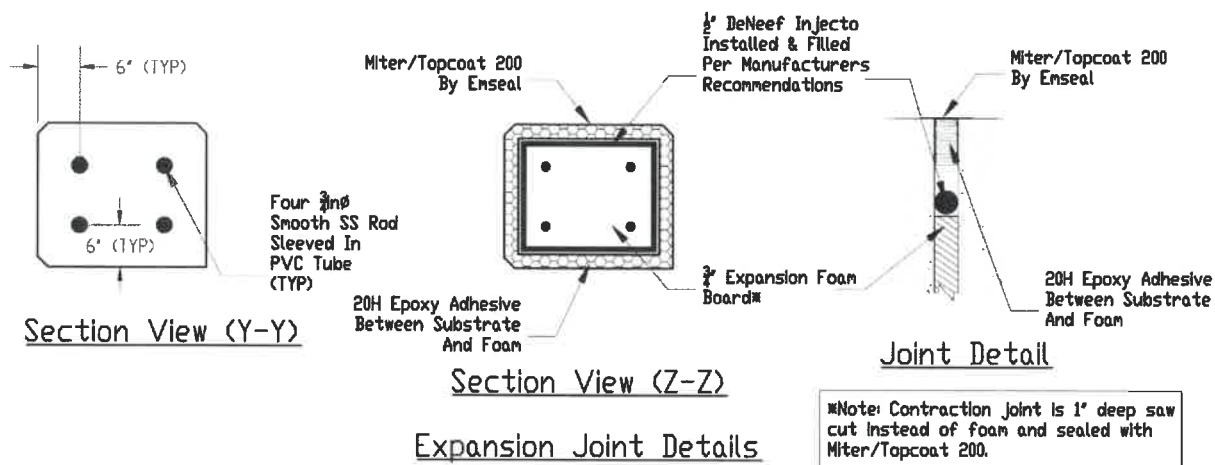
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**PORTOUSUENO PARK
SOUTH SEAWALL REPLACEMENT
ESP DETAILS (4 OF 5)**



Note: Contraction Joint is 1\"/>

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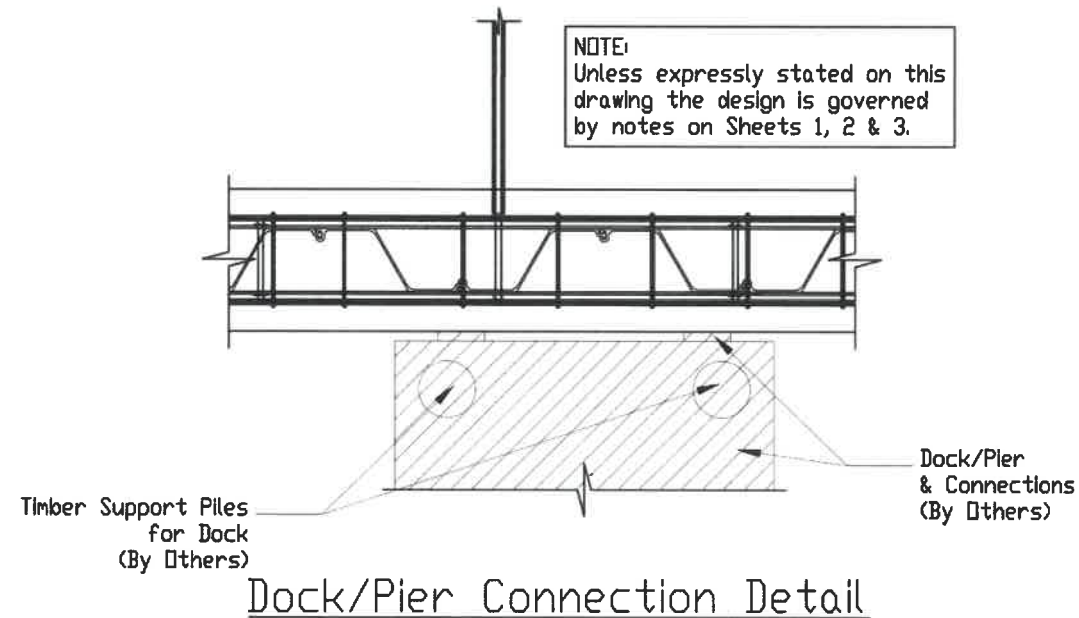
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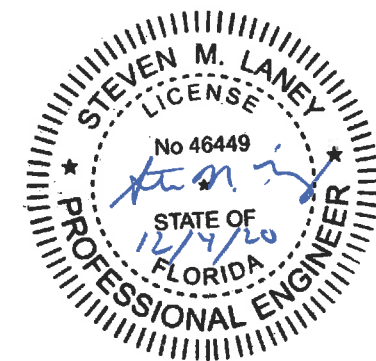
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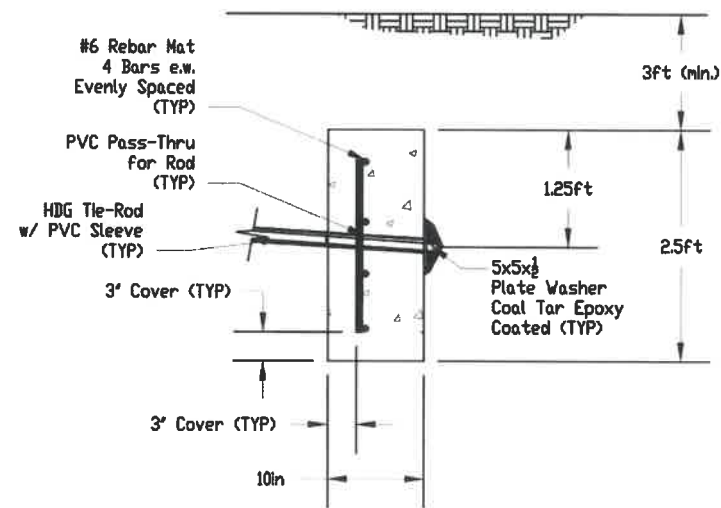
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**PORTUENENO PARK
SOUTH SEAWALL REPLACEMENT
ESP DETAILS (5 OF 5)**

NOTE:
Unless expressly stated on this drawing the design is governed by notes on Sheets 1, 2 & 3.



Precast Concrete Deadman Detail

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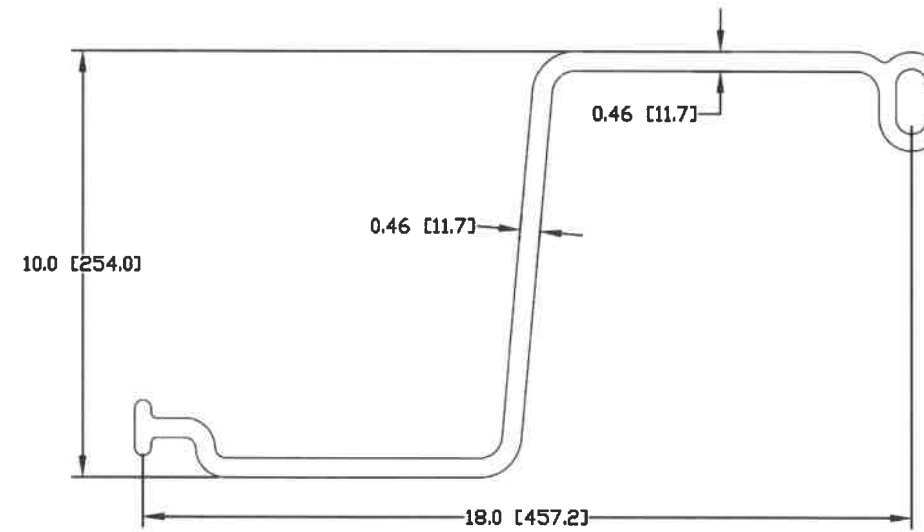
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ESP 8.5

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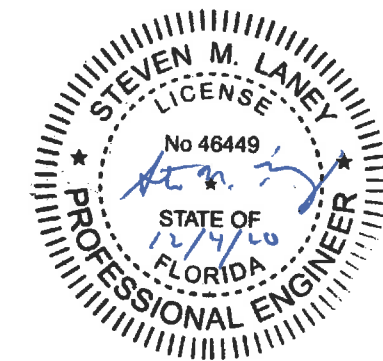
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