

# ROYAL PALM PARK BOARDWALK REPAIRS

## FOR

# FEMA DI# 1291154 LEE COUNTY

300 ROYAL PALM PARK ROAD, FORT MYERS, FL 33905

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STRUCTURAL DRAWINGS	
S100.0	BOARDWALK PLANS AND PILING INDEX
S200.0	BOARDWALK SECTIONS AND ELEVATIONS
S500.0	BOARDWALK DETAILS



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E.B. #642 & L.B. #642



WEILER ENGINEERING CORP.  
201 WEST MARION AVENUE SUITE  
1306 PUNTA GORDA, FLORIDA 33950  
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Max Morgan,  
Professional Engineer,  
State of Florida  
License No. 94877  
This item has been  
digitally signed and sealed by  
Max Morgan, P.E.,  
on the date indicated here.  
11/12/2024  
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ROYAL PALM PARK  
BOARDWALK REPAIRS  
FOR  
FEMA DI# 1291154  
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NO.	DESCRIPTION	DATE

DATE: 11/12/2024  
PROJECT NO. 23095.001  
FILE NO. DH# 1291154  
SCALE: AS NOTED

COVER SHEET

SHEET NUMBER

G100.0

PERMIT SET



### Community Development Department

1500 Monroe Street, Fort Myers, FL 33901  
Building Phone: 239.533.8885 | Building Fax: 239.486.8344  
Zoning Phone: 239.533.8329 | Zoning Fax: 239.486.8344  
www.lee.gov

For Office Use Only

Permit Number  
20  
Application Date

### COMMERCIAL DATA SUMMARY SHEET

Florida Building Code 8th Edition (2023)

CSR Initials

OWNER NAME: FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION PROJECT ADDRESS: 300 ROYAL PALM PARK ROAD, FORT MYERS, FL 33905

#### Chapter 9 - Use and Occupancy Classification

Section 302. Classification(s) U

Chapter 4 - Special Detailed Requirements Based on Use and Occupancy Section# N/A Title N/A

Section 401.2 Additional Design Criteria:

Special Requirements N/A

General Building Limitations - Table 503  Sprinklered  Unsprinklered

Occupancy Classification (Group): U Type of Construction: V-B Area Tabulation

Area Actual 643 sq.ft Allowable N/A sq.ft Area Modification: (Sec.506) N/A Conditioned 0 sq.ft

Stories Actual N/A Allowable N/A Other 0 sq.ft

Height Actual N/A ft Allowable N/A ft Height Modification: (Sec. 504) N/A Total 643 sq.ft

#### Structural Design (Chapter 16)

Floor Design: Live Load 100 p.s.f (Table 1607.1) Dead Load 20 p.s.f (Section 1606)

Roof Design: Live Load N/A p.s.f (Sec. 1607.13) Dead Load N/A p.s.f (Section 1606)

Load Combinations N/A (Section 1605)

#### Design Data:

Florida Building Code, 8th Ed (2023) Section 1609  ASCE 7-22  Other:

Internal Pressure GCpl  Enclosed  Partially Enclosed  Open Risk Category II Flood Zone VE-13

Basic Wind Speed (Vult) 152 mph (Section 1609.3) Nominal Design Wind Speed (Vasd) 118 m.p.h.

Exposure Category Section (1609.4)  B  C  D Soil Design Load-Bearing Value 8" PILE: 4 TONS, 10" PILE: 8 TONS

Window and Door Wind Pressure Design Loading: Mean roof height N/A ft

Windows N/A p.s.f Doors N/A p.s.f Garage Doors N/A p.s.f

Component and Cladding design pressure for openings shall be indicated on floor plan at each individual opening or provide worst case

I certify to the best of my knowledge and belief that these plans and specifications have been designed to comply with the structural portion of the Building Code for wind, flood and gravity loads as amended and enforced by the permitting jurisdiction.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



Architect / Engineer Seal

P:\Online Forms

PREPARED BY  
**THE WEILER ENGINEERING CORPORATION**

201 WEST MARION AVENUE  
SUITE 1306  
PUNTA GORDA, FLORIDA 33950  
EB # 6656  
PHONE - 941-505-1700  
FAX - 941-505-1702

#### THE WEILER ENGINEERING CORPORATION

These plans are in Compliance with Florida Building Code 2023 for wind parameters indicated.

#### WIND PARAMETERS

Method of Design: ASCE 7-22

Building Risk Category: II

Design Wind Speed: Ultimate  $V_{ult}$  = 152 MPH / Nominal  $V_{ref}$  = 118 MPH

Wind Importance Factor: 1.0 / Wind Exposure: D

Internal Pressure Coefficient:  $\pm 0.00$  (Open)

Component & Cladding Wind Pressure: per Calcs

#### FLOOD PARAMETERS

FEMA FIRM Map Number: 12071C0287G

Base Flood Elevation: VE-13

100-year, 1-hour Design Rainfall: 4.5 in (FBC 2023 Fig. 1611.1)

#### GEOTECHNICAL PARAMETERS

Data Source: TIERRA PROJECT NO. 6511-23-232

Vertical Bearing Capacity: 8" PILE: 4 TONS, 10" PILE: 5 TONS

Lateral Bearing Pressure: 1 TON PER PILE



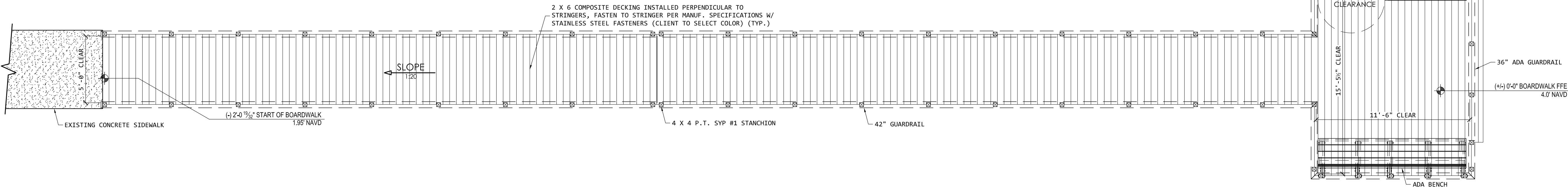
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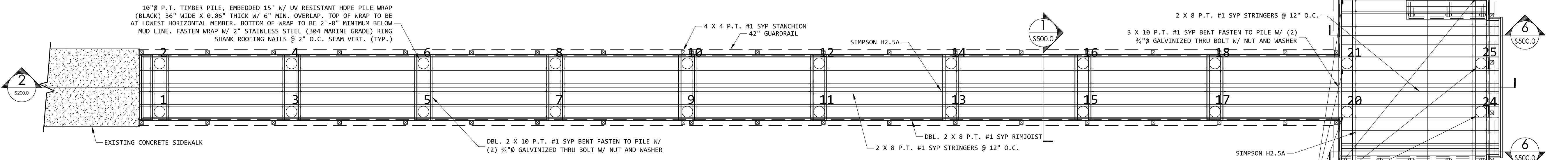
**BOARDWALK PLANS AND PILING INDEX**

SHEET NUMBER  
**\$100.0**

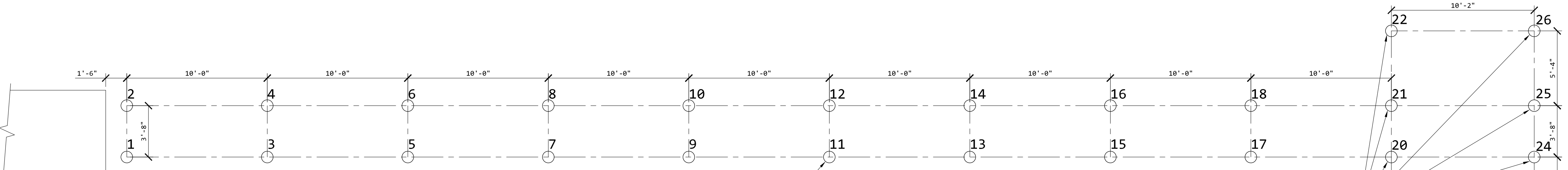
PERMIT SET



**BOARDWALK PLAN** 1/4" = 1'-0"



**FRAMING PLAN** 1/4" = 1'-0"



**PILING PLAN** 1/4" = 1'-0"

PILING ID	DESC	EST. EXISTING GRADE ELEV.	PILE TOP ELEV	DECK ELEV	PILE WRAP
1	RAMP	1.33	1.93	2.02	YES
2	RAMP	1.33	1.93	2.02	YES
3	RAMP	0.50	2.43	2.52	YES
4	RAMP	0.50	2.43	2.52	YES
5	RAMP	-0.08	2.92	3.01	YES
6	RAMP	-0.08	2.92	3.01	YES
7	RAMP	-1.00	3.42	3.51	YES
8	RAMP	-1.00	3.42	3.51	YES
9	END RAMP	-1.25	3.91	4.00	YES
10	END RAMP	-1.25	3.91	4.00	YES
11	FLAT	-1.58	3.91	4.00	YES
12	FLAT	-1.58	3.91	4.00	YES
13	FLAT	-2.00	3.91	4.00	YES
14	FLAT	-2.00	3.91	4.00	YES
15	FLAT	-2.33	3.91	4.00	YES
16	FLAT	-2.33	3.91	4.00	YES
17	FLAT	-2.42	3.91	4.00	YES
18	FLAT	-2.42	3.91	4.00	YES
19	FLAT	-2.66	3.91	4.00	YES
20	FLAT	-2.66	3.91	4.00	YES
21	FLAT	-2.66	3.91	4.00	YES
22	FLAT	-2.66	3.91	4.00	YES
23	FLAT	-2.75	3.91	4.00	YES
24	FLAT	-2.75	3.91	4.00	YES
25	FLAT	-2.75	3.91	4.00	YES
26	FLAT	-2.75	3.91	4.00	YES

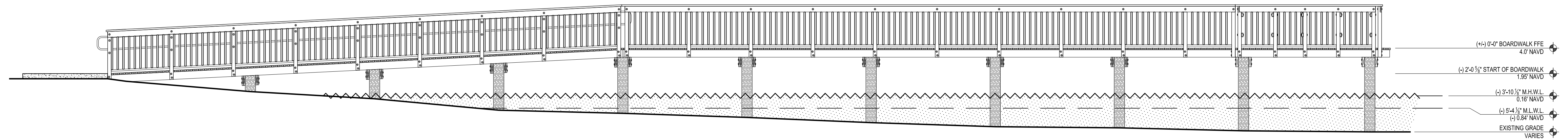
**PILING INDEX**  
1. N.T.S.

**NOTE:**  
ALL ELEVATION REFERENCE TO NAVD 1988.  
CONVERSION TO NGVD 1929 IS: NAVD 1988+1.18 = NGVD 1929

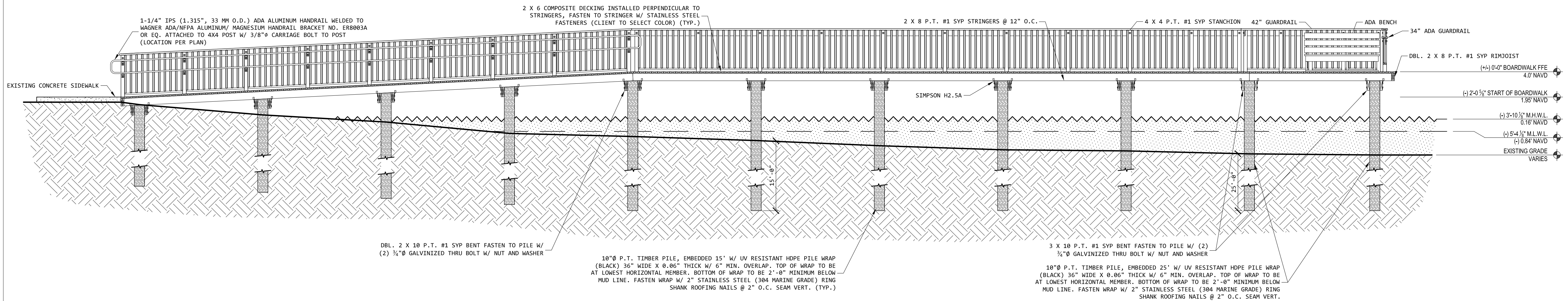
SQUARE FOOTAGE TABULATION	
OVER LAND TO REMAIN:	0 S.F.
OVER WATER TO REMAIN:	0 S.F.
TOTAL TO REMAIN:	0 S.F.
OVER LAND TO REPLACE:	220 S.F.
OVER WATER TO REPLACE:	450 S.F.
TOTAL TO REPLACE:	670 S.F.
TOTAL AFTER REPLACEMENT:	670 S.F.

PILE COUNT	
TO REMAIN:	0
TO REPLACE:	26
TOTAL:	26

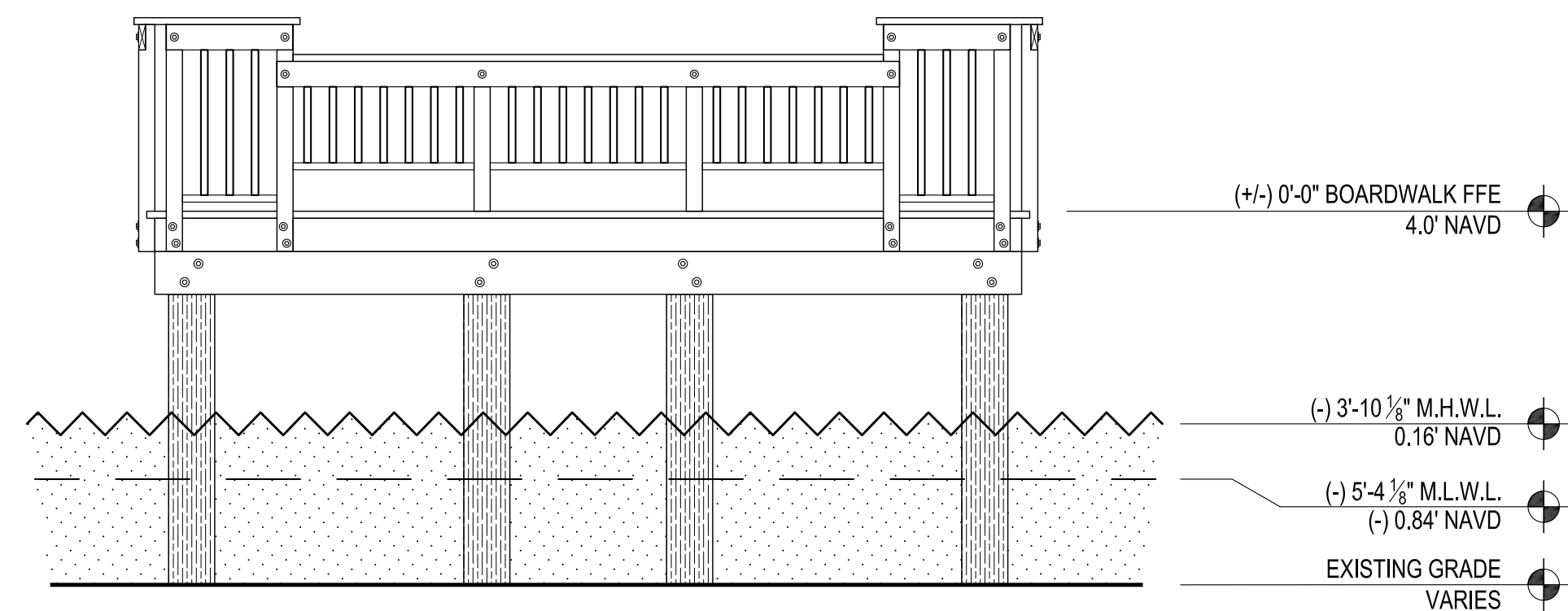
**THE WEILER ENGINEERING CORPORATION**  
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**WIND PARAMETERS**  
Method of Design: ASCE 7-22  
Building Risk Category: II  
Design Wind Speed: Ultimate  $V_{ult}$  = 152 MPH / Nominal  $V_{des}$  = 118 MPH  
Wind Importance Factor: 1.0 / Wind Exposure: D  
Internal Pressure Coefficient: ±0.00 (Open)  
Component & Cladding Wind Pressure: per Calcs  
**FLOOD PARAMETERS**  
FEMA FIRM Map Number: 12071C0287G  
Base Flood Elevation: VE-13  
100-year, 1-hour Design Rainfall: 4.5 in (FBC 2023 Fig. 1611.1)  
**GEOTECHNICAL PARAMETERS**  
Data Source: *TERRA PROJECT NO. 6511-23-232*  
Vertical Bearing Capacity: 8" PILE: 4 TONS, 10" PILE: 5 TONS  
Lateral Bearing Pressure: 1 TON PER PILE



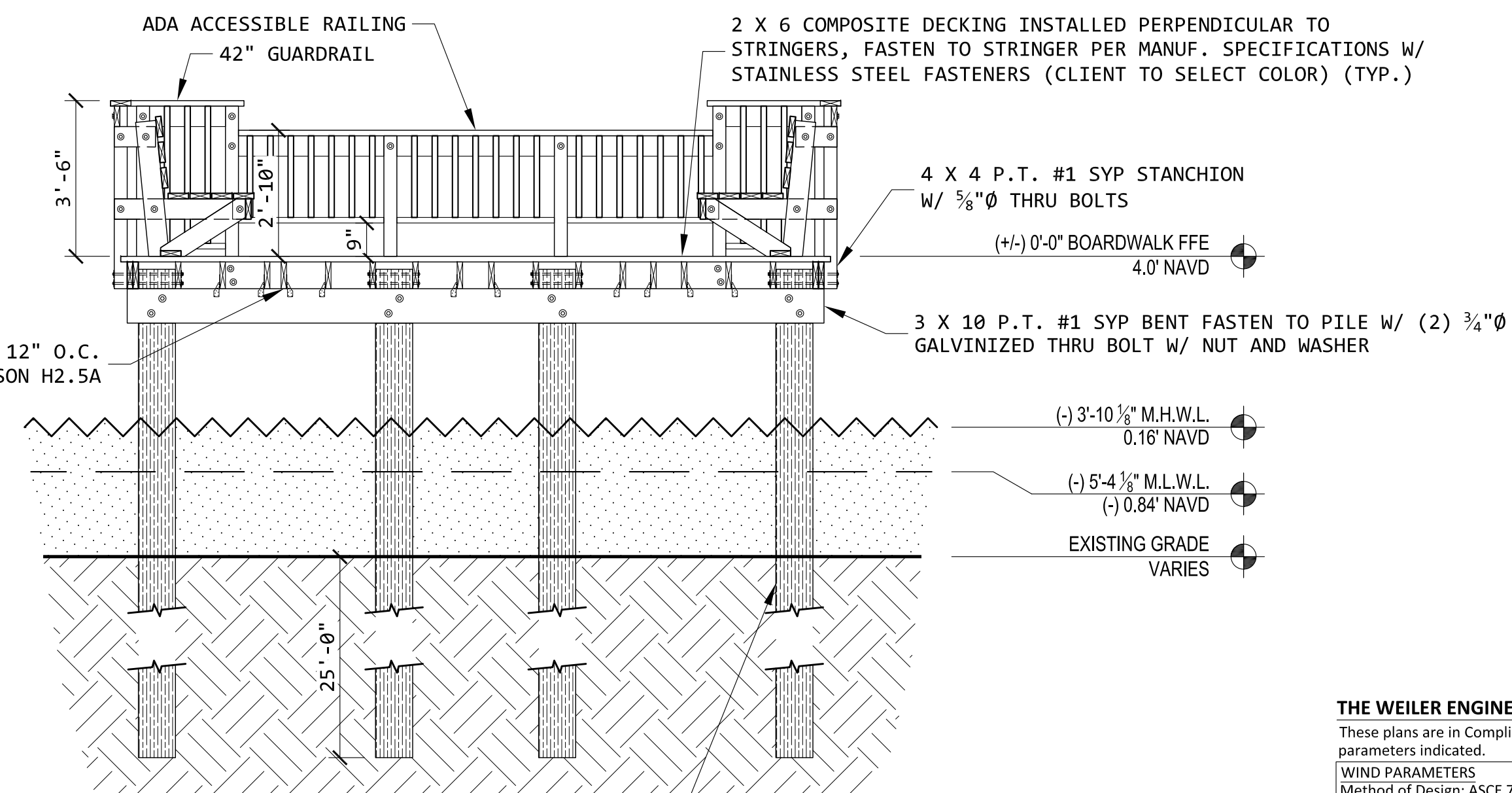
**1 BOARDWALK ELEVATION**  
1/4" = 1'-0"



**2 BOARDWALK SECTION**  
1/4" = 1'-0"



**3 FISHING PLATFORM ELEVATION**  
3/8" = 1'-0"



**4 FISHING PLATFORM SECTION**  
3/8" = 1'-0"

10" P.T. TIMBER PILE, EMBEDDED 25' W/ UV RESISTANT HDPE PILE WRAP (BLACK) 36" WIDE X 0.06" THICK W/ 6" MIN. OVERLAP, TOP OF WRAP TO BE AT LOWEST HORIZONTAL MEMBER, BOTTOM OF WRAP TO BE 2'-0" MINIMUM BELOW MUD LINE. FASTEN WRAP W/ 2" STAINLESS STEEL (304 MARINE GRADE) RING SHANK ROOFING NAILS @ 2" O.C. SEAM VERT. (TYP.)

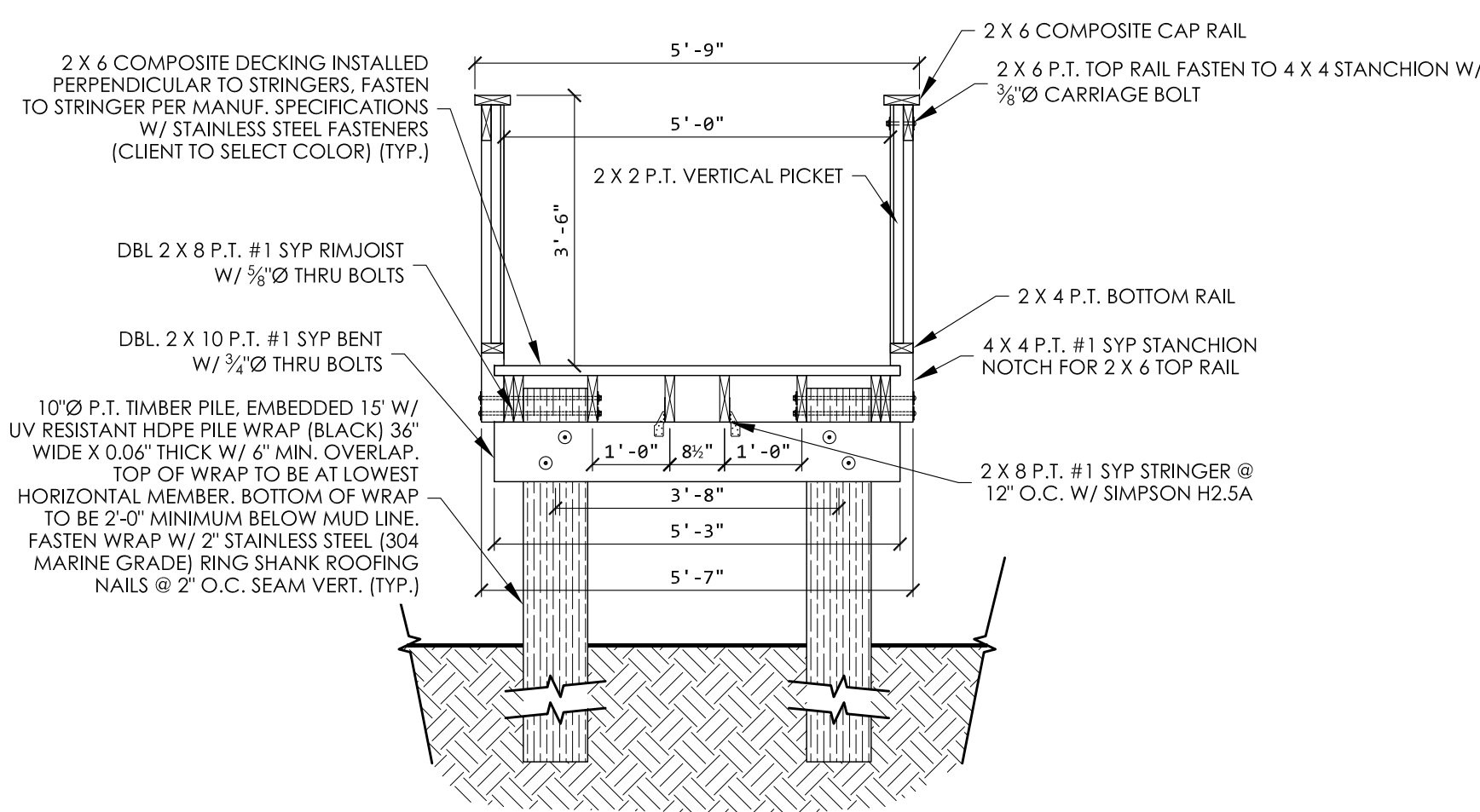
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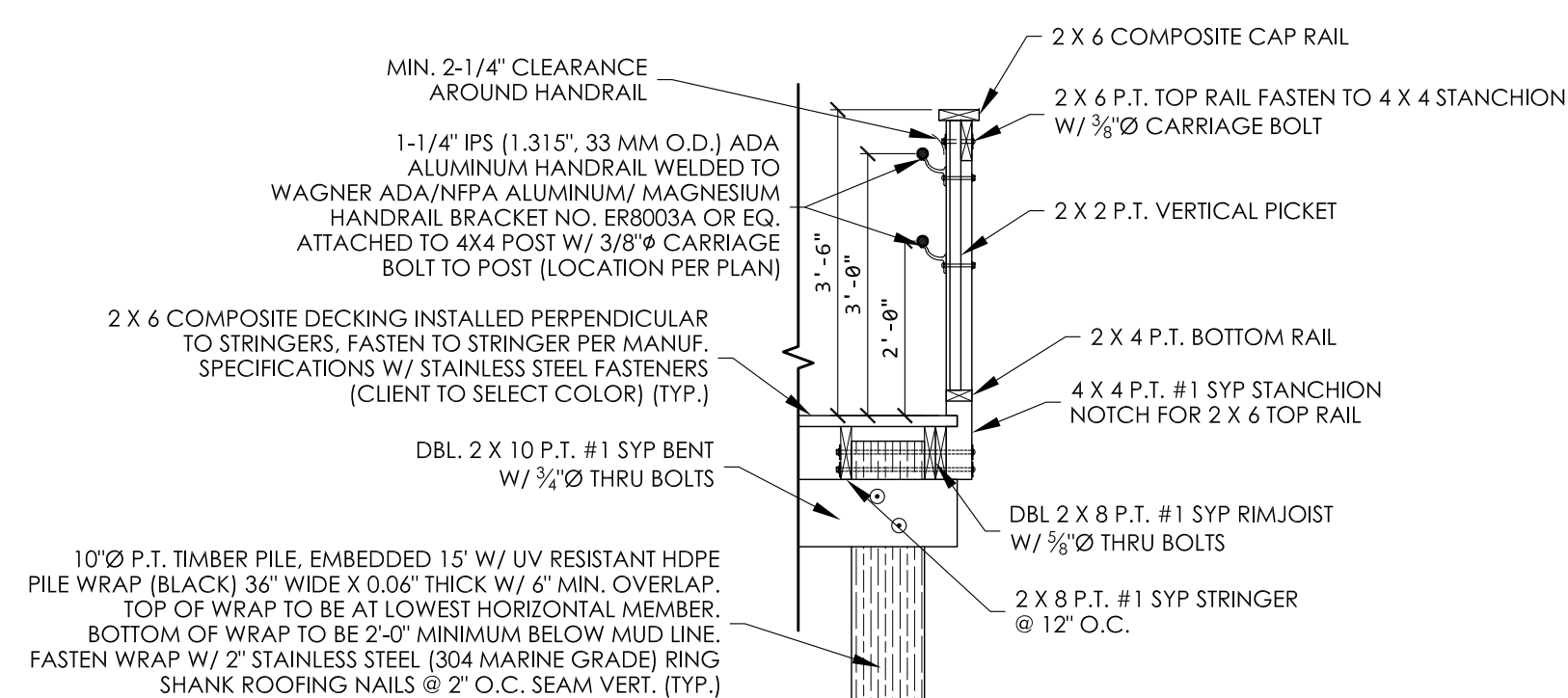
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BOARDWALK SECTIONS AND ELEVATIONS

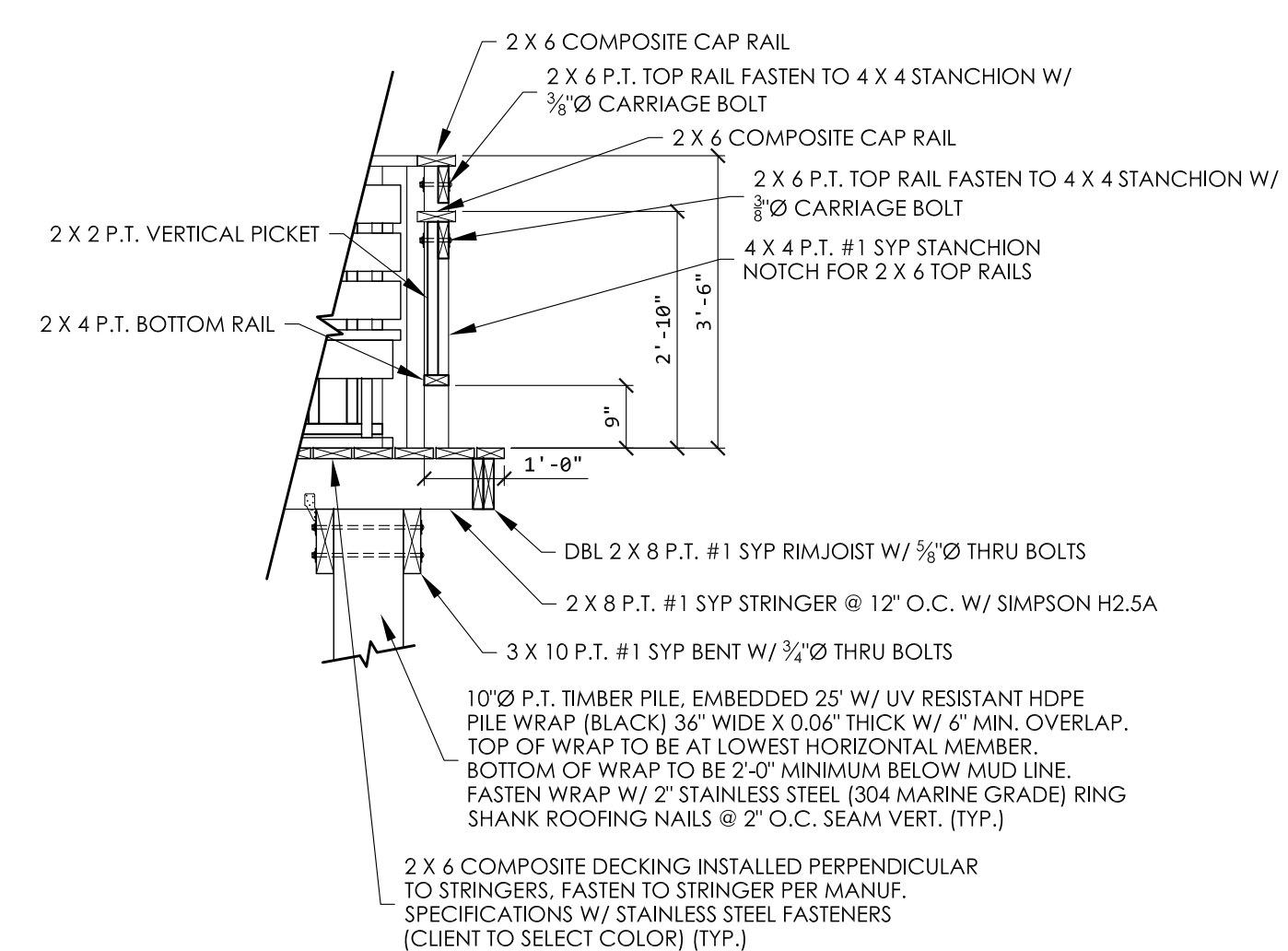
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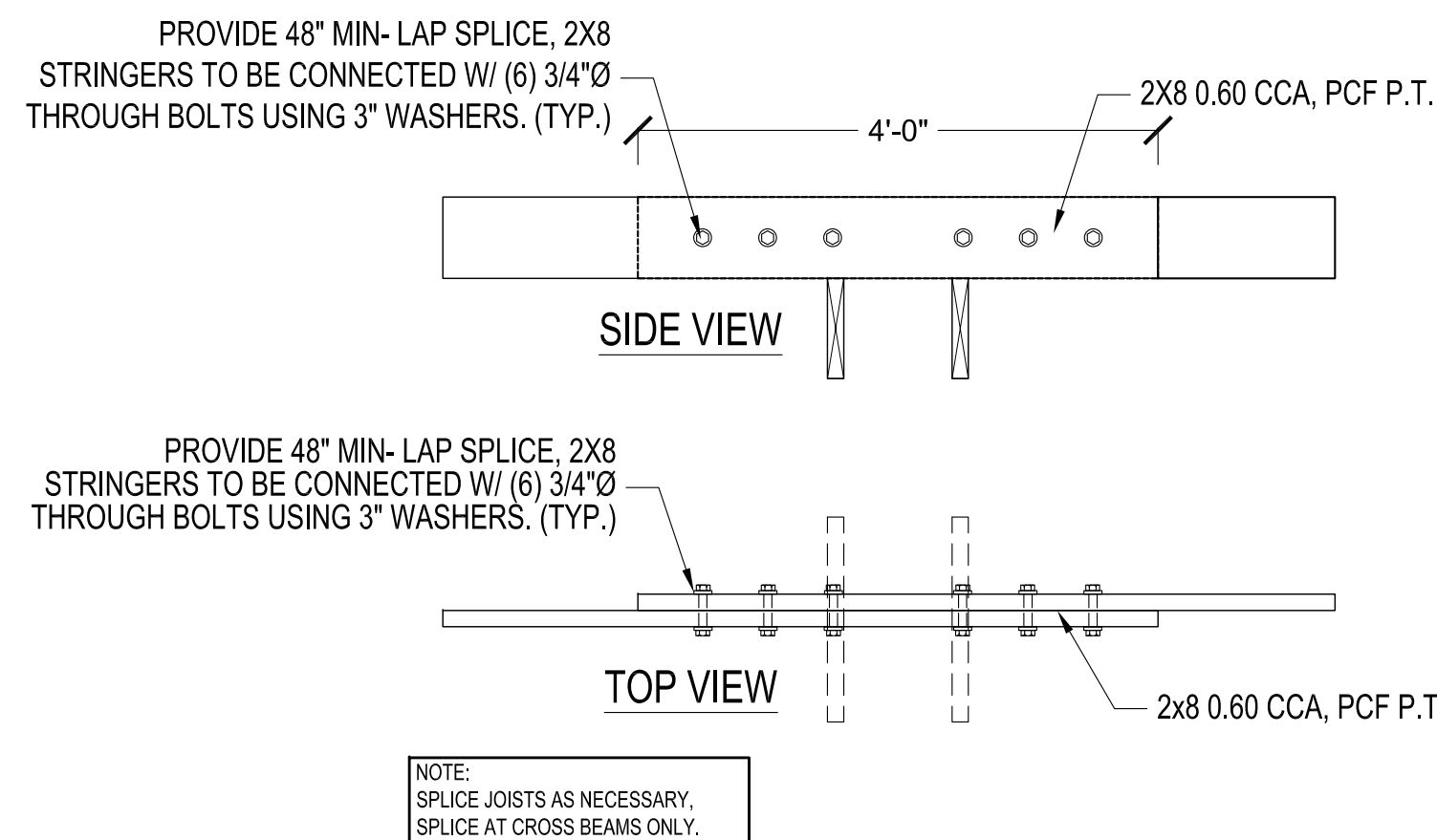
1 TYPICAL BOARDWALK SECTION  
1/2" = 1'-0"



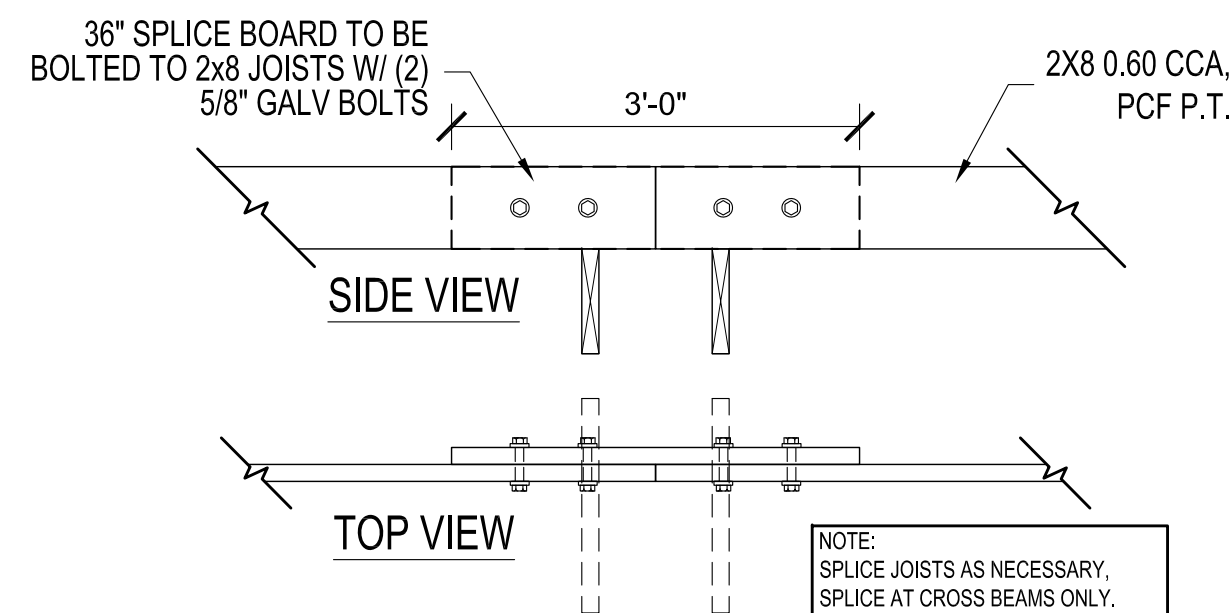
2 TYPICAL ADA HANDRAIL DETAIL  
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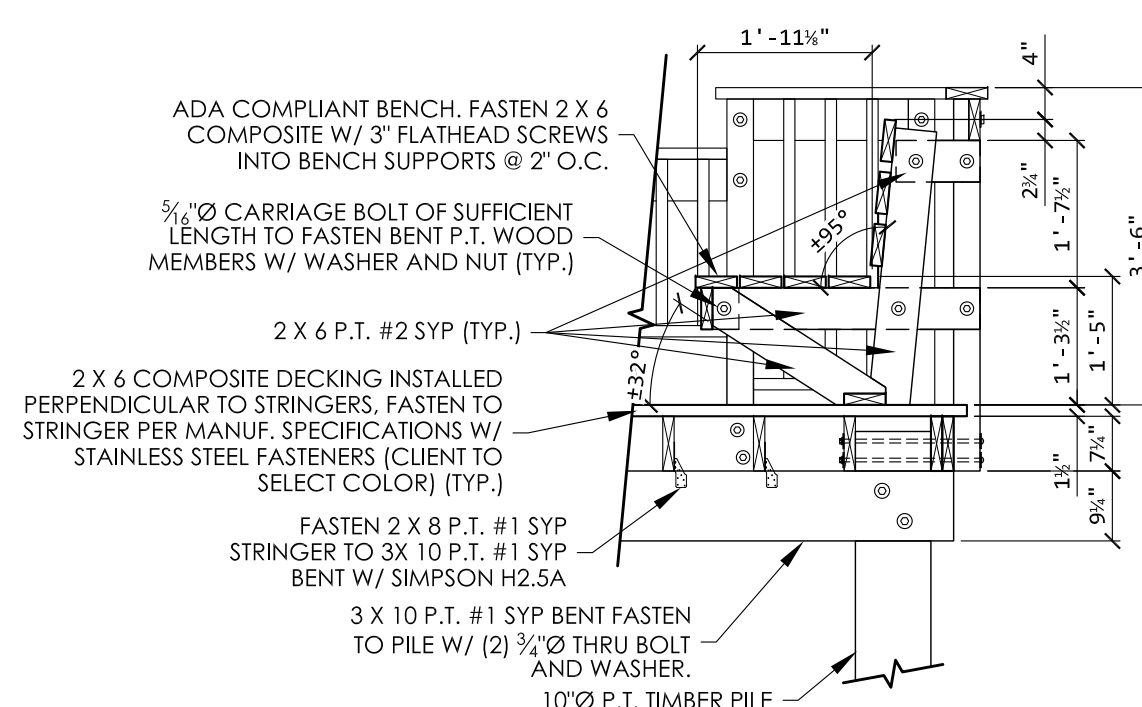
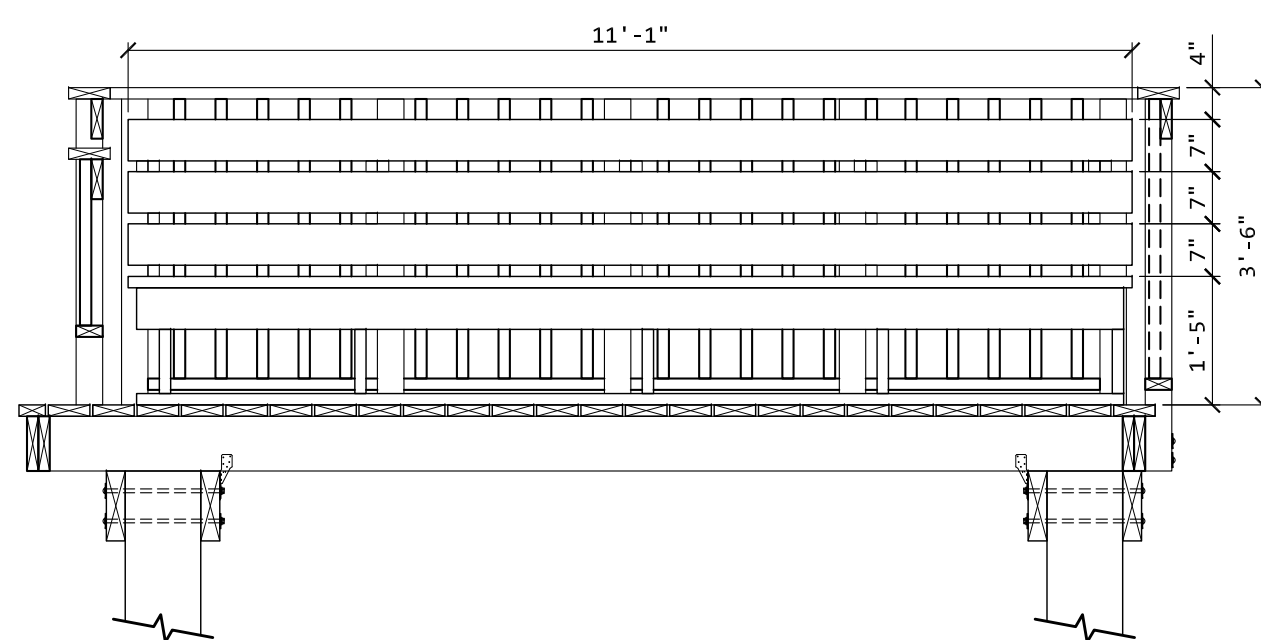
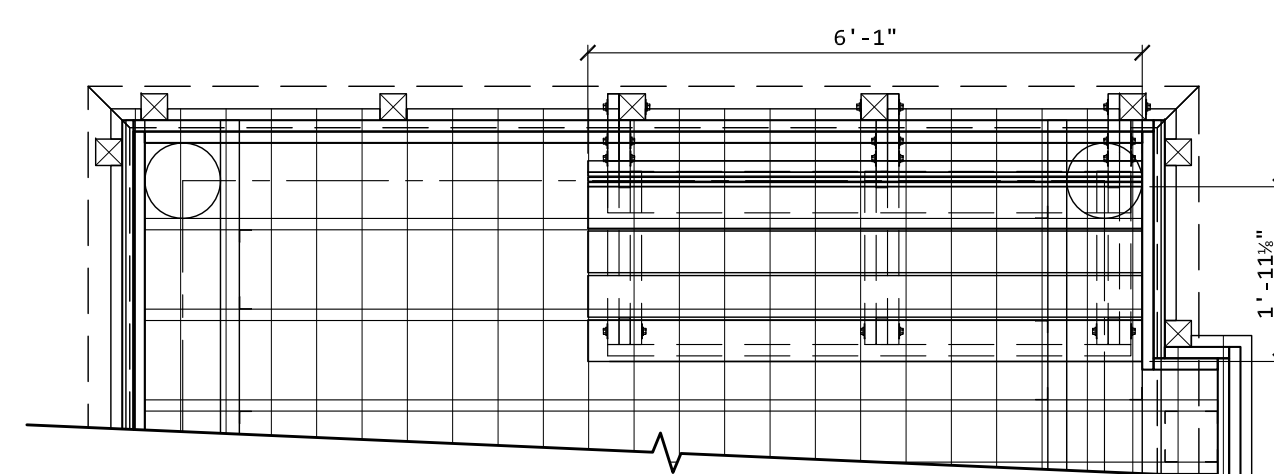
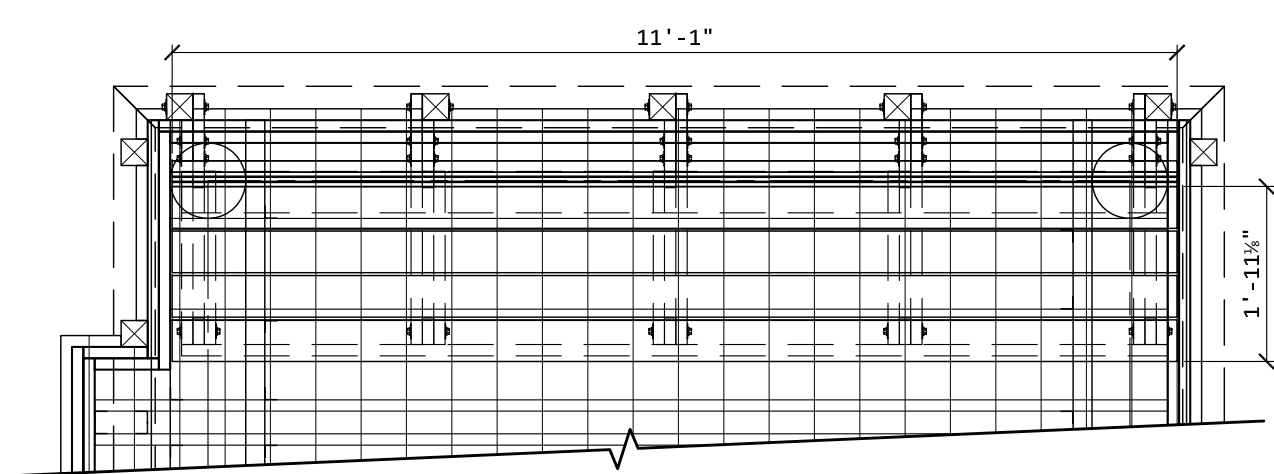
3 TYPICAL ACCESSIBLE FISHING GUARD DETAIL  
1/2" = 1'-0"



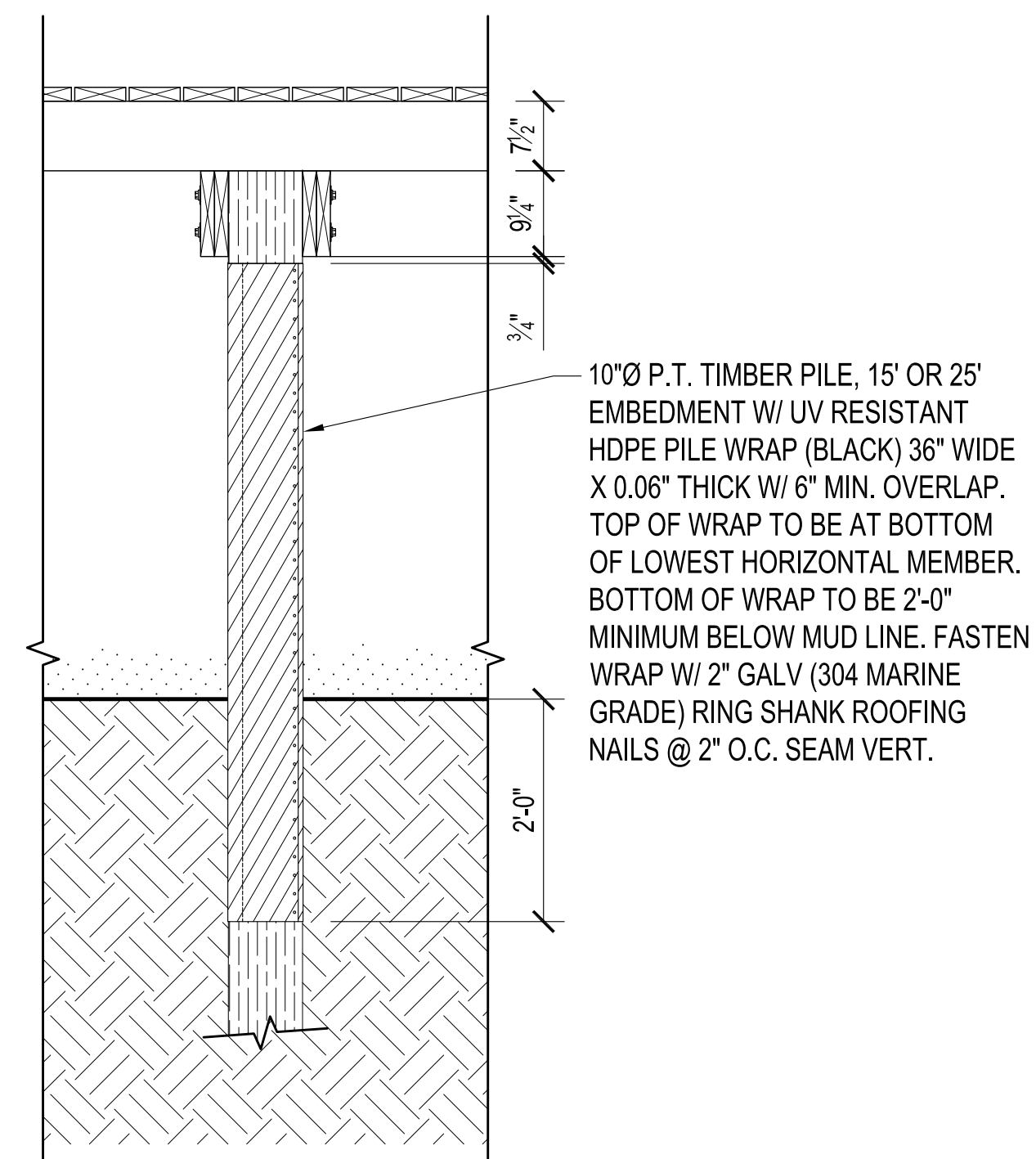
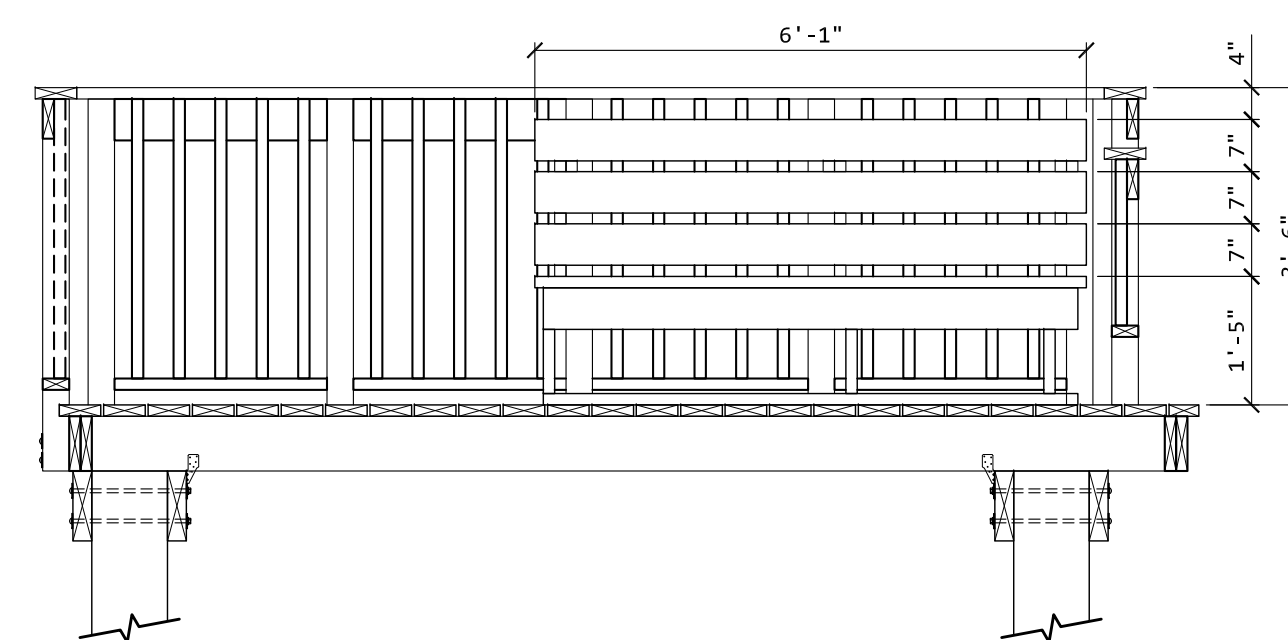
4 LAP SPLICE DETAIL  
3/4" = 1'-0"



5 GENERAL SPLICE DETAIL  
3/4" = 1'-0"



6 BENCH FRAMING DETAIL  
3/4" = 1'-0"



7 TYPICAL PILE WRAP DETAIL  
3/4" = 1'-0"

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**Lee County**  
 Southwest Florida

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