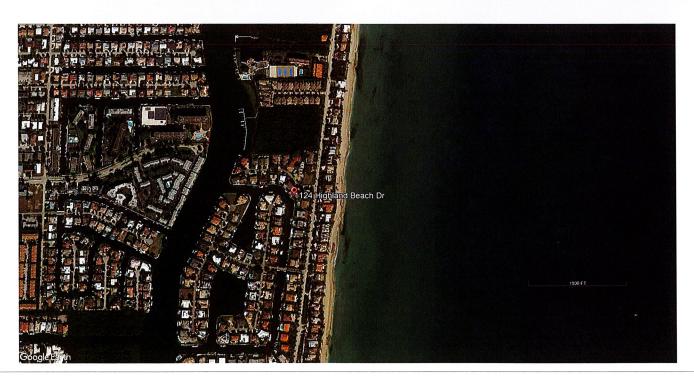






OCT 0 8 2021

HIGHLAND BEACH BUILDING DEPARTMENT







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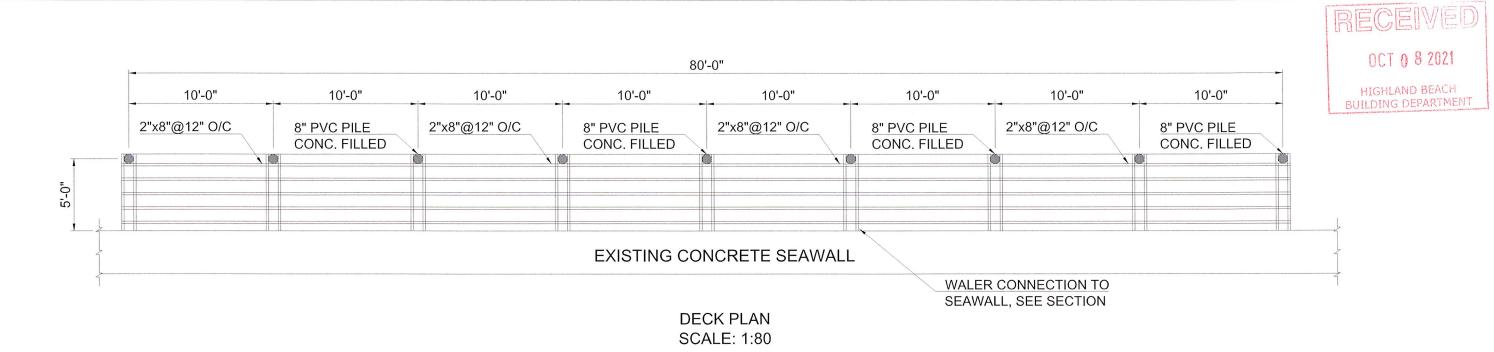
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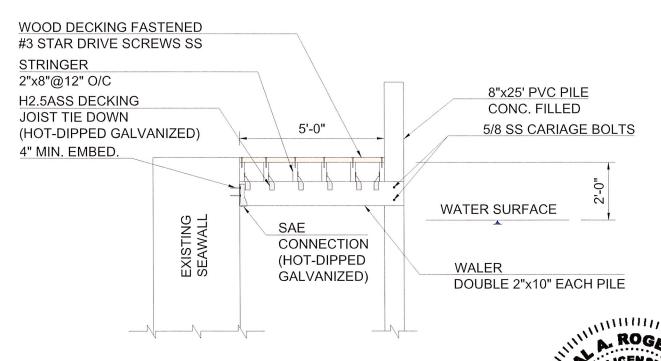
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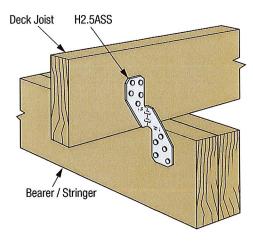
PROJECT:

CLIENT: Igor Chigirinsky DATE: SCALE: CHECKED: February 16, 2021 M.S. DRAWING NUMBER: HBFL-01 APPROVED: OF: SHEET:





SIMPSON Strong-Tie® SAE Fix Joist on Concrete/Masonry



SIMPSON Strong-Tie® H2.5ASS Decking Joist Tie Down

R TO CONCRETE TYPICAL CONNETION SCALE: NTS

STRINGER TO WALER CONNECTION DETAIL SCALE: NTS

PROJECT:



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1124 Highland Beach Highland Beach, FLORIDA 33487				
DRAWN: M.S.	CLIENT: Igor Chigirinsky			
CHECKED: M.S. APPROVED:	SCALE: AS SHOWN	DATE: February 16, 2021		
	DRAWING NUMBER: HBFL-02			
	SHEET: 2	OF: 4		

1 DESIGN DATA

- 1.1 CODE: 2020 FLORIDA BUILDING CODE, BUILDING, 7TH EDITION
- 1.2 BUILDING CLASSIFICATION UTILITY AND MISCELLANEOUS GROUP U
 - 1.2.1 DEAD LOAD 4.0 PSF
 - 1.2.2 LIVE LOAD 100 PSF
 - 1.2.3 WIND LOAD NOT EVALUATED- STRUCTURE NOT VULNERABLE TO EXCESSIVE WIND LOADS

2 GENERAL PROVISIONS

- 2.1 LICENSED CONTRACTOR IS RESPONSIBLE TO OBTAIN AND CONSPICUOUSLY POST ANY AND ALL LOCAL, STATE AND FEDERAL PERMITS THAT MAY BE REQUIRED. LICENSED CONTRACTOR SHALL VERIFY ALL REQUIRED PERMITS ARE OBTAINED AND CONSPICUOUSLY POSTED.
- 2.2 THESE PLANS DO NOT AUTHORIZE CONTRACTOR TO TRESPASS, DAMAGE OR OTHERWISE ALTER ADJACENT PUBLIC OR PRIVATE PROPERTY, EXCEPT THAT AUTHORIZED BY WRITTEN PERMISSION FROM THE OWNER.
- 2.3 ALL MATERIALS ARE TO BE PROVIDED AS TO TYPE, SIZE, MATERIAL AND MANUFACTURER AS SPECIFIED ON THESE DRAWINGS. CONTRACTOR MAY NOT DEVIATE FFROM THESE PLANS AND SPECIFICATIONS WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER.
- 2.4 THESE PLANS DO NOT AUTHORIZE AND DISCHARGE OF POLLUTANTS TO WATERS OF THE STATE OF FLORIDA EXCEPT THOSE DISCHARGES AUTHORIZED BY LOCAL OR STATE PERMIT.
- 2.5 LICENSED CONTRACTOR MAY NOT STORE OR TRANSFER ANY HAZARDOUS MATERIALS ON SITE.
- 2.6 UPON COMPLETION OF PILING INSTALLATION, CONTRACTOR SHALL PROVIDE A WRITTEN REPORT INCLUDING A DIAGRAM OF THE FINAL PILE LAYOUT AND THE NUMBER OF BLOWS AND DEPTH OF PILING AT REFUSAL FOR EACH PILE. CONTRACTORS REPORT AND DIAGRAM SHALL SHOW THE DEVIATION FROM PLUMB FOR EACH PILING.
- 2.7 LICENSED CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY CONFLICTS OR OMISSIONS BETWEEN EXISTING CONDITIONS OR THE VARIOUS ELEMENTS OF THE WORKING DRAWING SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF THE WORK. THE LICENSED CONTRACTOR AND ALL SUBCONTRACTORS ARE RESPONSIBLE FOR ALL LINES, ELEVATIONS, AND MEASUREMENTS.
- 2.8 ALL UNANTICIPATED OR UNFORESEEN DEMOLITION AND/OR NEW CONSTRUCTION CONDITIONS WHICH REQUIRE DEVIATION FROM THE PLANS AND NOTES HEREIN SHALL BE REPORTED TO THE ENGINEER PRIOR TO COMMENCEMENT OF WORK.
- 2.9 LICENSED CONTRACTOR TO VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK
- 2.10 THE LICENSED CONTRACTOR TO INSTALL AND REMOVE ALL SHORING AND BRACING AS REQUIRED FOR THE PROPER EXECUTION OF THE WORK.
- 2.11 THESE DRAWINGS ARE BASED ON THE HYDROGRAPHIC AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS
- 2.12 JOBSITE IS TO BE KEPT CLEAN AT ALL TIMES
- 2.13 THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND MUNICIPAL REQUIREMENTS AS WELL AS APPLICABLE DISTRICT SPECIAL PROVISIONS REGARDING ENDANGERED SPECIES.
- 2.14 ALL WORK PERFORMED, AS WELL AS, CONSTRUCTION MATERIALS AND TESTING SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, CODES, REGULATIONS AND ORDINANCES.
- 2.15 DOCK SHALL NOT BE USED UNTIL FINAL INSPECTION AND APPROVAL IS OBTAINED.
- 2.16 JOBSITE TO BE LEFT IN BROOM CLEAN CONDITIONS.
- 2.17 ALL EXPOSED HAZARDS TO BE PROPERLY PROTECTED AT ALL TIMES TO MEET OSHA STANDARDS.

3 **PILES**

- 3.1 PILES SHALL BE FIBERGLASS (FRP) OR WOOD PILES MARINE GRADE OR AS STATED ON DRAWINGS.
- 3.2 PROVIDE PILES OF SUCH LENGTH AS REQUIRED TO DEVELOP THE SPECIFIED BEARING VALUE, TO OBTAIN THE SPECIFIED PENETRATION, AND TO EXTEND ABOVE THE TOP OF DECK AS INDICATED
- 3.3 JETTING TO FACILITATE PILE PENETRATION SHALL NOT BE USED UNLESS SPECIFICALLY PERMITTED BY THE ENGINEER OF RECORD
- 3.4 PREDRILLED HOLES. WHEN NECESSARY TO ACHIEVE THE REQUIRED PENETRATION, DRILL HOLES OF DIAMETER NOT GREATER THAN 90 PERCENT OF THE AVERAGE CROSS-SECTIONAL DIMENSION OF THE PILE AT THE DEPTH BEING DRILLED AND DRIVE THE PILETHEREIN TO PRACTICAL REFUSAL.
- 3.5 PENETRATION PER BLOW MAY BE MEASURED EITHER DURING INITIAL DRIVING OR DURING RE--DRIVING FOLLOWING A SET PERIOD OF TIME AS DETERMINED BY THE ENGINEER OF RECORD.
- 3.6 PRACTICAL REFUSAL: PRACTICAL REFUSAL WILL BE EITHER A CONDITION WHERE THE BLOW COUNT EXCEEDS TWO TIMES THE NUMBER OF BLOWS REQUIRED IN 1 FOOT OR 40 BLOWS PER FOOT FOR TIMBER PILES.
- 3.7 PILES MUST BE INSTALLED TO ACHIEVE THE MINIMUM LATERAL RESISTANCE. IN ACCORDANCE WITH FLORIDA BUILDING CODE 1810.2.1 LATERAL SUPPORT, PILES TO BE INSTALLED A MINIMUM OF 5 FEET INTO STIFF SOIL OR 10 FEET INTO SOFT SOIL UNLESS OTHERWISE APPROVED BY THE BUILDING OFFICIAL ON THE BASIS OF A GEOTECHNICAL INVESTIGATION BY A REGISTERED DESIGN PROFESSIONAL. PILES WHICH HAVE REACHED PRACTICAL REFUSAL BUT HAVE NOT BEEN INSTALLED TO ACHIEVE THE MINIMUM LATERAL STABILITY SHALL BE REMOVED. AND THE PILE PREDRILLED TO ACHIEVE THE MIMINUM LATERAL RESISTANCE EMBEDMENT.
- 3.8 PER GENERAL REQUIREMENT 2.6, UPON COMPLETION OF PILING INSTALLATION CONTRATOR SHALL SUBMIT TO ENGINEER A DIMENSIONED DIAGRAM OF THE FINAL PILING LAYOUT, WITH BLOWS TO REUSAL AND DEVIATION FROM PLUMB.
- 3.9 THE MAXIMUM DRIVING STRESS, PSI FOR TIMBER PILES SHALL NOT EXCEED 3FCO, WHERE FCO IS THE BASE RESISTANCE OF WOOD IN COMPRESSION PARALLEL TO THE GRAIN, IN PSI.
- 3.10 DO NOT DRIVE PILES WITHIN 20 FEET OF CONCRETE LESS THAN 2 DAYS OLD, SINCE MOST CONCRETE IS CLOSE TO 50% STRENGTH AFTER 2 DAYS.
- 3.11 PROVIDE ADEQUATE LATERAL SUPPORT FOR INSTALLED INDIVIDUAL PILES TO PREVENT EXCESSIVE TEMPORARY FLEXURAL STRESSES OR MOVEMENT OF THE PILE TOP OUT OF TOLERANCE.
- 3.12 INSTALLATION TOLERANCES.
 - 3.12.1 DEVIATION FROM PLUMB AND ANGLE OF BATTER: 2 INCH PER FOOT OF PILE LENGTH, BUT NOT MORE THAN 6 INCHES OVERALL
 - 3.12.2 DEVIATION FROM LOCATION OF PILE TOP: 2 INCHES.
- 3.13 WHEN THE AREA OF THE HEAD OF A TIMBER PILE IS GREATER THAN THAT OF THE FACE OF THE HAMMER, USE A SUITABLE CAP TO DISTRIBUTE THE BLOWS THROUGHOUT THE CROSS SECTION OF THE PILE.
- 3.14 AFTER TIMBER PILES ARE CUT OFF, TREAT CUT SURFACES IN ACCORDANCE WITH AWPA M4.

DECKING REQUIREMENTS

- 4.1 ALL DECKING MATERIAL SHALL BE COMPOSED OF DIMENSICN LUMBER (2" NOMINAL THICKNESS) OR COMPOSIT DECKING. COMPOSITE DECKING TO CONSIST OF RECYCLED LINEAR LOW-DENSITY POLYETHYLENE (LLDPE) AND RECYCLED WOOD.
- 4.2 DECKING TO BE ATTACHED TO EACH STRINGER OR DOUBLE STRINGER LOCATION WITH #3 SS SCREWS, OR PROPRIETARY CONCEALED FASTENING SYSTEM, SUCH AS TREX UNIVERSAL HIDEAWAY HIDDEN FASTENERS, OR ENGINEER APPROVED SUBSTITUTION, INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, SAE CONNECTORS SHALL BE HOT-DIPPED GALVANIZED.
- 4.3 DECKING MATERIAL TO BE SPACED APPROXIMATELY 1/8" APART. RECOMMENDED SPACING FOR TREATED 2X6.

WIDTH AT INSTALLATION SPACING (MIN - MAX)

5 1/2" (WET OR DRY) 1/8"- 1/4" 5 5/8" (WET) 1/16"-1/8"

5 3/4" (WET) BUTT BOARDS TOGETHER

OVER 5 3/4" (WET) ALLOW DRYING TIME PRIOR TO INSTALLATION

4.4 EACH SEGMENT OF DECKING MUST BEAR ON A MINIMUM OF 3 STRINGERS (OR 3 SUPPORTS).



5 WOOD MATERIALS

- 5.1 LUMBER GRADE.
- 5.1.1 WOOD DECK: MARINE GRADE NO. 1.
- 5.1.2 ALL OTHERS: MARINE GRADE NO. 1 OR NO. 2
- 5.2 LUMBER SPECIES: SOUTHERN YELLOW PINE (SYP) OR APPROVED ALTERNATIVE.
- 5.3 LUMBER (INCLUDING TIMBER PILES) IS TO BE PRESERVATIVE TREATED IN COMPLIANCE WITH APPLICABLE REQUIREMENTS OF AMERICAN WOOD--PRESERVERS' ASSOCIATION (AWPA)
- 5.4 END USE CATEGORY: AWPA UCSC (MARINE USE SOUTHERN WATERS.
- 5.5 LUMBER THAT IS CUT, DRILLED, PLANED, OR OTHERWISE ALTERED AFTER TREATMENT IS TO BE TREATED IN FIELD IN COMPLIANCE WITH AWPA STANDARD M4 (CARE OF PRESSURE TREATED WOOD PRODUCTS) TO ALTERED SURFACES. INSPECT EACH PIECE OF LUMBER AFTER DRYING AND DISCARD DAMAGED OR DEFECTIVE PIECES
- 5.6 ROUND TIMBER POLES AND PILES SHALL COMPLY WITH ASTM D3200 AND ASTM D25, RESPECTIVELY
- 5.7 STRINGER SPLICES MUST OCCUR AT PILE LOCATIONS ONLY. AS FAR AS PRACTICAL, STRINGER SPLICES TO BE ALTERNATED SO THAT TWO ADJACENT SPLICES DO NOT OCCUR AT SAME PILE LOCATION. STRINGER SPLICES AT PILE LOCATIONS TO BE WITH 2" MINIMUM LENGTH SCAB OF SAME MATERIAL AS STRINGER, WITH A MINIMUM OF 4 -- 1/4" DIA. LAG SCREWS EACH SIDE OF SPLICE WITH 2" EDGE AND END DISTANCE.



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6 **FASTENERS**

- 6.1 UNLESS NOTED OTHERWISE FASTENERS AND CONNECTORS SHALL BE OF STAINLESS STEEL CONSTRUCTION COMPLYING WITH ASTM A316.
- 6.2 FASTENERS AND CONNECTORS SHALL BE OF THE SAME CORROSION--RESISTANT MATERIAL
- 6.3 SELECT FASTENERS OF SIZE THAT WILL NOT FULLY PENETRATE MEMBERS WHERE OPPOSITE SIDE WILL BE EXPOSED TO VIEW OR WILL RECEIVE FINISH MATERIALS.
- 6.4 MAKE TIGHT CONNECTIONS BETWEEN MEMBER.
- 6.5 ANCHOR ADHESIVE SHALL BE A HIGH PERFORMANCE, TWO COMPONENT ADHESIVE ANCHORING SYSTEM, SUCH AS SIKA®ANCHORFIX--1, OR ENGINEER APPROVED SUBSTITUTION, INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- 6.6 LAG SCREWS AND BOLTS TO MEET REQUIREMENTS OF ANSI/ASME STANDARD B18.2.1
- 6.7 INSTALL FASTENERS WITHOUT SPLITTING WOOD; PREDRILL AS REQUIRED.
- 6.8 LEAD HOLES FOR LAG SCREWS SHALL BE BORED AS FOLLOWS TO AVOID SPLITTING OF THE WOOD MEMBER DURING CONNECTION FABRICATION:
 - (A) THE CLEARANCE HOLE FOR THE SHANK SHALL HAVE THE SAME DIAMETER AS THE SHANK, AND THE SAME DEPTH OF PENETRATION AS THE LENGTH OF UNTHREADED SHANK.
 - (B) THE LEAD HOLE FOR THE THREADED PORTION SHALL HAVE A DIAMETER EQUAL TO 60% TO 75% AND A LENGTH EQUAL TO AT LEAST THE LENGTH OF THE THREADED PORTION. THE LARGER PERCENTILE IN EACH RANGE SHALL APPLY TO LAG SCREWS OF GREATER DIAMETERS.
- 6.9 THE THREADED PORTION OF THE LAG SCREW SHALL BE INSERTED IN ITS LEAD HOLE BY TURNING WITH A WRENCH NOT BY DRIVING WITH A HAMMER.
- 6.10 SOAP OR OTHER LUBRICANT MAY BE USED ON THE LAG SCREW OR IN THE LEAD HOLES TO FACILITATE INSERTION AND TO PREVENT DAMAGE TO THE LAG SCREW.
- 6.11 THE MINIMUM LENGTH OF LAG SCREW PENETRATION, PM NOT INCLUDING THE LENGTH OF THE TAPERED TIP, E, OF THE LAG SCREW INTO THE MAIN MEMBER OF SINGLE SHEAR CONNECTIONS AND THE SIDE MEMBERS OF DOUBLE SHEAR CONNECTIONS SHALL BE 4D.
- 6.12 LAG BOLT HOLES SHALL BE A MINIMUM OF 1/32" TO A MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER HOLES SHALL BE ACCURATELY ALIGNED IN MAIN MEMBERS AND SIDE MEMBERS. BOLTS SHALL NOT BE FORCIBLY DRIVEN.
- 6.13 A STANDARD CUT WASHER SHALL BE PROVIDED BETWEEN THE WOOD AND THE BOLT HEAD AND BETWEEN THE WOOD AND THE NUT.
- 6.14 1/4" DIAMETER TAPCONS REQUIRE 1 1/2" MINIMUM EDGE DISTANCE AND 1 1/2" MINIMUM EMBEDMENT INTO 4000 PSI CONCRETE MINIMUM.
- 6.15 3/8" DIAMETER WEDGE ANCHORS REQUIRE 1 3/4" MINIMUM EDGE DISTANCE AND 1 1/2" MINIMUM EMBEDMENT INTO 4000 PSI CONCRETE MINIMUM.

Neal A. Digitally signed by Neal A. Rogers Jr Date: 2021.03.23

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