

Halsey Beshears, Secretary

Ron DeSantis, Governor

January 27, 2023

Todd Gunter

Leonard Aluminum Utility Buildings, LLC  
630 W. Independence Blvd, Suite 3  
Mount Airy, NC 27030

RE: Manufacturer Certification, ID MFT-14344; Expiration Date: January 27, 2026

Dear Todd Gunter

It is my pleasure to inform you that Leonard Aluminum Utility Buildings, LLC, located at 249 Douglas Street, Valdosta, GA 31601, has been approved under the Manufactured Buildings Program, as provided for under Chapter 553, Part I, Florida Statutes, to manufacture Storage Sheds for installation in Florida.

Construction or modification on a manufactured building cannot begin until the Third Party Agency has approved the plans in accordance with the current Florida Building Code. Your Third Party Agency is a contractor for the Department and has statutory authority and responsibilities that must be met to maintain approved status. You may expect and demand quality plans review and inspections.

Each Code change will make your plans obsolete until they have been reviewed, approved and indicated [on the cover page of the plans] for compliance with the Code by your Third Party Agency for plans review. Please ensure that your plans are in compliance and are properly posted on our website. All site-related installation issues are subject to the local authority having jurisdiction.

The Department's contractor will make unannounced monitoring visits at least once each year. You must grant complete access to your manufacturing facility and records to remain in compliance with the rules and regulations of this program.

Your certification is approved for three years from this date. You will receive a renewal notice by Email generated by the BCIS ([www.floridabuilding.org](http://www.floridabuilding.org)) for online renewal. If you have questions you may contact Robert Lorenzo at 850-717-1835 or our FAX at 850-414-8436.

Please visit our website at [www.floridabuilding.org](http://www.floridabuilding.org) to see valuable information on the Florida Manufactured Buildings Program. A copy of this letter must accompany applications for local building permits.

Sincerely,



Robert Lorenzo  
Manufactured Buildings Program

cc: Top Line Engineering, LLC

January 18, 2024

Mr. Thomas Campbell  
Florida Department of Business and Professional Regulation  
2601 Blair Stone Road, Building C  
Tallahassee, Florida 32399-6563

**RE: Plan Approval  
Leonard-Cook VALDOSTA  
Plan # LEAN TO-23**

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Dear Mr. Campbell,

Pursuant to the requirements of the Department of Business & Professional Regulation, the above referenced documents have been reviewed for compliance with:

**2023 Florida Building Code, 8<sup>th</sup> Edition  
2020 National Electrical Code (NFPA-70)**

All mandatory comments have been satisfied and plans are approved for construction by a currently approved modular building manufacturer.

These documents were reviewed for only what is to be constructed in the factory. Any work performed at the site, such as the foundation, is under the authority and jurisdiction of the local Building Official.

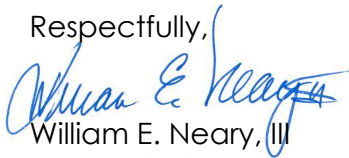
Third Party Agency approval in no way alleviates the builder/manufacturer from complying with all the applicable codes, which may or may not be identified in this review. Approval also does not preclude the local building official from requiring work be performed that was not previously reviewed, approved, and constructed under the State of Florida's Manufactured (Modular) Building Program to make the building, code compliant, for the intended use.

A signed and sealed set of plans are maintained on file with Top Line Engineering, LLC.

If you require my assistance in any way, please do not hesitate to contact me.

Thank you.

Respectfully,



William E. Neary, III  
Plans Examiner  
SMI-79, SMP-51, ICC 5185040, LSUCCC U02478  
Business Partner  
Top Line Engineering, LLC  
[BILL.TLE@yahoo.com](mailto:BILL.TLE@yahoo.com)

**PLEASE NOTE:**

***Any questions regarding local permitting should be directed to the Manufacturer. The Manufacturer's contact information can be found in the title block of the plans.***

# LEONARD BUILDINGS

DBA COOK PORTABLE WAREHOUSES

100 DOUGLAS ST., VALDOSTA, GA 31601

132 CENTRAL INDUSTRIAL ROW, PURVIS, MS 39475

1398 HWY 95 NORTH, BASTROP, TX 78602

**NOT APPROVED FOR HVHZ**

## LEAN-TO SHED STATE OF FLORIDA

Design Criteria	
BUILDING CODE	2023 FLORIDA BUILDING CODE 8TH EDITION ASCE 7-22
ELECTRICAL CODE	2020 NEC, NFPA70
BUILDING TYPE	RESIDENTIAL LAWN STORAGE SHED
MANUFACTURER	LEONARD BUILDINGS
AGENCY	TOP LINE ENGINEERING
AGENCY PLAN NUMBER	LEAN-TO 2023 FBC
CONSTRUCTION TYPE	V-B
FIRE PROTECTION	B
FIRE SUPPRESSION SYSTEM	NO
OCCUPANCY	U - UTILITY
NUMBER OF OCCUPANTS	0
ALLOWABLE # OF STORIES	1
WIND INFORMATION	160 MPH ULTIMATE; EXPOSURE C, CATEGORY I; ENCLOSED; +/- 0.18 INTERNAL PRESSURE COEFFICIENT; 15' HEIGHT
FLOOR LIVE LOAD	40.0 PSF
FLOOR DEAD LOAD	4.0 PSF
ROOF LIVE LOAD	20.0 PSF
ROOF DEAD LOAD	7.0 PSF
WALL DEAD LOAD	3.0 PSF
UNINHABITED LOFT LIVE LOAD	0.0 PSF
GROUND SNOW LOAD	30.0 PSF
FIRE RATING OF EXTERIOR WALLS	0
"R" RATING OF FLOOR, WALL, AND ROOF	R-0, R-0, R-0
MODULES PER BUILDING	1
SQUARE FOOTAGE	LESS THAN 719 SQ. FT.
EXEMPT FROM ENERGY CONSERVATION CODE?	YES
APPROVED FOR HURRICANE PROTECTION USAGE?	NO
DESIGNED FOR HURRICANE PUBLIC SHELTER?	NO

### SITE INSTALLED ITEMS:

NOTE THAT THIS LIST DOES NOT NECESSARILY LIMIT THE ITEMS OF WORK AND MATERIALS THAT MAY BE REQUIRED FOR A COMPLETE INSTALLATION. ALL SITE RELATED ITEMS ARE SUBJECT TO LOCAL JURISDICTION APPROVAL.

1. THE COMPLETE FOUNDATION SUPPORTING AND TIE-DOWN SYSTEM.
2. RAMPS, STAIRS, AND GENERAL ACCESS TO THE BUILDING IF NECESSARY.
3. GUTTERS AND DOWN SPOUTS ON ALL BUILDINGS WITH EAVES OF LESS THAN 6 INCHES HORIZONTAL PROJECTION EXCEPT FOR GABLE END RAKES.

### OCCUPANCY NOTE:

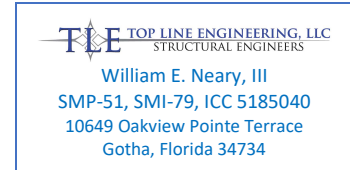
THIS BUILDING IS NOT DESIGNED FOR HUMAN HABITATION AND DOES NOT HAVE RUNNING WATER OR SANITATION SERVICES. THIS BUILDING IS DESIGNED AS A UTILITY SHED TO STORE LAWN EQUIPMENT SUCH AS WHEEL BARROWS, GARDENING SUPPLIES, FLOWER POTS, AND CARDBOARD BOXES WITH VARIOUS SMALL ITEMS.

NOTE:  
FLOOD VENTS TO BE INSTALLED ON SITE BY OTHERS.

**Please note: Any questions regarding local permitting should be directed to the Manufacturer. The Manufacturer's contact information can be found in the title block of the plans.**

2024-01-18 TOP LINE ENGINEERING, LLC APPROVAL

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**Kent M. Bice PE - This item has been electronically signed and sealed by Kent M. Bice using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.**

FL PE Name: Kent M. Bice  
FL PE #: 50421  
FL COA #: 30468



01/18/24

01/16/24

1552 6TH ST., WINTER HAVEN, FL 33880  
(863)865-6502

COVER SHEET

DATE: 04/12/18

DRAWN BY: RD

SCALE: AS NOTED

CHECKED BY: KMB

SHEET:

**S-1**

SHEET 1 OF 12

THESE PLANS WERE DESIGNED IN ACCORDANCE WITH THE 2023 FLORIDA BUILDING CODE 8TH EDITION ASCE 7-22.

**GENERAL NOTES:**

1. THIS STRUCTURE WAS DESIGNED IN ACCORDANCE WITH THE 2023 FLORIDA BUILDING CODE 8TH EDITION ASCE 7-22, (2023 FBC).
2. ALL MATERIALS AND LABOR SHALL BE IN ACCORDANCE WITH THE ABOVE CODE AND ALL OTHER APPLICABLE LOCAL CODES AT THE TIME OF MANUFACTURE.
3. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
4. THE FOUNDATION PLAN IS A SEPARATE SET OF PLANS FOR APPROVAL BY LOCAL MUNICIPALITIES.
5. EXTERIOR DIMENSIONS CAN VARY BETWEEN LIMITS SHOWN AT 2' O.C. BUT MEMBER SPACING SHALL NOT EXCEED LIMITS AS INDICATED.
6. ALL THE FOLLOWING LUMBER SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPA USE CATEGORY UC4B (GROUND CONTACT, HEAVY DUTY)-SKIDS.
7. ALL THE FOLLOWING LUMBER SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPA USE CATEGORY UC3B (EXTERIOR ABOVE GROUND, UNCOATED OR POOR WATER RUNOFF)-FLOOR JOISTS, PLYWOOD FLOOR DECKING, AND EXTERIOR RATED WOOD STRUCTURAL PANEL SIDING.
8. ALL FASTENERS AND CONNECTORS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE HOT DIPPED GALVANIZED (G185) OR STAINLESS STEEL.
9. ALL WINDOWS WITHIN 24" OF DOORS, AND ALL GLASS IN DOORS SHALL BE SAFETY, TEMPERED, OR ACRYLIC PLASTIC SHEET.
10. FOR ROOFS WITH ASPHALT SHINGLES AND A SLOPE BETWEEN 2 TO 12 AND 4 TO 12 SHALL HAVE A DOUBLE UNDERLAYMENT APPLICATION AS REQUIRED IN ACCORDANCE WITH SECTION 1507.2.2 OF THE 2023 FBC OR PER SHINGLE MANUFACTURER INSTRUCTIONS.
11. UNDERLAYMENT SHALL CONFORM WITH SECTION 1507.2.3 OF THE 2023 FBC OR PER SHINGLE MANUFACTURER INSTRUCTIONS.
12. ASPHALT SHINGLES SHALL CONFORM WITH SECTION 1507.2.5 OF THE 2023 FBC ATTACHMENT OF ASPHALT SHINGLES SHALL CONFORM WITH 1507.2.7 OF THE 2023 FBC.
13. FASTENERS FOR ASPHALT SHINGLES SHALL CONFORM TO SECTION 1507.2.6 OF THE 2023 FBC.
14. TIE-DOWNS SHALL MEET THE REQUIREMENTS OF ALL APPLICABLE CODES.
15. THESE PLANS HAVE NOT BEEN DESIGNED FOR HVHZ REQUIREMENTS AS SET FORTH IN THE 2023 FBC OR FOR USE AS A COMMERCIAL BUILDING.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY AND PLACEMENT OF LAWN STORAGE UNIT TO ENSURE THE INTEGRITY OF THE BUILDING AND ITS COMPONENT PARTS.
18. NO FIELD REVISIONS TO ANY STRUCTURAL COMPONENTS OR DEVIATIONS FROM THESE DRAWINGS SHALL BE MADE.
19. THE OWNER AND THE CONTRACTOR SHALL HOLD HARMLESS THE ENGINEER FROM AND AGAINST ALL LIABILITY CLAIMS, DAMAGES, LOSSES AND EXPENSES INCLUDING LEGAL FEES ARISING OUT OF OR RESULTING FROM ERRORS OR OMISSIONS IN THE PERFORMANCE OF THE WORK BY THE CONTRACTOR.
20. SECTIONS AND DETAILS ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY AT ALL SIMILAR LOCATIONS, UNLESS OTHER SECTIONS AND DETAILS ARE SPECIFICALLY REFERENCED.
21. REFER TO SUPPLIED FASTENING SCHEDULE FOR FASTENING BASED ON CONNECTION AND LOCATION OF MEMBERS AS PER 2023 FBC TABLE 2304.10.1 UNLESS NOTED OTHERWISE.
22. BUILDINGS HAVE BEEN DESIGNED FOR LP SMARTSIDE STRAND SUBSTRATE PANEL SIDING, LP SMARTSIDE PRECISION LAP SIDING SHALL BE USED WITH X-STRAPS OR STRUCTURAL SHEATHING AS DETAILED IN THIS PLAN SET
23. FASTENERS IN LP SMARTSIDE STRAND SUBSTRATE PANEL SIDING MUST NOT BE INSTALLED IN PANEL SIDING GROOVES IN THE FIELD OF THE PANEL SIDING OR WHEN THE PANEL SIDING GROOVES OCCUR AT CUT EDGES OF THE PANEL SIDING.
24. REFER TO THE ICC-ES EVALUATION REPORT ESR-1301 / 3090 FOR ADDITIONAL DATA AND SPECIFICATIONS OF LP SMARTSIDE STRAND SUBSTRATE PANEL / LAP SIDING.
25. MAX OPENINGS WIDTHS MUST COMPLY WITH DESIGN RATIOS AS PER ANSI/AF&PA SDPWS-2015. BUILDINGS HAVE BEEN DESIGNED TO HAVE ONLY OPENINGS WITH MAX WIDTHS AS DETAILED IN THIS PLAN SET.
26. PER SECTION 1609.1.2 OF THE 2023 FBC, STORAGE SHEDS THAT ARE NOT DESIGNED FOR HUMAN HABITATION AND THAT HAVE A FLOOR AREA OF 720 SQUARE FEET OR LESS ARE NOT REQUIRED TO COMPLY WITH THE MANDATORY WIND-BORNE-DEBRIS-IMPACT STANDARDS OF THE 2023 FBC.
27. BUILDINGS HAVE BEEN DESIGNED TO HAVE ANCHORS DIRECTLY ATTACHED TO ALL FOUR CORNERS OF THE BUILDING TO RESIST TENSION FORCES FROM LATERAL WIND LOADS. THIS DESIGN CONSIDERATION MUST BE MADE BY INSTALLER WHEN ATTACHING ANCHORING SYSTEM TO BUILDING.
28. UNLESS NOTED OTHERWISE, ATTACH ALL MANUFACTURED PRODUCTS IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
29. 2X4 SP #2 PRESSURE TREATED LUMBER SHALL BE SUBSTITUTED FOR 2X4 SPF #2 LUMBER IN WALLS FOR USE IN FLOOD PLAINS.
30. PER APA PRODUCT REPORT PR-N124, LP SMARTSIDE STRAND SUBSTRATE SERIES TREATED-ENGINEERED-WOOD PANEL AND LAP SIDING IS PERMITTED ON WALLS FOR USE IN FLOOD PLAINS.
31. 19/32" LP PROSTRUCT FLOORING WITH SMARTFINISH IS PERMITTED IN LIEU OF 5/8" APA RATED STRUCTURAL SHEATHING ON FLOOR. INSTALL PER MANUFACTURER INSTRUCTIONS.
32. BUILDINGS ARE APPROVED FOR RESIDENTIAL LAWN STORAGE ONLY.
33. IN ACCORDANCE WITH FLORIDA STATUTE 553.80 (1) D F.S., LAWN STORAGE BUILDINGS AND STORAGE SHEDS BEARING THE INSIGNIA OF APPROVAL OF THE DEPARTMENT ARE NOT SUBJECT TO S. 553.842. (FLORIDA PRODUCT APPROVALS) BUT SHALL MEET THE DESIGN WIND LOAD REQUIREMENTS OF THE 2023 FBC, 8<sup>TH</sup> EDITION. COMPONENTS AND CLADDING PRODUCTS USED TO CONSTRUCT THE SHED ARE SUBJECT TO SECTION 553.8425, F.S., AND SECTIONS 1703.5-1703.5.4, OF THE FLORIDA BUILDING CODE.
34. IN ACCORDANCE WITH FBC 1609.1.2 (3), AND FBC SECTION 1626.1 EXCEPTION (F): STORAGE SHEDS THAT ARE NOT DESIGNED FOR HUMAN HABITATION AND THAT HAVE A FLOOR AREA OF LESS THAN 720 SQUARE FEET OR LESS ARE NOT REQUIRED TO COMPLY WITH THE MANDATORY WINDBORNE DEBRIS IMPACT STANDARDS OF THIS CODE.
35. IN ACCORDANCE WITH FBC 1010.1.1, EXCEPTION (10.) BUILDINGS THAT ARE 400 SQUARE FEET OR LESS AND THAT ARE INTENDED FOR USE IN CONJUNCTION WITH ONE-AND TWO-FAMILY RESIDENCES ARE NOT SUBJECT TO THE DOOR HEIGHT AND WIDTH REQUIREMENTS OF THIS CODE.
36. THIS BUILDING IS EXEMPT FROM THE FECC PER SECTIONS R101.4.2.4, R402.1. EXCEPTION 1.2
37. IN ACCORDANCE WITH FLORIDA ADMINISTRATIVE CODE RULE 61-41.009, PHOTOCOPIES OF APPROVED PLANS SHALL BE SUFFICIENT FOR LOCAL PERMIT APPLICATION DOCUMENTS OF RECORD FOR THE MODULAR BUILDING PORTION OF THE PERMITTED PROJECT.
38. IN ACCORDANCE WITH FBC 107.3, EXCEPTION (1), BUILDING PLANS APPROVED PURSUANT TO SECTION 553.77(5), FLORIDA STATUTES, AND STATE-APPROVED MANUFACTURED BUILDINGS ARE EXEMPT FROM LOCAL CODES ENFORCING AGENCY PLAN REVIEWS EXCEPT FOR PROVISIONS OF THE CODE RELATING TO ERECTION, ASSEMBLY, OR CONSTRUCTION AT THE SITE. ERECTION, ASSEMBLY, AND CONSTRUCTION AT THE SITE ARE SUBJECT TO LOCAL PERMITTING AND INSPECTIONS.
39. ALL WINDOWS AND DOORS SHALL MEET THE MINIMUM SPECIFICATIONS PER THE APPROVED PLANS AND THE 2023 FBC, 8<sup>TH</sup> EDITION.
40. COMPONENTS/CLADDING SHALL BE IN COMPLIANCE WITH THE 2023 FBC 8<sup>TH</sup> EDITION.
41. METAL FLAT STRAPS ARE TO BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS. FLAT METAL STRAPS CAN BE BENT AROUND STRUCTURAL MEMBERS, WALL STUDS, TRUSSES, CHORDS, ETC. TO HELP SECURE THESE MEMBERS, PROVIDED THAT THE ADDED BEND DOES NOT INTERFERE WITH ANY OF THE EXISTING BREAKS/BENDS IN THE STRAP PER THE MANUFACTURER'S SPECIFICATIONS.
42. HVHZ COMPONENTS UTILIZED FOR SHEDS REQUIRE THAT INSTALLATION SHALL BE PER MANUFACTURER'S INSTRUCTIONS.
43. FOUNDATION PLANS ARE NOT PART OF THIS PLAN SET AND ARE GOVERNED BY LOCAL JURISDICTION.
44. REFER TO TIE DOWN DETAILS FOR PROPER INSTALLATION REQUIREMENTS TO MEET CODE.
45. GUTTERS SHALL BE SITE INSTALLED AND SHALL BE APPROVED BY THE AUTHORITY HAVING JURISDICTION AND SHALL COMPLY WITH LOCAL REQUIREMENTS FOR PERMITTING.
46. SHEDS LOCATED IN FLOOD HAZARD AREAS MUST COMPLY WITH THE LOCAL FLOOD ZONE REGULATIONS.
47. IF A WALL IS FRAMED FOR FUTURE HVAC UNITS, UNIT INSTALLATION SHALL BE APPROVED BY THE AUTHORITY HAVING JURISDICTION AND SHALL COMPLY WITH LOCAL REQUIREMENTS FOR PERMITTING.
48. WINDOWS AND DOORS INSTALLED BY THE CUSTOMER SHALL BE APPROVED BY THE AUTHORITY HAVING JURISDICTION AND SHALL COMPLY WITH LOCAL REQUIREMENTS FOR PERMITTING.

**Kent M. Bice PE - This item has been electronically signed and sealed by Kent M. Bice using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.**

**TLE** TOP LINE ENGINEERING, LLC  
STRUCTURAL ENGINEERS  
William E. Neary, III  
SMP-51, SMI-79, ICC 5185040  
10649 Oakview Pointe Terrace  
Gotha, Florida 34734

**FL PE Name: Kent M. Bice**  
**FL PE #: 50421**  
**FL COA #: 30468**



01/16/24 01/18/24

1552 6TH ST., WINTER HAVEN, FL 33880  
(863)865-6502

**GENERAL NOTES**

DATE: 04/12/18	DRAWN BY: RD
SCALE: AS NOTED	CHECKED BY: KMB

SHEET:

**S-2**

SHEET 2 OF 12

2024-01-18 TOP LINE ENGINEERING, LLC APPROVAL

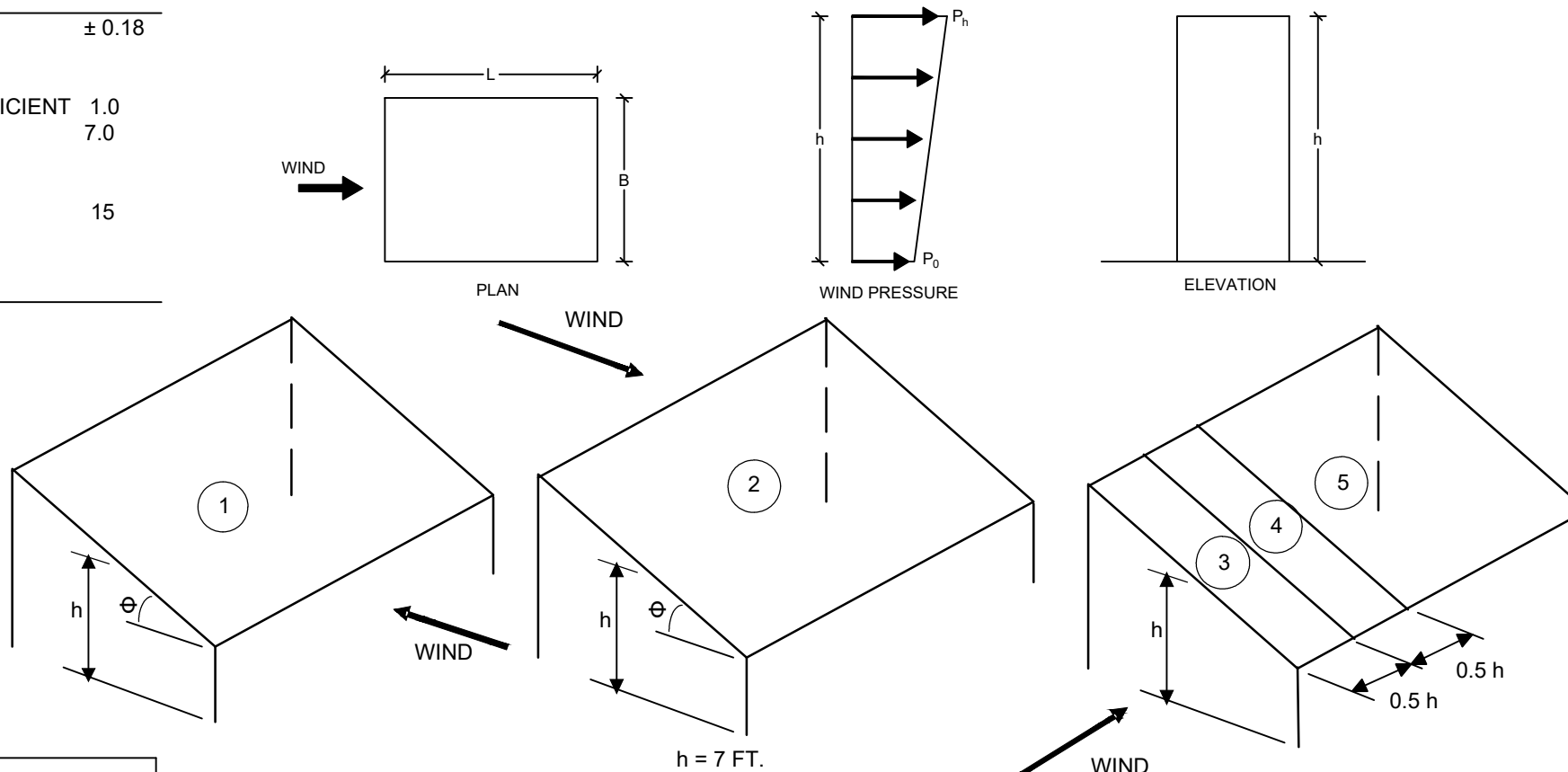
THESE PLANS WERE DESIGNED IN ACCORDANCE WITH THE 2023 FLORIDA BUILDING CODE 8TH EDITION ASCE 7-22.



**BUILDING DATA ASCE 7-22 WIND**

WIND VELOCITY $V_{ULT}$	160 MPH	INTERNAL PRESSURE COEFFICIENT	$\pm 0.18$
WIND VELOCITY $V_{ASD}$	124	(ENCLOSED BUILDING ASCE 7-22)	
BUILDING CATEGORY	I	HEIGHT & EXPOSURE ADJUSTMENT COEFFICIENT	1.0
		ROOF DEAD LOAD RESISTING UPLIFT (PSF)	7.0
ROOF ANGLE, ° (DEGREES)	12 DEGREES	MEAN ROOF HEIGHT	15
WIND EXPOSURE CATEGORY	C		

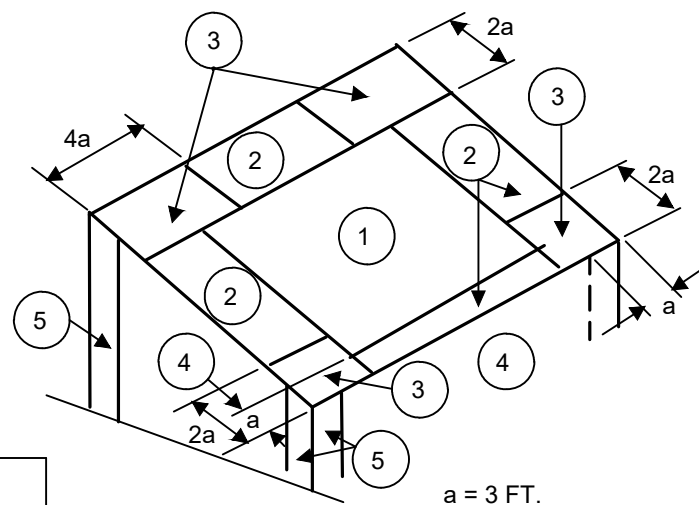
- NOTES:
- FOR EFFECTIVE AREAS BETWEEN THOSE GIVEN ABOVE THE LOAD MAY BE INTERPOLATED, OTHERWISE USE THE LOAD ASSOCIATED WITH THE LOWER EFFECTIVE AREA.
  - PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACES, RESPECTIVELY.
  - PRESSURES SHOWN ARE APPLIED NORMAL TO THE SURFACE.
  - REFER TO PRESSURE ZONE DIAGRAMS PROVIDED FOR CORRESPONDING ZONES.
  - ROOF COVERINGS, FINISHES, ETC SHALL BE DESIGNED FOR THE FULL NEGATIVE DESIGN PRESSURE.



**MWFRS - WALL**

WIND ON	L (FT)	B (FT)	L/B	PO = $P_h$ , PSF	PRESSURE FOR DIAPHRAGM DESIGN, PSF		PRESSURE FOR STUD DESIGN, PSF	
					WINDWARD, $W_w$	LEEWARD, $W_l$	WINDWARD, $W_w$	LEEWARD, $W_l$
SHORT WALL	12	6	2	46.6	34.0	12.6	42.5	21.1
LONG WALL	6	12	0.5	53.7	33.3	20.4	41.8	28.9

**WIND LOAD MAIN WIND FORCE PRESSURE DIAGRAMS**



**MWFRS - ROOF**

LOAD CASE	THETA (DEG)	WIND PRESSURE ON ROOF ZONE, PSF				
		WIND ON LONG WALL		WIND ON SHORT WALL		
		1	2	3	4	5
LOAD CASE 1	9.46	0.0	0.0	-50.1	-44.7	-36.6
	14	-49.2	-35.4	-50.1	-44.7	-36.6
LOAD CASE 2	9.46	0.0	0.0	0.0	0.0	0.0
	14	7.1	-10.0	0.0	0.0	0.0
	12	4.0	-5.6	0.0	0.0	0.0

**COMPONENTS & CLADDING**

EFFECTIVE WIND AREA (SQ. FT.)	$P_s$ , (PSF) - C&C - TABLE 30.7-2									
	UNADJUSTED, $P_{TABLE}$									
	ROOF					WALL				
	INTERIOR ZONE 1	END ZONE 2	CORNER ZONE 3	INTERIOR ZONE 4	END ZONE 5	INTERIOR ZONE 1	END ZONE 2	CORNER ZONE 3	INTERIOR ZONE 4	END ZONE 5
10	+	-	+	-	+	-	+	-	+	-
	27.4	-65.3	27.4	-84.2	27.4	-145.6	55.8	-60.5	55.8	-93.6
	ADJUSTED, $P_{TABLE}$									
	27.4	-65.3	27.4	-84.2	27.4	-145.6	55.8	-60.5	55.8	-93.6

**WIND LOAD COMPONENT AND CLADDING PRESSURE DIAGRAM**

Kent M. Bice PE - This item has been electronically signed and sealed by Kent M. Bice using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TOP LINE ENGINEERING, LLC  
STRUCTURAL ENGINEERS  
William E. Neary, III  
SMP-51, SMI-79, ICC 5185040  
10649 Oakview Pointe Terrace  
Gotha, Florida 34734

FL PE Name: Kent M. Bice  
FL PE #: 50421  
FL COA #: 30468



01/16/24 01/18/24

1552 6TH ST., WINTER HAVEN, FL 33880  
(863)865-6502

**WIND LOAD TABLES**

DATE: 04/12/18 DRAWN BY: RD  
SCALE: AS NOTED CHECKED BY: KMB

SHEET:  
**S-3**  
SHEET 3 OF 12

**FASTENING SCHEDULE**

CONNECTION	FASTENING <sup>a, k</sup>	LOCATION
1. JOIST TO SILL OR GIRDER	3 - 8d COMMON (2½" X 0.131") 3 - 3" X 0.131" NAILS 3 - 3", 14 GAGE STAPLES	TOENAIL
2. BRIDGING TO JOIST	2 - 8d COMMON (2½" X 0.131") 2 - 3" X 0.131" NAILS 2 - 3", 14 GAGE STAPLES	TOENAIL EACH END
3. SOLE PLATE TO JOIST OR BLOCKING	16d (3½" X 0.135") AT 12" O.C. 3" X 0.131" NAILS AT 12" O.C. 3", 14 GAGE STAPLES AT 12" O.C.	FACE NAIL
4. SOLE PLATE TO JOIST OR BLOCKING AT BRACED WALL PANEL	3 - 16d (3½" X 0.135") AT 16" O.C. 4 - 3" X 0.131" NAILS AT 16" O.C. 4 - 3", 14 GAGE STAPLES AT 16" O.C.	FACE NAIL
5. TOP PLATE TO STUD	2 - 16d (3½" X 0.162") 3 - 3" X 0.131" NAILS 3 - 3", 14 GAGE STAPLES	END NAIL
6. STUD TO SOLE PLATE	4 - 8d COMMON (2½" X 0.131") 4 - 3" X 0.131" NAILS 4 - 3", 14 GAGE STAPLES	TOENAIL
	2 - 16d COMMON (3½" X 0.162") 3 - 3" X 0.131" NAILS 3 - 3", 14 GAGE STAPLES	END NAIL
7. DOUBLE STUDS	16d (3½" X 0.162") AT 24" O.C. 3" X 0.131" NAILS AT 16" O.C. 3", 14 GAGE STAPLES AT 16" O.C.	FACE NAIL
8. TOP PLATE TO TOP PLATE	16d (3½" X 0.162") AT 16" O.C. 3" X 0.131" NAILS AT 12" O.C. 3", 14 GAGE STAPLES AT 12" O.C.	FACE NAIL
	8 - 16d COMMON (3½" X 0.162") 12 - 3" X 0.131" NAILS 12 - 3", 14 GAGE STAPLES	FACE NAIL AT LAP SPLICE
9. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	3 - 8d COMMON (2½" X 0.131") 3 - 3" X 0.131" NAILS 3 - 3", 14 GAGE STAPLES	TOENAIL
10. RIM JOIST TO TOP PLATE	8d (2½" X 0.131") AT 6" O.C. 3" X 0.131" NAILS AT 6" O.C. 3", 14 GAGE STAPLES AT 6" O.C.	TOENAIL
11. TOP PLATES, LAPS AND INTERSECTIONS	2 - 16d COMMON (3½" X 0.162") 3 - 3" X 0.131" NAILS 3 - 3", 14 GAGE STAPLES	FACE NAIL
12. CONTINUOUS HEADER (2) PIECES	16d COMMON (3½" X 0.162")	16" O.C. EACH EDGE, FACE NAIL
13. CEILING JOISTS TO PLATE	3 - 8d COMMON (2½" X 0.131") 3 - 3" X 0.131" NAILS 3 - 3", 14 GAGE STAPLES	TOENAIL
14. CONTINUOUS HEADER TO STUD	4 - 8d COMMON (2½" X 0.131")	TOENAIL
15. RAFTER TO PLATE	3 - 16d (3½" X 0.162") 4 - 3" X 0.131" NAILS 4 - 3", 14 GAGE STAPLES	TOENAIL
16. 1" DIAGONAL BRACE TO EACH STUD AND PLATE	2 - 8d COMMON (2½" X 0.131") 2 - 3" X 0.131" NAILS 3 - 3", 14 GAGE STAPLES	FACE NAIL
17. BUILT-UP CORNER STUDS	16d (3½" X 0.162") 3" X 0.131" NAILS 3" 14 GAGE STAPLES	12" O.C. FACE NAIL

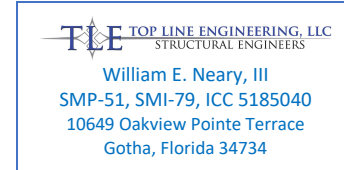
**FASTENING SCHEDULE**

CONNECTION	FASTENING <sup>a, k</sup>	LOCATION
18. BUILT-UP GIRDER AND BEAMS	20d COMMON (4" X 0.192") at 32" O.C. 3" X 0.131" NAIL AT 24" O.C. 3" 14 GAGE STAPLE AT 24" O.C. AND	FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
	2 - 20d COMMON (4" X 0.192") OR 3 - 3" X 0.131" NAIL OR 3 - 3" 14 GAGE STAPLE	FACE NAIL AT ENDS AND AT EACH SPLICE
19. COLLAR TIE TO RAFTER	3 - 10d COMMON (3" X 0.148") 4 - 3" X 0.131" NAILS 4 - 3" 14 GAGE STAPLES	FACE NAIL
20. ROOF RAFTER TO 2-BY RIDGE BEAM	3 - 10d COMMON (3½" X 0.148") 4 - 3" X 0.131" NAILS 4 - 3" 14 GAGE STAPLES	TOENAIL
21. JOIST TO BAND JOIST	3 - 16d COMMON ( 3½" X 0.162") 4 - 3" X 0.131" NAILS 4 - 3" 14 GAGE STAPLES	END NAIL
22. WOOD STRUCTURAL PANELS AND PARTICLEBOARD <sup>p</sup> , SUBFLOOR, ROOF AND WALL SHEATHING (TO FRAMING)	½" AND LESS 6d <sup>c, j</sup> 2⅜" X 0.113" NAIL <sup>l</sup> 1¾" X 16 GAGE <sup>m</sup> STAPLE 19/32" TO ¾"	6" O.C. AT ENDS ABOVE RAFTER / TRUSS AND 12" O.C. AT INTERMEDIATE, 4" O.C. AT COMPONENT AND CLADDING END STRIP # ZONE 3 [REFER TO FIGURE ON SHEET S-3], UNLESS NOTED OTHERWISE
	SINGLE FLOOR, COMBINATION SUBFLOOR-UNDERLAYMENT TO FRAMING	
	7/8" TO 1" 8d <sup>c</sup> 1 1/8" TO 1 1/4" 10d <sup>d</sup> OR 8d <sup>e</sup>	
23. PANEL SIDING TO FRAMING	½" OR LESS 6d <sup>f</sup> 5/8" 8d <sup>f</sup>	6" / 12" O.C. AT EDGES / INTERMEDIATE
24. FIBERBOARD SHEATHING	1/2"	3" / 6" O.C. AT EDGES / INTERMEDIATE FOR STRUCTURAL APPLICATIONS 6" / 12" O.C. AT EDGES / INTERMEDIATE FOR NON-STRUCTURAL APPLICATIONS
	25/32"	

**NOTES:**

- a. COMMON OR BOX NAILS ARE PERMITTED TO BE USED EXCEPT WHERE OTHERWISE STATED.
- b. NAILS SPACED AT 6" O.C. AT EDGES, 12" AT INTERMEDIATE SUPPORTS EXCEPT 6" AT SUPPORTS WHERE SPANS ARE 48" OR MORE. NAILS FOR WALL SHEATHING ARE PERMITTED TO BE COMMON, BOX OR CASING.
- c. COMMON OR DEFORMED SHANK (6d - 2" x 0.113"; 8d - 2 ½" x 0.131"; 10d 3" x 0.148").
- d. COMMON (6d - 2" x 0.113"; 8d - 2 1/2" x 0.131"; 10d x 0.148").
- e. DEFORMED SHANK (6d - 2" x 0.113"; 8d - 2 1/2" x 0.131"; 10d 3" x 0.148").
- f. CORROSION-RESISTANT SIDING (6d - 1 7/8" x 0.106"; 8d 2 3/8" x 0.128") OR CASING (6d 2" x 0.099"; 8d 2 1/2" x 0.113") NAIL.
- g. FASTENERS SPACED 3" O.C. AT EXTERIOR EDGES AND 6" O.C. AT INTERMEDIATE SUPPORTS, WHEN USED AS STRUCTURAL SHEATHING. SPACING SHALL BE 6" O.C. ON THE EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS FOR NONSTRUCTURAL APPLICATIONS.
- h. CORROSION-RESISTANT ROOFING NAILS WITH 7/16" DIAMETER HEAD AND 1 ½" LENGTH FOR 1/2" SHEATHING AND 1 3/4" LENGTH FOR 25/32" SHEATHING.
- i. CORROSION-RESISTANT STAPLES WITH NOMINAL 7/16" CROWN OR 1" CROWN AND 1 1/4" LENGTH FOR 1/2" SHEATHING AND 1 1/2" LENGTH FOR 25/32" SHEATHING. PANEL SUPPORTS AT 16" (20" IF STRENGTH AXIS IS THE LONG DIRECTION OF THE PANEL, UNLESS OTHERWISE MARKED).
- j. FOR ROOF SHEATHING APPLICATIONS, 8d NAILS (2 1/2" x 0.113") ARE THE MINIMUM REQUIRED FOR WOOD STRUCTURAL PANELS.
- k. STAPLES SHALL HAVE A MINIMUM CROWN WIDTH OF 7/16".
- l. FOR ROOF SHEATHING APPLICATIONS, FASTENERS SPACED 4" O.C. AT EDGES, 8" O.C. AT INTERMEDIATE SUPPORTS.
- m. FASTENERS SPACED 4" O.C. AT EDGES, 8" O.C. AT INTERMEDIATE SUPPORTS FOR SUBFLOOR AND WALL SHEATHING AND 3" O.C. AT EDGES, 6" AT INTERMEDIATE SUPPORTS FOR ROOF SHEATHING.
- n. FASTENERS SPACED 4" O.C. AT EDGES, 8" AT INTERMEDIATE SUPPORTS.

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**FL PE Name: Kent M. Bice  
FL PE #: 50421  
FL COA #: 30468**



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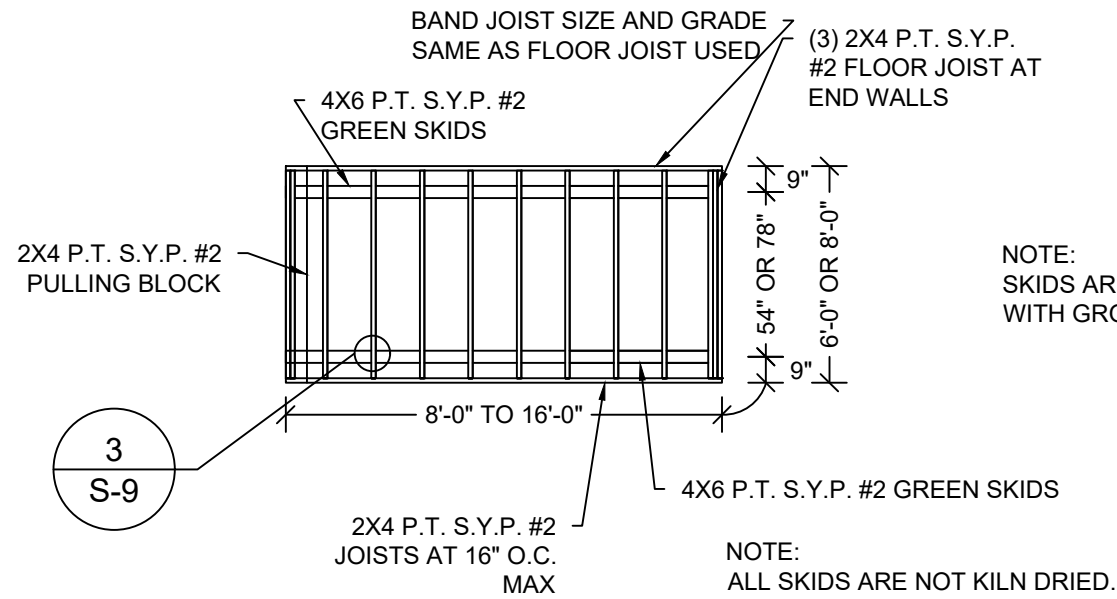
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**FASTENING SCHEDULE**

DATE: 04/12/18	DRAWN BY: RD
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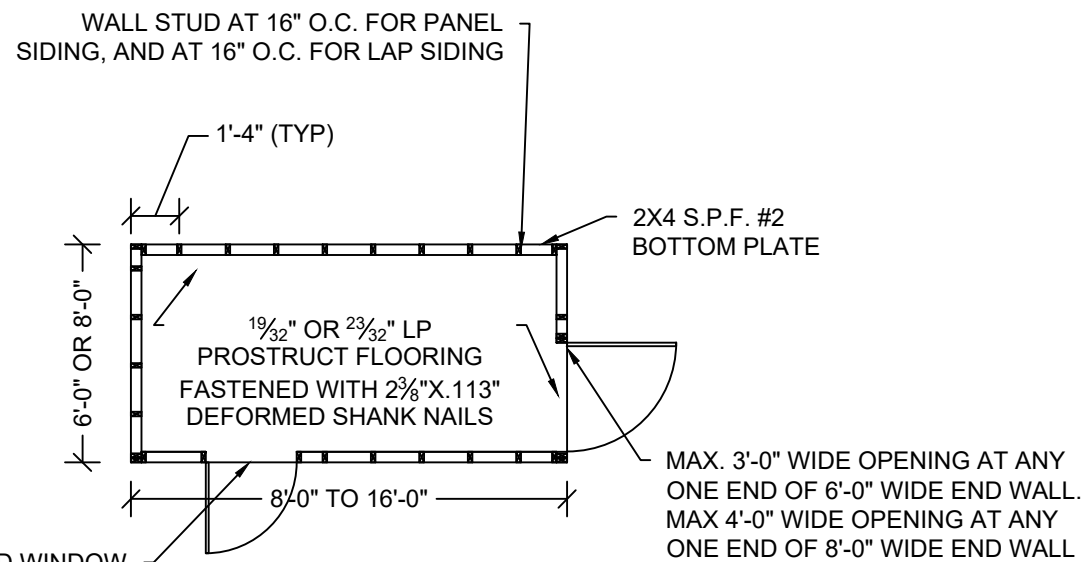
SHEET:  
**S-4**  
SHEET 4 OF 12

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**1 FLOOR FRAMING PLAN**  
 S-5 SCALE: 3/16" = 1'-0"

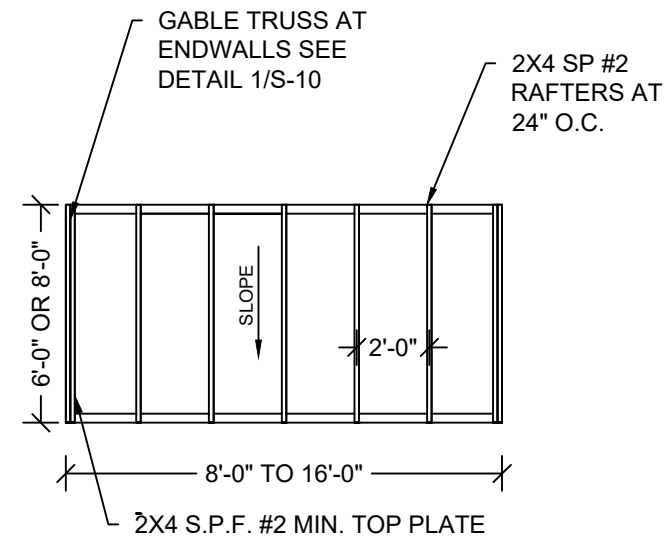
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DOOR AND WINDOW LOCATION MAY VARY. SEE NOTE 25 ON SHEET S-2

NOTE:  
 IF 1 9/32" SIDING IS CHOSEN. WALL STUDS ARE TO BE 2'-0" O.C

**2 FLOOR DECK PLAN**  
 S-5 SCALE: 3/16" = 1'-0"



**3 ROOF FRAMING PLAN**  
 S-5 SCALE: 3/16" = 1'-0"

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 STRUCTURAL ENGINEERS  
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 10649 Oakview Pointe Terrace  
 Gotha, Florida 34734

FL PE Name: Kent M. Bice  
 FL PE #: 50421  
 FL COA #: 30468



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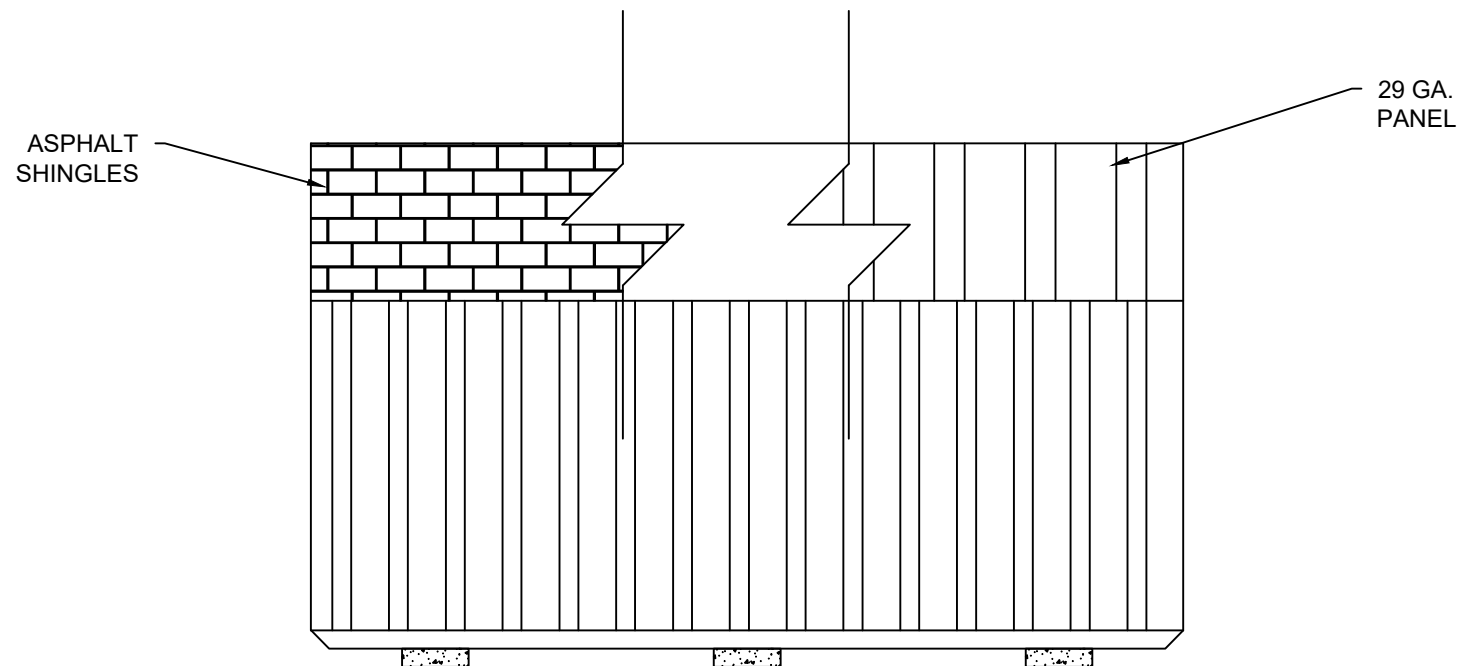
**FRAMING PLANS**

DATE: 04/12/18 DRAWN BY: RD  
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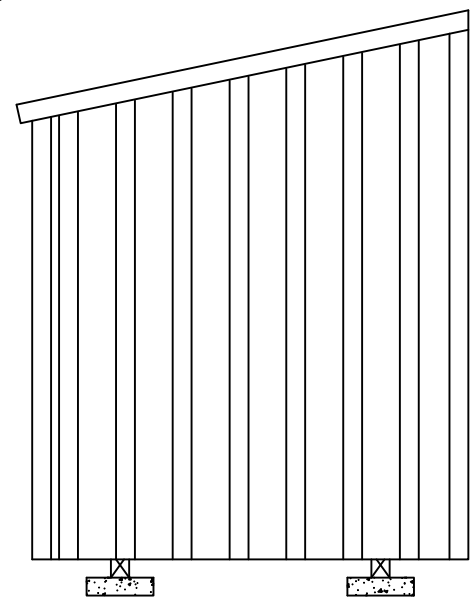
SHEET:  
**S-5**

SHEET 5 OF 12

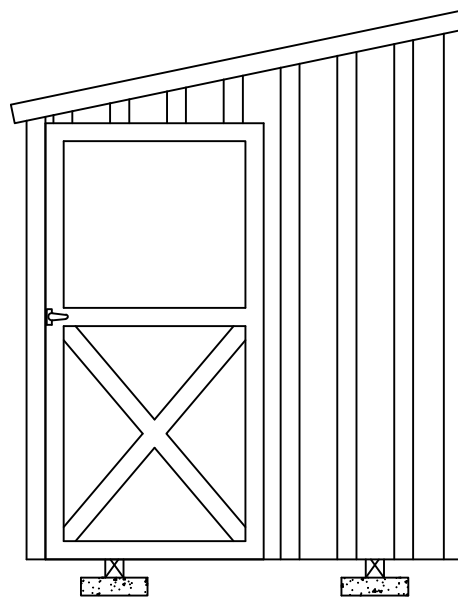




1 **SIDE WALL ELEVATION WITH PANEL SIDING**  
S-6 SCALE: 1/4" = 1'-0"



SAMPLE UNIT WITHOUT OPENINGS



SAMPLE UNIT WITH 3'-0" DOOR

2 **ENDWALL ELEVATION WITH PANEL SIDING**  
S-6 SCALE: 1/4" = 1'-0"

SHEARWALL WITH 3/8" LP SMART SIDING			
FLOOR WIDTH (FT)	OPENING WIDTH (FT.)		MAX LENGTH OF BUILDING
	LONG SIDE WALL	SHORT END WALL	
6'-0"	3'-0", 4'-0" OR 6'-0"	2'-0", 3'-0"	16'-0"
8'-0"	3'-0", 4'-0" OR 6'-0"	2'-0", 3'-0" OR 4'-0"	16'-0"

**NOTES:**

- 3/8" LP SMART SIDING APA RATED SIDING 303-24" O.C. SHALL BE FASTENED USING DEFORMED (0.113" x 2 3/8") SHANK NAILS AT 6" O.C. IN FIELD AND 3" O.C. AT EDGES.
- WINDOWS AND DOORS MAY BE LOCATED ONLY IN THE SHORT SIDE WALL AND END WALL. LIMITATIONS ON THE TOTAL DIMENSIONS SHALL BE BASED ON THE SHEAR WALL HEIGHT TO WIDTH RATIO OF 3.5:1 AND SHALL NOT EXCEED (2/3) OF TOTAL LENGTH OF BUILDING. DOOR AND WINDOW SHALL BE LOCATED SUCH THAT THEY ARE AT LEAST 2'-0" APART IN SIDE WALL, AND AT ANY ONE END OF END WALL.
- EDGE NAILING SHALL BE PROVIDED AT TOP PLATE IN ALL END WALLS.
- PROVIDE BLOCKING AT ALL UNSUPPORTED EDGES OF WALL SHEATHING.

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Gotha, Florida 34734

FL PE Name: **Kent M. Bice**  
FL PE #: **50421**  
FL COA #: **30468**



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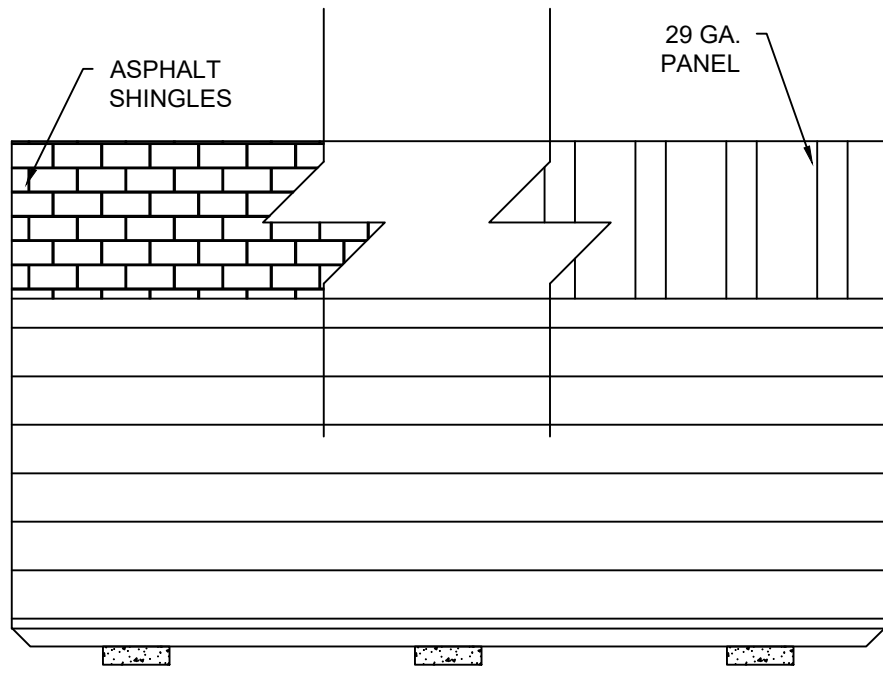
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**ELEVATIONS - PANEL SIDING**

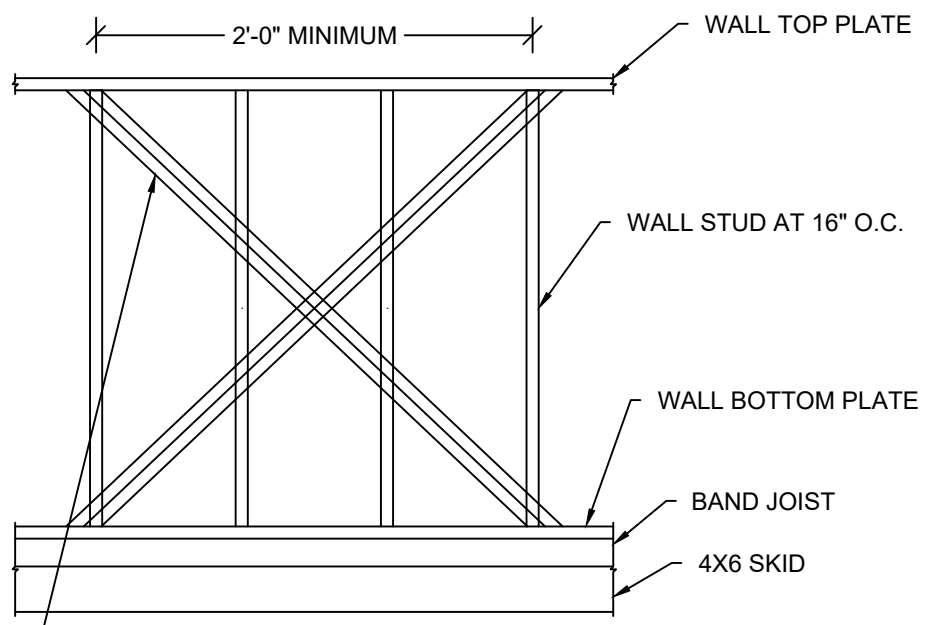
DATE: 04/12/18 DRAWN BY: RD  
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SHEET:  
**S-6**  
SHEET 6 OF 12





**1** **SIDE WALL ELEVATION WITH LAP SIDING**  
S-6A SCALE: 1/4" = 1'-0"

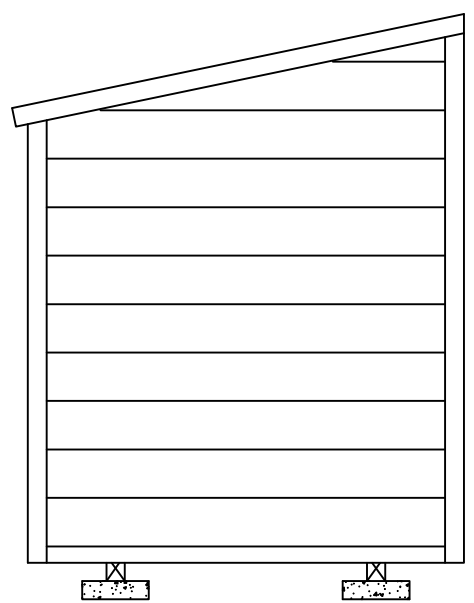


(2) SIMPSON CS18 (43MIL X 1-1/4", GRADE 40 STEEL, G60 COATING) X-STRAP OR EQUIVALENT ON INSIDE FACE OF WALL STUD. ATTACH STRAPS TO WALL TOP & BOTTOM PLATES WITH 0.131" x 2-1/4" NAILS STAGGERED - (4) NAILS IN SIDE WALL, (6) NAILS IN END WALL WITHOUT OPENINGS AND (10) NAILS IN END WALL WITH OPENINGS. STRAP MAY BE WRAPPED AROUND WALL TOP & BOTTOM PLATES.  
ALTERNATE: 7/16" APA RATED SHEATHING ON OUTSIDE FACE OF WALL STUD FASTENED WITH 8d COMMON OR DEFORMED (0.131" x 2-1/2") NAILS AT 6" O.C. IN FIELD AND 3" O.C. AT EDGES IN SIDE WALL, AND 3" O.C. EVERYWHERE IN END WALL.

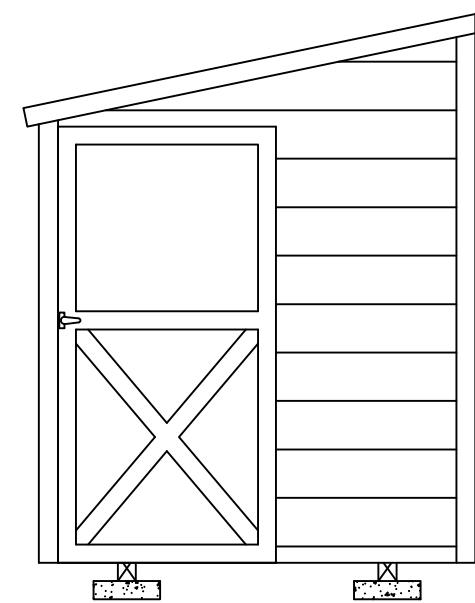
**2** **PARTIAL SIDE WALL / END WALL FRAMING ELEVATION WITH LAP SIDING**  
S-6A SCALE: NTS

SHEARWALL WITH 3/8" LP SMART SIDING			
FLOOR WIDTH (FT)	OPENING WIDTH (FT.)		MAX LENGTH OF BUILDING
	LONG SIDE WALL	SHORT END WALL	
6'-0"	3'-0", 4'-0" OR 6'-0"	2'-0", 3'-0"	16'-0"
8'-0"	3'-0", 4'-0" OR 6'-0"	2'-0", 3'-0" OR 4'-0"	16'-0"

- NOTES:**
- MIN. 0.45" THICK LP SMARTSIDE 12" BOLD PROFILES DOUBLE 5" FIBER SUBSTRATE LAP SIDING PER ICC-ES ESR 3090, TABLES 2A, 2B, AND 2C.
  - ATTACH LAP SIDING TO STUD / SHEATHING WITH 8d SINKER NAILS (0.113"X2-3/8") AT 3/8" FROM EACH END, AND 3 NAILS PER STUD / 16" SPACING -- 3" FROM TOP EDGE, IN THE MIDDLE AND 1-1/2" FROM BOTTOM EDGE.
  - NO OPENINGS SHALL BE IN THE TALLEST SIDE WALL.
  - WINDOWS AND DOORS MAY BE LOCATED ONLY IN THE SHORT SIDE WALL AND END WALL. LIMITATIONS ON THE TOTAL DIMENSIONS SHALL BE BASED ON THE SHEAR WALL HEIGHT TO WIDTH RATIO OF 3.5:1 AND SHALL NOT EXCEED 2/3 OF TOTAL LENGTH OF BUILDING. MAXIMUM OF ONE DOOR AND ONE WINDOW SHALL BE LOCATED SUCH THAT THEY'RE AT LEAST 2'-0" APART IN SIDE WALL, AND AT ANY ONE END OF END WALL.
  - EDGE NAILING SHALL BE PROVIDED AT TOP PLATE IN ALL WALLS.
  - PROVIDE BLOCKING AT ALL UNSUPPORTED EDGES OF WALL SHEATHING.



**4** **ENDWALL ELEVATION WITH LAP SIDING**  
S-6A SCALE: 1/4" = 1'-0"



SIMPSON CS20 STRAP ON INSIDE FACE WITH (3) 0.131" X 1-1/2" MIN. NAILS EACH INTO BOTTOM PLATE AND STUD

WALL STUDS

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BAND JOIST

FLOOR SHEATHING

FLOOR JOIST

BOTTOM PLATE

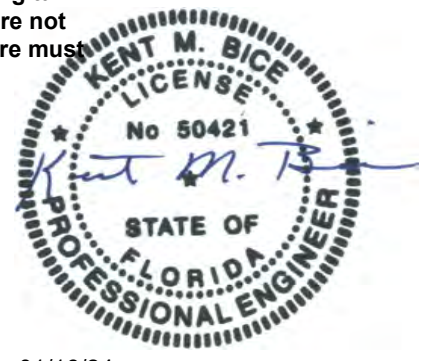
1/4" x 4" HEX LAG SCREWS WITHIN 3" ON EITHER SIDE OF STUD AT X-BRACE END LOCATIONS AND CENTERED THRU BAND JOIST - (2) SCREWS IN SIDE WALL AND END WALL WITHOUT OPENINGS, AND (4) SCREWS IN END WALL WITH OPENINGS SPACED MIN. 1" APART. PREDRILL MAX. 1/4" DIA. HOLE THRU BOTTOM PLATE AND 0.15" DIA. HOLE THRU SHEATHING AND BAND JOIST.

**3** **WALL STUD TIEDOWN FOR X-BRACE OPTION**  
S-6A SCALE: NTS

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FL PE Name: Kent M. Bice  
FL PE #: 50421  
FL COA #: 30468



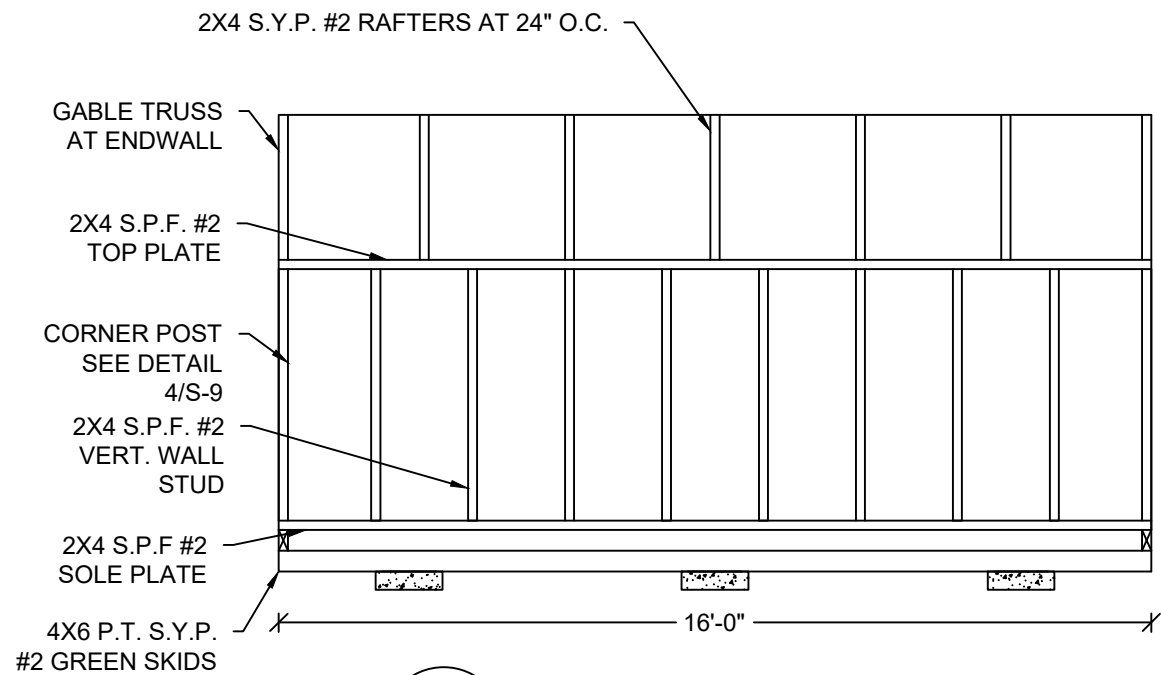
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ELEVATIONS - LAP SIDING	
DATE: 04/12/18	DRAWN BY: RD
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SHEET:  
**S-6A**  
SHEET 7 OF 12

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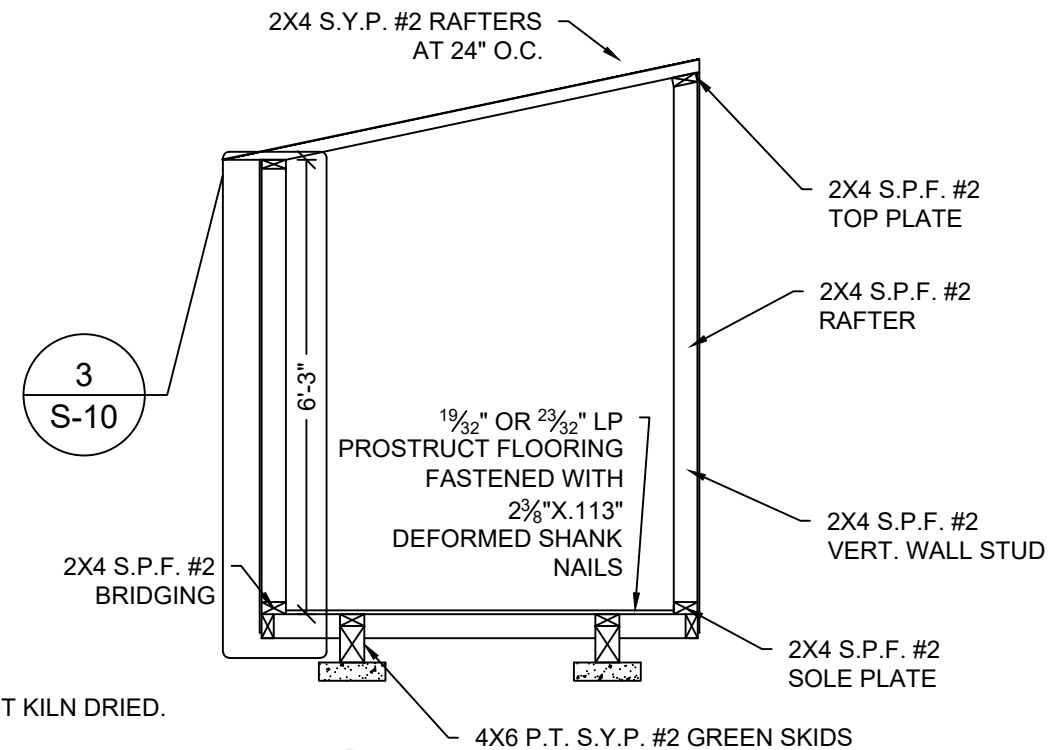
**1 FRAMING ELEVATION OF TALL SIDE WALL**  
 S-7 SCALE: 3/8" = 1'-0"

TRUSS DESIGN: ROOF TRUSS DESIGN SHALL BE IN ACCORDANCE WITH FBC 2303.4.

NOTE:  
 SKIDS ARE IN CONTACT WITH GROUND.

NOTE:  
 ALL SKIDS ARE NOT KILN DRIED.

NOTE:  
 FOR ALL FASTENING OF FRAMING MEMBERS NOT NOTED ON THIS SHEET REFER TO FASTENING SCHEDULE ON SHEET S-4.

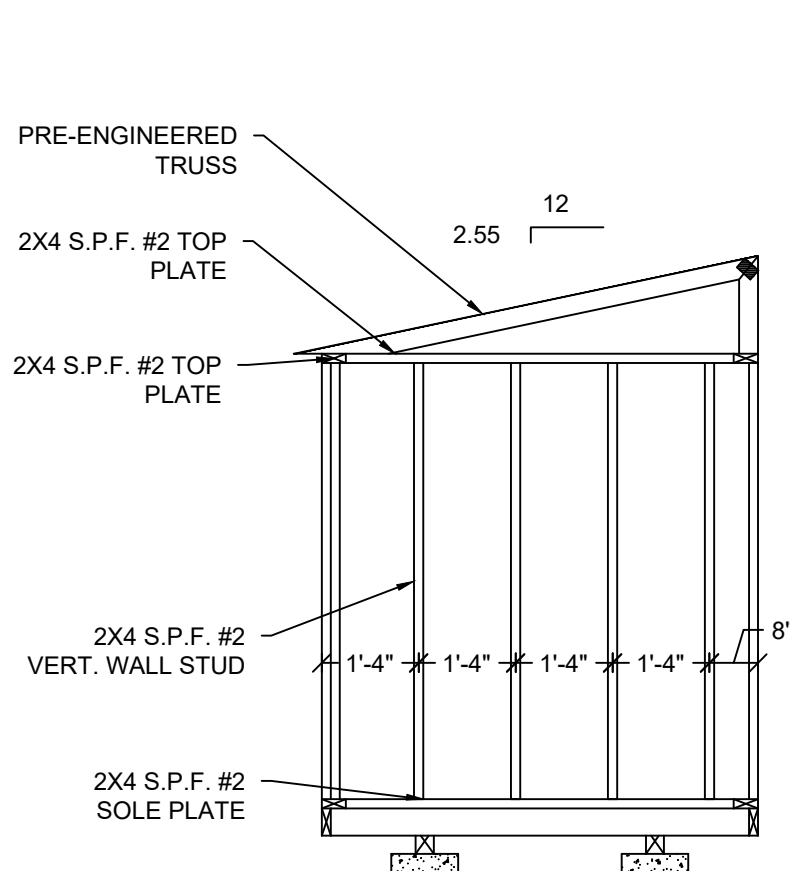


**2 CROSS SECTION**  
 S-7 SCALE: 3/8" = 1'-0"

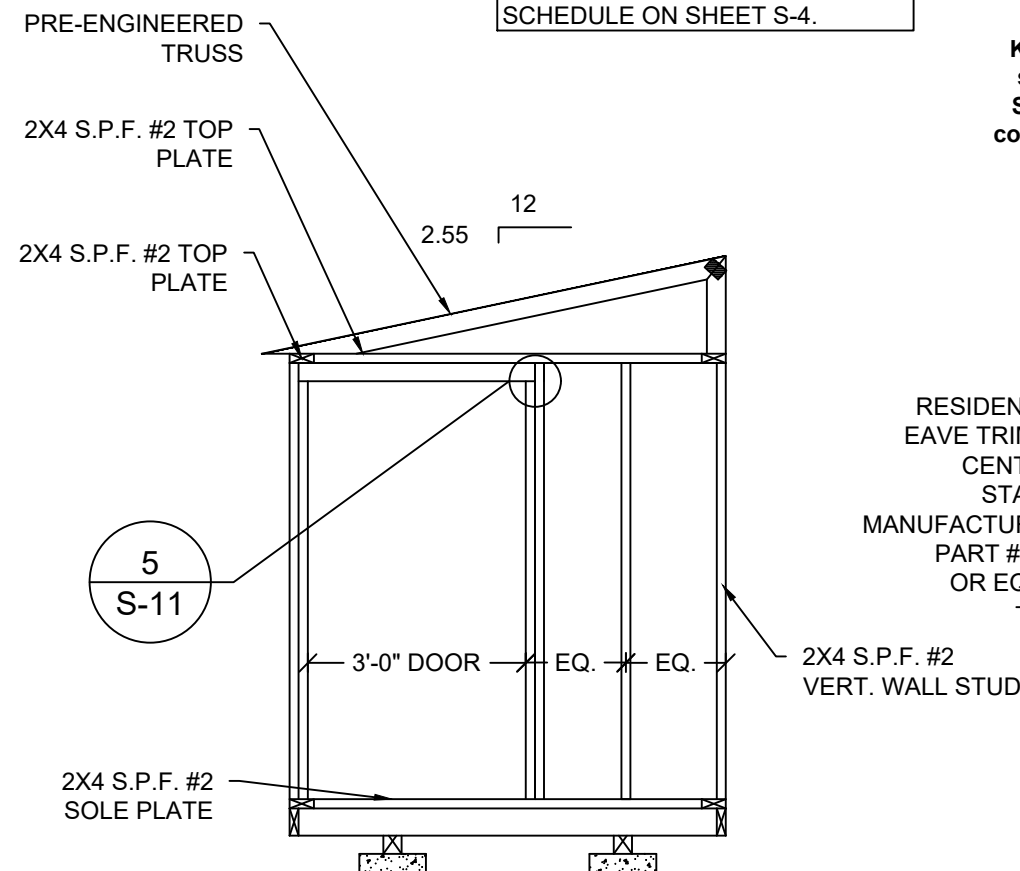
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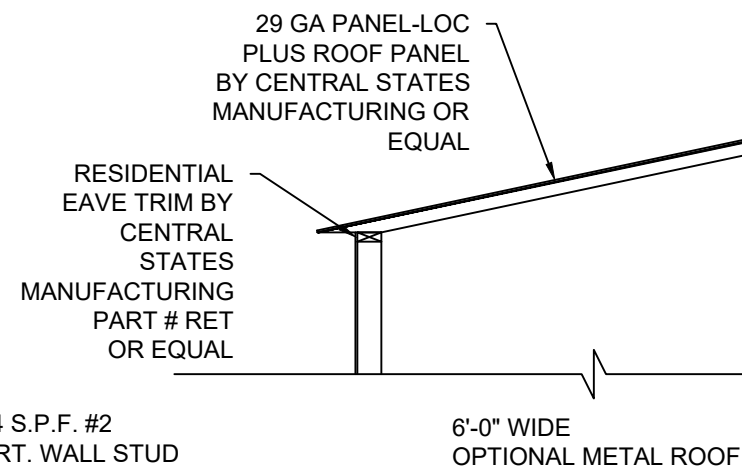
UPPER GAMBREL TRIM BY CENTRAL STATES MANUFACTURING, PART # GTJ OR EQUAL - BEND TO FL PE Name: Kent M. Bice  
 FL PE #: 50421  
 FL COA #: 30468



**3 ENDWALL FRAMING ELEVATION**  
 S-7 SCALE: 3/8" = 1'-0"



**4 ENDWALL FRAMING ELEVATION**  
 S-7 SCALE: 3/8" = 1'-0"



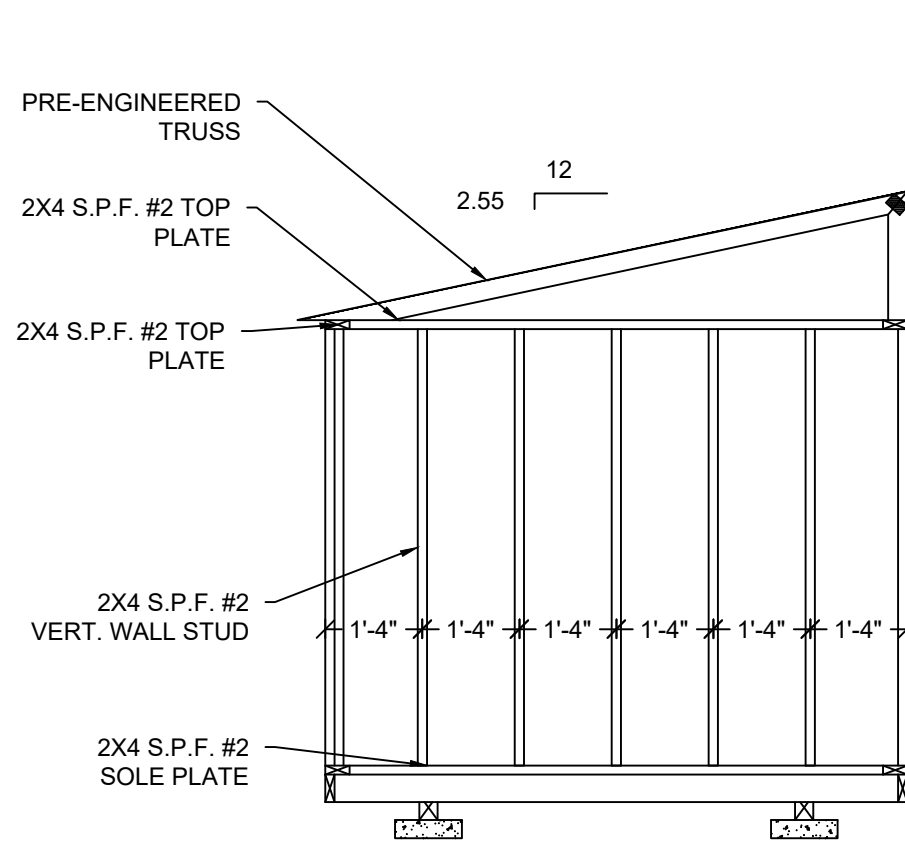
**5 ENDWALL FRAMING ELEVATION**  
 S-7 SCALE: 3/8" = 1'-0"



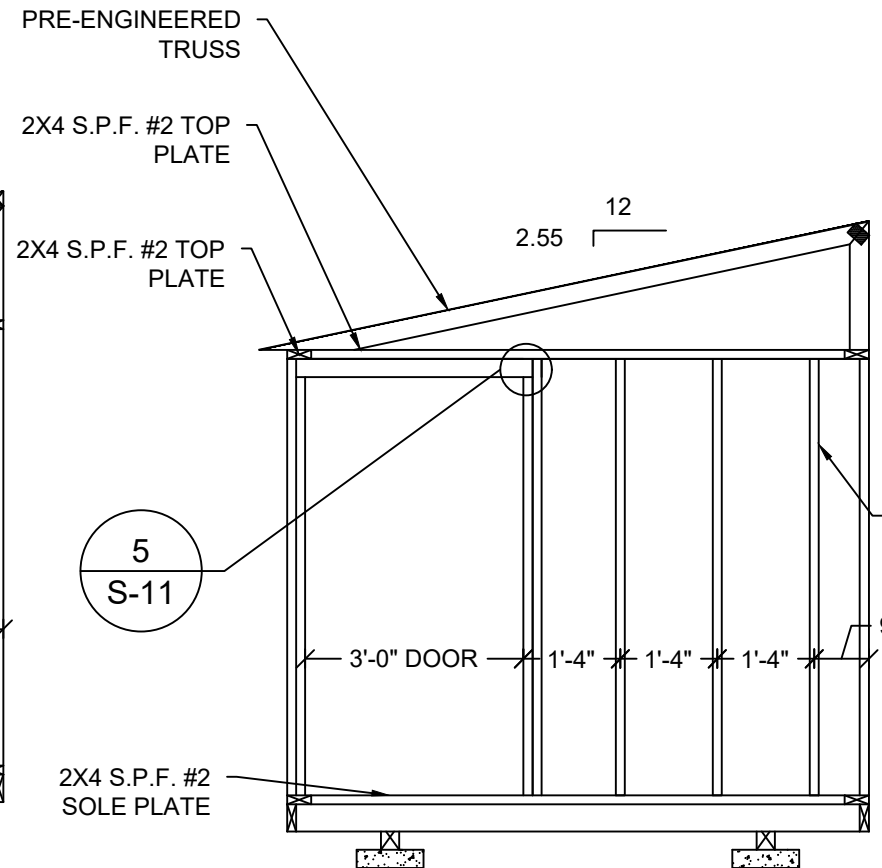
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ELEVATIONS AND SECTIONS	
DATE: 04/12/18	DRAWN BY: RD
SCALE: AS NOTED	CHECKED BY: KMB

SHEET:  
**S-7**  
 SHEET 8 OF 12



**1**  
S-7A **ENDWALL FRAMING ELEVATION**  
SCALE: 3/8" = 1'-0"



**2**  
S-7A **ENDWALL FRAMING ELEVATION**  
SCALE: 3/8" = 1'-0"

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Gotha, Florida 34734

FL PE Name: Kent M. Bice  
FL PE #: 50421  
FL COA #: 30468



01/18/24

TRUSS DESIGN: ROOF TRUSS DESIGN SHALL BE IN ACCORDANCE WITH FBC 2303.4.

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**ELEVATIONS  
AND SECTIONS**

DATE: 04/12/18

DRAWN BY: RD

SCALE: AS NOTED

CHECKED BY: KMB

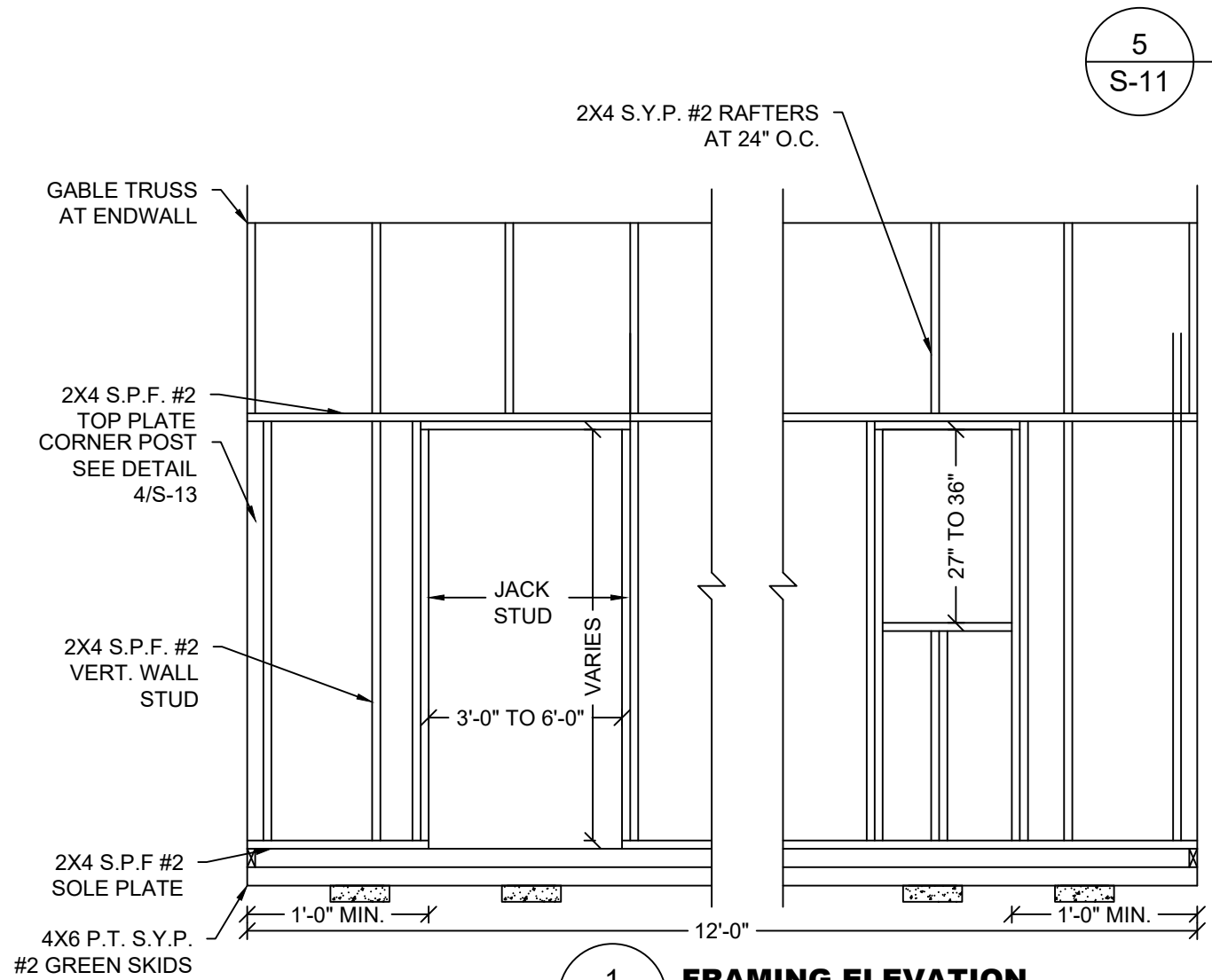
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**S-7A**

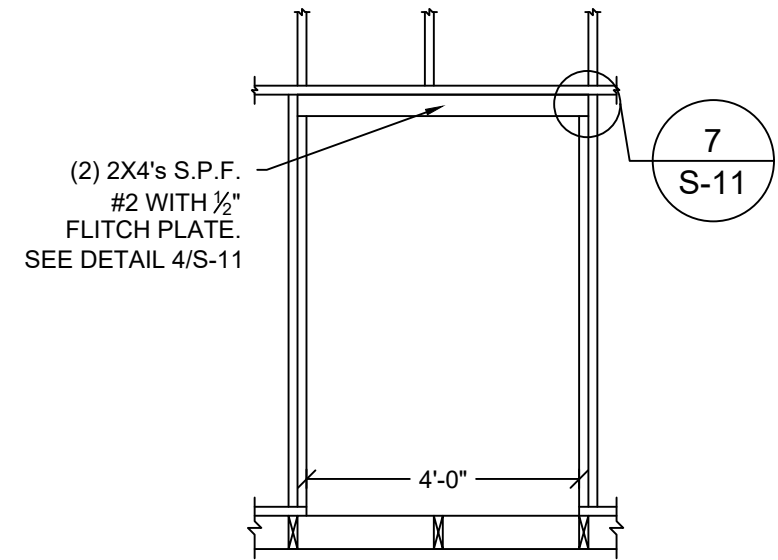
SHEET 8 OF 12

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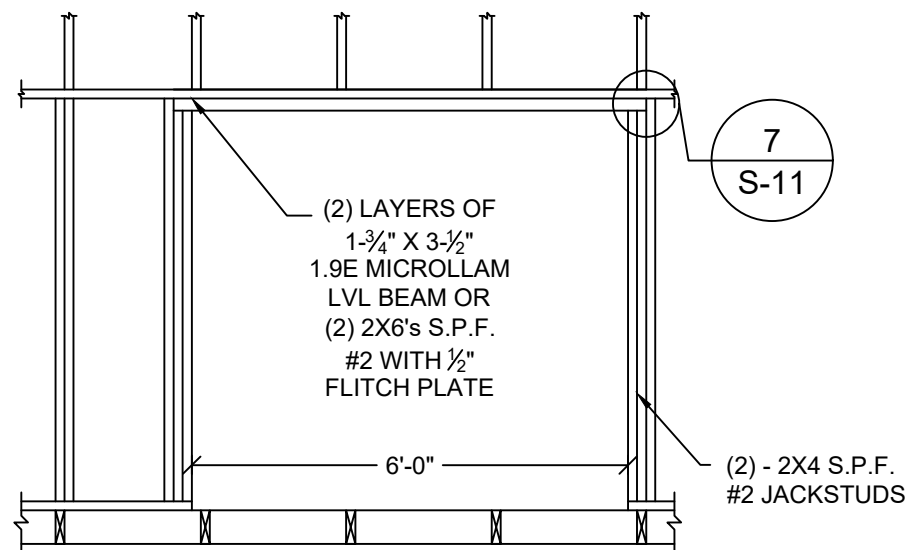


**1**  
S-8 **FRAMING ELEVATION**  
SCALE: 3/8" = 1'-0"



**4**  
S-8 **FRAMING ELEVATION**  
SCALE: 3/8" = 1'-0"

SIDEWALL  
4'-0" DOOR OPENING

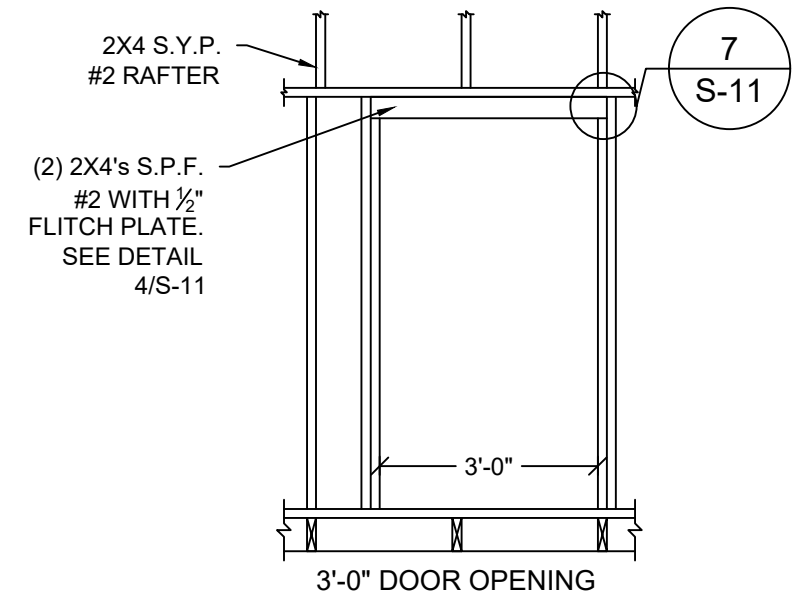
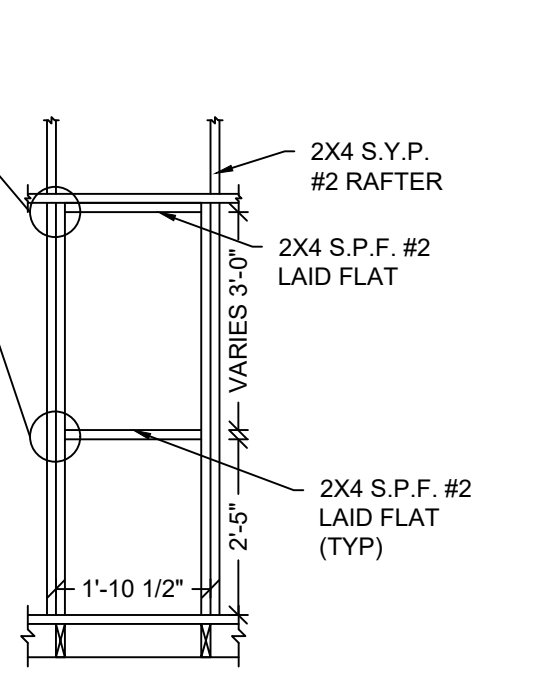


**5**  
S-8 **FRAMING ELEVATION**  
SCALE: 3/8" = 1'-0"

SIDEWALL  
6'-0" DOOR OPENING

**2**  
S-8 **FRAMING ELEVATION**  
SCALE: 3/8" = 1'-0"

SIDEWALL  
2'-0" NOMINAL WINDOW HEADER AND SILL



**3**  
S-8 **FRAMING ELEVATION**  
SCALE: 3/8" = 1'-0"

2024-01-18 TOP LINE ENGINEERING, LLC APPROVAL

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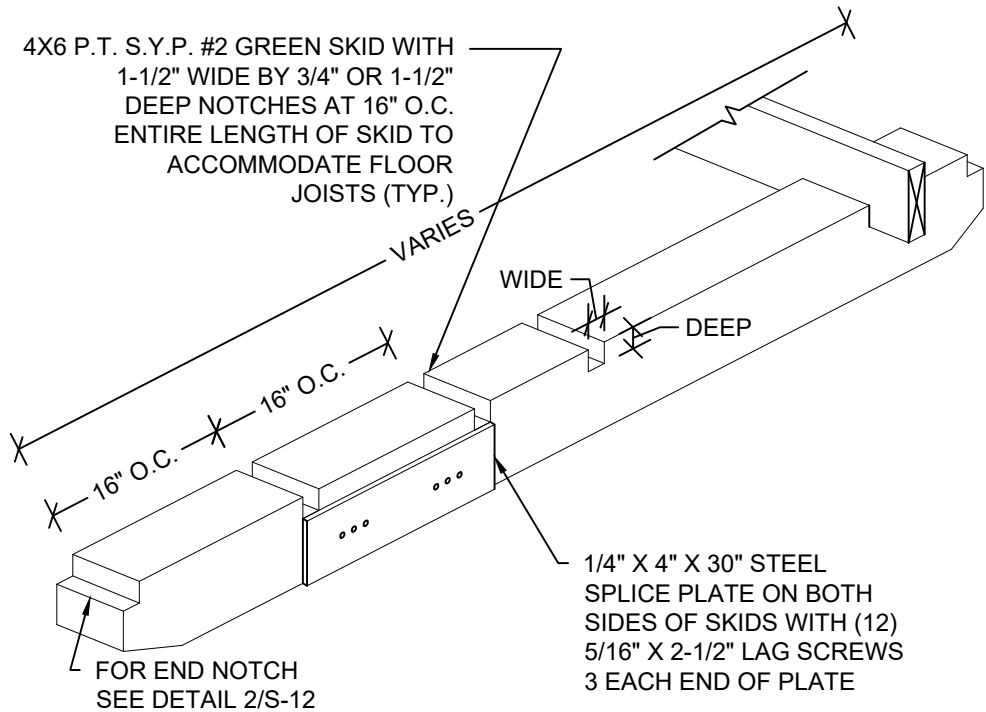
**SHORT SIDE WALL ELEVATION**

DATE: 04/12/18	DRAWN BY: RD
SCALE: AS NOTED	CHECKED BY: KMB

SHEET:  
**S-8**  
SHEET 9 OF 12

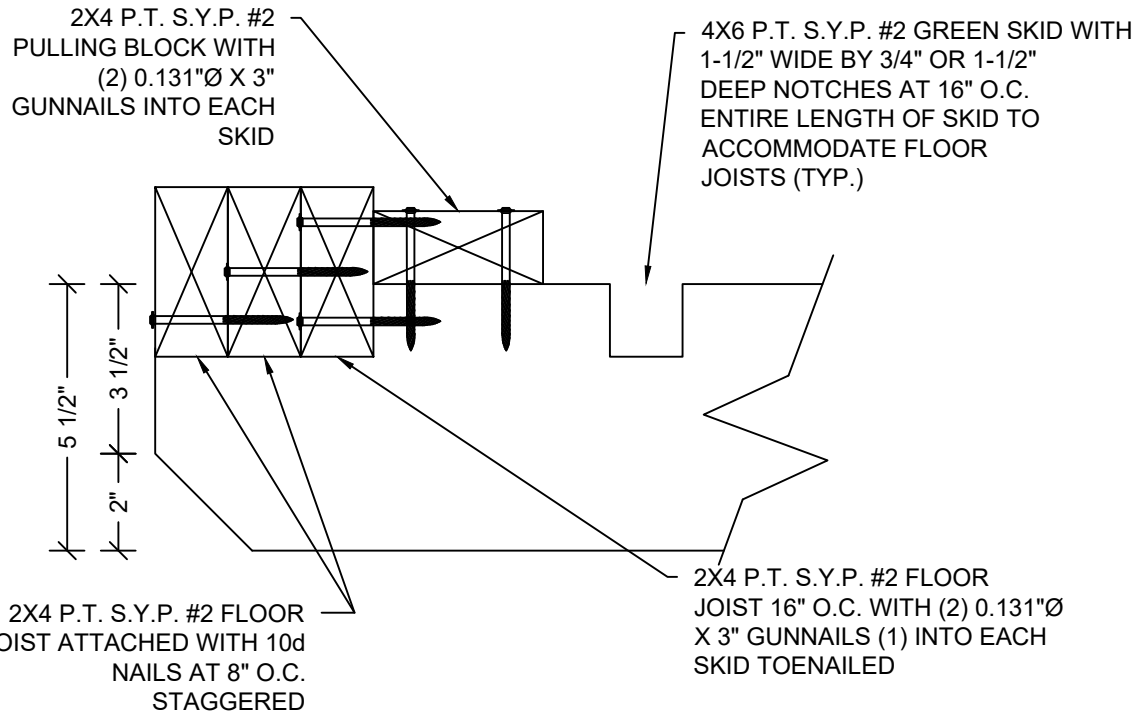
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**1 ISOMETRIC SKID DETAIL**  
S-9 SCALE: N.T.S.

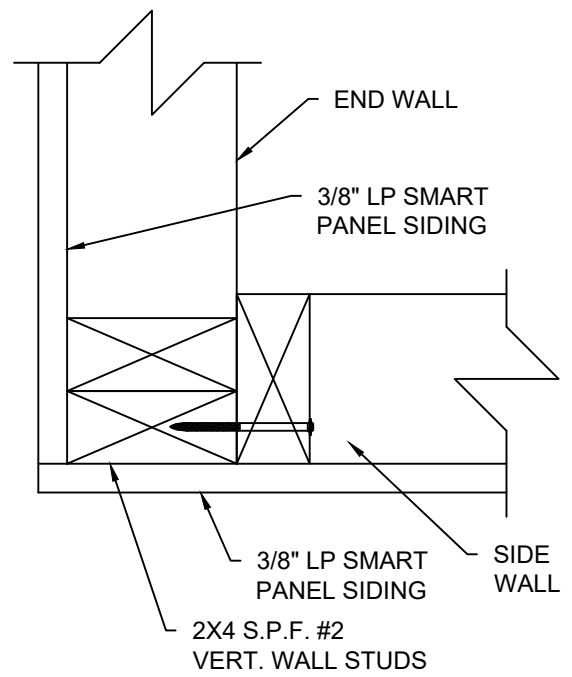
NOTE:  
ALL SKIDS ARE NOT KILN DRIED.



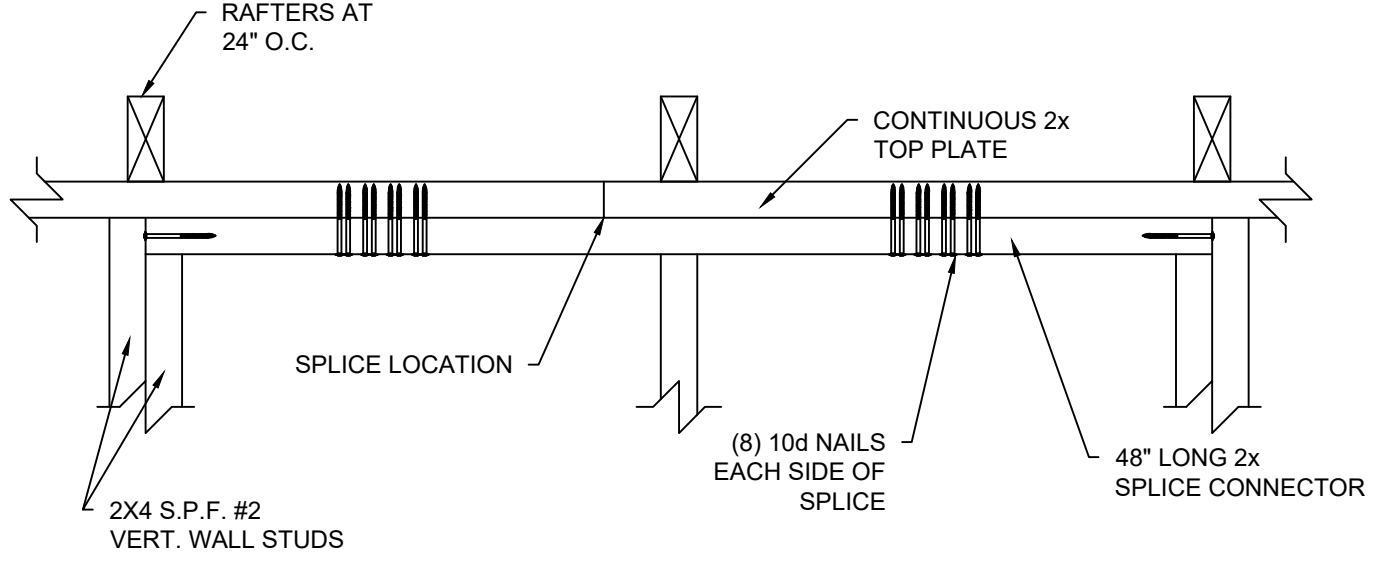
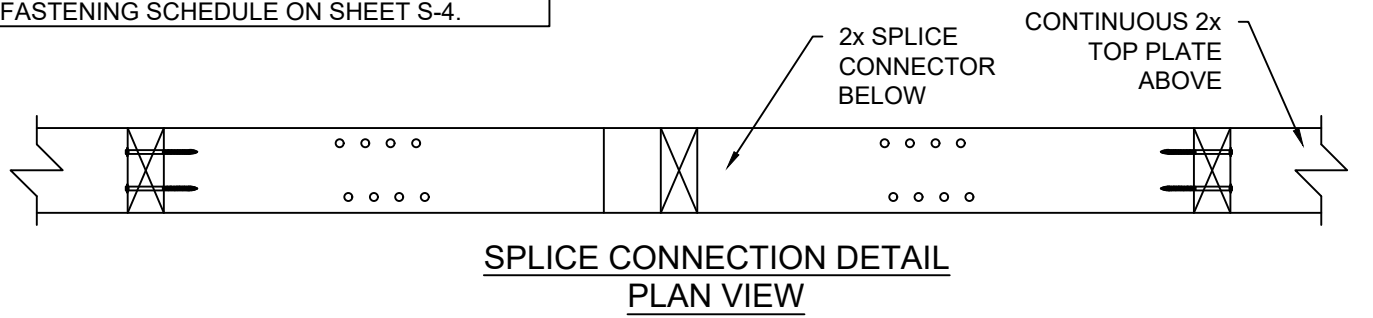
**2 END WALL JOIST DETAIL**  
S-9 SCALE: 3" = 1'-0"

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NOTE:  
FOR ALL FASTENERS OF FRAMING MEMBERS NOT NOTED ON THIS SHEET, REFER TO FASTENING SCHEDULE ON SHEET S-4.



**3 CORNER CONNECTION DETAIL**  
S-9 SCALE 3" = 1'-0"



**4 SPLICE CONNECTION DETAIL**  
S-9 SCALE: 1-1/2" = 1'-0"

NOTE:  
SKIDS ARE IN CONTACT WITH GROUND.

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10649 Oakview Pointe Terrace  
Gotha, Florida 34734

FL PE Name: Kent M. Bice  
FL PE #: 50421  
FL COA #: 30468



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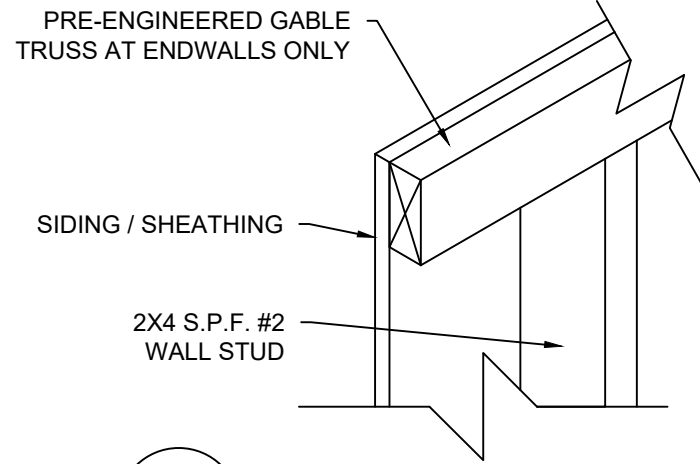
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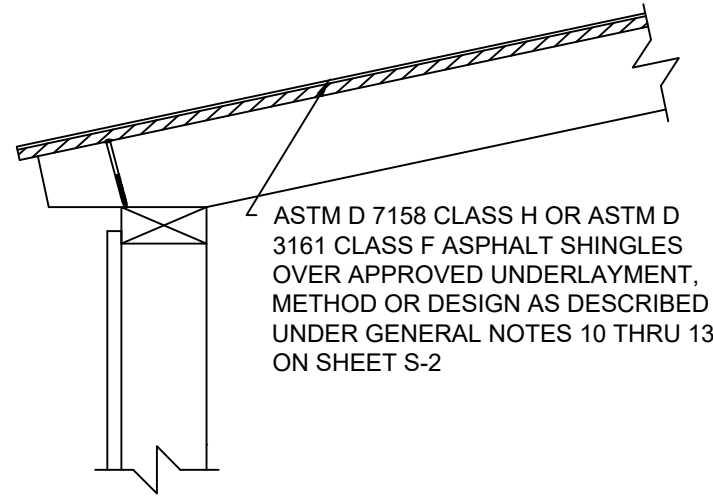
DETAILS	
DATE: 04/12/18	DRAWN BY: RD
SCALE: AS NOTED	CHECKED BY: KMB

SHEET:  
**S-9**  
SHEET 10 OF 12

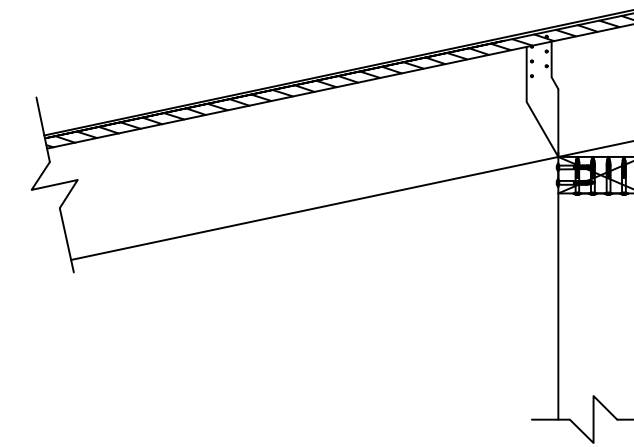
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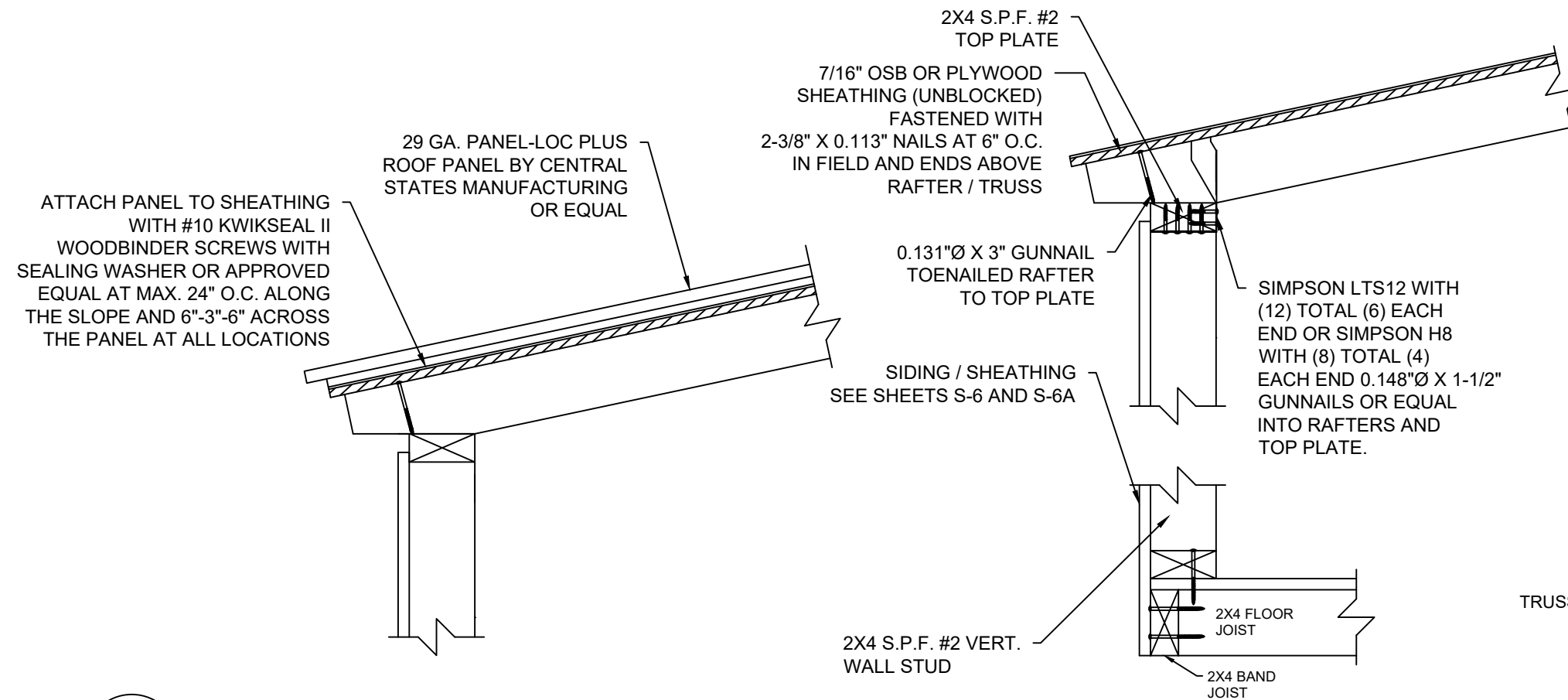
**1 GABLE TRUSS DETAIL**  
S-10 SCALE: 1-1/2" = 1'-0"



**5 SHINGLE FASTENING DETAIL**  
S-10 SCALE: 1-1/2" = 1'-0"



**4 WALL STUD TO RAFTER AT TALL SIDE WALL DETAIL**  
S-10 SCALE: 1-1/2" = 1'-0"



**2 METAL ROOF FASTENING DETAIL**  
S-10 SCALE: 1-1/2" = 1'-0"

**3 TOP PLATE TO RAFTER / TRUSS AND FLOOR FASTENING DETAIL**  
S-10 SCALE: 1-1/2" = 1'-0"

**NOTE:**  
FOR ALL FASTENING OF FRAMING MEMBERS NOT NOTED ON THIS SHEET, REFER TO FASTENING SCHEDULE ON SHEET S-4.

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TRUSS DESIGN: ROOF TRUSS DESIGN SHALL BE IN ACCORDANCE WITH FBC 2303.4.

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**DETAILS**

DATE: 04/12/18 DRAWN BY: RD  
SCALE: AS NOTED CHECKED BY: KMB

SHEET:

**S-10**

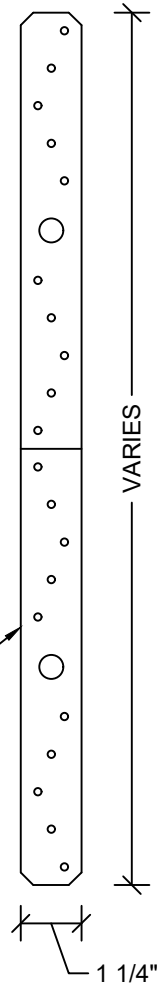
SHEET 11 OF 12



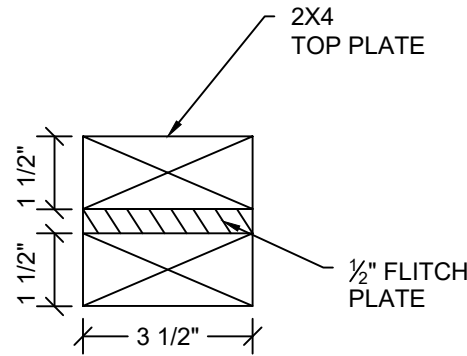
18 GA. GALVANIZED STEEL WITH  
(12) TOTAL (6) EACH END  
0.148"Ø X 1-1/2" NAILS OR EQUAL INTO  
RAFTERS AND STUD WALLS

**1 SIMPSON LTS12 DETAIL**  
S-11 SCALE: 3" = 1'-0"

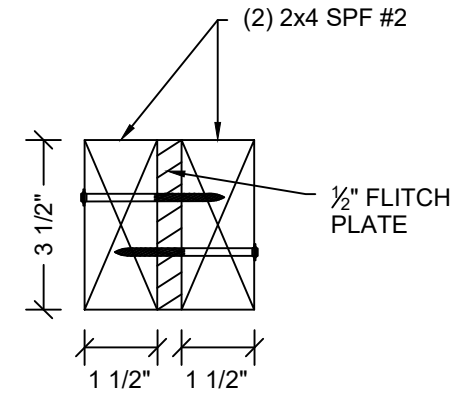
SIMPSON CS20 20 GA X 1-1/4"  
GALV. STEEL STRAP



**2 STRAP DETAIL**  
S-11 SCALE: 3" = 1'-0"



**3 HEADER SECTION**  
S-11 SCALE: 3" = 1'-0"



**4 HEADER SECTION**  
S-11 SCALE: 3" = 1'-0"

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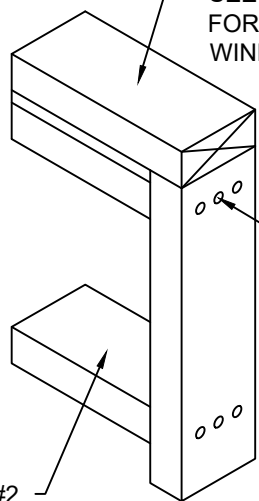


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(1) - 2X S.P.F. #2 WITH  
1/2" PLYWOOD FILLER  
SEE DETAIL ON 3/S-14  
FOR MAX 2'-0" WIDE  
WINDOW

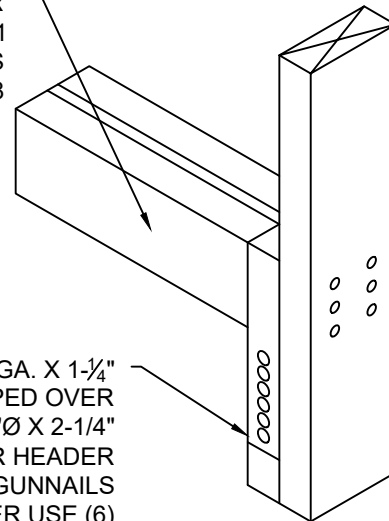


2X4 S.P.F. #2  
LAID FLAT

(3) 0.131"Ø X 3"  
GUNNAILS  
EACH END OF  
HEADER

**5 WINDOW HEADER AND SILL DETAIL**  
S-11 SCALE: N.T.S.

(2) - 2X S.P.F. #2 WITH  
1/2" PLYWOOD FILLER  
SEE DETAIL ON 4/S-11  
OR (2) LVL BEAMS  
PER DETAIL 5/S-8



SIMPSON CS20 20 GA. X 1-1/4"  
STRAP WRAPPED OVER  
HEADER WITH 0.131"Ø X 2-1/4"  
UP TO 4'-0" DOOR HEADER  
USE (5) GUNNAILS  
6'-0" DOOR HEADER USE (6)  
GUNNAILS ON EACH END OF  
STRAP

**6 HEADER WITH STRAP**  
S-11 SCALE: N.T.S.

2024-01-18 TOP LINE ENGINEERING, LLC APPROVAL

DETAILS

DATE: 04/12/18

DRAWN BY: RD

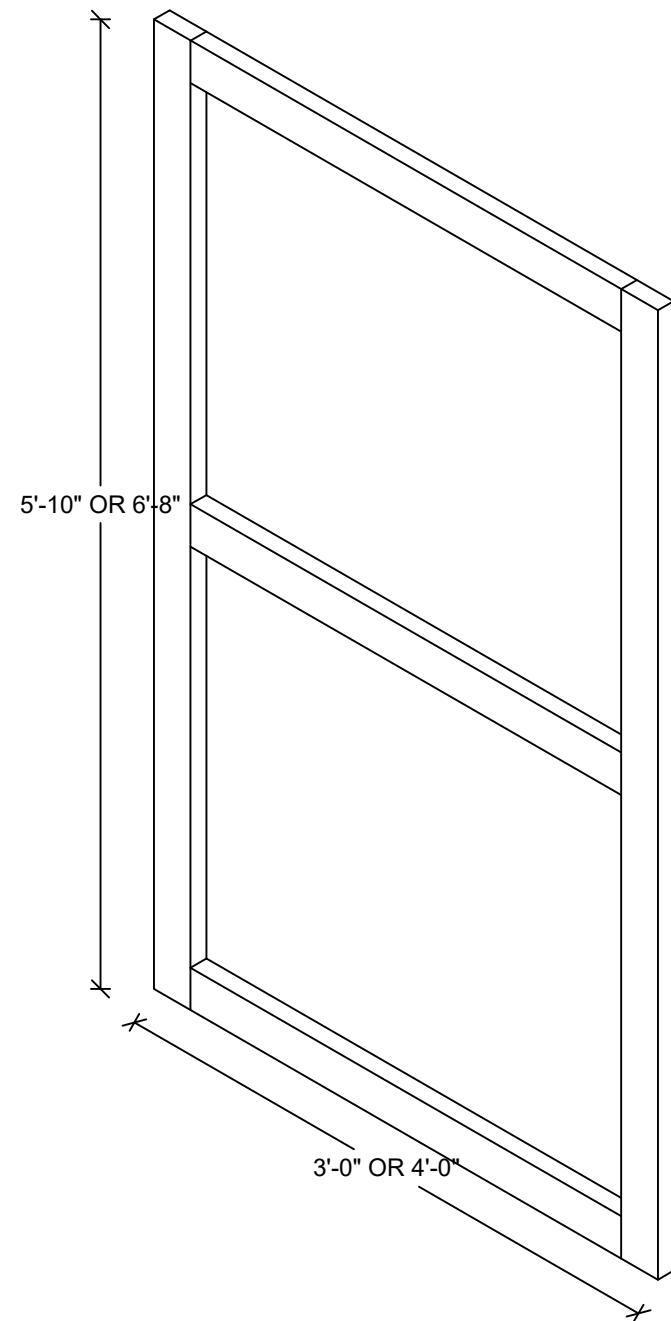
SCALE: AS NOTED

CHECKED BY: KMB

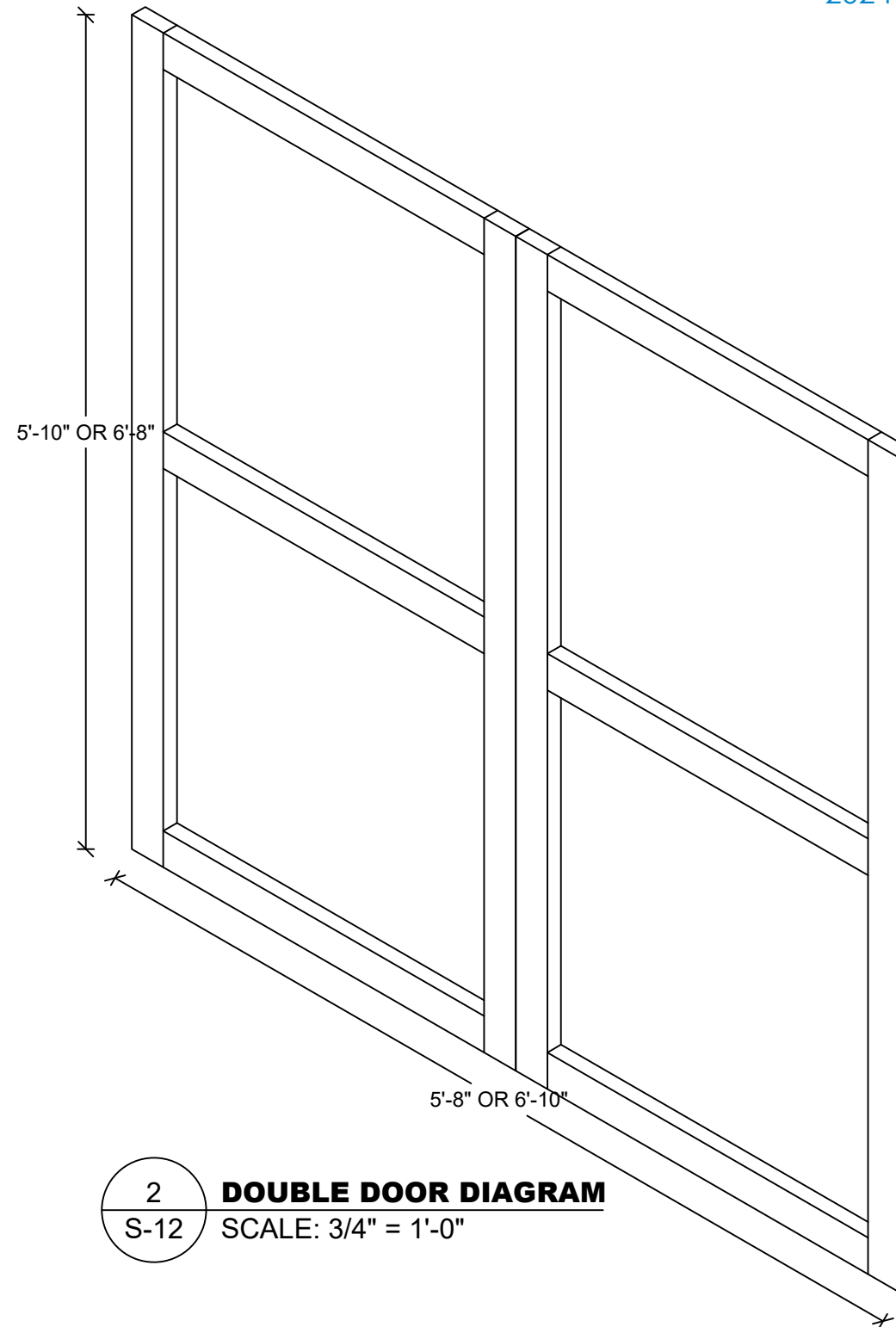
SHEET:

**S-11**

SHEET 12 OF 12



**1 SINGLE DOOR DIAGRAM**  
S-12 SCALE: 3/4" = 1'-0"



**2 DOUBLE DOOR DIAGRAM**  
S-12 SCALE: 3/4" = 1'-0"

**CONNECTION NOTES:**

STEEL TWIST HANDLE DOOR LOCK WITH METAL D-HANDLE THAT LATCHES BEHIND THE LEFT DOOR.

4" X 3/8 SLIDE BOLT ON TOP AND BOTTOM OF LEFT DOOR.

DOOR CLOSES AGAINST 2X2 DOOR STOP NAILED INSIDE OPENING.

FRAME IS STITCHED TOGETHER AT JOINTS WITH 5 PCS OF 1" X 1" WIDE CROWN STAPLES, SIDING ATTACHED WITH 1-3/4 X .092 RING SHANK NAILS AT 8" O.C AROUND EDGES AND ACROSS MIDDLE, 1X4 TRIM ATTACHED WITH 1-3/4 BRAD NAILS.

**NOTES:**

EACH DOOR SECURED TO WALL WITH 3 PCS OF 6" STEEL T-HINGE, USING A TOTAL OF 8PCS #8X 2-1/2 HINGE SCREWS. ( 4 IN EACH END)

STEEL LATCH HANDLE SECURED WITH 3 PCS OF #8X 2-1/2 HINGE SCREWS.

CAST STEEL D-HANDLE ATTACHED TO 1/4 LOCK SHAFT WITH TINNEMAN NUT AND 1/8 SET SCREW.

DOOR OR WINDOW WIND PRESSURE TABLE	
ENTRY DOOR	+55/-60 PSF
GARAGE DOOR 10'-0"	+40.9/-46.5 PSF
GARAGE DOOR 8'-0"	+42.9/-48.5 PSF
WINDOWS (DP66)	+55/-60 PSF

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**ISOMETRIC DOOR DIAGRAMS**

DATE: 04/12/18 DRAWN BY: RD  
SCALE: AS NOTED CHECKED BY: KMB

SHEET:  
**S-12**  
SHEET 12 OF 14