

FLORIDA DEPARTMENT OF  
**Business & Professional Regulation**



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**Manufactured (Modular) Buildings**

**USER:** Todd Gunter, Leonard Aluminum Utility Buildings, LLC, Modular Unit Manufacturer

[Manufactured \(Modular\) Buildings Menu](#) > **Confirmation**

OFFICE OF THE  
SECRETARY

**Thank you Todd Gunter, your application fee has been accepted. Please print this receipt for your records.**

You have been successfully registered as

Login Leonard1  
Name Todd Gunter  
Primary Phone (336) 789-5018  
Email bmatthews@leonardusa.com

FBC Organization Number MFT14344  
Business/Firm Name Leonard Aluminum Utility Buildings, LLC  
Business Location Address 630 W. Independence Blvd  
Suite 3  
City Mount Airy  
State North Carolina  
Zip Code 27030  
Administrator Name Todd Gunter  
Administrator Phone (336) 789-5018

<b>Payment Number</b>	<b>138222</b>
<b>Sub Total</b>	<b>\$600.00</b>
<b>Convenience Fee</b>	<b>\$2.00</b>
<b>Payment Total</b>	<b>\$602.00</b>

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[Contact Us](#) :: [2601 Blair Stone Road, Tallahassee FL 32399](#) Phone: 850-487-1824

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**Manufactured (Modular) Buildings Accepts:**



January 27, 2023

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

**RE: Plan Approval**  
**Leonard Aluminum Utility Buildings, LLC (Valdosta, Georgia Plant)**  
**Slim-V-20**

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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:

**2020 Florida Building Code, 7<sup>th</sup> Edition, with 2021 supplements**  
**2017 National Electrical Code (NFPA-70)**  
**Florida Product Approval Rule 61G20-3.006 (FAC)**

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.

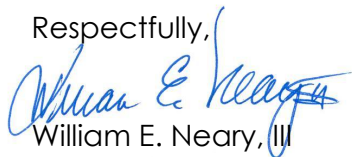
Third Party Agency approval in no way alleviates the builder/manufacturer from complying with all the applicable codes, which may or may not be identified in this review. Approval also does not preclude the local building official from requiring work be performed that was not previously reviewed, approved, 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  
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

100 DOUGLAS ST., VALDOSTA, GA 31601

## SLIM SHED

STATE OF FLORIDA

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NOT APPROVED FOR HVHZ

### Design Criteria

BUILDING CODE	ASCE 7-16, FBC 2020 (7th ed.) W/2021 SUPP
ELECTRICAL CODE	2014 NEC, NFPA70
BUILDING TYPE	RESIDENTIAL LAWN STORAGE SHED
MANUFACTURER	LEONARD BUILDINGS
AGENCY	TOP LINE ENGINEERING, LLC
AGENCY PLAN NUMBER	SLIM
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, $V_{ASD} = 124$ MPH, 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	20.0 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.

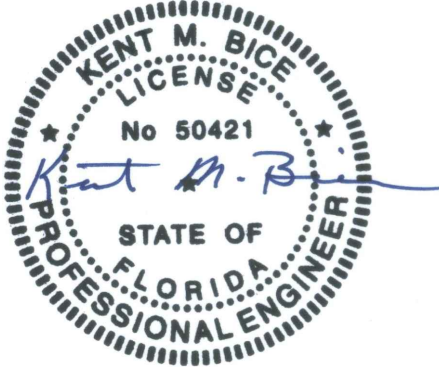
### Sheet Index

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**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



01/26/23

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

### COVER SHEET

DATE: 12/08/20 DRAWN BY: RD  
SCALE: AS NOTED CHECKED BY: KMB

SHEET:

S-1

SHEET 1 OF 12

2023-01-27 TOP LINE ENGINEERING, LLC APPROVAL

THESE PLANS WERE DESIGNED IN ACCORDANCE WITH THE ASCE 7-16, FBC 2020 (7TH ED.) W/2021 SUPP.

GENERAL NOTES:

- 1. THIS STRUCTURE WAS DESIGNED IN ACCORDANCE WITH THE 2020 FLORIDA BUILDING CODE (7th Ed.).
- 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 2018 IBC OR PER SHINGLE MANUFACTURER INSTRUCTIONS.
- 11. UNDERLAYMENT SHALL CONFORM WITH SECTION 1507.2.3 OF THE 2018 IBC OR PER SHINGLE MANUFACTURER INSTRUCTIONS.
- 12. ASPHALT SHINGLES SHALL CONFORM WITH SECTION 1507.2.5 OF THE 2018 IBC ATTACHMENT OF ASPHALT SHINGLES SHALL CONFORM WITH 1507.2.7 OF THE 2018 IBC.
- 13. FASTENERS FOR ASPHALT SHINGLES SHALL CONFORM TO SECTION 1507.2.6 OF THE 2018 IBC.
- 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 2018 IBC 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 2018 IBC 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 EQUAL TO THOSE IN THE ENDWALL SHEAR WALL CHART.
- 26. PER SECTION 1609.1.2 OF THE 2018 IBC, 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 2018 IBC.
- 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.

TOP LINE ENGINEERING, LLC

STRUCTURAL ENGINEERS

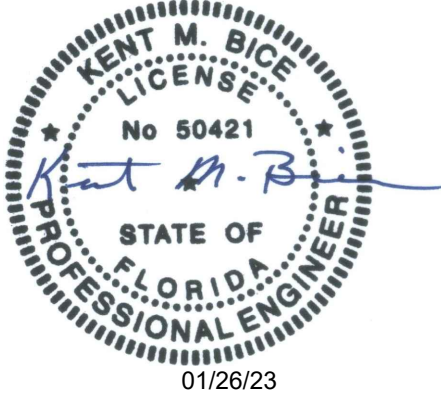
William E. Neary, III

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



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

GENERAL NOTES

DATE: 12/08/20	DRAWN BY: RD
SCALE: AS NOTED	CHECKED BY: KMB

SHEET:

S-2

SHEET 2 OF 12



BUILDING DATA ASCE 7-16 WIND

WIND VELOCITY $V_{ULT}$	160 MPH	INTERNAL PRESSURE COEFFICIENT	$\pm 0.18$
WIND VELOCITY $V_{ASD}$	124	(ENCLOSED BUILDING ASCE 7-16)	
BUILDING CATEGORY	I	HEIGHT & EXPOSURE ADJUSTMENT COEFFICIENT	1.0
		ROOF DEAD LOAD RESISTING UPLIFT (PSF)	7.0
ROOF ANGLE, ° (DEGREES)	12 DEGREES		
WIND EXPOSURE CATEGORY	C	MEAN ROOF HEIGHT	15

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

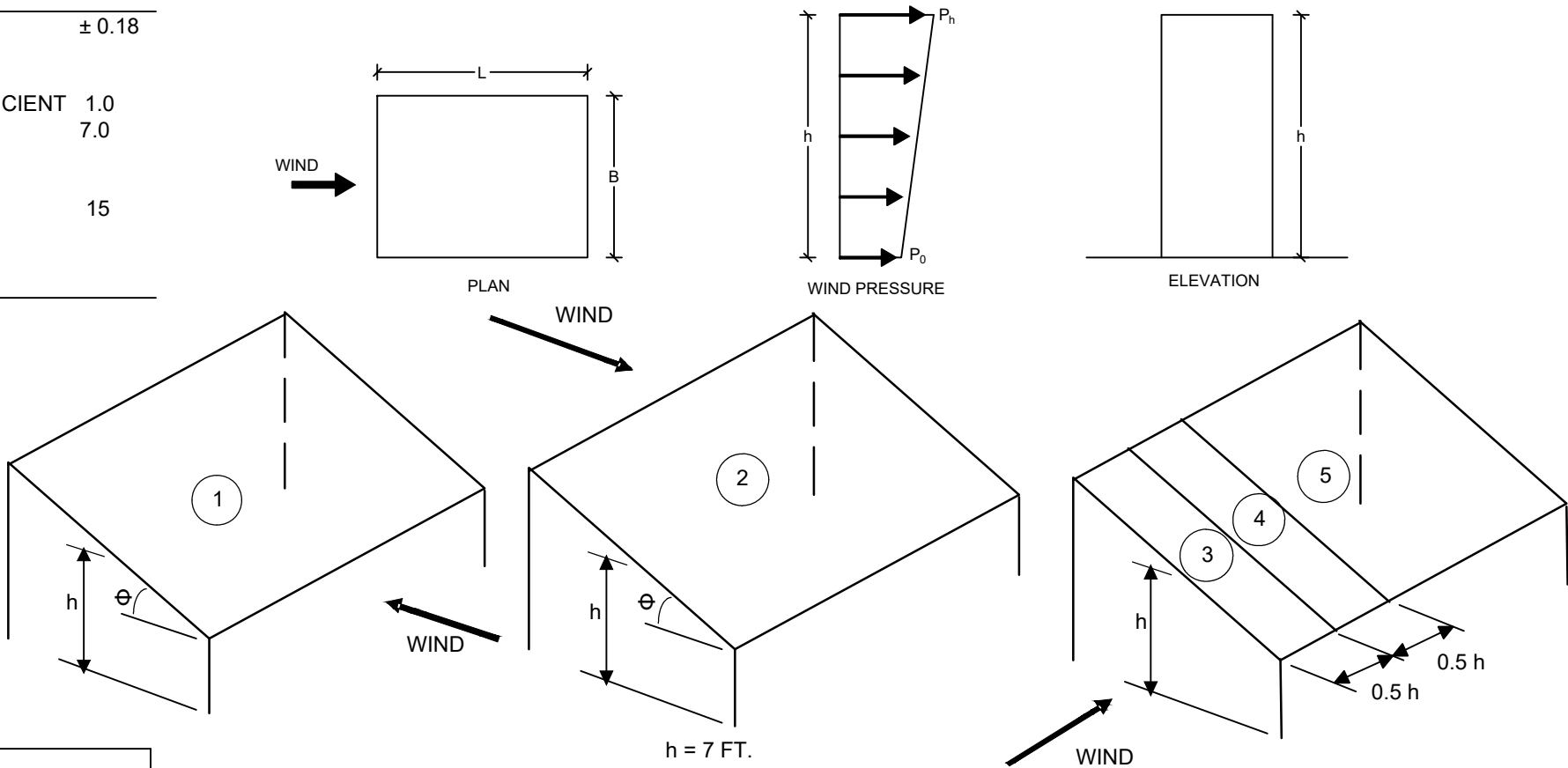
WIND ON	L (FT)	B (FT)	L/B	PO = $P_h$ , PSF	PRESSURE FOR DIAPHRAGM DESIGN, PSF		PRESSURE FOR STUD DESIGN, PSF	
					WINDWARD, $W_w$	LEEWARD, $W_l$	WINDWARD, $W_w$	LEEWARD, $W_l$
SHORT WALL	12	6	2	46.6	34.0	12.6	42.5	21.1
LONG WALL	6	12	0.5	53.7	33.3	20.4	41.8	28.9

MWFRS - ROOF

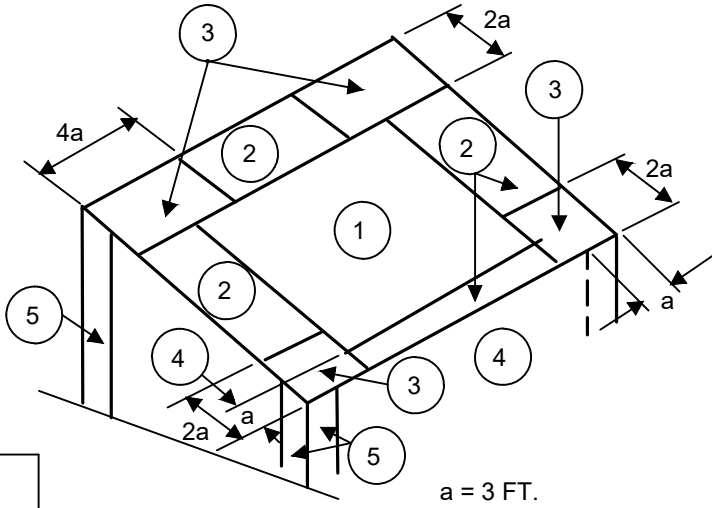
LOAD CASE	THETA (DEG)	WIND PRESSURE ON ROOF ZONE, PSF				
		WIND ON LONG WALL		WIND ON SHORT WALL		
		1	2	3	4	5
LOAD CASE 1	9.46	0.0	0.0	-50.1	-44.7	-36.6
	14	-49.2	-35.4	-50.1	-44.7	-36.6
	12	-27.5	-19.8	-50.1	-44.7	-36.6
LOAD CASE 2	9.46	0.0	0.0	0.0	0.0	0.0
	14	7.1	-10.0	0.0	0.0	0.0
	12	4.0	-5.6	0.0	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



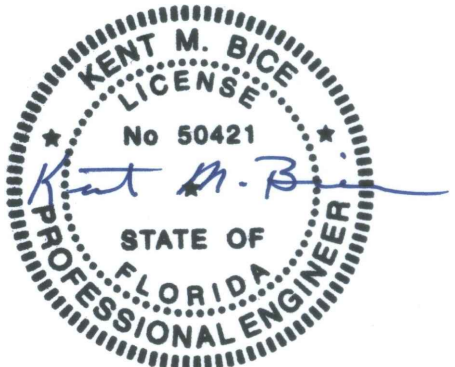
WIND LOAD MAIN WIND FORCE PRESSURE DIAGRAM



WIND LOAD COMPONENT AND CLADDING PRESSURE DIAGRAM

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



01/26/23

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(863)865-6502

WIND LOAD TABLES

DATE: 12/08/20 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" 8d <sup>d</sup> OR 6d <sup>e</sup> SINGLE FLOOR, COMBINATION SUBFLOOR-UNDERLAYMENT TO FRAMING 2⅜" X 0.113" NAIL <sup>n</sup> 2" 16 GAGE <sup>n</sup> STAPLE 7/8" TO 1" 8d <sup>c</sup> 1⅞" TO 1¼" 10d <sup>d</sup> OR 8d <sup>e</sup>	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
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" NO. II GAGE ROOFING NAIL <sup>h</sup> 6d COMMON NAIL (2" x 0.113") 25/32" NO. 16 GAGE STAPLE <sup>i</sup> NO. II GAGE ROOFING NAIL <sup>h</sup> 8D COMMON NAIL (2 ½" x 0.131") NO 16 GAGE STAPLE <sup>i</sup>	3" / 6" O.C. AT EDGES / INTERMEDIATE FOR STRUCTURAL APPLICATIONS 6" / 12" O.C. AT EDGES / INTERMEDIATE FOR NON-STRUCTURAL APPLICATIONS

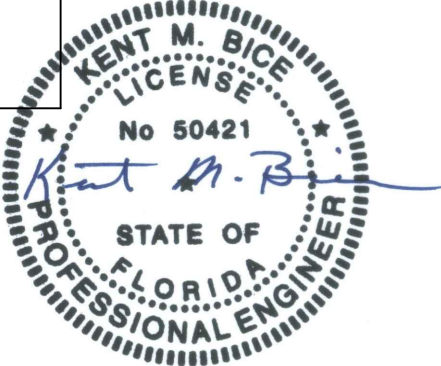
NOTES:

- 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.



**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



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 (863)865-6502

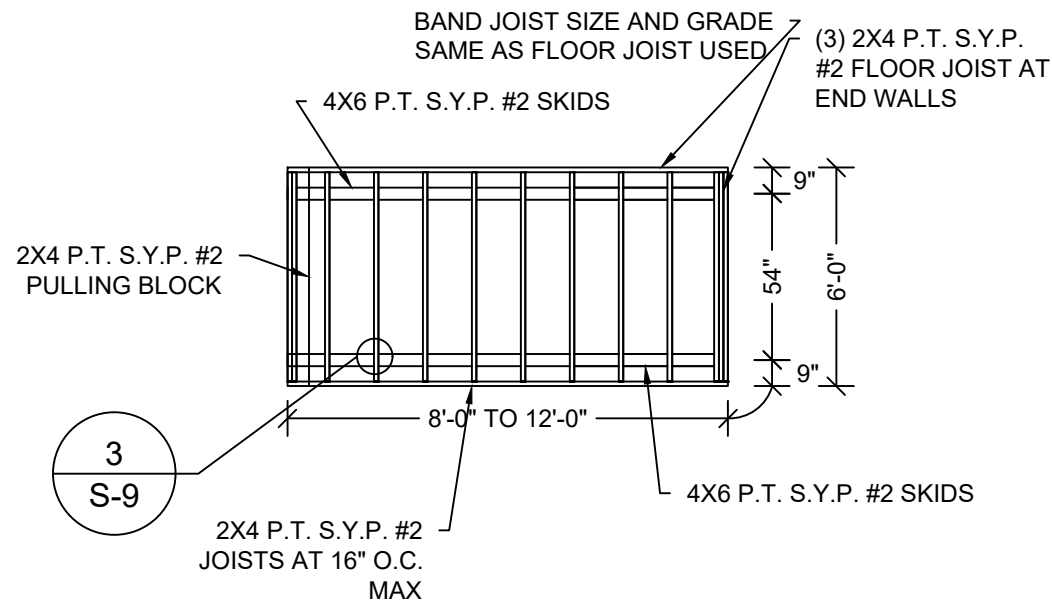
FASTENING SCHEDULE

DATE: 12/08/20	DRAWN BY: RD
SCALE: AS NOTED	CHECKED BY: KMB

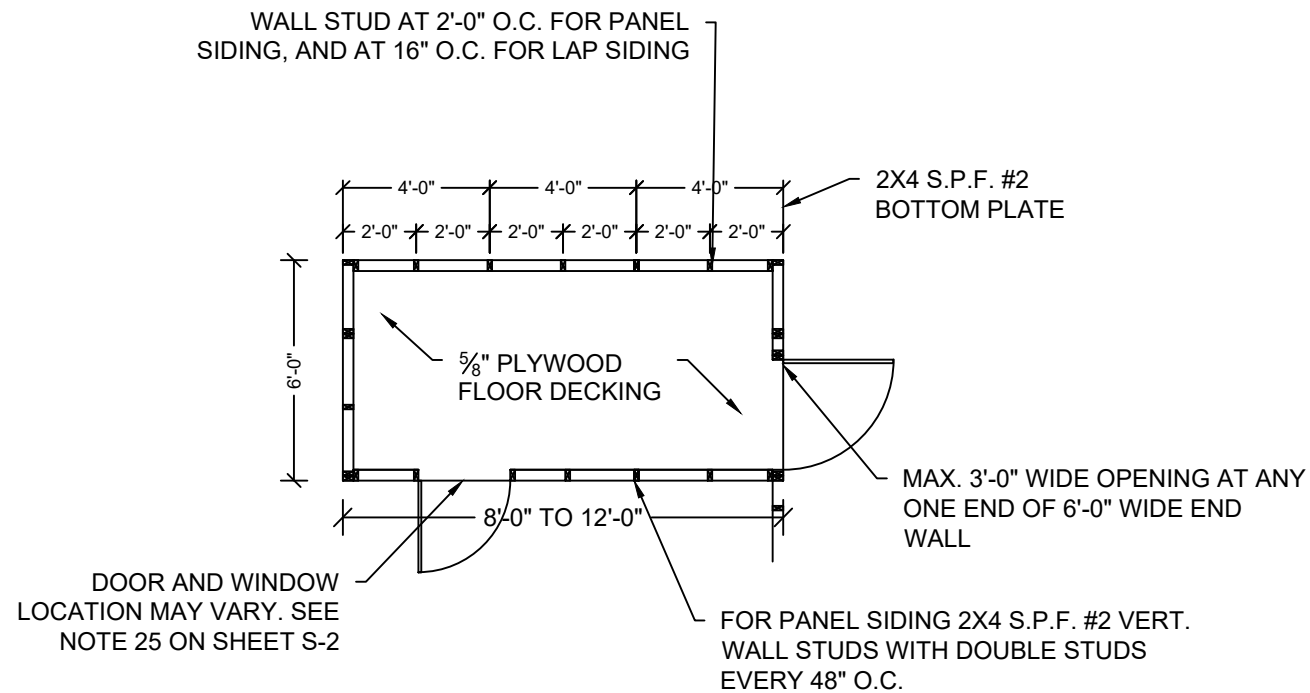
SHEET:

S-4

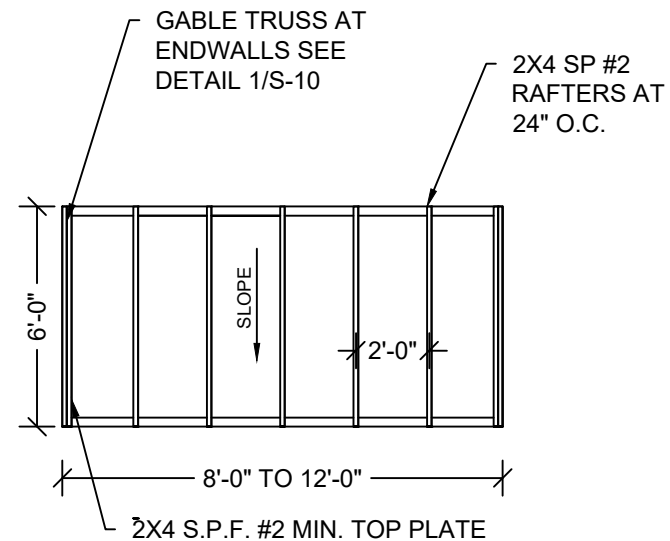
SHEET 4 OF 12



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



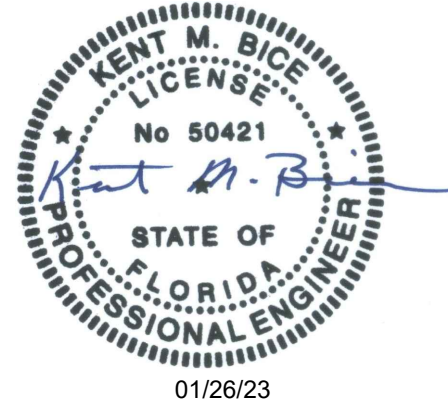
**2 FLOOR DECK PLAN**  
 S-5 SCALE: 3/16" = 1'-0"



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

**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



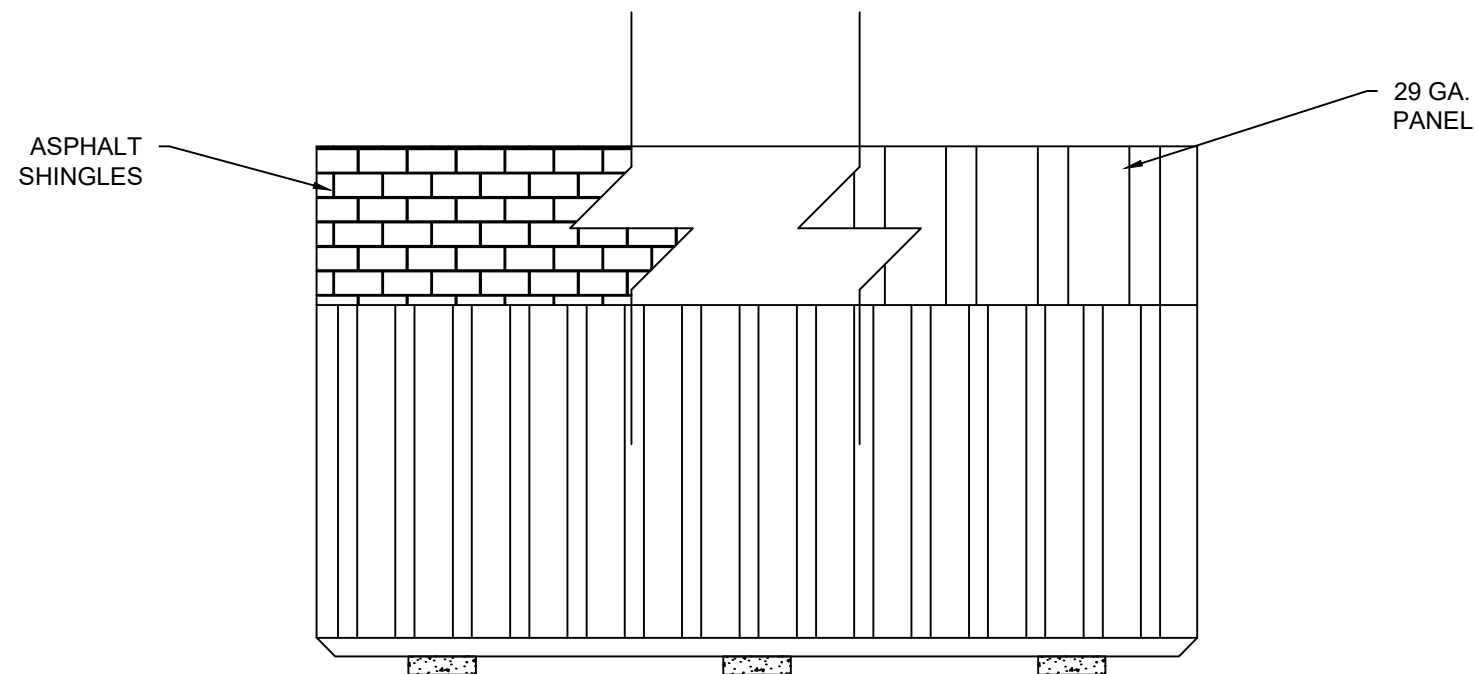
1552 6TH ST., WINTER HAVEN, FL 33880  
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**FRAMING PLANS**

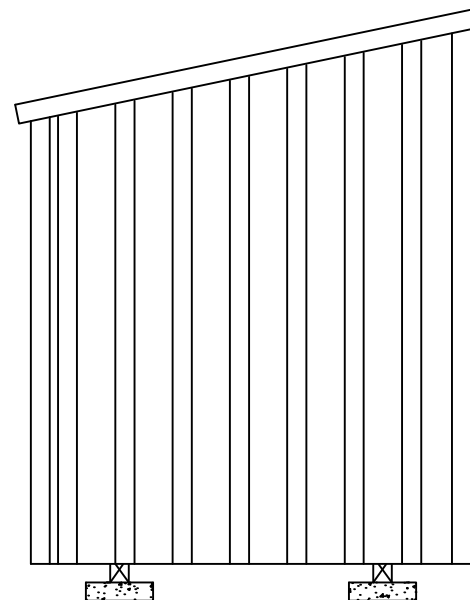
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SCALE: AS NOTED	CHECKED BY: KMB

SHEET:  
**S-5**  
 SHEET 5 OF 12

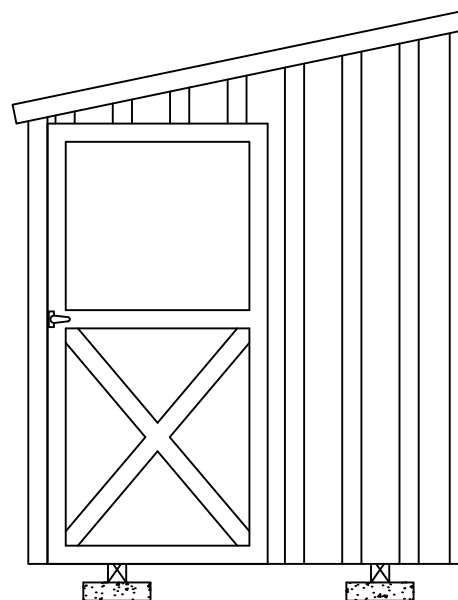




1 **SIDE WALL ELEVATION WITH PANEL SIDING**  
S-6 SCALE: 1/4" = 1'-0"



SAMPLE UNIT WITHOUT OPENINGS



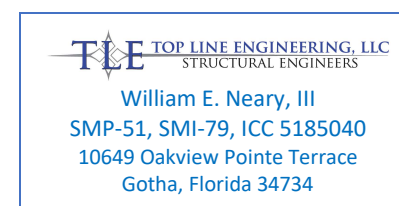
SAMPLE UNIT WITH 3'-0" DOOR

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

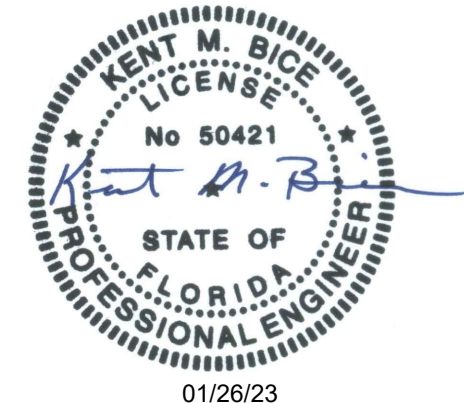
SHEARWALL WITH 19/32" T1-11 <sup>1</sup> OR LP SMARTSIDE STRAND SUBSTRATE PANEL SIDING <sup>2</sup>			
FLOOR WIDTH (FT)	OPENING WIDTH (FT.)		MAX LENGTH OF BUILDING
	LONG SIDE WALL	SHORT END WALL	
6'-0"	3'-0", 4'-0" OR 6'-0"	2'-0", 3'-0"	12'-0"

**NOTES:**

1. 19/32" T1-11 APA RATED SIDING 303-24" O.C. SHALL BE FASTENED USING 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. 19/32" LP SMARTSIDE STRAND SUBSTRATE PANEL SIDING SHALL BE FASTENED USING 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.
3. 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.
4. EDGE NAILING SHALL BE PROVIDED AT TOP PLATE IN ALL END WALLS.
5. PROVIDE BLOCKING AT ALL UNSUPPORTED EDGES OF WALL SHEATHING.



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



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(863)865-6502

**ELEVATIONS -  
PANEL SIDING**

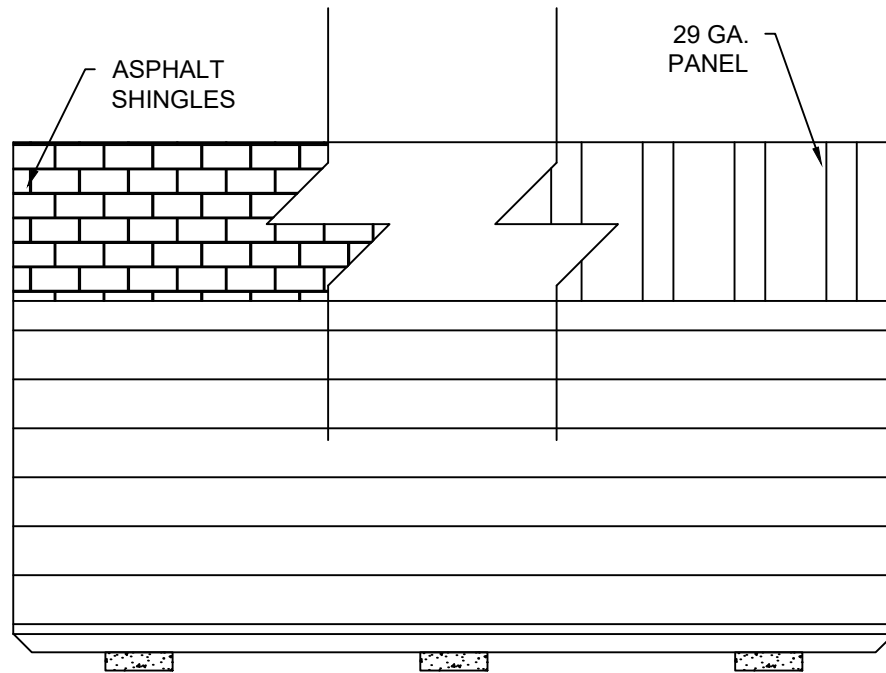
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SCALE: AS NOTED CHECKED BY: KMB

SHEET:

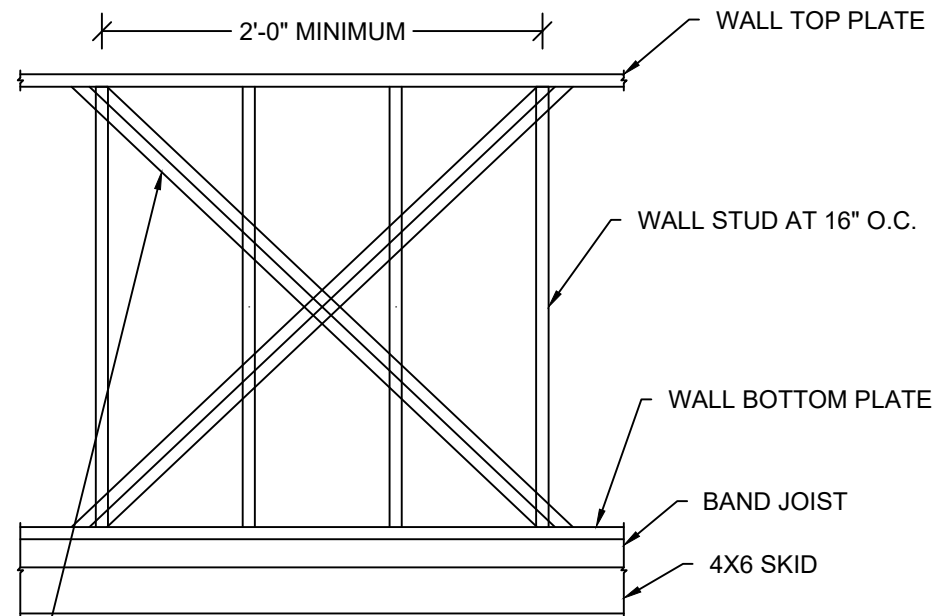
**S-6**

SHEET 6 OF 12





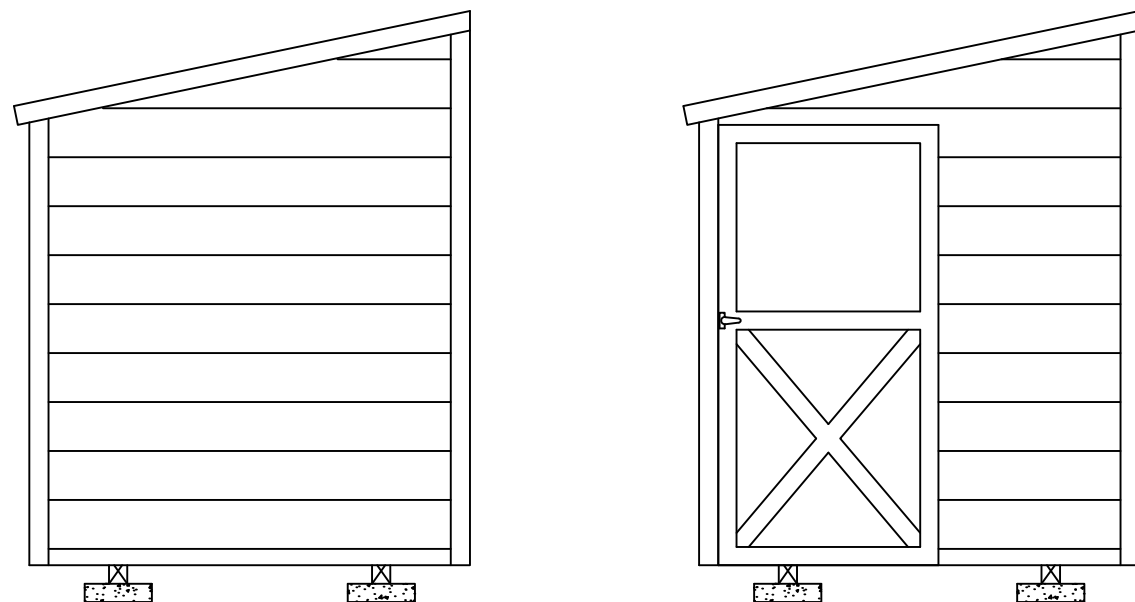
1 **SIDE WALL ELEVATION WITH LAP SIDING**  
S-6A SCALE: 1/4" = 1'-0"



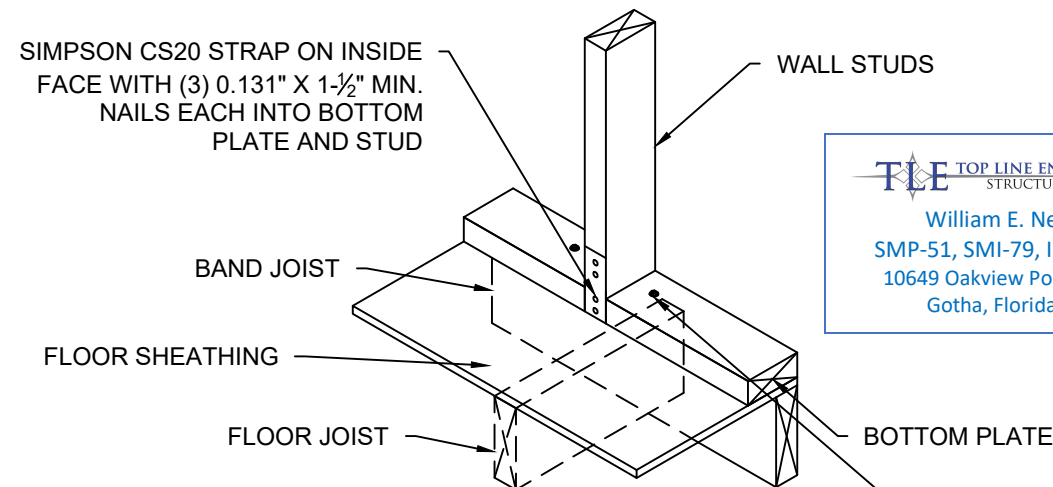
2 **PARTIAL SIDE WALL / END WALL FRAMING ELEVATION WITH LAP SIDING**  
S-6A SCALE: NTS

SHEARWALL WITH LP SMARTSIDE LAP SIDING <sup>1</sup>			
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"	12'-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.



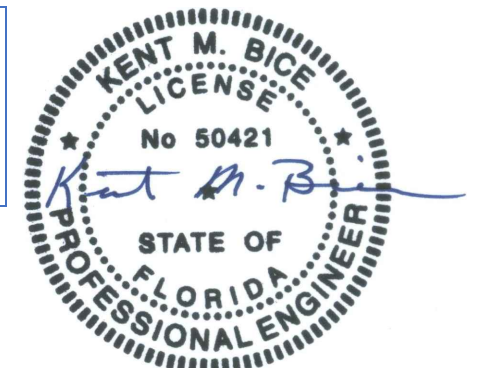
4 **ENDWALL ELEVATION WITH LAP SIDING**  
S-6A SCALE: 1/4" = 1'-0"



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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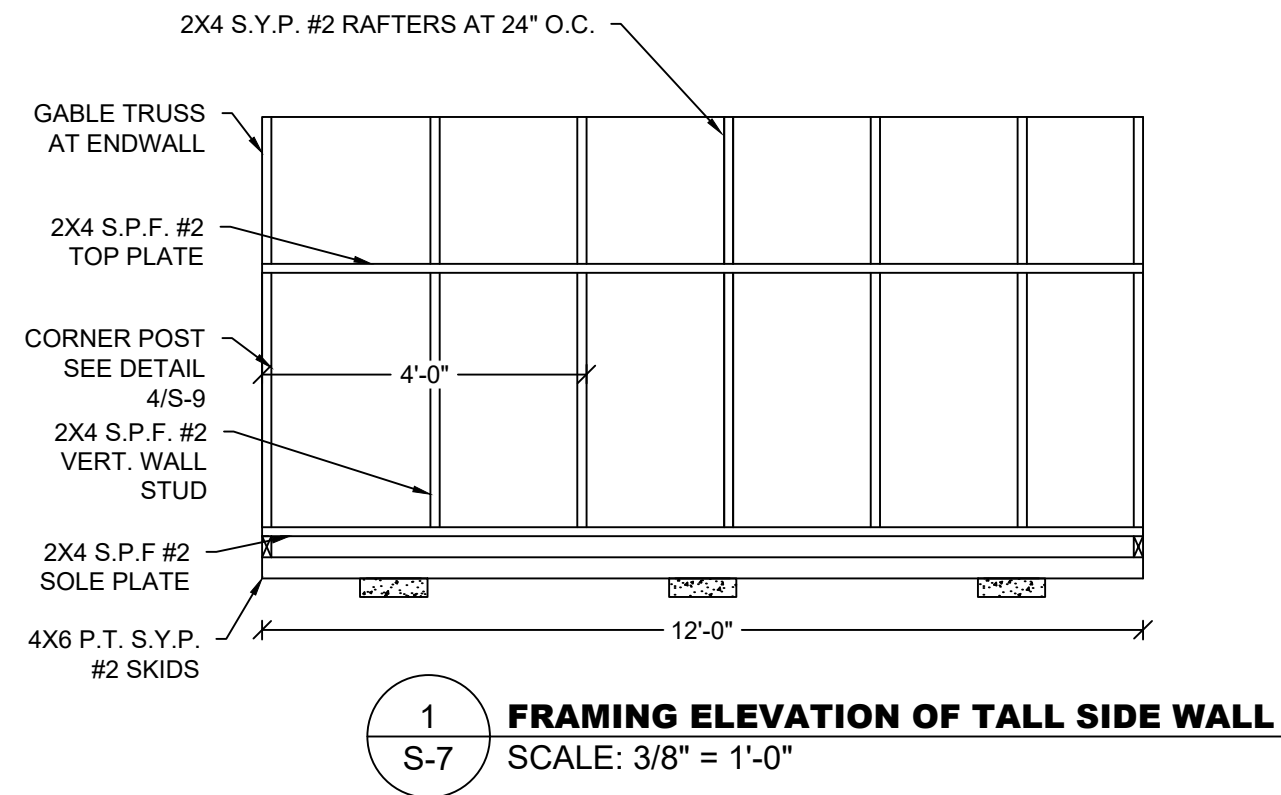
**ELEVATIONS - LAP SIDING**

DATE: 12/08/20 DRAWN BY: RD  
SCALE: AS NOTED CHECKED BY: KMB

SHEET:

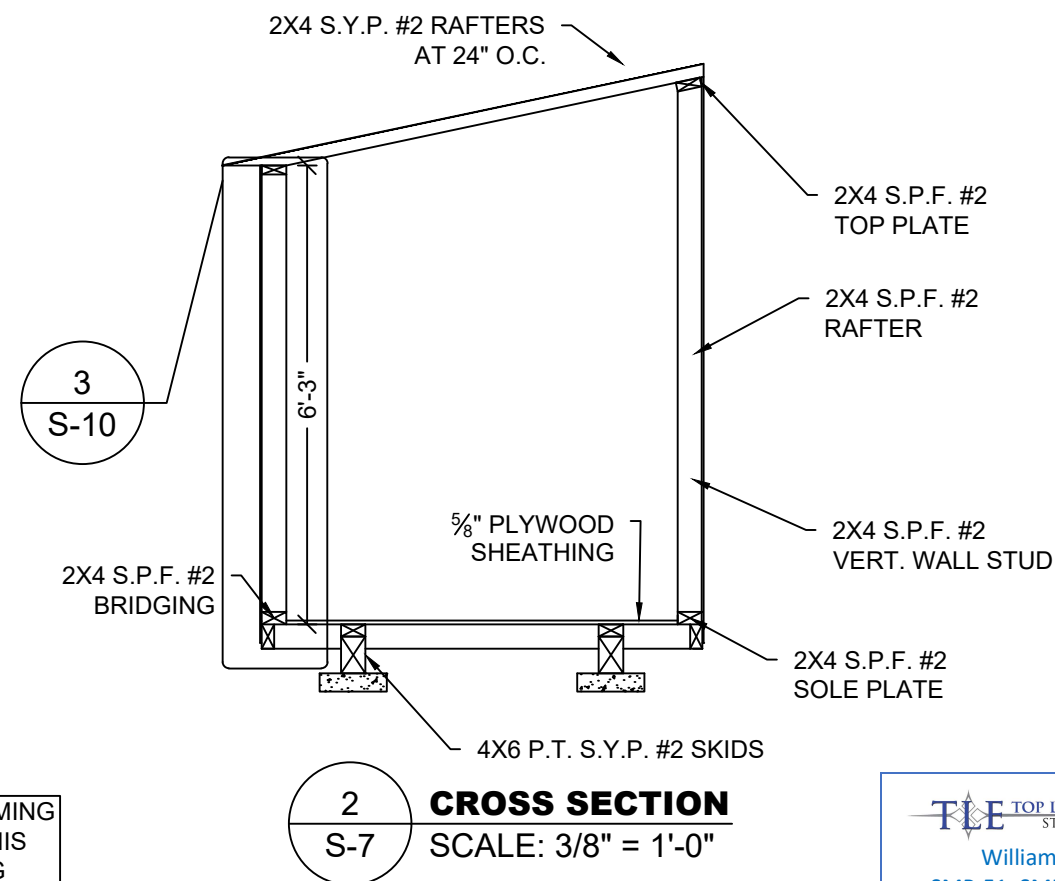
**S-6A**

SHEET 7 OF 12

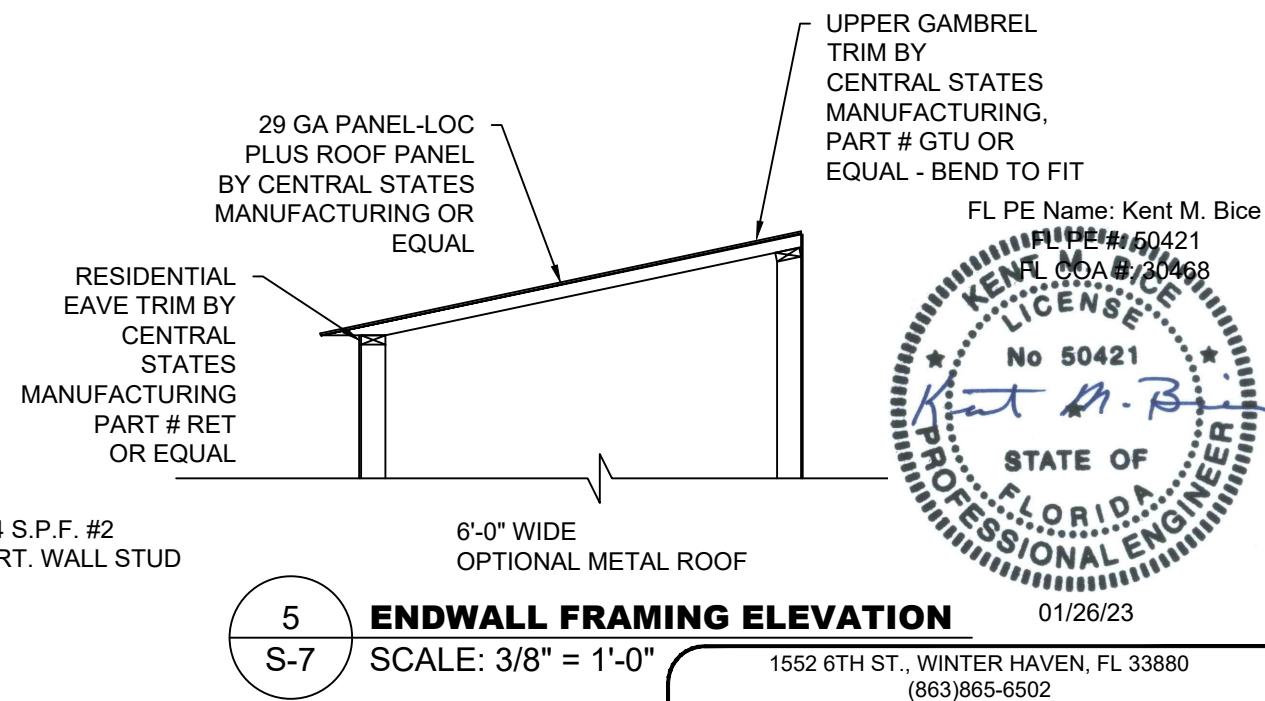
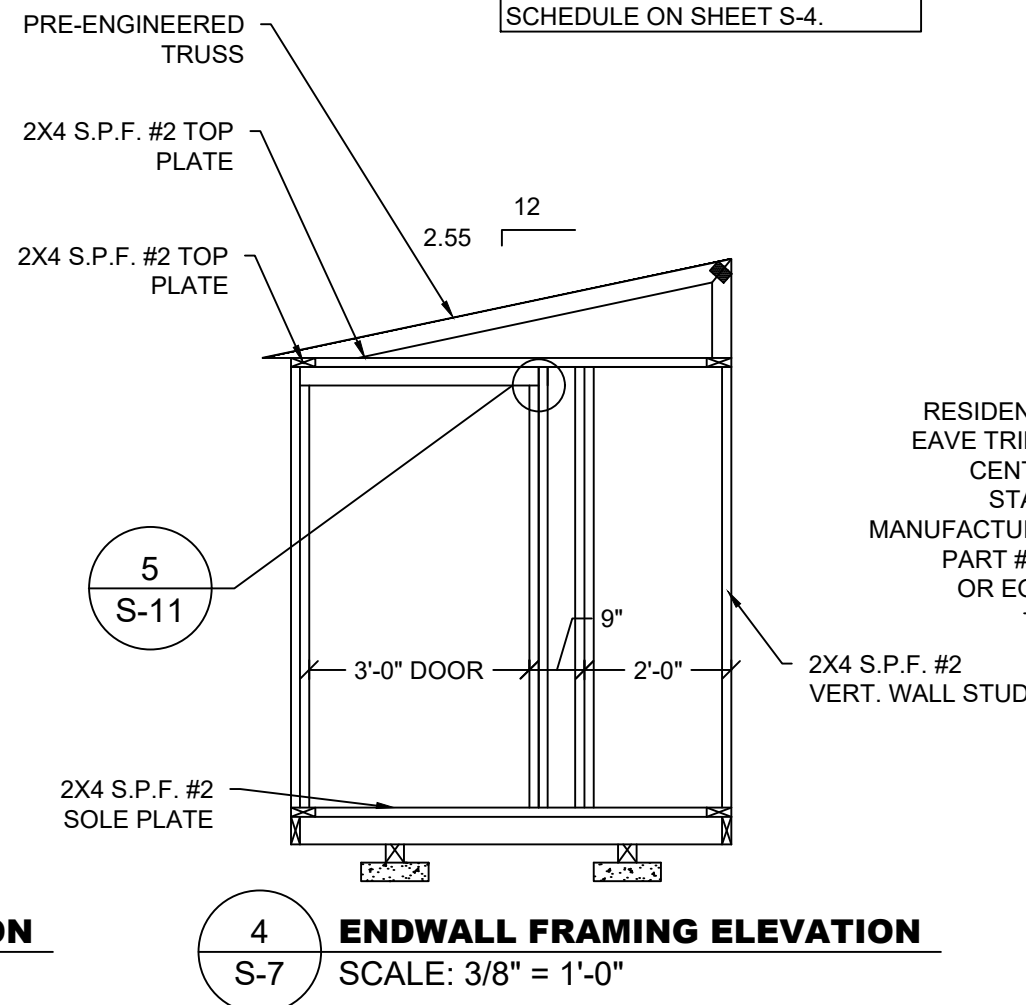
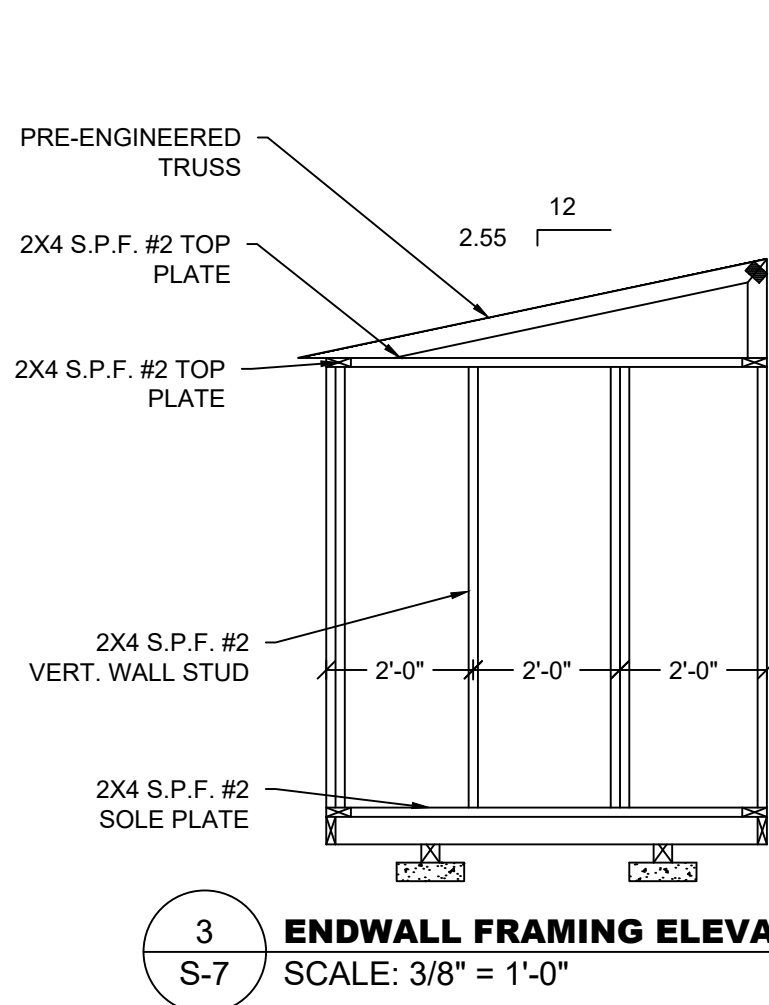


2023-01-27 TOP LINE ENGINEERING, LLC APPROVAL

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



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



KENT M. BICE  
No 50421  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER  
01/26/23

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

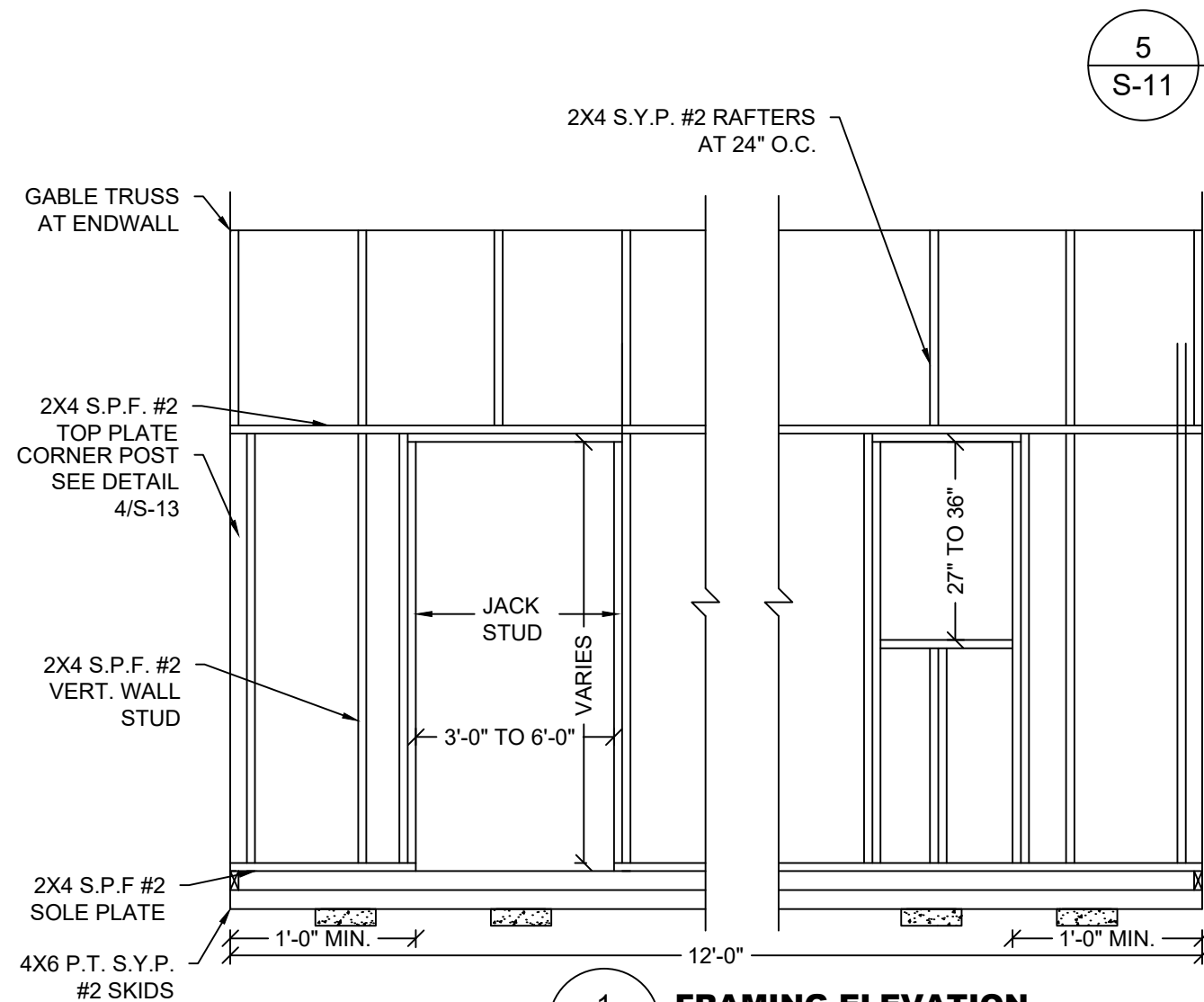
**ELEVATIONS AND SECTIONS**

DATE: 12/08/20 DRAWN BY: RD

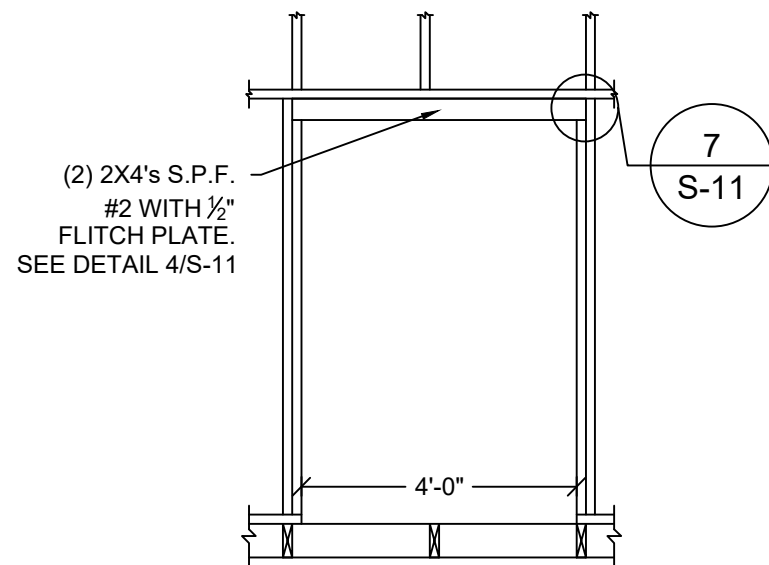
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SHEET:  
**S-7**  
SHEET 8 OF 12

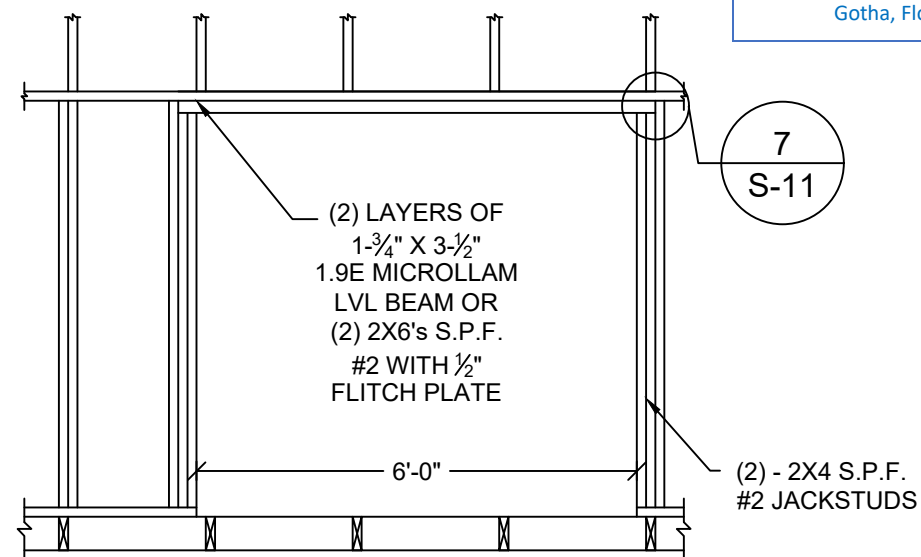
THESE PLANS WERE DESIGNED IN ACCORDANCE WITH THE ASCE 7-16, FBC 2020 (7TH ED.) W/2021 SUPP.



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

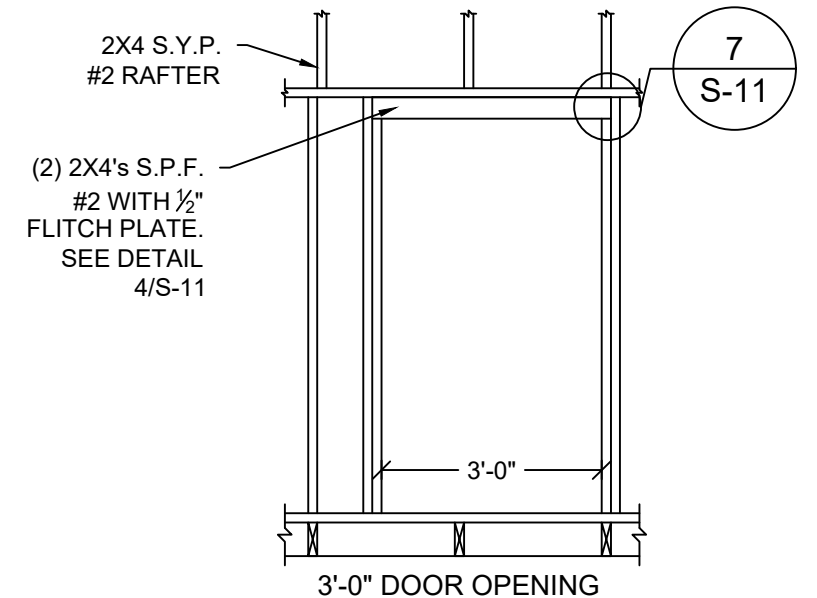
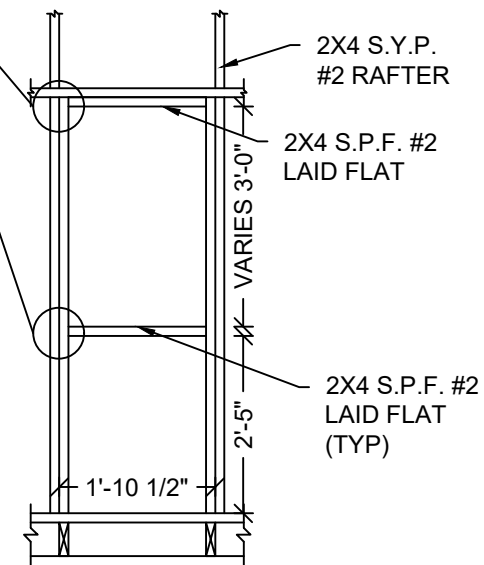


**4**  
S-8 **FRAMING ELEVATION**  
SCALE: 3/8" = 1'-0"



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

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

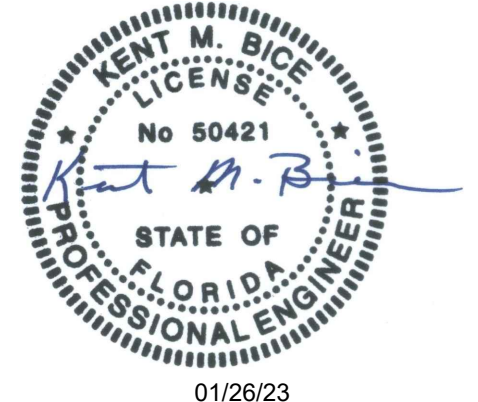


**3**  
S-8 **FRAMING ELEVATION**  
SCALE: 3/8" = 1'-0"

2023-01-27 TOP LINE ENGINEERING, LLC APPROVAL

**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



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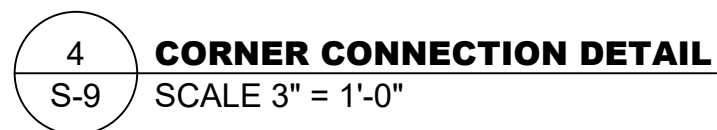
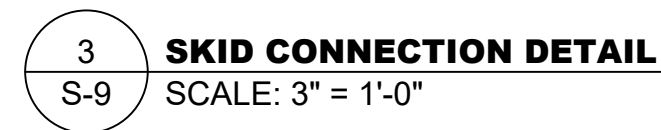
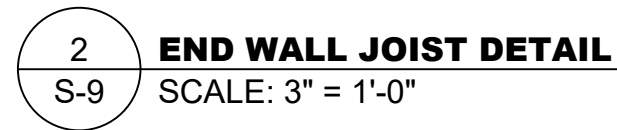
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**SHORT SIDE WALL  
ELEVATION**

DATE: 12/08/20	DRAWN BY: RD
SCALE: AS NOTED	CHECKED BY: KMB

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

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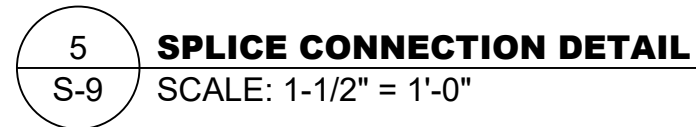


FASTENING SCHEDULE ON SHEET S-4.

2x SPLICE CONNECTOR BELOW

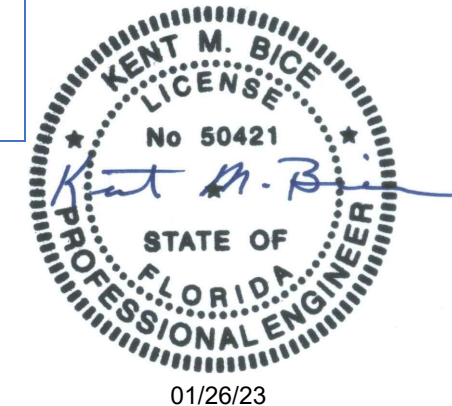
CONTINUOUS 2x TOP PLATE ABOVE

SPlice CONNECTION DETAIL  
PLAN VIEW



**TILE TOP LINE ENGINEERING, LLC**  
STRUCTURAL ENGINEERS

**William E. Neary, III**  
**SMP-51, SMI-79, ICC 5185040**  
**10649 Oakview Pointe Terrace**  
**Gotha, Florida 34734**



## DETAILS

CHECKED BY: KMB

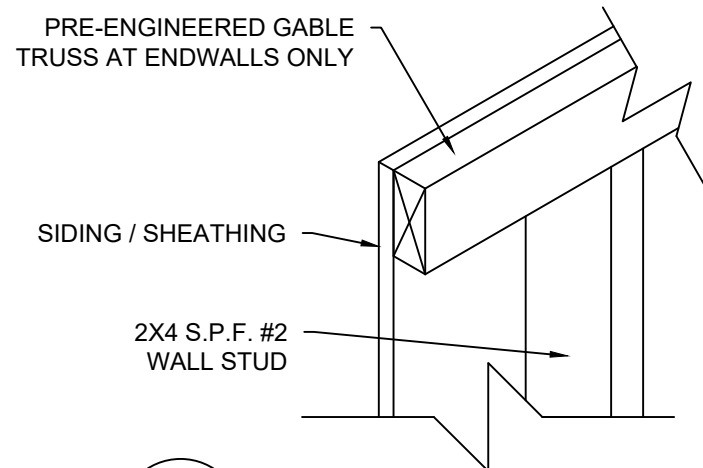
S-9

SHEET 10 OF 12

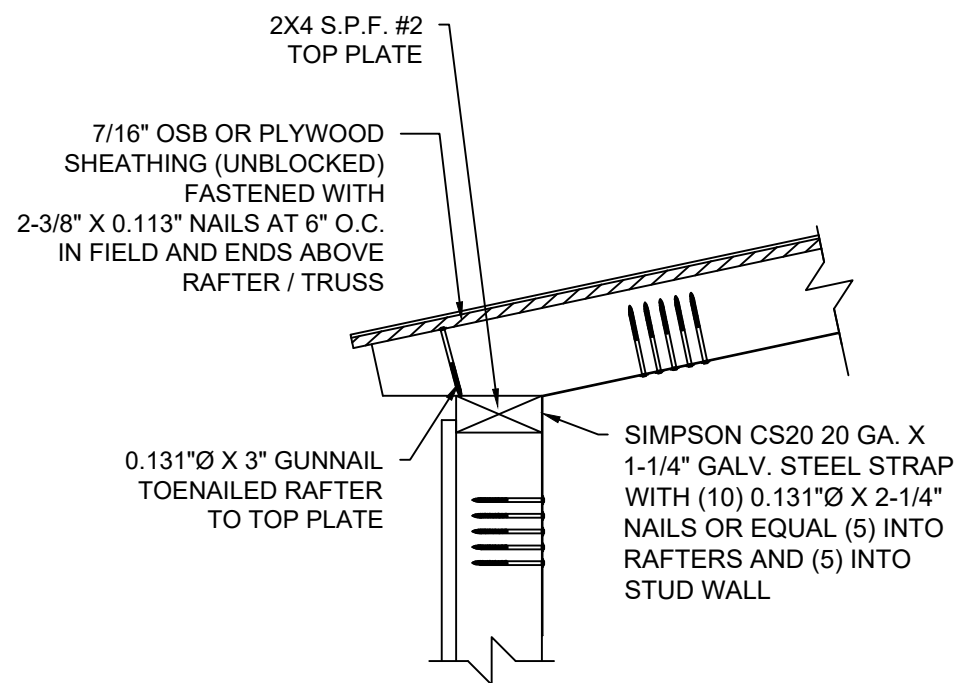
2023-01-27 TOP LINE ENGINEERING, LLC APPROVAL

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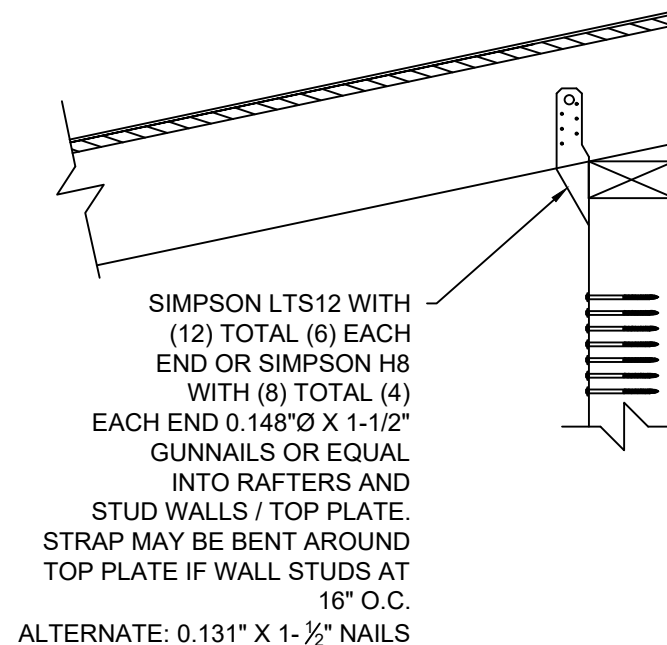




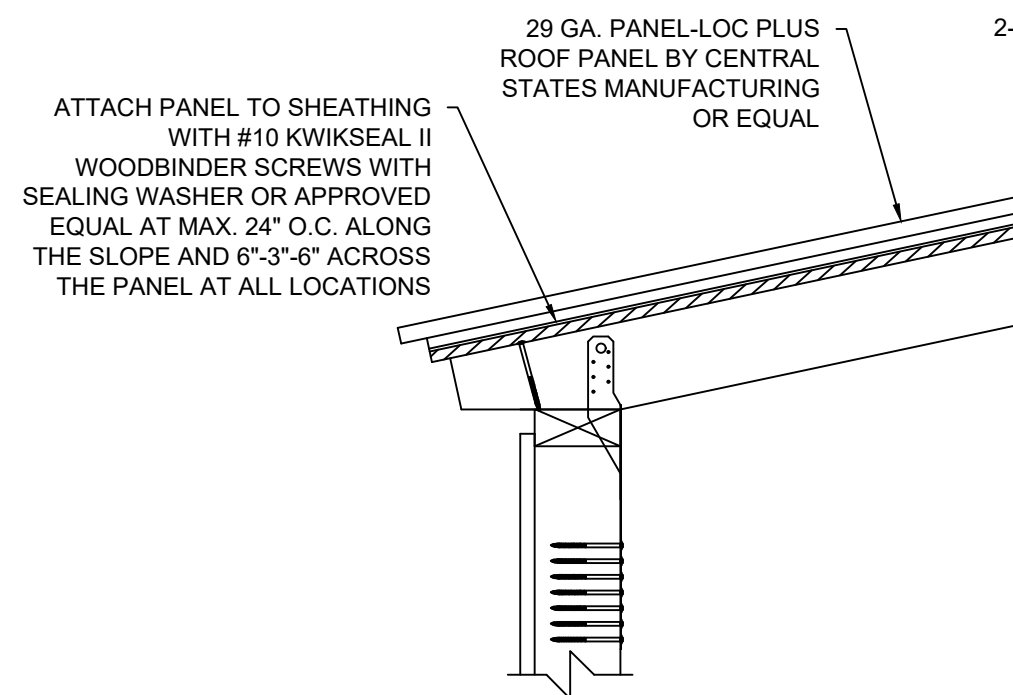
1  
S-10 **GABLE TRUSS DETAIL**  
SCALE: 1-1/2" = 1'-0"



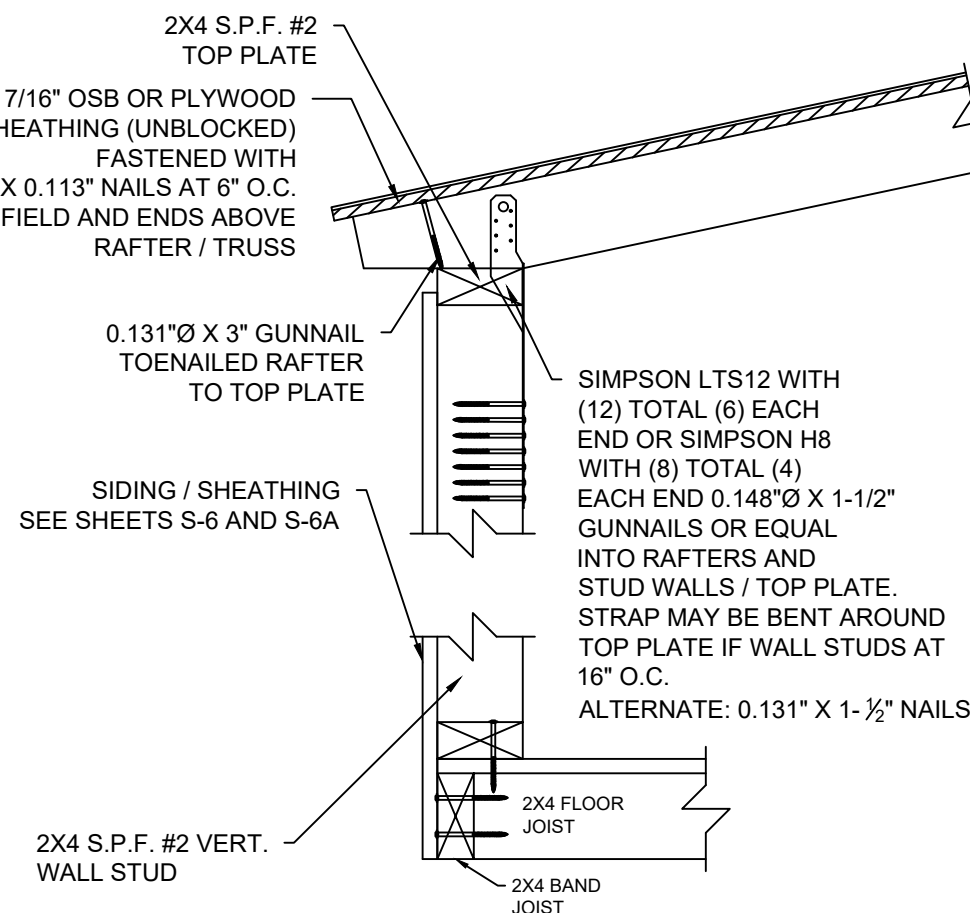
5  
S-10 **ALTERNATE WALL STUD TO RAFTER DETAIL**  
SCALE: 1-1/2" = 1'-0"



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

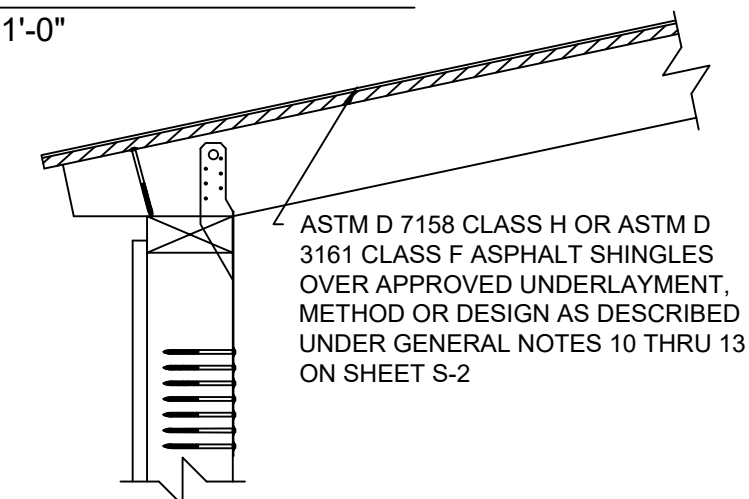


2  
S-10 **METAL ROOF FASTENING DETAIL**  
SCALE: 1-1/2" = 1'-0"



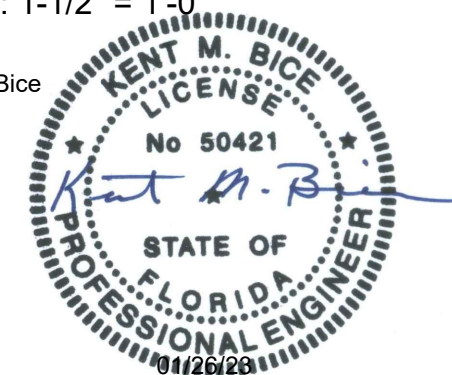
3  
S-10 **WALL STUD TO RAFTER / TRUSS AND FLOOR FASTENING DETAIL**  
SCALE: 1-1/2" = 1'-0"

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



6  
S-10 **SHINGLE FASTENING DETAIL**  
SCALE: 1-1/2" = 1'-0"

FL PE Name: Kent M. Bice  
FL PE #: 50421  
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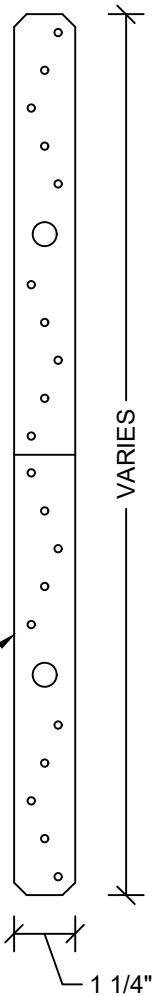
DETAILS			
DATE: 12/08/20	DRAWN BY: RD		
SCALE: AS NOTED	CHECKED BY: KMB		



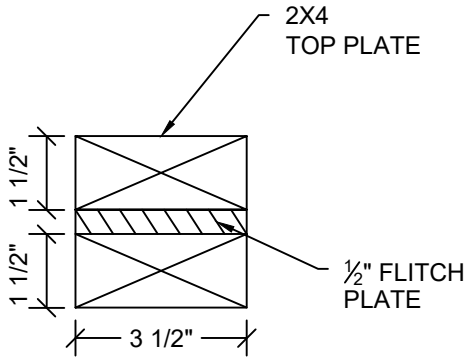
18 GA. GALVANIZED STEEL WITH  
(12) TOTAL (6) EACH END  
0.148"Ø X 1-1/2" NAILS OR EQUAL INTO  
RAFTERS AND STUD WALLS

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

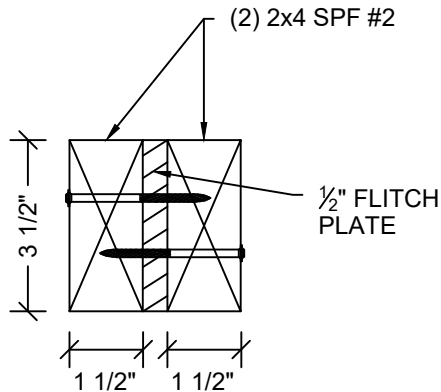
SIMPSON CS20 20 GA X 1-1/4"  
GALV. STEEL STRAP



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



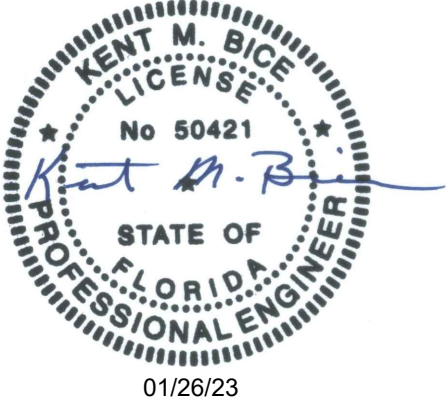
3  
S-11 **HEADER SECTION**  
SCALE: 3" = 1'-0"



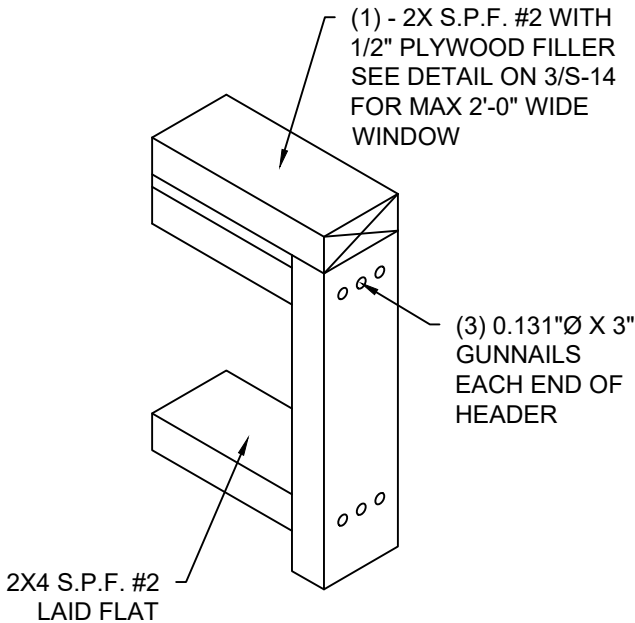
4  
S-11 **HEADER SECTION**  
SCALE: 3" = 1'-0"

**TOP LINE ENGINEERING, LLC**  
STRUCTURAL ENGINEERS  
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10649 Oakview Pointe Terrace  
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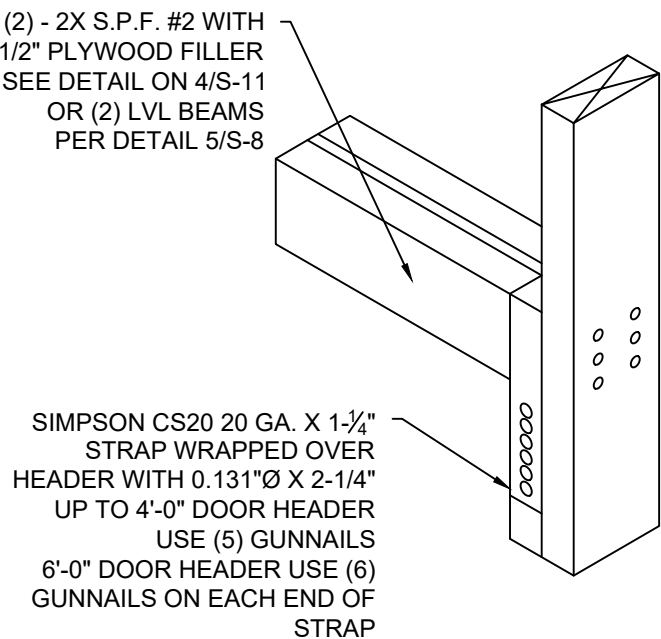
FL PE Name: Kent M. Bice  
FL PE #: 50421  
FL COA #: 30468



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



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

2023-01-27 TOP LINE ENGINEERING, LLC APPROVAL

DETAILS

DATE: 12/08/20 DRAWN BY: RD  
SCALE: AS NOTED CHECKED BY: KMB

SHEET:

S-11

SHEET 12 OF 12

THESE PLANS WERE DESIGNED IN ACCORDANCE WITH THE ASCE 7-16, FBC 2020 (7TH ED.) W/2021 SUPP.