

TOM HUNT RESIDENTIAL DESIGNS, INC.
845 West Michigan Avenue, Unit 3B
Pensacola, Florida 32505
850-438-2200 | TomHuntDesigns.com

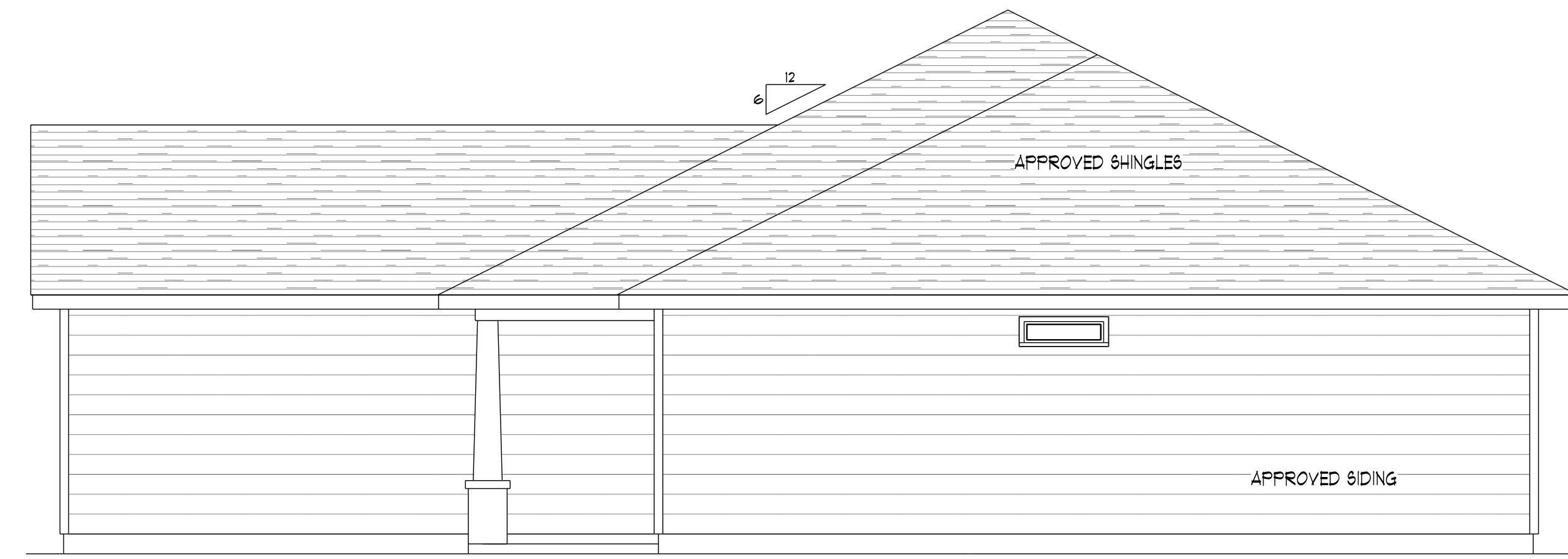
ELEVATION



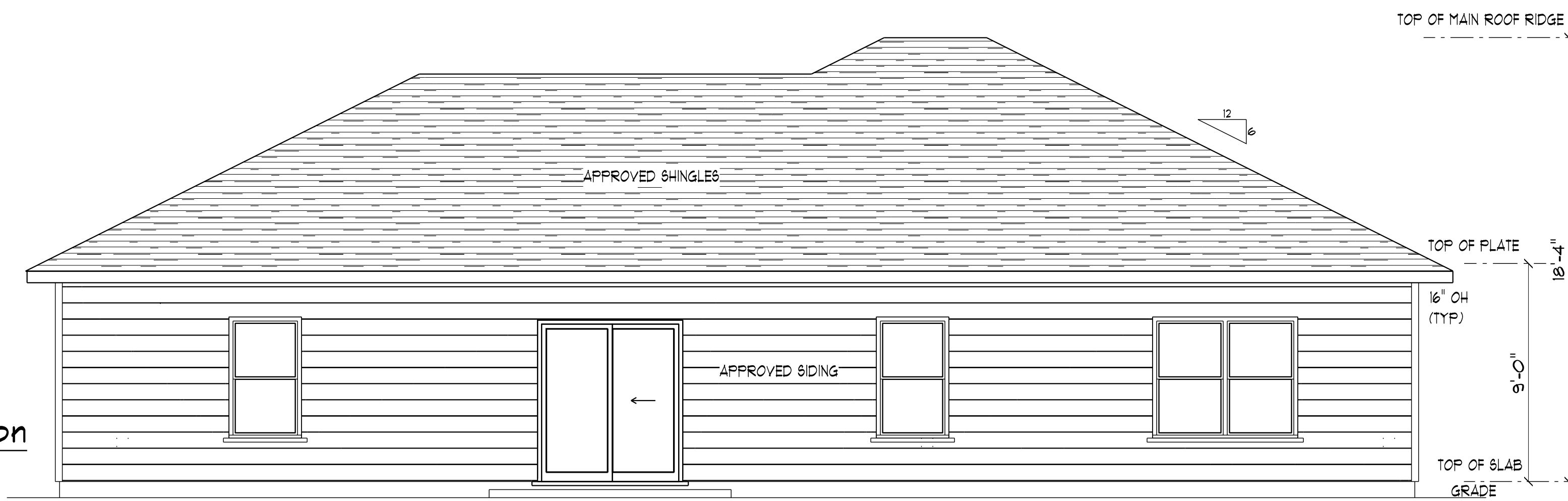
Front Elevation
SCALE: 1/4" = 1'-0"



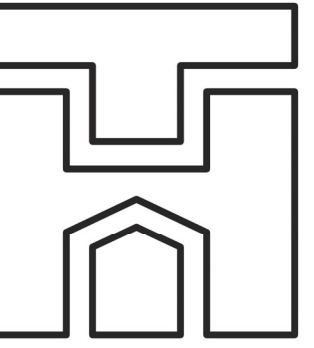
Left Elevation
SCALE: 1/4" = 1'-0"



Right Elevation
SCALE: 1/4" = 1'-0"

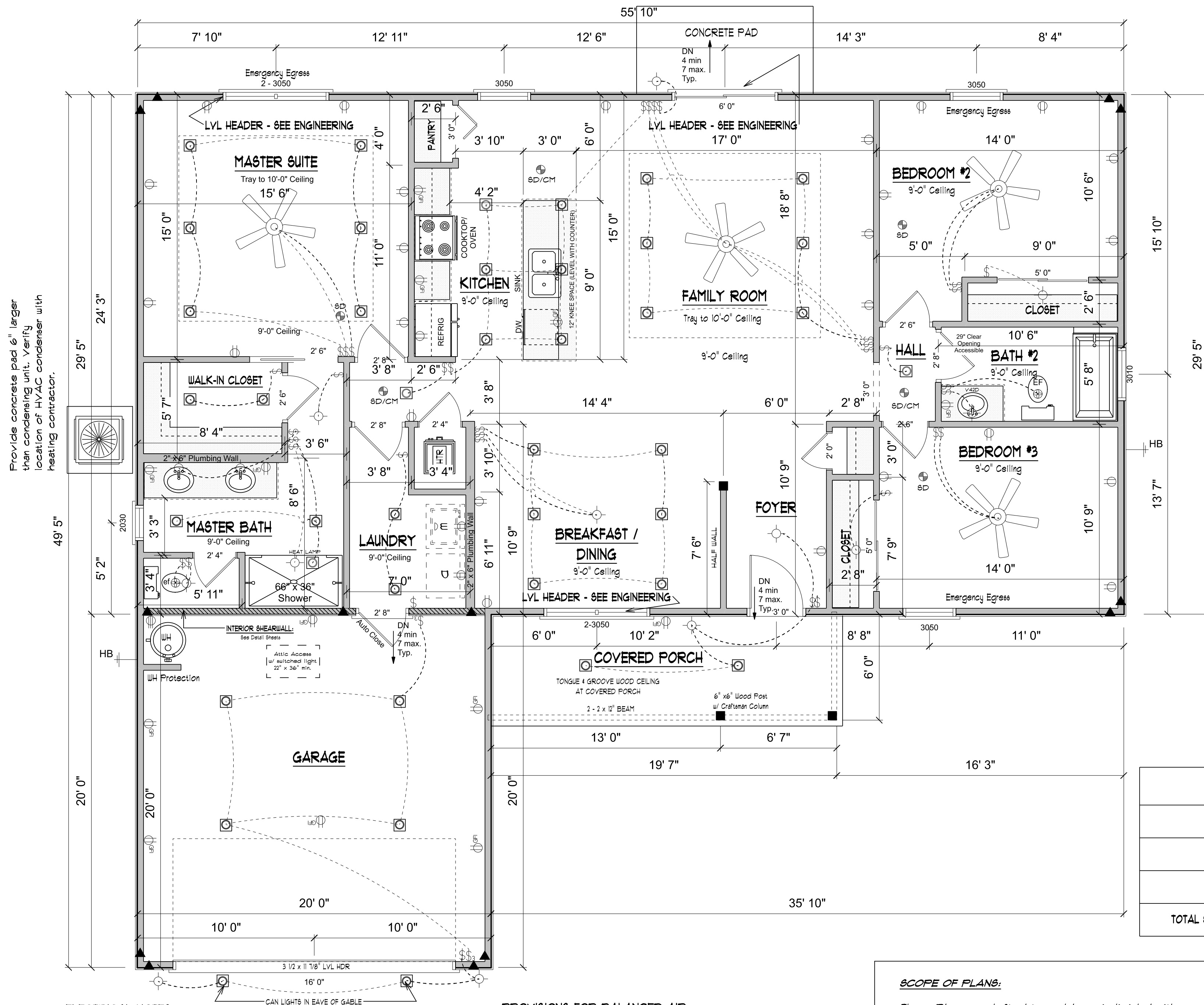


Rear Elevation
SCALE: 1/4" = 1'-0"



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FLOOR PLAN



Provides concrete pad 6" larger than condensing unit. Verify location of HVAC condenser with heating contractor.

FOOTAGES	
Living Area	1642 sq. ft.
Garage	400 sq. ft.
Front Covered Porch	118 sq. ft.
TOTAL SQ FT (UNDER ROOF)	2160 sq. ft.

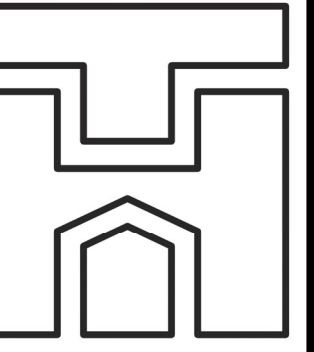
- ELECTRICAL NOTES:**
- Electrical diagram is suggestive only. Consult owner for further information on type, number and location of all fixtures.
 - All electrical in these plans are in compliance with the 2020 National Electrical Code (NEC).
 - Smoke detectors to be hardwired interconnected 4 have monitored battery backup in all bedrooms and hall to bedrooms.
 - Carbon monoxide detectors in halls 10' max. from bedrooms.

- PROVISIONS FOR BALANCED AIR:**
- Pressure differentials across closed doors where returns are centrally located shall be limited to 0.01 inch WC (2.5 Pa) or less. Pressure differentials across fire walls in ceiling space plenums shall be limited to 0.01 inch (2.5 Pa) by providing air duct pathways of air transfer pathways from the high pressure zone to the low zone.
 - Habitable room only shall be required to meet these requirements for proper balanced return air.

SCOPE OF PLANS:

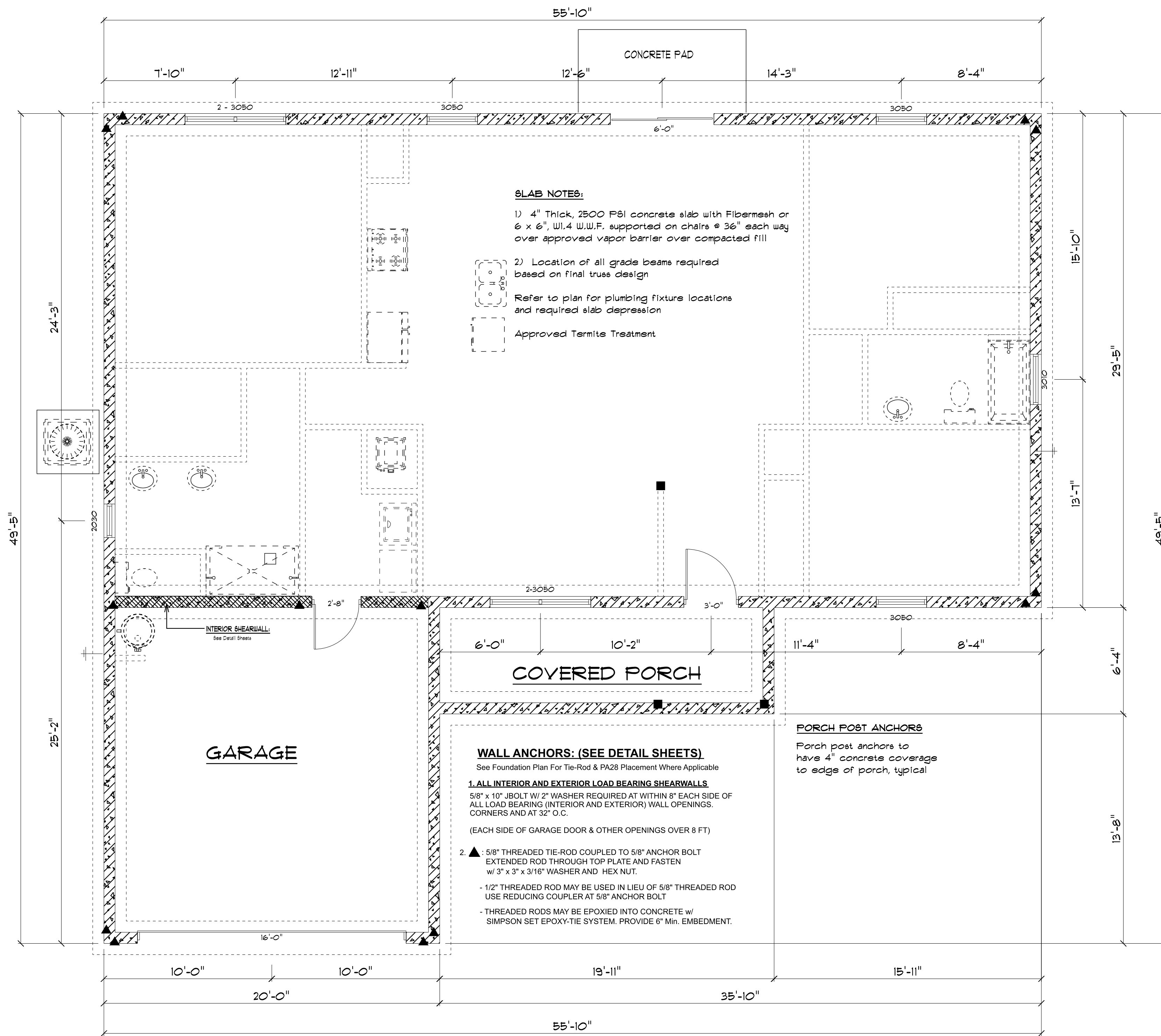
These Plans are drafted to enable an individual with general construction knowledge, "The Builder" to order materials, acquire required permits, and build this structure. During construction, building conditions may cause variations in the actual plan dimensions requiring the builder to make the proper adjustments. It is the responsibility of the builder to make these adjustments and to meet current field conditions & building codes. Any structural questions or questions arising from building inspections will be the responsibility of the builder or "The Professional Engineer On Record."

After the building permit has been stamped by the plan review office, Tom E. Hunt Residential Designs Inc has no more responsibility tied to building this house.



TOM HUNT RESIDENTIAL DESIGNS, INC.
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FOUNDATION



English Homes
 Parcel C, Beulah School Road
 Pensacola, FL 32516

BUILDING CUSTOMER NAME
 LOCATION

SCALE 1/4" = 1'-0"

DRAWN BY

NOTES

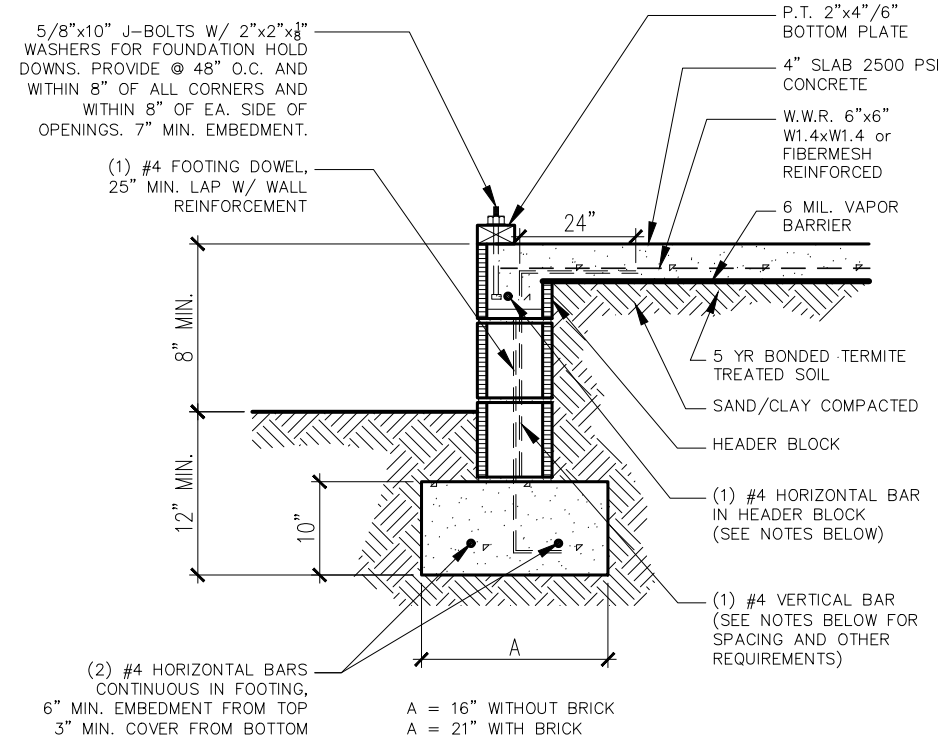
DATE 3/5/2023

TIME 01:00 PM

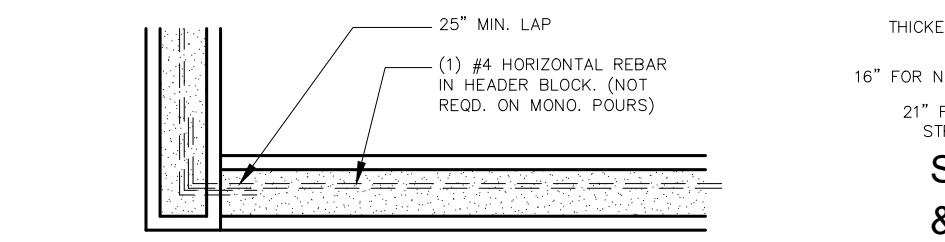
DRAWING #

SHEET NUMBER

 SHEET NO. 3 OF 3



STEM WALL FOUNDATION WITH SLAB-ON-GRADE
NOT TO SCALE

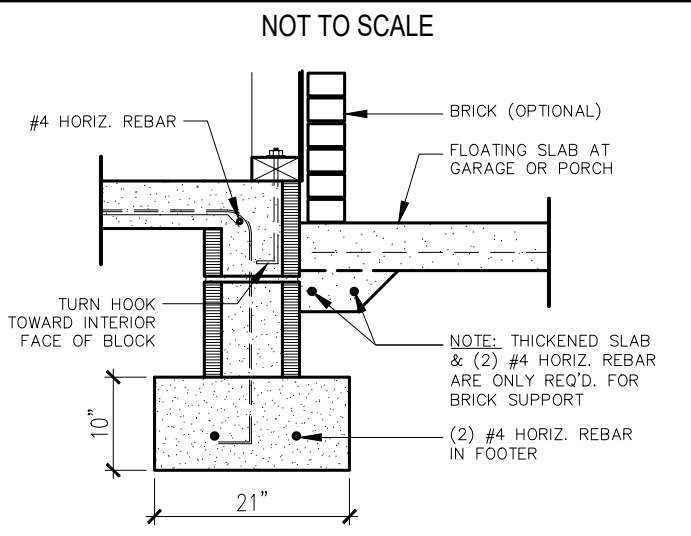


PLAN VIEW OF FOUNDATION STEM WALL

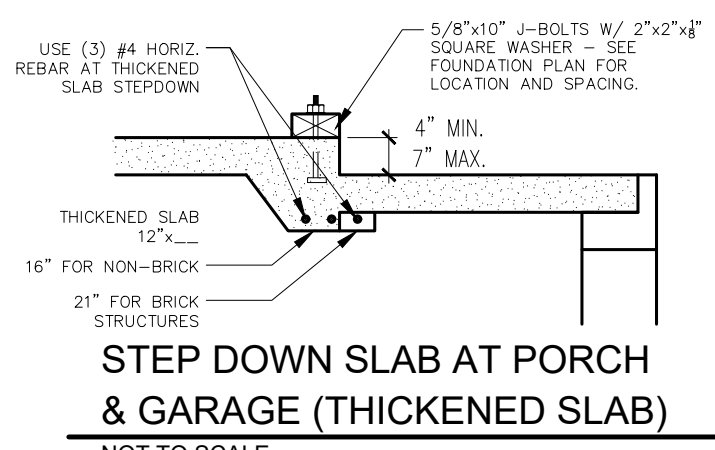
- NOTES:**
- FOR STEMWALL CONSTRUCTION 4 COURSES OR LESS IN HEIGHT FROM FINISHED GRADE:
- * HORIZONTAL BAR WITHIN HEADER BLOCK AS SHOWN
 - * PROVIDE #4 VERTICAL BARS AS SHOWN AT 48" O.C. IN GROUDED CELLS. BEND VERTICAL BARS IN HEADER BLOCK AND EXTEND INTO SLAB A MINIMUM OF 24". PROVIDE MIN. 25" LAP.
- FOR STEMWALL CONSTRUCTION OVER 4 COURSES UP TO 6 COURSES IN HEIGHT FROM FINISHED GRADE:
- * PROVIDE HORIZONTAL BAR IN HEADER BLOCK AS SHOWN.
 - * PROVIDE #4 VERTICAL REINFORCEMENT BARS AS SHOWN AT 32" O.C. IN GROUDED CELLS. BEND VERTICAL BARS IN HEADER BLOCK AND EXTEND INTO SLAB A MINIMUM OF 24". PROVIDE MIN. 25" LAP.
- FOR STEMWALL CONSTRUCTION GREATER THAN 6 COURSES IN HEIGHT FROM FINISHED GRADE:
- * CONSULT ENGINEER OF RECORD FOR REQUIREMENTS

1. CONCRETE SLABS ON GROUND CONTAINING SYNTHETIC FIBER REINFORCEMENT. FIBER LENGTHS SHALL BE 1/2 INCH TO 2 INCHES (13 TO 51 MM) IN LENGTH. DOSAGE AMOUNTS SHALL BE FROM 0.75 TO 1.5 POUNDS PER CUBIC YARD (0.45 TO 0.89 KG/M³) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. SYNTHETIC FIBERS SHALL COMPLY WITH ASTM C 1116. THE MANUFACTURER OR SUPPLIER SHALL PROVIDE CERTIFICATION OF COMPLIANCE WITH ASTM C 1116 WHEN REQUESTED BY THE BUILDING OFFICIAL; OR,
2. CONCRETE SLABS ON GROUND CONTAINING 6X6 W1.4 X W1.4 WELDED WIRE REINFORCEMENT FABRIC LOCATED IN THE MIDDLE TO THE UPPER 1/3 OF THE SLAB. WELDED WIRE REINFORCEMENT FABRIC SHALL BE SUPPORTED WITH APPROVED MATERIALS OR SUPPORTS AT SPACINGS NOT TO EXCEED 3 FT (914 MM) OR IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. WELDED PLAIN WIRE REINFORCEMENT FABRIC FOR CONCRETE SHALL CONFORM TO ASTM A 185, STANDARD SPECIFICATION FOR STEEL WELDED WIRE REINFORCEMENT FABRIC, PLAIN, FOR CONCRETE REINFORCEMENT.

FOUNDATION DETAILS

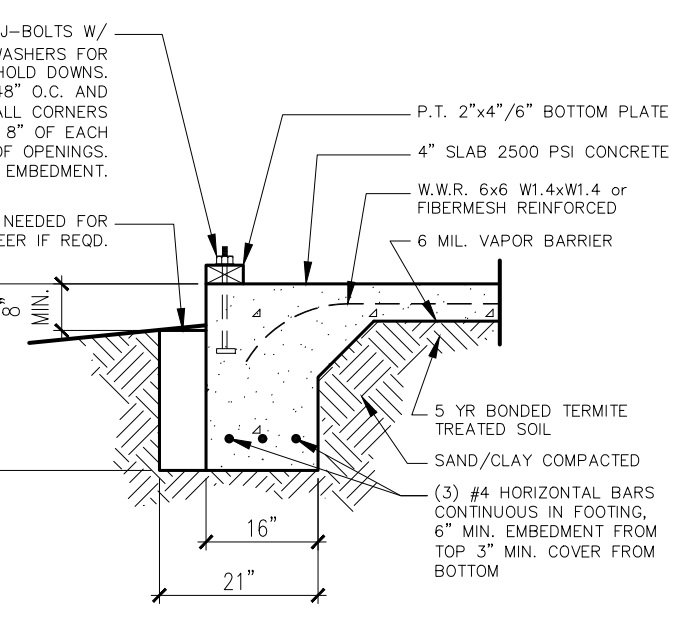


STEP DOWN SLAB AT PORCH & GARAGE (STEM WALL)
NOT TO SCALE



STEP DOWN SLAB AT PORCH & GARAGE (THICKENED SLAB)
NOT TO SCALE

INTERIOR PAD FOOTINGS (THICKENED SLAB)
NOT TO SCALE



MONOLITHIC EXTERIOR FOOTING

DESIGN CRITERIA:

1. WIND RESISTANT DESIGN IN ACCORDANCE WITH THE FLORIDA BUILDING CODE 2020, RESIDENTIAL VOLUME.
 2. DESIGN LOADING:
 - A. DEAD AND LIVE LOADS PER FLORIDA BUILDING CODE 2020 AND ASCE 7-16.
 - B. WIND LOADS COMPUTED IN ACCORDANCE WITH ASCE 7-16, ANALYTICAL METHOD.
 3. THIS STRUCTURE DESIGNED FOR THE FOLLOWING CONDITIONS:
 - BASIC WIND SPEED / WIND VELOCITY: 160 MPH (ULTIMATE DESIGN SPEED - V_{ULT})
 - 124 MPH (NOMINAL DESIGN SPEED - V_{ASD})
- BUILDING CATEGORY: II
- BUILDING TYPE: ENCLOSED
- TERRAIN EXPOSURE CATEGORY: B (ALL SIDES/DIRECTIONS)
- INTERNAL PRESSURE COEFFICIENT: +/- 0.18
- GUST EFFECT FACTOR: 0.85
4. COMPONENTS AND CLADDING: (USE STANDARD TABLE SECTION FOR C&C WALL PRESSURES FOR APPROPRIATE WIND SPEED)
 5. THIS DESIGN IS NOT APPLICABLE TO ANY LOCATION OR USE NOT FULLY MEETING ALL OF THE ABOVE CRITERIA.
 6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL BUILDING CODES AND STANDARDS.

COMPONENT AND CLADDING WALL PRESSURES

TABLE VALUES HAVE BEEN MULTIPLIED BY 0.6 TO CONVERT COMPONENT AND CLADDING PRESSURES TO ASD.

COMPONENTS AND CLADDING TO BE DONE BY OTHERS COMPUTED IAW ASCE 7-16, CH. 30, PART 1) ALL PRESSURES SHOWN ARE BASED UPON ASD DESIGN, WITH A LOAD FACTOR OF 0.6.

WALL PRESSURE FOR COMPONENTS AND CLADDING:
(V_{ULT}=160 MPH // V_{ASD} = 124 MPH)

INTERIOR ZONES (ZONE 4)	DESIGN PRESSURE (PSF)
EFFECTIVE AREA (FT ²)	
ALL	40± PSF
END ZONES (ZONE 5):	WITHIN 6' OF CORNERS.
ALL	50± PSF

GENERAL NOTES

FOUNDATION:

1. Foundation Design Based on Sandy Soils with minimum allowable bearing pressure of 2000 psf.
2. No Geotechnical Soils Analysis/Report furnished for this design. Foundation design based on Sandy soils. Contact Engineer or Building Official if differing soil types are encountered before proceeding with construction.
3. All foundation fill material shall be approved sand/clay fill and shall be placed and compacted in 12" (maximum) lifts.
4. All concrete used shall be in accordance with ACI 318 and shall obtain a minimum 28-day ultimate compressive strength of 2500 psi.
5. All concrete reinforcing material shall be minimum Grade 40 and shall conform to ASTM A- 615, A 616, A 617, or A 706. Maintain a minimum of 3 inches of concrete cover between outside edge of concrete and outside edge of reinforcing steel in foundation footings.

MISCELLANEOUS:

1. Absolutely no changes or deviations from these plans shall be authorized without written approval from the engineer or designer. The engineer and designer assume no responsibility whatsoever for any modifications or alterations to these plans and specifications. The contractor shall be responsible for all damages and costs resulting from unauthorized modifications to these plans and specifications.
2. All necessary permits and approvals from the regulatory agencies governing this work shall be obtained prior to commencing construction. The contractor shall be responsible for ensuring that all permits have been obtained prior to beginning construction.
3. No research as to the presence of underground utilities has been included on or performed for this project. Contractor shall be responsible for calling Sunshine Utility Locate Service prior to any construction within any public right-of-way or other areas where underground utilities may be present (i.e. in and around utility easements, etc.).
4. Contractor shall be responsible for complying with other State and Local laws and ordinances including but not limited to zoning regulations, building setback regulations, etc.
5. Contractor/Owner shall be responsible for complying with special requirements associated with Flood Hazard areas or other requirements as may be applicable.
6. Contractor shall be responsible for maintaining adequate erosion control measures on the job site. This may include the use of silt fencing and/or hay bales to prevent the transport of sediments from disturbed areas off-site during rainfall events. These erosion control measures shall be properly maintained and remain functional until all disturbed areas have been stabilized.
7. Contractor shall be responsible for following all applicable federal, state, and local regulations in regard to job site safety and worker protection. Exercise extreme caution when working near above and below ground utility lines.
8. LVL beams specified shall have the following minimum properties: Fb = 2900 psi; Fv = 285 psi; E = 2x10⁶ psi; Fc = 750 psi.

WIND RESISTANT CONSTRUCTION:

1. All wood structural members except studs and top plates shall be No. 2 Southern Yellow Pine, (maximum moisture content of 19%).
2. All engineered trusses and other engineered components shall be provided with suppliers engineering design and calculations sealed by a Florida Registered Professional Engineer. All such components shall be installed in strict compliance with the manufacturer's instructions.
3. Truss layout and design shall be in accordance with the Truss Manufacturer's design and specifications. Proper precautions in accordance with the Truss Manufacturer's instructions shall be exercised at the job site for proper storage and handling of engineered trusses at the job site.
4. All trusses, including girders and girder trusses, shall be anchored in compliance with the Truss Manufacturer's Final Truss Requirements using appropriate truss ties designed to meet the uplift and lateral loads as specified by the Truss Manufacturer.
5. If any discrepancies exist between any of the requirements shown on the approved plans or the applicable codes and standards, the most stringent requirement shall prevail.
6. Roof Sheathing shall be minimum 5/8" APA rated OSB or 5/8" APA rated CDX sheathing fastened with 10d Ring Shank nails spaced at 3 inches on center along all panel edges and 10d ring shank nails spaced at 6 inches O.C. along framing members in panel interior.
7. Shear Wall Sheathing, including both interior and exterior shear walls, shall be min. 7/16 APA rated OSB or CDX with 8d common or ring shank nails spaced at 3 inches O.C. along all panel edges and 8d common or ring shank nails spaced at 8 inches O.C. in panel interior.
8. Ceiling Diaphragms, where specified, shall be min. 7/16 APA rated OSB or CDX sheathing fastened with 8d common or ring shank nails spaced at 4 inches O.C. along all panel edges and 8d common or ring shank nails spaced at 8 inches O.C. in panel interior.

EXERCISE CAUTION WORKING AROUND STEMWALL DURING CONSTRUCTION. STEMWALL IS NOT DESIGNED TO WITHSTAND HEAVY LOADS (SUCH AS THOSE IMPOSED WITH HEAVY EQUIPMENT) UNTIL FLOOR SYSTEM IS IN PLACE.

NOTE: IF GRADE IS LEVEL, MONOLITHIC SLAB MAY BE USED. IF GRADE DOES NOT PERMIT, THEN STEM WALL CONSTRUCTION MUST BE USED. THE CONTRACTOR MUST CHOOSE TYPE OF FOUNDATION HE INTENDS TO USE BEFORE PLANS ARE SUBMITTED FOR PERMITTING. CIRCLE DESIRED METHOD AND "X" THE ALTERNATIVE METHOD IF MORE THAN 8" OF FILL IS REQUIRED, THEN FILL MUST BE COMPACTED TO 95% DENSITY.

ENGLISH HOMES
PROPOSED SINGLE FAMILY RESIDENCE
PARCEL C BELLAIR SCHOOL RD., PENSACOLA
ESCAMBIA COUNTY, FLORIDA
1642 SF. LIVING AREA
2166 SF. UNDER ROOF

PREPARED FOR:
ENGLISH HOMES

DATE: 3/9/2023

DRAWN BY: JTC

SHEET: 5-1

SSUD
Southern Site & Utility Design, Inc.

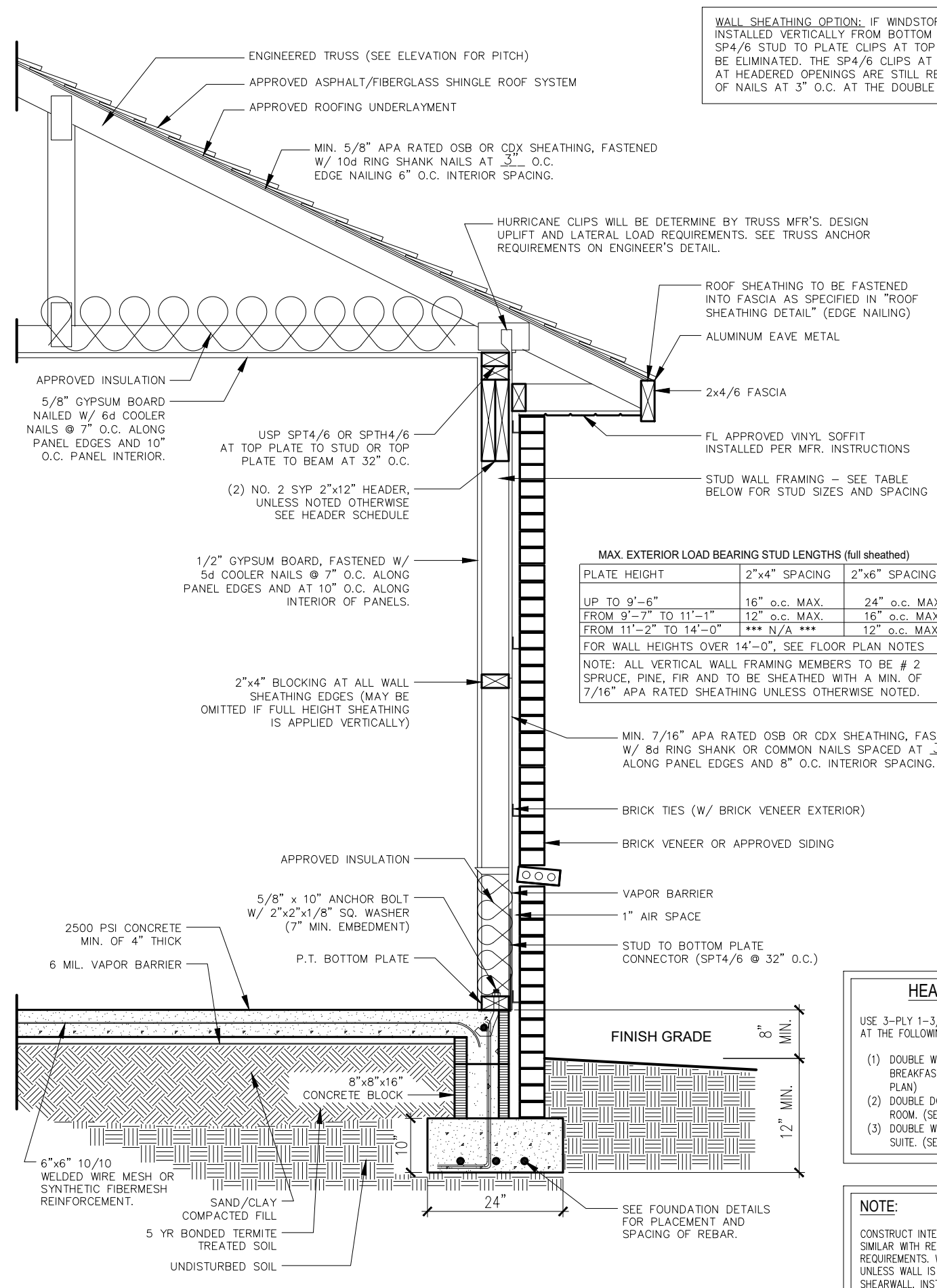
FLORIDA CERTIFICATE OF AUTHORITY NO. 89853
6555 CAROLINE STREET MILTON, FLORIDA 32570
PH: (850) 623-9493 E-MAIL: ssudian@gmail.com

DATE: _____
ALAN M. MILLER, P.E.
FL. LICENSE NO. 53577

DATE: _____
PAUL A. MCLEOD, JR., P.E.
FL. LICENSE NO. 58697

CONTRACTOR OR SUBCONTRACTOR IS TO VERIFY ALL DIMENSIONS IN THE FIELD, PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF RECORD FOR ANY DISCREPANCIES ON PLANS.

DRAWING NOT VALID UNLESS SIGNED AND SEALED BY ENGINEER OF RECORD



FOR MONOLITHIC FOOTER, SEE MONOLITHIC DETAIL ABOVE LABELED "FOUNDATION DETAILS"

TYPICAL WALL SECTION
NOT TO SCALE

WALL SHEATHING OPTION: IF WINDSTORM FULL HEIGHT SHEATHING IS USED AND INSTALLED VERTICALLY FROM BOTTOM OF BOTTOM PLATE TO TOP OF TOP PLATE, THE SP4/6 STUD TO PLATE CLIPS AT TOP AND BOTTOM OF WALL STUDS AT 32" O.C. MAY BE ELIMINATED. THE SP4/6 CLIPS AT TOP AND BOTTOM OF FULL HEIGHT STUDS AT HEADERED OPENINGS ARE STILL REQUIRED. FOR THIS OPTION, INSTALL 2 ROWS OF NAILS AT 3" O.C. AT THE DOUBLE TOP PLATE AND AROUND ALL OPENINGS.

MAX. EXTERIOR LOAD BEARING STUD LENGTHS (full sheathed)

PLATE HEIGHT	2"x4" SPACING	2"x6" SPACING
UP TO 9'-6"	16" o.c. MAX.	24" o.c. MAX.
FROM 9'-7" TO 11'-1"	12" o.c. MAX.	16" o.c. MAX.
FROM 11'-2" TO 14'-0"	N/A	12" o.c. MAX.

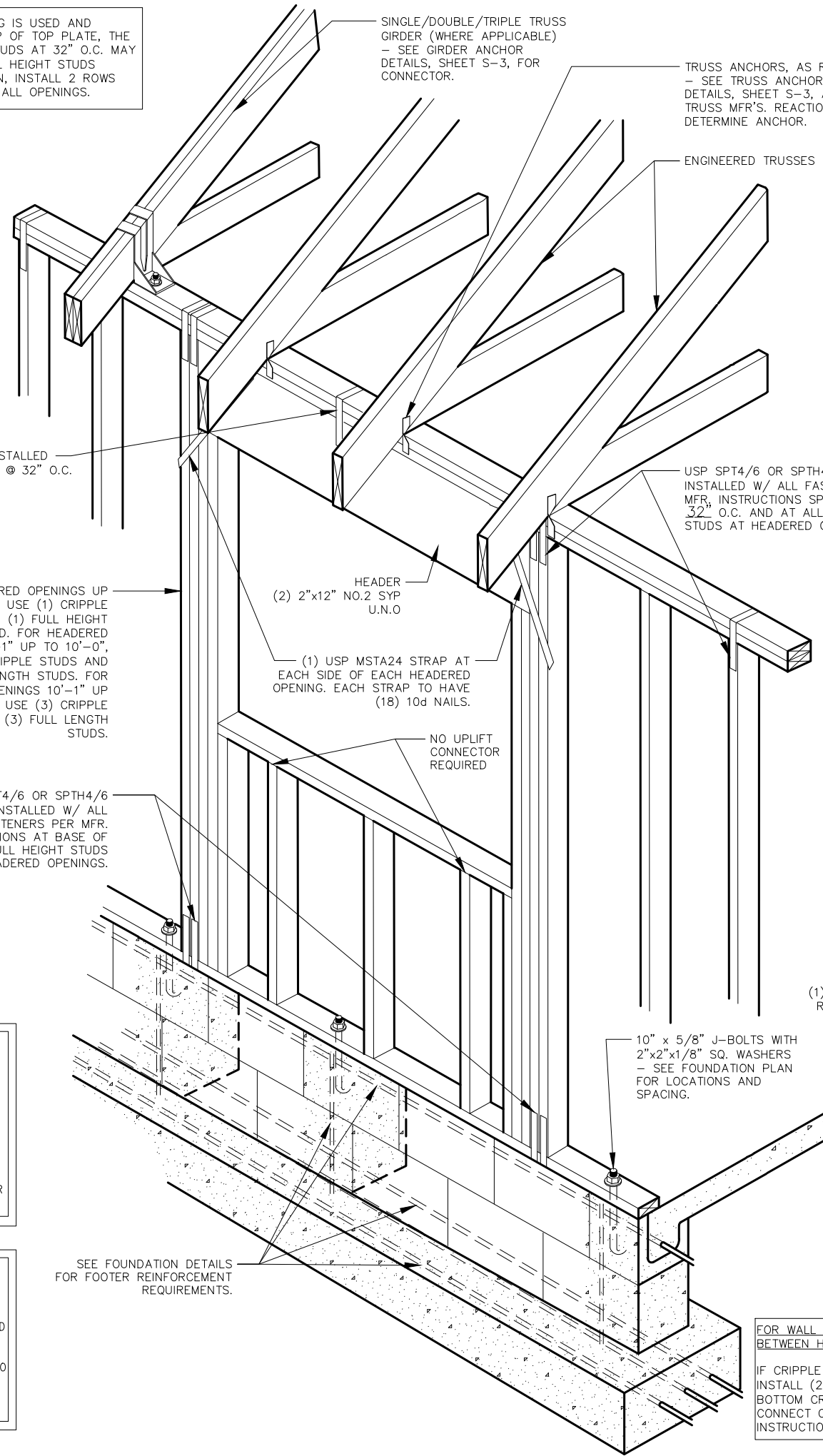
NOTE: ALL VERTICAL WALL FRAMING MEMBERS TO BE # 2 SPRUCE, PINE, FIR AND TO BE SHEATHED WITH A MIN. OF 7/16" APA RATED SHEATHING UNLESS OTHERWISE NOTED.

HEADER SCHEDULE

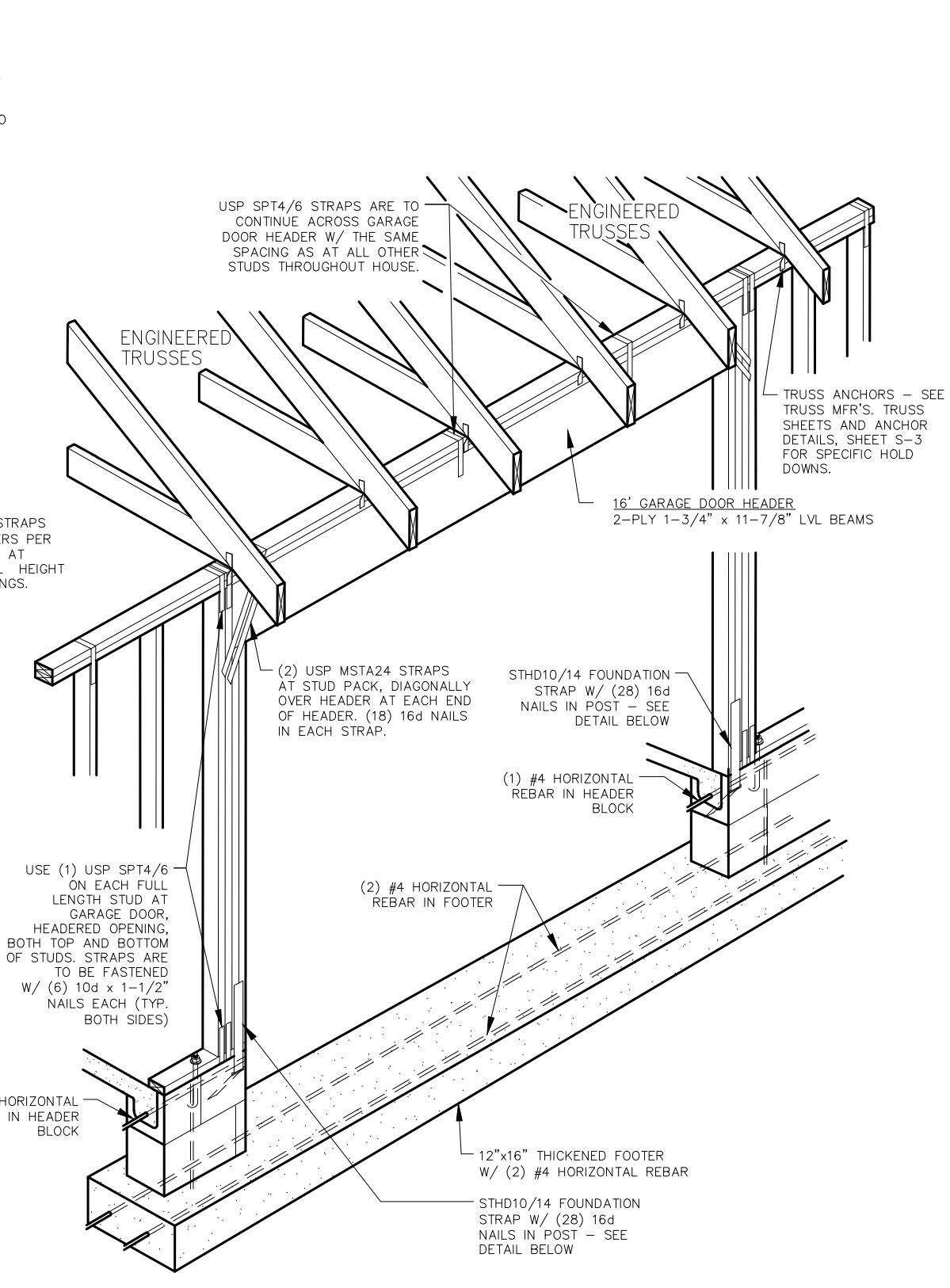
USE 3-PLY 1-3/4"x11-1/4" LVL HEADER BEAMS AT THE FOLLOWING EXTERIOR WALL OPENINGS:

- (1) DOUBLE WINDOW AT FRONT WALL OF BREAKFAST/ DINING AREA. (SEE FLOOR PLAN)
- (2) DOUBLE DOOR AT REAR WALL OF FAMILY ROOM. (SEE FLOOR PLAN)
- (3) DOUBLE WINDOW AT REAR WALL OF MASTER SUITE. (SEE FLOOR PLAN)

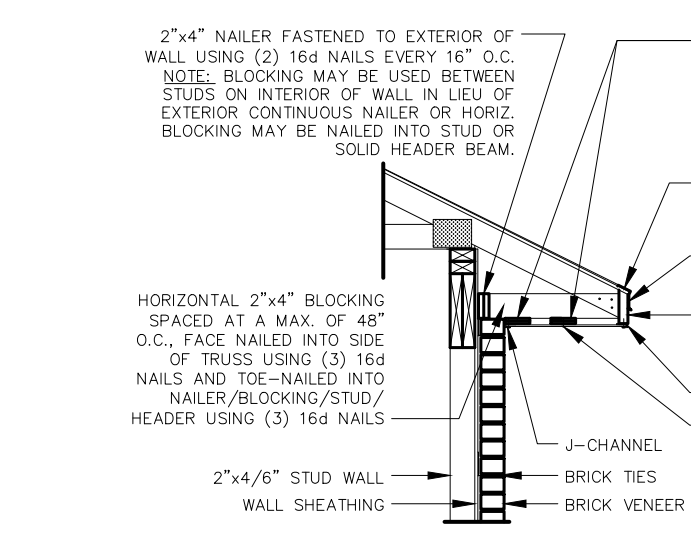
NOTE:
CONSTRUCT INTERIOR LOAD BEARING WALLS SIMILAR WITH REGARD TO STRUCTURAL REQUIREMENTS. WALL SHEATHING IS NOT REQUIRED UNLESS WALL IS ALSO NOTED AS AN INTERIOR SHEARWALL. INSTALL SP4/6 @ 32" O.C. AS SHOWN TO CONNECT TOP & BOTTOM OF STUDS TO PLATES.



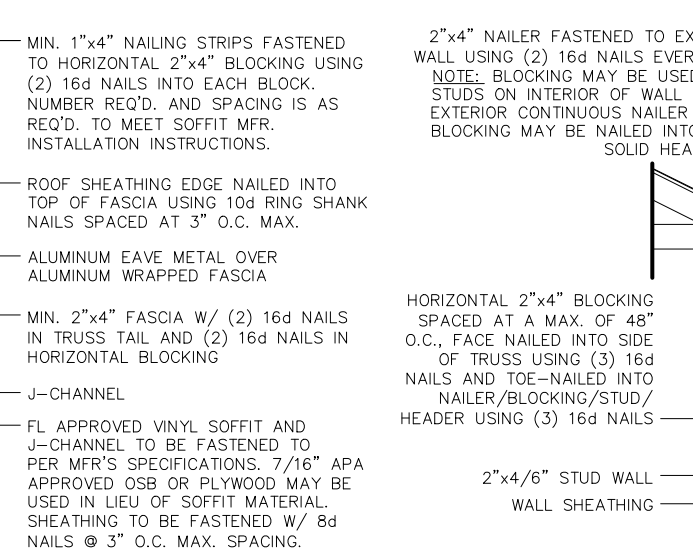
TYPICAL WALL OPENING DETAIL
NOT TO SCALE



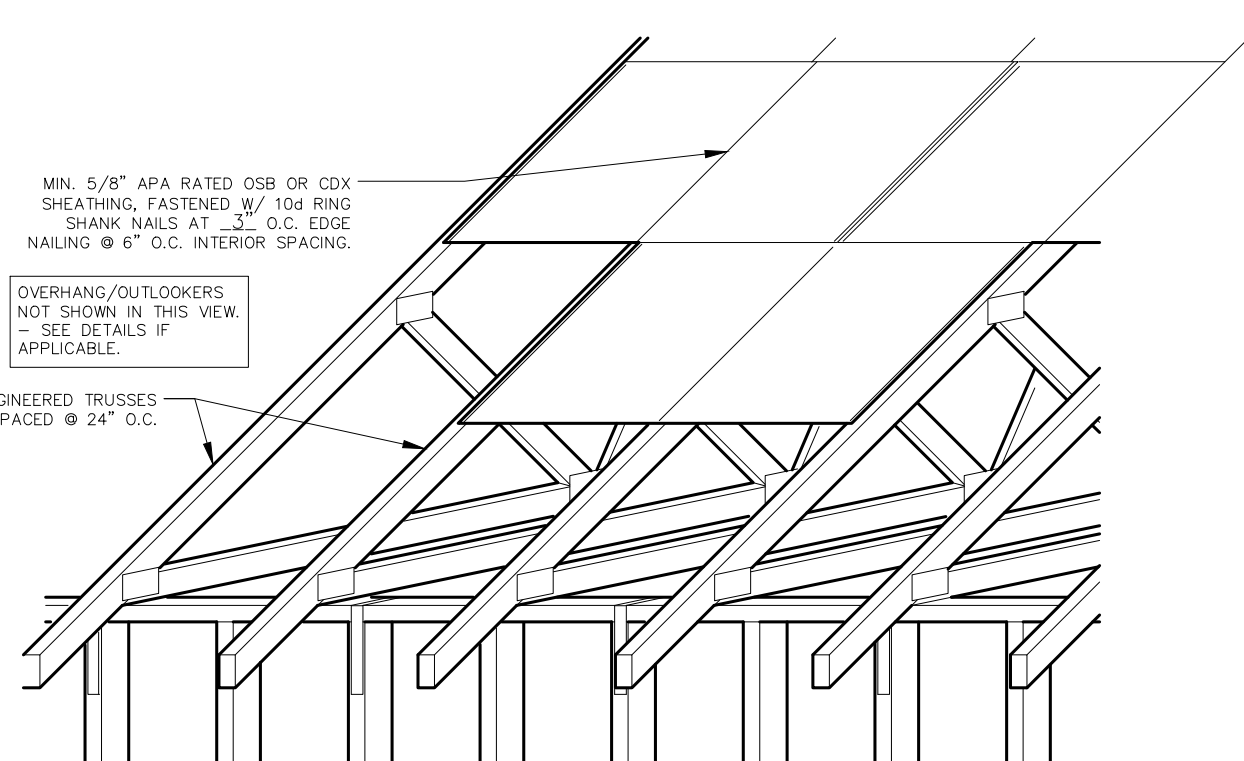
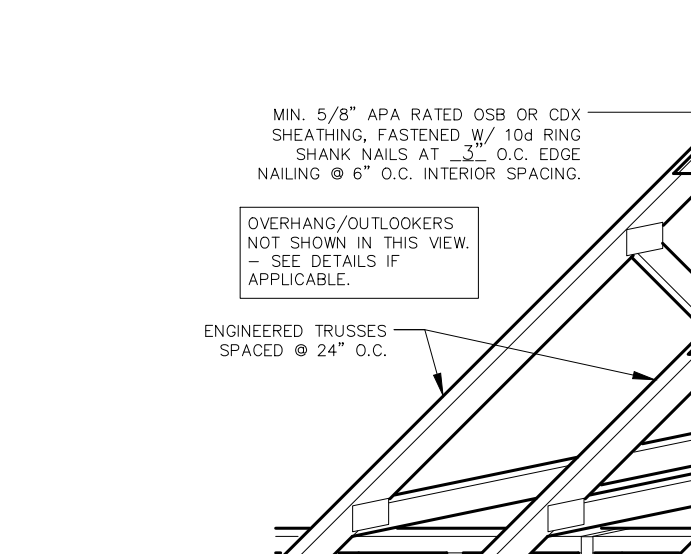
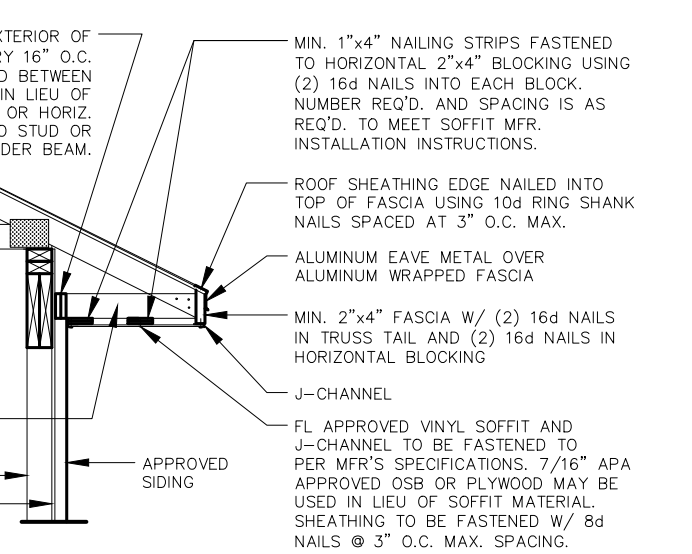
GARAGE DOOR HEADERED OPENING
NOT TO SCALE



SOFFIT DETAILS
NOT TO SCALE



APPROVED SIDING



ROOF SHEATHING DETAIL
NOT TO SCALE

PREPARED FOR: ENGLISH HOMES
PROPOSED SINGLE FAMILY RESIDENCE
PARCEL C DEULAH SCHOOL RD., PENSACOLA
ESCAMBIA COUNTY, FLORIDA
1642 SF. LIVING AREA
2160 SF. UNDER ROOF

DATE: 3/9/2023
DRAWN BY: JTC
SHEET: 5-2

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6555 CAROLINE STREET MILTON, FLORIDA 32570
PH: (850) 623-9495 E-MAIL: ssudain@gmail.com

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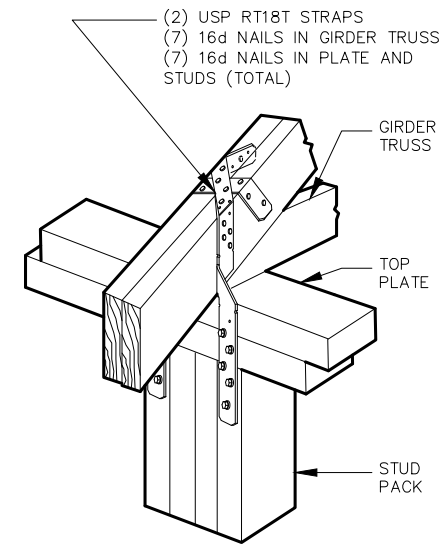
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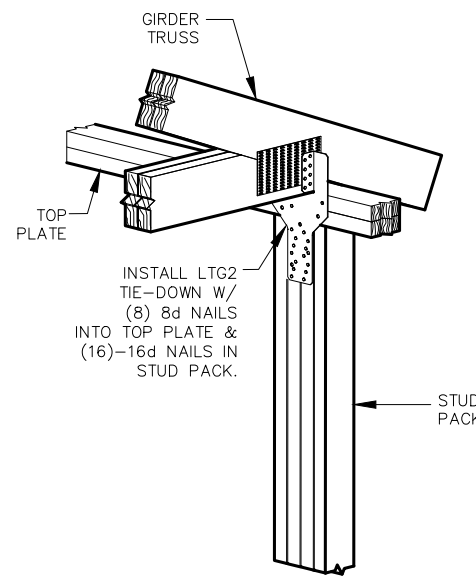
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ANCHOR DETAILS

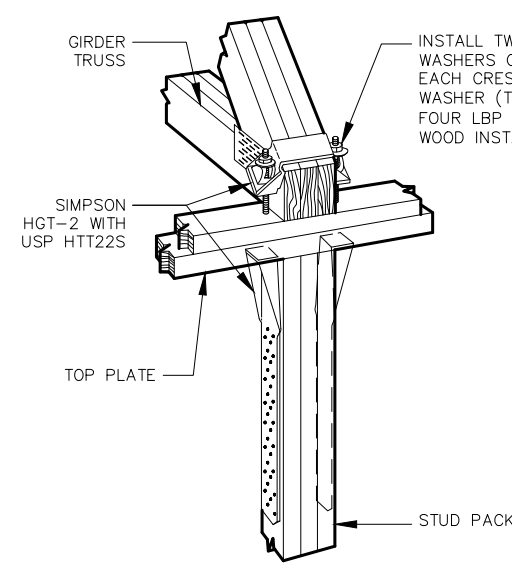
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GIRDER ANCHOR FOR UPLIFTS UP TO 2540 LBS



GIRDER ANCHOR FOR UPLIFTS UP TO 1850 LBS



GIRDER ANCHOR FOR UPLIFTS UP TO 6000 LBS

NOTE: SEE TRUSS LAYOUT FOR GIRDER LOCATIONS AND UPLIFTS

MINIMUM SHEAR REQUIREMENTS:

AT MINIMUM, ALL EXTERIOR WALLS SHALL BE CONSTRUCTED AS SHEAR WALLS. SEE DETAILS SHOWN ON THESE SHEETS FOR SPECIFICATIONS, MATERIALS, AND NAIL SPACING REQUIREMENTS.

SHEATH COVERED PORCH CEILINGS W/ 7/16" APA RATED OSB. FASTEN W/ 8d NAILS @ 4" O.C. ALONG PANEL EDGES AND 8" O.C. IN PANEL INTERIOR.

ADDITIONAL SHEARWALL REQUIREMENTS:

THE INTERIOR WALLS LISTED AS FOLLOWS SHALL BE CONSTRUCTED AS INTERIOR SHEARWALLS. SHEATH ONE SIDE OF THESE INTERIOR SHEARWALLS W/ 7/16" OSB W/ 8d NAILS @ 3" O.C. ALONG PANEL EDGES AND 8" O.C. IN PANEL INTERIOR. BLOCK ALL PANEL EDGES. INSTALL 5/8"x10" J-BOLTS @ 48" O.C. ALONG PAD FOOTING BENEATH THESE WALLS FOR CONNECTION OF WALL TO FOOTING. SEE DETAILS.

- (1) INTERIOR REAR GARAGE WALL BETWEEN GARAGE AND LIVING AREA (SEE FLOOR PLAN)

MINIMUM UPLIFT REQUIREMENTS:

ENGINEERED TRUSS SYSTEM SHALL BE ANCHORED IN ACCORDANCE WITH TRUSS DESIGNERS REQUIREMENTS.

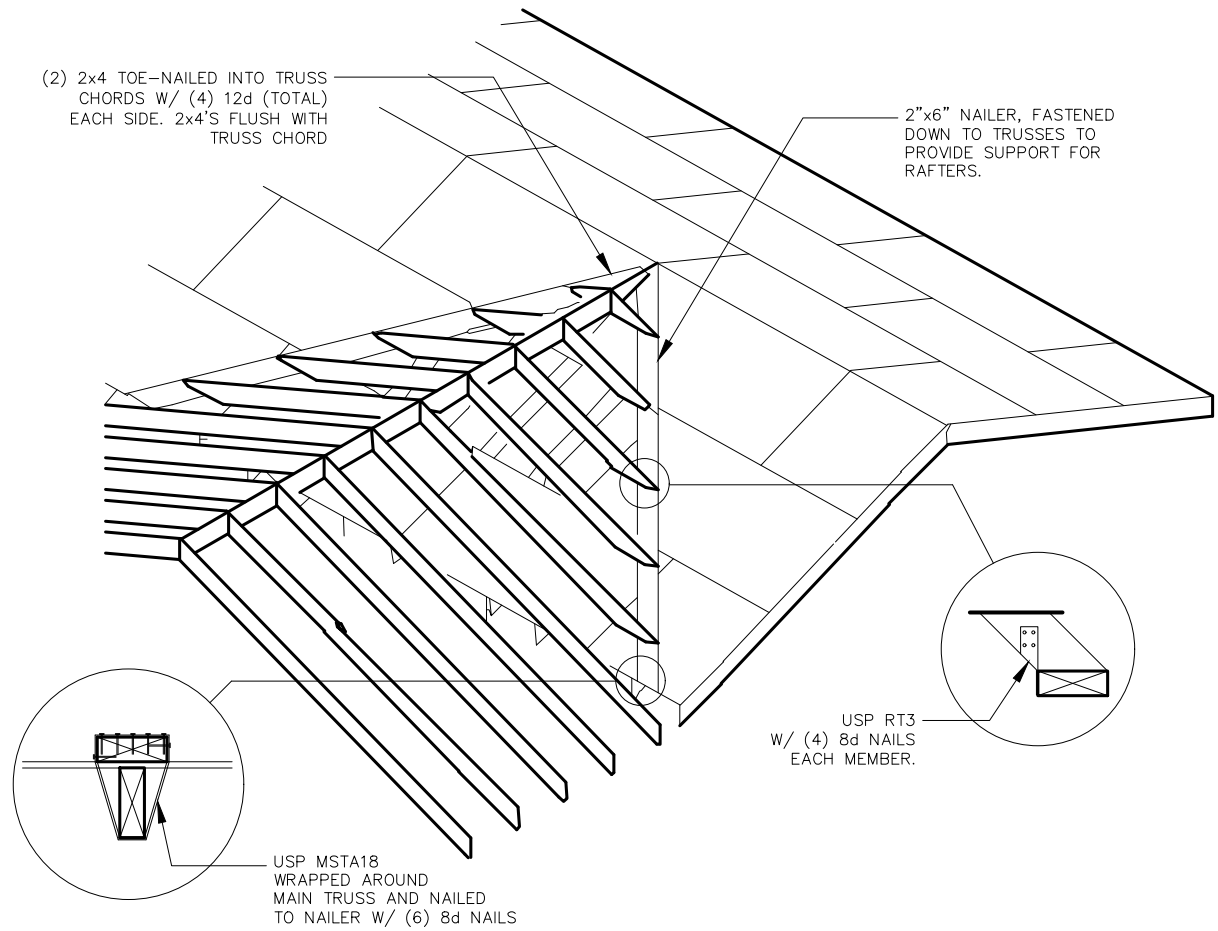
TOP AND BOTTOM OF STUDS: INSTALL USP SPT4/6 STRAPS W/ 6 - 10d x 1-1/2" NAILS IN EACH STRAP SPACED @ 32" O.C. ALSO INSTALL SPT4/6 STRAPS W/ 6 - 10d x 1-1/2" NAILS IN EACH STRAP AT THE TOP AND BOTTOM OF EACH FULL LENGTH STUD AT OPENINGS.

5/8"x10" J-BOLTS W/ 2" x 2" x 1/8" WASHERS SHALL BE INSTALLED @ 48" O.C. AND WITHIN 8" OF ALL CORNERS AND WITHIN 8" OF EACH SIDE AT ALL OPENINGS. PROVIDE 7" MINIMUM EMBEDMENT. IN ALL CASES, J-BOLTS SHALL BE SPACED AT LEAST 12" APART.

NOTE: 1/2" OR 5/8" (NOMINAL) APA RATED T-111 STRUCTURAL SHEATHING MAY BE SUBSTITUTED FOR 7/16" APA RATED OSB STRUCTURAL SHEATHING ON INTERIOR AND/OR EXTERIOR SHEARWALLS. (THE SAME FASTENING APPLIES)

NOTE: ROOF SHEATHING MUST BE FASTENED W/ RING SHANK NAILS, WALL SHEATHING AND CEILING DIAPHRAGMS MAY BE FASTENED WITH COMMON OR RING SHANK NAILS.

WALL SHEATHING OPTION: IF WINDSTORM FULL HEIGHT SHEATHING IS USED AND INSTALLED VERTICALLY FROM BOTTOM OF BOTTOM PLATE TO TOP OF TOP PLATE, THE SP4/6 STUD TO PLATE CLIPS AT TOP AND BOTTOM OF WALL STUDS AT 32" O.C. MAY BE ELIMINATED. THE SP4/6 CLIPS AT TOP AND BOTTOM OF FULL HEIGHT STUDS AT HEADER OPENINGS ARE STILL REQUIRED. FOR THIS OPTION, INSTALL 2 ROWS OF NAILS AT 3" O.C. AT THE DOUBLE TOP PLATE AND AROUND ALL OPENINGS.



RAFTER SPAN TABLE: SPAN (ft.)	RAFTER SIZE (AT 24" O.C.)
UP TO 6'-0"	2x4"
6'-1" TO 9'-0"	2x6"
9'-1" TO 12'-0"	2x8"
12'-1" TO 15'-0" MAX.	2x8" w/2x4" VERTICAL SUPPORTS AT 48" O.C.

ALL RIDGE BOARDS USED SHALL BE No. 2 SP W/DEPTHS 2" GREATER THAN RAFTERS WHERE OVER-FRAMING IS NOT SYMMETRICAL ON BOTH SIDES. RIDGES SHALL BE VERTICALLY SUPPORTED WITH 2"x4" AT 48" O.C.

NOTES:

- USE SOUTHERN PINE No. 2 GRADE
- RAFTERS SHALL BEAR SOLIDLY ACROSS 2"x6" FLAT NAILER.
- FOR RAFTERS:
 - A. USE 2"x4" COLLAR TIES NAILED INTO RAFTERS EACH END WITH 3-16d NAILS. (COLLARS APPLIED 16" TO 32" BELOW RIDGES).
 - B. RAFTER TO RAFTER STRAP ACROSS RIDGE BOARD; USE USP MST24 WITH 18-10d NAILS EACH. PLACE STRAP AT 48" O.C.

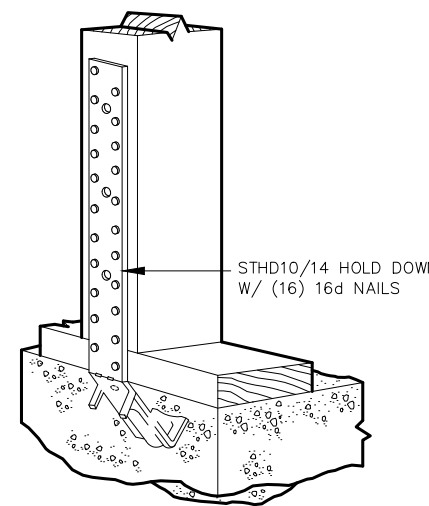
OR

VALLEY FRAMING DETAIL

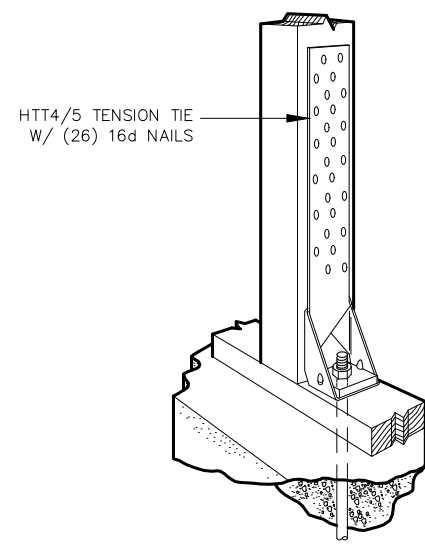
NOT TO SCALE

GIRDER TRUSS ANCHORS

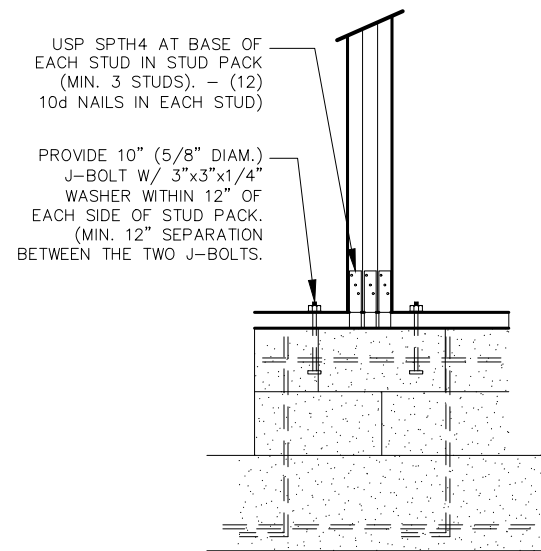
NOT TO SCALE



AT GIRDERS WITH AN UPLIFT UP TO 2,945 Lbs @ > 8" FROM CORNERS



AT GIRDERS WITH AN UPLIFT UP TO 2,800 Lbs



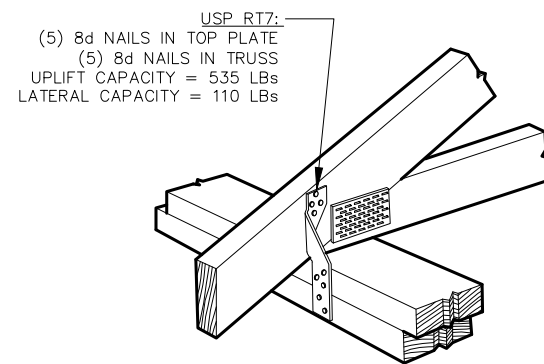
AT GIRDERS WITH AN UPLIFT UP TO 3,000 Lbs @ > 8" FROM CORNERS

AT GIRDERS WITH AN UPLIFT UP TO 1,050 Lbs @ 1/2" - 8" FROM CORNERS

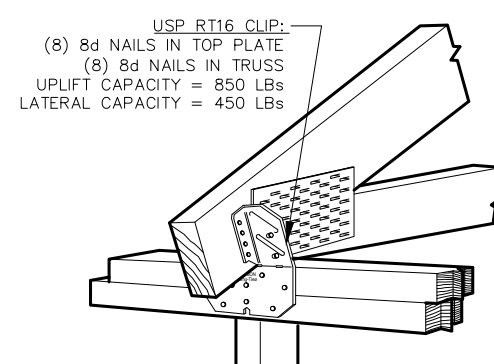
AT GIRDERS WITH AN UPLIFT UP TO 5,600 Lbs, USE 2 TIES - ONE EACH SIDE OF STUD PACK

ANCHORS AT BASE OF STUD PACKS UNDER GIRDER TRUSS

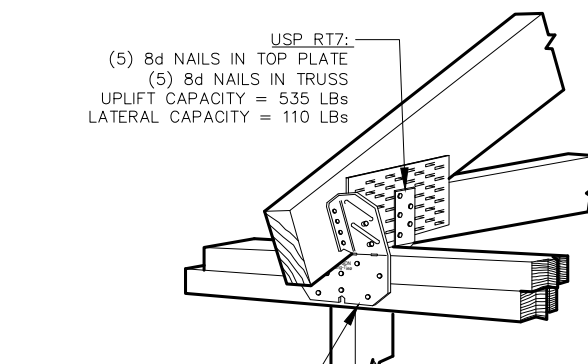
NOT TO SCALE



**TRUSS UPLIFT TO 535 Lbs
LATERAL LOAD CAPACITY 110 Lbs**



**TRUSS UPLIFT TO 850 Lbs
LATERAL LOAD CAPACITY 450 Lbs**



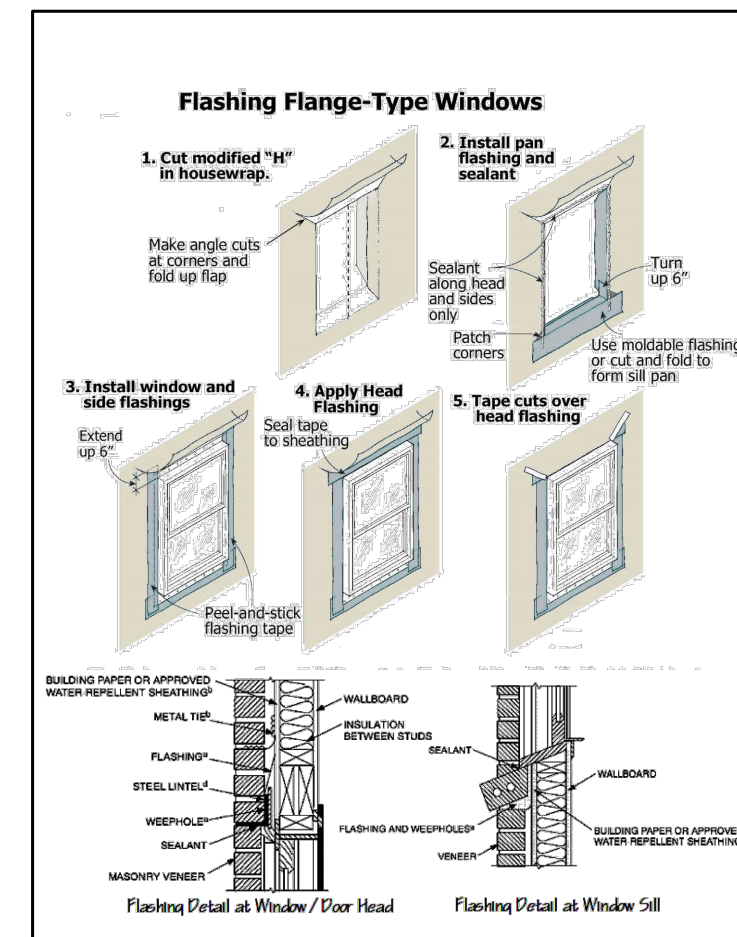
**TRUSS UPLIFT TO 1385 Lbs
LATERAL LOAD CAPACITY 560 Lbs**

TRUSS ANCHOR REQUIREMENTS

NOT TO SCALE

APPROVED CONNECTORS			
THESE DETAIL SHEETS SPECIFY USP AND SIMPSON CONNECTORS. THE FLORIDA BUILDING CODE PRODUCT APPROVAL NUMBER FOR EACH SPECIFIED CONNECTOR IS LISTED AS FOLLOWS:			
USP CONNECTORS	IBC 2020 APPROVAL NO.	SIMPSON CONNECTORS	IBC 2020 APPROVAL NO.
MTW20	FL17244-R4	MTS20	FL13872-R4
SP14	FL17244-R4	SP4	FL13872-R4
SP16	FL17244-R4	SP6	FL13872-R4
RT7	FL17236-R6	H2.5A	FL10456-R5
RT3	FL17236-R6	H10A	FL10456-R5
MSTA30	FL17244-R4	H3	FL10456-R5
MSTA24	FL17244-R4	SP2	FL10456-R5
PAU44	FL17239-R5	ABU44	FL10860-R5
PAU66	FL17239-R5	ABU66	FL10860-R5
LSTA36	FL17244-R4	ABU88	FL10860-R5
SPH4/6	FL17244-R4	HTT4/5	FL13872-R4
MTW18	FL17244-R4	MTS30	FL13872-R4
KST237	FL17244-R4	HGT-3	FL10456-R5
MSTA18	FL17244-R4	MSTA18	FL13872-R4
RS150	FL17244-R4	HGT-2	FL10456-R5
RSP14	FL17244-R4	STHD10/14	FL10441-R6
CMSTC16	FL17244-R4	CMST14	FL13872-R4
HTT4/5	FL17324-R5	TITEN HD ANCHOR	FL15730-R4
		SET EPOXY:	
		MASONRY	FL16230-R8
		CONCRETE	FL16230-R8
		LGT2	FL11473-R5

J-BOLT FOUNDATION ANCHOR ----- ASTM F1554 (36 KSI)
 FOUNDATION ANCHOR NUT ----- ASTM A563
 FOUNDATION ANCHOR WASHER ----- ASTM F436
 THREADED RODS, NUTS, WASHERS, AND COUPLERS SHALL BE MINIMUM ASTM A36, A307 GRADE C MATERIAL PRODUCED FROM 1006-1010 STEEL AND SHALL BE EITHER ZINC OR GALVANIZED COATED LAW ASTM B633 OR ASTM A153 CLASS C RESPECTIVELY.
 ALL CONNECTORS (SIMPSON OR USP) SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS FOR MAXIMUM RESISTANCE.



ENGLISH HOMES
 PROPOSED SINGLE FAMILY RESIDENCE
 PARCEL C BEULAH SCHOOL RD., PENSACOLA
 ESCAMBIA COUNTY, FLORIDA
 1642 SF. LIVING AREA
 2160 SF. UNDER ROOF
 SHEET: S-3

PREPARED FOR:
 SSUD
 Southern Site & Utility Design, Inc.
 FLORIDA CERTIFICATE OF AUTHORITY NO. 89853
 6555 CAROLINE STREET MILTON, FLORIDA 32570
 PH: (850) 623-9493 E-MAIL: ssudian@gmail.com

DATE: _____
 PAUL A. MCLEOD, JR., P.E.
 FL. LICENSE NO. 58697
 ALAN M. MILLER, P.E.
 FL. LICENSE NO. 53577
 DRAWING NOT VALID UNLESS SIGNED AND SEALED BY ENGINEER OF RECORD
 NOTE:
 CONTRACTOR OR SUBCONTRACTOR IS TO VERIFY ALL DIMENSIONS IN THE FIELD, PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF RECORD FOR ANY DISCREPANCIES ON PLANS.

TOP PLATE SPLICE REQUIREMENTS

BUILDING DIMENSION (ft.)	MIN. SPLICE LENGTH (ft.)
12'-0"	2'-0"
16'-0"	2'-0"
20'-0"	2'-0"
24'-0"	2'-0"
28'-0"	2'-6"
32'-0"	3'-0"
36'-0"	3'-6"
40'-0"	4'-0"
50'-0"	4'-6"
60'-0"	6'-0"
70'-0"	6'-6"
80'-0"	7'-6"

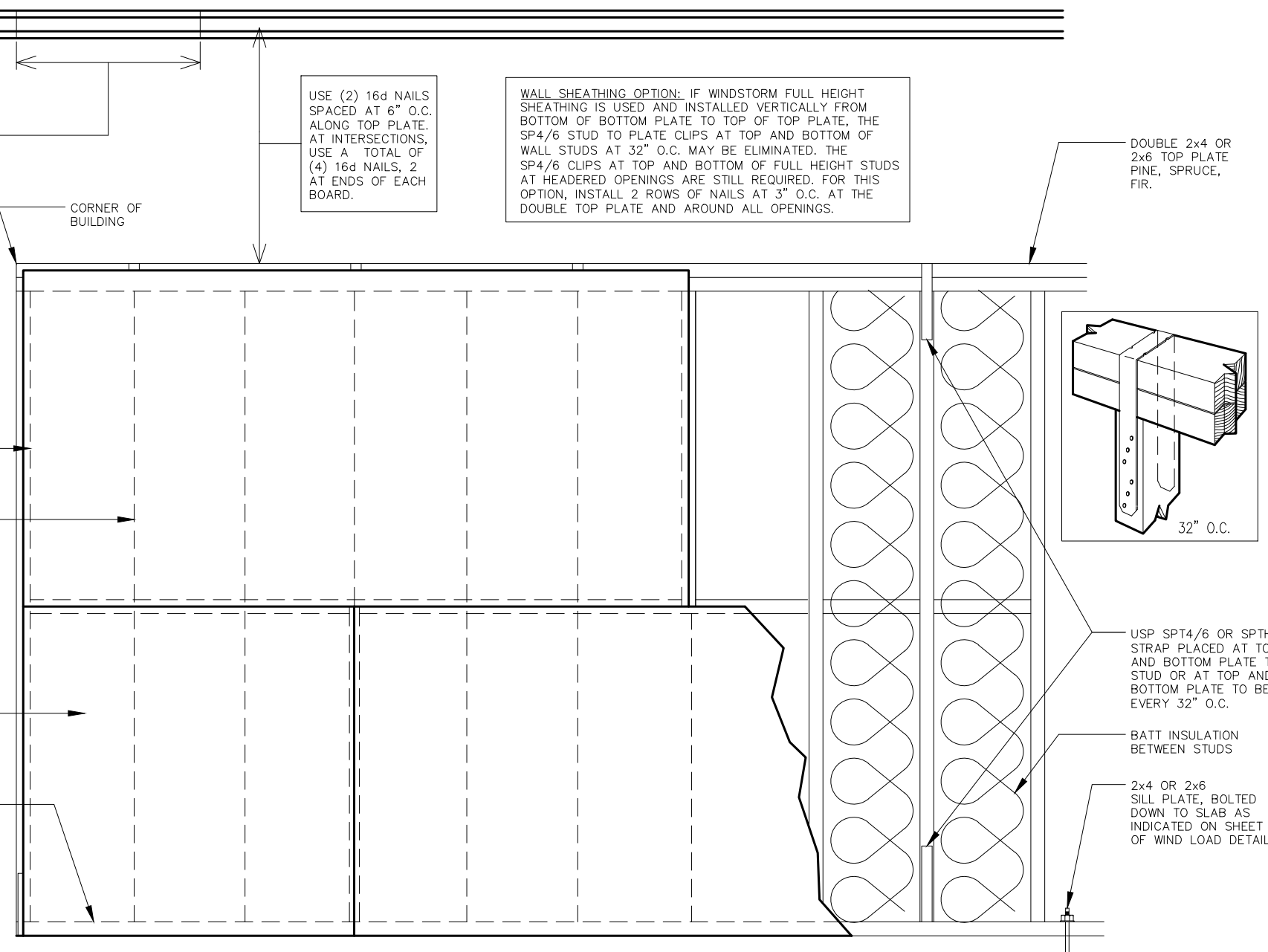
EDGE NAILING TO BE 8d NAILS SPACED AT 3" O.C.

INTERIOR NAILING TO BE 8d NAILS SPACED AT 8" O.C.

NOTE: NAILS MAY BE EITHER RING SHANK OR COMMON NAILS.

WALL SHEATHING: 7/16" APA RATED OSB W/ 8d NAILS SPACED AT 3" O.C. EDGE NAILING AND 8" O.C. INTERIOR SPACING.

EDGE NAILING AT SILL PLATE TO BE 8d NAILS SPACED AT 3" O.C.

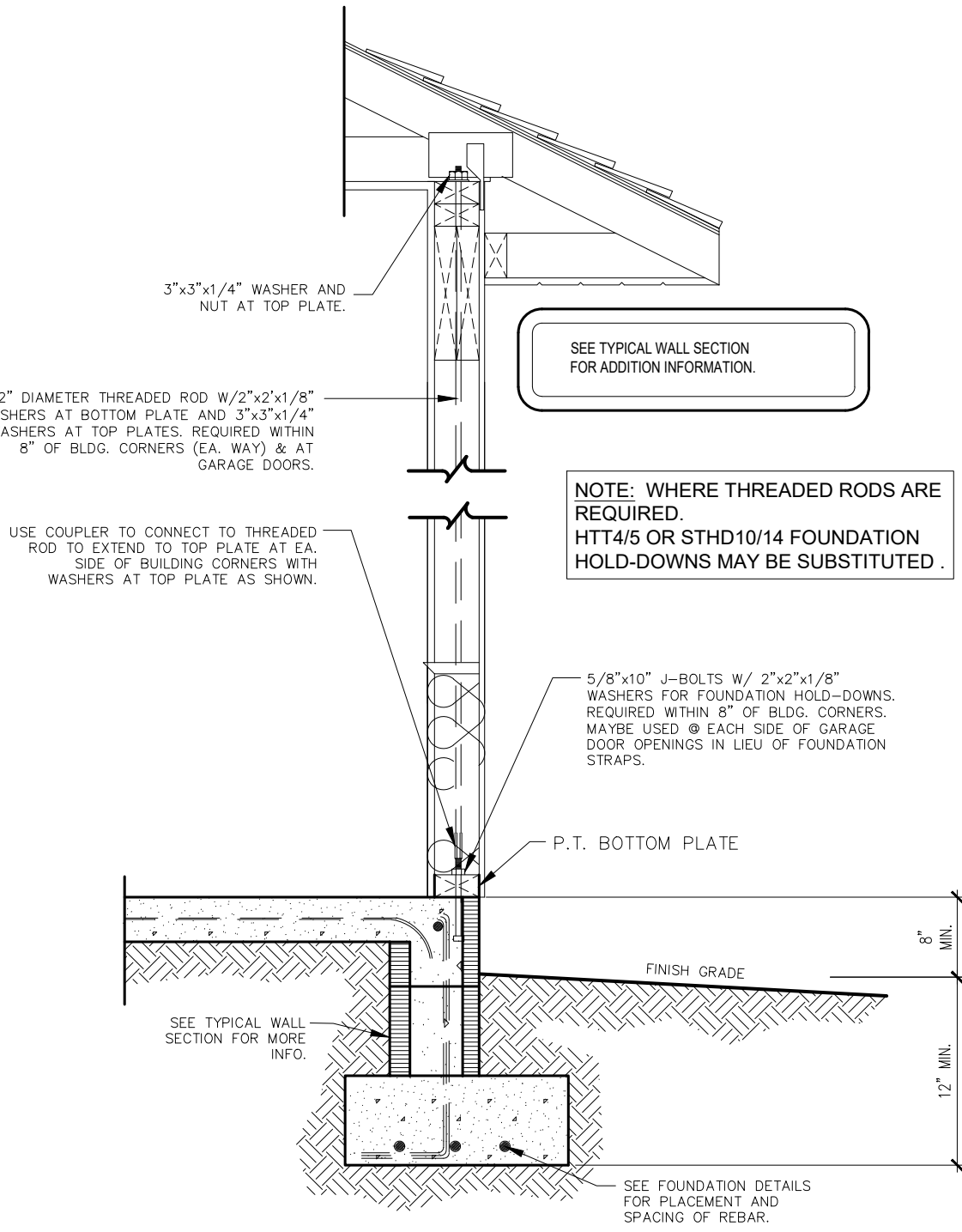


WALL SHEATHING IS TO BE ORIENTED HORIZONTALLY W/ ALL EDGES BLOCKED AND ATTACHED USING 8d COMMON NAILS SPACED AS NOTED ABOVE.

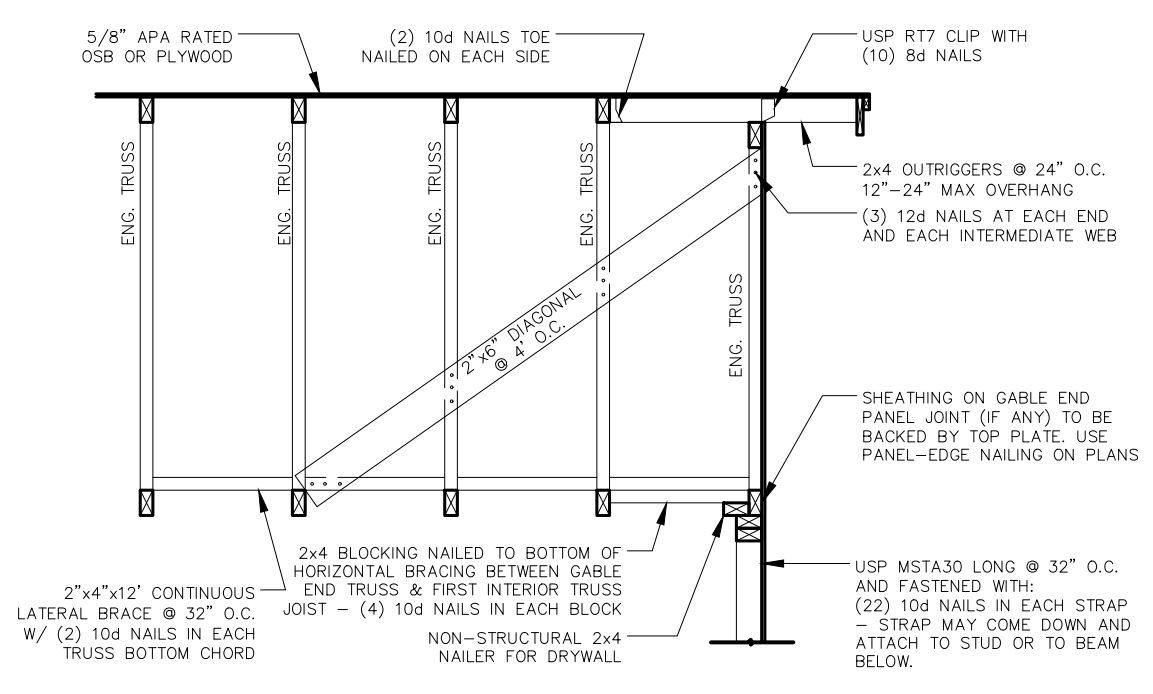
5/8"x10" J-BOLTS W/ 2"x2"x1/8" WASHERS FOR FOUNDATION HOLD-DOWNS. PROVIDE @ 48" O.C. AND WITHIN 8" OF ALL CORNERS.

NOTE: IF FULL HEIGHT SHEATHING IS USED, IT MAY BE APPLIED VERTICALLY AND INTERMEDIATE BLOCKING OMITTED.

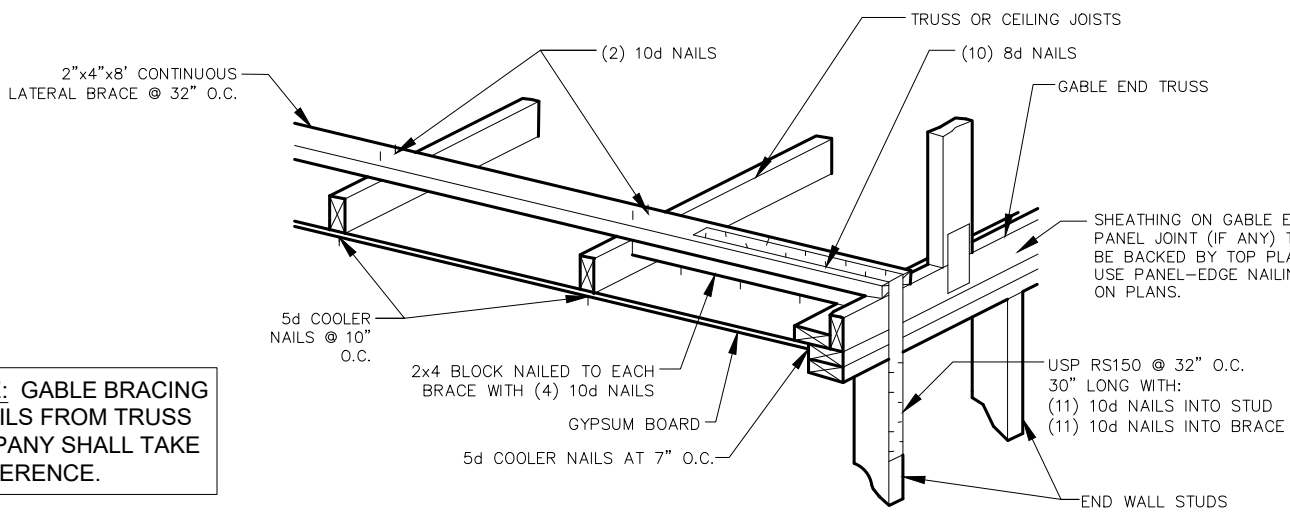
WALL PANEL NAILING
NOT TO SCALE



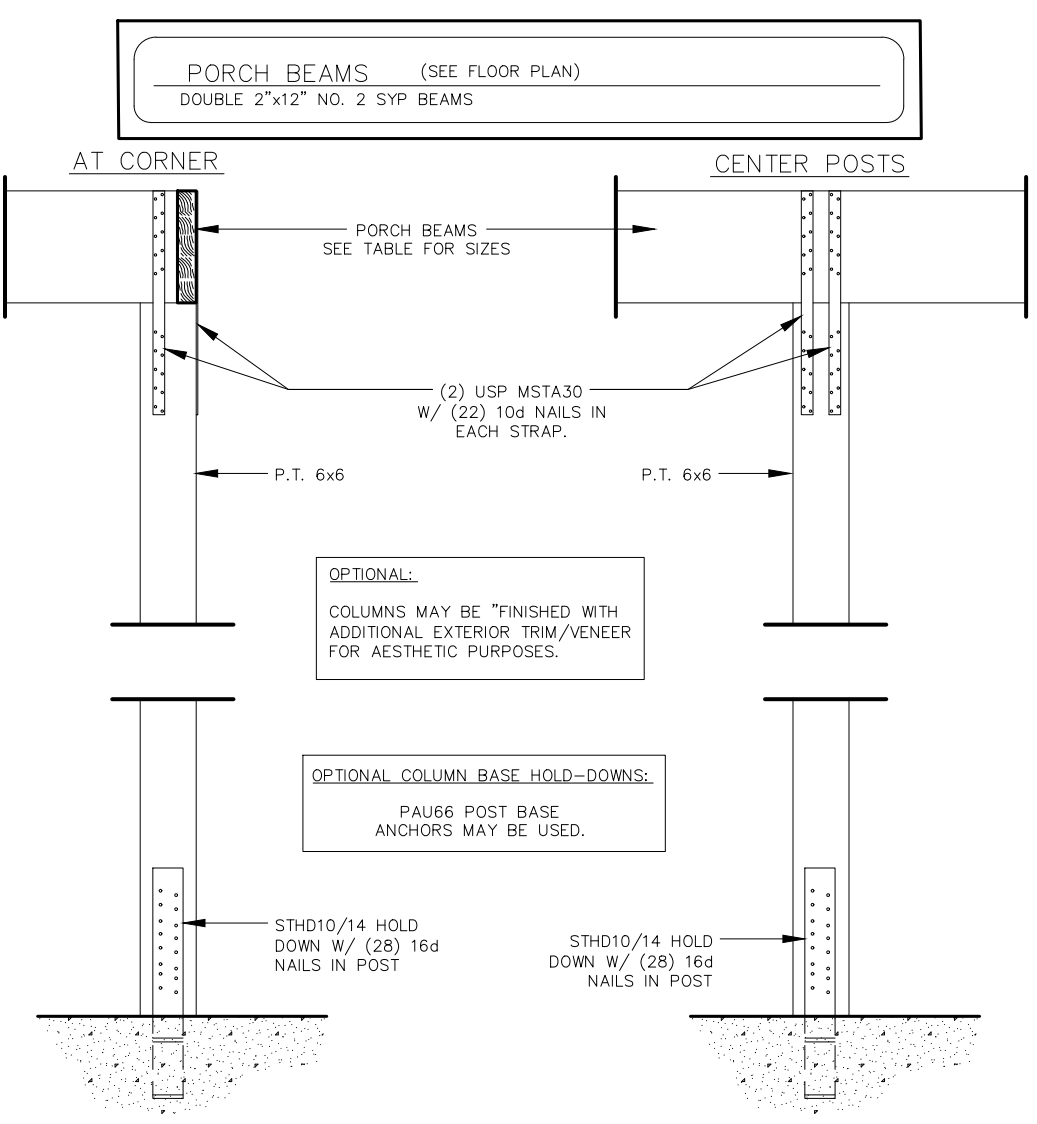
THREADED ROD DETAIL
NOT TO SCALE



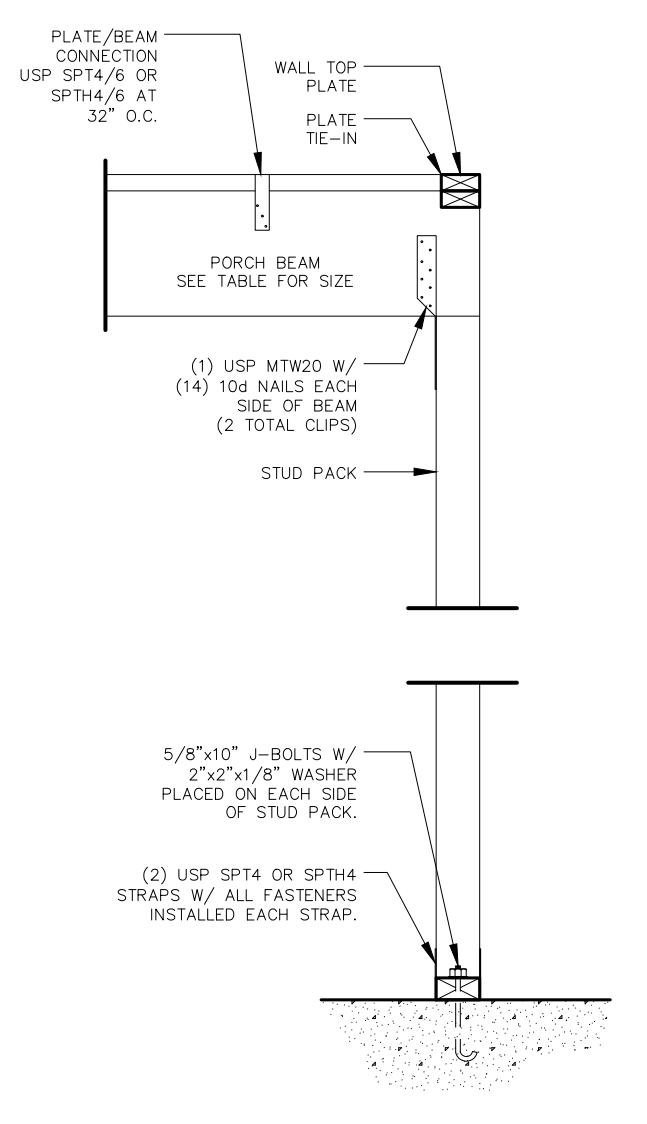
GABLE END "X" BRACING AND OUTLOOKER DETAIL
NOT TO SCALE



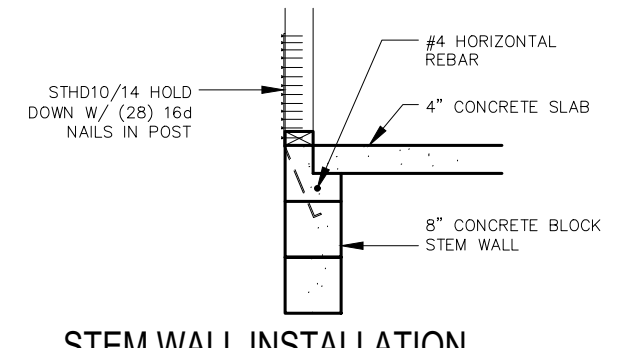
CEILING BRACING AT GABLE END WALL FOR BRICK WALL WITH BRICK GABLE OR VINYL WALL WITH VINYL GABLE
NOT TO SCALE



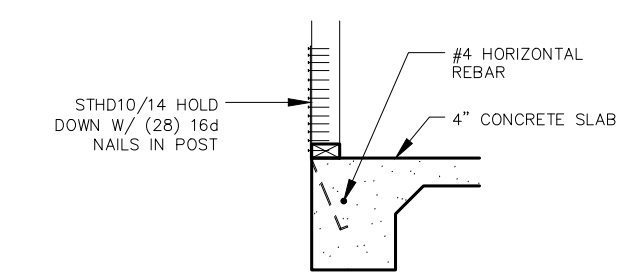
FRONT PORCH AND SIDE CAR PORT DETAILS
NOT TO SCALE



BEAM/WALL CONNECTION AT PORCHES
NOT TO SCALE



STEM WALL INSTALLATION
NOT TO SCALE



MONOLITHIC INSTALLATION
NOT TO SCALE

PREPARED FOR: ENGLISH HOMES
PROPOSED SINGLE FAMILY RESIDENCE
PARCEL C BELLAH SCHOOL RD., PENSACOLA
ESCAMBIA COUNTY, FLORIDA 1642 SF. LIVING AREA
2160 SF. UNDER ROOF

DATE: 3/9/2023
DRAWN BY: JTC
SHEET: S-4

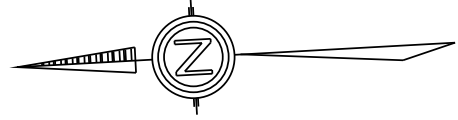
SSUD
Southern Site & Utility Design, Inc.
FLORIDA CERTIFICATE OF AUTHORITY NO. 89853
6555 CAROLINE STREET MILTON, FLORIDA 32570
PH: (850) 623-9493 E-MAIL: ssudain@gmail.com

DATE: ALAN M. MILLER, P.E. PAUL A. MCLEOD, JR., P.E.
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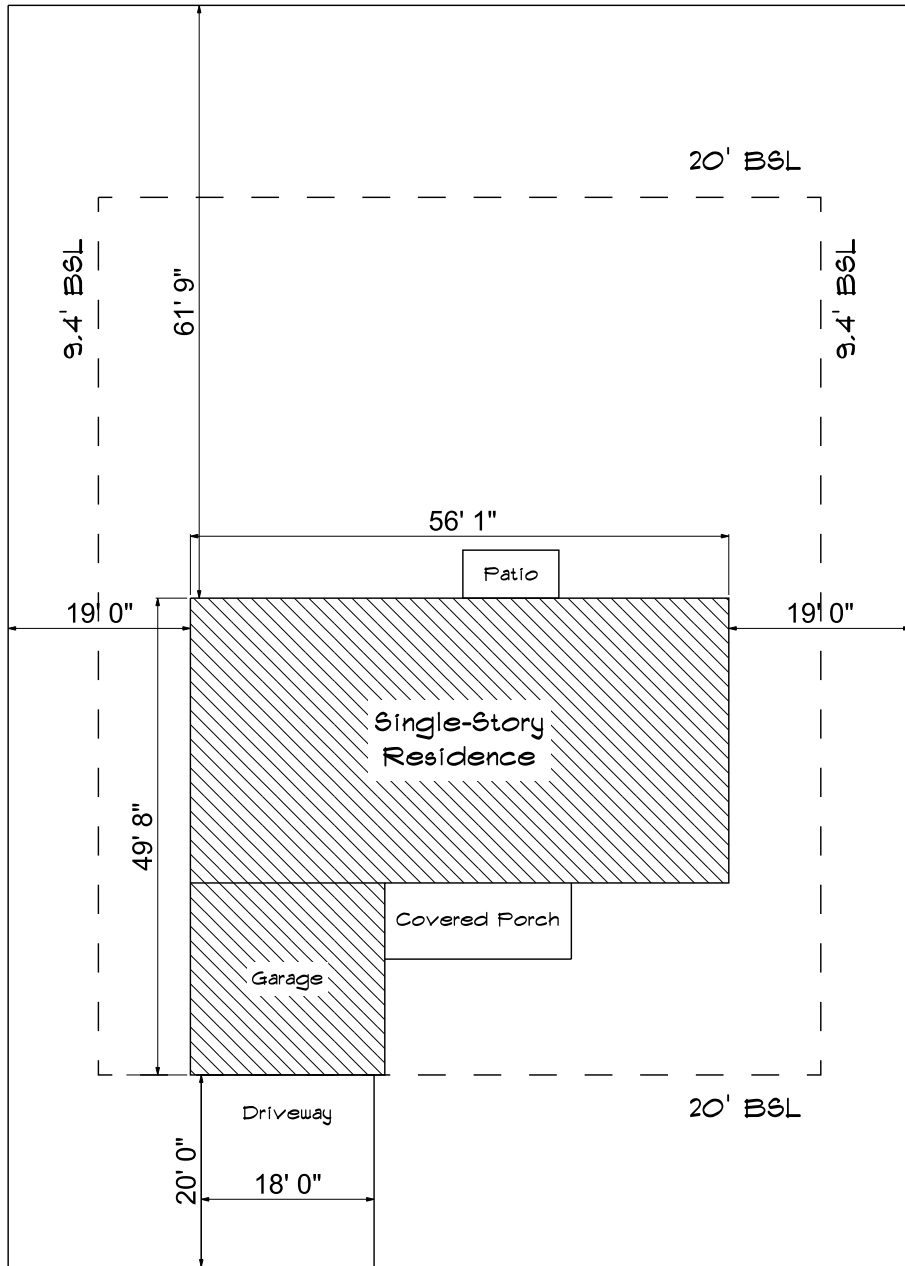
DRAWING NOT VALID UNLESS SIGNED AND SEALED BY ENGINEER OF RECORD

NOTE: CONTRACTOR OR SUBCONTRACTOR IS TO VERIFY ALL DIMENSIONS IN THE FIELD, PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF RECORD FOR ANY DISCREPANCIES ON PLANS.

94.05'



131.42'



Helms Road

Beulah School Road

SITE PLAN

Exact Location Of RESIDENCE To Be Verified
By Builder/Owner Before Construction Begins.

Location Of RESIDENCE To Be Verified With Survey (As Required)



TOM HUNT RESIDENTIAL DESIGNS, INC.

945 West Michigan Avenue, Unit 3B

Pensacola, FL 32505

850-438-2300 | TomHuntDesigns.com

CUSTOMER / BUILDER:	English Homes
SITE ADDRESS	Parcel C, Beulah School Road Pensacola, FL 32526
DRAWING #	
SCALE	1" = 20'-0"
DRAWN BY	
DATE	Thursday, March 16, 2023
TIME	12:42 PM

RESIDENTIAL ENERGY CONSERVATION CODE DOCUMENTATION CHECKLIST

Florida Department of Business and Professional Regulation
Simulated Performance Alternative (Performance) Method

Applications for compliance with the 2020 Florida Building Code, Energy Conservation via the residential Simulated Performance method shall include:

- This Checklist
- Form R405-2020 with supplement report
- Input summary checklist that can be used for field verification (usually four pages/may be greater).
- Energy Performance Level (EPL) Display Card (one page)
- HVAC system sizing and selection based on ACCA Manual S or per exceptions provided in Section R403.7
- Mandatory Requirements (five pages)

Required prior to CO:

- Air Barrier and Insulation Inspection Component Criteria checklist (Table 402.4.1.1 - one page)
- A completed 2020 Envelope Leakage Test Report (usually one page); exception in R402.4 allows dwelling units of R-2 Occupancies and multiple attached single family dwellings to comply with Section C402.5
- If FORM R405 duct leakage type indicates anything other than "default leakage", then a completed 2020 Duct Leakage Test Report - Performance Method (usually one page).


FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

<p>Project Name: Street: Parcel C Beulah School Road City, State, Zip: Pensacola, FL 32526 Owner: English Homes Design Location: FL, Pensacola</p>	<p>Builder Name: Permit Office: Permit Number: Jurisdiction: County: ESC (Florida Climate Zone 2)</p>
---	--

<p>1. New construction or existing: New (From Plans)</p> <p>2. Single family or multiple family: Single-Family</p> <p>3. Number of units, if multiple family: 1</p> <p>4. Number of bedrooms: 3</p> <p>5. Is this a worst case?: No</p> <p>6. Conditioned floor area above grade (ft²): 1642.67 Conditioned floor area below grade (ft²): 0</p> <p>7. Windows (155 ft²):</p> <table style="width: 100%;"> <tr> <th style="width: 30%;">Description</th> <th style="width: 30%;">Area (ft²)</th> </tr> <tr> <td>a. U-Factor: Db1, 0.360 SHGC: 0.33</td> <td style="text-align: center;">154.80</td> </tr> <tr> <td>b. U-Factor: SHGC:</td> <td></td> </tr> <tr> <td>c. U-Factor: SHGC:</td> <td></td> </tr> <tr> <td>d. U-Factor: SHGC:</td> <td></td> </tr> </table> <p>Area Weighted Average Overhang Depth: 2.291 ft Area Weighted Average SHGC: 0.330</p> <p>8. Floor types (1642.67 ft²):</p> <table style="width: 100%;"> <tr> <th style="width: 30%;">Insulation (R)</th> <th style="width: 30%;">Area (ft²)</th> </tr> <tr> <td>a. Bg floor, heavy dry or light dam: 0.0</td> <td style="text-align: center;">1642.67</td> </tr> <tr> <td>b. N/A</td> <td></td> </tr> <tr> <td>c. N/A</td> <td></td> </tr> </table>	Description	Area (ft ²)	a. U-Factor: Db1, 0.360 SHGC: 0.33	154.80	b. U-Factor: SHGC:		c. U-Factor: SHGC:		d. U-Factor: SHGC:		Insulation (R)	Area (ft ²)	a. Bg floor, heavy dry or light dam: 0.0	1642.67	b. N/A		c. N/A		<p>9. Wall types (1570 ft²):</p> <table style="width: 100%;"> <tr> <th style="width: 30%;">Insulation (R)</th> <th style="width: 30%;">Area (ft²)</th> </tr> <tr> <td>a. Firm wall, 3/8" wood shth, r-13 c: 13.0</td> <td style="text-align: center;">1570.13</td> </tr> <tr> <td>b. N/A</td> <td></td> </tr> <tr> <td>c. N/A</td> <td></td> </tr> <tr> <td>d. N/A</td> <td></td> </tr> </table> <p>10. Ceiling types (1643 ft²):</p> <table style="width: 100%;"> <tr> <th style="width: 30%;">Insulation (R)</th> <th style="width: 30%;">Area (ft²)</th> </tr> <tr> <td>a. Attic ceiling, asphalt shingles: 30.0</td> <td style="text-align: center;">1642.67</td> </tr> <tr> <td>b. N/A</td> <td></td> </tr> <tr> <td>c. N/A</td> <td></td> </tr> </table> <p>11. Ducts:</p> <table style="width: 100%;"> <tr> <th style="width: 30%;">R</th> <th style="width: 30%;">Area (ft²)</th> </tr> <tr> <td>a. Sup: Entire House Attic, Ret: Entire House, AH: Entire House: 6.0</td> <td style="text-align: center;">300.00</td> </tr> <tr> <td>b.</td> <td></td> </tr> </table> <p>12. Cooling systems:</p> <table style="width: 100%;"> <tr> <th style="width: 30%;">kBTu/hr</th> <th style="width: 30%;">Efficiency</th> </tr> <tr> <td>a. Split air source heat pump: 23.6</td> <td style="text-align: center;">15 SEER</td> </tr> <tr> <td>b.</td> <td></td> </tr> </table> <p>13. Heating systems:</p> <table style="width: 100%;"> <tr> <th style="width: 30%;">kBTu/hr</th> <th style="width: 30%;">Efficiency</th> </tr> <tr> <td>a. Split air source heat pump: 23.5</td> <td style="text-align: center;">8.8 HSPF</td> </tr> <tr> <td>b.</td> <td></td> </tr> </table> <p>14. Hot water systems:</p> <table style="width: 100%;"> <tr> <td>a. Electric conventional (50 gal):</td> <td style="text-align: right;">Cap: 50 gal</td> </tr> <tr> <td>b. Conservation features (None):</td> <td style="text-align: right;">UEF: 0.95</td> </tr> </table> <p>15. Credits: Ceiling Fan; Cross Vent, Pstat</p>	Insulation (R)	Area (ft ²)	a. Firm wall, 3/8" wood shth, r-13 c: 13.0	1570.13	b. N/A		c. N/A		d. N/A		Insulation (R)	Area (ft ²)	a. Attic ceiling, asphalt shingles: 30.0	1642.67	b. N/A		c. N/A		R	Area (ft ²)	a. Sup: Entire House Attic, Ret: Entire House, AH: Entire House: 6.0	300.00	b.		kBTu/hr	Efficiency	a. Split air source heat pump: 23.6	15 SEER	b.		kBTu/hr	Efficiency	a. Split air source heat pump: 23.5	8.8 HSPF	b.		a. Electric conventional (50 gal):	Cap: 50 gal	b. Conservation features (None):	UEF: 0.95
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Glass/Floor area: 0.094 Total Proposed Modified Loads: 46.98 **PASS**
 Total Baseline Loads: 48.31

<p>I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.</p> <p>Prepared By <u>King Energy Consulting LLC</u></p> <p>Signature <u>Steve King</u> Date <u>16-Mar-2023</u></p> <p>I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.</p> <p>Owner/Agent Name _____</p> <p>Signature _____ Date _____</p>	<p>Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed, this building will be inspected for compliance with Section 553.908 Florida Statutes.</p> <div style="text-align: center;">  </div> <p>Building Official Name _____</p> <p>Signature _____ Date _____</p>
---	--

- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with R403.3.2.1.
- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires an envelope leakage test report with envelope leakage no greater than 7.0 ACH50 (R402.4.1.2).

Building Input Summary Report

PROJECT														
Title:				Bedrooms:	3	Address type:	Street address							
Building Type:	FLAsBuilt			Bathrooms:	1	Lot#:								
Owner:	English Homes			Conditioned Area:	1643	Block/Subdivision:								
# of Units:	1			Total Stories:	1	Platbook:								
Builder Name:				Worst Case:	No	Street:	Parcel C Beulah Scho							
Permit Office:				Rotate Angle:	0	County:	ESC							
Jurisdiction:				Cross Ventilation:	No	City, State, Zip:	Pensacola, FL 32526							
Family Type:	Single-Family			Whole House Fan:	No	Terrain:	Suburban							
New/Existing:	New (From Plans)			Shielding:	Suburban									
Year Construct:														
Comment:														
CLIMATE														
✓	Design Location	TMY Site	IECC Zone	Design Temp 97.5 %	Design Temp 2.5 %	Int Design Temp Winter	Int Design Temp Summer	Heating Degree Days	Design Moisture	Daily Temp Range				
	FL, Pensacola	FL_Pensacola_Rgnl	2	28	95	70	75	1289	103	Low				
BLOCKS														
#	Name	Area	Volume											
1	Entire House	1642.67 ft²	15112.53 ft³											
SPACES														
#	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated					
1	Room1	1642.67 ft²	15112.53 ft³	No	4	0	1	Yes	Yes	Yes				
FLOORS (Total Exposed Area = 1643 sq.ft.)														
✓ #	Floor Type	Space	Perimeter	R-Value	Area	U-Factor	Tile	Wood	Carpet					
1	Bg floor, heavy dry or light damp soil, prmint i	Room1	171 ft	0	1642.67 ft²	1.135	0	0	1.0					
ROOF														
✓ #	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt Tested	Emitt Insul.	Deck Insul.	Pitch (deg)		
1	Gable or shed	RoofAsph	1780 ft²	342 ft²	Light	N	0.75	No	0.90	No	0	23		
ATTIC														
✓ #	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC								
1	Full attic	Vented	150	1642.67ft²	N	N								
CEILING (Total Exposed Area = 1643 sq.ft.)														
✓ #	Ceiling Type	Space	R-Value	U-Factor	Area	Framing Fraction	Truss Type							
1	Attic ceiling, asphalt shingles roof	Room1	30	0.032	1642.67 ft²	0.10	--							
WALLS (Total Exposed Area = 1570 sq.ft.)														
✓ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Height In	Area	Sheathing R-Value	U-Factor	Frm. Frac.	Solar Absor.	Below Grade%	
1	N	Exterior	Frm wall, 3/8" wo	Room1	13	29	4	9 2	269.9 ft²	0	0.091	0.25	0.60	0
2	E	Exterior	Frm wall, 3/8" wo	Room1	13	56	0	9 2	515.2 ft²	0	0.091	0.25	0.60	0
3	S	Exterior	Frm wall, 3/8" wo	Room1	13	29	4	9 2	269.9 ft²	0	0.091	0.25	0.60	0
4	W	Exterior	Frm wall, 3/8" wo	Room1	13	56	0	9 2	515.2 ft²	0	0.091	0.25	0.60	0
DOORS (Total Exposed Area = 42 sq.ft.)														
✓ #	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Height In	Area						
1	W	Door, w d sc type	Room1	None	0.390	3 0	7 0	42.0 ft²						

WINDOWS											(Total Exposed Area = 155 sq.ft.)			
✓ #	Ornt	Wall		Panels	NFRC	U-Factor	SHGC	Impact	W x H, A area	Overhang		Interior		
		ID	Frame							Depth	Separation	Shade	Screening	
1	N	1	Vinyl	Low-E	Double	Yes	0.360	0.33	No	2'0" x 3'0", 6 ft²	1 ft 5 in	1 ft 2 in	Blinds 45°	None
2	S m m m m W W	2	Vinyl	Low-E	Double	Yes	0.360	0.33	No	3'0" x 5'0", 15 ft²	1 ft 5 in	1 ft 2 in	Blinds 45°	None
3		2	Vinyl	Low-E	Double	Yes	0.360	0.33	No	9'0" x 5'0", 45 ft²	1 ft 5 in	1 ft 2 in	Blinds 45°	None
4		2	Vinyl	Low-E	Double	Yes	0.360	0.33	No	6'0" x 6'10", 41 ft²	1 ft 5 in	1 ft 2 in	Blinds 45°	None
5		3	Vinyl	Low-E	Double	Yes	0.360	0.33	No	3'0" x 1'0", 3 ft²	1 ft 5 in	1 ft 2 in	Blinds 45°	None
6		4	Vinyl	Low-E	Double	Yes	0.360	0.33	No	3'0" x 5'0", 15 ft²	1 ft 5 in	1 ft 2 in	Blinds 45°	None
7		4	Vinyl	Low-E	Double	Yes	0.360	0.33	No	6'0" x 5'0", 30 ft²	6 ft 0 in	1 ft 2 in	Blinds 45°	None

GARAGE						
✓ #	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation	
1					0	

INFILTRATION								
#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH.50
1	Wholehouse	Blower Door	0.000410	1763	97.01	182.2	0.56	7.00

HEATING SYSTEM						
✓ #	System Type	Subtype	Efficiency	Capacity	Block	Ducts
1	Split air source heat pump		8.8 HSPF	23.5 kBtu/hr	1	sys#1

COOLING SYSTEM								
✓ #	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
1	Split air source heat pump		15 SEER	23.6 kBtu/hr	788 cfm	0.75	1	sys#1

HOT WATER SYSTEM								
✓ #	System Type	Subtype	Location	EF	Cap	Use	SetPnt	Conservation
1	Electric conventional			0.95 UEF	50 gal	60 gal	120 °F	None

DUCTS												
✓ #	Supply		Return		Leakage Type	Air Handler	CFM 25 Percent		HVAC #			
	Location	R-Value	Location	Area			Out	Leakage	QN	RLF	Heat	Cool
1	Entire House	Attic 6.0	300 ft²	Entire House	0 ft²	Default Leakage	Entire House	(Default)	6.00	0.08	1	1

TEMPERATURES																								
Programmable Thermostat: Y																								
Ceiling Fans:																								
Cooling	[X]	Jan	[X]	Feb	[X]	Mar	[X]	Apr	[X]	May	[X]	Jun	[X]	Jul	[X]	Aug	[X]	Sep	[X]	Oct	[X]	Nov	[X]	Dec
Heating	[X]	Jan	[X]	Feb	[X]	Mar	[X]	Apr	[X]	May	[X]	Jun	[X]	Jul	[X]	Aug	[X]	Sep	[X]	Oct	[X]	Nov	[X]	Dec
Venting	[X]	Jan	[X]	Feb	[X]	Mar	[X]	Apr	[X]	May	[X]	Jun	[X]	Jul	[X]	Aug	[X]	Sep	[X]	Oct	[X]	Nov	[X]	Dec
Thermostat Schedule: Florida Building Code, 7th Edition																								
Schedule Type	(2020)																							
	1	2	3	4	5	6	7	8	9	10	11	12												
Cooling (WD)	AM 75	75	75	75	75	75	75	75	75	75	75	75	75											
	PM 75	75	75	75	75	75	75	75	75	75	75	75	75											
Cooling (WEH)	AM 75	75	75	75	75	75	75	75	75	75	75	75	75											
	PM 75	75	75	75	75	75	75	75	75	75	75	75	75											
Heating (WD)	AM 72	72	72	72	72	72	72	72	72	72	72	72	72											
	PM 72	72	72	72	72	72	72	72	72	72	72	72	72											
Heating (WEH)	AM 72	72	72	72	72	72	72	72	72	72	72	72	72											
	PM 72	72	72	72	72	72	72	72	72	72	72	72	72											

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX = 97

The lower the EnergyPerformance Index, the more efficient the home.

<p>1. New home or addition</p> <p>2. Single-family or multiple-family</p> <p>3. Number of units, if multiple-family</p> <p>4. Number of bedrooms</p> <p>5. Is this a worst case? (yes/no)</p> <p>6. Conditioned floor area (ft²)</p> <p>7. Windows, type and area*</p> <p style="margin-left: 20px;">a. U-Factor:</p> <p style="margin-left: 20px;">b. Solar Heat Gain Coefficient (SHGC):</p> <p style="margin-left: 20px;">c. Area (ft²)</p> <p>8. Skylights</p> <p style="margin-left: 20px;">a. U-Factor:</p> <p style="margin-left: 20px;">b. Solar Heat Gain Coefficient (SHGC):</p> <p>9. Floor type, insulation level</p> <p style="margin-left: 20px;">a. Slab-on-grade (R-value):</p> <p style="margin-left: 20px;">b. Wood, raised (R-value):</p> <p style="margin-left: 20px;">c. Concrete, raised (R-value):</p> <p>10 Wall type and insulation:</p> <p style="margin-left: 20px;">a. Exterior:</p> <p style="margin-left: 40px;">1. Wood/mtl frame (Insulation R-value):</p> <p style="margin-left: 40px;">2. Masonry (Insulation R-value):</p> <p style="margin-left: 20px;">b. Adjacent:</p> <p style="margin-left: 40px;">1. Wood/mtl frame (Insulation R-value):</p> <p style="margin-left: 40px;">2. Masonry (Insulation R-value):</p> <p>11. Ceiling type and insulation level</p> <p style="margin-left: 20px;">a. Under attic (R-value):</p> <p style="margin-left: 20px;">b. Single assembly (R-value):</p> <p style="margin-left: 20px;">c. Knee walls/skylight walls (R-value)</p> <p style="margin-left: 20px;">d. Radiant barrier installed</p>	<p>1. <u>New (From Plans)</u></p> <p>2. <u>Single-Family</u></p> <p>3. <u>1</u></p> <p>4. <u>3</u></p> <p>5. <u>No</u></p> <p>6. <u>1642.67</u></p> <p>7a. <u>DbI, 0.360</u></p> <p>7b. <u>0.33</u></p> <p>7c. <u>155</u></p> <p>8a. _____</p> <p>8b. _____</p> <p>9a. <u>0.0</u></p> <p>9b. _____</p> <p>9c. _____</p> <p>10a1. <u>13</u></p> <p>10a2. _____</p> <p>10b1. _____</p> <p>10b2. _____</p> <p>11a. <u>30.0</u></p> <p>11b. _____</p> <p>11c. _____</p> <p>11d. _____</p>	<p>12. Ducts, location & insulation level</p> <p style="margin-left: 20px;">a. Supply ducts: R _____ <u>6.0</u></p> <p style="margin-left: 20px;">b. Return ducts: R _____</p> <p style="margin-left: 20px;">c. AHU location: _____ Entire House</p> <p>13. Cooling systems Capacity _____ <u>23.6</u></p> <p style="margin-left: 20px;">a. Split system: SEER _____ <u>15.00</u></p> <p style="margin-left: 20px;">b. Single package: SEER _____</p> <p style="margin-left: 20px;">c. Ground/water source: SEER/COP _____</p> <p style="margin-left: 20px;">d. Room unit/PTAC: EER _____</p> <p style="margin-left: 20px;">e. Other: _____</p> <p>14. Heating systems Capacity _____ <u>23.5</u></p> <p style="margin-left: 20px;">a. Split system heat pump: HSPF _____ <u>8.80</u></p> <p style="margin-left: 20px;">b. Single package heat pump: HSPF _____</p> <p style="margin-left: 20px;">c. Electric resistance: COP _____</p> <p style="margin-left: 20px;">d. Gas furnace, natural gas: AFUE _____</p> <p style="margin-left: 20px;">e. Gas furnace, LPG: AFUE _____</p> <p style="margin-left: 20px;">f. Other: _____</p> <p>15. Water heating systems</p> <p style="margin-left: 20px;">a. Electric resistance: _____ <u>0.95 UEF</u></p> <p style="margin-left: 20px;">b. Gas fired, natrual gas: _____</p> <p style="margin-left: 20px;">c. Gas fired, LPG: _____</p> <p style="margin-left: 20px;">d. Solar system with tank: _____</p> <p style="margin-left: 20px;">e. Dedicated heat pump with tank: _____</p> <p style="margin-left: 20px;">f. Heat recovery unit: HeatRec% _____</p> <p style="margin-left: 20px;">g. Other: _____</p> <p>16. HVAC credits claimed (Performance Method)</p> <p style="margin-left: 20px;">a. Ceiling fans: _____ <u>Yes</u></p> <p style="margin-left: 20px;">b. Cross ventilation: _____ <u>Yes</u></p> <p style="margin-left: 20px;">c. Whole house fan: _____</p> <p style="margin-left: 20px;">d. Multizone cooling credit: _____</p> <p style="margin-left: 20px;">e. Multizone heating credit: _____</p> <p style="margin-left: 20px;">f. Programmable thermostat: _____ <u>Yes</u></p>
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*Label required by Section 303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

I certify that this home has complied with the Florida Building Code, Energy Conservation, through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: _____

Date: _____

Address of New Home: Parcel C Beulah School Road

City/FL Zip: Pensacola, FL 32526

Florida Building Code, Energy Conservation, 7th Edition (2020)

Mandatory Requirements for Residential Performance, Prescriptive and ERI Methods

ADDRESS: Parcel C Beulah School Road Pensacola, FL 32526	PERMIT #:
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MANDATORY REQUIREMENTS - See individual code sections for full details.

SECTION R401 GENERAL



- R401.3 Energy Performance Level (EPL) display card (Mandatory)** The building official shall require that an energy performance level (EPL) display card be completed and certified by the builder to be accurate and correct before final approval of the building for occupancy. Florida law (Section 553.9085, Florida Statutes) requires the EPL display card to be included as an addendum to each sales contract for both presold and nonpresold residential buildings. The EPL display card contains information indicating the energy performance level and efficiencies of components installed in a dwelling unit, completed and signed by the builder. The building official shall verify that the EPL display card accurately reflects the plans and specifications submitted to demonstrate compliance for the building. A copy of the EPL display card can be found in Appendix RD.

SECTION R402 BUILDING THERMAL ENVELOPE

- R402.4 Air leakage (Mandatory)** The building thermal envelope shall be constructed to limit air leakage in accordance with the requirements of Sections R402.4.1 through R402.4.5.

Exception: Dwelling units of R-2 Occupancies and multiple attached single family dwellings shall be permitted to comply with Section C402.5.

- R402.4.1 Building thermal envelope** The building thermal envelope shall comply with Sections R402.4.1.1 and R402.4.1.2. The sealing methods between dissimilar materials shall allow for differential expansion and contraction.

- R402.4.1.1 Installation.** The components of the building thermal envelope as listed in Table R402.4.1.1 shall be installed in accordance with the manufacturer's instructions and the criteria listed in Table 402.4.1.1, as applicable to the method of construction. Where required by the code official, an approved third party shall inspect all components and verify compliance.

- R402.4.1.2 Testing.** The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding seven air changes per hour in Climate Zones 1 and 2, and three air changes per hour in Climate Zones 3 through 8. Testing shall be conducted in accordance with ANSI/RESET/ICC 380 and reported at a pressure of 0.2 inch w.g. (50 Pascals). Testing shall be conducted by either individuals as defined in Section 553.993(5) or (7), Florida Statutes or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i) or an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope.

Exception: Testing is not required for additions, alterations, renovations, or repairs, of the building thermal envelope of existing buildings in which the new construction is less than 85 percent of the building thermal envelope.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.
2. Dampers including exhaust, intake, make-up air, backdraft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.
3. Interior doors, if installed at the time of the test, shall be open.
4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed.
5. Heating and cooling systems, if installed at the time of the test, shall be turned off.
6. Supply and return registers, if installed at the time of the test, shall be fully open.

- R402.4.2 Fireplaces.** New wood-burning fireplaces shall have tight-fitting flue dampers or doors, and outdoor combustion air. Where using tight-fitting doors on factory-built fireplaces listed and labeled in accordance with UL 127, the doors shall be tested and listed for the fireplace. Where using tight-fitting doors on masonry fireplaces, the doors shall be listed and labeled in accordance with UL 907.

- R402.4.3 Fenestration air leakage.** Windows, skylights and sliding glass doors shall have an air infiltration rate of no more than 0.3 cfm per square foot (1.5 L/s/m²), and swinging doors no more than 0.5 cfm per square foot (2.6 L/s/m²), when tested according to NFRC 400 or AAMA/WDMA/CSA 101/I.S.2/A440 by an accredited, independent laboratory and listed and labeled by the manufacturer.

Exception: Site-built windows, skylights and doors.

MANDATORY REQUIREMENTS - (Continued)

- R402.4.4 Rooms containing fuel-burning appliances** In Climate Zones 3 through 8, where open combustion air ducts provide combustion air to open combustion fuel burning appliances, the appliances and combustion air opening shall be located outside the building thermal envelope or enclosed in a room, isolated from inside the thermal envelope. Such rooms shall be sealed and insulated in accordance with the envelope requirements of Table R402.1.2, where the walls, floors and ceilings shall meet not less than the basement wall R-value requirement. The door into the room shall be fully gasketed and any water lines and ducts in the room insulated in accordance with Section R403. The combustion air duct shall be insulated where it passes through conditioned space to a minimum of R-8.

Exceptions:

1. Direct vent appliances with both intake and exhaust pipes installed continuous to the outside.
2. Fireplaces and stoves complying with Section R402.4.2 and Section R1006 of the Florida Building Code, Residential.

- R402.4.5 Recessed lighting.** Recessed luminaires installed in the building thermal envelope shall be sealed to limit air leakage between conditioned and unconditioned spaces. All recessed luminaires shall be IC-rated and labeled as having an air leakage rate not more than 2.0 cfm (0.944 L/s) when tested in accordance with ASTM E283 at a 1.57 psf (75 Pa) pressure differential. All recessed luminaires shall be sealed with a gasket or caulk between the housing and the interior wall or ceiling covering.

SECTION R403 SYSTEMS

- R403.1 Controls**

- R403.1.1 Thermostat provision (Mandatory).** At least one thermostat shall be provided for each separate heating and cooling system.

- R403.1.3 Heat pump supplementary heat (Mandatory)** Heat pumps having supplementary electric-resistance heat shall have controls that, except during defrost, prevent supplemental heat operation when the heat pump compressor can meet the heating load.

- R403.3.2 Sealing (Mandatory).** All ducts, air handlers, filter boxes and building cavities that form the primary air containment passageways for air distribution systems shall be considered ducts and plenum chambers, shall be constructed and sealed in accordance with Section C403.2.9.2 of the Commercial Provisions of this code and shall be shown to meet duct tightness criteria below.

Duct tightness shall be verified by testing in accordance with ANSI/RESNET/ICC 380 by either individuals as defined in Section 553.993(5) or (7), Florida Statutes, or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i), Florida Statutes, to be "substantially leak free" in accordance with Section R403.3.3.

- R403.3.2.1 Sealed air handler** Air handlers shall have a manufacturer's designation for an air leakage of no more than 2 percent of the design airflow rate when tested in accordance with ASHRAE 193.

- R403.3.3 Duct testing (Mandatory)** Ducts shall be pressure tested to determine air leakage by one of the following methods:

1. Rough-in test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure if installed at the time of the test. All registers shall be taped or otherwise sealed during the test.
2. Post construction test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All registers shall be taped or otherwise sealed during the test.

Exceptions:

1. A duct leakage test shall not be required where the ducts and air handlers are located entirely within the building thermal envelope.
2. Duct testing is not mandatory for buildings complying by Section 405 of this code. Duct leakage testing is required for Section R405 compliance where credit is taken for leakage, and a duct air leakage Q_n to the outside of less than 0.080 (where Q_n = duct leakage to the outside in cfm per 100 square feet of conditioned floor area tested at 25 Pascals) is indicated in the compliance report for the proposed design.

A written report of the results of the test shall be signed by the party conducting the test and provided to the code official.

- R403.3.5 Building Cavities (Mandatory)** Building framing cavities shall not be used as ducts or plenums.

- R403.4 Mechanical system piping insulation (Mandatory)** Mechanical system piping capable of carrying fluids above 105°F (41°C) or below 55°F (13°C) shall be insulated to a minimum of R-3.

- R403.4.1 Protection of piping insulation.** Piping insulation exposed to weather shall be protected from damage, including that caused by sunlight, moisture, equipment maintenance, and wind, and shall provide shielding from solar radiation that can cause degradation of the material. Adhesive tape shall not be permitted.

- R403.5.1 Heated water circulation and temperature maintenance systems (Mandatory)** Heated water circulation systems shall be in accordance with Section R403.5.1.1. Heat trace temperature maintenance systems shall be in accordance with Section R403.5.1.2. Automatic controls, temperature sensors and pumps shall be accessible. Manual controls shall be readily accessible.

- R403.5.1.1 Circulation system** Heated water circulation systems shall be provided with a circulation pump. The system return pipe shall be dedicated return pipe or a cold water supply pipe. Gravity and thermosiphon circulation systems shall be prohibited. Controls for circulating hot water system pumps shall start the pump based on the identification of a demand for hot water within the occupancy. The controls shall automatically turn off the pump when the water in the circulation loop is at the desired temperature and when there is no demand for hot water.

- R403.5.1.2 Heat trace systems** Electric heat trace systems shall comply with IEEE 515.1 or UL 515. Controls for such systems shall automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping in accordance with the times when heated water is used in the occupancy.

MANDATORY REQUIREMENTS - (Continued)

- R403.5.5 Heat traps (Mandatory)** Storage water heaters not equipped with integral heat traps and having vertical pipe risers shall have heat traps installed on both the inlets and outlets. External heat traps shall consist of either a commercially available heat trap or a downward and upward bend of at least 3 1/2 inches (89 mm) in the hot water distribution line and cold water line located as close as possible to the storage tank.
- R403.5.6 Water heater efficiencies (Mandatory).**
 - R403.5.6.1 Storage water heater temperature controls.**
 - R403.5.6.1.1 Automatic controls.** Service water heating systems shall be equipped with automatic temperature controls capable of adjustment from the lowest to the highest acceptable temperature settings for the intended use. The minimum temperature setting range shall be from 100°F to 140°F (38°C to 60°C).
 - R403.5.6.1.2 shut down.** A separate switch or a clearly marked circuit breaker shall be provided to permit the power supplied to electric service systems to be turned off. A separate valve shall be provided to permit the energy supplied to the main burner(s) of combustion types of service water heating systems to be turned off.
 - R403.5.6.2 Water heating equipment** Water heating equipment installed in residential units shall meet the minimum efficiencies of Table C404.2 in Chapter 4 of the Florida Building Code, Energy Conservation, Commercial Provisions, for the type of equipment installed. Equipment used to provide heating functions as part of a combination system shall satisfy all stated requirements for the appropriate water heating category. Solar water heaters shall meet the criteria of Section R403.5.6.2.1.
 - R403.5.6.2.1 Solar water heating systems** Solar systems for domestic hot water production are rated by the annual solar energy factor of the system. The solar energy factor of a system shall be determined from the Florida Solar Energy Center Directory of Certified Solar Systems. Solar collectors shall be tested in accordance with ISO Standard 9806, Test Methods for Solar Collectors, and SRCC Standard TM-1, Solar Domestic Hot Water System and Component Test Protocol. Collectors in installed solar water-heating systems should meet the following criteria:
 1. Be installed with a tilt angle between 10 degrees and 40 degrees of the horizontal; and
 2. Be installed at an orientation within 45 degrees of true south.
- R403.6 Mechanical ventilation (Mandatory)** The building shall be provided with ventilation that meets the requirements of the Florida Building Code, Residential or Florida Building Code, Mechanical, as applicable, or with other approved means of ventilation, including: Natural, Infiltration or Mechanical means. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating.
 - R403.6.1 Whole-house mechanical ventilation system fan efficacy** When installed to function as a whole-house mechanical ventilation system, fans shall meet the efficacy requirements of Table R403.6.1.

Exception: Where mechanical ventilation fans are integral to tested and listed HVAC equipment, they shall be powered by an electronically commutated motor.
 - R403.6.2 Ventilation air.** Residential buildings designed to be operated at a positive indoor pressure of for mechanical ventilation shall meet the following criteria:
 1. The design air change per hour minimums for residential buildings in ASHRAE 62.2, Ventilation for Acceptable Indoor Air Quality, shall be the maximum rates allowed for residential applications.
 2. No ventilation or air-conditioning system make-up air shall be provided to conditioned space from attics, crawlspaces, attached enclosed garages or outdoor spaces adjacent to swimming pools or spas.
 3. If ventilation air is drawn from enclosed spaces(s), then the walls of the space(s) from which air is drawn shall be insulated to a minimum of R-11 and the ceiling shall be insulated to a minimum of R-19, space permitting, or R-10 otherwise.

- R403.7 Heating and cooling equipment.**
 - R403.7.1 Equipment sizing (Mandatory)** Heating and cooling equipment shall be sized in accordance with ACCA Manual S based on the equipment loads calculated in accordance with ACCA Manual J or other approved methodologies, heating and cooling calculation based on building loads for the directional orientation of the building. The manufacturer and model number of the outdoor and indoor units (if split system) shall be submitted along with the sensible and total cooling capacities at the design conditions described in Section R302.1. This code does not allow designer safety factors, provisions for future expansion or other factors that affect equipment sizing. System sizing calculations shall not include loads created by local intermittent mechanical ventilation such as standard kitchen and bathroom exhaust systems. New or replacement heating and cooling equipment shall have an efficiency rating equal to or greater than the minimum required by federal law for the geographic location where the equipment is installed.

**TABLE R403.6.1
WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM FAN EFFICACY**

FAN LOCATION	AIRFLOW RATE MINIMUM CFM	MINIMUM EFFICACY (a) CFM/WATT	AIRFLOW RATE MAXIMUM CFM
HRV or ERV	Any	1.2 cfm/watt	Any
Range hoods	Any	2.8 cfm/watt	Any
In-line fan	Any	2.8 cfm/watt	Any
Bathroom, utility room	10	1.4 cfm/watt	< 90
Bathroom, utility room	90	2.8 cfm/watt	Any

For SI: 1 cfm - 28.3 L/min.

(a) When tested in accordance HVI Standard 916

MANDATORY REQUIREMENTS - (Continued)

- R403.7.1.1 Cooling equipment capacity** Cooling only equipment shall be selected so that its total capacity is not less than the calculated total load but not more than 1.15 times greater than the total load calculated according to the procedure selected in Section 403.7, or the closest available size provided by the manufacturer's product lines. The corresponding latent capacity of the equipment shall not be less than the calculated latent load.

The published value for AHRI total capacity is a nominal, rating-test value and shall not be used for equipment sizing. Manufacturer's expanded performance data shall be used to select cooling-only equipment. This selection shall be based on the outdoor design dry-bulb temperature for the load calculation (or entering water temperature for water-source equipment), the blower CFM provided by the expanded performance data, the design value for entering wet-bulb temperature and the design value for entering dry-bulb temperature.

Design values for entering wet-bulb and dry-bulb temperatures shall be for the indoor dry bulb and relative humidity used for the load calculation and shall be adjusted for return side gains if the return duct(s) is installed in an unconditioned space.

Exceptions:

1. Attached single- and multiple-family residential equipment sizing may be selected so that its cooling capacity is less than the calculated total sensible load but not less than 80 percent of that load.
2. When signed and sealed by a Florida-registered engineer, in attached single- and multiple-family units, the capacity of equipment may be sized in accordance with good design practice.

- R403.7.1.2 Heating equipment capacity.**

- R403.7.1.2.1 Heat pumps** Heat pump sizing shall be based on the cooling requirements as calculated according to Section R403.7.1.1, and the heat pump total cooling capacity shall not be more than 1.15 times greater than the design cooling load even if the design heating load is 1.15 times greater than the design cooling load.
- R403.7.1.2.2 Electric resistance furnaces.** Electric resistance furnaces shall be sized within 4 kW of the design requirements calculated according to the procedure selected in Section R403.7.1.
- R403.7.1.2.3 Fossil fuel heating equipment** The capacity of fossil fuel heating equipment with natural draft atmospheric burners shall not be less than the design load calculated in accordance with Section R403.7.1.

- R403.7.1.3 Extra capacity required for special occasions** Residences requiring excess cooling or heating equipment capacity on an intermittent basis, such as anticipated additional loads caused by major entertainment events, shall have equipment sized or controlled to prevent continuous space cooling or heating within that space by one or more of the following options:

1. A separate cooling or heating system is utilized to provide cooling or heating to the major entertainment areas.
2. A variable capacity system sized for optimum performance during base load periods is utilized.

- R403.8 Systems serving multiple dwelling units (Mandatory)** Systems serving multiple dwelling units shall comply with Sections C403 and C404 of the IECC—Commercial Provisions in lieu of Section R403.

- R403.9 Snow melt and ice system controls (Mandatory)** Snow- and ice-melting systems, supplied through energy service to the building, shall include automatic controls capable of shutting off the system when the pavement temperature is above 50°F (10°C), and no precipitation is falling and an automatic or manual control that will allow shutoff when the outdoor temperature is above 40°F (4.8°C).

- R403.10 Pools and permanent spa energy consumption (Mandatory)** The energy consumption of pools and permanent spas shall be in accordance with Sections R403.10.1 through R403.10.5.

- R403.10.1 Heaters.** The electric power to heaters shall be controlled by a readily accessible on-off switch that is an integral part of the heater mounted on the exterior of the heater, or external to and within 3 feet (914 mm) of the heater. Operation of such switch shall not change the setting of the heater thermostat. Such switches shall be in addition to a circuit breaker for the power to the heater. Gas-fired heaters shall not be equipped with continuously burning ignition pilots.
- R403.10.2 Time switches.** Time switches or other control methods that can automatically turn off and on according to a preset schedule shall be installed for heaters and pump motors. Heaters and pump motors that have built-in time switches shall be in compliance with this section.
- Exceptions:**
1. Where public health standards require 24-hour pump operations.
 2. Pumps that operate solar- and waste-heat-recovery pool heating systems.
 3. Where pumps are powered exclusively from on-site renewable generation.

- R403.10.3 Covers.** Outdoor heated swimming pools and outdoor permanent spas shall be equipped with a vapor-retardant cover on or at the water surface or a liquid cover or other means proven to reduce heat loss.

Exception: Where more than 70 percent of the energy for heating, computed over an operation season, is from site-recovered energy, such as from a heat pump or solar energy source, covers or other vapor-retardant means shall not be required.

- R403.10.4 Gas- and oil-fired pool and spa heaters** All gas- and oil-fired pool and spa heaters shall have a minimum thermal efficiency of 82 percent for heaters manufactured on or after April 16, 2013, when tested in accordance with ANSI Z 21.56. Pool heaters fired by natural or LP gas shall not have continuously burning pilot lights.

MANDATORY REQUIREMENTS - (Continued)

- R403.10.5 Heat pump pool heaters** Heat pump pool heaters shall have a minimum COP of 4.0 when tested in accordance with AHRI 1160, Table 2, Standard Rating Conditions-Low Air Temperature. A test report from an independent laboratory is required to verify procedure compliance. Geothermal swimming pool heat pumps are not required to meet this standard.
- R403.11 Portable spas (Mandatory)** The energy consumption of electric-powered portable spas shall be controlled by the requirements of APSP-14.
- R403.13 Dehumidifiers (Mandatory)** If installed, a dehumidifier shall conform to the following requirements:
1. The minimum rated efficiency of the dehumidifier shall be greater than 1.7 liters/ kWh if the total dehumidifier capacity for the house is less than 75 pints/day and greater than 2.38 liters/kWh if the total dehumidifier capacity for the house is greater than or equal to 75 pints/day.
 2. The dehumidifier shall be controlled by a sensor that is installed in a location where it is exposed to mixed house air.
 3. Any dehumidifier unit located in unconditioned space that treats air from conditioned space shall be insulated to a minimum of R-2.
 4. Condensate disposal shall be in accordance with Section M1411.3.1 of the Florida Building Code, Residential.
- R403.13.1 Ducted dehumidifiers** Ducted dehumidifiers shall, in addition to conforming to the requirements of Section R403.13, conform to the following requirements:
1. If a ducted dehumidifier is configured with return and supply ducts both connected into the supply side of the cooling system, a backdraft damper shall be installed in the supply air duct between the dehumidifier inlet and outlet duct.
 2. If a ducted dehumidifier is configured with only its supply duct connected into the supply side of the central heating and cooling system, a backdraft damper shall be installed in the dehumidifier supply duct between the dehumidifier and central supply duct.
 3. A ducted dehumidifier shall not be ducted to or from a central ducted cooling system on the return duct side upstream from the central cooling evaporator coil.
 4. Ductwork associated with a dehumidifier located in unconditioned space shall be insulated to a minimum of R-6.

SECTION R404

ELECTRICAL POWER AND LIGHTING SYSTEMS

- R404.1 Lighting equipment (Mandatory)** Not less than 90 percent of the lamps in permanently installed luminaires shall have an efficacy of at least 45 lumens-per-watt or shall utilize lamps with an efficacy of not less than 65 lumens-per-watt.

Exception: Low-voltage lighting.

- R404.1.1 Lighting equipment (Mandatory)** Fuel gas lighting systems shall not have continuously burning pilot lights.

**TABLE 402.4.1.1
AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA**

Project Name: Street: City, State, Zip: Owner: Design Location:		Parcel C Beulah School Road Pensacola, FL 32526 English Homes FL, Pensacola		Builder Name: Permit Office: Permit Number: Jurisdiction:	
COMPONENT	AIR BARRIER CRITERIA	INSULATION INSTALLATION CRITERIA	✓		
General requirements	A continuous air barrier shall be installed in the building envelope. The exterior thermal envelope contains a continuous barrier. Breaks or joints in the air barrier shall be sealed.	Air-permeable insulation shall not be used as a sealing material.	<input type="checkbox"/>		
Ceiling/attic	The air barrier in any dropped ceiling/soffit shall be aligned with the insulation and any gaps in the air barrier shall be sealed. Access openings, drop down stairs or knee wall doors to unconditioned attics spaces shall be sealed.	The insulation in any dropped ceiling/soffit shall be aligned with the air barrier.	<input type="checkbox"/>		
Walls	The junction of the foundation and sill plate shall be sealed. The junction of the top plate and the top of exterior walls shall be sealed. Knee walls shall be sealed.	Cavities with corners and headers of frame walls shall be insulated by completely filling the cavity with a material having a thermal resistance of R-3 per inch minimum. Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier.	<input type="checkbox"/>		
Windows, skylights and doors	The space between window/door jambs and framing, and skylights and framing shall be sealed.		<input type="checkbox"/>		
Rim joists	Rim joists are insulated and include an air barrier.	Rim joists shall be insulated.	<input type="checkbox"/>		
Floors (including above-garage and cantilevered floors)	The air barrier shall be installed at any exposed edge of insulation.	Floor framing cavity insulation shall be installed to maintain permanent contact with the underside of subfloor decking, or floor framing cavity insulation shall be permitted to be in contact with the top side of sheathing, or continuous insulation installed on the underside of floor framing and extends from the bottom to the top of all perimeter floor framing members.	<input type="checkbox"/>		
Crawlspace walls	Exposed earth in unvented crawlspace shall be covered with a Class I vapor retarder with overlapping joints taped.	Where provided in lieu of floor insulation, insulation shall be permanently attached to the crawlspace walls.	<input type="checkbox"/>		
Shafts, penetrations	Duct shafts, utility penetrations, and flue shaft openings to exterior or unconditioned space shall be sealed.		<input type="checkbox"/>		
Narrow cavities		Batts in narrow cavities shall be cut to fit, or narrow cavities shall be filled by insulation that on installation readily conforms to the available cavity spaces.	<input type="checkbox"/>		
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.		<input type="checkbox"/>		
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be sealed to the finished surface.	Recessed light fixtures installed in the building thermal envelope shall be air tight and IC rated.	<input type="checkbox"/>		
Plumbing and wiring		Batt insulation shall be cut neatly to fit around wiring and plumbing in exterior walls, or insulation that on installation readily conforms to available space shall extend behind piping and wiring.	<input type="checkbox"/>		
Shower/tub on exterior wall	The air barrier shall be installed behind electrical or communication boxes or air-sealed boxes shall be installed.	Exterior walls adjacent to showers and tubs shall be insulated.	<input type="checkbox"/>		
Electrical/phone box on exterior walls	The air barrier shall be installed behind electrical or communication boxes or air-sealed boxes shall be installed.		<input type="checkbox"/>		
HVAC register boots	HVAC supply and return register boots that penetrate building thermal envelope shall be sealed to the subfloor, wall covering or ceiling penetrated by the boot.		<input type="checkbox"/>		
Concealed sprinklers	When required to be sealed, concealed fire sprinklers shall only be sealed in a manner that is recommended by the manufacturer. Caulking or other adhesive sealants shall not be used to fill voids between fire sprinkler cover plates and walls or ceilings.		<input type="checkbox"/>		

a. In addition, inspection of log walls shall be in accordance with the provisions of ICC-400.

Envelope Leakage Test Report (Blower Door Test)

Residential Prescriptive, Performance or ERI Method Compliance
2020 Florida Building Code, Energy Conservation, 7th Edition

Jurisdiction:	Permit Number:
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Job Information

Builder:	Community:	Lot:
Address: Parcel C Beulah Scho		Unit:
City: Pensacola	State: FL	Zip: 32526

Air Leakage Test Results Passing results must meet either the Performance, Prescriptive, or ERI Method.

<input type="checkbox"/>	PRESCRIPTIVE METHOD	The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 7 air changes per hour at a pressure of 0.2 inch w.g. (50 pascals) in Climate Zones 1 and 2.
<input checked="" type="checkbox"/>	PERFORMANCE or ERI METHOD	The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding the selected ACH(50) value, as shown on FORM R405-2020 (Performance) or R406-2020 (ERI), section labeled as Infiltration, sub-section ACH50. <i>ACH(50) specified on Form R405-2020-Energy Calc (Performance) or R406-2020 (ERI):</i> 7:000

$\frac{\text{CFM}(50) \times 60}{\text{Building Volume}} = \frac{15113}{\text{ACH}(50)}$ <p style="text-align: center;"><input type="checkbox"/> PASS</p> <p><input type="checkbox"/> When ACH(50) is less than 3, Mechanical Ventilation installation must be verified by building department.</p>	<p>Method for calculating building volume:</p> <p><input type="checkbox"/> Retrieved from architectural plans</p> <p><input checked="" type="checkbox"/> Code software calculated</p> <p><input type="checkbox"/> Field measured and calculated</p>
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R402.4.1.2 Testing. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380 and reported at a pressure of 0.2 inch w.g. (50 Pascals). Testing shall be conducted by either individuals as defined in Section 553.993(5) or (7), Florida Statutes, or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i) or and approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.
2. Dampers including exhaust, intake, makeup air, back draft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.
3. Interior doors, if installed at the time of the test, shall be open.
4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed.
5. Heating and cooling systems, if installed at the time of the test, shall be turned off.
6. Supply and return registers, if installed at the time of the test, shall be fully open.

Testing Company

Company Name: _____ Phone: _____

I hereby verify that the above Air Leakage results are in accordance with the 2020 7th Edition Florida Building Code Energy Conservation requirements according to the compliance method selected above.

Signature of Tester: _____ Date of Test: _____

Printed Name of Tester: _____

License/Certification #: _____ Issuing Authority: _____

Duct Leakage Test Report

Residential Prescriptive, Performance or ERI Method Compliance
2020 Florida Building Code, Energy Conservation, 7th Edition

Jurisdiction: _____	Permit Number: _____
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Job Information

Builder: _____	Community: _____	Lot: _____
Address: Parcel C Beulah Scho _____		Unit: _____
City: Pensacola	State: FL	Zip: 32526

Duct Leakage Test Results

System 1	_____ cfm25
System 2	_____ cfm25
System 3	_____ cfm25
Sum of any additional systems	_____ cfm25
Total of all systems	_____ cfm25

Prescriptive Method cfm25 (Total)
 To qualify as "substantially leak free" Qn Total must be less than or equal to 0.04 if air handler unit is installed. If air handler unit is not installed, Qn Total must be less than or equal to 0.03. This testing method meets the requirements in accordance with Section R403.3.3.
Is the air handler unit installed during testing?
 YES (≤ 0.04 Qn)
 NO (≤ 0.03 Qn)

$$\frac{\text{Total of all systems}}{\text{Total Conditioned Square Footage}} = \text{_____ Qn}$$
 _____ ÷ 1643 = _____ Qn

Performance / ERI Method cfm25 (Out or Total)
 To qualify using this method, Qn must be not greater than the proposed duct leakage Qn specified on Form R405-2020 or R406-2020.
Leakage Type selected on Form R405-2020 (Energy Calc) or R406-2020 *Qn specified on Form R405-2020 (Energy Calc) or R406-2020*

PASS **FAIL**

Duct tightness shall be verified by testing in accordance with ANSI/RESNET/ICC380 by either individuals as defined in Section 553.993(5) or (7), Florida Statutes, or individuals licensed as set forth in Section 489.105(3)(f), (g) or (i), Florida Statutes.

Testing Company

Company Name: _____ Phone: _____

I hereby verify that the above duct leakage test results are in accordance with the 2020 7th Edition Florida Building Code Energy Conservation requirements according to the compliance method selected above.

Signature of Tester: _____ Date of Test: _____

Printed Name of Tester: _____

License/Certification #: _____ Issuing Authority: _____

Reference Home Characteristics

English Homes
Parcel C Beulah School Road
Pensacola, FL 32526

Title: Parcel C Beulah School Road
FLBase2020

TMY City: FL_Pensacola_Rgnl

Above-grade Walls (Uo)	0.084
Above-grade Wall Solar Absorptance	0.75
Above-grade Wall Infrared Emittance	0.90
Basement Walls (Uo)	n/a
Above-grade Floors (Uo)	n/a
Slab Insulation R-Value	0.0
Ceilings (Uo)	0.030
Roof Solar Absorptance	0.75
Roof Infrared Emittance	0.90
Attic Vent Area (ft²)	5.48
Crawlspace Vent Area (ft²)	n/a
Exposed Masonry Floor Area (ft²)	328.53
Carpet & Pad R-Value	2.0
Door Area (ft²)	40.00
Door U-Factor	0.400
North Window Area (ft²)	38.70
South Window Area (ft²)	38.70
East Window Area (ft²)	38.70
West Window Area (ft²)	38.70
Window U-Factor	0.400
Window SHGC (Heating)	0.2169
Window SHGC (Cooling)	0.2169
ACH50	7.00
Internal Gains * (Btu/day)	69307
Water heater gallons per day	60.00
Water Heater set point temperature	120.00
Water heater efficiency rating	0.90
Labeled Heating System Rating and Efficiency	HSPF = 8.2
Labeled Cooling System Rating and Efficiency	SEER = 14.0
Air Distribution System Efficiency	0.88
Thermostat Type	Manual
Heating Thermostat Settings	72.0 (All hours)

Residential Florida Products Approval Numbers

http://www.floridabuilding.org/pr/pr_app_srch.aspx

Roofing (Asphalt Shingles)

GAF	FL-10124.1
CertainTeed	FL- 5444.1
Owens Corning	FL-10674.1

Roofing (Metal) (None)

ATAS Standing seam metal roofing (Option)	FL- 3556.1
	FL_ 3556.2

Siding (Cement Board)

ArtisanLap siding by James Hardie	FL-10477.1
HardiePlank lap siding	FL-13192.2
HardieShingle individual shingles	FL-13192.3
HardieShingle panel	FL-13192.4
HardiePanel siding	FL-13223.1
HardieSoffit panels	FL-13265.1

CertainTeed WeatherBoards fiber cement siding	FL- 5734.1
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NichiBoard lap siding by Nichiha	FL-12098.1
NichiPanel	FL-12098.2
NichiBoard, NichiPanel, NichiShake, NichiSoffit	FL-12098.3

Windows

MARITECH Impact Glass	FL-12525.10
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Exterior Doors

Therma-Tru Corporation "Smooth-Star" and "Benchmark"	FL- 5262.5
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Overhead Garage Door(s) (Option) None on plan

Wayne Dalton(max. sectional ext. door (solid, no glazing)	FL- 5587.35
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