

**PLANS DESIGNED TO THE
2018 NORTH CAROLINA STATE
RESIDENTIAL BUILDING CODE**

MEAN ROOF HEIGHT: 19'-9" HEIGHT TO RIDGE: 27'-5"

CLIMATE ZONE	ZONE 3A	ZONE 4A	ZONE 5A
FENESTRATION U-FACTOR	0.35	0.35	0.35
SKYLIGHT U-FACTOR	0.55	0.55	0.55
GLAZED FENESTRATION SHGC	0.30	0.30	0.30
CEILING R-VALUE	38 or 30ci	38 or 30ci	38 or 30ci
WALL R-VALUE	15	15	15
FLOOR R-VALUE	19	19	20
** BASEMENT WALL R-VALUE	5/13	10/15	10/15
** SLAB R-VALUE	0	10	10
* CRAWL SPACE WALL R-VALUE	5/13	10/15	10/19

*1"10"1" MEANS R-10 SHEETING INSULATION OR R-13 CAVITY INSULATION
** INSULATION DEPTH WITH MONOLITHIC SLAB 2" OR FROM INSULATION GAP TO BOTTOM OF FOOTING; INSULATION DEPTH WITH STEEL WALL SLAB 2" OR TO BOTTOM OF FOUNDATION WALL

DESIGNED FOR WIND SPEED OF 120 MPH, 3 SECOND GUST (93 FASTEST MILE EXPOSURE "B")

COMPONENT & CLADDING DESIGNED FOR THE FOLLOWING LOADS	MEAN ROOF UP TO 30'	30'-1" TO 35'	35'-1" TO 40'	40'-1" TO 45'
ZONE 1	14.2	-15.0	14.9	-15.8
ZONE 2	14.2	-18.0	14.9	-18.9
ZONE 3	14.2	-18.0	14.9	-18.9
ZONE 4	15.5	-16.0	16.3	-16.8
ZONE 5	15.5	-20.0	16.3	-21.0

DESIGNED FOR WIND SPEED OF 130 MPH, 3 SECOND GUST (101 FASTEST MILE EXPOSURE "B")

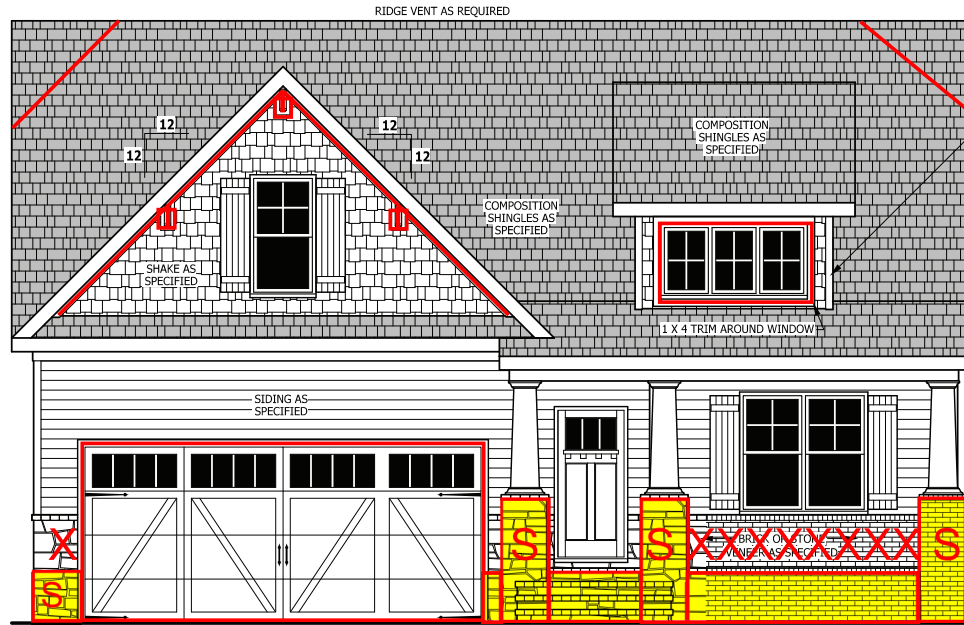
COMPONENT & CLADDING DESIGNED FOR THE FOLLOWING LOADS	MEAN ROOF UP TO 30'	30'-1" TO 35'	35'-1" TO 40'	40'-1" TO 45'
ZONE 1	16.7	-18.0	17.5	-18.9
ZONE 2	16.7	-21.0	17.5	-22.1
ZONE 3	16.7	-21.0	17.5	-22.1
ZONE 4	18.2	-19.0	19.1	-20.0
ZONE 5	18.2	-24.0	19.1	-25.2

GUARD RAIL NOTES

SECTION R312
R312.1 Where required. Guards shall be located along open-sided walking surfaces, including stairs, ramps and landings, that are located more than 30 inches (762 mm) measured vertically to the floor or grade below at any point within 36 inches (914 mm) horizontally to the edge of the open side. Insect screening shall not be considered as a guard.
R312.2 Height. Required guards at open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than 36 inches (914 mm) high measured vertically above the adjacent walking surface, adjacent fixed seating or the line connecting the leading edges of the treads.
Exceptions:
1. Guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.
2. Where the top of the guard also serves as a handrail on the open sides of stairs, the top of the guard shall not be less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.
R312.3 Opening limitations. Required guards shall not have openings from the walking surface to the required guard height which allow passage of a sphere 4 inches (102 mm) in diameter.
Exceptions:
1. The triangular openings at the open side of a stair, formed by the riser, tread and bottom rail of a guard, shall not allow passage of a sphere 6 inches (153 mm) in diameter.
2. Guards on the open sides of stairs shall not have openings which allow passage of a sphere 4 3/8 inches (111 mm) in diameter.

ROOF VENTILATION

SECTION R806
SQUARE FOOTAGE OF ROOF TO BE VENTED = 2,477 SQ.FT.
NET FREE CROSS VENTILATION NEEDED:
WITHOUT 50% TO 80% OF VENTING 3'-0" ABOVE EAVE = 16.51 SQ.FT.
WITH 50% TO 80% OF VENTING 3'-0" ABOVE EAVE, OR WITH CLASS I OR II VAPOR RETARDER ON WARM-IN-WINTER SIDE OF CEILING = 8.26 SQ.FT.



FRONT ELEVATION

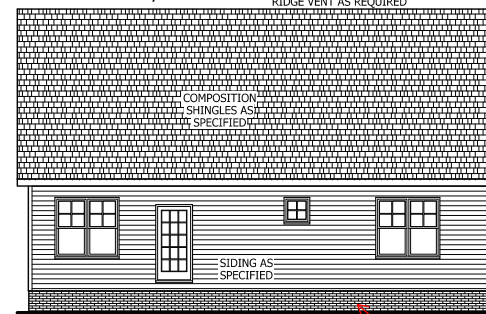
SCALE 1/4" = 1'-0"

SQUARE FOOTAGE

HEATED	1766 SQ.FT.
FIRST FLOOR	400 SQ.FT.
PLAYROOM	2166 SQ.FT.
TOTAL	2166 SQ.FT.
HEATED OPTIONAL	148 SQ.FT.
CAROLINA ROOM	304 SQ.FT.
RECREATION ROOM	492 SQ.FT.
TOTAL	492 SQ.FT.
UNHEATED	188 SQ.FT.
FRONT PORCH	488 SQ.FT.
GARAGE	676 SQ.FT.
TOTAL	676 SQ.FT.
UNHEATED OPTIONAL	160 SQ.FT.
SCREENED PORCH	108 SQ.FT.
DECK / PATIO	292 SQ.FT.
THIRD GARAGE	560 SQ.FT.
TOTAL	560 SQ.FT.

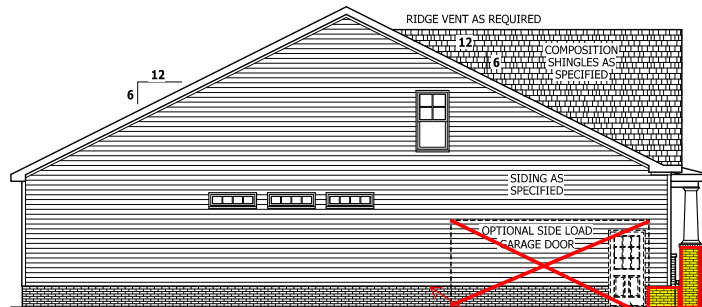
AIR LEAKAGE

Section N1102.4
N1102.4.1 Building thermal envelope. The building thermal envelope shall be durably sealed with an air barrier system to limit infiltration. The sealing methods between dissimilar materials shall allow for differential expansion and contraction. For all homes, where present, the following shall be caulked, gasketed, weather stripped or otherwise sealed with an air barrier material or solid material consistent with Appendix E-2.4 of this code:
1. Blocking and sealing floor/ceiling systems and under knee walls open to unconditioned or exterior space.
2. Capping and sealing shafts or chases, including flue shafts.
3. Capping and sealing soffit or dropped ceiling areas.



REAR ELEVATION

SCALE 1/8" = 1'-0"



LEFT SIDE ELEVATION

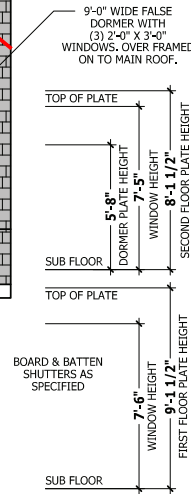
SCALE 1/8" = 1'-0"



RIGHT SIDE ELEVATION

SCALE 1/8" = 1'-0"

LOT 2 ATKINS FARM ESTATES
TBD SPRING HILL CHURCH RD
LILLINGTON, NC
3CG
COVERED PORCH & PATIO
TUDOR ROOF



PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS. HAYNES HOME PLANS, INC. ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY VARY WITH LOCATION. A LOCAL DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION. THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

ELEVATION
The Lauren H

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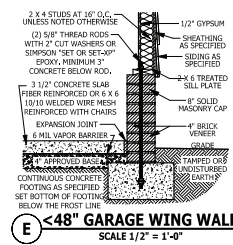
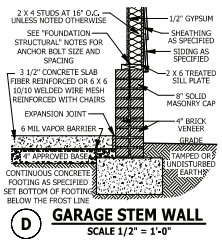
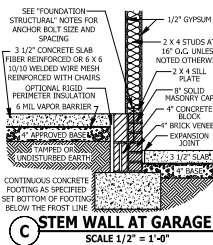
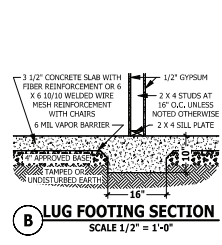
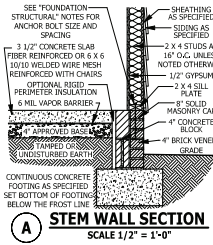
HAYNES HOME PLANS, INC.
P.O. BOX 702, WAKE FOREST, NC 27588 919-435-4180 FAX: 919-435-4099

SQUARE FOOTAGE	HEATED
FIRST FLOOR	1766 SQ.FT.
PLAYROOM	400 SQ.FT.
TOTAL	2166 SQ.FT.
HEATED OPTIONAL	148 SQ.FT.
CAROLINA ROOM	148 SQ.FT.
RECREATION ROOM	304 SQ.FT.
TOTAL	492 SQ.FT.
UNHEATED	188 SQ.FT.
FRONT PORCH	488 SQ.FT.
GARAGE	676 SQ.FT.
TOTAL	676 SQ.FT.
UNHEATED OPTIONAL	160 SQ.FT.
SCREENED PORCH	108 SQ.FT.
DECK / PATIO	292 SQ.FT.
THIRD GARAGE	560 SQ.FT.
TOTAL	560 SQ.FT.

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PAGE 1 OF 7

HVAC: MAINSTREAM MECHANICAL
ELECTRICAL: PIONEER
PLUMBING: DOUBLE J



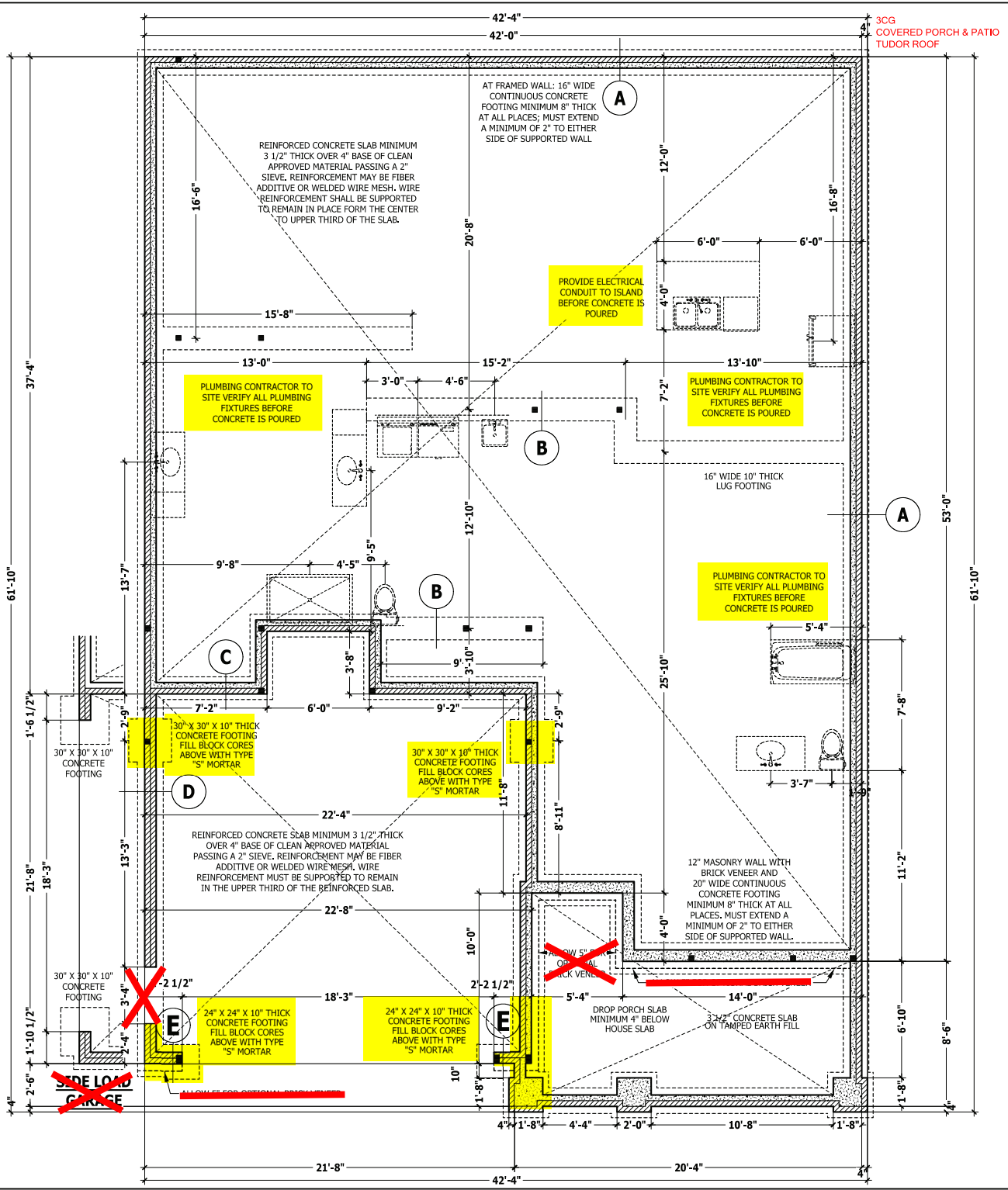


FOUNDATION STRUCTURAL

115 to 130 mph wind zone (1 1/2 to 2 1/2 story)
CONTINUOUS FOOTING: 16" wide and 8" thick minimum, 20" wide minimum at brick veneer. Must extend 2" to either side of supported wall.
GIRDERS: (3) 2" X 10 girder unless noted otherwise.
PIERS: 16" X 16" piers with 8" solid masonry cap on 30" X 30" X 10" concrete footing with maximum pier height of 64" with hollow masonry and 160" with solid masonry.
POINT LOADS: ■ designates significant point load and should have solid blocking to pier, girder or foundation wall.
115 and 120 MPH ANCHORS BOLTS: 1/2" diameter anchor bolts embedded minimum 7", maximum 6'-0" on center, within 12" of plate ends, and minimum two anchor bolts per plate.
130 MPH ANCHORS BOLTS: 1/2" diameter anchor bolts embedded minimum 15", maximum 4'-0" on center, within 12" of plate ends, and minimum two anchor bolts per plate.
CONCRETE: Concrete shall have a minimum 28 day strength of 3000 psi and a maximum 5" slump. Air entrained per table 402.2. All concrete shall be in accordance with ACI standards. All samples for pumping shall be taken from the exit end of the pump.
SOILS: Allowable soil bearing pressure assumed to be 2000 PSF. The contractor must contact a geotechnical engineer and a structural engineer if unsatisfactory subsurface conditions are encountered. The surface area adjacent to the foundation wall shall be provided with adequate drainage, and shall be graded so as to drain surface water away from foundation walls.

STEM WALL SLAB PLAN

SCALE 1/4" = 1'-0"



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STEM WALL SLAB PLAN
The Lauren H

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501 Weaver Drive, Fayetteville, NC 28404

HAYNES HOME PLANS, INC.
 P.O. Box 702, Wake Forest, NC 27388 919-435-4180 1-866-91-0899

SQUARE FOOTAGE	
HEATED FIRST FLOOR	1766 SQ.FT.
PLAID ROOM	480 SQ.FT.
PTCHL	2386 SQ.FT.
HEATED OPTIONAL	
CLOSET ROOM	146 SQ.FT.
RECREATION ROOM	304 SQ.FT.
TOTAL	462 SQ.FT.
UNHEATED	
FRONT PORCH	388 SQ.FT.
GARAGE	488 SQ.FT.
REAR PORCH	426 SQ.FT.
TOTAL	1304 SQ.FT.
UNHEATED OPTIONAL	
SCREENED PORCH	160 SQ.FT.
DECK / PATIO	388 SQ.FT.
TREX GARAGE	292 SQ.FT.
TOTAL	560 SQ.FT.

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 PAGE 2 OF 7

STRUCTURAL NOTES

All construction shall conform to the latest requirements of the 2018 North Carolina Residential Building Code, plus all local codes and regulations. This document in no way shall be construed to supersede the code.

JOB SITE PRACTICES AND SAFETY: Haynes Home Plans, Inc. assumes no liability for contractor practices and procedures or safety program. Haynes Home Plans, Inc. takes no responsibility for the contractor's failure to carry out the construction work in accordance with the contract documents. All members shall be framed, anchored, and braced in accordance with good construction practice and the building code.

DESIGN LOADS	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION (L/1000)
Attics without storage	10	10	L/240
Attics with limited storage	20	10	L/360
Attics with fixed stairs	40	10	L/360
Balconies and decks	40	10	L/360
Fire escapes	40	10	L/360
Guardrails and handrails	200	-	-
Guardrail in-fill components	50	-	-
Passenger vehicle garages	50	10	L/360
Rooms other than sleeping	40	10	L/360
Sleeping rooms	30	10	L/360
Stairs	40	-	L/360
Snow	20	-	-

FRAMING LUMBER: All non treated framing lumber shall be SPF #2 (Fb = 875 PSI) or SYP #2 (Fb = 750 PSI) and all treated lumber shall be SYP #2 (Fb = 750 PSI) unless noted otherwise.

ENGINEERED WOOD BEAMS:
 Laminated veneer lumber (LVL) = Fb=2600 PSI, E=1,9x10⁶ PSI
 Parallel strand Lumber (PSL) = Fb=2900 PSI, E=2,0x10⁶ PSI
 Laminated strand lumber (LSL) = Fb=2250 PSI, E=1,5x10⁶ PSI
 Install all connections per manufacturer instructions.

TRUSS AND I-JOIST MEMBERS: All roof truss and I-joist layouts shall be prepared in accordance with this document. Trusses and I-joists shall be installed according to the manufacturer's specifications. Any change in truss or I-joist layout shall be coordinated with Haynes Homes Plans, Inc.

LINTELS: Brick lintels shall be 3 1/2" x 3 1/2" x 1/4" steel angle for up to 6'-0" span, 6" x 4" x 5/16" steel angle with 6" leg vertical for spans up to 9'-0" unless noted otherwise. 3 1/2" x 3 1/2" x 1/4" steel angle with 1/2" bolts at 2'-0" on center for spans up to 18'-0" unless noted otherwise.

FLOOR SHEATHING: OSB or CDX floor sheathing minimum 1/2" thick for 16" on center joist spacing, minimum 5/8" thick for 19.2" on center joist spacing, and minimum 3/4" thick for 24" on center joist spacing.

ROOF SHEATHING: OSB or CDX roof sheathing minimum 3/8" thick for 16" on center rafters and 7/16" for 24" on center rafters.

CONCRETE AND SOILS: See foundation notes.

EXTERIOR HEADERS

(2) 2 X 6 WITH 1 JACK STUD EACH END UNLESS NOTED OTHERWISE
- KING STUDS EACH END PER TABLE BELOW

HEADER SPAN	< 3'	3'-4'	4'-8'	8'-12'	12'-16'
KING STUD(S)	1	2	3	5	6

INTERIOR HEADERS

LOAD BEARING HEADERS (2) 2 X 6 WITH 1 JACK STUD AND 1 KING STUD EACH END UNLESS NOTED OTHERWISE
- NON LOAD BEARING HEADERS TO BE LADDER FRAMED

BRACE WALL PANEL NOTES

EXTERIOR WALLS: All exterior walls to be sheathed with CS-WSP or CS-SFB in accordance with section R602.10.3 unless noted otherwise.

GYPSUM: All interior sides of exterior walls and both sides interior walls to have 1/2" gypsum installed. When not using method GB gypsum to be fastened per table R702.3.5. Method GB to be fastened per table R602.10.1.1.

REQUIRED LENGTH OF BRACING: Required brace wall length for each side of the circumscribed rectangle are interpolated per table R602.10.3. Methods CS-WSP and CS-SFB contribute their actual length, Method GB contributes 0.5 its actual length. Method PF contributes 1.5 times its actual length.

HD: 800 lbs hold down hold down device fastened to the edge of the brace wall panel closets to the corner.

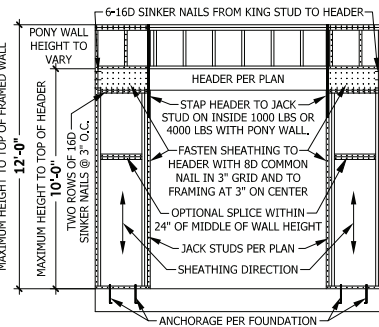
Methods Per Table R602.10.1

CS-WSP: Shall be minimum 3/8" OSB or CDX nailed at 6" on center at edges and 12" on center at intermediate supports with 6d common nails or 8d(2 1/2" long x 0.113" diameter).

CS-SFB: Shall be minimum 1/2" structural fiberboard nailed at 3" on center at edges and 3" on center at intermediate supports with 1 1/2" long x 0.12" diameter galvanized roofing nails.

GB: Interior walls show as GB are to have minimum 1/2" gypsum board on both sides of the wall fastened at 7" on center at edges and 7" on center at intermediate supports with minimum 5d cooler nails or #6 screws.

PF: Portal frame per figure R602.10.1



PF PORTAL FRAME AT OPENING
 (METHOD PF PER FIGURE AND SECTION R602.10.1)
 SCALE 1/4" = 1'-0"

ROOF TRUSS REQUIREMENTS

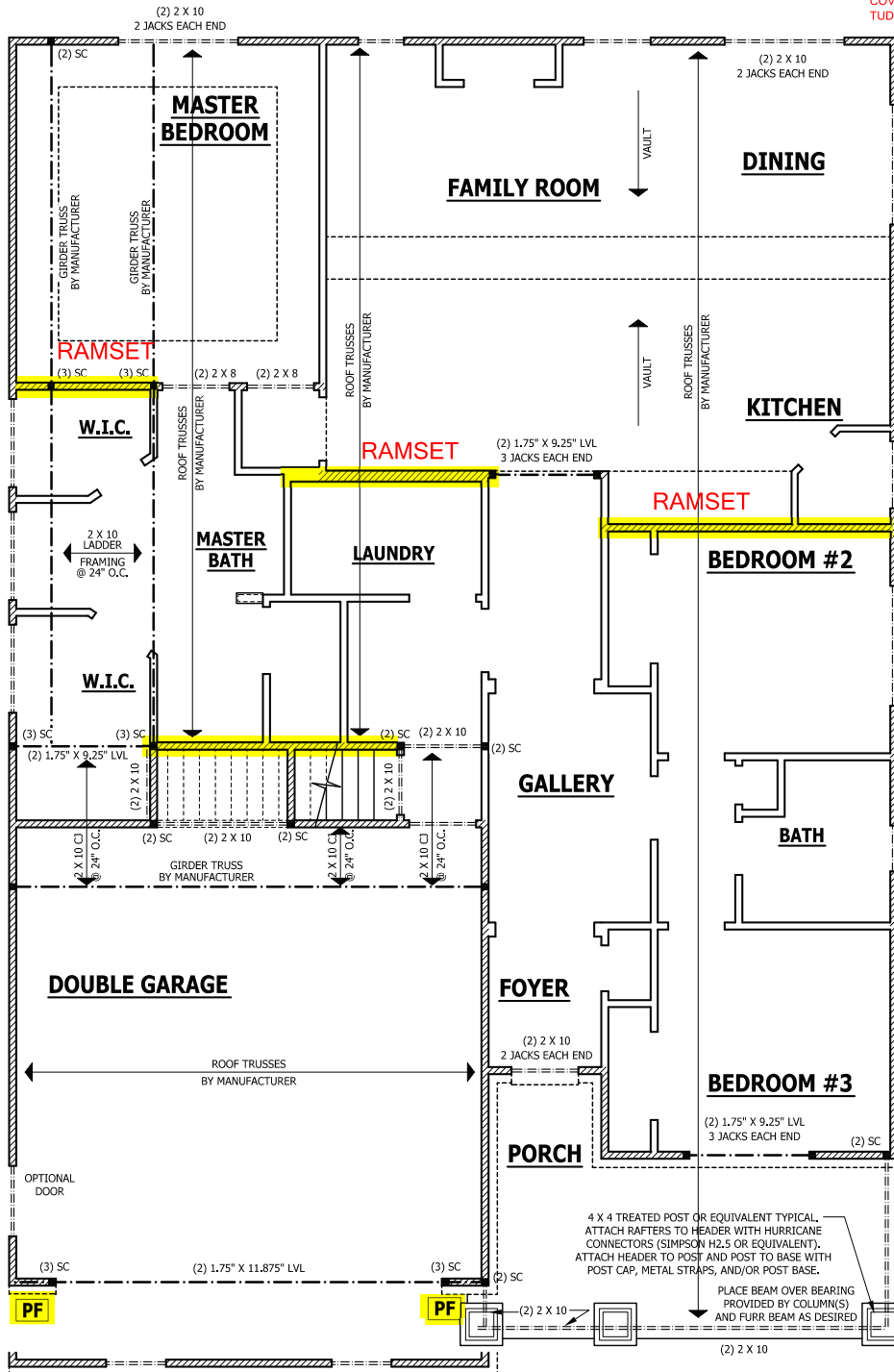
TRUSS DESIGN: Trusses to be designed and engineered in accordance with these drawings. Any variation with these drawings must be brought to Haynes Home Plans, Inc. attention before construction begins.

KNEE WALL AND CEILING HEIGHTS: All finished knee wall heights and ceiling heights are shown furred down 10" from roof decking for insulation. If for any reason the truss manufacturer fails to meet or exceed designated heel heights, finished knee wall heights, or finished ceiling heights shown on these drawings the finished square footage may vary. Any discrepancy must be brought to Haynes Home Plans, Inc. attention, so a suitable solution can be reached before construction begins. Any variation due to these conditions not being met is the responsibility of the truss manufacturer.

ANCHORAGE: All required anchors for trusses due to uplift or bearing shall meet the requirements as specified on the truss schematics.

BEARING: All trusses shall be designed for bearing on SPF #2 plates or ledgers unless noted otherwise.

Plate Heights & Floor Systems: See elevation page(s) for plate heights and floor system thicknesses.



FIRST FLOOR STRUCTURAL
 SCALE 1/4" = 1'-0"

3CG COVERED PORCH & PATIO TUDOR ROOF

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FIRST FLOOR STRUCTURAL
The Lauren H

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HAYNES HOME PLANS, INC.
 P.O. Box 702, Wake Forest, NC 27588 919-435-1180 FAX: 919-435-9899

SQUARE FOOTAGE	
HEATED FIRST FLOOR	1786 SQ.FT.
UNHEATED PORCH	480 SQ.FT.
TOTAL	2266 SQ.FT.
HEATED OPTIONAL CLOSET/REAR PORCH	148 SQ.FT.
UNHEATED OPTIONAL CLOSET/REAR PORCH	304 SQ.FT.
TOTAL	452 SQ.FT.
UNHEATED FRONT PORCH	388 SQ.FT.
CARAGE	388 SQ.FT.
TOTAL	776 SQ.FT.
UNHEATED OPTIONAL SCREENED PORCH	388 SQ.FT.
DECK/PATIO	388 SQ.FT.
TOTAL	776 SQ.FT.

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 PAGE 4 OF 7

ROOF TRUSS REQUIREMENTS

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DESIGN LOADS	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION (LL)
Attics without storage	10	—	L/240
Attics with limited storage	20	10	L/360
Attics with fixed stairs	40	10	L/360
Balconies and decks	40	10	L/360
Fire escapes	40	10	L/360
Guardrails and handrails	200	—	—
Guardrail in-fill components	50	—	—
Passenger vehicle garages	50	10	L/360
Rooms other than sleeping	40	10	L/360
Sleeping rooms	30	10	L/360
Stairs	40	—	L/360
Snow	20	—	—

FRAMING LUMBER: All non treated framing lumber shall be SPF #2 (Fb = 875 PSI) or SYP #2 (Fb = 750 PSI) and all treated lumber shall be SYP #2 (Fb = 750 PSI) unless noted otherwise.

ENGINEERED WOOD BEAMS:

Laminated veneer lumber (LVL) = Fb=2600 PSI, Fv=285 PSI, E=1.9x10⁶ PSI
Parallel strand lumber (PSL) = Fb=2900 PSI, Fv=290 PSI, E=2.0x10⁶ PSI
Laminated strand lumber (LSL) Fb=2250 PSI, Fv=400 PSI, E=1.55x10⁶ PSI
Install all connections per manufacturer's instructions.

TRUSS AND I-JOIST MEMBERS: All roof truss and I-joists shall be prepared in accordance with this document. Trusses and I-joists shall be installed according to the manufacturer's specifications. Any change in truss or I-joist layout shall be coordinated with Haynes Home Plans, Inc.

LINTELS: Brick lintels shall be 3 1/2" x 3 1/2" x 1/4" steel angle for up to 6'-0" span, 6" x 4" x 5/16" steel angle with 6" leg vertical for spans up to 9'-0" unless noted otherwise, 3 1/2" x 3 1/2" x 1/4" steel angle with 1/2" bolts at 2'-0" on center for spans up to 18'-0" unless noted otherwise.

FLOOR SHEATHING: OSB or CDX floor sheathing minimum 1/2" thick for 16" on center joist spacing, minimum 5/8" thick for 19.2" on center joist spacing, and minimum 3/4" thick for 24" on center joist spacing.

ROOF SHEATHING: OSB or CDX roof sheathing minimum 3/8" thick for 16" on center rafters and 7/16" for 24" on center rafters.

CONCRETE AND SOILS: See foundation notes.

ATTIC ACCESS

SECTION R807

R807.1 Attic access. An attic access opening shall be provided to attic areas that exceed 400 square feet (37.16 m²) and have a vertical height of 60 inches (1524 mm) or greater. The net clear opening shall not be less than 20 inches by 30 inches (508 mm by 762 mm) and shall be located in a hallway or other readily accessible location. A 30-inch (762 mm) minimum unobstructed headroom in the attic space shall be provided at some point above the access opening. See Section M1305.1.3 for access requirements where mechanical equipment is located in attics.

Exceptions:

1. Concealed areas not located over the main structure including porches, areas behind knee walls, dormers, bay windows, etc. are not required to have access.
2. Pull down stair treads, stringers, handrails, and hardware may protrude into the net clear opening.

EXTERIOR HEADERS

- (2) 2 X 6 WITH 1 JACK STUD EACH END

UNLESS NOTED OTHERWISE

- KING STUDS EACH END PER TABLE BELOW

HEADER SPAN	< 3'	3'-4'	4'-8'	8'-12'	12'-18'
KING STUD(S)	1	2	3	5	6

INTERIOR HEADERS

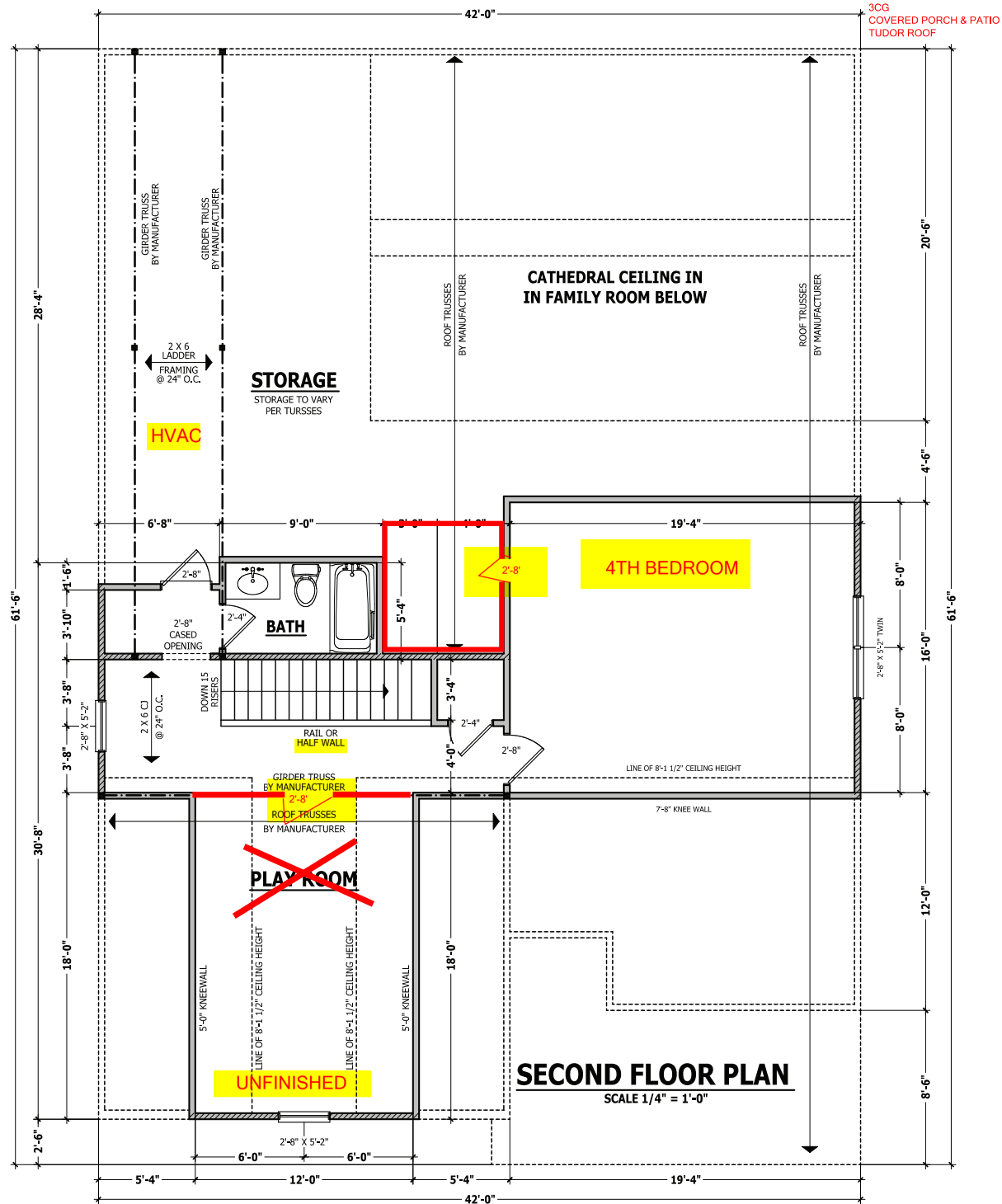
- LOAD BEARING HEADERS (2) 2 X 6 WITH

1 JACK STUD AND 1 KING STUD EACH END

UNLESS NOTED OTHERWISE

- NON LOAD BEARING HEADERS TO BE

LADDER FRAMED



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SECOND FLOOR PLAN

The Lauren H

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910.690.2100 • 910.606.4696
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SQUARE FOOTAGE	
HEATED FIRST FLOOR	1766 SQ.FT.
HEATED SECOND FLOOR	480 SQ.FT.
HEATED TOTAL	2246 SQ.FT.
UNHEATED PORCH	146 SQ.FT.
UNHEATED PATIO	304 SQ.FT.
UNHEATED TOTAL	450 SQ.FT.
UNHEATED OPTIONAL COVERED PORCH	160 SQ.FT.
UNHEATED OPTIONAL DECK / PATIO	388 SQ.FT.
UNHEATED OPTIONAL TRUSS GARAGE	560 SQ.FT.
UNHEATED TOTAL	1108 SQ.FT.

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PAGE 5 OF 7

PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS. HAYNES HOME PLANS, INC. ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY VARY WITH LOCATION. A LOCAL DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION. THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

ROOF PLAN
The Lauren H

WEAVER HOMES
910.680.2100 • 910.606.4696
250 Weaver Drive, Fayetteville, NC 28304

HAYNES HOME PLANS, INC.
P.O. Box 702, Lake Forest, NC 27558 919-435-4180 FAX 919-435-4099

SQUARE FOOTAGE	
HEATED	
FIRST FLOOR	1766 SQ.FT.
PLAYROOM	400 SQ.FT.
TOTAL	2166 SQ.FT.
HEATED OPTIONAL	
CORNER ROOM	146 SQ.FT.
RECREATION ROOM	304 SQ.FT.
TOTAL	450 SQ.FT.
UNHEATED	
FRONT PORCH	388 SQ.FT.
CARAGE	488 SQ.FT.
TOTAL	876 SQ.FT.
UNHEATED OPTIONAL	
SCREENED PORCH	100 SQ.FT.
DECK / PATIO	388 SQ.FT.
TRIED GARAGE	392 SQ.FT.
TOTAL	880 SQ.FT.

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PAGE 6 OF 7

ROOF TRUSS REQUIREMENTS

TRUSS DESIGN. Trusses to be designed and engineered in accordance with these drawings. Any variation with these drawings must be brought to Haynes Home Plan, Inc. attention before construction begins.

KNEE WALL AND CEILING HEIGHTS. All finished knee wall heights and ceiling heights are shown turned down 10" from roof decking for insulation. If for any reason the truss manufacturer fails to meet or exceed designated heel heights, finished knee wall heights, or finished ceiling heights shown on these drawings the finished square footage may vary. Any discrepancy must be brought to Haynes Home Plans, Inc. attention, so a suitable solution can be reached before construction begins. Any variation due to these conditions not being met is the responsibility of the truss manufacturer.

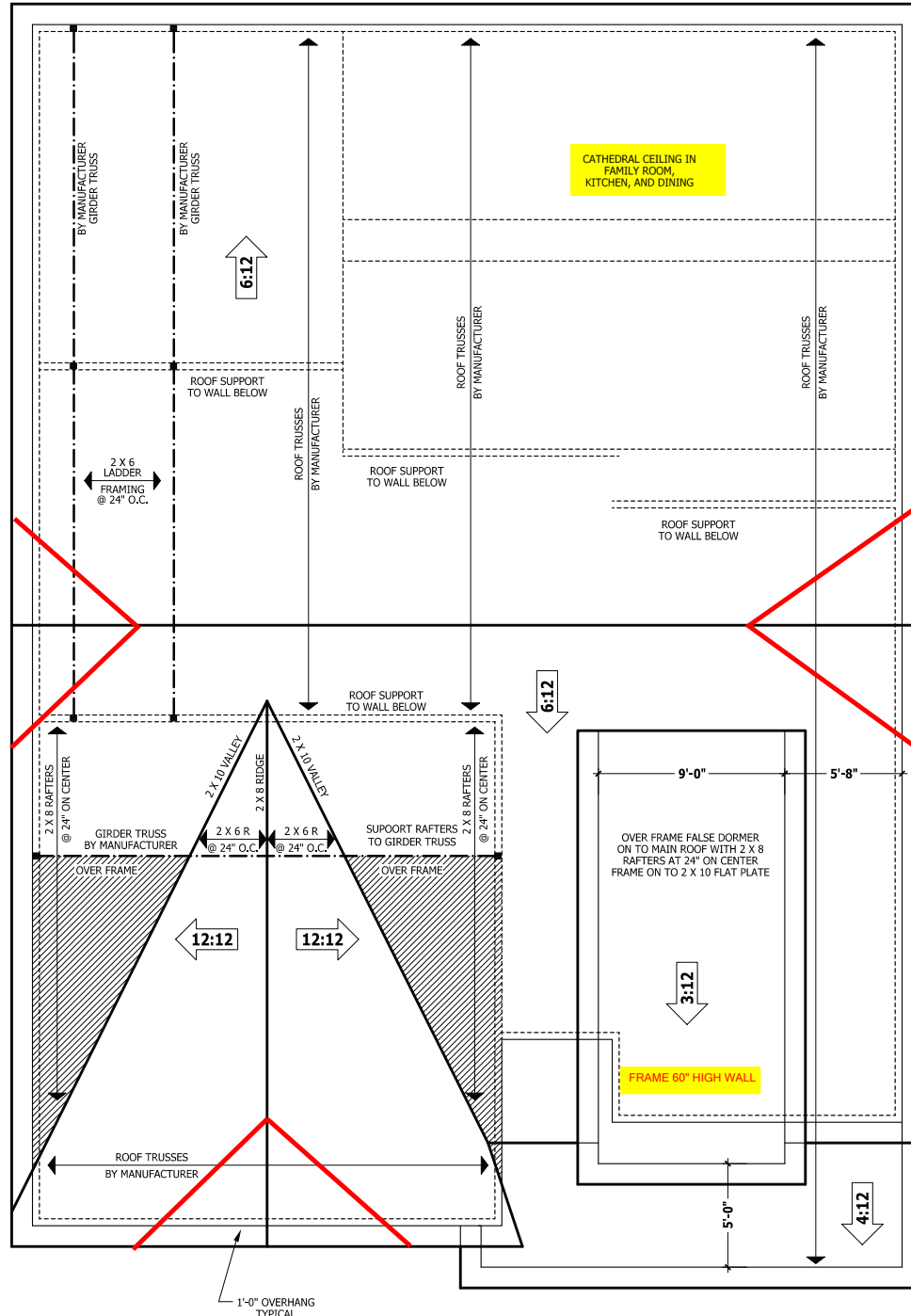
ANCHORAGE. All required anchors for trusses due to uplift or bearing shall meet the requirements as specified on the truss schematics.

BEARING. All trusses shall be designed for bearing on SPF #2 plates or ledgers unless noted otherwise.

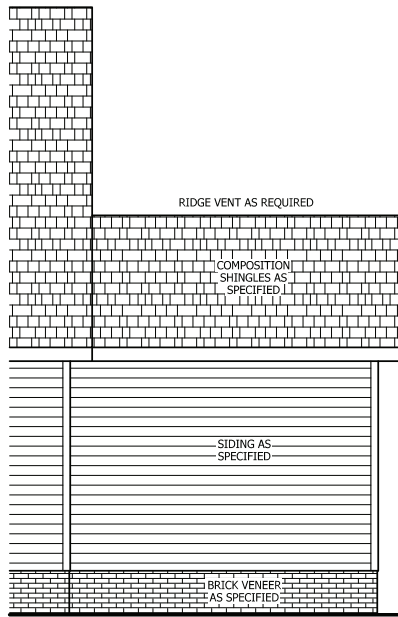
Plate Heights & Floor Systems. See elevation page(s) for plate heights and floor system thicknesses.

● HEEL HEIGHT ABOVE FIRST FLOOR PLATE

● HEEL HEIGHT ABOVE SECOND FLOOR PLATE

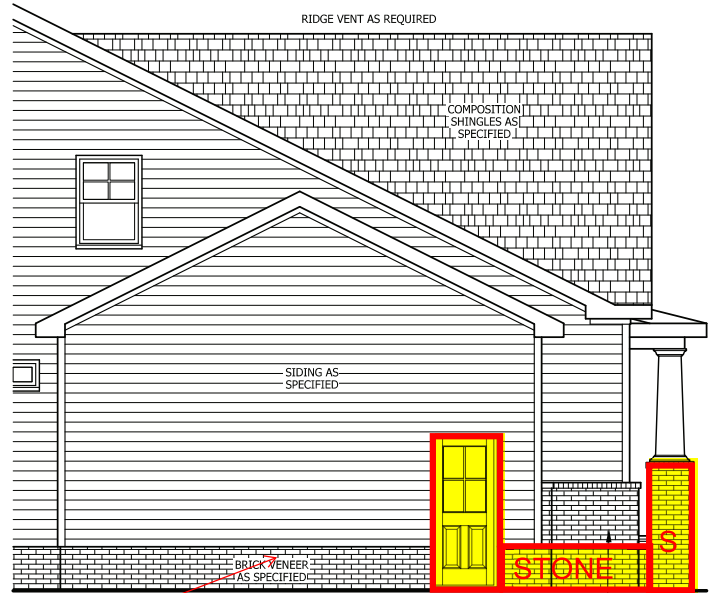


ROOF PLAN
SCALE 1/4" = 1'-0"



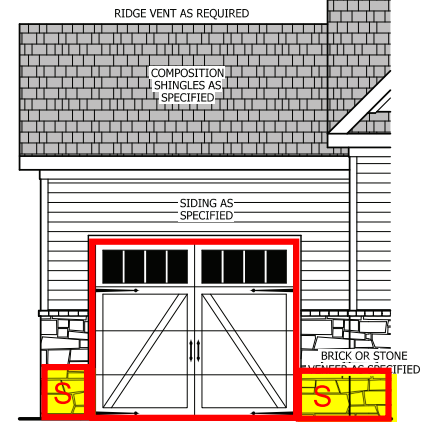
REAR ELEVATION

SCALE 1/4" = 1'-0"



PARGE SIDE ELEVATION

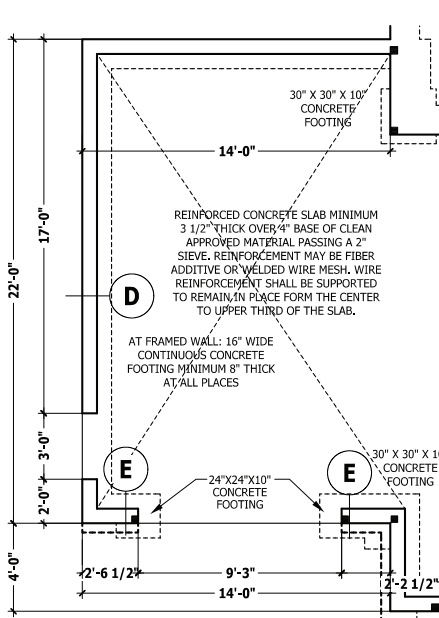
SCALE 1/4" = 1'-0"



FRONT ELEVATION

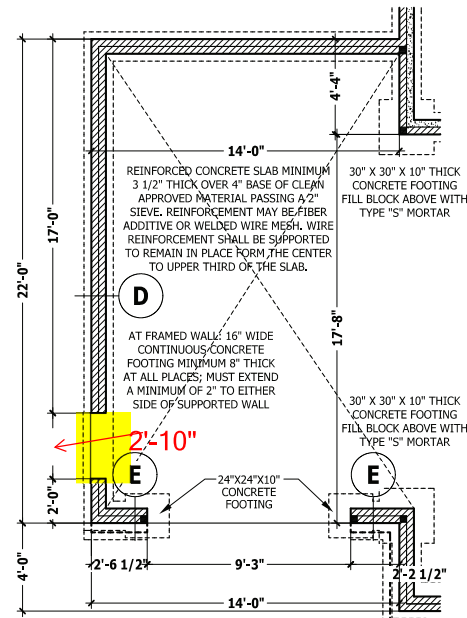
SCALE 1/4" = 1'-0"

SEE BASE PLAN FOR NOTES AND DETAILS



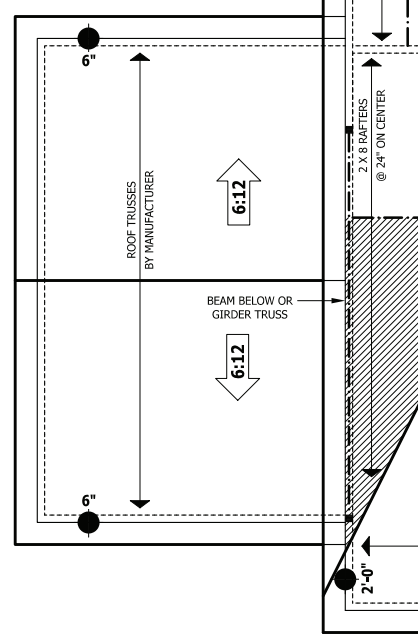
MONOLITHIC SLAB PLAN

SCALE 1/4" = 1'-0"



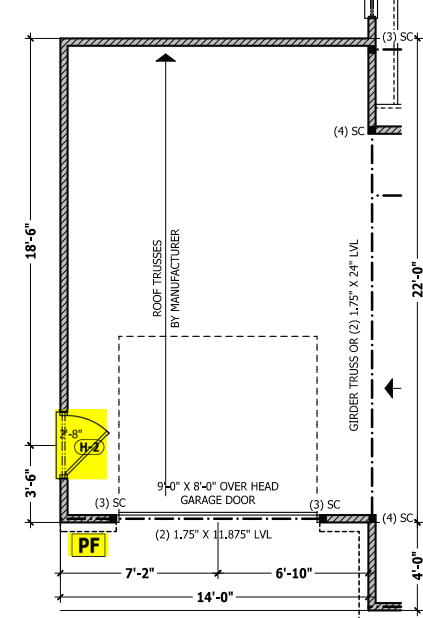
CRAWL SPACE / STEM WALL

SCALE 1/4" = 1'-0"



ROOF PLAN

SCALE 1/4" = 1'-0"



FIRST FLOOR PLAN

SCALE 1/4" = 1'-0"

PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS. HAYNES HOME PLANS, INC. ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY VARY WITH LOCATION. A LOCAL DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION. THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

THIRD GARAGE ADDENDUM

The Lauren H

HAYNES WE AVER HOMES

910.630.2100 • 910.606.4696

© 2020 Weaver Home Plans, Inc. Raleigh, NC 27603

HAYNES HOME PLANS, INC.

P.O. Box 702, Wake Forest, NC 27588 919-435-6180 FAX: 919-435-9100

SQUARE FOOTAGE	
HEATED FIRST FLOOR	1786 SQ.FT.
HEATED SECOND FLOOR	480 SQ.FT.
TOTAL HEATED	2266 SQ.FT.
UNHEATED GARAGE	388 SQ.FT.
UNHEATED FRONT PORCH	488 SQ.FT.
TOTAL UNHEATED	876 SQ.FT.
UNHEATED OPTIONAL SCREENED PORCH	150 SQ.FT.
UNHEATED OPTIONAL DECK / PATIO	388 SQ.FT.
UNHEATED OPTIONAL THIRD GARAGE	560 SQ.FT.
TOTAL UNHEATED OPTIONAL	1100 SQ.FT.

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2/24/2020

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ADDENDUM

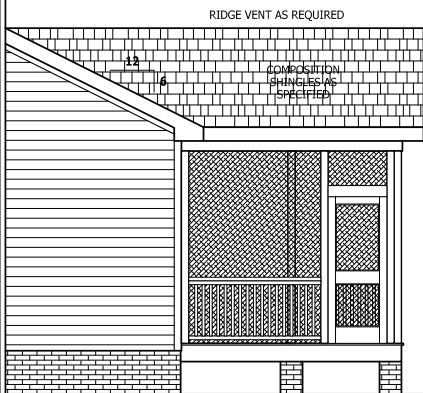
PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS. HAYNES HOME PLANS, INC. ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY VARY WITH LOCATION. A LOCAL DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION. THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

PORCH ADDENDUM
The Lauren H

HAYNES WEAVER HOMES
HOME PLANS, INC.
910.690.2100 • 910.606.4696
P.O. Box 702, Wake Forest, NC 27588 919.435.4180 FAX 919.435.4099

SQUARE FOOTAGE	
HEATED	
FIRST FLOOR	1786 SQ.FT.
PLAYROOM	480 SQ.FT.
TOTAL	2266 SQ.FT.
HEATED OPTIONAL	
CLOSET/FLOOR	198 SQ.FT.
RECREATION ROOM	304 SQ.FT.
TOTAL	492 SQ.FT.
UNHEATED	
SCREENED PORCH	188 SQ.FT.
CARAGE	488 SQ.FT.
TOTAL	676 SQ.FT.
UNHEATED OPTIONAL	
SCREENED PORCH	188 SQ.FT.
DECK / PATIO	292 SQ.FT.
TREED GARAGE	188 SQ.FT.
TOTAL	568 SQ.FT.

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ADDENDUM



RIGHT SIDE ELEVATION

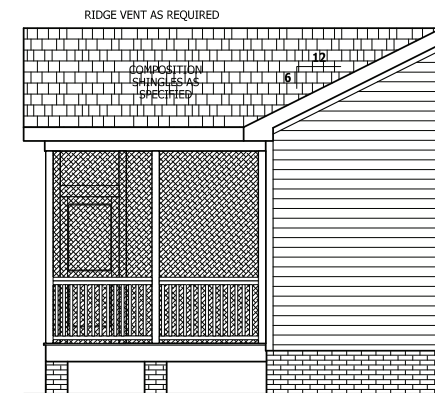
SCALE 1/4" = 1'-0"



REAR ELEVATION

SCALE 1/4" = 1'-0"

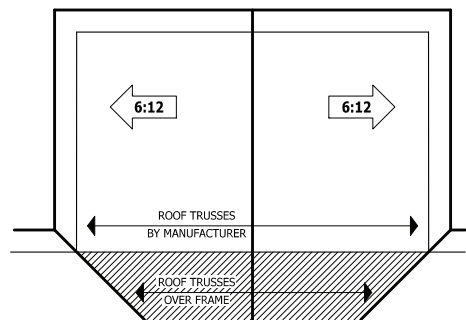
RAIL AS NEEDED PER CODE



LEFT SIDE ELEVATION

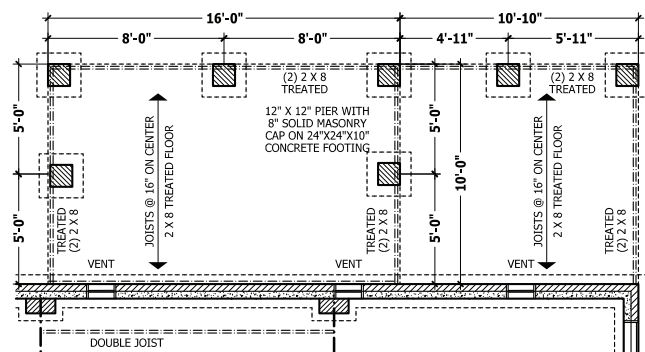
SCALE 1/4" = 1'-0"

SEE BASE PLAN FOR NOTES AND DETAILS



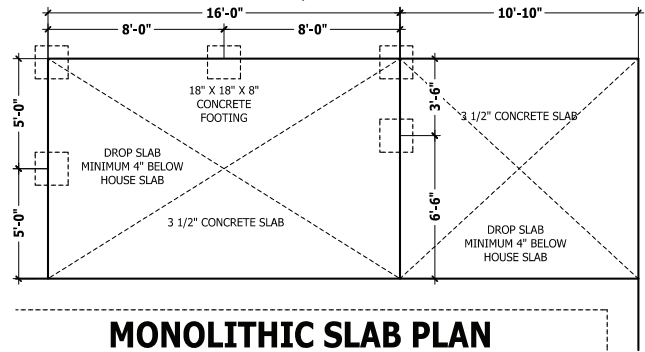
ROOF PLAN

SCALE 1/8" = 1'-0"



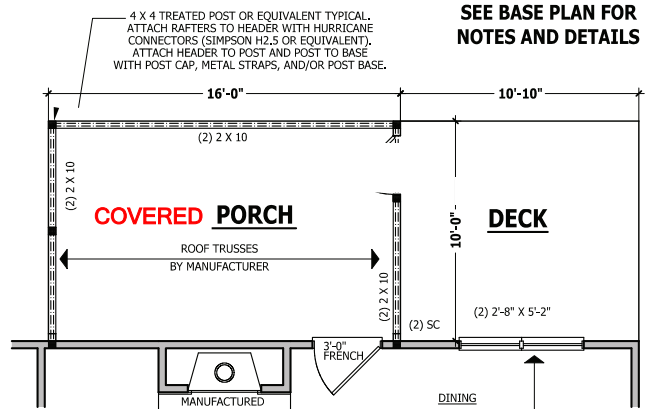
CRAWL SPACE PLAN

SCALE 1/4" = 1'-0"



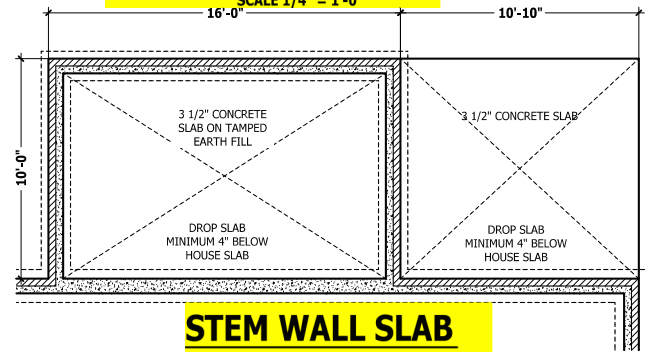
MONOLITHIC SLAB PLAN

SCALE 1/4" = 1'-0"



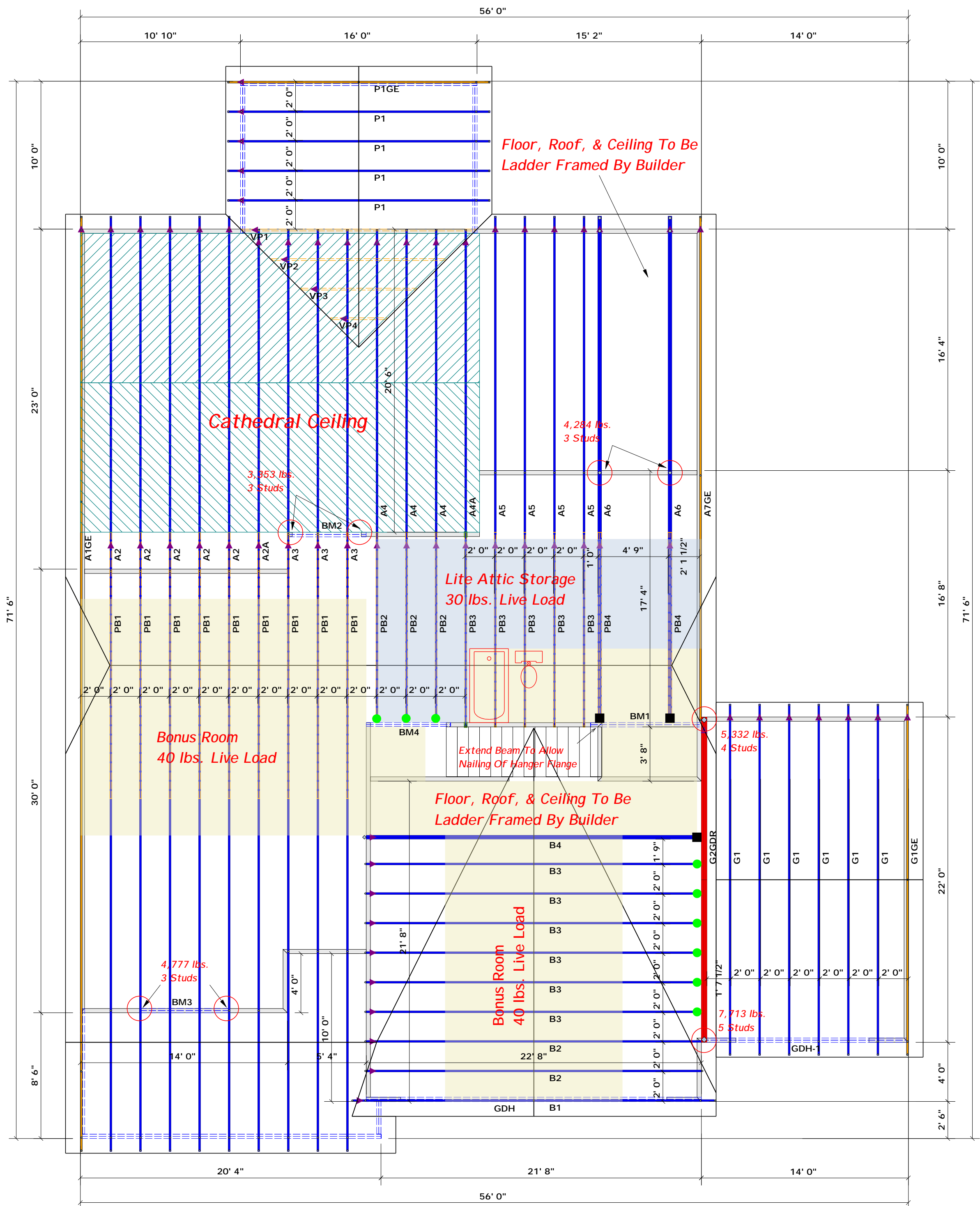
FIRST FLOOR PLAN

SCALE 1/4" = 1'-0"



STEM WALL SLAB

SCALE 1/4" = 1'-0"



All Truss Reactions are Less than 3,000 lbs. Unless Noted Otherwise.

○ -- Denotes Reaction Greater than 3,000 lbs.

▲ = Denotes Left End of Truss (Reference Engineered Truss Drawing) Do Not Erect Trusses Backwards

Truss Placement Plan SCALE: 3/16" = 1'

HANGER LEGEND

- = USP THD28-2 / Double 2x Hanger
- = USP HUS26 / Single 2x Hanger

Beam Legend

PlotID	Length	Product	Plies	Net Qty
BM1	8' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
BM3	7' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
BM2	6' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
GDH-1	14' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2
GDH	23' 0"	1-3/4"x 14" LVL Kerto-S	2	2
BM4	6' 0"	2x10 SPF No.2	2	2

LOAD CHART FOR JACK STUDS

MEMBER	SPACING	LOAD	MEMBER	SPACING	LOAD
1700	1	2550	3400	1	3400
3400	2	5100	6500	2	6500
5100	3	7650	10500	3	10500
6800	4	11200	13600	4	13600
8500	5	14750	17000	5	17000
10200	6	18300			
11900	7				
13600	8				
15300	9				

BUILDER	Weaver Development	CITY / CO.	Lillington / Harnett
JOB NAME	Lot 2 Atkins Farm Estates	ADDRESS	Spring Hill Church Rd.
PLAN	The Lauren H / Elev. B / CP / 3 Car	MODEL	Model
SEAL DATE	2/24/20	DATE REV.	04/21/21
QUOTE #	Quote #	DRAWN BY	Curtis Quick
JOB #	J0421-2506	SALES REP.	Lenny Norris

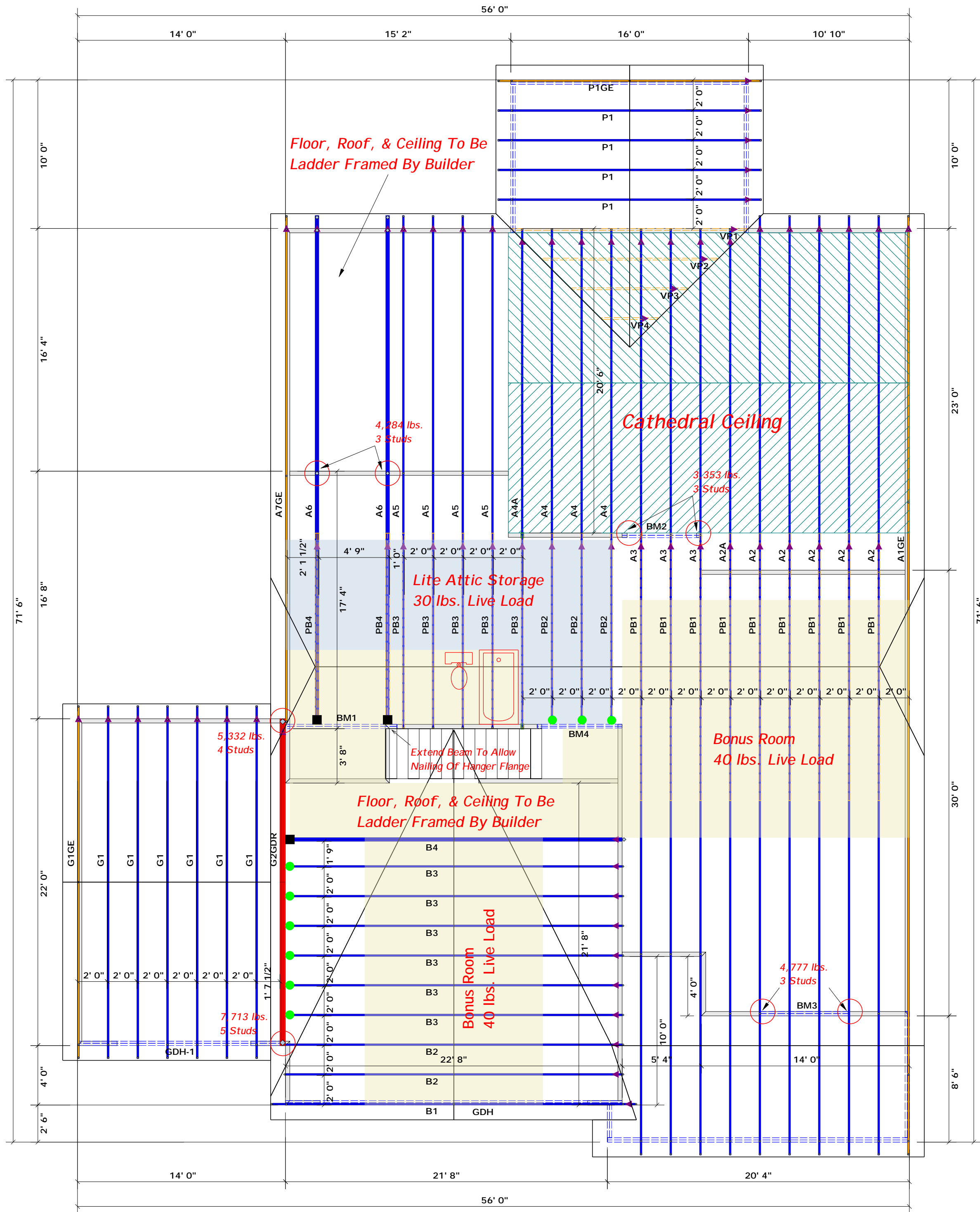
THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSH-B1 and BCSH-B3 provided with the truss delivery package or online @ sbcindustry.com

Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables (derived from the prescriptive Code requirements) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature: Curtis Quick
Curtis Quick

ROOF & FLOOR TRUSSES & BEAMS

Reilly Road Industrial Park
Fayetteville, N.C. 28309
Phone: (910) 864-8787
Fax: (910) 864-4444



All Truss Reactions are Less than 3,000 lbs. Unless Noted Otherwise.

○ -- Denotes Reaction Greater than 3,000 lbs.

▲ = Denotes Left End of Truss (Reference Engineered Truss Drawing)
Do Not Erect Trusses Backwards

Truss Placement Plan
SCALE: 3/16" = 1'

HANGER LEGEND

- = USP THD28-2 / Double 2x Hanger
- = USP HUS26 / Single 2x Hanger

Beam Legend

PlotID	Length	Product	Plies	Net Qty
BM1	8' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
BM3	7' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
BM2	6' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
GDH-1	14' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2
GDH	23' 0"	1-3/4"x 14" LVL Kerto-S	2	2
BM4	6' 0"	2x10 SPF No.2	2	2

LOAD CHART FOR JACK STUDS

MEMBER	SPACING	LOAD	MEMBER	SPACING	LOAD
1700	1	2550	3400	2	5100
3400	2	5100	5100	3	7650
5100	3	7650	6800	4	10200
6800	4	10200	8500	5	12750
8500	5	12750	10200	6	15300
10200	6	15300	11900	7	
11900	7		13600	8	
13600	8		15300	9	

BUILDER	Weaver Development	CITY / CO.	Lillington / Harnett
JOB NAME	Lot 2 Atkins Farm Estates	ADDRESS	Spring Hill Church Rd.
PLAN	The Lauren H / Elev. B / CP / 3 Car	MODEL	Model
SEAL DATE	2/24/20	DATE REV.	04/21/21
QUOTE #	Quote #	DRAWN BY	Curtis Quick
JOB #	J0421-2506	SALES REP.	Lenny Norris

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSH-B1 and BCSH-B3 provided with the truss delivery package or online @ sbcindustry.com

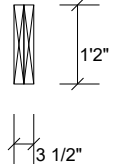
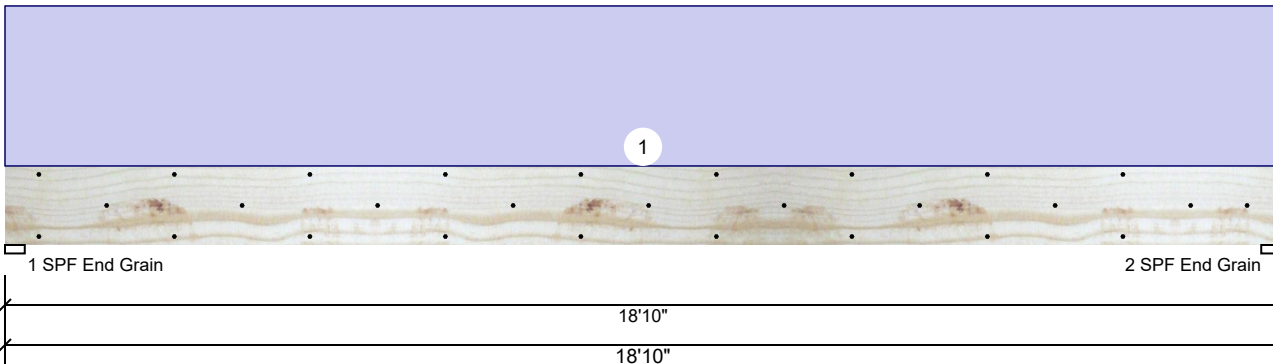
Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables (derived from the prescriptive Code requirements) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature: Curtis Quick
Curtis Quick

comtech
ROOF & FLOOR TRUSSES & BEAMS
Reilly Road Industrial Park
Fayetteville, N.C. 28309
Phone: (910) 864-8787
Fax: (910) 864-4444

GDH Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	2457	0	0	0
2	0	2457	0	0	0

Bearings

Bearing	Length	Cap.	React D/L	Ib	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	23%	2457 / 0	2457	Uniform	D	
2 - SPF End Grain	3.500"	23%	2457 / 0	2457	Uniform	D	

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	11011 ft-lb	9'5"	24299 ft-lb	0.453 (45%)	D	Uniform
Unbraced	11011 ft-lb	9'5"	11013 ft-lb	1.000 (100%)	D	Uniform
Shear	2093 lb	1'4 3/4"	9408 lb	0.222 (22%)	D	Uniform
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.444 (L/497)	9'5 1/16"	0.919 (L/240)	0.480 (48%)	D	Uniform

Design Notes

- 1 Fasten all plies using 3 rows of SDW22338 at 24" o.c. Maximum end distance not to exceed 12".
- 2 Refer to last page of calculations for fasteners required for specified loads.
- 3 Simpson fasteners applied from a single side of the member use tip values where published.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at a maximum of 9'7 1/2" o.c.
- 7 Bottom braced at bearings.
- 8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	250 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				11 PLF					

Notes
 Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber
 1. Dry service conditions, unless noted otherwise
 2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation
 1. LVL beams must not be cut or drilled
 2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
 3. Damaged Beams must not be used
 4. Design assumes top edge is laterally restrained
 5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/15/2021

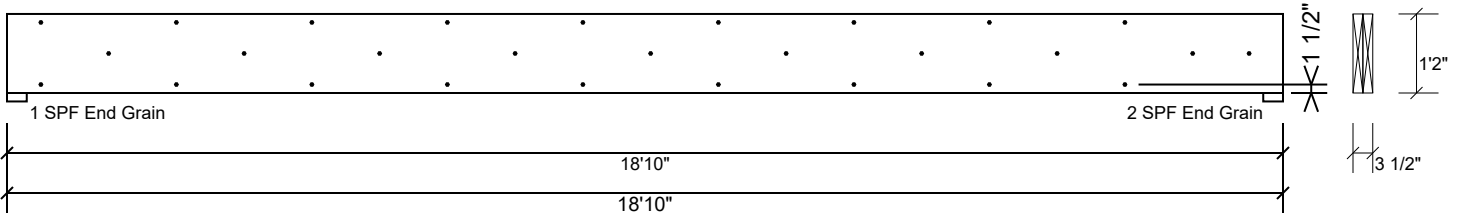
Manufacturer Info
 Metsä Wood
 301 Merritt 7 Building, 2nd Floor
 Norwalk, CT 06851
 (800) 622-5850
 www.metsawood.com/us
 ICC-ES: ESR-3633

Comtech, Inc.
 1001 S. Reilly Road, Suite #639
 Fayetteville, NC
 USA
 28314
 910-864-TRUS



GDH Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level


Multi-Ply Analysis

Fasten all plies using 3 rows of SDW22338 at 24" o.c.. Maximum end distance not to exceed 12"

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	382.5 PLF
Yield Limit per Fastener	255.0 lb.
Yield Mode	Lookup
Edge Distance	1 1/2"
Min. End Distance	6"
Load Combination	
Duration Factor	1.00

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/15/2021

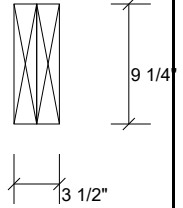
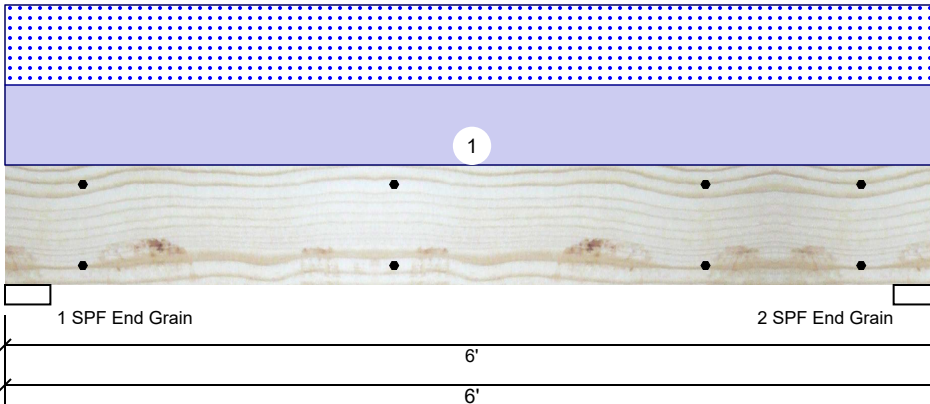
Manufacturer Info

Metsä Wood
 301 Merritt 7 Building, 2nd Floor
 Norwalk, CT 06851
 (800) 622-5850
www.metsawood.com/us
 ICC-ES: ESR-3633

Comtech, Inc.
 1001 S. Reilly Road, Suite #639
 Fayetteville, NC
 USA
 28314
 910-864-TRUS



Front Window Header Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED Level: Level



Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
Temperature:	Temp <= 100°F

Application:	Floor
Design Method:	ASD
Building Code:	IBC 2012
Load Sharing:	No
Deck:	Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	2188	2166	0	0
2	0	2188	2166	0	0

Bearings

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	41%	2188 / 2166	4354	L	D+S
2 - SPF End Grain	3.500"	41%	2188 / 2166	4354	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5571 ft-lb	3'	14423 ft-lb	0.386 (39%)	D+S	L
Unbraced	5571 ft-lb	3'	11027 ft-lb	0.505 (51%)	D+S	L
Shear	2902 lb	1'	7943 lb	0.365 (37%)	D+S	L
LL Defl inch	0.043 (L/1545)	3'	0.185 (L/360)	0.230 (23%)	S	L
TL Defl inch	0.087 (L/769)	3'	0.277 (L/240)	0.310 (31%)	D+S	L

Design Notes

- 1 Fasten all plies using 2 rows of SDW22338 at 24" o.c. Maximum end distance not to exceed 12".
- 2 Refer to last page of calculations for fasteners required for specified loads.
- 3 Simpson fasteners applied from a single side of the member use tip values where published.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top braced at bearings.
- 7 Bottom braced at bearings.
- 8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	722 PLF	0 PLF	722 PLF	0 PLF	0 PLF	A2
	Self Weight				7 PLF					

Notes
 Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber
 1. Dry service conditions, unless noted otherwise
 2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation
 1. LVL beams must not be cut or drilled
 2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
 3. Damaged Beams must not be used
 4. Design assumes top edge is laterally restrained
 5. Provide lateral support at bearing points to avoid lateral displacement and rotation

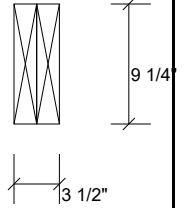
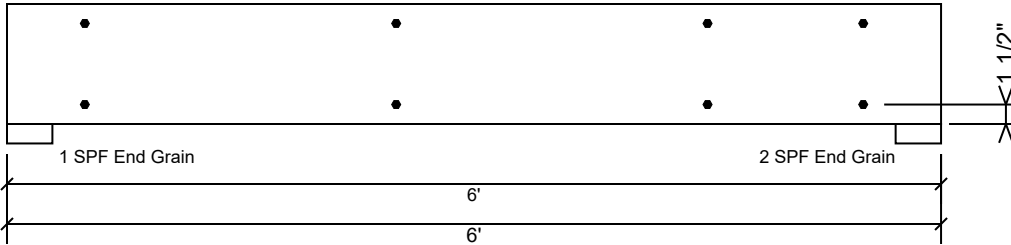
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/15/2021

Manufacturer Info
 Metsä Wood
 301 Merritt 7 Building, 2nd Floor
 Norwalk, CT 06851
 (800) 622-5850
 www.metsawood.com/us
 ICC-ES: ESR-3633

Comtech, Inc.
 1001 S. Reilly Road, Suite #639
 Fayetteville, NC
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 28314
 910-864-TRUS



Front Window Header Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED Level: Level

Multi-Ply Analysis

Fasten all plies using 2 rows of SDW22338 at 24" o.c.. Maximum end distance not to exceed 12"

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	255.0 PLF
Yield Limit per Fastener	255.0 lb.
Yield Mode	Lookup
Edge Distance	1 1/2"
Min. End Distance	6"
Load Combination	
Duration Factor	1.00

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/15/2021

Manufacturer Info

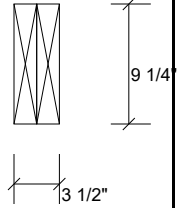
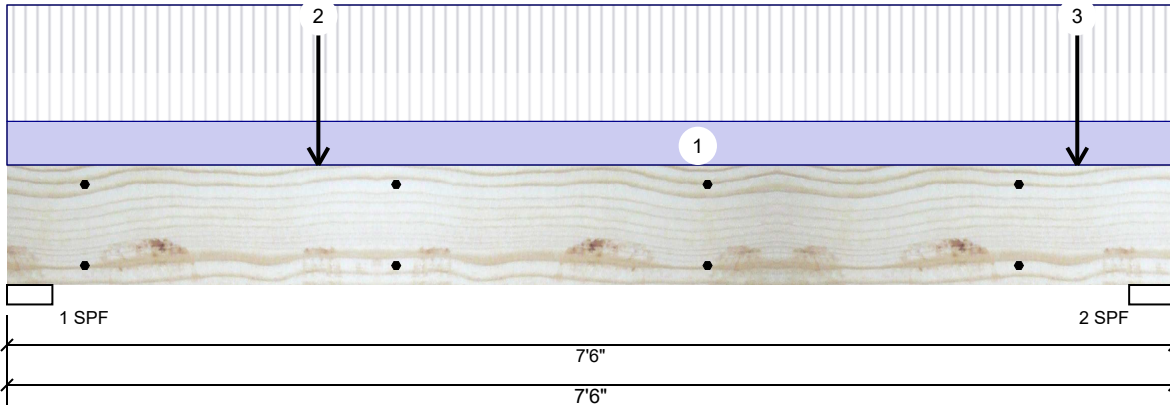
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BM1 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
Temperature:	Temp <= 100°F

Application:	Floor
Design Method:	ASD
Building Code:	IBC 2012
Load Sharing:	No
Deck:	Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	150	959	876	0	0
2	150	1384	1300	0	0

Bearings

Bearing	Length	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
1 - SPF	3.500"	35% 959 / 876	1834 L	D+S
2 - SPF	3.500"	52% 1384 / 1300	2684 L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3204 ft-lb	2'	14423 ft-lb	0.222 (22%)	D+S	L
Unbraced	3204 ft-lb	2'	9592 ft-lb	0.334 (33%)	D+S	L
Shear	1812 lb	1'	7943 lb	0.228 (23%)	D+S	L
LL Defl inch	0.030 (L/2815)	3'4 1/16"	0.235 (L/360)	0.130 (13%)	S	L
TL Defl inch	0.063 (L/1338)	3'4 7/16"	0.352 (L/240)	0.180 (18%)	D+S	L

Design Notes

- 1 Fasten all plies using 2 rows of SDW22338 at 24" o.c. Maximum end distance not to exceed 12".
- 2 Refer to last page of calculations for fasteners required for specified loads.
- 3 Simpson fasteners applied from a single side of the member use tip values where published.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top braced at bearings.
- 7 Bottom braced at bearings.
- 8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	15 PLF	40 PLF	0 PLF	0 PLF	0 PLF	Floor
2	Point	2-0-0		Top	1088 lb	0 lb	1088 lb	0 lb	0 lb	A6
3	Point	6-10-8		Top	1088 lb	0 lb	1088 lb	0 lb	0 lb	A6
	Self Weight				7 PLF					

Notes
 Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber
 1. Dry service conditions, unless noted otherwise
 2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation
 1. LVL beams must not be cut or drilled
 2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
 3. Damaged Beams must not be used
 4. Design assumes top edge is laterally restrained
 5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/15/2021

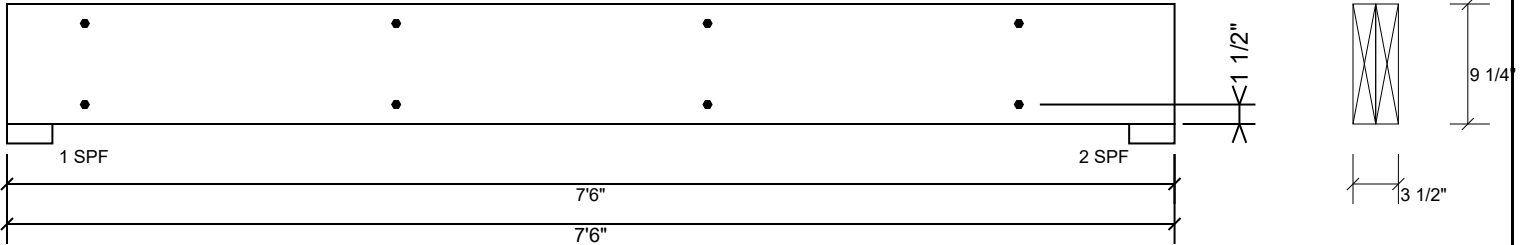
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BM1 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level


Multi-Ply Analysis

Fasten all plies using 2 rows of SDW22338 at 24" o.c.. Maximum end distance not to exceed 12"

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	255.0 PLF
Yield Limit per Fastener	255.0 lb.
Yield Mode	Lookup
Edge Distance	1 1/2"
Min. End Distance	6"
Load Combination	
Duration Factor	1.00

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/15/2021

Manufacturer Info

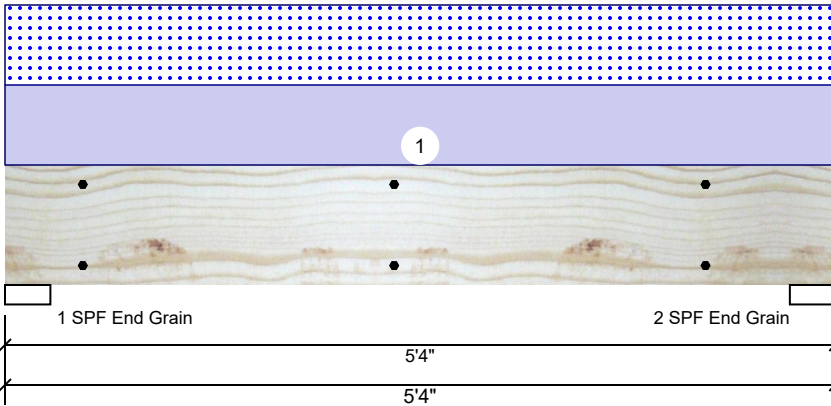
Metsä Wood
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BM2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	1686	1667	0	0
2	0	1686	1667	0	0

Bearings

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	31%	1686 / 1667	3353	L	D+S
2 - SPF End Grain	3.500"	31%	1686 / 1667	3353	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3735 ft-lb	2'8"	14423 ft-lb	0.259 (26%)	D+S	L
Unbraced	3735 ft-lb	2'8"	11811 ft-lb	0.316 (32%)	D+S	L
Shear	2095 lb	1'	7943 lb	0.264 (26%)	D+S	L
LL Defl inch	0.024 (L/2457)	2'8"	0.162 (L/360)	0.150 (15%)	S	L
TL Defl inch	0.048 (L/1221)	2'8"	0.244 (L/240)	0.200 (20%)	D+S	L

Design Notes

- 1 Fasten all plies using 2 rows of SDW22338 at 24" o.c. Maximum end distance not to exceed 12".
- 2 Refer to last page of calculations for fasteners required for specified loads.
- 3 Simpson fasteners applied from a single side of the member use tip values where published.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top braced at bearings.
- 7 Bottom braced at bearings.
- 8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	625 PLF	0 PLF	625 PLF	0 PLF	0 PLF	A2
	Self Weight				7 PLF					

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/15/2021

Manufacturer Info

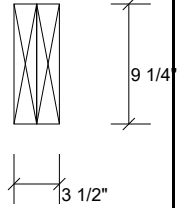
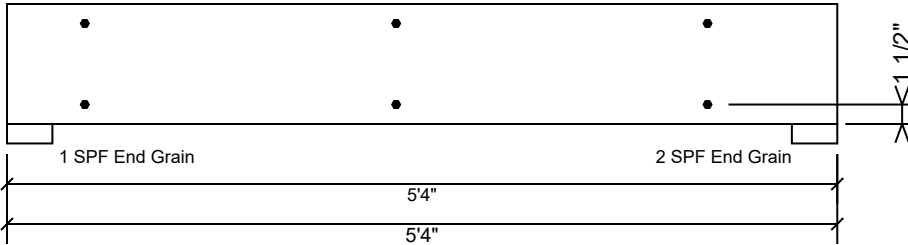
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BM2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level


Multi-Ply Analysis

Fasten all plies using 2 rows of SDW22338 at 24" o.c.. Maximum end distance not to exceed 12"

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	255.0 PLF
Yield Limit per Fastener	255.0 lb.
Yield Mode	Lookup
Edge Distance	1 1/2"
Min. End Distance	6"
Load Combination	
Duration Factor	1.00

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

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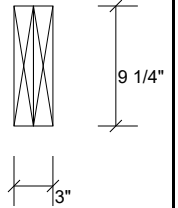
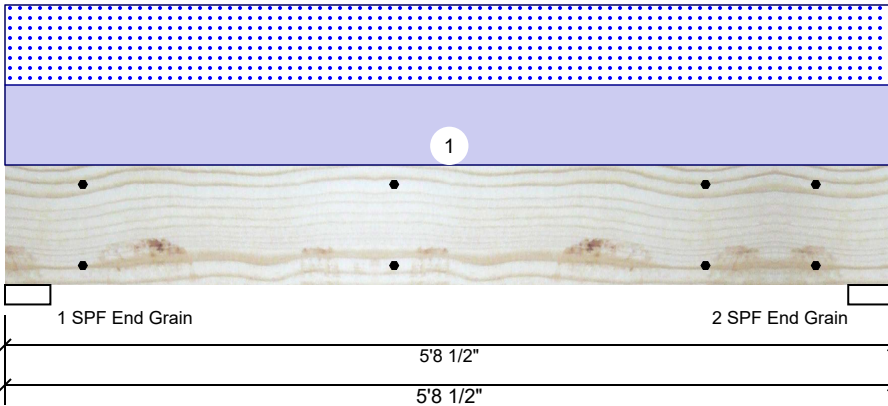


This design is valid until 11/15/2021



BM3 S-P-F #2 2.000" X 10.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
Temperature:	Temp <= 100°F

Application:	Floor
Design Method:	ASD
Building Code:	IBC 2012
Load Sharing:	No
Deck:	Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	782	782	0	0
2	0	782	782	0	0

Bearings

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	35%	782 / 782	1564	L	D+S
2 - SPF End Grain	3.500"	35%	782 / 782	1564	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1888 ft-lb	2'10 1/4"	3946 ft-lb	0.478 (48%)	D+S	L
Unbraced	1888 ft-lb	2'10 1/4"	3629 ft-lb	0.520 (52%)	D+S	L
Shear	1016 lb	1'	2872 lb	0.354 (35%)	D+S	L
LL Defl inch	0.017 (L/3726)	2'10 1/4"	0.175 (L/360)	0.100 (10%)	S	L
TL Defl inch	0.034 (L/1863)	2'10 1/4"	0.262 (L/240)	0.130 (13%)	D+S	L

Design Notes

- 1 Fasten all plies using 2 rows of SDW22300 at 24" o.c. Maximum end distance not to exceed 12".
- 2 Refer to last page of calculations for fasteners required for specified loads.
- 3 Simpson fasteners applied from a single side of the member use tip values where published.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top braced at bearings.
- 7 Bottom braced at bearings.
- 8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	274 PLF	0 PLF	274 PLF	0 PLF	0 PLF	A4

Manufacturer Info

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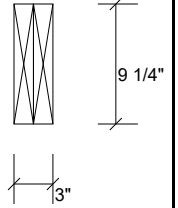
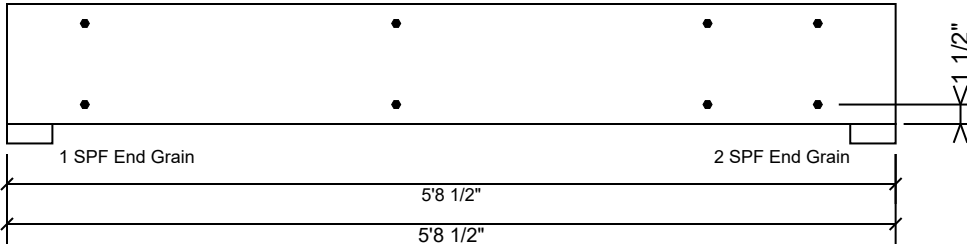


This design is valid until 11/15/2021



BM3 S-P-F #2 2.000" X 10.000" 2-Ply - PASSED

Level: Level


Multi-Ply Analysis

Fasten all plies using 2 rows of SDW22300 at 24" o.c.. Maximum end distance not to exceed 12"

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	255.0 PLF
Yield Limit per Fastener	255.0 lb.
Yield Mode	Lookup
Edge Distance	1 1/2"
Min. End Distance	6"
Load Combination	
Duration Factor	1.00

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