Residence for

Gammon Construction
The Jace - R

INDEX TO DRAWINGS:

GENERAL NOTES:

1. ALL WORK IS TO BE DONE IN STRICT ACCORDANCE WITH NORTH CAROLINA STATE RESIDENTIAL BUILDING CODE, 2018 EDITION (HEREWITH SHOWN AS N.C.S.R.B.C.).
2. DIMENSIONS SHOWN ON DRAWINGS GOVERN OVER SCALE..
3. STUD WALL DESIGN SHALL CONFORM TO ALL N.C.S.R.B.C. REQUIREMENTS.
4. CONTRACTOR SHALL USE TEMPERED SAFETY GLASS IN ALL LOCATIONS AS REQUIRED BY N.C.S.R.B.C., SECTION R308.4
5. ANY HABITABLE ROOM SHALL MEET ALL LIGHT/VENTILATION AND EGRESS AS REQUIRED BY N.C.S.R.B.C., SECTIONS R-303.1 AND R-310.1
6. ALL WALLS SHOWN ON FLOOR PLANS ARE 2x4 FRAME UNLESS NOTED OTHERWISE.
7. ALL ANGLED WALLS SHOWN ON FLOOR PLANS ARE 45° UNLESS NOTED OTHERWISE.
8. ALL WINDOWS SHALL HAVE A MINIMUM DPI RATING OF 25. BUILDER SHALL VERIFY WITH WINDOW MANUFACTURER THAT UNITS INSTALLED MEET THESE REQUIREMENTS AS PER N.C.S.R.B.C., TABLE 301.2(6).
9. ENERGY EFFICIENCY REQUIREMENTS FOR THE SPECIFIC CLIMATE ZONE WHERE STRUCTURE IS BEING BUILT SHALL BE IN ACCORDANCE WITH CHAPTER 11 OF THE NORTH CAROLINA RESIDENTIAL BUILDING CODE, AS SHOWN IN TABLES N1101.2 AND N1102.1.
10. TERMITE TREATMENT - BORATE APPLIED TO ALL FRAME MEMBERS WITHIN 24" AFF.

MATERIALS LEGEND

EARTH/COMPACT FILL	FINISH WOOD
CONCRETE	ROUGH WOOD
BRICK	BLOCKING
CONCRETE BLOCK/STONE	PLYWOOD
STEEL	BATT INSULATION
ALUMINUM	RIGID INSULATION

TOILET ACCESSORIES LEGEND

PROVIDE 2x4 BLOCKING IN THE WALL FOR THE FOLLOWING:

TB	TOWEL BAR
TP	TOILET PAPER HOLDER
TR	TOWEL RING
MC	MEDICINE CABINET
MR	MAGAZINE RACK

THE PURPOSE OF THESE DRAWINGS IS TO SHOW THE INTENT OF THE DESIGN AND CONSTRUCTION OF THIS HOME. ANY ERRORS AND/OR OMISSIONS FOUND IN THIS SET SHOULD IMMEDIATELY BE REPORTED TO HOMES UNIQUE FOR CLARIFICATION OR CORRECTION. THE CONTRACTOR SHOULD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. ONCE A PERMIT HAS BEEN ISSUED FOR CONSTRUCTION, THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY AS TO THE ACCURACY OF THE PLANS AND TO ANY CHANGES MADE BY THE CONTRACTOR AND/OR THE OWNER.

DUE TO VARYING LOCAL AND STATE CODES, HOMES UNIQUE CANNOT BE HELD RESPONSIBLE FOR ANY REQUIREMENTS THAT EXISTING SITE CONDITIONS MAY CREATE.

RESIDENTIAL BUILDING CODE SUMMARY

1. PLANS ARE DESIGNED TO THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
2. HOUSE IS DESIGNED FOR 130 MPH, 3 SECOND GUST (101 MPH FASTEST WIND), EXPOSURE B.
3. ANCHOR BOLTS SHALL BE MIN. 1/2" DIAMETER WITH STANDARD WASHER AND NUT AND SHALL EXTEND 7" MIN. INTO MASONRY OR CONCRETE. BOLTS TO BE NO MORE THAN 6' O.C. AND WITHIN 12" OF CORNERS. ALTERNATE ANCHOR STRAPS CAN BE USED INSTEAD OF ANCHOR BOLTS SPACED AT THE EQUIVALENT SPACING AND INSTALLED PER MANUFACTURER'S SPECIFICATION'S EXCEPT AT GARAGE LUG FTG.
4. MEAN ROOF HEIGHT: 26'-10"
5. COMPONENT & CLADDING DESIGNED FOR THE FOLLOWING LOADS:

MEAN ROOF HGT:	UP TO 30'	30'-1"TO 35'	35'-1"TO 40'	40'-1"TO 45'
ZONE 1	16.5, -18.0	17.3, -18.9	18.0, -19.6	18.5, -20.2
ZONE 2	16.5, -21.0	17.3, -22.1	18.0, -22.9	18.5, -23.5
ZONE 3	16.5, -21.0	17.3, -22.1	18.0, -22.9	18.5, -23.5
ZONE 4	18.0, -19.5	18.9, -20.5	19.6, -21.3	20.2, -21.8
ZONE 5	18.0, -24.1	18.9, -25.3	19.6, -26.3	20.2, -27.0

6. MINIMUM VALUES FOR ENERGY COMPLIANCE: ZONE 3
7. MAXIMUM GLAZING U-FACTOR: 0.35
8. INSULATING VALUES: CEILING: R-30* / WALLS: R-15 / FLOOR: R-19 / SLABS: R-0. CODE REFERENCE: TABLE N1102.1 (*R-30 ONLY IF UNCOMPRESSED, R-38 REQUIRED IF COMPRESSED)
9. FLASHING SHALL BE INSTALLED IN ACCORDANCE WITH SECTION R703.8 OF THE N.C.R.B.C.
10. FIREBLOCKING SHALL BE INSTALLED IN ACCORDANCE WITH SECTION R602.8 OF THE N.C.R.B.C.
11. DRAFTSTOPPING SHALL BE INSTALLED IN ACCORDANCE WITH SECTION R302.12 OF THE N.C.R.B.C.

AREA CALCULATIONS

HEATED:		UNHEATED:	
1ST FLOOR:	784	GARAGE:	405
2ND FLOOR:	1077	FRONT PORCH:	49
REC ROOM:	0	REAR PORCH:	120
TOTAL:	1861	TOTAL:	574

WIDTH: 32'-0"
DEPTH: 53'-3"

FOUNDATION VENTING CALCULATIONS

NOT NEEDED WITH SLAB FOUNDATION

ATTIC VENTILATION REQUIREMENTS

NATURAL ROOF VENTILATION

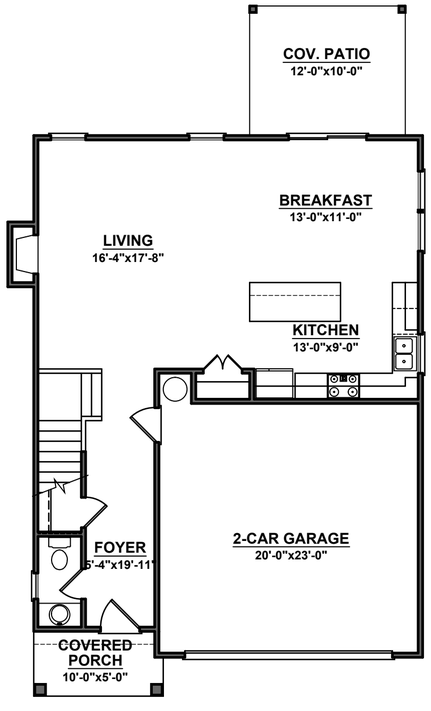
1358 SQ. FT. / 150 = 9.05 SQ. FT. VENT REQ'D.

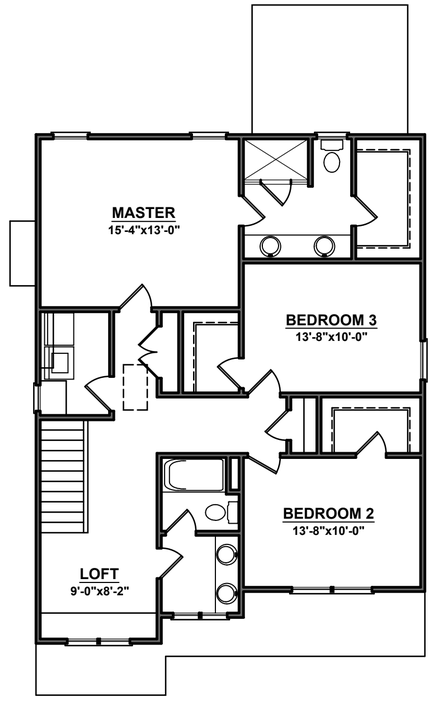
MECHANICAL ROOF VENTILATOR

1358 SQ. FT. / 300 = 4.53 SQ. FT. VENT REQ'D.

BUILDER TO PROVIDE APPROPRIATE VENTILATING AS REQUIRED PER CODE

NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.
APPROVED
Limited building only review
Permit holder responsible for full compliance with the code
01/13/2025
Harnett COUNTY NORTH CAROLINA





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The purpose of these drawings is to show the intent of the design and construction of this home. Contractor should verify all conditions and dimensions prior to construction. Once a permit has been issued, contractor shall assume all responsibility to the accuracy of the plans and any changes made during construction.

PROJECT INFO: Gammon Construction
The Jace - R

TITLE: Cover Sheeet

PROJECT NUMBER: 4877
DRAWN BY: J.A.D.
CHECKED BY: J.T.S.
REVISIONS:
DATE: 5/19/2021
SHEET: C

NOTE - PROVIDE RAILS AT PORCH ONLY IF REQUIRED BY CODE

FRONT ELEVATION

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

NOTE - SLOPE ALL GRADES AWAY FROM HOUSE FOR POSITIVE DRAINAGE

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PROJECT INFO:
Gammon Construction
The Jace - R

TITLE:
Elevations

PROJECT NUMBER:
4877

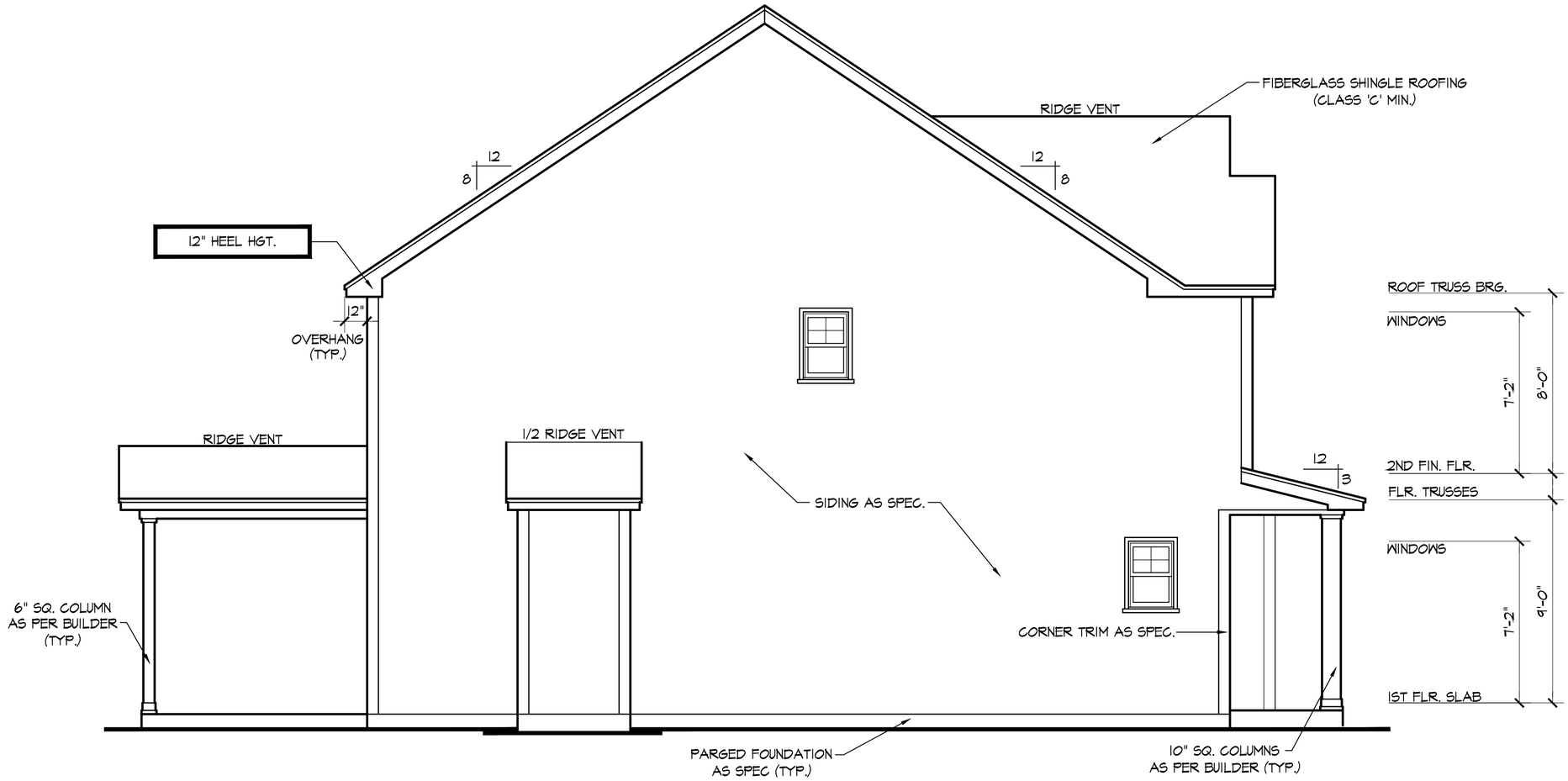
DRAWN BY:
J.A.D.

CHECKED BY:
J.T.S.

REVISIONS:

DATE:
5/19/2021

SHEET:
1



LEFT SIDE ELEVATION

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

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The Jace - R

TITLE:
Elevations

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J.T.S.

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DATE:
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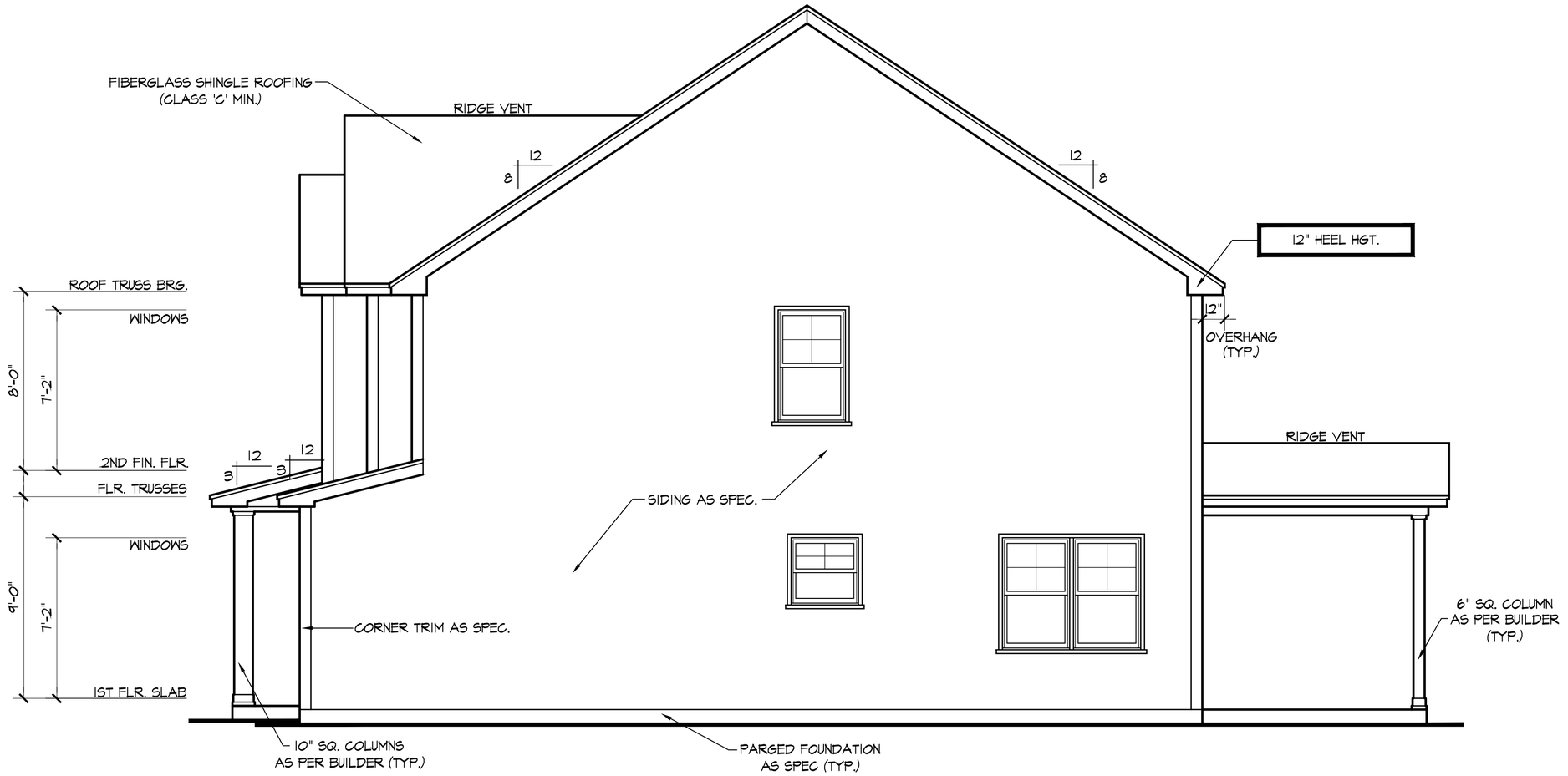
SHEET:
2



RIGHT SIDE ELEVATION

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

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TITLE:
Elevations

PROJECT NUMBER:
4877

DRAWN BY:
J.A.D.

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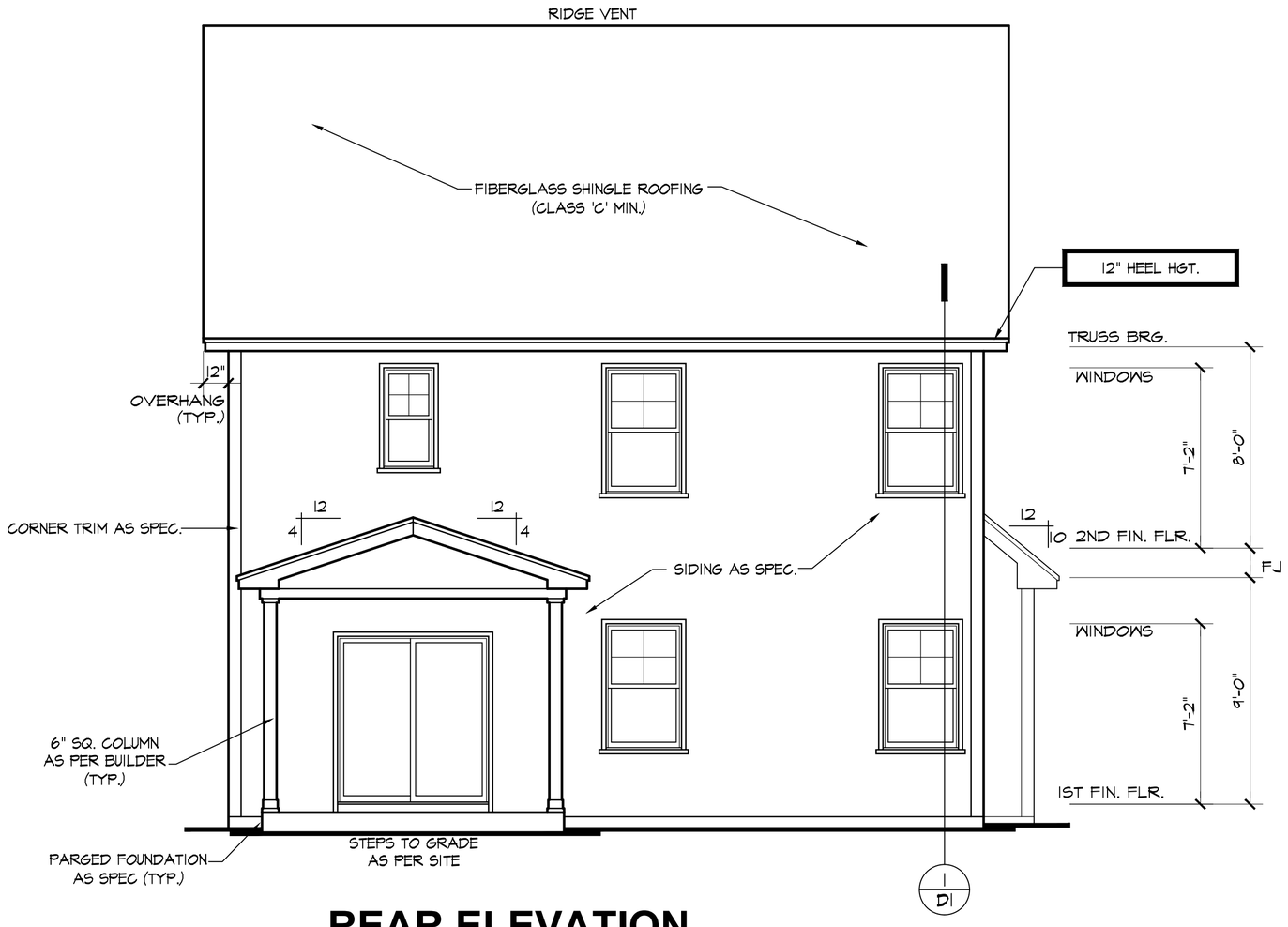
J.T.S.

REVISIONS:

DATE:
5/19/2021

SHEET:
3



REAR ELEVATION

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

NOTE - SLOPE ALL GRADES AWAY FROM HOUSE FOR POSITIVE DRAINAGE

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Elevations

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4877

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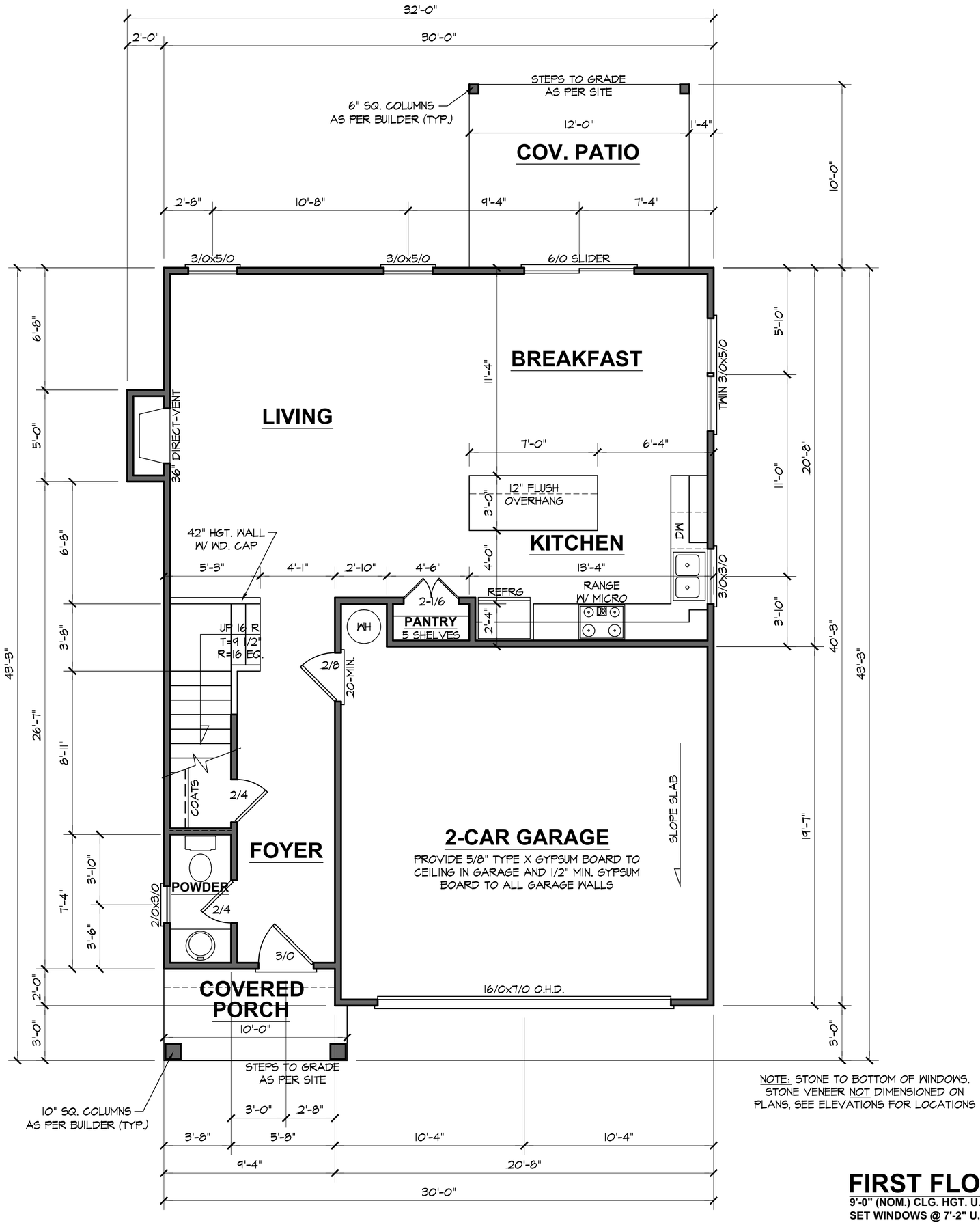
REVISIONS:

DATE:
5/19/2021

SHEET:
4



NOTE - PROVIDE RAILS AT PORCH ONLY IF REQUIRED BY CODE

NOTE: STONE TO BOTTOM OF WINDOWS. STONE VENEER NOT DIMENSIONED ON PLANS, SEE ELEVATIONS FOR LOCATIONS

NOTES:

ALL DOORS AND CASED OPENINGS TO BE 6'-8" TALL UNLESS NOTED OTHERWISE.

ROUGH FRAME ALL CASED OPENINGS 2" BIGGER THAN FINISHED OPENING CALL FOR

BOTTOM OF WINDOW CLEAR OPENINGS SHALL BE MORE THAN 24" ABOVE FINISH FLOOR OR A FALL PREVENTION DEVICE SHALL BE INSTALLED IN ACCORDANCE WITH SECTION R612.3 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.

FIRST FLOOR PLAN

9'-0" (NOM.) CLG. HGT. U.N.O.
SET WINDOWS @ 7'-2" U.N.O.

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

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PROJECT INFO:
Gammon Construction
The Jace - R

TITLE:
Floor Plan

PROJECT NUMBER:
4877

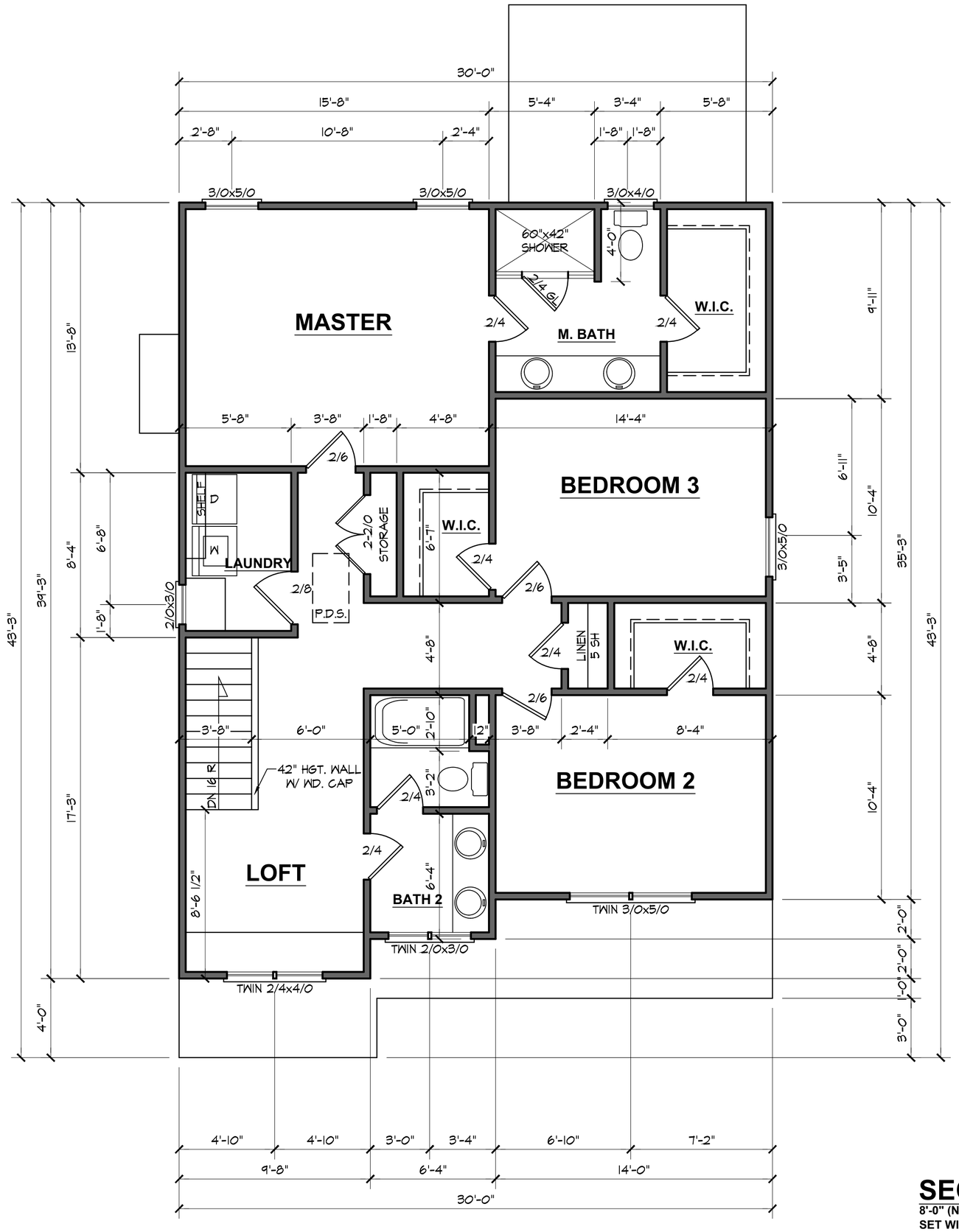
DRAWN BY:
J.A.D.

CHECKED BY:
J.T.S.

REVISIONS:

DATE:
5/19/2021

SHEET:
5



NOTES:

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SECOND FLOOR PLAN

8'-0" (NOM.) CLG. HGT. U.N.O.
SET WINDOWS @ 7'-2" U.N.O.

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

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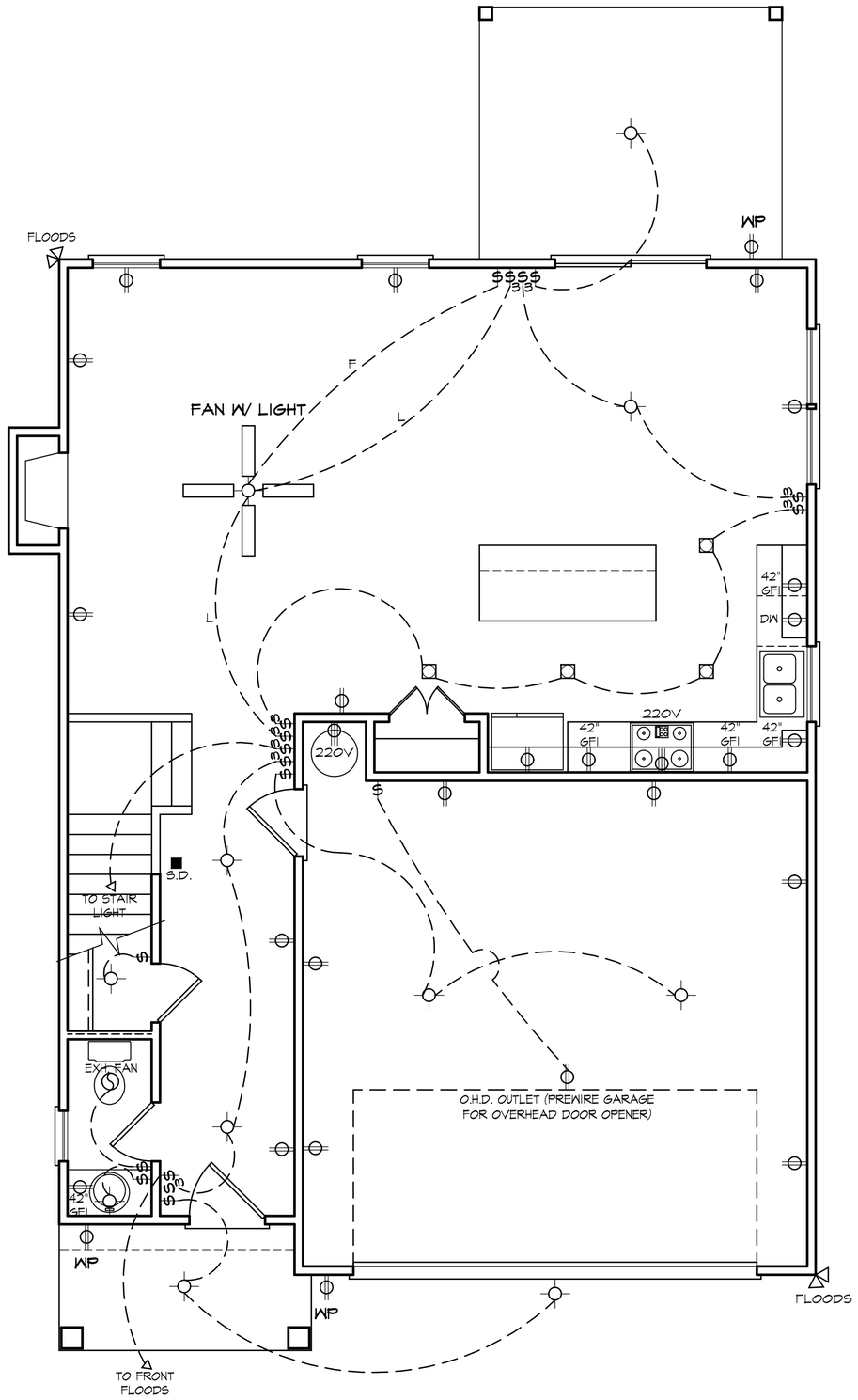
PROJECT INFO: Gammon Construction
The Jace - R

TITLE: Floor Plan

PROJECT NUMBER: 4877
DRAWN BY: J.A.D.
CHECKED BY: J.T.S.
REVISIONS:
DATE: 5/19/2021
SHEET: 6



FIRST FLOOR ELECTRICAL PLAN

NOTE - ELECTRICAL RECEPTACLE AND SWITCH QUANTITIES AND LOCATIONS SHOWN ON PLAN ARE FOR ILLUSTRATION PURPOSES ONLY. ACTUAL NUMBER AND LOCATIONS SHALL BE FIELD DETERMINED AS PER CLIENT AND BUILDER EXCEPT WHERE CODE REQUIREMENTS APPLY.

ELECTRICAL LEGEND

- LIGHT FIXTURE
- FAN/LIGHT
- WP - WATERPROOF OUTLET
- RECESSED LIGHTING
- S - SINGLE PULL SWITCH
- $_3$ - 3-WAY SWITCH
- $_4$ - 4-WAY SWITCH
- $_D$ - DIMMER SWITCH
- SMOKE DETECTOR
- FLOOD LIGHTS
- EYEBALL SPOTS
- DUPLEX RECEPTACLE (110V)
- 220 VOLT RECEPTACLE
- SWITCHED RECEPTACLE (TOP WIRE ONLY)
- GFI - GROUND FAULT CIRCUIT INTERRUPTOR
- CLG FAN/LIGHTS
- TRACK LIGHTS
- FLUORESCENT LIGHTING
- CABLE OUTLET
- TELEPHONE OUTLET
- COMPUTER DATA OUTLET
- BURGLAR ALARM
- INTERCOM

NOTE: ALL ELECTRICAL TO BE VERIFIED BY OWNER/BUILDER BEFORE ROUGH-IN.

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PROJECT INFO:
Gammon Construction
The Jace - R

TITLE:
Electrical

PROJECT NUMBER:
4877

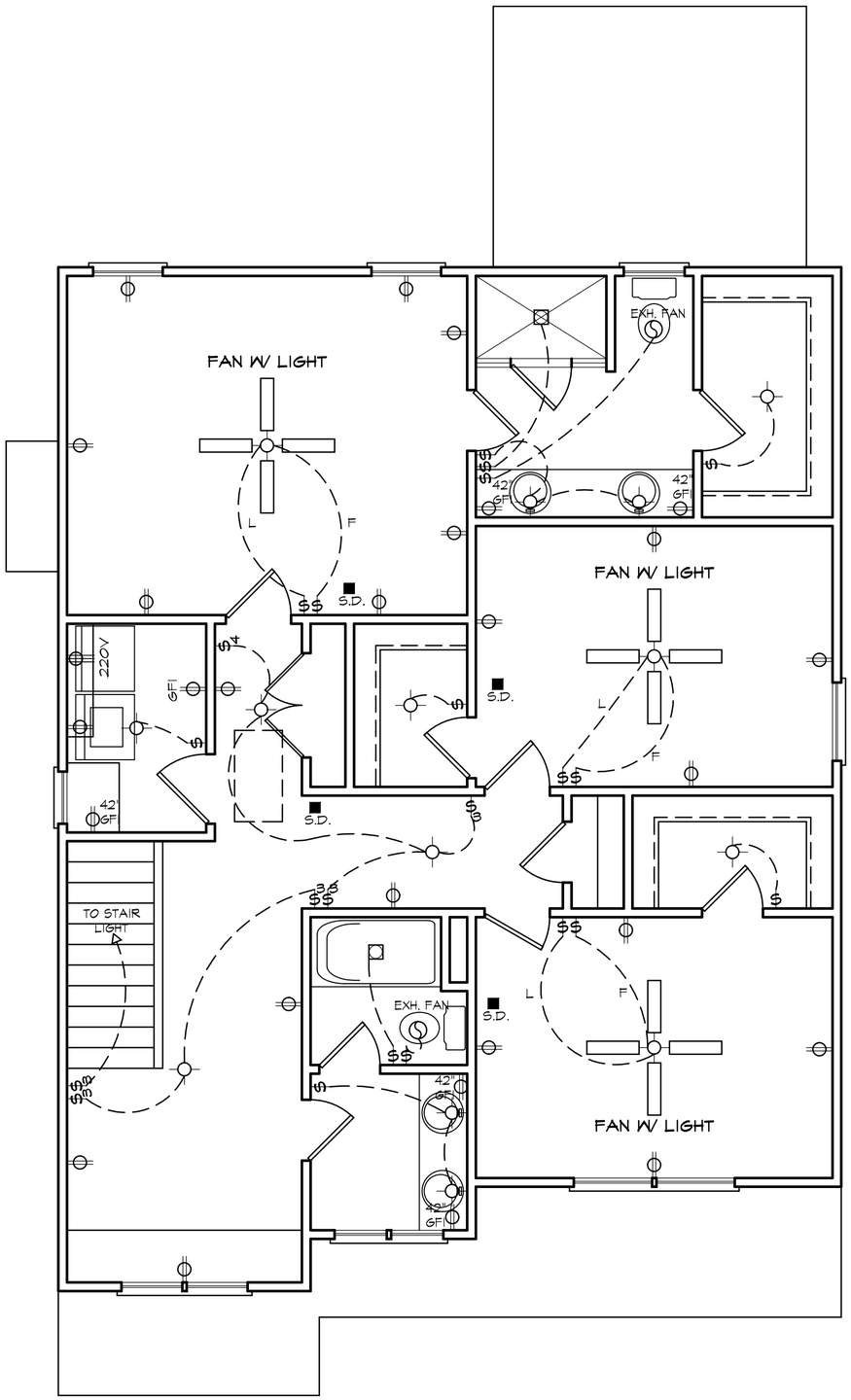
DRAWN BY:
J.A.D.

CHECKED BY:
J.T.S.

REVISIONS:

DATE:
5/19/2021

SHEET:
7



SECOND FLOOR ELECTRICAL PLAN

NOTE - ELECTRICAL RECEPTACLE AND SWITCH QUANTITIES AND LOCATIONS SHOWN ON PLAN ARE FOR ILLUSTRATION PURPOSES ONLY. ACTUAL NUMBER AND LOCATIONS SHALL BE FIELD DETERMINED AS PER CLIENT AND BUILDER EXCEPT WHERE CODE REQUIREMENTS APPLY.

ELECTRICAL LEGEND

- LIGHT FIXTURE
- FAN/LIGHT
- WP - WATERPROOF OUTLET
- RECESSED LIGHTING
- $ - SINGLE PULL SWITCH
- $3 - 3-WAY SWITCH
- $4 - 4-WAY SWITCH
- $D - DIMMER SWITCH
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- CABLE OUTLET
- TELEPHONE OUTLET
- COMPUTER DATA OUTLET
- BURGLAR ALARM
- INTERCOM

NOTE: ALL ELECTRICAL TO BE VERIFIED BY OWNER/BUILDER BEFORE ROUGH-IN.

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PROJECT INFO: Gammon Construction
The Jace - R

TITLE: Electrical

PROJECT NUMBER: 4877

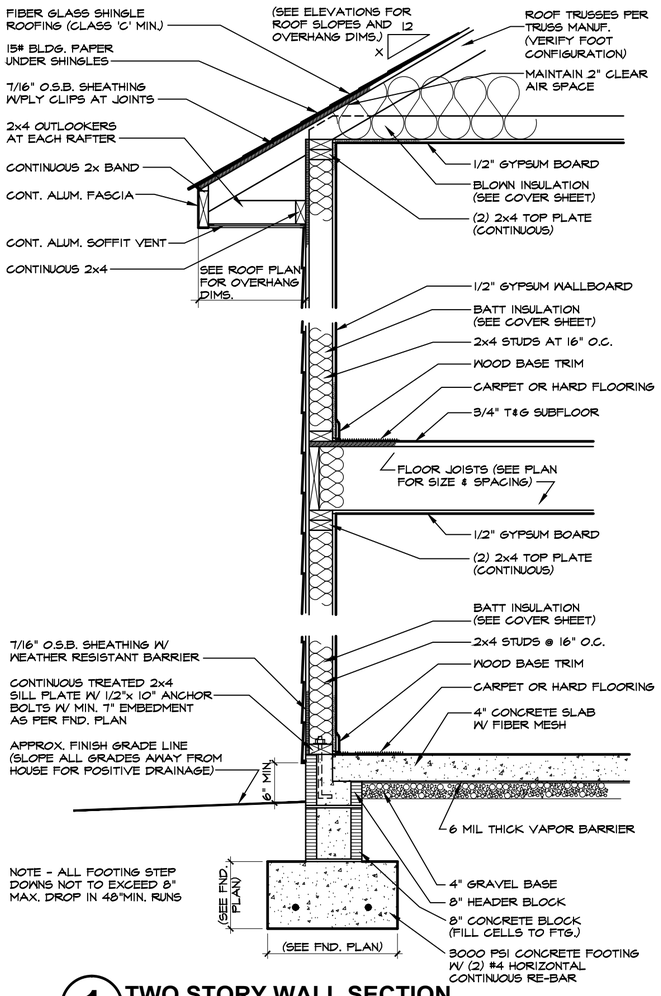
DRAWN BY: J.A.D.

CHECKED BY: J.T.S.

REVISIONS:

DATE: 5/19/2021

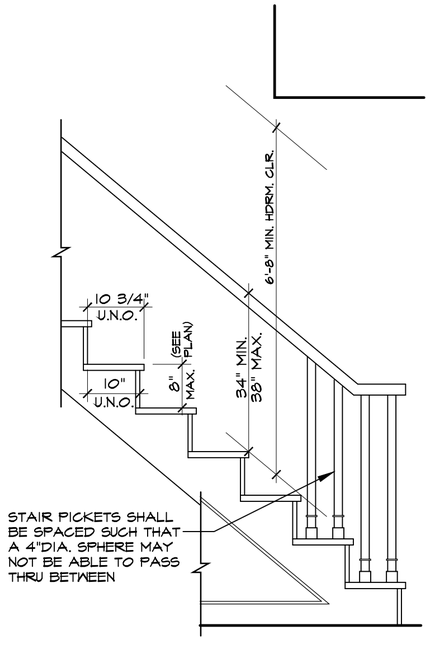
SHEET: 8



1 TWO STORY WALL SECTION

SCALE: 3/4"=1'-0"

BLOCK STEM WALL



2 TYPICAL STAIR DETAIL

SCALE: 3/4"=1'-0"

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PROJECT INFO:
Gammon Construction
The Jace - R

TITLE:
Details

PROJECT NUMBER:
4877

DRAWN BY:
J.A.D.

CHECKED BY:
J.T.S.

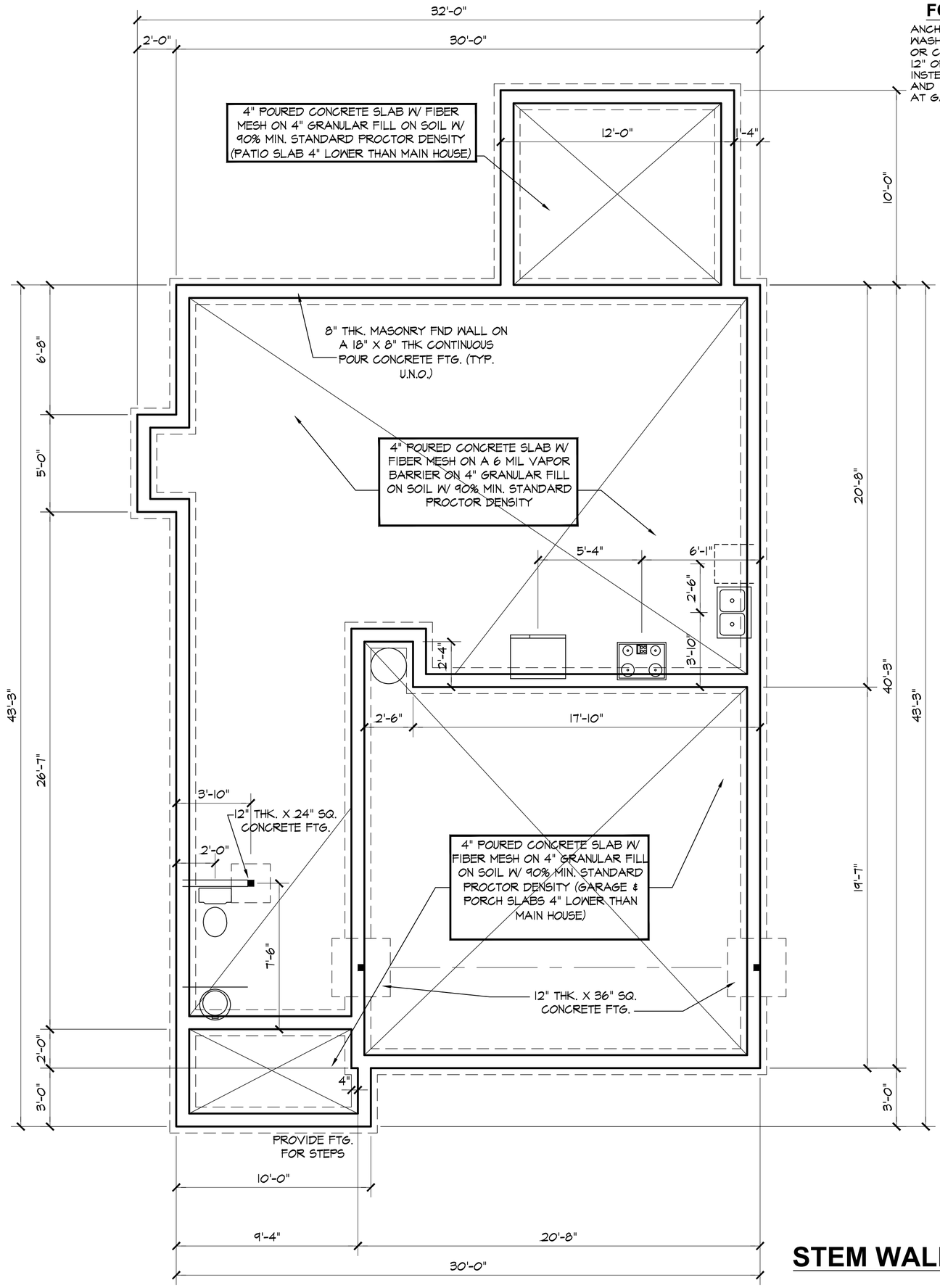
REVISIONS:

DATE:
5/19/2021

SHEET:
D1

FOUNDATION WALL ANCHOR BOLTS

ANCHOR BOLTS SHALL BE MIN. 1/2" DIAMETER WITH STANDARD WASHER AND NUT AND SHALL EXTEND 7" MIN. INTO MASONRY OR CONCRETE. BOLTS TO BE NO MORE THAN 6' O.C. AND WITHIN 12" OF CORNERS. ALTERNATE ANCHOR STRAPS CAN BE USED INSTEAD OF ANCHOR BOLTS SPACED AT THE EQUIVALENT SPACING AND INSTALLED PER MANUFACTURER'S SPECIFICATION'S EXCEPT AT GARAGE LUG FTG.



STEM WALL SLAB FOUNDATION PLAN

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

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PROJECT INFO:
Gammon Construction
The Jace - R

TITLE:
Foundation

PROJECT NUMBER:
4877

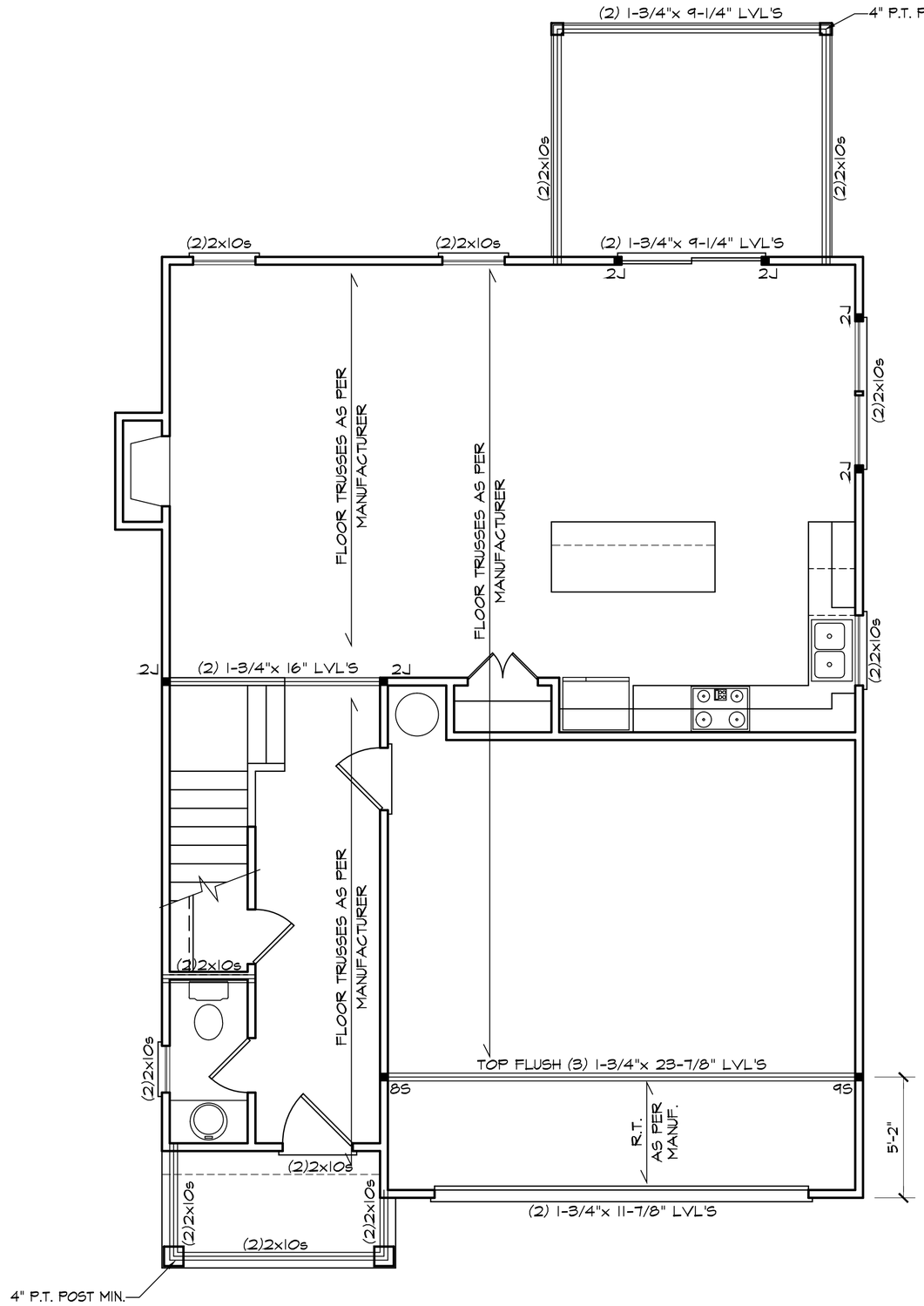
DRAWN BY:
J.A.D.

CHECKED BY:
J.T.S.

REVISIONS:

DATE:
5/19/2021

SHEET:
S1



FIRST FLOOR CEILING STRUCT PLAN

NOTE - ALL INTERIOR WALLS NOT LOAD BEARING MAY BE FRAMED AT 24" O.C. IF SO DESIRED.

NOTE - ALL INTERIOR HEADERS NOT LABELED TO BE (2)2x4s (TYPICAL)

BRACED WALL NOTES

THIS PLAN SHALL BE CONTINUOUSLY BRACED WITH WOOD STRUCTURAL PANELS UTILIZING THE ALTERNATE METHOD PROVIDED BY THE TEMPORARY RULE FOR SECTION R602.10 EXCEPTION 2 OF THE NORTH CAROLINA RESIDENTIAL BUILDING CODE. ALL SHEATHABLE SURFACES SHALL BE SHEATHED WITH WOOD STRUCTURAL PANEL SHEATHING WITH A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH A MINIMUM 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS. NOTE: ALL WALLS WILL HAVE AT LEAST 50% OF THE WALL SHEATHED. THE GARAGE OPENING SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAIL GS-PF.

LOAD CHART FOR JACK STUDS

(BASED ON TABLE 502.5(1) AND (b))

NUMBER OF JACK STUDS REQUIRED AT EACH END OF HEADER OR GIRDER

END REACTION (UP TO)	REQUIRED STUDS FOR (2) PLY HDR.	END REACTION (UP TO)	REQUIRED STUDS FOR (3) PLY HDR.	END REACTION (UP TO)	REQUIRED STUDS FOR (4) PLY HDR.
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				

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PROJECT INFO:
Gammon Construction
The Jace - R

TITLE:
Structural

PROJECT NUMBER:
4877

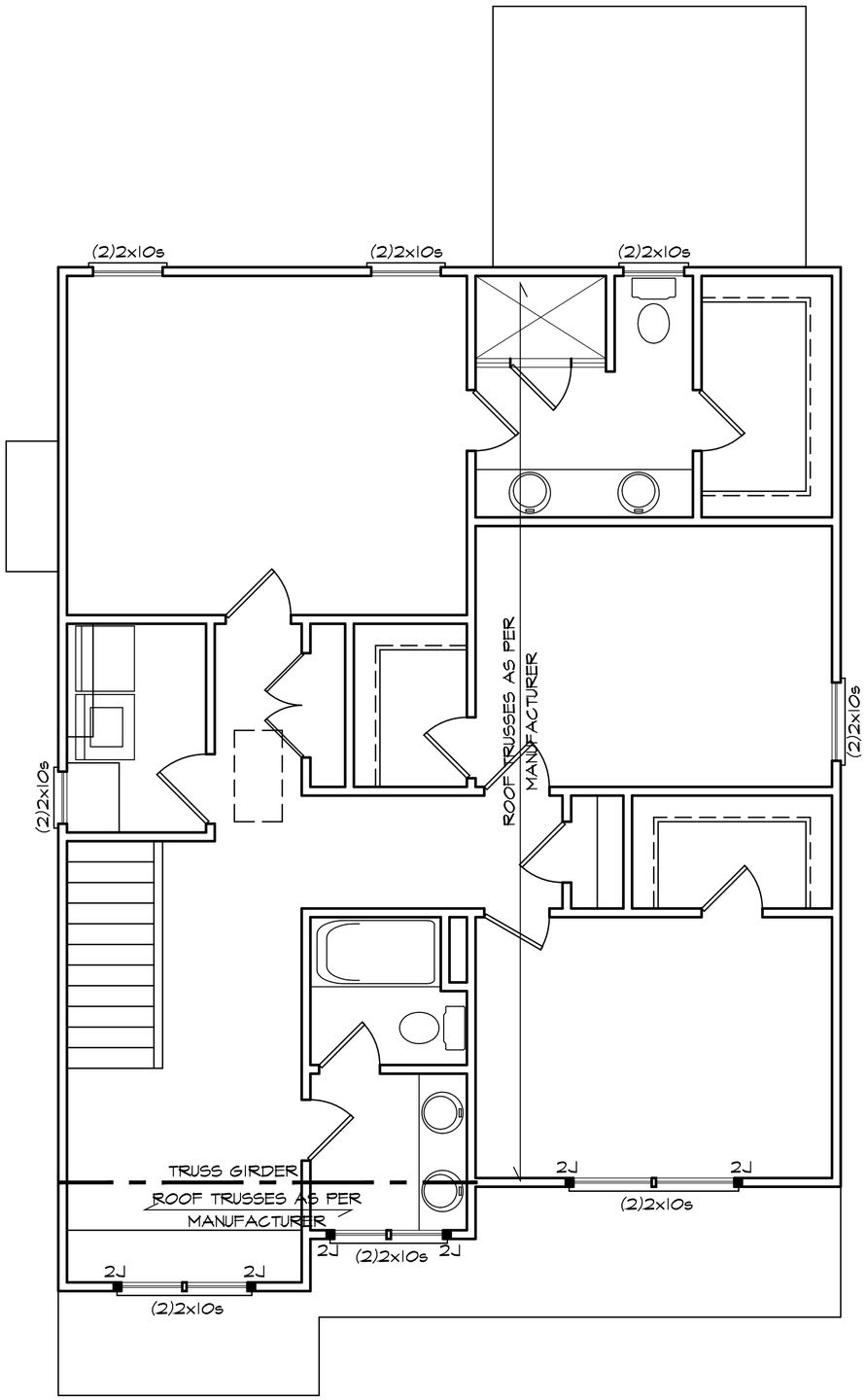
DRAWN BY:
J.A.D.

CHECKED BY:
J.T.S.

REVISIONS:

DATE:
5/19/2021

SHEET:
S2



SECOND FLOOR CEILING STRUCT PLAN

NOTE - ALL INTERIOR WALLS NOT LOAD BEARING MAY BE FRAMED AT 24" O.C. IF SO DESIRED.

NOTE - ALL INTERIOR HEADERS NOT LABELED TO BE (2)2x4s (TYPICAL)

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1027 Hwy 70 West
Suite 223
Garner, NC 27529
919-779-6005
www.homesunique.com

PROJECT INFO:
Gammon Construction
The Jace - R

TITLE:
Structural

PROJECT NUMBER:
4877

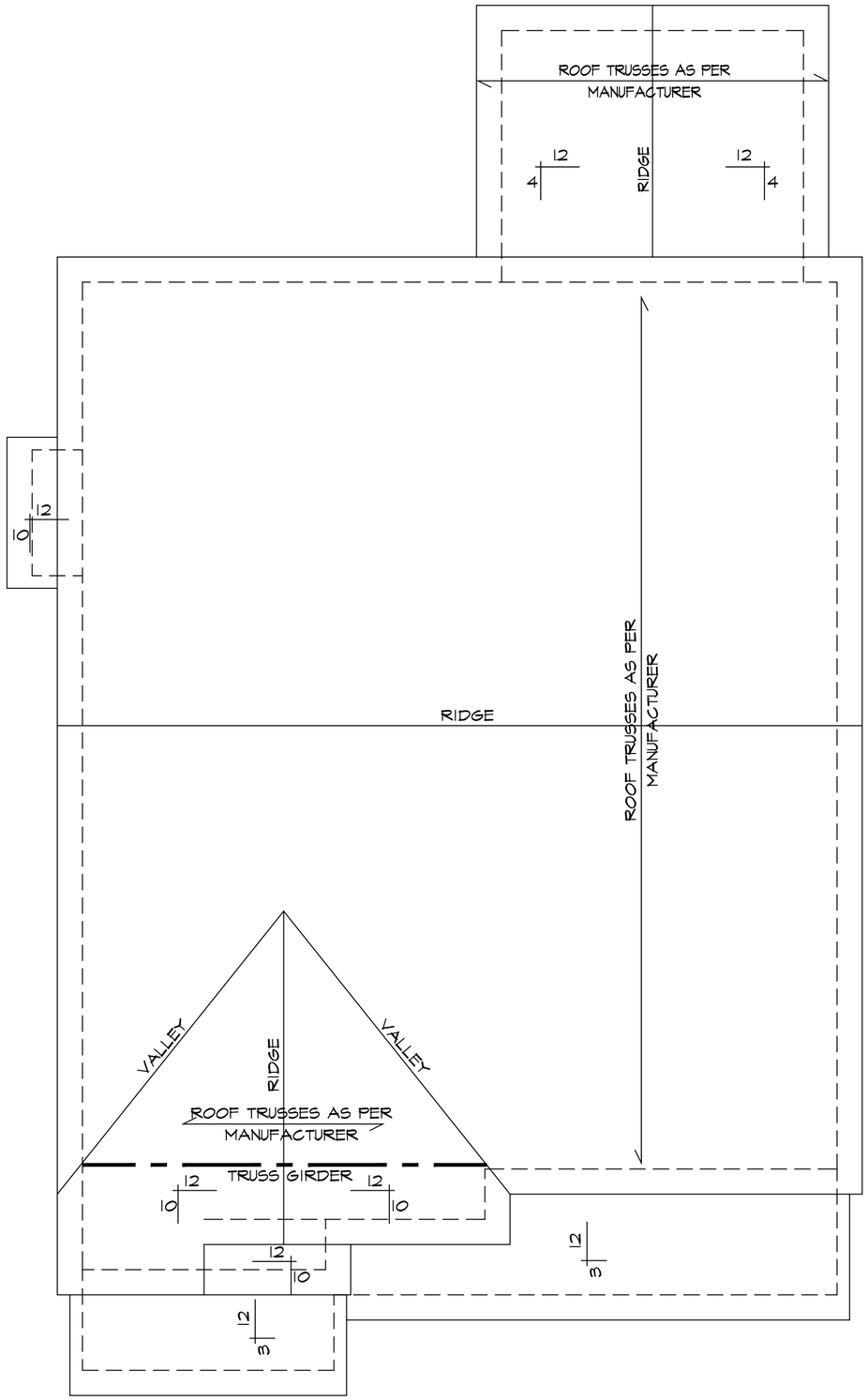
DRAWN BY:
J.A.D.

CHECKED BY:
J.T.S.

REVISIONS:

DATE:
5/19/2021

SHEET:
S3



ROOF PLAN

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

NOTE 1 - ALL ROOF PITCHES TO BE 8/12 U.N.O.

NOTE 2 - ALL ROOF OVERHANGS TO BE 12" U.N.O.

homes unique inc
residential design

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The purpose of these drawings is to show the intent of the design and construction of this home. Contractor should verify all conditions and dimensions prior to construction. Once a permit has been issued, contractor shall assume all responsibility to the accuracy of the plans and any changes made during construction.

PROJECT INFO:
Gammon Construction
The Jace - R

TITLE:
Roof Plan

PROJECT NUMBER:
4877

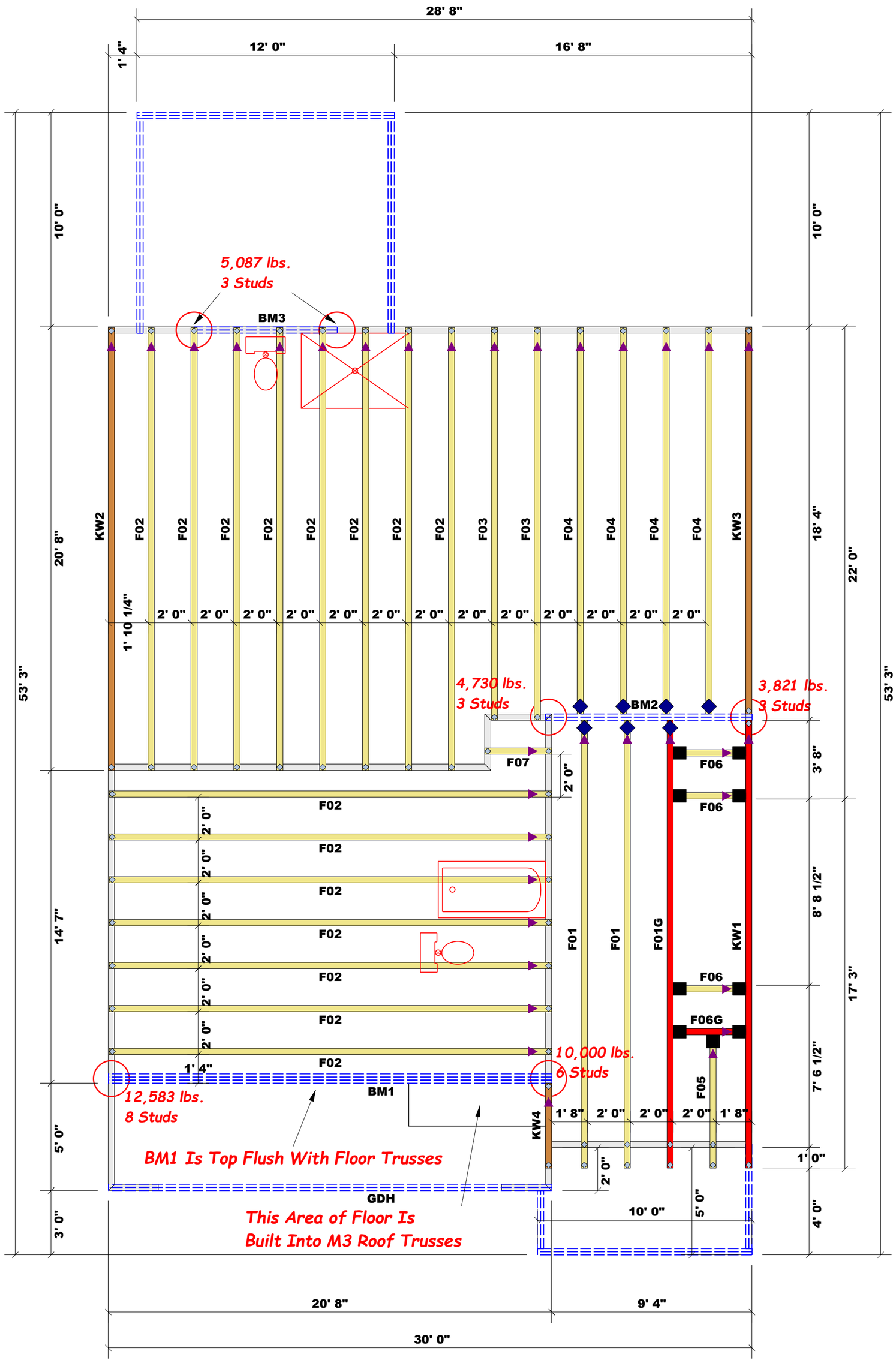
DRAWN BY:
J.A.D.

CHECKED BY:
J.T.S.

REVISIONS:

DATE:
5/19/2021

SHEET:
S4



HANGER LEGEND	
■	= USP MSH422 / Strap Hanger
◆	= USP JUS414 / Single 4x Hanger

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

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

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

Truss Placement Plan
SCALE: 1/4" = 1'

Beam Legend					
PlotID	Length	Product	Plies	Net Qty	Fab Type
BM3	7' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF
GDH	21' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2	FF
BM2	10' 0"	1-3/4"x 16" LVL Kerto-S	2	2	FF
BM1	21' 0"	1-3/4"x 23-7/8" LVL Kerto-S	3	3	FF

LOAD CHART FOR JACK STUDS
(BASED ON TABLES R502.5(1) & (b))
NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (UP TO)	REQ'D STUDS FOR (2) PLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (3) PLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (4) PLY HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				

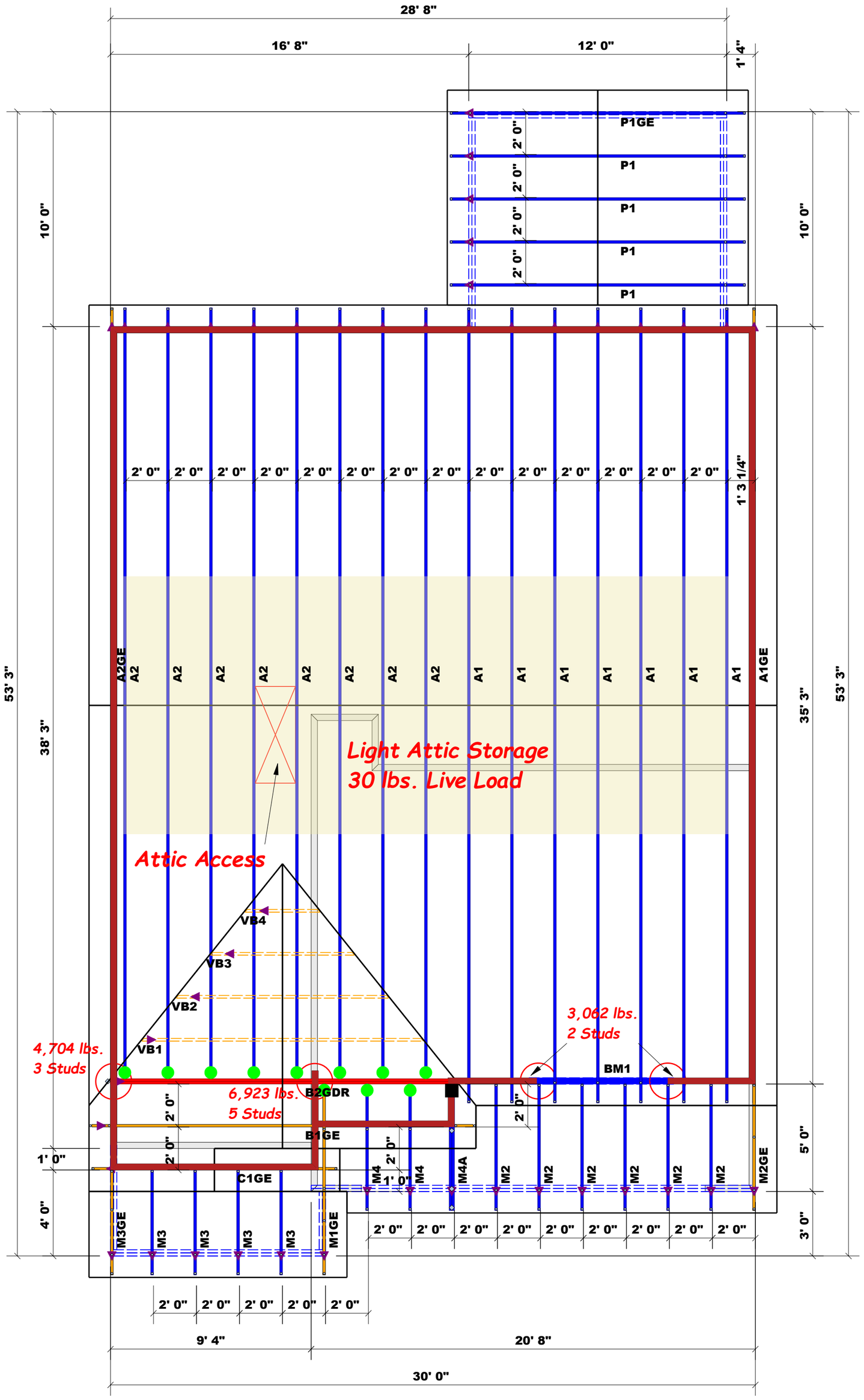
BUILDER	Gammon Construction	CITY / CO.	Lillington / Harnett
JOB NAME	Lot 4 Rollins Acres	ADDRESS	Site Address
PLAN	The Jace	MODEL	Floor
SEAL DATE	Seal Date	DATE REV.	01/02/25
QUOTE #	Quote #	DRAWN BY	Curtis Quick
JOB #	J1224-6709	SALES REP.	Lenny Norris

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 BCSI-B1 and BCSI-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



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

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

-- Denotes Reaction Greater than 3,000 lbs.

Truss Placement Plan
SCALE: 1/4" = 1'

HANGER LEGEND	
■	= USP THD28-2 / Double 2x Hanger
●	= USP HUS26 / Single 2x Hanger

Beam Legend					
PlotID	Length	Product	Plies	Net Qty	Fab Type
BM1	7' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF

LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (b))

NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (UP TO)	REQ'D STUDS FOR (2) PLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (3) PLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (4) PLY HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				

BUILDER	Gammon Construction	**CITY / CO.**	Lillington / Harnett
JOB NAME	Lot 4 Rollins Acres	**ADDRESS**	Site Address
PLAN	The Jace	**MODEL**	Roof
SEAL DATE	Seal Date	**DATE REV.**	01/02/25
QUOTE #	Quote #	**DRAWN BY**	Curtis Quick
JOB #	J1224-6708	**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 BCSI-B1 and BCSI-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#.

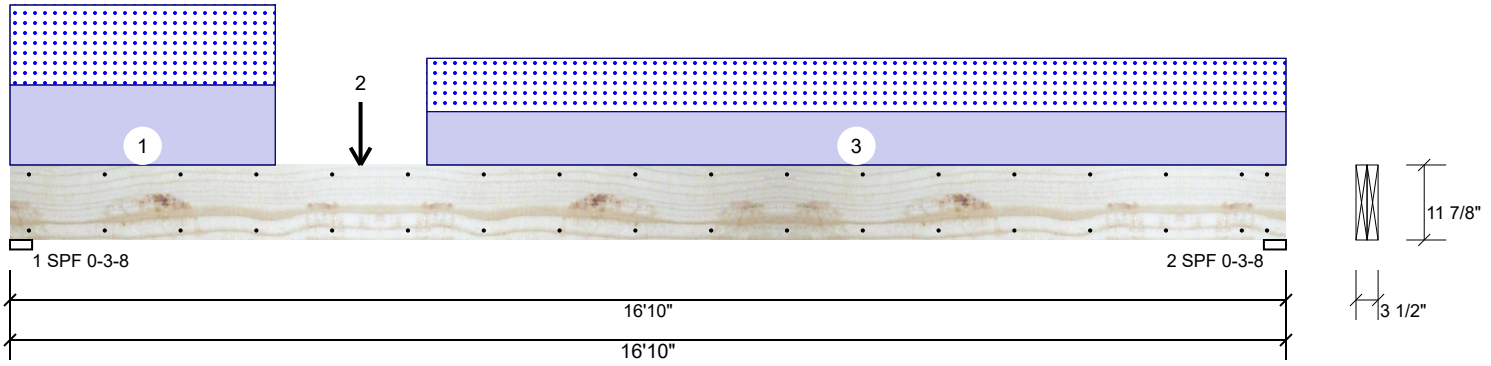
Signature Curtis Quick
Curtis Quick

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

Client:	Gammon Construction	Date:	1/6/2025
Project:		Input by:	Curtis Quick
Address:		Job Name:	The Jace Beams
		Project #:	

GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IRC 2018
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	791	713	0	0
2	Vertical	0	655	577	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	29%	791 / 713	1504	L	D+S
2 - SPF	3.500"	Vert	24%	655 / 577	1232	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5253 ft-lb	7'10 1/4"	22897 ft-lb	0.229 (23%)	D+S	L
Unbraced	5253 ft-lb	7'10 1/4"	6086 ft-lb	0.863 (86%)	D+S	L
Shear	1255 lb	1'3 3/8"	10197 lb	0.123 (12%)	D+S	L
LL Defl inch	0.130 (L/1510)	8'3 3/16"	0.409 (L/480)	0.318 (32%)	S	L
TL Defl inch	0.276 (L/711)	8'3 1/4"	0.546 (L/360)	0.506 (51%)	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
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 end bearings.
7 Bottom must be laterally braced at end 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	Part. Uniform	0-0-0 to 3-6-0		Top	96 PLF	0 PLF	96 PLF	0 PLF	0 PLF	M4
2	Point	4-7-8		Top	229 lb	0 lb	229 lb	0 lb	0 lb	M4A
	Bearing Length	0-3-8								
3	Part. Uniform	5-6-0 to 16-10-0		Top	64 PLF	0 PLF	64 PLF	0 PLF	0 PLF	M2
	Self Weight				9 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

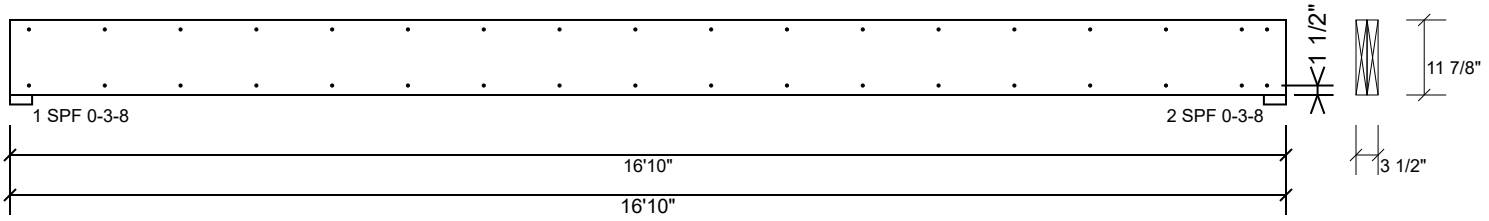
This design is valid until 6/28/2026

Manufacturer Info

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

GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
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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Manufacturer Info

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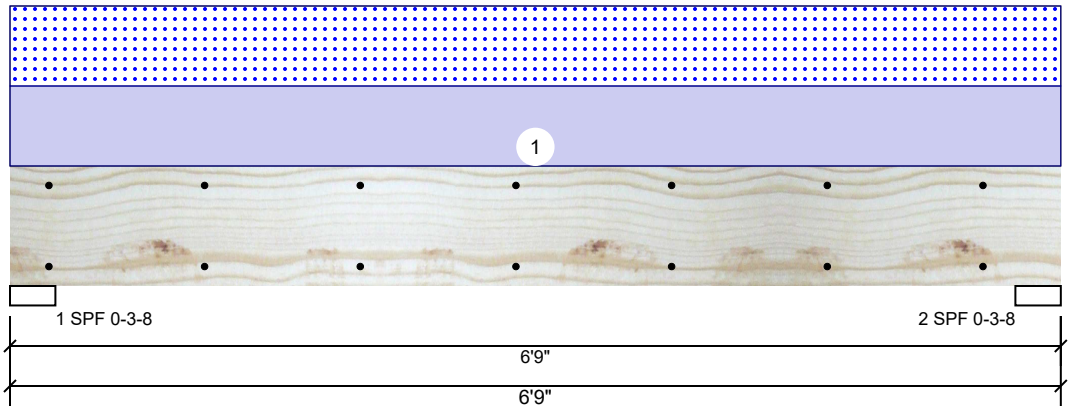
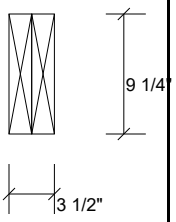
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

Client:	Gammon Construction	Date:	1/6/2025
Project:		Input by:	Curtis Quick
Address:		Job Name:	The Jace Beams
		Project #:	

BM1 (Roof) 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:	IRC 2018
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1543	1519	0	0
2	Vertical	0	1543	1519	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	59%	1543 / 1519	3062	L	D+S
2 - SPF	3.500"	Vert	59%	1543 / 1519	3062	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4489 ft-lb	3'4 1/2"	14423 ft-lb	0.311 (31%)	D+S	L
Unbraced	4489 ft-lb	3'4 1/2"	10290 ft-lb	0.436 (44%)	D+S	L
Shear	2103 lb	5'8 1/4"	7943 lb	0.265 (26%)	D+S	L
LL Defl inch	0.042 (L/1785)	3'4 1/2"	0.157 (L/480)	0.269 (27%)	S	L
TL Defl inch	0.085 (L/886)	3'4 1/2"	0.210 (L/360)	0.407 (41%)	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
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 end bearings.
7 Bottom must be laterally braced at end 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	450 PLF	0 PLF	450 PLF	0 PLF	0 PLF	A1
	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

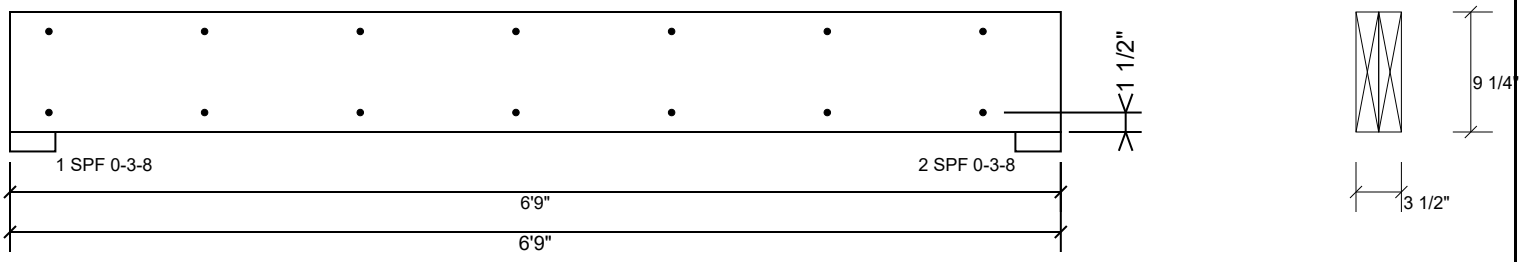
This design is valid until 6/28/2026

Manufacturer Info

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

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

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
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
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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 6/28/2026

Manufacturer Info

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Norwalk, CT 06851
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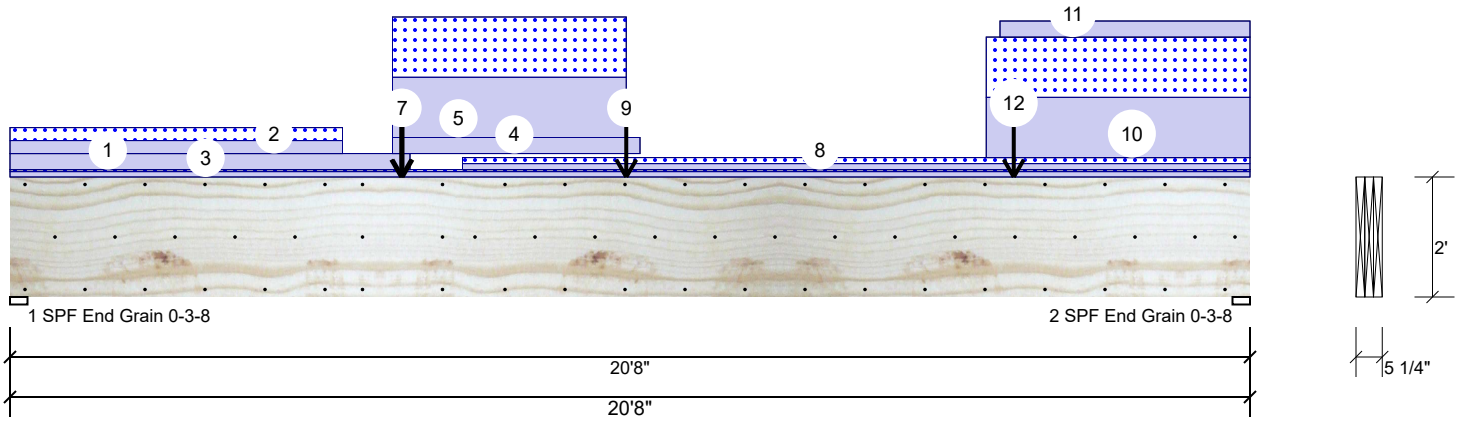
www.metsawood.com/us

BM1 Kerto-S LVL 1.750" X 24.000" 3-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IRC 2018
Deflection LL:	480	Load Sharing:	Yes
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	5782	4218	0	0
2	Vertical	0	6954	5628	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	65%	5782 / 4218	10000	L	D+S
2 - SPF End Grain	3.500"	Vert	82%	6954 / 5628	12583	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	62380 ft-lb	10'1 7/16"	131295 ft-lb	0.475 (48%)	D+S	L
Unbraced	62380 ft-lb	10'1 7/16"	62625 ft-lb	0.996 (100%)	D+S	L
Shear	10293 lb	18'4 1/2"	30912 lb	0.333 (33%)	D+S	L
LL Defl inch	0.189 (L/1284)	10'3 1/8"	0.506 (L/480)	0.374 (37%)	S	L
TL Defl inch	0.424 (L/573)	10'2 5/8"	0.674 (L/360)	0.629 (63%)	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6". Nail from both sides.
3 Refer to last page of calculations for fasteners required for specified loads.
4 Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present.
5 Girders are designed to be supported on the bottom edge only.
6 Top loads must be supported equally by all plies.
7 Top must be laterally braced at a maximum of 4'2 3/4" o.c.
8 Bottom must be laterally braced at end bearings.
9 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	Part. Uniform	0-0-0 to 6-8-0		Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
2	Part. Uniform	0-0-0 to 5-6-8		Near Face	97 PLF	0 PLF	97 PLF	0 PLF	0 PLF	M4
3	Uniform			Top	40 PLF	0 PLF	15 PLF	0 PLF	0 PLF	

Continued on page 2...

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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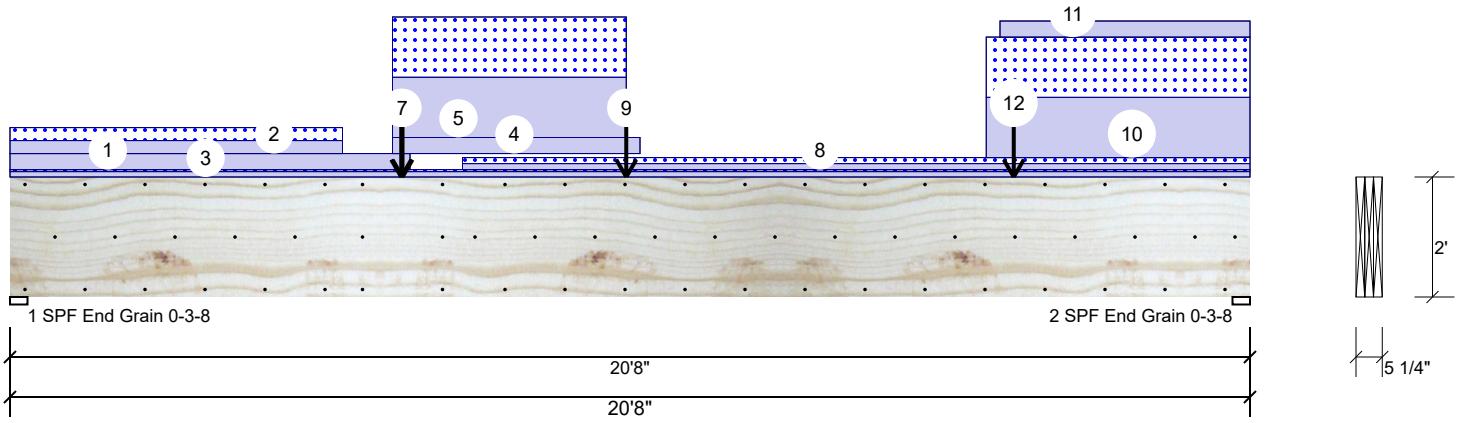
BM1 Kerto-S LVL 1.750" X 24.000" 3-Ply - PASSED

Level: Level



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ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
4	Part. Uniform	6-4-8 to 10-6-0		Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
5	Part. Uniform	6-4-8 to 10-3-4		Top	450 PLF	0 PLF	450 PLF	0 PLF	0 PLF	A1
6	Point	6-6-4		Top	1342 lb	0 lb	1342 lb	0 lb	0 lb	B2GDR
	Bearing Length	0-3-8								
7	Point	6-6-8		Near Face	273 lb	0 lb	273 lb	0 lb	0 lb	M4A
8	Part. Uniform	7-6-8 to 20-8-0		Near Face	45 PLF	0 PLF	45 PLF	0 PLF	0 PLF	M2
9	Point	10-3-4		Top	1531 lb	0 lb	1531 lb	0 lb	0 lb	BM1 (Roof)
	Bearing Length	0-3-8								
10	Part. Uniform	16-3-4 to 20-8-0		Top	450 PLF	0 PLF	450 PLF	0 PLF	0 PLF	A1
11	Part. Uniform	16-6-0 to 20-8-0		Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
12	Point	16-8-12		Top	1531 lb	0 lb	1531 lb	0 lb	0 lb	BM1 (Roof)
	Bearing Length	0-3-8								
	Self Weight				28 PLF					

Notes

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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

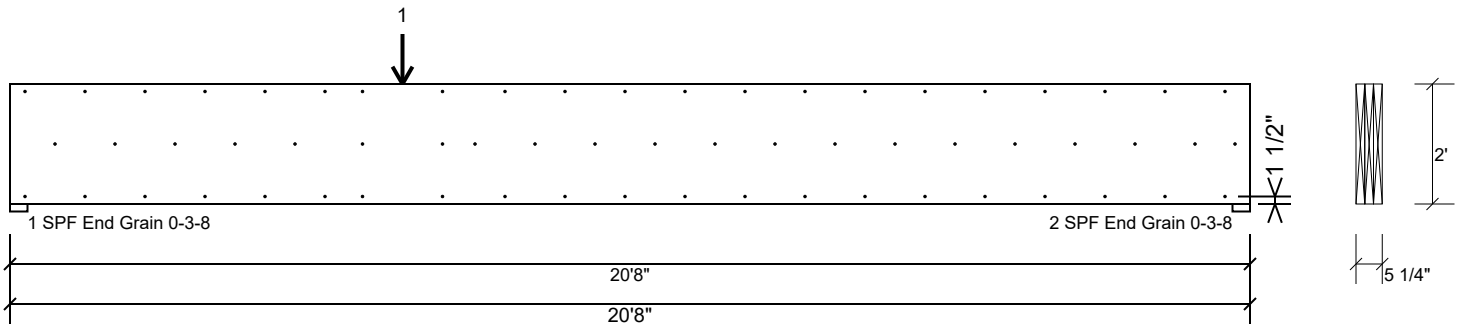
This design is valid until 6/28/2026

Manufacturer Info

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

BM1 Kerto-S LVL 1.750" X 24.000" 3-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. except for regions covered by concentrated load fastening. Nail from both sides. Maximum end distance not to exceed 6".

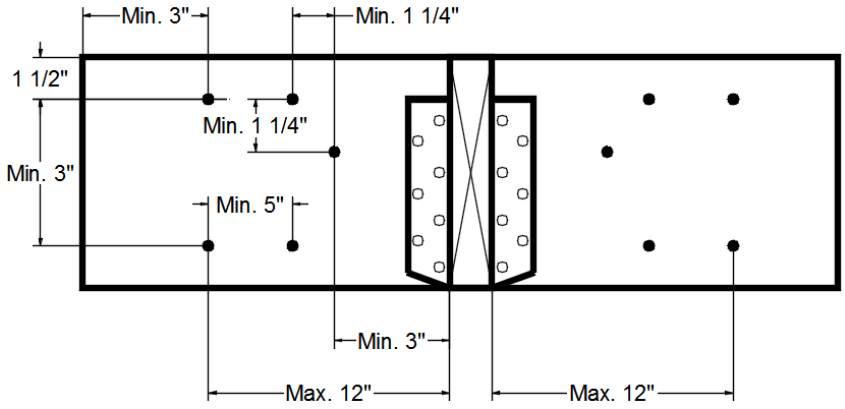
Capacity	45.8 %
Load	129.3 PLF
Yield Limit per Foot	282.4 PLF
Yield Limit per Fastener	94.1 lb.
Cм	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+S
Duration Factor	1.15

Concentrated Load

Fasten at concentrated side load at 6-6-8 with a minimum of (6) – 10d Box nails (.128x3") in the pattern shown. Nail from both sides.

Capacity	64.5 %
Load	364.0lb.
Total Yield Limit	564.7 lb.
Cg	0.9998
Cм	1
Yield Limit per Fastener	94.1 lb.
Yield Mode	IV
Load Combination	D+S
Duration Factor	1.15

Min/Max fastener distances for Concentrated Side Loads



Notes

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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 6/28/2026

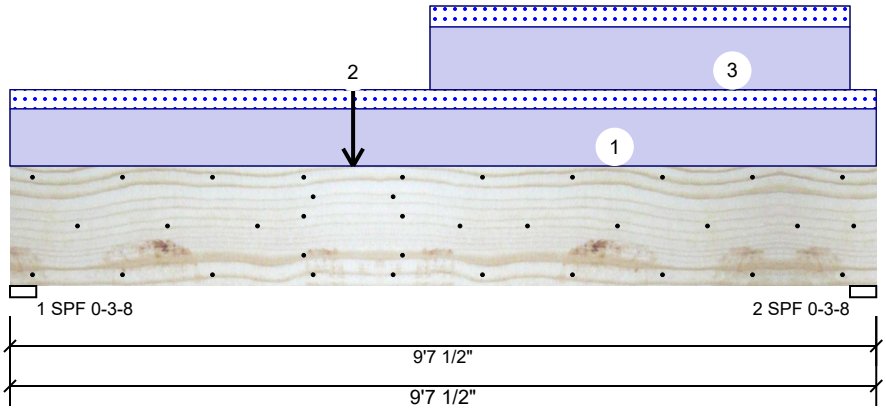
Manufacturer Info

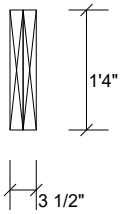
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

Client:	Gammon Construction	Date:	1/6/2025
Project:		Input by:	Curtis Quick
Address:		Job Name:	The Jace Beams
		Project #:	

BM2 Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IRC 2018
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	2878	943	0	0
2	Vertical	0	3561	1169	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	73%	2878 / 943	3821	L	D+S
2 - SPF	3.500"	Vert	91%	3561 / 1169	4730	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	10524 ft-lb	4'10 11/16"	39750 ft-lb	0.265 (26%)	D+S	L
Unbraced	10524 ft-lb	4'10 11/16"	12994 ft-lb	0.810 (81%)	D+S	L
Shear	4347 lb	1'7 1/2"	13739 lb	0.316 (32%)	D+S	L
LL Defl inch	0.022 (L/5083)	4'10 5/16"	0.230 (L/480)	0.094 (9%)	S	L
TL Defl inch	0.088 (L/1257)	4'10 5/16"	0.306 (L/360)	0.286 (29%)	D+S	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3. Refer to last page of calculations for fasteners required for specified loads.
4. Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present.
5. Girders are designed to be supported on the bottom edge only.
6. Top must be laterally braced at end bearings.
7. Bottom must be laterally braced at end 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			Far Face	364 PLF	0 PLF	122 PLF	0 PLF	0 PLF	F04
2	Point	3-9-12		Near Face	949 lb	0 lb	317 lb	0 lb	0 lb	F01G
3	Part. Uniform	4-8-0 to 9-4-0		Near Face	400 PLF	0 PLF	133 PLF	0 PLF	0 PLF	F01
	Self Weight				12 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

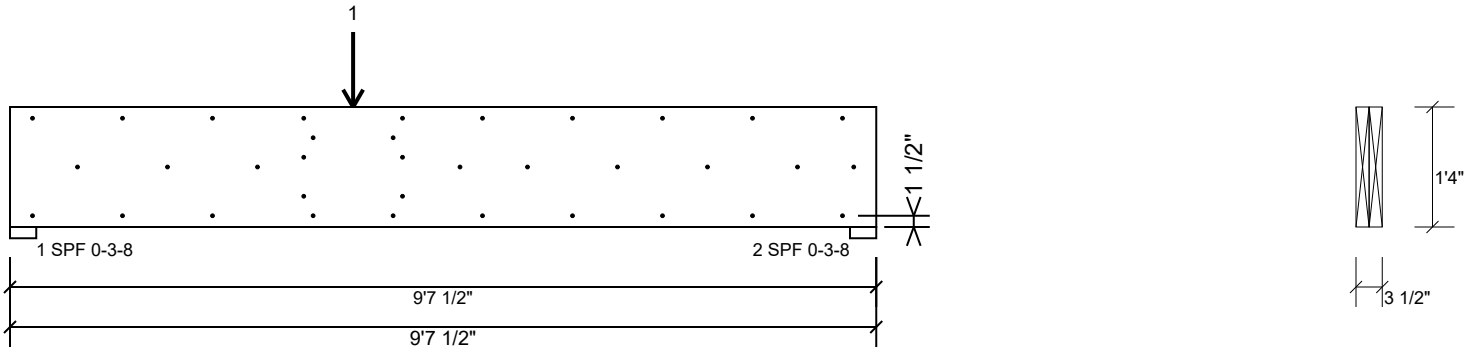
This design is valid until 6/28/2026

Manufacturer Info

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

BM2 Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. except for regions covered by concentrated load fastening. Maximum end distance not to exceed 6".

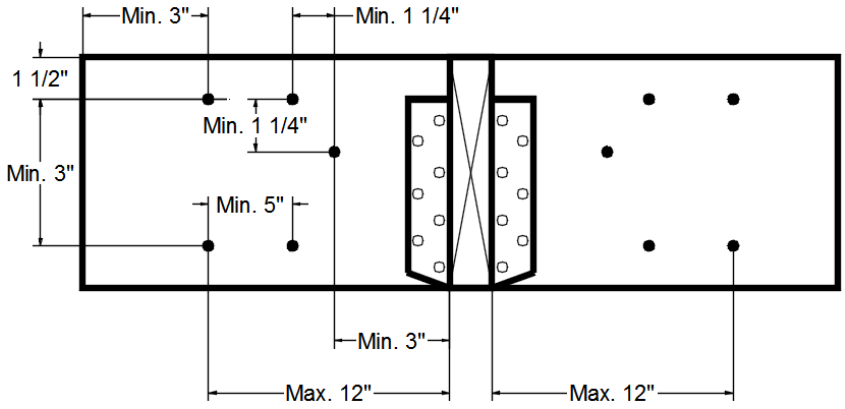
Capacity	94.4 %
Load	266.5 PLF
Yield Limit per Foot	282.4 PLF
Yield Limit per Fastener	94.1 lb.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+S
Duration Factor	1.15

Concentrated Load

Fasten at concentrated side load at 3-9-12 with a minimum of (10) – 10d Box nails (.128x3") in the pattern shown.

Capacity	67.3 %
Load	633.0lb.
Total Yield Limit	941.1 lb.
Cg	0.9998
C_M	1
Yield Limit per Fastener	94.1 lb.
Yield Mode	IV
Load Combination	D+S
Duration Factor	1.15

Min/Max fastener distances for Concentrated Side Loads



Notes

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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

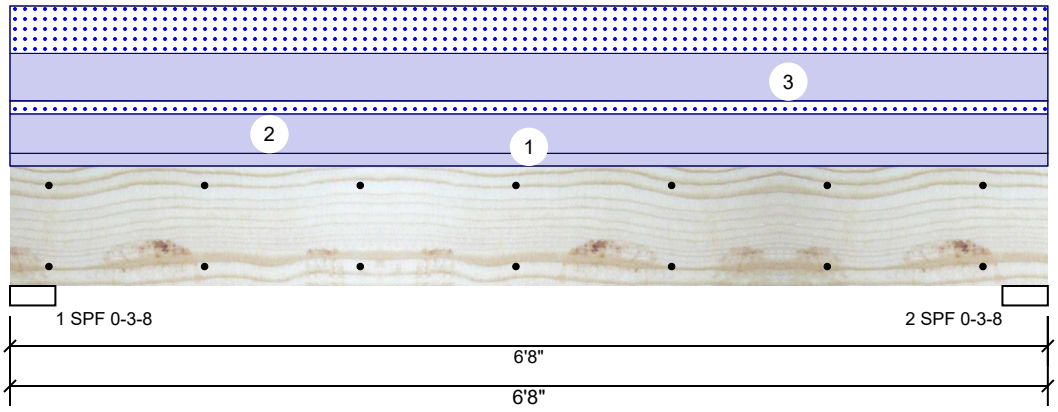
This design is valid until 6/28/2026

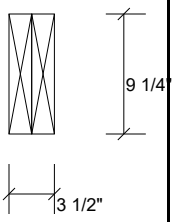
Manufacturer Info

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

BM3 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:	IRC 2018
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	3171	1917	0	0
2	Vertical	0	3171	1917	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	98%	3171 / 1917	5087	L	D+S
2 - SPF	3.500"	Vert	98%	3171 / 1917	5087	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7353 ft-lb	3'4"	14423 ft-lb	0.510 (51%)	D+S	L
Unbraced	7353 ft-lb	3'4"	10370 ft-lb	0.709 (71%)	D+S	L
Shear	3471 lb	5'7 1/4"	7943 lb	0.437 (44%)	D+S	L
LL Defl inch	0.051 (L/1447)	3'4"	0.155 (L/480)	0.332 (33%)	S	L
TL Defl inch	0.137 (L/545)	3'4"	0.207 (L/360)	0.660 (66%)	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
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 end bearings.
7 Bottom must be laterally braced at end 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	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
2	Uniform			Top	374 PLF	0 PLF	125 PLF	0 PLF	0 PLF	F01
3	Uniform			Top	450 PLF	0 PLF	450 PLF	0 PLF	0 PLF	A1
	Self Weight				7 PLF					

Notes

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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 6/28/2026

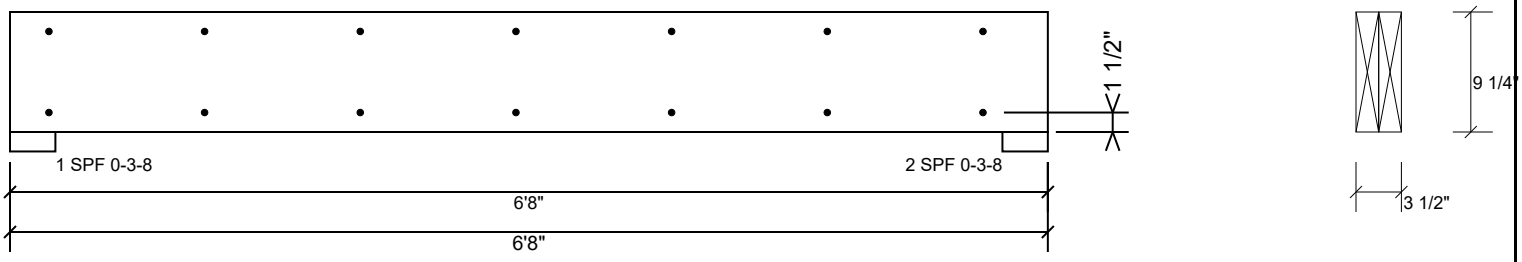
Manufacturer Info

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

Client:	Gammon Construction	Date:	1/6/2025
Project:		Input by:	Curtis Quick
Address:		Job Name:	The Jace Beams
		Project #:	

BM3 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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