ELEVATION NOTES:
GRADE ELEVATIONS SHOWN DO NOT NECESSARILY REFER TO THIS OR ANY OTHER LOT. THEY ARE FOR DIAGRAMMATIC PURPOSES ONLY AND MAY VARY. BUILDER IS RESPONSIBLE FOR ADAPTING THIS PLAN TO SUIT THE EXISTING TOPOGRAPHY OF THE SITE.

ROOF VENTILATION TO BE DETERMINED BY BUILDER AS PER CODE.

ALL EGRESS OR RESCUE WINDOWS FROM SLEEPING ROOMS MUST HAVE A MIN. NET CLEAR OPENING OF 4.0 SQ FT. THE MIN NET CLEAR OPENING HEIGHT DIMENSION SHALL BE 22". THE MIN NET CLEAR OPENING WIDTH SHALL BE 20".

EACH EGRESS WINDOW FROM SLEEPING ROOMS MUST HAVE A SILL HGHT OF NO MORE THAN 44" FROM THE FLOOR. ALL WINDOW SIZES ARE NOMINAL AND ARE TO BE VERIFIED WITH MANUFACTURER FOR AVAILABILITY AND CONFORMITY TO STATE AND LOCAL CODE REQUIREMENTS.

PORCHES, BALCONIES, OR RAISED FLOOR SURFACES LOCATED MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDRAILS NOT LESS THAN 32" IN HEIGHT.

I ASSUME NO RESPONSIBILITY FOR ANY DISTANCES AFTER START OF CONSTRUCTION.
CONTRACTOR/BUILDER SHALL CONSULT WITH HOME OWNER ON ALL INTERIOR AND EXTERIOR MOLDINGS, TRIMS, COLORS, FINISHES, CABINET LAYOUTS, AND MANUFACTORS BEFORE CONSTRUCTION BEGINS.
ALL BEAMS AND FRAMING MEMBERS ARE SIZED BY OTHERS.

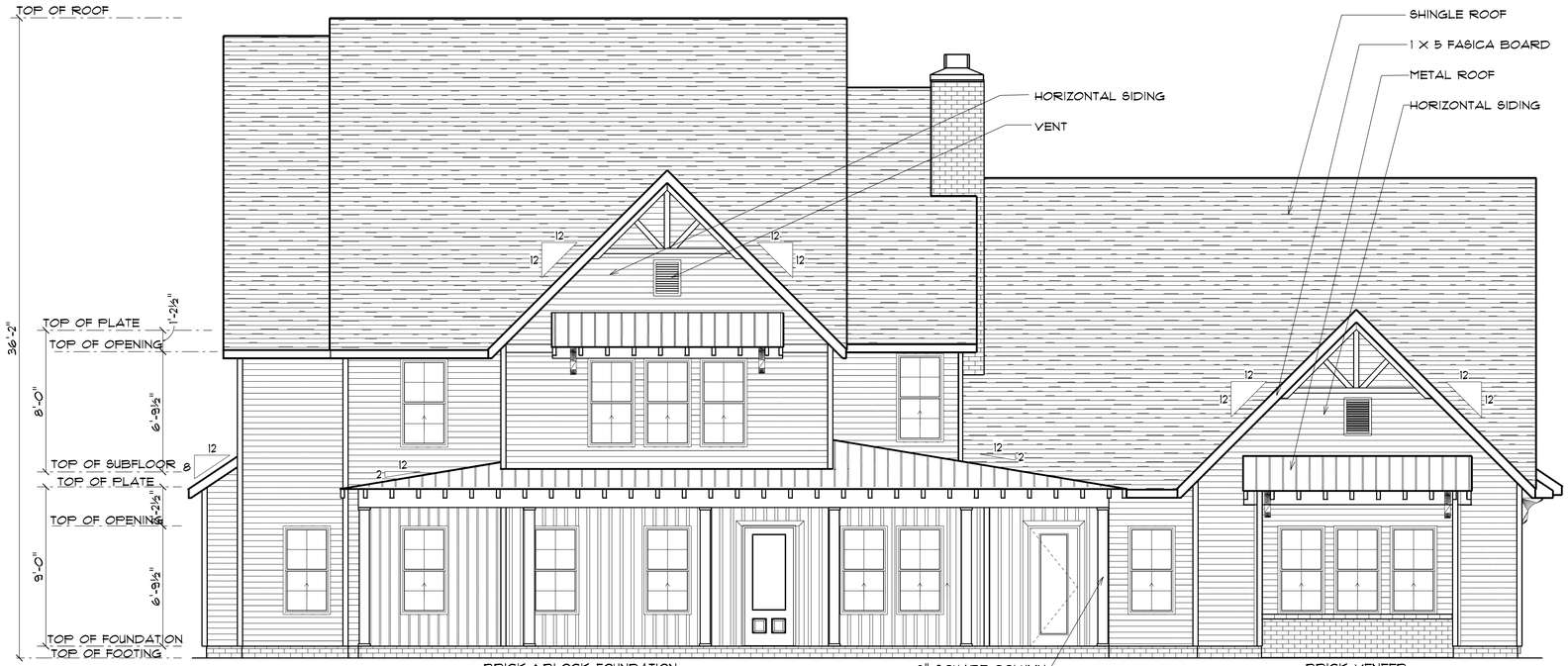
1.1 This plan has been drawn to comply with the 2018 NC Building Code

1.2 Minimum Design Loads for Building and Other Structures ASCE 7-98
2 Roof Dead Load 15 PSF
3 Roof Live Load 20 PSF
4 Typical Floor Dead Load 10 PSF
5 Floor Live Loads
- 5.1 Rooms other than sleeping rooms 40 PSF
- 5.2 Sleeping Rooms 30 PSF
- 5.3 Stairs 40 PSF
- 5.4 Decks 40 PSF
- 5.5 Exterior Balconies 60 PSF

6 Wind Loads
- 6.1 Ultimate Design Wind Speeds 115 MPH
- 6.2 Wind Importance Factor, IW 1.00
- 6.3 Exposure B
- 6.4 Walls (Component and Cladding) 25 PSF
- 6.5 Roofs (Component and Cladding)
  - 6.5.1 Roof Slopes 2.25/12 to 7/12 34.8 PSF
  - 6.5.2 Roof Slopes 7/12 to 12/12 21 PSF

It is the sole responsibility of the Contractor and/or Builder to conform to all standards, provisions, requirements, methods of construction and uses of materials provided in buildings and/or structures as required by NC Uniform Building Code, Local Agencies and in accordance with good engineering practices. Verify all dimensions prior to construction.

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
04/23/2025
Harnett COUNTY NORTH CAROLINA



FRONT ELEVATION
SCALE: 1"= 1/4"

REAR ELEVATION
SCALE: 1"= 1/4"

Diane Rives Designs
6205 Mockingbird Lane
Sanford, N.C. 27332
919-770-2353
dr@comcastcharter.net

DRD

SCALE: 1"= 1/4"
DRAWN BY:
DATE: 9/19/2024

LAMCO HOMES

THE ISABELLE
RIGHT GARAGE

FRONT & REAR ELEVATIONS

LEFT ELEVATION

SCALE: 1"= 1/4"

RIGHT ELEVATION

SCALE: 1"= 1/4"

24

Diane Rivas Designs
6208 Rockingbird Lane
Sanford N.C. 27332
919-770-0351
gethomehere@nc.rr.net

DRD

SCALE: 1"= 1/4"

DRAWN BY:

DATE: 9/19/2024

LAMCO HOMES

THE ISABELLE
RIGHT GARAGE

RIGHT & LEFT
ELEVATIONS

FOUNDATION NOTES:
ALL FOOTINGS SHALL BEAR ON ORIGINAL UNDISTURBED SOIL.
THE 28 DAY COMPRESSIVE STRENGTH OF ALL FOOTINGS IS 3000 PSI

PROVIDE WATER PROOFING AND PERIMETER DRAINS AS REQUIRED.

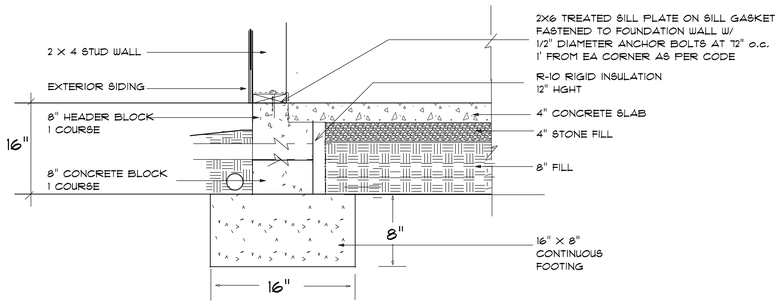
FOUNDATION CONCRETE MIX TO HAVE 1-1/2" MAX AGGREGATE SIZE. CONCRETE FILL MIX TO HAVE 1/2" MAX AGGREGATE SIZE.

FOOTING WIDTHS ARE BASED ON A LOAD-BEARING SOIL CAPACITY OF 2000 PSI.

PROVIDE 6 MIL POLY VAPOR BARRIER TO COVER GROUND SURFACE IN CRAWL SPACE

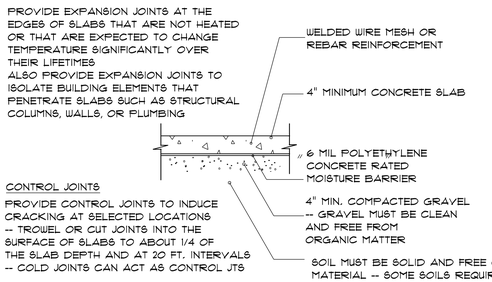
ALL ANCHOR BOLTS TO BE 12" LONG, 1/2" DIA. A36 UNO ANCHOR BOLTS SHALL BE SPACE AT A MAX OF 6' OC AND NO MORE THAN 1' FROM EA CORNER.

Termite Soil Treatment: Treat entire slab area soil or crawl space surface before vapor barrier is installed and slab is poured with a state approved termiticide. Termiticide should be applied by a licensed and certified pest control professional by the state of North Carolina.



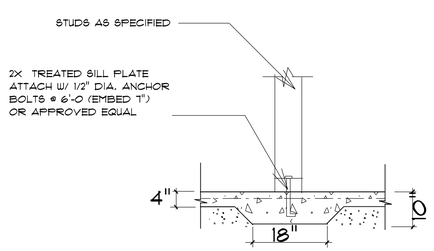
STEM WALL FOUNDATION Detail

not to scale



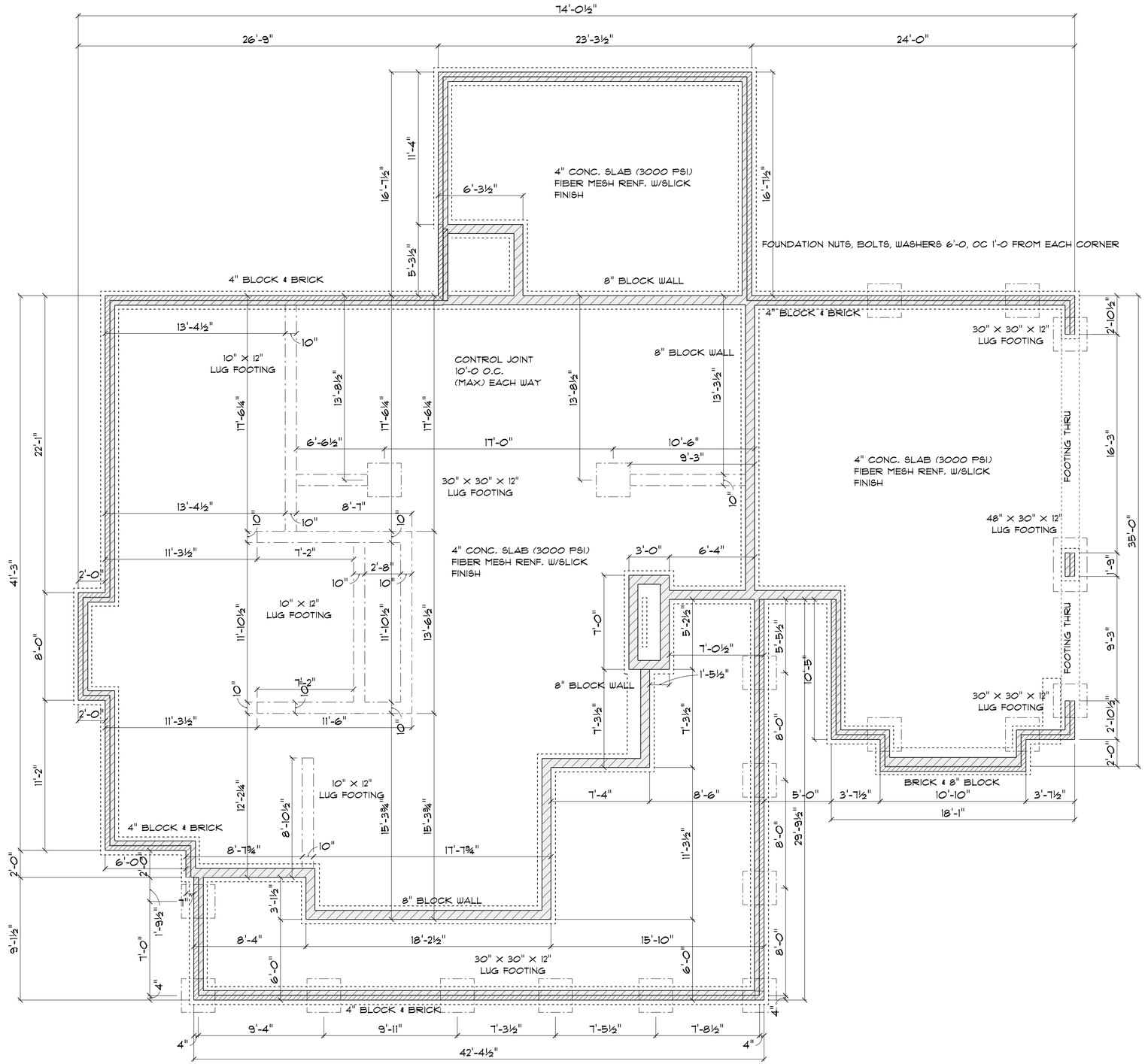
CONCRETE SLAB DETAILS / NOTES

not to scale



TYPICAL THICKENED SLAB

not to scale



FOUNDATION PLAN

SCALE: 1'= 1/4"

Diane Rives Designs
6205 Mockingbird Lane
Sanford, N.C. 27332
919-770-0353
getfloorsmarter.net
DRD

SCALE: 1'= 1/4"
DRAWN BY:
DATE: 11/1/2024

LAMCO HOMES

THE ISABELLE
RIGHT GARAGE

STEM WALL FOUNDATION

GENERAL FRAMING NOTES:

ALL LUMBER IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED

FRAMING LUMBER SHALL BE SYP #2 GRADE AND/OR SPRUCE PINE FIR #1 AND/OR #2, KILN DRIED.

WHERE PRE-ENGINEERED JOISTS ARE USED, JOIST MANUFACTURER SHALL PROVIDE SHOP DRAWINGS, WHICH BEAR SEAL OF A N.C. ENGINEER.

STUDS AND JOISTS SHALL NOT BE CUT TO INSTALL PLUMBING OR WIRING WITHOUT ADDING METAL OR WOOD SIDE PANELS TO STRENGTHEN THE MEMBER TO ITS ORIGINAL CAPACITY.

NAIL MULTIPLE MEMBERS WITH 2 ROWS OF 16d NAILS STAGGERED 32" OC AN USE 3-16d NAILS 2" IN AT EACH END. DOUBLE ALL STUDS UNDER ROOF POST DOWNS UNO.

NAIL FLOOR JOISTS TO SILL PLATE WITH 8d TOE NAILS.

ALL EXPOSED FRAMING ON PORCHES AND DECKS SHALL BE PRESSURE TREATED.

PROVIDE WATERPROOFING AND DRAINS AS REQUIRED.

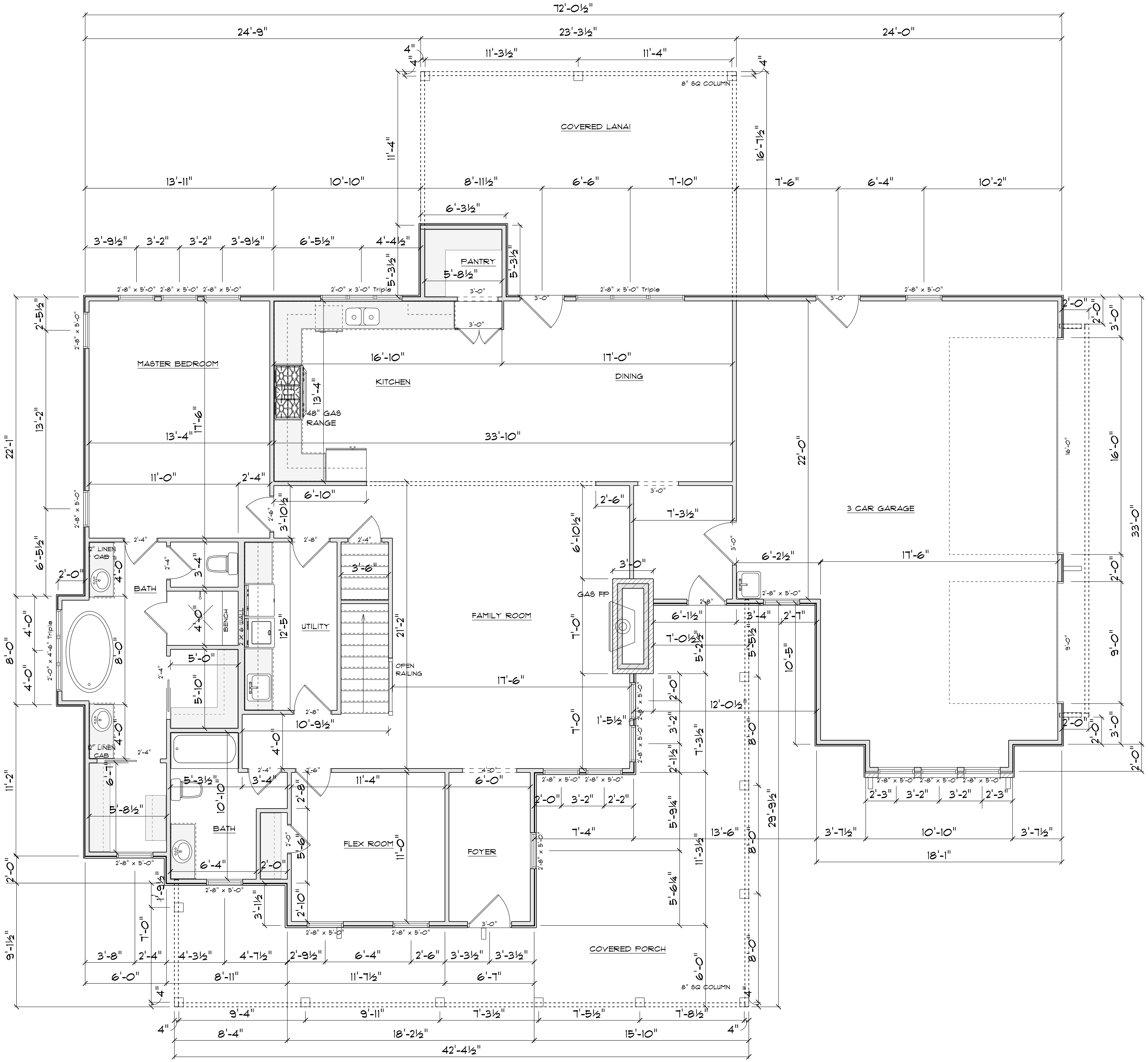
ALL FRAMING TO BE 16" OC UNO. WALL FRAMING DIMENSIONS ARE BASED ON 2 X 4 STUDS UNO. DOUBLE STUDS UNDER ALL HEADERS.

LVL'S AND TJI'S TO BE SIZED BY OTHERS

EXTERIOR WALLS IN LIVING AREAS ARE 2 X 4

WINDOW SCHEDULE		
SIZE	COUNT	LIBRARY NAME
2'-0" x 3'-0"	2	Window\Single Hung
2'-0" x 3'-0" Triple	1	Window\Single Hung
2'-0" x 4'-6"	2	Window\Single Hung
2'-0" x 4'-6" Triple	1	Window\Single Hung
2'-8" x 5'-0"	19	Window\Single Hung
2'-8" x 5'-0" Triple	1	Window\Single Hung

DOOR SCHEDULE			
SIZE	HINGE	COUNT	LIBRARY NAME
3'-0"	L	1	Exterior Door\Colonial
3'-0"	R	1	Exterior Door\Colonial
2'-8"	L	1	Exterior Door\French
3'-0"	L	1	Exterior Door\French
16'-0"	U	1	Garage\Tall Garage
9'-0"	U	1	Garage\Tall Garage
2'-0"	R	1	Interior Door\Colonial
2'-4"	R	4	Interior Door\Colonial
2'-6"	L	1	Interior Door\Colonial
2'-6"	R	1	Interior Door\Colonial
2'-8"	L	1	Interior Door\Colonial
2'-8"	R	1	Interior Door\Colonial
3'-0"	LR	1	Interior Door\Colonial
2'-4"	N	2	Interior Door\Pocket
2'-4"	R	1	Interior Door\Shower
3'-0"	R	1	Entry Door



1ST FLOOR PLAN

SCALE: 1'= 1/4"

AREA SCHEDULE	
NAME	AREA
Heated	1952 sq ft.
Covered Lanai	330 sq ft.
Covered Front Porch	542 sq ft.
Garage	759 sq ft.

DRD
Diane Rives Designs
6205 Mockingbird Lane
Sanford, N.C. 27332
919-770-0353
golfwoman@charter.net

SCALE: 1'= 1/4"
DRAWN BY:
DATE: 9/19/2024

LAMCO HOMES

THE ISABELLE
RIGHT GARAGE

1ST FLOOR PLAN

4A

GENERAL FRAMING NOTES:

ALL LUMBER IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED

FRAMING LUMBER SHALL BE STP #2 GRADE AND/OR SPRUCE PINE FIR #1 AND/OR #2, KILN DRIED.

WHERE PRE-ENGINEERED JOISTS ARE USED, JOIST MANUFACTURER SHALL PROVIDE SHOP DRAWINGS, WHICH BEAR SEAL OF A N.C. ENGINEER.

STUDS AND JOISTS SHALL NOT BE CUT TO INSTALL PLUMBING OR WIRING WITHOUT ADDING METAL OR WOOD SIDE PANELS TO STRENGTHEN THE MEMBER TO ITS ORIGINAL CAPACITY.

NAIL MULTIPLE MEMBERS WITH 2 ROWS OF 16d NAILS STAGGERED 32" OC AN USE 3-16d NAILS 2" IN AT EACH END. DOUBLE ALL STUDS UNDER ROOF POST DOWN UNO.

NAIL FLOOR JOISTS TO SILL PLATE WITH 8d TOE NAILS.

ALL EXPOSED FRAMING ON PORCHES AND DECKS SHALL BE PRESSURE TREATED.

PROVIDE WATERPROOFING AND DRAINS AS REQUIRED.

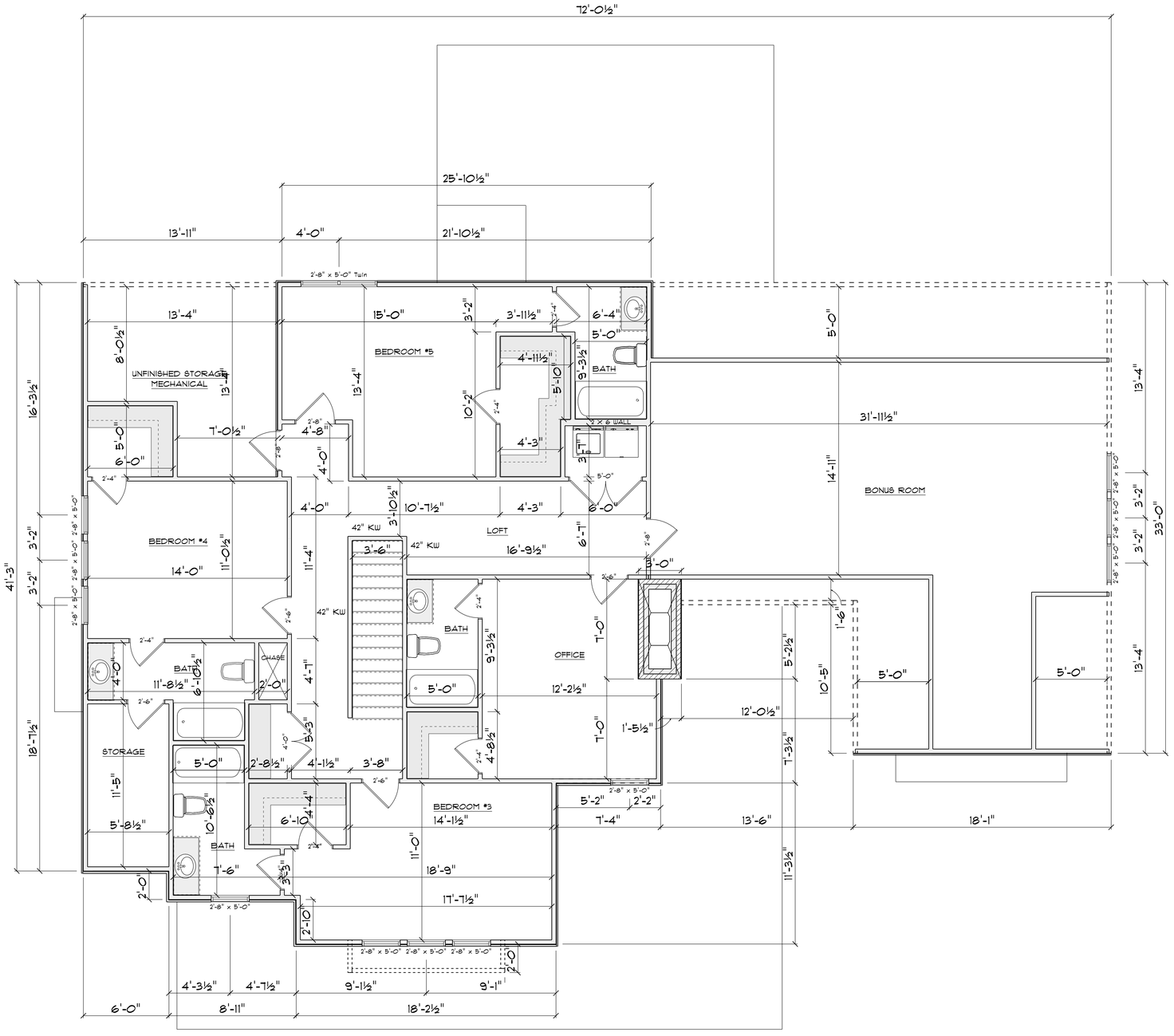
ALL FRAMING TO BE 16" OC UNO. WALL FRAMING DIMENSIONS ARE BASED ON 2 X 4 STUDS UNO. DOUBLE STUDS UNDER ALL HEADERS.

LVL'S AND TJI'S TO BE SIZED BY OTHERS

EXTERIOR WALLS IN LIVING AREAS ARE 2 X 4

WINDOW SCHEDULE		
SIZE	COUNT	LIBRARY NAME
2'-8" x 5'-0" Twin	1	Window\Single Hung
2'-8" x 5'-0"	11	Window\Single Hung

DOOR SCHEDULE			
SIZE	HINGE	COUNT	LIBRARY NAME
2'-4"	L	3	Interior Door\Colonial
2'-4"	R	5	Interior Door\Colonial
2'-6"	L	1	Interior Door\Colonial
2'-6"	R	3	Interior Door\Colonial
2'-8"	L	2	Interior Door\Colonial
2'-8"	R	1	Interior Door\Colonial
4'-0"	LR	1	Interior Door\Colonial
5'-0"	LR	1	Interior Door\Colonial



2ND FLOOR PLAN

SCALE: 1'= 1/4"

AREA SCHEDULE	
AREA	NAME
1465 sq ft.	Heated
542 sq ft.	Finished Bonus Room
228 sq ft.	Mechanical/ Storage

Diane Rivas Designs
6205 Mockingbird Lane
Sanford, N.C. 27332
919-770-0353
gpillusman@charter.net

DRD

SCALE: 1'= 1/4"

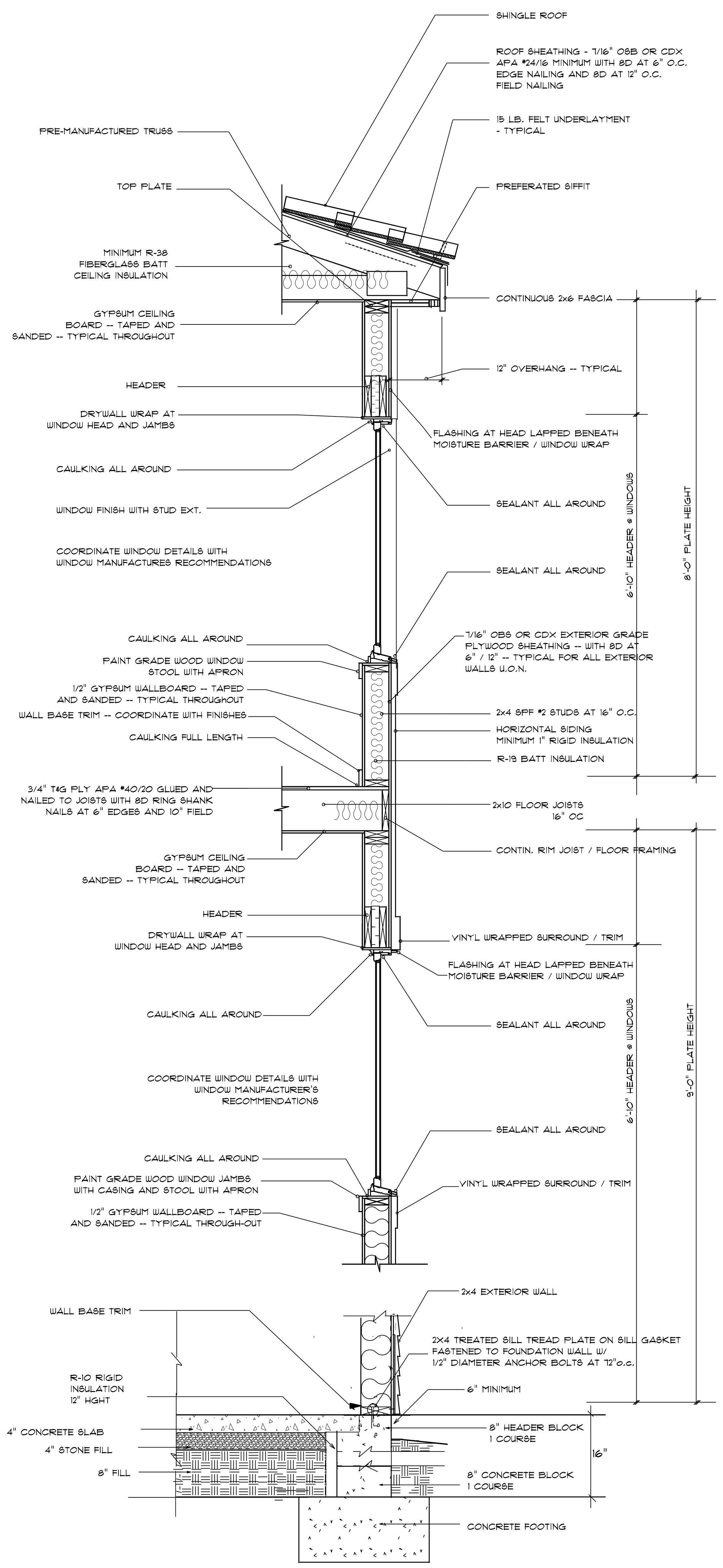
DRAWN BY:

DATE: 5/20/2025

LAMCO HOMES

THE ISABELLE
RIGHT GARAGE

2ND FLOOR PLAN
REVISED



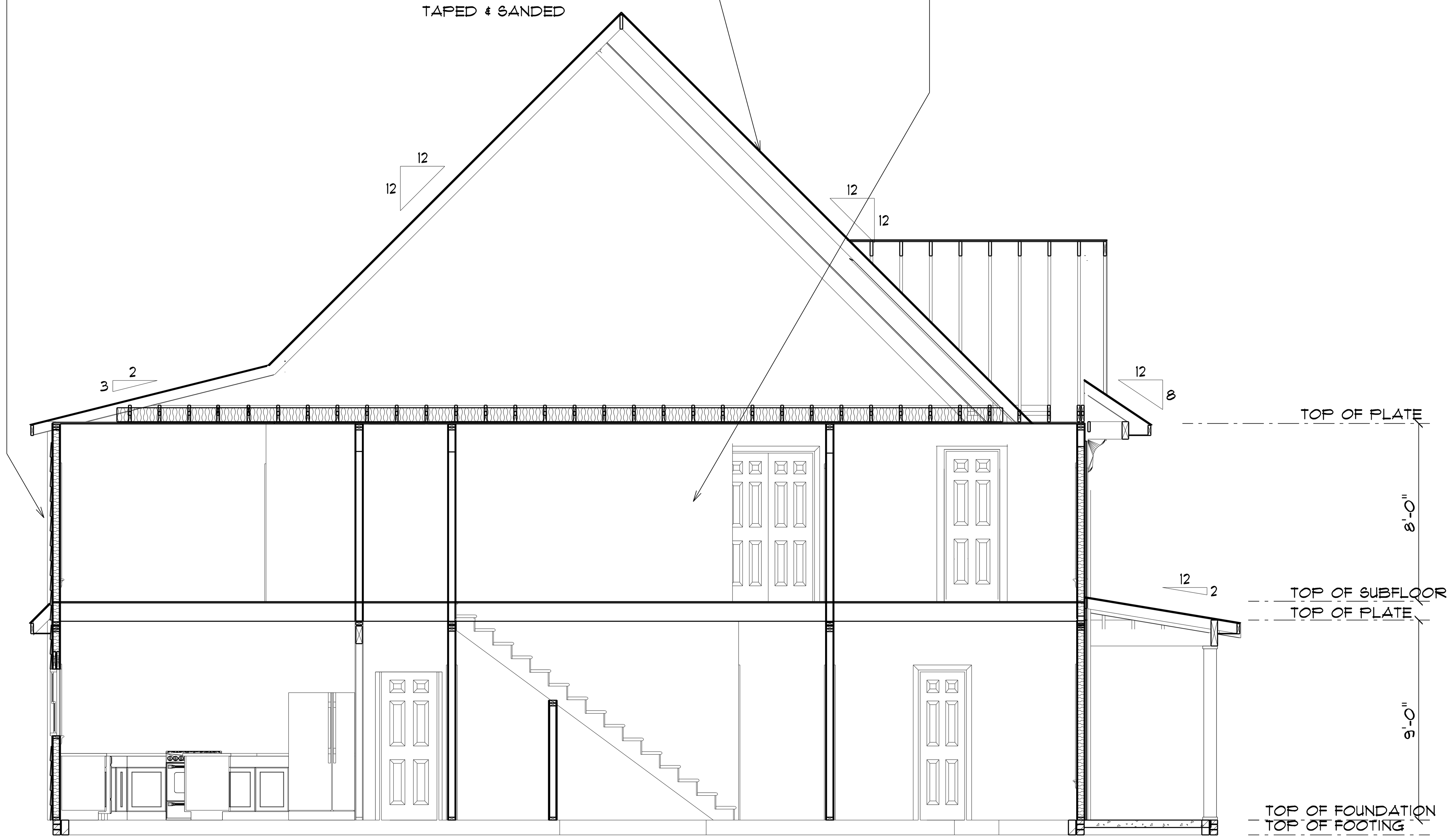
TWO STORY STEM WALL FOUNDATION DETAIL

not to scale

TYPICAL 2x4 SIDING EXTERIOR WALL:
HORIZONTAL SIDING
7/16" PLYWOOD SHEATHING
2x4 STUDS @ 16" o.c.
R19 BATT INSULATION
1/2" DRYWALL
TAPED & SANDED

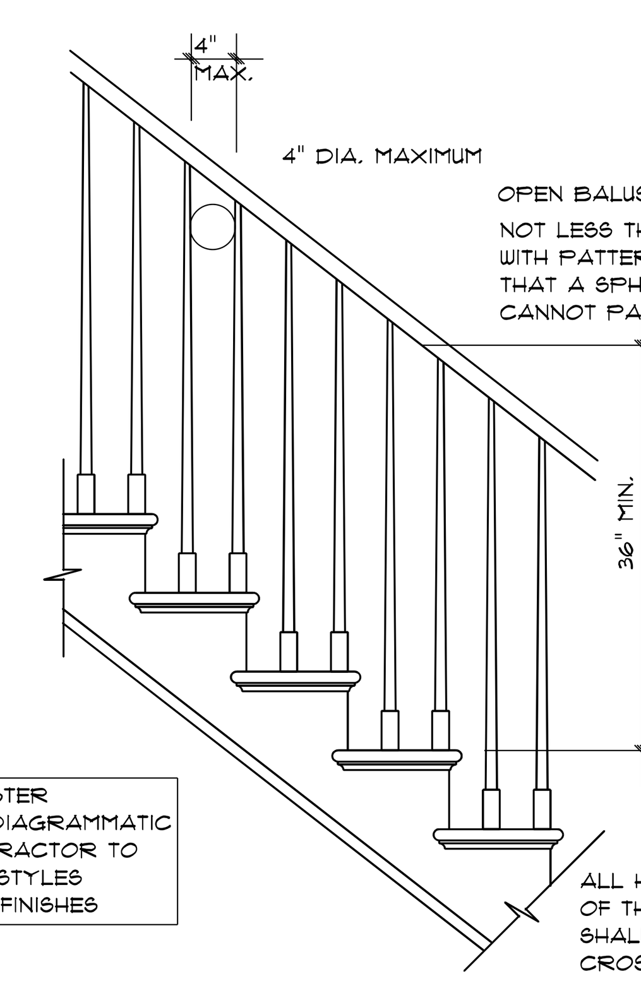
TYPICAL TRUSS ROOF:
SHINGLES
7/16" ROOFING PLYWOOD c/w
'H' CLIPS
BLOCK & BRACE PER TRUSS MGR.
PRE-ENGINEERED TRUSSES @ 24" o.c.
2x4 TRUSS BRACING
R38 BLOWN INSULATION
1/2" CEILING BOARD
TAPED & SANDED

TYPICAL 2x4 WALL:
1/2" DRYWALL
TAPED & SANDED
2x4 STUDS @ 16" o.c.
1/2" DRYWALL
TAPED & SANDED



SECTION THROUGH

SCALE: 1'= 1/4"



OPEN BALUSTRADE BALCONY / STAIR RAILINGS
NOT LESS THAN 36" IN HEIGHT WITH PATTERN / SPACING SUCH THAT A SPHERE 4" IN DIA. CANNOT PASS THROUGH

STAIR / BALUSTER STYLES ARE DIAGRAMMATIC ONLY -- CONTRACTOR TO COORDINATE STYLES WITH OWNER / FINISHES

ALL HANDRAILS SHALL BE CONTINUOUS THE FULL LENGTH OF THE STAIRS. HANDGRIP PORTION OF ALL HANDRAILS SHALL NOT BE LESS THAN 1-1/4" NOR MORE THAN 2" IN CROSS SECTIONAL DIMENSION, OR THE SHAPE SHALL PROVIDE AN EQUIVALENT GRIPPING SURFACE

STAIR RAILING

not to scale

5A

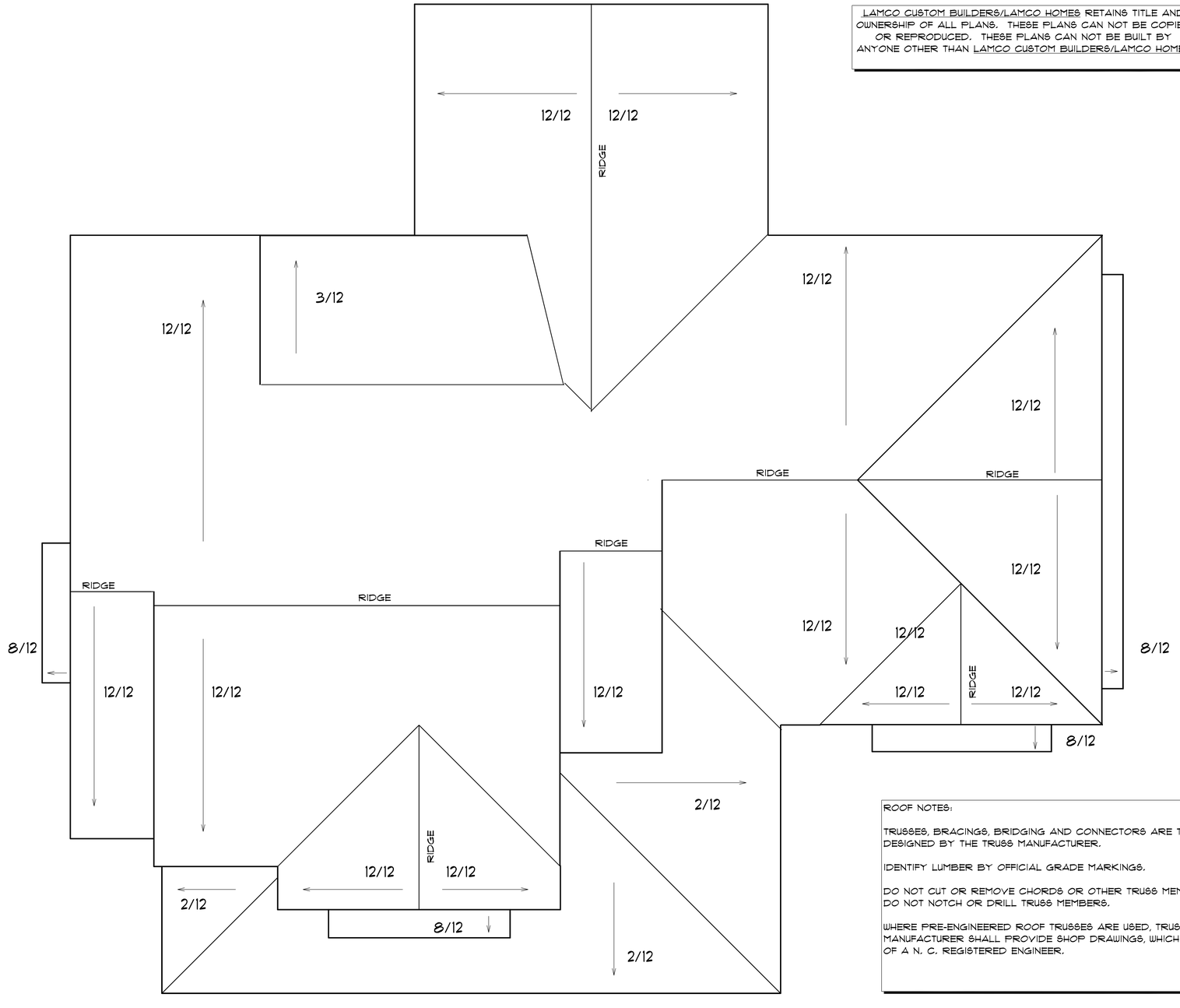
DRD
Diane Rives Designs
6205 Mockingbird Lane
Sanford, N.C. 27332
919-770-0353
golfwoman@charter.net

SCALE: 1'= 1/4"
DRAWN BY:
DATE: 9/19/2024

LAMCO HOMES

THE ISABELLE
RIGHT GARAGE

DETAIL SHEET



ROOF NOTES:

TRUSSES, BRACINGS, BRIDGING AND CONNECTORS ARE TO BE DESIGNED BY THE TRUSS MANUFACTURER.

IDENTIFY LUMBER BY OFFICIAL GRADE MARKINGS.

DO NOT CUT OR REMOVE CHORDS OR OTHER TRUSS MEMBERS. DO NOT NOTCH OR DRILL TRUSS MEMBERS.

WHERE PRE-ENGINEERED ROOF TRUSSES ARE USED, TRUSS MANUFACTURER SHALL PROVIDE SHOP DRAWINGS, WHICH BEAR SEAL OF A N. C. REGISTERED ENGINEER.

ROOF PLAN

SCALE: 1'=1/4"

12" OVER HANG ALL

Diane Rives Designs
6425 Rockingbird Lane
Garner, NC 27529
919-710-0353
gp@dianerivesdesigns.net
DRD

SCALE: 1'= 1/4"

DRAWN BY:

DATE: 9/19/2024

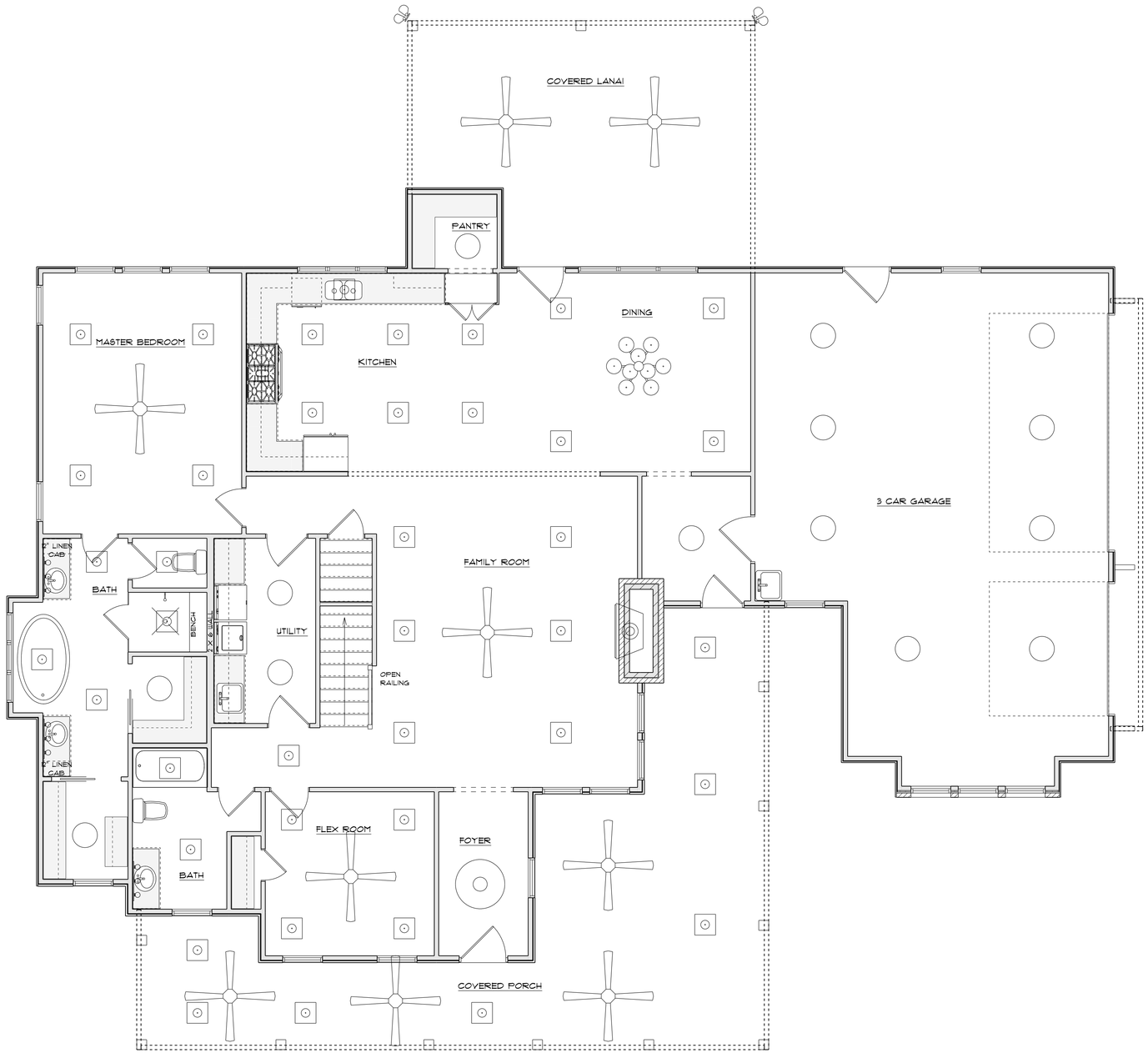
LAMCO HOMES

THE ISABELLE
RIGHT GARAGE

ROOF PLAN

9 A

ELECTRICAL LEGEND		
ELECTRICAL	**COUNT**	**SYMBOL**
ceiling fan	9	
10" led	14	
7" led	40	
foyer light	1	
dinning room light	1	
coach light		
exterior over head		
flood light	2	
vanity bar light	3	
wall sconce		
pendant light		



1ST FLOOR PLAN

Diane Rivers Designs
6605 Kyle Forest Lane
Sanford, NC 27332
919-770-0353
dgriversrcharter.net

DRD

SCALE: 1"= 1/4"

DRAWN BY:

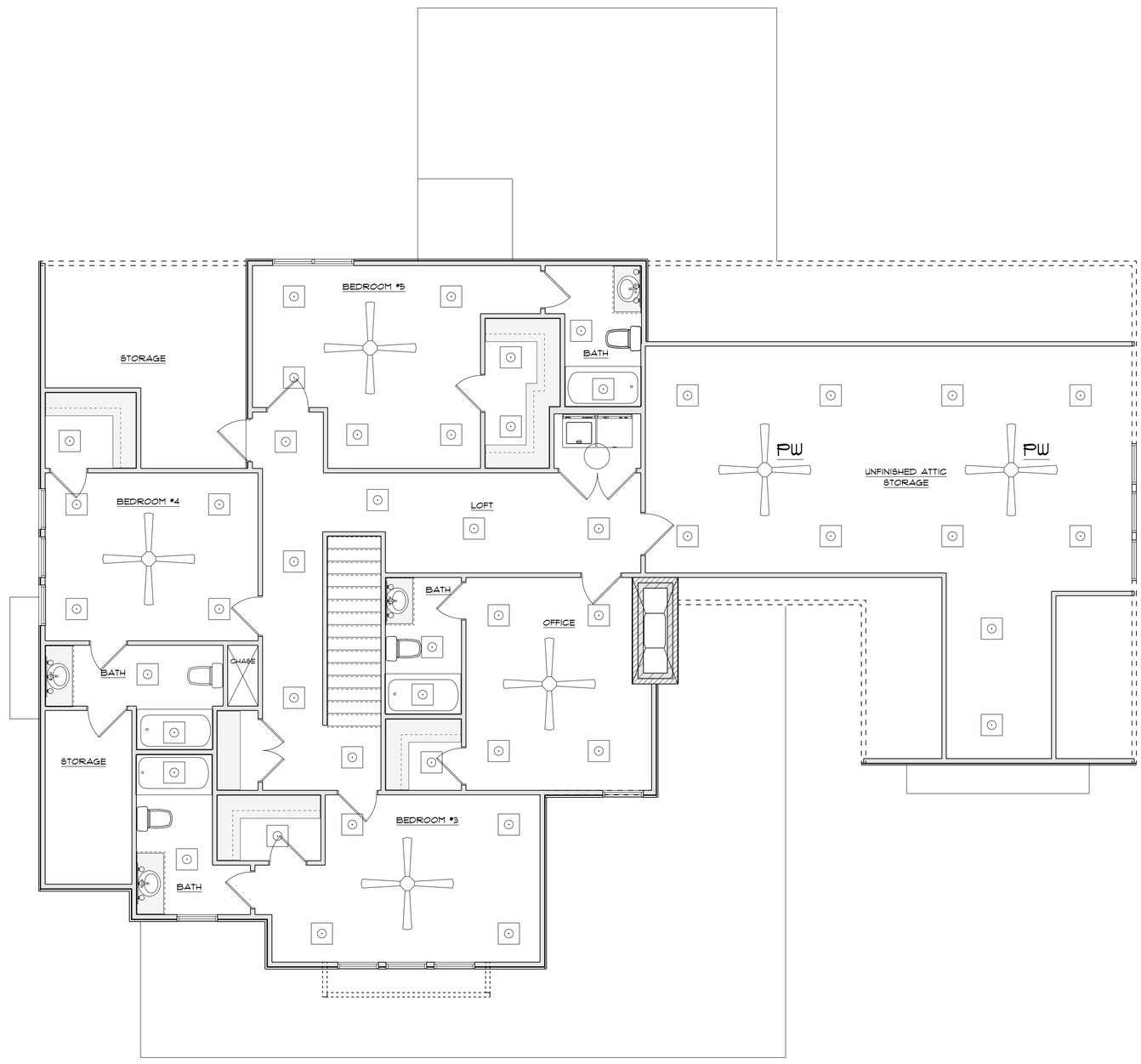
DATE: 9/19/2024

LAMCO HOMES

THE ISABELLE
RIGHT GARAGE

ELECTRICAL
LAYOUT

ELECTRICAL LEGEND		
ELECTRICAL	**COUNT**	**SYMBOL**
ceiling fan	4	
10" led	1	
7" led	43	
foyer light		
dinning room light		
coach light		
exterior over head		
flood light		
vanity bar light	4	
wall sconce		
pendant light		



2ND FLOOR PLAN

Diane Rivas Designs
6205 Mockingbird Lane
Sanford, N.C. 27332
919-770-0353
golfmomsrecharter.net
DRD

SCALE: 1'= 1/4"

DRAWN BY:

DATE: 9/19/2024

LAMCO HOMES

THE ISABELLE
RIGHT GARAGE

2ND FLOOR
ELECTRICAL LAYOUT

General Notes:

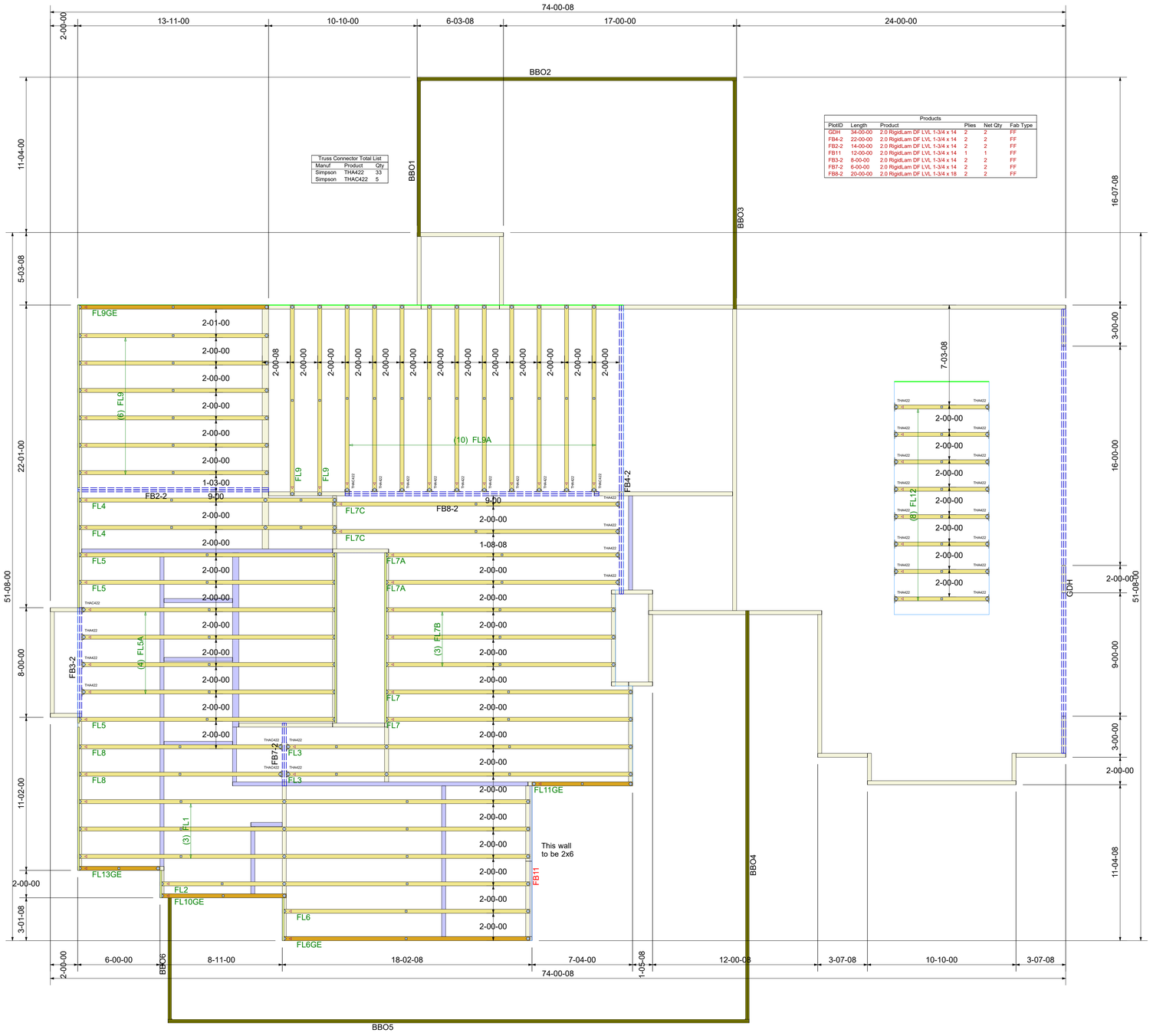
** CUTTING OR DRILLING OF COMPONENTS SHOULD NOT BE DONE WITHOUT CONTACTING COMPONENT SUPPLIER FIRST. CUSTOMER TAKES FULL RESPONSIBILITY FOR COMPONENTS IF CUT BEFORE AUTHORIZATION.

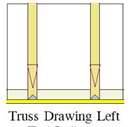
** ALL POINT LOADS FROM ABOVE MUST BE TRANSFERRED TO BEARING FROM UNDER SIDE OF SHEATHING.

** ALL BEARING POINTS MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS.

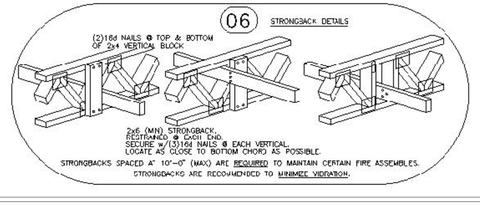
** DAMAGED COMPONENTS SHOULD NOT BE INSTALLED UNLESS TOLD TO BY THE COMPONENT PLANT.

** FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS.





Truss Drawing Left End Indicator



** TRIANGULAR SYMBOL NEAR END OF TRUSS INDICATES LEFT END OF TRUSS AS SHOWN ON INDIVIDUAL TRUSS DRAWINGS.

** PLUMBING DROPS NOTED ARE IN THE APPROXIMATE LOCATIONS PER PLAN. BUILDER TO VERIFY LOCATIONS BEFORE SETTING TRUSSES.

** REFER TO FINAL TRUSS ENGINEERING SHEETS FOR PLY TO PLY CONNECTIONS.

** TRUSS TO TRUSS CONNECTIONS ARE TOE-NAILED, UNLESS NOTED OTHERWISE.

** DIMENSIONS ARE READ AS: FOOT-INCH-SIXTEENTH.

** GIRDERS MUST BE FULLY CONNECTED TOGETHER PRIOR TO ADDING ANY LOADS.

Revisions	
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual 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 systems and for the overall structure. The design of the truss supported structure including headers, beams, columns and their supporting foundations is the responsibility of the building designer. For general guidance regarding the bracing consult "Bracing of Wood Trusses" available from the Truss Plate Institute, 583 D'Onofrio Drive; Madison, WI 53179

CARTER Lumber

Lamco Custom Builders LLC

Isabelle - 2nd Floor

FLOOR PLACEMENT PLAN

Scale: ***NTS***

Date: 1/22/2025

Designer: Mike Finch

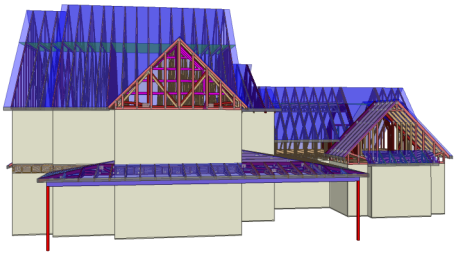
Project Number: 24090030-B

Sheet Number: **1/1**

CARTER Lumber

Carter Sanford Component Plant
298 Harvey Faulk Rd
Sanford, NC 27332

Phone #:919-775-1450



Builder: **Lamco Custom Builders LLC**

Model: **Isabelle GRH**

THE PLACEMENT PLAN NOTES:
1. The Placement Plan is a diagram for truss installation. It is not an engineered drawing and has not been reviewed by an engineer. The Owner/Building Designer is responsible for obtaining an engineer's review if one is required by the local jurisdiction.
2. The responsibilities of the Owner, Contractor, Building Designer, Component Designer and Component Manufacturer shall be as set forth in ANSI/TPI 1. Capitalized terms shall be as defined in ANSI/TP 1 unless otherwise indicated.
3. Each Component is designed as an individual component utilizing information provided by others. The Owner/Building Designer is responsible for reviewing all Component Submittal Packages and individual Component Design Drawings for compliance with the Construction Documents and compatibility with the overall Building design.
4. Contractor will not proceed with component installation until the Owner/Building Designer has reviewed the Component Submittal Package. Questions on the suitability of any Component will be resolved by the Building Designer.
5. The Building Designer and Contractor are responsible for all temporary and permanent bracing.
6. The Placement Plan assumes the building is dimensionally correct, structurally sound, and in a suitable condition to support each Component during installation and thereafter, including but not limited to installation of all bearing points. Proper design and construction of all structural components, including foundations, headers, beams, walls and columns are the responsibility of the Owner, Building Designer and Contractor.
7. Do not cut, drill, or modify any Component without first consulting the Component Manufacturer or Building Designer. Damaged Components shall not be installed unless directed by the Building Designer or approved by the Component Manufacturer.
8. Components must be handled and installed following all applicable safety standards and best practices, including but not limited to BCSI, OSHA, TPI and local codes. Failure to properly handle, brace or otherwise install Component can result in serious injury or death.
9. All uplift connectors shown within these documents are recommendations only. Per ANSI/TPI 1, all uplift connectors are the responsibility of the building designer and or contractor.

Approved By: _____ **Date:** _____

General Notes:

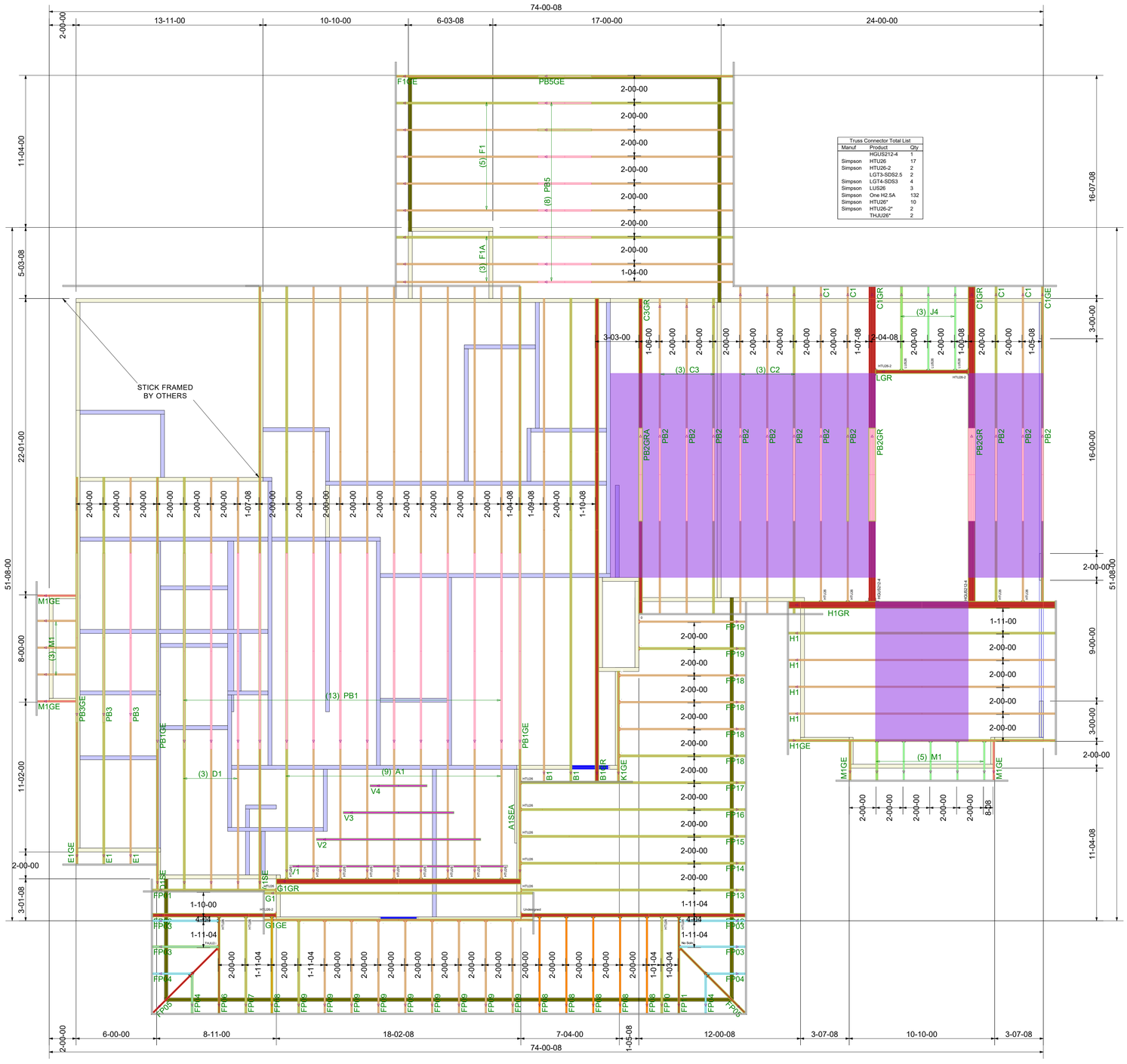
** CUTTING OR DRILLING OF COMPONENTS SHOULD NOT BE DONE WITHOUT CONTACTING COMPONENT SUPPLIER FIRST. CUSTOMER TAKES FULL RESPONSIBILITY FOR COMPONENTS IF CUT BEFORE AUTHORIZATION.

** ALL BEARING POINTS MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS.

** TRUSS TO TRUSS CONNECTIONS ARE TOE-NAILED, UNLESS NOTED OTHERWISE.

** DAMAGED COMPONENTS SHOULD NOT BE INSTALLED UNLESS TOLD TO BY THE COMPONENT PLANT.

** FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS.



Truss Drawing Left End Indicator

** TRIANGULAR SYMBOL NEAR END OF TRUSS INDICATES LEFT END OF TRUSS AS SHOWN ON INDIVIDUAL TRUSS DRAWINGS.

** PLUMBING DROPS NOTED ARE IN THE APPROXIMATE LOCATIONS PER PLAN. BUILDER TO VERIFY LOCATIONS BEFORE SETTING TRUSSES.

** REFER TO FINAL TRUSS ENGINEERING SHEETS FOR PLY TO PLY CONNECTIONS.

** All uplift connectors shown within these documents are recommendations only. Per ANSI/TPI 1, all uplift connectors are the responsibility of the bldg designer and or contractor.

** DIMENSIONS ARE READ AS: FOOT-INCH-SIXTEENTH.

** GIRDERS MUST BE FULLY CONNECTED TOGETHER PRIOR TO ADDING ANY LOADS.

Revisions	
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual 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 systems 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 the bracing consult "Bracing of Wood Trusses" available from the Truss Plate Institute, 583 D'Onofrio Drive; Madison, WI 53179

CARTER Lumber

Lamco Custom Builders LLC	**Isabelle-Roof-Isabelle GRH**	**ROOF PLACEMENT PLAN**

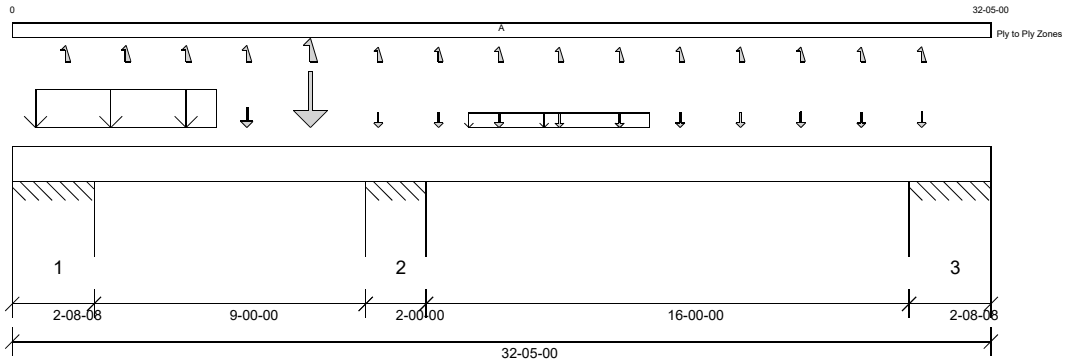
Scale:	***NTS***
Date:	4/21/2025
Designer:	Mike Finch
Project Number:	**24090030-A**
Sheet Number:	**1/1**

MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **B** Level: **1st FLOOR** Label: **GDH - i202** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL 1-3/4 x 14**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 04/10/2025 08:24



DESIGN INFORMATION a

Building Code:	IRC 2021
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Spacing:	-
LL Deflection Limit:	L/360, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 22'- 3 1/2" Bottom: 32'- 5"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 1 1/2"
- 725 psi Wall @ 2'- 7"
- 725 psi Wall @ 11'- 10"
- 725 psi Wall @ 13'- 7"
- 725 psi Wall @ 29'- 10"
- 725 psi Wall @ 32'- 3 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	9'- 10 1/2"	D + 0.75(L + Lr + 0.6W)	1.60	5389 lb ft	20679 lb ft	Passed - 26%
Max Neg. Moment:	11'- 10"	D + 0.75(L + Lr + 0.6W)	1.60	10494 lb ft	14455 lb ft	Passed - 73%
Max Shear:	10'- 6 1/2"	D + 0.75(L + Lr)	1.15	7745 lb	10894 lb	Passed - 71%
Live Load (LL) Pos. Defl.:	7'- 8 15/16"	0.75(L + Lr + 0.6W)		0.021"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	7'- 8 9/16"	D + 0.75(L + Lr + 0.6W)		0.038"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	8-00	0.6D + 0.6W	1.60	3 lb		29217 lb	20300 lb	Passed - 0%
1	8-00	D + 0.75(L + Lr)	1.15		-2051 lb	-	-	
1	1-09-00	D + 0.75(L + Lr)	1.15	6207 lb		55125 lb	53288 lb	Passed - 12%
1	1-09-00	0.6D + 0.6W	1.60		-215 lb	-	-	
2	1-05-08	D + 0.75(L + Lr)	1.15	13271 lb		45938 lb	44406 lb	Passed - 30%
2	6-08	D + 0.75(L + Lr + 0.6W)	1.60	692 lb		17063 lb	16494 lb	Passed - 4%
2	6-08	D + 0.75(L + Lr + 0.6W)	1.60		-4989 lb	-	-	
3	1-09-00	D + 0.75(L + Lr)	1.15	2195 lb		55125 lb	53288 lb	Passed - 4%
3	1-09-00	0.6D + 0.6W	1.60		-186 lb	-	-	
3	10-08	0.6D + 0.6W	1.60	61 lb		38348 lb	26644 lb	Passed - 0%
3	10-08	D + 0.75(L + Lr)	1.15		-1045 lb	-	-	

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	32'- 5"	Self Weight	Top	13 lb/ft	-	-	-	-
Uniform	0'- 9 1/4"	6'- 9 1/4"	Smoothed Load	Top	254 lb/ft	139 lb/ft	106 lb/ft	201 lb/ft	92 lb/ft
Uniform	15'- 1 1/2"	21'- 1 1/2"	Smoothed Load	Top	-	30 lb/ft	-	-	-
Point	1'- 9 1/4"	1'- 9 1/4"	H1(c01)	Top	-	-	-	-	-572 lb
Point	3'- 9 1/4"	3'- 9 1/4"	H1(c04)	Top	-	-	-	-	-572 lb
Point	5'- 9 1/4"	5'- 9 1/4"	H1(c03)	Top	-	-	-	-	-572 lb
Point	7'- 9 1/4"	7'- 9 1/4"	H1(c02)	Top	517 lb	301 lb	219 lb	412 lb	189/-587 lb
Point	9'- 10 9/16"	9'- 10 9/16"	-	Top	3296 lb	3386/-2 lb	1160 lb	2484/-229 lb	725/-2216 lb
Point	12'- 1 1/2"	12'- 1 1/2"	C1GE(c01)	Top	140 lb	-5 lb	36 lb	68 lb	42/-137 lb
Point	14'- 1 1/2"	14'- 1 1/2"	C1GE(c01)	Top	107 lb	67 lb	40 lb	85/-10 lb	44/-149 lb
Point	16'- 1 1/2"	16'- 1 1/2"	C1GE(c01)	Top	112 lb	-	48 lb	149/-51 lb	53/-179 lb
Point	18'- 1 1/2"	18'- 1 1/2"	C1GE(c01)	Top	96 lb	-	30 lb	68/-10 lb	28/-107 lb
Point	20'- 1 1/2"	20'- 1 1/2"	C1GE(c01)	Top	93 lb	-	27 lb	58/-6 lb	-92 lb
Point	22'- 1 1/2"	22'- 1 1/2"	C1GE(c01)	Top	109 lb	61 lb	43 lb	124/-39 lb	49/-152 lb
Point	24'- 1 1/2"	24'- 1 1/2"	C1GE(c01)	Top	102 lb	63 lb	44 lb	119/-33 lb	50/-167 lb
Point	26'- 1 1/2"	26'- 1 1/2"	C1GE(c01)	Top	133 lb	54 lb	38 lb	78 lb	45/-149 lb
Point	28'- 1 1/2"	28'- 1 1/2"	C1GE(c01)	Top	96 lb	-3 lb	32 lb	76 lb	37/-122 lb
Point	30'- 1 1/2"	30'- 1 1/2"	C1GE(c01)	Top	112 lb	-2 lb	58 lb	113 lb	69/-231 lb

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	2'- 8 1/2"	E36(i76)	1782 lb	1147 lb	691 lb	1445/-70 lb	773 lb/ -2469 lb
==>	0'- 1 1/2"	0'- 1 1/2"	E36(i76)	-	80 lb	-	114 lb	-
==>	2'- 7"	2'- 7"	E36(i76)	1782 lb	1067 lb	691 lb	1331/-70 lb	-
2	11'- 8 1/2"	13'- 8 1/2"	E35(i75)	6349/-1907 lb	7153/-3362 lb	2351/-808 lb	6589/-3195 lb	773 lb/ -2469 lb
==>	11'- 10"	11'- 10"	E35(i75)	6349 lb	6483/-386 lb	2351 lb	5516/-603 lb	-
==>	13'- 7"	13'- 7"	E35(i75)	-1907 lb	670/-2976 lb	-808 lb	1073/-2592 lb	-
3	29'- 8 1/2"	32'- 5"	E13(i7)	1240/-567 lb	461/-271 lb	374/-170 lb	959/-546 lb	773 lb/ -2469 lb
==>	29'- 10"	29'- 10"	E13(i7)	1240 lb	460/-6 lb	374 lb	884/-128 lb	-
==>	32'- 3 1/2"	32'- 3 1/2"	E13(i7)	-567 lb	1/-265 lb	-170 lb	75/-418 lb	-

MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **B** Level: **1st FLOOR** Label: **GDH - i202** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL 1-3/4 x 14**	Status: **Design Passed**

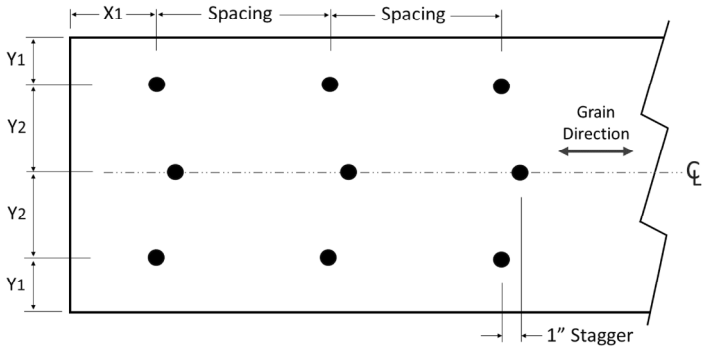
DESIGN NOTES

- CAUTION: The maximum net analysis reaction exceeds the user-defined maximum uplift value at one or more supports.
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 0.44
- Beam Stability Factor used in the calculation for Allowable Max Neg Moment (CL) = 0.31

PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 99. Row = 3, Spacing = 12"
  12d (0.148"x3.25") nails properties: D = 0.148" , L = 3.25". Fastener capacity = 117 lbs. X1 = 2.25" , Y1 = 0.75", Y2 = 1.5"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

FASTENER INSTALLATION – 3 ROWS (FROM ONE FACE)

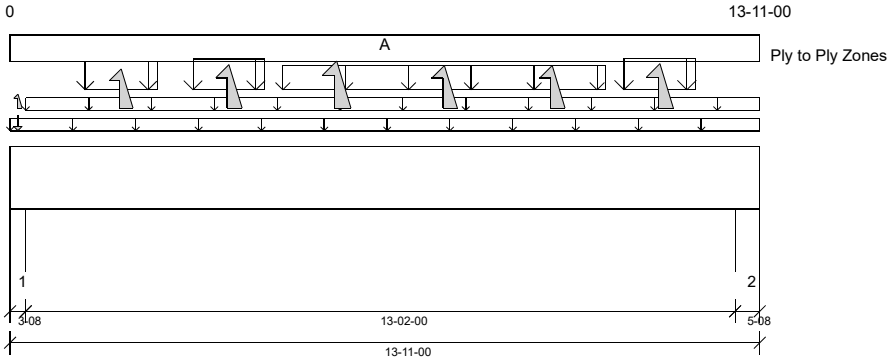


MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **B** Level: **1st FLOOR** Label: **FB2-2 - i210** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL 1-3/4 x 14**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 04/10/2025 08:24



DESIGN INFORMATION a

Building Code:	IRC 2021
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Spacing:	-
LL Deflection Limit:	L/360, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 0'

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 2 1/2"
- 425 psi Wall @ 13'- 6 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	6'- 11"	D + Lr	1.15	16241 lb ft	33318 lb ft	Passed - 49%
Max Neg. Moment:	6'- 3/4"	0.6D + 0.6W	1.60	2247 lb ft	46355 lb ft	Passed - 5%
Max Shear:	1'- 5 1/2"	D + Lr	1.15	4130 lb	10894 lb	Passed - 38%
Live Load (LL) Pos. Defl.:	6'- 10 11/16"	0.75(L + Lr + 0.6W)		0.174"	L/360	Passed - L/907
Total Load (TL) Pos. Defl.:	6'- 10 5/8"	D + 0.75(L + Lr + 0.6W)		0.343"	L/240	Passed - L/460

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	3-08	D + Lr	1.15	4402 lb		9188 lb	5206 lb	Passed - 85%
1	3-08	0.6D + 0.6W	1.60		-481 lb	-	-	
2	5-08	D + Lr	1.15	4674 lb		14438 lb	8181 lb	Passed - 57%
2	5-08	0.6D + 0.6W	1.60		-525 lb	-	-	

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	13'- 11"	Self Weight	Top	13 lb/ft	-	-	-	-
Uniform	-0'	13'- 11"	FC1 Floor Decking (Plan View Fill)	Top	10 lb/ft	40 lb/ft	-	-	-
Uniform	0'- 3 1/2"	13'- 11"	73(i154)	Top	65 lb/ft	-	-	-	-
Uniform	1'- 4 3/4"	2'- 8 3/4"	73(i154)	Top	415 lb/ft	-	221 lb/ft	467 lb/ft	174 lb/ft
Uniform	3'- 4 3/4"	4'- 8 3/4"	73(i154)	Top	446 lb/ft	-	255 lb/ft	540 lb/ft	174 lb/ft
Uniform	5'- 3/4"	11'- 3/4"	73(i154)	Top	297 lb/ft	-	158 lb/ft	356 lb/ft	126 lb/ft
Uniform	11'- 4 3/4"	12'- 8 3/4"	73(i154)	Top	462 lb/ft	-	255 lb/ft	557 lb/ft	218 lb/ft
Point	0'- 1 3/4"	0'- 1 3/4"	E47(i87)	Top	83 lb	-	-	-6 lb	-58 lb
Point	2'- 3/4"	2'- 3/4"	73(i154)	Top	-	-	-	-29 lb	-782 lb
Point	4'- 3/4"	4'- 3/4"	73(i154)	Top	-	-	-	-33 lb	-904 lb
Point	6'- 3/4"	6'- 3/4"	73(i154)	Top	-	-	-	-71 lb	-972 lb
Point	8'- 3/4"	8'- 3/4"	73(i154)	Top	-	-	-	-70 lb	-840 lb
Point	10'- 3/4"	10'- 3/4"	73(i154)	Top	-	-	-	-70 lb	-840 lb
Point	12'- 3/4"	12'- 3/4"	73(i154)	Top	-	-	-	-64 lb	-902 lb

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 3 1/2"	E5(i8)	2368 lb	272 lb	935 lb	2035/-148 lb	1305 lb/ -3170 lb
2	13'- 5 1/2"	13'- 11"	74(i155)	2462 lb	279 lb	1000 lb	2210/-195 lb	1305 lb/ -3170 lb

DESIGN NOTES

- CAUTION: The maximum net analysis reaction exceeds the user-defined maximum uplift value at one or more supports.
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00

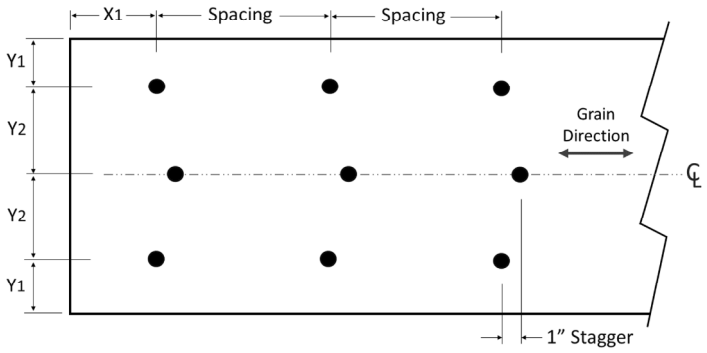
PLY TO PLY CONNECTION

MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **B** Level: **1st FLOOR** Label: **FB2-2 - i210** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL 1-3/4 x 14**	Status: **Design Passed**

PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 42. Row = 3, Spacing = 12"
  12d (0.148"x3.25") nails properties: D = 0.148" , L = 3.25". Fastener capacity = 117 lbs. X1 = 2.25" , Y1 = 0.75", Y2 = 1.5"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

FASTENER INSTALLATION – 3 ROWS (FROM ONE FACE)

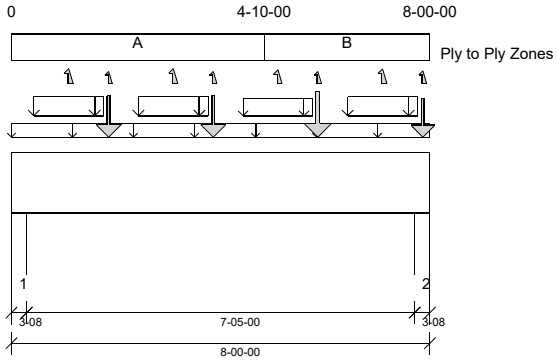


MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **B** Level: **1st FLOOR** Label: **FB3-2 - i212** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL 1-3/4 x 14**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 04/10/2025 08:24



DESIGN INFORMATION a

Building Code:	IRC 2021
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Spacing:	-
LL Deflection Limit:	L/360, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 0'

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 2 1/2"
- 425 psi Wall @ 7'- 9 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	3'- 10 1/4"	D + L	1.00	5830 lb ft	28972 lb ft	Passed - 20%
Max Shear:	1'- 5 1/2"	D + L	1.00	2381 lb	9473 lb	Passed - 25%
Live Load (LL) Pos. Defl.:	3'- 11 3/4"	L		0.017"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	3'- 11 15/16"	D + L		0.036"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	3-08	D + L	1.00	2558 lb		9188 lb	5206 lb	Passed - 49%
2	3-08	D + L	1.00	3696 lb		9187 lb	5206 lb	Passed - 71%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	8'	Self Weight	Top	13 lb/ft	-	-	-	-
Uniform	0'	8'	E47(i87)	Top	65 lb/ft	-	-	-	-
Uniform	0'- 5 1/8"	1'- 9 1/8"	E47(i87)	Top	62 lb/ft	-	33 lb/ft	68 lb/ft	40 lb/ft
Uniform	2'- 5 1/8"	3'- 9 1/8"	E47(i87)	Top	60 lb/ft	-	32 lb/ft	68 lb/ft	41 lb/ft
Uniform	4'- 5 1/8"	5'- 9 1/8"	E47(i87)	Top	52 lb/ft	-	23 lb/ft	50 lb/ft	14 lb/ft
Uniform	6'- 5 1/8"	7'- 9 1/8"	E47(i87)	Top	59 lb/ft	-	31 lb/ft	66 lb/ft	38 lb/ft
Point	1'- 10 5/16"	1'- 10 5/16"	-	Front	523 lb	767 lb	15 lb	34/-12 lb	12/-28 lb
Point	3'- 10 5/16"	3'- 10 5/16"	-	Front	531 lb	767 lb	15 lb	34/-12 lb	12/-28 lb
Point	5'- 10 5/16"	5'- 10 5/16"	-	Front	715 lb	767 lb	15 lb	33/-12 lb	11/-27 lb
Point	7'- 10 3/8"	7'- 10 3/8"	-	Front	401 lb	767 lb	19 lb	39/-1 lb	21/-71 lb
Point	1'- 1 1/8"	1'- 1 1/8"	E47(i87)	Top	-	-	-	-	-171 lb
Point	3'- 1 1/8"	3'- 1 1/8"	E47(i87)	Top	-	-	-	-	-169 lb
Point	5'- 1 1/8"	5'- 1 1/8"	E47(i87)	Top	-	-	-	-	-117 lb
Point	7'- 1 1/8"	7'- 1 1/8"	E47(i87)	Top	-	-	-	-	-158 lb

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 3 1/2"	E2(i29)	1397 lb	1223 lb	102 lb	219/-18 lb	107 lb/ -366 lb
2	7'- 8 1/2"	8'	E4(i6)	1789 lb	1845 lb	119 lb	257/-19 lb	107 lb/ -366 lb

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00

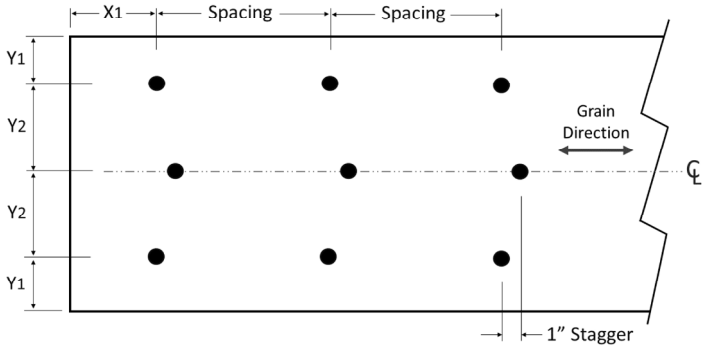
PLY TO PLY CONNECTION

- Zone A: Factored load = 741 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 18. Row = 3, Spacing = 11"
  Zone B: Factored load = 943 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 15. Row = 3, Spacing = 8"
  12d (0.148"x3.25") nails properties: D = 0.148" , L = 3.25". Fastener capacity = 117 lbs. X1 = 2.25" , Y1 = 0.75", Y2 = 1.5"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **B** Level: **1st FLOOR** Label: **FB3-2 - i212** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL 1-3/4 x 14**	Status: **Design Passed**

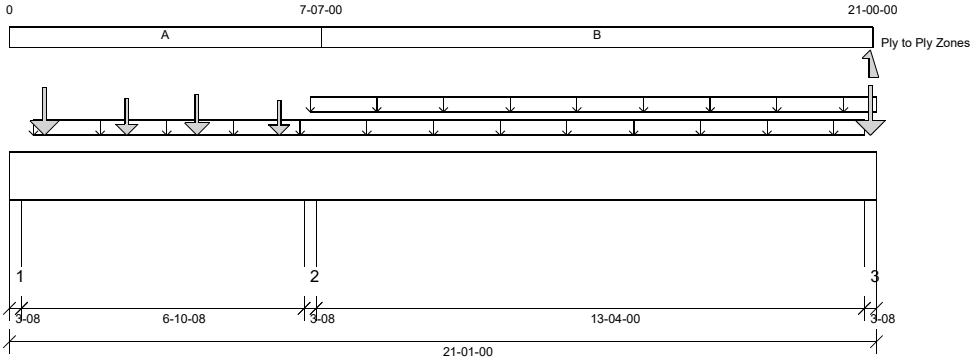
PLY TO PLY CONNECTION

FASTENER INSTALLATION – 3 ROWS (FROM ONE FACE)



MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **B** Level: **1st FLOOR** Label: **FB4-2 - i209** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL 1-3/4 x 14**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 | Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26 | Report Version: 2023.09.18 04/10/2025 08:24



DESIGN INFORMATION a

Building Code:	IRC 2021
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Spacing:	-
LL Deflection Limit:	L/360, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0'- 3 1/2" Bottom: 0'

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 2 1/2"
- 425 psi Wall @ 7'- 3 3/4"
- 425 psi Wall @ 20'- 10 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	2'- 10 1/4"	D + L	1.00	3018 lb ft	28972 lb ft	Passed - 10%
Max Neg. Moment:	7'- 3 3/4"	D + L	1.00	3392 lb ft	28972 lb ft	Passed - 12%
Max Shear:	6'	D + L	1.00	2617 lb	9473 lb	Passed - 28%
Live Load (LL) Pos. Defl.:	3'- 7 3/4"	L		0.011"	L/360	Passed - L/999
Live Load (LL) Neg. Defl.:	13'- 9/16"	L		0.011"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	14'- 10 1/2"	D + L		0.031"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	3-08	D + L	1.00	2300 lb		9187 lb	5206 lb	Passed - 44%
2	3-08	D + L	1.00	3857 lb		10172 lb	5206 lb	Passed - 74%
3	3-08	D + 0.75(L + Lr)	1.15	1618 lb		9187 lb	5206 lb	Passed - 31%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	21'- 1"	Self Weight	Top	13 lb/ft	-	-	-	-
Uniform	0'- 7"	20'- 9 1/2"	46(i98)	Top	65 lb/ft	-	-	-	-
Uniform	7'- 3 3/4"	21'- 1"	FC1 Floor Decking (Plan View Fill)	Top	11 lb/ft	43 lb/ft	-	-	-
Point	0'- 10 1/4"	0'- 10 1/4"	FL7A(c01)	Back	703 lb	698 lb	-	-	-
Point	2'- 10 1/4"	2'- 10 1/4"	FL7A(c02)	Back	262 lb	708 lb	-	-	-
Point	4'- 6 3/4"	4'- 6 3/4"	FL7C(c02)	Back	326 lb	806 lb	-	-	-
Point	6'- 6 3/4"	6'- 6 3/4"	FL7C(c01)	Back	258 lb	617 lb	-	-	-
Point	20'- 11 1/4"	20'- 11 1/4"	E37(i79)	Top	604 lb	-	239 lb	478/-26 lb	151/-550 lb

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 3 1/2"	28(i68)	997 lb	1365/-91 lb	-	-	-
2	7'- 2"	7'- 5 1/2"	82(i184)	1835 lb	1955 lb	-	-	-
3	20'- 9 1/2"	21'- 1"	E11(i17)	1070 lb	252/-61 lb	239 lb	478/-26 lb	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00

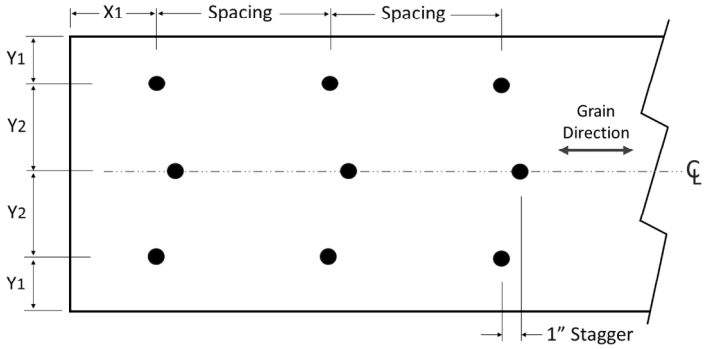
PLY TO PLY CONNECTION

- Zone A: Factored load = 756 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 27. Row = 3, Spacing = 11"
  Zone B: Factored load = 0 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 42. Row = 3, Spacing = 12"
  12d (0.148"x3.25") nails properties: D = 0.148" , L = 3.25". Fastener capacity = 117 lbs. X1 = 2.25" , Y1 = 0.75", Y2 = 1.5"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **B** Level: **1st FLOOR** Label: **FB4-2 - i209** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL 1-3/4 x 14**	Status: **Design Passed**

PLY TO PLY CONNECTION

FASTENER INSTALLATION – 3 ROWS (FROM ONE FACE)

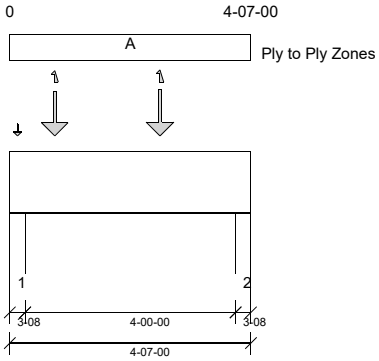


MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **B** Level: **1st FLOOR** Label: **FB7-2 - i211** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL 1-3/4 x 14**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 04/10/2025 08:24



DESIGN INFORMATION a

Building Code:	IRC 2021
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Spacing:	-
LL Deflection Limit:	L/360, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 0'

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 2 1/2"
- 425 psi Wall @ 4'- 4 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	2'- 10 1/4"	D + L	1.00	1851 lb ft	28972 lb ft	Passed - 6%
Max Shear:	1'- 5 1/2"	D + L	1.00	1821 lb	9473 lb	Passed - 19%

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	3-08	D + L	1.00	1858 lb		9187 lb	5206 lb	Passed - 36%
2	3-08	D + L	1.00	1230 lb		9187 lb	5206 lb	Passed - 24%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	4'- 7"	Self Weight	Top	13 lb/ft	-	-	-	-
Point	0'- 10 1/4"	0'- 10 1/4"	-	Front	605 lb	871 lb	0/-1 lb	1/-1 lb	1/-1 lb
Point	2'- 10 1/4"	2'- 10 1/4"	-	Front	677/-41 lb	893 lb	0/0 lb	1/0 lb	1/-1 lb
Point	0'- 1 3/4"	0'- 1 3/4"	47(i99)	Top	19 lb	-	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 3 1/2"	76(i161)	797 lb	1062 lb	-	1/-1 lb	1 lb/ 0 lb
2	4'- 3 1/2"	4'- 7"	79(i166)	527 lb	702 lb	-	-	1 lb/ 0 lb

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00

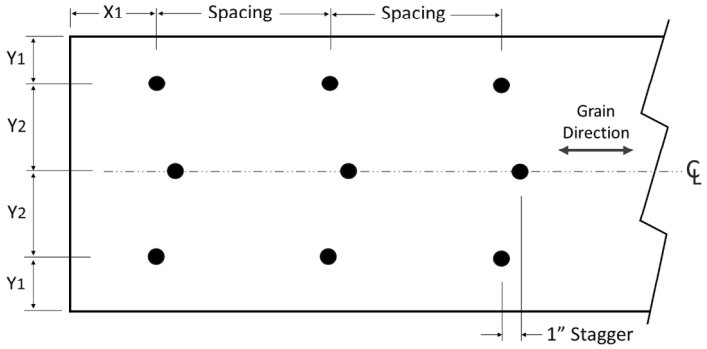
PLY TO PLY CONNECTION

- Zone A: Factored load = 654 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 15. Row = 3, Spacing = 12"
  12d (0.148"x3.25") nails properties: D = 0.148" , L = 3.25". Fastener capacity = 117 lbs. X1 = 2.25" , Y1 = 0.75", Y2 = 1.5"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **B** Level: **1st FLOOR** Label: **FB7-2 - i211** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL 1-3/4 x 14**	Status: **Design Passed**

PLY TO PLY CONNECTION

FASTENER INSTALLATION – 3 ROWS (FROM ONE FACE)

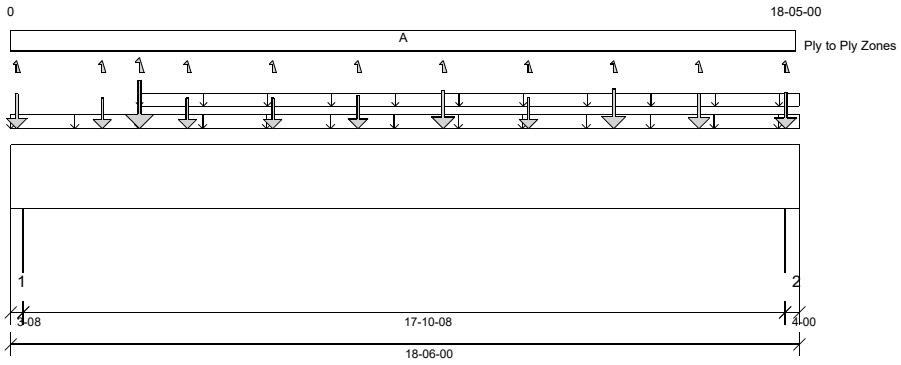


MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **B** Level: **1st FLOOR** Label: **FB8-2 - i187** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL 1-3/4 x 18**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 04/10/2025 08:24



DESIGN INFORMATION a

Building Code:	IRC 2021
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Spacing:	-
LL Deflection Limit:	L/360, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 1'- 8 1/2"

Bearing Stress of Support Material:

- 1323 psi Wall @ 0'- 2 1/2"
- 1323 psi Wall @ 18'- 3"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	9'- 4 13/16"	D + L	1.00	24197 lb ft	46413 lb ft	Passed - 52%
Max Shear:	16'- 8"	D + L	1.00	5618 lb	12180 lb	Passed - 46%
Live Load (LL) Pos. Defl.:	9'- 1"	L		0.229"	L/360	Passed - L/938
Total Load (TL) Pos. Defl.:	9'- 2 1/8"	D + L		0.422"	L/240	Passed - L/508

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	3-08	D + L	1.00	6506 lb		9188 lb	16207 lb	Passed - 71%
2	4-00	D + L	1.00	5885 lb		10500 lb	18522 lb	Passed - 56%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	18'- 6"	Self Weight	Top	17 lb/ft	-	-	-	-
Uniform	-0'	18'- 6"	62(i118)	Top	65 lb/ft	-	-	-	-
Uniform	3'- 1/4"	18'- 6"	FC1 Floor Decking (Plan View Fill)	Top	-	9 lb/ft	-	-	-
Point	0'- 1 5/8"	0'- 1 5/8"	-	Back	383 lb	557 lb	3 lb	5/0 lb	1/-6 lb
Point	2'- 1 3/4"	2'- 1 3/4"	FL9A(c14)	Back	211 lb	557 lb	3 lb	5/0 lb	1/-6 lb
Point	4'- 1 3/4"	4'- 1 3/4"	FL9A(c05)	Back	211 lb	557 lb	3 lb	5/0 lb	1/-6 lb
Point	6'- 1 3/4"	6'- 1 3/4"	FL9A(c11)	Back	211 lb	557 lb	3 lb	5/0 lb	1/-6 lb
Point	8'- 1 3/4"	8'- 1 3/4"	FL9A(c15)	Back	330 lb	557 lb	3 lb	5/0 lb	1/-6 lb
Point	10'- 1 3/4"	10'- 1 3/4"	FL9A(c04)	Back	529 lb	557 lb	3 lb	5/0 lb	1/-6 lb
Point	12'- 1 3/4"	12'- 1 3/4"	FL9A(c08)	Back	245 lb	557 lb	3 lb	4/0 lb	1/-6 lb
Point	14'- 1 3/4"	14'- 1 3/4"	FL9A(c07)	Back	600 lb	557 lb	3 lb	4/0 lb	1/-4 lb
Point	16'- 1 3/4"	16'- 1 3/4"	FL9A(c17)	Back	415 lb	557 lb	1 lb	2/0 lb	1/-2 lb
Point	18'- 2 1/8"	18'- 2 1/8"	-	Back	446 lb	577 lb	1 lb	3/0 lb	1/-3 lb
Point	3'- 1/4"	3'- 1/4"	FB6-2(i179)	Top	479 lb	1022/-133 lb	0 lb	0 lb	0 lb

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 3 1/2"	75(i158)	2750 lb	3760/-112 lb	15 lb	24/-1 lb	7 lb/ -34 lb
2	18'- 2"	18'- 6"	80(i167)	2860 lb	3023/-21 lb	11 lb	19/-1 lb	7 lb/ -34 lb

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00

PLY TO PLY CONNECTION

- Zone A: Factored load = 769 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 69. Row = 3, Spacing = 10"
  12d (0.148"x3.25") nails properties: D = 0.148" , L = 3.25". Fastener capacity = 117 lbs. X1 = 2.25" , Y1 = 0.75", Y2 = 1.5"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **B** Level: **1st FLOOR** Label: **FB8-2 - i187** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL 1-3/4 x 18**	Status: **Design Passed**

PLY TO PLY CONNECTION

FASTENER INSTALLATION – 3 ROWS (FROM ONE FACE)