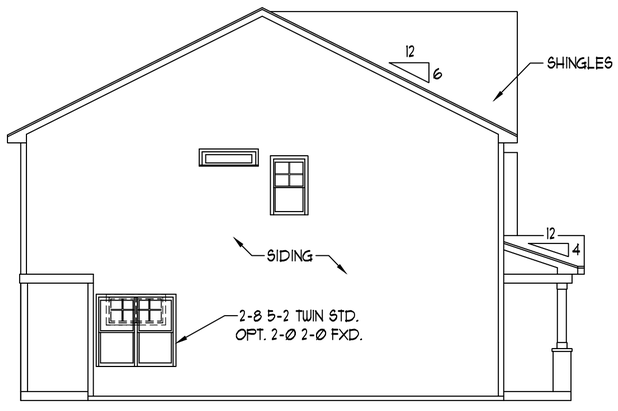
GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AND REGULATIONS.
2. CONTRACTOR SHALL THOROUGHLY REVIEW ALL SHEETS IN PLAN SET AND VERIFY ALL DETAILS AND DIMENSIONS BEFORE BEGINNING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO RENAISSANCE RESIDENTIAL DESIGN, INC. FOR JUSTIFICATION AND/OR CORRECTION BEFORE PROCEEDING WITH WORK. CONTRACTORS SHALL ASSUME RESPONSIBILITY FOR ERRORS THAT ARE NOT REPORTED PRIOR TO CONSTRUCTION.
3. ALL DIMENSIONS SHOULD BE READ OR CALCULATED AND NEVER SCALED.
4. CONTRACTOR SHALL ENSURE COMPATIBILITY OF THE BUILDING WITH ALL SITE REQUIREMENTS.

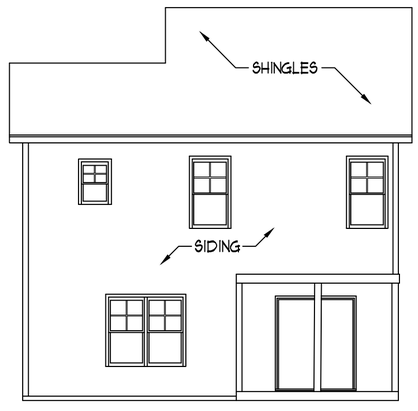
LOT 2 MILL POND
TBD MATTHEWS MILL POND RD
LILLINGTON, NC 27546

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

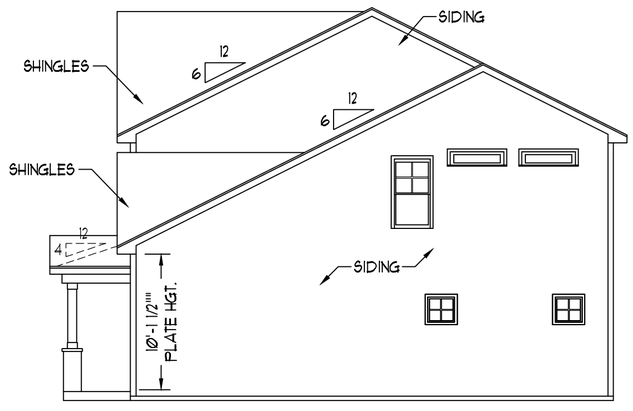
FRONT ELEVATION-C
SCALE: 1/4" = 1'-0"



LEFT ELEVATION
SCALE: 1/8" = 1'-0"



REAR ELEVATION
SCALE: 1/8" = 1'-0"



RIGHT ELEVATION
SCALE: 1/8" = 1'-0"

PLUMBING: DOUBLE J
HVAC: TBD
ELECTRICAL: PIONEER

SCALE NOTE: 18x24 PRINTS ARE TO SCALE AS NOTED.
11x17 PRINTS ARE NOT TO SCALE

NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and all applicable local laws and ordinances.
APPROVED
Harnett County Building and Safety
Permit holder responsible for full compliance with the code
12/07/2021
Harnett COUNTY NORTH CAROLINA

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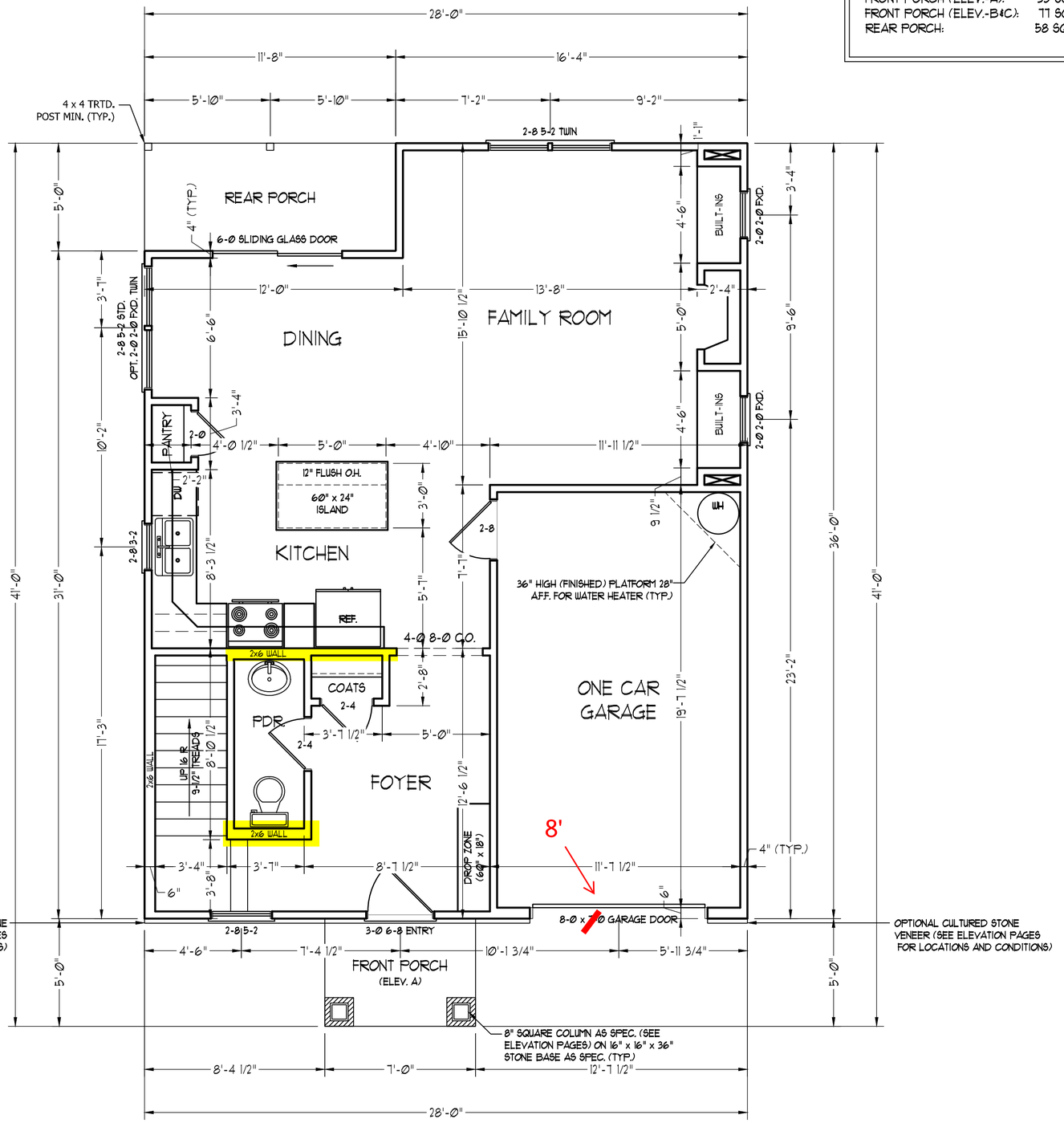
ENGINEERED BY:
REVIEWED BY:

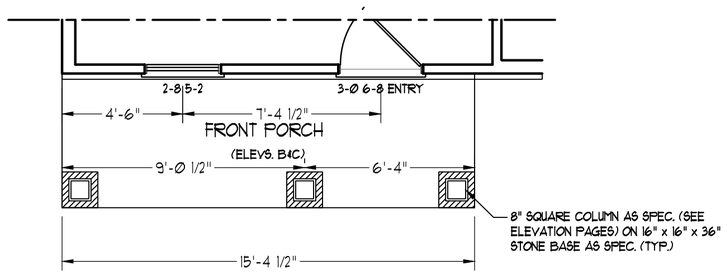
C - ELEVATIONS
A-3

C:\Users\Wade\Documents\Projects\Western-Weaver\Poplar\Poplar_GR_7-22-20.dwg, 7/24/2020 6:37:48 AM

SQUARE FOOTAGE (I.F.S.)

1st FLOOR:	677 SQ. FT.
2nd FLOOR:	800 SQ. FT.
TOTAL:	1477 SQ. FT.
GARAGE:	218 SQ. FT.
FRONT PORCH (ELEV.-A):	35 SQ. FT.
FRONT PORCH (ELEV.-B&C):	77 SQ. FT.
REAR PORCH:	58 SQ. FT.





FRONT PORCH ELEVATIONS B&C

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DRAWN BY: WG
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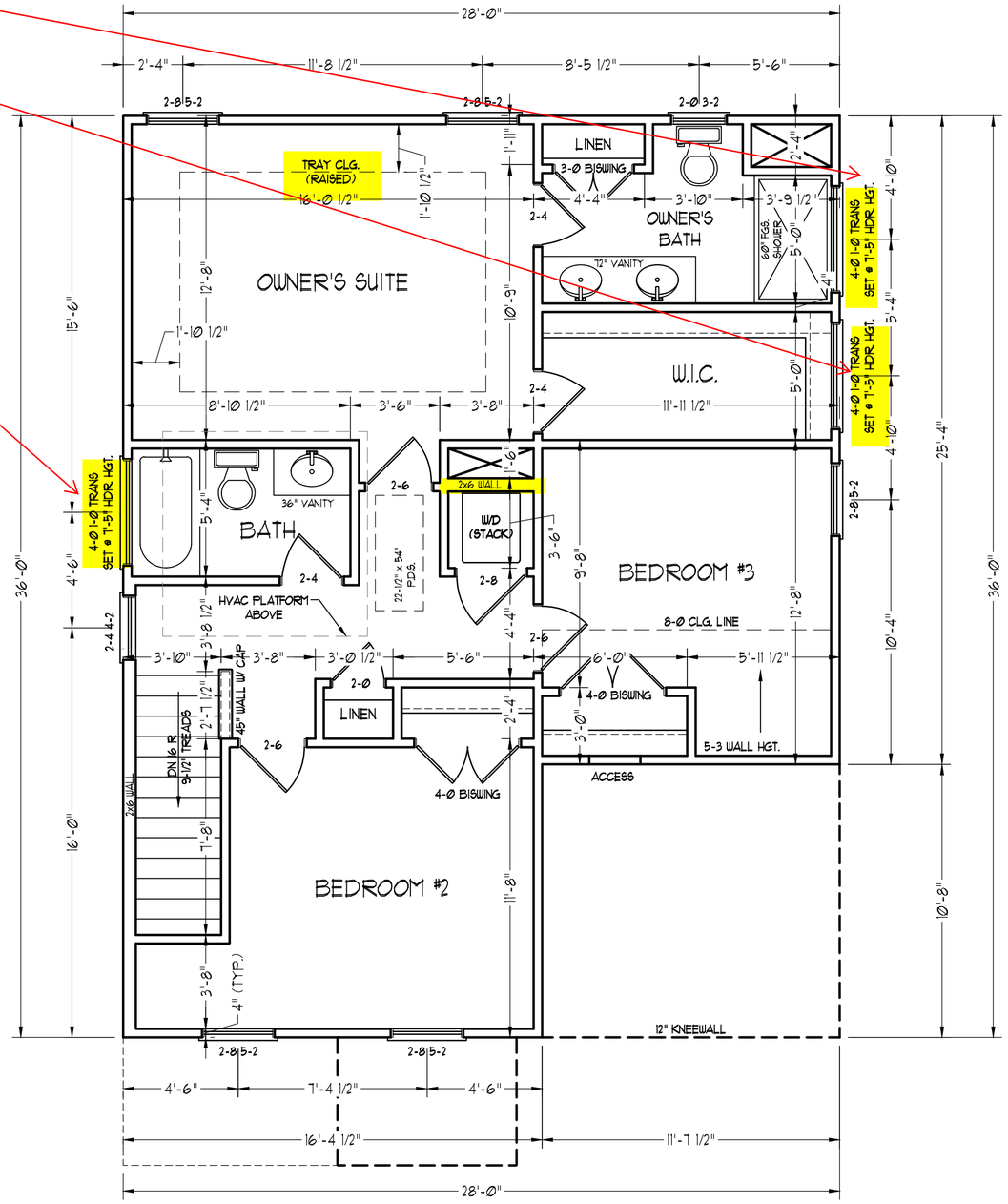
REVIEWED BY:

FIRST FLOOR PLAN

A-4

RAISE TRANSOM TO TOP PLATE



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REVIEWED BY:

SECOND FLOOR PLAN

A-5

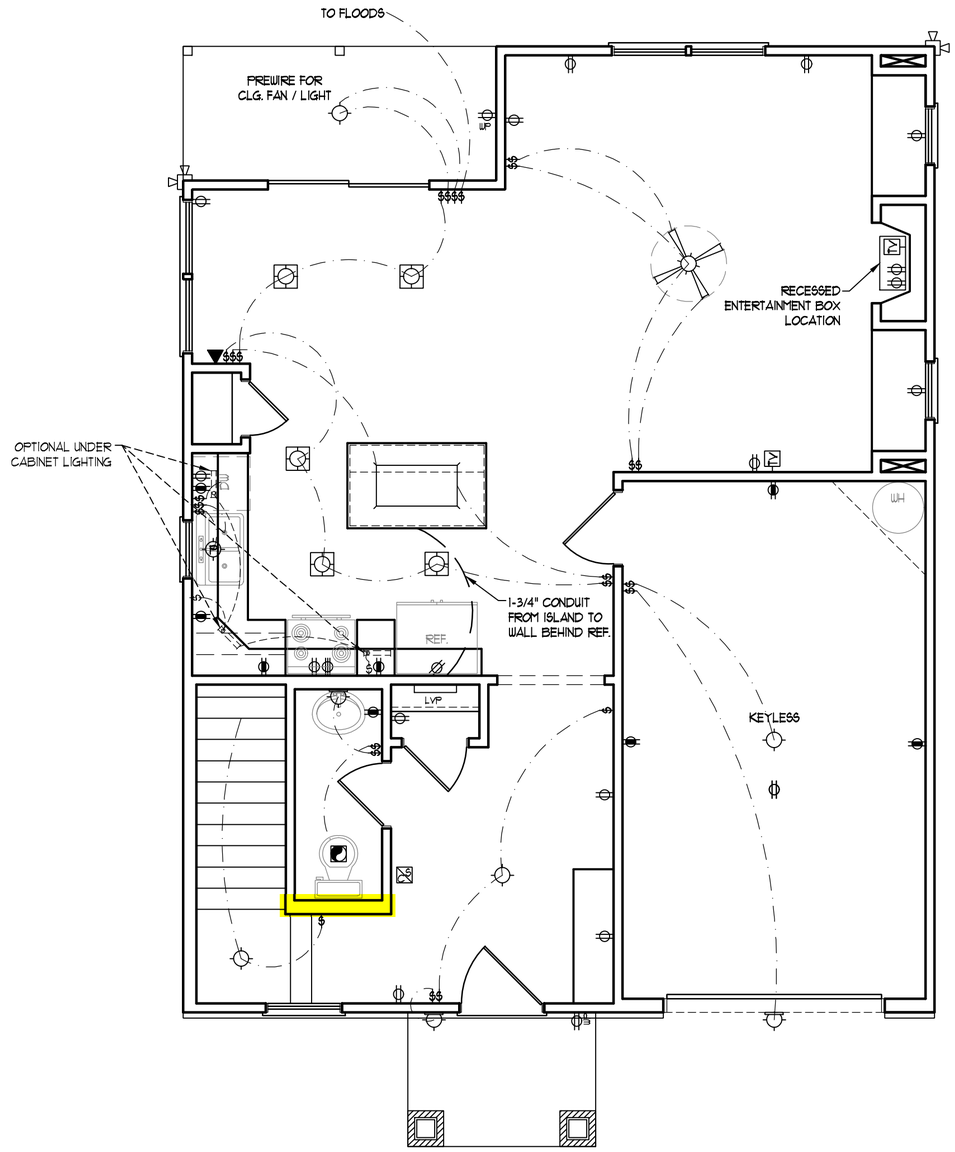
ELECTRICAL LAYOUT NOTES:

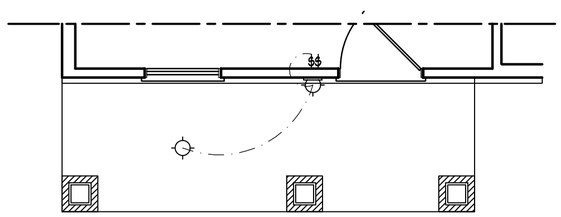
1.) BLOCK AND WIRE FOR ALL CEILING FANS PER PLAN.

2.) VANITY LIGHTS TO BE SET @ 80" A.F.F. (TYP.)

3.) ADDITIONAL EXTERIOR OUTLETS REQUIRED BY CODE TO BE LOCATED BY ELECTRICIAN.

4.) PLACE SWITCHES 8" (MIN.) FROM ROUGH OPENINGS.





FRONT PORCH ELEVATIONS B&C

ELECTRICAL LEGEND

- 110 V OUTLET
- 110 V GFI OUTLET
- 110 V SWITCHED OUTLET
- BB 110 V BASEBOARD OUTLET
- 4-PLEX
- COUNTER OR FLOOR MOUNTED
- COUNTER OR FLOOR MOUNTED 110V GFI
- WP WEATHERPROOF
- 220 V OUTLET
- 110 V DEDICATED CIRCUIT
- 220 V DEDICATED CIRCUIT
- SPECIAL PURPOSE (240 V, ETC.)
- WALL MOUNT LIGHT
- CEILING MOUNT LIGHT
- P PENDANT LIGHT
- RECESSED CAN LIGHT
- MINI CAN LIGHT
- EYEBALL LIGHT
- FLUORESCENT LIGHT
- UNDERCABINET LIGHT
- FLOOD LIGHT
- $ SWITCH
- $D DIMMER SWITCH
- TELEPHONE
- DATA
- TELEPHONE AND DATA
- TV TV CONNECTION
- TV/ DATA
- CD CONDUIT FOR COMPONENT WIRING
- SP SPEAKER
- S/C 110 V SMOKE/ CM DETECTOR
- SD 110 V SMOKE DETECTOR
- EXHAUST FAN
- LVP LOW VOLTAGE PANEL
- ALARM ALARM PANEL
- CEILING FAN
- CEILING FAN W/ LIGHT

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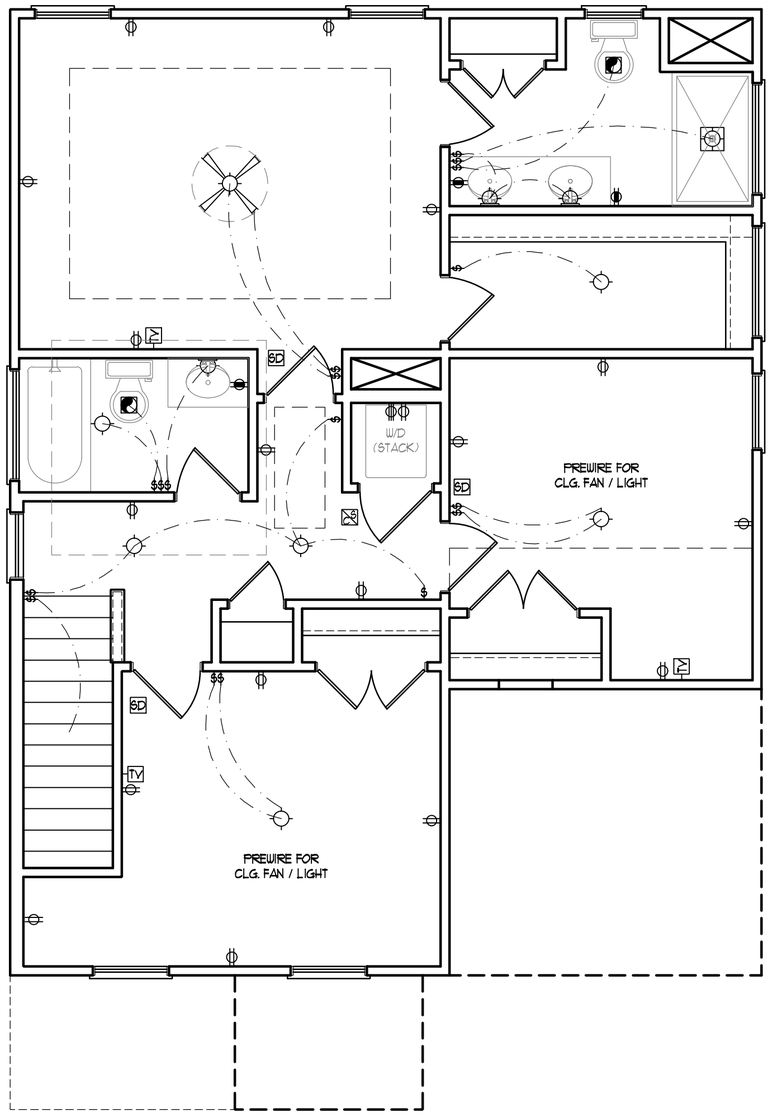
ENGINEERED BY:
REVIEWED BY:

FIRST FLOOR ELECTRICAL PLAN

E-1



ELECTRICAL LAYOUT NOTES:

1.) BLOCK AND WIRE FOR ALL CELING FANS PER PLAN.

2.) VANITY LIGHTS TO BE SET @ 80" A.F.F. (TYP.)

3.) ADDITIONAL EXTERIOR OUTLETS REQUIRED BY CODE TO BE LOCATED BY ELECTRICIAN.

4.) PLACE SWITCHES 8" (MIN.) FROM ROUGH OPENINGS.

ELECTRICAL LEGEND

- 110 V OUTLET
- 110 V GFI OUTLET
- 110 V SWITCHED OUTLET
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- COUNTER OR FLOOR MOUNTED
- COUNTER OR FLOOR MOUNTED 110V GFI
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- 220 V OUTLET
- 110 V DEDICATED CIRCUIT
- 220 V DEDICATED CIRCUIT
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- WALL MOUNT LIGHT
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- $ SWITCH
- $D DIMMER SWITCH
- TELEPHONE
- DATA
- TELEPHONE AND DATA
- TV TV CONNECTION
- TV/ DATA
- CD CONDUIT FOR COMPONENT WIRING
- SP SPEAKER
- CO 110 V SMOKE/ CO DETECTOR
- SD 110 V SMOKE DETECTOR
- EXHAUST FAN
- LVP LOW VOLTAGE PANEL
- ALARM ALARM PANEL
- CEILING FAN
- CEILING FAN W/ LIGHT

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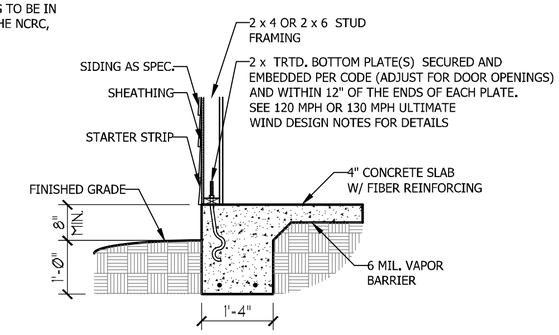
SECOND FLOOR
ELCTRICAL
PLAN

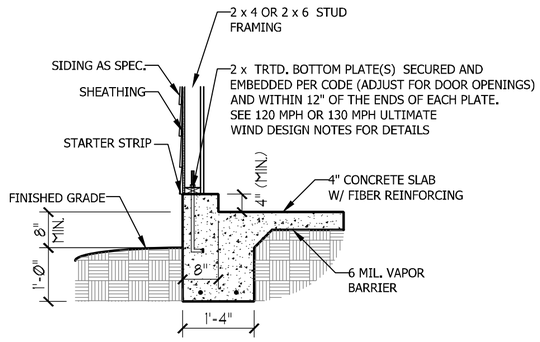
E-2

ULTIMATE DESIGN WIND SPEED NOTES FOR LESS THAN 30' MEAN ROOF HEIGHT:

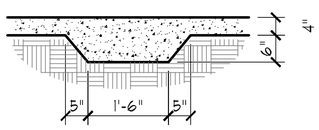
1. STRUCTURAL DESIGN PER NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
2. FOR 120 MPH WIND ZONES INSTALL 1/2" ANCHOR BOLTS 6'-0" O.C. AND WITHIN 1'-0" FROM END OF EACH CORNER. ANCHOR BOLTS MUST EXTEND A MINIMUM OF 7" INTO CONCRETE OR 15" INTO MASONRY. LOCATE BOLT WITHIN MIDDLE THIRD OF PLATE WIDTH.
3. FOR 130 MPH WIND ZONES INSTALL 1/2" ANCHOR BOLTS 4'-0" O.C. AND WITHIN 1'-0" FROM END OF EACH CORNER. ANCHOR BOLTS MUST EXTEND A MINIMUM OF 7" INTO CONCRETE OR 15" INTO MASONRY. LOCATE BOLT WITHIN MIDDLE THIRD OF PLATE WIDTH.
4. MEAN ROOF HEIGHT IS LESS THAN 30 FEET.
5. EXTERIOR WALLS DESIGNED FOR 120 OR 130 MPH WINDS.
6. INSTALL 7/16" OSB SHEATHING ON ALL EXTERIOR WALLS OF ALL STORIES IN ACCORDANCE WITH SECTION R602.10.3 OF THE NCRC, 2018 EDITION.
7. ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER 11 OF THE NCRC, 2018 EDITION.



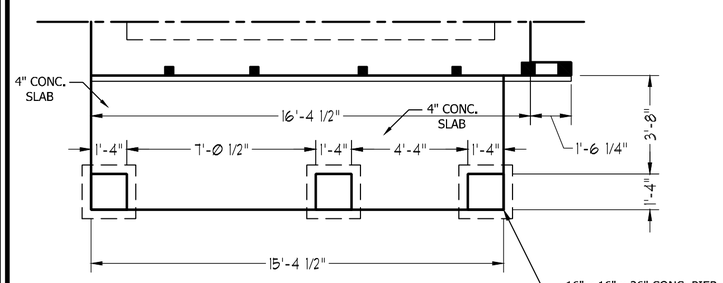
TYPICAL SLAB DETAIL



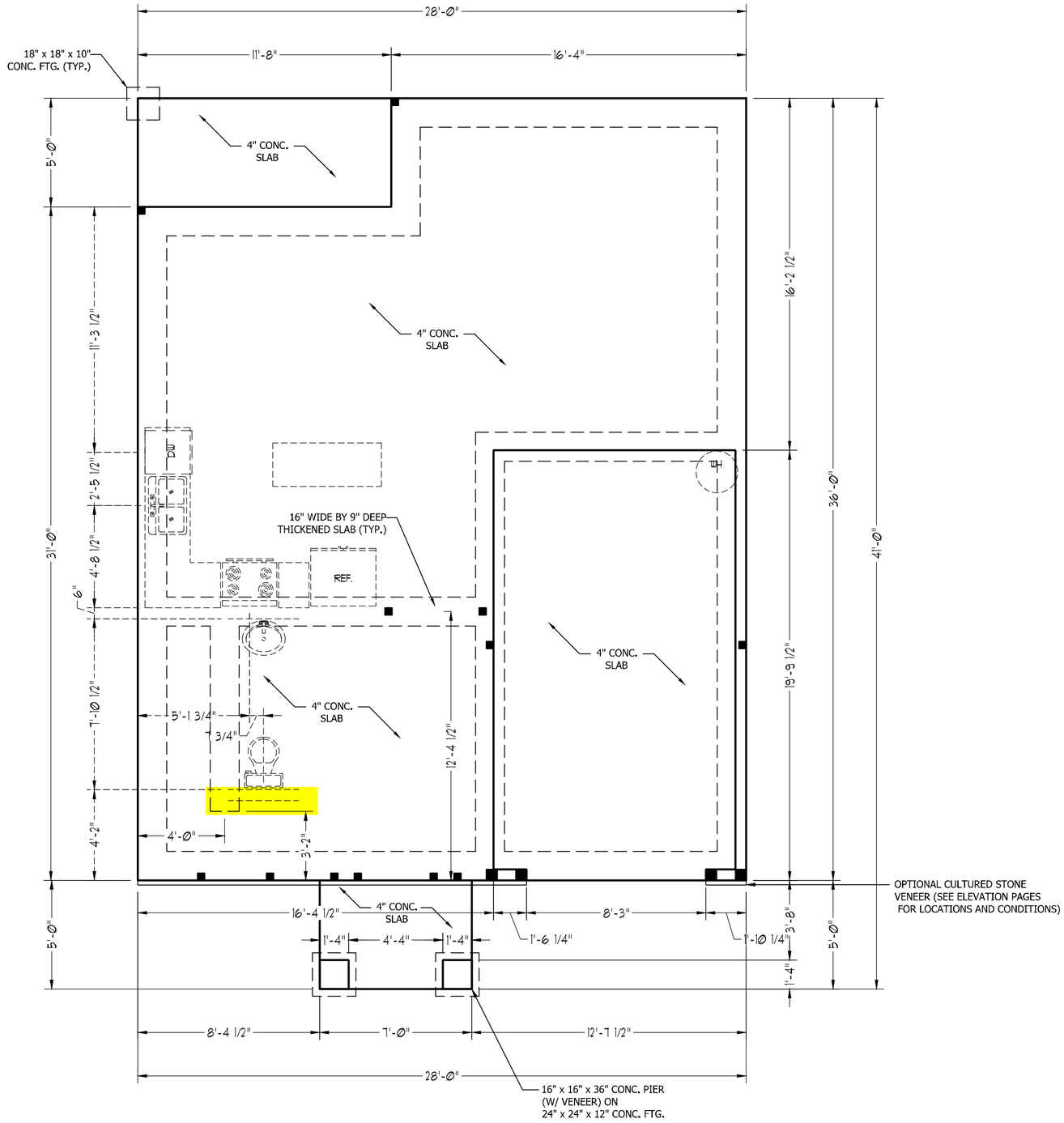
GARAGE CURB DETAIL



THICKENED SLAB DETAIL



FRONT PORCH ELEVATIONS B&C



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DRAWN BY: WG
ENGINEERED BY:
REVIEWED BY:

MONO SLAB FOUNDATION PLAN

S-1

MASONRY STEM WALL SPECIFICATIONS				
WALL HEIGHT (FEET)	MASONRY WALL TYPE			
	8" CMU	4" BRICK AND 4" CMU	4" BRICK AND 8" CMU	12" CMU
2' OR LESS	UNGROUTED	GROUT SOLID	UNGROUTED	UNGROUTED
3'	UNGROUTED	GROUT SOLID	UNGROUTED	UNGROUTED
4'	GROUT SOLID	GROUT SOLID w/ #4 REBAR @ 48" O.C.	GROUT SOLID	GROUT SOLID w/ #4 REBAR @ 64" O.C.
5'	GROUT SOLID w/ #4 REBAR @ 36" O.C.	N/A	GROUT SOLID w/ #4 REBAR @ 36" O.C.	GROUT SOLID w/ #4 REBAR @ 64" O.C.
6'	GROUT SOLID w/ #4 REBAR @ 24" O.C.	N/A	GROUT SOLID w/ #4 REBAR @ 24" O.C.	GROUT SOLID w/ #4 REBAR @ 64" O.C.
7' OR MORE	ENGINEERED BASED ON SITE CONDITIONS			

ULTIMATE DESIGN WIND SPEED NOTES FOR LESS THAN 30' MEAN ROOF HEIGHT:

1. STRUCTURAL DESIGN PER NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
2. FOR 120 MPH WIND ZONES INSTALL 1/2" ANCHOR BOLTS 6'-0" O.C. AND WITHIN 1'-0" FROM END OF EACH CORNER. ANCHOR BOLTS MUST EXTEND A MINIMUM OF 7" INTO CONCRETE OR 15" INTO MASONRY. LOCATE BOLT WITHIN MIDDLE THIRD OF PLATE WIDTH.
3. FOR 130 MPH WIND ZONES INSTALL 1/2" ANCHOR BOLTS 4'-0" O.C. AND WITHIN 1'-0" FROM END OF EACH CORNER. ANCHOR BOLTS MUST EXTEND A MINIMUM OF 7" INTO CONCRETE OR 15" INTO MASONRY. LOCATE BOLT WITHIN MIDDLE THIRD OF PLATE WIDTH.
4. MEAN ROOF HEIGHT IS LESS THAN 30 FEET.
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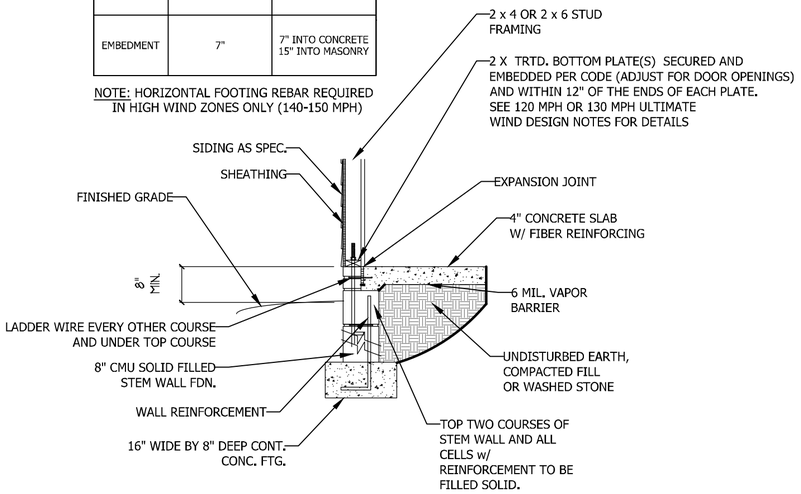
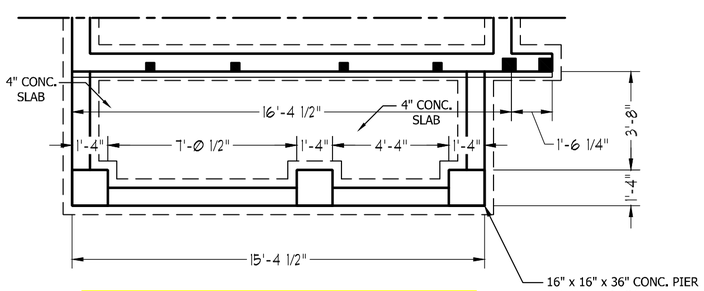
6. INSTALL 7/16" OSB SHEATHING ON ALL EXTERIOR WALLS OF ALL STORIES IN ACCORDANCE WITH SECTION R602.10.3 OF THE NCRC, 2018 EDITION.
7. ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER 11 OF THE NCRC, 2018 EDITION.

ANCHOR SPACING AND EMBEDMENT		
WIND ZONE	120 MPH	130 MPH
SPACING	6'-0" O.C.	4'-0" O.C.
EMBEDMENT	7"	7" INTO CONCRETE 15" INTO MASONRY

NOTE: HORIZONTAL FOOTING REBAR REQUIRED IN HIGH WIND ZONES ONLY (140-150 MPH)



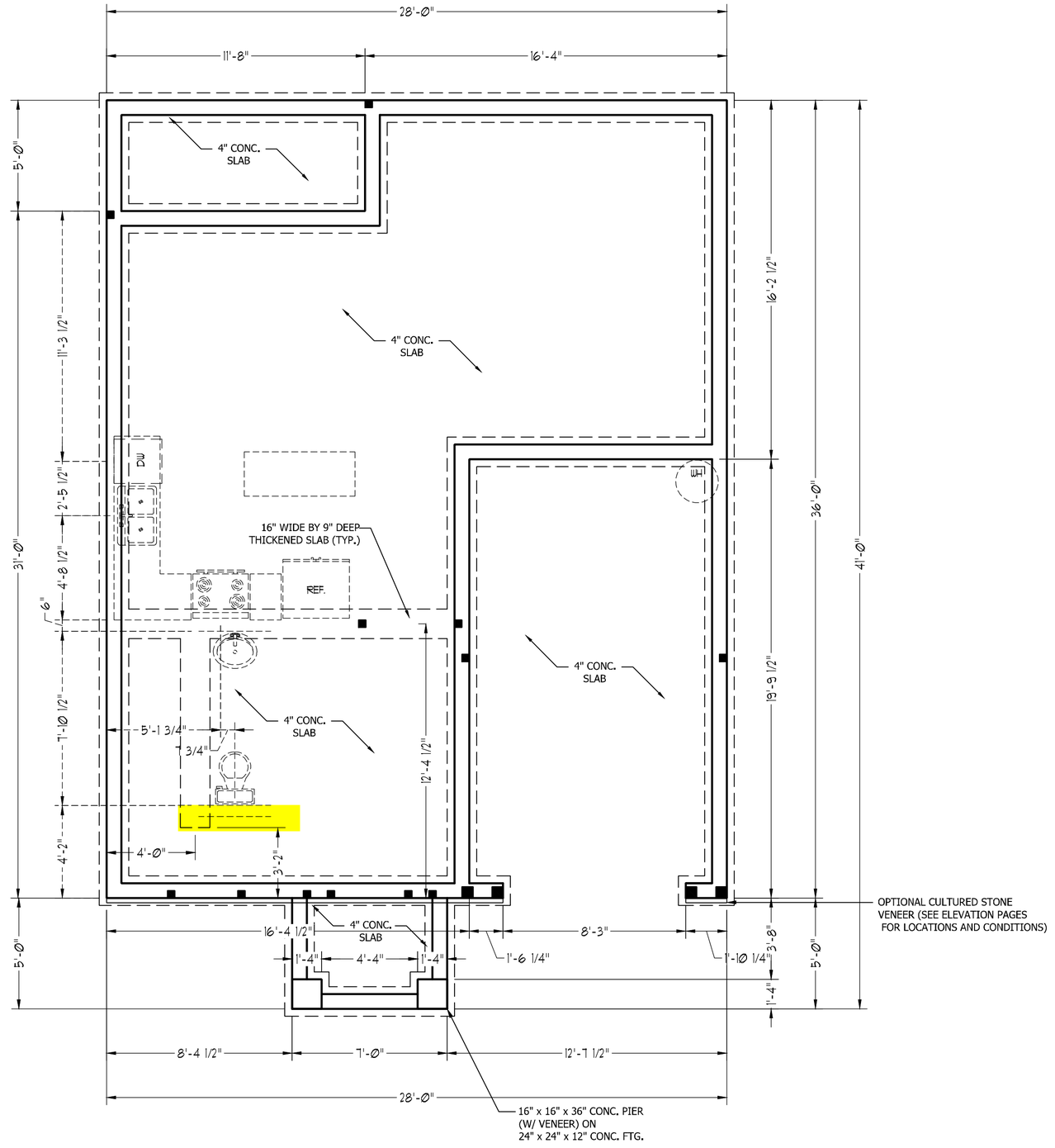
STEM WALL FDN. DETAIL



FRONT PORCH ELEVATIONS B&C

STRUCTURAL NOTES:

1. TABLE ABOVE APPLIES TO HOUSE FOUNDATION ONLY. TABLE DOES NOT APPLY TO GARAGE FOUNDATION NOT COMMON TO HOUSE.
2. TIE MULTIPLE WYTHES TOGETHER WITH LADDER WIRE @ 16" O.C. VERTICALLY.
3. WALL HGT. IS MEASURED FROM TOP OF FOOTING TO TOP OF WALL.
4. PREP SLAB PER R506.2.1 AND R505.2.2 BASE AND EXCEPTION OF THE 2018 NCRC
5. MINIMUM 24" LAP SPLICE LENGTH.
6. BACKFILL OF CLEAN #57/ #67 WASHED STONE IS PERMITTED.
7. BACKFILL OF WELL DRAINED SAND-GRAVEL MIXTURE SOILS (45 PSF/FT BELOW GRADE) CLASSIFIED AS GROUP 1 ACCORDING TO UNIFIED SOILS CLASSIFICATION SYSTEM IN ACCORDANCE WITH TABLE R405.1 OF THE 2018 NCRC ARE ALLOWABLE.
8. LOCATE REBAR IN CENTER OF FOUNDATION WALL.
9. WHERE REQUIRED, FILL BLOCK SOLID WITH TYPE "S" MORTAR OR 3000 PSI GROUT. USE OF "LOW LIFT GROUTING" METHOD REQUIRED WHEN FILLING WALLS WITH GROUT AT HEIGHTS OF 5' AND GREATER.



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SCALE: 1/4" = 1'-0"
DRAWN BY: WG
ENGINEERED BY:
REVIEWED BY:

STEMWALL SLAB FOUNDATION PLAN

S-1

STRUCTURAL NOTES:

1. ALL FRAMING LUMBER TO BE SPF #2 (UNO). ALL TREATED LUMBER TO BE SYP #2 (UNO.)
2. ALL LOAD BEARING HEADERS TO BE (2) 2 x 6 (UNO).
3. INSTALL AN EXTRA JOIST UNDER WALLS PARALLEL TO FLOOR JOISTS
4. WINDOW AND DOOR HEADERS TO BE SUPPORTED w/ (1) JACK STUD AND (1) KING STUD EA. END (UNO.). SEE TABLE R602.7.5 FOR ADDITIONAL KING STUD REQUIREMENTS.
5. SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION. ALL SQUARES TO BE (2) STUDS (UNO.)
6. ALL 4 X 4 POSTS SHALL BE ANCHORED TO SLABS W/ SIMPSON ABU44 POST BASES (OR EQUAL) AND 6 X 6 POSTS W/ ABU66 POST BASES (OR EQUAL) (UNO). ALL 4 X 4 AND 6 X 6 POSTS TO BE INSTALLED WITH 700 LB CAPACITY UPLIFT CONNECTORS AT TOP (UNO.)
7. FOR FIBERGLASS, ALUMINUM, OR COLUMN ENG. BY OTHERS, SECURE TO SLAB W/ (2) METAL ANGLES USING 2" CONC. SCREWS. FASTEN ANGLES TO COLUMNS W/ 1/4" THROUGH BOLTS W/ NUTS AND WASHERS. LOCATE ANGLES ON OPPOSITE SIDES OF COLUMN. THROUGH BOLTS MUST BE INSTALLED PRIOR TO SETTING COLUMN.

BRACE WALL PANEL NOTES:

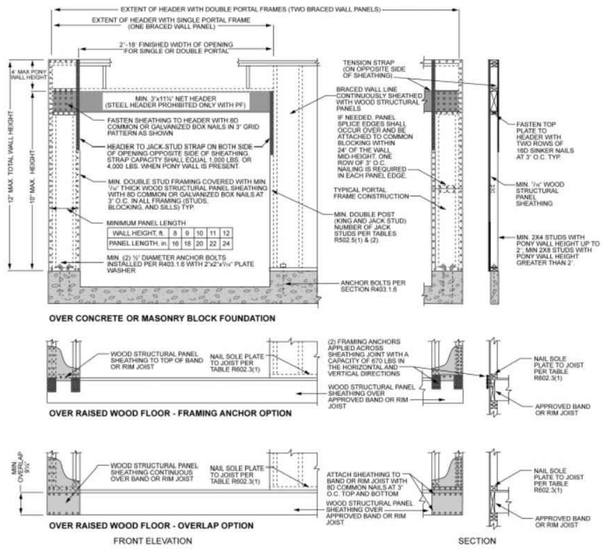
EXTERIOR WALLS: ALL EXTERIOR WALLS TO BE SHEALTHED WITH CS-WSP OR CS-SFB IN ACCORDANCE WITH SECTION R602.10.3 UNLESS NOTED OTHERWISE.

REQUIRED LENGTH OF BRACING: REQUIRED BRACE WALL LENGTH FOR EACH SIDE OF THE CIRCUMSCRIBED RECTANGLE ARE INTERPOLATED PER TABLE R602.10.3. METHODS CS-WSP AND CS-SFB CONTRIBUTE THIER ACTUAL LENGTH. METHOD GB CONTRIBUTES 0.5 ITS ACTUAL LENGTH. METHOD PF CONTRIBUTES 1.5 TIMES ITS ACTUAL LENGTH.

GYPSUM: ALL INTERIOR SIDES OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS TO HAVE 1/2" GYPSUM INSTALLED. WHEN NOT USING METHOD GB GYPSUM TO BE FASTENED PER TABLE R702.3.5. METHOD GB TO BE FASTENED PER TABLE R602.10.1.

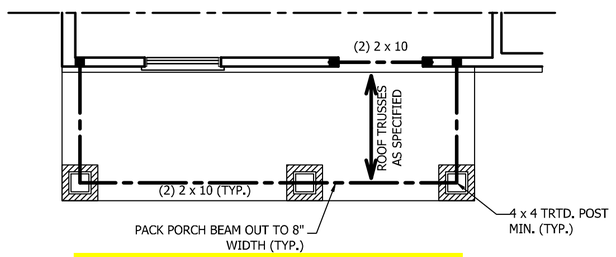
HD: 800 LBS HOLD DOWN DEVICE FASTENED TO THE EDGE OF THE BRACE WALL PANEL NEAREST TO THE CORNER

METHODS: PER TABLE R602.10.1

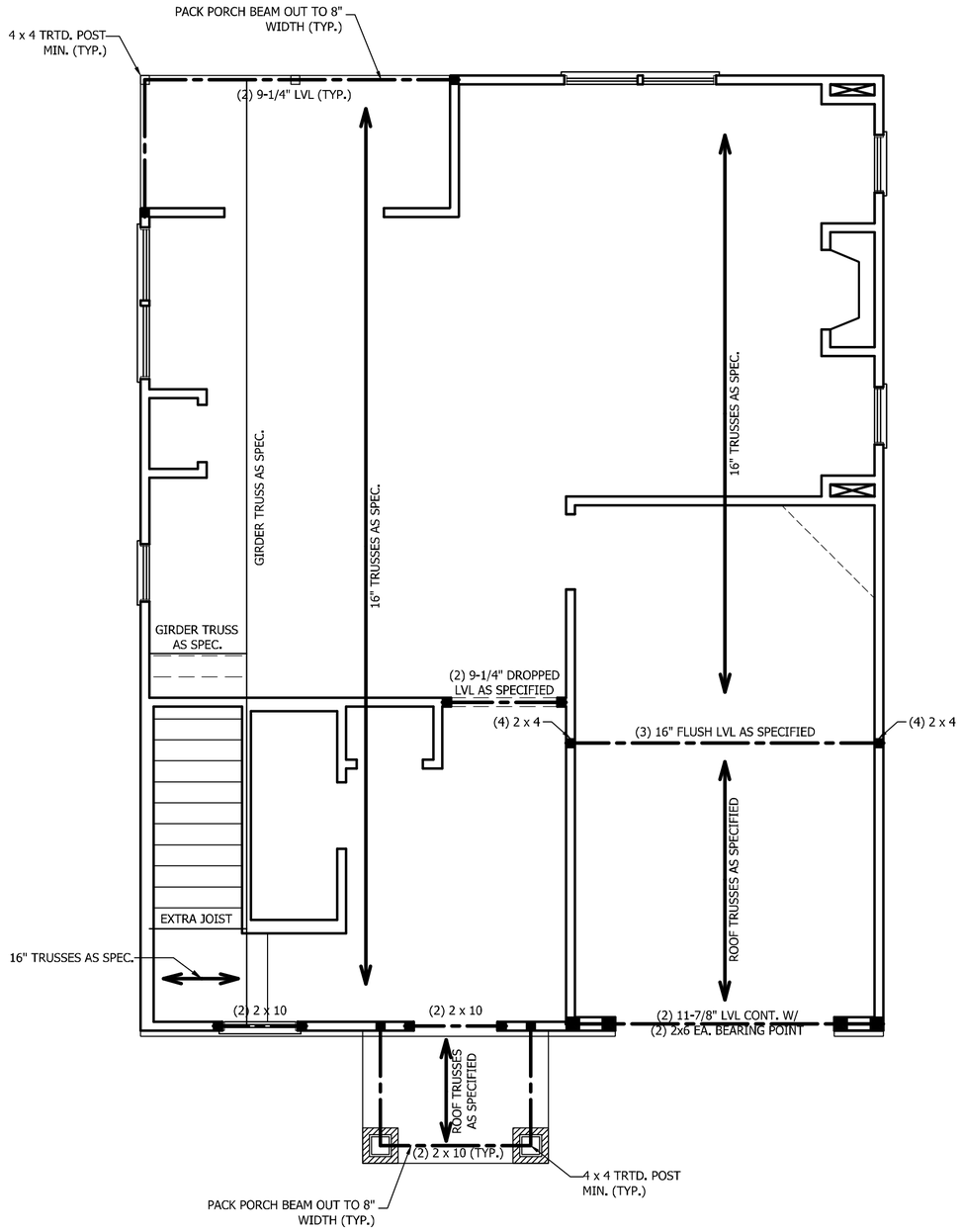


nch = 25.4 mm, 1 foot = 305 mm, 1 lb = 4.45 N.

FIGURE R602.10.1
METHOD PF—PORTAL FRAME CONSTRUCTION



FRONT PORCH ELEVATIONS B&C



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WEAVER HOMES
CAROLINA COLLECTION
POPLAR DRIVE RIGHT

DATE: JULY 22, 2020
REV.:
SCALE: 1/4" = 1'-0"
DRAWN BY: WG
ENGINEERED BY:
REVIEWED BY:

SECOND FLOOR FRAMING PLAN

S-2

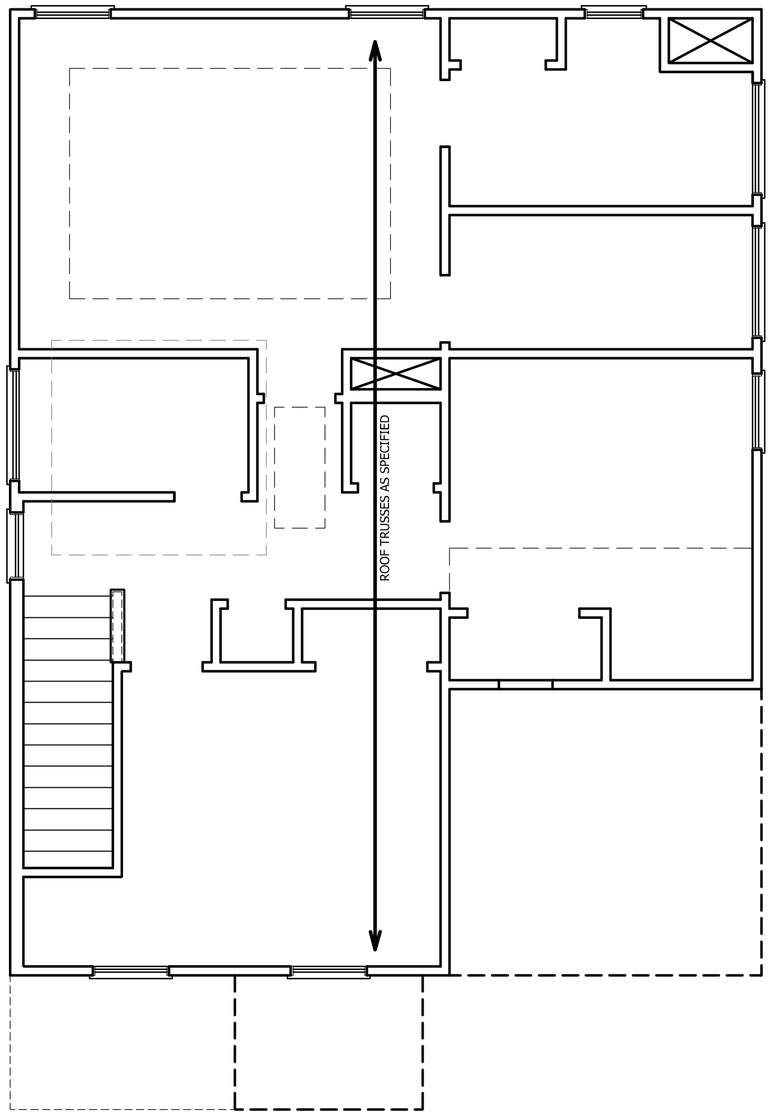
TABLE R602.7.5
MINIMUM NUMBER OF FULL HEIGHT STUDS
AT EACH END OF HEADERS IN EXTERIOR WALLS

HEADER SPAN (FEET)	MAXIMUM STUD SPACING (INCHES) (PER TABLE R602.3(5)	
	16	24
UP TO 3'	1	1
4'	2	1
8'	3	2
12'	5	3
16'	6	4

STRUCTURAL NOTES:

1. ALL FRAMING LUMBER TO BE SPF #2 (UNO). ALL TREATED LUMBER TO BE SYP #2 (UNO.)
2. ALL LOAD BEARING HEADERS TO BE (2) 2 x 6 (UNO).
3. WINDOW AND DOOR HEADERS TO BE SUPPORTED w/ (1) JACK STUD AND (1) KING STUD EA. END (UNO.). SEE TABLE R602.7.5 FOR ADDITIONAL KING STUD REQUIREMENTS.
4. SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION. ALL SQUARES TO BE (2) STUDS (UNO.)

DSP - DOUBLE STUD POCKET
TSP - TRIPLE STUD POCKET



RENAISSANCE
RESIDENTIAL DESIGN, INC.
RALEIGH, NC 27612
(919) 649-4128
WWW.RRDCAROLINA.COM
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350 Wagoner Drive • Fayetteville, NC 28303
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www.weaver-homes.com

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POPLAR DRIVE RIGHT

DATE: JULY 22, 2020
REV.:
SCALE: 1/4" = 1'-0"
DRAWN BY: WG
ENGINEERED BY:
REVIEWED BY:

ATTIC FLOOR
FRAMING PLAN

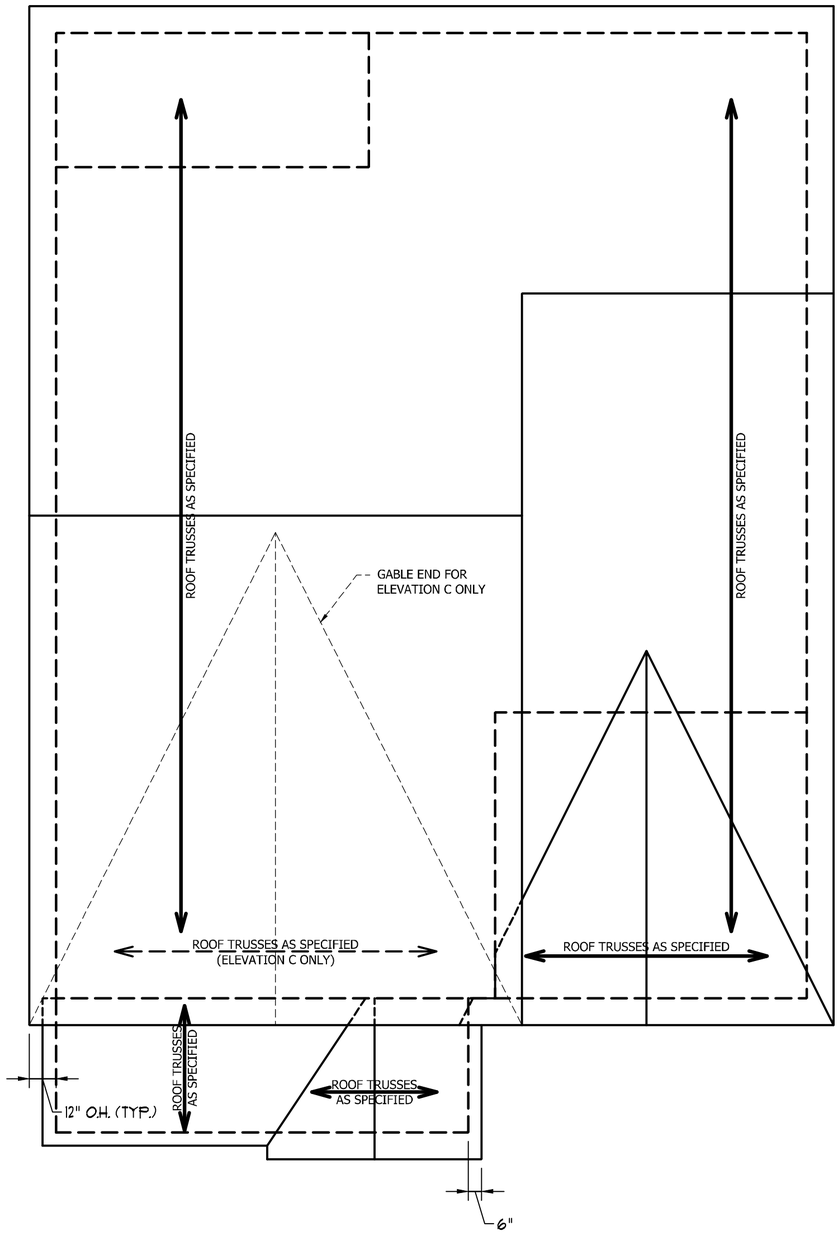
S-3

STRUCTURAL NOTES:

1. ALL FRAMING LUMBER TO BE #2 SPF (UNO).
2. HIP SPLICES ARE TO BE SPACED A MIN. OF 8'-0". FASTEN MEMBERS WITH THREE ROWS OF 12d NAILS @ 16" O.C. (TYP.)
3. STICK FRAME OVER-FRAMED ROOF SECTIONS W/ 2 x 8 RIDGES, 2 x 6 RAFTERS @ 16" O.C. AND FLAT 2 x 10 VALLEYS OR USE VALLEY TRUSSES.
4. FASTEN FLAT VALLEYS TO RAFTERS OR TRUSSES WITH SIMPSON H2.5A HURRICANE TIES @ 32" O.C. MAX. PASS HURRICANE TIES THROUGH NOTCH IN ROOF SHEATHING. EACH RAFTER IS TO BE FASTENED TO THE FLAT VALLEY WITH A MIN. OF (6) 12d TOE NAILS.
5. REFER TO SECTION R802.11 OF THE 2018 NCRC FOR REQUIRED UPLIFT RESISTANCE AT RAFTERS AND TRUSSES.

ATTIC VENT CALCULATION:

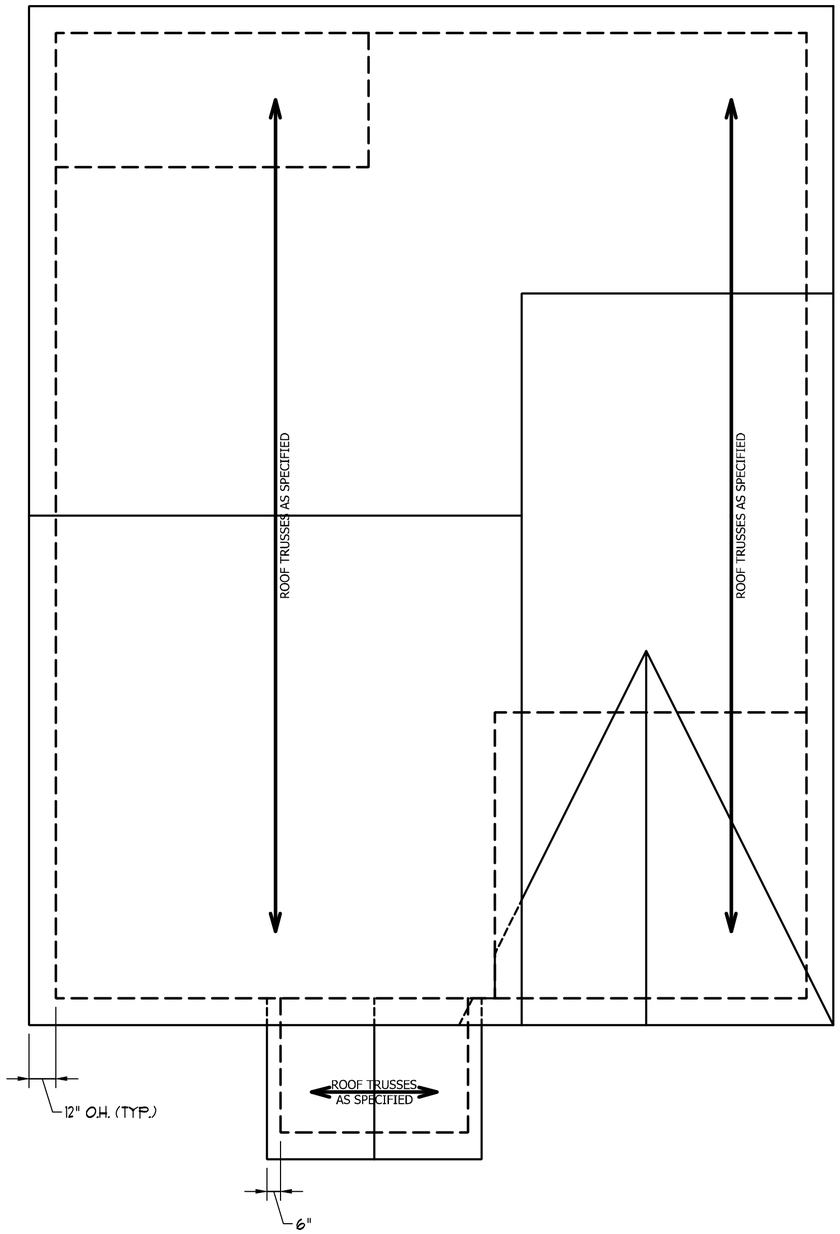
1218 SQ. FT. OF ATTIC DIVIDED BY 150 REQUIRES 8.1 SQ. FT. OF NET FREE VENTILATING AREA (MIN.).



ELEVATION B&C

ATTIC VENT CALCULATION:

1180 SQ. FT. OF ATTIC DIVIDED BY 150 REQUIRES 7.9 SQ. FT. OF NET FREE VENTILATING AREA (MIN.).



ELEVATION A

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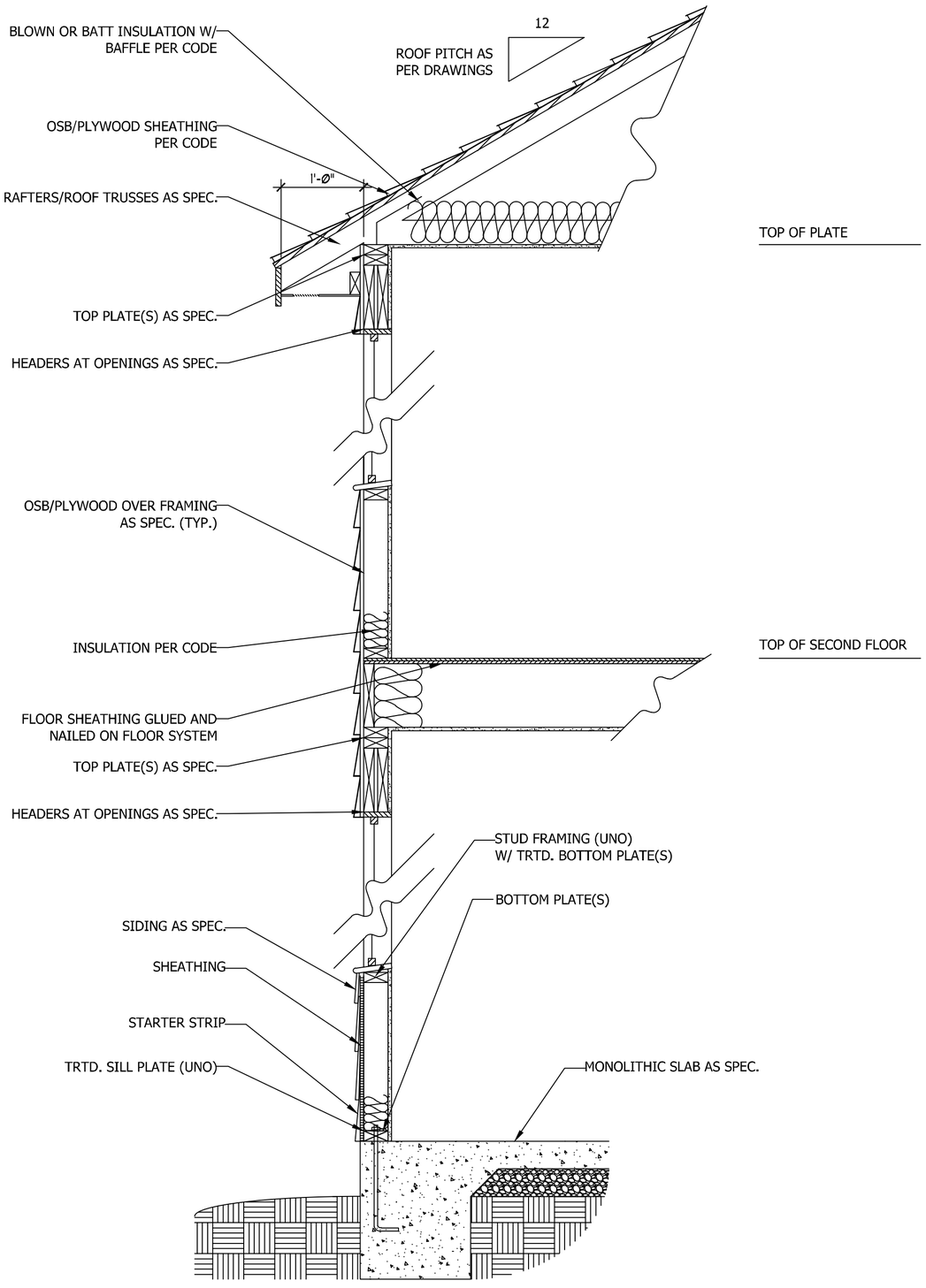
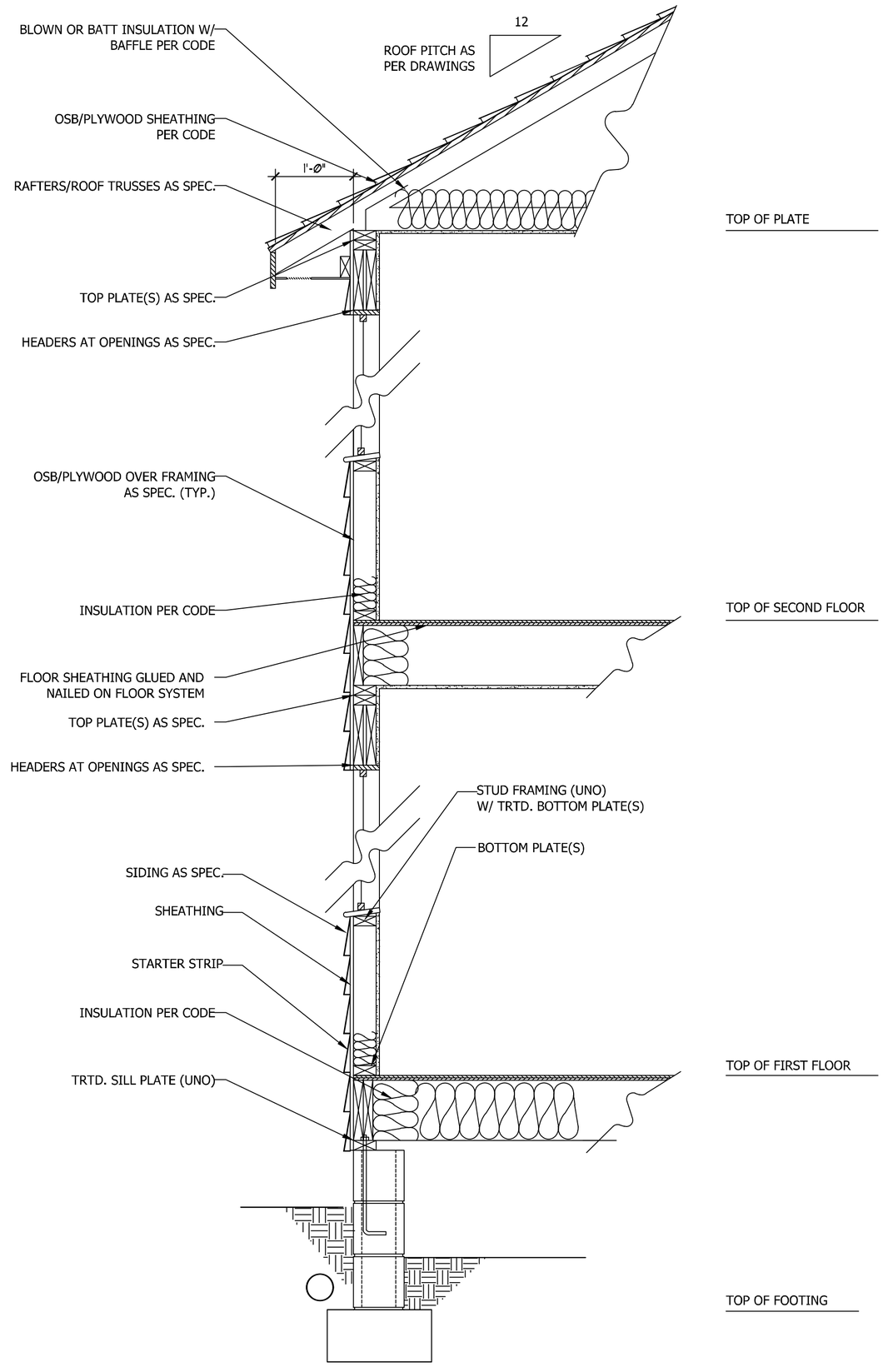
POPLAR DRIVE RIGHT

DATE: JULY 22, 2020
REV.:
SCALE: 1/4" = 1'-0"
DRAWN BY: WG
ENGINEERED BY:
REVIEWED BY:

ROOF PLANS
S-4



WALL SECTION W/ SLAB
W/ STD. SIDING SHOWN (NTS)



WALL SECTION W/ CRAWL SPACE
W/ STD. SIDING SHOWN (NTS)

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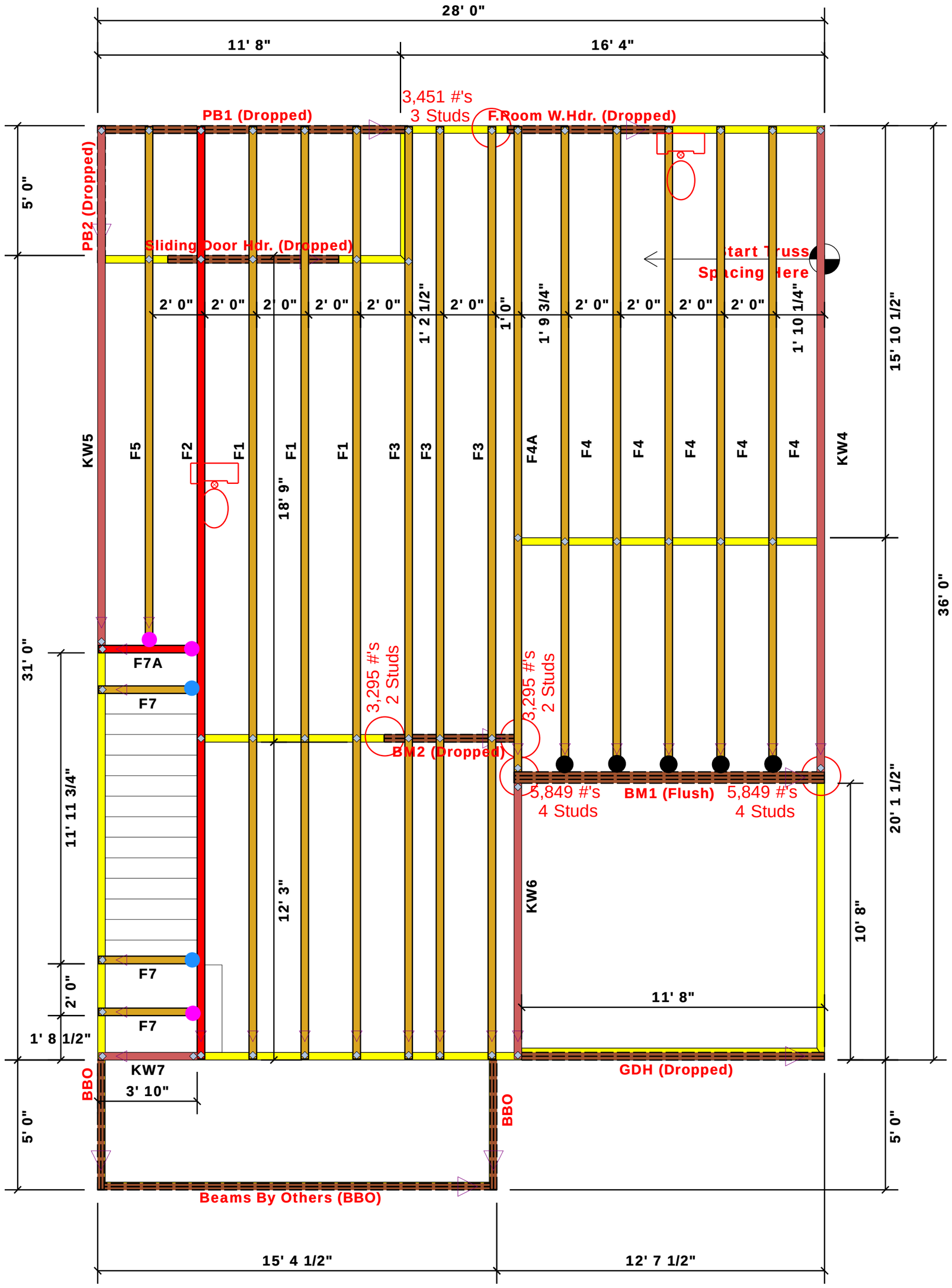
DATE: JULY 22, 2020
REV.:
SCALE: 1/4" = 1'-0"
DRAWN BY: WG
ENGINEERED BY:
REVIEWED BY:

TYPICAL WALL SECTIONS

D-1



● = HUS410 (Qty. 5)

● = MSH422 (Qty. 3)

● = MSH422IF (Qty. 2)

Truss Placement Plan
SCALE: NTS

▲ = Denotes Left End of Truss
(Reference Engineered Truss Drawing)

Products					
PlotID	Length	Product	Plies	Net Qty	Fab Type
PB1 (Dropped)	12' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF
F.Room W.Hdr. (Dropped)	7' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF
Sliding Door Hdr. (Dropped)	7' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF
BM2 (Dropped)	6' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF
PB2 (Dropped)	6' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF
GDH (Dropped)	12' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2	FF
BM1 (Flush)	12' 0"	1-3/4"x 16" LVL Kerto-S	3	3	FF

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

○ *- - Denotes Reaction Greater than 3,000 lbs. Reaction / # of Studs*

LOAD CHART FOR JACK STUDS

(BASED ON 1 ABOVE 2 FLOOR(S) LOAD)

NUMBER OF JACK STUDS REQUIRED FOR EACH END OF HEADER/BEAM

END REACTION (LBS TOT)	REQUIRED NUMBER OF JACK STUDS (EACH END)	END REACTION (LBS TOT)	REQUIRED NUMBER OF JACK STUDS (EACH END)	END REACTION (LBS TOT)	REQUIRED NUMBER OF JACK STUDS (EACH END)
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				

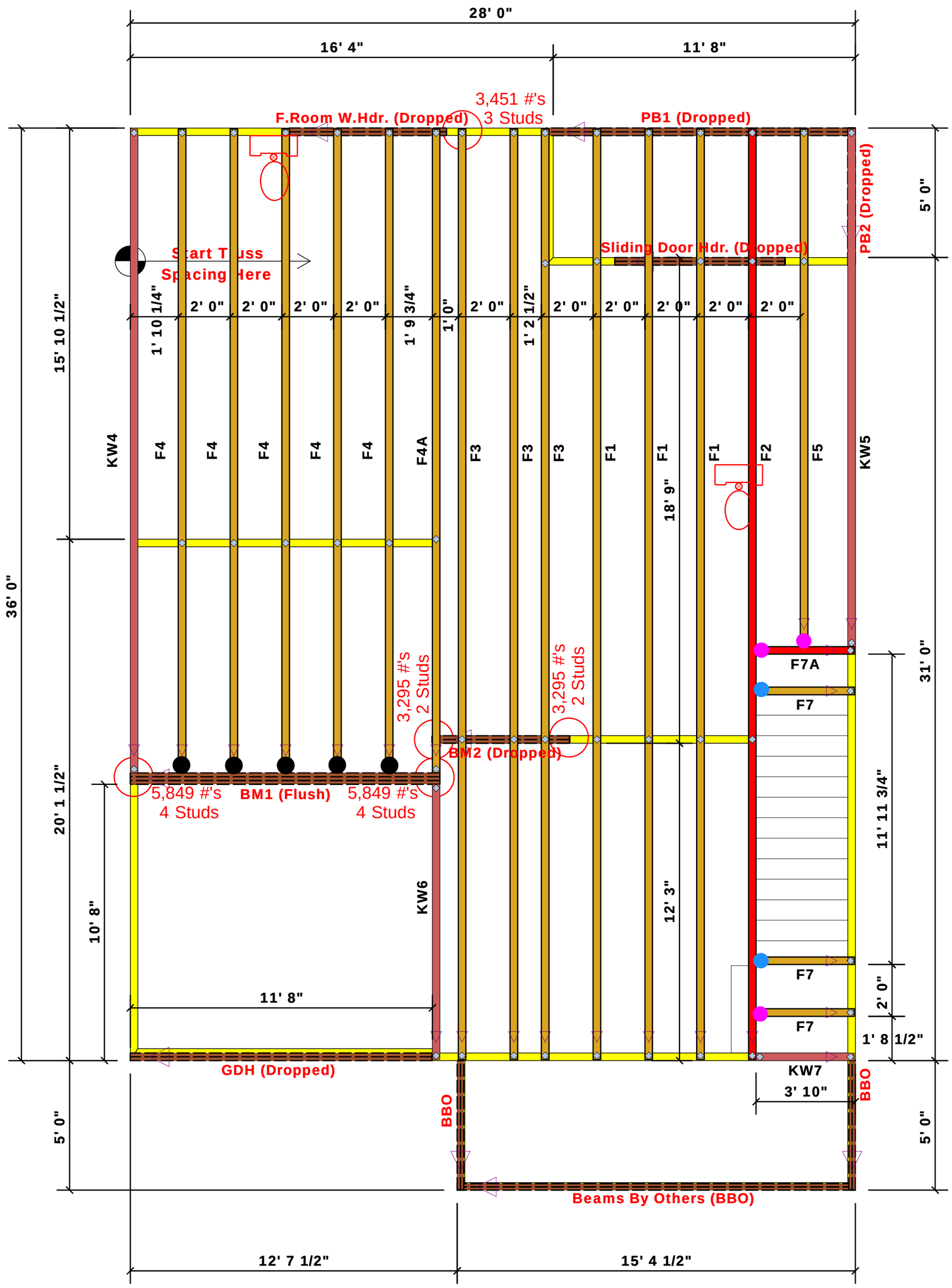
BUILDER	Weaver Development	CITY / CO.	Lillington / Harnett
JOB NAME	Lot 2 Mill Pond	ADDRESS	Matthews Mill Pond Rd.
PLAN	Poplar Elev. C	MODEL	Floor
SEAL DATE	Seal Date	DATE REV.	/ /
QUOTE #	Quote #	DRAWN BY	Christine Shivy
JOB #	J1021-6296	SALES REP.	Lenny Norris

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 Christine Shivy
Christine Shivy

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



Truss Placement Plan
SCALE: NTS

● = HUS410 (Qty. 5)

● = MSH422 (Qty. 3)

● = MSH422IF (Qty. 2)

▲ = Denotes Left End of Truss
(Reference Engineered Truss Drawing)

Products					
PlotID	Length	Product	Plies	Net Qty	Fab Type
PB1 (Dropped)	12' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF
F.Room W.Hdr. (Dropped)	7' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF
Sliding Door Hdr. (Dropped)	7' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF
BM2 (Dropped)	6' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF
PB2 (Dropped)	6' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF
GDH (Dropped)	12' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2	FF
BM1 (Flush)	12' 0"	1-3/4"x 16" LVL Kerto-S	3	3	FF

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

○ *- - Denotes Reaction Greater than 3,000 lbs.*
Reaction / # of Studs

LOAD CHART FOR JACK STUDS

(BASED ON 1 ABOVE 2 FLOOR(S) LOAD)

NUMBER OF JACK STUDS REQUIRED FOR EACH END OF HEADER/BEAM

END REACTION (LBS TOTAL)	REQUIRED NUMBER OF JACK STUDS (EACH END)	END REACTION (LBS TOTAL)	REQUIRED NUMBER OF JACK STUDS (EACH END)	END REACTION (LBS TOTAL)	REQUIRED NUMBER OF JACK STUDS (EACH END)
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	Weaver Development	CITY / CO.	Lillington / Harnett
JOB NAME	Lot 2 Mill Pond	ADDRESS	Matthews Mill Pond Rd.
PLAN	Poplar Elev. C	MODEL	Floor
SEAL DATE	Seal Date	DATE REV.	/ /
QUOTE #	Quote #	DRAWN BY	Christine Shivy
JOB #	J1021-6296	SALES REP.	Lenny Norris

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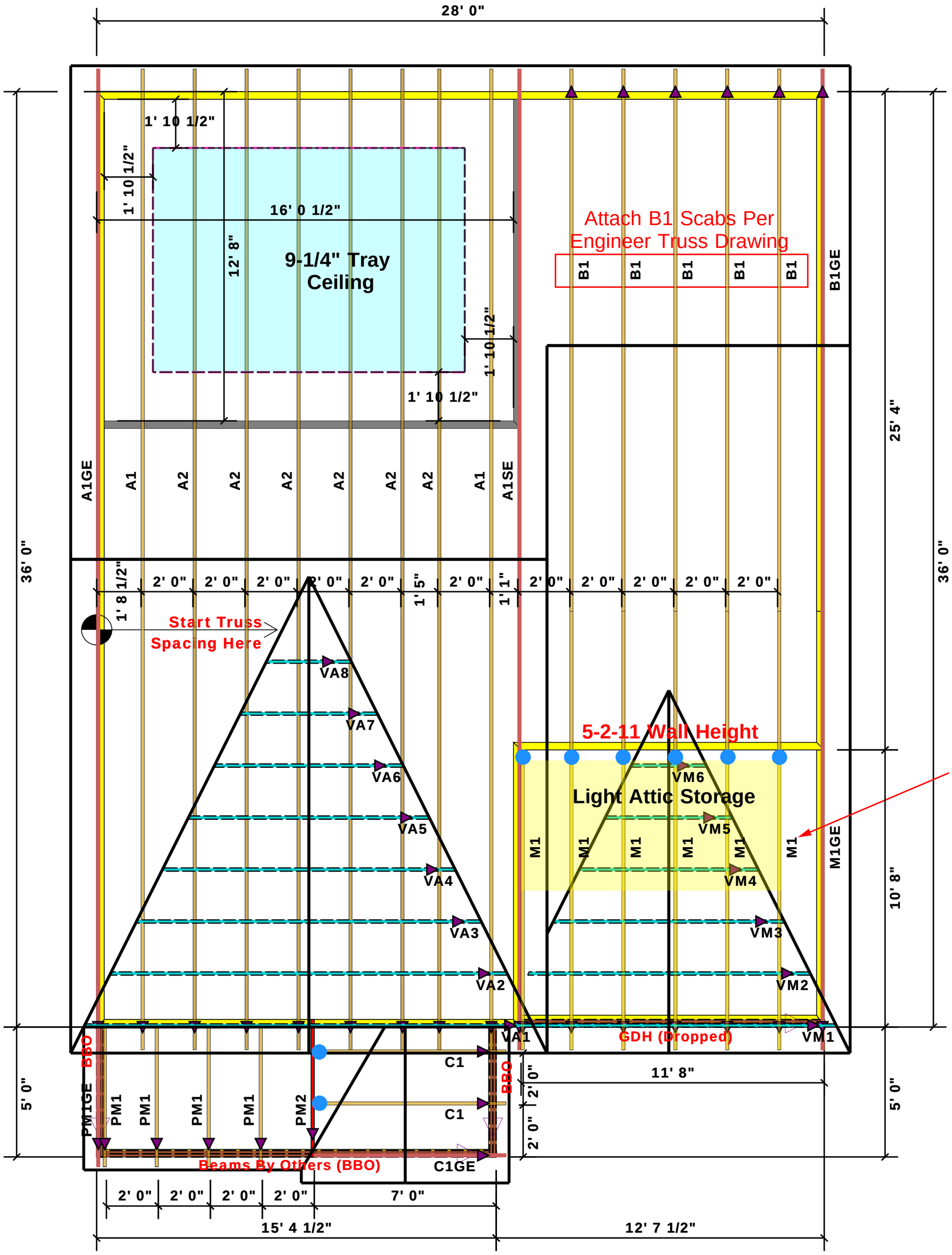

Truss Placement Plan
SCALE: NTS

● = JUS24 (Qty. 8)

▲ = Denotes Left End of Truss (Reference Engineered Truss Drawing)

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

◯ *- - Denotes Reaction Greater than 3,000 lbs. Reaction / # of Studs*

LOAD CHART FOR JACK STUDS

(BASED ON 1 ABUTTING WALL)

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

LIVE & ACTION (LF TO)	REQ'D # JACK STUDS (FOR 1 HEADER)	BUILDING SECTION (LF TO)	REQ'D # JACK STUDS (FOR 2 HEADERS)	LIVE & ACTION (LF TO)	REQ'D # JACK STUDS (FOR 3 HEADERS)
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	Weaver Development	CITY / CO.	Lillington / Harnett
JOB NAME	Lot 2 Mill Pond	ADDRESS	Matthews Mill Pond Rd.
PLAN	Poplar Elev. C	MODEL	Roof
SEAL DATE	Seal Date	DATE REV.	/ /
QUOTE #	Quote #	DRAWN BY	Christine Shivy
JOB #	J1021-6295	SALES REP.	Lenny Norris

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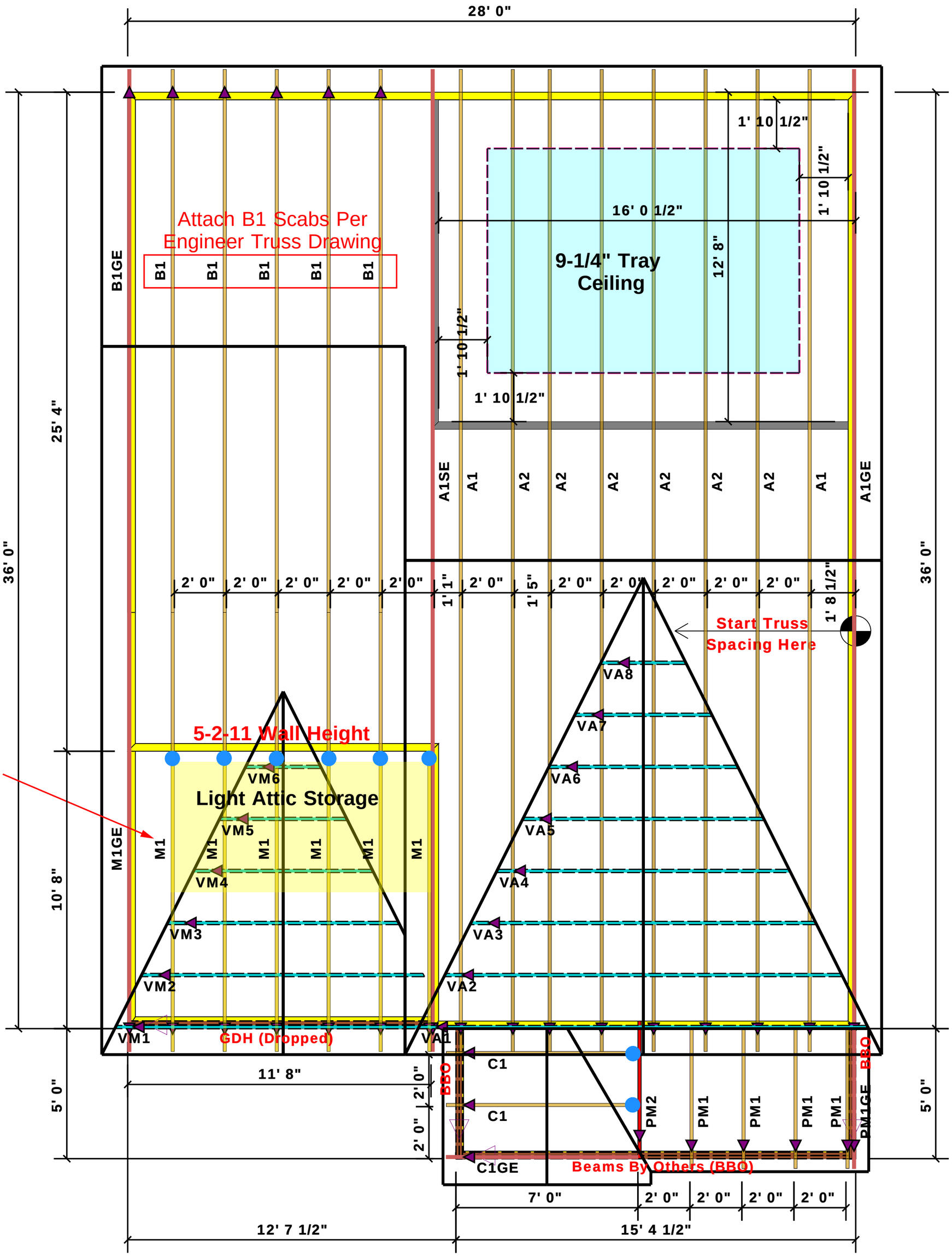

Truss Placement Plan
SCALE: NTS

● = JUS24 (Qty. 8)

▲ = Denotes Left End of Truss (Reference Engineered Truss Drawing)

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

◯ *- - Denotes Reaction Greater than 3,000 lbs. Reaction / # of Studs*

LOAD CHART FOR JACK STUDS

(BASED ON 1 ABUTTING WALL)

NUMBER OF JACK STUDS REQUIRED FOR EACH END OF HEADER/GIRDER

LIVE & ACTION (LF TO)	REQ'D # JACK STUDS (FOR 1 HEADER)	BUILDING SURFACE (LF TO)	REQ'D # JACK STUDS (FOR 2 HEADERS)	LIVE & ACTION (LF TO)	REQ'D # JACK STUDS (FOR 3 HEADERS)
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	Weaver Development	CITY / CO.	Lillington / Harnett
JOB NAME	Lot 2 Mill Pond	ADDRESS	Matthews Mill Pond Rd.
PLAN	Poplar Elev. C	MODEL	Roof
SEAL DATE	Seal Date	DATE REV.	/ /
QUOTE #	Quote #	DRAWN BY	Christine Shivy
JOB #	J1021-6295	SALES REP.	Lenny Norris

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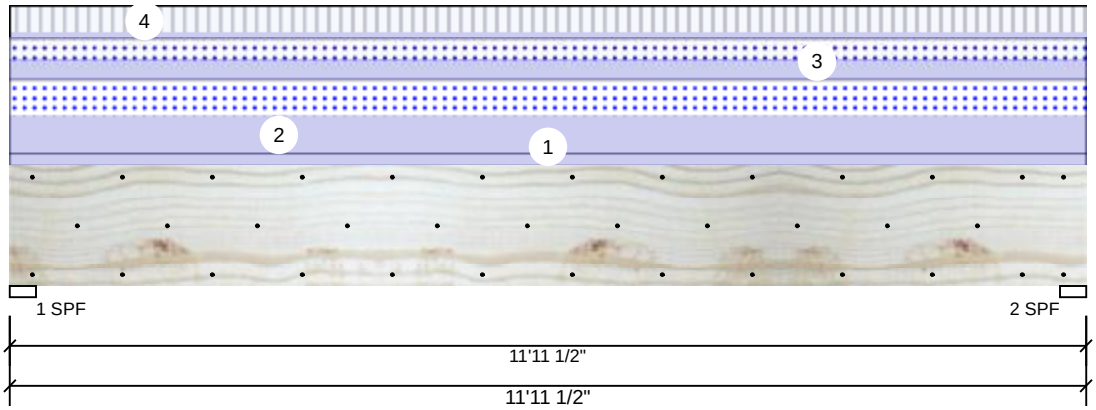
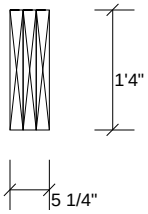
Phone: (910) 864-8787
Fax: (910) 864-4444

Client:	Weaver Development	Date:	11/2/2021
Project:	Poplar Elev. C	Input by:	Christine Shivy
Address:	Poplar Elev. C	Job Name:	Poplar
		Project #:	

BM1 Kerto-S LVL 1.750" X 16.000" 3-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	Yes
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	1058	3293	2350	0	0
2	1058	3293	2350	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	75%	3293 / 2556	5849	L	D+0.75(L+S)
2 - SPF	3.500"	75%	3293 / 2556	5849	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	16229 ft-lb	5'11 3/4"	62010 ft-lb	0.262 (26%)	D+0.75(L+S)	L
Unbraced	16229 ft-lb	5'11 3/4"	16274 ft-lb	0.997 (100%)	D+0.75(L+S)	L
Shear	4913 lb	10'4 7/8"	20608 lb	0.238 (24%)	D+0.75(L+S)	L
LL Defl inch	0.057 (L/2425)	5'11 3/4"	0.288 (L/480)	0.200 (20%)	0.75(L+S)	L
TL Defl inch	0.130 (L/1060)	5'11 3/4"	0.384 (L/360)	0.340 (34%)	D+0.75(L+S)	L

Design Notes

1 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at bearings.
7 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	80 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Load
2	Uniform			Top	253 PLF	0 PLF	253 PLF	0 PLF	0 PLF	B1
3	Uniform			Near Face	140 PLF	0 PLF	140 PLF	0 PLF	0 PLF	M1
4	Uniform			Far Face	59 PLF	177 PLF	0 PLF	0 PLF	0 PLF	F4
	Self Weight				19 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 1/8/2023

Manufacturer Info

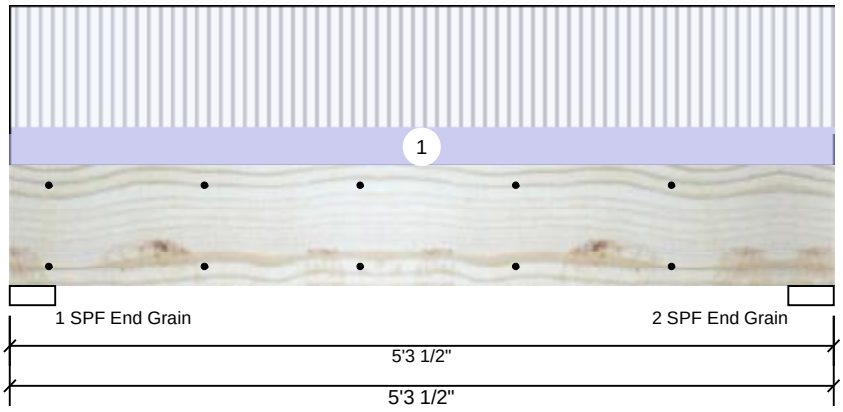
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us
ICC-ES: ESR-3633

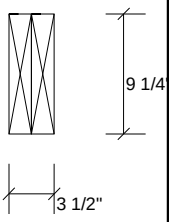
Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

Client:	Weaver Development	Date:	11/2/2021
Project:	Poplar Elev. C	Input by:	Christine Shivy
Address:	Poplar Elev. C	Job Name:	Poplar
		Project #:	

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

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	2455	839	0	0	0
2	2455	839	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	31%	839 / 2455	3295	L	D+L
2 - SPF End Grain	3.500"	31%	839 / 2455	3295	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3636 ft-lb	2'7 3/4"	12542 ft-lb	0.290 (29%)	D+L	L
Unbraced	3636 ft-lb	2'7 3/4"	10922 ft-lb	0.333 (33%)	D+L	L
Shear	2049 lb	1'	6907 lb	0.297 (30%)	D+L	L
LL Defl inch	0.034 (L/1690)	2'7 3/4"	0.121 (L/480)	0.280 (28%)	L	L
TL Defl inch	0.046 (L/1259)	2'7 3/4"	0.161 (L/360)	0.290 (29%)	D+L	L

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at bearings.
7 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	310 PLF	928 PLF	0 PLF	0 PLF	0 PLF	F3
	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 1/8/2023

Manufacturer Info

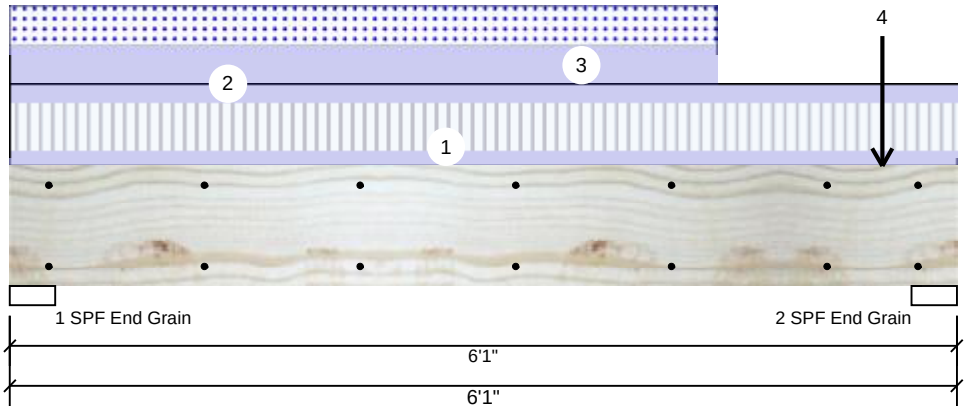
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us
ICC-ES: ESR-3633

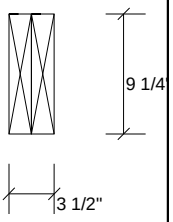
Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

Client:	Weaver Development	Date:	11/2/2021
Project:	Poplar Elev. C	Input by:	Christine Shivy
Address:	Poplar Elev. C	Job Name:	Poplar
		Project #:	

F. Room W. Hdr. Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	967	1520	795	0	0
2	967	1868	1144	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	27%	1520 / 1322	2842	L	D+0.75(L+S)
2 - SPF End Grain	3.500"	32%	1868 / 1583	3451	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3223 ft-lb	3' 3/8"	12542 ft-lb	0.257 (26%)	D+L	L
Unbraced	3676 ft-lb	3' 5/16"	10944 ft-lb	0.336 (34%)	D+0.75(L+S)	L
Shear	2099 lb	5'1"	7943 lb	0.264 (26%)	D+0.75(L+S)	L
LL Defl inch	0.027 (L/2482)	3' 1/2"	0.141 (L/480)	0.190 (19%)	0.75(L+S)	L
TL Defl inch	0.058 (L/1155)	3' 1/2"	0.188 (L/360)	0.310 (31%)	D+0.75(L+S)	L

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at bearings.
7 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	106 PLF	318 PLF	0 PLF	0 PLF	0 PLF	F4
2	Uniform			Top	125 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Load
3	Part. Uniform	0-0-0 to 4-6-8		Top	264 PLF	0 PLF	264 PLF	0 PLF	0 PLF	B1
4	Point	5-7-4		Top	740 lb	0 lb	740 lb	0 lb	0 lb	A1SE
	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 1/8/2023

Manufacturer Info

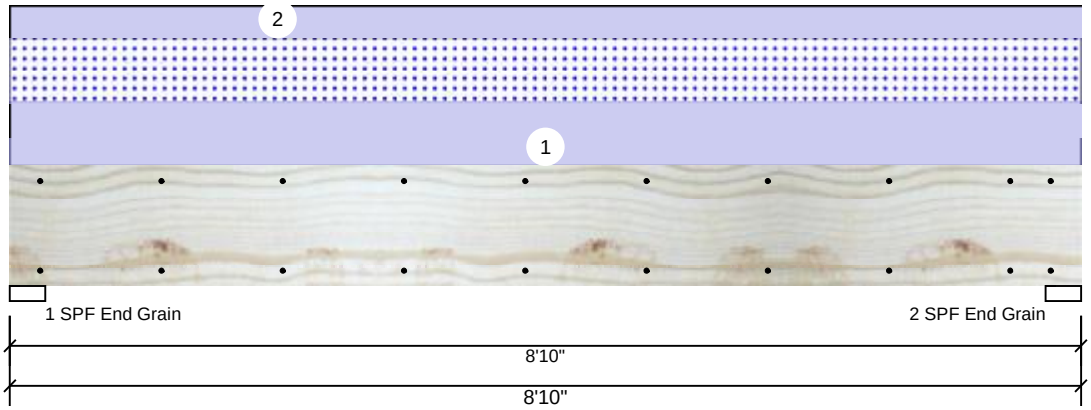
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us
ICC-ES: ESR-3633

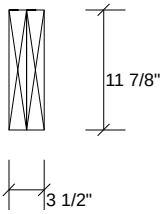
Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

Client:	Weaver Development	Date:	11/2/2021
Project:	Poplar Elev. C	Input by:	Christine Shivy
Address:	Poplar Elev. C	Job Name:	Poplar
		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:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	827	521	0	0
2	0	827	521	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	13%	827 / 521	1348	L	D+S
2 - SPF End Grain	3.500"	13%	827 / 521	1348	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2676 ft-lb	4'5"	22897 ft-lb	0.117 (12%)	D+S	L
Unbraced	2676 ft-lb	4'5"	10756 ft-lb	0.249 (25%)	D+S	L
Shear	976 lb	1'2 5/8"	10197 lb	0.096 (10%)	D+S	L
LL Defl inch	0.016 (L/6189)	4'5 1/16"	0.209 (L/480)	0.080 (8%)	S	L
TL Defl inch	0.042 (L/2392)	4'5 1/16"	0.279 (L/360)	0.150 (15%)	D+S	L

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at bearings.
7 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	118 PLF	0 PLF	118 PLF	0 PLF	0 PLF	M1
2	Uniform			Top	60 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Exterior Loads
	Self Weight				9 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 1/8/2023

Manufacturer Info

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ICC-ES: ESR-3633

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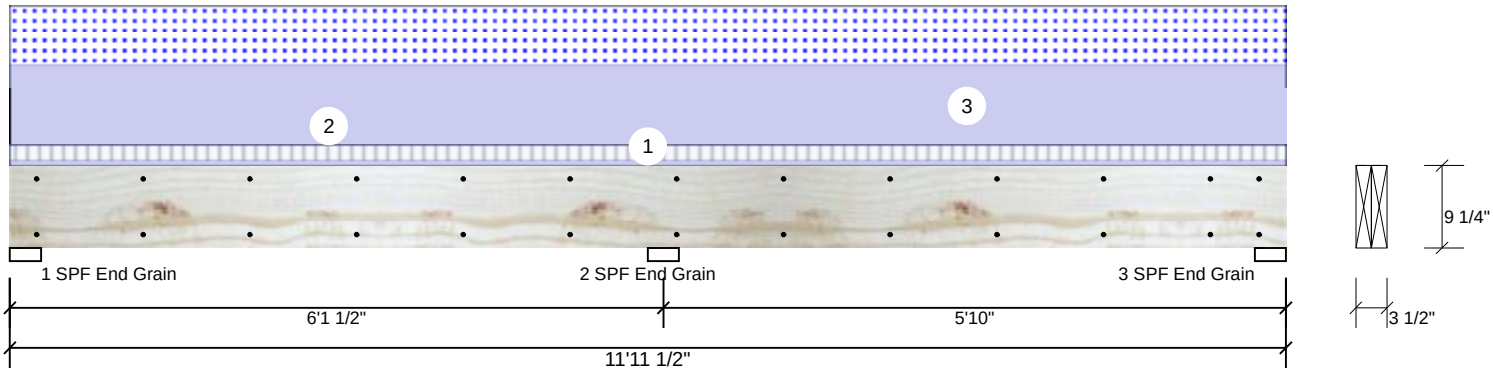
910-864-TRUS

Client:	Weaver Development	Date:	11/2/2021
Project:	Poplar Elev. C	Input by:	Christine Shivy
Address:	Poplar Elev. C	Job Name:	Poplar
		Project #:	

PB1 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	238	1352	936	0	0
2	665	3780	2618	0	0
3	221	1256	870	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	22%	1322 / 976	2298	L_	D+S
2 - SPF End Grain	3.500"	61%	3841 / 2661	6502	LL	D+S
3 - SPF End Grain	3.500"	20%	1225 / 922	2146	_L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-3744 ft-lb	6'1 1/2"	14423 ft-lb	0.260 (26%)	D+S	LL
Unbraced	-3744 ft-lb	6'1 1/2"	10676 ft-lb	0.351 (35%)	D+S	LL
Pos Moment	2417 ft-lb	2'6 1/2"	14423 ft-lb	0.168 (17%)	D+S	L_
Unbraced	2417 ft-lb	2'6 1/2"	10676 ft-lb	0.226 (23%)	D+S	L_
Shear	2604 lb	5'4 1/4"	7943 lb	0.328 (33%)	D+S	LL
LL Defl inch	0.019 (L/3767)	2'11 7/8"	0.147 (L/480)	0.130 (13%)	S	L_
TL Defl inch	0.042 (L/1677)	2'11 5/16"	0.197 (L/360)	0.210 (21%)	D+S	L_

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at bearings.
7 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	32 PLF	94 PLF	0 PLF	0 PLF	0 PLF	F1, F2 & F5
2	Uniform			Top	125 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Load
3	Uniform			Top	370 PLF	0 PLF	370 PLF	0 PLF	0 PLF	A2
	Self Weight				7 PLF					

Notes

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

Lumber

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

Handling & Installation

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

This design is valid until 1/8/2023

Manufacturer Info

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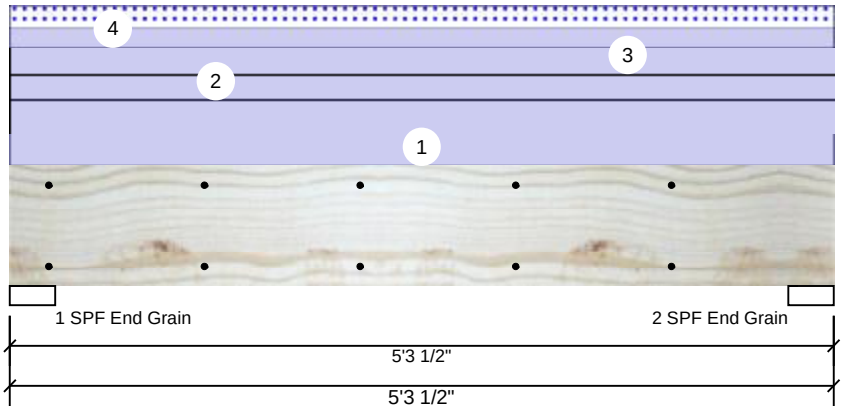
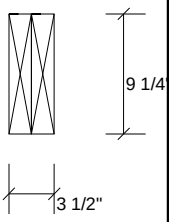
910-864-TRUS

Client:	Weaver Development	Date:	11/2/2021
Project:	Poplar Elev. C	Input by:	Christine Shivy
Address:	Poplar Elev. C	Job Name:	Poplar
		Project #:	

PB2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	720	106	0	0
2	0	720	106	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	8%	720 / 106	826	L	D+S
2 - SPF End Grain	3.500"	8%	720 / 106	826	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	795 ft-lb	2'7 3/4"	11288 ft-lb	0.070 (7%)	D	Uniform
Unbraced	795 ft-lb	2'7 3/4"	10138 ft-lb	0.078 (8%)	D	Uniform
Shear	448 lb	4'3 1/2"	6216 lb	0.072 (7%)	D	Uniform
LL Defl inch	0.001 (L/39203)	2'7 3/4"	0.121 (L/480)	0.010 (1%)	S	L
TL Defl inch	0.012 (L/5023)	2'7 3/4"	0.161 (L/360)	0.070 (7%)	D+S	L

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at bearings.
7 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	125 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Load
2	Uniform			Top	50 PLF	0 PLF	0 PLF	0 PLF	0 PLF	A1GE
3	Uniform			Top	50 PLF	0 PLF	0 PLF	0 PLF	0 PLF	KW5
4	Uniform			Top	40 PLF	0 PLF	40 PLF	0 PLF	0 PLF	Roof Load
	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 1/8/2023

Manufacturer Info

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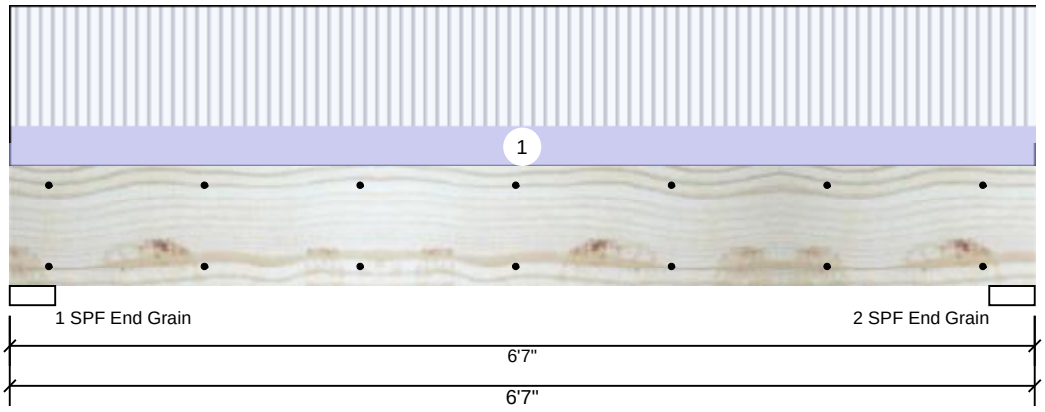
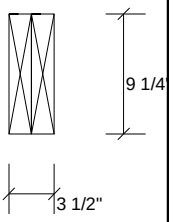
Client:	Weaver Development	Date:	11/2/2021
Project:	Poplar Elev. C	Input by:	Christine Shivy
Address:	Poplar Elev. C	Job Name:	Poplar
		Project #:	

Sliding Door Hdr. Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	2031	702	0	0	0
2	2031	702	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	26%	702 / 2031	2733	L	D+L
2 - SPF End Grain	3.500"	26%	702 / 2031	2733	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3893 ft-lb	3'3 1/2"	12542 ft-lb	0.310 (31%)	D+L	L
Unbraced	3893 ft-lb	3'3 1/2"	9934 ft-lb	0.392 (39%)	D+L	L
Shear	1903 lb	1'	6907 lb	0.275 (28%)	D+L	L
LL Defl inch	0.053 (L/1397)	3'3 1/2"	0.153 (L/480)	0.340 (34%)	L	L
TL Defl inch	0.071 (L/1038)	3'3 1/2"	0.204 (L/360)	0.350 (35%)	D+L	L

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at bearings.
7 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	206 PLF	617 PLF	0 PLF	0 PLF	0 PLF	F1 & F2
	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 1/8/2023

Manufacturer Info

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

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