

GENERAL NOTES:

- IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THAT ALL DIMENSIONS, ROOF PITCHES, AND SQUARE FOOTAGE ARE CORRECT PRIOR TO CONSTRUCTION. K&A HOME DESIGNS, INC. IS NOT RESPONSIBLE FOR ANY DIMENSIONING, ROOF PITCH, OR SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.
- ALL WALLS SHOWN ON THE FLOOR PLANS ARE DRAWN AT 4" UNLESS NOTED OTHERWISE.
- ALL ANGLED WALL SHOWN ON THE PLANS ARE 45 DEGREES UNLESS NOTED OTHERWISE.
- STUD WALL DESIGN SHALL CONFORM TO ALL NORTH CAROLINA STATE BUILDING CODE REQUIREMENTS.
- DO NOT SCALE PLANS. DRAWING SCALE MAY BE DISTORTED DUE TO COPIER IMPERFECTIONS.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NORTH CAROLINA RESIDENTIAL STATE BUILDING CODE, 2018 EDITION.

SQUARE FOOTAGE

| HEATED SQUARE FOOTAGE | | UNHEATED SQUARE FOOTAGE | |
|-----------------------|------|-------------------------|-----|
| FIRST FLOOR (A)= | 1430 | FRONT PORCH (A)= | 100 |
| FIRST FLOOR (B)= | 1418 | FRONT PORCH (B)= | 100 |
| THIRD FLOOR= | N/A | SCREEN PORCH= | N/A |
| BASEMENT= | N/A | DECK= | N/A |
| | | STORAGE= | N/A |

TOTAL HEATED = 1430 (A) **TOTAL UNHEATED = 100 (A & B)**
1418 (B)

CRAWL SPACE VENTILATION CALCULATIONS

-VENT LOCATIONS MAY VARY FROM THOSE SHOWN ON THE PLAN BUT SHOULD BE PLACED TO PROVIDE ADEQUATE VENTILATION AT ALL POINTS TO PREVENT DEAD AIR POCKETS.

-100% VAPOR BARRIER MUST BE PROVIDED WITH 12" MIN. LAP JOINTS.

-THE TOTAL AREA OF VENTILATION OPENINGS MAY BE REDUCED TO 1/1500 AS LONG AS REQUIRED OPENINGS ARE PLACED SO AS TO PROVIDE CROSS-VENTILATION OF THE SPACE. THE INSTALLATION OF OPERABLE LOUVERS SHALL NOT BE PROHIBITED. (COMPLY WITH NC CODE MIN. WITH REGARD TO VENT PLACEMENT FROM CORNERS)

1430 SQ. FT. OF CRAWL SPACE/1500

.95 SQ. FT. OF REQUIRED VENTILATION

PROVIDED BY: 3 VENTS AT 0.45 SQ. FT. NET FREE

VENTILATION EACH= 1.35 SQ. FT. OF VENTILATION

****FOUNDATION DRAINAGE- WATERPROOFING PER SECTIONS 405 & 406.**

ATTIC VENTILATION CALCULATIONS

- CALCULATIONS SHOWN BELOW ARE BASED ON VENTILATORS USED AT LEAST 3 FT. ABOVE THE CORNICE VENTS WITH THE BALANCE OF VENTILATION PROVIDED BY EAVE VENTS.

- CATHEDRAL CEILINGS SHALL HAVE A MIN. 1" CLEARANCE BETWEEN THE BOTTOM OF THE ROOF DECK AND THE INSULATION.

1430 (A) SQ. FT. OF ATTIC/300= 4.76 (A)

1418 (B) 4.73(B)

EACH OF INLET AND OUTLET REQUIRED.

***WALL AND ROOF CLADDING DESIGN VALUES**

- WALL CLADDING IS DESIGNED FOR A 24.1 SQ. FT. OR GREATER POSITIVE AND NEGATIVE PRESSURE.

- ROOF VALUES BOTH POSITIVE AND NEGATIVE SHALL BE AS FOLLOWS:

45.5 LBS. PER SQ. FT. FOR ROOF PITCHES OF 0/12 TO 2.25/12

34.8 LBS. PER SQ. FT. FOR ROOF PITCHES OF 2.25/12 TO 7/12

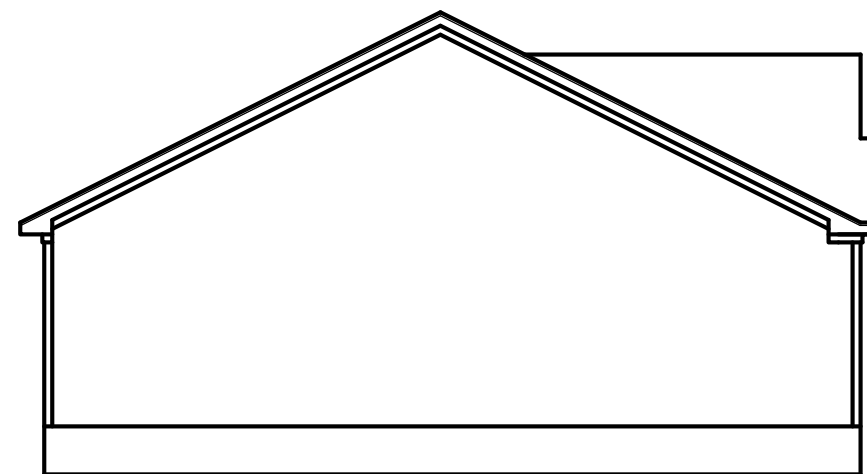
21 LBS. PER SQ. FT. FOR ROOF PITCHES OF 7/12 TO 12/12

**** MEAN ROOF HEIGHT 30' OR LESS**



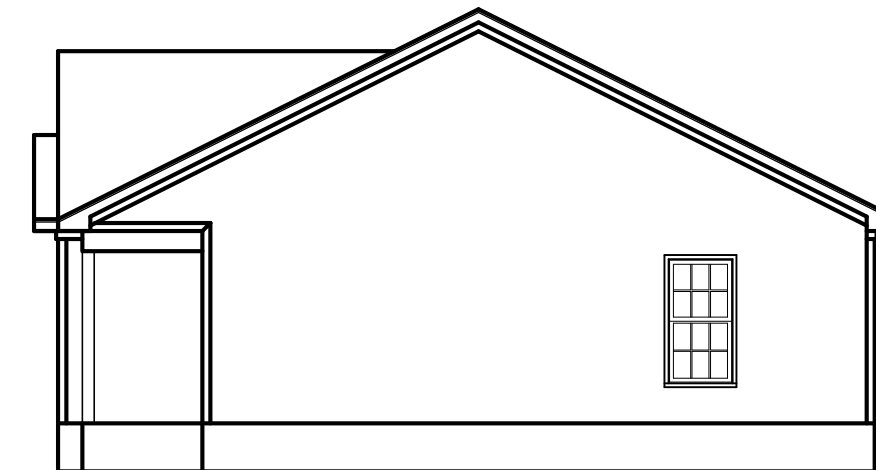
FRONT ELEVATION (A)

1/4" = 1'-0"



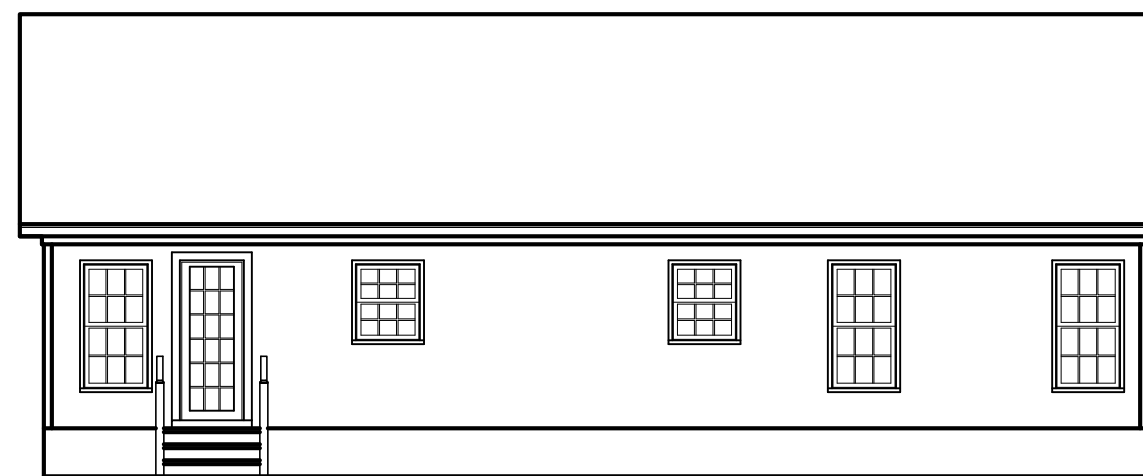
LEFT ELEVATION (A)

1/8" = 1'-0"



RIGHT ELEVATION (A)

1/8" = 1'-0"



REAR ELEVATION (A)

1/8" = 1'-0"

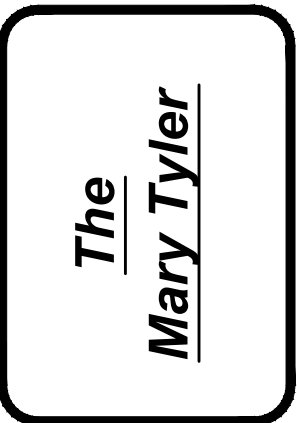
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| Project #: | 20-329 |
| Date: | 10-13-20 |
| Drawn/Design By: | KBB |
| Scale: | REFER TO ELEV. |

| REVISIONS | | |
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| No. | Date | Remarks |
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 Email: Kent@KandAHomeDesigns.com



Seven Magnolia's
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 14288 NC 210
 Angier, NC 27501

ELEVATIONS

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| Sheet Number |
| 1 |
| of 2 |

STRUCTURAL NOTES

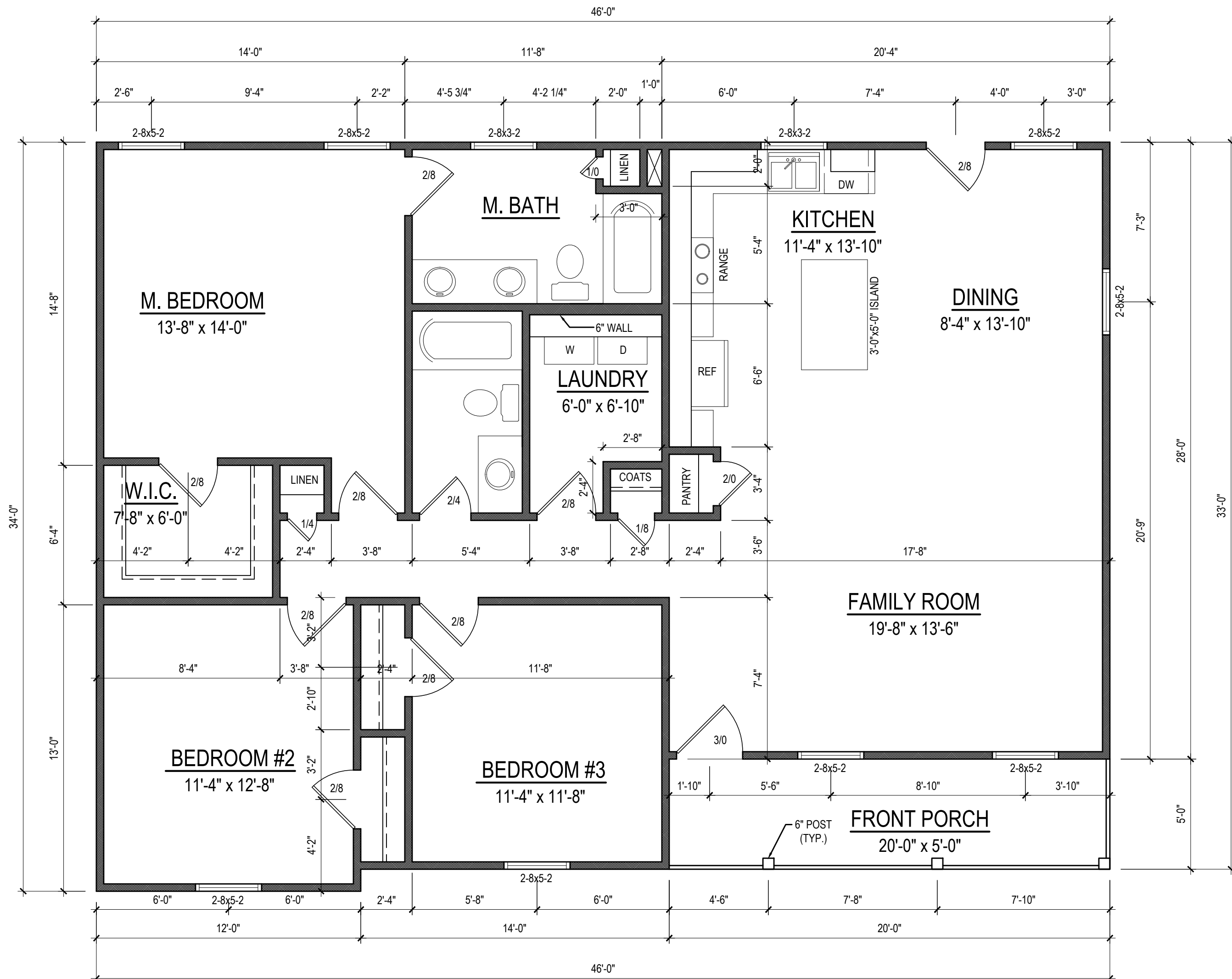
- 1) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF "NORTH CAROLINA STATE 2018 RESIDENTIAL BUILDING CODE" IN ADDITION TO ALL LOCAL CODES AND REGULATIONS.
- 2) DESIGN LOADS:

| | LIVE LOAD (PSF) | DEAD LOAD (PSF) | DEFLECTION (DL & LL) |
|--------------------------|-------------------------------------|-----------------|----------------------|
| ALL FLOORS | 40 | 10 | L/360 |
| ATTIC (pull down access) | 20 | 10 | L/240 |
| ATTIC (no access) | 10 | 5 | L/240 |
| EXTERNAL BALCONY | 60 | 10 | L/360 |
| ROOF | 20 | 10 | L/180 |
| ROOF TRUSS | 20 | 20 | L/240 |
| WIND LOAD | [BASED ON 115 MPH (3-second gusts)] | | |

- 3) MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF
- 4) CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF FIVE INCHES UNLESS NOTED OTHERWISE (UNO).
- 5) MAXIMUM DEPTH OF UNBALANCED FILL AGAINST FOUNDATION WALLS TO BE LESS THAN 4'-0" WITHOUT USING SUFFICIENT WALL BRACING. REFER TO SECTION R404 OF 2018 NC RESIDENTIAL BUILDING CODE FOR BACKFILL LIMITATIONS BASED ON WALL HEIGHT, WALL THICKNESS, SOIL TYPE, AND UNBALANCED BACKFILL HEIGHT.
- 6) ALL FRAMING LUMBER SHALL BE SYP #2 (Fb = 800 PSI) UNO. ALL FRAMING LUMBER EXPOSED TO THE ELEMENTS SHALL BE TREATED MATERIAL.
- 7) ALL LOAD BEARING HEADERS SHALL BE (2)x10 (UNO). ALL WINDOW AND DOOR HEADERS SHALL BE SUPPORTED BY (1) JACK STUD AND (1) KING STUD AT EACH END UNLESS NOTED. ALL OTHER BEAMS SHALL BE SUPPORTED BY 2 STUDS OR THE AMOUNT OF STUDS REQUIRED FOR FULL BEARING AT EACH END UNLESS NOTED. POINT LOADS (STIFF KNEES, ETC.) SHALL CONSIST OF 2 STUDS UNLESS NOTED. ALL SUPPORTS OF 2 STUDS OR MORE SHALL BE TRANSFERRED THROUGH EACH FLOOR TO THE FOUNDATION.
- 8) ALL EXTERIOR WALLS TO BE SHEATHED WITH MIN. 7/16" WOOD STRUCTURAL PANELS FASTENED WITH 8D NAILS 6" O.C. AT EDGES AND 12" O.C. AT INT. SUPPORTS. BLOCKING SHALL BE INSTALLED IF LESS THAN 50 PERCENT OF THE WALL LENGTH IS SHEATHED. WHERE BLOCKING IS REQD, ALL PANELS SHALL BE FASTENED AT 3" O.C. AT EDGES AND 6" O.C. AT INT. SUPPORTS.
- 9) ALL STRUCTURAL STEEL SHALL ASTM A-36. STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3-1/2" INCHES AND FULL FLANGE WIDTH. PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO LAG SCREWS (1/2" DIAMETER AND 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOISTS ARE TOE NAILED TO THE SOLE PLATES, AND THE SOLE PLATES ARE NAILED OR BOLTED TO THE BEAM FLANGES @ 48" O.C.
- 10) ANCHOR BOLT PLACEMENT PER SECTION R403.1.6. 1/2" DIAMETER ANCHOR BOLTS SPACED AT 6'-0" O/C AND PLACED 12" FROM THE END OF EACH PLATE SECTION
- 11) FOUNDATION DRAINAGE-DAMP PROOFING OR WATERPROOFING PER SECTION 405 AND 406 OF 2018 NC RESIDENTIAL BUILDING CODE
- 12) WALL AND ROOF CLADDING VALUES:
WALL CLADDING SHALL BE DESIGNED FOR A 24.1 SQ.FT. OR GREATER POSITIVE AND NEGATIVE PRESSURE
ROOF VALUES BOTH POSITIVE AND NEGATIVE SHALL BE AS FOLLOWS:
45.5 LBS/SQFT FOR ROOF PITCHES OF 0/12 TO 2.25/12
34.8 LBS/SQFT FOR ROOF PITCHES OF 2.25/12 TO 7/12
21.0 LBS/SQFT FOR ROOF PITCHES OF 7/12 TO 12/12
** MEAN ROOF HEIGHT 30' OR LESS
- 13) FOR ROOF SLOPES FROM 2:12 THROUGH 4:12, BUILDER TO INSTALL 2 LAYERS OF 15# FELT PAPER
- 14) IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQ. FTG. ARE CORRECT PRIOR TO CONSTRUCTION. DESIGNER IS NOT RESPONSIBLE FOR DIMENSIONING OR SQ. FTG. ERRORS ONCE CONSTRUCTION BEGINS

TABLE N1102.1 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT

| CLIMATE ZONE | MAXIMUM GLAZING U-FACTOR | MINIMUM INSULATION R-VALUE | | | | | |
|--------------|--------------------------|----------------------------|-------|--------|----------------|----------------|-------------------|
| | | CEILINGS | WALLS | FLOORS | BASEMENT WALLS | SLAB PERIMETER | CRAWL SPACE WALLS |
| 3 | .35 | R-38 or R-30 | R-15 | R-19 | R-5/13 | R-0 | R-5/13 |
| 4 | .35 | R-38 or R-30 | R-15 | R-19 | R-10/15 | R-10 | R-10/15 |



FIRST FLOOR PLAN (A)
1/4" = 1'-0" CEILING HT. = 8'-0"

Project #:
20-329
Date:
10-13-20
Drawn/Design By:
KBB
Scale:
1/4" = 1'-0"

| REVISIONS | | |
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| No. | Date | Remarks |
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The
Mary Tyler

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FLOOR PLAN

Sheet Number
2
of 2

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TOTAL HEATED = 1430 (A) **TOTAL UNHEATED = 100 (A & B)**
1418 (B)

CRAWL SPACE VENTILATION CALCULATIONS

-VENT LOCATIONS MAY VARY FROM THOSE SHOWN ON THE PLAN BUT SHOULD BE PLACED TO PROVIDE ADEQUATE VENTILATION AT ALL POINTS TO PREVENT DEAD AIR POCKETS.

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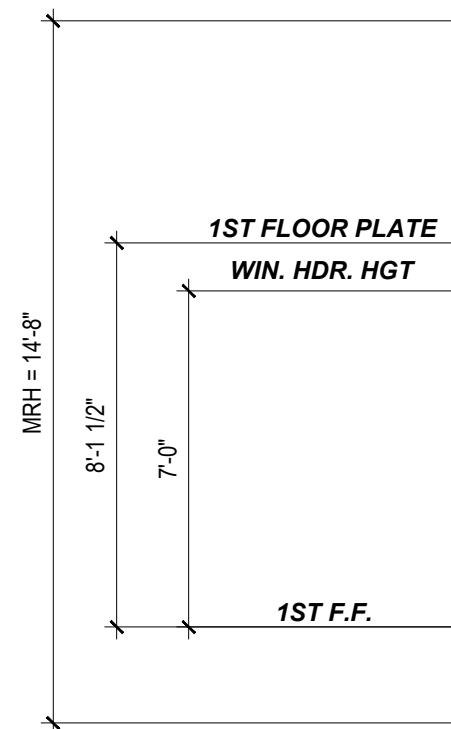
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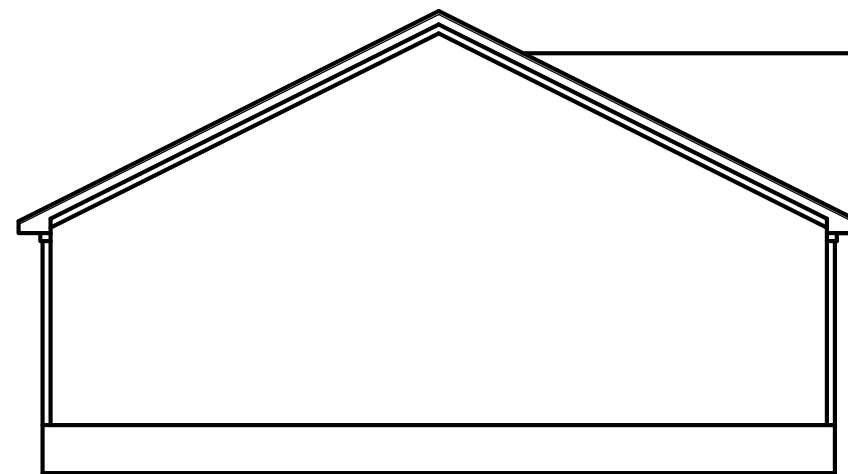
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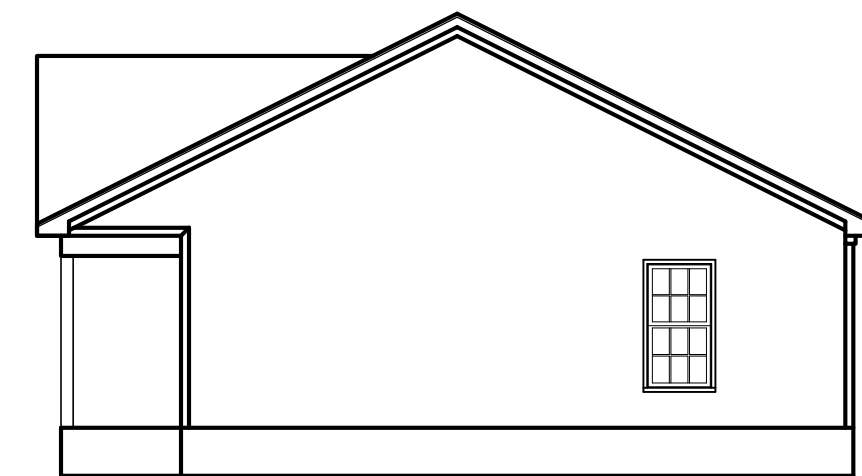
FRONT ELEVATION (B)

1/4" = 1'-0"



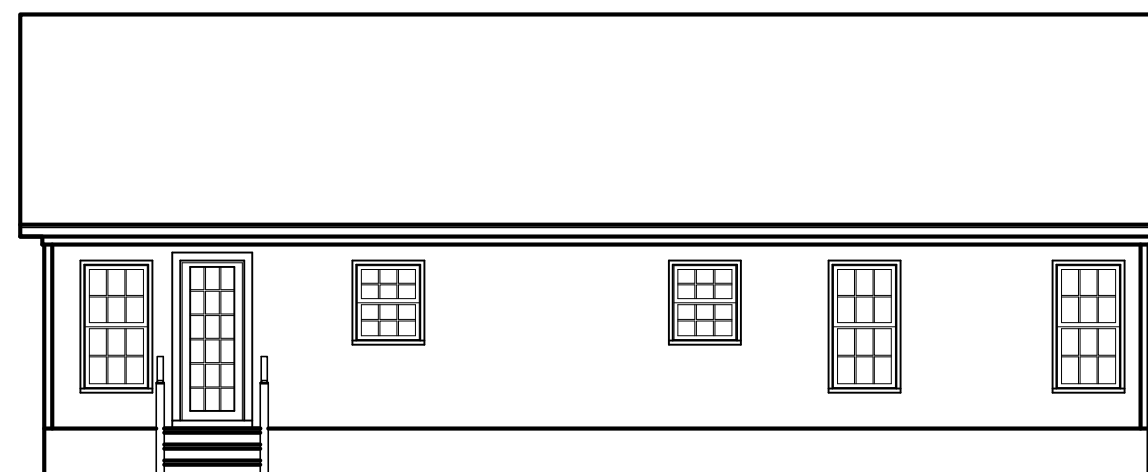
LEFT ELEVATION (B)

1/8" = 1'-0"



RIGHT ELEVATION (B)

1/8" = 1'-0"



REAR ELEVATION (B)

1/8" = 1'-0"

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| Project #: | 20-329 |
| Date: | 10-13-20 |
| Drawn/Design By: | KBB |
| Scale: | REFER TO ELEV. |

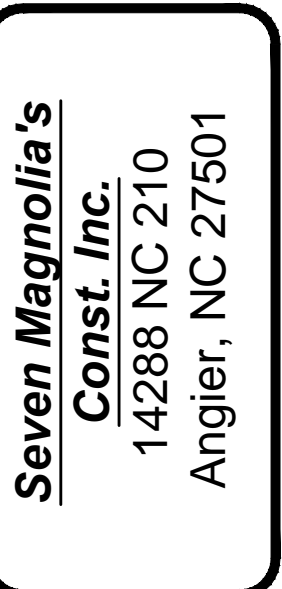
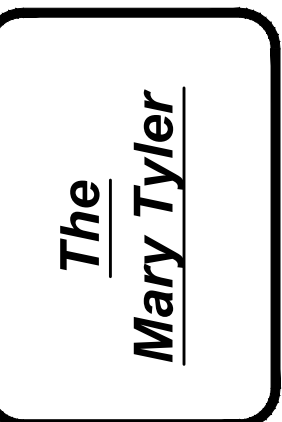
| REVISIONS | | |
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ELEVATIONS

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| Sheet Number |
| 1 |
| of 2 |

STRUCTURAL NOTES

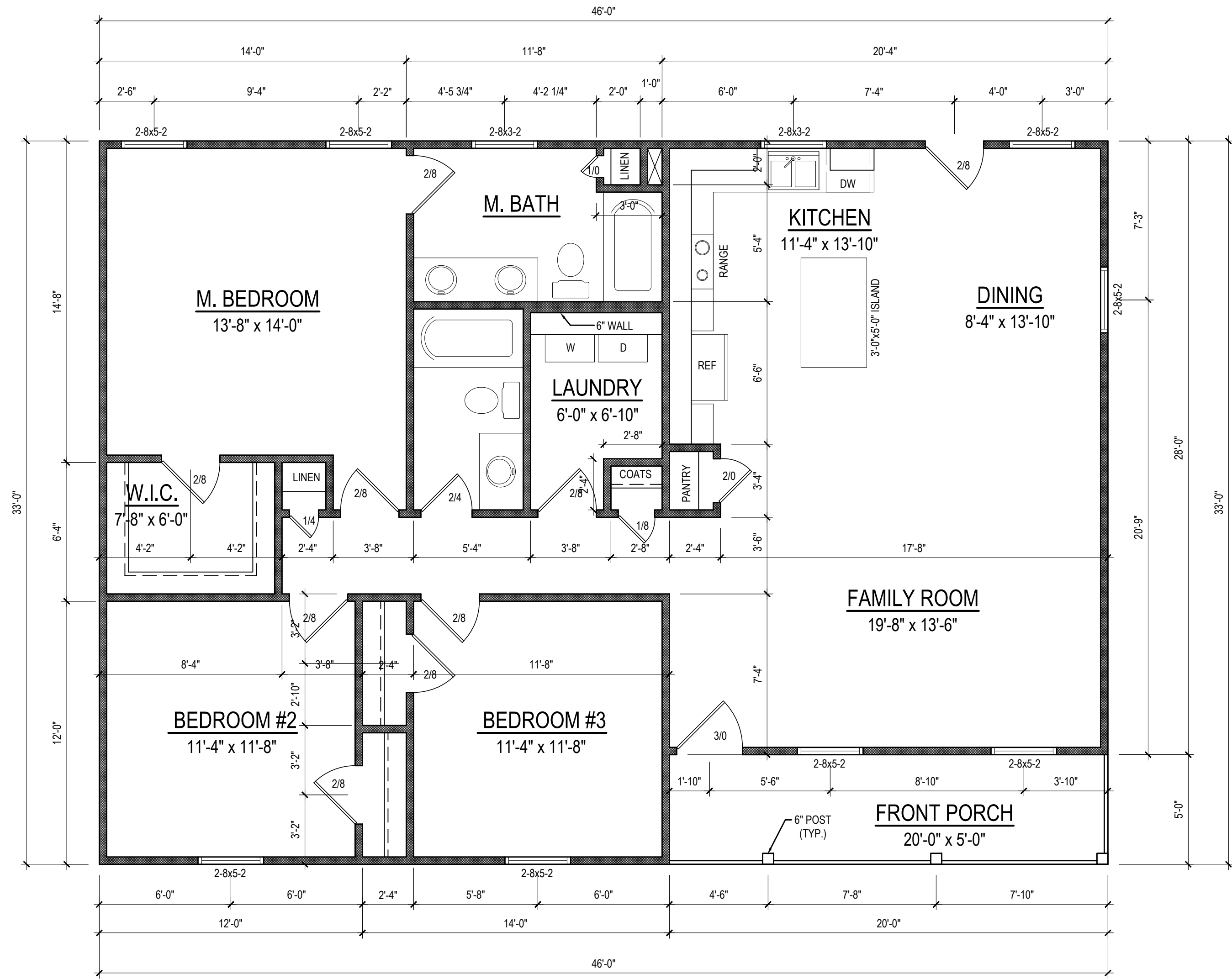
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|--------------------------|-------------------------------------|-----------------|----------------------|
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| ATTIC (pull down access) | 20 | 10 | L/240 |
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TABLE N1102.1 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT

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|--------------|--------------------------|----------------------------|-------|--------|----------------|----------------|-------------------|
| | | CEILINGS | WALLS | FLOORS | BASEMENT WALLS | SLAB PERIMETER | CRAWL SPACE WALLS |
| 3 | .35 | R-38 or R-30 | R-15 | R-19 | R-5/13 | R-0 | R-5/13 |
| 4 | .35 | R-38 or R-30 | R-15 | R-19 | R-10/15 | R-10 | R-10/15 |



FIRST FLOOR PLAN (B)
1/4" = 1'-0" CEILING HT. = 9'-0"

| | |
|-----------------|--------------|
| Project # | 20-329 |
| Date | 10-13-20 |
| Drawn/Design By | KBB |
| Scale | 1/4" = 1'-0" |

| REVISIONS | | |
|-----------|------|---------|
| No. | Date | Remarks |
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The
Mary Tyler

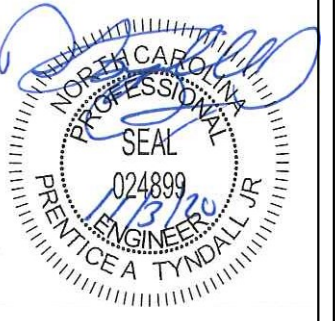
Seven Magnolia's
Const. Inc.
14288 NC 210
Angier, NC 27501

FLOOR PLAN

Sheet Number
2
of 2

Email: Kent@KandAHomeDesigns.com Website: www.KandAHomeDesigns.com

Engineers seal does not include construction means, methods, techniques, sequences, procedures or safety precautions.
 Any deviations or discrepancies on plans are to be brought to the immediate attention of Tyndall Engineering & Design, P.A. Failure to do so will void Tyndall Engineering & Design, P.A. liability.
 Please review these documents carefully. Tyndall Engineering & Design, P.A. will interpret that all dimensions, recommendations, etc. presented in these documents were deemed acceptable once construction begins.



TYNDALL
 ENGINEERING & DESIGN, P.A.



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 280 Shipwash Drive • Garner • North Carolina • 27839
 www.tyndalldesign.com

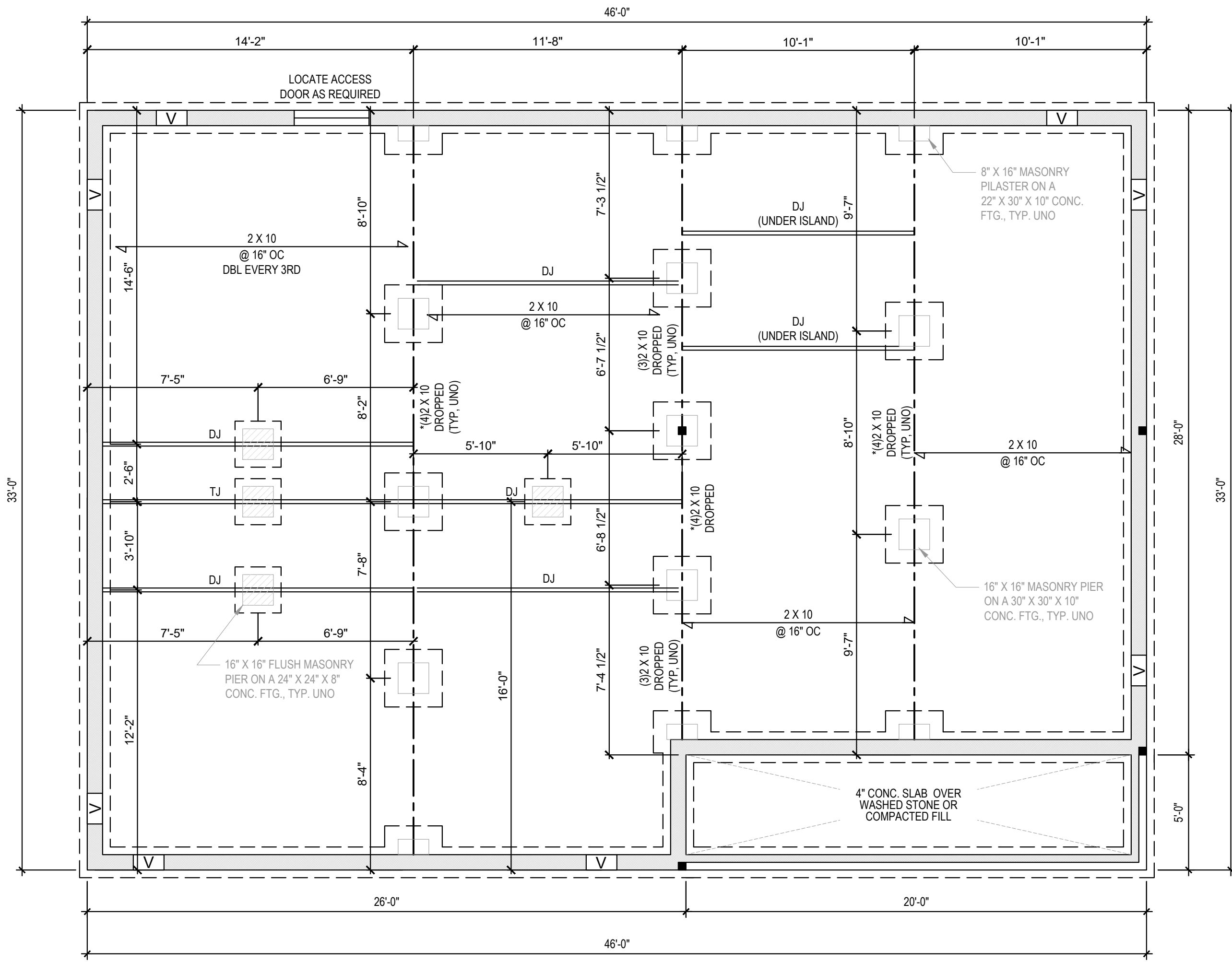
Client: **STEVE NORDAN**
 Date: **MARY TYLER PLAN**
STICK FRAME OPTION

FND. PLAN
1ST FLR. FRMG.

Project #: 2001-010506
 Date: 10/21/20
 Drawn/Design By: IJE
 DWG. Checked By: PTH
 Scale: SEE PLAN

| REVISIONS | | |
|-----------|------|---------|
| No. | Date | Remarks |
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Sheet Number
S1.4
 4 of 10



*NOTE: SECURE 4-PLY W/ 1/2"Ø THRU-BOLTS @ 24" O.C.

FOUNDATION PLAN (ELEV. B - CRAWL SPACE OPT.)

1/4" = 1'-0"

FILENAME: Z:\RESERVING_EMO\2020 STRUCTURAL PROJECTS\2001-010506 - STEVE NORDAN - MARY TYLER PLAN\2001-010506 - STEVE NORDAN - MARY TYLER PLAN.DWG SAVED BY: PRESENCE TYNDALL LAST PLOT DATE: 11/2/2020 4:11 PM

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STEVE NORDAN
MARY TYLER PLAN
STICK FRAME OPTION

**1ST FLR. HEADER
1ST FLR. CLG.**

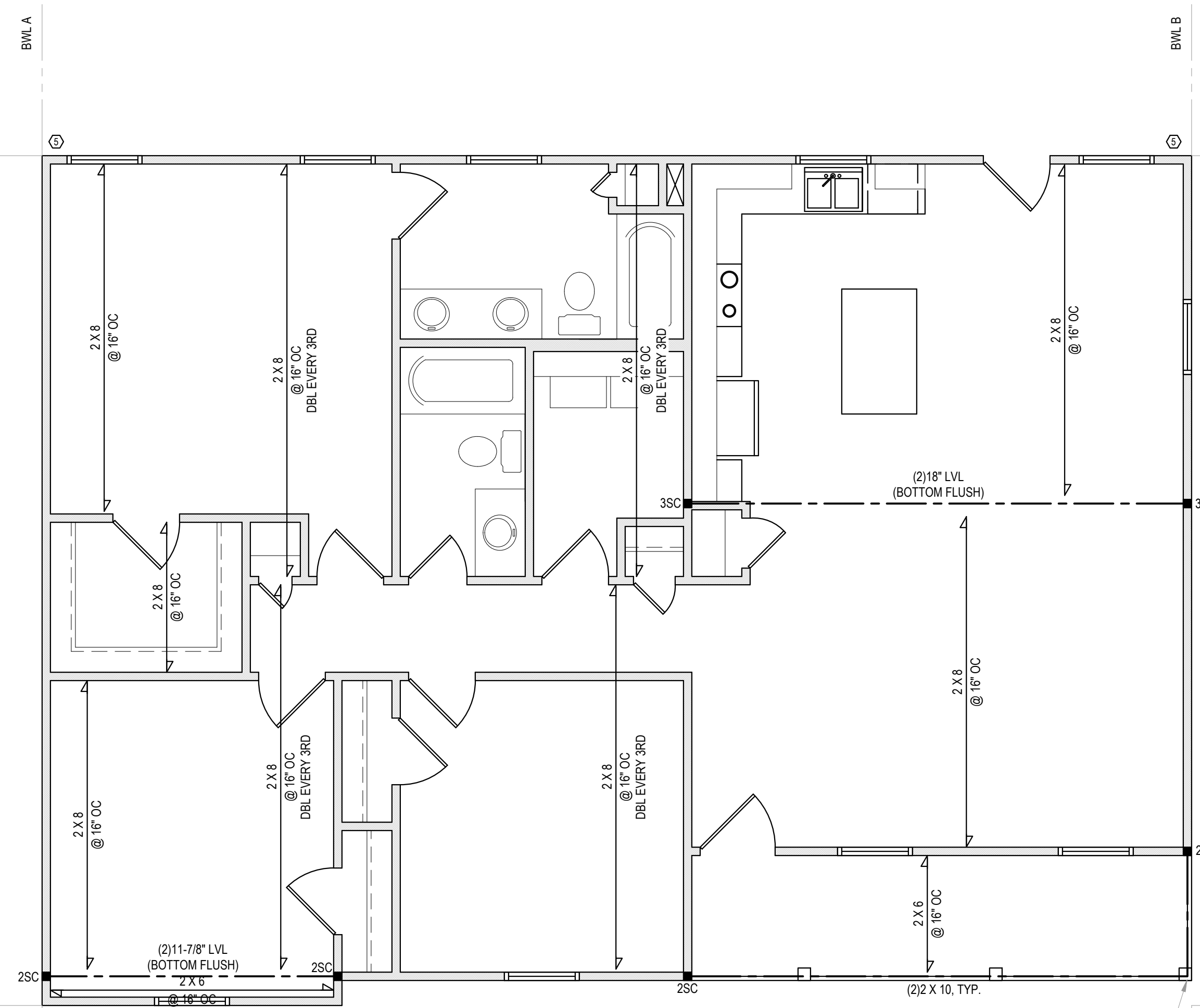
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| Project #: | 2001-010506 |
| Date: | 10/21/20 |
| Drawn/Design By: | IJE |
| DWG. Checked By: | PTII |
| Scale: | SEE PLAN |

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Sheet Number
S2.1
5 of 10

| | LIVE LOAD (PSF) | DEAD LOAD (PSF) | DEFLECTION | |
|--------------------|---------------------------------|-----------------|------------|-------|
| | | | LL | TL |
| FLOOR (primary) | 40 | 10 | L/360 | L/240 |
| FLOOR (secondary) | 40 | 10 | L/360 | L/240 |
| ATTIC (w/ storage) | 20 | 10 | L/240 | L/180 |
| ATTIC (no access) | 10 | 5 | L/240 | L/180 |
| EXTERNAL BALCONY | 40 | 10 | L/360 | L/240 |
| ROOF | 20 | 10 | L/240 | L/180 |
| ROOF TRUSS | 20 | 20 | L/240 | L/180 |
| WIND LOAD | BASED ON 120 MPH (EXPOSURE B) | | | |
| SEISMIC | BASED ON SEISMIC ZONES A, B & C | | | |

- STRUCTURAL NOTES:**
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF "NORTH CAROLINA STATE 2018 RESIDENTIAL BUILDING CODE", IN ADDITION TO ALL LOCAL CODES AND REGULATIONS.
 - IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, PA IS NOT RESPONSIBLE FOR DIMENSIONS AND SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.
 - ALL LUMBER SHALL BE SYP #2 (UNO)
ALL LVL LUMBER TO BE 1.75" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2600 PSI, E = 1.9M PSI (I.E. I-LEVEL MICROLAM)
ALL LSL LUMBER IS TO BE 1.55E (Fb = 2325 PSI)
 - ALL LOAD BEARING EXTERIOR WINDOW HEADERS WITH MAXIMUM SPAN OF 5'-6" SHOULD BE A (2) 2x10 w/ (1) 2x4 KING STUD AND (1) 2x4 JACK STUD NAILED TOGETHER w/ (2) 10d @ 8" O.C. PROVIDED THAT THE TOP OF THE WINDOW HEIGHT IS 6'-8", MINIMUM BOTTOM OF THE WINDOW HEIGHT IS 1'-6", OTHERWISE REFER TO TABLE R502.5(1).
 - ALL INTERIOR LOAD BEARING HEADERS TO BE (2) 2x10 (U.N.O.) REFER TO TABLE R602.5(1) FOR JACK STUD REQUIREMENTS FOR HEADER SPANS FOR INTERIOR AND EXTERIOR LOAD CONDITIONS (UNO)
 - REFER TO 2018 NC BUILDING CODE SECTION R602 FOR CONSTRUCTION OF ALL WALLS OVER 10'-0" IN HEIGHT.
 - ALL STRUCTURAL STEEL SHALL BE ASTM A992 GRADE 50
Fy = 50 KSI MIN. (UNO)
 - ALL EXTERIOR LUMBER TO BE #2 SYP PT
 - ALL CONCRETE, fc = 3000 PSI MIN.
 - PRESUMPTIVE BEARING CAPACITY = 2000 PSF
 - 1/2" Ø ANCHOR BOLTS SPACED AT MAXIMUM OF 6'-0" O.C. AND NOT MORE THAN 12" FROM THE CORNER. THERE SHALL BE A MINIMUM OF (2) BOLTS PER PLATE SECTION. ANCHOR BOLTS SHALL BE SPACED AT 3'-0" O.C. FOR BASEMENTS. ANCHOR BOLT SHALL EXTEND 7" INTO CONCRETE OR MASONRY.
 - PSL COLUMNS DESIGNED WITH MAX. HEIGHT OF 9'-0" (UNO)
 - PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS. (U.N.O.)
 - PROVIDE CONTINUOUS SHEATHING PER SECTION 602.10.4 OF THE 2018 IRC.
 - MAXIMUM MASONRY PIER HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST HORIZONTAL DIMENSION.
 - UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION.
 - METAL HANGERS SHALL BE SIMPSON OR APPROVED EQUAL.



- STRUCTURAL SHEATHING NOTES**
- DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR LESS.
 - WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10 OF THE 2018 NCRC.
 - BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3. REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS INCLUDING CONNECTIONS & SUPPORT OF BRACED WALL PANELS.
 - REFERENCE FIGURE R602.10.4.3 OF THE 2018 NCRC.
 - INTERIOR BRACED WALL PANELS (BWP) INDICATED SHALL BE SHEATHED IN ACCORDANCE WITH THE GB METHOD OR WSP METHOD AS PRESCRIBED IN SECTION R602.10.1 (UNO)
 - 1/2" GYPSUM BOARD (GB) MINIMUM LENGTH OF 8'-0" (ISOLATED PANELS) OR 4'-0" (CONTINUOUS SHEATHING). SECURE w/ 5d COOLER NAILS (OR EQUAL PER TABLE R702.3.5) SPACED @ 7" O.C. AT PANEL EDGES, INCLUDING TOP AND BOTTOM PLATES & 7" O.C. AT INTERMEDIATE SUPPORTS
 - 3/8" WOOD STRUCTURAL PANEL (WSP) SECURE w/ 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS
 - EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS-WSP METHOD AS PRESCRIBED IN SECTION R602.10.3 (UNO)
 - ALL SHEATHABLE SURFACES OF EXTERIOR WALLS (INCLUDING AREAS ABOVE AND BELOW OPENINGS AND GABLE END WALLS) SHALL BE CONTINUOUSLY SHEATHED WITH WOOD STRUCTURAL PANEL (WSP) SHEATHING WITH A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH MINIMUM 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND SPACED AT 12" O.C. AT INTERMEDIATE SUPPORTS. MINIMUM BRACED WALL PANEL LENGTHS WITH CS-WSP METHOD SHALL BE AS FOLLOWS:
 - 24" ADJACENT TO OPENINGS NOT MORE THAN 67% OF WALL HEIGHT
 - 30" ADJACENT TO OPENINGS GREATER THAN 67% AND LESS THAN 85% OF WALL HEIGHT.
 - 48" FOR OPENINGS GREATER THAN 85% OF WALL HEIGHT
 - SHEATH INTERIOR & EXTERIOR
 - FOR CS-WSP METHOD, A MINIMUM 24" BRACED WALL PANEL CORNER RETURN SHALL BE PROVIDED AT BOTH ENDS OF A BRACED WALL LINE IN ACCORDANCE WITH FIGURE R602.10.3(4). IN LIEU OF A CORNER RETURN, EITHER A MIN. 48" BRACED WALL PANEL SHALL BE PROVIDED AT THE CORNER OR A HOLD-DOWN DEVICE WITH A MINIMUM UPLIFT DESIGN VALUE OF 800# SHALL BE FASTENED TO THE EDGE OF THE BRACED WALL PANEL CLOSEST TO THE CORNER AND TO THE FOUNDATION OR FRAMING BELOW.
 - MINIMUM 800# HOLD-DOWN DEVICE

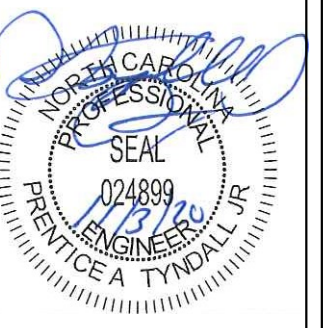
BRACING PANEL LENGTHS REQUIRED:
 BWL A = 5.0 FT
 BWL B = 5.0 FT
 BWL 1 = 3.5 FT
 BWL 2 = 3.5 FT

BRACING PANEL LENGTHS PROVIDED:
 BWL A = 34.0 FT CS-WSP
 BWL B = 25.0 FT CS-WSP
 BWL 1 = 24.7 FT CS-WSP
 BWL 2 = 30.7 FT CS-WSP

FIRST FLOOR PLAN (ELEV. A)
 1/4" = 1'-0"

FILENAME: Z:\RESIDENTIAL_DWG\2020 STRUCTURAL PROJECTS\2001-010506 - STEVE NORDAN - MARY TYLER PLAN\2001-010506 - STEVE NORDAN - MARY TYLER PLAN LAST PLOT DATE: 10/20/2020 4:11 PM

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STEVE NORDAN
MARY TYLER PLAN
STICK FRAME OPTION

**1ST FLR. HEADER
1ST FLR. CLG.**

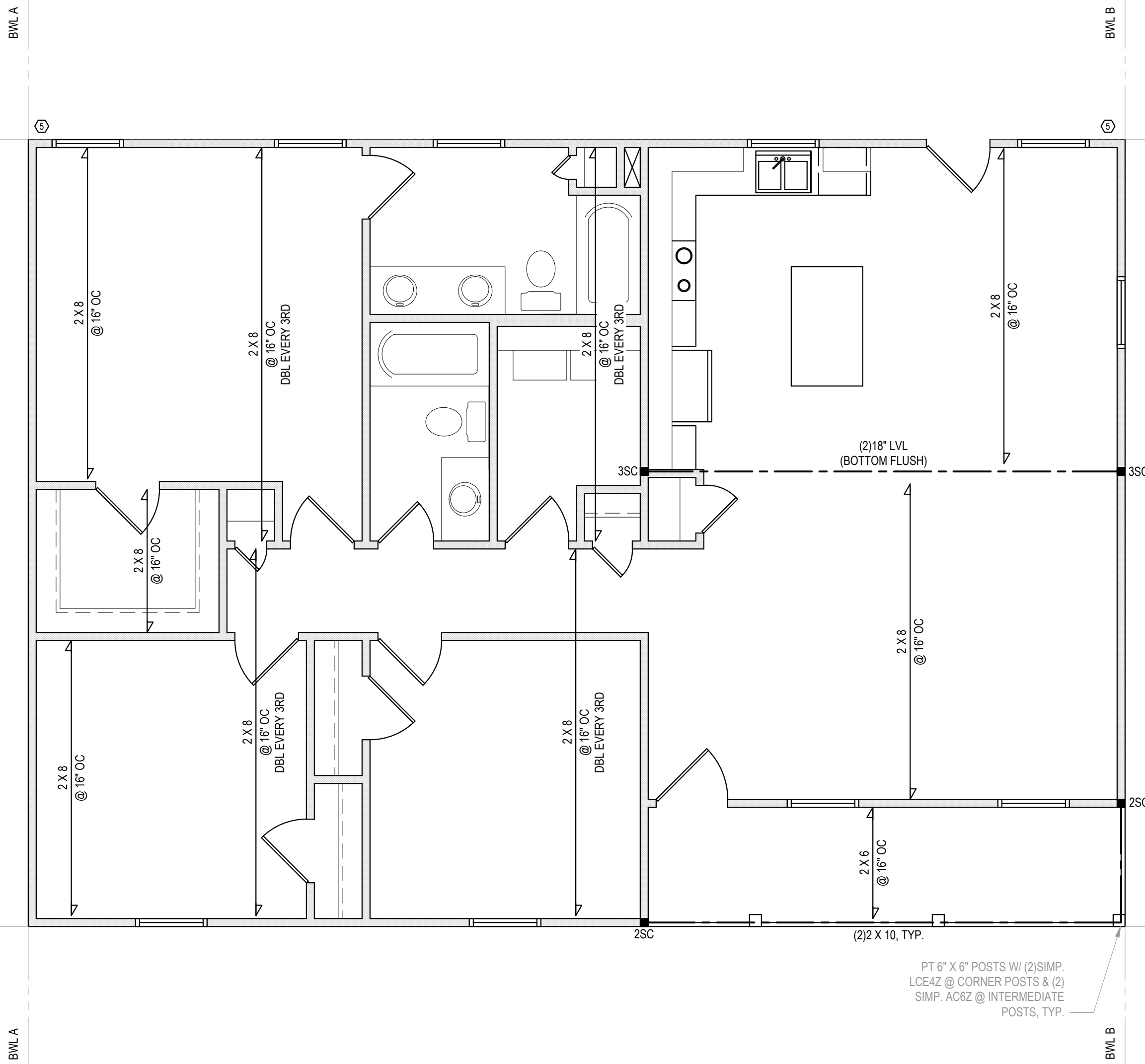
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| Project #: | 2001-010506 |
| Date: | 10/21/20 |
| Drawn/Design By: | IJE |
| DWG. Checked By: | PTH |
| Scale: | SEE PLAN |

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Sheet Number
S2.2
6 of 10

| | LIVE LOAD (PSF) | DEAD LOAD (PSF) | DEFLECTION | |
|--------------------|---------------------------------|-----------------|------------|-------|
| | | | LL | TL |
| FLOOR (primary) | 40 | 10 | L/360 | L/240 |
| FLOOR (secondary) | 40 | 10 | L/360 | L/240 |
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| ATTIC (no access) | 10 | 5 | L/240 | L/180 |
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| WIND LOAD | BASED ON 120 MPH (EXPOSURE B) | | | |
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 - ALL LOAD BEARING EXTERIOR WINDOW HEADERS WITH MAXIMUM SPAN OF 6'-6" SHOULD BE A (2) 2x10 w/ (1) 2x4 KING STUD AND (1) 2x4 JACK STUD NAILED TOGETHER w/ (2) 10d @ 8" O.C. PROVIDED THAT THE TOP OF THE WINDOW HEIGHT IS 6'-8", MINIMUM BOTTOM OF THE WINDOW HEIGHT IS 1'-6", OTHERWISE REFER TO TABLE R502.5(1).
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 - PSL COLUMNS DESIGNED WITH MAX. HEIGHT OF 9'-0" (UNO)
 - PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS. (U.N.O.)
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 - MINIMUM 800# HOLD-DOWN DEVICE

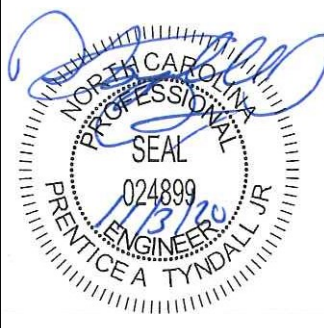
BRACING PANEL LENGTHS REQUIRED:
 BWL A = 5.0 FT
 BWL B = 5.0 FT
 BWL 1 = 3.4 FT
 BWL 2 = 3.4 FT

BRACING PANEL LENGTHS PROVIDED:
 BWL A = 33.0 FT CS-WSP
 BWL B = 25.0 FT CS-WSP
 BWL 1 = 24.7 FT CS-WSP
 BWL 2 = 30.7 FT CS-WSP

FIRST FLOOR PLAN (ELEV. B)
 1/4" = 1'-0"

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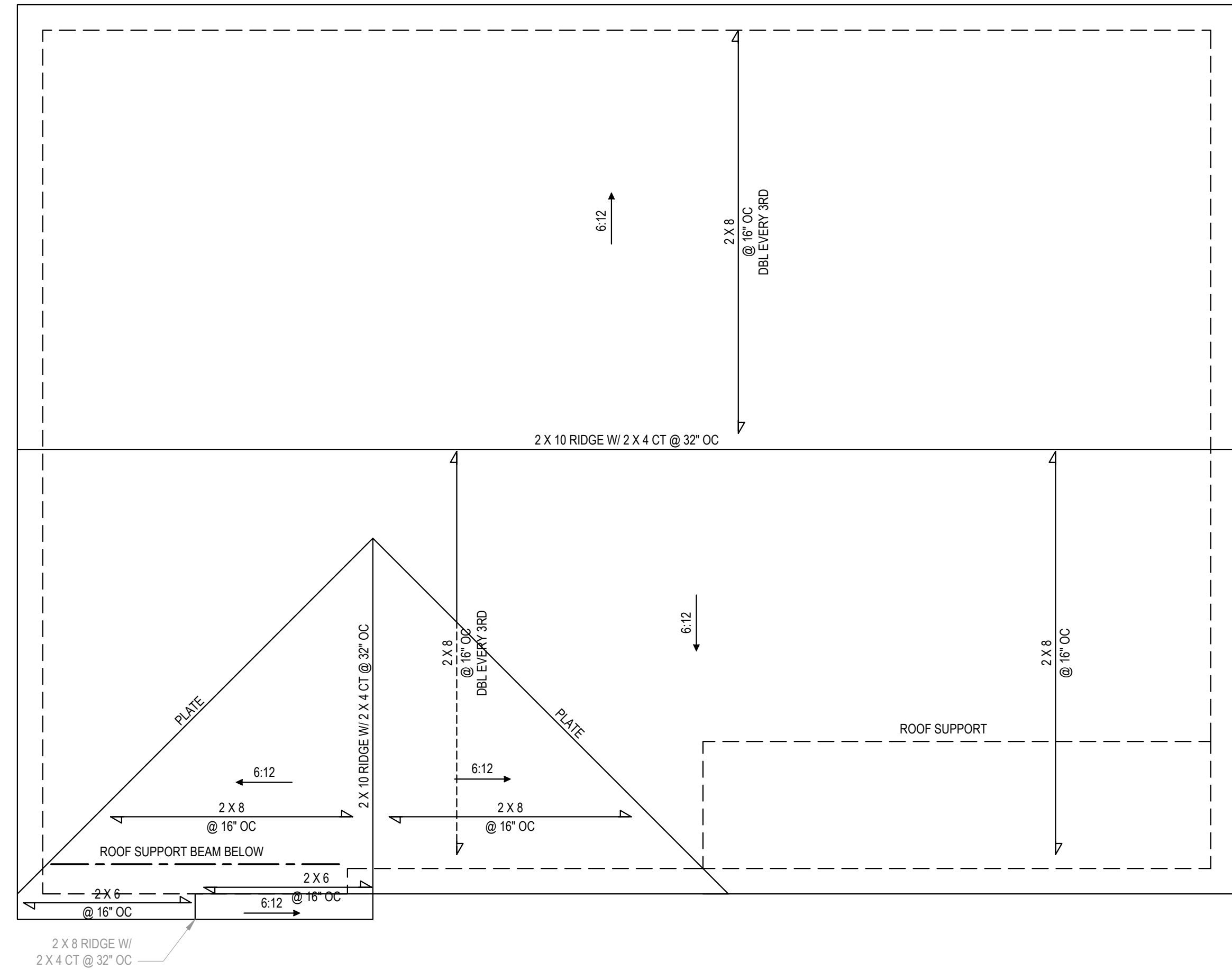
Client: **STEVE NORDAN**
 Date: **MARY TYLER PLAN**
STICK FRAME OPTION

ROOF PLAN

Project #: 2001-010506
 Date: 10/21/20
 Drawn/Design By: IJE
 DWG. Checked By: PTH
 Scale: NOT TO SCALE

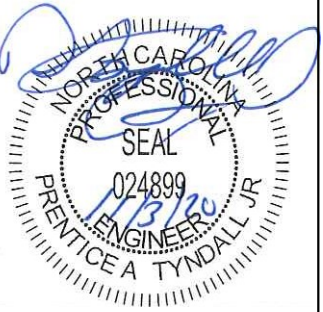
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Sheet Number
S3.1
 7 of 10



ROOF PLAN (ELEV. A)
 1/4" = 1'-0"

Engineers seal does not include construction means, methods, techniques, sequences, procedures or safety precaution.
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Client: **STEVE NORDAN**

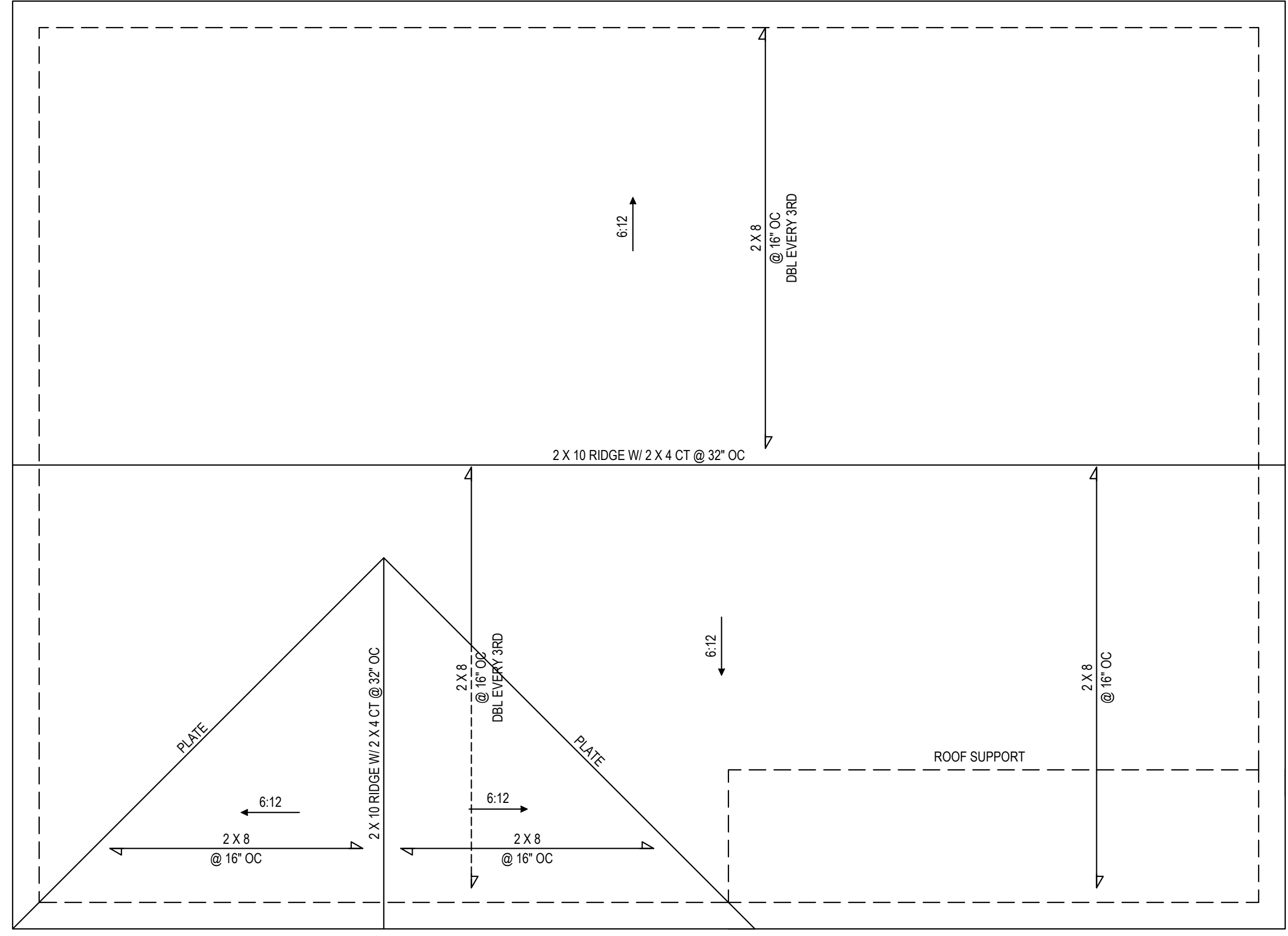
Date: **MARY TYLER PLAN
STICK FRAME OPTION**

ROOF PLAN

Project #: 2001-010506
 Date: 10/21/20
 Drawn/Design By: IJE
 DWG. Checked By: PTH
 Scale: NOT TO SCALE

| No. | Date: | Remarks |
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Sheet Number
S3.2
 8 of 10



ROOF PLAN (ELEV. B)
 1/4" = 1'-0"

STRUCTURAL NOTES

- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF NORTH CAROLINA STATE 2018 RESIDENTIAL BUILDING CODE, IN ADDITION TO ALL LOCAL CODES AND REGULATIONS.
- DESIGN LOADS:

| | LIVE LOAD (PSF) | DEAD LOAD (PSF) | DEFLECTION | |
|---------------------------|-------------------------------|-----------------|------------|-------|
| | | | LL | TL |
| ALL FLOORS | 40 | 10 | L/360 | L/240 |
| ATTIC (w/ walk up stairs) | 30 | 10 | L/360 | L/240 |
| ATTIC (no access) | 20 | 10 | L/240 | L/180 |
| EXTERNAL BALCONY | 40 | 5 | L/360 | L/240 |
| ROOF TRUSS | 20 | 20 | L/240 | L/180 |
| WIND LOAD | BASED ON 120 MPH (EXPOSURE B) | | | |
| SEISMIC | SEISMIC ZONES A, B & C | | | |

- MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF
- CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF FIVE INCHES UNLESS NOTED OTHERWISE. (U.N.O.)
- MAXIMUM DEPTH OF UNBALANCED FILL AGAINST FOUNDATION WALLS TO BE LESS THAN 4'-0" WITHOUT USING SUFFICIENT WALL BRACING. REFER TO SECTION R404 OF 2018 NC BUILDING CODE FOR BACKFILL LIMITATIONS BASED ON WALL HEIGHT, WALL THICKNESS, SOIL TYPE, AND UNBALANCED BACKFILL HEIGHT.
- ALL FRAMING LUMBER SHALL BE SYP #2 (F_b = 800 PSI, BASED ON 2x10 LVL). ALL FRAMING LUMBER EXPOSED TO THE ELEMENTS SHALL BE TREATED MATERIAL. ALL LVL LUMBER TO BE 1.75" WIDE NOMINAL EACH SINGLE MEMBER AND F_b = 2600 PSI, E = 1.9M PSI (U.N.O.). ALL SLL LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND F_b = 2325 PSI, E = 1.6M PSI (U.N.O.). ALL PSL LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND F_b = 2400 PSI, E = 1.8M PSI (U.N.O.).
- ALL LOAD BEARING EXTERIOR HEADERS SHALL BE AT (1) 2x10 (U.N.O.) REFER TO TABLE R602.7(1) & (2) FOR JACK STUD REQUIREMENTS FOR HEADER SPANS FOR INTERIOR AND EXTERIOR LOAD CONDITIONS UNLESS SPECIFICALLY NOTED ON PLANS.
- ALL STRUCTURAL STEEL W-SHAPES (I-BEAMS) SHALL BE ASTM A992 GRADE 50. ALL STEEL ANGLES, PLATES, AND C-CHANNELS SHALL BE ASTM A36. ALL STEEL PIPE SHALL BE ASTM A53 GRADE B.
- STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3'-10" AND FULL FLANGE WIDTH. PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO (2) LAG SCREWS (1/2" Ø x 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDED THE JOISTS ARE TOE NAILED TO THE SOLE PLATES, AND THE SOLE PLATES ARE NAILED OR BOLTED TO THE BEAM FLANGES @ 48" O.C.
- PROVIDE ANCHOR BOLT PLACEMENT PER SECTION 403.1.6. 1/2" Ø ANCHOR BOLTS SPACED AT 6'-0" O.C. AND PLACED 12" FROM THE END OF EACH PLATE SECTION. ANCHOR BOLTS SHALL BE SPACED AT 3'-0" O.C. FOR BASEMENTS. ANCHOR BOLT SHALL EXTEND 7" INTO CONCRETE OR MASONRY. THE BOLTS SHALL BE LOCATED IN THE MIDDLE THIRD OF THE WIDTH OF THE PLATE. THERE SHALL BE A MINIMUM TWO ANCHOR BOLTS PER PLATE SECTION.
- FOUNDATION DRAINAGE-DAMP PROOFING OR WATERPROOFING PER SECTION 405 AND 406 OF NC BUILDING CODE.
- WALL AND ROOF CLADDING VALUES. WALL CLADDING SHALL BE DESIGNED FOR 20.0 POUNDS PER SQUARE FOOT (LBS/SQ FT) OR GREATER POSITIVE AND NEGATIVE PRESSURE. ROOF VALUES BOTH POSITIVE AND NEGATIVE SHALL BE AS FOLLOWS:
30.0 LBS/SQ FT FOR ROOF PITCHES 0/12 TO 1/12
36.0 LBS/SQ FT FOR ROOF PITCHES 1/12 TO 5/12
18.0 LBS/SQ FT FOR ROOF PITCHES 5/12 TO 12/12
**MEAN ROOF HEIGHT 30'-0" OR LESS
- FOR ROOF SLOPES FROM 2/12 THROUGH 4/12, BUILDER TO INSTALL 2 LAYERS OF 15# FELT PAPER.
- REFER TO SECTION R602.3 FOR FRAMING OF ALL WALLS OVER 10'-0" IN HEIGHT.
- PROVIDE CONTINUOUS SHEATHING PER SECTION 602.10.3 OF THE 2018 NIRC.
- UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION.
- REFER TO TABLE N1102.1 FOR PRESCRIPTIVE BUILDING ENVELOPE THERMAL COMPONENT CRITERIA.
- PSL COLUMNS DESIGNED WITH MAXIMUM HEIGHT OF 9'-0" (U.N.O.)
- PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS. (U.N.O.)
- MAXIMUM MASONRY PER HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST HORIZONTAL DIMENSION.
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| CLIMATE ZONES | FENESTRATION U-FACTOR ^{1,2} | SKYLIGHT U-FACTOR ³ | GLAZED FENESTRATION SHGC ^{3,4} | CEILING ⁵ R-VALUE | WOOD FRAMED WALL R-VALUE | MASS WALL R-VALUE ¹ | FLOOR R-VALUE | BASEMENT WALL R-VALUE | SLAB ⁶ R-VALUE AND DEPTH | CRAWL SPACE ⁷ WALL R-VALUE |
|---------------|--------------------------------------|--------------------------------|---|------------------------------|--------------------------|--------------------------------|-----------------|-----------------------|-------------------------------------|---------------------------------------|
| 3 | 0.35 | 0.55 | 0.30 | 38 or 30 cont. | 15 or 13 + 2.5 | 5/13 or 5/10 cont. | 19 | 5/13 | 0 | 5/13 |
| 4 | 0.35 | 0.55 | 0.30 | 38 or 30 cont. | 15 or 13 + 2.5 | 5/13 or 5/10 cont. | 19 | 10/15 | 10 | 10/15 |
| 5 | 0.35 | 0.55 | NR | 38 or 30 cont. | 19 or 13 + 5 or 15 + 3 | 13/17 or 13/12.5 cont. | 30 ⁹ | 10/15 | 10 | 10/19 |

TABLE N1102.1 CLIMATE ZONES 3-5

NO SCALE

1. R-VALUES ARE MINIMUMS. U-FACTORS AND SHGC ARE MAXIMUMS. WHEN INSULATION IS INSTALLED IN A CAVITY WHICH IS LESS THAN THE LABEL OR DESIGN THICKNESS OF THE INSULATION, THE REDUCED R-VALUE OF THE INSULATION SHALL NOT BE LESS THAN THE R-VALUE SPECIFIED IN THE TABLE.

2. THE FENESTRATION U-FACTOR COLUMN INCLUDES SKYLIGHTS. THE SOLAR HEAT GAIN COEFFICIENT (SHGC) COLUMN APPLIES TO ALL GLAZED FENESTRATION.

3. **100% MEANS IS CONTINUOUS INSULATED SHEATHING ON THE INTERIOR OR EXTERIOR OF THE ROOF OR SKYLIGHT. INSULATION TO THE INTERIOR OF THE ROOF OR SKYLIGHT SHALL BE 100% MEANS. INSULATION TO THE EXTERIOR OF THE ROOF OR SKYLIGHT SHALL BE 100% MEANS. INSULATION TO THE INTERIOR OF THE ROOF OR SKYLIGHT SHALL BE 100% MEANS. INSULATION TO THE EXTERIOR OF THE ROOF OR SKYLIGHT SHALL BE 100% MEANS. INSULATION TO THE INTERIOR OF THE ROOF OR SKYLIGHT SHALL BE 100% MEANS. INSULATION TO THE EXTERIOR OF THE ROOF OR SKYLIGHT SHALL BE 100% MEANS.

4. EXCLUDED

5. BASEMENT WALL INSULATION IS NOT REQUIRED IN WARM AND HUMID LOCATIONS AS DEFINED BY FIGURE N1102.1 AND TABLE N1102.1.

6. OR INSULATION SUFFICIENT TO FILL THE FRAMED CAVITY. R = 10 MINIMUM.

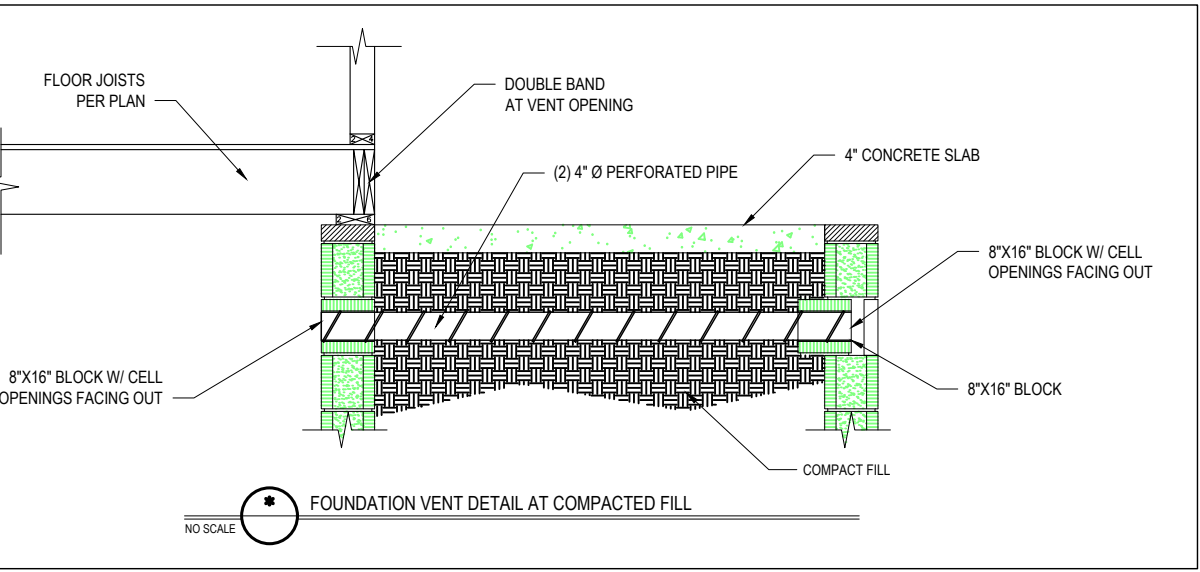
7. THE FIRST VALUE IS CAVITY INSULATION. THE SECOND VALUE IS CONTINUOUS INSULATION. SO 13" MEANS R-13 CAVITY INSULATION PLUS R-4 INSULATED SHEATHING. 10" MEANS R-10 CAVITY INSULATION PLUS R-4 INSULATED SHEATHING. 10" MEANS R-10 CAVITY INSULATION PLUS R-4 INSULATED SHEATHING. 10" MEANS R-10 CAVITY INSULATION PLUS R-4 INSULATED SHEATHING.

8. 8" POLY REFERS TO 8" POLYETHYLENE INSULATION. 4" POLYETHYLENE REFERS TO 4" POLYETHYLENE INSULATION. 4" POLYETHYLENE REFERS TO 4" POLYETHYLENE INSULATION. 4" POLYETHYLENE REFERS TO 4" POLYETHYLENE INSULATION.

9. TABLE VALUE REQUIRED EXCEPT FOR ROOF DECK WHERE THE SPACE IS LIMITED BY THE PITCH OF THE ROOF. THERE THE INSULATION MUST FILL THE SPACE UP TO THE AIR BARREL.

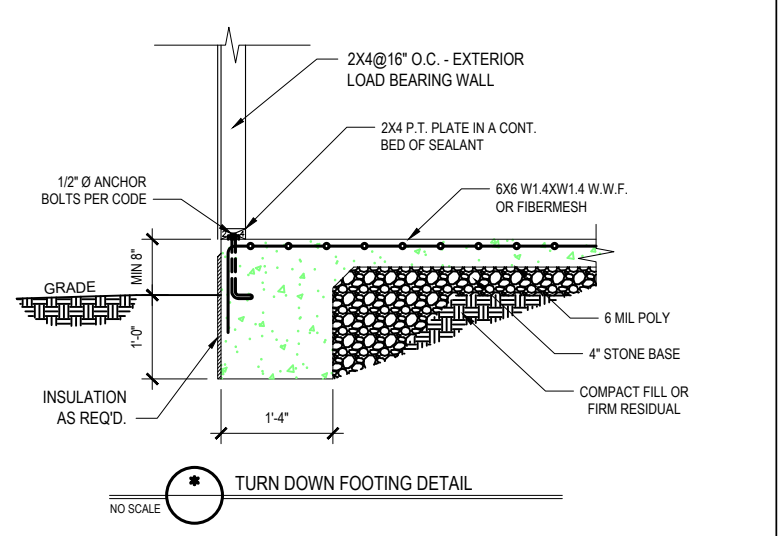
10. 10" POLYETHYLENE INSULATION IS REQUIRED WHERE THE SPACE IS LIMITED BY THE PITCH OF THE ROOF. THERE THE INSULATION MUST FILL THE SPACE UP TO THE AIR BARREL.

11. BASEMENT WALL INSULATION: THE MINIMUM MASS WALL INSULATED HEAT CONTENT REQUIREMENT MAY USE THE MASS WALL R-VALUE AS THE MINIMUM REQUIREMENT.



DEFINITIONS FOR COMMON ABBREVIATIONS

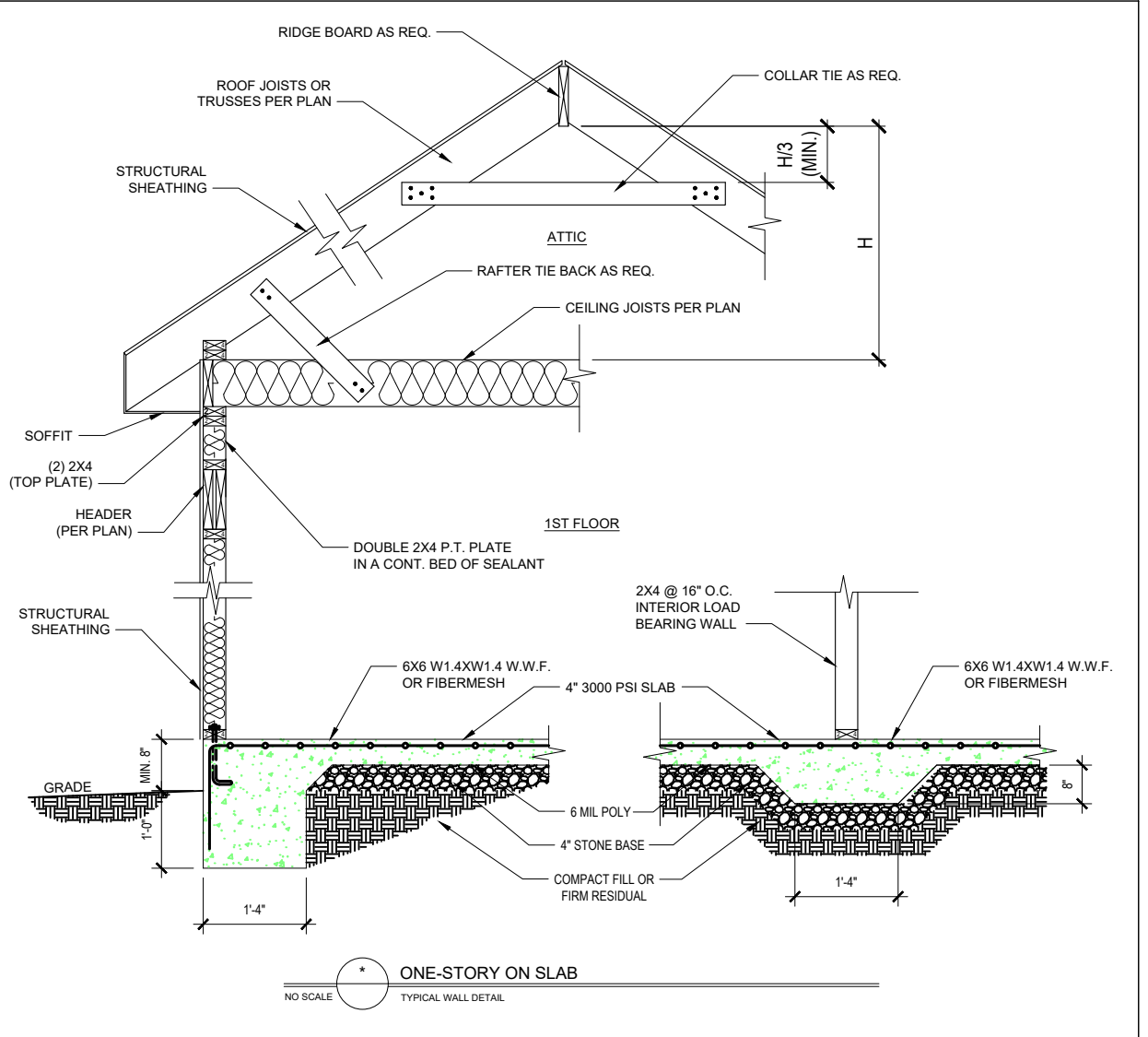
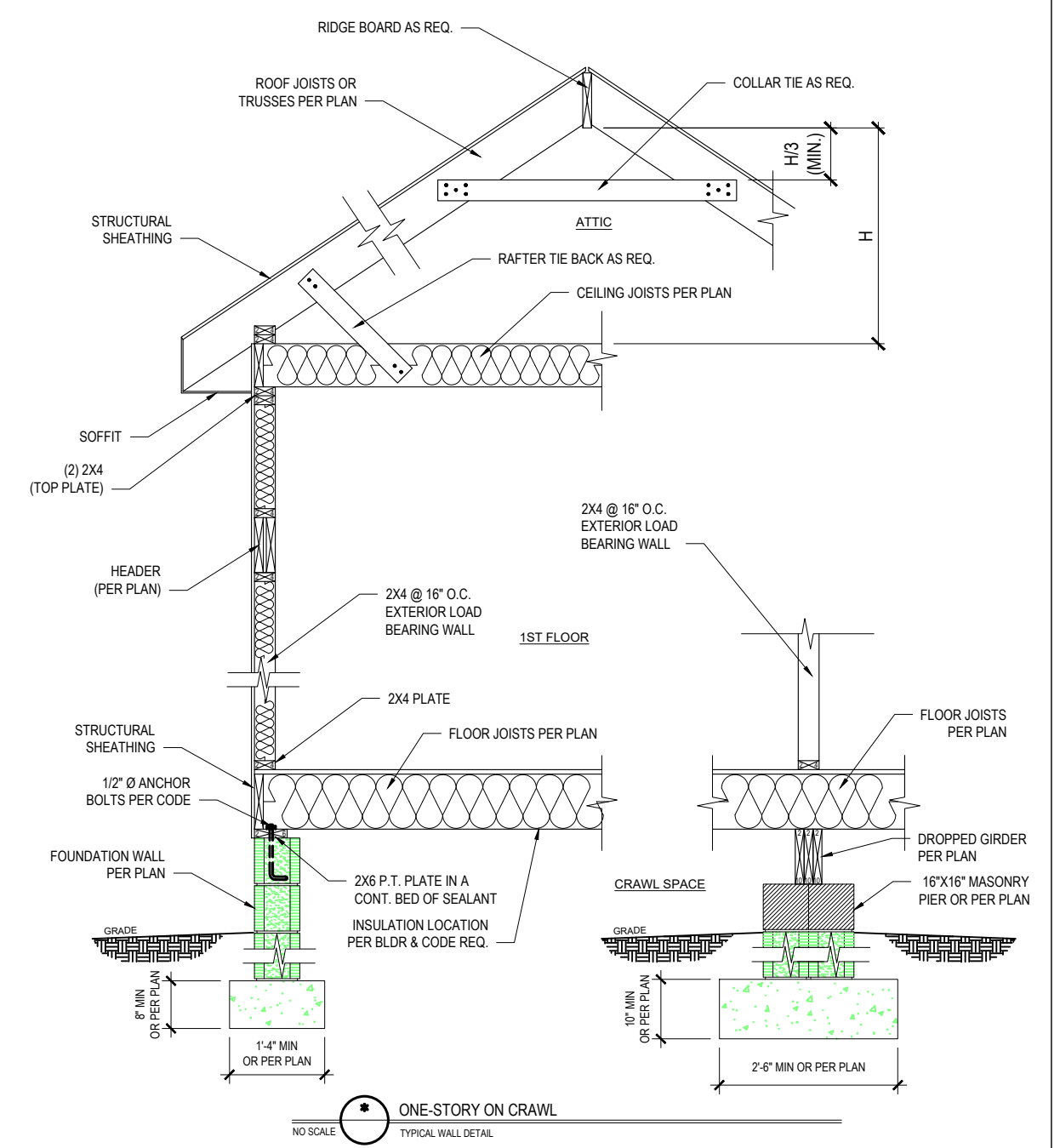
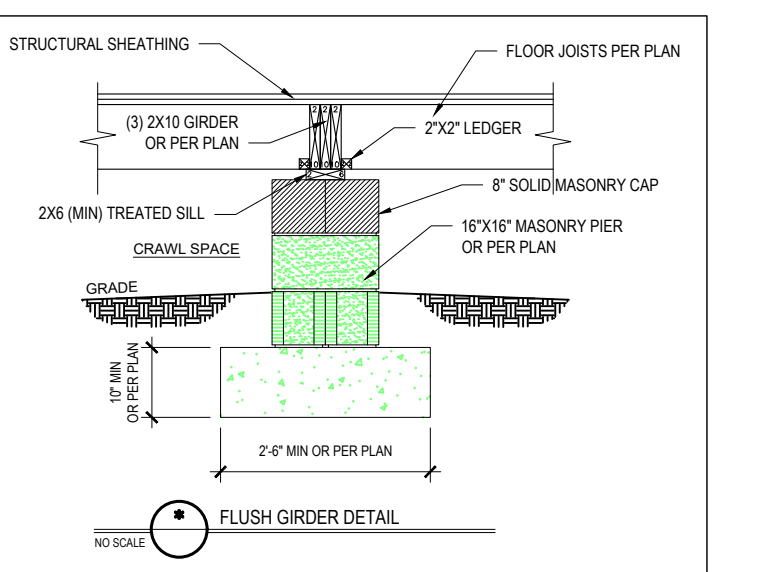
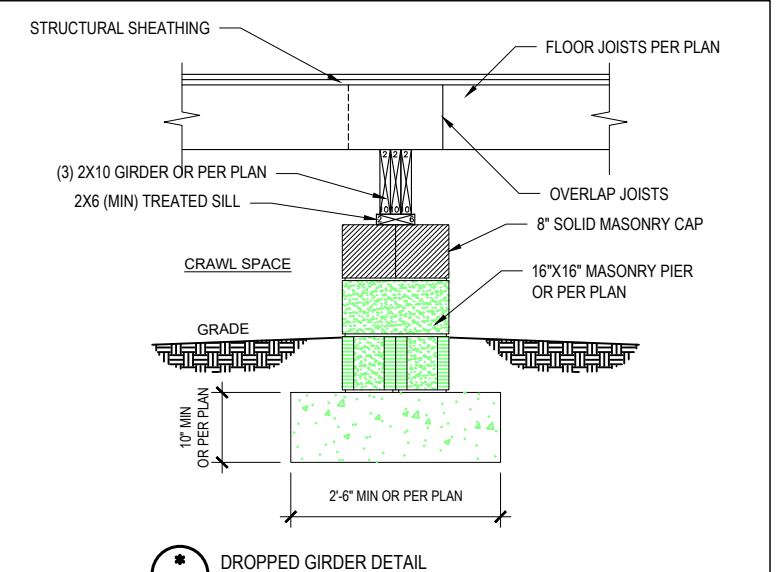
- | | |
|-----------------------------|------------------------------|
| ALT = ALTERNATE | MAX = MAXIMUM |
| CANT = CANTILEVER | MIN = MINIMUM |
| CJ = CEILING JOIST | NOM = NOMINAL |
| CMU = CONCRETE MASONRY UNIT | O.C. = ON CENTER |
| COL = COLUMN | PL = POINT LOAD |
| CONC = CONCRETE | PT = PRESSURE TREATED |
| CONT = CONTINUOUS | REINF = REINFORCED |
| COLL TIE = COLLAR TIE | REQD = REQUIRED |
| DBL = DOUBLE | RJ = ROOF JOIST |
| DIA = DIAMETER | RS = ROOF SUPPORT |
| DJ = DOUBLE JOIST | SC = STUD COLUMN |
| DR = DOUBLE RAFTER | SCH = SCHEDULE |
| EA = EACH | SPEC = SPECIFIED |
| EE = EACH END | THK = THICK |
| FJ = FLOOR JOIST | TJ = TRIPLE JOIST |
| FND = FOUNDATION | TRTD = TREATED |
| FTG = FOOTING | TYP = TYPICAL |
| GALV = GALVANIZED | UNO = UNLESS NOTED OTHERWISE |
| HORIZ = HORIZONTAL | W = WIDE FLANGE BEAM |
| HT = HEIGHT | WWF = WELDED WIRE FABRIC |
| MANUF = MANUFACTURER | XJ = EXTRA JOIST |



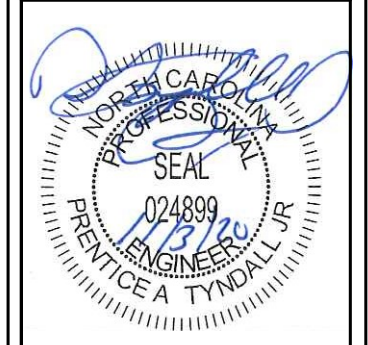
1) MAXIMUM HEIGHT OF DECK SUPPORT POSTS AS FOLLOWS:

| POST SIZE | MAX. POST HEIGHT** |
|-----------|--------------------|
| 4 x 4 | 8'-0" |
| 6 x 6 | 20'-0" |
| *** | OVER 20'-0" |

- * THIS TABLE IS BASED ON NO. 2 TREATED SOUTHERN PINE POSTS. MAXIMUM TRIBUTARY AREA IS BASED ON 128 TOTAL SQUARE FEET WHICH MAY BE LOCATED AT DIFFERENT LEVELS.
- ** FROM TOP OF FOOTING TO BOTTOM OF GIRDER.
- *** DECKS WITH POST HEIGHTS OVER 20'-0" SHALL BE DESIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT.
- 2) DECKS SHALL BE BRACED TO PROVIDE LATERAL STABILITY BY ONE OF THESE METHODS:
- A. THE DECK FLOOR HEIGHT IS LESS THAN 4'-0" AND THE DECK IS ATTACHED TO THE STRUCTURE IN ACCORDANCE WITH SECTION (4) ABOVE. LATERAL BRACING IS NOT REQUIRED.
- B. 4 x 4 WOOD KNEE BRACES MAY BE PROVIDED ON EACH COLUMN IN BOTH DIRECTIONS. THE KNEE BRACES SHALL ATTACH TO EACH POST AT A POINT NOT LESS THAN 1/3 OF THE POST LENGTH FROM THE TOP OF THE POST, AND THE BRACES SHALL BE ANGLED BETWEEN 45° AND 60° FROM THE HORIZONTAL. KNEE BRACES SHALL BE BOLTED TO THE POST AND GIRDER WITH ONE 5/8" Ø HOT DIPPED GALVANIZED BOLT AT EACH END OF THE BRACE.
- C. FOR FREESTANDING DECKS WITHOUT KNEE BRACES OR DIAGONAL BRACING, LATERAL STABILITY MAY BE PROVIDED BY EMBEDDING THE POSTS IN ACCORDANCE WITH THE FOLLOWING:
- | POST SIZE | MAX. TRIBUTARY AREA | MAX. POST HEIGHT | EMBEDMENT DEPTH | CONCRETE DIAMETER |
|-----------|---------------------|------------------|-----------------|-------------------|
| 4 x 4 | 48 SQ. FT. | 4'-0" | 2'-6" | 1'-0" |
| 6 x 6 | 120 SQ. FT. | 6'-0" | 3'-6" | 1'-8" |
- D. 2 x 6 DIAGONAL VERTICAL CROSS BRACING MAY BE PROVIDED IN TWO (2) PERPENDICULAR DIRECTIONS FOR FREESTANDING DECKS OR PARALLEL TO THE STRUCTURE AT THE EXTERIOR COLUMN LINE FOR ATTACHED DECKS. THE 2 x 6s SHALL BE ATTACHED TO THE POSTS WITH ONE 5/8" Ø HOT DIPPED GALVANIZED BOLT AT EACH END OF EACH BRACING MEMBER.
- E. FOR EMBEDMENT OF PILES IN COASTAL REGIONS, SEE CHAPTER 46.



Engineers seal does not include construction means, methods, techniques, sequences, procedures or safety precautions. Any deviations or discrepancies on plans are to be brought to the immediate attention of Tyndall Engineering & Design, P.A. Failure to do so will void Tyndall Engineering & Design, P.A. liability. Please review these documents carefully. Tyndall Engineering & Design, P.A. will interpret that all dimensions, recommendations, etc. presented in these documents were deemed acceptable once construction begins.



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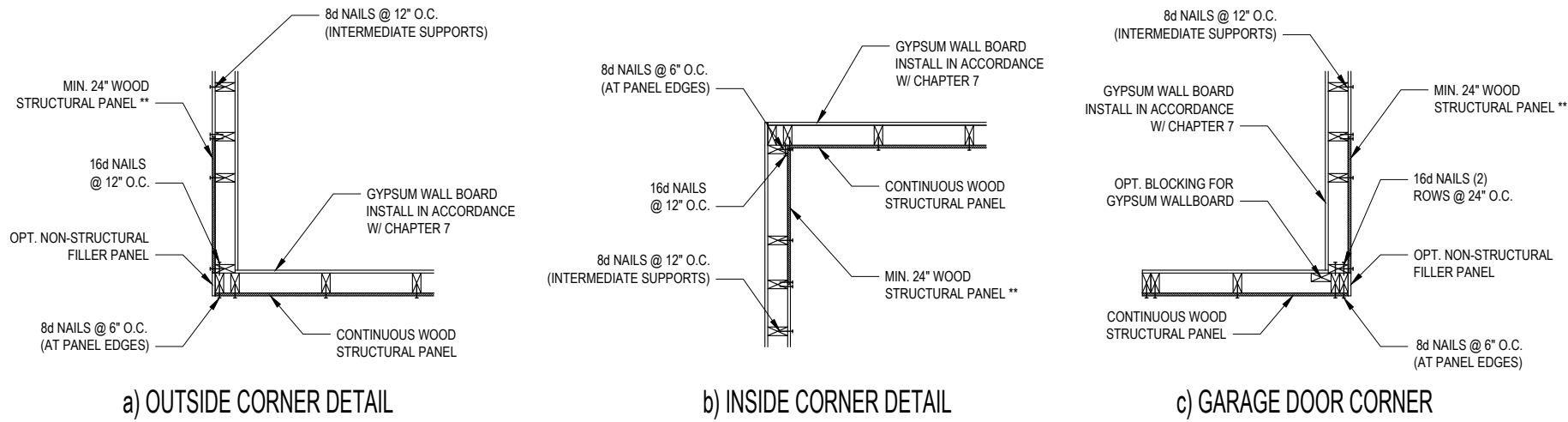
STEVE NORDAN
MARY TYLER PLAN
STICK FRAME OPTION

STANDARD DETAILS

Project #: 2001-010506
Date: 10/21/20
Drawn/Design By: IJE
DWG. Checked By: PTH
Scale: NOT TO SCALE

| No. | Date | Remarks |
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Sheet Number
D1
9 of 10



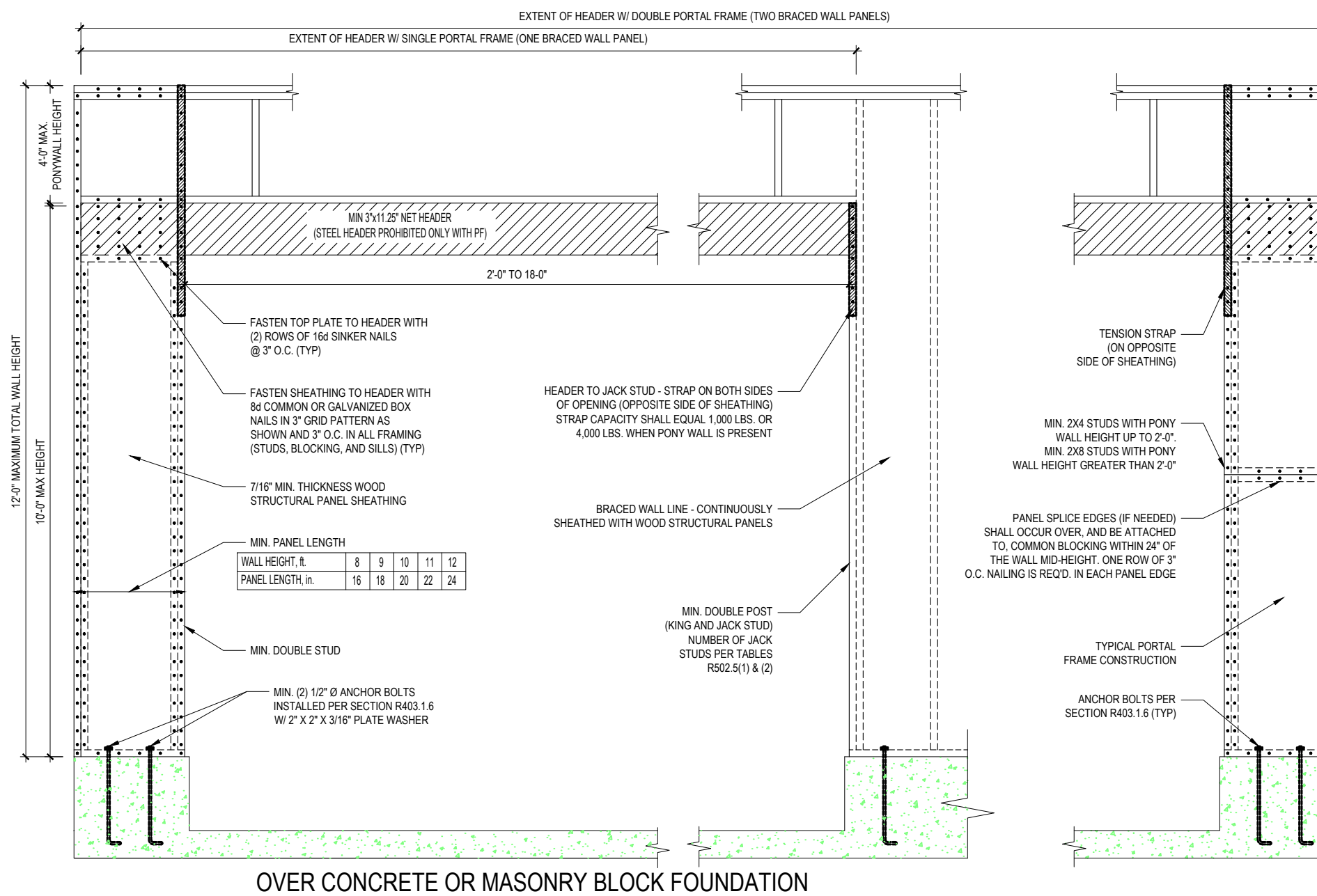
B1: TYPICAL EXTERIOR CORNER FRAMING FOR CONTINUOUS SHEATHING
NO SCALE

STRUCTURAL SHEATHING NOTES

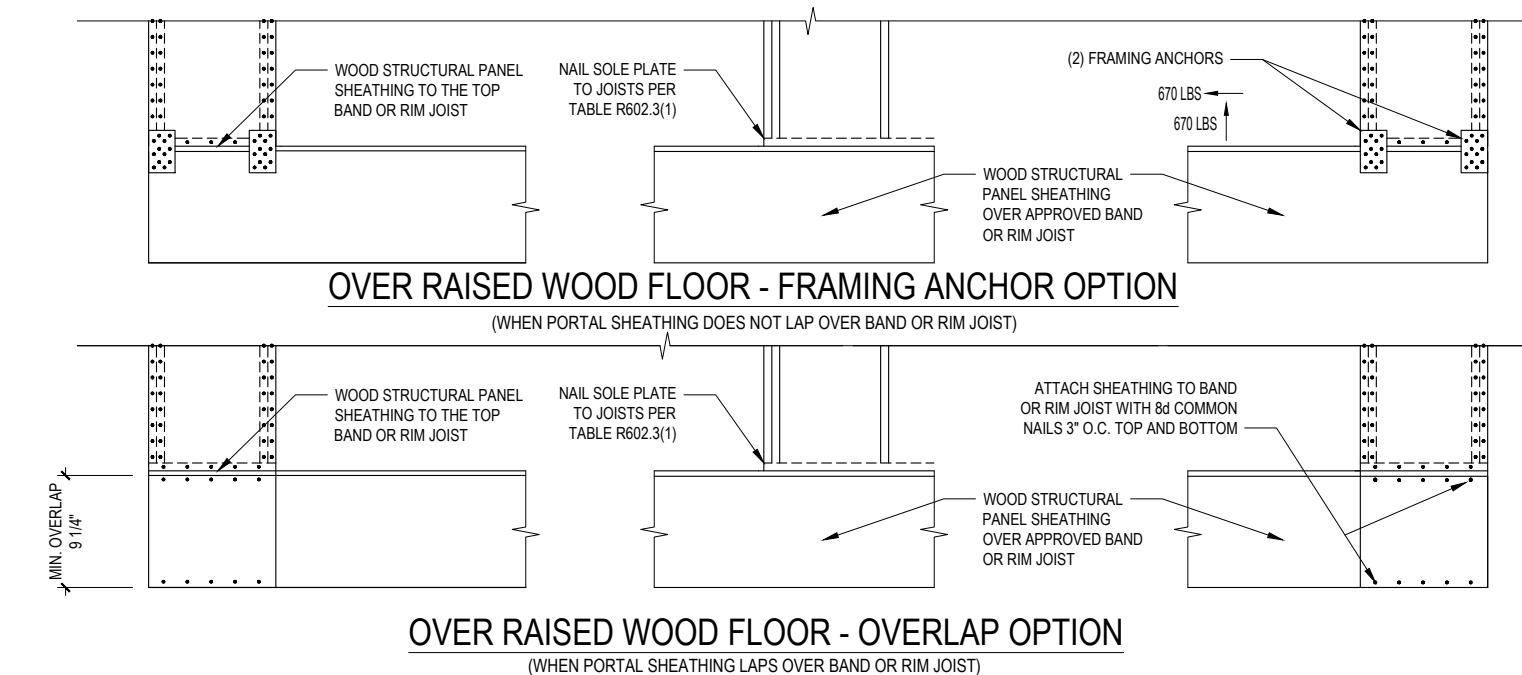
- DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR LESS.
- WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10.3 OF THE 2018 NRC.
- BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3 REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS INCLUDING CONNECTIONS & SUPPORT OF BRACED WALL PANELS.
- INTERIOR BRACED WALL PANELS (BWP) INDICATED SHALL BE SHEATHED IN ACCORDANCE WITH THE GB METHOD OR WSP METHOD AS PRESCRIBED IN SECTION R602.10.1 (LNU)
- 12\"/>

| REQUIRED BRACED WALL PANEL CONNECTIONS | | | | |
|--|-----------------------|----------------|-------------------------|-------------------------|
| METHOD | MATERIAL | MIN. THICKNESS | REQUIRED CONNECTION | |
| | | | @ PANEL EDGES | @ INTERMEDIATE SUPPORTS |
| CS-WSP | WOOD STRUCTURAL PANEL | 3/8" | 6d COMMON NAILS @ 6\"/> | |

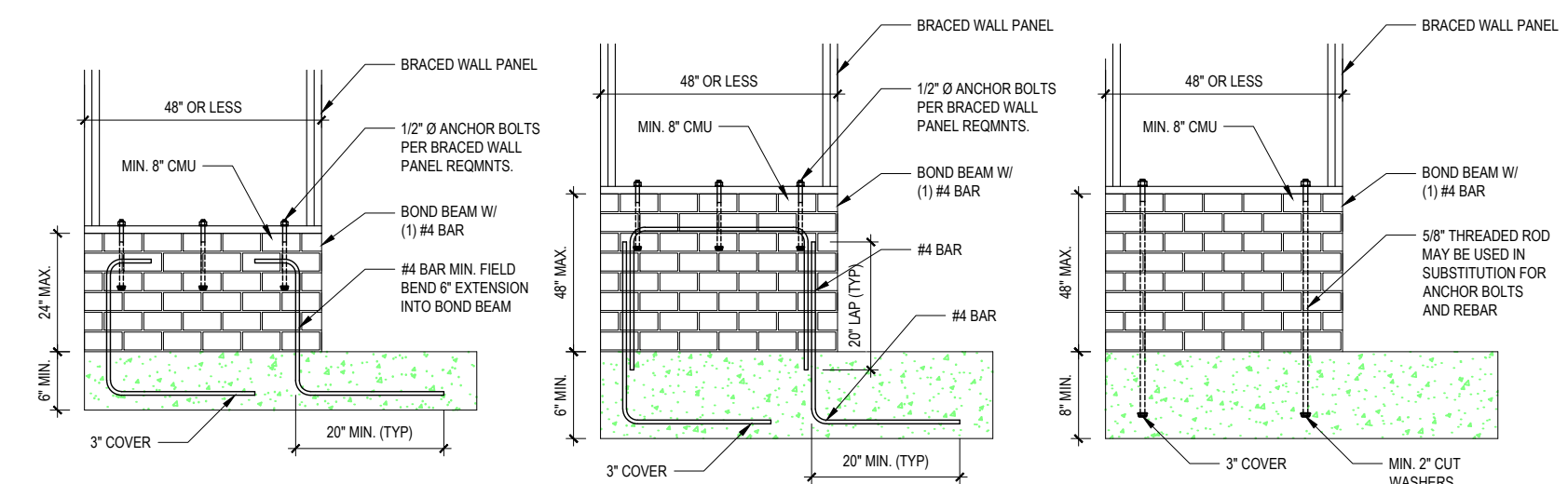
B3: BRACE WALL PANEL CONNECTIONS
NO SCALE



B2: METHOD CS-PF: CONTINUOUSLY SHEATHED PORTAL FRAME
FIGURE R602.10.1

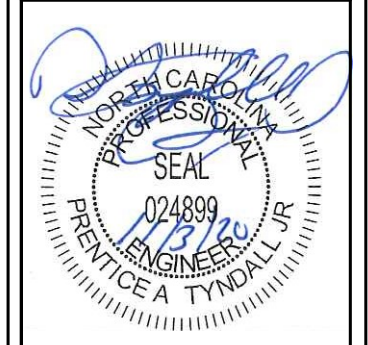


B2: METHOD CS-PF: CONTINUOUSLY SHEATHED PORTAL FRAME
FIGURE R602.10.1



B4: MASONRY STEM WALL SUPPORTING BRACED WALL PANELS
FIGURE R602.10.4.3 OF THE 2018 NRC
NOTE: GROUT BOND BEAMS AND ALL CELLS WHICH CONTAIN REBAR, THREADED RODS AND ANCHOR BOLTS

Engineers seal does not include construction means, methods, techniques, sequences, procedures or safety precaution.
Any deviations or discrepancies on plans are to be brought to the immediate attention of Tyndall Engineering & Design, P.A. Failure to do so will void Tyndall Engineering & Design, P.A. liability.
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STEVE NORDAN
MARY TYLER PLAN
STICK FRAME OPTION

SHEATHING DETAILS

| | |
|------------------|--------------|
| Project #: | 2001-010506 |
| Date: | 10/21/20 |
| Drawn/Design By: | IJE |
| DWG. Checked By: | PTM |
| Scale: | NOT TO SCALE |

| REVISIONS | | |
|-----------|------|---------|
| No. | Date | Remarks |
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FILENAME: Z:\RESERVOIR_END\2020 STRUCTURAL PROJECTS\2001-010506 - STEVE NORDAN - MARY TYLER PLAN\2001-010506 - STEVE NORDAN - MARY TYLER PLAN\OPTION.DWG SAVED BY: PREVIOUS TYNDA... LAST PLOT DATE: 11/02/2020 4:11 PM