

# NEWTON ADDITION

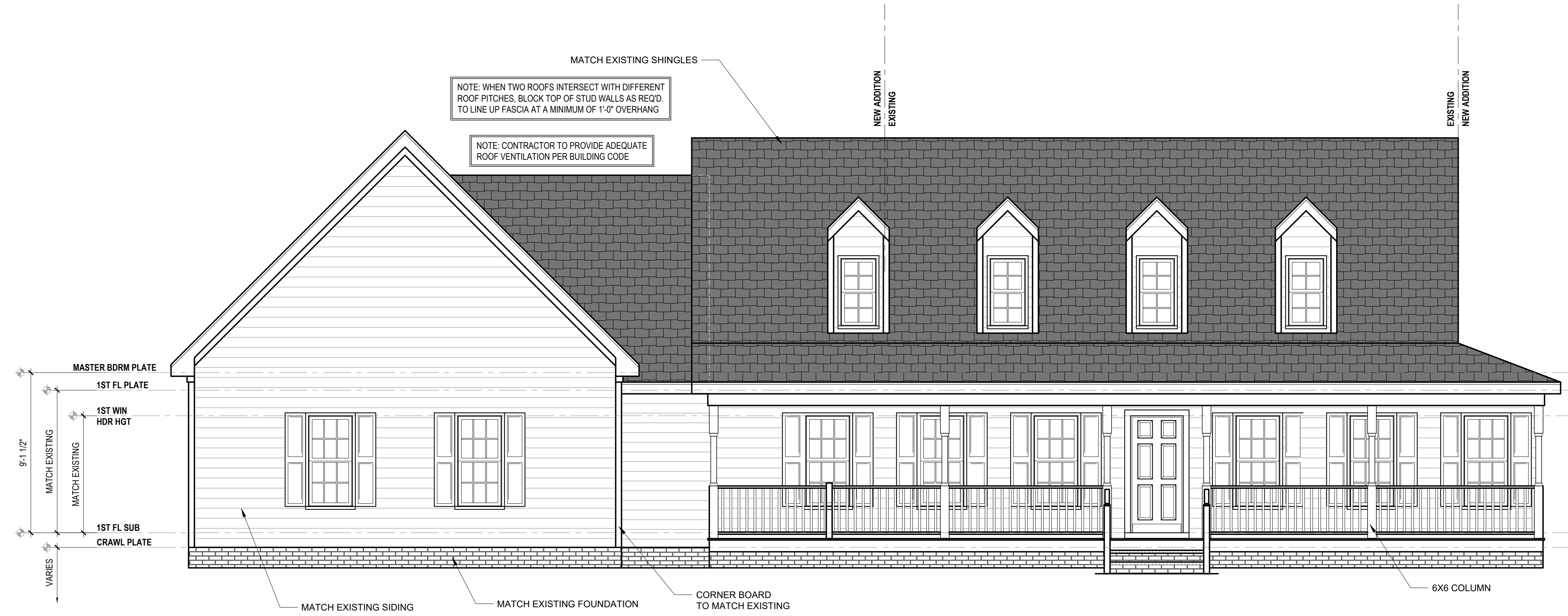
PROJECT#  
DRB2101-0255  
DATE  
12/13/2021  
DRAWN/DESIGNED BY  
DBL  
CHECKED BY  
DRB  
SCALE  
1/4" = 1'-0"

PROJECT NAME  
NEWTON  
ADDITION  
URL  
drbhomedesign.com

DRB DESIGN  
drbdesign@drbhomedesign.com 919.631.5979  
250 Shipwash Dr Suite 105 Garner, NC 27529

CLIENT NAME  
Ross & Taylor Newton  
1098 Raven Rock Road  
Lillington, NC 27546  
ross.newton@ncfbins.com  
(910)238-6500

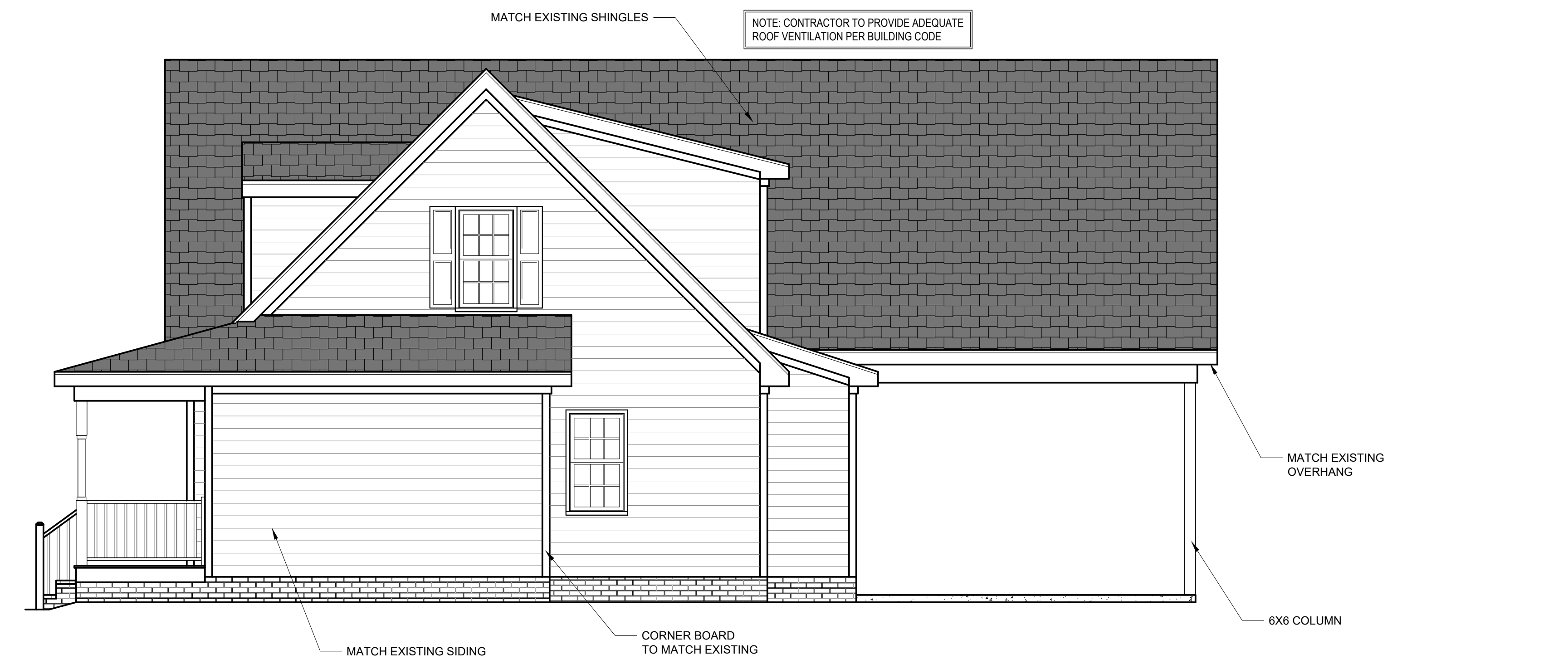
SHEET NAME  
ELEVATIONS  
SHEET #  
A1  
of 5



**FRONT ELEVATION**  
1/4" = 1'-0"



1. DRB DESIGN assumes no liability for any home constructed from this plan.
2. All construction shall conform to the latest requirements of "North Carolina State 2018 residential building code", in addition to all local codes and regulations.
3. Should these plans require structural calculations for permitting the contractor shall be required to obtain the services of a structural engineer after notifying DRB DESIGN that such services are required.
4. Release of these plans requires further cooperation among the owner, his/her contractor, and DRB DESIGN.
5. Design and construction are complex and, although the designer performed his services with due care and diligence, perfection is not a guarantee.
6. Communication is imperfect and every contingency cannot be anticipated.
7. Any ambiguity or discrepancy discovered by the use of these plans shall be reported immediately to DRB DESIGN. Failure to notify the DRB DESIGN compounds misunderstandings and increases construction costs.
8. A failure to cooperate by a simple notice to DRB DESIGN shall relieve the designer from any and all responsibilities for all consequences.
9. Changes made to these plans without the consent of the designer are unauthorized and shall relieve DRB DESIGN of responsibility for any and all consequences arising out of such changes.
10. Written dimensions on these plans always have precedence over scaled dimensions.
11. It is the contractor's responsibility to verify and be responsible for all dimensions and square footage prior to construction, as well as conditions on the job site. DRB DESIGN is not responsible for dimension and square footage errors once construction has begun.
12. DRB DESIGN must be notified of any variations from the dimensions and conditions shown on these drawings.



**RIGHT ELEVATION**  
1/4" = 1'-0"

# NEWTON ADDITION

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SCALE  
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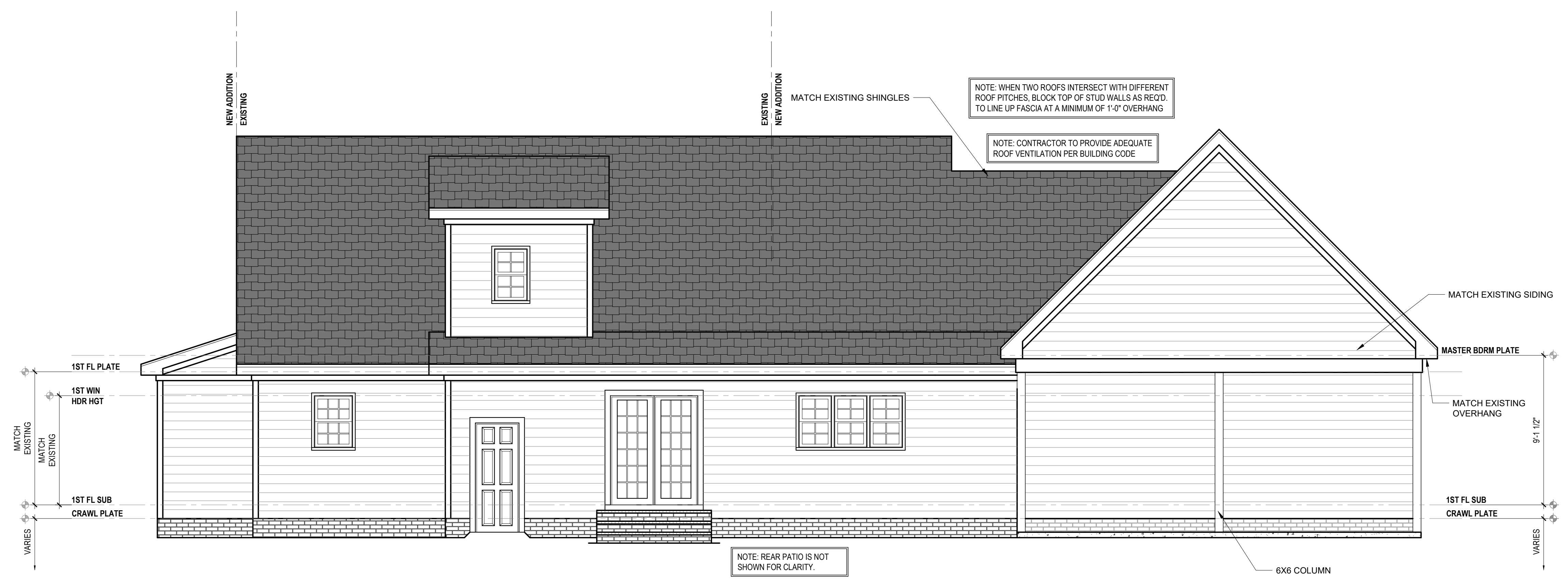
WEBSITE  
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PROJECT NAME  
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DRB DESIGN  
drbdesign@drbhomedesign.com 919.631.5979  
250 Shipwash Dr Suite 105 Garner, NC 27529

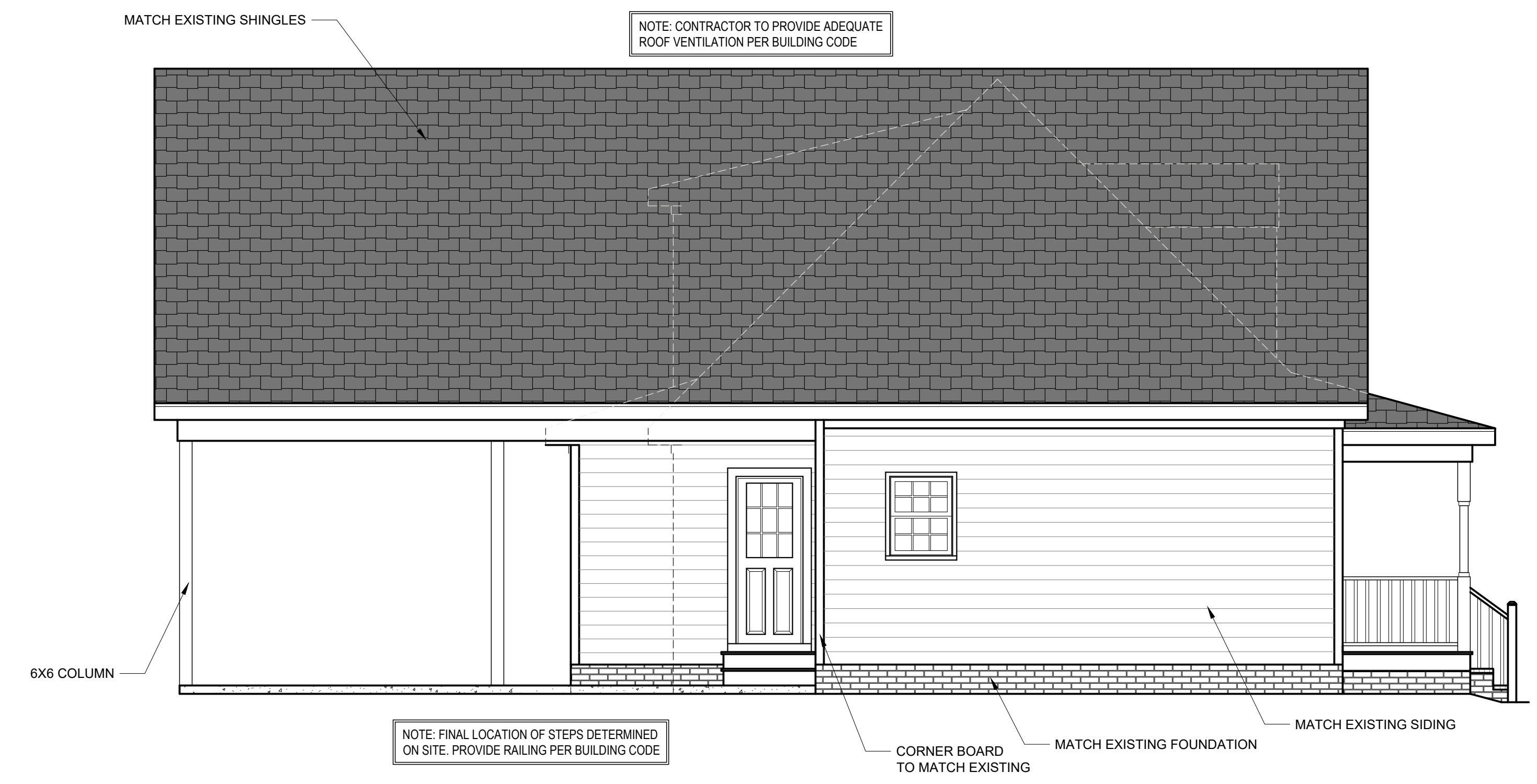
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A2  
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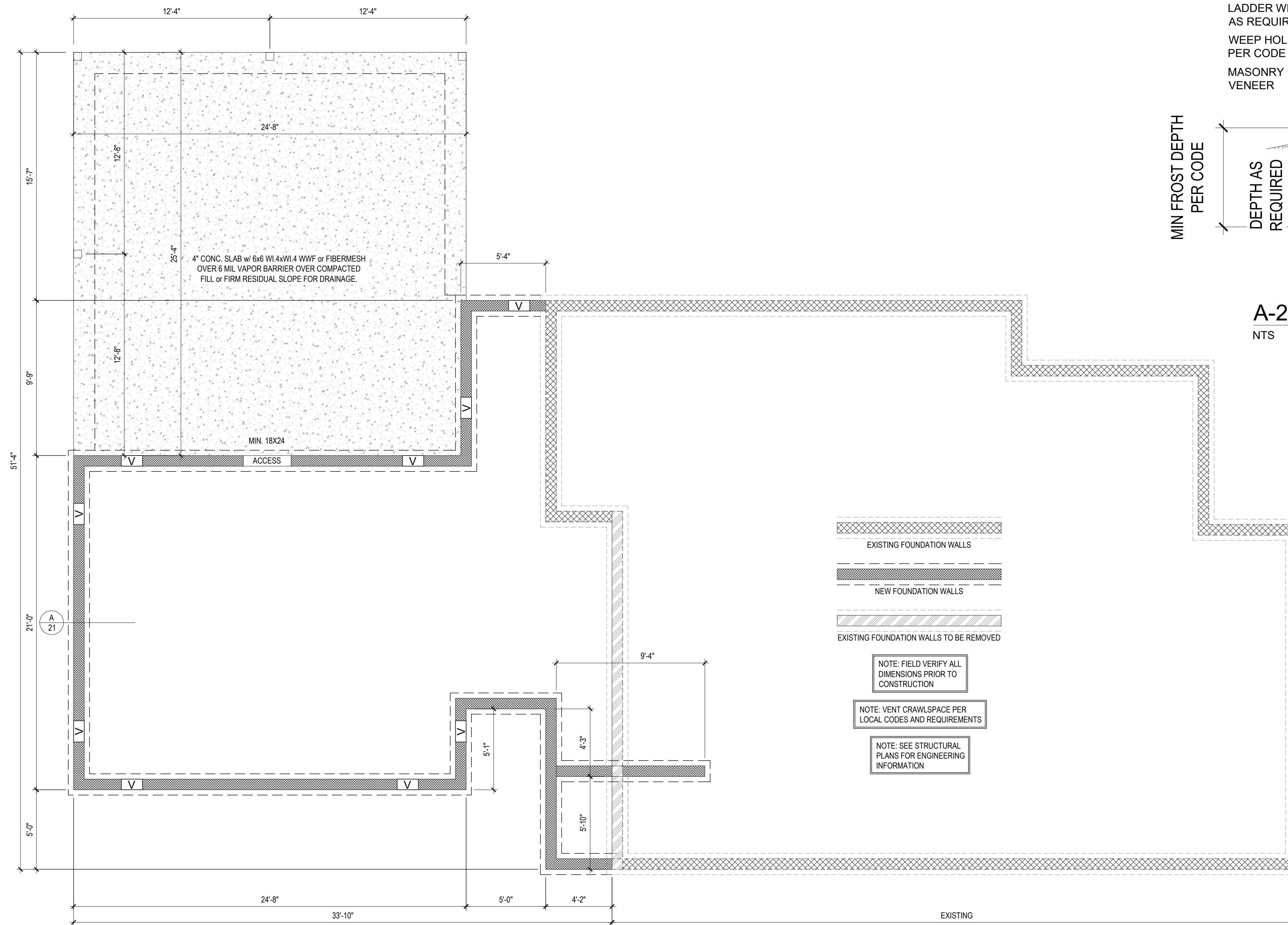


**REAR ELEVATION**  
1/4" = 1'-0"

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11. It is the contractor's responsibility to verify and be responsible for all dimensions and square footage prior to construction, as well as conditions on the job site. DRB DESIGN is not responsible for dimension and square footage errors once construction has begun.
12. DRB DESIGN must be notified of any variations from the dimensions and conditions shown on these drawings.

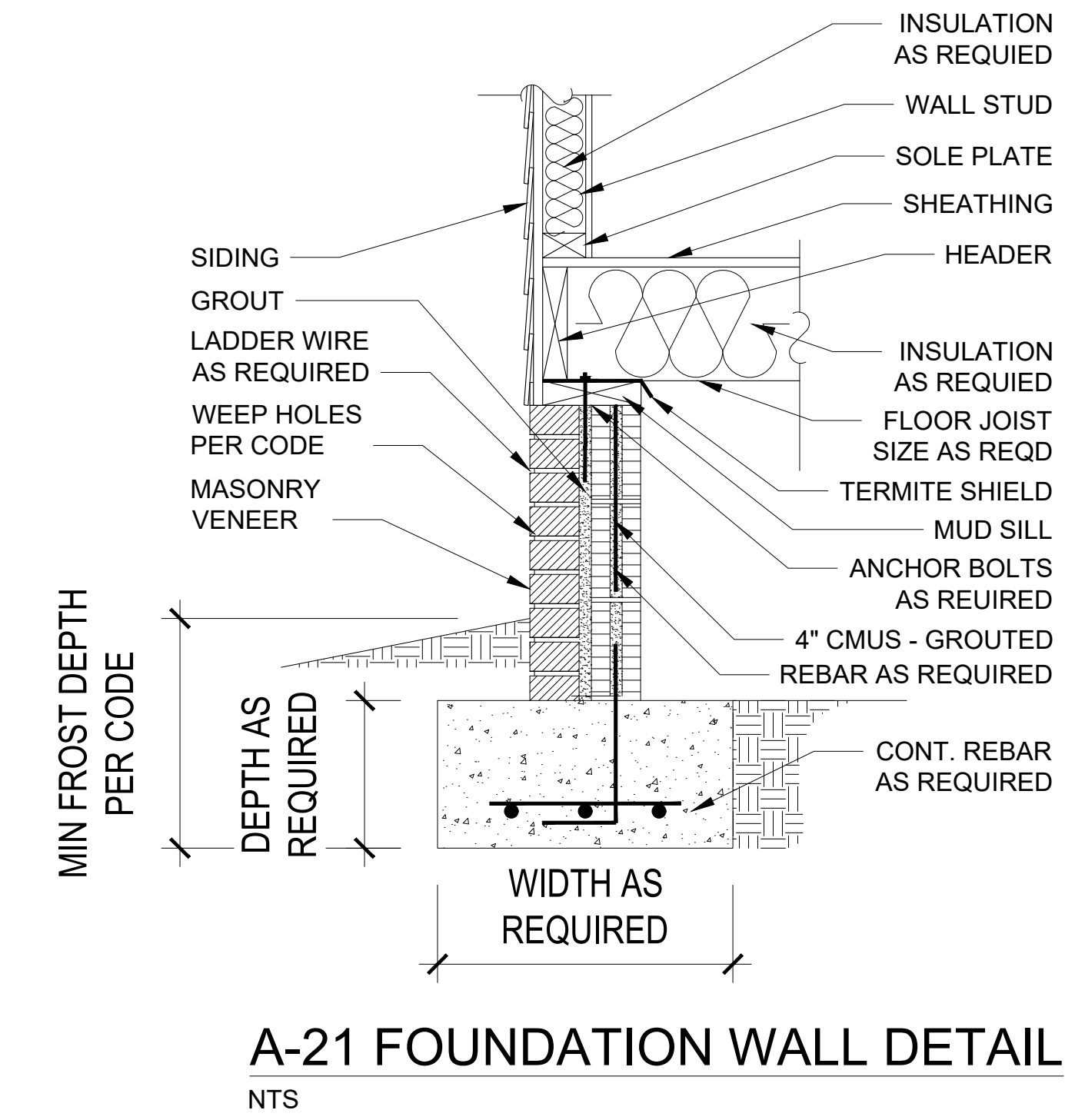


**LEFT ELEVATION**  
1/4" = 1'-0"



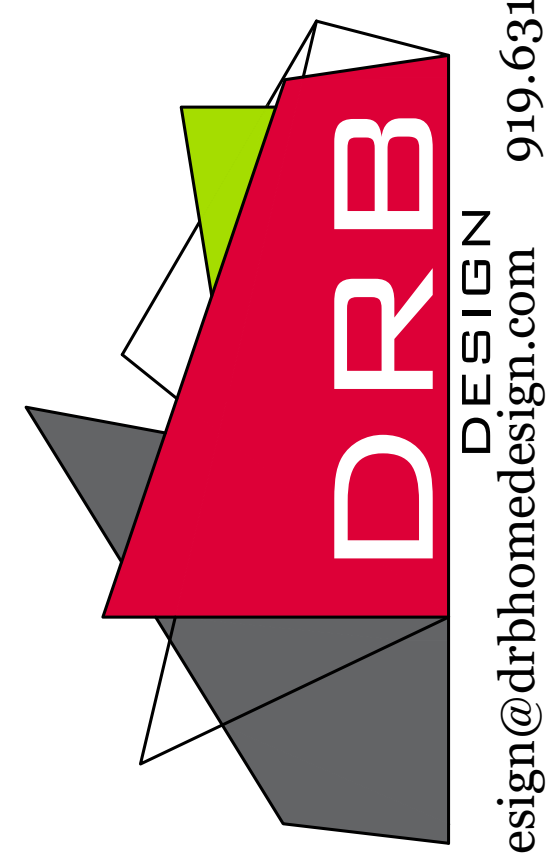
**FOUNDATION PLAN**  
1/4" = 1'-0"

- DRB DESIGN assumes no liability for any home constructed from this plan.
- All construction shall conform to the latest requirements of "North Carolina State 2018 residential building code", in addition to all local codes and regulations.
- Should these plans require structural calculations for permitting the contractor shall be required to obtain the services of a structural engineer after notifying DRB DESIGN that such services are required.
- Release of these plans requires further cooperation among the owner, his/her contractor, and DRB DESIGN. Design and construction are complex and, although the designer performed his services with due care and diligence, perfection is not a guarantee.
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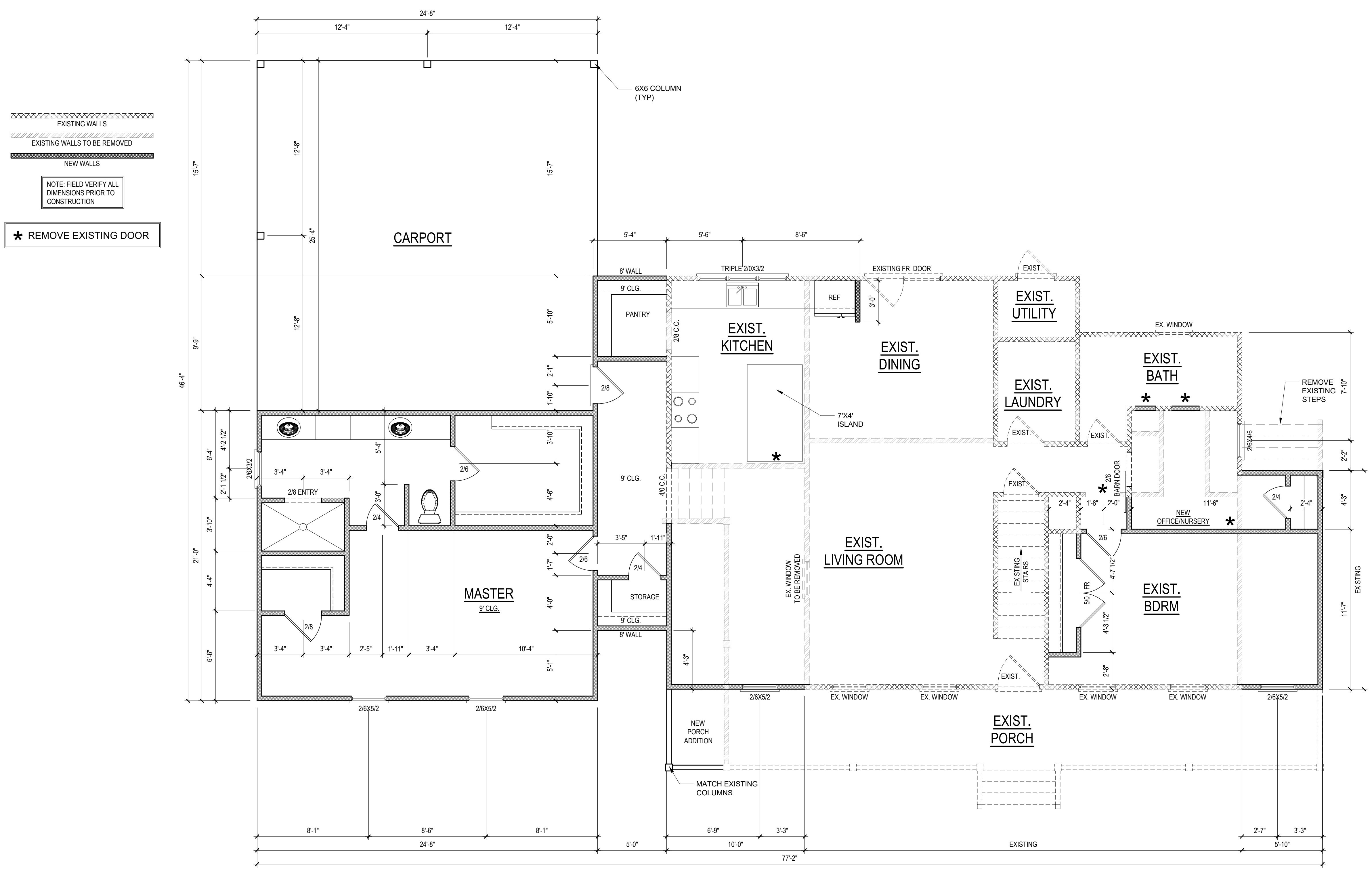
PROJECT NAME  
NEWTON ADDITION  
SHEET #  
A3  
URL  
drbhomedesign.com



DRB DESIGN  
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SHEET NAME  
FOUNDATION  
SHEET #  
A3  
of 5



**FIRST FLOOR PLAN**  
1/4" = 1'-0" CEILING HGT. = 8'-0"

HEATED/HABITABLE SQUARE FOOTAGE	
First Floor Remodel	764
First Floor Addition	646
<b>TOTAL HEATED</b>	<b>1410</b>
UNHTD SQUARE FOOTAGE	
Carport	625
Front Porch Addition	24
<b>TOTAL UNHEATED</b>	<b>649</b>
<b>TOTAL SQ FT</b>	<b>2059</b>

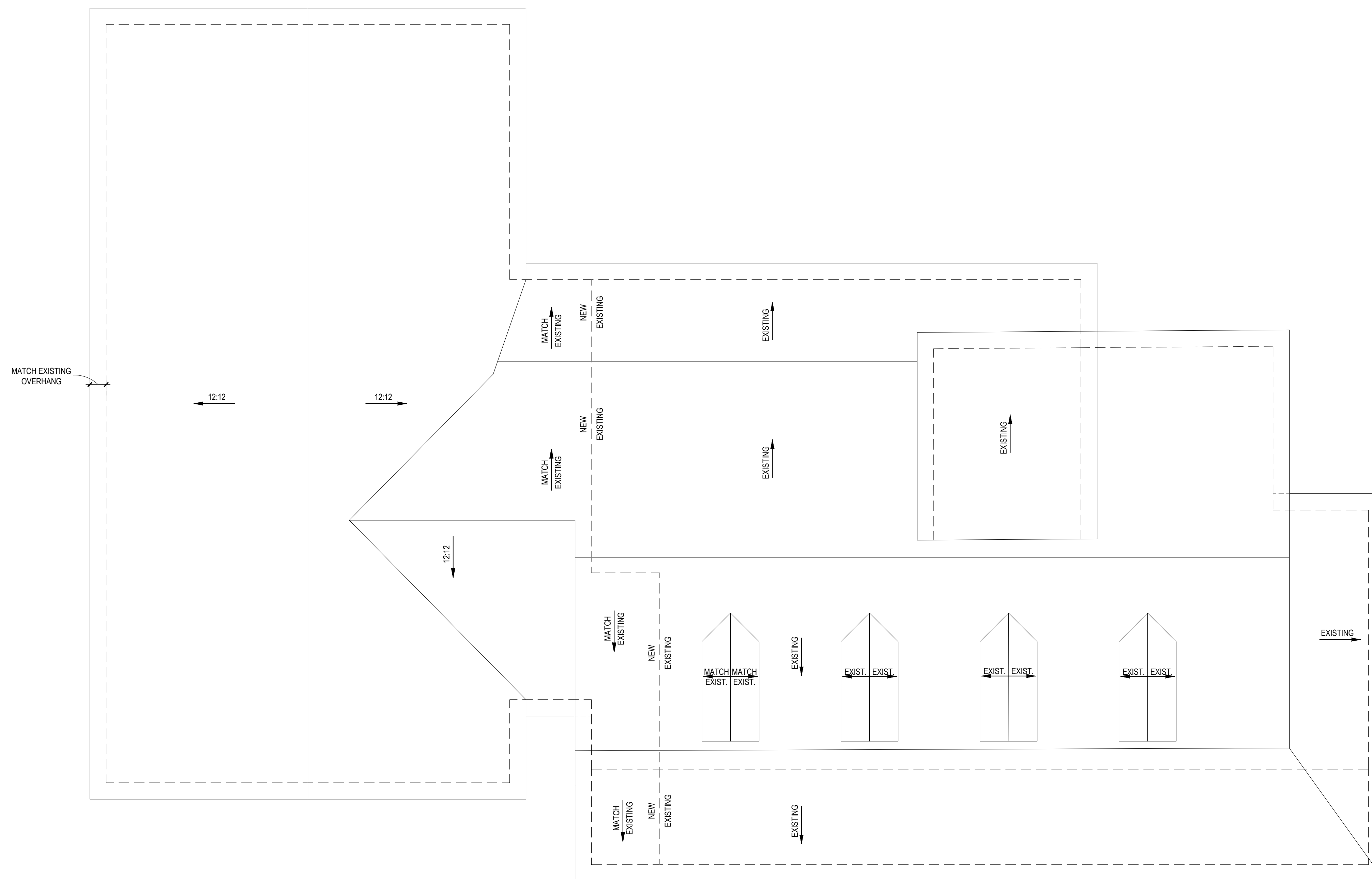
- NOTE: ALL EXTERIOR WALLS ARE NOMINAL 4" UNO
- NOTE: ALL INTERIOR WALLS ARE NOMINAL 4" UNO
- NOTE: ALL DIMENSIONS ARE FRAME TO FRAME

EXISTING WALLS  
EXISTING WALLS TO BE REMOVED  
NEW WALLS

NOTE: FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION

\* REMOVE EXISTING DOOR

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- Should these plans require structural calculations for permitting the contractor shall be required to obtain the services of a structural engineer after notifying DRB DESIGN that such services are required.
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- Design and construction are complex and, although the designer performed his services with due care and diligence, perfection is not a guarantee.
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- Written dimensions on these plans always have precedence over scaled dimensions.
- It is the contractor's responsibility to verify and be responsible for all dimensions and square footage prior to construction, as well as conditions on the job site. DRB DESIGN is not responsible for dimension and square footage errors once construction has begun.
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NOTE: ANY ROOF PITCH 4:12 OR LESS SHALL BE PROPERLY WATERPROOFED PER BLDG. CODE

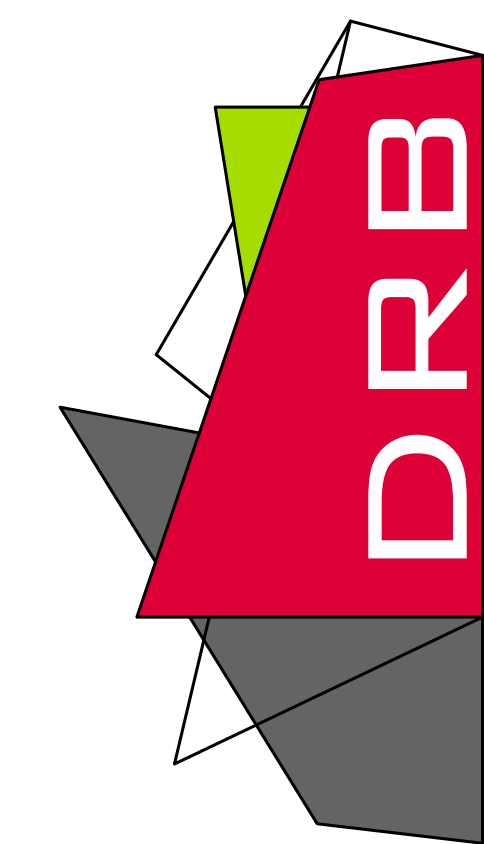
**ROOF PLAN**  
1/4" = 1'-0"

1. DRB DESIGN assumes no liability for any home constructed from this plan.
2. All construction shall conform to the latest requirements of "North Carolina State 2018 residential building code", in addition to all local codes and regulations.
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DATE  
12/13/2021  
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DBL  
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DRB  
SCALE  
1/4" = 1'-0"

WEBSITE  
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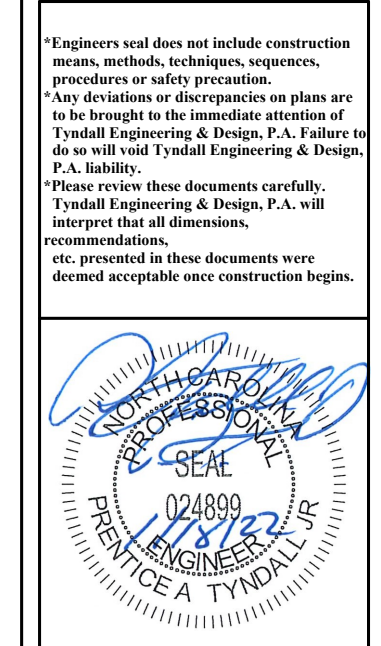
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SHEET NAME  
ROOF  
SHEET #  
A5  
of 5



**TYNDALL**  
ENGINEERING & DESIGN, P.A.  
180 Blinnwood Drive • Garner, NC 27530  
www.tyndallengineering.com

Client: **TAYLOR NEWTON**  
Project: **NEWTON ADDITION**

**FOUNDATION PLAN  
1ST FLOOR FRAMING**

Project #: **DRB2101-0255**  
Date: **1/13/22**  
Engineered By: **HJS**  
DWG. Checked By: **PAT**  
Scale: **SEE PLAN**

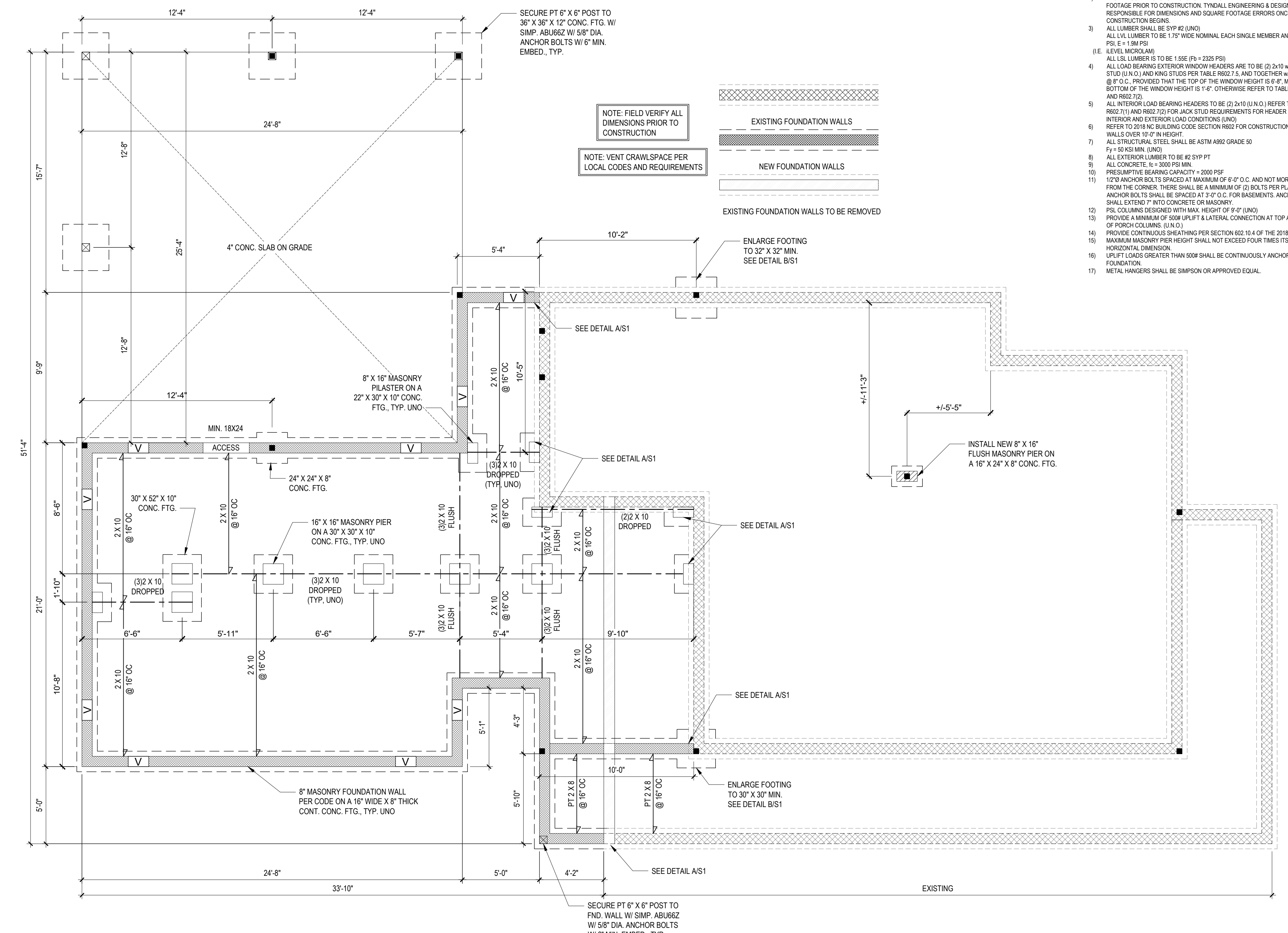
REVISIONS		
No.	Date	Remarks

Sheet Number  
**S1**  
1 of 6

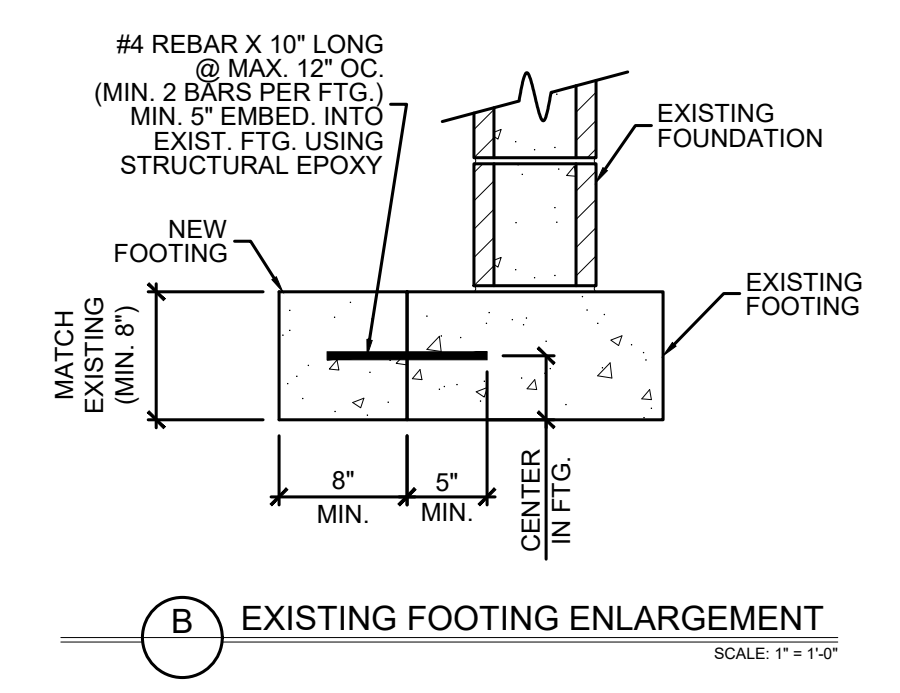
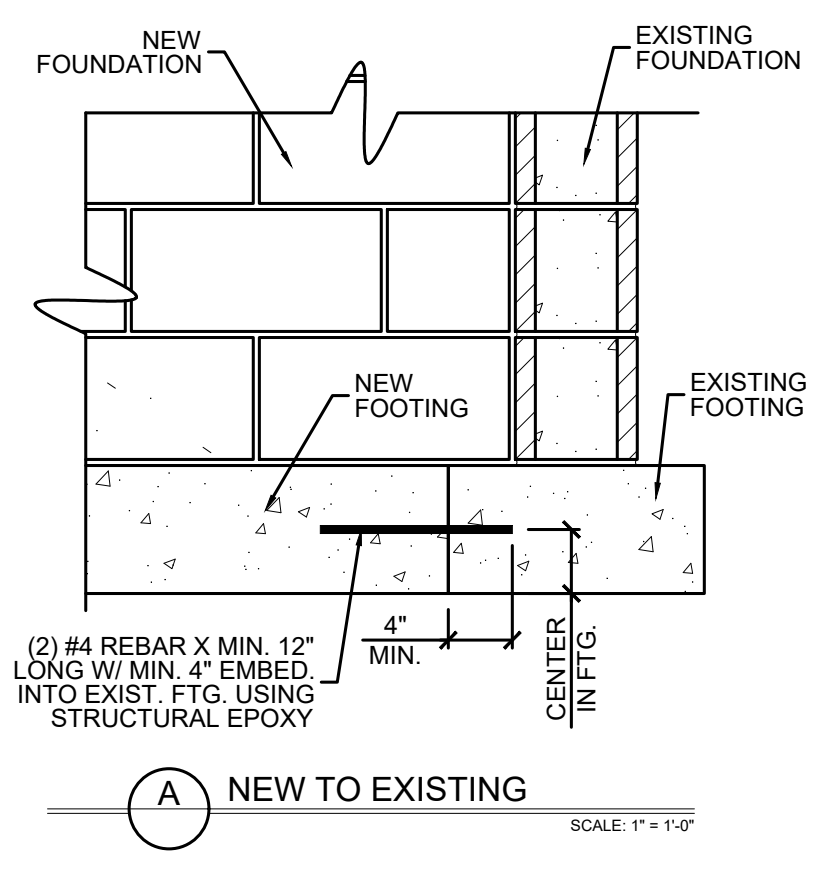
	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION	
			LL	TL
FLOOR (primary)	40	10	L/360	L/240
FLOOR (secondary)	40	10	L/360	L/240
ATTIC (no storage)	20	10	L/240	L/180
ATTIC (no access)	10	5	L/240	L/180
EXTERNAL BALCONY	40	10	L/360	L/240
ROOF	20	10	L/240	L/180
ROOF TRUSS	20	20	L/240	L/180
WIND LOAD	BASED ON 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 CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, P.A. 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 1/2" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2800 PSI, E = 1.9M PSI.
  - (I.E. LEVEL MICRO LAM)
  - ALL LVL LUMBER IS TO BE 1.5E (Fb = 2325 PSI).
  - ALL LOAD BEARING EXTERIOR WINDOW HEADERS ARE TO BE (2) 2x10 w/ (1) 2x4 JACK STUD (U.N.O.) AND KING STUDS PER TABLE R602.7.5 AND TOGETHER w/ (2) 10d NAILS @ 8" O.C. PROVIDED THAT THE TOP OF THE WINDOW HEIGHT IS 8" MINIMUM BOTTOM OF THE WINDOW HEIGHT IS 1'-6". OTHERWISE REFER TO TABLES R602.7(1) AND R602.7(2).
  - ALL INTERIOR LOAD BEARING HEADERS TO BE (2) 2x10 (U.N.O.) REFER TO TABLES R602.7(1) AND R602.7(2) 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 1-1/2 = 3000 PSI MIN.
  - PRESUMPTIVE BEARING CAPACITY = 2000 PSF.
  - 12"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 COLLARS DESIGNED WITH MAX HEIGHT OF 6'-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 R602.10.4 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.
  - REFERENCE FIGURE R602.10.4.3 OF THE 2018 NRC.
  - 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).
  - 12" 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 8" 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

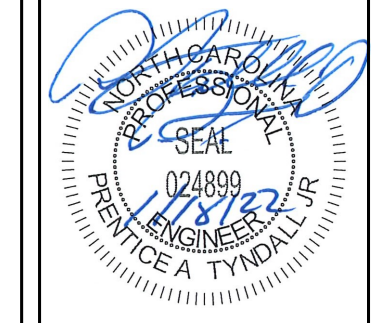


**FOUNDATION PLAN**  
1/4" = 1'-0"



FILENAME: Z:\WPB\098\_2021\DRB2101-0255\_TAYLOR\_NEWTON\DWG\_FILES\DRB2101-0255\_FNDG\_SWD.DWG DR. PRENICE TYNDALL LAST PLOT DATE: 1/19/2022 12:03 PM

\*Engineers seal does not include construction means, methods, techniques, sequences, procedures or safety precautions.  
 Any deviation or discrepancy 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.  
 100 Blytheville Drive • Garner, NC 27524  
 919.775.7400 • 919.775.4444  
 www.tyndallengineering.com

Client: **TAYLOR NEWTON**  
 Project: **NEWTON ADDITION**

# 1ST FLOOR HEADER

Project #: **DRB2101-0255**  
 Date: **1/13/22**  
 Engineered By: **HJS**  
 DWG. Checked By: **PAT**  
 Scale: **SEE PLAN**

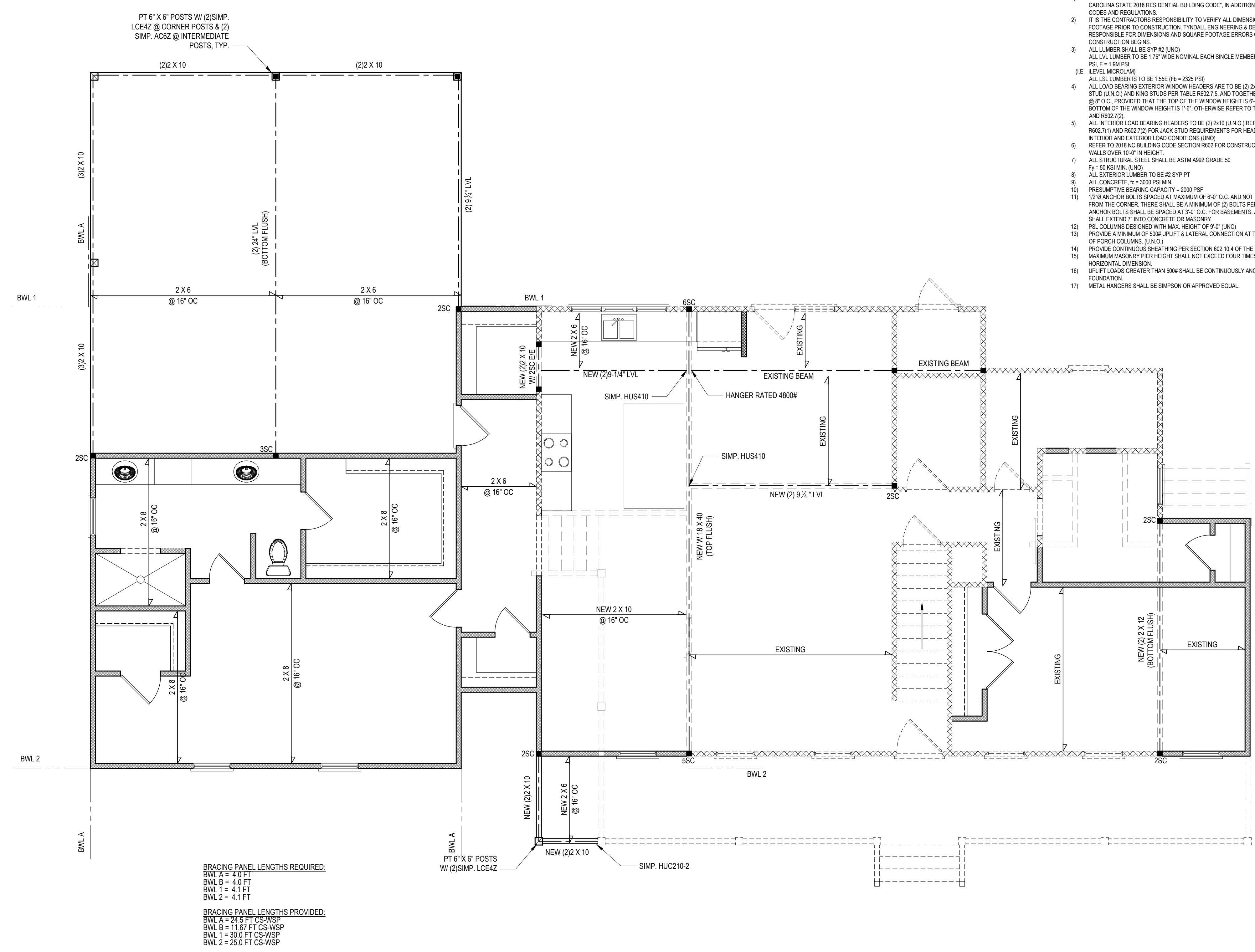
REVISIONS		
No.	Date	Remarks

Sheet Number  
**S2**  
 2 of 6

	DESIGN LOADS		DEFLECTION	
	LIVE LOAD (PSF)	DEAD LOAD (PSF)	LL	TL
FLOOR (primary)	40	10	L/360	L/240
FLOOR (secondary)	40	10	L/360	L/240
ATTIC (no 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.
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  - ALL LUMBER SHALL BE SYP #2 (UNO).
  - ALL LVL LUMBER TO BE 1 1/2" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2800 PSI, E = 1.9M PSI.
  - (I.E. LEVEL MICROLAM)
  - ALL LVL LUMBER IS TO BE 1.55E (Fb = 2325 PSI)
  - ALL LOAD BEARING EXTERIOR WINDOW HEADERS ARE TO BE (2) 2x10 w/ (1) 2x4 JACK STUD (U.N.O.) AND KING STUDS PER TABLE R602.7.5, AND TOGETHER w/ (2) 10d NAILS @ 8" O.C. PROVIDED THAT THE TOP OF THE WINDOW HEIGHT IS 8" MINIMUM BOTTOM OF THE WINDOW HEIGHT IS 1'-6". OTHERWISE REFER TO TABLES R602.7(1) AND R602.7(2).
  - ALL INTERIOR LOAD BEARING HEADERS TO BE (2) 2x10 (U.N.O.) REFER TO TABLES R602.7(1) AND R602.7(2) 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 1-1/2" MIN. MIN.
  - PRESUMPTIVE BEARING CAPACITY = 2000 PSF
  - 1/2" 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 COLLUMNS DESIGNED WITH MAX HEIGHT OF 6'-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 612.10.4 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 R602.10.4 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.
  - REFERENCE FIGURE R602.10.4.3 OF THE 2018 NRC.
  - 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).
  - 12" 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



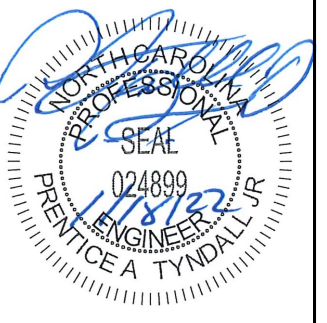
BRACING PANEL LENGTHS REQUIRED:  
 BWL A = 4.0 FT  
 BWL B = 4.0 FT  
 BWL 1 = 4.1 FT  
 BWL 2 = 4.1 FT

BRACING PANEL LENGTHS PROVIDED:  
 BWL A = 24.5 FT CS-WSP  
 BWL B = 11.67 FT CS-WSP  
 BWL 1 = 30.0 FT CS-WSP  
 BWL 2 = 25.0 FT CS-WSP

**FIRST FLOOR PLAN**  
 1/4" = 1'-0" CEILING HGT. = 8'-0"

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\*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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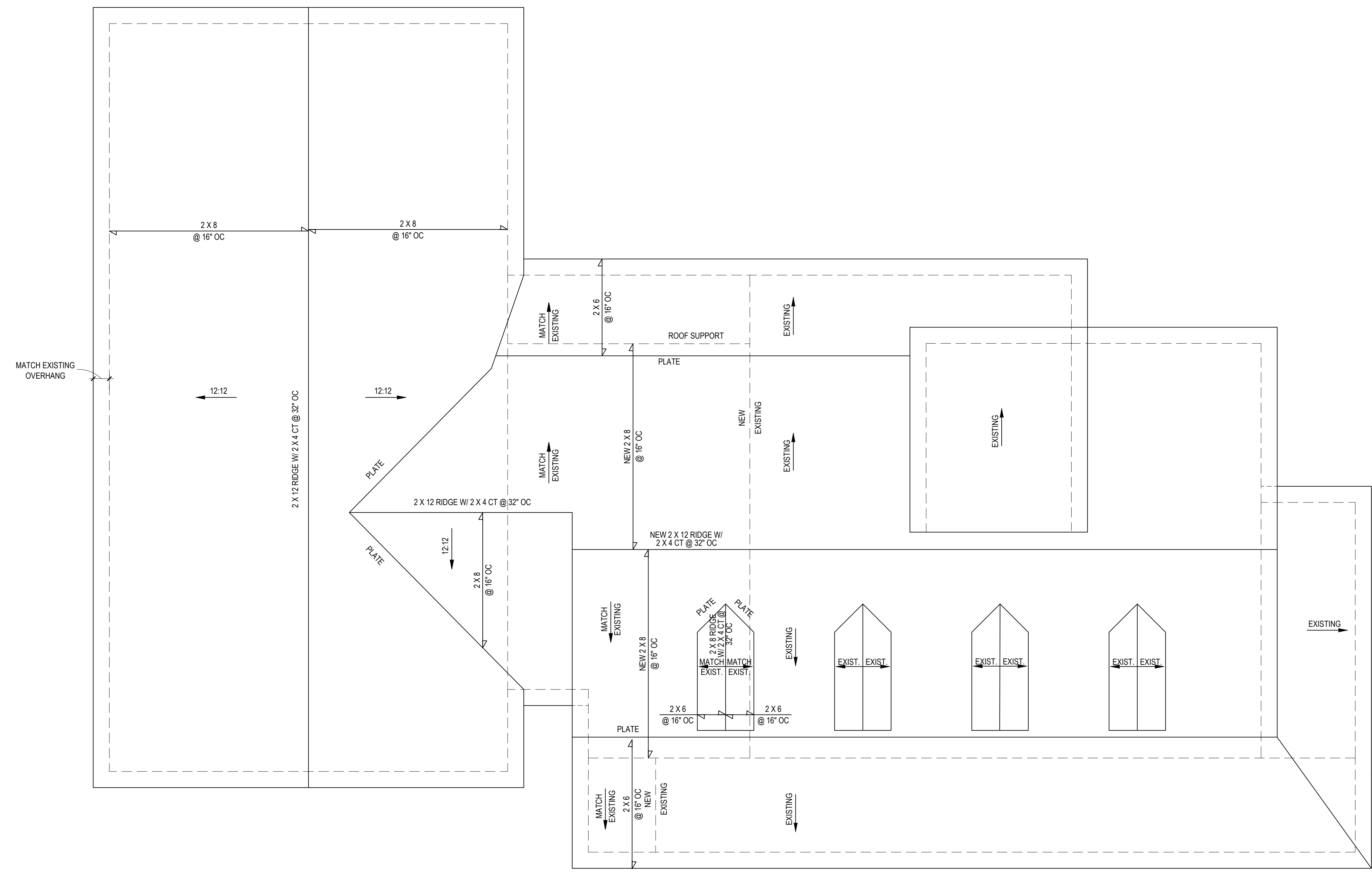
Client: **TAYLOR NEWTON**  
 Project: **NEWTON ADDITION**

# ROOF PLAN

Project #: **DRB2101-0255**  
 Date: **1/13/22**  
 Engineered By: **HJS**  
 DWG. Checked By: **PAT**  
 Scale: **SEE PLAN**

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Sheet Number  
**S3**  
 3 of 6



NOTE: ANY ROOF PITCH 4:12 OR LESS SHALL BE PROPERLY WATERPROOFED PER BLDG. CODE

## ROOF PLAN

1/4" = 1'-0"

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**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 (pull down access)	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	20	L/240	L/180
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.C.)
- MAXIMUM DEPTH OF UNBALANCED FILL AGAINST FOUNDATION WALLS TO BE LESS THAN 4'-0" WITHOUT USING SUFFICIENT WALL BRACING. REFER TO SECTION R602.3 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<sub>b</sub> = 800 PSI, BASED ON D/10) UNO. 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<sub>b</sub> = 2000 PSI, E = 1.9M PSI (U.N.O.) ALL LLS LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND F<sub>b</sub> = 2325 PSI, E = 1.8M PSI (U.N.O.) ALL PSL LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND F<sub>b</sub> = 2400 PSI, E = 1.8M PSI (U.N.O.)
- ALL LOAD BEARING EXTERIOR HEADERS SHALL BE AT (2) 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 1/2" AND FULL FLANGE WIDTH. PROVIDE SOIL BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO (2) LAG SCREWS (1 1/2" 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: 12"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 28.0 POUNDS PER SQUARE FOOT (LBS/SQ.FT) OR GREATER POSITIVE AND NEGATIVE PRESSURE. ROOF WALLS BOTH POSITIVE AND NEGATIVE SHALL BE AS FOLLOWS:  
39.0 LBS/SQ.FT FOR ROOF PITCHES 0/12 TO 1/12  
36.0 LBS/SQ.FT FOR ROOF PITCHES 1/12 TO 2/12  
18.0 LBS/SQ.FT FOR ROOF PITCHES 6/12 TO 12/12  
\*MEAN ROOF HEIGHT 3/12" 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 N.C.R.C.
- 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 50# 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.
- IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, P.A. IS NOT RESPONSIBLE FOR DIMENSION OR SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.

**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	REIN = REINFORCED
CT = 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
EACH = EACH END	SPEC = SPECIFIED
FJ = FLOOR JOIST	THK = THICK
FND = FOUNDATION	TJ = TRIPLE JOIST
FTG = FOOTING	TRTD = TREATED
GALV = GALVANIZED	TYP = TYPICAL
HORIZ = HORIZONTAL	UNO = UNLESS NOTED OTHERWISE
HT = HEIGHT	W = WIDE FLANGE BEAM
MANUF = MANUFACTURER	WVF = WELDED WIRE FABRIC
	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"

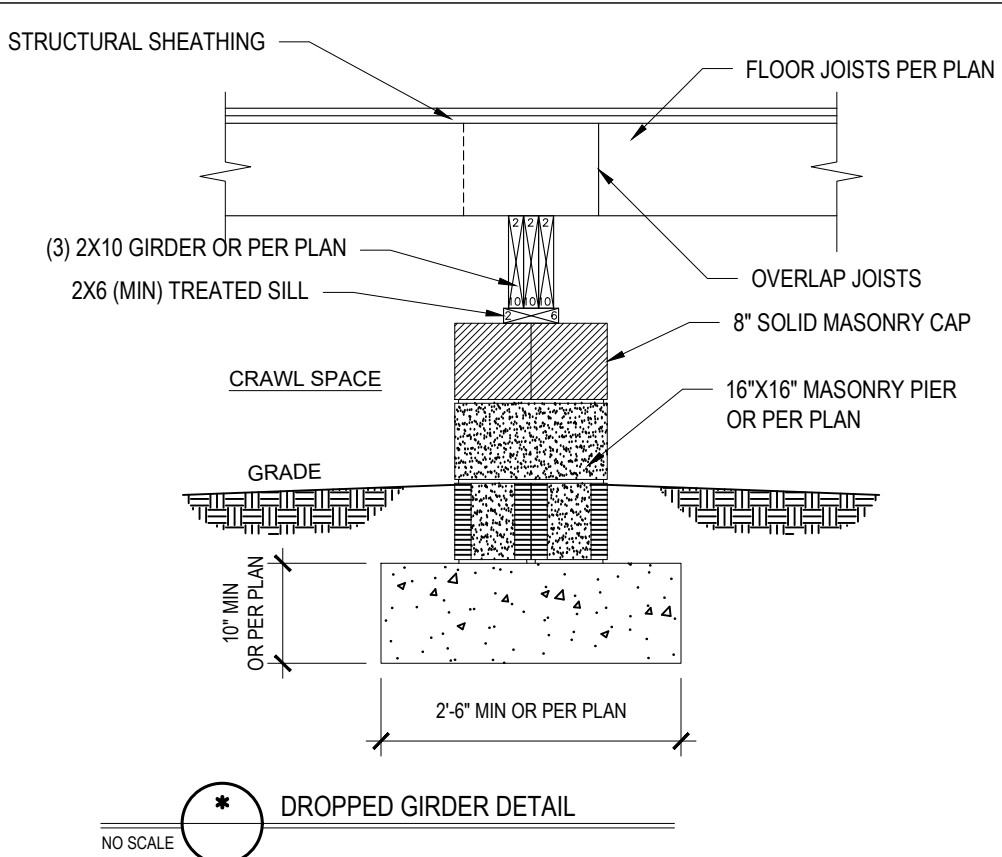
\* THIS TABLE IS BASED ON NO. 2 TREATED SOUTHERN PINE POSTS. MAXIMUM TRIBUTARY AREA IS BASED ON 128 TOTAL SQUARE FEET WHICH MAY BE LOCATED AT DIFFERENT LEVELS.  
\*\* FROM TOP OF FOOTING TO BOTTOM OF GIRDER.  
\*\*\* DECKS WITH POST HEIGHTS OVER 20'-0" SHALL BE DESIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT.

2) DECKS SHALL BE BRACED TO PROVIDE LATERAL STABILITY BY ONE OF THESE METHODS:

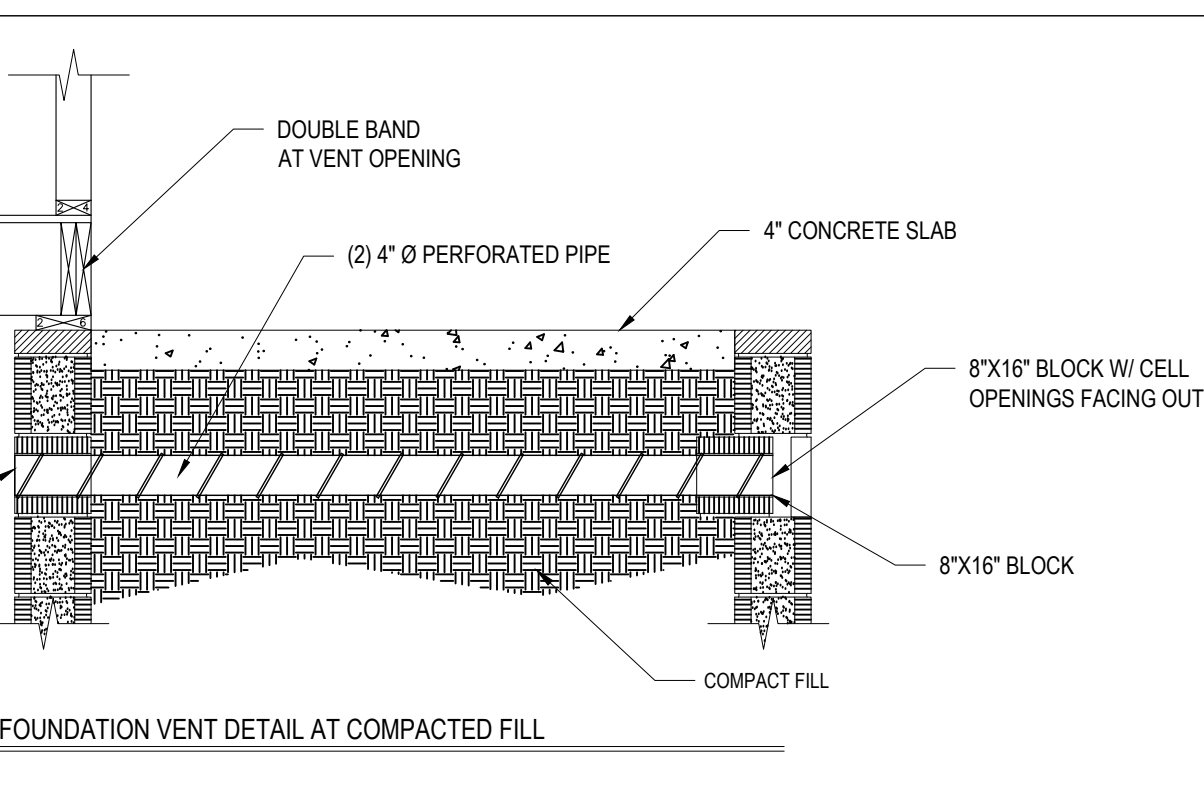
- THE DECK FLOOR HEIGHT IS LESS THAN 4'-0" AND THE DECK IS ATTACHED TO THE STRUCTURE IN ACCORDANCE WITH SECTION (4) ABOVE. LATERAL BRACING IS NOT REQUIRED.
- 4 x 4 WOOD KNEE BRACES MAY BE PROVIDED ON EACH COLUMN IN BOTH DIRECTIONS. THE KNEE BRACES SHALL ATTACH TO EACH POST AT A POINT NOT LESS THAN 1/3 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.
- 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"

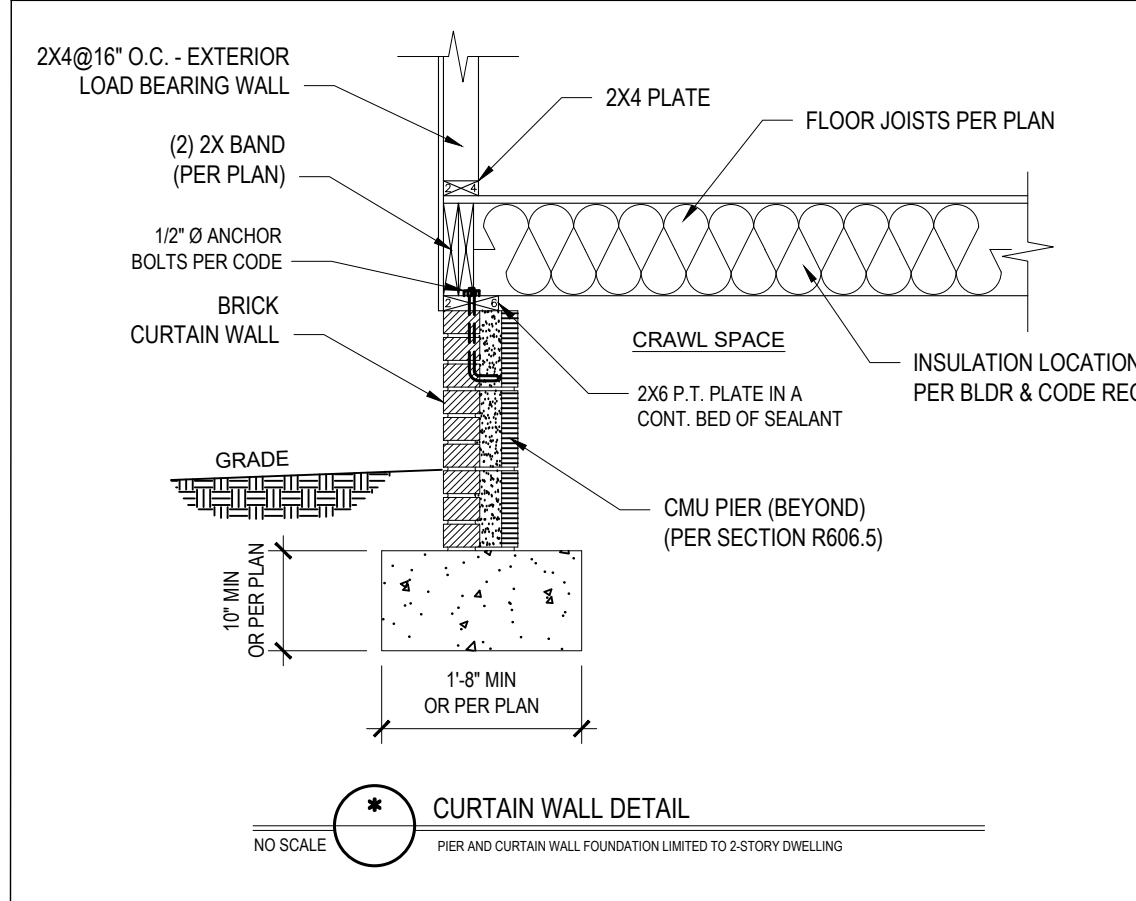
D. 2 x 6 DIAGONAL VERTICAL CROSS BRACING MAY BE PROVIDED IN TWO (2) PERPENDICULAR DIRECTIONS FOR FREESTANDING DECKS OR PARALLEL TO THE STRUCTURE AT THE EXTERIOR COLUMN LINE FOR ATTACHED DECKS. THE 2 x 6 SHALL BE ATTACHED TO THE POSTS WITH ONE 5/8"Ø HOT DIPPED GALVANIZED BOLT AT EACH END OF EACH BRACING MEMBER.  
E. FOR EMBEDMENT OF PILES IN COASTAL REGIONS, SEE CHAPTER 46.



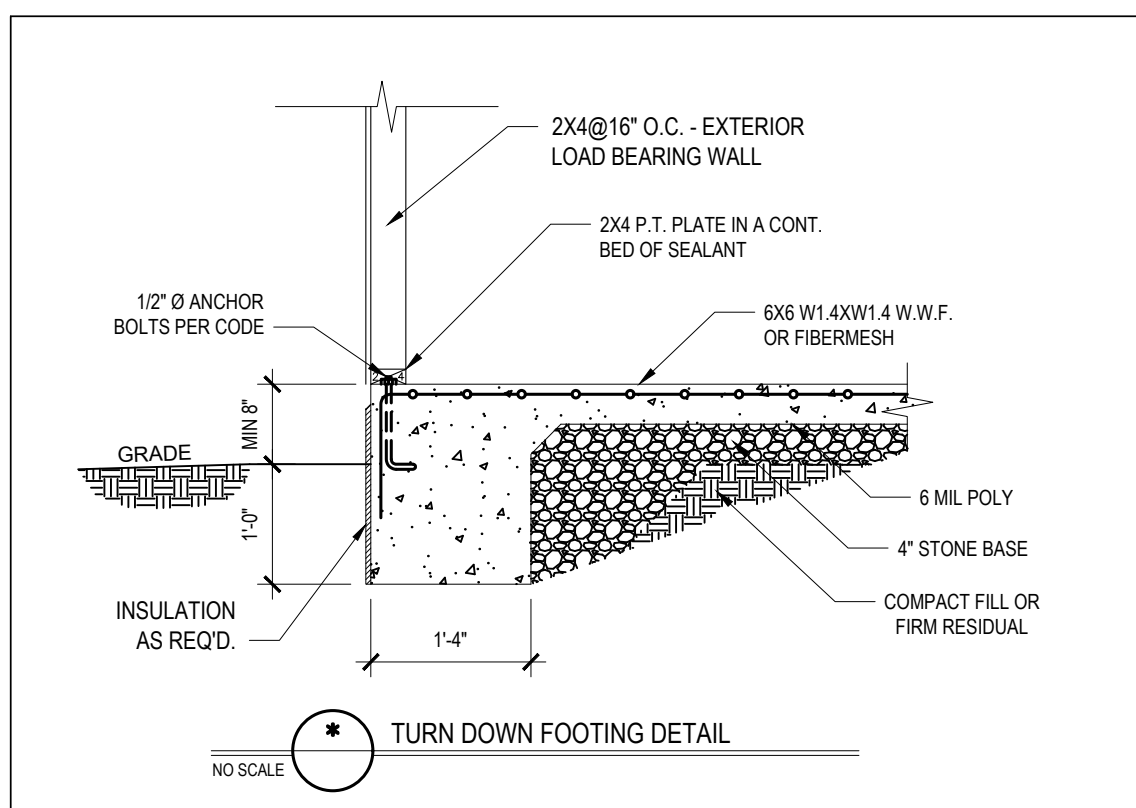
**\* DROPPED GIRDER DETAIL**



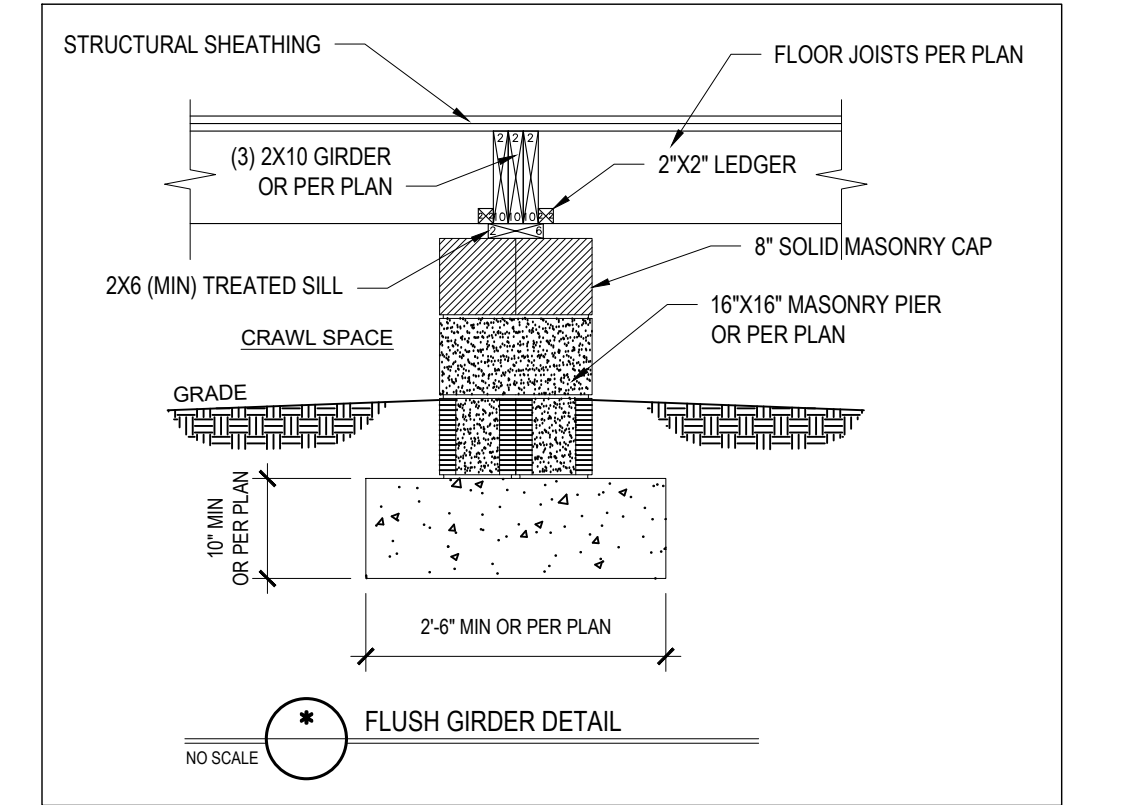
**\* FOUNDATION VENT DETAIL AT COMPACTED FILL**



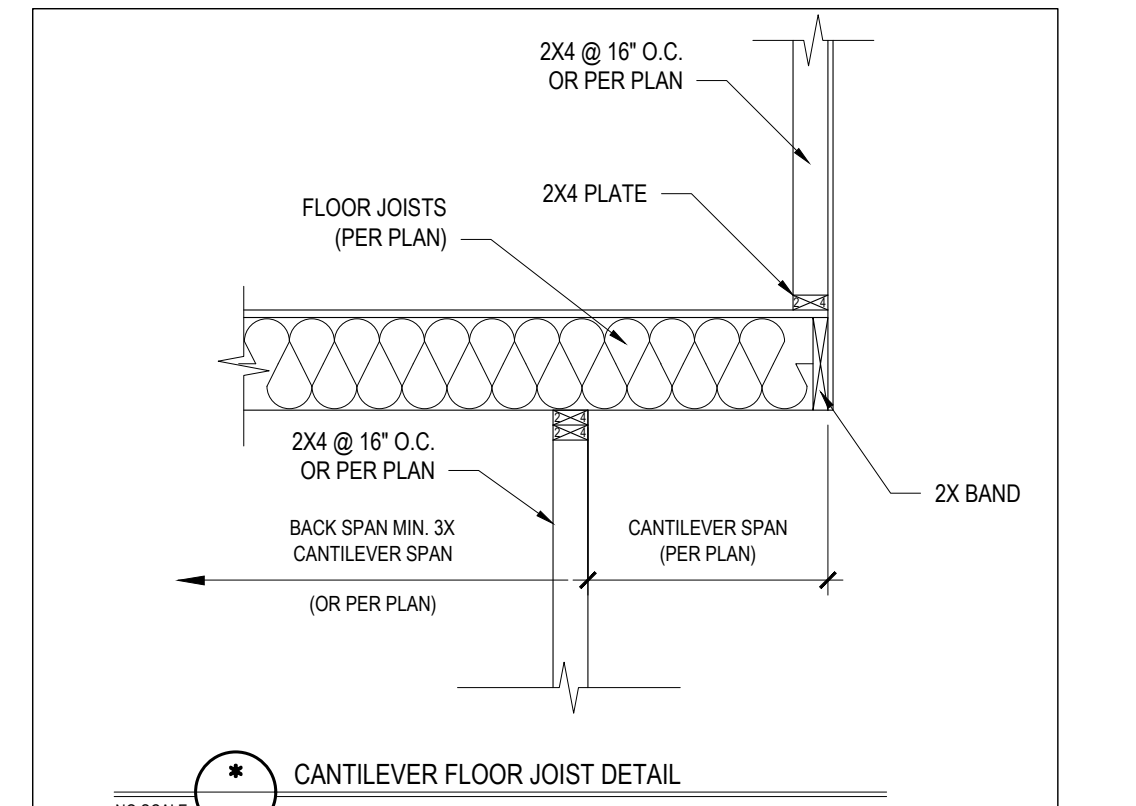
**\* CURTAIN WALL DETAIL**



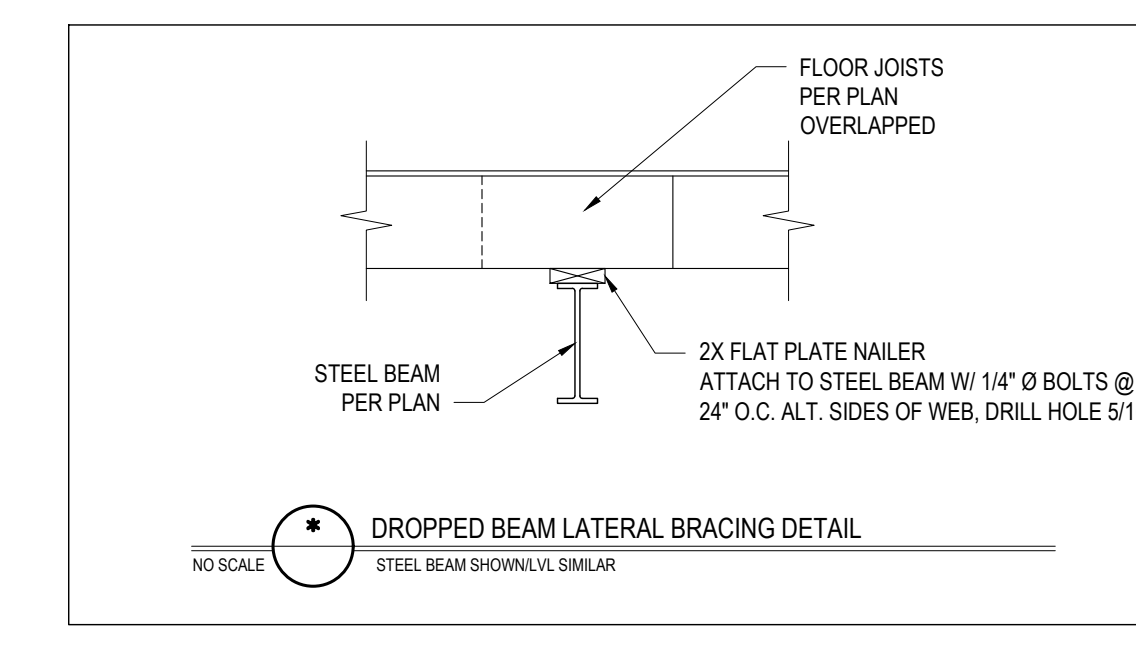
**\* TURN DOWN FOOTING DETAIL**



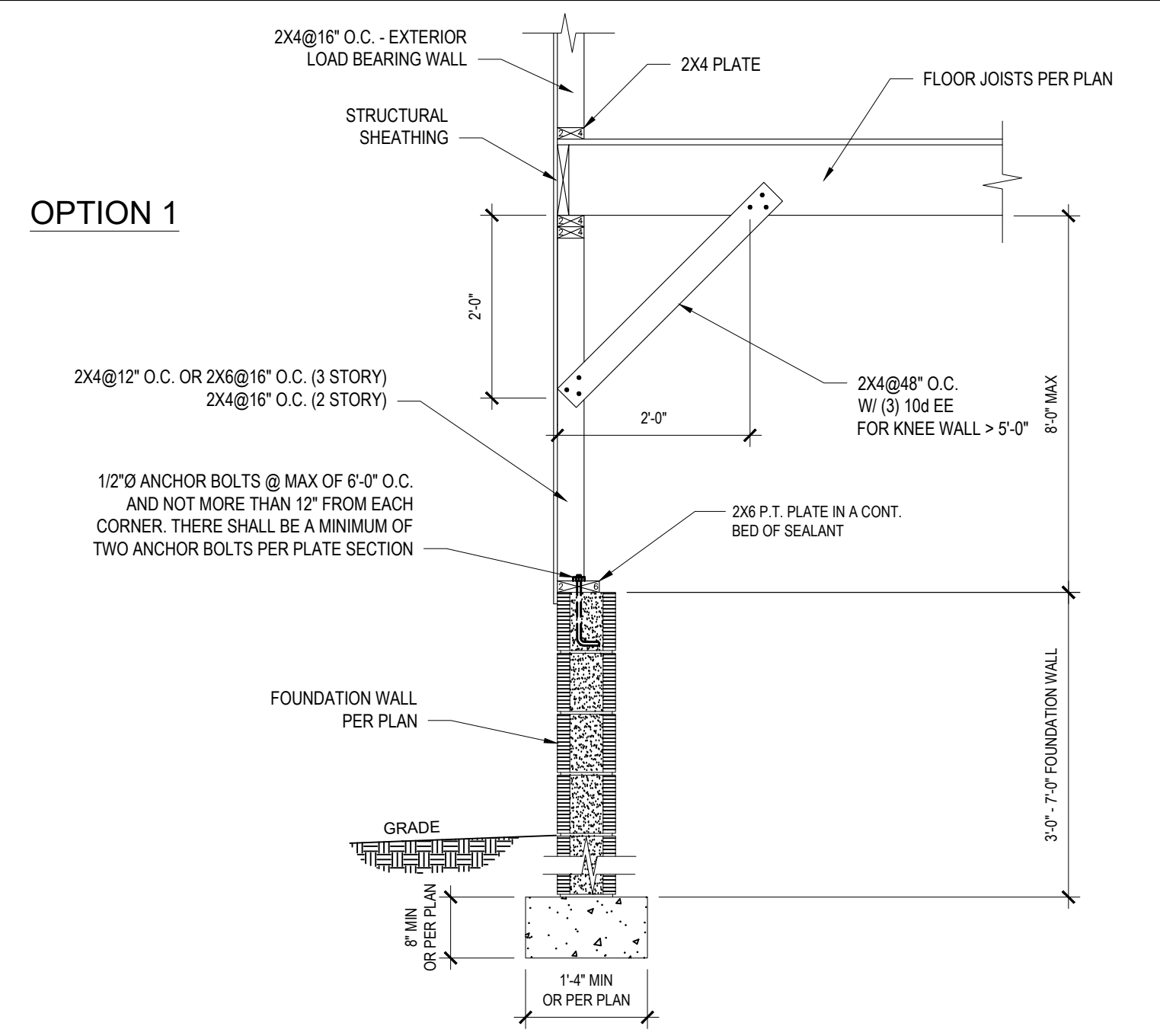
**\* FLUSH GIRDER DETAIL**



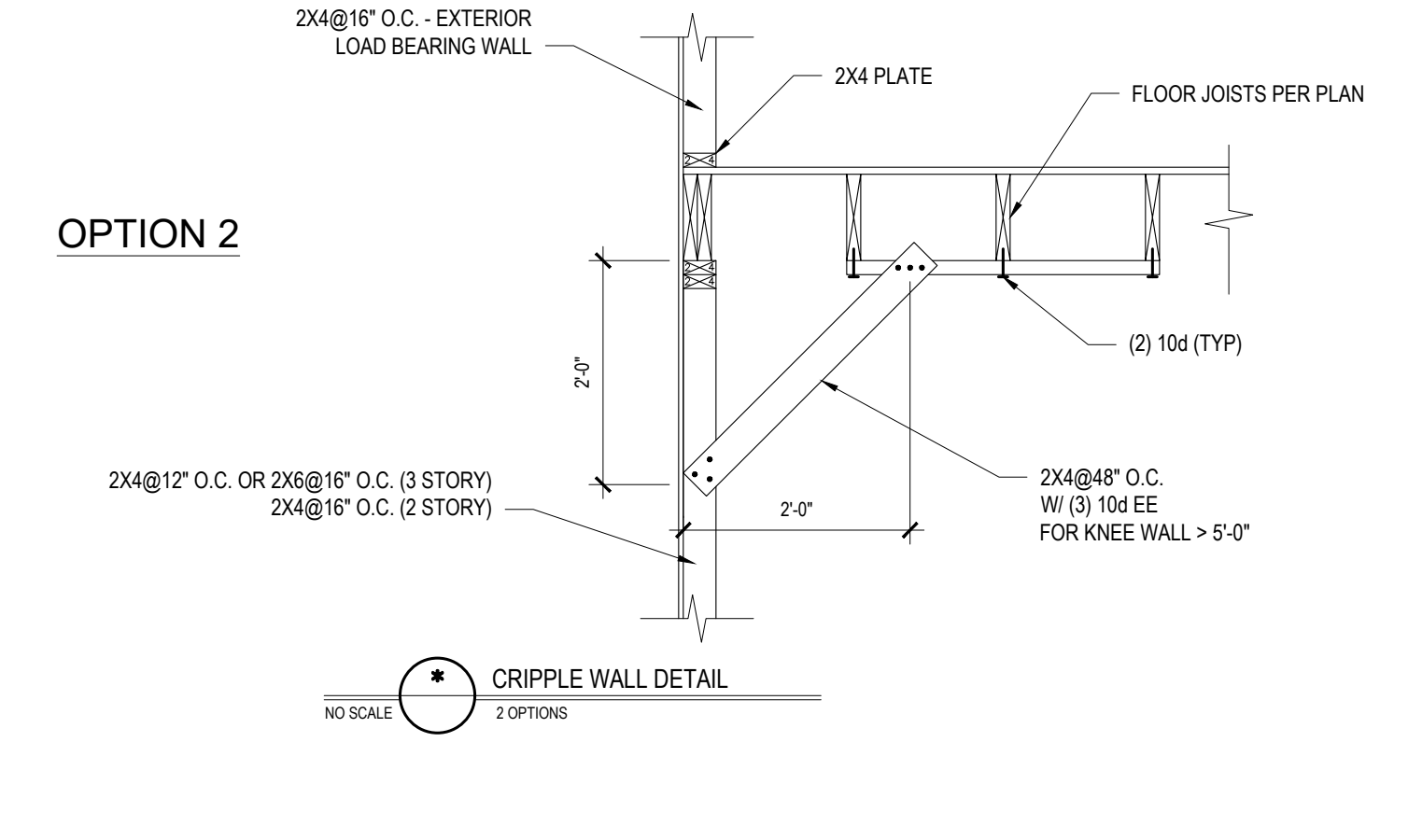
**\* CANTILEVER FLOOR JOIST DETAIL**



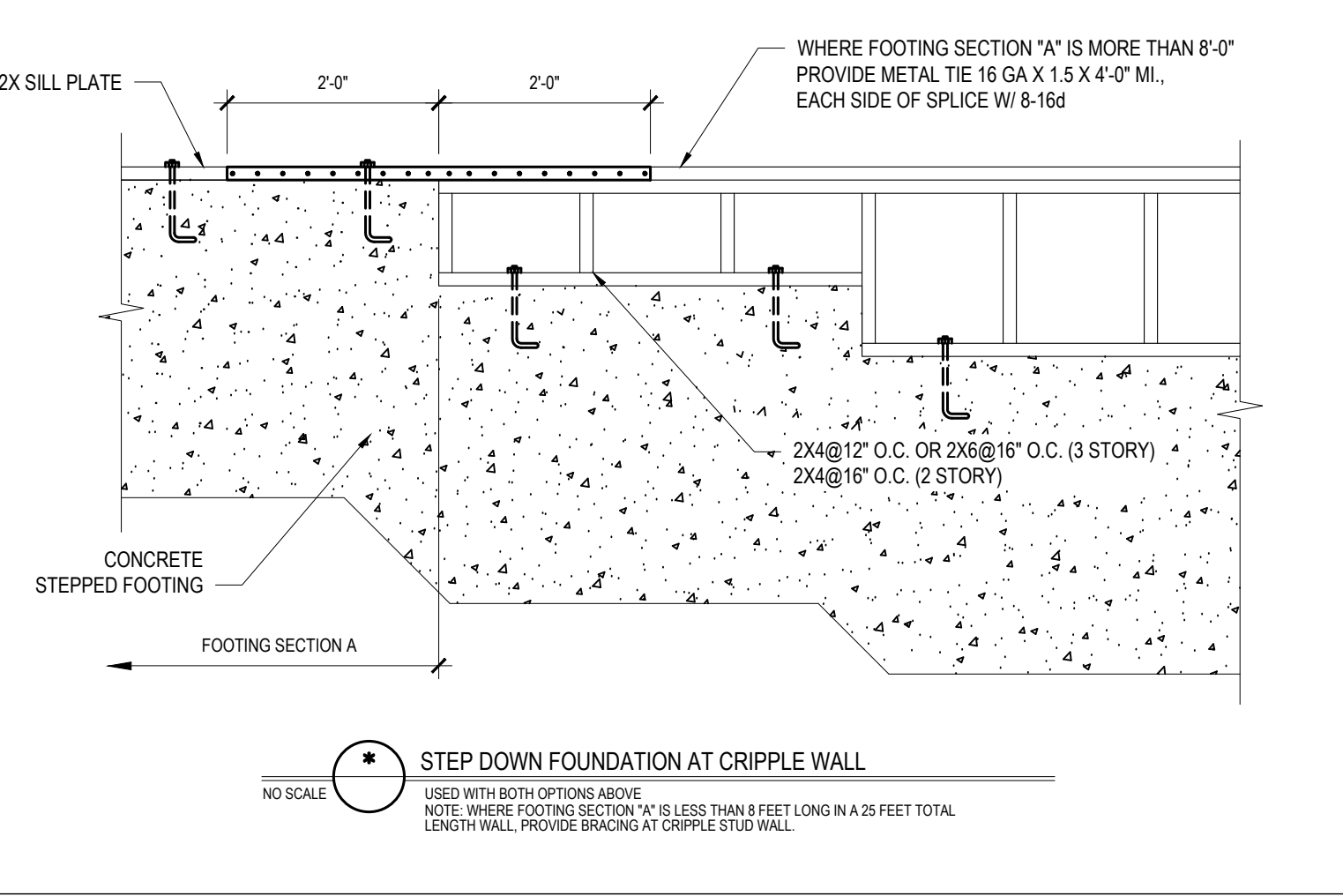
**\* DROPPED BEAM LATERAL BRACING DETAIL**



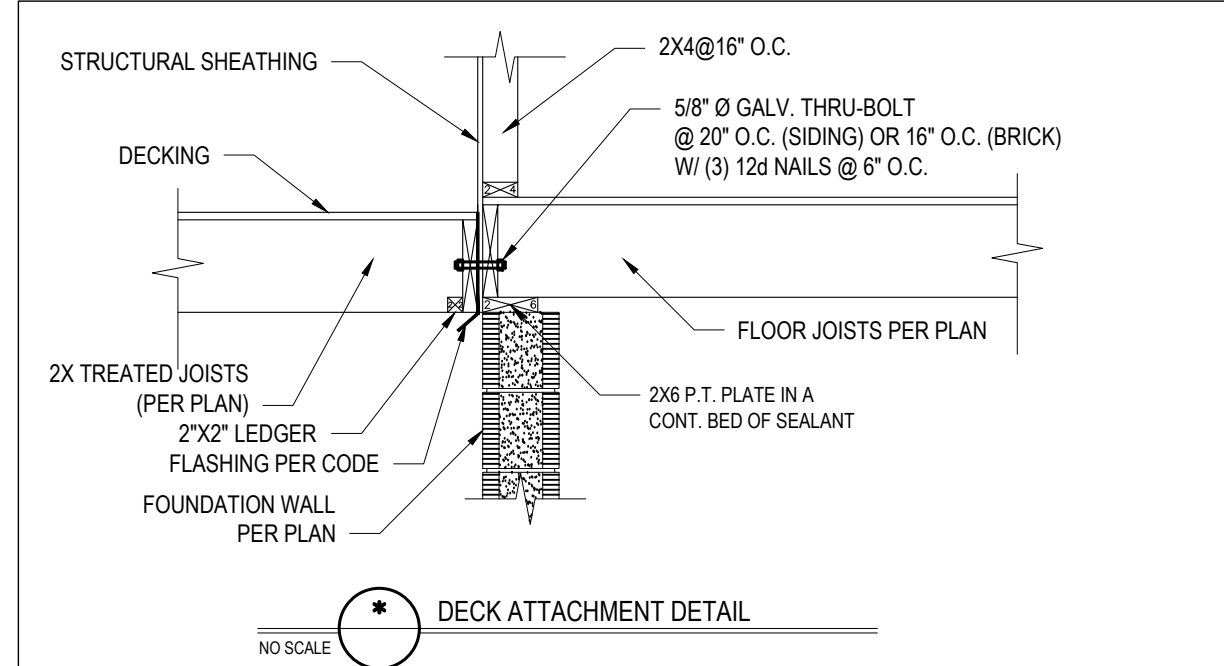
**OPTION 1**



**OPTION 2**



**\* STEP DOWN FOUNDATION AT CRIPPLE WALL**



**\* DECK ATTACHMENT DETAIL**

CLIMATE ZONES	FENESTRATION U-FACTOR <sup>a</sup>	SKYLIGHT U-FACTOR <sup>b</sup>	GLAZED FENESTRATION SHGC <sup>c,d</sup>	CEILING <sup>e</sup>	WOOD FRAMED WALL R-VALUE	MASS WALL R-VALUE	FLOOR R-VALUE	BASEMENT WALL R-VALUE	SLAB <sup>d</sup> R-VALUE AND DEPTH	CRRAWL SPACE <sup>e</sup> 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 13 + 3	13/17 or 13/12.5 cont.	30 <sup>g</sup>	10/15	10	10/19

**TABLE N1102.1 CLIMATE ZONES 3-5**

\* R-VALUES ARE MINIMUM. 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 INSTALLED R-VALUE OF THE INSULATION SHALL NOT BE LESS THAN THE R-VALUE SPECIFIED IN THE TABLE.

<sup>a</sup> THE FENESTRATION U-FACTOR COLUMN EXCLUDES SKYLIGHTS. THE SQUARE-HEAT-GAIN COEFFICIENT (SHGC) COLUMN APPLIES TO ALL GLAZED FENESTRATION.

<sup>b</sup> SKYLIGHT U-FACTOR IS CONTINUOUS INSULATION (SPACING) ON THE INTERIOR OR EXTERIOR OF THE HOME OR IN A CAVITY INSULATION AT THE INTERIOR OF THE BASEMENT WALL OR CRAWL SPACE WALL.

<sup>c</sup> FOR MONOLITHIC SLAB INSULATION SHALL BE APPLIED FROM THE INSULATION GAP COMMAND TO THE BOTTOM OF THE FOOTING OR MINIMUM 24" BELOW SPACE INCHES IN LEVEL. FOR CONTINUOUS WALL INSULATION SHALL EXTEND TO THE BOTTOM OF THE FOUNDATION WALL OR 24" ABOVE INCHES IN LEVEL. R-10 SHALL BE ADDED TO THE REQUIRED SLAB EDGE R-VALUE FOR HEATED SLABS.

<sup>d</sup> SEE 5.02.2

<sup>e</sup> BASEMENT WALL INSULATION IS NOT REQUIRED IN WINDWARD LOCATIONS AS DEFINED BY FIGURE N1102.7 AND TABLE N1102.7.

<sup>f</sup> OR INSULATION EQUIVALENT TO FILL THE FRAMING CAVITY. 10" MINIMUM.

<sup>g</sup> THE FIRST VALUE IS CAVITY INSULATION. THE SECOND VALUE IS CONTINUOUS INSULATION. 10" 13" 4" MEANS R-13 CAVITY INSULATION PLUS R-13 CONTINUOUS INSULATION. 10" 13" 4" MEANS R-13 CAVITY INSULATION PLUS R-13 CONTINUOUS INSULATION. 10" 13" 4" MEANS R-13 CAVITY INSULATION PLUS R-13 CONTINUOUS INSULATION. 10" 13" 4" MEANS R-13 CAVITY INSULATION PLUS R-13 CONTINUOUS INSULATION.

<sup>h</sup> FOR MASS WALLS THE SECOND VALUE APPLIES WHEN MORE THAN HALF THE INSULATION IS ON THE INTERIOR MASS WALL.

<sup>i</sup> IN ADDITION TO THE EXEMPTION IN SECTION N1102.3.3.3, A MAXIMUM OF TWO GLAZED FENESTRATION ASSEMBLIES HAVING A U-FACTOR NO GREATER THAN 0.58 SHALL BE PERMITTED TO BE SUBSTITUTED FOR MINIMUM CODE COMPLIANT FENESTRATION PRODUCT ASSEMBLIES WITHOUT PENALTY.

<sup>j</sup> IN ADDITION TO THE EXEMPTION IN SECTION N1102.3.3.3, A MAXIMUM OF FIVE GLAZED FENESTRATION PRODUCT ASSEMBLIES HAVING A SHGC NO GREATER THAN 0.58 SHALL BE PERMITTED TO BE SUBSTITUTED FOR MINIMUM CODE COMPLIANT FENESTRATION PRODUCT ASSEMBLIES WITHOUT PENALTY.

<sup>k</sup> R-10 SHALL BE ADDED TO THE REQUIRED INSULATION REQUIREMENT WHERE THE INSULATION EXTENDS OVER THE WALL TOP PLATE AT THE LEVELS. OTHERWISE, INSULATION IS REQUIRED WHERE ADEQUATE CLEARANCE EXISTS OR INSULATION MUST EXTEND TO EITHER THE INSULATION TABLE OR WITHIN 1/2" OF THE EXISTING ROOF.

<sup>l</sup> TABLE VALUE REQUIRED EXCEPT FOR ROOF EDGE WHERE THE SPACE IS LIMITED BY THE PITCH OF THE ROOF. THERE THE INSULATION MUST FILL THE SPACE UP TO THE AIR BARREL.

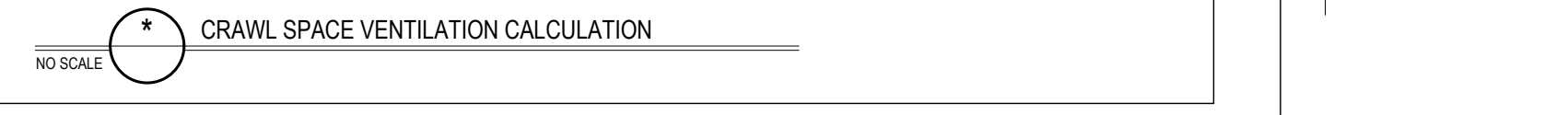
<sup>m</sup> IN 10" PERSONS (ASSETS) COMPRESSED AND NOTED IN A MINIMUM 1.5" FRAMING CAVITY. 2" DENIED TO COMPLY. PERSONS BATTERS EITHER 1.5" OR HIGHER COMPRESSED AND RECALLED IN 24" WALLS IS NOT ALLOWED TO COMPLY.

<sup>n</sup> BASEMENT WALL MEETING THE MINIMUM MASS WALL SPECIFIC HEAT CONTENT REQUIREMENT MAY USE THE MASS WALL R-VALUE AS THE MINIMUM REQUIREMENT.

694 SQ. FT. OF CRAWL SPACE / 150 = 4.6 SQ. FT. OF REQ'D VENTILATION WITHOUT CROSS VENTILATION  
4.6 SQ. FT. OF VENTILATION REQ'D / 0.88 SQ. FT. PER VENT = 5.3 VENTS REQ'D (BASED ON 8" X 16" VENTS)

OR:  
694 SQ. FT. OF CRAWL SPACE / 1500 = 0.46 SQ. FT. OF REQ'D VENTILATION WITH CROSS VENTILATION  
0.46 SQ. FT. OF VENTILATION REQ'D / 0.88 SQ. FT. PER VENT = 0.53 VENTS REQ'D (BASED ON 8" X 16" VENTS)

- VENT LOCATIONS MAY VARY FROM THOSE SHOWN ON PLAN, HOWEVER VENTS SHALL BE PLACED TO PROVIDE ADEQUATE VENTILATION AT ALL POINTS AND TO PREVENT DEAD AIR POCKETS.
- THE TOTAL AREA OF VENTILATION OPENINGS MAY BE REDUCED TO 1/1000 OF THE CRAWL SPACE GROUND AREA WHERE THE REQUIRED OPENINGS ARE PLACED IN ORDER TO PROVIDE CROSS VENTILATION OF THE CRAWL SPACE. THE INSTALLATION OF OPERABLE LOADERS SHALL NOT BE PROHIBITED. ONE FOUNDATION VENT SHALL BE WITHIN 10 FEET OF EACH CORNER OF THE BUILDING. TO PREVENT RAINWATER ENTRY WHEN THE CRAWL SPACE IS BUILT ON A SLOPED SITE, THE SPILL FOUNDATION SHALL BE CONSTRUCTED WITHIN 10 FEET OF OPERABLE VENT OPENINGS. VENT OPENINGS SHALL BE PROVIDED WHEN THE BOTTOM OF THE FOUNDATION VENT OPENING IS LESS THAN 18 INCHES ABOVE THE FINISHED EXTERIOR GRADE.



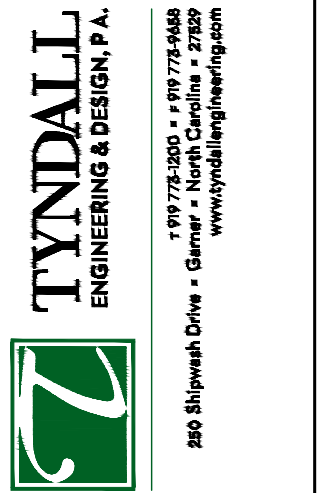
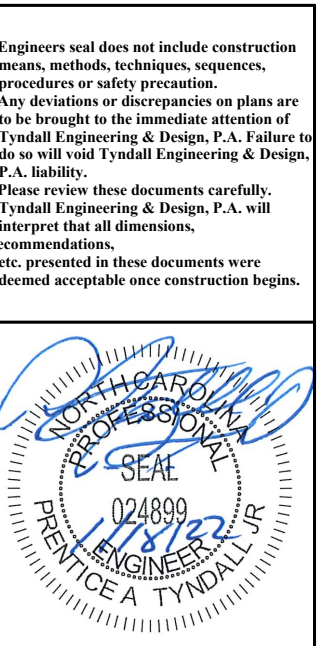
**\* CRAWL SPACE VENTILATION CALCULATION**

— SQ. FT. OF ATTIC / 300 = — SQ. FT. INLETS/OUTLETS REQUIRED

- CALCULATION BASED ON VENTILATORS USED AT LEAST 2' ABOVE THE CORNER VENTS WITH THE BALANCE OF VENTILATION PROVIDED BY GABLE VENTS.
- CORNER VENTS SHALL HAVE A 1" MINIMUM CLEARANCE BETWEEN THE BOTTOM OF THE ROOF DECK AND THE INSULATION.



**\* ATTIC VENTILATION CALCULATION**



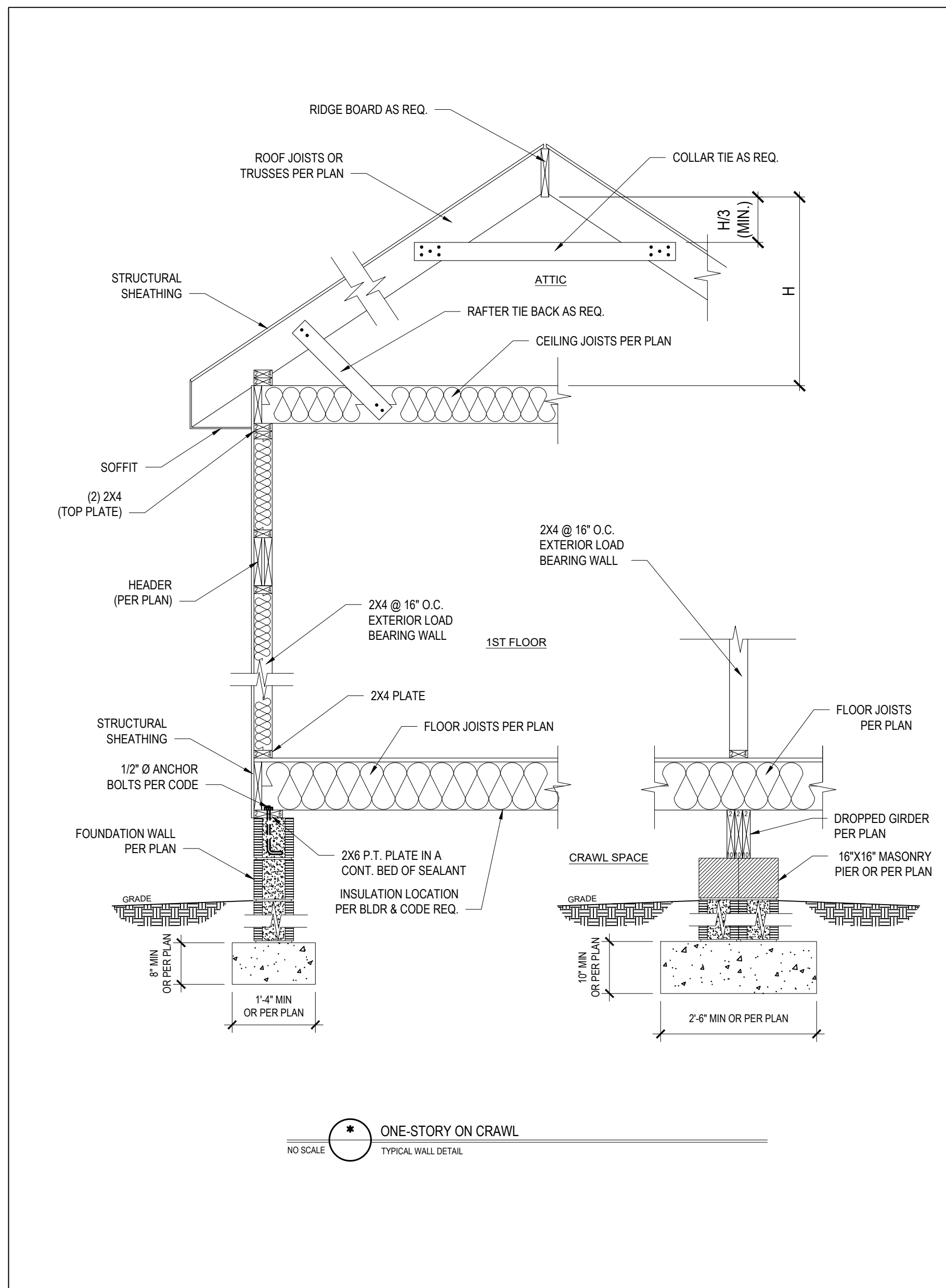
TAYLOR NEWTON  
NEWTON ADDITION

**STANDARD DETAILS**

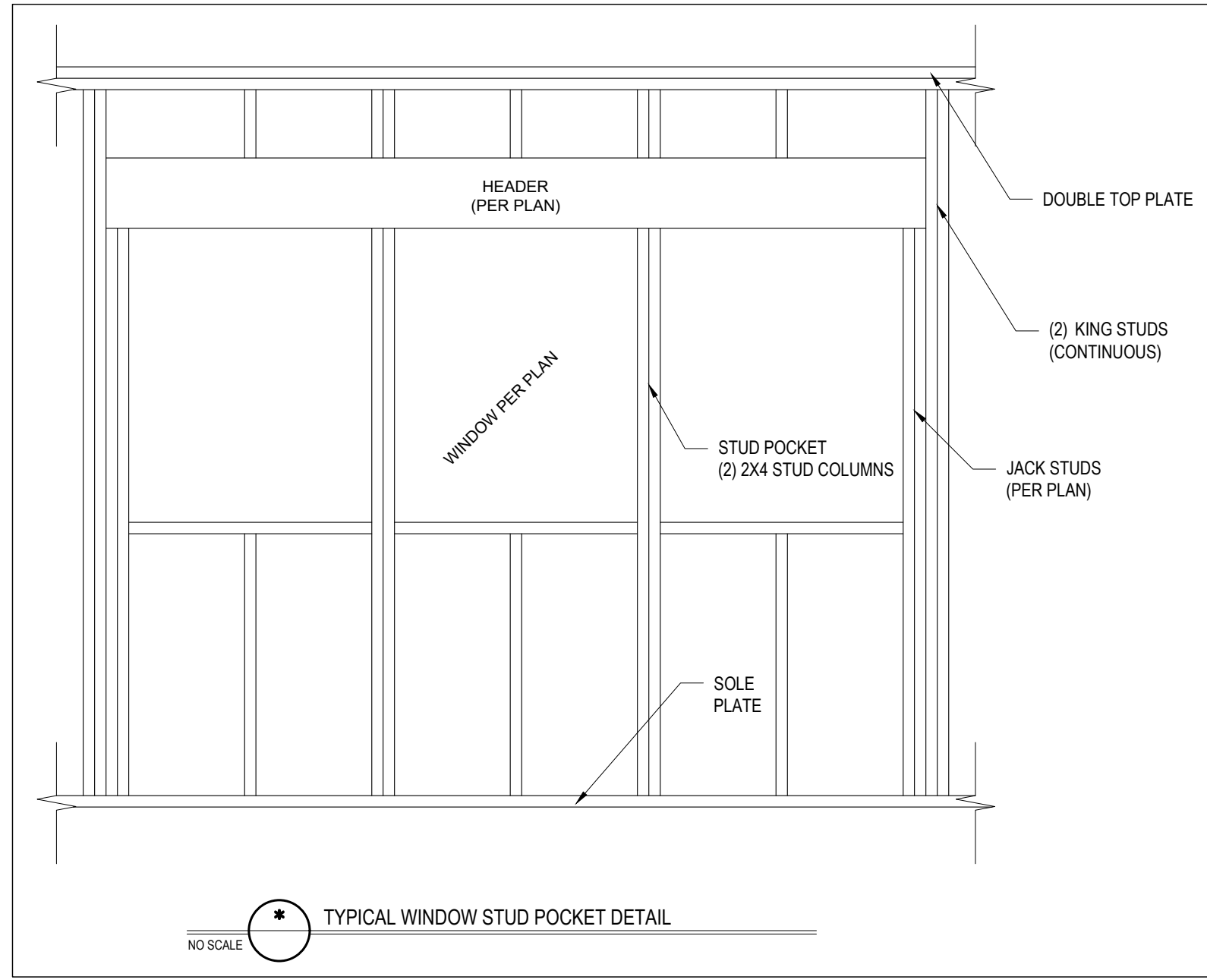
Project #: DRB2101-0255  
Date: 1/13/22  
Engineered By: HJS  
DWG. Checked By: PAT  
Scale: SEE PLAN

No.	Date	Remarks

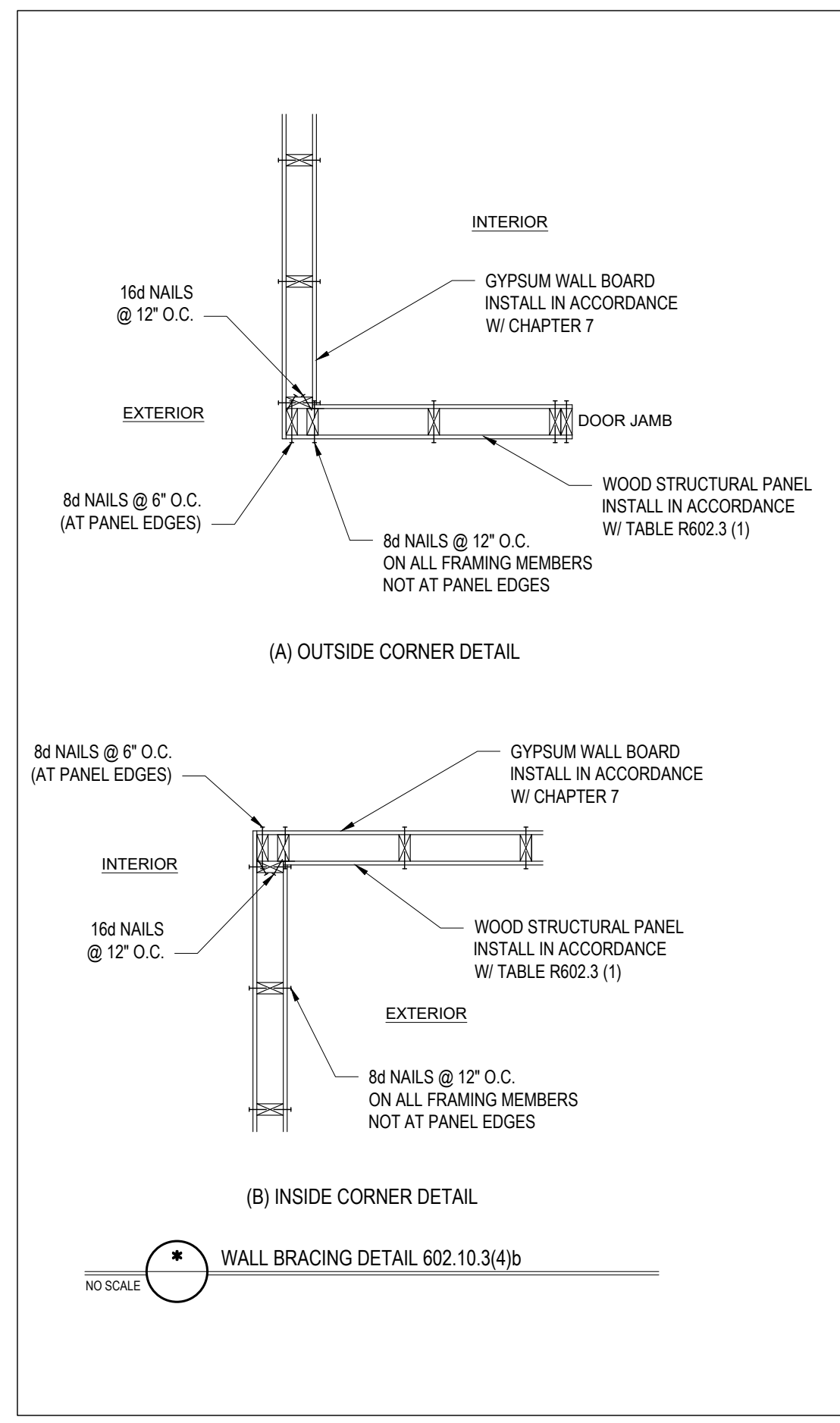
Sheet Number  
**D1**



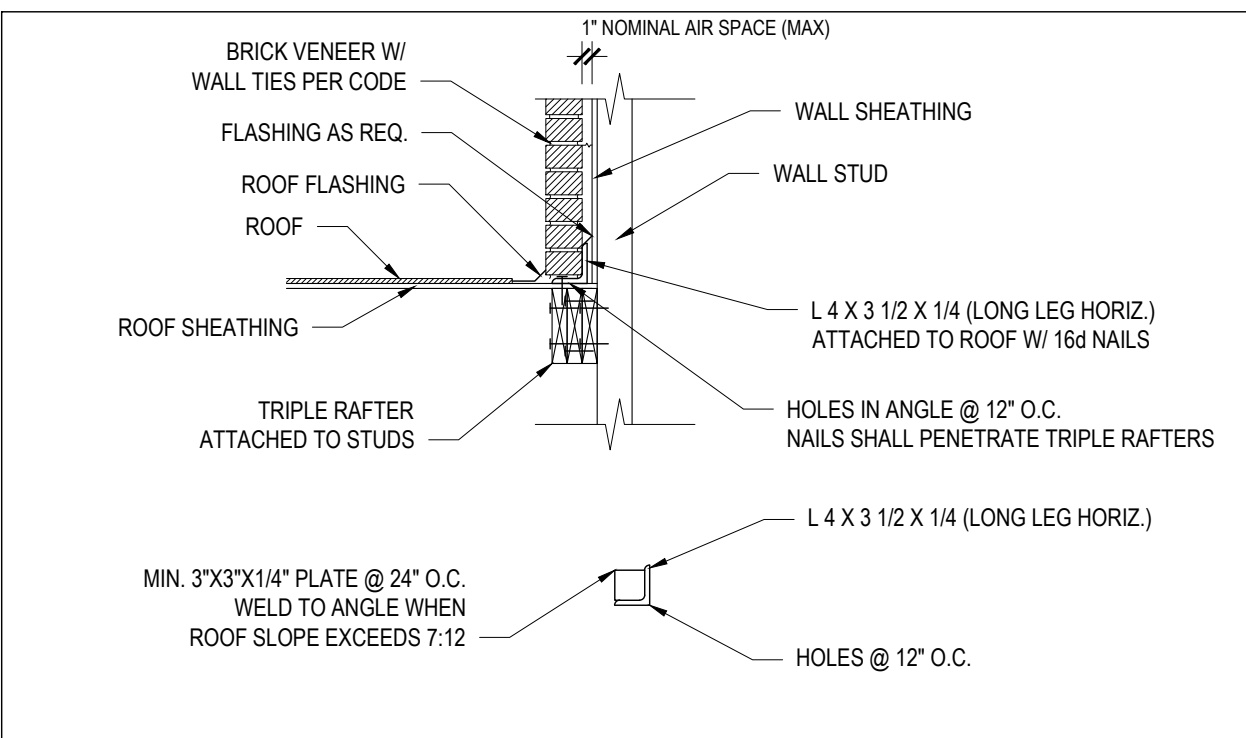
ONE-STORY ON CRAWL  
TYPICAL WALL DETAIL  
NO SCALE



TYPICAL WINDOW STUD POCKET DETAIL  
NO SCALE



WALL BRACING DETAIL 602.10.3(4)d  
NO SCALE

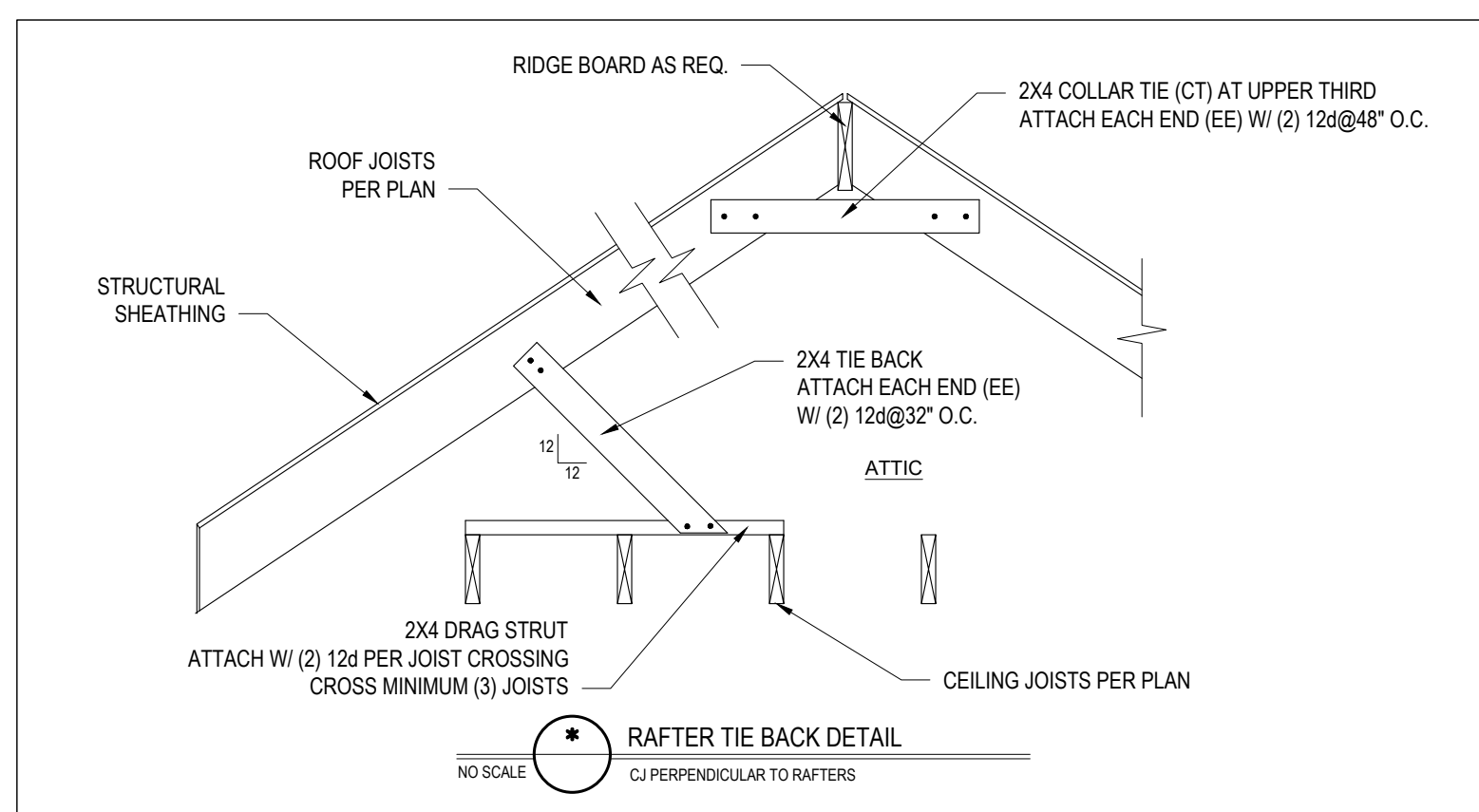


ALLOWABLE SPANS FOR LINTELS SUPPORTING MASONRY VENEER

SIZE OF ANGLE (1,3)	NO STORY ABOVE (5)	1 STORY ABOVE (5)	2 STORIES ABOVE (5)	# OF 1/2" (OR EQUIV.) REINFORCING BARS IN REINFORCED LINTEL (2,4,5)
L 3 x 3 x 1/4	6'-0"	4'-6"	3'-0"	1
L 4 x 3 x 1/4	8'-0"	6'-0"	4'-6"	1
L 5 x 3 1/2 x 5/16	10'-0"	8'-0"	6'-0"	2
L 6 x 3 1/2 x 5/16	14'-0"	9'-6"	7'-0"	2
2L 5 x 3 1/2 x 5/16	20'-0"	12'-0"	9'-6"	4

- LONG LEG OF THE ANGLE SHALL BE PLACED IN A VERTICAL POSITION.
- DEPTH OF REINFORCED LINTELS SHALL NOT BE LESS THAN 8" AND ALL CELLS OF HOLLOW MASONRY LINTELS SHALL BE GROUDED; REINFORCING BARS SHALL EXTEND NOT LESS THAN 8" INTO THE SUPPORT.
- STEEL MEMBERS INDICATED ARE ADEQUATE TYPICAL EXAMPLES; OTHER STEEL MEMBERS MEETING STRUCTURAL DESIGN REQUIREMENTS SHALL BE PERMITTED TO BE USED.
- EITHER STEEL ANGLE OR REINFORCED LINTEL SHALL SPAN OPENING.
- SPANS OVER 4'-0" SHALL BE SHORED UP UNTIL CURED.

MASONRY VENEER SUPPORT FIG 703.8.3.1  
NO SCALE



RAFTER TIE BACK DETAIL  
CJ PERPENDICULAR TO RAFTERS  
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 OF THE 2018 NCR.
- 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 NCR.
- 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

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 Tyn dall Engineering & Design, P.A. Failure to do so will void Tyn dall Engineering & Design, P.A. liability. Please review these documents carefully. Tyn dall Engineering & Design, P.A. will interpret that all dimensions, recommendations, etc. presented in these documents were deemed acceptable once construction begins.

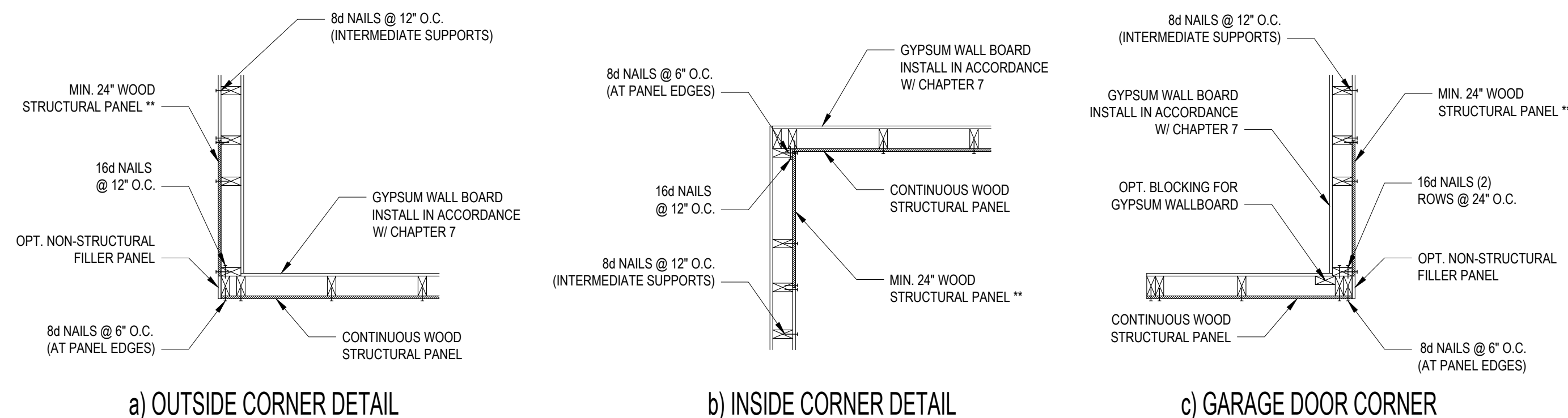
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CLIENT: TAYLOR NEWTON  
PROJECT: NEWTON ADDITION

Project #: DRB2101-0255  
Date: 1/13/22  
Engineered by: HJS  
DWG. Checked by: PAT  
Scale: SEE PLAN

REVISIONS		
No.	Date	Remarks

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**D2**  
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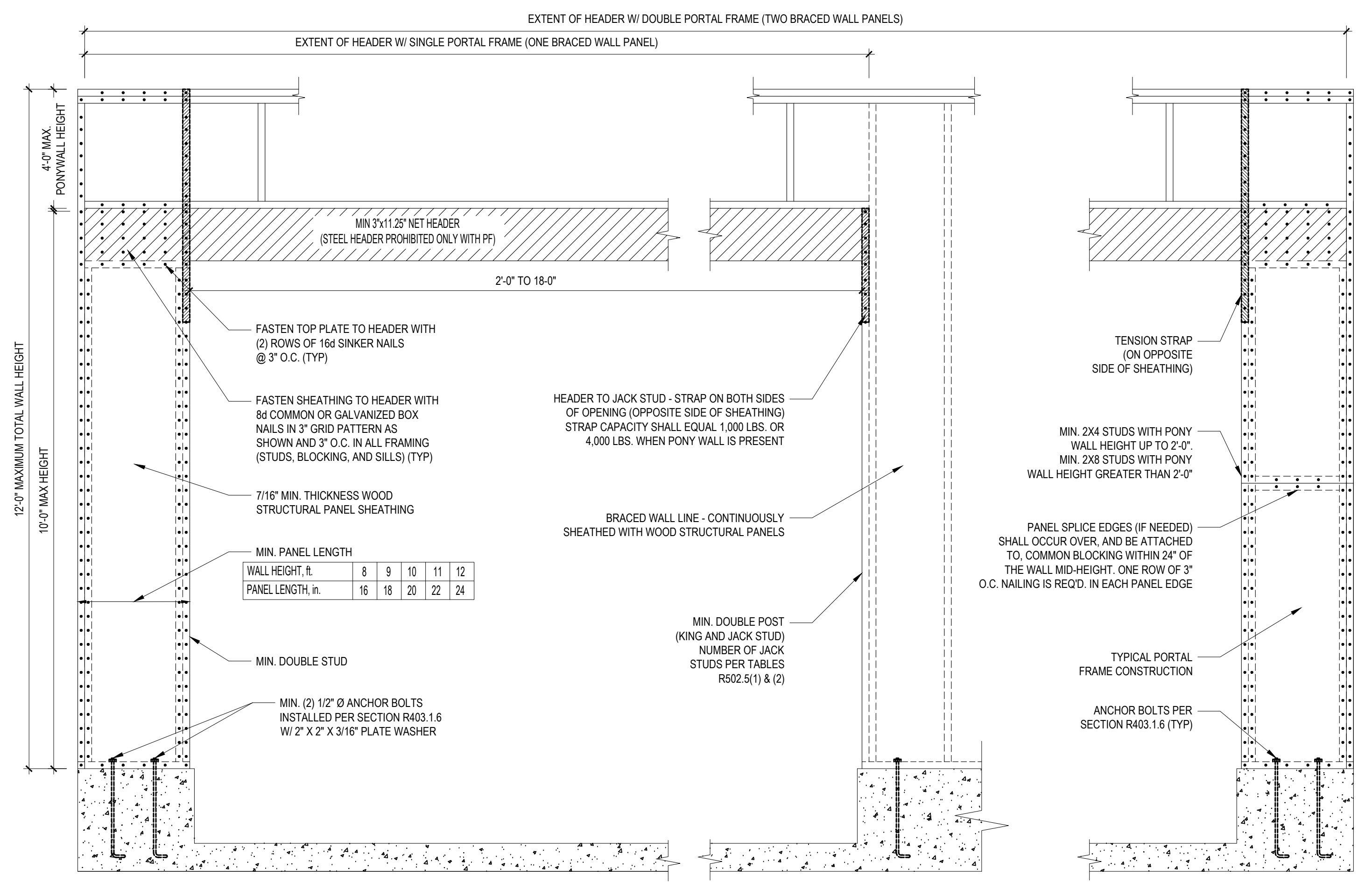
**B1: TYPICAL EXTERIOR CORNER FRAMING FOR CONTINUOUS SHEATHING**  
NO SCALE

**STRUCTURAL SHEATHING NOTES**

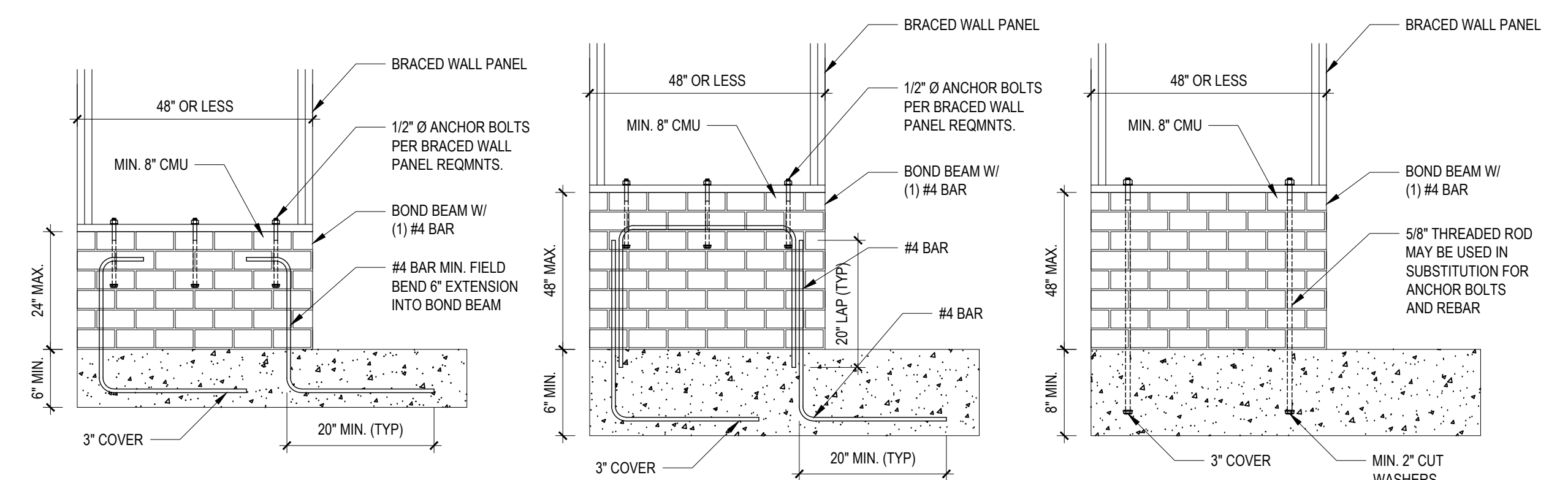
- DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR LESS.
- WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10.3 OF THE 2018 NRC.
- BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3. REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS INCLUDING CONNECTIONS & SUPPORT OF BRACED WALL PANELS.
- REFERENCE FIGURE R602.10.4.3 OF THE 2018 NRC.
- 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).
- 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\"/>	

\*OR EQUIVALENT PER TABLE R702.3.5  
**B3: BRACE WALL PANEL CONNECTIONS**  
NO SCALE

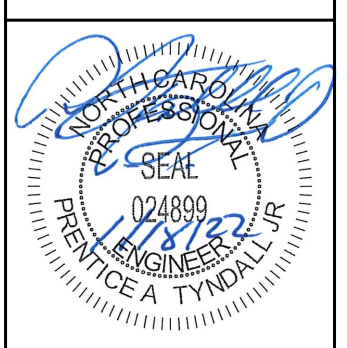


**B2: METHOD CS-PF: CONTINUOUSLY SHEATHED PORTAL FRAME**  
FIGURE R602.10.1



**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

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CLIENT: TAYLOR NEWTON  
PROJECT: NEWTON ADDITION

**SHEATHING DETAILS**

Project #: DRB2101-0255  
Date: 1/13/22  
Engineered by: HJS  
DWG. Checked by: PAT  
Scale: SEE PLAN

REVISIONS		
No.	Date	Remarks

Sheet Number  
**D3**  
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