GENERAL NOTES:

1. 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.
2. ALL WALLS SHOWN ON THE FLOOR PLANS ARE DRAWN AT 4" UNLESS NOTED OTHERWISE.
3. ALL ANGLED WALL SHOWN ON THE PLANS ARE 45 DEGREES UNLESS NOTED OTHERWISE.
4. STUD WALL DESIGN SHALL CONFORM TO ALL NORTH CAROLINA STATE BUILDING CODE REQUIREMENTS.
5. DO NOT SCALE PLANS. DRAWING SCALE MAY BE DISTORTED DUE TO COPIER IMPERFECTIONS.
6. 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=	1888	GARAGE=	1206
SECOND FLOOR=	N/A	FRONT PORCH=	77
THIRD FLOOR=	N/A	CVD. PORCH=	408
BASEMENT=	N/A	STORAGE=	N/A

TOTAL HEATED= 1888 **TOTAL UNHEATED= 1691**

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)

1888 SQ. FT. OF CRAWL SPACE/1500

1.26 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 VENTIALTION PROVIDED BE EAVE VENTS.

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

3579 SQ. FT. OF ATTIC/300= 11.93

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 POSITVE 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

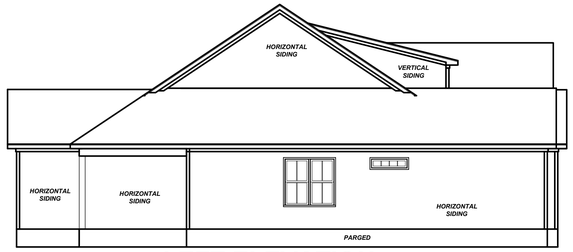
***** MEAN ROOF HEIGHT 30' OR LESS***

FRONT ELEVATION

1/4" = 1'-0"

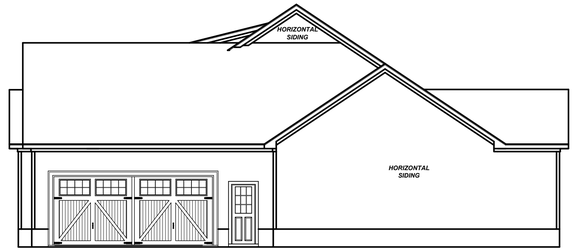
REAR ELEVATION

1/8" = 1'-0"



LEFT ELEVATION

1/8" = 1'-0"



RIGHT ELEVATION

1/8" = 1'-0"

Project #: 21-370
Date: 11-15-21
Drawn/Design By: KBB
Scale: REFER TO ELEV.

REVISIONS

No.	Date:	Remarks
1		
2		
3		
4		

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K&A HOME DESIGN Inc.

Project Name: **Becker Residence**

Client Name: **Josh Becker**
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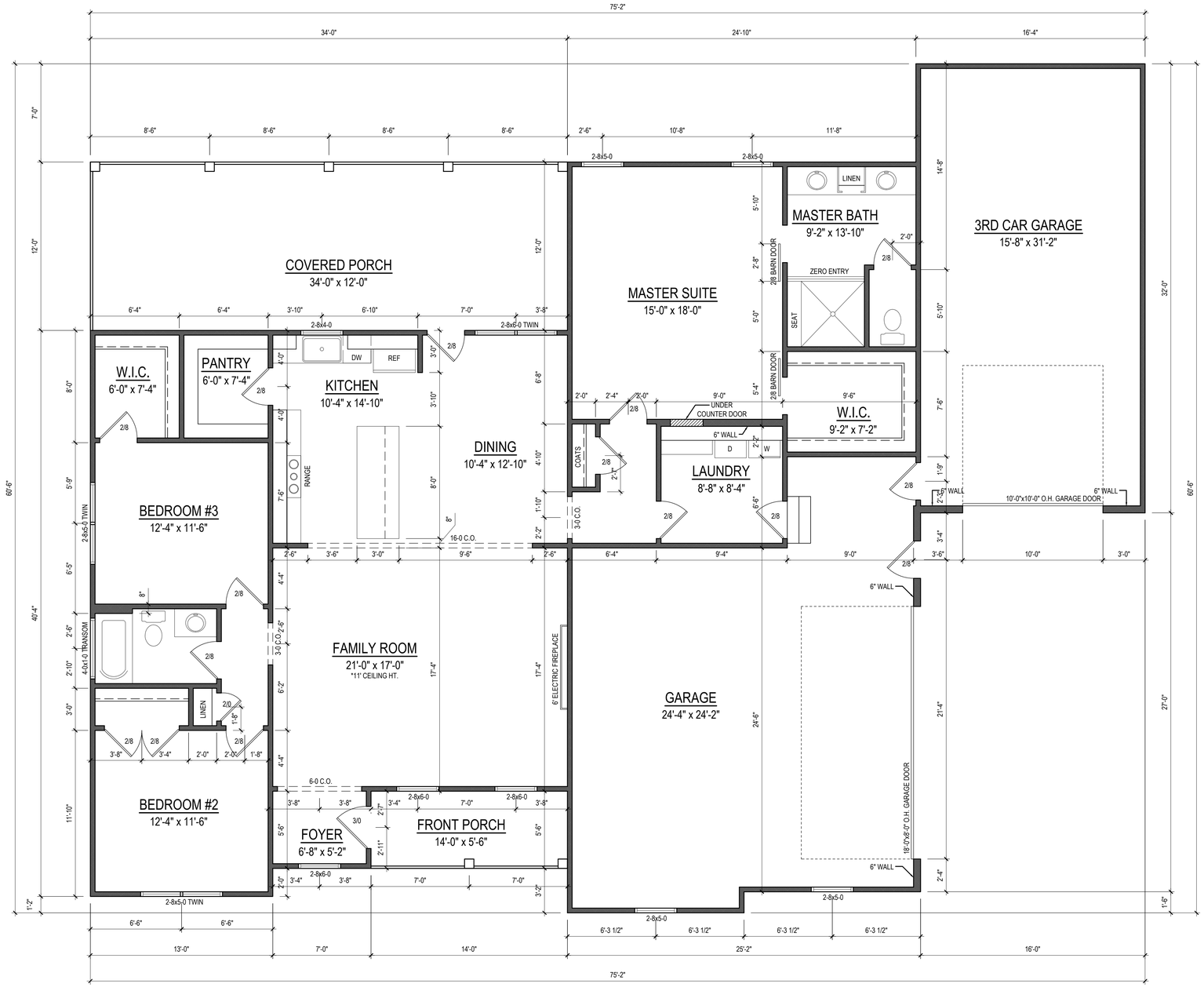
Fuquay-Varina, NC 27526

ELEVATIONS

Sheet Number
1
of 2



FIRST FLOOR PLAN

1/4" = 1'-0" *CEILING HT. = 9'-0"*

Project #:	21-370
Date:	11-15-21
Drawn/Design By:	KBB
Scale:	1/4" = 1'-0"

REVISIONS

No.	Date:	Remarks
1		
2		
3		
4		

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Project Name:
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Client Name:
Josh Becker
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FLOOR PLAN

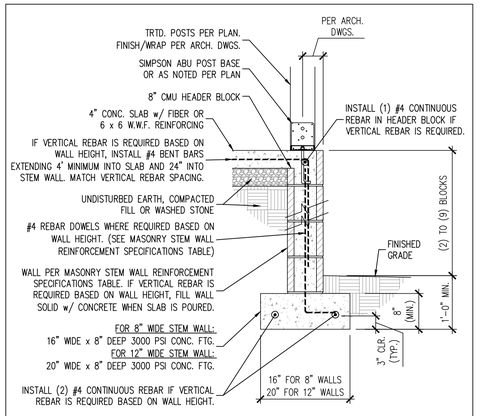
Sheet Number
2
of 2

MASONRY PORCH STEM WALL REINFORCEMENT SPECIFICATIONS

MAX WALL HGT. (# OF BLOCKS)	MASONRY STEM WALL TYPE			
	4" CMU AND 4" BRICK WYTHE	8" CMU AND 4" BRICK WYTHE	8" CMU	12" CMU
24" OR LESS	GROUTED SOLID	GROUTED SOLID	UNGROUTED	UNGROUTED
32" (4 BLOCK)	GROUTED SOLID w/ #4 REBAR @ 48" O.C.	GROUTED SOLID	UNGROUTED	UNGROUTED
40" (5 BLOCK)	GROUTED SOLID w/ #4 REBAR @ 32" O.C.	GROUTED SOLID	GROUTED SOLID	UNGROUTED
48" (6 BLOCK)	NOT APPLICABLE	GROUTED SOLID w/ #4 REBAR @ 48" O.C.	GROUTED SOLID w/ #4 REBAR @ 48" O.C.	GROUTED SOLID w/ #4 REBAR @ 64" O.C.
56" (7 BLOCK)	NOT APPLICABLE	GROUTED SOLID w/ #4 REBAR @ 48" O.C.	GROUTED SOLID w/ #4 REBAR @ 48" O.C.	GROUTED SOLID w/ #4 REBAR @ 64" O.C.
64" (8 BLOCK)	NOT APPLICABLE	GROUTED SOLID w/ #4 REBAR @ 36" O.C.	GROUTED SOLID w/ #4 REBAR @ 36" O.C.	GROUTED SOLID w/ #4 REBAR @ 48" O.C.
72" (9 BLOCK)	NOT APPLICABLE	GROUTED SOLID w/ #4 REBAR @ 24" O.C.	GROUTED SOLID w/ #4 REBAR @ 24" O.C.	GROUTED SOLID w/ #4 REBAR @ 48" O.C.
GREATER THAN 72"	CONTACT ENGINEER FOR DESIGN PER SITE AND PLAN CONDITIONS			

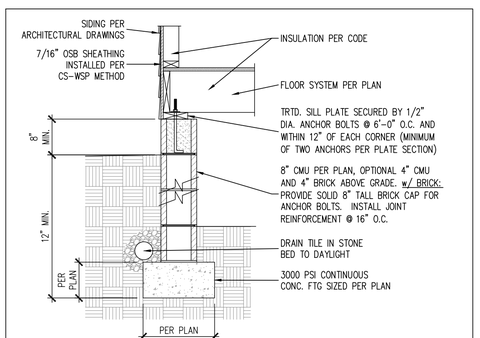
PORCH STEM WALL SLAB FOUNDATION NOTES:

1. PREPARE AREA WITHIN LIMITS OF FOUNDATION OR SLAB PER SECTION R506 OF THE 2018 NCRC.
2. FILL ALL CELLS WITH REINFORCEMENT OR ANCHOR RODS SOLID WITH TYPE "S" MORTAR OR 3000 PSI CONCRETE.
3. WHERE VERTICAL WALL REINFORCEMENT IS REQUIRED IN THE TABLE ABOVE, THE TOP OF THE MASONRY STEM WALL MUST BE TIED TO THE SLAB WITH BENT "L" BARS PER DETAIL B.
4. HORIZONTAL JOINT REINFORCEMENT SHALL BE IN INSTALLED @ 16" O.C. VERTICALLY. WHERE MULTIPLE WYTHE WALLS ARE CONSTRUCTED, JOINT REINFORCEMENT MUST TIE WYTHES TOGETHER.
5. REBAR LAP SPLICES SHALL BE 24" FOR #4 REBAR AND 32" FOR #5 REBAR.



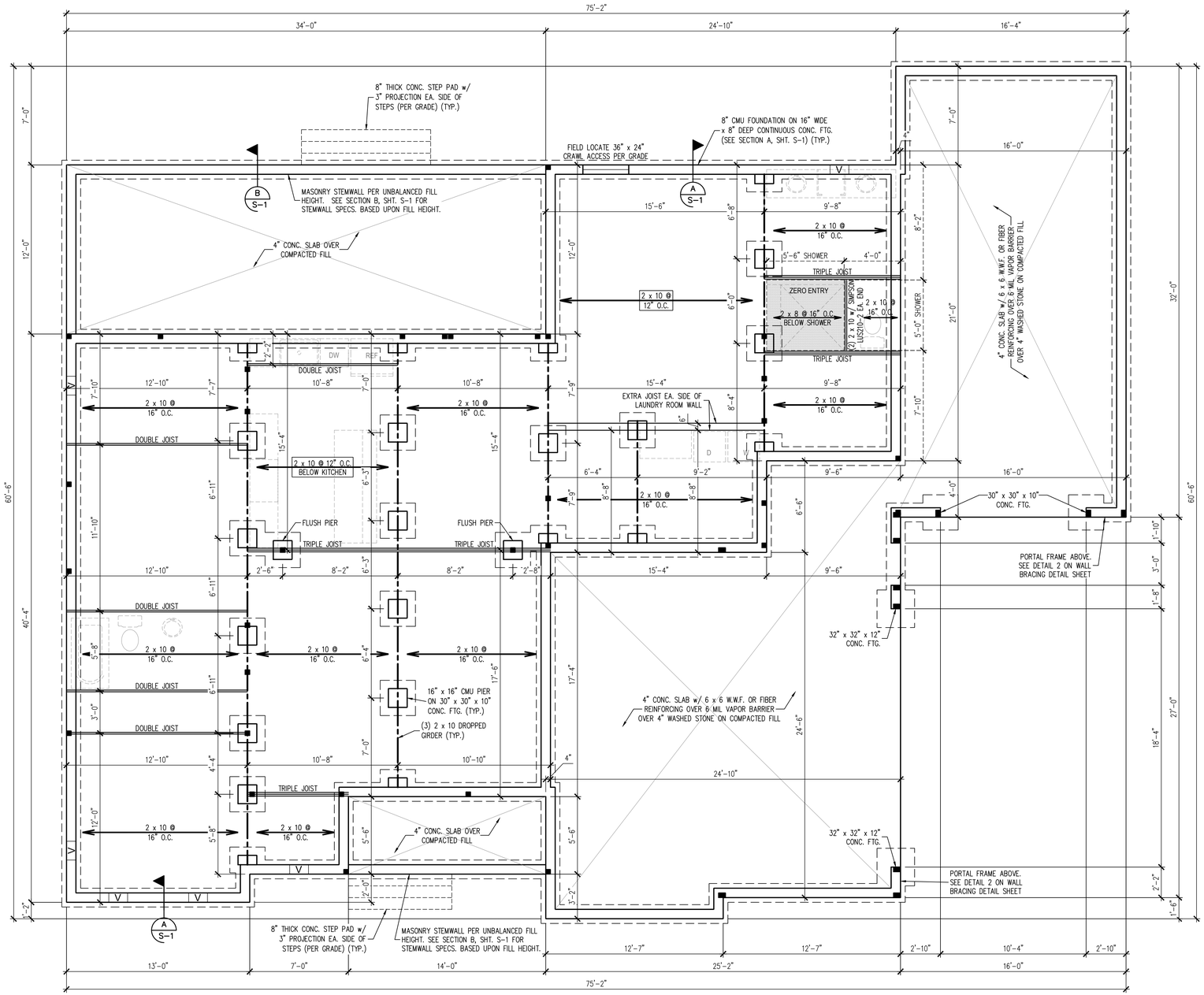
B TYPICAL PORCH STEM WALL SLAB FOOTING DETAIL (SEE REINFORCEMENT SPECIFICATIONS TABLE)

FULL SIZE DWGS: SCALE: 3/4" = 1'-0"
HALF SIZE DWGS: SCALE: 3/8" = 1'-0"



A TYPICAL CRAWL SPACE FOUNDATION DETAIL

FULL SIZE DWGS: SCALE: 3/4" = 1'-0"
HALF SIZE DWGS: SCALE: 3/8" = 1'-0"



CRAWL SPACE STRUCTURAL NOTES

1. SEE SHEET S-2 FOR DESIGN CRITERIA, STRUCTURAL SPECIFICATIONS, AND GENERAL STRUCTURAL NOTES.
2. ALL FRAMING LUMBER TO BE #2 SPF (UNO). ALL TREATED LUMBER TO BE #2 SYP (UNO).
3. INSTALL AN EXTRA OR DOUBLE JOIST UNDER WALLS PARALLEL TO THE FLOOR JOISTS WHERE NOTED ON THE PLANS.
4. SHADED PIERS TO BE FILLED SOLID.
5. INSTALL 1/2" ANCHOR BOLTS 6'-0" O.C. AND WITHIN 1'-0" FROM END OF EACH CORNER. (MIN (2) ANCHORS PER PLATE SECTION.) ANCHOR BOLTS MUST EXTEND A MINIMUM OF 7" INTO MASONRY OR CONCRETE. LOCATE BOLT WITHIN MIDDLE THIRD OF PLATE WIDTH.
6. INSTALL JOINT REINFORCEMENT @ 16" O.C. TO SECURE MULTIPLE WYTHE FOUNDATION WALLS TOGETHER.
7. REFER TO NOTES AND DETAIL PAGES FOR ADDITIONAL INFORMATION.

LEGEND

■	STUD COLUMN ON FLOOR ABOVE THAT REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION.
D	PLUMBING OR APPLIANCES ON THE FLOOR ABOVE TO HELP ELIMINATE FRAMING CONFLICTS WITH UTILITIES. (FOR REFERENCE ONLY, SEE ARCHITECTURAL DRAWINGS)
———	NEW BEAM OR GIRDER AS NOTED
(UNO)	UNLESS NOTED OTHERWISE

PREPARED UNDER THE SUPERVISION OF:

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 038485 12/10/2021 ENGINEER JACOB ERNEST SMITH

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N.C. CERTIFICATE NUMBER: P-2212

BECKER RESIDENCE

REVISIONS:

DRAWN BY: K&A HOME DESIGN, INC.
ENGINEERED BY: J. SMITH
SCALE: 1/4" = 1'-0"
DATE: 12-10-2021
SHEET: 1 OF: 4

S-1
CRAWL SPACE FOUNDATION PLAN

GENERAL STRUCTURAL NOTES

1. ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM. ENGINEER'S SEAL DOES NOT APPLY TO I-JOIST OR FLOOR/ROOF TRUSS LAYOUT DESIGN AND ACCURACY.

2. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE (NCRC), 2018 EDITION AND ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK.

3. DESIGN LOADS (R301)

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION (LL)
ROOMS OTHER THAN SLEEPING ROOMS	40	10	L/360
SLEEPING ROOMS	30	10	L/360
ATTIC WITH LIMITED STORAGE	20	10	L/240
ATTIC WITHOUT STORAGE	10	10	L/360
STAIRS	40	10	L/360
DECKS	40	10	L/360
HANDRAILS 200 LB OR 50 PLF		10	L/360
PASSENGER VEHICLE GARAGES	50	10	L/360
GROUND SNOW LOAD	20		

WIND LOAD PER SECTION R301.2. (MEAN ROOF HEIGHT <35 FEET, EXPOSURE B)

4. THE STRUCTURE IS DESIGNED FOR 120 MPH ULTIMATE DESIGN WIND SPEEDS.

5. WALL CLADDING DESIGNED FOR +15.5 PSF AND -20 PSF (+/- INDICATE POSITIVE / NEGATIVE PRESSURE (TYP).

6. ROOF CLADDING DESIGNED FOR +14.2 PSF AND -18 PSF FOR ROOF PITCHES 7/12 TO 12/12 AND +10 PSF AND -36 PSF FOR ROOF PITCHED 2.25/12 TO 7/12.

7. THE POSITIVE AND NEGATIVE DESIGN PRESSURE FOR DOORS AND WINDOWS FOR A MEAN ROOF HEIGHT OF 35 FEET OR LESS IS 25 PSF.

8. FOUNDATION DESIGN BASED ON A MINIMUM ALLOWABLE BEARING CAPACITY OF 2000 PSF. CONTACT ENGINEER IF ALLOWABLE BEARING CAPACITY CAN NOT BE ACHIEVED.

9. FOUNDATION ANCHORAGE TO COMPLY WITH SECTION R403.1.6 OF THE 2018 NCRC.

10. FOR ALL CONCRETE SLABS AND FOOTINGS, THE AREA WITHIN THE PERIMETER OF THE BUILDING ENVELOPE SHALL HAVE ALL VEGETATION, TOP SOIL AND FOREIGN MATERIAL REMOVED. FILL MATERIAL SHALL BE FREE OF VEGETATION AND FOREIGN MATERIAL. THE FILL SHALL BE COMPACTED TO 95% TO ASSURE UNIFORM SUPPORT OF THE SLAB, AND EXCEPT WHERE APPROVED, THE FILL DEPTHS SHALL NOT EXCEED 24" FOR CLEAN SAND OR GRAVEL. A 4" THICK BASED COURSE CONSISTING OF CLEAN GRADED SAND OR GRAVEL SHALL BE PLACED. A BASE COURSE IS NOT REQUIRED WHERE A CONCRETE SLAB IS INSTALLED ON WELL-DRAINED OR SAND-GRAVEL MIXTURE SOILS CLASSIFIED AS GROUP 1, ACCORDING TO THE UNITED SOIL CLASSIFICATION SYSTEM IN ACCORDANCE WITH TABLE R405.1 OF THE NCRC, 2018 EDITION.

11. CONCRETE SHALL CONFORM TO SECTION R402.2 OF THE NCRC, 2018 EDITION. CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI. CONCRETE REINFORCING STEEL SHALL BE ASTM A615 GRADE 60. WELDED WIRE FABRIC SHALL BE ASTM A185. MAINTAIN A MINIMUM CONCRETE COVER AROUND REINFORCING STEEL OF 3" IN FOOTINGS AND 1 1/2" IN SLABS.

12. MASONRY UNITS TO CONFORM TO ACE 530/ASCE 5/TMS 402. MORTAR SHALL CONFORM TO ASTM C270.

13. THE UNSUPPORTED HEIGHT OF MASONRY PIERS SHALL NOT EXCEED FOUR TIMES THEIR LEAST DIMENSION FOR UNFILLED HOLLOW CONCRETE MASONRY UNITS AND TEN TIMES THEIR LEAST DIMENSION FOR SOLID OR SOLID FILLED PIERS. PIERS MAY BE FILLED SOLID WITH CONCRETE OR TYPE M OR S MORTAR. PIERS AND WALLS SHALL BE CAPPED WITH 8" OF SOLID MASONRY.

14. THE CENTER OF EACH PIER SHALL BEAR IN THE MIDDLE THIRD OF ITS RESPECTIVE FOOTING. EACH GIRDER SHALL BEAR IN THE MIDDLE THIRD OF EA. PIER.

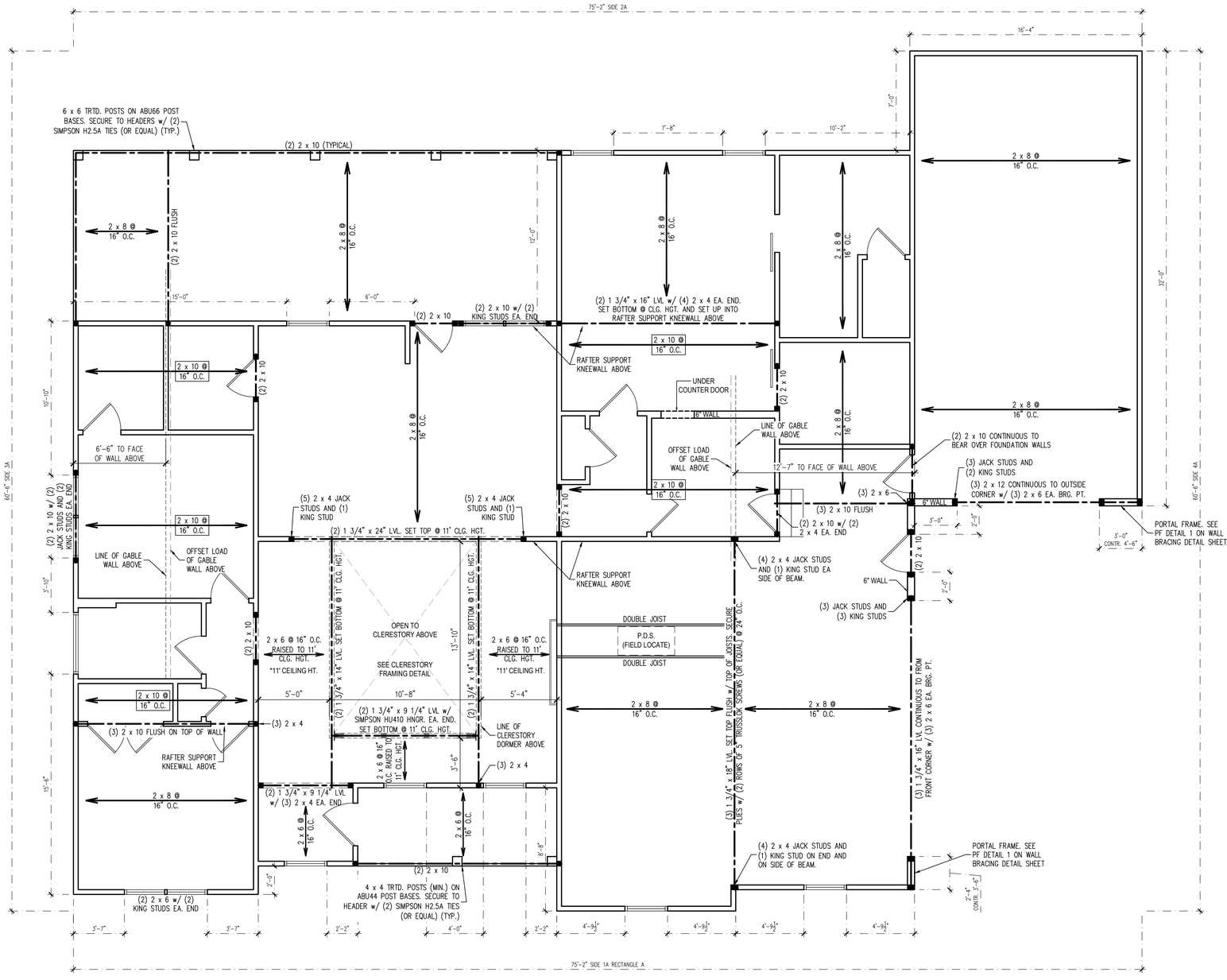
15. ALL CONCRETE AND MASONRY FOUNDATION WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF SECTION R404 OF THE 2018 NCRC, OR IN ACCORDANCE WITH ACI 318, ACI 332, NCMA TR68-A OR ACE 530/ASCE 5/TMS 402. MASONRY FOUNDATION WALLS SHALL BE REINFORCED PER TABLE R404.1.1(1), R404.1.1(2), R404.1.1(3), OR R404.1.1(4) OF THE 2018 NCRC. CONCRETE FOUNDATION WALLS SHALL BE REINFORCED PER TABLE R404.1.1(5) OF THE NCRC, 2018 EDITION. STEP FOUNDATION WALLS TO 2 x 6 FRAMED WALLS AT 16" O.C. WHERE GRADE PERMITS (UNO).

16. ALL FRAMING LUMBER SHALL BE SPF #2 AND ALL TREATED LUMBER SHALL BE SYP #2 (UNO).

17. LAMINATED VENEER LUMBER (LVL) SHALL HAVE THE FOLLOWING MIN. PROPERTIES: Fb = 2600 PSI, Fv = 285 PSI, E = 1900000 PSI. INSTALL ALL CONNECTIONS PER MANUFACTURER'S SPECIFICATIONS.

18. ALL LOAD BEARING HEADERS SHALL CONFORM TO TABLES R602.7(1) AND R602.7(2) OF THE 2018 NCRC UNLESS NOTED OTHERWISE ON THE PLANS. ALL HEADERS SHALL BE SUPPORTED WITH (1) JACK STUD AND (1) KING STUD EACH END (UNO). SECURE THE FIRST KING STUD EACH SIDE OF THE HEADER TO THE HEADER WITH (4) 16d END-NAILS. INSTALL KING STUDS PER SECTION R602.7.5 OF THE 2018 NCRC (UNO).

19. ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER II OF THE NCRC, 2018 EDITION.



BRACED WALL DESIGN NOTES:

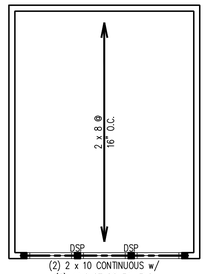
1. BRACED WALL DESIGN PER SECTION R602.10 OF THE NCRC 2018 EDITION.
2. CS-WSP REFERS TO THE "CONTINUOUS SHEATHING – WOOD STRUCTURAL PANELS" WALL BRACING METHOD. 7/16" OSB SHEATHING SHALL BE INSTALLED ON ALL SHEATHABLE SURFACES OF ALL EXTERIOR WALLS ATTACHED w/ 6d COMMON NAILS OR 8d (2 1/2" LONG x 0.113" DIA.) NAILS SPACED 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD (UNO).
3. SEE NOTES AND DETAIL SHEETS FOR ADDITIONAL BRACED WALL INFORMATION.

BRACED WALL DESIGN SUMMARY:

SIDE 1A	SIDE 3A
METHOD: CS-WSP/PF	METHOD: CS-WSP
REQUIRED LENGTH: 8.55'	REQUIRED LENGTH: 10.52'
PROVIDED LENGTH: 42.16'	PROVIDED LENGTH: 44.16'
SIDE 2A	**SIDE 4A**
METHOD: CS-WSP	METHOD: CS-WSP/PF
REQUIRED LENGTH: 8.55'	REQUIRED LENGTH: 10.52'
PROVIDED LENGTH: 55.16'	PROVIDED LENGTH: 55.16'

SECOND FLOOR FRAMING 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 10 (UNO).
3. WINDOW AND DOOR HEADERS TO BE SUPPORTED w/ (1) JACK STUD AND (1) KING STUD EA. END (UNO.)
4. SECURE 4 x 4 OR 6 x 6 POSTS TO CONCRETE/MASONRY w/ SIMPSON ABU44 OR ABU66 POST BASES. SECURE 4 x 4 OR 6 x 6 POSTS TO HEADERS/BEAMS w/ 700 LB CAPACITY UPLIFT CONNECTORS (UNO).
5. REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.



CLERESTORY FRAMING

LEGEND

■	STUD COLUMN AT POINT LOADS THAT REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION. AT DROPPED HEADERS: (1) JACK STUD AND (1) KING STUD (UNO). AT FLUSH BEAMS AND (UNO): (2) STUDS (UNO)
■	OFFSET POINT LOAD FROM FLOOR ABOVE. MUST BE SUPPORTED BY BEAM, JOIST, OR BLOCKING AS NOTED ON THE PLANS.
DSP	DOUBLE STUD POCKET BETWEEN WINDOW UNITS
———	BEAM OR HEADER AS NOTED
X'-X"	BRACED WALL DIMENSIONS (FOR REFERENCE ONLY)
(UNO)	UNLESS NOTED OTHERWISE

PREPARED UNDER THE SUPERVISION OF:

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 038485 12/10/2021 ENGINEER JACOB ERNEST SMITH

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N.C. CERTIFICATE NUMBER: P-2212

BECKER RESIDENCE

REVISIONS:

DRAWN BY: K&A HOME DESIGN, INC.

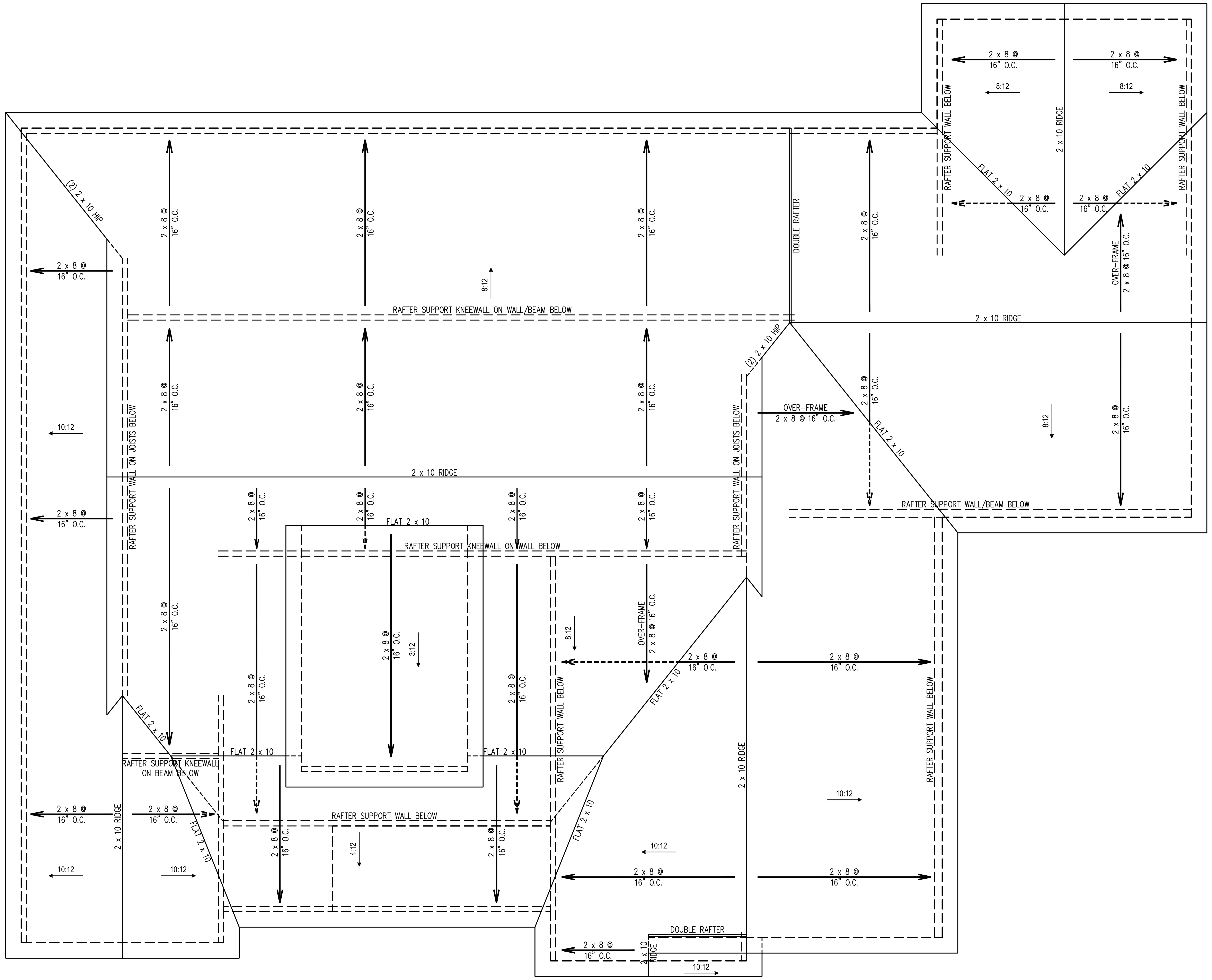
ENGINEERED BY: J. SMITH

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

DATE: 12-10-2021

SHEET: 2 OF: 4

S-2
SECOND FLOOR FRAMING PLAN



ROOF FRAMING STRUCTURAL NOTES:

1. ALL FRAMING LUMBER TO BE #2 SPF (UNO).
2. SHEATH ROOF w/ 7/16" OSB SHEATHING SECURED w/ 8d NAILS @ 6" O.C. ALONG EDGES AND 12" O.C. IN THE FIELD.
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 IF REQUIRED. SECURE RAFTERS TO FLAT VALLEYS WITH A MIN. OF (6) 12d TOE NAILS.
5. INSTALL (1) SIMPSON H2.5A HURRICANE TIE (OR EQUAL) @ EA. RAFTER BEARING.
6. REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

PREPARED UNDER THE SUPERVISION OF:

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 038485 JACOB ERNEST SMITH 12/10/2021

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N.C. CERTIFICATE NUMBER: P-2212

BECKER RESIDENCE

REVISIONS:

DRAWN BY: K&A HOME DESIGN, INC.

ENGINEERED BY: J. SMITH

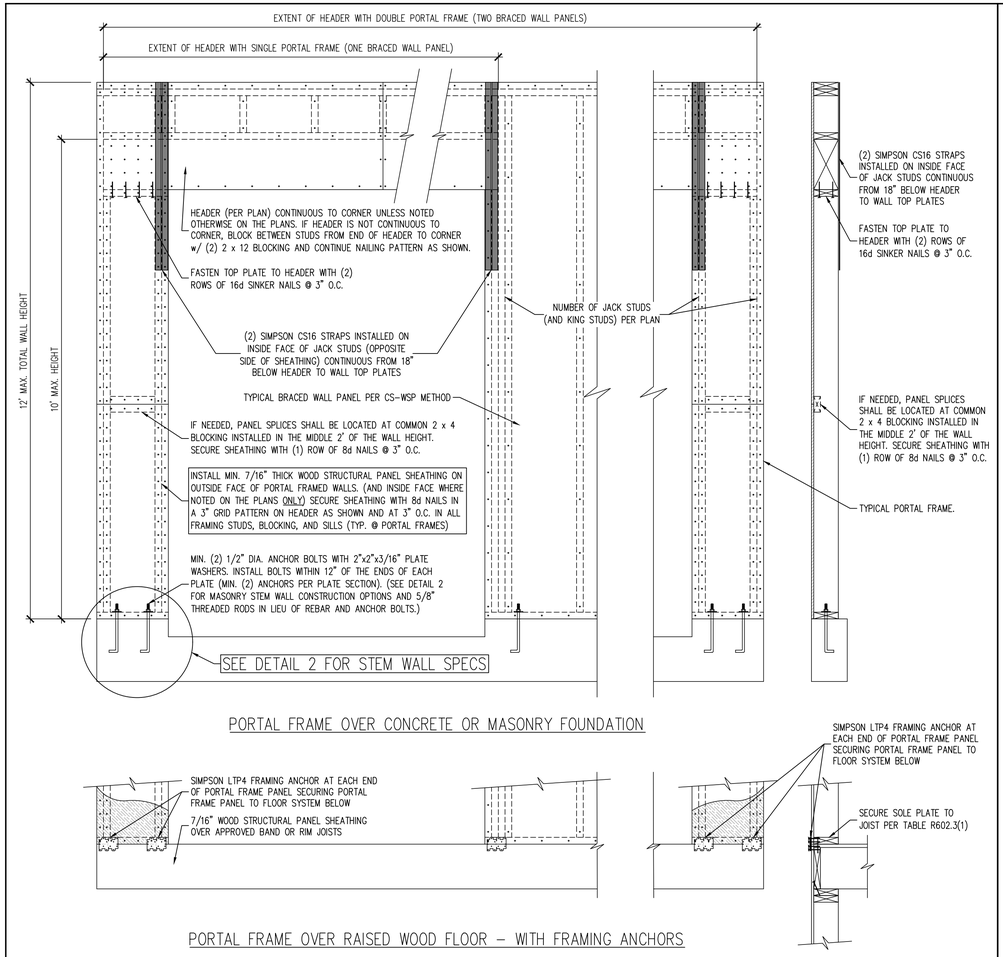
SCALE: 1/4" = 1'-0"

DATE: 12-10-2021

SHEET: 3 OF: 4

S-3

ROOF FRAMING PLAN

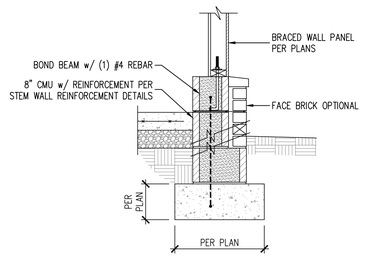


PORTAL FRAME OVER CONCRETE OR MASONRY FOUNDATION

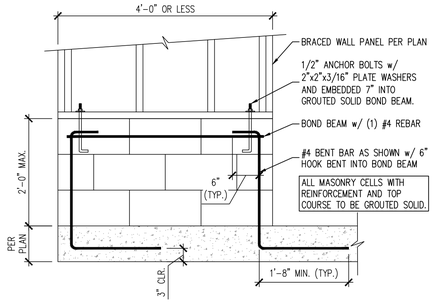
PORTAL FRAME OVER RAISED WOOD FLOOR – WITH FRAMING ANCHORS

1 PF PORTAL FRAME DETAIL

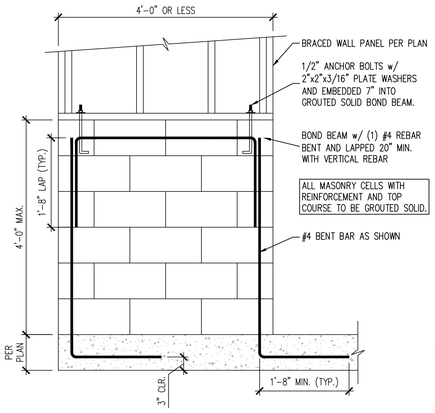
SCALE: 3/4" = 1'-0" (REFERENCE FIGURE R602.10.1)



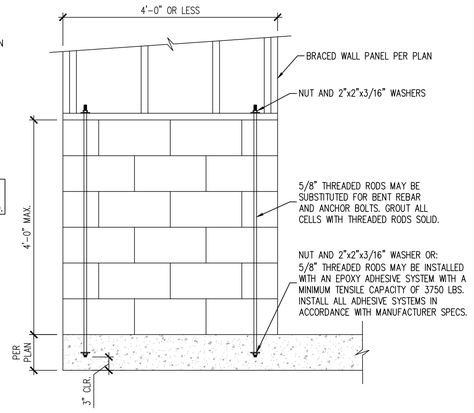
TYPICAL STEM WALL SECTION



SHORT STEM WALL REINFORCEMENT



TALL STEM WALL REINFORCEMENT



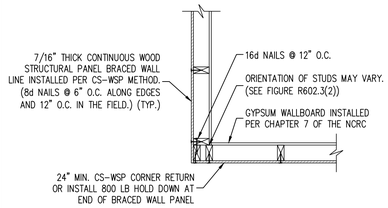
OPTIONAL STEM WALL REINFORCEMENT IN LIEU OF BENT REBAR AND ANCHOR BOLTS

2 MASONRY STEM WALL DETAILS FOR WALLS 48" LONG OR LESS

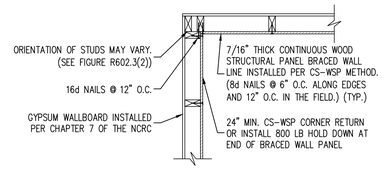
SCALE: 3/4" = 1'-0" (REFERENCE FIGURE R602.10.4.3)

GENERAL WALL BRACING NOTES:

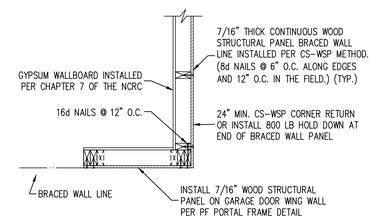
1. WALL BRACING DESIGNED IN ACCORDANCE WITH CHAPTER 6 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE (NCRC). TABLES AND FIGURES REFERENCED ARE FROM THE 2018 NCRC. REFER TO THE 2018 NCRC FOR ADDITIONAL INFORMATION AS NEEDED.
2. SEE STRUCTURAL SHEETS FOR THE BRACED WALL DESIGN SUMMARY WHICH SPECIFIES THE TOTAL AMOUNT OF BRACING REQUIRED AND PROVIDED ALONG EACH BRACED WALL LINE ON EACH FLOOR (WHERE REQUIRED). THE LENGTH AND LOCATION OF BRACED WALLS, HOLD DOWN(S) TYPE AND LOCATIONS, AND ANY SPECIAL NOTES OR REQUIREMENTS DETERMINED BY ENGINEERED DESIGN ARE INCLUDED ON EACH STRUCTURAL FLOOR PLAN (WHERE REQUIRED).
3. ALL EXTERIOR WALLS ARE TO BE SHEATHED ON THE EXTERIOR FACE WITH 7/16" OSB WOOD STRUCTURAL PANELS IN ACCORDANCE WITH THE CS-WSP METHOD AS SPECIFIED IN SECTION R602.10.3 OF THE 2018 NCRC UNLESS NOTED OTHERWISE (UNO).
4. CS-WSP REFERS TO THE "CONTINUOUS SHEATHING – WOOD STRUCTURAL PANELS" WALL BRACING METHOD. 7/16" OSB SHEATHING SHALL BE INSTALLED ON ALL SHEATHABLE SURFACES OF ALL EXTERIOR WALLS ATTACHED w/ 6d COMMON NAILS OR 8d (2 1/2" LONG x 0.113" DIAMETER) NAILS SPACED 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD (UNO).
5. THE INTERIOR SIDE OF ALL EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED WITH 1/2" GYPSUM WALL BOARD. WHEN NOT USING BRACING METHOD "GB", GYPSUM WALL BOARD SHALL BE FASTENED PER TABLE R702.3.5. BRACING METHOD "GB" WALL BOARD SHALL BE FASTENED PER TABLE R602.10.1
6. "GB" REFERS TO THE "GYPSUM BOARD" WALL BRACING METHOD. WHERE NOTED ON THE PLANS, 1/2" (MIN.) GYPSUM WALL BOARD SHALL BE INSTALLED ON BOTH SIDES OF THE BRACED WALL FASTENED WITH 1 1/4" #6 SCREWS OR 1 5/8" 5d COOLER NAILS SPACED 7" O.C. ALONG PANEL EDGES AND 7" O.C. ALONG INTERMEDIATE SUPPORTS (UNO).
7. THE REQUIRED BRACED WALL LENGTHS FOR EACH SIDE OF THE CIRCUMSCRIBED RECTANGLE ARE INTERPOLATED PER TABLE R602.10.3. METHOD CS-WSP CONTRIBUTES ITS ACTUAL LENGTH, METHOD GB CONTRIBUTES .5 ITS ACTUAL LENGTH, AND METHOD PF CONTRIBUTES 1.5 TIMES ITS ACTUAL LENGTH.



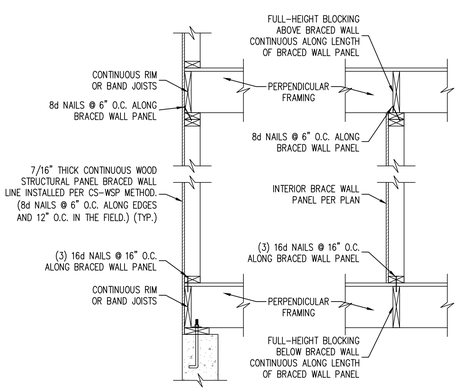
CS-WSP OUTSIDE CORNER DETAIL



CS-WSP INSIDE CORNER DETAIL

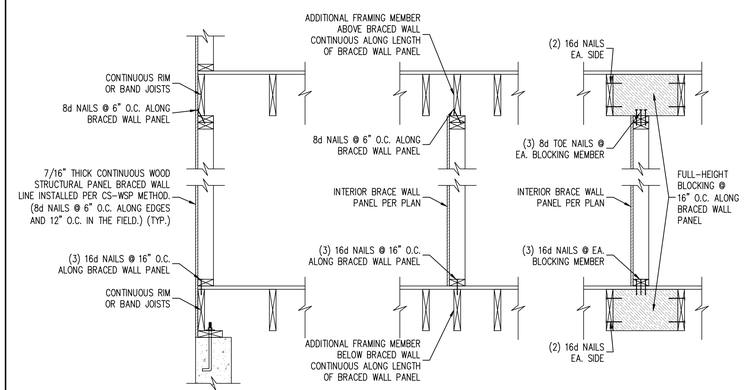


CS-WSP GARAGE DOOR CORNER DETAIL



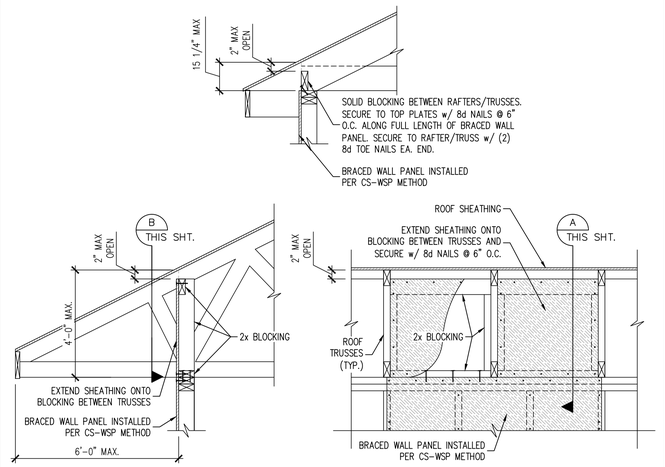
3 BRACED WALL PANEL CONNECTION WHEN PERPENDICULAR TO FLOOR/CEILING FRAMING

SCALE: NTS (REFERENCE FIGURE R602.10.4.4(1))



4 BRACED WALL PANEL CONNECTION WHEN PARALLEL TO FLOOR/CEILING FRAMING

SCALE: NTS (REFERENCE FIGURE R602.10.4.4(2))



SECTION A ELEVATION B

5 BRACED WALL PANEL CONNECTION TO PERPENDICULAR RAFTERS OR TRUSSES

SCALE: NTS (REFERENCE FIGURES R602.10.4.5(1) AND (3))

6 TYPICAL EXTERIOR CORNER FRAMING DETAILS

SCALE: 3/4" = 1'-0" (REFERENCE FIGURES R602.10.3(4) AND (5))

PREPARED UNDER THE SUPERVISION OF:

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BECKER RESIDENCE

REVISIONS:

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ENGINEERED BY: J. SMITH

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

DATE: 12-10-2021

SHEET: 4 OF: 4

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WALL BRACING DETAILS AND NOTES