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

TABLE 402.1.1 ENERGY CONSERVATION CODE
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT

CLIMATE ZONE	FENS. U-FAC	SKY-LIGHT U-FAC	GLAZED FENS. SHGC	MINIMUM INSULATION R-VALUE						
				CEILING	WOOD WALL	MASS WALL	FLOOR	BSMNT WALL	SLAB & DEPTH	CRAWL SPACE
3	0.35	0.55	0.30	38 or 30 cont.	15 or 13+2.5	5/13 or 8/10 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 8/10 cont.	19	10/13	10	10/13
5	0.35	0.55	NR	38 or 30 cont.	19, 13+5 or 15+3	13/17 or 13+7.5 cont.	30	10/13	10	10/13

SEE TABLE 301.1 CLIMATE ZONES BY COUNTY FOR ENERGY CONSERVATION CODE
SEE FOOTNOTES OF TABLE N1102.1 FOR FOOTNOTES AND DETAILED EXPLANATIONS.

RIGHT SIDE ELEVATION
SCALE: ---------- 1/4" = 1'-0"

THIS PLAN CONFORMS TO THE 2018 EDITION OF THE I.R.C. / NORTH CAROLINA RESIDENTIAL CODE.

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PROJECT FOR: I.C.G.
LOCATION: TBD
LOT: MULTI
SUBDIVISION: TBD
COUNTY: TBD

MARSHALL

PLAN NAME

C2-3069-56GR

PLAN I.D.

1.11.24

DATE

A-1B.1

SHEET

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

LEFT SIDE ELEVATION
SCALE: ---------- 1/4" = 1'-0"

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A-1B.2
SHEET

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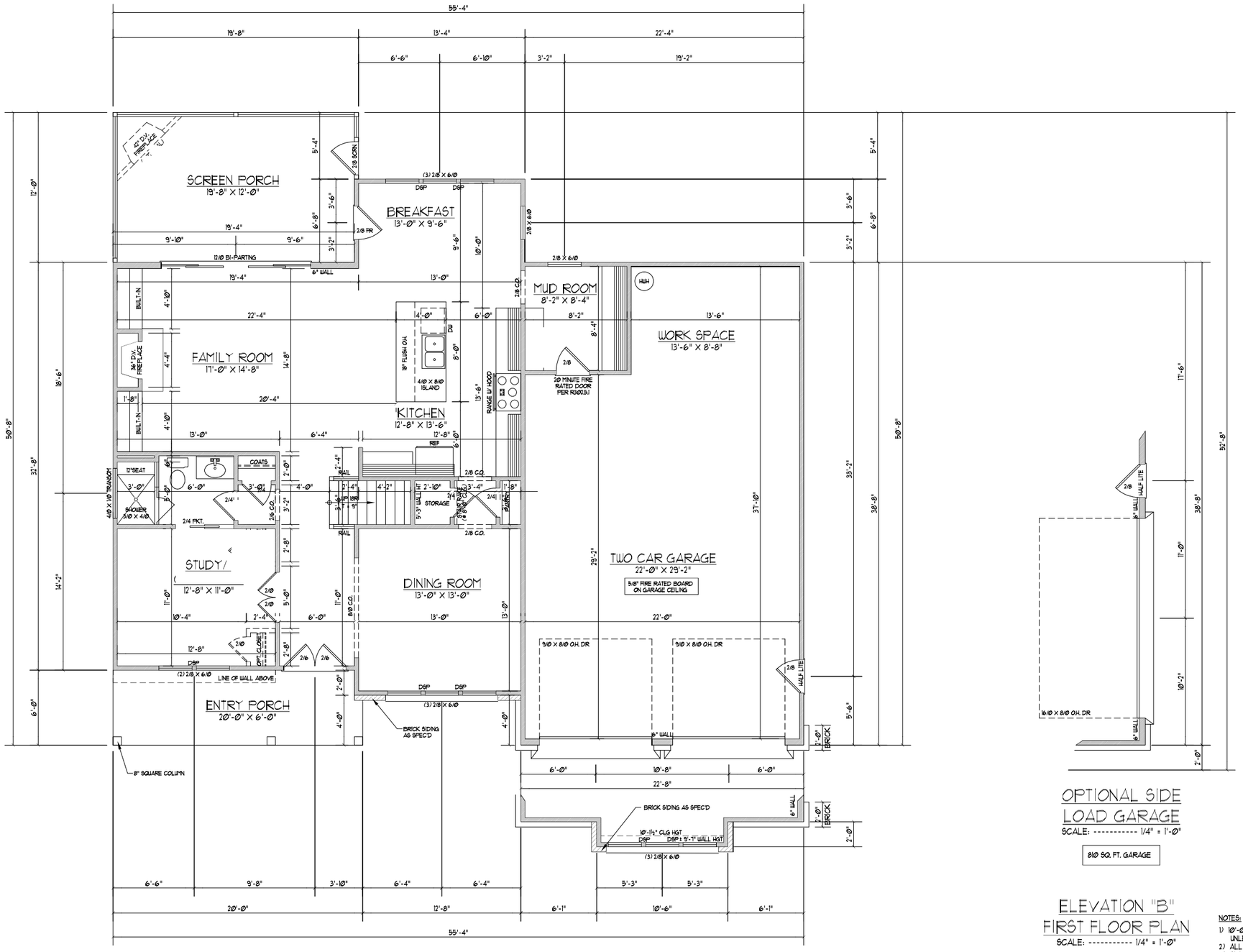

OPTIONAL SIDE LOAD GARAGE
SCALE: ---------- 1/4" = 1'-Ø"

8Ø SQ. FT. GARAGE

ELEVATION "B"
FIRST FLOOR PLAN
SCALE: ---------- 1/4" = 1'-Ø"

1213 HEATED SQ. FT.
789 SQ. FT. GARAGE
118 SQ. FT. ENTRY PORCH
234 SQ. FT. SCREEN PORCH

NOTES:
1) 10'-0" CLG. HGT. (10' - 1 1/2" PLT. HGT.) UNLESS OTHERWISE NOTED.
2) ALL WALLS DRAWN AT 4" WIDTHS
3) SET WINDOWS AT 8'-0" A.S.F. UNLESS OTHERWISE NOTED.
4) DIMENSIONS ARE TO FRAMING UNLESS OTHERWISE NOTED.
5) CONSULT WINDOW MANUFACTURER'S SPECS. FOR EGRESS REQUIREMENTS, PRESSURE RATINGS, & ROUGH OPNG'S.
6) ELECTRICAL LAYOUT BY BUILDER

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A-2

SHEET

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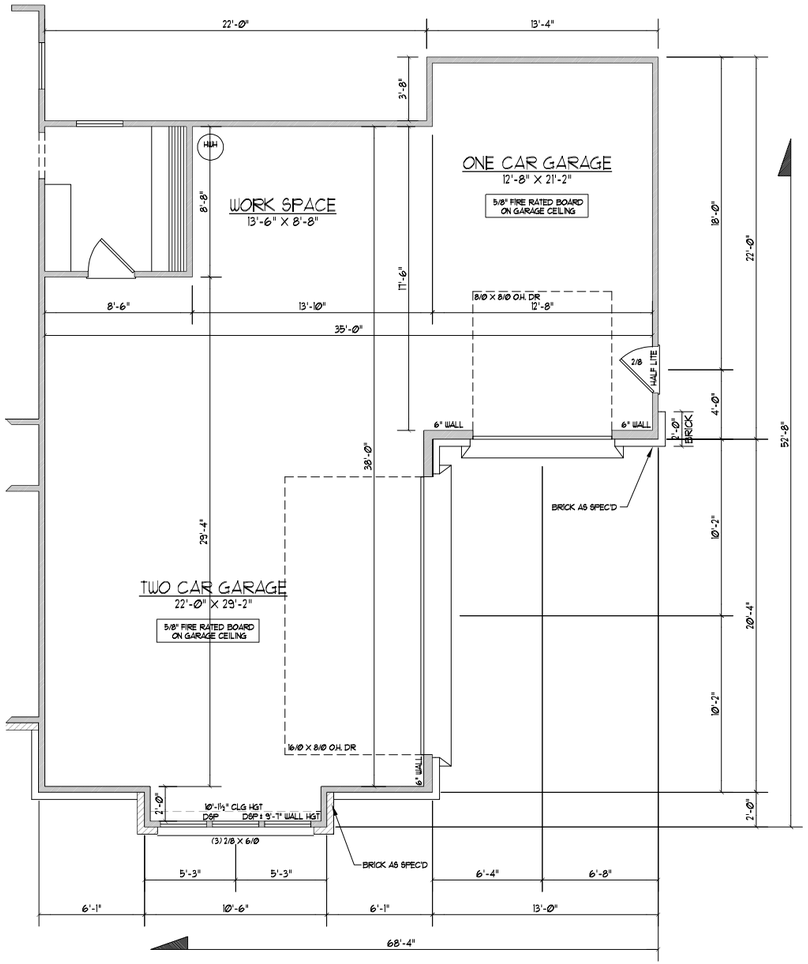

OPT. 3rd CAR SIDE LOAD GARAGE

SCALE: ---------- 1/4" = 1'-Ø"

1Ø76 SQ. FT. GARAGE

ELEVATION "B"

NOTES:

1) 1Ø'-Ø" CLG. HGT. (1Ø' - 1 1/2" PLT. HGT.) UNLESS OTHERWISE NOTED.
2) ALL WALLS DRAWN AT 4" WIDTHS
3) SET WINDOWS AT 8'-Ø" A.F.F. UNLESS OTHERWISE NOTED.
4) DIMENSIONS ARE TO FRAMING UNLESS OTHERWISE NOTED.
5) CONSULT WINDOW MANUFACTURER'S SPECS. FOR EGRESS REQUIREMENTS, PRESSURE RATINGS, & ROUGH OPNG'S.
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A-2
SHEET

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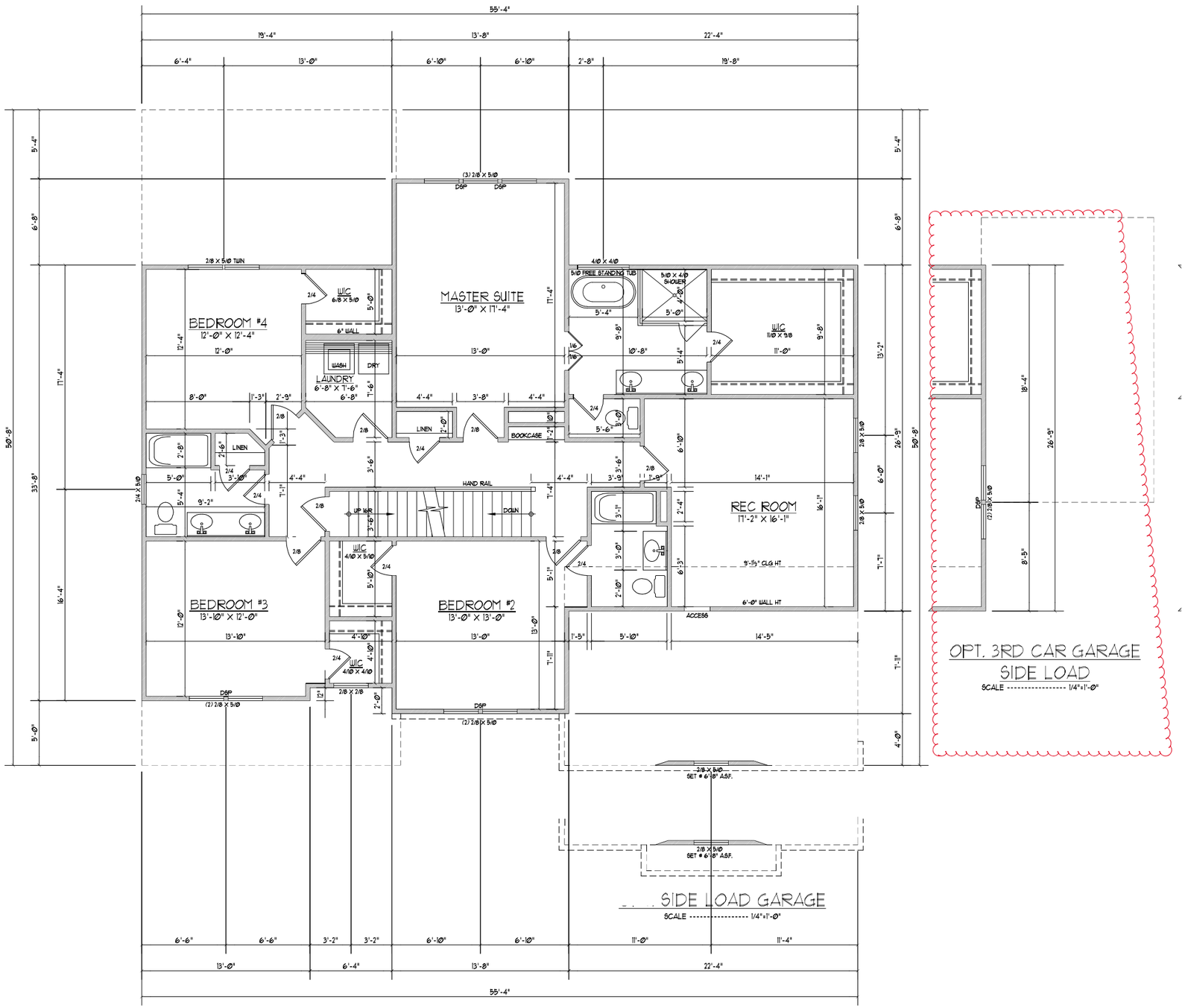

ELEVATION "B"
SECOND FLOOR PLAN

SCALE ---------- 1/4"=1'-Ø"

1804 HEATED SQ. FT.

NOTES:
1) 9'-Ø" CLG. HGT. (9' - 1 1/2" FLT. HGT.) UNLESS OTHERWISE NOTED.
2) ALL WALLS DRAWN AT 4" WIDTHS UNLESS OTHERWISE NOTED.
3) SET WINDOWS AT 7'-4" A.S.F. UNLESS OTHERWISE NOTED.
4) DIMENSIONS ARE TO FRAMING UNLESS OTHERWISE NOTED.
5) CONSULT WINDOW MANUFACTURER'S SPECS. FOR EGRESS REQUIREMENTS, PRESSURE RATINGS, & ROUGH OPNG'S.
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A-3

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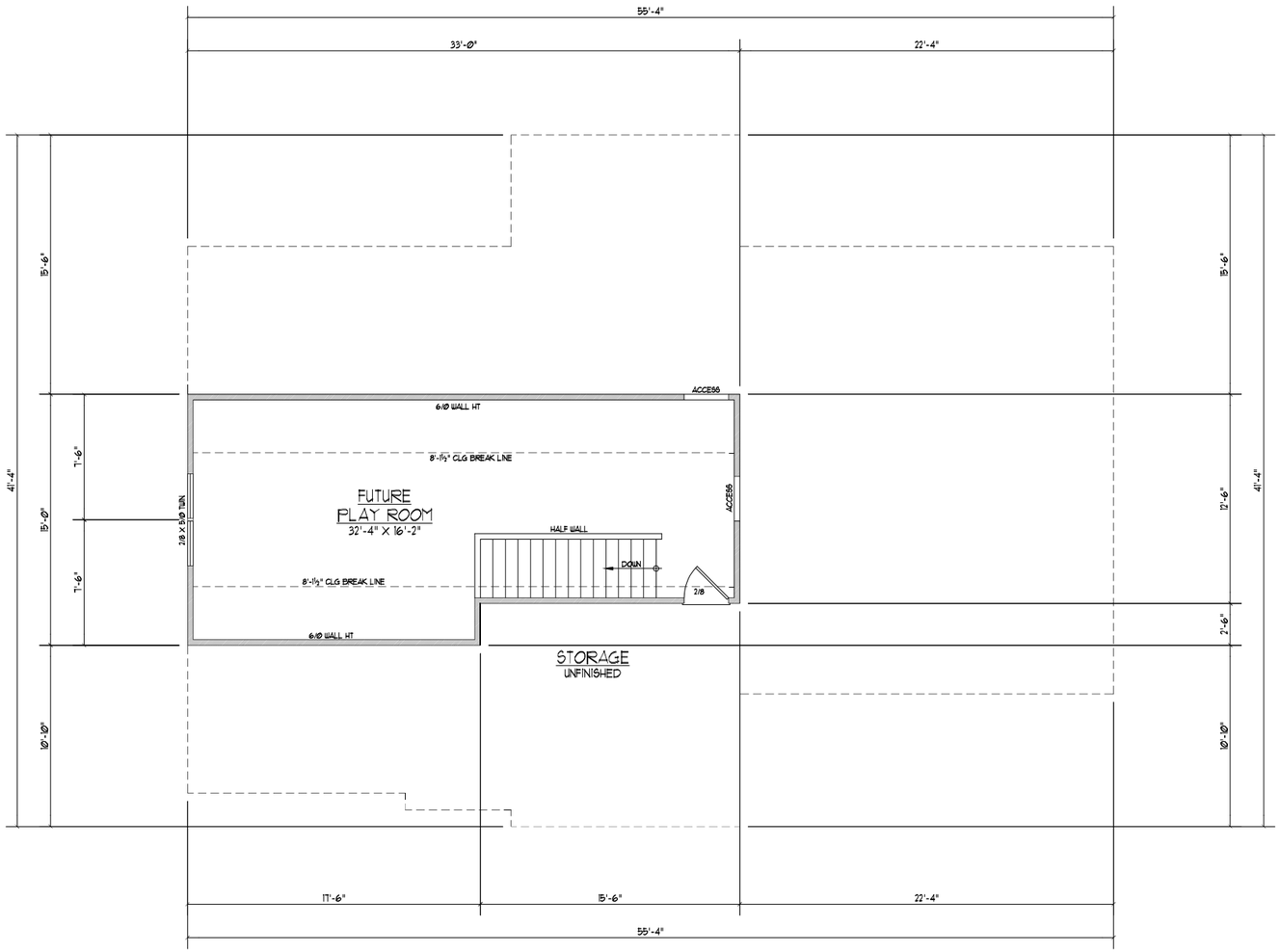

ATTIC FLOOR PLAN

SCALE ---------- 1/4"=1'-Ø"

456 SQ. FT. STORAGE

NOTES:

1) 8'-Ø" CLG. HGT. (8' - 1 1/2" PLT. HGT.) UNLESS OTHERWISE NOTED.
2) ALL WALLS FIGURED AT 4" WIDTHS UNLESS OTHERWISE NOTED.
3) SET WINDOWS AT 6'-8" A.F.F. UNLESS OTHERWISE NOTED.
4) DIMENSIONS ARE TO FRAMING UNLESS OTHERWISE NOTED.
5) CONSULT WINDOW MANUFACTURER'S SPECS. FOR EGRESS REQUIREMENTS, PRESSURE RATINGS, & ROUGH OPNG'S.
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A-4

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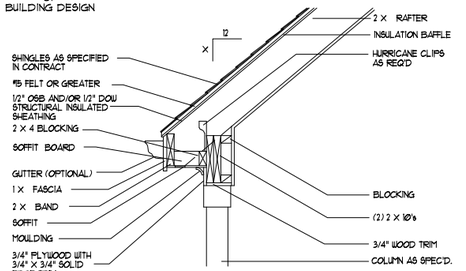

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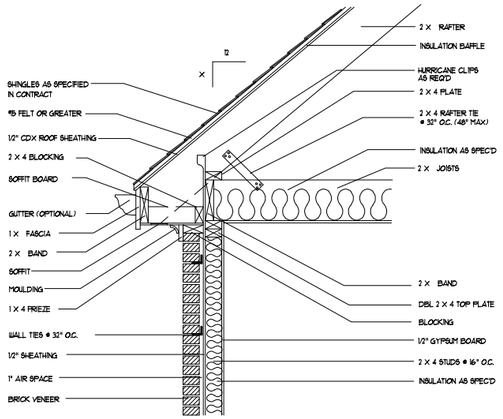
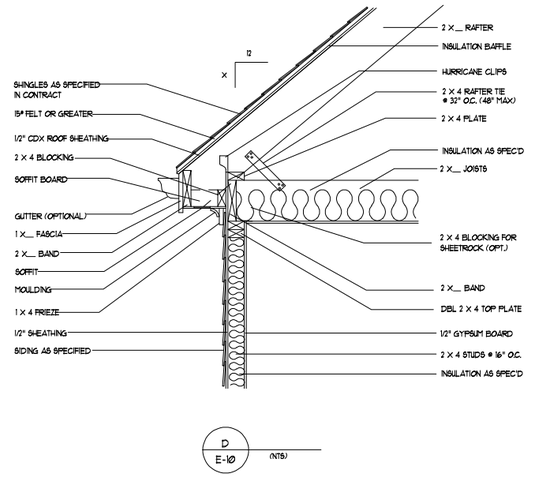
P-4
(NTS)



D
E-2
100 MPH
(NTS)



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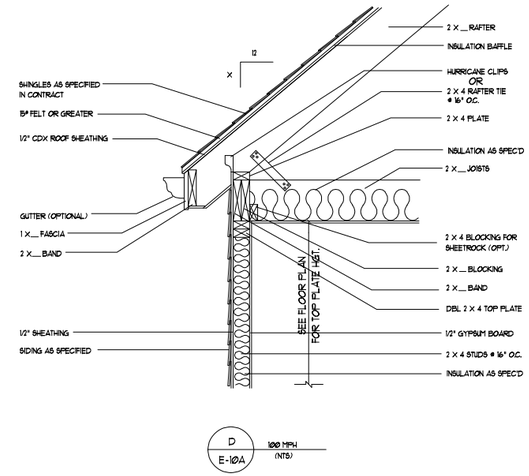
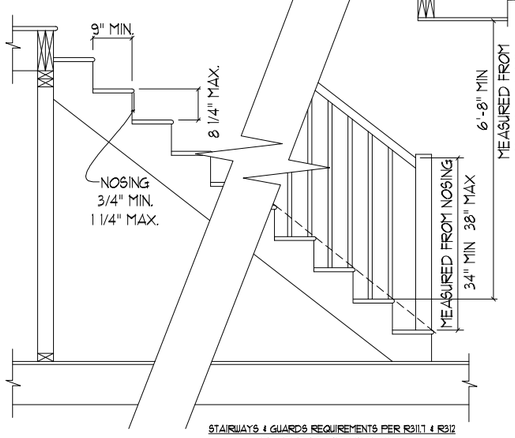
(NTS)



D
E-10A
100 MPH
(NTS)

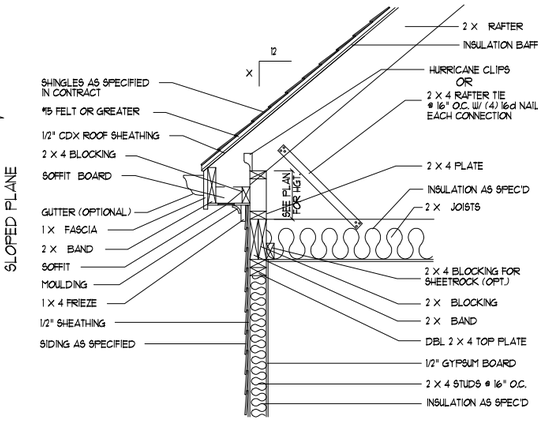


STAIRWAYS & GUARDS REQUIREMENTS PER R311.7 & R312

EACH TREAD AND RISER MUST BE UNIFORM.
THE GREATEST RISER HEIGHT SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8".
THE GREATEST TREAD DEPTH SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8".
THE TOP AND BOTTOM RISER OF INTERIOR STAIRS SHALL NOT EXCEED THE SMALLEST RISER BY MORE THAN 3/4".

SEE FLOOR PLAN FOR ACTUAL SPECIFICATIONS.

REQUIRED GUARDS SHALL NOT HAVE OPENINGS FROM THE WALKING SURFACE TO THE REQUIRED GUARD HEIGHT WHICH ALLOW PASSAGE OF A SPHERE 4" IN DIAMETER.



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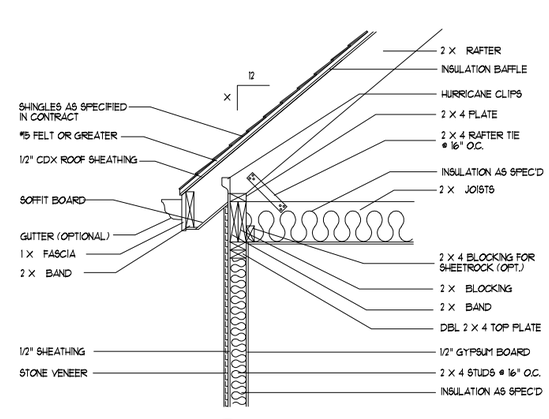
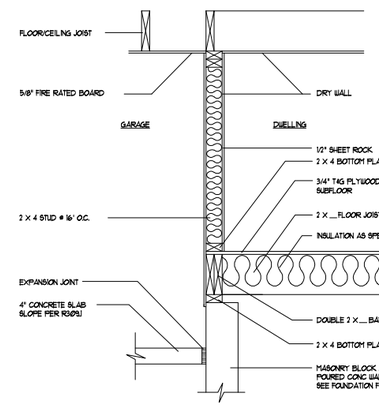
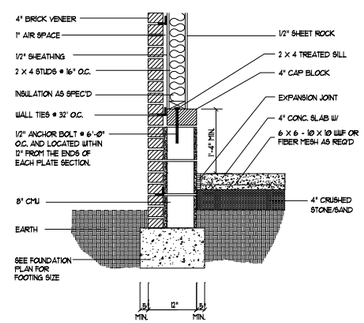
(NTS)



D
E-25B
100 MPH
(NTS)



D
GW-1
(NTS)



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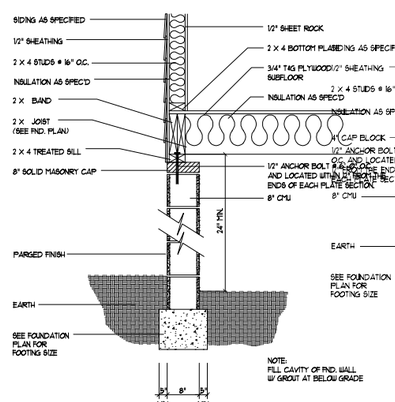
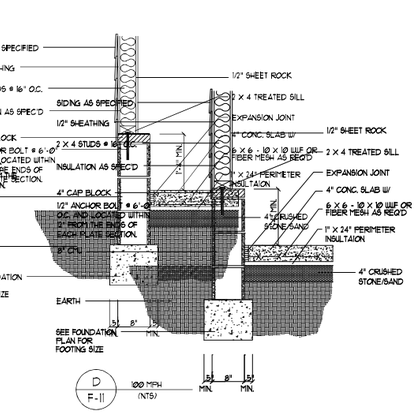
F-2
(NTS)

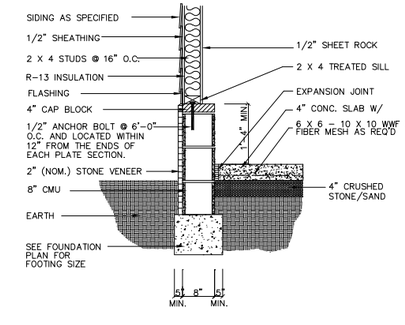


D
F-10A
100 MPH
(NTS)



D
F-11
100 MPH
(NTS)

D
F-11
100 MPH
(NTS)



D
F-25
100 MPH
(NTS)

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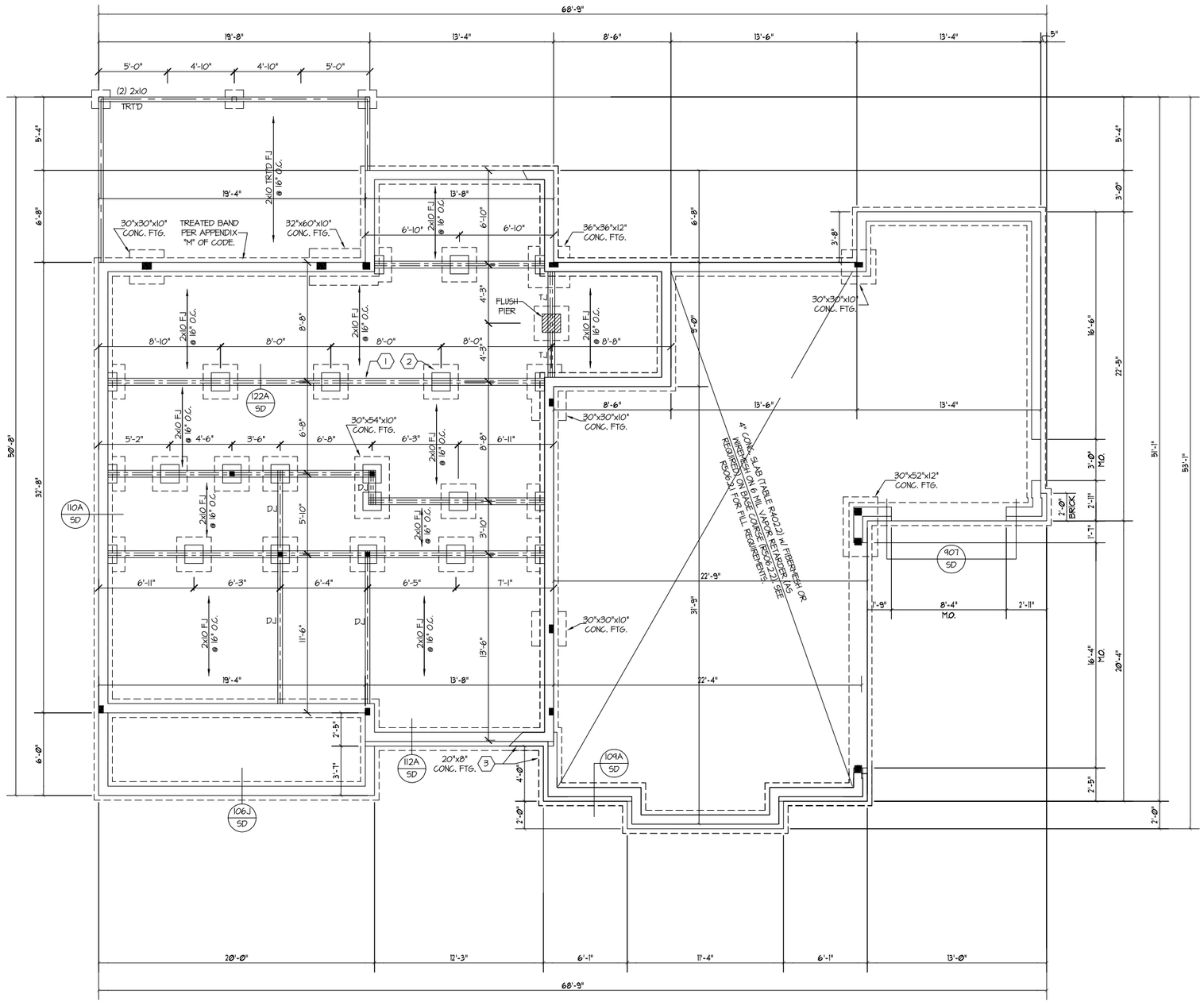
D-1
SHEET



FOUNDATION STRUCTURAL NOTES

NC (2018 NCRC): Wind: 115-120 mph - CRAWL

1. (3)2x10 SYP#2 OR SPF#2 GIRDER, TYPICAL UNO.
2. CONCRETE BLOCK PIER SIZE SHALL BE:

SIZE	HOLLOW	SOLID
8x16	UP TO 32"	UP TO 5'-0"
12x16	UP TO 48"	UP TO 9'-0"
16x16	UP TO 64"	UP TO 12'-0"
24x24	UP TO 96"	

- WITH 30" x 30" x 10" CONCRETE FOOTING, UNO.

3. WALL FOOTING AS FOLLOWS
   - DEPTH: 8" - UP TO 2 STORY; 10" - 3 STORY
   - WIDTH:
     - SIDING: 16" - UP TO 2 STORY; 20" - 3 STORY
     - BRICK: 16" - 1 STORY; 20" - 2 STORY; 24" - 3 STORY
   - FOR FOUNDATION WALL HEIGHT AND BACKFILL REQUIREMENTS, REFER TO CODE TABLE R404.1.1 (1 THRU 4) NOTE: ASSUMED SOIL BEARING CAPACITY = 2000 PSF. CONTRACTOR MUST VERIFY SITE CONDITIONS AND CONTACT SOILS ENGINEER IF MARGINAL OR UNSTABLE SOILS ARE ENCOUNTERED.
4. (4) 2x10 SPF #2 OR SYP #2 GIRDER
5. (2) 1.75x9.25 LVL OR LSL GIRDER
6. (3) 1.75x9.25 LVL OR LSL GIRDER
7. "■" DESIGNATES A SIGNIFICANT POINT LOAD TO HAVE SOLID BLOCKING TO PIER. SOLID BLOCK ALL BEAM BEARING POINTS NOTED TO HAVE THREE OR MORE STUDS TO FND, TYPICAL.
8. ABBREVIATIONS:
   - "S.J" = SINGLE JOIST
   - "D.J" = DOUBLE JOIST
   - "T.J" = TRIPLE JOIST
9. ADJUST SUBFLOOR THICKNESS OR JOIST SPACING AS REQ'D FOR FLOOR FINISH MATERIALS.

ELEVATION "B"
FOUNDATION PLAN

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

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 16073 JAMES H. HERMAN

PROJECT # 22-1915 (308SER)

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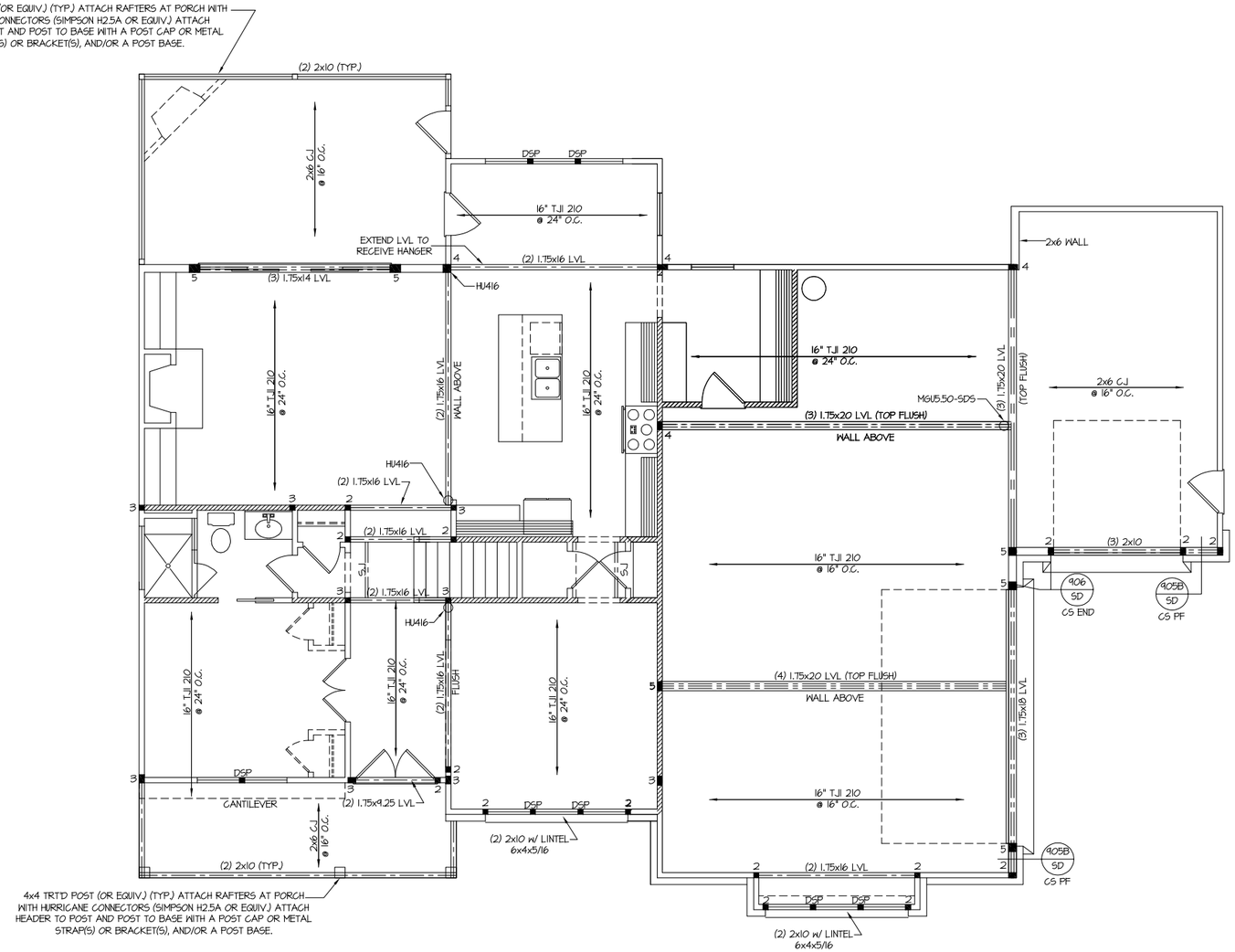
DYNAMIC DESIGN GROUP

Marshall
Lot 308, Serenity - 183 Inspiration Way
ICG HOMES

S-1



FRAMING NOTES

NC (2018 NCRC): Wind: 115-120 mph

1. BRACING METHOD AND TYPE: CONTINUOUSLY SHEATHED WSP: GS-WSP. NOTE THAT THE WALL BRACING AMOUNT PROVIDED ON THE PLANS (DETAILS AND SPECIFICATIONS) IS GREATER THAN THE AMOUNT OF WALL BRACING REQUIRED BY SECTION R602.10 OF THE CODE. SEE NOTES BELOW FOR DETAILS AND SPECIFICATIONS FOR WALL BRACING AND WALL FRAMING.

2. EXTERIOR WALL SHEATHING: WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STORIES WITH WOOD STRUCTURAL PANEL SHEATHING (WSP) (EXPOSURE B: 7/16", EXPOSURE C: 15/32"). SHEATHING SHALL BE ATTACHED WITH 8d NAILS AT A 6"/12" NAILING PATTERN (6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS). INSTALL BLOCKING AT ALL PANEL EDGES.

3. WSP SHEATHING SHALL EXTEND TO THE UPPERMOST DOUBLE BEARING PLATE. BLOCK AT ROOF PER SECTION R602.10.4.5 AND ATTACH BRACED WALLS PER CODE. WSP SHEATHING BETWEEN FLOORS SHALL BE SPLICED ALONG CONTINUOUS BAND OR THE WSP SHEATHING MAY BE SPLICED ACROSS STUDS (CONTINUOUS ACROSS FLOOR SYSTEM) WITH BLOCKING AT PANEL EDGES. (MINIMUM 12" BEYOND FLOOR BREAK) OR OTHER APPROVED METHOD.

4. "HD" = HOLDOWN: HOLD-DOWN DEVICE (NOTED AS "HD" ON PLANS) SHALL BE AN 800 POUND CAPACITY ASSEMBLY AS NOTED ON PLANS. SEE DETAILS FOR HD ASSEMBLY.
   - **GROUND/FIRST FLOOR: USE "HD HOLD-DOWN DETAIL" ON SD SHEET (OR EQUIV.)
   - **UPPER FLOORS: ATTACH BASE OF KING STUD WITH A SIMPSON CS22 STRAP DOWN ACROSS THE BAND AND DOWN TO A STUD BELOW OR HEADER BELOW. EXTEND STRAP 7" MIN ALONG EACH STUD (OR HEADER) AND ATTACH EACH END W/ (7) 8d NAILS.

5. INTERIOR BRACED WALL: (NOTED AS "IBW" ON PLANS) ATTACH 1/2" GYPSUM BOARD (GB) ON EACH SIDE OF WALL WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @ 7" O.C. ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.

6. INTERIOR BRACED WALL-WOOD STRUCTURAL PANEL: (NOTED AS "IBW-WSP" ON PLANS). ATTACH ONE SIDE WITH 7/16" WSP SHEATHING WITH 8d NAILS AT A 6"/12" NAILING PATTERN (6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS). INSTALL BLOCKING AT ALL PANEL EDGES. ATTACH GB OVER WSP AS REQUIRED. ATTACH OPPOSITE SIDE WITH 1/2" GB WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @ 7" OC ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.

HEADER/BEAM & COLUMN NOTES

1. ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2)2x10 (4" WALL) OR (3)2x10 (6" WALL) WITH (1) SUPPORT STUD, UNLESS NOTED OTHERWISE.

2. THE NUMBER SHOWN AT BEAM AND HEADER SUPPORTS INDICATES THE NUMBER OF SUPPORT STUDS REQUIRED IN STUD POCKET OR COLUMN. THE NUMBER OF KING STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS SHALL BE ACCORDING TO ITEM "a" IN TABLE R602.3(5) OR AS BELOW PER NCDOI COMMENTARY "KING STUDS AT WALL OPENINGS" REVISED 1-9-2020:
   - UP TO 3' SPAN: (1) KING STUD
   - OVER 3' UP TO 6' SPAN: (2) KING STUDS
   - OVER 6' UP TO 9' SPAN: (3) KING STUDS
   - OVER 9' UP TO 12' SPAN: (4) KING STUDS
   - OVER 12' UP TO 15' SPAN: (5) KING STUDS

WOOD "I" JOISTS

(SHALL BE ONE OF THE FOLLOWING):
- TJI 210 BY I-LEVEL
- LPI 20 PLUS BY LP
- BCI 5000s 1.8 BY BC

- ALL WOOD "I"JOISTS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- INSTALL SQUASH BLOCKS, WEB STIFFENERS, ETC. AS REQUIRED BY AND ACCORDING TO THE I-JOIST MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS.
- HANGERS FOR I-JOISTS ARE THE RESPONSIBILITY OF THE I-JOIST SUPPLIER.

NOTE: I-JOISTS MAY BE SUBSTITUTED WITH FLOOR TRUSSES DESIGNED BY SUPPLIER (SAME DEPTH AND LAYOUT).

LVL CONNECTION LEGEND

1. (2) PLY 1.75" LVL BEAMS:
   - (3) ROWS OF 10d NAILS @ 12" O.C. OR
   - (2) ROWS OF SIMPSON SDW22338 (OR EQUAL) SCREWS @ 16" O.C.

2. (3) PLY 1.75" LVL BEAMS:
   - (3) ROWS OF 10d NAILS @ 8" O.C. ON EACH SIDE OR
   - (2) ROWS OF SIMPSON SDW22500 (OR EQUAL) SCREWS @ 16" O.C.

3. (4) PLY 1.75" LVL BEAMS:
   - (2) ROWS OF SIMPSON SDW22634 (OR EQUAL) SCREWS @ 16" O.C. FOR BEAMS UP TO 18"
   - (3) ROWS OF SIMPSON SDW22634 (OR EQUAL SCREWS @ 16" O.C. FOR BEAMS GREATER THAN 18".

ELEVATION "B"
FIRST FLOOR CEILING / STRUCTURAL PLAN

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

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 16073 JAMES M. HERMAN 4-14-22

PROJECT # 22-1915 (308SER)

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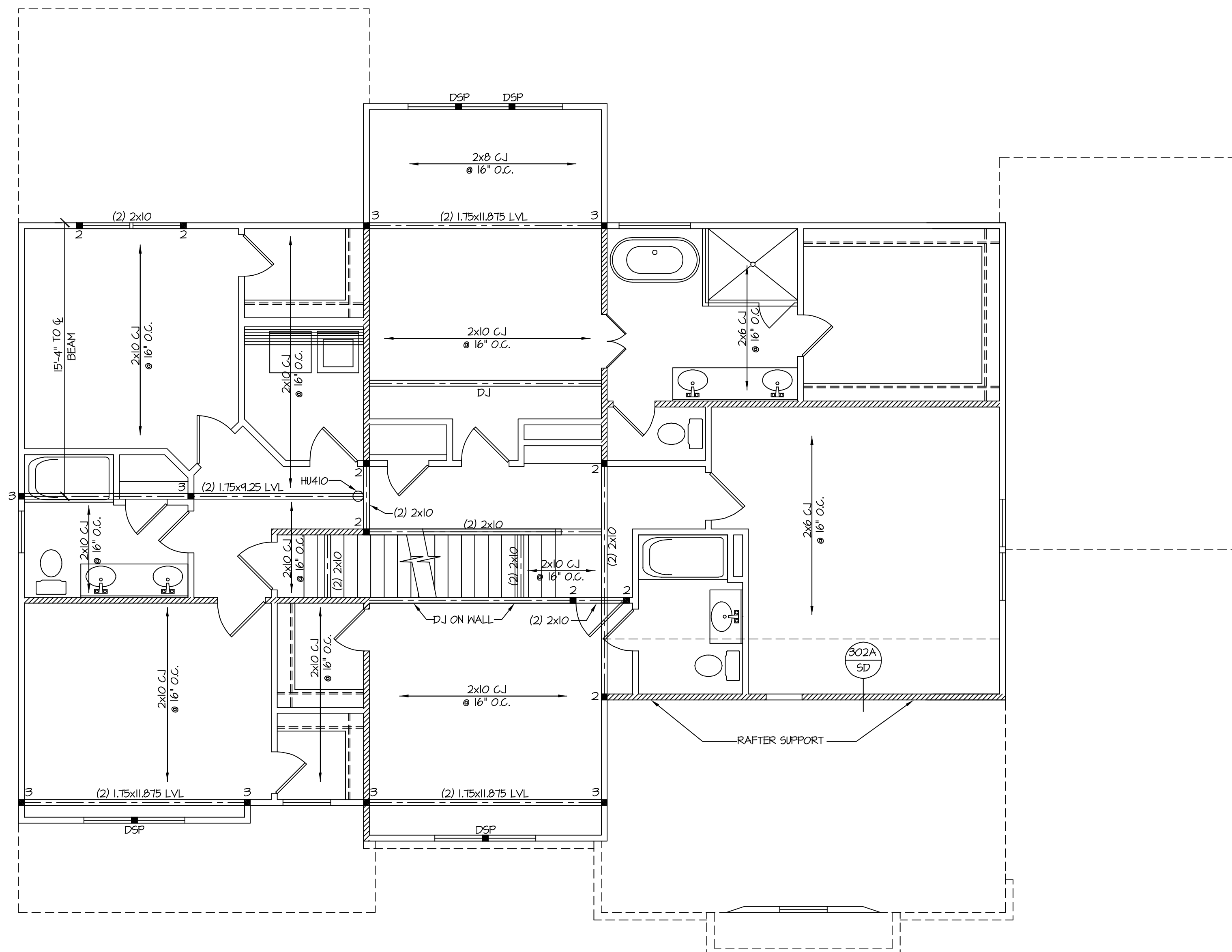
S-2.1b



HEADER/BEAM & COLUMN NOTES

1. ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2)2x10 (4" WALL) OR (3)2x10 (6" WALL) WITH (1) SUPPORT STUD, UNLESS NOTED OTHERWISE.

2. THE NUMBER SHOWN AT BEAM AND HEADER SUPPORTS INDICATES THE NUMBER OF SUPPORT STUDS REQUIRED IN STUD POCKET OR COLUMN. THE NUMBER OF KING STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS SHALL BE ACCORDING TO ITEM "d" IN TABLE R602.3(5) OR AS BELOW PER NCDOI COMMENTARY "KING STUDS AT WALL OPENINGS" REVISED 1-9-2020:
   - UP TO 3' SPAN: (1) KING STUD
   - OVER 3' UP TO 6' SPAN: (2) KING STUDS
   - OVER 6' UP TO 9' SPAN: (3) KING STUDS
   - OVER 9' UP TO 12' SPAN: (4) KING STUDS
   - OVER 12' UP TO 15' SPAN: (5) KING STUDS

ELEVATION "B" SECOND FLOOR CEILING/ STRUCTURAL PLAN

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

PROJECT #
22-1915 (308SER)

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Marshall
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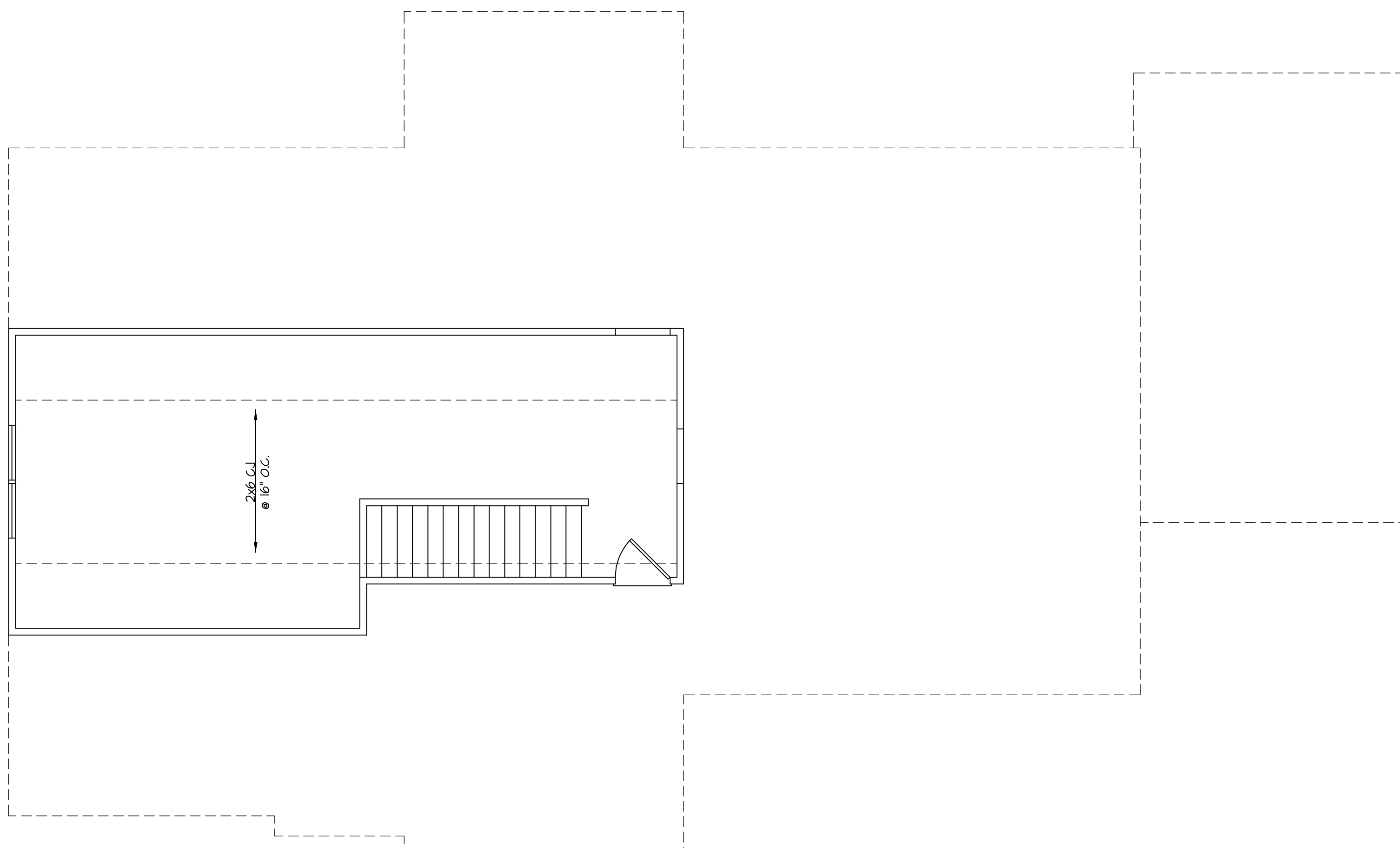
ICG HOMES

S-3b



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ATTIC FLOOR CEILING/ STRUCTURAL PLAN

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

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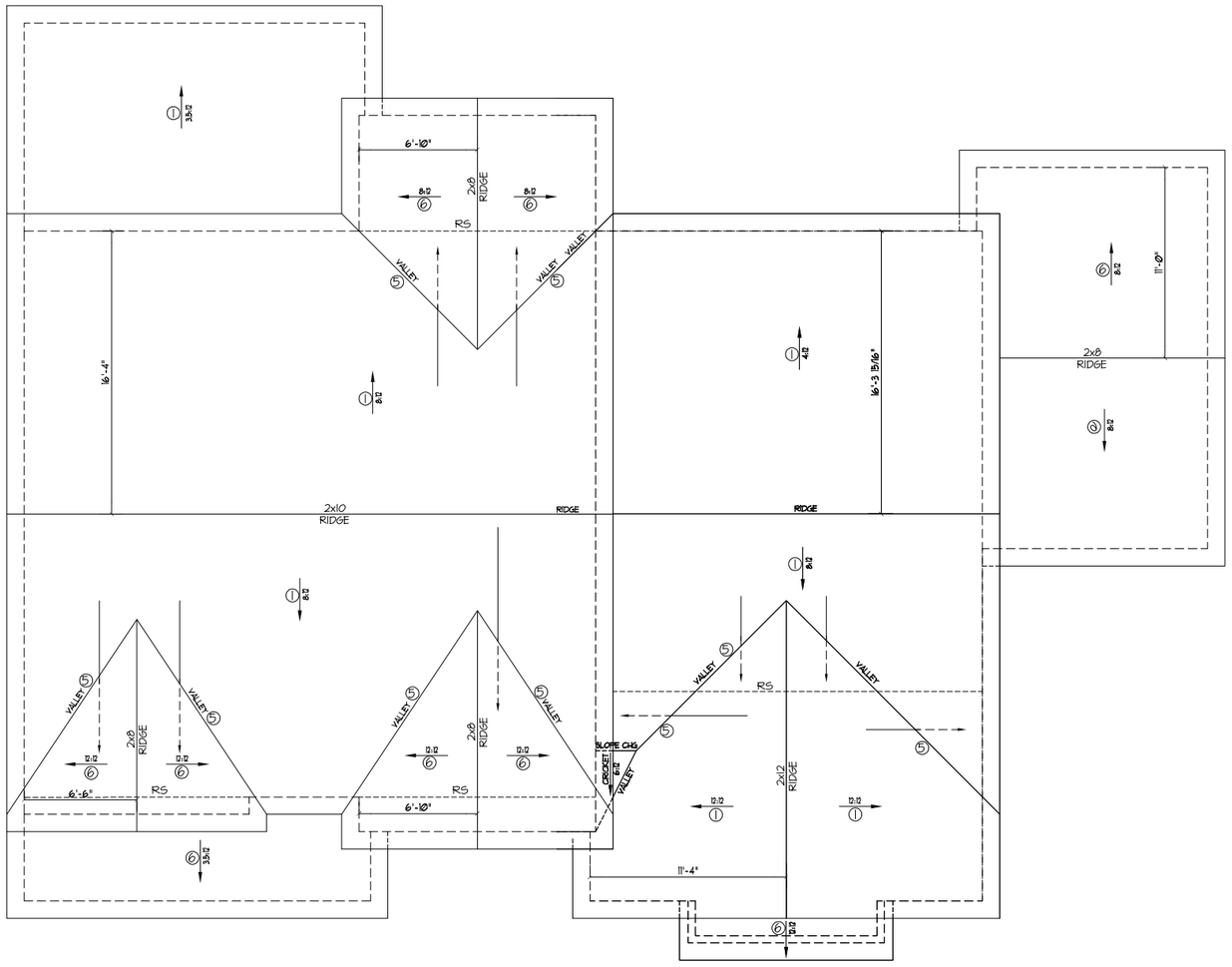
S-4



ROOF FRAMING NOTES:

NC (2018 NCRC); Wind: 115-120 mph

1. 2x8 RAFTERS @ 16" O.C. WITH 2x10 RIDGE, UNO.
2. (2) 2x10 OR 1.75x11.875 LVL HIP. (2) 2x10 HIPS MAY BE SPLICED WITH A MIN. 6'-0" OVERLAP AT CENTER
3. (2) 2x10 OR 1.75x9.25 LVL VALLEY. DO NOT SPLICE VALLEYS
4. 1.75x11.875 LVL OR (2)1.75x9.25 LVL VALLEY
5. FALSE FRAME VALLEY ON 2x10 FLAT PLATE
6. 2x6 RAFTERS @ 16" O.C. W/ 2x8 RIDGE, UNO.
7. 2x10 RAFTERS @ 16" O.C. W/ 2x12 RIDGE, UNO.
8. EXTEND RIDGE 12" BEYOND INTERSECTION

- "SR" = SINGLE RAFTER
- "DR" = DOUBLE RAFTER
- "TR" = TRIPLE RAFTER
- "RS" = ROOF SUPPORT
- "■" = (3) STUD OR 4x4 POST FOR ROOF SUPPORT (USE 2X6 STUDS OR 6X6 POST FOR SUPPORT OVER 10'-0" IN HEIGHT)
- ATTACH VAULTED RAFTERS WITH HURRICANE CLIPS: SIMPSON "H-2.5A" OR EQUIVALENT. TIES TO BE INSTALLED ON THE OUTSIDE FACE OF FRAMING.
- INSTALL RAFTER TIES AND COLLAR TIES PER SECTION R802.3.1 OF THE 2018 NC RESIDENTIAL CODE.

ATTIC VENTILATION

REQUIRED

2421 SQ FT OF ATTIC / 300 = 8.07 SQ. FT. OF INLET & OUTLET

PROVIDED

(INLET) SOFFIT .07 SQ. FT. PER LINEAR FT. OF VENT. x 115 LINEAR FT. OF VENT. = 8.05 SQ. FT. OF VENT. 47 % (TOTAL OF INLET)

(OUTLET) RIDGE .11 SQ. FT. PER LINEAR FT. OF VENT. x 116 LINEAR FT. OF VENT. = 12.76 SQ. FT. OF VENT. 53 % (TOTAL OF OUTLET)

2081 TOTAL SQ. FT. OF VENT.

ELEVATION "B"
ROOF FRAMING PLAN

SCALE: ---------- 1/4" = 1'-Ø"

NOTES:

1) SEE SHEET D-1 FOR DETAILS.
2) DIMENSIONS ARE FROM EXT. OF FRAMING TO CENTER LINE OF RIDGE.

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 16073 JAMES H. HERMAN 8-4-22

PROJECT # 22-1915 (308SER)

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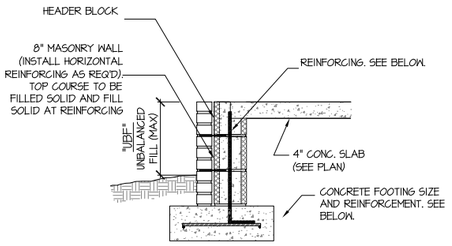
S-5.1b

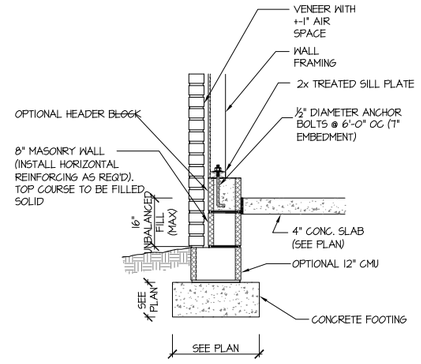


"UBF" = UP TO 16" → 8" MASONRY (UN-REINFORCED) ON 16" WIDE BY 8" DEEP (MIN) CONC. FTG.

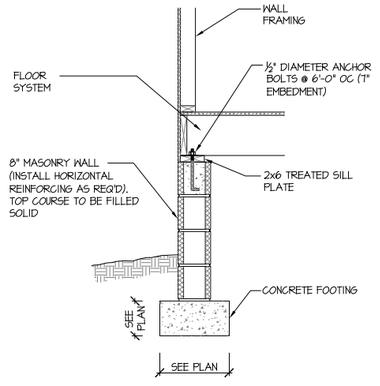
"UBF" = 16" UP TO 24" → REINFORCE WALL W/ #5 BAR @ 48" O.C. W/ 7.5" BEND INTO FTG. 24" WIDE BY 10" DEEP CONC FTG REINFORCED W/ (3) #4 BAR OR (2) #5 BAR CONTINUOUS WITH #4 TIES @ 48" O.C.

"UBF" = 24" UP TO 48" → REINFORCE WALL W/ #5 BAR @ 24" O.C. W/ 7.5" BEND INTO FTG. 24" WIDE BY 10" DEEP CONC FTG REINFORCED W/ (3) #4 BAR OR (2) #5 BAR CONTINUOUS WITH #4 TIES @ 24" O.C.

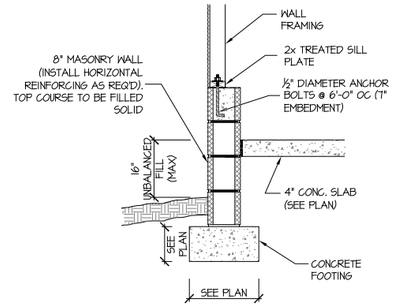
115-120 MPH / 106J 5D — FILLED PORCH WALL
(BRICK SKIRT)



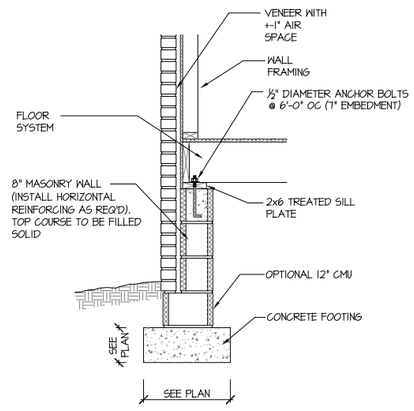
115-120 MPH / 109A 5D — STEM WALL SLAB @ GARAGE
(VENEER)



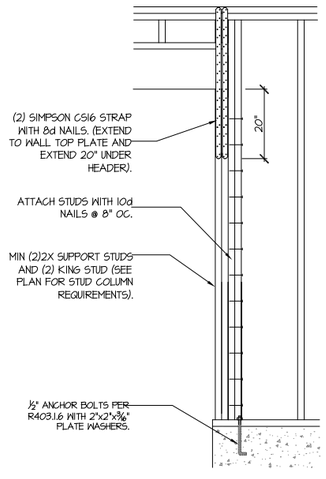
115-120 MPH / 110A 5D — CRAWL SPACE FOOTING
(SIDING OR EQUAL)



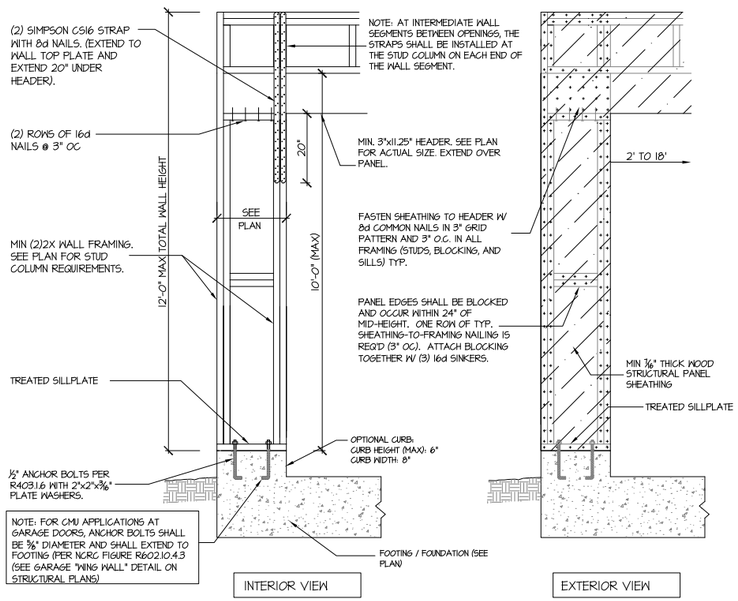
115-120 MPH / 111A 5D — GARAGE WALL FOOTING
(SIDING OR EQUAL)



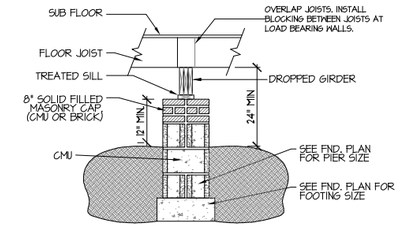
115-120 MPH / 112A 5D — CRAWL SPACE FOOTING
(VENEER)



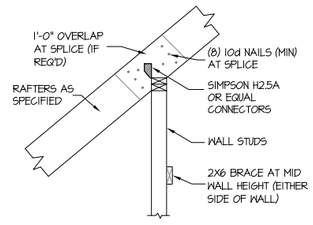
906 5D — CS-PF: END CONDITION DETAIL
(FOR USE WITH SINGLE CS-PF CONDITION)
DETAIL AND APPLICATION BASED ON NCRC FIGURE R602.10.1 - PORTAL FRAME CONSTRUCTION



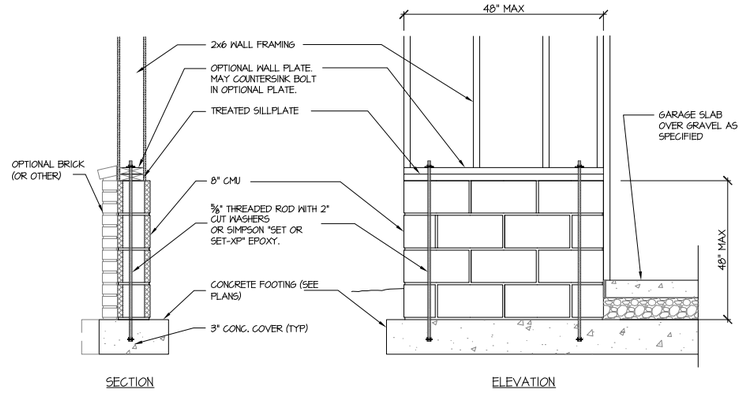
905B 5D — CS-PF: CONTINUOUS PORTAL FRAME CONSTRUCTION
DETAIL AND APPLICATION BASED ON NCRC FIGURE R602.10.1 - PORTAL FRAME CONSTRUCTION



122A 5D — DROPPED GIRDER
NTS



302A 5D — TYPICAL RAFTER SUPPORT ON ATTIC KNEEWALL
NTS.



907 5D — GARAGE 'WING WALL' REINFORCING
PER IRC FIGURE R602.10.4.3

STRUCTURAL NOTES

NC (2018 NCRC): Wind: 115-120 mph

1. ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPS, VALLEYS, RIDGES, FLOORS, WALLS, BEAMS AND HEADERS, COLUMNS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIER & GIRDER SYSTEM, FOOTING, AND PILING SYSTEM. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM. ALL REQUIREMENTS FOR PROFESSIONAL CERTIFICATION SHALL BE PROVIDED BY THE APPROPRIATE PROFESSIONAL. SOUTHERN ENGINEERS, P.A. CERTIFIES ONLY THE STRUCTURAL COMPONENTS AS SPECIFICALLY STATED.

2. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE 2018 NC RESIDENTIAL CODE, PLUS 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, NOR WILL THE ENGINEER BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. "CONSTRUCTION REVIEW" SERVICES ARE NOT PART OF OUR CONTRACT. ALL MEMBERS SHALL BE FRAMED ANCHORED, TIED AND BRACED IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND THE BUILDING CODE.

3. DESIGN LOADS (LISTED AS: LIVE LOAD, DEAD LOAD, DEFLECTION)
   - ROOMS OTHER THAN SLEEPING ROOMS: (40 PSF, 10 PSF, L/360)
   - SLEEPING ROOMS: (30 PSF, 10 PSF, L/360)
   - ATTIC WITH PERMANENT STAIR: (40 PSF, 10 PSF, L/360)
   - ATTIC WITHOUT PERMANENT STAIR: (20 PSF, 10 PSF, L/360)
   - ATTIC WITHOUT STORAGE: (10 PSF, 10 PSF, L/240)
   - STAIRS: (40 PSF, 10 PSF, L/360)
   - EXTERIOR BALCONIES: (60 PSF, 10 PSF, L/360)
   - DECKS: (40 PSF, 10 PSF, L/360)
   - GUARDRAILS AND HANDRAILS: (200 LBS)
   - PASSENGER VEHICLE GARAGES: (50 PSF, 10 PSF, L/360)
   - FIRE ESCAPES: (40 PSF, 10 PSF, L/360)
   - SNOW: (20 PSF)

4. WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STORIES WITH WOOD STRUCTURAL PANELS. SEE FRAMING NOTES FOR THICKNESS AND NAILING REQUIREMENTS.

5. SEE APPENDIX M (DCA6) FOR EXTERIOR DECK REQUIREMENTS INCLUDING ATTACHMENTS FOR LATERAL LOADS.

6. CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF 5 INCHES UNLESS NOTED OTHERWISE (UNO). AIR ENTRAINED PER TABLE 402.2. ALL CONCRETE SHALL BE PROPORTIONED, MIXED, HANDLED, SAMPLED, TESTED, AND PLACED IN ACCORDANCE WITH ACI STANDARDS. ALL SAMPLES FOR PUMPING SHALL BE TAKEN FROM THE EXIT END OF THE PUMP. CONTROL JOINTS IN SLABS SHALL BE SPACED ON A GRID OF +-30 TIMES THE DEPTH (D). CONTROL JOINTS SHALL BE SAWCUT TO A DEPTH OF 1/D. (I.E. 4" CONCRETE SLABS SHALL HAVE ¼" DEEP CONTROL JOINTS SAWCUT IN SLAB ON A +-10'-0" x +-10'-0" GRID).

7. ALLOWABLE SOIL BEARING PRESSURE ASSUMED TO BE 2000 PSF. THE CONTRACTOR MUST CONTACT A GEOTECHNICAL ENGINEER AND THE STRUCTURAL ENGINEER IF UNSATISFACTORY SUBSURFACE CONDITIONS ARE ENCOUNTERED. THE SURFACE AREA ADJACENT TO THE FOUNDATION WALL SHALL BE PROVIDED WITH ADEQUATE DRAINAGE, AND SHALL BE GRADED SO AS TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS.

8. ALL FRAMING LUMBER SHALL BE SPF #2 (Fb = 875 PSI) UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE SYP # 2. PLATE MATERIAL MAY BE SPF # 3 OR SYP #3 (Fc(perp) = 425 PSI - MIN).

9. L.V.L. SHALL BE LAMINATED VENEER LUMBER: Fb=2600 PSI, Fv=285 PSI, E=1.9x10 PSI.
   - 9.1. P.S.L. SHALL BE PARALLEL STRAND LUMBER: Fb=2900 PSI, Fv=290 PSI, E=2.0x10 PSI.
   - 9.2. L.S.L. SHALL BE LAMINATED STRAND LUMBER: Fb=2250 PSI, Fv=400 PSI, E=1.55x10 PSI. INSTALL ALL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS.

10. ALL ROOF TRUSS AND I-JOIST LAYOUTS SHALL BE PREPARED IN ACCORDANCE WITH THE SEALED STRUCTURAL DRAWINGS. TRUSSES AND I-JOISTS SHALL BE INSTALLED ACCORDING TO THE MANUFACTURE'S SPECIFICATIONS. ANY CHANGE IN TRUSS OR I-JOIST LAYOUT SHALL BE COORDINATED WITH SOUTHERN ENGINEERS.

11. ALL STRUCTURAL STEEL SHALL BE 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 x 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOIST ARE TOE NAILED TO THE SOLE PLATE, AND SOLE PLATE IS NAILED OR BOLTED TO THE BEAM FLANGE @ 48" O.C. ALL STEEL TUBING SHALL BE ASTM A500.

12. REBAR SHALL BE DEFORMED STEEL, ASTM615, GRADE 60. LAP ALL REBAR SPLICES 30 BAR DIAMETERS.

13. FLITCH BEAMS SHALL BE BOLTED TOGETHER USING (2) ROWS OF 1/2" DIAMETER BOLTS (ASTM A325) WITH WASHERS PLACED UNDER THE THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" O.C. (MAX), AND STAGGERED AT THE TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH 2 BOLTS LOCATED AT 6" FROM EACH END.

14. BRICK LINTELS (WHEN REQUIRED) SHALL BE 3 1/2"x3 1/2"x1/4" STEEL ANGLE FOR UP TO 6'-0" SPAN AND 6"x4"x5/16" STEEL ANGLE WITH 6" LEG VERTICAL FOR SPANS UP TO 9'-0". SEE PLANS FOR SPANS OVER 9'-0". SEE ALSO SECTION R703.8.3 LINTELS.

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 16073 JAMES R. HERMAN

PROJECT # 22-1915 (308SER)

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