BUILDING CODE NOTES

THIS PLAN HAS BEEN DESIGNED UNDER THE 2018 NORTH CAROLINA RESIDENTIAL CODE.

APPLICABLE CODES:

N.C. MECHANICAL CODE, 2018

N.C. PLUMBING CODE, 2012

N.C. ELECTRICAL CODE, 2017

BASIC WIND SPEED 100, 110, 120, 130 MPH



Charles Smith Associates

RESIDENTIAL DESIGNER

STOCK **PLANS**



CUSTOM **DESIGNS**

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~ 1967 ~

CONSTRUCTION NOTES

THE FOLLOWING IS A NON-EXHAUSTIVE LIST OF SOME COMMONLY MISSED CODE REQUIREMENTS AND ARE ENFORCEABLE IN THE CONSTRUCTION FROM THESE PLANS. SEE THE N.C. RESIDENTIAL CODE BOOK FOR MORE INFORMATION.

- 1. (R308.4.2) ALL GLAZING WITHIN 24" OF EITHER SIDE OF A DOOR IN A CLOSED POSITION AND ON THE SAME WALL PLANE SHALL BE TEMPERED. ALL WINDOWS THAT MEET ALL OF THE FOLLOWING CONDITIONS SHALL BE TEMPERED: A) INDIVIDUAL PANES OF MIN. 9sf, B) BOTTOM EDGE IS WITHIN 18" OF FLOOR, C) TOP EDGE IS AT LEAST 36" ABOVE FLOOR, AND D) GLAZING IS WITHIN 36" HORIZONTALLY OF WALKING SURFACE. TEMPERED GLAZING IS ALSO REQUIRED WITHIN 60" OF HOT TUBS OR STAIR LEADING AND FINISH EDGES. TEMPERED WINDOWS ALSO REQUIRED PER REMAINDER OF THIS CODE SECTION.
- 2. (R310.1) ALL SLEEPING ROOMS AND BASEMENTS WITH HABITABLE SPACE SHALL HAVE AT LEAST ONE EGRESS WINDOW CONFORMING TO THE FOLLOWING: A) MIN. 4.0sf CLEAR OPENING B) MIN. TOTAL GLASS AREA OF 5.0sf (GROUND FLOOR WINDOW) 5.7sf (UPPER STORY WINDOW). IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHOSE THE PROPER CONFORMING WINDOW, AND HAVE EGRESS WINDOWS PROPERLY DISTRIBUTED AND INSTALLED AS REQUIRED.
- 3. (R311.2) ALL INTERIOR EGRESS DOORS AND A MINIMUM OF ONE EXTERIOR EGRESS DOOR SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT USE OF A KEY OR SPECIAL KNOWLEDGE.
- 4. (R311.7.5.1 and R311.7.5.2) MAXIMUM STAIR RISER HEIGHT SHALL BE 8-1/4", AND MINIMUM TREAD SHALL BE 9-1/2".
- 5. (R314) SMOKE ALARMS SHALL BE INSTALLED AND INTERCONNECTED WITH BATTERY BACK-UP IN THE FOLLOWING AREAS: EACH SLEEPING ROOM IN THE AREA (HALLWAY) RIGHT OUTSIDE THE SLEEPING ROOMS AND EACH STORY. THE ONE OUTSIDE THE SLEEPING ROOMS WILL SATISFY THAT STORY.
- 6. (R317) ALL TREATED LUMBER SHALL BEAR THE AWPA U1.
- 7. (R406.1) BITUMINOUS DAMPPROOFING SHALL BE APPLIED TO EXTERIOR FOUNDATIONS OF ALL HABITABLE AND USABLE (STORAGE, ETC.) SPACES.
- 8. (R408.1.2) INSTALL ONE FOUNDATION VENT WITHIN 3' OF EACH CORNER (NOT EACH SIDE OF EACH CORNER).
- 9. (R905.2.8) FLASH ALL VALLEYS AND WALL/ROOF INTERSECTIONS, AND CHIMNEY AND OTHER ROOF PENETRATIONS. USE ICE AND WATER SHIELDS ON ALL ROOF LEGS LESS THAN 4:12 SLOPE. FLASHING TO BE NON-CORROSIVE.
- 10. (R807.1) BUILDER TO LOCATE 22"X30" ATTIC ACCESS IN ALL ATTICS WITHOUT STAIR ACCESS. LOCATE ACCESS TO PROVIDE A 30" CLEAR SPACE ABOVE ACCESS DOOR-TYP.
- 11. (R1003) MASONRY FIREPLACE WALLS TO BE MIN. 8" THICK AND MIN. 2" TO FRAMING. POURED HEARTHS TO HAVE MIN. #4@12" O.C. EACH WAY. HEARTHS TO BE MIN. 20" FROM FIREBOX AND HAVE MIN. 12" WIDER THAN FIREBOX ON EACH SIDE.
- 12. (R403.1.6) ANCHOR STRAPS SHALL BE MIN 1/2" DIAMETERE & SHALL EXTEND A MINIMUM 7" INTO MASONRY OR CONCRETE. ANCHOR BOLTS TO BE NO MORE THAN 6'O.C. AND WITHIN 12" OF THE CORNER.
- 13. INSTALL APPROVED CARBON MONOXIDE ALARM OUTSIDE EACH BEDROOM AND IN IMMEDIATE VICINITY OF EACH SEPERATE SLEEPING AREA.

CLIMATE ZONE	FENESTRATION U-FACTORbJ	SKYLIGHT⁵ <i>U-</i> FACTOR	GLAZED FENEST. SHGC ^{b,k}	CEILING <i>R</i> -VALUE™	WOOD FRAME WALL <i>R</i> -VALUE	MASS WALL <i>R</i> -VALUE	FLOOR <i>R</i> -VALUE	BASEMENT∾ WALL <i>R</i> -VALUE	SLAB ^d R-VALUE & DEPTH	CRAWL SPACE ^c WALL <i>R</i> -VALUE
3	0.35	0.55	0.30	38 or 30ci	15 or 13+2.5 ^h	5/13 or 5/10ci	19	5/13 ^f	0	5/13
4	0.35	0.55	0.30	38 or 30ci	15 or 13+2.5 ^h	5/13 or 5/10ci	19	10/15	10	10/15
5	0.35	0.55	NR	38 or 30ci	19" or 13+5" or 15+3"	13/17 or 13/12.5ci	30a	10/15	10	10/19

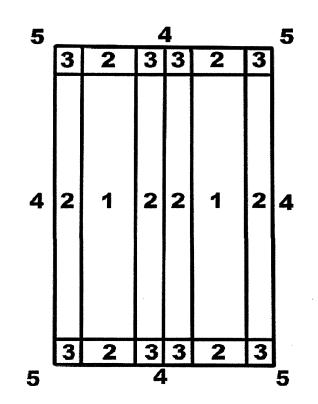
CLIMATIC AND GEOGRAPHIC NOTES

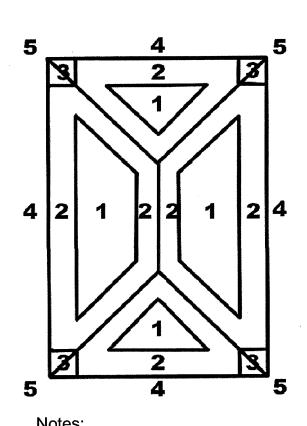
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA										
ROOF SNOW LOAD	WIND SPEED (MPH) FIGURE (3012.4)	SEISMIC SUBJECT TO DAMAGE FROM DESIGN CATEGORY					WINTER DESIGN TEMP.	FLOOD HAZARDS		
20	3 SEC. GUST:	В	WEATHERING	FROST LINE	TERMITE	DECAY				
20 PSF	FASTEST MILE:	(REF: FIG. 310.2(2))	MODERATE	12"	MOD. TO HEAVY	MOD.	20	N/A		

Wind Load:

Basic Wind Speed <u>115-120-130-140-150</u> MPH (3 -SECOND GUST) ? MPH (FASTEST MILE) **Exposure Category** B (Suburban)

Wind Zone Exposure Plans:





3 = 4' Long (Typ.)

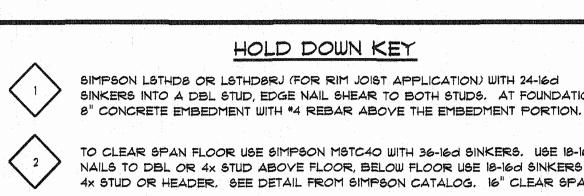
Component and Cladding Loads:

Worst Case - 10 s.f. (typ.)

Mean Roof Height	<u>Up to 30'</u>		<u>30'-1" - 35'</u>		<u>35'-1" - 42'</u>		<u>42'-1" - 45'</u>	
Exposure Zone	<u>Design</u> <u>Pressure</u>	<u>Uplift</u> Force	<u>Design</u> <u>Pressure</u>	<u>Uplift</u> Force	<u>Design</u> <u>Pressure</u>	<u>Uplift</u> Force	<u>Design</u> <u>Pressure</u>	<u>Uplift</u> <u>Force</u>
Zone 1:	16.5 psf	-18.0 psf	17.3 psf	-18.9 psf	18.0 psf	-19.6 psf	18.5 psf	-20.2 psf
Zone 2:	16.5 psf	-21.0 psf	17.3 psf	-22.1 psf	18.0 psf	-22.9 psf	18.5 psf	-23.5 psf
Zone 3:	16.5 psf	-21.0 psf	17.3 psf	-22.1 psf	18.0 psf	-22.9 psf	18.5 psf	-23.5 psf
Zone 4:	18.0 psf	-19.5 psf	18.9 psf	-20.5 psf	19.6 psf	-21.3 psf	20.2 psf	-21.8 psf
Zone 5:	18.0 psf	-24.1 psf	18.9 psf	-25.3 psf	19.6 psf	-26.3 psf	20.2 psf	-27.0 psf
Wall, Zone 4:	15.9 psf	-17.8 psf	16.8 psf	-18.8 psf	17.5 psf	-19.6 psf	18.1 psf	-20.1 psf
Wall, Zone 5:	17.8 psf	-26.7 psf	18.7 psf	-27.9 psf	19.4 psf	-28.9 psf	20.0 psf	-29.6 psf

Windows:

*** All windows shall be labeled to conform with AAMA/NWWDA 101.1.S.2 and be rated for min. DP25 classification for all windows within 4' of outside corners and DF20 elsewhere.



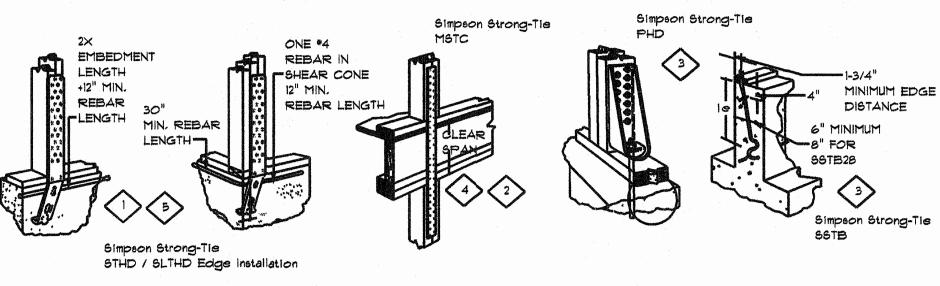
SIMPSON LETHDS OR LETHDSRJ (FOR RIM JOIST APPLICATION) WITH 24-16d SINKERS INTO A DBL STUD, EDGE NAIL SHEAR TO BOTH STUDS. AT FOUNDATION USE

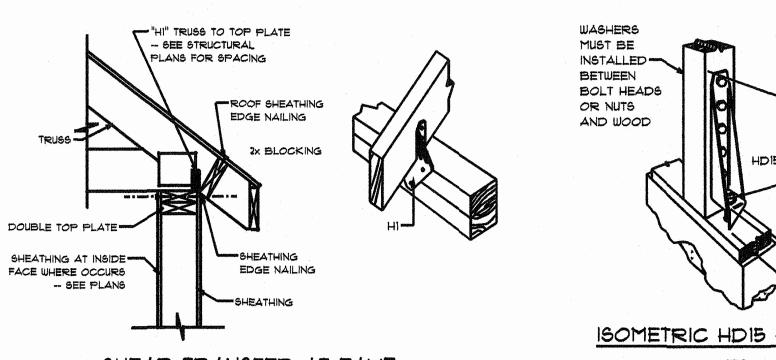


SIMPSON PHD5 WITH 14-SDS 1/4"x3" WOOD SCREWS INTO DBL OR 4x STUD, EDGE NAIL SHEAR TO BOTH STUDS. AT FOUNDATION USE SIMPSON SSTB20 ANCHOR BOLT WITH 16" CONCRETE EMBEDMENT WITH SINGLE POUR FOUNDATION. IF REQUIRED, USE CONNECTOR NUT AND CONTINUOUS ALLTHREAD TO CONNECT ANCHOR BOLT TO HOLD DOWN.

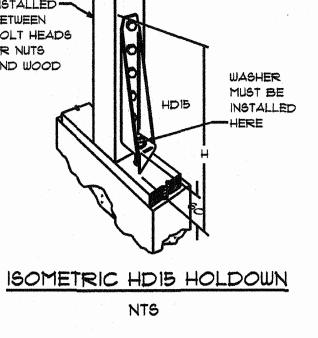
TO CLEAR SPAN FLOOR USE SIMPSON MSTC78 WITH 80-16d SINKERS. USE 40-16d NAILS TO DBL OR 4x STUD ABOVE FLOOR, BELOW FLOOR USE 40-16d SINKERS TO DBL OR 4x STUD. SEE DETAIL FROM SIMPSON CATALOG. 18" CLEAR SPAN.

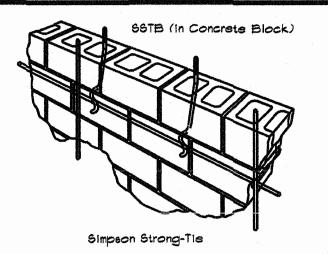
SIMPSON STHDIO OR STHDIORJ (FOR RIM JOIST APPLICATION) WITH 28-16d SINKERS INTO A DBL STUD, EDGE NAIL SHEAR TO BOTH STUDS. AT FOUNDATION USE 10" CONCRETE EMBEDMENT WITH *4 REBAR ABOVE THE EMBEDMENT PORTION.

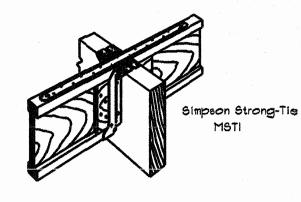


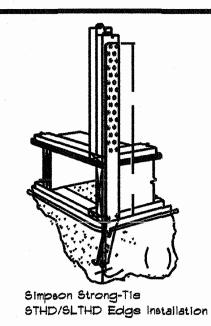


SHEAR TRANSFER AT EAVE



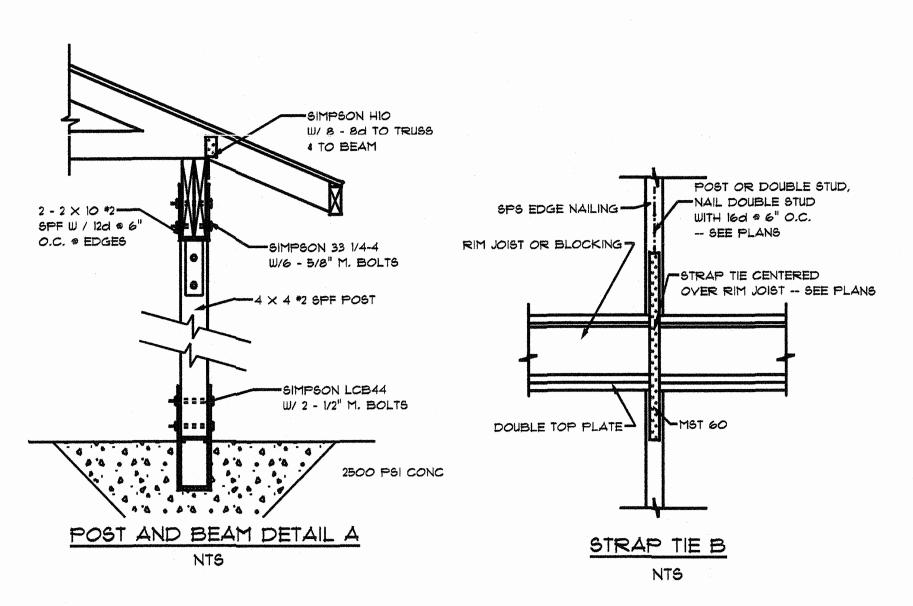






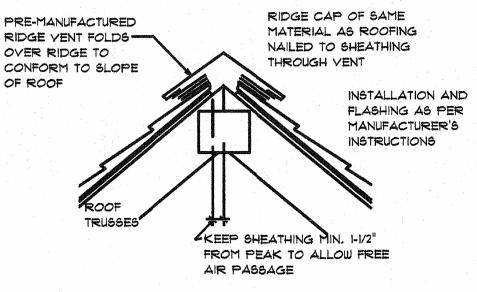
ISOMETRIC SIMPSON STRONG-TIE DETAILS

NTS

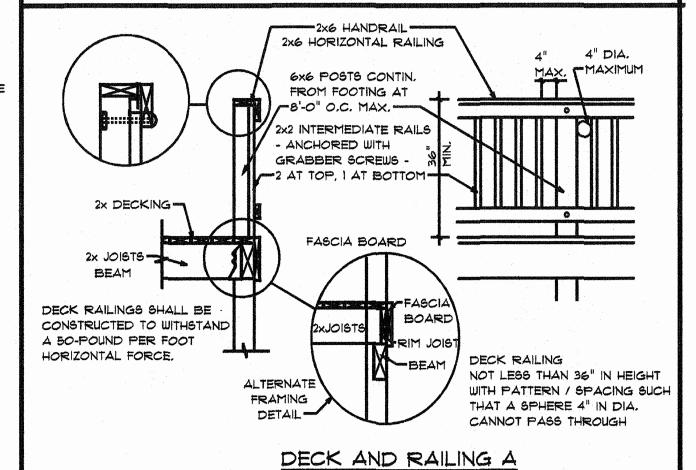


NOTE THAT "DORMER" STYLE THROUGH-ROOF EXHAUST YENTS MAY BE PROVIDED IN ADDITION TO OR IN LIEU OF RIDGE VENTS INDICATED.

MIN. 26 SQ. FT. (3800/150 = 25.33) VENTILATION AREA REQ'D



RIDGE VENT NTS



FINISH WALL AND MOISTURE BARRIER TO LAP FLASHING WALL SHEATHING AT WALL -- MAINTAIN GAP SIDEWALL FLASHING BETWEEN WALL FINISH AND CHIMNEY OR ROOFING TO AVOID SOAKING-DORMER WALL PROVIDE HEMMED EDGE AT FLASHING TO FORM CHANNEL AND SO AS TO MAINTAIN AIR GAP TO PREVENT CAPILLARY ACTION BASE FLASHING WRAPS CORNERS. ROOFING LAPS BASE EXTENDS UNDER SHINGLES AT FLASHING 4 INCHES

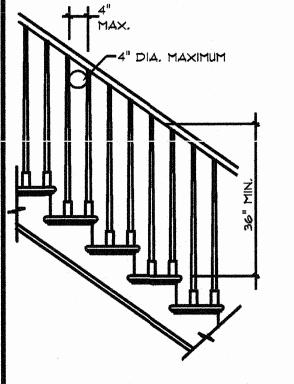
ASPHALT SHINGLE RIDGE, VALLEY AND HIP FLASHING AS PER MANUFACTURER'S INSTRUCTIONS -- PROVIDE 36 INCH ROLL ROOFING, MINIMUM 55 LB., CENTERED ON ALL HIPS AND VALLEYS

METAL FLASHING AT ALL EAVES, SIDEWALLS, AND RAKES -- PROVIDE HEMMED EDGES SO AS TO FORM DRAINAGE CHANNELS AND PREVENT CAPILLARY ACTION

SIDES 4 INCHES AND LAPS SHINGLES AT BASE MIN, 4 INCHES

FLASHING DETAILS / NOTES

NTS

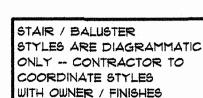


KEEP ROOFING NAILS O

OF FLASHING

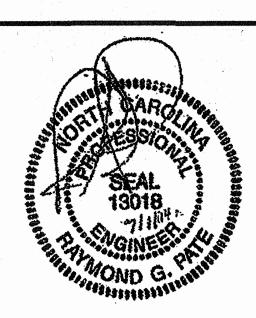
ALL HANDRAILS SHALL BE CONTINUOUS THE FULL LENGTH OF THE STAIRS. HANDGRIP PORTION OF ALL HANDRAILS SHALL NOT BE LESS THAN 1-1/4" NOR MORE THAN 2" INCROSS SECTIONAL DIMENSION, OR THE SHAPE SHALLPROVIDE AN EQUIVALENT GRIPPING SURFACE

NOT LESS THAN 36" IN HEIGHT WITH PATTERN / SPACING SUCH THAT A SPHERE 4" IN DIA. CANNOT PASS THROUGH



OPEN BALUSTRADE BALCONY STAIR RAILINGS

NTS



Raymond G. Pate, P.E. 119.W. Woodhip Dr., Suite #8 Nags Head, NC 27959

CHARLES SMITH & ASSOCIATES

I DO HEARBY CERTIFY THAT THIS DRAWING AND RELATED SPECIFICATIONS MEET ALL LOCAL REQUIREMENTS AND ARE IN SUBSTANTIAL CONFORMITY WITH THE INTERNATIONAL BUILDING CODE COUNCIL(2018 N.C. BUILDING CODE).

O COPYRIGHT DRAWING NUMBER

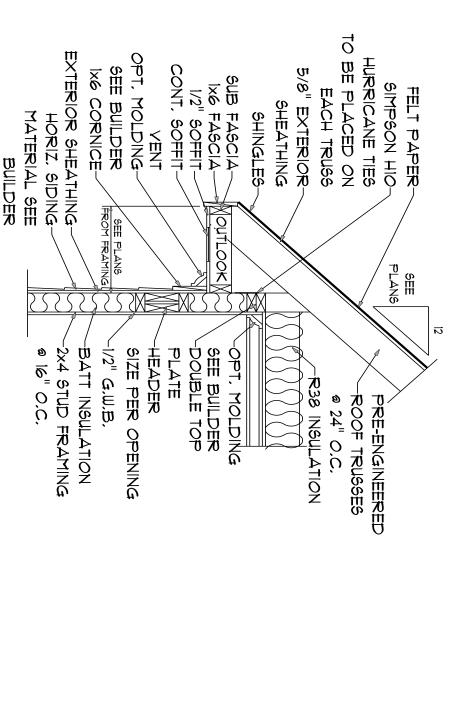
DETAILS

SCALE: AS NOTED DATE: OCT. 2018 PRAWN BY: CGP

DESIGNED BY CHARLES SMITH ASSOC. FAYETTEVILLE, NORTH CAROLINA WWW. CSAPLANS.COM

BUILDING CONTRACTOR TO MEET LOCAL WIND LOADS PER CODE AS IT PERTAINS TO CONSTRUCTION OF HOUSE 100, 110, 120, 130, 140, 150 MPH

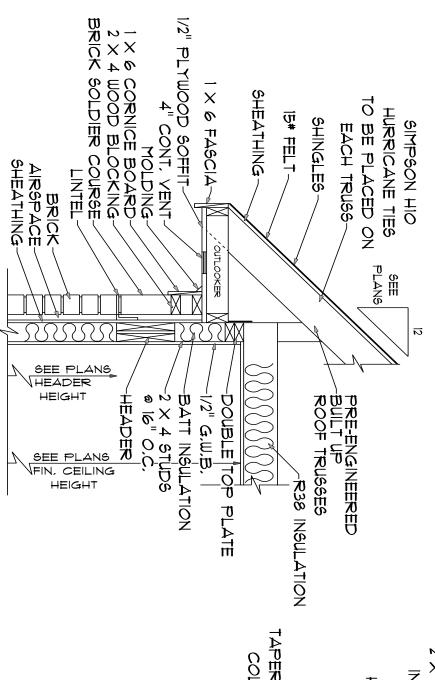


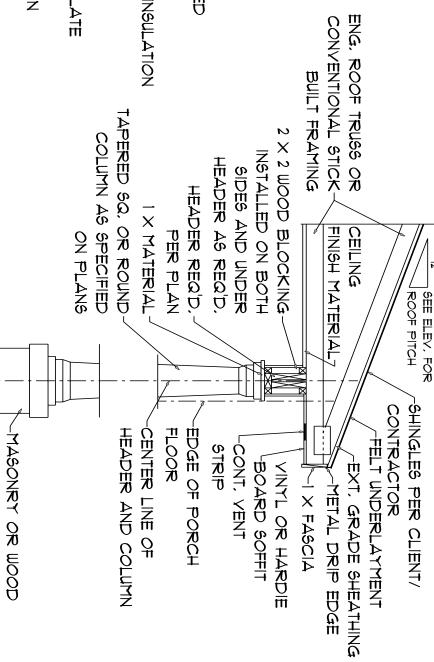


DOUBLE. 100 HANGERS CHORD W/

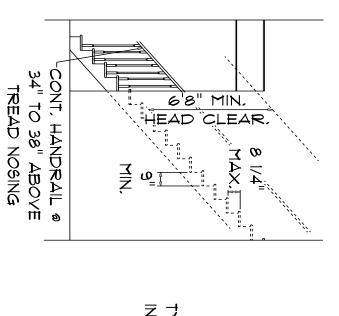
TRUSS HANGER STRAP-TYPE NO SCALE:

OVERHANG DETAIL





METAL STRAP CONNECTORS (SEE BUILDER)



CB 5Q-5D52

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COLUMN-

TYPICAL STAIR DETAIL

DETAIL

ΉE

DOWN

<u>О</u> GA X З" STRAP

BRACE WALL TANEL NOTES

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

INTERIOR WALLS TO HAVE 1/2" GYPSUM INSTALLED, WHEN NOT USING METHOD GB GYPSUM TO BE FASTENED PER TABLE RT02.3.5, METHOD GB TO BE FASTENED PER TABLE R.602.10.1.
REQUIRED LENGTH OF BRACING: REQUIRED BRACE WALL LENGTH FOR EACH SIDE OF THE CIRCUMSCRIBED RECTANGLE ARE INTERPOLA GYPSUM: ALL INTERIOR SIDES OF EXTERIOR WALLS AND BOTH SIDES

 $\underline{\text{CS-GFB}_{:}}$ SHALL BE MINIMUM 1/2" STRUCTURAL FIBER BOARD NAILED AT 3" ON CENTER AT INTERMEDIATE CENTER AT EDGES AND 12" ON CENTER AT INTERMEDIATE SUPPORTS CS-WSP: SHALL BE MINIMUM 3/8" OSB OR CDX NAILED AT 6" ON METHOD PF CONTRIBUTES 1.5 TIMES ITS ACTUAL LENGTH.
HD: 800 LBS HOLD DOWN DEVICE FASTENED TO THE EDGE PER TABLE R602.10.3, METHODS CS-WSP AND CS-SFB CONTRIBUTE THEIR ACTUAL LENGTH, METHOD GB CONTRIBUTES 0.5 ITS ACTUAL MTH 6D METHODS: PER TABLE R602.10.1 OF THE BRACE WALL PANEL CLOSETS TO THE CORNER. COMMON NAILS OR 8D (2 1/2" LONG X 0.113" DIAMETER). ITS ACTUAL LENGTH, Ď∃TA UBITA

GB: INTERIOR WALLS SHOW AS GB ARE TO HAVE MINIMUM 1/2"
GYPSUM BOARD ON BOTH SIDES OF THE WALL FASTENED AT TO ON CENTER AT INTERMEDIATE SUPPORTS WITH MINIMUM 50 COOLER NAILS OR *6 SCREWS. TO ROTAL

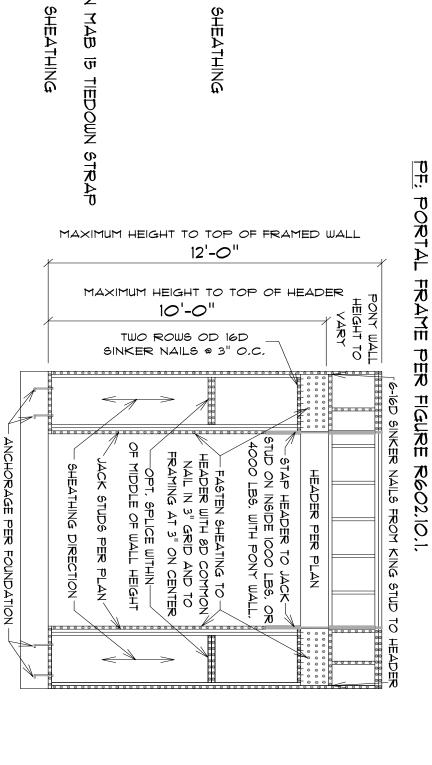
SUPPORTS WITH 11/2" LONG imes 0.12" DIAMETER GALVANIZED ROOFING

AT INTERMEDIATE

CANTILEYER TORCH ROOF/HEADER

FRAMED BASE

W/TAPERED COLUMN



DOUBLE-SIDED BRACED WALL TOP VIEW OF

CAELHOD HOHLIEM)

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HAUDIH HAUDIH

D N U V

SECTION ROO2, IO, 1)

TRATE

<u>}</u>

OPENING

-2X2 WOOD STRIP
-WOOD TRIM
-1/2" ANCHOR BOLT OR SIMPSON I
-2X4 SUD WALL
-2 LAYERS OF 3/8" STRUCTURAL S

DULL VIIIO

NAIL THR

ゴイで

ONTRAITYO

1/2" ANCHOR BOLT 1'O" OFF CORNERS AND 1'O"
BOTH SIDES OF OPENINGS
IN EXT. WALL AND SET & MIN.
1" INTO GROUT FILLED CELLS

-2 LAYERS OF

3/8" STRUCTURAL

PNIHTATHO

-1/2" GYPSUM WALL BOARD

-1/2" GYPSUM WALL BOARD

2X4 STUDS SPACED @ 16"

3/8"-STRUCTURAL SHEATHING

NO NO

2X4 STUD WALL

GARAGE DOOR

ガイア、

ロヨタコ

BASIC WINDS SPEED 100, 110, 120, 130, MPH

03/11/25

CHARLES SMITH ASSOCIATES RESIDENTIAL DESIGNER, FAYETTEVILLE NC.

"I DO HEREBY CERTIFY THAT THIS DRAWING OR PLAN AND RELATED SPECIFICATIONS MEET ALL LOCAL REQUIREMENTS AND ARE IN SUBSTANTIAL CONFORMITY WITH THE INTERNATIONAL BUILDING CODE COUNCIL (2018 N.C. BUILDING CODE.)

SEE CONTRACTOR FOR THE DOWN MANUFACTURER

