

# THE NELSON 2020 - 'COASTAL' - LH



ABBREVIATIONS	INDEX
<p>ABV ABOVE                      A.C. AIR CONDITIONING                      ADJ. ADJUSTABLE                      ALT. ALTERNATE                      ALUM. ALUMINUM                      BA. BATHROOM                      BO. BOARD                      BF. BI-FOLD (DOOR)                      BLDG. BUILDING                      BLK. BLOCK (CMUs)                      BLW. BELOW                      BM. BEAM                      BP. BI-PASS (DOOR)                      BOT. BOTTOM                      BTWN. BETWEEN                      CAB. CABINET                      CER. CERAMIC                      C.J. CONTR. JOINT OR CONSTRUCTION JOINT                      CL. CLOSET OR CENTER LINE                      CLG. CEILING                      CMU. CONCRETE MASONRY UNIT                      COL. COLUMN                      CONC. CONCRETE                      CR. CARPET                      CR. CORROSION RESISTANT                      CSMT. CASEMENT                      C.T. CERAMIC TILE                      D. DRYER                      DBL. DOUBLE                      DH. DOUBLE HUNG                      DIM. DIMENSION                      DISP. DISPOSAL                      DN. DOWN                      DR. DOOR                      DS. DOWNSPOUT                      DW. DISH WASHER                      DWG. DRAWING                      E. EAST                      EA. EACH                      ELEV. ELEVATION                      ELEC. ELECTRICAL                      EQ. EQUAL                      EXT. EXTERIOR                      FAU. FORCED AIR UNIT                      F.C. FLOOR CHANGE                      F.D. FLOOR DRAIN                      FFL. FINISH FLOOR LINE                      F.G. FINISHED GRADE                      FLR. FLOORING                      FL. FLUORESCENT (LIGHT)                      FND. FOUNDATION                      F.O.S. FACE OF STUD                      FTG. FOOTING                      FX. FIXED GLASS                      GALV. GALVANIZED                      GAR. GARAGE                      G.B. GYPSUM BOARD                      GD. GRADE OR GRADING                      G.D.O. GARAGE DOOR OPENER                      GFI. GROUND FAULT INTERRUPTER                      GL. GLASS OR GLAZING                      GYP. GYPSUM BOARD                      HB. HOSE BIBB                      HD. HEAD OR HARD                      HDR. HEADER                      HGT. HEIGHT                      HVAC. HEATING/VENTILATING/AIR COND.                      HWD. HARDWOOD                      INT. INTERIOR                      JST. JOIST                      JT. JOINT                      KIT. KITCHEN</p>	<p>L. LENGTH                      LA. LAUNDRY                      LAV. LAVATORY                      LVR. LOUVER                      MAX. MAXIMUM                      MECH. MECHANICAL                      MFR. MANUFACTURER                      MIN. MINIMUM                      MIS. MISCELLANEOUS                      N. NORTH                      N.T.S. NOT TO SCALE                      O.G.D. OVERHEAD GARAGE DOOR                      OH. OVERHEAD                      OP. OPTIONAL                      PAR. PARALLEL                      P.B. PUSH BUTTON                      PDR. POWDER                      PED. PEDestal                      PL. PLATE                      PR. PAR                      P.T. PRESSURE TREATED WOOD                      PVC. POLYVINYL CHLORIDE PIPE                      P.V.M. PAYMENT                      P.W. PRE-WIRE                      PWD. PLYWOOD                      R. RADIUS                      RGR. RETURN AIR GRILL                      REF. REFERENCE                      REFR. REFRIGERATOR                      REQ. REQUIRED                      S. SOUTH                      S.D. SMOKE DETECTOR                      S.H. SLIDING GLASS DOOR                      S.G.D. SLIDING GLASS DOOR                      S.H. SINGLE HUNG OR SHELF                      SIM. SIM                      SLP. SLOPE / SLIDING                      S.P. SLOPE / SLOPE                      SPEC. SPECIFICATIONS                      STD. STANDARD                      STR. STRUCTURAL                      SQ. SQUARE                      SYM. SYMBOL                      SAS. SMOOTH FOUR SIDES                      T. TREAD (AT STAIRS) OR TILE                      T.B. TOWEL BAR                      TEMP. TEMPERED (GLASS)                      T&amp;G. TONGUE &amp; GROOVE                      T.O.C. TOP OF CURB                      TV. TELEVISION                      TYP. TYPICAL                      U.N.O. UNLESS NOTED OTHERWISE                      V.B. VAPOR BARRIER                      VERT. VERTICAL                      V.T.R. VENT THRU ROOF                      W. WASHING MACHINE                      W. WOOD                      WDW. WINDOW                      WH. WATER HEATER                      WI. WROUGHT IRON                      WIC. WALK-IN CLOSET                      W.WO. WITH OR WITHOUT                      WP. WATERPROOFING                      WWM. WELDED WIRE MESH                      R. PROPERTY LINE                      O. ROUND / DIAMETER                      &amp; ANG.                      &amp; CENTERLINE                      # POUND / NUMBER</p>
<p>DS-1 DELTA SHEET                      1.1.1 FRONT ELEVATIONS 'COASTAL'                      1.2.1 SIDE ELEVATIONS 'COASTAL'                      1.3.1 REAR ELEV W/ ROOF PLAN 'COASTAL'                      2.1.1 FIRST FLOOR PLAN 'COASTAL'                      2.1.1.1 FIRST FLOOR PLAN OPTIONS                      2.2.1 SECOND FLOOR PLAN 'COASTAL'                      2.2.1.1 SECOND FLOOR PLAN OPTIONS                      2.3.1 THIRD FLOOR PLAN                      2.3.1.1 THIRD FLOOR OPTIONS                      3.1.1 SLAB PLAN 'COASTAL'                      4.1.1 CRAWL SPACE PLAN 'COASTAL'                      5.1.1 OPT. COVERED PATIO W/ SLAB                      5.1.2 OPT. COVERED DECK W/ CRAWL                      5.1.3 OPT. SIDE FIREPLACE                      5.1.4 OPT. SIDELOAD GARAGE 'COASTAL'                      5.1.5 OPT. 3RD CAR GARAGE 'COASTAL'                      5.1.6 OPT. 3RD CAR GARAGE 'COASTAL'                      6.1 SECTIONS                      D-1 DETAILS                      7.1 FIRST FLOOR UTILITY PLAN                      7.2 SECOND FLOOR UTILITY PLAN                      7.3 THIRD FLOOR UTILITY PLAN</p>	



BUILDING CODE COMPLIANCE / PROJECT INFORMATION
<p>ALL CONSTRUCTION TO COMPLY WITH LOCAL CODES AND ORDINANCES CURRENTLY IN USE WITH THE LOCAL JURISDICTION.</p> <p>APPLICABLE CODES:                      FOLLOW ALL APPLICABLE STATE AND LOCAL CODES.                      2018 NORTH CAROLINA STATE RESIDENTIAL CODE</p> <p>CONTRACTOR AND BUILDER SHALL REVIEW ENTIRE PLAN TO VERIFY CONFORMANCE WITH ALL CURRENT APPLICABLE CODES IN EFFECT AT TIME OF CONSTRUCTION. BY USING THESE DRAWINGS FOR CONSTRUCTION IT IS UNDERSTOOD THAT CONFORMANCE WITH ALL APPLICABLE CODES IS THE RESPONSIBILITY OF THE BUILDER AND CONTRACTOR.</p> <p>PRODUCT:                      SINGLE FAMILY RESIDENCE</p> <p>OCCUPANCY CLASSIFICATION                      RESIDENTIAL R-3</p> <p>CONSTRUCTION TYPE:                      TYPE VB</p>

ELEV. 'COASTAL' AREA	
Name	Area
FIRST FLOOR	1042 SF
SECOND FLOOR	1333 SF
HEATED	2374 SF
FRONT PORCH	103 SF
GARAGE	401 SF
REAR DECK	179 SF
UNFINISHED 3RD FLOOR	451 SF
UNHEATED	1136 SF

GENERAL NOTES:
<p>THESE DOCUMENTS ARE THE PROPERTY OF THE BUILDER AND SHALL NOT BE COPIED, DUPLICATED, ALTERED, MODIFIED OR REVISED IN ANY WAY WITHOUT THE EXPRESSED WRITTEN APPROVAL OF THE BUILDER.</p> <p>CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE SITE AND ALL INCONSISTENCIES SHALL BE BROUGHT TO THE ATTENTION OF THE DEVELOPER AND THE BUILDER BEFORE PROCEEDING WITH WORK.</p> <p>ANY ERRORS OR OMISSIONS FOUND IN THESE DRAWINGS SHALL BE BROUGHT TO DEVELOPERS AND BUILDERS ATTENTION IMMEDIATELY.</p> <p>DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.</p> <p>ALL DIMENSIONS ARE TO FACE OF STUD OR TO FACE OF FRAMING UNLESS OTHERWISE NOTED.</p> <p>ALL TRUSS DRAWINGS TO BE REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO ISSUANCE OF BUILDING PERMIT.</p> <p>ALL OR EQUAL SUBSTITUTIONS MUST BE SUBMITTED TO AND APPROVED BY CITY BUILDING OFFICIAL PRIOR TO INSTALLATION.</p> <p>ALL ANGLED PARTITIONS ARE 45 DEGREES UNLESS OTHERWISE NOTED.</p> <p>PROVIDE FIREBLOCKING. (PER LOCAL CODES.)</p> <p>ALL ELECTRICAL AND MECHANICAL EQUIPMENT AND METERS ARE SUBJECT TO RELOCATION DUE TO FIELD CONDITIONS. CONTRACTOR TO VERIFY.</p>

BUILDER SET:
<p>THE OWNER SHALL FURNISH ANY AND ALL REPORTS RECEIVED FROM THE GEOTECHNICAL ENGINEER (SOILS REPORT), ON THE STUDY OF THE PROPOSED SITE, TO THE BUILDER, STRUCTURAL ENGINEER, AND GENERAL CONTRACTOR. IN THE EVENT THE GEOTECHNICAL REPORTS DO NOT EXIST, THE SOILS CONDITION SHALL BE ASSUMED TO BE A MINIMUM DESIGN SOIL PRESSURE STATED BY THE STRUCTURAL ENGINEER OF RECORD FOR THE PURPOSE OF STRUCTURAL DESIGN. GENERAL CONTRACTOR SHALL ASSURE THE SOIL CONDITIONS MEET OR EXCEED THE CRITERIA.</p> <p>ALL WORK PERFORMED BY THE GENERAL CONTRACTOR SHALL COMPLY AND CONFORM WITH LOCAL AND STATE BUILDING CODES, ORDINANCES AND REGULATIONS, ALONG WITH ALL OTHER AUTHORITIES HAVING JURISDICTION. THE GENERAL CONTRACTOR IS RESPONSIBLE TO BE AWARE OF THESE REQUIREMENTS AND GOVERNING REGULATIONS.</p> <p>PROVIDE AN APPROVED WASHER DRAIN PAN AT SECOND FLOOR ONLY THAT DRAINS TO EXTERIOR.</p> <p>WINDOW SUPPLIER TO VERIFY AT LEAST ONE WINDOW IN ALL BEDROOMS TO HAVE A CLEAR OPENABLE AREA OF 4.0 SQ FT. THE MINIMUM NET CLEAR OPENING HEIGHT SHALL BE 22" AND THE MINIMUM NET CLEAR OPENING WIDTH SHALL BE 20". GLAZING TOTAL AREA OF NOT LESS THAN 5.0 SQ FT IN THE CASE OF A GROUND WINDOW AND NOT LESS THAN 5.7 SQ FT IN THE CASE OF AN UPPER STORY WINDOW. (PER NCRC SECTION R310.1.1)</p> <p>ALL HANDRAIL BALLUSTERS TO BE SPACED SUCH THAT A 4" SPHERE CANNOT PASS BETWEEN BALLUSTERS. (PER LOCAL CODES.)</p> <p>PROVIDE STAIR HANDRAILS AND GUARDRAILS PER LOCAL CODES.</p>

NO.	DATE	REVISION:

PROJECT TITLE:  
**THE NELSON  
 2020 -  
 'COASTAL' - LH**

**CONSTRUCTION SET**

**LOT 69 -  
 OAKMONT  
 ESTATES  
 07.22.2021**

PROJECT NO:  
 SHEET TITLE:  
**COVER SHEET**

PRINT DATE:  
**04.13.2021**

SHEET NO:  
**T-1**

NO.	DATE:	REVISION:

PROJECT TITLE:  
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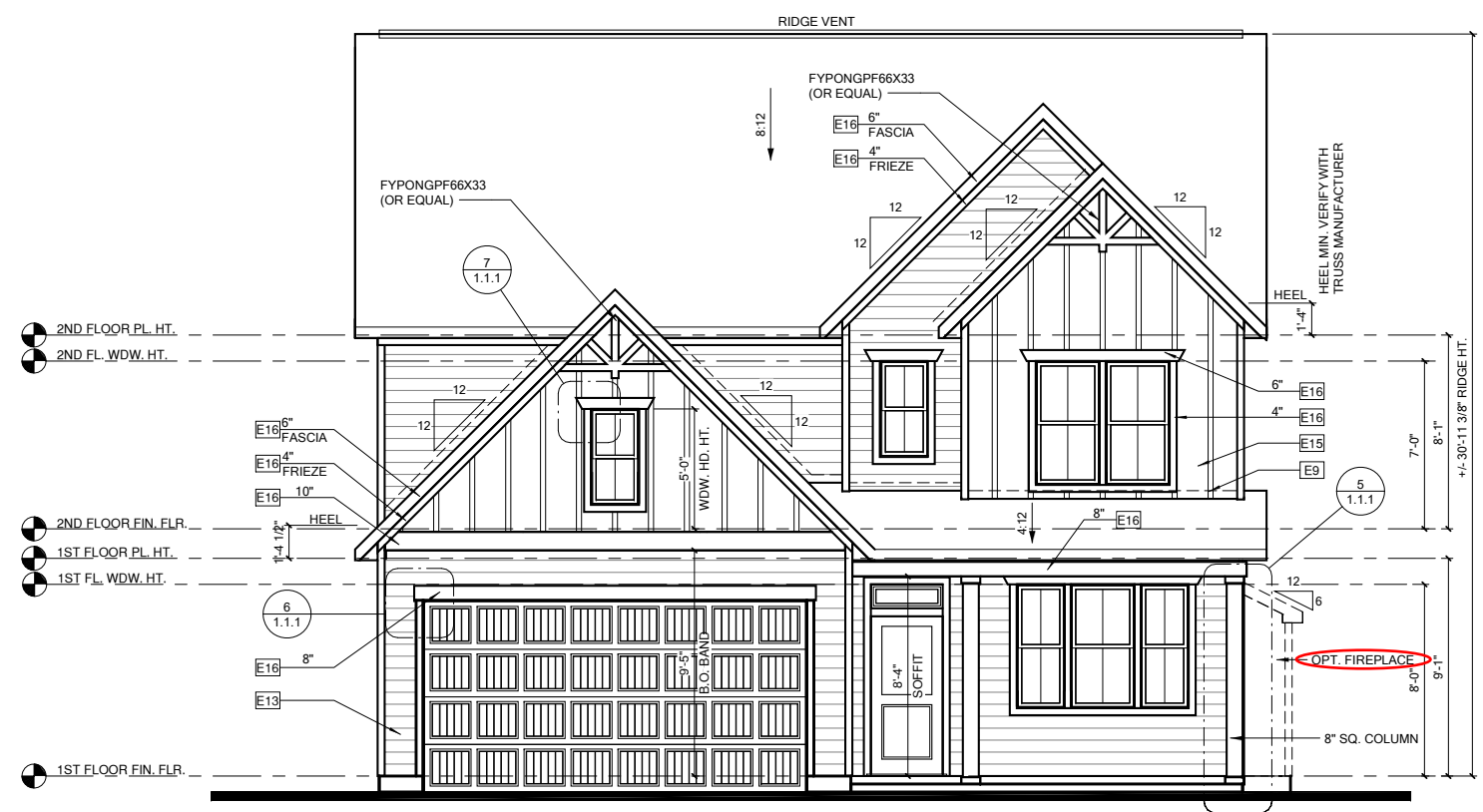
**CONSTRUCTION SET**

**LOT 69 -  
 OAKMONT  
 ESTATES  
 07.22.2021**

PROJECT NO:  
 SHEET TITLE:  
**FRONT  
 ELEVATIONS  
 'COASTAL'**

PRINT DATE:  
 04.13.2021

SHEET NO:  
**1.1.1**



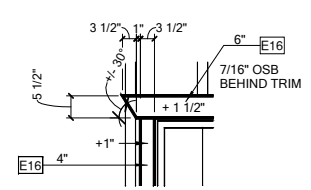
**FRONT ELEVATION 'COASTAL'**

1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT



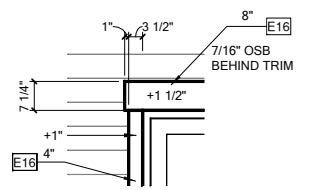
**FRONT ELEVATION 'COASTAL' W/  
 CRAWL SPACE**

1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT



**WDW. HEAD TRIM 'COASTAL'**

7 1/2" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT



**GAR. HEAD TRIM**

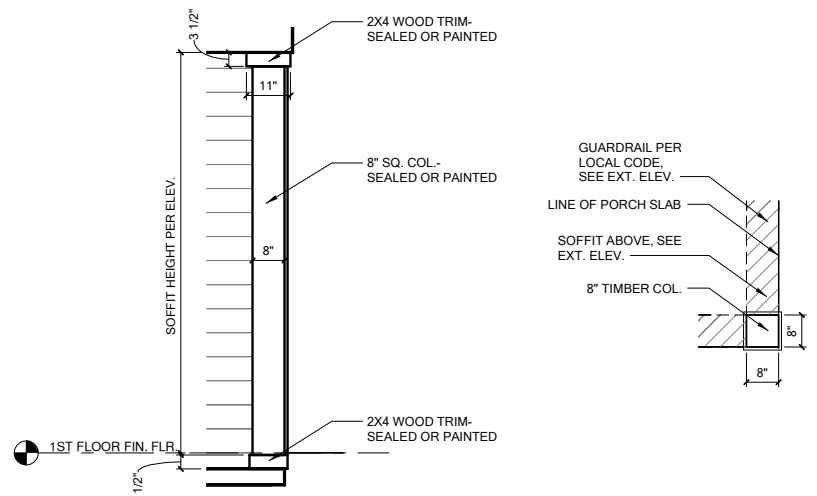
6 1/2" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT

ALL WINDOWS WHOSE OPENING IS LESS THAN 24" ABOVE THE FINISH FLOOR AND WHOSE OPENING IS GREATER THAN 72" ABOVE THE OUTSIDE WALKING SURFACE MUST HAVE WINDOW OPENING CONTROL DEVICES COMPLYING WITH THE 2018 NCRC SECTION R312.2.

- NOTES:**
- GRADE CONDITIONS MAY VARY FOR INDIVIDUAL SITE FROM THAT SHOWN. BUILDER SHALL VERIFY AND COORDINATE PER ACTUAL SITE CONDITIONS.
  - WINDOW HEAD HEIGHTS:  
 1ST FLOOR = 8'-0" U.N.O. ON ELEVATIONS  
 2ND FLOOR = 7'-0" U.N.O. ON ELEVATIONS
  - ROOFING: PITCHED SHINGLES PER BUILDER. INSTALL ALL LOW SLOPE ROOFING IN ACCORDANCE WITH R905 AND MANUFACTURERS SPECS.
  - WINDOWS: MANUFACTURER PER BUILDER. DIVIDED LITES AS SHOWN ON THE EXTERIOR ELEVATIONS
  - ENTRY DOOR: AS SELECTED BY BUILDER
  - CHIMNEY AS OCCURS: TOP OF CHIMNEYS TO BE A MINIMUM OF 24" ABOVE ANY ROOF WITHIN 10'-0" OF CHIMNEY.
  - ALL EXTERIOR MATERIALS TO BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

**ELEVATION KEYNOTE LEGEND**

E1	ADHERED STONE VENEER AS SELECTED BY DEVELOPER, HEIGHT AS NOTED. PROVIDE CONT. FLASHING MIN. 4" ABOVE GRADE THROUGH MASONRY VENEER
E2	MASONRY FULL BRICK AS SELECTED BY DEVELOPER, HEIGHT AS NOTED
E5	ROWLOCK COURSE
E9	CORROSION RESISTANT ROOF TO WALL FLASHING. CODE COMPLIANT FLASHING MUST BE INSTALLED AT ALL ROOF/WALL INTERSECTIONS
E12	FIBER CEMENT SHAKE SIDING PER DEVELOPER W/ 5/4x4 CORNER TRIM BOARDS
E13	FIBER CEMENT LAP SIDING PER DEVELOPER W/ 5/4x4 CORNER TRIM BOARDS
E15	FIBER CEMENT PANEL SIDING W/ 1X3 BATTS AT 16" O.C. (VINYL BOARD AND BATTEN SIDING)
E16	1X FIBER CEMENT TRIM OR EQUAL, U.N.O. SIZE AS NOTED. PROVIDE CAP FLASHING AS REQUIRED FOR ALL TRIM W/ AN EXPOSED TOP EDGE.
E17	FALSE WOOD/VINYL SHUTTERS, TYPE AS SHOWN, SIZE AS NOTED
E18	PROVIDE GUARDRAIL PER NCRC SECTION R312



**COLUMN DETAIL 'COASTAL'**

5 1/2" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT

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CONSTRUCTION SET

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 ESTATES  
 07.22.2021**

PROJECT NO:

SHEET TITLE:

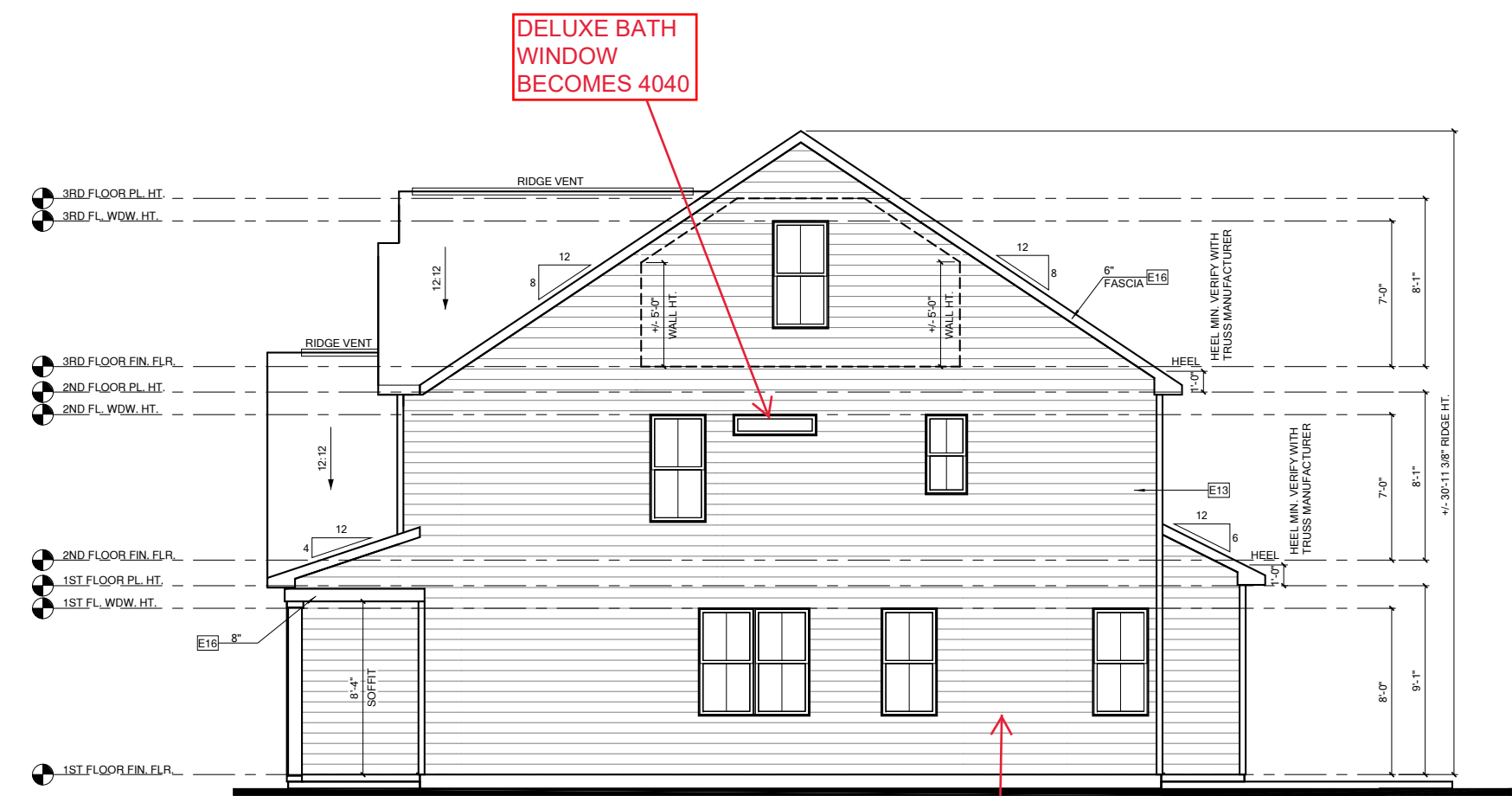
**SIDE  
 ELEVATIONS  
 'COASTAL'**

PRINT DATE:

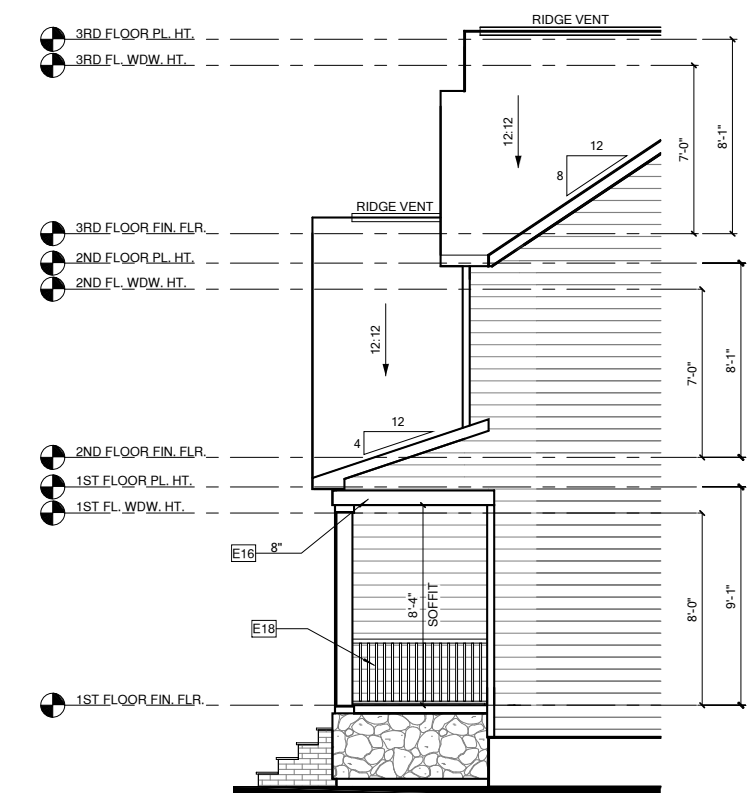
04.13.2021

SHEET NO:

**1.2.1**



**1 RIGHT ELEVATION 'COASTAL'**  
 1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT



**3 RIGHT ELEVATION 'COASTAL' W/  
 CRAWL @ PORCH**  
 1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT

- NOTES:**
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  - WINDOW HEAD HEIGHTS:  
 1ST FLOOR = 8'-0" U.N.O. ON ELEVATIONS  
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  - WINDOWS: MANUFACTURER PER BUILDER. DIVIDED LITES AS SHOWN ON THE EXTERIOR ELEVATIONS
  - ENTRY DOOR: AS SELECTED BY BUILDER
  - CHIMNEY AS OCCURS: TOP OF CHIMNEYS TO BE A MINIMUM OF 24" ABOVE ANY ROOF WITHIN 10'-0" OF CHIMNEY.
  - ALL EXTERIOR MATERIALS TO BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

**ELEVATION KEYNOTE LEGEND**

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E16	1X FIBER CEMENT TRIM OR EQUAL, U.N.O. SIZE AS NOTED. PROVIDE CAP FLASHING AS REQUIRED FOR ALL TRIM W/ AN EXPOSED TOP EDGE.
E17	FALSE WOOD/VINYL SHUTTERS, TYPE AS SHOWN, SIZE AS NOTED
E18	PROVIDE GUARDRAIL PER NCR C SECTION R312



**2 LEFT ELEVATION 'COASTAL'**  
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 2020 -  
 'COASTAL' - LH**

**CONSTRUCTION SET**

**LOT 69 -  
 OAKMONT  
 ESTATES  
 07.22.2021**

PROJECT NO:

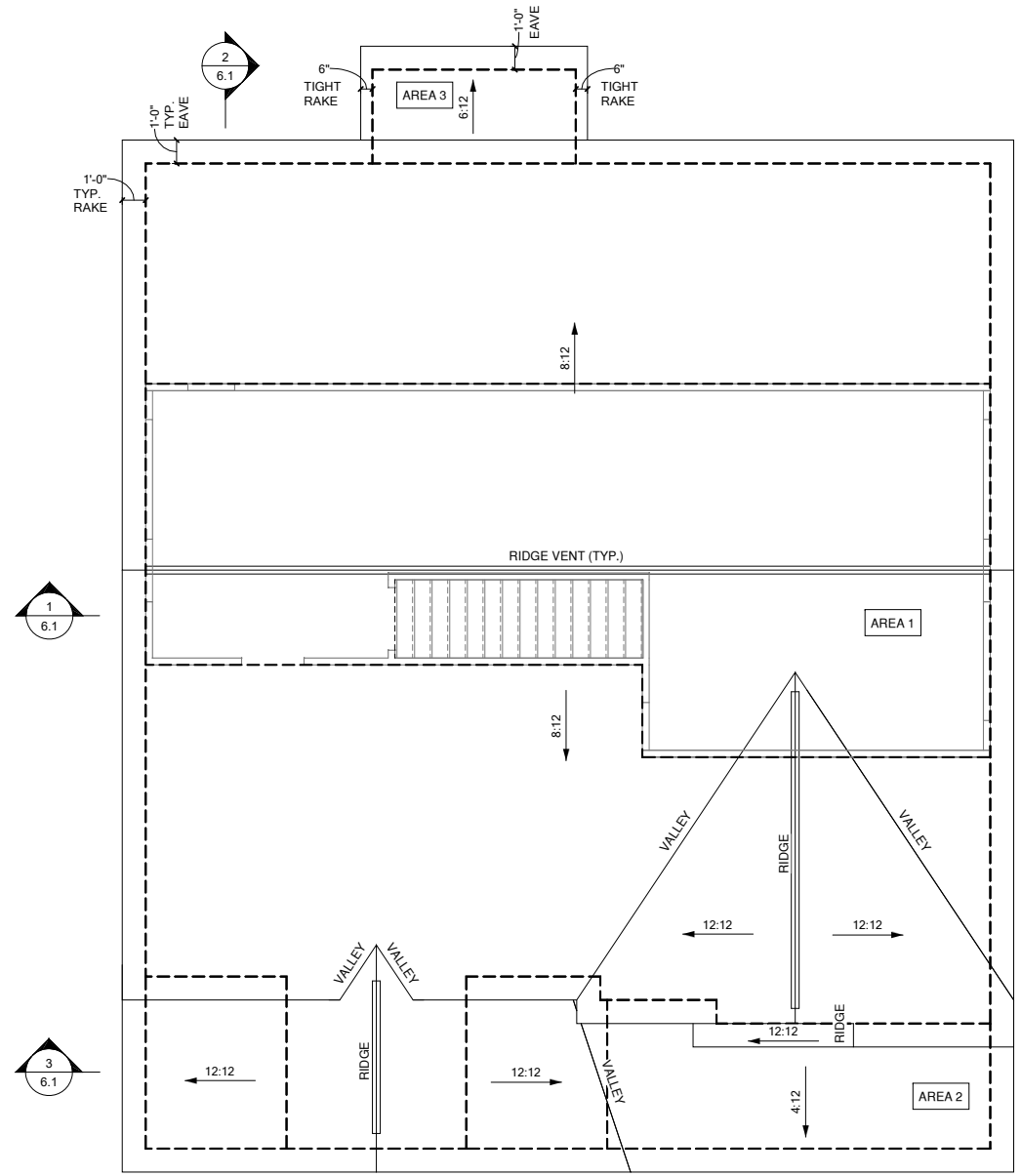
SHEET TITLE:  
**REAR ELEV W/  
 ROOF PLAN  
 'COASTAL'**

PRINT DATE:  
 04.13.2021

SHEET NO:  
**1.3.1**



**REAR ELEVATION 'COASTAL'**  
 1/4" = 1'-0" AT 22"X34" LAYOUT    1/8" = 1'-0" AT 11" X 17" LAYOUT



**ROOF PLAN 'COASTAL'**  
 1/4" = 1'-0" AT 22"X34" LAYOUT    1/8" = 1'-0" AT 11" X 17" LAYOUT

1/150 RATIO:	1/300 RATIO:
<p>GENERAL CONTRACTOR SHALL VERIFY THE NET FREE VENTILATION OF THE VENT PRODUCT SELECTED BY OWNER. VERIFY WITH MANUFACTURER OF HIGH AND LOW VENTS TO BE USED FOR MINIMUM CALCULATED VENTS REQUIRED. THE REQUIRED VENTILATION SHALL BE MAINTAINED. PROVIDE INSULATION STOP SUCH THAT INSULATION DOES NOT OBSTRUCT FREE AIR MOVEMENT AS REQUIRED BY THE BUILDING OFFICIAL.</p> <p>ALL OVERLAP FRAMED ROOF AREAS SHALL HAVE OPENINGS BETWEEN THE ADJACENT ATTICS IN THE ROOF SHEATHING (AS ALLOWED BY THE STRUCTURAL ENGINEER) TO ALLOW PASSAGE AND ATTIC VENTILATION BETWEEN THE TWO OR ISOLATED ATTIC SPACES SHALL BE VENTED INDEPENDENTLY.</p> <p>PER DEVELOPER, AT ALL CANTILEVERED FLOORS, CANTILEVERED DECORATIVE PROJECTIONS, AND ANY DOUBLE FRAMING PROJECTIONS THAT ARE SEPARATED FROM THE VENTING CALCULATIONS SHOWN ABOVE, PROVIDE A CONTINUOUS 2" CORROSION RESISTANT SOFFIT VENT AT UNDERSIDE OF FRAMED ELEMENT.</p>	<p>AS AN ALTERNATE TO THE 1/150 RATIO LISTED, THE NET FREE CROSS-VENTILATION AREA MAY BE REDUCED TO 1/300 WHEN A VAPOR BARRIER IS HAVING A TRANSMISSION RATE NOT EXCEEDING I-PERM INSTALLED ON THE WARM-WINTER SIDE OF THE CEILING.</p> <p>GENERAL CONTRACTOR SHALL VERIFY THE NET FREE VENTILATION OF THE VENT PRODUCT SELECTED BY OWNER. VERIFY WITH MANUFACTURER OF HIGH AND LOW VENTS TO BE USED FOR MINIMUM CALCULATED VENTS REQUIRED. THE REQUIRED VENTILATION SHALL BE MAINTAINED. PROVIDE INSULATION STOP SUCH THAT INSULATION DOES NOT OBSTRUCT FREE AIR MOVEMENT AS REQUIRED BY THE BUILDING OFFICIAL.</p> <p>ALL OVERLAP FRAMED ROOF AREAS SHALL HAVE OPENINGS BETWEEN THE ADJACENT ATTICS IN THE ROOF SHEATHING (AS ALLOWED BY THE STRUCTURAL ENGINEER) TO ALLOW PASSAGE AND ATTIC VENTILATION BETWEEN THE TWO OR ISOLATED ATTIC SPACES SHALL BE VENTED INDEPENDENTLY.</p> <p>PER DEVELOPER, AT ALL CANTILEVERED FLOORS, CANTILEVERED DECORATIVE PROJECTIONS, AND ANY DOUBLE FRAMING PROJECTIONS THAT ARE SEPARATED FROM THE VENTING CALCULATIONS SHOWN ABOVE, PROVIDE A CONTINUOUS 2" CORROSION RESISTANT SOFFIT VENT AT UNDERSIDE OF FRAMED ELEMENT.</p>
<p><b>NOTES:</b></p> <ul style="list-style-type: none"> <li>ALL ROOF DRAINAGE SHALL BE PIPED TO STREET OR APPROVED DRAINAGE FACILITY.</li> <li>DASHED LINES INDICATE WALL BELOW.</li> <li>LOCATE GUTTER AND DOWNSPOUTS PER BUILDER.</li> <li>PITCHED ROOFS AS NOTED.</li> </ul>	<ul style="list-style-type: none"> <li>TRUSS MANUFACTURER SHALL SUBMIT STRUCTURAL CALCS AND SHOP DRAWING TO THE BUILDER'S GENERAL CONTRACTOR AND BUILDING DEPARTMENT FOR REVIEW PRIOR TO FABRICATIONS.</li> <li>ALL PLUMBING VENTS SHALL BE COMBINED INTO A MINIMUM AMOUNT OF ROOF PENETRATIONS. ALL ROOF PENETRATIONS SHALL OCCUR TO THE REAR OF THE MAIN RIDGE.</li> </ul>

Name	Area	1/300 RATIO AT HIGH & LOW	1/150 RATIO AT HIGH & LOW
AREA 1	1276 SF	306.31 in <sup>2</sup>	612.62 in <sup>2</sup>
AREA 2	236 SF	56.57 in <sup>2</sup>	113.14 in <sup>2</sup>
AREA 3	35 SF	8.32 in <sup>2</sup>	16.64 in <sup>2</sup>
AREA 4	247 SF	59.20 in <sup>2</sup>	118.40 in <sup>2</sup>
AREA 5	214 SF	51.38 in <sup>2</sup>	102.76 in <sup>2</sup>

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E18	PROVIDE GUARDRAIL PER NCRS SECTION R312

**WALL LEGEND**

	FULL HEIGHT 2X4 WOOD STUD PARTITION		FULL HEIGHT 2X6 WOOD STUD PARTITION
	STONE VENEER		DRYWALL OPENING HEIGHT AS NOTED ON PLAN
	BRICK VENEER		FULL HEIGHT POURED CONCRETE WALL, SIZE AS NOTED
	STUD WALL BELOW HEIGHT AND STUD SIZE AS NOTED		FULL HEIGHT CMU WALL, SIZE AS NOTED

**FLOOR PLAN KEYNOTE LEGEND**

1	HOUSE TO GARAGE FIRE SEPARATION, GARAGE/HOUSE SEPARATION AT VERTICAL SURFACES SHALL BE PROTECTED WITH ONE (1) LAYER 1/2" GYPSUM BOARD. GARAGE/HOUSE SEPARATION AT HORIZONTAL SURFACES SHALL BE PROTECTED WITH ONE (1) LAYER 5/8" TYPE "X" GYPSUM BOARD WITH HABITABLE SPACE ABOVE GARAGE. ALL WALLS REQUIRE MINIMUM 1/2 INCH GB. (PER NCR TABLE R302.6)
2	HOUSE TO GARAGE DOOR SEPARATION. PROVIDE 1 3/8" SOLID CORE DOOR OR APPROVED 20 MINUTE RATED DOOR
3	BENEATH STAIRS AND LANDINGS. 1/2" GYPSUM BOARD ON WALLS AND CEILING OF ENCLOSED ACCESSIBLE AREAS
4	GAS WATER HEATER ON 18" HIGH PLATFORM
7	PRE-FABRICATED METAL FIREPLACE, INSTALL PER MANUFACTURER WRITTEN INSTRUCTIONS
9	TEMPERED SAFETY GLASS
11	HALF WALL, HEIGHT AS NOTED
12	INTERIOR SOFFITS: FFL = 7'-8" U.N.O., SFL = 7'-6" U.N.O., OPT. CASSED OPENING U.N.O.
13	SHOWER, TEMPERED GLASS ENCLOSURE
14	TUB-SHOWER COMBO
15	ACRYLIC TUB W/ PLATFORM, SIZE AS NOTED
16	SLIDE-IN ELECTRICAL RANGE W/ HOOD AND MICRO ABV. VENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS
19	ACCESS HATCH/DOOR. FULLY WEATHER STRIPPED AND INSULATED. (PER NCR SECTION N1102.2.4)



NO.	DATE:	REVISION:

PROJECT TITLE:  
**THE NELSON  
2020 -  
'COASTAL' - LH**

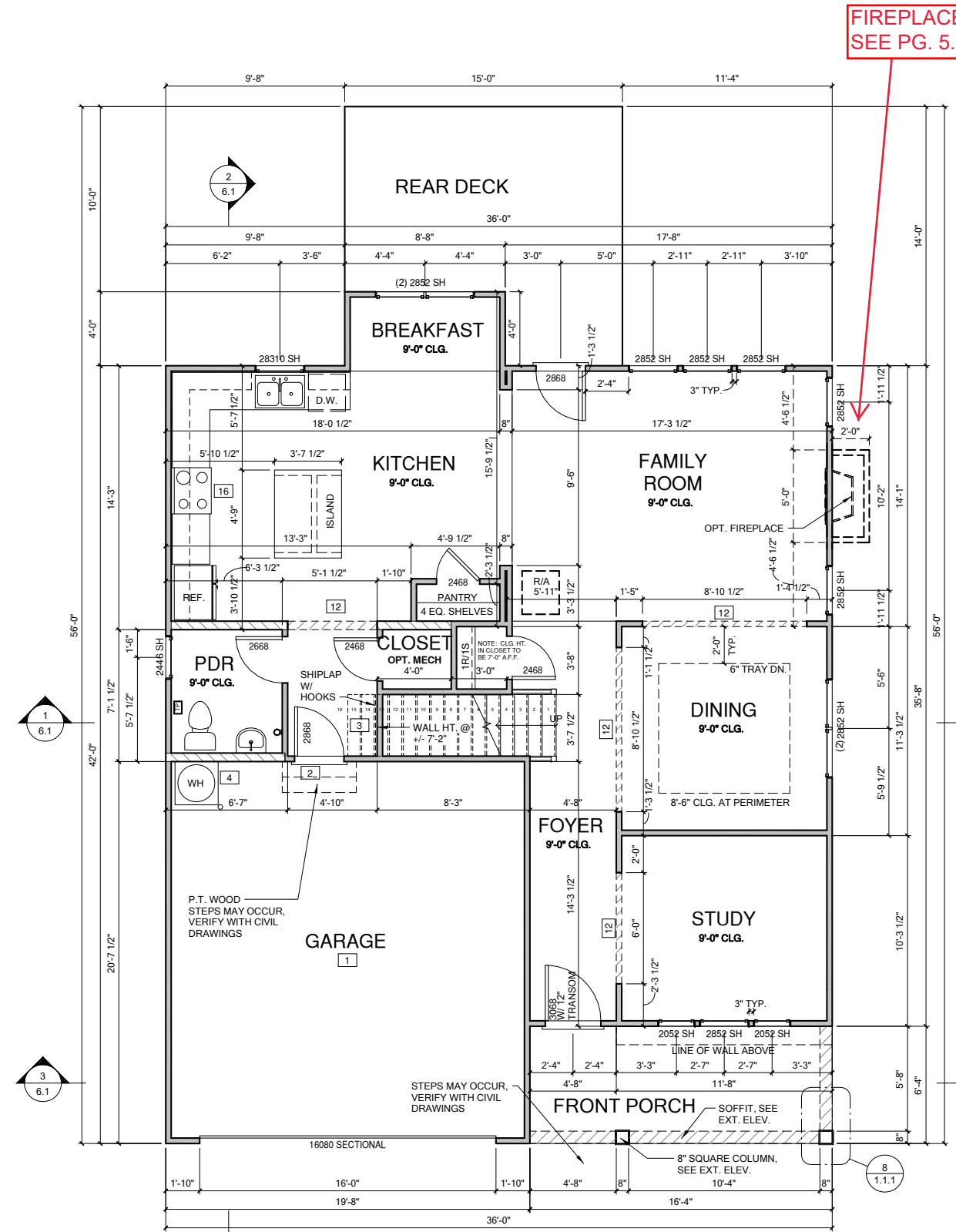
**CONSTRUCTION SET**

**LOT 69 -  
OAKMONT  
ESTATES  
07.22.2021**

PROJECT NO:  
SHEET TITLE:  
**FIRST FLOOR  
PLAN  
'COASTAL'**

PRINT DATE:  
04.13.2021

SHEET NO:  
**2.1.1**

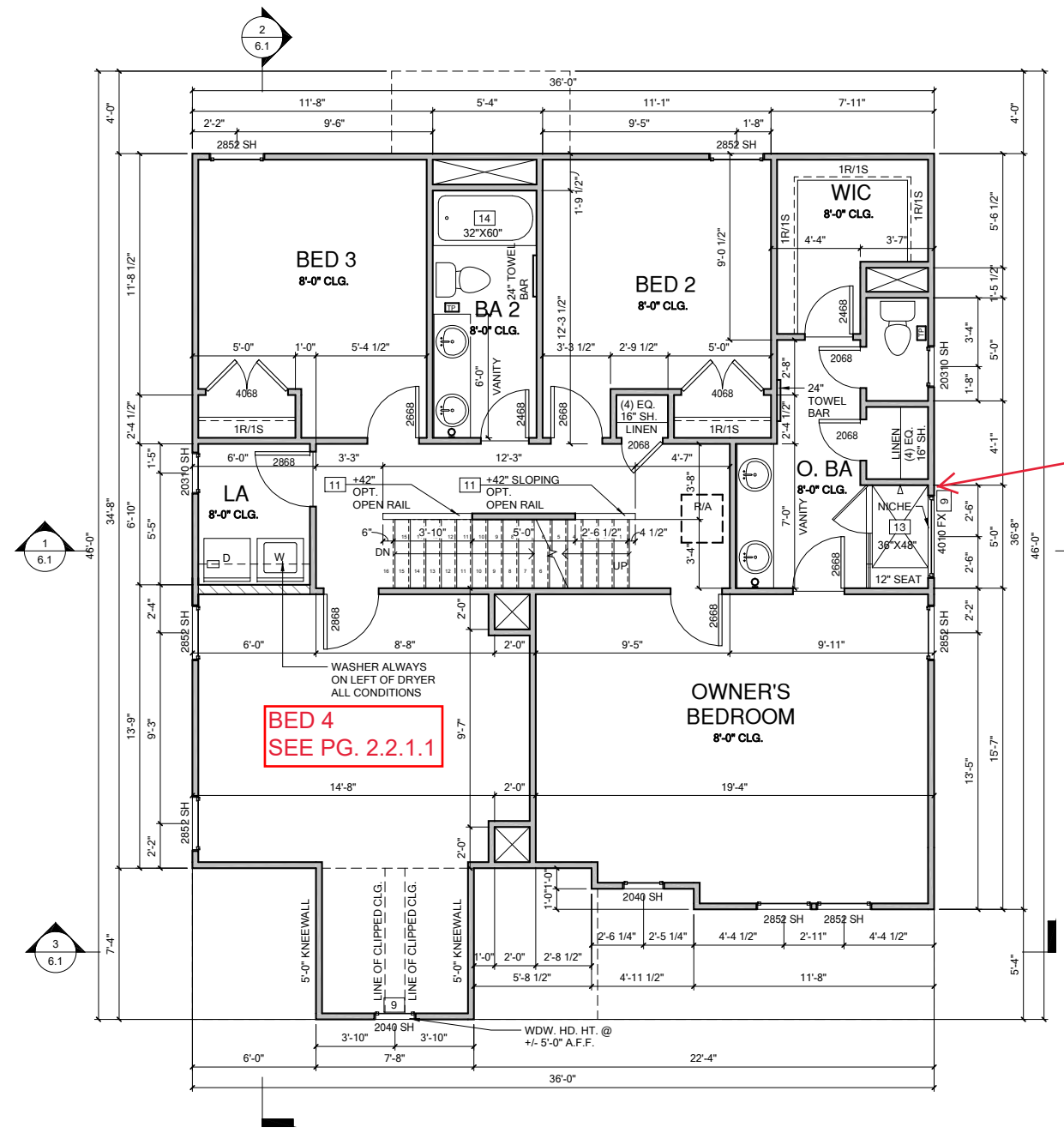


**FIRST FLOOR PLAN ELEV  
'COASTAL'**

1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT

WALL LEGEND	
	FULL HEIGHT 2X4 WOOD STUD PARTITION
	STONE VENEER
	BRICK VENEER
	STUD WALL BELOW HEIGHT AND STUD SIZE AS NOTED
	FULL HEIGHT 2X6 WOOD STUD PARTITION
	DRYWALL OPENING HEIGHT AS NOTED ON PLAN
	FULL HEIGHT POURED CONCRETE WALL, SIZE AS NOTED
	FULL HEIGHT CMU WALL, SIZE AS NOTED

FLOOR PLAN KEYNOTE LEGEND	
1	HOUSE TO GARAGE FIRE SEPARATION, GARAGE/HOUSE SEPARATION AT VERTICAL SURFACES SHALL BE PROTECTED WITH ONE (1) LAYER 1/2" GYPSUM BOARD. GARAGE/HOUSE SEPARATION AT HORIZONTAL SURFACES SHALL BE PROTECTED WITH ONE (1) LAYER 5/8" TYPE "X" GYPSUM BOARD. WITH HABITABLE SPACE ABOVE GARAGE, ALL WALLS REQUIRE MINIMUM 1/2 INCH GB. (PER NCRC TABLE R302.6).
2	HOUSE TO GARAGE DOOR SEPARATION. PROVIDE 1 3/8" SOLID CORE DOOR OR APPROVED 20 MINUTE RATED DOOR
3	BENEATH STAIRS AND LANDINGS. 1/2" GYPSUM BOARD ON WALLS AND CEILING OF ENCLOSED ACCESSIBLE AREAS
4	GAS WATER HEATER ON 18" HIGH PLATFORM
7	PRE-FABRICATED METAL FIREPLACE. INSTALL PER MANUFACTURER WRITTEN INSTRUCTIONS
9	TEMPERED SAFETY GLASS
11	HALF WALL, HEIGHT AS NOTED
12	INTERIOR SOFFITS. FFL = 7'-8" U.N.O. SFL = 7'-6" U.N.O., OPT. CASED OPENING U.N.O.
13	SHOWER, TEMPERED GLASS ENCLOSURE
14	TUB-SHOWER COMBO
15	ACRYLIC TUB W/ PLATFORM. SIZE AS NOTED
16	SLIDE-IN ELECTRICAL RANGE W/ HOOD AND MICRO ABV. VENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS
19	ACCESS HATCH/DOOR. FULLY WEATHER STRIPPED AND INSULATED. (PER NCRC SECTION N1102.2.4)



**SECOND FLOOR PLAN ELEV 'COASTAL'**

1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT

NO.	DATE:	REVISION:

PROJECT TITLE:  
**THE NELSON  
2020 -  
'COASTAL' - LH**

**CONSTRUCTION SET**

**LOT 69 -  
OAKMONT  
ESTATES  
07.22.2021**

PROJECT NO:

SHEET TITLE:  
**SECOND  
FLOOR PLAN  
'COASTAL'**

PRINT DATE:  
04.13.2021

SHEET NO:  
**2.2.1**

WALL LEGEND	
FULL HEIGHT 2X4 WOOD STUD PARTITION	FULL HEIGHT 2X6 WOOD STUD PARTITION
STONE VENEER	DRYWALL OPENING HEIGHT AS NOTED ON PLAN
BRICK VENEER	FULL HEIGHT POURED CONCRETE WALL, SIZE AS NOTED
STUD WALL BELOW HEIGHT AND STUD SIZE AS NOTED	FULL HEIGHT CMU WALL, SIZE AS NOTED

FLOOR PLAN KEYNOTE LEGEND	
1	HOUSE TO GARAGE FIRE SEPARATION. GARAGE/HOUSE SEPARATION AT VERTICAL SURFACES SHALL BE PROTECTED WITH ONE (1) LAYER 1/2" GYPSUM BOARD. GARAGE/HOUSE SEPARATION AT HORIZONTAL SURFACES SHALL BE PROTECTED WITH ONE (1) LAYER 5/8" TYPE "X" GYPSUM BOARD. WITH HABITABLE SPACE ABOVE GARAGE, ALL WALLS REQUIRE MINIMUM 1/2 INCH GB. (PER NCRC TABLE R302.6).
2	HOUSE TO GARAGE DOOR SEPARATION. PROVIDE 1 3/8" SOLID CORE DOOR OR APPROVED 20 MINUTE RATED DOOR
3	BENEATH STAIRS AND LANDINGS. 1/2" GYPSUM BOARD ON WALLS AND CEILING OF ENCLOSED ACCESSIBLE AREAS
4	GAS WATER HEATER ON 18" HIGH PLATFORM
7	PRE-FABRICATED METAL FIREPLACE. INSTALL PER MANUFACTURER WRITTEN INSTRUCTIONS
9	TEMPERED SAFETY GLASS
11	HALF WALL, HEIGHT AS NOTED
12	INTERIOR SOFFITS: FFL = 7'-8" U.N.O. SFL = 7'-6" U.N.O., OPT. CASED OPENING U.N.O.
13	SHOWER, TEMPERED GLASS ENCLOSURE
14	TUB-SHOWER COMBO
15	ACRYLIC TUB W/ PLATFORM, SIZE AS NOTED
16	SLIDE-IN ELECTRICAL RANGE W/ HOOD AND MICRO ABV. VENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS
19	ACCESS HATCH/DOOR. FULLY WEATHER STRIPPED AND INSULATED. (PER NCRC SECTION N1102.2.4)

NO.	DATE:	REVISION:

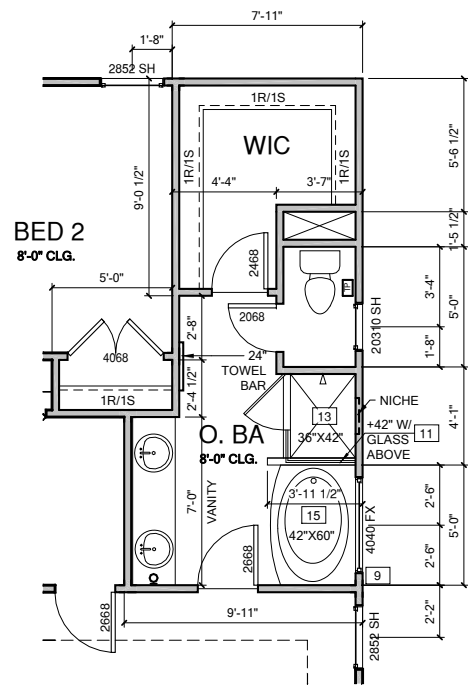
PROJECT TITLE:  
**THE NELSON  
 2020 -  
 'COASTAL' - LH**

CONSTRUCTION SET

LOT 69 -  
 OAKMONT  
 ESTATES  
 07.22.2021

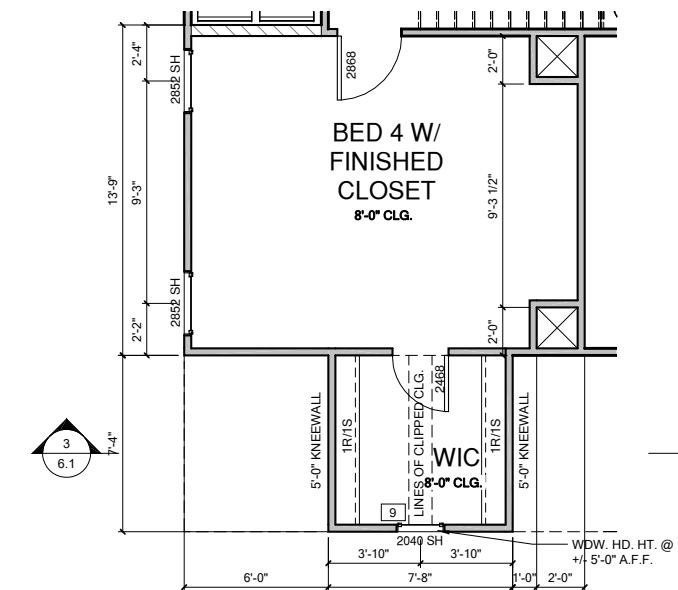
PROJECT NO:  
 SHEET TITLE:  
**SECOND  
 FLOOR PLAN  
 OPTIONS**

PRINT DATE:  
 04.13.2021  
 SHEET NO:  
**2.2.1.1**



**2 OPT. DELUXE BATH**

1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT

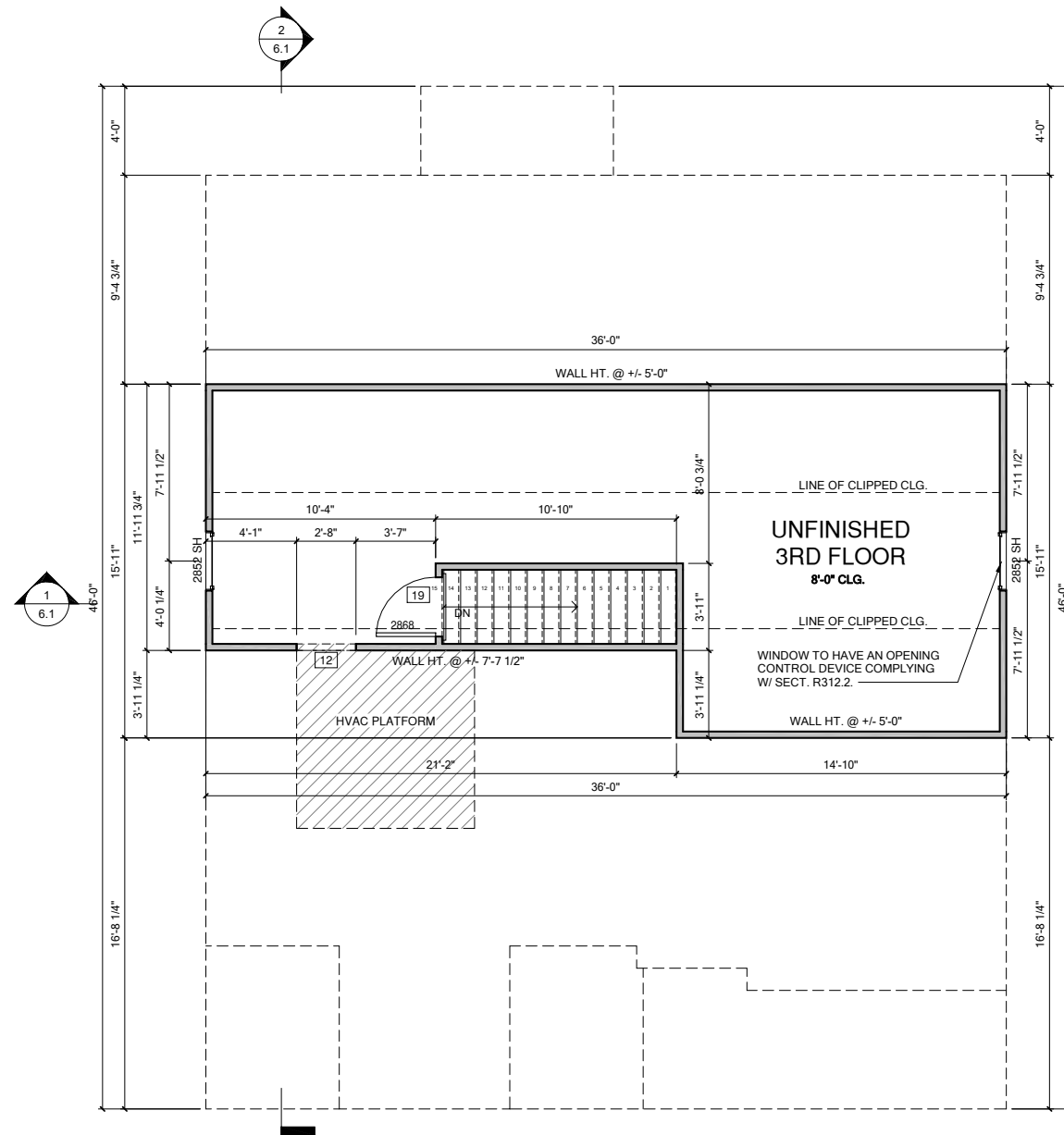


**1 OPT. BED 4 W/ FINISHED CLOSET  
 'COASTAL'**

1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT

WALL LEGEND	
	FULL HEIGHT 2X4 WOOD STUD PARTITION
	STONE VENEER
	BRICK VENEER
	STUD WALL BELOW HEIGHT AND STUD SIZE AS NOTED
	FULL HEIGHT 2X6 WOOD STUD PARTITION
	DRYWALL OPENING HEIGHT AS NOTED ON PLAN
	FULL HEIGHT POURED CONCRETE WALL, SIZE AS NOTED
	FULL HEIGHT CMU WALL, SIZE AS NOTED

FLOOR PLAN KEYNOTE LEGEND	
1	HOUSE TO GARAGE FIRE SEPARATION. GARAGE/HOUSE SEPARATION AT VERTICAL SURFACES SHALL BE PROTECTED WITH ONE (1) LAYER 1/2" GYPSUM BOARD. GARAGE/HOUSE SEPARATION AT HORIZONTAL SURFACES SHALL BE PROTECTED WITH ONE (1) LAYER 5/8" TYPE "X" GYPSUM BOARD. WITH HABITABLE SPACE ABOVE GARAGE, ALL WALLS REQUIRE MINIMUM 1/2 INCH GB. (PER NCR TABLE R302.6).
2	HOUSE TO GARAGE DOOR SEPARATION. PROVIDE 1 3/8" SOLID CORE DOOR OR APPROVED 20 MINUTE RATED DOOR
3	BENEATH STAIRS AND LANDINGS. 1/2" GYPSUM BOARD ON WALLS AND CEILING OF ENCLOSED ACCESSIBLE AREAS
4	GAS WATER HEATER ON 18" HIGH PLATFORM
7	PRE-FABRICATED METAL FIREPLACE. INSTALL PER MANUFACTURER WRITTEN INSTRUCTIONS
9	TEMPERED SAFETY GLASS
11	HALF WALL, HEIGHT AS NOTED
12	INTERIOR SOFFITS: FFL = 7'-8" U.N.O. SFL = 7'-6" U.N.O., OPT. CASED OPENING U.N.O.
13	SHOWER, TEMPERED GLASS ENCLOSURE
14	TUB-SHOWER COMBO
15	ACRYLIC TUB W/ PLATFORM. SIZE AS NOTED
16	SLIDE-IN ELECTRICAL RANGE W/ HOOD AND MICRO ABV. VENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS
19	ACCESS HATCH/DOOR. FULLY WEATHER STRIPPED AND INSULATED. (PER NCR SECTION N1102.2.4)



**UNFINISHED 3RD FLOOR**  
 1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT



NO.	DATE:	REVISION:

PROJECT TITLE:  
**THE NELSON  
 2020 -  
 'COASTAL' - LH**

**CONSTRUCTION SET**

**LOT 69 -  
 OAKMONT  
 ESTATES  
 07.22.2021**

PROJECT NO:  
 SHEET TITLE:  
**THIRD FLOOR  
 PLAN**

PRINT DATE:  
 04.13.2021

SHEET NO:  
**2.3.1**



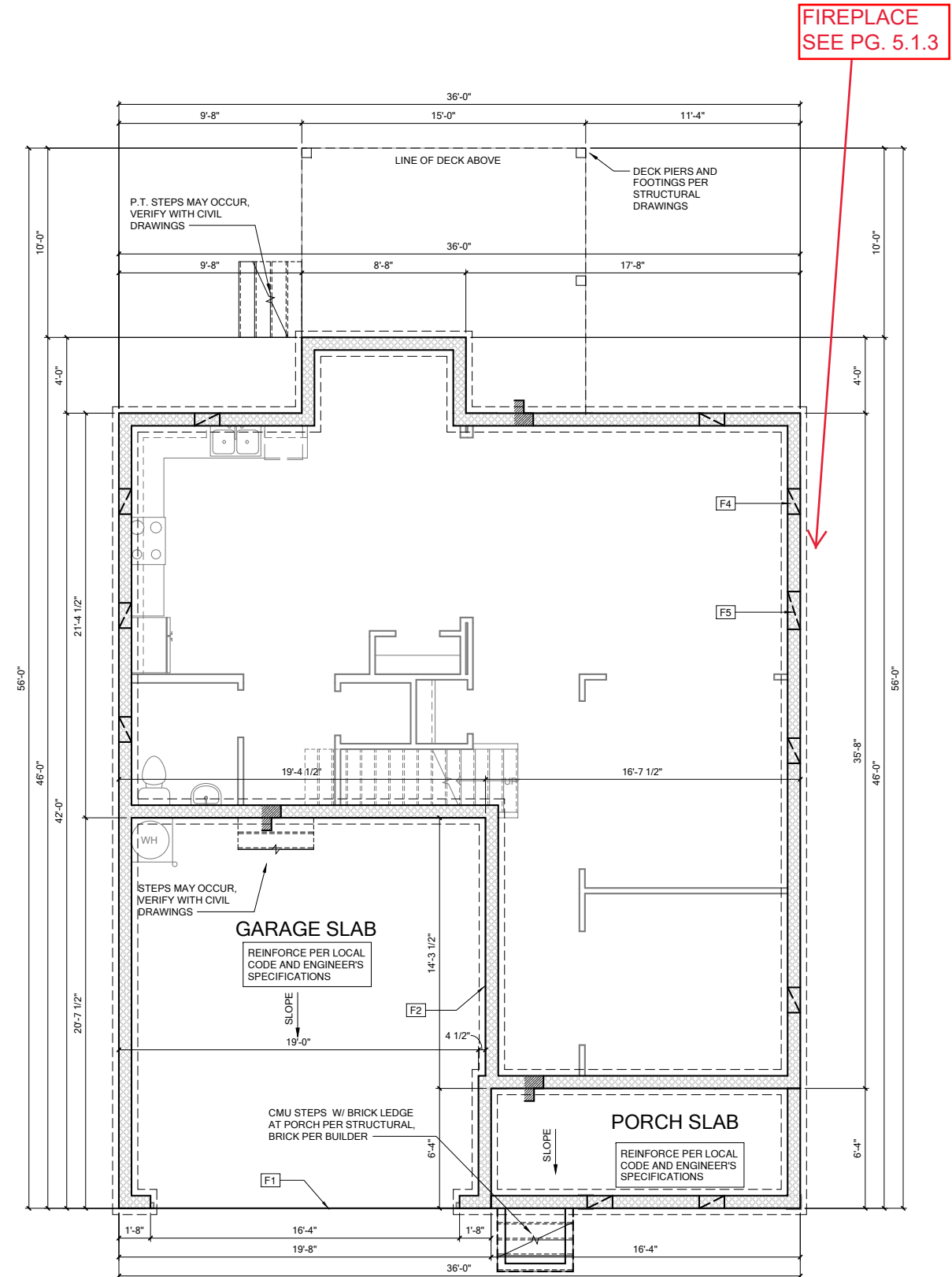
**CRAWL SPACE NOTES FOR NORTH CAROLINA:**

- REFER TO STRUCTURAL DRAWINGS FOR INFORMATION NOT SHOWN ON THIS PLAN.
- FOR ADDITIONAL NOTES SEE GENERAL NOTES ON TITLE SHEET AND DETAILS.
- PROVIDE FIREBLOCKING. (PER NCRC SECTION R602.8)
- ALL ELECTRICAL AND MECHANICAL EQUIPMENT AND METERS ARE SUBJECT TO RELOCATION DUE TO FIELD CONDITIONS, CONTRACTOR TO VERIFY.
- VERIFY ALL DOOR THRESHOLD HEIGHTS TO HARD SURFACES. 8 1/4" MAX AT INSWING DOORS. (PER NCRC SECTION R311.3.1)
- SLOPE ALL STOOPS AND HARDSCAPE MATERIAL AWAY FROM BUILDING - TYPICAL.
- SLOPE GARAGE FLOOR 1/8" PER FOOT TO GARAGE DOOR OPENING.
- VERIFY CURB CUT BLOCKOUT WITH GARAGE DOOR MANUFACTURER.
- REFER TO CIVIL DRAWINGS FOR FINISH SURFACE ELEVATIONS.
- TYP. STOOP AT INSWING/SLIDER DOORS: 36" DEEP BY THE WIDTH OF THE DOOR SERVED. MINIMUM (PER NCRC SECTIONS R311.3) PROVIDE A SLIP-RESISTANT FINISH.
- SOILS TREATMENT:  
100% GROUND COVERAGE OVER FINISHED GRADE/CRAWL SPACE. EITHER BAIT STATIONS OR CHEMICAL TREATMENT FOR PROTECTION FROM TERMITE INVESTIGATION ACCORDING TO THE STANDARDS OF THE NC DEPT. OF AGRICULTURE.
- AT VENTED CRAWL SPACE:  
APPLY AN APPROVED VAPOR RETARDER OR EQUIVALENT, 6 MIL POLY-VINYL, GROUND COVER OVER FINISH GRADE OR CRAWL SPACE PER NCRC SECTION 408.2
- PROVIDE VENTS SPACED AROUND PERIMETER TO PROMOTE CROSS VENTILATION AT A RATE OF 1 SF VENT FOR EVERY 1500 SF OF CRAWL FLOOR AREA. ONE VENT MUST BE LOCATED WITHIN 3'-0" OF EACH CORNER OF THE BUILDING AND LOCATED TO ALLOW FOR CROSS VENTILATION. (PER NCRC SECTION R408.1.1 EXCEPTION.)
- PROVIDE AN ACCESS OPENING, MINIMUM SIZE OF 18"X24" FOR CRAWL ACCESS. COORDINATE WITH MECHANICAL CONTRACTOR FOR LARGER SIZE REQUIREMENTS IF MECHANICAL EQUIPMENT IS LOCATED IN CRAWL. (PER NCRC SECTION 408.8)
- WOOD CONTACTING CONCRETE OR MASONRY OR LESS THAN CODE REQUIRED SEPARATION TO GRADE SHALL BE PRESSURE TREATED OR FOUNDATION GRADE REDWOOD. SET ALL EXTERIOR WALL SILLS IN MASTIC.

**REFER TO STRUCTURAL DRAWINGS FOR ALL FOUNDATION DIMENSIONS**

**FOUNDATION KEYNOTE LEGEND**

F1	LINE OF SLAB ABOVE
F2	LINE OF FRAMED WALL ABOVE
F4	16" X 8" CRAWL SPACE VENT
F5	CRAWL SPACE ACCESS PANEL



**CRAWL SPACE VENT CALC. 'COASTAL'**

Name	Area	1/150 VENT REQ.	1/1500 VENT REQ.
AREA 1	1042 SF	6.95 SF	0.69 SF



NO.	DATE	REVISION

PROJECT TITLE:  
**THE NELSON  
2020 -  
'COASTAL' - LH**

**CONSTRUCTION SET**

PROJECT NO:  
SHEET TITLE:  
**CRAWL SPACE  
PLAN  
'COASTAL'**

PRINT DATE:  
04.13.2021

SHEET NO:  
**4.1.1**

**1 CRAWL SPACE PLAN 'COASTAL'**  
1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT

WALL LEGEND	
	FULL HEIGHT 2X4 WOOD STUD PARTITION
	FULL HEIGHT 2X6 WOOD STUD PARTITION
	STONE VENEER
	BRICK VENEER
	STUD WALL BELOW HEIGHT AND STUD SIZE AS NOTED
	DRYWALL OPENING HEIGHT AS NOTED ON PLAN
	FULL HEIGHT POURED CONCRETE WALL, SIZE AS NOTED
	FULL HEIGHT CMU WALL, SIZE AS NOTED

FLOOR PLAN KEYNOTE LEGEND	
1	HOUSE TO GARAGE FIRE SEPARATION, GARAGE/HOUSE SEPARATION AT VERTICAL SURFACES SHALL BE PROTECTED WITH ONE (1) LAYER 1/2" GYPSUM BOARD. GARAGE/HOUSE SEPARATION AT HORIZONTAL SURFACES SHALL BE PROTECTED WITH ONE (1) LAYER 5/8" TYPE "X" GYPSUM BOARD. WITH HABITABLE SPACE ABOVE GARAGE, ALL WALLS REQUIRE MINIMUM 1/2 INCH GB. (PER NCR TABLE R302.6).
2	HOUSE TO GARAGE DOOR SEPARATION. PROVIDE 1 3/8" SOLID CORE DOOR OR APPROVED 20 MINUTE RATED DOOR
3	BENEATH STAIRS AND LANDINGS. 1/2" GYPSUM BOARD ON WALLS AND CEILING OF ENCLOSED ACCESSIBLE AREAS
4	GAS WATER HEATER ON 18" HIGH PLATFORM
7	PRE-FABRICATED METAL FIREPLACE, INSTALL PER MANUFACTURER WRITTEN INSTRUCTIONS
9	TEMPERED SAFETY GLASS
11	HALF WALL, HEIGHT AS NOTED
12	INTERIOR SOFFITS, FFL = 7'-8" U.N.O., SFL = 7'-6" U.N.O., OPT. CASED OPENING U.N.O.
13	SHOWER, TEMPERED GLASS ENCLOSURE
14	TUB-SHOWER COMBO
15	ACRYLIC TUB W/ PLATFORM, SIZE AS NOTED
16	SLIDE-IN ELECTRICAL RANGE W/ HOOD AND MICRO ABV. VENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS
19	ACCESS HATCH/DOOR. FULLY WEATHER STRIPPED AND INSULATED. (PER NCR SECTION N1102.2.4)

ELEVATION KEYNOTE LEGEND	
E1	ADHERED STONE VENEER AS SELECTED BY DEVELOPER, HEIGHT AS NOTED. PROVIDE CONT. FLASHING MIN. 4" ABOVE GRADE THROUGH MASONRY VENEER
E2	MASONRY FULL BRICK AS SELECTED BY DEVELOPER, HEIGHT AS NOTED
E5	ROWLOCK COURSE
E9	CORROSION RESISTANT ROOF TO WALL FLASHING, CODE COMPLIANT FLASHING MUST BE INSTALLED AT ALL ROOF/WALL INTERSECTIONS
E12	FIBER CEMENT SHAKE SIDING PER DEVELOPER W/ 5/4x4 CORNER TRIM BOARDS
E13	FIBER CEMENT LAP SIDING PER DEVELOPER W/ 5/4x4 CORNER TRIM BOARDS
E15	FIBER CEMENT PANEL SIDING W/ 1X3 BATTS AT 16" O.C. (VINYL BOARD AND BATTEN SIDING)
E16	1X FIBER CEMENT TRIM OR EQUAL, U.N.O. SIZE AS NOTED. PROVIDE CAP FLASHING AS REQUIRED FOR ALL TRIM W/ AN EXPOSED TOP EDGE.
E17	FALSE WOOD/VINYL SHUTTERS, TYPE AS SHOWN, SIZE AS NOTED
E18	PROVIDE GUARDRAIL PER NCR SECTION R312

ALL WINDOWS WHOSE OPENING IS LESS THAN 24" ABOVE THE FINISH FLOOR AND WHOSE OPENING IS GREATER THAN 72" ABOVE THE OUTSIDE WALKING SURFACE MUST HAVE WINDOW OPENING CONTROL DEVICES COMPLYING WITH THE 2018 NCR SECTION R312.2.

**NOTES:**

-GRADE CONDITIONS MAY VARY FOR INDIVIDUAL SITE FROM THAT SHOWN. BUILDER SHALL VERIFY AND COORDINATE PER ACTUAL SITE CONDITIONS.

-WINDOW HEAD HEIGHTS:  
1ST FLOOR = 8'-0" U.N.O. ON ELEVATIONS  
2ND FLOOR = 7'-0" U.N.O. ON ELEVATIONS

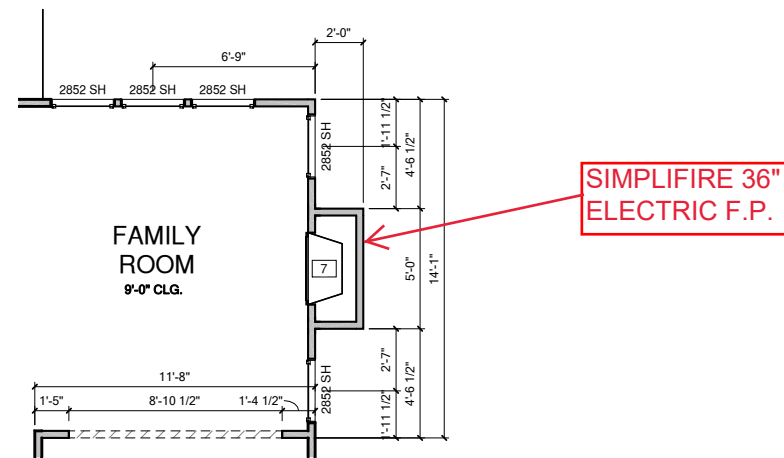
-ROOFING: PITCHED SHINGLES PER BUILDER. INSTALL ALL LOW SLOPE ROOFING IN ACCORDANCE WITH R905 AND MANUFACTURERS SPECS.

-WINDOWS: MANUFACTURER PER BUILDER. DIVIDED LITES AS SHOWN ON THE EXTERIOR ELEVATIONS

-ENTRY DOOR: AS SELECTED BY BUILDER

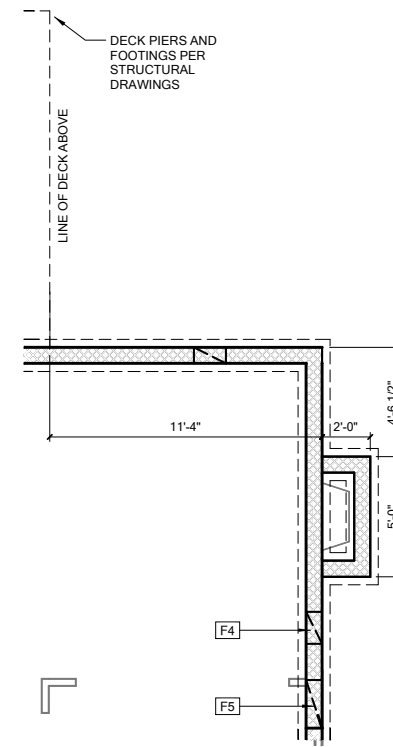
-CHIMNEY AS OCCURS: TOP OF CHIMNEYS TO BE A MINIMUM OF 24" ABOVE ANY ROOF WITHIN 10'-0" OF CHIMNEY.

-ALL EXTERIOR MATERIALS TO BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.



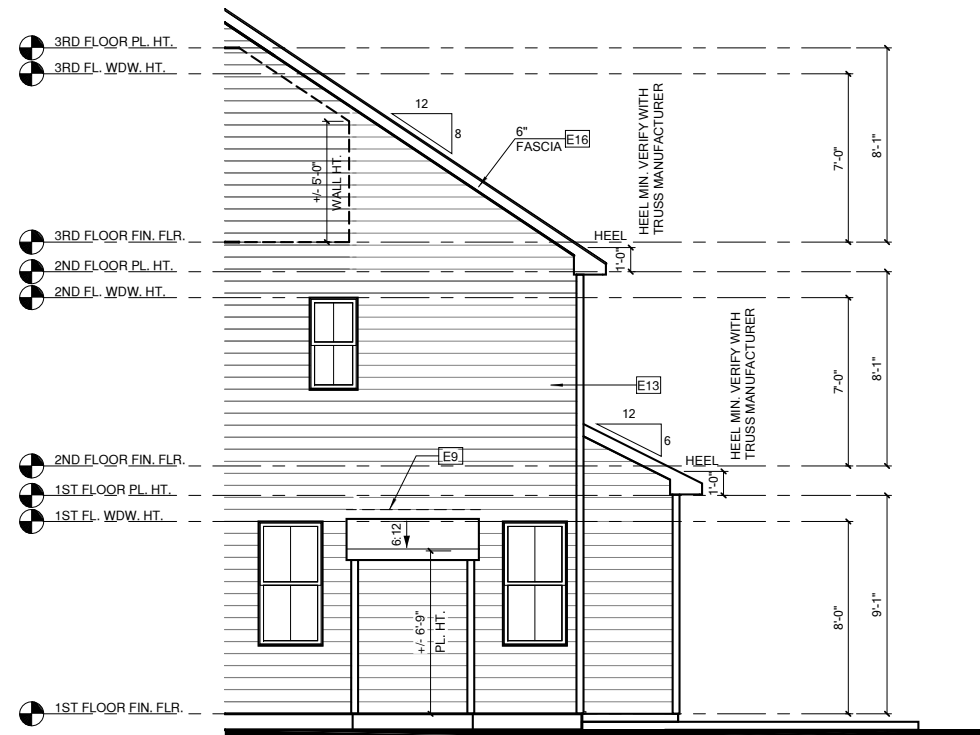
**OPT. SIDE FIREPLACE**

1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT



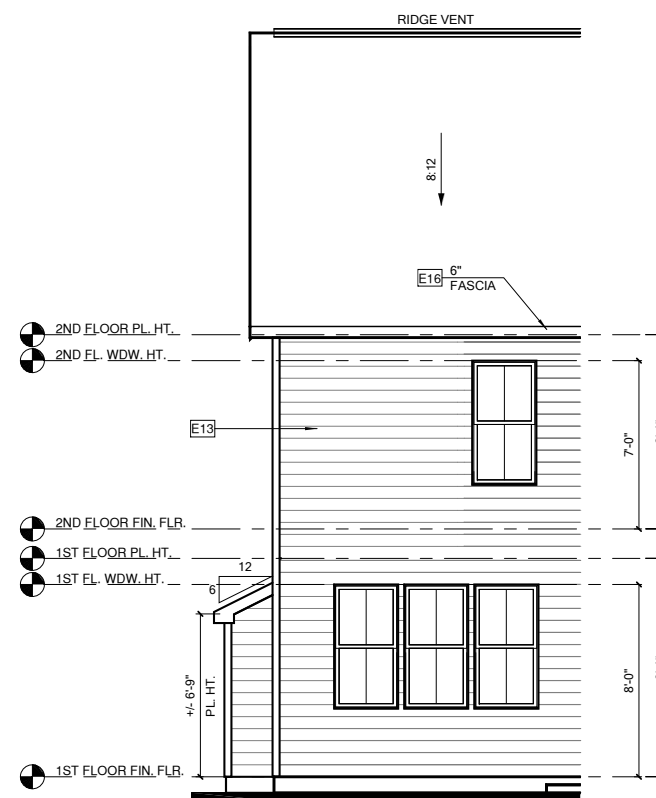
**CRAWL SPACE PLAN W/ OPT. SIDE FIREPLACE**

1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT



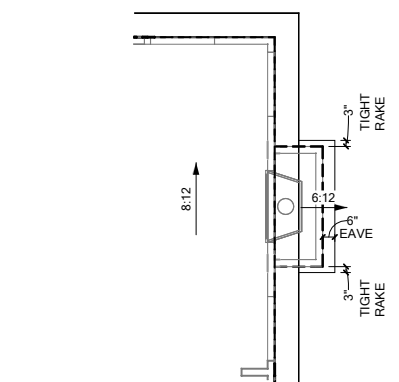
**RIGHT ELEVATION W/ OPT. SIDE FIREPLACE**

1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT



**REAR ELEVATION W/ OPT. SIDE FIREPLACE**

1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT



**ROOF PLAN W/ OPT. SIDE FIREPLACE**

1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT



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2020 -  
'COASTAL' - LH**

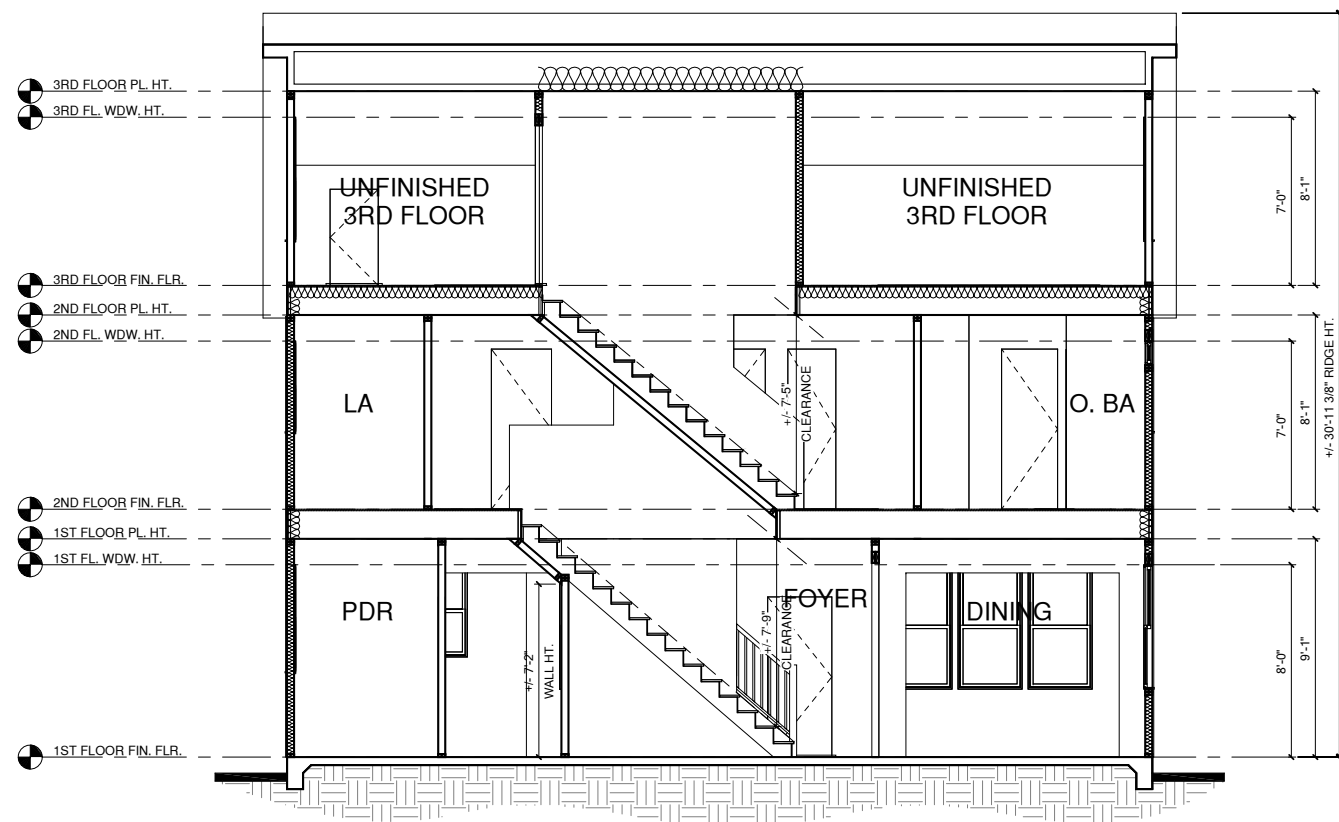
CONSTRUCTION SET

**LOT 69 -  
OAKMONT  
ESTATES  
07.22.2021**

PROJECT NO:  
SHEET TITLE:  
**OPT. SIDE  
FIREPLACE**

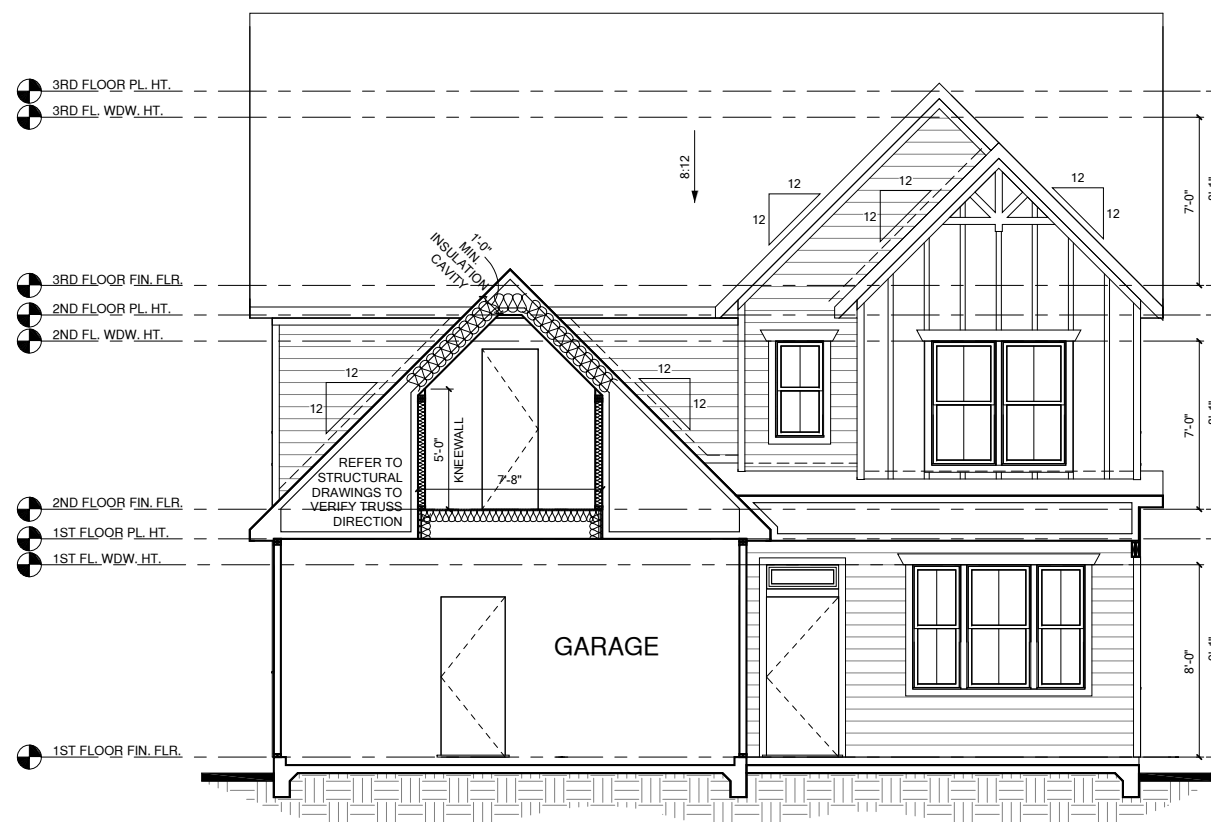
PRINT DATE:  
04.13.2021

SHEET NO:  
**5.1.3**



**1 BUILDING SECTION 1 'COASTAL'**

1/4" = 1'-0" AT 22'X34" LAYOUT 1/8" = 1'-0" AT 11' X 17" LAYOUT

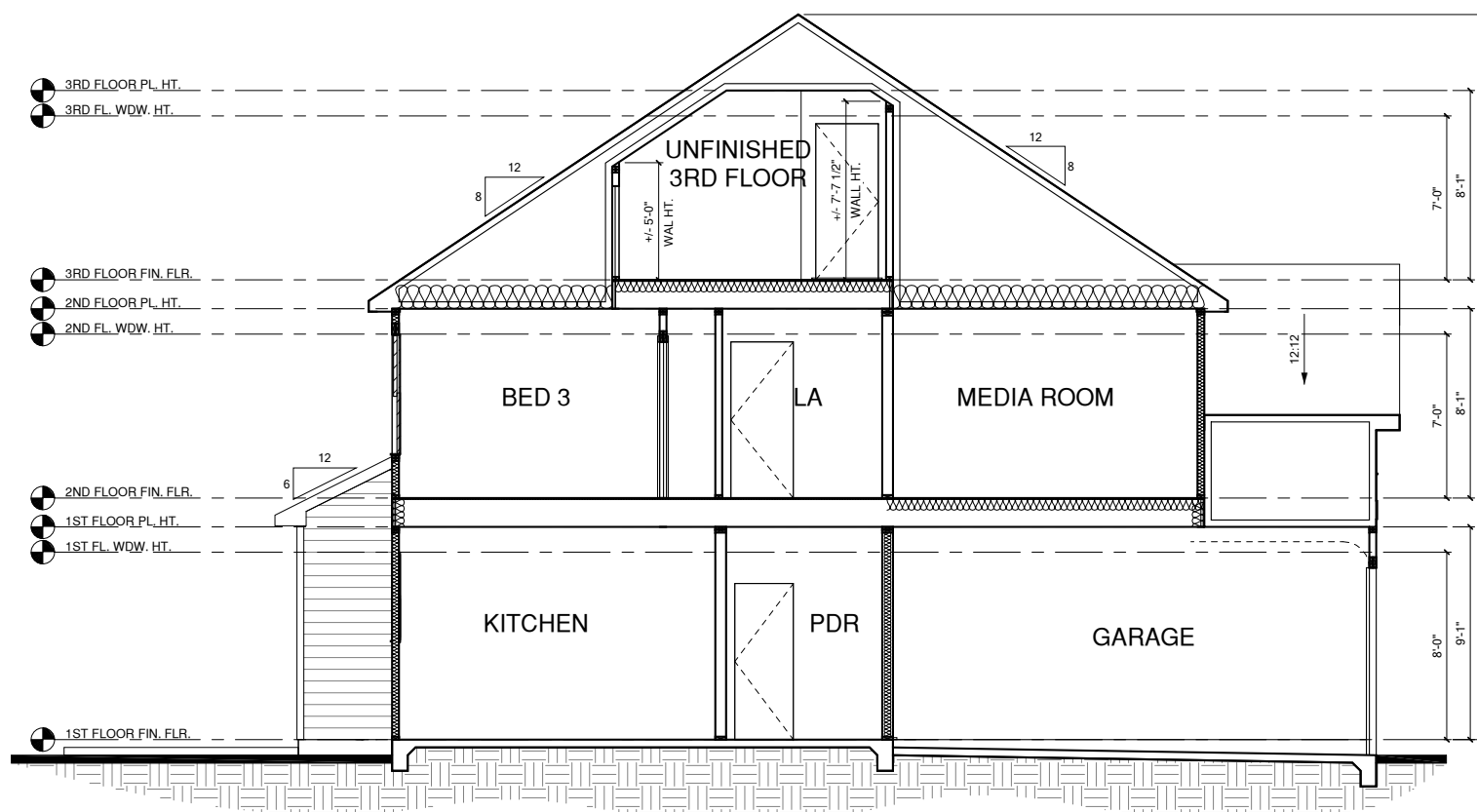


**3 BUILDING SECTION 3 'COASTAL'**

1/4" = 1'-0" AT 22'X34" LAYOUT 1/8" = 1'-0" AT 11' X 17" LAYOUT

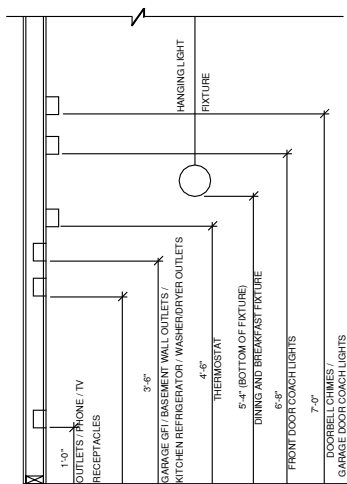
INSULATION VALUES PER TABLE R402.1.2 OF THE 2018 NC ENERGY CONSERVATION CODE.

CLIMATE ZONE	FENESTRATION U-FACTOR	CEILING	WALLS	FLOOR	SLAB
ZONE 3	0.35	R-38	R-15	R-19	0
ZONE 4	0.35	R-38	R-15	R-19	R-10
ZONE 5	0.35	R-38	R-15	R-30	R-10

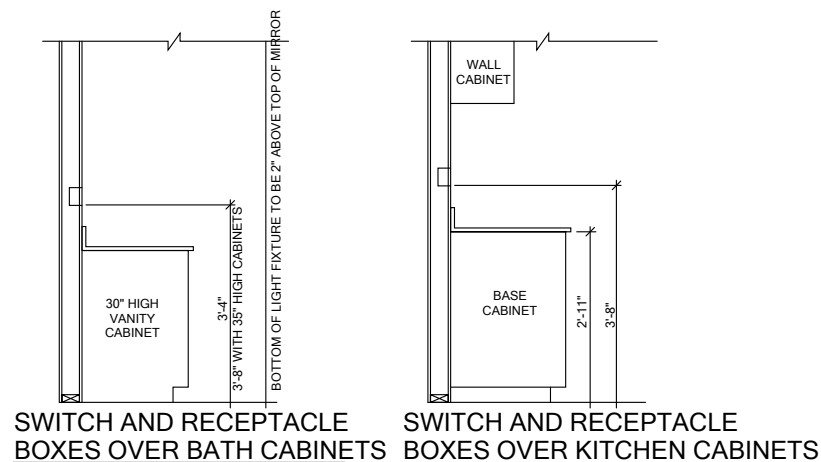


**2 BUILDING SECTION 2 'COASTAL'**

1/4" = 1'-0" AT 22'X34" LAYOUT 1/8" = 1'-0" AT 11' X 17" LAYOUT



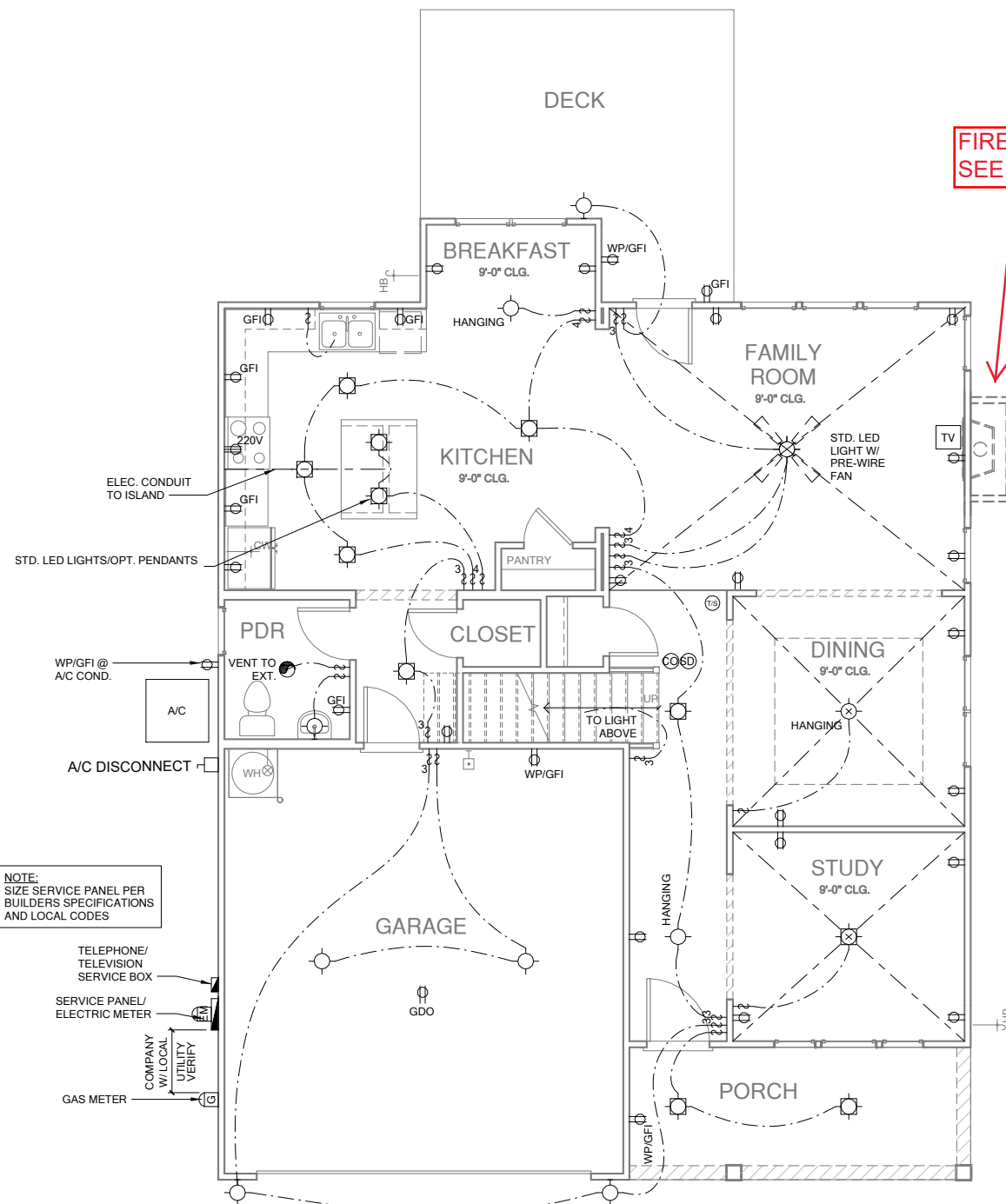
**STANDARD ELECTRICAL BOX HEIGHTS**



- NOTES:**
- PROVIDE GROUNDING ELECTRICAL ROD PER LOCAL CODES.
  - PROVIDE AND INSTALL ARC FAULT CIRCUIT-INTERRUPTERS (AFCI) AS REQUIRED BY NATIONAL ELECTRICAL CODE (NEC) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES.
  - ALL EXHAUST FANS SHALL HAVE BACKDRAFT DAMPERS
  - FAN/LIGHTS IN WET/DAMP LOCATIONS SHALL BE LABELED "SUITABLE FOR WET OR DAMP LOCATIONS."
  - ELECTRICAL SYSTEMS ARE SHOWN FOR INTENT ONLY. THESE SYSTEMS SHALL BE ENGINEERED BY OTHERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND PLACEMENT.
  - PROVIDE AND INSTALL LOCALLY CERTIFIED SMOKE DETECTORS AND CO2 DETECTORS AS REQUIRED BY NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES.
  - PROVIDE AND INSTALL GROUND FAULT CIRCUIT-INTERRUPTERS (GFI) AS REQUIRED BY NATIONAL ELECTRICAL CODE (NEC) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES.
  - ELECTRICAL CONTRACTOR TO PROVIDE REQUIRED DIRECT HOOK-UPS/CUTOFFS.
  - HVAC CONTRACTOR TO VERIFY THERMOSTAT LOCATIONS.
  - ALL ELECTRICAL AND MECHANICAL EQUIPMENT (FURNACES, A/C UNITS, ELECTRICAL PANELS, SANITARY SUMP PITS, DRAINING TILE SUMP, AND WATER HEATERS) ARE SUBJECT TO RELOCATON DUE TO FIELD CONDITIONS.
  - PROVIDE POWER, LIGHT AND SWITCH AS REQUIRED FOR ATTIC FURNACE PER CODE AND MANUFACTURER'S WRITTEN INSTRUCTIONS.

**LEGEND:**

⊕	DUPLEX OUTLET	⊙	CEILING MOUNTED INCANDESCENT LIGHT FIXTURE
⊕ WP/GFI	WEATHERPROOF GFI DUPLEX OUTLET	⊙	WALL MOUNTED INCANDESCENT LIGHT FIXTURE
⊕ GFI	GROUND-FAULT CIRCUIT-INTERRUPTER DUPLEX OUTLET	⊙	SURFACE MOUNT LED LIGHT FIXTURE (VP) = VAPOR PROOF
⊕	HALF-SWITCHED DUPLEX OUTLET	⊙	EXHAUST FAN (VENT TO EXTERIOR)
⊕ 220V	220 VOLT OUTLET	⊙	EXHAUST FAN/LIGHT COMBINATION (VENT TO EXTERIOR)
⊕	REINFORCED JUNCTION BOX	⊙	FLUORESCENT LIGHT FIXTURE
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⊕ 3	THREE-WAY SWITCH	⊙	CEILING FAN (PROVIDE ADEQUATE SUPPORT)
⊕ 4	FOUR-WAY SWITCH	⊙	CEILING FAN WITH INCANDESCENT LIGHT FIXTURE (PROVIDE ADEQUATE SUPPORT)
CH	CHIMES	⊕	GAS SUPPLY WITH VALVE
⊕	PUSHBUTTON SWITCH	⊕	HOSE BIBB
⊕ SD	110V SMOKE DETECTOR W/ BATTERY BACKUP	⊕	1/4" WATER STUB OUT
⊕ CD	CO2 DETECTOR	⊕	WALL SCONCE
⊕ T	THERMOSTAT		
⊕ PH	TELEPHONE		
⊕ TV	TELEVISION		
⊕	ELECTRIC METER		
⊕	ELECTRIC PANEL		
⊕	DISCONNECT SWITCH		



**FIRST FLOOR UTILITY PLAN**

1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT



NO.	DATE	REVISION

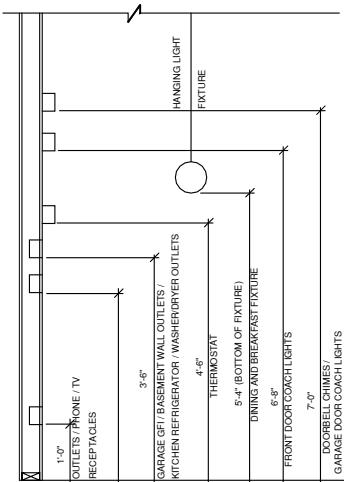
PROJECT TITLE:  
**THE NELSON  
2020 -  
'COASTAL' - LH**

**CONSTRUCTION SET**

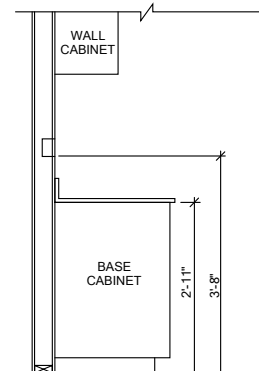
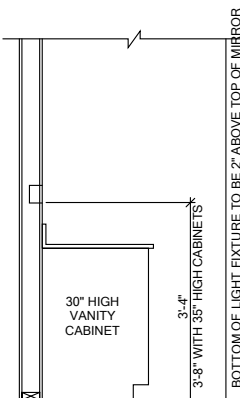
**LOT 69 -  
OAKMONT  
ESTATES  
07.22.2021**

PROJECT NO:  
SHEET TITLE:  
**FIRST FLOOR  
UTILITY PLAN**

PRINT DATE:  
04.13.2021  
SHEET NO:



**STANDARD ELECTRICAL BOX HEIGHTS**



**SWITCH AND RECEPTACLE BOXES OVER BATH CABINETS**

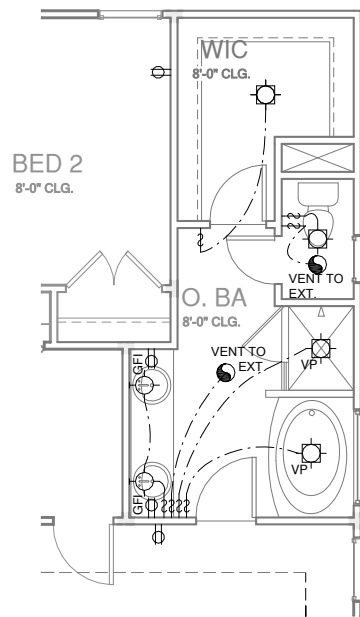
**SWITCH AND RECEPTACLE BOXES OVER KITCHEN CABINETS**

**NOTES:**

- PROVIDE GROUNDING ELECTRICAL ROD PER LOCAL CODES.
- PROVIDE AND INSTALL ARC FAULT CIRCUIT-INTERRUPTERS (AFCI) AS REQUIRED BY NATIONAL ELECTRICAL CODE (NEC) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES.
- ALL EXHAUST FANS SHALL HAVE BACKDRAFT DAMPERS
- FAN/LIGHTS IN WET/DAMP LOCATIONS SHALL BE LABELED "SUITABLE FOR WET OR DAMP LOCATIONS."
- ELECTRICAL SYSTEMS ARE SHOWN FOR INTENT ONLY. THESE SYSTEMS SHALL BE ENGINEERED BY OTHERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND PLACEMENT.
- PROVIDE AND INSTALL LOCALLY CERTIFIED SMOKE DETECTORS AND CO2 DETECTORS AS REQUIRED BY NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES.
- PROVIDE AND INSTALL GROUND FAULT CIRCUIT-INTERRUPTERS (GFI) AS REQUIRED BY NATIONAL ELECTRICAL CODE (NEC) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES.
- ELECTRICAL CONTRACTOR TO PROVIDE REQUIRED DIRECT HOOK-UPS/CUTOFFS.
- HVAC CONTRACTOR TO VERIFY THERMOSTAT LOCATIONS.
- ALL ELECTRICAL AND MECHANICAL EQUIPMENT (FURNACES, A/C UNITS, ELECTRICAL PANELS, SANITARY SUMP PITS, DRAINING TILE SUMP, AND WATER HEATERS) ARE SUBJECT TO RELOCATOIN DUE TO FIELD CONDITIONS.
- PROVIDE POWER, LIGHT AND SWITCH AS REQUIRED FOR ATTIC FURNACE PER CODE AND MANUFACTURER'S WRITTEN INSTRUCTIONS.

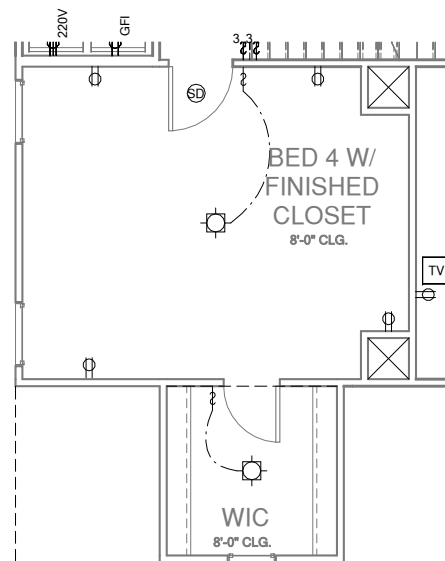
**LEGEND:**

⊕	DUPLEX OUTLET	⊙	CEILING MOUNTED INCANDESCENT LIGHT FIXTURE
⊕WP/GFI	WEATHERPROOF GFI DUPLEX OUTLET	⊙	WALL MOUNTED INCANDESCENT LIGHT FIXTURE
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⊕	THERMOSTAT		
PH	TELEPHONE		
TV	TELEVISION		
⊕	ELECTRIC METER		
⊕	ELECTRIC PANEL		
⊕	DISCONNECT SWITCH		



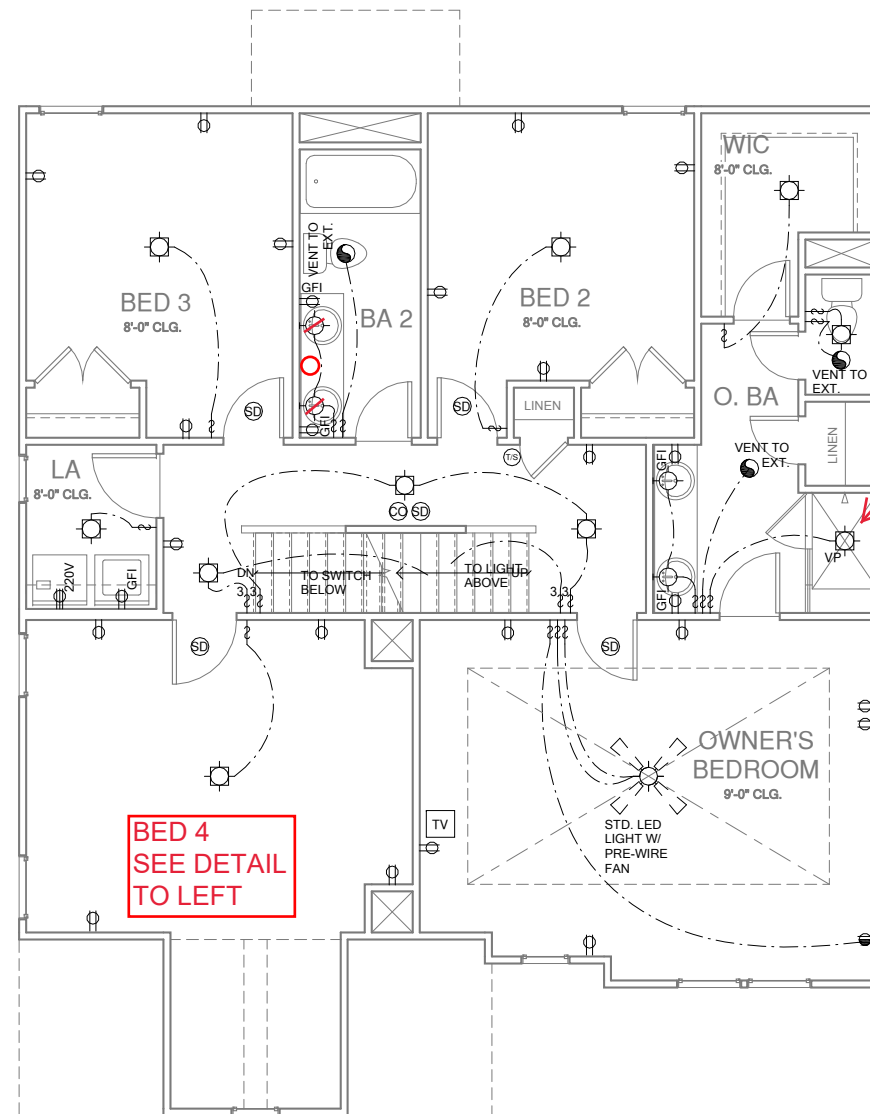
**OPT. DELUXE BATH UTILITY PLAN**

1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT



**OPT. BED 4 W/ FINISHED CLOSET UTILITY PLAN**

1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT



**SECOND FLOOR UTILITY PLAN**

1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT

**DELUXE BATH SEE DETAIL TO LEFT**

**BED 4 SEE DETAIL TO LEFT**

NO.	DATE:	REVISION:
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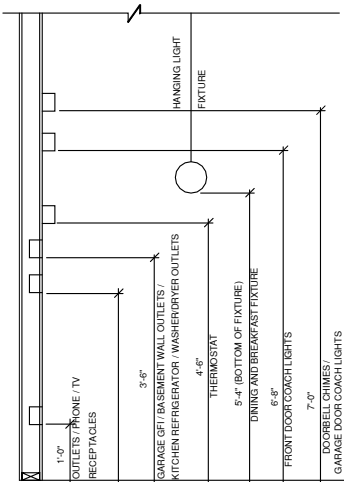
PROJECT TITLE:  
**THE NELSON 2020 - 'COASTAL' - LH**

**CONSTRUCTION SET**

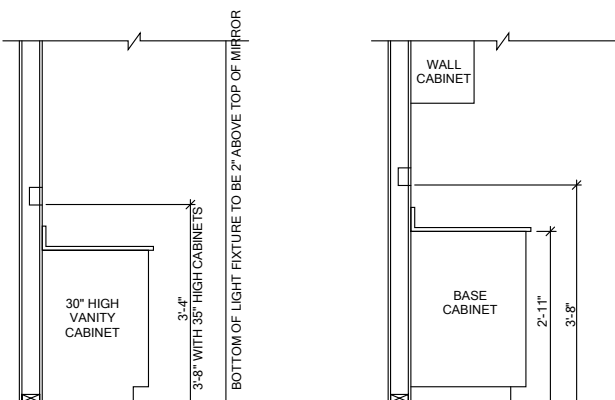
**LOT 69 - OAKMONT ESTATES 07.22.2021**

PROJECT NO:  
SHEET TITLE:  
**SECOND FLOOR UTILITY PLAN**

PRINT DATE:  
04.13.2021  
SHEET NO:



**STANDARD ELECTRICAL BOX HEIGHTS**



**SWITCH AND RECEPTACLE BOXES OVER BATH CABINETS**

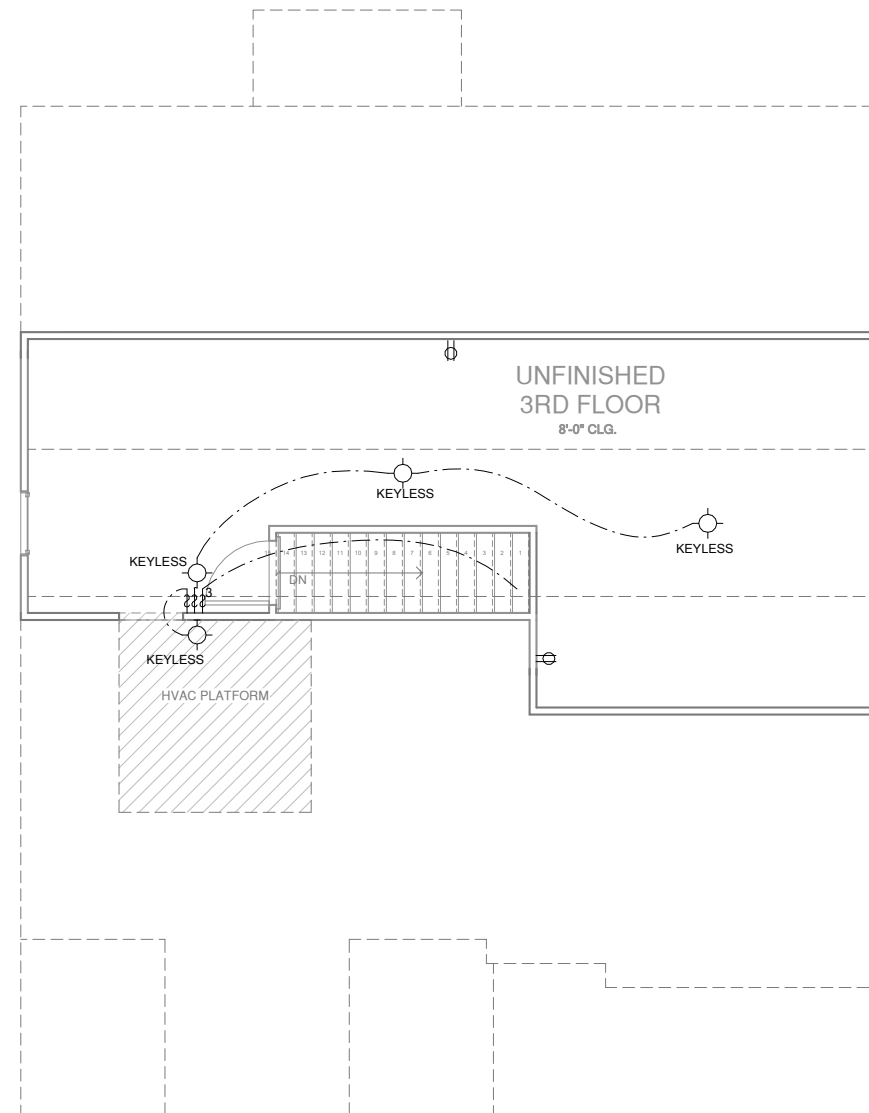
**SWITCH AND RECEPTACLE BOXES OVER KITCHEN CABINETS**

**NOTES:**

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- PROVIDE AND INSTALL ARC FAULT CIRCUIT-INTERRUPTERS (AFCI) AS REQUIRED BY NATIONAL ELECTRICAL CODE (NEC) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES.
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- ELECTRICAL CONTRACTOR TO PROVIDE REQUIRED DIRECT HOOK-UPS/CUTOFFS.
- HVAC CONTRACTOR TO VERIFY THERMOSTAT LOCATIONS.
- ALL ELECTRICAL AND MECHANICAL EQUIPMENT (FURNACES, A/C UNITS, ELECTRICAL PANELS, SANITARY SUMP PITS, DRAINING TILE SUMP, AND WATER HEATERS) ARE SUBJECT TO RELOCATOIN DUE TO FIELD CONDITIONS.
- PROVIDE POWER, LIGHT AND SWITCH AS REQUIRED FOR ATTIC FURNACE PER CODE AND MANUFACTURER'S WRITTEN INSTRUCTIONS.

**LEGEND:**

⊕	DUPLEX OUTLET	⊙	CEILING MOUNTED INCANDESCENT LIGHT FIXTURE
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⊕	THERMOSTAT		
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TV	TELEVISION		
⊕	ELECTRIC METER		
⊕	ELECTRIC PANEL		
⊕	DISCONNECT SWITCH		



**THIRD FLOOR UTILITY PLAN**

1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT



NO.	DATE:	REVISION:
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PROJECT TITLE:  
**THE NELSON  
2020 -  
'COASTAL' - LH**

**CONSTRUCTION SET**

**LOT 69 -  
OAKMONT  
ESTATES  
07.22.2021**

PROJECT NO:  
SHEET TITLE:  
**THIRD FLOOR  
UTILITY PLAN**

PRINT DATE:  
**04.13.2021**  
SHEET NO:

DESIGN SPECIFICATIONS:

Construction Type: Commercial  Residential

Applicable Building Codes:

- 2018 North Carolina Residential Building Code with All Local Amendments
• ASCE 7-10: Minimum Design Loads for Buildings and Other Structures

Design Loads:

- 1. Roof Live Loads
11. Conventional 2x ..... 20 PSF
12. Truss ..... 20 PSF
12.1. Attic Truss ..... 60 PSF
2. Roof Dead Loads
2.1. Conventional 2x ..... 10 PSF
2.2. Truss ..... 20 PSF
3. Snow
3.1. Importance Factor ..... 1.0
4. Floor Live Loads
4.1. Typ. Dwelling ..... 40 PSF
4.2. Sleeping Areas ..... 30 PSF
4.3. Decks ..... 40 PSF
4.4. Passenger Garage ..... 50 PSF
5. Floor Dead Loads
5.1. Conventional 2x ..... 10 PSF
5.2. I-Joist ..... 15 PSF
5.3. Floor Truss ..... 15 PSF
6. Ultimate Design Wind Speed (3 sec. gust) ..... 130 MPH
6.1. Exposure ..... B
6.2. Importance Factor ..... 1.0
6.3. Wind Base Shear
6.3.1. Vx =
6.3.2. Vy =

7. Component and Cladding (in PSF)

Table with 5 columns: MEAN ROOF HT., UP TO 30', 30'-11'-35", 35'-11'-40', 40'-11'-45'. Rows include ZONE 1 through ZONE 5 with corresponding values.

8. Seismic

- 8.1. Site Class ..... D
8.2. Design Category ..... C
8.3. Importance Factor ..... 1.0
8.4. Seismic Use Group ..... I
8.5. Spectral Response Acceleration
8.5.1. Sm = %g
8.5.2. Sml = %g
8.6. Seismic Base Shear
8.6.1. Vx =
8.6.2. Vy =
8.7. Basic Structural System (check one)
[ ] Bearing Wall
[ ] Building Frame
[ ] Moment Frame
[ ] Dual w/ Special Moment Frame
[ ] Dual w/ Intermediate R/C or Special Steel
[ ] Inverted Pendulum
8.8. Arch/Mech Components Anchored ..... No
8.9. Lateral Design Control: Seismic [ ] Wind [x]
9. Assumed Soil Bearing Capacity ..... 20000psf



STRUCTURAL PLANS PREPARED FOR:

NELSON 2020

PROJECT ADDRESS: TBD
OWNER: McKee Homes
109 Hay St., Suite 301
Fayetteville, NC 28301

DESIGNER: Planwork Architecture, P.A.
5111 Six Forks Rd. #100
Raleigh, NC 27609

These drawings are to be coordinated with the architectural, mechanical, plumbing, electrical, and civil drawings. This coordination is not the responsibility of the structural engineering of record (SER). Should any discrepancies become apparent, the contractor shall notify SUMMIT Engineering, Laboratory & Testing, P.C. before construction begins.

PLAN ABBREVIATIONS:

Table with 4 columns: AB, AFF, CJ, CLR, DJ, D&P, EE, EW, NTS, OC, PSF, PSI. Rows include ANCHOR BOLT, ABOVE FINISHED FLOOR, CEILING JOIST, CLEAR, DOUBLE JOIST, DOUBLE STUD POCKET, EACH END, EACH WAY, NOT TO SCALE, ON CENTER, POUNDS PER SQUARE FOOT, POUNDS PER SQUARE INCH, PRESSURE TREATED, ROOF SUPPORT, STUD COLUMN, SINGLE JOIST, SPRUCE PINE FIR, SIMPSON STRONG-TIE, SOUTHERN YELLOW PINE, TRIPLE JOIST, TRIPLE STUD POCKET, TYPICAL, UNLESS NOTED OTHERWISE, WELDED WIRE FABRIC.

Roof truss and floor joist layouts, and their corresponding loading details, were not provided to SUMMIT Engineering, Laboratory & Testing, P.C. (SUMMIT) prior to the initial design. Therefore, truss and joist directions were assumed based on the information provided by MCKEE HOMES. Subsequent plan revisions based on roof truss and floor joist layouts shall be noted in the revision list. Indicating the date the layouts were provided, should any discrepancies become apparent, the contractor shall notify SUMMIT immediately.

SHEET LIST:

Table with 2 columns: Sheet No., Description. Rows include CSI (Cover Sheet, Specifications, Revisions), S10m (Monolithic Slab Foundation), S10s (Stem Wall Foundation), S10c (Crawl Space Foundation), S10b (Basement Foundation), S20 (Basement Framing Plan), S30 (First Floor Framing Plan), S40 (Second Floor Framing Plan), S50 (Roof Framing Plan), S60 (Basement Bracing Plan), S70 (First Floor Bracing Plan), S80 (Second Floor Bracing Plan).

REVISION LIST:

Table with 4 columns: Revision No., Date, Project No., Description. Row 1: 1, 10/6/20, 21T96R, Revised per new architectural plans and to update garage beam to a 4-ply LVL. Row 2: 2, 11/19/20, 21T96R2, Enlarged case opening at kitchen.

GENERAL STRUCTURAL NOTES:

- 1. The design professional whose seal appears on these drawings is the structural engineer of record (SER) for this project. The SER bears the responsibility of the primary structural elements and the performance of this structure. No other party may revise, alter, or delete any structural aspects of these construction documents without written permission of SUMMIT Engineering, Laboratory & Testing, P.C. (SUMMIT) or the SER. For the purposes of these construction documents the SER and SUMMIT shall be considered the same entity.
2. The structure is only stable in its completed form. The contractor shall provide all required temporary bracing during construction to stabilize the structure.
3. The SER is not responsible for construction sequences, methods, or techniques in connection with the construction of this structure. The SER will not be held responsible for the contractor's failure to conform to the contract documents, should any non-conformities occur.
4. Any structural elements or details not fully developed on the construction drawings shall be completed under the direction of a licensed professional engineer. These shop drawings shall be submitted to SUMMIT for review before any construction begins. The shop drawings will be reviewed for overall compliance as it relates to the structural design of this project. Verification of the shop drawings for dimensions, or for actual field conditions, is not the responsibility of the SER or SUMMIT.
5. Verification of assumed field conditions is not the responsibility of the SER. The contractor shall verify the field conditions for accuracy and report any discrepancies to SUMMIT before construction begins.
6. The SER is not responsible for any secondary structural elements or non-structural elements, except for the elements specifically noted on the structural drawings.
7. This structure and all construction shall conform to all applicable sections of the International Residential code.
8. This structure and all construction shall conform to all applicable sections of local building codes.
9. All structural assemblies are to meet or exceed to requirements of the current local building code.

FOUNDATIONS:

- 1. The structural engineer has not performed a subsurface investigation. Verification of this assumed value is the responsibility of the owner or the contractor. Should any adverse soil condition be encountered the SER must be contacted before proceeding.

- 2. The bottom of all footings shall extend below the frost line for the region in which the structure is to be constructed. However, the bottom of all footings shall be a minimum of 12" below grade.
3. Any fill shall be placed under the direction or recommendation of a licensed professional engineer.
4. The resulting soil shall be compacted to a minimum of 95% maximum dry density.
5. Excavations of footings shall be lined temporarily with a 6 mil polyethylene membrane if placement of concrete does not occur within 24 hours of excavation.
6. No concrete shall be placed against any subgrade containing water, ice, frost, or loose material.

STRUCTURAL STEEL:

- 1. Structural steel shall be fabricated and erected in accordance with the American Institute of Steel Construction "Code of Standard Practice for Steel Buildings and Bridges" and the manual of Steel Construction "Load Resistance Factor Design" latest editions.
2. Structural steel shall receive one coat of shop applied rust-inhibitive paint.
3. All steel shall have a minimum yield stress (Fy) of 36 ksi unless otherwise noted.
4. Welding shall conform to the latest edition of the American Welding Society's Structural Welding Code AWS D11. Electrodes for shop and field welding shall be class E70XX. All welding shall be performed by a certified welder per the above standards.

CONCRETE:

- 1. Concrete shall have a normal weight aggregate and a minimum compressive strength (fc) at 28 days of 3000 psi, unless otherwise noted on the plan.
2. Concrete shall be proportioned, mixed, and placed in accordance with the latest editions of ACI 318: "Building Code Requirements for Reinforced Concrete" and ACI 301: "Specifications for Structural Concrete for Buildings".
3. Air entrained concrete must be used for all structural elements exposed to freeze/thaw cycles and deicing chemicals. Air entrainment amounts (in percent) shall be within -1% to +2% of target values as follows:
3.1. Footings: 5%
3.2. Exterior Slabs: 5%
4. No admixtures shall be added to any structural concrete without written permission of the SER.

- 5. Concrete slabs-on-grade shall be constructed in accordance with ACI 302.1R-96: "Guide for Concrete Slab and Slab Construction".
6. The concrete slab-on-grade has been designed using a subgrade modulus of k=250 pci and a design loading of 200 psf. The SER is not responsible for differential settlement, slab cracking or other future defects resulting from unreported conditions not in accordance with the above assumptions.
7. Control or saw cut joints shall be spaced in interior slabs-on-grade at a maximum of 15'-0" O.C. and in exterior slabs-on-grade at a maximum of 10'-0" unless otherwise noted.
8. Control or saw cut joints shall be produced using conventional process within 4 to 12 hours after the slab has been finished.
9. Reinforcing steel may not extend through a control joint. Reinforcing steel may extend through a saw cut joint.
10. All welded wire fabric (WWF) for concrete slabs-on-grade shall be placed at mid-depth of slab. The WWF shall be securely supported during the concrete pour.

CONCRETE REINFORCEMENT:

- 1. Fibrous concrete reinforcement, or fibermesh specified in concrete slabs-on-grade may be used for control of cracking due to shrinkage and thermal expansion/contraction, lowered water migration, an increase in impact capacity, increased abrasion resistance, and residual strength.
2. Fibermesh reinforcing to be 100% virgin polypropylene fibers containing no reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforcement.
3. Application of fibermesh per cubic yard of concrete shall equal a minimum of 0.1% by volume (15 pounds per cubic yard).
4. Fibermesh shall comply with ASTM C116, any local building code requirements, and shall meet or exceed the current industry standard.
5. Steel reinforcing bars shall be new billet steel conforming to ASTM A615, grade 60.
6. Detailing, fabrication, and placement of reinforcing steel shall be in accordance with the latest edition of ACI 318: "Manual of Standard Practice for Detailing Concrete Structures".
7. Horizontal footing and wall reinforcement shall be continuous and shall have 90 degree bends, or corner bars with the same size/spacing as the horizontal reinforcement with a class B tension splice.
8. Lap reinforcement as required, a minimum of 40 bar diameters for tension or compression unless otherwise noted. Splices in masonry shall be a minimum of 48 bar diameters.

- 9. Where reinforcing dowels are required, they shall be equivalent in size and spacing to the vertical reinforcement. The dowel shall extend 48 bar diameters vertically and 20 bar diameters into the footing.
10. Where reinforcing steel is required vertically, dowels shall be provided unless otherwise noted.

WOOD FRAMING:

- 1. Solid saun wood framing members shall conform to the specifications listed in the latest edition of the "National Design Specification for Wood Construction" (NDS). Unless otherwise noted, all wood framing members are designed to be Southern-Yellow-Pine (SYP) #2.
2. LVL or PSL engineered wood shall have the following minimum design values:
2.1. E = 1900000 psi
2.2. Fb = 2600 psi
2.3. Fv = 285 psi
2.4. Fc = 100 psi
3. Wood in contact with concrete, masonry, or earth shall be pressure treated in accordance with AWPFA standard C-15. All other moisture exposed wood shall be treated in accordance with AWPFA standard C-2.
4. Nails shall be common wire nails unless otherwise noted.
5. Lag screws shall conform to ANSI/ASME standard B18.21-1981. Lead holes for lag screws shall be in accordance with NDS specifications.
6. All beams shall have full bearing on supporting framing members unless otherwise noted.
7. Exterior and load bearing stud walls are to be 2x4 SYP #2 @ 16" O.C. unless otherwise noted. Studs shall be continuous from the sole plate to the double top plate. Studs shall only be discontinuous at headers for window/door openings. A minimum of one king stud shall be placed at each end of the header. King studs shall be continuous.
8. Individual studs forming a column shall be attached with one 10d nail @ 6" O.C. staggered. The stud column shall be continuous to the foundation or beam. The column shall be properly blocked at all floor levels to ensure proper load transfer.
9. Multi-ply beams shall have each ply attached with (3) 10d nails @ 24" O.C.
10. Four and five ply beams shall be bolted together with (2) rows of 1/2" diameter through bolts staggered @ 16" O.C. unless noted otherwise.

WOOD TRUSSES:

- 1. The wood truss manufacturer/fabricator is responsible for the design of the wood trusses. Submit sealed shop drawings and supporting calculations to the SER for review prior to fabrication. The SER shall have a minimum of five (5) days for review. The review by the SER shall review for overall compliance with the design documents. The SER shall assume no responsibility for the correctness for the structural design for the wood trusses.
2. The wood trusses shall be designed for all required loadings as specified in the local building code, the ASCE Standard "Minimum Design Loads for Buildings and Other Structures," (ASCE 7-10), and the loading requirements shown on these specifications. The truss drawings shall be coordinated with all other construction documents and provisions provided for loads shown on these drawings including but not limited to HVAC equipment, piping, and architectural fixtures attached to the trusses.
3. The trusses shall be designed, fabricated, and erected in accordance with the latest edition of the "National Design Specification for Wood Construction" (NDS) and "Design Specification for Metal Plate Connected Wood Trusses."
4. The truss manufacturer shall provide adequate bracing information in accordance with "Commentary and Recommendations for Handling, Installing, and Bracing Metal Plate Connected Wood Trusses" (HIB-91). This bracing, both temporary and permanent, shall be shown on the shop drawings. Also, the shop drawings shall show the required attachments for the trusses.
5. Any chords or truss webs shown on these drawings have been shown as a reference only. The final design of the trusses shall be per the manufacturer.

EXTERIOR WOOD FRAMED DECKS:

- 1. Decks are to be framed in accordance with local building codes and as referenced on the structural plans, either through code references or construction details.

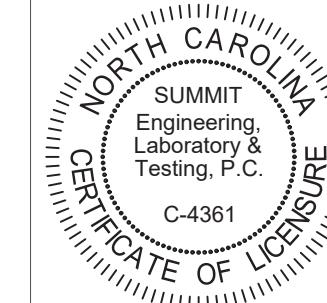
WOOD STRUCTURAL PANELS:

- 1. Fabrication and placement of structural wood sheathing shall be in accordance with the APA Design/Construction Guide "Residential and Commercial," and all other applicable APA standards.
2. All structurally required wood sheathing shall bear the mark of the APA.

- 3. Wood wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more information. Sheathing shall be applied with the long direction perpendicular to framing, unless noted otherwise.
4. Roof sheathing shall be APA rated sheathing exposure 1 or 2. Roof sheathing shall be continuous over two supports and attached to its supporting roof framing with (1)-8d CC nail at 6" o/c at panel edges and at 12" o/c in panel field unless otherwise noted on the plans. Sheathing shall be applied with the long direction perpendicular to framing. Sheathing shall have a span rating consistent with the framing spacing. Use suitable edge support by use of plywood clips or lumber blocking unless otherwise noted. Panel end joints shall occur over framing. Apply building paper over the sheathing as required by the state Building Code.
5. Wood floor sheathing shall be APA rated sheathing exposure 1 or 2. Attach sheathing to its supporting framing with (1)-8d CC ringshank nail at 6" o/c at panel edges and at 12" o/c in panel field unless otherwise noted on the plans. Sheathing shall be applied perpendicular to framing. Sheathing shall have a span rating consistent with the framing spacing. Use suitable edge support by use of T&G plywood or lumber blocking unless otherwise noted. Panel end joints shall occur over framing. Apply building paper over the sheathing as required by the state Building Code.
6. Sheathing shall have a 1/8" gap at panel ends and edges as recommended in accordance with the APA.

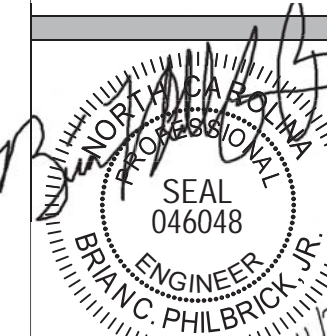
STRUCTURAL FIBERBOARD PANELS:

- 1. Fabrication and placement of structural fiberboard sheathing shall be in accordance with the applicable AFA standards.
2. All structurally required fiberboard sheathing shall bear the mark of the AFA.
3. Fiberboard wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more information.
4. Sheathing shall have a 1/8" gap at panel ends and edges as recommended in accordance with the AFA.



CLIENT: McKee Homes
109 Hay St., Suite 301
Fayetteville, NC 28301

PROJECT: Nelson 2020 - LH
Cover sheet



STRUCTURAL MEMBERS ONLY

DRAWING DATE: 10/30/2020
SCALE: 2/324 1/4"=1'-0"
PROJECT: 4 42403000 21T96R2
DRAWN BY: EPB
CHECKED BY: BCP

ORIGINAL INFORMATION
PROJECT: 21T96R DATE: 04/20/2020

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

CSI

**FOUNDATION NOTES:**

- FOUNDATIONS TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 4 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
- STRUCTURAL CONCRETE TO BE  $F_c = 3000$  PSI, PREPARED AND PLACED IN ACCORDANCE WITH ACI STANDARD 318.
- FOOTINGS TO BE PLACED ON UNDISTURBED EARTH, BEARING A MINIMUM OF 12" BELOW ADJACENT FINISHED GRADE, OR AS OTHERWISE DIRECTED BY THE CODE ENFORCEMENT OFFICIAL.
- FOOTING SIZES BASED ON A PRESUMPTIVE SOIL BEARING CAPACITY OF 2000 PSF. CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE SUITABILITY OF THE SITE SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FOOTINGS AND PIERS SHALL BE CENTERED UNDER THEIR RESPECTIVE ELEMENTS, PROVIDE 2" MINIMUM FOOTING PROJECTION FROM THE FACE OF MASONRY.
- MAXIMUM DEPTH OF UNBALANCED FILL AGAINST MASONRY WALLS TO BE AS SPECIFIED IN SECTION R404.1 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
- FILASTERS TO BE BONDED TO PERIMETER FOUNDATION WALL.
- PROVIDE FOUNDATION WATERPROOFING, AND DRAIN WITH POSITIVE SLOPE TO OUTLET AS REQUIRED BY SITE CONDITIONS.
- PROVIDED PERIMETER INSULATION FOR ALL FOUNDATIONS PER 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
- CORBEL FOUNDATION WALL AS REQUIRED TO ACCOMMODATE BRICK VENEERS.
- CRAWL SPACE TO BE GRADED LEVEL, AND CLEARED OF ALL DEBRIS.
- FOUNDATION ANCHORAGE SHALL BE CONSTRUCTED PER THE 2018 NORTH CAROLINA RESIDENTIAL CODE SECTION R403.16. MINIMUM 1/2" DIA. BOLTS SPACED AT 6'-0" ON CENTER WITH A 1" MINIMUM EMBEDMENT INTO MASONRY OR CONCRETE. MINIMUM (2) ANCHOR BOLTS PER PLATE SECTION AND (1) LOCATED NOT MORE THAN 12" FROM THE CORNER. ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
- ABBREVIATIONS:
 

DJ = DOUBLE JOIST	SJ = SINGLE JOIST
GT = GIRDER TRUSS	FT = FLOOR TRUSS
SC = STUD COLUMN	DR = DOUBLE RAFTER
EE = EACH END	TR = TRIPLE RAFTER
TJ = TRIPLE JOIST	OC = ON CENTER
CL = CENTER LINE	PL = POINT LOAD
- ALL PIERS TO BE 16"x16" MASONRY AND ALL FILASTERS TO BE 8"x16" MASONRY, TYPICAL (UNO).
- WALL FOOTINGS TO BE CONTINUOUS CONCRETE, SIZES PER STRUCTURAL PLAN. A FOUNDATION EXCAVATION OBSERVATION SHOULD BE CONDUCTED BY A PROFESSIONAL GEOTECHNICAL ENGINEER, OR HIS QUALIFIED REPRESENTATIVE. IF ISOLATED AREAS OF YIELDING MATERIALS AND/OR POTENTIALLY EXPANSIVE SOILS ARE OBSERVED IN THE FOOTING EXCAVATIONS AT THE TIME OF CONSTRUCTION, SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. MUST BE PROVIDED THE OPPORTUNITY TO REVIEW THE FOOTING DESIGN PRIOR TO CONCRETE PLACEMENT.
- ALL FOOTINGS & SLABS ARE TO BEAR ON UNDISTURBED SOIL OR 95% COMPACTED FILL, VERIFIED BY ENGINEER OR CODE OFFICIAL.

REFER TO BRACED WALL PLAN FOR PANEL LOCATIONS AND ANY REQUIRED HOLD-DOWNS. ADDITIONAL INFORMATION PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCRC.

NOTE: ALL EXTERIOR FOUNDATION DIMENSIONS ARE TO FRAMING AND NOT BRICK VENEER, UNO

NOTE: A 4" CRUSHED STONE BASE COURSE IS NOT REQUIRED WHEN SLAB IS INSTALLED ON WELL-DRAINED OR SAND-GRAVEL MIXTURE SOILS CLASSIFIED AS GROUP 1 PER TABLE R405.1

REINFORCE GARAGE PORTAL WALLS PER FIGURE R602.10.4.3 OF THE 2018 NCRC. (TYP)

BEAM POCKETS MAY BE SUBSTITUTED FOR MASONRY FILASTERS AT GIRDER ENDS. BEAM POCKETS SHALL HAVE A MINIMUM 4" SOLID MASONRY BEARING.

NOTE: REDUCE JOIST SPACING UNDER TILE FLOORS, GRANITE COUNTERTOPS AND/OR ISLANDS.

DECK JOISTS SHALL BE SPACED AT A MAX. 12" O.C. WHEN DECK BOARDS ARE INSTALLED DIAGONALLY.

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY MCKEE HOMES COMPLETED/REVISED ON 9/11/20. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

**STRUCTURAL MEMBERS ONLY**

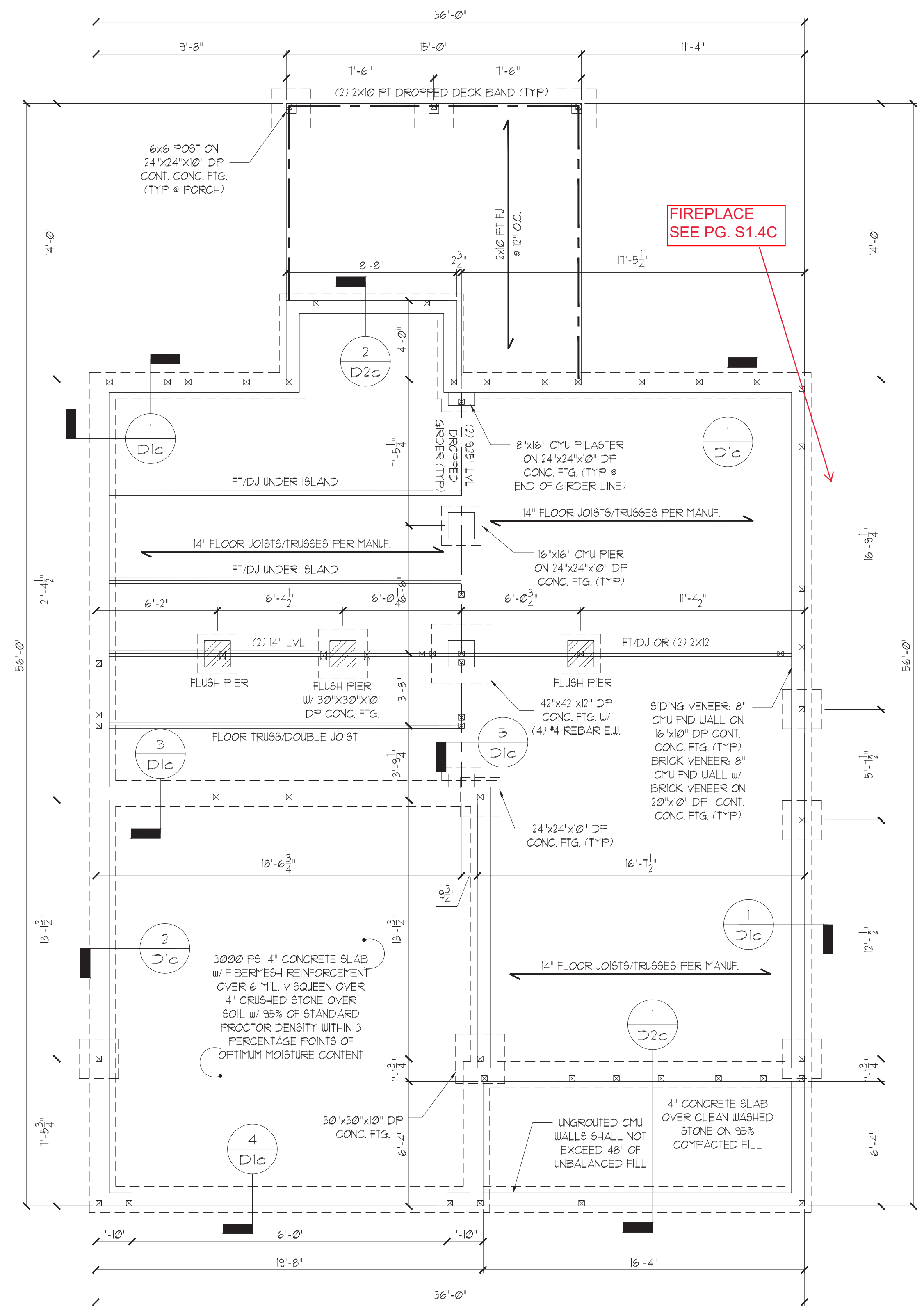
ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT. SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS. ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. FAILURE TO DO SO WILL VOID SUMMIT LIABILITY.

STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

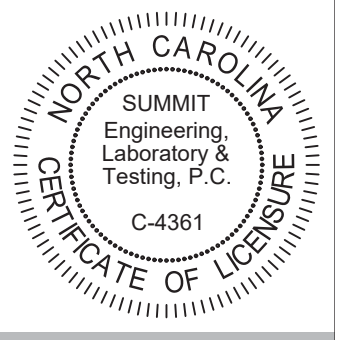
**CRAWL SPACE FOUNDATION PLAN**

SCALE: 1/4"=1'-0" ON 22'x34" OR 1/8"=1'-0" ON 11"x11"

18"x24" MIN. CRAWL SPACE ACCESS DOOR TO BE LOCATED IN FIELD PER BUILDER. PROVIDE MIN. (2) 2x10 HEADER OVER DOOR w/ MIN. 4" BEARING EACH END. AVOID SHOWN POINT LOADS.

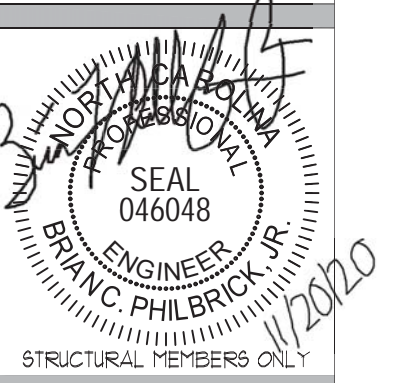


COASTAL



CLIENT:  
McKee Homes  
109 Hwy 61, Suite 301  
Fayetteville, NC 28301

PROJECT:  
Nelson 2020 - LH  
Crawl Space Foundation

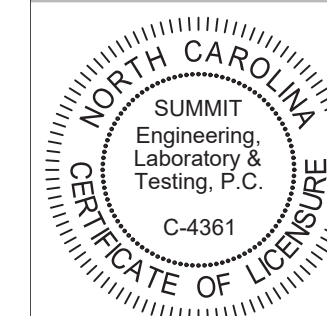


DRAWING  
DATE: 1/20/2020  
SCALE: 1/2"=1'-0"  
INCH  
PROJECT: 442405000\_21196R2  
DRAWN BY: EPB  
CHECKED BY: BCP

ORIGINAL INFORMATION  
PROJECT: 21196R2  
DATE: 04/20/2020

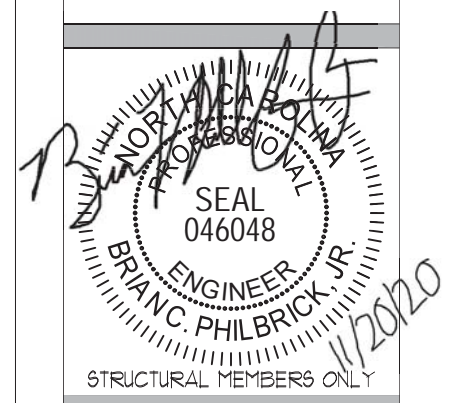
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS  
SHEET  
S1.0C





CLIENT:  
 McKee Homes  
 109 Hwy 51, Suite 301  
 Fayetteville, NC 28301

PROJECT:  
 Nelson 2020 - LH  
 Crawl Space Foundation

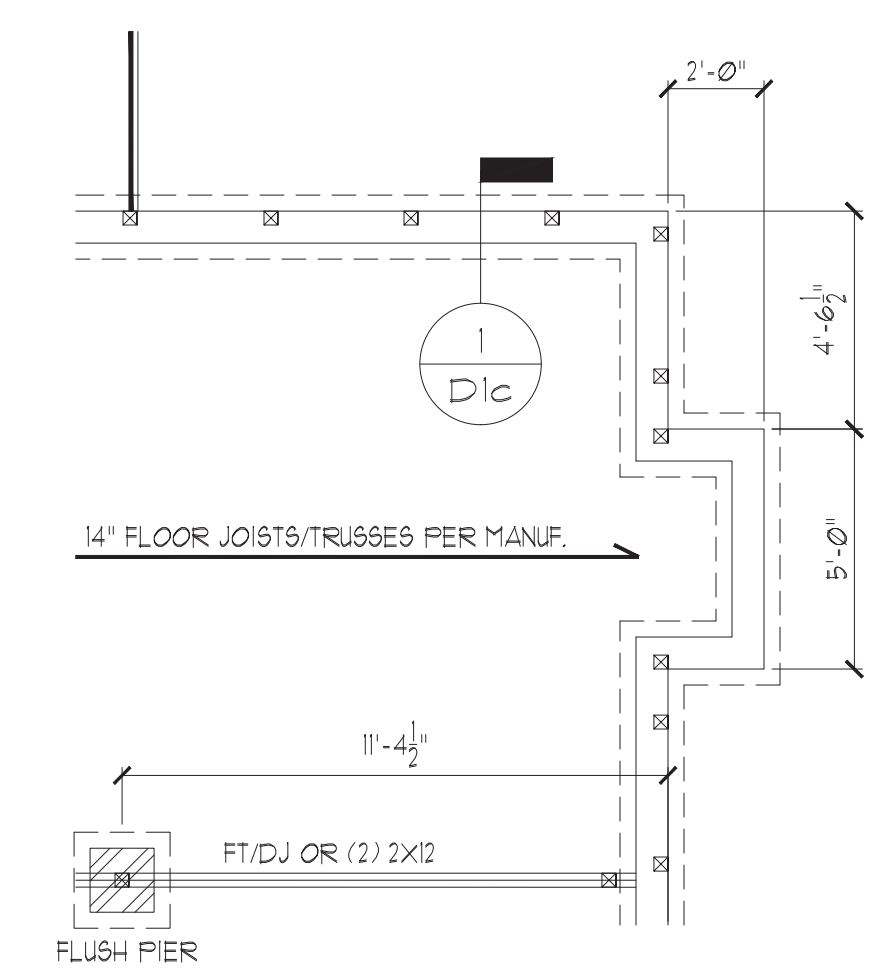


DRAWING  
 DATE: 1/20/2020  
 SCALE: 22x4 1/4" x 18" x 18"  
 PROJECT # 42405000 27196R2  
 DRAWN BY: EPB  
 CHECKED BY: BCP

ORIGINAL INFORMATION  
 PROJECT # DATE  
 27196 04/20/2020

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET  
 51.4c



OPT. FIREPLACE

**STRUCTURAL MEMBERS ONLY**

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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

**CRAWL SPACE FOUNDATION PLAN**

SCALE: 1/4"=1'-0" ON 22'x34" OR 1/8"=1'-0" ON 11"x11"

GENERAL STRUCTURAL NOTES:

- CONSTRUCTION SHALL CONFORM TO 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS. CONTRACTOR SHALL COMPLY WITH THE CONTENTS OF THE DRAWING FOR THIS SPECIFIC PROJECT. ENGINEER IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM THIS PLAN.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY BRACING REQUIRED TO RESIST ALL FORCES ENCOUNTERED DURING ERECTION. PROPERTIES USED IN THE DESIGN ARE AS FOLLOWS:  
MICROLLAM (LVL):  $F_b = 2600$  PSI,  $F_v = 285$  PSI,  $E = 13 \times 10^6$  PSI  
PARALLAM (PSL):  $F_b = 2900$  PSI,  $F_v = 290$  PSI,  $E = 125 \times 10^6$  PSI
- ALL WOOD MEMBERS SHALL BE #2 SYP UNLESS NOTED ON PLAN. ALL STUD COLUMNS SHALL BE #2 SYP (UNO).
- ALL BEAMS SHALL BE SUPPORTED WITH A (2) 2x4 #2 SYP STUD COLUMN AT EACH END UNLESS NOTED OTHERWISE.
- ALL REINFORCING STEEL SHALL BE GRADE 60 BARS CONFORMING TO ASTM A615 AND SHALL HAVE A MINIMUM COVER OF 3".
- FOUNDATION ANCHORAGE SHALL BE CONSTRUCTED PER THE 2018 NORTH CAROLINA RESIDENTIAL CODE SECTION R403.1.6. MINIMUM 1/2" DIA. BOLTS SPACED AT 6'-0" ON CENTER WITH A 7" MINIMUM EMBEDMENT INTO MASONRY OR CONCRETE. MINIMUM (2) ANCHOR BOLTS PER PLATE SECTION AND (1) LOCATED NOT MORE THAN 12" FROM THE CORNER. ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
- CONTRACTOR TO PROVIDED LOOKOUTS WHEN CEILING JOISTS SPAN PERPENDICULAR TO RAFTERS.
- FLITCH BEAMS 4-PLY LVL5 AND 3-PLY SIDE LOADED LVL5 SHALL BE BOLTED TOGETHER WITH 1/2" DIA. THRU BOLTS SPACED AT 24" O.C. (MAX) STAGGERED OR EQUIVALENT CONNECTIONS PER DETAIL 1/D31. MIN. EDGE DISTANCE SHALL BE 2" AND (2) BOLTS SHALL BE LOCATED MINIMUM 6" FROM EACH END OF THE BEAM.
- ALL NON-LOAD BEARING HEADERS SHALL BE (1) FLAT 2x4 SYP #2, DROPPED. FOR NON-LOAD BEARING HEADERS EXCEEDING 8'-0" IN WIDTH AND/OR WITH MORE THAN 2'-0" OF CRIPPLE WALL ABOVE, SHALL BE (2) FLAT 2x4 SYP #2, DROPPED. (UNLESS NOTED OTHERWISE)
- ABBREVIATIONS:

DJ = DOUBLE JOIST      SJ = SINGLE JOIST  
GT = GIRDER TRUSS      FT = FLOOR TRUSS  
SC = STUD COLUMN      DR = DOUBLE RAFTER  
EE = EACH END          TR = TRIPLE RAFTER  
TJ = TRIPLE JOIST      OC = ON CENTER  
CL = CENTER LINE      PL = POINT LOAD

SHADED WALLS INDICATED LOAD BEARING WALLS

NOTE: REDUCE JOIST SPACING UNDER TILE FLOORS, GRANITE COUNTERTOPS AND/OR ISLANDS.

JOIST & BEAM SIZES SHOWN ARE MINIMUMS. BUILDER MAY INCREASE DEPTH FOR EASE OF CONSTRUCTION.

NOTE:  
--- DESIGNATES JOIST SUPPORTED LOAD BEARING WALL ABOVE. PROVIDE BLOCKING UNDER JOIST SUPPORTED LOAD BEARING WALL.

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY MCKEE HOMES COMPLETED/REVISED ON 9/11/20. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

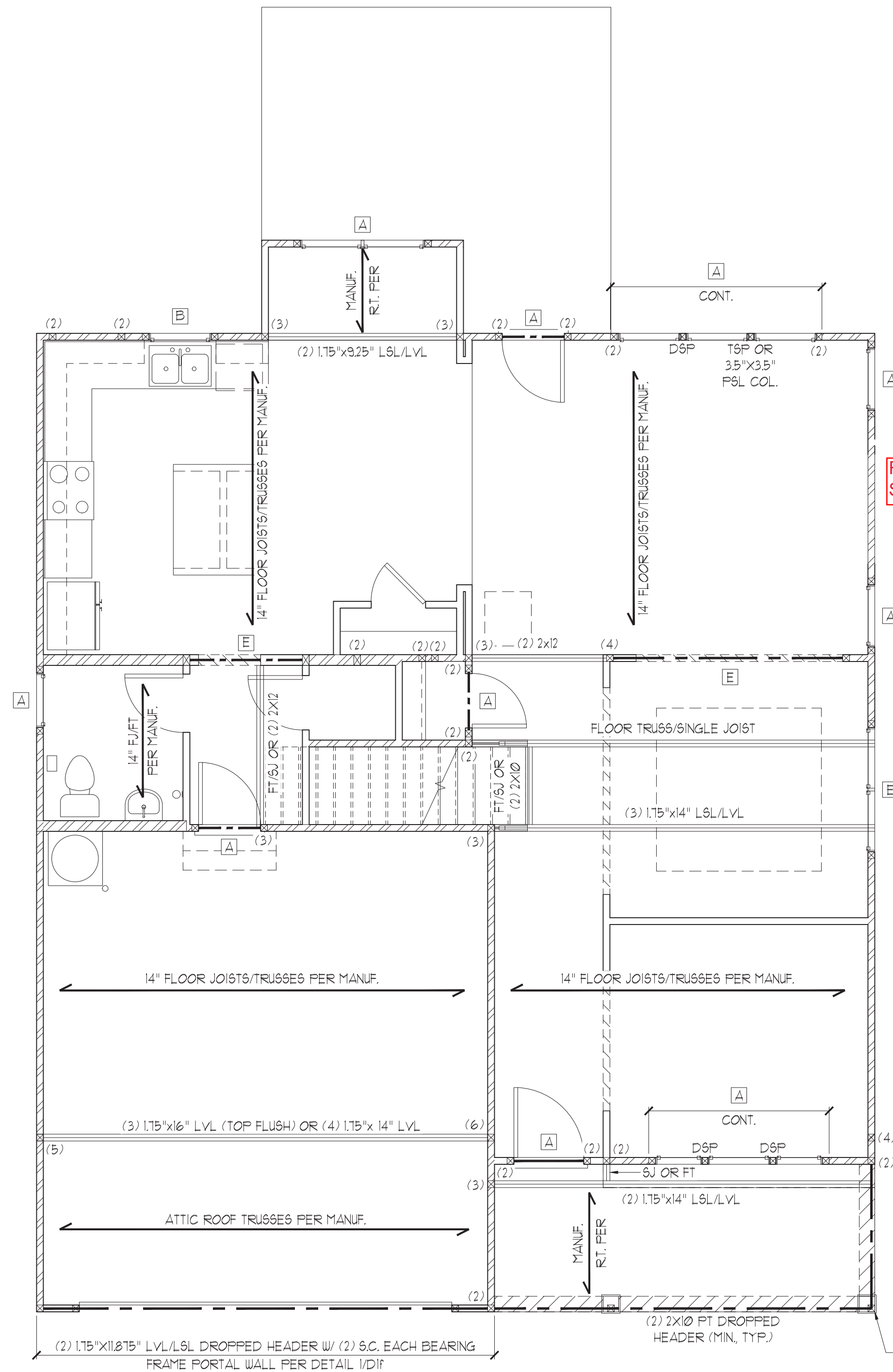
STRUCTURAL MEMBERS ONLY

ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT. 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 SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. FAILURE TO DO SO WILL VOID SUMMIT LIABILITY.

STRUCTURAL ANALYSIS BASED ON 2018 NCR. C.

FIRST FLOOR FRAMING PLAN

SCALE: 1/4"=1'-0" ON 22'x34" OR 1/8"=1'-0" ON 11'x11"



HEADER SCHEDULE		
TAG	SIZE	JACKS (EACH END)
A	(2) 2x6	(1)
B	(2) 2x8	(2)
C	(2) 2x10	(2)
D	(2) 2x12	(2)
E	(2) 3-1/4" L&L/LVL	(3)
F	(3) 2x6	(1)
G	(3) 2x8	(2)
H	(3) 2x10	(2)
I	(3) 2x12	(3)

- NOTES:
- HEADER SIZES SHOWN ON PLANS ARE MINIMUMS. GREATER HEADER SIZES MAY BE USED FOR EASE OF CONSTRUCTION.
  - ALL HEADERS TO BE DROPPED (UNO).
  - STUD COLUMNS NOTED ON PLAN OVERRIDE STUD COLUMNS LISTED ABOVE (UNO).
  - OPENINGS LESS THAN 3'-0" USE (1) KING STUD AT E.E. OPENINGS 3'-1" TO 4'-0" USE (2) KING STUDS AT E.E. OPENINGS 4'-1" TO 8'-0" USE (3) KING STUDS AT E.E. OPENINGS 8'-1" TO 12'-0" USE (5) KING STUDS AT E.E. OPENINGS 12'-1" TO 16'-0" USE (6) KING STUDS AT E.E.

ALL HEADERS WHERE BRICK IS USED, TO BE:  
① LINTEL (UNO).

LINTEL SCHEDULE:

STEEL ANGLES TO HAVE MINIMUM 4" BEARING ONTO BRICK AT EACH END.

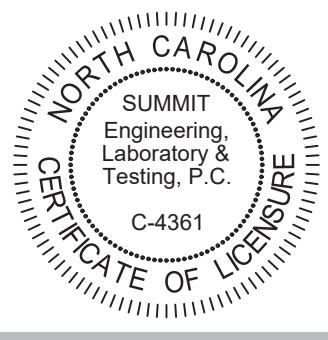
- L3x3x1/4"
- L5x3x1/4"
- L5x3-1/2x5/16"
- L5x3-1/2x5/16" ROLLED OR EQUAL ARCHED COMPONENT.

SECURE LINTEL TO HEADER w/ (2) 1/2" DIAMETER LAG SCREWS STAGGERED @ 16" O.C. (TYP FOR ③).

WALL STUD SCHEDULE (10 FT HEIGHT)				
STUD SIZE	STUD SPACING (O.C.)			
	ROOF ONLY	ROOF & 1 FLOOR	ROOF & 2 FLOORS	NON-LOAD BEARING
2x4	24"	16"	12"	24"
2x6	24"	24"	16"	24"

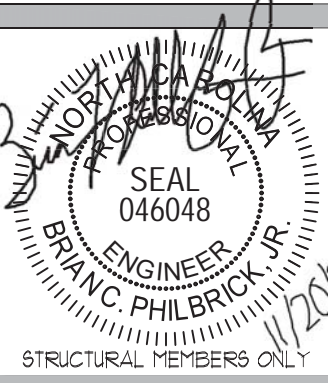
NOTES:

- BRACED WALLS STUDS SHALL BE A MAX. OF 16" O.C.
- STUDS SUPPORTS OPTIONAL WALK-UP ATTIC SHALL BE SPACED A MAX. OF 16" O.C.
- TWO STORY WALLS SHALL BE FRAMED w/ 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. BALLOON FRAMED w/ CROSS BRACING @ 6'-0" O.C. VERTICALLY.



CLIENT:  
McKee Homes  
109 Hwy 61, Suite 201  
Fayetteville, NC 28301

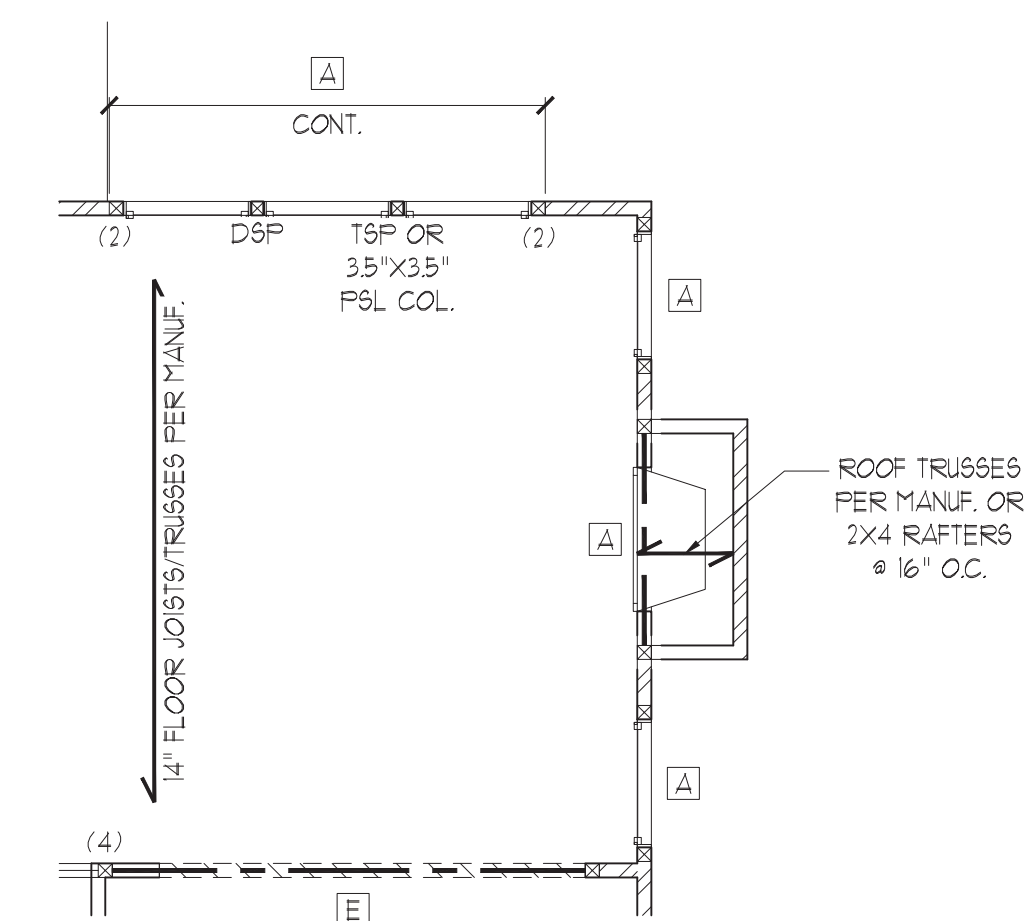
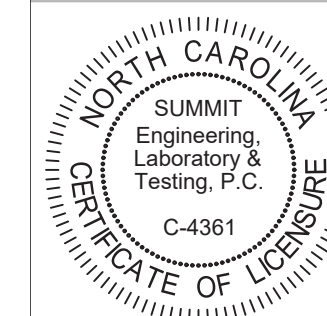
PROJECT:  
Nelson 2020 - LH  
First Floor Framing Plan



DRAWING  
DATE: 1/8/2020  
SCALE: 22x34 1/4"=1'-0" 1/8"=1'-0"  
PROJECT # 4240500-21166R2  
DRAWN BY: EPB  
CHECKED BY: BCP

ORIGINAL INFORMATION  
PROJECT # 21166 DATE 04/20/2020  
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

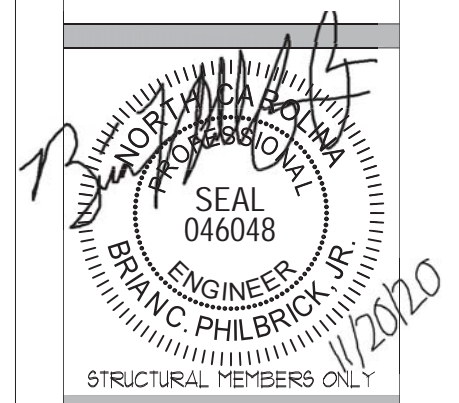
SHEET  
53.0



OPT. FIREPLACE

CLIENT:  
 McKee Homes  
 109 Hwy 51, Suite 201  
 Fayetteville, NC 28301

PROJECT:  
 Nelson 2020 - LH  
 First Floor Framing Plan



STRUCTURAL MEMBERS ONLY

DRAWING  
 DATE: 1/20/2020  
 SCALE: 22x4 1/4"=1'-0"  
 1/8"=1'-0"  
 PROJECT # 42405000 27166R2  
 DRAWN BY: EPB  
 CHECKED BY: BCP

ORIGINAL INFORMATION  
 PROJECT # DATE  
 27166 04/20/2020

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

STRUCTURAL MEMBERS ONLY

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STRUCTURAL ANALYSIS BASED ON 2018 NCR. C.

FIRST FLOOR FRAMING PLAN

SCALE: 1/4"=1'-0" ON 22"x34" OR 1/8"=1'-0" ON 11"x17"

HEADER SCHEDULE		
TAG	SIZE	JACKS (EACH END)
A	(2) 2x6	(1)
B	(2) 2x8	(2)
C	(2) 2x10	(2)
D	(2) 2x12	(2)
E	(2) 3-1/4" LSL/LVL	(3)
F	(3) 2x6	(1)
G	(3) 2x8	(2)
H	(3) 2x10	(2)
I	(3) 2x12	(3)

NOTES:  
 1. HEADER SIZES SHOWN ON PLANS ARE MINIMUMS. GREATER HEADER SIZES MAY BE USED FOR EASE OF CONSTRUCTION.  
 2. ALL HEADERS TO BE DROPPED (UNO).  
 3. STUD COLUMNS NOTED ON PLAN OVERRIDE STUD COLUMNS LISTED ABOVE (UNO).  
 4. OPENINGS LESS THAN 3'-0" USE (1) KING STUD AT E.E. OPENINGS 3'-1" TO 4'-0" USE (2) KING STUDS AT E.E. OPENINGS 4'-1" TO 8'-0" USE (3) KING STUDS AT E.E. OPENINGS 8'-1" TO 12'-0" USE (5) KING STUDS AT E.E. OPENINGS 12'-1" TO 16'-0" USE (6) KING STUDS AT E.E.

ALL HEADERS WHERE BRICK IS USED, TO BE:  
 ① LINTEL (UNO.)

**LINTEL SCHEDULE:**

STEEL ANGLES TO HAVE MINIMUM 4" BEARING ONTO BRICK AT EACH END.

① L3x3x1/4"  
 ② L5x3"x1/4"  
 ③ L5x3-1/2x5/16"  
 ④ L5x3-1/2"x5/16" ROLLED OR EQUAL ARCHED COMPONENT.

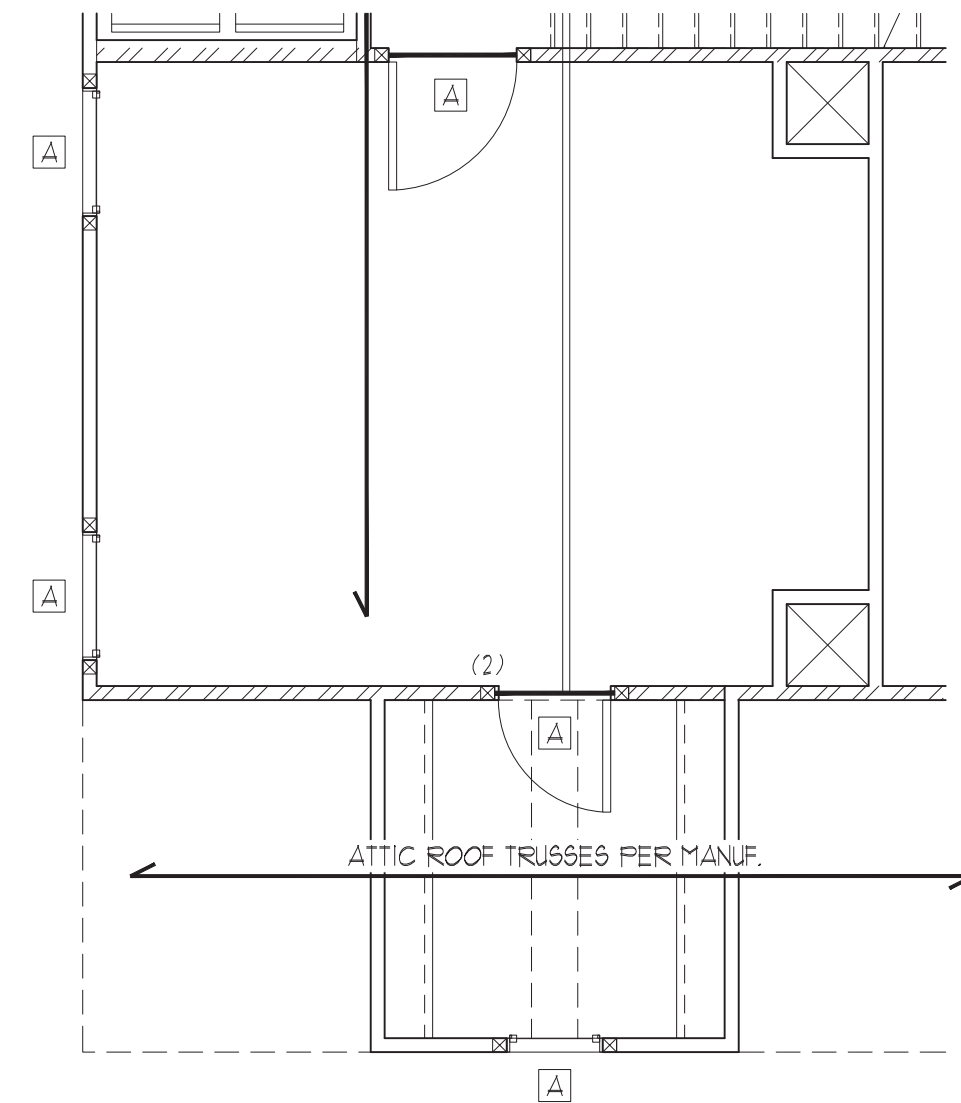
SECURE LINTEL TO HEADER w/ (2) 1/2" DIAMETER LAG SCREWS STAGGERED @ 16" O.C. (TYP FOR ③)

WALL STUD SCHEDULE (10 FT HEIGHT)				
STUD SIZE	STUD SPACING (O.C.)			
	ROOF ONLY	ROOF & 1 FLOOR	ROOF & 2 FLOORS	NON-LOAD BEARING
2x4	24"	16"	12"	24"
2x6	24"	24"	16"	24"

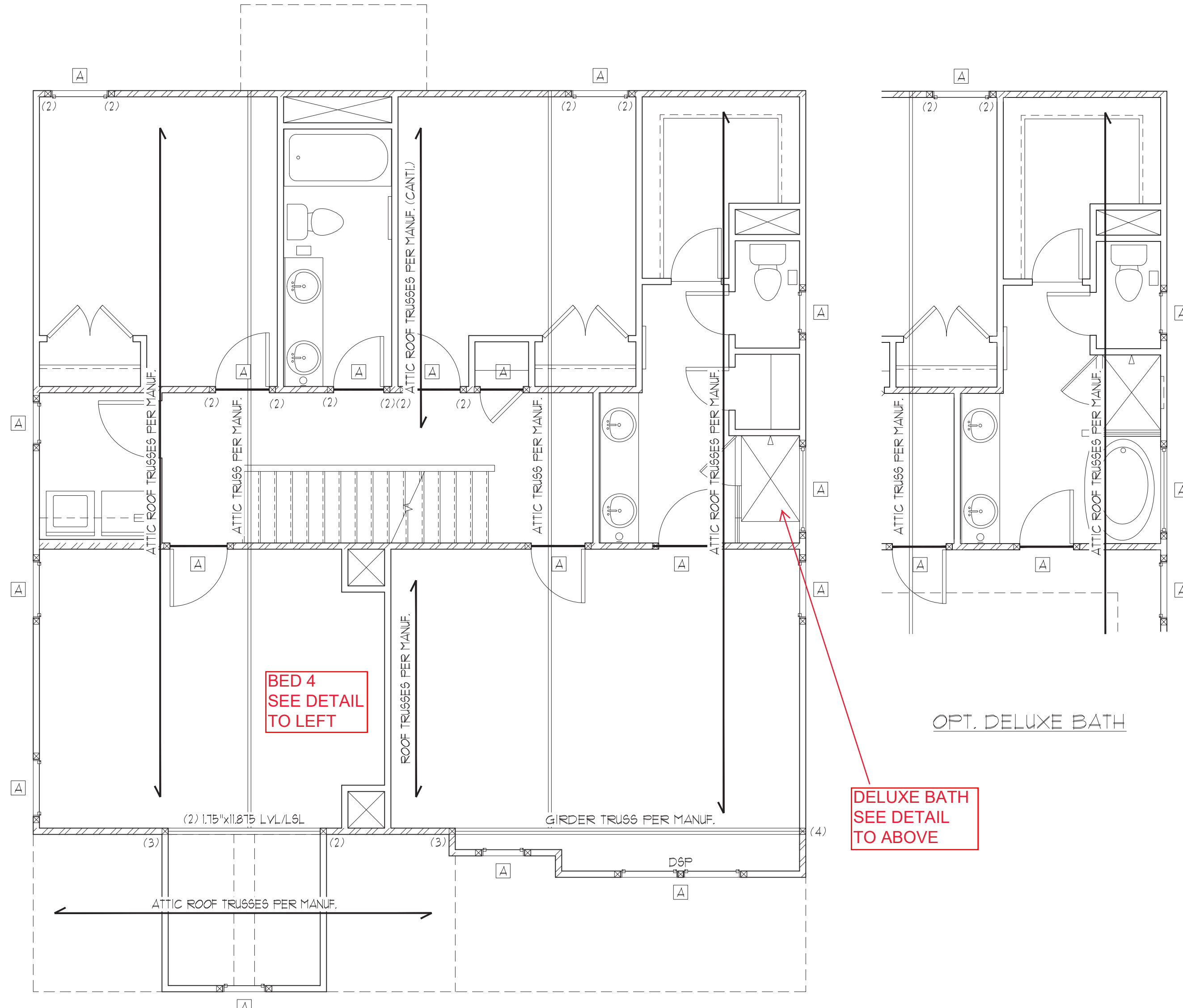
NOTES:  
 1. BRACED WALLS STUDS SHALL BE A MAX. OF 16" O.C.  
 2. STUDS SUPPORTS OPTIONAL WALK-UP ATTIC SHALL BE SPACED A MAX. OF 16" O.C.  
 3. TWO STORY WALLS SHALL BE FRAMED w/ 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. BALLOON FRAMED w/ CROSS BRACING @ 6'-0" O.C. VERTICALLY.

SHADED WALLS INDICATED LOAD BEARING WALLS

JOIST & BEAM SIZES SHOWN ARE MINIMUMS. BUILDER MAY INCREASE DEPTH FOR EASE OF CONSTRUCTION.



OPT. BED 4  
w/ FINISHED CLOSET



COASTAL

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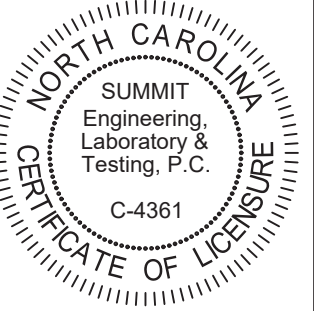
**STRUCTURAL MEMBERS ONLY**

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STRUCTURAL ANALYSIS BASED ON 2018 NCR.C.

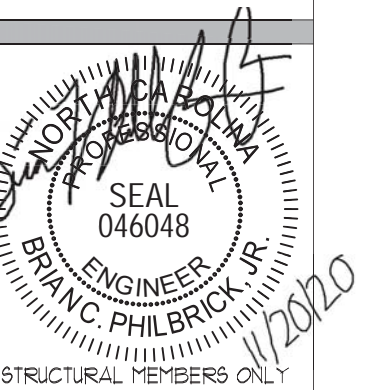
**SECOND FLOOR FRAMING PLAN**

SCALE: 1/4"=1'-0" ON 22'x34" OR 1/8"=1'-0" ON 11'x11"



CLIENT:  
 McKee Homes  
 109 Hwy 61, Suite 301  
 Fayetteville, NC 28301

PROJECT:  
 Nelson 2020 - LH  
 Second Floor Framing Plan



DRAWING  
 DATE: 1/15/2020  
 SCALE: 22x34 1/4"=1'-0" 11x11 1/8"=1'-0"  
 PROJECT # 42405000 27766R2  
 DRAWN BY: EPB  
 CHECKED BY: BCP

ORIGINAL INFORMATION  
 PROJECT # 27766 DATE 04/20/2020

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

54.0

HEADER SCHEDULE		
TAG	SIZE	JACKS (EACH END)
A	(2) 2x6	(1)
B	(2) 2x8	(2)
C	(2) 2x10	(2)
D	(2) 2x12	(2)
E	(2) 9-1/4" LSL/LVL	(3)
F	(3) 2x6	(1)
G	(3) 2x8	(2)
H	(3) 2x10	(2)
I	(3) 2x12	(3)

NOTES:  
 1. HEADER SIZES SHOWN ON PLANS ARE MINIMUMS. GREATER HEADER SIZES MAY BE USED FOR EASE OF CONSTRUCTION.  
 2. ALL HEADERS TO BE DROPPED (UNO).  
 3. STUD COLUMNS NOTED ON PLAN OVERRIDE STUD COLUMNS LISTED ABOVE (UNO).  
 4. OPENINGS LESS THAN 3'-0" USE (1) KING STUD AT E.E. OPENINGS 3'-1" TO 4'-0" USE (2) KING STUDS AT E.E. OPENINGS 4'-1" TO 8'-0" USE (3) KING STUDS AT E.E. OPENINGS 8'-1" TO 12'-0" USE (5) KING STUDS AT E.E. OPENINGS 12'-1" TO 16'-0" USE (6) KING STUDS AT E.E.

ALL HEADERS WHERE BRICK IS USED, TO BE:  
 ① LINTEL (UNO.)

**LINTEL SCHEDULE:**

STEEL ANGLES TO HAVE MINIMUM 4" BEARING ONTO BRICK AT EACH END.

① L3x3x1/4"  
 ② L5x3"x1/4"  
 ③ L5x3-1/2x5/16"  
 ④ L5x3-1/2"x5/16" ROLLED OR EQUAL ARCHED COMPONENT.

SECURE LINTEL TO HEADER w/ (2) 1/2" DIAMETER LAG SCREWS STAGGERED @ 16" O.C. (TYP FOR ③)

WALL STUD SCHEDULE (10 FT HEIGHT)				
STUD SIZE	STUD SPACING (O.C.)			
	ROOF ONLY	ROOF & 1 FLOOR	ROOF & 2 FLOORS	NON-LOAD BEARING
2x4	24"	16"	12"	24"
2x6	24"	24"	16"	24"

NOTES:  
 1. BRACED WALLS STUDS SHALL BE A MAX. OF 16" O.C.  
 2. STUDS SUPPORTS OPTIONAL WALK-UP ATTIC SHALL BE SPACED A MAX. OF 16" O.C.  
 3. TWO STORY WALLS SHALL BE FRAMED w/ 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. BALLOON FRAMED w/ CROSS BRACING @ 6'-0" O.C. VERTICALLY.

SHADED WALLS INDICATED LOAD BEARING WALLS

JOIST & BEAM SIZES SHOWN ARE MINIMUMS. BUILDER MAY INCREASE DEPTH FOR EASE OF CONSTRUCTION.

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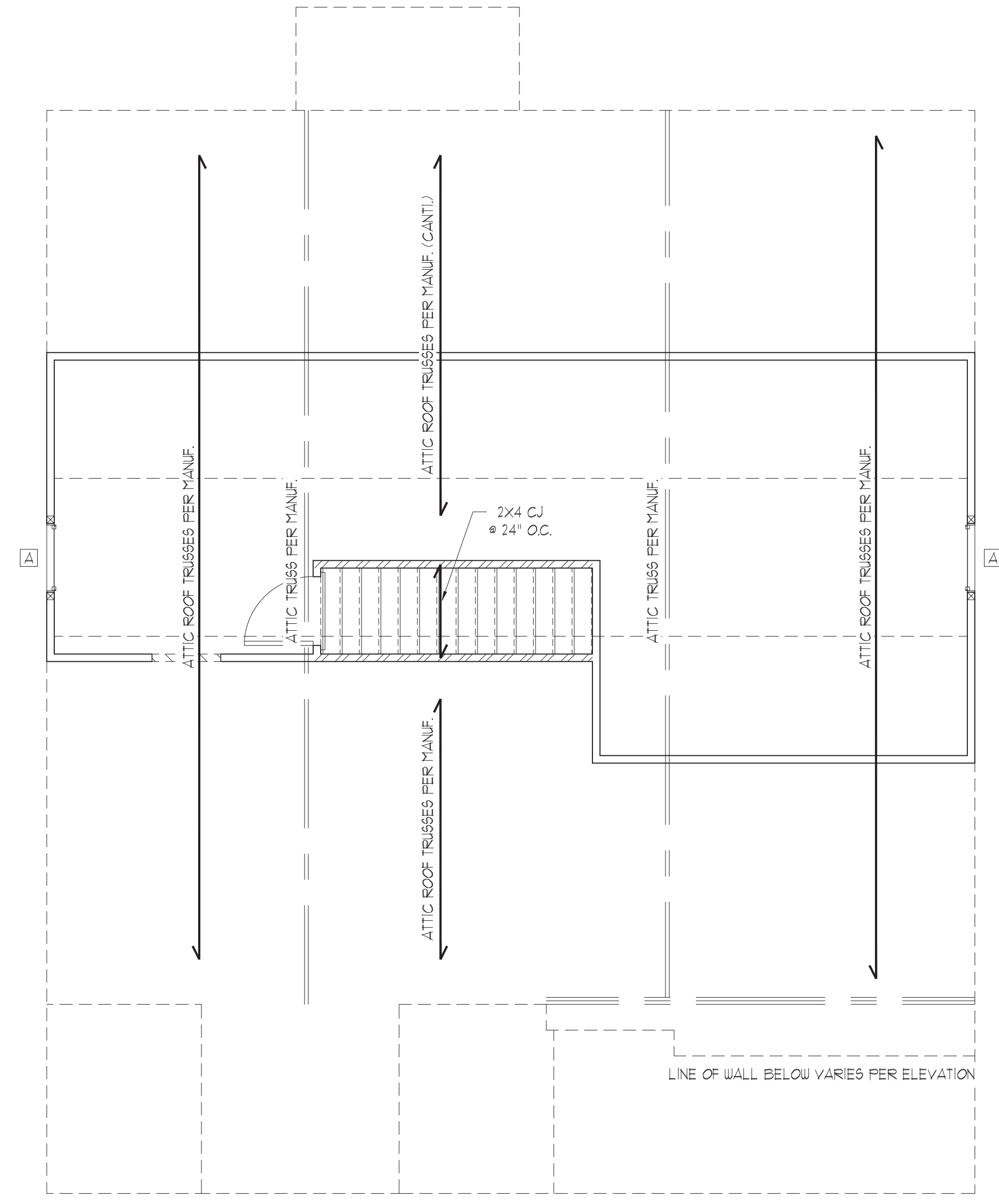
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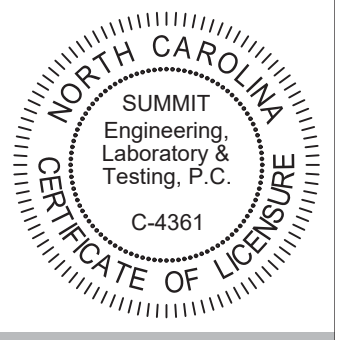
STRUCTURAL ANALYSIS BASED ON 2018 NCR. C.

**SECOND FLOOR FRAMING PLAN**

SCALE: 1/4"=1'-0" ON 22'x34" OR 1/8"=1'-0" ON 11'x11"

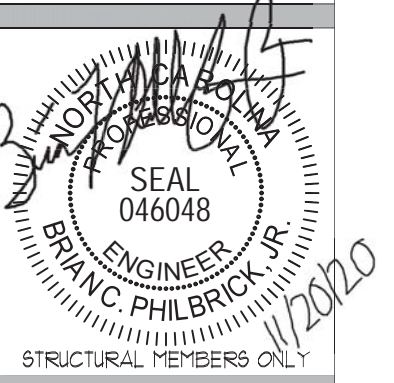


ALL ELEVATIONS



CLIENT:  
 McKee Homes  
 109 Hwy 51, Suite 301  
 Fayetteville, NC 28301

PROJECT:  
 Nelson 2020 - LH  
 Second Floor Framing Plan



DRAWING  
 DATE: 1/8/2020  
 SCALE: 22x34 1/4"=1'-0" 11x11 1/8"=1'-0"  
 PROJECT # 42405000 27196R2  
 DRAWN BY: EPB  
 CHECKED BY: BCP

ORIGINAL INFORMATION  
 PROJECT # 27196 DATE 04/20/2020

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

TRUSS UPLIFT CONNECTOR SCHEDULE			
MAX. UPLIFT	ROOF TO WALL	FLOOR TO FLOOR	FLOOR TO END
600 LBS	H25A	PER WALL SHEATHING & FASTENERS	
1200 LBS	(2) H25A	C916 (END = 11")	DTT2Z
1450 LBS	HT520	C916 (END = 11")	DTT2Z
2000 LBS	(2) HT520	(2) C916 (END = 11")	DTT2Z
2300 LBS	(2) HT520	(2) C916 (END = 11")	HTT4
3600 LBS	LGT3-SD525	M5TC52	HTT4

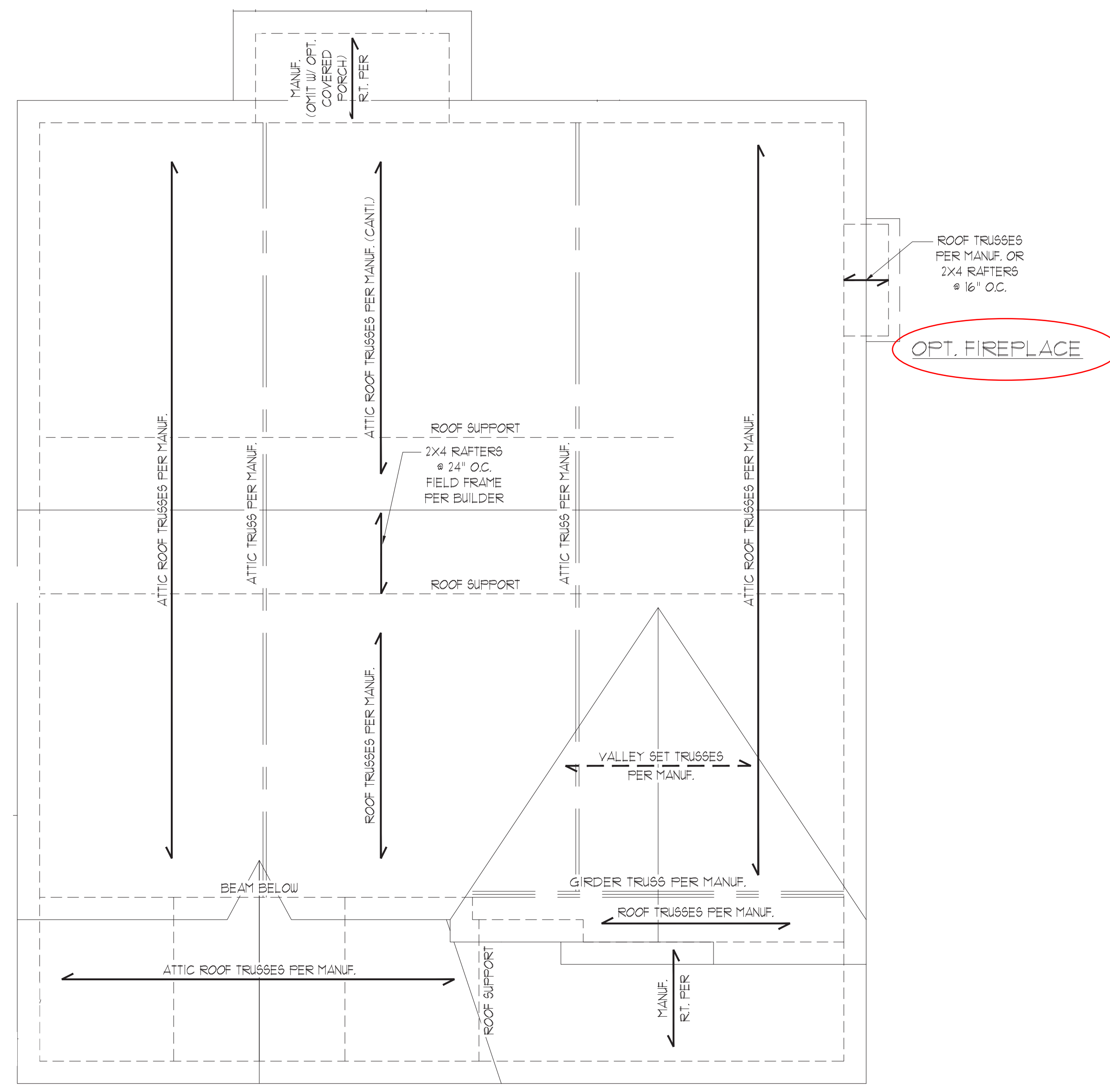
- ALL PRODUCTS LISTED ARE SIMPSON STRONG-TIE. EQUIVALENT PRODUCTS MAY BE USED PER MANUFACTURER'S SPECIFICATIONS.
- UPLIFT VALUES LISTED ARE FOR SYP #2 GRADE MEMBERS.
- REFER TO TRUSS LAYOUT PER MANUF. FOR UPLIFT VALUES AND TRUSS TO TRUSS CONNECTIONS. CONNECTORS SPECIFIED BY TRUSS MANUFACTURER OVERRIDE THOSE LISTED ABOVE.
- CONTACT SUMMIT FOR REQUIRED CONNECTORS WHEN LOADS EXCEED THOSE LISTED ABOVE.

NOTE: 1ST PLY OF ALL SHOWN GIRDER TRUSSES TO ALIGN WITH INSIDE FACE OF WALL (TYP, UNO)

NOTE: ROOF TRUSSES SHALL BE SPACED TO SUPPORT FALSE FRAMED DORMER WALLS (TYP, UNO)

REFER TO DETAIL 5/D3F FOR EYEBROW, RETURN OR SHED ROOF FRAMING REQUIREMENTS. (TYP FOR ROOFS PROTRUDING MAXIMUM 24" FROM STRUCTURE)

NOTE: TRUSS UPLIFT LOADS SHALL BE DETERMINED PER TRUSS MANUFACTURER IN ACCORDANCE WITH SECTION R002.III.1. WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R002.3.5 OF THE 2018 NCRC. REFER TO BRACED WALL PLANS FOR SHEATHING AND FASTENER REQUIREMENTS.



THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY MCKEE HOMES COMPLETED/REVISED ON 3/11/20. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

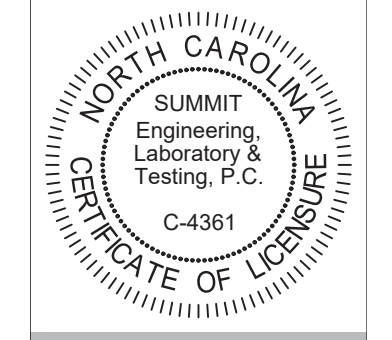
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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

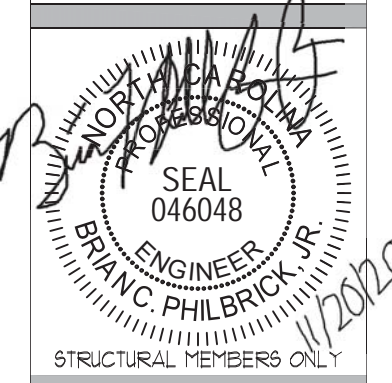
**ROOF FRAMING PLAN**

SCALE: 1/4"=1'-0" ON 22'x24" OR 1/8"=1'-0" ON 11'x11"



CLIENT:  
McKee Homes  
109 Hwy 61, Suite 301  
Fayetteville, NC 28301

PROJECT:  
Nelson 2020 - LH  
Roof Framing Plan



DRAWING  
DATE: 1/15/2020  
SCALE: 22x4 1/4"=1'-0"  
11x1 1/8"=1'-0"  
PROJECT # 42405000 27766R2  
DRAWN BY: EPB  
CHECKED BY: BCP

ORIGINAL INFORMATION  
PROJECT # 27766 DATE 04/20/2020  
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET  
55.0

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" O.C.	6d COMMON NAILS @ 12" O.C.
GB	GYPSUM BOARD	1/2"	5d COOLER NAILS** @ 1" O.C.	5d COOLER NAILS** @ 1" O.C.
WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.
FF	WOOD STRUCTURAL PANEL	1/16"	PER FIGURE R602.10.1	PER FIGURE R602.10.1

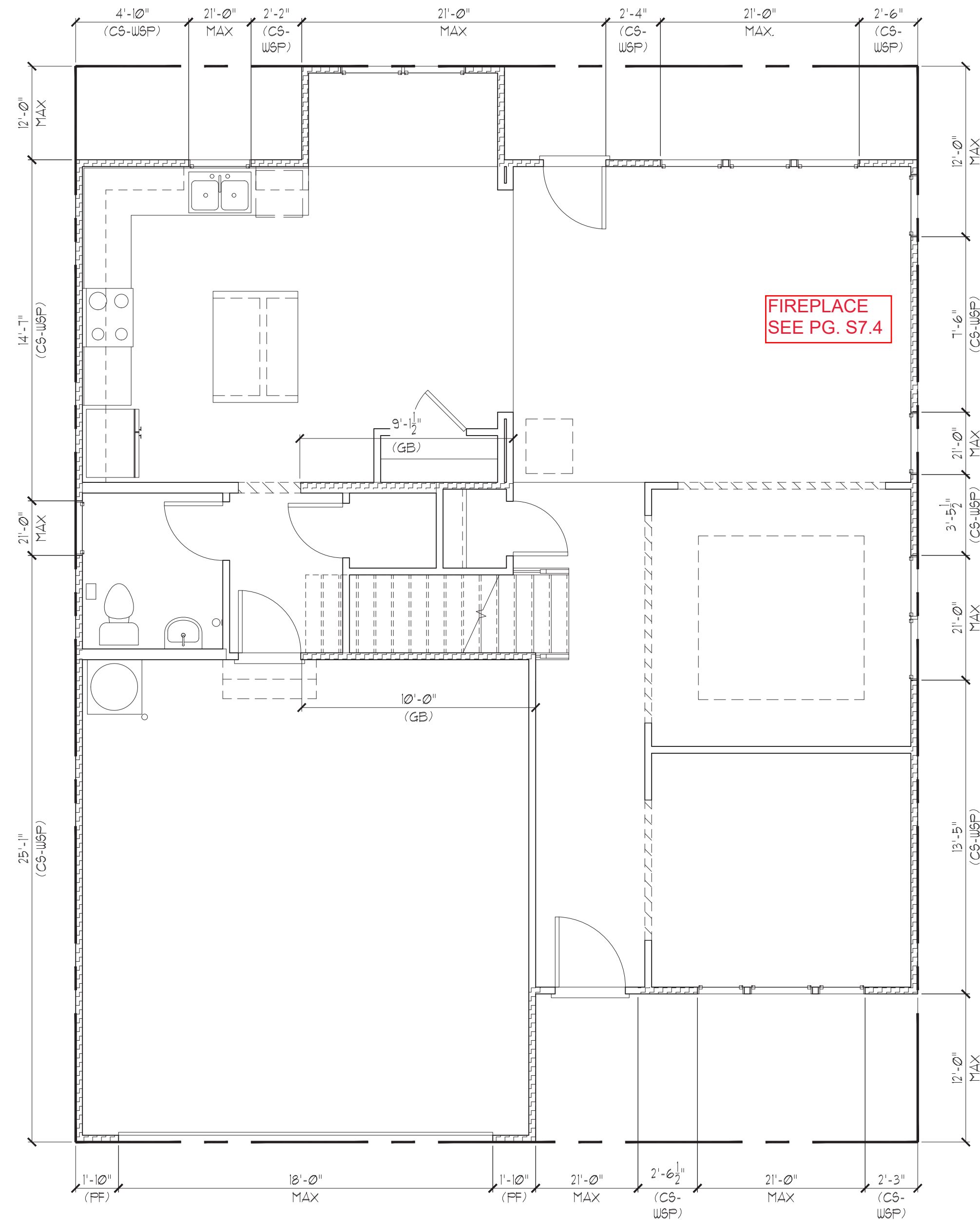
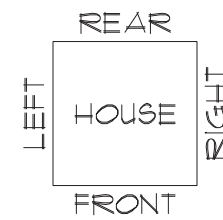
\*\*OR EQUIVALENT PER TABLE R102.3.5

BRACED WALL NOTES:

- WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2018 INTERNATIONAL RESIDENTIAL CODE WITH ALL LOCAL AND STATE AMENDMENTS.
- WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE DESIGN WIND SPEEDS UP TO 130 MPH.
- REFER TO ARCHITECTURAL PLAN FOR DOOR/WINDOW OPENING SIZES.
- BRACING MATERIALS, METHODS AND FASTENERS SHALL BE IN ACCORDANCE WITH TABLE R602.10.
- ALL BRACED WALL PANELS SHALL BE FULL WALL HEIGHT AND SHALL NOT EXCEED 10 FEET FOR ISOLATED PANEL METHOD AND 12 FEET FOR CONTINUOUS SHEATHING METHOD WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- MINIMUM PANEL LENGTH SHALL BE PER TABLE R602.10.1.
- THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIMUM 1/2" GYPSUM BOARD (UNO).
- FOR CONTINUOUS SHEATHING METHOD, EXTERIOR WALLS SHALL BE SHEATHED ON ALL SHEATHABLE SURFACES INCLUDING INFILL AREAS BETWEEN BRACED WALL PANELS, ABOVE AND BELOW WALL OPENINGS, AND ON GABLE END WALLS.
- FLOORS SHALL NOT BE CANTILEVERED MORE THAN 24" BEYOND THE FOUNDATION OR BEARING WALL BELOW WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- A BRACED WALL PANEL SHALL BE LOCATED WITHIN 12 FEET OF EACH END OF A BRACED WALL LINE.
- THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 21 FEET.
- MASONRY OR CONCRETE STEM WALLS WITH A LENGTH OF 48" OR LESS SUPPORTING A BRACED WALL PANEL SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.4.3 OF THE 2018 IRC OR DETAIL 2/D21.
- BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.4.
- BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.5.
- CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10.4.6.
- PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.1 (UNO).
- ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS.
- ABBREVIATIONS:

GB - GYPSUM BOARD  
 CS-XXX - CONT. SHEATHED  
 FF - PORTAL FRAME  
 WSP - WOOD STRUCTURAL PANEL  
 ENG - ENGINEERED SOLUTION  
 FF-ENG - ENG. PORTAL FRAME

INSTALL HOLD-DOWNS FOR BRACED WALL END CONDITIONS PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCR.



COASTAL

FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD		
	REQUIRED	PROVIDED
FRONT	14.6	15.2
RIGHT	11.1	24.3
REAR	14.6	16.3
LEFT	11.1	39.6

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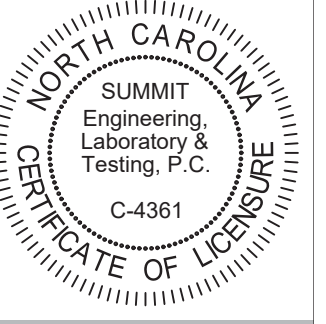
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STRUCTURAL ANALYSIS BASED ON 2018 NCR.

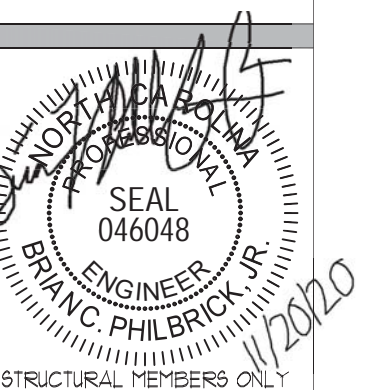
FIRST FLOOR BRACING PLAN

SCALE: 1/4"=1'-0" ON 22'x34" OR 1/8"=1'-0" ON 11'x11"



CLIENT:  
 McKee Homes  
 109 Hwy 61, Suite 301  
 Fayetteville, NC 28301

PROJECT:  
 Nelson 2020 - LH  
 First Floor Bracing Plan



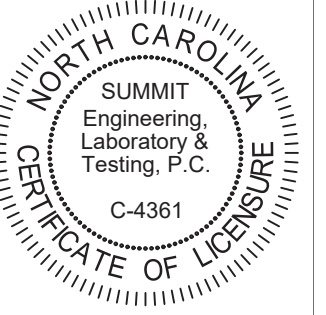
DRAWING  
 DATE: 1/15/2020  
 SCALE: 22x34 1/4"=1'-0"  
 1/8"=1'-0"  
 PROJECT # 42405000 27196R2  
 DRAWN BY: EPB  
 CHECKED BY: BCP

ORIGINAL INFORMATION  
 PROJECT # 27196 DATE 04/20/2020

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

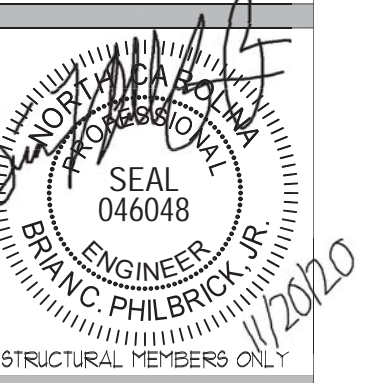
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CLIENT:  
 McKee Homes  
 109 Hay St., Suite 301  
 Fayetteville, NC 28301

PROJECT:  
 Nelson 2020 - LH

First Floor Bracing Plan

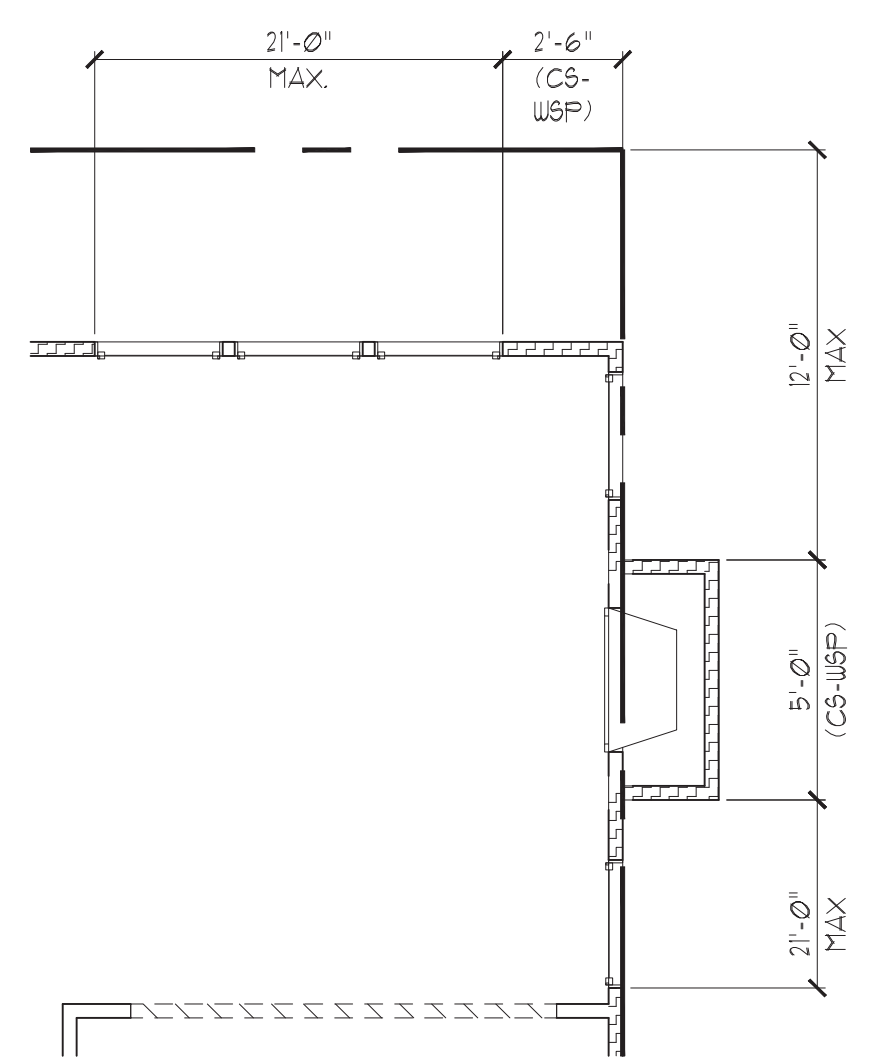


DRAWING  
 DATE: 1/20/2020  
 SCALE: 22x4 1/4" x 11" 1/2"  
 1/8" = 1'-0"  
 PROJECT # 42405000 27196R2  
 DRAWN BY: EPB  
 CHECKED BY: BCP

ORIGINAL INFORMATION  
 PROJECT # DATE  
 27196 04/20/2020

REFER TO COVER SHEET FOR A  
 COMPLETE LIST OF REVISIONS

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 57.4



OPT. FIREPLACE

FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD		
	REQUIRED	PROVIDED
FRONT	14.6	*PER ELEV.*
RIGHT	12.3	21.8
REAR	14.6	16.3
LEFT	12.3	39.6

STRUCTURAL MEMBERS ONLY

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STRUCTURAL ANALYSIS BASED ON 2018 NCR.

FIRST FLOOR BRACING PLAN

SCALE: 1/4"=1'-0" ON 22"x34" OR 1/8"=1'-0" ON 11"x17"



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" O.C.	6d COMMON NAILS @ 12" O.C.
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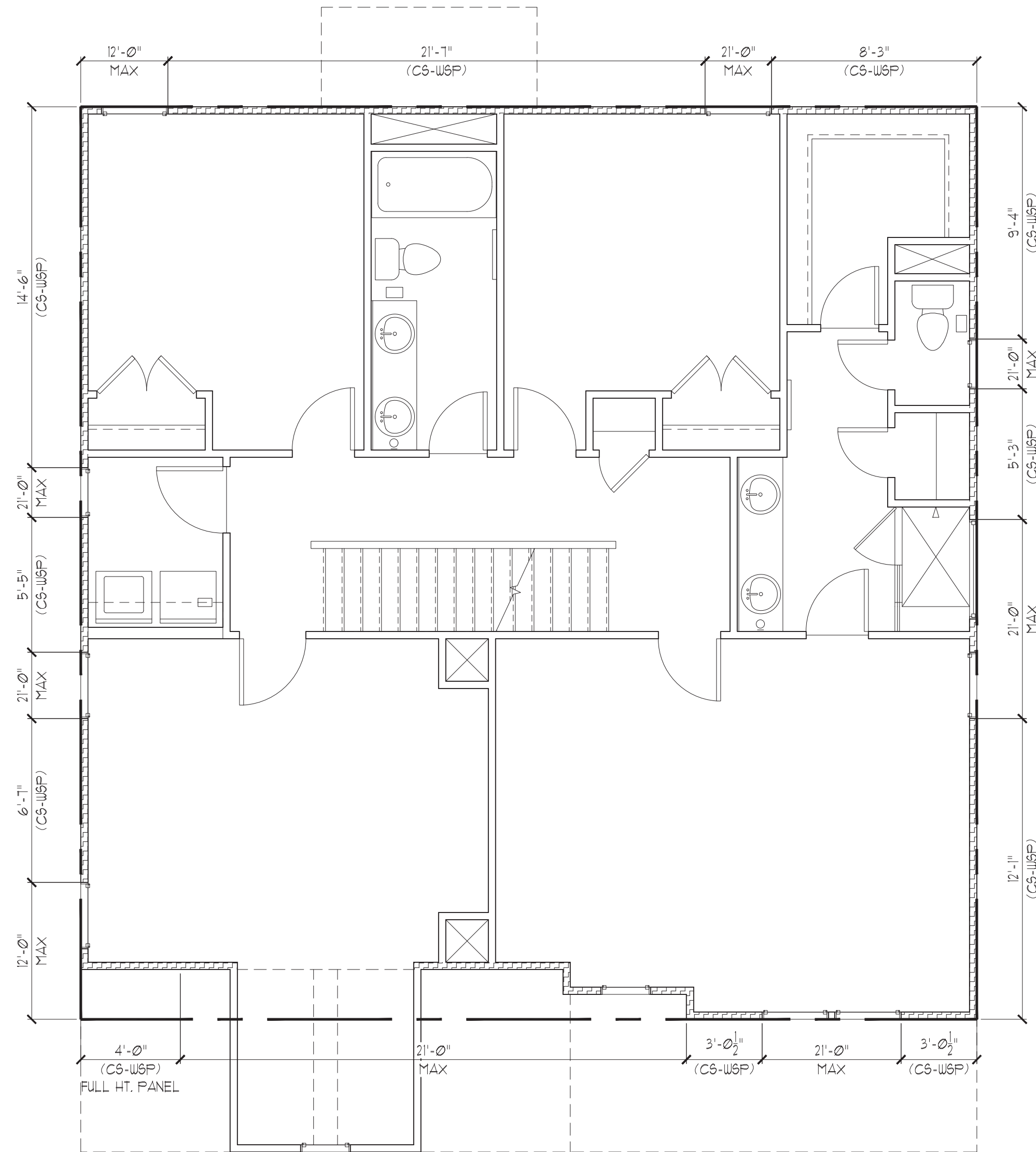
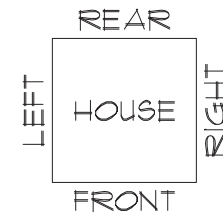
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BRACED WALL NOTES:

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- BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.5.
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- ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS. ABBREVIATIONS:

GB = GYPSUM BOARD  
 CS-XXX = CONT. SHEATHED  
 FF = PORTAL FRAME  
 WSP = WOOD STRUCTURAL PANEL  
 ENG = ENGINEERED SOLUTION  
 FF-ENG = ENG. PORTAL FRAME

INSTALL HOLD-DOWNS FOR BRACED WALL END CONDITIONS PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCR.



COASTAL

SECOND FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD		
	REQUIRED	PROVIDED
FRONT	5.1	10.0
RIGHT	5.1	26.6
REAR	5.1	29.8
LEFT	5.1	26.5

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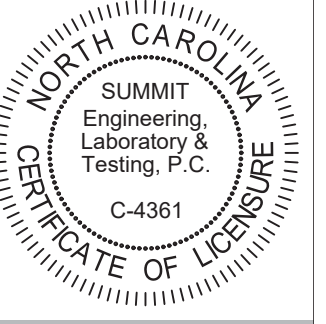
STRUCTURAL MEMBERS ONLY

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STRUCTURAL ANALYSIS BASED ON 2018 NCR.

SECOND FLOOR BRACING PLAN

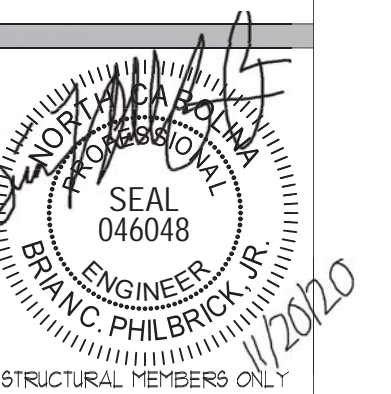
SCALE: 1/4"=1'-0" ON 22'x34" OR 1/8"=1'-0" ON 11'x11"



CLIENT:  
 McKee Homes  
 109 Hwy 61, Suite 201  
 Fayetteville, NC 28301

PROJECT:  
 Nelson 2020 - LH

Second Floor Bracing Plan



DRAWING  
 DATE: 1/15/2020  
 SCALE: 22x34 1/4"=1'-0"  
 1/8"=1'-0"  
 PROJECT # 42405000 27796R2  
 DRAWN BY: EPB  
 CHECKED BY: BCP

ORIGINAL INFORMATION  
 PROJECT # 27796 DATE 04/20/2020

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

58.0



STRUCTURAL PLANS PREPARED FOR:

Standard Details

PROJECT ADDRESS: TBD  
OWNER: McKee Homes  
109 Hay St., Suite 301  
Fayetteville, NC 28301

DESIGNER:

These drawings are to be coordinated with the architectural, mechanical, plumbing, electrical, and civil drawings. This coordination is not the responsibility of the structural engineering of record (SER). Should any discrepancies become apparent, the contractor shall notify SUMMIT Engineering, Laboratory & Testing, P.C. before construction begins.

PLAN ABBREVIATIONS:

AB	ANCHOR BOLT	PT	PRESSURE TREATED
AFF	ABOVE FINISHED FLOOR	RS	ROOF SUPPORT
CJ	CEILING JOIST	SC	STUD COLUMN
CLR	CLEAR	SJ	SINGLE JOIST
DJ	DOUBLE JOIST	SFF	SPRUCE PINE FIR
D&P	DOUBLE STUD POCKET	S&T	SIMPSON STRONG-TIE
EE	EACH END	STP	SOUTHERN YELLOW PINE
EW	EACH WAY	TJ	TRIFLE JOIST
NTS	NOT TO SCALE	T&P	TRIFLE STUD POCKET
OC	ON CENTER	TY	TYPICAL
P&F	POUNDS PER SQUARE FOOT	UNO	UNLESS NOTED OTHERWISE
PSI	POUNDS PER SQUARE INCH	WUF	WELDED WIRE FABRIC

Roof truss and floor joist layouts, and their corresponding loading details, were not provided to SUMMIT Engineering, Laboratory & Testing, P.C. (SUMMIT) prior to the initial design. Therefore, truss and joist directions were assumed based on the information provided by HERITAGE HOMES. Subsequent plan revisions based on roof truss and floor joist layouts shall be noted in the revision list, indicating the date the layouts were provided. Should any discrepancies become apparent, the contractor shall notify SUMMIT immediately.

SHEET LIST:

Sheet No.	Description
CSI	Cover Sheet, Specifications, Revisions
Dm	Monolithic Slab Foundation Details
Dls	Stem Wall Foundation Details
Dlc	Crawl Space Foundation Details
Dlb	Basement Foundation Details
Dlf	Framing Details

REVISION LIST:

Revision No.	Date	Project No.	Description
1	11/09	-	Updated to 2010 NCRC

DESIGN SPECIFICATIONS:

Construction Type: Commercial  Residential

Applicable Building Codes:

- 2010 North Carolina Residential Building Code with All Local Amendments
- ASCE 7-10: Minimum Design Loads for Buildings and Other Structures

Design Loads:

- Roof Live Loads
  - Conventional 2x \_\_\_\_\_ 20 PSF
  - Truss \_\_\_\_\_ 20 PSF
    - Attic Truss \_\_\_\_\_ 60 PSF
- Roof Dead Loads
  - Conventional 2x \_\_\_\_\_ 10 PSF
  - Truss \_\_\_\_\_ 20 PSF
- Snow \_\_\_\_\_ 15 PSF
  - Importance Factor \_\_\_\_\_ 10
- Floor Live Loads
  - Typ. Dwelling \_\_\_\_\_ 40 PSF
  - Sleeping Areas \_\_\_\_\_ 30 PSF
  - Decks \_\_\_\_\_ 40 PSF
  - Passenger Garage \_\_\_\_\_ 50 PSF
- Floor Dead Loads
  - Conventional 2x \_\_\_\_\_ 10 PSF
  - I-Joist \_\_\_\_\_ 15 PSF
  - Floor Truss \_\_\_\_\_ 15 PSF
- Ultimate Design Wind Speed (3 sec. gust) \_\_\_\_\_ 130 MPH
  - Exposure \_\_\_\_\_ B
  - Importance Factor \_\_\_\_\_ 10
  - Wind Base Shear \_\_\_\_\_
  - 6.3.1. Vx = \_\_\_\_\_
  - 6.3.2. Vy = \_\_\_\_\_

7. Component and Cladding (In PSF)

MEAN ROOF HT.	UP TO 30'	30'-1'-35'	35'-1'-40'	40'-1'-45'
ZONE 1	16.7-18.0	17.5-18.9	18.2-19.6	18.7-20.2
ZONE 2	16.7-21.0	17.5-22.1	18.2-22.9	18.7-23.5
ZONE 3	16.7-21.0	17.5-22.1	18.2-22.9	18.7-23.5
ZONE 4	18.2-19.0	19.2-20.0	19.9-20.7	20.4-21.3
ZONE 5	18.2-24.0	19.2-25.2	19.9-26.1	20.4-26.9

8. Seismic

- Site Class \_\_\_\_\_ D
- Design Category \_\_\_\_\_ C
- Importance Factor \_\_\_\_\_ 1.0
- Seismic Use Group \_\_\_\_\_ I
- Spectral Response Acceleration
  - 8.5.1. S<sub>m</sub> = %g
  - 8.5.2. S<sub>m1</sub> = %g
- Seismic Base Shear
  - 8.6.1. Vx = \_\_\_\_\_
  - 8.6.2. Vy = \_\_\_\_\_
- Basic Structural System (check one)
  - Bearing Wall
  - Building Frame
  - Moment Frame
  - Dual w/ Special Moment Frame
  - Dual w/ Intermediate R/C or Special Steel
  - Inverted Pendulum
- Arch/Mech Components Anchored \_\_\_\_\_ No
- Lateral Design Control: Seismic  Wind

9. Assumed Soil Bearing Capacity \_\_\_\_\_ 2000psf

GENERAL STRUCTURAL NOTES:

- The design professional whose seal appears on these drawings is the structural engineer of record (SER) for this project. The SER bears the responsibility of the primary structural elements and the performance of this structure. No other party may revise, alter, or delete any structural aspects of these construction documents without written permission of SUMMIT Engineering, Laboratory & Testing, P.C. (SUMMIT) or the SER. For the purposes of these construction documents the SER and SUMMIT shall be considered the same entity.
- The structure is only stable in its completed form. The contractor shall provide all required temporary bracing during construction to stabilize the structure.
- The SER is not responsible for construction sequences, methods, or techniques in connection with the construction of this structure. The SER will not be held responsible for the contractor's failure to conform to the contract documents, should any non-conformities occur.
- Any structural elements or details not fully developed on the construction drawings shall be completed under the direction of a licensed professional engineer. These shop drawings shall be submitted to SUMMIT for review before any construction begins. The shop drawings will be reviewed for overall compliance as it relates to the structural design of this project. Verification of the shop drawings for dimensions, or for actual field conditions, is not the responsibility of the SER or SUMMIT.
- Verification of assumed field conditions is not the responsibility of the SER. The contractor shall verify the field conditions for accuracy and report any discrepancies to SUMMIT before construction begins.
- The SER is not responsible for any secondary structural elements or non-structural elements, except for the elements specifically noted on the structural drawings.
- This structure and all construction shall conform to all applicable sections of the International Residential Code.
- This structure and all construction shall conform to all applicable sections of local building codes.
- All structural assemblies are to meet or exceed to requirements of the current local building code.

FOUNDATIONS:

- The structural engineer has not performed a subsurface investigation. Verification of this assumed value is the responsibility of the owner or the contractor. Should any adverse soil condition be encountered the SER must be contacted before proceeding.

- The bottom of all footings shall extend below the frost line for the region in which the structure is to be constructed. However, the bottom of all footings shall be a minimum of 12" below grade.
- Any fill shall be placed under the direction or recommendation of a licensed professional engineer.
- The resulting soil shall be compacted to a minimum of 95% maximum dry density.
- Excavations of footings shall be lined temporarily with a 6 mil polyethylene membrane if placement of concrete does not occur within 24 hours of excavation.
- No concrete shall be placed against any subgrade containing water, ice, frost, or loose material.

STRUCTURAL STEEL:

- Structural steel shall be fabricated and erected in accordance with the American Institute of Steel Construction "Code of Standard Practice for Steel Buildings and Bridges" and the Manual of Steel Construction "Load Resistance Factor Design" latest editions.
- Structural steel shall receive one coat of shop applied rust-inhibitive paint.
- All steel shall have a minimum yield stress (F<sub>y</sub>) of 36 ksi unless otherwise noted.
- Welding shall conform to the latest edition of the American Welding Society's Structural Welding Code AWS D11. Electrodes for shop and field welding shall be class E70XX. All welding shall be performed by a certified welder per the above standards.

CONCRETE:

- Concrete shall have a normal weight aggregate and a minimum compressive strength (f'<sub>c</sub>) at 28 days of 3000 psi, unless otherwise noted on the plan.
- Concrete shall be proportioned, mixed, and placed in accordance with the latest editions of ACI 318: "Building Code Requirements for Reinforced Concrete" and ACI 301: "Specifications for Structural Concrete for Buildings".
- Air entrained concrete must be used for all structural elements exposed to freeze/thaw cycles and deicing chemicals. Air entrainment amounts (in percent) shall be within -1% to +2% of target values as follows:
  - Footings: 5%
  - Exterior Slabs: 5%
- No admixtures shall be added to any structural concrete without written permission of the SER.

- Concrete slabs-on-grade shall be constructed in accordance with ACI 302.1R-96: "Guide for Concrete Slab and Slab Construction".
- The concrete slab-on-grade has been designed using a subgrade modulus of k=250 pci and a design loading of 200 psf. The SER is not responsible for differential settlement, slab cracking or other future defects resulting from unreported conditions not in accordance with the above assumptions.
- Control or saw cut joints shall be spaced in interior slabs-on-grade at a maximum of 15'-0" O.C. and in exterior slabs-on-grade at a maximum of 10'-0" unless otherwise noted.
- Control or saw cut joints shall be produced using conventional process within 4 to 12 hours after the slab has been finished.
- Reinforcing steel may extend through a control joint. Reinforcing steel may extend through a saw cut joint.
- All welded wire fabric (WUF) for concrete slabs-on-grade shall be placed at mid-depth of slab. The WUF shall be securely supported during the concrete pour.

CONCRETE REINFORCEMENT:

- Fibrous concrete reinforcement, or fibermesh, specified in concrete slabs-on-grade may be used for control of cracking due to shrinkage and thermal expansion/contraction, lowered water migration, an increase in impact capacity, increased abrasion resistance, and residual strength.
- Fibermesh reinforcing to be 100% virgin polypropylene fibers containing no reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforcement.
- Application of fibermesh per cubic yard of concrete shall equal a minimum of 0.1% by volume (15 pounds per cubic yard).
- Fibermesh shall comply with ASTM C116, any local building code requirements, and shall meet or exceed the current industry standard.
- Steel reinforcing bars shall be new billet steel conforming to ASTM A615, grade 60.
- Detailing, fabrication, and placement of reinforcing steel shall be in accordance with the latest edition of ACI 318: "Manual of Standard Practice for Detailing Concrete Structures"
- Horizontal footing and wall reinforcement shall be continuous and shall have 90° bends, or corner bars with the same size/spacing as the horizontal reinforcement with a class B tension splice.
- Lap reinforcement as required, a minimum of 40 bar diameters for tension or compression unless otherwise noted. Splices in masonry shall be a minimum of 48 bar diameters.

- Where reinforcing dowels are required, they shall be equivalent in size and spacing to the vertical reinforcement. The dowel shall extend 48 bar diameters vertically and 20 bar diameters into the footing.
- Where reinforcing steel is required vertically, dowels shall be provided unless otherwise noted.

WOOD FRAMING:

- Solid sawn wood framing members shall conform to the specifications listed in the latest edition of the "National Design Specification for Wood Construction" (NDS). Unless otherwise noted, all wood framing members are designed to be Southern-Yellow-Pine (SYP) #2.
- LVL or PSL engineered wood shall have the following minimum design values:
  - E = 1,900,000 psi
  - F<sub>b</sub> = 2600 psi
  - F<sub>v</sub> = 285 psi
  - F<sub>c</sub> = 180 psi
- Wood in contact with concrete, masonry, or earth shall be pressure treated in accordance with AWPA standard C-15. All other moisture exposed wood shall be treated in accordance with AWPA standard C-2.
- Nails shall be common wire nails unless otherwise noted.
- Lag screws shall conform to ANSI/ASME standard B18.2.1-1981. Lead holes for lag screws shall be in accordance with NDS specifications.
- All beams shall have full bearing on supporting framing members unless otherwise noted.
- Exterior and load bearing stud walls are to be 2x4 SYP #2 @ 16" O.C. unless otherwise noted. Studs shall be continuous from the sole plate to the double top plate. Studs shall only be discontinuous at headers for window/door openings. A minimum of one king stud shall be placed at each end of the header. King studs shall be continuous.
- Individual studs forming a column shall be attached with one 10d nail @ 6" O.C. staggered. The stud column shall be continuous to the foundation or beam. The column shall be properly blocked at all floor levels to ensure proper load transfer.
- Multi-ply beams shall have each ply attached with (3) 10d nails @ 24" O.C.
- Four and five ply beams shall be bolted together with (2) rows of 1/2" diameter through bolts staggered @ 16" O.C. unless noted otherwise.

WOOD TRUSSES:

- The wood truss manufacturer/fabricator is responsible for the design of the wood trusses. Submit sealed shop drawings and supporting calculations to the SER for review prior to fabrication. The SER shall have a minimum of five (5) days for review. The review by the SER shall review for overall compliance with the design documents. The SER shall assume no responsibility for the correctness for the structural design for the wood trusses.
- The wood trusses shall be designed for all required loadings as specified in the local building code, the ASCE Standard "Minimum Design Loads for Buildings and Other Structures," (ASCE 7-10), and the loading requirements shown on these specifications. The truss drawings shall be coordinated with all other construction documents and provisions provided for loads shown on these drawings including but not limited to HVAC equipment, piping, and architectural fixtures attached to the trusses.
- The trusses shall be designed, fabricated, and erected in accordance with the latest edition of the "National Design Specification for Wood Construction," (NDS) and "Design Specification for Metal Plate Connected Wood Trusses," (ASCE 7-10), and the loading requirements shown on these specifications. The truss drawings shall be coordinated with all other construction documents and provisions provided for loads shown on these drawings including but not limited to HVAC equipment, piping, and architectural fixtures attached to the trusses.
- The truss manufacturer shall provide adequate bracing information in accordance with "Commentary and Recommendations for Handling, Installing, and Bracing Metal Plate Connected Wood Trusses" (HIB-91). This bracing, both temporary and permanent, shall be shown on the shop drawings. Also, the shop drawings shall show the required attachments for the trusses.
- Any chords or truss webs shown on these drawings have been shown as a reference only. The final design of the trusses shall be per the manufacturer.

EXTERIOR WOOD FRAMED DECKS:

- Decks are to be framed in accordance with local building codes and as referenced on the structural plans, either through code references or construction details.

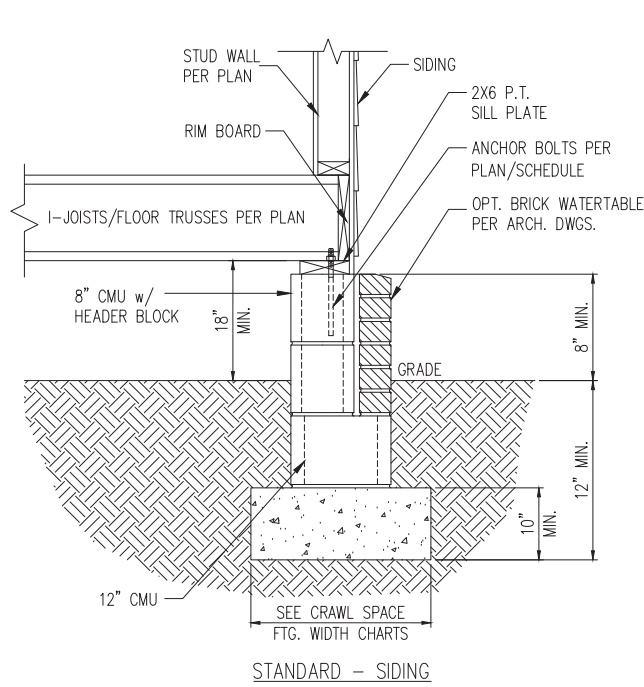
WOOD STRUCTURAL PANELS:

- Fabrication and placement of structural wood sheathing shall be in accordance with the APA Design/Construction Guide "Residential and Commercial," and all other applicable APA standards.
- All structurally required wood sheathing shall bear the mark of the APA.

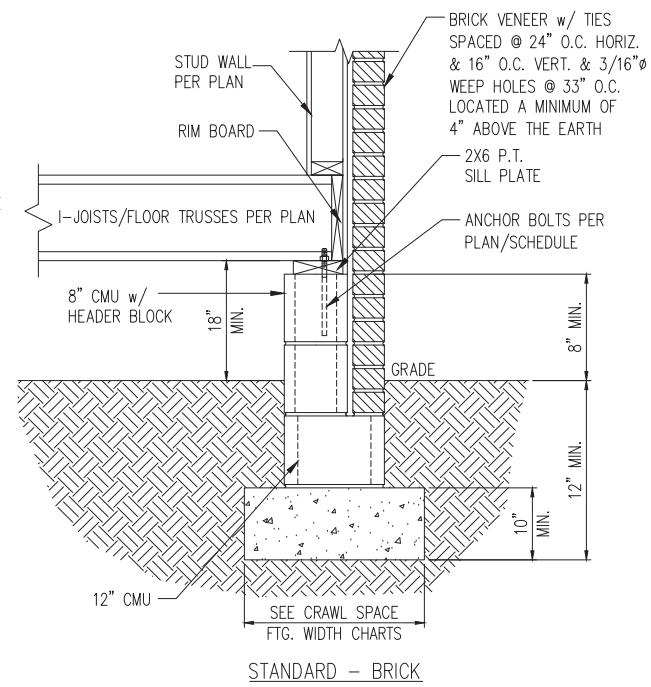
- Wood wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more information. Sheathing shall be applied with the long direction perpendicular to framing, unless noted otherwise.
- Roof sheathing shall be APA rated sheathing exposure 1 or 2. Roof sheathing shall be continuous over two supports and attached to its supporting roof framing with (1)-8d CC nail at 6" o/c at panel edges and at 12" o/c in panel field unless otherwise noted on the plans. Sheathing shall be applied with the long direction perpendicular to framing. Sheathing shall have a span rating consistent with the framing spacing. Use suitable edge support by use of plywood clips or lumber blocking unless otherwise noted. Panel end joints shall occur over framing. Apply building paper over the sheathing as required by the state Building Code.
- Wood floor sheathing shall be APA rated sheathing exposure 1 or 2. Attach sheathing to its supporting framing with (1)-8d CC ringshank nail at 6" o/c at panel edges and at 12" o/c in panel field unless otherwise noted on the plans. Sheathing shall be applied perpendicular to framing. Sheathing shall have a span rating consistent with the framing spacing. Use suitable edge support by use of T&G plywood or lumber blocking unless otherwise noted. Panel end joints shall occur over framing. Apply building paper over the sheathing as required by the state Building Code.
- Sheathing shall have a 1/8" gap at panel ends and edges as recommended in accordance with the APA.

STRUCTURAL FIBERBOARD PANELS:

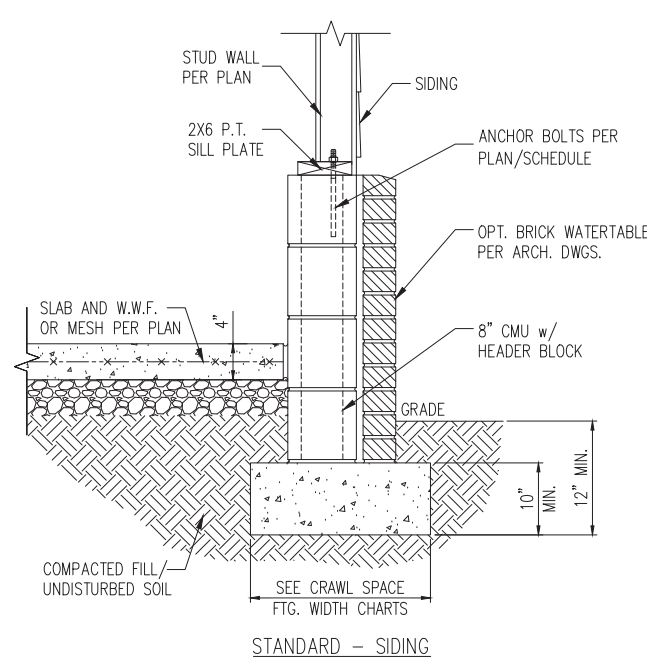
- Fabrication and placement of structural fiberboard sheathing shall be in accordance with the applicable APA standards.
- All structurally required fiberboard sheathing shall bear the mark of the APA.
- Fiberboard wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more information.
- Sheathing shall have a 1/8" gap at panel ends and edges as recommended in accordance with the APA.



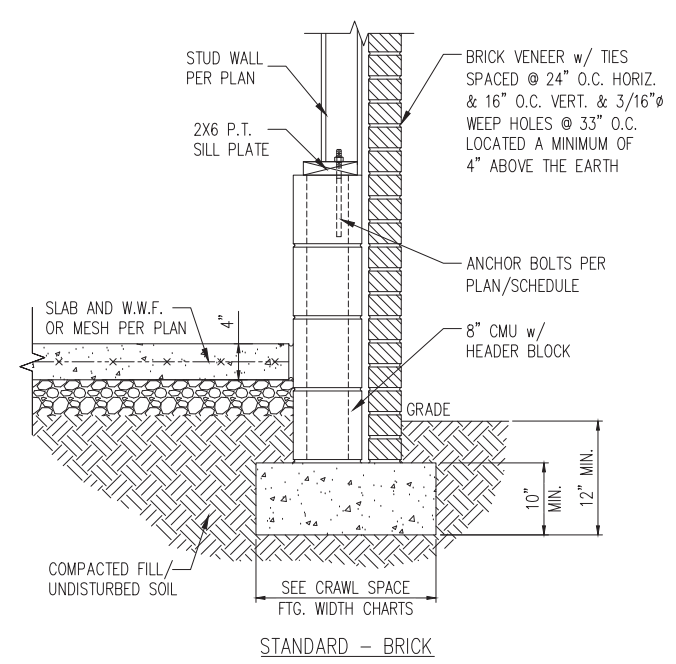
STANDARD - SIDING



STANDARD - BRICK



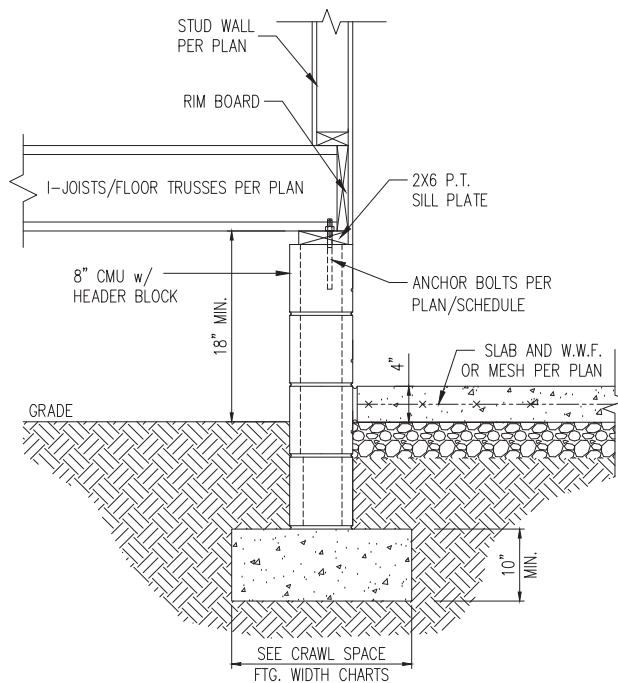
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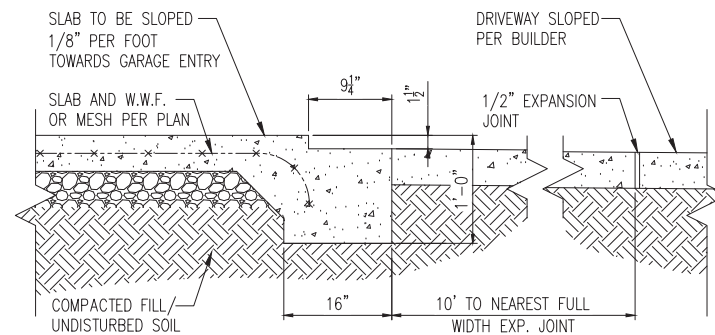
STANDARD - BRICK

1 TYP. FOUNDATION WALL DETAIL  
D1c N.T.S.

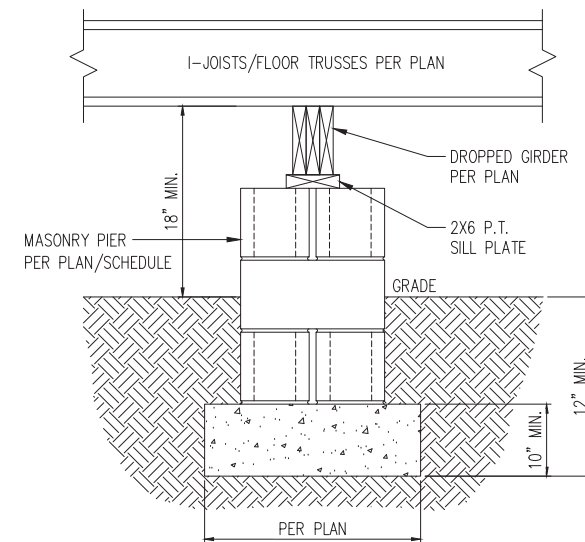
2 TYP. GARAGE CURB DETAIL  
D1c N.T.S.



3 HOUSE/GARAGE WALL DETAIL  
D1c N.T.S.



4 SLAB AT GARAGE DOOR  
D1c N.T.S.



5 TYP. PIER & GIRDER DETAIL  
D1c N.T.S.

PIER SIZE AND HEIGHT SCHEDULE

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

\* (4) #4 CONT. REBAR w/ #3 STIRRUPS @ 16" O.C. AND 24" MIN. LAP JOINTS

CRAWL SPACE FOOTING WIDTH

# OF STORIES	WIDTH BASED ON SOIL BEARING CAPACITY		
	1500 PSF	2000 PSF	2500 PSF
1 STORY - STD.	16"	16"	16"
1 STORY - BRICK VENEER	21"*	21"*	21"*
2 STORY - STD.	16"	16"	16"
2 STORY - BRICK VENEER	21"*	21"*	21"*
3 STORY - STD.	23"	18"	18"
3 STORY - BRICK VENEER	32"*	24"*	24"*

\*5" BRICK LEDGE HAS BEEN ADDED TO THE CRAWL SPACE FOOTING WIDTH FOR BRICK SUPPORT

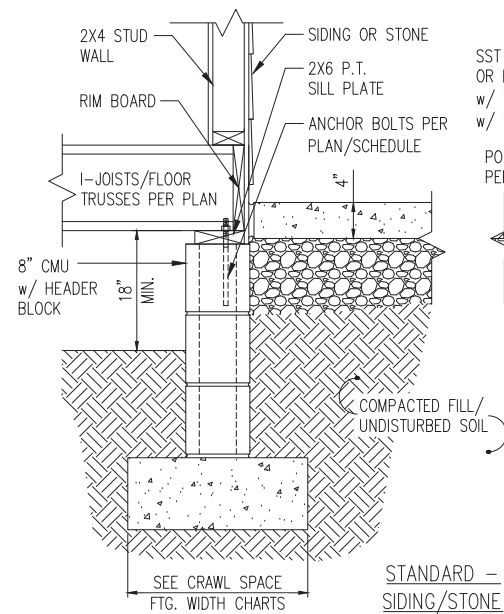
WALL ANCHOR SCHEDULE

TYPE OF ANCHOR	MIN. CONC. EMBEDMENT	SPACING EMBEDMENT	INTERIOR WALL	EXTERIOR WALL
1/2" dia A307 BOLTS w/ STD. 90° BEND	7"	6'-0"	YES	YES
SST - MAS	4"	5'-0"	NO	YES
HILTI KWIK BOLT KBI 1/2-2-3/4	2-1/4"	6'-0"	YES	NO
1/2" dia HILTI THREADED ROD w/ HIT HY150 ADHESIVE	7"	6'-0"	YES	YES

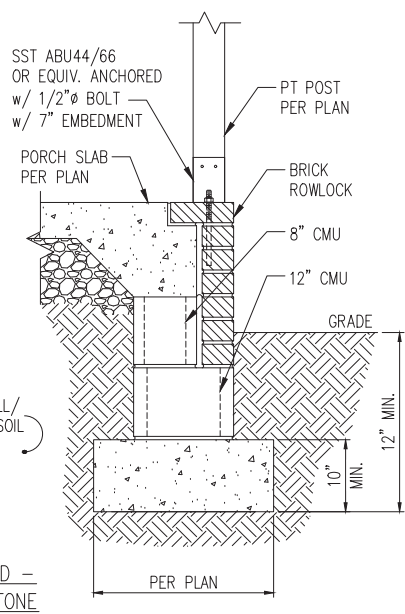
NOTE: INSTALL ALL ANCHORS 12" MAX. FROM ALL BOTTOM PLATE ENDS AND JOINTS.

NOTES:

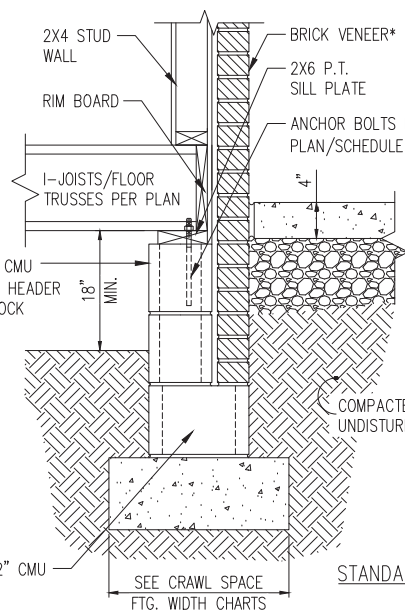
- REFER TO GENERAL NOTES & SPECIFICATIONS ON COVERSHEET FOR ADDITIONAL INFORMATION.
- PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE.
- SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.
- REFER TO STRUCTURAL PLANS AND FRAMING DETAILS FOR BRACED WALL PANEL LAYOUT, DIMENSIONS, ATTACHMENT AND CONNECTIONS
- REFER TO LOCAL AND STATEWIDE CODES FOR ADDITIONAL AMENDMENTS AND REQUIREMENTS NOT SHOWN
- PERIMETER INSULATION SHOWN AS REQUIRED BY LOCAL CLIMATE ZONE. INSTALL PER TABLE N1102.2.10 OF THE 2018 NCRS



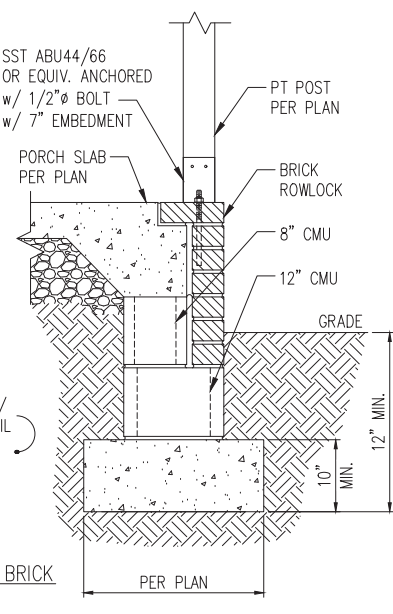
STANDARD - SIDING/STONE



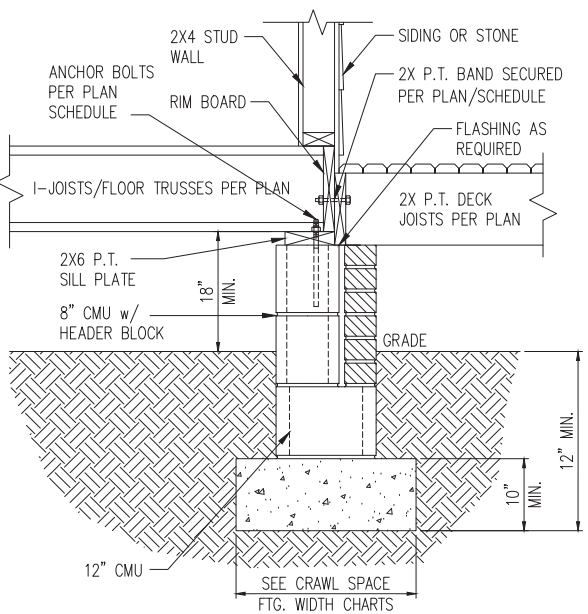
STANDARD - BRICK



STANDARD - BRICK

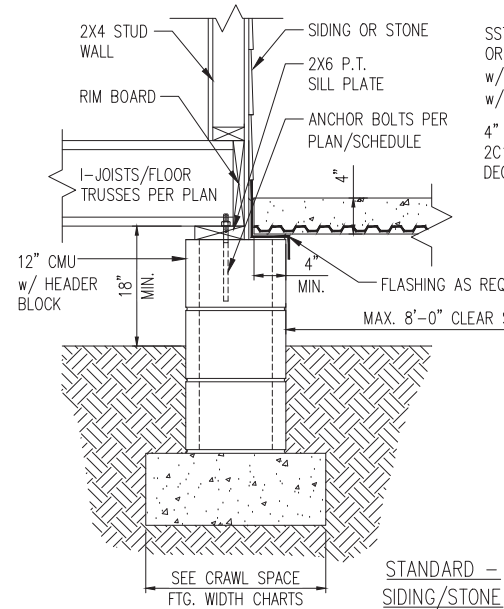


STANDARD - SIDING/STONE

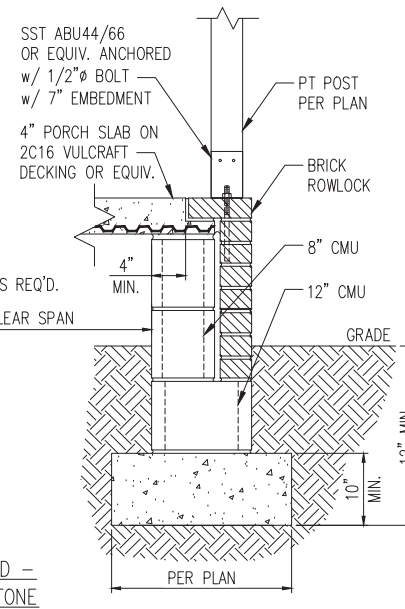


2 DECK ATTACHMENT DETAIL  
D2c N.T.S.

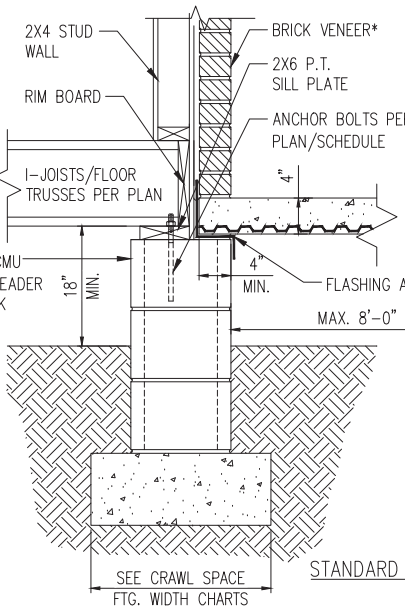
1 TYP. FRONT PORCH DETAIL  
D2c N.T.S.



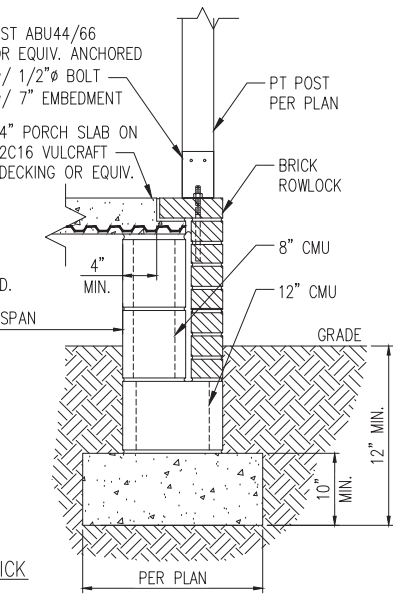
STANDARD - SIDING/STONE



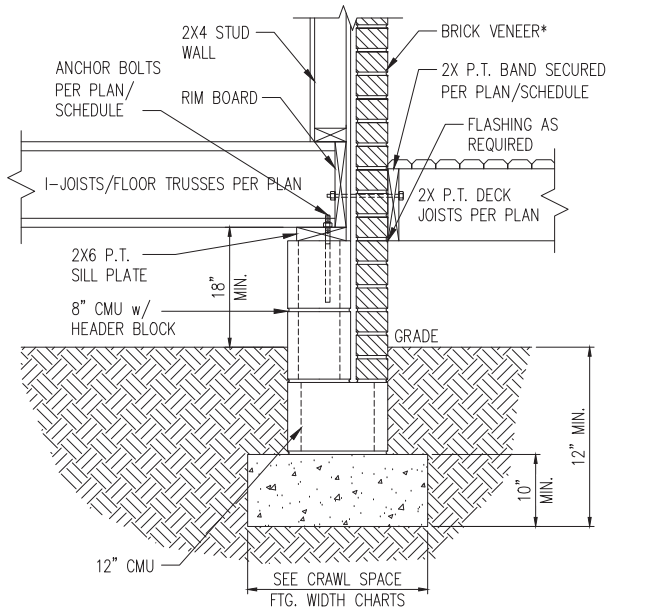
STANDARD - BRICK



STANDARD - BRICK



STANDARD - BRICK



3 DECK ATTACHMENT DETAIL W/ BRICK  
D2c N.T.S.

1a FRONT PORCH DETAIL w/ SUSPENDED SLAB  
D2c N.T.S.

DECK ATTACHMENT SCHEDULE (ALL STRUCTURES EXCEPT BRICK)

FASTENERS	MAX. 8'-0" JOIST SPAN	MAX. 16'-0" JOIST SPAN
5/8" GALV. BOLTS w/ NUT & WASHER <sup>b</sup>	(1) @ 3'-6" O.C.	(1) @ 1'-8" O.C.
AND	AND	AND
12d COMMON GALV. NAILS <sup>c</sup>	(2) @ 8" O.C.	(3) @ 6" O.C.

- a. ATTACHMENT INTERPOLATION BETWEEN 8' AND 16' JOIST SPANS IS ALLOWED.
- b. MINIMUM EDGE DISTANCE FOR BOLTS IS 2 1/2".
- c. NAILS MUST PENETRATE THE SUPPORTING STRUCTURE BAND A MINIMUM OF 1 1/2"

DECK ATTACHMENT SCHEDULE (BRICK STRUCTURES)

FASTENERS	MAX. 8'-0" JOIST SPAN	MAX. 16'-0" JOIST SPAN
5/8" GALV. BOLTS w/ NUT & WASHER <sup>b</sup>	(1) @ 2'-4" O.C.	(1) @ 1'-4" O.C.

- a. ATTACHMENT INTERPOLATION BETWEEN 8' AND 16' JOIST SPANS IS ALLOWED.
- b. MINIMUM EDGE DISTANCE FOR BOLTS IS 2 1/2".

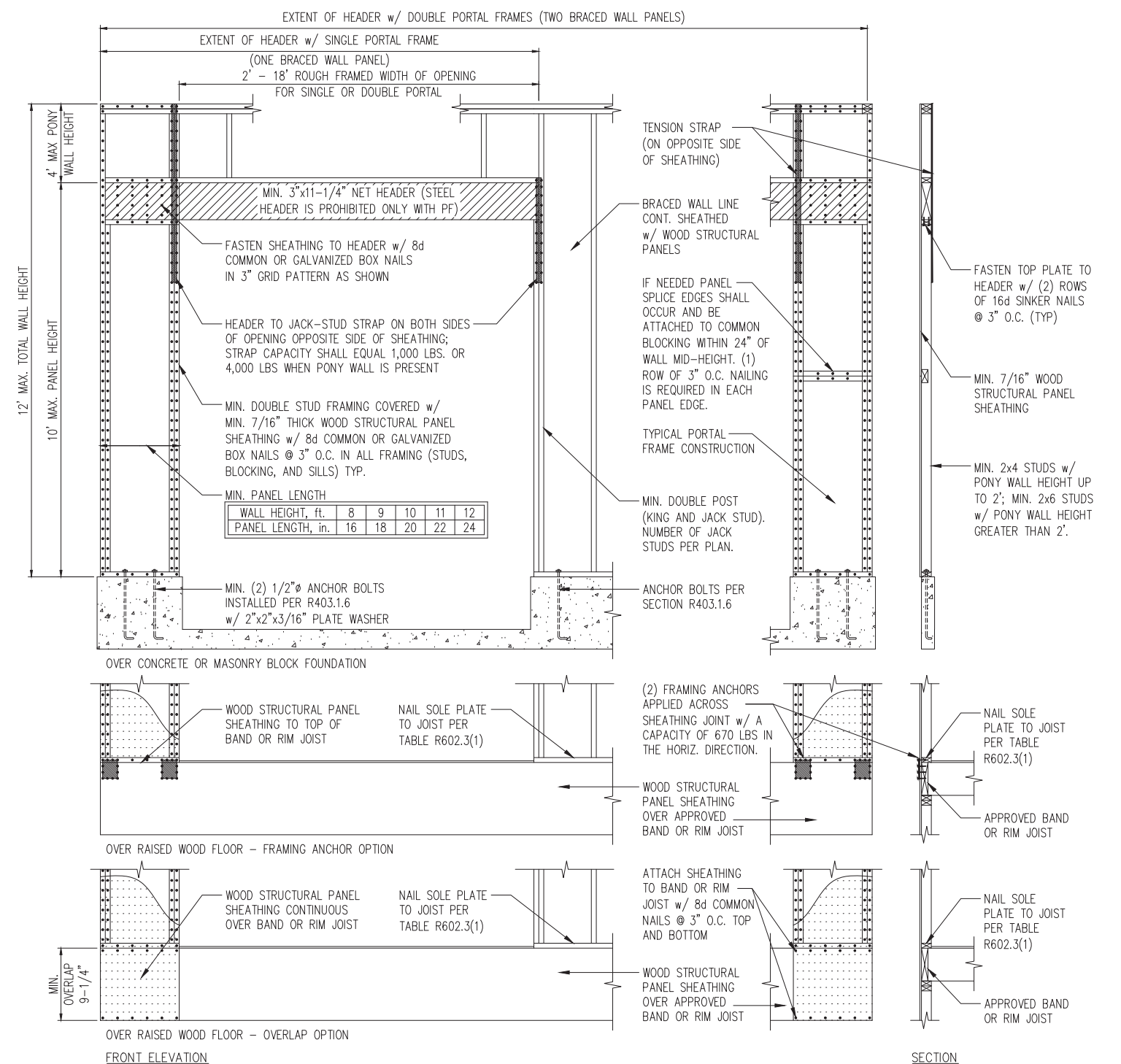
CRAWL SPACE FOOTING WIDTH

# OF STORIES	WIDTH BASED ON SOIL BEARING CAPACITY		
	1500 PSF	2000 PSF	2500 PSF
1 STORY - STD.	16"	16"	16"
1 STORY - BRICK VENEER	21"*	21"*	21"*
2 STORY - STD.	16"	16"	16"
2 STORY - BRICK VENEER	21"*	21"*	21"*
3 STORY - STD.	23"	18"	18"
3 STORY - BRICK VENEER	32"*	24"*	24"*

\*5" BRICK LEDGE HAS BEEN ADDED TO THE CRAWL SPACE FOOTING WIDTH FOR BRICK SUPPORT

\*BRICK TIES SPACED @ 24" O.C. HORIZ. & 16" O.C. VERT. AND 3/16" WEEP HOLES @ 33" O.C. LOCATED A MINIMUM OF 4" ABOVE THE EARTH

- NOTES:
1. REFER TO GENERAL NOTES & SPECIFICATIONS ON COVERSHEET FOR ADDITIONAL INFORMATION.
  2. PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE.
  3. SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.
  4. REFER TO STRUCTURAL PLANS AND FRAMING DETAILS FOR BRACED WALL PANEL LAYOUT, DIMENSIONS, ATTACHMENT AND CONNECTIONS
  5. REFER TO LOCAL AND STATEWIDE CODES FOR ADDITIONAL AMENDMENTS AND REQUIREMENTS NOT SHOWN
  6. PERIMETER INSULATION SHOWN AS REQUIRED BY LOCAL CLIMATE ZONE. INSTALL PER TABLE N1102.2.10 OF THE 2018 NCRS



1 METHOD PF: PORTAL FRAME DETAIL  
D1f 3/8" = 1'-0"