

NORTH CAROLINA 40' SERIES PLAN 240.3174-R

LOT 66 MASON POINTE -ELEVATION C

SHEET INDEX

ARCHITECTURAL DETAILS

PLAN #240.3174-R

- TITLE SHEET
 - GENERAL NOTES GENERAL NOTES
 - GENERAL NOTES
 FIRST FLOOR PLAN
 SECOND FLOOR PLAN
 FIRST FLOOR AT CRAWL SPACE OPTION
 FIRST FLOOR PLAN OPTIONS
 FIRST FLOOR PLAN OPTIONS

 - SLAB INTERFACE PLAN 'A'
 - PARTIAL SLAB INTERFACE PLAN 'B', 'C', & 'D'
 CRAWL SPACE PLAN 'A'
 PARTIAL CRAWL SPACE PLAN 'B', 'C' & 'D'

 - ROOF PLAN, FRONT & REAR ELEVATIONS 'A'
 LEFT & RIGHT ELEVATIONS 'A'
 PARTIAL FIRST FLOOR PLAN, FRONT ELEVATION AND PARTIAL LEFT AND RIGHT
 ELEVATIONS 'A' AT CRANL SPACE
 FRONT ELEVATION 'A' AT OPTIONAL 9'-O" PLATE AT SLAB & CRANL SPACE
- PARTIAL FIRST & SECOND FLOOR PLANS B'
 ROOF PLAN, FRONT & REAR ELEVATIONS B'
 LEFT & RIGHT ELEVATIONS B'
 PARTIAL FIRST FLOOR PLAN, FRONT ELEVATION AND PARTIAL LEFT AND RIGHT
 ELEVATIONS B' AT CRANL SPACE
 FRONT ELEVATION B' AT OPTIONAL 9'-O" PLATE AT SLAB & CRANL SPACE

- 3.D4
- 3.D5

- PARTIAL FLOOR PLAN, ELEVATIONS & SLAB INTERFACE PLAN 'A/B/C/D' AT SCREENED-IN

SQUARE FOOTAGE SQUARE FOOTAGE

APPLICABLE CODES: PLAN 240.3174-R PARTIN PLACE 2

2018 NORTH CAROLINA STATE BUILDING CODE: RESIDENTIAL CODE, INCLUDING REFERENCED CODES AND STANDARDS SECOND FLOOR AREA 1626 TOTAL AREA 3103 SQ. FT

PROJECT DESCRIPTION:

OCCUPANCY:

CODE ABBREVIATIONS

N.C.-R. NORTH CAROLINA RESIDENTIAL CODE
N.C.-B. NORTH CAROLINA BUILDING CODE NORTH CAROLINA MECHANICAL CODE NORTH CAROLINA PLUMBING CODE NORTH CAROLINA FUEL GAS CODE

N.C.-E. NORTH CAROLINA ELECTRICAL N.C.-E.C. NORTH CAROLINA ENERGY CODE
N.E.C. NATIONAL ELECTRICAL CODE
I.C.B.O. INTERNATIONAL CONFERENCE
OF BUILDING OFFICIALS

A.S.T.M. AMERICAN SOCIETY FOR TESTING MATERIALS N.F.P.A. NATIONAL FIRE PROTECTION ASSOCIATION

AMERICAN NATIONAL STANDARDS I.E.C.C. INTERNATIONAL ENERGY CONSERVATION CODE

INTERNATIONAL CODE COUNCIL

REVISION LIST

CODE INFORMATION

| DELTA | DATE | SHEETS REVISED | LOG NUMBER |
|-------|----------|--|------------|
| | | | |
| T. | 01/23/19 | T.5, | NC19015NCP |
| 2 | 02/28/19 | Al.I- Al.7, 3.Al,3.A2, 3.Bl, 3.B2, 3.B3, 3.Cl, 3.Dl, | NCI9005NCP |
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SPEC. LEVEL 1 RALEIGH-DURHAM

PARTIAL FIRST & SECOND FLOOR PLANS 'C'
ROOF PLAN, FRONT & REAR ELEVATIONS 'C'
LEFT & RIGHT ELEVATIONS 'C'
PARTIAL FIRST FLOOR PLAN, FRONT ELEVATION AND PARTIAL LEFT AND RIGHT
ELEVATION 'C' AT CRANL SPACE
FRONT ELEVATION 'C' AT OPTIONAL 9"-0" PLATE AT SLAB & CRAWL SPACE

PARTIAL FIRST & SECOND FLOOR PLANS D'
ROOF PLAN, FRONT & REAR ELEVATIONS D'
LEFT & RIGHT ELEVATIONS D'
PARTIAL FIRST FLOOR PLAN, FRONT ELEVATION AND PARTIAL LEFT AND RIGHT
ELEVATIONS D' AT CRA'NL SPACE
FRONT ELEVATION D' AT OPTIONAL 9'-0" PLATE AT SLAB & CRAYL SPACE

INTERIOR ELEVATIONS

SECTIONS SLAB ON GRADE SECTIONS CRAWL SPACE

PARTIAL FLOOR PLAN, ELEVATIONS, CRAWL SPACE PLAN 'A/B/C/D' AT 12'x12' DECK PARTIAL FLOOR PLAN, ELEVATIONS, CRAWL SPACE PLAN 'A/B/C/D' AT 21'x12' DECK

PARTIAL FLOOR PLAN, ROOF & ELEVATIONS W OPT. COVERED PATIO

PARTIAL FLOOR PLAN, ROOF & ELEVATIONS W OFT. EXTENDED COVERED PATIO
PARTIAL FLOOR PLAN, ROOF & ELEVATIONS W OFT. EXTENDED COVERED PATIO
PARTIAL FLOOR PLAN, ROOF & ELEVATIONS W OFT. COVERED SCREENED PATIO
PARTIAL FLOOR PLAN, ROOF & SLEVATIONS W OFT. EXTENDED COVERED SCREENED PATIO
PARTIAL FLOOR PLAN, ELEVATIONS & SLAB INTERFACE PLAN 'A/B/C/D' AT SCREENED-IN

12'x12' COVERED DECK

ABBREVIATIONS ARCH. SYMBOLS

ADIT

GROUND-FAULT CIRCUIT INTERRUPTER SHELF AND POLE AIR CONDITIONING GALVANIZED IRON S.C. ADJUSTABLE SOLID CORE ALTERNATE SMOKE DETECTOR AMPERAGE SECTION GYP. BD. GYPSUM BOARD SINGLE HUNG BOARD CENTER LINE SHEET HDR. HEADER CABINET SHEATHING CEILING SHOWER H.H. HS HEADER HEIGHT CLEAR

ABOVE

CONCRETE

CERAMIC TILE

DUAL GLAZED

DIVIDED LIGHT DEEP

DOWNSPOUT

DISHWASHER

ELEVATION

INSUL. INT.

LAV.

M.C.

MFR.

MIN.

MTD

MTL.

NIC

N.T.S.

0.S.A.

PH. PLT.

PLYMD.

P.T.D.F.

RAG

REF.

REV.

RE/S

MINIMUM

METAL

OVER

PLATE

PAIR

RISER

REVERSE

PLYWOOD

MOUNTED

NOT IN CONTRACT V.P.

NOT TO SCALE

ON CENTER

OUTSIDE AIR

PUSH BUTTON

PROPERTY LINE

RETURN AIR GRILL

REFRIGERATOR

OPTIONAL

CARPET

DRYER

DOUBLE

DIAMETER

DIMENSION

DISPOSAL

DOOR

DETAIL

EACH

EQUAL EXHAUST

EXTERIOR

FUEL GAS

FINISH

GAUGE

FLR. FLOOR FLR. LINE FLOOR LINE

FORGED AIR UNIT

FIXED GLASS

FLUORESCENT

FRENCH DOOR

ADJ.

CONC

DIA. DIM.

DISP

ELEV.

F.G./FX.

FR. DR

SIMILAR SI IDING IN LIEU OF SLIDING GLASS INSULATION STANDARD INTERIOR SHEET VINYL LAMINATED TEMPERED GLASS LAVATORY LIMINOUS TOG TOP OF CURB MEDICINE CABINET T.O.P. TOP OF PLATE MANUFACTURER T.O.S.

TOP OF SLAB TYPICAL IINO UNLESS NOTED OTHERWISE VAPOR PROOF MASHER

MINDOM

WATER HEATER

WEATHER PROOF

MOOD

REVISION REFERENCE REVISION NUMBER REFER TO TITLE SHEET

SHEET NUMBER

DETAIL NUMBER

REFERENCE NUMBER

OR FINISH SURFACE

DETAIL REFERENCE

KEYNOTE REFERENCE

OFFSET REFERENCE

DIFFERENTIAL IN FLOOR LEVEL

SCALE NOTE

IF BOX IS I" SQ. THEN SCALE IS I/4" = I'-O" IF BOX IS 1/2" SQ. THEN SCALE IS 1/8" = 1'-0"

CONSULTANTS OWNER:

KB HOME NORTH CAROLINA DIVISION 4506 S. MIAMI BLVD., SUITE 180 DURHAM, NC 27103 DURHAM, NC 27103 FAX. (919) 544-2928 BUILDING SECTION SECTION INDICATOR

ARCHITECT

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ORCH AREA(S)

ELEVATION 'B 126 126 101 ELEVATION 'D OPTION (AREA) DEN/BDRM, 5/BA.3 IO'xIO' COVERED IO'x2O' COVERED 200 DECK AREA(S) OPEN 12'X12' OPEN 21'x12' SCREEN-IN 12'x12' SCREEN-IN 21'x12

ELEVATION 'A

SQ. FT.

CONSTRUCTION TYPE:

LOG NUMBER

ISSUE DATE:

DIVISION MGR.:

REVISIONS:

PROJECT No.: 1350999:56

2018 CODE UPDATE NCI90ISNCP- 01/23/19 MCP

07/31/18

02/28/19

240.3174-R

NORTH CAROLINA

40' SERIES KB HOME NORTH CAROLINA DIVISION

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> HEET: TS

GENERAL REQUIREMENTS

- THE WORD 'CONTRACTOR' AS USED HEREIN SHALL MEAN THE GENERAL CONTRACTOR, SUBCONTRACTORS AND ALL PERSONS DIRECTLY OR INDIRECTLY EMPLOYED BY ANY OF THEM.
- CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH THE FOLLOWING APPLICABLE CODE REQUIREMENTS:
 - ALL LAWS, STATUTES, THE MOST RECENT BUILDING CODES, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ALL PUBLIC AUTHORITIES HAVING JARISDICTION OVER OWNER, CONTRACTOR, ANY SUBCONTRACTOR, THE PROJECT, THE PROJECT, THE PROJECT, THE PROJECT SITE, THE MORK, OR THE PROSECTION OF THE MORK.
- B. THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT AND ALL OTHER APPLICABLE CODE REQUIREMENTS RELATING TO SAFETY.
- C. THE FAIR HOUSING AMENDMENTS ACT, THE AMERICANS WITH DISA-BILITIES ACT, AND ALL OTHER APPLICABLE CODE REQUIREMENTS RELATINS THERETO.
- CONTRACTOR SHALL CAREFULLY STUDY AND REVIEW THE CONSTRUCTION DOCUMENTS AND INFORMATION FURNISHED BY OWNER, AND SHALL PROMPTLY REPORT IN MRITING TO OWNER'S REPRESENTATIVE ANY ERRORS, INCONSISTENCIES, OR OMISSIONS IN THE CONSTRUCTION DOCUMENTS OR INCONSISTENCIES WITH APPLICABLE CODE REQUIREMENTS OBSERVED BY THE CONTRACTOR.
- IF CONTRACTOR PERFORMS WORK WHICH HE KNOWS OR SHOULD KNOW IS CONTRARY TO APPLICABLE CODE REQUIREMENTS, WITHOUT THE AGREEMENT OF OWNER, CONTRACTOR SHALL BE RESPONSIBLE FOR SUCH WORK AND SHALL BEAR THE RESULTANT LOSSES, INCLUDING, WITHOUT LIMITATION, THE COSTS OF CORRECTING DETECTIVE WORK.
- CONTRACTOR SHALL PROVIDE CERTIFICATES OF INSURANCE ACCEPTABLE TO OWNER PRIOR TO COMMENCEMENT OF WORK.
- CONTRACTOR SHALL TAKE FIELD MEASUREMENTS, VERIFY FIELD CONDITIONS, AND CAREFULLY COMPARE WITH THE CONSTRUCTION DOCUMENTS SUCH FIELD MEASUREMITS, CONDITIONS, AND OTHER INFORMATION KNOWN TO CONTRACTOR BEFORE COMMENCING THE WORK ERRORS, INCONSISTENCIES, OR OMISSIONS DISCOVERED AT ANY TIME SHALL BE PROMPTLY REPORTED IN WRITING TO THE OWNER.
- CONTRACTOR SHALL PROMPTLY NOTIFY OWNER'S REPRESENTATIVE IF CONTRACTOR BECOMES AWARE DURING THE PERFORMANCE OF THE WORK THAT THE CONSTRUCTION DOCUMENTS ARE NOT IN COM-PLIANCE WITH APPLICABLE CODE REQUIREMENTS.
- BY SUBMITTAL OF BID, CONTRACTOR WARRANTS TO OWNER THAT ALL MATTERIALS AND EQUIPMENT TO BE FURNISHED ARE NEW UNLESS NOTED OTHERWISE AND ALL WORK WILL BE OF GOOD QUALITY AND FREE FROM FAULTS AND DEFECTS.
- 4. SUB-CONTRACTORS SHALL INSURE THAT ALL WORK IS DONE IN A PROFESSIONAL WORKMANLIKE MANNER BY SKILLED MECHANICS AND SHALL REPLACE ANY MATERIALS OR ITEMS DAMASED BY SUB-CONTRACTORS PERFORMANCE. SUB-CONTRACTORS AND SUPPLERS ARE HEREBY NOTHER THAT YARE TO CONFER AND COOPERATE FULLY MITH EACH OTHER DURING THE COURSE OF CONSTRUCTION TO DETERMINE THE EXACT EXTENT AND OVERLAP OF EACH OTHER'S WORK AND TO SUCCESSFULLY COMPLETE THE EXECUTION OF THE WORK. ALL SUB-CONTRACTOR WORKMANSHIP SHALL BE OF QUALITY TO PASS INSPECTIONS BY LOCAL AUTHORITIES, LENDING INSTITUTIONS, ARCHITECT OR BUILDER. ANY ONE OR ALL OF THE ABOVE MENTIONED INSPECTORS MAY INSPECT WORKMANSHIP AT ANY TIME, AND CORRECTIONS NEEDED TO ENHANCE THE QUALITY OF BUILDING MILL BE DONE INSECTIONS NEEDED TO ENHANCE THE QUALITY OF BUILDING MILL BE DONE INSECTIONS NEEDED OF HIS/HERS SUB-CONTRACTOR, WILESS SPECIFICALLY EXEMPTED BY THE TERMS OF HIS/HERS SUB-CONTRACTOR. SPECIFICALLY EXEMPTED BY THE TERMS OF HIS/HERS SUB-CONTRACTORS. BUILDER WILL DETERMINE HOW SOON AFTER SUB-CONTRACTORS. BUILDER WILL DETERMINE HOW SOON AFTER SUB-CONTRACTORS. BUILDER WILL DETERMINE HOW THAT TRASH AND DEDRIS WILL BE RESONNER.
- O. APPROVAL BY THE BUILDING INSPECTOR DOES NOT MEAN APPROVAL OR ALLOMABLE FAILURE TO COMPLY NITH THE PILANS AND SPECIFICATIONS. ANY DESIGN WHICH FALLS TO BE CLEAR OR IS AMBIGUOUS MUST BE REFERRED TO THE ARCHITECT OR ENGINEER FOR INTERPRETATION OR CLARIFICATION.
- ALL EQUIPMENT AND MATERIALS FURNISHED AND INSTALLED UNDER THESE PLANS SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF ON YEAR FROM THE DATE OF ACCEPTANCE OF THE WORK BY OWNER UNLESS STIPULATED OTHERWISE.
- ALL TRADE NAMES AND BRAND NAMES CONTAINED HEREIN ESTABLISH
 OUALITY STANDARDS, SUBSTITUTIONS ARE PERMITTED, MITH PRIOR
 APPROVAL BY THE ONNER'S REPRESENTATIVE. THE CONTRACTOR SHALL
 SUBMIT FOR THE ARCHITECT'S AND BUILDER'S APPROVAL ALL MATERIALS
 OR EQUIPMENT MHICH IS CONSIDERED 'OR EQUIAL" TO THAT SPECIFIED.
- 13. CONSTRUCTION DOCUMENTS IDENTIFIED AS "BID SET" ON ANY OR ALL SHEETS MAY BE SUBJECT TO REVIEW. THIS REVIEW MAY RESULT IN CHANGES WHICH MAY BE MADE TO THE PLANS PRIOR TO THE ISSUANCE OF THE FINAL CONSTRUCTION SET WHICH MILL CONTAIN NO "BID SET" DESIGNATIONS. CONSTRUCTION DOCUMENTS IDENTIFIED AS "BID SET" ARE NOT TO BE CONSTRUCT AS BEING THE COMPLETED OR FINAL DRAWINGS AND THEY SHOULD NOT IN ANY WAY BE USED AS SUCH.
- ALL STANDARD NOTES CONTAINED HEREIN ARE TYPICAL UNLESS NOTED OTHERWISE.
- 15. TYPICAL DETAILS AND SPECIFICATIONS ARE MINIMUM REQUIREMENTS TO BE USED WHEN CONDITIONS ARE NOT SHOWN OTHERWISE.
- I6. SPECIFIC NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.
- SEE ARCHITECTURAL, STRUCTURAL, ELECTRICAL, AND MECHANIC/ DRAWINGS FOR PITS, TRENCHES, ROOF OPENINGS, DEPRESSIONS, ETC. NOT SHOWN ON THE OTHER DRAWINGS.
- iö. THE CONSTRUCTION DOCUMENTS AND ALL COPIES THEREOF FURNISHED TO CONTRACTOR ARE THE PROPERTY OF THE ARCHITECT AND ARE NOT TO BE USED ON OTHER MORK.

SITE WORK

- CONTRACTOR SHALL INVESTIGATE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILLED EXCAVATIONS OR BURIED STRUCTURES SUCH AS CESSPOOLS, GISTERNS, FOUNDATIONS, ETC., AND BURIED ARTIFACTS SUCH AS INDIAN OR DINOSAUR BONES. IF ANY SUCH ITEMS ARE FOUND THE ARCHITECT, CIVIL ENGINEER, AND SOILS ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO FULLY
 PROTECT AD JACENT PROPERTIES
- 3. REFER TO THE SOILS REPORT AS PREPARED BY THE GEOTECHNICAL ENGINEER
- 4. REFER TO CIVIL ENGINEER'S CURRENT GRADING AND PLOT PLANS

SITE WORK (continued)

- REFER TO THE LANDSCAPE ARCHITECT'S CURRENT GRADING PLAN AND CONSTRUCTION DOCUMENTS.
- ALL FOOTINGS SHALL REST ON FIRM NATURAL SOIL OR APPROVED COMPACTED FILL. REFER TO GEOTECHNICAL REPORT.
- EXCAVATIONS FOR FOOTINGS SHALL BE MADE TO THE WIDTH, LENGTH, AND DEPTH REQUIRED AND FINISHED WITH LEVEL BOTTOMS.
- 8. EXCAVATIONS SHALL BE KEPT FREE OF STANDING WATER.
- WHERE EXCAVATIONS ARE MADE TO A DEPTH GREATER THAN INDICATED, SUCH ADDITIONAL DEPTH SHALL BE FILLED WITH CONCRETE AS SPECIFIED FOR FOOTINGS.
- IO. FILL MATERIALS SHALL BE FREE FROM DEBRIS, VEGETABLE MATTER AND OTHER FOREIGN SUBSTANCES.
- ALL FINISH GRADES TO DRAIN AWAY FROM THE BUILDING FOOTINGS.
- 12. THERE SHALL BE NO ON-SITE WATER RETENTION.
- IS. THERE SHALL BE NO DRAINAGE TO ADJACENT PROPERTY.
- FOR ONSITE CONTSRUCTION, PLANS TO COMPLY WITH NECESSARY INSPECTIONS APPROVED BY THE BUILDING OFFICIAL.

CONCRETE

- REFER TO STRUCTURAL ENGINEERING CALCULATIONS AND SOILS REPORT FOR THE PERFORMANCE REQUIREMENTS FOR CONCRETE FOUNDATIONS.
- CONCRETE SHALL BE PROPORTIONED TO PROVIDE AN AVERAGE COMPRESSIVE STRENGTH AS PRESCRIBED IN THE N.C.-R, AS MELL AS SATISFY THE DURABILITY CRITERIA OF THE N.C.-R
- MIXING OF CONCRETE SHALL BE PERFORMED IN ACCORDANCE WITH ACI 318, SECTION 5.8.
- THE DEPOSITING OF CONCRETE SHALL COMPLY WITH THE PROVISIONS ACI 318, SECTION 5.IO.
- 5. THE CURING OF CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318, SECTION 5.II.
- 6. ALL FORM WORK SHALL BE DESIGNED, CONSTRUCTED, UTILIZED, AND
- CONDUIT, PIPES AND SLEEVES OF ANY MATERIAL NOT HARMFUL TO CONCRETE AND MITHIN THE LIMITATIONS OF ACI 318, SECTION 6.3, ARE PERMITTED TO BE EMBEDDED IN CONCRETE WITH APPROVAL OF THE REGISTERED DESIGN PROFESSIONAL.
- CONSTRUCTION JOINTS INCLUDING THEIR LOCATION SHALL COMPLY MITH THE PROVISIONS OF ACI 318, SECTION 6.4.
- ALL STEEL REINFORCING OF CONCRETE SHALL BE DONE IN ACCORDANCE WITH THE N.C.-R
- (O. TOP OF CONCRETE SLABS TO BE A MINIMUM 4" W MASONRY VENEER 6" ELSEWHERE (8" HJJ.D.) ABOVE FINISH GRADE.
- FOUNDATION WIDTHS, DEPTHS, AND REINFORCING, AS SHOWN ON PLANS, ARE SUPERCEDED BY ANY LOCAL CODES OR ORDINANCES WHICH REQUIRE INCREASES OF THE SAME.
- 2. ALL REINFORCEMENT, CONDUIT, OUTLET BOXES, ANCHORS, HANGERS, SLEEVES, BOLTS OR OTHER EMBEDDED MATERIALS AND ITEMS MUST BE SECURED AND APPROPRIATELY FASTENED IN THEIR PROPER LOCATIONS PRIOR TO THE PLACEMENT OF CONCRETE. SUS-CONTRACTOR SHALL VERIEY INSTALLATION OF HOLD-DOWNS, ANCHOR BOLTS, PA STRAPS, AND OTHER ANCHORAGE MATERIAL AND ITEMS PRIOR TO PLACEMENT OF CONCRETE.
- IS. POST-TENSION SLABS, IF APPLICABLE:
 - POINT AND LINE LOADS FROM STRUCTURE ABOVE TO BE PROVIDED TO POST-TENSION ENGINEER PRIOR TO POST-TENSION DEGIGN
- B. ANCHOR BOLTS AND OTHER HARDWARE TO BE SHOWN ON POST-TENSION PLANS TO AVOID MIS-LOCATION OF HARDWARE AND POSSIBLE FIELD FIXES WHICH MAY CUT TENDONS.

MASONRY

- ALL MASONRY DESIGN SHALL FOLLOW THE REQUIREMENTS OF THE CURRENT ADOPTED CODES.
- ANCHORED MASONRY VENEER SHALL COMPLY WITH THE PROVISIONS OF N.C.-R, N.C.-R AND SECTIONS 6.1 AND 6.2 OF ACI 530/ASCE 5/TMS 402.
- STONE VENEER UNITS NOT EXCEEDING 5 INCHES IN THICKNESS SHALL BE ANCHORED DIRECTLY TO MASONRY, CONCRETE OR TO STUD CONSTRUCTION BY ONE OF THE APPROVED METHODS LISTED IN THE N.C.-R
- 4. MORTAR FOR USE IN MASONRY CONSTRUCTION SHALL COMPLY WITH ASTM C 270. THE TYPE OF MORTAR SHALL BE IN ACCORDANCE WITH THE N.C.-R AND SHALL MEET THE PROPORTION SPECIFICATIONS OR THE PROPERTY SPECIFICATIONS OF ASTM C 270
- GROUT SHALL CONSIST OF CEMENTITIOUS MATERIAL AND AGGREGATE IN ACCORDANCE WITH ASTM C 476 AND THE PROPORTION SPECIFICATION PER THE N.C.-R
- AGGREGATES FOR MORTAR AND GROUT SHALL BE NATURAL SAND AND ROCK CONFORMING TO A.S.T.M. C-144-04 (MASONRY MORTAR) AND C-404-071 (GROUT).
- 7. CEMENT SHALL BE PORTLAND CEMENT CONFORMING TO A.S.T.M. C 150.
- 8. ALL BRICK SHALL CONFORM TO A.S.T.M. C 216, GRADE MW.
- UNLESS SPECIFICALLY SHOWN OTHERWISE ALL BRICK SHALL BE LAID IN A RUNNING BOND PATTERN.
- IO. ANCHORS, TIES AND WIRE FABRIC SHALL CONFORM TO N.C.-R
- ANCHOR TIES AND MIRE FABRIC FOR USE IN MASONRY WALL CONSTRUCTION SHALL CONFORM TO THE N.C.-R

METALS

- REFER TO STRUCTURAL NOTES AND SPECIFICATIONS FOR STRUCTURAL STEEL, METAL AND REINFORCING STEEL SPECIFICATIONS.
- 2. ALL STRUCTURAL STEEL SHALL CONFORM TO AISC/CRED
- 3. ANCHOR RODS SHALL BE SET ACCURATELY TO THE PATTERN AND DIMENSIONS CALLED FOR ON THE PLANS. THE PROTRUSION OF THE THREADED ENDS THROUGH THE CONNECTED WATERIAL SHALL BE SUFFICIENT TO FULLY ENGAGE THE THREADS OF THE NUTS, BUT SHALL NOT BE GREATER THAN THE LENGTH OF THE THREADS ON THE BOLTS.
- 4. FASTENERS FOR PRESERVATIVE-TREATED AND FIRE-RETARDANT-TREATED WOOD SHALL BE OF HOT-DIPPED ZINC COATED GALVANIZED STEEL, STAINLESS STEEL, SILICAN BRONZE OR COPPER VERIETY ACCEPTABLE FASTENERS PER CHEMICALS USED IN PRESSURE PRESERVITIVELY TREATED WOOD W N.C.-R. FASTENISS FOR WOOD FOUNDATIONS SHALL BE AS REQUIRED IN AFAPA TECHNICAL REPORT NO. T.

WOOD & FRAMING

LUMBER

- . THE DESIGN AND CONSTRUCTION OF CONVENTIONAL LIGHT-FRAME WOOD CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE N.C.-R.
- CONSTRUCTION, PROJECTIONS, OPENINGS AND PENETRATIONS OF EXTERIOR WALLS OF DIRELLINGS AND ACCESSORY BUILDINGS SHALL COMPLY WITH TABLE R802.1.
- 3. ALL LUMBER SHALL MEET THE STANDARDS OF QUALITY AS STATED IN THE N.C.-R.
- 4. LIMBER, AND PLYMOOD REQUIRED TO BE PRESSURE PRESERVATIVELY TREATED IN ACCORDANCE WITH THE NC.-R AND SHALL BEAR THE QUALITY MARK OF AN APPROVED INSPECTION ASENCY THAT MAINTAINS CONTINUING SUPERVISION, TESTING AND INSPECTION OVER THE QUALITY OF THE PRODUCT AND THAT HAS BEEN APPROVED BY AN ACCREDITATION BODY THAT COMPLIES WITH THE REQUIREMENTS OF THE AMERICAN LIMBER STANDARD COMMITTEE TREATED WOOD PROGRAM.
- FIELD CUT ENDS, NOTCHES AND DRILLED HOLES OF PRESSURE PRESERVATIVELY TREATED WOOD ARE TO BE RETREATED IN THE FIELD IN ACCORDANCE WITH AMPA M4.
- 6. ALL LUMBER SIZES NOTED AND SPECIFIED ON PLANS ARE NOMINAL SIZES UNLESS SPECIFICALLY INDICATED AS NET SIZE.

GLUE LAMINATED LUMBER

- REFER TO THE STRUCTURAL ENGINEER'S CURRENT NOTES, CALCULATIONS, AND SPECIFICATIONS.
- 2. GLUED LAMINATED TIMBERS SHALL BE MANUFACTURED AND IDENTIFIED AS REQUIRED IN AITC AIRO.I AND ASTM D 3797.

PROTECTION AGAINST DECAY & TERMITE

- IN AREAS SUBJECT TO DECAY DAMAGE AS ESTABLISHED BY THE N.C.-R.
 THE FOLLOWING LOCATIONS SHALL REQUIRE THE USE OF NATURALISE
 UDRABLE WOOD OF WOOD THAT IS PRESERVATIVE TREATED
 IN ACCORDANCE WITH AWPA UI FOR THE SPECIES, PRODUCT, PRESERVATIVE
 AND END USE, PRESERVATIVES SHALL BE LISTED IN SECTION 4 OF AWPA UI
- WOOD JOISTS OR THE BOTTOM OF WOOD FLOOR WHEN CLOSER THAN IB INCHES, OR WOOD GIRDERS WHEN CLOSER THAN 12 INCHES TO THE EXPOSED GROUND IN CRAWL SPACES OR UNEXCAYATED AREAS
- ALL EXTERIOR SILLS &PLATES THAT REST ON CONCRETE OR MASONRY EXTERIOR FOUNDATION WALLS.
- SILLS AND SLEEPERS ON A CONCRETE OR MASONRY SLAB, UNLESS THE SLAB THAT IS IN DIRECT CONTACT WITH THE GROUND IS SEPARATED FROM THE GROUND BY AN APPROVED IMPERVIOUS MOISTURE BARRIER.
- THE ENDS OF WOOD GIRDERS ENTERING EXTERIOR MASONRY OR CONCRETE WALLS HAVING CLEARANCES OF LESS THAN 0.5 INCH ON TOPS, SIDES AND ENDS.
- WOOD SIDING AND SHEATHING ON THE EXTERIOR OF A BUILDING HAVING A CLEARANCE OF LESS THAN 6 INCHES FROM THE GROUND.
- WOOD STRUCTURAL MEMBERS SUPPORTING MOISTURE-PERMEABLE FLOORS OR ROOPS THAT ARE EXPOSED TO THE WEATHER, SUCH AS CONCRETE OR MASONRY SLABS, UNLESS SEPARATED FROM
- WOOD FURRING STRIPS OR OTHER WOOD FRAMING MEMBERS ATTACHED DIRECTLY TO THE INTERIOR OF EXTERIOR MASONRY WALLS OR CONCRETE WALLS BELOW GRADE EXCEPT WHERE AN APPROVED VAPOR RETARDER IS APPLIED BETWEEN THE WALL AND THE FURRING STRIPS OR FURRING MEMBERS.
- 6. ALL PORTIONS OF A PORCH, SCREEN PORCH OR DECK FROM THE BOTTOM OF THE HEADER DOWN, INCLUDING POSTS, GUARDRAILS, PICKETS, STEPS AND FILOOR STRUCTURE. COVERINGS THAT WOLLD PREVENT MOISTURE OR WATER ACCUMULATION ON THE SURFACE OR AT JOINTS BETWEEN REMERERS ARE ALLOWED.
- 3. IN AREAS SUBJECT TO DAMAGE FROM TERMITES METHODS OF PROTECTION SHALL BE ONE OF THE METHODS LISTED IN THE N.C.-R
- UNDER-FLOOR AREAS SHALL BE VENTILATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE N.C.-R

MOOD & FRAMING (continued)

SHEATHING

- WOOD STRUCTURAL PANELS SHALL CONFORM TO THE REQUIREMENTS AS SET FORTH IN THE N.C.-R
- ROOF SHEATHING PANELS SHALL BE LAID WITH FACE GRAIN OR STRENGTH AXIS PERPENDICULAR TO SUPPORTS AND WITH PANEL CONTINUOUS OVER TWO OR MORE SPANS.
- 3. ROOF SHEATHING SHALL BE IN ACCORDANCE WITH THE N.C.-R.
- FLOOR SHEATHING PANELS SHALL BE LAID WITH FACE GRAIN OR STRENGTH AXIS PERPENDICULAR TO SUPPORTS AND WITH PANEL CONTINUOUS OVER TWO OR MORE SPANS.
- STRUCTURAL FLOOR SHEATHING SHALL COMPLY WITH THE PROVISIONS OF THE N.C.-R
- REFER TO THE STRUCTURAL ENGINEER'S CURRENT SPECIFICATIONS, CALCULATIONS, AND PLANS FOR REQUIRED STRENGTH, GRADE, AND THICKNESS FOR PLYMOOD FLOOR SHEATHING PANELS AND FOR DIAPPRASM NAILING AND ADHESIVE REQUIREMENTS.
- ALL VERTICAL JOINTS OF PANEL SHEATHING SHALL OCCUR OVER, AND BE FASTENED TO, COMMON STUDS. HORIZONTAL JOINTS IN BRACED WALL PANELS SHALL OCCUR OVER, AND BE FASTENED TO, COMMON BLOCKING OF A MINIMAN OF I I/2 INCH THICKNESS.
- . WHERE APPLICABLE, REFER TO THE SHEAR WALL SCHEDULE FOR REQUIRED STRENGTH, GRADE, AND THICKNESS OF PLYMOOD SHEAR PANELS AND FOR REQUIRED SHEAR WALL NAILING SCHEDULE.
- 4. IN ONE- AND TWO-FAMILY DWELLING CONSTRUCTION USING VINYL OR ALIMINAM AS A SOFFIT MATERIAL, THE SOFFIT MATERIAL SHALL BE SECURELY ATTACHED TO FRAMING MEMBERS AND USE AN UNDERLAYMENT MATERIAL OF EITHER FIRE RETARDANT TREATED WOOD, 25/32 INCH WOOD SHEATHING OR 5/6 INCH SYPSUM BOARD, VENTING REQUIREMENTS APPLY TO BOTH SOFFIT AND UNDERLAYMENT AND SHALL BE PER SECTION ROOF OF THE NORTH CARGUINA RESIDENTIAL CODE. WHERE THE PROFIENT LINE IS TO FEET OR MORE FROM THE BUILDING FACE, THE PROFIENT LINE IS TO FEET OR MORE FROM THE BUILDING FACE, THE PROFIENT LINE IS TO SOPE SECTION DO NOT APPLY.

FLOOR FRAMING

- ALL FLOOR JOISTS SHALL BE DESIGNED I-JOIST WOOD FLOOR TRUSSES. REFER TO MANUFACTURER FOR ALL LAYOUTS AND CALCULATIONS.
- REFER TO THE STRUCTURAL ENGINEER'S CURRENT PLANS & CALCULATIONS FOR SIZE, SPACING, AND ANCHORAGE OF ALL FLOOR JOISTS; SIZE, LOCATION, AND ANCHORAGE OF ALL FLOOR BEAMS AND HEADERS; AND ALL RELATED FRAMING ISSUES.

OOF FRAMING

- ROOF FRAMING SHALL BE BY PRE-MANUFACTURED ROOF TRUSSES SPACED AT 24 INCHES ON CENTER UNLESS NOTED OTHERWISE.
- 2. WOOD TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE N.C.-R
- THE MANUFACTURER SHALL SUPPLY TO THE ARCHITECT AND BUILDER CALCULATIONS AND SHOP DRAWINGS FOR APPROVAL OF DESIGN LOADS, CONFIGURATION (2 OR 3 POINT BEARING), VOLUME CEILING OPTIONS, AND SHEAR TRANSFER, PRIOR TO FABRICATION.
- 4. THE BRACING OF WOOD TRUSSES SHALL COMPLY TO THEIR APPROPRIATE ENGINEERED DESIGN. PER THE N.C.-R
- 5. TRUSS MEMBERS SHALL NOT BE CUT, NOTCHED, DRILLED, SPLICED OR OTHERNISE ALTERED IN ANY WAY WITHOUT THE APPROVAL OF A RESISTENED DESIGN PROFESSIONAL. ALTERATIONS RESULTING IN THE ADDITION OF LOAD (E.G. HYAC EQUIPMENT, MATER HEATER) THAT EXCEEDS THE DESIGN LOAD FOR THE TRUSSES SHALL NOT BE PERMITTED WITHOUT WRITTEN VERIFICATION THAT THE TRUSS IS CAPABLE OF SUPPORTING SUCH ADDITIONAL LOADING.
- ALL CALCULATIONS AND SHOP DRAWINGS SHALL BE SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHEREIN THE PROJECT IS TO BE BUILT.
- 7. MANUFACTURER IS TO SECURE BUILDING DEPARTMENT APPROVAL OF CALCULATIONS AND SHOP DRAWINGS PRIOR TO FABRICATION.

WALL FRAMING

- THE SIZE, HEIGHT, AND SPACING OF STUDS SHALL BE IN ACCORDANCE WITH THE N.C.-R.
- STUDS SHALL BE PLACED WITH THEIR WIDE DIMENSION PERPENDICULAR TO THE WALL.
- NOT LESS THAN THREE STUDS SHALL BE INSTALLED AT EACH CORNER OF AN EXTERIOR WALL.
- 4. WOOD STUD WALLS SHALL BE CAPPED NITH A DOUBLE TOP PLATE INSTALLED TO PROVIDE OVERLAPPING AT CORNERS AND INTERSECTIO. MITH BEARING PARTITIONS, END JOINTS IN TOP PLATES SHALL BE OFFSET AT LEAST 24 INCHES, JOINTS NEED NOT OCCUR OVER STUDS. PLATES SHALL BE NOT LESS THAN 2-INCHES NOMINAL THICKNESS AND HAVE A MIDTH AT LEAST EQUAL TO THE MIDTH OF THE STUDS, SEE EXCEPTIONS.
- WHERE LOISTS, TRUSSES OR RAFTERS ARE SPACED MORE THAN 16 INCHES ON CENTER AND THE BEARING STUDG BELOW ARE SPACED 24 INCHES ON CENTER, SUCH MEMBERS SHALL BEAR WITHIN 5 INCHES OF THE STUDG BENEATH, SEE EXCEPTIONS.
- STUDS SHALL HAVE FULL BEARING ON NOMINAL 2 BY OR LARGER PLATE OR SILL HAVING A WIDTH AT LEAST EQUAL TO THE WIDTH OF THE STUDS.
- 7. INTERIOR NONBEARING WALLS SHALL BE PERMITTED TO BE CONSTRUCTED WITH 2-INCH-BY-3-INCH STUDS SPACED 24 INCHES ON CENTER OR, WHEN NOT A PART OF A BRACED WALL LINE, 2-INCH-BY-4-INCH FLAT STUDS SPACED IG INCHES ON CENTER, INTERIOR NONBEARING WALLS SHALL BE CAPPED WITH AT LEAST A SINGLE TOP PLATE, INTERIOR NONBEARING WALLS SHALL BE FIREIT OCKED IN ACCORDANCE WITH THE NO. RONBEARING WALLS SHALL BE FIREIT OCKED IN ACCORDANCE WITH THE NO. -R

MOOD & FRAMING

(continued)

- 8. DRILLING AND NOTHCING OF STUDS SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
 - I. NOTHCING, ANY STUD IN AN EXTERIOR MALL OR BEARING FARTITION MAY BE OUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 FERCENT OF ITS WIDTH, STUDS IN NONBEARING PARTITIONS MAY BE NOTCHED TO A DEPTH NOT TO EXCEED AN PERCENT OF A SINGLE STUD MIDTH, NOTCHING OF BEARING STUDS SHALL BE ON ONE EDGE ONLY AND NOT TO EXCEED ONE-FOURTH THE HEIGHT OF THE STUD. NOTCHING SHALL NOT OCCUR IN THE BOTTOM OR TOP 6 INCHES OF BEARING STUDS.
 - 2. DRILLING, ANY STUD MAY BE BORED OR DRILLED, PROVIDED THAT THE DIAMETER OF THE RESULTING HOLE IS NO MORE THAN 60 PERCENT OF THE STUD WIDTH, THE EDGE OF THE HOLE IS NO MORE THAN 50'S INCH TO THE EDGE OF THE STUD, AND THE HOLE SHALL NOT BE CLOSER THAN 6 INCHES FROM AN ADJACENT HOLE ON MOTCH. HOLES NOT EXCEEDING 94 INCH DIAMETER CAN BE AS CLOSE AS I I/2 INCHES ON CENTER SPACING, STUDS LOCATED IN EXTERIOR MALLS OR BEARING PARTITIONS DRILLED OVER 40 PERCENT AND UP TO 60 PERCENT SHALL ALSO BE DOUBLED WITH NO MORE THAN TWO SUCCESSIVE DOUBLED STUDS BORED.
- 9. WHEN PIPING OR DUCTHORK IS PLACED IN OR PARTIALY IN AN EXTERIOR OR INTERIOR LOAD-BEARING WALL, NECESSITATION CUTTING, DRILLING OR NOTCHING OF THE TOP PLATE B MORE THAN SO PERCENT OF ITS WIDTH A GALVANIZED METAL TIE OF NOT LESS THAN COS4 INCH THICK AND I 1/2" INCHES MIDE SHALL BE FASTENED ACROSS AND TO THE PLATE AT EACH SIDE OF THE OPENING MITH NOT LESS THAN EIGHT IOD NAILS HAVING A MINIMUM LENGTH OF II/2 INCHES (39 MM) AT EACH SIDE OR EQUIVALENT. THE METAL TIE MUST EXTEND A MINIMUM OF 6 INCHES PAST THE OPENING.
- IO. HEADERS SHALL MEET THE REQUIREMENTS OF THE N.C.-R
- PROVIDE LATERAL BRACING PER THE N.C.-R
- FOUNDATION CRIPPLE WALLS SHALL MEET THE REQUIREMENTS OF THE N.C.-R CODE
- 14. WOOD STUD WALLS SHALL BE BRACED AS REQUIRED BY THE N.C.-R
 15. UNLESS COVERED BY INTERIOR OR EXTERIOR WALL COVERINGS OR
- 19. INCLESS COVERED DI INIENIOR OR EXTENIOR MALL COVERINGS OR SHEATHING MEETING THE MINIMUM REQUIREMENTS OF THIS CODE, ALL STUD PARTITIONS OR WALLS WITH STUDS HAVING A HEIGHT-TO-LEAST THICKNESS RATIO EXCEEDING 50 SHALL HAVE BRIDGING NOT LESS THAN 2 INCHES IN THICKNESS AND OF THE SAME MIDTH AS THE STUDS FITTED SNIGLY AND NAILED THERETO TO PROVIDE ADEQUATE LATERAL SUPPORT

FIRE BLOCKS AND DRAFT STOPS

- . FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE BARRIER BETMEEN STORIES, AND BETMEEN A TOP STORY AND A ROOF SPACE, FIREBLOCKING SHALL BE PROVIDED IN WOOD-FRAME CONSTRUCTION IN THE LOCATIONS SPECIFIED IN THE NC.
- FIRE BLOCKING SHALL CONSIST OF 2 INCHES NOMINAL LIMBER, OR TWO THICKNESSES OF I-INCH NOMINAL LIMBER WITH BROKEN LAP JOINTS, OR ONE THICKNESS OF 23/82-INCH WOOD STRUCTURAL PANELS WITH JOINTS BACKED BY 23/82-INCH WOOD STRUCTURAL PANELS OR ONE THICKNESS OF 3/4-INCH PARTICLEBOARD WITH JOINTS BACKED BY 3/4-INCH PARTICLEBOARD, I/2-INCH GYPSOM BOARD, OR I/4-INCH CEMENT-BASED MILLEDARD.
- BATTS OR BLANKETS OF MINERAL WOOL OR SLASS FIBER OR OTHER APPROVED MATERIALS INSTALLED IN SUCH A MANNER AS TO BE SECURELY RETAINED IN PLACE SHALL BE PERMITTED AS AN ACCEPTABLE FIRE BLOCK.
- 4. BATTS OR BLANKETS OF MINERAL OR GLASS FIBER OR OTHER APPROVED NON-RIGID MATERIALS SHALL BE PERMITTED FOR COMPILANCE WITH THE IO FOOT HORIZOTTAL FIREBLOCKING IN WALLS CONSTRUCTED USING PARALLEL ROYS OF STUDS OR STAGGREED STUDS, LOOSE FILL INSULATION MATERIAL SHALL NOT BE USED AS A FIREBLOCK UNLESS SPECIFICALLY TESTED IN THE FORM AND MANNER INTEDED FOR USE TO DEMONSTRATE IT'S ABILITY TO REVAIN IN PLACE AND TO RETARD THE SPREAD OF FIRE
- WHEN THERE IS USABLE SPACE BOTH ABOVE AND BELOW THE CONCEALED SPACE OF A FLOOR/CEILING ASSEMBLY, DRAFTSTOPS SHALL BE INSTALLED SO THAT THE AREA OF THE CONCEALED SPACE DOES NOT EXCEED 1000 SQUARE FEET. DRAFTSTOPPING SHALL DIVIDE THE CONCEALED SPACE INTO APPROXIMATELY EQUAL AREAS, WHERE THE ASSEMBLY IS ENCLOSED BY A FLOOR MEMBRANE ABOVE AND A CEILING MEMBRANE BELOW, DRAFTSTOPPING SHALL BE PROVIDED IN FLOOR/CEILING ASSEMBLIES UNDER THE FOLLOWING CIRCUMSTANCES:
- I. CEILING IS SUSPENDED UNDER THE FLOOR FRAMING
- FLOOR FRAMING IS CONSTRUCTED OF TRUSS-TYPE OPEN-WEB OR PERFORATED MEMBERS.

HANDRAII AND GUARDRAII

- GUARDRAIL OF 36" HIGH MIN. SHALL BE PROVIDED WHERE FINISHED GRADE OR FLOOR BELOW RAISED AREA EXCEEDS 30".
- HANDRAIL AT STAIRS SHALL BE PROVIDED WHEN 4 OR MORE STAIR RISERS ARE REQUIRED.



NORTH CAROLINA

40' SERIES

KB HOME NORTH CAROLINA DIVISION

4518 S. MIAMI BLVD.

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RALEIGH-DURHAM
40' SERIES

THERMAL & MOISTURE PROTECTION

- PROVIDE ALL FLASHING, COUNTER-FLASHING, BITUTHENE, MEMBRANE FING, SHEET METAL, CAULKING, SEALANTS, ELASTOMERIC
- "CORROSION RESISTANCE" SHALL MEAN THE ABILITY OF A MATERIAL TO WITHSTAND DETERIORATION OF IT'S SURFACE OR IT'S PROPERTIES WHEN EXPOSED TO IT'S ENVIRONMENT
- BALCONIES, LANDINGS, EXTERIOR STAIRWAYS, OCCUPIED ROOFS AND SIMILAR SURFACES EXPOSED TO THE NEATHER AND SEALED UNDER-NEATH SHALL BE WATERPROOFED AND SLOPED A MINIMUM OF 1/4 UNIT VERTICAL IN 12 UNITS HORIZONTAL (2% SLOPE) FOR DRAINAGE.
- PROVIDE A MINIMUM 2 INCH DROP FROM FINISHED INTERIOR FLOOR ELEVATION TO THE HIGHEST FLOOR ELEVATION OF ANY ADJOINING DECK OR BALCONY.
- ELASTOMERIC OR MEMBRANE DECK COATINGS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AT DECKS AND BALCONIES COLOR, FINISH, AND DETAILING SHALL BE APPROVED BY OWNER
- UNLESS DESIGNED TO DRAIN OVER DECK EDGES, DRAINS AND OVERFLOWS OF ADEQUATE SIZE SHALL BE INSTALLED AT THE LOW POINTS OF THE DECK OR BALCONY.
- FOUNDATION WALLS WHERE THE OUTSIDE GRADE IS HIGHER THAN THE INSIDE GRADE SHALL BE WATER-PROOFED AND DAMPPROOFED IN ACCORDANCE WITH THE N.C.-R
- PARAPET WALLS SHALL BE PROPERLY COPED WITH NONCOMBUSTIBLE, WEATHERPROOF MATERIALS OF A WIDTH NO LESS THAN THE THICKNESS OF THE PARAPET WALL. PARAPET COPING SHALL EXTEND 2" MINIMUM DOWN THE FACE OF THE PARAPET.

- APPROVED CORROSION-RESISTANT FLASHING SHALL BE APPLIED SHINGLE-FASHION IN SUCH A MANNER TO PREVENT ENTRY OF WATER INTO THE MALL CAVITY OR PEDETRATION OF WATER TO THE BUILDING STRUCTURAL FRANING COMPONENTS, INSTALL FLASHING IN ACCORDANCE WITH ASTME 2 IZI OR THE MANIFACTURE'S SUPPLIED WRITTEN INSTRUCTIONS. ALLMINUM FLASHING MAY NOT BE USED IN CONTACT WITH CEMENTITIOUS MATERIAL, EXCEPT AT COUNTER FLASHING. THE FLASHING SHALL EXTEND TO THE SURFACE OF THE EXTENCY WALL FINISH. APPROVED CORROSION-RESISTANT FLASHING SHALL BE INSTALLED AT ALL OF THE LOCATIONS STATED IN N.C.-R.
- ALL BEAMS, OUTLOOKERS, CORBELS, ETC. PROJECTED THROUGH EXTERIOR WALLS OR PENETRATING EXTERIOR FINISHES SHALL BE FLASHED WITH A MINIMUM O.OIM-INCH (NO. 26 SHEET METAL GAGE) CORROSION-RESISTANT METAL AND CAULKED.
- ALL SHEET METAL WORK SHALL BE PERFORMED IN ACCORDANCE ALL SHEET METAL MORK SHALL BE MERFORMED IN ACCORDANCE WITH THE RECOMMENDATIONS AND STANDARDS OF THE SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION (SMACNA). THE ARCHITECTURAL SHEET METAL MANUAL, AND SEALANT, WATERPROOFING AND RESTORATION INSTITUTE'S (SWR.II.) GUIDE - "SEALANTS." THE PROFESSIONAL'S GUIDE".
- SHEET METAL SHALL BE STEEL SHEET, HOT-DIPPED, TIGHT COATED AND GALVANIZED, CONFORMING TO A.S.T.M. A525 AND SHALL BE A NUMBER 24 SHEET METAL GAGE UNLESS OTHERWISE NOTED IN THESE NOTES, PLANS, OR MANUFACTURER'S SPECIFICATIONS.
- FABRICATE SHEET METAL WITH FLAT LOCK SEAMS AND SOLDER WITH TYPE AND FLUX RECOMMENDED BY MANUFACTURER. SEAL ALUMINUM SEAMS WITH EPOXY METAL SEAM CEMENT. WHERE REQUIRED FOR STRENGTH, RIVET SEAMS AND JOINTS.
- SHOP FABRICATE TO THE GREATEST EXTENT POSSIBLE IN ACCORDANCE WITH APPLICABLE STANDARDS TO PROVIDE A PERMANENTLY MATER-PROOF, WEATHER RESISTANT INSTALLATION.
- ASPHALT SHINGLES SHALL HAVE SELF-SEAL STRIPS OR BE INTERLOCKING, AND COMPLY WITH ASTM D 225 OR D 8462.
- BASE AND CAP FLASHING SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS, BASE FLASHING SHALL BE OF EITHER CORROSION-RESISTANT METAL OF MINIMAY NOMINAL O.OM-INCH THICKNESS OR MINERAL SURFACE ROLL ROOFING MEIGHING A MINIMAM OF TI POUNDS PER IOO SQUARE FIEET, CAP FLASHING SHALL BE CORROSION-RESISTANT METAL OF MINIMAM NOMINAL O.OM-INCH THICKNESS
- VALLEY LININGS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS BEFORE APPLYING SHINGLES. VALLEY LININGS OF THE FOLLOWING TYPES SHALL BE PERMITTED AS STATED FER THE N.C.-R.
- A CRICKET OR SADDLE SHALL BE INSTALLED ON THE RIDGE SIDE OF ANY A CHICAGE OF ADDLE SHALL BE INSTITUTED ON THE RIVES SIZE OF AN CHIMMEY OR PENETRATION MORE THAN 30 INCHES NIDE AS MEASURED PERPENDICULAR TO THE SLOPE, CRICKET OR SADDLE COVERINGS SHALL BE SHEET METAL OR OF THE SAME MATERIAL AS THE ROOF COVERING, PROVIDE FLASHING AT THE INTERSECTION OF CRICKET OR SADDLE AND
- FLASHING AGAINST A VERTICAL SIDEMALL SHALL BE BY THE STEP-FLASHING METHOD PER NC-R.
- ASHING AGAINST A VERTICAL FRONT WALL, AS WELL AS SOIL STACI NT PIPE AND CHIMNEY FLASHING, SHALL BE APPLIED ACCORDING TO PHALT SHINGLE MANUFACTURER'S PRINTED INSTRUCTIONS.
- AT THE JUNCTURE OF ROOF VERTICAL SURFACES, FLASHING AND COUNTERFLASHING SHALL BE PROVIDED IN ACCORDANCE WITH THE N.C.-R AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WHERE OF METAL, SHALL NOT BE LESS THAN O.O.I INCH (NO. 26 GALVANIZED
- 16. VALLEY FLASHING FOR CONCRETE TILE ROOFS SHALL BE AS REQUIRED

ROOFING MATERIALS

- ROOF COVERINGS SHALL BE APPLIED IN ACCORDANCE WITH THE N.C.-R. AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, INSTALLATION OF ROOF COVERINGS SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF THE N.C.-R.
- ROOFS AND ROOF COVERINGS SHALL BE OF MATERIALS THAT ARE COMPATIBLE WITH EACH OTHER AND WITH THE BUILDING OR STRUCTURE TO WHICH THE MATERIALS ARE APPLIED.
- ROOF COVERING MATERIALS SHALL CONFORM TO THE APPLICABLE STANDARDS LISTED IN THE N.C.-R. IN THE ABSENCE OF APPLICABLE STANDARDS OR WHERE MATERIALS ARE OF QUESTIONABLE SUITABILITY, TESTING BY AN APPROVED TESTING AGENCY SHALL BE REQUIRED BY THE BUILDING OFFICIAL TO DETERMINE THE CHARACTER, QUALITY, AND LIMITATIONS OF APPLICATION OF THE MATERIALS.

THERMAL & MOISTURE PROTECTION (continued)

- ROOF COVERING MATERIALS SHALL BE DELIVERED IN PACKAGES BEARING THE MANUFACTURER'S IDENTIFYING MARKS AND APPROVED TESTING LABELS WHEN REQUIRED. BULK SHIPMENTS OF MATERIALS SHALL BE ACCOMPANIED BY THE SAME INFORMATION ISSUED IN THE FORM OF A CERTIFICATE OR ON A BILL OF LADING BY THE MANUFACTURER
- COMPOSITION ROOFING SHINGLES SHALL BE OF ASPHALT OR APPROVED RELATED MATERIALS AND MEET THE REQUIREMENTS OF THE N.C.-R
- UNDERLAYMENT FOR ASPHALT SHINGLES SHALL CONFORM TO ASTM D 226 TYPE I, ASTM D 4869, TYPE I, OR ASTM D 6757. SELF-ADHERING POLYMER MODIFIED BITIMEN SHEET SHALL COMPLY WITH ASTM D 1970
- ASPHALT SHINGLES SHALL COMPLY WITH ASTM D 225 OR ASTM D 3462.
- FASTENERS FOR ASPHALT SHINGLES SHALL BE GALVANIZED STEEL, STAINLESS STEEL, ALIMINIM, OR COPPER ROOFING NAILS, MINIMM 12 GAGE SHANK MITH A MINIMM 3/6 INCH DIAMETER HEAD, ASTM F 1667, OF A LENGTH TO PENETRATE THROUGH THE ROOFING MATERIALS AND A MINIMM 0F 3/4 INCH INTO THE ROOF SHEATHING. WHERE THE ROOF SHEATHING IS LESS THAN 3/4 INCH THICK, THE FASTENERS SHALL PENETRATE THROUGH THE SHEATHING. FASTENERS SHALL COMPLY WITH AGTUS LIGHT.
- ASPHALT SHINGLES SHALL HAVE THE MINIMUM NUMBER OF FASTENERS REQUIRED BY THE MANUFACTURER. FOR NORMAL APPLICATION, ASPHALT SHINGLES SHALL BE SECURED TO THE ROOF WITH NOT LESS THAN FOUR FASTENERS PER STRIP SHINGLE OR TWO FASTENERS PER
- UNDERLAYMENT FOR ASPHALT SHINGLES SHALL BE APPLIED IN ACCORDANCE WITH THE N.C.-R
- THE INSTALLATION OF CLAY AND CONCRETE TILE SHALL COMPLY WITH THE PROVISIONS OF N.C.-R CLAY ROOF TILE SHALL COMLY WITH ASTM C. 167.
- CONCRETE AND CLAY TILE SHALL BE INSTALLED ONLY OVER SOLID SHEATHING OR SPACED STRUCTURAL SHEATHING BOARDS.
- CLAY AND CONCRETE ROOF TILE SHALL BE INSTALLED ON ROOF SLOPES OF 2 1/2 UNITS VERTICAL. IN 12 UNITS HORIZONTAL. (2-1/2.12) OR GREATER FOR ROOF SLOPES FROM 2 1/2 UNITS VERTICAL. IN 12 UNITS HORIZONTAL. (2-1/2.12) TO FOUR UNITS VERTICAL. IN 12 UNITS HORIZONTAL. (4-1/2.) DOUBLE UNDERLAYMENT APPLICATION IS REQUIRED IN ACCORDANCE WITH THE N.C.-R.
- UNDERLAYMENT FOR CLAY AND CONCRETE TILE SHALL CONFORM WITH ASTM D 226, TYPE II; ASTM D 2626 TYPE I; OR ASTM D 6380 CLASS I MINERAL SURFACED ROLL ROOFING.
- CONCRETE ROOF TILE SHALL COMPLY WITH ASTM C 1492.
- NAILS SHALL BE CORROSION-REGISTANT AND NOT LESS THAN IL GAGE NAILS SHALL BE CORNOSION-RESISTANT AND NOT LESS THAN II GAGE, 51/6-INCH HEAD, AND OF SYFFICIENT LENGTH TO PENTRATE THE DECK, A MINIMUM OF 3/4-INCH OR THROUGH THE THICKNESS OF THE DECK, WHICHEVER IS LESS. ATTACHING WIRE FOR CLAY OR CONCRETE TILE SHALL NOT BE SMALLER THAN O.028-INCH. PERIMETER PASTENING AREAS INCLUDE THREE TILE COURSES BUT NOT LESS THAN 36 INCHES FROM EITHER SIDE OF HIPS OR RIDGES AND EDGES OF EAVES AND GABLE RAKES.
- 17. CLAY AND CONCRETE ROOF TILES SHALL BE FASTENED IN ACCORDANCE WITH THE N.C.-R
- TILE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, BASED ON CLIMATIC CONDITIONS, ROOS SLOPE, UNDERLAYMEN SYSTEM, AND TYPE OF TILE BEINS INSTALLED PER THE N.C.-R
- THE INSTALLTION OF BUILT-UP ROOFS SHALL COMPLY WITH THE N.C.-R
- 20. BUILT-UP ROOFS SHALL HAVE A DESIGN SLOPE OF A MINIMUM OF ONE-FOUTH UNIT VERTICAL IN I2 UNITS HORIZONTAL (2-PERCENT SLOPE) FOR DRAINAGE, EXCEPT FOR COAL-TAR BUILT-UP ROOFS THAT SHALL HAVE A DESIGN SLOPE OF A MINIMUM ONE-BIGHTH UNIT VERTICAL IN
- 21. BUILT-UP ROOF COVERING MATERIALS SHALL COMPLY WITH THE

EXTERIOR WALL COVERINGS

- SEE FINISHES IN THESE GENERAL NOTES FOR EXTERIOR PLASTER.
- MATERIALS USED FOR THE CONSTRUCTION OF EXTERIOR WALLS SHALL COMPLY WITH THE PROVISIONS OF THE N.C.-R
- EXTERIOR WALLS SHALL PROVIDE THE BUILDING WITH A WEATHER-RESISTANT EXTERIOR WALL ENVELOPE. THE EXTERIOR WALL ENVELOPE SHALL INCLUDE TASHING. THE EXTERIOR WALL ENVELOPE SHALL INCLUDE TASHING. THE EXTERIOR WALL ENVELOPE SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT PREVENTS THE ACCUMULATION OF MATER WITHIN THE WALL ASSEMBLY BY PROVIDING A WATER-RESISTANT BARRIER BEHIND THE EXTERIOR VENEER AS REQUIRED AND A MEANS OF DRAINING WATER THAT ENTERS THE ASSEMBLY TO THE EXTERIOR PROTECTION AGAINST CONDENSATION IN THE EXTERIOR WALL ASSEMBLY SHALL BE PROVIDED.
- ONE LAYER OF NO. 15 ASPHALT FELT, FREE FROM HOLES AND BREAKS. ONE LAYER OF NO. 15 ASPHALT FELT, FREE FROM HOLES AND BREAKS, COMPLYING NITH ASTM D 226 FOR TYPE I FELT OR OTHER APPROVED MATER-RESISTIVE BARRIER SHALL BE APPLIED OVER STUDS OR SHEATHING OF ALL EXTERIOR WALLS, SUCH FELT OR MATERIAL SHALL BE APPLIED HORIZONTALLY, WITH THE UPPER LAYER LAPPED OVER THE LOWER LAYER NOT LESS THAN 2 INCHES, WHERE JOINTS OCCUR, FELT SHALL BE LAPPED NOT LESS THAN 6 INCHES, THE FELT OR OTHER APPROVED MATERIAL SHALL BE CONTINUOUS TO THE TOP OF WALLS AND TERMINATED AT PENETRATIONS AND BUILDING APPENDAGES IN A MANNER TO MEET THE REQUIREMENTS OF THE EXTERIOR WALL ENVELOPE.
- VINYL SIDING CONFORMING TO THE REQUIREMENTS OF THE N.C.-R AND COMPLYING MITH ASTM D 36479 SHALL BE PERMITTED ON EXTERIOR WALLS OF BUILDINGS OF TYPE V CONSTRUCTION LOCATED IN AREAS WHERE THE BASIC WIND SPEED SPECIFIED DOES NOT EXCEED IOO MILES PER HOUR AND THE BUILDING HEIGHT IS LESS THAN 40 FEET IN EXPOSURE C. WHERE THE BUILDING HEIGHT IS LESS HARM AS PET IN RAYDOURE 2. MAIRNE CONSTRUCTION IS LOCATED IN AREAS MARRE THE BASIC NIND SPEED EXCEEDS 100 MILES PER HOUR OR BUILDING HEIGHTS ARE IN EXCESS OF 40 FT., DATA MOICATING COMPLIANCE MUST BE SUBMITTED. VINTL SIDING SHALL BE SECURED TO BUILDING TO PROVIDE WEATHER PROTECTION FOR THE EXTERIOR WALLS OF THE BUILDING.
- VINYL SIDING SHALL BE APPLIED OVER SHEATHING OR MATERIALS LISTED IN THE N.C.-R VINYL SIDING SHALL BE APPLIED TO CONFORM MITH THE WEATHER-RESISTIVE BARRIER REQUIREMENTS VINYL SIDING AND ACCESSORIES SHALL BE INSTALLED IN ACCORDANCE WITH APPROVED MANUFACTURER'S INSTRUCTIONS.
- VINYL SIDING FASTENERS AND ACCESSORIES SHALL MEET THE REQUIREMENTS OF THE N.C.-R
- XTERIOR WALLS OF MOOD CONSTRUCTION SHALL BE DESIGNED AND ONSTRUCTED IN ACCORDANCE WITH THE N.C.-R

THERMAL & MOISTURE PROTECTION (continued)

- HARDBOARD SIDING SHALL CONFORM TO THE REQUIREMENTS OF AHA AISS.6 AND, WHERE USED STRUCTURALLY, SHALL BE SO IDENTIFIED BY THE LABEL OF AN APPROVED AGENCY.
- WOOD VENEERS ON EXTERIOR WALLS OF BUILDINGS OF TYPES I, II, III, AND IV CONSTRUCTION SHALL BE NOT LESS THAN I-INCH NOMINAL THICKNESS, 0.438-INCH EXTERIOR HARDBOARD SIDING OR 0.375-INCH EXTERIOR-TYPE WOOD STRUCTURAL PANELS OR PARTICLE-BOARD AND SHALL CONFORM TO THE REQUIREMENTS OF THE N.C.-R
- FIBER-CEMENT LAP SIDING HAVING A MAXIMUM MIDTH OF 12 INCHES SHALL COMPLY WITH THE REQUIREMENTS OF ASTM CIBE, TYPE A, MINIMUM GRADE II LAP SIDING SHALL BE LAPPED A MINIMUM OF II/4 INCHES (32 MM) AND LAP SIDING NOT HAVING TONGUE-AND-SROOVE END JOINTS SHALL HAVE THE ENDS SEALED WITH CAULKING, INSTALLED WITH AN H-SECTION JOINT COVER, LOCATED OVER A STRIP OF FLASHING OR SHALL BE DESIGNED TO COME WITH KC-R. LAP SIDING COURSES MAY BE INSTALLED WITH THE FASTENER HEADS EXPOSED OR CONCEALED, ACCORDING TO NC-R OR APPROVED MANUFACTURERS INSTALLATION INSTRUCTIONS.

- INSULATING MATERIALS, INCLUDING FACINGS, SUCH AS VAPOR INSULATING MATTERIALS, INCLUDING FACINGS, SUCH AS VAPOR RETARDERS OR VAPER-PERMEABLE HEMBERANES, INSTALLED WITHIN FLOOR-CEILING ASSEMBLIES, ROOF-CEILING ASSEMBLIES, WALL-ASSEMBLIES, CRANL SPACES AND ATTICS SHALL HAVE A FLAME-SPREAD INDEX NOT TO EXCEED 25 WITH AN ACCOMPANYING SMOKE-DEVELOPED INDEX NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH ASTM E 84 OR UL 123.
- DUCT INSULATION MATERIALS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS OF THE N.C.-R
- INSULATION AND COVERING ON PIPE AND TUBING SHALL HAVE A FLANE-SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450. SEE EXCEPTIONS.
- ALL EXPOSED INSULATION MATERIALS INSTALLED ON ATTIC FLOORS SHALL CENTIMETER PER N.C.-R TESTS FOR CRITIAL RADIANT FLUX SHALL BE MADE IN ACCORDANCE WITH ASTM E 970.
- THE USE OF ABOVE DECK THERMAL INSULATION SHALL BE PER PROVIDED SUCH INSULATION IS COVERED WITH AN APPROVED ROOF COVERING AND PASSES FM 4450 OR UL 1256 PER N.C.-R.
- CELLULOSE LOOSE-FILL INSULATION SHALL COMPLY WITH CPSC 16 CFR, PARTS 1209 AND 1404. EACH PACKAGE OF SUCH INSULATING MATERIAL SHALL BE CLEARLY LABELED IN ACCORDANCE WITH CPSC 16 CFR, PARTS 1209 AND 1404.
- INSULATION IN FLOOR-CEILING ASSEMBLIES, ROOF-CEILING ASSEMBLIES, MALLS, CRANL SPACES OR ATTICS SHALL BE EITHER OF THE BLOWN-IN CELLULOSE TYPE OR FIBERGLASS BATTS OR BLANKET TYPE PER BUILDER'S SPECIFICATIONS.
- THE ENERGY EFFICIENCY REQUIREMENTS INCLUDING LEGG. BUT NOT IMITED TO INSULATION RY VALUES, PERCENTAGE OF GLAZING TO AUDITOR OF SHALL BE DETERMINED BY THE ADOPTED STATE AND LOCAL ENERGY CODE EQUIREMENTS, REFER TO MECHANICAL PLANS FOR SPECIFICATIONS
- THE BUILDING THERMAL ENVELOPE SHALL BE DURABLY SEALED MITH AN AIR BARRIER SYSTEM TO LIMIT INFILTRATION. THE SEALING METHODS BETWEEN DISSIMILAR MATERIALS SHALL ALLOW FOR DIFFERENTIAL EXPANSION AND CONTRACTION. FOR ALL HOMES, INFERE PRESENT, THE FOLLOWING SHALL BE CAULKED, CASKETED, MEATHERSTRIPPED OR OTHERWISE SEALED MITH AN AIR BARRIER MATERIAL OR SOLID MATERIAL CONSISTENT H APPENDIX E-24 OF THE NO-R
- WITH APPENDIX E-2.4 OF THE NC-R:

 BLOCKING AND SEALING FLOOR/CEILING SYSTEMS AND UNDER KNEE MALLS OPEN TO UNCONDITIONED OR EXTERIOR SPACE.

 CAPPING AND SEALING SHAFTS OR CHASES, INCLUDING FLUE SHAFTS. 3. CAPPING AND SEALING SOFFIT OR DROPPED CEILING AREAS
- FRAMED CAVITY WALLS, THE EXTERIOR THERMAL ENVELOPE WALL INSULATION SHALL BE INSTALLED IN SUBSTANTIAL CONTACT AND CONTINUOUS ALIGNMENT WITH THE BUILDING ENVELOPE AIR BARRIER, INSULATION SHALL BE SUBSTANTIALLY FREE FROM INSTALLATION GAPS, VOIDS, OR COMPRESSION. FOR FRAMED WALLS, THE CAVITY INSULATION SHALL BE ENCLOSED ON ALL SIDES WITH A RIGID MATERIAL OR AN AIR BARRIER MATERIAL, MALL INSULATION SHALL BE ENCLOSED AT THE FOLLOWING LOCATIONS WHEN INSTALLED ON EXTERIOR WALLS PRICE TO BEING COVERED BY SUBSEQUENT CONSTRUCTION, CONSISTENT WITH APPENDIX E-2.3 OF NC-R.
 - SHOWERS
- S. STAIRS
 4. FIREPLACE UNITS
 ENCLOSURE OF WALL CAVITY INSULATION ALSO APPLIES TO WALLS THAT ADJOIN ATTIC SPACES BY PLACING A RIGID MATERIAL OR AIR BARRIER MATERIAL ON THE ATTIC

DOORS & WINDOWS

- SEE ELOOR PLANS AND ELEVATIONS FOR SIZES AND TYPES OF DOORS AND WINDOWS AND FOR ANY DIVIDED LITE PATTERNS. COLORS SHALL BE APPROVED BY THE BUILDER AND ARCHITECT
 - OPENINGS FROM A PRIVATE GARAGE DIRECTLY INTO A ROOM USED OPENINS FROM A PRIVATE GARAGE DIRECTLY INTO A KOOM DEED FOR SLEEDING FURNOSES SHALL NOT DIE PERMITTED. OTHER OPENINSS BETWEEN THE GARAGE AND RESIDENCE SHALL EQUIPPED WITH SOLID WOOD DOORS NOT LESS THAN 1 3/6 INCHES IN THICKNESS, SOLID OR HONEYCOMS CORE STELL DOORS NOT LESS THAN 100 NOTES. OR ZO-MINTE FIRE-STELL DOORS NOT LESS THAN 100 NOTES INCHES THE CONTROL OF ZO-MINTE FIRE-STELL DOORS NOT LESS THAN 100 NOTES THE STELL DOORS NOT LESS THAN 100 NOTES THAN 100 NOTES THE STELL DOORS NOT LESS THAN 100 NOT LESS THAN 100 NOT LESS THAN 100 NOT LESS THAN 100 NOT LESS
- NO DOUBLE FRENCH DOORS SHALL BE USED UNLESS THERE IS A SUFFICIENT OVERHANS OR COVERED PATIO COVERING THESE DOORS. NO DOUBLE WOOD FRENCH DOORS SHALL BE USED IN
- ALL AUTOMATIC GARAGE DOOR OPENERS REQUIRE THE INCLUSION OF A PHOTOELECTRIC SENSOR, EDGE SENSOR OR SOME OTHER SIMILAR DEVICE FOR REMOTE OPPERATION AND AS A SAFETY PRE-CAUTION TO PREVENT THE DOOR FROM CLOSING WHEN SOMETHING IS BLOCKING THE PATH OF THE DOOR. SEE MANUFACTURER'S INSTALL TICK INSTITUTE INSTALL TICK INSTITUTE. NSTALLTION INSTRUCTIONS
- ALL MANUFACTURED MINDOMS AND SLIDING GLASS DOORS SHALL MEET THE AIR INFILITRATION IS TANDARDS OF THE CURRENT AMERICAN NATIONAL STANDARDS INSTITUTE AST.M. E285-T3 MITH A PRESSURE DIFFERENTIAL OF 15T POUNDS PER SQUARE FOOT AND SHALL BE CERTIFIED AND LABELED.
- WHERE EMERGENCY ESCAPE AND RESCUE OPENINGS ARE PROVIDED THEY SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 44 INCHES ABOVE THE FLOOR.
- EMERGENCY ESCAPE AND RESCUE OPENINGS WITH A FINISHED SILL HEIGHT BELOW THE ADJACENT GROUND ELEVATION SHALL BE PROVIDED WITH A WINDOW WELL.

DOORS & WINDOWS (continued)

- IO. ALL EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF NOT LESS THAN 5 SQUARE FEET IN THE CASE OF A GROUND FLOOR LEVEL WINDOW AND NOT LESS THAN 5.7 SQUARE FEET IN THE CASE OF AN UPPER STORY WINDOW.
- ALL EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING HEIGHT OF 24 INCHES.
- ALL EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING WIDTH OF 20 INCHES.
- EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL BE OPERATIONAL FROM THE INSIDE OF THE ROOM WITHOUT THE USE OF KEYS, TOOLS OR SPECIAL KNOWLEDGE.
- THE MINIMUM HORIZONTAL AREA OF THE WINDOW WELL SHALL BE 9 SQUARE FEET, MITH A MINIMUM HORIZONTAL PROJECTION AND WIDTH OF 36 INCHES THE AREA OF THE MINDOW WELL SHALL ALLOW EMERGENCY ESCAPE AND RESCUE OPENING TO BE FULLY OPENED PER THE N.C.-R. THE LADDER OR STEPS REQUIRED SHALL BE PERMITTED TO ENCROACH A MAXIMUM OF 6" INTO THE REQUIRED DIMENSIONS OF THE WINDOW WELL
- WINDOW WELLS WITH A VERTICAL DEPTH GREATER THAN 44 INCHES SHALL BE EQUIPPED WITH A PERMANENTLY AFFIXED LADDER OF STEPS USABLE WITH THE WINDOW IN THE FULLY OPEN POSITION.
- BARS, GRILLES, COVERS, SCREENS OR SIMILAR DEVICES ARE PERMITTED TO BE PLACED OVER EMERGENCY ESCAPE AND RESCUE OPENINGS, BLICHEAD ENCLOSURES, OR WINDOW WELLS THAT SERVE SUCH OPENINGS, PROVIDED THE MINIMM NET CLEAR OPENING SIZE COMPLIES WITH THE NC.-R AND SUCH DEVICES SHALL BE RELEASABLE OR REMOVABLE FROM THE INSIDE WITHOUT THE USE OF A KEY, TOOL, SPECIAL KNOWLEDGE OR FORCE GREATER THAN THAT WHICH IS REQUIRED FOR NORMAL OPERATION OF THE FSCAPE AND RECKLE OPENING ESCAPE AND RESCUE OPENING
- ALL INTERIOR EGRESS DOORS AND A MINIMUM OF ONE EXTERIOR EGRESS DOOR SHALL BE READILY OPENABLE FROM THE SIDE FROM WHICH EGRESS IS TO BE MADE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR

GLAZING & SAFETY GLAZING

- ALL HABITABLE ROOMS SHALL BE PROVIDED WITH ASSREGATE GLAZING AREA OF NOT LESS THAN 8 PERCENT OF THE FLOOR AREA OF SUCH ROOMS, NATURAL VENTILATION SHALL BE THROUGH HINDOWS, DOORS, LOUVERS OR OTHER APPROVED OPENINGS TO THE OUTDOOR AIR. SUCH OPENINGS HALL BE PROVIDED WITH READY ACCESS OR SHALL OTHERWISE BE READILY CONTROLLABLE BY THE BUILDING OCCUPANTS. THE MINIMAY OPENABLE AREA TO THE OUTDOORS SHALL BE 4 PERCENT OF THE FLOOR AREA BEING VENTILATED.
- BATHROOMS WATER CLOSET COMPARTMENTS AND OTHER SIMIL AS BATHROOMS, WATER CLOSET COMPARTMENTS AND OTHER SIMILAR ROOMS SHALL BE PROVIDED WITH AGGREGATE GLAZING AREAS I WINDOWS OF NOT LESS THAN 3 SQUARE FEET, ONE-HALF OF WHICH MUST BE OPENABLE.
- EXCEPT AS INDICATED, EACH PANE OF GLAZING INSTALLED IN HAZARDOUS EXCEPT AS INDICATED, EACH PANE OF GLAZING INSTALLED IN HAZARDOUS LOCATIONS SHALL BE PROVIDED WITH ANAPHACTURER'S DESIGNATION SPECIFYING WHO APPLIED THE DESIGNATION, DESIGNATING THE TYPE OF GLASS AND THE SAFETY GLAZING STANDARD WITH HAIGH IT COMPLIES, WHICH IS VISIBLE IN THE FINAL INSTALLATION. THE DESIGNATION SHALL BE ACID ETCHED, SANDBLASTED, CERAMIC-PIRED, LASER ETCHED, DEPOSSED, OR BE OF A TYPE WHICH ONCE APPLIED CANNOT BE REMOVED WITHOUT SELVE DESIGNATION.
- LOCATIONS SHALL PASS THE TEST REQUIREMENTS OF CPSC 16 CFR, PART 1201. GLAZING SHALL COMPLY WITH CPSC 16.
- THE FOLLOWING SHALL BE CONSIDERED SPECIFIC HAZARDOUS LOCATIONS FOR THE PURPOSES OF GLAZING:
- GLAZING IN ALL FIXED AND OPERABLE PANELS OF SWINGING SLIDING AND BIFOLD DOORS
- GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN 24-INCH OF THE DOOR IN A CLOSED POSITION AND WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR OR WALKING SURFACE.
- GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE FOLLOWING CONDITIONS:
- 3.1 EXPOSED AREA OF AN INDIVIDUAL PANE LARGER THAN 9 SQUARE
- 3.2 BOTTOM EDGE LESS THAN IS INCHES ABOVE THE FLOOR
- 3.3 TOP EDGE MORE THAN 36 INCHES ABOVE THE FLOOR 3.4 ONE OR MORE WALKING SURFACES WITHIN 36 INCHES HORIZONTALLY OF THE GLAZING.
- ALL GLAZING IN RAILINGS REGARDLESS OF AREA OR HEIGHT ABOVE A WALKING SURFACE. INCLUDED ARE STRUCTURAL BALUSTER PANELS AND NONTRUCTURAL INFILL PANELS.
- GLAZING IN DOORS AND ENGLOSURES FOR HOT TUBS, WHIRLPOOLS. SUALING IN DUCK SAND ENDORSES FOR THE INDICATIONS SHANNES, STEAM ROOMS, BATHTUBS AND SHOWERS, GLAZING ENCLOSING THESE COMPARTMENTS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES MEASURED VERTICALLY ABOVE ANY STANDING OR WALKING SURFACE.
- GLAZING IN WALLS AND FENCES ENCLOSING INDOOR AND OUTDOOR SNIMMING POOLS, HOT TUBS AND SPAS WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A MALKING SURFACE AND MITHIN 60 INCHES NORIZONTALLY OF THE WATER'S EDGE. THIS SHALL APPLY TO SINGLE GLAZING AND ALL PANES IN MULTIPLE
- GLAZING ADJACENT TO STAIRWAYS, LANDINGS AND RAMPS WITHIN 36 INCHES HORIZONTALLY OF A WALKING SURFACE WHEN THE EXPOSED SURFACE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE PLANE OF THE ADJACENT WALKING SURFACE.
- GLAZING ADJACENT TO STAIRWAYS WITHIN 60 INCHES HORIZONTALLY GLAZING ADJACENT TO STAIRWAST IN ANY DIRECTION WHEN THE FOR THE BOTTOM TREAD OF A STAIRWAST IN ANY DIRECTION WHEN THE EXPOSED SURPACE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE NOSE OF THE TREAD.
- 6. HINGED SHOWER DOORS SHALL OPEN OUTWARD.
- GLAZING SHALL BE IN ACCORDANCE MITH ENERGY COMPLIANCE CALCULATIONS BASED ON A LOCALLY ADOPTED ENERGY CODE, THE MODEL ENERGY CODE OR THE INTERNATIONAL ENERGY CONSERVATION CODE.
- IN DWELLING UNITS, WHERE THE OPENING OF AN OPERABLE MINDOM IS LOCATED MORE THAN 72 INCHES (1824 MM) ABOVE THE FINISHED GRADE OR SURFACE BELOW, THE LOVIEST PART OF THE CLEAR OPENING OF THE MINDOM SHALL BE A MINIMUM OF 24 INCHES (610 MM) ABOVE THE FINISHED FLOOR OF THE ROOM IN WHICH THE WINDOM IS LOCATED. OPERABLE SECTIONS OF WINDOMS SHALL NOT PERMIT OPENINGS THAT ALLOW PASSAGE OF A 4 INCH (102 MM) DIAMETER SPHERE WHERE SUCH OPENINGS ARE LOCATED WITHIN 24 INCHES (610 MM) OF THE FINISHED FLOOR.

FINISHES

- GYPSUM MALLBOARD SHALL BE INSTALLED IN CONFORMANCE WITH THE CURRENT EDITION OF THE NORTH CAROLINA RESIDENTIAL CODE AND ALL STATE AND LOCAL BUILDING CODES, THE MOST STRINGENT
- MATERIALS. ALL GYPSUM BOARD MATERIALS AND ACCESSORIES SHALL CONFORM TO ASTM C 36, C 19, C 415, C 514, C 630, C 491, C 400, C 1002, C 1041, C 117, C 118, C 1275, C 1345, C 1394, OR C 1635 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THE N.C.-R. ADHESIVE FOR THE INSTALLATION OF SYPSUM BOARD SHALL CONFORM TO ASTM C 59
- GYPSUM BOARD MATERIALS SHALL CONFORM TO THE APPROPRIATE STANDARDS LISTED IN THE N.C.-R WHERE REQUIRED FOR FIRE PROTECTION, CONFORM TO THE N.C.-R
- INTERIOR GYPSUM BOARD SHALL NOT BE INSTALLED WHERE IT IS DIRECTLY EXPOSED TO THE WEATHER OR TO WATER.
- ALL EDGES AND ENDS OF GYPSUM BOARD SHALL OCCUR ON THE ALL EDGES AND ENDS OF GYPSYM BOARD SHALL OCCUR ON THE FRAMING MEMPERS, EXCEPT THOSE EDGES AND ENDS THAT ARE PERRENDICULAR TO THE FRAMING MEMBERS. EDGES AND ENDS OF GYPSYM BOARD SHALL BE IN MODERATE CONTACT EXCEPT IN CO. CEALED SPACES WHERE FIRE-RESISTACE-RATED CONSTRUCTION, SHEAR RESISTANCE, OR DIAPHRAGM ACTION IS NOT REQUIRED. CEALED SPACES WHERE FIRE-RESISTACE-RATED CONSTRUCTION.
- FASTENERS AT THE TOP AND BOTTOM PLATES OF VERTICAL ASSE
- GYPSUM BOARD USED AS THE BASE OR BACKER FOR ADHESIVE APPLICATION OF CERAMIC TILE OR OTHER REQUIRED NON-ABSORBENT FINISH MATERIAL SHALL CONFORM TO ASTM C 1946, C 1176 OR C1276. USE OF WATER-RESISTANT GYPSUM BACKING BOARD SHALL BE PERMITTED ON CEILINGS WHERE FRAMING SPACING DOES NOT EXCEED 12 INCHES ON CENTER FOR 1/2-INCH-THICK OR 16 INCHES FOR 5/8-INCH-THICK GYPSUM BO WATER-RESISTANT GYPSUM BOARD SHALL NOT BE INSTALLED OVER A VAPOR RETARDER IN A SHOWER OR TUB COMPARTMENT. CUT OR EXPO EDGES, INCLUDING THOSE AT WALL INTERSECTIONS, SHALL BE SEALED AS RECOMMENDED BY THE MANUFACTURER.
- MATER RESISTANT GYPSUM BACKING BOARD SHALL NOT BE USED WHERE THERE WILL BE DIRECT EXPOSURE TO WATER, OR IN AREAS SUBJECT TO CONTINUOUS HIGH HUMIDITY.
- WHEN APPLYING A WATER-BASED TEXTURE MATERIAL, THE MINIMUM GYPSUM BOARD THICKNESS SHALL BE INCREASED FROM 3/6 INCH TO 1/2 INCH FOR 16-INCH ON CENTER FRAMING, AND FROM 1/2 INCH TO 5/6 INCH FOR 24-INCH ON CENTER FRAMING OR 1/2 INCH SAG-RESISTANT GYPSUM CEILING BOARD SHALL BE USED.

EXTERIOR LATH

- ALL LATH AND LATH ATTACHMENTS SHALL BE OF CORROSION-
- BACKING OR A LATH SHALL PROVIDE SUFFICIENT RIGIDITY TO PERMIT PLASTER APPLICATION.
- WHERE LATH ON VERTICAL SURFACES EXTENDS BETWEEN RAFTERS OR OTHER SIMILAR PROJECTING MEMBERS, SOLID BACKING SHALL BE INSTALLED TO PROVIDE SUPPORT FOR LATH AND ATTACHMENTS.
- GYPSUM LATH OR GYPSUM BOARD SHALL NOT BE USED, EXCEPT THAT ON HORIZONTAL SUPPORTS OF CEILINGS OR ROOF SOFFITS IT MAY BE USED AS BACKING FOR METAL LATH OR WIRE FABRIC LATH AND CEMENT PLASTER.
- UNLESS SPECIFIED OTHERWISE, ALL WALL COVERINGS SHALL BE SECURELY FASTENED PER THE N.C.-R. OR WITH OTHER APPROVED ALLMINUM, STAINLESS STEEL, ZINC-COATED OR OTHER APPROVED CORROSION-RESISTIVE FASTENERS, WHERE THE BASIC WIND SPEED IS 110 MILES PER HOUR OR HIGHER, THE ATTACHMENT OF WALL COVERINGS SHALL BE DESIGNED TO RESIST THE COMPONENT AND CLADDING LOADS SPECIFIED AND ADJUSTED FOR HEIGHT AND EXPOSURE
- A MINIMUM O OIG-INCH (NO. 26 GALVANIZED SHEET GAGE),
 CORROSION-RESISTANT WEEP SCREED OR PLASTIC WEEP SCREED, WITH A
 MINIMUM VERTICAL ATTACHMENT FLANGE OF 31/2 INCHES SHALL BE
 PROVIDED AT OR BELOW THE FOUNDATION PLATE LINE ON EXTERIOR STUD
 WALLS IN ACCORDANCE WITH ASTM C 426. THE WEEP SCREED SHALL BE
 PLACED A MINIMUM OF 4 INCHES ABOVE THE EARTH OR 2 INCHES ABOVE
 PAVED AREAS AND SHALL BE OF A 17PE THAT MILL ALLOM TRAPPED
 WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING. THE
 MEATHER-RESISTANT BARRIERS SHALL LAP THE ATTACHMENT FLANGE. THE
 EXTERIOR LATH SHALL COVER AND TERMINATE ON THE ATTACHMENT FLANGE
 OF THE WEEP SCREED.

EXTERIOR PLASTER

PLASTERING WITH PORTLAND CEMENT PLASTER SHALL BE NOT LESS THAN PLASTERING WITH PORTLAND CEMENT PLASTER SHALL BE NOT LESS THAN INTREE COATS WHEN APPLIED OVER METAL LATH OR WIRE LATH AND SHALL BE NOT LESS THAN TWO COATS WHEN APPLIED OVER MASONRY, CONCRETE, PRESSURE-RRESERVATIVE TREATED WOOD OR DECAY-RESISTANT WOOD OR SYFSMY BACKING. IF THE PLASTER SUPPACE IS COMPLETELY COVERED BY VENEER OR OTHER FACING MATERIAL OR IS COMPLETELY CONCEALED. PLASTER APPLICATION NEED BE ONLY TWO COATS, PROVIDED THE TOTAL THICKNESS IS AS SET FORTH PER THE N.C.-R

ON WOOD-FRAME CONSTRUCTION WITH AN ON-GRADE FLOOR SLAB SYSTEM, EXTERIOR PLASTER SHALL BE APPLIED TO COVER, BUT NOT EXTEND BELOW LATH, PAPER AND SCREED.

E PROPORTION OF AGGREGATE TO CEMENTITIOUS MATERIALS SHALL BE SET FORTH PER THE N.C.-R

- ONLY APPROVED PLASTICITY AGENTS AND APPROVE AMOUNTS THEREOF MAY BE ADDED TO PORTLAND CEMENT. WHEN PLASTIC CEMENT IS USED, NO ADDITIONAL LINE OR PLASTICIZERS SHALL BE ADDED. HYDRATED LIME OR THE EQUIVALENT AMOUNT OF LIME PUTTY USED AS A PLASTICIZER WE DE ADDED TO CEMENT PLASTER. OR CEMENT AND LIME PLASTER IN AN AMOUNT NOT TO EXCEED THAT
- GYPSUM PLASTER SHALL NOT BE USED ON EXTERIOR SURFACES.
- PLASTER COATS SHALL BE PROTECTED FROM FREEZING FOR A PERIOD OF NOT LESS THAN 24 HOURS AFTER SET HAS OCCURRED. PLASTER SHALL BE APPLIED WHEN THE AMBIENT TEMPERATURE IS HIGHER THAN 40 DEGREES F (4 DEGREES C), UNLESS PROVISIONS ARE MADE TO KEEP CHURN PLASTER WORK ABOVE 40 DEGREES (4 DEGREES C) PRIOR TO 8 DURING APPLICATION AND 40 HOURS THEREAFTER.
- THEREAT IER.

 COLOR AND FINISH TO BE SELECTED AND APPROVED BY OWNER BUILDER AND ARCHITECT.
- A I-COAT EXTERIOR PLASTER SYSTEM SUCH AS "MAGNA WALL A 1-COAT EXTERIOR PLASTER STSTEM SUCH AS MAGNA WALL I.C.C. NO. ER-4716, "EXPO FIBREMALL" I.C.C. NO. ER-4366, OR APPROVED EQUAL MAY BE USED IN LIEU OF A 3-COAT EXTERIOR



NORTH CAROLINA 40' SERIES

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GN₂ SPEC. LEVEL 1 RALEIGH-DURHAM

SERIES

MECHANICAL & PLUMBING

- ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN CONFORMANCE WITH THE NORTH CAROLINA MECHANICAL CODE. INSTALLATIONS OF MECHANICAL APPLIANCES, EQUIPMENT AND SYSTEMS NOT ADDRESSED BY THIS CODE SHALL COMPLY NITH THE APPLICABLE PROVISIONS OF THE NORTH CAROLINA FUEL 6AS CODE.
- CONTRACTOR SHALL DESIGN ENTIRE H.V.A.C. SYSTEM AND SUBMIT DRAWINGS FOR OWNER/BUILDER'S APPROVAL PRIOR TO ORDERING MATERIALS OR EQUIPMENT.
- WHERE AIR CONDITIONING IS AN OPTIONAL FEATURE, HEATING SYSTEMS MUST BE DESIGNED AND DUCT WORK SIZED TO ACCOMMODATE FUTURE AIR CONDITIONING NEEDS.
- WHERE THE PRIMARY HEATING SYSTEM IS A FORCED-AIR FURNACE, AT WHERE THE PRIMARY HEATING SYSTEM IS A FORCED-AIR FURNACE, AT LEAST ONE THERMOSTAT PER DWELLING UNIT SHALL BE CAPABLE OF CONTROLLING THE HEATING AND COOLING SYSTEM ON A DAILY SCHEDULE TO MAINTAIN DIFFERENT TEMPERATURE SET POINTS AT DIFFERENT TIMES OF THE DAY, THIS THERMOSTAT SHALL INCLUDE THE CAPABILITY TO SET BACK OR TEMPORARILY OPERATE THE SYSTEM TO MAINTAIN ZONE TEMPERATURES DOWN TO 55/6F (15/6C) OR UP TO 55/6F (24/6C).
- 5. ALL DUCTWORK SHALL CONFORM TO THE REQUIREMENTS OF THE
- COMBUSTION AIR SHALL BE PROVIDED FOR FORCED AIR UNITS IN ACCORDANCE WITH N.C.-M
- CONTRACTOR TO PROVIDE BOOT IN DUCTWORK WHEN OPTIONAL "HONEYWELL" OR "CARRIER" ELECTRONIC AIR CLEANER IS PROVIDED.
- 8. DUCTS IN THE GARAGE AND DUCTS PENETRATING THE WALLS OR CEILINGS SEPARATING THE DWELLING FROM THE GARAGE SHALL BI CONSTRUCTED OF A MINIMUM NO. 26 GAGE SHEET STEEL OR OTHER APPROVED MATERIAL AND SHALL HAVE NO OPENINGS INTO THE
- EXTERIOR-GRADE INSTALLATIONS. EQUIPMENT AND APPLIANCES INSTALLED ABOVE GRADE LEVEL SHALL BE SUPPORTED ON A SOLID BASE OR APPROVED MATERIAL A MINIMUM OF 2 INCHES THICK.
- IO. UNDER-FLOOR INSTALLATION. SUSPENDED EQUIPMENT SHALL BE A MINIMUM OF 6 INCHES ABOVE THE ADJOINING GRADE.
- CRAYL SPACE SUPPORTS. IN A CRAYL SPACE, A MINIMUM OF 2-INCH THICK SOLID BASE, 2-INCH (5I MM) THICK FORWED CONCRETE, OR STACKED MASONRY UNITS HELD IN PLACE BY MORTAR OR OTHER APPROVED WETHOD
- DRAINAGE. BELOW-GRADE INSTALLATIONS SHALL BE PROVIDED WITH A NATURAL DRAIN OR AN AUTOMATIC LIFT OR SUMP PUMP. FOR PIT REQUIREMENTS REFER TO N.C.-M.

VENTING

- IN LIEU OF REQUIRED EXTERIOR OPENINGS FOR NATURAL VENTILATION OMS CONTAINING A BATHTUB, SHOWER OR COMBINATION THEREOF, A MECHANICAL VENTILLATION, SYSTEM MAY DEPROVIDED. THE MINIMM VENTILLATION RATES SHALL BE SO CFM FOR INTERMITTENT VENTILLATION OR 20 CFM FOR CONTINUOUS VENTILLATION, VENTILLATION ARE REPORT AND STANDARD VENTILLATION VE
- EXHAUST DUCTS SHALL TERMINATE OUTSIDE THE BUILDING AND SHALL BE EQUIPPED WITH BACKDRAFT DAMPERS.
- WHERE DOMESTIC RANGE HOODS AND DOMESTIC APPLIANCES EQUIPPED WITH DONNDRAFT EXHAUST ARE LOCATED WITHIN DWELLING UNITS, SUCH HOODS AND APPLIANCES SHALL DISCHARGE TO THE OUTDOORS THROUGH SHEET METAL DUCTS CONSTRUCTED OF GALVANIZED STEEL, STAINLESS STEEL, ALUMINUM OR COPPER, SUCH DUCTS SHALL HAVE SMOOTH INVER WALLS AND SHALL BE AIR TIGHT AND EQUIPPED WITH A BACKDRAFT DAMPER.
- WHERE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND WHERE MECHANICAL OR NATURAL VENTILATION IS OTHERWISE PROVIDED, LISTED AND LABELED DUCTLESS RANGE HOODS SHALL NOT BE REQUIRED TO DISCHARGE TO THE OUTDOORS PER N.C.-M
- DUCTS FOR DOMESTIC KITCHEN COOKING APPLIANCES EQUIPPED WITH DOWN DRAFT EXHAUST SYSTEMS SHALL BE PERMITTED TO BE CONSTRUCTED OF ECHEDULE 40 PVC PIPE PROVIDED THAT THE INSTALLATION COMPLIES WITH ALL OF THE FOLLOWING PER N.C.-M:
- THE DUCT SHALL BE INSTALLED UNDER A CONCRETE SLAB POURED ON GRADE.
- THE UNDERFLOOR TRENCH IN WHICH THE DUCT IS INSTALLED SHALL BE COMPLETELY BACKFILLED WITH SAND OR GRAVE
- THE PVC DUCT SHALL EXTEND NOT GREATER THAN 2 INCH ABOVE THE INDOOR CONCRETE FLOOR SURFACE.
- THE PVC DUCT SHALL EXTEND NOT GREATER THAN 2 INCH ABOVE GRADE OUTSIDE THE BUILDING.
- E. THE PVC DUCTS SHALL BE SOLVENT CEMENTED.
- EXHAUST HOOD SYSTEMS CAPABLE OF EXHAUSTING IN EXCESS OF 400 CPM SHALL BE PROVIDED WITH MAKEUP AIR AT A RATE APPROXIMATELY EQUAL TO THE EXHAUST AIR RATE. SUCH MAKEUP AIR SYSTEMS SHALL BE EQUIPPED WITH A MEANS OF CLOSURE AND SHALL BE AUTOMATICALLY CONTROLLED TO START AND OPERATE SIMULTANEOUSLY WITH THE EXHAUST
- DOMESTIC MATER HEATERS, UNLESS SPECIFIED OTHERWISE BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, SHALL BE VENTED TO THE OUTSIDE AIR BY A TYPE BY VENT AND COMPLY WITH THE REQUIREMENTS OF THE NC.-M

PLUMBING

- A POTABLE WATER SUPPLY SYSTEM SHALL BE DESIGNED, INSTALLED A DO MAILTAINED IN SUCH A MANNER SO AS TO PREVENT CONTAMINATION FROM MONTABLE LIQUIDS, SOLIDS OR GASES BEING INTRODUCED INTO THE POTABLE ALTER SUPPLY THROUGH CROSS-CONNECTIONS OR ANY OTHER PIPING CONNECTIONS TO THE SYSTEM
- THE SUPPLY LINES OR FITTINGS FOR EVERY PLUMBING FIXTURE SHALL BE INSTALLED SO AS TO PREVENT BACKFLOW, PLUMBING FIXTURE FITTINGS SHALL PROVIDE BACKFLOW PROTECTION IN ACCORDANCE WITH ASME AIL2181.

- ALL DEVICES, APPURTENANCES, APPLIANCES AND APPARATUS INTENDED TO SERVE SOME SPECIAL FUNCTION, SUCH AS STERILIZATION, DISTILLATION, PROCESSING, COOLING, OR STORAGE OF ICE OR FOODS, AND THAT CONNECT TO THE MATER SUPPLY SYSTEM, SHALL BE PROVIDED WITH PROTECTION AGAINST BACKFLOW AND CONTAMINATION OF THE WATER SUPPLY SYSTEM. WATER PUMPS, FILTERS, SOFTENERS, TANCS AND ALL OTHER APPLIANCES AND DEVICES THAT HANDLE OR TREAT POTABLE WATER SHALL BE PROTECTED AGAINST CONTAMINATION.
- MATER SERVICE PIPING SHALL BE PROTECTED IN ACCORDANCE WITH N.C.-P SECTIONS AND EXCEPTIONS)
- FIXTURE FITTINGS, FAICETS AND DIVERTERS SHALL BE CONNECTED TO THE MATER DISTRIBUTION SYSTEM SO THAT HOT WATER CORRESPONDS TO THE LEFT SIDE OF THE FITTINGS.
- DIVERTERS FOR SINK FAUCETS WITH A SECONDARY OUTLET CONSISTING OF A FLEXIBLE HOSE AND SPRAY ASSEMBLY SHALL CONFORM TO ASSE 1025 IN ADDITION TO THE REQUIREMENTS IN N.C.-P
- THE INSTALLATION OF A WATER SERVICE OR WATER DISTRIBUTION PIPE THE INSTALLATION OF A WATER SERVICE OR WATER DISTRIBUTION PIPE SHALL BE PROHIBITED IN SOIL AND SEQUIND WATER THAT IS CONTAMINATED. GROUND WATER CONDITIONS SHALL BE REQUIRED TO ACESTAIN THE ACCEPTABILITY OF THE WATER SERVICE OR WATER DISTRIBUTION PIPING MATERIAL FOR THE SPECIFIC INSTALLATION, WHERE DETRIMENTAL CONDITIONS EXIST, APPROVED ALTERNATIVE MATERIALS OR ROUTING SHALL BE REQUIRED.
- WATER DISTRIBUTION PIPE SHALL CONFORM TO NSF 61 AND SHALL CONFORM TO ONE OF THE STANDARDS LISTED IN N.C.-PLUMBING. WATER DISTRIBUTION PIPE AND TUBING SHALL HAVE A MINIMUM PRESSURE RATING OF 100 PSI AT 180 DEGREES F.
- PIPE PASSING THROUGH CONCRETE OR CINDER WALLS AND FLOORS OR THER CORROSIVE MATERIAL SHALL BE PROTECTED AGAINST EXTERNAL CORROSION BY A PROTECTIVE SHEATHING OR WRAPPING OR OTHER MEANS THAT WILL WITHSTAND ANY REACTION FROM THE LIME AND ACID OF CONCRETE, CINDER OR OTHER CORROSIVE MATERIAL SHEATHING OR WRAPPING SHALL ALLOW FOR EXPANSION AND CONTRACTION OF PIPING TO PREVENT ANY RUBBING ACTION. MINIMUM WALL THICKNESS OF MATERIAL SHALL BE 0.025-INCH
- PIPING IN A PLUMBING SYSTEM SHALL BE INSTALLED SO AS TO PREVENT STRAINS AND STRESSES THAT EXCEED THE STRUCTURAL STRENGTH OF THE PIPE. WHERE NECESSARY, PROVISIONS SHALL BE MADE TO PROTECT PIPING PROM DAMAGE RESULTING FROM EXPANSION, CONTRACTION AND STRUCTURAL SETTLEMENT.
- 12. THE TOP OF WATER PIPES, INSTALLED BELOW GRADE OUTSIDE THE BUILDING, SHALL BE BELOW THE FROST LINE OR A MINIMM OF 12 INCHES BELOW FINISHED GRADE, WHICHEVER IS GREATER. WATER PIPES INSTALLED IN A WALL EXPOSED TO THE EXTERIOR SHALL BE LOCATED ON THE HEATED SIDE OF THE WALL INSULATION. WATER PIPING INSTALLED IN AN UNCONDITIONED ATTIC OR UNCONDITIONED UTILITY ROOM SHALL BE INSULATED WITH AN INSULATION HAVING A MINIMUM R-PACTOR OF 65 DETERMINED AT TS DESCREES F IN ACCORDANCE WITH ASTM C 171. SEE NOTE IN N.C.-P FOR ADDITIONAL REQUIREMENTS.
- BUILDING SEMER PIPE SHALL CONFORM TO ONE OF THE STANDARDS LISTED IN N.C.-P.
- BUILDING SEMER PIPE FITTINGS SHALL BE APPROVED FOR INSTALLATION WITH THE PIPING MATERIAL INSTALLED AND SHALL CONFORM TO THE RESPECTIVE PIPE STANDARDS OR ONE OF THE STANDARDS LISTED IN N.C.-P.
- WHERE WASTE LINE DROPS OCCUR IN A LOCATION WHERE THE SOUND OF A FLUSHED TOILET MAY BE UNDESIRABLE, SUCH AS IN WALLS OR PARTITIONS ADJACENT TO EATING ROOMS, USE CAST IRON PIPING OR SIMILAR APPROVED HARD OR DENSE PIPING TO MITIGATE SOUND
- 16. CLEANOUTS ON BUILDING SEWERS SHALL BE LOCATED AS SET FORTH IN
- THE MAXIMUM WATER CONSUMPTION FLOW RATES AND QUANTITIES FOR ALL PLUMBING FIXTURES SHALL BE IN ACCORDANCE WITH N.C.-P.
- INDIVIDUAL SHOWER AND TUB-SHOWER COMBINATION VALVES SHALL BE BALANCED-PRESSURE, THERMOSTATIC OR COMBINATION BALANCED-PRESSURE/THERMOSTATIC VALVES THAT CONFORM TO THE REQUIREMENTS OF ASSET DIG OR ASSET AUXILIA/ICSA BIZSI. AND SHALL BE INSTALLED AT THE
- MATER HEATERS HAVING AN IGNITION SOURCE SHALL BE ELEVATED SUCH THAT THE SOURCE OF IGNITION IS NOT LESS THAN IS INCHES ABOVE THE GARAGE FLOOR. REFER TO N.C.-P FOR EXCEPTION.
- 20. MATER HEATERS, (USING SOLID, LIQUID OR GAS FUEL) MITH THE EXCEPTION OF THOSE HAVING DIRECT VENT SYSTEMS, SHALL NOT BE INSTALLED IN BATHROUGH AND BEDROOMS ON IN A CLOSET MITH ACCESS ONLY THROUGH A BEDROOM OR BATHROOM, HONEVER, WATER HEATERS OF THE AUTOMATIC STORAGE TYPE MAY BE INSTALLED AS REPLACEMENT IN A BATHROOM, WHEN APPROVED BY THE PLAYBING OFFICIAL, PROVIDED THEY ARE VENTED AND SUPPLIED WITH ADEQUATE COMBUSTION AIR.
- IN SEISMIC DESIGN CATEGORIES DI AND D2, WATER HEATERS SHALL BE ANCHORED OR STRAPPED TO RESIST HORIZONTAL DISPLACEMENT DUE TO ARTHQUAKE MOTION. STRAPPING SHALL BE AT POINTS WITHIN THE UPPER CNE-THIRD AND LOVER CNE-THIRD OF THE APPLIANCE'S VERTICAL DIMENSIONS. AT THE LONER POINT, THE STRAPPING SHALL MAINTAIN A MINIMUM DISTANCE OF 4 INCHES ABOVE THE CONTROLS.
- 22. APPLIANCES LOCATED IN A GARAGE OR CARPORT SHALL BE PROTECTED FROM IMPACT BY A MOVING VEHICLE.
- 23. WHERE WATER HEATERS OR HOT WATER STORAGE TANKS ARE INSTALLED IN: REMOTE LOCATIONS SUCH AS SUSPENDED CREILING, ATTICS, ABOVE OCCUPIED SPACES, OR INVENTILATED CARAL SPACES, THE TANK OR WATER HEATER SHALL BE INSTALLED IN A GALVANIZED STEEL FAN HAVING A MININUM THICKNESS OF 24 6A6F, OR OTHER PANS OVED FOR SUCH USE.
- 24. WHERE CLOTHES WASHING MACHINES ARE LOCATED ON WOOD FRAMED FLOORS WHERE LEAKAGE WOULD CAUSE DAMAGE, A GALVANIZED STELL PAN HAVING A MINIMUM THICKNESS OF 24 GAGE, OR OTHER PANG APPROVED FOR SUCH USE SHALL BE PROVIDED.
- ALL STORAGE WATER HEATERS OPERATING ABOVE ATMOSPHERIC PRESSURE SHALL BE PROVIDED WITH AN APPROVED, SELF-CLOSING (LEVERED) PRESSURE RELIEF VALVE AND TEMPERATURE RELIEF VALVE OR COMBINATION THEREOF. THE RELIEF VALVE SHALL CONFORM TO ANSI 221.22. THE RELIEF VALVE SHALL NOT BE USED AS A MEANS OF CONTROLLING THERMAL EXPANSION.

MECHANICAL & PLUMBING (continued)

26. DOMESTIC DISH WASHING MACHINES SHALL DISCHARGE INDIRECTLY THROUGH AN AIR GAP OR AIR BREAK INTO A STANDPIPE OR WASTE RECEPTOR IN ACCORDANCE WITH N.C.-P, OR DISCHARGE INTO A MYE-BRANCH FITTING ON THE TAILPIECE OF THE KITCHEN SINK OR THE DISHWASHER CONNECTION OF A FOOD WASTE GRINDER. THE WASTE LINE OF A DOMESTIC DISH WASHING MACHINE DISCHARGING INTO A KITCHEN SINK TAILPIECE OR FOOD WASTE GRINDER SHALL CONNECT TO A DECK MOUNTED AIR GAP OR THE MASTE LINE SHALL RISE AND BE SECURELY FASTENED TO THE UNDERSIDE OF THE SINK RIM OR COUNTER.

- FACTORY-BUILT FIREPLACES SHALL BE LISTED AND LABELED AND SHALL BE INSTALLED IN ACCORDANCE MITH THE CONDITIONS OF THE LISTINS. FACTORY-BUILT FIREPLACES SHALL BE TESTED IN ACCORDANCE MITH U. 127.
- FIREPLACES ARE TO BE PROVIDED WITH AN EXTERIOR AIR SUPPLY

ELECTRICAL

- ALL MATERIALS AND APPLIANCES, INSTALLATION AND CONSTRUCTION METHODS SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE OR CURRENT SAE REQUIREMENTS.
- NLL ELECTRICAL SYSTEMS, CIRCUITS, FIXTURES AND EQUIPMENT SHALL BE GROUNDED IN A MANNER COMPLYING WITH ARTICLE 250 OF THE IATIONAL ELECTRICAL CODE.
- ALL WIRING SHALL BE SO INSTALLED THAT, WHEN COMPLETED, THE SYSTEM WILL BE FREE FROM SHORT CIRCUITS AND FROM GROUNDS OTHER THAN AS REQUIRED OR PERMITTED IN N.E.C. ARTICLE 250.
- ELECTRIC EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORK-
- ALL 125-VOLT, SINGLE-PHASE, 15- AND 20-AMPERE RECEPTACLES INSTALLED IN THE LOCATIONS SPECIFIED BELOW SHALL HAVE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL.
- GARAGES AND ALSO ACCESSORY BUILDINGS THAT HAVE A FLOOR LOCATED AT OR BELOW GRADE LEVEL NOT INTENDED AS HABITABLE ROOMS AND LIMITED TO STORAGE AREAS, WORK AREAS, AND AREAS OF SIMILAR USE.
- C. OUTDOORS
- D. CRAWL SPACES. WHERE THE CRAWL SPACE IS AT OR BELOW GRADE LEVEL.
- UNFINISHED BASEMENTS DEFINED AS PORTIONS OR AREAS OF THE BASEMENT NOT INTENDED AS HABITABLE ROOMS AND LIMITED TO STORAGE AREAS, WORK AREAS, AND THE LIKE.
- KITCHENS. WHERE THE RECEPTACLES ARE INSTALLED TO SERVE
- SINKS, WHERE SINKS ARE LOCATED IN AREAS OTHER THAN KITCHENS AND RECEPTACLES ARE INSTALLED WITHIN 6' OF THE OUTSIDE EDGE OF THE SINK.
- APPLIANCE RECEPTACLE OUTLETS INSTALLED IN A DWELLING UNIT FOR SPECIFIC APPLIANCES, SUCH AS LANDRY EQUIPMENT, SHALL BE INSTALLED WITHIN 6 FEET OF THE INTENDED LOCATION OF THE
- IN EVERY KITCHEN, FAMILY ROOM, DINING ROOM, LIVING ROOM, PARLOR, LIBRARY, DEN, SURROOM, BEDROOM, RECREATION ROOM, OR SIMILAR ROOM OR AREA OF DUELLING UNITS, RECEPTACLE QUILETS SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY MALL SPACE IS MORE THAN 6 FEET, MEASURED HORIZONTALLY, FROM AN OUTLET IN THAT SPACE, INCLIDING ANY WALL SPACE OF MORE IN WIDTH (INCLIDING SPACE MEASURED AROUND CORNERS) AND INSTRUKEN ALONG THE FLOOR LINE BY DOORNAYS AND SIMILAR OPENINGS, FRIEPLACES, AND FIXED CABINETS, AND THE WALL SPACE OCCUPIED BY FIXED PANELS IN EXTERIOR WALLS, THE ROLLDING SUDING PANELS IN EXTERIOR WALLS, THE ROLLDING SPANELS IN EXTERIOR WALLS, THE ROLLDING SPANELS IN EXTERIOR WALLS, THE WALL SPACE AFFORDED BY FIXED ROOM DIVIDERS, SUCH AS FREESTANDING BAR-TYPE COUNTERS OR RAILINGS, SHALL BE INCLUDED IN THE 6 FOOT MEASUREMENT.
- IN THE KITCHEN, PANTRY, BREAKFAST ROOM, DINING ROOM, OR SIMILAR AREA OF A DWELLING WITT. THE TWO OR MORE 20-AMPERE SMALL-APPLIANCE BRANCH CIRCUITS REQUIRED SHALL SERVE ALL WALL AND FLOOR RECEPTACLE OUTLETS, ALL COINTERTOP OUTLETS, AND RECEPTACLE OUTLETS FOR REPRIGERATION EQUIPMENT. THE TWO OR MORE SMALL-APPLIANCE BRANCH CIRCUITS SHALL HAVE NO OTHER OUTLETS.
- IN KITCHENS, PANTRIES, BREAKFAST ROOMS, DINING ROOMS AND IN LICERS, PANNIES, DECARTAST ROCKS, THING RUTLETS FOR COUNTER SPACES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING:
- A RECEPTACLE OUTLET SHALL BE INSTALLED AT EACH WALL CONTER SPACE 12 INCHES OR WIDER. RECEPTACLE OUTLETS SHALL BE INSTALLED SO THAT NO POINT ALONG THE WALL LINE IS MORE THAN 24 INCHES MEASURED HORIZONTALLY FROM A RECEPTACLE OUTLET IN THAT SPACE.
- (2) AT LEAST ONE RECEPTACLE OUTLET SHALL BE INSTALLED AT EACH ISLAND COUNTER SPACE NITH A LONG DIMENSION OF 24 INCHES OR GREATER AND A SHORT DIMENSION OF 12 INCHES OR GREATER.
- AT LEAST ONE RECEPTACLE OUTLET SHALL BE INSTALLED AT EACH PENINSULAR COUNTER SPACE WITH A LONG DIMENSION OF 24 INCHES OR GREATER AND A SHORT DIMENSION OF 12 INCHES OR GREATER. A PENINSULAR COUNTERTOP IS MEASURED FROM
- (4) COUNTERTOP SPACES SEPARATED BY RANGE TOPS, REFRIGER CONTIENTO 9 SHACES SEPANATED BY RANGE TOPS, REPRIGERATORS, OR SINKS SHALL BE CONSIDERED AS SEPARATE COUNTERTOP SPACES IN APPLYING THE REQUIREMENTS OF (I), (2), AND (3) ABOVE. IF A RANGE, COUNTER-MONTHED COOKING WIT, OR SINK IS INSTALLED IN AN ISLAND OR PENINSULAR COUNTERTOP AND THE DEPTH OF THE COUNTER BEHIND THE ITEM IS LESS THEN IS INKOHES. IT WILL BE CONSIDERED TO DIVIDE THE COUNTERTOP SPACE INTO TWO SEPARATE COUNTERTOP SPACES, EACH COUNTERTOP SPACE SHALL COMPLY WITH APPLICABLE REQUIREMENTS.
- RECEPTACLE OUTLETS SHALL BE LOCATED NOT MORE THAN 20 INCHES ABOVE THE COUNTERTOP, RECEPTACLE OUTLETS RENDERED NOT READILY ACCESSIBLE BY APPLIANCES FASTENED IN PLACE, APPLIANCE GARAGES, SINKS, OR RANGETOPS AS COVERED IN 4) ABOVE, OR APPLIANCES OCCUPYING DEDICATED SPACE SHALL NOT BE CONSIDERED AS THESE REQUIRED OUTLETS.

ELECTRICAL (continued)

- AT LEAST ONE WALL RECEPTACLE OUTLET SHALL BE INSTALLED IN BATHROOMS WITHIN 3 FEET OF THE OUTSIDE EDGE OF EACH BASIN. THE RECEPTACLE OUTLET SHALL BE LOCATED IN WALL OR PARTITION THAT IS ADJACENT TO THE BASIN OR BASIN COUNTERTOP, OR INSTALLED ON THE SIDE OR FACE OF THE BASIN CABINET NOT MORE THAN 12" BEIOW THE COUNTERTOP.
- CABLE- OR RACEMAY-TYPE WIRING METHODS INSTALLED IN A GROOVE, TO BE COVERED BY MALLBOARD, SIDING, PANELING, CARPETING, OR SIMILAR FINISH, SHALL BE PROTECTED BY I/I6 INCH THICK STEEL PLATE, SLEEVE, OR EQUIVALENT OR BY NOT LESS THAN I-I/4 INCH FREE SPACE FOR THE FULL LENGTH OF THE GROOVE IN WHICH THE CABLE OR RACEMAY IS INSTALLED.
- 14. RECEPTACLES IN DAMP OR WET LOCATIONS.
- A. A RECEPTACLE INSTALLED OUTDOORS IN A LOCATION PROTECTED FROM WEATHER OR IN OTHER DAMP LOCATIONS SHALL HAVE AN ENCLOSURE FOR THE RECEPTACLE THAT IS NEATHERPROOF WHEN THE RECEPTACLE IS COVERD. (ATTACHMENT PLUG CAP NOT INSERTED AND RECEPTACLE COVERS CLOSED.)
- ALL IS- AND 20- AMPERE, I25- AND 250-VOLT RECEPTACLES INSTALLED IN A WET LOCATION SHALL HAVE AN ENCLOSURE THAT IS WEATHER PROOF WHETHER OR NOT THE ATTACHMENT PLUS CAP IS INSERTED. ALL IS- AND 20- AMPERE, I25- AND 250-VOLT NONLOCKINS RECEPTACLES SHALL BE LISTED WEATHER RESISTANT TYPE.
- 15. LIGHTING EQUIPMENT. A MINIMUM OF 15 PERCENT OF THE LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICACY
- 16. LIGHT FIXTURES WITHIN CLOTHES CLOSETS SHALL BE INSTALLED IN
- ALL 120-VOLT, SINGLE PHASE, 15- AND 20-AMPERE BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, DEDROOMS, SURROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY AN ARCHADIT CIRCUIT INTERRUPTER(S), COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT
- TAMPER-RESISTANT RECEPTACLES IN DWELLING UNITS IN ALL AREAS.
 ALL NON-LOCKING TYPE 125-VOLT IS-AND 20-AMPERE RECEPTACLES
 SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES. EXCEPTIONS
 LISTED BELOW:
 - I. RECEPTACLES LOCATED MORE THAN 54' ABOVE THE FLOOR.
 - 2. RECEPTACLES THAT ARE PART OF A LUMINAIRE OR APPLIANCE. S. A SINGLE RECEPTACLE OR A DUPLEX RECEPTACLE FOR TWO APPLIANCES LOCATED MITHIN DEDICATED SPACE FOR EACH APPLIANCE THAT, IN NORMAL USE, IS NOT EASILY MOVED FROM ONE PLACE TO ANOTHER, AND THAT IS CORD-AND-PLUS CONNECTED.
- 4. NON-GROUNDING RECEPTACLES USED FOR REPLACEMENTS
- ALL NON-LOCKING TYPE 125-VOLT 15-AND 20-AMPERE RECEP LOCATED IN GUEST ROOMS AND GUEST SUITES SHALL BE LISTE TAMPER-RESISTANT RECEPTACLES.

SMOKE DETECTORS

ALL SMOKE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 217 AND INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THIS CODE AND THI HOUSEHOLD FIRE WARNING EQUIPMENT PROVISIONS OF NFPA 72.

- HOUSEHOLD FIRE ALARM SYSTEMS INSTALLED IN ACCORDANCE WITH NEPA HOUSEHOLD FIRE ALARM SYSTEMS INSTALLED IN ACCORDANCE WITH NFPA T2 THAT INCLUDE SMOKE ALARMS, OR A COMBINATION OF SMOKE DETECTOR AND AUDIBLE NOTIFICATION DEVICE INSTALLED AS REQUIRED BY THE NC-R FOR SMOKE ALARMS, SHALL BE PREMITTED. THE HOUSEHOLD FIRE ALARM SYSTEM SHALL PROVIDE THE SAME LEVEL OF SMOKE DETECTION AND ALARM AS REQUIRED BY THE NC-R FOR SMOKE ALARMS, WHERE A HOUSEHOLD FIRE MARNING SYSTEM IS INSTALLED USING A COMBINATION OF SMOKE DETECTOR AND AUDIBLE NOTIFICATION DEVICE(S), IT SHALL BECOMI A PERMANENT FIXTURE OF THE OCCUPANCY AND OWNED BY THE HOMEOWARE, THE SYSTEM SHALL BE MONITORED BY AN APPROVED SUPERVISING STATION AND BE MAINTAINED IN ACCORDANCE WITH NEPAT2.
- REQUIRED SMOKE DETECTORS SHALL BE LOCATED IN ACCORDANCE WITH THE NC-R.

CARBON MONOXIDE ALARMS

IN NEW CONSTRUCTION, DWELLING UNITS SHALL BE PROVIDED WITH AN APPROVED CARBON MONOXIDE ALARM INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOM(S) AS DIRECTED BY THE ALARM MANUFACTURER.

THE REQUIRED CARBON MONOXIDE ALARMS SHALL BE AUDIBLE IN ALL BEDROOMS OVER BACKGROUND NOISE LEVELS WITH ALL INTERVENING DOORS CLOSED. SINGLE STATION CARBON MONOXIDE ALARMS SHALL BE LISTED AS COMPLYING WITH UL 2024 AND SHALL BE INSTALLED IN ACCORDANCE WITH THIS CODE AND THE MANUFACTURERS INSTALLATION



NORTH CAROLINA 40' SERIES

KB HOME NORTH CAROLINA DIVISION

4518 S. MIAMI BLVD. SUITE 180 DURHAM, NC 27703

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ISSUE DATE: 07/31/18 * PROJECT No.: 1350999:56 DIVISION MCR · MCP

02/28/19

2018 CODE UPDATE
 NC19015NCP- 01/23/19 MCP

REVISIONS:

DIVISION REVISION
NCI9005NCP- 02/28/19 MCP

FOR INTERNAL USE ONLY REVIEWED BY 240.3174-R GN₃

SPEC. LEVEL 1 RALEIGH-DURHAM 40' SERIES



| SQUARE FOOTAGE | | | |
|---|-----------------------|------------------------------|-------------|
| PLAN | 240.3174-R PART | IN PLACE | 2 |
| FIRST FLOOR ARE | :A | 1477 | SQ. FT. |
| SECOND FLOOR A | REA | 1626 | SQ. FT. |
| TOTAL ARE | Ą | 3103 | SQ. FT. |
| GARAGE AREA | | 416 | SQ. FT. |
| PORCH AREA(S) | | | |
| | ELEVATION 'A' | 57 | SQ. FT. |
| | ELEVATION 'B' | 97 | SQ. FT. |
| | ELEVATION 'C' | 126 | SQ. FT. |
| | ELEVATION 'D' | 126 | SQ. FT. |
| OPTION (AREA) PATIO AREA(S) | DEN/BDRM. 5/BA.3 | 101 | 50. FT. |
| PATIO AREA(S) | IO'XIO' COVERED | 100 | SQ. FT. |
| | IO'XIO' COVERED | 200 | 50. FT. |
| DECK AREA(S) | 10 X20 COVERED | 200 | 90. F1. |
| | OPEN 12'X12' | 144 | SQ. FT. |
| | OPEN 21'x12' | 252 | SQ. FT. |
| | SCREEN-IN 12'x12' | 144 | SQ. FT. |
| | SCREEN-IN 21'x12' | 252 | SQ. FT. |
| | PLATE NOT | ES | 2012 N.CR |
| | 8'-I" PLATE NO | DTES | |
| MINDOW HEAT | DER HEIGHT: | 6'-8" U.N.O. | |
| | NINDOW HOR. HEIGHT: | 7'-0" U.N.O. | |
| ENTRY DOOR SUDING GLA | SS DOOR HEIGHT: | 6'-8" U.N.O. 6'-8" (TEMF | |
| INTERIOR SOIL | FFIT HEIGHT: | 7'-4" U.N.O. | * |
| INTERIOR DO | OR HEIGHT: | 6'-8" U.N.O. | |
| 9'-I" PLATE NOTES | | | |
| | DER HEIGHT ist OR 2nd | 7'-8" U.N.O. | |
| 4010 WINDOV ENTRY DOOR | NOVER TUB HDR. HGT.: | 8'-4" U.N.O. 6'-8" U.N.O. | |
| SLIDING GLA | SS DOOR HEIGHT: | 6'-8" (TEMF | - .) |
| INTERIOR SOI | | 8'-0" U.N.O. | |
| TRAY CEILING INTERIOR DO | | 714" DROP 6'-8" U.N.O. | |

| STAIR DATA NOTES | 2012 N.CR |
|---|-----------|
| FIRST FLOOR WITH 8-P PLATE HEIGHT: 14" DEEP T.J.I. FLOOR JOISTS WITH 3/4" T&G DECKING. 14 TREADS AT 10" EACH 15 RISERS AT 7-7/16" EACH | |
| FIRST FLOOR WITH 9:1" PLATE HEIGHT: 14" DEEP T.J.I. FLOOR JOISTS WITH 3/4" T&G DECKING. 15 TREADS AT 10" EACH 16 RISERS AT 7-3/4" EACH | |
| GENERAL PLAN NOTES | |

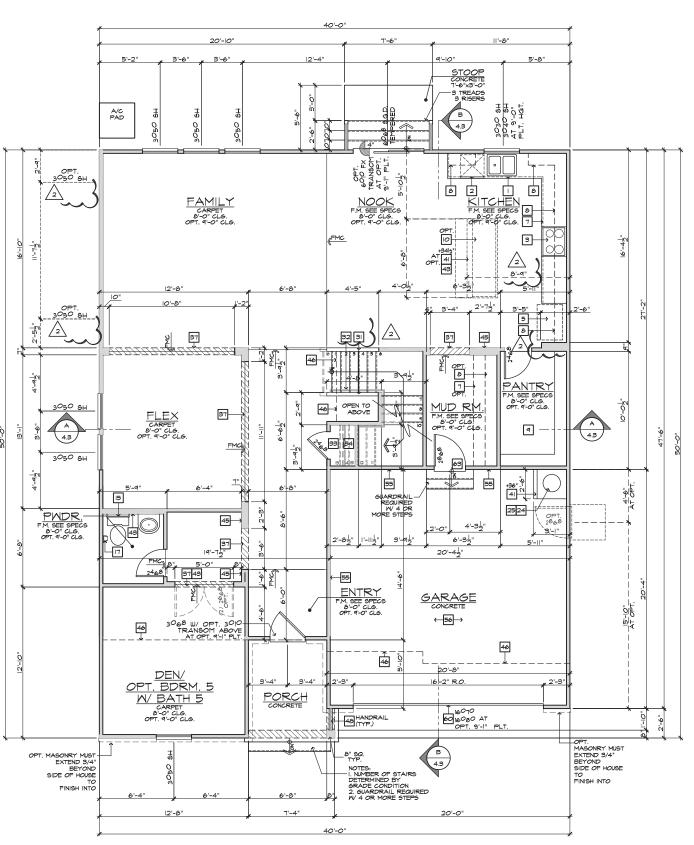
ALL CEILING HEIGHTS PER SECTION AND ELEVATION PLATE HEIGHTS, U.N.O.

ALL INTERIOR DOORS TO BE HOLLOW CORE | 3/8" THICK, U.N.O. (REFER TO PLAN FOR SIZE).

ALL GARAGE SERVICE DOORS TO BE HOLLOW CORE EXTERIOR GRADE (REFER TO PLAN FOR SIZE).

ALL HOUSE TO GARAGE DOORS TO BE 20-MINUTE FIRE-RATED (REFER TO PLAN FOR SIZE).

ALL ENTRY DOORS AND EXTERIOR FRENCH DOORS TO BE SOLID CORE I 3/4" THICK (REFER TO PLAN FOR SIZE). ALL FLOOR MATERIAL CHANGES TO OCCUR AT CENTER OF DOOR JAMBS, U.N.O.



FIRST FLOOR PLAN 'A' W/ CRAWL SPACE

SCALE |/4"=|'-0" (22"X34") - |/8"=|'-0" (||"X|7")

63. OPENINGS BETWEEN GARAGE AND HOUSE SHALL BE EQUIPF WITH SOLID WOOD DOORS NOT LESS THAN I 3/8-INCH THICL OR SHALL BE 20-MINUTE FIRE RATED. DOORS SHALL BE SELF-CLOSING AND WEATHERSTRIPPED

NORTH CAROLINA 40' SERIES

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24. ELECTRIC MATER HEATER - LOCATE ON 18" HIGH FRAMED PLATFORM

FLOOR PLAN NOTES SINK WITH GARBAGE DISPOSAL - VERIFY DIMENSIONS WITH MANUFACTURER SPEC'S. DISHMASHER - PROVIDE SURFACE MOUNT AIR GAP VERIFY DIMENSIONS WITH MANUFACTURER SPEC'S. SLIDE-IN RANGE/ OVEN COMBINATION W BUILT-IN LIGHT & FA 36" COOKTOP - W BUILT-IN HOOD WLIGHT & FAN. (VENT TO OUTSIDE AIR) - CABINET MOUNTED MICROMAVE INCLUDED OVEN WITH VENT - VERIFY WITH MANUFACTURER SPEC'S. 39" CLEAR REFRIGERATOR SPACE - PROVIDE PLUMBING FOR ICEMAKER (RECESSED IN WALL). DOUBLE OVEN - VERIFY WITH MANUFACTUER SPEC'S.

BASE CABINETS - REFER TO INTERIOR ELEVATIONS UPPER CABINETS - REFER TO INTERIOR ELEVATIONS

O. ISLAND CABINET - REFER TO INTERIOR ELEVATIONS

18. EXTEND VANITY - REFER TO INTERIOR ELEVATIONS

20. PROVIDE WATER AND WASTE FOR WASHER (WASHER CONTROL VALVES) (RECESSED IN WALL)

23. FREE STANDING LAUNDRY SINK - VERIFY DIMENSIONS WITH MFR'S SPEC'S.

12. OVAL TUB - VERIFY DIMENSIONS WITH MANUFACTURER SPECT

 SHOWER PAN WITH WAINSCOT TO 84" - VERIFY DIMENSIONS WITH MANUFACTURER SPEC'S. 4. SHATTERPROOF (TEMPERED) GLASS SHOWER ENCLOSURE

26. NOT USED

16. NOT USED

19. OPTIONAL SINK

21. DRYER VENT

22. NOT USED

17. TOILET PAPER HOLDER

27. NOT USED

28. PRE-MFR. METAL GAS APPLIANCE FIREPLACE INSTALLED PER MANUFACTURERS INSTRUCTIONS

29. NON-COMBUSTIBLE HEARTH MATERIAL

30. ROUTE OF FIREPLACE "B" VENT FROM BELOW - PROVIDE O.S.B. SHAFT

32. +34" - +38" HIGH HANDRAIL DETAIL 83/AD5

33. COATS WITH SHELF & POLE - DETAIL 73/AD4 34. LINEN - SHELVES PER SPEC

35. WARDROBE WITH SHELF & POLE - DETAIL 73/AD4 U.N.O.

36. MEDIA NICHE - REFER TO INTERIOR ELEVATIONS

37. FLAT SOFFIT - REFER TO PLAN OR ELEVATIONS FOR HEIGH

38. NOT USED

39. LINE OF CEILING BREAK

40. INTERIOR SHELF - REFER TO PLAN OR INT. ELEVS. FOR HGT.

41. LOW WALL - REFER TO PLAN FOR HEIGHT - DETAIL 72/AD4 42. LOCATION OF PLUMBING WASTE DROP FROM ABOVE

44. 2x6 BALLOON FRAMED WALL - REFER TO STRUCTURAL

45. DOUBLE 2x4 WALL

46. LINE OF FLOOR ABOVE

47. LINE OF FLOOR BELOW

48. EXTERIOR RAIL

49. F.A.U. VENT TO OUTSIDE AIR

50. 22"x54" ATTIC ACCESS W/ STAIRS

F.A.J. IN ATTIC - PROVIDE MIN. 22"x30" ATTIC ACCESS PANEL - PROVIDE FUEL GAS. REFER TO UTILITY PLAN DETAIL 38/AD5

52. DUCT CHASE - DETAIL 89 & 90/AD5 - REFER TO MECH. PLAI

53. RETURN AIR GRILL (R.A.G.) -REFER TO MECHANICAL PLAN

54. I/2" GYPSUM BOARD ON CEILING AND WALLS AT USEABLE SPACE UNDER STAIRS

6. SEPARATION BETWEEN SECOND FLOOR AND GARAGE CEILING, PROVIDE (I) LAYER OF %" TYPE "X" GYPSIM BOARD, WALLS SUPPORTING SECOND FLOOR AND GARAGE CEILING: PROVIDE (I) LAYER OF 1/2" GYPSIM BOARD

57. EXTERIOR SHELF - REFER TO ELEV. FOR HEIGHT

58. NOT USED

59. NOT USED

60. SECTIONAL GARAGE DOOR - VERIFY WINDOW OPTION

61. NOT USED

AT CRAWLSPACE

NOTE: FOR ALL PLAN OPTIONS REFER TO BASIC PLAN FOR INFORMATION NOT SHOWN HERE.

240.3174-R

SPEC. LEVEL 1

1.3



| PLATE NOTES | | |
|--|---|--|
| 8'-I" PLATE NOTES | | |
| MINDOW HEADER HEIGHT: 2nd FLOOR WINDOW HDR. HEIGHT: ENTRY DOOR HEIGHT: SLIDING GLASS DOOR HEIGHT: INTERIOR SOFFIT HEIGHT: INTERIOR DOOR HEIGHT: | 6'-8" U.N.O. 7'-0" U.N.O. 6'-8" U.N.O. 6'-8" (TEMP.) 7'-4" U.N.O. 6'-8" U.N.O. | |
| 9'-I" PLATE NOTES | | |
| WINDOM HEADER HEIGHT IS OR 2nd 40/0 WINDOM OVER TUB HDR. HGT.: ENTRY DOOR HEIGHT: SLIDING GLASS DOOR HEIGHT: INTERIOR SOFFIT HEIGHT: TRAY CEILING: INTERIOR DOOR HEIGHT: | | |

STAIR DATA NOTES

FIRST FLOOR WITH S-IP PLATE HEIGHT:
14" DFFP T.J.I. FLOOR JOISTS WITH 3/4" T&G DECKING.

FIRST FLOOR WITH 9-1" PLATE HEIGHT: 14" DEEP T.J.I. FLOOR JOISTS WITH 3/4" T&G DECKING. 15 TREADS AT 10" EACH 16 RISERS AT 7-3/4" EACH

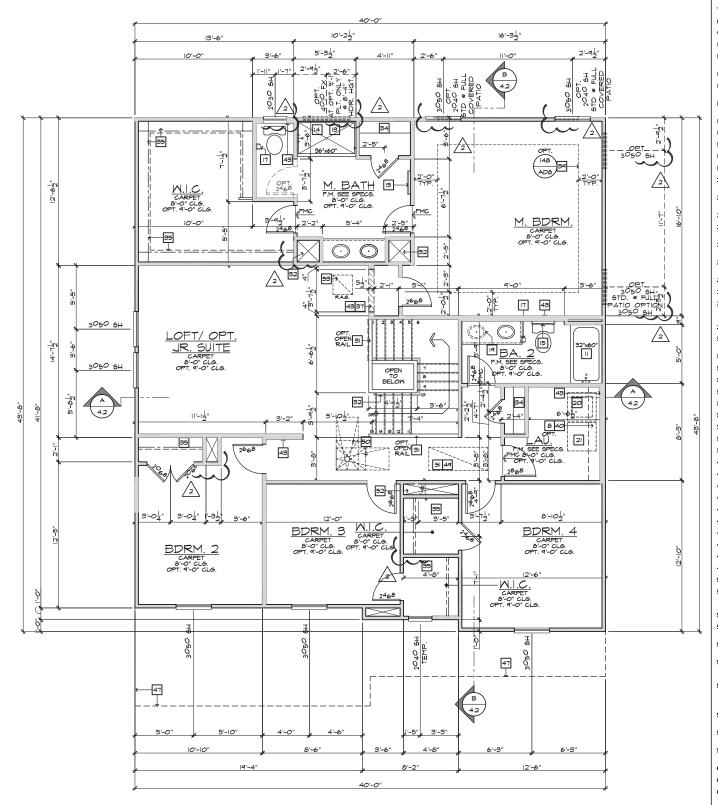
GENERAL PLAN NOTES

ALL CEILING HEIGHTS PER SECTION AND ELEVATION PLATE HEIGHTS, U.N.O.

ALL INTERIOR DOORS TO BE HOLLOW CORE | 3/8" THICK, U.N.O. (REFER TO PLAN FOR SIZE).

ALL GARAGE SERVICE DOORS TO BE HOLLOW CORE EXTERIOR GRADE (REFER TO PLAN FOR SIZE). ALL HOUSE TO GARAGE DOORS TO BE 20-MINUTE FIRE-RATED (REFER TO PLAN FOR SIZE)

ALL ENTRY DOORS AND EXTERIOR FRENCH DOORS TO BE SOLID CORE | 3/4" THICK (REFER TO PLAN FOR SIZE). ALL FLOOR MATERIAL CHANGES TO OCCUR AT CENTER OF DOOR JAMBS, U.N.O.



SECOND FLOOR PLAN 'A'

SCALE |/4"=|'-0" (22"X34") - |/8"=|'-0" (||"X|7")

FLOOR PLAN NOTES SINK WITH GARBAGE DISPOSAL - VERIFY DIMENSIONS WITH MANUFACTURER SPEC'S. DISHMASHER - PROVIDE SURFACE MOUNT AIR GAP VERIFY DIMENSIONS WITH MANUFACTURER SPEC'S. SLIDE-IN RANGE/ OVEN COMBINATION W BUILT-IN LIGHT & FA (VENT TO OUTSIDE AIR) - VERIFY WITH MANUFACTURER SPEC! 36" COOKTOP - W BUILT-IN HOOD WLIGHT & FAN. (VENT TO OUTSIDE AIR) - CABINET MOUNTED MICROMAVE INCLUDED OVEN WITH VENT - VERIFY WITH MANUFACTURER SPEC'S. 39" CLEAR REFRIGERATOR SPACE - PROVIDE PLUMBING FOR ICEMAKER (RECESSED IN WALL). DOUBLE OVEN - VERIFY WITH MANUFACTUER SPEC'S. BASE CABINETS - REFER TO INTERIOR ELEVATIONS UPPER CABINETS - REFER TO INTERIOR ELEVATIONS PANTRY - SHELVES PER SPEC IO. ISLAND CABINET - REFER TO INTERIOR ELEVATIONS TUB/SHOWER COMBINATION WITH 12" FIBERGLASS ENCLOSUR (NON-ABSORBENT) VERIFY DIMENSIONS WITH MFR'S SPEC'S. 12. OVAL TUB - VERIFY DIMENSIONS WITH MANUFACTURER SPECT SHOWER PAN WITH WAINSCOT TO 84" - VERIFY DIMENSIONS WITH MANUFACTURER SPEC'S. 4. SHATTERPROOF (TEMPERED) GLASS SHOWER ENCLOSURE 15. TOWEL BAR 16. NOT USED 17. TOILET PAPER HOLDER NORTH CAROLINA 18. EXTEND VANITY - REFER TO INTERIOR ELEVATIONS 40' SERIES 19. OPTIONAL SINK 20. PROVIDE WATER AND WASTE FOR WASHER (WASHER CONTROL VALVES) (RECESSED IN WALL) KB HOME NORTH CAROLINA DIVISION 21. DRYER VENT 4518 S. MIAMI BLVD. 22. NOT USED SUITE 180 23. FREE STANDING LAUNDRY SINK - VERIFY DIMENSIONS WITH MFR'S SPEC'S. DURHAM, NC 27703 24. ELECTRIC MATER HEATER - LOCATE ON 18" HIGH FRAMED PLATFORM TEL: (919) 768-7988 • FAX: (919) 472-0582 25. TEMPERATURE AND PRESSURE RELIEF VALVE DRAIN TO EXTERIOR - MIN. 6" ABOVE & MAX. 24" ABOVE GRADE 26. NOT USED 27. NOT USED 28. PRE-MFR. METAL GAS APPLIANCE FIREPLACE INSTALLED PER MANUFACTURERS INSTRUCTIONS 29. NON-COMBUSTIBLE HEARTH MATERIAL 30. ROUTE OF FIREPLACE "B" VENT FROM BELOW - PROVIDE O.S.B. SHAFT 31. +36" GUARD WALL DETAIL 84/AD5 OR 86/AD5 32. +34" - +38" HIGH HANDRAIL DETAIL 83/AD5 33. COATS WITH SHELF & POLE - DETAIL 73/AD4 34. LINEN - SHELVES PER SPEC 35. WARDROBE WITH SHELF & POLE - DETAIL 73/AD4 U.N.O. 36. MEDIA NICHE - REFER TO INTERIOR ELEVATIONS 37. FLAT SOFFIT - REFER TO PLAN OR ELEVATIONS FOR HEIGH 38. NOT USED 39. LINE OF CEILING BREAK 40. INTERIOR SHELF - REFER TO PLAN OR INT. ELEVS. FOR HGT. 41. LOW WALL - REFER TO PLAN FOR HEIGHT - DETAIL 12/AD4 ISSUE DATE: 07/31/18 42. LOCATION OF PLUMBING WASTE DROP FROM ABOVE PROJECT No.: 1350999:56 43. 2x6 WALL DIVISION MGR.: 44. 2x6 BALLOON FRAMED WALL - REFER TO STRUCTURAL REVISIONS: 45. DOUBLE 2x4 WALL 2018 CODE UPDATE NC19015NCP- 01/23/19 MCP 46. LINE OF FLOOR ABOVE 47. LINE OF FLOOR BELOW 48. EXTERIOR RAIL 49. F.A.U. VENT TO OUTSIDE AIR 50. 22"x54" ATTIC ACCESS W/ STAIRS F.A.J. IN ATTIC - PROVIDE MIN. 22"x30" ATTIC ACCESS PANEL - PROVIDE FUEL 6AS. REFER TO UTILITY PLAN DETAIL 85/AD5 52. DUCT CHASE - DETAIL 89 & 90/AD5 - REFER TO MECH. PLAI 53. RETURN AIR GRILL (R.A.G.) -REFER TO MECHANICAL PLAN 54. I/2" GYPSUM BOARD ON CEILING AND WALLS AT USEABLE SPACE UNDER STAIRS 55. THE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAN 1/2" GYPSUM BOARD APPLIED TO THE GARAGE SIDE FOR INTERNAL USE ONLY 56. SEPARATION BETWEEN SECOND FLOOR AND GARAGE CEILING, PROVIDE (1) LAYER OF \$4" TYPE "X" GYPSIM BOARD, WALLS SUPPORTING SECOND FLOOR AND GARAGE CEILING, PROVIDE (1) LAYER OF '\(\frac{1}{2}\)" GYPSIM BOARD 57. EXTERIOR SHELF - REFER TO ELEV. FOR HEIGHT 58. NOT USED 240.3174-R 59. NOT USED 60. SECTIONAL GARAGE DOOR - VERIFY WINDOW OPTION 63. OPENINGS BETWEEN GARAGE AND HOUSE SHALL BE EQUIPPE WITH SOLID WOOD DOORS NOT LESS THAN I 3/8-INCH THICK OR SHALL BE 20-MINTE FIRE RATED, DOORS SHALL BE SELF-CLOSING AND WEATHERSTRIPPED SPEC. LEVEL 1 RALEIGH-DURHAM

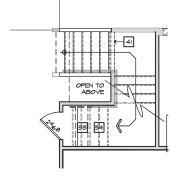
NOTE: FOR ALL PLAN OPTIONS REFER TO BASIC PLAN FOR INFORMATION NOT SHOWN HERE.

MCP

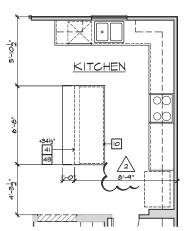
02/28/19

1.2

40' SERIES



FULL STORAGE



KITCHEN ISLAND

FIRST FLOOR PLAN OPTIONS SCALE |/4"=|'-0" (22"X34") - |/8"=|'-0" (||"X|7")

FLOOR PLAN NOTES SINK WITH GARBAGE DISPOSAL - VERIFY DIMENSIONS WITH MANUFACTURER SPEC'S. DISHWASHER - PROVIDE SURFACE MOUNT AIR GAP VERIFY DIMENSIONS WITH MANUFACTURER SPEC'S. SLIDE-IN RANGE/ OVEN COMBINATION W BUILT-IN LIGHT & FA' (VENT TO OUTSIDE AIR) - VERIFY WITH MANUFACTURER SPEC'S 36" COOKTOP - W/ BUILT-IN HOOD W/LIGHT & FAN. (VENT TO OUTSIDE AIR) - CABINET MOUNTED MICROMAYE INCLUDED OVEN WITH VENT - VERIFY WITH MANUFACTURER SPEC'S. 39" CLEAR REFRIGERATOR SPACE - PROVIDE PLUMBING FOR ICEMAKER (RECESSED IN WALL). DOUBLE OVEN - VERIFY WITH MANUFACTUER SPEC'S. BASE CABINETS - REFER TO INTERIOR ELEVATIONS 8. UPPER CABINETS - REFER TO INTERIOR ELEVATIONS 9. PANTRY - SHELVES PER SPEC IO. ISLAND CABINET - REFER TO INTERIOR ELEVATIONS TUB/SHOWER COMBINATION WITH 12" FIBERGLASS ENCLOSUR! (NON-ABSORBENT) VERIFY DIMENSIONS WITH MFR'S SPEC'S. 12. OVAL TUB - VERIFY DIMENSIONS WITH MANUFACTURER SPEC'S 13. SHOWER PAN WITH WAINSCOT TO 84" - VERIFY DIMENSIONS WITH MANUFACTURER SPEC'S. 14. SHATTERPROOF (TEMPERED) GLASS SHOWER ENCLOSURE 15. TOWEL BAR 16. NOT USED 17 TOILET PAPER HOLDER IS. EXTEND VANITY - REFER TO INTERIOR ELEVATIONS 19. OPTIONAL SINK 20. PROVIDE WATER AND WASTE FOR WASHER (WASHER CONTROL VALVES) (RECESSED IN WALL) 21. DRYER VENT 22. NOT USED SUITE 180 23. FREE STANDING LAUNDRY SINK - VERIFY DIMENSIONS WITH MFR'S SPEC'S. DURHAM, NC 27703 24. ELECTRIC WATER HEATER - LOCATE ON 18" HIGH FRAMED PLATFORM TEL: (919) 768-7988 • FAX: (919) 472-0582 25. TEMPERATURE AND PRESSURE RELIEF VALVE DRAIN TO EXTERIOR - MIN. 6" ABOVE & MAX. 24" ABOVE GRADE 29. NON-COMBUSTIBLE HEARTH MATERIAL 30. ROUTE OF FIREPLACE "B" VENT FROM BELOW -PROVIDE 0.5.B. SHAFT 31. +36" GUARD WALL DETAIL 84/AD5 OR 86/AD5 32. +34" - +38" HIGH HANDRAIL DETAIL 83/AD5 33. COATS WITH SHELF & POLE - DETAIL 73/AD4 35. WARDROBE WITH SHELF & POLE - DETAIL 13/AD4 U.N.O. 36. MEDIA NICHE - REFER TO INTERIOR ELEVATIONS 37. FLAT SOFFIT - REFER TO PLAN OR ELEVATIONS FOR HEIGHT 41. LOW WALL - REFER TO PLAN FOR HEIGHT - DETAIL 12/AD4 ISSUE DATE: 07/31/18 42. LOCATION OF PLUMBING WASTE DROP FROM ABOVE PROJECT No.: 1350999:56 43. 2x6 MALL DIVISION MGR.: 44. 2x6 BALLOON FRAMED WALL - REFER TO STRUCTURAL 02/28/19 REVISIONS: 2018 CODE UPDATE NC19015NCP- 01/23/19 MCP 46. LINE OF FLOOR ABOVE 47. LINE OF FLOOR BELOW DIVISION REVISION
NCI9005NCP- 02/28/19 MCP 49. F.A.J. VENT TO OUTSIDE AIR 50. 22"x54" ATTIC ACCESS W/ STAIRS 51. FAU, IN ATTIC - PROVIDE MIN. 22"x80" ATTIC ACCESS PANEL - PROVIDE FUEL GAS, REFER TO UTILITY PLAN DETAIL 88/AD5 53. RETURN AIR GRILL (R.A.G.) -REFER TO MECHANICAL PLAN 54. I/2" GYPSUM BOARD ON CEILING AND WALLS AT USEABLE SPACE UNDER STAIRS 55. THE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAN 1/2" GYPSUM BOARD APPLIED TO THE GARAGE SIDE FOR INTERNAL USE ONLY 56. SEPARATION BETWEEN SECOND FLOOR AND GARAGE CEILING. PROVIDE

(I) LAYER OF \$\frac{1}{2}\$" TYPE "X" GYPSUM BOARD, WALLS SUPPORTING
SECOND FLOOR AND GARAGE CEILING: PROVIDE (I) LAYER OF \$\frac{1}{2}\$"
GYPSUM BOARD 57. EXTERIOR SHELF - REFER TO ELEV. FOR HEIGHT 58. NOT USED 240.3174-R 60. SECTIONAL GARAGE DOOR - VERIFY WINDOW OPTION 1.4 SPEC. LEVEL 1

NORTH CAROLINA 40' SERIES

KB HOME NORTH CAROLINA DIVISION

RALEIGH-DURHAM

40' SERIES

4518 S. MIAMI BLVD.

26. NOT USED

27. NOT USED

28. PRE-MFR. METAL GAS APPLIANCE FIREPLACE INSTALLED PER MANUFACTURERS INSTRUCTIONS

34 LINEN - SHELVES PER SPEC

38. NOT USED

39. LINE OF CEILING BREAK

40. INTERIOR SHELF - REFER TO PLAN OR INT. ELEVS. FOR HGT.

45. DOUBLE 2x4 WALL

48. EXTERIOR RAIL

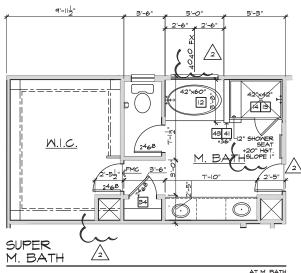
52. DUCT CHASE - DETAIL 89 & 90/AD5 - REFER TO MECH. PLAN

59. NOT USED

61. NOT USED

63. OPENINGS BETWEEN GARAGE AND HOUSE SHALL BE EQUIPPED MITH SOLID WOOD DOORS NOT LESS THAN I 3/8-INCH THICK, OR SHALL BE 20-MINITE FIRE RATED. DOORS SHALL BE SELF-CLOSING AND WEATHERSTRIPPED

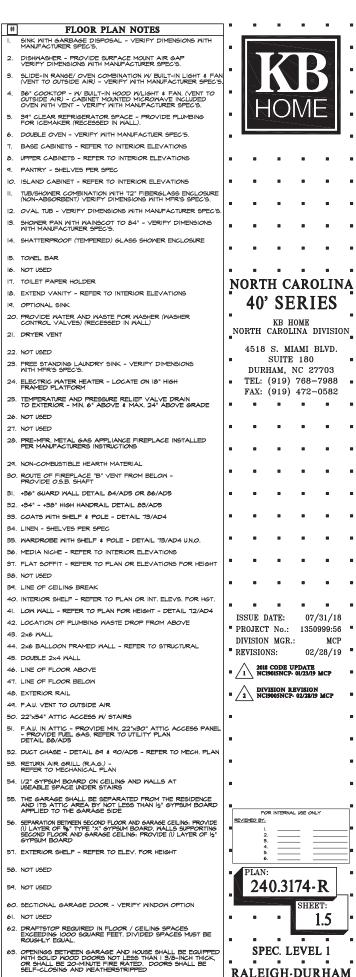
NOTE: FOR ALL PLAN OPTIONS REFER TO BASIC PLAN FOR INFORMATION NOT SHOWN HERE.



SECOND FLOOR PLAN OPTIONS

SCALE I/4"=I'-0" (22"X34") - I/8"=I'-0" (II"XI7")

BASIC PLAN



NOTE: FOR ALL PLAN OPTIONS REFER TO BASIC PLAN FOR INFORMATION NOT SHOWN HERE.

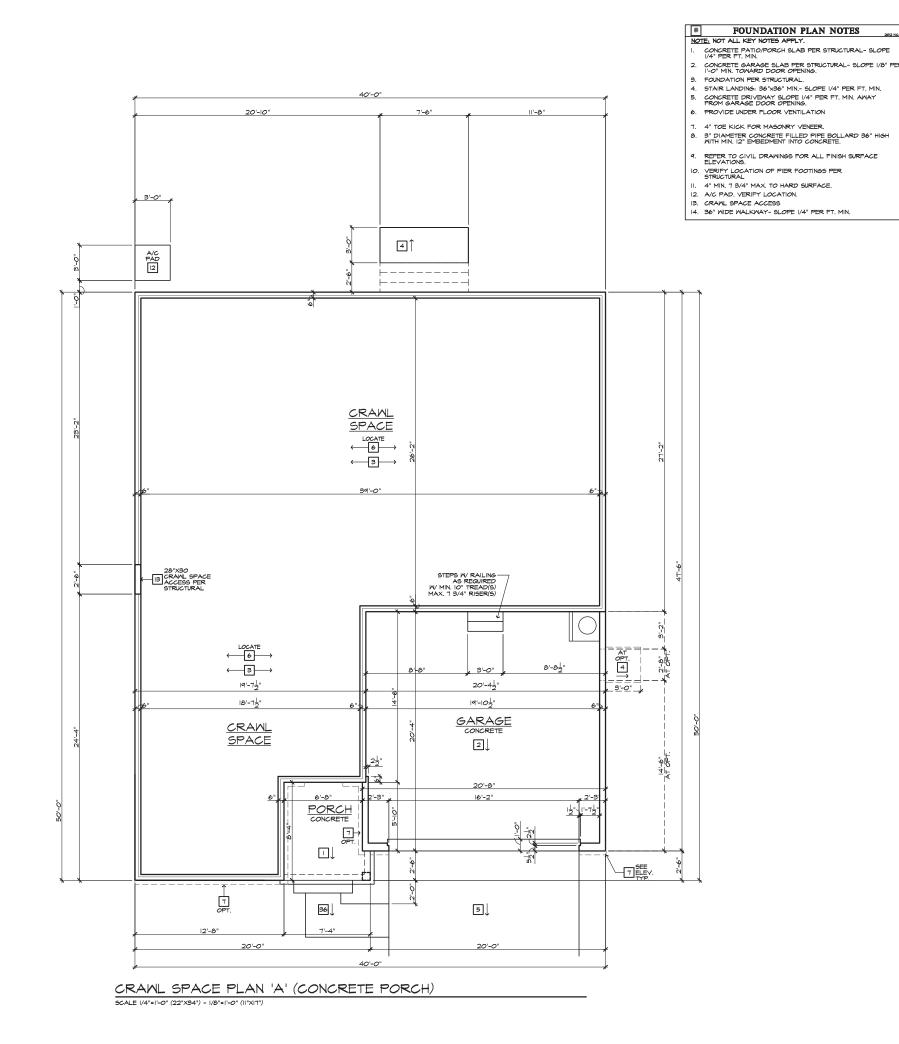
MCP

02/28/19

1.5

RALEIGH-DURHAM

40' SERIES



KB

NORTH CAROLINA 40' SERIES

NORTH CAROLINA DIVISION
4518 S. MIAMI BLVD.

SUITE 180
DURHAM, NC 27703
TEL: (919) 768-7988
FAX: (919) 472-0582

ISSUE DATE: 07/31/18
PROJECT No.: 1350999:56
DIVISION MGR.: MCP

02/28/19

2018 CODE UPDATE NC19015NCP- 01/23/19 MCP

REVISIONS:

NC19005NCP- 02/28/19 M

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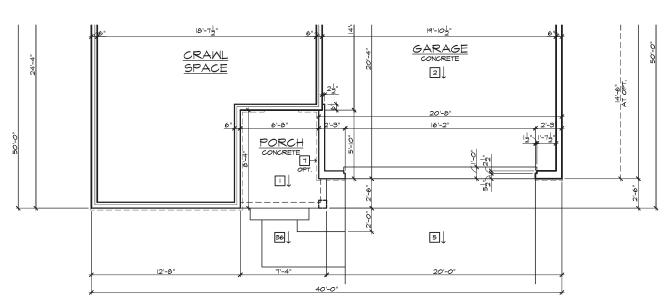
REVIEWED BY:

1.
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3.
4.

PLAN: 240.3174-R

SHEET: 2.3

spec. level 1
RALEIGH-DURHAM
40' SERIES



PARTIAL CRAWL SPACE PLAN 'C' (CONCRETE PORCH)

SCALE I/4"=1'-0" (22"X34") - I/8"=1'-0" (II"XI7")

FOUNDATION PLAN NOTES

- CONCRETE PATIO/PORCH SLAB PER STRUCTURAL- SLOPE I/4" PER FT. MIN.
- CONCRETE GARAGE SLAB PER STRUCTURAL- SLOPE 1/6" PER 1-0" MIN. TOWARD DOOR OPENING.
- FOUNDATION PER STRUCTURAL.
- STAIR LANDING: 36"x36" MIN.- SLOPE I/4" PER FT. MIN.
- 5. CONCRETE DRIVENAY SLOPE 1/4" PER FT. MIN. AWAY FROM GARAGE DOOR OPENING.

 6. PROVIDE UNDER FLOOR VENTILATION
- 4" TOE KICK FOR MASONRY VENEER.
- . 3" DIAMETER CONCRETE FILLED PIPE BOLLARD 36" HIGH MITH MIN. 12" EMBEDMENT INTO CONCRETE.
- REFER TO CIVIL DRAWINGS FOR ALL FINISH SURFACE ELEVATIONS.
- IO. VERIFY LOCATION OF PIER FOOTINGS PER STRUCTURAL
- 4" MIN. 7 3/4" MAX. TO HARD SURFACE.
- 12. A/C PAD. VERIFY LOCATION.
- 14. 36" MIDE WALKWAY- SLOPE 1/4" PER FT. MIN.
- IB. CRAWL SPACE ACCESS



NORTH CAROLINA 40' SERIES

KB HOME NORTH CAROLINA DIVISION

4518 S. MIAMI BLVD. SUITE 180 DURHAM, NC 27703 ■ TEL: (919) 768-7988 ■

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ISSUE DATE: 07/31/18 * PROJECT No.: 1350999:56 * DIVISION MGR.: MCP

02/28/19

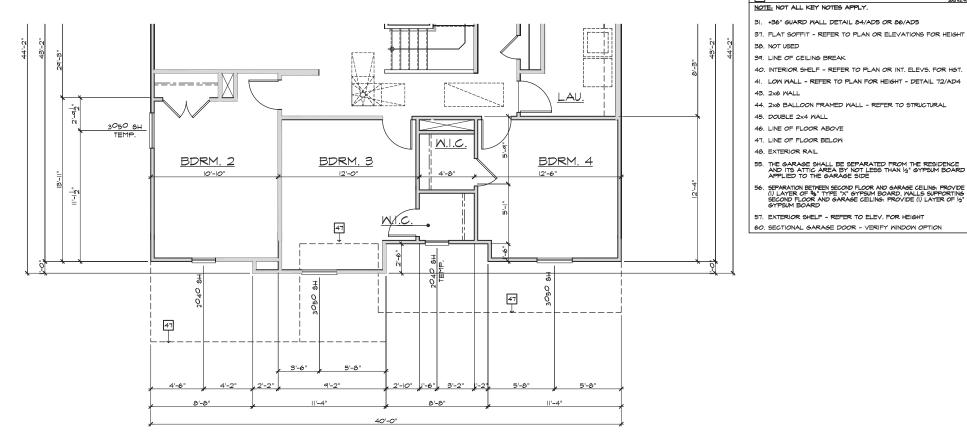
2018 CODE UPDATE NC19015NCP- 81/23/19 MCP

REVISIONS:

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240.3174-R

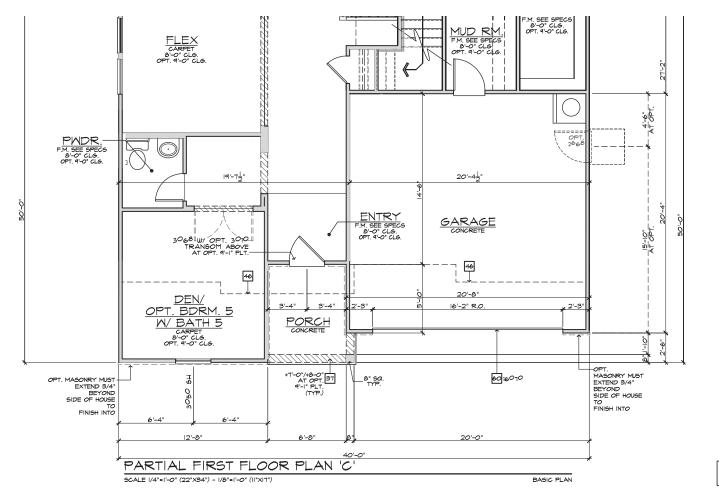
SPEC. LEVEL 1 RALEIGH-DURHAM 40' SERIES



PARTIAL SECOND FLOOR PLAN 'C'

SCALE I/4"=1'-0" (22"X34") - I/6"=1'-0" (II"XI7")

BASIC PLAN





NORTH CAROLINA 40' SERIES

KB HOME NORTH CAROLINA DIVISION

SUITE 180 DURHAM, NC 27703 ■ TEL: (919) 768-7988 ■ FAX: (919) 472-0582

4518 S. MIAMI BLVD.

ISSUE DATE: 07/31/18 * PROJECT No.: 1350999:56 * DIVISION MGR.: MCP

02/28/19

2018 CODE UPDATE NCI9015NCP- 01/23/19 MCP

REVISIONS:

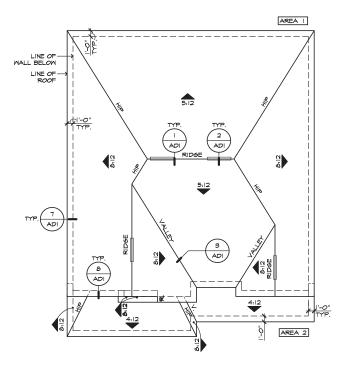
FOR INTERNAL USE ONLY

240.3174-R

3.C1

SPEC. LEVEL 1 RALEIGH-DURHAM 40' SERIES

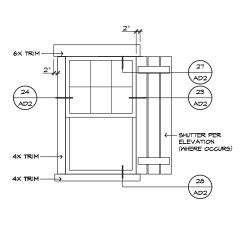
NOTE:
REFER TO BASIC FLOOR PLAN FOR INFORMATION NOT
SHOWN HERE

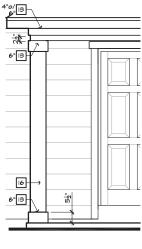


ROOF PLAN 'C'

SCALE I/8"=1'-0" (22"X34") - I/I6"=1'-0" (II"XIT")

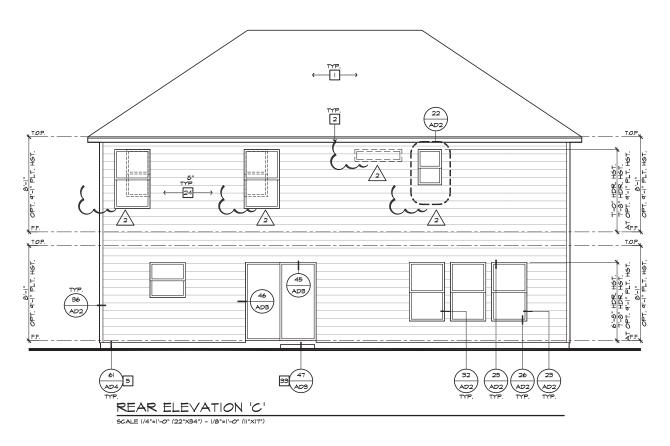


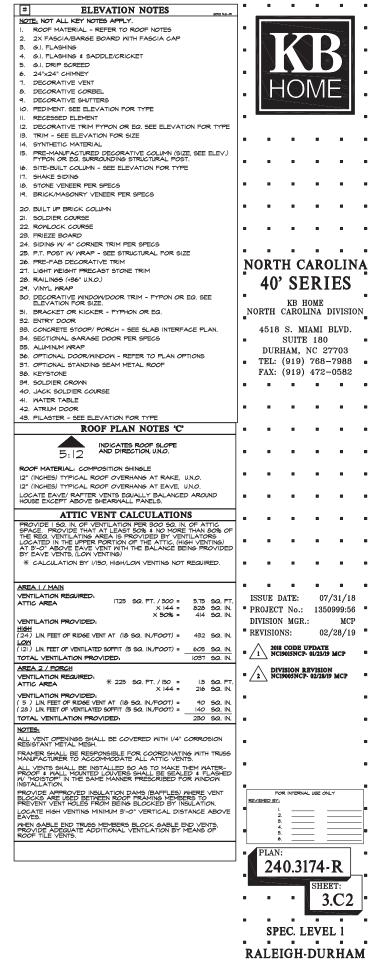




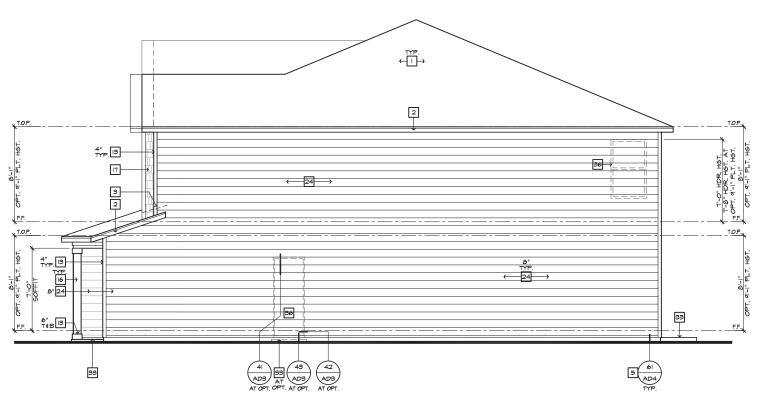
DETAIL 'A'

DETAIL 'B'





40' SERIES



RIGHT ELEVATION 'C'

SCALE I/4"=I'-0" (22"X34") - I/8"=I'-0" (II"XI7")



ELEVATION NOTE: NOT ALL KEY NOTES APPLY. **ELEVATION NOTES** ROOF MATERIAL - REFER TO ROOF NOTES 2. 2X FASCIA/BARGE BOARD WITH FASCIA CAP 3. G.I. FLASHING 4. G.I. FLASHING & SADDLE/CRICKET 5. G.I. DRIP SCREED 6. 24"x24" CHIMNEY DECORATIVE VENT DECORATIVE CORBEL 9. DECORATIVE SHUTTERS 10. PEDIMENT, SEE ELEVATION FOR TYPE II. RECESSED ELEMENT 12. DECORATIVE TRIM FYPON OR EQ. SEE ELEVATION FOR TYPE 13. TRIM - SEE ELEVATION FOR SIZE 14. SYNTHETIC MATERIAL PRE-MANUFACTURED DECORATIVE COLUMN (SIZE, SEE ELEV.) PYPON OR EQ. SURROUNDING STRUCTURAL POST. SITE-BUILT COLUMN - SEE ELEVATION FOR TYPE SHAKE SIDING STONE VENEER PER SPECS BRICK/MASONRY VENEER PER SPECS 20. BUILT UP BRICK COLUMN 21. SOLDIER COURSE 22. ROWLOCK COURSE 23. FRIEZE BOARD 24. SIDING W/ 4" CORNER TRIM PER SPECS 25. P.T. POST W WRAP - SEE STRUCTURAL FOR SIZE 26 PRE-FAB DECORATIVE TRIM 27. LIGHT WEIGHT PRECAST STONE TRIM 28. RAILINGS (+36" U.N.O.) 29. VINYL WRAP 30. DECORATIVE WINDOWDOOR TRIM - FYPON OR EQ. SEE ELEVATION FOR SIZE. 31. BRACKET OR KICKER - FYPHON OR EQ. 32. ENTRY DOOR 33. CONCRETE STOOP/ PORCH - SEE SLAB INTERFACE PLAN. 34. SECTIONAL GARAGE DOOR PER SPECS 35. ALUMINUM MRAP 36. OPTIONAL DOOR/WINDOM - REFER TO PLAN OPTIONS

37. OPTIONAL STANDING SEAM METAL ROOF 38. KEYSTONE

43. PILASTER - SEE ELEVATION FOR TYPE

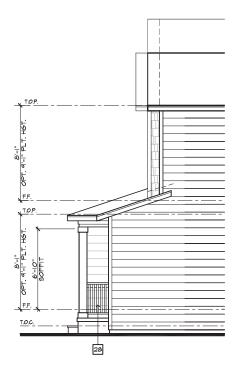
39. SOLDIER CROWN

40. JACK SOLDIER COURSE 41. WATER TABLE 42. ATRIUM DOOR

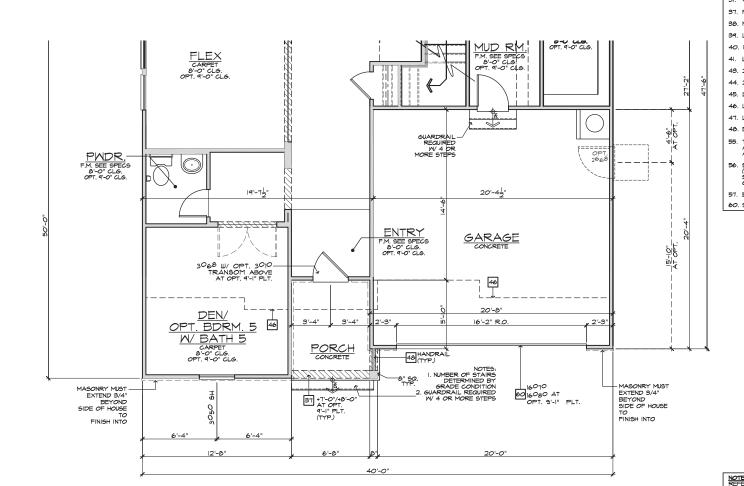
NORTH CAROLINA 40' SERIES KB HOME NORTH CAROLINA DIVISION 4518 S. MIAMI BLVD. SUITE 180 DURHAM, NC 27703 TEL: (919) 768-7988 • FAX: (919) 472-0582 ISSUE DATE: 07/31/18 * PROJECT No.: 1350999:56 * DIVISION MGR.: MCP 02/28/19 REVISIONS: 2018 CODE UPDATE NCI9015NCP- 01/23/19 MCP FOR INTERNAL USE ONLY 3.C3

240.3174-R

SPEC. LEVEL 1 RALEIGH-DURHAM 40' SERIES

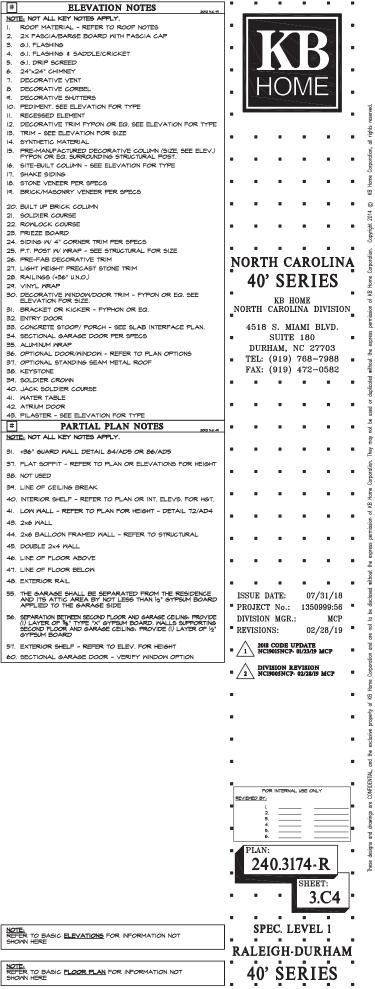


PARTIAL RIGHT ELEVATION 'C' AT CRAWL SPACE SCALE 1/4"=1"-O" (22"X84") - 1/6"=1"-O" (11"X1T")



PARTIAL FIRST FLOOR PLAN 'C' AT CRAWL SPACE SCALE (1/4"=1'-0" (22"X84") - 1/8"=1'-0" (11"X17")

BASIC PLAN





SCALE I/4"=1'-0" (22"X34") - I/8"=1'-0" (II"XI7")

ELEVATION NOTES NOTE: NOT ALL KEY NOTES APPLY. ROOF MATERIAL - REFER TO ROOF NOTES 2. 2X FASCIA/BARGE BOARD WITH FASCIA CAP 3. G.I. FLASHING 4. G.I. FLASHING & SADDLE/CRICKET 5. G.I. DRIP SCREED 6. 24"x24" CHIMNEY DECORATIVE VENT DECORATIVE CORBEL 9. DECORATIVE SHUTTERS
10. PEDIMENT, SEE ELEVATION FOR TYPE II. RECESSED ELEMENT
12. DECORATIVE TRIM FYPON OR EQ. SEE ELEVATION FOR TYPE IS. TRIM - SEE ELEVATION FOR SIZE

14. SYNTHETIC MATERIAL PRE-MANUFACTURED DECORATIVE COLUMN (SIZE, SEE ELEV.) FYPON OR EQ. SURROUNDING STRUCTURAL POST. SITE-BUILT COLUMN - SEE ELEVATION FOR TYPE SHAKE SIDING IB. STONE VENEER PER SPECS

II. BRICK/MASONRY VENEER PER SPECS 20. BUILT UP BRICK COLUMN 21. SOLDIER COURSE 22. ROWLOCK COURSE 23. FRIEZE BOARD 24. SIDING W/ 4" CORNER TRIM PER SPECS 25. P.T. POST W/ WRAP - SEE STRUCTURAL FOR SIZE 26. PRE-FAB DECORATIVE TRIM 27. LIGHT WEIGHT PRECAST STONE TRIM 28. RAILINGS (+36" U.N.O.) 29. VINYL WRAP 30. DECORATIVE WINDOWDOOR TRIM - FYPON OR EQ. SEE ELEVATION FOR SIZE. 31. BRACKET OR KICKER - FYPHON OR EQ. 32. ENTRY DOOR 33. CONCRETE STOOP/ PORCH - SEE SLAB INTERFACE PLAN.
34. SECTIONAL GARAGE DOOR PER SPECS 35. ALUMINUM MRAP 36. OPTIONAL DOOR/WINDOM - REFER TO PLAN OPTIONS 37. OPTIONAL STANDING SEAM METAL ROOF 38. KEYSTONE 39. SOLDIER CROWN 40. JACK SOLDIER COURSE 41. WATER TABLE 42. ATRIUM DOOR 43. PILASTER - SEE ELEVATION FOR TYPE 9'-1" PLATE OPTION



NORTH CAROLINA 40' SERIES

KB HOME NORTH CAROLINA DIVISION

4518 S. MIAMI BLVD. SUITE 180 DURHAM, NC 27703

TEL: (919) 768-7988 • FAX: (919) 472-0582

NOTE: MINDOM SIZES MILL INCREASE BY I' AT 9'-I' PLATE OPTIONS, HEADER HEIGHTS FOR ALL MINDOMS MILL BE 7'-8" AT 9'-I" PLATE OPTIONS.

ISSUE DATE: 07/31/18

PROJECT No.: 1350999:56

DIVISION MGR.: MCP

REVISIONS: 02/28/19

a 2018 CODE UPDATE NC19015NCP- 01/23/19 MCP

NC19005NCP- 02/28/19 MCP

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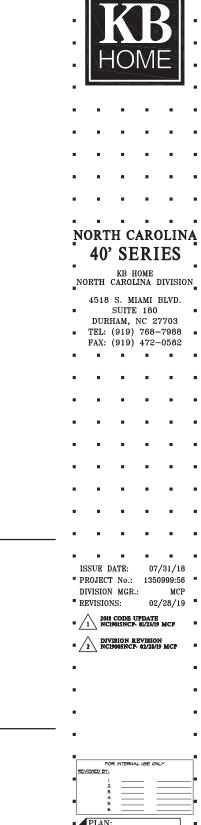
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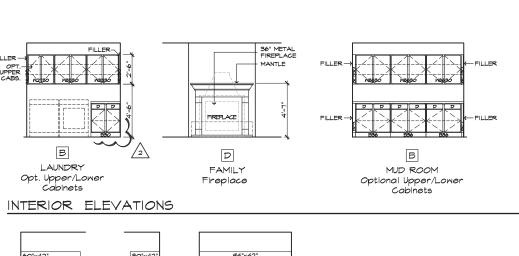
1. ______
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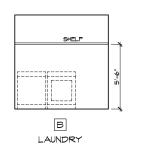
PLAN: 240.3174-R

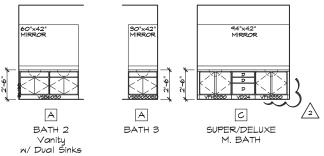
3.C5

spec. level 1
RALEIGH-DURHAM
40' SERIES

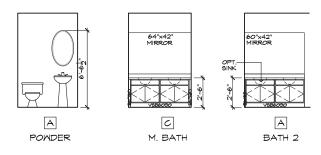




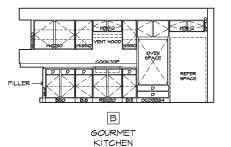


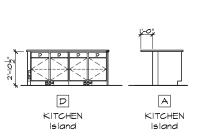


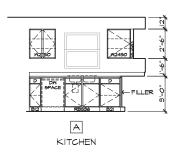
MISCELLANEOUS ELEVATIONS

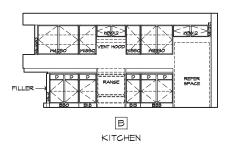


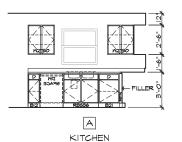
BATH ELEVATIONS











KITCHEN ELEVATIONS

OPTIONAL INTERIOR ELEVATIONS SCALE |/4"=|'-0" (22"X34") - |/8"=|'-0" (||"X|7")

KITCHEN ELEVATIONS

BATH ELEVATIONS

STANDARD INTERIOR ELEVATIONS

SCALE |/4"=|'-0" (22"X34") - |/8"=|'-0" (||"X|7")

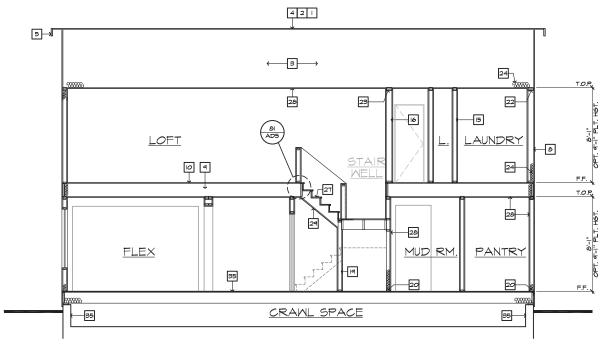
FOR INTERNAL USE ONLY

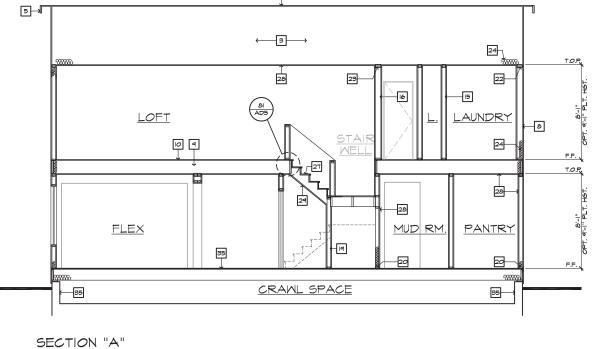
MCP

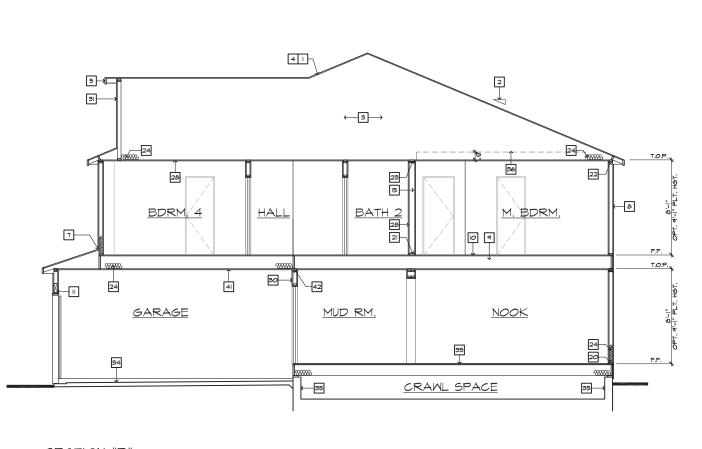
240.3174-R

4.1 SPEC. LEVEL 1

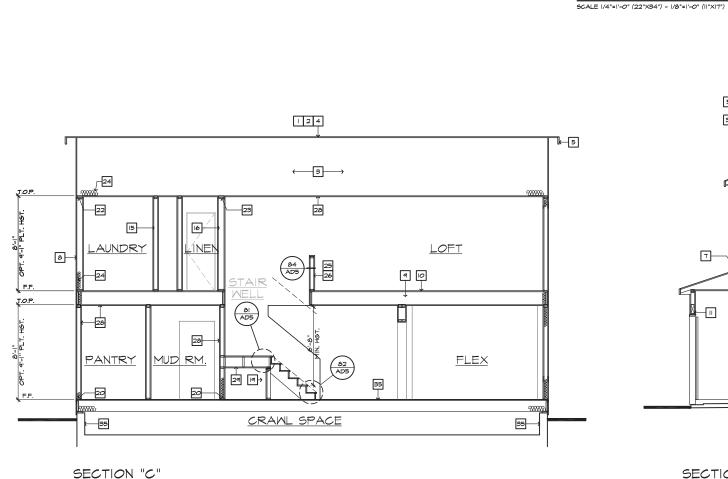
RALEIGH-DURHAM 40' SERIES







AT CRAWL SPACE



SCALE |/4"=|'-0" (22"X34") - |/8"=|'-0" (||"X|7")

SECTION "B" AT CRAWL SPACE

SCALE |/4"=1'-0" (22"X34") - |/8"=1'-0" (||"X|7")

.

NORTH CAROLINA 40' SERIES

KB HOME NORTH CAROLINA DIVISION

4518 S. MIAMI BLVD. SUITE 180 DURHAM, NC 27703

TEL: (919) 768-7988 • FAX: (919) 472-0582

40 8" BLOCK WALL 41. 5/8" TYPE-X DRYWALL @ GARAGE CEILING

35. CONCRETE FOUNDATION PER STRUCTURAL 36. LINE OF OPTIONAL TRAY CEILING/ STEP CEILING

AT CRAWL SPACE

37. LINE OF OPTIONAL VOLUME CEILING

38. PROFILE OF OPTIONAL COVERED PATIO

CEILING

4. WHEN THERE IS USABLE SPACE ABOVE AND BELOW THE
CONCEALED SPACE OF A FLOOR-CEILING ASSEMBLY IN A
SINGLE-FAMILY DIRELING, DRAFT STOPPS SHALL BE INSTALLET
SO THAT THE AREA OF THE CONCEALED SPACE DOES NOT
EXCEED IOOO SQUARE FIEET. DRAFTSTOPPING SHALL DIVIDE
THE CONCEALED SPACE INTO APPROXIMATELY EQUAL AREAS.

SECTION NOTES

PRE-MANUFACTURED WOOD ROOF TRUSS SYSTEM - SEE STRUCTURAL & TRUSS CALCS

ROOF MATERIAL - REFER TO ROOF NOTES ROOF PITCH - REFER TO ROOF NOTES

I6. 2x6 STUD WALL
I7. 2x6 BALLOON FRAMED WALL PER STRUCTURAL

22. DBL. 2x TOP PLATE @ EXTERIOR & BEARING WALLS
23. IX OVER 2x TOP PLATE @ INTERIOR & NON-BEARING WALLS
24. INSULATION MATERIAL PER ENERGY CALCULATIONS

27. STAIR TREADS AND RISERS PER PLAN: - MIN. IO" TREAD \$ MAX, 7 3/4" RISER

29. MIN. I/2" GYP. BD. ON CEILING & MALLS @ USEABLE SPACE UNDER STAIRS.

WIDER STAIRS.

O. GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAT 1/2" GYP. BD. @ GARAGE SIDE WALLS & 5,0" UNDER LIVING AREA UND.

31. MATERIAL TO UNDERSIDE OF ROOF SHEATHING

34. CONCRETE GARAGE SLAB PER STRUCTURAL - SLOPE 2" MIN.

32. INTERIOR SHELF - MIN. I/2" GYP. BD. OVER 3/8" PLY MD.

33. CONCRETE PATIO/ PORCH SLAB PER STRUCTURAL - SLOPE 1/4* PER FT. MIN.

39. EXTERIOR SOFFIT MATERIAL - REFER TO ELEVATIONS.

28. INTERIOR FINISH: - MIN. 1/2" GYP. BD. @ WALLS & SAG RESISTANT OR 5/8" DRYWALL @ CEILING

25. MIN. 36" HIGH GUARD - SEE PLAN FOR HEIGHT 26. LOW WALL - SEE PLAN FOR HEIGHT

ROOF SHEATHING PER STRUCTURAL 2x FASCIA/BARGE BOARD CONT. SOFFITED EAVE W/ VENTING G.I. FLASHING - ROOF TO WALL EXTERIOR FINISH PER ELEVATIONS FLOOR FRAMING PER STRUCTURAL IO. FLOOR SHEATHING PER STRUCTURAL HEADER PER STRUCTURAL

NOTE: NOT ALL KEY NOTES APPLY.

12. FLUSH BEAM PER STRUCTURAL 13. DROPPED BEAM PER STRUCTURAL 14. FLAT/ ARCHED SOFFIT PER PLAN

18. DBL. 2x4 WALL PER PLAN

19. 2x CRIPPLES @ 16" O.C. 20. 2x PRESSURE TREATED SILL PLATE

15. 2x4 STUD WALL

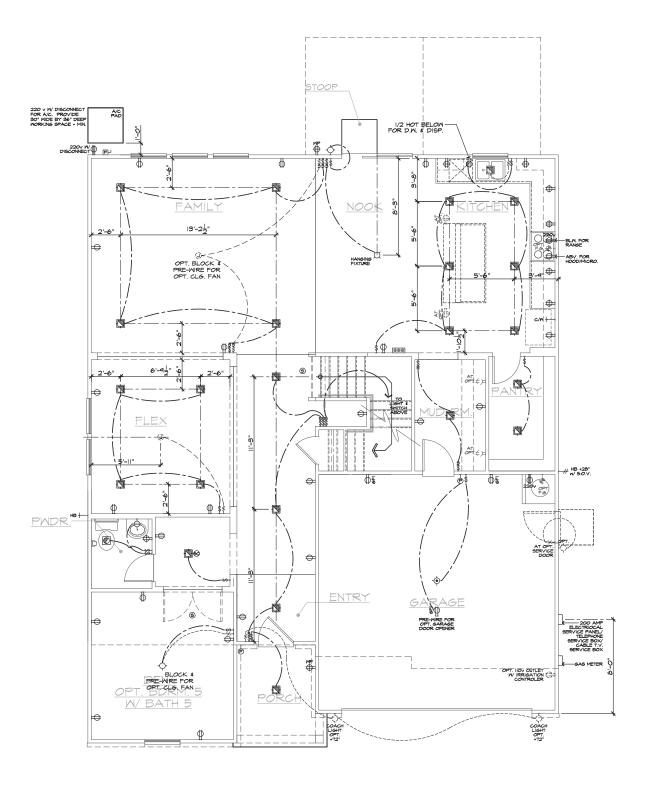
2I. 2x SOLE PLATE

ISSUE DATE: 07/31/18 * PROJECT No.: 1350999:56 * DIVISION MGR.: MCP REVISIONS: 02/28/19

2018 CODE UPDATE NC19015NCP- 01/23/19 MCP

240.3174-R SHEET:

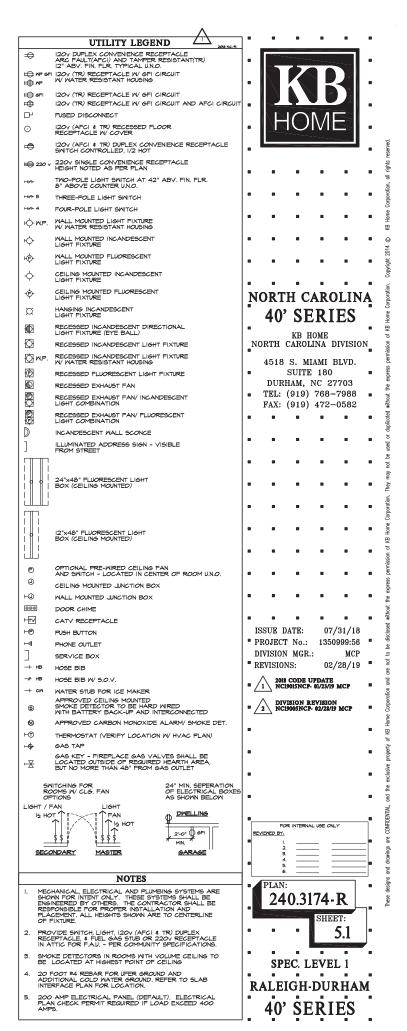
SPEC. LEVEL 1 RALEIGH-DURHAM 40' SERIES

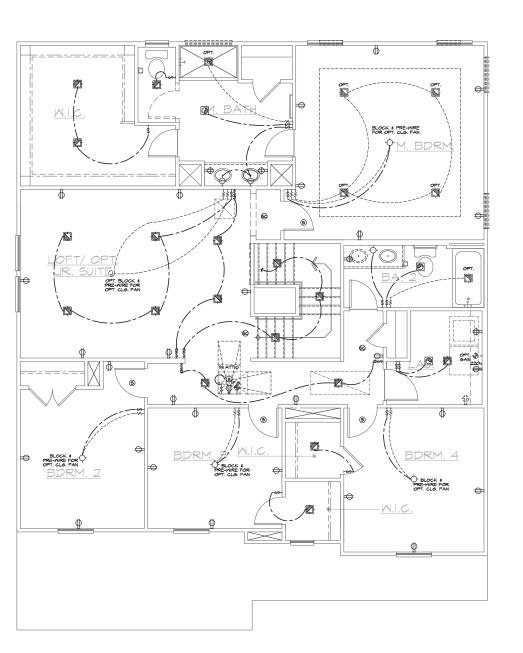


FIRST FLOOR UTILITY PLAN

SCALE I/4"=I'-0" (22"X34") - I/8"=I'-0" (II"XI7")

BASIC PLAN

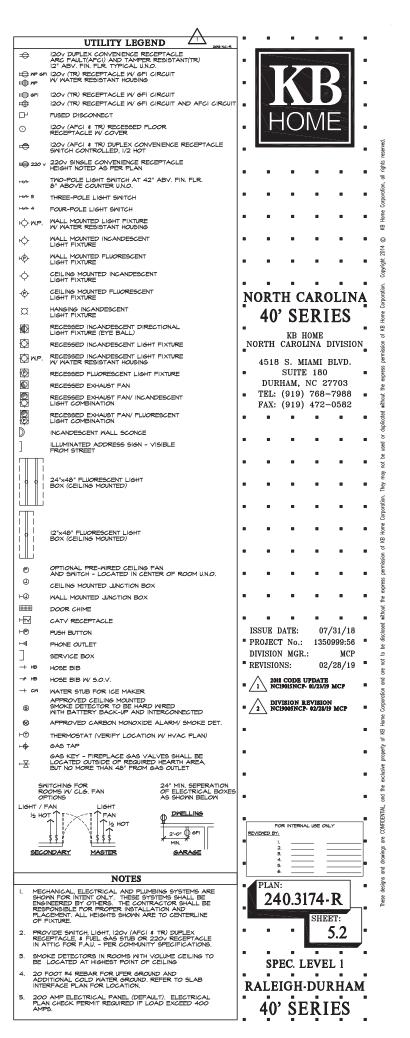


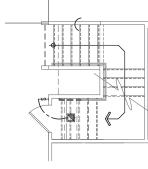


SECOND FLOOR UTILITY PLAN

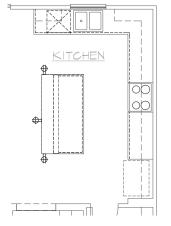
SCALE |/4"=|'-0" (22"X84") - |/8"=|'-0" (||"X|7")

BASIC PLAN





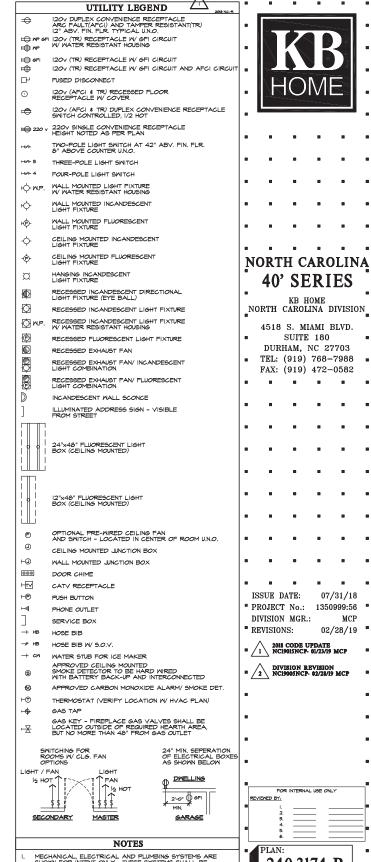
FULL STORAGE



KITCHEN ISLAND

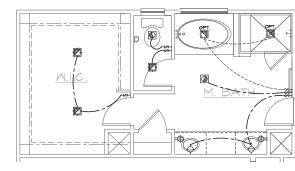
FIRST FLOOR UTILITY PLAN OPTIONS SCALE |/4"=|'-0" (22"X34") - |/8"=|'-0" (||"X|7")

000 HTV CATY RECEPTACLE ISSUE DATE: HP PUSH BUTTON PROJECT No.: 1350999:56 PHONE OUTLET DIVISION MGR.: SERVICE BOX REVISIONS: 02/28/19 HOSE BIB 2018 CODE UPDATE NC19015NCP- 01/23/19 MCP WATER STUB FOR ICE MAKER APPROVED CARBON MONOXIDE ALARM/ SMOKE DET. GAS TAP DWELLING FAN HOT FOR INTERNAL USE ONLY 2'-0" GFI REVIEWED BY: SECONDARY MASTER <u>GARAGE</u> NOTES MECHANICAL, ELECTRICAL AND PLIMBING SYSTEMS ARE SHOWN FOR INTENT ONLY. THESE SYSTEMS SHALL BE ENGINEERED BY OTHERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND PLACEMENT. ALL HEIGHTS SHOWN ARE TO CENTERLINE OF FIXTURE. 240.3174-R 5.3 SMOKE DETECTORS IN ROOMS WITH VOLUME CEILING TO BE LOCATED AT HIGHEST POINT OF CEILING SPEC. LEVEL 1 20 FOOT #4 REBAR FOR UFER GROUND AND ADDITIONAL COLD WATER GROUND, REFER TO SLAB INTERFACE PLAN FOR LOCATION. RALEIGH-DURHAM 200 AMP ELECTRICAL PANEL (DEFAULT). ELECTRICAL PLAN CHECK PERMIT REQUIRED IF LOAD EXCEED 400 AMPS. 40' SERIES BASIC PLAN



4518 S. MIAMI BLVD. SUITE 180 DURHAM, NC 27703 TEL: (919) 768-7988 • FAX: (919) 472-0582

40' SERIES



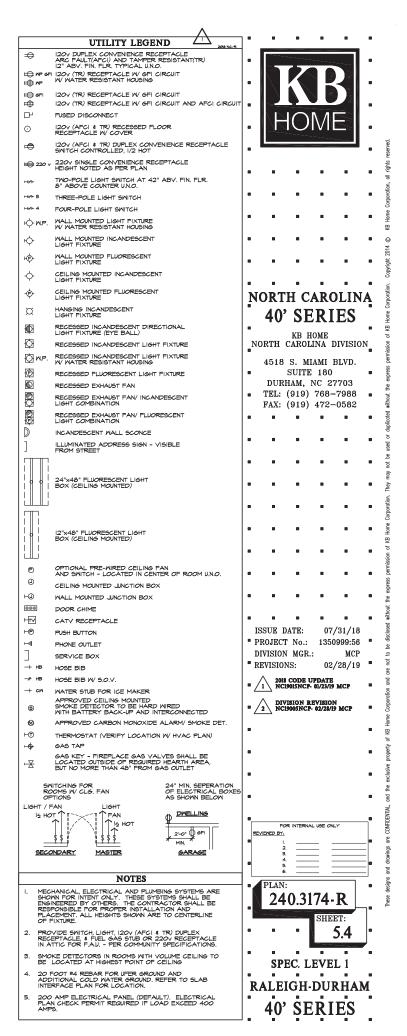
SUPER M. BATH

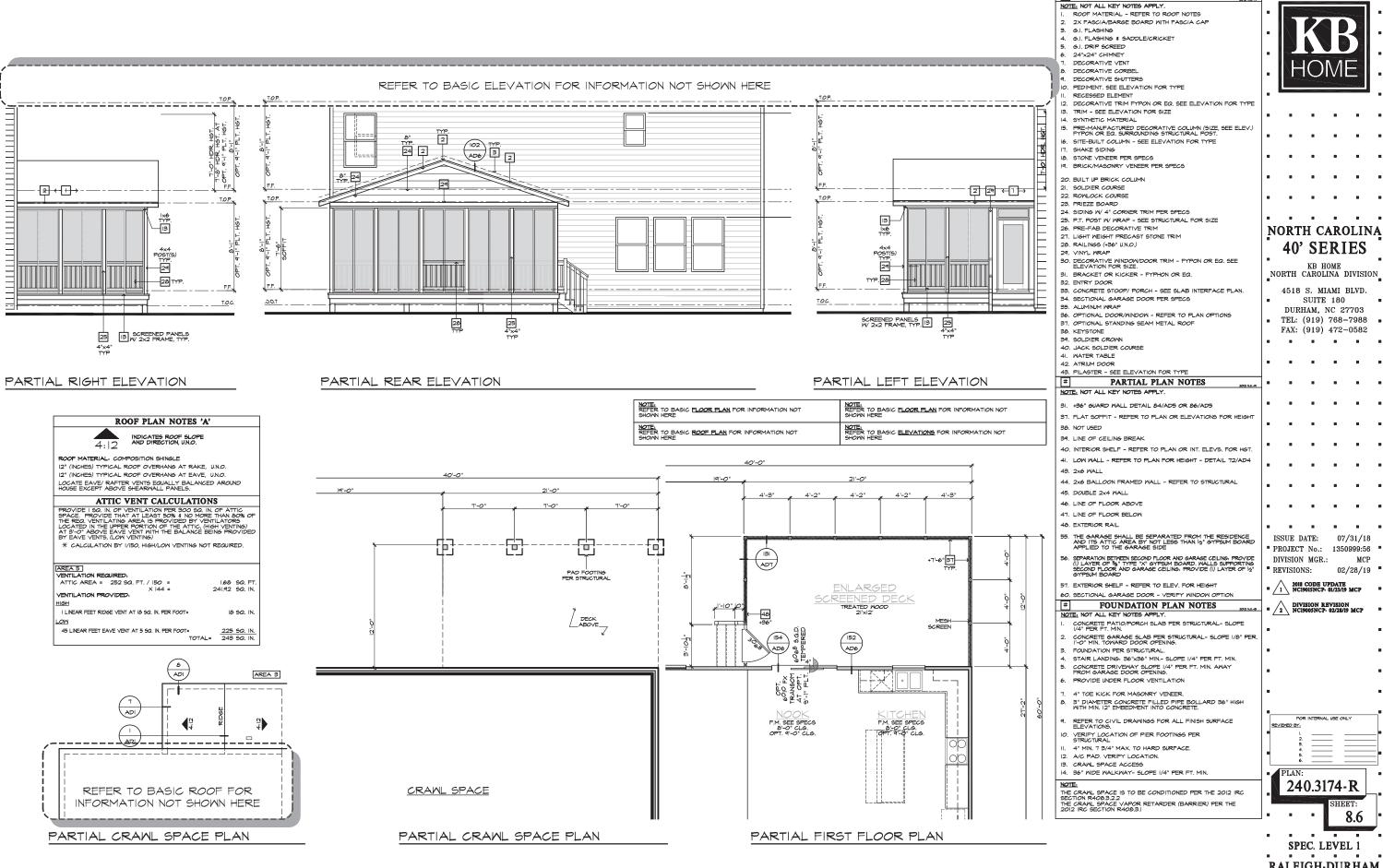
SECOND FLOOR UTILITY PLAN OPTIONS

SCALE |/4"=|'-0" (22"X84") - |/8"=|'-0" (||"X|7")

BASIC PLAN

AT M. BATH





 $\frac{2|\mbox{'x}|2'\mbox{ SCREENED-IN DECK 'A/B/C/D' AT CRAWL SPACE}}{\mbox{SCALE } (4^*=1^*-0'' (22''X34') - 1/8'*=1^*-0'' (11''X17')}$

RALEIGH-DURHAM
40' SERIES

ELEVATION NOTES

STRUCTURAL PLANS FOR:



240.3174 - RH GARAGE

| PLAN RELEASE / REVISIONS | | | |
|--------------------------|------------------------|--|------|
| REV DATE | ARCH PLAN VERSION | REVISION DESCRIPTION | DRFT |
| 05/23/2019 | 240.3174 RH 2019.02.28 | INITIAL SETUP OF LAYOUT | CAR |
| 05/23/2019 | 240.3174 RH 2019.02.28 | CREATED LOT-SPECIFIC STRUCTURAL LAYOUT FROM MASTER PLAN AND EWP LAYOUT | CAR |
| | | | |
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NOTES

- 1. ENGINEER'S SEAL APPLIES TO STRUCTURAL COMPONENTS ONLY, ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT, INCLUDING ROOF GEOMETRY. JDS CONSULTING & DESIGN, PLLC ASSUMES NO LIABILITY FOR CHANGES MADE TO THESE PLANS BY OTHERS, OR FOR CONSTRUCTION METHODS, OR FOR ANY DEVIATION FROM THE PLANS. ENGINEER TO BE NOTIFIED PRIOR TO CONSTRUCTION IF ANY DISCREPANCIES ARE NOTED ON THE PLANS.
- 2. DIMENSIONS SHALL GOVERN OVER SCALE, AND CODE SHALL GOVERN OVER DIMENSIONS.
- 3. PLANS MUST HAVE SIGNED SEAL TO BE VALID AND ARE LIMITED TO THE FOLLOWING USES:
 - A. IF THESE PLANS ARE ISSUED AS A MASTER-PLAN SET, THE SET IS VALID FOR 18 MONTHS FROM THE DATE ON THE SEAL, UNLESS ANY CODE-REQUIRED UPDATES ARE PLACED IN EFFECT BY THE MUNICIPALITY.
 - B. IF THESE PLANS ARE NOT ISSUED AS A MASTER-PLAN SET, THE SET IS VALID FOR A CONDITIONAL, ONE-TIME USE FOR THE LOT OR ADDRESS SPECIFIED ON THE TITLE BLOCK

CODE

ALL CONSTRUCTION, WORKMANSHIP, AND MATERIAL QUALITY AND SELECTION SHALL BE PER:

2018 NORTH CAROLINA STATE BUILDING CODE: RESIDENTIAL CODE

ENGINEER OF RECORD

JDS CONSULTING & DESIGN, PLLC
ENGINEERING, BUILDING DESIGN, & CONSTRUCTION
CONSULTING SERVICES
8600 'D' JERSEY COURT
RALEIGH, NC 27617
FIRM LIC. NO: P-0961
PROJECT REFERENCE: 19901075



KB HOME
NORTH CAROLINA DIVISIO
4518 S. MIAMI BLVD.

SUITE 180
DURHAM, NC 27703
TEL: (919) 768-7988
FAX: (919) 472-0582



P-0961



PROJECT NO.: 19901075 DATE: 5/23/2019

PLAN: **240.3174**

TITLE SHEET

T

NOTE: ALL CHAPTERS, SECTIONS, TABLES, AND FIGURES CITED WITHOUT A PUBLICATION TITLE ARE FROM THE APPLICABLE RESIDENTIAL CODE (SEE TITLE SHEET).

GENERAL

- 1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. FURTHERMORE, CONTRACTOR IS III TIMATELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, AND SAFETY ON SITE, NOTIFY JDS CONSULTING & DESIGN, PLLC IMMEDIATELY IF DISCREPANCIES ON PLAN EXIST.
- BRACED-WALL DESIGN IS BASED ON SECTION R602.10 WALL BRACING. PRIMARY PRESCRIPTIVE METHOD TO BE CS-WSP. SEE WALL BRACING PLANS AND DETAILS FOR ADDITIONAL INFORMATION.
 - ALL NON-PRESCRIPTIVE SOLUTIONS ARE BASED ON GUIDELINES ESTABLISHED IN THE AMERICAN SOCIETY OF CIVIL ENGINEERS PUBLICATION ASCE 7 AND THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION - SPECIAL DESIGN PROVISIONS FOR
- SEISMIC DESIGN SHALL BE PER SECTION R301.2.2 SEISMIC PROVISIONS, INCLUDING ASSOCIATED TABLES AND FIGURES. BASED ON LOCAL SEISMIC DESIGN CATEGORY.

DESIGN LOADS

ASSUMED SOIL BEARING-CAPACITY 2.000 PSF

| | LIVE LOAD |
|-------------------------------|----------------------------|
| ULTIMATE DESIGN WIND SPEED | 115 MPH, EXPOSURE B |
| GROUND SNOW | 15 PSF |
| ROOF | 20 PSF |
| | |
| RESIDENTIAL CODE TABLE R301.5 | LIVE LOAD (PSF) |
| DWELLING UNITS | 40 |
| SLEEPING ROOMS | 30 |
| ATTICS WITH STORAGE | 20 |
| ATTICS WITHOUT STORAGE | 10 |
| STAIRS | 40 |
| DECKS | 40 |
| EXTERIOR BALCONIES | 60 |
| PASSENGER VEHICLE GARAGES | 50 |
| FIRE ESCAPES | 40 |
| GUARDS AND HANDRAILS | 200 (pounds, concentrated) |

COMPONENT AND CLADDING LOADS, INCLUDING THOSE FOR DOORS AND WINDOWS, SHALL BE DERIVED FROM TABLES R301.2(2) AND R301.2(3) FOR A BUILDING WITH A MEAN ROOF HEIGHT OF 35 FEET, LOCATED IN EXPOSURE B.

| ABBR | EVIATIONS | KS | KING STUD COLUMN |
|------|-----------------------|------|------------------------|
| | | LVL | LAMINATED VENEER |
| ABV | ABOVE | | LUMBER |
| AFF | ABOVE FINISHED FLOOR | MAX | MAXIMUM |
| ALT | ALTERNATE | MECH | MECHANICAL |
| BRG | BEARING | MFTR | MANUFACTURER |
| BSMT | BASEMENT | MIN | MINIMUM |
| | CANTILEVER | NTS | NOT TO SCALE |
| CJ | CEILING JOIST | OA | OVERALL |
| CLG | CEILING | ОС | ON CENTER |
| CMU | CONCRETE MASONRY UNIT | PT | PRESSURE TREATED |
| CO | CASED OPENING | R | RISER |
| COL | COLUMN | REF | REFRIGERATOR |
| | CONCRETE | RFG | ROOFING |
| | CONTINUOUS | RO | ROUGH OPENING |
| D | CLOTHES DRYER | RS | ROOF SUPPORT |
| DBL | DOUBLE | SC | STUD COLUMN |
| DIAM | DIAMETER | SE | SQUARE FOOT (FEET) |
| DJ | DOUBLE JOIST | SH | SHELF / SHELVES |
| DN | DOWN | SHTG | SHEATHING |
| DP | DEEP | SHW | SHOWER |
| DR | DOUBLE RAFTER | SIM | SIMILAR |
| DSP | DOUBLE STUD POCKET | SJ | |
| EA | EACH | SP | |
| EE | EACH END | | SPECIFIED |
| EQ | EQUAL | SQ | SQUARE |
| EX | EXTERIOR | T | TREAD |
| FAU | FORCED-AIR UNIT | TEMP | TEMPERED GLASS |
| FDN | FOUNDATION | THK | THICK(NESS) |
| FF | FINISHED FLOOR | TJ | TRIPLE JOIST |
| FLR | FLOOR(ING) | TOC | TOP OF CURB / CONCRETE |
| FP | FIREPLACE | TR | TRIPLE RAFTER |
| FTG | FOOTING | TYP | TYPICAL |
| НВ | HOSE BIBB | UNO | UNLESS NOTED OTHERWIS |
| HDR | HEADER | W | CLOTHES WASHER |
| HGR | HANGER | | WATER HEATER |
| JS | JACK STUD COLUMN | | WELDED WIRE FABRIC |
| | | ΧJ | EXTRA JOIST |
| | | | |

MATERIALS

1. INTERIOR / TRIMMED FRAMING LUMBER SHALL BE #2 SPRUCE PINE FIR (SPF) WITH THE FOLLOWING DESIGN PROPERTIES (#2 SOUTHERN YELLOW PINE MAY BE SUBSTITUTED):

Fb = 875 PSI Fv = 70 PSI E = 1.4E6 PSI

FRAMING LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND, CONCRETE, OR MASONRY SHALL BE PRESSURE TREATED #2 SOUTHERN YELLOW PINE (SYP) WITH THE FOLLOWING DESIGN PROPERTIES:

Fb = 975 PSI Fv = 95 PSI E = 1.6E6 PSI

3. LVL STRUCTURAL MEMBERS TO BE LAMINATED VENEER LUMBER WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES:

Fb = 2600 PSI Fv = 285 PSI F = 1.9F6 PSI

PSL STRUCTURAL MEMBERS TO BE PARALLEL STRAND LUMBER WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES:

Fb = 2900 PSI Fv = 290 PSI F = 2.0F6 PSI

LSL STRUCTURAL MEMBERS TO BE LAMINATED STRAND LUMBER WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES:

Fb = 2250 PSI Fv = 400 PSI E = 1.55E6 PSI

- 6. STRUCTURAL STEEL WIDE-FLANGE BEAMS SHALL CONFORM TO ASTM A992. Fv = 50 KSI
- REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM A615, GRADE 60.
- POURED CONCRETE COMPRESSIVE STRENGTH TO BE A MINIMUM 3.000 PSI AT 28 DAYS, MATERIALS USED TO PRODUCE CONCRETE SHALL COMPLY WITH THE APPLICABLE STANDARDS LISTED IN AMERICAN CONCRETE INSTITUTE STANDARD ACI 318 OR ASTM
- CONCRETE SUBJECT TO MODERATE OR SEVERE WEATHERING PROBABILITY PER TABLE R301.2(1) SHALL BE AIR-ENTRAINED WHEN REQUIRED BY TABLE R402.2.
- 10. CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO AMERICAN CONCRETE INSTITUTE PUBLICATION 530: BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES AND COMPANION COMMENTARIES AND THE MASONRY SOCIETY PUBLICATION TMS 402/602: BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES.
- 11. MORTAR SHALL COMPLY WITH ASTM INTERNATIONAL STANDARD C270.
- 12. INDICATED MODEL NUMBERS FOR ALL METAL HANGERS, STRAPS, FRAMING CONNECTORS, AND HOLD-DOWNS ARE SIMPSON STRONG-TIE BRAND. EQUIVALENT USP BRAND PRODUCTS ARE ACCEPTABLE.
- 13. REFER TO I-JOIST EQUIVALENCE CHART ON I-JOIST DETAIL SHEET FOR SUBSTITUTION OF MANUFACTURER SERIES.

FOUNDATION

- MINIMUM ALLOWABLE SOIL BEARING CAPACITY IS ASSUMED TO BE 2,000 PSF, IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SOIL BEARING CAPACITY IF UNSATISFACTORY CONDITIONS
- 2. CONCRETE FOUNDATION WALLS TO BE SELECTED AND CONSTRUCTED PER SECTION R404 OR AMERICAN CONCRETE **INSTITUTE STANDARD ACI 318.**
- MASONRY FOUNDATION WALLS TO BE SELECTED AND CONSTRUCTED PER SECTION R404 AND/OR AMERICAN CONCRETE INSTITUTE PUBLICATION 530: BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES AND COMPANION **COMMENTARIES AND/OR THE MASONRY SOCIETY PUBLICATION** TMS 402/602: BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES
- CONCRETE WALL HORIZONTAL REINFORCEMENT TO BE PER TABLE R404.1.2(1) OR AS NOTED OR DETAILED. CONCRETE WALL VERTICAL REINFORCEMENT TO BE PER TABLES R404.1.2(3 AND 4) OR AS NOTED OR DETAILED. ALL CONCRETE WALLS SHALL COMPLY WITH APPLICABLE PROVISIONS OF CHAPTER 6.
 - A. TABLES ASSUME THAT WALLS HAVE PERMANENT LATERAL SUPPORT AT THE TOP AND BOTTOM.
 - B. FOUNDATION DRAINS ARE ASSUMED AT ALL WALLS PER SECTION R405
- PLAIN-MASONRY WALL DESIGN TO BE PER TABLE R404.1.1(1) OR AS NOTED OR DETAILED. MASONRY WALLS WITH VERTICAL REINFORCEMENT TO BE PER TABLES R404.1.1 (2 THROUGH 4) OR AS NOTED OR DETAILED. ALL MASONRY WALLS SHALL COMPLY WITH APPLICABLE PROVISIONS OF CHAPTER 6.
 - A. TABLES ASSUME THAT WALLS HAVE PERMANENT LATERAL SUPPORT AT THE TOP AND BOTTOM.
 - WALL REINFORCING SHALL BE PLACED ACCORDING TO FOOTNOTE (c) OF THE TABLES (REINFORCING IS NOT CENTERED IN WALL).
 - C. FOUNDATION DRAINS ARE ASSUMED AT ALL WALLS PER SECTION R405.
- WOOD SILL PLATES TO BE ANCHORED TO THE FOUNDATION WITH 1/2" DIAMETER ANCHOR BOLTS WITH MINIMUM 7" EMBEDMENT, SPACED A MAXIMUM OF 6'-0" OC AND WITHIN 12" FROM THE ENDS OF EACH PLATE SECTION. INSTALL MINIMUM (2) ANCHOR BOLTS PER SECTION. SEE <u>SECTION R403.1.6</u> FOR SPECIFIC CONDITIONS.
- THE UNSUPPORTED HEIGHT OF SOLID MASONRY PIERS SHALL NOT **EXCEED TEN TIMES THEIR LEAST DIMENSION. UNFILLED, HOLLOW** PIERS MAY BE USED IF THE UNSUPPORTED HEIGHT IS NOT MORE THAN FOUR TIMES THEIR LEAST DIMENSION
- CENTERS OF PIERS TO BEAR IN THE MIDDLE THIRD OF THE FOOTINGS, AND GIRDERS SHALL CENTER IN THE MIDDLE THIRD OF
- 9. ALL FOOTINGS TO HAVE MINIMUM 2" PROJECTION ON EACH SIDE OF FOUNDATION WALLS (SEE DETAILS).
- 10. ALL REBAR NOTED IN CONCRETE TO HAVE AT LEAST 2" COVER FROM EDGE OF CONCRETE TO EDGE OF REBAR.
- 11. FRAMING TO BE FLUSH WITH FOUNDATION WALLS.
- 12. WITH CLASS 1 SOILS, VAPOR BARRIER AND CRUSHED STONE MAY BE OMITTED.

FRAMING

- 1. ALL BEARING HEADERS TO BE (2) 2x6 SUPPORTED W/ MIN (1) JACK STUD AND (1) KING STUD EACH END, UNO.
- 2. ALL NON-BEARING HEADERS TO BE (2) 2x4, UNO.
- NON-BEARING INTERIOR WALLS NOT MORE THAN 10' NOMINAL HEIGHT AND NOT SHOWN AS BRACED WALLS MAY BE FRAMED WITH 2x4 STUDS @ 24" OC.
- SOLID BLOCKING TO BE PROVIDED AT ALL POINT LOADS THROUGH FLOOR LEVELS TO THE FOUNDATION OR TO OTHER STRUCTURAL COMPONENTS
- 5. ALL BEAMS SPECIFIED ARE MINIMUM SIZES ONLY, LARGER MEMBERS MAY SUBSTITUTED AS NEEDED FOR EASE OF CONSTRUCTION.
- 6. ALL EXTERIOR WALLS TO BE FULLY SHEATHED WITH 7/16" OSB.
- PORCH / PATIO COLUMNS TO BE 4x4 MINIMUM PRESSURE-TREATED
 - A. ATTACH PORCH COLUMNS TO SLAB / FDN WALL USING ABA ABU, ABW, OR CPT SIMPSON POST BASES TO FIT COLUMN SIZES NOTED ON PLAN -OR- ANY OTHER COLUMN CONNECTION WITH 500# UPLIFT CAPACITY.
 - ATTACH PORCH COLUMNS TO PORCH BEAMS USING AC OR BC SIMPSON POST CAPS TO FIT COLUMN SIZES NOTED ON PLAN -OR- ANY OTHER COLUMN CONNECTION WITH 500# UPLIFT CAPACITY.
 - C. TRIM OUT COLUMN(S) AND BEAM(S) PER BUILDER AND
- ALL ENGINEERED WOOD PRODUCTS (LVL, PSL, LSL, ETC.) SHALL BE INSTALLED WITH CONNECTIONS PER MANUFACTURER SPECIFICATIONS.
- 9. ENGINEERED WOOD FLOOR SYSTEMS AND ROOF TRUSS SYSTEMS: A SHOP DRAWINGS FOR THE SYSTEMS SHALL BE PROVIDED. TO THE ENGINEER OF RECORD FOR REVIEW AND COORDINATION BEFORE CONSTRUCTION.
 - TRUSS PROFILES SHALL BE SEALED BY THE TRUSS MANUFACTURER.
 - INSTALLATION OF THE SYSTEMS SHALL BE PER MANUFACTURER'S INSTRUCTIONS.
 - TRUSS LAYOUT AND PLACEMENT BY MANUFACTURER TO COINCIDE WITH THE SUPPORT LOCATIONS SHOWN IN THESE
- 10. ALL BEAMS TO BE CONTINUOUSLY SUPPORTED LATERALLY AND SHALL BEAR FULL WIDTH ON THE SUPPORTING WALLS OR COLUMNS INDICATED, WITH A MINIMUM OF THREE STUDS, UNO.
- 11. ALL STEEL BEAMS TO BE SUPPORTED AT EACH END WITH A MIN BEARING LENGTH OF 3 1/2" AND FULL FLANGE WIDTH. BEAMS MUST BE ATTACHED AT EACH END WITH A MINIMUM OF FOUR 16d NAILS OR TWO 1/2" x 4" LAG SCREWS, UNO.
- 12. STEEL FLITCH BEAMS TO BE BOLTED TOGETHER USING (2) ROWS OF 1/2" DIAMETER BOLTS (ASTM 307) WITH WASHERS PLACED LINDER THE THREADED END OF THE BOLT, BOLTS TO BE SPACED AT 24" OC (MAX) AND STAGGERED TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH TWO BOLTS TO BE LOCATED AT 6" FROM EACH END OF FLITCH BEAM.
- 13. WHEN A 4-PLY LVL BEAM IS USED, ATTACH WITH (1) 1/2" DIAMETER BOLT, 12" OC, STAGGERED TOP AND BOTTOM, 1 1/2" MIN FROM ENDS. ALTERNATE EQUIVALENT ATTACHMENT METHOD MAY BE USED, SUCH AS SDS, SDW, OR TRUSSLOK SCREWS (SEE MANUFACTURER SPECIFICATIONS).
- 14. FOR STUD COLUMNS OF 4-OR-MORE STUDS, INSTALL SIMPSON STRONG-TIE CS16 STRAPS ACROSS STUDS @ 30" OC, 6" MAX FROM PLATES, ON INSIDE FACE OF COLUMN (EXTERIOR WALL), ON BOTH FACES OF COLUMN (INTERIOR WALL).
- 15. FLOOR JOISTS ADJACENT AND PARALLEL TO THE EXTERIOR FOUNDATION WALL SHALL BE PROVIDED WITH FULL-DEPTH SOLID BLOCKING, NOT LESS THAN TWO (2) INCHES NOMINAL IN THICKNESS, PLACED PERPENDICULAR TO THE JOIST AT SPACING NOT MORE THAN FOUR (4) FEET. THE BLOCKING SHALL BE NAILED TO THE FLOOR SHEATHING, THE SILL PLATE, THE JOIST, AND THE EXTERIOR RIM JOIST / BOARD.
- 16. BRACED WALL PANELS SHALL BE FASTENED TO MEET THE **UPLIFT-RESISTANCE REQUIREMENTS IN CHAPTERS 6 AND 8 OF** THE APPLICABLE CODE (SEE TITLE SHEET). REQUIREMENTS OF THE STRUCTURAL DRAWINGS THAT EXCEED THE CODE MINIMUM SHALL BE MET.



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PROJECT NO: 19901075 5/23/2019 DATE:

240.3174

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GENERAL NOTES

| FASTENER SCHEDULE | | | |
|--|--|--|--|
| CONNECTION | 3" x 0.131" NAIL | 3" x 0.120" NAIL | |
| JOIST TO SILL PLATE | (4) TOE NAILS | (4) TOE NAILS | |
| SOLE PLATE TO JOIST / BLOCKING | NAILS @ 8" OC (typical) (4) PER 16" SPACE (at braced panels) | NAILS @ 8" OC (typical) (4) PER 16" SPACE (at braced panels) | |
| STUD TO SOLE PLATE | (4) TOE NAILS | (4) TOE NAILS | |
| TOP OR SOLE PLATE TO STUD | (3) FACE NAILS | (4) FACE NAILS | |
| RIM JOIST OR BAND JOIST TO TOP PLATE OR SILL PLATE | TOE NAILS @ 6" OC | TOE NAILS @ 4" OC | |
| BLOCKING BETWEEN JOISTS TO TOP PLATE OR SILL PLATE | (4) TOE NAILS | (4) TOE NAILS | |
| DOUBLE STUD | NAILS @ 8" OC | NAILS @ 8" OC | |
| DOUBLE TOP PLATES | NAILS @ 12" OC | NAILS @ 12" OC | |
| DOUBLE TOP PLATES LAP (24" MIN LAP LENGTH) | (12) NAILS IN LAPPED AREA, EA SIDE OF JOINT | (12) NAILS IN LAPPED AREA, EA SIDE OF JOINT | |
| TOP PLATE LAP AT CORNERS AND INTERSECTING WALLS | (3) FACE NAILS | (3) FACE NAILS | |
| OPEN-WEB TRUSS BOTTOM CHORD TO TOP PLATES OR SILL PLATE (PARALLEL TO WALL) | NAILS @ 6" OC | NAILS @ 4" OC | |
| BOTTOM CHORD OF TRUSS TO TOP PLATES OR SILL PLATE (PERPENDICULAR TO WALL) | (3) TOE NAILS | (3) TOE NAILS | |

SEE TABLE R602.3(1) FOR ADDITIONAL STRUCTURAL-MEMBER FASTENING REQUIREMENTS.

DETAILS AND NOTES ON DRAWINGS GOVERN.

BALLOON WALL FRAMING SCHEDULE (USE THESE STANDARDS UNLESS NOTED OTHERWISE ON THE FRAMING PLAN SHEETS)

| | MAX HEIGHT (PLATE TO PLATE) |
|---------------------|------------------------------------|
| FRAMING MEMBER SIZE | 115 MPH ULTIMATE DESIGN WIND SPEED |
| | |
| 2x4 @ 16" OC | 10'-0" |
| 2x4 @ 12" OC | 12'-0" |
| 2x6 @ 16" OC | 15'-0" |
| 2x6 @ 12" OC | 17'-9" |
| 2x8 @ 16" OC | 19'-0" |
| | |
| 2x8 @ 12" OC | 22'-0" |
| (2) 2x4 @ 16" OC | 14'-6" |
| (2) 2x4 @ 12" OC | 17'-0" |
| (2) 2ve @ 4e" OC | 21'-6" |
| (2) 2x6 @ 16" OC | |
| (2) 2x6 @ 12" OC | 25'-0" |
| (2) 2x8 @ 16" OC | 27'-0" |
| (2) 2x8 @ 12" OC | 31'-0" |
| | |

- a. ALL HEIGHTS ARE MEASURED SUBFLOOR TO TOP OF WALL PLATE.
- b. WHEN SPLIT-FRAMED WALLS ARE USED FOR HEIGHTS OVER 12', THE CONTRACTOR SHALL ADD 6' MINIMUM OF CS16 COIL STRAPPING (FULLY NAILED), CENTERED OVER THE WALL BREAK.
- c. FINGER-JOINTED MEMBERS MAY BE USED FOR CONTINUOUS HEIGHTS WHERE TRADITIONALLY MILLED LUMBER LENGTHS ARE LIMITED.
- d. FOR GREATER WIND SPEED, SEE ENGINEERED SOLUTION FOR CONDITION IN DRAWINGS.

ROOF SYSTEMS

TRUSSED ROOF - STRUCTURAL NOTES

- PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR ALL POINT LOADS.
- 2.

DENOTES OVER-FRAMED AREA

- 3. MINIMUM 7/16" OSB ROOF SHEATHING
- 4. TRUSS LAYOUT AND PLACEMENT BY MANUFACTURER TO COINCIDE WITH THE SUPPORT LOCATIONS SHOWN. TRUSS PROFILES SHALL BE SEALED BY THE TRUSS MANUFACTURER. TRUSS PLANS TO BE COORDINATED WITH THE SEALED STRUCTURAL DRAWINGS. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 5. MANUFACTURER TO PROVIDE REQUIRED UPLIFT CONNECTION.
- 6. PROVIDE H2.5A (MINIMUM) OR EQUIVALENT AT EACH TRUSS-TO-TOP PLATE CONNECTION AT OVER-FRAMED AREAS, UNLESS NOTED OTHERWISE.
- UPLIFT CONNECTION TO BE CARRIED THROUGH TO FLOOR SYSTEM.

STICK-FRAMED ROOF - STRUCTURAL NOTES

- 1. PROVIDE 2x4 COLLAR TIES AT 48" OC AT UPPER THIRD OF RAFTERS. UNLESS NOTED OTHERWISE.
- 2. FUR RIDGES FOR FULL RAFTER CONTACT.
- PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR ALL POINT LOADS.



DENOTES OVER-FRAMED AREA

- 5. MINIMUM 7/16" OSB ROOF SHEATHING
- 6. PROVIDE 2x4 RAFTER TIES AT 16" OC AT 45° BETWEEN RAFTERS AND CEILING JOISTS. USE (4) 16d NAILS AT EACH CONNECTION. RAFTER TIES MAY BE SPACED AT 48" OC AT LOCATIONS WHERE NO KNEE WALLS ARE INSTALLED.
- 7. PROVIDE H2.5A (MINIMUM) OR EQUIVALENT AT EACH
 RAFTER-TO-TOP PLATE CONNECTION AT OVER-FRAMED AREAS,
 UNLESS NOTED OTHERWISE.
- 8. UPLIFT CONNECTION TO BE CARRIED THROUGH TO FLOOR

| BRICK VENEER LINTEL SCHEDULE | | | |
|------------------------------|---|--|--|
| SPAN | STEEL ANGLE SIZE END BEARING LENGTH | | |
| UP TO 42" | L3-1/2"x3-1/2"x1/4" 8" (MIN. @ EACH END) | | |
| UP TO 72" | L6"x4"x5/16"* (LLV) 8" (MIN. @ EACH END) | | |
| OVER 72" | R 72" L6"x4"x5/16"* (LLV) ATTACH LINTEL w/ 1/2" THRU BOLT @ 12" OC, 3" FROM EACH END | | |

* FOR QUEEN BRICK: LINTELS AT THIS CONDITION MAY BE 5"x3-1/2"x5/16"

NOTE: BRICK LINTELS AT SLOPED AREAS TO BE 4"x3-1/2"x1/4" STEEL ANGLE WITH 16D NAILS IN 3/16" HOLES IN 4" ANGLE LEG AT 12" OC TO TRIPLE RAFTER. WHEN THE SLOPE EXCEEDS 4:12 A MINIMUM OF 3"x3"x1/4" PLATES SHALL BE WELDED AT 24" OC ALONG THE STEEL ANGLE.



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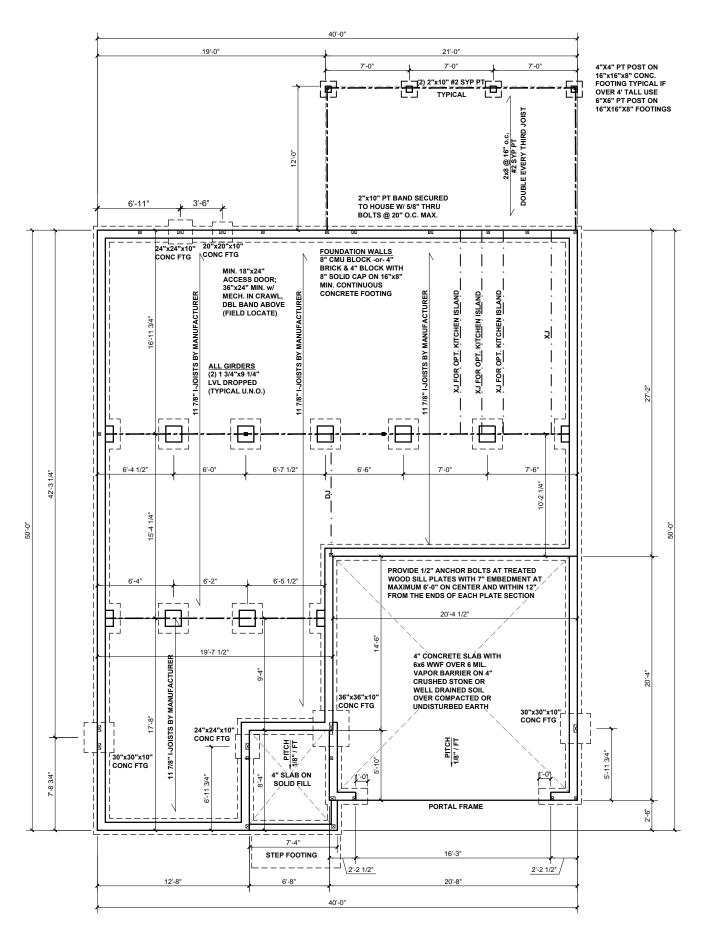
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PLAN: **240.3174**

GENERAL NOTES

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GN1.1



CRAWLSPACE FOUNDATION PLAN - 'C'

SCALE: 1/8" = 1'-0"

BEAM & POINT LOAD LEGEND

INTERIOR LOAD BEARING WALL ---- ROOF RAFTER / TRUSS SUPPORT · - · - DOUBLE RAFTER / DOUBLE JOIST

■ STRUCTURAL BEAM / GIRDER WINDOW / DOOR HEADER

POINT LOAD TRANSFER

POINT LOAD FROM ABOVE BEARING ON BEAM / GIRDER

I-JOIST SPACING NOT TO EXCEED 19.2" OC IN LOCATIONS WITH TILE FINISH FLOOR

FLOOR FRAMING TO BE 11 7/8" DEEP TJI 210 SERIES OR EQUAL, 19.2" OC MAXIMUM SPACING

**REFER TO I-JOIST EQUIVALENCE CHART ON I-JOIST DETAIL SHEET FOR SUBSTITUTION OF MANUFACTURER SERIES

(1) #5 REBAR @ CENTER OFF ALL PERIMETER AND INTERNAL LOAD BEARING FOOTINGS. (2" C.C. MIN)

FOUNDATION STRUCTURAL NOTES:

1. CONCRETE BLOCK PIER SIZE SHALL BE:

HOLLOW MASONRY

8 X16 UP TO 32" HIGH UP TO 5'-0" HIGH 12X16 UP TO 48" HIGH UP TO 9'-0" H 16X16 UP TO 64" HIGH UP TO 12'-0" I 24X24 UP TO 96" HIGH WITH 30" X 30" X 10 CONCRETE FOOTING, UNO. UP TO 9'-0" HIGH UP TO 12'-0" HIGH

8"x16" PIERS AT FOUNDATION WALL SUPPORTING DROPPED GIRDER TO HAVE A 30"x10"x8" FOOTING
PROJECT FROM MAIN WALL FOOTING



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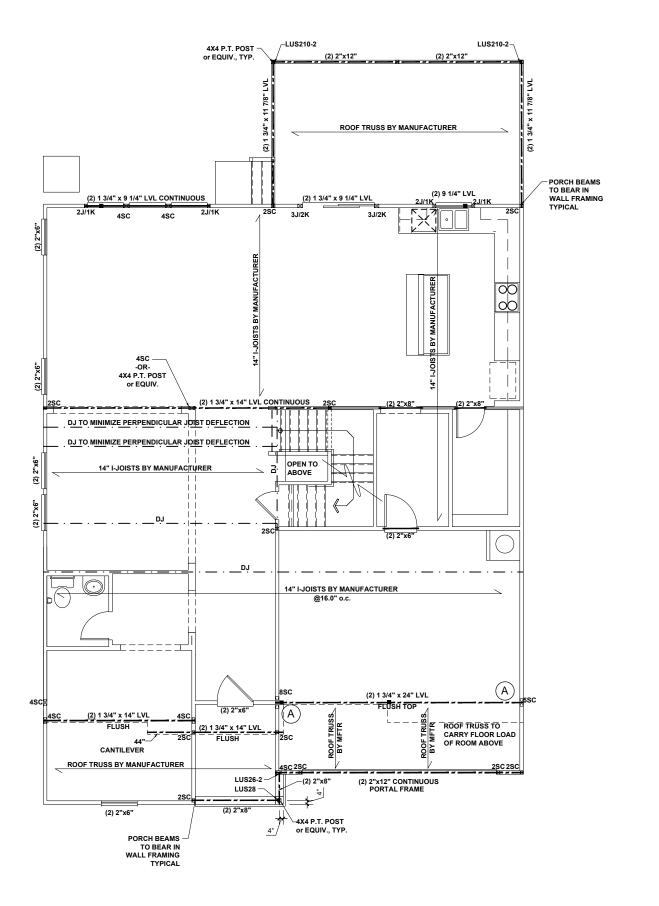
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CRAWL SPACE FOUNDATION PLAN



BEAM & POINT LOAD LEGE

INTERIOR LOAD BEARING WALL
ROOF RAFTER / TRUSS SUPPORT
OUBLE RAFTER / DOUBLE JOIST
STRUCTURAL BEAM / GIRDER
WINDOW / DOOR HEADER

■ WINDOW / DOOR HEADER

 ■ POINT LOAD TRANSFER

■ POINT LOAD FROM ABOVE BEARING ON BEAM / GIRDER

STRUCTURAL FRAMING NOTES - (SEE GENERAL NOTES SHEET FOR ADDITIONAL REQUIREMENTS.)

ALL EDAMING TO DE #2 SDE MINIMUM

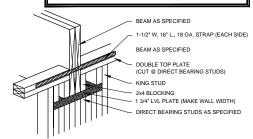
- ALL BEARING HEADERS TO BE (2) 2x6 SUPPORTED W/ MIN (1) JACK AND (1) KING EACH END, UNO.
- 3. EXTERIOR WALL OPENINGS OVER 3' TO HAVE MULTIPLE KING STUDS AS NOTED ON PLAN.
- . ALL NON-BEARING HEADERS TO BE (2) 2x4 (1) J /
- 5. PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR ALL POINT LOADS.
- ALL HANGERS AND CONNECTORS SPECIFIED ARE TO BE SIMPSON STRONG-TIE OR EQUIVALENT.
- 7. ALL BEAMS SPECIFIED ARE MINIMUM SIZES ONLY. LARGER MEMBERS MAY SUBSTITUTED AS NEEDED FOR EASE OF CONSTRUCTION. MINIMUM BEAM SUPPORT IS (1) 2x4 STUD.
- ALL EXTERIOR WALLS TO BE FULLY SHEATHED WITH 7/16" OSB.
- 9. FRONT PORCH COLUMNS TO BE MIN 4x4 PT ATTACHED AT TOP AND BOTTOM USING SIMPSON (OR EQUIV) COLUMN BASE OR SST A24 BRACKETS. TRIM OUT PER BUILDER.
- PORCH COLUMNS TO BE MIN 4x4 PT ATTACHED AT BOTTOM USING SIMPSON (OR EQUIV) ABA44 AND AT TOP USING CS 16 STRAPPING (12" MIN) TO PORCH HEADER / BAND.
- WHEN A 4-PLY LVL IS USED, ATTACH WITH (1) 1/2" Ø BOLT 12" OC STAGGERED, TOP AND BOTTOM, 1-1/2" MIN FROM ENDS. ALTERNATE ATTACHMENT EQUIVALENT METHOD MAY BE USED, SUCH AS SDW OR TRUSSLOK SCREWS (SEE MANUFACTUREN'S SPECIFICATIONS).
- 2. FOR STUD COLUMNS OF 4 OR MORE, INSTALL SST CS16 STRAPS @ 30" OC, 6" MAX FROM PLATES, ON INSIDE FACE OF COLUMN (EXTERIOR WALL), ON BOTH FACES OF COLUMN (INTERIOR WALL).

I-JOIST SPACING NOT TO EXCEED 19.2" OC IN LOCATIONS WITH TILE FINISH FLOOR

ALL FLUSH BEAMS TO BE DIRECTLY SUPPORTED BY (2) 2X_STUDS UNLESS OTHERWISE NOTED. STUD COLUMNS TO BE SUPPORTED BY SOLID BLOCKING TO FOUNDATION OR TO BEARING COMPONENT BELOW.

FLOOR FRAMING TO BE 14" DEEP TJI 210 SERIES OR EQUAL, 19.2" OC MAXIMUM SPACING, U.N.O.

**REFER TO I-JOIST EQUIVALENCE CHART ON I-JOIST DETAIL SHEET FOR SUBSTITUTION OF MANUFACTURER SERIES



A DIRECT STUD BEARING DROPPED SINGLE LVL PLATE NTS

FIRST FLOOR CEILING FRAMING PLAN - 'C'

SCALE: 1/8" = 1'-0"



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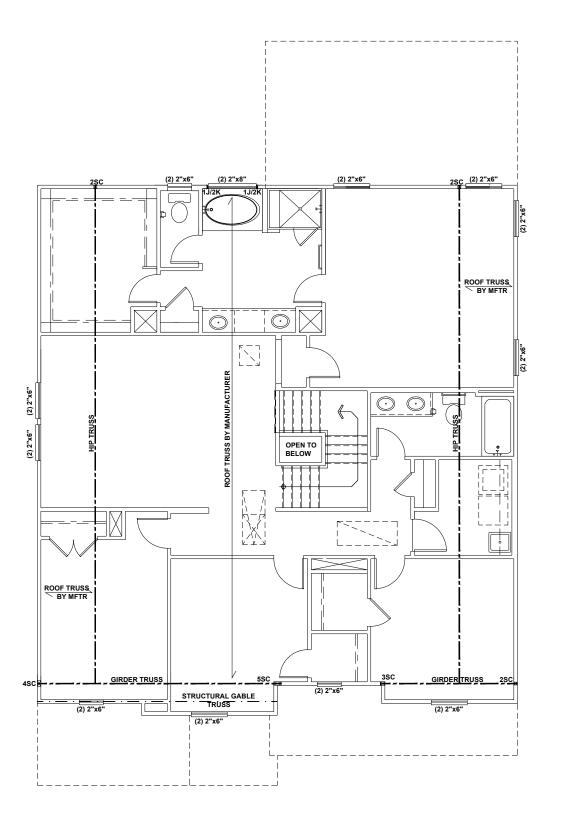
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PLAN: **240.3174**

FIRST FLOOR
CEILING FRAMING PLAN



BEAM & POINT LOAD LEGEN

INTERIOR LOAD BEARING WALL
ONE OF RAFTER / TRUSS SUPPORT
OUBLE RAFTER / DOUBLE JOIST
STRUCTURAL BEAM / GIRDER
WINDOW / DOOR HEADER
POINT LOAD TRANSFER

POINT LOAD FROM ABOVE BEARING ON BEAM / GIRDER

STRUCTURAL FRAMING NOTES - (SEE GENERAL NOTES SHEET FOR ADDITIONAL REQUIREMENTS.)

- ALL EDAMING TO BE #2 SDE MINIMUM
- ALL BEARING HEADERS TO BE (2) 2x6 SUPPORTED w/ MIN (1) JACK AND (1) KING EACH END, UNO.
- 3. EXTERIOR WALL OPENINGS OVER 3' TO HAVE MULTIPLE KING STUDS AS NOTED ON PLAN.
- ALL NON-BEARING HEADERS TO BE (2) 2x4 (1) J /
- 5. PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR ALL POINT LOADS.
- S. ALL HANGERS AND CONNECTORS SPECIFIED ARE TO BE SIMPSON STRONG-TIE OR EQUIVALENT.
- 7. ALL BEAMS SPECIFIED ARE MINIMUM SIZES ONLY. LARGER MEMBERS MAY SUBSTITUTED AS NEEDED FOR EASE OF CONSTRUCTION. MINIMUM BEAM SUPPORT IS (1) 2x4 STUD.
- ALL EXTERIOR WALLS TO BE FULLY SHEATHED WITH 7/16" OSB.
- 9. FRONT PORCH COLUMNS TO BE MIN 4x4 PT ATTACHED AT TOP AND BOTTOM USING SIMPSON (OR EQUIV) COLUMN BASE OR SST A24 BRACKETS. TRIM OUT PER BUILDER.
- 10. PORCH COLUMNS TO BE MIN 4x4 PT ATTACHED AT BOTTOM USING SIMPSON (OR EQUIV) ABA44 AND AT TOP USING CS 16 STRAPPING (12" MIN) TO PORCH HEADER / BAND.
- WHEN A 4-PLY LVL IS USED, ATTACH WITH (1) 1/2" Ø BOLT 12" OC STAGGERED, TOP AND BOTTOM, 1-1/2" MIN FROM ENDS. ALTERNATE ATTACHMENT EQUIVALENT METHOD MAY BE USED, SUCH AS SDW OR TRUSSLOK SCREWS (SEE MANUFACTUREN'S SPECIFICATIONS).
- 2. FOR STUD COLUMNS OF 4 OR MORE, INSTALL SST CS16 STRAPS @ 30" OC, 6" MAX FROM PLATES, ON INSIDE FACE OF COLUMN (EXTERIOR WALL), ON BOTH FACES OF COLUMN (INTERIOR WALL).

ALL FLUSH BEAMS TO BE DIRECTLY SUPPORTED BY (2) 2X_STUDS UNLESS OTHERWISE NOTED. STUD COLUMNS TO BE SUPPORTED BY SOLID BLOCKING TO FOUNDATION OR TO BEARING COMPONENT BELOW.



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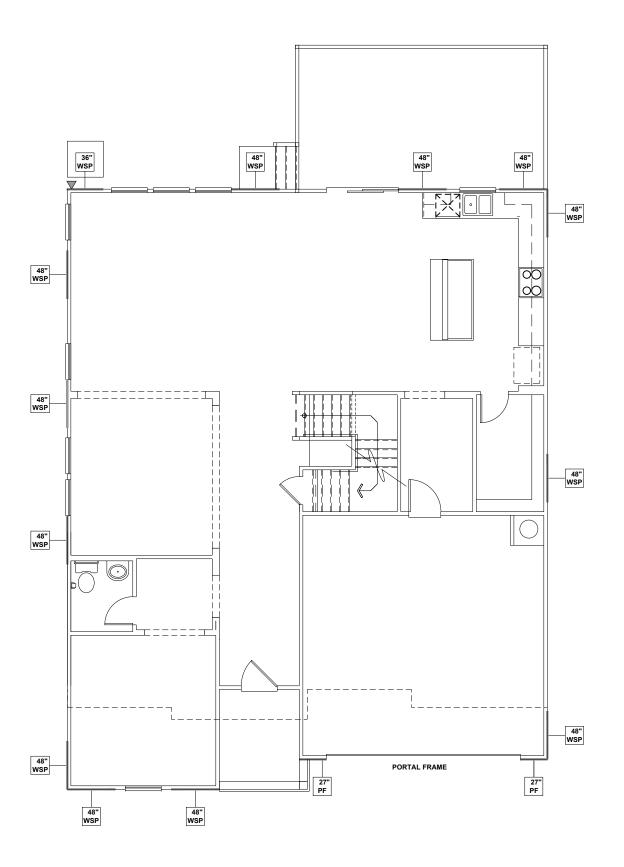
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PLAN: 240.3174

SECOND FLOOR CEILING FRAMING PLAN

S2.0C

SECOND FLOOR CEILING FRAMING PLAN - 'C'



WALL BRACING REQUIREMENTS

- MINIMUM PANEL WIDTH IS 24"
 FIGURES BASED ON THE CONTINUOUS SHEATHING
 METHOD USING THE RECTANGLE CIRCUMSCRIBED
 AROUND THE FLOOR PLAN OR PORTION OF THE
 FLOOR PLAN. IF NO RECTANGLE IS NOTED, THE
 STRUCTURE HAS BEEN FIGURED ALL WITHIN ONE
 RECTANGLE.
- PANELS MAY SHIFT UP TO 36" EITHER DIRECTION FOR EASE OF CONSTRUCTION (NAILING & BLOCK REQUIREMENTS STILL APPLY).
- FOR ADDITIONAL WALL BRACING INFORMATION, REFER TO WALL BRACING DETAIL SHEET(S). - SCHEMATIC BELOW INDICATES HOW SIDES OF RECTANGLE ARE TO BE INTERPRETED IN BRACING CHART WHEN APPLIED TO STRUCTURE:



CS16 STRAP FROM STUD, CROSS HEADER, TO WALL TOP PLATE, 36" LONG MINIMUM

SIMPSON MSTA15 HOLD DOWN CAPACITY OF 970 POUNDS PER ANCHOR WITH (12) 10d NAILS. STRAF TO BE LOCATED AT EDGE OF BRACED WALL PANEL. (CS16 STRAPPING MAY BE SUBSTITUTED W/SIMILAR LENGTH AND NAILING PATTERN.) USE HT14 FOR ATTACHMENT TO CONCRETE.

SCALED LENGTH
OF WALL PANEL
AT LOCATION

NUMERICAL
LENGTH
OF PANEL
PANEL TYPE

ENGINEERED WALL SCHEDULE

ENG1: CONTINUOUSLY SHEATH WITH 7/16" OSB ATTACHED WITH 8d NAILS @ 6" OC EDGE AND 12" OC FIELD. FULLY BLOCKED AT ALL PANEL FIGES

ENG2: CONTINUOUSLY SHEATH WITH 7/16" OSB WITH 10d NAILS @ 3" OC EDGE AND 3" OC FIELD. FULLY BLOCKED AT ALL PANEL EDGES

ENG3: CONTINUOUSLY SHEATH 7/16" OSB ATTACHED <u>BOTH SIDES</u> WITH 8d NAILS @ 4" OC EDGE AND 8" OC FIELD. FULLY BLOCKED AT ALL PANEL EDGES.

ENG4: CONTINUOUSLY SHEATH 7/16" OSB ATTACHED WITH 8d NAILS @ 4" OC EDGE AND 8" OC FIELD. FULLY BLOCKED AT ALL PANEL EDGES.

WALL BRACING NOTE:

WALLS WITH REQUIRED LENGTH LISTED AS "N/A" DO NOT MEET THE REQUIREMENTS OF PRESCRIPTIVE WALL BRACING FOUND IN THE NCRC. THESE WALLS HAVE BEEN ENGINEERED BASED ON DESIGN GUIDELINES ESTABLISHED IN ASCE-07 AND THE NDS: WIND & SEISMIC PROVISIONS SUPPLEMENT.

WALL BRACING: RECTANGLE 1

| SIDE | REQUIRED LENGTH | PROVIDED LENGTH |
|-------|--------------------|--------------------|
| FRONT | 13.5 FT. | 14.75 FT. |
| LEFT | 11.0 FT. | 16.0 FT. |
| REAR | 13.5 FT. | 15.0 FT. |
| RIGHT | 11.0 FT. | 12.0 FT. |
| | | |



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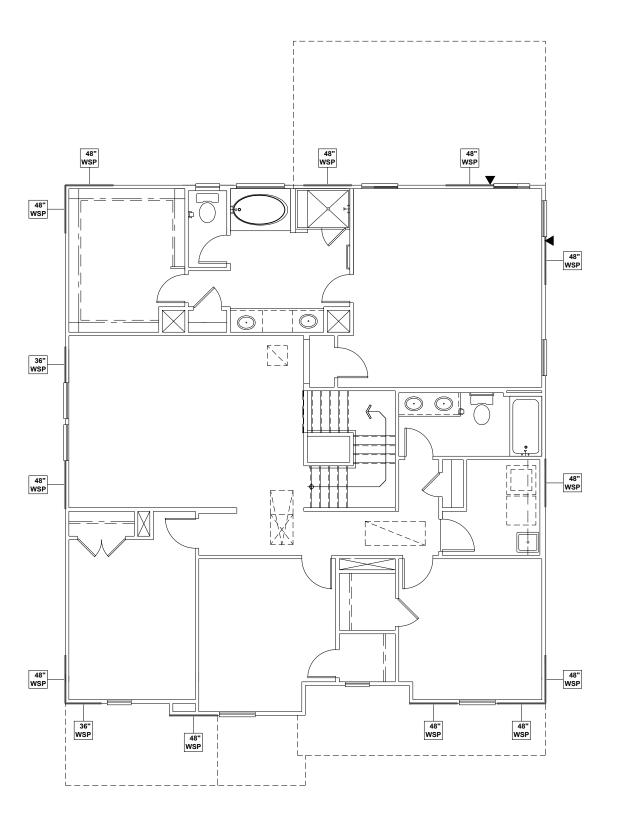
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FIRST FLOOR
WALL BRACING PLAN

S4.0C

FIRST FLOOR WALL BRACING PLAN - 'C'



WALL BRACING REQUIREMENTS

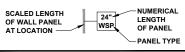
- MINIMUM PANEL WIDTH IS 24"
 FIGURES BASED ON THE CONTINUOUS SHEATHING METHOD USING THE RECTANGLE CIRCUMSCRIBED AROUND THE FLOOR PLAN OR PORTION OF THE FLOOR PLAN. IF NO RECTANGLE IS NOTED, THE STRUCTURE HAS BEEN FIGURED ALL WITHIN ONE RECTANGLE.
- RECTANGLE.

 PANELS MAY SHIFT UP TO 36" EITHER DIRECTION FOR EASE OF CONSTRUCTION (NAILING & BLOCK REQUIREMENTS STILL APPLY).
- FOR ADDITIONAL WALL BRACING INFORMATION, REFER TO WALL BRACING DETAIL SHEET(S). SCHEMATIC BELOW INDICATES HOW SIDES OF RECTANGLE ARE TO BE INTERPRETED IN BRACING CHART WHEN APPLIED TO STRUCTURE:



CS16 STRAP FROM STUD, CROSS HEADER, TO WALL TOP PLATE, 36" LONG MINIMUM

SIMPSON MSTA15 HOLD DOWN CAPACITY OF 970 POUNDS PER ANCHOR WITH (12) 10d NAILS. STRAF TO BE LOCATED AT EDGE OF BRACED WALL PANEL. (CS16 STRAPPING MAY BE SUBSTITUTED W. SIMILAR LENGTH AND NAILING PATTERN.) USE HTT4 FOR ATTACHMENT TO CONCRETE.



WALL BRACING NOTE:

WALLS WITH REQUIRED LENGTH LISTED AS "N/A" DO NOT MEET THE REQUIREMENTS OF PRESCRIPTIVE WALL BRACING FOUND IN THE NCRC. THESE WALLS HAVE BEEN ENGINEERED BASED ON DESIGN GUIDELINES ESTABLISHED IN ASCE-07 AND THE NDS: WIND & SEISMIC PROVISIONS SUPPLEMENT.

WALL BRACING: RECTANGLE 1

| WALL BRADING. RESTARGEL T | | | |
|----------------------------|--------------------|--------------------|--|
| SIDE FRONT LEFT REAR RIGHT | REQUIRED LENGTH | PROVIDED LENGTH | |
| FRONT | 9.0 FT. | 15.0 FT. | |
| LEFT | 9.0 FT. | 15.0 FT. | |
| REAR | 9.0 FT. | 12.0 FT. | |
| RIGHT | 9.0 FT. | 12.0 FT. | |
| | | | |



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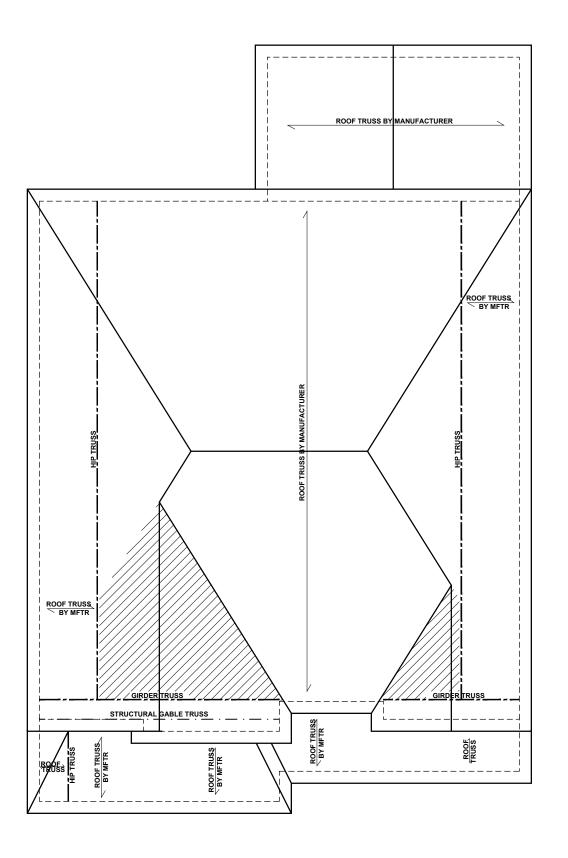
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SECOND FLOOR WALL BRACING PLAN

SECOND FLOOR WALL BRACING PLAN - 'C'



BEAM & POINT LOAD LEGEND

INTERIOR LOAD BEARING WALL
---- ROOF RAFTER / TRUSS SUPPORT
----- DOUBLE RAFTER / DOUBLE JOIST

DOUBLE RAFTER / DOUBLE JO
STRUCTURAL BEAM / GIRDER

WINDOW / DOOR HEADER

☑ POINT LOAD TRANSFER

■ POINT LOAD FROM ABOVE BEARING ON BEAM / GIRDER

TRUSSED ROOF - STRUCTURAL NOTES

 PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR ALL POINT LOADS.

2.

DENOTES OVER-FRAMED AREA

3. MINIMUM 7/16" OSB ROOF SHEATHING

4. TRUSS LAYOUT AND PLACEMENT BY MANUFACTURER TO COINCIDE WITH THE SUPPORT LOCATIONS SHOWN. TRUSS PROFILES SHALL BE SEALED BY THE TRUSS MANUFACTURER. TRUSS PLANS TO BE COORDINATED WITH THE SEALED STRUCTURAL DRAWINGS. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

5. MANUFACTURER TO PROVIDE REQUIRED UPLIFT

PROVIDE H2.5A (MINIMUM) OR EQUIVALENT AT EACH TRUSS-TO-TOP PLATE CONNECTION AT OVER-FRAMED AREAS, UNLESS NOTED

 UPLIFT CONNECTION TO BE CARRIED THROUGH TO FLOOR SYSTEM.

ATTIC VENTILATION

THE TOTAL NET-FREE VENTILATION AREA SHALL NOT BE LESS THAN 1/150 OF THE AREA OF THE ATTIC SPACE TO BE VENTILATED. THE TOTAL VENTILATION MAY BE REDUCED TO 1/300 PROVIDED AT LEAST 50% BUT NOT MORE THAN 80% OF THE REQUIRED VENTILATION BE LOCATED IN THE UPPER PORTION OF THE AREA TO BE VENTILATED, OR AT LEAST 3' ABOVE THE SOFFIT VENTILATION INTAKE.

2410 SQUARE FEET OF TOTAL ATTIC / 150 =

16.06 SQUARE FEET OF NET-FREE VENTILATION REQUIRED

TRUSS UPLIFT CONNECTORS: EXPOSURE B, 115 MPH, ANY PITCH, 24" O.C. MAX ROOF TRUSS SPACING

TRUSSES SHALL BE ATTACHED TO SUPPORT WALL FOR UPLIFT RESISTANCE. CONTINUOUS OSB WALL SHEATHING BELOW PROVIDES CONTINUOUS UPLIFT RESISTANCE TO FOUNDATION. ALL TRUSSES SUPPORTED BY INTERMEDIATE SUPPORT WALLS, KNEEWALLS, OR BEAMS SHALL BE ATTACHED TO SUPPORTING MEMBER PER SCHEDULE:

ROOF SPAN IS MEASURED HORIZONTALLY BETWEEN FURTHEST SUPPORT POINTS.

ROOF PLAN

CONNECTOR
NAILING PER TABLE 602.3(1)
NCRBC 2018 EDITION

OVER 28'

(1) SIMPSON H2.5A HURRICANE CLIP TO DBL TOP PLATE OR BEAM

OR (1) SIMPSON H3 CLIP TO SINGLE 2x4 PLATE



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P-0961



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INFO@JDSDESIGNONLINE.COM

PROJECT NO.: 19901075 DATE: 5/23/2019

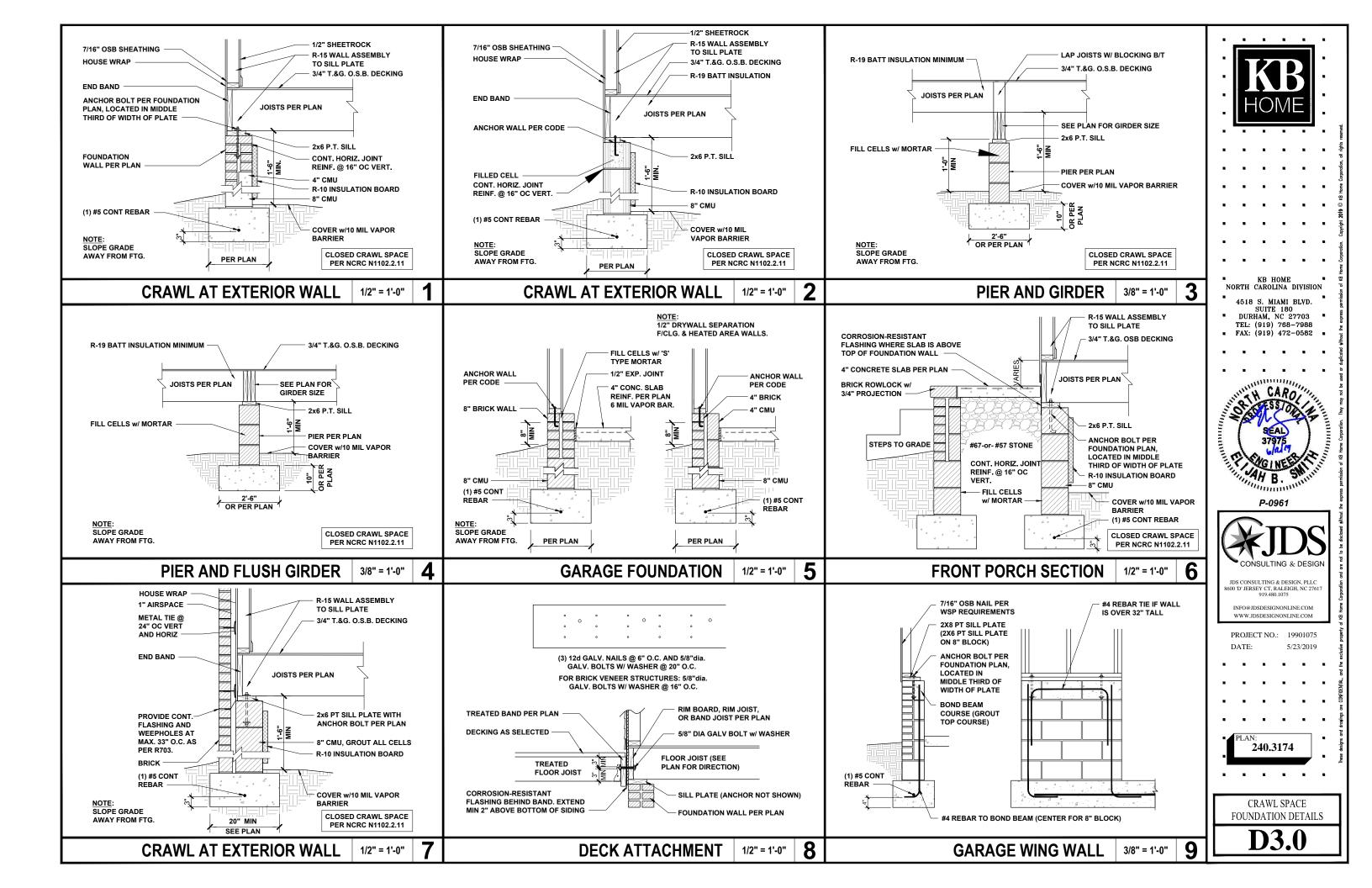
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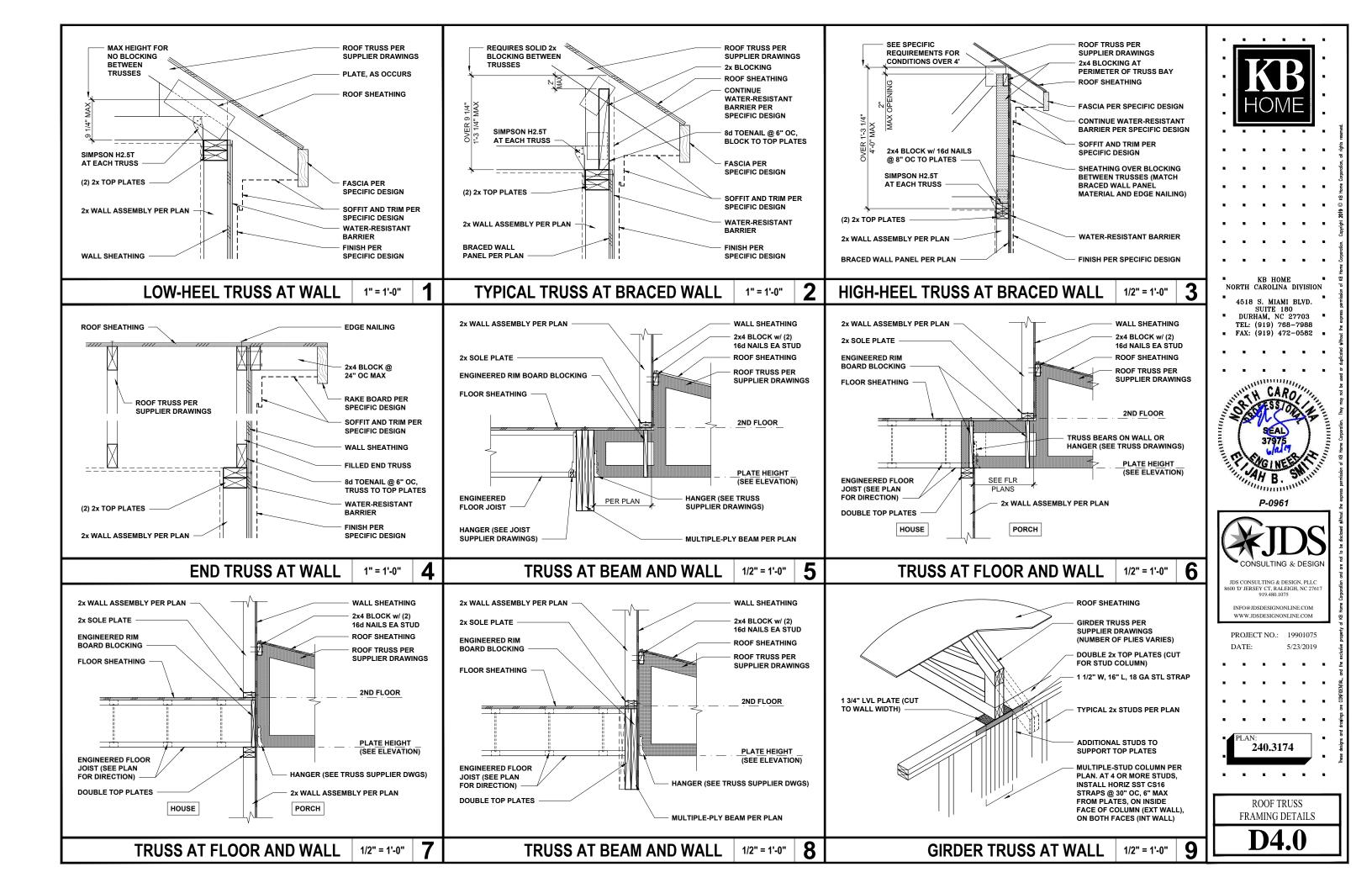
ROOF FRAMING PLAN

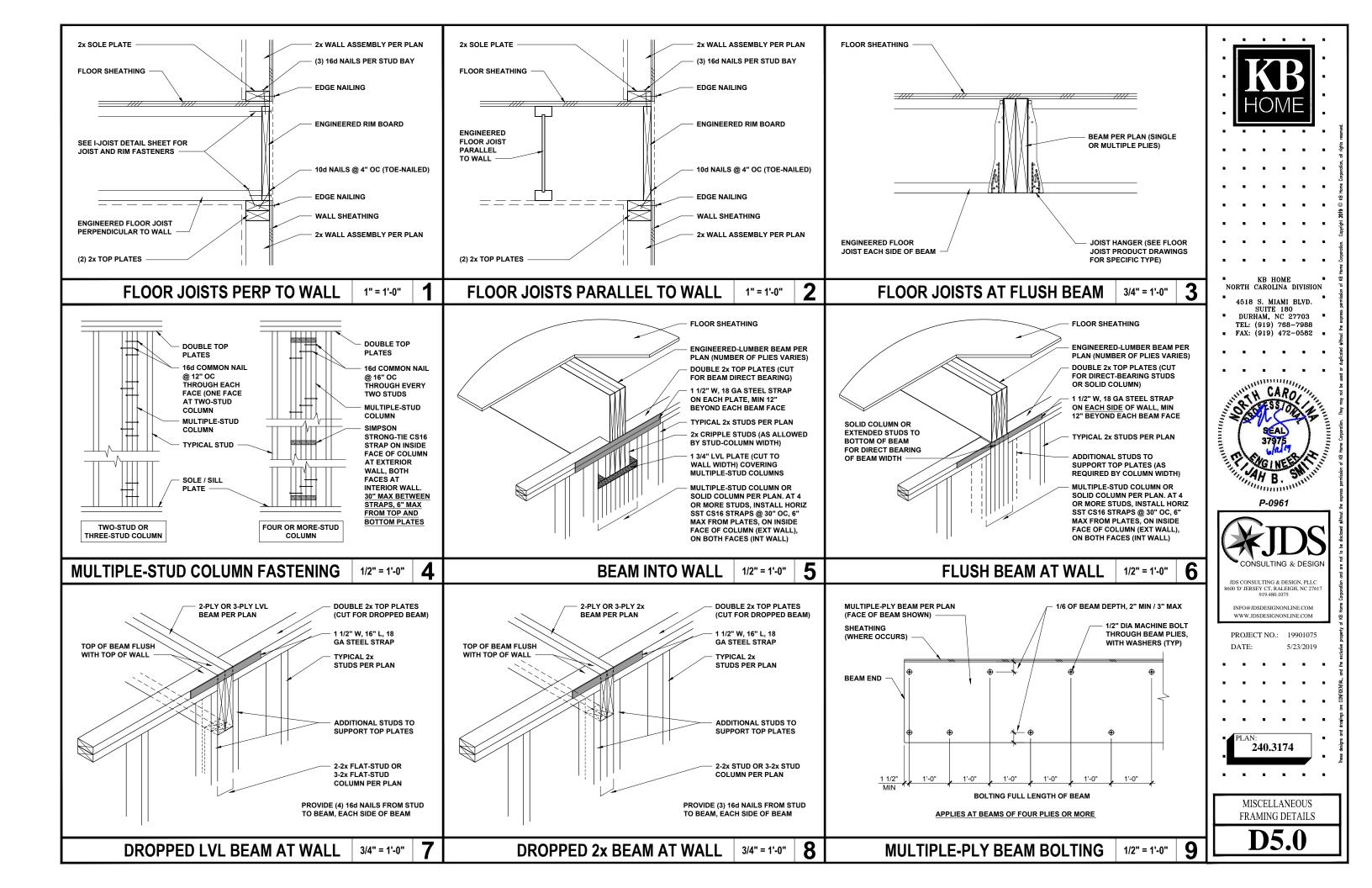
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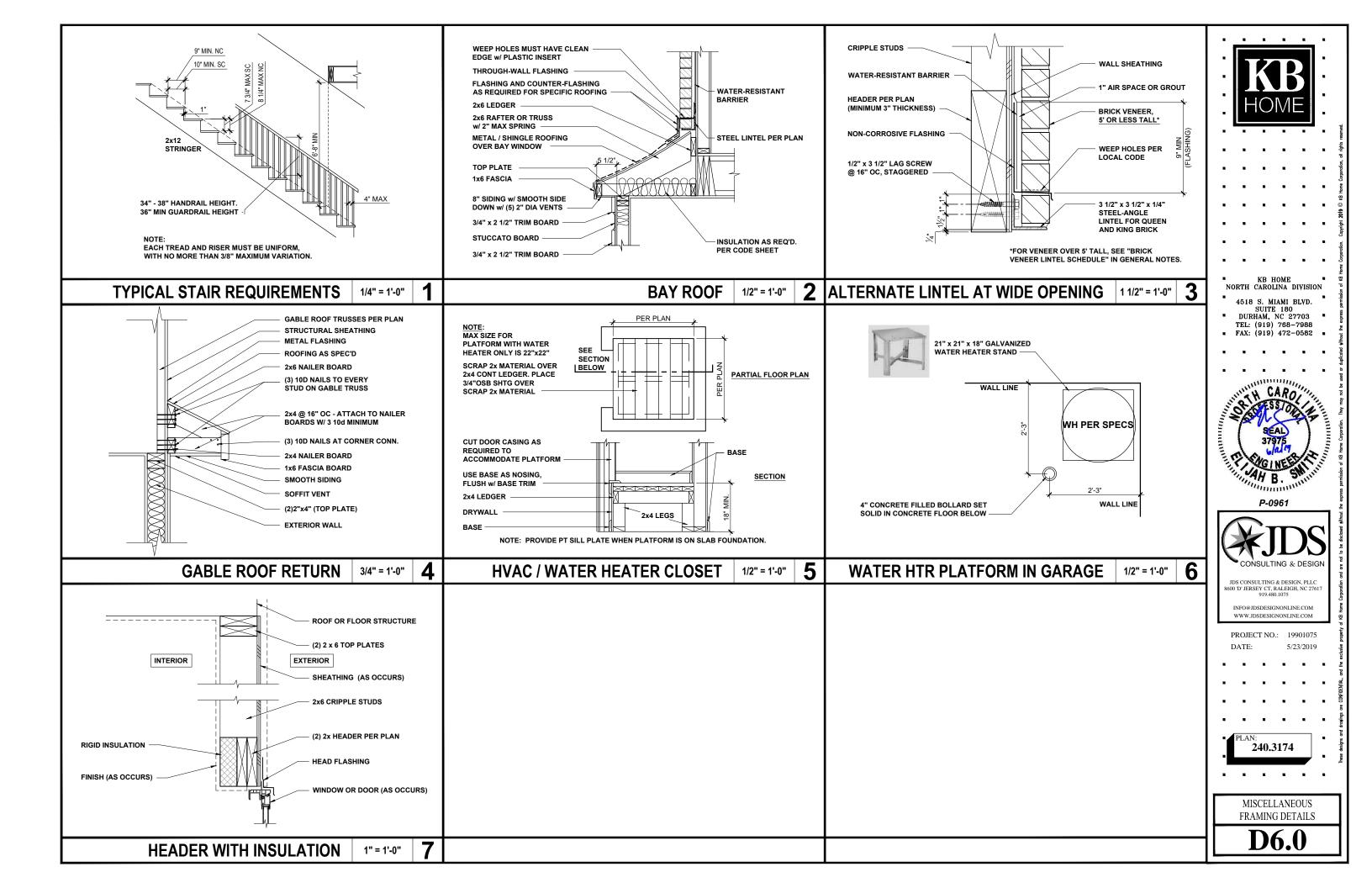
S7.0C

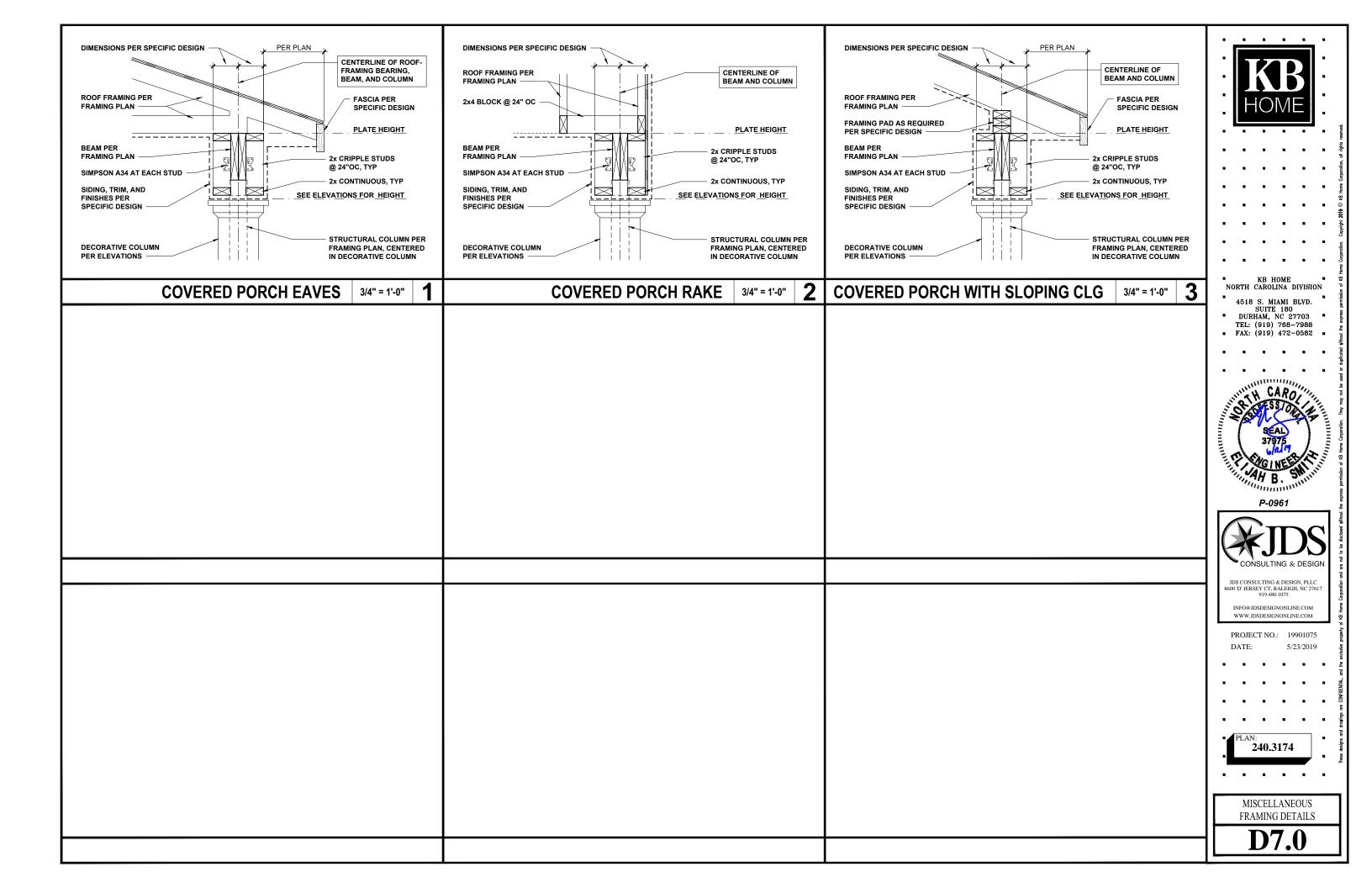
ROOF FRAMING PLAN - 'C'

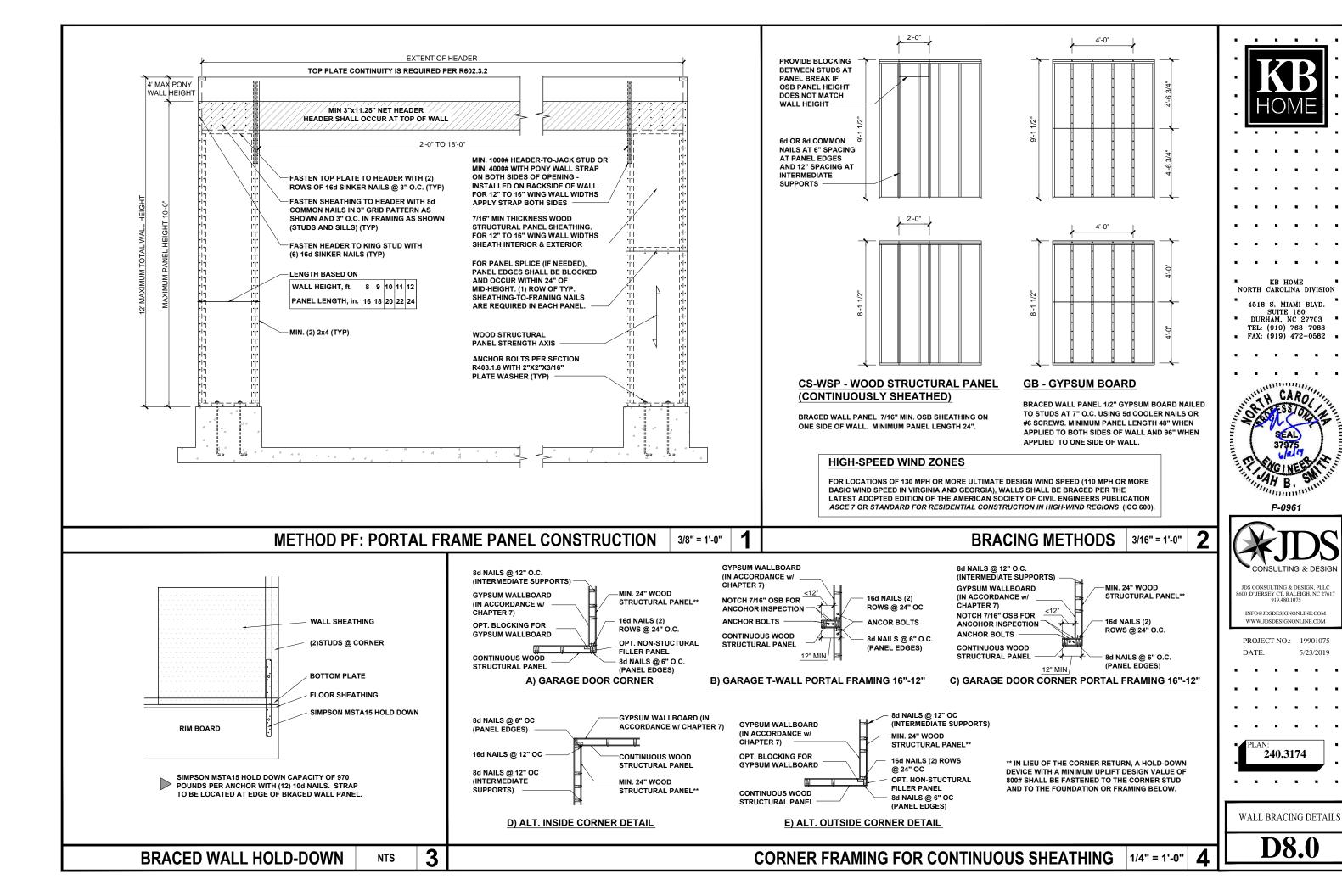












JOIST DETAILS When sheathing thickness exceeds $\frac{7}{8}$ ", trim sheathing tongue at rim board IRC 502-7 requires lateral restraint (blocking) at all Load bearing or shear wall above must stack over wall below) **BEAM and COLUMN DETAILS** Plate nail - 16d (0.135" x 3½") at 16" on-center Floor panel nail - 8d (0.131" x D0. D1. and D2 to 1¹/₄" rim board or blocking for lateral support Web Stiffeners required each side at A3._W B1 B1W 11/4" LSL or 11/8" rim board. Toe nail - 10d (0.131" x 3") at 6" on-center* required each side For rim board thicker than 1 $\frac{3}{4}$ " - Attach Joist to rim board with one 10d (0.128"x3") nail. Must have 1¾" minimum joist bearing at ends. Attach rim joist per A3 detail. Blocking panels may be B2 B2W Top nail from joist into rim board. - Connect corner with four 10d (0.128"x3") nails. Toe nail required with shear walls A3W from side of parallel closure into rim board INTERMEDIATE BEARING Load bearing or shear wal NO LOAD BEARING WALL ABOVE above (must stack over wal Web stiffeners required Hanger height mus required on each Face mou ends at B4W End of joists at centerline Web stiffeners required if sides Use 2x4 minimum squash blocks (CS) to transfer load around joist [H1] above or below (See detail B1) at least 3/8" of joist top flange **FASTENING of FLOOR PANELS** * SEE I-JOIST EQUIVALENCE CHART FILLER and BACKER BLOCK SIZES * SEE I-JOIST EQUIVALENCE CHART Guidelines for Closest On-Center Spacing per Row I-Joists 110 EQ. * 210 EQ. * 230 or 360 EQ. * PSL 110, 210 Nail Size 360 and LSL or wide Depth 14' and 230 FQ. 560 FQ 16" 8d (0.131" x 2½") 2x6 + 3/8" 2x8 + 3/8" 2x8 + ½" 2x6 + ½" 2x6 2x8 (Detail H2) sheathing sheathing sheathing sheathing 10d (0.148"x 3"), 12d (0.148"x 31/4") 4" 4" 4" 4" 4" 4" 2x6 2x10 $2x6 + \frac{3}{8}$ " $2x10 + \frac{3}{8}$ " $2x6 + \frac{1}{2}$ " $2x10 + \frac{1}{2}$ " 6" 6"(2) 6"(2) 16d (0.162"x 3½") 6" 8" Cantilever Filler 4'-0" 6'-0" sheathing sheathing sheathing sheathing (Detail E4) (1) One row of fasteners permitted (two at abutting panel edges) for diaphragms. Stagger nails when 4'-0" long 6'-0" long 4'-0" long 6'-0" long long long using 4" on-center spacing and maintain 3/8" joist and panel edge distance. For other applications, Backer Block (%" or ¾" 3/4" or 7/8" multiple rows of fasteners are permitted if the rows are offset at least $\frac{1}{2}$ " and staggered. (Detail F1 or H2 (2) Can be reduced to 4" on-center if nail penetration into the narrow edge is no more than 1 3/6" (to avoid splitting). (1) If necessary, increase filler and backer block height for face mount hangers and maintain $\frac{1}{8}$ " gap at top of joist; see detail W. Filler and backer block lengths should accomodate required nailing • Recommended nailing is 12" on-center in field and 6" on-center along panel edge. Fastening requirements on engineered drawings supersede without splitting (12" minimum for backer blocks and 24" minimum for filler blocks). Joists must be laterally supported at cantilever and end bearings by blocking panels, hangers, or direct attachment to a rim board or rim joist. • Recommended use of a non-polyurethane subfloor adhesive on all contact points between panels and floor framing. Safety bracing (1x4 minimum) at 8' on-center (6' on-center for $\,$ 110 or equivalent Joists) and extended to a braced end wall. Fasten at each joist with two 8d (0.113" x 2 %") nails minimum (see WARNING). • Nailing rows must be offset at least 1/2" and staggered. • 14 ga. staples may be substituted for 8d (0.113" x 21/2") nails if minimum DO NOT bevel cut jois penetration of 1" into the joist or rim board is achieved. Rim board join • Maximum spacing of nails is 18" on-center for joists. DO NOT overhang seat cuts on beams beyond the inside face of support member Rim joist $1\frac{1}{4}$ " rim board. <u>(15)</u> P Use B1 or B2 at End of joists at

Protect untreate

wood from direct

approximately 12" on-center

face of wall or bear

INSTALLATION TIPS

BEARING AT WALL

BEAM TO BEAM CONNECTION

BEARING AT CONCRETE WALL

ct untreated contact with concret

16"

see note 3 under WARNING

DO NOT use sawn lumber for rim board or blocking, as

it may shrink after installation. Use only

engineered lumber

20"

2x12 + ½

sheathing

BEARING AT COLUMN

Verify column capacity

560 EQ. *

Two Two Two

2x6 2x8 2x12

applicable

2x6 2x8 2x12

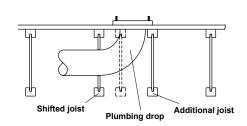
16" 20"

Subfloor adhesive will improve floor performance, but may not be required.

Squash blocks and blocking panels carry stacked vertical loads (details B1 and B2). Packing out the web of a joist (with web stiffeners) is not a substitute for squash blocks or blocking panels.

When joists are doubled at non-load bearing parallel partitions, space joists apart the width of the wall for plumbing or HVAC.

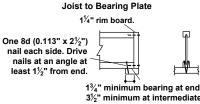
Additional joist at plumbing drop (see detail).



* I-JOIST EQUIVALENCY CHART

| EQUIVALENT IN SPAN AND SPACING | | | | | |
|--------------------------------|---------------|---------------|----------------|--|--|
| Depth | Mftr & Series | Mftr & Series | Mftr & Series | | |
| 9 1 " | TJI - 110 | BCI 4500 | | | |
| | TJI - 210 | BCI 5000 | | | |
| | TJI - 230 | BCI 6000 | EverEdge 20 | | |
| | | BCI 6500 | | | |
| | TJI - 110 | BCI 4500 | | | |
| | TJI - 210 | BCI 5000 | | | |
| 11 7" | TJI - 230 | BCI 6000 | EverEdge 20 | | |
| 8 | | BCI 6500 | | | |
| Ī | TJI - 360 | BCI 60'S | EverEdge 30 | | |
| | TJI - 560 | BCI 90'S | EverEdge 50/60 | | |
| 14" | TJI - 110 | BCI 4500 | | | |
| | TJI - 210 | BCI 5000 | | | |
| | TJI - 230 | BCI 6000 | EverEdge 20 | | |
| | | BCI 6500 | | | |
| | TJI - 360 | BCI 60'S | EverEdge 30 | | |
| | TJI - 560 | BCI 90'S | EverEdge 50/60 | | |
| 16" | TJI - 110 | BCI 4500 | | | |
| | TJI - 210 | BCI 5000 | | | |
| | TJI - 230 | BCI 6000 | EverEdge 20 | | |
| | | BCI 6500 | | | |
| | TJI - 360 | BCI 60'S | EverEdge 30 | | |
| | TJI - 560 | BCI 90'S | EverEdge 50/60 | | |

JOIST NAILING REQUIREMENTS at BEARING

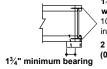


to floor panel nailing schedule

13/4" minimum bearing at end support; 31/2" minimum at intermediate support Shear transfer: Connections equivalent

Squash Blocks to Joist (Load bearing wall above) One 10d (0.128" x 3") nail into each flange Also see detail B2

Rim to Joist



 $1\frac{1}{4}$ " rim board or $1\frac{3}{4}$ " wide rim joist: One 10d (0.128" x 3") nail into each flange

2 1/16" - 2 5/16" wide rim joist: One 16d (0.135" x 3½") nail into each flange

31/3" wide rim joist: Toe nail with 10d (0.128" x 3") nails, one each side of TJI® ioist flange rim ioist

3½" wide floor jois Top View Locate rim board joint between joists.

BEAM ATTACHMENT at BEARING



One 10d (0.128" x 3") nail each side of member at bearing, 11/2" minimum from end

Drive nails at an angle to minimize

splitting of plate

 $1\frac{1}{4}$ " rim board.

See framing plan (if applicable) or iLevel® Framer's Pocket Guide for minimum end and intermediate bearing lengths



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кв номе NORTH CAROLINA DIVISION 4518 S. MIAMI BLVD. SUITE 180 DURHAM, NC 27703 TEL: (919) 768-7988

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PROJECT NO: 19901075 DATE: 5/23/2019

240.3174

ENGINEERED JOIST DETAILS

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All I-Joist and Versa-Lam Beams Must be Installed per The Boise Cascade Installation Guide! SB\$**8**15

KB Homes 3174 Elev C 66 Mason Pointe

EWIN ON What We Know About Engineered Lumber

| Products | | | | | | |
|----------|---------|--|--------|-------|--|--|
| PlotID | Net Qty | Product | Length | Plies | | |
| 1 | 12 | 11-7/8" BCI® 5000s-1.8 | 33' 0" | 1 | | |
| 2 | 13 | 11-7/8" BCI® 5000s-1.8 | 27' 0" | 1 | | |
| 3 | 13 | 11-7/8" BCI® 5000s-1.8 | 18' 0" | 1 | | |
| 4 | 2 | 11-7/8" BCI® 5000s-1.8 | 11' 0" | 2 | | |
| 5 | 4 | 11-7/8" BCI® 5000s-1.8 | 10' 0" | 1 | | |
| 6 | 2 | 1-3/4" x 9-1/4" VERSA-LAM® 2.0 3100 SP | 28' 0" | 2 | | |
| 7 | 2 | 1-3/4" x 9-1/4" VERSA-LAM® 2.0 3100 SP | 20' 0" | 2 | | |
| 8 | 2 | 1-3/4" x 9-1/4" VERSA-LAM® 2.0 3100 SP | 12' 0" | 2 | | |
| Rm-1 | 15 | 1" x 11-7/8" BC RIM BOARD OSB | 12' 0" | 1 | | |
| Bk1 | 25 | 11-7/8" BCI® 5000s-1 8 | 2' 0" | 1 | | |

BC FRAMER II

Plan Date: 07312018

Structural Date: 07062018 By: CMM

Sheet: 1/4

THE ENGINEER OF RECORD PRIOR TO INSTALLATION

ALL DIMENSIONS AND CONDITIONS

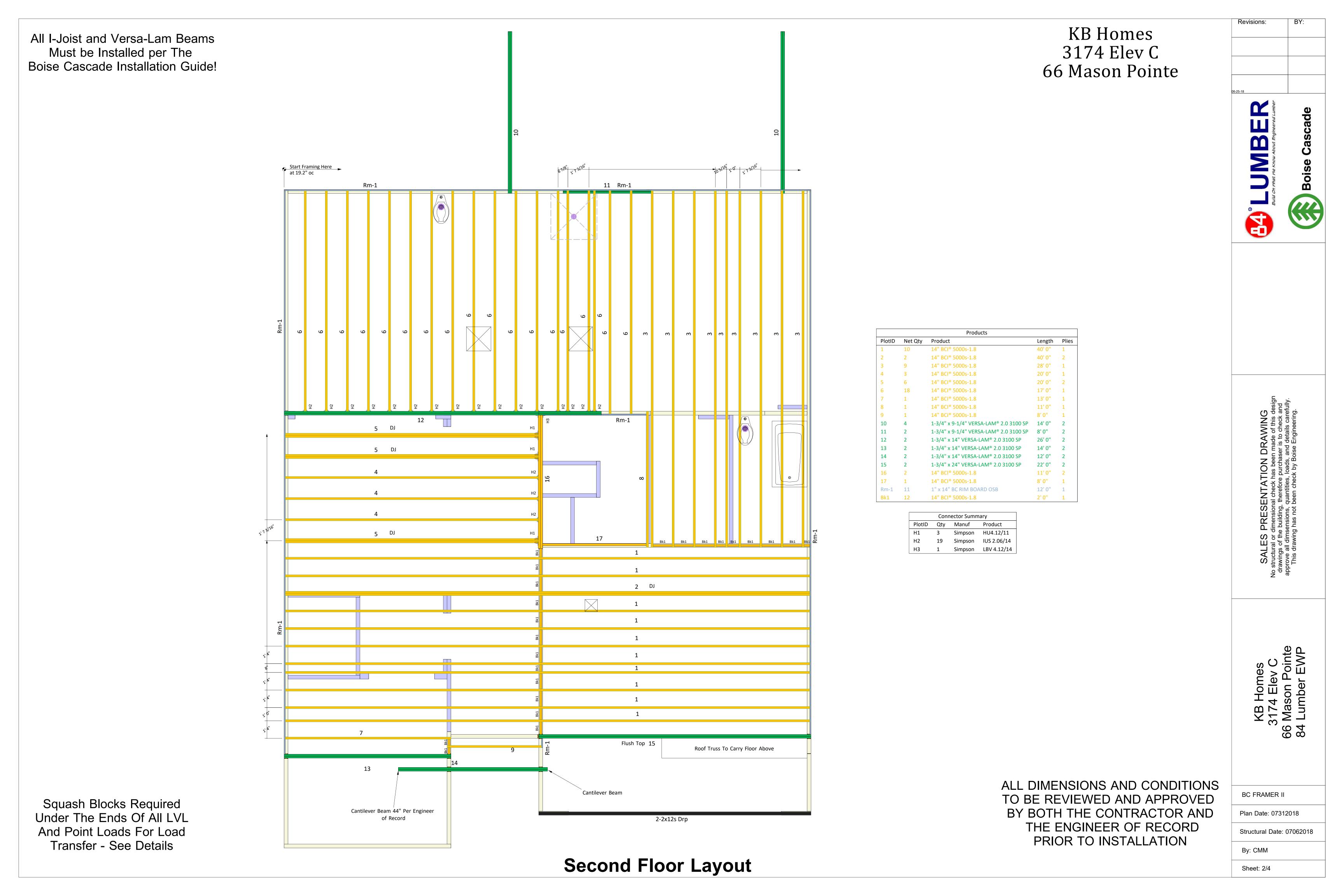
TO BE REVIEWED AND APPROVED

BY BOTH THE CONTRACTOR AND

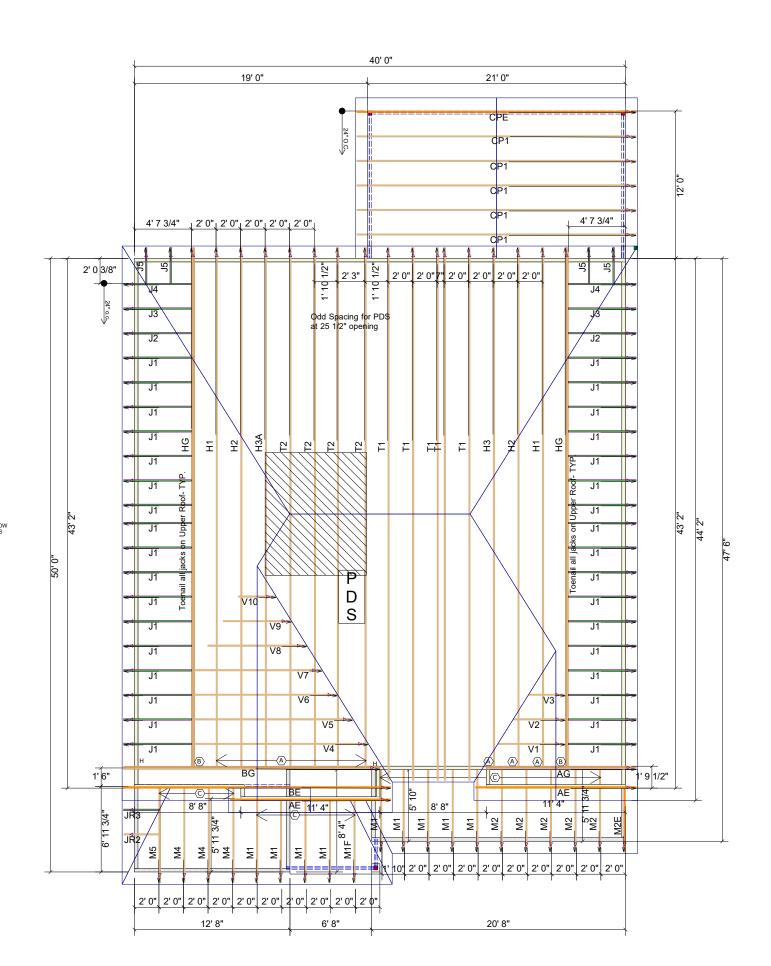
F09 SB1611 SB1617 Rm-1 Rm-1 Rm-1

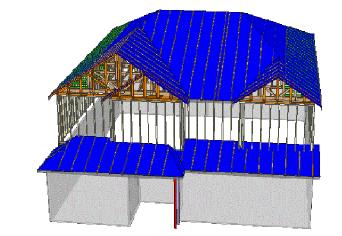
Squash Blocks Required Under The Ends Of All LVL And Point Loads For Load Transfer - See Details

First Floor Layout



THIS LAYOUT IS INTENDED FOR THE PURPOSE OF TRUSS LOCATION AND PLACEMENT ONLY. REFER TO THE BUILDING PLANS FOR ACTUAL BUILDING CONSTRUCTION.





| Truss Connector List | | | | | | |
|----------------------|---------|-----------------------|-----|--|--|--|
| Symbol | Product | Qty | | | | |
| Α | Simpson | HUS26 | 10 | | | |
| В | Simpson | HHUS26-2 | 2 | | | |
| С | Simpson | LUS24 | 19 | | | |
| | | | | | | |
| | Simpson | H2.5A As info only | 110 | | | |
| Н | Simpson | HTS20 | 2 | | | |



DEDICATED TO QUALITY AND EXCELLENCE 200 EMMETT ROAD DUNN, NORTH CAROLINA 28334 PHONE: 910-892-8400 FAX: 910-892-8384

20904

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NOT TO SCALE

2019

05-20-19

Approved

BY: MWM

| Lot 66 @ Mason Pointe | KB HOME | Plan 240.3174 "C"21 x 12 CVP- GOR |
|-----------------------|---------|-----------------------------------|
| Lot 66 (| | 240.3174 |
| - | STOMER: | Plan |

TOP LIVE: 20 PSF

TOP DEAD: 10 PSF

BOTM DEAD: 10 PSF

WIND SPD: 130 MPH

GENERAL NOTES:

DO NOT CUT OR MODIFY TRUSSES.

TRUSSES ARE SPACED 24" ON CENTER UNLESS NOTED OTHERWISE.

REFER TO THE INDIVIDUAL TRUSS DESIGN DRAWINGS FOR THE LOCATION OF LATERAL BRACING AND MULTI-PLY CONNECTION REQUIREMENTS.

PER ANSI TPI 1-2002 THE TRUSS ENGINEER IS RESPONSIBLE FOR TRUSS TO TRUSS CONNECTIONS AND TRUSS PLY TO PLY CONNECTIONS. THIS TRUSS PLACEMENT PLAN RECCOMENDS TRUSS TO BEARING CONNECTIONS AND TRUSS TO BEARING CONNECTIONS WHICH SHALL BE REVIEWED BY THE BUILDING DESIGNER. IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER TO RESOLVE ALL ROOF FORCES ADEQUATELY TO THE FOUNDATION.