

Approved

button 04/08/2019

NORTH CAROLINA 40' SERIES PLAN 240.2596

LOT 44 MASON POINTE -ELEVATION B

REVERSE

REV.

SHEET INDEX

PLAN #240.2596

- TITLE SHEET
- SECOND FLOOR PLAN
 FIRST FLOOR PLAN W CRAWL SPACE
 FIRST FLOOR PLAN OPTIONS
 SECOND FLOOR PLAN OPTIONS

- ROOF PLAN, FRONT & REAR ELEVATIONS 'A'
 LEFT & RIGHT ELEVATIONS 'A'
 PARTILAL FIRST FLOOR PLAN, FRONT & RIGHT ELEVATIONS 'A' AT CRAWL SPACE
 PARTILAL FRONT & RIGHT ELEVATIONS AT CONCRETE PORCH
 FRONT ELEVATIONS 'A' AT OPTIONAL "4". PLATE HEIGHT
 PARTIAL RIGHT, LEFT, AND FRONT ELEVATION 'A' W MASONRY OPT #I AND #2

- PARTIAL FIRST & SECOND FLOOR PLANS B'
 ROOF PLAN, FRONT & REAR ELEVATIONS B'
 LEFT & RIGHT ELEVATIONS B'
 LEFT & RIGHT ELEVATIONS B'
 PARTIAL FIRST FLOOR PLAN, FRONT & RIGHT ELEVATIONS B' AT CRAVL SPACE
 PARTIAL FRONT & RIGHT ELEVATIONS AT CONCRETE PORCH
 FRONT ELEVATIONS B' AT OPTIONAL 9"-I PLATE HEIGHT
 PARTIAL FLOOR PLAN, ROOF, FRONT ELEVATION, PARTIAL RIGHT ELEVATION B'
 AT EXTENDED PORCH OPTION
 PARTIAL RIGHT, LEFT, AND FRONT ELEVATION B' W STONE

- PARTIAL FIRST & SECOND FLOOR PLANS (C)
 ROOF PLAN, FRONT & REAR ELEVATIONS (C)
 LEFT & RIGHT ELEVATIONS (C)
 LEFT & RIGHT ELEVATIONS (C)
 PARTIAL FIRST FLOOR PLAN, FRONT & RIGHT ELEVATIONS (C) AT CRANL SPACE
 PARTIAL FIRST FLOOR PLAN, FRONT & CONCRETE PORCH
 FRONT ELEVATIONS (C) AT OPTIONAL 4-1" PLATE HEIGHT
 PARTIAL FLOOR PLAN, ROOF, FRONT ELEVATION, PARTIAL RIGHT ELEVATION (C)
 AT EXTENDED PORCH OPTION
 PARTIAL RIGHT, LEFT, AND FRONT ELEVATION (C) W STONE OPT #I AND #2
 AT EXTENDED PORCH OPTION
- PARTIAL FIRST & SECOND FLOOR PLANS 'D'
 ROOF PLAN, FRONT & REAR ELEVATIONS 'D'
 LEFT & RIGHT ELEVATIONS 'D'
 PARTIAL FIRST FLOOR PLAN, FRONT & RIGHT ELEVATIONS 'D' AT CRAWL SPACE
- PARTIAL FIRST IS RIGHT ELEVATIONS W OPTIONAL MASONRY AT CONCRETE PORCH FRONT ELEVATIONS D' AT OPTIONAL 9-1" PLATE HEIGHT PARTIAL RIGHT, LEFT, AND FRONT ELEVATION D' W STONE OPT #I AND #2

- INTERIOR ELEVATIONS
- SECTIONS SECTIONS AT CRANL SPACE
- FIRST FLOOR UTILITY PLAN
 SECOND FLOOR UTILITY PLAN
 FIRST FLOOR UTILITY PLAN OPTIONS
 SECOND FLOOR UTILITY PLAN OPTIONS
- PARTIAL FLOOR PLANS, & ELEVATIONS W OPT. 12'X12' DECK AT CRAWL SPACE PARTIAL FLOOR PLANS, & ELEVATIONS W OPT. 12'X24' DECK AT CRAWL SPACE PARTIAL FLOOR PLANS, & ELEVATIONS W OPT. 12'X24' DECK AT CRAWL SPACE PARTIAL FLOOR PLANS, & ELEVATIONS W OPT. 12'X24' SCREENED-IN DECK AT CRAWL SPACE
 PARTIAL FLOOR PLANS, & ELEVATIONS W OPT. SUNROOM AT SLAB INTERFACE PARTIAL FLOOR PLANS, & ELEVATIONS W OPT. SUNROOM AT CRAWL SPACE

- PARTIAL FLOOR PLAN, ROOF & ELEVATIONS W/ OPT. COVERED PATIO
 PARTIAL FLOOR PLAN, ROOF & ELEVATIONS W/ OPT. EXTENDED COVERED PATIO
 PARTIAL FLOOR PLAN, ROOF & ELEVATIONS W/ OPT. SCREENED-IN EXTENDED COVERED PATIO
 PARTIAL FLOOR PLAN, ROOF & ELEVATIONS W/ OPT. SCREENED-IN EXTENDED COVERED PATIO



NORTH CAROLINA 40' SERIES

KB HOME NORTH CAROLINA DIVISION 4506 S. MIAMI BLVD.

SUITE 180 DURHAM, NC 27703 ■ TEL: (919) 768-7980 ■ FAX: (919) 544-2928

2018 NORTH CAROLINA STATE BUILDING CODES

ABBREVIATIONS ARCH. SYMBOLS **CONSULTANTS SOUARE FOOTAGE CODE INFORMATION** GROUND-FAULT CIRCUIT INTERRUPTER ABOVE PLAN 240.2596 OWNER: APPLICABLE CODES: CODE ABBREVIATIONS SHELF AND POLE AIR CONDITIONING FIRST FLOOR AREA KB HOME NORTH CAROLINA DIVISION 4506 S. MIAMI BLVD., SUITE 180 DURHAM, NC 27103 TEL. (919) 766-7480 FAX. (919) 544-2926 2018 NORTH CAROLINA STATE BUILDING CODE: RESIDENTIAL CODE, INCLUDING REFERENCED CODES AND STANDARDS GALVANIZED IRON S.C. N.C.-R. NORTH CAROLINA RESIDENTIAL CODE N.C.-B. NORTH CAROLINA BUILDING CODE ADJ. ADJUSTABLE SOLID CORE BUILDING SECTION ALTERNATE SMOKE DETECTOR TOTAL AREA 2573 SO FT N.C.-P. NORTH CAROLINA BUILDING CODE N.C.-P. NORTH CAROLINA PLUMBING CODE N.C.-F. NORTH CAROLINA FUEL GAS CODE SECTION INDICATOR AMPERAGE SECTION GARAGE AREA GYP. BD. GYPSUM BOARD SINGLE HUNG BOARD SHEET NUMBER PORCH AREA(S) ELEVATION 'A' ELEVATION 'B' CENTER LINE SHEET HDR. HEADER N.C.-E. NORTH CAROLINA ELECTRICAL SHEATHING N.C.-E.C. NORTH CAROLINA ENERGY CODE N.E.C. NATIONAL ELECTRICAL CODE I.C.B.O. INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS ARCHITECT CEILING SHOWER DETAIL REFERENCE ELEVATION 'C HEADER HEIGHT KB HOME 5230 PACIFIC CONCOURSE DRIVE, SUITE 330 LOS ANGELES, CA 90045 ELEVATION 'D' SQ. FT. CLEAR SIMILAR HS DETAIL NUMBER PATIO AREA(S) CONC CONCRETE SI IDING 50. FT. 50. FT. A.S.T.M. AMERICAN SOCIETY FOR TESTING MATERIALS PROJECT DESCRIPTION: CARPET IN LIEU OF SLIDING GLASS TEL: (424) 294-3700 FAX: (310) 297-2671 10'x26'-7" COVERED 266 CERAMIC TILE INSUL. INT. INSULATION STANDARD N.F.P.A. NATIONAL FIRE PROTECTION ASSOCIATION DECK AREA(S) INTERIOR SHEET VINYL 5Q. FT. 5Q. FT. 5Q. FT. 5Q. FT. DRYER OPEN 12'x12' AMERICAN NATIONAL STANDARDS KEYNOTE REFERENCE DOUBLE LAMINATED TEMPERED GLASS 288 144 288 DUAL GLAZED LAV. LAVATORY SCREENED-IN 12'x12' OCCUPANCY: DIA. DIM. DIAMETER LIMINOUS TOG TOP OF CURB SCREENED-IN 12'x24' REFERENCE NUMBER M.C. UNROOM AREA INTERNATIONAL CODE COUNCIL MEDICINE CABINET T.O.P. TOP OF PLATE DIMENSION DISP DISPOSAL MFR. MANUFACTURER T.O.S. TOP OF SLAB CONSTRUCTION TYPE: MIN. MINIMUM TYPICAL OFFSET REFERENCE DIVIDED LIGH DEEP MTD MOUNTED IINO UNLESS NOTED OTHERWISE DIFFERENTIAL IN FLOOR LEVEL DOOR MTL. METAL OR FINISH SURFACE VAPOR PROOF NOT IN CONTRACT V.P. NIC **REVISION LIST** MASHER DETAIL N.T.S. NOT TO SCALE REVISION REFERENCE DISHWASHER OVER DATE SHEETS REVISED LOG NUMBE MOOD ON CENTER EACH REVISION NUMBER MINDOM ELEV. ELEVATION OPTIONAL REFER TO TITLE SHEET 08/13/18 T.S, I.I - I.5, 2.I, 2.3, 2.4, 2.5, 3.AI - 3.D6, 4.I - 5.4 NC18024NC OUTSIDE AIR WATER HEATER 0.S.A. EQUAL 2 03/15/19 T.S. GN.I. GN.2 GN.3, 3.AI, 3.BI, 3.B2, 3.BT, 3.CI, 3.C2, 3.C6, 3.D2, 5.I EXHAUST PROPERTY LINE WEATHER PROOF EXTERIOR PUSH BUTTON FORCED AIR LINIT PH. PLT. F.G./FX. PLATE FIXED GLASS **SCALE NOTE** FUEL GAS PLYMD. PLYMOOD FINISH PAIR FLR. FLOOR FLR. LINE FLOOR LINE P.T.D.F. FLUORESCENT RISER FR. DR FRENCH DOOR IF BOX IS I" SQ. THEN SCALE IS I/4" = I'-O" RAG RETURN AIR GRILL REFRIGERATOR IF BOX IS 1/2" SQ. THEN SCALE IS 1/8" = 1'-0" REF. RE/S GAUGE

ISSUE DATE: 05/28/15 PROJECT No.: 1350999:56 DIVISION MGR.: REVISIONS: 03/15/19 DIVISION REVISIONS NCI8024NCP - 08/13/18 - CTD

LAN

240.2596 HEET:

TS SPEC. LEVEL 1

RALEIGH-DURHAM

GENERAL REQUIREMENTS

- THE WORD 'CONTRACTOR' AS USED HEREIN SHALL MEAN THE GENERAL CONTRACTOR, SUBCONTRACTORS AND ALL PERSONS DIRECTLY OR PIRECTLY EMPLOYED BY ANY OF THEM
- CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH THE FOLLOWING APPLICABLE CODE REQUIREMENTS:
 - ALL LAMS, STATUTES, THE MOST RECENT BUILDING CODES, ORDINANCES, RULES, REGULATIONS, AND LAMPLU ORDERS OF ALL PUBLIC AUTHORITIES HAVING JURISDICTION OVER OWNER, CONTRACTOR, THE PROJECT, THE PROJECT SITE, THE WORK, OR THE PROSECUTION OF THE MORK.
- THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT AND ALL OTHER APPLICABLE CODE REQUIREMENTS RELATING TO SAFETY.
- THE FAIR HOUSING AMENDMENTS ACT. THE AMERICANS WITH DISA-BILITIES ACT, AND ALL OTHER APPLICABLE CODE REQUIREMENTS RELATING THERETO.
- CONTRACTOR SHALL CAREFULLY STUDY AND REVIEW THE CONSTRUCTION CONTRACTOR SHALL CAREFULLY SHUT AND REVIEW IN HE CONSTRUCTION DOCUMENTS AND INFORMATION FURNISHED BY OWNER, AND SHALL PROMPTLY REPORT IN MRITING TO OWNER'S REPRESENTATIVE ANY DETROOPS, INCONSTRUCTIONS OF THE CONSTRUCTION DOCUMENTS OR INCONSISTENCIES WITH APPLICABLE CODE REQUIREMENTS OF INCONSISTENCIES WITH APPLICABLE CODE REQUIREMENTS OF INCONSISTENCIES WITH APPLICABLE CODE REQUIREMENTS OF 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 DEFECTIVE WORK.
- CONTRACTOR SHALL PROVIDE CERTIFICATES OF INSURANCE ACCEPTABLE TO OWNER PRIOR TO COMMENCEMENT OF WORK.
- CONTRACTOR SHALL TAKE FIFLD MEASUREMENTS VERIEV FIFLD CONDITIONS AND CAREFULLY COMPARE WITH THE CONSTRUCTION DOCUMENTS SUCH FIELD MEASUREMENTS, CONDITIONS, AND OTHER NEORMATION 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 COMPLIANCE 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.
- SUB-CONTRACTORS SHALL INSURE THAT ALL WORK IS DONE IN FULLY WITH EACH OTHER DURING THE COURSE OF CONSTRUCTION TO DETERMINE THE EXECT EXTENT AND OVERLAP OF EACH OTHERS WORK AND TO SUCCESSFULLY COMPLETE THE EXECUTION OF THE WORK. ALL SUB-CONTRACTOR WORKMANSHIP SHALL BE OF GUALITY 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 GUALITY OF BUILDING WILL BE DONE IMMEDIATELY. EACH SUBCONTRACTOR, WILESS SPECIFICALLY EXHIPTED BY THE TERMS OF HISHERS SUB-CONTRACT AGREEMENT, SHALL BE RESPONSIBLE FOR CLEANING UP AND REMOVING FROM THE JOB SITE ALL TRACH AND DEBRIS NOT LEFT BY OTHER SUB-CONTRACTORS. BUILDER WILL DETERMINE HOW SOON AFTER SUBCONTRACTOR COMPLETES EACH PHASE OF HIS WORK THAT TRASH AND DEBRIS WILL BE REMOVED FROM THE SITE.
- APPROVAL BY THE BUILDING INSPECTOR DOES NOT MEAN APPROVAL OR ALLOWABLE FAILURE TO COMPLY WITH THE PLANS AND SPECIFICATIONS. ANY DESIGN WHICH FAILS TO BE CLEAR OR IS ANBIGUOUS MUST BE REFERRED TO THE ARCHITECT OR ENGINEER FOR INTERPRETATION
- ALL EQUIPMENT AND MATERIALS FURNISHED AND INSTALLED UNDER THESE PLANS SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE OF THE WORK BY OWNER. UNLESS STIPULATED OTHERWISE
- ALL TRADE NAMES AND BRAND NAMES CONTAINED HEREIN ESTABLISH GUALITY STANDARDS. SUBSTITUTIONS ARE PERMITTED, NITH PRIOR APPROVAL BY THE OWNERS REPRESENTATIVE. THE CONTRACTOR SHALL SUBMIT FOR THE ARCHITECT'S AND BUILDIER'S APPROVAL ALL MATERIALS OR EQUIPMENT WHICH IS CONSIDERED 'OR EQUIPMENT WHICH IS CONSIDERED' OR EQUIPMENT WHICH IS CONSIDERED' OR EQUIPMENT WHICH IS CONSIDERED' OR EQUIPMENT WHICH IS CONSIDERED 'OR EQUIPMENT WHICH IS CONSIDERED'.
- 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 FLANS PRICK TO THE ISSUANCE OF THE FINAL CONSTRUCTION SET WHICH WILL CONTAIN NO "BID SET" DESIGNATIONS. CONSTRUCTION DOCUMENTS IDENTIFIED AS "BID SET" ARE NOT TO BE 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
- TYPICAL DETAILS AND SPECIFICATIONS ARE MINIMUM REQUIREMENTS TO BE USED WHEN CONDITIONS ARE NOT SHOWN OTHERWISE.
- 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.
- THE CONSTRUCTION DOCUMENTS AND ALL COPIES THEREOF FURNISHED TO CONTRACTOR ARE THE PROPERTY OF THE ARCHITECT AND ARE NOT TO BE USED ON OTHER WORK.

SITE WORK

- CONTRACTOR SHALL INVESTIGATE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILLED EXCAVATIONS OR BURIED STRUCTURES SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, ETC., AND BURIED ARTIFACTS SUCH AS INDIAN OR DINOSAUR BONES. IF ANY SUCH ITMS ARE FOUND THE ARCHITECT, CIVIL ENGINEER, AND SOILS ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- REFER TO THE SOILS REPORT AS PREPARED BY THE GEOTECHNICAL
- 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.
- 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.
- THERE SHALL BE NO DRAINAGE TO ADJACENT PROPERTY
- FOR ONSITE CONTSRUCTION, PLANS TO COMPLY WITH NECESSARY INSPECTIONS APPROVED BY THE BUILDING OFFICIAL.

THE REQUIREMENTS IN THESE NOTES ARE THE MINIMUM THAT SHALL BE MET. REQUIREMENTS OF THE STRUCTURAL DRAWINGS THAT EXCEED THE REQUIREMENTS SHOWN HERE SHALL BE MET.

CONCRETE

- REFER TO STRUCTURAL ENGINEERING CALCULATIONS AND SOILS REPORT FOR THE PERFORMANCE REQUIREMENTS FOR CONCRETE
- CONCRETE SHALL BE PROPORTIONED TO PROVIDE AN AVERAGE COMPRESSIVE STRENGTH AS PRESCRIBED IN THE N.C.-R, AS WELL 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 310, SECTION 5.10.
- THE CURING OF CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318, SECTION 5.II.
- ALL FORM WORK SHALL BE DESIGNED, CONSTRUCTED, UTILIZED, AND REMOVED.
- CONDUIT, PIPES AND SLEEVES OF ANY MATERIAL NOT HARMFUL TO CONCRETE AND WITHIN THE LIMITATIONS OF ACI 316, SECTION 6.3, ARE PERMITTED TO BE EMBEDDED IN CONCRETE WITH APPROVAL OF THE REGISTERED DESIGN PROFESSIONAL.
- CONSTRUCTION JOINTS INCLUDING THEIR LOCATION SHALL COMPLY WITH THE PROVISIONS OF ACI 318, SECTION 6.4.
- ALL STEEL REINFORCING OF CONCRETE SHALL BE DONE IN ACCORDANCE WITH THE N.C.-R
- TOP OF CONCRETE SLABS TO BE A MINIMUM 4" W MASONRY VENEER 6" ELSEWHERE (8" H.J.D.) ABOVE FINISH GRADE.
- FOUNDATION MIDTHS, DEPTHS, AND REINFORCING, AS SHOWN ON PLANS, ARE SUPERCEDED BY ANY LOCAL CODES OR ORDINANCES WHICH REQUIRE INCREASES OF THE SAME.
- 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. SUB-CONTRACTOR SHALL VERIFY 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-
- 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 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
- MORTAR FOR USE IN MASONRY CONSTRUCTION SHALL COMPLY WITH ASTM C 270. THE TYPE OF MORTAR SHALL BE IN ACCORDANCE NITH THE N.C.P. 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 SPECIFICATIONS PER THE NO -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-404-01 (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 MM.
- 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 WIRE 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
- ANCHOR RODS SHALL BE SET ACCURATELY TO THE PATTERN AND DIMENSIONS CALLED FOR ON THE PLANS. THE PROTRUSION OF THE THREADED BIDS THROUGH THE CONNECTED MATERIAL SHALL BELL SHELD BELL TO FILLY ENGAGE THE THREADS OF THE NUTS, BUT SHALL OT BE SREATER THAN THE LENGTH OF THE THREADS ON THE BOLTS
- FASTENERS FOR PRESERVATIVE-TREATED AND FIRE-RETARDANT-TREATED MOOD SHALL BE OF HOT-DIPPED ZINC COATED GALVANIZED STEEL, STAINLESS STEEL, SILCON BRONZE OR COPPER VERIEY ACCEPTABLE FASTENERS PER CHEMICALS USED IN PRESSURE PRESERVITIVELY TREATED MOOD IN N.C.-R. FASTENINGS FOR MOOD FOUNDATIONS SHALL BE AS REQUIRED IN AFISPA TECHNICAL REPORT NO. 7.

WOOD & FRAMING

- 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 MALLS OF DWELLINGS AND ACCESSORY BUILDINGS SHALL COMPLY WITH TABLE RSQ2.1.
- ALL LUMBER SHALL MEET THE STANDARDS OF QUALITY AS STATED IN THE N.C.-R
- LIMBER AND PLYWOOD REQUIRED TO BE PRESSURE PRESERVATIVELY REATED IN ACCORDANCE WITH THE N.C.-R AND SHALL BEAR THE QUALITY MARK OF AN APPROVED INSPECTION AGENCY 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 LUMBER STANDARD COMMITTEE TREATED WOOD PROGRAM
- 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.
- GLUED LAMINATED TIMBERS SHALL BE MANUFACTURED AND IDENTIFIED AS REQUIRED IN AITC AIGO. I AND ASTM D 3737.

PROTECTION AGAINST DECAY & TERMITE

- IN AREAS SUBJECT TO DECAY DAMAGE AS ESTABLISHED BY THE N.C.-R THE POLLONING LOCATIONS SHALL REQUIRE THE USE OF NATURALLY DIRABLE WOOD OR MOOD THAT IS PRESERVATIVE TREATED IN ACCORDANCE WITH AMPA UI FOR THE SPECIES, PRODUCT, PRESERVATIVE AND END USE. PRESERVATIVES SHALL BE LISTED IN SECTION 4 OF AMPA UI
- MOOD JOISTS OR THE BOTTOM OF MOOD FLOOR WHEN CLOSER THAN IS INCHES, OR WOOD GIRDERS WHEN CLOSER THAN IZ INCHES TO THE EXPOSED GROUND IN CRANL SPACES OR INEXCAVATED AREAS LOCATED WITHIN THE PERIPHERY OF THE BUILDING FOUNDATION.
- 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
- THE ENDS OF WOOD GIRDERS ENTERING EXTERIOR MASONRY OR CONCRETE WALLS HAVING CLEARANCES OF LESS THAN 0.5 INCH ON TOPS, SIDES AND ENDS.
- MOOD SIDING AND SHEATHING ON THE EXTERIOR OF A BUILDING HAVING A CLEARANCE OF LESS THAN 6 INCHES FROM THE GROUND.
- MOOD STRUCTURAL MEMBERS SUPPORTING MOISTURE-PERMEABLE FLOORS OR ROOFS THAT ARE EXPOSED TO THE NEATHER, SUCH AS CONCRETE OR MASONRY SLABS, UNLESS SEPARATED FROM SUCH FLOORS OR ROOFS BY ANIMPERVIOUS MOISTURE BARRIER.
- ALL PORTIONS OF A PORCH, SCREEN PORCH OR DECK FROM THE BOTTOM OF THE HEADER DOWN, INCLUDING POSTS, GUARDRAILS, PICKETS, STEPS AND FLOOR STRUCTURE, COVERNS THAT WOLLD PREVENT MOISTURE OR MATER ACCUMLATION ON THE SURFACE OR AT JOINTS BETWEEN MEMBERS ARE ALLOPED.
- 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

WOOD & FRAMING (continued)

- 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.
- 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 PLYWOOD FLOOR SHEATHING PANELS AND FOR DIAPHRAGM 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 MINIMAM OF I I/2 INCH THICKNESS.
- WHERE APPLICABLE, REFER TO THE SHEAR WALL SCHEDULE FOR REQUIRED STRENGTH, GRADE, AND THICKNESS OF PLYWOOD SHEAR PANELS AND FOR REQUIRED SHEAR WALL NAILING SCHEDULE.
- IN ONE- AND TWO-FAMILY DWELLING CONSTRUCTION USING VINYL ALMINUM AS A SOFFIT MATERIAL, THE SOFFIT MATERIAL SHALL SECURELY ATTACHED TO FRAMING MEMBERS AND USE AN UNDERLAYMENT MATERIAL OF EITHER FIRE RETARDANT TREATE! ANT TREATED WOOD, 23/52 INCH WOOD SHEATHING OR 5/6 INCH CYPSUM BOARD, VENTING REQUIREMENTS APPLY TO BOTH SOFFIT AND UNDERLAYMENT AND SHALL BE PER SECTION REDUCTION OF THE NORTH CARCHINA RESIDENTIAL CODE. WHERE THE PROPRIETY LINE IS OFFIT OR MORE PROM THE BUILDING FACE, THE PROVISIONS OF THIS CODE 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 165UES.

- ROOF FRAMING SHALL BE BY PRE-MANUFACTURED ROOF TRUSSES SPACED AT 24 INCHES ON CENTER UNLESS NOTED OTHERWISE.
- 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.
- THE BRACING OF WOOD TRUSSES SHALL COMPLY TO THEIR APPROPRIATE ENGINEERED DESIGN. PER THE N.C.-R
- TRUSS MEMBERS SHALL NOT BE CUT, NOTCHED, DRILLED, SPLICED OR OTHERWISE ALTERED IN ANY WAY MITHOUT THE APPROVAL OF A RESISTENCE DESIGN PROFESSIONAL. ALTERATIONS RESULTING IN THE ADDITION OF LOAD (E.S. HYAC EQUIPMENT, WATER HEATER) THAT EXCEEDS THE DESIGN LOAD FOR THE TRUSSES SHALL NOT BY PERMITTED WITHOUT WRITTEN YEAR, CATION 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.
- MANUFACTURER IS TO SECURE BUILDING DEPARTMENT APPROVA OF CALCULATIONS AND SHOP DRAWINGS PRIOR TO FABRICATION.

WALL FRAMING

- THE SIZE, HEIGHT, AND SPACING OF STUDS SHALL BE IN ACCORDANCE
- 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.
- MOOD STUD MALLS SHALL BE CAPPED WITH A DOUBLE TOP PLATE INSTALLED TO PROVIDE OVERLAPPING AT CORNERS AND INTERSECTION HITH 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 WIDTH AT LEAST EQUAL TO THE WIDTH OF THE STUDS, SEE EXCEPTIONS.
- WHERE JOISTS, TRUSSES OR RAFTERS ARE SPACED MORE THAN 16 INCHES ON CENTER AND THE BEARING STUDS BELOW ARE SPACED 24 INCHES ON CENTER, SUCH MEMBERS SHALL BEAR WITHIN 5 INCHES OF THE STUDS 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.
- INTERIOR NONBEARING WALLS SHALL BE PERMITTED TO BE CONSTRUCTED MITH 2-INCH-BY-8-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 16 INCHES ON CENTER. INTERIOR NONBEARING WALLS SHALL BE CAPPED WITH AT I FAST A SINGLE TOP PLATE INTERIOR NONBEARING WALLS SHALL BE FIREBLOCKED IN ACCORDANCE WITH THE N.C.-F

WOOD & FRAMING

(continued)

- 8. DRILLING AND NOTHCING OF STUDS SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
 - NOTHCING, ANY STUD IN AN EXTERIOR WALL OR BEARING PARTITION MAY BE OUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTH, STUDS IN NONBEARING PARTITIONS MAY BE NOTCHED TO A DEPTH NOT TO EXCEED 40 PERCENT OF A SINGLE STUD WIDTH. NOTCHED FARING STUDS SHALL BE ON ONE EDGE ONLY AND NOT TO EXCEED PARENTS SHALL BY ON ONE EDGE ONLY AND SHALL BY ONLY STUD. NOTCHING SHALL NOT OCCUR IN THE BOTTOM OR TOP 6 INCHES OF BEARING STUDS.
 - 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 PIOTH. THE EDGE OF THE HOLE IS NO MORE THAN 5/8" INCH TO THE EDGE OF THE STUD, AND THE HOLE SHALL NOT BE CLOSER THAN 6 INCHES FROM AN AD JACENT HOLE OR NOTCH. HOLES NOT EXCEEDING 3/4 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 BORRED.
- WHEN PIPING OR DUCTWORK IS PLACED IN OR PARTIALY IN AN EXTERIOR WHEN PIPING OR DUCTYOOK IS PLACED IN OR PARTIALY IN AN EXTERIOR OR INTERIOR LOAD-BEARING WALL, INCESSITATION CUTTING, POILLING OR NOTCHING OF THE TOP PLATE B MORE THAN 50 PERCENT OF ITS HIDTH A GALVANIZED METAL TIE OF NOT LESS THAN 0.054 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 MINIMM LENGTH OF III, INCHES (BID OF THE DID A THE PLATE AT EACH THE METAL TIE MUST EXTEND A MINIMM OF 6 INCHES PAST THE OPENING.
- 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
- WOOD STUD WALLS SHALL BE BRACED AS REQUIRED BY THE N.C.-R
- UNLESS COVERED BY INTERIOR OR EXTERIOR WALL COVERINGS OF SHEATHING MEETING THE MINIMM REQUIREMENTS OF THIS CODE, ALL STUD PARTITIONS OR WALLS WITH STUDS HAVING A HEIGHT-TO-LEAST THICKNESS RATIO EXCEEDING SO SHALL HAVE BRIDGING NOT LESS THAN 2 INCHES IN THICKNESS AND NAILED SO SHALL HAVE BRIDGING NOT LESS FITHAN 2 INCHES IN THICKNESS AND OF THE SAME WIDTH AS THE STUDS FITTED SNUGLY AND NAILED THERETO TO PROVIDE ADEQUATE LATERAL SIPPORT

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 BETWEEN STORIES, AND BETWEEN A TOP STORY AND A ROOF SPACE. FIREBLOCKING SHALL BE PROVIDED IN MOOD-FRAME CONSTRUCTION IN THE LOCATIONS SPECIFIED IN THE NC.-R
- FIRE BLOCKING SHALL CONSIST OF 2 INCHES NOMINAL LUMBER, OR TWO THICKNESSES OF I-INCH NOMINAL LUMBER WITH BROKEN LAP JOINTS, OR ONE THICKNESS OF 23/32-INCH WOOD STRUCTURAL PANELS WITH JOINTS BACKED BY 23/32-INCH MOOD STRUCTURAL PANELS OR ONE THICKNESS OF 3/4-INCH PARTICLEBOARD WITH JOINTS BACKED BY 3/4-INCH PARTICLEBOARD, I/2-INCH GYPSOM BOARD, OR 1/4-INCH CEMENT-BASED
- BATTS OR BLANKETS OF MINERAL WOOL OR GLASS FIBER OR OTHER APPROVED MATERIALS INSTALLED IN SUCH A MANNER AS TO SECURELY RETAINED IN PLACE SHALL BE PERMITTED AS AN ACCEPTABLE FIRE BLOCK.
- BATTS OR BLANKETS OF MINERAL OR GLASS FIBER OR OTHER APPROVED NON-RIGID MATERIALS SHALL BE PERMITTED FOR COMPLIANCE WITH THE 10 FOOT HORIZONTAL FIREBLOCKING IN MALLS CONSTRUCTED USING PARALLEL ROWS OF STUDS OR STAGGERED STUDS. LOOSE FILL INSULATION MATERIAL SHALL NOT BE USED AS A FIREBLOCK UNLESS SPECIFICALLY TESTED IN THE FORM AND MANIER INTENDED FOR USE TO DEMONSTRATE ITS ABILITY TO REMAIN IN PLACE AND TO RETARD THE SPREAD OF FIRE
- WHEN THERE IS USABLE SPACE BOTH ABOVE AND BELOW THE CONCEALED WHEN THERE IS USABLE SPACE BOTH ABOVE AND BELOW THE CONCEALED SPACE OF A FLOOR/CELLING ASSEMBLY, DRAFTSTOPS SHALL BE INSTALLED SO THAT THE AREA OF THE CONCEALED SPACE DOES NOT EXCEED 1,000 SOULARE 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 BELOM, 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



NORTH CAROLINA 40' SERIES

KB HOME NORTH CAROLINA DIVISION

4506 S. MIAMI BLVD. SUITE 180 DURHAM, NC 27703

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2018 NORTH **CAROLINA STATE BUILDING** CODES

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SPEC. LEVEL 1 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 OURSTIONABLE SUITABILITY, TESTING BY AN APPROVED TESTING AGENCY SHALL BE REQUIRED BY THE BUILDING OFFICIAL TO DETERMINE THE CHARACTER, GUALITY, 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 NAILE STACE DE CORROSIONNESSISTANT TO NOT LESS IMAN II JOSE, 51/6-INCH HEAD, AND OF SYFFICIENT LENGTH TO PENETRATE THE DECK, A MINIMUM OF 51/4-INCH OR THROUGH THE THICKNESS OF THE DECK, WHICHEVER IS LESS. ATTACHING WIRE FOR CLAY OR CONCRETE TILE SHALL NOT BE SMALLER THAN O.083-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 WITH ASTM D 3679 SHALL BE PERMITTED ON EXTERIOR NALLS OF BUILDINGS OF TYPE V CONSTRUCTION LOCATED IN AREAS HIERE THE ULTIMATE WIND SPEED SPECIFIED DOES NOT EXCEED ISO MILES PER HOUR AND THE BUILDING HEIGHT IS LESS THAN 40 FEET IN EXPOSURE C. WHERE CONSTRUCTION IS LOCATED IN AREAS WHERE THE ULTIMATE WIND SPEED EXCEEDS ISO MILES PER HOUR OR BUILDING HEIGHTS ARE IN EXCESS OF 40 T. DATA INDICATING COMPLIANCE MUST BE SUBMITTED. VINYL SID 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 A1356 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 INGULATION 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 AUDIES, ETC. 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 WITH AN AIR BARRIER SYSTEM TO LIMIT INFILTRATION. THE SEALING METHODS BETMEEN DISSIMILAR MATERIALS SHALL ALLOW FOR DIFFERENTIAL EXAMSION AND CONTRACTION. FOR ALL HOMES, WHERE PRESENT, THE FOLLOWING SHALL BE CAULKED, SASKETED, MEATHERSTRIPPED OR OTHERWISE SEALED WITH AN AIR BARRIER MATERIAL OR SOLID MATERIAL CONSISTENT WITH APPENDIX E-23 AND E-24 OF THE MC-8. MITH APPENDIX E-2.5 AND E-2.4 OF THE NO-R:
 BLOCKING AND SEALING FLOOR/CEILING SYSTEMS AND UNDER
 KNEE WALLS OPEN TO UNCONDITIONED OR EXTERIOR SPACE.
 CAPPING AND SEALING SHAFTS OR CHASES, INCLUDING FLUE 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 AND E-2.4 OF NC-R:
- SHOWERS
- S. STAIRS.

 4. FIREPLACE UNITS

 ENCLOSIVE OF WALL CAVITY INSULATION ALSO APPLIES TO WALLS THAT ADJOIN ATTIC SPACES BY PLACING A RIGID MATERIAL OR AIR BARRIER MATERIAL ON THE ATTIC SIDE.

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 OF SLEPTING PURPOSES SHALL NOT BE FERMITTED. OTHER OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHAIL NOT BE FERMITTED. OTHER OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHAIN 13/6 INCHES IN THICKNESS, SOLID OR HONEYCOMB CORE STEEL DOORS NOT LESS THAN 13/6 INCHES THICK, OR 20-MINUTE FIRE-RATED DOORS.
- NO DOUBLE FRENCH DOORS SHALL BE USED UNLESS THERE IS A SUFFICIENT OVERHAMS OR COVERED PATIO COVERING THESE DOORS. NO DOUBLE <u>MOOD</u> FRENCH DOORS SHALL BE USED IN ANY CASE.
- 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 INFILTRATION STANDARDS OF THE CURRENT AMERICAN NATIONAL STANDARDS INSTITUTE AST, M. 2283—73 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
- 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 II 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
- SLIZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL IN THE SAME PLANE AS A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN 24-INCHES OF THE DOOR IN A CLOSED POSITION AND WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR OR WALKING
- GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE FOLLOWING CONDITIONS:
- 3.I 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 9.4 ONE OR MORE WALKING SURFACES MITHIN 36 INCHES, MEASURED HORIZONTALLY AND IN A STRAIGHT LINE, OF THE GLAZING.
- I GLAZING IN GUARDS AND RAILINGS REGARDLESS OF AREA OR HEIGHT ABOVE A WALKING SURFACE. INCLUDED ARE STRUCTURAL BALUSTER PANELS AND NONSTRUCTURAL INFILL PANELS.
- GLAZING IN DOORS AND ENCLOSURES FOR HOT TUBS, WHIRLPOOLS. SALNAS, 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 SMIMMING POOLS, HOT TUBS AND SPAS WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A MALKING SURFACE AND WITHIN 60 INCHES HORIZONTALLY OF THE MATERS 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 MHEN THE EXPOSED SURFACE OF THE GLAZING IS LESS THAN 36 INCHES ABOVE THE PLANE OF THE ADJACENT WALKING SURFACE.
- GLAZING ADJACENT TO THE LANDING AT THE BOTTOM OF STAIRWAYS WHERE THE GLAZING IS LESS THAN 36 INCHES ABOVE THE LANDING AND WITHIN A 60-INCH HORIZONTAL ARG LESS THAN 180 DEGREES FROM THE BOTTOM TREAD NOSING.
- HINGED SHOWER DOORS SHALL OPEN OUTWARD.
- GLAZING SHALL BE IN ACCORDANCE WITH ENERGY COMPLIANCE CALCULATIONS BASED ON A LOCALLY ADOPTED ENERGY CODE, THE MODEL ENERGY CODE OR THE INTERNATIONAL ENERGY
- IN DWELLING UNITS, WHERE THE OPENING OF AN OPERABLE MINDOM IS LOCATED MORE THAN 12 INCHES (1824 MM) ABOVE THE FINISHED GRADE OR SURFACE BELOW, THE LOVEST 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 ALLOM PASSAGE OF A 4 INCH (102 MM) DIAMETER SPHERE WHERE SUCH OPENINGS ARE LOCATED 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 691, C 600, C 1002, C 1041, C 117, C 118, C 1275, C 1386, OR C 1656 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 MALL 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, MEIRE THE BASIC NIND 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 MINIMO O.014-INCH (NO. 26 GALVANIZED SHEET GAGE),
 CORROSION-RESISTANT MEEP SCREED OR PLASTIC MEEP SCREED, WITH A
 MINIMOM VERTICAL ATTACHMENT FLANGE OF 51/2 INCHES SHALL BE
 PROVIDED AT OR BELOW THE FOUNDATION PLATE LINE ON EXTERIORS STUD
 WALLS IN ACCORDANCE WITH ASTM C 426. THE WEEP SCREED SHALL BE
 PLACED A MINIMOM OF 4 INCHES ABOVE THE EARTH OR 2 INCHES ABOVE
 PAYED AREAS AND SHALL BE OF A 17PE THAT MILL ALLOM TRAPPED
 WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING. THE
 WEATHER-RESISTANT BARRIER 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.

THE PROPORTION OF AGGREGATE TO CEMENTITIOUS MATERIALS SHALL BE AS 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 LIME OR PLASTICIZERS SHALL BE ADDED. HYDRATED LIME OR THE EQUIVALENT AMOUNT OF LIME PUTTY USED AS A PLASTICIZER MAY BE 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 MIEN THE AMBIENT TEMPERATURE IS HIGHER THAN 40 DEGREES of (4 DEGREES O,) UNLESS PROVISIONS ARE MADE TO KEEP CEMENT PLASTER WORK ABOVE 40 DEGREES (4 DEGREES O,) PRIOR TO & DURING APPLICATION AND 48 HOURS THEREAFTER.
- COLOR AND FINISH TO BE SELECTED AND APPROVED BY OWNER BUILDER AND ARCHITECT. A I-COAT EXTERIOR PLASTER SYSTEM SICH AS "MAGNA WALL
- A I-CUAT EXTERIOR PLASTER STSTEM SUCH AS MAGNA MALL I.C.C. NO. ER-4TT6, "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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2018 NORTH **CAROLINA STATE BUILDING** CODES

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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.
- 10. 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 DE PROVIDED.
 THE MINIMM VENTILLATION RATES SHALL BE SO CFM FOR INTERMITTENT
 VENTILLATION OR 20 CFM FOR CONTINUOUS VENTILLATION, VENTILLATION
 AIR FROM THE SPACE SHALL BE EXHAUSTED DIRECTLY TO THE OUTSIDE
 BEST NO. 9
- 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 GRAVEL.
- 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 STATA 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.
- WATER 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 FALCETS 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 SEQUEND 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. NHERE 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 1016 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) WITH THE EXCEPTION OF THOSE HAVING DIRECT VENT SYSTEMS, SHALL NOT BE INSTALLED IN BATHROOMS AND BEDROOMS OR IN A CLOSET WITH 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 PLUNBING 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 NITH THE CONDITIONS OF THE LISTINS. FACTORY-BUILT FIREPLACES SHALL BE TESTED IN ACCORDANCE NITH UL 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, PARTIES 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 ARC-FAULT 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.
 - 3. A SINGLE RECEPTACLE OR A DUPLEX RECEPTACLE FOR TWO APPLIANCES LOCATED WITHIN DEDICATED SPACE FOR EACH APPLIANCE THAT, IN NORMAL USE, IS NOT EASILY MOVED FROM ONE PLACE TO ANOTHER, AND THAT IS CORD-AND-PLIG 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 THE HOUSEHOLD FIRE WARRING EQUIPMENT PROVISIONS OF INFPA 12.

- 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

4506 S. MIAMI BLVD. SUITE 180 DURHAM, NC 27703 TEL: (919) 768-7980 • FAX: (919) 544-2928

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2018 NORTH **CAROLINA STATE** BUILDING CODES

ISSUE DATE: 05/28/15 * PROJECT No.: 1350999:56

DCS

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REVISIONS: 03/15/19 DIVISION REVISIONS
NCIS024NCP · 02/13/18 · CTD

a 2018 CODE UPDATE NCI9015NCP/ 03/15/19 / CTD

DIVISION MCR ·

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GN₃ SPEC. LEVEL 1

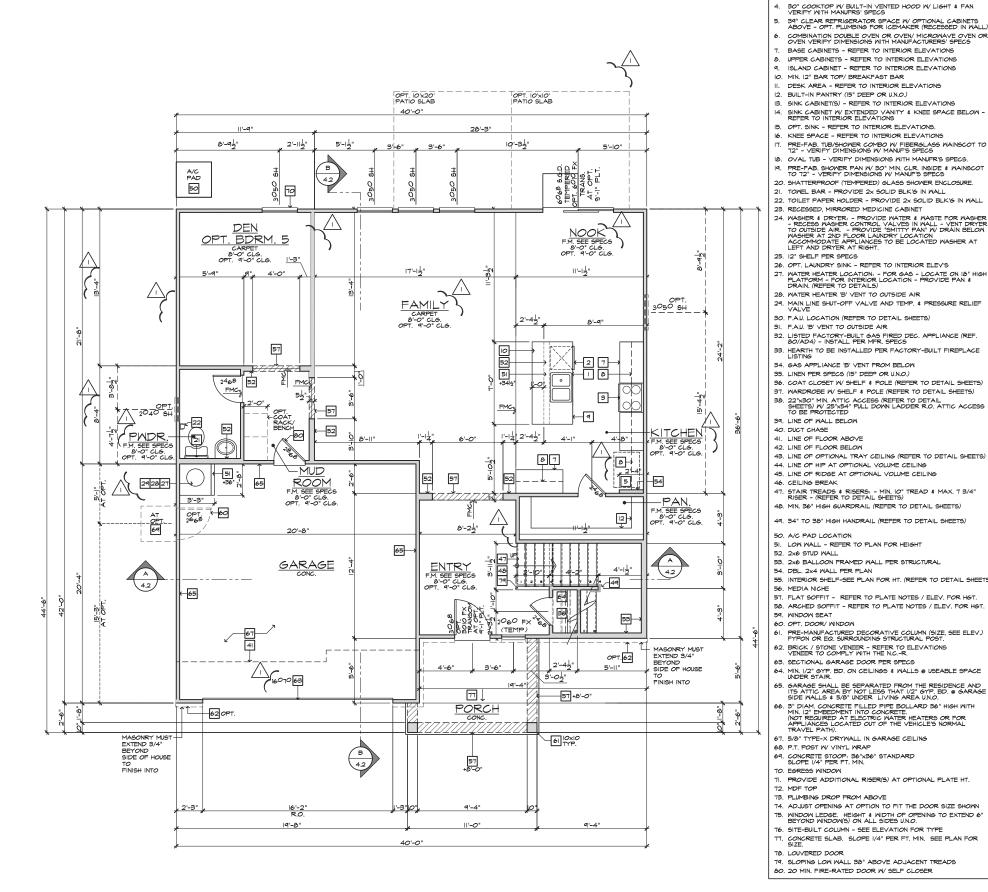
RALEIGH-DURHAM 40' SERIES

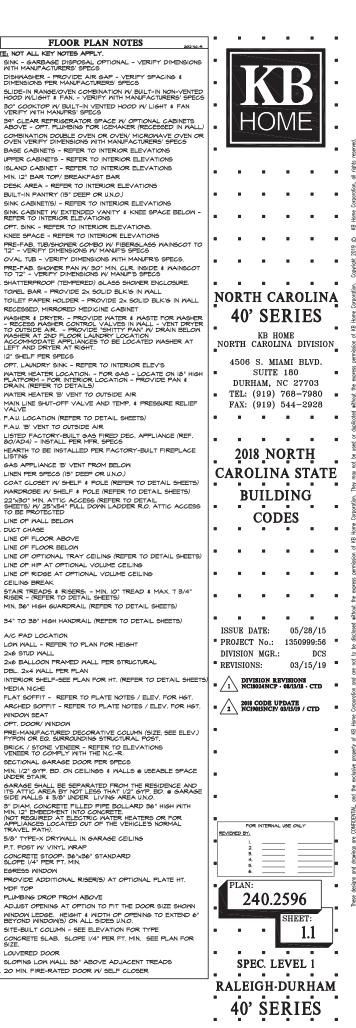


	PLAN 240.259	6	
FIRST FLOOR ARE	Ą	1158	SQ. FT.
SECOND FLOOR AF	REA	1415	SQ. FT.
TOTAL AREA	4	2573	SQ. FT.
GARAGE AREA		416	SQ. FT.
PORCH AREA(S)			
	ELEVATION 'A'	83	SQ. FT.
	ELEVATION 'B'	84	5Q. FT.
	ELEVATION 'C'	62 136	50. FT. 50. FT.
PATIO AREA(S)	ELEVATION D	156	5G. F1.
TATIO ANLA(S)	IO'XIO' COVERED	100	SQ. FT.
	10'x26'-7" COVERED	266	SQ. FT.
DECK AREA(S)			
	OPEN 12'x12'	144	SQ. FT.
	OPEN 12'x24'	288	SQ. FT.
	SCREENED-IN 12'x12'	144	5Q. FT.
SUNROOM AREA	SCREENED-IN 12'x24'	288	SQ. FT.
SUNROUPI AREA	12'x12'	144	SQ. FT.
	PLATE NOTE		55
		-	2012 N.C-R
	8'-1" PLATE NO		
MINDOW HEAD	PER HEIGHT: IINDOW HDR. HEIGHT:	6'-8" U.N.C 7'-0" U.N.C	? .
 ENTRY DOOR 	HEIGHT:	6'-8" U.N.C).
SLIDING GLASS DOOR HEIGHT: INTERIOR SOFFIT HEIGHT:		6'-8" (TEM 7'-4" U.N.O	P.)
· INTERIOR DO	OR HEIGHT:	6'-8" U.N.C	i.
	9'-1" PLATE NO	TES	
	ER HEIGHT 1st OR 2nd	7'-8" U.N.O	
 4010 MINDOW ENTRY DOOR 	OVER TUB HDR. HGT.:	8'-4" U.N.C 6'-8" U.N.C	2.
 SLIDING GLAS 	S DOOR HEIGHT:	6'-8" (TEM	(P)
 INTERIOR SOF TRAY CEILING 		8'-0" U.N.C	
· INTERIOR DO		6"-8" U.N.C	
	STAIR DATA NO	TES	2012 N.CR
FIRST FLOOR WITH	H \$'-I" PLATE HEIGHT:		
14" DEEP T.J.I. FLO 14 TREADS AT 15 RISERS AT	OOR JOISTS WITH 3/4" T T IO" EACH 7-7/I6" EACH	#6 DECKING	•
FIRST FLOOR WITH 9-1" PLATE HEIGHT: 14" DEEP T.J.I. FLOOR LOISTS WITH 3/4" T&G DECKING. 15 TREADS AT 1-3/4" EACH 16 RISERS AT 1-3/4" EACH			
GENERAL PLAN NOTES ALL CEILING HEIGHTS PER SECTION AND ELEVATION PLATE HEIGHTS, UN.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).			
EXTERIOR GRADE	(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.





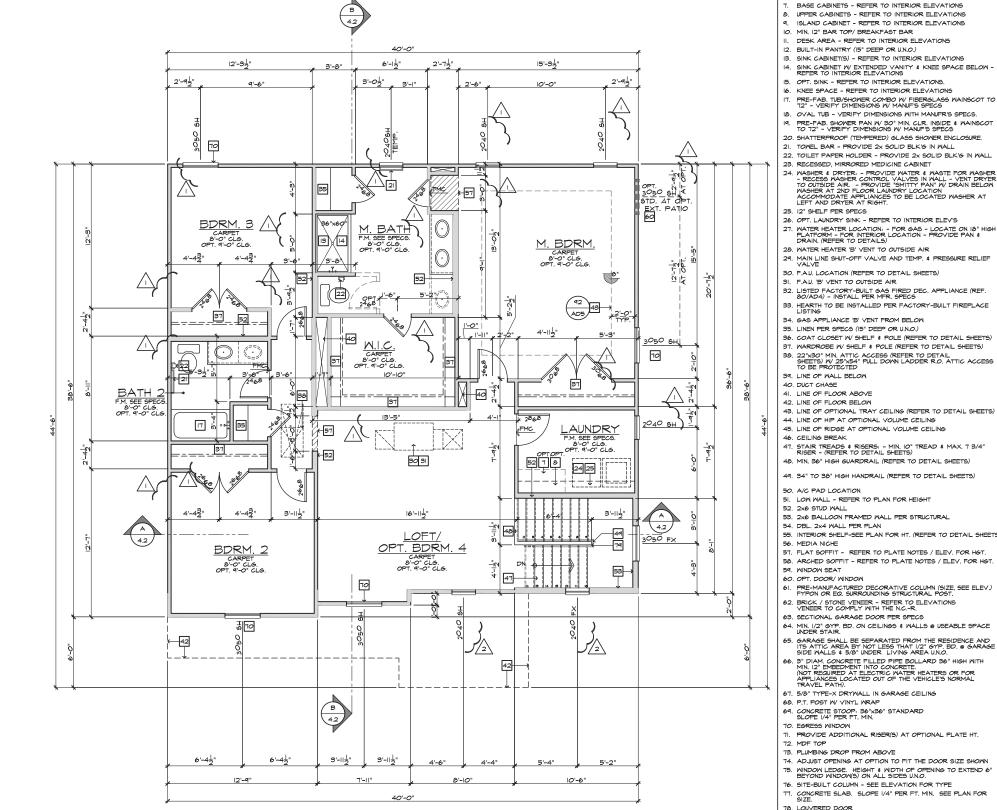
FLOOR PLAN NOTES

DISHMASHER - PROVIDE AIR GAP - VERIFY SPACING & DIMENSIONS PER MANUFACTURERS' SPECS

NOTE: NOT ALL KEY NOTES APPLY.

FIRST FLOOR PLAN 'A'

SCALE |/4"=1'-0" (22"X34") - |/6"=1'-0" (||"X|7")





INTERIOR KEY PLATE NOTES

	8'-I" PLATE NO	OTES
•	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. T'-0" U.N.O. 6'-8" U.N.O. 6'-8" (TEMP.) T'-4" U.N.O. 6'-8" U.N.O.
Ť	9'-1" PLATE NO	
:	MINDON HEADER HEIGHT IST OR 2nd 4010 MINDON OVER TUB HDR, HGT., ENTRY DOOR HEIGHT. SLIDING GLASS DOOR HEIGHT. INTERIOR SOPPIT HEIGHT. INTERIOR DOOR HEIGHT.	
	STAIR DATA N	OTES 2012 NG

FIRST FLOOR WITH \$1P PLATE HEIGHT:

14" DEEP T.J.I. FLOOR JOISTS WITH 3/4" T&G DECKING.

14 TREADS AT 10" EACH

15 RISERS AT 7-71/6" EACH

FIRST FLOOR WITH 9-1" PLATE HEIGHT:
14" DEEP T.J.I. FLOOR JOISTS WITH 9/4" 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).

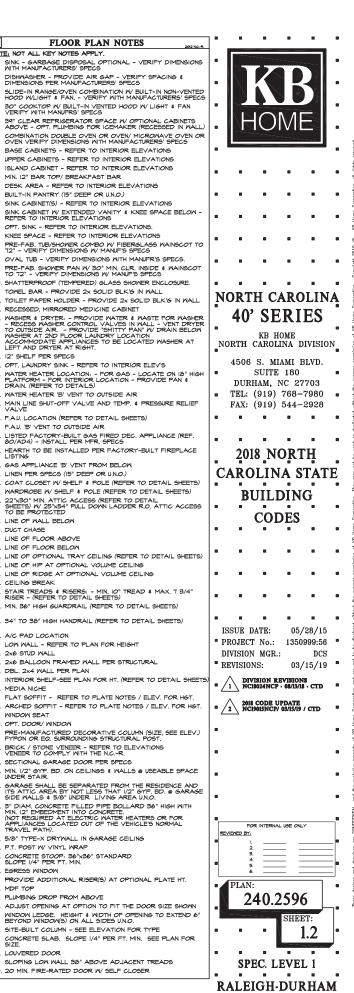
ALL GARAGE SERVICE DOORS TO BE HOLLOW CORE EXTERIOR GRADE (REFER TO PLAN FOR SIZE).

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.

SECOND FLOOR PLAN 'A'

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



40' SERIES

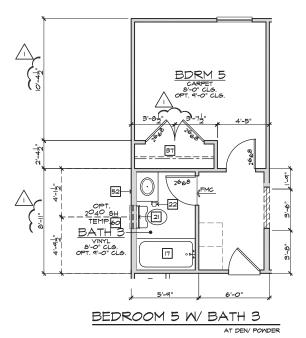
FLOOR PLAN NOTES

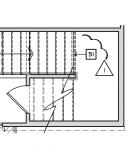
DISHMASHER - PROVIDE AIR GAP - VERIFY SPACING & DIMENSIONS PER MANUFACTURERS' SPECS

79. SLOPING LOW WALL 38" ABOVE ADJACENT TREADS

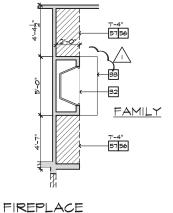
80, 20 MIN, FIRE-RATED DOOR W/ SELF CLOSER

NOTE: NOT ALL KEY NOTES APPLY.







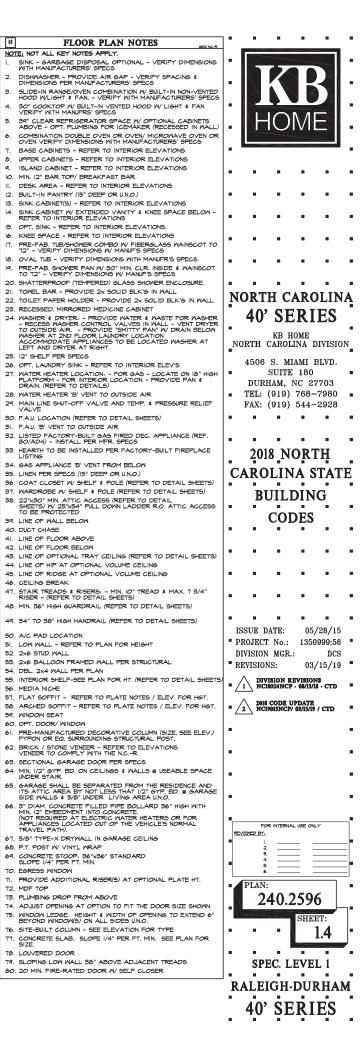


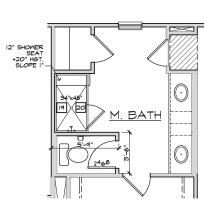
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FIRST FLOOR PLAN OPTIONS

SCALE I/4"=I'-0" (22"X84") - I/8"=I'-0" (II"XIT")

BASIC F

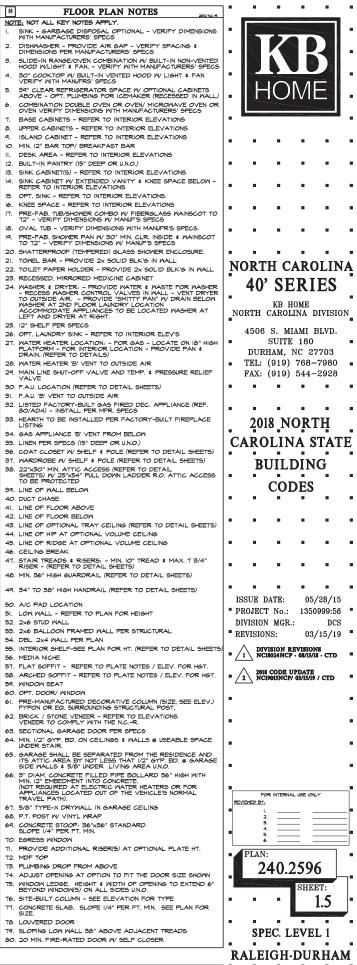






SECOND FLOOR PLAN OPTIONS

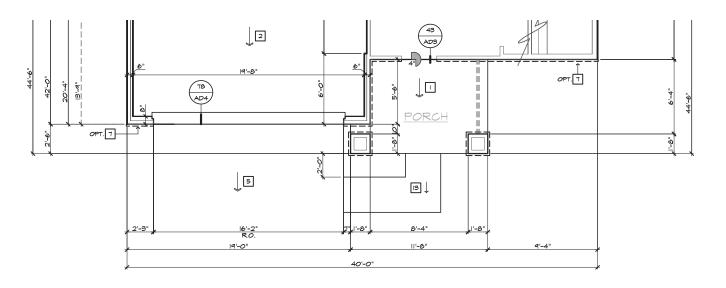
SCALE |/4"=|'-0" (22"XS4") - |/8"=|'-0" (||"X|T")



80. 20 MIN. FIRE-RATED DOOR W SELF CLOSER

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

ALEIGH-DURHA 40' SERIES



PARTIAL SLAB INTERFACE PLAN 'B'

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

BASIC PLAN AT SLAB-ON-GRADE

SLAB PLAN NOTE: NOT ALL KEY NOTES APPLY. SLAB PLAN NOTES

CONCRETE PATIO/PORCH SLAB PER STRUCTURAL- SLOPE I/4" PER FT. MIN. 1/4" MER FT. MIN.

CONCRETE GARAGE SLAB PER STRUCTURAL- SLOPE 1/6" PER 1-0" MIN. TOMARD DOOR OPENING.

CONCRETE FOUNDATION PER STRUCTURAL.

CONCRETE STOOP, 36" 36" STANDARD

SLOPE 1/4" PER FT. MIN.

- CONCRETE DRIVEWAY SLOPE 1/4" PER FT. MIN. AWAY FROM GARAGE DOOR OPENING.
- HYDM GARAGE DOOR OPENING.

 PROVIDE ELECTRICAL CONDUIT UNDER SLAB AT ISLAND.

 VERIFY LOCATION.

 1. 5° BRICK LEDGE FOR MASONRY VENEER.

 3° D'AMPETER CONCRETE FILLED PIPE BOLLARD 36" HIGH MITH MIN. 12° EMBEDMENT INTO CONCRETE.

 REFER TO CIVIL DRAWINGS FOR ALL FINSH SURFACE ELEVATIONS.

- IO. VERIFY ALL PLUMBING STUB DIMENSIONS SHOWN HERE PRIOR TO POUR OF SLAB.
- II. 4" MIN. 7 3/4" MAX. TO HARD SURFACE.

 I2. A/C PAD. VERIFY LOCATION.

 I3. 36" WIDE WALKWAY- SLOPE I/4" PER FT. MIN.



NORTH CAROLINA 40' SERIES

KB HOME NORTH CAROLINA DIVISION 4506 S. MIAMI BLVD.

SUITE 180 DURHAM, NC 27703 ■ TEL: (919) 768-7980 ■ FAX: (919) 544-2928

2018 NORTH **CAROLINA STATE** BUILDING CODES

.

ISSUE DATE: 05/28/15 * PROJECT No.: 1350999:56 *

DCS

03/15/19 REVISIONS: DIVISION REVISIONS
NCI8024NCP · 08/13/18 · CTD

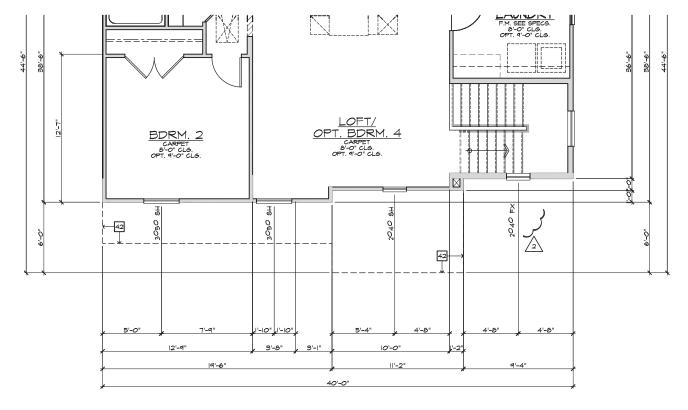
DIVISION MGR.:

2018 CODE UPDATE NCI9015NCP/ 03/15/19 / CTD

FOR INTERNAL USE ONLY

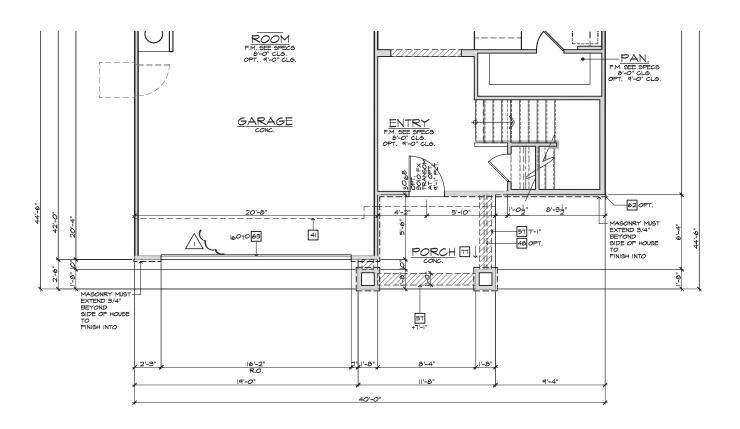
240.2596

SPEC. LEVEL 1 RALEIGH-DURHAM 40' SERIES



PARTIAL SECOND FLOOR PLAN 'B'

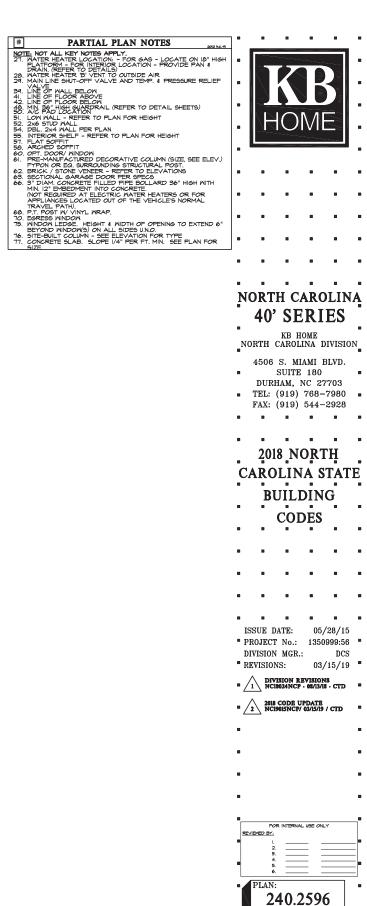
SCALE |/4"=|'-O" (22"X34") - |/8"=|'-O" (||"X|7")





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

BASIC PLAN



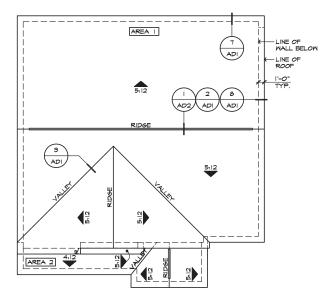
NOTE: REFER TO BASIC FLOOR PLAN FOR INFORMATION NOT SHOWN HERE

SHEET: 3.**B**1

DCS 03/15/19

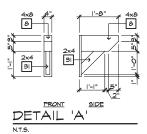
RALEIGH-DURHAM 40' SERIES

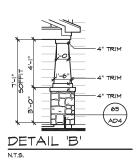
SPEC. LEVEL 1

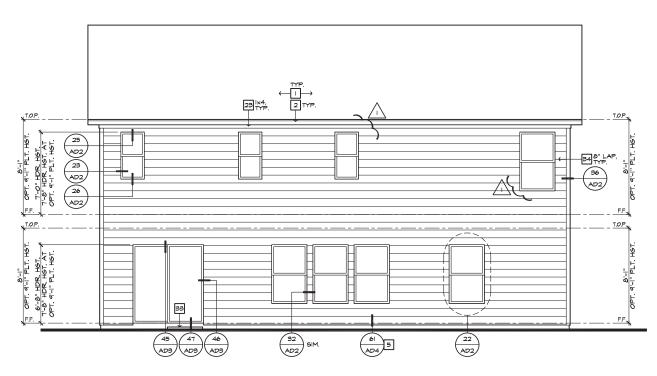


ROOF PLAN 'B'

SCALE I/8"=1'-0" (22"X34") - I/I6"=1'-0" (II"XI7")

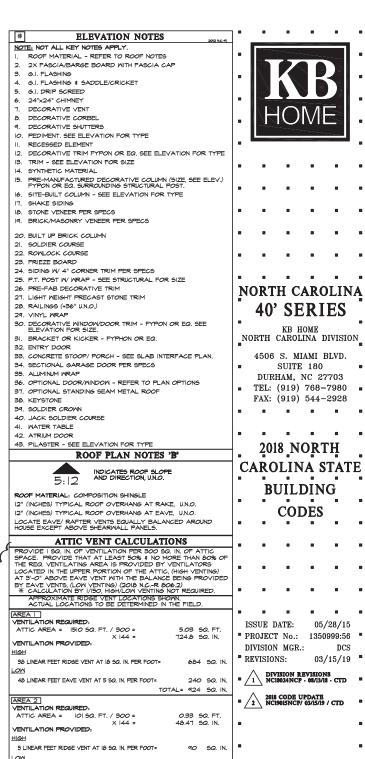






REAR ELEVATION 'B'

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



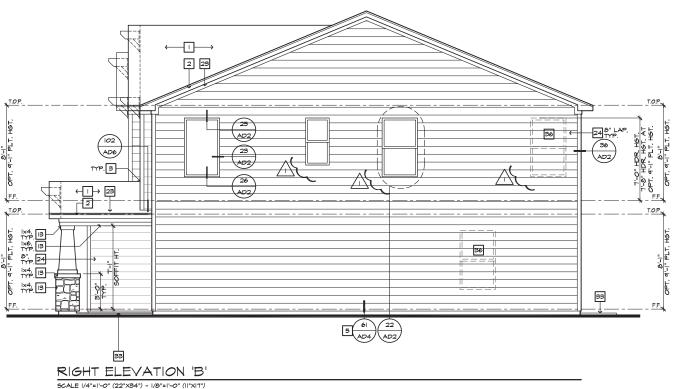
30 LINEAR FEET EAVE VENT AT 5 SQ. IN. PER FOOT=

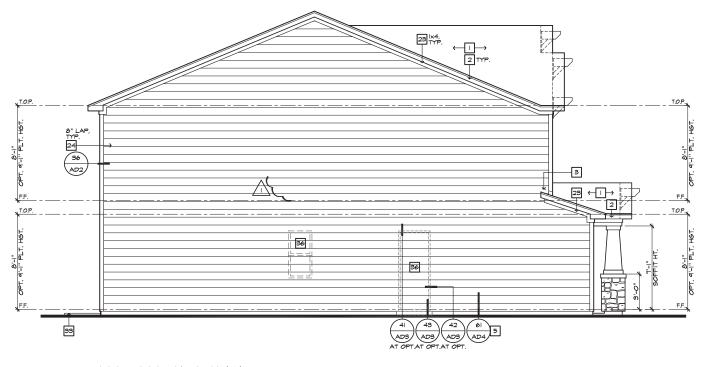


PLAN:
240.2596

SPEC. LEVEL 1

RALEIGH-DURHAM
40' SERIES





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

ELEVATION NOTE: NOT ALL KEY NOTES APPLY. **ELEVATION NOTES** ROOF MATERIAL - REFER TO ROOF NOTES 2. 2X FASCIA/BARGE BOARD WITH FASCIA CAF 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 IT. 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

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

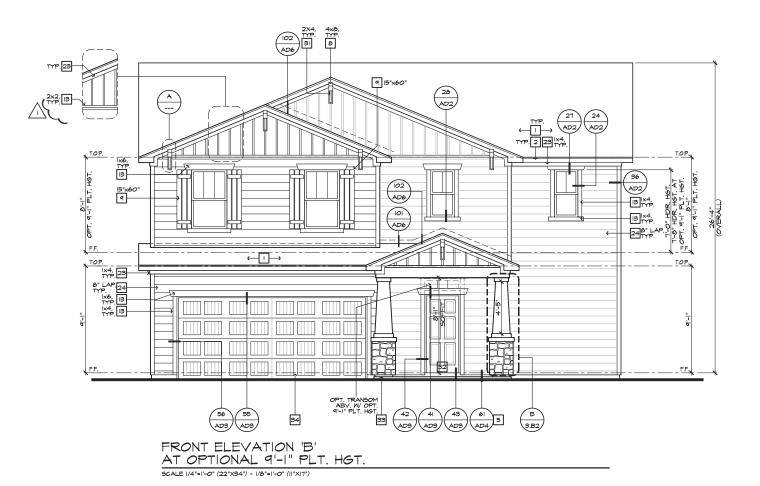
NORTH CAROLINA 40' SERIES KB HOME NORTH CAROLINA DIVISION 4506 S. MIAMI BLVD. SUITE 180 35. ALUMINUM MRAP 36. OPTIONAL DOOR/WINDOM - REFER TO PLAN OPTIONS DURHAM, NC 27703 TEL: (919) 768-7980 FAX: (919) 544-2928 2018 NORTH **CAROLINA STATE** BUILDING CODES ISSUE DATE: 05/28/15 * PROJECT No.: 1350999:56 * DIVISION MGR.: REVISIONS: 2018 CODE UPDATE NC19015NCP/ 03/15/19 / CTD 240.2596

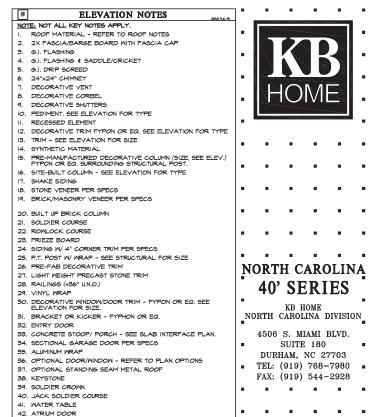
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3.**B**3

DCS 03/15/19

SPEC. LEVEL 1 RALEIGH-DURHAM 40' SERIES





43. PILASTER - SEE ELEVATION FOR TYPE

2018 NORTH **CAROLINA STATE** BUILDING CODES

40' SERIES

4506 S. MIAMI BLVD. SUITE 180

DURHAM, NC 27703 TEL: (919) 768-7980

FAX: (919) 544-2928

ISSUE DATE: 05/28/15 * PROJECT No.: 1350999:56 * DIVISION MGR.: DCS 03/15/19 REVISIONS:

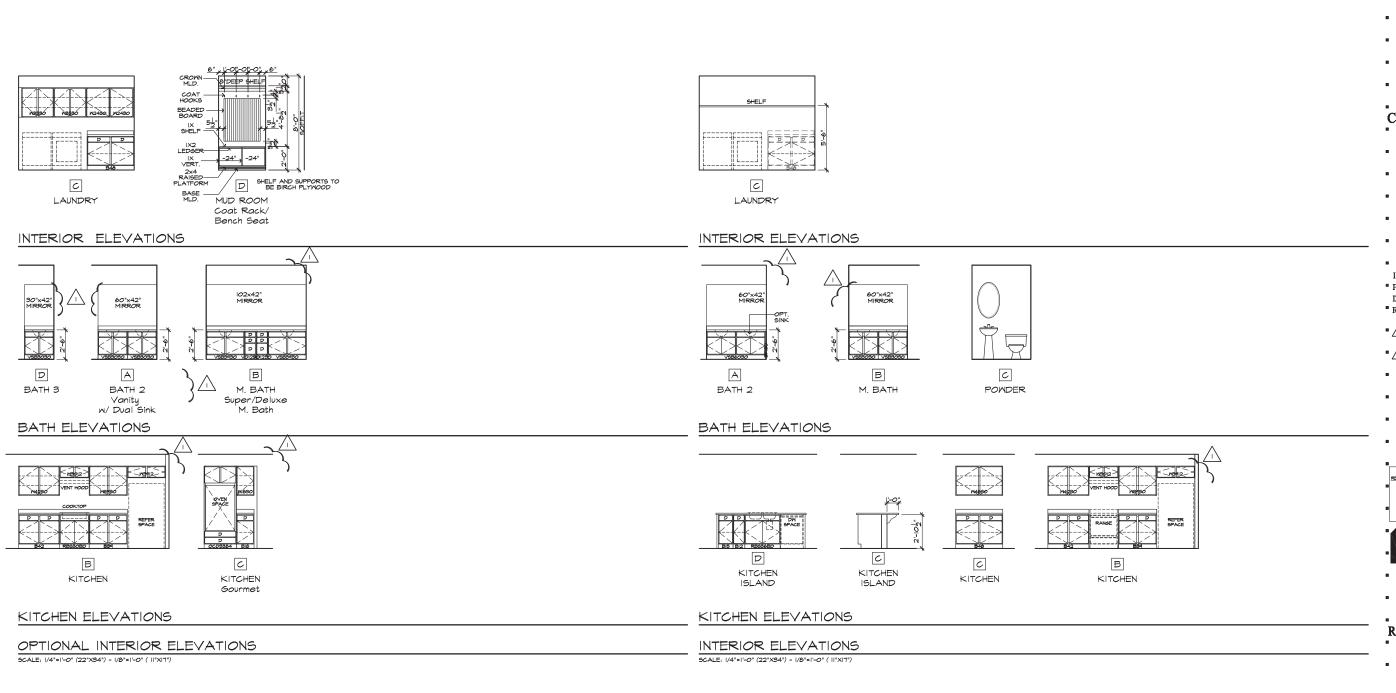
DIVISION REVISIONS
NCI8024NCP · 08/13/18 · CTD 2018 CODE UPDATE NC19015NCP/ 03/15/19 / CTD

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3.**B**5

SPEC. LEVEL 1 RALEIGH-DURHAM 40' SERIES





NORTH CAROLINA 40' SERIES

NORTH CAROLINA DIVISION

4506 S. MIAMI BLVD.

SUITE 180

DURHAM, NC 27703

TEL: (919) 768-7980

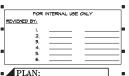
FAX: (919) 544-2928

2018 NORTH CAROLINA STATE BUILDING CODES

ISSUE DATE: 05/28/15
PROJECT No.: 1350999:56
DIVISION MGR.: DCS
REVISIONS: 03/15/19

DIVISION REVISIONS
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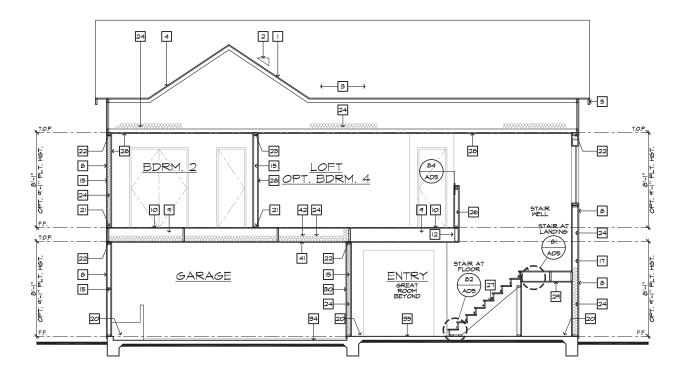
2018 CODE UPDATE NCI90I5NCP/ 03/I5/I9 / CTD



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SHEET: 4.1

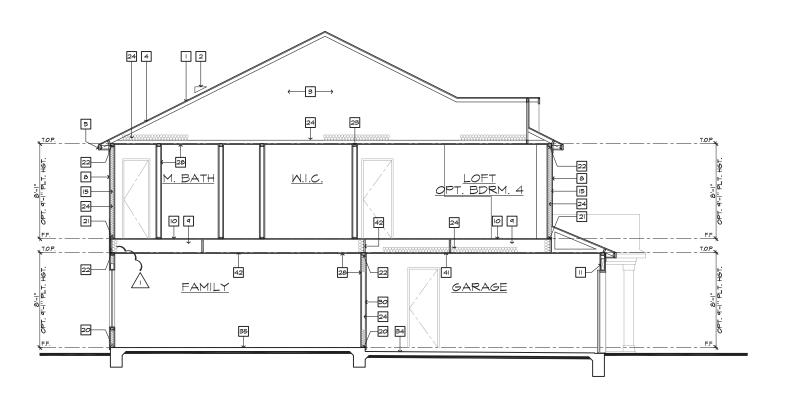
spec. level 1
RALEIGH-DURHAM
40' SERIES



SECTION "A"

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

AT SLAB-ON-GRADE



SECTION "B"

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

AT SLAB-ON-GRADE

NORTH CAROLINA 40' SERIES

KB HOME NORTH CAROLINA DIVISION

4506 S. MIAMI BLVD. SUITE 180 DURHAM, NC 27703 TEL: (919) 768-7980 • FAX: (919) 544-2928

. . . .

34. CONCRETE GARAGE SLAB PER STRUCTURAL - SLOPE 2" MIN. 36. LINE OF OPTIONAL TRAY CEILING/ STEP CEILING 37. LINE OF OPTIONAL VOLUME CEILING

SECTION NOTES

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

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

 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

D. FLOOR SHEATHING PER STRUCTURAL HEADER PER STRUCTURAL 12. FLUSH BEAM PER STRUCTURAL
13. DROPPED BEAM PER STRUCTURAL FLAT/ ARCHED SOFFIT PER PLAN

16. 2x6 STUD WALL 17. 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 25. MIN. 36" HIGH GUARD - SEE PLAN FOR HEIGHT

31. MATERIAL TO UNDERSIDE OF ROOF SHEATHING

20. LOW WALL - SEE PLAN FOR HEIGHT
21. STAIR TREADS AND RISERS PER PLAN: - MIN. IO" TREAD

& MAX. T 9/4" RISER

& MAX. T 9/4" RISER

ESISTANT OR 5/6" DRYNALL & CELLING

29. MINTERIOR SINGH: - MIN. I/2" GYP. BD. & WALLS & SAG
RESISTANT OR 5/6" DRYNALL & CELLING

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

WDER STAIRS.

30. GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAT 1/2" GYP, BD. @ GARAGE SIDE WALLS & 5/8" UNDER LIVING AREA UN.O.

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

33. CONCRETE PATIO/ PORCH SLAB PER STRUCTURAL - SLOPE $1/4^{\circ}$ PER FT. MIN.

15. 2x4 STUD WALL

2I. 2x SOLE PLATE

18. DBL. 2x4 WALL PER PLAN 19. 2x CRIPPLES @ 16" O.C. 20. 2x PRESSURE TREATED SILL PLATE

26 LOW WALL - SEE PLAN FOR HEIGHT

35. CONCRETE FOUNDATION PER STRUCTURAL

38. PROFILE OF OPTIONAL COVERED PATIO 34. EXTERIOR SOFFIT MATERIAL - REFER TO ELEVATIONS.

40. 8" BLOCK WALL

40.8° BLOCK WALL

4. 5/8° TYPE-X DRYWALL © GARAGE
CELING

4. MFEN THERE IS USABLE SPACE ABOVE AND BELOW THE
CONCEALED SPACE OF A FLOOR-CELING ASSEMBLY IN A
SINGLE-FAMILY DWELING DRAFT STOPS SHALL BE INSTALLED
SO THAT THE AREA OF THE CONCEALED SPACE DOES NOT
EXCEED I/OO SQUARE FIETT. DRAFTSTOPPING SHALL DIVIDE
THE CONCEALED SPACE INTO APPROXIMATELY EQUAL AREAS.

2018 NORTH **CAROLINA STATE**

BUILDING CODES

ISSUE DATE: 05/28/15 * PROJECT No.: 1350999:56 * DIVISION MGR.: DCS 03/15/19 REVISIONS:

DIVISION REVISIONS
NCI8024NCP · 08/13/18 · CTD

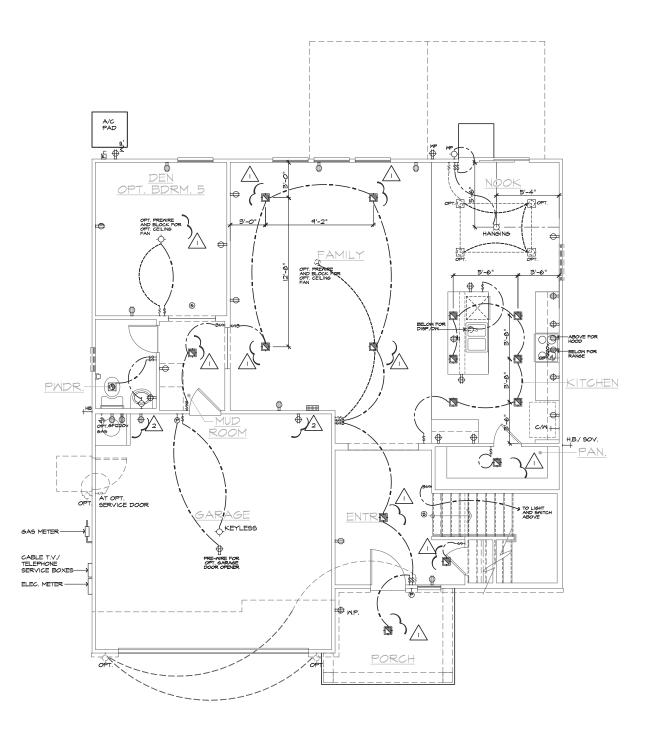
2018 CODE UPDATE NC19015NCP/ 03/15/19 / CTD

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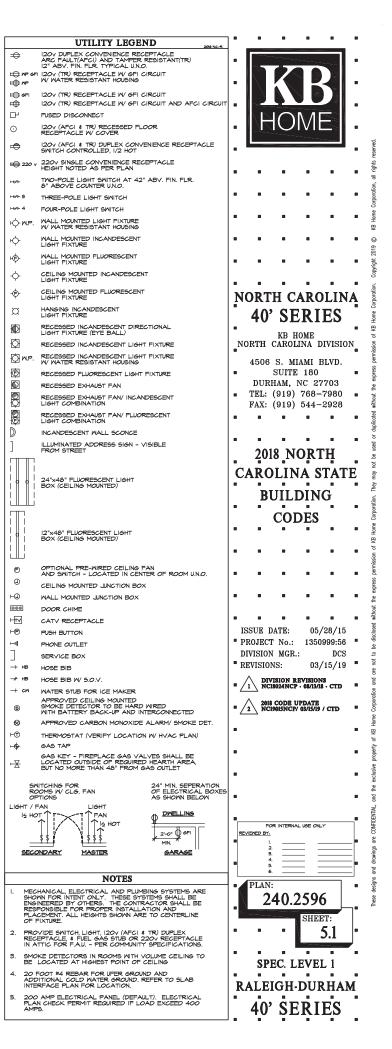
SPEC. LEVEL 1

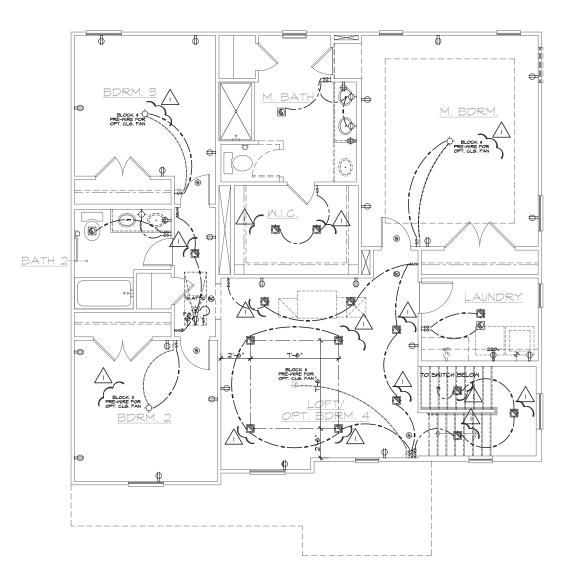
RALEIGH-DURHAM 40' SERIES



FIRST FLOOR UTILITY PLAN

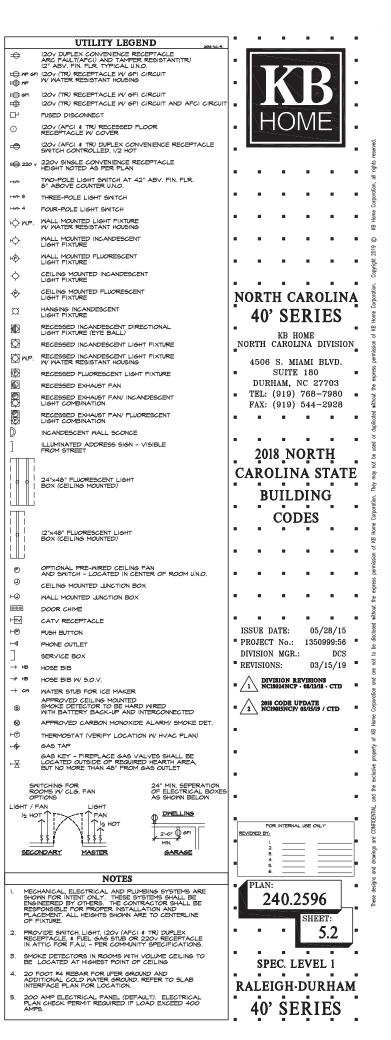
SCALE |/4"=1'-0" (22"X34") - |/8"=1'-0" (||"X|7")

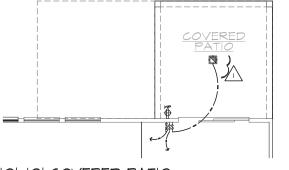




SECOND FLOOR UTILITY PLAN

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





10'x10' COVERED PATIO

AT GREAT ROOM

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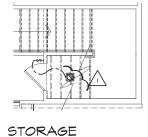
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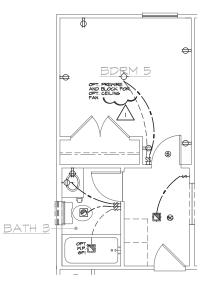
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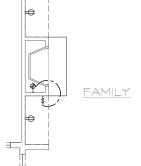
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AT COAT CLOSET



BEDROOM 5 W/ BATH 3 AT DEN/ POWDER

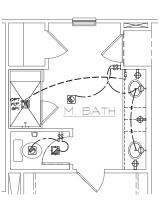


FIREPLACE AT FAMILY

UTILITY LEGEND 120v DUPLEX CONVENIENCE RECEPTACLE ARC FAULT(AFCI) AND TAMPER RESISTANT(TR) 12" ABV. FIN. FLR. TYPICAL U.N.O. THE WP SFI 120V (TR) RECEPTACLE W/ GFI CIRCUIT W/ WATER RESISTANT HOUSING ⊕ 6FI 120v (TR) RECEPTACLE W 6FI CIRCUIT 120v (TR) RECEPTACLE W/ GFI CIRCUIT AND AFCI CIRC FUSED DISCONNECT 120v (AFCI & TR) RECESSED FLOOR RECEPTACLE W/ COVER 120v (AFCI & TR) DUPLEX CONVENIENCE RECEPTACLE SWITCH CONTROLLED, 1/2 HOT THREE-POLE LIGHT SWITCH HO-M.P. WALL MOUNTED LIGHT FIXTURE W WATER RESISTANT HOUSING WALL MOUNTED INCANDESCENT LIGHT FIXTURE WALL MOUNTED FLUORESCENT LIGHT FIXTURE CEILING MOUNTED INCANDESCENT LIGHT FIXTURE CEILING MOUNTED FLUORESCENT LIGHT FIXTURE **NORTH CAROLINA** HANGING INCANDESCENT LIGHT FIXTURE 40' SERIES RECESSED INCANDESCENT DIRECTIONAL LIGHT FIXTURE (EYE BALL) KB HOME NORTH CAROLINA DIVISION RECESSED INCANDESCENT LIGHT FIXTURE M.P. RECESSED INCANDESCENT LIGHT FIXTURE W/ WATER RESISTANT HOUSING 4506 S. MIAMI BLVD. SUITE 180 RECESSED FLUORESCENT LIGHT FIXTURE DURHAM, NC 27703 RECESSED EXHAUST FAN TEL: (919) 768-7980 • RECESSED EXHAUST FAN/ INCANDESCENT LIGHT COMBINATION FAX: (919) 544-2928 RECESSED EXHAUST FAN/ FLUORESCENT LIGHT COMBINATION INCANDESCENT WALL SCONCE ILLUMINATED ADDRESS SIGN - VISIBLE FROM STREET 2018 NORTH **CAROLINA STATE** BUILDING CODES 12"x48" FLUORESCENT LIGHT BOX (CEILING MOUNTED) OPTIONAL PRE-WIRED CEILING FAN AND SMITCH - LOCATED IN CENTER OF ROOM U.N.O. WALL MOUNTED JUNGTION BOX DOOR CHIME ISSUE DATE: 05/28/15 PUSH BUTTON PROJECT No.: 1350999:56 PHONE OUTLET DIVISION MGR.: DCS SERVICE BOX REVISIONS: 03/15/19 HOSE BIB DIVISION REVISIONS NCISO24NCP - 08/13/18 - CTD HOSE BIB W S.O.V. 2018 CODE UPDATE NCI90ISNCP/ 03/IS/I9 / CTD THERMOSTAT (VERIFY LOCATION W/ HVAC PLAN) GAS TAP GAS KEY - FIREPLACE GAS VALVES SHALL BE LOCATED OUTSIDE OF REQUIRED HEARTH AREA, BUT NO MORE THAN 48" FROM GAS OUTLET DWELLING 2'-0" GFI REVIEWED BY: SECONDARY <u>GARAGE</u> NOTES MECHANICAL, ELECTRICAL, AND PLUMBING SYSTEMS ARE SHOWN FOR INTENT ONLY. THESE SYSTEMS SHALL BE ENGINEERED BY OTHERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALATION AND PLACEMENT, ALL HEIGHTS SHOWN ARE TO CENTERLINE OF FIXTURE. 240.2596 SHEET: 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

FIRST FLOOR UTILITY PLAN OPTIONS

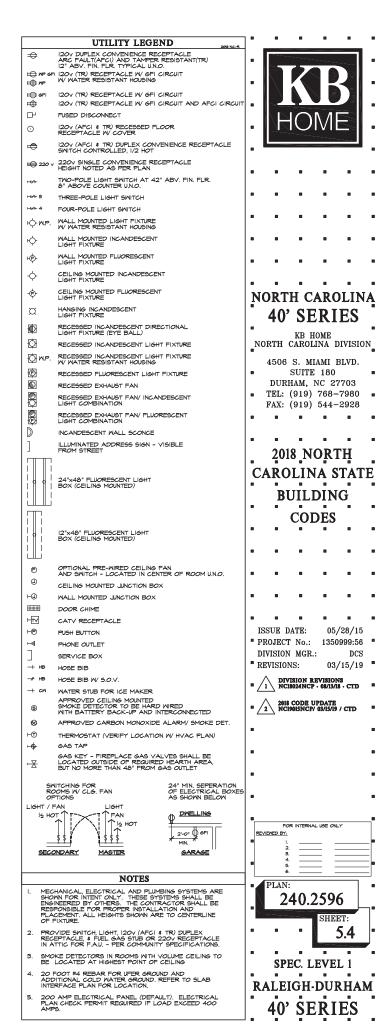
SCALE I/4"=1'-0" (22"X34") - I/8"=1'-0" (II"XI7")





SECOND FLOOR UTILITY PLAN OPTIONS

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





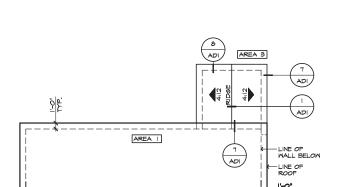
REAR ELEVATION

SCALE 1/4"=1'-0" (22"X34") - 1/8"=1'-0" (11"X17")

10'-0" SCREENED PATIO CONCRETE OPTIONAL IO'XIO' PATIO SLAB #7:3":15]-SLOPE |/4" PER F <u>DEN</u> <u>OPT. BDRM. 5</u> 5'-0" <u>LIVING</u> DINING

PARTIAL LEFT ELEVATION

SCALE 1/4"=1'-0" (22"X34") - 1/8"=1'-0" (11"X17".



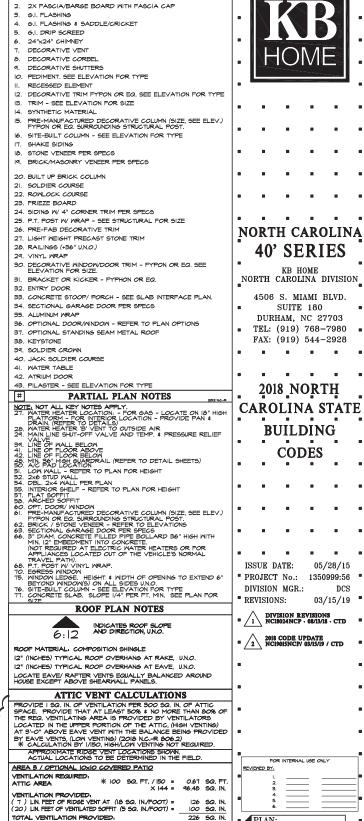
PARTIAL ROOF PLAN SCALE I/8"=1'-0" (22"X34") - I/I6"=1'-0" (II"XI7")

PARTIAL RIGHT ELEVATION

SCALE 1/4"=1'-0" (22"X34") - 1/8"=1'-0" (11"XIT")

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

10'X10' SCREENED-IN COVERED PATIO



ELEVATION NOTES

NOTE: NOT ALL KEY NOTES APPLY.

ROOF MATERIAL - REFER TO ROOF NOTES

240.2596 8.3 SPEC. LEVEL 1 RALEIGH-DURHAM 40' SERIES

05/28/15

DCS

03/15/19

NOTE: REFER TO BASIC <u>ELEVATIONS</u> FOR INFORMATION NOT SHOWN HERE

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

STRUCTURAL PLANS FOR:



240.2596 - LH GARAGE

PLAN RELEASE / REVISIONS			
REV DATE	ARCH PLAN VERSION	REVISION DESCRIPTION	DRFT
03/21/2019	2596_NC19015NCP_03.12.19	INITIAL SETUP OF LAYOUT	CAR
03/21/2019	2596_NC19015NCP_03.12.19	CREATED LOT-SPECIFIC STRUCTURAL LAYOUT FROM MASTER PLAN AND EWP LAYOUT	CAR

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 SEI ECTION 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: 19900409



KB HOME
NORTH CAROLINA DIVISION
4518 S. MIAMI BLVD.

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





PROJECT NO.: 19900409 DATE: 3/21/2019

PLAN:

240.2596

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

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. FURTHERMORE, CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, AND SAFETY ON SITE. NOTIFY JDS CONSULTING & DESIGN, PLLC IMMEDIATELY IF DISCREPANCIES ON PLAN EXIST.
- 2. 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 WIND AND SEISMIC.
- 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 P

	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
	ABOVE	MAX	LUMBER MAXIMUM
	ABOVE FINISHED FLOOR	MECH	
	ALTERNATE	MFTR	MANUFACTURER
BRG		MIN	MINIMUM
BSMI	BASEMENT	NTS	NOT TO SCALE
CANI	CANTILEVER	OA	OVERALL
CJ CLG	CEILING JOIST	OC	ON CENTER
CLG CMU	CEILING CONCRETE MASONRY UNIT	PT	PRESSURE TREATED
CMU	CONCRETE MASONRY UNIT	R.	RISER
CO	CASED OF LINING	REF	REFRIGERATOR
COL	COLUMN CONCRETE	RFG	ROOFING
CONT		RO	ROUGH OPENING
D	CLOTHES DRYER	RS	ROOF SUPPORT
DBL	DOUBLE	SC	STUD COLUMN
DIAM	DIAMETER	SF	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	SINGLE JOIST
EA	EACH	SP	STUD POCKET
EE	EACH END	SPEC'D	SPECIFIED
EQ	EQUAL	SQ	SQUARE
EX	EXTERIOR	Т	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	WH	WATER HEATER
JS	JACK STUD COLUMN		WELDED WIRE FABRIC
		ΧJ	EXTRA JOIST

MATERIALS

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

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

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

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

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

- STRUCTURAL STEEL WIDE-FLANGE BEAMS SHALL CONFORM TO ASTM A992. Fy = 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 C1157
- 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 EYIST
- 2. CONCRETE FOUNDATION WALLS TO BE SELECTED AND CONSTRUCTED PER SECTION R404 OR AMERICAN CONCRETE INSTITUTE STANDARD ACI 318.
- 3. 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.
- 4. 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
- 5. 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.
 - B. 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, PACED A MAXIMUM OF 6'-0" OC AND WITHIN 12" FROM THE ENDS OF EACH PLATE SECTION. INSTALL MINIMUM (2) ANCHOR BOLTS PER SECTION. SEE SECTION R403.1.6 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.
- 8. CENTERS OF PIERS TO BEAR IN THE MIDDLE THIRD OF THE FOOTINGS, AND GIRDERS SHALL CENTER IN THE MIDDLE THIRD OF THE PIERS.
- 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

- 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.
- 4. SOLID BLOCKING TO BE PROVIDED AT ALL POINT LOADS THROUGH FLOOR LEVELS TO THE FOUNDATION OR TO OTHER STRUCTURAL COMPONENTS.
- 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 LUMBER.
- 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.
- B. 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 DETAILS.
- ALL ENGINEERED WOOD PRODUCTS (LVL, PSL, LSL, ETC.) SHALL BE INSTALLED WITH CONNECTIONS PER MANUFACTURER SPECIFICATIONS.
- 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.
 - B. TRUSS PROFILES SHALL BE SEALED BY THE TRUSS MANUFACTURER.
 - C. INSTALLATION OF THE SYSTEMS SHALL BE PER MANUFACTURER'S INSTRUCTIONS.
 - D. TRUSS LAYOUT AND PLACEMENT BY MANUFACTURER TO COINCIDE WITH THE SUPPORT LOCATIONS SHOWN IN THESE DRAWINGS.
- 9. 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.
- 10. 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.
- 11. STEEL FLITCH BEAMS TO BE BOLTED TOGETHER USING (2) ROWS OF 1/2" DIAMETER BOLTS (ASTM 307) WITH WASHERS PLACED UNDER 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.
- 12. 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).
- 13. 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).
- 14. 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.
- 15. 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.: 19900409 DATE: 3/21/2019

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PLAN: **240.2596**

GENERAL NOTES

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GN1.0

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) 2x6 @ 16" OC	21'-6"
(2) 2x6 @ 12" OC	25'-0"
(2) 2×9 @ 46" OC	27'-0"
(2) 2x8 @ 16" OC	27 -0 31'-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.
- 7. 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 SYSTEM

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"	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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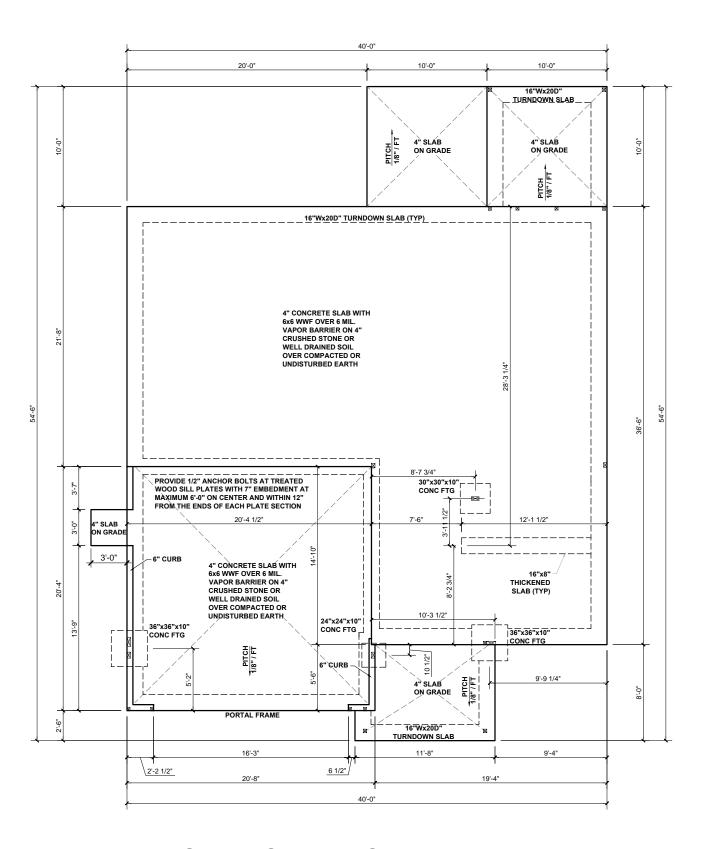
DATE: 3/21/2019

PLAN: **240.2596**

GENERAL NOTES

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GN1.1



SLAB FOUNDATION PLAN - 'B'

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 FROM ABOVE BEARING ON BEAM / GIRDER

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

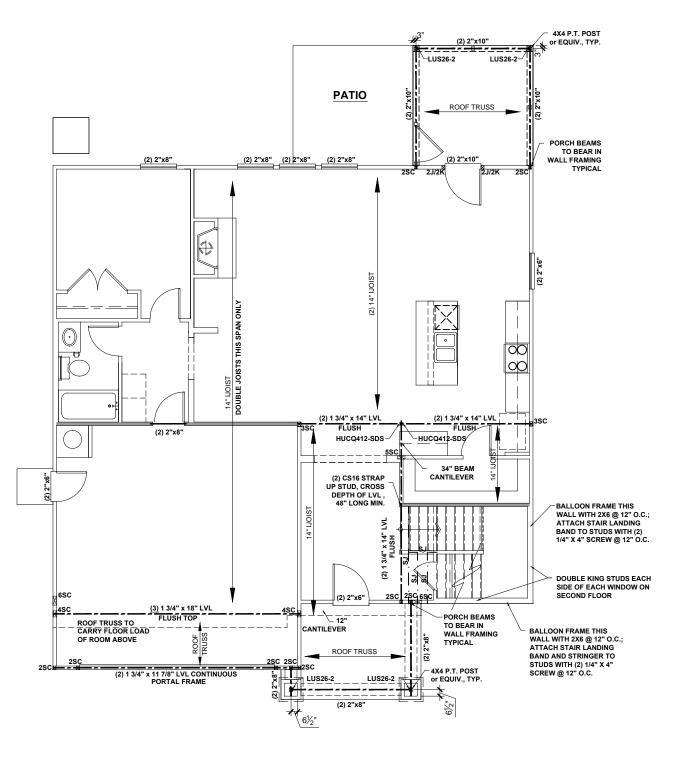
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SLAB FOUNDATION PLAN

S.10B



FIRST FLOOR CEILING FRAMING PLAN - 'B'

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

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

4 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).
- FOR STUD COLUMNS OF 4 OR MORE, INSTALL SST CS16 STRAPS @ 30" OC, 6" MAX FROM PLATES, ON INSTALL STALL STALL STALL, 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.

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

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



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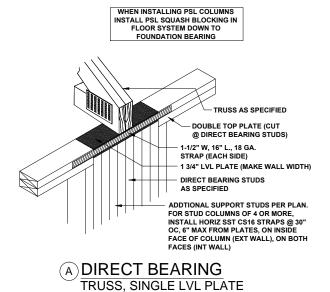
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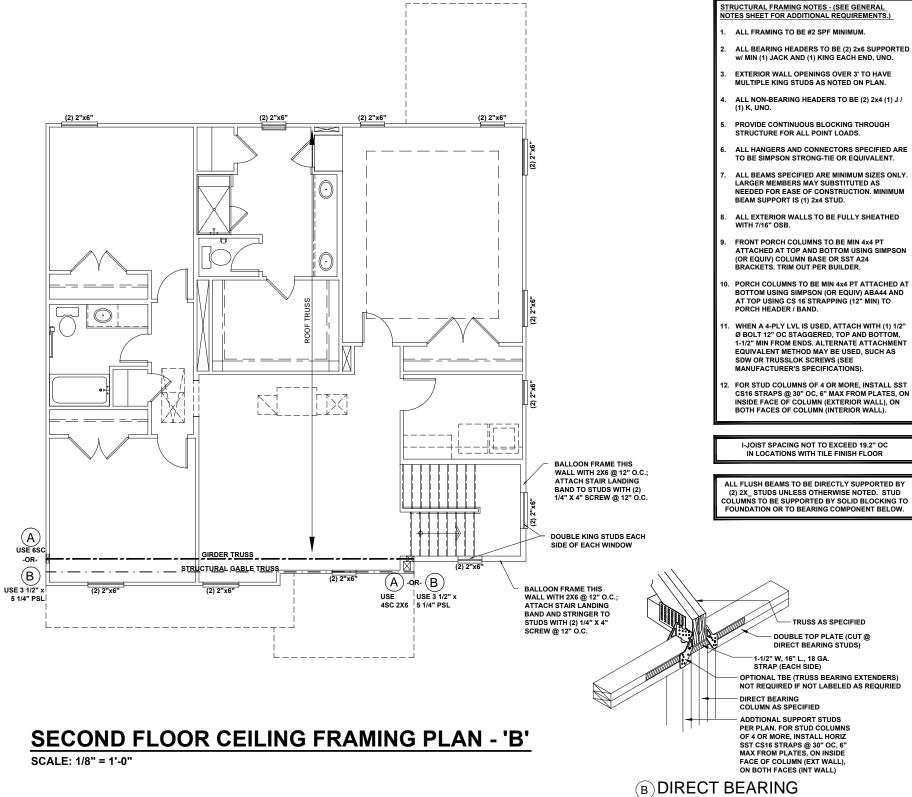
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FIRST FLOOR CEILING FRAMING PLAN

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S1.0B





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CARO!

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

PROJECT NO: 19900409 DATE: 3/21/2019

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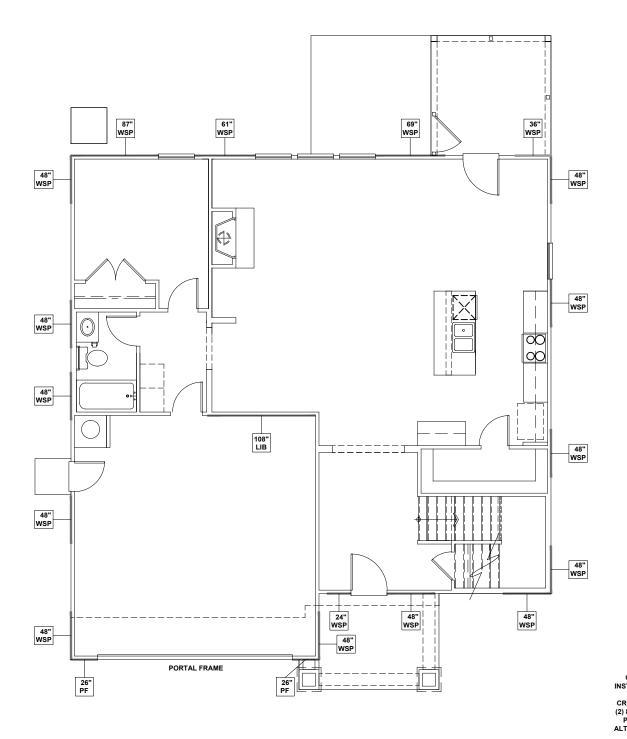
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SECOND FLOOR CEILING FRAMING PLAN



FIRST FLOOR WALL BRACING PLAN - 'B'

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

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

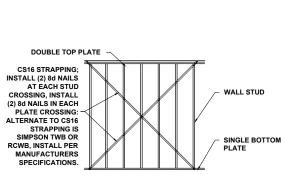
SIMPSON MSTA15 HOLD DOWN CAPACITY OF 970 POUNDS PER ANCHOR WITH (12) 10d NAILS. STRAF TO BE LOCATED AT EDGE OF BRACED WALL PANEL. (CS16 STRAPPING MAY BE SUBSTITUTED W/ SIMILAR LENGTH AND NAILING PATTERN.) USE HT14 FOR ATTACHMENT TO CONCRETE.

HTT4 FOR ATTACHMEN	IT TO CONCR	ETE.
SCALED LENGTH OF WALL PANEL AT LOCATION	24" WSP	-NUMERICAL LENGTH OF PANEL -PANEL TYPE

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	17.0 FT.	18.75 FT.	
LEFT	17.0 FT.	20.0 FT.	
REAR	17.0 FT.	21.08 FT.	
RIGHT	17.0 FT.	20.0 FT.	



CROSS BRACED LIB
CS16 STRAPPING METHOD
SCALE: 1/4" = 1'-0" STRAP AND LIES THAN MOTE THAN
SOM AND MOLES THAN MOTE THAN



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4518 S. MIAMI BLVD.
SUITE 180
DURHAM, NC 27703
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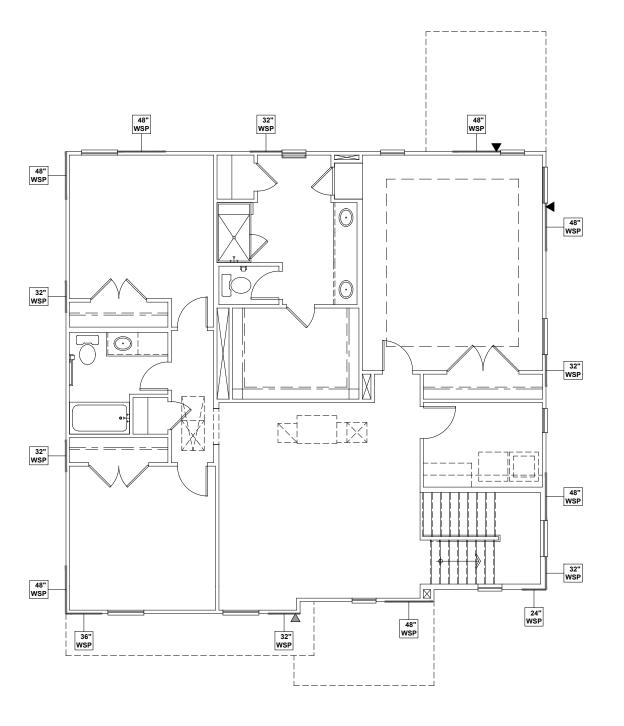
INFO@JDSDESIGNONLINE.COM WWW.JDSDESIGNONLINE.COM

PROJECT NO.: 19900409

DATE: 3/21/2019

PLAN: **240.2596**

FIRST FLOOR
WALL BRACING PLAN



SECOND FLOOR WALL BRACING PLAN - 'B'

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

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. STRAP 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.

SCALED LENGTH OF WALL PANEL AT LOCATION — NUMERICAL LENGTH OF PANEL -PANEL TYPE

WALL BRACING NOTE:

WALLS WITH REQUIRED LENGTH LISTED AS "N/A" DO WALLS WITH REQUIRED LENGTH LISTED AS "MAN" ON 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	9.0 FT.	11.66 FT.
LEFT	9.0 FT.	13.33 FT.
REAR	9.0 FT.	10.66 FT.
RIGHT	9.0 FT.	13.33 FT.



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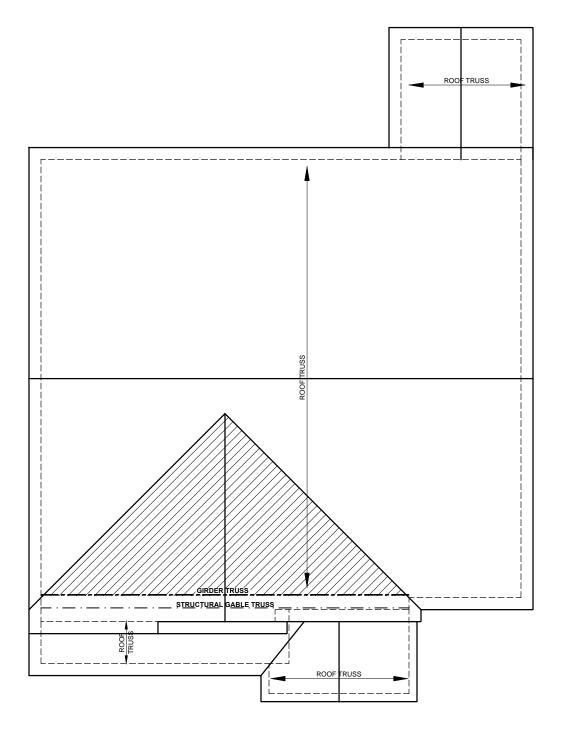
PROJECT NO.: 19900409 3/21/2019 DATE:

240.2596

SECOND FLOOR WALL BRACING PLAN

.

S5.0B



ROOF FRAMING PLAN - 'B'

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

TRUSSED ROOF - STRUCTURAL NOTES

 PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR ALL POINT LOADS.

2. DE

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.
- 5. 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.

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.

1943 SQUARE FEET OF TOTAL ATTIC / 150 =

12.95 SQUARE FEET OF NET-FREE VENTILATION REQUIRED

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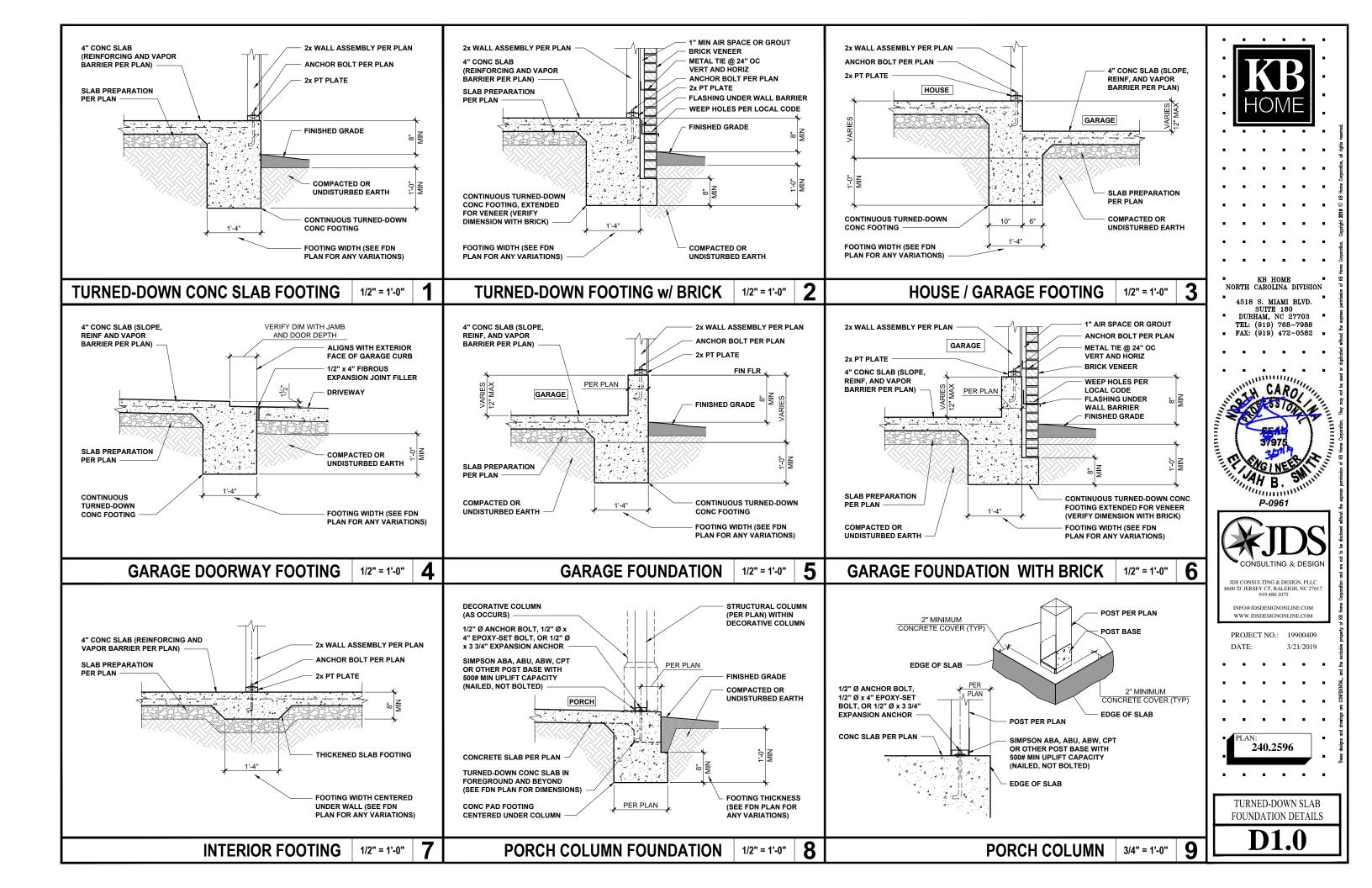
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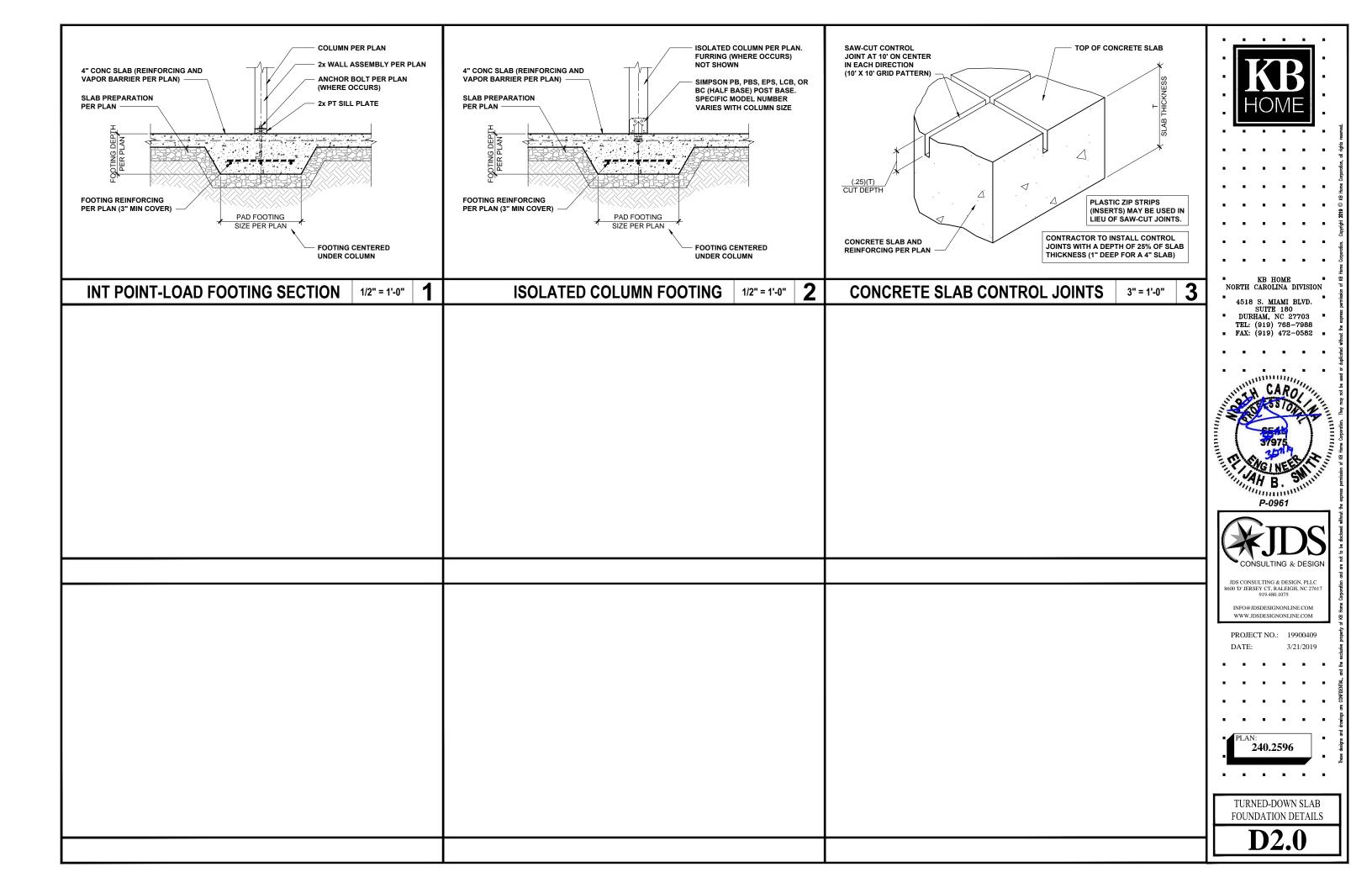
PLAN: 240.2596

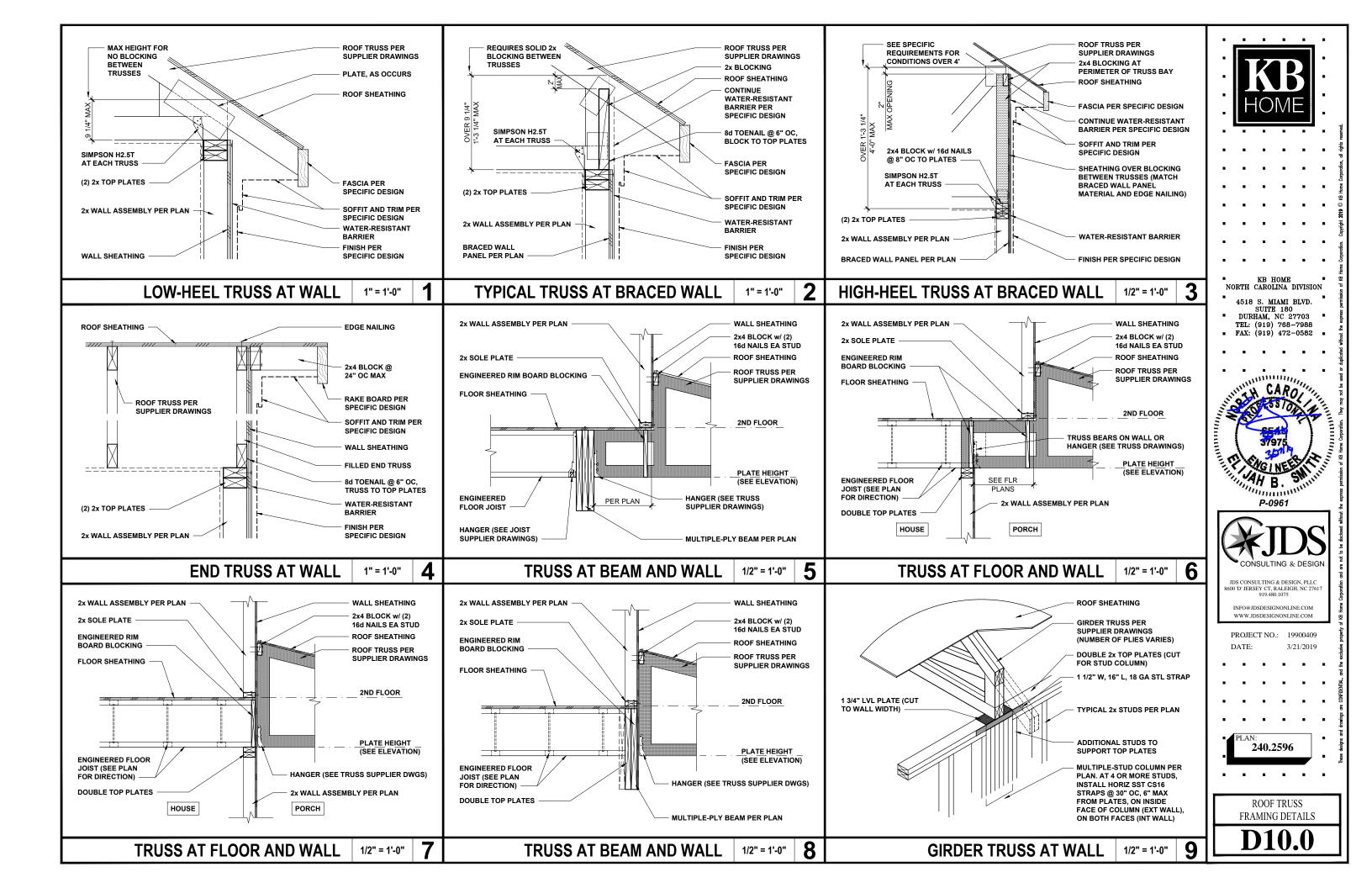
ROOF FRAMING PLAN

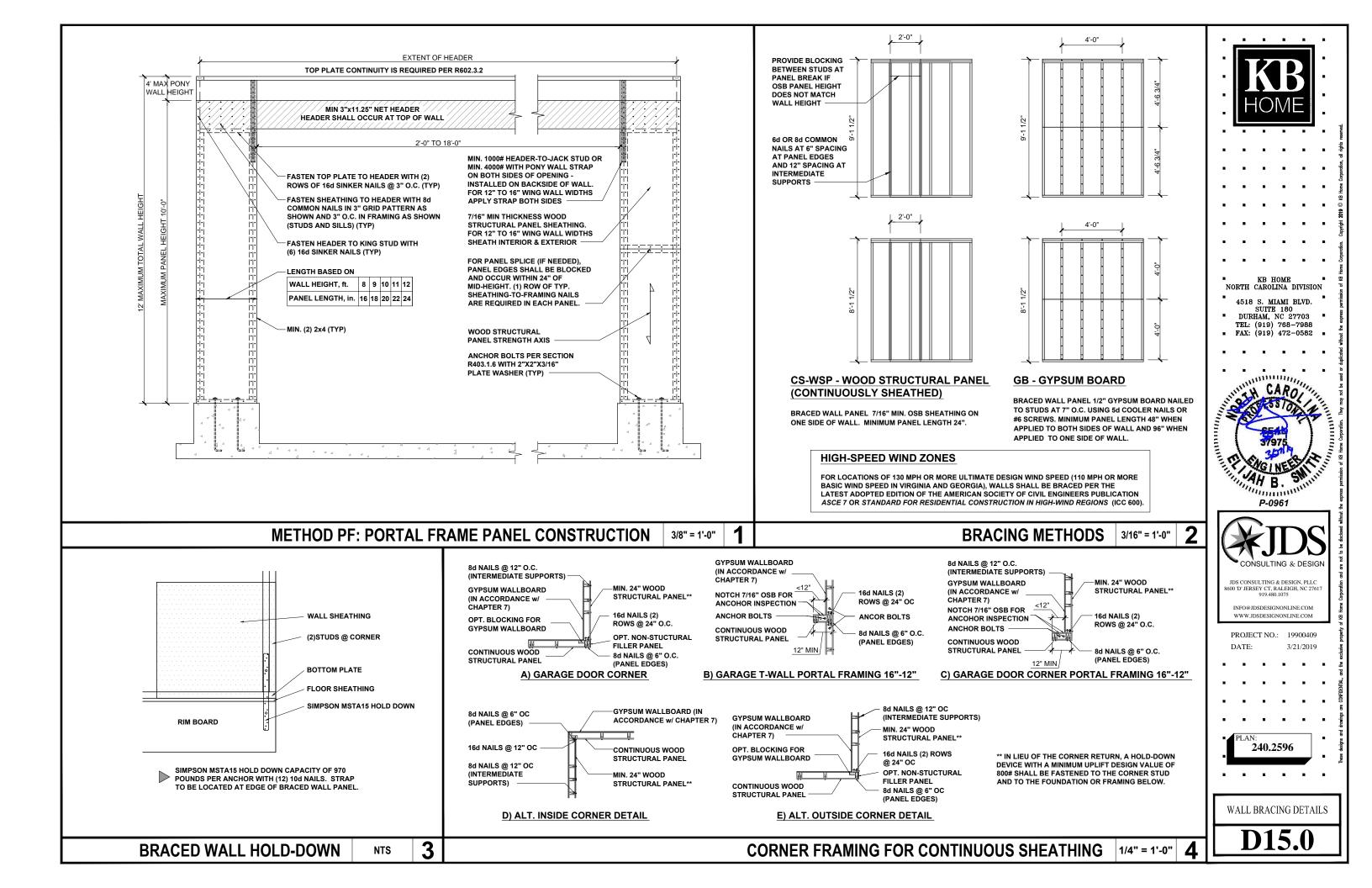
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S7.0B









JOIST DETAILS A2W Must have 1¾" minimum joist bearing at ends. Attach rim joist per A3 detail. INTERMEDIATE BEARING Load bearing or shear wal NO LOAD BEARING WALL ABOVE above (must stack over wal Web stiffeners required above or below (See detail B1) **FASTENING of FLOOR PANELS** Guidelines for Closest On-Center Spacing per Row 110, 210 Nail Size 360 and and 230 FQ. 560 FQ 8d (0.131" x 2½") 10d (0.148"x 3"), 12d (0.148"x 31/4") 4" 4" 6" 16d (0.162"x 3½") 6" (1) One row of fasteners permitted (two at abutting panel edges) for diaphragms. Stagger nails when using 4" on-center spacing and maintain 3/8" joist and panel edge distance. For other applications, multiple rows of fasteners are permitted if the rows are offset at least $\frac{1}{2}$ " and staggered. (2) Can be reduced to 4" on-center if nail penetration into the narrow edge is no more than 1 3/8" (to avoid splitting). • Recommended nailing is 12" on-center in field and 6" on-center along panel edge. Fastening requirements on engineered drawings supersede • Recommended use of a non-polyurethane subfloor adhesive on all contact points between panels and floor framing. • 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 penetration of 1" into the joist or rim board is achieved. • Maximum spacing of nails is 18" on-center for joists.

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) Plate nail - 16d (0.135" x 3½") at 16" on-cente Floor panel nail - 8d (0.131" x D0. D1. and D2 to 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. 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

Use 2x4 minimum squash blocks (CS) to transfer load around joist

PSL

4"

4"

8"

face of wall or bear

required on each

* SEE I-JOIST EQUIVALENCE CHART

LSL or wide

4"

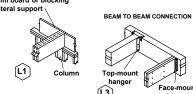
ends at B4W

End of joists at centerline

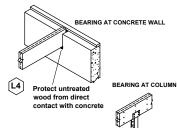
4"

6"(2)

BEAM and COLUMN DETAILS BEARING AT WALL 1¹/₄" rim board or blocking for lateral support







Verify column capacity

FILLER and BACKER BLOCK SIZES * SEE I-JOIST EQUIVALENCE CHART

Hanger height mus

Face mo

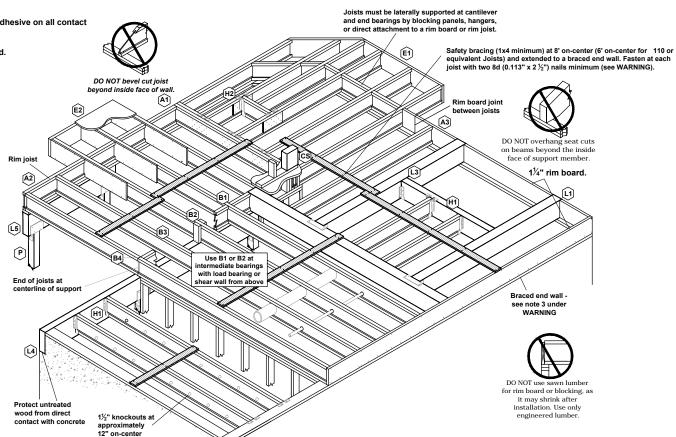
[H1]

Web stiffeners required if side

at least 3/8" of joist top flange

I-Joists	110 EQ. *		210	EQ. * 230 or 360 EQ. *		560 EQ. *		*		
Depth	9½" or 11½"	14"	9½" or 11½"	14" or 16"	9½" or 11 ⁷ ⁄8"	14" or 16"	18" or 20"	117/8"	14" or 16"	18" or 20"
Filler Block (1) (Detail H2)	2x6	2x8	2x6 + 3/8" sheathing	2x8 + 3/8" sheathing	2x6 + ½" sheathing	2x8 + ½" sheathing	2x12 + ½" sheathing	Two 2x6	Two 2x8	Two 2x12
Cantilever Filler (Detail E4)	2x6 4'-0" long	2x10 6'-0" long	2x6 + 3/8" sheathing 4'-0" long	2x10 + 3/8" sheathing 6'-0" long	sheathing	2x10 + ½" sheathing 6'-0" long	Not applicable	aţ	Not oplicat	le
Backer Block (1) (Detail F1 or H2)	5∕8" o	or ¾"	³⁄4" c	or 1/8"		1" Net		2x6	2x8	2x12

(1) If necessary, increase filler and backer block height for face mount hangers and maintain ½" gap at top of joist; see detail W. Filler and backer block lengths should accomodate required nailing without splitting (12" minimum for backer blocks and 24" minimum for filler blocks).



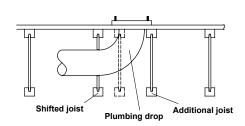
INSTALLATION TIPS

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.

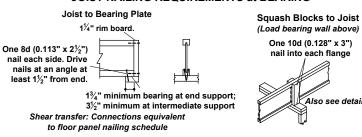
Additional joist at plumbing drop (see detail).



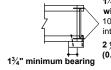
* I-JOIST EQUIVALENCY CHART

EQUIVALENT IN SPAN AND SPACING						
Depth	Mftr & Series	Mftr & Series	Mftr & Series			
	TJI - 110	BCI 4500				
9 <u>1</u> "	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				
	TJI - 360	BCI 60'S	EverEdge 30			
	TJI - 560	BCI 90'S	EverEdge 50/60			
	TJI - 110	BCI 4500				
	TJI - 210	BCI 5000				
14"	TJI - 230	BCI 6000	EverEdge 20			
l [BCI 6500				
	TJI - 360	BCI 60'S	EverEdge 30			
	TJI - 560	BCI 90'S	EverEdge 50/60			
	TJI - 110	BCI 4500				
	TJI - 210	BCI 5000				
16"	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







 $1\frac{1}{4}$ " 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 3½" wide of TJI® joist flange floor jois rim ioist Top View Locate rim board joint between joists.

Also see detail B2

BEAM ATTACHMENT at BEARING



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

 $1\frac{1}{4}$ " rim board. Drive nails at an angle to minimize

splitting of plate

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

ENGINEERED JOIST DETAILS



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"minimum"

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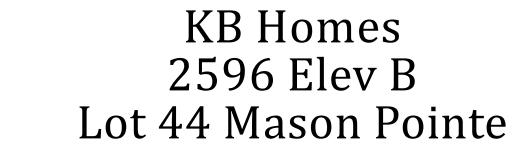
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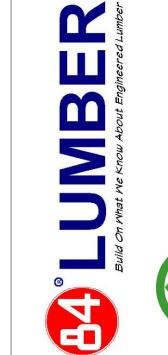
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240.2596

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All I-Joist and Versa-Lam Beams Must be Installed per The Boise Cascade Installation Guide!





Connector Summary						
PlotID	Qty	Manuf	Product			
H1	12	Simpson	HU4.12/11			
H2	28	Simpson	IUS 2.06/14			
Н3	2	Simpson	HUCQ412-SDS			
BN-6*	33		6" bolt,nut & 2 washers*			

PlotID	Net Qty	Product	Length	Plies
1	50	14" BCI® 5000s-1.8	22' 0"	2
2	19	14" BCI® 5000s-1.8	16' 0"	1
3	1	14" BCI® 5000s-1.8	10' 0"	1
4	7	14" BCI® 5000s-1.8	7' 0"	1
5	1	14" BCI® 5000s-1.8	6' 0"	1
6	1	14" BCI® 5000s-1.8	5' 0"	1
7	1	14" BCI® 5000s-1.8	3' 0"	1
8	2	1-3/4" x 9-1/4" VERSA-LAM® 2.0 3100 SP	8' 0"	2
9	2	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	22' 0"	2
10	2	1-3/4" x 14" VERSA-LAM® 2.0 3100 SP	16' 0"	2
11	2	1-3/4" x 14" VERSA-LAM® 2.0 3100 SP	12' 0"	2
12	2	1-3/4" x 14" VERSA-LAM® 2.0 3100 SP	10' 0"	2
13	3	1-3/4" x 18" VERSA-LAM® 2.0 3100 SP	22' 0"	3
Rm-1	12	1" x 14" BC RIM BOARD OSB	12' 0"	1
Bk1	23	14" BCI® 5000s-1.8	2' 0"	1

Connector Summary						
PlotID	Qty	Manuf	Product			
H1	12	Simpson	HU4.12/11			
H2	28	Simpson	IUS 2.06/14			
Н3	2	Simpson	HUCQ412-SDS			
BN-6*	33		6" holt nut & 2 washers			

Sh<mark>ift</mark> For H<mark>an</mark>ger Cl<mark>ea</mark>rance H<mark>e</mark>re

Rm-1

ALL DIMENSIONS AND CONDITIONS TO BE REVIEWED AND APPROVED BY BOTH THE CONTRACTOR AND THE ENGINEER OF RECORD PRIOR TO INSTALLATION

BC FRAMER II

Plan Date: 08132018

Structural Date: 09042018 By: CMM

Sheet: 2/3

Second Floor Layout

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

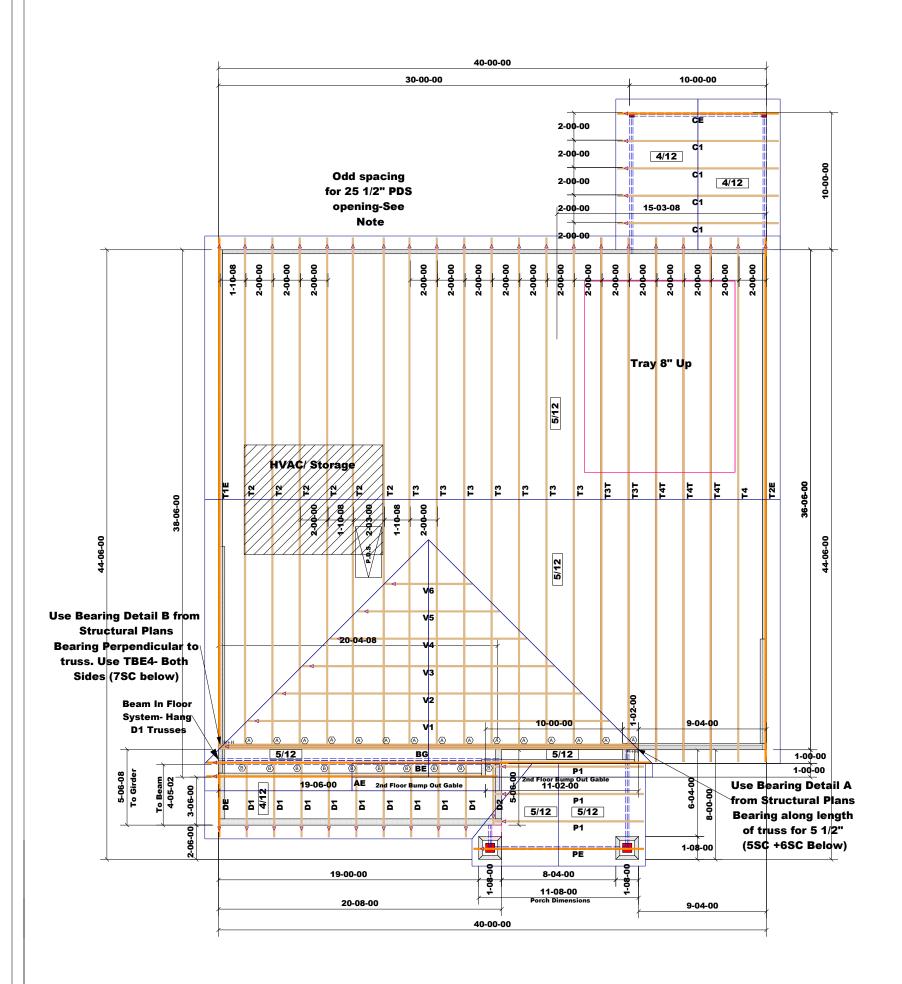
Rm-1 m H2 7 Field Locate Joists

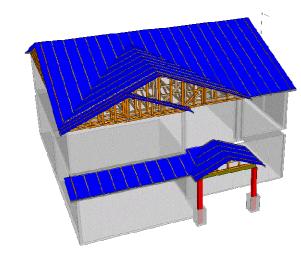
13

Top Flush

Floor Carried By Roof Trusses

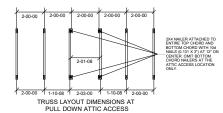
THIS LAYOUT IS INTENDED FOR THE PURPOSE OF TRUSS LOCATION AND PLACEMENT ONLY. REFER TO THE BUILDING PLANS FOR ACTUAL BUILDING CONSTRUCTION.





THE PURPOSE OF THIS DETAIL IS TO ILLUSTRATE HOW TO PROPERLY SPACE 24" O.C. ROOF TRUSSES TO ALLOW FOR A 25 1/2" OPENING FOR PULL DOWN ATTIC ACCESS

TRUSSES TO BE DESIGNED AT 24" ON CENTER







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

inte		P GOL	ORDER: 20176A	SHIP DATE: #####
Lot 44 @ Mason Pointe	KB HOME	240.2596 "B" x 10x10 CP GOL	P.O. NUMBER: PO #	REV: 03/20/19
ot 44 @ I	KB	.2596 "B"	SCALE	PRINT DATE: Approved
PROJECT:	CUSTOMER:	MODEL: 240	SCALE: NOT TO SCALE	DRAWN BY: MWM

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

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 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.