

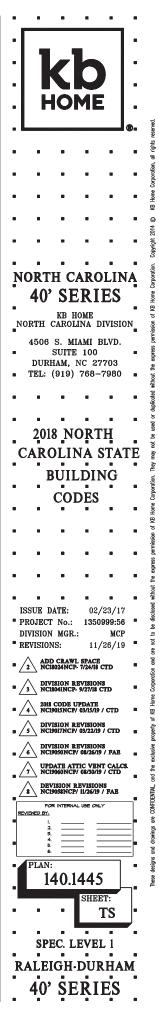
ROOF W REAR, PARTIAL RIGHT ELEVATIONS VIERED PATIO     SOFT W REAR, PARTIAL RIGHT ELEVATIONS TENDED COVERED PATIO     SOFT W REAR, PARTIAL RIGHT ELEVATIONS TENDED SCREENED PATIO     SOFT W REAR, PARTIAL RIGHT ELEVATIONS TENDED COVERED SCREENED PATIO     SIAB INTERFACE PLAN 'A' AT SCREENED-IN ITIONS 4 SLAB INTERFACE PLAN 'A' AT SCREENED-IN ROOF W REAR, PARTIAL RIGHT ELEVATIONS TENDED COVERED PATIO     SOFT W REAR, PARTIAL RIGHT ELEVATIONS ROOF W REAR, PARTIAL RIGHT ELEVATIONS TENDED COVERED PATIO ROOF W REAR, PARTIAL SIDE ELEVATIONS TENDED COVERED PATIO ROOF W REAR, PARTIAL SIDE ELEVATIONS TIONS 4 SLAB INTERFACE PLAN 'B' AT SCREENED-IN INCOMS 4 SLAB INTERFACE PLAN 'C' AT SCREENED-IN INCOMS 4 SLA	
XVERED PATIO IS ROOF W/ REAR, PARTIAL RIGHT ELEVATIONS IENDED COVERED PATIO IS ROOF W/ REAR, PARTIAL, SIDE ELEVATIONS VERED SCREENED PATIO IS ROOF W/ REAR, PARTIAL RIGHT ELEVATIONS TENDED COVERED SCREENED PATIO ITONS & SLAB INTERFACE PLAN 'A' AT SCREENED-IN IS ROOF W/ REAR, PARTIAL RIGHT ELEVATIONS IS ROOF W/ REAR, PARTIAL SIDE ELEVATIONS IS ROOF W/ REAR, PARTIAL RIGHT ELEVATIONS IS ROOF W/ REAR, PARTIAL	
VIERED PATIO IS ROOF W REAR, PARTIAL RIGHT ELEVATIONS IENDED COVERED PATIO IS ROOF W REAR, PARTIAL SIDE ELEVATIONS VIERED SCREENED PATIO IS ROOF W REAR, PARTIAL SIDE ELEVATIONS IENDED COVERED SCREENED PATIO ITIONS & SLAB INTERFACE PLAN 'B' AT SCREENED-IN IS ROOF W REAR, PARTIAL RIGHT ELEVATIONS IS ROOF W REAR, PARTIAL SIDE ELEVATIONS IS ROOF W REAR, PARTIAL SIDE ELEVATIONS IS ROOF W REAR, PARTIAL SIDE ELEVATIONS IS ROOF W REAR PARTIAL SIDE ELEV	VXERED PATIO 8 ROOF W REAR, PARTIAL RIGHT ELEVATIONS TENDED COVERED PATIO 8 ROOF W REAR, PARTIAL, SIDE ELEVATIONS VIERED SCREENED PATIO 8 ROOF W REAR, PARTIAL RIGHT ELEVATIONS TENDED COVERED SCREENED PATIO TENDED COVERED SCREENED PATIO VIENS & SLAB INTERFACE PLAN 'A' AT SCREENED-IN
VYERED PATIO # ROOF W REAR PARTIAL RIGHT ELEVATIONS TENDED COVERED PATIO # ROOF W REAR PARTIAL SIDE ELEVATIONS VYERED SCREENED PATIO # ROOF W REAR PARTIAL RIGHT ELEVATIONS TENDED COVERED SCREENED PATIO AT SCREENED PATIO # ROOF W REAR PARTIAL RIGHT ELEVATIONS VYERED PATIO # ROOF W REAR PARTIAL RIGHT ELEVATIONS VYERED PATIO # ROOF W REAR PARTIAL SIDE ELEVATIONS VYERED PATIO # ROOF W REAR PARTIAL SIDE ELEVATIONS # ROOF W REAR PARTIAL SIDE ELEVATIONS	VICRED PATIO 18 ROOF W REAR, PARTIAL RIGHT ELEVATIONS TENDED COVERED PATIO 18 ROOF W/ REAR, PARTIAL SIDE ELEVATIONS VICRED SCREENED PATIO 18 ROOF W/ REAR, PARTIAL SIDE ELEVATIONS TENDED COVERED SCREENED PATIO TIONS & SLAB INTERFACE PLAN 'B' AT SCREENED-IN VITIONS & SLAB INTERFACE PLAN 'B' AT SCREENED-IN
VYERED PATIO # ROOF W REAR PARTIAL RIGHT ELEVATIONS TENDED COVERED PATIO # ROOF W REAR PARTIAL SIDE ELEVATIONS VYERED SCREENED PATIO # ROOF W REAR PARTIAL RIGHT ELEVATIONS TENDED COVERED SCREENED PATIO AT SCREENED PATIO # ROOF W REAR PARTIAL RIGHT ELEVATIONS VYERED PATIO # ROOF W REAR PARTIAL RIGHT ELEVATIONS VYERED PATIO # ROOF W REAR PARTIAL SIDE ELEVATIONS VYERED PATIO # ROOF W REAR PARTIAL SIDE ELEVATIONS # ROOF W REAR PARTIAL SIDE ELEVATIONS	
VXERED PATIO 18 ROOF W REAR, PARTIAL RIGHT ELEVATIONS TENDED COVERED PATIO 18 ROOF W REAR, PARTIAL SIDE ELEVATIONS VERED SCREENED PATIO 18 ROOF W REAR, PARTIAL SIDE ELEVATIONS 18 ROOF W REAR, PARTIAL SIDE ELEVATIONS TINDED COVERED SCREENED PATIO ITIONS & SLAB INTERFACE PLAN 'D' AT SCREENED-IN ITIONS & SLAB INTERFACE PLAN 'D' AT SCREENED-IN	VVERED FATIO 8 ROOF W REAR, PARTIAL RIGHT ELEVATIONS TENDED COVERED PATIO 8 ROOF W REAR, PARTIAL SIDE ELEVATIONS VVERED SCREENED PATIO 8 ROOF W REAR, PARTIAL RIGHT ELEVATIONS TENDED COVERED SCREENED PATIO TIONS & SLAB INTERFACE PLAN 'C' AT SCREENED-IN VTIONS & SLAB INTERFACE PLAN 'C' AT SCREENED-IN
	VXERED PATIO 18 ROOF W REAR, PARTIAL RIGHT ELEVATIONS TENDED COVERED PATIO 18 ROOF W REAR, PARTIAL SIDE ELEVATIONS VERED SCREENED PATIO 18 ROOF W REAR, PARTIAL SIDE ELEVATIONS 18 TRODED COVERED SCREENED PATIO ITIONS ( SLAB INTERFACE PLAN 'D' AT SCREENED-IN ITIONS ( SLAB INTERFACE PLAN 'D' AT SCREENED-IN

# **CODE INFORMATION**

	CODE	ABBREVIATIONS
	N.CR.	NORTH CAROLINA RESIDENTIAL CODE
	N.CB.	NORTH CAROLINA BUILDING CODE
	N.CM.	NORTH CAROLINA MECHANICAL CODE
	N.CP.	NORTH CAROLINA PLUMBING CODE
$\backslash$	N.CF.	NORTH CAROLINA FUEL GAS CODE
2	N.CE.	NORTH CAROLINA ELECTRICAL
	N.C-E.C.	NORTH CAROLINA ENERGY CODE
	N.E.C.	NATIONAL ELECTRICAL CODE
	1.C.B.O.	INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS
<u>N:</u>	A.S.T.M.	AMERICAN SOCIETY FOR TESTING MATERIALS
ION	N.F.P.A.	NATIONAL FIRE PROTECTION ASSOCIATION
	A.N.S.I.	AMERICAN NATIONAL STANDARDS
	I.E.C.C.	INTERNATIONAL ENERGY CONSERVATION CODE
	I.C.C.	INTERNATIONAL CODE COUNCIL
	U.L.	UNDERWRITERS LABORATORIES, INC.

# **REVISION LIST**

ISED	LOG NUMBER
2.5, 3.A3, 3.A4, 3.B4, 3.B5, 3.C4, 3.C5, 3.D4, 3.D5, 4.3,	NCIBO24NCP
8.A6, 8.B5, 8.B6, 8.B5, 8.C5, 8.C6, 8.D5, 8.D6	
	NCIBO4INCP
2, GN3, 3.AI, 3.B2, 3.C2, 3.D2, 5.I, 8.AI - 8.A6	
8.Cl - 8.C6, 8.Dl - 8.D6	NCI90I5NCP
, 3.A3, 3.BI, 3.B4, 3.CI, 3.C4, 3.DI, 3.D4, 5.I	NCIGOITNOP
, 3.A3, 3.BI, 3.B4, 3.CI, 3.C4, 3.DI, 3.D4, 5.I	NCI9050NCP
C2, 3.D2, 8.AI - 8.D6	NCI9060NCP
3.B2 - 3.B5, 3.Cl - 3.C5, 3.Dl - 3.D5, 8.Al - 8.D6	NCI9060NCP



## GENERAL REQUIREMENTS

- THE WORD 'CONTRACTOR' AS USED HEREIN SHALL MEAN THE GENERAL CONTRACTOR SUBCONTRACTORS AND ALL PERSONS DIRECTLY OF NDIRECTLY EMPLOYED BY ANY OF THEM
- 2 CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH THE FOLLOWING APPLICABLE CODE REQUIREMENTS:
  - ALL LANS, STATUTES, THE MOST RECENT BUILDING CODES, ORDINANCES, RULES, REGULATIONS, AND LANFUL ORDERS OF ALL PUBLIC AUTORITIES HAVING JURISDICTION OVER CONNER, CON-TRACTOR, ANY SUBCONTRACTOR, 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. c.
- CONTRACTOR SHALL CAREFULLY STUDY AND REVIEW THE CONSTRUCTION CONTRACTOR SHALL CAREFULL'S STUDY HAD REVIEW THE CONSTRUCT DOCUMENTS AND INFORMATION FRINSHED BY OWNER, AND SHALL PROMPTLY REPORT IN WRITING TO OWNER'S REPRESENTATIVE ANY ERRORS, INCONSISTENCIES, OR OMISSIONS IN THE CONSTRUCTION DOCU-MENTS OR INCONSISTENCIES WITH APPLICABLE CODE REQUIREMENTS OBSERVED BY THE CONTRACTOR.
- IF CONTRACTOR PERFORMS WORK WHICH HE KNOWS OR SHOULD KNOW IS CONTRARY TO APPLICABLE CODE REQUIREMENTS, WITHOUT THE ARREPENT 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 FIELD MEASUREMENTS, VERIFY FIELD CONDITIONS, AND CAREFULLY COMPARE WITH THE CONSTRUCTION DOCUMENTS SUCH FIELD MEASUREMENTS, CONDITIONS, AND OTHER INFORMATION KNOWN TO CONTRACTOR BEFORE COMMENCING THE WORK ERRORS, INCONSISTENCIES, OR OMISSIONS DISCOVERED AT ANY TIME SHALL BE PROMPTLY REPORTED IN WRITING TO THE OWNER.
- CONTRACTOR SHALL PROMPTLY NOTIFY OWNER'S REPRESENTATIVE IF CONTRACTOR BECOMES AWARE DURING THE PERFORMANCE OF THE WORK THAT THE CONSTRUCTION DOCUMENTS ARE NOT IN COM-PLIANCE WITH APPLICABLE CODE REQUIREMENTS.
- BY SUBMITTAL OF BID, CONTRACTOR WARRANTS TO OWNER THAT ALL MATERIALS AND EQUIPMENT TO BE FURNISHED ARE NEW UNLESS NOTED OTHERNISE AND ALL WORK WILL BE OF GOOD QUALITY AND FREE FROM FAULTS AND DEFECTS.
- SUB-CONTRACTORS SHALL INSURE THAT ALL WORK IS DONE IN A PROFESSIONAL WORKMANLIKE MANNER BY SKILLED MECHANICS AND SHALL REPLACE ANY MATERIALS OR ITEMS DAMAGED BY SUB-CONTRACTOR'S PERFORMANCE, SUB-CONTRACTORS AND SUPPLIERS ARE HEREBY NOTIFIED THAT THEY ARE TO CONFER AND COOPERATE FULLY WITH EACH OTHER DURING THE COURSE OF CONSTRUCTION TO DETERMINE THE EXACT EXTENT AND OVERLAP OF EACH OTHER'S WORK AND TO SUCCESSFULLY COMPLETE THE EXECUTION OF THE WORK. ALL AND TO SUCCESSFULLY COMPLETE THE EXECUTION OF THE WORK, ALL SUB-CONTRACTOR WORKMASHIP SHALL BE OF OUALITY TO PASS INSPECTIONS BY LOCAL AUTHORITIES, LENDING INSTITUTIONS, ARCHITECT OR BUILDER, ANY ONE OR ALL OF THE ABOVE MENTIONED INSPECTORS MAY INSPECT WORKMAISHIP AT ANY THE, AND CORRECTIONS NEEDED TO ENHANCE THE QUALITY OF BUILDING MILL BE DONE IMMEDIATELY. EACH SUBCONTRACTOR, UNLESS SPECIFICALLY EXEMPTED BY THE TERMS OF HISHERS SUB-CONTRACT AGREEMENT, SHALL BE RESPONSIBLE FOR CLEANING UP AND REMOVING FROM THE JOB SITE ALL TRASH AND DEDRIS NOT LEFT BY OTHER SUB-CONTRACTORS, BUILDER MILL DETERMINE HOM SOON AFTER SUB-CONTRACTORS, BUILDER MILL DETERMINE HOM 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 AMBIGUOS 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 QUALITY STANDARDS. SUBSTITUTIONS ARE PERMITTED, NITH PRIOR APPROVAL BY THE OWNER'S REFRESENTATIVE. THE CONTRACTOR SHALL SUBMIT FOR THE ARCHITECTS AND BUILDER'S APPROVAL ALL MATERIALS OR EQUIPMENT WHICH IS CONSIDERED 'OR EQUIA'T OT THAT SPECIFIED. 12.
- CONSTRUCTION DOCUMENTS IDENTIFIED AS "BID SET" ON ANY OR ALL SHEETS MAY BE SUBJECT TO REVIEW. THIS REVIEW MAY RESULT IN CHANGES WHICH MAY BE MADE TO THE PLANS PRIOR TO THE ISSUANC OF THE FILML CONSTRUCTION SET WHICH WILL CONTAIN NO "BID SET" DESIGNATIONS. CONSTRUCTION DOCUMENTS IDENTIFIED AS "BID SET" ARE NOT TO BE CONSTRUCT AS BID THE COMPLETED OR FINAL DRAWINGS AND THEY SHOULD NOT IN ANY WAY BE USED AS SUCH. JANCE
- ALL STANDARD NOTES CONTAINED HEREIN ARE TYPICAL UNLESS 14
- 15. 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 DRAMINGS 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, FOUDATIONS, ETC., AND BURIED ARTIFACTS SUCH AS INDIAN OR DINOSAUR BONES. IF ANY SUCH TURIS ARE FOUD THE ARCHITECT, CIVIL ENGINEER, AND SOILS ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO FULLY PROTECT ADJACENT PROPERTIES.
- 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.
- FILL MATERIALS SHALL BE FREE FROM DEBRIS, VEGETABLE MATTER AND OTHER FOREIGN SUBSTANCES. 10.
- ALL FINISH GRADES TO DRAIN AWAY FROM THE BUILDING FOOTINGS.
- 12. THERE SHALL BE NO ON-SITE WATER RETENTION.
- 13 THERE SHALL BE NO DRAINAGE TO ADJACENT PROPERTY
- 14 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. 15.

# CONCRETE

- REFER TO STRUCTURAL ENGINEERING CALCULATIONS AND SOILS REPORT FOR THE PERFORMANCE REQUIREMENTS FOR CONCRETE FOUNDATIONS.
- CONCRETE SHALL BE PROPORTIONED TO PROVIDE AN AVERAGE 2 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 5.11.
- ALL FORM WORK SHALL BE DESIGNED, CONSTRUCTED, UTILIZED, AND
- CONDUIT, PIPES AND SLEEVES OF ANY MATERIAL NOT HARMFUL TO CONCRETE AND NITHIN THE LIMITATIONS OF ACI 318, SECTION 6.3, ARE PERMITTED TO BE EMPEDDED 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 (&" 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-12. CONTRACTOR SHALL VERIFY INSTALLATION OF HOLD-DOWNS. ANCHOR BOLTS, PA STRAPS, AND OTHER ANCHORAGE MATERIAL AND ITEMS PRIOR TO PLACEMENT OF CONCRETE
- POST-TENSION SLABS, IF APPLICABLE: 13
- POINT AND LINE LOADS FROM STRUCTURE ABOVE TO BE PROVIDED TO POST-TENSION ENGINEER PRIOR TO POST-TENSION DESIGN
- 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 2 OF 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 WITH THE N.C. RAND SHALL MEET THE PROPERTION SPECIFICATIONS OR THE PROPERTY SPECIFICATIONS OF ASTM C 270
- GROUT SHALL CONSIST OF CEMENTITIOUS MATERIAL AND AGGREGATE IN ACCORDANCE WITH ASTM C 4T6 AND THE PROPORTION SPECIFICATIONS PER THE NC-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-404-07 (GROUT).
- 7. CEMENT SHALL BE PORTLAND CEMENT CONFORMING TO A.S.T.M. C 150.
- 8. ALL BRICK SHALL CONFORM TO A.S.T.M. C 216, GRADE MW
- UNLESS SPECIFICALLY SHOWN OTHERWISE ALL BRICK SHALL BE LAID IN A RUNNING BOND PATTERN
- IO. ANCHORS, TIES AND WIRE FABRIC SHALL CONFORM TO N.C.-R
- ANCHOR TIES AND 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 3.
- ANCHOR RODS SHALL BE SET ACCURATELY TO THE PATTERN AND DIMENSIONS CALLED FOR ON THE PLANS. THE PROTRUSION OF THE THREADED ENDS THROUGH THE CONNECTED MATERIAL SHALL BE SUFFICIENT TO FULLY ENGAGE THE THREADS OF THE NUTS, BUT SHALL NOT BE GREATER THAN THE LENGTH OF THE THREADS ON THE BOLTS
- FASTENERS FOR PRESERVATIVE-TREATED AND FIRE-RETARDANT-TREATED MODD SHALL BE OF HOT-DIPPED ZINC COATED GALVANIZED STEEL, STAINLESS STEEL, SILCON BRONZE OR COPPERV VERIFY ACCEPTABLE FASTENERS FER CHEMICALS USED IN PRESERVE PRESERVITIVELY TREATED MODD W/ NC.-R. FASTENINGS FOR MOOD FOUNDATIONS SHALL BE AS REGUIRED IN AF&PA TECHNICAL REPORT NO. T.

## WOOD & FRAMING

## LUMBER

- THE DESIGN AND CONSTRUCTION OF CONVENTIONAL LIGHT-FRAME WOOD CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE N.C.-R
- CONSTRUCTION, PROJECTIONS, OPENINGS AND PENETRATIONS OF EXTERIOR WALLS OF DWELLINGS AND ACCESSORY BUILDINGS SHALL COMPLY WITH TABLE RE302.1.
- 3. ALL LUMBER SHALL MEET THE STANDARDS OF QUALITY AS STATED IN THE N.C.-R
- LUMBER AND PLYMOOD REQUIRED TO BE PRESEIVE PRESERVATIVELY TREATED IN ACCORDANCE WITH THE NO.R. AND SHALL BEAR THE QUALITY MARK OF AN APPROVED INSPECTION ACENCY THAT MAINTAINS CONTINUING SUPERVISION, TESTING AND INSPECTION OVER THE QUALITY OF THE PRODUCT AND THAT HAS BEEN APPROVED BY AN ACCREDITATION BODY THAT COMPLES 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 FOLLONING LOCATIONS SHALL REQUIRE THE USE OF NATURALLY DURABLE WOOD OR WOOD THAT IS PRESERVATIVE TREATED ACCORDANCE WITH AWPA UI FOR THE SPECIES, PRODUCT, PRESERVATIVE AND END USE. PRESERVATIVES SHALL BE LISTED IN SECTION 4 OF AMPA UI
- WOOD JOISTS OR THE BOTTOM OF WOOD FLOOR WHEN CLOSER THAN L. 18 INCHES, OR WOOD GIRDERS WHEN CLOSER THAN 12 INCHES TO THE EXPOSED GROUND IN CRAAL SPACES OR UNEXCAVATED AREAS LOCATED WITHIN THE PERIPHERY OF THE BUILDING FOUNDATION.
- ALL EXTERIOR SILLS & PLATES THAT REST ON CONCRETE OR MASONRY EXTERIOR FOUNDATION WALLS. 2.
- SILLS AND SLEEPERS ON A CONCRETE OR MASONRY, UNLESS THE SLAB THAT IS IN DIRECT CONTACT WITH THE GROUND IS SEPARATED FROM THE GROUND BY AN APPROVED IMPERVIOUS MOISTURE BARRIER.
- THE ENDS OF WOOD GIRDERS ENTERING EXTERIOR MASONRY OR CONCRETE WALLS HAVING CLEARANCES OF LESS THAN 0.5 INCH ON TOPS, SIDES AND ENDS.
- 5. WOOD SIDING AND SHEATHING ON THE EXTERIOR OF A BUILDING HAVING A CLEARANCE OF LESS THAN 6 INCHES FROM THE GROUND.
- WOOD STRUCTURAL MEMBERS SUPPORTING MOISTURE-PERMEABLE FLOORS OR ROOPS THAT ARE EXPOSED TO THE HEATHER , SUCH AS CONCRETE OR MASONRY SLABS, UNLESS SEPARATED FROM SUCH FLOORS OR ROOPS BY ANIMPERVIOUS MOISTURE BARRIER.
- WOOD FURRING STRIPS OR OTHER WOOD FRAMING MEMBERS ATTACHE DIRECTLY TO THE INTERIOR OF EXTERIOR MASONRY MALLS OR CONCRETE MALLS BELOW GRADE EXCEPT WHERE AN APPROVED VAPOR RETARDER IS APPLIED BETKEEN THE WALL AND THE FURRING STRIPS OR FRAMING HEMBERS. ATTACHED 2
- ALL PORTIONS OF A PORCH, SCREEN PORCH OR DECK FROM THE BOTTOM OF THE HEADER DONN, INCLUDING FOSTS, GUARDRALLS, PICKETS, STEPS AND FLOOR STRUCTURE. COVENINGS THAT NOULD PREVENT MOISTURE OR WATER ACCUMULATION ON THE SURFACE OR AT JOINTS BETWEEN MEMBERS ARE ALLOWED.
- IN AREAS SUBJECT TO DAMAGE FROM TERMITES METHODS OF PROTECTION SHALL BE ONE OF THE METHODS LISTED IN THE N.C.-R 3.
- UNDER-FLOOR AREAS SHALL BE VENTILATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE N.C.-R

# WOOD & FRAMING

# (continued)

8.

FLOOR FRAMING

ROOF FRAMING

- 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. 2
- 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

REE VICTORY JOINTS OF TRACE PERMITTING SHOLL COURT OVER AND DEPARTMENT TO COMPARE AND ALL PANELS SHALL OCCUR OVER, AND BE FASTENED TO, COMMON BLOCKING OF A MINIMUM OF 11/2 INCH THICKNESS.

IN ONE- AND TWO-FAMILY DWELLING CONSTRUCTION USING <u>HARD BOARD</u> OR ALIMINIM AS A SOFFIT MATERIAL, THE SOFFIT MATERIAL SHALL BE SECURELY ATTACHED TO FRAMING MEMBERS AND USE AN UNDERLAYMENT MATERIAL OF EITHER FIRE RETARDANT TREATED WOOD,

UNDERLATMENT MATERIAL OF EITHER FIRE RETARDANT TREATED MOOD, 25/32 INCH MOOD SHEATHING OR 3/6 INCH OFFSUM BOARD, VENTING REQUIREMENTS AFPLY TO BOTH SOFFIT AND UNDERLATMENT AND SHALL BE PER SECTION REGO OF THE NORTH CARCING RESIDENTIAL CODE. WHERE THE PROPERTY LINE IS IO FEET OR MORE FROM THE BUILDING FACE, THE PROVISIONS OF THIS CODE SECTION DO NOT AFPLY.

ALL FLOOR JOISTS SHALL BE DESIGNED I-JOIST WOOD FLOOR TRUSSES. REFER TO MANUFACTURER FOR ALL LAYOUTS AND CALCULATIONS.

REFER TO THE STRUCTURAL ENGINEER'S CURRENT PLANS & CALCULATIONS FOR SIZE, SPACING, AND ANCHORAGE OF ALL FLOOR JOISTS, SIZE, LOCATION, AND ANCHORAGE OF ALL FLOOR BEAMS AND HEADERS, AND ALL RELATED FRAMING ISSUES.

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

THE BRACING OF WOOD TRUSSES SHALL COMPLY TO THEIR APPROPRIATE ENGINEERED DESIGN, PER THE N.C.-R

CALCULATIONS AND SHOP DRAWINGS FOR APPROVAL OF DESIGN LOADS, CONFIGURATION (2 OR 3 POINT BEARING), VOLUME CEILING OPTIONS, AND SHEAR TRANSFER, PRIOR TO FABRICATION.

TRUSS MEMBERS SHALL NOT BE CUT, NOTCHED, DRILLED, SPLICED OR OTHERWISE ALTERED IN ANY WAY WITHOUT THE APPROVAL OF A REGISTERED DESIGN RADRESSIONAL. ALTERATIONS RESULTING IN THE ADDITION OF LOAD (E.S. HYAO E GUIPMENT, WATER HEATER) THAT EXCEEDS THE DESIGN LOAD FOR THE TRUSSES SHALL NOT BE PERMITED WITHOUT WRITTEN VERIFICATION THAT THE TRUSS IS CAPABLE OF SUPPORTING SUCH ADDITIONAL LOADING.

ALL CALCULATIONS AND SHOP DRAWINGS SHALL BE SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHEREIN THE

MANUFACTURER IS TO SECURE BUILDING DEPARTMENT APPROVAL

OF CALCULATIONS AND SHOP DRAWINGS PRIOR TO FABRICATION

THE SIZE, HEIGHT, AND SPACING OF STUDS SHALL BE IN ACCORDANCE WITH THE N.C.-R

STUDS SHALL BE PLACED WITH THEIR WIDE DIMENSION PERPENDICULAR

NOT LESS THAN THREE STUDS SHALL BE INSTALLED AT EACH CORNER OF AN EXTERIOR WALL.

WOOD STUD WALLS SHALL BE CAPPED WITH A DOUBLE TOP PLATE INSTALLED TO PROVIDE OVERLAPPING AT CORVERS AND INTERSECTION WITH BEARING PARTITIONS. END JOINTS IN TOP PLATES SHALL BE OFFERT AT LEAST 24 INCHES. JOINTS NEED NOT OCCUR OVER STUDS. PLATES SHALL BE NOT LESS THAN 2-INCHES NOMINAL THICKNESS AND HAVE A MUDTH 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.

INTERIOR NONBEARING WALLS SHALL BE PERMITTED TO BE CONSTRUCTED MITH 2-INCH-BY-3-INCH STUDS SPACED 24 INCHES ON CENTER OR WHEN NOT A PART OF A BRACED WALL LINE, 2-INCH-BY-4-INCH FLAT STUDS SPACED IG INCHES ON CENTER, INTERIOR NONBEARING WALLS SHALL BE CAPPED WITH AT LEAST A SINGLE TOP FLATE. INTERIOR NONBEARING WALLS

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.

SHALL BE EIREBLOCKED IN ACCORDANCE WITH THE N.C.-

PROJECT IS TO BE BUILT.

WALL FRAMING

6.

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.

# WOOD & FRAMING

### (continued)

3

8. DRILLING AND NOTHING OF STUDS SHALL BE IN ACCORDANCE WITH THE

- NOTHCING. ANY STUD IN AN EXTERIOR WALL OR BEARING PARTITION MAY BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTL, STUDS IN ONBEARING PARTITIONS MAY BE NOTCHED TO A DEPTH NOT TO EXCEED 40 PERCENT OF A SINGLE STUD WIDTH. NOTCHING OF BEARING STUDS SHALL BE ON ONE EDGE ONLY AND NOT TO EXCEED ONE-FOURTH THE HEIGHT OF THE STUD. NOTCHING SHALL NOT OCCUR IN THE BOTTOM OR TOP 6 INCHES OF BEARING STUDS.
- DRILLING, ANY STUD MAY BE BORED OR DRILLED, PROVIDED THAT THE DIAMETER OF THE RESULTING HOLE IG NO MORE THAN 60 PERCENT OF THE STUD WIDTH, THE EDGE OF THE HOLE IG NO MORE THAN 5/6<sup>1</sup> INCH TO THE EDGE OF THE STUD, AND THE HOLE GHALL NOT BE CLOSER THAN 6 INCHES FROM AN ADJACENT HOLE OR NOTCH. HOLES NOT EXCEEDING 3/4 INCH DIAMETER CAN BE AS CLOSE AS I 1/2 INCHES ON CENTER SPACING, STUD LOCATED IN EXTERIOR WALLS OR BEARING PARTITIONS DRILLED OVER 40 PERCENT AND UP TO 60 PERCENT SHALL ALSO BE DOUBLED WITH NO MORE THAN TWO SUCCESSIVE DOUBLED STUDS BORED.
- CUTTING AND NOTCHING OF STUDS SHALL BE PERMITTED TO BE INCREASED TO 65 PERCENT OF THE WIDTH OF THE STUD IN EXTERIOR AND INTERIOR WALLS AND BEARING PARTITIONS, PROVIDED THAT ONE OF THE FOLLOWING CONDITIONS ARE MET: (a) THE WALLS SECTION IS REINFORCED WITH 1/2-INCH EXTERIOR GRADE FL'IWOOD OR EQUIVALENT REINFORCEMENT ON THE NOTCHED SIDE OF THE WALL, PLYWOOD, IF USED, SHALL REACH FROM THE FLOOR TO ZEILING AND AT LEAST ONE STUD PURTHER ON EACH SIDE OF THE SECTION THAT HAS BEEN NOTCHED OR CUT. (b) THE EXTERIOR MALLS OF A KITCHEN MAY BE REINFORCED BY PLACING 1/2-INCH PLYWOOD OR EQUIVALENT REINFORCED BY PLACING 1/2-INCH PLYWOOD OR EQUIVALENT REINFORCEMENT ON THE NOTCHED SIDE OF THE WALLS PLACENT ON THE SECTION THAT FOR STUD FURTHER ON EACH SIDE OF THE SECTION THAT HAS BEEN NOTCHED OR CUT.
- WHEN PIPING OR DUCTWORK IS PLACED IN OR PARTIALY IN AN EXTERIOR Wern PIPING OR DUCTNORK IS PLACED IN OR PARTIALY IN AN EXTENSION OR INTERIOR OR INDEXISTANT LADOPENENTS WILLING OR NOTCHING OF THE TOP PLATE B MORE THAN 50 PERCENT OF ITS MIDTH A GALVANIZED METAL THE OF NOT LESS THAN 0.054 INCH THICK AND 11/2 INCHES WIDE SHALL BE FASTENED ACROSS AND TO THE PLATE AT EACH SIDE OF THE OPENING WITH NOT LESS THAN EIGHT IOG NALLS HAVING A MINIMAY LENGTH OF 11/2 INCHES (35 MM) AT EACH SIDE OR EQUIVALENT. THE METAL THE MOTEND A MINIMAY OF 6 INCHES PAST THE OPENING WIDE OF AND THE MOTENDA AT THE OPENING.
- HEADERS SHALL MEET THE REQUIREMENTS OF THE N.C.-F
- PROVIDE LATERAL BRACING PER THE N.C.-R
- FOUNDATION CRIPPLE WALLS SHALL MEET THE REQUIREMENTS OF THE N.C.-R. CODE
- 14. WOOD STUD WALLS SHALL BE BRACED AS REQUIRED BY THE N.C.-R
- 15. UNLESS COVERED BY INTERIOR OR EXTERIOR WALL COVERINGS OR SHEATHING MEETING THE MINIMUM REQUIREMENTS OF THIS CODE, ALL STUD PARTITIONS OR WALLS WITH STUDS HAVING A HEIGHT-TO-LEAST THICKNESS TRATIO EXCEEDS TO SHALL HAVE BRIDEING NOT LESS THAN 2 INCHES IN THICKNESS AND OF THE SAME WIDTH AS THE STUDS FITTED SNUELY AND NAILED THERETO TO PROVIDE ADEQUATE LATERAL SUPPORT.

#### FIRE BLOCKS AND DRAFT STOPS

3

CTIONS

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 N.C.-R

FIRE BLOCKING SHALL CONSIST OF 2 INCHES NOMINAL LUMBER, OR TWO THICKNESSES OF I-INCH NOMINAL LUMBER WITH BOKEN LAP JOINTS, OR ONE THICKNESS OF 23/23-INCH WOOD STRUCTURAL PANELS OR ONE THICKNESS OF 3/4-INCH PARTICLEBOARD WITH JOINTS BACKED BY 3/4-INCH PARTICLEBOARD, 1/2-INCH 6/TPSOM 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 BE 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 IO 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 MANNER INTENDED FOR USE TO DEMONSTRATE IT'S ABILITY TO REMAIN IN PLACE AND TO RETARD THE SPREAD OF FIRE AND HOT GASSES.

WHEN THERE IS USABLE SPACE BOTH ABOVE AND BELOW THE CONCEALED SPACE OF A FLOOR/CEILING ASSEMBLY, DRAFTSTOPS SHALL BE INSTALLED SO THAT THE AREA OF THE CONCEALED SPACE DOES NOT EXCEED 1,000 SQUARE FEET, DRAFTSTOPPING SHALL DIVIDE THE CONCEALED SPACE INTO APPROXIMATELY EQUAL AREAS, WHERE THE ASSEMBLY IS ENCLOSED BY A AFTROAMMATELT EQUAL ARABA, MERE INE ASSEMENT IS ENDUSED BY A FLOOR MEMBRANE ABOVE AND A CELLING MEMBRANE BELOW, DRAFTSTOPPING SHALL BE PROVIDED IN FLOOR/CELLING ASSEMBLIES UNDER THE FOLLOWING CIRCUMSTANCES:

- CEILING IS SUSPENDED UNDER THE FLOOR FRAMING.
- FLOOR FRAMING IS CONSTRUCTED OF TRUSS-TYPE OPEN-WEB OR PERFORATED MEMBERS.

#### HANDRAIL AND GUARDRAIL

SUARDRAIL 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

•		8	8		•
•		Ę			•
			0		
	H	iõi	ME		
. L					•
•		•			
•	•		•	•	•
•		•	•		•
•	•		•	•	•
N(	י אראר	н. С	4 R (	DLIN	• []
110	<b>40'</b>				
• NO	RTH (	KB H	OME		• N
	4506	S. MI	AMI I		
	DURE	SUITE IAM, 1 (919)	NC 27	703	•
	8				
•		8 N			•
<b>.</b> C.	8			STA	ΓĒ
•	- B		DII.	NG	•
•	•		DES		•
•				•	
•	•	•	•	•	•
•	•	•		•	•
	BUE D			<b>8</b> /23/17	•
DI	OJECT VISION VISION	MGR.	:	9999:56 MCP 26/19	
• /2		CRAWI	. SPACE 7/24/18	стр	•
• /3		SION R			•
• /4	_	CODE U 1015NCP/			•
= <u>/</u> s		SION R 017NCP/ SION R			•
• / •				) / FAE IT CALC: ) / CTD	
	_	ISION R			•
REVI	FOR EWED BY:	R INTERNA	L USE ON	.Y	
	1. 2. 3. 4. 5.				
	ة. PLAN:				
	14	40.1			_∎
			SHEI	et: GN1	-
•	0 DT		8	0 1	
D/		C.L.			
•	40'	SF		ЕĊ	8
•	тV "	51		ĽS	•

# THERMAL & MOISTURE

# PROTECTION

- PROVIDE ALL FLASHING , COUNTER-FLASHING, BITUTHENE, MEMBRANE ING. SHEET METAL, CAULKING, SEALANTS, ELASTOMERIC WALKING SURFACES, AND RAIN GUTTERS AND/OR DIVERTERS WHERE JIRED TO MAKE WORK COMPLETELY WATERPROOF
- "CORROSION RESISTANCE" SHALL MEAN THE ABILITY OF A MATERIAL TO WITHSTAND DETERIORATION OF IT'S SURFACE OR IT'S PROPERTIES 2 WHEN EXPOSED TO IT'S ENVIRONMENT
- BALCONIES, LANDINGS, EXTERIOR STAIRWAYS, OCCUPIED ROOFS AND SIMILAR SURFACES EXROSED TO THE REATHER AND SEALED UNDER-NEATH SHALL BE WATERRROOFED AND SLOPED A MINIMUM OF 1/4 WIT VERTICAL IN 12 WITS 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/ BUILDER AND ARCHITECT.
- UNLESS DESIGNED TO DRAIN OVER DECK EDGES, DRAINS AND OVER-FLOWS 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, WEATHERRROOF MATERIALS OF A NIDTH NO LEGS THAN THE THICKNESS OF THE PARAPET WALL. PARAPET COPING SHALL EXTEND 2" MINIMM DOWN THE FACES OF THE PARAPET.

#### FLASHING

- APPROVED CORROSION-RESISTANT FLASHING SHALL BE APPLIED SHINGLE-FASHION IN A MANUER TO FREVENT ENTRY OF MATER INTO THE MALL 12. CAVITY OF PENETRATION OF MATER TO THE DUIDING STRUCTRAL FRAMING COMPONENTS. SELF-ADHERED MEMBRANES USED AS FLASHING SHALL COMPLY WITH AAMA TIL FUID-APPLIED MEMBRANES USED AS FLASHING SHALL EXTERIOR MALLS SHALL COMPLY WITH AAMA TILA, THE FLASHING SHALL EXTERIOR THE SURFACE OF THE EXTERIOR MALL FINISH, ALMINIM FLASHING SHALL NOT BE USED IN CONTACT MITH CEMENTITIOJS MATERIAL, EXCEPT AT COUNTER FLASHING. OF MEMBRANES ISED AS FLASHING SHALL BITTEND TO THE SURFACE OF THE EXTERIOR MALL FINISH, ALMINIM FLASHING SHALL NOT BE USED IN CONTACT MITH CEMENTITIOJS MATERIAL, EXCEPT AT COUNTER FLASHING. APPROVED CORROSION-RESISTANT FLASHINGS SHALL BE INSTALLED AT ALL OF THE LOCATIONS STATED IN N.C.-R.
- AT ALL WINDOW AND DOOR OPENINGS USE FORTIFIBER WATER-RESISTIVE BARRIERS, I.C.C. BER-1027, INSTALLED PER MANUFACTURER'S SPECIFICATIONS, OR APPROVED EQUAL.
- ALL BEAMS, OUTLOOKERS, CORBELS, ETC. PROJECTED THROUGH EXTERIOR WALLS OR PENETRATING EXTERIOR FINISHES SHALL BE FLASHED WITH A MINIMUM 0.019-INCH (NO. 26 SHEET METAL GAGE) CORROSION-RESISTANT METAL AND CAULKED.
- ALL SHEET METAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE RECOMMENDATIONS AND STANDARDS OF THE SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION (S.M.A.C.N.A.), THE ARCHITECTURAL SHEET METAL MANUAL, AND SEALANT, WATERPROOFING AND RESTORATION INSTITUTE'S (S.W.R.I.) GUIDE -"SEALANT'S: 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 OTHERVISE NOTED IN THESE NOTES, PLANS, OR MANUFACTURER'S SPECIFICATIONS.
- SHEET ALUMINUM SHALL CONFORM WITH FEDERAL SPECIFICATIONS QQ-A-359 AND A.S.T.M. B209 ALLOY 3003.
- 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 FOR STRENGTH RIVET SEAMS AND , WINTS
- SHOP FABRICATE TO THE GREATEST EXTENT POSSIBLE IN ACCORDANCE WITH APPLICABLE STANDARDS TO PROVIDE A PERMANENTLY WATER-PROOF, WEATHER RESISTANT INSTALLATION.
- ASPHALT SHINGLES SHALL HAVE SELF-SEAL STRIPS OR BE INTERLOCKING, AND COMPLY WITH ASTM D 225 OR D 3462.
- BASE AND CAP FLASHING SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS'INSTALLATION INSTRUCTIONS. BASE FLASHING SHALL BE OF EITHER CORROSION-RESISTANT METAL OF MINIMUM NOMINAL O OIR-INCH THICKNESS OR MINERAL SURFACE ROLL ROOFING HEIGHING A MINIMUM OF TT POUNDS PER IOO SQUARE FEET. CAP FLASHING SHALL BE CORROSION-RESISTANT METAL OF MINIMUM NOMINAL O.OIR-INCH THICKNESS 10.
- 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 PER THE N.C.-R.
- 12. A CRICKET OR SADDLE SHALL BE INSTALLED ON THE RIDGE SIDE OF ANY CHIMMEY OR PENETRATION MORE THAN 30 INCHES MIDE 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 THE CHIMMEY.
- FLASHING AGAINST A VERTICAL SIDEWALL SHALL BE BY THE STEP-FLASHING 13.
- ASHING AGAINST A VERTICAL FRONT WALL, AS WELL AS SOIL STACI INT PIPE AND CHIMNEY FLASHING, SHALL BE APPLIED ACCORDING TO IPHALT 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 0.019 INCH (NO. 26 GALVANIZED STANT METAI
- 6. VALLEY FLASHING FOR CONCRETE THE ROOPS SHALL BE AS REQUIRED ROOFING MATERIALS

- ROOF COVERINGS SHALL BE APPLIED IN ACCORDANCE WITH THE NG.-R AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. INSTALLATION OF ROOF COUVERINGS 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 OUESTIONABLE SUITABILITY, TESTING BY AN APPROVED TESTING AGENCY SHALL BE REQUIRED BY THE BUILDING OF APPLICATION OF THE CHARACTER, QUALITY, AND LIMITATIONS OF APPLICATION OF THE MATERIALS.

# THERMAL & MOISTURE

## PROTECTION (continued)

- ROOF COVERING MATERIALS SHALL BE DELIVERED IN PACKAGES BEARING HE MANUFACTURER'S IDENTIFYING MARKS AND APP IG AGENC LABELS WHEN REQUIRED, BULK SHIPMENTS OF MATERIALS SHALL BE IED BY THE SAME INFORMATION ISSUED IN THE FORM OF A ACCOMPA CERTIFICATE OR ON A BILL OF LADING BY THE MANUFACTURE
- 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 4864, TYPE I, OR ASTM D 6757. SELF-ADHER POLYMER MODIFIED BITUMEN SHEET SHALL COMPLY WITH ASTM D 14
- ASPHALT SHINGLES SHALL COMPLY WITH ASTM D 225 OR ASTM D 3462.
- FASTENERS FOR ASPHALT SHINGLES SHALL BE GALVANIZED STEEL, STAINLESS STEEL, ALUMINUM, OR COPPER ROOFING NAILS, MINIMUM 12 GAGE SHANK WITH A MINIMUM 3/6 INCH DIAMETER HEAD, ASTM F 1667, OF A LENSTH TO PENETRATE THROUGH THE ROOFING MATERIALS AND A MINIMUM OF 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 ASTM F 16470006 THE SHEATHING. FASTENERS SHALL COMPLY WITH ASTM E 1667
- ASPHALT SHINGLES SHALL HAVE THE MINIMUM NUMBER OF FASTENERS REQURED BY THE MANUFACTURER. FOR NORMAL APPLICATION, ASPHALT SHINGLES SHALL BE SECURED TO THE ROOF WITH NOT LESS THAN FOUR FASTENERS FER STRIP SHINGLE OR TWO FASTENERS FER INDIVIDUAL SHINGLE FRA N.C. R.
- 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 1167
- CONCRETE AND CLAY THE SHALL BE INSTALLED ONLY OVER SOLID. SHEATHING OR SPACED STRUCTURAL SHEATHING BOARD
- CLAY AND CONCRETE ROOF TILE SHALL BE INSTALLED ON ROOF SLOPES OF 2 1/2 WITS VERTICAL IN I2 WITS HORIZED VATAL (2-1/2:12) OR GREATER, FOR ROOF SLOTES FROM 2 1/2 WITS VERTICAL IN 12 WITS HORIZONTAL (2-1/2:12) TO FOUR WITS VERTICAL IN 12 WITS HORIZONTAL (2-1/2:12) TO FOUR WITS VERTICAL APPLICATION IS REQUEED IN ACCORDANCE WITH THE NC.-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-RESISTANT AND NOT LESS THAN II GAGE, 5/16-INCH HEAD, AND OF SUFFICIENT LENGTH TO PENETRATE THE DECK A MINIMUM OF 3/4-INCH OR THROUGH THE THICKNESS OF THE DECK, NHICHEVER IS LESS. ATTACHING WIRE FOR CLAY OR CONCRETE TILE SHALL NOT BE SMALLER THAN OLD SI-INCH. PERIMETER FASTENING AREAS NCLUDE 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
- 18. TILE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, BASED ON CLIMATIC CONDITIONS, ROOF SLOPE, UNDERLAYMENT SYSTEM, AND TYPE OF TILE BEING 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 12 UNITS HORIZONTAL (2-PERCENT SLOPE) FOR DRAINAGE, EXCEPT FOR COAL-TAR BUILT-UP ROOFS THAT SHALL HAVE A DESIGN SLOPE OF A MINIMUM ONE-EIGHTH UNIT VERTICAL IN 12 UNITS HORIZONTAL (I-PERCENT SLOPE
- 21. BUILT-UP ROOF COVERING MATERIALS SHALL COMPLY WITH THE STANDARDS PER THE NC -R

#### 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 FLASHING. THE EXTERIOR WALL ENVELOPE SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT PREVENTS THE ACCUMULATION OF MATER WITHIN THE MALL ASSYMPLY BY PROVIDING A MATER-RESISTANT BARRIER BEHIND THE EXTERIOR VENEER AS REQUIRED AND A MEANS OF DRAINING WATER THAT ENTERS THE ASSEMBLY DI THE EXTERIOR. PROTECTION ASAINST CONDENSATION IN THE EXTERIOR WALL ASSEMBLY SHALL BE PROVIDED ASSEMBLY SHALL BE PROVIDED.
- ONE LAYER OF NO. 15 ASPHALT FELT, FREE FROM HOLES AND BREAKS. ONE LATER OF NO. IS 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 MALLS. 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 2 INCHES, THE FELT OR OTHER APPROVED MATERIAL SHALL BE CONTINUOUS TO THE TOP OF WALLS AND TERMINATED AT PENETRATIONS AND BULLING APPENDAGES IN A MANNER TO MEET THE REQUIREMENTS OF THE EXTERIOR WALL ENVELOPE.
- CEMENTITIOUS SIDING CONFORMING TO THE REQUIREMENTS OF THE N.C.-R. AI COMPLYING WITH ASTM D 3619 SHALL BE PERMITTED ON EXTERIOR WALLS OF BUILDING OF TYPE V CONSTRUCTION LOCATED IN AREAS WHERE THE ULTIMATE WIND SPEED SPECIFIED DOES NOT EXCEED IO 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 I., DATA INDICATING COMPLIANCE MUST BE SUBMITTED. CEMEN ALL BE SECURED TO BUILDING TO PROVIDE WEATHER PROTECTION FOR SHALL BE SECURED TO BUILDING TO PRO THE EXTERIOR WALLS OF THE BUILDING.
- ALL MANEFACTURED MINDOWS AND SLIDING GLASS DOORS SHALL
  MEET THE NG-R CEMENTITIOUS SIDING SHALL BE APPLIED OVER SHEATHING OR MATERIALS LISTED INATIONAL STANDARDS OF THE CURRENT AMERICAN
  THE NG-R CEMENTITIOUS SIDING SHALL BE APPLIED TO CONFORM WITH THE
  MEATHER-RESISTIVE BARRIER REQUIREMENTS CONFINING SIDING AND
  ACCESSORIES SHALL BE INSTALLED IN ACCORDANCE WITH APPROVED
  MANUFACTURER'S INSTRUCTIONS. MANUFACTURER'S INSTRUCTIONS.
- CEMENTITIOUS SIDING FASTENERS AND ACCESSORIES SHALL MEET THE REQUIREMENTS OF THE N.C.-B
- EXTERIOR WALLS OF WOOD CONSTRUCTION SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE N.C.-R

# THERMAL & MOISTURE

## PROTECTION (continued)

- HARDBOARD SIDING SHALL CONFORM TO THE REQUIREMENTS OF AHA A135.6 AND, WHERE USED STRUCTURALLY, SHALL BE SO IDENTIFIED THE LABEL OF AN APPROVED AGENCY
- WOOD VENEERS ON EXTERIOR WALLS OF BUILDINGS OF TYPES I, II, III, 0 AND IV CONTRUCTION SHALL BE NOT LESS THAN I-INCH NOMINAL THICKNESS, 0.438-INCH EXTERIOR HARDBOARD SIDING OR 0.375-INCH EXTERIOR-THTE WOOD STRUCTURAL PANELS OR PARTICLE-BOARD AND SHALL CONFORM TO THE REQUIREMENTS OF THE N.C.-R
- FIBER-CEMENT LAP SIDING HAVING A MAXIMUM WIDTH OF 12 INCHES SHALL COMPLY WITH THE REQUIREMENTS OF ASTM CII66, 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-GROUPDE END JOINTS SHALL HAVE THE ENDS SEALED WITH CALLENNE, INSTALLED WITH AN H-SECTION JOINT COVER, LICS - STRIP OF LASHING, INSTALLED WITH AN H-SECTION JOINT COVE LICSATED OVER A STRIP OF HASHING OR SHALL BE DESIGNED TO COMP WITH KC-R. LAP SIDING COURSES MAY BE INSTALLED WITH THE FASTENER HEADS EXPOSED OR CONCELED, ACCORDING TO KC-R OR APPROVED INSTALLATION INSTRUCTIONS.
- INSULATING MATERIALS, INCLUDING FACINGS, SUCH AS VAPOR RETARDERS OR VAPER-PERMEABLE MEMBRANES,INSTALLED WITHIN FLOOR-CEILING ASSEMBLIES, ROOF-CEILING ASSEMBLIES, WALL-ASSEMBLIES, CRAWL SPACES AND ATTICS SHALL HAVE A FLAME-SPREAD INDEX NOT TO EXCEED 25 MITH AN ACCOMPANYING SMOKE-DEVELOPED INDEX NOT TO EXCEED 25 MITH AN ACCOMPANYING SMOKE-DEVELOPED INDEX NOT TO EXCEED 450 MHEN TESTED IN ACCORDANCE MITH ASTME 8 44 OR UL 723.
- DUCT INSULATION MATERIALS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS OF THE N.C.-R
- Insulation and covering on PIPE and tubing shall have a Flame-spread index of Not More than 25 and a smoke-developed index of Not More than 450. See exceptions.
- ALL EXPOSED INSULATION MATERIALS INSTALLED ON ATTIC FLOORS SHALL HAVE A CRITICAL RADIANT FLUX OF NOT LESS THAN 0.12 WATT PER SQUARE 17. 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 CEILLUOSE TYPE OR FIBERCLASS BATTS OR BLANKET TYPE PER BUILDER'S SPECIFICATIONS.
- THE ENERGY EFFICIENCY REQUIREMENTS INCLUDING LEGG BUT NOT THE EVERAPT EFFICIENCY RECONTREMENTS INCLUDING LECC. BUT NOT LIMITED TO INSULATION "R" VALUES, PERCENTAGE OF GLAZING "U" VALUES, ETC. SHALL BE DETERMINED BY THE ADOPTED STATE AND LOCAL ENERGY CODE EQUIRENTS, REFER TO MECHANICAL PLANS FOR SPECIFICATIONS.
- THE BUILDING THERMAL ENVELOPE SHALL BE DURABLY SEALED WITH AN AIR BARRIER SYSTEM TO LIMIT INFILITRATION. THE SEALING METHODS BETWEEN DISSIMILAR MATERIALS SHALL ALLOW FOR DIFFERENTIAL EXPANSION AND CONTRACTION. FOR ALL HOMES, HERE PRESENT, THE FOLLOWING SHALL BE CAULKED, GASKETED, MEATHERSTRIPPED OR OTHERWISE SEALED WITH AN AIR BARRIER MATERIAL OR SOLD MATERIAL CONSISTENT WITH AFFENDIX E-23 A DID E-24 OF THE NC-R. BLOCKING AND SEALING FLOOR/CEILING SYSTEMS AND UNDER KNEE WALLS OPEN TO UNCONDITIONED OR EXTERIOR SPACE. 2. CAPPING AND SEALING SHAFTS OR CHASES, INCLUDING FLUE

5HAF15. 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 SHALL DE ENVELOSED ON ALL SIDES WITH A RIGID MATERIAL OR AIR BARRIER MATERIAL, WALL INSULATION SHALLS, THE CAVITY INSULATION SHALL BE ENVELOSED ON ALL SIDES WITH A RIGID MATERIAL OR AI AIR BARRIER MATERIAL, WALL INSULATION SHALL BE ENVLOSED AT THE FOLLOWING LOCATIONS WHEN INSTALLED ON EXTERIOR MALLS PRICE TO EBINE COVERED BY SUBSEQUENT CONSTRUCTION, CONSISTENT WITH APPENDIX E-2.5 AND E-2.4 OF NC-R: 10. TUBS

### SHOWERS

3. STATES 4. FIREPLACE UNITS ENCLOSURE OF HALL 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
- 2 OPENINGS FROM A PRIVATE GARAGE DIRECTLY INTO A ROOM USED OPENINGS FROM A PRIVATE GARAGE DIRECTLY INTO A ROOM USED FOR SLEEPING FURPOSES SHALL NOT BE PERMITED, OTHER OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHALL EQUIPTED WITH SOLID WOOD DOORS NOT LESS THAN I 3% INCHES IN THICKNESS, SOLID OR HONEYCOME CORE STEEL DOORS NOT LESS THAN I 3% INCHES THICK, OR 20-MINITE FIRE-RATED DOORS.
- NO DOUBLE FRENCH DOORS SHALL BE USED UNLESS THERE IS A SUFFICIENT OVERHANG OR COVERED PATIO COVERING THESE DOORS. NO DOUBLE <u>WOOD</u> FRENCH DOORS SHALL BE USED IN ANY CASE.

PROVIDE SECURITY HARDWARE FOR ALL DOORS AND WINDOWS IN CONFORMANCE WITH ALL STATE AND LOCAL CODE REQUIREMENTS

- ALL AUTOMATIC GARAGE DOOR OPENERS REQUIRE THE INCLUSION OF A PHOTOELECTRIC SENSOR, EDGE SENSOR OR SOME OTHER SIMILAR DEVICE FOR REMOTE OPERATION AND AS A SAFETY PRE-CAUTION TO PREVENT THE DOOR FROM CLOSING WIEN SOMETHING IS BLOCKING THE PATH OF THE DOOR. SEE MANUFACTURER'S INSTALL TWO INSTALL FOR INSTALL TION INSTRUCTIONS
- ALL MANUFACTURED WINDOWS AND SLIDING GLASS DOORS SHALL
- BASEMENTS, HABITABLE ATTICS AND EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPENABLE EMERGENCY ESCAPE AND RESCUE OPENING
- 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 BELON THE ADJACENT GROUND ELEVATION SHALL BE PROVIDED WITH A WINDOW MELL.

# DOORS & WINDOWS (continued)

- 0 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. 12
  - 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, NITH A MINIMUM HORIZONTAL REQUECTION AND WIDTH OF 36 INCHES. THE AREA OF THE WINDOW NELL SHALL ALLOW HORERENCY BECAPE AND RESCUE OPENING TO BE FULLY OPENED PER THE N.C.A. 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 15 SHALL BE EQUIPPED WITH A PERMANENTLY AFFIXED LADDER OR STEPS USABLE WITH THE WINDOW IN THE FULLY OPEN POSITION.
- BARS, GRILLES, COVERS, SCREENS OR SIMILAR DEVICES ARE PER DATAS, GRILLED, GUVERS, SCHEINS DR SIMILAR DEVICES ARE PERMITTED IC BE PLACED OVER ENFRENCY ESCAPE AND RESCUE OPENNOS, BULKHEAD ENCLOSURES, OR MINDOM WELLS THAT SERVE SUCH OPENNOS, PROVIDED THE MINIMUM NET CLEAR OPENINO SIZE COMPLIES WITH THE N.C.-R AND SUCH DEVICES SHALL BE RELEASABLE OR REMOVABLE FROM THE INSIDE MITHOUT THE USE OF A KEY, TOOL, SPECIAL KNOWLEDGE OR FORCE GREATER THAN THAT WHICH IS REQUIRED FOR NORMAL OPERATION OF THE ESCAPE AND RESCUE OPENING.
- ALL INTERIOR EGRESS DOORS AND A MINIMUM OF ONE EXTERIOR EGRESS DOOR SHALL BE READILY OPENABLE FROM THE SIDE FROM WHICH EGRESS IS TO BE MADE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR

#### GLAZING & SAFETY GLAZING

BEING DESTROYED

2

З.

6.

8.

CONSERVATION CODE

HABITABLE ROOMS SHALL HAVE AN AGGREGATE GLAZING AREA OF NOT LESS THAN & PERCENT OF THE FLOOR AREA OF SUCH ROOMS. NATURAL VENTILATION SHALL BE TRACUEH WINDOWS, SKYLIGHTS, DOORS, LOWERS OR OTHER APPROVED OPENINGS TO THE OUTDOOR AIR, SUCH OPENINGS SHALL BE PROVIDED WITH READY ACCESS OR SHALL OTHERNISE BE READILY CONTROLLABLE BY THE BUILDING OCCUPANTS. THE OPENALE AREA TO THE OUTDOORS SHALL BE NOT LESS THAN 4 PERCENT OF THE FLOOR AREA BEING VENTILATED.

EXCEPT AS INDICATED, EACH PANE OF GLAZING INSTALLED IN HAZARDOUS

OCATIONS SHALL BE PROVIDED WITH MANUFACTURER'S DESIGNATION PECIFYING WHO APPLIED THE DESIGNATION, DESIGNATING THE TYPE OF

SILOSI INTO MO THE SAFETY GLAZING STANDARD WITH WHICH IT COMPLES, WHICH IS VISIBLE IN THE FINAL INSTALLATION. THE DESIGNATION SHALL BE ACID ETCHED, SANDBLASTED, CERANIC-FIRED, LASER ETCHED, DEMOSSED, OR BE OF A TYPE WHICH ONCE APPLIED CANNOT BE REMOVED WITHOUT

INDIVIDUAL GLAZED AREAS, INCLUDING GLASS MIRRORS IN HAZARDOUS

THE FOLLOWING SHALL BE CONSIDERED SPECIFIC HAZARDOUS LOCATIONS FOR THE PURPOSES OF GLAZING:

GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE FOLLOWING CONDITIONS:

3.2 BOTTOM EDGE LESS THAN 18 INCHES ABOVE THE FLOOR

3.3 TOP EDGE MORE THAN 36 INCHES ABOVE THE FLOOR

GLAZING IN ALL FIXED AND OPERABLE PANELS OF SWINGING, SLIDING AND BIFOLD DOORS GLAZING 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 GIRRACE

3.1 EXPOSED AREA OF AN INDIVIDUAL PANE LARGER THAN 9 SQUARE

3.4 ONE OR MORE WALKING SURFACES WITHIN 36 INCHES, MEASURED HORIZONTALLY AND IN A STRAIGHT LINE, OF THE GLAZING.

GLAZING IN GUARDS AND RAILINGS, INCLUDING STRUCTURAL BALUSTER PANELS AND NONSTRUCTURAL IN-FILL PANELS, REGARDLESS OF AREA OR HEIGHT ABOVE A WALKING SURFACE.

GLAZING IN DOORS AND ENCLOSURES FOR HOT TUBS, WHIRLPOOLS,

SLACING IN DOOD AND ENDINANCE OF NOT TUD, MINLPOOLS SANAS, STEAM ROOMS, BATHTUBS AND SHORERS, 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

SHIMING POOLS, HOT TUBS AND SPAS WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A WALKING SURFACE AND WITHIN 60 INCHES ADOVE A WALKING SURFACE SHALL APPLY TO SINGLE GLAZING AND ALL PANES IN MULTIPLE

GLAZING ADJACENT TO STAIRWAYS, LANDINGS AND RAMPS WITHIN 36 INCHES HORIZONTALLY OF A MALKING SURFACE WHEN THE EXPOSED SURFACE OF THE GLAZING IS LESS THAN 36 INCHES ABOVE THE PLANE

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 ARC LESS THAN 160 DEGREES FROM THE BOTTOM TREAD NOSING.

IN DWELLING UNITS, WHERE THE OPENING OF AN OPERABLE WINDOW IS LOCATED MORE THAN 12 INCHES (1824 MM) ABOVE THE FINISHED GRADE OR SURFACE BELON, THE LOWEST PART OF THE CLEAR OPENING OF THE WINDOW SHALL BE A MINIMUM OF 24 INCHES (610 MM) ABOVE THE FINISHED FLOOR OF THE ROOM IN WHICH THE WINDOW IS LOCATED. OPERABLE SECTIONS OF WINDOWS SHALL NOT FERMIT OPENINGS THAT ALLOW PASSAGE OF A 4 INCH (02 MM) DIAMETER SPHERE WHERE SUCH OPENINGS ARE LOCATED WITHIN 24 INCHES (610 MM) OF THE FINISHED FLOOR.

THE ADJACENT WALKING SURFACE.

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

LOCATIONS SHALL PASS THE TEST REQUIREMENTS OF CPSC 16 CFR, PART 1201. GLAZING SHALL COMPLY WITH CPSC 16.

BATUROOMS WATER CLOSET COMPARTMENTS AND OTHER SIMILAR DA INFROOMS, WATEK CLOSET COMPARTMENTS AND OTHER SIMILAI ROOMS SHALL BE PROVIDED WITH AGGREGATE GLAZING AREAS MINDOWS OF NOT LESS THAN 3 SQUARE FEET, ONE-HALF OF WHICH MUST BE OPENABLE.

# FINISHES

#### GYPSUM BOARD

2.

GYPSUM WALLBOARD SHALL BE INSTALLED IN CONFORMANCE AITH THE CURRENT EDITION OF THE NORTH CAROLINA RESIDENTIAL CODE AND ALL STATE AND LOCAL BUILDING CODES. THE MOST STRINGENT REQUIREMENTS SHALL GOVERN

MATERIALS. ALL GYPSIM BOARD MATERIALS AND ACCESSORIES SHALL CONFORM TO ASTM C 22, C 475, C 154, C 1002, C 1047, C 117, C 117, C 127, C 1596, OR C 1659 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THE NG.-R ADHESIVES FOR THE INSTALLATION OF GYPSIM BOARD SHALL CONFORM TO ASTM C 557.

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 THOM BUAND SHALL DOCUR ON THE FRAMING MEMBERS, EXCEPT THOSE EDGES AND ENDS THAT ARE PERPENDICULAR TO THE FRAMING MEMBERS. EDGES AND ENDS OF GYPSUM BOARD SHALL BE IN MODERATE CONTACT EXCEPT IN CON-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 ASSEMBLIES, OR THE EDGES AND ENDS OF HORIZONTAL ASSEMBLIES PERFENDICULAR. TO SUPPORTS, AND AT THE MALL LINE MAY BE OMITTED EXCEPT ON SHEAR-RESISTING ELEMENTS OR FIRE- RESISTIVE ASSEMBLIES. FASTENERS SHALL BE APPLIED IN SUCH A MAINER AS NOT TO FRACTURE THE FACE PAPER WITH THE FASTENER HEAD.

GYPSUM BOARD USED AS THE BASE OR BACKER FOR ADHESIVE APPLICATION OF CERANIC TILE OR OTHER REQUIRED NON-ABSORBENT FINISH MATERIAL SHALL CONFORM TO ASTM C 1546, 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 BOARD WATER-RESISTANT GYPSUM BOARD SHALL NOT BE INSTALLED OVER A VAPOR RETARDER IN A SHOWER OR TUB COMPARTMENT. CUT OR EXPOSED EDGES, INCLUDING THOSE AT WALL INTERSECTIONS, SHALL BE SEALED AS RECOMMENDED BY THE MANUFACTURER.

WATER RESISTANT GYPSUM BACKING BOARD SHALL NOT BE USED WHERE THERE WILL BE DIRECT EXPOSURE TO WATER, OR IN AREAS SUBJECT TO CONTINUOUS HIGH HUMIDIT

WHEN APPLYING A WATER-BASED TEXTURE MATERIAL, THE MINIMUM GYTSUM BOARD THICKNESS SHALL BE INCREASED FROM 3/8 INCH TO 1/2 INCH FOR 16-INCH NO CENTER FRAMING, AND FROM 1/2 INCH FAR 16-INCH ON CENTER FRAMING OR 1/2 INCH SAG-RESISTANT GYTSUM CEILING BOARD SHALL BE USED.

#### EXTERIOR LATH

8.

ALL LATH AND LATH ATTACHMENTS SHALL BE OF CORROSION-RESISTANT MATERIA

BACKING OR A LATH SHALL PROVIDE SUFFICIENT RIGIDITY TO PERMIT PLASTER APPLICATION.

WHERE LATH ON VERTICAL SURFACES EXTENDS BETWEEN RAFTERS OR OTHER SIMILAR PROJECTING MEMBERS, SOLID BACKING SHALL BE INSTALLED TO PROVIDE SUPPORT FOR LATH AND ATTACHMENTS.

GYPSUM LATH OR GYPSUM BOARD SHALL NOT BE USED, EXCEPT THAT ON HORIZONTAL SUPPORTS OF CEILINGS OR ROOF SOFFITS IT MAY BE USED AS BACKING FOR METAL LATH OR WIRE FABRIC LATH AND CEMENT PLASTER.

UNLESS SPECIFIED OTHERWISE, ALL WALL COVERINGS SHALL BE SECURELY FASTENED PER THE N.C.-R. OR WITH OTHER APPROVED ALLMINNM, STAINLESS STELL, JIK-COATED OR OTHER APPROVED CORROSION-RESISTIVE FASTENERS, WHERE THE BASIC WIND SPEED IS 10 MILES PER HOR OR HIGHER, THE ATTACHMENT OF WALL COVERINGS SHALL BE DESIGNED TO RESIST THE COMPONENT AND CLADDING LOADS SPECIFIED AND ADJUSTED FOR HEIGHT AND EXPOSURE

A MINIMUM O.OIG-INCH (NO. 26 GALVANIZED SHEET GAGE). A MININUM COIR-INCH (NO. 26 GALVANIZED SHEET GAGE). CORROSION-RESISTANT MEEP SCREED OR PLASTIC WEEP SCREED, MITH A MININUM VERTICAL ATTACHMENT FLANGE OF 31/2 INCHES SHALL BE PROVIDED AT OR BELOND THE FOUNDATION PLATE LINE ON EXTERIOR STUD MALLS IN ACCORDANCE MITH ASTM C 43/2. THE WEEP SCREED SHALL BE PLACED A MINIMUM OF 4 INCHES ABOVE THE EARTH OR 2 INCHES ABOVE PAVED AREAS AND SHALL BE OF A TYPE THAT MILL ALLON TRAPPED MATER TO DRAIN TO THE EXTERIOR OF THE BUILDING. THE WEATHER RESISTANT BARRIER SHALL LAP THE ATTACHMENT FLANGE. THE EXTERIOR LATH SHALL OVER AND TERMINATE ON THE ATTACHMENT FLANGE OF THE WEEP SCREED.

#### EXTERIOR PLASTER

3

PLASTERING WITH PORTLAND CEMENT PLASTER SHALL BE NOT LESS THAN THREE COATS WHEN APPLIED OVER METAL LATH OR WIRE LATH AND SHALL BE NOT LESS THAN TWO COATS WHEN APPLIED OVER MASONRY, CONCRETE, PRESSURE-PRESERVATIVE TREATED HOOD OR DECAMPLETELY CONCRETE BY SYPSUM BACKING, IF THE PLASTER SURFACE IS COMPLETELY CONCEALED 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

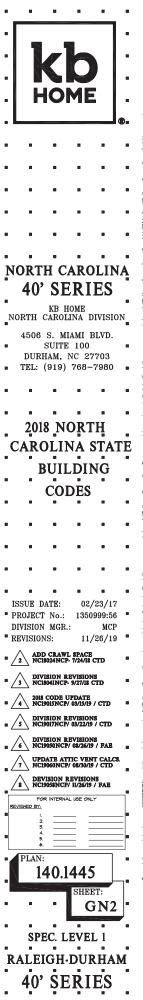
ONLY APPROVED PLASTICITY AGENTS AND APPROVE AMOUNTS THEREOF MAY BE ADDED TO PORTLAND CEMENT. WHEN PLASTIC CEMENT IS USED, NO ADDITIONAL LINE OR PLASTICIZERS SHALL BE ADDED. HYDRATED LIME OR THE EQUIVALENT AMOUNT OF LIME VITTY USED AS A PLASTICIZER MAY BE ADDED TO CEMENT PLASTER OR CEMENT AND LIME PLASTER IN AN AMOUNT NOT TO EXCEED FORTH IN ASTM C 926

GYPSUM PLASTER SHALL NOT BE USED ON EXTERIOR SURFACES.

PLASTER COATS SHALL BE PROTECTED FROM FREEZING FOR A FLADIER COATS SHALL BE PROTECTED FROM FREEZING FOR A PERIOD OF NOT LESS THAN 24 HOURS AFTER SET HAS OCCURRED. PLASTER SHALL BE APPLIED WHEN THE AMBIENT TEMPERATURE IS HIGHER THAN 40 DEGREES F (4 DEGREES C), UNLESS PROVISIONS ARE MADE TO KEEP CEMENT PLASTER MORK ABOVE 40 DEGREES F (4 DEGREES C), PRIOR TO & DURING APPLICATION AND 48 HORE THEREAFTER.

COLOR AND FINISH TO BE SELECTED AND APPROVED BY OWNER/ BUILDER AND ARCHITECT.

A I-COAT EXTERIOR PLASTER SYSTEM SUCH AS "MAGNA WALL" I.C.C. NO. ER-4716, "EXPO FIBREMALL" I.C.C. NO. ER-4368, OR APPROVED EQUAL MAY BE USED IN LIEU OF A 3-COAT EXTERIOR PLASTER SYSTEM.



## MECHANICAL & PLUMBING

#### H.V.A.C.

- ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN CONFORMANCE WITH THE NORTH CAROLINA RESIDENTIAL AND CONTORMANCE WITH THE NORTH CAROLINAL REDUCTINAL AND MECHANICAL CODE. INSTALLATIONS OF MECHANICAL APPLIANCES, EQUIPMENT AND SYSTEMS NOT ADDRESSED BY THIS CODE SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF THE NORTH CAROLINA RESIDENTIAL AND FUEL GAS 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 LEAST ONE THERMOSTAT PER DWELLING UNIT SHALL BE CAPABLE OF CONTROLLING THE HEATING AND COOLING SYSTEM ON A DAILY SCHEDULE TO MAINTAIN DIFFERENT THMERATURE 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 DEG. F (15 C) OR UP TO 85 DEG. F (29 C).
- ALL DUCTWORK SHALL CONFORM TO THE REQUIREMENTS OF THE 5.
- COMBUSTION AIR SHALL BE PROVIDED FOR FORCED AIR UNITS IN ACCORDANCE WITH N.C.-R
- CONTRACTOR TO PROVIDE BOOT IN DUCTWORK WHEN OPTIONAL "HONEYWELL" OR "CARRIER" ELECTRONIC AIR CLEANER IS PROVIDED
- DUCTS IN THE GARAGE AND DUCTS PENETRATING THE WALLS OR CEILINGS SEPARATING THE DVELLING FROM THE GARAGE SHALL B CONSTRUCTED OF A MINIMUM NO. 26 GAGE SHEET STEEL OR OTHER APPROVED MATERIAL AND SHALL HAVE NO OPENINGS INTO THE CARACE PER NC -
- EXTERIOR-GRADE INSTALLATIONS, EQUIPMENT AND APPLIANCES INSTALLED ABOVE GRADE LEVEL SHALL BE SUPPORTED ON A SOLID BASE OR APPROVED MATERIAL A MINIMM OF 2 INCHES THICK.
- UNDER-FLOOR INSTALLATION. SUSPENDED EQUIPMENT SHALL BE A MINIMUM OF 6 INCHES ABOVE THE ADJOINING GRADE.
- CRANL SPACE SUPPORTS. IN A CRAWL SPACE, A MINIMUM OF 2-INCH THICK SOLID BASE, 2-INCH (SI MM) THICK FORMED CONCRETE, OR STACKED MASONRY UNITS HELD IN PLACE BY MORTAR OR OTHER APPROVED METHOD, THE WATER HEATER SHALL BE SUPPORTED NOT LESS THAN 2 INCHES ABOVE GRADE.
- DRAINAGE. BELOW-GRADE INSTALLATIONS SHALL BE PROVIDED WITH A NATURAL DRAIN OR AN AUTOMATIC LIFT OR SUMP PUMP. FOR PIT REGUIREMENTS REFERE TO NC.-W12.

#### VENTING

- IN LIEU OF REQUIRED EXTERIOR OPENINGS FOR NATURAL VENTILATION IN BATHROOMS CONTAINING A BATHTUB, SHOWER OR COMBINATION IN BATHROUND CUMTAINING A BATHID, SHORE OR COMBINITION THEREOF, A DECLANICAL VENTILATION SYSTEM MAY BE PROVIDED. THE MINIMM VENTILATION RATES SHALL BE SO CFM FOR INTERMITTENT VENTILATION OR 20 CFM FOR CONTINUOS VENTILATION. VENTILATION AIR FROM THE SPACE SHALL BE EXHAUSTED DIRECTLY TO THE OUTSIDE PER NO.-R
- EXHAUST DUCTS SHALL TERMINATE OUTSIDE THE BUILDING AND SHALL BE EQUIPPED WITH BACKDRAFT DAMPERS. 2.
- RANGE HOODS SHALL DISCHARGE TO THE OUTDOORS THROUGH A DUCT. THE DUCT SERVING THE HOOD SHALL HAVE A SMOOTH INTERIOR SURFACE SHALL BE AIR TIGHT, SHALL BE EQUIPPED WITH A BACK-DRAFT DAMPER AND SHALL BE INDEPENDENT OF ALL OTHER EXHAUST SYSTEMS, DUCTS SERVING RANGE HOODS SHALL NOT TERMINATE IN AN ATTIC OR CRAML SPACE OR AREAS INSIDE THE BUILDING. DUCTS SERVING RANGE HOODS SHALL BE CONSTRUCTED OF GALVANIZED STEEL, STAINLESS STEEL OR COPPER.
- 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 SCHEDULE 40 PVC PIPE PROVIDED THAT THE INSTALLATION COMPLIES WITH ALL OF THE FOLLOWING PER N.C.-M.
- A. 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 I INCH ABOVE THE INDOOR CONCRETE FLOOR SURFACE. С.
- D. THE PVC DUCT SHALL EXTEND NOT GREATER THAN I 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 MACEUP AIR AT A RATE APPROXIMATELY EQUAL TO THE EXHAUST AIR RATE THAT IS IN EXCESS OF 400 CHBIC FEET PER MINUTE. SUCH MAKEUP AIR SYSTEMS SHALL BE EQUIPPED WITH A MEANS OF CLOSURE AND SHALL BE AUTOMATICALLY CONTROLLED TO START AND OPERATE SIMULTANEDUSLY WITH THE EXHAUST SYSTEM. DAMPERS SHALL BE ACCESSIBLE FOR INSPECTION, SERVICE, REPAIR AND REPLACEMENT WITHOUT REMOVING PERMANENT CONSTRUCTION
- DOMESTIC WATER HEATERS, UNLESS SPECIFIED OTHERWISE BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, SHALL BE VENTED 1 THE OUTSIDE AIR BY A TYPE 'B' VENT AND COMPLY WITH THE REGUIREMENTS OF THE N.C.-M

#### PLUMBING

- A POTABLE WATER SUPPLY SYSTEM SHALL BE DESIGNED, INSTALLED AND MAINTAINED IN SUCH A MANNER SO AS TO PREVENT AND FINITUATION FROM NONPOTABLE IN UP TREVENT CONTAMINATION FROM NONPOTABLE INJUS SOLIDS OR GASES BEING INTRODUCED INTO THE POTABLE WATER SUPPLY THROUGH CROSS-CONNECTIONS OR ANY OTHER PIPING CONNECTIONS TO THE SYSTEM. BACKFLOW PRE- VENTER APPLICATIONS SHALL CONFORM TO
- 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 AII218J.

# MECHANICAL &

#### PLUMBING (continued) PLUMBING (continued

- ALL DEVICES, APPURTENANCES, APPLIANCES AND APPARATUS INTENDED ALL DEVICES, APPLIANCES, APPLIANCES AND APPARATUS INTENDE TO SERVE SOME SPECIAL FUNCTION, SUCH AS STERLIZATION, DISTL-LATION, PROCESSING, COOLING, OR STORAGE OF ICE OR FOODS, AND THAT CONNECT TO THE WATER SUPPLY SYSTEM, SHALL BE PROVIDED WITH PROTECTION AGAINST BACKFLOW AND CONTAMINATION OF THE WATER SUPPLY SYSTEM, WATER FUMPS, FILTERS, SOFTENERS, TANKS 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, FAUCETS AND DIVERTERS SHALL BE CONNECTED TO THE WATER DISTRIBUTION SYSTEM SO THAT HOT WATER CORRESPONDS TO THE LEFT SIDE OF THE FITTINGS.
- DIVERTERS FOR SINK FAUCETS WITH A SECONDARY OUTLET CONSISTING OF A FLEXIBLE HOSE AND SPRAY ASSEMBLY SHALL CONFORM TO ASTM AII2.18.1 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 MATER DISTRIBUTION PIPE SHALL BE PROHIBITED IN SOL AND GROUND WATER THAT IS CONTAMINATED. GROUND MATER CONDITIONS SHALL BE REGURED TO ACERTAIN THE ACCEPTABILITY OF THE WATER SERVICE OR NATER 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.-PLIMBING. WATER DISTRIBUTION PIPE AND TUBING SHALL HAVE A MINIMUM PRESSURE RATING OF IOO PSI AT 160 DEGREES F.
- PIPE PASSING THROUGH CONCRETE OR CINDER WALLS AND ELOORS OR OTHER 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.
- PIPES PASSING UNDER OR THROUGH WALLS SHALL BE PROTECTED FROM PHYSICAL DAMAGE PER NC-R.
- PIPING SHALL BE INSTALLED SO AS TO PREVENT DETRIMENTAL STRAINS AND STREESES IN THE PIPE. PROVISIONS SHALL BE MADE TO PROTECT PIPING FROM DAMAGE RESULTING FROM EXPANSION, CONTRACTION AND STRUCTURAL SETTLEMENT. PIPING SHALL BE INSTALLED TO AVOID STRUCTURAL STREESES OR STRAINS WITHIN BUILDING COMPORENTS.
- WATER PIPES INSTALLED IN A WALL EXPOSED TO THE EXTERIOR SHALL BE LOCATED ON THE HEATED SIDE OF THE WALL INSULATION. IN OTHER CASES, WATER, SOIL AND WASTE PIPES SHALL NOT BE INSTALLED OUTSIDE OF A BUILDING, IN WACHOITIONED ATTICS, UNCONDITIONED 12. UTILITY ROOMS OR IN ANY OTHER PLACE SUBJECTED TO FREEZING UTILITY ROOMS OR IN ANY OTHER PLACE SUBJECTED TO FREEZING TEMPERATURES UNLESS ADEQUATE REVISION IS MADE TO PROTECT SUCH PIPES FROM FREEZING BY A MINIMUM OF R-65 INSULATION DETERMINED AT 15 DEG, F IN ACCORDANCE WITH ASTM CITT OR HEAT OR BOTH. EXTERIOR WATER SUPPLY SYSTEM PIPING SHALL BE INSTALLED NOT LESS THAN 6 INCHES BELOW THE FROST LINE AND NOT LESS THAN 12 INCHES BELOW GRADE.

- BUILDING SEWER PIPE SHALL CONFORM TO ONE OF THE STANDARDS 13.
- BUILDING SEVER 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 15 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 SEVERS 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.-R.
- INDIVIDUAL SHOWER AND TUB/SHOWER COMBINATION VALVES SHALL BE EQUIPPED WITH CONTROL VALVES OF THE PRESSURE-BALANCE. THERMOSTATIC-MIXING OR COMBINATION PRESSURE-BALANCE/ THERMOSTATIC-MIXING VALVE TYPES WITH A HIGH LIMIT STOP IN ACCORDANCE MITH ASSE IOI6/ ASME AIL210/6/CAS BIZSI6. AND SHALL BE INSTALLED AND ADJISTED PER MANUFACTURE'S INSTRUCTIONS.
- GAS AND ELECTRIC WATER HEATERS HAVING AN IGNITION SOURCE SHALL BE ELEVATED SUCH THAT THE SOURCE OF IGNITION IS NOT LESS THAN 18 INCHES ABOVE THE GARAGE FLOOR. REFER TO N.C.-R FOR EXCEPTION.
- 20. WATER HEATERS, (USING SOLID, LIQUID OR GAS FUEL) WITH THE EXCEPTION WATER 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. HOWEVER, NATER HEATERS OF THE AUTOMATIC STORAGE TYPE MAY BE INSTALLED AS REPLACEMENT IN A BATHROOM, WHEN APPROVED BY THE PLUMBING OFFICIAL, PROVIDED THEY ARE VENTED AND SUPPLIED WITH ADEQUATE COMBUSTION AIR.
- IN SEISMIC DESIGN CATEGORIES DO, DI AND D2 AND TOWNHOUSES IN SEISMIC DESIGN CATEGORY C, WATER HEATERS SHALL BE ANCHORED OR STRAPPED IN THE UPPER ONE-THIRD AND IN THE LOWER ONE-THIRD OF THE APPLIANCE TO RESIST A HORIZONTAL FORCE EQUAL TO ONE-THIRD OF THE OPERATING NEIGHT OF THE WATER HEATER, ACTING IN ANY HORIZONTAL DIRECTION, OR IN ACCORDANCE WITH THE APPLIANCE MANUFACTURER'S RECOMMENDATIONS
- 22. APPLIANCES LOCATED IN A GARAGE OR CARPORT SHALL BE PRO-TECTED FROM IMPACT BY A MOVING VEHICLE.
- 23 WHERE WATER HEATERS OR HOT WATER STORAGE TANKS ARE INSTALLED IN-REMOTE LOCATIONS SUCH AS SUSPENDED CEILING, ATTICS, ABOVE OCCUPIED SPACES, OR UNVENTILATED CRAWL SPACES, A LOCATION WHERE WATER LEAKAGE FROM THE TANK WILL CAUSE DAMAGE TO PRIMARY STRUCTURAL MEMBERS, THE TANK OR WATER HEATER SHALL BE INSTALLED IN A GALVANIZED STEEL PAN HAVING A MINIMUM THICKNESS OF 24 GAGE, OR OTHER PANS APPROVED FOR SUCH USE.
- WHERE CLOTHES WASHING MACHINES ARE LOCATED ON WOOD FRAMED FLOORS WHERE LEAKAGE WOULD CAUSE DAMAGE, A GALVANIZED STEEL PAN HAVING A MINIMM THICKNESS OF 24 GAGE, OR OTHER PANS APPROVED FOR SUCH USE SHALL BE PROVIDED. 24.

# MECHANICAL &

#### PLUMBING (continued) PLUMBING (continued

- 25. APPLIANCES AND EQUIPMENT USED FOR HEATING WATER OR STORING HOT WATER SHALL BE PROTECTED BUT A SEPARATE PRESSURE-RELIEF VALVE AND A SEPARATE TEMPERATURE- RELIEF VALVE OR A COMBINATION PRESSURE-AND-TEMPERATURE RELIEF VALVE OR A COMBINATION MINIMUM RATED CAPACITY FOR THE EQUIPMENT SERVED AND HALL CONFORM TO ANSI 221.22. THE RELIEF VALVE SHALL NOT BE USED AS A MEANS OF CONTROLLING THERMAL EXPANSION.
- THE WATER SUPPLY TO A DISHWASHER SHALL BE PROTECTED AGAINST BACKFLOW BY AN AIR GAP COMPLYING WITH ASME AII2.1.5 OR AII2.1.2 THAT IS INSTALLED INTEGRALLY WITHIN THE MACHINE OR A BACKFLOW PREVENTER IN ACCORDANCE WITH THE NC-R.
- SINK AND DISHWASHER. THE COMBINED DISCHARGE FROM A DISHWASHER AND A ONE- OR TWO-COMPARTMENT SINK, WITH OR WITHOUT A FOOD-WASTE DISPOSER, SHALL BE SERVED BY A TRAP OF NOT LESS THAN II/2 INCHES (30 MM) IN OUTSIDE DIAMETER. THE DISHWASHER DISCHARGE PIPE OR TUBING SHALL RISE TO THE WIDERSIDE OF THE COUNTER AND SHALL BE SECURELY FASTENED TO THE WIDERSIDE OF THE SINK RIM OR COUNTER BEFORE CONNECTING TO THE WIDERSIDE OF THE SINK RIM OR COUNTER BEFORE CONNECTING TO THE WIDERSIDE OF THE SINK RIM OR CONTER DEFORE CONNECTING TO THE WIDERSIDE OF THE SINK RIM OR CONTER DEFORE CONNECTING THE HEAD OF THE FOOD-WASTE DISPOSER OR TO A WTE FITTING IN THE SINK TAILPIECE. 27.

#### FIREPLACES

- FACTORY-BUILT FIREPLACES SHALL BE LISTED AND LABELED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE CONDITIONS OF LISTING. FACTORY-BUILT FIREPLACES SHALL BE TESTED IN ACCORDANCE WITH UL 127.
- 2. 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
- ALL ELECTRICAL SYSTEMS, CIRCUITS, FIXTURES AND EQUIPMENT SHALL BE GROUNDED IN A MANNER COMPLYING WITH ARTICLE 250 OF THE 2. NATIONAL ELECTRICAL CODE.
- ALL WIRING SHALL BE SO INSTALLED THAT, WHEN COMPLETED, THE SYSTEM WILL BE FREE FROM SHORT CIRCUITS AND FROM OROUNDS OTHER THAN AS REQUIRED OR PERMITTED IN N.E.C. ARTICLE 250. З.
- ELECTRIC EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORK-
- ALL 125-VOLT, SINGLE-PHASE, IS- AND 20-AMPERE RECEPTACLES INSTALLED IN THE LOCATIONS SPECIFIED BELOW SHALL HAVE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL. THE GROUND-FAULT CIRCUIT-INTERRUPTER SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION.
- A. BATHROOMS.
- GARAGES AND ALSO ACCESSORY BUILDINGS THAT HAVE A FLOOR LOCATED AT OR BELON GRADE LEVEL NOT INTENDED AS HABITABLE ROOMS AND LIMITED TO STORAGE AREAS, WORK AREAS, AND AREAS OF SIMILAR USE. В.
- OUTDOORS C.
- CRAWL SPACES. WHERE THE CRAWL SPACE IS AT OR BELOW GRADE LEVEL. D.
- UNFINISHED PORTIONS OR AREAS OF THE BASEMENT NOT INTENDED AS HABITABLE ROOMS. E.
- KITCHENS. WHERE THE RECEPTACLES ARE INSTALLED TO SERVE THE COUNTERTOP SUBFACES
- SINKS. WHERE RECEPTACLES ARE INSTALLED WITHIN 6 FT FROM THE TOP INSIDE EDGE OF THE BOWL OF THE SINK.
- BOAT HOUSES.
- BATHTUBS OR SHOWER STALLS WHERE RECEPTACLES ARE INSTALLED WITHIN  $6^{\circ}$  OF the outside edge of the bathtub or shower stall.
- J. LAUNDRY AREAS
- DISHWASHER GFCI PROTECTION IS NOT REQUIRED FOR OUTLETS THAT SUPPLY DISHWASHERS INSTALLED IN DWELLING UNIT LOCATIONS.
- CRAWL SPACE LIGHTING OUTLETS. GFCI PROTECTION SHALL BE PROVIDED FOR LIGHTING OUTLETS NOT EXCEEDING 120 VOLTS INSTALLED IN CRAWL SPACES.
- APPLIANCE RECEPTACLE OUTLETS INSTALLED IN A DWELLING UNIT FOR SPECIFIC APPLIANCES, SUCH AS LAUNDRY EQUIPMENT, SHALL BE INSTALLED WITHIN 6 FEET OF THE INTENDED LOCATION OF THE APPLIANCE.
- IN EVERY KITCHEN, FAMILY ROOM, DINING ROOM, LIVING ROOM IN EVEN KINDERAFY, DEN BURROCH, BURNE ROOT, LEVIN RECREATION ROOM, OR SIMILAR ROOM OR AREA OF DVELLING WINTS, RECREATION OUTLETS SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAN & FEEL MEASURED HORIZONTALLY, FROM AN OUTLET IN THAT SPACE, FIELDING ANY HORIZONTALLT, FROM AN COLLET IN THAT SPACE, INCLUDING ANT WALL SPACE 2 FEET OR MORE IN WIDTH (INCLUDING SPACE MEASURED AROUND CORNERS) AND UNBROKEN ALONG THE FLOOR LINE BY DOORWAYS AND SIMILAR OPENINGS, FIREPLACES, AND LINE BY DOORNAYS AND SIMILAR OPENINGS, FIREPLACES, AND FIXED CABINETS, AND THE WALL SPACE OCCUPIED BY FIXED PANELS IN EXTERIOR WALLS, BUT EXCLUDING SLIDING PANELS IN EXTERIOR WALLS, THE WALL SPACE AFFORDED BY FIXED ROOM DIVIDERS, SUCH AS FREESTANDING BAR-TYPE COUNTERS OR RALINGS, SHALL BE INCLIDED IN THE 6 FOOT MEASUREMENT.
- IN THE KITCHEN PANTRY BREAKEAST ROOM DINING ROOM OR SIMILAR IN THE KITCHEN, PANINT, BREAKFAST ROOM, JUNING ROOM, OK SIMIL AREA OF A DWELLING UNIT, THE TWO OR MORE 20-AMPERE SMALL-APPLIANCE BRANCH CIRCUITS REQUIRED SHALL SERVE ALL WALL AND FLOOR RECEPTACLE OUTLETS, ALL COUNTERTOP OUTLETS, AND RECEPTACLE OUTLETS FOR REFRIGERATION EQUIPMENT MORE SMALL-APPLIANCE BRANCH CIRCUITS SHALL HAVE NO OTHER OUTLETS.
- IN KITCHENS, PANTRIES, BREAKFAST ROOMS, DINING ROOMS AND SIMILAR AREAS OF DWELLING UNITS, RECEPTACLE OUTLETS FOR COUNTER SPACES SHALL BE INSTALLED IN ACCORDANCE WITH TH FOLLONING: 10.
  - A RECEPTACLE OUTLET SHALL BE INSTALLED AT EACH WALL COUNTER SPACE I2 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.

# ELECTRICAL (continued)

- (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 FENNSULAR COUNTER SPACE WITH A LONG DINENSION OF 24 INCHES OR GREATER AND A SHORT DIMENSION OF 12 INCHES OR GREATER. A PENNSULAR COUNTERTOP IS MEASURED FROM CONNECTING FERFENDICULAR WALL. (3)
- CONTERTOP SPACES SEPARATED BY RANGE TOPS, REFRIGER-ATORS, OR SINKS SHALL BE CONSIDERED AS SEPARATE COUNTER-TOP SPACES IN APPLYING THE REQUIREMENTS OF (I), (2), AND (5) ABOVE. IF A RANGE COUNTER-CONNED COOKING WIT, OR SINK IS INSTALLED IN AN ISLAND OR PENINSULAR COUNTERTOP AND THE DEPTH OF THE CONTER BEHIND THE ITEM IS LESS THEN IS INCHES. IT WILL BE CONSIDERED TO DIVIDE THE COUNTERTOP SPACE INTO NO SEPARATE COUNTERTOP SPACES. EACH COUNTERTOP SPACE SHALL COMPLY WITH APPLICABLE REQUIREMENTS. (4)
- RECEPTACLE OUTLETS SHALL BE LOCATED NOT MORE THAN 20 INCHES ABOVE THE COUNTERTOP, RECEPTACLE OUTLETS RENDERED NOT READLY ACCESSIBLE BY APPLIANCES FASTENED IN PLACE, APPLIANCE GARAGES, SINKS, OR RAINEETOPS AS COVERED IN 4) ABOVE, OR APPLIANCES OCCUPYING DEDICATED SPACE SHALL NOT BE CONSIDERED AS THESE REQUIRED OUTLETS. (5)
- 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 PARITITION THAT IS ADJACENT TO THE BASIN OR BASIN CONTENTOP, OR INSTALLED ON THE SIDE OR FACE OF THE BASIN CABINET NOT MORE HAN 12" BELOW THE COUNTERTOP
- 12. IN DWELLING UNITS, AT LEAST ONE RECEPTACLE OUTLET SHALL BE INSTALLED IN AREAS DESIGNATED FOR THE INSTALLATION OF LAUNDRY EQUIPMENT
- IN EACH ATTACHED GARAGE AND IN EACH DETACHED GARAGE WITH 13 IN EACH ATTACHED GARAGE AND IN EACH DETACHED GARAGE WITH ELECTRIC POORER, THE BRANCH CIRCUITS UPPLYING THIS RECEPTACLE(S) SHALL NOT SUPPLY OUTLETS OUTSIDE OF THE GARAGE. AT LEAST ONE RECEPTACLE OUTLET SHALL BE INSTALLED IN EACH VEHICLE BAY.
- CABLE- OR RACEWAY-TYPE WIRING METHODS INSTALLED IN A GROOVE, TO BE COVERED BY MALLBOARD, SIDING, PANELING, CARPETING, OR SIMILAR FINISH, SHALL BE PROTECTED BY //GI NCH THICK STEL. PLATE, SLEEVE, OR EQUIVALENT OR BY NOT LESS THAN I-1/4 INCH FREE SPACE FOR THE FULL LENGTH OF THE GROOVE IN WHICH THE CABLE OR RACEW. IS INSTALLED.
- RECEPTACLES IN DAMP OR WET LOCATIONS.

20.

21.

2

UNIQUE COMBIN

SMOKE DETECTORS

- A RECEPTACLE INSTALLED OUTDOORS IN A LOCATION PROTECTED FROM WEATHER OR IN OTHER DAMP LOCATIONS SHALL HAVE AN ENCLOSURE FOR THE RECEPTACLE THAT IS WEATHERPROOF WHEN THE RECEPTACLE (S COVERED, (ATTACHMENT PLUS CAP NOT INSERTED AND RECEPTACLE COVERS (LOSED)
- ALL 15- AND 20- AMPERE, 125- AND 250-VOLT RECEPTACLES INSTALLED IN A WET LOCATION SHALL HAVE AN ENCLOSURE THAT IS WEATHER PROOF WHETHER OR NOT THE ATTACHMENT PLUG CAP IS INSERTED. AN OUTLET BOX HOOD INSTALLED FOR THIS PURPOSE SHALL BE LISTED AND SHALL BE IDENTIFIED AS "EXTRA DUTY". ALL IS- AND 20- AMPERE, 125- AND 250-VOLT NONLOCKING RECEPTACLES SHALL BE LISTED WEATHER RESISTANT TYPE. в.
- LIGHTING EQUIPMENT. NOT LESS THAN 75 PERCENT OF THE PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL CONTAIN ONLY HIGH-EFFICACY

BUILDINGS SHALL BE PROVIDED WITH APPROVED ADDRESS IDENTIFICATION, THE ADDRESS IDENTIFICATION SHALL BE LEGIBLE AND PLACED IN A POSITION THAT IS VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY.

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 52' ABOVE THE FLOOR

4. NON-GROUNDING RECEPTACLES USED FOR REPLACEMENTS.

DIMMER-CONTROLLED RECEPTACLES. A RECEPTACLE SUPPLYING LIGHTING LOADS SHALL NOT BE CONNECTED TO A DIMMER UNLESS THE PLUS/RECEPTACLE COMBINATION IS A NONSTANDARD CONFIGURATION TYPE THAT IS SPECIFICALLY LISTED AND IDENTIFIED FOR EACH SUCH WITH THE SUPPLICIFICALLY LISTED AND IDENTIFIED FOR EACH SUCH

SMOKE DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED MANUFACTURER'S INSTRUCTIONS AND NC-R R314 ALL SMOKE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 217 AND INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THIS CODE AND TH HOUSEHOLD FIRE WARNING EQUIPMENT PROVISIONS OF INFRA 72.

REQUIRED SMOKE DETECTORS SHALL BE LOCATED IN ACCORDANCE

HOUSEHOLD FIRE ALARM SYSTEMS INSTALLED IN ACCORDANCE WITH NFPA T2 THAT INCLUDE SHORE ALARMS, OR A COMBINATION OF SHORE DETECTOR AND AUDILE NOTIFICATION DEVICE INSTALLED AS REQUIRED BY THE NC-R RSI4.3 FOR SHORE ALARMS, SHALL BE FERMITTED. THE HOUSEHOLD FIRE ALARM SYSTEM SHALL FROVIDE THE SAME LEVEL OF SHORE DETECTION AND ALARM AS REQUIRED BY THE NC-R FOR SHORE ALARMS IN THE EVENT THE FIRE ALARM PANEL IS REMOVED OR THE SYSTEM IS NOT CONNECTED TO A CENTRAL STATION.

THIS CODE AND THE

2. RECEPTACLES THAT ARE PART OF A LUMINAIRE OR APPLIANCE

3. A SINGLE RECEPTACLE OR A DUPLEX RECEPTACLE FOR TWO APPLIANCES LOCATED NITHIN DEDICATED SPACE FOR EACH APPLIANCE THAT, IN NORMAL USE, IS NOT EASILY MOVED FROM ONE PLACE TO ANOTHER, AND THAT IS CORD-AND-PLUG CONVECTED.

IGHT FIXTURES WITHIN CLOTHES CLOSETS SHALL BE INSTALLED IN NCE WITH N.E.C ALL 120-VOLT, SINGLE PHASE, 15- AND 20-AMPERE BRANCH CIRCUITS SUPPLYING OUTLETS OR DEVICES INSTALLED IN DWELLING WIT FAMILY ROOMS, DINING ROOMS, INVING ROOMS, DRALFORS, LIBRARES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLMAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY AN ARC-FAULT CIRCUIT INTERRIPTER(S), COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT. THE ARC-FAULT CIRCUIT INTERRIPTER SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION.

# ELECTRICAL (continued)

#### CARBON MONOXIDE ALARMS

CARBON MONOXIDE ALARMS IN DWELLING UNITS SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS, WHERE A FUEL-BURNING APPLIANCE IS LOCATED WITHIN A BEDROOM OR ITS ATTACHED BATHROOM, A CARBON MONOXIDE ALARM SHALL BE INSTALLED WITHIN THE BEDROOM.

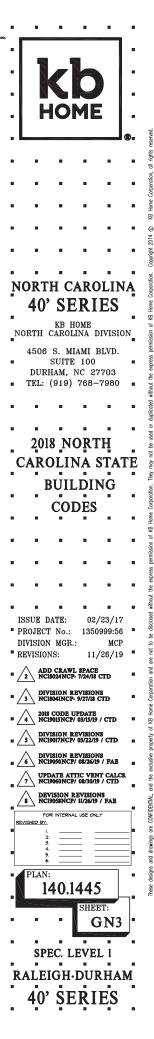
SINGLE STATION CARBON MONOXIDE ALARMS SHALL BE LISTED AS COMPLYING MITH UL 2034 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE NC-R R315 AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

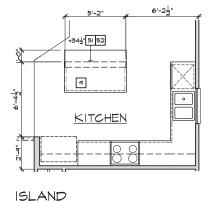
COMBINATION CARBON MONOXIDE AND SMOKE ALARMS SHALL BE PERMITTED TO BE USED IN LIEU OF INDIVIDUAL CARBON MONOXIDE OR SMOKE ALARMS.

#### DRYER VENT

2.

THE DRYER DUCT IS REQUIRED TO IDENTIFY THE LENGTH IN ACCORDANCE WITH SECTION MI502.4.5



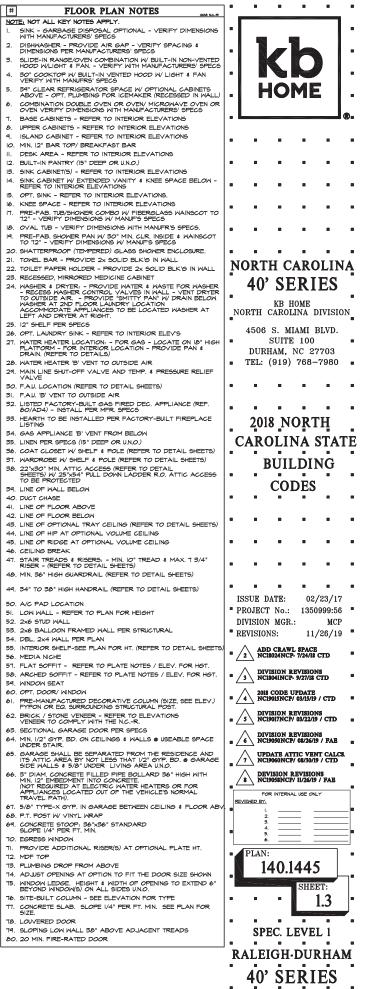


AT KITCHEN

## FLOOR PLAN OPTIONS

SCALE: 1/4"=1'-0" (22"x34") - 1/8"=1'-0" (11"x17")

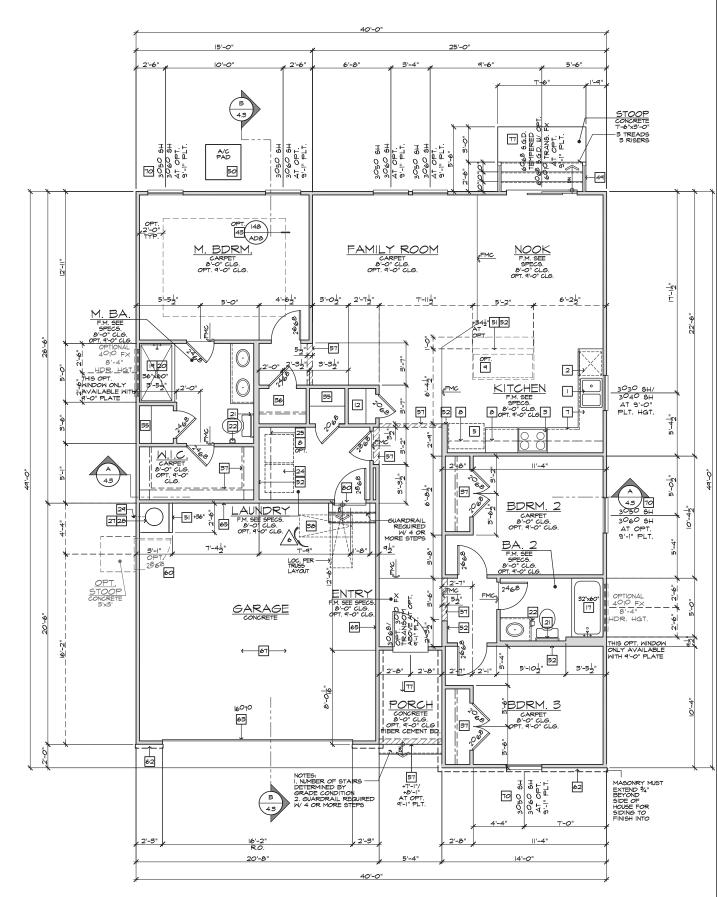
BASIC PLAN



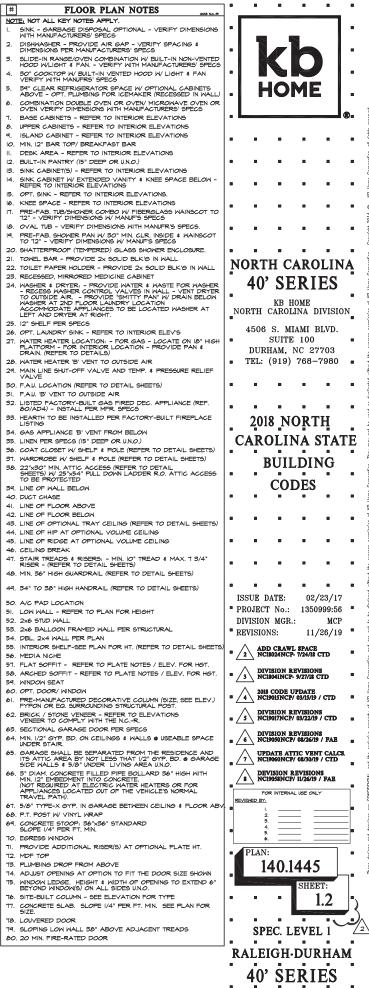


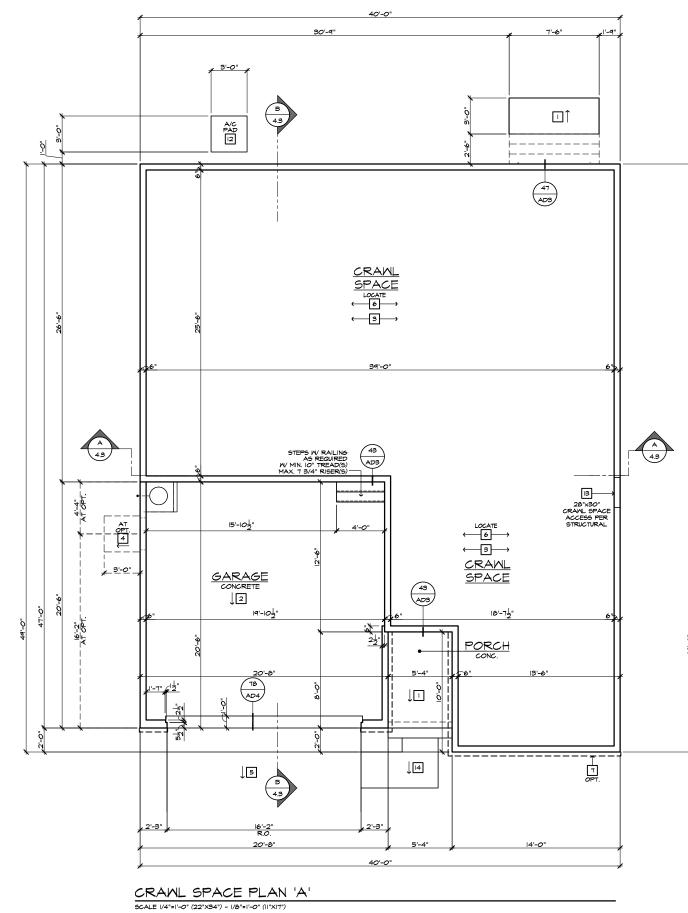
SQUARE FOOT	AGE	
PLAN 140.144	5	
	1445	
*	1445	SQ. FT.
	420	SQ. FT.
ELEVATION 'A'	43	SQ. FT.
ELEVATION 'B'	43	SQ. FT.
ELEVATION 'C'	49	SQ. FT.
ELEVATION 'D'	49	SQ. FT.
COVERED	100	SQ. FT.
EXT. COVD.	210	SQ. FT.
DECK	144	SQ. FT.
EXT. DECK	288	SQ. FT.
PLATE NOT	ES	2018 N.GR
NDOW HDR. HEIGHT: HEIGHT: 55 DOOR HEIGHT: FIT HEIGHT: 78 HEIGHT:	7'-0" U.N.O. 6'-8" U.N.O. 6'-8" (TEMP.) 7'-4" U.N.O. 7" RISE INTO 6'-8" U.N.O.	TRUSS U.N.O.
ER HEIGHT 2nd FL:	7'-8" U.N.O. 8'-4" U.N.O. 6'-8" U.N.O. 6'-8" (TEMP.) 8'-0" U.N.O.	TRUSS U.N.O.
	PLAN 140,144           PLAN 140,144           ELEVATION 'B'           ELEVATION 'B'           ELEVATION 'B'           ELEVATION 'C'           ELEVATION 'D'           COVERED           EXT. COVD.           DECK           EXT. DECK           PLATE NOT           B'-I" 'PLATE N           EXT. DECK           BLOW HOR, HEIGHT, HEIGHT, HEIGHT, 'B', 'L', 'D', 'L', 'D', 'L', 'D', 'L', 'L	I445           420           ELEVATION 'A'           43           ELEVATION 'B'           43           ELEVATION 'C'           49           ELEVATION 'D'           49           COVERED           DECK           EXT. DECK           200           PECK           B'-1" 'PLATE NOTES           8'-1" 'PLATE NOTES           8'-0" UNO.           6'-8' UNO.           7'-1" 'PLATE NOTES           8'-0" UNO.           6'-8' UNO.           7'-1" 'PLATE NOTES           8'-0" UNO.           6'-8' UNO. <td< td=""></td<>

STAIR DATA NOTES	2018 N.CR
FIRST FLOOR WITH \$'I" PLATE HEIGHT: I4" DEEP T.J.I. FLOOR JOISTS WITH 3/4" T&G DECKING. I4 TREADS AT 10" EACH I5 RISERS AT 7-7/16" EACH	
FIRST FLOOR WITH 9-1" PLATE HRIGHT: 14" DEEP T.J.I. FLOOR JOISTS WITH 3/4" T&G DECKING. 15 TREADS AT 10" EACH 16 RISERS AT 1-3/4" EACH	
GENERAL PLAN NOTES	2018 N.GR
ALL CEILING HEIGHTS PER SECTION AND ELEVATION PLA HEIGHTS, U.N.O.	TE
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-F (REFER TO PLAN FOR SIZE).	RATED
ALL ENTRY DOORS AND EXTERIOR FRENCH DOORS TO B SOLID CORE   3/4" THICK (REFER TO PLAN FOR SIZE).	E
ALL FLOOR MATERIAL CHANGES TO OCCUR AT CENTER ( DOOR JAMES, U.N.O.	OF

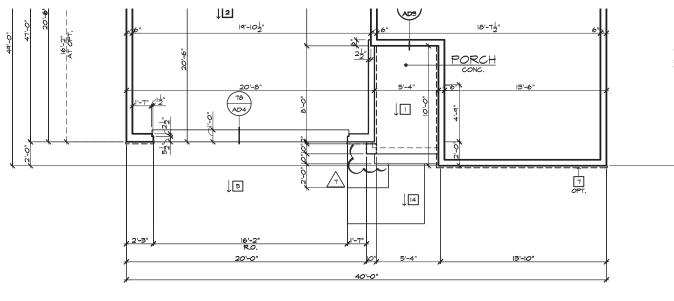


FIRST FLOOR PLAN 'A' W/ CRAWL SPACE





FOUNDATION PLAN NOTES           MOTE: NOT ALL KEY NOTES APPLY.	
I. CONCRETE PATIO/PORCH SLAB PER STRUCTURAL- SLOPE	• •
2. CONCRETE GARAGE SLAB PER STRUCTURAL- SLOPE 1/8" PER. I'-0" MIN. TOMARD DOOR OPENING.	
3. FOUNDATION PER STRUCTURAL.	
4. STAIR LANDING: 36"x36" MIN. 5. CONCRETE DRIVEWAY SLOPE I/4" PER FT. MIN. AWAY	
FROM GARAGE DOOR OPENING. 6. PROVIDE UNDER FLOOR VENTILATION	I HOME I
7. 4" TOE KICK FOR MASONRY VENEER.	
<ol> <li>B) DIAMETER CONCRETE FILLED PIPE BOLLARD 36" HIGH WITH MIN. 12" EMBEDMENT INTO CONCRETE.</li> </ol>	. <b></b> *.
<ol> <li>REFER TO CIVIL DRAWINGS FOR ALL FINISH SURFACE ELEVATIONS.</li> </ol>	
IO. VERIFY LOCATION OF PIER FOOTINGS PER STRUCTURAL	
II. 4" MIN. 7 3/4" MAX. TO HARD SURFACE. 12. A/C PAD. VERIFY LOCATION.	
3. CRAWL SPACE ACCESS	
4. 36" WIDE WALKWAY- SLOPE 1/4" PER FT. MIN.	
IDER FLOOR VENTING AREA IDER FLOOR AREA SHALL COMPLY WITH NORC 2018	
IDER FLOOR AREA CALCULATION = 1445 50. FT. / 150 9.64 50. FT.	
EQUIRED AREA X 144 = 1367 50. IN. ENTILATION PROVIDED:	
ENTILATION PROVIDED; {} FOUNDATION VENTS IO5 SQ. IN.= 1470 SQ. IN.	NORTH CAROLINA
DTE: CRANLSPACE VENT TO BE LOCATED WITHIN 5'-O" OF THE CORNER OF E STEM WALL	40' SERIES
	KB HOME
7	4518 S. MIAMI BLVD.
	4518 S. MIAMI BLVD. SUITE 180
	DURHAM, NC 27703
	B TEL: (919) 768-7988 B
	FAX: (919) 472-0582
	CAROLINA STATE
	CODES
	ISSUE DATE: 02/23/17 PROJECT No. 1350009.56
	ISSUE DATE: 02/23/17
	I MOJECI MU 1550555.50
	DIVISION MGR.: MCP
	Join Revisions       Nciao4incp. 9/27/18 CTD
	E 4 2018 CODE UPDATE NCI90ISNCP/ 03/15/19 / CTD
	DIVISION REVISIONS     NCISSINCE 9/2//18 CTD     A     NCISSINCE/ SJ/2//18 CTD     A     NCISSINCE/ SJ/2//19 / CTD     A     DIVISION REVISIONS     NCISSINCE/ SJ/22/19 / CTD     A
	DIVISION REVISIONS
	M Constant of the servisions of the servisions of the servision servisions of the servisions of the servision servision servisions of the servision servision servisions of the servision servision servision servisions of the servision servision servision servisions of the servision servision servision servision servision servision servisions of the servision servisi servision servision servision servision servisi servision servisi
	$\frac{\sqrt{7}}{\sqrt{1-100}} 1000000000000000000000000000000000000$
	8 NC19658NCP/ 11/26/19 / FAE
	yentilation NC20010NCP 01/23/20 / CL
	9         NC20000NCP 01/23/20 / CL           FOR INTERNAL USE ONLY           1           2           3           4           5           6           PLAN:
	<u>REVIENED BY:</u> <b>B</b> 1. 2. <b>B B B B B B B B B B</b>
	2 9 4
	<b>6 1</b>
	PLAN: 140.1445
	140.1445
	SDECLEVEL 1
	RALEIGH-DURHAM
	40' SERIES

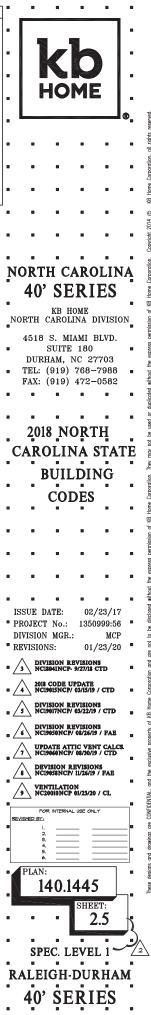


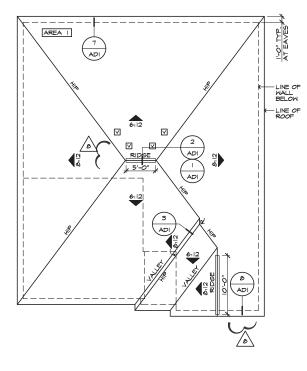
PARTIAL CRAWL SPACE PLAN 'C'

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

#	FOUNDATION PLAN NOTES	]	
NC	TE: NOT ALL KEY NOTES APPLY.		
١.	CONCRETE PATIO/PORCH SLAB PER STRUCTURAL- SLOPE I/4" PER FT. MIN.	8	
2.	CONCRETE GARAGE SLAB PER STRUCTURAL- SLOPE 1/8" PER. 1'-0" MIN. TOWARD DOOR OPENING.	8	
з.	FOUNDATION PER STRUCTURAL.		
4.	STAIR LANDING: 36"x36" MIN.		
5.	CONCRETE DRIVEWAY SLOPE 1/4" PER FT. MIN. AWAY FROM GARAGE DOOR OPENING.	-	
6.	PROVIDE UNDER FLOOR VENTILATION		
7.	4" TOE KICK FOR MASONRY VENEER.		
8.	3" DIAMETER CONCRETE FILLED PIPE BOLLARD 36" HIGH WITH MIN, 12" EMBEDMENT INTO CONCRETE.	• '	
٩.	REFER TO CIVIL DRAWINGS FOR ALL FINISH SURFACE ELEVATIONS.		
10.	VERIFY LOCATION OF PIER FOOTINGS PER STRUCTURAL		_
п.	4" MIN. 7 3/4" MAX. TO HARD SURFACE.		8
12.	A/C PAD. VERIFY LOCATION.		
13.	CRAML SPACE ACCESS		

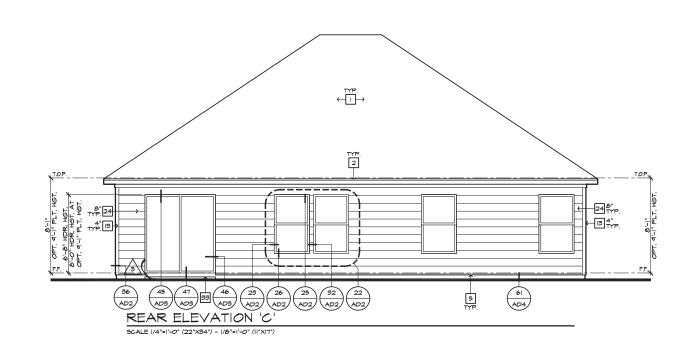
14. 36" WIDE WALKWAY- SLOPE 1/4" PER FT. MIN.

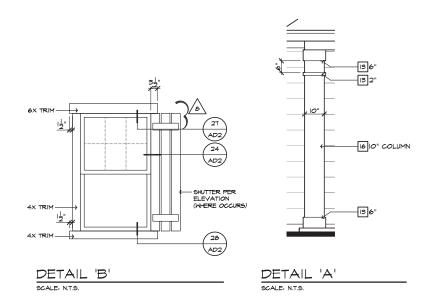


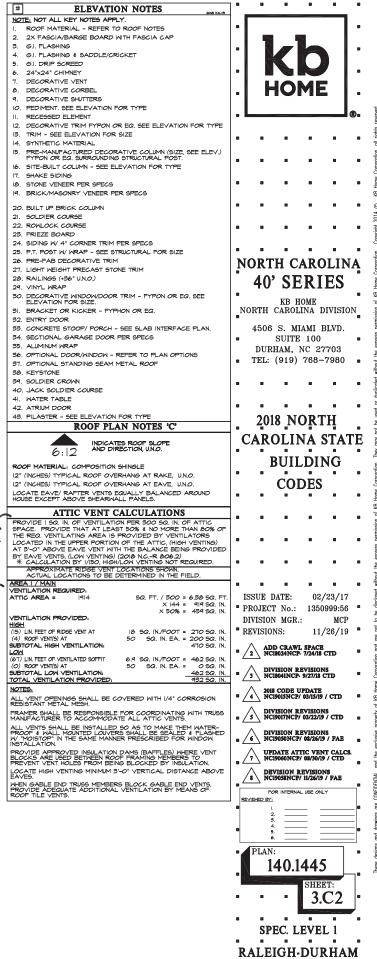




SCALE 1/8"=1'-0" (22"×34") - 1/16"=1'-0" (11"×17")



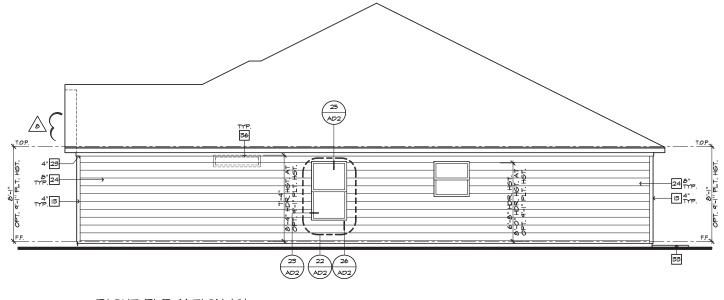




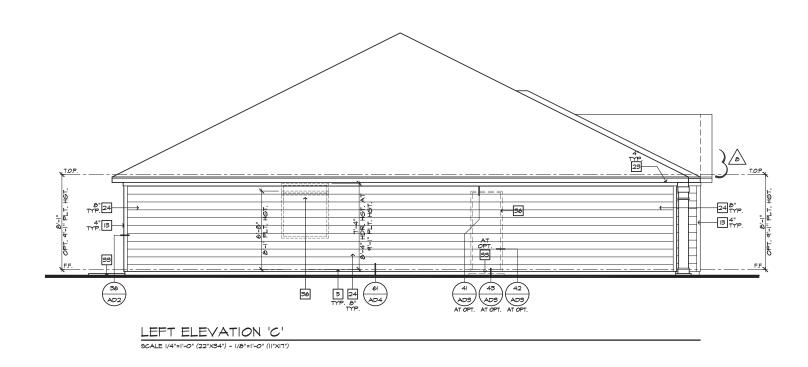
40' SERIES

.

. . . .

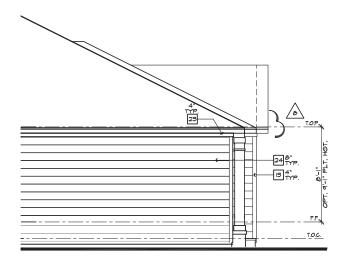


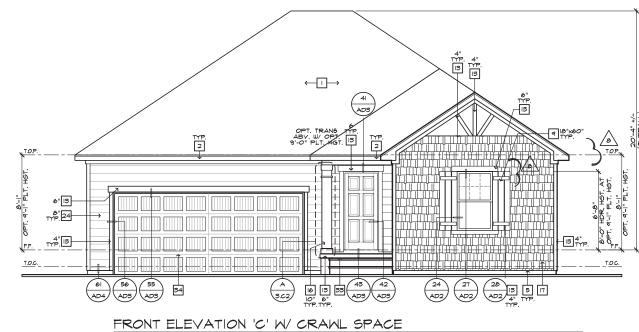
 $\frac{\mathsf{RIGHT} \mathsf{ELEVATION} \mathsf{^{1}C^{1}}}{\mathsf{scale} \mathsf{^{1}/4^{*}=1^{1}-0^{\circ}} (22^{\circ}\mathsf{x34^{\circ}}) - \mathsf{^{1}/8^{\circ}=1^{1}-0^{\circ}} (\mathsf{II^{\circ}\mathsf{x}IT^{\circ}})}$ 



<b>ELEVATION NOTES</b>	
NOTE: NOT ALL KEY NOTES APPLY. I. ROOF MATERIAL - REFER TO ROOF NOTES	
2. 2X FASCIA/BARGE BOARD WITH FASCIA CAP	
3. G.I. FLASHING 4. G.I. FLASHING & SADDLE/CRICKET	
5. G.I. DRIP SCREED	
6. 24"x24" CHIMNEY 7. DECORATIVE VENT	
8. DECORATIVE CORBEL	I.I HOME I.
9. DECORATIVE SHUTTERS 10. PEDIMENT, SEE ELEVATION FOR TYPE	
II. RECESSED ELEMENT	• <b>•</b> ••••••••••••••••••••••••••••••••••
12. DECORATIVE TRIM FYPON OR EQ. SEE ELEVATION FOR TYPE 13. TRIM - SEE ELEVATION FOR SIZE	
14. SYNTHETIC MATERIAL	
15. PRE-MANUFACTURED DECORATIVE COLUMN (SIZE, SEE ELEV.) FYPON OR EQ. SURROUNDING STRUCTURAL POST.	
16. SITE-BUILT COLUMN - SEE ELEVATION FOR TYPE	
17. SHAKE SIDING 18. STONE VENEER PER SPECS	
19. 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	NORTH CAROLINA
27. LIGHT WEIGHT PRECAST STONE TRIM	
28. RAILINGS (+36" U.N.O.) 29. VINYL WRAP	40' SERIES
30. DECORATIVE WINDOW/DOOR TRIM - FYPON OR EQ. SEE ELEVATION FOR SIZE.	KB HOME
31. BRACKET OR KICKER - FYPHON OR EQ.	NORTH CAROLINA DIVISION
32. ENTRY DOOR 33. CONCRETE STOOP/ PORCH - SEE SLAB INTERFACE PLAN.	4506 S. MIAMI BLVD.
34. SECTIONAL GARAGE DOOR PER SPECS	SUITE 100
35. ALUMINUM WRAP	DURHAM, NC 27703
36. OPTIONAL DOOR/WINDOW - REFER TO PLAN OPTIONS 37. OPTIONAL STANDING SEAM METAL ROOF	■ TEL: (919) 768-7980 ■
38. KEYSTONE	
39. SOLDIER CROWN 40. JACK SOLDIER COURSE	
4I. WATER TABLE	
42. ATRIUM DOOR 43. PILASTER - SEE ELEVATION FOR TYPE	JAIR NORTH
	2018 NORTH
	CAROLINA STATE
	BUILDING
	CODES
	ISSUE DATE: 02/23/17
	PROJECT No.: 1350999:56
	DIVISION MGR.: MCP
	REVISIONS: 11/26/19
	ADD CRAWL SPACE
	i
	DIVISION REVISIONS NCI804INCP- 9/27/18 CTD
	• <u>/4</u> NC19015NCP/ 03/15/19 / CTD •
	DIVISION REVISIONS DIVISION REVISIONS NC19017NCP/ 03/22/19 / CTD
	DIVISION REVISIONS NC19050NCP/ 08/26/19 / FAE
	T UPDATE ATTIC VENT CALCS. NCI9060NCP/ 08/30/19 / CTD
	* NCI9038NCP/ 11/26/19 / FAE
	FOR INTERNAL USE ONLY REVIEWED BY
	8 1 8
	2 5
	8         4.          8           5.           8           6.           8
	PLAN:
	140.1445
	SHEET:
	• • • • 3.C3 •

spec. level 1 Raleigh-durham 40' SERIES



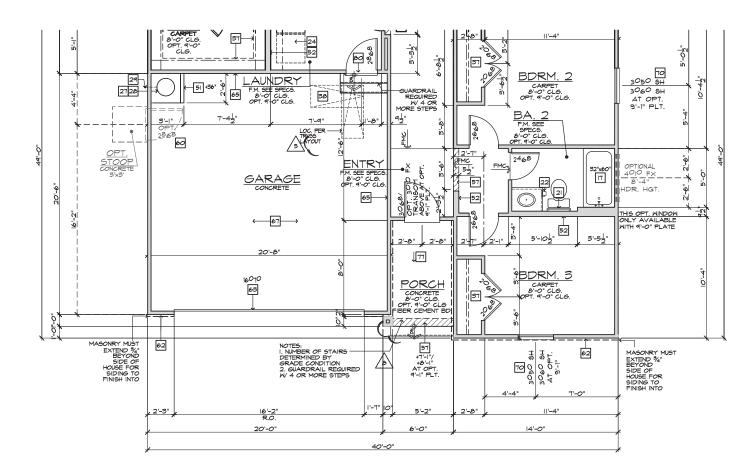


 PARTIAL

 LEFT ELEVATION 'C' AT CRAWL SPACE

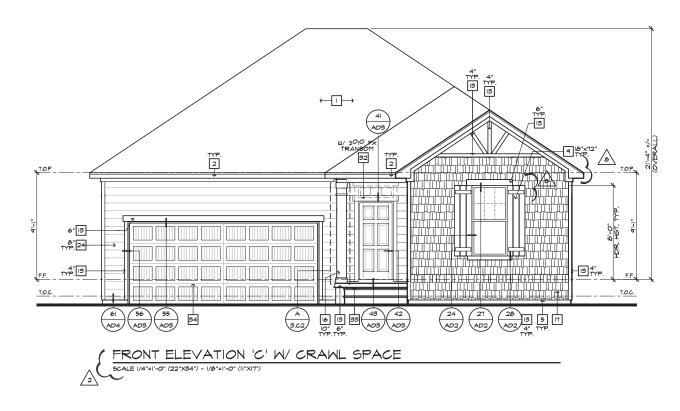
 Scale 1/4\*=1-0\* (22\*X34\*) - 1/8\*=1-0\* (11\*X1\*)

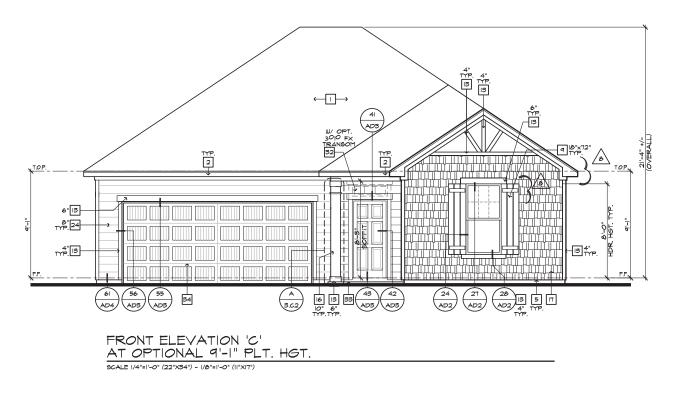
SCALE I/4"=I'-0" (22"X34") - I/8"=I'-0" (II"XI7")



PARTIAL FIRST FLOOR PLAN 'C' AT CRAWL SPACE

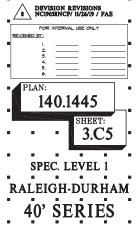
#	ELEVATION NOTES	8 8 8 8 8 8
<u>NOT</u> I.	<u>E:</u> NOT ALL KEY NOTES APPLY. ROOF MATERIAL - REFER TO ROOF NOTES	
2. 3.	2X FASCIA/BARGE BOARD WITH FASCIA CAP G.I. FLASHING	
4.	G.I. FLASHING & SADDLE/CRICKET	
5. 6.	G.I. DRIP SCREED 24"x24" CHIMNEY	
7.	DECORATIVE VENT	HOME
8. 9.	DECORATIVE CORBEL DECORATIVE SHUTTERS	
0.	PEDIMENT. SEE ELEVATION FOR TYPE RECESSED ELEMENT	
2.	DECORATIVE TRIM FYPON OR EQ. SEE ELEVATION FOR TYPE	
3. 4.	TRIM - SEE ELEVATION FOR SIZE SYNTHETIC MATERIAL	
5.	PRE-MANUFACTURED DECORATIVE COLUMN (SIZE, SEE ELEV.) FYPON OR EQ. SURROUNDING STRUCTURAL POST.	
6.	SITE-BUILT COLUMN - SEE ELEVATION FOR TYPE	
7. 8.	SHAKE SIDING STONE VENEER PER SPECS	
9.	BRICK/MASONRY VENEER PER SPECS	
	BUILT UP BRICK COLUMN SOLDIER COURSE	
	ROWLOCK COURSE	
	FRIEZE BOARD SIDING W/ 4" CORNER TRIM PER SPECS	
	P.T. POST W/ WRAP - SEE STRUCTURAL FOR SIZE PRE-FAB DECORATIVE TRIM	
27.	LIGHT WEIGHT PRECAST STONE TRIM	NORTH CAROLINA
	RAILINGS (+36" U.N.O.) VINYL WRAP	40' SERIES
	DECORATIVE WINDOW/DOOR TRIM - FYPON OR EQ. SEE ELEVATION FOR SIZE.	KB HOME
	BRACKET OR KICKER - FYPHON OR EQ.	NORTH CAROLINA DIVISION
	ENTRY DOOR CONCRETE STOOP/ PORCH - SEE SLAB INTERFACE PLAN.	4506 S. MIAMI BLVD.
	SECTIONAL GARAGE DOOR PER SPECS ALUMINUM WRAP	• SUITE 100 •
36.	OPTIONAL DOOR/WINDOW - REFER TO PLAN OPTIONS	DURHAM, NC 27703 TEL: (919) 768-7980
	OPTIONAL STANDING SEAM METAL ROOF KEYSTONE	B TEL: (919) 708-7980 B
	SOLDIER CROWN	
	JACK SOLDIER COURSE WATER TABLE	
	ATRIUM DOOR PILASTER - SEE ELEVATION FOR TYPE	
#	PARTIAL PLAN NOTES	2018 NORTH
NOT 27.	E. NOT ALL KEY NOTES ARRIY	CAROLINA STATE
28.	WATER HEATER LOCATION: - FOR GAS - LOCATE ON 18" HIGH PLATFORM - FOR INTERIOR LOCATION - PROVIDE PAN & DRAIN, (REFER TO DETALS) WATER HEATER 'B' VENT TO OUTSIDE AIR	BUILDING
29. 29.		BUILDING
59. 41. 42.	VALVE LINE OF MALL BELON LINE OF FLOOR ABOUNT LINE OF THOR BEOCH LINE OF THOR AREACT AND FLOOR ATTORNAL (REFER TO DETAIL SHEETS) XIC PAD LICK ATION LOW MALL F. REFER TO PLAN FOR HEIGHT	CODES
48. 50. 51.	MIN, 36" HIGH GUARDRAIL (REFER TO DETAIL SHEETS) A/C PAD LOCATION LOW WALL - REFER TO PLAN FOR HEIGHT	
52. 54.	2x6 STUD WALL DBL. 2x4 WALL PER PLAN	
55. 57. 58.	INTERIOR SHELF - REFER TO PLAN FOR HEIGHT FLAT SOFFIT ARCHED SOFFIT	
60. 61.	OPT. DOOR/ WINDOW PRE-MANUEACTURED DECORATIVE COLUMN (SIZE SEE ELEV.)	
62. 63.	FYPON OR EQ. SURROUNDING STRUCTURAL POST. BRICK / STONE VENEER - REFER TO ELEVATIONS	
66.	SECTIONAL GARAGE DOOR PER SPECS 3" DIAM. CONCRETE FILLED PIPE BOLLARD 36" HIGH WITH MIN. 12" EMBEDMENT INTO CONCRETE. (NOT REQUIRED AT ELECTRIC WATER HEATERS OR FOR	
	APPLIANCES LOCATED OUT OF THE VEHICLE'S NORMAL	
68. 70.	TRAVEL PATH). P.T. POST M/ VINYL WRAP. EGRESS MINDOW	ISSUE DATE: 02/23/17
75.	MINDOA LEDGE, HEIGHT & MIDTH OF OPENING TO EXTEND 6" BEYOND WINDOW(S) ON ALL SIDES U.N.O. SITE-DUIL COLLWN - SEE ELEVATION FOR TYPE	PROJECT No.: 1350999:56
16. 11.	SITE-BUILT COLUMN - SEE ELEVATION FOR TYPE CONCRETE SLAB. SLOPE I/4" PER FT. MIN. SEE PLAN FOR SIZE.	DIVISION MGR.: MCP REVISIONS: 11/26/19
	-02L	, ,
		ADD CRAWL SPACE NCI8024NCP- 7/24/18 CTD
		DIVISION REVISIONS NCISO4INCP- 9/27/18 CTD
		2018 CODE UPDATE     NC19015NCP/ 03/15/19 / CTD
		DIVISION REVISIONS NCI9017NCP/ 03/22/19 / CTD
		△ DIVISION REVISIONS
		MC19050NCP/ 04/26/19 / FAE
		7 UPDATE ATTIC VENT CALCS. NCI9060NCP/ 08/30/19 / CTD
		* NC19058NCP/ 11/26/19 / FAE
		FOR INTERNAL USE ONLY REVIEWED BY:
		3 4 5 6
		<u>6.                                    </u>
		PLAN:
		140.1445
		SHEET:
		· · · 3.C4
		5
N~~	<b>F</b> .	SPEC LEVEL $1 \sim /2$
REF	EL ER TO BASIC <u>ELEVATIONS</u> FOR INFORMATION NOT WN HERE	SPEC. LEVEL 1 $\sim \frac{1}{2}$
NOT REF SHC	EL ER TO BASIC ELEVATIONS FOR INFORMATION NOT WN HERE	$\begin{bmatrix} SPEC. LEVEL 1 & 22 \\ RALEIGH-DURHAM \end{bmatrix}$
NOT		





#	ELEVATION NOTES	] • _	8	•			
	ALL KEY NOTES APPLY.						
	MATERIAL - REFER TO ROOF NOTES			_	_		
	SCIA/BARGE BOARD WITH FASCIA CAP				$\sim$		
			$\sim$				
	ASHING & SADDLE/CRICKET						
	RIP SCREED 4" CHIMNEY		$\sim$			7	
	RATIVE VENT		_			_	
	RATIVE CORBEL		-	10	ME		
	RATIVE SHUTTERS						
	ENT. SEE ELEVATION FOR TYPE						
	SED ELEMENT						Ø
12. DECOR	RATIVE TRIM FYPON OR EQ. SEE ELEVATION FOR TYPE						
13. TRIM -	SEE ELEVATION FOR SIZE						
14. SYNTH	ETIC MATERIAL	-	-	-	-	-	
15. PRE-M	IANUFACTURED DECORATIVE COLUMN (SIZE, SEE ELEV.)						
	I OR EQ. SURROUNDING STRUCTURAL POST. WILT COLUMN - SEE ELEVATION FOR TYPE						
	SIDING						
	VENEER PER SPECS		8				
	MASONRY VENEER PER SPECS						
			-	-	-	-	
	UP BRICK COLUMN	<b>ا</b> ا	-	-	-	-	
	ER COURSE						
	OCK COURSE		8				
23. FRIEZE							
	9 W/4" CORNER TRIM PER SPECS DST W/WRAP - SEE STRUCTURAL FOR SIZE		8				
	AB DECORATIVE TRIM	<b>.</b>	0.0.0		ADO	T T	τ 4
	WEIGHT PRECAST STONE TRIM	NI	υκι	H C	АКС	ILIN	( A
	155 (+36" U.N.O.)		10	' SE	т	DC	
29. VINYL			4U	- SE	r vi	E2	
30. DECO	RATIVE WINDOW/DOOR TRIM - FYPON OR EQ. SEE						
ELEVA	TION FOR SIZE.		10077	KB H		117707	
	KET OR KICKER - FYPHON OR EQ.		JKLH	CAROL	JINA L	nvisio	JN
32. ENTRY		۱ <sup>۲</sup>	4500	C 10	*****		
	RETE STOOP/ PORCH - SEE SLAB INTERFACE PLAN.		4006	S. M		SLVD.	
34. SECTIO 35. ALUMII	ONAL GARAGE DOOR PER SPECS			SUITE			
	NM MRAP NAL DOOR/WINDOW - REFER TO PLAN OPTIONS			HAM,			
	NAL DOOR/WINDOW - REFER TO PLAN OFTIONS NAL STANDING SEAM METAL ROOF		TEL:	(919)	768-	7980	
38. KEYST				,			
	ER CROWN		-				
	SOLDIER COURSE	1	-	-	-	-	
41. WATER							
42. ATRIU	1 DOOR		8			8	
43. PILAS	TER - SEE ELEVATION FOR TYPE	J	201	8 N	ORT	н	
		8				-	
		C	'A R	OLII	VA (	ST 47	T1
			× 11		. 4 2 3. k		≛.
		-	· •		יית		
				BUII	ווע.	NG.	
			8				
				COI	DES		
		-	-	-	-	-	
		-	-	-	-	-	
		8	8	8			
		-	_	-	-	-	
		IS	SSUE I	DATE:	02/	/23/17	
		■ Pl	ROJEC	Г No.:	1350	9999:56	
				MGR.		MCP	
			EVISIO			MCF /26/19	
		• _	2 AD NC	D CRAWI 18024NCP	L SPACE	стр	
		• _		ISION R	EVISION 9/27/18	IS CTD	
		• _	4 2011 NC	I CODE U 1901SNCP	JPDATE / 03/15/19	/ CTD	
		• _		ISION R	EVISION / 03/22/19	IS / CTD	

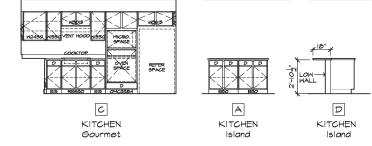
DIVISION REVISIONS NC19050NCP/ 04/26/19 / FAE UPDATE ATTIC VENT CALCS. NCI9060NCP/ 08/30/19 / CTD



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

### OPTIONAL INTERIOR ELEVATIONS

KITCHEN CABINETS



### LAUNDRY AND MISCELLANEOUS CABINETS

LAUNDRY						
Opt.	Upper	\$	Lower			
	Cabin	et	s			

D

HE 56 HE 56

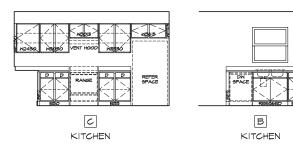
1		
]		
7RY		





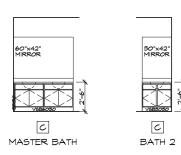
# KITCHEN CABINETS

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



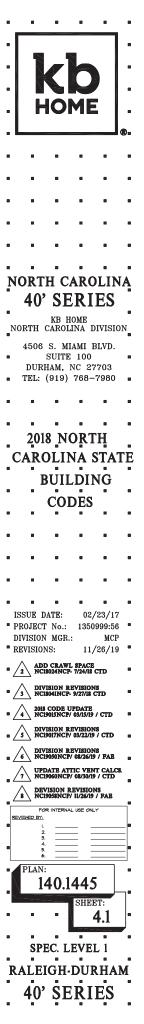
STANDARD INTERIOR ELEVATIONS

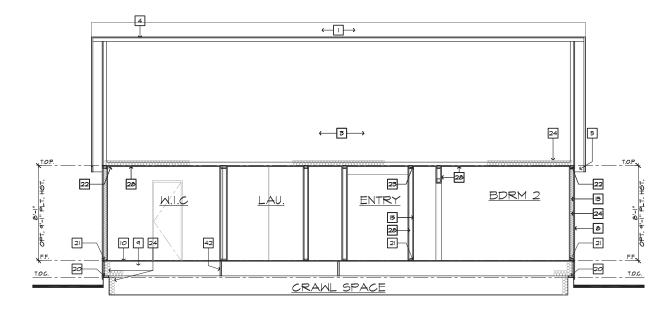
## BATH CABINETS



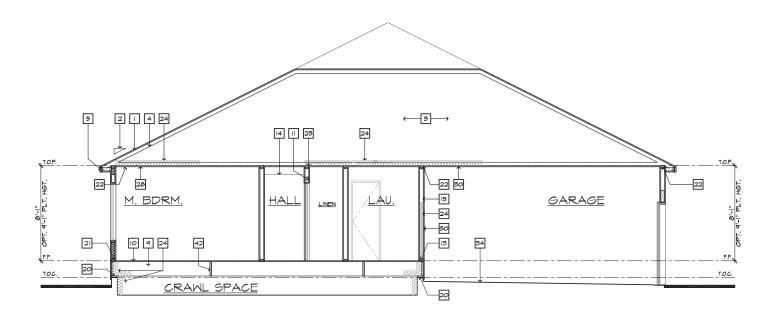
## LAUNDRY AND MISCELLANEOUS CABINETS



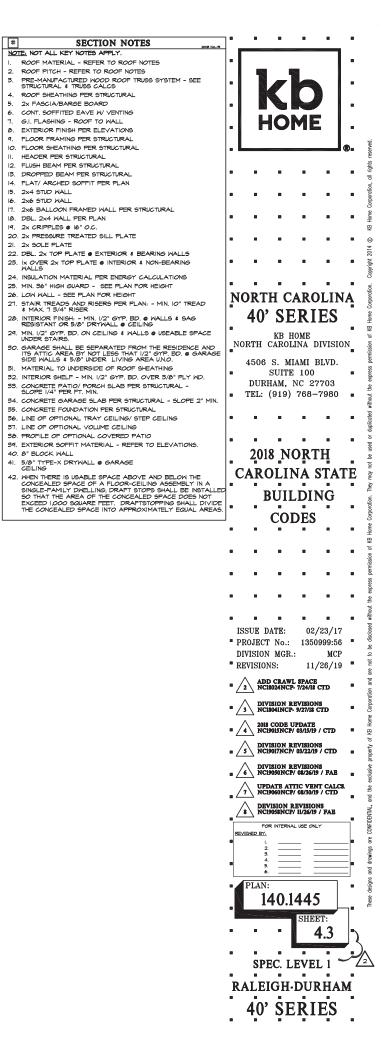


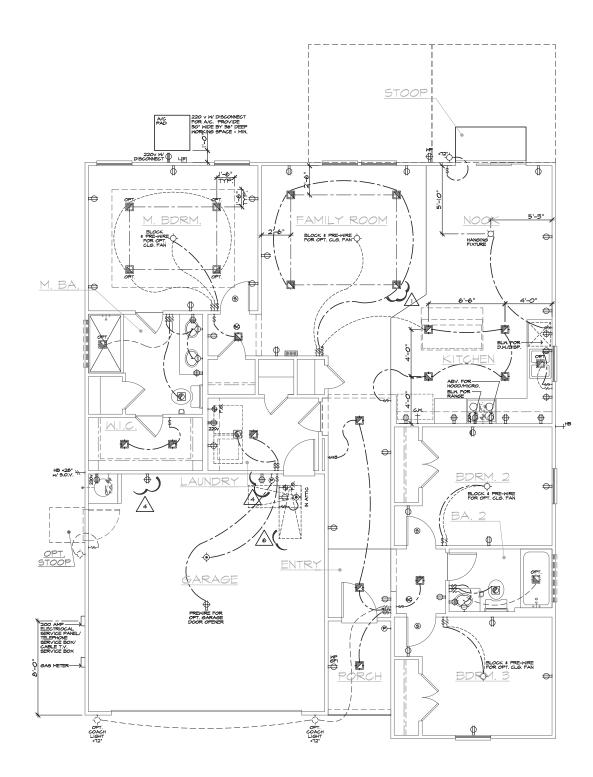








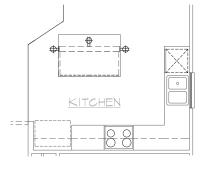




UTILITY PLAN SCALE 1/4"=1'-0" (22"X34") - 1/8"=1'-0" (11"X17")

\*

	UTILITY LEGEND 200 NG-87 2011 NEG	] •	8	•		
÷	120Y DUPLEX CONVENIENCE RECEPTACLE ARC FAULT(AFCI) AND TAMPER RESISTANT(TR) 12° ABV. FIN. FLR. TYPICAL U.N.O.	-				
it⊕ wp ofi it⊕ wp	IZOV (TR) RECEPTACLE W GFI CIRCUIT W/ WATER RESISTANT HOUSING					
r⊖ e=i	120V (TR) RECEPTACLE W GFI CIRCUIT					
₽ ₽	FUSED DISCONNECT					8
Θ	1207 (AFCI & TR) RECESSED FLOOR RECEPTACLE W/ COVER	8	Ň		ME	8
⇔	1207 (AFCI & TR) DUPLEX CONVENIENCE RECEPTACLE SWITCH CONTROLLED, 1/2 HOT	. L				<b>®</b> .
<b>II</b> 220 v	2207 SINGLE CONVENIENCE RECEPTACLE HEIGHT NOTED AS PER PLAN					
÷	TWO-POLE LIGHT SWITCH AT 42" ABV. FIN. FLR. 8" ABOVE COUNTER U.N.O.	-	-	-		-
HOP 5	THREE-POLE LIGHT SWITCH			•		
н∽-4 нÓ-м. <b>Р</b> .	FOUR-POLE LIGHT SWITCH WALL MOUNTED LIGHT FIXTURE	•	8	•		
, 	W WATER RESISTANT HOUSING WALL MOUNTED INCANDESCENT					
	LIGHT FIXTURE WALL MOUNTED FLUORESCENT LIGHT FIXTURE		_	_		_
-φ-	CEILING MOUNTED INCANDESCENT	•				•
↓ ⊕	LIGHT FIXTURE CEILING MOUNTED FLUORESCENT					
	LIGHT FIXTURE HANGING INCANDESCENT				AROLII	NĄ
n.	LIGHT FIXTURE RECESSED INCANDESCENT DIRECTIONAL		40	SE	RIES	-
t⊈t FÖł	RECESSED INCANDESCENT LIGHT FIXTURE		атн	KB H CAROL	OME INA DIVISI	ON
	LIGHTING - TRAVERSE II LED FIXTURE - FER SPECS				AMI BLVD.	
💮 м.р.	RECESSED INCANDESCENT LIGHT FIXTURE W/ WATER RESISTANT HOUSING			SUITE	100	•
Ø	RECESSED FLUORESCENT LIGHT FIXTURE				NC 27703 768-7980	
	RECESSED EXHAUST FAN RECESSED EXHAUST FAN/ INCANDESCENT		-			_
¢ ØØ	LIGHT COMBINATION RECESSED EXHAUST FAN/ FLUORESCENT					
Ð	LIGHT COMBINATION	•				•
Ĵ	ILLUMINATED ADDRESS SIGN - VISIBLE FROM STREET	•			ORTH	
			AR	ULIC	NA STA	TĘ
iooi	24"x48" FLUORESCENT LIGHT BOX (CEILING MOUNTED)		Ī	<b>J</b> ŪIL	.DING	
illi		•	8	COI	DES	•
		•	•			
iei	12"x48" FLUORESCENT LIGHT BOX (CEILING MOUNTED)		8			
i∐i			_			-
©	OPTIONAL PRE-WIRED CEILING FAN AND SMITCH - LOCATED IN CENTER OF ROOM U.N.O.	-		-		
0	CEILING MOUNTED JUNCTION BOX	•	•			•
⊢@ ●●●●	WALL MOUNTED JUNCTION BOX	•	8	•	• •	
ΗM	CATV RECEPTACLE		SUE I	DATE: F No.:	02/23/1 1350999:5	
⊢® ⊢∎	PUSH BUTTON PHONE OUTLET			MGR.		-
٦	SERVICE BOX	RE'	VISIO	NS:	11/26/1	9
	HOSE BIB HOSE BIB W/ S.O.V.	• 🛆		D CRAWI 18024NCP	. SPACE 7/24/18 CTD	8
	WATER STUB FOR ICE MAKER	= / <sub>3</sub>		ISION R	EVISIONS 9/27/18 CTD	
9	APPROVED CEILING MOUNTED SMOKE DETECTOR TO BE HARD WIRED WITH BATTERY BACK-UP AND INTERCONNECTED	. /		CODE U	PDATE 03/15/19 / CTD	
8	APPROVED CARBON MONOXIDE ALARM/ SMOKE DET.			ISION R	EVISIONS	-
⊢© ⊢∳	THERMOSTAT (VERIFY LOCATION W HVAC PLAN) GAS TAP	= <u>/</u> 5	V NC	19017NCP/	03/22/19 / CTD	
٠ <del>X</del>	GAS KEY - FIREPLACE GAS VALVES SHALL BE LOCATED OUTSIDE OF REQUIRED HEARTH AREA, BUT NO MORE THAN 48" FROM GAS OUTLET	• <u>6</u>	V NC	19050NCP	EVISIONS / 08/26/19 / FAE	-
				DATE AT	TIC VENT CAL	CS. 8
OP	TCHING FOR 24° MIN, SEPERATION OMS W/ CLG. FAN OF ELECTRICAL BOXES TIONS AS SHOWN BELOW			VISION R	EVISIONS / 11/26/19 / FAE	_
LIGHT / F. ? HOT			FC	R INTERNA	L USE ONLY	
•		•	1. 2		=	=
SECO	<u>NDARY MASTER SARAGE</u>	8		:	=	
	NOTES		PLAN			
I. MECH SHOM ENGI	HANICAL, ELECTRICAL AND PLUMBING SYSTEMS ARE IN FOR INTENT ONLY. THESE SYSTEMS SHALL BE NEERED BY OTHERS, THE CONTRACTOR SHALL BE ONSIBLE FOR PROPER INSTALLATION AND			<b>40.1</b>	445	
PLAC	ONSIBLE FOR PROPER INSTALLATION AND EMENT. ALL HEIGHTS SHOWN ARE TO CENTERLINE IXTURE.				SHEET:	
	/IDE SWITCH, LIGHT, I2OV (AFCI & TR) DUPLEX IPTACLE, & FUEL GAS STUB OR 22OV RECEPTACLE TIC FOR F.A.U PER COMMUNITY SPECIFICATIONS.		•		5.1	
				. 1	8 8	
4 20 F	CE DETECTORS IN ROOMS WITH VOLUME CEILING TO .OCATED AT HIGHEST POINT OF CEILING OOT #4 REBAR FOR UFER GROUND AND		SP:	EC. L	EVEL 1	
ADDI	ITIONAL COLD WATER GROUND. REFER TO SLAB RFACE PLAN FOR LOCATION.	RA	LE	IGH.	DURHA	M
5. 200 PLAN AMPS	AMP ELECTRICAL PANEL (DEFAULT). ELECTRICAL I CHECK PERMIT REQUIRED IF LOAD EXCEED 400 3.	•	40	- SF	RIES	•
-40°0"3		l _ '	τV	- PE	(VIII)	



ISLAND

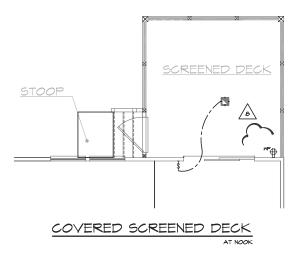
AT KITCHEN

UTILITY PLAN OPTIONS

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

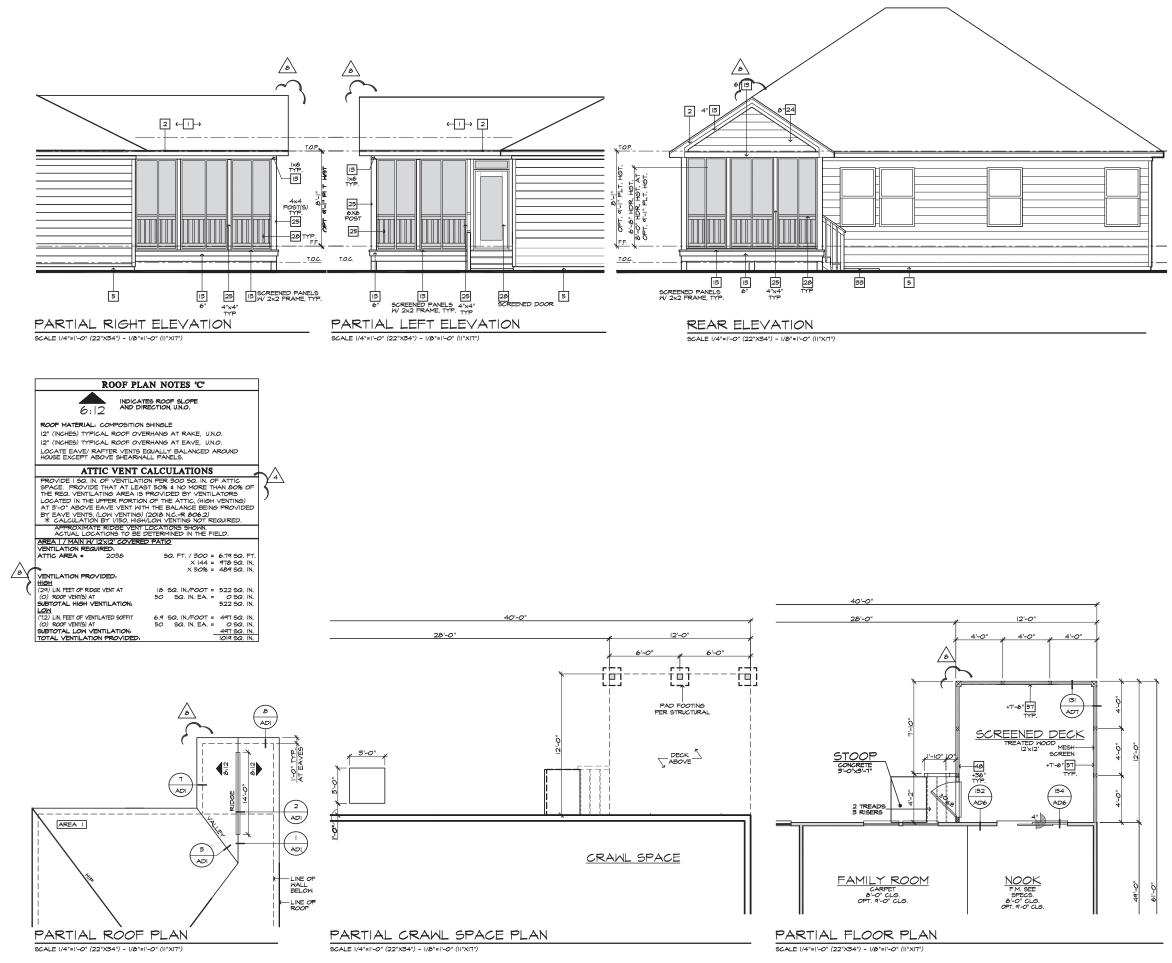
\*

	UTILITY LEGEND	,
÷	120V DUPLEX CONVENIENCE RECEPTACLE	
in de mer ann	ARC FAULT(AFCI) AND TAMPER RESISTANT(TR) 12" ABV, FIN, FLR, TYPICAL U.N.O. 1 120y (TR) RECEPTACLE W GFI CIRCUIT	
i⊕ w₽	W WATER RESISTANT HOUSING	
⊫⊕ eFi	120V (TR) RECEPTACLE W/ GFI CIRCUIT	
₩ ₽	FUSED DISCONNECT	
0	120V (AFCI & TR) RECESSED FLOOR	I. HOME I.
	RECEPTACLE W COVER	
+	SWITCH CONTROLLED, 1/2 HOT	• • • • • • • • • • • • • • • • • • • •
I <b>⊜</b> 220 v	220V SINGLE CONVENIENCE RECEPTACLE HEIGHT NOTED AS PER PLAN	
÷	TWO-POLE LIGHT SWITCH AT 42" ABV. FIN. FLR. $\mathcal{B}^*$ ABOVE COUNTER U.N.O.	
+ <del>€9-</del> 5	THREE-POLE LIGHT SWITCH	
+69-4	FOUR-POLE LIGHT SWITCH	
ю́∙м.р.	WALL MOUNTED LIGHT FIXTURE W/ WATER RESISTANT HOUSING	
ф	WALL MOUNTED INCANDESCENT LIGHT FIXTURE	
н¢-	WALL MOUNTED FLUORESCENT LIGHT FIXTURE	
-0-	CEILING MOUNTED INCANDESCENT	
	LIGHT FIXTURE CEILING MOUNTED FLUORESCENT	
-©-	LIGHT FIXTURE	NORTH CAROLINA
¤	HANGING INCANDESCENT LIGHT FIXTURE	40' SERIES
Ø	RECESSED INCANDESCENT DIRECTIONAL LIGHT FIXTURE (EYE BALL)	
Ø	RECESSED INCANDESCENT LIGHT FIXTURE	KB HOME NORTH CAROLINA DIVISION
Ø	LIGHTING - TRAVERSE II LED FIXTURE - PER SPECS	4506 S. MIAMI BLVD.
(Др. м.р.	RECESSED INCANDESCENT LIGHT FIXTURE W/ WATER RESISTANT HOUSING	<ul> <li>SUITE 100</li> </ul>
Ð	RECESSED FLUORESCENT LIGHT FIXTURE	DURHAM, NC 27703
	RECESSED EXHAUST FAN	∎ TEL: (919) 768-7980 ∎
Ş	RECESSED EXHAUST FAN/ INCANDESCENT LIGHT COMBINATION	
	RECESSED EXHAUST FAN/ FLUORESCENT LIGHT COMBINATION	
D	INCANDESCENT WALL SCONCE	
]	ILLUMINATED ADDRESS SIGN - VISIBLE FROM STREET	2018 NORTH
		CAROLINA STATE
	24"x48" FLUORESCENT LIGHT	BUILDING
ון ווין ווין	BOX (CEILING MOUNTED)	
		CODES
l¦∦i	12"x48" FLUORESCENT LIGHT BOX (CEILING MOUNTED)	
Ð	OPTIONAL PRE-NIRED CEILING FAN AND SWITCH - LOCATED IN CENTER OF ROOM U.N.O.	
нQ	CEILING MOUNTED JUNCTION BOX	
	MALL MOUNTED JUNCTION BOX	
HEV	CATV RECEPTACLE	ISSUE DATE: 02/23/17
⊢®	PUSH BUTTON	PROJECT No.: 1350999:56           DIVISION MGR.:         MCP
<b>⊣</b>   		REVISIONS: 11/26/19
 + нв	SERVICE BOX HOSE BIB	ADD CRAWL SPACE
-# нв	HOSE BIB W/ S.O.V.	2 NCI8024NCP- 7/24/18 CTD
— см	WATER STUB FOR ICE MAKER	B 3 DIVISION REVISIONS NCI804INCP- 9/27/18 CTD
9	APPROVED CEILING MOUNTED SMOKE DETECTOR TO BE HARD WIRED WITH BATTERY BACK-UP AND INTERCONNECTED	2018 CODE UPDATE
⊗	APPROVED CARBON MONOXIDE ALARM/ SMOKE DET.	• <u>4</u> NCI90I5NCP/ 03/15/19 / CTD
⊢®	THERMOSTAT (VERIFY LOCATION W HVAC PLAN)	B S DIVISION REVISIONS NCI9017NCP/ 03/22/19 / CTD B
÷	GAS TAP GAS KEY - FIREPLACE GAS VALVES SHALL BE	DIVISION REVISIONS
١ <del>-X</del>	LOCATED OUTSIDE OF REQUIRED HEARTH AREA, BUT NO MORE THAN 48" FROM GAS OUTLET	
c1.		UPDATE ATTIC VENT CALCS. NCI9060NCP/ 08/30/19 / CTD
RO	IITCHING FOR 24" MIN. SEPERATION DOMS W/ CLG. FAN OF ELECTRICAL BOXES TTIONS AS SHOWN BELOW	/ # \ NCI9058NCP/ 11/26/19 / FAB
LIGHT / F 7 HO	AN LIGHT	
, 10	↑ 1 1 1 2 нот ₩	
_		2 3
SECO	NDARY MASTER GARAGE	8 4 8
	NOTES	PLAN:
I. MEC SHO	HANICAL, ELECTRICAL AND PLUMBING SYSTEMS ARE NN FOR INTENT ONLY. THESE SYSTEMS SHALL BE INEERED BY OTHERS. THE CONTRACTOR SHALL BE PONSIBLE FOR PROPER INSTALLATION AND	140.1445
I PLA	CEMENT. ALL HEIGHTS SHOWN ARE TO CENTERLINE	
OF F	TIXTURE.	SHEET:
2. PRO REC	VIDE SMITCH, LIGHT, I2OV (AFCI & TR) DUPLEX EPTACLE, & FUEL GAS STUB OR 22OV RECEPTACLE TTIC FOR F.A.U PER COMMUNITY SPECIFICATIONS.	3.2
	KE DETECTORS IN ROOMS WITH VOLUME CEILING TO LOCATED AT HIGHEST POINT OF CEILING	
4 201	FOOT #4 REBAR FOR LIFER GROUND AND	SPEC. LEVEL 1
ADD	RFACE PLAN FOR LOCATION.	RALEIGH-DURHAM
5. 200	AMP ELECTRICAL PANEL (DEFAULT). ELECTRICAL N CHECK PERMIT REQUIRED IF LOAD EXCEED 400	
AMP	S.	40' SERIES
-		



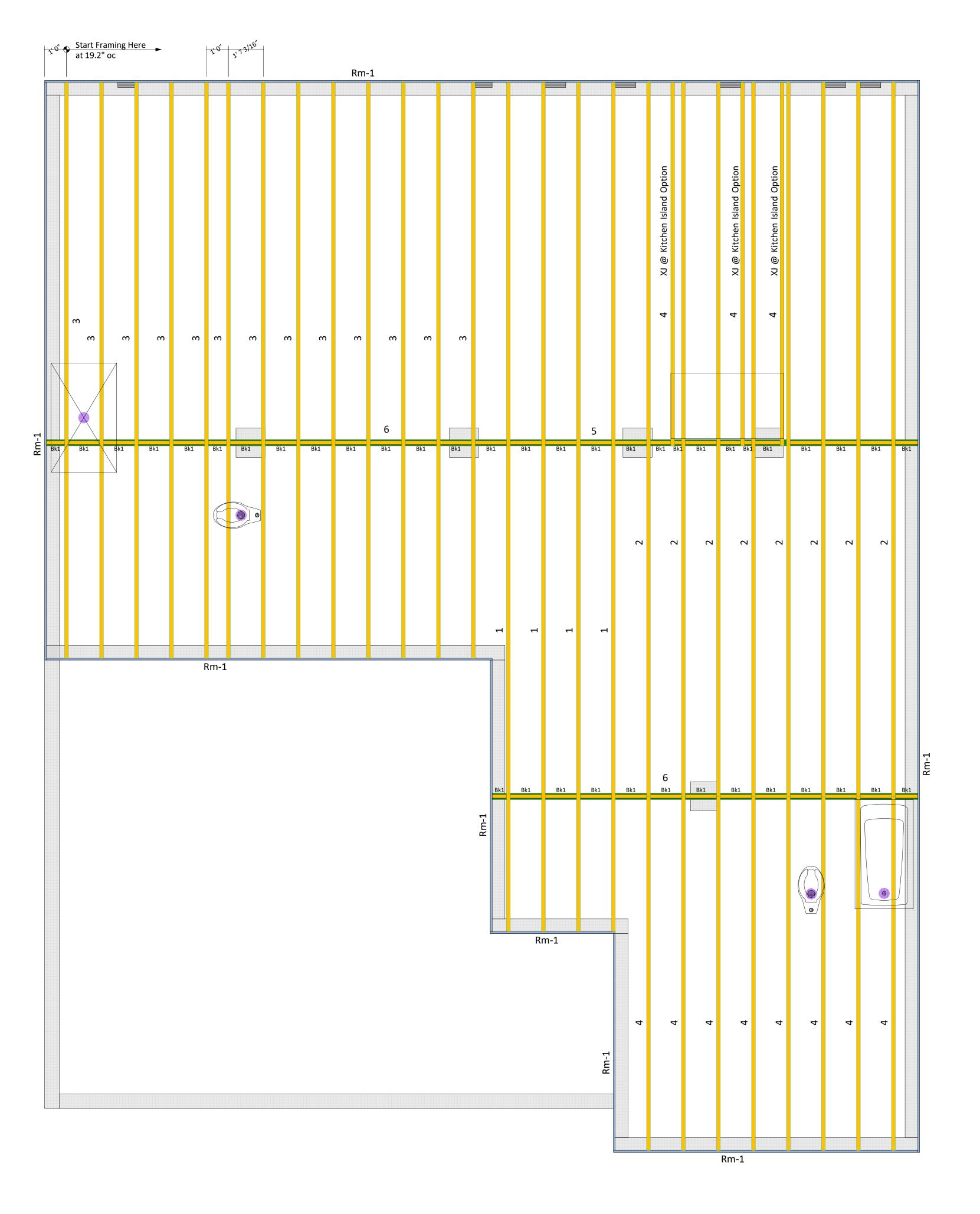
.

	UTILITY LEGEND	
÷	120V DUPLEX CONVENIENCE RECEPTACLE	
i⊂ we er	ARC FAULT(AFCI) AND TAMPER RESISTANT(TR) 12' ABV, FIN, FLR, TYPICAL UND. 12 OV (TR) RECEPTACLE W GFI CIRCUIT W WATER RESISTANT HOUSING	
r∰ w₽	W WATER RESISTANT HOUSING	
r⊕ e=i	120V (TR) RECEPTACLE W/ GFI CIRCUIT	
⊕ ₽	FUSED DISCONNECT	
0	120V (AFCI & TR) RECESSED FLOOR	I HOME I.
	RECEPTACLE W COVER 120V (AFCI & TR) DUPLEX CONVENIENCE RECEPTACLE	
•	SWITCH CONTROLLED, 1/2 HOT	
i€ 220 v	220V SINGLE CONVENIENCE RECEPTACLE HEIGHT NOTED AS PER PLAN	
÷	TWO-POLE LIGHT SWITCH AT 42" ABV. FIN. FLR. 8" ABOVE COUNTER U.N.O.	
+69-3	THREE-POLE LIGHT SWITCH	
+69-4	FOUR-POLE LIGHT SWITCH	
ю́-м.р.	WALL MOUNTED LIGHT FIXTURE W/ WATER RESISTANT HOUSING	
ф	WALL MOUNTED INCANDESCENT	
	LIGHT FIXTURE WALL MOUNTED FLUORESCENT	
ŀ€ŀ	LIGHT FIXTURE	
÷	CEILING MOUNTED INCANDESCENT LIGHT FIXTURE	
-¢-	CEILING MOUNTED FLUORESCENT LIGHT FIXTURE	NORTH CAROLINA
a	HANGING INCANDESCENT	
		40' SERIES
Ð	RECESSED INCANDESCENT DIRECTIONAL LIGHT FIXTURE (EYE BALL)	KB HOME
Ø	RECESSED INCANDESCENT LIGHT FIXTURE LIGHTING - TRAVERSE II LED FIXTURE -	NORTH CAROLINA DIVISION
	PER SPECS	4506 S. MIAMI BLVD.
∯ м.р. —	RECESSED INCANDESCENT LIGHT FIXTURE W/ WATER RESISTANT HOUSING	<ul> <li>SUITE 100</li> <li>DURHAM, NC 27703</li> </ul>
Ø	RECESSED FLUORESCENT LIGHT FIXTURE	TEL: (919) 768-7980
	RECESSED EXHAUST FAN	, , , , , , , , , , , , , , , , , , , ,
Ş	RECESSED EXHAUST FAN/ INCANDESCENT LIGHT COMBINATION	
Ð	RECESSED EXHAUST FAN/ FLUORESCENT LIGHT COMBINATION	
D	INCANDESCENT WALL SCONCE	2019 NODTH
]	ILLUMINATED ADDRESS SIGN - VISIBLE FROM STREET	2018 NORTH
		CAROLINA STATE
	24"x48" FLUORESCENT LIGHT	BUILDING
I I I I I I	BOX (CEILING MOUNTED)	BUILDING
l'III l'		CODES
li∥i	12"x48" FLUORESCENT LIGHT	
	BOX (CEILING MOUNTED)	
۲	OPTIONAL PRE-WIRED CEILING FAN AND SWITCH - LOCATED IN CENTER OF ROOM U.N.O.	
Q	CEILING MOUNTED JUNCTION BOX	
⊢_) ●●●	WALL MOUNTED JUNCTION BOX	
ΗM	DOOR CHIME CATV RECEPTACLE	ISSUE DATE: 02/23/17
⊢®	PUSH BUTTON	* PROJECT No.: 1350999:56
H	PHONE OUTLET	DIVISION MGR.: MCP REVISIONS: 11/26/19
	SERVICE BOX	· · ·
—+нв —#нв	HOSE BIB	ADD CRAWL SPACE NCI8024NCP- 7/24/18 CTD
→ нв → см	HOSE BIB W/ S.O.V. WATER STUB FOR ICE MAKER	DIVISION REVISIONS
	APPROVED CEILING MOUNTED	■ <u>3</u> NCI804INCP- 9/27/18 CTD
9	SMOKE DETECTOR TO BE HARD WIRED WITH BATTERY BACK-UP AND INTERCONNECTED	2018 CODE UPDATE NCI9015NCP/ 03/15/19 / CTD
&9 ⊢⊕		DIVISION REVISIONS
- <b>•</b>	THERMOSTAT (VERIFY LOCATION W/ HVAC PLAN) GAS TAP	B <u>5</u> NCI9017NCP/ 03/22/19 / CTD B
	GAS KEY - FIREPLACE GAS VALVES SHALL BE LOCATED OUTSIDE OF REQUIRED HEARTH AREA, BUT NO MORE THAN 48" FROM GAS OUTLET	DIVISION REVISIONS NCI9050NCP/ 06/26/19 / FAE
- <del>X</del>	BUT NO MORE THAN 48" FROM GAS OUTLET	7 UPDATE ATTIC VENT CALCS. NCI9060NCP/ 08/30/19 / CTD
SK	NITCHING FOR 24" MIN. SEPERATION DOMS W/ CLG. FAN OF ELECTRICAL BOXES	
01	TIONS AS SHOWN BELOW	A NCI9058NCP/ 11/26/19 / FAE
LIGHT / I ? HO		FOR INTERNAL USE ONLY REVIEWED BY:
=		3 4
SECO	NDARY MASTER GARAGE	6 0
		PLAN:
I. MEC SHO ENG	HANICAL, ELECTRICAL AND PLUMBING SYSTEMS ARE IMN FOR INTENT ONLY. THESE SYSTEMS SHALL BE INEERED BY OTHERS. THE CONTRACTOR SHALL BE PONSIBLE FOR PROPER INSTALLATION AND	140.1445
I PLA	CEMENT. ALL HEIGHTS SHOWN ARE TO CENTERLINE	
OFI	FIXTURE.	SHEET:
2. PRC REC	MDE SMITCH, LIGHT, I20V (AFCI & TR) DUPLEX EPTACLE, & FUEL GAS STUB OR 220V RECEPTACLE TTIC FOR F.A.U PER COMMINITY SPECIFICATIONS.	5.2
	KE DETECTORS IN ROOMS WITH VOLUME CEILING TO LOCATED AT HIGHEST POINT OF CEILING	
		SPEC. LEVEL 1
ADD	FOOT #4 REBAR FOR UFER GROUND AND DITIONAL COLD WATER GROUND. REFER TO SLAB RFACE PLAN FOR LOCATION.	RALEIGH-DURHAM
1	AMP ELECTRICAL PANEL (DEFAULT), ELECTRICAL	
5. 200	N CHECK PERMIT REQUIRED IF LOAD EXCEED 400	40' SERIES



SCREENED-IN DECK 'C' AT CRAWL SPACE

# ELEVATION NOTES	יייי, אר
NOTE: NOT ALL KEY NOTES APPLY. I. ROOF MATERIAL - REFER TO ROOF NOTES	
2. 2X FASCIA/BARGE BOARD WITH FASCIA CAP	
3. G.I. FLASHING 4. G.I. FLASHING & SADDLE/CRICKET	
5. G.I. DRIP SCREED	
6. 24"x24" CHIMNEY 7. DECORATIVE VENT	
8. DECORATIVE CORBEL	
9. DECORATIVE SHUTTERS 10. PEDIMENT. SEE ELEVATION FOR TYPE	
II. RECESSED ELEMENT	@.
<ol> <li>DECORATIVE TRIM FYPON OR EQ. SEE ELEVATION FOR TYPE</li> <li>TRIM - SEE ELEVATION FOR SIZE</li> </ol>	
14. SYNTHETIC MATERIAL	
<ol> <li>PRE-MANUFACTURED DECORATIVE COLUMN (SIZE, SEE ELEV.) FYPON OR EQ. SURROUNDING STRUCTURAL POST.</li> </ol>	
<ol> <li>SITE-BUILT COLUMN - SEE ELEVATION FOR TYPE</li> <li>SHAKE SIDING</li> </ol>	
18. STONE VENEER PER SPECS	
19. 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	NORTH CAROLINA
28. RAILINGS (+36" U.N.O.)	40' SERIES
29. VINYL WRAP 30. DECORATIVE WINDOW/DOOR TRIM - FYPON OR EQ. SEE	
ELEVATION FOR SIZE. 31. BRACKET OR KICKER - FYPHON OR EQ.	KB HOME NORTH CAROLINA DIVISION
32. ENTRY DOOR	8 8
33. CONCRETE STOOP/ PORCH - SEE SLAB INTERFACE PLAN. 34. SECTIONAL GARAGE DOOR PER SPECS	4506 S. MIAMI BLVD.
35. ALUMINUM WRAP	<ul> <li>SUITE 100</li> <li>DURHAM, NC 27703</li> </ul>
36. OPTIONAL DOOR/WINDOW - REFER TO PLAN OPTIONS 37. OPTIONAL STANDING SEAM METAL ROOF	• TEL: (919) 768-7980 •
38. KEYSTONE	
39. SOLDIER CROWN 40. JACK SOLDIER COURSE	• • • • • •
41. WATER TABLE	
42. ATRIUM DOOR 43. PILASTER - SEE ELEVATION FOR TYPE	
# PARTIAL PLAN NOTES	2018 NORTH
NOTE: NOT ALL KEY NOTES APPLY. 27. WATER HEATER LOCATION: - FOR GAS - LOCATE ON 18" HIGH	<b>CAROLINA STATE</b>
NOTE: NOT ALL KEY NOTES APPLY. 27. MATCRM - FOR MATCH FOR GAS - LOCATE ON 18' HIGH DATFORM - FOR INTERIOR LOCATION - PROVIDE PAN & DRAIN, REFER TO DETAILS) 28. MATCR HEATER B' VENT TO OUTSIDE AIR 29. MATCR HEATER B' VENT OUTSIDE AIR 29. MATCR HEATER B' VENT OUTSIDE AIR	
28, MAILE HEALER D'VIET LO SOTSIDE AIR 29, MAIL INE SHUT-OFF VALVE AND TEMP. & PRESSURE RELIEF 29, LINE OF WALL BELOW	BUILDING
YALVE 34. LINE OF HALL BELOW 41. LINE OF FLOOR ABOVE 42. LINE OF FLOOR BELOW	CODES
48. MIN. 36" HIGH GUARDRAIL (REFER TO DETAIL SHEETS) 50. A/C PAD LOCATION	
51. LOW WALL - REFER TO PLAN FOR HEIGHT 52. 2x6 STUD WALL	
55. INTERIOR SHELF - REFER TO PLAN FOR HEIGHT	
58. ARCHED SOFFIT	
6 PRE-MANIEACTIRED DECORATIVE COLUMN (SIZE SEE ELEV.)	
61. FUTPON OR EQ. SURROUNDING STRUCTURAL POST. 62. BRICK - STONE VENEER - REFER TO ELEVATIONS 63. SECTIONAL GARAGE DOOR PER SPECS	
66. 5" DIAM, CONCRETE FILLED PIPE BOLLARD 36" HIGH WITH MIN. 12" EMBEDMENT INTO CONCRETE. (NOT REQUIRED AT ELECTRIC WATER HEATERS OR FOR	
APPLIANCES LOCATED OUT OF THE VEHICLE'S NORMAL TRAVEL PATH).	
68. P.T. POST W/ VINYL WRAP. 70. EGRESS WINDOW	ISSUE DATE: 02/23/17
<ol> <li>IDIDON LEDGE. HEIGHT &amp; WIDTH OF OPENING TO EXTEND 6" BEYOND WINDOWS) ON ALL SIDES UNO.</li> <li>SITE-BULT COLUMN - SEE ELEVATION FOR TYPE TI. CONCRETE SLAB. SLOPE 1/4" PER FT. MIN. SEE PLAN FOR</li> </ol>	PROJECT No.: 1350999:56 DIVISION MGR.: MCP
TI. CONCRETE SLAB. SLOPE 1/4" PER FT. MIN. SEE PLAN FOR SIZE.	REVISIONS: 11/26/19
<b># FOUNDATION PLAN NOTES</b>	ADD CRAWL SPACE
NOTE: NOT ALL KEY NOTES APPLY. I. CONCRETE PATIO/PORCH SLAB PER STRUCTURAL- SLOPE	* 2 NCI8024NCP- 7/24/18 CTD
<ol> <li>CONCRETE GARAGE SLAB PER STRUCTURAL- SLOPE 1/8" PER.</li> <li>CONCRETE GARAGE SLAB PER STRUCTURAL- SLOPE 1/8" PER.</li> </ol>	B J DIVISION REVISIONS NCI804INCP- 9/27/18 CTD
I'-O" MIN. TOWARD DOOR OPENING.	
<ol> <li>FOUNDATION PER STRUCTURAL.</li> <li>STAIR LANDING: 36"x36" MIN.</li> </ol>	= 2018 CODE UPDATE NCI9015NCP/ 03/15/19 / CTD =
<ol> <li>CONCRETE DRIVEWAY SLOPE I/4" PER FT. MIN. AWAY FROM GARAGE DOOR OPENING.</li> </ol>	
6. PROVIDE UNDER FLOOR VENTILATION	8 / 5 NCI9017NCP/ 03/22/19 / CTD 8
7. 4" TOE KICK FOR MASONRY VENEER.	DIVISION REVISIONS NCI9050NCP/ 08/26/19 / FAE
<ol> <li>3" DIAMETER CONCRETE FILLED PIPE BOLLARD 36" HIGH WITH MIN. 12" EMBEDMENT INTO CONCRETE.</li> </ol>	UPDATE ATTIC VENT CALCS. 7 NCI9060NCP/ 08/30/19 / CTD
9. REFER TO CIVIL DRAWINGS FOR ALL FINISH SURFACE	
ELEVATIONS. 10. VERIFY LOCATION OF PIER FOOTINGS PER	B DEVISION REVISIONS NCI9053NCF/ 11/26/19 / FAE
STRUCTURAL II. 4" MIN. 7 3/4" MAX. TO HARD SURFACE.	FOR INTERNAL USE ONLY
12. A/C PAD. VERIFY LOCATION.	
13. CRAWL SPACE ACCESS 14. 36" WIDE WALKWAY- SLOPE 1/4" PER FT. MIN.	2 3
·····	
	PLAN:
	140.1445
	. 140.1443
Alexanter	SHEET:
N <u>OTE:</u> REFER TO BASIC <u>ROOF FLAN</u> FOR INFORMATION NOT SHOWN HERE	8.C5
NOTE:	
REFER TO BASIC ELEVATIONS FOR INFORMATION NOT SHOWN HERE	SPEC. LEVEL 1
NOTE: DEFENT TO BASIC EL COR EL AN EOR INFORMATION NOT	
REFER TO BASIC ELOOR PLAN FOR INFORMATION NOT SHOWN HERE	RALEIGH-DURHAM
NOTE: REFER TO BASIC SLAB PLAN FOR INFORMATION NOT	40' SERIES
SHOWN HERE	



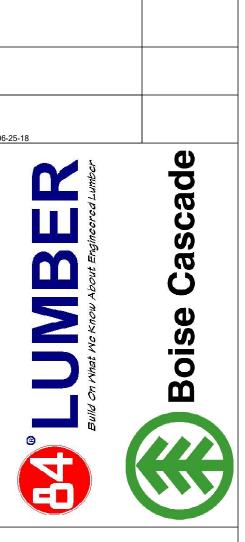
Squash Blocks Required Under The Ends Of All LVL And Point Loads For Load Transfer - See Details

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

		Products		
PlotID	Net Qty	Product	Length	Plies
1	4	11-7/8" BCI® 5000s-1.8	39' 0"	1
2	8	11-7/8" BCI® 5000s-1.8	33' 0"	1
3	13	11-7/8" BCI® 5000s-1.8	27' 0"	1
4	11	11-7/8" BCI® 5000s-1.8	17' 0"	1
5	2	1-3/4" x 9-1/4" VERSA-LAM <sup>®</sup> LVL 2.1E 3100 SP	22' 0"	2
6	4	1-3/4" x 9-1/4" VERSA-LAM® LVL 2.1E 3100 SP	20' 0"	2
Rm-1	15	1" x 11-7/8" BC RIM BOARD OSB	12' 0"	1
Bk1	27	11-7/8" BCI® 5000s-1.8	2' 0"	1

First Floor Layout

# KB Homes 1445 Elev C Lot 20 Mason Pointe



Revisions:

SALES PRESENTATION DRAWINC No structural or dimensional check has been made of this drawings of the building, therefore purchaser is to check approve all dimsensions, quantities, loads, and details car This drawing has not been check by Boise Engineerin

KB Homes 1445 Elev C Lot 20 Mason Pointe 84 Lumber EWP

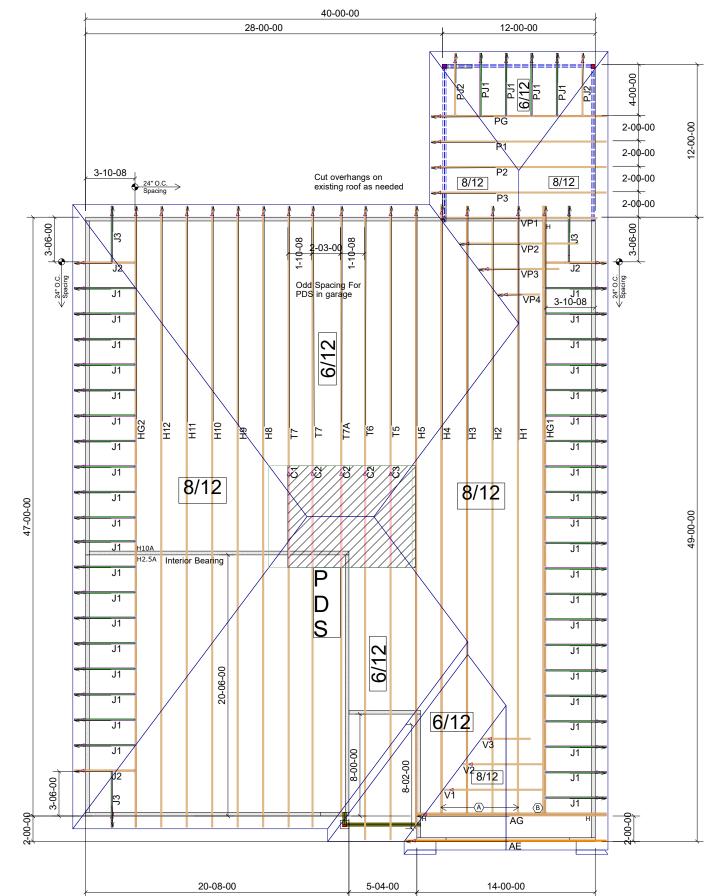
ALL DIMENSIONS AND CONDITIONS TO BE REVIEWED AND APPROVED BY BOTH THE CONTRACTOR AND THE ENGINEER OF RECORD PRIOR TO INSTALLATION

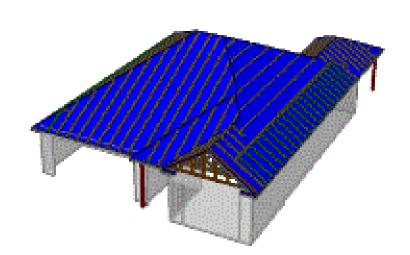
BC FRAMER II Plan Date: 07242018

Structural Date: 07202018

By: KOG

Sheet: 1/4



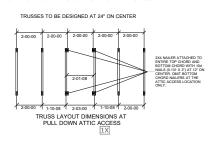


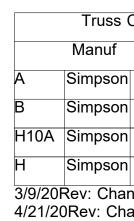
Hatch Legend

#### Notes:

All Jacks Toenailed Typ. HG2 is a 1 ply girder with an interior bearing HG1 is a 2 ply girder-clear span

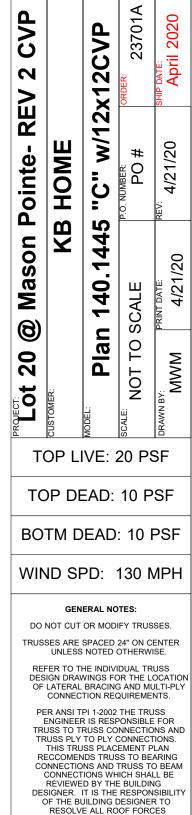
#### THE PURPOSE OF THIS DETAIL IS TO ILLUSTRATE HOW TO PROPERLY SPACE 24" O.C. ROOF TRUSSES TO ALLOW FOR A 25 1/2" OPENING FOR PULL DOWN ATTIC ACCESS







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



ADEQUATELY TO THE FOUNDATION

Connector List	
Product	Qty
HUS26	4
HHUS28-2	1
H10A	1
HTS20	3
nge CVP to gable	•

3/9/20Rev: Change CVP to gable 4/21/20Rev: Change CVP to 12 x 12 Hip

# **STRUCTURAL PLANS FOR:**



# 140.1445 - LH GARAGE

REV DATE	ARCH PLAN VERSION	REVISION DESCRIPTION	DRF
04/03/2020	1445-140-01350 LH 04.03.2020	INITIAL SETUP OF LAYOUT	ABS
04/03/2020	1445-140-01350 LH 04.03.2020	CREATED LOT-SPECIFIC STRUCTURAL LAYOUT FROM MASTER PLAN AND EWP LAYOUT	ABS

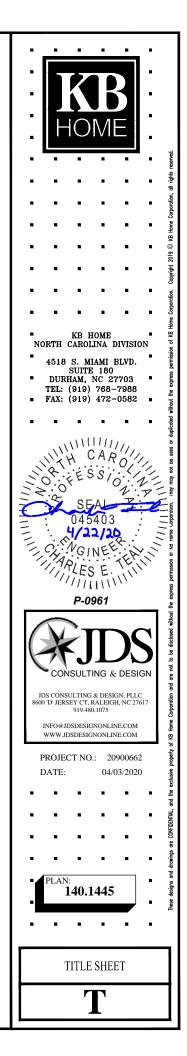
NOTE	S	CODE	ENGINEER OF
<ol> <li>ENGINEER'S SEAL APPLIES TO STRUCTURAL COMPONENTS ONLY. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT, INCLUDING ROOF GEOMETRY. JDS CONSULTING &amp; DESIGN, PLLC ASSUMES NO LIABILITY FOR CHANGES MADE TO THESE PLANS BY OTHERS, OR FOR CONSTRUCTION METHODS, OR FOR ANY DEVIATION FROM THE PLANS. ENGINEER TO BE NOTIFIED PRIOR TO CONSTRUCTION IF ANY DISCREPANCIES ARE NOTED ON THE PLANS.</li> <li>DIMENSIONS SHALL GOVERN OVER SCALE, AND CODE SHALL GOVERN OVER DIMENSIONS.</li> </ol>	<ul> <li>PLANS MUST HAVE SIGNED SEAL TO BE VALID AND ARE LIMITED TO THE FOLLOWING USES:</li> <li>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.</li> <li>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.</li> </ul>	ALL CONSTRUCTION, WORKMANSHIP, AND MATERIAL QUALITY AND SELECTION SHALL BE PER: 2018 NORTH CAROLINA STATE BUILDING CODE: RESIDENTIAL CODE	JDS CONSULTING & DESIGN, ENGINEERING, BUILDING DES CONSULTING SERVICES 8600 'D' JERSEY COURT RALEIGH, NC 27617 PROJECT REFERENCE: 2090

# F RECORD

# I, PLLC

ESIGN, & CONSTRUCTION

00662



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.
- BRACED-WALL DESIGN IS BASED ON SECTION R602.10 WALL 2. 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 3. PROVISIONS, INCLUDING ASSOCIATED TABLES AND FIGURES, BASED ON LOCAL SEISMIC DESIGN CATEGORY

#### DESIGN LOADS

ASSUMED SOIL BEARING-CAPACITY	2,000 PSF
	LIVE LOAD
ULTIMATE DESIGN WIND SPEED	115 MPH, EXPOSURE B
GROUND SNOW	15 PSF
ROOF	20 PSF
RESIDENTIAL CODE TABLE R301.5	LIVE LOAD (PSF)
DWELLING UNITS	40
SLEEPING ROOMS	30
ATTICS WITH STORAGE	20
ATTICS WITHOUT STORAGE	10
STAIRS	40
DECKS	40
EXTERIOR BALCONIES	60
PASSENGER VEHICLE GARAGES	50
FIRE ESCAPES	40
GUARDS AND HANDRAILS	200 (pounds, concentrated)

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

KS

KING STUD COLUMN

ABBREVIATIONS

ADDR	EVIATIONS		
		LVL	LAMINATED VENEER
ABV	ABOVE		LUMBER
AFF	ABOVE FINISHED FLOOR	MAX	MAXIMUM
ALT	ALTERNATE	MECH	MECHANICAL
	BEARING	MFTR	MANUFACTURER
	BASEMENT	MIN	MINIMUM
CANT	CANTILEVER	NTS	NOT TO SCALE
CJ	CEILING JOIST		OVERALL
CLG	CEILING		
СМО	CONCRETE MASONRY UNIT	PT	PRESSURE TREATED
со	CASED OPENING	R	RISER
COL	COLUMN	REF	REFRIGERATOR
CONC	CONCRETE	RFG	ROOFING
CONT	CONTINUOUS	RO	ROUGH OPENING
D	CLOTHES DRYER	RS	ROOF SUPPORT
DBL	DOUBLE	SC	STUD COLUMN
DIAM	DIAMETER	SF	
DJ	DOUBLE JOIST	SH	
DN	DOWN	SHTG	
	DEEP	SHW	SHOWER
DR	DOUBLE RAFTER	SIM	SIMILAR
DSP	DOUBLE STUD POCKET		SINGLE JOIST
EA	EACH		STUD POCKET
EE	EACH END		SPECIFIED
EQ		SQ	SQUARE
EX	EXTERIOR	т	TREAD
FAU	FORCED-AIR UNIT		TEMPERED GLASS
FDN	FOUNDATION	тнк	THICK(NESS)
FF	FINISHED FLOOR	тJ	TRIPLE JOIST
FLR	FLOOR(ING)	TOC	TOP OF CURB / CONCRETE
FP	FIREPLACE	TR	TRIPLE RAFTER
FTG	FOOTING	TYP	TYPICAL
HB	HOSE BIBB	UNO W	UNLESS NOTED OTHERWIS
HDR	HEADER		OLO ITTLO WAOTER
HGR	HANGER	WH	WATER HEATER
JS	JACK STUD COLUMN		
		XJ	EXTRA JOIST

#### MATERIALS

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

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

2. 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 E = 1.9E6 PSI

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

Eb = 2900 PSI Ev = 290 PSI E = 2.0E6 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

- 6. STRUCTURAL STEEL WIDE-FLANGE BEAMS SHALL CONFORM TO ASTM A992. Fy = 50 KSI
- 7. REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM A615, GRADE 60.
- 8. 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
- 9. 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
- 12. INDICATED MODEL NUMBERS FOR ALL METAL HANGERS, STRAPS, FRAMING CONNECTORS, AND HOLD-DOWNS ARE SIMPSON STRONG-TIE BRAND, EQUIVALENT USP BRAND PRODUCTS ARE ACCEPTABLE.
- 13. REFER TO I-JOIST EQUIVALENCE CHART ON I-JOIST DETAIL SHEET FOR SUBSTITUTION OF MANUFACTURER SERIES.

#### FOUNDATION

- MINIMUM ALLOWABLE SOIL BEARING CAPACITY IS ASSUMED TO BE 2,000 PSF. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SOIL BEARING CAPACITY IF UNSATISFACTORY CONDITIONS
- 2. CONCRETE FOUNDATION WALLS TO BE SELECTED AND CONSTRUCTED PER SECTION R404 OR AMERICAN CONCRETE INSTITUTE STANDARD ACI 318.
- 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
- CONCRETE WALL HORIZONTAL REINFORCEMENT TO BE PER 4 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.
  - FOUNDATION DRAINS ARE ASSUMED AT ALL WALLS PER В. SECTION R405
- 5. PLAIN-MASONRY WALL DESIGN TO BE PER <u>TABLE R404.1.1(1)</u> OR AS NOTED OR DETAILED. MASONRY WALLS WITH VERTICAL REINFORCEMENT TO BE PER TABLES R404.1.1 (2 THROUGH 4) OR AS NOTED OR DETAILED. ALL MASONRY WALLS SHALL COMPLY WITH APPLICABLE PROVISIONS OF CHAPTER 6.
  - A. TABLES ASSUME THAT WALLS HAVE PERMANENT LATERAL SUPPORT AT THE TOP AND BOTTOM.
  - WALL REINFORCING SHALL BE PLACED ACCORDING TO FOOTNOTE (c) OF THE TABLES (REINFORCING IS NOT CENTERED IN WALL).
  - FOUNDATION DRAINS ARE ASSUMED AT ALL WALLS PER C. SECTION R405
- WOOD SILL PLATES TO BE ANCHORED TO THE FOUNDATION WITH 1/2" DIAMETER ANCHOR BOLTS WITH MINIMUM 7" EMBEDMENT, SPACED A MAXIMUM OF 6'-0" OC AND WITHIN 12" FROM THE ENDS OF EACH PLATE SECTION. INSTALL MINIMUM (2) ANCHOR BOLTS PER SECTION. SEE 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

- 3.
  - STRUCTURAL COMPONENTS.
  - CONSTRUCTION

7.

- LUMBER

  - DETAILS.
- SPECIFICATIONS

- MANUFACTURER. C.

- DRAWINGS.

- EACH END OF FLITCH BEAM

- SHALL BE MET.

ALL BEARING HEADERS TO BE (2) 2x6 SUPPORTED W/ MIN (1) JACK STUD AND (1) KING STUD EACH END, UNO.

ALL NON-BEARING HEADERS TO BE (2) 2x4, UNO.

NON-BEARING INTERIOR WALLS NOT MORE THAN 10' NOMINAL HEIGHT AND NOT SHOWN AS BRACED WALLS MAY BE FRAMED WITH 2x4 STUDS @ 24" OC.

SOLID BLOCKING TO BE PROVIDED AT ALL POINT LOADS THROUGH FLOOR LEVELS TO THE FOUNDATION OR TO OTHER

ALL BEAMS SPECIFIED ARE MINIMUM SIZES ONLY LARGER MEMBERS MAY SUBSTITUTED AS NEEDED FOR EASE OF

ALL EXTERIOR WALLS TO BE FULLY SHEATHED WITH 7/16" OSB.

PORCH / PATIO COLUMNS TO BE 4x4 MINIMUM PRESSURE-TREATED

A. ATTACH PORCH COLUMNS TO SLAB / FDN WALL USING ABA, ABU, ABW, OR CPT SIMPSON POST BASES TO FIT COLUMN SIZES NOTED ON PLAN -OR- ANY OTHER COLUMN CONNECTION WITH 500# UPLIFT CAPACITY.

ATTACH PORCH COLUMNS TO PORCH BEAMS USING AC OR BC SIMPSON POST CAPS TO FIT COLUMN SIZES NOTED ON PLAN -OR- ANY OTHER COLUMN CONNECTION WITH 500# LIPLIET CAPACITY

C. TRIM OUT COLUMN(S) AND BEAM(S) PER BUILDER AND

ALL ENGINEERED WOOD PRODUCTS (LVL, PSL, LSL, ETC.) SHALL BE INSTALLED WITH CONNECTIONS PER MANUFACTURER

ENGINEERED WOOD ELOOR 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

INSTALLATION OF THE SYSTEMS SHALL BE PER MANUFACTURER'S INSTRUCTIONS.

TRUSS LAYOUT AND PLACEMENT BY MANUFACTURER TO COINCIDE WITH THE SUPPORT LOCATIONS SHOWN IN THESE

10. ALL BEAMS TO BE CONTINUOUSLY SUPPORTED LATERALLY AND SHALL BEAR FULL WIDTH ON THE SUPPORTING WALLS OR COLUMNS INDICATED. WITH A MINIMUM OF THREE STUDS. UNO.

ALL STEEL BEAMS TO BE SUPPORTED AT EACH END WITH A MIN BEARING LENGTH OF 3 1/2" AND FULL FLANGE WIDTH. BEAMS MUST BE ATTACHED AT EACH END WITH A MINIMUM OF FOUR 16d NAILS OR TWO 1/2" x 4" LAG SCREWS, UNO

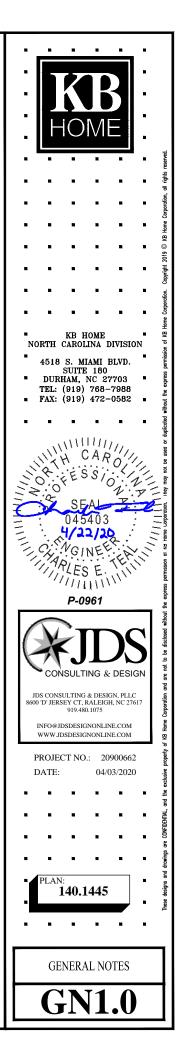
12. STEEL FLITCH BEAMS TO BE BOLTED TOGETHER USING (2) ROWS OF 1/2" DIAMETER BOLTS (ASTM 307) WITH WASHERS PLACED UNDER THE THREADED END OF THE BOLT. BOLTS TO BE SPACED AT 24" OC (MAX) AND STAGGERED TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE, WITH TWO BOLTS TO BE LOCATED AT 6" FROM

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 FOUIVALENT ATTACHMENT METHOD MAY BE USED, SUCH AS SDS, SDW, OR TRUSSLOK SCREWS (SEE MANUFACTURER SPECIFICATIONS).

14. FOR STUD COLUMNS OF 4-OR-MORE STUDS, INSTALL SIMPSON STRONG-TIE CS16 STRAPS ACROSS STUDS @ 30" OC, 6" MAX FROM PLATES, ON INSIDE FACE OF COLUMN (EXTERIOR WALL), ON BOTH FACES OF COLUMN (INTERIOR WALL).

15. FLOOR JOISTS ADJACENT AND PARALLEL TO THE EXTERIOR FOUNDATION WALL SHALL BE PROVIDED WITH FULL-DEPTH SOLID BLOCKING, NOT LESS THAN TWO (2) INCHES NOMINAL IN THICKNESS, PLACED PERPENDICULAR TO THE JOIST AT SPACING NOT MORE THAN FOUR (4) FEET. THE BLOCKING SHALL BE NAILED TO THE FLOOR SHEATHING, THE SILL PLATE, THE JOIST, AND THE EXTERIOR RIM JOIST / BOARD.

16. BRACED WALL PANELS SHALL BE FASTENED TO MEET THE **UPLIFT-RESISTANCE REQUIREMENTS IN CHAPTERS 6 AND 8 OF** THE APPLICABLE CODE (SEE TITLE SHEET), REQUIREMENTS OF THE STRUCTURAL DRAWINGS THAT EXCEED THE CODE MINIMUM



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 <u>TABLE R602.3(1)</u> 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)

FRAMING MEMBER SIZE	MAX HEIGHT (PLATE TO PLATE) 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 @ 10" 00 (2) 2x6 @ 12" OC	25'-0"
(0) 0-0 @ 401 00	071.01
(2) 2x8 @ 16" OC (2) 2x8 @ 12" OC	27'-0" 31'-0"
., 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

- 1. 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.

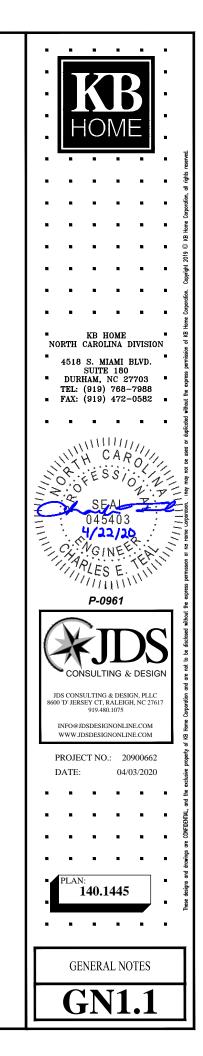
STICK-FRAMED ROOF - STRUCTURAL NOTES

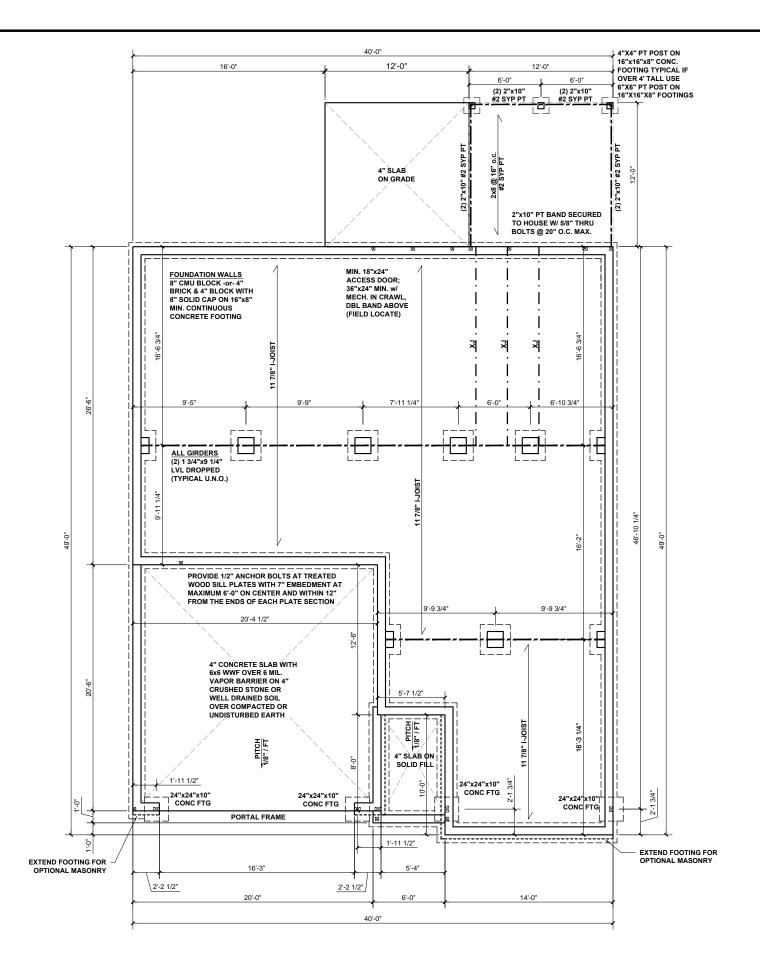
- 1. PROVIDE 2x4 COLLAR TIES AT 48" OC AT UPPER THIRD OF RAFTERS, UNLESS NOTED OTHERWISE.
- 2. FUR RIDGES FOR FULL RAFTER CONTACT.
- 3. PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR ALL POINT LOADS.
- 4. DENOTES OVER-FRAMED AREA
- 5. MINIMUM 7/16" OSB ROOF SHEATHING
- PROVIDE 2x4 RAFTER TIES AT 16" 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.





# **CRAWLSPACE FOUNDATION PLAN - 'C'**

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

DEAM & FOINT LOAD LEGEND		
	INTERIOR LOAD BEARING WALL	
<u> </u>	ROOF RAFTER / TRUSS SUPPORT	
	DOUBLE RAFTER / DOUBLE JOIST	
	STRUCTURAL BEAM / GIRDER	
	WINDOW / DOOR HEADER	
	POINT LOAD TRANSFER	
•	POINT LOAD FROM ABOVE BEARING ON BEAM / GIRDER	

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

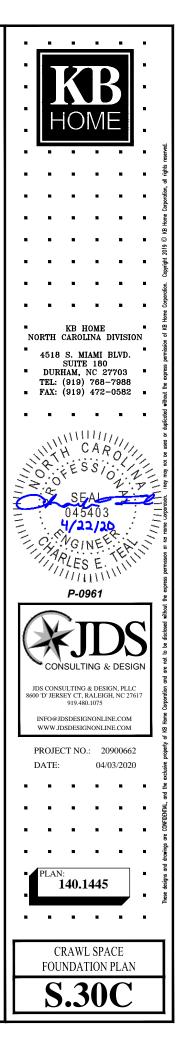
\*\*REFER TO I-JOIST EQUIVALENCE CHART ON I-JOIST DETAIL SHEET FOR SUBSTITUTION OF MANUFACTURER SERIES

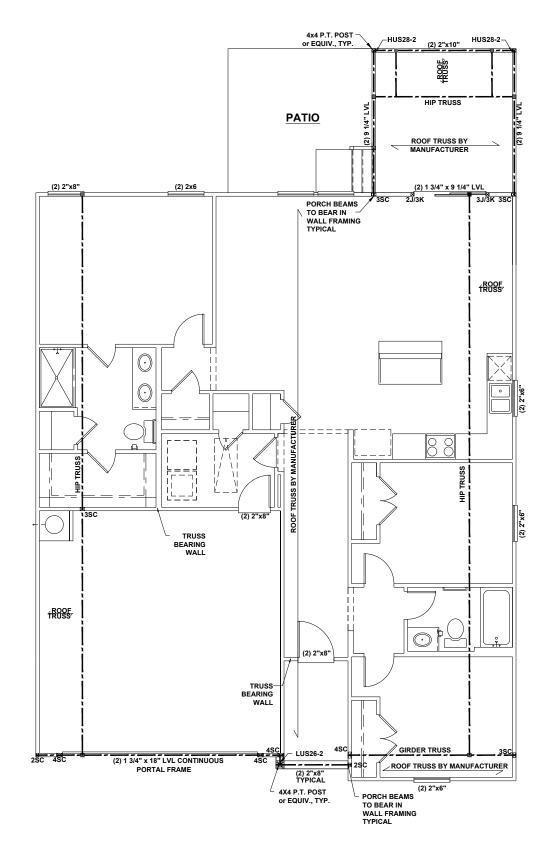
FLOOR FRAMING TO BE 11 7/8" DEEP TJI 210 SERIES OR EQUAL, 19.2" OC MAXIMUM SPACING

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

FOUNDATION STRUCTURAL NOTES: 1. CONCRETE BLOCK PIER SIZE SHALL BE: SIZE HOLLOW MASONRY SOLID MASONRY

8 X16	UP TO 32		UP TO 5'-0" HIGH
12X16 16X16	UP TO 48 UP TO 64"		UP TO 9'-0" HIGH UP TO 12'-0" HIGH
107.10	24X24	UP TO 96	
WITH 30" X 30" X 10 CONCRETE FOOTING, UNO.			





# FIRST FLOOR CEILING FRAMING PLAN - 'C'

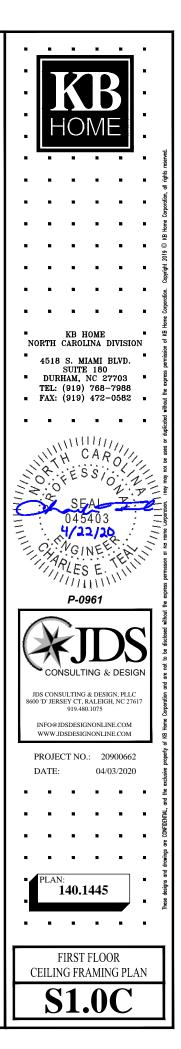
SCALE: 1/8"=1'-0"

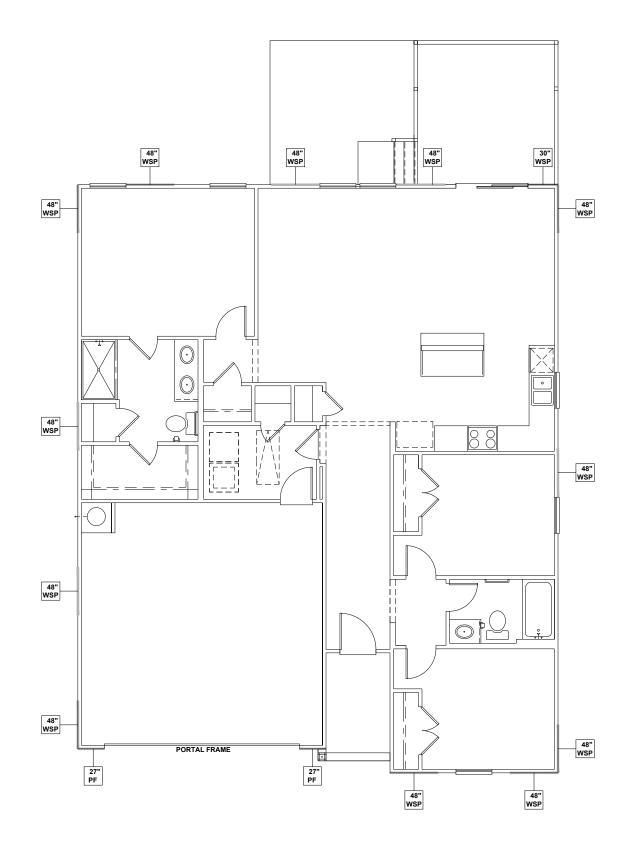
#### BEAM & POINT LOAD LEGEND

INTERIOR LOAD BEARING WALL ROOF RAFTER / TRUSS SUPPORT DOUBLE RAFTER / DOUBLE JOIST STRUCTURAL BEAM / GIRDER WINDOW / DOOR HEADER POINT LOAD TRANSFER POINT LOAD FROM ABOVE BEARING ON BEAM / GIRDER

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

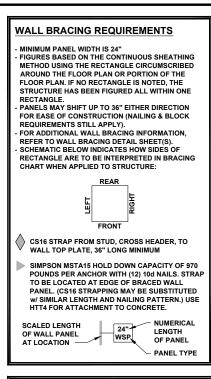
- 1. ALL FRAMING TO BE #2 SPF MINIMUM.
- 2. ALL BEARING HEADERS TO BE (2) 2x6 SUPPORTED w/ MIN (1) JACK AND (1) KING EACH END, UNO.
- 3. EXTERIOR WALL OPENINGS OVER 3' TO HAVE MULTIPLE KING STUDS AS NOTED ON PLAN.
- 4. ALL NON-BEARING HEADERS TO BE (2) 2x4 (1) J / (1) K, UNO.
- 5. PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR ALL POINT LOADS.
- 6. 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.
- 8. ALL EXTERIOR WALLS TO BE FULLY SHEATHED WITH 7/16" OSB.
- 9. FRONT PORCH COLUMNS TO BE MIN 4x4 PT ATTACHED AT TOP AND BOTTOM USING SIMPSON (OR EQUIV) COLUMN BASE OR SST A24 BRACKETS. TRIM OUT PER BUILDER.
- 10. PORCH COLUMNS TO BE MIN 4x4 PT ATTACHED AT BOTTOM USING SIMPSON (OR EQUIV) ABA44 AND AT TOP USING CS 16 STRAPPING (12" MIN) TO PORCH HEADER / BAND.
- 11. 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 MANUFACTURER'S SPECIFICATIONS).
- 12. FOR STUD COLUMNS OF 4 OR MORE, INSTALL SST CS16 STRAPS @ 30° OC, 6° MAX FROM PLATES, ON INSIDE FACE OF COLUMN (EXTERIOR WALL), ON BOTH FACES OF COLUMN (INTERIOR WALL).



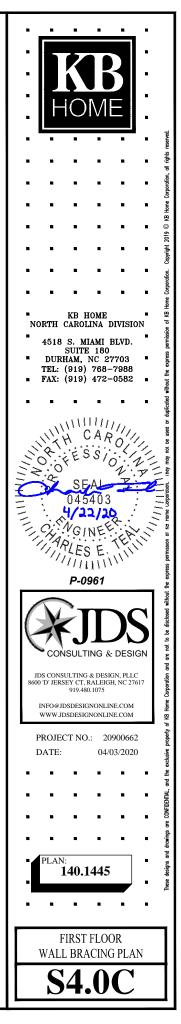


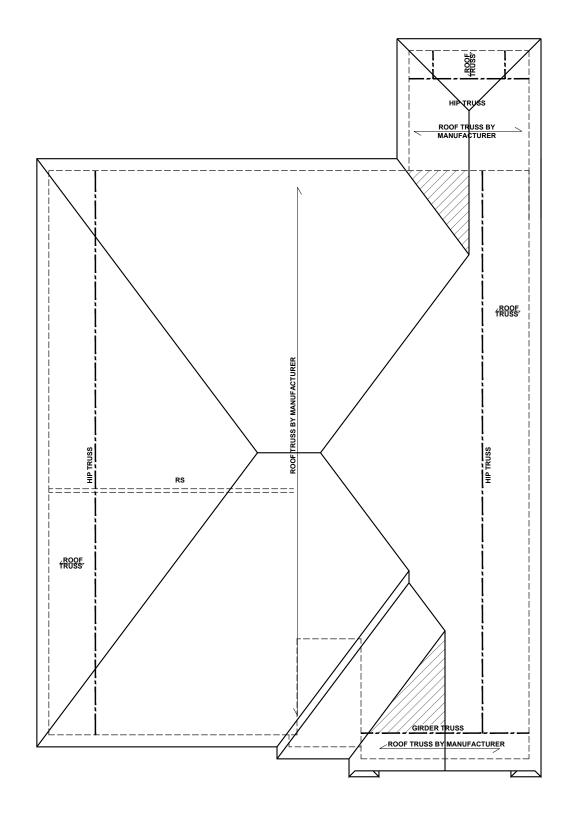
FIRST FLOOR WALL BRACING PLAN - 'C'

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



WALL BRACING: RECTANGLE 1			
SIDE	REQUIRED LENGTH	PROVIDED LENGTH	
FRONT	6.5 FT.	14.75 FT.	
RIGHT	5.5 FT.	12.0 FT.	
REAR	6.5 FT.	11.83 FT.	
LEFT	5.5 FT.	16.0 FT.	





ROOF FRAMING PLAN - 'C'

BEAM & POINT LOAD LEGEND         INTERIOR LOAD BEARING WALL         ROOF RAFTER / TRUSS SUPPORT         DOUBLE RAFTER / TRUSS SUPPORT         STRUCTURAL BEAM / GIRDER         WINDOW / DOOR HEADER         POINT LOAD TRANSFER         POINT LOAD TRANSFER         POINT LOAD FROM ABOVE         BEARING ON BEAM / GIRDER	
TRUSSED ROOF - STRUCTURAL NOTES         1. 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 SALED 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.	KB HOME NORTH CAROLINA DIVISION 4518 S. MIAMI BLVD. SUITE 180 DURHAM, NC 27703 TEL: (919) 768-7988 FAX: (919) 472-0582
TRUSS UPLIFT CONNECTORS: EXPOSURE B, 115 MPH, ANY PITCH, 24" O.C. MAX ROOF TRUSS SPACING         TRUSSES SHALL BE ATTACHED TO SUPPORT WALL SHEATHING BELOW PROVIDES CONTINUOUS UPLIFT RESISTANCE TO FOUNDATION. ALL TRUSSES SUPPORTED BY INTERMEDIATE SUPPORT WALLS, KNEEWALLS, OR BEAMS SHALL BE ATTACHED TO SUPPORTING MEMBER PER SCHEDULE:         ROOF SPAN IS MEASURED HORIZONTALLY BETWEEN FURTHEST SUPPORT POINTS.         ROOF PLAN UP TO 28'       CONNECTOR NAILING FER TABLE 602.3(1) NCRBC 2018 EDITION         OVER 28'       (1) SIMPSON H2.5A HURRICANE CLIP TO DBL TOP PLATE OR BEAM         OR (1) SIMPSON H3 CLIP TO SINGLE 2x4 PLATE	CAROO use a to a feat feat when the constant of the second seco
	DIS CONSULTING & DESIGN, PLLC 8600 D JERSEY CT, RALEIGH, NC 27617 919-80,1075 INFO@JDSDESIGNONLINE.COM WWW.JDSDESIGNONLINE.COM PROJECT NO.: 20900662 DATE: 04/03/2020
	ROOF FRAMING PLAN

