TABLE	R301.2	(1) CLIN		SEOGRA	PHIC DE	ESIGN CR	ITERIA				
GROUND	UND WIND DESIGN SE		SEISMIC	IC DAMAGE FROM				ICE	FLOOD	AIR	MEAN
SNOW LOAD	SPEED (MPH)	TOPO EFFECT	DESIGN CATEG	MEATH- ERING	FROST DEPTH		DESIGN TEMP	BARRIER REQ'D	HAZARD FIRM		
105 {	115)NO	в	SEVERE	48"	NONE	-15°	YES	4FEB05	2239	40 F
LIVE LOADS USED IN DESIGN											
BOOF	(Df)										85 PS
ATTICS20 PSF											
FLOORS											
FLOOR @ SLEEPING ROOMS											
PASSENGER VEHICLE GARAGE FLOOR											
PORCH60 PSF											
WIND EXPOSURE											
MAXIMUM SOIL BEARING PRESSURE							000 PS				
					.8 <i>00</i> PS						
EQUIVALENT FLUID PRESSURE (EFP)(IMPORTED)					45 PC						

THE SOILS ENGINEER DURING PROJECT PLANNING FOR AN UPDATED REPORT.

REGULATORY REQUIREMENTS

ALL CONSTRUCTION SHALL CONFORM TO THE 2021 INTERNATIONAL RESIDENTIAL CODE (INCLUDING APPENDIX CHAPTERS E & Q) AND STANDARDS AS ADOPTED AND/OR AMENDED BY LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS. THE THE ROUTT COUNTY REGIONAL BUILDING DEPARTMENT AND THE FOLLOWING: 2023 NATIONAL ELECTRICAL CODE (NEC) (2018 IRC SPECIFICATIONS ARE NOTED)

2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) LOCAL UTILITY REGULATIONS ALL COUNTY CODES AND ORDINANCES

APPLICABLE PROTECTIVE COVENANTS OF THE SUBDIVISION

ALL WORK EXECUTED IN ANY PUBLIC RIGHT-OF-WAY OR ON PUBLIC PROPERTY SHALL BE COMPLETED ACCORDING TO THE SPECIFICATIONS AND REQUIREMENTS OF THAT GOVERNING BODY.

O. SPECIAL NOTICE

I. GENERAL REQUIREMENTS

THESE SPECIFICATIONS ARE GENERIC IN NATURE, SOME SECTIONS OR DIVISIONS MAY NOT BE APPLICABLE. SEE SPECIAL CONDITIONS FOR ADDITIONAL INFORMATION.

SECTIONS NOTED MAY HAVE BEEN WORDSMITHED TO COMPLY WITH LOCAL CODE AMENDMENTS, CONTRACTOR OR OWNER PREFERENCES OR BY AMPLIFY ARCHITECTURE + DRAFTING REFER TO CODE SECTIONS NOTED FOR ALTERNATIVES AND/OR SPECIFIC REQUIREMENTS.

THESE PLANS AND SPECIFICATIONS DEPICT THE WORK REQUIRED TO CONSTRUCT A SINGLE FAMILY RESIDENCE WITH ATTACHED GARAGE.

SPECIAL INSPECTIONS REQUIRED - FOUNDATION EXCAVATION PRIOR TO PLACING CONCRETE.

EVERY PERMIT ISSUED SHALL BECOME INVALID UNLESS THE WORK ON THE SITE AUTHORIZED IS COMMENCED WITHIN 180 DAYS AFTER ISSUANCE OR IF THE WORK AUTHORIZED IS SUSPENDED OR ABANDONED FOR A PERIOD OF 180 DAYS. ALL BUILDING PERMITS SHALL AUTOMATICALLY EXPIRE THREE YEARS FROM THE DATE OF ISSUANCE.

EVERY ATTEMPT HAS BEEN TAKEN TO AVOID OR ELIMINATE ERRORS DURING THE PREPARATION OF THESE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON THESE PLANS WITH ACTUAL FIELD CONDITIONS.

IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO COORDINATE THE INTERFACE BETWEEN ALL TRADES AND SUBCONTRACTORS, SO AS TO PRESENT A COMPLETE AND FINISHED PRODUCT.

ALL WORK SHALL COMPLY WITH STATE AND LOCAL CODES AND ORDINANCES, AS AMENDED, AND SHALL BE DONE TO THE HIGHEST STANDARDS OF CRAFTSMANSHIP BY JOURNEYMEN OF COMPLETE ALL CONCRETE SHOWN OR NOTED IN THESE DOCUMENTS. THEIR RESPECTIVE TRADES.

THESE DOCUMENTS DO NOT INCLUDE PROVISIONS FOR JOB SITE SAFETY. JOB SITE SAFETY AND PROTECTION OF ADJACENT PROPERTIES DURING CONSTRUCTION SHALL BE CONTRACTORS RESPONSIBILITY.

ALL CONTRACTORS SHALL CARRY WORKMAN'S COMPENSATION, CONTRACTORS LIABILITY, PERSONAL INJURY AND COMPREHENSIVE AUTOMOBILE AND PROPERTY DAMAGE INSURANCE. GENERAL CONTRACTOR TO CARRY "BUILDERS RISK" INSURANCE. OWNER TO CARRY FIRE INSURANCE ON THE COMPLETED STRUCTURE.

THE GENERAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL BUILDING PERMITS. USE TAX. SALES TAX, AND INSPECTION FEES. SPECIAL INSPECTORS WHEN REQUIRED, SHALL BE EMPLOYED BY THE OWNER, ENGINEER RESPONSIBLE FOR THE DESIGN OR AN AGENT OF THE OWNER, BUT NOT BY THE CONTRACTOR OR ANY OTHER PERSON RESPONSIBLE FOR THE

ALL MATERIALS, EQUIPMENT AND WORKMANSHIP SHALL BE SUBJECT TO A ONE YEAR WARRANTY

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. ADDRESS IDENTIFICATION CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE ARABIC NUMBERS OR ALPHABETICAL LETTERS, NUMBERS SHALL NOT BE SPELLED OUT, EACH CHARACTER SHALL BE NOT LESS THAN 4 INCHES (102 MM) IN HEIGHT WITH A STROKE WIDTH OF NOT LESS THAN 0.5 INCH (12.7 MM). WHERE REQUIRED BY THE FIRE CODE OFFICIAL, ADDRESS IDENTIFICATION SHALL BE PROVIDED IN ADDITIONAL APPROVED LOCATIONS TO FACILITATE EMERGENCY RESPONSE, WHERE ACCESS IS BY MEANS OF A PRIVATE ROAD AND THE BUILDING ADDRESS CANNOT BE VIEWED FROM THE PUBLIC WAY. A MONUMENT, POLE OR OTHER SIGN OR MEANS SHALL BE USED TO IDENTIFY THE STRUCTURE. ADDRESS IDENTIFICATION SHALL BE MAINTAINED. (IRC R319.1)

GENERAL CONTRACTOR IS TO PROVIDE THE OWNER WITH A BOUND COPY OF ALL INSPECTION REPORTS, BUILDING DEPARTMENT CORRESPONDENCE; EQUIPMENT MANUALS, DATED WARRANTIES AND INSTALLATION & MAINTENANCE INSTRUCTIONS; CERTIFICATE OF OCCUPANCY, AND LIEN WAIVERS OR RELEASES FROM ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO FINAL PAYMENT. THE GENERAL CONTRACTOR SHALL FAMILIARIZE THE OWNER WITH THE OPERATION OF ALL EQUIPMENT AND APPLIANCES AND CLEARLY LABEL ALL SAFETY VALVES AND CONTROLS FOR THE MAJOR HOUSE SYSTEMS.

MATERIAL SIZES NOTED ON THE PLANS ARE THE MINIMUM ACCEPTABLE. THE USE OF LARGER SIZE, OR STRONGER MATERIALS IS ACCEPTABLE FOR EASE OF CONSTRUCTION OR AESTHETICS. VERIFY THE USE OF ALL SUBSTITUTED MATERIALS WITH THE ENGINEER OF RECORD AND AMPLIFY ARCHITECTURE + DRAFTING.

ALL MATERIALS, FIXTURES & EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S WRITTEN INSPECTOR SHALL SUBMIT A SIGNED REPORT, STATING CONFORMANCE WITH THE APPROVED INSTRUCTIONS AND LOCAL CODES.

. SITE CONSTRUCTION

CONTRACTOR SHALL PROVIDE NECESSARY LABOR, MATERIALS AND EQUIPMENT TO PERFORM ALL SITE WORK SHOWN OR SPECIFIED IN THESE DOCUMENTS.

FIELD LOCATE ALL UTILITY LINES PRIOR TO ANY CONSTRUCTION ACTIVITY.

STRIP SITE OF EXISTING TOPSOIL AND STOCKPILE FOR RE-USE IN LANDSCAPING. REFER TO SITE PLAN FOR EXTENT OF STRIPPING AND PROPOSED STOCKPILE LOCATION.

ALL FOOTINGS ARE TO BE PLACED ON FIRM, UNDISTURBED NATURAL SOIL. TOPSOIL, LOOSE NATURAL SOILS, ALL EXISTING FILL MATERIALS WITHIN THE FOUNDATION EXCAVATIONS SHALL BE REMOVED AND THE FOOTINGS EXTENDED DOWN TO MORE COMPETENT EXISTING SOILS. NOTIFY THE SOIL ENGINEER WHEN EXCAVATION IS COMPLETED SO THAT CONDITIONS MAY BE INSPECTED PRIOR TO PLACEMENT OF ANY FILL OR CONCRETE. (VARIES SEE SOILS REPORT)

THE SLOPE OF CUT OR FILL SURFACES SHALL BE NO STEEPER THAN 2:1 (50% SLOPE). UON

WASHED ROCK OR EARTHEN FILL USED TO SUPPORT THE FOUNDATIONS OF ANY BUILDING SHALL BE PLACED IN ACCORDANCE WITH THE SOIL INVESTIGATION REPORT AND ACCEPTED ENGINEERING PRACTICE. A REPORT OF SATISFACTORY PLACEMENT OF FILL, PREPARED BY A QUALIFIED SOIL ENGINEER, SHALL BE REQUIRED. THIS REPORT SHOULD BE PROVIDED TO THE BUILDING INSPECTOR AT THE TIME OF FOOTING INSPECTION.

ALL FOOTING BEARING ELEVATIONS SHOWN ARE ASSUMED. EXACT BEARING ELEVATIONS SHALL BE VERIFIED IN THE FIELD WITH ACTUAL CONDITIONS BY THE CONTRACTOR AND WITH THE APPROVAL OF THE ENGINEER AND THE OWNER.

ALL FOOTING HORIZONTAL LOCATIONS AND BEARING ELEVATIONS SHOWN ARE TO BE ADHERED TO AND SHALL BE VERIFIED IN THE FIELD WITH ACTUAL CONDITIONS BY THE CONTRACTOR AND WITH THE APPROVAL OF THE ENGINEER AND THE OWNER, PER CITY ORDINANCE 2003, A FOUNDATION LOCATION SURVEY WILL BE REQUIRED. GENERAL CONTRACTOR TO PROVIDE THIS TO THE RCRBD AND CITY PLANNING WITHIN 30 DAYS OF FOUNDATION FORM INSPECTION BY THE RCRBD. DEVIATIONS FROM THE HORIZONTAL LOCATION OR VERTICAL DATUM SHOWN MAY REQUIRE ADDITIONAL REVIEW BY THE CITY OF STEAMBOAT SPRINGS PLANNING SERVICES DEPARTMENT FOR SUBSTANTIAL CONFORMANCE.

ADJACENT TO THE FOUNDATION AT ALL POINTS A MINIMUM OF 4" WHERE MASONRY VENEER IS WEATHER, PROPER ATTENTION SHALL BE GIVEN TO INGREDIENTS, PRODUCTION METHODS, USED AND A MINIMUM OF 6" ELSEWHERE. (IRC R404.1.6)

2. SITE CONSTRUCTION - continued

PROVIDE FOUNDATION PERIMETER DRAINAGE SYSTEM PER IRC SECTION R405 AND DETAILS PROVIDED.

EXCEPTION: A DRAINAGE SYSTEM IS NOT REQUIRED WHEN THE FOUNDATION IS INSTALLED ON WELL DRAINED GROUND OR SAND-GRAVEL MIXTURE SOILS ACCORDING TO THE UNIFIED SOIL CLASSIFICATION SYSTEM, GROUP 1 SOILS AS DETAILED IN TABLE R405.1.

SEE SECTION R406.3 FOR DAMPPROOFING OF WOOD FOUNDATIONS.

THESE PLANS SPECIFY THAT IMPORTED GRANULAR BACKFILL MATERIAL IS REQUIRED FOR BACKFILLING FOUNDATION AND/OR RETAINING WALLS BECAUSE THEIR USE RESULTS IN LOWER LATERAL EARTH PRESSURES. A LETTER DOCUMENTING PLACEMENT OF THE GRANULAR BACKFILL MATERIAL SHALL BE FILED WITH THE BUILDING DEPARTMENT. THE LETTER OF DOCUMENTATION SHALL BE TYPEWRITTEN AND SIGNED BY THE HOMEOWNER OR GENERAL CONTRACTOR AND THE EXCAVATION CONTRACTOR RESPONSIBLE FOR PLACEMENT OF THE BACKFILL MATERIAL.

BACKFILL SHALL NOT BE PLACED AGAINST FOUNDATION WALLS UNTIL FLOOR SLABS HAVE BEEN PLACED AND THE WALL HAS SUFFICIENT STRENGTH AND HAS BEEN ANCHORED TO THE DESIGN VALUES PER THE ORIGINAL DRAWINGS PERMIT NUMBER C-77-046 BE FOUND. CONTACT FLOOR ABOVE OR HAS BEEN SUFFICIENTLY BRACED TO PREVENT DAMAGE BY THE BACKFILL. (IRC R404.1.7)

> EXCEPTION: BRACING IS NOT REQUIRED FOR WALL SUPPORTING LESS THEN 4 FEET OF UNBALANCED BACKFILL.

> GRADE SHALL FALL A MINIMUM OF 6 INCHES WITHIN THE FIRST 10 FEET (IRC R401.3).

EXCEPTION: IMPERVIOUS SURFACES SHALL BE SLOPED A MINIMUM OF 2% AWAY FROM THE BUILDING

ALL UTILITY LINES SHALL BE EXTENDED FROM THE BUILDING TO THE UTILITY CONNECTION AS REQUIRED. CO-ORDINATE WITH THE APPROPRIATE UTILITY COMPANY AND BURIED CABLE LOCATION SERVICE AT 800.922.1987 OR 811

ELECTRIC - FROM METER PANEL TO TRANSFORMER OR SERVICE PANEL TO 200/320 AMP METER PEDESTAL, CO-ORDINATE WITH YAMPA VALLEY ELECTRIC ASSOCIATION, 970.879.1160.

SEWER - FROM 5 FEET OUTSIDE OF FOUNDATION TO SERVICE TAP OR STUB OUT, CO-ORDINATE WITH STEAMBOAT SPRINGS WATER, 970,871,6303, MT WERNER WATER \$ SANITATION DISTRICT, 970.879.2424. MORRISON CREEK METROPOLITAN W & S D, 970.736.8250. UNLESS OTHERWISE NOTED ON THE SITE PLAN, SERVICE LINES AND FITTING ARE 4" PVC, MAINTAIN 5' MINIMUM COVER & 2% MIN SLOPE. - FROM 5 FEET OUTSIDE THE FOUNDATION TO SEPTIC TANK TO LEACH FIELD, SEE DESIGN BY OTHERS.

WATER - FROM METER OR SHUT OFF VALVE TO SERVICE TAP, CO-ORDINATE WITH STEAMBOAT SPRINGS WATER, 970,871,6303, MT, WERNER WATER & SANITATION DISTRICT. 970.879.2424. MORRISON CREEK METROPOLITAN W \$ 5 D. 970.736.8250. UNLESS OTHERWISE NOTED ON THE SITE PLAN, SERVICE LINE TO BE 3/4" TYPE "K" COPPER, MAINTAIN 7' MINIMUM COVER - FROM 5 FEET OUTSIDE THE FOUNDATION TO 2,500 GALLON BURIED STORAGE TANK TO WELL

HEAD, SEE DESIGN BY OTHERS. TELEPHONE - FROM TELEPHONE BOX TO PEDESTAL, CO-ORDINATE WITH CENTURYLINK,

800.244.1111. MAINTAIN 18" MINIMUM COVER. GAS - FROM GAS METER TO POINT OF CONNECTION, CO-ORDINATE WITH ATMOS ENERGY

COMPANY, 888.442.1313. MAINTAIN 18" MINIMUM COVER. - FROM POINT OF CONNECTION TO BURIED 500/ 1,000 GALLON LPG TANK, SEE SITE PLAN.

CABLE TELEVISION - FROM TELEVISION SERVICE PANEL TO PEDESTAL, CO- ORDINATE WITH COMCAST, 970.879.7970. MAINTAIN 18" MINIMUM COVER. TO DISH ANTENNA, CO-ORDINATE WITH SERVICE PROVIDER.

3. CONCRETE

CONTRACTOR SHALL PROVIDE ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO

AS NOTED IN THE SOILS REPORT, EXPANSIVE SOILS WERE ENCOUNTERED AT THIS SITE. REFER TO THE SOILS REPORT FOR SPECIAL PRECAUTIONS AND CONSTRUCTION DETAILS.

FORMS SHALL RESULT IN A FINAL STRUCTURE THAT CONFORMS TO SHAPES, LINES, AND DIMENSIONS OF THE MEMBERS AS REQUIRED BY THE DESIGN DRAWINGS, AND SPECIFICATIONS. CENTER ALL FOOTINGS UNDER WALLS OR COLUMNS UNLESS OTHERWISE NOTED ON PLANS.

ALL CONCRETE WORK AND REINFORCEMENT DETAILING SHALL BE IN ACCORDANCE WITH ACI BUILDING CODE 318. ALL EXPOSED EDGES OF CONCRETE SHALL HAVE A 3/4" CHAMFER.

ALL REINFORCING SHALL BE HIGH STRENGTH DEFORMED BARS CONFORMING TO ASTM A615 AND SHALL BE GRADE 40 MINIMUM OR AS SHOWN ON THE PLANS. ALL REINFORCEMENT SHALL BE COLD BENT UNLESS OTHERWISE PERMITTED BY THE BUILDING OFFICIAL.

PROVIDE CONCRETE ENCASED ELECTRODE (UFER GROUND) PER SECTION E3608.1.2. CO-ORDINATE EXACT REQUIREMENTS WITH ELECTRICAL CONTRACTOR.

WELDED WIRE FABRIC SHALL CONFORM TO ASTM 185 AND SHALL BE LAPPED (1) FULL MESH AT SPLICES AND BE TIED TOGETHER.

THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT,

CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH = 3" CONCRETE EXPOSED TO EARTH OR WEATHER = 1-1/2"

CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND SLABS, WALLS, JOISTS = 3/4"

BEAMS COLUMNS = 1-1/2" DEPTH OF FOOTING ABOVE BOTTOM REINFORCEMENT SHALL BE 6" MINIMUM.

NO SPLICES OF REINFORCEMENT SHALL BE MADE EXCEPT AS DETAILED OR AUTHORIZED BY THE ENGINEER. LAP SPLICES, WHERE PERMITTED, SHALL BE A MINIMUM OF (30) BAR DIAMETERS FOR #4 BAR, GRADE 60 AND (25) BAR DIAMETERS FOR #5 BAR, GRADE 40, PER TABLE R608.5.4(1). MAKE ALL BARS CONTINUOUS AROUND CORNERS. PLACE (2) #5 BARS WITH 2'-0" PROJECTION AROUND ALL OPENINGS IN CONCRETE WALLS, SLABS AND BEAMS.

CONTINUOUS TOP AND BOTTOM BARS IN WALLS SHALL BE SPLICED AS FOLLOWS: TOP BARS AT MIDSPAN, BOTTOM BARS AT SUPPORTS.

PROVIDE ALL ACCESSORIES NECESSARY TO SUPPORT REINFORCING AT POSITIONS SHOWN ON THE PLANS AND IN ACCORDANCE WITH ACI 318. WHERE PROVIDED IN SLABS ON GROUND, REINFORCEMENT SHALL BE SUPPORTED TO REMAIN IN PLACE FROM THE CENTER TO THE UPPER 1/3 OF THE SLAB FOR THE DURATION OF THE CONCRETE PLACEMENT. (R506.2.4)

THE SOIL ENGINEER, ACTING AS A SPECIAL INSPECTOR, SHALL OBSERVE THE DRILLING, REINFORCEMENT AND PLACEMENT OF CONCRETE FOR ALL CAISSONS. THE SPECIAL DESIGN DRAWINGS AND SPECIFICATIONS. THE REPORT SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT PRIOR TO REQUESTING INSPECTIONS FOR FOUNDATION GRADE BEAMS OR MALLS WHICH ARE SUPPORTED BY THE CAISSONS, OR THE REPORT MAY BE MADE AVAILABLE TO A FIELD INSPECTOR AT THE TIME OF GRADE BEAM INSPECTION.

ALL CAST-IN-PLACE CONCRETE SHALL BE MADE WITH TYPE II A PORTLAND CEMENT, FIVE-SACK MIX, WITH 5% MINIMUM TO 7% MAXIMUM ENTRAINED AIR AND 3/4" MAXIMUM STONE AGGREGATE SIZE. CONCRETE SHALL DEVELOP 2,500 PSI COMPRESSIVE STRENGTH IN 28 DAYS FOR BASEMENT SLABS AND WALLS. 3,000 PSI FOR WALLS EXPOSED TO WEATHER AND 3.500 PSI FOR PATIOS, STEPS, GARAGE SLAB AND WEATHER EXPOSED CONCRETE. MATERIALS USED TO PRODUCE CONCRETE AND TESTING THEREOF SHALL COMPLY WITH THE APPLICABLE STANDARDS LISTED IN CHAPTER 3 OF ACI 318 OR ACI 332. CONCRETE SHALL BE PLACED WITH A 4" MAXIMUM SLUM, SHALL NOT BE PLACED ON FROZEN, MUDDY OR SATURATED SOIL AND SHALL BE PROTECTED FROM FREEZING FOR 7 DAYS.

THE SOIL ENGINEER, ACTING AS A SPECIAL INSPECTOR, SHALL OBSERVE THE PLACEMENT OF ALL HELICAL PILES. THE SPECIAL INSPECTOR SHALL SUBMIT A SIGNED REPORT STATING CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE REPORT SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT PRIOR TO REQUESTING INSPECTIONS FOR FOUNDATION GRADE BEAMS OR WALLS WHICH ARE SUPPORTED BY THE HELICAL PILES, OR THE REPORT MAY BE MADE AVAILABLE TO A FIELD INSPECTOR AT THE TIME OF GRADE BEAM INSPECTION.

HELICAL PILE DESIGN DRAWINGS SHALL BE PROVIDED BY THE FABRICATOR STATING: A. THE HELICAL PILE NUMBER, LOCATION AND PATTERN BY AN ASSIGNED IDENTIFICATION NUMBER:

- B. SPECIALTY PILE CAP C. TYPE AND SIZE OF THE CENTRAL STEEL SHAFT;
- D. HELIX CONFIGURATION (NUMBER & DIAMETER OF HELIX PLATES) E. MINIMUM EFFECTIVE INSTALLATION TORQUE;
- F. MINIMUM OVERALL LENGTH AND

G. INCLINATION ANGLE OF HELICAL PILE ALL SUBMITTALS SHALL BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER CURRENTLY LICENSED IN THE STATE OF COLORADO.

CONCRETE (OTHER THAN HIGH-EARLY-STRENGTH) SHALL BE MAINTAINED ABOVE 50 DEGREES FAHRENHEIT AND IN A MOIST CONDITION FOR AT LEAST THE FIRST SEVEN DAYS AFTER PLACEMENT, HIGH-EARLY STRENGTH CONCRETE SHALL BE MAINTAINED ABOVE 50 DEGREES FAHRENHEIT AND IN A MOIST CONDITION FOR AT LEAST THE FIRST THREE DAYS CONCRETE AND MASONRY FOUNDATION WALLS SHALL EXTEND ABOVE THE FINISHED GRADE FROZEN MATERIALS OR MATERIALS CONTAINING ICE SHALL NOT BE USED. DURING HOT HANDLING, PLACING, PROTECTION AND CURING TO PREVENT EXCESSIVE CONCRETE TEMPERATURES OR WATER EVAPORATION THAT MAY IMPAIR REQUIRED STRENGTH OR SERVICE ABILITY OF THE MEMBER OR STRUCTURE.

> NO ADMIXTURES SHALL BE USED WITHOUT APPROVAL BY THE FOUNDATION ENGINEER. WHEN CALCIUM CHLORIDE IS USED AS AN ADMIXTURE, NO GALVANIZED STEEL SHALL BE PLACED INTO CONCRETE AS REINFORCEMENT, INSERTS OR DUCT OR PIPE PENETRATIONS.

DURING COLD WEATHER, PROVIDE TEMPORARY HEAT AS REQUIRED TO PREVENT "FROST DAMAGE" TO ALL FOOTINGS, WALLS, SLABS AND PIERS.

CONDUITS AND PIPES OF ALUMINUM SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE UNLESS SUFFICIENTLY COATED TO PREVENT ALUMINUM-CONCRETE REACTION OR ELECTROLYTIC ACTION BETWEEN ALUMINUM AND STEEL.

CONCRETE SHALL BE THOROUGHLY CONSOLIDATED DURING PLACEMENT AND BE THOROUGHLY WORKED AROUND REINFORCEMENT AND EMBEDDED FIXTURES AND INTO CORNERS OF FORMS.

SLABS, FOOTINGS AND WALLS SHALL NOT HAVE JOINTS IN A HORIZONTAL PLANE. ANY STOP IN CONCRETE WORK MUST BE MADE AT A THIRD POINT OF SPAN WITH VERTICAL BULKHEADS, DOWELS AND SHEAR KEYS, UNLESS OTHERWISE SHOWN. ALL CONSTRUCTION JOINTS SHALL BE AS DETAILED OR REVIEWED BY THE ENGINEER.

FLOOR SLABS SHALL BE POURED IN WHOLE OR IN CHECKER PATTERN, AVOIDING RE-ENTRANT CORNERS, WITH CONSTRUCTION JOINTS LOCATED UNDER PARTITIONS WHERE PRACTICAL AND WITH NO DIMENSION EXCEEDING THE RECOMMENDATION IN THE SOIL REPORT OF 12 FEET AND AS SHOWN ON THE PLANS.

CONCRETE FINISH SHALL BE STEEL TROWELED FOR INTERIOR FLOOR SLABS AND BROOM FINISH FOR EXTERIOR WALKS. VERIFY WITH OWNER LOCATION AREA AND EXTENTS OF OPTIONAL 3/8" EXPOSED AGGREGATE SURFACE. 6X6 - 10X10 - (2.9 X 2.9) WOVEN WIRE FABRIC (WWF) IS RECOMMENDED FOR INSLAB RADIANT HEAT AND ALL EXTERIOR SLABS. FIBROUS MESH REINFORCEMENT IS ACCEPTABLE FOR INTERIOR SLABS ONLY, WITHOUT APPROVAL OF THE ENGINEER.

EXCEPT WHERE REQUIRED BY SECTION R406.2 TO BE WATERPROOFED, FOUNDATION WALLS THAT RETAIN EARTH AND ENCLOSE INTERIOR SPACES AND FLOORS BELOW GRADE SHALL BE DAMPPROOFED FROM THE HIGHER OF (A) THE TOP OF THE FOOTING OR (B) 6 INCHES (152 MM) BELOW THE TOP OF THE BASEMENT FLOOR, TO THE FINISHED GRADE. (MASONRY WALLS SHALL HAVE NOT LESS THAN 3/8 INCH (9.5 MM) PORTLAND CEMENT PARGING APPLIED TO THE EXTERIOR OF THE WALL. THE PARGING SHALL BE) WALLS SHALL BE DAMPPROOFED IN ACCORDANCE WITH ONE OF THE FOLLOWING: (R406.1)

1. BITUMINOUS COATING 2. THREE POUNDS PER SQUARE YARD (1.63 KG/M2) OF ACRYLIC MODIFIED CEMENT. 3. ONE-EIGHTH-INCH (3.2 MM) COAT OF SURFACE-BONDING CEMENT COMPLYING WITH ASTM 4. ANY MATERIAL PERMITTED FOR WATERPROOFING IN SECTION R406.2.

5. OTHER APPROVED METHODS OR MATERIALS.

(EXCEPTION: PARGING OF UNIT MASONRY WALLS IS NOT REQUIRED WHERE A MATERIAL IS APPROVED FOR DIRECT APPLICATION TO THE MASONRY.)

CONCRETE WALLS SHALL BE DAMPPROOFED BY APPLYING ANY ONE OF THE LISTED DAMPPROOFING MATERIALS OR ANY ONE OF THE WATERPROOFING MATERIALS LISTED IN SECTION R406.2 TO THE EXTERIOR OF THE WALL.

IN AREAS WHERE A HIGH WATER TABLE OR OTHER SEVERE SOIL-WATER CONDITIONS ARE KNOWN TO EXIST, EXTERIOR FOUNDATION WALLS THAT RETAIN EARTH AND ENCLOSE INTERIOR SPACES AND FLOORS BELOW GRADE SHALL BE WATERPROOFED FROM THE HIGHER OF (A) THE TOP OF THE FOOTING OR (B) 6 INCHES (152 MM) BELOW THE TOP OF THE BASEMENT FLOOR, TO THE FINISHED GRADE. WALLS SHALL BE WATERPROOFED IN ACCORDANCE WITH ONE OF THE FOLLOWING: (R406.2)

1. TWO-PLY HOT-MOPPED FELTS

2. FIFTY-FIVE-POUND (25 KG) ROLL ROOFING. 3. SIX-MIL (0.15 MM) POLYVINYL CHLORIDE. 4. SIX-MIL (0.15 MM) POLYETHYLENE.

4. MASONRY

5. METALS

5. FORTY-MIL (1 MM) POLYMER-MODIFIED ASPHALT 6. SIXTY-MIL (1.5 MM) FLEXIBLE POLYMER CEMENT.

7. ONE-EIGHTH-INCH (3 MM) CEMENT-BASED, FIBER-REINFORCED, WATERPROOF COATING. 8. SIXTY-MIL (1.5 MM) SOLVENT-FREE LIQUID-APPLIED SYNTHETIC RUBBER.

EXCEPTION: ORGANIC-SOLVENT-BASED PRODUCTS SUCH AS HYDROCARBONS, CHLORINATED HYDROCARBONS, KETONES AND ESTERS SHALL NOT BE USED FOR ICF WALLS WITH EXPANDED POLYSTYRENE FORM MATERIAL. USE OF PLASTIC ROOFING CEMENTS, ACRYLIC COATINGS, LATEX COATINGS, MORTARS AND PARGINGS TO SEAL ICF WALLS IS PERMITTED. COLD-SETTING ASPHALT OR HOT ASPHALT SHALL CONFORM TO TYPE C OF ASTM D 449. HOT ASPHALT SHALL BE APPLIED AT A TEMPERATURE OF LESS THAN 200°F

ALL JOINTS IN MEMBRANE WATERPROOFING SHALL BE LAPPED AND SEALED WITH AN ADHESIVE COMPATIBLE WITH THE MEMBRANE.

CONTRACTOR SHALL PROVIDE NECESSARY LABOR, MATERIALS AND EQUIPMENT TO LAY UP MASONRY AS SHOWN OR SPECIFIED IN THESE DOCUMENTS. ALL WORK SHALL BE PLUMB, SQUARE AND TRUE WITH FILLED JOINTS.

MASONRY CHIMNEYS AND FIREPLACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH IRC CHAPTER 10 AND APPLICABLE PROVISIONS OF CHAPTERS 3 AND 4. SEE TABLE R1001.1 SUMMARY OF REQUIREMENTS FOR MASONRY FIREPLACES AND CHIMNEYS" AND FIGURE R 1001.1 "FIREPLACE AND CHIMNEY DETAILS".

PROVIDE MASONRY RIVER ROCK VENEER WITH SAND STONE CAP AT LOCATIONS NOTED ON PLANS, ADHERED, LIGHT WEIGHT, SYNTHETIC VENEER SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS. ANCHORED STONE OR MASONRY VENEER SHALL BE INSTALLED PER IRC SECTION R703.8; TABLE R703.8 AND FIGURE R703.8. FLOOR FRAMING SYSTEM IS DESIGNED PER IRC SECTION R703.8.1 TO SUPPORT THE ADDITIONAL LOAD OF THE INTERIOR VENEER AND LIMIT DEFLECTION AND SHRINKAGE TO 1/600 OF THE SPAN.

HOLLOW LOAD BEARING CONCRETE MASONRY SHALL BE LIGHTWEIGHT BLOCK UNITS (CMU) AND SHALL CONFORM TO ASTM C90-70, GRADE N. MINIMUM ULTIMATE STRENGTH (FM) = 2,000 PSI.

MORTAR FOR USE IN MASONRY CONSTRUCTION SHALL COMPLY WITH ASTM C270. THE TYPE OF MORTAR SHALL BE IN ACCORDANCE WITH SECTIONS R606.2.8 OR R606.2.11 AND SHALL MEET THE PROPORTION SPECIFICATIONS OF TABLE R606.2.8. MASONRY CEMENT SHALL NOT

WALLS SHALL BE REINFORCED HORIZONTALLY AT 16" ON CENTER WITH LADDER OR TRUSS TYPE REINFORCEMENT MEETING ASTM A82, MASONRY WALL REINFORCEMENT.

EXTERIOR WALLS SHALL BE REINFORCED WITH #5 BARS VERTICALLY AT WALL ENDS, CORNERS, EACH SIDE OF DOOR OR WINDOW OPENINGS AND AT NOT OVER 4 FEET ON CENTER. VERTICAL REINFORCEMENT SHALL BE HELD IN POSITION AT TOP & BOTTOM AND AT INTERVALS NOT TO EXCEED 200 BAR DIAMETERS PRIOR TO GROUTING.

ALL BARS SHALL BE COMPLETELY EMBEDDED IN MORTAR OR GROUT. GROUT USED IN MASONRY WALLS AND BLOCK CELLS SHALL BE COARSE GROUT AS DEFINED BY ASTM C476 AND THE PROPORTION SPECIFICATIONS OF TABLE R606.2.12, GROUT SHALL BE CONSOLIDATED BY PUDDLING OR MECHANICAL VIBRATING DURING PLACEMENT.

FILL ALL VOIDS AND BLOCK CELLS SOLIDLY WITH GROUT FOR A DISTANCE OF 24" BENEATH AND 16" EACH SIDE OF ALL BEAM REACTIONS OR OTHER CONCENTRATED LOADS, UNLESS OTHERWISE NOTED.

ROUTT COUNTY REGIONAL BUILDING DEPARTMENT SHALL INSPECT ALL MASONRY CONSTRUCTION PRIOR TO PLACEMENT OF GROUT.

CLEANOUTS SHALL BE PROVIDED AT THE BOTTOM COURSE OF THE EXTERIOR WYTHE AT EACH POUR WHERE SUCH POUR IN EXCESS OF 64" IN HEIGHT. CLEANOUTS SHALL BE PROVIDED AT BOTTOM COURSE OF EACH CELL TO BE GROUTED AT EACH POUR OF GROUT WHERE SUCH POUR EXCEEDS 4 FEET IN HEIGHT.

UNLESS OTHERWISE NOTED, PROVIDE LOOSE LINTELS AS FOLLOWS: (ONE ANGLE FOR EACH 4" OF WALL THICKNESS WITH 4" MIN. BEARING ON EACH END) OPENINGS TO 4'-6" - ANGLE 4" X 3" X 1/4" THICK

OPENINGS FROM 4'-6" TO 6'-0" - ANGLE 5" X 3-1/2" X 5/16" THICK OPENINGS FROM 6'-0" TO 7'-0" - ANGLE 6" X 3-1/2" X 5/16" THICK THE LONG LEG OF THE ANGLE SHALL BE VERTICAL

MAXIMUM OF 2 STORIES OF MASONRY VENEER ABOVE. SEE IRC R703.8.3.2 STEEL LINTELS SHALL BE SHOP COATED W/ RUSS INHIBITIVE PAINT.

ALL MASONRY SURFACES, BELOW GRADE, SHALL BE COATED WITH BITUMASTIC.

ALL STRUCTURAL STEEL AND MISCELLANEOUS EMBEDDED ITEMS SHALL CONFORM TO ASTM A36. ALL BOLTS (INCLUDING ANCHOR BOLTS) SHALL CONFORM TO ASTM A307. PIPE COLUMNS SHALL CONFORM TO ASTM A53, GRADE B.

TUBE SHAPES SHALL CONFORM TO ASTM 500, GRADE B, 46 KSI YIELD. STRUCTURAL STEEL SHALL BE DETAILED AND FABRICATED IN ACCORDANCE WITH LATEST PROVISIONS OF AISC "MANUAL OF STEEL CONSTRUCTION".

ALL SURFACES (INSIDE & OUTSIDE) OF STEEL COLUMNS SHALL BE GIVEN A SHOP COAT OF RUST INHIBITIVE PAINT. EXCEPT FOR CORROSION RESISTANT STEEL (R407.2) STEEL LINTELS SHALL BE SHOP COATED WITH A RUST INHIBITIVE PAINT OR CORROSION RESISTANT COATING (R703.8.3)

WELDING OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH "STRUCTURAL WELDING CODE-STEEL", ANSI/AWS D1.1-90.

MINIMUM WELDS TO BE PER AISC AND/OR AWS, BUT NOT LESS THAN 3/16" CONTINUOUS FILLET UNLESS OTHERWISE NOTED. QUALITY CONTROL SHALL BE PER AWS. USE ETOXX ELECTRODES. ALL WELDING TO BE PERFORMED BY CERTIFIED WELDERS, IN AN APPROVED FABRICATOR'S SHOP.

WHEN REQUIRED A QUALIFIED SPECIAL INSPECTOR SHALL OBSERVE ALL FIELD WELDING OF STRUCTURAL MEMBERS OR CONNECTIONS FOR CONFORMANCE WITH THE APPROVED

STRUCTURAL DESIGN. THE SPECIAL INSPECTOR SHALL SUBMIT A SIGNED REPORT, STATING CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE REPORT SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT PRIOR TO REQUESTING ROUGH FRAMING INSPECTIONS, OR THE REPORT MAY BE MADE AVAILABLE TO A FIELD INSPECTOR AT THE TIME THE ROUGH FRAMING INSPECTION. SPECIAL INSPECTIONS IF REQUIRED SHALL BE AT THE OWNER'S EXPENSE.

MISCELLANEOUS CLIPS, ANCHORS AND CONNECTORS SHALL BE SIMPSON "STRONG TIE" OR ICBO APPROVED EQUAL, UNLESS OTHERWISE NOTED. REFER TO SIMPSON CATALOG FOR APPROPRIATE NAILING WHEN NOT SPECIFIED ON PLANS. PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

RAMSET PLATES TO BE ATTACHED TO STEEL WITH POWDER ACTUATED 1/8" DRIVEPINS, 1/4" Ø THREADED STUDS WELDED TO STEEL OR 1/4"Ø LAG BOLTS @ 16" OC, STAGGERED REFER TO MANUFACTURER'S RECOMMENDATIONS FOR POWDER ACTUATED ANCHOR INSTALLATION.

EXPANSION BOLTS SHALL BE "WEG-IT", "REDHEAD" OR APPROVED EQUAL. MINIMUM EMBEDMENT SHALL BE 1-1/2" FOR 1/2" DIAMETER BOLTS AND 2" FOR 5/8" DIAMETER BOLTS. EPOXY GROUTED REBAR OR ANCHOR BOLT CONNECTIONS SHALL BE MADE WITH SIMPSON "EPOXY-TIE" AND PER MANUFACTURER'S INSTRUCTIONS.

ANCHOR BOLTS SHALL BE 1/2" DIAMETER WITH 7" MINIMUM EMBEDMENT AND SUFFICIENT EXPOSED LENGTH FOR CONNECTION OF PLATE OR SILLS PLUS FULL NUT PENETRATION WITH MASHER. ANCHOR BOLTS SHALL BE PLACED AT 4' OC (UON) AND BETWEEN 4"-12" OF PLATE ENDS AND CORNERS. PROVIDE (2) ANCHOR BOLTS (MIN) PER PLATE OR SILL. BOLT SHALL BE LOCATED IN THE MIDDLE 1/3 OF THE WIDTH OF THE PLATE. (IRC R403.1.6)

COLD FORMED STEEL FRAMING - SEE SECTION R505

6. CARPENTRY

5. METAL- continued

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT TO FRAME UP, SHEATH AND TRIM OUT BUILDING AS SHOWN OR SPECIFIED IN THESE DOCUMENTS.

AS NOTED IN THE SOILS REPORT, EXPANSIVE SOILS WERE ENCOUNTERED AT THIS SITE. ALL INTERIOR NON-BEARING PARTITIONS RESTING ON CONCRETE FLOOR SLABS SHOULD BE PROVIDED WITH A SLIP JOINT AT THE BOTTOM PER FIGURE #6? IN THE SOILS REPORT OR SLIP JOINT DETAIL PROVIDED WITH THESE PLANS.

THIS HOUSE IS DESIGNED FOR OPTIMAL VALUE ENGINEERING (ADVANCED FRAMING) SEE ATTACHED FRAMING DETAILS.

ALL 2" FRAMING LUMBER SHALL BE STRESS RATED, S-DRY DOUGLAS FIR OR LARCH (DF-L) 545, #2 OR BETTER. ALL SOLID TIMBER BEAMS AND POSTS SHALL BE S-DRY DOUGLAS FIR OR LARCH (DF-L) 545, # 1 OR BETTER.

ALL STRUCTURAL LOGS SHALL BE SIZED PER PLANS AND GRADED PER TIMBER PRODUCTS INSTITUTE (TPI) LOG PROGRAM TECHNICAL GUIDE DATED 1 FEBRUARY, 2008 AND IN ACCORDANCE WITH ICC-400. IN LIEU OF A GRADE MARK ON THE MATERIAL, A CERTIFICATE OF INSPECTION AS TO GRADE AND SPECIES MAY BE ACCEPTED. STRUCTURAL LOG MEMBERS SHALL COMPLY WITH THE PROVISIONS OF ICC-400 (R602.1.4)

GLUE LAMINATED BEAMS (GL) SHALL BE AITC STRESS RATED TO COMBINATION SYMBOL 24F-V4 FOR SIMPLE SPANS AND 24F-V8 FOR MULTI SPANS AND CANTILEVERS, ARCHITECTURAL APPEARANCE GRADE. THE PORTIONS OF GLU-LAMINATED TIMBERS EXPOSED TO WEATHER AND NOT PROPERLY PROTECTED BY A ROOF, EVE OR SIMILAR COVERING SHALL BE PRESSURE TREATED WITH PRESERVATIVE. (IRC R317.1.5)

PREFABRICATED WOOD MEMBERS SHALL BE OF THE TYPE NOTED ON THE PLANS AND SHALL BE MICRO-LAM (LVL), TIMBERSTRAND (LSL), PARALLAM (PSL), OR TJI AS MANUFACTURED BY TRUS-JOIST MACMILLAN OR APPROVED EQUAL. I-JOISTS AND LAMINATED LUMBER SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.

STRUCTURAL INSULATED PANELS (SIP) SHALL BE 5-1/2" CORE THICKNESS, STRESS SKIN PANELS AS MANUFACTURED BY THE MURUS COMPANY OR APPROVED EQUAL. MANUFACTURER SHALL SUPPLY FABRICATED "SHOP DRAWINGS" FOR THE ENGINEER'S REVIEW AND APPROVAL, SIGNED AND SEALED BY A COLORADO REGISTERED PROFESSIONAL ENGINEER, ALL PANELS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S DETAILS AND ASSEMBLY REQUIREMENTS.

WOOD TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH APPROVED ENGINEERING PRACTICE. THE DESIGN & MANUFACTURE OF METAL PLATE CONNECTED WOOD TRUSSES SHALL COMPLY WITH ANSI/TPI 1. THE DESIGN DRAWINGS SHALL BE PREPARED BY A COLORADO REGISTERED PROFESSIONAL ENGINEER. TRUSS DESIGN DRAWINGS SHALL BE PREPARED IN COMPLIANCE WITH IRC SECTION R502.11.1 & R802.10.1 AND SHALL BE PROVIDED TO THE BUILDING OFFICIAL AND APPROVED PRIOR TO INSTALLATION. TRUSS DESIGN DRAWINGS SHALL BE PROVIDED WITH THE SHIPMENT OF TRUSSES DELIVERED TO THE JOB SITE. SEE IRC SECTION R502.11.4 FOR MINIMUM DESIGN REQUIREMENTS AND SPECIFIED INFORMATION. LOAD DURATION FACTOR SHALL BE 1.00. IT IS RECOMMENDED THAT JDS, INC. OR THE ENGINEER OF RECORD REVIEW TRUSS SCHEMATICS PRIOR TO ACCEPTANCE OF THE FABRICATOR'S ORDER.

CUTS, NOTCHES AND HOLES BORED IN TRUSSES, STRUCTURAL COMPOSITE LUMBER, STRUCTURAL GLUE-LAMINATED MEMBERS, CROSS LAMINATED TIMBER MEMBERS OR I-JOISTS ARE PROHIBITED EXCEPT WHERE PERMITTED BY THE MANUFACTURER'S RECOMMENDATIONS OR WHERE THE EFFECTS OF SUCH ALTERATIONS ARE SPECIFICALLY CONSIDERED IN THE DESIGN OF THE MEMBER BY A REGISTERED DESIGN PROFESSIONAL. (R502.8.2)

PLYWOOD SHEATHING SHALL BE STRUCTURAL 1, C-D, EXT-APA FOR ALL USES, MEETING THE MINIMUM APA RATING OR THICKNESS NOTED ON THE PLANS. ROOF AND FLOOR SHEATHING SHALL BE PLACED WITH THE &-O" DIMENSION PERPENDICULAR TO THE FRAMING STAGGER END JOINTS. PLYMOOD FLOOR SHALL BE TONGUE AND GROOVED, AND GLUED AND NAILED AT SUPPORTS. WALL SHEATHING MAY BE PLACED VERTICAL OR HORIZONTALLY WITH ALL HORIZONTAL JOINTS BLOCKED AND EDGE NAILED. NAIL ROOF SHEATHING WITH 8D (PENNY) NAILS AT 6" OC AT THE EDGES AND 12" OC IN THE FIELD. NAIL FLOOR SHEATHING WITH 10D RING SHANKS AT 6" OC AT THE EDGES AND 12" OC IN THE FIELD. HIGH FOOT TRAFFIC AREAS SHALL BE SCREWED AT 6" OC. NAIL WALL SHEATHING WITH 8D (PENNY) NAILS AT 6" OC AT THE EDGES AND 12" OC IN THE FIELD.

STRUCTURAL INSULATED SHEATHING (SIS) SHALL BE ZIP SYSTEM R-SHEATHING R-6 AS MANUFACTURED BY HUBER ENGINEERED WOODS. SHEATHING PANELS SHALL BE INSTALLED VERTICALLY W/ ALL JOINTS AND EDGES BACKED BY FRAMING, PER MANUFACTURER'S PUBLISHED INSTALLATION MANUAL AND 1CC-ESR-3373 (SEE ATTACHED). NAILING FOR 16" OC FRAMING TO BE 0.131" & SHANKS W/ 1-1/2" MINIMUM PENETRATION INTO STUD, 3" OC @ EDGES & 12" OC FIELD. THIS NAILING PROVIDES 255 PLF ALLOWABLE SHEAR. COUNTERSINKING OF FASTENERS IS ACCEPTABLE. ALL SEAMS & JOINTS BETWEEN BOARDS SHALL BE COVERED W/ ZIP SYSTEM CONSTRUCTION TAPE OR ZIP SYSTEM LIQUID FLASH. REFER TO ZIP SYSTEM INSTALLATION MANUAL FOR DETAILS NOT PROVIDED ON THESE

PROVIDE 1X4 CROSS BRIDGING OR 2X_ BLOCKING AT NOT OVER 8' ON CENTER FOR ALL SOLID WOOD JOISTS, UNLESS BOTH EDGES OF THE MEMBER ARE HELD IN LINE. PROVIDE SOLID BLOCKING BETWEEN JOISTS AT ALL SUPPORTS, BEAMS OR BEARING WALLS. PROVIDE SOLID BLOCKING AT 24" OC UNDER ALL PARTITIONS RUNNING PARALLEL TO JOISTS AND AT CENTERLINE OF WALLS RUNNING PERPENDICULAR TO JOISTS. SOLID BLOCKING IN ROOF SYSTEMS SHALL NOT INTERFERE WITH COLD ROOF VENTILATION.

ALL SOLID WOOD OR STEEL COLUMN SUPPORTS SHALL BE CONTINUOUS THROUGH FRAMING AND SHALL BEAR DIRECTLY ON ANOTHER COLUMN OR BEAM OR OTHERWISE TRANSFERRED TO THE FOUNDATION. MULTIPLE STUD COLUMNS MAY BEAR DIRECTLY ON A WALL PLATE IF PROVIDED WITH FULL WIDTH BLOCKING THROUGH FRAMING SYSTEM.

IN COMBUSTIBLE CONSTRUCTION WHERE THERE IS USABLE SPACE ABOVE AND BELOW THE CONCEALED SPACE OF A FLOOR/CEILING ASSEMBLY, DRAFTSTOPS SHALL BE INSTALLED SO HAT THE AREA OF THE CONCEALED SPACE DOES NOT EXCEED 1,000 SQUARE FEET. DRAFTSTOPPING SHALL DIVIDE THE AREA INTO APPROXIMATELY EQUAL AREAS. WHERE THE ASSEMBLY IS ENCLOSED BY A FLOOR MEMBRANE ABOVE AND A CEILING MEMBRANE BELOW, DRAFTSTOPPING SHALL BE PROVIDED UNDER THE FOLLOWING CIRCUMSTANCES: 1. THE CEILING IS SUSPENDED UNDER THE FLOOR FRAMING

2. FLOOR FRAMING IS CONSTRUCTED OF TRUSS TYPE OPEN WEB OR PERFORATED MEMBERS. DRAFTSTOPPING MATERIALS SHALL BE NOT LESS THAN 1/2 INCH GYPSUM BOARD, 3/8" MOOD STRUCTURAL PANELS OR OTHER APPROVED MATERIALS ADEQUATELY SUPPORTED.

DRAFTSTOPPING SHALL BE INSTALLED PARALLEL TO THE FLOOR FRAMING MEMBERS. (IRC R502.12.1 AND R302.12) IN COMBUSTIBLE CONSTRUCTION, FIREBLOCKING SHALL BE PROVIDED TO CUT OFF BOTH

VERTICAL AND HORIZONTAL CONCEALED DRAFT OPENINGS AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE. (R302.11) FIREBLOCKING SHALL BE PROVIDED IN WOOD-FRAMED CONSTRUCTION IN THE FOLLOWING

LOCATIONS: 1. IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS, AS FOLLOWS:

1.1. VERTICALLY AT THE CEILING AND FLOOR LEVELS. 1.2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET (3048 MM).

2. AT INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS DROP CEILINGS AND COVE CEILINGS 3. IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN. ENCLOSED SPACES UNDER STAIRS SHALL COMPLY WITH SECTION R302.7. 4. AT OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES AND WIRES AT CEILING AND FLOOR LEVEL, WITH AN APPROVED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION. THE MATERIAL FILLING THIS ANNULAR SPACE SHALL NOT BE REQUIRED TO MEET THE ASTM E 136 REQUIREMENTS. 5. FOR THE FIREBLOCKING OF CHIMNEYS AND FIREPLACES, SEE SECTION R 1003.19.

6. FIREBLOCKING OF CORNICES OF A TWO-FAMILY DWELLING IS REQUIRED AT THE LINE OF DWELLING UNIT SEPARATION.

6. CARPENTRY - continued

EXCEPT AS PROVIDED IN SECTION R302.11, ITEM 4, FIREBLOCKING SHALL CONSIST OF THE FOLLOWING MATERIALS. (R302.11.1)

1. TWO-INCH (51 MM) NOMINAL LUMBER. 2. TWO THICKNESSES OF 1-INCH (25.4 MM) NOMINAL LUMBER WITH BROKEN LAP JOINTS. 3. ONE THICKNESS OF 23/32-INCH (18.3 MM) WOOD STRUCTURAL PANELS WITH JOINTS BACKED BY 23/32-INCH (18.3 MM) WOOD STRUCTURAL PANELS. 4. ONE THICKNESS OF 3/4-INCH (19.1 MM) PARTICLEBOARD WITH JOINTS BACKED BY 3/4-INCH (19.1 MM) PARTICLEBOARD.

5. ONE-HALF-INCH (12.7 MM) GYPSUM BOARD 6. ONE-QUARTER-INCH (6.4 MM) CEMENT-BASED MILLBOARD. 7. 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. 8. CELLULOSE INSULATION INSTALLED AS TESTED IN ACCORDANCE WITH ASTME 119 OR UL

263, FOR THE SPECIFIC APPLICATION.

LUMBER AND PLYMOOD USED IN EXTERIOR FOUNDATION WALLS SHALL BE PRESSURE-PRESERVATIVE TREATED IN ACCORDANCE WITH AMPA U1 AND SHALL BEAR THE LABEL OF AN ACCREDITED AGENCY. (IRC R402.1.2)

WOOD COLUMNS SHALL BE APPROVED WOOD OF NATURAL DECAY RESISTANCE OR APPROVED PRESSURE PRESERVATIVE TREATED WOOD.

1. COLUMNS EXPOSED TO THE WEATHER OR IN BASEMENTS WHERE SUPPORTED BY CONCRETE PIERS OR METAL PEDESTALS PROJECTING 1 INCH (25 MM) ABOVE A CONCRETE FLOOR OR 6 INCHES (152 MM) ABOVE EXPOSED EARTH AND THE EARTH IS COVERED BY AN APPROVED IMPERVIOUS MOISTURE BARRIER. 2. COLUMNS IN ENCLOSED CRAWL SPACES OR UNEXCAVATED AREAS LOCATED WITHIN THE PERIPHERY OF THE BUILDING WHEN SUPPORTED BY A CONCRETE PIER OR METAL PEDESTAL AT A HEIGHT MORE THAN & INCHES (203 MM) FROM EXPOSED EARTH AND THE EARTH IS COVERED BY AN IMPERVIOUS MOISTURE BARRIER 3. DECK POSTS SUPPORTED BY CONCRETE PIERS OR METAL PEDESTALS PROJECTING NOT LESS THAN 1 INCH (25 MM) ABOVE A CONCRETE FLOOR OR 6 INCHES (152 MM) ABOVE EXPOSED EARTH. (IRC R317.1.4)

SILLS AND SLEEPERS ON A CONCRETE OR MASONRY SLAB WHICH IS IN DIRECT CONTACT WITH THE GROUND UNLESS SEPARATED FROM SUCH SLAB BY AN IMPERVIOUS MOISTURE BARRIER SHALL BE PRESSURE-PRESERVATIVE TREATED MOOD IN ACCORDANCE WITH AMPA U1 OR FOUNDATION REDWOOD. (IRC R317.1)

FASTENERS INCLUDING NUTS AND WASHERS IN PRESSURE PRESERVATIVE & FIRE RETARDANT TREATED WOOD ABOVE GRADE SHALL BE HOT DIPPED ZINC COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER.. STAPLES SHALL BE STAINLESS STEEL. (IRC R317.3.1)

EXCEPTIONS. 1. 1/2" DIAMETER OR GREATER STEEL BOLTS

3. PLAIN CARBON STEEL FASTENERS IN SBX/DOT AND ZINC BORATE PRESERVATIVE-TREATED WOOD IN AN INTERIOR, DRY ENVIRONMENT SHALL BE PERMITTED

THE ENDS OF EACH JOIST, BEAM OR GIRDER SHALL HAVE NOT LESS THAN 1-1/2 INCHES BEARING ON WOOD OR METAL AND NOT LESS THAN 3 INCHES ON MASONRY OR CONCRETE OR TO BE SUPPORTED BY APPROVED JOIST HANGERS, JOISTS FRAMING FROM OPPOSITE SIDES OVER A BEARING SUPPORT SHALL LAP A MINIMUM OF 3 INCHES AND BE NAILED TOGETHER W/ A MINIMUM OF (3) 100 FACE NAILS. JOISTS FRAMING INTO THE SIDE OF A BEAM OR GIRDER, SHALL BE SUPPORTED BY APPROVED FRAMING ANCHORS OF THE APPROPRIATE SIZE AND CAPACITY. (IRC R502.6.)

NOTCHES IN SOLID LUMBER JOISTS, RAFTERS OR BEAMS SHALL NOT EXCEED 1/6 OF THE MEMBER DEPTH, SHALL NOT BE LONGER THAN 1/3 OF THE MEMBER DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE 1/3 OF THE SPAN. NOTCHES AT THE ENDS OF THE MEMBER SHALL NOT EXCEED 1/4 OF THE MEMBER DEPTH. THE TENSION SIDE OF MEMBERS 4" OR GREATER SHALL NOT BE NOTCHED EXCEPT AT THE ENDS OF THE MEMBERS. THE DIAMETER OF HOLES BORED OR CUT INTO MEMBERS SHALL NOT EXCEED 1/3 THE DEPTH OF THE MEMBER. HOLES SHALL NOT BE CLOSER THAN 2 INCHES TO THE TOP OR BOTTOM OF THE MEMBER OR TO ANY OTHER HOLE OR NOTCH LOCATED IN THE MEMBER. (IRC R502.8) SEE FIGURE R502.8.

CUTS, NOTCHES AND HOLES BORED IN TRUSSES, STRUCTURAL COMPOSITE LUMBER, STRUCTURAL GLUE LAMINATED MEMBERS, CROSS LAMINATED TIMBER MEMBERS OR I-JOISTS ARE PROHIBITED EXCEPT WHERE PERMITTED BY THE MANUFACTURER'S RECOMMENDATIONS OR WHERE THE EFFECTS OF SUCH ALTERATIONS ARE SPECIFICALLY CONSIDERED IN THE DESIGN OF THE MEMBER BY A REGISTERED PROFESSIONAL ENGINEER. (IRC R502.8.2) (IRC R802.7.2)

OPENINGS IN FLOOR, CEILING AND ROOF FRAMING SHALL BE FRAMED WITH A HEADER AND TRIMMER JOISTS AND SHALL BE DOUBLED OR OF EQUIVALENT CROSS SECTION WHEN THE SPAN OF THE HEADER EXCEEDS 4. THE ENDS OF HEADER JOISTS MORE THAN 6' LONG SHALL BE SUPPORTED BY FRAMING ANCHORS OR JOIST HANGERS, UNLESS BEARING ON A BEAM, PARTITION OR WALL. (IRC R502.10 & R802.9)

OPENINGS IN FLOOR FRAMING SHALL BE FRAMED WITH A HEADER AND TRIMMER JOISTS. WHERE THE HEADER JOIST SPAN DOES NOT EXCEED 4 FEET (1219 MM), THE HEADER JOIST SHALL BE A SINGLE MEMBER THE SAME SIZE AS THE FLOOR JOIST. SINGLE TRIMMER JOISTS SHALL BE USED TO CARRY A SINGLE HEADER JOIST THAT IS LOCATED WITHIN 3 FEET (914 MM) OF THE TRIMMER JOIST BEARING. WHERE THE HEADER JOIST SPAN EXCEEDS 4 FEET (1219 MM), THE TRIMMER JOISTS AND THE HEADER JOIST SHALL BE DOUBLED AND OF SUFFICIENT CROSS SECTION TO SUPPORT THE FLOOR JOISTS FRAMING INTO THE HEADER. (R502.10)

GIRDERS AND BEAMS SHALL HAVE 3" MINIMUM BEARING OR WHEN FRAMED INTO THE SIDE OF A BEAM OR GIRDER, SHALL BE SUPPORTED BY FRAMING ANCHORS OF THE APPROPRIATE SIZE AND CAPACITY. GIRDER AND BEAM END JOINTS SHALL OCCUR OVER SUPPORTS. WHEN A GIRDER OR BEAM IS SPLICED OVER A SUPPORT, AN ADEQUATE TIE SHALL BE PROVIDED.

ENDS OF WOOD GIRDERS OR BEAMS ENTERING EXTERIOR MASONRY OR CONCRETE WALLS SHALL BE PROVIDED WITH A 1/2" AIR SPACE ON TOP, SIDES AND END UNLESS APPROVED MOOD OF NATURAL RESISTANCE TO DECAY OR PRESSURE PRESERVATIVE TREATED MOOD IS USED. (IRC R317.1)

WOOD SHALL BE TREATED IN THE FIELD IN ACCORDANCE WITH AWPA M4. (R317.1.1)

OC. (IRC R502.4)

EACH END OF A HEADER SHALL HAVE A MINIMUM BEARING LENGTH OF 1-1/2" FOR THE FULL WIDTH OF THE HEADER. LVL HEADERS SHALL HAVE A MINIMUM BEARING LENGTH OF 3" FOR THE FULL WIDTH OF THE HEADER. PROVIDE DOUBLED "KING STUDS" AT ALL OPENINGS OVER 10'

HEADERS SHALL BE SUPPORTED ON EACH END WITH ONE OR MORE JACK STUDS OR WITH APPROVED FRAMING ANCHORS IN ACCORDANCE WITH TABLE R602.7(1) OR R602.7(2). THE FULL-HEIGHT STUD ADJACENT TO EACH END OF THE HEADER SHALL BE END NAILED TO EACH END OF THE HEADER WITH FOUR-16D NAILS (3.5 INCHES X 0.135 INCHES). THE MINIMUM NUMBER OF FULL-HEIGHT STUDS AT EACH END OF A HEADER SHALL BE IN ACCORDANCE WITH TABLE R602.7.5.(R602.7.5)

ROOF TRUSSES SHALL STACK DIRECTLY OVER WALL STUDS AND FLOOR JOISTS BELOW. (UON) ADDITIONAL STUDS, TRIPLED TOP PLATES OR 2X6 BLOCKING MAY BE REQUIRED IF NOT STACKED OVER WALL STUDS, WHEN PLANS SPECIFY ON "COMMON LAYOUT".

MOOD FRAMED EXTERIOR DECKS SHALL BE IN ACCORDANCE WITH SECTION R507. FOR DECKS USING MATERIALS AND CONDITIONS NOT PRESCRIBED IN THIS SECTION REFER TO SECTION R301, WOOD MATERIALS SHALL BE #2 OR BETTER LUMBER, PRESERVATIVE-TREATED OR APPROVED NATURALLY DURABLE LUMBER. ENGINEERED WOOD PRODUCTS SHALL BE IN ACCORDANCE WITH SECTION R502. PLASTIC COMPOSITE EXTERIOR DECK BOARDS, STAIR TREADS, GUARDS AND HANDRAILS SHALL COMPLY WITH ASTM D7032 AND THIS SECTION.

"PLACEMENT OF LAG SCREWS AND BOLTS IN LEDGERS" AND R507.9.1.3(2) "PLACEMENT OF OR STAINLESS STEEL. R507.9.1.3(2)

DECK ATTACHMENT FOR LATERAL LOADS SHALL BE PER FIGURE R507.9.2(1) OR R507.9.2(2). SEE ATTACHED.

UON, STAIR SECTIONS DEPICT THE MATHEMATICAL DIFFERENCE FROM SUB FLOOR TO SUB FLOOR, CONTRACTOR TO ALLOW FOR FINAL FINISHES PROVIDING EQUAL RISERS. STAIRS TO COMPLY WITH IRC SECTION R-311.

UON, PROVIDE STURDI-STEP TREADS FOR CARPETED STAIRS OR LSL TREADS FOR OTHER

MINIMUM NAILING SHALL BE AS SPECIFIED IN TABLE R602.3(1) SEE ATTACHED 7. THERMAL AND MOISTURE PROTECTION

FIELD CUT ENDS, NOTCHES AND DRILLED HOLES OF PRESSURE PRESERVATIVE TREATED

JOISTS UNDER PARALLEL BEARING PARTITIONS SHALL BE OF ADEQUATE SIZE TO SUPPORT THE LOAD. DOUBLED JOISTS THAT ARE SEPARATED TO PERMIT THE INSTALLATION OF PIPING OR VENTS SHALL BE FULL DEPTH SOLID BLOCKED WITH 2X_ DIMENSIONAL LUMBER SPACED 4'

DECK LEDGER SHALL BE CONNECTED TO BAND JOIST PER FIGURE R507.9.1.3(1), LAG SCREWS AND BOLTS IN BAND JOISTS" FASTENERS SHALL BE HOT DIPPED GALVANIZED

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT TO INSTALL INSULATION, VAPOR BARRIERS & RETARDERS, FLASHINGS, WATERPROOFING AND ROOF COVERING AS DETAILED OR SPECIFIED IN THESE DOCUMENTS.

UNDER-FLOOR OR CRAWLSPACE AREAS SHALL HAVE VENTILATION OPENINGS THROUGH FOUNDATION WALL OR EXTERIOR WALLS. THE MINIMUM NET AREA OF VENTILATION OPENINGS SHALL NOT BE LESS THAN 1 SQUARE FOOT FOR EACH 150 SQUARE FEET OF UNDER-FLOOR SPACE AREA UNLESS THE GROUND SURFACE IS COVERED BY A CLASS 1 VAPOR RETARDER MATERIAL. WHERE A CLASS 1 VAPOR RETARDER MATERIAL IS USED THE MINIMUM NET AREA OF VENTILATION OPENINGS SHALL NOT BE LESS THAN 1 SQUARE FOOT FOR EACH 1,500 SQUARE FEET OF UNDER-FLOOR SPACE AREA ONE SUCH VENTILATING OPENING SHALL BE LOCATED WITHIN 3 FEET OF EACH CORNER OF THE BUILDING. (IRC R408.1) VENTILATION OPENINGS SHALL BE COVERED WITH CORROSION-RESISTANT WIRE MESH WITH MESH OPENINGS OF 1/8" OR LESS. (IRC R408.2) THE REQUIRED OPENINGS SHALL BE PLACED SO AS TO PROVIDE CROSS-VENTILATION OF THE SPACE. THE INSTALLATION OF OPERABLE LOUVERS SHALL NOT BE PROHIBITED. APPROVED VAPOR RETARDERS ARE 6 MIL POLYETHYLENE FILM WITH 2" PEA GRAVEL BALLAST RUECO "SUPER SAMPSON" OR "TH THE #4" MEMBRANES

7. THERMAL AND MOISTURE PROTECTION

VENTILATION OPENINGS IN UNDER FLOOR SPACES SHALL NOT BE REQUIRED WHEN. 1. EXPOSED EARTH IS COVERED WITH A CONTINUOUS CLASS 1 VAPOR RETARDER. JOINTS OF THE VAPOR RETARDER SHALL OVERLAP 6" AND SHALL BE SEALED OR TAPED . THE EDGES EXTEND UP THE STEM WALL AT LEAST 6" MINIMUM AND SHALL BE ATTACHED AND SEALED TO THE STEM WALL; AND

2. ONE OF THE FOLLOWING IS PROVIDED FOR THE UNDER FLOOR SPACE: 2.1 CONTINUOUSLY OPERATED MECHANICAL EXHAUST VENTILATION AT A RATE OF 1 CFM FOR EACH 50 SF OF CRAWL SPACE AREA, INCLUDING AN AIR PATHWAY TO THE COMMON AREA (SUCH AS A DUCT OR TRANSFER GRILL) AND PERIMETER WALLS INSULATED IN ACCORDANCE WITH SECTION N1102.2.11. (R408.3)

2.2 CONDITIONED AIR SUPPLY SIZED TO DELIVER AT A RATE OF 1 CFM FOR EACH 50 SF OF UNDER FLOOR AREA, INCLUDING A RETURN AIR PATHWAY TO THE COMMON AREA (SUCH AS A DUCT OR TRANSFER GRILL) AND PERIMETER WALLS INSULATED IN ACCORDANCE WITH SECTION N1102.2.11. (R408.3)

2.5 VENTILATION EQUIPMENT INSTALLED UNDER 2.1 ANFD 2.1 MAY OPERATE INTERMITTENTLY FOR A MINIMUM OF 1 HOUR FOR EVERY 24 HOUR PERIOD IF EXHAUST ONLY SYSTEM IS INSTALLED IN ACCORDANCE WITH 2.1 OR WHEN A DEDICATED HRV/ERV FAN IS INSTALLED TO SERVE ONLY THE CRAML SPACE AREA UNDER SECTION 2.2. (RCRBD AMENDMENT)

PROVIDE (2) LAYERS OF "BARRIER X5" A COMBINATION UNDERSLAB INSULATION (R-5 X 2) \$ VAPOR RETARDER INSTALLED PER MANUFACTURER'S INSTRUCTIONS OR OPTIONALLY PROVIDE R-10 RIGID FOAM OR R-10 DEMILEC "HEATLOC HFO" SPRAY FOAM OVER "TU-TUF #4" VAPOR RETARDER INSTALLED PER MANUFACTURER'S INSTRUCTIONS. (REQUIRED FOR ALL SLABS IN CONDITIONED SPACE W/O RADIANT FLOOR)

PROVIDE (3) LAYERS OF "BARRIER X5" A COMBINATION UNDERSLAB INSULATION (R-5 X 3) \$ VAPOR RETARDER INSTALLED PER MANUFACTURER'S INSTRUCTIONS OR OPTIONALLY PROVIDE R-15 RIGID FOAM OR R-15 DEMILEC "HEATLOC HFO" SPRAY FOAM OVER "TU-TUF #4" VAPOR RETARDER INSTALLED PER MANUFACTURER'S INSTRUCTIONS. (REQUIRED FOR ALL RADIANT FLOOR SLABS) (THIS PROVIDES THE ADITIONAL INSULATION REQUIRED BY DIVISION N1102.1.2 d. FOR RADIANT FLOOR SLABS)

PROVIDE FOAM SILL SEALER BETWEEN TOP OF FOUNDATION WALL AND RIM JOIST AND BETWEEN FLOOR SHEATHING & SILL PLATES AT ALL EXTERIOR WALLS.

CLASS I OR II VAPOR RETARDERS ARE REQUIRED ON INTERIOR SIDE OF FRAMED WALLS IN CLIMATE ZONES 5, 6, 7, 8 AND MARINE 4. (IRC R702.7)

EXCEPTIONS: 1. BASEMENT WALLS 2. BELOW GRADE PORTION OF ANY WALL.

EXCEPTIONS:

CLASS III VAPOR RETARDERS SHALL BE PERMITTED IN ZONES 7 & 8 WITH CONTINUOUS INSULATION WITH R VALUE > 15 ON 2X6 WALL. SPRAY FOAM APPLIED TO THE INTERIOR CAVITY SIDE OF WOOD STRUCTURAL PANELS, FIBER BOARD, INSULATED SHEATHING OR GYPSUM IS DEEMED TO MEET THE CONTINUOUS INSULATION REQUIREMENT WHERE THE SPRAY FOAM R-VALUE MEETS OR EXCEEDS THE SPECIFIED CONTINUOUS INSULATION R-VALUE.

THE VAPOR RETARDER CLASS SHALL BE BASED ON THE MANUFACTURER'S CERTIFIED TESTING OR A TESTED ASSEMBLY. THE FOLLOWING SHALL BE DEEMED TO MEET THE CLASS SPECIFIED: (R702.7.2.)

CLASS I: SHEET POLYETHYLENE, UNPERFORATED ALUMINUM FOIL. CLASS II: KRAFT-FACED FIBERGLASS BATTS. CLASS III: LATEX OR ENAMEL PAINT.

THE WALL AND CEILING ASSEMBLIES ARE INTENDED TO DRY TO THE INTERIOR. DO NOT INSTALL VAPOR BARRIERS SUCH AS POLYETHYLENE (VISQUENE), FOIL FACED BATT INSULATION OR REFLECTIVE RADIANT BARRIER FOIL INSULATION IN EXTERIOR WALLS AND CEILINGS. KRAFT PAPER FACED BATT INSULATION IS AN ACCEPTABLE VAPOR PERMEABLE RETARDER WHEN SEAMS ARE LAPPED AND TAPED. CERTAINTEED "MEMBRAIN" IS RECOMMENDED AS A "SMART" VAPOR PERMEABLE RETARDER WHEN APPLIED OVER UNFACED BATT INSULATION AND PER MANUFACTURER'S RECOMMENDATIONS ...

INSULATION MATERIALS, INCLUDING FACINGS SUCH AS VAPOR RETARDERS, VAPOR PERMEABLE MEMBRANES AND SIMILAR COVERINGS SHALL EXHIBIT A FLAME SPREAD RATING NOT TO EXCEED 25 AND A SMOKE DENSITY NOT TO EXCEED 450. (IRC R302.10)

1. WHERE SUCH MATERIALS ARE INSTALLED IN CONCEALED SPACES, THE FLAME SPREAD INDEX AND SMOKE-DEVELOPED INDEX LIMITATIONS DO NOT APPLY TO THE FACINGS. PROVIDED THAT THE FACING IS INSTALLED IN SUBSTANTIAL CONTACT WITH THE UNEXPOSED SURFACE OF THE CEILING, FLOOR OR WALL FINISH. 2. CELLULOSE FIBER LOOSE-FILL INSULATION, THAT IS NOT SPRAY APPLIED, COMPLYING WITH THE REQUIREMENTS OF SECTION R302.10.3, SHALL NOT BE REQUIRED TO MEET THE SMOKE-DEVELOPED INDEX BUT SHALL BE REQUIRED TO MEET A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450 WHERE TESTED IN ACCORDANCE WITH CAN/ULC \$102.2. 3. FOAM PLASTIC INSULATION SHALL COMPLY WITH SECTION R316.

FOAM PLASTIC INSULATION SHALL COMPLY WITH IRC R316.1 UNLESS OTHERWISE ALLOWED IN SECTION R3 16.5 OR R3 16.6, FOAM PLASTIC SHALL BE SEPARATED FROM THE INTERIOR OF THE BUILDING BY AN APPROVED THERMAL BARRIER OF NOT LESS THAN 1/2 INCH GYPSUM WALLBOARD 23/32", WOOD STRUCTURAL PANEL OR AN APPROVED THERMAL BARRIER. (IRC R316.4)

THE THERMAL BARRIER IS NOT REQUIRED WHERE THE FOAM PLASTIC IS IN A ROOF ASSEMBLY OR UNDER A ROOF COVERING AND SEPARATED FROM THE INTERIOR BY T&G WOOD PLANKS OR WOOD STRUCTURAL PANEL SHEATHING. (IRC R316.5.2)

THE THERMAL BARRIER IS NOT REQUIRED IN ATTICS OR CRAWL SPACES WHEN EACH OF THE FOLLOWING APPLIES: 1. ACCESS IS REQUIRED BY SECTION R807.1 (ATTIC) OR R408.4 (CRAWL SPACE)

2. THE SPACE IS ENTERED ONLY FOR PURPOSES OF REPAIR OR MAINTENANCE. 3. THE FOAM PLASTIC INSULATION HAS BEEN TESTED IN ACCORDANCE WITH SECTION R3 16.6 OR WHEN THE FOAM PLASTIC INSULATION IS PROTECTED FROM IGNITION USING ONE OF THE FOLLOWING IGNITION BARRIER MATERIALS; 1-1/2" THICK MINERAL FIBER INSULATION; 1/4" THICK WOOD STRUCTURAL PANELS; 3/8" PARTICLE BOARD; 1/4" HARDBOARD, 3/8" GYPSUM WALLBOARD, CORROSION RESISTANT SHEET METAL HAVING A BASE METAL THICKNESS OF NOT LESS THAN .0160, 1-1/2" THICK CELLULOSE INSULATION; 1/4" FIBER CEMENT PANEL, SOFFIT OR BACKER BOARD (IRC R316.5.3 & .4)

THE ABOVE IGNITION BARRIER IS NOT REQUIRED WHERE THE FOAM PLASTIC INSULATION HAS BEEN TESTED IN ACCORDANCE WITH SECTION R316.6

THE THERMAL BARRIER IS REQUIRED ON THE INTERIOR OF HABITABLE SPACES OF INSULATED CONCRETE FORMS (ICF) PER SECTION R316.4. (IRC R702.3.4)

"THERMAX" BOARDS WHEN INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS AND NER-681 IN ATTICS, INSIDE BASEMENT FOUNDATION AND CRAWLS SPACE WALLS MAY BE INSTALLED WITHOUT THE THERMAL BARRIER.

FIBER-CEMENT, FIBER MAT REINFORCED CEMENT, GLASS MAT GYPSUM BACKERS OR FIBER REINFORCED GYPSUM BACKERS INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS SHALL BE USED AS BACKERS FOR WALL TILE IN TUB AND SHOWER AREAS AND WALL PANELS IN SHOWER AREAS.

WATER RESISTANT GYPSUM BACKING BOARD MAY AS THE BASE OR BACKER FOR ADHESIVE APPLICATIONS OF CERAMIC TILE OR OTHER REQUIRED NONABSORBENT FINISH MATERIAL SHALL BE PERMITTED ON CEILINGS. WATER RESISTANT GYPSUM BOARD SHALL NOT BE INSTALLED OVER A CLASS I OR II VAPOR RETARDER. MATER RESISTANT GYPSUM BACKING BOARD SHALL NOT BE USED WHERE THERE WILL BE DIRECT EXPOSURE TO WATER OR IN AREAS SUBJECT TO CONTINUOUS HIGH HUMIDITY. REGULAR GYPSUM WALLBOARD IS PERMITTED UNDER TILE OR WALL PANELS IN OTHER WALL AND CEILING AREAS WHEN INSTALLED IN ACCORDANCE WITH TABLE R702.3.5.

BALCONIES, LANDINGS, EXTERIOR STAIRWAYS, OCCUPIED ROOFS AND OTHER SIMILAR SURFACES EXPOSED TO WEATHER AND SEALED UNDERNEATH SHALL BE WATERPROOFED AND SLOPED A MINIMUM OF 1/4" PER FOOT FOR DRAINAGE.

EXTERIOR WALLS SHALL PROVIDE THE BUILDING WITH A WEATHER-RESISTANT EXTERIOR WALL ENVELOPE. THE EXTERIOR WALL ENVELOPE SHALL INCLUDE FLASHING AS DESCRIBED IN SECTION R703.4.

THE EXTERIOR WALL ENVELOPE SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT PREVENTS THE ACCUMULATION OF WATER WITHIN THE WALL ASSEMBLY BY PROVIDING A WATER-RESISTANT BARRIER BEHIND THE EXTERIOR VENEER AS REQUIRED BY SECTION R 703.2 AND A MEANS OF DRAINING TO THE EXTERIOR WATER THAT ENTERS THE ASSEMBLY. PROTECTION AGAINST CONDENSATION IN THE EXTERIOR WALL ASSEMBLY SHALL BE PROVIDED IN ACCORDANCE WITH SECTION R702.7 OF THIS CODE. (R703.1.1)

APPROVED CORROSION-RESISTANT FLASHING SHALL BE APPLIED SHINGLE-FASHION IN A MANNER TO PREVENT ENTRY OF WATER INTO THE WALL CAVITY OR PENETRATION OF WATER TO THE BUILDING STRUCTURAL FRAMING COMPONENTS. SELF-ADHERED MEMBRANES USED AS FLASHING SHALL COMPLY WITH AAMA 711. FLUID-APPLIED MEMBRANES USED AS FLASHING IN EXTERIOR WALLS SHALL COMPLY WITH AAMA 714. THE FLASHING SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH. APPROVED CORROSION-RESISTANT FLASHINGS SHALL BE INSTALLED AT THE FOLLOWING LOCATIONS: (R703.4)

1. EXTERIOR WINDOW AND DOOR OPENINGS. FLASHING AT EXTERIOR WINDOW AND DOOR OPENINGS SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH OR TO THE WATER-RESISTIVE BARRIER COMPLYING WITH SECTION 703.2 FOR SUBSEQUENT DRAINAGE. MECHANICALLY ATTACHED FLEXIBLE FLASHINGS SHALL COMPLY WITH AAMA 7 12. FLASHING AT EXTERIOR WINDOW AND DOOR OPENINGS SHALL BE INSTALLED IN ACCORDANCE WITH ONE OR MORE OF THE FOLLOWING:

1.1. THE FENESTRATION MANUFACTURER'S INSTALLATION AND FLASHING INSTRUCTIONS, OR FOR APPLICATIONS NOT ADDRESSED IN THE FENESTRATION MANUFACTURER'S INSTRUCTIONS, IN ACCORDANCE WITH THE FLASHING MANUFACTURER'S INSTRUCTIONS. WHERE FLASHING INSTRUCTIONS OR DETAILS ARE NOT PROVIDED. PAN FLASHING SHALL BE INSTALLED AT THE SILL OF EXTERIOR WINDOW AND DOOR OPENINGS. PAN FLASHING SHALL BE SEALED OR SLOPED IN SUCH A MANNER AS TO DIRECT WATER TO THE SURFACE OF THE EXTERIOR WALL FINISH OR TO THE WATER-RESISTIVE BARRIER FOR SUBSEQUENT DRAINAGE. OPENINGS USING PAN ELASHING SHALL INCORPORATE ELASHING OR PROTECTION AT THE HEAD AND SIDES

SPECIFICATIONS FOR			
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Reviewed for Code Compliance 03/28/2025			
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- 1.2. IN ACCORDANCE WITH THE FLASHING DESIGN OR METHOD OF A REGISTERED DESIGN PROFESSIONAL
- 1.3. IN ACCORDANCE WITH OTHER APPROVED METHODS 2. AT THE INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME
- OR STUCCO WALLS, WITH PROJECTING LIPS ON BOTH SIDES UNDER STUCCO COPINGS 3. UNDER AND AT THE ENDS OF MASONRY, WOOD OR METAL COPINGS AND SILLS.
- 4. CONTINUOUSLY ABOVE ALL PROJECTING WOOD TRIM. 5. WHERE EXTERIOR PORCHES, DECKS OR STAIRS ATTACH TO A WALL OR FLOOR
- ASSEMBLY OF WOOD-FRAME CONSTRUCTION.
- 6. AT WALL AND ROOF INTERSECTIONS. 7. AT BUILT-IN GUTTERS.

PROVIDE BASE AND CAP, SIDEWALL AND OTHER FLASHINGS AT ALL ROOF AND VERTICAL SURFACE INTERSECTIONS PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. (R905.2.8) SEE SECTION R905.2.8.3 FOR SPECIFIC SIDEWALL FLASHING REQUIRMENTS.

A DRIP EDGE SHALL BE PROVIDED AT EAVES AND RAKE EDGES OF SHINGLE ROOFS. ADJACENT SEGMENTS OF DRIP EDGE SHALL BE OVERLAPPED NOT LESS THAN 2 INCHES (5 $^\circ$ MM). DRIP EDGES SHALL EXTEND NOT LESS THAN 1/4 INCH (6.4 MM) BELOW THE ROOF SHEATHING AND EXTEND UP BACK ONTO THE ROOF DECK NOT LESS THAN 2 INCHES (51 MM). DRIP EDGES SHALL BE MECHANICALLY FASTENED TO THE ROOF DECK AT NOT MORE THAN 12 CENTER VERTICALLY FOR THE FULL HEIGHT OF THE WINDOW WELL. (R3 10.2.3.1) INCHES (305 MM) O.C. WITH FASTENERS AS SPECIFIED IN SECTION R905.2.5. UNDERLAYMENT SHALL BE INSTALLED OVER THE DRIP EDGE ALONG EAVES AND UNDER THE DRIP EDGE ALONG RAKE EDGES. (R905.2.8.5)

ROOF VALLEY LININGS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. OPEN VALLEY LININGS (EXPOSED) SHALL CONSIST OF NOT LESS EXCEPTION: A DRAINAGE SYSTEM FOR WINDOW WELLS IS NOT REQUIRED WHERE THE THAN 26 GAGE GALVANIZED STEEL, 28 GAGE STAINLESS STEEL OR 0.0216 NOMINAL COLD ROLLED COPPER. LININGS SHALL BE 24" WIDE MINIMUM AND PLACED OVER 36" WIDE LAYER OF ICE AND WATER SHIELD. CLOSED VALLEY LININGS (ASPHALT SHINGLES) SHALL BE A 36" WIDE LAYER OF ICE AND WATER SHIELD. (IRC R905.2.8.2)

IN AREAS WHERE THERE HAS BEEN A HISTORY OF ICE FORMING ALONG THE EAVES CAUSING A BACKUP OF WATER AS DESIGNATED IN TABLE R301.2(1), AN ICE BARRIER SHALL BE INSTALLED FOR ASPHALT SHINGLES, METAL SHEET ROOFING, METAL ROOF SHINGLES, MINERAL-SURFACED ROLL ROOFING, SLATE AND SLATE-TYPE SHINGLES, WOOD SHINGLES AND WOOD SHAKES. THE ICE BARRIER SHALL CONSIST OF NOT FEWER THAN TWO LAYERS OF UNDERLAYMENT CEMENTED TOGETHER. OR A SELF-ADHERING POLYMER-MODIFIED BITUMEN SHEET SHALL BE USED IN PLACE OF NORMAL UNDERLAYMENT AND EXTEND FROM THE LOWEST EDGES OF ALL ROOF SURFACES TO A POINT NOT LESS THAN 24 INCHES (610 MM) INSIDE THE EXTERIOR WALL LINE OF THE BUILDING. ON ROOFS WITH SLOPE EQUAL TO OR GREATER THAN 8 UNITS VERTICAL IN 12 UNITS HORIZONTAL, THE ICE BARRIER SHALL ALSO BE AND ESCAPE RESCUE OPENING SHALL BE IN ACCORDANCE WITH SECTION R310.2.1. (R310.3.1) APPLIED NOT LESS THAN 36 INCHES (914 MM) MEASURED ALONG THE ROOF SLOPE FROM THE EAVE EDGE OF THE BUILDING. (R905.1.2)

EXCEPTION: DETACHED ACCESSORY STRUCTURES NOT CONTAINING CONDITIONED FLOOR

PROVIDE GRACE "ICE AND WATER SHIELD" UNDERLAYMENT AS ICE BARRIER. EXCEPT WHEN USING DIRECT APPLIED METAL ROOFING. FOR DIRECT APPLIED METAL ROOFING USE GRACE "ULTRA" UNDERLAYMENT. (IRC 905.2.7.1) IT IS RECOMMENDED THAT THE ENTIRE ROOF BE COVERED.

NATURAL VENTILATION OF ALL HABITABLE ROOMS SHALL BE PROVIDED. THE MINIMUM OPENABLE AREA TO THE OUTDOORS SHALL BE 4 PERCENT OF THE FLOOR AREA BEING VENTILATED (IRC SECTION R303.1)

EXCEPTION 1. AN APPROVED MECHANICAL VENTILATION SYSTEM IS PROVIDED CAPABLE OF PRODUCING 0.35 AIR CHANGES PER HOUR IN THE ROOM OR A WHOLE MECHANICAL VENTILATION SYSTEM IS INSTALLED CAPABLE OF SUPPLYING OUTDOOR VENTILATION AIR PER EXCEPTION: A DRAINAGE SYSTEM FOR AREA WELLS IS NOT REQUIRED WHERE THE TABLE M1505.4.3 (1). (R303.1)

CLIMATE ZONES 3-8 ARE REQUIRED TO BE TESTED & VERIFIED AS HAVING AN AIR LEAKAGE RATE NOT EXCEEDING 3 AIRCHANGES PER HOUR. THEREFOR, A WHOLE HOUSE MECHANICAL VENTILATION SYSTEM IS REQUIRED IN ACCORDANCE W/ M1507.3

VENTILATION OF BATHROOMS, WATER CLOSET COMPARTMENTS AND SIMILAR ROOMS WITHOUT OPERABLE WINDOW PROVIDING 1.5 SQUARE FEET OPENING, SHALL BE PROVIDED BY SPECIAL KNOWLEDGE OR FORCE GREATER THAN THAT REQUIRED FOR THE NORMAL A LOCAL EXHAUST SYSTEM CAPABLE OF PRODUCING 50 CFM FOR INTERMITTENT USE OR 20 OPERATION OF THE ESCAPE AND RESCUE OPENING. (R310.4) CFM CONTINUOUS VENTILATION, VENTILATION AIR FROM THE SPACE SHALL BE DIRECTLY EXHAUSTED TO THE OUTSIDE. (IRC R303.3) PROVIDE ENERGY-STAR QUALIFIED BATHROOM FANS WITH A RATING OF 1.5 SONES OR LESS WITH TIMER OR HUMIDISTAT CONTROL. SEE PLAN REQUIRED. VIEW FOR REQUIRED CFM RATING.

ENCLOSED ATTICS AND ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE

ENTRANCE OF RAIN OR SNOW, VENTILATION OPENINGS SHALL HAVE A LEAST DIMENSION OF 1/16 INCH (1.6 MM) MINIMUM AND 1/4 INCH (6.4 MM) MAXIMUM. VENTILATION OPENINGS HAVING A LEAST DIMENSION LARGER THAN 1/4 INCH (6.4 MM) SHALL BE PROVIDED WITH CORROSION-RESISTANT WIRE CLOTH SCREENING, HARDWARE CLOTH OR SIMILAR MATERIAL WITH OPENINGS ACCESS OPENING TO ATTIC AREAS THAT HAVE A VERTICAL HEIGHT OF 30 INCHES (762 MM) HAVING A LEAST DIMENSION OF 1/16 INCH (1.6 MM) MINIMUM AND 1/4 INCH (6.4 MM) MAXIMUM. OR GREATER OVER AN AREA OF NOT LESS THAN 30 SQUARE FEET (2.8 M2). THE VERTICAL OPENINGS IN ROOF FRAMING MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF SECTION HEIGHT SHALL BE MEASURED FROM THE TOP OF THE CEILING FRAMING MEMBERS TO THE R&02.7. REQUIRED VENTILATION OPENINGS SHALL OPEN DIRECTLY TO THE OUTSIDE AIR. AND UNDERSIDE OF THE ROOF FRAMING MEMBERS. SHALL BE PROTECCTED TO PERVENT THE ENTRY OF BIRDS, RODENTS, SNAKES AND OTHER SIMILAR CREATURES. (IRC R806.1) WHERE EVE OR CORNICE VENTS ARE INSTALLED. BLOCKING, BRIDGING AND INSULATION SHALL NOT BLOCK THE AIR FLOW. NOT LESS THAN A 1" SPACE SHALL BE PROVIDED BETWEEN THE INSULATION AND ROOF SHEATHING. (R806.3)

THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE.

EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED A CLASS LOR II VAPOR RETARDER IS INSTALLED ON THE WARM IN WINTER SIDE OF THE CEILING AND 40-50% OF THE REQUIRED VENTING AREA IS PROVIDED BY VENTILATORS IN THE UPPER PORTION OR THE ATTIC OR RAFTER SPACE.. (R806.2)

8. DOORS AND WINDOWS

CONTRACTOR SHALL SUPPLY AND INSTALL ALL DOORS, WINDOWS AND GLAZING AS DETAILED, SCHEDULED AND/OR SPECIFIED IN THESE DOCUMENTS.

WINDOWS AND DOORS TO BE LINCOLN WOOD PRODUCTS OR APPROVED EQUAL. GLAZING TO BE INSULATED GLASS WITH DUAL LOE2 (189/272 COATING). UNIT U VALUE TO BE 0.30 MAXIMUM. ALL OPERABLE UNITS TO BE PROVIDED WITH SCREENS. CLAD COLOR AS NOTED ON SHINGLES, COLOR DARK GREEN. PER OWNER. TO MATCH EXISTING. SIDING TO BE 3/4" SHIP LAP THE PLANS OR PER OWNER. WINDOWS AND DOORS SHALL BE INSTALLED AND FLASHED IN ACCORDANCE WITH THE FENESTRATION MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, WHICH SHALL BE PROVIDED BY THE MANUFACTURER FOR EACH WINDOW OR DOOR AND SECTION R703.4. (R609.1) OPTIONALLY DUAL LOE3 (189/366 COATING) IS PREFERED.)

WHERE THE OPENING OF AN OPERABLE WINDOW IS LOCATED LESS THAN 24" BOVE THE FINISHED FLOOR AND GREATER THAN 72" ABOVE THE FINISHED GRADE OR SURFACE BELOW, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING:

OPENING WILL NOT ALLOW A 4"\$\$ SPHERE TO PASS. 2. PROVIDED WITH FALL PRVENTION DEVICES THAT COMPLY WITH ASTM F 2090. 3. PROVIDED WITH OPENING CONTROL DEVICES THAT COMPLY WITH SECTION R3 12.2.2

OPENINGS FROM A PRIVATE GARAGE DIRECTLY INTO A ROOM USED FOR SLEEPING PURPOSES SHALL NOT BE PERMITTED. OTHER OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHALL BE EQUIPPED WITH SOLID WOOD DOORS NOT LESS THAN 1-3/8 INCHES (35 MM) IN THICKNESS, SOLID OR HONEYCOMB-CORE STEEL DOORS NOT LESS THAN 1-3/8 INCHES (35 MM) THICK, OR 20-MINUTE FIRE-RATED DOORS, EQUIPPED WITH A SELF-CLOSING DEVICE. (R302.5.1)

UON INTERIOR DOORS TO BE AS NOTED ON THE PLANS OR AS APPROVED BY THE OWNER, WIDTH PER PLANS X 6'10"/8'-0" TALL.

UON EXTERIOR DOORS TO BE AS NOTED ON THE PLANS, THERMA TRU "FIBER CLASSIC", MODEL PER OWNER OR AS APPROVED BY THE OWNER.

HABITABLE ROOMS SHALL HAVE AN AGGREGATE GLAZING AREA OF NOT LESS THAN 8 PERCENT OF THE FLOOR AREA OF SUCH ROOMS. (IRC R303.1)

EXCEPTION: THE GLAZED AREAS NEED NOT BE INSTALLED IN ROOMS WHERE ARTIFICIAL LIGHT IS PROVIDED CAPABLE OF PRODUCING AN AVERAGE ILLUMINATION OF 6 FOOT CANDLES AT A HEIGHT OF 30" ABOVE THE FLOOR.

BASEMENTS, HABITABLE ATTICS AND EVERY SLEEPING ROOM SHALL HAVE NOT LESS THAN ONE OPERABLE EMERGENCY ESCAPE AND RESCUE OPENING. WHERE BASEMENTS CONTAIN ONE OR MORE SLEEPING ROOMS, AN EMERGENCY ESCAPE AND RESCUE OPENING SHALL BE REQUIRED IN EACH SLEEPING ROOM. EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL OPEN DIRECTLY INTO A PUBLIC WAY, OR TO A YARD OR COURT THAT OPENS TO A PUBLIC WAY.(R310.1)

EXCEPTION: STORM SHELTERS AND BASEMENTS USED ONLY TO HOUSE MECHANICAL EQUIPMENT NOT EXCEEDING A TOTAL FLOOR AREA OF 200 SQUARE FEET. (R310.1, EXC 1)

EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL BE OPERATIONAL FROM THE INSIDE OF THE ROOM WITHOUT THE USE OF KEYS, TOOLS OR SPECIAL KNOWLEDGE. WINDOW OPENING CONTROL DEVICES ON WINDOWS SERVING AS A REQUIRED EMERGENCY ESCAPE AND RESCUE APPROVED EQUIVALENT SPRINKLER SYSTEM. OPENING SHALL COMPLY WITH ASTM F 2090. (R3 10.1.1)

EMERGENCY AND ESCAPE RESCUE OPENINGS SHALL HAVE A NET CLEAR OPENING OF NOT LESS THAN 5.7 SQUARE FEET (0.530 M2). THE NET CLEAR OPENING DIMENSIONS REQUIRED BY 3. PORTIONS OF FLOOR ASSEMBLIES SHALL BE PERMITTED TO BE UNPROTECTED WHERE THIS SECTION SHALL BE OBTAINED BY THE NORMAL OPERATION OF THE EMERGENCY ESCAPE COMPLYING WITH THE FOLLOWING: AND RESCUE OPENING FROM THE INSIDE. THE NET CLEAR HEIGHT OPENING SHALL BE NOT LESS THAN 24 INCHES (610 MM) AND THE NET CLEAR WIDTH SHALL BE NOT LESS THAN 20 INCHES (508 MM) (R310.2.1).

EXCEPTION: GRADE FLOOR OR BELOW GRADE OPENINGS SHALL HAVE A NET CLEAR OPENING FROM THE REMAINDER OF THE FLOOR ASSEMBLY. OF NOT LESS THAN 5 SQUARE FEET (0.465 M2).

8. DOORS & WINDOWS-continued

WHERE A WINDOW IS PROVIDED AS THE EMERGENCY ESCAPE AND RESCUE OPENING, IT SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 44 INCHES (1118 MM) ABOVE THE FLOOR: WHERE THE SILL HEIGHT IS BELOW GRADE, IT SHALL BE PROVIDED WITH A WINDOW WELL IN ACCORDANCE WITH SECTION R310.2.3. (R310.2.2)

THE HORIZONTAL AREA OF THE WINDOW WELL SHALL BE NOT LESS THAN 9 SQUARE FEET (0.9 M2), WITH A HORIZONTAL PROJECTION AND WIDTH OF NOT LESS THAN 36 INCHES (914 MM). THE AREA OF THE WINDOW WELL SHALL ALLOW THE EMERGENCY ESCAPE AND RESCUE OPENING TO BE FULLY OPENED. (R310.2.3)

EXCEPTION: THE LADDER OR STEPS REQUIRED BY SECTION R310.2.3.1 SHALL BE PERMITTED TO ENCROACH NOT MORE THAN 6 INCHES (152 MM) INTO THE REQUIRED DIMENSIONS OF THE MINDOM MELL

WINDOW WELLS WITH A VERTICAL DEPTH GREATER THAN 44 INCHES (1118 MM) SHALL BE EQUIPPED WITH A PERMANENTLY AFFIXED LADDER OR STEPS USABLE WITH THE WINDOW IN THE FULLY OPEN POSITION. LADDERS OR STEPS REQUIRED BY THIS SECTION SHALL NOT BE REQUIRED TO COMPLY WITH SECTION R3 1 1.7. LADDERS OR RUNGS SHALL HAVE AN INSIDE WIDTH OF NOT LESS THAN 12 INCHES (305 MM), SHALL PROJECT NOT LESS THAN 3 INCHES (76 MM) FROM THE WALL AND SHALL BE SPACED NOT MORE THAN 18 INCHES (457 MM) ON

MINDOW WELLS SHALL BE DESIGNED FOR PROPER DRAINAGE BY CONNECTING TO THE BUILDING'S FOUNDATION DRAINAGE SYSTEM REQUIRED BY SECTION R405.1 OR BY AN APPROVED ALTERNATIVE METHOD. (R310.2.3.2)

FOUNDATION IS ON WELL-DRAINED SOIL OR SAND-GRAVEL MIXTURE SOILS IN ACCORDANCE WITH THE UNITED SOIL CLASSIFICATION SYSTEM, GROUP I SOILS, AS DETAILED IN TABLE R405.1. BACKFILL WINDOW WELL WITH WASHED ROCK TO FOOTING PERIMETER DRAIN.

EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL BE PERMITTED TO BE INSTALLED UNDER DECKS AND PORCHES PROVIDED THAT THE LOCATION OF THE DECK ALLOWS THE EMERGENCY ESCAPE AND RESCUE OPENINGS TO BE FULLY OPENED AND PROVIDES A PATH NOT LESS THAN 36 INCHES (914 MM) IN HEIGHT TO A YARD OR COURT. (R310.2.4)

WHERE A DOOR IS PROVIDED AS THE REQUIRED EMERGENCY ESCAPE AND RESCUE OPENING, IT SHALL BE A SIDE-HINGED DOOR OR A SLIDER. WHERE THE OPENING IS BELOW THE ADJACENT GROUND ELEVATION, IT SHALL BE PROVIDED WITH AN AREA WELL. (R310.3)

THE MINIMUM NET CLEAR HEIGHT OPENING FOR ANY DOOR THAT SERVES AS AN EMERGENCY

REA WELLS SHALL HAV A MINIMUM WIDTH OF NOT LESS THAN 36" (914MM). THE AREA WELL SHALL BE SIZED TO ALLOW THE EMERGENCY ESCAPE AND RESCUE DOOR TO BE FULLY OPENED. (R310.3.2)

AREA WELLS WITH A VERTICAL DEPTH GREATER THAN 44 INCHES (1118 MM) SHALL BE EQUIPPED WITH A PERMANENTLY AFFIXED LADDER OR STEPS USABLE WITH THE DOOR IN THE FULLY OPEN POSITION. LADDERS OR STEPS REQUIRED BY THIS SECTION SHALL NOT BE REQUIRED TO COMPLY WITH SECTION R3 1 1.7. LADDERS OR RUNGS SHALL HAVE AN INSIDE WIDTH OF NOT LESS THAN 12 INCHES (305 MM), SHALL PROJECT NOT LESS THAN 3 INCHES (76 MM) FROM THE WALL AND SHALL BE SPACED NOT MORE THAN 18 INCHES (457 MM) ON CENTER VERTICALLY FOR THE FULL HEIGHT OF THE EXTERIOR STAIR WELL. (R3 10.3.2.1)

AREA WELLS SHALL BE DESIGNED FOR PROPER DRAINAGE BY CONNECTING TO THE BUILDING'S FOUNDATION DRAINAGE SYSTEM REQUIRED BY SECTION R405.1 OR BY AN APPROVED ALTERNATIVE METHOD. (R310.3.2.2)

FOUNDATION IS ON WELL-DRAINED SOIL OR SAND-GRAVEL MIXTURE SOILS IN ACCORDANCE WITH THE UNITED SOIL CLASSIFICATION SYSTEM, GROUP I SOILS, AS DETAILED IN TABLE R405.1.

WHERE BARS, GRILLES, COVERS, SCREENS OR SIMILAR DEVICES ARE PLACED OVER EMERGENCY ESCAPE AND RESCUE OPENINGS, AREA WELLS, OR WINDOW WELLS, THE MINIMUM NET CLEAR OPENING SIZE COMPLY WITH SECTIONS R310.2.1 TO R310.2.3, AND SUCH DEVICES SHALL BE RELEASABLE OR REMOVABLE FROM THE INSIDE WITHOUT THE USE OF A KEY, TOOL,

SEE IRC SECTION R308.4 FOR HAZARDOUS LOCATIONS WHERE SAFETY GLAZING IS

SKYLIGHTS AND SLOPED GLAZING SHALL COMPLY WITH IRC SECTION 308.6.

ACCESS SHALL BE PROVIDED TO ALL UNDER FLOOR AREAS EITHER THROUGH AN 18" X 24" ACCESS PANEL THROUGH FLOORS OR 16" X 24" ACCESS PANEL THROUGH A PERIMETER WALL. (IRC SECTION R408.4)

BUILDINGS WITH COMBUSTIBLE CEILING OR ROOF CONSTRUCTION SHALL HAVE AN ATTIC

THE ROUGH-FRAMED OPENING SHALL BE NOT LESS THAN 22 INCHES BY 30 INCHES (559 MM BY 762 MM) AND SHALL BE LOCATED IN A HALLWAY OR OTHER READILY ACCESSIBLE LOCATION. WHERE LOCATED IN A WALL, THE OPENING SHALL BE NOT LESS THAN 22 INCHES WIDE BY 30 INCHES HIGH (559 MM WIDE BY 762 MM HIGH). WHERE THE ACCESS IS LOCATED IN A CEILING, MINIMUM UNOBSTRUCTED HEADROOM IN THE ATTIC SPACE SHALL BE 30 INCHES (162 MM) AT SOME POINT ABOVE THE ACCESS MEASURED VERTICALLY FROM THE BOTTOM OF CEILING FRAMING MEMBERS. SEE SECTION M1305.1.3 FOR ACCESS REQUIREMENTS WHERE MECHANICAL EQUIPMENT IS LOCATED IN ATTICS (IRC R807). ACCESS PANELS SHALL BE 30" H X 22" W MINIMUM OR AS REQUIRED TO REMOVE EQUIPMENT WHEN USED TO ACCESS MECHANICAL EQUIPMENT. (IRC M1305.1.3)

9. FINISHES

INSTRUCTIONS.

CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS TO FINISH ROOMS AND BUILDING EXTERIOR AS DETAILED, SCHEDULED AND / OR SPECIFIED IN THESE DOCUMENTS.

ALL CONSTRUCTION ADHESIVES AND CAULK SHOULD BE LOW VOC (<70 G/L). ROOFING MATERIAL TO BE 29 GAUGE STEEL, PRO-PANEL II, DIMENSIONAL ASPHALT SIDING &" WIDE WESTERN RED CEDAR STAIN COLOR PER OWNER FRE STUCCO COLOR AND TEXTURE PER OWNER, INSTALLED PER MANUFACTURER'S INSTRUCTIONS AND LOCAL CODES WITH WEEP SCREED AT BOTTOM, TRIM TO BE 1X6 WESTERN RED CEDAR, STAIN COLOR PER OWNER. ADHERED SYNTHETIC/ANCHORED MASONRY STONE VENEER WITH SAND STONE CAP,

MATERIAL PER OWNER. ALL FINISHES SHALL BE INSTALLED PER MANUFACTURER'S WRITTEN

VERIFY WITH THE OWNER, EXACT FINISHES NOT NOTED OR SPECIFIED HEREIN.

SEE SECTION R302.2.5 FOR PARAPET CONSTRUCTION AND REQUIREMENTS.

THE GARAGE SHALL BE SEPARATED AS REQUIRED BY TABLE R302.6. OPENINGS IN GARAGE WALLS SHALL COMPLY WITH SECTION R302.5. ATTACHMENT OF GYPSUM BOARD SHALL COMPLY WITH TABLE R 702.3.5. THE WALL SEPARATION PROVISIONS OF TABLE R 302.6 SHALL NOT APPLY TO GARAGE WALLS THAT ARE PERPENDICULAR TO THE ADJACENT DWELLING UNIT WALL.(R302.6)

THE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAN 1/2 INCH GYPSUM BOARD OR ITS EQUIVALENT APPLIED TO THE GARAGE SIDE. GARAGES BENEATH HABITABLE ROOMS SHALL BE SEPARATED FROM ALL HABITABLE ROOMS ABOVE BY NOT LESS THAN 5/8" TYPE X GYPSUM BOARD OR ITS EQUIVALENT. WHERE THE SEPARATION IS A FLOOR-CEILING ASSEMBLY THE STRUCTURE SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED BY NOT LESS THAN 1/2 INCH GYPSUM BOARD OR ITS EQUIVALENT. GARAGES LOCATED LESS THAN 3 FEET FROM A DWELLING UNIT ON THE SAME LOT SHALL BE PROTECTED WITH NO LESS THAN 1/2 INCH GYPSUM BOARD APPLIED TO THE INTERIOR SIDE OF EXTERIOR WALLS THAT ARE WITHIN THIS AREA. OPENINGS IN THESE WALL ARE REGULATED BY SECTION R302.5. (IRC R302.6)

THE GARAGE WALL SEPARATION PROVISIONS REQUIRED BY R302.6 SHALL NOT APPLY TO GARAGE WALLS THAT ARE PERPENDICULAR TO THE DWELLING UNIT WALLS.

PENETRATIONS THROUGH THE SEPARATION REQUIRED BY SECTION R302.6 SHALL BE PROTECTED BY FILLING THE OPENING AROUND THE PENETRATING ITEM WITH APPROVED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME OR PRODUCTS OF COMBUSTION. (IRC R302.11 ITEM 4)

FLOOR ASSEMBLIES THAT ARE NOT REQUIRED ELSEWHERE IN THIS CODE TO BE FIRE-RESISTANCE RATED SHALL BE PROVIDED WITH A 1/2-INCH (12.7 MM) GYPSUM WALLBOARD MEMBRANE, 5/8-INCH (16 MM) WOOD STRUCTURAL PANEL MEMBRANE, OR EQUIVALENT ON THE UNDERSIDE OF THE FLOOR FRAMING MEMBER. PENETRATIONS OR OPENINGS FOR DUCTS, VENTS, ELECTRICAL OUTLETS, LIGHTING, DEVICES, LUMINAIRES, WIRES, SPEAKERS, DRAINAGE, PIPING AND SIMILAR OPENINGS OR PENETRATIONS SHALL BE PERMITTED. (R302.13)

EXCEPTIONS 1. FLOOR ASSEMBLIES LOCATED DIRECTLY OVER A SPACE PROTECTED BY AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION P2904, NFPA 13D, OR OTHER 2. FLOOR ASSEMBLIES LOCATED DIRECTLY OVER A CRAWL SPACE NOT INTENDED FOR

STORAGE OR THE INSTALLATION OR FUEL-FIRED OR ELECTRIC-POWERED HEATING APPLIANCES.

3.1. THE AGGREGATE AREA OF THE UNPROTECTED PORTIONS DOES NOT EXCEED 80 SQUARE FEET (7.4 M2) PER STORY

3.2. FIREBLOCKING IN ACCORDANCE WITH SECTION R302.11.1 IS INSTALLED ALONG THE PERIMETER OF THE UNPROTECTED PORTION TO SEPARATE THE UNPROTECTED PORTION

4. WOOD FLOOR ASSEMBLIES USING DIMENSION LUMBER OR STRUCTURAL COMPOSITE LUMBER EQUAL TO OR GREATER THAN 2-INCH BY 10-INCH (50.8 MM BY 254 MM) NOMINAL DIMENSION, OR OTHER APPROVED FLOOR ASSEMBLIES DEMONSTRATING EQUIVALENT FIRE PERFORMANCE.

TO REMAIN ONSITE.

FIREMOOD ON OR BELOW DECKS AND PORCHES.

MARK STANDPIPE.

MAY BE USED.

N1102.1.5. EXCEPTIONS

AND CONSTRUCTION OF LOG STRUCTURES.

"RED'

HEATERS.(N1101.14 (R401.3))

(R402.2.1))

PERMITS ARE REQUIRED FOR ANY FUTURE FINISHING OF AREAS THAT ARE INCLUDED IN THIS

LIGHT ONLY. NO ROUGH-IN PLUMBING IS ALLOWED. ALL PAINTS AND STAINS SHALL/SHOULD BE LOW VOC (<100 G/L FOR NON-FLAT, <50 G/L

FOR FLAT FINISHES) OR ZERO VOC (<5 G/L).

UNLESS OTHERWISE NOTED EXCESS FINISH MATERIALS, PAINT, TRIM, TILE, CARPET, ETC. ARE

10. SPECIALTIES - NO WORK THIS SECTION

CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS TO INSTALL THE SPECIALTY ITEMS SHOWN, NOTED OR SPECIFIED IN THESE DOCUMENTS.

FIREPLACES AND STOVES CLOSET SPECIALTIES

1 1. EQUIPMENT - NO WORK THIS SECTION

CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS TO INSTALL EQUIPMENT SHOWN, NOTED OR SPECIFIED IN THESE DOCUMENTS.

12. DEFENSIBLE SPACE - NO WORK THIS SECTION (CHECK WITH THE RCRBD)

BASED ON "WILDFIRE PROTECTION IN THE WILDLAND URBAN INTERFACE" COLORADO STATE FOREST SERVICE #143-691

- REMOVE TREE BRANCHES HANGING WITHIN 15 FEET OF CHIMNEYS - CLEAR WEEDS AND OTHER DEBRIS TO A MINIMUM DISTANCE OF 10 FROM THE BASE OF THE STRUCTURE. USE ONLY LIMITED FOUNDATION PLANTINGS WITHIN THIS 10 FOOT STRIP. - STACK FIREWOOD UPHILL, OR ON CONTOUR WITH, AND AT LEAST 15 FEET AWAY FROM BUILDINGS. REMOVE FINE FUELS FROM THE VICINITY OF THE FIREWOOD. DO NOT STACK

- PLACE (1) 10 POUND ABC CLASS FIRE EXTINGUISHER IN EACH BUILDING. IT IS RECOMMENDED TO HAVE A 50 GARDEN HOSE CONNECTED TO THE WATER HEATER DRAIN IN THE EVENT OF A FIRE EMERGENCY INSIDE THE HOME. - THIN OUT CONTINUOUS BRUSH AND TREES WITHIN 30 FEET (LEVEL) OF ALL STRUCTURES, 4

FEET ON SIDE AND UPHILL SLOPES AND 50 FEET ON DOWN HILL SLOPES (20%) OF ALL STRUCTURES. ADEQUATE THINNING IS REACHED IN THIS "DEFENSIBLE SPACE" WHEN TREE CROWNS ARE AT LEAST 10 FEET DISTANT ON ALL SIDES. ISOLATED CLUMPS MAY BE PERMITTED IF THE 10 FOOT MINIMUM DISTANCE IS INCREASED. REMOVE ALL DEAD VEGETATION, BRUSH AND TREES FROM THIS AREA.

- PRUNE DEAD LIMBS TO A HEIGHT OF 10 FEET FROM THOSE TREES REMAINING WITHIN(2) TREE HEIGHTS OF ALL STRUCTURES. IN THIS SAME AREA, PRUNE LIVE BRANCHES TO 10 FEET FROM AT LEAST 1/2 OF THOSE TREES REMAINING. - TREES SHOULD BE THINNED HEAVILY IN THE "DEFENSIBLE SPACE", MODERATELY IN THE

TRANSITION ZONE AND CONTINUE NORMAL FOREST THINNING IN THE SURROUNDING FOREST. IF THINNING IN THE SURROUNDING FOREST IS NOT PLANNED, OR POSSIBLE, THE "DEFENSIBLE SPACE" AREA SHOULD BE DOUBLED. - INCORPORATE "DEFENSIBLE SPACE" THINNING ALONG DRIVEWAYS.

- CONTACT THE COLORADO STATE FOREST SERVICE, 879.0475, FOR REQUIRED "DEFENSIBLE SPACE" INSPECTIONS.

- POTABLE WATER SYSTEM HOLDING TANKS, WHEN PROVIDED, SHOULD BE PROVIDED WITH A 6" STANDPIPE WITH 90 DEGREE ELBOW WITH 6" NST MALE FITTING AND CAP. PERMANENTLY

- FIRE PROTECTION CISTERNS MAY BE REQUIRED, VERIFY WITH LOCAL FIRE PROTECTION DISTRICT.

13. ENERGY EFFICIENCY

THE ROUTT COUNTY REGIONAL BUILDING DEPARTMENT HAS ADOPTED THE 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) AND IRC CHAPTER 11. EITHER CODE

PROJECTS SHALL COMPLY WITH ONE OF THE FOLLOWING:

. SECTIONS N1101.14 THROUGH N1104. PRESCRIPTIVE / UA ALTERNATIVE 2. SECTION N1105 AND THE PROVISIONS OF SECTIONS N1101.14 THROUGH N1104 LABELED "MANDATORY." SIMULATED PERFORMANCE ALTERNATIVE 3. AN ENERGY RATING INDEX (ERI) (HERS) APPROACH IN SECTION N1106.

TABLES N1102.1.2 \$ N1102.1.4 FOR CLIMATIC ZONE 7
 FENESTRATION
 SKYLIGHT
 CEILINGS
 FRAMED
 MASS
 FLOORS
 BASEMENT
 SLAB
 WALLS

 U
 U
 U
 FACTOR
 FACTOR
 R-49
 R-20+5
 R-19/
 R-19/
 R-38g
 R-15/
 R-10,4'
 R-17/
R27+0

0.55 0.026 0.045 0.057 0.028 0.050 U-0.055 0.30 THERE ARE NO REQUIREMENTS FOR SOLAR HEAT GLAZING COEFFICIENTS a. R-VALUES SHOWN ARE MINIMUMS, U-FACTORS SHOWN ARE MAXIMUMS,

C. THE FIRST R-VALUE IS FOR CONTINUOUS INSULATION, THE SECOND R-VALUE IS FOR CAVITY INSULATION, EITHER SYSTEM MEETS THE REQUIREMENT

NOT BE REQUIRED TO EXTEND BELOW THE SLAB. 9. OR INSULATION SUFFICIENT TO FILL THE FRAMING CAVITY, R-19 MINIMUM

h. THE FIRST VALUE IS CAVITY INSULATION, THE SECOND VALUE IS CONTINUOUS INSULATION

THIS BUILDING IS DESIGNEDTO MEET THE PRESCRIPTIVE REQUIREMENTS, THE BUILDING THERMAL ENVELOPE SHALL MEET THE REQUIREMENTS OF SECTIONS N1102.1.1 THROUGH

1.2 THOSE THAT DO NOT CONTAIN CONDITITIONED SPACE. 2. LOG HOMES DESIGNED IN ACCORDANCE WITH ICC400-2017, STANDARD ON THE DESIGN

WHERE THE STANDARD PROVIDES SATISFACTORY INFORMATION FOR CONSTRUCTION OF LOG STRUCTURES, SECTION 305.4 THERMAL MASS EFFECT OF LOG WALLS SHALL BE EVALUATED IN ACCORDANCE WITH IECC SECTION R402.2.5 MASS WALLS OR SIMILAR PROVISIONS IN IECC 400-2017 ..

FOR THIS HOUSE THE PRESCRIBED METHOD USING TABLE 305.3.1(1) U-FACTOR OR THE CALCULATION METHOD IN SECTION 305.3.3 WAS USED.

TO MEET THE TOTAL UA ALTERNATIVE REQUIREMENTS, THE TOTAL BUILDING THERMAL ENVELOPE UA, SUM OF U-FACTOR TIMES ASSEMBLY AREA, IS LESS THAN OR EQUAL TO THE TOTAL UA RESULTING FROM MULTIPLYING THE U-FACTORS IN TABLE N 1 102.1.4 BY THE SAME ASSEMBLY AREA AS IN THE PROPOSED BUILDING, THE BUILDING SHALL BE CONSIDERED IN COMPLIANCE WITH TABLE N 1 102.1.2. THE UA CALCULATION SHALL BE PEROFRMED USING A METHOD CONSISTENT WITH THE ASHRAE HANDBOOK OF FUNDAMENTALS AND SHALL INCLUDE THE THERMAL BRIDGING EFFECTS OF FRAMING MATERIALS. THE SHGC REQUIREMENTS SHALL BE MET. SEE ATTACHED RESCHECK COMPLIANCE REPORT.

THE BUILDING THERMAL ENVELOPE IS REPRESENTED ON THE CONSTRUCTION DRAWINGS IN INTERIOR DESIGN TEMPERATURES ARE 72° F MAX FOR HEATING AND 75° F FOR COOLING.

THE THICKNESS OF BLOWN IN OR SPRAYED (FIBERGLASS OR CELLULOSE) SHALL BE WRITTEN IN INCHES ON MARKERS WITH NUMBERS 1" TALL. MARKERS SHALL FACE THE ATTIC ACCESS OPENING AND BE PROVIDED FOR EACH 300 SF OF ATTIC AREA. (N1110.1.1)

A PERMANENT CERTIFICATE SHALL BE COMPLETED BY THE BUILDER OR OTHER APPROVED PARTY AND POSTED ON A WALL IN THE SPACE WHERE THE FURNACE IS LOCATED, A UTILITY ROOM OR AN APPROVED LOCATION INSIDE THE BUILDING. WHERE LOCATED ON AN ELECTRICAL PANEL, THE CERTIFICATE SHALL NOT COVER OR OBSTRUCT THE VISIBILITY OF THE CIRCUIT DIRECTORY LABEL, SERVICE DISCONNECT LABEL OR OTHER REQUIRED LABELS. THE CERTIFICATE SHALL LIST THE PREDOMINANT R-VALUES OF INSULATION INSTALLED IN OR ON CEILING/ROOF, WALLS, FOUNDATION (SLAB, BASEMENT WALL, CRAWL SPACE WALL AND/OR FLOOR) AND DUCTS OUTSIDE CONDITIONED SPACES; U-FACTORS FOR

FENESTRATION AND THE SOLAR HEAT GAIN COEFFICIENT (SHGC) OF FENESTRATION, AND THE RESULTS FROM ANY REQUIRED DUCT SYSTEM AND BUILDING ENVELOPE AIR LEAKAGE TESTING DONE ON THE BUILDING. WHERE THERE IS MORE THAN ONE VALUE FOR EACH COMPONENT, THE CERTIFICATE SHALL LIST THE VALUE COVERING THE LARGEST AREA. THE CERTIFICATE SHALL LIST THE TYPES AND EFFICIENCIES OF HEATING, COOLING AND SERVICE WATER HEATING EQUIPMENT, WHERE A GAS-FIRED UNVENTED ROOM HEATER, ELECTRIC FURNACE, OR BASEBOARD ELECTRIC HEATER IS INSTALLED IN THE RESIDENCE, THE CERTIFICATE SHALL LIST "GAS-FIRED UNVENTED ROOM HEATER." "ELECTRIC FURNACE" OR "BASEBOARD ELECTRIC HEATER," AS APPROPRIATE. AN EFFICIENCY SHALL NOT BE LISTED FOR GAS-FIRED UNVENTED ROOM HEATERS, ELECTRIC FURNACES OR ELECTRIC BASEBOARD

CEILINGS WITH ATTIC SPACES, WHERE SECTION N 1 102.1.2 WOULD REQUIRE R-38 INSULATION EXCEPTION: SITE-BUILT WINDOWS, SKYLIGHTS AND DOORS. IN THE CEILING, INSTALLING R-30 OVER 100 PERCENT OF THE CEILING AREA REQUIRING INSULATION SHALL BE DEEMED TO SATISFY THE REQUIREMENT FOR R-38 WHEREVER THE FULL HEIGHT OF UNCOMPRESSED R-30 INSULATION EXTENDS OVER THE WALL TOP PLATE AT THE EAVES. SIMILARLY, WHERE SECTION N1102.1.2 WOULD REQUIRE R-49 INSULATION IN THE CEILING, INSTALLING R-38 OVER 100 PERCENT OF THE CEILING AREA REQUIRING INSULATION SHALL BE DEEMED TO SATISFY THE REQUIREMENT FOR R-49 INSULATION WHEREVER THE FULL HEIGHT OF UNCOMPRESSED R-38 INSULATION EXTENDS OVER THE WALL TOP PLATE AT THE EAVES. THIS REDUCTION SHALL NOT APPLY TO THE U-FACTOR ALTERNATIVE APPROACH

CEILINGS WITHOUT ATTIC SPACES, WHERE SECTION N1102.1.2 WOULD REQUIRE INSULATION VALUES GREATER THAN R-30 AND THE DESIGN OF THE ROOF/CEILING ASSEMBLY DOES NOT EXCEPTIONS: FOR SUCH ROOF/CEILING ASSEMBLIES SHALL BE R-30. THIS REDUCTION OF INSULATION FROM THE REQUIREMENTS OF SECTION N1102.1.2 SHALL BE LIMITED TO 500 SQUARE FEET (46 M2) OR 20 PERCENT OF THE TOTAL INSULATED CEILING AREA, WHICHEVER IS LESS. THIS REDUCTION SHALL NOT APPLY TO THE U-FACTOR ALTERNATIVE APPROACH IN SECTION N1102.1.4 AND THE TOTAL UA ALTERNATIVE IN SECTION N1102.1.5. (N1102.2.2(R402.2.2))

13. ENERGY EFFICIENCY - continued

ACCESS DOORS FROM CONDITIONED SPACES TO UNCONDITIONED SPACES SUCH AS ATTICS AND CRAWL SPACES SHALL BE WEATHERSTRIPPED AND INSULATED TO A LEVEL EQUIVALENT TO THE INSULATION ON THE SURROUNDING SURFACES. ACCESS THAT PREVENTS DAMAGING OR OMPRESSING THE INSULATION SHALL BE PROVIDED TO ALL EQUIPMENT . WHERE LOOSE-FILL INSULATION IS INSTALLED, A WOOD-FRAMED OR EQUIVALENT BAFFLE OR RETAINER SHALL BE REQUIRED TO BE PROVIDED WTHE PURPOSE OF WHICH IS TO PREVENT THE LOOSE-FILL INSTALLED TO PREVENT THE INSULATION FROM SPILLING INTO THE LIVING SPACE WHEN THE ATTIC ACCESS IS OPENED. THE BAFFLE OR RETAINER SHALL PROVIDE A PERMANENT MEANS OF MAINTAINING THE INSTALLED R-VALUE OF THE LOOSE-FILL INSULATION. (N1102.2.4 (R402.2.4))

EXCEPTION: VERTICAL DOORS PROVIDING ACCESS FROM CONDITIONED TO UNCONDITIONED SPACES THAT COMPLY WITH THE FENESTRATION REQUIREMENTS OF TABLE N1102.1.2 BASED ON THE APPLICABLE CLIMATE ZONE SPECIFIED IN SECTION N1101.7. FOR ZONE 7 THE U-VALUE IS 0.30 = R-VALUE OF 3.33.

PROVIDE ATTIC DOOR "EZ HATCH ATTIC ACCESS SCUTTLE DOOR" R-42 FOR 22" X 30" OPENING OR "ATTIC PULL DOWN STAIR LADDER COVER" R-50 FOR 22" X 54" LADDERS. INSTALL PER MANUFACTURER'S INSTRUCTIONS.

FLOOR FRAMING-CAVITY INSULATION SHALL BE INSTALLED TO MAINTAIN PERMANENT CONTACT WITH THE UNDERSIDE OF THE SUBFLOOR DECKING. (N1102.2.8 (R402.2.8))

EXCEPTION: THE FLOOR FRAMING-CAVITY INSULATION SHALL BE IN CONTACT WITH THE TOPSIDE OF SHEATHING OR CONTINUOUS INSULATION INSTALLED ON THE BOTTOM SIDE OF FLOOR FRAMING WHERE COMBINED WITH INSULATION THAT MEETS OR EXCEEDS THE MINIMUM WOOD FRAME WALL R-VALUE IN TABLE 1102.1.2 AND THAT EXTENDS FROM THE BOTTOM TO THE TOP 3 INCHES (76.2 MM) IN DIAMETER. (N 1 103.3.1 (R 403.3.1)) OF ALL PERIMETER FLOOR FRAMING MEMBERS.

MALLS ASSOCIATED WITH CONDITIONED BASEMENTS SHALL BE INSULATED FROM THE TOP OF THE BASEMENT WALL DOWN TO 10' BELOW GRADE OR TO THE BASEMENT FLOOR, WHICHEVER IS LESS. PLAN SECTIONS SHOW TO THE TOP OF FOOTING. WALLS ASSOCIATED WITH UNCONDITIONED BASEMENTS SHALL COMPLY WITH THIS REQUIREMENT EXCEPT WHERE THE FLOOR OVERHEAD IS INSULATED IN ACCORDANCE WITH SECTIONS N1102.1.2 AND N1102.2.8 (N1102.2.9 (R402.2.9))

SLAB-ON-GRADE FLOORS WITH A FLOOR SURFACE LESS THAN 12 INCHES BELOW GRADE SHALL BE INSULATED IN ACCORDANCE WITH TABLE N1102.1.2. THE INSULATION SHALL EXTEND DOWNWARD FROM THE TOP OF THE SLAB ON THE OUTSIDE OR INSIDE OF THE FOUNDATION WALL. INSULATION LOCATED BELOW GRADE SHALL BE EXTENDED THE DISTANCE PROVIDED IN TABLE N 1 1 02.1.2 BY ANY COMBINATION OF VERTICAL INSULATION, INSULATION EXTENDING UNDER THE SLAB OR INSULATION EXTENDING OUT FROM THE BUILDING. INSULATION EXTENDING AWAY FROM THE BUILDING SHALL BE PROTECTED BY PAVEMENT OR BY NOT LESS THAN 10 INCHES OF SOIL. THE TOP EDGE OF THE INSULATION INSTALLED BETWEEN THE EXTERIOR WALL AND THE EDGE OF THE INTERIOR SLAB SHALL BE PERMITTED TO BE CUT AT A 45-DEGREE ANGLE AWAY FROM THE EXTERIOR WALL. SLAB-EDGE INSULATION IS NOT REQUIRED IN JURISDICTIONS DESIGNATED BY THE BUILDING OFFICIAL AS HAVING A VERY HEAVY TERMITE INFESTATION. (N 1 102.2.10 (R402.2.10))

AS AN ALTERNATIVE TO INSULATING FLOORS OVER CRAML SPACES, CRAML SPACE WALLS SHALL BE INSULATED PROVIDED THAT THE CRAWL SPACE IS NOT VENTED TO THE OUTDOORS. CRAWL SPACE WALL INSULATION SHALL BE PERMANENTLY FASTENED TO THE WALL AND EXTEND DOWNWARD FROM THE FLOOR TO THE FINISHED GRADE LEVEL AND THEN VERTICALLY OR HORIZONTALLY FOR AT LEAST AN ADDITIONAL 24 INCHES. EXPOSED EARTH IN UNVENTED CRAWL SPACE FOUNDATIONS SHALL BE COVERED WITH A CONTINUOUS CLASS I VAPOR RETARDER IN ACCORDANCE WITH THIS CODE. ALL JOINTS OF THE VAPOR RETARDER, JOINTS SHALL OVERLAP BY 6 INCHES AND BE SEALED OR TAPED. THE EDGES OF THE VAPOR RETARDER SHALL EXTEND NOT LESS THAN 6 INCHES UP THE STEM WALL AND SHALL BE ATTACHED TO THE STEM WALLS. (N1102.2.11(R402.2.11))

INSULATION SHALL NOT BE REQUIRED ON THE HORIZONTAL PORTION OF A FOUNDATION THAT SUPPORTS A MASONRY VENEER. (N1102.2.12(R402.2.12))

SUNROOMS ENCLOSING CONDITIONED SPACE SHALL MEET THE INSULATION REQUIREMENTS OF THIS CODE. (N1102.2.13(R402.2.13))

EXCEPTION: FOR SUNROOMS WITH THERMAL ISOLATIONAND ENCLOSING CONDITIONED SPACE, THE FOLOWING EXCEPTIONS TO THE INSULATION REQUIREMENTS OF THIS CODE SHALL APPLY:

1. THE MINIMUM CEILING INSULATION R-VALUE SHALL BE R-19 (ZONE 1-4) /R-24 IN ZONES 5-8

2. THE MINIMUM WALL INSULATION R-VALUE SHALL BE R-13. WALLS SEPARATING A SUNROOM WITH THERMAL ISOLATION FROM CONDITIONED SPACE SHALL MEET THE BUILDING THERMAL ENVELOPE REQUIREMENTS OF THIS CODE. (N1102.2.13 (R402.2.13))

AREA WEIGHTED AVERAGE OF FENESTRATION PRODUCTS SHALL BE PERMITTED TO SATISFY THE U-FACTOR REQUIREMENTS. (N1102.3.1 (R402.3.1))

NOT GREATER THAN 15 SQUARE FEET (1.4M2) OF GLAZED FENESTRATION SHALL BE EXEMPT FROM THE U-FACTOR (AND SHGC) REQUIREMENT IN SECTION N1102.1.2. (N1102.3.3 (R402.3.3))

ONE SIDE-HINGED OPAQUE DOOR ASSEMBLY UP TO 24 SQUARE FEET (2.22 M2) IN AREA IS EXEMPTED FROM THE U-FACTOR REQUIREMENT IN SECTION N1102.1.2. THIS EXEMPTION SHALL d. R-5 SHALL BE PROVIDED UNDER THE FULL SLAB AREA OF A HEATED SLAB IN ADDITION TO NOT APPLY TO THE U-FACTOR ALTERNATIVE APPROACH IN SECTION N 1102.1.4 AND THE THE REQUIRED SLAB EDGE R-VALUE. THE SLAB EDGE INSULATION FOR HEATED SLABS SHALL TOTAL VA ALTERNATIVE IN SECTION N1102.1.5. (N1102.3.4 (R402.3.4))

> SUNROOMS WITH THERMAL ISOLATION AND ENCLOSING CONDITIONED SPACE HTE FENESTRATION U FACTOR SHALL NOT EXCEED 0.45 AND THE SKYLIGHT U-FACTOR SHALL NOT EXCEED 0.70. NEW FENESTRATION AND DOORS SEPARATING THE SUNROOM FROM THE CONDITIONED SPACE SHALL MEET THE BUILDING THERMAL ENVELOPE REQUIREMENTS. (N1102.3.5(R402.3.5)

(MANDATORY). THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS N1102.4.1 THROUGH N1102.4.5. (N1102.4 (R402.4))

THE BUILDING THERMAL ENVELOPE SHALL COMPLY WITH SECTIONS N 1 102.4.1.1 AND N 1 1 0 2.4.1.2. THE SEALING METHODS BETWEEN DISSIMILAR MATERIALS SHALL ALLOW FOR DIFFERENTIAL EXPANSION AND CONTRACTION. (N1102.4.1 (R402.4.1))

THE COMPONENTS OF THE BUILDING THERMAL ENVELOPE AS LISTED IN TABLE N1102.4.1.1 SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND THE CRITERIA LISTED IN TABLE N 1 102.4.1.1, AS APPLICABLE TO THE METHOD OF CONSTRUCTION. WHERE REQUIRED BY THE BUILDING OFFICIAL, AN APPROVED THIRD PARTY SHALL INSPECT ALL COMPONENTS AND VERIFY COMPLIANCE. (N1102.4.1.1 (R402.4.1.1))

THE BUILDING OR DWELLING UNIT, INCLUDING SECONDARY UNITS (SDU) (SFR ONLY IN HAYDEN) SHALL BE TESTED AND VERIFIED AS HAVING AN AIR LEAKAGE RATE OF NOT EXCEEDING FIVE AIR CHANGES PER HOUR IN CLIMATE ZONES 1 AND 2, AND THREE AIR CHANGES PER HOUR IN CLIMATE ZONES 3 THROUGH 8. TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH RESNET/ICC 380, ASTME 179 OR ASTME 1827 AND REPORTED AT A PRESSURE OF 0.2 INCHES W.G. (50 PASCALS). WHERE REQUIRED BY THE CODE OFFICIAL, TESTING SHALL BE CONDUCTED BY AN APPROVED THIRD PARTY. A WRITTEN REPORT OF THE RESULTS OF THE TEST SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE BULDING OFFICIAL. TESTING SHALL BE PERFORMED AT ANY TIME AFTER CREATION OF ALL PENETRATIONS OF THE BUILDING THERMAL ENVELOPE. (N1102.4.1.2 (R402.4.1.2))

DURING TESTING:

1. EXTERIOR WINDOWS AND DOORS, FIREPLACE AND STOVE DOORS SHALL BE CLOSED, BUT NOT SEALED, BEYOND THE INTENDED WEATHERSTRIPPING OR OTHER INFILTRATION CONTROL MEASURES. 2. DAMPERS INCLUDING EXHAUST. INTAKE, MAKEUP AIR, BACKDRAFT AND FLUE DAMPERS

SHALL BE CLOSED, BUT NOT SEALED BEYOND INTENDED INFILTRATION CONTROL MEASURES. 3. INTERIOR DOORS, WHERE INSTALLED AT THE TIME OF THE TEST, SHALL BE OPEN. 4. EXTERIOR OR INTERIOR TERMINATIONS FOR CONTINUOUS VENTILATION SYSTEMS SHALL BE SEALED.

5. HEATING AND COOLING SYSTEMS, WHERE INSTALLED AT THE TIME OF THE TEST, SHALL BE TURNED OFF. 6. SUPPLY AND RETURN REGISTERS, WHERE INSTALLED AT THE TIME OF THE TEST, SHALL BE FULLY OPEN.

TESTING BY SPECIAL INSPECTION BY AN APPROVED PARTY. NOTIFY COMPLETE HOME INSPECTION SERVICES, GREG POLMAN, 970.846.4712.

NEW WOOD-BURNING FIREPLACES SHALL HAVE TIGHT-FITTING FLUE DAMPERS OR DOORS. AND OUTDOOR COMBUSTION AIR. WHERE USING TIGHT-FITTING DOORS ON FACTORY-BUILT FIREPLACES LISTED AND LABELED IN ACCORDANCE WITH UL 127, THE DOORS SHALL BE TESTED AND LISTED FOR THE FIREPLACE. (N 1 102.4.1.2 (R 402.4.1.2))

WINDOWS, SKYLIGHTS AND SLIDING GLASS DOORS SHALL HAVE AN AIR INFILTRATION RATE OF NOT GREATER THAN 0.3 CFM PER SQUARE FOOT (1.5 L/S/M2), AND SWINGING DOORS NOT GREATER THAN 0.5 CFM PER SQUARE FOOT (2.6 L/S/M2), WHEN TESTED ACCORDING TO NFRC 400 OR AAMA/WDMA/CSA 101/I.S.2/A440 BY AN ACCREDITED, INDEPENDENT LABORATORY AND LISTED AND LABELED BY THE MANUFACTURER. (N1102.4.3 (R402.4.3))

IN CLIMATE ZONES 3 THROUGH 8, WHERE OPEN COMBUSTION AIR DUCTS PROVIDE COMBUSTION AIR TO OPEN COMBUSTION FUEL-BURNING APPLIANCES. THE APPLIANCES AND COMBUSTION AIR OPENING SHALL BE LOCATED OUTSIDE THE BUILDING THERMAL ENVELOPE OR ENCLOSED IN A ROOM, ISOLATED FROM INSIDE THE THERMAL ENVELOPE, SUCH ROOMS SHALL BE SEALED AND INSULATED IN ACCORDANCE WITH THE ENVELOPE REQUIREMENTS OF TABLE N 1 102.1.2, WHERE THE WALLS, FLOORS AND CEILINGS SHALL MEET A MINIMUM OF THE BASEMENT WALL R-VALUE REQUIREMENT. THE DOOR INTO THE ROOM SHALL BE FULLY IN SECTION N 1 102.1.4 AND THE TOTAL UA ALTERNATIVE IN SECTION N 1 102.1.5. (N 1 102.2.1) GASKETED AND ANY WATER LINES AND DUCTS IN THE ROOM INSULATED IN ACCORDANCE WITH SECTION N 1 103. THE COMBUSTION AIR DUCT SHALL BE INSULATED WHERE IT PASSES THROUGH CONDITIONED SPACE TO NOT LESS THAN R-8. (N1102.4.4 (R402.4.4))

ALLOW SUFFICIENT SPACE FOR THE REQUIRED INSULATION, THE MINIMUM REQUIRED INSULATION 1. DIRECT VENT APPLIANCES WITH BOTH INTAKE AND EXHAUST PIPES INSTALLED CONTINUOUS TO THE OUTSIDE.

2. FIREPLACES AND STOVES COMPLYING WITH SECTIONS N1102.4.2 AND R1006.

13. ENERGY EFFICIENCY - CONTINUED

RECESSED LUMINAIRES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO LIMIT AIR LEAKAGE BETWEEN CONDITIONED AND UNCONDITIONED SPACES. ALL RECESSED LUMINAIRES SHALL BE IC-RATED AND LABELED AS HAVING AN AIR LEAKAGE RATE NOT GREATER THAN 2.0 CFM (0.944 L/S) WHEN TESTED IN ACCORDANCE WITH ASTM E 283 AT A PRESSURE DIFFENTIAL OF 1.57 PSF (75 PA). RECESSED LUMINAIRES SHALL BE SEALED WITH A GASKET OR CAULK BETWEEN THE HOUSING AND THE INTERIOR WALL OR CEILING COVERING. (N1102.4.5 (R402.4.5))

(MANDATORY). THE AREA-WEIGHTED AVERAGE MAXIMUM FENESTRATION U-FACTOR PERMITTED USING TRADEOFFS FROM SECTION N 1 102.1.5 OR N 1 105 SHALL BE 0.48 IN CLIMATE ZONES 4 AND 5 AND 0.40 IN CLIMATE ZONES 6 THROUGH 8 FOR VERTICAL FENESTRATION, AND 0.75 IN CLIMATE ZONES 4 THROUGH 8 FOR SKYLIGHTS. THE AREA-WEIGHTED AVERAGE MAXIMUM FENESTRATION SHGC PERMITTED USING TRADEOFFS FROM

COOLING SYSTEM (N 1 103.1 (R 403.1))

DUCTS AND AIR HANDLERS SHALL BE INSTALLED IN ACCORDANCE WITH SECTIONS N 1 103.3.1 [HROUGH N 1 103.3.8. (N 1 103.3 (R 403.3))

(PRESCRIPTIVE). SUPPLY AND RETURN DUCTS IN ATTICS SHALL BE INSULATED TO AN R-VALUE OF NOT LESS THAN R-8 FOR DUCTS 3 INCHES (76.2 MM) IN DIAMETER AND LARGER AND NOT LESS THAN R-6 FOR DUCTS SMALLER THAN 3 INCHES (76.2 MM) IN DIAMETER. SUPPLY AND RETURN DUCTS IN OTHER PORTIONS OF THE BUILDING SHALL BE INSULATED TO NOT LESS THAN R-6 FOR DUCTS 3 INCHES (76.2 MM) IN DIAMETER NOT LESS THAN R-4.2 FOR DUCTS LESS THAN

THERMAL ENVELOPE.

(MANDATORY). DUCTS, AIR HANDLERS AND FILTER BOXES SHALL BE SEALED. JOINTS AND SEAMS SHALL COMPLY WITH SECTION M1601.4.1. (N1103.3.2 (R403.3.2))

EXCEPTIONS

1. AIR-IMPERMEABLE SPRAY FOAM PRODUCTS SHALL BE PERMITTED TO BE APPLIED WITHOUT ADDITIONAL JOINT SEALS. 2. FOR DUCTS HAVING A STATIC PRESSURE CLASSIFICATION OF LESS THAN 2 INCHES OF WATER COLUMN (500 PA), ADDITIONAL CLOSURE SYSTEMS SHALL NOT BE REQUIRED FOR CONTINUOUSLY WELDED JOINTS AND SEAMS, AND LOCKING-TYPE JOINTS AND SEAMS OF OTHER THAN THE SNAP-LOCK AND BUTTON-LOCK TYPES.

AIR HANDLERS SHALL HAVE A MANUFACTURER'S DESIGNATION FOR AN AIR LEAKAGE OF NO MORE THAN 2 PERCENT OF THE DESIGN AIR FLOW RATE WHEN TESTED IN ACCORDANCE WITH ASHRAE 193. (N1103.3.2.1 (R403.3.2.1))

(MANDATORY). DUCTS SHALL BE PRESSURE TESTED TO DETERMINE AIR LEAKAGE BY ONE OF THE FOLLOWING METHODS: (N1103.3.3 (R403.3.3))

1. ROUGH-IN TEST: TOTAL LEAKAGE SHALL BE MEASURED WITH A PRESSURE DIFFERENTIAL OF 0.1 INCH W.G. (25 PA) ACROSS THE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE IF INSTALLED AT THE TIME OF THE TEST. REGISTERS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST.

2. POSTCONSTRUCTION TEST: TOTAL LEAKAGE SHALL BE MEASURED WITH A PRESSURE DIFFERENTIAL OF 0.1 INCH W.G. (25 PA) ACROSS THE ENTIRE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. REGISTERS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST.

1. A DUCT AIR LEAKAGE TEST SHALL NOT BE REQUIRED WHERE THE DUCTS AND AIR HANDLERS ARE LOCATED ENTIRELY WITHIN THE BUILDING THERMAL ENVELOPE 2. A DUCT AIR LEAKAGE TEST SHALL NOT BE REQUIRED FOR DUCTS SERVING HEAT OR ENERGY RECOVERY VENTILATORS THAT ARE NOT INTEGRATED WITH DUCTS SERVING HEATING AND COOLIN SYSTEMS.

A WRITTEN REPORT OF THE RESULTS OF THE TEST SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE BUILDING OFFICIAL. (PRESCRIPTIVE). THE TOTAL LEAKAGE OF THE DUCTS, WHERE MEASURED IN ACCORDANCE

1. ROUGH-IN TEST: THE TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CUBIC FEET PER MINUTE (113.3 L/MIN) PER 100 SQUARE FEET (9.29 M2) OF CONDITIONED FLOOR AREA WHERE THE AIR HANDLER IS INSTALLED AT THE TIME OF THE TEST. WHERE THE AIR HANDLER IS NOT INSTALLED AT THE TIME OF THE TEST, THE TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 3 CUBIC FEET PER MINUTE (85 L/MIN) PER 100 SQUARE FEET (9.29 M2) OF CONDITIONED FLOOR AREA. 2. POSTCONSTRUCTION TEST: TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CUBIC

(MANDATORY). BUILDING FRAMING CAVITIES SHALL NOT BE USED AS DUCTS OR PLENUMS (N1103.3.5 (R403.3.5))

SEE SECTION N 1 103.3.6 (R403.3.6) WHEN SUPPLY AND RETURN DUCTS ARE PARTIALLY OR COMPLETELY BURIED IN CEILING INSUALTION.

SPACE. (N1103.3.7(R403.3.7)

PIPING TO 104ºF (40ºC).

6. BURIED PIPING.

(R403.5.4))

(R403.6.1))

RECIRCULATION SYSTEMS.

5. PIPING LOCATED UNDER A FLOOR SLAB.

MECHANICAL SYSTEM PIPING CAPABLE OF CARRYING FLUIDS ABOVE 105 DEGREES F OR BELOW 55 DEGREES F SHALL BE INSULATED TO AN R-VALUE OF NOT LESS THAN R-3 MINIMUM. (N1103.4 (IECC 403.3))

(MANDATORY). HEATED WATER CIRCULATION SYSTEMS SHALL BE IN ACCORDANCE WITH SECTION R 1 103.5.1.1. HEAT TRACE TEMPERATURE MAINTENANCE SYSTEMS SHALL BE IN ACCORDANCE WITH SECTION R1103.5.1.2. AUTOMATIC CONTROLS, TEMPERATURE SENSORS AND PUMPS SHALL BE ACCESSIBLE. MANUAL CONTROLS SHALL BE READILY ACCESSIBLE. (N1103.5.1 (R403.5.1))

HEATED WATER CIRCULATION SYSTEMS SHALL BE PROVIDED WITH A CIRCULATION PUMP. THE SYSTEM RETURN PIPE SHALL BE A DEDICATED RETURN PIPE OR A COLD WATER SUPPLY PIPE. GRAVITY AND THERMOSYPHON CIRCULATION SYSTEMS SHALL BE PROHIBITED. CONTROLS FOR CIRCULATING HOT WATER SYSTEM PUMPS SHALL START THE PUMP BASED ON THE IDENTIFICATION OF A DEMAND FOR HOT WATER WITHIN THE OCCUPANCY. THE CONTROLS SHALL AUTOMATICALLY TURN OFF THE PUMP WHEN THE WATER IN THE CIRCULATION LOOP IS AT THE DESIRED TEMPERATURE AND WHEN THERE IS NO DEMAND FOR HOT WATER. (N1103.5.1.1 (R403.5.1.1))

ELECTRIC HEAT TRACE SYSTEMS SHALL COMPLY WITH IEEE 515.1 OR UL 515. CONTROLS FOR SUCH SYSTEMS SHALL AUTOMATICALLY ADJUST THE ENERGY INPUT TO THE HEAT TRACING TO MAINTAIN THE DESIRED WATER TEMPERATURE IN THE PIPING IN ACCORDANCE WITH THE TIMES WHEN HEATED WATER IS USED IN THE OCCUPANCY. (N1103.5.1.2 (R403.5.1.2))

A WATER DISTRIBUTION SYSTEM HAVING ONE OR MORE RECIRCULATION PUMPS THAT PUMP MATER FROM A HEATED WATER SUPPLY PIPE BACK TO THE HEATED WATER SOURCE THROUGH A COLD WATER SUPPLY PIPE SHALL BE A DEMAND RECIRCULATION WATER SYSTEM. PUMPS SHALL HAVE CONTROLS THAT COMPLY WITH BOTH OF THE FOLLOWING: (N 1 103.5.2 (R 403.5.2))

SECTION N1105 IN CLIMATE ZONES 1 THROUGH 3 SHALL BE 0.50. (N1102.5 (R402.5))

NOT LESS THAN ONE THERMOSTAT SHALL BE PROVIDED FOR EACH SEPARATE HEATING AND

EXCEPTION: DUCTS OR PORTIONS THEREOF LOCATED COMPLETELY INSIDE THE BUILDING

WITH SECTION R403.3.3, SHALL BE AS FOLLOWS: (N1103.3.4 (R403.3.4))

FEET PER MINUTE (113.3 L/MIN) PER 100 SQUARE FEET (9.29 M2) OF CONDITIONED FLOOR

SEE SECTION N 1 103.3.7 (R403.3.7) FOR DUCTS TO BE CONSIDERED INSIDE A CONDITIONED

1. THE CONTROL SHALL START THE PUMP UPON RECEIVING A SIGNAL FROM THE ACTION OF A USER OF A FIXTURE OR APPLIANCE, SENSING THE PRESENCE OF A USER OF A FIXTURE OR SENSING THE FLOW OF HOT OR TEMPERED WATER TO A FIXTURE FITTING OR APPLIANCE.

2. THE CONTROL SHALL LIMIT THE TEMPERATURE OF THE WATER ENTERING THE COLD WATER (PRESCRIPTIVE). INSULATION FOR HOT WATER PIPE WITH A MINIMUM THERMAL RESISTANCE, R-

VALUE OF NOT LESS THAN R-3 SHALL BE APPLIED TO THE FOLLOWING: (N1103.5.3 (R403.5.3)) 1. PIPING 3/4 INCH (19 MM) AND LARGER IN NOMINAL DIAMETER. 2. PIPING SERVING MORE THAN ONE DWELLING UNIT.

3. PIPING LOCATED OUTSIDE THE CONDITIONED SPACE. 4. PIPING FROM THE WATER HEATER TO A DISTRIBUTION MANIFOLD.

7. SUPPLY AND RETURN PIPING IN RECIRCULATION SYSTEMS OTHER THAN DEMAND

DRAIN WATER HEAT RECOVERY UNITS SHALL COMPLY WITH CSA B55.2. DRAIN WATER HEAT RECOVERY UNITS SHALL BE TESTED IN ACCORDANCE WITH CSA 55.1. POTABLE WATER-SIDE PRESSURE LOSS OF DRAIN WATER HEAT RECOVERY UNITS SHALL BE LESS THAN 3 PSI (20.7 KPA) FOR INDIVIDUAL UNITS CONNECTED TO ONE OR TWO SHOWERS. POTABLE WATER-SIDE PRESSURE LOSS OF DRAIN WATER HEAT RECOVERY UNITS SHALL BE LESS THAN 2 PSI (13.8 KPA) FOR INDIVIDUAL UNITS CONNECTED TO THREE OR MORE SHOWERS. (N 1 1 0 3.5.4

(MANDATORY). THE BUILDING SHALL BE PROVIDED WITH VENTILATION THAT MEETS THE REQUIREMENTS OF SECTION M1507 OR OTHER APPROVED MEANS OF VENTILATION. OUTDOOR AIR INTAKES AND EXHAUSTS SHALL HAVE AUTOMATIC OR GRAVITY DAMPERS THAT CLOSE WHEN THE VENTILATION SYSTEM IS NOT OPERATING. (N1103.6 (R403.6))

FANS USED TO PROVIDE WHOLE-HOUSE MECHANICAL VENTILATION SHALL MEET THE EFFICACY REQUIREMENTS OF TABLE N1 103.6.1 OF 2.8 CFM/WATT EXCEPT BATH AND UTILITY ROOM FANS OF 1.4 CFM/WATT FOR FANS (90 CFM AND HRV OR ERV FANS OF 1.2 CFM/WATT. (N1103.6.1

EXCEPTION: WHERE THE AIR HANDLER THAT IS INTEGRAL TO TESTED AND LISTED HVAC EQUIPMENT IS USED TO PROVIDE WHOLE-HOUSE MECHANICAL VENTILATION, THEE AIR HANDLER SHALL BE POWERED BY AN ELECTRONICALLY COMMUTATED MOTOR.

(MANDATORY). HEATING AND COOLING EQUIPMENT SHALL BE SIZED IN ACCORDANCE WITH ACCA MANUAL S BASED ON BUILDING LOADS CALCULATED IN ACCORDANCE WITH ACCA MANUAL J OR OTHER APPROVED HEATING AND COOLING CALCULATION METHODOLOGIES. NEW OR REPLACEMENT HEATING AND COOLING EQUIPMENT SHALL HAVE AN EFFICIENCY RATING EQUAL TO OR GREATER THAN THE MINIMUM REQUIRED BY FEDERAL LAW FOR THE GEOGRAPHIC LOCATION WHERE THE EQUIPMENT IS INSTALLED. (N 1 103.7 (R403.7))

13 ENERGY EFFICIENCY - CONTINUED

SNOW AND ICE-MELTING SYSTEMS SHALL INCLUDE AUTOMATIC CONTROLS CONFIGURED TO SHUT OFF THE SYSTEM WHEN THE SURFACE TEMPERATURE IS ABOVE (40 DEGREES F. 4.4 DEGREES C) AND PRECIPITATION IS NOT FALLING, AND AN AUTOMATIC CONTROL THAT IS CONFIGURED TO SHUT OFF WHEN THE OUTDOOR TEMPERATURE IS ABOVE (40 DEGREES F, 4.4 DEGREES C) (N1103.9 (R403.9)).

FEMPERATURE AND MOISTURE SENSOR LOCATIONS IN HEATED OUTDOOR SNOW MELT SYSTEMS SHALL BE SHOWN CLEARLY ON THE OUTDOOR HEATED SNOW MELT SITE PLAN, AND SHALL NOT BE LOCATED IN THE FOLLOWING AREAS LISTED BELOW 1. SHALL NOT BE WITHIN 5 FEET OF THE PUBLIC ROW OR PRIVATE ROAD FROM THE EDGE OF THE WALKING OR DRIVING SURFACE. 2. SHALL NOT BE LOCATED UNDER A ROOF OVERHANG OR OTHER STRUCTURE SUBJECT TO SHADING DURING DAYLIGHT HOURS (N1103.9 (R403.9.1)).

POOLS AND PERMANENT SPAS SHALL BE IN ACORDANCE WITH SECTION N1103.10.3 (MANDATORY). NOT LESS THAN 90% OF THE PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL CONTAIN ONLY HIGH EFFICACY LAMPS. (N1104.1(R404.1))

HOT WATER BOILERS SHALL HAVE AN OUTDOOR SETBACK CONTROL THAT LOWERS THE BOILER WATER TEMPERATURE BASED ON THE OUTDOOR TEMPERATURE (N1103.2 (R403.2))

AS DESIGNED THIS HOUSE WILL COMPLY WITH THE PRESCRIPTIVE PATH, SECTIONS N1 102.1 THROGH N1104. IF FIELD DECISIONS OR SUBSTITUTIONS ARE MADE RESULTING IN FAILURE TO COMPLY WITH SECTIONS N1101.14-N1104 (PRESCRIPTIVE) THE HOME MUST BE EVALUATED UNDER SECTION N 1 105, SIMULATED PERFORMANCE ALTERNATIVE (PERFORMANCE) OR SECTION N 1 106 ENERGY RATING INDEX COMPLIANCE ALTERNATIVE. A COMPLIANCE REPORT ON THE PROPOSED DESIGN SHALL BE SUBMITTED WITH THE APPLICATION FOR THE BUILDING PERMIT. VERIFICATION OF COMPLIANCE WITH SECTION N1105 OR N1106 SHALL BE COMPETED BY AN APPROVED THIRD PARTY AND THE COMPLIANCE REPORT SHALL BE SUBMITTED WITH THE BUILDING PERMIT APPLICATION. 14. PLUMBING

CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS TO INSTALL ALL PERIMETER STORM DRAINAGE, FLOOR DRAINS, PLUMBING, RELATED FIXTURES, GAS PIPING AND RADON GAS VENT PIPING ALL WORK SHALL COMPLY WITH IRC PART VI - FUEL GAS CHAPTER 24 AND PART VII - PLUMBING, CHAPTERS 25 THRU 33, STATE AND LOCAL CODES AND ORDINANCES.

BOILERS & WATER HEATERS SHALL BE LOCATED PER IRC CHAPTER 20. AND SHALL BE INSTALLED IN ACCORDANCE WITH IRC CHAPTERS 25 & 28. PLUMBING FIXTURES SHALL BE LOCATED & INSTALLED PER CHAPTER 29. WATER SUPPLY AND DISTRIBUTION SHALL COMPLY WITH IRC CHAPTER 29.

SANITARY DRAINAGE SHALL COMPLY WITH IRC CHAPTER 30. VENTING SHALL COMPLY WITH IRC CHAPTER 31.

FIXTURE TRAPS SHALL COMPLY WITH IRC CHAPTER 32. DWELLING FIRE SPRINKLER SYSTEM IF REQUIRED SHALL BE INSTALLED PER CHAPTER 29 SECTION P2904

PROVIDE TRUNK AND BRANCH PLUMBING SYSTEM WITH HOT WATER RECIRCULATION LOOP ON RUNS LONGER THAN 30 FEET HORIZONTAL. RECIRCULATION LOOP TO BE PROVIDED WITH A LOW FLOW, HIGH EFFICIENCY, CONTINUOUS DUTY PUMP.

PROVIDE PARALLEL FLOW (MANIFOLD OR HOME RUN) PIPING SYSTEM USING "PEX" OR APPROVED EQUAL PIPING.

ROUTT COUNTY IS LISTED IN ZONE 2, MODERATE POTENTIAL FOR RADON PER FIGURE AF 101. BELOW GRADE AND CRAWL SPACE FOUNDATIONS ARE REQUIRED TO COMPLY WITH APPENDIX F "RADON CONTROL METHODS". SEE APPENDIX F.

IN BUILDINGS WITH CRAWL SPACES WHERE A PASSIVE SUBMEMBRANE DEPRESSURIZATION SYSTEM IS SHOWN ON THE FOUNDATION PLAN, PROVIDE VENTILATION PER AF 103.5.1, SOIL GAS RETARDER PER AF 103.5.2 AND VENT PIPE PER AF 310.3. SEE AF 102 FOR DETAILS. (AF 103.5)

IN BUILDINGS WITH BASEMENTS OR SLAB-ON-GRADE CONSTRUCTION WHERE A PASSIVE SUBSLAB DEPRESSURIZATION SYSTEM IS SHOWN ON THE FOUNDATION PLAN, PROVIDE VENT PIPE PER AF103.6.1 OR AF 103.6.2. SEE FIGURE AF102 FOR DETAILS. (AF103.6)

RADON VENT PIPES SHALL BE ACCESSIBLE FOR FUTURE FAN INSTALLATION THROUGH AN ATTIC OR OTHER AREA OUTSIDE THE HABITABLE SPACE. (AF 103.8)

EXPOSED OR VISIBLE INTERIOR RADON VENT PIPES SHALL BE IDENTIFIED WITH NOT LESS THAN ONE LABEL ON EACH FLOOR AND IN ACCESSIBLE ATTICS. THE LABEL SHALL READ "RADON REDUCTION SYSTEM". (AF 103.9)

WHERE RADON VENT PIPE (VTR) IS PROVIDED, A LOW SONE CONTINUOUS DUTY, CUT IN FAN MAY BE REQUIRED. PROVIDE AMPLE ROOM FOR FAN INSTALLATION & POWER SOURCE PER AF 103.12. COORDINATE W/ PLUMBER, MECHANICAL & ELECTRICAL CONTRACTORS.

THE USA EPA HAS SET AN ACTION LEVEL OF 4PCI/L. AT OR ABOVE THIS LEVEL OF RADON, THE EPA RECOMMENDS CORRECTIVE MEASURES TO REDUCE RADON GAS. IT IS RECOMMENDED TO TEST THE COMPLETED STRUCTURE AND PROVIDE AN ADEQUATE VENT FAN IF REQUIRED.

THE MAXIMUM WATER CONSUMPTION FLOW RATES AND QUANTITIES FOR ALL PLUMBING FIXTURES AND FIXTURE FITTINGS SHALL BE IN ACCORDANCE WITH TABLE P2903.2. HIGH EFFICIENCY TOILETS, WHEN SPECIFIED, SHALL BE DUAL FLUSH OR < 1.3 GPF.

A WATER CLOSET LAVATORY OR BIDET SHALL NOT BE SET CLOSER THAN 15" FROM ITS CENTER TO ANY SIDEWALL PARTITION OR VANITY. THE CLEAR SPACE IN FRONT OF THE WATER CLOSET SHALL BE NOT LESS THAN 21" (R307.1 & P2705.1.5). PROVIDE ELONGATED BOWLS UNLESS OTHERWISE NOTED.

SHOWER COMPARTMENTS SHALL HAVE AT LEAST 900 SQUARE INCHES OF INTERIOR CROSS SECTIONAL AREA AND SHALL NOT BE LESS THAN 30" IN MINIMUM DIMENSION. (P2708) SHOWER. FLOORS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS AND SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NON-ABSORBENT SURFACE EXTENDING TO A HEIGHT OF 6'-0" MINIMUM ABOVE THE FLOOR. (R307.2)

PROVIDE CAST-N-PLACE CAST IRON FLOOR DRAINS WITH INTEGRAL SAND TRAP, PIPED @ 1% MINIMUM SLOPE TO DAYLIGHT IN THE GARAGE. DAYLIGHTED END SHALL BE SCREENED AND PROTECTED WITH ROCK RIPRAP. IF EXPANSIVE SOILS ARE PRESENT, DO NOT CONNECT FLOOR DRAIN OUTFALL TO FOUNDATION PERIMETER DRAIN UNTIL 10 FEET AWAY FROM THE FOUNDATION. (ROUTT COUNTY ONLY)

UNLESS FLOOR DRAINS ARE SPECIFICALLY SHOWN ON THE GARAGE FLOOR PLAN, THE AREA OF FLOOR USED FOR PARKING OF VEHICLES SHALL BE SLOPED TO FACILITATE THE MOVEMENT OF LIQUIDS TOWARD THE MAIN VEHICLE ENTRY DOOR.

RURAL UNINCORPORATED ROUTT COUNTY

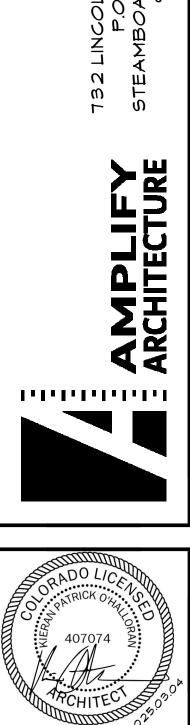
IF FLOOR DRAINS ARE PROVIDED IN GARAGES THEY MUST BE CONNECTED TO THE BUILDING SANITARY DRAIN SYSTEM PER THE ADOPTED PLUMBING CODE OR PROPERLY DAYLIGHTED . FLOOR DRAINS CONNECTED TO THE BUILDING SANITARY DRAIN SYSTEM PER THE ADOPTED PLUMBING CODE, FLOOR DRAIN(S) SHALL BE SHOWN ON THE FLOOR PLANS FOR REVIEW. THE RGRBD WILL ONLY INSPECT AND REQUIRE THE FLOOR TO BE PROPERLY SLOPED TO THE FLOOR DRAIN.

PROVIDE FLOOR DRAIN PIPED TO HOUSE SEWER IN ALL MECHANICAL ROOMS CONTAINING BOILERS. DRAIN SHALL BE LOCATED AS NOTED ON PLANS. IF USED AS AN INDIRECT DRAIN RECEPTOR FOR BOILER OR WATER HEATER RELOCATE AS CLOSE AS POSSIBLE TO BOILER OR WATER HEATER.

PROVIDE FLOOR DRAIN PIPED TO HOUSE SEWER IN ALL LAUNDRY ROOM UNLESS WASHING MACHINE IS PLACED IN A WATER TIGHT PAN COMPLYING WITH IRC SECTION P2801.6

WHERE WATER HEATERS OR HOT WATER STORAGE TANKS ARE INSTALLED IN LOCATIONS MHERE LEAKAGE MOULD CAUSE DAMAGE, THE TANK OR WATER HEATER SHALL BE INSTALLED IN A GALVANIZED STEEL PAN PER IRC P2801.6. LISTED PANS SHALL COMPLY WITH CSA LC3. THE PAN SHALL BE DRAINED BY AN INDIRECT WASTE PIPE PER IRC P2801.6.1 AND TERMINATED OVER A SUITABLY LOCATED INDIRECT WASTE RECEPTOR OR EXTENDED TO THE BUILDING EXTERIOR AND TERMINATED BETWEEN 6" AND 24" ABOVE THE ADJACENT GROUND SURFACE PER IRC P2801.6.2.

CORROSIVE LIQUIDS, SPENT ACIDS OR OTHER HARMFUL CHEMICALS THAT DESTROY OR INJURE A DRAIN, SEWER, SOIL OR WASTE PIPE, OR CREATE NOXIOUS OR TOXIC FUMES OR INTERFERE WITH SEWAGE TREATMENT PROCESSES SHALL NOT BE DISCHARGED INTO THE PLUMBING SYSTEM WITHOUT BEING THOROUGHLY DILUTED, NEUTRALIZED OR TREATED BY PASSING THROUGH AN APPROVED DILUTION OR NEUTRALIZING DEVICE. SUCH DEVICES SHALL BE AUTOMATICALLY PROVIDED WITH A SUFFICIENT SUPPLY OF DILUTING WATER OR NEUTRALIZING MEDIUM SO AS TO MAKE THE CONTENTS NONNINJURIOUS BEFORE DISCHARGE INTO THE DRAINAGE SYSTEM. THE NATURE OF THE CORROSIVE OR HARMFUL WASTE AND THE METHOD OF ITS TREATMENT OR DILUTION SHALL BE APPROVED PRIOR TO INSTALLATION. (PP3011 RCRBD AMMENDED)



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13. ENERGI	EFFICIENCE	- CONTINU

14. PLUMBING - continued

CORROSIVE LIQUIDS, SPENT ACIDS OR OTHER HARMFUL CHEMICALS THAT DESTROY OR INJURE A DRAIN, SEMER, SOIL OR WASTE PIPE, OR CREATE NOXIOUS OR TOXIC FUMES OR INTERFERE WITH SEWAGE TREATMENT PROCESSES SHALL NOT BE DISCHARGED INTO THE PLUMBING SYSTEM WITHOUT BEING THOROUGHLY DILUTED, NEUTRALIZED OR TREATED BY PASSING THROUGH AN APPROVED DILUTION OR NEUTRALIZING DEVICE. SUCH DEVICES SHALL BE 🔰 JOISTS AND BE SUBSTANTIALLY AIR TIGHT. (250 CFM @ 50 PASCAL MAXIMUM). FAU SHALL BE AUTOMATICALLY PROVIDED WITH A SUFFICIENT SUPPLY OF DILUTING WATER OR NEUTRALIZING ISOLATED FROM DUCTING WITH RUBBER JOINTS OR BOOTS. LATERALS SHALL BE SIZED TO MEDIUM SO AS TO MAKE THE CONTENTS NONNINJURIOUS BEFORE DISCHARGE INTO THE DRAINAGE SYSTEM. THE NATURE OF THE CORROSIVE OR HARMFUL WASTE AND THE METHOD OF ITS TREATMENT OR DILUTION SHALL BE APPROVED PRIOR TO INSTALLATION. (PP3011 RCRBD AMMENDED)

PROVIDE JETTED TUB AT LOCATION SHOWN ON PLANS = N/A

PROVIDE STEAM SHOWER AT LOCATION SHOWN ON PLANS = N/A

PROVIDE (2) FROST PROOF HOSE BIBBS AT LOCATIONS NOTED ON THE PLANS

THE PLANS.

PROVIDE "WATER BUG" OR OTHER OWNER APPROVED LEAK DETECTOR & SHUT OFF SYSTEM. APPLIANCES AND EQUIPMENT USED FOR HEATING WATER OR STORING HOT WATER SHALL BE PROTECTED BY A PRV AND TRV OR COMBINATION P/TRV AND SHALL NOT BE DIRECTLY CONNECTED TO THE DRAINAGE SYSTEM. THE DISCHARGE SHALL BE THROUGH AND AIR GAP TO AN INDIRECT WASTE RECEPTOR OR OTHER APPROVED MEANS

THIS HOUSE IS PROPOSED FOR SEASONAL USE, THEREFORE THE WATER DISTRIBUTION SYSTEM 5HALL BE INSTALLED TO DRAIN TO THE FIXTURE OR BACK TO A CENTRAL LOCATION. PROVIDE EVERY CHIMNEY OR FLUE SHALL BE EQUIPPED WITH AN APPROVED SPARK ARRESTOR. A DRAIN VALVE AND FLOOR DRAIN AT THIS LOCATION.

5. MECHANICAL

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT TO INSTALL VENTILATION HEATING AND AIR CONDITIONING EQUIPMENT: DUCTING AND ALL RELATED CONTROLS. ALL WORK SHALL COMPLY WITH IRC PART V - MECHANICAL, CHAPTERS 12 THRU 23, STATE AND LOCAL CODES AND ORDINANCES. ALL EQUIPMENT SHALL BE INSTALLED PER [HE MANUFACTURER'S PRINTED INSTRUCTIONS AND LOCAL CODES AND THE REQUIREMENTS OF (M2005.2) IRC CHAPTERS 13 & 14.

SYSTEMS AS WELL AS THE EXECUTION OF THE WORK ACCORDING TO ACCEPTED STANDARDS OF ENGINEERING, WORKMANSHIP AND REGULATORY REQUIREMENTS. MECHANICAL CONTRACTORS TO PROVIDE ADDITIONAL DRAWINGS, SPECIFICATIONS AND ENGINEER'S CERTIFICATION AS REQUIRED BY FEDERAL, STATE, OR LOCAL LAWS AND BUILDING DEPARTMENT JURISDICTION.

ADDITIONS, ALTERATIONS, RENOVATIONS OR REPAIRS TO A MECHANICAL SYSTEM SHALL CONFORM TO THE REQUIREMENTS FOR A NEW MECHANICAL SYSTEM WITHOUT REQUIRING THE EXISTING MECHANICAL SYSTEM TO COMPLY WITH ALL OF THE REQUIREMENTS OF THIS CODE.(IRC M1202.1)

HEATING AND COOLING EQUIPMENT SHALL BE SIZED IN ACCORDANCE WITH SECTION M1401.3, OF THE IRC; ACCA MANUAL J OR OTHER APPROVED METHODOLOGY. MECHANICAL CONTRACTOR SHALL PROVIDE CALCULATIONS BY DEFERRED SUBMITTAL FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION OF MECHANICAL OR HVAC EQUIPMENT. SEE ATTACHED HEAT LOSS CALCULATIONS.

EXHAUST SYSTEMS SHALL BE INSTALLED PER IRC CHAPTER 15.

DUCT SYSTEMS SERVING HEAT, COOLING AND VENTILATION EQUIPMENT SHALL BE FABRICATED & INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF IRC CHAPTER 16 & ACCA AT LOCATION SHOWN ON PLANS DIRECT VENTED THROUGH THE WALL OR GRAVITY VENTED MANUAL D & MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.

SOLID FUEL BURNING APPLIANCES SHALL BE PROVIDED WITH COMBUSTION AIR IN ACCORDANCE WITH THE APPLIANCE MANUFACTURER'S INSTALLATION INSTRUCTIONS. THE REQUIREMENTS FOR COMBUSTION, VENTILATION & DILUTION AIR FOR GAS FIRED APPLIANCES SHALL BE IN ACCORDANCE WITH SECTION G2407

FUEL BURNING APPLIANCES SHALL BE VENTED TO THE OUTDOORS IN ACCORDANCE WITH THEIR LISTING AND LABEL AND MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PER IRC CHAPTER 18.

FREE STANDING OR BUILT-IN RANGES SHALL HAVE A VERTICAL CLEARANCE ABOVE THE COOKING TOP OF NOT LESS THAN 30 INCHES. (IRC M 1901.1)

BOILERS SHALL BE INSTALLED IN ACCORDANCE WITH CHAPTER 20. WATER HEATERS SHALL BE INSTALLED IN ACCORDANCE WITH CHAPTER 20. HYDRONIC PIPING SYSTEMS SHALL BE INSTALLED PER IRC CHAPTER 21. SOLAR THERMAL ENERGY SYSTEMS SHALL BE DESIGNED, CONSTRUCTED AND INSTALLED PER CHAPTER 23

GAS FIRED APPLIANCES SHALL BE VENTED IN ACCORDANCE WITH CHAPTER 24. (MANDATORY), DUCTS SHALL BE PRESSURE TESTED TO DETERMINE AIR LEAKAGE BY ONE OF THE FOLLOWING METHODS: (N1103.3.3 (R403.3.3)) (DELETE AN REFER TO DIVISION 13?)

. ROUGH-IN TEST: TOTAL LEAKAGE SHALL BE MEASURED WITH A PRESSURE DIFFERENTIAL OF 2.1 INCH W.G. (25 PA) ACROSS THE SYSTEM INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE IF INSTALLED AT THE TIME OF THE TEST. ALL REGISTERS SHALL BE TAPED OR

OTHERWISE SEALED DURING THE TEST 2. POSTCONSTRUCTION TEST: TOTAL LEAKAGE SHALL BE MEASURED WITH A PRESSURE DIFFERENTIAL OF 0.1 INCH W.G. (25 PA) ACROSS THE ENTIRE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. REGISTERS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST.

EXCEPTION: A DUCT AIR LEAKAGE TEST SHALL NOT BE REQUIRED WHERE THE DUCTS AND AIR HANDLERS ARE LOCATED ENTIRELY WITHIN THE BUILDING THERMAL ENVELOPE.

A WRITTEN REPORT OF THE RESULTS OF THE TEST SHALL BE SIGNED BY THE PARTY ONDUCTING THE TEST AND PROVIDED TO THE CODE OFFICIAL.

(PRESCRIPTIVE). THE TOTAL LEAKAGE OF THE DUCTS, WHERE MEASURED IN ACCORDANCE WITH SECTION R403.3.3, SHALL BE AS FOLLOWS: N1103.3.4 (R403.3.4)

1. ROUGH-IN TEST: THE TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CUBIC FEET PER MINUTE (113.3 L/MIN) PER 100 SQUARE FEET (9.29 M2) OF CONDITIONED FLOOR AREA WHERE THE AIR HANDLER IS INSTALLED AT THE TIME OF THE TEST. WHERE THE AIR HANDLER IS NOT INSTALLED AT THE TIME OF THE TEST, THE TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 3 CUBIC FEET PER MINUTE (85 L/MIN) PER 100 SQUARE FEET (9.29 M2) OF CONDITIONED FLOOR AREA.

2. POSTCONSTRUCTION TEST: TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CUBIC FEET PER MINUTE (113.3 L/MIN) PER 100 SQUARE FEET (9.29 M2) OF CONDITIONED FLOOR

15. MECHANICAL - continued

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THE THERMOSTAT CONTROLLING THE PRIMARY HEATING OR COOLING SYSTEM OF THE DWELLING UNIT SHALL BE CAPABLE OF CONTROLLING THE HEATING AND COOLING SYSTEM ON A DAILY SCHEDULE TO MAINTAIN DIFFERENT TEMPERATURE SET POINTS AT DIFFERENT TIMES OF THE DAY, THIS THERMOSTAT SHALL INCLUDE THE CAPABILITY TO SET BACK OR TEMPORARILY OPERATE THE SYSTEM TO MAINTAIN ZONE TEMPERATURES OF NOT LESS THAN 55°F (13°C) BUT NOT GREATER THAN 85°F (29°C). THE THERMOSTAT SHALL INITIALLY BE PROGRAMMED BY THE MANUFACTURER WITH A HEATING TEMPERATURE SET POINT OF NOT GREATER THAN 70°F (21°C) AND A COOLING TEMPERATURE SET POINT OF NOT LESS THAN 78°F (26°C). (N 1 103.1.1 (R403.1.1))

HOT WATER BOILERS THAT SUPPLY HEAT TO THE BUILDING THROUGH ONE- OR TWO-PIPE HEATING SYSTEMS SHALL HAVE AN OUTDOOR SETBACK CONTROL THAT LOWERS THE BOILER MATER TEMPERATURE BASED ON THE OUTDOOR TEMPERATURE. (N 1 103.2 (R 403.2))

THIS HOUSE AS PROPOSED WILL UTILIZE A RADIANT FLOOR HYDRONIC SYSTEM WITH A BOILER AND SIDE ARM WATER STORAGE TANK.

HYDRONIC TUBING WILL BE ATTACHED TO REINFORCEMENT AT ALL SLAB ON GRADE OCATIONS, ATTACHED TO THE UNDERSIDE OF WOOD FLOOR SHEATHING BETWEEN JOIST OR ATTACHED TO UPPER SIDE OF FLOOR SHEATHING WHEN EMBEDDED IN 1-1/2" CONCRETE [OPPING SLAB. (USE 2X2 SLEEPERS FOR ATTACHMENT OF HARD WOOD FLOORING). OR ATTACHED TO THE UPPER SIDE OF "WARMBOARD" FLOOR SHEATHING. (OVERALL STAIR AND RISER HEIGHTS MAY NEED TO BE REVISED) TUBING SHALL BE CROSS LINKED POLYETHYLENE WITH OXYGEN INHIBITOR SUCH AS PEX OR WIRSBRO.

RADIANT FLOOR HEATING SYSTEMS SHALL HAVE A THERMAL BARRIER IN ACCORDANCE WITH SECTIONS M2103.2.1 AND M2103.2.2..

R-10 INSULATION SHALL BE PROVIDED UNDER THE FULL SLAB AREA OF A CONCRETE SLAB IN CONDITIONED SPACE. PER N1102.1.2 AND N1102.1.4 d. R-5 SHALL BE PROVIDED UNDER THE FULL SLAB AREA OF A HEATED SLAB IN ADDITION TO THE REQUIRED SLAB EDGE R-VALUE. THE SLAB EDGE INSULATION FOR HEATED SLABS SHALL NOT BE REQUIRED TO EXTEND BELOW THE SI AB PROVIDE ASPHALT EXPANSION JOINT MATERIAL OR SIMILAR INSULATING MATERIAL WHERE THE HEATED SLAB MEETS A FOUNDATION WALL OR OTHER CONDUCTIVE SLAB. (M2103.2.1) THIS ADDITIONAL INSULATION HAS / HAS NOT BEEN INCLUDED IN THE PLANS.

SUSPENDED FLOOR APPLICATIONS SHALL HAVE A MINIMUM OF R-11 INSULATION BELOW THE PIPING (M2103.2)

BOILER WILL BE NATURAL GAS / LPG FUELED AND GRAVITY VENTED THROUGH THE ROOF OR DIRECT VENTED THROUGH THE WALL IN THE LOCATION SHOWN ON THE PLANS. BOILER SHALL BE SYSTEMS AS WELL AS THE EXECUTION OF THE WORK ACCORDING TO ACCEPTED STANDARDS 90% AFUE MINIMUM. BOILER, SIZING AND TUBING LAYOUT DIAGRAMS ARE TO BE PROVIDED BY OF ENGINEERING, WORKMANSHIP AND REGULATORY REQUIREMENTS. ELECTRICAL THE SUPPLIER AND WILL BE REVIEWED BY JAKE'S DRAFTING SERVICE, INC. AT THE OWNER'S OPTION.

15. MECHANICAL - continued

PORTION OF THE BUILDING WITHIN 10 FEET

THIS HOUSE AS PROPOSED WILL UTILIZE A FORCED AIR SYSTEM. FORCED AIR UNIT (FAU) WILL BE NATURAL GAS / LPG FUELED AND GRAVITY VENTED THROUGH THE ROOF OR DIRECT VENTED THROUGH THE WALL AT THE LOCATION NOTED ON THE PLANS. MINIMUM EFFICIENCY SHALL BE 90% AFUE. ALL SUPPLY AND RETURN DUCTING SHALL BE SEALED WITH MASTIC AT PREVENT EXCESSIVE DELIVERY DUCT VELOCITY (5 FEET / SECOND MAXIMUM)

THIS HOUSE AS PROPOSED, WILL UTILIZE A HYBRID HEATING SYSTEM COMBINING A HIGH EFFICIENCY COMBINATION WATER HEATER, A HEATING COIL / HEAT RECOVERY VENTILATOR AND DUCTED AIR DELIVERY SYSTEM. THE HEAT EXCHANGER COIL WILL BE USED TO PROVIDE 140 DEGREES +/- WATER/PROPYLENE GLYCOL SOLUTION TO THE HEATING COIL LOCATED IN THE HEAT RECOVERY VENTILATOR. TEMPERED AND FRESH AIR WILL PASS THROUGH THE HEATING COIL AND BE DELIVERED THROUGH OUT THE HOUSE VIA DUCTWORK. UNIT EFFICIENCY SHALL BE 90% AFUE.

PROVIDE AGA APPROVED, GRAVITY DIRECT VENTED, LPG / NATURAL GAS FUELED PROVIDE BARBEQUE GRILL GAS SERVICE LINE WITH SHUT OFF VALVE AT LOCATION NOTED ON MODULATING BOILER AT LOCATION NOTED ON PLANS. MECHANICAL CONTRACTOR TO PROVIDE EQUIPMENT SPECIFICATIONS, MAKE-UP AND COMBUSTION AIR REQUIREMENTS. SYSTEM DESIGNED BY OTHERS.

> PROVIDE AGA APPROVED GRAVITY VENTED ZERO CLEARANCE FIREPLACE AT LOCATION NOTED ON PLANS. APPLIANCE TO BE RATED AS A FURNACE FOR THERMOSTATIC CONTROL.

PROVIDE COLORADO PHASE III CERTIFIED WOOD STOVE / PREFABRICATED FIREPLACE, GRAVITY VENTED THROUGH THE ROOF AT THE LOCATION NOTED ON THE PLANS. APPLIANCE TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS AND LOCAL CODES.

CHIMNEYS SHALL EXTEND AT LEAST 2' ABOVE THE ROOF AND NOT LESS THAN 2' ABOVE ANY

FUEL FIRED WATER HEATERS SHALL NOT BE INSTALLED IN A ROOM USED AS A STORAGE CLOSET. WATER HEATERS INSTALLED IN A BEDROOM OR BATHROOM SHALL BE INSTALLED IN A LOCATED IN THE GARAGE AND SHALL SERVE ONLY RECEPTACLE OUTLETS LOCATED IN THE SEALED ENCLOSURE SO THAT COMBUSTION AIR WILL NOT BE TAKEN FROM THE LIVING SPACE. INSTALLATION OF DIRECT VENT WATER HEATERS WITHIN AN ENCLOSURE IS NOT REQUIRED.

WHEN THE WINTER DESIGN TEMPERATURE IS BELOW 60 F EVERY DWELLING UNIT SHALL BE THE MECHANICAL SUBCONTRACTORS SHALL BE RESPONSIBLE FOR THE FINAL DESIGN OF THE PROVIDED WITH HEATING FACILITIES CAPABLE OF MAINTAINING A ROOM TEMPERATURE OF 68 DEGREES F AT A POINT 3' ABOVE THE FLOOR AND 2' FROM EXTERIOR WALLS IN ALL HABITABLE ROOMS AT THE DESIGN TEMPERATURE. (R303.10)

> PROVIDE ENERGY-STAR QUALIFIED KITCHEN RANGE HOOD FAN WITH <4 SONE RATING VENTED DIRECTLY TO THE EXTERIOR.

APPLIANCES DESIGNED TO BE FIXED IN POSITION SHALL BE FASTEBNED OR ANCHORED IN AN APPROVED MANNER.. (M1307.2)

APPLIANCES HAVING AN IGNITION SOURCE SHALL BE ELEVATED SUCH THAT THE IGNITION SOURCE IS NOT LESS THAN 18" ABOVE THE FLOOR IN GARAGES. ROOMS OR SPACES THAT ARE NOT PART OF THE LIVING SPACE OF A DWELLING UNIT THAT COMMUNICATE WITH A PRIVATE GARAGE THROUGH OPENINGS SHALL BE CONSIDERED PART OF THE GARAGE. (M 1307.3) EXCEPTION: APPLIANCES LISTED AS "FLAMMABLE VAPOR-IGNITION RESISTANT"

APPLIANCES SHALL NOT BE INSTALLED IN A LOCATION SUBJECT TO VEHICLE DAMAGE EXCEPT WHEN PROTECTED BY APPROVED BARRIERS. (M1307.3.1)

OPTIONALLY, PROVIDE 40 GALLON, QUICK RECOVERY NATURAL GAS FUELED, WATER HEATER THRU THE ROOF. WATER HEATER SHALL BE 60% EFFICIENT (<55 GALLON) MINIMUM. WATER HEATER TO BE R-15 OR BETTER OR WRAP WATER HEATER WITH R-8 MINIMUM INSULATION

LIQUEFIED PETROLEUM GAS BURNING APPLIANCES SHALL NOT BE INSTALLED IN A PIT, BASEMENT OR SIMILAR LOCATION WHERE HEAVIER THAN AIR GAS MIGHT COLLECT, UNLESS THE FOLLOWING CONDITIONS ARE MET: 1. A LISTED GAS DETECTOR WITH ALARM SHALL BE INSTALLED. A LISTED SOLENOID VALVE

GAS VALVE SHALL BE INSTALLED ON THE GAS LINE THAT SUPPLIES ALL PROPANE APPLIANCES LOCATED IUN THE BASEMENT OR PIT. UPON DETECTION OF GAS AN ALARM SHALL SOUND AND THE SOLENOID VALVE SHALL CLOSE.

2. THERE SHALL BE INSTALLED AN APPROVED EXHAUST SYSTEM FOR THE PURPOSE OF REMOVING UNBURNED GASES. THE EXHAUST SYSTEM SHALL BE INTERLOCKED TO THE GAS DETECTOR SO AS TO OPERATE AUTOMATICALLY IN THE EVENT OF AN ALARM. THE EXHAUST SYSTEM SHALL PROVIDE A MINIMUM OF (4) AIR CHANGES PER HOUR, AND THE EXHAUST INTAKE SHALL BE LOCATED WITHIN 6 INCHES OF THE FLOOR. (R303.7 RCRBD AMENDMENT)

BASEMENTS SHALL NOT REQUIRE THE INSTALLATION OF AN EXHAUST/ALARM SYSTEM ON LIQUID PROPANE GAS APPLIANCES IF THE FOLLOWING EXCEPTIONS ARE MET. 1. THE BASEMENT MUST BE A WALK-OUT BASEMENT HAVING A MINIMUM OF ONE EXTERIOR. DOOR WITH A MAXIMUM THRESHOLD HEIGHT OF 3/4" BETWEEN THE TOP OF THE FINISHED FLOOR EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED AT OF THE BASEMENT AND THE TOP OF THE GRADE ON THE EXTERIOR SIDE OF THE BUILDING. 2. THE GRADE SHALL REMAIN LEVEL OR MAY SLOPE DOWNWARD FROM THE BUILDING FOR A DISTANCE OF NOT LESS THAN 10 FEET OUT FROM THE EXTERIOR DOOR/WALL AND BE A MINIMUM WIDTH OF 10 FEET WIDE THE ENTIRE DISTANCE OUT FROM THE BUILDING.

UNDER-FLOOR SPACES CONTAINING APPLIANCES SHALL BE PROVIDED WITH AN UNOBSTRUCTED PASSAGEWAY LARGE ENOUGH TO REMOVE THE LARGEST APPLIANCE, BUT NOT (R314.1.1) LESS THAN 30" H X 22" W NOR MORE THAN 20 FEET LONG; A LEVEL SERVICE SPACE AT LEAST 30" SQ SHALL BE PRESENT AT THE FRONT OR SERVICE SIDE OF THE APPLIANCE. (M1305.1.3) IF THE DEPTH OF THE PASSAGEWAY OR THE SERVICE SPACE EXCEEDS 12" BELOW THE ADJOINING GRADE, THE WALLS OF THE PASSAGEWAY SHALL BE LINED WITH CONCRETE OR MASONRY EXTENDING 4" ABOVE ADJOINING GRADE. (M1305.1.4)

EQUIPMENT AND APPLIANCES SUPPORTED FROM THE GROUND SHALL BE LEVEL AND FIRMLY SUPPORTED ON A CONCRETE SLAB OR OTHER APPROVED MATERIAL EXTENDING 3" ABOVE THE ADJOINING GROUND. SUCH SUPPORT SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLTION INSTRUCTIONS. APPLIANCES SUSPENDED FROM THE FLOOR SHALL HAVE A CLEARANCE OF AT LEAST 6" FROM THE GROUND. (M1305.1.3.1)

A LUMINAIRE CONTROLLED BY A SWITCH LOCATED AT THE PASSAGEWAY OPENING AND A RECEPTACLE OUTLET SHALL BE INSTALLED AT OR NEAR THE APPLIANCE. (M1305.1.3.3)

CLIMATE ZONES 3-8 ARE REQUIRED TO HAVE A WHOLE HOUSE VENTILATION SYSTEM PER M 1505.4. THE SYSTEM SHALL CONSIST OF ONE OR MORE SUPPLY OR EXHAUST FANS OR A COMBINATION OF SUCH & ASSOCIATED DUCTS & CONTROLS, LOCAL EXHAUST OR SUPPLY FANS ARE PERMITTED TO SERVE SUCH A SYSTEM. OUT DOOR AIR DUCTS CONNECTED TO THE RETURN SIDE OF AN AIR HANDLER SHALL BE CONSIDERED AS PROVIDING SUPPLY VENTILATION. THE SYSTEM SHALL BE PROVIDED WITH CONTROLS THAT ENABLE MANUAL OVERRIDE. THE SYSTEM SHALL PROVIDE OUTDOOR AIR AT A CONTINUOUS RATE PER TABLE M1505.4.3(1) OR EQUATION 15-1. THE SYSTEM IS PERMITTED TO OPERATE INTERMITTENTLY WHERE THE SYSTEM HAS CONTROLLS THAT ENABLE OPERATION FOR NOT LESS THAN 25% OF EACH 4-HOUR SEGMENT AND THE VENTILATION RATE PRESCRIBED IN TABLE M1505.4.3910 IS MULTIPLED BY THE FACTOR DETERMINED IN ACCORDANCE WITH TABLE M1505.4.3(2).

NOTE: IT IS RECOMMENDED TO NOT PROVIDE SUPPLY ONLY SYSTEM AS THEY PRESSURIZE THE HOUSE, POTENTIALLY DRIVING MOISTURE INTO WALLS. EXHAUST ONLY SYSTEMS DEPRESSURIZE THE HOUSE DRAWING POLLUTANTS ALONG W/ FRESH AIR INTO THE HOUSE. POLLUTANTS MY BE RADON & MOLD FROM CRAWLSPACES OR BASEMENTS, DUST FROM ATTIC FUMES FROM AN ATTACHED GARAGE OR FLUE GASSES FROM FIREPLACE OR GRAVITY VENTED WATER HEATER OR FURNACES.

IT IS RECOMMENDED TO PROVIDE HEAT RECOVERY VENTILATOR OR ENERGY RECOVERY VENTILATOR AT LOCATION SHOWN ON PLANS AS THEY PROVIDE A BALANCED SYSTEM. DUCT ALL BATH AND LAUNDRY ROOM FANS THROUGH THE HRV. DO NOT CONNECT RANGE HOOD OR DOWNDRAFT RANGE THROUGH HRV. HRV TO BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND LOCAL CODES (M1507.3)

PROVIDE 40 GALLON, QUICK RECOVERY NATURAL GAS / LPG FUELED, WATER HEATER AT LOCATION SHOWN ON PLANS GRAVITY VENTED THROUGH THE ROOF OR DIRECT VENTED THROUGH THE WALL. WATER HEATER SHALL BE 67% EFFICIENT MINIMUM. PROVIDE R-15 INSULATED TANK OR WRAP WATER HEATER WITH R& MINIMUM INSULATION BLANKET.

DECORATIVE SHROUDS SHALL NOT BE INSTALLED AT THE TERMINATION OF VENTS EXCEPT WHERE SUCH SHROUDS ARE LISTED AND LABELED FOR USE WITH THE SPECIFIC VENTING SYSTEM AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. (M1804.2.2) OR AS APPROVED BY THE RCRBD.

PROVIDE "DRYER BOX 480' OR EQUAL RECESSED DRYER TRANSITION BOX HOSE CONNECTOR ALIGNED WITH DRYER VENT LOCATION.

THE MAXIMUM LENGTH OF DRYER EXHAUST DUCT SHALL BE 35' LESS 5' FOR EACH 90° ELBOW 4 2'-6" FOR EACH 45° ELBOW.

16. ELECTRICAL

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT TO INSTALL ALL WIRING AND RELATED FIXTURES. ALL WORK SHALL COMPLY WITH THE 2020 NEC AS ADOPTED AND AMMENDED BY THE STATE OF COLORADO. IRC PART VIII - ELECTRICAL, CHAPTERS 33 THRU 41 OF THE 2018 IRC ARE NOT USED.

THE ELECTRICAL SUBCONTRACTORS SHALL BE RESPONSIBLE FOR THE FINAL DESIGN OF THE CONTRACTORS TO PROVIDE ADDITIONAL DRAWINGS, SPECIFICATIONS AND ENGINEERS CERTIFICATION AS REQUIRED BY STATE OR LOCAL LAWS AND BUILDING DEPARTMENT JURISDICTION.

PROVIDE 200 AMP PEDESTAL PER DS-4.1.2.MP AT LOCATION NOTED ON THE SITE PLAN OR PER YVEA "REDLINED" LOCATION. PROVIDE 3" SCHEDULE 80 PVC ABOVE GRADE AND SCH 40 PVC BELOW GRADE. CONDUIT TO BE BEDDED WITH 2" MINIMUM CLEAN DIRT OR SAND AND COVERED WITH 4" OF THE SAME MATERIAL. MINIMUM BURY IS 3' PROVIDE ELECTRICAL WARNING TAPE 12" ABOVE THE CONDUIT.

LOCATION NOTED ON PLANS. PROVIDE 50 AMP, 12 CIRCUIT SUB-PANEL WITH DISCONNECT, SERVICED FROM THE EXISTING HOUSE AT THE LOCATION NOTED ON THE PLANS. SERVICE PANELS SHALL NOT BE LOCATED IN THE VICINITY OF EASILY IGNITABLE MATERIALS, SUCH AS CLOTHES CLOSETS OR IN BATHROOMS. SERVICE CONDUCTORS AND EQUIPMENT TO BE SIZED PER NEC 240.

MINIMUM ABOVE FINISHED FLOOR

BATHROOM.

GARAGE GREATER.

REQUIREMENT

PERMITTED.

SMOKE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 217. COMBINATION SMOKE AND CARBON MONOXIDE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 217 AND UL 2034.

EXCEPTIONS

EXEMPT FROM THE REQUIREMENTS OF THIS SECTION.

BELOW THE UPPER LEVEL.

(R314.3.1)

APPLIANCE.

PROTECTION. (R314.6)

EXCEPTIONS

CARBON MONOXIDE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 2034. COMBINATION PROVIDED FOR THE DWELLING UNIT SHALL BE PROVIDED WITH ONE EV READY SPACE PER CARBON MONOXIDE AND SMOKE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 2034 AND UL 217. (R315.1.1)

RV502.2 EV READY SPACES. EACH EV READY SPACE SHALL HAVE A BRANCH CIRCUIT THAT CARBON MONOXIDE ALARMS SHALL BE PROVIDED IN ACCORDANCE WITH SECTIONS R3 15.2.1 COMPLIES WITH ALL OF THE FOLLOWING: AND R315.2.2. (R315.2)

16. ELECTRICAL - continued

PROVIDE 42 CIRCUIT SERVICE PANEL (OVERCURRENT DEVICE) WITH DISCONNECT, AT THE

PROVIDE CONCRETE ENCASED ELECTRODE (UFER GROUND) PER250.50

ALL SERVICES SUPPLYING DWELLING UNITS SHALL BE PROVIDED WITH SURGE-PROTECTIVE DEVICE (SPD), 230.67.

GARAGES, OUTDOORS, CRAWL SPACES (INCLUDING LIGHTING), UNFINISHED BASEMENTS, KITCHEN COUNTERTOP SURFACES, DISHWASHER, SUMP PUMPS AND WITHIN 6' OF LAUNDRY, UTILITY OR BAR SINKS, (EXCEPT DEDICATED USES) SHALL BE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTED FOR PERSONNEL. (210.8) RECEPTACLES IN GARAGES TO BE MOUNTED 42"

A MINIMUM OF (2) 20 AMP BRANCH CIRCUITS SHALL BE PROVIDED TO SERVE RECEPTACLES LOCATED IN THE KITCHEN, PANTRY, BREAKFAST AREA AND DINING AREAS. THE KITCHEN COUNTER TOP RECEPTACLES SHALL BE SERVED BY NOT LESS THAN (2) 20 AMP SMALL APPLIANCE BRANCH CIRCUITS.

A MINIMUM OF (1) 20 AMP BRANCH CIRCUIT SHALL BE PROVIDED TO SERVE RECEPTACLES LOCATED IN THE LAUNDRY AREA AND SHALL SERVE ONLY RECEPTACLE OUTLETS LOCATED IN THE LAUNDRY AREA. (E3703.3)

A MINIMUM OF (1) 20 AMP BRANCH CIRCUIT SHALL BE PROVIDED TO SERVE RECEPTACLES LOCATED IN THE BATHROOM AND SHALL SERVE ONLY RECEPTACLE OUTLETS LOCATED IN THE INSTALLED AND ALL ALARMS SOUND UPON ACTIVATION OF ONE ALARM. (R314.4)

A MINIMUM OF (1) 20 AMP BRANCH CIRCUIT SHALL BE PROVIDED TO SERVE RECEPTACLES

RECEPTACLES ABOVE COUNTERS IN KITCHEN AND OTHER SIMILAR AREAS SHALL BE SPACED NOT MORE THAN 4 FEET OC AND WITHIN 2 FEET OF EACH END, INCLUDING ISLANDS AND PENINSULAR. PROVIDE A MINIMUM OF (1) RECEPTACLE PER COUNTER SPACE OF 12 INCHES OR

PROVIDE AT LEAST (1) RECEPTACLE OUTLET IN WEATHER PROOF HOUSING, ACCESSIBLE AT GRADE LEVEL AND NOT MORE THAN 6'-6" ABOVE GRADE AT THE FRONT AND AT THE BACK OF EACH DWELLING. (E3901.7)

ALL BRANCH CIRCUITS INSTALLED IN KITCHEN FAMILY, DINING LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AND SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER. (E3902.16) BATHS AND GARAGES ARE EXEMPT FROM THIS

LUMINAIRE INSTALLED IN CLOTHES CLOSETS SHALL BE LIMITED TO SURFACE MOUNTED OR RECESSED INCANDESCENT OR LED LUMINAIRES WITH COMPLETELY ENCLOSED LIGHT SOURCES, SURFACE MOUNTED OR RECESSED FLUORESCENT LUMINAIRES AND SURFACE MOUNTED FLUORESCENT OR LED LUMINAIRES IDENTIFIED A SUITABLE FOR INSTALLATION WITHIN THE STORAGE AREA. SURFACE MOUNTED INCANDESCENT OR LED LUMINAIRES SHALL BE MOUNTED ON THE WALL ABOVE THE DOOR OR ON THE CEILING PROVIDED THERE IS A MINIMUM CLEARANCE OF 12 INCHES BETWEEN THE FIXTURE AN THE NEAREST POINT OF A STORAGE SPACE. RECESSED INCANDESCENT, LED OR FLUORESCENT LUMINAIRES SHALL BE INSTALLED IN THE WALL OR ON THE CEILING PROVIDED THERE IS A MINIMUM OF 6 INCHES BETWEEN THE FIXTURE AND THE NEAREST POINT OF A STORAGE AREA. INCANDESCENT FIXTURES WITH OPEN OR PARTIALLY ENCLOSED LAMPS, PENDANT FIXTURES AND LAMP HOLDERS ARE NOT

PROVIDE (1) 20 AMP CIRCUIT FOR FUTURE USE IN THE ATTIC AND IN THE CRAWL SPACE. TERMINATE THE CIRCUIT WITH A KEYLESS PORCELAIN FIXTURE.

PROVIDE DEDICATED 15 AMP CIRCUIT FOR REFRIGERATORS AND FREEZERS

SEE DESIGN DRAWINGS BY OTHERS FOR ELECTRIC BASEBOARD SIZES AND LOCATIONS. PROVIDE 40 GALLON QUICK RECOVERY ELECTRIC WATER HEATER AT LOCATION SHOWN ON PLANS. MINIMUM EFFICIENCY OF ELECTRIC WATER HEATER IS 0.67% (<55 GALLON) WRAP WATER HEATER WITH R7 (MIN) INSULATION BLANKET.

SWIMMING POOLS AND SPAS SHALL BE INSTALLED IN ACCORDANCE WITH THE LOCATED WITHIN SIGHT OF THE EQUIPMENT, BETWEEN 5' MIN \$ 20' MAX FROM THE WATERS EDGE

INTERIOR STAIRWAYS SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE TO ILLUMINATE THE LANDINGS & TREAD TO 1 FOOT CANDLE POWER. THERE SHALL BE A WALL SWITCH AT EACH FLOOR LEVEL WHEN THE STAIRWAY HAS 6 OR MORE RISERS. (R303.7)

THE TOP LANDING OF THE STAIRWAY (R303.8)

SMOKE ALARMS SHALL COMPLY WITH NFPA 72 AND SECTION R314 AND THE NEC.

SMOKE ALARMS SHALL BE PROVIDED IN DWELLING UNITS. (R314.2.1)

WHERE ALTERATIONS, REPAIRS OR ADDITIONS REQUIRING A PERMIT OCCUR, THE INDIVIDUAL DWELLING UNIT SHALL BE EQUIPPED WITH SMOKE ALARMS LOCATED AS REQUIRED FOR NEW DWELLINGS. (R314.2.2)

1. WORK INVOLVING THE EXTERIOR SURFACES OF DWELLINGS, SUCH AS THE REPLACEMENT OF ROOFING OR SIDING, THE ADDITION OR REPLACEMENT OF WINDOWS OR DOORS, OR THE ADDITION OF A PORCH OR DECK, ARE EXEMPT FROM THE REQUIREMENTS OF THIS SECTION. 2. INSTALLATION, ALTERATION OR REPAIRS OF PLUMBING OR MECHANICAL SYSTEMS ARE

SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS: (R314.3)

1. IN EACH SLEEPING ROOM

2. OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS 3. ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS AND NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS. IN DWELLINGS OR DWELLING UNITS WITH SPLIT LEVELS AND WITHOUT AN INTERVENING DOOR BETWEEN THE ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER LEVEL SHALL SUFFICE FOR THE ADJACENT LOWER LEVEL PROVIDED THAT THE LOWER LEVEL IS LESS THAN ONE FULL STORY

4. SMOKE ALARMS SHALL BE INSTALLED NOT LESS THAN 3 FEET (914 MM) HORIZONTALLY FROM THE DOOR OR OPENING OF A BATHROOM THAT CONTAINS A BATHTUB OR SHOWER UNLESS THIS WOULD PREVENT PLACEMENT OF A SMOKE ALARM REQUIRED BY SECTION R3 14.3.

SMOKE ALARMS SHALL NOT BE INSTALLED IN THE FOLLOWING LOCATIONS UNLESS THIS WOULD PANEL SHALL BE LABELED FOR THEIR INTENDED USE. PREVENT PLACEMENT OF A SMOKE ALARM IN A LOCATION REQUIRED BY SECTION R3 14.3.

1. IONIZATION SMOKE ALARMS SHALL NOT BE INSTALLED LESS THAN 20 FEET (6096 MM) HORIZONTALLY FROM A PERMANENTLY INSTALLED COOKING APPLIANCE. 2. IONIZATION SMOKE ALARMS WITH AN ALARM-SILENCING SWITCH SHALL NOT BE INSTALLED LESS THAN 10 FEET (3048 MM) HORIZONTALLY FROM A PERMANENTLY INSTALLED COOKING

3. PHOTOELECTRIC SMOKE ALARMS SHALL NOT BE INSTALLED LESS THAN 6 FEET (1828 MM) HORIZONTALLY FROM A PERMANENTLY INSTALLED COOKING APPLIANCE.

WHERE MORE THAN ONE SMOKE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING UNIT IN ACCORDANCE WITH SECTION R3 14.3. THE ALARM DEVICES SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL DWELLING UNIT. PHYSICAL INTERCONNECTION OF SMOKE ALARMS SHALL NOT BE REQUIRED WHERE LISTED WIRELESS ALARMS ARE INSTALLED AND ALL ALARMS SOUND UPON ACTIVATION OF ONE ALARM. (R314.4)

COMBINATION SMOKE AND CARBON MONOXIDE ALARMS SHALL BE PERMITTED TO BE USED IN LIEU OF SMOKE ALARMS. (R314.5)

SMOKE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING WHERE SUCH WIRING IS SERVED FROM A COMMERCIAL SOURCE AND, WHERE PRIMARY POWER IS INTERRUPTED. SHALL RECEIVE POWER FROM A BATTERY, WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT

1. SMOKE ALARMS SHALL BE PERMITTED TO BE BATTERY OPERATED WHERE INSTALLED IN BUILDINGS WITHOUT COMMERCIAL POWER. 2. SMOKE ALARMS INSTALLED IN ACCORDANCE WITH SECTION R3 14.2.2 SHALL BE PERMITTED TO BE BATTERY POWERED.

FIRE ALARM SYSTEMS SHALL BE PERMITTED TO BE USED IN LIEU OF SMOKE ALARMS AND SHALL COMPLY WITH SECTIONS R314.7.1 THROUGH R314.7.4.

CARBON MONOXIDE ALARMS SHALL COMPLY WITH SECTION R315.

16. ELECTRICAL - continued

FOR NEW CONSTRUCTION, CARBON MONOXIDE ALARMS SHALL BE PROVIDED IN DWELLING UNITS WHERE EITHER OR BOTH OF THE FOLLOWING CONDITIONS EXIST. (R315.2.1)

1. THE DWELLING UNIT CONTAINS A FUEL-FIRED APPLIANCE. 2. THE DWELLING UNIT HAS AN ATTACHED GARAGE WITH AN OPENING THAT COMMUNICATES WITH THE DWELLING UNIT.

WHERE ALTERATIONS, REPAIRS OR ADDITIONS REQUIRING A PERMIT OCCUR, THE INDIVIDUAL DWELLING UNIT SHALL BE EQUIPPED WITH CARBON MONOXIDE ALARMS LOCATED AS REQUIRED FOR NEW DWELLINGS. (R315.2.2)

EXCEPTIONS: 1. WORK INVOLVING THE EXTERIOR SURFACES OF DWELLINGS, SUCH AS THE REPLACEMENT OF ALL 125 VOLT THROUGH 250 VOLT, SINGLE PHASE RECEPTACLES INSTALLED IN BATHROOMS, ROOFING OR SIDING, OR THE ADDITION OR REPLACEMENT OF WINDOWS OR DOORS, OR THE ADDITION OF A PORCH OR DECK. 2. INSTALLATION, ALTERATION OR REPAIRS OF PLUMBING OR MECHANICAL SYSTEMS.

> 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. (R315.3)

COMBINATION CARBON MONOXIDE AND SMOKE ALARMS SHALL BE PERMITTED TO BE USED IN LIEU OF CARBON MONOXIDE ALARMS. (R315.4)

WHERE MORE THAN ONE CARBON MONOXIDE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING UNIT IN ACCORDANCE WITH SECTION R3 15.3, THE ALARM DEVICES SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL DWELLING UNIT. PHYSICAL INTERCONNECTION OF SMOKE ALARMS SHALL NOT BE REQUIRED WHERE LISTED WIRELESS ALARMS ARE

EXCEPTION: INTERCONNECTION OF CARBON MONOXIDE ALARMS IN EXISTING AREAS SHALL NOT BE REQUIRED WHERE ALTERATIONS OR REPAIRS DO NOT RESULT IN REMOVAL OF INTERIOR WALL OR CEILING FINISHES EXPOSING THE STRUCTURE, UNLESS THERE IS AN ATTIC, CRAML SPACE OR BASEMENT AVAILABLE THAT COULD PROVIDE ACCESS FOR INTERCONNECTION WITHOUT THE REMOVAL OF INTERIOR FINISHES.

CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING MIRING WHERE SUCH WIRING IS SERVED FROM A COMMERCIAL SOURCE AND, WHERE PRIMARY POWER IS INTERRUPTED, SHALL RECEIVE POWER FROM A BATTERY. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT PROTECTION. (R315.5)

1. CARBON MONOXIDE ALARMS SHALL BE PERMITTED TO BE BATTERY OPERATED WHERE INSTALLED IN BUILDINGS WITHOUT COMMERCIAL POWER. 2. CARBON MONOXIDE ALARMS INSTALLED IN ACCORDANCE WITH SECTION R3 15.2.2 SHALL BE PERMITTED TO BE BATTERY POWERED.

CARBON MONOXIDE DETECTION SYSTEMS SHALL BE PERMITTED TO BE USED IN LIEU OF CARBON MONOXIDE ALARMS AND SHALL COMPLY WITH SECTIONS R3 15.6.1 THROUGH R315.6.4. (R315.6)

HOUSEHOLD CARBON MONOXIDE DETECTION SYSTEMS SHALL COMPLY WITH NFPA 720. CARBON MONOXIDE DETECTORS SHALL BE LISTED IN ACCORDANCE WITH UL 2075. (R315.6.1)

CARBON MONOXIDE DETECTORS SHALL BE INSTALLED IN THE LOCATIONS SPECIFIED IN SECTION R315.3. THESE LOCATIONS SUPERSEDE THE LOCATIONS SPECIFIED IN NFPA 720. (R315.6.2)

WHERE A HOUSEHOLD CARBON MONOXIDE DETECTION SYSTEM IS INSTALLED, IT SHALL BECOME A PERMANENT FIXTURE OF THE OCCUPANCY AND OWNED BY THE HOMEOWNER. (R315.6.3)

COMBINATION CARBON MONOXIDE AND SMOKE DETECTORS SHALL BE PERMITTED TO BE INSTALLED IN CARBON MONOXIDE DETECTION SYSTEMS IN LIEU OF CARBON MONOXIDE DETECTORS, PROVIDED THAT THEY ARE LISTED IN ACCORDANCE WITH UL 2075 AND UL 268. (R315.6.4)

EXTERIOR LIGHTING SHALL BE DOWN CAST AND SHIELDED FIXTURES LIMITED TO 5.500 LUMENS TOTAL EXTERIOR FLOOD LIGHTS SHALL BE CONTROLLED BY PHOTO SENSOR AND MOTION DETECTOR.

PROVIDE 1" MINIMUM ELECTRICAL CONDUIT FOR FUTURE PHOTOVOLTAIC PANEL INSTALLATION FROM THE ATTIC TO JUNCTION BOX NEAR THE ELECTRICAL PANEL.

MANUFACTURER'S INSTALLATION INSTRUCTIONS AND IRC CHAPTER 42. A DISCONNECT SHALL BE OPTIONALLY PROVIDE CONNECTION FOR ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE) PER NEC 625. LEVEL 1, 120 VOLT, 20 AMP CIRCUIT MINIMUM

LEVEL 2, 240 VOLT, 40 AMP CIRCUIT MINIMUM, 60 AMP RECOMMENDED

SECTION RE302 ADDITIONAL ELECTRIC INFRASTRUCTURE (APPLICABLE IN NEW CONSTRUCTION OF NEW DWELLINGS)

RE302.1 ADDITIONAL ELECTRIC INFRASTRUCTURE. COMBUSTION EQUIPMENT IN RESIDENTIAL BUILDINGS MUST MEET THE REQUIREMENTS OF SECTIONS RE302.2 THROUGH RE302.6.

1. INTERIOR FIREPLACES THAT DO NOT SERVE AS A PRIMARY SOURCE OF HEATING 2. EXTERIOR FIREPLACES AND FIREPITS.

RE302.2 COMBUSTION EQUIPMENT. COMBUSTION EQUIPMENT SHALL BE PROVIDED WITH ALL OF THE FOLLOWING:

1. A DEDICATED, APPROPRIATELY PHASED BRANCH CIRCUIT SIZED TO ACCOMMODATE FUTURE ELECTRIC EQUIPMENT OR APPLIANCES TO SERVE A COMPARABLE CAPACITY TO MEET THE HEATING LOAD.

2. AN ELECTRIC RECEPTACLE OR JUNCTION BOX THAT MEETS THE REQUIREMENTS OF SECTION RE302.5. AND IS CONNECTED TO THE ELECTRICAL PANEL THROUGH THE BRANCH CIRCUIT. EACH ELECTRICAL RECEPTACLE OR JUNCTION BOX SHALL HAVE REASONABLE ACCESS TO THE COMBUSTION EQUIPMENT OR DEDICATED PHYSICAL SPACE FOR FUTURE ELECTRIC EQUIPMENT WITH NO OBSTRUCTIONS OTHER THAN THE CURRENT COMBUSTION EQUIPMENT.

3. WHERE COMBUSTION EQUIPMENT IS USED FOR SPACE OR WATER HEATING, DEDICATED PHYSICAL SPACE SHALL BE PROVIDED FOR FUTURE ELECTRIC EQUIPMENT, INCLUDING AN ELECTRIC RESISTANCE BACKUP COIL FOR DUCTED SYSTEMS, IF APPLICABLE.

EXCEPTION: DWELLING UNITS WITH INSTALLED AIR CONDITIONING SYSTEMS ARE NOT REQUIRED TO PROVIDE ADDITIONAL DEDICATED PHYSICAL SPACE FOR AN OUTDOOR HEAT PUMP.

RE302.3 ELECTRICAL PANEL SPACE. THE ELECTRICAL PANEL SHALL HAVE A RESERVED SPACE FOR A MINIMUM TWO-POLE CIRCUIT BREAKER FOR EACH BRANCH CIRCUIT PROVIDED FOR FUTURE ELECTRIC EQUIPMENT OR APPLIANCES.

RE302.4 LABELING. THE JUNCTION BOX OR RECEPTAGLE AND THE DEDICATED CIRCUIT BREAKER SPACE SERVING FUTURE ELECTRIC EQUIPMENT OR APPLIANCES IN THE ELECTRICAL

RE302.5 ADJACENCY. THE ELECTRICAL RECEPTACLE OR JUNCTION BOX MUST BE PROVIDED WITHIN 3 FEET OF THE COMBUSTION EQUIPMENT OR APPLIANCES. OR WITHIN 3 FEET OF THE DEDICATED PHYSICAL SPACE FOR FUTURE ELECTRIC EQUIPMENT OR APPLIANCES.

EXCEPTION: FOR COMBUSTION EQUIPMENT DEDICATED TO SPACE OR WATER HEATING, THE ELECTRICAL RECEPTACLE OR JUNCTION BOX SHALL BE LOCATED NOT MORE THAN 6 FEET FROM THE COMBUSTION EQUIPMENT OR THE DEDICATED PHYSICAL SPACE FOR FUTURE ELECTRIC EQUIPMENT.

RE302.6 CONDENSATE DRAIN, WHERE COMBUSTION EQUIPMENT FOR SPACE HEATING AND MATER HEATING IS INSTALLED, A LOCATION SHALL BE PROVIDED FOR CONDENSATE DRAINAGE.

RESIDENTIAL SOLAR PANEL CAPACITY (APPLICABLE IN NEW CONSTRUCTION OF NEW DWELLINGS)

RS410.1 GENERAL. THESE PROVISIONS SHALL BE APPLICABLE FOR ALL NEW BUILDINGS, AND MAJOR RENOVATIONS AND ADDITIONS.

RS410.2 ELECTRIC SERVICE RESERVED SPACE. THE MAIN ELECTRICAL SERVICE PANEL SHALL HAVE SUFFICIENT RESERVED SPACE TO ALLOW INSTALLATION OF A DUAL POLE CIRCUIT BREAKER FOR FUTURE SOLAR ELECTRIC INSTALLATION AND SHALL BE LABELED "FOR FUTURE SOLAR ELECTRIC." THE RESERVED SPACE SHALL BE POSITIONED AT THE OPPOSITE (LOAD) END FROM THE INPUT FEEDER LOCATION OR MAIN CIRCUIT LOCATION.

EXCEPTION: A DWELLING UNIT THAT ALREADY MUST COMPLY WITH THE SOLAR READY PROVISIONS IN CHAPTER 4 OR THAT HAS A PERMANENTLY INSTALLED ON-SITE RENEWABLE ENERGY SYSTEM THAT PROVIDES ELECTRICITY TO THE DWELLING UNIT'S ELECTRICAL SYSTEM.

SECTION RV502 ELECTRIC VEHICLE POWER TRANSFER INFRASTRUCTURE (APPLICABLE IN NEW CONSTRUCTION OF NEW DWELLINGS)

RV502 ELECTRIC VEHICLE POWER TRANSFER INFRASTRUCTURE. NEW VEHICLE PARKING SPACES FOR RESIDENTIAL BUILDINGS SHALL BE PROVIDED IN ACCORDANCE WITH SECTIONS RV502.1 AND RV502.3.

RV 502.1 ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES. EACH DWELLING UNIT WITH A DEDICATED ATTACHED OR DETACHED GARAGE OR OTHER ONSITE DESIGNATED PARKING DWELLING UNIT.

16. ELECTRICAL - continued

PARKING SPACES.

3. THE ELECTRICAL PANEL, ELECTRICAL DISTRIBUTION EQUIPMENT DIRECTORY, AND ALL OUTLETS OR ENCLOSURES SHALL BE MARKED "FOR FUTURE ELECTRIC VEHICLE SUPPLY EQUIPMENT". EXCEPTION: A RECEPTACLE NEED NOT BE PROVIDED IF A HARD-WIRED EVSE IS INSTALLED.

RV502.3 IDENTIFICATION. CONSTRUCTION DOCUMENTS SHALL DESIGNATE THE EV READY SPACE AND INDICATE THE LOCATIONS OF RACEWAY AND/OR CONDUIT AND THE TERMINATION POINTS SERVING THEM. THE CIRCUITS OR SPACES RESERVED IN THE ELECTRICAL PANEL FOR EV READY SPACES SHALL BE CLEARLY IDENTIFIED IN THE PANEL OR SUBPANEL DIRECTORY.

17. WILDLAND URBAN INTERFACE

SECTION 504.2 ROOF ASSEMBLY, IS HEREBY AMENDED TO READ AS FOLLOWS: ALL ROOFS IN BOTH RESIDENTIAL AND COMMERCIAL BUILDINGS FOR NEW CONSTRUCTION, ADDITIONS, ALTERATIONS, REPAIRS, OR REPLACEMENTS UNDER PERMIT MUST HAVE CLASS A ROOFING MATERIALS INSTALLED. EXCEPTION: HISTORIC REGISTERED PROPERTIES THROUGH HPC REVIEW AND RULINGS THAT MAY NOT ALLOW A FRWT WOOD SHAKE ROOF OR COMPOSITE WOOD SHAKE ROOF TO BE INSTALLED ARE EXEMPT IF DETERMINED BY THE STATE OR FEDERAL HISTORIC PRESERVATIONS COMMITTEES.

SECTION 504.2.1 ROOF VALLEYS. WHERE PROVIDED, VALLEY FLASHINGS IN BOTH RESIDENTIAL AND COMMERCIAL BUILDINGS FOR NEW CONSTRUCTION, ADDITIONS, ALTERATIONS, REPAIRS, OR REPLACEMENTS UNDER PERMIT SHALL BE NOT LESS THAN 0.019 INCH (0.48 MM) (NO. 26 GALVANIZED SHEET GAGE)CORROSION-RESISTANT METAL INSTALLED OVER A MINIMUM 36-INCH-WIDE (914 MM) UNDERLAYMENT CONSISTING OF ONE LAYER OF 72-POUND (32.4 KG) MINERAL-SURFACED, NONPERFORATED CAP SHEET COMPLYING WITH ASTM D3909 RUNNING THE FULL LENGTH OF THE VALLEY.

SECTION 504.3 PROTECTION OF EAVES AND SOFFITS, IS HEREBY AMENDED TO READ AS FOLLOWS: EAVES AND SOFFITS ON COMMERCIAL AND RESIDENTIAL NEW CONSTRUCTION BUILDINGS ONLY SHALL BE PROTECTED ON THE EXPOSED UNDERSIDE BY ONE OF THE FOLLOWING ITEMS. 1. 3/4" SOLID WOOD OR THICKER

3. NON-COMBUSTIBLE MATERIALS 4. FRWT PRODUCTS MINUTE RATING

SECTION 504.4 GUTTERS AND DOWNSPOUTS. CONTACTING THE SOILS ENGINEER AND FOLLOWING THEIR RECOMMENDATIONS AND TO HAVE GUTTERS AND DOWNSPOUTS IN BOTH RESIDENTIAL AND COMMERCIAL BUILDINGS FOR NEW READ THE SOILS REPORT AND RECOGNIZE THE RISKS AND LIMITATIONS STATED THEREIN. CONSTRUCTION, ADDITIONS, ALTERATIONS, REPAIRS, OR REPLACEMENTS SHALL BE CONSTRUCTED OF NONCOMBUSTIBLE MATERIAL. CONTACT THE SOILS ENGINEER AT TIME OF EXCAVATION TO VERIFY THAT ALL STRUCTURAL SECTION 504.10 VENTS, IS HEREBY AMENDED TO READ AS FOLLOWS: CONCRETE IS PLACED ON SUITABLE BEARING MATERIAL. VENTS INSTALLED IN BOTH RESIDENTIAL AND COMMERCIAL BUILDINGS FOR NEW CONSTRUCTION OR ADDITIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE ITEMS LISTED BELOM. 1. FOUNDATION MALL, VERTICAL EXTERIOR MALL, OR ROOF VENTS SHALL NOT EXCEED 144 SQUARE INCHES EACH, SUCH VENTS SHALL BE COVERED WITH NON-COMBUSTIBLE CORROSION RESISTANT MESH WITH OPENINGS NOT TO EXCEED 1/4", OR SHALL BE DESIGNED AND APPROVED TO PREVENT FLAME OR EMBER PENETRATION INTO THE STRUCTURE.

2. SINGLE SOFFIT VENTS SHALL NOT EXCEED 144 SQUARE INCHES EACH, SUCH VENTS SHALL BE COVERED WITH NON-COMBUSTIBLE CORROSION RESISTANT MESH WITH OPENINGS NOT TO EXCEED 1/4", OR SHALL BE DESIGNED AND APPROVED TO PREVENT FLAME OR EMBER PENETRATION INTO THE

3. CONTINUOUS SOFFIT VENTS SHALL NOT EXCEED 2 1/2" IN WIDTH AND SHALL BE COVERED WITH NON-COMBUSTIBLE CORROSION RESISTANT MESH WITH OPENINGS NOT TO EXCEED 1/4", OR SHALL BE DESIGNED AND APPROVED TO PREVENT FLAME OR EMBER PENETRATION INTO THE STRUCTURE.

<u>SPECIAL NOTICE</u>

BUILDERS PLANS

ANY DISCREPANCY IN DIMENSIONS AND/OR DRAWINGS AND/OR GRAPHIC REPRESENTATION AND/OR FIELD MEASUREMENTS SHALL BE BROUGHT TO THE ATTENTION OF AMPLIFY ARCHITECTURE + DRAFTING PRIOR TO THE COMMENCEMENT OF ANY WORK.

ANY DEVIATION FROM THESE PLANS IS EXPRESSLY FORBIDDEN WITHOUT PRIOR WRITTEN NOTIFICATION AND APPROVAL BY AMPLIFY ARCHITECTURE + DRAFTING, AS THE DESIGNER; THE OWNER; THE ENGINEER AND THE GENERAL CONTRACTOR. THESE SPECIFICATIONS ARE GENERAL IN NATURE. SOME DIVISIONS OR SECTIONS MAY NOT BE APPLICABLE.

THE CONTRACTOR WARRANTS TO AMPLIFY ARCHITECTURE + DRAFTING THAT HE POSSESSES THE PARTICULAR COMPETENCE AND SKILL IN CONSTRUCTION NECESSARY TO BUILD THIS PROJECT WITHOUT FULL ENGINEERING AND ARCHITECTURAL SERVICES, AND FOR THE REASON THAT THE CONTRACTOR WISHES TO RELY UPON HIS OWN COMPETENCE. THE CONTRACTOR OR OWNER HAS RESTRICTED AMPLIFY ARCHITECTURE + DRAFTING'S SCOPE OF PROFESSIONAL SERVICES IN RELIANCE ON THE CONTRACTOR'S WARRANTY AND AT THE EXPRESS REQUEST OF THE CONTRACTOR OR OWNER, AMPLIFY ARCHITECTURE + DRAFTING HAS UNDERTAKEN A LIMITED SCOPE OF PROFESSIONAL SERVICES. THE CONSTRUCTION DOCUMENTS PROVIDED BY THE LIMITED SERVICES SHALL BE TERMED "BUILDER'S PLANS" IN RECOGNITION OF THE CONTRACTOR'S SOPHISTICATION. CONSTRUCTION WILL REQUIRE THAT THE CONTRACTOR ADAPT THE "BUILDER'S PLANS" TO THE FIELD CONDITIONS ENCOUNTERED, AND MAKE LOGICAL ADJUSTMENTS IN FIT, FORM, DIMENSION, AND QUANTITY THAT ARE TREATED ONLY GENERALLY 3Y THE "BUILDER'S PLANS." IN THE EVENT ADDITIONAL DETAILS OR GUIDANCE ARE NEEDED BY THE CONTRACTOR OR OWNER FOR CONSTRUCTION OF ANY ASPECT OF THE PROJECT. HE SHALL IMMEDIATELY NOTIFY AMPLIFY ARCHITECTURE + DRAFTING. FAILURE TO GIVE A SIMPLE NOTICE SHALL RELIEVE AMPLIFY ARCHITECTURE + DRAFTING OF RESPONSIBILITY FOR THE

ENVELOPE.

BARRIER.

SEALED.

SHALL BE SEALED.

OF INSULATION.

CONDITIONED SPACES.

ELECTRICAL/PHONE BOX ON EXTERIOR COMMUNICATION BOXES OR AIR-SEALED BOXES SHALL BE INSTALLED.

WALLS OR CEILINGS.

KNEE WALLS SHALL BE SEALED.

SKYLIGHTS AND FRAMING SHALL BE SEALED

RIM JOISTS SHALL INCLUDE THE AIR BARRIER.

ACCESS OPENINGS, DROP DOWN STAIRS OR KNEE WALL DOORS TO

EXPOSED EARTH IN UNVENTED CRAWL SPACES SHALL BE COVERED

DUCT SHAFTS, UTILITY PENETRATIONS, AND FLUE SHAFTS OPENING TO

EXTERIOR OR UNCONDITIONED SPACE SHALL BE SEALED.

ENVELOPE SHALL BE SEALED TO THE FINISHED SURFACE..

AIR SEALING SHALL BE PROVIDED BETWEEN THE GARAGE AND

RECESSED LIGHT FIXTURES INSTALLED IN THE BUILDING THERMAL

THE AIR BARRIER INSTALLED AT EXTERIOR WALLS ADJACENT TO

THE AIR BARRIER SHALL BE INSTALLED BEHIND ELECTRICAL AND

THERMAL ENVELOPE SHALL BE SEALED TO THE SUBFLOOR, WALL

WHEN REQUIRED TO BE SEALED, CONCEALED FIRE SPRINKLERS SHALL

THE MANUFACTURER CAULKING OR OTHER ADHESIVE SEALANTS SHALL NOT

BE USED TO FILL VOIDS BETWEEN FIRE SPRINKLER COVER PLATES AND

ONLY BE SEALED IN A MANNER THAT IS RECOMMENDED BY

SHOWERS AND TUBS SHALL SEPARATE THEM FROM THE SHOWERS AND

HVAC SUPPY AND RETURN REGISTER BOOTS THAT PENETRATE BUILDING

WITH A CLASS I VAPOR RETARDER WITH OVERLAPPING JOINTS TAPED.

CONSEQUENCES.

COMPONENT

MINDOWS, SKYLIGHTS AND DOORS

AND CANTILEVERED FLOORS)

CRAWL SPACE WALLS

NARROW CAVITIES

GARAGE SEPARATION

PLUMBING AND WIRING

HVAC REGISTER BOOTS

CONCEALED SPRINKLERS

SHOWER/TUB ON EXTERIOR WALL

RECESSED LIGHTING

HAFTS, PENETRATIONS

FLOORS (INCLUDING ABOVE GARAGE

GENERAL REQUIREMENTS

CEILING/ATTIC

MALLS

RIM JOISTS

1. TERMINATES AT A RECEPTACLE, LOCATED WITHIN 3 FEET OF EACH EV READY SPACE IT SERVES. EV READY INCLUDES TWO ADJACENT PARKING SPACES IF THE RECEPTACLE FOR THE ELECTRICAL FACILITIES OF THIS SECTION IS INSTALLED ADJACENT TO AND BETWEEN BOTH

2. HAS A MINIMUM CIRCUIT CAPACITY OF 8.3 KVA (40A 208/240V).

2. IGNITION RESISTANT MATERIAL IN ACCORDANCE WITH SECTION 503.2 OF THIS CHAPTER

5. PLYWOOD 3/4" OR THICKER TREATED WITH AN INTUMESCENT PRODUCT PROVIDING A 30-

DUTY OF COOPERATION

RELEASE OF THESE PLANS ANTICIPATES FURTHER COOPERATION AMONG THE OWNER, HIS CONTRACTOR, AND AMPLIFY ARCHITECTURE + DRAFTING. ALTHOUGH AMPLIFY ARCHITECTURE + DRAFTING AND ITS CONSULTANTS HAVE PERFORMED THEIR SERVICES WITH DUE CARE AND DILIGENCE, THEY CANNOT GUARANTEE PERFECTION. ANY AMBIGUITY OR DISCREPANCY DISCOVERED SHALL BE REPORTED IN WRITING TO AMPLIFY ARCHITECTURE + DRAFTING IMMEDIATELY AND PRIOR TO THE COMMENCEMENT OF ANY WORK. FAILURE TO COOPERATE BY SIMPLE NOTICE TO AMPLIFY ARCHITECTURE + DRAFTING SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ALL CONSEQUENCES. CHANGES MADE FROM THE PLANS WITHOUT CONSENT OF AMPLIFY ARCHITECTURE + DRAFTING ARE UNAUTHORIZED, AND SHALL RELIEVE AMPLIFY ARCHITECTURE + DRAFTING OF RESPONSIBILITY FOR ALL CONSEQUENCES ARISING OUT OF SUCH CHANGES.

DISCLAIMER

IF AMPLIFY ARCHITECTURE + DRAFTING, AS CLAIMANT OR A DEFENDING PARTY, IS AT ANY TIME A PARTY TO LITIGATION INVOLVING ANY CLAIM RELATED TO WORK CONTAINED IN THESE DRAWINGS, AND SHOULD CLAIMANT NOT PREVAIL SUBSTANTIALLY AGAINST DEFENDING PARTY IN SUCH LITIGATION; ALL LITIGATION EXPENSES, WITNESS FEES, COURT COSTS, AND ATTORNEY'S FEES INCURRED BY THE DEFENDING PARTY IN DEFENDING AGAINST SUCH A CLAIM, SHALL BE PAID BY THE CLAIMANT.

THE DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS PREPARED BY AMPLIFY ARCHITECTURE + DRAFTING (AS THE DESIGNER) FOR THIS PROJECT ARE "INSTRUMENTS OF SERVICE", FOR USE SOLELY WITH RESPECT TO THIS PROJECT. AMPLIFY ARCHITECTURE + DRAFTING, (AS THE DESIGNER) SHALL BE DEEMED THE AUTHOR OF THESE DOCUMENTS AND SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING THE COPYRIGHT. SUBMISSION OF THESE PLANS AND SPECIFICATIONS, IN PART OR IN WHOLE, BY THE CLIENT OR HIS AGENT FOR BUILDING PERMIT APPLICATION SHALL BE DEEMED AS EVIDENCE OF ACCEPTANCE FOR FINAL PAYMENT OF CONTRACT.

THESE PLANS ARE FOR USE ONLY BY THE CLIENT AND ONLY AT THE SITE IDENTIFIED IN THE TITLE BLOCK.

ANY DUPLICATION, REPRODUCTION OR OTHER USE NOT SPECIFICALLY PERMITTED HEREIN OF THE PLANS, IN PART OR IN WHOLE, IS STRICTLY PROHIBITED UNDER COPYRIGHT LAW. ENGINEERED DRAWINGS

THE ENGINEERED DESIGN DRAWINGS ARE FOR STRUCTURAL ENGINEERING OF THE HOUSE AND PERMANENT FOUNDATION ONLY. DETACHED RETAINING WALLS ARE NOT PART OF THE ENGINEERED STRUCTURAL DRAWINGS AND ARE BY OTHERS. SLOPE STABILITY, EXCAVATION, SHORING, DRAINAGE, SOILS ISSUES & CONSTRUCTION METHODS ARE NOT INCLUDED AND SHOULD BE ADDRESSED BY AN ENGINEER OR SPECIALIST OF THAT FIELD OF WORK. PROJECT ENGINEERING IS EXCLUDED.

ALL SOILS ISSUES SHOULD BE BROUGHT TO THE ATTENTION OF THE SOILS ENGINEER. THE OWNER OR HIS REPRESENTATIVE ARE RESPONSIBLE FOR FOLLOWING THE SOILS REPORT.

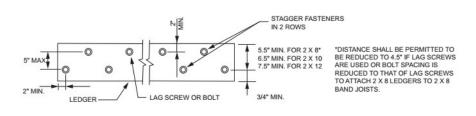


FIGURE R507.9.1.3(1)PLACEMENT OF LAG SCREWS AND BOLTS IN LEDGERS

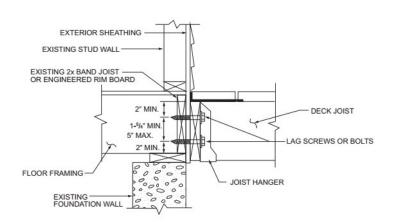


FIGURE R507.9.1.3(2)PLACEMENT OF LAG SCREWS AND BOLTS IN BAND JOISTS TABLE N1102.4.1.1 (402.4.1.1) AIR BARRIER AND INSULATION INSTALLATION AIR BARRIER CRITERIA INSULATION INSTALLATION CRITERIA AIR-PERMEABLE INSULATION SHALL NOT BE USED AS A SEALING A CONTINUOUS AIR BARRIER SHALL BE INSTALLED IN THE BUILDING MATERIAL. THE EXTERIOR THERMAL ENVELOPE CONTAINS A CONTINUOUS AIR BREAKS OR JOINTS IN THE AIR BARRIER SHALL BE SEALED. THE AIR BARRIER IN ANY DROPPED CEILING/SOFFIT SHALL BE THE INSULATION IN ANY DROPPED CEILING/SOFFIT SHALL BE ALIGNED WITH THE AIR BARRIER. ALIGNED WITH THE INSULATION AND ANY GAPS IN THE AIR BARRIER

> UNCONDITIONED ATTIC SPACES SHALL BE SEALED. THE JUNCTION OF THE FOUNDATION AND SILL PLATE SHALL BE SEALED. CAVITIES WITHIN CORNERS AND HEADERS OF FRAME WALLS THE JUNCTION OF THE TOP PLATE AND THE TOP OF EXTERIOR WALLS SHALL BE INSULATED BY COMPLETELY FILLING THE CAVITY WITH A MATERIAL HAVING A THERMAL RESISTANCE OF R-3 PER INCH EXTERIOR THERMAL ENVELOPE INSULATION FOR FRAMED WALLS SHALL BE INSTALLED IN SUBSTANTIAL CONTACT AND CONTINUOUS ALIGNMENT WITH THE AIR BARRIER. THE SPACE BETWEEN WINDOW/DOOR JAMBS AND FRAMING, AND RIM JOISTS SHALL BE INSULATED THE AIR BARRIER SHALL BE INSTALLED AT ANY EXPOSED EDGE FLOOR FRAMING CAVITY INSULATION SHALL BE INSTALLED TO

MAINTAIN PERMANENT CONTACT WITH THE UNDERSIDE OF SUBFLOOR DECKING, ALTERNATIVELY, FLOOR FRAMING CAVITY INSULATION SHALL BE IN CONTACT WITH THE TOP SIDE OF SHEATHING, OR CONTINUOUS INSULATION INSTALLED ON THE UNDERSIDE OF FLOOR FRAMING; AND EXTENDS FROM THE BOTTOM TO THE TOP OF ALL PERIMETER FLOOR FRAMING CRAWL SPACE INSULATION, WHERE PROVIDED INSTEAD OF FLOOR

INSULATION, SHALL BE PERMANENTLY ATTACHED TO THE WALLS. BATTS IN NARROW CAVITIES SHALL BE CUT TO FIT, OR NARROW

CAVITIES SHALL BE FILLED BY INSULATION THAT ON INSTALLATION READILY CONFORMS TO THE AVAILABLE CAVITY SPACE. RECESSED LIGHT FIXTURES INSTALLED IN THE BUILDING

THERMAL ENVELOPE SHALL BE AIR TIGHT AND IC RATED. BATT INSULATION SHALL BE CUT NEATLY TO FIT AROUND WIRING AND PLUMBING IN EXTERIOR WALLS, OR INSULATION THAT ON INSTALLATION READILY CONFORMS TO AVAILABLE SPACE, SHALL EXTEND BEHIND PIPING AND WIRING. EXTERIOR WALLS ADJACENT TO SHOWERS AND TUBS SHALL BE INSULATED.



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Reviewed for Code Compliance 03/28/2025

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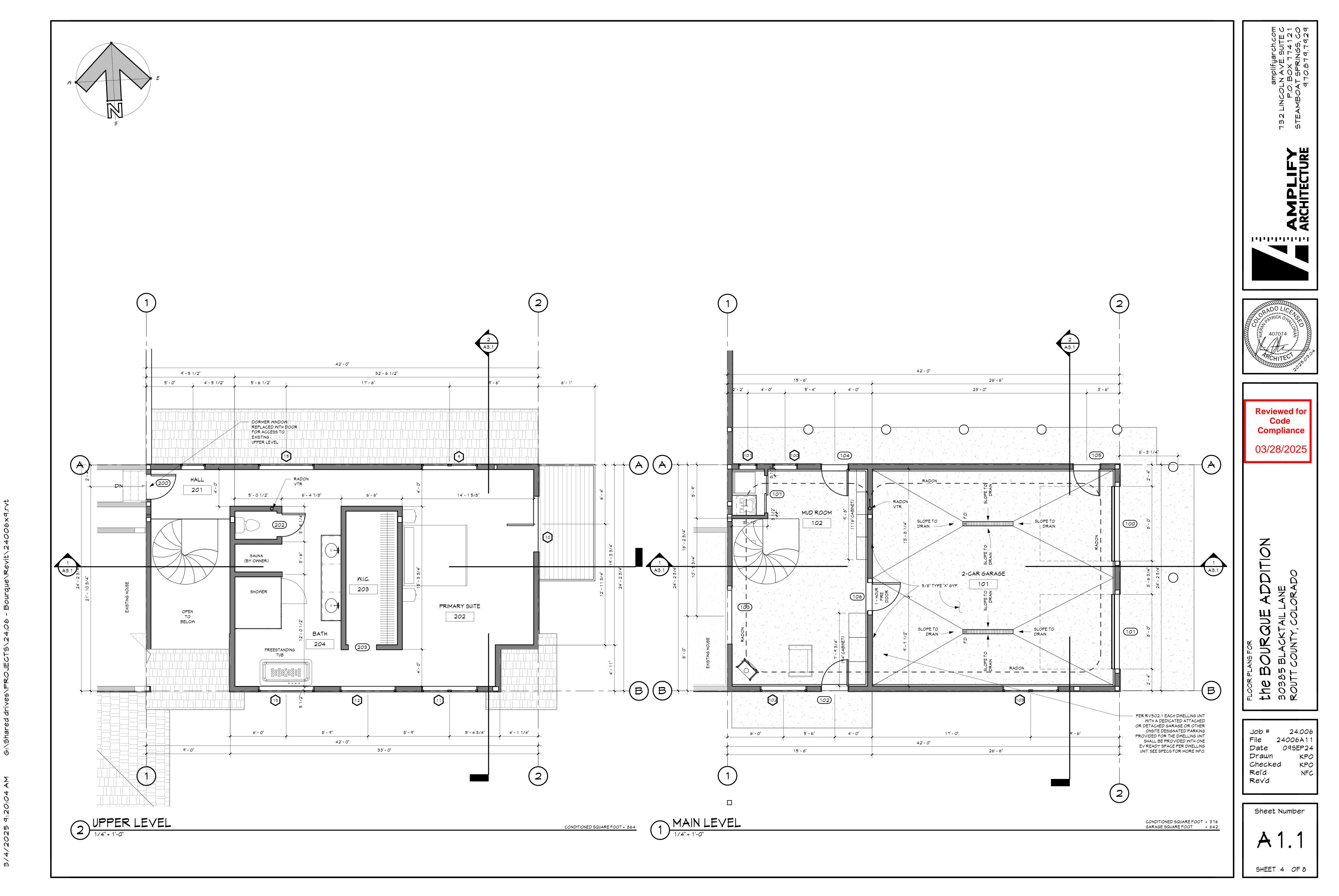
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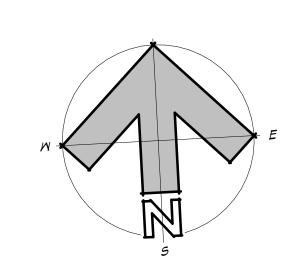
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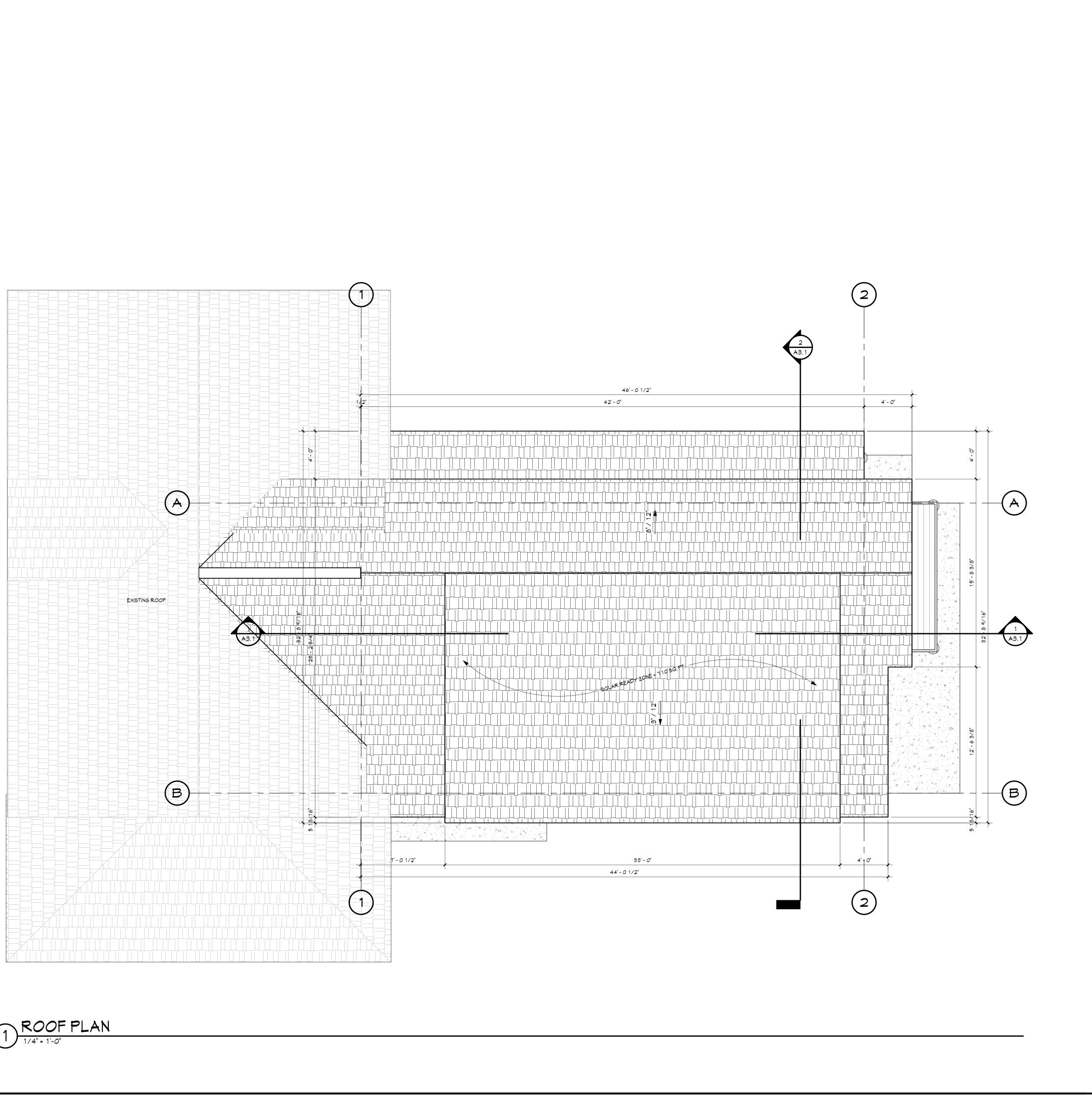


a. In addition, inspection of log walls shall be in accordance with the provisions of ICC 400

COVERING OR CEILING PENETRATED BY THE BOOT.

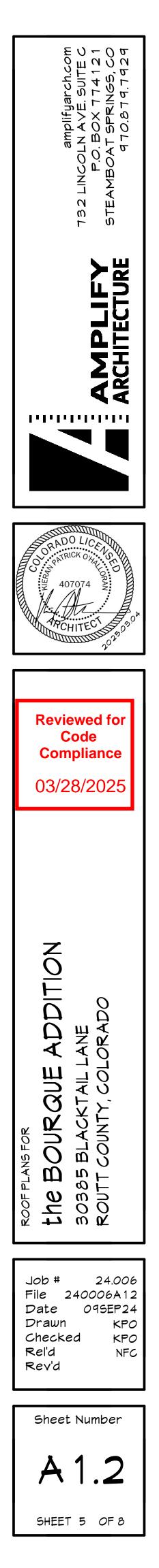


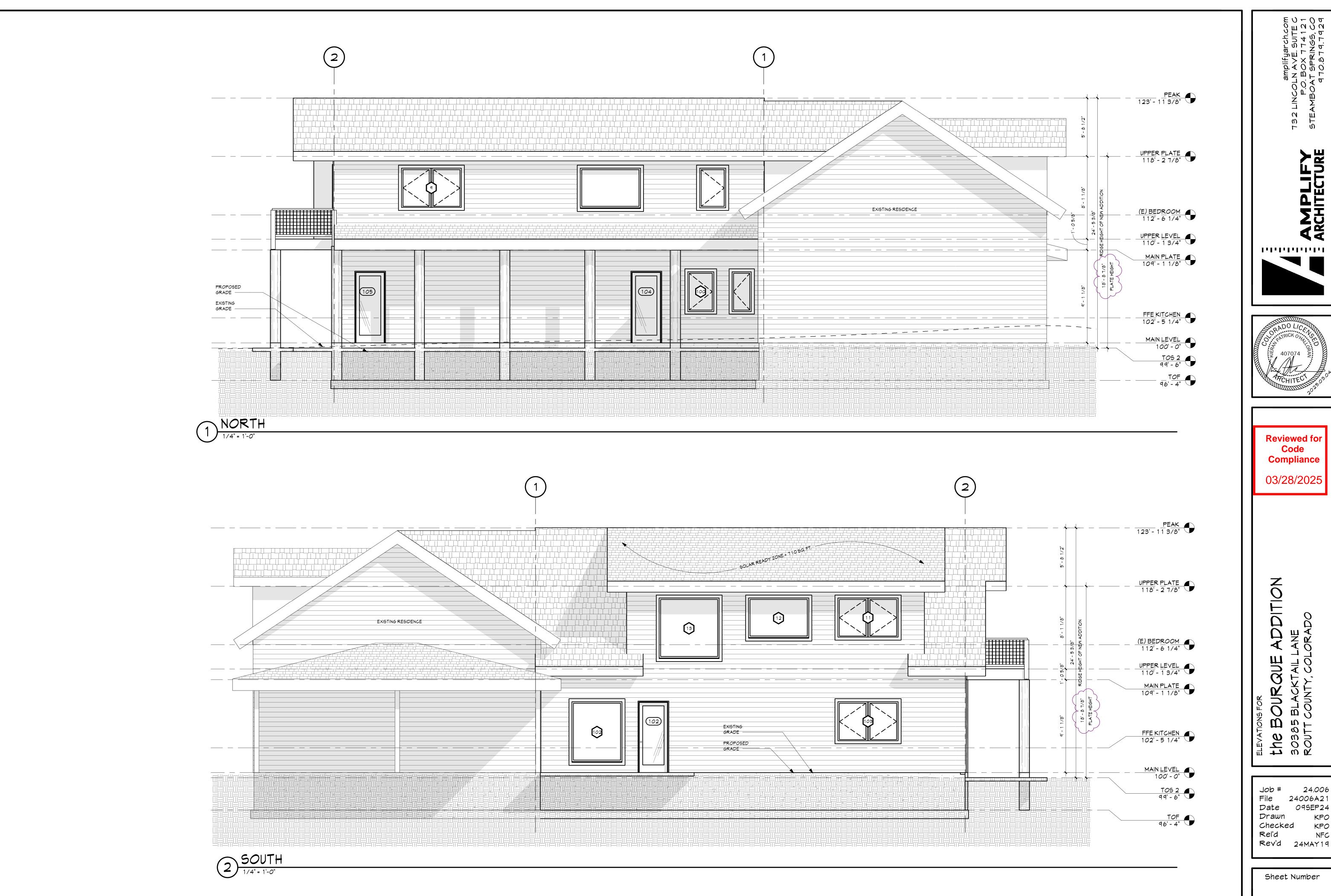




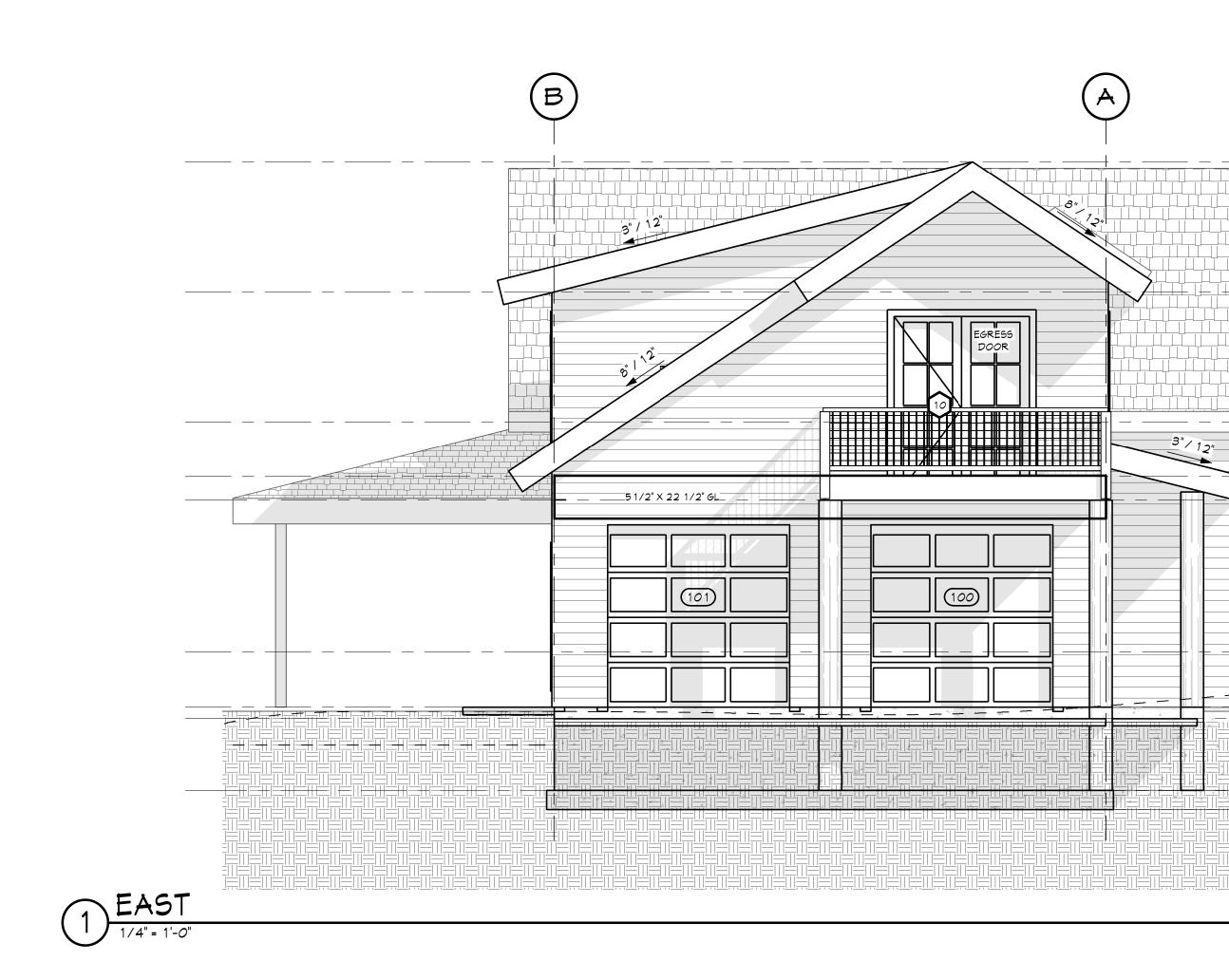


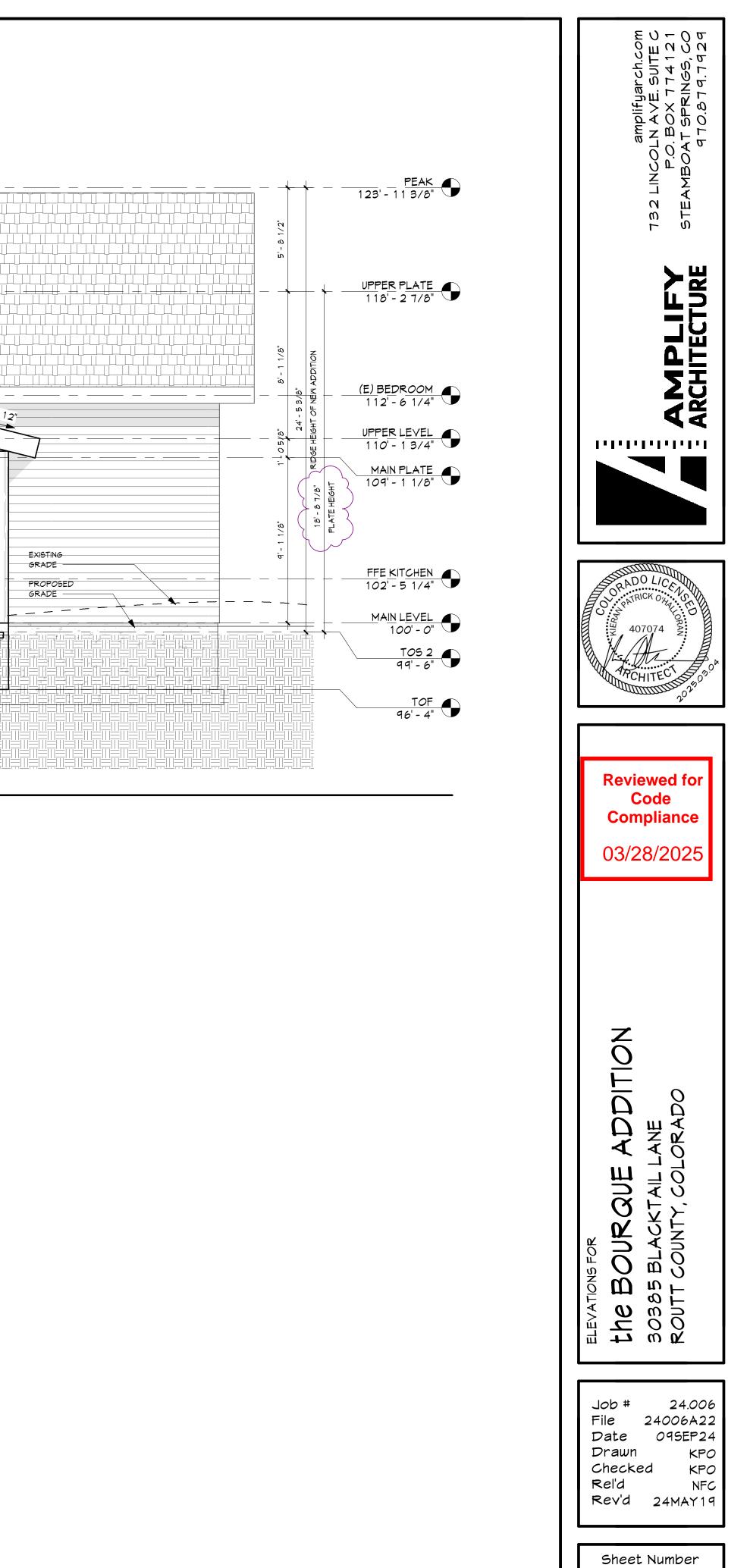
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A2.1 SHEET 6 OF 8





A2.2

