ABLE R301.2(1) CLIMATIC & GEOGRAPHIC DESIGN CRITERIA

GROUND	WIND D	DESIGN	SEISMIC	DAMA	AGE FR	ОМ	WINTER	ICE	FLOOD	AIR	MEAN	
SNOW	SPEED	TOPO	DESIGN	MEATH-	FROST	TEDMITE	DESIGN	BARRIER	HAZARD	REEZE	ANNUAL	
LOAD	(1415 11)	EFFECI	CAILO	ERING	DEPTH		161.0	REQU	FIRM	INDEX	TEMP	
N/A	115	NO	в	SEVERE	48"	NONE	-15°	YES	4FEB05	2239	40-45	
LIVE LOADS USED IN DESIGN												
ROOF											85 PSF	

ATTICS	2 <i>0</i> F	PSF	
FLOORS2	10 F	PSF	
FLOOR @ SLEEPING ROOMS	30 F	PSF	
PASSENGER VEHICLE GARAGE FLOOR	50 F	PSF	
DECK	35 F	PSF	
PORCH	50 F	PSF	
WIND EXPOS	SUR	EΒ	
MAXIMUM SOIL BEARING PRESSURE	OF	PSF	
MINIMUM DEAD LOAD PRESSURE	00 F	PSF	
EQUIVALENT FLUID PRESSURE (EFP)	55 F	°CF	

DESIGN VALUES ASSUMED FROM SOILS REPORT #08-8111 BY NORTHWEST COLORADO CONSULTANTS, INC., USED FOR THE DESIGN OF THE ORIGINAL ATTACHED HOUSE. ALL RECOMMENDATIONS REFERENCED IN THE SOILS REPORT SHALL BE ADHERED TO, UNLESS OTHERWISE NOTED (UON). DESIGN VALUES MAY BE CHANGED WITH AN "OPEN HOLE" INSPECTION AT TIME OF CONSTRUCTION. NWCC, INC HAS DONE ADDITIONAL SOIL INVESTIGATION REPORTS IN QUALIFIED SOIL ENGINEER, SHALL BE REQUIRED. THIS REPORT SHOULD BE PROVIDED TO THE THE VICINITY.

AS NOTED IN THE SOILS REPORT, EXPANSIVE SOILS WERE ENCOUNTERED AT THIS SITE. THE OWNER IS AWARE OF THE RISKS ASSOCIATED WITH SWELLING SOILS AND HAS APPROVED THE USE OF THE "ALTERNATE FOUNDATION RECOMMENDATION" IN THE DESIGN OF THIS FOUNDATION. REGULATORY REQUIREMENTS

ALL CONSTRUCTION SHALL CONFORM TO THE 2015 INTERNATIONAL RESIDENTIAL CODE (INCLUDING APPENDIX E) AND STANDARDS AS ADOPTED AND/OR AMENDED BY THE ROUTT COUNTY REGIONAL BUILDING DEPARTMENT AND THE FOLLOWING:

2017 NATIONAL ELECTRICAL CODE (NEC) (2018 IRC SPECIFICATIONS ARE NOTED) 2015 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) LOCAL UTILITY REGULATIONS

ALL COUNTY CODES AND ORDINANCES

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

THESE PLANS AND SPECIFICATIONS DEPICT THE WORK REQUIRED TO CONSTRUCT THIS GARAGE AND SECONDARY UNIT AS AN ADDITION TO A MODULAR HOME CONSTRUCTED UNDER PERMIT CB-08-552. THIS PARCEL, PIN 9463121001, IS 120.41 ACRES ALLOWINGA 2,000 SF SECONDARY UNIT PER 5.3.2, LARGE LOT APPROVAL STANDARDS.

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

SPECIAL INSPECTIONS

SPECIAL INSPECTION OF ALL FIELD WELDS IS REQUIRED BY THE STRUCTURAL ENGINEER

PER COLORADO REGULATION NO. 8, PART B - ASBESTOS, EMISSIONS STANDARDS FOR ASBESTOS. THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CDPHE) REQUIRES ALL BUILDINGS BE THOROUGHLY INSPECTED FOR ASBESTOS IN ACCORDANCE WITH PARAGRAPHS IV.C. 1. IV.D. AND IV.F. BY A COLORADO CERTIFIED ASBESTOS BUILDING INSPECTOR PRIOR TO COMMENCING RENOVATION OR DEMOLITION ACTIVITIES. BOTH THE BUILDING OWNER AND CONTRACTOR PERFORMING THE RENOVATION OR DEMOLITION WORK CAN BE HELD LIABLE FOR FAILING TO COMPLY WITH THESE ASBESTOS REGULATIONS. PLEASE BE AWARE THAT TESTING FOR THE PRESENCE OF ASBESTOS AND ISSUANCE OF A PERMIT BY THE STATE MAY REQUIRE SIGNIFICANT LEAD TIMES AS THERE ARE STATE AND FEDERAL REQUIREMENTS THAT THE APPLICATION FOR DEMOLITION (OR RENOVATION IF TRIGGER LEVELS OF ASBESTOS WILL BE DISTURBED) MUST BE POSTMARKED OR HAND DELIVERED AT LEAST 10 WORKING DAYS PRIOR TO THE COMMENCEMENT OF THE PROJECT. ISSUANCE OF A BUILDING PERMIT BY ROUTT COUNTY REGIONAL BUILDING DEPARTMENT DOES NOT ASSURE COMPLIANCE WITH THE STATE AND FEDERAL REGULATIONS. MORE INFORMATION AND APPLICATIONS ARE AVAILABLE AT THE COPHE WEBSITE: HTTP://WWW.CDPHE.STATE.CO.US/AP/ASBESHOM.ASP OR BY CALLING THE COLORADO

. GENERAL REQUIREMENTS

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.

DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT AT (800) 866-7689 OR (303) 692-

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

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 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 WORK

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 JAKE'S DRAFTING SERVICE, INC.

2. 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. FIELD LOCATE EXTENTS OF THE EXISTING SEPTIC SYSTEM LEACH FIELDS TO THE IMMEDIATE EAST OF THE STRUCTURE, PLACE PROPOSED SILT FENCE OR WATTLES ALONG THE PERIMETER TO PROTECT THE FIELD.

STRIP SITE OF EXISTING TOPSOIL AND STOCKPILE FOR RE-USE IN LANDSCAPING. REFER TO SITE PLAN FOR EXTENT OF STRIPPING AND PROPOSED STOCKPILE LOCATION. THE SLOPE OF CUT OR FILL SURFACES SHALL BE NO STEEPER THAN 2:1 (50% SLOPE). UON

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.

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 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

CONCRETE AND MASONRY FOUNDATION WALLS SHALL EXTEND ABOVE THE FINISHED GRADE ADJACENT TO THE FOUNDATION AT ALL POINTS A MINIMUM OF 4" WHERE MASONRY VENEER IS USED AND A MINIMUM OF 6" ELSEWHERE. (IRC R404.1.6)

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

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 FLOOR ABOVE OR HAS BEEN SUFFICIENTLY BRACED TO PREVENT DAMAGE BY THE BACKFILL (IRC R404.1.7)

LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS. THE GRADE SHALL FALL A MINIMUM OF 6 INCHES WITHIN THE FIRST 10 FEET (IRC R401.3).

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 BOX TO TRANSFORMER, CO-ORDINATE WITH YAMPA VALLEY ELECTRIC ASSOCIATION, 970.879.1160.

SEWER - FROM 5 FEET OUTSIDE THE FOUNDATION TO SEPTIC TANK TO LEACH FIELD, SEE DESIGN BY OTHERS.

MATER - 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 U.S. WEST COMMUNICATIONS, 800.244.1111. MAINTAIN 18" MINIMUM COVER.

GAS - FROM POINT OF CONNECTION TO BURIED 1,000 GALLON LPG TANK, SEE SITE PLAN. CABLE TELEVISION - FROM TELEVISION SERVICE PANEL TO DISH ANTENNA, CO-ORDINATE WITH SERVICE PROVIDER.

3. CONCRETE

CONTRACTOR SHALL PROVIDE ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO COMPLETE ALL CONCRETE SHOWN OR NOTED IN THESE DOCUMENTS.

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 (40) BAR DIAMETERS, UNI ESS OTHERWISE NOTED MAKE ALL BARS CONTINUOUS AROUND CORNERS PLACE (2) #5 BARS WITH 2'-O" PROJECTION AROUND ALL OPENINGS IN CONCRETE WALLS, SLABS AND

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)

(R406.1)

5. OTHER APPROVED METHODS OR MATERIALS.

4. MASONRY

3. CONCRETE - CONTINUED

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 3 18 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.

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 ROZEN MATERIALS OR MATERIALS CONTAINING ICE SHALL NOT BE USED. DURING HOT WEATHER, PROPER ATTENTION SHALL BE GIVEN TO INGREDIENTS, PRODUCTION METHODS, 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 3E 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 5HALL 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.

1. BITUMINOUS COATING. 4. ANY MATERIAL PERMITTED FOR WATERPROOFING IN SECTION R406.2.

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)

3. SIX-MIL (0.15 MM) POLYVINYL CHLORIDE. 4. SIX-MIL (0.15 MM) POLYETHYLENE.

8. SIXTY-MIL (1.5 MM) SOLVENT-FREE LIQUID-APPLIED SYNTHETIC RUBBER.

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

IT IS RECOMMENDTED THAT SIXTY -MIL SOLVENT FREE LIQUID APPLIED SYNTHETIC RUBBER ("RUBBER MALL") BE USED.

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.

PROVIDE MASONRY ROCK VENEER WITH SAND STONE CAP AT LOCATIONS NOTED ON PLANS, MATERIALS AND COURSING TO MATCH EXISTING HOUSE, CHIMNEY CHASE ABOVE THE ROOF SHALL BE ADHERED, LIGHT WEIGHT, SYNTHETIC VENEER AND 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.

6. CARPENTRY

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.

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" THREADED STUDS WELDED OR 1/4" A 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 WASHER. 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)

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 SLIP JOINT DETAIL PROVIDED WITH THESE

ALL 2" FRAMING LUMBER SHALL BE STRESS RATED, S-DRY DOUGLAS FIR OR LARCH (DF-L) S4S, #2 OR BETTER. ALL SOLID TIMBER BEAMS AND POSTS SHALL BE S-DRY DOUGLAS FIR OR LARCH (DF-L) 545, # 1 OR BETTER.

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 R3 17.1.5)

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.

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)

PLYMOOD 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 8'-0" DIMENSION PERPENDICULAR TO THE FRAMING, STAGGER END JOINTS. PLYWOOD 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.

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.

6. CARPENTRY - CONTINUED

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.

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

NCH (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 ASTM E 119 OR UL 263, FOR THE SPECIFIC APPLICATION.

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

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 WOOD IN ACCORDANCE WITH AWPA U1 OR FOUNDATION REDWOOD. (IRC R3 17.1)

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. (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 EXCEPT WHERE SUPPORTED BY THE USE OR 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) 10d 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 GUT 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 WOOD OF NATURAL RESISTANCE TO DECAY OR PRESSURE PRESERVATIVE TREATED WOOD IS USED. (IRC R3 17.1)

FIELD CUT ENDS, NOTCHES AND DRILLED HOLES OF PRESSURE PRESERVATIVE TREATED WOOD SHALL BE TREATED IN THE FIELD IN ACCORDANCE WITH AWPA M4. (R3 1 7.1.1)

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' 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".

DECK LEDGER SHALL BE INSTALLED PER SECTION R503.2 AND SHALL BE PRESSURE TREATED OR NATURALLY DURABLE #2 OR BETTER. FASTENERS SHALL BE HOT DIPPEI GALVANIZED OR STAINLESS STEEL AND INSTALLED IN ACCORDANCE WITH TABLE R507.2 AND FIGURES R507.2.1(1) AND R507.2.1(2).

MINIMUM NAILING SHALL BE AS SPECIFIED IN TABLE R602.3(1) SEE ATTACHED

EXCEPT AS PROVIDED IN SECTION R302.11, ITEM 4, FIREBLOCKING SHALL CONSIST OF THE

LESS THAN 1 INCH (25 MM) ABOVE A CONCRETE FLOOR OR 6 INCHES (152 MM) ABOVE

7. THERMAL AND MOISTURE PROTECTION

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) 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, RUFCO "SUPER SAMPSON" OR "TU TUF #4" MEMBRANES OR "BARRIER X5", A COMBINATION VAPOR RETARDER & R-5 INSULATION.

PROVIDE "TU-TUF #4" VAPOR RETARDER INSTALLED PER MANUFACTURER'S INSTRUCTIONS. PROVIDE FOAM SILL SEALER BETWEEN TOP OF FOUNDATION WALL AND RIM JOIST AND

BETWEEN FLOOR SHEATHING & SILL PLATES AT ALL EXTERIOR WALLS. CLASS | OR || VAPOR RETARDERS ARE REQUIRED ON INTERIOR SIDE OF FRAMED WALLS.

(IRC R702.7) EXCEPTIONS

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

CLASS III VAPOR RETARDERS SHALL BE PERMITTED IN ZONES 7 \$ 8 WITH CONTINUOUS NSULATION WITH R VALUE > 15 ON EXTERIOR WALL. SPRAY FOAM APPLIED TO THE INTERIOR CAVITY SIDE OF WOOD STRUCTURAL PANELS IS DEEMED TO MEET THE CONTINUOUS INSULATION REQUIREMENT WHERE THE SPRAY FOAM R-VALUE MEETS OR EXCEEDS THE SPECIFIED CONTINUOUS INSULATION R-VALUE ..

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 OR VAPOR PERMEABLE MEMBRANES SHALL HAVE 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 OF NOT MORE THAN 450 AND SHALL BE REQUIRED TO MEET A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450 WHERE TESTED IN ACCORDANCE WITH CAN/ULC 5102.2

3. FOAM PLASTIC INSULATION SHALL COMPLY WITH SECTION R316.

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.

FOAM PLASTIC INSULATION SHALL COMPLY WITH IRC R316.1 UNLESS OTHERWISE ALLOWED IN SECTION R316.5 OR R316.6, FOAM PLASTIC SHALL BE SEPARATED FROM THE INTERIOR OF THE BUILDING BY AN APPROVED THERMAL BARRIER OF MINIMUM 1/2 INCH GYPSUM MALLBOARD 23/32", MOOD STRUCTURAL PANEL OR AN APPROVED THERMAL BARRIER. (IRC R316.4)

THE THERMAL BARRIER IS NOT REQUIRED IN ATTICS OR CRAWL SPACES WHEN EACH OF THE FOLLOWING APPLIES: I. 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 R316.6 OR WHEN THE FOAM PLASTIC INSULATION IS PROTECTED FROM IGNITION USING ONE OF THE OLLOWING IGNITION BARRIER MATERIALS; 1-1/2" THICK MINERAL FIBER INSULATION; 1/4" THICK MOOD 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

"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.

MATER RESISTANT GYPSUM BACKING BOARD MAY BE USED FOR CEILINGS WHERE FRAMING SPACING DOES NOT EXCEED 12" OC FOR 1/2" THICK OR 16" OC FOR 5/8" THICK GYPSUM WALL BOARD. WATER RESISTANT GYPSUM BOARD SHALL NOT BE INSTALLED OVER A CLASS I OR II VAPOR RETARDER, WATER 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 R 702.3.8.

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 FLASHING SHALL INCORPORATE FLASHING OR PROTECTION AT THE HEAD AND SIDES.









Sheet Number