

GENERAL

G1. ALL NOTES APPLY TO EACH AND EVERY SUBCONTRACTOR. READ AND REVIEW EACH NOTE CAREFULLY FOR ITS APPLICABILITY TO THE WORK.

G2. BUILDING CODE REFERENCES HEREUNDER AND ON THE PLANS REFER TO THE 2005 INTERNATIONAL RESIDENTIAL CODE (IRC) AND OTHER INTERNATIONAL CODES, AS APPLICABLE, UNLESS OTHERWISE NOTED (I.N.O.)

G3. CONTRACTOR WILL PROVIDE THE GENERAL BUILDING PERMIT ONLY. EACH SUBCONTRACTOR SHALL SECURE ALL OTHER REQUIRED PERMITS PRIOR TO COMMENCING ANY WORK AND SHALL BE SOLELY RESPONSIBLE FOR OBTAINING AND PASSING, WITHOUT DELAY TO CONTRACTOR, ALL INSPECTIONS AND APPROVALS REQUIRED BY LAW OR ANY STORM WATER OR DUST CONTROL REQUIREMENTS AND ANY INSPECTIONS AND APPROVALS REQUIRED BY CONTRACTOR OR ANY AGENT OF CONTRACTOR.

G4. PERFORM ALL WORK IN COMPLIANCE WITH APPLICABLE LAWS, FREE FROM NONCONFORMANCE, IN A FIRST-CLASS, GOOD, AND WORKMANLIKE MANNER ACCORDING TO THE HIGHEST STANDARDS OF SUBCONTRACTOR'S TRADE AND IN STRICT CONFORMANCE WITH SUBCONTRACTOR'S OBLIGATIONS UNDER ITS AGREEMENT.

G5. THE CONTRACT DOCUMENTS OUTLINE SALIENT MINIMUM REQUIREMENTS BUT DO NOT SPECIFY ALL LABOR, MATERIAL, TOOLS EQUIPMENT, UTILITIES, SERVICES AND OTHER ITEMS NECESSARY TO PROPERLY AND FULL EXECUTE THE WORK.

G6. WORK NOT SPECIFICALLY COVERED IN THE CONTRACT DOCUMENTS, BUT WHICH IS REASONABLY INFERRABLE FROM OR CUSTOMARILY PERFORMED BY ANY SUBCONTRACTOR OF THE SAME OR SIMILAR TRADE PERFORMING WORK OF THE TYPE SHOWN OR INCLUDED IN THE CONTRACT DOCUMENTS, INCLUDING DETAILS OR ITEMS OF THE WORK WHICH ARE NOT SPECIFICALLY COVERED ON OR IN THE CONTRACT DOCUMENTS, SHALL BE FURNISHED AND INSTALLED AT NO EXTRA COST.

G7. ALL MATERIAL SUPPLIED SHALL BE NEW, THE BEST OF ITS KIND AND FROM THE SAME MANUFACTURER (AND SAME MANUFACTURING RUN WHERE APPLICABLE). ALL MATERIALS SHALL BE SUITABLE FOR THE USES INTENDED AND CONDITIONS ANTICIPATED. FURNISH, HANDLE AND INSTALL MATERIAL IN ACCORDANCE WITH THE TERMS OF ITS LISTING OR APPROVAL, THE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, GUIDELINES AND RECOMMENDATIONS AND APPLICABLE LAWS AND STANDARDS.

G8. SUBCONTRACTOR SHALL PROTECT THE WORK, PROPERTY AND MATERIAL OF OTHER PERSONS BEFORE PROCEEDING WITH ANY WORK AND AT ALL TIMES DURING THE PERFORMANCE OF ITS WORK.

G9. DRAWN DIMENSIONS TAKE PRECEDENCE OVER DRAWN INFORMATION - DO NOT SCALE DIMENSIONS. ALL DIMENSIONS ARE SHOWN TO FACE OF STUDS. ALL EXTERIOR STUD WALLS ARE 5 1/2" WIDE, ALL INTERIOR STUD WALLS ARE 3 1/2" WIDE (I.N.O.).

G10. SUBCONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE COMMENCING ANY WORK. BRING ALL ERRORS OR OMISSIONS TO THE IMMEDIATE ATTENTION OF CONTRACTOR BEFORE COMMENCING ANY WORK. SUBCONTRACTOR SHALL BEAR ALL COSTS AND EXPENSES FOR CORRECTING WORK COMMENCED WITHOUT VERIFYING DIMENSIONS OR WITHOUT HAVING A RESOLUTION TO ANY ERROR OR OMISSION.

G11. REMOVE ALL WASTE MATERIAL AND TRASH DAILY. CLEAN THE WORK AREA DAILY. IMMEDIATELY AFTER COMPLETING WORK ON ANY HOME, REMOVE ALL TOOLS, EQUIPMENT AND EXCESS OR NONCONFORMING MATERIAL AND SHALL LEAVE THE HOME IN A ROOM CLEAN, NEAT, SAFE AND SANITARY CONDITION.

SAFETY

S1. EVERY SUBCONTRACTOR AND EACH OF ITS AGENTS SHALL COMPLY WITH ALL HEALTH, SAFETY AND ENVIRONMENTAL LAWS, RULES, REGULATIONS AND REQUIREMENTS. EACH SUBCONTRACTOR UNDERSTANDS AND AGREES THAT SUBCONTRACTOR IS SOLELY LIABLE AND SOLELY RESPONSIBLE FOR THE HEALTH AND SAFETY OF ITS AGENTS AND THAT SUBCONTRACTOR POSSESSES THE AUTHORITY, EXPERTISE, CONTROL AND MEANS TO CARRY OUT SUCH RESPONSIBILITY.

S2. CEILING HEIGHTS SHALL COMPLY WITH SECTION R305. WHERE UNFINISHED, CEILING HEIGHTS SHALL ALLOW FOR 1" MINIMUM FOR FINISHES TO COMPLY.

S3. PROVIDE TEMPERED GLASS IN LOCATIONS DESIGNATED AS BEING HAZARDOUS UNDER SECTION R308.4 CONFORMING WITH THE REQUIREMENTS THEREIN.

S4. PROVIDE A SOLID CORE WOOD DOOR NOT LESS THAN 1-3/8" THICKNESS BETWEEN THE GARAGE AND THE RESIDENCE (R302.5.I). PROVIDE AN AUTOMATIC DOOR CLOSER.

S5. PROVIDE 5/8" TYPE "X" GYPSUM WALLBOARD FOR ALL WALLS AND CEILINGS SEPARATING THE GARAGE AND ANY HABITABLE OR USEABLE SPACE, INCLUDING ATTIC SPACE, AND THE STRUCTURE SUPPORTING THE SEPARATION (R302). DUCTWORK IN THE GARAGE OR PENETRATING ANY HALL OR CEILING BETWEEN THE GARAGE AND ANY HABITABLE OR USEABLE SPACE SHALL BE CONSTRUCTED OF NOT LESS THAN 26 GAUGE STEEL.

S6. WINDOW WELLS SHALL BE OF GALVANIZED STEEL OR REINFORCED CONCRETE (I.N.O.) AND BE OF SUFFICIENT STRENGTH TO RESIST BACKFILL PRESSURES AND SHALL HAVE MINIMUM HORIZONTAL AREA OF 4 SF. WITH A MINIMUM HORIZONTAL PROJECTION AND WIDTH OF 36" (R310). PROVIDE A PERMANENTLY AFFIXED LADDER WHERE WINDOW DEPTH EXCEEDS 44". TOP OF WELL SHALL EXTEND NOT LESS THAN 3" ABOVE FINISHED GRADE AND BOTTOM OF WELL SHALL EXTEND NOT LESS THAN 4" BELOW WINDOW SILL. PROVIDE DRAINAGE BY CONNECTING TO THE BUILDING'S FOUNDATION DRAINAGE SYSTEM OR APPROVED ALTERNATIVE METHOD.

S7. STAIRWAYS, RAMPS EXTERIOR EXIT BALCONIES, HALLWAYS AND DOORS SHALL COMPLY WITH THE REQUIREMENTS OF SECTION R311. STAIR TREADS AND RISERS SHALL HAVE MAXIMUM RISER HEIGHT OF 1 3/4" AND MINIMUM TREAD DEPTH OF 10". RISER HEIGHTS AND TREAD DEPTH SHALL NOT VARY MORE THAN 3/8". EACH EXTERIOR DOOR SHALL HAVE A FLOOR OR LANDING ON EACH SIDE. THE LANDING AT ANY EXTERIOR DOOR SHALL NOT BE MORE THAN 1 3/4" BELOW THE TOP OF THE DOOR THRESHOLD PROVIDED THE DOOR DOES NOT SWING OVER THE LANDING.

S8. PROVIDE AN INTERCONNECTED SMOKE DETECTOR SYSTEM, HAVING A SMOKE ALARM IN EACH SLEEPING ROOM, OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS AND ON EACH ADDITIONAL STORY INCLUDING EASEMENTS (R314).

S9. PROVIDE AN INTERCONNECTED CARBON MONOXIDE (CO) DETECTION SYSTEM HAVING A CO ALARM WITHIN 10' OF THE ENTRANCE OF EVERY ROOM INTENDED TO BE LAWNFLY USED FOR SLEEPING PURPOSES, TYPICALLY IN A CENTRAL LOCATION SUCH AS A HALLWAY, AND ON EACH FLOOR LEVEL. INTENDED TO BE LAWNFLY USED FOR PURPOSES, INCLUDING THE BASEMENT, THAT DOES NOT HAVE A ROOM INTENDED TO BE LAWNFLY USED FOR SLEEPING PURPOSES. CO ALARMS SHALL HAVE PERMANENT CO SENSOR OR REPLACEABLE CO SENSOR WITH END OF LIFE INDICATOR (R315).

S10. PROVIDE A CRAML SPACE ACCESS OPENING AND PANEL NOT LESS THAN 18"x24" (R408). SEE SECTION M305.1.4 FOR ACCESS REQUIREMENTS WHERE MECHANICAL EQUIPMENT IS LOCATED UNDER FLOORS.

S11. PROVIDE A MINIMUM OF 3" BETWEEN ANY RECESSED LIGHT, FAN OR ANY OTHER HEAT PRODUCING OR EXHAUSTING DEVICE AND COMBUSTIBLE INSULATION UNLESS APPROPRIATELY LISTED FOR LESS CLEARANCE.

S12. PROVIDE DRAFTSTOPPING AND FIRELOCKING PER THE MOST STRINGENT APPLICABLE REQUIREMENTS THEREUNDER THE IRC, THE INTERNATIONAL MECHANICAL CODE (IMC), THE INTERNATIONAL PLUMBING CODE (IPC), THE NATIONAL ELECTRICAL CODE (NEC) AND THE INTERNATIONAL ENERGY CONSERVATION CODE (IECC). FIRELOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORES, AND BETWEEN A TOP STORY AND THE ROOF SPACE. FIRELOCKING SHALL BE SPECIFICALLY PROVIDED AT THE LOCATIONS DESIGNATED IN SECTION R302.11.

S13. PROVIDE AN ATTIC ACCESS OPENING AND PANEL NOT LESS THAN 22" X 30" IN A READILY ACCESSIBLE LOCATION, PREFERABLY A SECONDARY BEDROOM (R801). PROVIDE NOT LESS THAN 30" OF UNOBSTRUCTED HEADROOM ABOVE THE OPENING. PROVIDE GASKET FOR ACCESS PANEL. (IECC 4022.4). REFER TO SECTIONS M305 AND M306 FOR MECHANICAL ACCESS AND CLEARANCE REQUIREMENTS.

CONCRETE AND MASONRY

C1. COMPLY WITH APPLICABLE REQUIREMENTS SET FORTH IN THE IRC AND THE IBC.

C2. REFER TO THE STRUCTURAL PLANS FOR STRUCTURAL CONCRETE AND MASONRY REQUIREMENTS.

C3. (I.N.O.) ON THE STRUCTURAL PLANS OR NOTES, THE MINIMUM SPECIFIED 28 DAY COMPRESSIVE STRENGTH FOR CONCRETE COMPONENTS EXPOSED TO MODERATE OR SEVERE WEATHERING POTENTIAL SHALL BE:

PORCHES, PATIOS, DRIVENWAYS, GARAGE FLOOR SLABS AND WALKWAYS EXPOSED TO THE WEATHER - 3500 PSI.

BASEMENT WALLS, FOUNDATION WALLS AND OTHER WALLS EXPOSED TO THE WEATHER - 3000 PSI, AIR ENTRAINED 5 TO 7 PERCENT.

BASEMENT SLABS AND INTERIOR SLABS ON GRADE, EXCEPT GARAGE FLOOR SLABS - 3000 PSI. REFER TO STRUCTURAL PLANS AND NOTES FOR STRUCTURAL CONCRETE REQUIREMENTS. (R402)

C4. SLOPE ALL EXTERIOR CONCRETE SURFACES NOT LESS THAN 1/8" AND NOT MORE THAN 1/4" PER FOOT AWAY FROM HOUSE. SLOPE GARAGE FLOORS APPROXIMATELY 4" REAR TO FRONT TO FACILITATE THE MOVEMENT OF LIQUIDS TOWARD THE MAIN VEHICLE ENTRY DOORWAY (R304.I).

C5. FOUNDATION WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R404 AND ACl 318 AND SHALL EXTEND A MINIMUM OF 6" ABOVE GRADE AT ALL POINTS, 4" WHERE MASONRY VENEER IS USED.

C6. BASEMENT CONCRETE FLOORS SHALL BE PLACED OVER A MINIMUM 6-MIL POLYETHYLENE VAPOR RETARDER COMPLYING WITH ASTM E 1745 WITH JOINTS LAPPED NOT LESS THAN 12" OVER PREPARED 4" THICK BASE COURSE PER SECTION R502.2

C7. CONCRETE FLOORS AND FOUNDATIONS SHALL BE MADE LEVEL WITHIN 1/2" IN 20' BUT NO MORE THAN 1" ACROSS THE FULL WIDTH OR LENGTH (I.N.O.) OR SPECIFICALLY DESIGNED FOR DRAINAGE.

C8. MASONRY AND STONE VENEER (INCLUDING MANUFACTURED) MATERIAL AND INSTALLATION SHALL COMPLY WITH SECTION 103.1, THE MASONRY OR STONE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS, THE MASONRY OR STONE MANUFACTURER'S WRITTEN CODE EVALUATION/APPROVAL DOCUMENTS AND THE REQUIREMENTS SET FORTH BY THE BRICK INDUSTRY ASSOCIATION FOR BRICK.

C9. PROVIDE A MINIMUM 6" BY 4" BY 5/16" GALVANIZED STEEL ANGLE TO SUPPORT EXTERIOR MASONRY VENEERS (I.N.O.) ON THE STRUCTURAL PLANS (R103).

C10. ATTACH EXTERIOR MASONRY VENEER WITH GALVANIZED TIES, SPACED NOT MORE THAN 24" ON CENTER HORIZONTALLY AND VERTICALLY AND SHALL SUPPORT NO MORE THAN 2.67 SF. OF WALL AREA (R103.I). PROVIDE FLASHING AND WEEDHOLES AS SHOWN IN FIGURE R103.I.

C11. MINIMUM SOIL CAPACITY IS ASSUMED TO BE 2000 PSF AT ALL WALL AND PIER FOOTINGS. IT IS THE OWNER'S RESPONSIBILITY TO VERIFY BEARING CAPACITY AND TO NOTIFY THE DESIGNER IF THE CAPACITY IS LESS THAN 2000 PSF.

WOOD, METAL AND PLASTIC

M1. COMPLY WITH APPLICABLE REQUIREMENTS SET FORTH IN THE IRC AND THE IBC.

M2. WOOD MEMBERS AND PRODUCTS SHALL BE IDENTIFIED BY GRADE MARK OR CERTIFICATE OF INSPECTION ISSUED BY AN APPROVED AGENCY.

M3. REFER TO THE STRUCTURAL PLANS FOR STRUCTURAL FRAMING AND SHEATHING REQUIREMENTS.

M4. FASTENERS AND CONNECTORS IN CONTACT WITH PRESERVATIVE-TREATED OR FIRE-RETARDANT TREATED WOOD SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL UNLESS OTHERWISE PERMITTED UNDER SECTION R313.3.

M5. DO NOT CUT, SPLICE, NOTCH, OR OTHERWISE ALTER ANY SAWN LUMBER IN EXCESS OF THE LIMITATIONS SET FORTH IN SECTIONS R502, R602 AND R802 WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD.

M6. DO NOT CUT, SPLICE, NOTCH, OR OTHERWISE ALTER ANY ENGINEERED WOOD PRODUCT OR TRUSS WITHOUT THE WRITTEN APPROVAL OF THE MANUFACTURER OR ENGINEER OF RECORD, UNLESS THE EFFECTS OF ANY SUCH PENETRATION IS CONSIDERED IN ITS DESIGN BY THE MANUFACTURER OR ENGINEER OF RECORD (R502 AND R802).

M7. ENDS OF EACH JOIST, SEAM, OR GIRDER SHALL BEAR NOT LESS THAN 1 1/2" ON WOOD OR METAL AND 3" ON CONCRETE (R502 AND R802).

M8. TRUSS SHOP DRAWINGS SHALL COMPLY WITH SECTIONS 502 AND 802 AND SHALL BE PROVIDED TO THE BUILDING OFFICIAL AND ENGINEER OF RECORD AND APPROVED BY BOTH PRIOR TO INSTALLATION. BRACE TRUSSES IN ACCORDANCE WITH TP181B (I.N.O.) ON THE SHOP DRAWINGS. TRUSSES TO WALL AND TRUSSES TIE DOWN CONNECTIONS SHALL COMPLY WITH R802. ALL PERMANENT AND TEMPORARY BRACING LOCATIONS SHALL BE PREMARKED BY THE TRUSS MANUFACTURER.

M9. WHERE FOUNDATION CRIPPLE WALLS EXCEED 4' IN HEIGHT, FRAME SUCH WALLS WITH STUDS HAVING THE SIZE REQUIRED FOR AN ADDITIONAL STORY (R602).

M10. PROVIDE BACKING AND BLOCKING FOR RAILINGS AT STAIR OPENINGS AND ALONG WALLS WHERE RAILS MAY ATTACH, INCLUDING EXTERIOR RAILINGS, FOR BATHROOM ACCESSORIES, SHOWER DOORS, CLOSET ITEMS, SHELVING, HARDWARE AND OTHER ACCESSORIES, AT OR ALONG COVERED PORCH AND PATIO SOFFITS AND CANTILEVERED FLOORS AND ELSEWHERE AS REQUIRED OR DIRECTED. PROVIDE 3" MINIMUM OF BACKING AROUND DOOR AND WINDOW OPENINGS. PROVIDE DRYWALL BACKING ALONG ALL TUBS AND TUB DECKS, SHOWER PANS, AND SHOWER SEATS AND ELSEWHERE AS REQUIRED OR DIRECTED.

M11. SHEATH AND SEAL THE UNDERSIDE OF ALL CANTILEVERED FLOOR AREAS WITH EXTERIOR EXPOSURE RATED SHEATHING, WHERE WOOD SIDING, SHEATHING OR FRAMING IS WITHIN 6" OF GRADE, EACH SHALL BE PROTECTED AGAINST DECAY (R317). INSULATE CANTILEVERED FLOOR AREAS BEFORE CLOSING IN OR PROVIDE OPENING SUFFICIENT TO INSULATE AFTER THE FACT.

M12. FLOORS SHALL BE MADE LEVEL WITHIN 1/4" IN 20' BUT NO MORE THAN 1/2" ACROSS THE FULL WIDTH OR LENGTH.

M13. WOOD, HARDBOARD, FIBER CEMENT AND VINYL SIDING MATERIAL AND INSTALLATION SHALL COMPLY WITH SECTION 103.3 OR 103.10 AS APPLICABLE, THE SIDING MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS, THE SIDING MANUFACTURER'S WRITTEN CODE EVALUATION/APPROVAL DOCUMENTS AND APPLICABLE RECOMMENDATIONS SET FORTH BY THE AMERICAN HARDBOARD ASSOCIATION OR THE VINYL SIDING INSTITUTE FOR HARDBOARD. PAINT AND/OR SEAL ALL WOOD AND HARDBOARD EDGES.

M14. FINISH CARPENTRY, MILLWORK AND CABINETRY INSTALLATION SHALL COMPLY WITH THE MILLWORK MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS AND APPLICABLE ARCHITECTURAL.

THERMAL AND MOISTURE PROTECTION

T1. COMPLY WITH APPLICABLE REQUIREMENTS SET FORTH IN THE IRC, THE IECC, AND THE IMC.

T2. DURABLY SEAL THE BUILDING THERMAL ENVELOPE TO LIMIT INFILTRATION. SEAL ALL JOINTS, SEAMS, AND PENETRATIONS WITH DURABLE CAULKS, SEALANTS OR GASKETS, WEATHERSTRIPS, AIR BARRIERS, FILMS AND/ OR SELF-ADHESIVE FLASHING, EACH AS APPROPRIATE TO THE APPLICABLE CONDITION. THESE INCLUDE JOINTS, SEAMS AND PENETRATIONS THROUGH BETWEEN AROUND OR ALONG CONDITIONED AND UNCONDITIONED SPACES WITHIN THE HOUSE, INCLUDING, AT A MINIMUM, GARAGE AND CONDITIONED SPACE, TUBS AND SHOWERS, ATTIC AND CRAML SPACE ACCESSES, WINDOW AND DOOR ASSEMBLIES, AND THEIR RESPECTIVE JAMBS AND FRAMING, RECESSED LIGHTS, PLUMBING, HVAC AND ELECTRICAL PENETRATIONS, CHIMES, DROPPED CEILINGS, KNEE WALLS, RIMBOARD, SILL PLATES, BLOCKINGS AND OTHER SOURCES OF INFILTRATION. (N102.4 AND IECC 402). REFER TO THERMAL BY-PASS PLANS. VERIFY AIR SEALING THROUGH POST ROUGH-IN TEST OR THROUGH VISUAL INSPECTION (N102.4 AND IECC 402.4).

T3. A PERMANENT CERTIFICATE SHALL BE COMPLETED AND POSTED ON OR IN THE ELECTRICAL DISTRIBUTION PANEL. THIS CERTIFICATE SHOULD NOT COVER OR OBSTRUCT CIRCUIT DIRECTORY AND SHALL LIST THE PREDOMINANT INSULATION R-VALUES OF THE VARIOUS COMPONENTS INSTALLED IN THE HOME. THIS CERTIFICATE SHOULD ALSO LIST THE U-FACTORS AND SOLAR HEAT GAIN COEFFICIENT OF PENETRATION (IECC 401).

T4. FURNISH AND INSTALL THE FOLLOWING MINIMUM INSULATION THERMAL RESISTANCE AS SET FORTH BELOW. INSTALL IN ACCORDANCE WITH THE INSULATION MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS AND THE RECOMMENDATIONS SET FORTH BY THE NORTH AMERICAN INSULATION MANUFACTURERS ASSOCIATION.

A. R-20 2X6 EXTERIOR WALLS AND RIM BOARDS
B. R-44 ROOF AREAS
C. R-44 CATHEDRAL ROOF AND BAY WINDOW CEILINGS
D. R-19 CANTILEVERS AND FLOORS OF LIVING AREAS OVER UNHEATED SPACES
E. R-10/13 BASEMENT AND CRAML SPACE WALLS
F. R-10 FROST WALL AND WALKOUT (A MIN. OF 24" XPS)
G. 0.25 MAXIMUM U-FACTOR, LOW-E WINDOW

T5. FOR BASEMENT WALLS, WHEN OF CAST-IN-PLACE CONCRETE, THE APPLICATION OF ANY VAPOR RETARDER WITH OR OVER INSULATION SHALL BE DELAYED UNTIL THE WALL HAS CURED AND DRIED. VAPOR RETARDERS USED WITH INSULATION IN SUCH WALLS SHALL BE A CLASS III.

T6. INSULATE ALL SUPPLY DUCTS IN UNCONDITIONED SPACES WITH A MINIMUM R-8. INSULATE ALL OTHER DUCTS WITH A MINIMUM R-6. INSULATING DUCTS COMPLETELY INSIDE THE BUILDING THERMAL ENVELOPE IS NOT REQUIRED (IECC 403).

T7. ANY WATER OR WASTE PIPE INSTALLED IN AN EXTERIOR WALL, ATTIC, OR CRAML SPACE SHALL BE PROTECTED FROM FREEZING BY INSULATION OR HEAT OR BOTH (P2603). PIPE INSULATION IN ANY ATTIC OR CRAML SPACE SHALL BE PIPE INSULATION.

T8. BATHROOMS, WATER CLOSET COMPARTMENTS, LAUNDRY ROOMS AND OTHER SIMILAR ROOMS NOT HAVING OPERABLE WINDOWS SHALL BE PROVIDED WITH A MECHANICAL FAN HAVING A VENTILATION RATE IN ACCORDANCE WITH MSOT. EXHAUST DIRECTLY TO THE OUTSIDE. REGURGLATING FANS ARE PROHIBITED. (R303)

T9. DAMP PROOF FOUNDATION WALLS THAT RETAIN EARTH AND ENCLOSE HABITABLE SPACE AND CRAML SPACE WALLS. IN AREAS WHERE A HIGH WATER TABLE OR OTHER SEVERE SOIL-WATER CONDITIONS EXIST, ALL SUCH WALLS SHALL BE WATERPROOFED (R406). DAMPROOF ALL FOUNDATION WALLS THAT ENCLOSE ANY CRAML SPACES. REFER TO THE PROJECT SOILS REPORT FOR ADDITIONAL REQUIREMENTS.

T10. FULLY COVER THE GROUND SURFACE OF CRAML SPACES AND UNDER FLOOR SPACES WITH A 10-MIL MINIMUM CLASS I VAPOR RETARDER COMPLYING WITH ASTM E 1745, WITH JOINTS LAPPED NOT LESS THAN 12" AND SEALED (SHEATHING TAPE OR EQUAL) (R408). SEAL AROUND SUMP PITS, COLLINGS, PLUMBING AND OTHER PENETRATIONS. EXTEND UP THE WALL NOT LESS THAN 12" AND ATTACH CONTINUOUSLY.

T11. CRAML SPACES AND UNDER FLOOR AREAS SHALL BE SUPPLIED WITH A CONDITIONED AIR AND/ OR CONTINUOUS MECHANICAL VENTILATION AS SHOWN ON THE PLANS (R408.3). THE GROUND SURFACE SHALL BE COVERED AS NOTED UNDER T10 AND THE WALLS INSULATED AS NOTED UNDER T4.

T12. FULLY REMOVE AND/ OR CLEAN ALL DEBRIS, WASTE, VEGETATION AND OTHER MATERIAL FROM BENEATH ANY AT GRADE BELOW GRADE FLOOR AREA OR CRAML SPACE (R408).

T13. PROVIDE WEATHER-RESISTANT SHEATHING PAPER BENEATH STUCCO, CULTURED STONE, SIDING AND MASONRY AS SET FORTH IN TABLE R103.4. SHEATHING PAPER SHALL BE SINGLE PLY ASPHALT-SATURATED KRAFT GRADE D BREATHER TYPE PAPER, HAVING A 60 MINUTE WATER RESISTANCE RATING UNDER ASTM D 774. PROVIDE 2 LAYERS BEHIND STUCCO AND CULTURED STONE AND 1 LAYER BEHIND SIDING AND MASONRY. APPROVED HOLESNAP MAY BE SUBSTITUTED FOR 1 LAYER ONLY AND SHALL HAVE SHEATHING PAPER PLACED OVER IT WHEN UNDER STUCCO OR MANUFACTURED STONE.

T14. INSTALL EXTERIOR WINDOWS AND DOORS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, GUIDELINES AND RECOMMENDATIONS AND ASTM E 2812. PROVIDE PAN FLASHING FOR ALL EXTERIOR DOORS.

T15. PROVIDE DURABLE WEATHER STRIPPINGS FOR ALL EXTERIOR DOORS AND WINDOWS.

T16. PROVIDE FLASHING IN SUCH MANNER AS TO PREVENT ENTRY OF WATER INTO THE WALL ASSEMBLY, WALL (CAVITY OR ROOF ASSEMBLY) AND SEALATION OF WATER TO THE BUILDING STRUCTURAL FRAMING COMPONENTS. FLASH AND SEAL ALL EXTERIOR WINDOWS, DOORS, OPENINGS, PENETRATIONS AND JOINTS SO AS TO PREVENT MOISTURE FROM PASSING THROUGH, BEYOND OR AROUND AND TO MAKE SUCH LEAKPROOF. PROVIDE MANUFACTURED FLASHINGS AT ALL PENETRATIONS. ALL MEMBRANES, BARRIERS, PAPERS, FELTS AND FLASHINGS SHALL BE LAPPED IN A SHEDDING MANNER. PROVIDE FLASHING AS SPECIFICALLY DENOTED IN SECTIONS R103, R403 AND R405.

T17. ROOF ASSEMBLIES SHALL COMPLY WITH THE REQUIREMENTS SET FORTH IN CHAPTER 9. ROOF COVERING MATERIALS AND INSTALLATION SHALL COMPLY WITH THE ROOFING MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, THE ROOF COVERING MANUFACTURER'S WRITTEN CODE EVALUATION/APPROVAL DOCUMENTS AND RECOMMENDATIONS AND THE REQUIREMENTS SET FORTH BY THE NATIONAL ROOFING CONTRACTORS ASSOCIATION, THE ASPHALT ROOFING MANUFACTURERS ASSOCIATION, AND THE ROOF TILE INSTITUTE FOR EACH APPLICABLE COVERING. UNDERLAYMENT SHALL COMPLY WITH SECTION 405 AND WHEN OF ASPHALT SATURATED OR SBS MODIFIED FELT SHALL BE REINFORCED POLYESTER OR FIBERGLASS.

T18. PROVIDE ROOF FLASHING PER SECTION R405 PER TYPE OF COVERING. FOR TILE ROOFS, ROOF VALLEY AND SIDEWALL FLASHINGS SHALL BE DOUBLE RAISED RIBBED. PROVIDE DRIP EDGES AT ROOF EAVES AND RAKES FOR ALL COMPOSITION ROOF COVERINGS AND WHERE REQUIRED OR RECOMMENDED FOR TILE ROOFS BY THE ROOF COVERING MANUFACTURER. PROVIDE KICK-OUT DIVERTER FLASHING AT ALL LEAVE TO SIDE WALL JUNCTURES. FLASHING TO DIVERT WATER OFF THE FACE OF ANY SIDE WALL 4" MINIMUM.

T19. PROVIDE ATTIC VENTILATION PER SECTION R806 (CONFIRM MANUFACTURER'S NET FREE AREA). SOFFIT, EAVE, AND CORNICE VENTS SHALL BE PROVIDED WITH A MANUFACTURED WEATHERPROOF INSULATION BARRIER (NONORGANIC) DESIGNED TO PROVIDE A MINIMUM OF 1" FREE SPACE BETWEEN INSULATION BARRIER AND UNDERSIDE OF SHEATHING.

T20. PROVIDE GUTTERS AND DOWN SPOUTS AT ALL LOCATIONS NECESSARY TO PREVENT PREMATURE POOR OR LOCAL WEARING OF ROOFING AND TO EVENLY DISTRIBUTE AND DISCHARGE WATER AWAY FROM THE FOUNDATION. PROVIDE 5' DOWNSPOUT EXTENSIONS AT ALL DISCHARGE POINTS UNLESS LIMITED BY PROPERTY BOUNDARIES, IN WHICH CASE NOT LESS THAN 4'.

T21. SEE TABLE R401(I) (SHEET A-8B) FOR INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT.

FINISHES

F1. COMPLY WITH APPLICABLE REQUIREMENTS SET FORTH IN THE IRC.

F2. REFER TO THE STRUCTURAL PLANS FOR LOCATIONS WHERE GYPSUM BOARD MAY BE USED AS A STRUCTURAL COMPONENT OF ANY LATERAL FORCE RESISTING SYSTEM.

F3. GYPSUM BOARD MATERIAL AND INSTALLATION SHALL COMPLY WITH SECTION R1022.3) ASTM C 630 AND THE GYPSUM ASSOCIATIONS 6A-216 RECOMMENDED SPECIFICATION FOR THE APPLICATION AND FINISHING OF GYPSUM BOARD, EACH AS APPLICABLE. FINISH GYPSUM WALLBOARD TO LEVEL 3 FOR AREAS TO RECEIVE HEAVY OR KNOCK DOWN TEXTURES AND LEVEL 4 FOR ALL OTHER AREAS PER GA-214, LEVELS OF GYPSUM BOARD FINISH IN ALL HABITABLE AREAS (I.N.O.).

F4. ALL TIE AND SHOWER AREAS ARE TO RECEIVE MOISTURE-AND MOLD-RESISTANT GYPSUM BACKER INTENDED FOR MOISTURE PRONE AREAS COMPLYING WITH ASTM C 630 AND 5273. GYPSUM BOARD UTILIZED AS A BASE BACKER FOR ADHESIVE APPLICATION OF TILE OR OTHER NONABSORBENT FINISH MATERIAL SHALL ALSO CONFORM TO ASTM C1118 (R1024.2), THOROUGHLY SEAL ALL PENETRATIONS.

F5. EXTERIOR SEALANTS SHALL COMPLY WITH ASTM C 920, TYPE S, GRADE N6, CLASS 25; SINGLE-COMPONENT, GOOD UV LIGHT RESISTANCE AND LONG-LIFE EXPECTANCY, NON-SHINK, AND PAINTABLE.

F6. PAINT MATERIAL AND APPLICATION SHALL COMPLY WITH THE PAINT MANUFACTURER'S WRITTEN APPLICATION INSTRUCTIONS AND RECOMMENDATIONS AND THE RECOMMENDATIONS SET FORTH BY THE AMERICAN HARDBOARD ASSOCIATION, THE GYPSUM ASSOCIATION AND THE PAINTING AND DECORATING CONTRACTORS OF AMERICA.

F7. CARPET MATERIAL AND INSTALLATION SHALL COMPLY WITH THE CARPET MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS AND THE RECOMMENDATIONS SET FORTH BY THE CARPET AND RUG INSTITUTE, APPLICABLE.

F8. RESILIENT FLOOR MATERIAL AND INSTALLATION SHALL COMPLY WITH THE RESILIENT FLOOR COVERING MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS AND THE REQUIREMENTS SET FORTH BY THE RESILIENT FLOOR COVERING INSTITUTE.

F9. TILE MATERIAL AND INSTALLATION SHALL COMPLY WITH SECTION 102.4, THE TILE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS AND THE RECOMMENDATIONS SET FORTH BY THE CERAMIC TILE INSTITUTE OF AMERICA, THE TILE COUNCIL OF NORTH AMERICA, AND/OR THE MARBLE INSTITUTE OF AMERICA, FOR EACH APPLICABLE MATERIAL.

F10. STUCCO AND/OR PLASTER SYSTEMS MATERIAL AND INSTALLATION SHALL COMPLY WITH SECTION 103.6 THE STUCCO MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS, THE STUCCO MANUFACTURER'S WRITTEN CODE EVALUATION/APPROVAL DOCUMENTS AND THE RECOMMENDATIONS SET FORTH BY THE PORTLAND CEMENT ASSOCIATION, THE STUCCO MANUFACTURERS ASSOCIATION AND THE NORTHWEST WALL AND CEILING BUREAU.

MECHANICAL

M1. COMPLY WITH APPLICABLE REQUIREMENTS SET FORTH IN THE IRC, THE IMC, AND THE IFGC.

M2. ALL MATERIAL SHALL BE PROPERLY LISTED AND LABELED (M303). MANUFACTURER'S INSTALLATIONS INSTRUCTIONS SHALL BE AVAILABLE ON THE JOB SITE AT ALL TIMES. PROVIDE MAINTENANCE INSTRUCTIONS TO ALL MATERIAL AND SYSTEMS THAT REQUIRE PREVENTATIVE MAINTENANCE AND PLACE IN A CLEAR PLASTIC SLEEVE AFFIX TO THE APPLICABLE ITEM.

M3. PROVIDE LEVEL WORKING SPACE IN FRONT OF THE CONTROL SIDE OF ANY APPLIANCE OF NOT LESS THAN 30" IN WIDTH OR DEPTH. MAINTAIN MINIMUM WORKING SPACE OF 3" ON ALL SIDES, BACK AND TOP OF ANY APPLIANCE. APPLIANCES IN ATTICS AND IN CRAML SPACES OR UNDER FLOOR AREAS MUST MEET ADDITIONAL PASSAGEWAY AND CLEARANCE REQUIREMENTS (M305).

M4. APPLIANCES LOCATED IN ATTICS AND IN CRAML SPACES OR UNDER FLOOR AREAS SHALL BE PROVIDED WITH AN OPENING AND A CLEAR AND UNOBSTRUCTED PASSAGEWAY LARGE ENOUGH TO ALLOW REMOVAL OF THE LARGEST APPLIANCE BUT NOT LESS THAN 30" HIGH AND 22" WIDE WITH 24" WIDE CONTINUOUS SOLID FLOORING RAISED SUCH THAT PREVENTS DAMAGING OR COMPRESSING INSULATION AND/OR LEVEL GRADE FOR NOT MORE THAN 20" IN LENGTH. PROVIDE RAISED SOLID FLOORING AND/OR LEVEL SERVICE SPACE OF NOT LESS THAN 30" IN WIDTH OR DEPTH ALONG ALL SIDES WHERE ACCESS IS REQUIRED (M305, N1023.2.3 AND IECC 4022.3).

M5. EQUIPMENT AND APPLIANCES HAVING AN IGNITION SOURCE SHALL BE ELEVATED SUCH THAT THE SOURCE OF IGNITION IS NOT LESS THAN 18" ABOVE THE FLOOR IN HAZARDOUS LOCATIONS AND GARAGES. (M307, G2404 AND G2408). ELEVATION OF THE IGNITION SOURCE IS NOT REQUIRED FOR APPLIANCES LISTED AS FLAMMABLE VAPOR RESISTANT AND FOR INSTALLATION WITHOUT ELEVATION.

M6. UNLESS OTHERWISE PREDETERMINED ON ANY MECHANICAL PLAN, SUBCONTRACTOR SHALL SIZE ALL HEATING AND COOLING EQUIPMENT IN ACCORDANCE WITH ACCA MANUAL 5 BASED ON BUILDING LOADS CALCULATED IN ACCORDANCE WITH ACCA MANUAL J OR THE ASHRAE HANDBOOK OF FUNDAMENTALS (M401 AND IECC 403).

M7. UNLESS OTHERWISE PREDETERMINED ON ANY MECHANICAL PLAN, SUBCONTRACTOR SHALL SIZE, FABRICATE, AND LAYOUT DUCT SYSTEMS IN ACCORDANCE WITH ACCA MANUAL D AND FABRICATE IN ACCORDANCE WITH CHAPTER 16 AND THE INTERNATIONAL MECHANICAL CODE. UNDER NO CIRCUMSTANCE SHALL STUD WALL CAVITIES OR SPACES AND JOIST SPACE PLUMBING BE USED FOR SUPPLY OR RETURN AIR.

M8. SEAL ALL FIELD-MADE DUCT JOINTS, SEAMS, FLANGES, CONNECTIONS, AND THE LIKE WITH WELDS, GASKETS, OR MASTICS ONLY. SEAL ALL FACTORY-MADE DUCT IN ACCORDANCE WITH DUCT MANUFACTURER'S RECOMMENDATIONS. VERIFY DUCT TIGHTNESS THROUGH POST-CONSTRUCTION OR ROUGH-IN TEST. (M401, N103.2, AND IECC 403.2).

M9. PROVIDE ROOF FLASHING PER SECTION R405 PER TYPE OF COVERING. FOR TILE ROOFS, ROOF VALLEY AND SIDEWALL FLASHINGS SHALL BE DOUBLE RAISED RIBBED. PROVIDE DRIP EDGES AT ROOF EAVES AND RAKES FOR ALL COMPOSITION ROOF COVERINGS AND WHERE REQUIRED OR RECOMMENDED FOR TILE ROOFS BY THE ROOF COVERING MANUFACTURER. PROVIDE KICK-OUT DIVERTER FLASHING AT ALL LEAVE TO SIDE WALL JUNCTURES. FLASHING TO DIVERT WATER OFF THE FACE OF ANY SIDE WALL 4" MINIMUM.

M10. GAS-FIRED APPLIANCES SHALL RECEIVE COMBUSTION AIR AND SHALL BE VENTED IN ACCORDANCE WITH CHAPTER 24. COMBUSTION AIR OPENINGS SHALL BE UNOBSTRUCTED FOR NOT LESS THAN 6" (M402), OR IN ACCORDANCE WITH CITY AMENDMENTS.

M11. CLOTHES DRYER EXHAUST DUCTS SHALL NOT EXCEED 25' IN LENGTH, WITH REDUCTIONS IN LENGTH AS SET FORTH IN SECTIONS M502 AND G2435, AND SHALL TERMINATE ON THE OUTSIDE WITH BACKDRAFT DAMPER. DO NOT VENT VERTICALLY THROUGH THE ATTIC SPACE OR ROOF. DO NOT CONNECT EXHAUST DUCTS WITH SCREWS OR OTHER FASTENERS WHICH EXTEND INTO THE DUCT.

M12. PROVIDE COMBUSTION, VENTILATION, AND DILUTION AIR IN ACCORDANCE WITH SECTION G2407.

M13. FUEL GAS PIPING IS PROHIBITED FROM BEING INSTALLED BENEATH ANY HOME OR THROUGH OR BENEATH ANY FOUNDATION UNLESS ENCASED IN A PROTECTIVE SLEEVE DESIGNED TO WITHSTAND THE LOADS (G2415).

M14. WHERE VENTS PASS THROUGH INSULATED ASSEMBLIES, PROVIDE AN INSULATION SHIELD OF NOT LESS THAN 20 GAUGE SHEET METAL FOR CLEARANCE AS SPECIFIED BY VENT MANUFACTURER. TERMINATE SHIELD AT LEAST 2" ABOVE INSULATION AND SECURE (G2426).

M15. INSULATED SINGLE-WALL METAL PIPE SHALL NOT BE USED FOR VENTING GAS APPLIANCES (G2421).

PLUMBING

P1. COMPLY WITH APPLICABLE REQUIREMENTS SET FORTH IN THE IRC, THE IPC, AND THE IFGC.

P2. TEST PIPING AND PLUMBING FOR POTENTIAL LEAKAGE IN ACCORDANCE WITH SECTIONS G2411 AND P2503, AND IN ACCORDANCE WITH CITY AMENDMENTS.

P3. PROTECT PIPING WITH SHIELD PLATES WHERE PIPING IS LESS THAN 15' FROM THE NEAREST EDGE OF ANY WOOD MEMBER (P2603).

P4. PIPING PASSING THROUGH OR UNDER FOOTINGS OR FOUNDATION WALLS SHALL BE PROVIDED WITH A RELIEVING ARCH, OR PROVIDE A PIPE SLEEVE BUILT IN THE FOUNDATION WALL 2 PIPE SIZES GREATER THAN THE PIPE PASSING THROUGH THE WALL (P2603). FULLY AND PERMANENTLY SEAL ANY PENETRATIONS THROUGH THE FOUNDATION WALL.

P5. PROVIDE ADEQUATE VALVES AND DEVICES TO INCLUDE SERVICE, RELIEF, CHECK, PRESSURE-REDUCING, BACKFLOW PREVENTION, THERMAL AND FLOW CONTROL, TRAPPING, ETC., AS REQUIRED OR OTHERWISE NECESSARY OR RECOMMENDED.

P6. THE WATER SERVICE AND WATER DISTRIBUTION SYSTEMS SHALL BE DESIGNED AND PIPE SIZES SHALL BE SELECTED SUCH THAT UNDER CONDITIONS OF PEAK DEMAND, THE CAPACITIES AT THE POINT OF OUTLET DISCHARGE SHALL NOT BE LESS THAN SHOWN IN TABLE P2403.I.

P7. WATER SERVICE MAINS, BRANCH MAINS AND RISERS SHALL BE DETERMINED ACCORDING TO WATER SUPPLY DEMAND, AVAILABLE WATER PRESSURE AND FRICTION LOSS DUE TO THE WATER METER AND DEVELOPED LENGTH OF PIPE, INCLUDING EQUIVALENT LENGTH OF FITTINGS (P2503).

P8. THE MAXIMUM LENGTH OF INDIVIDUAL DISTRIBUTION LINES SHALL BE 60' (P2503).

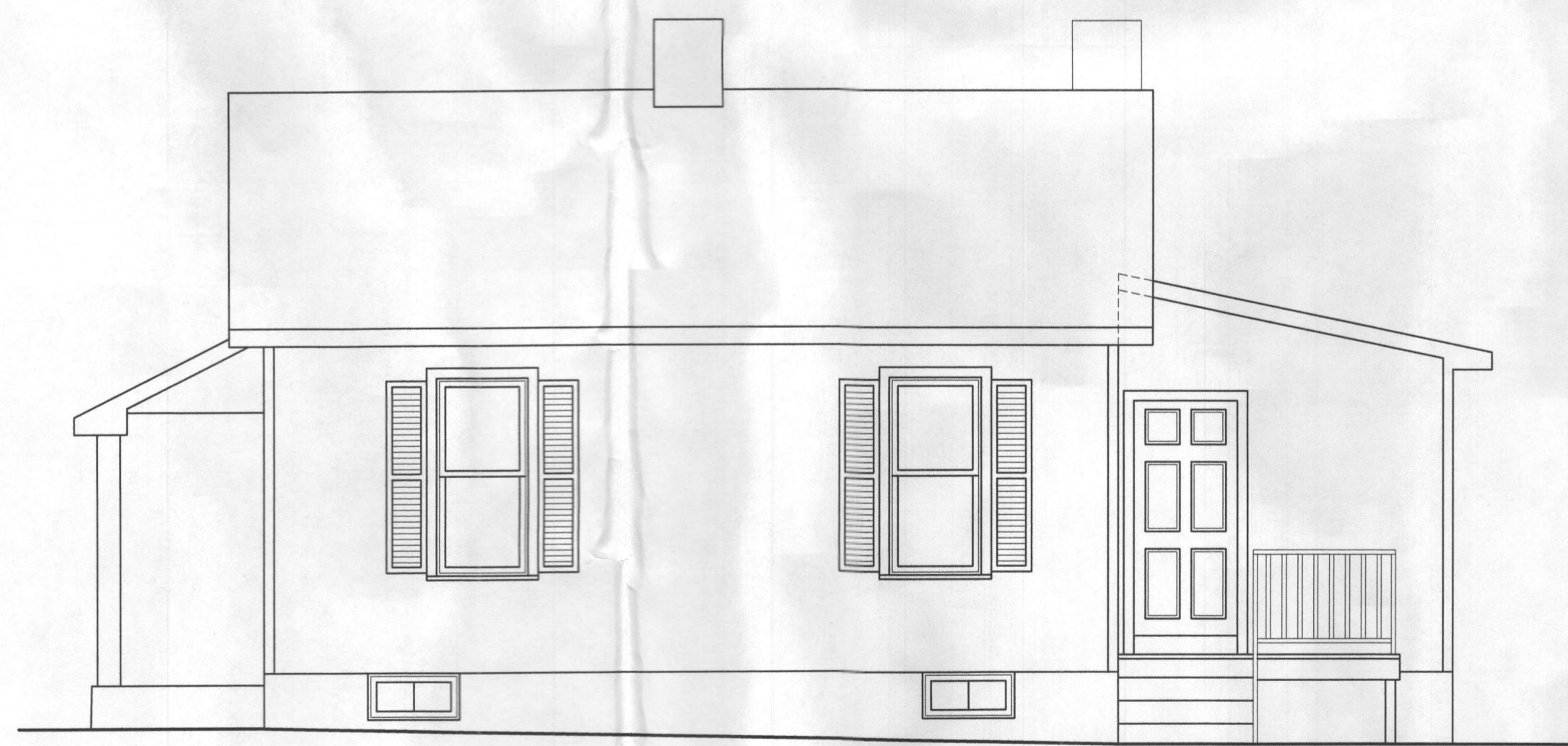
P9. WATER SERVICE PIPING IS PROHIBITED IN CONTAMINATED OR CORROSIVE SOILS WITHOUT USE OF APPROVED ALTERNATE MATERIALS OR METHODS (P2405). SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SECURING WRITTEN APPROVAL FROM THE BUILDING OFFICIAL AS TO ACCEPTABILITY



EXIST. LEFT SIDE ELEVATION
SCALE: 1/4"=1'-0"



EXIST. FRONT ELEVATION
SCALE: 1/4"=1'-0"



EXIST. RIGHT SIDE ELEVATION
SCALE: 1/4"=1'-0"



EXIST. REAR ELEVATION
SCALE: 1/4"=1'-0"

JB HOME DESIGN, LLC

948 CONCORD COURT
BALTIMORE, MARYLAND 21284
OFFICE (410) 591-4531
FAX (410) 663-4094
EMAIL: JWB@JBHOMEDSIGN.COM



EXISTING ELEVATIONS

CONTENTS SCALE: 1/4" = 1'-0" DATE: DRWN: PRJ. NO.

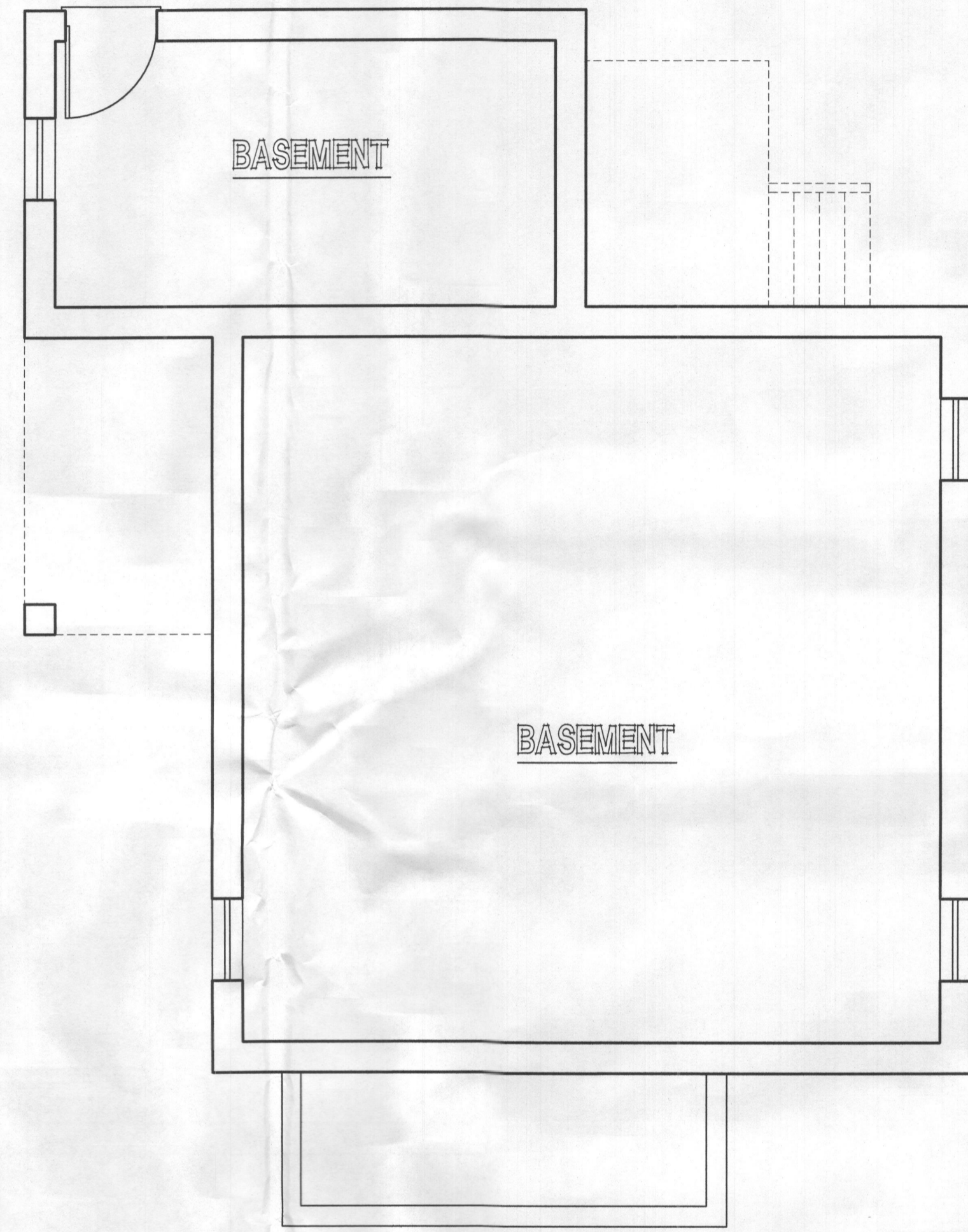
SIRK ADDITION

PROJECT TITLE:

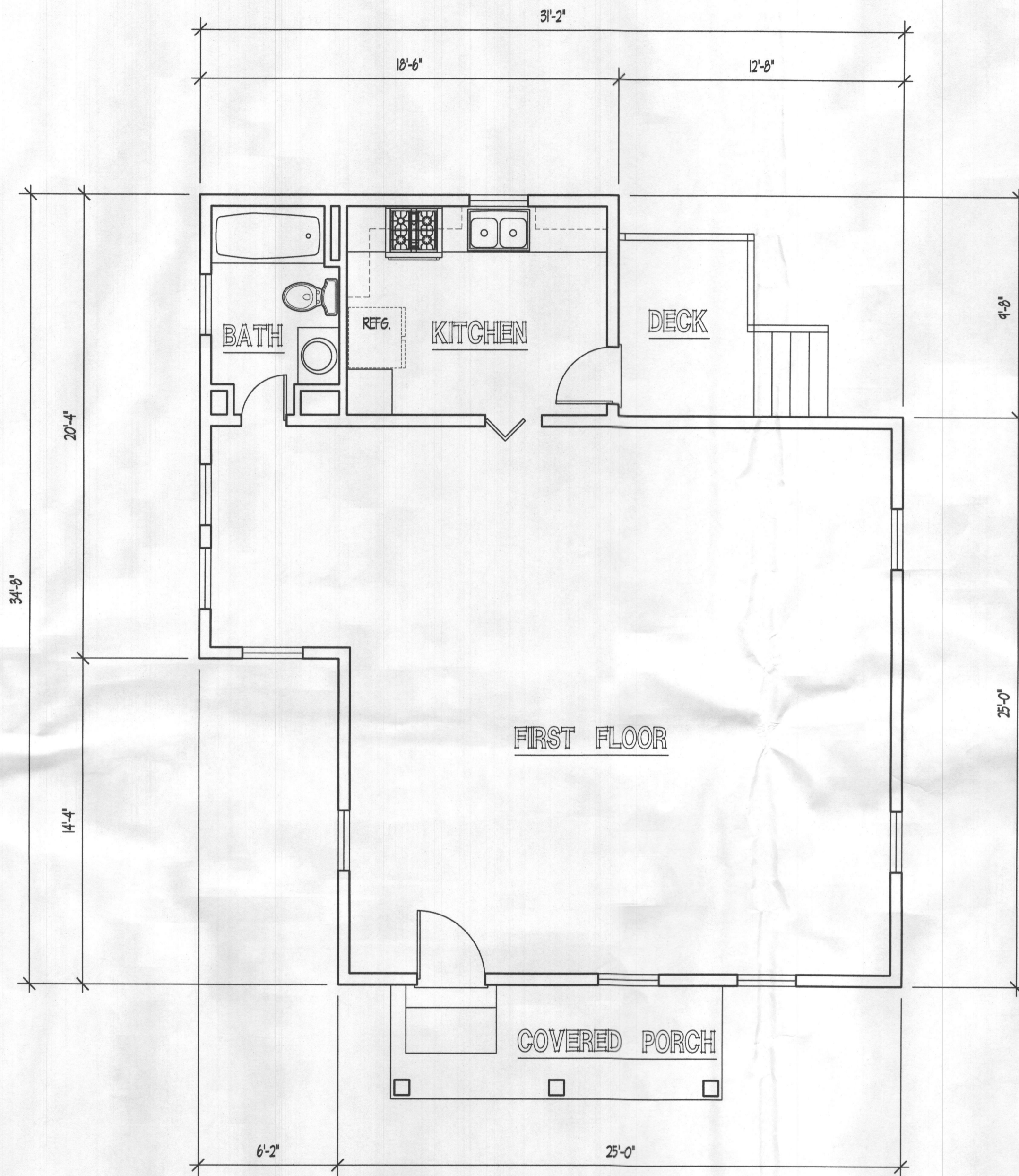
ISSUE	DATE	DESCRIPTION

SHEET NO.

EX-1



EXISTING BASEMENT
SCALE: 1/4"=1'-0"



EXISTING FLOOR PLAN
SCALE: 1/4"=1'-0"

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BALTIMORE, MARYLAND 21254
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EXISTING FLOOR PLANS

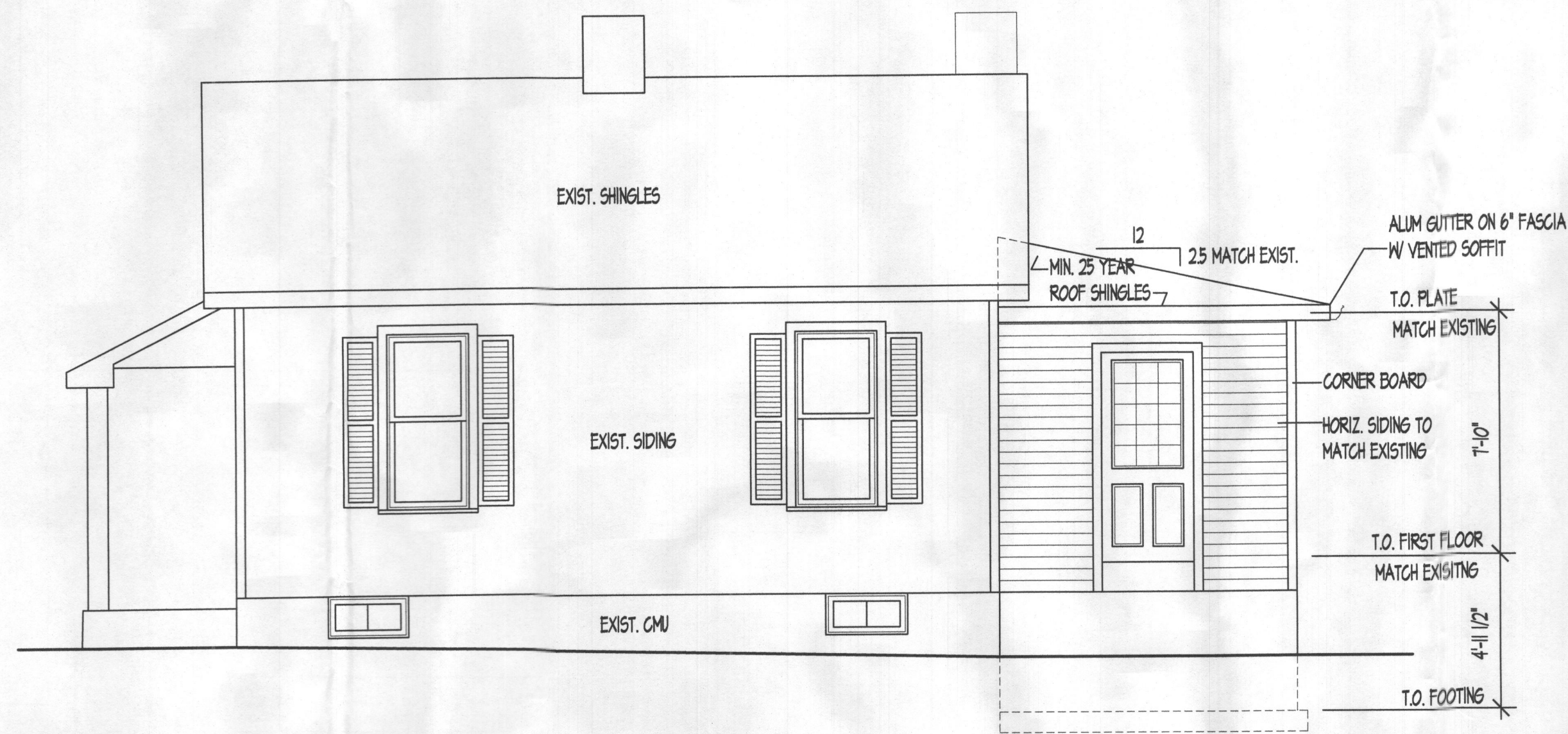
SIRK ADDITION

CONTENTS
SCALE: 1/4" = 1'-0"
DATE: _____
DRAWN: _____
PRJ. NO. _____

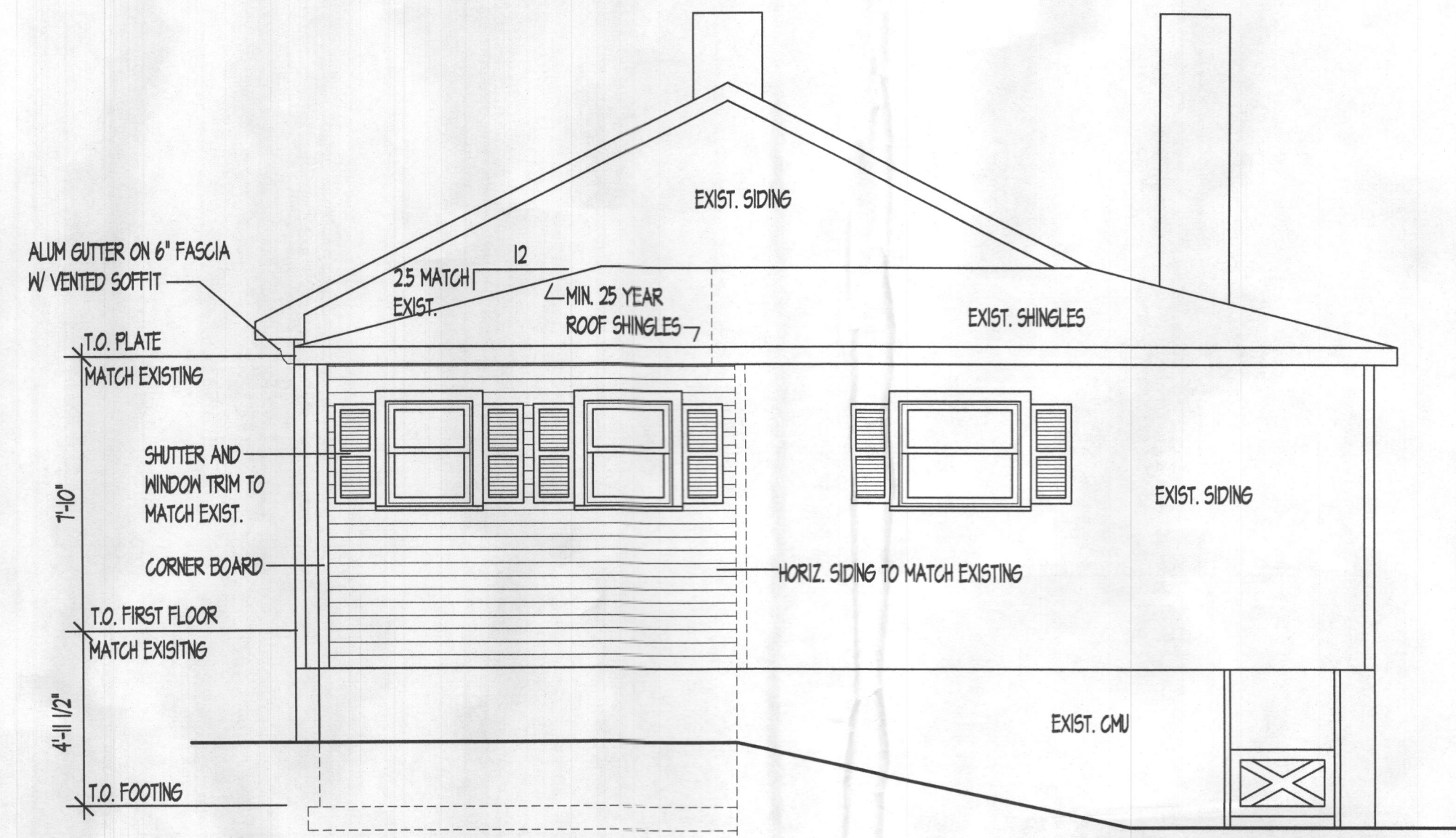
ISSUE	DATE	CONSTRUCTION SET

SHEET NO.

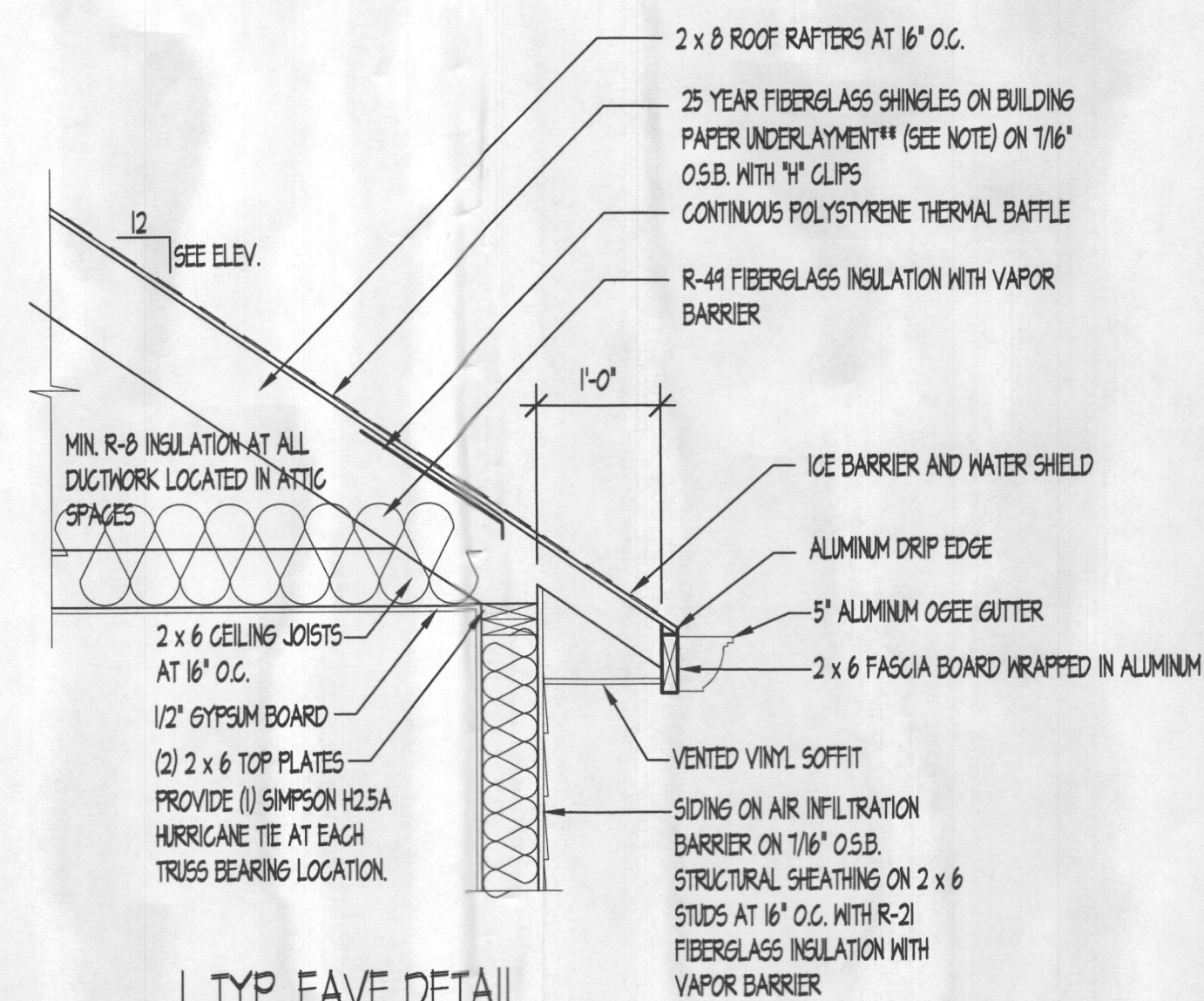
EX-2



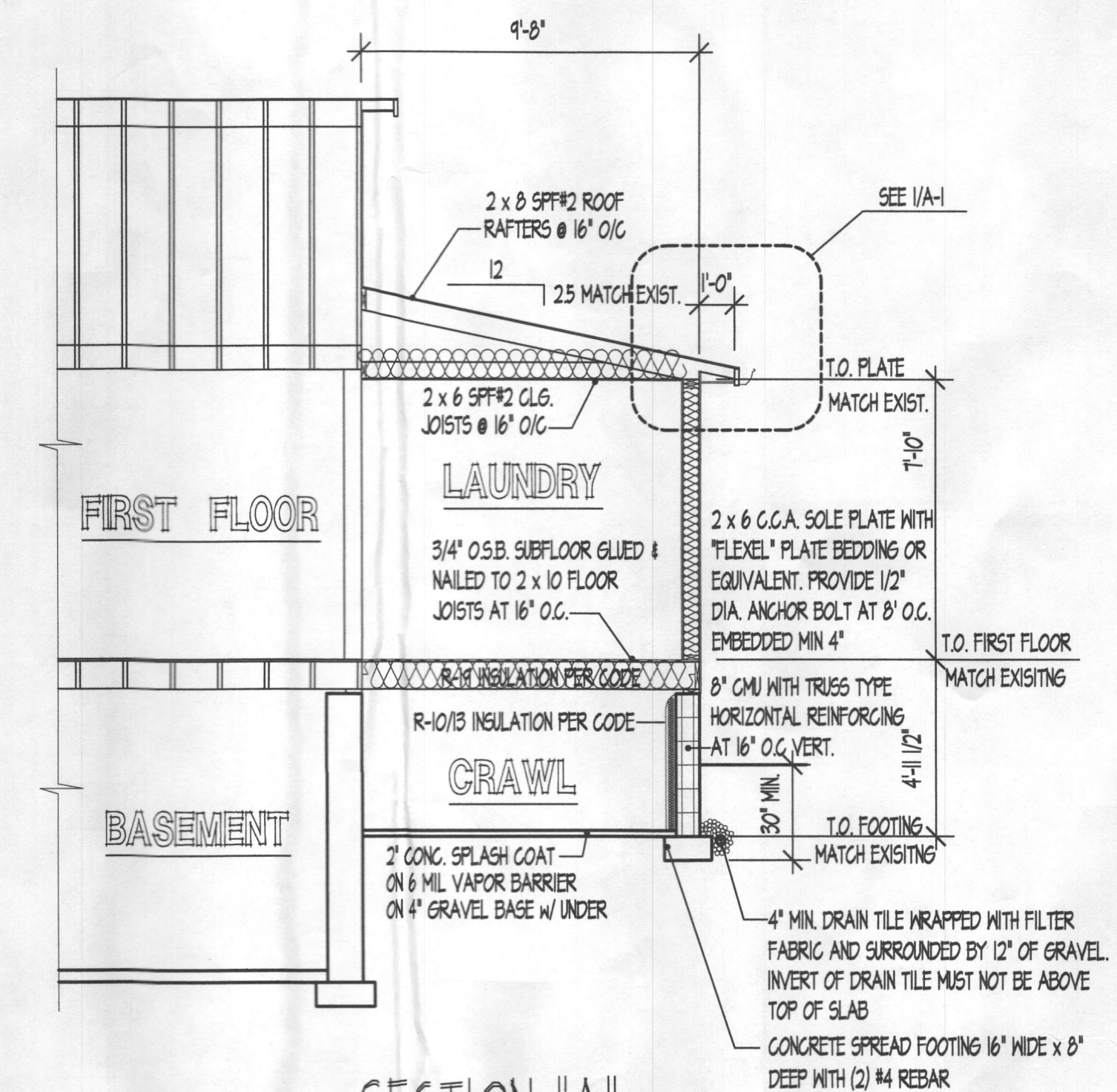
RIGHT SIDE ELEVATION
SCALE: 1/4"=1'-0"



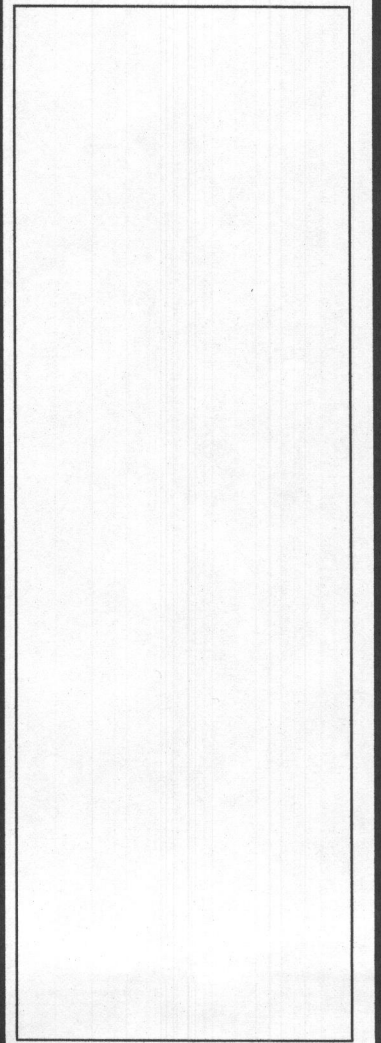
REAR ELEVATION
SCALE: 1/4"=1'-0"



I. TYP. EAVE DETAIL
SCALE: 3/4"=1'-0"



SECTION "A"
SCALE: 1/4"=1'-0"



ELEVATIONS AND SECTION A

CONTENTS	SCALE: 1/4" = 1'-0"	DATE:	DRWN:	PRJ.T. NO.
ISSUE	CONSTRUCTION SET			

SIRK ADDITION

PROJECT TITLE

ISSUE	CONSTRUCTION SET
SHEET NO.	A=1

TABLE R602.10.5
LENGTH REQUIREMENTS FOR BRACED WALL PANELS WITH CONTINUOUS SHEATHING

METHOD	ADJACENT CLEAR OPENING HEIGHT	WALL HEIGHT				
		8'	9'	10'	11'	12'
CS-WSP CS-SFB	64"	24"	27"	30"	33"	36"
	68"	26"	27"	30"	33"	36"
	72"	28"	27"	30"	33"	36"
	76"	30"	29"	30"	33"	36"
	80"	32"	30"	30"	33"	36"
	84"	35"	32"	32"	33"	36"
	88"	38"	35"	33"	33"	36"
	92"	43"	37"	35"	35"	36"
	96"	48"	41"	38"	36"	36"
	100"		44"	40"	38"	38"
	104"		49"	43"	40"	39"
	108"		54"	46"	43"	41"
	112"			50"	45"	43"
	116"			54"	48"	45"
	120"			60"	52"	48"
	124"				56"	51"
	128"				61"	54"
	132"				66"	58"
	136"					62"
	140"					66"
144"					72"	
CS-G	<120"	24"	27"	30"	33"	36"
CS-PF	<120"	16"	18"	20"	22"	24"

TABLE R602.10.3 (I)
BRACING REQUIREMENTS BASED ON WIND SPEED

EXPOSURE CATEGORY B, 30 FT MEAN ROOF HEIGHT, 10 FT EAVE TO RIDGE HEIGHT 10 FT WALL HEIGHT 2 BRACED WALL LINES			MINIMUM TOTAL LENGTH (feet) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINES					
BASIC WIND SPEED (mph)	STORY LOCATION	BRACED WALL LINE SPACING (feet)	METHOD LB	METHOD GB (double sided)	METHODS DWB, WSP, SFB, PCF, HPS, DWB, PBS, CS-SFB	CONTINUOUS SHEATHING		
< 115 MPH		10	35	35	2.0	2.0		
		20	1.0	1.0	4.0	3.5		
		30	4.5	4.5	5.5	5.0		
		40	12.5	12.5	7.5	6.0		
		50	15.5	15.5	9.0	7.5		
		60	18.5	18.5	10.5	9.0		
		10		10	1.0	1.0	4.0	3.5
		20		13.0	13.0	7.5	6.5	
		30		18.5	18.5	10.5	9.0	
		40		24.0	24.0	14.0	12.0	
		50		29.5	29.5	17.0	14.5	
		60		35.0	35.0	20.0	17.0	
	10		10	NP	10.5	6.0	5.0	
	20		NP	14.0	11.0	9.5		
	30		NP	21.5	15.5	13.5		
	40		NP	35.5	20.5	17.5		
	50		NP	44.0	25.0	21.5		
	60		NP	52.0	30.0	25.5		

2015 IRC RESIDENTIAL ENERGY EFFICIENCY CEILING CONDITIONS

N102.21 (R402.2.1) Ceilings with attic spaces. Where Section N102.1.2 would require R-38 insulation 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 N102.1.2 would require R-44 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-44 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 in Section N102.1.4 and the total UA alternative in Section N102.1.5.

N102.22 (R402.2.2) Ceilings without attic spaces. Where Section N102.1.2 would require insulation levels above R-30 and the design of the roof/ceiling assembly does not allow sufficient space for the required insulation, the minimum required insulation for such roof/ceiling assemblies shall be R-30. This reduction of insulation from the requirements of Section N102.1.2 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 N102.1.4 and the total UA alternative in Section N102.1.5.

N102.23 (R402.2.3) Eave baffle. For air-permeable insulations in vented attics, a baffle shall be installed adjacent to soffit and eave vents. Baffles shall maintain an opening equal or greater than the size of the vent. The baffle shall extend over the top of the attic insulation. The baffle shall be permitted to be any solid material.

2015 IRC RESIDENTIAL ENERGY EFFICIENCY CHAPTER II SECTION 402

R402.1 General (Prescriptive). The building thermal envelope shall meet the requirements of Sections R402.1.1 through R402.1.4.

R402.2 Specific insulation requirements (Prescriptive). In addition to the requirements of Section R402.1, insulation shall meet the specific requirements of Sections R402.2.1 through R402.2.12.

R402.3 Fenestration (Prescriptive). In addition to the requirements of Section R402, fenestration shall comply with Sections R402.3.1 through R402.3.6.

R402.4 Air leakage (Mandatory). The building thermal envelope shall be constructed to limit air leakage in accordance with the requirements of Sections R402.4.1 through R402.4.4.

R402.4.1 Building thermal envelope. The building thermal envelope shall comply with Sections R402.4.1.1 and R402.4.1.2. The sealing methods between dissimilar materials shall allow for differential expansion and contraction.

R402.4.1.1 Installation. The components of the building thermal envelope as listed in Table R402.4.1.1 shall be installed in accordance with the manufacturer instructions and the criteria listed in Table R402.4.1.1, as applicable to the method of construction. Where required by the code official, an approved third party shall inspect all components and verify compliance.

R402.4.1.2 Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 5 air changes per hour in Climate Zones 1 and 2, and 3 air changes per hour in Climate Zones 3 through 8. Testing shall be conducted with a blower door 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 code official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope.

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 fire dampers shall be closed, but not sealed beyond intended infiltration control measures;
3. Interior doors, if installed at the time of the test, shall be open;
4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed;
5. Heating and cooling systems, if installed at the time of the test, shall be turned off; and
6. Supply and return registers, if installed at the time of the test, shall be fully open.

R402.4.2 Fireplaces. New wood-burning fireplaces shall have tight-fitting fire dampers and outdoor combustion air.

R402.4.3 Fenestration air leakage. Windows, skylights and sliding glass doors shall have an air infiltration rate of no more than 0.3 cfm per square foot (1.5 L/s/m²), and swinging doors no more than 0.5 cfm per square foot (2.6 L/s/m²), when tested according to NFRC 400 or AAMA/NEMA/GSA 101/52/A440 by an accredited, independent laboratory and listed and labeled by the manufacturer. Exception: Site-built windows, skylights and doors.

R402.4.4 Recessed lighting. 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 more than 2.0 cfm (0.944 L/s) when tested in accordance with ASTM E 283 at a 1.57 psf (75 Pa) pressure differential. All recessed luminaires shall be sealed with a gasket or caulk between the housing and the interior wall or ceiling covering.

R402.5 Maximum fenestration U-factor and SHGC (Mandatory). The area-weighted average maximum fenestration U-factor permitted using tradeoffs from Section R402.1.4 or R405 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 Section R405 in Climate Zones 1 through 3 shall be 0.50.

2015 IRC RESIDENTIAL ENERGY EFFICIENCY CHAPTER II SECTION 403

SEE SECTION 403 FOR SYSTEM REQUIREMENTS INCLUDING:

1. Programmable thermostat.
2. Duct insulation and sealing.
3. Verification of duct tightness.
4. Air handler sealing.
5. Mechanical system piping insulation and protection.
6. Hot water systems
7. Hot water pipe insulation.
8. Mechanical ventilation.
9. Equipment sizing.
10. Snow melt system controls
11. In ground pools and spas.

2015 IRC RESIDENTIAL ENERGY EFFICIENCY CHAPTER II SECTION 404

SEE SECTION 404 FOR ELECTRICAL POWER AND LIGHTING REQUIREMENTS

2015 IRC RESIDENTIAL ENERGY EFFICIENCY CHAPTER II SECTION 405

SEE SECTION 405 FOR SIMULATED PERFORMANCE ALTERNATIVES (PERFORMANCE) INCLUDING:

1. Mandatory requirements.
2. Performance-based compliance.
3. Documentation.
4. Calculation procedure.
5. Calculation software, approved software and input values.

TABLE R402.1.2 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT

CLIMATE ZONE	FENESTRATION U-FACTOR (b)	SKYLIGHT U-FACTOR	GLAZED FENESTRATION SHGC (b _g)	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE (i)	FLOOR R-VALUE	BASEMENT WALL R-VALUE (c) & DEPTH (d)	SLAB R-VALUE & DEPTH (d)	CRAWL SPACE WALL R-VALUE (c)
1	NR	0.75	0.25	30	13	5/4	13	0	0	0
2	0.40	0.65	0.25	36	13	4/6	13	0	0	0
3	0.35	0.55	0.25	36	20 OR 13+5 (h)	8/13	14	5/13 (i)	0	5/13
4 EXCEPT MARINE	0.35	0.55	0.40	44	20 OR 13+5 (h)	8/13	14	10/13	10, 2 FT.	10/13
5 AND MARINE 4	0.32	0.55	NR	44	20 OR 13+5 (h)	13/17	30 (g)	15/14	10, 2 FT.	15/14
6	0.32	0.55	NR	44	20+5 OR 13+10 (h)	15/20	30 (g)	15/14	10, 4 FT.	15/14
7 & 8	0.32	0.55	NR	44	20+5 OR 13+10 (h)	14/21	30 (g)	15/14	10, 4 FT.	15/14

For SI: 1 foot = 304.8 mm.
a. R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the installed R-value of the insulation shall not be less than the R-value specified in the table.
b. The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration.
Exception: Skylights may be excluded from glazed fenestration SHGC requirements in Climate Zones 1 through 3 where the SHGC for such skylights does not exceed 0.30.
c. 15/14 means R-15 continuous insulation on the interior or exterior of the home or R-14 cavity insulation at the interior of the basement wall. 15/14 shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the home. 10/13 means R-10 continuous insulation on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall.
d. R-5 shall be added to the required slab edge R-values for heated slabs. Insulation depth shall be the depth of the footing or 2 feet, whichever is less in Zones 1 through 3 for heated slabs.
e. There are no SHGC requirements in the Marine Zone.
f. Basement wall insulation is not required in warm-humid locations as defined by Figure N101.0 and Table N101.0.
g. Or insulation sufficient to fill the framing cavity, R-14 minimum.
h. The first value is cavity insulation, the second value is continuous insulation, so 13+5 means R-13 cavity insulation plus R-5 continuous insulation.
i. The second R-value applies when more than half the insulation is on the interior of the mass wall.

TABLE R402.1.4 EQUIVALENT U-FACTORS

CLIMATE ZONE	FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR	CEILING U-FACTOR	FRAME WALL U-FACTOR	MASS WALL U-FACTOR (b)	FLOOR U-FACTOR	BASEMENT WALL U-FACTOR	CRAWL SPACE WALL R-VALUE (c)
1	0.50	0.75	0.035	0.082	0.191	0.064	0.360	0.471
2	0.40	0.65	0.030	0.082	0.165	0.064	0.360	0.471
3	0.35	0.55	0.030	0.051	0.048	0.041	0.041 (c)	0.136
4 EXCEPT MARINE	0.35	0.55	0.026	0.051	0.048	0.041	0.054	0.065
5 AND MARINE 4	0.32	0.55	0.026	0.051	0.082	0.033	0.050	0.055
6	0.32	0.55	0.026	0.048	0.060	0.033	0.050	0.055
7 & 8	0.32	0.55	0.026	0.048	0.051	0.028	0.050	0.055

NOTES

a. Nonfenestration U-factors shall be obtained from measurement, calculation or an approved source.
b. When more than half the insulation is on the interior, the mass wall U-factors shall be a maximum of 0.17 in Zone 1, 0.14 in Zone 2, 0.12 in Zone 3, 0.081 in Zone 4 except Marine, 0.065 in Zone 5 and Marine 4, and 0.051 in Zones 6 through 8.
c. Basement wall U-factor of 0.360 in warm-humid locations as defined by Figure N101.0 (R301) and Table N101.0 (R301).


2015 IRC RESIDENTIAL ENERGY EFFICIENCY BASEMENT/FOUNDATION CONDITIONS

N102.24 (R402.2.4) Basement walls. Walls associated with conditioned basements shall be insulated from the top of the basement wall down to the 10 feet (3048 mm) below grade or to the basement floor, whichever is less. Walls associated with unconditioned basements shall meet this requirement unless the floor overhead is insulated in accordance with Sections N102.1.2 and N102.2.8.

N102.210 (R402.2.10) Slab-on-grade floors. Slab-on-grade floors with a floor surface less than 12 inches (305 mm) below grade shall be insulated in accordance with Table N102.1.2. 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 N102.1.2 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 (254 mm) 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 (0.71 rad) 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.

N102.211 (R402.2.11) Crawl space walls. As an alternative to insulating floors over crawl spaces, crawl space walls shall be permitted to be insulated when the crawl space is not vented to the outside. 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 and/or horizontally for at least an additional 24 inches (610 mm). 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 shall overlap by 6 inches (153 mm) and be sealed or taped. The edges of the vapor retarder

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home design

WALL BRACING/IECC NOTES AND CHARTS

ISSUE: 05/2016 CONSTRUCTION SET

SCALE: 1/4" = 1'-0"

PROJECT TITLE: SIKK ADDITION

DATE: _____

DRWN: _____

PRJ. NO: _____

SHEET NO: _____

A-8B

