Staff Report

Knoxville Historic Zoning Commission

File Number: 3-B-25-HZ

Meeting: 3/20/2025
Applicant: R. Bentley Marlow, Marlow Builders Inc.
Owner: R. Bentley Marlow, 210 Cansler LLC

Property Information

Location: 210 Cansler Ave. **Parcel ID** 94 K D 002
District: Mechanicsville H
Zoning: RN-2 (Single-Family Residential Neighborhood)
Description: N/A
Vacant lot.

Description of Work

Level III Construction of New Primary Building

New primary structure fronting Cansler Avenue. The one-story duplex measures 22’ wide by 65’ deep, with the second unit behind the first. The main massing is proposed to be set 10’ from the front property line. There is no parking indicated on the site plan.

The duplex features a 12/12 pitch front-gable roof clad with architectural asphalt shingles, and the roofline features 1’ eave overhangs and faux rafter tails on the side elevations. The front-gable fields are clad in faux cedar shakes and feature a 16” square decorative vent and an architectural bracket at the apex. The façade features a full-length, 5’ deep concrete slab front porch recessed under a 6/12 pitch half-hipped roof and is supported by four 6x6 pressure treated wood posts. The porch does not feature any railings, and the steps will be made of concrete. There is a similar 8' porch on the rear elevation.

The building will be clad in composite wood (“Hardie or similar”) lap siding with wooden corner boards and trim, and it will rest on a 2’-6” tall painted concrete block foundation. The façade features three adjoining 1/1 single-hung windows followed by a paneled door on the right. The left elevation features five horizontal sliding windows, one 1/1 single hung window, and the primary entrance to the rear unit, which is recessed 3’ from the main massing with a 4’ wide concrete stoop. The right elevation features six horizontal sliding windows, one 1/1 single hung window, and a 21’-2” wide massing that projects 1’ from the body of the house. The rear elevation features two paneled doors, which are secondary entrances for the rear unit and are recessed under the porch. All windows and doors feature 1x4 wooden trim, and all windows feature projecting sills. No window material is specified.

Applicable Design Guidelines

Mechanicsville Design Guidelines, adopted by the Knoxville City Council on September 20, 2011.

A. Rules for Roofs

1. The shape of replacement roofs or roofs on new construction shall imitate the shapes of roofs on neighboring existing houses or other houses of the same architectural style. Roof pitch must duplicate the 12/12 pitch most often found in the neighborhood, the roof pitch typical of the style being referenced by a new building, or the pitch

of neighboring buildings. Roof shapes must be complex, using a combination of hips with gables, dormers, or where appropriate to the style, turrets, or other features that emphasize the importance of Victorian-era or Craftsman styling.
2. The eaves on additions or new buildings must have an overhang that mimics existing buildings near the property. A minimum eave overhang of at least eight inches must be retained or used on new buildings or additions to existing buildings.
3. Repair or replace roof details (chimneys, roof cresting, finials, attic vent windows, molding, bargeboards, and other unique roof features). Use some of these details in designing new buildings.

C. Rules for Porches
2. Design elements to be incorporated in any new porch design must include tongue and groove wood floors, beadboard ceilings, wood posts and/or columns, and sawn and turned wood trim when appropriate. If balustrades are required, they must be designed with spindles set into the top and bottom rails.
3. In new construction, the proportion of the porches to the front facades must be consistent with the historic porches in the neighborhood.

D. Rules for Entrances
4. A new entrance or porch must be compatible in size, scale, or material.
6. Secondary entrances must be compatible with the original in size, scale, and materials, but clearly secondary in importance.

E. Rules for Wood Wall Coverings
1. Synthetic siding is inappropriate and is not allowed either as replacement siding on existing buildings or new siding in new construction.
4. New construction must incorporate corner and trim boards and appropriate door and window trim to be compatible with the adjacent historic buildings.
12. Concrete siding (also called Hardi-board) is allowed on outbuildings and garages for new construction only. The material can be used like board and batten if placed vertically. Batten strips of wood must be used, however, to preserve the look of historic materials. If used like normal siding, it must have a reveal of no more that 4.25 inches.

F. Rules for Masonry Wall Coverings
8. Split-faced block shall not be used in new construction or as a replacement for deteriorated masonry units. One exception is split-faced block which can be used as a retaining wall.
10. Stucco-surfaced masonry can be an appropriate for foundations in new construction. Brick and stone can also be appropriate.

Rules for New Building Construction
O. Setbacks and Placement on the Lot
1. Maintain the historic façade lines of streetscapes by locating the front walls of new buildings in the same plane as those of adjacent buildings. If existing setbacks vary, a new building's setback shall respect those of adjacent buildings.
2. Do not violate the existing setback pattern by placing new buildings in front of or behind historic buildings on the street.
3. Do not place new buildings at odd angles to the street.
4. Side yard setbacks for new buildings shall be consistent with those of existing historic buildings, so gaps are not left in the streetscape.

P. Scale and Massing
1. Relate the size and proportions of new structures to the scale of adjacent buildings.
2. Break up uninteresting boxlike forms into smaller varied masses like those found on existing buildings by the use of bays, extended front porches, and roof shapes.

3. New buildings must reinforce the scale of the neighborhood by their height, width, and massing.
4. New buildings must be designed with a mix of wall areas with door and window elements in the façade like those found on existing buildings.
5. Roof shapes must relate to the existing buildings, as must roof coverings.

Q. Height of Foundation and Stories
1. Avoid new construction that varies in height, so that new buildings are equal to the average height of existing buildings.
2. The foundation height of new buildings shall duplicate that of adjacent buildings, or be an average of adjacent building foundation heights.
3. For new buildings with more than one story, beltcourses or other suggestions of divisions between stories that suggest the beginnings of additional stories shall be used.
4. The eave lines of new buildings shall conform to those of adjacent properties.

R. Materials
1. The materials used for new building exteriors shall be consistent with materials already found on buildings on the street.
2. Artificial siding and split face block are not acceptable materials for use on new buildings.

S. Features
1. Design new buildings with a strong sense of a front entry.
2. Use front porches in new designs, and make the size of those porches useable for sitting. New porches shall be at least eight feet deep, shall contain design features such as columns and balustrades that introduce architectural diversity, and shall extend across more than half of the front façade.

Comments

N/A

Staff Findings

1. The applicant intends to use Section 4.6 of the zoning code, the Middle Housing standards, which are "intended to promote the development of neighborhood-scale housing forms which are compatible with existing housing in the surrounding area," and "may allow more flexible development of land than is possible under the base district zoning regulations," subject to additional dimensional, design, and parking standards. Middle Housing review occurs separately through Planning staff; the HZC review focuses on how the project meets the design guidelines. However, some elements of Middle Housing review may trigger site plan and building elevation revisions, which would require additional review by the HZC. Variances from Article 4.6 are to be heard by the BZA at the 3/18/2025 meeting.

2. The lot to receive new construction is a 30’ wide, 140’ deep vacant lot which previously featured a single-story, modest Folk Victorian-style, shotgun house (demolished by 2015) with a width, depth, form, and roofline comparable to the proposed new duplex. New construction in the overlay in the last twenty years has been more elaborate in style and detail; however, the proposed street to receive new construction is relatively modest in housing stock. The proposed single-story shotgun form and modest style is appropriate for the context.

3. Guidelines encourage maintaining the historic façade line of the streetscape and aligning new buildings within the existing setback pattern of the street, which is echoed by the Middle Housing standards (requiring a front setback within five feet, plus or minus, of the blockface average). The average front setback of the blockface is 17.4’. The house is proposed to be 10’ from the front property line, with a 5’ deep front porch located 5’ from the front property line. The building should be recessed towards the rear property line, which would also help accommodate a deeper front porch. The side setbacks are consistent with the block.

4. Overall, the scale and proportions of the new duplex are similar to other single-story shotgun houses and duplexes on the block and in the broader neighborhood. The building is compatible with the neighborhood's scale, height, width, and massing. The proposed foundation height is comparable to other house's foundation heights on the block.

5. Guidelines recommend "break[ing] up uninteresting boxlike forms into smaller varied massings … by the use of bays, extended front porches, and roof shapes." The proposed duplex uses front and rear porches and a projecting side-elevation massing to break up the long massing.

6. Most houses on the block feature a full-width front porch; the proposed porch is similar in design to multiple houses on the block. The guidelines note that "new porches shall be at least eight feet deep," and "in proportion to historic porches in the neighborhood." The front porch should be extended to measure 8' deep.

7. The proposed 12/12-pitch, front-gable roof clad in architectural shingles meets the design guidelines for pitch and materials.

8. Guidelines discourage split-face block. The proposed painted CMU foundation should be clad in stucco, parge-coated, or clad in brick veneer to better align with historic materials in the neighborhood.

9. The guidelines note that "synthetic siding is inappropriate and not allowed […] as new siding in new construction," limiting "concrete siding (also called Hardi-board) allowed on outbuildings and garages for new construction only."

Other historic zoning overlays (including Fourth and Gill, Old North Knoxville, and Edgewood-Park City) have approved fiber cement lap siding (typically with a smooth finish, 4-5" in exposure) on new construction through the design review process, and with the general consent of the neighborhood.

Fiber cement lap siding has not yet been approved on additions or on new construction in Mechanicsville. In the opinion of staff, the fiber cement lap siding does not meet the current Mechanicsville design guidelines, though can be appropriate for new construction, based on the preference of the Commission and the neighborhood.

10. Guidelines recommend that new buildings use materials consistent with the street and the surrounding neighborhood. Materials are not specified for the proposed windows. Slider windows are not a historic window form; the windows should be revised to be double-hung windows.

Vinyl windows are not appropriate in a historic district; alternative materials could include fiberglass or aluminum-clad wood, based on the preference of the Commission and the neighborhood. The applicant should clarify window materials for the Commission's approval.

Guidelines recommend a "strong sense of entry," which is achieved via a half-light door accessed via a full-length front porch. The proposed door selection should be compatible with the rest of the house; basic steel or synthetic doors should not be used.

Staff Recommendation

Staff recommends approval of Certificate 3-B-25-HZ, subject to the following conditions:

1) application to receive variances from BZA at the March meeting and meeting relevant standards of City Zoning code, including Article 4.6 for Middle Housing standards;
2) front setback to be recessed towards rear property line to align with blockface, with final approval by staff;
3) CMU foundation to be clad in stucco, parge-coated or clad in brick veneer;

4) front porch to be extended to 8’ deep, and feature wood tongue-and groove flooring and a wood beadboard ceiling;
5) slider windows to be revised to double-hung windows, with final specifications submitted to staff for approval;
6) front door specifications to be submitted to staff for approval;
7) Commission and neighborhood to discuss and approve final exterior siding material.

HISTORIC ZONING COMMISSION

3-B-25-HZ

APPLICATION FOR CERTIFICATE OF APPROPRIATENESS

210 Cansler Ave. 37921

Mechanicsville H

Original Print Date: 3/6/2025

Knoxville/Knox County Planning -- Historic Zoning Commission

Petitioner: R. Bentley Marlow, Marlow Builders Inc.

N

0 250

Feet

Planning
KNOXVILLE | KNOX COUNTY

DESIGN REVIEW REQUEST

- ☐ DOWNTOWN DESIGN (DK)
- ☒ HISTORIC ZONING (H)
- ☐ INFILL HOUSING (IH)

R. Bentley Marlow		
Applicant		
4 February 2025	20 March 2025	3-B-25-HZ
Date Filed	Meeting Date (if applicable)	File Number(s)

CORRESPONDENCE

All correspondence related to this application should be directed to the approved contact listed below.

☒ Owner ☒ Contractor ☐ Engineer ☐ Architect/Landscape Architect

R. Bentley Marlow		Marlow Builders, Inc.		
Name		Company		
322 Douglas Avenue		Knoxville	Tennessee	37921-4813
Address		City	State	Zip
865-607-4357	rbentleymarlow@gmail.com			
Phone	Email			

CURRENT PROPERTY INFO

210 Cansler, LLC	322 Douglas Avenue	865-607-4357
Owner Name (if different from applicant)	Owner Address	Owner Phone
210 Cansler Avenue	094KD002	
Property Address	Parcel ID	
Mechanicsville	TDR/RN2	
Neighborhood	Zoning	

AUTHORIZATION

Lindsay Lanois	Lindsay Lanois	2.28.25
Staff Signature	Please Print	Date
R Bentley Marlow	R. Bentley Marlow	4 February 2025
Applicant Signature	Please Print	Date

REQUEST

DOWNTOWN DESIGN

Level 1:

☐ Signs ☐ Alteration of an existing building/structure

Level 2:

☐ Addition to an existing building/structure

Level 3:

☐ Construction of new building/structure ☐ Site design, parking, plazas, landscape

See required Downtown Design attachment for more details.

☐ Brief description of work: _____

HISTORIC ZONING

Level 1:

☐ Signs ☐ Routine repair of siding, windows, roof, or other features, in-kind; Installation of gutters, storm windows/doors

Level 2:

☐ Major repair, removal, or replacement of architectural elements or materials ☐ Additions and accessory structures

Level 3:

☐ Construction of a new primary building

Level 4:

☐ Relocation of a contributing structure ☐ Demolition of a contributing structure

See required Historic Zoning attachment for more details.

☐ Brief description of work: _____

INFILL HOUSING

Level 1:

☐ Driveways, parking pads, access point, garages or similar facilities ☐ Subdivisions

Level 2:

☐ Additions visible from the primary street ☐ Changes to porches visible from the primary street

Level 3:

☒ New primary structure

☒ Site built ☐ Modular ☐ Multi-Sectional

See required Infill Housing attachment for more details.

☐ Brief description of work: New primary structure

STAFF USE ONLY

ATTACHMENTS

☐ Downtown Design Checklist

☐ Historic Zoning Design Checklist

☐ Infill Housing Design Checklist

ADDITIONAL REQUIREMENTS

☐ Property Owners / Option Holders

Level 1: $50 • **Level 2:** $100 • **Level 3:** $250 • **Level 4:** $500

FEE 1:	TOTAL:
250.00	250.00
FEE 2:	
FEE 3:	

Pd 02/28/2025, SG

CANSLER AVE DUPLEX
NEW RESIDENTIAL CONSTRUCTION

210 Cansler Ave, Knoxville, Tennessee

DETAIL CALLOUT

DRAWING NUMBER
SHEET NUMBER

ELEVATION MARKER

DIRECTION OF VIEW

DETAIL SECTION MARKER

EXTENT/ DIRECTION OF SECTION

BUILDING SECTION MARKER

EXTENT/ DIRECTION OF SECTION

INTERIOR ELEVATION MARKER

DIRECTION OF VIEW
SHEET NUMBER
ELEVATION NUMBER

NORTH INDICATOR

ELEVATION MARKER

XX'-XX" A.F.F.

SPOT ELEVATION

F.F.E. = FINISH FLOOR ELEVATION

FLOOR PLAN TAGS

ROOM NAME
Length x Width | 150 SF
APPROXIMATE INTERIOR SQUARE FOOTAGE
APPROXIMATE INTERIOR LENGTH AND WIDTH

ROOM NAME
Floor Finish | 150 SF
APPROXIMATE INTERIOR SQUARE FOOTAGE
FLOOR FINISH

IDENTIFIER
WINDOW TYPE IF SCHEDULED

IDENTIFIER
DOOR TYPE IF SCHEDULED

AA##" ##"— IDENTIFIER, SIZE IN INCHES
WINDOW TYPE ON FLOOR PLAN

##" ##"AA— IDENTIFIER, DOOR TYPE
DOOR SIZE, N NCHES, ON FLOOR PLAN

IDENTIFIER
PARTITION TYPE

IDENTIFIER
REVISION NUMBER

1 G000 3D PERSPECTIVE

KEY MAP
NTS

SHEET NUMBER	SHEET NAME	Sheet Issue Date	Current Revision Description	Current Revision Date
01 - GENERAL				
G000	PROJECT INFORMATION	2/4/2025		
G001	CONSTRUCTION NOTES	2/4/2025		
G002	CONSTRUCTION NOTES	2/4/2025		
G003	UL ASSEMBLIES	2/4/2025		
05 - ARCHITECTURAL				
A101	FOUNDATION PLAN, FLOOR PLAN, & ROOF PLAN	2/4/2025		
A102	SCHEMATIC FRAMING PLANS & WALL SECTION	2/4/2025		
A201	EXTERIOR ELEVATIONS & SITE PLAN	2/4/2025		
A304	AIR SEALING DETAILS	2/4/2025		

OWNER

Marlow Builders, Inc.
322 Douglas Ave
Knoxville, TN 37921
CONTACT: Bentley Marlow
CELL PHONE: (865) 607-4357
EMAIL: rbentleymarlow@gmail.com

ARCHITECT

oysk³ architects
1545 Western Avenue, Suite 100
Knoxville, TN 37921
CONTACT: Cara Knapp
OFFICE PHONE: (865) 523-8200
EMAIL: office@oysk3architects.com

FACILITY AND CODE COMPLIANCE

PARCEL DESCRIPTION	094KD002
SUBDIVISION	MOSES FAIRVIEW PT 46
PROPERTY ZONE	RN-2
PROPERTY SIZE	0.09 ACRES
BUILDING SQUARE FOOTAGE	MAIN FL.: 1378 SF TOTAL: 1378 SF
FLOOR LEVELS	ONE STORY
CONSTRUCTION CLASSIFICATION	V-B, UNPROTECTED, UNSPRINKLERED
OCCUPANCY CLASSIFICATION	RESIDENTIAL
OCCUPANT LOAD	1378/200 = 7 OCCUPANTS
RATED WALLS	NONE
DETECTION AND ALARM SYSTEMS	LINE VOLTAGE, INTERCONNECTED, SMOKE DETECTORS IN EACH BEDROOM AND OUTSIDE EACH BEDROOM IN CLOSE PROXIMITY, WITH BATTERY BACKUP. SMOKE ALARM TO BE PLACED NO LESS THAN 3'0 HORIZONTALLY FROM THE OUTSIDE OF A BATHROOM DOOR CONTAINING A BATH TUB/SHOWER.
EMERGENCY ILLUMINATION	NOT REQUIRED
MAX TRAVEL DISTANCE TO EXITS	< 75' OR < 100' IF SPRINKLERED
FIRE EXTINGUISHERS	PROV DED BY OWNER

BUILDING STANDARDS

SCOPE OF WORK:

1-STORY DUPLEX. WOOD FRAME ON CMU FOUNDATION, WITH TYPICAL UTILITIES; SITE GRADING AS REQUIRED.

ADOPTED CODES:
ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL CODES.

2024 INTERNATIONAL RES DENTIAL CODE
2018 INTERNATIONAL ENERGY CONSERVATION CODE

ALL MATERIALS USED ARE TO BE INSTALLED WITH STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED DETAILS & INSTRUCTIONS.

FIRE RESISTANCE:
EXTERIOR WALLS: 0 HR.
INTERIOR WALLS: 0 HR.
ROOF CONSTRUCTION: 0 HR.
FLOOR CONSTRUCTION: 0 HR.

DESIGN LOADS:
FLOOR, 1st: 40 PSF LIVE + 10 PSF DEAD
FLOOR, 2nd: 40 PSF LIVE + 10 PSF DEAD
ROOF: 20 PSF LIVE + 10 PSF DEAD
SLEEPING AREAS: 30 PSF LIVE + 10 PSF DEAD
INTERIOR STAIRS: 40 PSF LIVE + 10 PSF DEAD
EXTERIOR DECKS: 60 PSF LIVE + 10 PSF DEAD

*REFER TO SNOW LOAD & WIND LOAD PER SECTION R301 OF THE INTERNATIONAL RESIDENTIAL CODE (RC).

SEISMIC LOADING TO BE BASED ON REQUIREMENTS OF SECTION R301 OF THE IRC.

oysk³ architects
1545 Western Avenue Suite 100
Knoxville TN 37921
(865) 523-8200
office@oysk3architects.com

2/4/2025

CANSLER AVE DUPLEX
NEW RESIDENTIAL CONSTRUCTION
210 Cansler Ave, Knoxville, Tennessee

ISSUE	DATE	DESCRIPTION

DRAWN BY: MB

PROJECT INFORMATION

G000

PROJECT : 25003

2/4/2025 9:11:53 AM

Y:\AAA Projects\Current Projects\25003 Callaway Spec Plans\00 Current Drawings\22' Spec Plan R1.rvt

G: GENERAL NOTES

1. EXAMINE AND BECOME FAMILIAR WITH ALL CONTRACT DOCUMENTS IN THEIR ENTIRETY. SURVEY THE PROJECT AND BECOME FAM LIAR WITH THE EXISTING CONDITIONS AND SCOPE OF WORK. ALL COSTS SUBMITTED SHALL BE BASED ON A THOROUGH KNOWLEDGE OF ALL WORK & MATERIALS REQU RED. ANY DISCREPANCY AND/OR UNCERTAINTY AS TO WHAT MATERIAL OR PRODUCT IS TO BE USED SHOULD BE VERIFIED WITH THE OWNER OR ARCHITECT.
2. THE CONTRACTOR AND SUB-CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING WORK, AND ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT IMMEDIATELY.
3. CONTRACTOR SHALL COORDINATE THEIR WORK WITH ALL OTHER TRADES.
4. THESE DRAWINGS DO NOT CONTAIN COMPLETE SPECIFICATIONS, DETAILS, OR INFORMATION REQUIRED FOR THE INTERIOR FINISHES OF THE PROJECT. ADDITIONAL INFORMATION SHALL BE OBTA NED FROM THE OWNER OR INTERIOR DESIGNER/DECORATOR.
5. ALL SITE WORK & LANDSCAPING IS TO BE ESTABLISHED & DESIGNED BY OTHERS.
6. UNLESS SHOWN ON THESE DRAWINGS, ALL MECHANICAL WORK, SUCH AS BUT NOT LIMITED TO, ELECTRICAL, PLUMBING, HEATING, A R CONDITIONING, ETC., ARE TO BE ESTABLISHED BY OTHERS.
7. THE ARCHITECT IS NOT RESPONSIBLE FOR MODIFICATIONS TO THESE DRAW NGS THAT ARE NOT REV EWED & APPROVED BY THE ARCHITECT.
8. THE OWNER OR CONTRACTOR SHALL PAY FOR AND OBTA N ALL REQUIRED PERMITS, TAP FEES, AND CERTIFICATES OF OCCUPANCY.
9. ALL DESIGNS AND/OR PLANS ARE NOT TO BE COPIED OR REPRODUCED WITHOUT WRITTEN PERMISSION FROM THE ARCHITECT AND OWNER.
10. ALL SHOP DRAWINGS SHALL BE SUBMITTED TO THE CONTRACTOR FOR APPROVAL PRIOR TO ORDERING & INSTALLING ANY EQUIPMENT OR MATERIALS.
11. THE CONTRACTOR MAY SUBMIT FOR APPROVAL, 10 DAYS PRIOR TO PRESENTATION OF NEGOTIATED PRICE TO OWNER, ALTERNATE MANUFACTURERS OF ALL ITEMS SPECIF ED ON THESE DRAWINGS.
12. STRUCTURAL DRAWINGS SHALL BE WORKED TOGETHER WITH THE ARCHITECTURAL, MECHANICAL, & ELECTRICAL DRAWINGS TO LOCATE DEPRESSED SLABS, SLOPES, DRA NS, REGLETS, BOLT SETTINGS, ETC. ANY DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
13. DESIGN LOADS DO NOT INCLUDE SUPER MPOSED LOADS SUCH AS A/C UNITS AND OTHER MECHANICAL EQUIPMENT. SHOP DRAWINGS OF EQUIPMENT AND PROPOSED SUPPORT FRAMING SHALL BE SUBMITTED TO THE CONTRACTOR FOR APPROVAL.

S: SITE NOTES

1. GENERAL CONTRACTOR TO VER FY THE EXISTING TOPOGRAPHIC LEVELS, LOCATIONS OF EXIST NG TREES, AND THE PROPOSED HOUSE LOCATION. GENERAL CONTRACTOR TO COMMUNICATE TO OWNER ANY RECOMMENDED CHANGES BEFORE THE START OF ANY WORK.
2. GENERAL CONTRACTOR TO HAVE A LICENSED ENGINEER OR LICENSED SURVEYOR STAKE OUT OR VERIFY THE STRUCTURE LOCATION TO ENSURE THAT THE STRUCTURE DOES NOT ENCROACH ON ANY SETBACKS OR EASEMENTS, UNLESS THE ENCROACHMENT IS ALLOWED BY ZONING AND BUILDING CODES. GENERAL CONTRACTOR TO COMMUNICATE TO OWNER ANY ENCROACHMENT ISSUES.
3. NO EXCAVATION SHALL BE MADE WHOSE DEPTH BELOW AN EXIST NG FOOTING IS GREATER THAN 1/2 THE HORIZONTAL DISTANCE FROM THE NEAREST EDGE OF THAT FOOTING.
4. ALL BACKFILL AT STRUCTURES, SLABS, STEPS, & PAVEMENTS SHALL BE CLEAN F LL. COMPACT TO 95% MAX. DRY DENSITY DETERMINED IN ACCORDANCE WITH ASTM D-1557. BUILDING SITE SHALL BE DRY SO THAT EROSION W LL NOT OCCUR IN THE FOUNDATION.
5. BACKFILL SHALL BE BROUGHT UP EQUALLY ON EACH SIDE OF WALLS.
6. BACKFILL ADJACENT TO BASEMENT/RETAIN NG WALL SHALL NOT BE PLACED UNTIL THE WALL HAS SUFFICIENT STRENGTH AND HAS BEEN SUFFICIENTLY BRACED TO PREVENT DAMAGE BY THE BACKFILL.
7. GENERAL CONTRACTOR TO COORD NATE FINISH TOPOGRAPHIC GRADING AND PAVING OF WALKS, DRIVEWAYS, PATIOS, ETC. AS REQUIRED FOR POSITIVE DRA NAGE AWAY FROM THE HOUSE.
8. DRIVEWAY SHALL BE ON UNDISTURBED OR COMPACTED, NON-ORGANIC SUBSOIL, WITH MINIMUM 4" CRUSHER RUN GRAVEL BASE, & TOPPED WITH EITHER 4" F BER-MESH REINFORCED CONCRETE, OR 2" MIN. ASPHALT BASE WITH 1" MIN. FINISH ASPHALT.
9. GENERAL CONTRACTOR TO COORD NATE ALL LANDSCAPING WITH THE OWNER, AND DETERMINE WHETHER THE LANDSCAPING PACKAGE IS TO BE PROVIDED BY THE GENERAL CONTRACTOR BY OTHERS.

C: CONSTRUCTION NOTES

1. THESE PLANS ARE DESIGNED TO MEET OR EXCEED THE REQUIREMENTS OF THE NTERNATIONAL RESIDENTIAL CODE, LOCAL ORD NANCES, AND REGULATIONS, ETC.; THESE ARE TO BE CONS DERED AS PART OF THE SPECIFICATIONS OF THIS BUILDING. CONTRACTOR SHALL VER FY REQUIREMENTS WITH THE LOCAL CODES ENFORCEMENT OFFICER & TO AMEND THE PROPOSED CONSTRUCTION AS REQU RED.
2. CONTRACTOR SHALL USE STANDARD CONSTRUCTION DETAILS & PROCEDURES TO ENSURE A STRUCTURALLY SOUND & WEATHERPROOFED F NISHED PRODUCT.
3. CONTRACTOR SHALL VER FY WITH CODE ENFORCEMENT THAT ALL WORK & CONSTRUCTION MEETS OR EXCEEDS ALL SEISMIC CODES AND/OR SNOW LOADS (F APPLICABLE) AS PER THE LOCAL JURISDICTION.
4. THE ARCHITECT HAS NOT BEEN ENGAGED FOR CONSTRUCTION SERVICES OF ANY K ND. THE ARCHITECT IS NOT RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS & PROGRAMS N CONNECTION WITH THE WORK.
5. W NDOW SIZES INDICATED ON THE PLANS ARE NOTED BY GENERIC ROUGH OPENING SIZES. CONTRACTOR TO COORDINATE ROUGH OPENING REQUIREMENTS WITH THE WINDOWS SPECIFIED.
6. REFER TO FLOOR PLAN & EXTERIOR ELEVATIONS FOR THE TYPES OF WINDOWS.
7. CONTRACTOR TO ENSURE THAT ANY/ALL PREFAB F REPLACE CONSTRUCTION MEETS OR EXCEEDS ALL APPLICABLE CODES. FLUE HEIGHT TO MEET HEIGHT SHOWN ON ELEVATIONS. WOOD-BURN NG FIREPLACE CHIMNEYS SHALL BE PROV DED WITH A SPARK-ARREST NG CAP. PROVIDE COMBUSTION AIR VENTS, WITH SCREEN & BACKDRAFT DAMPER, FOR FIREPLACES, WOOD STOVES & ANY APPLIANCE WITH AN OPEN FLAME. ALL FIREPLACE CHASE WALLS TO BE CONSTRUCTED WITH FIRE-RETARDANT-TREATED WOOD FRAMING & INSULATED (INTERIOR & EXTERIOR) WITH MINERAL WOOL BATTS. PROVIDE HORIZONTAL "DRAFT STOPS" AT EACH FLOOR LEVEL.
8. CONTRACTOR TO CONSULT & COORDINATE WITH THE OWNER & PLANS FOR ALL BUILT-IN REQUIREMENTS, INCLUDING SHELVING, CLOSETS, PANTRY, BOOKCASES, ETC.
9. CONTRACTOR TO CONSULT & COORDINATE WITH THE OWNER CONCERNING REQUIREMENTS FOR SECURITY SYSTEMS, CENTRAL VACUUM & ANY AUDIO, COMPUTER & TELEVISION (INCLUDING SATELLITE) SYSTEMS.
10. PROVIDE FLASHING ABOVE ALL WINDOWS, DOORS & OTHER OPENINGS TO THE EXTERIOR. PROVIDE WEEPS AT MASONRY CAVITY FLASH NG, SPACED AT 16" O.C.
11. PROVIDE TYVEK "HOUSE WRAP" MOISTURE BARR ER OVER ALL EXTERIOR WALLS. FLASH ALL WINDOW & OTHER OPENINGS N EXTERIOR WALLS WITH TYVEK FLEXIBLE FLASHINGS.
12. PROVIDE TRANSITION TRIM AT CHANGE OF FLOOR F NISHES.
13. WATERPROOF ALL BASEMENT WALLS BELOW GRADE WITH GRACE "BITUTHENE" WATERPROOFING (SELF-ADHER NG, PLASTICIZED BITUMEN WITH POLYETHYLENE SCRIM). PROVIDE MIN. 2" EXTRUDED POLYSTYRENE INSULATION WITH DRAINAGE GROOVES AGAINST MEMBRANE, OR M N MUM 2" EXTRUDED POLYSTYRENE INSULATION AGAINST MEMBRANE WITH DRAINAGE MAT. DO NOT BACKF LL DIRECTLY AGA NST MEMBRANE WITHOUT INSULATION & DRAINAGE PROVISIONS. PROVIDE PERFORATED FOUNDATION DRAIN AT BASE OF WALL & DRAIN TO DAYLIGHT.
14. THE WINDOW ROUGH OPENING HEAD HEIGHTS ARE NOTED ON DRAWINGS.

P: PLUMBING NOTES

1. PLUMBING SUBCONTRACTOR TO BE RESPONSIBLE FOR ADHERING TO ALL APPLICABLE CODES AND SAFETY REQUIREMENTS.
2. PROVIDE GAS SERVICE TO ALL WATER HEATERS AND HVAC EQUIPMENT AS REQUIRED.
3. CONTRACTOR TO COORDINATE GAS SERVICE REQUIREMENTS WITH THE OWNER & GAS SUPPLIER.
4. F WALL PLATES OR JOISTS ARE CUT DUR NG THE INSTALLATION OF PLUMBING FIXTURES OR EQUIPMENT, PROVIDE BRACING TO TIE FRAMING BACK TOGETHER.
5. LOCATE WATER HEATERS IN WATER-RETAINING PANS. PROVIDE AUXILIARY DRAIN TO OUTSIDE FOR POSS BLE OVERFLOW.
6. ALL PLUMBING AND MECHANICAL VENT STACKS TO BE LOCATED CLOSE TOGETHER IN THE ATTIC. VENT STACKS TO BE LOCATED TO THE REAR OF THE HOUSE, AWAY FROM PROMINENT VIEW. ALL VENT STACKS TO BE PRIMED & PAINTED TO CLOSELY MATCH ROOF COLOR.
7. GENERAL CONTRACTOR TO COORDINATE HOSE BIB LOCATIONS WITH OWNER.
8. PROVIDE AN NSIDE MAIN WATER CUTOFF AND PRESSURE REDUC NG VALVE AT AN EAS LY ACCESSED LOCATION.

FN: FOUNDATION NOTES

1. GENERAL CONTRACTOR TO INSPECT THE JOB SITE AND EXCAVATED CONDITIONS PRIOR TO STARTING CONSTRUCTION. GENERAL CONTRACTOR TO COMMUNICATE TO THE OWNER ANY CONDITIONS REGARDING SOILS, GROUND WATER, OR ANY OTHER ISSUE WHICH MAY REQUIRE ADDITIONAL OR SPECIAL ENGINEERING DESIGN BY A LICENSED STRUCTURAL ENGINEER.
2. GENERAL CONTRACTOR TO REVIEW PLANS, ELEVATIONS, AND DETAILS FOR DIMENSION OF F NISHED FLOOR ABOVE TYPICAL GRADE. GENERAL CONTRACTOR TO COMMUNICATE TO THE ARCHITECT ANY SITE CONDITIONS THAT REQUIRE MOD FICATION TO DIMENSIONS INDICATED ON PLANS, SECTIONS, OR EXTERIOR ELEVATIONS.
3. GENERAL CONTRACTOR TO REVIEW THE FOUNDATION PLAN TO MEET LOCAL CODES AND SO L CONDITIONS.
4. ALL DIMENSIONS ARE CALCULATED FROM OUTSIDE FACE OF BLOCK OR CONCRETE WALL TO OUTSIDE FACE OF BLOCK OR CONCRETE WALL, AND TO CENTER LINE OF BLOCK PIERS, U.N.O.
5. ALL CONCRETE TO BE PLACED IN THE DRY. NO CONCRETE SHALL BE PLACED LATER THAN NINETY (90) MINUTES AFTER MIXING HAS BEGUN. DEPOSIT CONCRETE N ITS FINAL POSITION WITHOUT SEGREGATION & REHANDLING.
6. GENERAL CONTRACTOR TO COORDINATE WITH A LICENSED, BONDED NSTALLER TO PROV DE TERMITE TREATMENT WHICH COMPLIES WITH ALL LOCAL BU LD NG CODES.
7. BOTTOM OF JOISTS SHALL BE 24" MIN. ABOVE SOIL SURFACE IN A CRAWL SPACE. PROVIDE CRAWL SPACE VENT LATION PER LOCAL CODE REQUIREMENTS.
8. ALL FINISH FLOORS TO BE INSTALLED ARE TO BE FLUSH WITH ADJACENT FLOORS OF SIMILAR OR DISSIMILAR MATERIALS. GENERAL CONTRACTOR TO ADJUST THE FOUNDATION AS REQUIRED TO ENSURE THAT ALL FLOORS ARE FLUSH AND LEVEL.

FOUNDATION STEEL NOTES

9. ALL STRUCTURAL STEEL SHALL BE OF DOMESTIC MANUFACTURE CONFORM NG TO ASTM A-36 & STANDARD AISC SPECIFICATIONS.
10. REINFORC NG STEEL SHALL BE OF NEW B LLET HIGH-STRENGTH STEEL OF DOMESTIC MANUFACTURER CONFORMING TO THE LATEST ASTM A-615 GRADE 60 FABRICATED N ACCORDANCE WITH MANUAL OF STANDARD OF PRACTICE OF THE CRSI UNLESS NOTED OTHERWISE, AND PLAC NG OF REINFORCING SHALL BE IN ACCORDANCE WITH ACI BU LDING CODE, MANUAL OF STANDARD PRACTICE, AND THE CURRENT INTERNATIONAL RESIDENTIAL CODE.
11. REINFORC NG SHALL HAVE 3" COVER IN FOOTINGS, AND 2" COVER ON MAIN REINFORCEMENT IN STEM WALLS.
12. REINFORC NG BARS ARE CONTINUOUS UNLESS NOTED OTHERWISE. LAP MESH 12" AT SPLICES. LAP STEM WALL BARS (32 BAR DIAMETERS) AT SPLICES, MINIMUM.
13. AT OUTSIDE CORNERS OF CONCRETE FOOTINGS & STEM WALLS, PROVIDE #4 X 4'-0" CORNER BARS IN EACH FACE AT SAME SPACING AS HORIZONTAL REINFORCEMENT.
14. PROV DE 5/8" X 7-1/2" X 7-1/2" WELD PLATE FOR BEARING STEEL BEAM IN CMU WALL WITH ONE 5/8" X 5" H.S. ANCHOR STUD.
15. PROV DE 3/8" STIFFENER PLATE ON EACH SIDE OF BEAM AT THE BEAR NG PLATE.

CONCRETE FOOTING NOTES

16. ALL FOOTINGS TO REST ON UNDISTURBED OR COMPACTED SO L OR GRAVEL WITH A MINIMUM BEARING CAPACITY OF 2,000 LBS PER SQUARE FOOT. EXCAVATE SOFT SO LS WHERE NECESSARY AND FILL WITH 3,000 PSI CONCRETE. FORM SIDES OF FOOTINGS WITH WOOD WHERE REQUIRED.
17. GENERAL CONTRACTOR TO VERIFY FOOT NG DEPTHS WITH LOCAL FROST REQUIREMENTS OR EXIST NG SO L CONDITIONS, WHICHEVER IS MORE RESTRICTIVE.
18. (A) TOPS OF FOOTINGS ARE AT SAME ELEVATION AT JUNCTURE OF WALL FOOT NG AND COLUMN FOOTING; (B) WALL FOOTING REINFORCEMENT TO RUN CONTINUOUS THROUGH COLUMN FOOTING REINFORCEMENT TO RUN CONT NUOUS THROUGH COLUMN FOOTING; (C) BOTTOM OF FOOTING OF HIGHER FOOTING TO STEP TO BOTTOM OF LOWER FOOTING AT SLOPE OF 1-VERTICAL TO 2-HORIZONTAL.
19. CONCRETE N FOOTINGS SHALL HAVE AN ULTIMATE COMPRESSIVE STRENGTH OF NOT LESS THAN 3,000 PSI AT 28 DAYS. CONCRETE FOOTINGS SHALL NOT BE POURED THROUGH WATER, AND SHALL BE PROTECTED FROM FREEZING DURING DEPOSITION AND FOR A PERIOD NOT LESS THAN FIVE (5) DAYS THEREAFTER.
20. ALL FOOTINGS SHALL BE CENTERED UNDER WALL OR COLUMN, UNLESS OTHERWISE NOTED ON PLANS.
21. FOOTING SIZES SHOWN ARE ONLY TYPICAL FOR STATED SOIL PRESSURES AND CONTINENT COMPACTION, WHICHEVER IS MORE RESTRICTIVE.

FOUNDATION CMU NOTES

22. **FROST PROTECTION:** ALL MASONRY SHALL BE PROTECTED AGA NST FREEZING FOR NOT LESS THAN 48 HOURS AFTER INSTALLATION, AND SHALL NOT BE CONSTRUCTED BELOW 28 DEGREES F ON RISING TEMPERATURES, OR BELOW 36 DEGREES F ON FALLING TEMPERATURES.
23. **BONDING:** MASONRY WALLS AND PARTITIONS SHALL BE SECURELY ANCHORED OR BONDED AT PO NTS WHERE THEY NTERSECT BY ONE OF THE FOLLOWING METHODS: (A) BY LAYING AT LEAST 50% OF THE UNITS AT THE INTERSECTION IN TRUE MASONRY BOND, WITH ALTERNATE UNITS HAVING A BEAR NG OF NOT LESS THAN 8" UPON THE UNIT BELOW; (B) THEY MAY BE ANCHORED WITH NOT LESS THAN 3/16" CORROSION-RESISTANT METAL WIRE TIES OF JOINT REINFORCEMENT AT VERTICAL INTERVALS NOT TO EXCEED 24"; OR (C) BY OTHER EQUIVALENT APPROVED ANCHORAGE.
26. **BEARING:** BEAM, G RDER, & OTHER CONCENTRATED LOADS SHALL BE PROVIDED WITH A BEARING OF SOLID MASONRY, OR HOLLOW-UNIT MASONRY F LLED SOL D WITH M N MUM 2,500 PSI COMPRESSIVE STRENGTH CONCRETE FULL HEIGHT OF WALL OR PIER.
27. ANY CMU BASEMENT AND/OR FOUNDATION WALL WITH MORE THAN 3'-0" OF EARTH AGAINST IT, TO BE REINFORCED WITH #4 REBAR VERTICAL N GROUT-FILLED CMU CELLS AT 48" O.C.
28. ALL CMU WALLS MORE THAN SIX (6) COURSES N HEIGHT, TO BE REINFORCED WITH TRUSS-TYPE W RE REINFORCING IN HORIZONTAL MORTAR JOINTS AT 16" O.C. AND #4 REBAR VERTICAL IN GROUT-FILLED CMU CELLS AT 48" O.C.
29. TIE ALL CMU WALLS TO CONCRETE FOOTINGS AT EACH VERTICAL REBAR, OR AT 48" O.C. AND AT EACH CORNER, ON BOTH SIDES OF OPENINGS.
30. PROVIDE CONTINUOUS BOND BEAM AT TOP OF CMU WALLS. FILL WITH STRUCTURAL GROUT OR CONCRETE, COVERING ONE CONTINUOUS #4 REBAR. PROVIDE A BOND BEAM LINTEL OVER EACH OPENING N CMU WALL, BEARING 16" ON EACH SIDE. BOND BEAMS ARE REQU RED AT 8' VERTICAL INTERVALS ON BASEMENT AND CRAWL SPACE FOUNDATION WALLS.
31. RE NFORCE OPENINGS N CMU WALLS WITH ONE #4 REBAR IN ONE GROUT-FILLED CELL-COLUMN ON EACH SIDE OF OPENING, CONTINUOUS FROM CONCRETE FOOTING, THROUGH LINTEL TO BOND BEAM AT TOP OF WALL.
32. RE NFORCE CORNERS OF CMU STRUCTURES WITH ONE (1) #4 REBAR IN EACH OF THREE ADJACENT, GROUT-FILLED CELL-COLUMNS AT CORNERS, CONTINUOUS FROM CONCRETE FOOT NG TO BOND BEAM AT TOP OF WALL.
33. OVERLAP ALL REBAR SPLICES 24" MINIMUM. COVERAGE OF ALL REBAR TO BE 3" M N MUM.
34. ALL MASONRY AND/OR CONCRETE WALLS BELOW GRADE SHALL BE DAMP-PROOFED OR WATERPROOFED AS REQU RED BY IRC SECTION R406.

CONCRETE SLAB NOTES

35. UNLESS OTHERWISE NOTED, ALL SLABS ON GRADE TO BE 3,500 PSI CONCRETE (28-DAY COMPRESSIVE STRENGTH) ON 4" SAND OR GRAVEL FILL, MINIMUM. INTERIOR SLABS TO BE PLACED ON 10 MIL STABILIZED POLYETHYLENE VAPOR BARRIER.
36. (A) CONCRETE SLAB ON GRADE SHALL HAVE M N MUM THICKNESS OF 4" THICKENED TO 8" AT LOAD-BEARING WALLS; (B) SLAB SPAN: 6'-0" TO 7 -0"; (C) TYPE OF REINFORCEMENT: 6x6-10/10 WWM; (D) PROVIDE PRE-MOLDED JOINT F LLER EXPANSION JOINTS AT PERIMETER OF EACH SLAB.
37. PATIOS AND PORCHES TO BE 3,500 PSI, AIR-ENTRAINED, AND SLOPED ⅛" PER 1'-0" DOWN AND AWAY FROM STRUCTURE.
38. GARAGE SLABS TO BE 3,500 PSI, AIR-ENTRAINED, AND SLOPED ⅛" PER 1'-0" TOWARD EXTERIOR GARAGE DOOR OPENINGS.
39. WHERE TEMPERATURE REINFORCEMENT IS NOT PROVIDED IN CONCRETE SLABS OTHER THAN BASEMENTS, CONTRACTION JOINTS AT APPROXIMATELY 20'-0" INTERVALS SHOULD BE PROVIDED. CONTRACTION JOINTS SHOULD BE PROVIDED AT PARTITIONS.
40. PROVIDE ½" EXPANSION JOINT MATERIAL BETWEEN ALL CONCRETE SLABS ON ABUTT NG CONCRETE OR MASONRY WALLS OCCURRING N EXTERIOR OR UNHEATED INTERIOR AREAS.
41. PROVIDE DEEP SCORE CONTROL JOINTS AT M DPOINTS OF ALL GARAGE SLABS, BOTH DIRECTIONS.
42. RADON VENTING: AT RESIDENTIAL OCCUPANCIES WITH SLAB-ON-GRADE CONSTRUCTION, PROVIDE A 4" PERFORATED PIPE WITHIN THE GRADED STONE BASE BELOW THE VAPOR BARRIER. RUN FULL LENGTH OF SLAB CENTERED OR DIAGONAL TO THE AREA. VENT THE PERF PIPE WITH A 4" SOLID PVC VENT PIPE TO ROOF (VTR). EXTEND NG 12" ABOVE ROOF. PROVIDE ROOF VENT BOOT AND FLASH NG. PAINT PVC TO MATCH ROOFING. SEAL VAPOR TIGHT ALL PENETRATIONS OF THE SLAB, SUCH AS PIPES, DRA NS, CRACKS, ETC.

FOUNDATION ANCHORAGE

43. WALL SILL PLATES (M N MUM 2X4 MEMBER, PRESSURE TREATED) SHALL BE SIZED & ANCHORED AS REQUIRED TO RESIST UPL FT; PROVIDE TERMITE SHIELD BETWEEN TOP OF FOUNDATION AND PRESSURE TREATED SILL PLATE.
44. ALL ANCHOR BOLTS TO BE ASTM GRADE 36, M N MUM 5/8" DIAMETER WITH 3"x3"x1/4" WASHER PLATE. THESE BOLTS SHALL BE EMBEDDED IN FOUNDATIONS TO A DEPTH OF NOT LESS THAN 15" IN UNIT MASONRY, AND 8" IN POURED CONCRETE. THERE SHALL BE A MINIMUM OF 2 ANCHOR BOLTS PER SECTION OF PLATE, AND ANCHOR BOLTS SHALL BE PLACED WITHIN 12" OF EACH END OF EACH PLATE SECTION, WITH NTERMEDIATE BOLTS SPACED AT 42" O.C. MAXIMUM.
45. ANCHOR BOLTS, WASHER PLATES, & NUTS TO BE HOT-DIPPED GALVANIZED.
46. PROVIDE ANCHOR BOLTS ON EACH SIDE OF GARAGE DOORS TO MEET WIND BRACING R403.1.6.

H: H.V.A.C. NOTES

1. MECHANICAL SUBCONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL APPLICABLE CODES AND SAFETY REQUIREMENTS.
2. HVAC SUBCONTRACTOR TO FULLY COORDINATE ALL SYSTEM DATA AND REQU REMENTS WITH THE EQU PMENT SUPPLIER. HVAC SUBCONTRACTOR TO PROVIDE F NAL SYSTEM LAYOUT DRAWING AND SUBMIT IT TO THE GENERAL CONTRACTOR, OWNER, AND EQUIPMENT SUPPL ER FOR REVIEW AND APPROVAL.
3. LAVATORY & BATH VENT LATION: (A) ALL LAVATORIES AND BATHS SHALL BE MECHANICALLY VENTILATED THROUGH NON-COMBUST BLE DUCTS TO PROVIDE & CHANGE AIR AT THE RATE OF 50 CFM; UNDERCUT BATHROOM DOOR. (B) ALL KITCHEN RANGE HOODS SHALL BE MECHANICALLY VENTILATED THROUGH NON-COMBUSTIBLE DUCTS TO EXTRACT A R AT THE RATE OF 100 CFM. SEE IRC SECTION M1507, TABLE M1507.4.
4. PROVIDE DUCTING TO EXTERIOR FOR ALL EXHAUST FANS, KITCHEN COOKTOP HOOD VENT, AND DRYER VENT.
5. SEE THE GENERAL ELECTRICAL NOTES FOR THE LOCATION OF S.A.R.'s AND R.A.G.'s IN RELATION TO THE LIGHT FIXTURES.
6. ALL THERMOSTATS TO BE LOCATED IN PROXIMITY TO THE RETURN AIR @ 60" AFF.
7. ATTIC HVAC UNIT(S) TO BE LOCATED WITHIN 20' OF THEIR SERVICE OPEN NG. DO NOT LOCATE RETURN AIR GRILLES WITHIN 10' OF A GAS-F RED APPLIANCE.
8. DO NOT LOCATE UNIT(S) OVER AREAS WITH A SPAN MORE THAN 10'-0".
9. ALL MECHANICAL AND PLUMBING VENT STACKS, NCLUDING GAS FLUES, TO BE LOCATED TOGETHER IN THE ATTIC TO MINIMIZE ROOF PENETRATIONS. VENT STACKS TO BE LOCATED TO THE REAR OF THE HOUSE, AWAY FROM PROMINENT VIEW. ALL VENT STACKS AND FLUES TO BE PRIMED & PAINTED TO CLOSELY MATCH THE ROOF COLOR.

FP: FLOOR PLAN NOTES

1. **DO NOT SCALE DRAWINGS. FOLLOW DIMENSIONS ONLY.** REFERENCE DIMENSIONS IN ASSOCIATED DETAILS AND OTHER DRAWINGS. REPORT DISCREPANC ES TO THE ARCHITECT FOR RESOLUTION.
2. ALL DIMENSIONS ARE CALCULATED FROM THE OUTS DE FACE OF STUD WALL TO OUTSIDE FACE OF STUD WALL UNLESS NOTED OTHERWISE. STUD WALLS ARE TYPICALLY; (EXTERIOR) 2X6 OR (INTERIOR) 2X4, UNLESS NOTED OTHERWISE.
3. FIBER-CEMENT, F BER-MAT REINFORCED CEMENT, GLASS MAT GYPSUM BACKERS, OR FIBER-RE NFORCED GYPSUM BACKERS IN COMPLIANCE WITH ASTM C-1288, C-1325, C-1178 OR C-1278 RESPECTIVELY, AND NSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, SHALL BE USED AS BACKERS FOR WALL T LE IN TUB AND SHOWER AREAS AND WALL PANELS IN SHOWER AREAS.
4. ALL TRANSPARENT OR TRANSLUCENT PANELS LOCATED WITHIN 18" OF FLOOR, 24" OF A DOOR, OR 60" OF FLOOR AT BATHTUBS, SHOWERS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, OR HOT TUBS TO BE TEMPERED GLASS OR OTHER SAFETY GLAZING.
5. BATHROOMS AND UT LITY ROOMS TO BE VENTED TO THE OUTSIDE WITH A 50 CFM FAN (MINIMUM). RANGE HOODS TO BE VENTED TO OUTSIDE.
6. CABINET SUPPLIER TO FIELD MEASURE AREA OF WORK AFTER NSTALLATION OF DRYWALL TO ENSURE EXACT FIT. THE CABINETS SHALL MATCH PLANS & ELEVATIONS. NOTIFY CONTRACTOR OF ANY DISCREPANCIES.
7. PROVIDE TOPS, SPLASH, LAVATORIES, AND WHIRLPOOL TUB PER OWNER'S SELECTIONS.
8. CARPET SHALL BE INSTALLED AS PER THE "STANDARD FOR INSTALLATION OF RESIDENTIAL CARPET" BY THE CARPET AND RUG INSTITUTE.

DRYWALL

9. DRYWALL INSTALLATION SHALL BE IN CONFORMANCE WITH THE GYPSUM ASSOCIATION'S RECOMMENDED PRACTICES FOR THICKNESS, STUD SPACING, NAILING, & TAPING. MUD, FLOAD & SAND (3) COATS MIN. PRIOR TO PAINT NG, ALSO AS FOLLOWS.
10. UNLESS OTHERWISE NOTED, ALL NTERIOR WALLS TO BE COVERED WITH 1/2" GYPSUM BOARD, WITH METAL OR PLASTER CORNER BEAD.
11. WALLS COMMON TO GARAGE AND HOUSE TO HAVE ONE LAYER OF 5/8" TYPE X 1-HR FIRE-RATED GYPSUM BOARD ON EACH SIDE.
12. ALL BATH AND TOILET AREA WALLS AND CEILINGS ADJACENT TO WET AREAS TO HAVE WATER-RESISTANT GYPSUM BOARD.
13. UNLESS NOTED OTHERWISE, FINISH ALL EXPOSED GYPSUM WALLS TO LEVEL 4 FINISH.

FN: FRAMING NOTES

LUMBER

1. STUD WALLS ARE TYPICALLY; (EXTERIOR) 2X6 OR (INTERIOR) 2X4, UNLESS NOTED OTHERWISE.
2. ALL WOOD FRAMING N CONTACT WITH CONCRETE OR MASONRY TO BE PRESSURE TREATED. ALL WOOD FRAMING IN CONTACT WITH OR WITHIN 8" OF GRADE, SHALL BE BORATE-PRESSURE TREATED.
3. SIZES OF STRUCTURAL MEMBERS: ALL LUMBER SIZES SPECIF ED ARE NOMINAL SIZES. ACTUAL SIZES ARE SHOWN ON THE FLOOR PLANS.
4. STRUCTURAL POSTS:
   ALL ISOLATED STRUCTURAL POSTS SHALL HAVE A MINIMUM DIMENSION OF 4", WITH SUBSTITUTIONS AS FOLLOWS:
   4X4 POSTS = (3) 2X4's NAILED
   4X6 POSTS = (4) 2X4's NAILED
   4X8 POSTS = (5) 2X4's NAILED
5. STRUCTURAL FRAMING: ALL FRAM NG MATERIAL TO BE #2 KD MINIMUM. LUMBER SHALL BE DOUGLAS-FIR-LARCH (DFL) WITH fb=1650 AND E=1.7 MINIMUM, OR SOUTHERN-YELLOW-PINE (SYP) WITH Fb=1750 AND E=1.6 M NIMUM, AS FOLLOWS:
   - STUDS/PLATES: DFL OR TYP STUD GRADE
   - RAFTER / CEILING JOISTS: DFL OR SYP #2 GRADE OR BETTER
   - BEAMS / HEADERS: DFL OR SYP #2 OR PSL/LSL
   ALL WOOD FRAMING AT BEARING WALLS SHALL BE AS FOLLOWS:
   1st FLOOR: 2X4s @ 16" O.C.
   (IF 3 STORIES, USE 2X6'S @ 16" O.C.)
   2nd FLOOR: 2X4s @ 16" O.C.
   3rd FLOOR: 2X4s @ 16" O.C.
   ALL TJIs ARE TO BE SERIES 230 UNLESS NOTED OTHERWISE

FRAMING

6. ALL FRAME WALLS OVER 10'-0" HIGH TO BE 2X6s AT 16" O.C., AND RECEIVE ROWS OF 2X6 BLOCKING AT 1/3 PO NTS OF HEIGHT (2 ROWS).
7. ALL STUDS TO BE FRAMED AT 16" O.C. MAXIMUM.
8. ALL ANGLED WALLS TO BE FRAMED AT 45 DEGREE ANGLE UNLESS OTHERWISE NOTED.
9. ALL BEAMS, JOISTS, & HEADERS TO BE MOUNTED IN METAL HANGERS, S MPSON STRONG-TIE OR EQUIVALENT, WITH GALVANIZED FASTENERS FOR INTERIOR APPLICATIONS, AND Z-MAX FASTENERS FOR EXTERIOR APPLICATIONS OR WHERE N CONTACT WITH PRESSURE-TREATED LUMBER.
10. CONTINUOUS BEARING FROM POINT OF LOAD TO FOUNDATION SHALL BE PROVIDED BY MEANS OF COLUMNS & SOLID BLOCKING AT EACH FLOOR LEVEL.
11. PROVIDE FULL SOLID BEARING OR TRIPLE-STUD BEARING UNDER ALL BEAM BEARING POINTS.
12. PROVIDE FIRE BLOCKING AT 9'-0" HIGH AS PER IRC SECTION R302.11.1 WITH MATERIALS AS PRESCRIBED IN IRC SECTION R302.11.1.
13. ALL EXTERIOR PLUMBING WALLS SHALL BE FRAMED WITH 2X6 STUDS. REMAINING INTERIOR STUD WALLS SHALL BE FRAMED WITH 2X4 STUDS UNLESS NOTED OTHERWISE.
14. PROVIDE 25-1/2" X 54" ATTIC ACCESS WITH CONVENTIONAL FRAMING, AND 22-1/2" X 54" ATTIC ACCESS WITH TRUSS FRAMING.
15. WALL BRACING: PLANS ARE DESIGNED TO MEET PRESCRIPTIVE DESIGN REQUIREMENTS IN THE AF & PA "WOOD FRAME CONSTRUCTION MANUAL". BRACE EXTERIOR STUD WALLS AT CORNERS BY ONE OF THE FOLLOWING METHODS:
    A. WITH METAL T-BRACE LET INTO STUDS AT 45 DEGREES, FROM PLATE TO PLATE, OR:
    B. ALL SHEATH NG WITHIN 4'-0" OF CORNERS TO BE SPAN RATED 1/2" PLYWOOD, GLUED & SCREWED TO FRAME.
16. FLOOR FRAM NG LAYOUT TO BE COORDINATED WITH THE GENERAL AND HVAC CONTRACTORS TO PROVIDE ACCESS CHASES AND UNOBSTRUCTED RUNS FOR HVAC DUCTWORK.
17. PROVIDE DOUBLE FLOOR JOISTS UNDER ALL WALLS WHICH ARE PARALLEL TO FLOOR JOIST SPAN DIRECTION.
18. PROVIDE "X" BRACING OR SOLID BLOCKING AT A MAXIMUM OF 6'-0" O.C. AT ALL 1-1/2" FLOOR JOISTS.
19. ALL HEADERS TO BE FREE OF SPLITS AND CHECKS.
20. MINIMUM HEADER SIZE AT OPENINGS IN NON-LOAD BEARING WALLS TO BE TWO 2X6s WITH 1/2" PLYWOOD GLUED & NAILED BETWEEN.
21. MINIMUM HEADER SIZE IN LOAD-BEARING WALLS TO BE TWO 2X12s WITH 1/2" PLYWOOD GLUED & NAILED BETWEEN.
22. PROVIDE DOUBLE HEADER JOISTS AND TRIMMERS AT ALL FLOOR OPENINGS.
23. ALL STRUCTURAL STEEL TO CONFORM WITH ASTM SPECIFICATION A-36.
24. UNLESS OTHERWISE NOTED, PROVIDE A WOOD 2X PLATE BOLTED TO THE TOP FLANGE OF ALL STEEL BEAMS WITH 3/8" DIAMETER BOLTS STAGGERED @ 24" O.C.

SHEATHING

25. FLOOR SHEATHING:
    A. APA STURD-I-FLOOR 3/4" TONGUE & GROOVE, INTERIOR GRADES; PROV DE ADDITIONAL 3/8" PLYWOOD AT CERAMIC TILE LOCATIONS; EXTERIOR GRADE SHALL BE USED WHEN EXPOSED TO WEATHER.
    B. MAXIMUM JOIST SPACING @ 24" O.C.
    C. EDGES SHALL BE BLOCKED WITH LUMBER OR OTHER APPROVED TYPE OF EDGE SUPPORT; FACE GRA N PARALLEL TO SUPPORTS.
    D. GLUE & SCREW PLYWOOD DECKING TO FLOOR JOISTS TO ENSURE A "NON-SQUEAK" FLOOR SYSTEM.
26. EXTERIOR WALL SHEATH NG: TYPICAL EXTERIOR 2X6 STUD WALLS TO BE SHEATHED WITH 1/2" EXTERIOR GRADE SHEATHING. SHEATHING TO SPAN OVER ALL PLATES AND HEADERS. SEE ALSO "WALL BRAC NG" NOTE.
27. ROOF SHEATHING:
    A. APA SPAN RATED 5/8" EXTERIOR GRADE PLYWOOD;
    B. MAXIMUM SPAN TO BE 24" O.C. WITH H-CLIPS; MAINTAIN 1/8" GAP BETWEEN PANELS.
    C. EDGES SHALL BE BLOCKED WITH LUMBER OR OTHER APPROVED TYPE OF EDGE SUPPORT; FACE GRA N PARALLEL TO SUPPORTS.
28. PROVIDE BLOCKING AT ALL CABINET LOCATIONS.
29. PROVIDE DOUBLE 2X6 STRONGBACK BRACING AT CENTERLINE OF CE LING JOIST SPANS OVER 10'-0".
30. ALL RAFTERS TO BE MIN. 2X8's AT 24" O.C. UNLESS NOTED OTHERWISE ON PLANS (VERIFY SIZE AND SPACING PER LOCAL BUILDING CODE).
31. ALL TRUSS OR RAFTER & TOP PLATE INTERSECTIONS TO RECEIVE GALVANIZED WIND/SEISMIC T ES.
32. HIP/VALLEY RAFTERS AND RIDGE BOARDS TO BE ONE SIZE LARGER THAN TYPICAL RAFTERS.
33. PROVIDE 2X6 COLLAR TIES AT UPPER 1/3 OF VERTICAL DISTANCE BETWEEN R DGE BOARD AND CEILING JOISTS @ 48" O.C. UNLESS NOTED OTHERWISE.
34. PROVIDE INSULATION BAFFLES AT EAVE VENTS BETWEEN RAFTERS/TRUSSES.
35. MANUFACTURED TRUSSES, BEAMS, AND OTHER ENG NEERED BUILDING SYSTEMS MUST BE DESIGNED BY THE MANUFACTURER'S ENGINEER, WHO SHALL BE REGISTERED IN THE STATE OF TENNESSEE; STAMPED, APPROVED SHOP DRAWINGS SHALL BE ON-SITE BEFORE ERECTION BEGINS.

STAIRS & RAILINGS

36. STAIR CONSTRUCTION TO CONSIST OF THREE 2X12 STRINGERS, 5/4" OR 2X THICK TREADS, AND 3/4" THICK RISERS, OR MATERIALS FABRICATED BY A COMPONENT MANUFACTURER.
37. TREADS AND RISERS:
    A. ALL TREADS AND RISERS TO BE EQUAL.
    B. TREADS: MINIMUM 10" WIDE, NCLUDING 3/4" TO 1-1/4" NOSING IF RISERS ARE SOL D.
    C. RISERS: MAXIMUM RISER HEIGHT NOT TO EXCEED 7-3/4"; RISERS MUST BE SOL D, OR GUARDS PROVIDED TO LIMIT OPEN NG TO 4" MAXIMUM.
38. HANDRAILS: REQUIRED ON BOTH SIDES OF STAIRS; MIN MUM HEIGHT OF RAIL TO BE 34" ABOVE NOSE OF TREAD, MAXIMUM HEIGHT 38"; MAX MUM HORIZONTAL CROSS-SECTION OF 2-5/8"; MINIMUM 1-1/2" CLEAR SPACE BEH ND RAIL.
39. GUARDS AT STA RS:
    A. REQUIRED ON OPEN SIDE OF STA RS; MINIMUM HEIGHT TO BE 34" ABOVE NOSE OF TREAD, PER RC SECTION R312.1.
    B. OPEN NGS IN THE GUARD SHALL NOT ALLOW PASSAGE OF A 4" SPHERE, EXCEPT AT THE TRIANGULAR OPEN NG FORMED BY THE BOTTOM RAIL, TREAD, AND RISER, WHICH SHALL NOT ALLOW PASSAGE OF A 6" SPHERE.
40. OTHER GUARDS:
    GUARDS ARE REQU RED AT ALL WALKING SURFACES THAT ARE LOCATED MORE THAN 30" VERTICALLY ABOVE AN ADJACENT FLOOR OR GRADE. SEE ALSO IRC SECTION 312.1.
    A. MINIMUM HEIGHT TO BE 36" ABOVE WALKING SURFACE.
    B. OPEN NGS IN THE GUARD SHALL NOT ALLOW PASSAGE OF A 4" SPHERE. INSECT SCREENING SHALL NOT BE CONSIDERED AS A GUARD.

FRAM NG NOTATIONS CONFORM TO THE INTERNATIONAL RESIDENTIAL CODE CURRENT AT THE TIME OF SUBMISSION FOR PERMITS. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CONSULT NG WITH CODE OFFICIALS PRIOR TO USING THE FRAM NG MATERIALS PROVIDED TO ENSURE COMPLIANCE WITH CODES AND STRUCTURAL INTEGRITY. DUE TO VARIATIONS IN LOCAL CODES AND GEOLOGICAL CONDITIONS, REVISIONS TO THESE PLANS MAY BE REQU RED.

IN: INSULATION NOTES

1. PROVIDE R-10 RIGID INSULATION AT SLAB EDGE. GENERAL CONTRACTOR TO VERIFY WITH LOCAL CODE.
2. REFER TO IECC IEC PRESCR PTIVE REQU REMENTS CHART ON SHEET G002 UNDER ENERGY CODE NOTES.
3. INSTALL SIDE WALL AND CEIL NG INSULATION IN CONTINUOUS BLANKET WITHOUT HOLES FOR ELECTRICAL BOXES, LIGHT FIXTURES, OR HEATING DUCTWORK. CAULK ALL OPENINGS N EXTERIOR WALL CONSTRUCTION.
4. FLOORS OVER UNHEATED SPACE TO HAVE R-19 INSULATION BETWEEN JOISTS.
5. HVAC DUCTS LOCATED IN UNHEATED SPACES TO BE INSULATED WITH R-8. GENERAL CONTRACTOR TO VERIFY WITH LOCAL CODE.
6. ALL EXPOSED INSULATION TO HAVE A FLAME SPREAD RAT NG OF LESS THAN 25, AND A SMOKE DENSITY RATING OF LESS THAN 450.
7. FILL ALL UNGROUTED CMU CELLS WITH VERMICULITE, OR FOAM- N-PLACE INSULATION N BASEMENT WALLS.
8. REFER TO AIR SEALING DETAILS ON SHEET A 304

R: ROOFING, SEALING, & FLASHING

ROOFING: UNDERLAYMENT

1. UNDERLAYMENT SHALL BE A WATER-RESISTANT, VAPOR-PERMEABLE, WOVEN POLYMER MEMBRANE (SUCH AS DuPont TYVEK PROTEC), AND SHALL BE INSTALLED WITH CAP NAILS OR CAP STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION GU DELINES.
2. AN ICE BARRIER THAT CONSISTS OF AT LEAST TWO LAYERS OF OF UNDERLAYMENT CEMENTED TOGETHER, OR OF A SELF-ADHERING POLYMER-MODIFIED BITUMEN SHEET (ICE AND WATER SHIELD), SHALL BE USED IN LIEU OF NORMAL UNDERLAYMENT, AND EXTEND FROM THE LOWEST EDGES OF ALL ROOF SURFACES TO EXTEND OVER THE TOP PLATE OF EXTERIOR WALL.
3. UNDERLAYMENT APPLIED N AREAS SUBJECT TO HIGH WINDS (ABOVE 110 MPH) SHALL BE APPLIED WITH CORROSION RESISTANT FASTENERS IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION GU DELINES.
4. FOR ROOF SLOPES OF FOUR UNITS VERTICAL IN 12 UNITS HORIZONTAL (33% OR GREATER), UNDERLAYMENT SHALL BE ONE LAYER APPLIED AS FOLLOWS:
   A. APPLY SH NGLE-STYLE, PARALLEL TO AND STARTING FROM THE EAVE, WITH COURSE LAPS & END LAPS PER MANUFACTURER'S GUIDEL NES;
   B. DISTORTIONS IN THE UNDERLAYMENT SHALL NOT INTERFERE WITH THE AB LITY OF THE SH NGLES TO SEAL;
   C. END LAPS SHALL BE OFFSET BY SIX FEET.

ROOFING: SHINGLES

5. FIBERGLASS/ASPHALT SH NGLES SHALL BE TESTED IN ACCORDANCE WITH ASTM D7158 AND MEET THE CLASS FICATION REQUIREMENTS OF TABLE R905.2.4(1) FOR WIND SPEEDS UP TO 120 MPH.
6. FASTENERS FOR ASPHALT SHINGLES SHALL COMPLY WITH ASTM F1667, AND SHALL BE:
   A. GALVANIZED STEEL, STAINLESS STEEL, ALUMINUM, OR COPPER ROOF NG NAILS;
   B. MINIMUM 12ga (0.015 NCH) SHANK, WITH A MINIMUM ⅜-INCH DIAMETER HEAD;
   C. OF A LENGTH TO PENETRATE THROUGH THE ROOFING MATERIALS AND A M N MUM OF ¾-INCH NTO THE ROOF SHEATHING. WHERE ROOF SHEATHING IS LESS THAN ¾-INCH THICK, THE FASTENERS SHALL PENETRATE THROUGH THE SHEATHING.
7. FIBERGLASS/ASPHALT SH NGLES SHALL HAVE THE MINIMUM NUMBER OF FASTENERS REQUIRED BY THE MANUFACTURER, BUT NOT LESS THAN FOUR FASTENERS PER STRIP SHINGLE, OR TWO FASTENERS PER INDIVIDUAL SH NGLE.

SEALING:

8. EXTERIOR JOINTS AROUND WINDOWS & DOOR FRAMES; BETWEEN WALL & FOUNDATION; BETWEEN WALL PANELS AT PENETRATIONS; AT UTILITY SERVICES PENETRATIONS THROUGH WALLS, FLOORS, & ROOF; AND ALL OTHER OPENINGS IN THE EXTERIOR ENVELOPE SHALL BE SEALED IN AN APPROVED MANNER. REFER TO AIR SEALING DETAILS ON SHEET A 304

FLASHING:

9. CORROSION RESISTANT FLASH NG IS REQUIRED AT THE TOP & SIDES OF ALL WINDOWS & ROOF OPEN NGS, AND AT THE NTERSECTION OF CH MNEYS, MASONRY, AND/OR WOOD CONSTRUCTION AND FRAME WALLS, OR APPROVED WATER RESISTANT SHEATHING & CAULK NG TO BE USED AT TOP & SIDES TO GUARANTEE LEAKPROOF.
10. FLASHING AGAINST A VERTICAL S DEWALL SHALL BE CONT NUOUS AT SIDING, OR STEP-FLASHING AT MASONRY OR STONE. THE FLASHING SHALL BE A MINIMUM OF 6 INCHES HIGH AND 6 INCHES WIDE. AT THE END OF THE VERTICAL S DEWALL, THE STEP FLASHING SHALL BE TURNED OUT IN A MANNER THAT DIRECTS WATER AWAY FROM THE WALL AND ONTO THE ROOF AND/OR GUTTER.

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2/4/2025

CANSLER AVE DUPLEX
NEW RESIDENTIAL CONSTRUCTION
210 Cansler Ave, Knoxville, Tennessee

ISSUE	DATE	ISSUED FOR:

DRAWN BY: MB

CONSTRUCTION NOTES

G001

PROJECT : 25003

FASTENING SCHEDULE		
CONNECTION	FASTENER	LOCATION
JOIST TO S LL OR GIRDER	4 - 10D COMMON	TOE NAIL PER JOIST
BR DGING TO JOIST	2 - 8D COMMON	TOE NAIL EACH END
SOLE PLATE TO JOIST OR BLOCK NG	3 - 16D @12" O.C.	TYPICAL FACE NAIL
TOP PLATE TO STUD	2 - 16D COMMON	END NAIL
STUD TO SOLE PLATE	4 - 8D COMMON 2 - 16D COMMON	TOE NAIL END NAIL
DOUBLE STUDS	2 - 16D @24" O.C.	FACE NAIL
DOUBLE TOP PLATES	2 - 16D @ 24" O.C.	TYPICAL FACE NAIL
DOUBLE TOP PLATES	8 - 16D COMMON	LAP SPLICE
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	2 - 16D COMMON	TOE NAIL EACH END
RIM JOIST TO TOP PLATE	3 - 16D @12" O.C.	TOE NAIL
TOP PLATES, LAPS, & INTERSECTIONS	5 - 16D COMMON	BLOCKING TO SILL OR TOP PLATE (TOE-NAILED): 4 - 16D EACH BLOCK BAND JOIST TO JOIST (END NA LED): 4 - 16D PER JOIST BAND JOIST TO S LL OR TOP PLATE (TOE NA LED): 16D PER FOOT
CONTINUOUS HEADER, TWO PIECES	16D COMMON @16" O.C.	ALONG EDGE
CE LING JOISTS TO PLATE	4 - 16D COMMON	TOE NAIL
CONTINUOUS HEADER TO STUD	4 - 8D COMMON	TOE NAIL
CE LING JOISTS, HIPS OVER PARTITIONS	4 - 16D COMMON, MINIMUM	FACE NAIL
CE LING JOISTS, PARALLEL TO RAFTERS	4 - 16D COMMON, MINIMUM	FACE NAIL
RAFTER TO PLATE, HURRICANE CL PS	3 - 16D COMMON	TOE NAIL
BU LT-UP CORNER STUDS	2 - 16D COMMON @24" O.C.	FACE NAIL
BU LT-UP GIRDER & BEAMS	20D COMMON @32" O.C. 2 - 20D COMMON	FACE NAIL AT TOP & BOTTOM, STAGGERED ON OPPOSITE SIDES FACE NAIL AT ENDS & AT EACH SPLICE
COLLAR T E TO RAFTER	5 - 10D COMMON	FACE NAIL
JACK RAFTER TO HIP	3 -10D COMMON 2 - 16D COMMON	TOE NAIL FACE NAIL
ROOF RAFTER TO 2x RIDGE BEAM	2 -16D COMMON 2 - 16D COMMON	TOE NAIL FACE NAIL
JOIST TO BAND JOIST	4 - 16D COMMON	TOE NAIL
LEDGER STRIP	3 - 16D COMMON PER FOOT	FACE NAIL
WOOD STRUCTURAL PANELS & PARTICLE BOARD: SUBFLOOR, ROOF, & WALL SHEATHING (TO FRAMING): SINGLE FLOOR (COMB NATION SUBFLOOR-UNDERLAYMENT TO FRA MING	1/2" & LESS	8D COMMON: 6" O.C. EDGE SPAC NG 12" O.C. F ELD SPACING
PANEL SIDING TO FRAMING	1/2" & LESS 5/8"	8D COMMON: 6" O.C. EDGE SPACING 12" O.C. F ELD SPACING
FIBERBOARD SHEATHING	1/2"	8D ROOFING: 3" O.C. EDGE SPACING 8" O.C. FIELD SPACING

ABBREVIATIONS

A/C	AIR CONDITIONING
ABV	ABOVE
ACOUST	ACOUSTICAL
ACT	ACOUSTICAL CEILING TILE
AD	AREA DRAIN
ADJ	ADJUSTABLE, ADJACENT
AFF	ABOVE FINISH FLOOR
ALT	ALTERNATE
ALUM	ALUMINUM
ARCH	ARCHITECT(URAL)
BD	BOARD
BET	BETWEEN
BLDG	BU LD NG
BLKG	BLOCKING
BM	BENCHMARK, BEAM
BOC	BOTTOM OF CURB
BOW	BOTTOM OF WALL
BRG	BEARING
BTM	BOTTOM
BUR	BU LT UP ROOF
CAB	CAB NET
CB	CATCH BASIN
CEM	CEMENT
CHNL	CHANNEL
CJ	CONTROL JOINT
CLG	CEIL NG
CLR	CLEAR(ANCE)
CMP	CORRUGATED METAL P PE
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS/ CONTINUE
COORD	COORD NATE
CORR	CORRUGATED, CORRIDOR
CRS	COURSE(S)
CT	CERAMIC TILE
CTSK, CS	COUNTERSUNK
DA	DOUBLE ACT NG
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DL	DEAD LOAD
DN	DOWN
DR	DOOR
DS	DOWN SPOUT
DTL	DETAIL
DW	DISH WASHER
DWG	DRAWING
EF	EACH FACE
EIFS	EXTERIOR INSULATION & FINISH SYSTEM
EJ	EXPANSION JOINT
ELEC	ELECTRIC(AL)
ELEV	ELEVATION, ELEVATOR
EOC	END OF CURB
EQ	EQUAL
EQUIP	EQU PMENT
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION, EXPOSED
EXT	EXTERIOR
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXT NGUISHER CABINET
FF	FINISH FLOOR
FH	FLAT HEAD
FHC	FIRE HOSE CABINET
FIN	FINISH(ED)
FLHMS	FLAT HEAD MACHINE SCREW
FLR	FLOOR
FRMG	FRAMING
FSTN	FASTEN(ED)
FTG	FOOT NG
FUR	FURR NG
GA	GAUGE/ GAGE
GALV	GALVANIZED
GL	GLASS
GYP	GYPSUM
HB	HOSE BIB
HC	HOLLOW CORE
HDR	HEADER
HDW	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT
HR	HOUR
HGT	HEIGHT
ID	INSIDE DIAMETER
INSUL	INSULATE(D)(NG)(ION)
INT	INTERIOR
INV	INVERT
IPS	IRON PIPE SIZE
JST	JOIST
JT	JOINT
KIT	KITCHEN
L	LENGTH, LONG
LAM	LAMINATE(D)
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LP	LOW POINT
LVR	LOUVER
MACH	MACHINE, MACHINERY
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MC	MEDICINE CAB NET
MECH	MECHANIC(AL)
MFR	MANUFACTURER ®
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPEN NG
MT	METAL THRESHOLD
MTL	METAL
MULL	MULLION
NEO	NEOPRENE
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OPPOSITE HAND, OVERHEAD
O-O	OUT TO OUT
OPNG	OPENING
OPP	OPPOSITE
PEMB	PRE- ENGINEERED METAL BLDG.
PL	PROPERTY LINE
PLAM	PLASTIC LAM NATE
PLAS	PLASTIC, PLASTER
PLY	PLYWOOD
POB	PO NT-OF-BEGINNING
PR	PRESSURE
PREFAB	PREFABRICATED
PT	PO NT
P.T.	PRESSURE TREATED
PTD	PAINTED
PVC	POLYVINYL CHLORIDE
R	RISER, RADIUS
RA	RETURN AIR
RAD	RADIUS
RAG	RETURN AIR GRILL
RAR	RETURN AIR REGISTER
RB	RUBBER BASE
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REF	REFRIGERATOR
REFL	REFLECTED
REINF	REINFORCED
RET	RETA N NG
RH	ROUND HEAD
RM	ROOM
RO	ROUGH OPENING
ROW, R/W	RIGHT OF WAY
RS	ROUGH SAWN
RVL	REVEAL
RWL	RAINWATER LEAD
S&R, R&S	SHELF AND ROD
SA	SOUND ATTENUATION
SAFB	SOUND ATTENUATION FIRE BLANKET
SAG	SUPPLY AIR GRILL
SAR	SUPPLY AIR REGISTER
SCH	SCHEDULE
SCWD	SOLID CORE WOOD DOOR
SDG	SIDING
SEC	SECURE
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
SLNT	SEALANT
SPEC	SPEC FICATION(S)
SS	STAINLESS STEEL
STD	STANDARD
STB	STEEL TUBE
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
SUSP	SUSPEND(ED)
TBS	TO BE SELECTED
T	TREAD
T&G	TONGUE AND GROOVE
TEMP	TEMPERED, TEMPORARY
THK	THICK(NESS)
THOLD, TH	THRESHOLD
THR, THD	THREADS
TLT	TOILET
TOC	TOP OF CURB
TOW	TOP OF WALL
TRTD	TREATED
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
VB	VAPOR BARRIER, VINYL BASE
VCT	VINYL COMPOSITION T LE
VERT	VERTICAL
W	WIDE, WIDTH
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WH	WATER HEATER
WR	WATER RESISTANT
WWM	WELDED WIRE MESH
∠	ANGLE
@	AT
℄	CENTERLINE
ϕ	DIAMETER
d	PENNY
ℙ	PLATE

ELECTRICAL NOTES:

1. ELECTRICAL CONTRACTOR TO BE RESPONSIBLE FOR ADHERING TO ALL APPLICABLE CODES AND SAFETY REQU REMENTS. VERIFY FIXTURE SELECTION AND LOCATION WITH OWNER.
2. GENERAL CONTRACTOR AND ELECTRICAL SUBCONTRACTOR TO WALK THROUGH THE JOB TO VER FY THAT THE DESIGN NTENT IS MAINTAINED.
3. GAS OR ELECTRICAL SERVICE TO BE PROVIDED AS REQU RED FOR ALL APPLIANCES AND EQUIPMENT, SUCH AS REFRIGERATOR, FREEZER, DISHWASHER, DISPOSAL, COOKTOP, OVENS, WASHER, DRYER, HVAC EQUIPMENT, ALARM PANEL, ETC. PROV DE OUTLET ABOVE RANGE FOR MICROWAVE OR HOOD VENT F FINAL KITCHEN LAYOUT REQUIRES.
4. ALL OUTLETS LOCATED WITH N 6 FEET OF ANY WATER CONDITION TO BE G.F.C.I. TYPE.
5. SWITCHES AND OUTLETS TO BE COORDINATED WITH THE OWNER, AND COLOR-MATCHED WITH INTERIOR TRIM.
6. ALL EXTERIOR-MOUNTED & ACCESSED OUTLETS TO BE WEATHER-RESISTANT & GFCI TYPE.
7. GENERAL CONTRACTOR TO VERIFY WITH THE OWNER, ALL LOCATIONS OF PHONE OUTLETS, COMPUTER OUTLETS, AND ELECTRONIC DEVICE OUTLETS. ALL COMPUTER OUTLETS TO BE ON A DEDICATED CIRCUIT.
8. GENERAL CONTRACTOR TO VERIFY WITH THE OWNER, THE LOCATIONS OF CABLE TV OUTLETS.
9. DIMMERS TO BE SIZED FOR THE APPROPRIATE LOAD OF THE FIXTURES AND LAMPS SELECTED. SLIDE-TYPE DIMMERS ARE PREFERRED.
10. VER FY TRIM SIZE FOR ALL DOORS AND WINDOWS TO TRIM, AND ALIGN WITH EACH OTHER IF THERE ARE MULTIPLE SWITCHES.
11. PREW RE SEPARATE SWITCHES FOR CE LING FAN AND CEIL NG FAN LIGHT.
12. GENERAL CONTRACTOR TO VERIFY WITH THE ARCHITECT AND/OR LANDSCAPE ARCHITECT, ALL LANDSCAPE AND EXTERIOR LIGHT NG CIRCUITS AND SWITCHES.
13. GENERAL CONTRACTOR TO VERIFY WITH THE OWNER WHETHER EXTERIOR SECURITY LIGHTS ARE DESIRED. IF SO, GENERAL CONTRACTOR TO VERIFY THE TYPE OF FIXTURE, LOCATION, AND REQUIRED SWITCHING.
14. GENERAL CONTRACTOR TO COORDINATE ALL THE REQU REMENTS OF AN ALARM SYSTEM, IF ONE IS DES RED.
15. PROVIDE HARDWIRED MOKE DETECTORS IN EACH BEDROOM AND OUTSIDE EACH BEDROOM IN CLOSE PROXIMITY, WITH BATTERY BACKUP. SMOKE ALARM TO BE PLACED NO LESS THAN 3'0 HORIZONTALLY FROM THE OUTSIDE OF A BATHROOM DOOR CONTA N NG A BATH TUB/SHOWER. VERIFY WITH LOCAL CODE REQU REMENTS.
16. EXISTING PANEL BOX MAY REQUIRE RELOCATION; PANEL BOX TO BE SIZED TO ACCOMMODATE ALL CALCULATION LOADS, AND PROVIDE FOR A M N MUM OF EIGHT (8) SPARES.
17. DECORATIVE LIGHT FIXTURES TO BE SELECTED BY THE OWNER, AND COORD NATED WITH THE GENERAL CONTRACTOR. THE OWNER TO APPROVE ALL SUBSTITUTIONS.
18. GENERAL CONTRACTOR TO COORDINATE THE LAMP SELECTION (RECESSED CAN SIZE AND TR M) WITH THE OWNER.
19. NUMBER OF HVAC UNITS TO BE DETERMINED BY THE LOCAL MECHANICAL CONTRACTOR.
20. HVAC UNITS ARE NOT TO BE WIRED/LOCATED NEXT TO MASTER BEDROOM OR PATIO/DECK AREAS.
21. LOCAL VENTILATION:
    A. PROVIDE 50 CFM VENTILATION FAN (MINIMUM) FOR EACH BATHROOM & LAVATORY.
    B. PROVIDE 100 CFM VENTILATION FAN AT KITCHEN RANGE HOOD.
22. ELECTRIC AND GAS METERS TO BE LOCATED AWAY FROM ANY PROMINENT VIEW. (VERIFY WITH LOCAL UTILITY).

E: ELEVATION NOTES

1. EXTERIOR FLASHING TO BE NSTALLED AT ALL CONNECTIONS BETWEEN ROOFS, WALLS, CHIMNEYS, PROJECTIONS, AND PENETRATIONS AS REQUIRED BY APPROVED CONSTRUCTION PRACTICES.
2. GENERAL CONTRACTOR TO PROVIDE ADEQUATE ATTIC VENTILATION AND ROOF VENTS PER LOCAL GOVERNING CODE. INSTALL CONTINUOUS RIDGE VENT LATION, AND PRIME & PAINT TO CLOSELY MATCH ROOF COLOR IF APPLICABLE. PROVIDE APPROPRIATE SOFFIT VENTILATION AT OVERHANGS.
3. ALL PLUMBING AND MECHANICAL VENTS TO BE LOCATED CLOSE TOGETHER WITH N THE ATTIC SPACE WHEN POSSIBLE TO MIN MIZE THE NUMBER OF ROOF PENETRATIONS. ALL PLUMBING AND MECHANICAL VENTS WHICH APPEAR ABOVE THE ROOF TO BE LOCATED AWAY FROM ANY PROM NENT VIEW. NO VENTS TO BE ALLOWED ON THE FRONT ROOF. ALL METAL AND PVC VENTS AND PENETRATIONS TO BE PRIMED & PAINTED TO CLOSELY MATCH THE ROOF COLOR. (VERIFY WITH OWNER)
4. GENERAL CONTRACTOR TO LOCATE UTILITY METERS AWAY FROM ANY PROMINENT VIEW. UTILITY METERS TO BE LOCATED AS CLOSE TO GRADE AS POSSIBLE TO MINIMIZE THE VISUAL MPACT OF THE METERS.
5. GENERAL CONTRACTOR TO VERIFY THE EXISTING TOPOGRAPHIC GRADES, AND LOCATE DOWNSPOUTS TOWARDS FRONT AND REAR OF HOUSE, BASED ON TOPOGRAPHIC CONDITIONS, TO ALLOW POSITIVE DRAINAGE AWAY FROM THE HOUSE. DO NOT LOCATE DOWNSPOUTS N PROMINENT LOCATIONS. GENERAL CONTRACTOR TO OBTAIN OWNER APPROVAL OF ALL DOWNSPOUT LOCATIONS. GUTTERS AND DOWNSPOUTS TO CLOSELY MATCH TRIM COLOR OF HOUSE; OR, F APPROPRIATE, DOWNSPOUTS MAY BE COLOR-MATCHED TO PRIMARY ELEVATION MATERIAL.
6. PROVIDE WATER-DISPERSING TRIM AT DORMER ROOFS, AND GUTTER GUARDS ON ALL GUTTERS.

M: MASONRY NOTES

1. STONE & MASONRY VENEER SHALL BE INSTALLED IN ACCORDANCE WITH RC SECTION R703.7.

BRICKS

2. PROVIDE UN FORMLY SIZED UNITS COMPLYING WITH ASTM C216, GRADE SW, TYPE FBS, AND LIME/CEMENT MORTAR CONFORMING TO ASTM C720, TYPE S.
3. INSTALL GALVANIZED ANCHORS @16" O.C. EACH WAY, WITH CADMIUM-PLATED SCREWS.
4. MASONRY VENEER ANCHORS TO BE EMBEDDED INTO THE GROUT OF THE VENEER AT LEAST 1.5 INCHES AND AT LEAST ¾" OF GROUT COVERAGE BEYOND THE ANCHOR TO THE EXTERIOR AS PER I.R.C. SECTION R703.7.4.
5. EXTERIOR WALL COVERINGS & BACKING MATERIALS TO MEET WIND LOADS AS PER I.R.C. SECTION R703.
6. THE VENEER SHALL BE SEPARATED FROM THE SHEATHING BY A MINIMUMNOMINAL 1" AIR SPACE, BUT NO MORE THAN 4-½".
7. FLASHING SHALL BE LOCATED BENEATH THE FIRST COURSE OF MASONRY ABOVE FINISHED GROUND LEVEL ABOVE THE FOUNDATION WALL OR SLAB, AND AT OTHER POINTS OF SUPPORT, INCLUDING STRUCTURAL FLOORS, SHELF ANGLES, & LINTELS. WHEN MASONRY VENEERS ARE DESIGNED N ACCORDANCE WITH I.R.C. SECTION R703.7.

WEEPS SHALL BE PROVIDED IN THE OUTSIDE WYTHES OF MASONRY WALLS AT A MAXIMUM SPACING OF 32" O.C. WEEPS SHALL BE LOCATED MMEDIATELY ABOVE THE FLASHING, AS PER I.R.C. SECTION R703.8.6.

W: WOOD DECK NOTES

1. ALL CONSTRUCTION SHALL BE PER INTERNATIONAL RESIDENTIAL BUILDING CODE.
2. DECK LOADS ARE 60 lb LIVE LOAD AND 10 lb DEAD LOAD. ANY SPECIAL LOADS (i.e., HOT TUBS, ETC.) SHOULD BE CONSIDERED AS WELL.
3. THE GENERAL CONTRACTOR SHALL VER FY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE ARCHITECT/ENGINEER SHALL BE NOTF ED OF ANY DISCREPANCY.
4. CONTRACTOR SHALL USE SIMPSON "STRONG-TIE" (OR APPROVED EQUAL) WOOD FRAMING ANCHORS, HANGERS, HOLD-DOWNS, ETC., FOR ALL WOOD-TO-WOOD CONNECTIONS. ALL ANCHORS TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. BEAMS AND PURLINS SHALL BE CONNECTED WITH METAL CONNECTORS. CONCRETE ANCHORS AND POST BASE CONNECTORS SHALL BE GALVANIZED WITH 1.85 oz/sf OF ZINC (G-185 COATING) OR STAINLESS STEEL. ALL HARDWARE AND FASTENERS (JOIST HANGERS, POST ANCHORS, MECHANICAL FASTENERS, NAILS, SCREWS, BOLTS, ETC.) SHALL BE GALVANIZED WITH 1.85 oz/sf OF Z NC (G-185 COATING) OR SHALL BE STAINLESS STEEL. LOOK FOR PRODUCTS SUCH AS "ZMAX" FROM SIMPSON-STRONG-TIE OR "TRIPLE ZINC" FROM USP.
5. UNLESS NOTED OTHERWISE IN THESE DETAILS, ALL FRAMING LUMBER SHALL BE SOUTHERN PINE, GRADE #2 OR BETTER AND SHALL BE PRESSURE TREATED ACO OR CA-B IN ACCORDANCE WITH AMERICAN WOOD-PRESERVERS' ASSOCIATION STANDARDS. ALL LUMBER IN CONTACT WITH THE GROUND SHALL BE RATED AS "GROUND CONTACT". PLEASE NOTE THAT NOT ALL TREATED LUMBER IS RATED FOR GROUND CONTACT.
6. ALL DECK NG MATERIAL SHALL BE 2x6 OR 5/4 (FIVE-QUARTER) BOARD. ATTACH DECK NG TO EACH JOIST WITH A MINIMUM OF (2) RING SHANK 8D NAILS OR 2-1/2" WOOD SCREWS. DECKING MAY BE APPLIED DIAGONALLY AT A 45 DEGREE ANGLE PERPENDICULAR TO THE JOISTS. DECKING COMPOSED OF FOREIGN LUMBER, COMPOSITE, OR MANUFACTURED MATERIALS MAY BE SUBSTITUTED ONLY WHEN THE PRODUCT HAS AN APPROVED EVALUATION REPORT FROM AN ACCREDITED TESTING LABORATORY. CHECK WITH YOUR LOCAL BUILDING DEPARTMENT FOR APPROVED MATERIALS OR REFER TO THE LIST OF APPROVED DECK NG PRODUCTS.
7. FOR STAIRS & GUARDRA LS, SEE: 'STA RS & RAILINGS', WITHIN 'FRAMING NOTES'.

ENERGY CODE

ATTIC ACCESS HATCHES & DOORS MUST BE WEATHER STRIPPED & INSULATED TO THE SAME LEVEL AS THE SURROUNDING SURFACES. SEE AIR SEALING NOTES ON SHEET A304

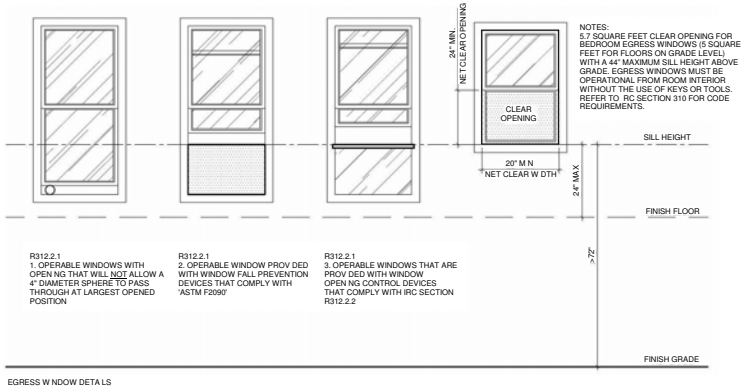
FLOOR INSULATION MUST BE INSTALLED TO MAINTAIN PERMANENT CONTACT WITH THE UNDERSIDE OF THE SUBFLOOR DECKING.

PROGRAMMABLE THERMOSTATS WITH DA LY SETBACK CAPABILITY REQUIRED WHERE PRIMARY HEAT NG SYSTEM IS FORCED A R WITH AN INITIAL SETTING NOT HIGHER THAN 70° FAHRENHEIT FOR HEATING, AND NOT LOWER THAN 78° FAHRENHEIT FOR COOLING.

SUPPLY DUCTS IN ATTICS RETAIN R-8 INSULATION REQUIREMENT. REQUIREMENTS FOR ALL OTHER DUCTS N UNCONDITIONED SPACE REDUCED TO R-6.

THE ENTIRE DUCT SYSTEM MUST BE SEALED.

IEC PRESCRIPTIVE REQUIREMENTS	ZONE 4
WINDOWS (U-FACTOR)	0.32
SKYLIGHTS (U-FACTOR)	0.55
GLAZED FENESTRATION SHGC	0.40
CEILING – OPEN ATTIC (R-VALUE)	49 / 38
CEILING - CATHEDRAL (R-VALUE)	38
WOOD FRAME WALL (R-VALUE)	20 / 13+5
MASS WALL (R-VALUE)	8 / 13
FLOOR (R-VALUE)	19
BASEMENT WALL (R-VALUE)	10 / 13
SLAB (R-VALUE)	10, 2 FT.
CRAWL SPACE WALL (R-VALUE)	10 / 13



NOTES:
5.7 SQUARE FEET CLEAR OPENING FOR BEDROOM EGRESS WINDOWS (5 SQUARE FEET FOR FLOORS ON GRADE LEVEL) WITH A 44" MAXIMUM SILL HEIGHT ABOVE GRADE. EGRESS WINDOWS MUST BE OPERATIONAL FROM ROOM INTERIOR WITHOUT THE USE OF KEYS OR TOOLS. REFER TO RC SECTION 310 FOR CODE REQUIREMENTS.

R312.2.1
1. OPERABLE WINDOWS WITH OPEN NG THAT WILL NOT ALLOW A 4" DIAMETER SPHERE TO PASS THROUGH AT LARGEST OPENED POSITION

R312.2.1
2. OPERABLE WINDOW PROV DED WITH WINDOW FALL PREVENTION DEVICES THAT COMPLY WITH 'ASTM F2090'

R312.2.1
3. OPERABLE WINDOWS THAT ARE PROV DED WITH WINDOW OPEN NG CONTROL DEVICES THAT COMPLY WITH IRC SECTION R312.2.2

EGRESS W NDOW DETA LS

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2/4/2025

CANSLER AVE DUPLEX
NEW RESIDENTIAL CONSTRUCTION
210 Cansler Ave, Knoxville, Tennessee

ISSUE	DATE	DESCRIPTION

DRAWN BY: MB

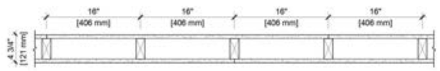
CONSTRUCTION NOTES

G002

PROJECT : 25003

DESIGN NO. UL U305

FIRE RATING:	1 HOUR
STC RATING:	33
SOUND TEST:	USG-151234
SYSTEM THICKNESS:	4-3/4" [121 MM]
LOCATION:	INTERIOR
FRAMING TYPE:	WOOD STUD (LOAD-BEARING)



ASSEMBLY REQUIREMENTS:

GYPSUM PANELS:	ONE LAYER 5/8" [15.9 MM] SHEETROCK® ECOSMART GYPSUM PANEL (UL TYPE ULIX™)
WOOD STUDS:	2" X 4" [38 X 89 MM] WOOD STUDS, 16" [406 MM] O.C.
GYPSUM PANELS:	ONE LAYER 5/8" [15.9 MM] SHEETROCK® ECOSMART GYPSUM PANEL (UL TYPE ULIX™)

GENERAL WALL NOTES:

1. REFER TO APPLICABLE CODES REQUIREMENTS TO ENSURE COMPLIANCE PRIOR TO CONSTRUCTION.
2. FOR THE MOST UP-TO-DATE DETAILS, INCLUDING CONSTRUCTION VARIATIONS, REFER TO THE PUBLISHED DESIGN.
3. WHERE DESIGN NO. INDICATES "PER", THE FIRE RATING IS BASED ON LABORATORY TEST DATA OF THE REFERENCED SIMILARLY CONSTRUCTED ASSEMBLIES.
4. STUD SIZES AND INSULATION THICKNESS ARE MINIMUM UNLESS OTHERWISE STATED IN THE PUBLISHED ASSEMBLY.
5. STUD AND FASTENER SPACINGS ARE MAXIMUM UNLESS OTHERWISE STATED IN THE PUBLISHED ASSEMBLY.
6. PANEL ORIENTATION SHALL BE AS SPECIFIED IN THE PUBLISHED DESIGN.
7. FIRE-RATINGS ARE FROM BOTH SIDES UNLESS OTHERWISE STATED.
8. FIRE-RATINGS ARE MAINTAINED WITH ONE OR MORE OF THE FOLLOWING MODIFICATIONS: INCREASE STUD DEPTH, INCREASE STUD MATERIAL THICKNESS, DECREASE STUD SPACING, DECREASE FASTENER SPACING, INCREASE INSULATION THICKNESS UP TO CAVITY DEPTH.
9. WHERE ACOUSTICAL PERFORMANCE IS PROVIDED IN AN ESTIMATED RANGE, THE VALUES ARE BASED ON LABORATORY TEST DATA OF SIMILARLY CONSTRUCTED ASSEMBLIES.
10. SOUND-RATINGS ARE MAINTAINED WITH ONE OR MORE OF THE FOLLOWING MODIFICATIONS: INCREASE STUD DEPTH, DECREASE STUD MATERIAL THICKNESS, INCREASE STUD SPACING, INCREASE FASTENER SPACING, INCREASE INSULATION THICKNESS UP TO CAVITY DEPTH. MODIFICATIONS MUST NOT EXCEED LIMITATIONS OF FIRE RATING.

USG CGC

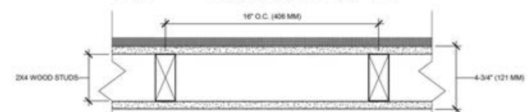
USG Corporation
550 West Adams Street
Chicago, IL 60661 USA
www.USG.com
T. 800-USG4YOU

UL U305

ISSUE RECORD:
Revision Date
10/05/2021 11:54:24 PM

SHEET INFORMATION:
W-P-1-03

HOURLY RATING:	FIRE DESIGN REFERENCE:	STC RATING:
1-HOUR	UL U305, ULC W301, GA WP 8130	45-49



ASSEMBLY DETAILS:

EXTERIOR SIDE: ONE LAYER 5/8" (15.9 MM) DENSGLASS® FIREGUARD X® SHEATHING APPLIED PARALLEL OR PERPENDICULAR TO 2 × 4 WOOD STUDS 16" (406 MM) O.C. WITH GALVANIZED ROOFING NAILS, 1-3/4" (44MM) LONG, 0.128" SHANK, 7/16" HEAD, 7" (178 MM) O.C. EXTERIOR SURFACE COVERED WITH WEATHER EXPOSED CLADDING OR FINISH SYSTEM.

INTERIOR SIDE: ONE LAYER 5/8" (15.9 MM) TOUGHROCK® FIREGUARD X® OR DENSARMOR PLUS FIREGUARD X® GYPSUM PANEL APPLIED PARALLEL OR PERPENDICULAR TO STUDS WITH 6D COATED NAILS, 1-7/8" (48 MM) LONG, 0.0915" SHANK, 1/4" (6 MM) HEADS, 7" (178 MM) O.C. JOINTS STAGGERED 16" (406 MM) ON OPPOSITE SIDES. (LOAD-BEARING).

SOUND TEST REFERENCE:
H5923.06-303-11-R0
SOUND TESTED WITH 3-1/2" GLASS FIBER INSULATION FRICTION FIT IN STUD CAVITY.

***NOT EVALUATED USING TOUGHROCK LITE-WEIGHT FIRE-RATED GYPSUM BOARD**

APPROVED FOR ASSEMBLY:

5/8" DENSARMOR PLUS® FIREGUARD® C INTERIOR PANEL
5/8" TOUGHROCK® FIREGUARD® C GYPSUM BOARD
5/8" DENSGLASS® FIREGUARD® SHEATHING
5/8" DENSELEMENT® BARRIER SHEATHING
5/8" DENSSHIELD® FIREGUARD® TILE BACKER
5/8" DENSARMOR PLUS® FIREGUARD® INTERIOR PANEL
5/8" TOUGHROCK® FIREGUARD X® GYPSUM BOARD
5/8" TOUGHROCK® LITE-WEIGHT FIRE-RATED GYPSUM BOARD
5/8" DENSDECK® FIREGUARD® ROOF BOARD
5/8" DENSDECK® FIREGUARD® PRIME ROOF BOARD
5/8" DENSDECK® STORMX® PRIME ROOF BOARD

EXTERIOR WOOD FRAMED WALL RATING - 1 HOUR

GEORGIA-PACIFIC
BUILDING PRODUCTS
133 PEACHTREE ST NE
ATLANTA, GA 30303
1-800-225-6119
WWW.BUILDGP.COM

ISSUED DATE
GP-EWFW-02

Georgia-Pacific Building Products

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UL ASSEMBLIES

G003

PROJECT : 25003

FOUNDATION NOTES

1. ASSUME SOIL BEARING PRESSURE OF 2500 PSI. TOPOGRAPHY AND GRADE TO BE DETERMINED BY CIV L ENGINEER.
2. IF CRAWL SPACE WALL IS OVER 10'-0" HIGH, 8"X12" CMU TO BE UTILIZED.
3. APPROXIMATE SITE LOCATION AND TOPOGRAPHY SHOWN. GENERAL CONTRACTOR TO WORK WITH CIVIL AND STRUCTURAL TEAM TO CLARIFY HOME LOCATION AND RETAINING REQUIREMENTS ON THE PROPOSED SITE BASED ON LOCATION WITHIN SETBACK REQUIREMENTS AND ANY CITY, CODE, OR SEPTIC REQUIREMENTS PRIOR TO SUBMISSION.
4. FOUNDATION IS LAID OUT FOR A SITE WITH NO MORE THAN 10% SLOPE. IF THE SLOPE IS GREATER THAN 10%, CONFER WITH A STRUCTURAL ENGINEER.
5. PROV DE 10 MIL POLY VAPOR BARRIER
6. PROV DE FOUNDATION VENTS PER IRC R408.1 (THE MIN MUM NET AREA OF VENTILATION OPENINGS SHALL BE NOT LESS THAN 1 SQUARE FOOT FOR EACH 1,500 SQUARE FEET OF UNDER-FLOOR SPACE AREA. ONE SUCH VENTILATION OPENING SHALL BE WITHIN 3 FEET OF EACH CORNER OF THE BUILD NG.)
7. STEP FOUNDATION AS REQU RED FOR SITE
8. F ELD LOCATE A MIN OF 18" X 24" ACCESS DOOR.

WALL LEGEND

- 2X4 WOOD STUDS @16" O.C. WITH R-20 BATT INSULATION -1/2" GYP BOARD INTERIOR SIDE -1/2" PLYWOOD SHEATH NG, TYVEK WEATHER BARRIER & SIDING EXTERIOR SIDE (SEE EXTERIOR ELEVATIONS)
- 2X4 WOOD STUDS @16" O.C. -1/2" GYP BOARD BOTH SIDES
- 8" CMU FOUNDATION WALL
- 1 HR. SEPARATION 2x6 WALL - UL U305
- 1 HR. EXTERIOR 2x4 WALL - GP-EWFW-02

WINDOW LEGEND:

SH	S NGLE HUNG
S	SL D NG

FLOOR PLAN NOTES:

TYPICAL BLOCKING NOTE:

PROV DE WOOD BLOCKING IN THE WALLS AS REQUIRED TO SUPPORT & ATTACH ALL WALL HUNG ITEMS SUCH AS CABINETS, BRACKETS, HAND RAILS, GRAB BARS, ETC. THE BLOCKING & ITS ATTACHMENTS SHALL CARRY THE MINIMUM WEIGHT, VERIFY WITH MANUFACTURER.

TYPICAL WINDOW NOTE:

GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE FOLLOWING CONDITIONS SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION:

- THE EXPOSED AREA OF AN NDIV DUAL PANE IS LARGER THAN 9 SQUARE FEET
- THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18 INCHES ABOVE THE FLOOR
- THE TOP EDGE OF THE GLAZING IS MORE THAN 36 NCHES ABOVE THE FLOOR
- ONE OR MORE WALKING SURFACES ARE WITHIN 36 NCHES, MEASURED HORIZONTALLY AND IN A STRAIGHT L NE, OF THE GLAZING

SEE R308.4.3 GLAZING N W NDOWS FOR EXCEPTIONS (E.G. DECORATIVE GLAZING)

PLAN NOTE:

CABINETRY AND FURNITURE IS SHOWN FOR PLANNING PURPOSES ONLY. CONTRACTOR TO COORDINATE WITH OWNER.

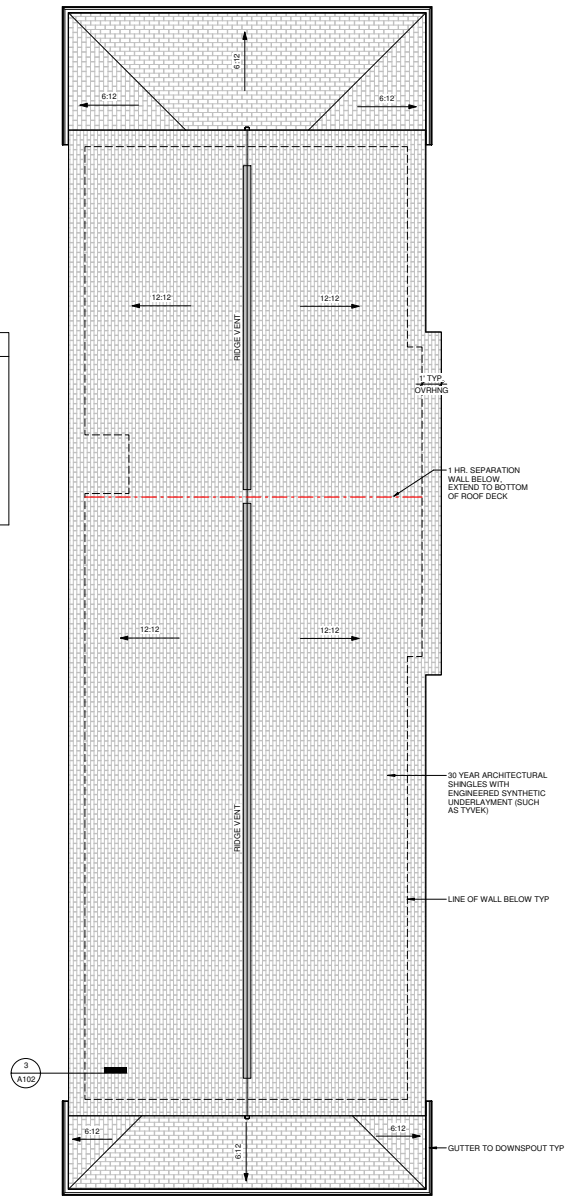
ALL EXTERIOR DOORS TO BE INSULATED, AND HAVE WEATHER STR PPING (AND APPROPRIATE THRESHOLD)

TYPICAL DECKS, PATIOS & PORCHES:

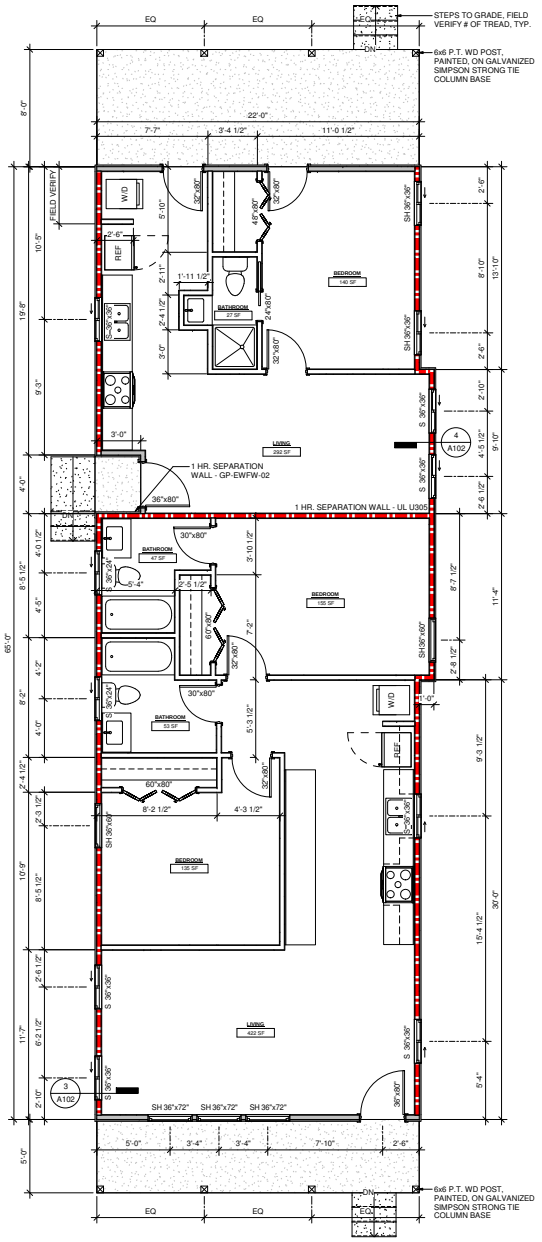
DECKS, PATIOS & PORCHES TO BE 1/2" BELOW ADJACENT FINISHED FLOOR. PROVIDE FLASHING AT ALL FLOOR TRANSITIONS AT DECK, PATIOS, & PORCHES

IF THE FINISHED FLOOR HEIGHT OF THE DECK IS 30" ABOVE GRADE, STAIRS AND RAILINGS TO GRADE MUST BE ADDED. RAILINGS TO BE 36" TALL WITH A MINIMUM OF 4" TOP AND BOTTOM RAILS WITH 2" PICKETS SPACED AT NO MORE THAN 3 7/8".

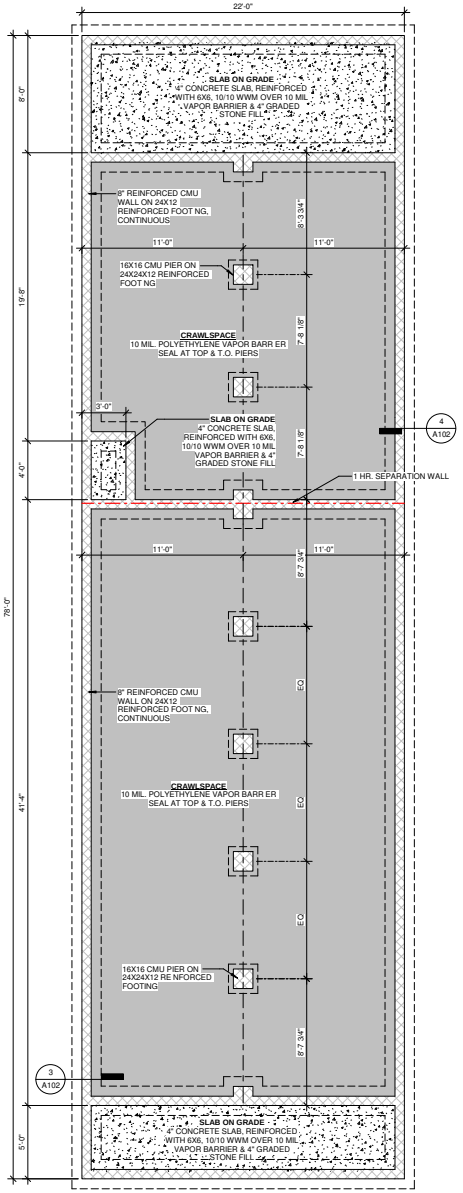
IMPERVIOUS SURFACES TO BE SLOPED AWAY FROM STRUCTURE @ 1/8" PER FOOT



2 A101 ROOF PLAN
1/4" = 1'-0"



1 A101 MAIN FLOOR PLAN
1/4" = 1'-0"



3 A101 FOUNDATION PLAN
1/4" = 1'-0"

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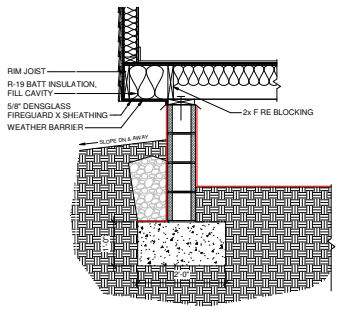
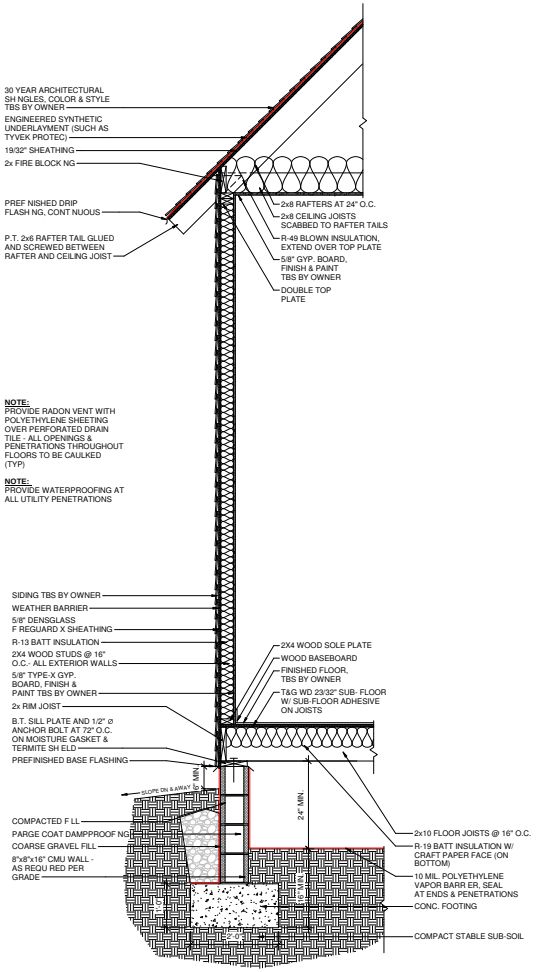
FOUNDATION PLAN, FLOOR PLAN, & ROOF PLAN

A101

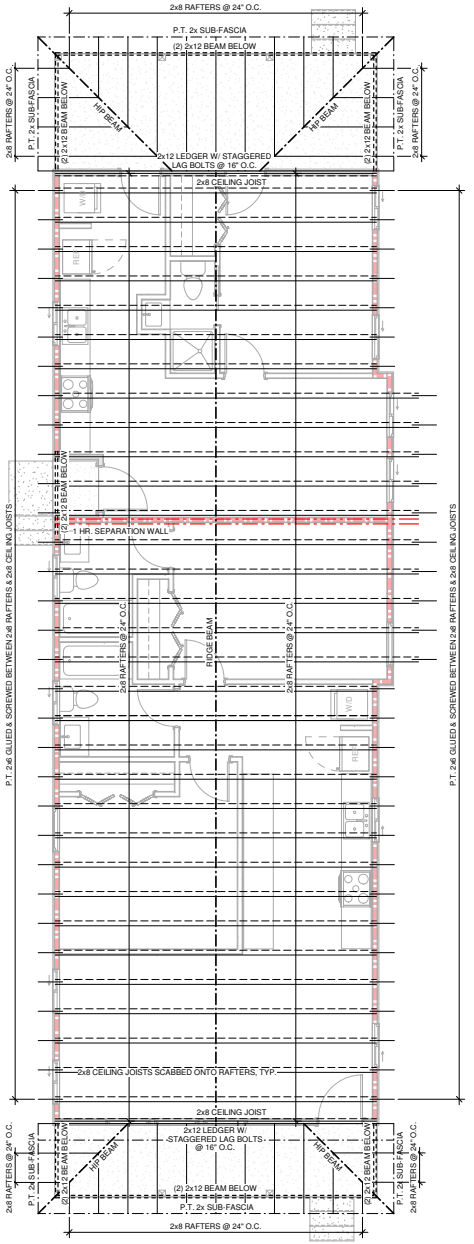
PROJECT : 25003



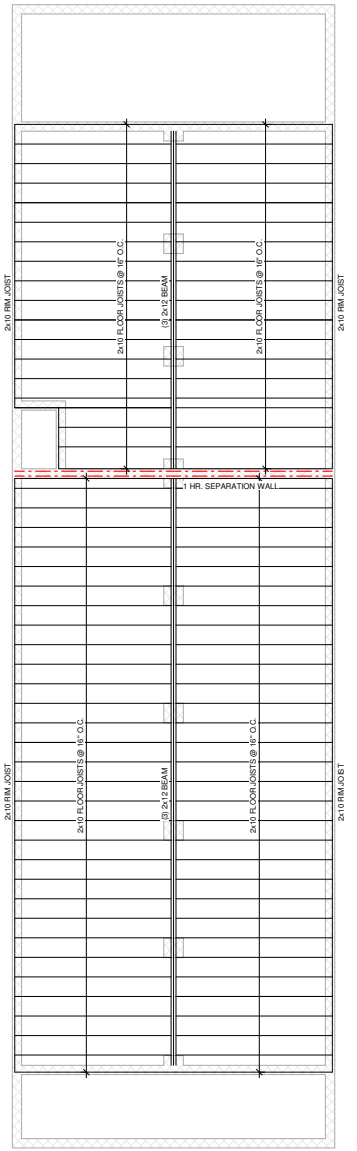
4 A102 BAY WINDOW DETAIL - 1 HR. ASSEMBLY
3/4" = 1'-0"



3 A102 TYPICAL WALL SECTION
3/4" = 1'-0"



2 A102 SCHEMATIC ROOF FRAMING PLAN
1/4" = 1'-0"



1 A102 SCHEMATIC MAIN FLOOR FRAMING PLAN
1/4" = 1'-0"

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SCHEMATIC FRAMING PLANS & WALL SECTION

A102

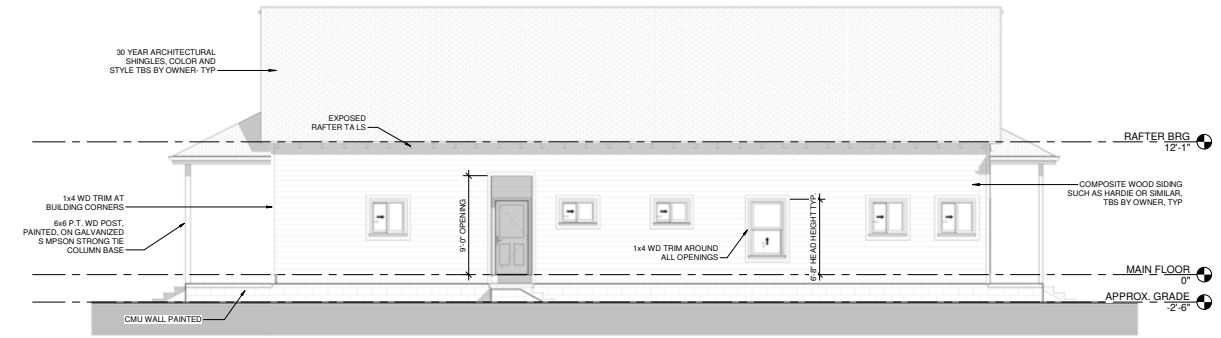
PROJECT : 25003

DESIGN ELEMENTS:

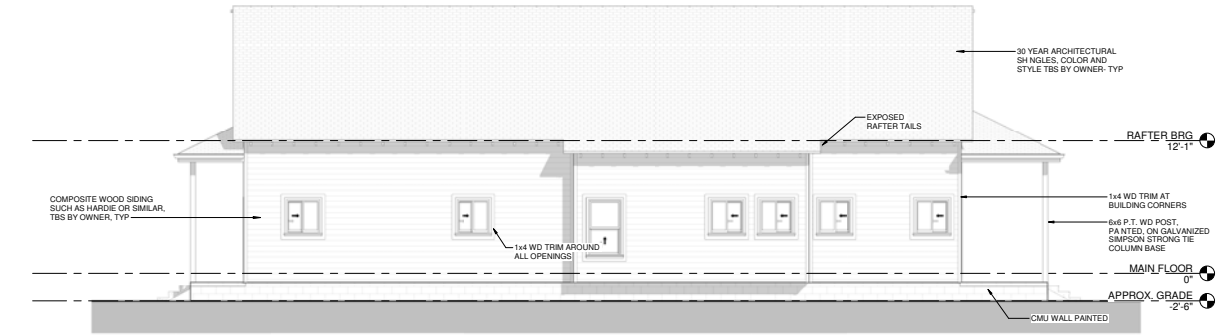
1. STEEP PITCHED ROOF
2. ARTICULATED DOOR AND WINDOW TR M
3. DECORATIVE GABLE
4. EXPOSED RAFTER TAILS AND PLYBEAD SOFFITS
5. CANTILEVER BAY WINDOW
6. ENTRY FEATURE

EXTERIOR ELEVATION NOTES

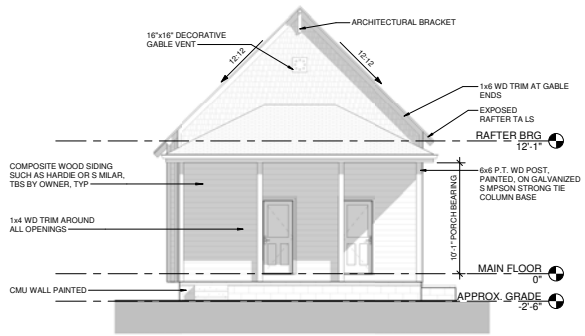
APPROX MATE SITE LOCATION AND TOPOGRAPHY. GENERAL CONTRACTOR TO WORK WITH CIV L AND STRUCTURAL TEAM TO CLARIFY HOME LOCATION ON PROPOSED SITE AND ANY RETAINING REQUIREMENTS. CONFIRM ANY BUILDING ADJUSTMENTS WITH ARCHITECT BASED ON LOCATION WITHIN SETBACK REQU REMENTS AND ANY CITY, CODE OR SEPTIC REQUIREMENTS PRIOR TO SUBMISSION.



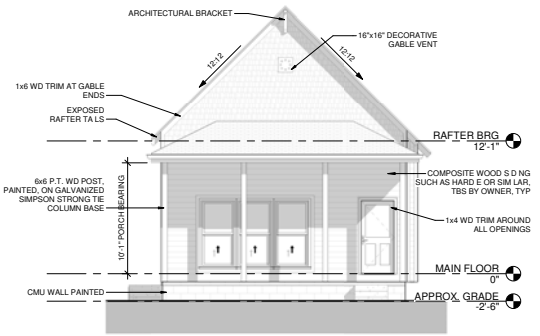
4 A201 LEFT ELEVATION
3/16" = 1'-0"



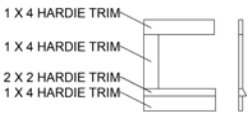
3 A201 RIGHT ELEVATION
3/16" = 1'-0"



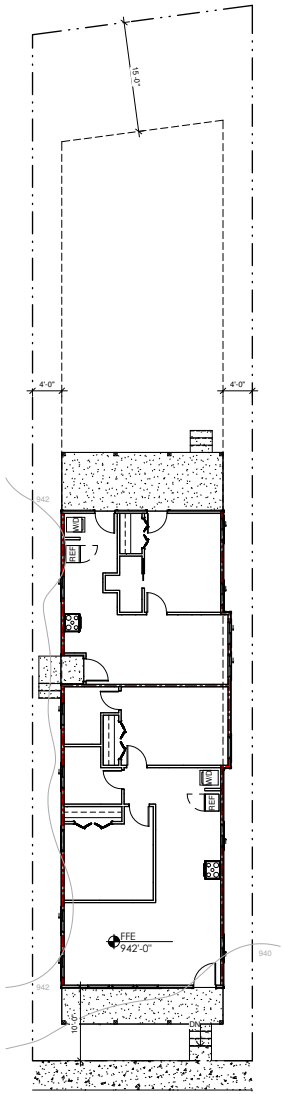
2 A201 REAR ELEVATION
3/16" = 1'-0"



1 A201 FRONT ELEVATION
3/16" = 1'-0"



5 A201 ARTICULATED WINDOW & DOOR TRIM DETAIL
NTS



6 A201 ARCHITECTURAL SITE PLAN
1/8" = 1'-0"

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EXTERIOR ELEVATIONS & SITE PLAN

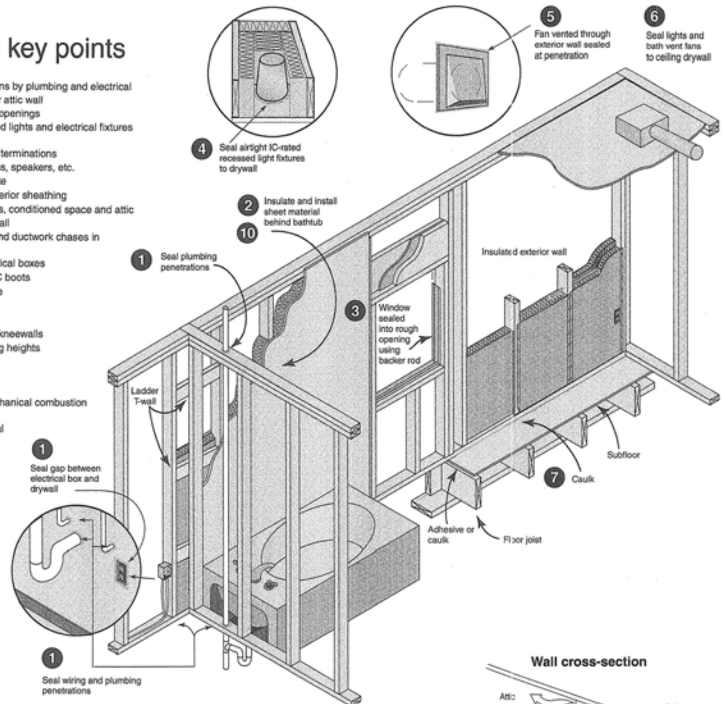
A201

PROJECT : 25003

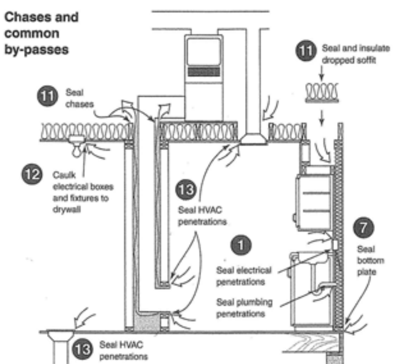
Appendix

Air sealing key points

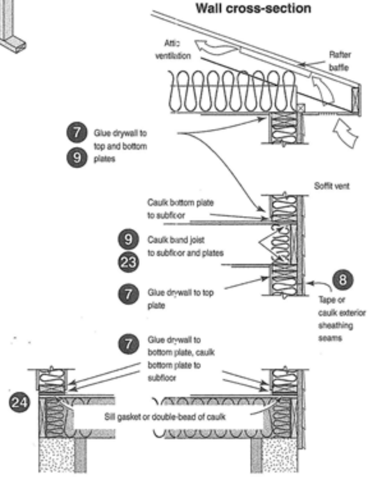
1. Plate and wall penetrations by plumbing and electrical
2. Tub/shower on outside or attic wall
3. Window and door rough openings
4. Airtight, IC-rated recessed lights and electrical fixtures exposed to attic
5. Exterior wall exhaust fan terminations
6. Ceiling mounted bath fans, speakers, etc.
7. Bottom plate and top plate
8. Seams between rigid exterior sheathing
9. Band area between floors, conditioned space and attic
10. Garden tub on exterior wall
11. Mechanical equipment and ductwork chases in attics, crawlspaces
12. Ceiling/crawlspace electrical boxes
13. Ceiling/crawlspace HVAC boots
14. Shower and tub drain line
15. Fireplace inserts
16. Attic kneewall doors
17. Joist cavities under attic kneewalls
18. Transition between ceiling heights (e.g., 10' to 8')
19. Attic scuttle hole
20. Attic pull-down stairs
21. Wall penetrations of mechanical combustion closets
22. Thresholds at mechanical combustion closet doors
23. Band joist exposed to exterior
24. Band area exposed to unconditioned space (such as basement or garage)
25. Exterior wall penetrations for refrigeration lines, condensate line, etc.



Chases and common by-passes

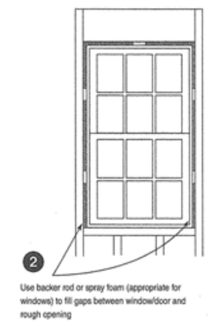


Wall cross-section

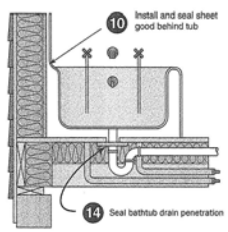


Air sealing key points *continued*

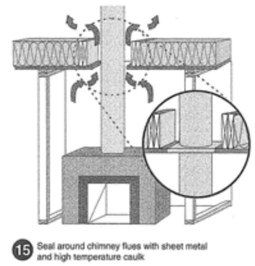
Window rough opening



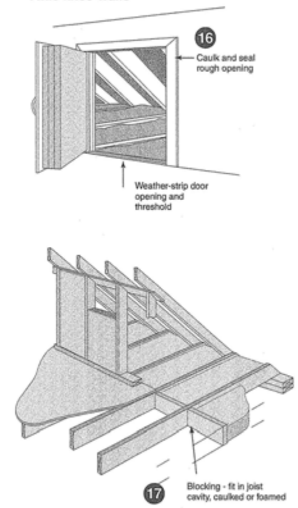
Shower/tub drain rough opening



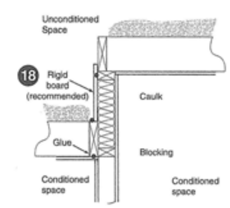
Combustion chase penetrations



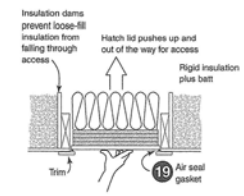
Attic knee-walls



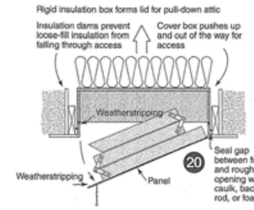
Two-level attic



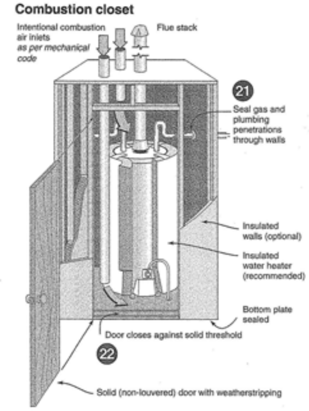
Attic scuttle



Attic pull-down stairs

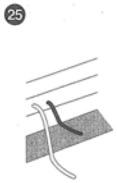


Combustion closet



Exterior penetrations

25



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AIR SEALING DETAILS

A304

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