As directed by the North Carolina Board of Architecture and Registered Interior Designers, architectural seals are not required for – and should not be placed by NVR on – these plans and specifications.



As directed by the North Carolina Board of Architecture and Registered Interior Designers, architectural seals are not required for - and should not be placed by NVR on - these plans and specifications. These plans and specifications are prepared solely by, and for the exclusive use of, NVR, Inc. and are solely for a family residence consisting of eight or fewer attached units with grade level exits and which is not part of or physically connected with any other buildings or residential units. NVR, Inc. does not provide any third party the opportunity to customize these plans. The respective drawings contained herein shall be used only as construction assembly drawings by NVR, Inc. and its subcontractors. Any unauthorized use of these plans without the written consent of NVR, Inc. is prohibited.

POPLAR

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RLH-NM-1006-B		
COMM-LOT		
TOWNES AT NORTH MAIN - 1006B		
STREET ADDRESS		APT. NO.
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CITY	STATE	ZIP
LILLINGTON	NC	----

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1	CS-1	COVERSHEET		RF-1	ROOF FRAMING DETAILS			
1.1	SS-1	SPEC. SHEET		RF-1B	ROOF FRAMING DETAILS			
2	CA-1	ROOF VENT AND VOLUME CALCULATIONS		RF-1C	ROOF FRAMING DETAILS			
2.1	NC-1	STRIP ELEVATIONS		SEP-1	STANDARD ENERGY PACKAGE DETAILS			
2.2	NC-1	STRIP FOUNDATION		SEP-2	STANDARD ENERGY PACKAGE DETAILS			
3	NC-1	FRONT AND REAR ELEVATIONS		SEP-3	STANDARD ENERGY PACKAGE DETAILS			
6	NC-3	FOUNDATION		SEP-4	STANDARD ENERGY PACKAGE DETAILS			
7	NC-3B	FOUNDATION CONTROL JOINT		ST-1	STAIR DETAILS			
8	NC-4	FOUNDATION HOLD DOWNS		WB-1	WALL BRACING DETAILS			
9	NC-5	PLUMBING		WB-2	WALL BRACING DETAILS			
10	NC-6	FIRST FLOOR PLAN		WD-1	WINDOW DETAILS			
11	NC-7	SECOND FLOOR PLAN		WD-3	WINDOW DETAILS			
12	NC-8	BUILDING SECTION		WS-1F	WALL SECTION DETAILS			
13	NC-9	BUILDING SECTION - GARAGE						
19	S-1	SECOND FLOOR FRAMING						
20	S-2	ROOF FRAMING						
22	S-4	BRACED WALL PANELS						
	AD-1	HOUSE SPECIFIC DETAILS						
	DR-1	DOOR DETAILS						
	DR-1B	DOOR DETAILS						
	DR-3	DOOR DETAILS						
	ET-1	EXTERIOR TRIM DETAILS						
	ET-1B	EXTERIOR TRIM DETAILS						
	ET-1C	EXTERIOR TRIM DETAILS						
	ET-1D	EXTERIOR TRIM DETAILS						
	ET-1E	EXTERIOR TRIM DETAILS						
	ET-1G	EXTERIOR TRIM DETAILS						
	ET-1H	EXTERIOR TRIM DETAILS						
	ET-1J	EXTERIOR TRIM DETAILS						
	ET-3	EXTERIOR TRIM DETAILS						
	F-1	FLASHING DETAILS						
	F-1B	FLASHING DETAILS						
	F-1D	FLASHING DETAILS						
	F-3	FLASHING DETAILS STONE						
	F-3B	FLASHING DETAILS STONE						
	FA-1	FIRE ASSEMBLY DETAILS						
	FA-1B	FIRE ASSEMBLY DETAILS						
	FA-1C	FIRE ASSEMBLY DETAILS						
	FA-1D	FIRE ASSEMBLY DETAILS						
	FA-2	FIRE ASSEMBLY DETAILS						
	FC-1	FRAMING/FASTENER DETAILS						
	FC-1B	FRAMING/FASTENER DETAILS						
	FC-2	FRAMING/FASTENER DETAILS						
	FC-4	FRAMING/FASTENER DETAILS						
	FC-5	FRAMING/FASTENER DETAILS						
	FD-1	FOUNDATION DETAILS						
	FD-1B	FOUNDATION DETAILS						
	FD-4	FOUNDATION DETAILS						
	FD-7	CONTROL JOINT DETAILS						
	IT-1	INTERIOR TRIM DETAILS						
	IT-1B	INTERIOR TRIM DETAILS						
	IT-1C	INTERIOR TRIM DETAILS						
	JT-1	FLOOR FRAMING DETAILS						
	JT-1B	FLOOR FRAMING DETAILS						
	JT-3	FLOOR FRAMING DETAILS						
	JT-3B	FLOOR FRAMING DETAILS						
	KT-1	KITCHEN TRIM DETAILS						
	KT-1B	KITCHEN TRIM DETAILS						

STRUCTURAL DESIGN CRITERIA

- ALL LOCAL AND STATE CODES
- ROOF LIVE LOAD 20 psf
- ULTIMATE WIND SPEED 130 mph
- WIND EXPOSURE CATEGORY B
- SEISMIC DESIGN CATEGORY A / B

NVR

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NVR, Inc.
5285 Westview Drive,
Suite 100
Frederick, MD 21703

James Sales
06/30/2025

FIRST FLOOR SQUARE FOOTAGE

DESCRIPTION	TOTAL SQ. FT.
1ST FLOOR (BASE SF)	583 SF
	583 SF

SECOND FLOOR SQUARE FOOTAGE

DESCRIPTION	TOTAL SQ. FT.
2ND FLOOR (BASE SF)	859 SF
	859 SF

GARAGE SQUARE FOOTAGE

DESCRIPTION	TOTAL SQ. FT.
ONE CAR GARAGE	236 SF
	236 SF

OUTDOOR SQUARE FOOTAGE

DESCRIPTION	TOTAL SQ. FT.
1ST FLOOR FRONT COVERED PORCH (ADD SF)	24 SF
	24 SF

TOTAL FINISHED SQUARE FOOTAGE

DESCRIPTION	TOTAL SQ. FT.
1ST FLOOR (BASE SF)	583 SF
2ND FLOOR (BASE SF)	859 SF
	1442 SF

SET NO. - VERSION	SHEET NO.	PAGE NO.
PLR00 - 01	CS-1	

RELEASE NO. ----

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GENERAL

1. These plans and specifications are designed for the exclusive use by NVR, Inc. for the purpose of residential construction. As such, these products are offered for sale in NVR, Inc. communities only. NVR, Inc. is a production homebuilder and does not provide the opportunity to customize these plans. The respective drawings contained here in shall only be used as construction assembly drawings by NVR, Inc. and their sub-contractors. Any unauthorized use of these plans without the written consent of NVR, Inc. is prohibited. **All standard notes, section markers, elevation markers and title markers that reference "A-#" shall be considered "NC-#" for sheet reference.**
2. These plans are subjected to modification as necessary to meet code requirements or to facilitate mechanical/plumbing installations or to incorporate design improvements.
3. These plans are not to be scaled for construction purposes. Dimension lines and notes supersede all scale references.
4. Single Family Attached/Detached - Automatic residential fire sprinkler systems shall be installed in accordance with **NCRBC P2904** or **NFPA 13D** where required.
5. This note sheet only covers major code requirements. The plans are intended to conform to all current applicable codes or engineering design in accordance with **Section 301.1.3.**

CODE ANALYSIS

1. This note sheet only covers major code requirements. The plans are intended to conform to all current applicable codes including, but not limited to:

   NCRC 2018, NCMC 2018, NCPC 2018, NCFGC 2018, NEC 2020 w/ NC Amendments, NCEC 2018, NCFPC 2018
2. Constr. Type: V-B
3. Max Stories: 3

ENERGY AND MECHANICAL

1. Insulation requirements per 2018 NCRC Chapter 11, Energy Efficiency, or Chapter 4 of the 2018 North Carolina Energy Conservation Code (NCECC), or Chapter 4 of the 2015 International Energy Conservation Code (IECC), Residential Energy Efficiency by the prescriptive method. See NVR "Standard Energy Package" for field procedures and details.

   R-values shown below are the minimum used.

CLIMATE ZONE	FENESTRATION U-FACTOR	GLAZED FENESTRATION SHGC	CEILING R-VALUE	FRAME WALL R-VALUE 2x4 / 2x6	FLOOR R-VALUE	BASEMENT WALL R-VALUE UNFIN. / FIN.	SLAB R-VALUE & DEPTH	CRAWL SPACE WALL R-VALUE
3	0.35	0.30	38	15 / 19	19	5 / 15	NA	5 / 15
4	0.35	0.30	38	15 / 19	19	10 / 15	10	10 / 15

2. All HVAC equipment is sized based on ACCA Manual J calculations. Ductwork is sized using ACCA Manual D. Minimum efficiencies of equipment are as listed below. Upgrades for improved energy performance may be installed.
   - Air conditioner - 14 SEER
   - Gas furnace - 92% / 96%
   - Heat Pump - 8.2 HSPF
3. Winter interior design temperatures shall be 70°F and summer interior design temperatures shall be 75°F. Exterior design temperatures vary based on geographic location and are listed on the Manual J calculations.
4. Roof ventilation calculations are based on the following specifications:

   Ridge vent: Minimum 18 sq. in. of vent per linear foot
   Soffit vent: Minimum 9.9 sq. in. of vent per linear foot
   Roof Jack (box vent): Minimum 45 sq. in. of vent per unit
5. See NVR "Standard Energy Package" for field procedures and details.

DESIGN LOADS

Table of Loads for House Structure. Per **Table 301.5**

Floor Living Areas - 40# P.S.F. (Live)
- 10# P.S.F. (Dead) unless noted otherwise by calculations

Floor Sleeping Areas - 30# P.S.F. (Live) unless noted otherwise by calculations
- 10# P.S.F. (Dead) unless noted otherwise by calculations

Garage Floors - 50# P.S.F. (Live)
- 50# P.S.F. (Dead)

Roof Areas - Top Chord - 20# P.S.F. (Live)
- 10# P.S.F. (Dead)

- Bottom Chord - 10# P.S.F. (Live) (Attics without storage)
- 20# P.S.F. (Live) (Attics with limited storage)
- 10# P.S.F. (Dead)

Habitable Attics - 30# P.S.F. (Live)

Trusses - Areas up to 130 mph ultimate wind speed per **Table R301.2(4)**
- Exposure category 'B'

Walls - Areas up to 130 mph ultimate wind speed per **Table R301.2(4)**

Vult	115 mph	130 mph
Vasd	89 mph	101 mph

Note: Linear interpolation between contour lines permitted.

Stairs - 40# P.S.F. (Live)
- 10# P.S.F. (Dead)

Allowable deflection of structural members per IRC **Table R301.7**

Design Criteria

Design Codes:
1. National Design specification for Wood Construction by National Forest Products Association.
2. Specification for the Design Fabrication and Erection of Structural Steel for Buildings by American Institute of Steel Construction.

Materials:
Headers* Southern Pine (KD-19), No. 1 Grade
Studs Spruce-Pine-Fir, Stud Grade
Jacks Spruce-Pine-Fir, Stud Grade
Beams** Southern Pine (KD-19), No. 1 Grade
Joists 2x10 Hem-Fir (KD-19), No. 2 Grade or better (NCLIB & WWPA)
2x8 Southern Pine (KD-19), No. 1 Grade or better
2x10 Spruce-Pine-Fir (KD-19), No. 2 Grade or better (NLGA)
LVL 1.9E Minimum

* **Where required, Laminated Veneer Lumber may be used per Engineering**
** **Structural Steel - A.S.T.M. A36**

FOUNDATIONS

1. All plain and reinforced concrete shall comply with requirements in **ACI 318.**
2. Concrete footings shall be poured a maximum 5" slump, 5 bag mix, and 2,500 psi minimum strength per **Table R402.2.** Concrete walls shall be poured a maximum 5" slump, 5 1/2-bag mix, and 3,000 psi minimum strength per **Foundation Wall Design** table below. Special soil and or wall height conditions may require a higher psi mix.
3. Walls and footings designed as unreinforced unless otherwise specified on foundation plans or details. Special soil and/or site conditions may require the addition of reinforcing.
4. Footing frost depth to be no less than 12" per **R403.1.4** and **Table R301.2(1).**
5. Minimum Soil Bearing Capacity shall be 2,000 PSF per **Table R401.4.1.**
6. Slab requirements:

   Interior slabs on grade (excluding garage slabs) to be minimum 3-1/2" concrete (may be represented on plans as nominal 4") over 4" sub-base, with vapor barrier (6-mil polyethylene) as required per **Section 506** and a minimum 2500 PSI per **Table R402.2.**

   Non-structural garage slabs shall be nominal 3-1/2" thick and shall be installed on compacted / undisturbed soil per **Table R402.2.** Slabs shall be 3,500 PSI air-entrained concrete.

   Structural garage slabs utilizing grade beams shall be nominal 4" thick. Slabs shall be 3,500 PSI air-entrained concrete.

   Porch slab and exterior concrete work shall be nominal 4" minimum 3,500 PSI air-entrained concrete with 6x6 W1.4xW1.4 mesh or equivalent fiber mesh reinforcement.
7. Unconditioned crawl spaces shall have a minimum net area of ventilation not less than 1 square foot for each 150 square feet of area, unless the ground surface is covered by a Class 1 vapor retarder, in which case the minimum net area of ventilation shall not be less than 1 square foot for each 1,500 square feet of area. One such ventilating opening shall be within 3 feet (914 mm) of each corner of the building, per **R408.1.2.**
8. Foundation drains shall be located per local codes and according to local site conditions. Drain discharge by gravity or mechanical means to conform with approved site plan and installed per **Section R405.1.**
9. The top course of block of foundation walls shall be semi-solid block or open cores of hollow block shall be filled with mortar.
10. Block piers to be solid block or mortar-filled hollow block.
11. A poured concrete foundation wall designed to withstand an equivalent fluid weight of 30# per cubic ft. may be substituted where masonry units (block) are shown on plans.
12. Concrete and masonry foundation walls shall be dampproofed with min. 3/8" portland cement parging from footing to top of finished grade. The parging shall be covered with a coat of approved bituminous material applied at the recommended rate per **R406.1.**
13. Where required, concrete and masonry foundation walls shall be waterproofed with an approved membrane extending from footing to top of finished grade. The joints in the membrane shall be lapped and sealed with an adhesive compatible with the waterproofing membrane. Waterproofing to be in accordance with **R406.2.**
14. Reserved for future use.
15. Foundation framing anchors shall be 1/2"x18" anchor bolts with 7" minimum embedment or Simpson Strong-Tie MASA / USP FA3 (16 gauge steel, galvanized) or equivalent set in concrete or grouted cell, 1'-0" maximum from corners and spaced at a maximum of 6' o.c. and in the middle third of the width of the plate. For walls connecting offset braced wall panels, those 24" in length or shorter shall have min. (1) anchor strap and those 12" or shorter can be installed without anchor straps. Townhouses in seismic design category "C" shall require a .229" x 3" x 3" plate washer per **R403.1.6.1** and maximum anchor bolt spacing for buildings over two stories shall be 4'.
16. Steel columns and bases shall be given a shop coating of rust-inhibitive paint or equivalent to provide corrosion resistance per **R407.2.**
17. For masonry veneers:

   Per **R703.8.4.1** - Corrugated sheet metal veneer ties shall be a minimum of No. 22 U.S. gauge by 7/8 inch. Each tie shall be spaced not more than 32" o.c. horizontally and 24" o.c. vertically and shall support not more than 2.67 square feet of wall area. For townhouses in Seismic Design Category C and in wind areas of more than 30 pounds per square foot pressure, each tie shall support not more than 2 square feet of wall area.

   Additional metal ties shall be provided around all wall openings greater than 16 inches (406 mm) in either dimension. Metal ties around the perimeter of openings shall be spaced not more than 3 feet (9144 mm) on center and placed within 12 inches (305 mm) of the wall opening.

   Per **R703.2** - One layer of No. 15 asphalt felt or other approved water-resistive barrier shall be provided behind brick.

   Per **Table R703.8.4** - Provide minimum 1-inch air space between brick veneer and sheathing.

   Per **R703.8.6** - Provide minimum 3/16" diameter weep holes at 33" on center maximum, located immediately above the flashing.

   Per **R703.8.5** - When veneer of brick, clay tile, concrete, or natural or artificial stone are used, 6 mil plastic flashing shall be attached to the sheathing wherever necessary to prevent moisture penetration behind the veneer. See NVR Flashing Details.
18. Reserved for future use.
19. Foundation wall strip footing thickness to be 8" (or 6" with a single story) unless otherwise noted as specified by engineering. Strip footing projections beyond the face of the foundation wall shall not to exceed the footing thickness. Bump out footings, pier pads, and any other footing identified as being greater than 8" in thickness shall not be reduced.
20. Block foundation walls may be substituted for poured foundation walls shown on foundation plans provided all requirements of **Section R404** are met.
21. Termite treatment provided below slabs or to framing members per **R318.1**

FOUNDATION WALL DESIGN(c)

NCRBC PRESCRIPTIVE CODE OR ENGINEERED DESIGN PER ACI 332

WALL HEIGHT	WALL THICKNESS	LATERAL SOIL LOAD (a)	UNBALANCED FILL	VERTICAL REINFORCING (b)	HORIZONTAL REINFORCING (b)
8'-0"	8"	45	6'-0"	NOT REQUIRED	2- #4 BARS (f)
			7'-0"	NOT REQUIRED (d)	3- #4 BARS (d,e)
		60	6'-0"	NOT REQUIRED (d)	3- #4 BARS (d,e)
			7'-0"	#4 @ 22" O.C. (d)	3- #4 BARS (d,e)
	10"	45	6'-0"	NOT REQUIRED	2- #4 BARS (f)
			7'-0"	NOT REQUIRED	2- #4 BARS (f)
		60	6'-0"	NOT REQUIRED	2- #4 BARS (f)
			7'-0"	NOT REQUIRED	2- #4 BARS (f)
9'-0"	8"	45	7'-0"	NOT REQUIRED (d)	4- #4 BARS (d,e)
			8'-0"	#4 @ 19" O.C. (d)	4- #4 BARS (d,e)
		60	7'-0"	#4 @ 19" O.C. (d)	4- #4 BARS (d,e)
			8'-0"	#4 @ 15" O.C. (d)	4- #4 BARS (d,e)
	10"	45	7'-0"	NOT REQUIRED	3- #4 BARS (g)
			8'-0"	NOT REQUIRED (d)	4- #4 BARS (d,e)
		60	7'-0"	NOT REQUIRED (d)	4- #4 BARS (d,e)
			8'-0"	#4 @ 19" O.C. (d)	4- #4 BARS (d,e)

NOTE: BACKFILLING OF THE FOUNDATION SHALL NOT TAKE PLACE BEFORE THE BASEMENT SLAB IS IN PLACE AND THE FLOOR FRAMING IS ERECTED OR UNLESS WALLS ARE ADEQUATELY BRACED.

a. SOIL CLASSES GM, GC, SM, SM-SC AND ML - 45 PSF
   SOIL CLASSES SC, MH, ML-CL AND CL - 60 PSF
b. SPACING SHOWN IS BASED UPON Fy = 60,000 PSI
   STEEL FOR Fy = 40,000 PSI STEEL, REDUCE SPACING BY 0.67
c. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF NOT LESS THAN 3000 PSI
d. ENGINEERED DESIGN PER ACI 332-14, REQUIREMENTS FOR RESIDENTIAL CONCRETE CONSTRUCTION
e. FOR ALL WALL HEIGHTS, ONE HORIZONTAL BAR SHALL BE LOCATED WITHIN THE TOP 24", ONE IN THE BOTTOM 24" WITH THE REMAINING BARS EQUALLY SPACED. MAINTAIN 2" OF CONCRETE COVER BETWEEN INSIDE FACE OF WALL AND FACE OF HORIZONTAL BARS.
f. ONE BAR WITHIN 12" OF TOP AND AT MID-HEIGHT OF WALL PER TABLE R404.1.2(1).
g. ONE BAR WITHIN 12" OF TOP AND ONE EACH AT THIRD POINT OF WALL HEIGHT PER TABLE 404.1.2(1).

PLANS

1. Habitable attics and sleeping rooms shall have a window or door as a second means of egress that shall be minimum 5.7 sq. ft. openable area (5.0 sq. ft. if at grade level) with maximum sill height 44" above finish floor (min. hgt. 24", min. width 20") per **R310.1.**
2. All emergency escape and rescue openings shall have a minimum net clear openable area of 4 sq ft. The minimum net clear opening height shall be 22" and a minimum net clear opening width of 20". Emergency escape and rescue openings must have a minimum total glazing area of not less than 5 sq ft in the case of a ground window and not less than 5.7 sq ft in the case of an upper story window per **R310.2.1.** Window wells where required, shall be installed per **R310.2.3** with a minimum of 9 sq ft and a minimum horizontal projection and width of 36". Wells with a greater depth of 44" shall have permanently affixed ladder or steps per **R310.2.3.1.**
3. Clear opening heights for exterior doors to be 6'-6" minimum per **R311.2.** All interior doors providing egress from habitable rooms shall have nominal minimum dimensions of 2'-6" by 6'-8" per **R311.6.1.** Habitable rooms with double doors less than 5'-0" in total width (less than 2'-6" per door slab) shall have a total opening width of at least 2'-6" with no slide bolts or locking devices installed on either door.
4. Sliding glass drs/patio drs/wdws must be safety glazed per **R308.4.**
5. Interior stairway shall have minimum head room of 6'-8" per **311.7.2** and minimum tread depth of 9" and maximum riser height of 8 1/4". Handrails are required for stairs with four or more risers and shall have minimum height of 34" and maximum height of 38" above treads and landings. Handrail to have maximum 4 1/2" projection into width of stair per **Section R311.7.** Enclosed accessible space under stairs shall have walls, under stair surface and any soffits protected on the enclosed side with 1/2" gypsum board per **R302.7.**
6. Guard rails to have minimum height of 36" and shall not have openings from the walking surface to the required guard height which allow passage of a sphere 4 inches in diameter per **R312.**
7. The triangular openings at the open side of stair, formed by the riser, tread and bottom rail of a guard, shall not allow passage of a sphere 6 inches (153 mm) in diameter per **R312.1.3.**
8. Where exterior landings or floors serving the required egress door are not at grade, they shall be provided with access to grade by means of a stairway in accordance with **Section R311.7** (see item #5 above) or a ramp in accordance with **Section R311.8.**
9. Handrails shall be installed on exterior stairs having (4) or more risers per **R311.7.8.** Guards shall be installed at exterior porches / decks that are located more than 30 inches (762 mm) measured vertically to the floor or grade below at any point within 36 inches (914 mm) horizontally to the edge of the open side. Insect screening shall not be considered as a guard.
10. All flashing used (including at windows, doors, and with stone or masonry veneer) shall be corrosion-resistive per **R703.4.** See NVR Flashing Details.
11. Wood framed bearing walls shall 2 x 6 at 24" o.c. maximum or 2 x 4 at 16" o.c. maximum per **Table R602.3(3)** and **Table R602.3(5)** unless otherwise noted on plans.
12. All exterior sheathing to be structural sheathing designed in accordance with **R602.10.**
13. An approved water-resistive barrier shall be applied over sheathing of exterior walls per **Section R703.2.**
14. Interior sheathing shall be 1/2" gypsum wall board unless otherwise noted. Exceptions may include, but are not limited to, special requirements for wall bracing and fire separation.
15. Screw fastening is typical for gypsum installation and nailing will only be permitted at the perimeter of the board.
   - All screws shall be corrosion-resistant Type W 1-1/4" drywall screws.

SCREW FASTENING SCHEDULE

Framing Spacing	Ceilings	Load-brg. walls	Non-load-brg. walls
WITH ADHESIVE			
16	16	24	24
24	16	16	24
WITHOUT ADHESIVE			
16	12	16	16
24	12	12	12

- For 1/2" wallboard, nails shall be 1-1/4" long, 1/4" head and .098 diameter shanks with annular ring or acceptable equivalent and comply with ASTM C514.
- For 5/8" wallboard, nails shall be 1-3/8" long, 1/4" head and .098 diameter shanks.

17. Garages shall be completely separated from the residence and attic area by not less than 1/2" gypsum board applied to the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 5/8" type X gyp. board. Where a structure is supporting a floor-ceiling assembly due to living space above the garage, the structure shall also be protected by not less than 1/2" gypsum board per **Section R302.6.** Openings and penetrations through the separation shall be protected by sealing the area around the penetration per **Section R302.5.** The garage door shall be a 20-minute fire-rated door and be equipped with a self-closing device installed per **Section R302.5.1.**
18. Asphalt shingles shall be installed per **section R905.2.** For roof slopes of 2:12 through 4:12, in lieu of two layers of underlayment, a self-adhering polymer-modified bitumen underlayment shall be used per **section R905.1.1 Exception #1.**
19. Attic spaces shall be ventilated w/ ridge and soffit vents unless otherwise noted. Venting provided per **R806.2.**
20. Fireblocking shall be installed between ceiling and floor openings per **R302.11.** Draftstopping to be installed in accordance with **R302.12.**
21. Water closet, lavatory or bidet shall not be set closer than 15 inches from its center to any side wall, partition or vanity or closet than 30 inches center-to center- between adjacent fixtures. There shall be a clearance of not less than 21 inches in front of the water closet, lavatory or bidet to any wall, fixture or door per **P2705.1**
22. Heating and cooling equipment installation shall be in accordance with **IRC Chapter 14** and the **International Mechanical Code.**
23. Mechanical fireplaces shall be installed per **Section R1004** and **1005.**
24. Single family attached structures to have 2-hour dwelling unit separation wall continuous to roof deck. Roofing material to be minimum class "C" over approved fire retardant wood decking extending 4' each side of dwelling unit separation wall per **R302.2 and R302.3.**
25. Untreated wood shall be minimum 8" above finish grade per **R317.1 Item #2.**
26. Bottom plates on slabs and any wood in contact w/ concrete or masonry to be pressure treated material per Section **R317.**
27. Exterior egress swing doors shall open onto a landing not more than 8 1/4" below the top of the threshold when door swings in and 1 1/2" below the top of the threshold when the door swings out. The landing shall extend a minimum of 36" in the direction of travel and be at least the width of the doorway served per **R311.3.**
28. Air exhaust and intake openings that terminate outdoors shall be protected with corrosion-resistant screen, louvers, or grills having a min. opening size of 1/4" and maximum of 1/2" in any dimension per **R303.6.**
29. Fasteners and connectors for pressure preservative-treated wood shall be hot-dipped galvanized steel.
30. Windows that have an operable opening more than 72" above finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24" above the finished floor of the room in which the window is located. Glazing between the floor and 24" shall be fixed or have openings through which a 4" dia. sphere cannot pass per **Section R312.2.**
31. The final grade shall fall a minimum of 6 inches within the first 10 feet of the foundation per **R401.3.**
32. **One- and two-family dwelling construction (R302.1.1):**
    Vinyl or aluminum soffit material shall be securely attached to framing members and use an underlayment material of either fire retardant treated wood, 3/4-inch wood sheathing or 5/8-inch gypsum board. Venting requirements shall apply to both soffit and underlayment and shall be per **Section R806.** Where the property line is 10 feet or more from the building face, the provisions of this code section shall not apply.
    Townhouse construction (R302.2.5):
    Projections extending into the fire-separation distance shall have not less than 1-hour fire-resistive construction on the underside. Vinyl or aluminum soffit material shall be securely attached to framing members and use an underlayment material of either fire retardant treated wood, 3/4-inch wood sheathing or 5/8-inch gypsum board. Venting requirements shall apply to both soffit and underlayment. Vents shall be nominal 2-inch continuous or equivalent intermittent and shall not exceed the minimum net free air requirements of **Section R806.2** by more than 50%. Vents in soffit are not allowed within 4 feet of fire walls or property lines per **R302.2.5 and R302.2.6.**
33. 1-hour fire-rated construction required on projections within 2' to 3' of lot line per **R302.1.** No projections allowed within 2' of property line.
    1-hour fire-rated construction required on townhouse eaves within 3' of the property line.
    Note: Single Family Detached product will NOT be built within 3' of the property line.
34. Wall bracing is designed in compliance with **Section R602.10.** When wall bracing is beyond the criteria for a prescriptive approach, the structure is analyzed utilizing engineering in compliance with the North Carolina Building Code (NCBC). Refer to house-specific wall bracing detail sheets and wall bracing standard details. Adhesive attachment of wall sheathing, including Method GB, shall not be permitted in Seismic Design Category C.
35. Minimum floor sheathing shall be 5/8" tongue & groove decking underlayment grade plugged and sanded, exterior glue, glued and nailed on joists to meet. "American Plywood Association" approved glued floor system, unless otherwise specified.

ELECTRICAL

1. Ground-fault and arc-fault circuit interrupter protection is provided per **NFPA 70** (National Electric Code).
2. Electric panel box installation to be in accordance with **NFPA 70, Article 408 Section III.** Location may vary by design.
3. Approved smoke detectors shall be installed in each sleeping room; outside each separate sleeping area in the immediate vicinity of the bedrooms; and on each additional story of the dwelling, including basements and habitable attics but not including crawl spaces and uninhabitable attics. Where more than one smoke detector is required, the devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit. All smoke detectors shall receive their primary power from the building wiring and be equipped with a battery backup.
4. Unless listed for installation in such locations, smoke detectors shall be installed at least 10 feet from a cooking appliance, at least 3 feet from the door to a bathroom containing a tub or shower, at least 3 feet from forced air supply registers, and at least 3 feet from the tip of a ceiling fan blade. In sleeping rooms, smoke detectors should be located in the vicinity of the room entrance. They shall be installed at the highest portion of the ceiling (including tray or coffered ceilings) or within 12 inches vertically from the highest point in rooms with sloped ceilings.
5. Interior stairs shall be provided with an artificial light source in the vicinity of each landing or directly over each stair section and capable of illuminating treads and landings to a level not less than 1fc measured at the center of the tread or landing per **R303.7.**
6. Outlets within 6' of a sink must be GFI protected.
7. An approved carbon monoxide alarm shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms. Where a fuel-burning appliance is located within a bedroom or its attached bathroom, a carbon monoxide alarm shall be installed within the bedroom. **R315.3.**
8. Outlets installed in laundry areas must be GFI protected.

As directed by the North Carolina Board of Architecture and Registered Interior Designers, architectural seals are not required for – and should not be placed by NVR on – these plans and specifications.

REV. NO.	DATE	REMARKS
1	1/8/19	MBT - CODE UPDATES FOR 2018 NCRBC
2	3/1/19	MBT - UPDATED ENGERY NOTES
3	12/16/22	CAP - REVISE NOTE FOR 2X4 OR 2X6 EXTERIOR WALLS

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VERSION	
DRAWN BY	
DATE:	
OPTION	

MODEL: NCRC 2018 SPEC SHEET
DRAWING TITLE: SINGLE FAMILY ATTACHED / SINGLE FAMILY DETACHED
OPTION DESCRIPTION: NC State Building Code - Residential Code 2018
SHEET NO.: SS-1
1.1

V:\As-Sold\2-Jobs\MiTek Services\Assigned\RLH-NM-1006 A-E\NM_1006 A-E\UNIT B\1.1 2015_IRC 2018_NCRC.dwg 07/23/25 - 2:58 pm

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ROOF VENTILATION CALCULATIONS

HOUSE NAME	POPLAR
HOUSE VERSION	PLR00_01
VENTILATION VALUES	SOFFIT: 9.9 sq in of vent per lf
	RIDGE: 18 sq in of vent per lf
	BOX: 45 sq in of vent per unit

USER GUIDE						
		(any)		(any)	VENT OK	No action req'd.
					VENT OK	No action req'd.
					FAIL	Increase ridge
					FAIL	Decrease ridge
				(any)	FAIL	Increase total vent

MAIN HOUSE

Location / Options	Area (A) (sq in)	Required: A/150 (sq in)	Required: A/300 (sq in)	Soffit (lf)	Soffit Vent (sq in)	Ridge (lf)	Ridge Vent (sq in)	Upper box vent (qty)	Lower box vent (qty)	TOTAL (sq in)	OK A/150	OK A/300	% vent at ridge	40%-50% OK?	Notes
MAIN HOUSE	121632.00	810.88	405.44	21.37	211.56	11.00	198.00			409.56	NO	YES	0.49	OK	
		0.00	0.00		0.00		0.00			0.00	NO	NO			
		0.00	0.00		0.00		0.00			0.00	NO	NO			
		0.00	0.00		0.00		0.00			0.00	NO	NO			
		0.00	0.00		0.00		0.00			0.00	NO	NO			

FRONT PORCH

Location / Options	Area (A) (sq in)	Required: A/150 (sq in)	Required: A/300 (sq in)	Soffit (lf)	Soffit Vent (sq in)	Ridge (lf)	Ridge Vent (sq in)	Upper box vent (qty)	Lower box vent (qty)	TOTAL (sq in)	OK A/150	OK A/300	% vent at ridge	40%-50% OK?	Notes
FRONT PORCH	3115.00	20.77	10.38	7.00	69.30	0.00	0.00			69.30	YES	YES	0.00	LOW	
		0.00	0.00		0.00		0.00			0.00	NO	NO			
		0.00	0.00		0.00		0.00			0.00	NO	NO			
		0.00	0.00		0.00		0.00			0.00	NO	NO			
		0.00	0.00		0.00		0.00			0.00	NO	NO			

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Version 2.0
(Last Revised 04/26/19)

HOUSE VOLUME CALCULATIONS

HOUSE NAME	POPLAR
HOUSE VERSION	PLR00-01
PRODUCT LINE	RYANHOMES

Note: *The volume of the structure has been computed in acordance with "Title 5. of the Community Affairs, Chapter 23. Uniform Construction Code, Subchapter 2. Administration and enforcement: Process." (5;23-2.28. Volume computation)*

ELEVATION WITH INTERIOR UNIT "SAO"

Location / Area of house	Floor Area (sq. ft.)	Mean height (ft.)	Total volume (cu. Ft.)
Main section of the house	720.00	22.10	*15911*
Front porch of the house	23.00	9.24	*213*
Garage bump out from main house	98.67	20.09	*1983*
		Total House Volume	18106

ELEVATION WITH INTERIOR UNIT "SAE"

Location / Area of house	Floor Area (sq. ft.)	Mean height (ft.)	Total volume (cu. Ft.)
Main section of the house	714.00	22.10	*15779*
Front porch of the house	23.00	9.24	*213*
Garage bump out from main house	97.33	20.09	*1956*
		Total House Volume	17947

Additional areas of volume to be added to total house volume as needed

Location / Area of house / option	Floor Area (sq. ft.)	Mean height (ft.)	Total volume (cu. Ft.)
Rear Covered Porch "EPE"	140.00	9.89	*1385*

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James Bates 06/30/2025

DIV-COMM-LOT-UNIT	RLH-NM-1006-B
COMM-LOT	TOWNES AT NORTH MAIN - 1006B
STREET ADDRESS	---- ----
APT. NO.	----
CITY	LILLINGTON
STATE	NC
ZIP	----

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SET NO.	PLR00
VERSION	01
RELEASE NO.	----
DRAWN BY	
DATE:	
OPTION	
MODEL	POPLAR
DRAWING TITLE	ROOF VENT AND VOLUME CALCULATIONS VOLUME CALCULATIONS
OPTION DESCRIPTION	
SHEET NO.	CA-1

2

C:\NVR\Solves\RLH-NM-1006 B\Sheets\Lot Specific\CA-1 CALCS.dwg 07/22/25 - 2:29 pm

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SHEET NO.	MODEL	SET NO. PL600
NC-1	POPLAR	VERSION 01
	DRAWING TITLE	RELEASE NO. ----
	STRIP ELEVATIONS	DRAWN BY
		DATE:
2.1	OPTION DESCRIPTION	OPTION

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James Sides
06/30/2025

DW-COMM-LOT-UNIT
RLH-NM-1006 A-E

COMM-LOT
TOWNES AT NORTH MAIN - 1006 A-E

STREET ADDRESS	APT. NO.
---- ----	----
CITY	STATE ZIP
LILLINGTON	NC ----

UNIT A
ELEVATION "B"
(PER PLAN)
(POPLAR)

UNIT B
ELEVATION "A"
(PER PLAN)
(POPLAR)

UNIT C
ELEVATION "C"
(PER PLAN)
(POPLAR)

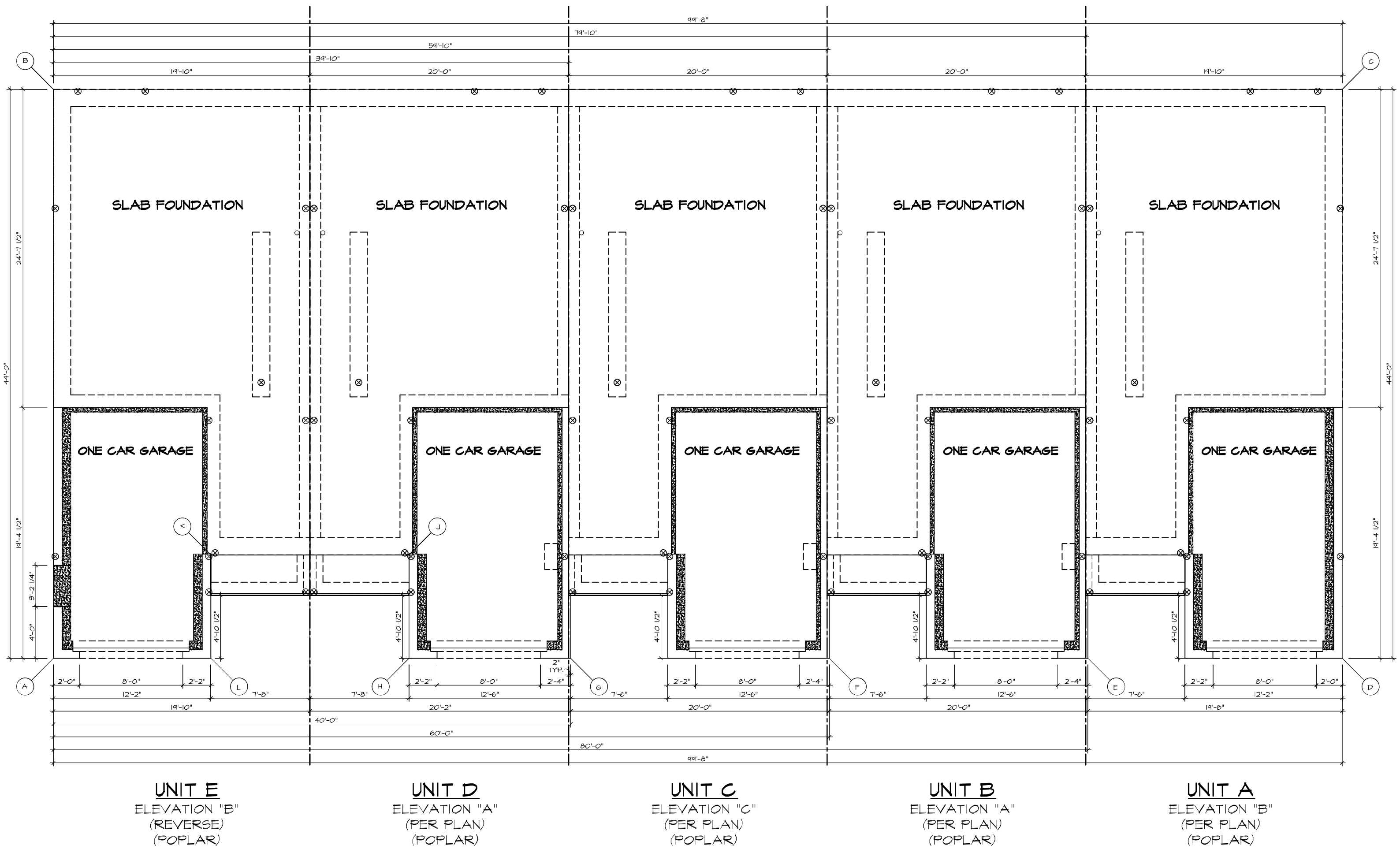
UNIT D
ELEVATION "A"
(PER PLAN)
(POPLAR)

UNIT E
ELEVATION "B"
(REVERSE)
(POPLAR)

1 NC-1 FRONT ELEVATIONS
SCALE: 1/4" = 1'-0"

5-UNIT DIAGONALS

A-C	108'-11 3/8"
A-J	28'-7 11/16"
A-K	14'-6 3/4"
B-D	108'-11 3/8"
B-E	91'-3 5/8"
B-F	74'-4 7/8"
B-G	59'-5 9/16"
B-H	51'-10 5/8"
B-J	45'-3 5/8"
B-K	38'-0"
B-L	45'-7 13/16"



UNIT E
ELEVATION "B"
(REVERSE)
(POPLAR)

UNIT D
ELEVATION "A"
(PER PLAN)
(POPLAR)

UNIT C
ELEVATION "C"
(PER PLAN)
(POPLAR)

UNIT B
ELEVATION "A"
(PER PLAN)
(POPLAR)

UNIT A
ELEVATION "B"
(PER PLAN)
(POPLAR)

1 / NC-1 **FOUNDATION PLAN**
SCALE: 1/4" = 1'-0"

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DIV-COMM-LOT-UNIT
RLH-NM-1006 A-E
COMM-LOT
TOWNES AT NORTH MAIN - 1006 A-E
STREET ADDRESS ---- ----
APT. NO. ----
CITY LILLINGTON
STATE NC
ZIP ----

06/30/2025
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 44932 JONATHAN EDWARD ABERTS
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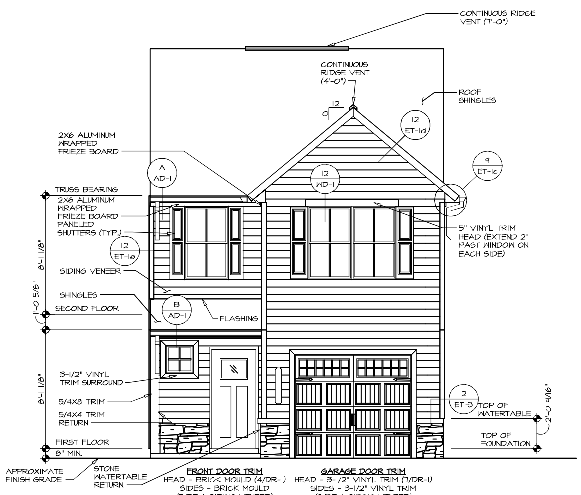
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VERSION 01
RELEASE NO. ----
DRAWN BY
DATE:
OPTION

MODEL **POPLAR**
DRAWING TITLE STRIP FOUNDATION
OPTION DESCRIPTION

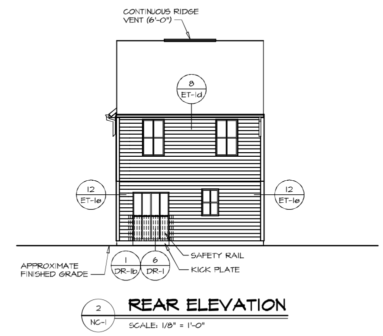
SHEET NO. **NC-1**
2.2

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1 NC-1 **FRONT ELEVATION "A"**

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



2 NC-1 **REAR ELEVATION**

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

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James Bales
06/30/2025

DIV-COMM-LOT-UNIT
RLH-NM-1006-B

COMM-LOT
TOWNES AT NORTH MAIN - 1006B

STREET ADDRESS	APT. NO.
---- ----	----

CITY	STATE	ZIP
LILLINGTON	NC	----

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OPTION

SHEET NO.
NC-1

MODEL
POPLAR

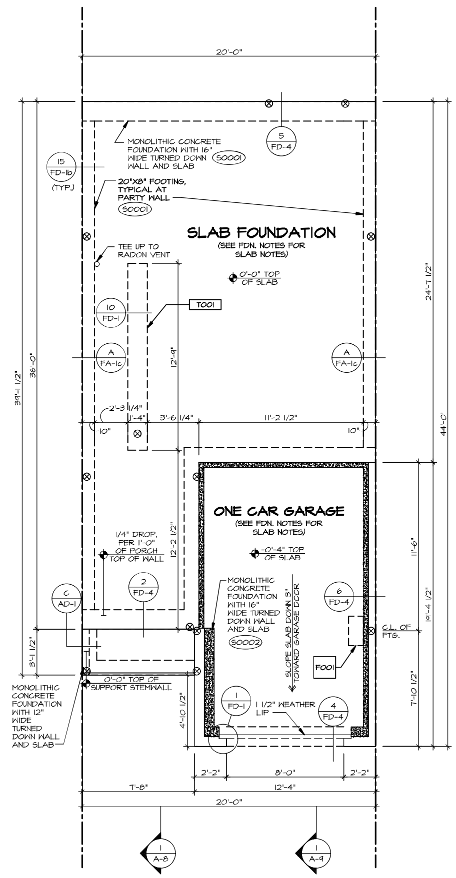
DRAWING TITLE
FRONT AND REAR ELEVATIONS

OPTION DESCRIPTION

3

V:\As-Sold\2-Jobs\MiTek Services\Assigned\RLH-NM-1006 A-E\NM_1006 A-E\UNIT B\3 NC-1 ELV LS (FSA).dwg 07/23/25 - 2:58 pm

FOOTING/THICKENED SLAB SCHEDULE					
IDENTIFIER	LENGTH	WIDTH	HEIGHT	ENG. NUM.	REMARKS
F001	2'-0"	1'-0"	1'-0"	S0002	
T001	12'-9"	1'-4"	0'-8"	S0001	



1 NC-3 **FOUNDATION PLAN**

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

FOUNDATION NOTES - ATTACHED

1. SEE STANDARD DETAIL CATEGORY **"FD"** SHEET(S).
   1.1. CONCRETE SLAB ON VAPOR BARRIER OVER SUB-BASE **(SEE SPEC SHEET FOR SLAB NOTES)**
2. SLAB UNDER GARAGE:
   2.1. UNEXCAVATED WITH CONCRETE SLAB OVER SUB-BASE **(SEE SPEC SHEET FOR SLAB NOTES)** OR
   2.2. STRUCTURAL CONCRETE SLAB OVER SUB-BASE **(SEE SPEC SHEET FOR SLAB NOTES)**
3. SEE FOUNDATION HOLD DOWN SHEET FOR CONNECTION INFORMATION.
5. SLAB LEDGE LOCATIONS VARY W/ GRADE BEAM(S) ORIENTATION. SEE **GB-1** FOR DETAILS.
6. THE DIRECTION OF THE ARROW IS THE DIRECTION OF REBAR, AS REQUIRED.
7. ALL FOOTINGS ARE PLAIN, NON-REINFORCED CONCRETE UNLESS NOTES OTHERWISE.
8. SEE **WS-** DETAILS FOR FOOTER SLEEVE INFORMATION.
9. THICKEND SLAB DEPTHS MEASURE FROM TOP OF SLAB. PAD FOOTING DEPTHS MEASURE 4" BELOW TOP OF SLAB.

LEGEND

- BEARING WALL
- NON BEARING WALL
- MASONRY WALL
- ⊗ INDICATES BEARING FROM POINT-LOAD ABOVE
- JACKS
- BEAM/HEADER
- FOOTING/THICKENED SLAB
- STEEL COLUMN
- TRUSS TIE DOWN
- PORTAL FRAME
- JOIST/TRUSS
- LVL
- ENGINEERING PAGE NUMBER
- WINDOW/DOOR TAG
- PRECAST LINTEL TAG

-SEE FA DETAILS FOR FIRE ASSEMBLIES
-SEE FC DETAILS FOR FRAMING CONNECTORS AND MATERIAL USAGE

NOTES:

1. REFER TO UNIT FOUNDATION DRAWING FOR ADDITIONAL FOUNDATION DIMENSIONS AND DETAILS.
2. REFER TO STANDARD DETAIL FA-1c FOR PARTYWALL DETAILS

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DIV-COMM-LOT-UNIT
RLH-NM-1006-B
COMM-LOT
TOWNES AT NORTH MAIN - 1006B

STREET ADDRESS	APT. NO.
---- ----	----
CITY	STATE	ZIP
LILLINGTON	NC	----

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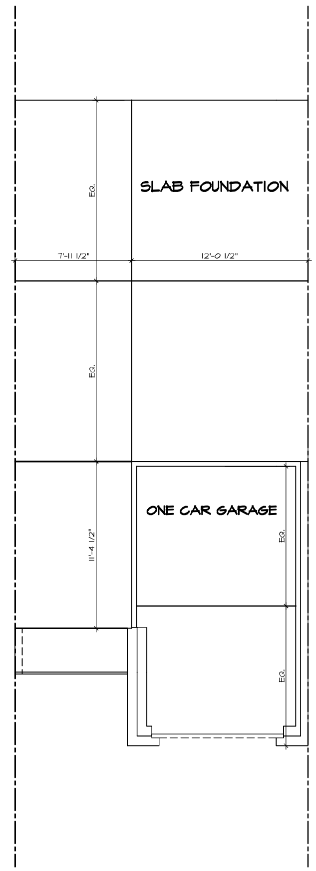
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DATE:
OPTION

SHEET NO. NC-3
MODEL POPLAR
DRAWING TITLE FOUNDATION
OPTION DESCRIPTION

6

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CONCRETE SLAB CONTROL JOINTS

1 / NC-3b

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

CONTROL JOINT NOTES:

1. THE STARTING POINT FOR LAYING OUT JOINTS SHOULD INCLUDE A FRONT-TO-BACK LINE AND A SIDE-TO-SIDE LINE (A "T") OFF EACH COLUMN AND MAJOR FOUNDATION CORNER.
2. IF THAT PUTS MULTIPLE LINES TOO CLOSE TOGETHER (<10' APART), CONSIDER GROUPING NEARBY LINES WHILE ENSURING EACH COLUMN AND HOUSE CORNER HAS AT LEAST ONE JOINT (FRONT-TO-BACK OR SIDE-TO-SIDE) EXTENDING FROM IT.
3. JOINT SPACING NOT TO EXCEED 15'
4. CONTROL JOINT LOCATIONS AND QUANTITY MAY VARY DEPENDING ON ADDITIONAL CONCRETE REINFORCEMENT (INCLUDING BUT NOT LIMITED TO WELDED WIRE MESH OR FIBER MESH).
5. THIS SHEET DEPICTS GENERIC GUIDELINES AND EXAMPLES, SO EXACT LAYOUT MAY DIFFER FROM WHAT'S SHOWN HERE.
6. CONTROL JOINTS AT GARAGE SHALL BE "TOOLED" (1/4 DEPTH OF THE SLAB OR 1" MINIMUM) AND INSTALLED FOLLOWING STANDARDS.

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James Bales
06/30/2025

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COMM-LOT: TOWNES AT NORTH MAIN - 1006B
STREET ADDRESS: ---- ----
APT. NO.: ----
CITY: LILLINGTON
STATE: NC
ZIP: ----

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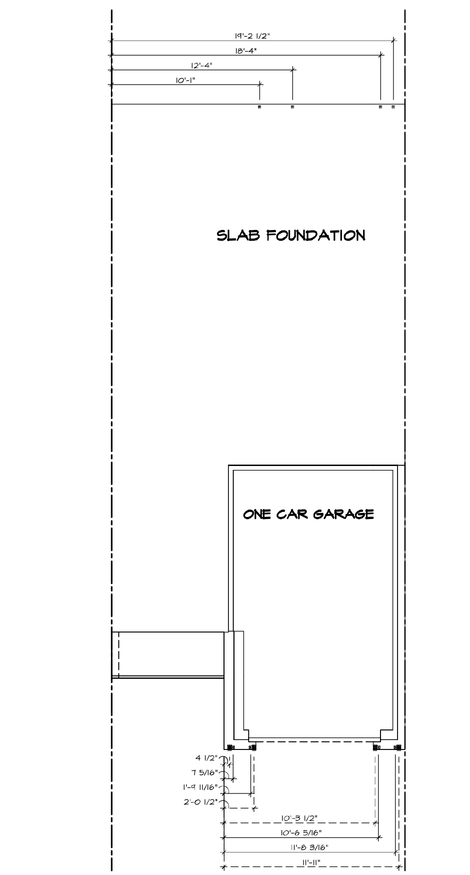
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VERSION 01
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DRAWN BY NN
DATE: 10/10/22
OPTION

MODEL: POPLAR
DRAWING TITLE: FOUNDATION CONTROL JOINT
CONCRETE SLAB CONTROL JOINTS
OPTION DESCRIPTION

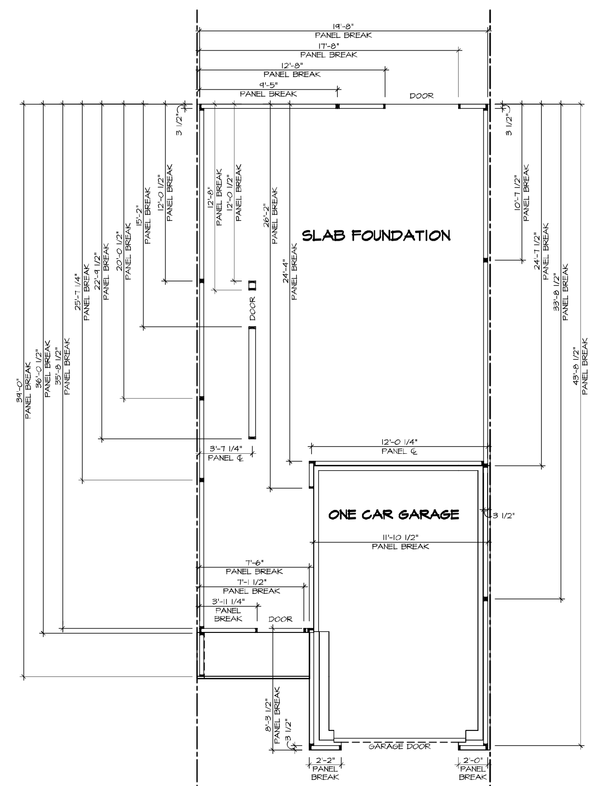
SHEET NO. NC-3b

7



FOUNDATION HOLD DOWN DETAILS

1 / NC-4 — SCALE: 1/4" = 1'-0"



FOUNDATION PANEL BREAKS

2 / NC-4 — SCALE: 1/4" = 1'-0"

HOLD DOWN NOTES

REFER TO DETAIL (9/FD-1) FOR HOLD DOWN OFFSET DIMENSIONS.
REFER TO DETAIL (12/FD-1) FOR HOLD DOWNS ON CMU BLOCK.

≤ 12"	1. ALL PANELS GREATER THAN 24" SHALL HAVE AN ANCHOR WITHIN 12" OF THE PANEL BREAKS / ENDS. (SEE DETAIL SHEET FC-1 FOR MORE INFORMATION ON ANCHOR DETAILS)
STRAP	1. STRAP: a. ON FOUNDATION USE (STHD14) b. ON FLOOR SYSTEM USE (STHD14RJ) 2. ALL OTHER HOLD DOWN SEE DETAIL WB-_ FOR MORE INFORMATION. 3. STRAP LOCATION ON PLANS SHOWN BY DASHED DIMENSION TO CENTER OF STUDS OR
BOLT	1. THREADED ROD 2. ALL OTHER HOLD DOWN SEE DETAIL WB-_ FOR MORE INFORMATION. 3. BOLT LOCATION ON PLANS SHOWN BY SOLID DIMENSION TO CENTER OF BOLT

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DIV-COMM-LOT-UNIT
RLH-NM-1006-B
COMM-LOT: TOWNES AT NORTH MAIN - 1006B
STREET ADDRESS: ---- ----
APT. NO.: ----
CITY: LILLINGTON
STATE: NC
ZIP: ----

06/30/2025
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SET NO.: PLR00
VERSION: 01
RELEASE NO.: ----
DRAWN BY:
DATE:
OPTION:

SHEET NO.: NC-4
MODEL: POPLAR
DRAWING TITLE: FOUNDATION HOLD DOWNS / FOUNDATION PANEL BREAKS
OPTION DESCRIPTION:

8

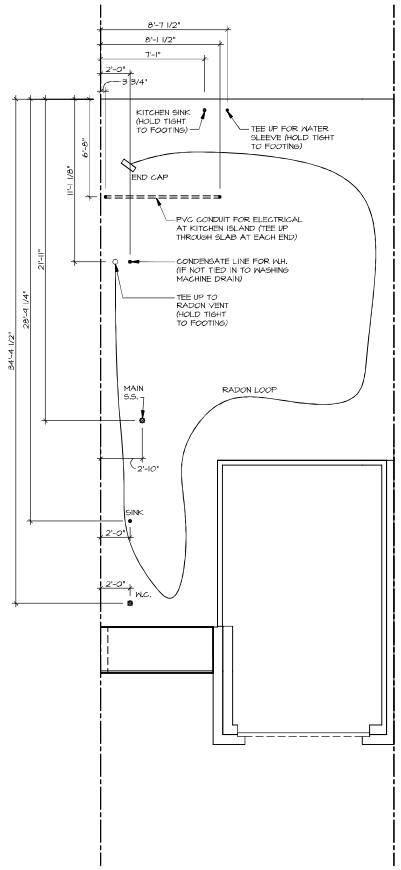
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PLUMBING NOTES:

RADON REMEDIATION

RADON LOOP:
- (4") PERFORATED "LOOP"
- MUST BE PLACED IN STONE BED SLIGHTLY HIGHER THAN ANY INTERIOR DRAINTILE
- LOOP TO BE SEPARATE FROM ANY DRAINTILE ELEMENTS
- TO BE CORRUGATED PIPE
- SCREWS TO BE INSTALLED THROUGH LOOP AT TEE UP INTO STACK

STACK REQUIREMENTS:
- 3" PVC STACK (4" IF BASEMENT IS GREATER THAN 2200 SQFT.)
- NO PART OF STACK IS TO BE HORIZONTAL (45° ELBOWS PERMITTED AS REQUIRED)
- PIPE TO BE PHYSICALLY LABELED IN THE FIELD AS "RADON VENT" OR OTHER JURISDICTIONALLY REQUIRED LANGUAGE (ON EVERY LEVEL OF HOUSE)
- ROOF TERMINATION TO BE IN TOP 1/3 OF ROOF.
- SCREEN OR VENT CAP INSTALLED TO KEEP PESTS OUT OF RADON VENT AT ROOF TERMINATION.



1 NC-5 PLUMBING PLAN

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

As directed by the North Carolina Board of Architecture and Registered Interior Designers, architectural seals are not required for this and should not be placed by NVR on these plans and specifications.

James Gales 06/30/2025

DIV-COMM-LOT-UNIT RLH-NM-1006-B

COMM-LOT: DUNES AT NORTH MAIN - 10065

STREET ADDRESS: - | APT. NO.: -

CITY: LILLINGTON | STATE: NC | ZIP: -----

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Matthews, NC 28105

SET NO.: PLSET00
VERSION: 01
RELEASE NO.: -----
DRAWN BY:
DATE:
OPTION:

MODEL: POPLAR
DRAWING TITLE: PLUMBING

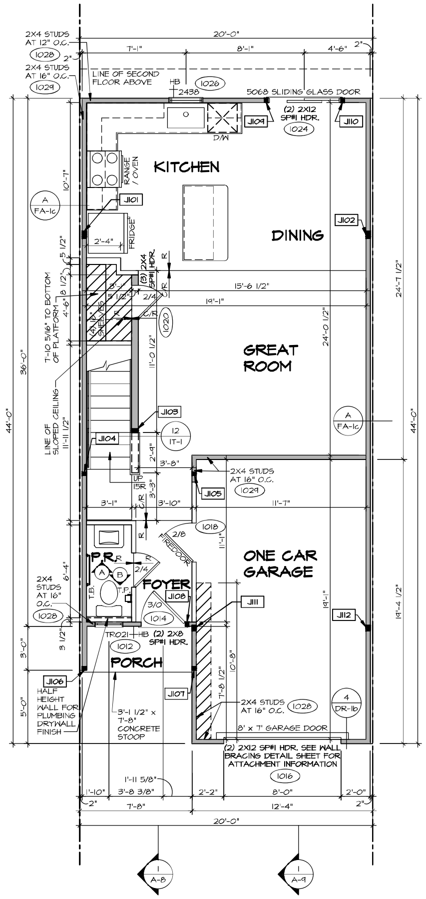
SHEET NO.: NC-5

OPTION DESCRIPTION

V:\1-Solds\2-Jobs\Mitek_Services\Assigned\RLH-NM-1006_A-E\UNIT B\9_NC-5_PLMG_r5.dwg 07/23/25 - 2:58 pm

FIRST FLOOR JACK SCHEDULE

IDENTIFIER	DESCRIPTION	ENG. NUM.	REMARKS
J101	JACK - (4) 2X4 SPF STUD GRADE	1004	
J102	JACK - (4) 2X4 SPF STUD GRADE	1004	
J103	JACK - (2) 2X6 SPF STUD GRADE	1006	
J104	JACK - (2) 2X4 SPF STUD GRADE	1008	
J105	JACK - (2) 2X4 SPF STUD GRADE	1008	
J106	JACK - (2) 2X4 SPF STUD GRADE	1010	
J107	JACK - (2) 2X4 SPF STUD GRADE	1010	
J108	JACK - (2) 2X4 SPF STUD GRADE	1014	
J109	JACK - (2) 2X4 SPF STUD GRADE	1024	
J110	JACK - (2) 2X4 SPF STUD GRADE	1024	
J111	JACK - (3) 2X4 SP#1	2007	
J112	JACK - (3) 2X4 SP#1	2007	



FIRST FLOOR PLAN

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

LEGEND

- BEARING WALL
- NON BEARING WALL
- MASONRY WALL
- INDICATES BEARING FROM POINT-LOAD ABOVE
- JACKS
- BEAM/HEADER
- FOOTING/THICKENED SLAB
- STEEL COLUMN
- TRUSS TIE DOWN
- PORTAL FRAME
- JOIST/TRUSS
- LVL
- ENGINEERING PAGE NUMBER
- WINDOW/DOOR TAG
- PRECAST LINTEL TAG

-SEE FA DETAILS FOR FIRE ASSEMBLIES
-SEE FC DETAILS FOR FRAMING CONNECTORS AND MATERIAL USAGE

ALL WINDOWS HAVE 7'-0 1/2" HEADER HEIGHT UNLESS OTHERWISE NOTED

FLOOR PLAN NOTES:

1. ALL HEADERS ARE (2) 2x6 w/ 2x4 WALLS OR (3) 2x6 w/ 2x6 WALLS, UNLESS OTHERWISE NOTED.
2. ALL HEADERS TO HAVE (1) 2x4 OR 2x6 JACK AND KING STUD EACH END, UNLESS OTHERWISE NOTED. MULTI-OPENING HEADERS TO HAVE (2) JACKS AT INTERMEDIATE BEARING, UNLESS OTHERWISE NOTED. NO ADDITIONAL FLOOR SYSTEM BLOCKING OR CONTINUOUS LOAD PATH JACKS ARE REQUIRED UNLESS OTHERWISE NOTED.
3. ALL EXTERIOR WALLS TO BE 4" OR 6" AND ALL INTERIOR WALLS TO BE 3 1/2", UNLESS OTHERWISE NOTED.
4. HATCHED AREAS INDICATE DROPPED CEILINGS. ALL DROPPED CEILINGS ARE 12" UNLESS OTHERWISE NOTED. SEE ARCHITECTURAL DETAIL 8/IT-1B FOR 3/4" FIRE STOPPING AT BULKHEAD / CEILING PANELS
5. SEE "BRACED WALL PANEL DETAIL SHEET" FOR SPECIAL WALL FRAMING LOCATIONS AND HEADER SIZES, IF APPLICABLE.
6. SEE STANDARD DETAIL CATEGORY "IT" SHEET(S) FOR INTERIOR TRIM DETAILS.
7. SEE DETAIL SHEET "AD" FOR HOUSE SPECIFIC INTERIOR TRIM OPTION TABLE.
8. ALL HEADERS IN NON-BEARING WALLS SHALL BE A SINGLE FLAT 2X4 OR 2X6 ATTACHED TO CRIPPLES ABOVE, UNLESS OTHERWISE NOTED.
9. TANKED WATER HEATER SHOWN AS BASE CONDITION, OPTIONAL TANKLESS WATER HEATER IS AVAILABLE IN LIEU OF TANKED WATER HEATER.
10. INTERIOR HEADER HEIGHT FOR 8' CEILING WILL BE 6'-11", 9' CEILING WILL BE 7'-11", 10' CEILING WILL BE 8'-3", UNLESS OTHERWISE NOTED.
12. ALL INTERIOR BEARING WALLS SHALL HAVE GYPSUM APPLIED TO AT LEAST ONE SIDE OR HAVE MID-HEIGHT BLOCKING INSTALLED.
13. NON-BEARING WALLS OVER CONCRETE TO BE HELD 1/2" SHORT OF FRAMING ABOVE.

GYPSUM NOTES:

AT GARAGE:

GYPSUM BOARD AT COMMON WALLS, CEILINGS, BEAM WRAPS AND SUPPORTS PER STANDARD DETAIL **FA-1(b)** FIRE ASSEMBLIES OR AS REQUIRED BY LOCAL CODE.

AT STAIRS:

1/2" GYPSUM BOARD AT UNDERSIDE OF STAIRS AND WALLS IN CLOSET

As directed by the North Carolina Board of Architecture and Registered Interior Designers, architectural seals are not required for – and should not be placed by NVR on – these plans and specifications.

DIV-COMM-LOT-UNIT
RLH-NM-1006-B
COMM-LOT: TOWNES AT NORTH MAIN - 1006B
STREET ADDRESS: ---- ----
APT. NO. ----
CITY: LILLINGTON | STATE: NC | ZIP: ----

06/30/2025
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 44932 JONATHAN EDWARD ABERTS
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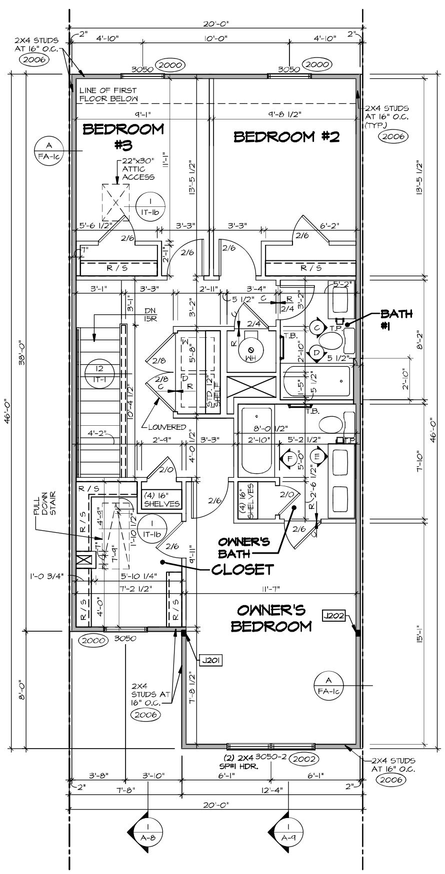
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5285 Westview Drive, Suite 100
Frederick, MD 21703

SHEET NO. NC-6
MODEL: POPLAR
DRAWING TITLE: FIRST FLOOR PLAN
SET NO. PLR00
VERSION 01
RELEASE NO. ----
DRAWN BY
DATE:
OPTION
OPTION DESCRIPTION
01

V:\As-Sold\2-Jobs\MiTek Services\Assigned\RLH-NM-1006 A-E\NM_1006 A-E\UNIT B\10 NC-6 PLN1 LS.dwg 07/23/25 - 5:29 pm

SECOND FLOOR JACK SCHEDULE

IDENTIFIER	DESCRIPTION	ENG. NUM.	REMARKS
J201	JACK - (3) 2X4 SP#1	2007	EXTEND THROUGH TOP PLATE
J202	JACK - (3) 2X4 SP#1	2007	EXTEND THROUGH TOP PLATE



SECOND FLOOR PLAN

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

LEGEND

- BEARING WALL
- NON BEARING WALL
- MASONRY WALL
- INDICATES BEARING FROM POINT-LOAD ABOVE
- JACKS
- BEAM/HEADER
- FOOTING/THICKENED SLAB
- STEEL COLUMN
- TRUSS TIE DOWN
- PORTAL FRAME
- JOIST/TRUSS
- LVL
- ENGINEERING PAGE NUMBER
- WINDOW/DOOR TAG
- PRECAST LINTEL TAG

-SEE FA DETAILS FOR FIRE ASSEMBLIES
-SEE FC DETAILS FOR FRAMING CONNECTORS AND MATERIAL USAGE

ALL WINDOWS HAVE 7'-0 1/2" HEADER HEIGHT UNLESS OTHERWISE NOTED

FLOOR PLAN NOTES:

1. ALL HEADERS ARE (2) 2x6 w/ 2x4 WALLS OR (3) 2x6 w/ 2x6 WALLS, UNLESS OTHERWISE NOTED.
2. ALL HEADERS TO HAVE (1) 2x4 OR 2x6 JACK AND KING STUD EACH END, UNLESS OTHERWISE NOTED. MULTI-OPENING HEADERS TO HAVE (2) JACKS AT INTERMEDIATE BEARING, UNLESS OTHERWISE NOTED. NO ADDITIONAL FLOOR SYSTEM BLOCKING OR CONTINUOUS LOAD PATH JACKS ARE REQUIRED UNLESS OTHERWISE NOTED.
3. ALL EXTERIOR WALLS TO BE 4" OR 6" AND ALL INTERIOR WALLS TO BE 3 1/2", UNLESS OTHERWISE NOTED.
4. HATCHED AREAS INDICATE DROPPED CEILINGS. ALL DROPPED CEILINGS ARE 12" UNLESS OTHERWISE NOTED. SEE ARCHITECTURAL DETAIL 8/IT-1B FOR 3/4" FIRE STOPPING AT BULKHEAD / CEILING PANELS
5. SEE "BRACED WALL PANEL DETAIL SHEET" FOR SPECIAL WALL FRAMING LOCATIONS AND HEADER SIZES, IF APPLICABLE.
6. SEE STANDARD DETAIL CATEGORY "IT" SHEET(S) FOR INTERIOR TRIM DETAILS.
7. SEE DETAIL SHEET "AD" FOR HOUSE SPECIFIC INTERIOR TRIM OPTION TABLE.
8. ALL HEADERS IN NON-BEARING WALLS SHALL BE A SINGLE FLAT 2X4 OR 2X6 ATTACHED TO CRIPPLES ABOVE, UNLESS OTHERWISE NOTED.
9. TANKED WATER HEATER SHOWN AS BASE CONDITION, OPTIONAL TANKLESS WATER HEATER IS AVAILABLE IN LIEU OF TANKED WATER HEATER.
10. INTERIOR HEADER HEIGHT FOR 8' CEILING WILL BE 6'-11", 9' CEILING WILL BE 7'-11", 10' CEILING WILL BE 8'-3", UNLESS OTHERWISE NOTED.
12. ALL INTERIOR BEARING WALLS SHALL HAVE GYPSUM APPLIED TO AT LEAST ONE SIDE OR HAVE MID-HEIGHT BLOCKING INSTALLED.
13. NON-BEARING WALLS OVER CONCRETE TO BE HELD 1/2" SHORT OF FRAMING ABOVE.

GYPSUM NOTES:

AT GARAGE:

GYPSUM BOARD AT COMMON WALLS, CEILINGS, BEAM WRAPS AND SUPPORTS PER STANDARD DETAIL **FA-1(b)** FIRE ASSEMBLIES OR AS REQUIRED BY LOCAL CODE.

AT STAIRS:

1/2" GYPSUM BOARD AT UNDERSIDE OF STAIRS AND WALLS IN CLOSET

As directed by the North Carolina Board of Architecture and Registered Interior Designers, architectural seals are not required for – and should not be placed by NVR on – these plans and specifications.

DIV-COMM-LOT-UNIT
RLH-NM-1006-B
COMM-LOT: TOWNES AT NORTH MAIN - 1006B
STREET ADDRESS: ---- ----
APT. NO.: ----
CITY: LILLINGTON
STATE: NC
ZIP: ----

06/30/2025 NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 44932 JONATHAN EDWARD ABERTS
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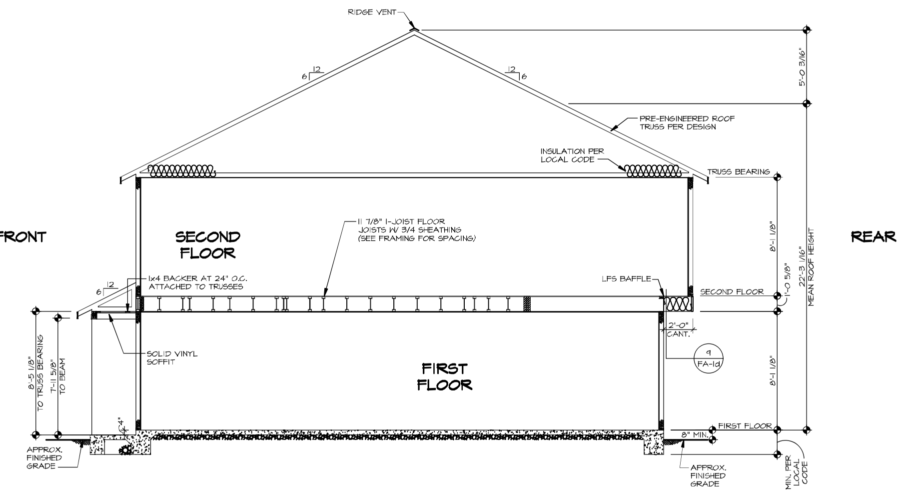
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SET NO. PLR00
VERSION 01
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DATE:
OPTION

MODEL: POPLAR
DRAWING TITLE: SECOND FLOOR PLAN
OPTION DESCRIPTION

SHEET NO. NC-7

V:\As-Sold\2-Jobs\MiTek Services\Assigned\RLH-NM-1006 A-E\NM_1006 A-E\UNIT B\11 NC-7 PLN2 LS.dwg 07/23/25 - 2:58 pm



BUILDING SECTION - FOYER

1 / NC-8

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

As directed by the North Carolina Board of Architecture and Registered Interior Designers, architectural seals are not required for – and should not be placed by NVR on – these plans and specifications.

James Bales
06/30/2025

DIV-COMM-LOT-UNIT	RLH-NM-1006-B
COMM-LOT	TOWNES AT NORTH MAIN - 1006B
STREET ADDRESS	---- ----
APT. NO.	----
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STATE	NC
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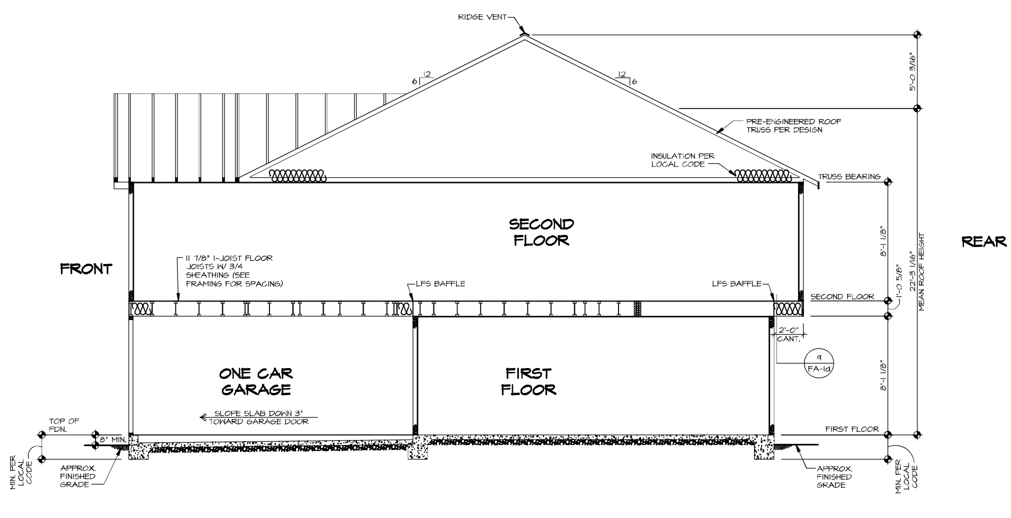
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VERSION	01
RELEASE NO.	----
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DATE:	
OPTION	
MODEL	POPLAR
DRAWING TITLE	BUILDING SECTION
OPTION DESCRIPTION	
SHEET NO.	NC-8

12

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1
NC-9

BUILDING SECTION - GARAGE

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

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James Bales
06/30/2025

DIV-COMM-LOT-UNIT
RLH-NM-1006-B
COMM-LOT
TOWNES AT NORTH MAIN - 1006B
STREET ADDRESS
---- ----
APT. NO.

CITY
LILLINGTON
STATE
NC
ZIP

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SET NO. PLR00
VERSION 01
RELEASE NO. ----
DRAWN BY
DATE:
OPTION

SHEET NO.
NC-9
13

MODEL
POPLAR
DRAWING TITLE
BUILDING SECTION - GARAGE
OPTION DESCRIPTION

V:\As-Sold\2-Jobs\MiTek Services\Assigned\RLH-NM-1006 A-E\NM_1006 A-E\UNIT B\13 NC-9 SECT GAR LS.dwg 07/23/25 - 2:58 pm

SECOND FLOOR FRAMING LENGTH SCHEDULE

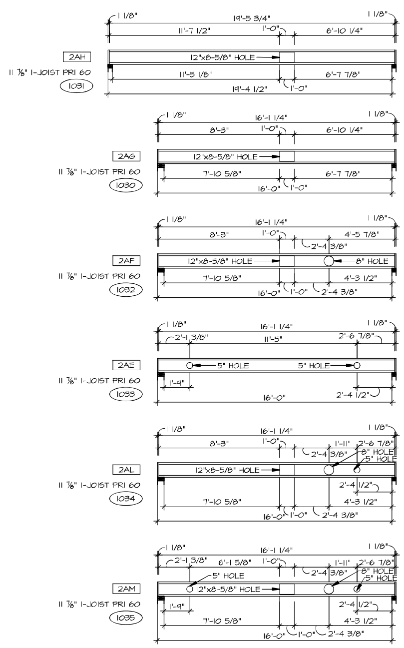
IDENTIFIER	DESCRIPTION	LENGTH	ENG. NUM.	REMARKS
2AA	PRI 60 - 11-14	11'-11 3/4"		
2AB	PRI 60 - 11-14	19'-5 3/4"		
2AC	PRI 60 - 11-14	7'-8 3/8"	1008	J-0458
2AD	PRI 60 - 11-14	16'-0 5/8"		
2AE	PRI 60 - 11-14	16'-1 1/4"	1033	J-0459
2AF	PRI 60 - 11-14	16'-1 1/4"	1032	J-0271
2AG	PRI 60 - 11-14	16'-1 1/4"	1030	J-0270
2AH	PRI 60 - 11-14	19'-5 3/4"	1031	J-0269
2AJ	PRI 60 - 11-14	11'-0"		J-0272
2AK	PRI 60 - 11-14	12'-0 7/8"		
2AL	PRI 60 - 11-14	16'-1 1/4"	1034	J-0460
2AM	PRI 60 - 11-14	16'-1 1/4"	1035	J-0461
2AN	PRI 60 - 11-14	19'-5 3/4"		J-0447

LVL PLY TO PLY FASTENING SCHEDULE: (WHERE APPLICABLE BASED ON LVL USAGE)

1.A - (2) PLY UP TO AND INCLUDING 11 7/8" TALL: FASTEN PLIES W/ (2) ROWS 16D NAILS AT 12" O.C. OR ALT 1 1/2" WIDE LVL FASTEN PLIES W/ (3) ROWS 12D NAILS AT 12"O.C.
2.A - (2) PLY 14" UP TO AND INCLUDING 18": FASTEN PLIES W/ (3) ROWS 16D NAILS AT 12" O.C. OR ALT 1 1/2" WIDE LVL FASTEN PLIES W/ (4) ROWS 12D NAILS AT 12"O.C.
3.A - (2) PLY 20" TALL AND OVER: FASTEN PLIES W/ (4) ROWS 16D NAILS AT 12" O.C. OR ALT 1 1/2" WIDE LVL FASTEN PLIES W/ (5) ROWS 12D NAILS AT 12"O.C.
4.A - (3) PLY UP TO AND INCLUDING 11 7/8" TALL: FASTEN PLIES W/ (2) ROWS 16D NAILS AT 12" O.C. FROM EACH SIDE OR ALT 1 1/2" WIDE LVL FASTEN PLIES W/ (3) ROWS 12D NAILS AT 12"O.C. FROM EACH SIDE.
5.A - (3) PLY 14" UP TO AND INCLUDING 18": FASTEN PLIES W/ (3) ROWS 16D NAILS AT 12"O.C. FROM EACH SIDE OR ALT 1 1/2" WIDE LVL FASTEN PLIES W/(4) ROWS 12D NAILS AT 12"O.C. FROM EACH SIDE.
6.A - (3) PLY 20" TALL AND OVER: FASTEN PLIES W/ (4) ROWS 16D NAILS AT 12" O.C. FROM EACH SIDE OR ALT 1 1/2" WIDE LVL FASTEN PLIES W/ (5) ROWS 12D NAILS AT 12"O.C. FROM EACH SIDE.
7.A - (4) PLY (ALL SIZES): FASTEN PLIES WITH (3) ROWS OF SDW22634 STRUCTURAL WOOD SCREWS, OR EQUIVALENT, AT 16" O.C. STAGGERED. SEE SHOP DRAWING FOR ADDITIONAL INFORMATION.

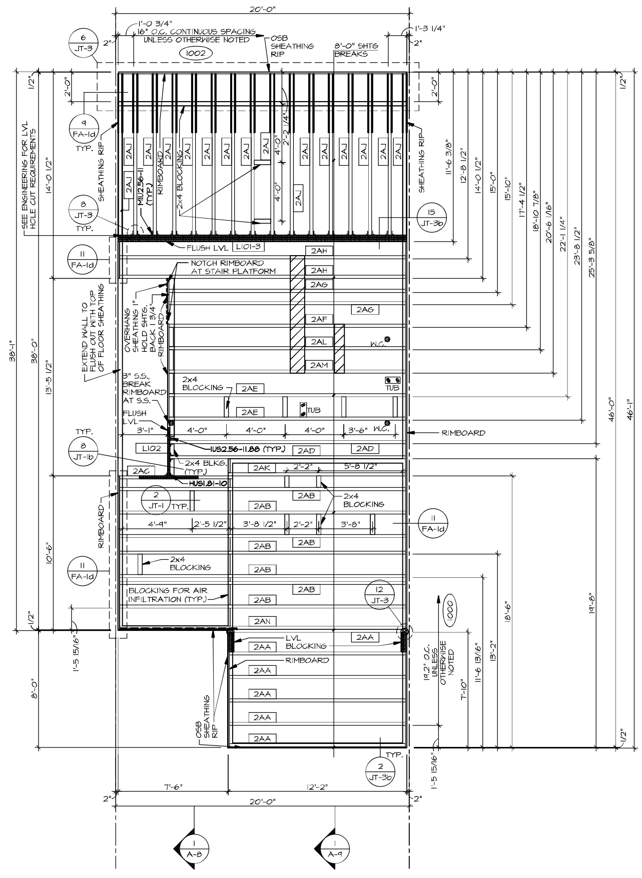
SECOND FLOOR LVL LENGTH SCHEDULE

IDENTIFIER	DESCRIPTION	LENGTH	ENG. NUM.	REMARKS
L101-3	LVL 1.75 - 11-14	19'-8"	1004	4.A
L102	LVL 1.75 - 11-14	3'-3 1/2"	1006	



JOIST CUT-OUT DETAILS

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



SECOND FLOOR FRAMING PLAN

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

LEGEND

- BEARING WALL
- MASONRY WALL
- INDICATES BEARING FROM POINT-LOAD ABOVE
- JACKS
- BEAM/HEADER
- FOOTING/THICKENED SLAB
- STEEL COLUMN
- TRUSS TIE DOWN
- PORTAL FRAME
- JOIST/TRUSS
- LVL
- ENGINEERING PAGE NUMBER
- WINDOW/DOOR TAG
- PRECAST LINTEL TAG

-SEE FA DETAILS FOR FIRE ASSEMBLIES
-SEE FC DETAILS FOR FRAMING CONNECTORS AND MATERIAL USAGE

I-JOIST FLOOR SYSTEM

1. SUBFLOOR IS 3/4" TONGUE AND GROOVE OSB STANDARD.
2. JOIST LENGTHS SHIPPED IS THE NEXT HIGHEST LENGTH TO CUT FROM.
3. ALL RIMBOARD TO BE 1-1/8" THICK U.N.O.
4. REFER TO STANDARD DETAIL **7/JT-3** FOR HOLE CUTTING GUIDELINES.
5. PROVIDE RIMBOARD SOLID BLOCKING AT EXTERIOR WALLS AND BELOW ALL JACKS AS REQUIRED.
6. REFER TO DETAIL **8/JT-3** FOR HANGER DETAIL.
7. ALL JOISTS TO BE PRI40, PRI60 OR PRI80, REFERENCE SCHEDULE FOR SPECIFIC SERIES PER MEMBER.
   A. PRI40 SERIES ARE SHOWN AS SHADED ON FRAMING PLAN.
8. SEE CONNECTOR / NAIL CHART IN STANDARD DETAILS (FC-4) FOR TYPICAL HANGERS.
10. ALL SOLID LVL BLOCKING CUT FROM MATERIAL DESIGNATED "BLOCKING"
11. ADHESIVE TO BE APPLIED AT THE RATE OF (1) TUBE PER TWO AND ONE-HALF SHEETS; SHEETS ARE TO BE GLUED AND PLACED ONE AT A TIME. **APPLY GLUE TO TONGUE AND GROOVE.**
12. I-JOIST BLOCKING CUT FROM 2'-0" MATERIAL.
13. ADHESIVE TO BE ADDED TO ALL JOIST HANGERS PRIOR TO SETTING JOISTS.
14. J-XXXX SHOP DRAWINGS ARE ASSOCIATED WITH PLANT MODIFIED I-JOISTS OR PLANT BUILT JOIST COMPONENTS.

As directed by the North Carolina Board of Architecture and Registered Interior Designers, architectural seals are not required for – and should not be placed by NVR on – these plans and specifications.

DIV-COMM-LOT-UNIT
RLH-NM-1006-B
COMM-LOT
TOWNES AT NORTH MAIN - 1006B

STREET ADDRESS	APT. NO.	ZIP
---- ----	----	----

CITY	STATE
LILLINGTON	NC

06/30/2025
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 44932 JONATHAN EDWARD ABERTS
NVR, Inc. Firm license #: D-0472

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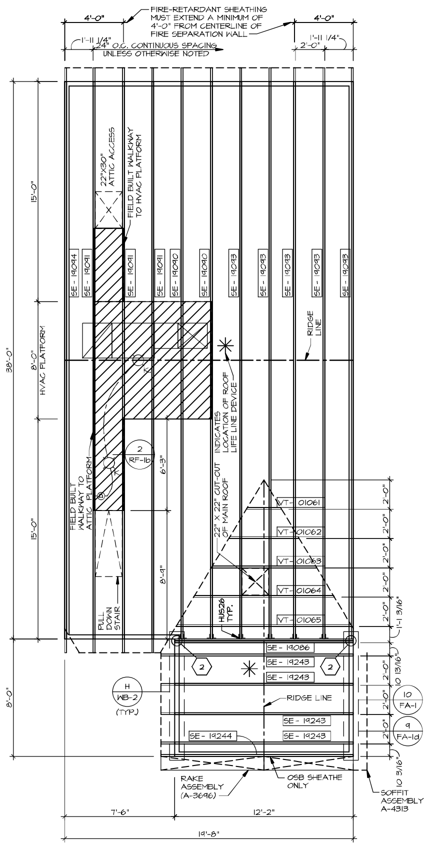
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SET NO. PLR00
VERSION 01
RELEASE NO. ----
DRAWN BY
DATE:
OPTION

MODEL POPLAR
DRAWING TITLE SECOND FLOOR FRAMING
OPTION DESCRIPTION

SHEET NO. S-1

19

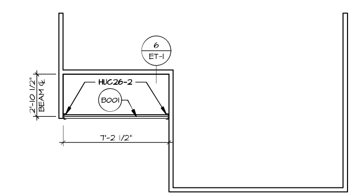


ROOF FRAMING

1 / S-2 SCALE: 1/4" = 1'-0"

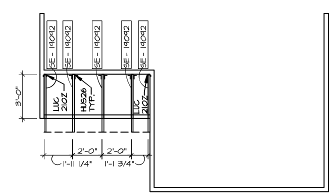
TRUSS SCHEDULE					
QUANTITY	SPECS	TRUSS NUMBER	LENGTH	ROOF PITCH (X/12)	REMARKS
1	SE	19086	12'-2"	10/12	GIRDER (2 PLY)
2	SE	19090	38'-0"	6/12	-
3	SE	19091	38'-0"	6/12	-
5	SE	19092	3'-0"	6/12	-
5	SE	19093	38'-0"	6/12	-
1	SE	19094	38'-0"	6/12	-
4	SE	19243	12'-2"	10/10	-
1	SE	19244	12'-2"	10/12	-
1	VT	01061	2'-4 13/16"	10-6/12	-
1	VT	01062	4'-9 5/8"	10-6/12	-
1	VT	01063	7'-2 7/16"	10-6/12	-
1	VT	01064	9'-7 1/4"	10-6/12	-
1	VT	01065	12'-0"	10-6/12	-

FIELD INSTALLED ROOF FRAMING BEAM/HEADER SCHEDULE				
IDENTIFIER	DESCRIPTION	LENGTH	ENG. NUM.	REMARKS
B001	BEAM BUILT 2X6 - 2 PLY RFF	7'-2 1/2"	1010	



PORCH BEAM FRAMING PLAN

3 / S-2 SCALE: 1/4" = 1'-0"



PORCH ROOF FRAMING PLAN

2 / S-2 SCALE: 1/4" = 1'-0"

LEGEND

- BEARING WALL
- MASONRY WALL
- ⊗ INDICATES BEARING FROM POINT-LOAD ABOVE
- J_ JACKS
- B_ BEAM/HEADER
- T_/F_ FOOTING/THICKENED SLAB
- C_ STEEL COLUMN
- X TRUSS TIE DOWN
- X PORTAL FRAME
- X JOIST/TRUSS
- LVL
- X ENGINEERING PAGE NUMBER
- X WINDOW/DOOR TAG
- X PRECAST LINTEL TAG

-SEE FA DETAILS FOR FIRE ASSEMBLIES
-SEE FC DETAILS FOR FRAMING CONNECTORS AND MATERIAL USAGE

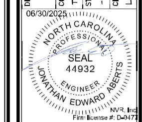
ROOF FRAMING NOTES:

1. REFER TO THE STANDARD DETAILS FOR THE FOLLOWING:
   1.1. TRUSS TIE-DOWNS (1/RF-1)
   1.2. PIGGYBACK TRUSS ATTACHMENT (2/RF-1)
   1.3. VALLEY GABLE TRUSS BRACING (3/RF-1)
   1.4. GABLE BRACING (1/RF-1c)
   1.5. TURN GABLE BRACING (7/RF-1)
   1.6. TRUSS LATERAL BRACING (2/RF-1c)
   1.7. LIFELINE ATTACHMENT (5/RF-1)
   1.8. FALL PROTECTION ON PLATFORM TRUSS (11/RF-1)
2. IF TRUSS DOES NOT APPEAR ON THE TRUSS BRACING SHEET, NO ADDITIONAL LATERAL BRACING REQUIRED
3. ALL FINISHED ROOF OVERHANGS ARE TO BE 12" FROM FRAMED WALL UNLESS OTHERWISE NOTED.

As directed by the North Carolina Board of Architecture and Registered Interior Designers, architectural seals are not required for – and should not be placed by NVR on – these plans and specifications.

DIV-COMM-LOT-UNIT
RLH-NM-1006-B
COMM-LOT TOWNES AT NORTH MAIN - 1006B
STREET ADDRESS ---- ----
APT. NO. ----
CITY LILLINGTON
STATE NC
ZIP ----

06/30/2025



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Frederick, MD 21703

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VERSION 01
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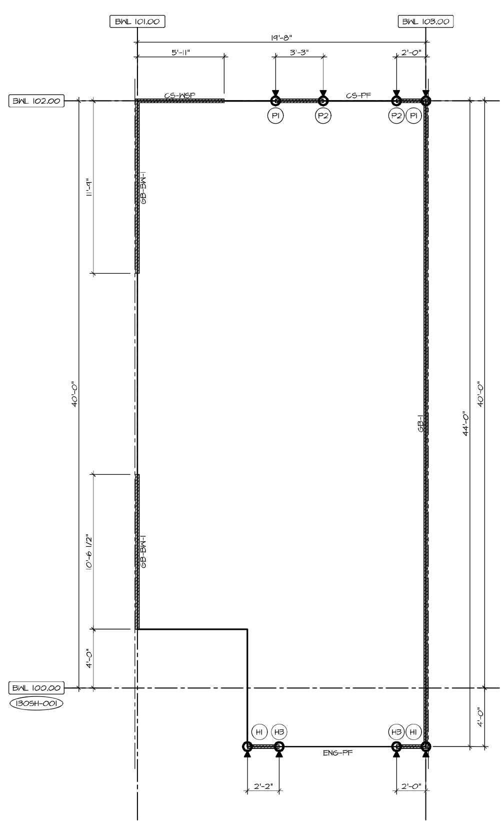
MODEL POPLAR
DRAWING TITLE ROOF FRAMING
OPTION DESCRIPTION

SHEET NO. S-2
20

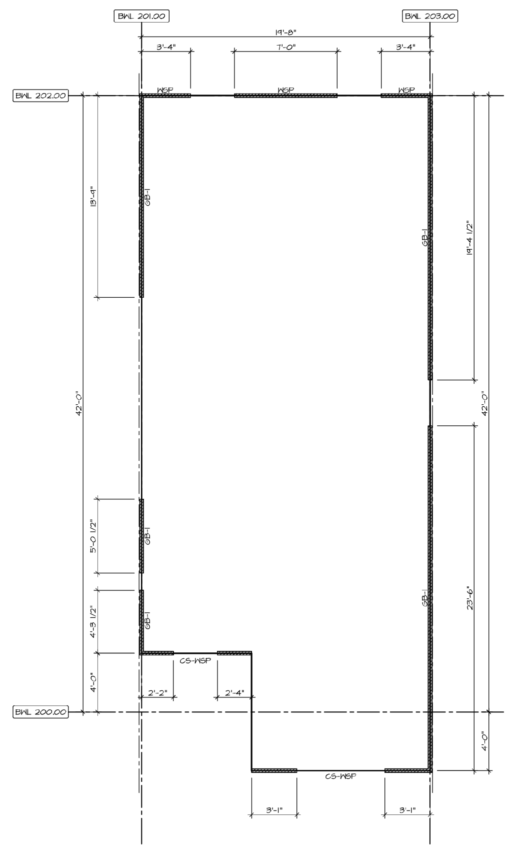
V:\As-Sold\2-Jobs\MiTek Services\Assigned\RLH-NM-1006 A-E\NM_1006 A-E\UNIT B\20 S-2 RFF_LS.dwg 07/23/25 - 2:58 pm

BRACED WALL LINE SCHEDULE

WIND SPEED (ULT)	IDENTIFIER	REQUIRED (FT)	ACTUAL (FT)	METHOD
130 MPH	BWL 100.00	N/A	N/A	ENGINEERED
130 MPH	BWL 101.00	10.05'	11.15'	GB BLOCKED
130 MPH	BWL 102.00	13.67'	13.80'	CONTINUOUS (WITH GWB)
130 MPH	BWL 103.00	14.70'	22.00'	GB
130 MPH	BWL 200.00	7.25'	10.66'	CONTINUOUS (WITH GWB)
130 MPH	BWL 201.00	7.68'	11.54'	GB
130 MPH	BWL 202.00	8.63'	12.49'	WSP (WITH GWB)
130 MPH	BWL 203.00	7.68'	21.44'	GB



1 / S-4 **FIRST FLOOR BRACED WALLS**
SCALE: 1/4" = 1'-0"



2 / S-4 **SECOND FLOOR BRACED WALLS**
SCALE: 1/4" = 1'-0"

BRACING LEGEND

BWL XXX.XX	BRACED WALL LINE I.D.
(line)	BRACED WALL LINE
(line)	HOUSE WALL
(hatch)	BRACED WALL PANEL
(X)	ENGINEERING PAGE NUMBER
WSP	WOOD STRUCTURAL PANEL
GB	GYPSUM BOARD (1) SIDED OR (2) SIDED
GB-BW	GYPSUM BOARD BLOCKED WALL CONSTRUCTION (1) SIDED OR (2) SIDED (SEE STANDARD DETAIL **G /WB-2**)
LIB	LET-IN BRACING (SEE STANDARD DETAIL **F /WB-2**)
CS-WSP	CONTINUOUS SHEATHING - WOOD STRUCTURAL PANEL
CS-PF	CONTINUOUS SHEATHING - PORTAL FRAME, SEE FLOOR PLANS FOR PORTAL FRAME HEADER INFORMATION (SEE STANDARD DETAIL **A, C/ WB-2**)
CS-G	CONTINUOUS SHEATHING - WOOD STRUCTURAL PANEL ADJACENT TO GARAGE OPENINGS
ENG-WSP-A	ENGINEERED DESIGN W/ WALL STRUCTURAL PANEL SHEATHING TYPE 'A' FASTENING REQUIREMENTS (NO HOLD DOWNS REQUIRED UNLESS NOTED)
ENG-WSP-B	ENGINEERED DESIGN W/ WALL STRUCTURAL PANEL SHEATHING TYPE 'B' FASTENING REQUIREMENTS (NO HOLD DOWNS REQUIRED UNLESS NOTED)
ENG-WSP-C	ENGINEERED DESIGN W/ WALL STRUCTURAL PANEL SHEATHING ON BOTH SIDES OF THE WALL TYPE 'C' FASTENING REQUIREMENTS (NO HOLD DOWNS REQUIRED UNLESS NOTED)
ENG-PF	ENGINEERED DESIGN W/ PORTAL FRAME, SEE FLOOR PLANS FOR PORTAL FRAME HEADER INFORMATION (SEE STANDARD DETAIL PAGE WB-1)
ENG-GBI-A	ENGINEERED DESIGN W/ (1) SIDED GYPSUM BOARD TYPE "A" FASTENING REQUIREMENTS
ENG-GBI-B	ENGINEERED DESIGN W/ (1) SIDED GYPSUM BOARD TYPE "B" FASTENING REQUIREMENTS
ENG-BW	ENGINEERED DESIGN W/ (1) SIDED GYPSUM BOARD W/ BLOCK WALL CONSTRUCTION (SEE STANDARD DETAIL **17/WB-1**)
(hold-down symbol)	HOLD-DOWN: 1. SEE SHEET **WB-2** FOR "P_" INDICATOR SCHEDULE AND DETAILS 2. SEE SHEET **WB-1** FOR "H_" INDICATOR SCHEDULE AND DETAILS 3. ARROW INDICATES LOCATION.

NOTES:
HOUSE HAS BEEN ANALYZED UTILIZING A PRESCRIPTIVE METHOD IN COMPLIANCE WITH INTERNATIONAL RESIDENTIAL CODES (IRC) UNLESS OTHERWISE NOTED. ENGINEERED WALL LINES ARE IN COMPLIANCE WITH INTERNATIONAL BUILDING CODES (IBC).

FASTENING SCHEDULE

SHEATHING	FASTENER	SPACING EDGES	SPACING FIELD
PRESCRIPTIVE 7/16" WOOD STRUCTURAL PANELS OR EQUIVALENT (W/ METHOD WSP, CS-WSP, CS-G)	8d COMMON NAILS	6" O.C.	6" O.C.
	ALTERNATIVE FASTENER 1-3/4" 16-GAUGE CORROSION RESISTANT STAPLES	3" O.C.	6" O.C.
ENGINEERED 7/16" WOOD STRUCTURAL PANELS (W/ METHOD ENG-WSP-A, ENG-WSP-B, ENG-WSP-C)	A - 8d COMMON NAILS	4" O.C.	6" O.C.
	A - 1-3/4" 16-GAUGE CORROSION RESISTANT STAPLES	3" O.C.	6" O.C.
	B - 8d COMMON NAILS*	3" O.C.	6" O.C.
	B - 1-3/4" 16-GAUGE CORROSION RESISTANT STAPLES	N/A	6" O.C.
	C - 8d COMMON NAILS* SHEATHING ON BOTH SIDES OF THE WALL	3" O.C.	6" O.C.
	C - 1-3/4" 16-GAUGE CORROSION RESISTANT STAPLES SHEATHING ON BOTH SIDES OF THE WALL	N/A	6" O.C.
1/2" GYPSUM WALLBOARD (W/ METHOD GB-1, GB-2, ENG-GBI-A)	1-1/4" LONG, 1/4" HEAD, .098" DIA. ANNULAR-RINGED NAILS	7" O.C.	7" O.C.
	CORROSION RESISTANT TYPE W 1-1/4" DRYWALL SCREWS	7" O.C.	7" O.C.
1/2" GYPSUM WALL BOARD BLOCKED AT THE EDGES (W/ METHOD GB-BW-1, GB-BW-2, ENG-BW)	BLOCKING REQUIRED AT ALL GYPSUM EDGES. USE CORROSION RESISTANT TYPE W 1-1/4" DRYWALL SCREWS	4" O.C.	12" O.C.

NOTES:
1. MINIMUM 7/16" CROWN WIDTH FOR STAPLES IN WOOD STRUCTURAL PANEL.
2. SPECIFIED GYPSUM FASTENING REQUIRED ONLY WHERE METHOD GB IS IDENTIFIED. SEE PHASE SPECS FOR TYPICAL GYPSUM FASTENER SPACING.
3. USE OF STAPLES IN WOOD STRUCTURAL PANEL AS FASTENING METHOD ON WALLS PER ENGINEERED ALTERNATIVE.
* STAPLE ALTERNATIVE FOR USE IN FIELD ONLY
4. WALL PANELS NOT IDENTIFIED AS BRACED WALL PANELS SHALL BE FASTENED IN ACCORDANCE WITH THE WSP/ENG-WSP-A METHOD.

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DIV-COMM-LOT-UNIT
RLH-NM-1006-B
COMM-LOT
TOWNES AT NORTH MAIN - 1006B

STREET ADDRESS	APT. NO.	
---- ----	----	
CITY	STATE	ZIP
LILLINGTON	NC	----

06/30/2025
NORTH CAROLINA PROFESSIONAL SEAL 44932 ENGINEER JONATHAN EDWARD ABERTS
NVR, Inc. Firm license #: D-0477

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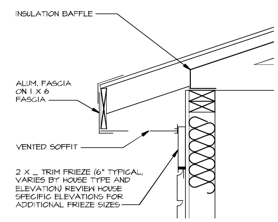
SHEET NO. **S-4**
MODEL **POPLAR**
DRAWING TITLE
BRACED WALL PANELS
OPTION DESCRIPTION

22

V:\As-Sold\2-Jobs\MiTek Services\Assigned\RLH-NM-1006 A-E\NM_1006 A-E\UNIT B\22 S-4 WSHTG_SRW_SQK_LS.dwg 07/23/25 - 2:58 pm

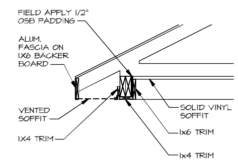
INTERIOR TRIM - IT

SPECIFICATION	MOULDING	MOULDING PROFILE	LOCATION	OPTIONS
NVR SPECIFICATIONS (SZB)	STANDARD CASING	WM-376 (2 1/4")	THROUGHOUT	STD
	STANDARD BASE	WM-623 (3 1/4")	THROUGHOUT	STD
	OGEE	WM-167	STAIRS, CAPPED WALLS	STD
	1 - PIECE CROWN MOULDING	WM-47 (4 5/8")	DINING ROOM, FOYER, 2ND FLOOR HALL	TBA



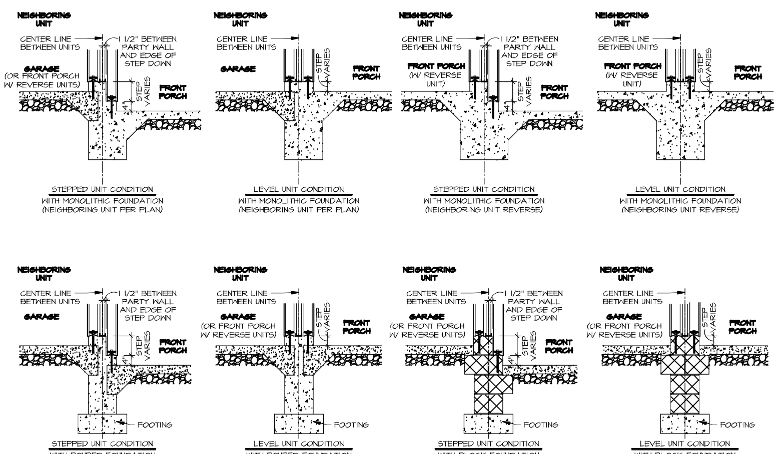
A / AD-1 **FRONT SOFFIT DETAIL**

SCALE: 1-1/2" = 1'-0"



B / AD-1 **PORCH BEAM DETAIL**

SCALE: 3/4" = 1'-0"



C / AD-1 **PARTY WALL SECTION AT FRONT PORCH**

SCALE: 1/2" = 1'-0"

NOTE:
FOR ALL FLASHING AND MOISTURE MANAGEMENT INFORMATION REFERENCE THE FOLLOWING:

F-1 - SIDING VENEER & GENERAL
F-2 - BRICK VENEER
F-3 - STONE VENEER

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REV. NO.	DATE	REMARKS

06/30/2025
NORTH CAROLINA PROFESSIONAL SEAL 44932 ENGINEER JONATHAN EDWARD ABERTS
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DATE: 08/24/2020
OPTION

SHEET NO. AD-1
MODEL POPLAR
DRAWING TITLE STANDARD DETAILS - HOUSE SPECIFIC
OPTION DESCRIPTION
34

V:\As-Sold\2-Jobs\MiTek Services\Assigned\RLH-NM-1006 A-E\NM_1006 A-E\UNIT B\AD-1 HOUSE SPECIFIC.dwg 07/23/25 - 2:58 pm

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REV. NO.	DATE	REMARKS
10	11/20/17	ZDM - UPDATED FLASHING INFORMATION (#4412)
11	4/6/18	ZDM - ADDED EXTENSION JAMB NOTE DETAIL 2 & 3 (PAR#5158)
12	7/26/19	NS - MOISTURE MANAGEMENT REVISION (JOB #3686)
13	10/18/19	ATK - ADDED SHEATHING AT EXTERIOR WALL W/ VINYL SIDING (REQUEST #2044)
14	1/14/20	ATK - ADJUSTED TRIM LAPPING AT GARAGE DOOR HEAD (#6245)
15	4/23/20	ATK - 6/DR-1 - UPDATED KICKPLATE NOTE TO TRIM WITH SLAB FDN (#6490)
16	4/23/20	ATK - UPDATES TO DTLS 1,2,3,4,7,8. OBSOLETE DTL 14 (#6463)
17	4/23/20	ATK - 1/DR-1 - UPDATED SCALE NOTE TO 1-1/2" (#6429)
18	1/20/21	ATK - ADDED VARIABLE PROFILE NOTE TO DETAILS 4 & 1 (#6925)

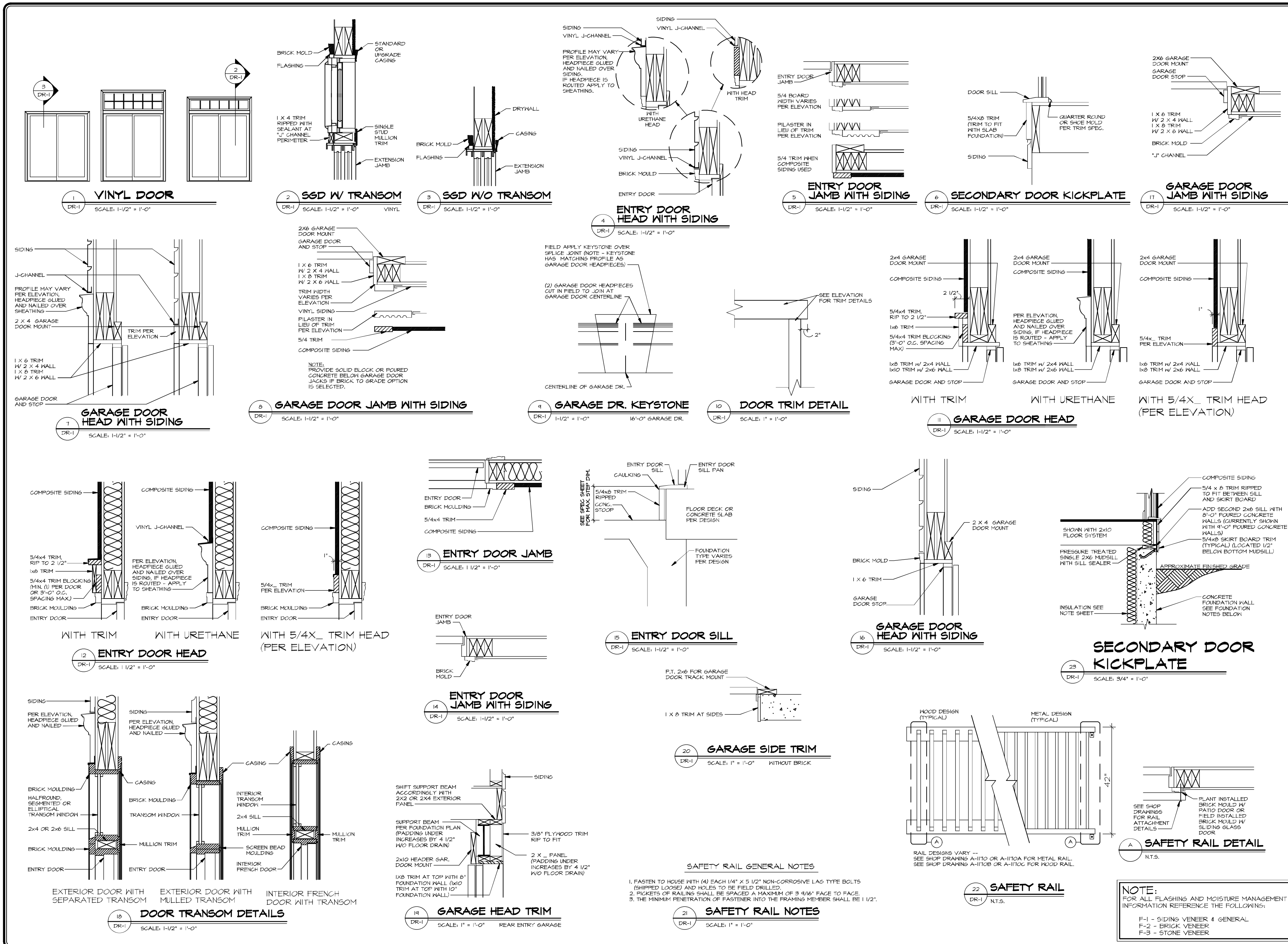
James Bales
06/30/2025

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SET NO. NVR	MODEL: STANDARD DETAILS
VERSION	
DRAWN BY	DRAWING TITLE: DOOR DETAILS / GENERAL DETAILS
DATE:	
OPTION	OPTION DESCRIPTION
SHEET NO.	DR-1



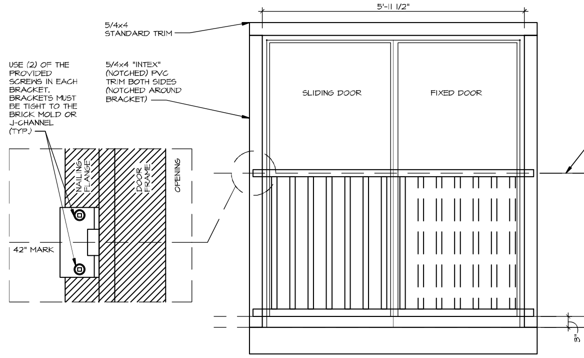
SAFETY RAIL GENERAL NOTES

1. FASTEN TO HOUSE WITH (4) EACH 1/4" X 5 1/2" NON-CORROSIVE LAG TYPE BOLTS (SHIPPED LOOSE) AND HOLES TO BE FIELD DRILLED.
2. PICKETS OF RAILING SHALL BE SPACED A MAXIMUM OF 3 9/16" FACE TO FACE.
3. THE MINIMUM PENETRATION OF FASTENER INTO THE FRAMING MEMBER SHALL BE 1 1/2".

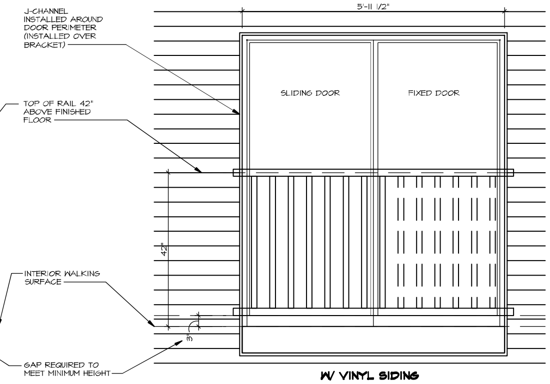
21 DR-1 SAFETY RAIL NOTES SCALE: 1" = 1'-0"

NOTE:
FOR ALL FLASHING AND MOISTURE MANAGEMENT INFORMATION REFERENCE THE FOLLOWING:

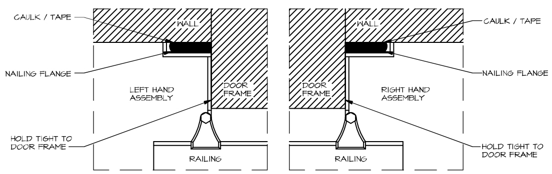
F-1 - SIDING VENEER & GENERAL
F-2 - BRICK VENEER
F-3 - STONE VENEER



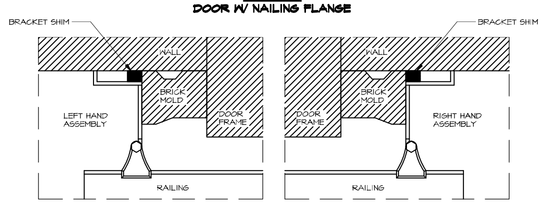
W/ HARDIE SIDING



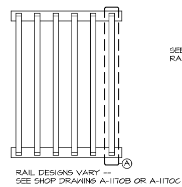
W/ VINYL SIDING



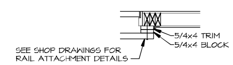
TOP VIEW
DOOR W/ NAILING FLANGE



TOP VIEW
DOOR W/ BRICK MOLD



1 DR-1b **SAFETY RAIL**
N.T.S.



A **SAFETY RAIL DETAIL**
N.T.S.

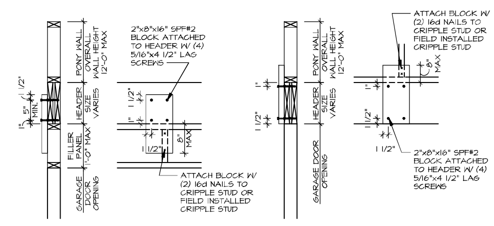
SAFETY RAIL NOTES

1. FASTEN TO HOUSE WITH (4) EACH 1/4" X 5 1/2" NON-CORROSIVE LAG TYPE BOLTS (SHIPPED LOOSE) AND HOLES TO BE FIELD DRILLED.

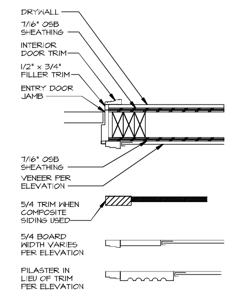
2. PICKETS OF RAILING SHALL BE SPACED A MAXIMUM OF 3 9/16" FACE TO FACE.

3. THE MINIMUM PENETRATION OF FASTENER INTO THE FRAMING MEMBER SHALL BE 1 1/2".

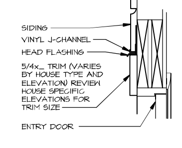
WHEN INSTALLING METAL SAFETY RAIL, FOLLOW MANUFACTURER'S INSTALLATION GUIDE AND SPECIFICATIONS ONLY.



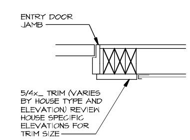
4 DR-1b **TORSION SPRING BLOCKING DETAIL**
SCALE: 3/4" = 1'-0"



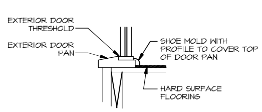
3 DR-1b **ENTRY DOOR JAMB WITH SIDING AND 2-SIDES SHEATHING**
SCALE: 1-1/2" = 1'-0"



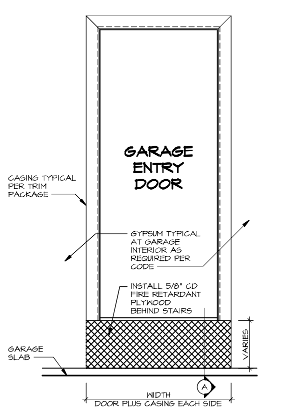
5 DR-1b **ENTRY DOOR HEAD WITH SIDING**
SCALE: 1-1/2" = 1'-0"



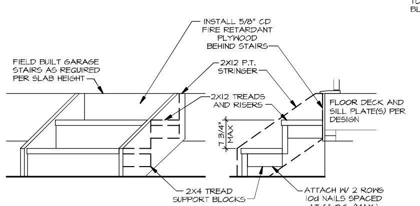
6 DR-1b **ENTRY DOOR JAMB WITH SIDING**
SCALE: 1-1/2" = 1'-0"



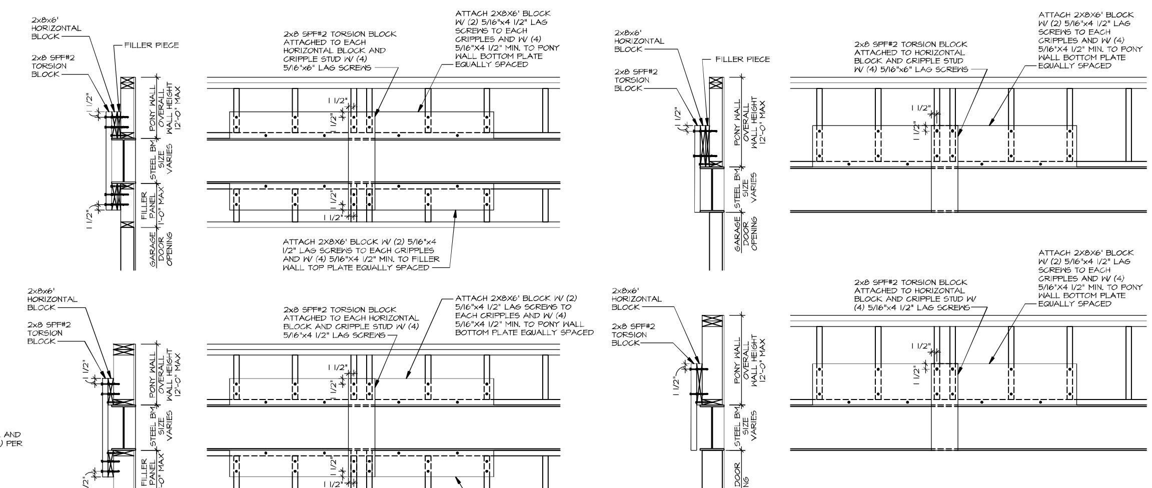
7 DR-1b **SHOE MOLDING AT EXTERIOR DOORS W/ HARD SURFACE FLOORING**
SCALE: 1-1/2" = 1'-0"



2 DR-1b **GARAGE / HOUSE ENTRY**
SCALE: 3/4" = 1'-0"
BASEMENT FOUNDATION "FBA"
CRAWL SPACE FOUNDATION "FCA"



SECTION "A"



8 DR-1b **TORSION SPRING BLOCKING DETAIL**
SCALE: 3/4" = 1'-0"
STEEL HEADER

NOTE:
FOR ALL FLASHING AND MOISTURE MANAGEMENT INFORMATION REFERENCE THE FOLLOWING:

F-1 - SIDING VENEER & GENERAL
F-2 - BRICK VENEER
F-3 - STONE VENEER

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REV. NO.	DATE	REMARKS
10	5/5/20	ATK - DETAIL 1/DR-1b ADDED 5/4X TRIM AND BLOCK (QC#6386)
11	8/14/20	ATK - ADDED INSTALLATION NOTATION TO DETAIL 1/DR-1b (REQUEST #6714)
12	12/3/20	SPM - ADDED STAIR BUILD DETAILS TO SECTION "A" ON 2/DR-1b (REQUEST #6899)
13	3/1/22	ATK - ADDED METAL SAFETY RAIL DETAILS TO 1/DR-1b (QC#7152)
5	9/14/18	ZDM - CREATED DETAIL #4 (REQUEST #4814)
6	10/24/18	ZDM - CREATED DETAIL #5 & 6 (REQUEST #5228)
7	12/11/18	ZDM - DELETED DETAIL #5 & 6 (REQUEST #5228)
8	6/5/19	ZDM - ADDED DETAILS 5 & 6 (REQUEST #5823)
9	7/26/19	NS - MOISTURE MANAGEMENT REVISION (JOB #3686)

James Bales
06/30/2025

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VERSION
DRAWN BY
DATE:
OPTION

MODEL
STANDARD DETAILS
DRAWING TITLE
DOOR DETAILS
GENERAL DETAILS
OPTION DESCRIPTION

SHEET NO.
DR-1b

90 MINUTE DOOR (PER LOCAL CODES)

B-LABELED 90-MINUTE FIRE DOOR AND STEEL FRAMES SPECIFICATIONS

FIRE DOORS: EMBOSED AND FLUSH STYLES CARRY THE 90-MINUTE B-LABEL FIRE RATING. GALVANIZED STEEL FACE PANELS WITH FORMED EDGES ALSO COVER THE STILES AND INTERLOCK ALONG THE VERTICAL STRIKE EDGE. CORE IS FOAMED IN PLACE WHICH FILLS THE ENTIRE AREA AND BONDS THE STILES, RAILS AND FACES INTO A SOLID PANEL. DOORS ARE PREPARED FOR THREE THERMA-TRU 4" X 4" HINGES (P.J.) PUNCHED. DOORS ARE PRIMED TO ACCEPT FINISH PAINT, AND ARE AVAILABLE IN 2'8" AND 3'0" WIDTHS BY 6'8" HEIGHTS. ALL FIRE DOORS CARRY A CERTIFIED, SEQUENTIALLY NUMBERED 90-MINUTE LABEL PER ASTM E-152.

FRAMES: EXPANDABLE STEEL FRAMES - THROAT OPENINGS FOR SINGLE AND DOUBLE-DOOR APPLICATIONS. THROAT EXPANDS FROM 4 3/4" TO 7 1/8". 18-GAGUE GALVANIZED STEEL. EXPANDABLE-PLUS STEEL FRAMES - TWO CLOSURE SECTIONS AVAILABLE FOR THROAT EXPANSIONS FROM 4 1/2" TO 6 3/4" AND 6 1/4" TO 9". 20-GAGUE GALVANIZED STEEL. ALL FRAMES REINFORCED AT HINGES AND STRIKE. PREPPED FOR 4" X4" HINGES. FIRE-RATED COMPRESSION WEATHERSTRIP ALL FRAMES CARRY A CERTIFIED SEQUENTIALLY NUMBERED LABEL AS PER ASTM E-152.

FIRE-RATING PERFORMANCE STANDARDS: SINCE FIRE AND BUILDING CODES VARY THROUGHOUT THE COUNTRY, THE CODES OF LOCAL AUTHORITIES SHALL HAVE JURISDICTION AND MUST BE CONFORMED TO. CONSULT ASTM E-152 FOR FURTHER INFORMATION ON TESTING PROCEDURES AND STANDARDS AND THEIR MEANING. MODIFICATION OF THE PRODUCTS DESCRIBED IN THIS BROCHURE WHICH CARRY THE B-LABEL FIRE RATING (DOORS AND FRAMES) MAY VOID THE B-LABEL FIRE RATING.

90-MINUTE B-LABEL STEEL DOOR			
DIMENSIONAL DATA - 1'-0" DOOR AND FRAME			
	SIZE	ACTUAL UNIT SIZE	ROUGH OPENING
EXPANDABLE	2/6	34 9/16" X 86 1/4"	32 9/16" X 85 1/8"
STEEL FRAME	2/8	36 9/16" X 86 1/4"	34 9/16" X 85 1/8"
	3/0	42 9/16" X 86 1/4"	38 9/16" X 85 1/8"
EXPANDABLE-PLUS	2/6	33 9/16" X 86 1/2"	31 9/16" X 85 1/4"
STEEL FRAME	2/8	35 9/16" X 86 1/2"	33 9/16" X 85 1/4"
	3/0	39 9/16" X 86 1/2"	37 9/16" X 85 1/4"

PRESCRIPTIVE 20 MINUTE DOOR

FIBER-CLASSIC DOOR SPECIFICATIONS

DOORS 2'8" AND 3'0" X 6'8" AND 7'0". DOOR PANELS WITH FORMED EDGES LOCK INTO WOOD STILES AND RAILS AND ARE BOUNDED BY A FOAMED-IN-PLACE POLYURETHANE CORE. ENTIRE UNIT IS READY TO ACCEPT FINISH OR STAIN.

SYSTEM. 4 1/8" JAMBS OR 6 3/4" JAMBS WHICH INTERLOCK INTO THE HEAD AND SILL. SILL COMBINED WITH SELF-SEALING SILL AND DOOR BOTTOM COMPLETES THE ENTRANCE SEALS. ARCTIC WEATHERSTRIP MECHANICALLY FASTENED IN FRAME ON HINGE, LOCK AND HEAD. NEITHER ARE NEEDED ON INTERIOR APPLICATIONS.

20-MINUTE FIBER-CLASSIC FIRE DOOR			
DIMENSIONAL DATA - 1'-0" DOOR AND WOOD EDGE ONLY ACTUAL DOOR SIZE 2/6 30" x 83 3/16" 2/8 32" x 83 3/16" 3/0 36" x 83 3/16"			
20-MINUTE FIBER-CLASSIC AND STEEL DOORS			
DIMENSIONAL DATA - 1'-0" DOOR AND FRAME			
	SIZE	ACTUAL UNIT SIZE	ROUGH OPENING
INSWING	2/6	31 1/8" X 86"	32 1/8" X 86 1/2"
	2/8	33 1/8" X 86"	34 1/8" X 86 1/2"
	3/0	37 1/8" X 86"	38 1/8" X 86 1/2"
OUTSWING	2/6	31 1/4" X 84 1/2"	32 1/8" X 85"
	2/8	33 1/4" X 84 1/2"	34 1/8" X 85"
	3/0	37 1/4" X 84 1/2"	38 1/8" X 85"

FOR MORE INFORMATION, CALL US TODAY

IF YOU NEED TO KNOW MORE ABOUT OUR FIBER-CLASSIC OR STEEL FIRE RATED DOORS, CALL 1-419-537-1931, OR WRITE, THERMA-TRU CORP., 2806 NORTH REYNOLDS ROAD, TOLEDO, OHIO 43615

6 / FA-1b **GARAGE DOOR RATING**

SCALE: 3/4" = 1'-0"

ASH (PARTYWALL) REPAIRS-
1. PAPER TEARS AND CURLS, USE PROFORM QUICK SET OVER THE AREA TO SMOOTH OUT AND FLATTEN SURFACE. FILL GAPS (1/4") AND HOLES.
2. FOR PATCH AREAS, FILL VOIDS WITH QUICK SET. APPLY 1' LINER RIPS OR 1/2' TYPE C OVER PATCH. PATCH AREAS TO EXTEND 3" BEYOND CUTS AND ALL DIRECTIONS, AND MUST EXTEND TO STUD, WHERE THE PATCH BOARD WILL BE SCREW-ATTACHED INTO STUD.

COMMON WALLS AND WALLS SUPPORTING PROTECTED FLOOR/CEILING ABOVE

One hour rated interior bearing wall - (1) layer 5/8" type "x" gypsum wall board on each side of 2x4 studs at 16" o.c. Wall board nailed 7" o.c. w/ 6d - 1 7/8" long cement coated nails.

(1) 5/8" TYPE "X" GYPSUM WALLBOARD
2x4 STUDS AT 16" O.C.
(1) 5/8" TYPE "X" GYPSUM WALLBOARD

PER: U305 (1-Hour)

GARAGE CEILING

FLOOR SYSTEM OR TRUSSES ABOVE
(2) LAYERS 5/8" TYPE "X" GYPSUM BD. BASE LAYER FASTENED WITH 1 1/4" TYPE W OR S DRYWALL SCREWS AT 12" O.C., AND FACE LAYER FASTENED WITH 1 7/8" TYPE W OR S DRYWALL SCREWS AT 12" O.C. BASE AND FACE LAYER JOINTS SHALL BE OFFSET 24"
2'-0"

PER: GA FILE NO. FC 5406

STEEL BEAM

FLOOR SYSTEM ABOVE
(2) LAYERS 5/8" TYPE "X" GYPSUM BD.
BEAM BOX FRAMING
STEEL BEAM

PER: GA FILE NO. FC 5406

1 / FA-1b **1-HOUR RATED GARAGE SEPARATION (IF REQUIRED PER LOCAL CODES)**

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

COMMON WALLS AND WALLS SUPPORTING PROTECTED FLOOR/CEILING ABOVE

2x4 STUDS AT 16" O.C.
(1) 1/2" GYPSUM WALLBOARD

GARAGE CEILING WITH FULL OR PARTIAL CONDITIONED SPACE ABOVE

FLOOR SYSTEM ABOVE
(1) LAYER 5/8" TYPE "X" GYPSUM BD.

GARAGE CEILING WITH NO CONDITIONED SPACE ABOVE

FLOOR SYSTEM ABOVE
(1) LAYER 1/2" GYPSUM BD.

STEEL BEAM

FLOOR SYSTEM ABOVE
(1) LAYER 5/8" TYPE "X" GYPSUM BD.
(1) LAYERS 5/8" TYPE "X" GYPSUM BD.
BEAM BOX FRAMING
STEEL BEAM

8 / FA-1b **MODEL CODE PRESCRIPTIVE GARAGE SEPARATION**

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

NOTE:
5'-0" FIRE SEPARATION DISTANCE (FSD) SHOWN. REQUIRED (FSD) MAY BE REDUCED DUE TO FIRE SUPPRESSION SYSTEM OR LOCAL CODE AMENDMENT.

NOTE:
FOR ALL FLASHING AND MOISTURE MANAGEMENT INFORMATION REFERENCE THE FOLLOWING:

F-1 - SIDING VENEER & GENERAL
F-2 - BRICK VENEER
F-3 - STONE VENEER

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REV. NO.	DATE	REMARKS
1	10/25/16	GJE - REVAMPED DETAILS
2	12/2/17	BLH - SPLIT GARAGE CEILING DETAILS INTO TWO SEP. DETAILS ON SHT.- 1b
3	11/24/17	C-ALB - UPDATED GARAGE CEILING NOTE ON - HOUR RATED SEPARATION DETAIL
4	12/26/17	NB - NORTHSIDE MANAGEMENT REVISION (JOB #3006)

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NVR
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Lake Oswego, OR 97035

SHEET NO. FA-1b
MODEL STANDARD DETAIL
DRAWING TITLE FIRE SEPARATION ASSEMBLY DETAILS
OPTION DESCRIPTION
SET NO.
VERSION
DRAWN BY GJE
DATE: 8/31/16
OPTION

J:\PROJECTS\DETAILS\NVR_Assembly\FA-1.dwg 05/07/25 - 2:59 pm

UL DESIGN #U305

NATIONAL GYPSUM
U.S. GYPSUM
LAFARGE NORTH AMERICA

ONE HOUR FIRE-RATED WALL
GA FILE NO. WP 3605 — **GYPSUM WALLBOARD, WOOD STUDS**

5/8 IN. THICK GYPSUM WITH BEVELED, SQUARE, OR TAPERED EDGES, APPLIED EITHER HORIZONTALLY OR VERTICALLY. GYPSUM PANELS NAILED 7 IN. OC WITH 6D CEMENT COATED NAILS 1-7/8 IN. LONG, 0.0915 IN. SHANK DIAMETER AND 15/64 IN. DIAMETER HEADS. WHEN USED IN WIDTHS OTHER THAN 48 IN., GYPSUM PANELS ARE TO BE INSTALLED HORIZONTALLY.

OPTIONAL: JOINTS TO BE COVERED WITH PAPER TAPE AND JOINT COMPOUND.

OPTIONAL: GLASS FIBER OR MINERAL WOOL INSULATION PLACED TO COMPLETELY OR PARTIALLY FILL THE STUD CAVITIES.

DESIGN DATA

THICKNESS: 4 3/4" HEIGHT: REFER TO MANUFACTURER APPROXIMATE WEIGHT: 7 PSF FIRE TEST: UL #U305 SOUND TEST: NGC 2403, OR 64-8	WALL RATING: 1 HOUR STC RATING: 56

UL DESIGN #U356

NATIONAL GYPSUM
U.S. GYPSUM
LAFARGE NORTH AMERICA

ONE HOUR FIRE-RATED WALL
GYPSUM WALLBOARD, WOOD STUDS, BRICK VENEER

5/8 IN. THICK GYPSUM APPLIED VERTICALLY TO THE INTERIOR SIDE OF 2X4 WOOD STUDS 16 IN O.C. GYPSUM PANELS NAILED 7 IN. OC WITH 6D CEMENT COATED NAILS 1-7/8 IN. LONG, 0.0915 IN. SHANK DIAMETER AND 1/4 IN. DIAMETER HEADS. 7/16 IN WOOD PANEL APPLIED HORIZONTALLY OR VERTICALLY TO EXTERIOR SIDE WITH 6D COATED NAILS 6" O.C. EXTERIOR TO BE FINISHED WITH NOMINAL 4 IN. BRICK FASTENED WITH CORRUGATED METAL WALL TIES ATTACHED OVER SHEATHING TO WOOD STUDS WITH 8d NAIL PER TIE: TIES SPACED NOT MORE THAN EACH SIXTH COURSE OF BRICK AND MAX 32 IN O.C. HORIZONTALLY. 1 IN AIR SPACE PROVIDED BETWEEN BRICK AND SHEATHING. 1 HOUR RATING TO APPLIED FROM BOTH SIDES WITH BRICK FINISH.

OPTIONAL: JOINTS TO BE COVERED WITH PAPER TAPE AND JOINT COMPOUND.

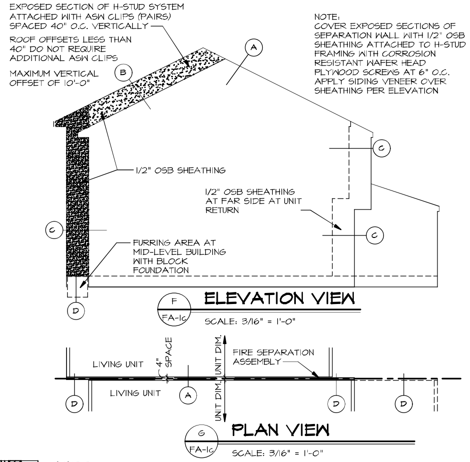
OPTIONAL: GLASS FIBER OR MINERAL WOOL INSULATION PLACED TO COMPLETELY OR PARTIALLY FILL THE STUD CAVITIES.

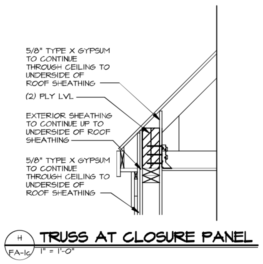
DESIGN DATA

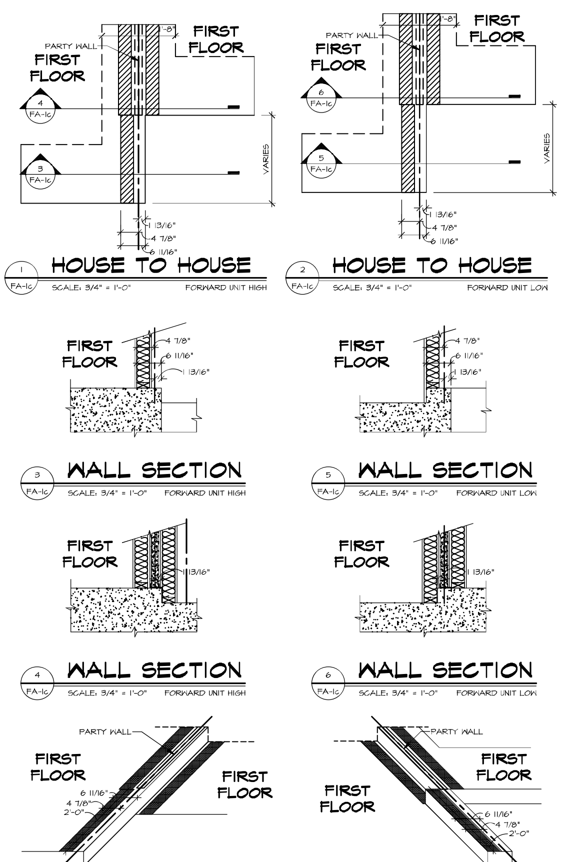
FIRE TEST: UL #U356 — WALL RATING: 1 HOUR

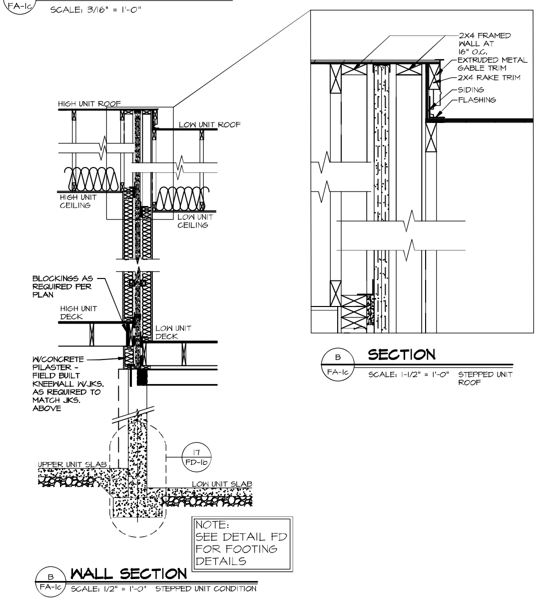
REFERENCED DOCUMENTS

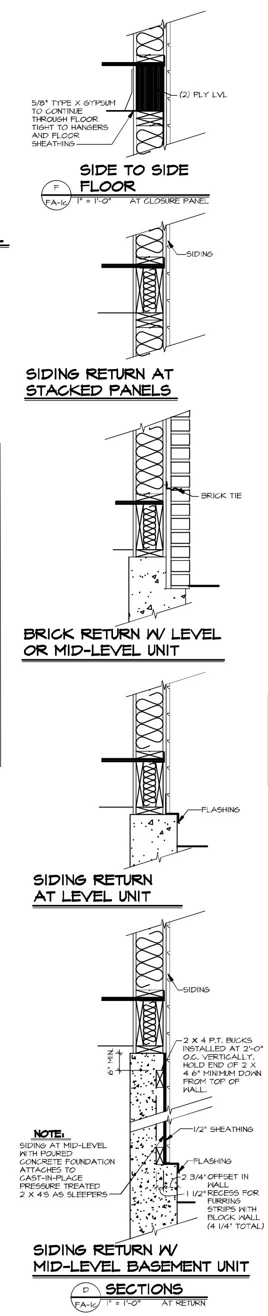
(1) UL DESIGN NO. U356, BXUV.U356, 1-29-2024

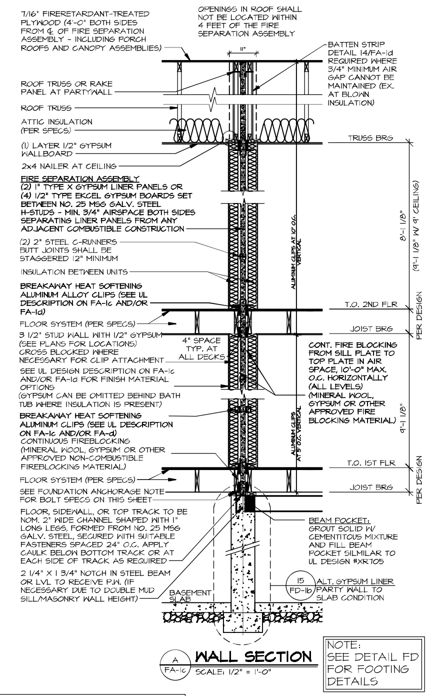






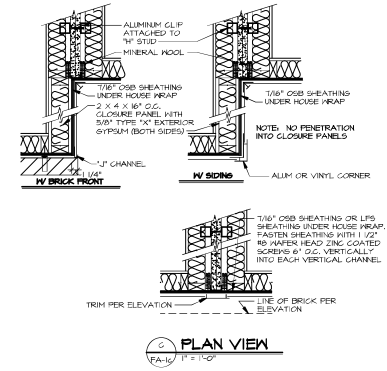






NOTE:
SEE DETAIL FD FOR FOOTING DETAILS

NOTE:
1. SEE SHEET FA-1d FOR MANUFACTURER SPECIFIC UL ASSY. DESCRIPTIONS.
2. SEE DETAIL 12/FA-1d FOR ALUMINUM CLIP VERTICAL SPACING REQUIREMENTS.



NOTE:
5'-0" FIRE SEPARATION DISTANCE (FSD) SHOWN. REQUIRED (FSD) MAY BE REDUCED DUE TO FIRE SUPPRESSION SYSTEM OR LOCAL CODE AMENDMENT.

NOTE:
FOR ALL FLASHING AND MOISTURE MANAGEMENT INFORMATION REFERENCE THE FOLLOWING:

F-1 - SIDING VENEER & GENERAL
F-2 - BRICK VENEER
F-3 - STONE VENEER

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REV. NO.	DATE	REMARKS
10	2/21/14	GTO - DTL. H, REVISED SOFFIT AND ADDED BLK'G AT HEEL (PER REQUEST #5448)
11	6/28/14	GTO - REVISED FLOOR JOIST INFORMATION FOR I-JOIST AND 2X10 (REQUEST #5760)
12	7/26/14	NS - MOISTURE MANAGEMENT REVISION (JOB #3686)
13	8/16/14	GTO - ADDED NUMBER OF FASTENERS FOR UL ASSEMBLIES (REQUEST #5926)
14	10/7/14	EJM - REVISED THE PILASTER CONDITION NOTES FOR FA-1c, A PER REQUEST #6062
15	10/10/14	GTO - ADDED HORIZ. FIREBLOCKING TO AIR SPACE DTL. A/FA-1 (REQUEST #6096)
16	12/12/14	EJM - REVISED/ADDED DTL. #A, #L, AND #M ASW WALL (PER REQUEST #6231)
17	1/30/20	EJM - ADDED 23' MAX CONDITION IN "L" PER PAR #5933 AND "M" PER PAR #6084
18	6/24/20	CEL - ADDED NOTE FOR SHEATHING ATTACHMENT TO SEPARATION WALL

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SET NO.	
VERSION	
DRAWN BY	GJE
DATE:	12/22/16
OPTION	SXS

SHEET NO. **FA-1c**

MODEL: **STANDARD DETAIL**

DRAWING TITLE: FIRE SEPARATION ASSEMBLY DETAILS

OPTION DESCRIPTION: SOUTHEAST SPECIFICATIONS

UL DESIGN #U336

USG BUILDING SYSTEMS

TWO HOUR FIRE-RATED WALL DESCRIPTIONS
ASW 1000 GYPSUM WALLBOARD, METAL H STUDS AT UNIT

SEPARATION WALL: (2) LAYERS 1" THICK, 24" WIDE, PROPRIETARY TYPE SLX GYPSUM LINER PANELS INSERTED BETWEEN NO. 25 MSG GALV. STEEL "H" STUDS SPACED 24" O.C.. STEEL STUDS SHALL BE 2" DEPTH WITH 1-3/8" FLANGE WIDTH. HORIZONTAL RUNNERS SHALL BE INSTALLED AT FLOOR, SIDE WALL, AND CEILING LOCATIONS AND CONSIST OF 2" WIDE NO. 25 MSG GALV. STEEL CHANNELS WITH 1" LEGS SECURED WITH SUITABLE FASTENERS SPACED 24" O.C.

PROTECTED WALL: (BEARING OR NONBEARING) A 3/4" MINIMUM AIR SPACE MUST BE MAINTAINED BETWEEN STEEL COMPONENTS AND ADJACENT WOOD FRAMING. WOOD FRAMING SHALL CONSIST OF NOMINAL 2" X 4" STUDS WITH MAX. SPACING 24" O.C. COVERED WITH MIN. 1/2" THICK GYPSUM WALLBOARD (CLASSIFIED OR UNCLASSIFIED) SECURED BY 1-1/4" STEEL DRYWALL SCREWS SPACED 8" O.C. OPTIONAL: JOINTS COVERED WITH PAPER TAPE AND JOINT COMPOUND. SCREW HEADS COVERED WITH JOINT COMPOUND.

ATTACHMENT CLIPS: BREAKAWAY HEAT SOFTENING ALUMINUM ALLOY CLIPS (.063" THICK ALUMINUM ANGLE, 2" WIDE WITH 2" AND 2-1/4" LEGS) SHALL BE SECURED INTO BOTH SIDES OF EACH VERTICAL METAL STUD WITH (2) 3/8" TYPE S SCREWS TO "H" STUDS AND (1) 1-1/4" TYPE W SCREWS TO WOOD FRAMING THROUGH PROVIDED HOLES IN THE CLIP. WHERE NECESSARY, WOOD FRAMING SHALL BE CROSS-BRACED AT MID-HEIGHT FOR CLIP ATTACHMENT. VERTICAL CLIP PLACEMENT BETWEEN "H" STUDS AND WOOD FRAMING SHALL BE AS FOLLOWS:
(A): SEPARATION WALLS UP TO 23'-0" HIGH - CLIPS SHALL BE SPACED A MAX. 10' O.C. VERTICALLY.
(B): SEPARATION WALLS UP TO 44'-0" HIGH - CLIPS SHALL BE SPACED AS DESCRIBED IN (A) FOR THE TOP 24' AND AT A MAX OF 5' O.C. VERTICALLY FOR THE REMAINING WALL BELOW.
(C): SEPARATION WALLS UP TO 66'-0" HIGH - CLIPS SHALL BE SPACED AS DESCRIBED IN (A) FOR THE TOP 24', AS DESCRIBED IN (B) FOR THE NEXT 20' BELOW, AND AT A MAX OF 40" O.C. VERTICALLY FOR THE REMAINING WALL BELOW.
SOUND TESTING: SOUND TESTING BASED ON 2" X 4" STUD WALL FACED WITH 1/2" REGULAR GYPSUM WALLBOARD ON EACH SIDE OF SEPARATION WALL ASSEMBLY FOR A MINIMUM 11-1/2" TOTAL THICKNESS. STUD CAVITIES ARE INSULATED WITH 3" GLASS FIBER BATT ON (1) OR (2) SIDES. SEE DESIGN DATA BELOW FOR STC RATINGS.
CAULKING AND SEALANTS: INTENDED FOR USE AS AN AIR BARRIER - NOT EVALUATED AS FIREBLOCKING - A BEAD OF SEALANT APPLIED AROUND THE PARTITION PERIMETER IN THE 3/4 IN. AIR SPACE BETWEEN PROTECTED WALL AND SEPARATION WALL TO CREATE AN AIR BARRIER. GREAT STUFF GAPS AND CRACKS, GREAT STUFF PRO GAPS AND CRACKS

DESIGN DATA

THICKNESS (FIRE): 3-1/2" MINIMUM THICKNESS (SOUND): 11-1/2" MINIMUM HEIGHT: 66'-0" MAXIMUM APPROXIMATE WEIGHT: 9 PSF WALL RATING: 2 HOUR FINISH RATING: 120 MIN.	FIRE TEST: UL R1319, 89NK28786, 5-14-90 SOUND TEST: RAL-TL-88-351 (INSUL. (1) SIDE) SOUND TEST: RAL-TL-88-350 (INSUL. (2) SIDES) STC RATING: 57 WITH INSUL. (1) SIDE STC RATING: 60 WITH INSUL. (2) SIDES

REFERENCED DOCUMENTS

(1) UL DESIGN NO. U336, BXUV.U336, 10-27-2010
(2) GA-600-2012 FIRE RESISTANCE DESIGN MANUAL, GA FILE NO. ASW 1000
(3) USG AREA SEPARATION WALL SYSTEMS BROCHURE - SA925/REV. 4-10

UL DESIGN #U347

NATIONAL GYPSUM

TWO HOUR FIRE-RATED WALL DESCRIPTIONS
ASW 0998 GYPSUM WALLBOARD, METAL H STUDS AT UNIT

SEPARATION WALL: (2) LAYERS 1" THICK, 24" WIDE, PROPRIETARY TYPE FSW, FSW-B, OR FSW-7 GYPSUM LINER PANELS INSERTED BETWEEN NO. 25 MSG GALV. STEEL "H" STUDS SPACED 24" O.C.. STEEL STUDS SHALL BE 2" DEPTH WITH 1-3/8" FLANGE WIDTH. HORIZONTAL RUNNERS SHALL BE INSTALLED AT FLOOR, SIDE WALL, AND CEILING LOCATIONS AND CONSIST OF 2" WIDE NO. 25 MSG GALV. STEEL CHANNELS WITH 1" LEGS SECURED WITH SUITABLE FASTENERS SPACED 24" O.C.

PROTECTED WALL: (BEARING OR NONBEARING) A 3/4" MINIMUM AIR SPACE MUST BE MAINTAINED BETWEEN STEEL COMPONENTS AND ADJACENT WOOD FRAMING. WOOD FRAMING SHALL CONSIST OF NOMINAL 2" X 4" STUDS WITH MAX. SPACING 24" O.C. COVERED WITH MIN. 1/2" THICK GYPSUM WALLBOARD (CLASSIFIED OR UNCLASSIFIED) SECURED BY 1-1/4" STEEL DRYWALL SCREWS SPACED 12" O.C.
ALTERNATIVELY: (BEARING OR NONBEARING) MINIMUM 5/8" THICK, MINIMUM 6" WIDE BATTEN STRIPS, APPLIED ON BOTH SIDES OF STEEL STUDS AND HORIZONTAL BACK TO BACK STEEL TRACK. MINIMUM 5/8" THICK, MINIMUM 3" WIDE BATTEN STRIPS APPLIED TO BOTH SIDES OF SINGLE STEEL TRACK AT PERIMETER OF ASSEMBLY. BATTEN STRIPS SECURED TO STUDS WITH 1-1/4" LONG TYPE S STEEL SCREWS SPACED 12" O.C. BATTEN JOINTS SHALL BE BUTTED TIGHT TO FORM A CLOSED JOINT. AS AN OPTION, ENTIRE SHEET OF GYPSUM BOARD MAY BE USED IN LIEU OF THE BATTENS.
NOTE: SEE FULL U347 DESIGN FOR ALT. WOOD FRAMING COVERINGS.
OPTIONAL: JOINTS COVERED WITH PAPER TAPE AND JOINT COMPOUND. SCREW HEADS COVERED WITH JOINT COMPOUND.
ATTACHMENT CLIPS: BREAKAWAY HEAT SOFTENING ALUMINUM ALLOY CLIPS (.049" THICK ALUMINUM ANGLE, 2" WIDE WITH 2" AND 2-1/2" LEGS) SHALL BE SECURED INTO BOTH SIDES OF EACH VERTICAL METAL STUD WITH (2) 3/8" TYPE S SCREWS TO "H" STUDS AND (1) 1-1/4" SCREWS TO WOOD FRAMING THROUGH PROVIDED HOLES IN THE CLIP. WHERE NECESSARY, WOOD FRAMING SHALL BE CROSS-BRACED AT MID-HEIGHT FOR CLIP ATTACHMENT. VERTICAL CLIP PLACEMENT BETWEEN "H" STUDS AND WOOD FRAMING SHALL BE AS FOLLOWS:
(A): SEPARATION WALLS UP TO 23'-0" HIGH - CLIPS SHALL BE SPACED A MAX. 10' O.C. VERTICALLY.
(B): SEPARATION WALLS UP TO 54'-0" HIGH - CLIPS SHALL BE SPACED AS DESCRIBED IN (A) FOR THE TOP 24' AND AT A MAX OF 5' O.C. VERTICALLY FOR THE REMAINING WALL BELOW.
(C): SEPARATION WALLS UP TO 66'-0" HIGH - CLIPS SHALL BE SPACED AS DESCRIBED IN (A) FOR THE TOP 24', AS DESCRIBED IN (B) FOR THE NEXT 30' BELOW, AND AT A MAX OF 39" O.C. VERTICALLY FOR THE REMAINING WALL BELOW.
SOUND TESTING: SOUND TESTING BASED ON 2" X 4" STUD WALL FACED WITH 1/2" REGULAR GYPSUM WALLBOARD ON EACH SIDE OF SEPARATION WALL ASSEMBLY FOR A MINIMUM 11-1/2" TOTAL THICKNESS. STUD CAVITIES ARE INSULATED WITH 3-1/2" GLASS FIBER ON (1) OR (2) SIDES. SEE DESIGN DATA BELOW FOR STC RATINGS. NOTE: SEE FULL U347 DESIGN FOR ADDITIONAL STC RATING CONFIGURATIONS.
CAULKING AND SEALANTS: INTENDED FOR USE AS AN AIR BARRIER - NOT EVALUATED AS FIREBLOCKING - A BEAD OF SEALANT APPLIED AROUND THE PARTITION PERIMETER IN THE 3/4 IN. AIR SPACE BETWEEN PROTECTED WALL AND SEPARATION WALL TO CREATE AN AIR BARRIER. GREAT STUFF GAPS AND CRACKS, GREAT STUFF PRO GAPS AND CRACKS

DESIGN DATA

THICKNESS (FIRE): 3-1/2" MINIMUM THICKNESS (SOUND): 11-1/2" MINIMUM HEIGHT: 66'-0" MAXIMUM APPROXIMATE WEIGHT: 9 PSF WALL RATING: 2 HOUR FINISH RATING: 120 MIN.	FIRE TEST: UL R3501, 92NK28896, 6-7-93 SOUND TEST: NGC-2824 (INSUL. (1) SIDE) SOUND TEST: RAL-TL-05-199 (INSUL. (2) SIDES) STC RATING: 55 WITH INSUL. (1) SIDE STC RATING: 61 WITH INSUL. (2) SIDES

REFERENCED DOCUMENTS

(1) UL DESIGN NO. U347, BXUV.U347, 5-30-2022
(2) GA-600-2018 FIRE RESISTANCE DESIGN MANUAL, GA FILE NO. ASW 0998
(3) NATIONAL GYPSUM CONSTRUCTION GUIDE - 14TH EDITION, REV. 7/17

UL DESIGN #U373

GEORGIA PACIFIC

TWO HOUR FIRE-RATED WALL DESCRIPTIONS
ASW 1002 GYPSUM WALLBOARD, METAL H STUDS AT UNIT

SEPARATION WALL: (2) LAYERS 1" THICK, 24" WIDE, SOLID TYPE M2TECH OR GLASSROC SHAFTLINER GYPSUM PANELS INSERTED BETWEEN NO. 25 MSG GALV. STEEL "H" STUDS SPACED 24" O.C.. STEEL STUDS SHALL BE 2" DEPTH WITH 1-3/8" FLANGE WIDTH. HORIZONTAL RUNNERS SHALL BE INSTALLED AT FLOOR, SIDE WALL, AND CEILING LOCATIONS AND CONSIST OF 2" WIDE NO. 25 MSG GALV. STEEL CHANNELS WITH 1" LEGS SECURED WITH SUITABLE FASTENERS SPACED 24" O.C.

PROTECTED WALL: (BEARING OR NONBEARING) A 3/4" MINIMUM AIR SPACE MUST BE MAINTAINED BETWEEN STEEL COMPONENTS AND ADJACENT WOOD FRAMING. WOOD FRAMING SHALL CONSIST OF NOMINAL 2" X 4" STUDS WITH MAX. SPACING 24" O.C. COVERED WITH MIN. 1/2" THICK GYPSUM WALLBOARD (CLASSIFIED OR UNCLASSIFIED) SECURED BY 1-1/4" STEEL DRYWALL NAILS SPACED 8" O.C. JOINTS AND FASTENERS FINISHED WITH CERTAINTEED FINISHING SYSTEM OR EQUIVALENT.
ATTACHMENT CLIPS: BREAKAWAY HEAT SOFTENING ALUMINUM ALLOY CLIPS (.063" THICK ALUMINUM ANGLE, 2" WIDE WITH 2" AND 2-1/4" LEGS) SHALL BE SECURED INTO BOTH SIDES OF EACH VERTICAL METAL STUD WITH (2) 3/8" TYPE S SCREWS TO "H" STUDS AND (1) 1-1/4" TYPE W SCREWS TO WOOD FRAMING THROUGH PROVIDED HOLES IN THE CLIP. WHERE NECESSARY, WOOD FRAMING SHALL BE CROSS-BRACED AT MID-HEIGHT FOR CLIP ATTACHMENT. VERTICAL CLIP PLACEMENT BETWEEN "H" STUDS AND WOOD FRAMING SHALL BE AS FOLLOWS:
(A): SEPARATION WALLS UP TO 23'-0" HIGH - CLIPS SHALL BE SPACED A MAX. 10' O.C. VERTICALLY.
(B): SEPARATION WALLS UP TO 44'-0" HIGH - CLIPS SHALL BE SPACED AS DESCRIBED IN (A) FOR THE TOP 24' AND AT A MAX OF 5' O.C. VERTICALLY FOR THE REMAINING WALL BELOW.
SOUND TESTING: SOUND TESTING BASED ON 2" X 4" STUD WALL FACED WITH 1/2" REGULAR GYPSUM WALLBOARD ON EACH SIDE OF SEPARATION WALL ASSEMBLY FOR A MINIMUM 11-1/2" TOTAL THICKNESS. STUD CAVITIES ARE INSULATED WITH 3-1/2" GLASS FIBER ON (1) OR (2) SIDES. SEE DESIGN DATA BELOW FOR STC RATINGS.
CAULKING AND SEALANTS: INTENDED FOR USE AS AN AIR BARRIER - NOT EVALUATED AS FIREBLOCKING - A BEAD OF SEALANT APPLIED AROUND THE PARTITION PERIMETER IN THE 3/4 IN. AIR SPACE BETWEEN PROTECTED WALL AND SEPARATION WALL TO CREATE AN AIR BARRIER. GREAT STUFF GAPS AND CRACKS, GREAT STUFF PRO GAPS AND CRACKS

DESIGN DATA

THICKNESS (FIRE): 3-1/2" MINIMUM THICKNESS (SOUND): 11-1/2" MINIMUM HEIGHT: 44'-0" MAXIMUM APPROXIMATE WEIGHT: 9 PSF WALL RATING: 2 HOUR FINISH RATING: 120 MIN.	FIRE TEST: UL U373 ULC W312, WHI GP/WA 120-03 SOUND TEST: RAL-TL10-290 STC RATING: 55-59

REFERENCED DOCUMENTS

(1) UL DESIGN NO. U373, BXUV.U373, 8-19-2008
(2) GA-600-2018 FIRE RESISTANCE DESIGN MANUAL, GA FILE NO. ASW 1002

UL DESIGN #U366

CERTAINTEED

TWO HOUR FIRE-RATED WALL DESCRIPTIONS
ASW 0999 GYPSUM WALLBOARD, METAL H STUDS AT UNIT

SEPARATION WALL: (2) LAYERS 1" THICK, 24" WIDE, SOLID TYPE M2TECH OR GLASSROC SHAFTLINER GYPSUM PANELS INSERTED BETWEEN NO. 25 MSG GALV. STEEL "H" STUDS SPACED 24" O.C.. STEEL STUDS SHALL BE 2" DEPTH WITH 1-3/8" FLANGE WIDTH. HORIZONTAL RUNNERS SHALL BE INSTALLED AT FLOOR, SIDE WALL, AND CEILING LOCATIONS AND CONSIST OF 2" WIDE NO. 25 MSG GALV. STEEL CHANNELS WITH 1" LEGS SECURED WITH SUITABLE FASTENERS SPACED 24" O.C.

PROTECTED WALL: (BEARING OR NONBEARING) A 3/4" MINIMUM AIR SPACE MUST BE MAINTAINED BETWEEN STEEL COMPONENTS AND ADJACENT WOOD FRAMING. WOOD FRAMING SHALL CONSIST OF NOMINAL 2" X 4" STUDS WITH MAX. SPACING 24" O.C. COVERED WITH MIN. 1/2" THICK GYPSUM WALLBOARD (CLASSIFIED OR UNCLASSIFIED) SECURED BY 1-1/4" STEEL DRYWALL NAILS SPACED 8" O.C. JOINTS AND FASTENERS FINISHED WITH CERTAINTEED FINISHING SYSTEM OR EQUIVALENT.
ATTACHMENT CLIPS: BREAKAWAY HEAT SOFTENING ALUMINUM ALLOY CLIPS (.063" THICK ALUMINUM ANGLE, 2" WIDE WITH 2" AND 2-1/4" LEGS) SHALL BE SECURED INTO BOTH SIDES OF EACH VERTICAL METAL STUD WITH (2) 3/8" TYPE S SCREWS TO "H" STUDS AND (1) 1-1/4" TYPE W SCREWS TO WOOD FRAMING THROUGH PROVIDED HOLES IN THE CLIP. WHERE NECESSARY, WOOD FRAMING SHALL BE CROSS-BRACED AT MID-HEIGHT FOR CLIP ATTACHMENT. VERTICAL CLIP PLACEMENT BETWEEN "H" STUDS AND WOOD FRAMING SHALL BE AS FOLLOWS:
(A): SEPARATION WALLS UP TO 23'-0" HIGH - CLIPS SHALL BE SPACED A MAX. 10' O.C. VERTICALLY.
(B): SEPARATION WALLS UP TO 70'-0" HIGH - CLIPS SHALL BE SPACED AS DESCRIBED IN (A) FOR THE TOP 24' AND AT A MAX OF 5' O.C. VERTICALLY FOR THE REMAINING WALL BELOW.
SOUND TESTING: SOUND TESTING BASED ON 2" X 4" STUD WALL FACED WITH 1/2" REGULAR GYPSUM WALLBOARD ON EACH SIDE OF SEPARATION WALL ASSEMBLY FOR A MINIMUM 11-1/2" TOTAL THICKNESS. STUD CAVITIES ARE INSULATED WITH 3-1/2" GLASS FIBER ON (1) OR (2) SIDES. SEE DESIGN DATA BELOW FOR STC RATINGS.
CAULKING AND SEALANTS: INTENDED FOR USE AS AN AIR BARRIER - NOT EVALUATED AS FIREBLOCKING - A BEAD OF SEALANT APPLIED AROUND THE PARTITION PERIMETER IN THE 3/4 IN. AIR SPACE BETWEEN PROTECTED WALL AND SEPARATION WALL TO CREATE AN AIR BARRIER. GREAT STUFF GAPS AND CRACKS, GREAT STUFF PRO GAPS AND CRACKS

DESIGN DATA

THICKNESS (FIRE): 3-1/2" MINIMUM THICKNESS (SOUND): 11-1/2" MINIMUM HEIGHT: 70'-0" MAXIMUM APPROXIMATE WEIGHT: 9 PSF WALL RATING: 2 HOUR FINISH RATING: 120 MIN.	FIRE TEST: UL U366 ULC W311 SOUND TEST: RAL-TL-00-177 (INSUL. (1) SIDE) SOUND TEST: NOAL 19-0709 (INSUL. (2) SIDES) STC RATING: 57 WITH INSUL. (1) SIDE STC RATING: 66 WITH INSUL. (2) SIDES

REFERENCED DOCUMENTS

(1) UL DESIGN NO. U366, BXUV.U366, 12-4-2020
(2) GA-600-2018 FIRE RESISTANCE DESIGN MANUAL, GA FILE NO. ASW 0999

UL DESIGN #V344

AMERICAN GYPSUM

TWO AND HALF HOUR FIRE-RATED WALL DESCRIPTIONS
GYPSUM WALLBOARD, METAL H STUDS AT UNIT

SEPARATION WALL: (4) LAYERS 1/2" THICK, 24" WIDE, SOLID TYPE EKCEL GYPSUM BOARDS INSERTED BETWEEN NO. 25 MSG GALV. STEEL "H" STUDS SPACED 48" O.C.. STEEL STUDS SHALL BE 2" DEPTH WITH 1-3/8" FLANGE WIDTH. HORIZONTAL RUNNERS SHALL BE INSTALLED AT FLOOR, SIDE WALL, AND CEILING LOCATIONS AND CONSIST OF 2" WIDE NO. 25 MSG GALV. STEEL CHANNELS WITH 1" LEGS SECURED WITH SUITABLE FASTENERS SPACED 24" O.C.

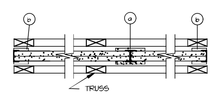
PROTECTED WALL: (BEARING OR NONBEARING) A 3/4" MINIMUM AIR SPACE MUST BE MAINTAINED BETWEEN STEEL COMPONENTS AND ADJACENT WOOD FRAMING. WOOD FRAMING SHALL CONSIST OF NOMINAL 2" X 4" STUDS WITH MAX. SPACING 24" O.C. COVERED WITH MIN. 1/2" THICK GYPSUM WALLBOARD (CLASSIFIED OR UNCLASSIFIED) SECURED BY 1-1/4" STEEL DRYWALL NAILS SPACED 8" O.C. JOINTS AND FASTENERS FINISHED WITH CERTAINTEED FINISHING SYSTEM OR EQUIVALENT.
ATTACHMENT CLIPS: BREAKAWAY HEAT SOFTENING ALUMINUM ALLOY CLIPS (.063" THICK ALUMINUM ANGLE, 2" WIDE WITH 2" AND 2-1/4" LEGS) SHALL BE SECURED INTO BOTH SIDES OF EACH VERTICAL METAL STUD WITH (2) 3/8" TYPE S SCREWS TO "H" STUDS AND (1) 1-1/4" TYPE W SCREWS TO WOOD FRAMING THROUGH PROVIDED HOLES IN THE CLIP. WHERE NECESSARY, WOOD FRAMING SHALL BE CROSS-BRACED AT MID-HEIGHT FOR CLIP ATTACHMENT. VERTICAL CLIP PLACEMENT BETWEEN "H" STUDS AND WOOD FRAMING SHALL BE AS FOLLOWS:
(A): SEPARATION WALLS UP TO 23'-0" HIGH - CLIPS SHALL BE SPACED A MAX. 10' O.C. VERTICALLY.
(B): SEPARATION WALLS UP TO 44'-0" HIGH - CLIPS SHALL BE SPACED AS DESCRIBED IN (A) FOR THE TOP 24' AND AT A MAX OF 5' O.C. VERTICALLY FOR THE REMAINING WALL BELOW.
(C): SEPARATION WALLS UP TO 66'-0" HIGH - CLIPS SHALL BE SPACED AS DESCRIBED IN (A) FOR THE TOP 24' AS DESCRIBED IN (B) FOR THE NEXT 20' BELOW AND AT A MAX OF 40" O.C. VERTICALLY FOR THE REMAINING WALL BELOW.
SOUND TESTING: SOUND TESTING BASED ON 2" X 4" STUD WALL FACED WITH 1/2" REGULAR GYPSUM WALLBOARD ON EACH SIDE OF SEPARATION WALL ASSEMBLY FOR A MINIMUM 11-1/2" TOTAL THICKNESS. STUD CAVITIES ARE INSULATED WITH 3-1/2" GLASS FIBER ON (1) OR (2) SIDES. SEE DESIGN DATA BELOW FOR STC RATINGS.
CAULKING AND SEALANTS: INTENDED FOR USE AS AN AIR BARRIER - NOT EVALUATED AS FIREBLOCKING - A BEAD OF SEALANT APPLIED AROUND THE PARTITION PERIMETER IN THE 3/4 IN. AIR SPACE BETWEEN PROTECTED WALL AND SEPARATION WALL TO CREATE AN AIR BARRIER. GREAT STUFF GAPS AND CRACKS, GREAT STUFF PRO GAPS AND CRACKS

DESIGN DATA

THICKNESS (FIRE): 3-1/2" MINIMUM THICKNESS (SOUND): 11-1/2" MINIMUM HEIGHT: 66'-0" MAXIMUM APPROXIMATE WEIGHT: 9 PSF WALL RATING: 2 1/2 HOUR FINISH RATING: 150 MIN.	FIRE TEST: UL V344 SOUND TEST: NOAL 22-0412 STC RATING: 64

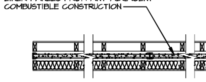
REFERENCED DOCUMENTS

(1) UL DESIGN NO. V344, BXUV.V344, 02-04-2022

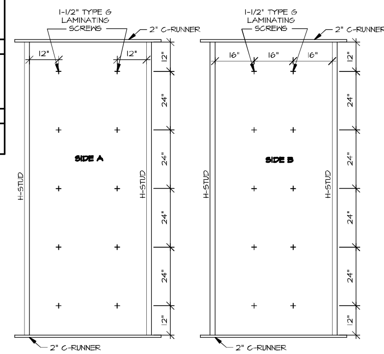


14 FA-1d PLAN VIEW
SCALE: 6" = 1'-0" BATTEN STRIPS

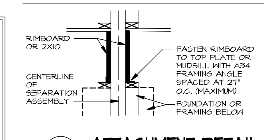
NOTES:
- THIS DETAIL APPLIES TO #U336, #U347, #U366, #U373
- THIS SUBSTITUTION FOLLOWS T.Z. HARMATHY'S TEN RULES OF FIRE RESISTANCE, SPECIFICALLY RULE#1, RULE#1: THE "THERMAL" FIRE ENDURANCE OF A CONSTRUCTION CONSISTING OF A NUMBER OF PARALLEL LAYERS IS GREATER THAN THE SUM OF THE "THERMAL" FIRE ENDURANCE CHARACTERISTICS OF THE INDIVIDUAL LAYERS WHEN EXPOSED SEPARATELY TO FIRE.
- ALL OTHER ELEMENTS OF THESE ASSEMBLIES SHALL BE CONSTRUCTED AS IN ACCORDANCE WITH THE STANDARD FIRE ASSEMBLY WALL SECTION.



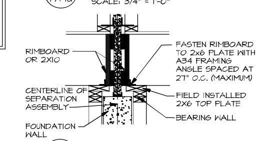
17 FA-1d ALTERNATE CORE WALL ASSEMBLY
SCALE: 1/2" = 1'-0" PLAN VIEW



18 FA-1d LAMINATING SCREW DETAIL
SCALE: 3/4" = 1'-0" UL V344 ONLY

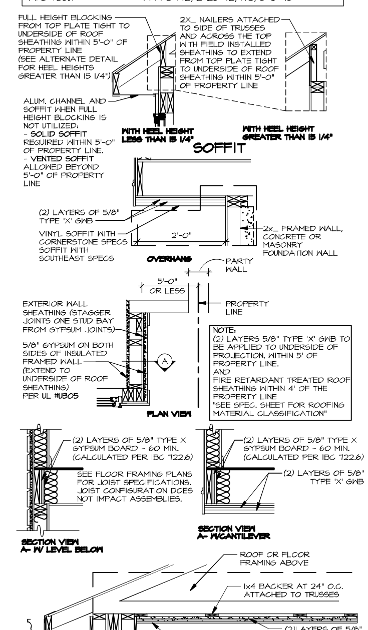


11 FA-1d ATTACHMENT DETAIL
SCALE: 3/4" = 1'-0"

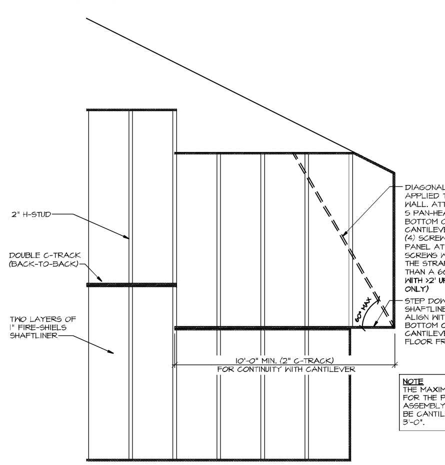


13 FA-1d ATTACHMENT DETAIL
SCALE: 3/4" = 1'-0"

GA FILE NO. FC 5406 - WOOD JOISTS GA FILE NO. FC 5407 - WOOD I-JOISTS	1-HOUR FIRE
Base layer 5/8" type X gypsum wallboard applied at right angles to wood joists 24" o.c. (max) with 1 1/4" Type W or S drywall screws 24" o.c. Face layer 5/8" type X gypsum wallboard or gypsum veneer base applied at right angles to I-joists with 1 7/8" Type W or S drywall screws 12" o.c. at joints and intermediate I-joists and 1 1/2" Type G drywall screws 12" o.c. placed 2" back on either side of end joints. Joints offset 24" from base layer joints. Wood I-joists supporting 1/2" wood structural panels applied at right angles to joists with 8d nails. Approx. Ceiling Weight: 5 psf Fire Test: FM FC 172, 2-25-72; ITS, 8-6-98	

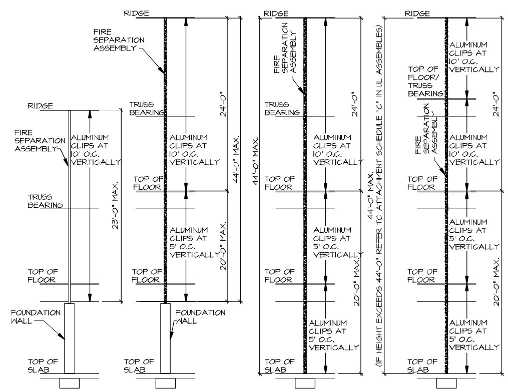


9 FA-1d WALLS PARALLEL AND WITHIN 5' OF PROPERTY LINE
SCALE: 3/4" = 1'-0"



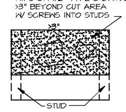
NOTE THE MAXIMUM LENGTH FOR THE PARTY WALL ASSEMBLY THAT CAN BE CANTILEVERED IS 3'-0".

16 FA-1d CANTILEVER STRAP
SCALE: 3/8" = 1'-0"



12 FA-1d CLIP SPACING DETAIL
SCALE: 1/4" = 1'-0"

PARTYWALL DRYWALL (ASW) REPAIR
1. PAPER TEARS AND CURLS: USE PROFORM QUICKSET TO SMOOTH OUT AND FLATTEN SURFACES.
2. PATCHING: FILL VOIDS WITH QUICKSET. INSTALL STUD TO STUD WITH 1" LINER RIPS OR 1/2" TYPE C DRYWALL >3" BEYOND CUT AREA W/ SCREWS INTO STUDS



15 FA-1d PARTYWALL REPAIR
SCALE: NOT TO SCALE

NOTE:
5'-0" FIRE SEPARATION DISTANCE (FSD) SHOWN. REQUIRED (FSD) MAY BE REDUCED DUE TO FIRE SUPPRESSION SYSTEM OR LOCAL CODE AMENDMENT.

NOTE:
FOR ALL FLASHING AND MOISTURE MANAGEMENT INFORMATION REFERENCE THE FOLLOWING:
F-1 - SIDING VENEER & GENERAL
F-2 - BRICK VENEER
F-3 - STONE VENEER

As directed by the North Carolina Board of Architecture and Registered Interior Designers, architectural seals are not required for – and should not be placed by NVR on – these plans and specifications.

REV. NO.	DATE	REMARKS
14	7/26/19	NS - MOISTURE MANAGEMENT REVISION (JOB #3686)
20	8/16/19	GTO - ADDED NUMBER OF FASTENERS FOR UL ASSEMBLIES (REQUEST #5926)
21	10/7/19	EJM - REVISED SOFFIT NOTES FOR FA-1 / 9 (PER PAR #58941)
22	10/9/19	EJM - ADDED CONCRETE PILASTER CONDITION IN FA-1 / 2 (PER REQUEST #6062)
23	10/10/19	GTO - ADDED HORIZ. FIREBLOCKING TO AIR SPACE DTL. 1/FA-1 (REQUEST #6066)
24	12/12/19	EJM - REVISED/ADDED DTL. #1, #14, AND #15 ASW WALL (PER REQUEST #6...)
25	1/30/20	EJM - ADDED 23' MAX CONDITION IN FA-1/12 PER PAR #54339 ... GC#6084
26	7/17/20	EJM - ADDED NOTES FOR 14/FA-1D PER GC#6610
27	5/5/23	ARS - MADE GC #8275 REVISIONS ADDED PORCH CEILING DETAIL TO DETAIL 9

James Bales 06/30/2025

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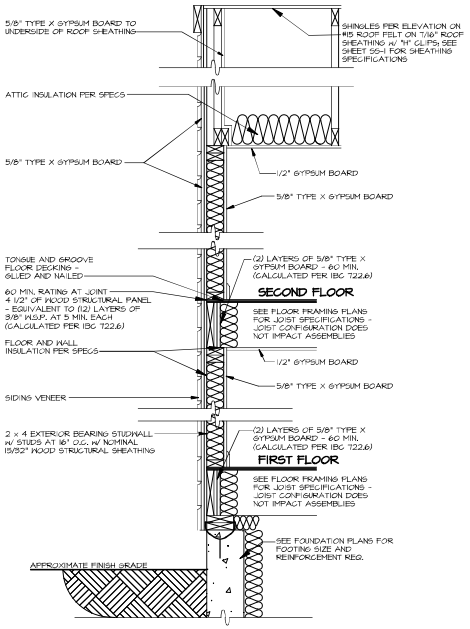
NVR, Inc.
5285 Westview Drive, Suite 100
Frederick, MD 21703

SET NO.	
VERSION	
DRAWN BY	JDS
DATE:	4/1/15
OPTION	

MODEL: STANDARD DETAIL
DRAWING TITLE: FIRE SEPARATION ASSEMBLY DETAILS
OPTION DESCRIPTION

SHEET NO. FA-1d

J:\PROJECTS\DETAILS\NVR_Assembly\FA-1.dwg 05/07/25 - 2:59 pm



2 / FA-2 **1-HOUR GABLE WALL SECTION**

SCALE: 1" = 1'-0" TRUSS PARALLEL TO WALL

NOTES:

1. WALLS WITHIN 5' OF PROPERTY LINE SHALL HAVE A MAXIMUM OF 25% OPENINGS AREA.
2. WALLS WITHIN 5' SHALL HAVE NO GLAZING AND ANY FRAMED OPENINGS SHALL BE CLOSED IN.
3. NO OVERHANGS SHALL EXTEND WITHIN 2' OF PROPERTY LINE
4. GYPSUM USED ON EXTERIOR (INCLUDING IN SOFFIT) MUST BE APPROVED FOR EXTERIOR USE.
5. CLASS A, B OR C ROOFING SHALL BE INSTALLED WHEN THE EDGE OF THE ROOF IS LESS THAN 3 FEET FROM A LOT LINE.
6. DETAILS "1 & 2" APPLY TO MULTIPLE STORY DWELLINGS AND ACCESSORY SUCH AS GARAGES AND SHEDS.

FIRE RATING DETAILS

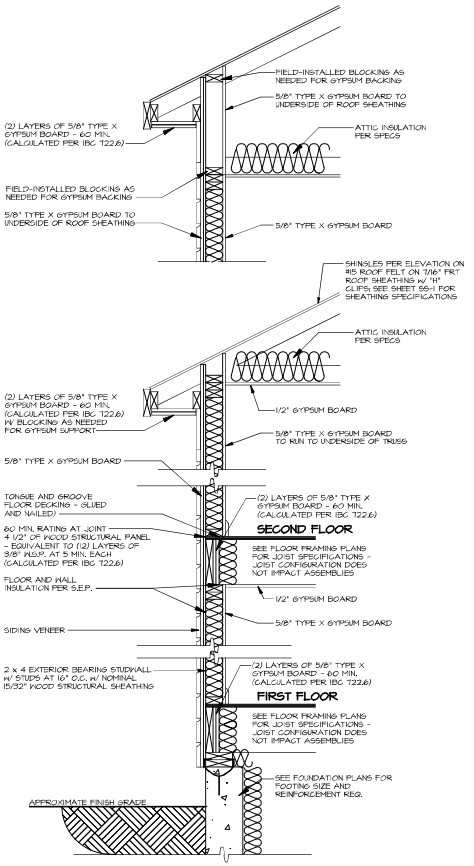
From Exterior:
At Walls -
Calculated assembly per IBC T722.6
15/32-inch WSP. = 10 min. TABLE T722.6.2(1)
5/8-inch Type X gypsum = 40 min. TABLE T722.6.2(1)
Wood frame (nail) = 20 min. TABLE T722.6.2(2)
TOTAL = 60 min.

At Floors -
Calculated assembly per IBC T722.6
15/32-inch WSP. = 10 min. TABLE T722.6.2(1)
5/8-inch Type X gypsum = 40 min. TABLE T722.6.2(1)
Wood frame (floor) = 10 min. TABLE T722.6.2(2)
TOTAL = 60 min.

From Interior:
At Walls -
Calculated assembly per IBC T722.6
5/8-inch Type X gypsum = 40 min. TABLE T722.6.2(1)
Wood frame (nail) = 20 min. TABLE T722.6.2(2)
Insulation = 15 min. TABLE T722.6.2(5)
TOTAL = 60 min. (max. allowable per T722.6.1.1)

At Floors -
Calculated assembly per IBC T722.6
(2) layers 5/8-inch Type X gypsum
(2) x 40 min. ea. = 80 min. TABLE T722.6.2(1)
TOTAL = 60 min. (max. allowable per T722.6.1.1)

NOTE: CODE REFERENCED IS 2015 AND 2018 INTERNATIONAL BUILDING CODE (IBC). FOR 2004 IBC, CALCULATED FIRE RESISTANCE IS IN ACCORDANCE WITH SECTION T216.



1 / FA-2 **1-HOUR WALL SECTION**

SCALE: 1" = 1'-0" TRUSS PERPENDICULAR TO WALL

NOTE:
5'-0" FIRE SEPARATION DISTANCE (FSD) SHOWN. REQUIRED FSD MAY BE REDUCED DUE TO FIRE SUPPRESSION SYSTEM OR LOCAL CODE AMENDMENT.

NOTE:
FOR ALL FLASHING AND MOISTURE MANAGEMENT INFORMATION REFERENCE THE FOLLOWING:

F-1 - SIDING VENEER & GENERAL
F-2 - BRICK VENEER
F-3 - STONE VENEER

As directed by the North Carolina Board of Architecture and Registered Interior Designers, architectural seals are not required for – and should not be placed by NVR on – these plans and specifications.

REV. NO.	DATE	REMARKS
1	10/17/18	MBT - REMOVED UL-344 - REPLACED WITH CALCULATED METHOD
2	5/29/19	MBT - ADDED NOTE 6
3	7/26/19	NS - MOISTURE MANAGEMENT REVISION (LOB PHASE)

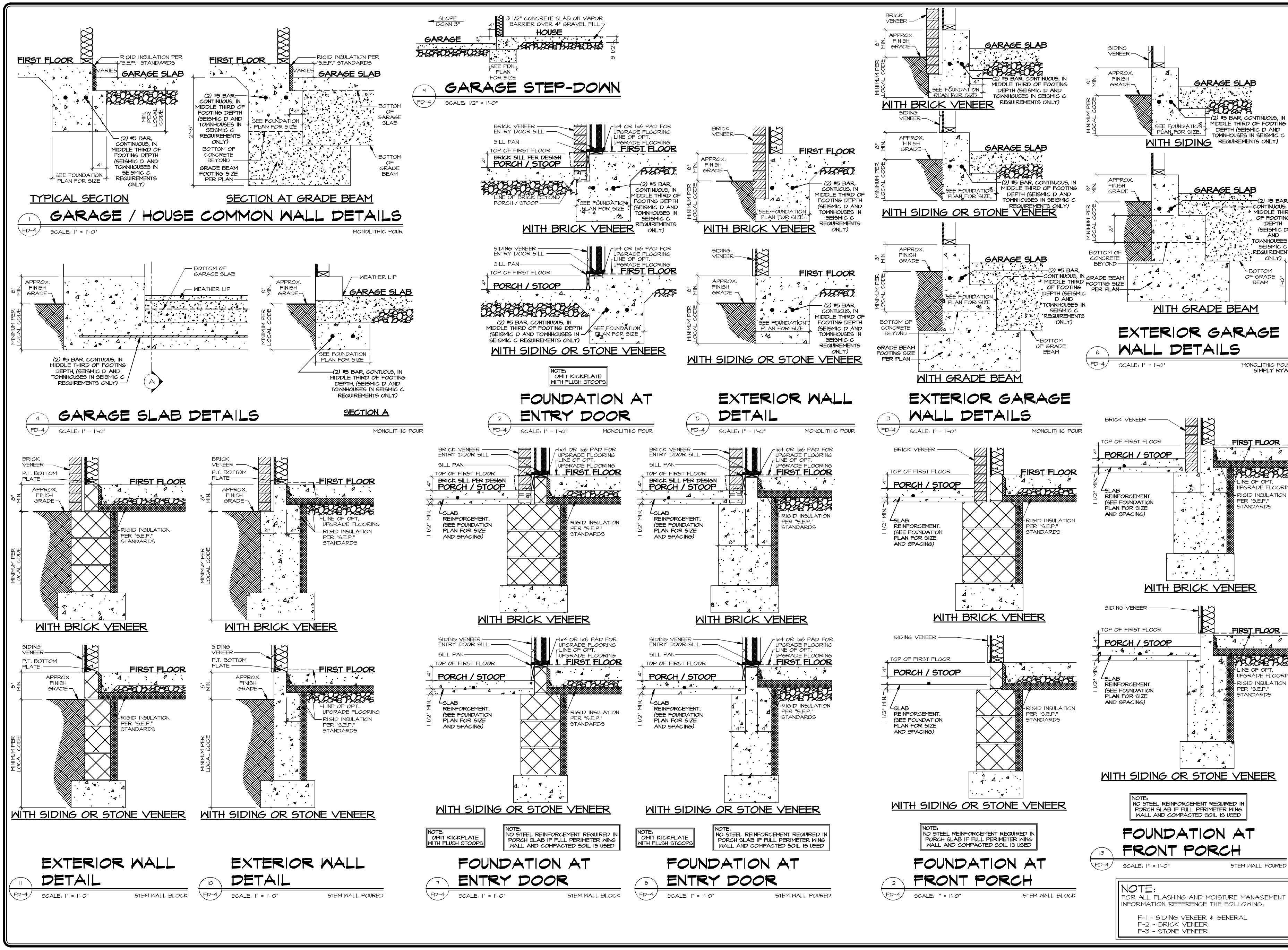
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5285 Meadow Lake Park, Suite 100
Frederick, MD 21703

SHEET NO. FA-2
MODEL STANDARD DETAILS
DRAWING TITLE 1-HOUR RATED EXTERIOR WALLS (NON-STANDARD)
OPTION DESCRIPTION

SET NO.
VERSION
DRAWN BY CAP
DATE: 7/10/17
OPTION



NOTE:
FOR ALL FLASHING AND MOISTURE MANAGEMENT INFORMATION REFERENCE THE FOLLOWING:

F-1 - SIDING VENEER & GENERAL
F-2 - BRICK VENEER
F-3 - STONE VENEER

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REV. NO.	DATE	REMARKS
14	1/30/14	DRH - MOISTURE MANAGEMENT REVISION (JOB #3686)
20	6/23/21	DRA - DETAILS 1, 2, 3, 4, AND 6, REVISED REBAR W/ SEISMIC D TO "MIDDLE THIRD..."
21	11/3/21	DRA - DETAIL 11, 12, 13 AND 14, REVISED EXPANSION BOARD TO RIGID INSULATION
22	5/5/22	DRA - DETAILS 1-6, ADDED "AND TOWNHOUSES IN SEISMIC C" TO REBAR
23	1/20/23	RDB - REMOVED REFERENCES TO ANCHORING
24	11/24/23	RDB - REMOVED GRADE BEAM INFORMATION ON DETAIL 4
25	6/17/24	SSA - REMOVE/REVISED DIMENSION ON DTL. 1, 2, 3, 4, 5, 6, 9
17	5/21/19	DRA - DETAIL 1, ADDED NOTE TO RIGID FOAM INSULATION
18	7/22/19	DRA - DETAIL 8, AND 13, ADDED RIGID FOAM INSULATION / EXPANSION BOARD

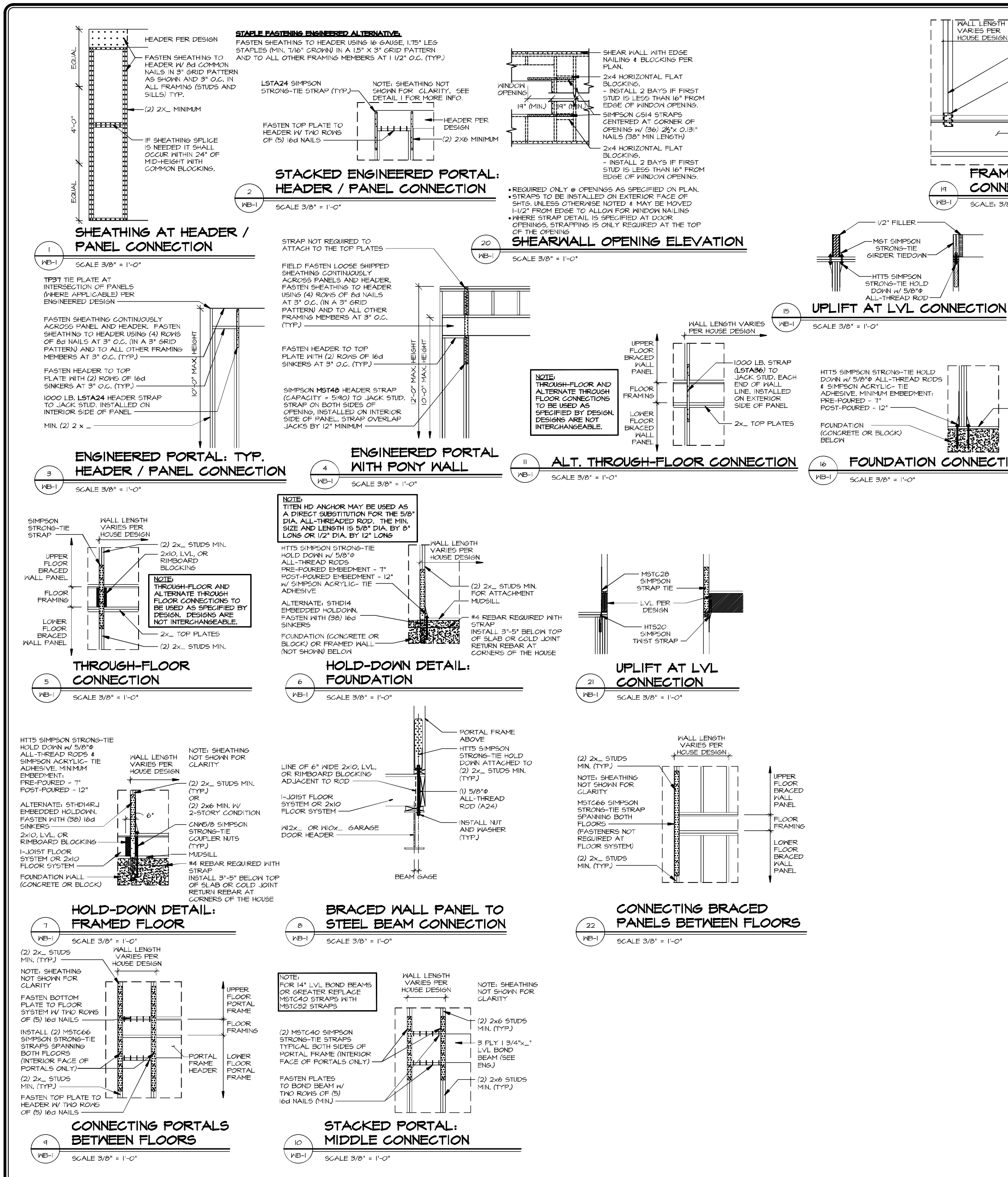
06/30/2025
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5285 Westview Drive, Suite 100
Frederick, MD 21703

SHEET NO. FD-4
MODEL STANDARD DETAILS
DRAWING TITLE FOUNDATION DETAILS SLAB FOUNDATION
OPTION DESCRIPTION
SET NO. NVR
VERSION
DRAWN BY
DATE:
OPTION

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ID	BOTTOM CONNECTOR	QTY.	DETAIL	TOP CONNECTOR	QTY.	DETAIL	ID	BOTTOM CONNECTOR	QTY.	DETAIL	TOP CONNECTOR	QTY.	DETAIL
H1	HTT5	1	6/WB-1	NONE	N/A	N/A	H21	MSTC52	1	10/WB-1	LSTA24	1	2/WB-1
H2	HTT5	1	6/WB-1	LSTA24	1	2/WB-1	H22	MSTC52	1	10/WB-1	LSTA24	1	3/WB-1
H3	HTT5	1	6/WB-1	LSTA24	1	3/WB-1	H23	MSTC52	1	10/WB-1	MST48	1	4/WB-1
H4	HTT5	1	6/WB-1	MST48	1	4/WB-1	H24	MSTC40	1	10/WB-1	LSTA24	1	2/WB-1
H5	HTT5	1	6/WB-1	MSTC40	1	5/WB-1	H25	MSTC40	1	10/WB-1	LSTA24	1	3/WB-1
H6	HTT5 5/8" A24 THR. ROD CNW5/8 COUPLER	1 1 1	7/WB-1	NONE	N/A	N/A	H26	MSTC40	1	10/WB-1	MST48	1	4/WB-1
H7	HTT5 5/8" A24 THR. ROD CNW5/8 COUPLER	1 1 1	7/WB-1	LSTA24	1	2/WB-1	H27	LSTA36	1	11/WB-1	NONE	N/A	N/A
H8	HTT5 5/8" A24 THR. ROD CNW5/8 COUPLER	1 1 1	7/WB-1	LSTA24	1	3/WB-1	H28	MSTC40	1	14/WB-1	NONE	N/A	N/A
H9	HTT5 5/8" A24 THR. ROD CNW5/8 COUPLER	1 1 1	7/WB-1	MST48	1	4/WB-1	H29	MSTC40	1	14/WB-1	LSTA24	1	3/WB-1
H10	HTT5 5/8" A24 THR. ROD CNW5/8 COUPLER	1 1 1	7/WB-1	MSTC40	1	5/WB-1	H30	HTT5	2	16/WB-1	MGT HTT5 5/8" A24 THR. ROD	2 2 2	15/WB-1
H11	HTT5 5/8" A24 THR. ROD	1 1	8/WB-1	NONE	N/A	N/A	H31	MSTC40	1	5/WB-1	NONE	N/A	N/A
H12	HTT5 5/8" A24 THR. ROD	1 1	8/WB-1	LSTA24	1	2/WB-1	H32	MSTC40	1	5/WB-1	LSTA24	1	3/WB-1
H13	HTT5 5/8" A24 THR. ROD	1 1	8/WB-1	LSTA24	1	3/WB-1	H33	NONE	N/A	N/A	MGT	2	18/WB-1
H14	HTT5 5/8" A24 THR. ROD	1 1	8/WB-1	LSTA24	1	4/WB-1	H34	LTP4	1	19/WB-1	NONE	N/A	N/A
H15	HTT5 5/8" A24 THR. ROD	1 1	8/WB-1	MSTC40	1	5/WB-1	H35	LTP4	1	19/WB-1	LSTA24	1	3/WB-1
H16	MSTC66	1	9/WB-1	NONE	N/A	N/A	H36	MSTC52	1	5/WB-1	NONE	N/A	N/A
H17	MSTC66	1	9/WB-1	LSTA24	1	2/WB-1	H37	CS14	1	20/WB-1	CS14	1	20/WB-1
H18	MSTC66	1	9/WB-1	LSTA24	1	3/WB-1	H38	NONE	N/A	N/A	CS14	1	20/WB-1
H19	MSTC66	1	9/WB-1	MST48	1	4/WB-1	H39	MSTC28 HTS20	1 1	21/WB-1	NONE	N/A	N/A
H20	MSTC52	1	10/WB-1	NONE	N/A	N/A	H40	MSTC66	1	22/WB-1	NONE	N/A	N/A

NOTES: THREADED ROD PART INCLUDES (2) NUTS AND (2) WASHERS FOR CMU FOUNDATIONS SEE 12/FD-1.

As directed by the North Carolina Board of Architecture and Registered Interior Designers, architectural seals are not required for – and should not be placed by NVR on – these plans and specifications.

REV. NO.	DATE	REMARKS
14	2/8/22	NS - REVISED DETAIL 5/WB-1, ADDED H36
20	2/16/22	ADM - (QC #1403) REVISED DETAILS UTILIZING STHD14 TO INCLUDE REBAR
21	6/14/23	CEL - ADDED DETAIL 20, H37, H38
22	4/8/23	IDW - ADDED DETAIL 21, H39
23	4/4/23	DLR - REVISED CONNECTOR CHART, REMOVED PART NUMBERS
24	11/4/23	DLR - ADDED DETAIL 22, H40
25	7/10/24	ARS - ADDED INTERIOR NOTE TO MSTC66 STRAPS DETAIL #4 (ARC-11955)
17	3/31/20	CEL - ADDED PONY WALL NOTES TO 4/WB-1 FOR STRAP
18	11/8/21	CEL - REVISED 12/WB-1 TO REFERENCE 3/WB-1

06/30/2025

NORTH CAROLINA PROFESSIONAL SEAL 44932 ENGINEER JONATHAN EDWARD ABERTS

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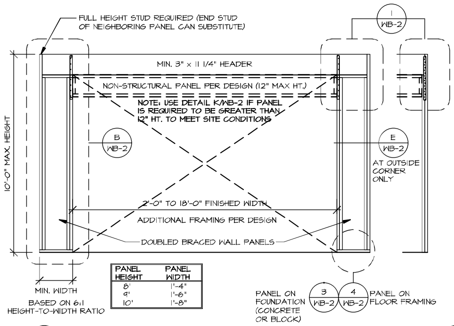
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Frederick, MD 21703

SET NO.
VERSION
DRAWN BY KFT
DATE: 2/16/12
OPTION

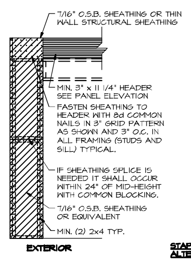
MODEL
WALL BRACING DETAILS
DRAWING TITLE
ENGINEERED WALL BRACING DESIGN
OPTION DESCRIPTION

SHEET NO.
WB-1



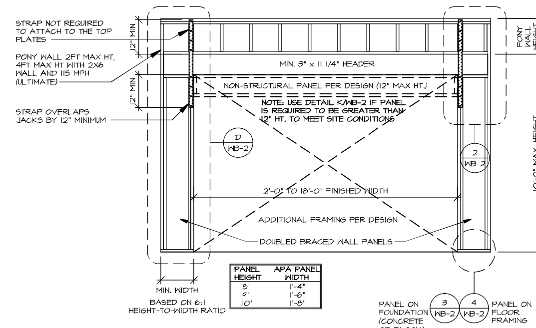
PANEL HEIGHT	PANEL WIDTH
8'	1'-4"
9'	1'-6"
10'	1'-8"

CONTINUOUSLY SHEATHED PORTAL FRAME
A / WB-2 — SCALE: 3/8" = 1'-0"



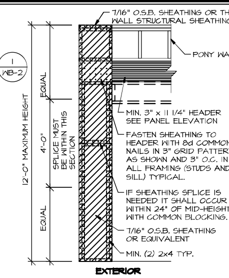
PORTAL FRAME: SHEATHING APPLICATION DETAIL
B / WB-2 — SCALE 3/8" = 1'-0"

STAPLE FASTENER ENGINEERED ALTERNATIVE FOR OSB:
FASTEN SHEATHING TO HEADER USING 16 GAUGE, 1 3/4" LEG STAPLES (MIN. 15/16" CROWN) IN A 3" X 1 1/2" GRID PATTERN AND TO ALL OTHER FRAMING MEMBERS AT 1 1/2" O.C. (TYP.)

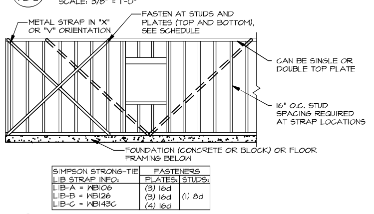


PANEL HEIGHT	APA PANEL WIDTH
8'	1'-4"
9'	1'-6"
10'	1'-8"

ALTERNATE PORTAL FRAME
C / WB-2 — SCALE: 3/8" = 1'-0" — W/ PONY WALL FRAMING

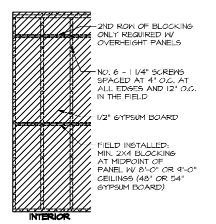


ALTERNATE PORTAL FRAME: SHEATHING APPLICATION DETAIL
D / WB-2 — SCALE 3/8" = 1'-0"

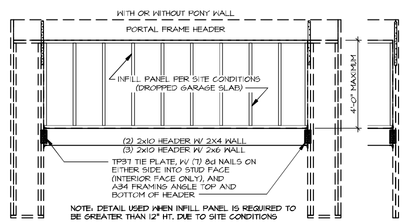


SIMPSON STRONG-TIE LIB STRAP INFO:	FASTENERS PLATES:	STUDS:
LIB-A = WB106	(3) 16d	(1) 8d
LIB-B = WB126	(3) 16d	
LIB-C = WB143C	(4) 16d	

LET-IN BRACING
F / WB-2 — NOT TO SCALE



BLOCKED WALL CONSTRUCTION
G / WB-2 — NOT TO SCALE



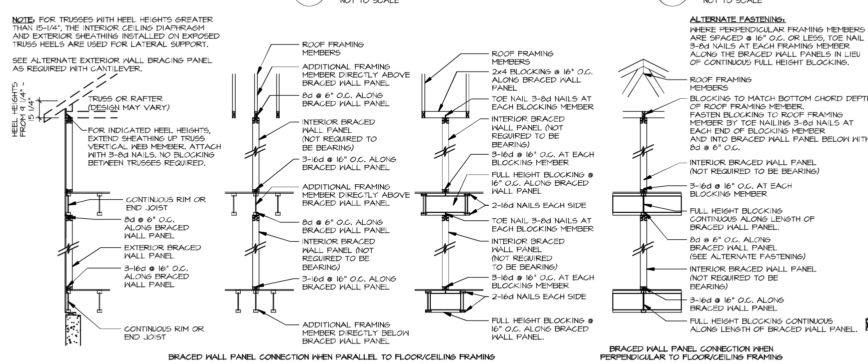
NOTE: DETAIL USED WHEN INFILL PANEL IS REQUIRED TO BE GREATER THAN 12" HT. DUE TO SITE CONDITIONS

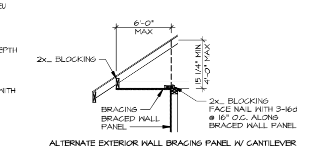
INFILL PANEL DETAIL
K / WB-2 — NOT TO SCALE

NOTE: FOR TRUSSES WITH HEEL HEIGHTS GREATER THAN 15-1/4", THE INTERIOR CEILING DIAPHRAGM AND EXTERIOR SHEATHING INSTALLED ON EXPOSED TRUSS HEELS ARE USED FOR LATERAL SUPPORT.

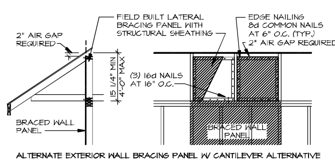
SEE ALTERNATE EXTERIOR WALL BRACING PANEL AS REQUIRED WITH CANTILEVER.

ALTERNATE FASTENING:
WHERE PERPENDICULAR FRAMING MEMBERS ARE SPACED @ 16" O.C. OR LESS, TOE NAIL 3-8d NAILS AT EACH FRAMING MEMBER ALONG THE BRACED WALL PANELS IN LIEU OF CONTINUOUS FULL HEIGHT BLOCKING.





ALTERNATE EXTERIOR WALL BRACING PANEL W/ CANTILEVER

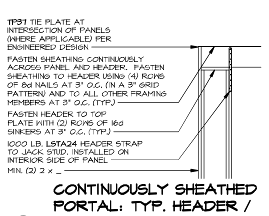


ALTERNATE EXTERIOR WALL BRACING PANEL W/ CANTILEVER ALTERNATIVE

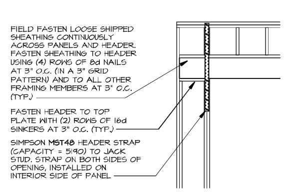
WALL BRACING PANEL CONNECTION DETAILS
H / WB-2 — SCALE: 3/8" = 1'-0"

ID	BOTTOM CONNECTOR	QTY.	DETAIL	TOP CONNECTOR	QTY.	DETAIL
P1	3"x3"x1/4" PLATE WASHER 1/2" THREADED ROD	1	3 WB-2	NONE	N/A	N/A
P2	3"x3"x1/4" PLATE WASHER 1/2" THREADED ROD	1	3 WB-2	LSTA24	1	1 WB-2
P3	3"x3"x1/4" PLATE WASHER 1/2" THREADED ROD	1	3 WB-2	MST48	1	2 WB-2
P4	LTP4	1	4 WB-2	NONE	N/A	N/A
P5	LTP4	1	4 WB-2	LSTA24	1	1 WB-2
P6	LTP4	1	4 WB-2	MST48	1	2 WB-2
P7	LSTA15	1	5 WB-2	NONE	N/A	N/A
P8	HTT4 5/8" A24 THR. ROD	1 1	6 WB-2	NONE	N/A	N/A
P9	NONE	N/A	N/A	LSTA24	1	1 WB-2
P10	NONE	N/A	N/A	MST48	1	2 WB-2

NOTES: THREADED ROD PART INCLUDES (2) NUTS AND (2) WASHERS



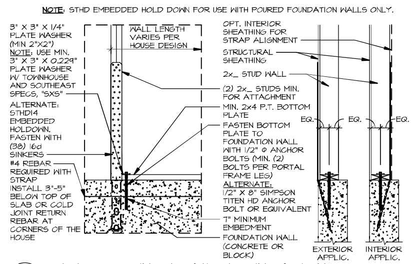
CONTINUOUSLY SHEATHED PORTAL: TYP. HEADER / PANEL CONNECTION
1 / WB-2 — SCALE 3/8" = 1'-0"



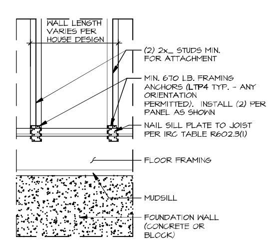
ALTERNATE PORTAL FRAME: HEADER / PANEL CONNECTION
2 / WB-2 — SCALE 3/8" = 1'-0"

APPLIES TO I-JOIST, NOMINAL LUMBER AND FLOOR TRUSS FLOOR SYSTEMS

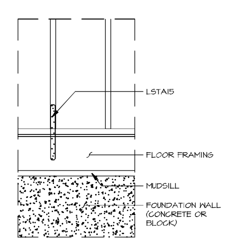
NOTE: STHD EMBEDDED HOLD DOWN FOR USE WITH POURED FOUNDATION WALLS ONLY.



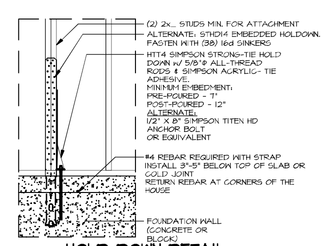
HOLD-DOWN DETAIL: FOUNDATION
3 / WB-2 — SCALE: 3/4" = 1'-0"



HOLD-DOWN DETAIL: FRAMED FLOOR
4 / WB-2 — SCALE: 3/4" = 1'-0"



HOLD-DOWN DETAIL: FRAMED FLOOR
5 / WB-2 — SCALE: 3/4" = 1'-0" — 800# HOLD DOWN



HOLD-DOWN DETAIL: FOUNDATION
6 / WB-2 — SCALE: 3/4" = 1'-0" — 800# HOLD DOWN

As directed by the North Carolina Board of Architecture and Registered Interior Designers, architectural seals are not required for – and should not be placed by NVR on – these plans and specifications.

REV. NO.	DATE	REMARKS
37	1/16/24	ARS - QC#8503 DETAIL B REVISED STAPLE SIZE FROM 1 1/4" TO 1 3/4"
38	1/23/24	DLR - QC#8164 - REMOVED DETAIL E/WB-2 CORNER DETAIL
34	3/25/25	ARS - ADDED TO DETAIL H QC-PPM-44201
31	10/5/20	CEL - REVISED H/WB-2 TO INCLUDE FLOOR TRUSSES
32	10/13/20	CEL - ADDED NOTES DETAILING WHEN TO USE K/WB-2
33	4/7/21	ARS - REV. DTL C PONY WALL NOTES
34	6/3/21	CEL - QC#7328 - REVISED H/WB-2 TO REMOVE USE OF FLAT BLOCKING
35	12/13/22	DLR - QC#8261 - ADDED PERP. WALL BRACING DTL. AND ALT. FSTNG. TO H/WB-2
36	4/4/23	DLR - QC#8628 - REVISED CONNECTOR CHART, REMOVED PART NUMBERS

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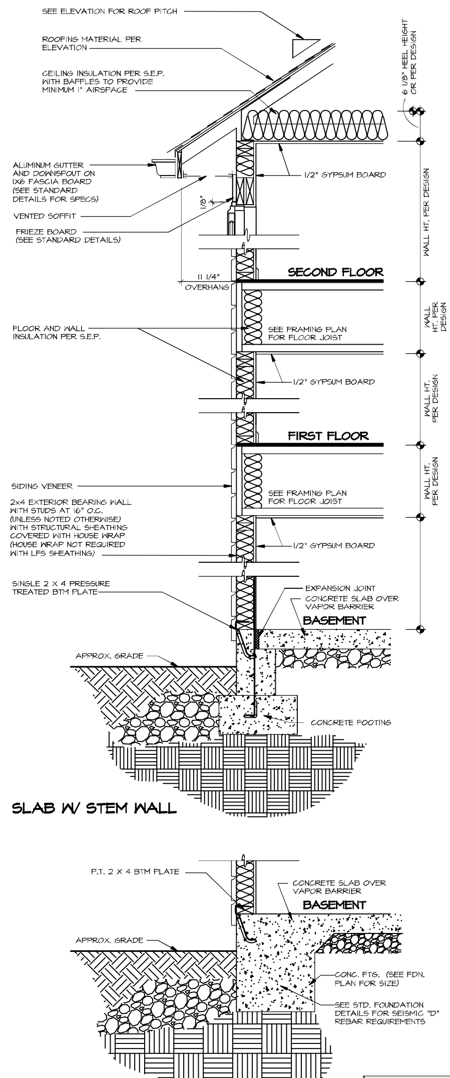
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5285 Westview Drive, Suite 100
Frederick, MD 21703

SET NO.
VERSION
DRAWN BY: ELH
DATE: 4/8/14
OPTION

MODEL: WALL BRACING DETAILS
DRAWING TITLE: PRESCRIPTIVE WALL BRACING DESIGN
OPTION DESCRIPTION

SHEET NO.: WB-2

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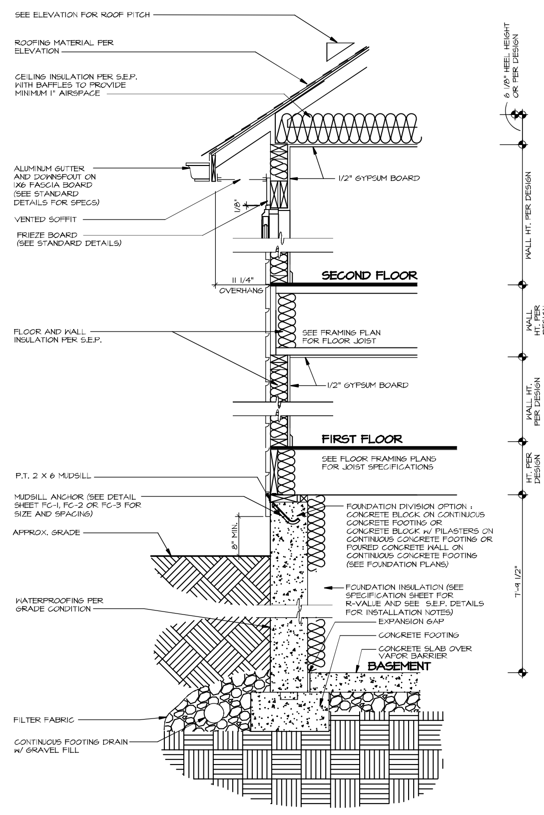


IMPORTANT NOTE:
FOR FIRE PROTECTION OF SOFFIT AS SHOWN IN DETAILS 2 AND 4, SEE SPEC SHEET NOTES #31, #32, #33 UNDER THE "PLAN" SECTION

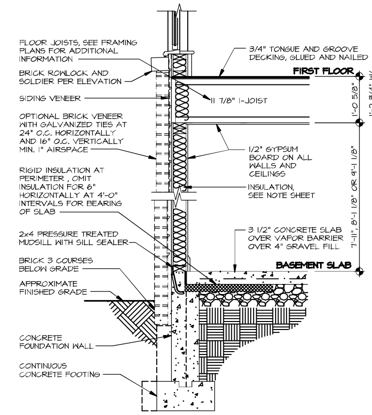
WALL SECTION GENERAL NOTE:

1. BRICK VENEER WEEP HOLES AND FLASHING SEE SPEC SHEET "FOUNDATION" SECTION NOTE #17
2. FOUNDATION FRAMING ANCHORS SEE SPEC SHEET "FOUNDATION" SECTION NOTE #5.
3. REFER TO "INSULATION" SECTION OF SPEC SHEET FOR R-VALUES.
4. SEE ATTACHED LOCAL INSULATION REQUIREMENTS

1 / WS-1f **SLAB DETAIL**
SCALE: 1" = 1'-0" FOUNDATION TYPES "FTE", "FTD", "FTS"



2 / WS-1f **FULL BASEMENT DETAIL**
SCALE: 1" = 1'-0" FOUNDATION TYPE "FBA", "FTA"



3 / WS-1f **TYPICAL WALL SECTION**
SCALE: 3/4" = 1'-0" BASEMENT LEVEL / WALKOUT

NOTE:
FOR ALL FLASHING AND MOISTURE MANAGEMENT INFORMATION REFERENCE THE FOLLOWING:

F-1 - SIDING VENEER & GENERAL
F-2 - BRICK VENEER
F-3 - STONE VENEER

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James Bales
06/30/2025

REV. NO.	DATE	REMARKS
1	7/11/17	EJB - MISC. DRAWING CORRECTIONS
2	10/1/18	EJM - REVISED LFS SHEATHING NOTE FOR WS-1f/1 AND 2 (REQUEST 5158)
3	3/18/19	GTO - REVISED SEISMIC D FOOTING REBAR REQUIREMENTS ON DETAIL 1
4	7/26/19	NS - MOISTURE MANAGEMENT REVISION (JOB #3686)
5	10/12/20	JDS - ADDED DETAIL (3)
6	1/31/23	SJB - REMOVED MIL SPEC

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SET NO. NVR	MODEL: STANDARD DETAILS	SHEET NO.
VERSION		
DRAWN BY	DRAWING TITLE: WALL SECTION DETAILS, ATTACHED - SIMPLY RYAN	WS-1f
DATE:		
OPTION	OPTION DESCRIPTION	

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