CEDAR

DIV-COMM-LOT-UNIT		
RLH-QG-0034		
COMM-LOT		
QUAIL GLEN - 0034		
STREET ADDRESS		APT. NO.
412 LOCK DRIVE		-----
CITY	STATE	ZIP
ANGIER	NC	18067

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NVR

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

FIRST FLOOR SQUARE FOOTAGE

DESCRIPTION	TOTAL SQ. FT.
1ST FLOOR (BASE SF)	783 SF
	783 SF

SECOND FLOOR SQUARE FOOTAGE

DESCRIPTION	TOTAL SQ. FT.
2ND FLOOR (BASE SF)	1120 SF
	1120 SF

GARAGE SQUARE FOOTAGE

DESCRIPTION	TOTAL SQ. FT.
TWO CAR FRONT ENTRY GARAGE	347 SF
	347 SF

TOTAL FINISHED SQUARE FOOTAGE

DESCRIPTION	TOTAL SQ. FT.
1ST FLOOR (BASE SF)	783 SF
2ND FLOOR (BASE SF)	1120 SF
	1903 SF

SET - VERSION
CDR00 - 01

CS-1

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GENERAL

1. These plans and specifications are the sole property of NVR. Any unauthorized use of these plans without the written consent of NVR is prohibited.
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 **IRC 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 301.3.**

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, IMC 2015, IPC 2015, 2015 IFGC, 2014 NEC w/ NC Ammendments, 2015 IECC

2. Use Group: R-3
3. Constr. Type: V-B
4. Max. Stories: 3

ENERGY AND MECHANICAL

1. Insulation requirements per IRC Chapter 11, Energy Efficiency, or Chapter 4 of the International Energy Conservation Code (IECC), Residential Energy Efficiency by the performance method. See NVR "Standard Energy Package" for field procedures and details.

   R-values shown below are the minimum used. Installed values may be larger. U-values shown below are the maximum allowed. Installed values may be lower.

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	0.30	0.30	30	13 / 19	30	11 / 13	NA	NA
4	0.30	0.30	38	15 / 19	30	11 / 13	10, 2 FT	10

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	90 mph	100 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 (WCLIB & 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. Footing frost depth to be no less than 12" per **R403.1.4** and **Table R301.2(1).**
4. Minimum Soil Bearing Capacity shall be 2,000 PSF per **Table R401.4.1.**
5. 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 minimum 2,500 PSI per **Table R402.2.**
6. 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.**
7. 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.**
8. The top course of block of foundation walls shall be semi-solid block or open cores of hollow block shall be filled with mortar.
9. Block piers to be solid block or mortar-filled hollow block.
10. 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.
11. 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.**
12. 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.**
13. Non-structural garage slabs shall be nominal 3 1/2" thick. Structural garage slabs shall be nominal 4" thick. All garage slabs shall be 3,500 PSI air-entrained concrete on compacted / undisturbed soil per Table **R402.2.**
14. 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 and those 12" or shorter can be installed without anchor straps. Townhouses in seismic design category 'C' shall require a .224" x 3" x 3" plate washer per **R403.1.6.1** and maximum anchor bolt spacing for buildings over two stories shall be 4'.
15. Steel columns and bases shall be given a shop coating of rust-inhibitive paint or equivalent to provide corrosion resistance per **R407.2.**
16. For masonry veneers:

    Per IRC **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 (914 mm) on center and placed within 12 inches (305 mm) of the wall opening.

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

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

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

    Per IRC **R703.8.5** - When veneer of brick, clay tile, concrete, or natural or artificial stone are used, 20 mil plastic flashing shall be attached to the sheathing wherever necessary to prevent moisture penetration behind the veneer. See NVR Flashing Details.
17. Porch slab and exterior concrete work shall be nominal 4" minimum 3500 air entrained concrete w/ 6x6 #10 MWM unless otherwise noted as specified by engineering.
18. Foundation wall strip footing thickness to be per footnote 'e' of Figure **R403.1(1)** 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.
19. Block foundation walls may be substituted for poured foundation walls shown on foundation plans provided all requirements of **Section R404** are met.
20. Termite treatment provided below slabs or to framing members per **R318.1**

FOUNDATION WALL DESIGN(c)
IRC/IBC PRESCRIPTIVE CODE UNLESS OTHERWISE NOTED

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 IRC TABLE R404.1.2(1).
g. ONE BAR WITHIN 12" OF TOP AND ONE EACH AT THIRD POINT OF WALL HEIGHT PER IRC 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 side) 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/ndws 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 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 walls assumed to be 2 x 4 stud construction unless otherwise noted on plans. Bearing walls shall have studs spaced at 16" o.c. maximum per **Table R602.3(3)** and **Table R602.3(5).**
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 N 1-1/4" drywall screws.

SCREW FASTENING SCHEDULE			
WITH ADHESIVE			
Framing Spacing	Ceilings	Load-brg. walls	Non-load-brg. walls
16	16	24	24
24	16	16	24
WITHOUT ADHESIVE			
Framing Spacing	Ceilings	Load-brg. walls	Non-load-brg. walls
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 (R703.11.3).**
    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 International Building Code (IBC). 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.

REMARKS

REV. NO.	DATE	

ISSUED FOR CONSTRUCTION

BY: _____
BY: _____

NVR

NVR, Inc.
Architectural Services
21 Bryte Court, Suite A
Frederick, MD 21702

SET NO.
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

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NVR - Business Use Only

[NVR]

Version 4.0
(Last Revised 04/26/19)

ROOF VENTILATION CALCULATIONS

HOUSE NAME	CEDAR
HOUSE VERSION	CDR00_01
PRODUCT LINE	RYANHOMES
VENTILATION VALUES	SOFFIT: 9.9 sq in of vent per lf
	RIDGE: 18 sq in of vent per lf
	BOX / GABLE VENT: 45 sq in of vent per unit

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

ELEVATION "A or F or K"

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 / Gable Vent (qty)	Lower Box Vent (qty)	TOTAL (sq in)	OK A/150	OK A/300	A/300 % vent at ridge	A/300 40%-50% OK?	Notes
Main House Roof	161280	1075.20	537.60	60	594.00	12	216.00			810.00	NO	YES	40.18%	OK	
Garage Roof	11880	79.20	39.60	27.5	272.25		0.00			272.25	YES	N/A	N/A	N/A	

ELEVATION "B or L"

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 / Gable Vent (qty)	Lower Box Vent (qty)	TOTAL (sq in)	OK A/150	OK A/300	A/300 % vent at ridge	A/300 40%-50% OK?	Notes
Main House Roof	161280	1075.20	537.60	51	504.90	12	216.00			720.90	NO	YES	40.18%	OK	
Garage Roof	11880	79.20	39.60	27.5	272.25		0.00			272.25	YES	N/A	N/A	N/A	

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Version 2.0
(Last Revised 04/26/19)

HOUSE VOLUME CALCULATIONS

HOUSE NAME	CEDAR
HOUSE VERSION	CDR00-01
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 "X"

Location / Area of house	Floor Area (sq. ft.)	Mean height (ft.)	Total volume (cu. Ft.)
Main section of the house			*0*
Garage bump out from main house			*0*
Porch on front of house			*0*
		Total House Volume	0

ELEVATION "X"

Location / Area of house	Floor Area (sq. ft.)	Mean height (ft.)	Total volume (cu. Ft.)
Main section of the house			*0*
Garage bump out from main house			*0*
Porch on front of house			*0*
		Total House Volume	0

ELEVATION "X"

Location / Area of house	Floor Area (sq. ft.)	Mean height (ft.)	Total volume (cu. Ft.)
Main section of the house			*0*
Garage bump out from main house			*0*
Porch on front of house			*0*
		Total House Volume	0

ELEVATION "X"

Location / Area of house	Floor Area (sq. ft.)	Mean height (ft.)	Total volume (cu. Ft.)
Main section of the house			*0*
Garage bump out from main house			*0*
Porch on front of house			*0*
		Total House Volume	0

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.)
			0

DANIEL CHARLES SIMON REGISTERED ARCHITECT 9549 NORTH CAROLINA WOODSTOCK MD
August 1st 2019

DIV–COMM–LOT–UNIT
RLH-QG-0034
COMM–LOT
QUAIL GLEN - 0034
STREET ADDRESS
412 LOCK DRIVE
APT. NO.

CITY
ANGIER
STATE
NC
ZIP
18067

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

SET NO. CDR00
VERSION 01
DRAWN BY
DATE:
OPTION

SHEET NO.
CA-1
MODEL
CEDAR
DRAWING TITLE
OPTION DESCRIPTION

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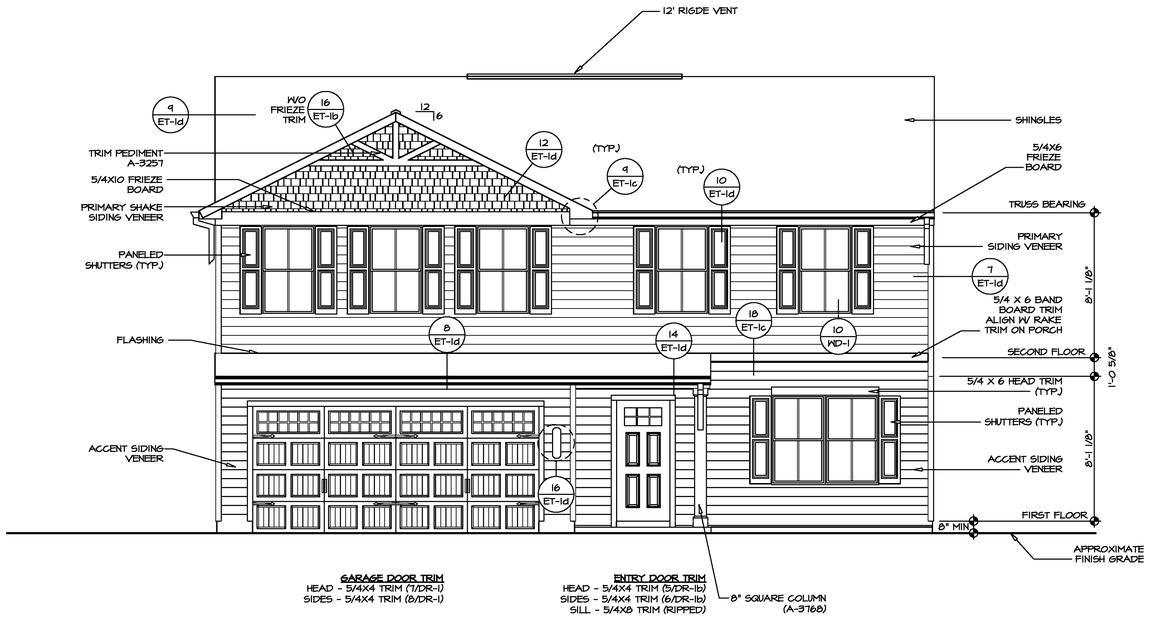


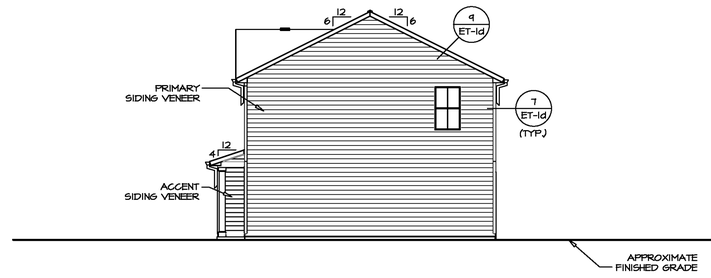
GARAGE DOOR TRIM
HEAD - 5/4X4 TRIM (1/DR-1)
SIDES - 5/4X4 TRIM (8/DR-1)

ENTRY DOOR TRIM
HEAD - 5/4X4 TRIM (5/DR-1b)
SIDES - 5/4X4 TRIM (6/DR-1b)
SILL - 5/4X8 TRIM (RIPPED)

FRONT ELEVATION "K"

1 / A-1

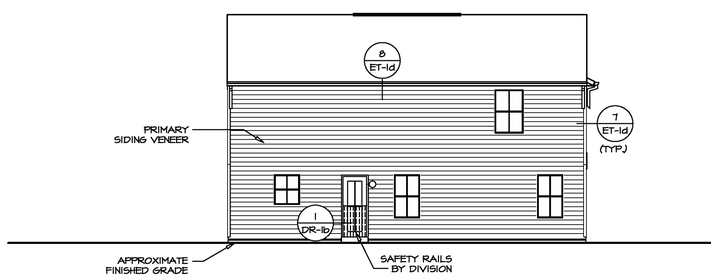
SCALE: 1/4" = 1'-0"



RIGHT ELEVATION

2 / A-1

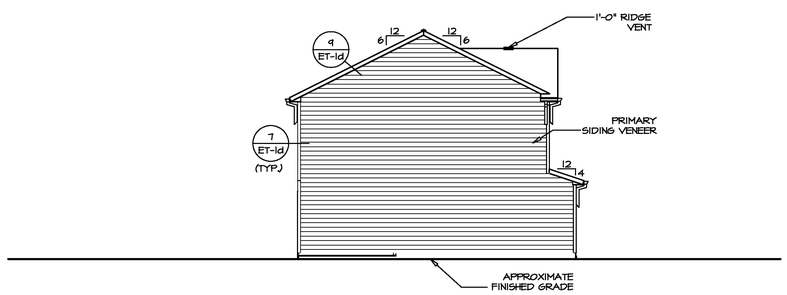
SCALE: 1/8" = 1'-0"



REAR ELEVATION

3 / A-1

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



LEFT ELEVATION

4 / A-1

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

DIV-COMM-LOT-UNIT
RLH-QG-0034
COMM-LOT
QUAIL GLEN - 0034
STREET ADDRESS
412 LOCK DRIVE
APT. NO. ----
CITY ANGIER
STATE NC
ZIP 18067

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

SET NO. CDROD
VERSION 01
DRAWN BY
DATE:
OPTION FSA

SHEET NO. A-1
MODEL CEDAR
DRAWING TITLE ELEVATIONS
OPTION DESCRIPTION SLAB FOUNDATION
—

PAD FOOTING SCHEDULE					
IDENTIFIER	LENGTH	WIDTH	HEIGHT	ENG. NUM.	REMARKS
F001	11'-1 1/2"	1'-4"	0'-8"	S0001	
F002	8'-7"	1'-4"	0'-8"	S0001	
F004	2'-0"	2'-0"	1'-0"	1016	

FOUNDATION DIAGONALS			
A		B	
A	0"	A	40'-1 11/32"
B	40'-1 11/32"	B	0"
C	48'-9 29/32"	C	31'-0"
D	28'-0"	D	50'-7 9/32"

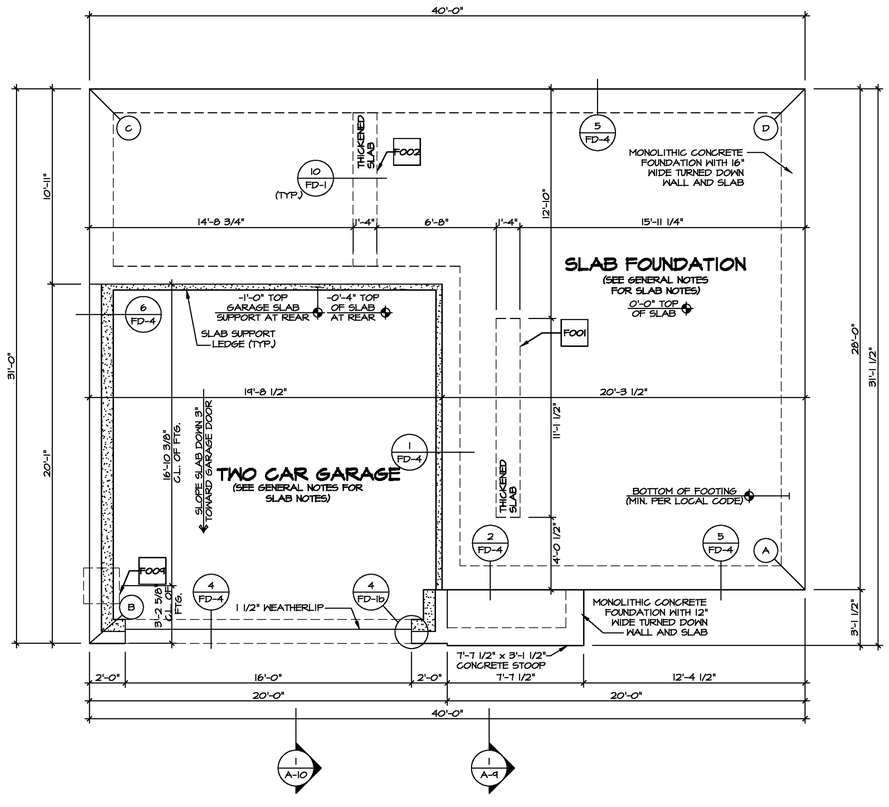
FOUNDATION NOTES - SLAB

1. FOUNDATION UNDER HABITABLE SPACE:
   1.1. CONCRETE SLAB ON 6 MIL VAPOR BARRIER OVER SUB-BASE (SEE SPEC SHEET FOR SLAB NOTES)
2. FOUNDATION UNDER GARAGE:
   2.1. UNEXCAVATED WITH CONCRETE SLAB ON VAPOR BARRIER OVER SUB-BASE (SEE SPEC SHEET FOR SLAB NOTES) OR
   2.2. STRUCTURAL CONCRETE SLAB ON VAPOR BARRIER OVER SUB-BASE (SEE SPEC SHEET FOR SLAB NOTES)
3. SEE FOUNDATION HOLD DOWN SHEET FOR CONNECTION INFORMATION.
4. SLAB LEDGE LOCATIONS VARY W/ GRADE BEAM(S) ORIENTATION. SEE GB-1 FOR DETAILS.
5. THE DIRECTION OF THE ARROW IS THE DIRECTION OF REBAR, AS REQUIRED.
6. ALL FOOTINGS ARE PLAIN, UNREINFORCED CONCRETE UNLESS NOTES OTHERWISE.

LEGEND

- BEARING WALL
- NON BEARING WALL
- ⊗ INDICATES BEARING FROM POINT-LOAD ABOVE
- JACKS
- B_ BEAM/HEADER
- F_ PAD FOOTING
- G_ STEEL COLUMN
- X TRUSS TIE DOWN
- X PORTAL FRAME
- X JOIST/TRUSS
- L_ LVL
- X ENGINEERING PAGE NUMBER

SEE FC DETAILS FOR FRAMING CONNECTORS



1 A-3 FOUNDATION PLAN

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

DANIEL CHARLES SIMON 9549 REGISTERED PROFESSIONAL ENGINEER NORTH CAROLINA August 1st 2019

DIV-COMM-LOT-UNIT RLH-QG-0034
COMM-LOT QUAIL GLEN - 0034
STREET ADDRESS 412 LOCK DRIVE
APT. NO. ----
CITY ANGIER
STATE NC
ZIP 18067

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

SET NO. CDR00
VERSION 01
DRAWN BY
DATE:
OPTION FSA

SHEET NO. A-3
MODEL CEDAR
DRAWING TITLE FOUNDATION PLAN
OPTION DESCRIPTION SLAB FOUNDATION
2

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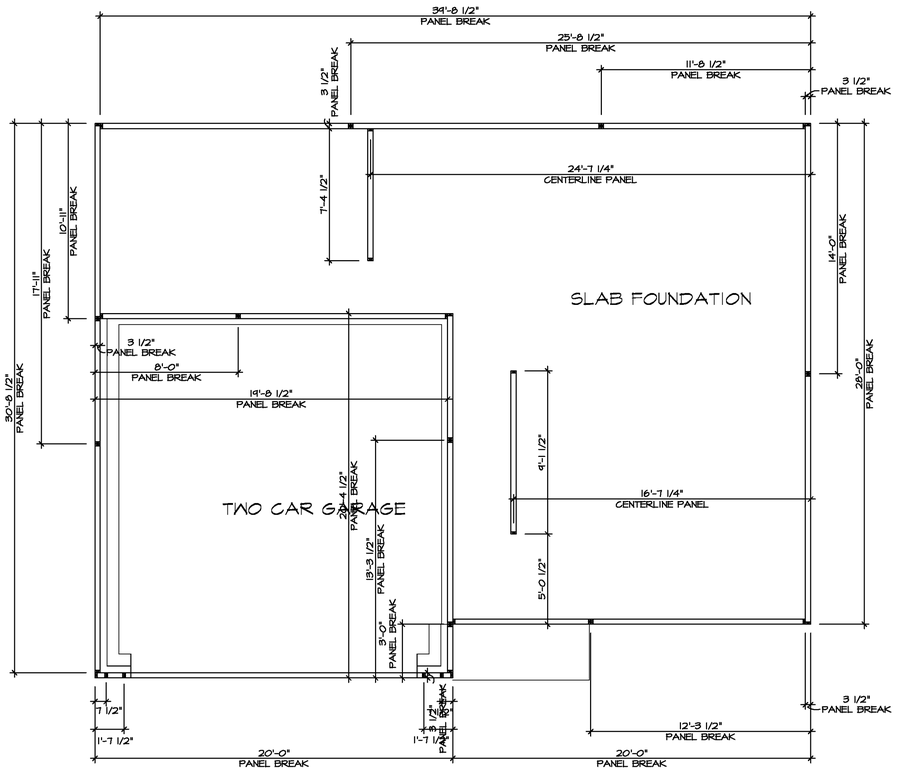

1/A-4 FOUNDATION HOLD DOWN DETAILS

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 FF-1 FOR MORE INFORMATION ON ANCHOR DETAILS)
STRAP	1. STRAP: a. ON FOUNDATION USE (STHD14) b. ON FLOOR SYSTEM USE (STHD14R.I) 2. ALL OTHER HOLD DOWN SEE DETAIL (MB-2) FOR MORE INFORMATION. 3. STRAP LOCATION ON PLANS SHOWN BY DASHED DIMENSION TO CENTER OF STUDS OR
BOLT	1. 5/8"ø THREADED ROD 2. ALL OTHER HOLD DOWN SEE DETAIL (MB-2) FOR MORE INFORMATION. 3. BOLT LOCATION ON PLANS SHOWN BY SOLID DIMENSION TO CENTER OF BOLT

DANIEL CHARLES SIMON — 9549 — REGISTERED PROFESSIONAL ENGINEER — NORTH CAROLINA — WOODSTOCK
August 1st 2019

DIV-COMM-LOT-UNIT
RLH-QG-0034
COMM-LOT
QUAIL GLEN - QG34
STREET ADDRESS
412 LOCK DRIVE
APT. NO.

CITY
ANGIER
STATE
NC
ZIP
18067

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VERSION 01
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DATE:
OPTION

MODEL
CEDAR
DRAWING TITLE
FOUNDATION HOLD DOWN DETAILS
OPTION DESCRIPTION

SHEET NO.
A-4
3

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NOTE

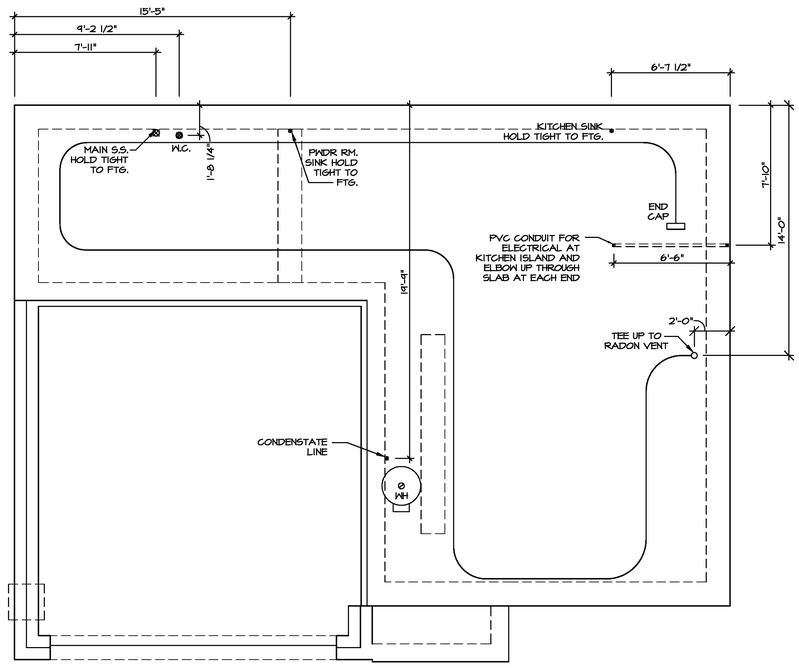
RADON REMEDIATION

RADON LOOP:

- (4") PERFORATED HDPE "LOOP"
- MUST BE PLACED IN STONE BED SLIGHTLY HIGHER THAN ANY INTERIOR DRAINTILE
- LOOP TO BE SEPARATE FROM ANY DRAINTILE ELEMENTS
- TO BE CORRUGATED HDPE 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.



PLUMBING PLAN

1 / A-5

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

DANIEL CHARLES SIMON — REGISTERED ARCHITECT — 9549 — NORTH CAROLINA — August 1st 2019

DIV-COMM-LOT-UNIT: RLH-QG-0034

COMM-LOT: QUAIL GLEN - 0034

STREET ADDRESS: 412 LOCK DRIVE

APT. NO.: ----

CITY: ANGIER

STATE: NC

ZIP: 18067

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5285 Westview Drive, Suite 100
Frederick, MD 21703

SET NO: CDR00
VERSION: 01

DRAWN BY:

DATE:

OPTION:

MODEL: CEDAR

DRAWING TITLE: PLUMBING PLAN

OPTION DESCRIPTION:

SHEET NO.: A-5

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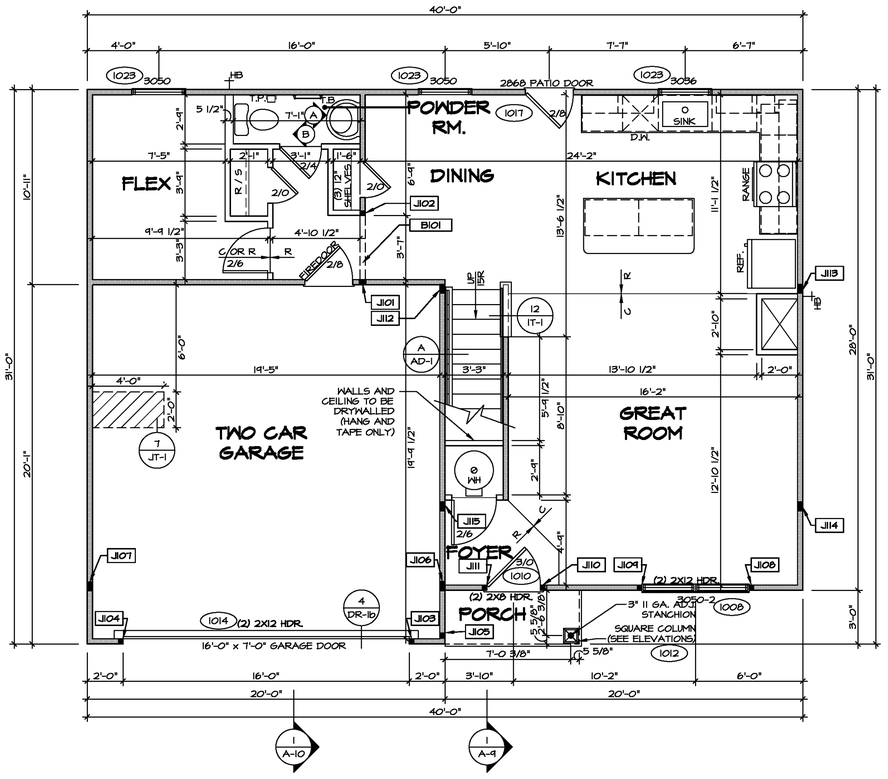
FIRST FLOOR JACK SCHEDULE			
IDENTIFIER	DESCRIPTION	ENG. NUM.	REMARKS
J101	JACK - (3) 2X4 SPF STUD GRADE	1019	
J102	JACK - (2) 2X4 SPF STUD GRADE	1019	
J103	JACK - (2) 2X4 SPF STUD GRADE	1014	
J104	JACK - (2) 2X4 SPF STUD GRADE	1014	
J105	JACK - (2) 2X4 SPF STUD GRADE	1012	
J106	JACK - (4) 2X4 SPF	1025	
J107	JACK - (4) 2X4 SPF	1025	
J108	JACK - (2) 2X4 SPF STUD GRADE	1008	
J109	JACK - (2) 2X4 SPF STUD GRADE	1008	
J110	JACK - (2) 2X4 SPF STUD GRADE	1010	
J111	JACK - (2) 2X4 SPF STUD GRADE	1010	
J112	JACK - (4) 2X4 SPF STUD GRADE	1006	
J113	JACK - (4) 2X4 SPF STUD GRADE	1006	
J114	JACK - (4) 2X4 SPF STUD GRADE	1006	
J115	JACK - (4) 2X4 SPF STUD GRADE	1006	

FIELD INSTALLED FIRST FLOOR BEAM/HEADER SCHEDULE				
IDENTIFIER	DESCRIPTION	LENGTH	ENG. NUM.	REMARKS
B101	INT HEADER - 2X8 - 2 PLY	4'-1"	1019	



FIRST FLOOR PLAN

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

LEGEND

- BEARING WALL
- NON BEARING WALL
- INDICATES BEARING FROM POINT-LOAD ABOVE
- JACKS
- BEAM/HEADER
- PAD FOOTING
- STEEL COLUMN
- TRUSS TIE DOWN
- PORTAL FRAME
- JOIST/TRUSS
- LVL
- ENGINEERING PAGE NUMBER

SEE FC DETAILS FOR FRAMING CONNECTORS

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" W/ OSB OR 3 1/2" W/ LAMINATED FIBROUS STRUCTURAL SHEATHING, 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.
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 ARCHITECTURAL DETAIL SHEET "AD" FOR HOUSE SPECIFIC INTERIOR TRIM OPTION TABLE.
8. ALL WINDOWS HAVE 7'-0 1/2" HEADER HEIGHT UNLESS OTHERWISE NOTED.
9. ALL HEADERS IN NON-BEARING WALLS SHALL BE A SINGLE FLAT 2X4 OR 2X6 ATTACHED TO CRIPPLES ABOVE, UNLESS OTHERWISE NOTED.
10. TANKED WATER HEATER SHOWN AS BASE CONDITION, OPTIONAL TANKLESS WATER HEATER IS AVAILABLE IN LIEU OF TANKED WATER HEATER.

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

DIV-COMM-LOT-UNIT: RLH-QG-0034
COMM-LOT: QUAIL GLEN - 0034
STREET ADDRESS: 412 LOCK DRIVE
CITY: ANGIER
APT. NO.: ----
STATE: NC
ZIP: 18067

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5285 Westview Drive, Suite 100
Frederick, MD 21703

SET NO. CDROO
VERSION 01
DRAWN BY
DATE:
OPTION
OPTION DESCRIPTION

MODEL: CEDAR
DRAWING TITLE: FIRST FLOOR PLAN

SHEET NO. A-7

6

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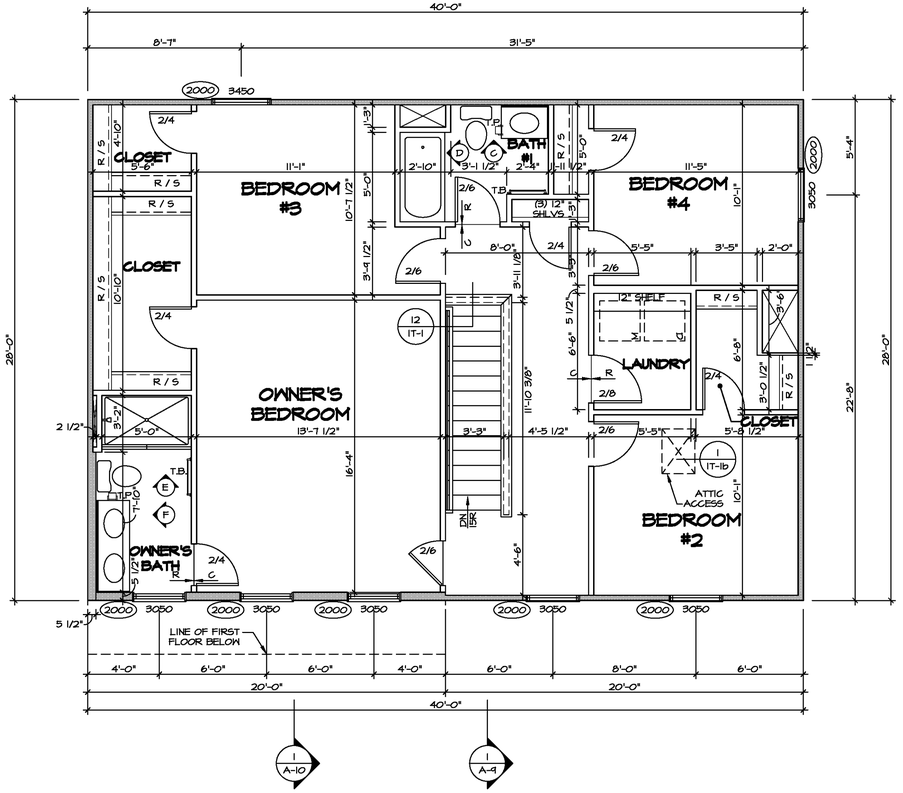

1 SECOND FLOOR PLAN

1 / A-8 SCALE: 1/4" = 1'-0"

LEGEND

- BEARING WALL
- NON BEARING WALL
- ⊗ INDICATES BEARING FROM POINT-LOAD ABOVE
- JACKS
- B_ BEAM/HEADER
- F_ PAD FOOTING
- C_ STEEL COLUMN
- TRUSS TIE DOWN
- PORTAL FRAME
- JOIST/TRUSS
- LVL
- ENGINEERING PAGE NUMBER

SEE FC DETAILS FOR FRAMING CONNECTORS

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" w/ OSB OR 3 1/2" w/ LAMINATED FIBROUS STRUCTURAL SHEATHING, 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.
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 ARCHITECTURAL DETAIL SHEET "AD" FOR HOUSE SPECIFIC INTERIOR TRIM OPTION TABLE.
8. ALL WINDOWS HAVE 7'-0 1/2" HEADER HEIGHT UNLESS OTHERWISE NOTED.
9. ALL HEADERS IN NON-BEARING WALLS SHALL BE A SINGLE FLAT 2X4 OR 2X6 ATTACHED TO CRIPPLES ABOVE, UNLESS OTHERWISE NOTED.
10. TANKED WATER HEATER SHOWN AS BASE CONDITION, OPTIONAL TANKLESS WATER HEATER IS AVAILABLE IN LIEU OF TANKED WATER HEATER.

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

DANIEL CHARLES SIMONSON SEAL 9549 REGISTERED PROFESSIONAL ENGINEER NORTH CAROLINA August 1st 2019

DIV-COMM-LOT-UNIT RLH-QG-0034
COMM-LOT QUAIL GLEN - 0034
STREET ADDRESS 412 LOCK DRIVE
APT. NO. ----
CITY ANGIER
STATE NC
ZIP 18067

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

SET NO. GDROO
VERSION 01
DRAWN BY
DATE:
OPTION

SHEET NO. A-8
MODEL CEDAR
DRAWING TITLE SECOND FLOOR PLAN
OPTION DESCRIPTION

7

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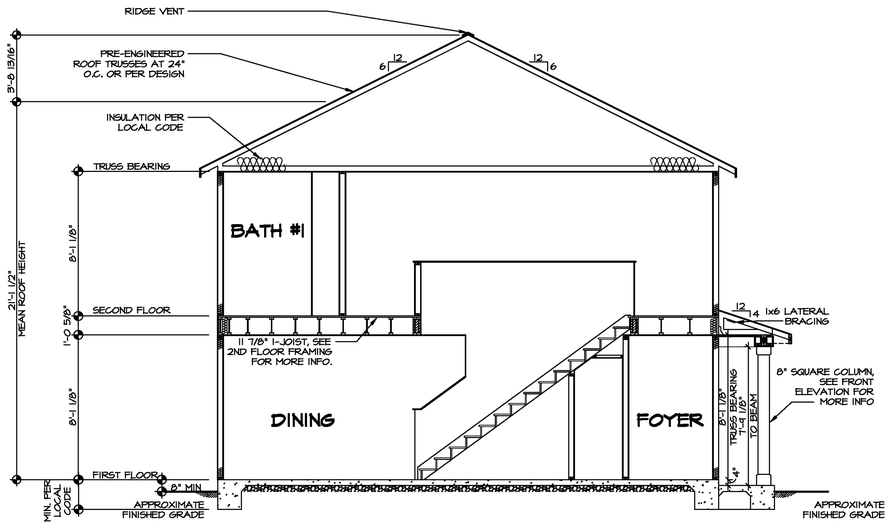

BUILDING SECTION - FOYER

1 / A-9

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

DANIEL CHARLES SIMON — 9549 — NORTH CAROLINA — REGISTERED PROFESSIONAL ENGINEER — SEAL — August 1st 2019

DIV-COMM-LOT-UNIT: RLH-QG-0034

COMM-LOT: QUAIL GLEN - 0034

STREET ADDRESS: 412 LOCK DRIVE

APT. NO.: ----

CITY: ANGIER

STATE: NC

ZIP: 18067

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5285 Westview Drive, Suite 100
Frederick, MD 21703

SET NO. CDR00
VERSION 01

DRAWN BY:

DATE:

OPTION:

SHEET NO.: A-9

MODEL: CEDAR

DRAWING TITLE: BUILDING SECTION - FOYER

OPTION DESCRIPTION: B

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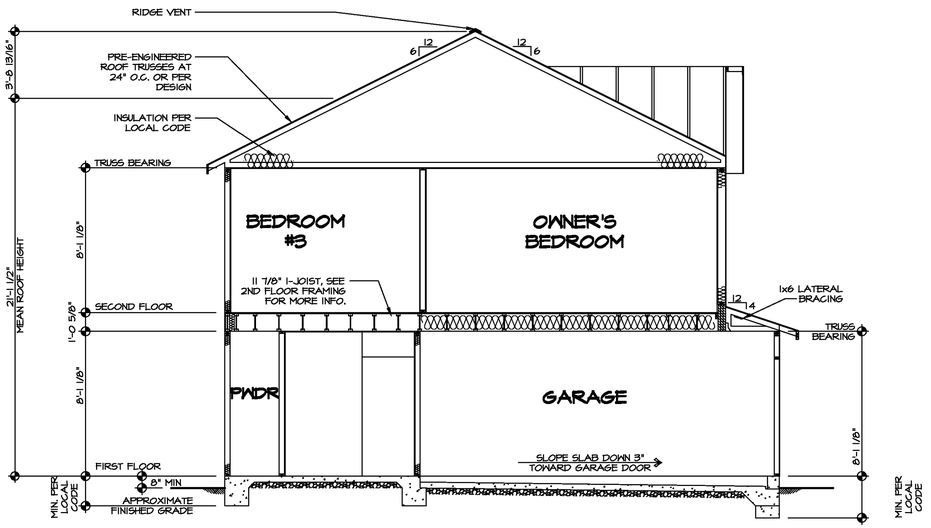

1 A-10 BUILDING SECTION - GARAGE

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

DANIEL CHARLES SIMON — 9549 — NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER — August 1st 2019

DIV-COMM-LOT-UNIT
RLH-QG-0034

COMM-LOT
QUAIL GLEN - 0034

STREET ADDRESS
412 LOCK DRIVE

APT. NO.

CITY
ANGIER

STATE
NC

ZIP
18067

NVR

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

SET NO. CDR00
VERSION 01
DRAWN BY
DATE:
OPTION

SHEET NO.
A-10

MODEL
CEDAR

DRAWING TITLE
BUILDING SECTION - GARAGE

OPTION DESCRIPTION

9

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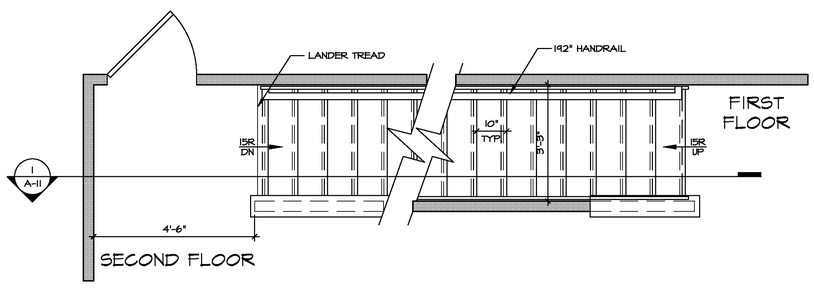
NOTE:
SEE STANDARD DETAIL SHEET ST-1 FOR ADDITIONAL STAIR DETAILS AND NOTES

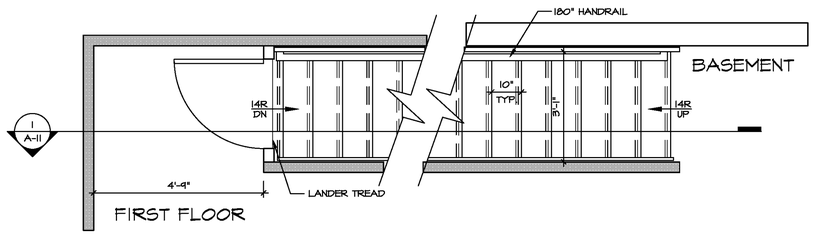
GENERAL NOTES:

REFERENCE SPEC SHEET "PLAN" SECTION NOTES FOR FURTHER INFORMATION REGARDING HEADROOM, RAILING AND GUARDRAIL DETAILS.



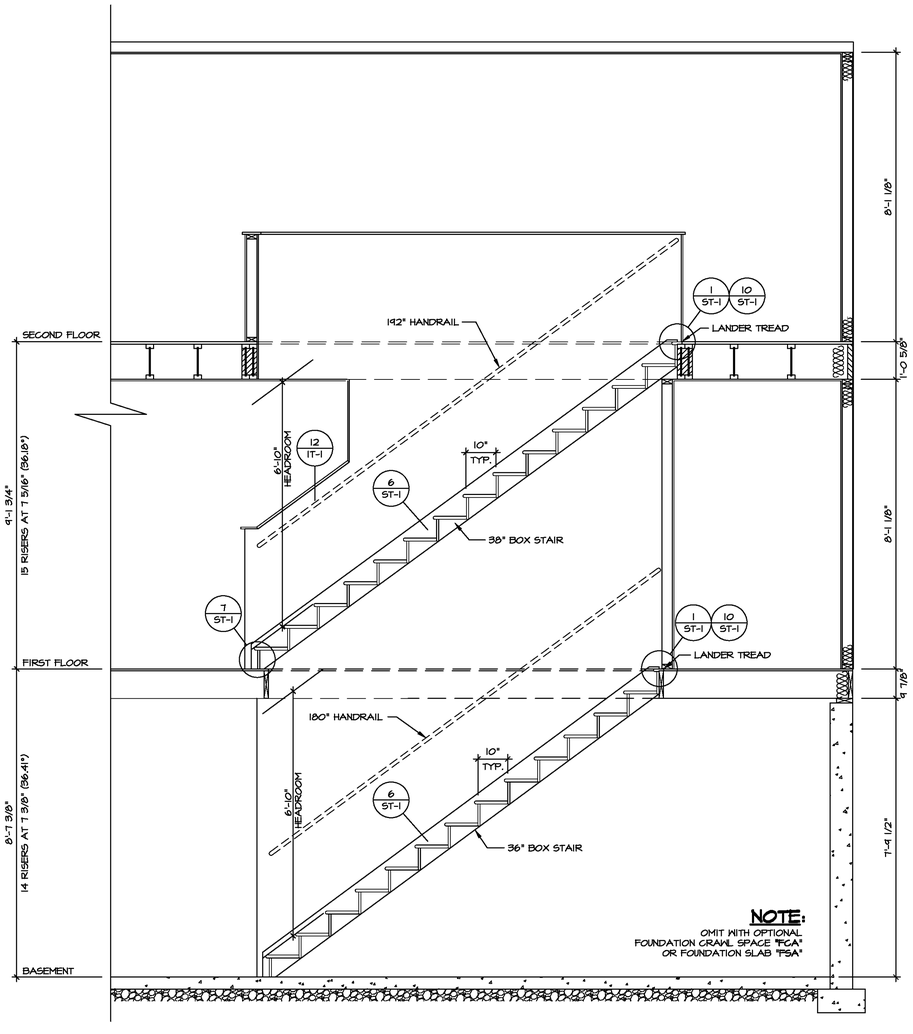
FIRST FLOOR STAIR PLAN 3 A-11

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



BASEMENT STAIR PLAN 2 A-11

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



NOTE:
OMIT WITH OPTIONAL FOUNDATION CRAWL SPACE "FCA" OR FOUNDATION SLAB "FSA"

STAIR SECTION 1 A-11

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

DANIEL CHARLES SIMON WOODSTOCK NC 9549 PROFESSIONAL ENGINEER SEAL August 1st 2019

DIV-COMM-LOT-UNIT
RLH-QG-0034

COMM-LOT		APT. NO.	
QUAIL GLEN - 0034		-----	
STREET ADDRESS		ZIP	
412 LOCK DRIVE			18067
CITY	STATE		
ANGIER	NC		

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

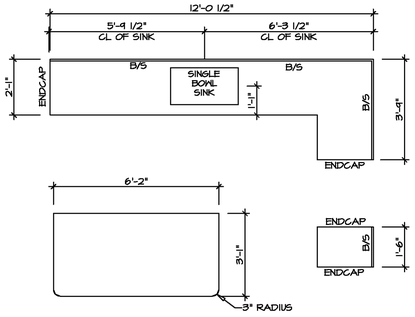
SET NO. CDROO
VERSION 01
DRAWN BY
DATE:
OPTION

SHEET NO. A-11

MODEL CEDAR
DRAWING TITLE STAIR SECTION

OPTION DESCRIPTION
10

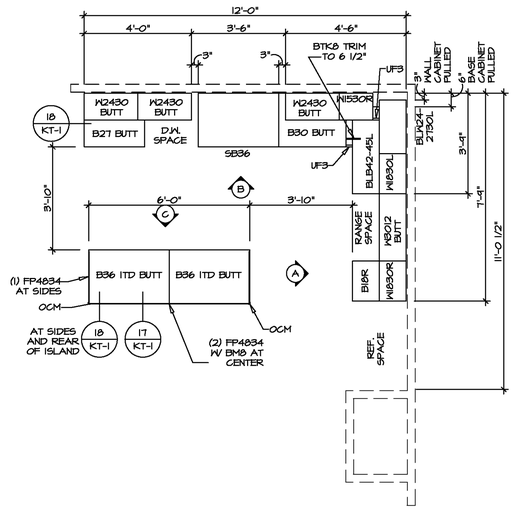
C:\NVR\Solvet\CEDAR CDROO 01\RLH-QG-0034\142708\Sheets\Lot Specific\10 A-11 STAIR LS.dwg 11/13/19 - 11:49 am



KITCHEN COUNTERTOP PLAN KC - 3640

2 A-12

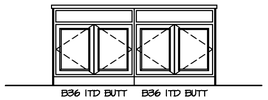
SCALE: 3/8" = 1'-0"



KITCHEN CABINET PLAN KC - 3640

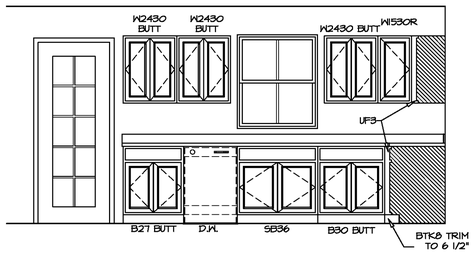
1 A-12

SCALE: 3/8" = 1'-0"



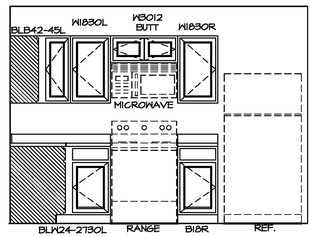
ELEVATION C

SCALE: 3/8" = 1'-0"



ELEVATION B

SCALE: 3/8" = 1'-0"



ELEVATION A

SCALE: 3/8" = 1'-0"

NOTES:

1. CABINET LAYOUT(S) ARE BASED ON FINISHED DIMENSIONS TO DRYWALL.
2. IF KITCHEN PLANS/ELEVATIONS CALL-OUT STANDARD MOULDING, REFER TO STANDARD DETAIL (1/KT-1) FOR REPLACEMENT BASED ON CABINET STYLE.
3. ALL (UF#) FILLERS ARE TO BE "TRIM TO FIT".

DANIEL CHARLES SIMON 9549 NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT
August 1st 2019

DIV-COMM-LOT-UNIT
RLH-QG-0034

COMM-LOT
QUAIL GLEN - QG34
APT. NO. ----
STREET ADDRESS
412 LOCK DRIVE
CITY ANGIER
STATE NC
ZIP 18067

NVR
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5285 Westview Drive, Suite 100
Frederick, MD 21703

SET NO. CDR00
VERSION 01
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DATE:
OPTION

MODEL CEDAR
DRAWING TITLE KITCHEN PLAN
SHEET NO. A-12
OPTION DESCRIPTION

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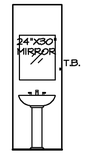
NOTES:

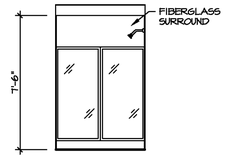
1. TEMPERED GLASS SHOWER ENCLOSURE WITH SWING DOOR OR OPTIONAL SLIDING DOOR BY DIVISION
2. TUB ACCESS PANELS PROVIDED AS NEEDED, ALL MATERIALS BY DIVISION
3. REFER TO SHEET IT-2 FOR TUB AND SHOWER DETAILS.
4. ALL VSDB24-42 DRAWERS TO BE SET ON RIGHT HAND.
5. ALL BATH ELEVATIONS ARE SHOWN PER PLAN.



PEDESTAL SINK WITH SQUARE MIRROR

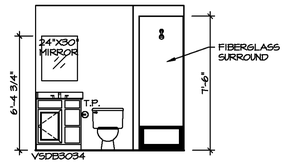
A **POWDER ROOM**

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



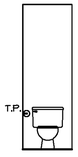
E **OWNER'S BATH**

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



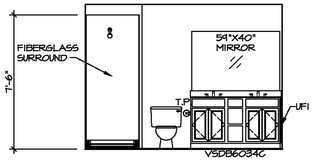
C **BATH #1**

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



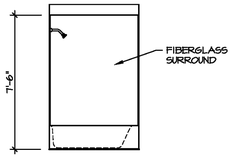
B **POWDER ROOM**

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



F **OWNER'S BATH**

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



D **BATH #1**

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

DANIEL CHARLES SIMONSON — 9549 — REGISTERED LANDSCAPE ARCHITECT — NORTH CAROLINA — August 1st 2019

DIV-COMM-LOT-UNIT: RLH-QG-0034

COMM-LOT: QUAIL GLEN - 0034

STREET ADDRESS: 412 LOCK DRIVE

APT. NO.: ----

CITY: ANGIER

STATE: NC

ZIP: 18067

NVR

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

SET NO. GPROO
VERSION 01

DRAWN BY:

DATE:

OPTION:

MODEL: CEDAR

DRAWING TITLE: BATH ELEVATIONS

SHEET NO.: A-13

OPTION DESCRIPTION

12

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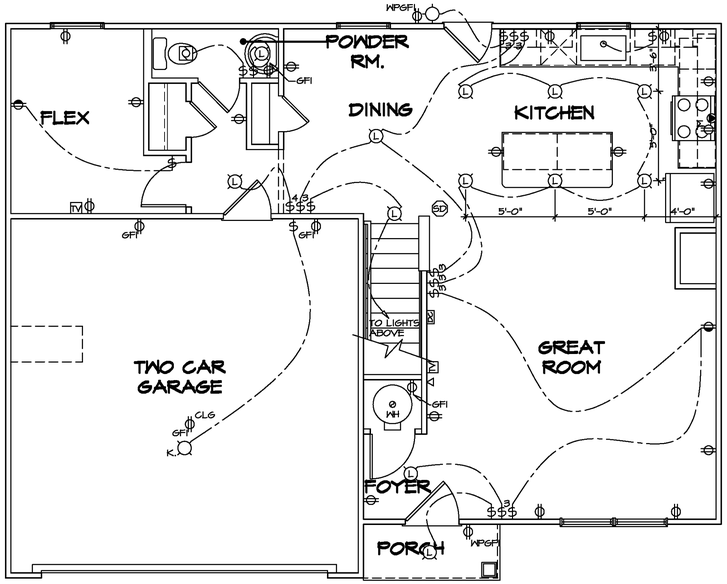
NOTES:

1. ALL ELECTRICAL PLANS ARE SCHEMATIC ONLY AND NOT INTENDED AS ENGINEERED DRAWINGS. THESE PLANS REPRESENT THE DESIGN INTENT FOR SWITCH AND RECEPTACLE LOCATIONS. ADDITIONAL INFORMATION, IF REQUIRED, SHALL BE PROVIDED BY A LICENSED ELECTRICAL SUBCONTRACTOR OR ENGINEER.
2. ALL KITCHEN, GARAGES, UNFINISHED BASEMENT, WETBARS AND ALL OUTDOOR RECEPTACLES ARE TO BE GFI PROTECTED.
3. PROVIDE DUPLEX RECEPTACLE ON DEDICATED CIRCUIT FOR DISHWASHER IN CABINET UNDER THE SINK.
4. PROVIDE DUPLEX RECEPTACLE FOR GARBAGE DISPOSAL IN CABINET UNDER THE SINK.
5. PROVIDE SWITCH W/ KEYLESS LIGHT IN ATTIC SPACE.
6. PROVIDE SWITCH W/ KEYLESS LIGHT AND GFI RECEPTACLE WHEN HVAC EQUIPMENT IS IN ATTIC SPACE.
7. PROVIDE ARC-FAULT CIRCUIT INTERRUPTERS TO ALL ROOMS EXCEPT BATH AND EXTERIOR RECEPTACLES.
8. WASHER ON LEFT, DRYER ON RIGHT (PER PLAN OR REVERSED).
9. DRYER RECEPTACLE 110 W/ GAS OR 220 W/ ELECTRIC.

ELECTRICAL LEGEND

- SINGLE POLE SWITCH
- 3 THREE WAY SWITCH
- 4 FOUR WAY SWITCH
- DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE - BOTTOM HALF SWITCHED
- DUPLEX RECEPTACLE - FLOOR MOUNTED
- RECEPTACLE - 220V
- USB DUPLEX RECEPTACLE - USB
- GFI DUPLEX RECEPTACLE - GROUND FAULT INTERRUPT
- WPGFI DUPLEX RECEPTACLE - WEATHER PROOF AND GROUND FAULT INTERRUPT
- M DUPLEX RECEPTACLE - MICROWAVE
- SD SMOKE DETECTOR - WIRED IN SERIES
- CO CARBON MONOXIDE DETECTOR
- EXHAUST FAN MOTOR
- EXHAUST FAN MOTOR WITH LIGHT
- TV TELEVISION RECEPTACLE
- T TELEPHONE RECEPTACLE
- DOOR CHIME
- LIGHT FIXTURE - WALL MOUNTED
- LIGHT FIXTURE - CEILING MOUNTED
- LIGHT FIXTURE - RECESSED
- WP. LIGHT FIXTURE - RECESSED WEATHER PROOF
- LIGHT FIXTURE - CEILING MOUNTED LED
- LIGHT FIXTURE - HANGING
- LIGHT FIXTURE - PENDANT
- LIGHT FIXTURE - FLUORESCENT
- S LIGHT FIXTURE - UNDER CABINET LIGHT "S" = SMALL "M" = MEDIUM "L" = LARGE
- PULLCHAIN LAMPHOLDER
- P.C. K. KEYLESS LAMPHOLDER



FIRST FLOOR ELECTRICAL PLAN

1 / E-2

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

DANIEL CHARLES SIMONDS — 9549 — REGISTERED PROFESSIONAL ENGINEER — NORTH CAROLINA — August 1st 2019

DIV-COMM-LOT-UNIT: RLH-QG-0034

COMM-LOT: QUAIL GLEN - 0034

STREET ADDRESS: 412 LOCK DRIVE

APT. NO.: ----

CITY: ANGIER

STATE: NC

ZIP: 18067

NVR

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5285 Westview Drive, Suite 100
Frederick, MD 21703

SET NO. CDR00
VERSION 01
DRAWN BY
DATE:
OPTION

MODEL: CEDAR
DRAWING TITLE

SHEET NO. E-2

OPTION DESCRIPTION

14

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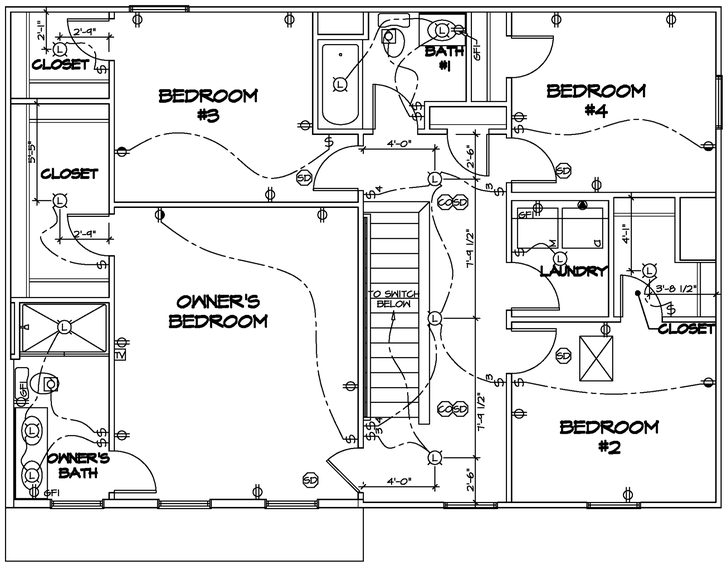
NOTES:

1. ALL ELECTRICAL PLANS ARE SCHEMATIC ONLY AND NOT INTENDED AS ENGINEERED DRAWINGS. THESE PLANS REPRESENT THE DESIGN INTENT FOR SWITCH AND RECEPTACLE LOCATIONS. ADDITIONAL INFORMATION, IF REQUIRED, SHALL BE PROVIDED BY A LICENSED ELECTRICAL SUBCONTRACTOR OR ENGINEER.
2. ALL KITCHEN, GARAGES, UNFINISHED BASEMENT, WETBARS AND ALL OUTDOOR RECEPTACLES ARE TO BE GFI PROTECTED.
3. PROVIDE DUPLEX RECEPTACLE ON DEDICATED CIRCUIT FOR DISHWASHER IN CABINET UNDER THE SINK.
4. PROVIDE DUPLEX RECEPTACLE FOR GARBAGE DISPOSAL IN CABINET UNDER THE SINK.
5. PROVIDE SWITCH W/ KEYLESS LIGHT IN ATTIC SPACE.
6. PROVIDE SWITCH W/ KEYLESS LIGHT AND GFI RECEPTACLE WHEN HVAC EQUIPMENT IS IN ATTIC SPACE.
7. PROVIDE ARC-FAULT CIRCUIT INTERRUPTERS TO ALL ROOMS EXCEPT BATH AND EXTERIOR RECEPTACLES.
8. WASHER ON LEFT, DRYER ON RIGHT (PER PLAN OR REVERSED).
9. DRYER RECEPTACLE 110 W/ GAS OR 220 W/ ELECTRIC.

ELECTRICAL LEGEND

- SINGLE POLE SWITCH
- THREE WAY SWITCH
- FOUR WAY SWITCH
- DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE - BOTTOM HALF SWITCHED
- DUPLEX RECEPTACLE - FLOOR MOUNTED
- RECEPTACLE - 220V
- USB DUPLEX RECEPTACLE - USB
- GFI DUPLEX RECEPTACLE - GROUND FAULT INTERRUPT
- WPGFI DUPLEX RECEPTACLE - WEATHER PROOF AND GROUND FAULT INTERRUPT
- M DUPLEX RECEPTACLE - MICROWAVE
- SD SMOKE DETECTOR - WIRED IN SERIES
- CO CARBON MONOXIDE DETECTOR
- EXHAUST FAN MOTOR
- EXHAUST FAN MOTOR WITH LIGHT
- TV TELEVISION RECEPTACLE
- TELEPHONE RECEPTACLE
- DOOR CHIME
- LIGHT FIXTURE - WALL MOUNTED
- LIGHT FIXTURE - CEILING MOUNTED
- LIGHT FIXTURE - RECESSED
- WP. LIGHT FIXTURE - RECESSED WEATHER PROOF
- LIGHT FIXTURE - CEILING MOUNTED LED
- LIGHT FIXTURE - HANGING
- P LIGHT FIXTURE - PENDANT
- LIGHT FIXTURE - FLUORESCENT
- LIGHT FIXTURE - UNDER CABINET LIGHT "S" = SMALL "M" = MEDIUM "L" = LARGE
- PC. PULLCHAIN LAMPHOLDER
- K KEYLESS LAMPHOLDER



1 / E-3 SECOND FLOOR ELECTRICAL PLAN

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

DANIEL CHARLES SIMONSON — 9549 — REGISTERED PROFESSIONAL ENGINEER — NORTH CAROLINA WOODSTOCK — August 1st 2019

DIV-COMM-LOT-UNIT: RLH-QG-0034
COMM-LOT: QUAIL GLEN - 0034
STREET ADDRESS: 412 LOCK DRIVE
APT. NO.: ----
CITY: ANGIER
STATE: NC
ZIP: 18067

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Frederick, MD 21703

SET NO. CDROO
VERSION 01
DRAWN BY
DATE:
OPTION
OPTION DESCRIPTION

MODEL: CEDAR
DRAWING TITLE: SECOND FLOOR ELECTRICAL PLAN
SHEET NO. E-3

15

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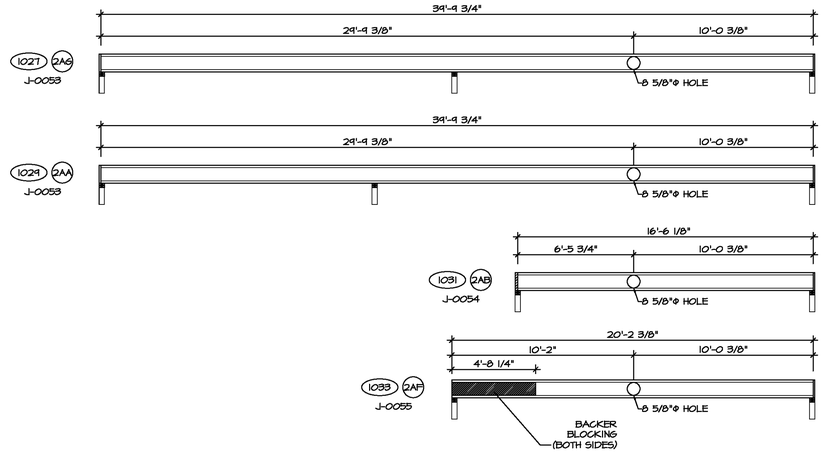
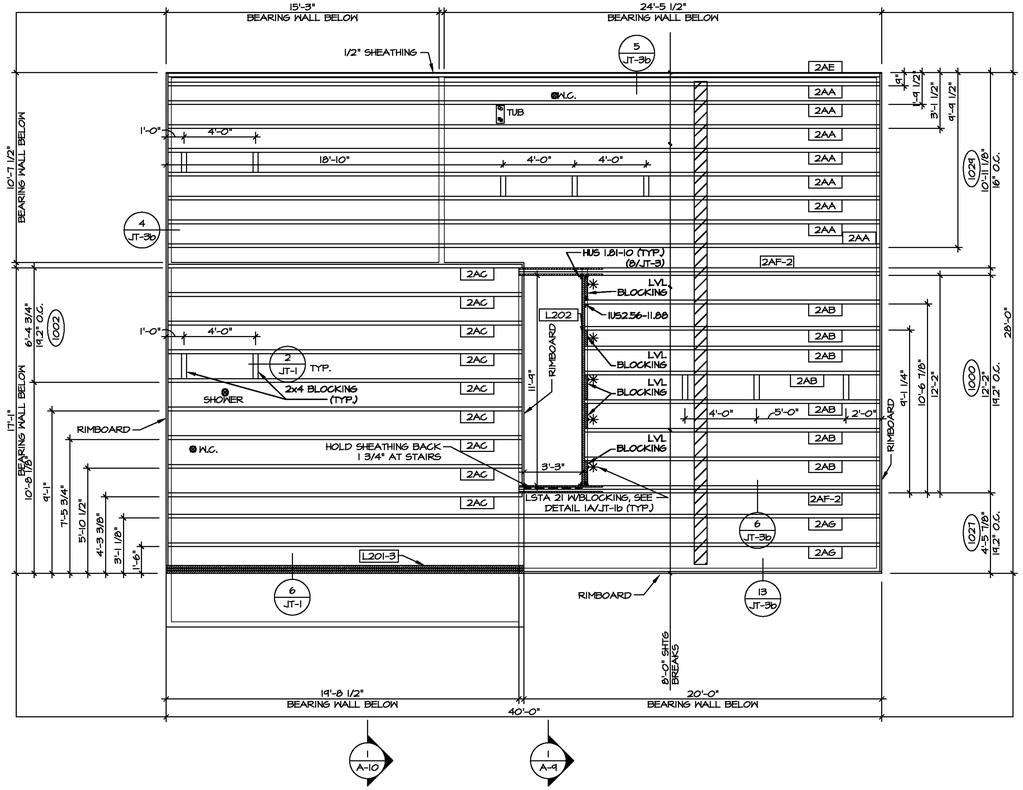
SECOND FLOOR FRAMING LENGTH SCHEDULE				
IDENTIFIER	DESCRIPTION	LENGTH	ENG. NUM.	REMARKS
2AA	PRI 60 - 11-14	39'-9 3/4"		J-0053
2AB	PRI 60 - 11-14	16'-6 1/8"		J-0054
2AC	PRI 60 - 11-14	19'-9 3/4"		
2AE	PRI 60 - 11-14	39'-9 3/4"		
2AF-2	PRI 60 - 11-14 DBL	20'-2 3/8"	1006	J-0055
2AG	PRI 60 - 11-14	39'-9 3/4"		J-0053

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" TO AND 18" TALL (INCLUSIVE): 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" TO AND 18" TALL (INCLUSIVE): 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 W/ (2) ROWS 1/2" DIAMETER A307 BOLTS AT 24" O.C. SEE SHOP DRAWING FOR ADDITIONAL INFORMATION.

SECOND FLOOR LVL LENGTH SCHEDULE				
IDENTIFIER	DESCRIPTION	LENGTH	ENG. NUM.	REMARKS
L201-3	LVL 1.75 - 18	20'-0"	1025	5.A
L202	LVL 1.75 - 11-14	11'-9"	1004	





1 5-2 SECOND FLOOR FRAMING PLAN

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

LEGEND

- BEARING WALL
- ⊗ INDICATES BEARINGS FROM POINT-LOAD ABOVE
- JACKS
- (B_) BEAM/HEADER
- F_ PAD FOOTING
- C_ STEEL COLUMN
- TRUSS TIE DOWN
- PORTAL FRAME
- JOIST/TRUSS
- LVL
- (X) ENGINEERING PAGE NUMBER

SEE FC DETAILS FOR FRAMING CONNECTORS

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.
9. WITH VENTED CRAWL SPACE ADD HANGERS AND DOUBLE RIMBOARD ABOVE FOUNDATION VENTS AND ACCESS PANEL(S).
10. ALL LVL BLOCKING CUT FROM 14'-0" MATERIAL.
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.

DANIEL CHARLES SIMON — 9549 — REGISTERED PROFESSIONAL ENGINEER — August 1st 2019

DIV-COMM-LOT-UNIT: RLH-QG-0034
COMM-LOT: QUAIL GLEN - 0034
STREET ADDRESS: 412 LOCK DRIVE
CITY: ANGIER
APT. NO.: ----
STATE: NC
ZIP: 18067

NVR

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

SET NO. CDR00
VERSION 01
DRAWN BY
DATE:
OPTION

SHEET NO. 5-2
MODEL: CEDAR
DRAWING TITLE: SECOND FLOOR JOIST LAYOUT
OPTION DESCRIPTION
17

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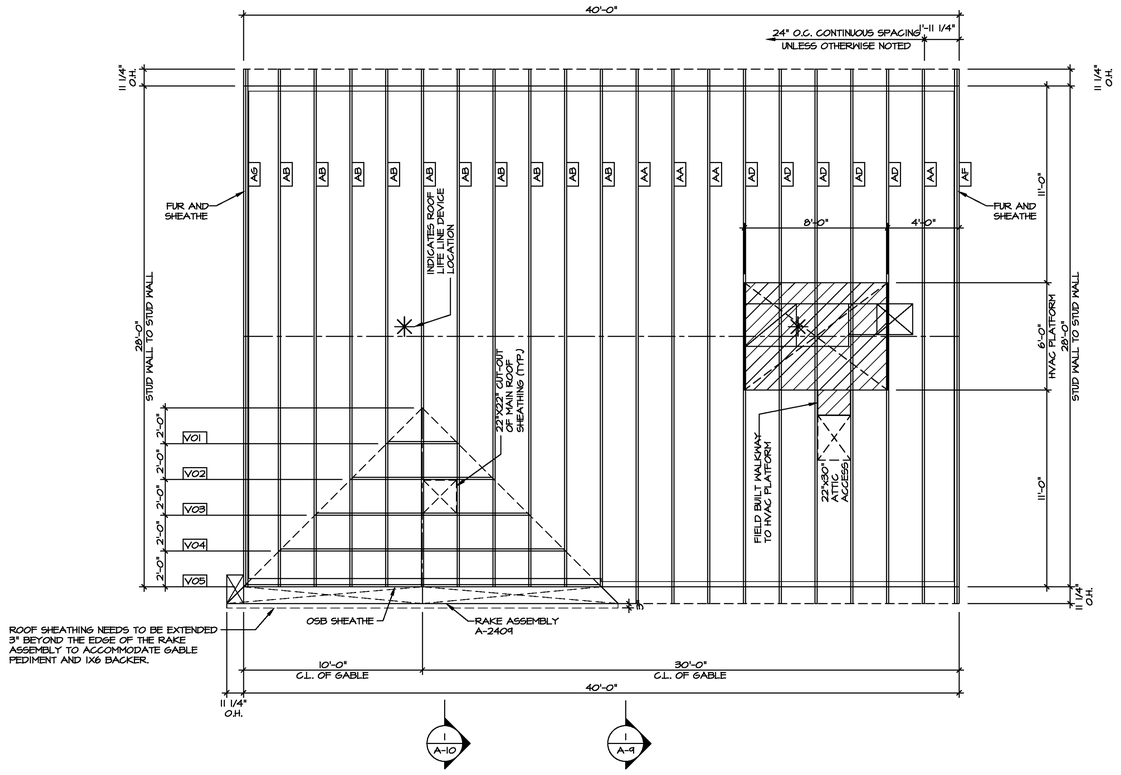
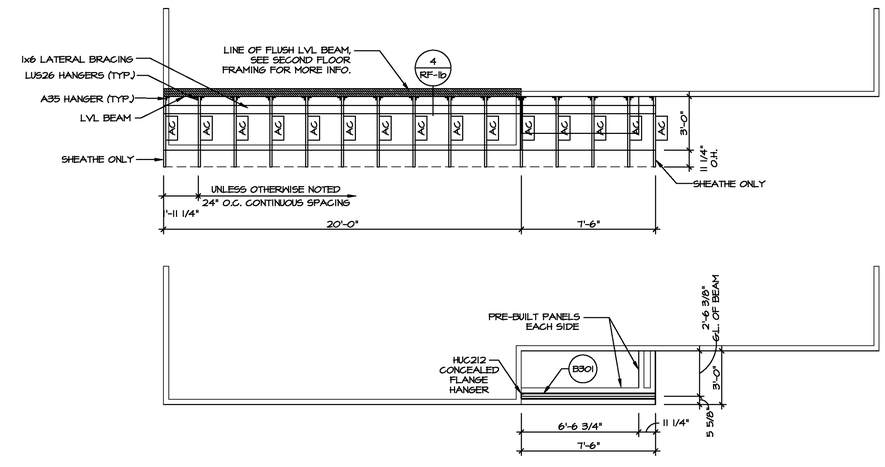
TRUSS SCHEDULE					
IDENTIFIER	SPECS	TRUSS NUMBER	LENGTH	ROOF PITCH (X/12)	TYPE
AA	EA-NE-5E	16403	28'-0"	6/12	COMMON
AB	EA-NE-5E	16404	28'-0"	6/12	SPECIAL
AC	EA-NE-5E	16400	3'-0"	6/12	MONO
AD	EA-NE-5E	16408	28'-0"	6/12	COMMON
AF	EA-NE-5E	16410	28'-0"	6/12	GABLE END
AG	EA-NE-5E	16413	28'-0"	6/12	GABLE END
V01	VT-NT-VT	93344	4'-0"	6-6/12	VALLEY
V02	VT-NT-VT	93345	8'-0"	6-6/12	VALLEY
V03	VT-NT-VT	93346	12'-0"	6-6/12	VALLEY
V04	VT-NT-VT	93407	16'-0"	6-6/12	VALLEY
V05	VT-NT-VT	95401	20'-0"	6-6/12	VALLEY

FIELD INSTALLED ROOF FRAMING BEAM/HEADER SCHEDULE				
IDENTIFIER	DESCRIPTION	LENGTH	ENG. NUM.	REMARKS
B301	BEAM BUILT 2X8 - 2 PLY RFF	7'-6"	1012	





1 S-3 **ROOF FRAMING**
SCALE: 1/4" = 1'-0"

LEGEND

- BEARING WALL
- NON BEARING WALL
- ⊗ INDICATES BEARING FROM POINT-LOAD ABOVE
- JACKS
- B_ BEAM/HEADER
- F_ PAD FOOTING
- C_ STEEL COLUMN
- TRUSS TIE DOWN
- PORTAL FRAME
- JOIST/TRUSS
- LVL
- ENGINEERING PAGE NUMBER

SEE FC DETAILS FOR FRAMING CONNECTORS

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. TRUSS BRACING (2/RF-1c)
   - 1.6. LIFELINE ATTACHMENT (5/RF-1)
   - 1.7. FALL PROTECTION ON PLATFORM TRUSSES (11/RF-1)
2. IF TRUSS DOES NOT APPEAR ON THE TRUSS BRACING SHEET, NO ADDITIONAL LATERAL BRACING REQUIRED.

DANIEL CHARLES SIMONSON — 9549 — NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER — August 1st 2019

DIV-COMM-LOT-UNIT: RLH-QG-0034
COMM-LOT: QUAIL GLEN - 0034
STREET ADDRESS: 412 LOCK DRIVE
CITY: ANGIER
APT. NO.: ----
STATE: NC
ZIP: 18067

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VERSION 01
DRAWN BY
DATE:
OPTION

MODEL: CEDAR
DRAWING TITLE: ROOF FRAMING
SHEET NO.: S-3
OPTION DESCRIPTION
18

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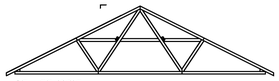
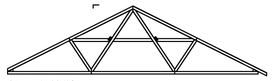


AF SE-16410



AG SE-16413

TRUSS BRACING DETAILS

1 / S-4

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

SOUTHEAST TRUSS SPECIFICATIONS "SXS"

TRUSS BRACING NOTES

1. IF TRUSS DOES NOT APPEAR ON THIS TRUSS BRACING SHEET, NO ADDITIONAL LATERAL BRACING IS REQUIRED.
2. 1X6 SPF#2 LATERAL BRACES SHALL BE NAILED TO MINIMUM (3) TRUSS MEMBERS WITH MINIMUM (2) 10D NAILS. PROVISIONS MUST BE MADE AT ENDS OR SPECIFIED INTERVALS TO RESTRAIN OR ANCHOR LATERAL BRACING.
3. WEB "T" BRACE, DETAIL 3/RF-1c, IS REQUIRED WHERE LATERAL BRACING IS NOT CONTINUOUS ACROSS THREE (3) OR MORE TRUSSES AND MAY BE USED IN LIEU OF 1X6 LATERAL BRACING.
4. DIAGONAL BRACING REQUIRED WHEN LATERAL BRACING IS REQUIRED (1/RF-1)
5. STUDDED GABLE BRACING DETAIL 1/RF-1c TO BE UTILIZED FOR TRUSSES 6'-4" IN HEIGHT OR GREATER.

DIV-COMM-LOT-UNIT
RLH-QG-0034

COMM-LOT
QUAIL GLEN - 0034

STREET ADDRESS
412 LOCK DRIVE

APT. NO.

CITY
ANGIER

STATE
NC

ZIP
18067

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VERSION 01

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DATE:

OPTION

OPTION DESCRIPTION

MODEL
CEDAR

DRAWING TITLE
TRUSS BRACING DETAILS

SHEET NO.
S-4

19

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BRACED WALL LINE SCHEDULE

WIND SPEED (ULT)	IDENTIFIER	ACTUAL (FT)	REQUIRED (FT)	METHOD
130 MPH	BWL 100.00	14.51'	9.36'	CONTINUOUS (2 SIDES)
130 MPH	BWL 101.00	19.96'	14.78'	WSP (2 SIDES)
130 MPH	BWL 102.00	22.74'	10.73'	WSP (2 SIDES)
130 MPH	BWL 103.00	26.42'	15.24'	WSP (2 SIDES)
130 MPH	BWL 200.00	21.00'	5.18'	WSP (2 SIDES)
130 MPH	BWL 201.00	21.32'	7.06'	WSP (2 SIDES)
130 MPH	BWL 202.00	34.29'	5.18'	WSP (2 SIDES)
130 MPH	BWL 203.00	25.13'	7.06'	WSP (2 SIDES)

SHEATHING NOTE

LAMINATED FIBROUS STRUCTURAL (LFS) SHEATHING MATERIAL SHALL BE INSTALLED ON ALL WALLS UNLESS OTHERWISE NOTED ON THE FLOOR PLAN. INSTALL IN ACCORDANCE WITH SBCRI TECHNICAL EVALUATION REPORT. STRUCTURAL PERFORMANCE UNDER LATERAL LOAD CONDITIONS IS DESIGNED. INSTALLATION SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS FOR WOOD STRUCTURAL PANELS (WSP/CS-WSP) AS DEFINED IN THE APPROPRIATE TER SECTION.

STRUCTURAL SHEATHING MATERIAL
- OX THERMO-PLY
  TER NO. 1004-01
- BARRICADE THERMO-BRACE
  TER NO. 1501-08
- WSP DRYLINE TSX
  TER NO. 1401-06

FASTENING SCHEDULE

SHEATHING	FASTENER	SPACING	
		EDGES	FIELD
7/16" WOOD STRUCTURAL PANELS OR EQUIVALENT (W/ METHOD WSP, CS-WSP, CS-G)	8d COMMON NAILS	6" O.C.	12" O.C.
	ALTERNATIVE FASTENER 1-3/4" 16-GAUGE CORROSION RESISTANT STAPLES	3" O.C.	12" O.C.
1/2" GYPSUM WALLBOARD (W/ METHOD GB-1, GB-2)	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.
LAMINATED FIBROUS STRUCTURAL SHEATHING	10d X 1 1/4" GALVANIZED ROOFING NAILS	3" O.C.	3" O.C.
	1-1/4" 16-GAUGE CORROSION RESISTANT STAPLES	3" O.C.	3" O.C.
1/2" GYPSUM WALLBOARD BLOCKED AT THE EDGES (W/ METHOD GB-BW-1, GB-BW-2)	BLOCKING REQUIRED AT ALL GYPSUM EDGES. USED CORROSION RESISTANT TYPE W 1-1/4" DRYWALL SCREWS	4" O.C.	12" O.C.

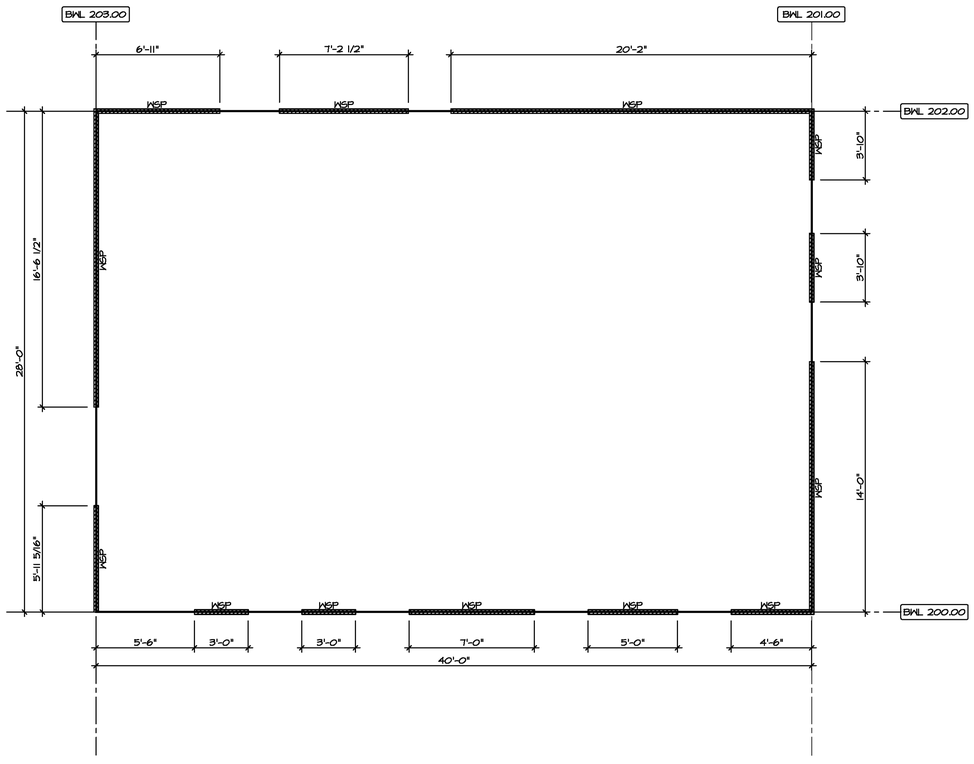
NOTES:
1. MINIMUM 7/16" CROWN WIDTH FOR STAPLES IN WOOD STRUCTURAL PANEL.
2. SPECIFIED GYPSUM FASTENING REQUIRED ONLY WHERE METHOD GB IS IDENTIFIED. SEE PHASE SPECS FOR TYPICAL GYPSUM FASTENER SPACING.
3. USE OF STAPLES IN WOOD STRUCTURAL PANEL AS FASTENING METHOD ON WALLS PER ENGINEERED ALTERNATIVE.

LEGEND

BWL XXX.XX	BRACED WALL LINE I.D.
———	BRACED WALL LINE
———	HOUSE WALL
▨	BRACED WALL PANEL
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
▶O	HOLD-DOWN 1. SEE SHEET WB-2 "P_" INDICATOR SCHEDULE AND DETAILS 2. ARROW INDICATES LOCATION

NOTES:

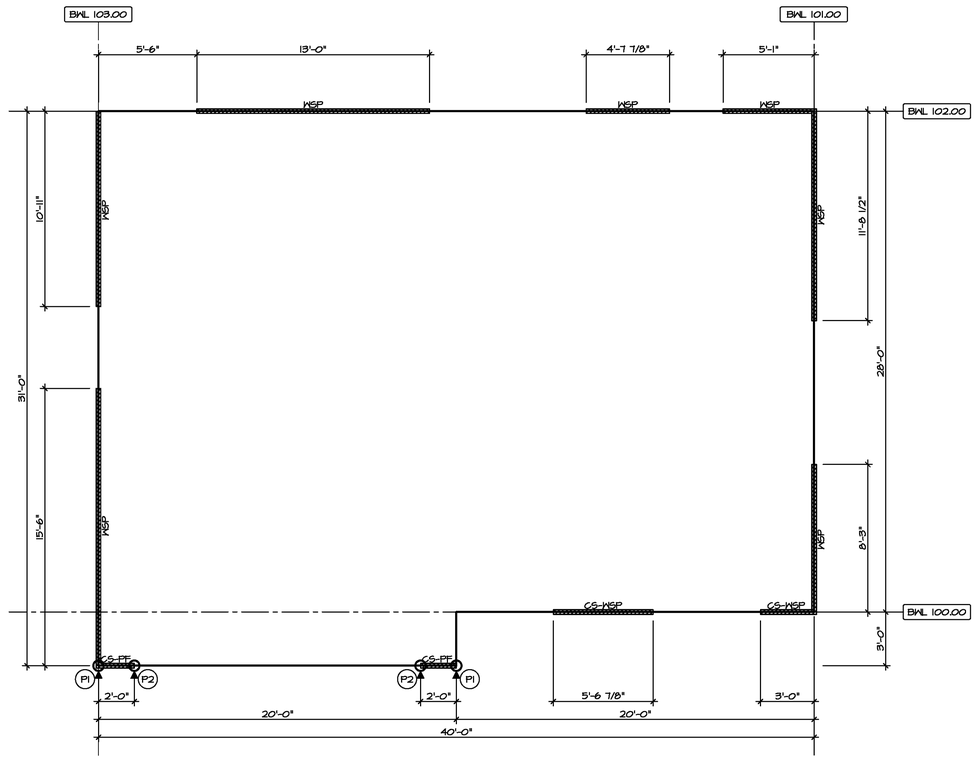
HOUSE HAS BEEN ANALYZED UTILIZING A PRESCRIPTIVE METHOD IN COMPLIANCE WITH INTERNATIONAL RESIDENTIAL CODES (IRC) UNLESS OTHERWISE NOTED.



SECOND FLOOR BRACED WALL DETAIL

2 / S-5

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



FIRST FLOOR BRACED WALL DETAIL

1 / S-5

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

DANIEL CHARLES SIMON — NORTH CAROLINA — 9549 — REGISTERED PROFESSIONAL ENGINEER — SEAL — August 1st 2019

DIV-COMM-LOT-UNIT: RLH-QG-0034
COMM-LOT: QUAIL GLEN - 0034
STREET ADDRESS: 412 LOCK DRIVE
APT. NO.: ----
CITY: ANGIER
STATE: NC
ZIP: 18067

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VERSION 01
DRAWN BY
DATE:
OPTION

MODEL: CEDAR
DRAWING TITLE: BRACED WALL PANEL DETAIL
OPTION DESCRIPTION

SHEET NO.: S-5

20

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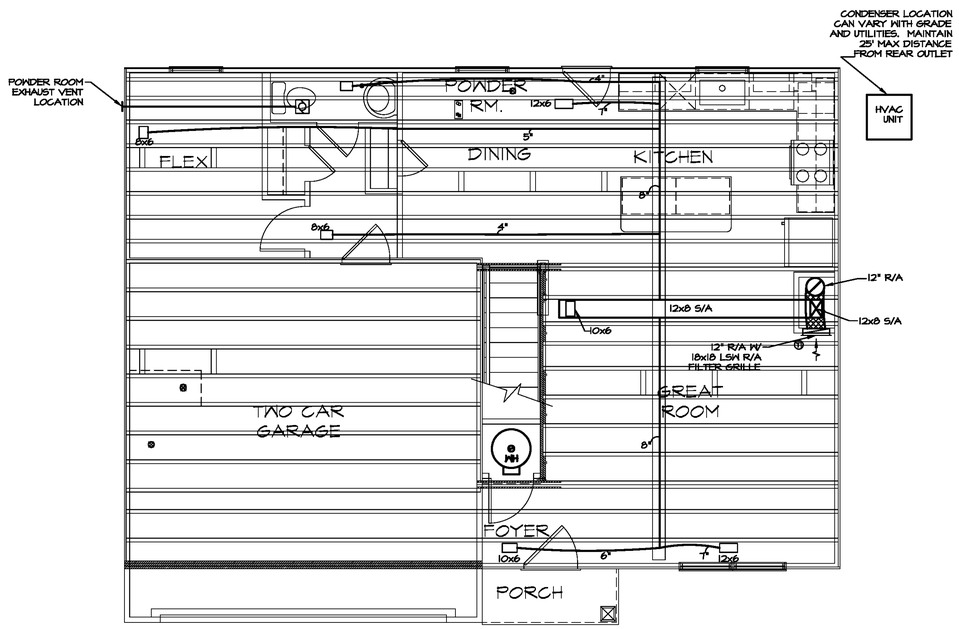

FIRST FLOOR HVAC LAYOUT

1 / M-2

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

MECHANICAL LEGEND

- THERMOSTAT
- EXHAUST FAN 50 CFM: 4" DUCT 80 CFM & ABOVE: 6" DUCT
- LIGHT / EXHAUST FAN
- S/A REGISTER UP OR OVAL RIGID WALL STACK
- FLOOR REGISTER
- CEILING REGISTER
- CURVED-BLADE CEILING REGISTER
- OPTIONAL S/A REGISTER UP
- OPTIONAL FLOOR REGISTER
- OPTIONAL CEILING REGISTER
- TRANSFER (COMBUSTION) AIR GRILLE
- LOW SIDE WALL (LSW) OR HIGH SIDE WALL (HSW) REGISTER
- LSW OR HSW R/A GRILLE
- TWO WAY HSW REGISTER OR LSW REGISTER
- BFD — BACK FLOW DAMPER
- VD — VOLUME DAMPER
- BD — BAROMETRIC OR BYPASS DAMPER
- OUTSIDE AIR DAMPER
- ZD-# — MOTOR OPERATED ZONE DAMPER
- FRESH AIR INTAKE USE 6" INSULATED FLEX DUCT
- ELECTRIC BASEBOARD
- RETURN DUCT SECTIONS
- SUPPLY DUCT SECTIONS
- DISTRIBUTION BOX
- 14x8 — RECTANGULAR METAL DUCTWORK
- 14x8 — INSULATED RECTANGULAR DUCTWORK
- ROUND METAL DUCTWORK
- FLEX DUCTWORK
- INSULATED R/A FLEX DUCTWORK
- RIGID & FLEX SUPPLY DUCT

NOTES:

1. PROVIDE MANUAL VOLUME DAMPERS IN EACH PLENUM TAKE-OFF FOR ALL SYSTEMS.
2. REMOVE MANUAL VOLUME DAMPERS IN EACH PLENUM TAKE-OFF WHEN THE ELECTRONIC ZONE DAMPER SYSTEM IS SELECTED FOR ALL SYSTEMS.
3. PROVIDE RETURN AIR FILTER GRILLES FOR ATTIC SYSTEM.
4. EXTEND SUPPLY LINES WITH OPTIONAL ELEVATIONS AS NEEDED.
5. ROOF PENETRATIONS SHALL NOT OCCUR WITHIN 4'-0" OF FIRE SEPARATION WALLS
6. INSULATE ALL DUCTS IN UNCONDITIONED SPACES.
7. TRANSFER GRILLES ARE SHOWN AS A MINIMUM REQUIREMENT FOR COMBUSTION AIR. ADDITIONAL DUCTWORK AND/OR OUTSIDE AIR GRILLES MAY BE NEEDED BASED ON EQUIPMENT SELECTED AND LOCAL CODES. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE REQUIRED COMBUSTION AIR BASED ON LOCAL CODES.
8. WITH SOUTHEAST SPECS "SXS", ALL BRANCHES SHALL BE FLEX.
9. THIS HVAC PLAN IS SCHEMATIC ONLY AND NOT INTENDED AS AN ENGINEERED DRAWING. THIS PLAN REPRESENTS THE DESIGN INTENT FOR DUCT AND REGISTER LOCATIONS. ADDITIONAL INFORMATION, IF REQUIRED, SHALL BE PROVIDED BY A LICENSED HVAC SUBCONTRACTOR OR ENGINEER.
10. 6" FLEX DUCT ACCEPTABLE IF 5" NOT AVAILABLE.
11. 4" FLEX DUCT ACCEPTABLE IF 5" NOT AVAILABLE.
12. OUTSIDE UNIT LOCATION MAY VARY PER GRADE OR OPTIMAL CONDITIONS.
13. EXHAUST FAN VENTILATION DUCT SIZE SHALL COMPLY WITH MANUFACTURER'S SPECIFICATIONS AND CODE REQUIREMENTS.

CHARLES SIMON DANIELEY — 9549 — REGISTERED PROFESSIONAL ENGINEER — NORTH CAROLINA — WOODSTOCK — August 1st 2019

DIV-COMM-LOT-UNIT: RLH-QG-0034
COMM-LOT: QUAIL GLEN - 0034
STREET ADDRESS: 412 LOCK DRIVE
APT. NO.: ----
CITY: ANGIER
STATE: NC
ZIP: 18067

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5285 Westview Drive, Suite 100
Frederick, MD 21703

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VERSION 01
DRAWN BY AHT
DATE: 7/02/19
OPTION

MODEL: CEDAR
DRAWING TITLE: FIRST FLOOR HVAC LAYOUT
OPTION DESCRIPTION

SHEET NO. M-2

22

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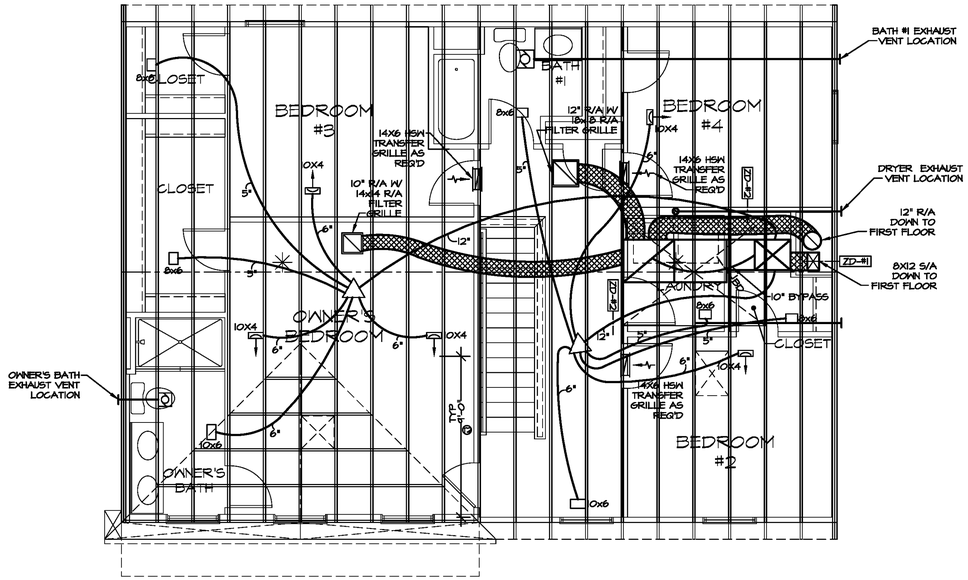

SECOND FLOOR HVAC LAYOUT

1 / M-3

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

MECHANICAL LEGEND

- THERMOSTAT
- EXHAUST FAN 50 CFM: 4" DUCT 80 CFM & ABOVE: 6" DUCT
- LIGHT / EXHAUST FAN
- S/A REGISTER UP OR OVAL RIGID WALL STACK
- FLOOR REGISTER
- CEILING REGISTER
- CURVED-BLADE CEILING REGISTER
- OPTIONAL S/A REGISTER UP
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- TRANSFER (COMBUSTION) AIR GRILLE
- LOW SIDE WALL (LSW) OR HIGH SIDE WALL (HSW) REGISTER
- LSW OR HSW R/A GRILLE
- TWO WAY HSW REGISTER OR LSW REGISTER
- BFD — BACK FLOW DAMPER
- VD — VOLUME DAMPER
- BD — BAROMETRIC OR BYPASS DAMPER
- OUTSIDE AIR DAMPER
- ZD-# — MOTOR OPERATED ZONE DAMPER
- FRESH AIR INTAKE USE 6" INSULATED FLEX DUCT
- ELECTRIC BASEBOARD
- RETURN DUCT SECTIONS
- SUPPLY DUCT SECTIONS
- DISTRIBUTION BOX
- 14x8 — RECTANGULAR METAL DUCTWORK
- 14x8 — INSULATED RECTANGULAR DUCTWORK
- ROUND METAL DUCTWORK
- FLEX DUCTWORK
- INSULATED R/A FLEX DUCTWORK
- RIGID & FLEX SUPPLY DUCT

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12. OUTSIDE UNIT LOCATION MAY VARY PER GRADE OR OPTIMAL CONDITIONS.
13. EXHAUST FAN VENTILATION DUCT SIZE SHALL COMPLY WITH MANUFACTURER'S SPECIFICATIONS AND CODE REQUIREMENTS.

CHARLES SIMON WOODSTOCK — DANIELS — 9549 — REGISTERED PROFESSIONAL ENGINEER — NORTH CAROLINA — August 1st 2019

DIV-COMM-LOT-UNIT: RLH-QG-0034
COMM-LOT: QUAIL GLEN - 0034
STREET ADDRESS: 412 LOCK DRIVE
APT. NO.: ----
CITY: ANGIER
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ZIP: 18067

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SET NO. CDR00
VERSION 01
DRAWN BY AHT
DATE: 7/02/19
OPTION

MODEL: CEDAR
DRAWING TITLE: SECOND FLOOR HVAC LAYOUT
SHEET NO.: M-3
OPTION DESCRIPTION

23

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