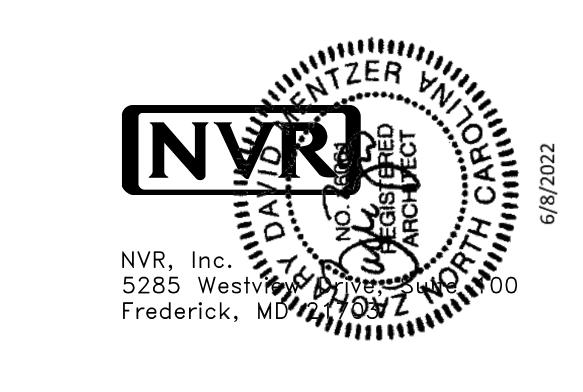
		SLAB FOU	NDATION									
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SECOND FLOOR FRAMING	19											
ROOF FRAMING TRUSS BRACING	20 21											
WALL BRACING	22											



----- - -STREET , ---- --CITY

DIV-COMM-L	OT-UNIT		
COMM-LOT			
STREET ADDR	ESS		APT. NO.
		CTATE	
CITY 		STATE	 ZIP
			STANDARD DETAILS
			STAN DETA
			AD-I
			DR-I DR-Ib
			ET-I
			ET-Ib ET-Ic
			ET-Id
			ET-Ig F-I
			F-Ib
			FA-I FC-I
			FD-I FD-Ib
			FD-4
			IT-I IT-2
			I-TL dI-TL
			JT-2
			E-TL dE-TL
			KT-I
			RF-I RF-Ib
			RF-Ic SEP-I
			SEP-2
			SEP-3 SEP-4
			SP-I
			SP-2 SP-3
			ST-I WB-I
			WB-Ib
			MD-I MS-I
			WS-Ib
			WS-IC



FIRST FLOOR SQUARE	
DESCRIPTION IST FLOOR (BASE SF)	TOTAL SQ. FT. 901 SF
	901 SF
SECOND FLOOR SQUARE	
DESCRIPTION	TOTAL SQ. FT.
2ND FLOOR (BASE SF)	1302 SF
	1302 SF
	1002 31
GARAGE SQUARE FO	
DESCRIPTION	TOTAL SQ. FT.
TWO CAR GARAGE	402 SF
	402 SF
TOTAL FINISHED SQUARE	FOOTAGE
DESCRIPTION	TOTAL SQ. FT.
IST FLOOR (BASE SF)	901 SF
2ND FLOOR (BASE SF)	
	2203 SF
	1302 SF 2203 SF
	i i i i i i i i i i i i i i i i i i i
EMMOO - O	CS-I
SET - VERSION EMMOO - OI	CS-I

GENERAL

- 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 NCRBC P2904 or NFPA I3D 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

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

ENERGY AND MECHANICAL

I. Insulation requirements per 2018 NCRC Chapter II, Energy Efficiency, or Chapter 4 of the 2018 North Carolina Energy Conservation Code (NCECC), or Chapter 4 of the 2015 International Energy Conversation 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: Minimum 18 sq. in. of vent per linear foot Ridae vent: 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 - 40# P.S.F. (Live) Floor Living Areas - 10# P.S.F. (Dead) unless noted otherwise by calculations - 30# P.S.F. (Live) unless noted otherwise Floor Sleeping Areas by calculations - 10# P.S.F. (Dead) unless noted otherwise by calculations - 50# P.S.F. (Live) Garage Floors - 50# P.S.F. (Dead) - 20# P.S.F. (Live) Roof Areas - Top Chord - 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' - Areas up to 130 mph ultimate wind speed per Walls Table R301.2(4) Vult | 115 mph | 130 mph Vasd 89 mph 101 mph Note: Linear interpolation between contour lines permitted. - 40# P.S.F. (Live) Stairs - 10# P.S.F. (Dead) Allowable deflection of structural members per IRC Table R301.7

<u>Design Criteria</u>

Design Codes: National Design specification for Wood Construction by National Forest

roducts Associatio 2. <u>Specification for the Design Fabrication and Erection of Structural Steel for</u> Buildings by American Institute of Steel Construction.

Materials

- Headers* Southern Pine (KD-19), No. 1 Grade
- Studs Spruce-Pine-Fir, Stud Grade Spruce-Pine-Fir, Stud Grade Jacks

1.9E Minimum

- Beams** Southern Pine (KD-19), No. 1 Grade
- Joists 2x10 Hem-Fir (KD-19), No. 2 Grade or better (WCL1B & WWPA)
- 2x8 Southern Pine (KD-19), No. 1 Grade or better 2x10 Spruce-Pine-Fir (KD-19), No. 2 Grade or better (NLGA)

LVL

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

FOUNDATIONS

- I. 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 2,500 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.
 - concrete with 6x6 WI.4xWI.4 mesh or equivalent fiber mesh reinforcement. 7. Unconditioned crawl spaces shall have a minimum net area of ventilation not less than I 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.
 - II. 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"×18" 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, I'-O" 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" × 3" × 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 Ŕ407.2.
 - 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 Desian 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 I-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.

FOUNDATION WALL DESIGN(c)

	NCRBC PR	ESCRIPTIVE C	ODE OR ENG	INEERED DESIGN PE	ER ACI 332
WALL HEIGHT	WALL THICKNESS	LATERAL SOIL LOAD (a)	UNBALANCED FILL	VERTICAL REINFORCING (b)	HORIZONTAL REINFORCING (b)
		45	6'-0"	NOT REQUIRED	2- #4 BARS (f)
	8"	45	יד-0"	NOT REQUIRED (d)	3- #4 BARS (d,e)
	0	60	6'-0"	NOT REQUIRED (d)	3- #4 BARS (d,e)
8-0"	8'-0" 45		ד'-0"	#4 @ 22" <i>O</i> .C. (d)	3- #4 BARS (d,e)
		45	6'-0"	NOT REQUIRED	2- #4 BARS (f)
		40	7'-0"	NOT REQUIRED	2- #4 BARS (f)
		60	6'-0"	NOT REQUIRED	2- #4 BARS (f)
	45		7'-0"	NOT REQUIRED	2- #4 BARS (f)
		7'-0"	NOT REQUIRED (d)	4- #4 BARS (d,e)	
	8"		8'-0"	#4 @ 19" O.C. (d)	4- #4 BARS (d,e)
	60	(0)	ר'ד-0"	#4 @ 19" O.C. (d)	4- #4 BARS (d,e)
9'-0"		60	8'-0"	#4 @ 15" O.C. (d)	4- #4 BARS (d,e)
		45	7'-0"	NOT REQUIRED	3- #4 BARS (g)
	10"	45	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)

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). 9. ONE BAR WITHIN 12" OF TOP AND ONE EACH AT THIRD POINT OF WALL HEIGHT PER TABLE 404.1.2(1).

Porch slab and exterior concrete work shall be nominal 4" minimum 3,500 PSI air-entrained

21. Termite treatment provided below slabs or to framing members per R318.1

- NOTE: BACKFILLING OF THE FOUNDATION SHALL NOT TAKE PLACE BEFORE THE BASEMENT SLAB IS IN PLACE AND THE FLOOR FRAMING IS ERECTED OR

PLANS

- I. Habitable attics and sleeping rooms shall have a window or door as a second means of eqress 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. hqt. 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 eqress 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'-O" 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 quard 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 eqress 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 quard.
- 10. All flashing used (including at windows, doors, and with stone or masonry veneer) shall be corrosion-resistive per RT03.4. See NVR Flashing Details.
- II. 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 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 I-1/4" drywall screws.

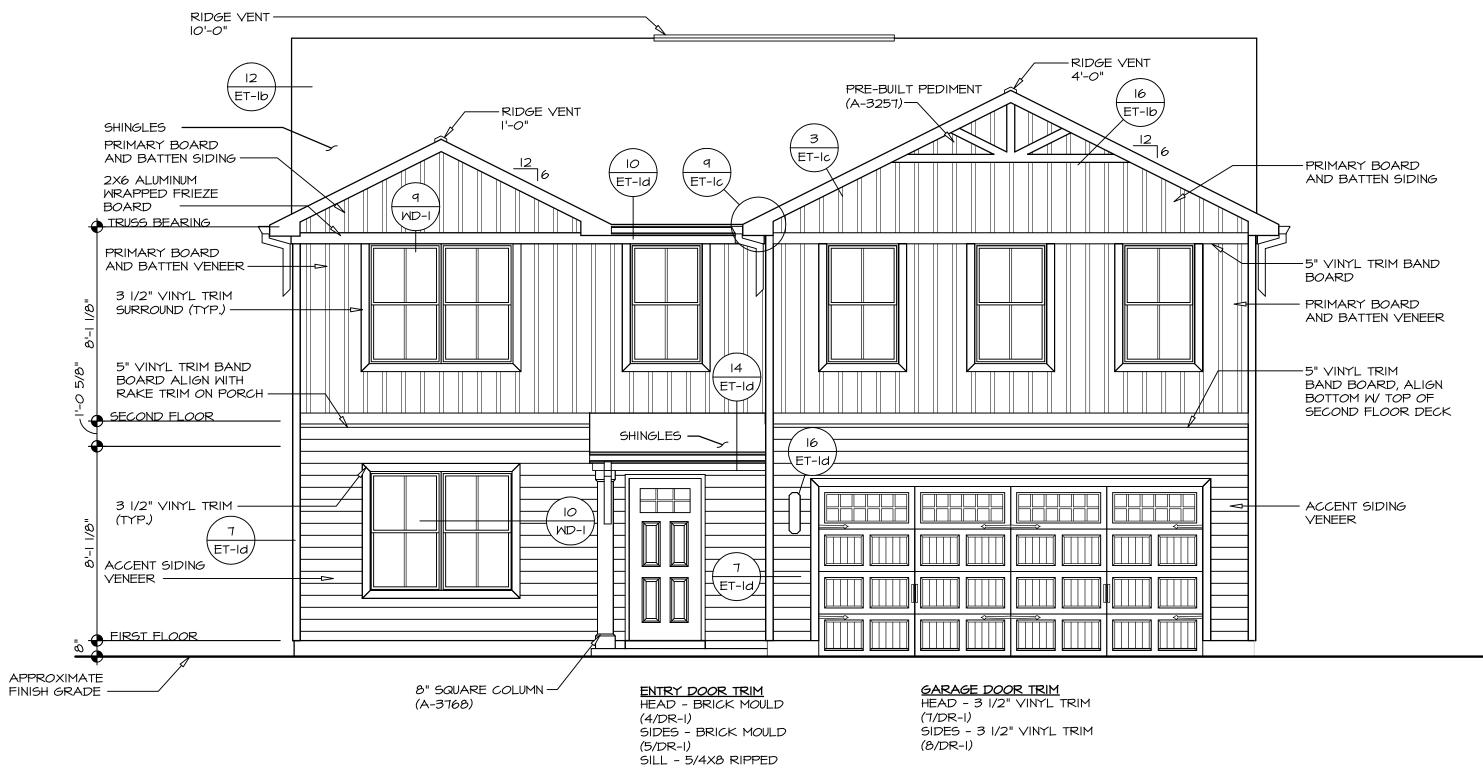
SCREW FASTENING SCHEDULE						
		M	TH ADHESI√E			
	Framing Spacing	Ceilings	Load-brg. walls	Non-load-brg. walls		
	16	16	24	24		
	24	16	16	24		
	WITHOUT ADHESIVE					
	Framing Spacing	Ceilings	Load-brq. walls	Non-load-brg. walls		
	16	12	16	16 -		
	24	2	12	12		

- 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.
- 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.
- 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 RIOO4 and IOO5.
- 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 eqress 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
- 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
- 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 I-hour fire-resistive construction on the underside. Vinul 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 aupsum 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. I-hour fire-rated construction required on projections within 2' to 3' of lot line per R302.I. No projections allowed within 2' of property line.
- I-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.

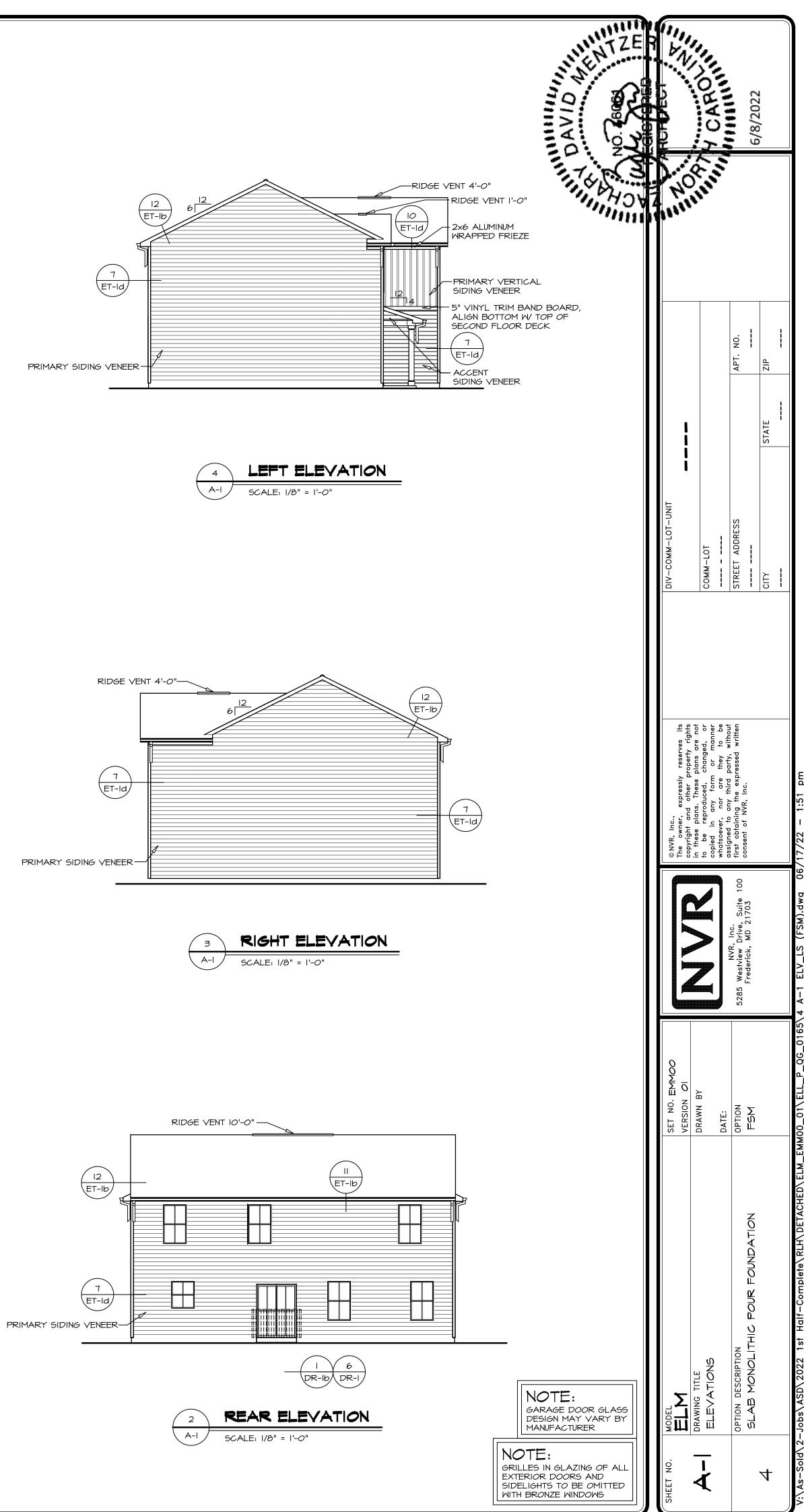
ELECTRICAL

- I. Ground-fault and arc-fault circuit interrupter protection is provided per NFPA 70 (National Electric 2. Electric panel box installation to be in accordance with NFPA 70, Article 408 Section III. Location mo vary by design.
- 3. Approved smoke detectors shall be installed in each sleeping room; outside each separate sleeping area 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 in the immediate vicinity of the bedrooms; and on each additional story of the dwelling, includined detector is required, the devices shall be interconnected in such a manner that the actuation or one alarm will activate all of the alarms in the individual unit. All smoke detectors shall receive their primary por 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 IO 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 steeping 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 lfc 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.

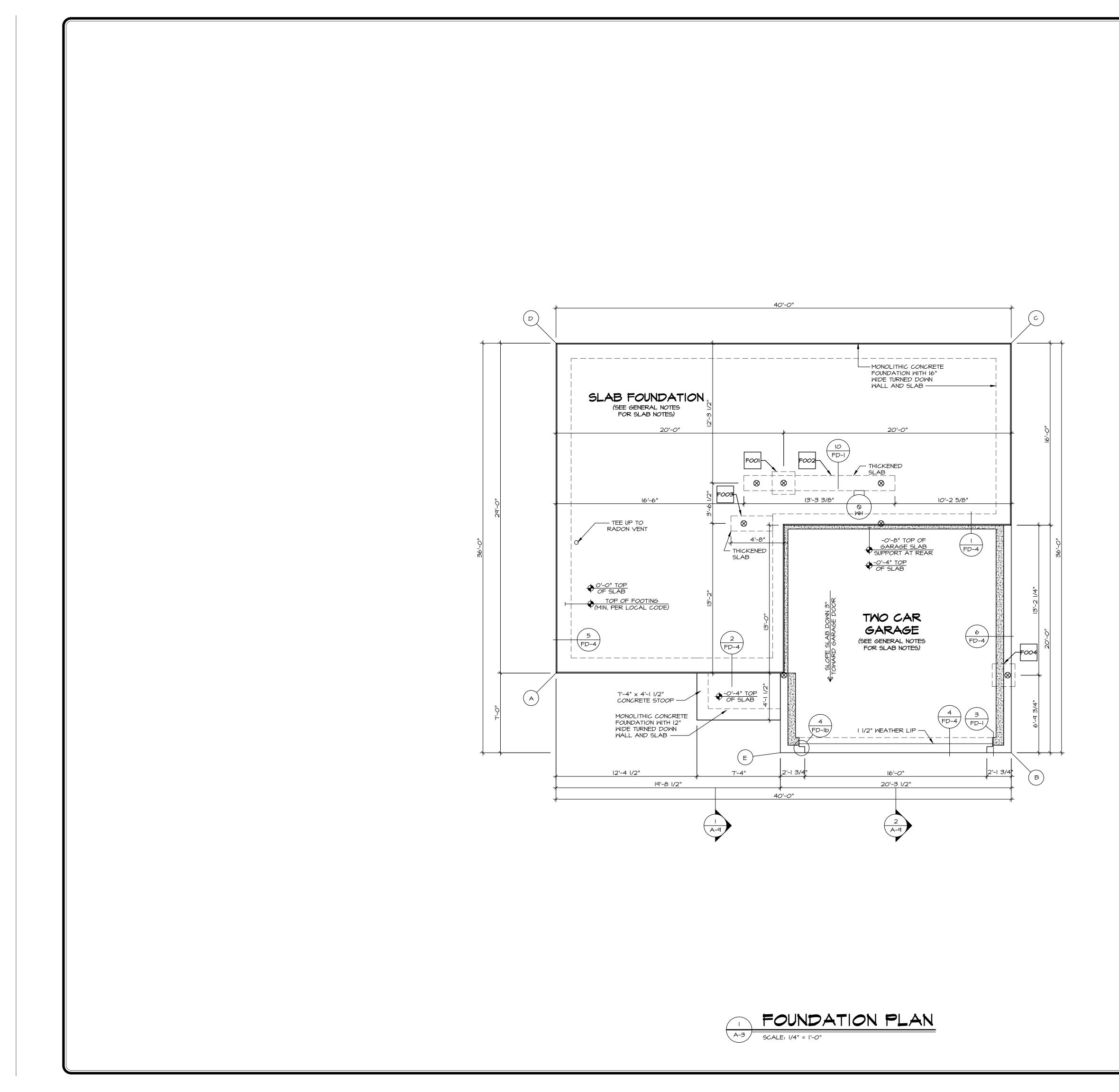
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	REV. NO. DATE I I/8/I4 MBT - CODE UPDATES FO 2 3/I/14 MBT - UPDATED ENGERY
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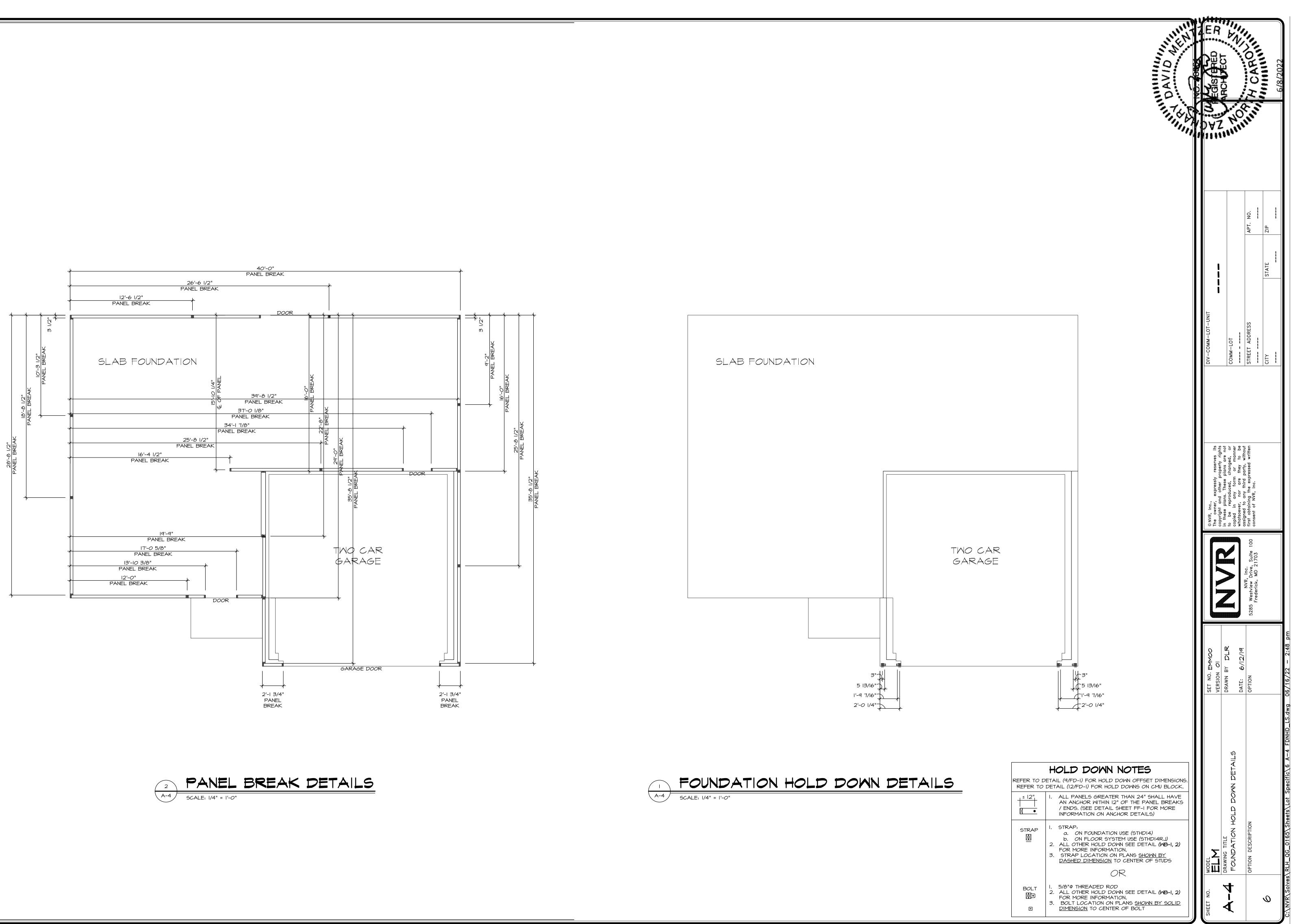




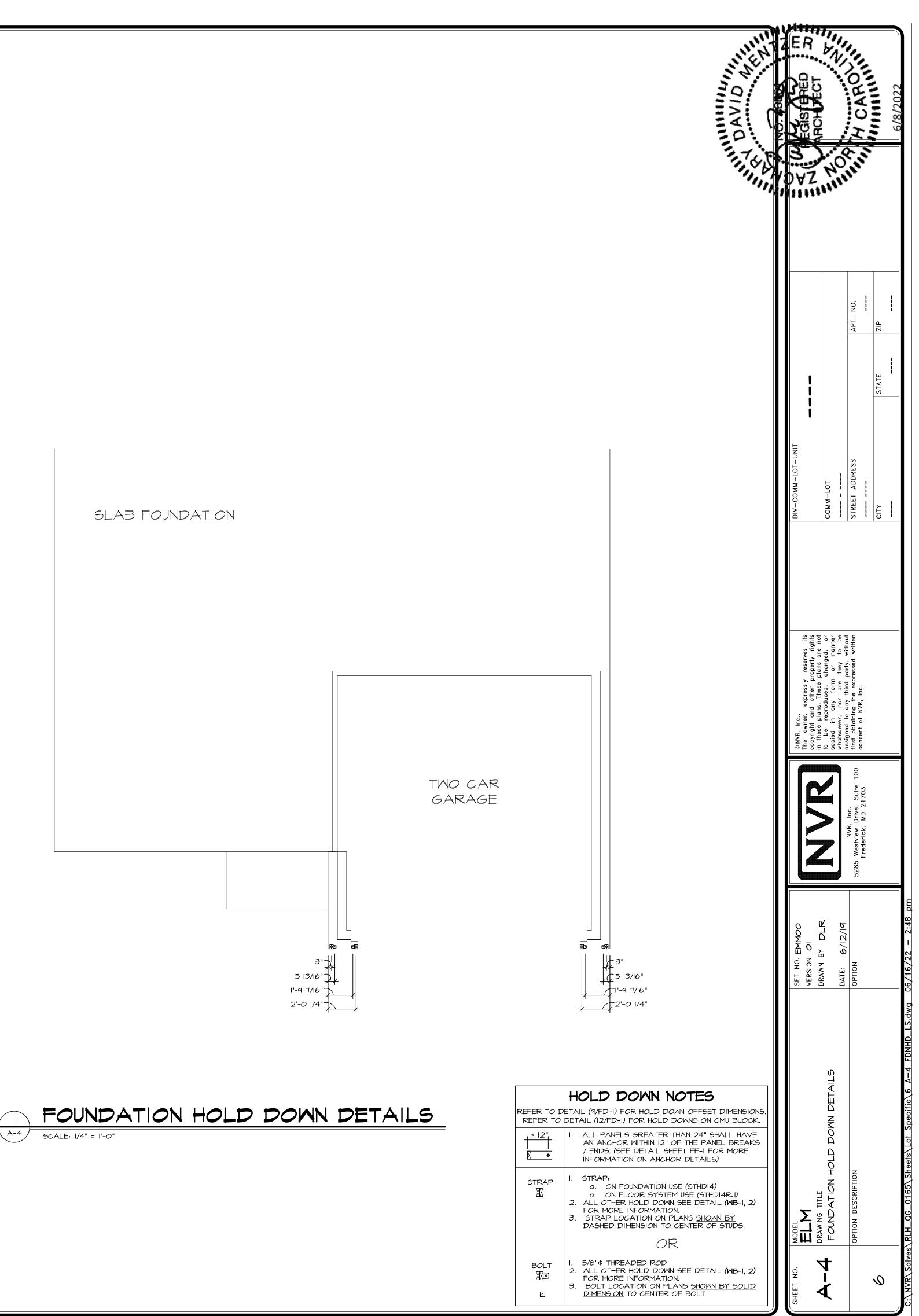


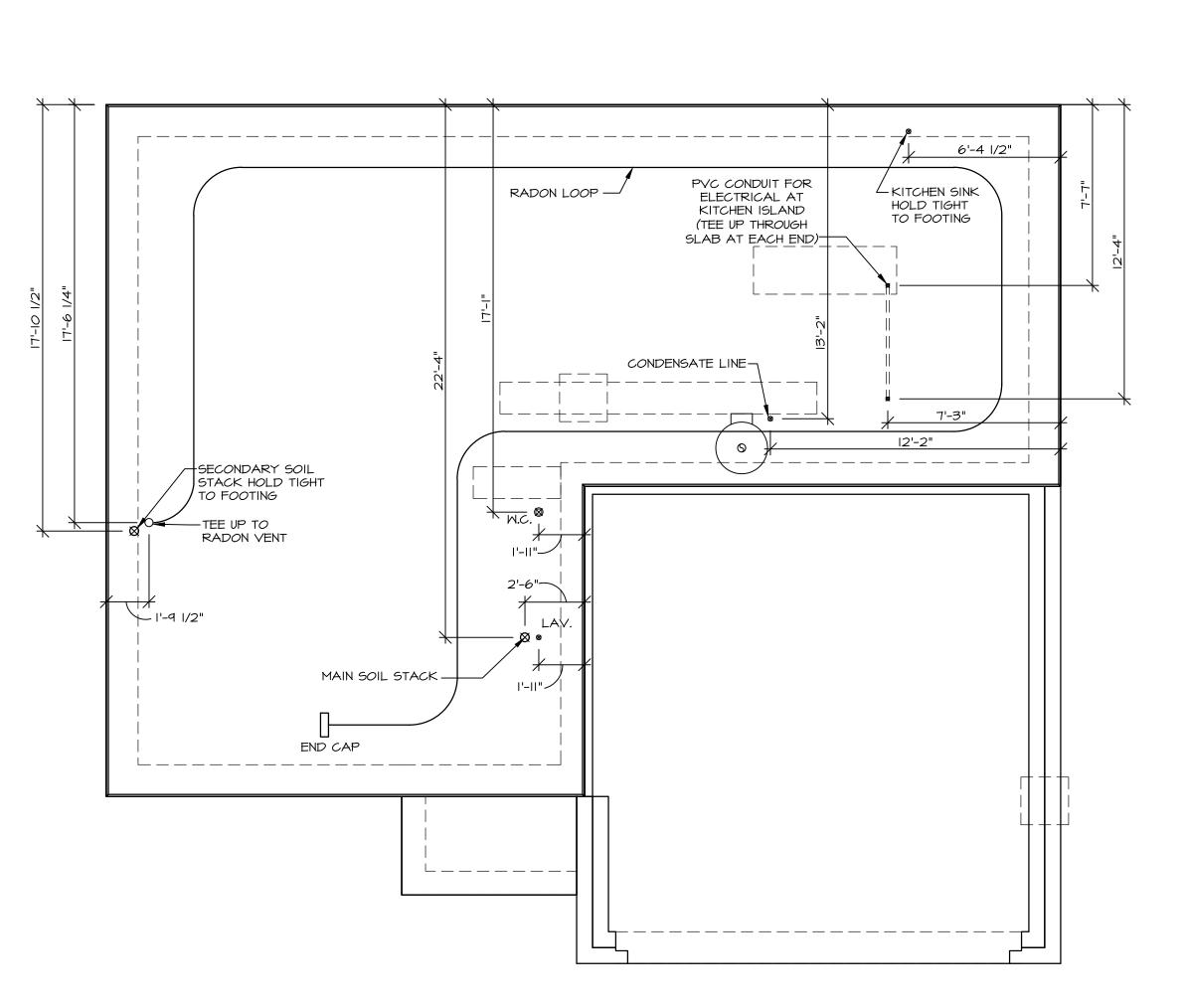


				IDENTIFIER FOOI FOO2 FOO3 FOO4			
			A B C D E	LENGTH 2'-O" 13'-3 3/8" 3'-8" 2'-O"	. . 2. 2 3. 4. 5.		
			FOUNDAT A 0" 40'-7 9/32 49'-4 7/8 29'-0" 20'-10 31/3	MIDTH 2'-O" 1'-4" 1'-4" 2'-O"	FOUNDATION I SUB-BASE FOUNDATION I 2.1. UNEXCAV/ BARRIER SLAB NOT SLAB NOT SEE FOUNDAT INFORMATION SLAB LEDGE ORIENTATION. THE DIRECTIC REBAR, AS R		
			A 2" B " C D	HEIGHT '-O" O'-8" '-O"	UNDER HABIT E SLAB ON 6 (SEE SPEC 9 UNDER GARA ATED WITH CO OVER SUB-B ES) OR AL CONCRET 3-BASE (SEE 10N HOLD DC LOCATIONS SEE GB-I FO DN OF THE AF EQUIRED. S ARE PLAIN S OTHERWISE		
			B 40'-7 9/32" 0" 36'-0" 53'-9 25/32" 20'-3 1/2"	ENG. NUM. 50001 50001, 50002 50001 1027	ABLE SPACE: MIL VAPOR BA GE: ONCRETE SLAB ASE (SEE SPEC E SLAB ON VAI SPEC SHEET FO OWN SHEET FOR VARY W/ GRAD OR DETAILS. ROW IS THE DI	X TRUSS T X PORTAL X JOIST/TI	EGEND BEARING NON BEARING NON BEARING NON BEARING NON BEARING NON BEARING NON BEARING NON BEARING NON BEARING
				REMARK	RRIER OVER B NOTES) ON VAPOR SHEET FOR POR BARRIER R SLAB NOTE CONNECTION E BEAM(S) RECTION OF	OTING OLUMN IE DOWN FRAME RUSS RING PAGE N OR FORS	ARING WALL ES BEARING I
				< <u>.</u>	2 ES)	UMBER	TZE N Rogo
T NO MODEL							
DRAWING TITLE	VERSION OI DRAWN BY		vVK, Inc., s owner, expressly reserves byright and other property righ these plans are r			NOR	N
			to be reproduced, changed, or copied in any form or manner whatsoever, nor are they to be assianed to any third party. without				CARO
OPTION DESCRIPTION SLAB FOUNDATION	OPTION FSA	5285 Westview Drive, Suite 100 Frederick, MD 21703	pressed		STREET ADDRESS	APT. NO.	CCUC/8/9
IJ					CITY STATE	ZIP	







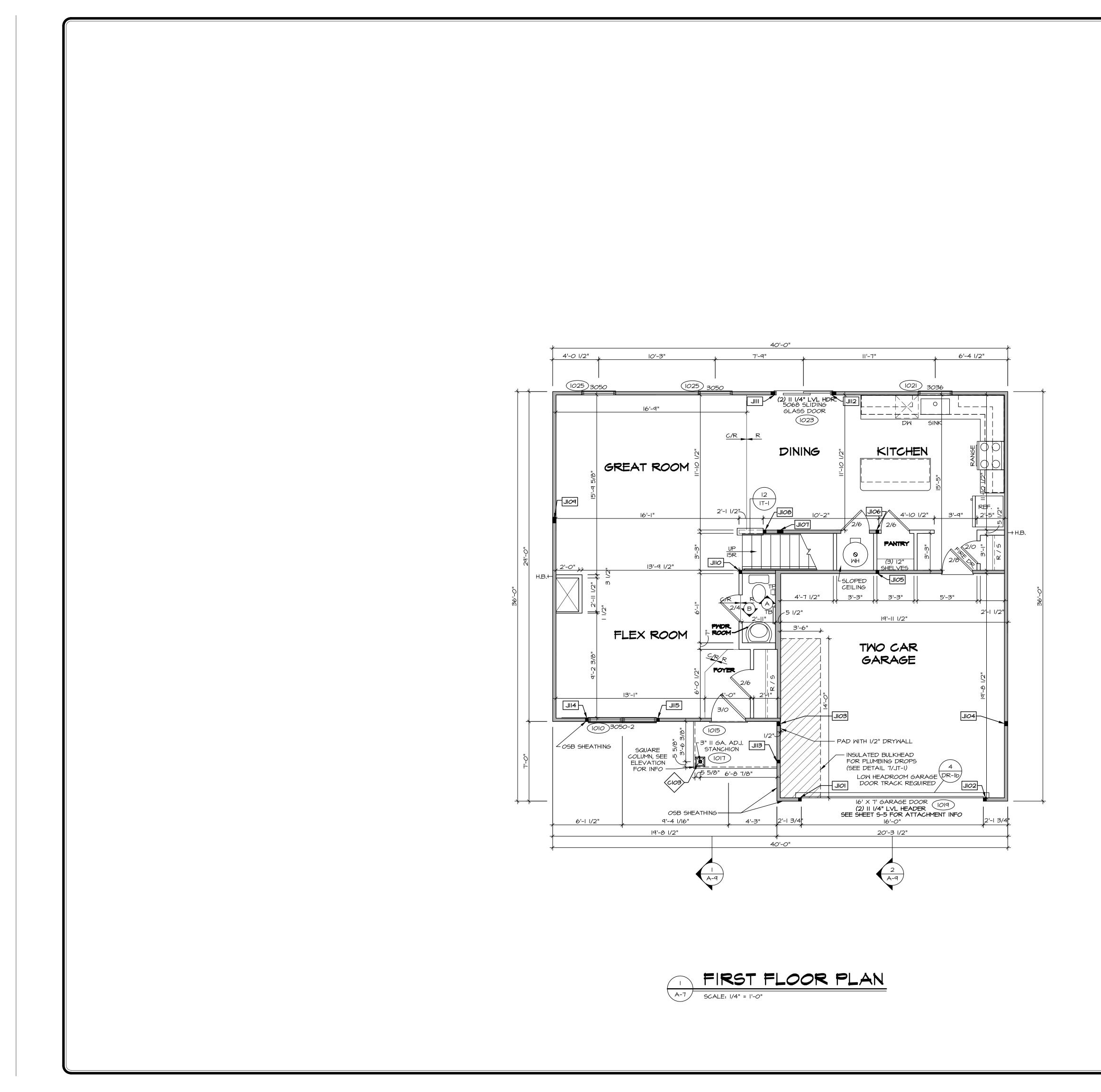


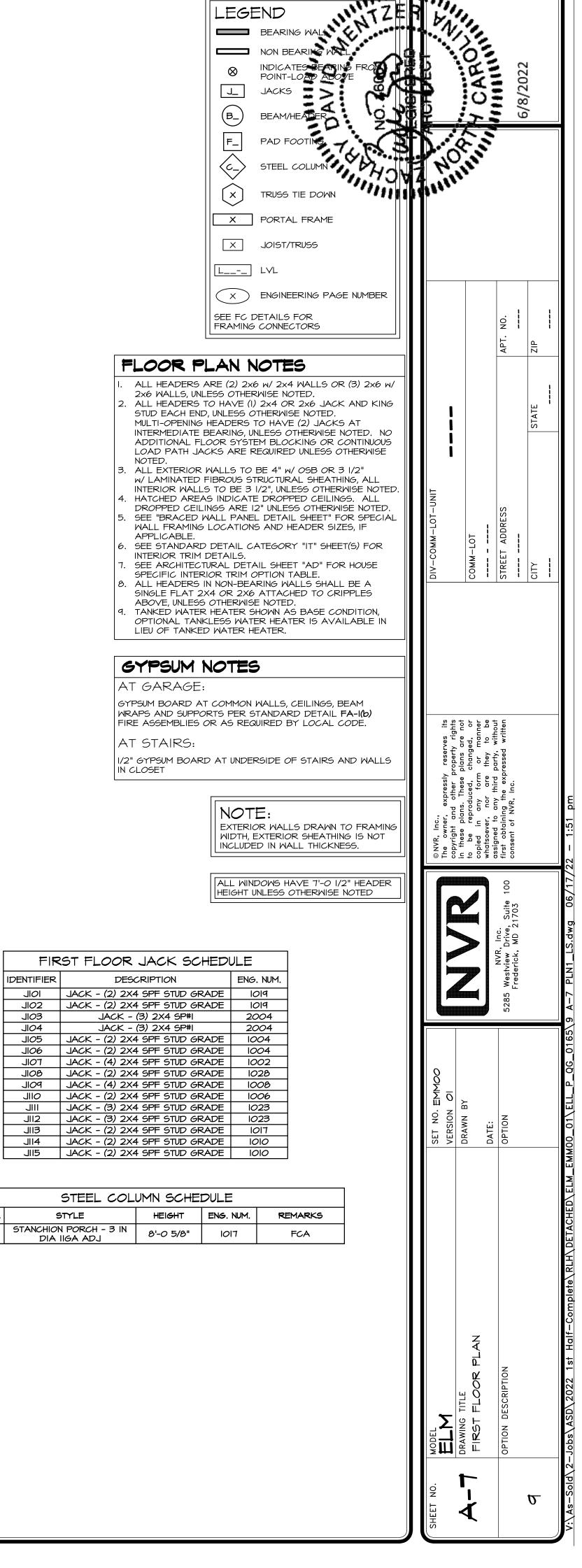


- NOTE RADON REMEDIATION <u>RADON LOOP:</u> (4") PERFORATED HDPE "LOOP" MUST BE PLACED IN STONE BED SLIGHTLY HIGHER THAN ANY INTERIOR DRAINTILE LOOP TO BE SEPARATE FROM ANY DRAINTILE ELEMENTS TO BE CORRUGATED HDPE PIPE SCREWS TO BE INSTALLED THROUGH LOOP AT TEE UP INTO STACK STACK REQUIREMENTS:

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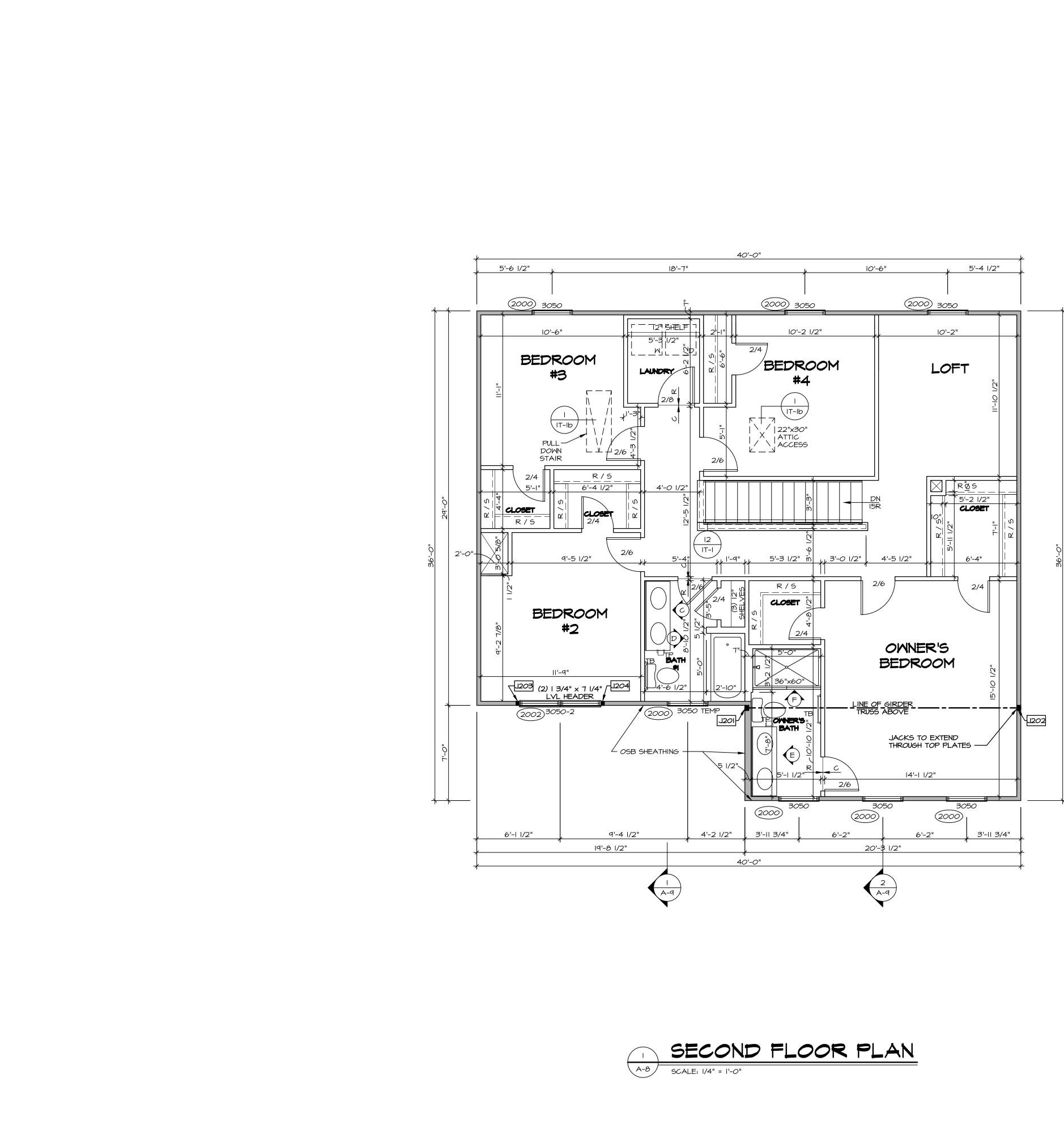
- STACK REQUIREMENTS: 3" PVC STACK (4" IF BASEMENT IS GREATER THAN 2200 SQFT.)
- 3" PVC STACK (4" IF BASEMENT IS GREATER THAN 2200 SQFT.)
 NO PART OF STACK IS TO BE HORIZONTAL (45° ELBOWS PERMITTED AS REQUIRED)
 PIPE TO BE PHYSICALLY LABELED IN THE FIELD AS "RADON VENT" OR OTHER
- JURISDICTIONALLY REQUIRED 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 TERMI
- The share COMM-L ---- -STREET its not out out out ÷ • ' The The Solution T SET NO. VERSION DRAWN E MODEL **TL** DRAWING IJ

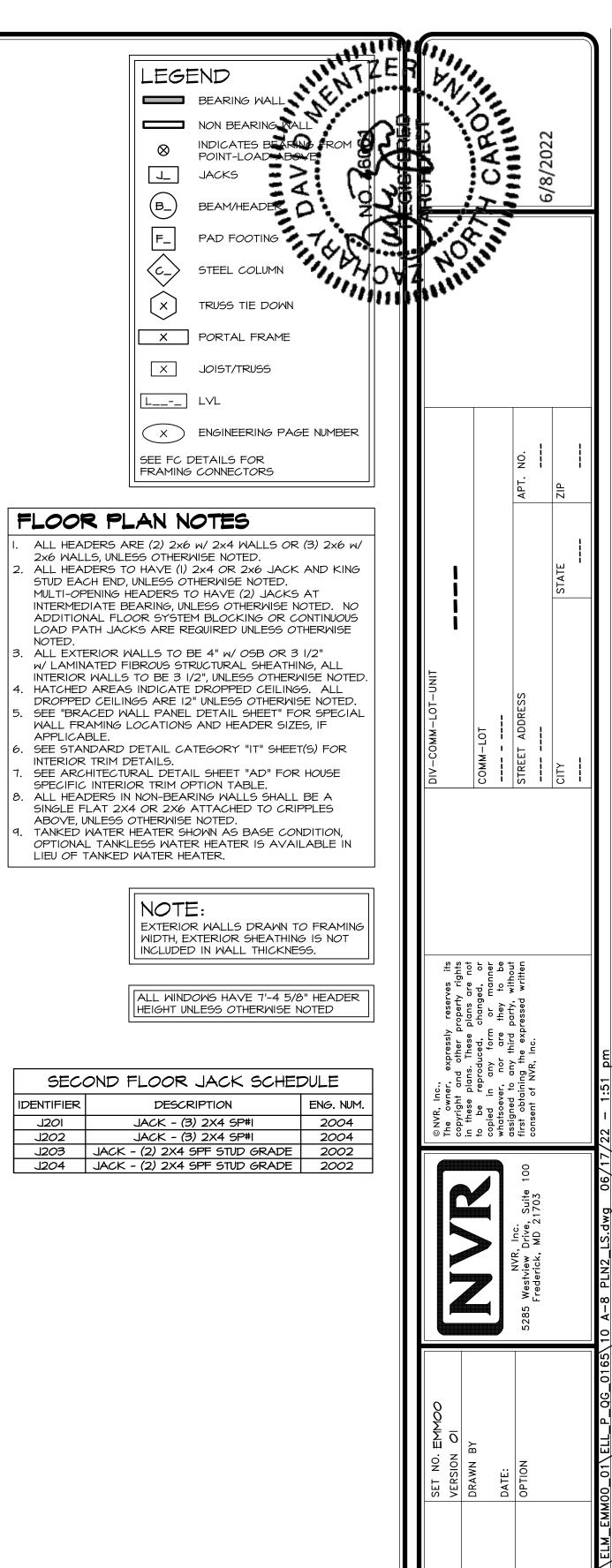




FIR	ST FLOOR JACK SCHED	JLE
IDENTIFIER	DESCRIPTION	ENG. NUM.
IOIL	JACK - (2) 2X4 SPF STUD GRADE	1019
JIO2	JACK - (2) 2X4 SPF STUD GRADE	1019
50IL	JACK - (3) 2X4 SP#1	2004
JIO4	JACK - (3) 2X4 SP#1	2004
JIO5	JACK - (2) 2X4 SPF STUD GRADE	1004
30IL	JACK - (2) 2X4 SPF STUD GRADE	1004
FOIL	JACK - (4) 2X4 SPF STUD GRADE	1002
BOIL	JACK - (2) 2X4 SPF STUD GRADE	1028
POIL	JACK - (4) 2X4 SPF STUD GRADE	1008
OIIL	JACK - (2) 2X4 SPF STUD GRADE	1006
	JACK - (3) 2X4 SPF STUD GRADE	1023
2IIL	JACK - (3) 2X4 SPF STUD GRADE	1023
EIIL	JACK - (2) 2X4 SPF STUD GRADE	1017
4اال	JACK - (2) 2X4 SPF STUD GRADE	1010
11 H E		

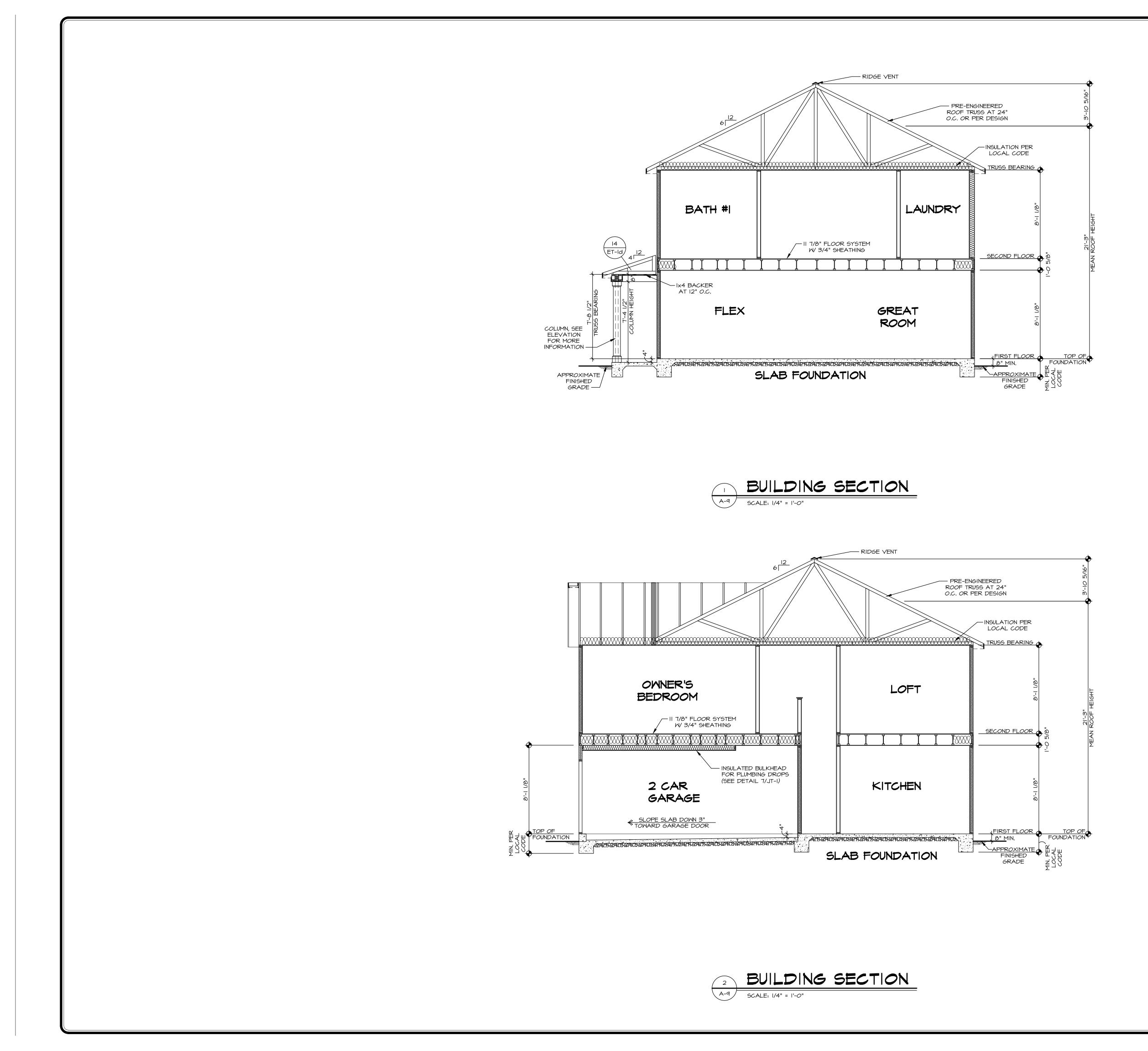
	STEEL COL	UMN SCHE	DULE	
IDENTIFIER	STYLE	HEIGHT	ENG. NUM.	REMARKS
C103	STANCHION PORCH - 3 IN DIA IIGA ADJ	8'-0 5/8"	1017	FCA



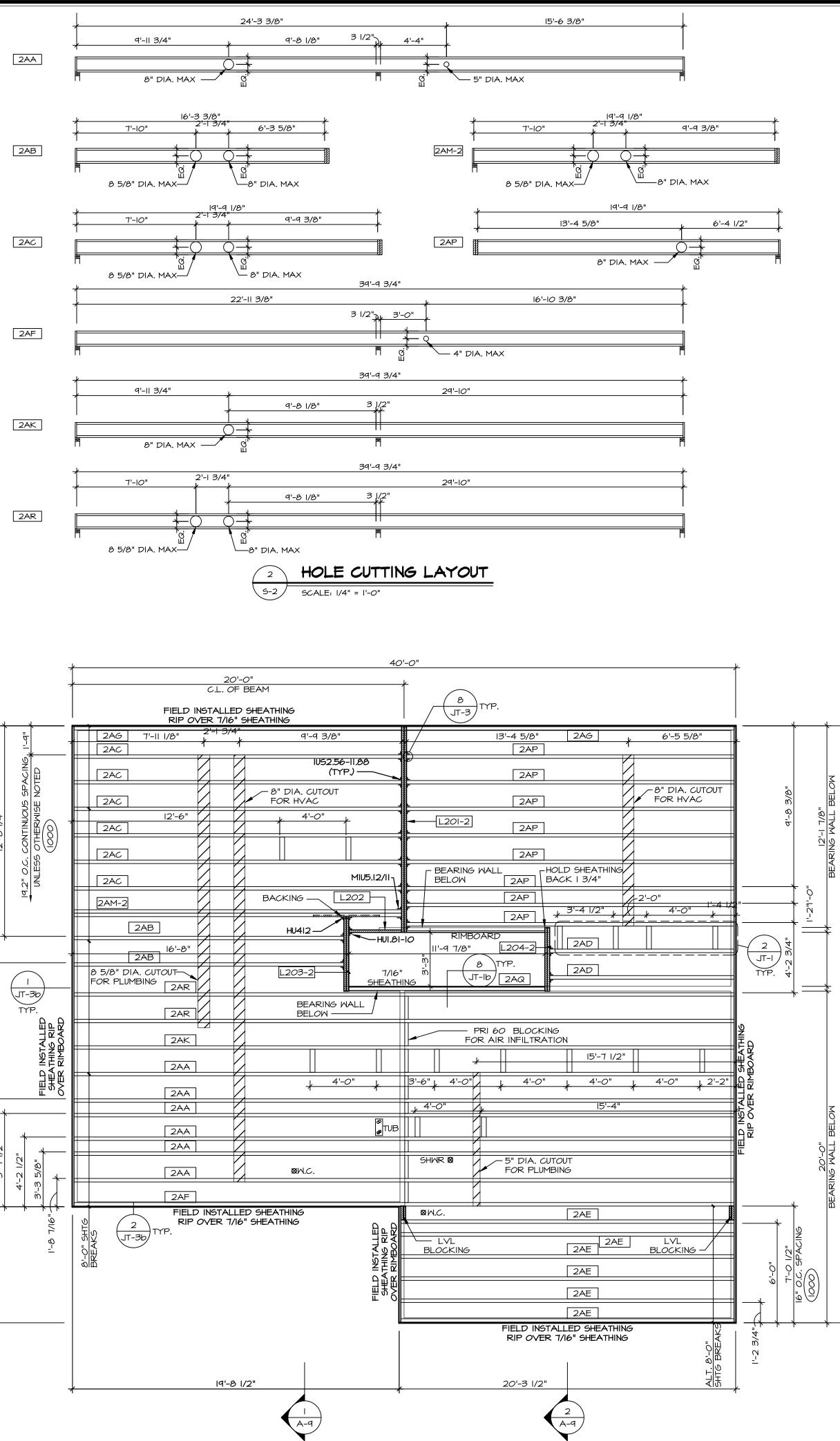


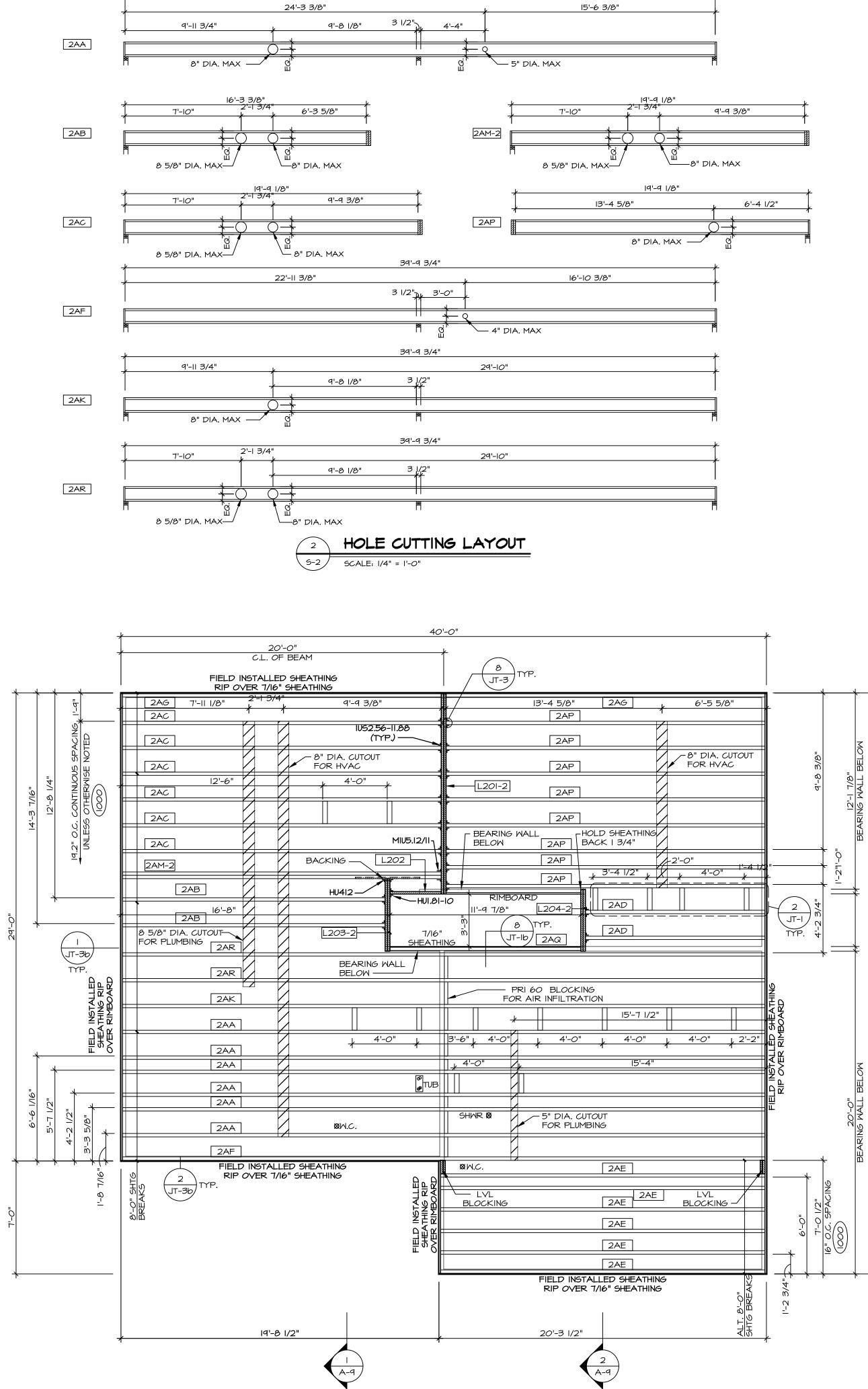
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TZE TZE NICHARDON ON TACK	6/8/2022
	NORINI
	APT. NO. APT. NO. STATE ZIP
	DIV-COMM-LOT-UNIT
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	5285 Westview Drive, Suite 100 Frederick, MD 21703
	SET NO. EMMOO VERSION OI DRAWN BY DATE: OPTION
	SHEET NO. MODEL A-4 MODEL A-4 BLLM DRAWING TITLE DULLDING SECTION II

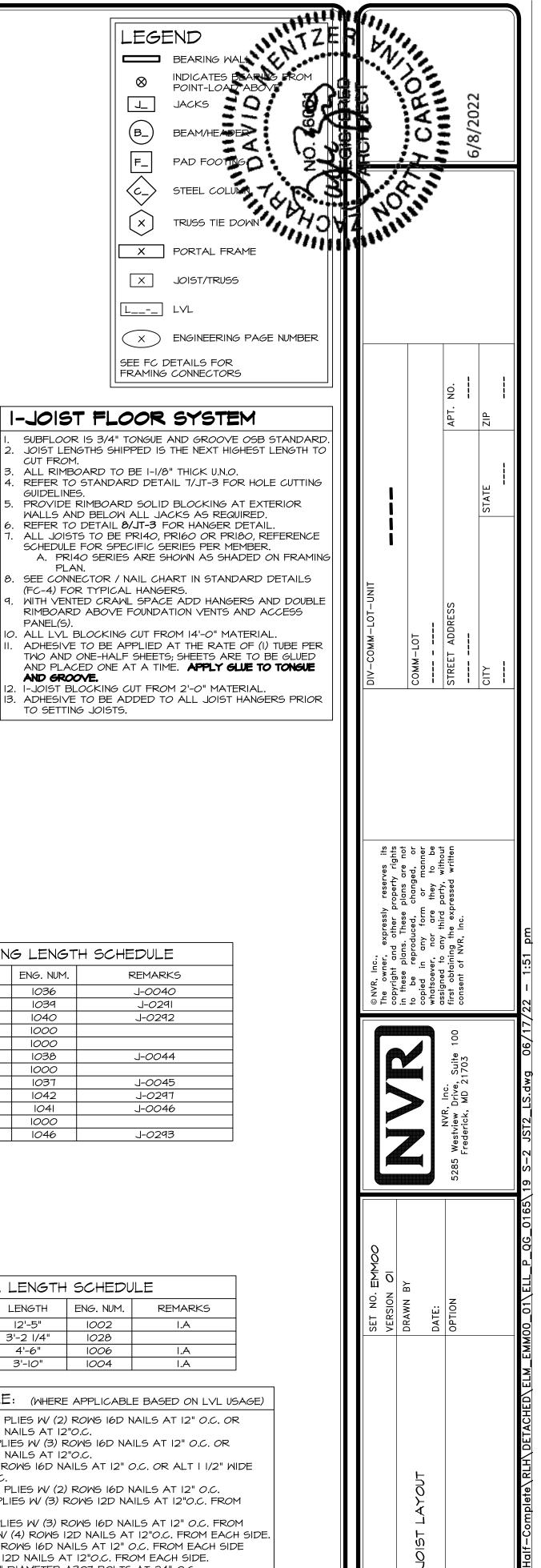






LVL PLY TO PLY FASTENING SCHEDULE: (WHERE APPLICABLE BASED ON LVL USAGE) I.A - (2) PLY UP TO AND INCLUDING II 7/8" TALL: FASTEN PLIES W/ (2) ROWS 16D NAILS AT 12" O.C. OR ALT I 1/2" WIDE LVL FASTEN PLIES W/ (3) ROWS 12D NAILS AT 12"O.C. 2.A - (2) PLY 14" TO AND 18" TALL (INCLUSIVE): FASTEN PLIES W/ (3) ROWS 16D NAILS AT 12" O.C. OR ALT | 1/2" 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 I 1/2" WIDE LVL FASTEN PLIES W/ (5) ROWS I2D NAILS AT I2"O.C. 4.A - (3) PLY UP TO AND INCLUDING II 7/8" TALL: FASTEN PLIES W/ (2) ROWS I6D NAILS AT 12" O.C. FROM EACH SIDE OR ALT I 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 I 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 I 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 I/2" DIAMETER A307 BOLTS AT 24" O.C. SEE SHOP DRAWING FOR ADDITIONAL INFORMATION.

SECOND FLOOR FRAMING PLAN



MODEL TH DRAWI SEC

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9	BECOND FLOO	r framin	G LENGT	H SCHEDULE
IDENTIFIER	DESCRIPTION	LENGTH	ENG. NUM.	REMARKS
2AA	PRI 60 - 11-14	39'-9 3/4"	1036	J-0040
2AB	PRI 60 - 11-14	16'-3 3/8"	1039	J-0291
2AC	PRI 60 - 11-14	19'-9 1/8"	1040	J-0292
2AD	PRI 60 - 11-14	'- /2"	1000	
2AE	PRI 60 - 11-14	20'-1 1/4"	1000	
2AF	PRI 60 - 11-14	39'-9 3/4"	1038	J-0044
2AG	PRI 60 - 11-14	19'-9 1/8"	1000	
2AK	PRI 60 - 11-14	39'-9 3/4"	1037	J-0045

1042

2AM-2 PRI 60 - II-14 DBL 19'-9 1/8"

 2AP
 PRI
 60 - II-I4
 I9'-9 I/8"
 I04I

 2AQ
 PRI
 60 - II-I4
 II'-9 7/8"
 I000

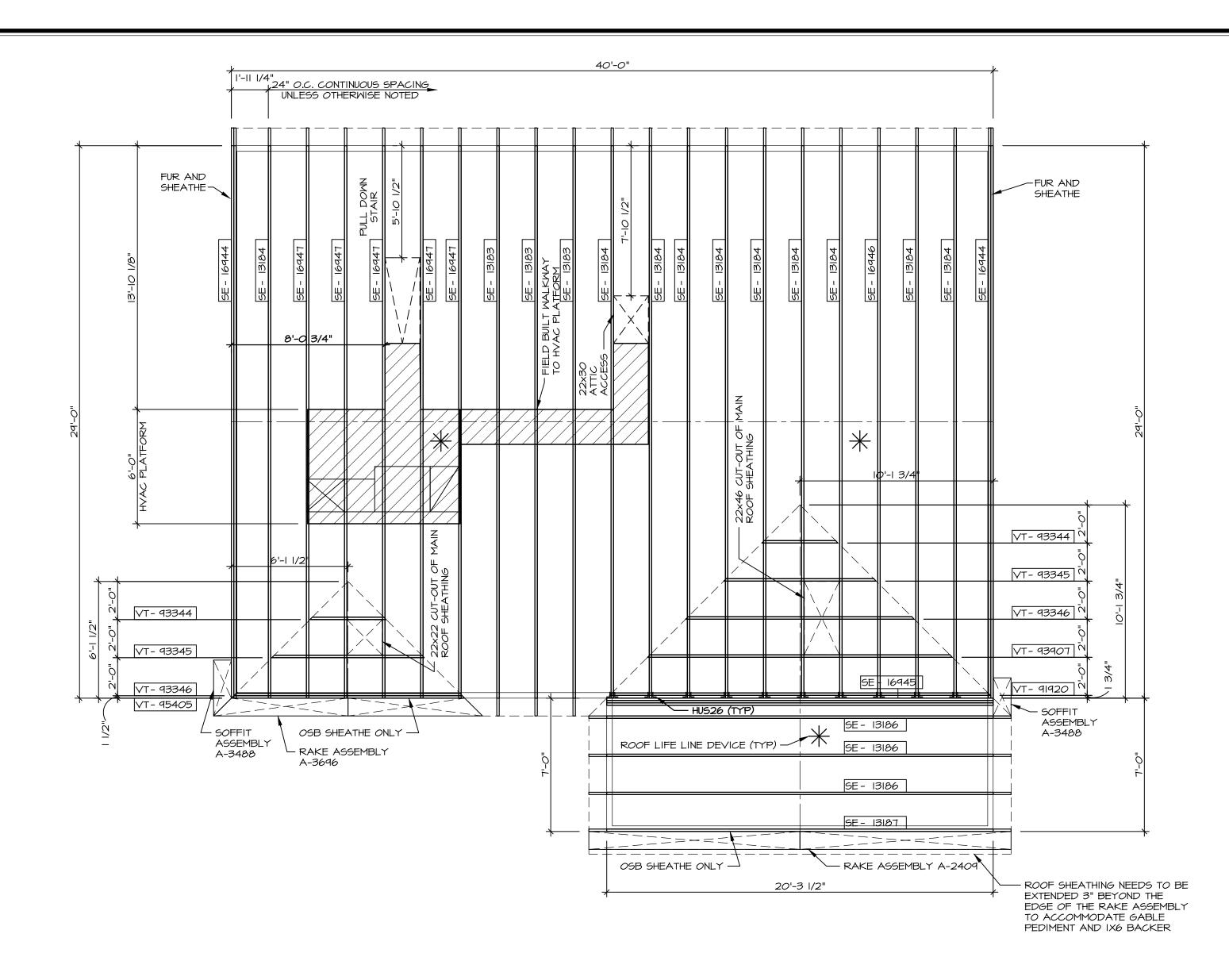
 2AR
 PRI
 60 - II-I4
 39'-9 3/4"
 I046

3'-3 1/8" BEARING ALL BELC

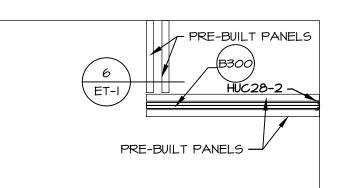
CUT FROM.

PANEL(S).

SECOND FLOOR LVL LENGTH SCHEDULE							
IDENTIFIER	DESCRIPTION	LENGTH	ENG. NUM.	REMARKS			
L201-2	LVL - 11-14	12'-5"	1002	I.A			
L202	LVL - 11-14	3'-2 1/4"	1028				
L203-2	LVL - 11-14	4'-6"	1006	I.A			
L204-2	LVL - 11-14	3'-10"	1004	I.A			







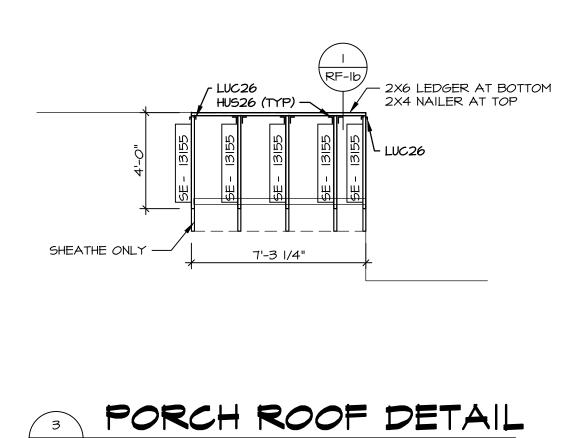


HOUSE	EL	M		۱	VENTILATION VALUES										
SET #	EMN	/IOO	-	SOFFIT: 9.9 sq in of vent per lf											
VERSION	1	-		RIDGE:	18 :	sq in of ven	t per lf								
Insert Row(s	;)			BOX:	45 :	sq in of ven	t per unit								
Location / Options	Area (A)	Required: A/150	Required: A/300	Soffit	Soffit Vent	Ridge	Ridge Vent	Upper box vent	Lower box vent	TOTAL	OK A/150	OK A/300			Notes
	(sq in)	(sq in)	(sq in)	(lf)	(sq in)	(lf)	(sq in)	(qty)	(qty)	(sq in)			ridge	OK?	
BASE HOUSE W/															
ELA,ELF,ELK	187494	1249.96	624.98	73	722.70	14	252.00			974.70	NO	YES	40.32%	ОК	
BASE HOUSE W/ ELB,															
ELL	187494	1249.96	624.98	62	613.80	15	270.00			883.80	NO	YES	43.20%	ОК	
OPT.PARTIAL PORCH															
W/ ELA & STD. PORCH															
W/ ELB,ELF,ELK,ELL	4232	28.21	14.11	7	69.30		0.00			69.30	YES	YES	0.00%	LOW	

QUANTITY SPECS 5 SE 3 SE 10 SE 3 SF 1 SE SF SF VΤ VT VΤ

FIELD INS

IDENTIFIER DE B300 BEAM BUIL



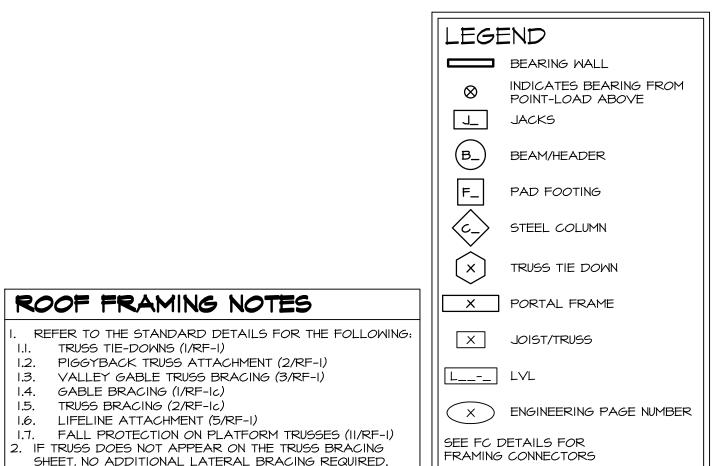
5-3	SCALE: 1/4" = 1'-0"

TRUSS SCHEDULE									
TRUSS NUMBER	LENGTH	ROOF PITCH (X/I2)	REMARKS						
13155	3'-10 1/2"	4/12	-						
13183	29'-0"	6/12	-						
13184	29'-0"	6/12	-						
13186	20'-3 1/2"	6/12	-						
13187	20'-3 1/2"	6/12	-						
16944	29'-0"	6/12	-						
16945	20'-3 1/2"	6/12	GIRDER (3 PLY)						
16946	29'-0"	6/12	-						
16947	29'-0"	6/12	-						
91920	20'-0"	6-6/12	-						
93344	4'-0"	6-6/12	-						
93345	8'-0"	6-6/12	-						
93346	12'-0"	6-6/12	-						
93907	16'-0"	6-6/12	_						
95405	12'-3"	6-6/12	-						

POOF	EDAMING	BEAM/HEADER
ROOI		DLAMALAVLK

SCHEDULE										
DESCRIPTION	LENGTH	ENG. NUM.	REMARKS							
ILT 2X8 - 2 PLY RFF	7'-2 1/2"	1017								

AVID NILLER		THE CARO		6/8/2022	
		A. I.I.I.I.			
			APT. NO. 	ZIP	
	DIV-COMM-LOT-UNIT	сомм-Lот 	STREET ADDRESS	STATE	
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	SET NO. EMMOO VERSION OI	N BY CEL	DN 5285 Westview Drive, Suite 100 Frederick, MD 21703		
NG WALL NTES BEARING FROM -LOAD ABOVE	SET	DRAWN DATE:	OPTION		
HEADER COTING COLUMN TIE DOWN AL FRAME		drawing title ROOF FRAMING	OPTION DESCRIPTION		
ERING PAGE NUMBER FOR CTORS	SHEET NO.	n n N		0 0	_



SHEET, NO ADDITIONAL LATERAL BRACING REQUIRED.

SE-16946

TRUSS BRACING NOTES

- . IF TRUSS DOES NOT APPEAR ON THIS TRUSS BRACING SHEET, NO ADDITIONAL LATERAL BRACING IS REQUIRED.
- REQUIRED.
 IX6 SPF#2 LATERAL BRACES SHALL BE NAILED TO MINIMUM (3) TRUSS MEMBERS WITH MINIMUM (2) IOD NAILS. PROVISIONS MUST BE MADE AT ENDS OR SPECIFIED INTERVALS TO RESTRAIN OR ANCHOR LATERAL BRACING.
 WEB "T" BRACE, DETAIL 3/RF-IC, IS REQUIRED WHERE LATERAL BRACING IS NOT CONTINUOUS ACROSS THREE (3) OR MORE TRUSSES AND MAY BE USED IN LIFU OF IX6 LATERAL BRACING.

- THREE (3) OR MORE TRUSSES AND MAY BE USED IN LIEU OF IX6 LATERAL BRACING.
 4. DIAGONAL BRACING REQUIRED WHEN LATERAL BRACING IS REQUIRED (7/RF-I)
 5. STUDDED GABLE BRACING DETAIL I/RF-IC TO BE UTILIZED FOR TRUSSES 6'-9" IN HEIGHT OR GREATER.
 6. PARTIALLY SHEATHED GABLES, SEE 5/RF-IC FOR "L" BRACING WHEN REQUIRED.
 7. LATERAL BRACING CAN BE APPLIED TO EITHER SIDE OF THE WEB MEMBER IDENTIFIED IN THE DRAWING.
 8. SHEATHING (OSB OR GYPSUM) REPLACES LATERAL AND DIAGONAL TRUSS BRACING.



SE-16947

BRACED WALL LINE SCHEDULE									
WIND SPEED (ULT)	IDENTIFIER	REQUIRED (FT)	ACTUAL (FT)	METHOD					
I30 MPH	BWL 100.00	10.65'	11.65'	CONTINUOUS (WITH GWB)					
I30 MPH	BWL 101.00	14.88'	25.59'	WSP (WITH GWB)					
I30 MPH	BWL 102.00	12.16'	19.68'	WSP (WITH GWB)					
130 MPH	BWL 103.00	15.29'	36.00'	WSP (WITH GWB)					
I30 MPH	BWL 200.00	4.48'	5.36'	CONTINUOUS (WITH GWB)					
130 MPH	BWL 201.00	7.21'	25.50'	WSP (WITH GWB)					
I30 MPH	BWL 202.00	7.76'	23.09'	WSP (WITH GWB)					
I30 MPH	BWL 203.00	7.27'	36.00'	WSP (WITH GWB)					
I30 MPH	BWL 204.00	6.60'	11.30'	CONTINUOUS (WITH GWB)					
I30 MPH	BWL 205.00	5.19'	7.00'	WSP (WITH GWB)					

