NOTICE TO CONTRACTOR

All construction must comply with current NC Building Codes and is subject to field inspection and verification. **APPROVED** Limited building only review
Permit holder responsible for
full compliance with the code 02/18/2021



# BIRCH

| DIV-COMM-LOT-UNIT |       |        |     |
|-------------------|-------|--------|-----|
|                   |       |        |     |
|                   |       |        |     |
| COMM-LOT          |       |        |     |
|                   |       |        |     |
| STREET ADDRESS    |       | APT. I | ١0. |
|                   |       |        |     |
| CITY              | STATE | ZIP    |     |
|                   |       |        |     |

|  | STATE | APT. | . No.  |                     |  | N             | <b>VR</b>                   | CHARLES STREET AND THE CHARLES STREET AND THE CARROLL OF CARROLL O |
|--|-------|------|--|---------------------|--|---------------|-----------------------------|--|
|  |       |      |  | STANDARD<br>DETAILS |  |               | stview Drive,<br>, MD 21703 | Suite 100  |
|  |       |      |  | DR-I                |  |               |                             |  |
|  |       |      | <del>                                     </del> | DR-Ib               |  |               |                             |  |
|  |       |      |  | DR-3<br>ET-lb       |  |               |                             |  |
|  |       |      | + +  | ET-IC               |  |               |                             |  |
|  |       |      | + +  | ET-Id               |  |               |                             | 07467  |
|  |       |      | -  | ET-3                |  |               | or square fo                |  |
|  |       |      |  | F-I                 |  | RIPTION       |                             | TOTAL SQ. FT.<br>640 SF  |
|  | 1     |      | <del>1 1</del>                                   |                     |  | OOR (BASE SF) |                             | 040 DF   <b> </b>  |

DESCRIPTION

DESCRIPTION

TWO CAR GARAGE

2ND FLOOR (BASE SF)

|                                 | SLAB FOUNDATION |  |  |  |  |  |  |   |  |   |  |  |   |                                       |  |
|---------------------------------|-----------------|--|--|--|--|--|--|---|--|---|--|--|---|---------------------------------------|--|
|                                 | <u> </u>        |  |  |  |  |  |  |   |  |   |  |  |   |                                       | В  |
|                                 | STD. DW         |  |  |  |  |  |  |   |  |   |  |  |   |                                       | STANDAR<br>DETAILS                               |
| SPEC SHEET                      | 55-I            |  |  |  |  |  |  |   |  |   |  |  |   |                                       | DR-Ib  |
| ROOF VENT AND CALCULATION SHEET | CA-I            |  |  |  |  |  |  |   |  |   |  |  | +                                       |                                       | DR-3   |
| ELEVATIONS FOUNDATION           | 8               |  |  |  |  |  |  |   |  |   |  |  |   |                                       | ET-lb  |
| FOUNDATION HOLD DOWN DETAILS    | 13              |  |  |  |  |  |  |   |  |   |  |  |   |                                       | ET-la  |
| PLUMBING                        | 14              |  |  |  |  |  |  |   |  |   |  |  |   |                                       | ET-la  |
| FIRST FLOOR PLAN                | 17              |  |  |  |  |  |  |   |  |   |  |  |   |                                       | ET-S   |
| SECOND FLOOR PLAN               | 18              |  |  |  |  |  |  |   |  |   |  |  |   | · · · · · · · · · · · · · · · · · · · | F-I  |
| BUILDING SECTIONS               | 19              |  |  |  |  |  |  |   |  |   |  |  |   |                                       | FA-I   |
| SECOND FLOOR FRAMING            | 28              |  |  |  |  |  |  |   |  |   |  |  | + + +                                   |                                       | FC-  |
| ROOF FRAMING TRUSS BRACING      | 30<br>32        |  |  |  |  |  |  |   |  |   |  |  | + + +                                   |                                       | FC-  |
| WALL BRACING DETAILS            | 33              |  |  |  |  |  |  |   |  |   |  |  |   |                                       | FC-  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  | + |                                       | FD-  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       | FD-I   |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       | FD-4   |
|                                 | 1               |  |  |  |  |  |  |   |  |   |  |  |   |                                       | GB-  |
|                                 | 1               |  |  |  |  |  |  |   |  |   |  |  | + + +                                   |                                       | IT-I   |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  | + + +                                   |                                       | JT-lk  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  | + + +                                   |                                       | JT-II  |
|                                 |                 |  |  |  |  |  |  |   |  | + |  |  | + |                                       | JT-2   |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       | 2-TL<br>3-TL<br>8-TL                             |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       |  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       | KT-  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   | · · · · · · · · ·                     | RF-I   |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  | + + +                                   |                                       | RF-I   |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       | RF-I   |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       | SEP-   |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       | SEP-   |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       | SEP-   |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       | SP-  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       | SP-2   |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   | · '                                   | SP-3   |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  | + + +                                   | , <del></del> '                       | 5T-<br>WB-:                                      |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  | + + +                                   | · · · · · · · · · · · · · · · · · · · | ND-  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   | ,                                     | MD-  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   | <u> </u>                              | M5-1   |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       |  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       |  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  | +                                       |                                       |  |
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|                                 |                 |  |  |  |  |  |  |   |  |   |  |  | + + +                                   |                                       |  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  | + + +                                   |                                       |  |
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|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       |  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       | <u> </u>   |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  | + |                                       | _  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  | + + +                                   |                                       | _  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  | + + +                                   |                                       |  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  | + + +                                   |                                       |  |
|                                 | 1               |  |  |  |  |  |  |   |  | _ |  |  | <u> </u>                                |                                       |  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       |  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       | <u> </u>   |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  | +                                       |                                       | _  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  | + + +                                   |                                       | _  |
|                                 | 1               |  |  |  |  |  |  |   |  |   |  |  | + + +                                   |                                       | <del>                                     </del> |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  | + + +                                   |                                       |  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  | + + +                                   |                                       |  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  | <u> </u>                                |                                       |  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       |  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       | $\perp$  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  |   |                                       |  |
|                                 |                 |  |  |  |  |  |  |   |  |   |  |  | + + +                                   |                                       | _  |
|                                 | 1               |  |  |  |  |  |  | - |  |   |  |  | +                                       | · · · · · · · · · · · · · · · · · · · |  |

| total finished square footage |               |  |  |  |  |  |
|-------------------------------|---------------|--|--|--|--|--|
| DESCRIPTION                   | TOTAL 5Q. FT. |  |  |  |  |  |
| IST FLOOR (BASE SF)           | 640 SF        |  |  |  |  |  |
| 2ND FLOOR (BASE SF)           | 1040 SF       |  |  |  |  |  |
|                               | 1680 SF       |  |  |  |  |  |
|                               |               |  |  |  |  |  |

SECOND FLOOR SQUARE FOOTAGE

garage square footage

SET - VERSION
BRHOO - O

CS-1

640 SF

TOTAL SQ. FT.

1040 SF 1040 SF

TOTAL SQ. FT.

400 SF

400 SF



# HOUSE VOLUME CALCULATIONS

| N N Manufer Manufer Applier Newson 16. | The States That I have The I have The There I have |  |
|--|---|--|
| HOUSE NAME                             | BIRCH   |  |
| HOUSE VERSION                          | BRH00-01  |  |

NVR - Business Use Only

**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 "A"            |                      |                    |                        |  |  |  |
|--------------------------|----------------------|--------------------|------------------------|--|--|--|
| Location / Area of house | Floor Area (sq. ft.) | Mean height (ft.)  | Total volume (cu. Ft.) |  |  |  |
| Left side of the house   | 640.00               | 21.45              | 13730                  |  |  |  |
| Right side of the house  | 400.00               | 19.95              | 7981                   |  |  |  |
|                          |                      | Total House Volume | 21711                  |  |  |  |

| ELEVATION "B", "L"       |                      |                   |                       |  |  |  |
|--------------------------|----------------------|-------------------|-----------------------|--|--|--|
| Location / Area of house | Floor Area (sq. ft.) | Mean height (ft.) | Total volume (cu. Ft. |  |  |  |
| Left side of the house   | 640.00               | 21.45             | 13730                 |  |  |  |
| Right side of the house  | 400.00               | 19.95             | 7981                  |  |  |  |
| Porch on front of house  | 24.00                | 8.90              | 214                   |  |  |  |
|                          |                      | Total House Volum | ≥ 21925               |  |  |  |

| ELEVATION "K"            |                      |                   |                        |  |  |  |
|--------------------------|----------------------|-------------------|------------------------|--|--|--|
| Location / Area of house | Floor Area (sq. ft.) | Mean height (ft.) | Total volume (cu. Ft.) |  |  |  |
| Left side of the house   | 640.00               | 21.45             | 13730                  |  |  |  |
| Right side of the house  | 400.00               | 19.95             | 7981                   |  |  |  |
| Porch on front of house  | 24.00                | 8.49              | 204                    |  |  |  |
|                          |                      | Total House Volum | e 21915                |  |  |  |

| Location / Area of house / option              | Floor Area (sq. ft.) | Mean height (ft.) | Total volume (cu. Ft.) |
|--|----------------------|-------------------|------------------------|
| Partial Front Porch "EPB" W/ Elevation A "ELA" | 24.00                | 8.49              | 204                    |
| Full Basement "FBA"                            | 640.00               | 8.61              | 5513                   |
| Crawl space "FCA"                              | 640.00               | 0.80              | 512                    |



|                   |          | APT. NO.           | - | ZIP   |   |
|-------------------|----------|--------------------|---|-------|---|
| !                 |          |                    |   | STATE | ! |
| DIV-COMM-LOT-UNIT | COMM-LOT | <br>STREET ADDRESS |   | CITY  |   |

| F 0:= ₹ 0 ¥ 0 € 0 |  |  |  |  |  |
|-------------------|--|--|--|--|--|
|                   |  |  |  |  |  |
| NVR               | NVR, Inc.<br>5285 Westview Drive, Suite 100<br>Frederick, MD 21703 |  |  |  |  |

| DRAWN BY | DATE: | OPTION  |  |
|----------|-------|---------|--|
|          |       |         |  |
| ш        |       | RIPTION |  |

#### 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.
- . These plans are subjected to modification as necessary to meet code requirements or to facilitate mechanical/plumbing installations or to incorporate design
- 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.
- 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

NCEC 2018, NCFPC 2018

- 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 2017 w/ NC Amendments,
- 2. Use Group: R-3
- 3. Constr. Type: V-B
- 4. Max. Stories: 3

#### ENERGY AND MECHANICAL

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<br>ZONE | FENESTRATION<br>U-FACTOR | GLAZED<br>FENESTRATION<br>SHGC | CEILING<br>R-VALUE | FRAME WALL<br>R-VALUE<br>2x4 / 2x6 | FLOOR<br>R-VALUE | BASEMENT<br>WALL<br>R-VALUE<br>UNFIN. / FIN. | SLAB<br>R-VALUE<br>& DEIPTH | CRAWL<br>SPACE<br>WALL<br>R-YALUE |
|-----------------|--------------------------|--------------------------------|--------------------|------------------------------------|------------------|--|-----------------------------|-----------------------------------|
| 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
- . 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 Minimum 9.9 sq. in. of vent per linear foot Roof lack (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 3015

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

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

by calculations IO# 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 - IO# P.S.F. (Dead) - Bottom Chord - 10# P.S.F. (Live) (Attics without storage)

- 20# P.S.F. (Live) (Attics with limited storage) IO# P.S.F. (Dead)

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

contour lines permitted.

Vult | 115 mph | 130 mph Vasd 89 mph 101 mph Note: Linear interpolation between

- 40# P.S.F. (LIVe) Stairs - IO# P.5.F. (Dead)

Allowable deflection of structural members per IRC Table R301.7

### <u>Design Criteria</u>

- National Design specification for Wood Construction by National Forest
- Specification for the Design Fabrication and Erection of Structural Steel for <u>Buildings</u> by American Institute of Steel Construction.

Headers\* Southern Pine (KD-19), No. 1 Grade

Spruce-Pine-Fir, Stud Grade Spruce-Pine-Fir, Stud Grade

Beams\*\* Southern Pine (KD-19), No. 1 Grade 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) 1.9E Minimum

\* 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 R4022. 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. 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 2500 PSI per Table R402.2.
- 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 I vapor retarder, in which case the minimum net area of ventilation shall not be less than I 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.I.
- 9. The top course of block of foundation walls shall be semi-solid block or open cores of hollow
- 10. Block piers to be solid block or mortar-filled hollow block.

block shall be filled with mortar.

- 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 m'e'mbrane shall be lapped and sealed with an adh'esive compatible with the waterproofing membrane. Waterproofing to be in accordance with R406.2.
- 14. 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 Tablé R402.2.
- 15. Foundation framing anchors shall be 1/2"x18" anchor bolts with 7" minimum embedment or Simpson Strong-Tie MASA / USP FA3 (16 gauge steel, galvanized) or equivalent set in concrete or arouted 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" x 3" x 3" plate washer per R403.1.6.1 and maximum anchor bolt spacing for buildings
- 16. Steel columns and bases shall be given a shop coating of rust-inhibitive paint or equivalent to provide corrosion resistance per £407.2.
- 17. For masonry veneers:

Per R703.B.4.I - 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 tle 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 R703.6.5 - 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 Flashina Details.

- 18. Porch slab and exterior concrete work shall be nominal 4" minimum #3500 air entrained concrete w/ 6x6 #10 M.W.M unless otherwise noted as specified by engineering.
- Foundation wall strip footing thickness to be 8" (or 6" with a single story) unless otherwis 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 requiréments of Section R404 are met.
- 21. Termite treatment provided below slabs or to framing members per R318.1

# FOUNDATION WALL DESIGN(c) NCRBC PRESCRIPTIVE CODE OR ENGINEERED DESIGN PER ACI 332

| MALL<br>HEIGHT | WALL<br>THICKNESS | LATERAL SOIL<br>LOAD (a) | UNBALANCED<br>FILL | VERTICAL<br>REINFORCING (b) | HORIZONTAL<br>REINFORCING (b) |                 |                          |
|----------------|-------------------|--------------------------|--------------------|-----------------------------|-------------------------------|-----------------|--------------------------|
|                |                   | 45                       | 6'-0"              | NOT REQUIRED                | 2- #4 BAR5 (f)                |                 |                          |
|                | <b>8</b> "        | <del>- 40</del>          | 7'-0"              | NOT REQUIRED (d)            | 3- #4 BARS (d,e)              |                 |                          |
|                | <i>5</i>          | 60                       | 6'-0"              | NOT REQUIRED (d)            | 3- #4 BARS (dø)               |                 |                          |
| 8'-0"          |                   | 60                       | 7'-0"              | #4 <b>9</b> 22" O.C. (d)    | 3- #4 BARS (dø)               |                 |                          |
|                | lOª               | AE.                      | 6'-0"              | NOT REQUIRED                | 2- #4 BAR5 (f)                |                 |                          |
|                |                   | 45                       | 7'-0"              | NOT REQUIRED                | 2- #4 BARS (F)                |                 |                          |
|                |                   | 60                       | 6'-0"              | NOT REQUIRED                | 2- #4 BAR5 (f)                |                 |                          |
|                |                   |                          | 7'-0"              | NOT REQUIRED                | 2- #4 BARS (F)                |                 |                          |
|                | <b>8</b> *        | δ'                       | 7'-0"              | NOT REQUIRED (d)            | 4- #4 BARS (de)               |                 |                          |
|                |                   |                          | 8'-0"              | #4 <b>ø</b> 19" O.C. (d)    | 4- #4 BAR5 (dø)               |                 |                          |
|                |                   | J                        | 60                 | 7'-0"                       | #4 @ 19" O.C. (d)             | 4- #4 BARS (dø) |                          |
| <br>  q'-0"    |                   | 60                       | 8'-0"              | #4 <b>e</b> 15" O.C. (d)    | 4- #4 BARS (dø)               |                 |                          |
|                | 10°               | A)=                      | 7'-0"              | NOT REQUIRED                | 3- #4 BARS (g)                |                 |                          |
|                |                   | 45                       | Ð'-O*              | NOT REQUIRED (d)            | 4- #4 BAR5 (dø)               |                 |                          |
|                |                   | 60                       | 7'-0"              | NOT REGUIRED (d)            | 4- #4 BARS (dø)               |                 |                          |
|                |                   |                          |                    |                             |                               | 8'-0"           | #4 <b>e</b> 19" O.C. (d) |

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

a. SOIL CLASSES GM, GC, SM, SM-SC AND ML - 45 PSF

UNLESS WALLS ARE ADEQUATELY BRACED.

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

### PLANS

- I. 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. 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 sa 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 R31023 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 **R3**IO.2.3.I.
- 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'-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 R3**11.7. Enclosed accessible space under stairs shall have walls, under stair surface and any soffits protected on the enclosed side with 1/2" aupsum board per
- 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 earess door are not at arade, 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.
- 1). Wood framed walls assumed to be 2 x 4 stud construction unless otherwise noted on plans. Bearing walls shall have stude 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.

| <ul> <li>All screws sha</li> </ul> | ll be corrosion-resist | ant Type W | 1-1/4" drywall screw | 15.                 |
|------------------------------------|------------------------|------------|----------------------|---------------------|
|                                    | SCF                    | REW FAS    | TENING SCHEL         | DULE                |
|                                    |                        | MI         | TH ADHESIVE          |                     |
|                                    | Framina Spacina        | Ceilinas   | Load-bra, walls      | Non-load-bra, walls |
|                                    | 16 '                   | 16         | 24                   | 24                  |
|                                    | 24                     | 16         | 16                   | 24                  |
|                                    | WITHOUT ADHESIVE       |            |                      |                     |
|                                    | Framing Spacing        | Ceilings   | Load-brg. walls      | Non-load-brq. walls |
|                                    | 16                     | 12         | 16                   | 16                  |
|                                    | 2 <del>4</del>         | 12         | 12                   | 12                  |
|                                    |                        |            |                      | i                   |

- For I/2" wallboard, nails shall be I-I/4" long, I/4" head and .096 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" aupsum board applied to the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 578" 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" qupsum board per Section R302.6. Openings and penetrations through the separation shall be protected by sealing the area around the penetration per Section R3025. 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 RÁO5.I.I Exception #I.
- 19. Attic spaces shall be ventilated w/ ridge and soffit vents unless otherwise noted. Venting provided per
- 20. Fireblocking shall be installed between ceiling and floor openings per R302.II. 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**.l
- 22. Heating and cooling equipment installation shall be in accordance with IRC Chapter 14 and the International
- 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 6" 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 R3I7.
- 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 I 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 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. 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

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 R302.25 and R302.26. 33. I-hour fire-rated construction required on projections within 2' to 3' of lot line per **R302.**I. No projections

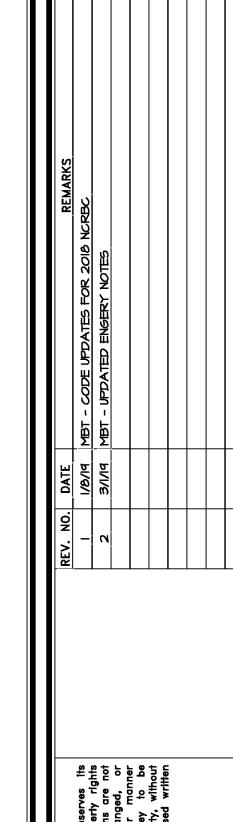
nominal 2-inch continuous or equivalent intermittent and shall not exceed the minimum net free air

- 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" tonque 🕏 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

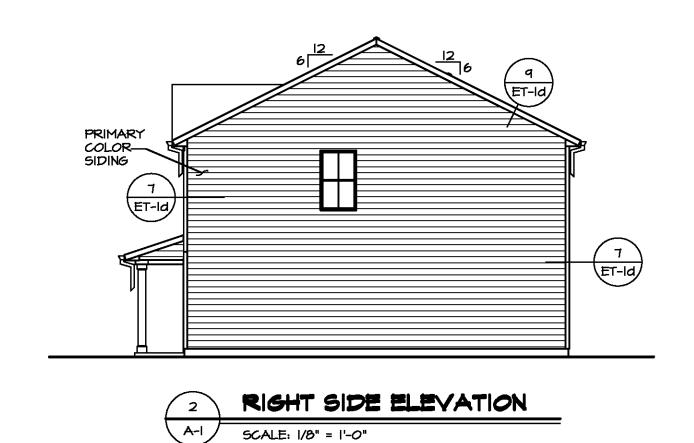
- I. Ground-fault and arc-fault circuit interrupter protection is provided per NFPA 70 (National Electric Code).
- 2. Electric panel box installation to be in accordance with NFPA 70, Article 408 Section III. Location may vary by design.
- 3. Approved smoke detectors shall be installed in each sleeping 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 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 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 Ifc 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.

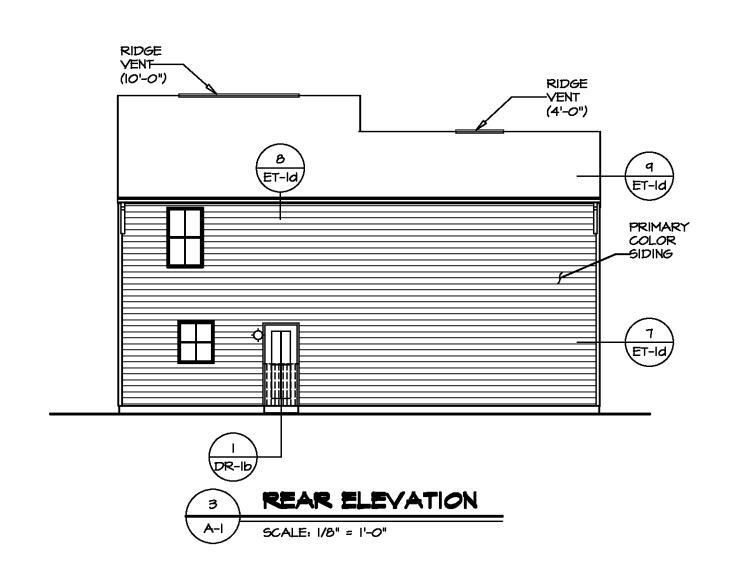


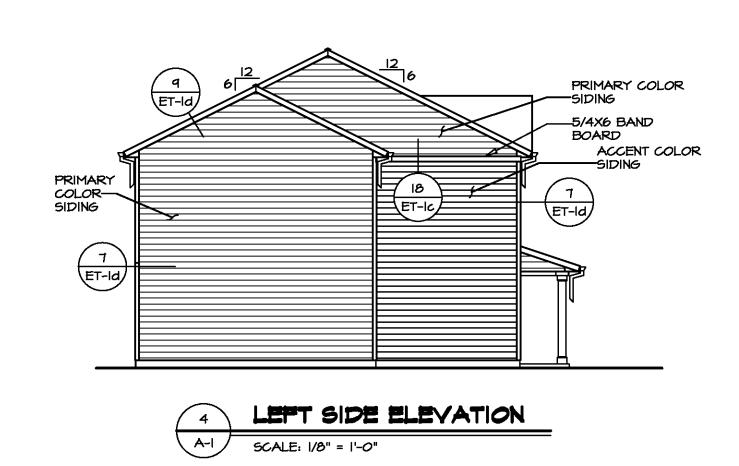


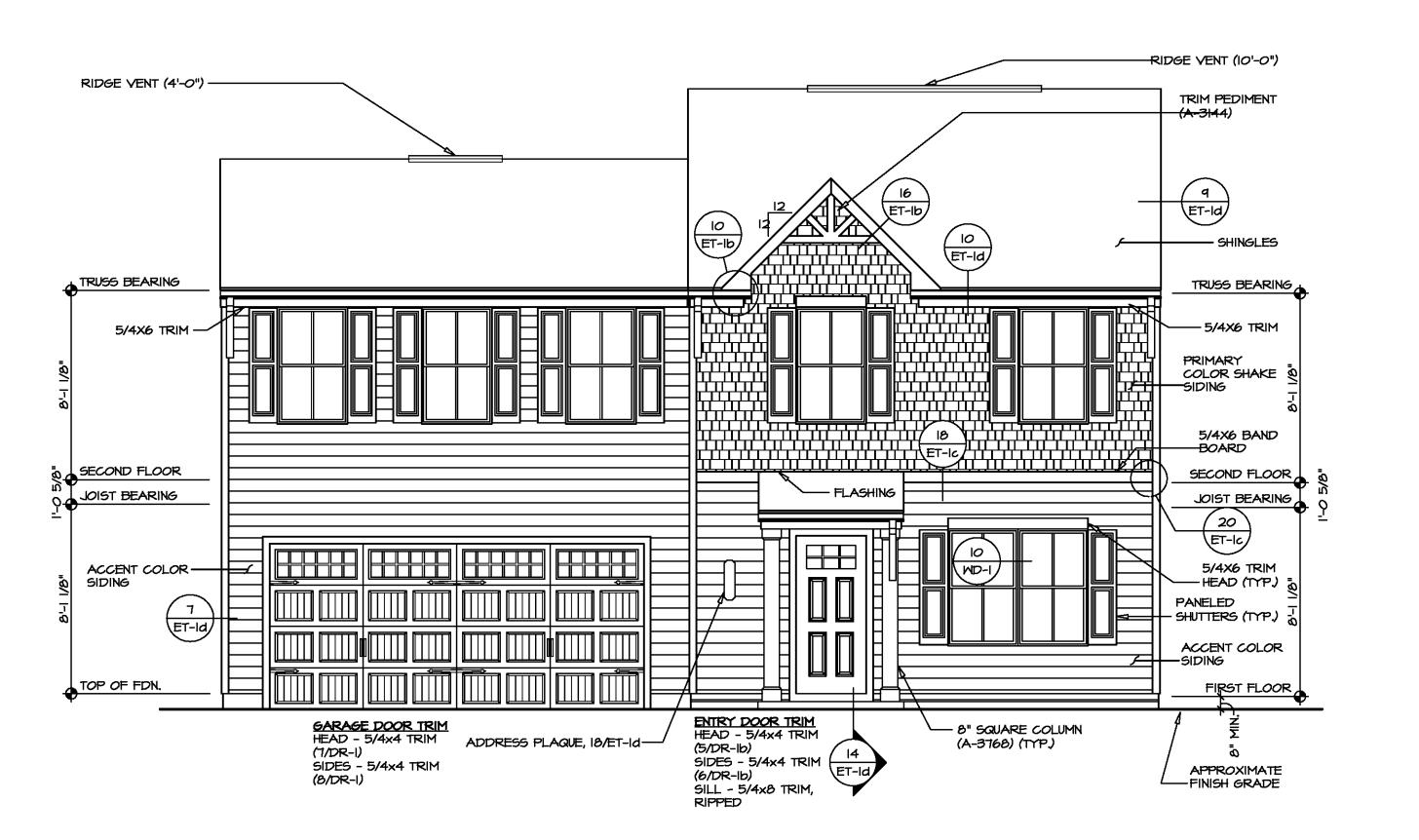
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FRONT ELEVATION "K"

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

| COMM-LOT   STREET ADDRESS   CITY  CITY  STATE  ZIP                | SHEET NO. | MODEL BIRCH                                   | SET NO. BRHOO<br>VERSION OI |  | ©NVR, Inc., The owner, expressly reserves its copyright and other property rights   | DIV-COMM-LOT-UNIT |          | CHARLES OF THE LEGISTERS |
|---|-----------|---|-----------------------------|--|---|-------------------|----------|--------------------------|
| NVR, Inc.    S285 Westview Drive, Suite 100   Frederick, MD 21703 | <u>_</u>  | DRAWING TITLE ELEVATIONS                      | DRAWN BY                    | N V IV   | in these plans. These plans are not to be reproduced, changed, or copied in any form or manner whatsoever, nor are they to be | COMM-LOT          |          | MON                      |
| CITY STATE ZIP  |           | OPTION DESCRIPTION SLAB FOUNDATION MONOLITHIC | NOTION ME                   | NVR, Inc.<br>5285 Westview Drive, Suite 100<br>Frederick, MD 21703 | assigned to any third party, without first obtaining the expressed written consent of NVR, Inc.                               | STREET ADDRESS    | APT. NO. |                          |
|   | 4         |   |                             |  |   | CITY              |          | STOOTS STOOTS            |
|   |           |   |                             |  |   | 1 1 1 1           |          | 1/27/2021                |

|            | PAD FOOTING SCHEDULE |            |               |           |         |  |  |  |
|------------|----------------------|------------|---------------|-----------|---------|--|--|--|
| IDENTIFIER | LENGTH               | MIDTH      | HEIGHT        | ENG. NUM. | REMARKS |  |  |  |
| FOOI       | l' <del>-4</del> "   | 13'-3 1/4" | O'-8"         | 50001     |         |  |  |  |
| F008       | 2'-0"                | 2'-0"      | ' <b>-0"</b>  | 1017      |         |  |  |  |
| F009       | 2'- <b>0"</b>        | 2'-0"      | l' <b>-0"</b> | 1017      |         |  |  |  |

| 1 | FOUNDATION DIAGONALS |   |              |  |  |  |  |
|---|----------------------|---|--------------|--|--|--|--|
|   | Α                    | В |              |  |  |  |  |
|   | 32'-0"               |   | 44'-8 11/16" |  |  |  |  |
|   | 51'-2 11/16"         |   | 20'-0"       |  |  |  |  |
| Α | 0"                   | Α | 41'-9 1/8"   |  |  |  |  |
| Α | 0"                   | Α | 41'-9 1/8"   |  |  |  |  |
| Ð | 41'-9 1/8"           | В | 0"           |  |  |  |  |
| v | 51'-2 11/16"         | v | 20'-0"       |  |  |  |  |
| D | 32'-0"               | D | 44'-8 11/16" |  |  |  |  |
| E | 20'-0"               | E | 23'-3 7/8"   |  |  |  |  |
|   |                      |   | <u>'</u>     |  |  |  |  |

# FOUNDATION NOTES - SLAB

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

# LEGEND

BEARING WALL

NON BEARING WALL

INDICATES BEARING FROM POINT-LOAD ABOVE

JACKS

BEAM/HEADER

PAD FOOTING

STEEL COLUMN

X PORTAL FRAME

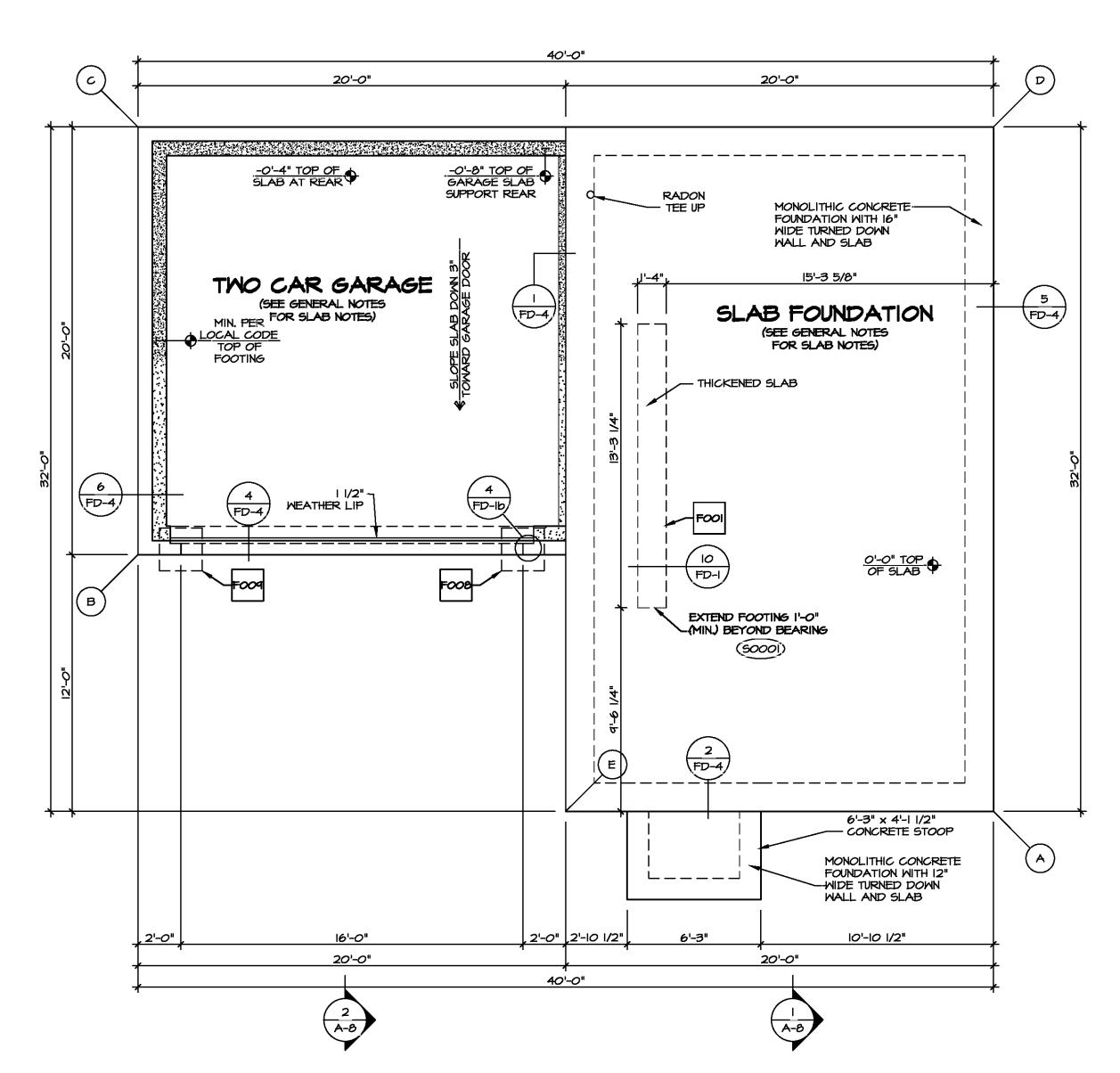
X JOIST/TRUSS

\_\_\_\_ LVL

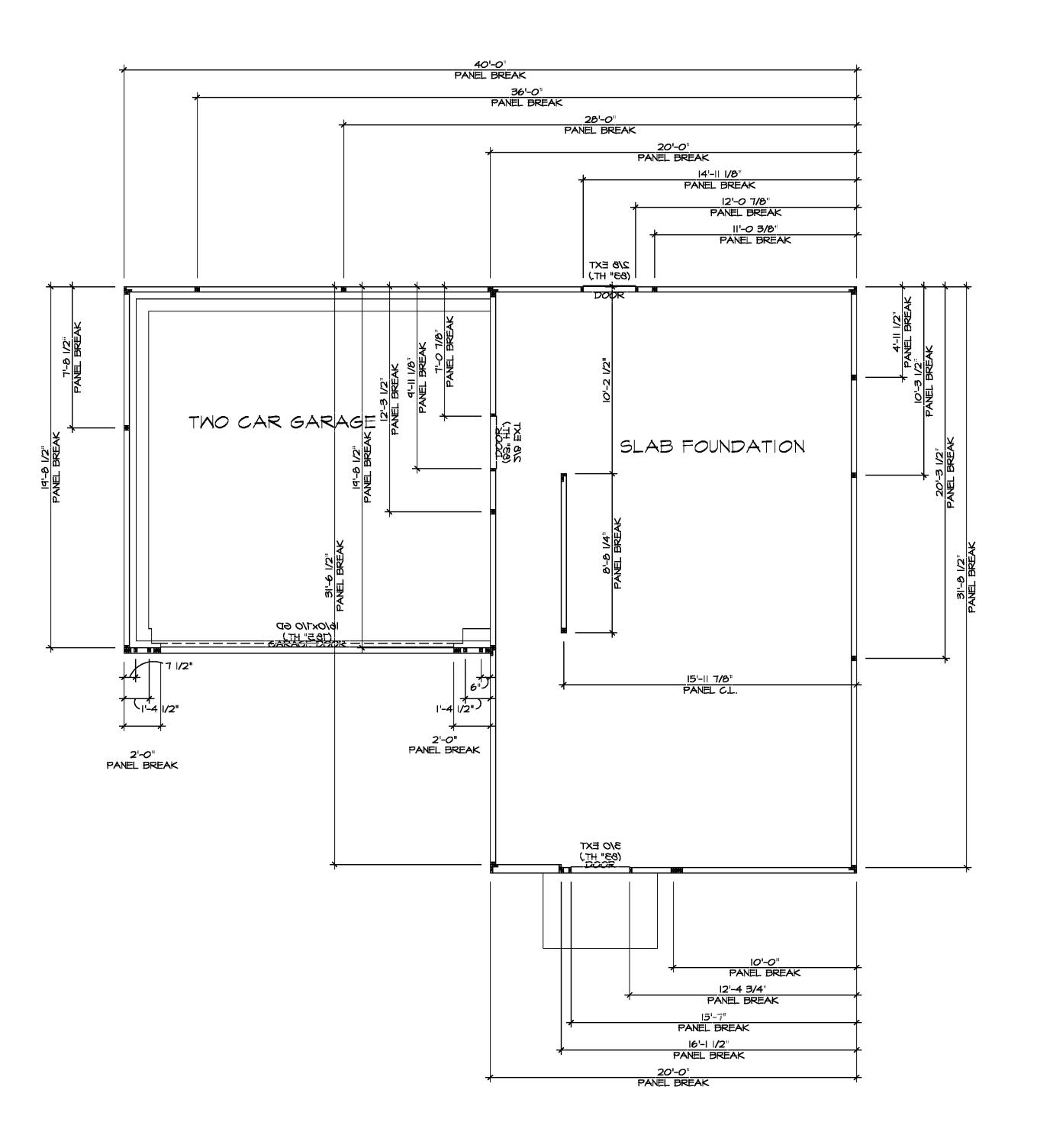
X ENGINEERING PAGE NUMBER

TRUSS TIE DOWN

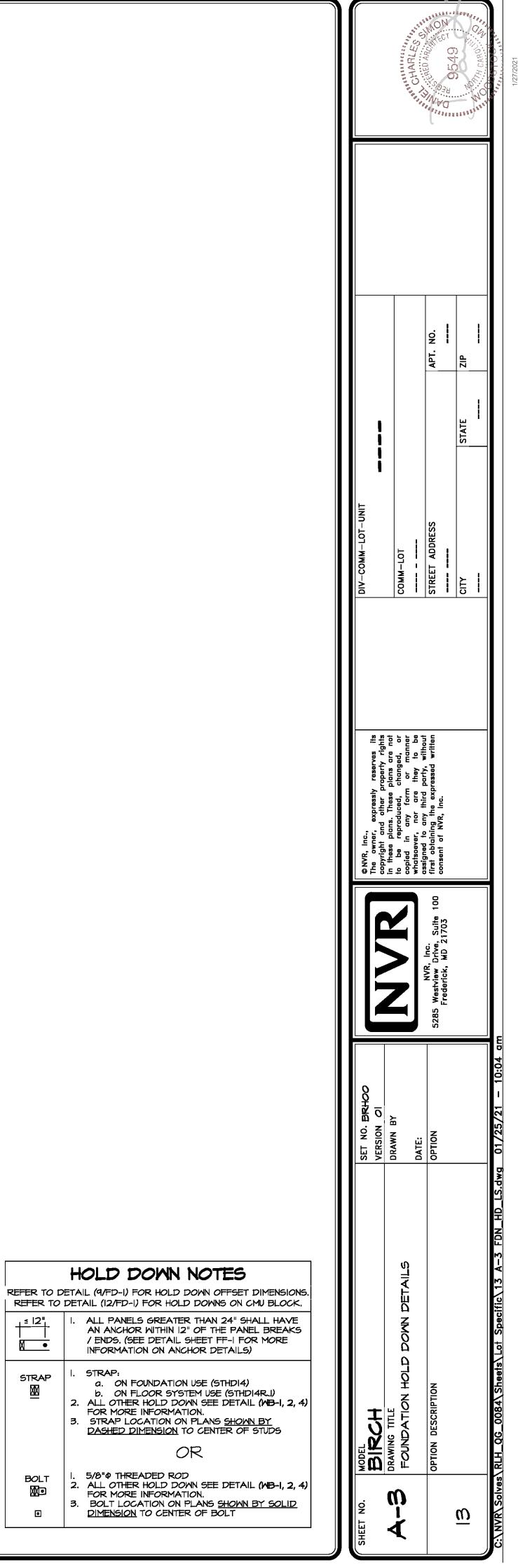
SEE FC DETAILS FOR FRAMING CONNECTORS



FOUNDATION PLAN A-2 SCALE: 1/4" = 1'-0"







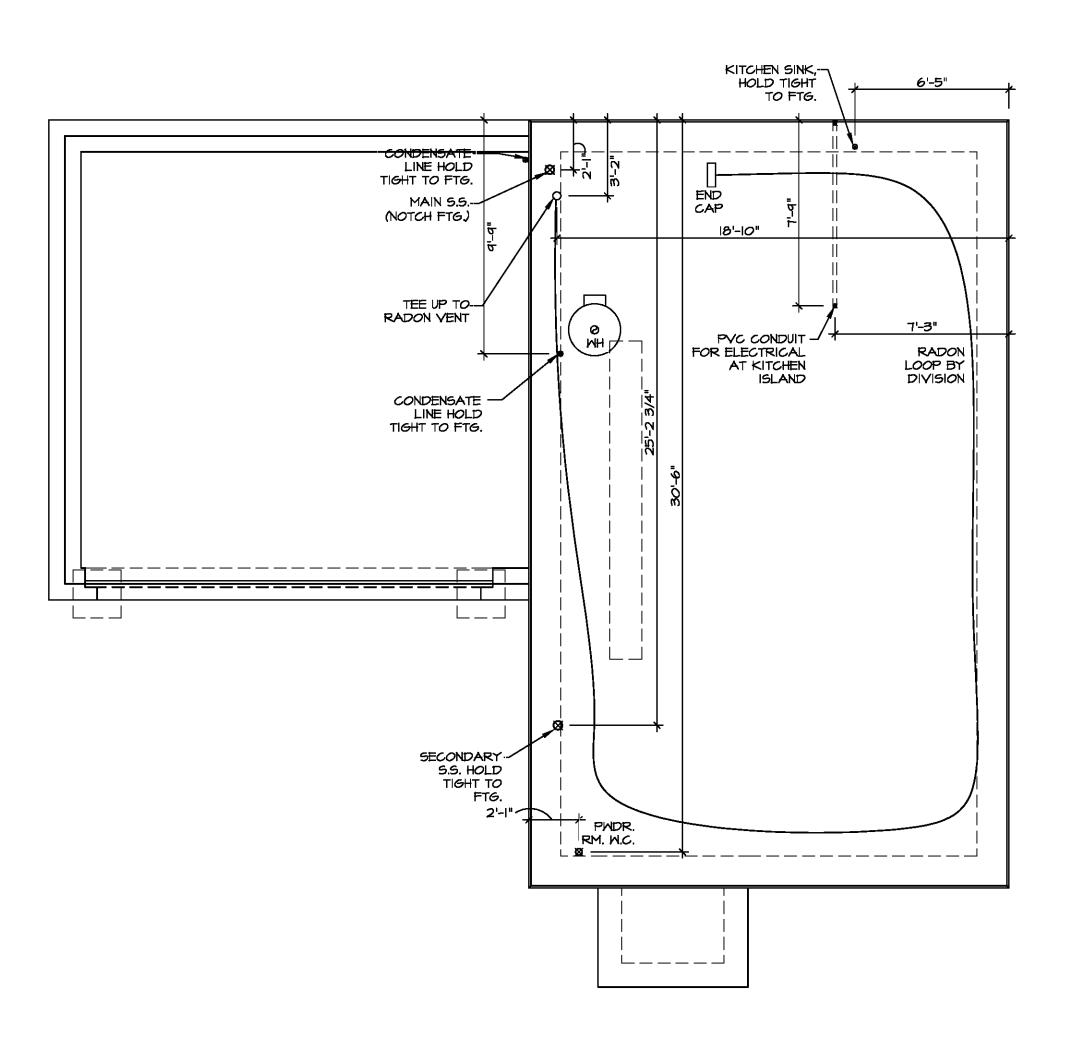
HOLD DOWN NOTES

INFORMATION ON ANCHOR DETAILS)

**M** •

STRAP

# INSTALLATION OF RADON STACK AND LOOP TO BE DETERMINED BY DIVISION





|  |   | S S S S S S S S S S S S S S S S S S S   | ************************************** |
|--|---|---|--|
|  |   | APT. NO.  | ZIP                                    |
|  |   |   | STATE                                  |
| DIV-COMM-LOT-UNIT  | COMM-LOT  | STREET ADDRESS  | CITY<br>                               |
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| BRHOO<br>OI  |   |   |  |

| SET NO. BRHOO |
|---------------|
| VERSION OI    |
| DRAWN BY      |
| DATE:         |
| OPTION        |
|               |
|               |

| FIR              | ST FLOOR JACK SCHED           | JLE       |
|------------------|-------------------------------|-----------|
| IDENTIFIER       | DESCRIPTION                   | ENG. NUM. |
| OOIL             | JACK - (4) 2X4 SPF STUD GRADE | 1004      |
| IOIL             | JACK - (2) 2X4 SPF STUD GRADE | 1002      |
| JI02             | JACK - (3) 2X4 SPF STUD GRADE | 1015      |
| JIOB             | JACK - (3) 2X4 SPF STUD GRADE | 1015      |
| JIO4             | JACK - (4) 2X4 SPF STUD GRADE | 1004      |
| JI <i>0</i> 5    | JACK - (2) 2X4 SPF STUD GRADE | 1008      |
| 710 <del>6</del> | JACK - (2) 2X4 SPF STUD GRADE | 1008      |

### FLOOR PLAN NOTES

- ALL HEADERS ARE (2) 2x6 w/ 2x4 WALLS OR (3) 2x6 w/ 2x6 WALLS, UNLESS OTHERWISE NOTED.
   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 I/2"
  W/ LAMINATED FIBROUS STRUCTURAL SHEATHING, ALL
  INTERIOR WALLS TO BE 3 I/2", UNLESS OTHERWISE NOTED.

  4. HATCHED AREAS INDICATE DROPPED CEILINGS. ALL
  DROPPED CEILINGS ARE I2" UNLESS OTHERWISE NOTED.

  5. SEE "BRACED WALL PANEL DETAIL SHEET" FOR SPECIAL
  WALL FRAMING LOCATIONS AND HEADER SIZES, IF
- 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 HEADERS IN NON-BEARING WALLS SHALL BE A SINGLE FLAT 2X4 OR 2X6 ATTACHED TO CRIPPLES ABOVE, UNLESS OTHERWISE NOTED.

  9. TANKED WATER HEATER SHOWN AS BASE CONDITION, OPTIONAL TANKLESS WATER HEATER IS AVAILABLE IN

# GYPSUM NOTES

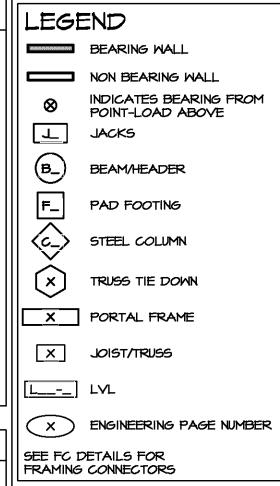
LIEU OF TANKED WATER HEATER.

AT GARAGE:

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

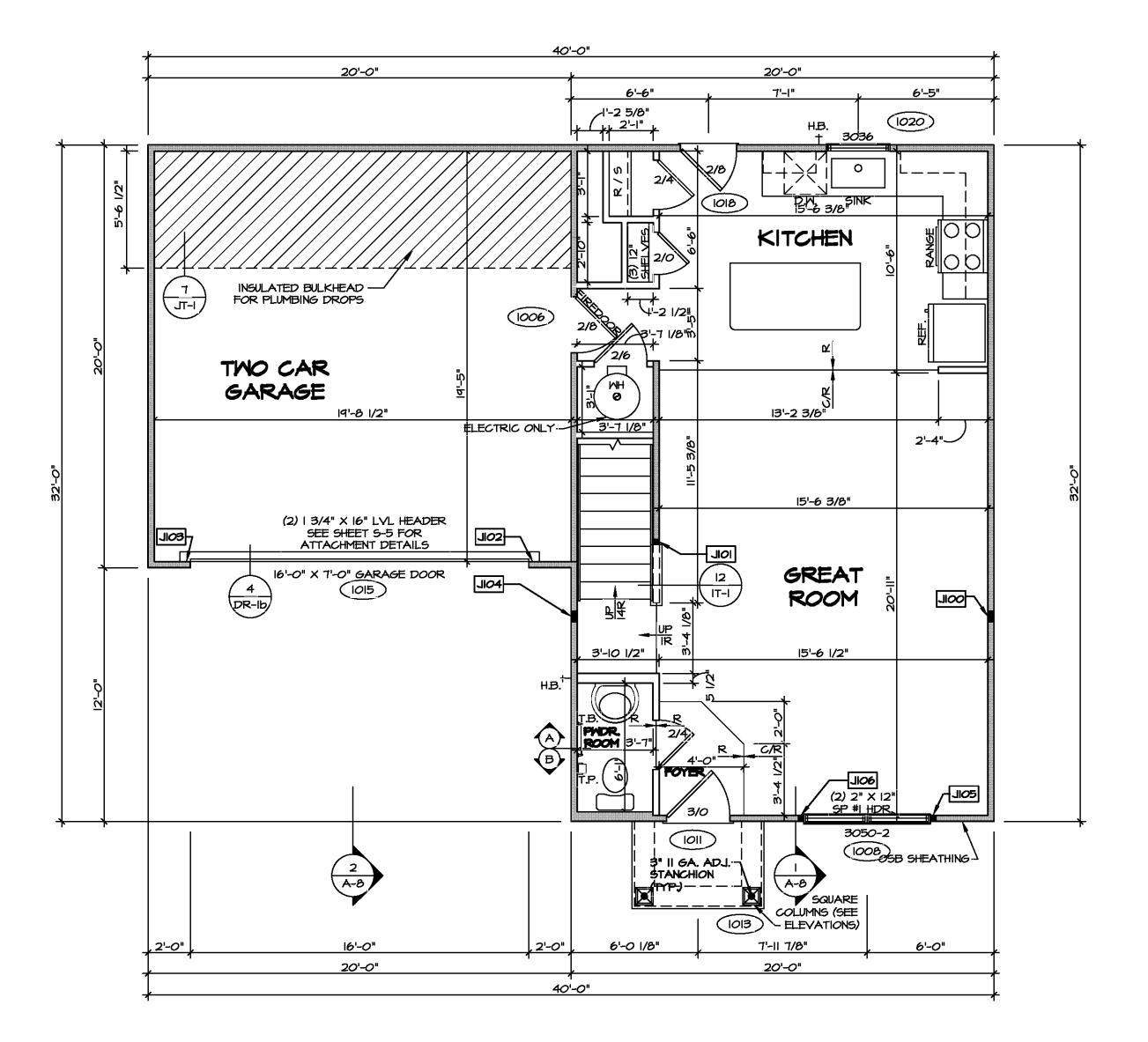
AT STAIRS:

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

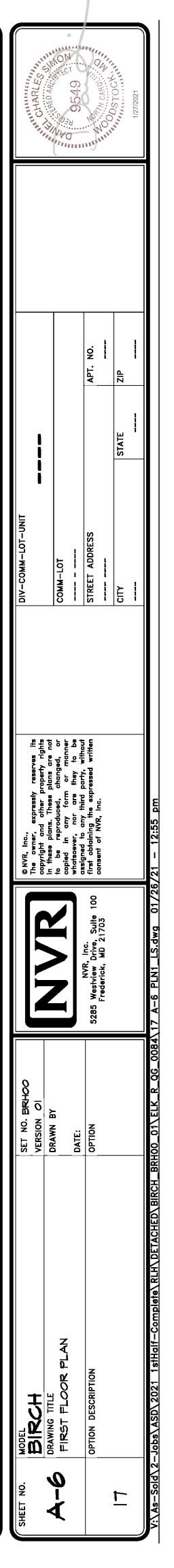


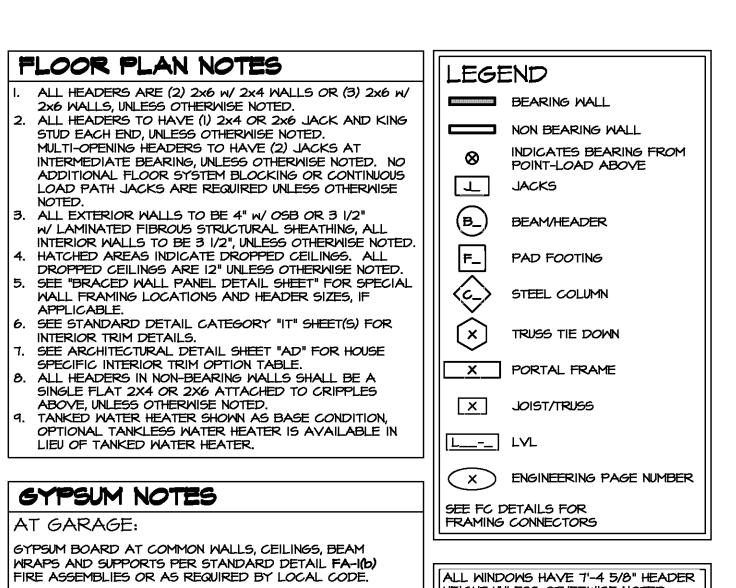
ALL WINDOWS HAVE 7'-0 1/2" HEADER

HEIGHT UNLESS OTHERWISE NOTED





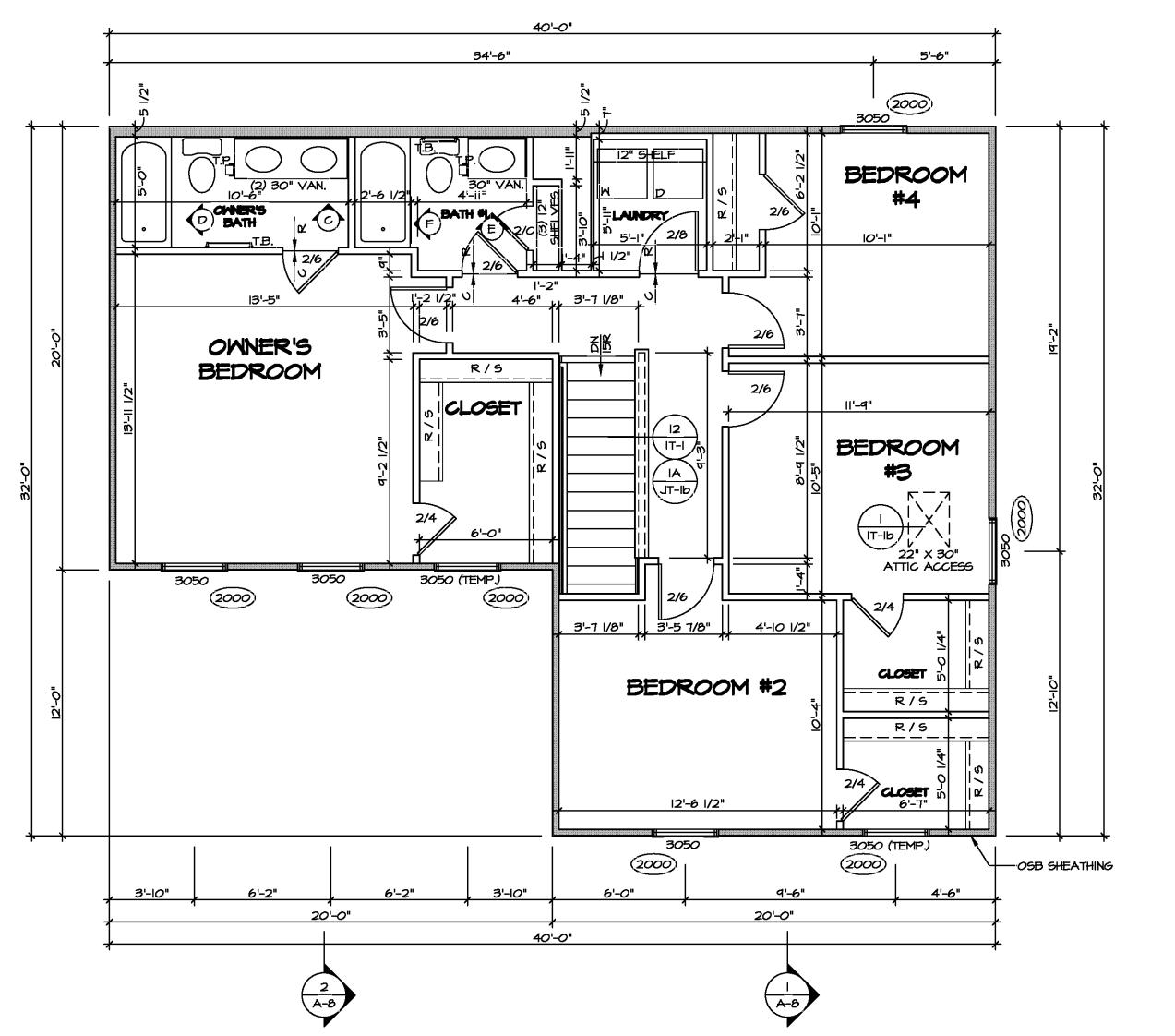




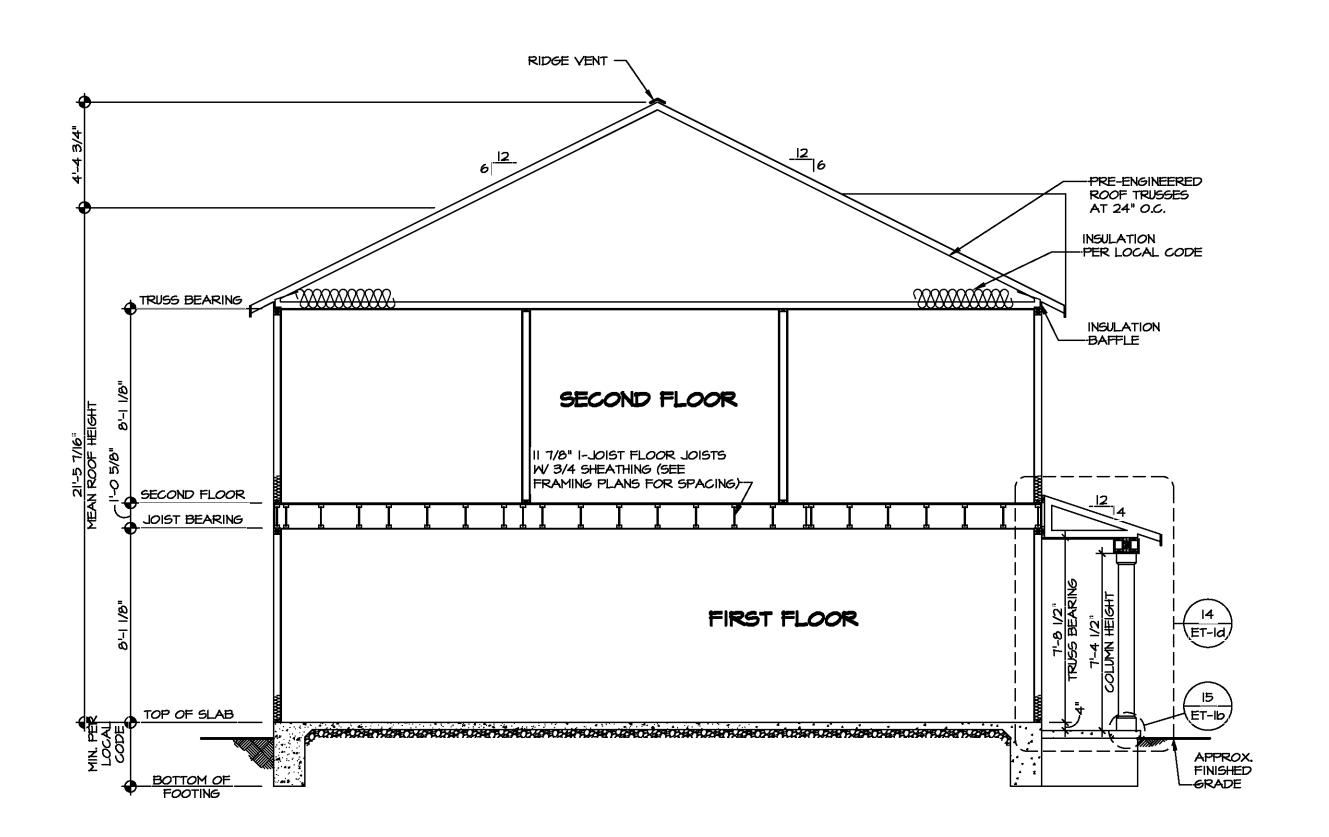
AT STAIRS:

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

ALL WINDOWS HAVE 7'-4 5/8" HEADER HEIGHT UNLESS OTHERWISE NOTED

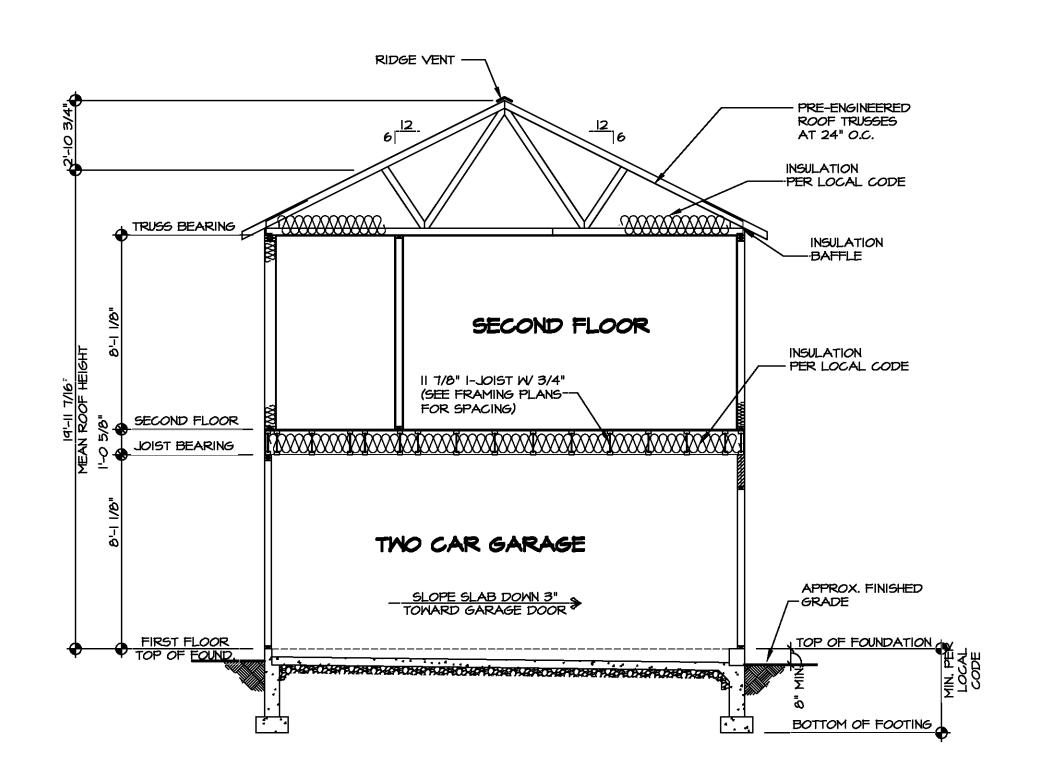


SECOND FLOOR PLAN A-7 SCALE: 1/4" = 1'-0"



BUILDING SECTION - FOYER

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



BUILDING SECTION - GARAGE

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

| NO.      | MODEL<br>DROT   | SET NO. BIRHOO<br>VERSION OI |  | © NVR, Inc., The owner, expressly reserves its  | DIV-COMM-LOT-UNIT | <b>i</b><br><b>i</b> |          | WOUNTHAILE COLOR   |
|----------|---|------------------------------|--|---|-------------------|----------------------|----------|--|
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|          |   | DATE:                        | 1  | whatsoever, nor are they to be  |                   |                      |          | 1, TO 2200 11, 11, 12, 12, 12, 12, 12, 12, 12, 12,   |
|          | OPTION DESCRIPTION  | OPTION                       | NVR, Inc.<br>5285 Westview Drive, Suite 100                                  | first obtaining the expressed written   | STREET ADDRESS    | AP                   | APT. NO. | NO.  |
|          |   |                              | Frederick, MD 21703  | COURENT OF MYK, INC.  | <br>              |                      | <b>!</b> | THOUSE OF THE CONTROLL OF THE CONTROL OF THE CONTRO |
| <b>6</b> |   |                              |  |   | CITY              | STATE ZIP            |          | WASTON TO STATE OF THE PARTY OF |
|          |   |                              |  |   | 1 1 1 1           | 1 1 1 1              | 1 1 1 1  | 1/27/2021  |
| -Sold    | -Sold\ 2—Jobs\ ASD\ 2021 1stHalf—Complete\ RLH\ DETACHED\ BIRCH BRH | 2HOO 01/ELK R OG 0084        | ACHED\ BIRCH BRHOO 01\ ELK R OG 0084\ 19 A-8 SECT LS.dwg 01/26/21 - 12:55 pm | /21 - 12:55 pm  |                   |                      |          |  |

| 9         | SECOND FLOO!       | R FRAMIN    | G LENGT   | H SCHEDULE |
|-----------|--------------------|-------------|-----------|------------|
| DENTIFIER | DESCRIPTION        | LENGTH      | ENG. NUM. | REMARKS    |
| 2AE       | PRI 60 - 11-14     | 39'-9 3/4"  | 1000      |            |
| 2AH       | PRI 60 - II-14     | 20'-1 1/4"  | 1000      |            |
| 2AJ       | PRI 60 - II-14     | 20'-2 3/8"  | 1000      |            |
| 2AK       | PRI 60 - II-14     | 19'-9 3/4"  | 1030      | J-0088     |
| 2AK-2     | PRI 60 - II-14 DBL | 19'-9 3/4"  | 1031      | J-0089     |
| 2AL       | PRI 60 - II-14     | 15'-10 1/2" | 1032      | J-0087     |
| 2AM       | PRI 60 - II-14     | 15'-11 1/8" | 1033      | J-0086     |
| 2AN       | PRI 60 - II-14     | 19'-10 7/8" | 1034      | J-0085     |
| 2AP       | PRI 60 - II-14     | 39'-9 3/4"  | 1036      | J-0084     |
| 2AQ       | PRI 60 - II-14     | 19'-10 7/8" | 1000      |            |

3'-5 |3/|6" | 1002 LVL 1.75 - 11-14 LVL PLY TO PLY FASTENING SCHEDULE: (WHERE APPLICABLE BASED ON LVL USAGE)

LENGTH ENG. NUM. REMARKS

- I.A (2) PLY UP TO AND INCLUDING II 7/6" TALL: FASTEN PLIES W (2) ROWS I6D NAILS AT I2" O.C. OR ALT I I/2" WIDE LVL FASTEN PLIES W/ (3) ROWS I2D NAILS AT I2"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 I 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 II 7/8" TALL: FASTEN PLIES W (2) ROMS 16D 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. 1.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.

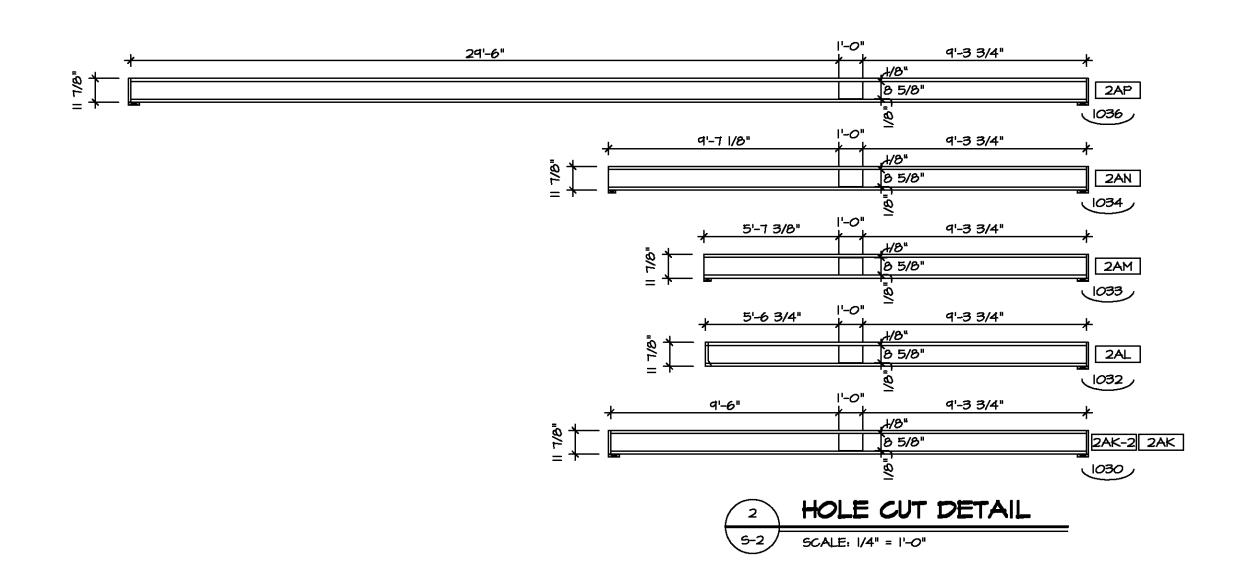
#### I-JOIST FLOOR SYSTEM

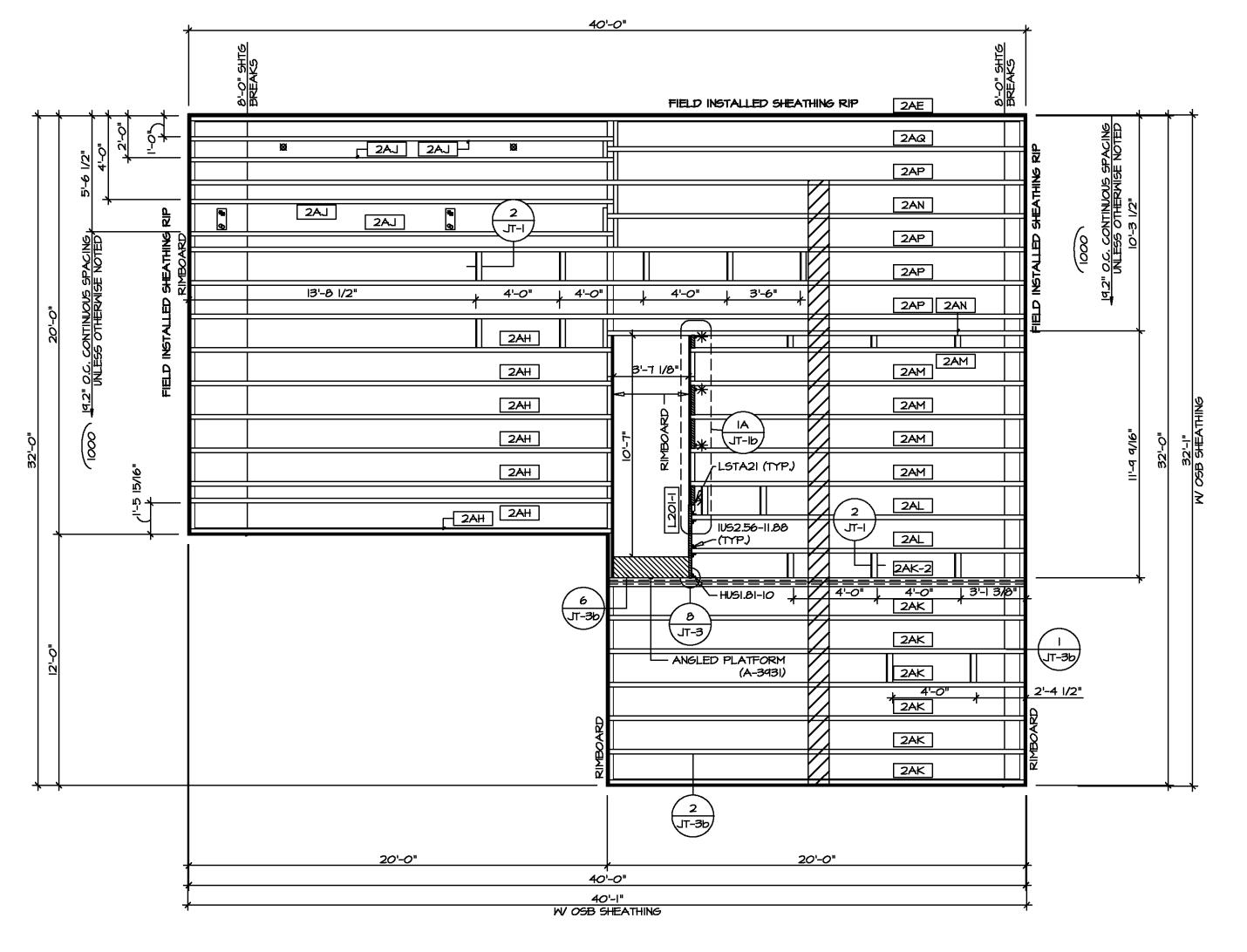
- SUBFLOOR IS 3/4" TONGUE AND GROOVE OSB STANDARD. JOIST LENGTHS SHIPPED IS THE NEXT HIGHEST LENGTH TO
- ALL RIMBOARD TO BE 1-1/8" THICK U.N.O.
- REFER TO STANDARD DETAIL 7/JT-3 FOR HOLE CUTTING
- PROVIDE RIMBOARD SOLID BLOCKING AT EXTERIOR WALLS AND BELOW ALL JACKS AS REQUIRED.
- REFER TO DETAIL 8/JT-3 FOR HANGER DETAIL. ALL JOISTS TO BE PRI40, PRI60 OR PRI60, REFERENCE
- SCHEDULE FOR SPECIFIC SERIES PER MEMBER.

  A. PRI40 SERIES ARE SHOWN AS SHADED ON FRAMING
- SEE CONNECTOR / NAIL CHART IN STANDARD DETAILS
- (FC-4) FOR TYPICAL HANGERS.

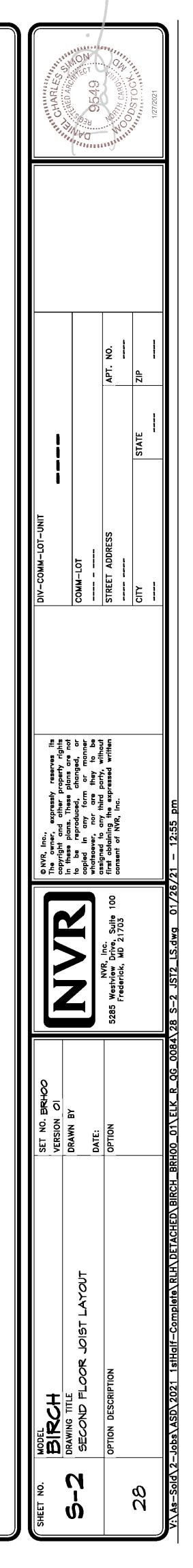
  10. ALL LVL BLOCKING OUT FROM 14'-O" MATERIAL. ADHESIVE TO BE APPLIED AT THE RATE OF (I) TUBE PER TWO AND ONE-HALF SHEETS; SHEETS ARE TO BE GLUED AND PLACED ONE AT A TIME. APPLY SUE TO TONSIE
- AND GROOVE.
- 12. I-JOIST BLOCKING CUT FROM 2'-O" MATERIAL.
  13. ADHESIVE TO BE ADDED TO ALL JOIST HANGERS PRIOR TO SETTING JOISTS.

| 10 5     |  |
|----------|--|
| LEGE     | END  |
|          | BEARING WALL                               |
| ⊗        | INDICATES BEARING FROM<br>POINT-LOAD ABOVE |
| <u> </u> | JACKS                                      |
| B_       | BEAM/HEADER                                |
| F_       | PAD FOOTING                                |
| (c)      | STEEL COLUMN                               |
| ×        | TRUSS TIE DOWN                             |
| <u> </u> | PORTAL FRAME                               |
| ×        | JOIST/TRUSS                                |
| L        | LYL  |
| X        | ENGINEERING PAGE NUMBER                    |
|          | ETAILS FOR<br>CONNECTORS                   |
|          |  |









|              |            | TRUS         | S SCHE     | DULE              |               |
|--------------|------------|--------------|------------|-------------------|---------------|
| IDENTIFIER   | SPECS      | TRUSS NUMBER | LENGTH     | ROOF PITCH (X/12) | TYPE          |
| AA           | SE         | 13176        | 32'-0"     | 6/12              | COMMON        |
| AB           | SE.        | 13177        | 32'-0"     | 6/12              | SPECIAL       |
| AC           | SE         | 13152        | 20'-0"     | 6/12              | COMMON        |
| AD           | SE         | 13178        | 32'-0"     | 6/12              | COMMON        |
| ΑE           | SE         | 13179        | 32'-0"     | 6/12              | SPECIAL       |
| AF           | SE         | 13155        | 3'-10 1/2" | 4/12              | MONO          |
| AH           | SE         | 16940        | 32'-0"     | 6/12              | STUDDED GABLE |
| LA           | SE         | 16941        | 32'-0"     | 6/12              | GABLE END     |
| AK           | SE.        | 16942        | 20'-0"     | 6/12              | GABLE END     |
| VOI          | VT         | 0 26         | 2'-0"      | 12-6/12           | VALLEY        |
| V02          | ٧T         | 01262        | 4'-0"      | 12-6/12           | VALLEY        |
| ∨ <i>0</i> 3 | VT         | 01263        | 6'-0"      | 12-6/12           | VALLEY        |
| V04          | VT         | 01264        | 8'-0"      | 12-6/12           | VALLEY        |
| V06          | <b>V</b> T | 94708        | 8'-4"      | 12-6/12           | VALLEY        |

# FIELD INSTALLED ROOF FRAMING BEAM/HEADER SCHEDULE

| IDENTIFIER | DESCRIPTION                | LENGTH | ENG. NUM. | REMARKS |
|------------|----------------------------|--------|-----------|---------|
| B201       | BEAM BUILT 2X8 - 2 PLY RFF | 6'-0"  | 1013      |         |

# ROOF FRAMING NOTES

- I. REFER TO THE STANDARD DETAILS FOR THE FOLLOWING:
  I.I. TRUSS TIE-DOWNS (I/RF-I)
  I.2. PIGGYBACK TRUSS ATTACHMENT (2/RF-I)
- I.3. VALLEY GABLE TRUSS BRACING (3/RF-I)
  I.4. GABLE BRACING (I/RF-IC)
- TRUSS BRACING (2/RF-Ic)
- LIFELINE ATTACHMENT (5/RF-I)
- 1.7. FALL PROTECTION ON PLATFORM TRUSSES (II/RF-I)
  2. IF TRUSS DOES NOT APPEAR ON THE TRUSS BRACING
  SHEET, NO ADDITIONAL LATERAL BRACING REQUIRED.

- I. SEE GENERAL NOTES (N-I) FOR ADDITIONAL INFORMATION.
- 2. SCHEDULES (N-2)
  3. LVL NAILING SCHEDULE (N-1)

# LEGEND

INDICATES BEARING FROM POINT-LOAD ABOVE

JACKS

BEAM/HEADER

PAD FOOTING

STEEL COLUMN

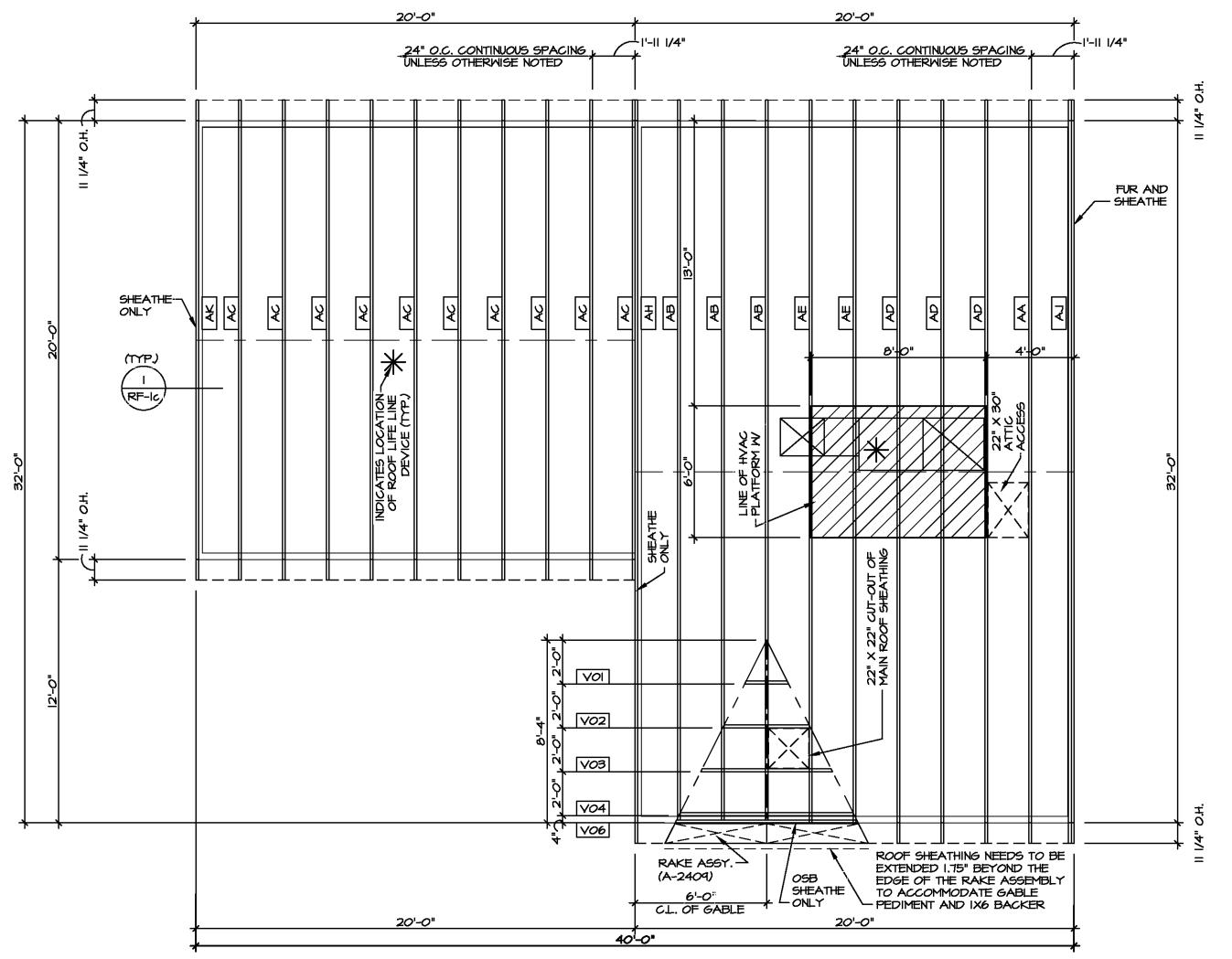
TRUSS TIE DOWN

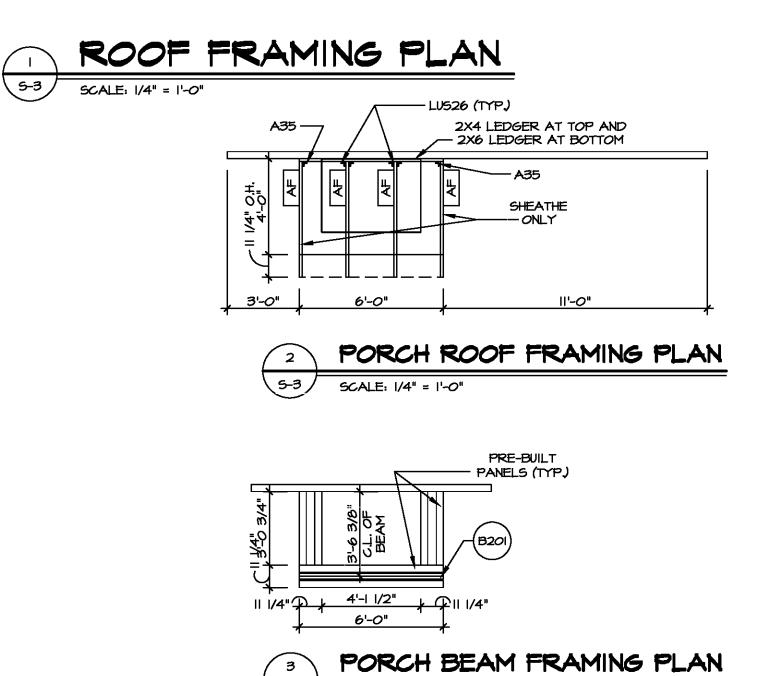
X PORTAL FRAME X JOIST/TRUSS

SEE FC DETAILS FOR FRAMING CONNECTORS

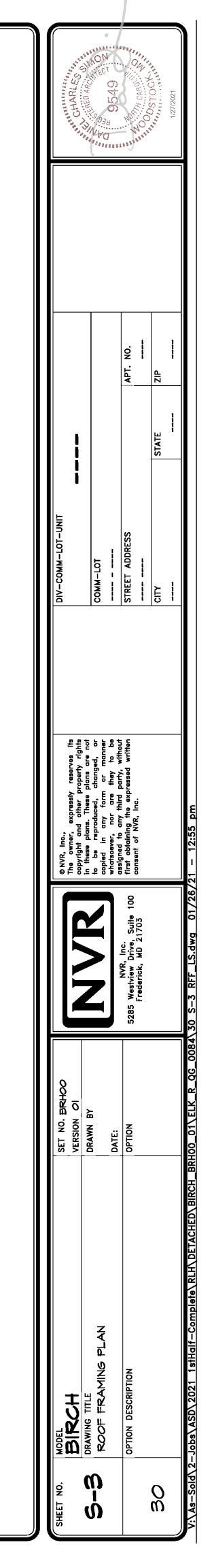
L\_\_-\_ LVL

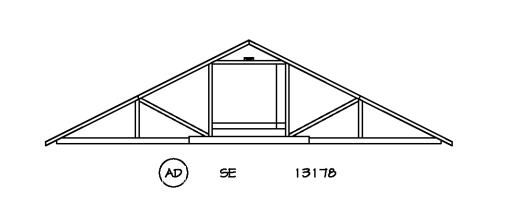
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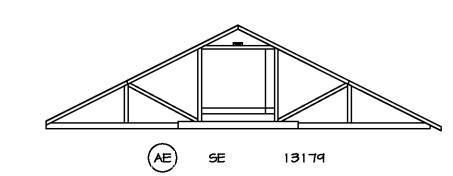


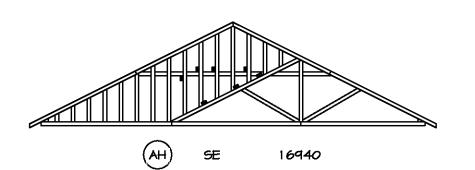


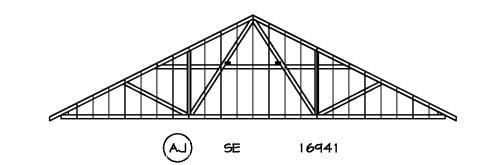
S-3 SCALE: 1/4" = 1'-0"











TRUSS BRACING

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

# Truss bracing notes

- . IF TRUSS DOES NOT APPEAR ON THIS TRUSS BRACING SHEET, NO ADDITIONAL LATERAL BRACING IS REQUIRED.
- REQUIRED.

  2. 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.

  3. WEB "T" BRACE, DETAIL 3/RF-IC, IS REQUIRED WHERE LATERAL BRACING IS NOT CONTINUOUS ACROSS THREE (3) OR MORE TRUSCES AND MAY BE USED IN

- LATERAL BRACING IS NOT CONTINUOUS ACROSS
  THREE (3) OR MORE TRUSSES AND MAY BE USED IN
  LIEU OF IX6 LATERAL BRACING.

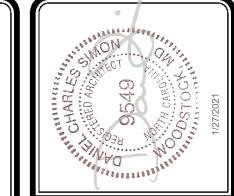
  4. DIAGONAL BRACING REQUIRED WHEN LATERAL
  BRACING IS REQUIRED (1/RF-I)

  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
- . SHEATHING (OSB OR GYPSUM) REPLACES LATERAL AND DIAGONAL TRUSS BRACING.

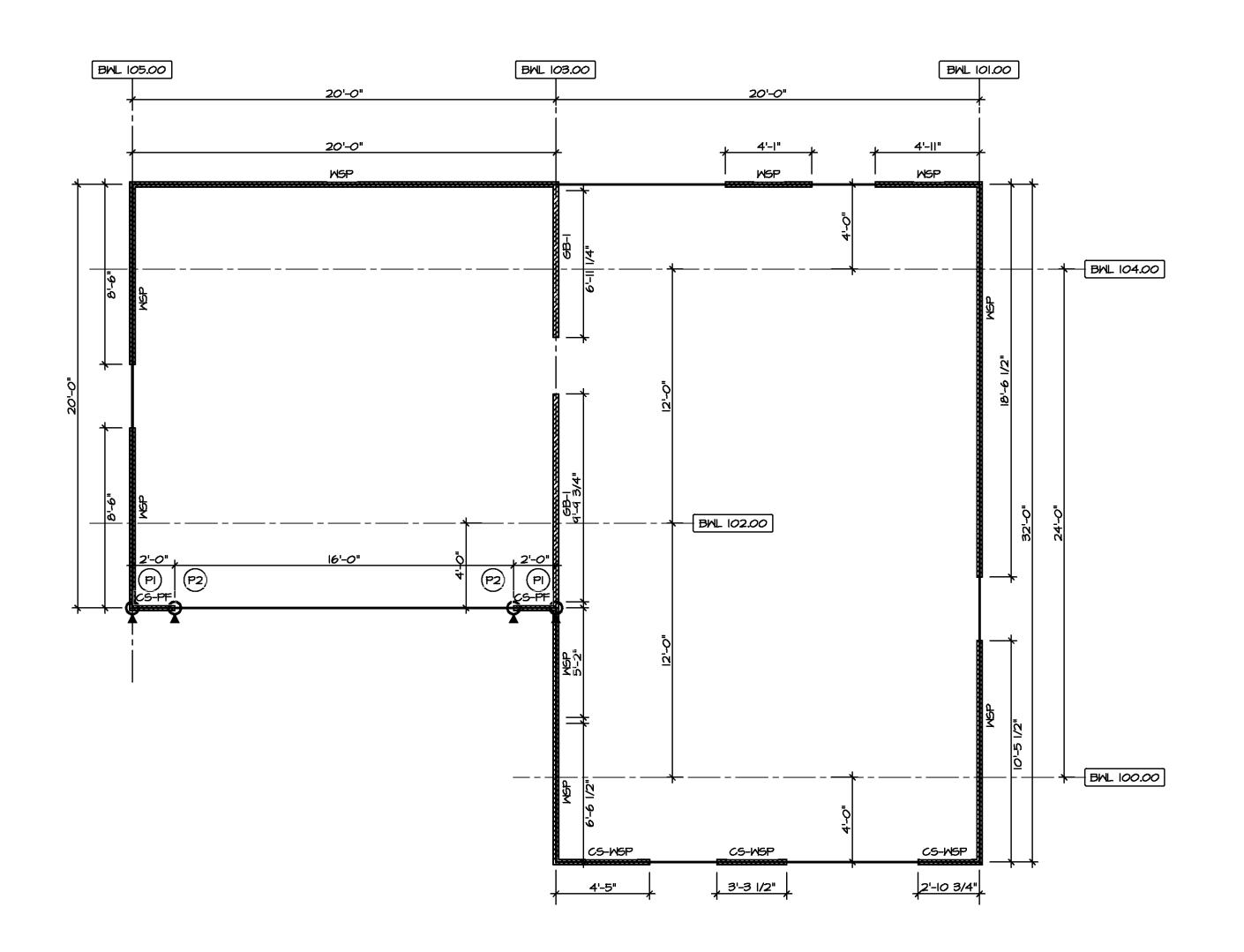


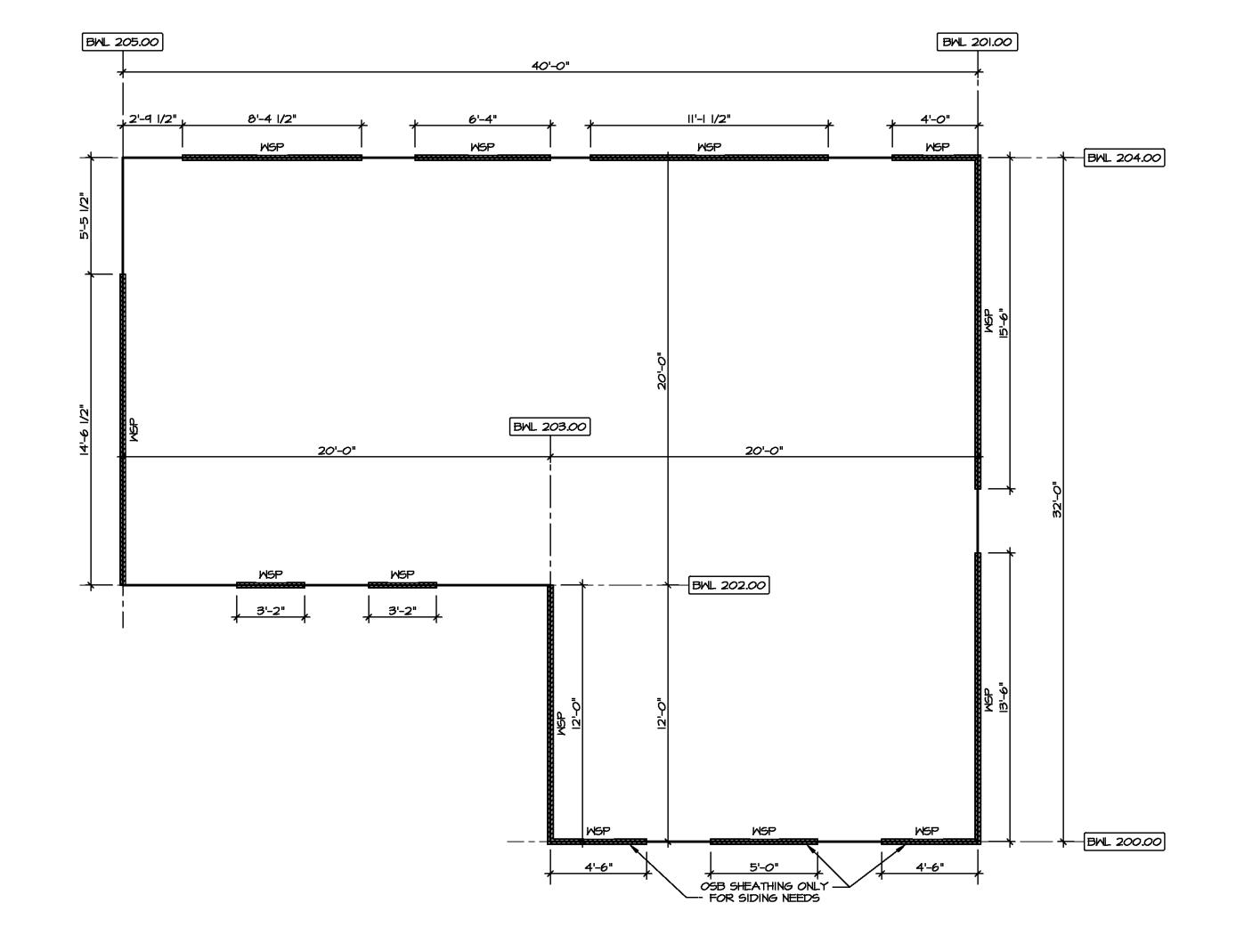
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|                                 |  |

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|-----------|-------|--------|
| VERSIO    | DATE: | OPTION |

| 3 | TITLE<br>5 BRACING | DESCRIPTION |
|---|--------------------|-------------|





FIRST FLOOR WALL BRACING DETAIL

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

SECOND FLOOR WALL BRACING DETAIL

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

| LEGEND         |  |  |   |                 |          |
|----------------|--|--|---|-----------------|----------|
| BML XXX.XX     | BRACED WALL LINE I.D.  | FAS'   | tening schei  | JULE            |          |
|                | BRACED WALL LINE   |  |   | SPA             | CING     |
|                | HOUSE WALL   | SHEATHING  | FASTENER  | EDGES           | FIELD    |
|                | BRACED WALL PANEL  | 7/16" WOOD<br>STRUCTURAL<br>PANELS OR                                  | 8d COMMON NAILS   | 6° O.C.         | 12" 0.6. |
| MSP<br>GB      | WOOD STRUCTURAL PANEL  GYPSUM BOARD (I) SIDED OR (2) SIDED   | EQUIVALENT<br>(W METHOD MSP,<br>CS-MSP, CS-G)                          | ALTERNATIVE FASTENER 1-3/4" 16-GAUGE CORROSION RESISTANT STAPLES  | 3" O.C.         | 12" 0.6. |
| GB-BM          | GYPSUM BOARD BLOCKED WALL<br>CONSTRUCTION (I) SIDED OR (2) SIDED<br>(SEE STANDARD DETAIL G/WB-2)             | I/2" GYPSUM<br>WALLBOARD   | I-I/4" LONG, I/4" HEAD,<br>.098" DIA.<br>ANNULAR-RINGED NAILS   | 7" O.C.         | T" O.C.  |
| LIB            | LET-IN BRACING (SEE STANDARD DETAIL F / WB-2)  | (W METHOD<br>6B-I, 6B-2)   | CORROSION RESISTANT<br>TYPE W I-I/4"<br>DRYWALL SCREWS  | 7" O.C.         | T" O.C.  |
| CS-MSP         | CONTINUOUS SHEATHING -<br>WOOD STRUCTURAL PANEL  | LAMINATED<br>FIBROUS   | IOd X I I/4"<br>GALVANIZED ROOFING<br>NAILS   | 3" <i>O.C.</i>  | 3" O.C.  |
| C5-PF          | CONTINUOUS SHEATHING -<br>PORTAL FRAME, SEE FLOOR PLANS FOR<br>PORTAL FRAME HEADER INFORMATION               | STRUCTURAL SHEATHING   | I-I/4" I6-GAUGE<br>CORROSION RESISTANT<br>STAPLES   | 3" <i>O.C</i> . | 3" O.C.  |
| C5-G           | (SEE STANDARD DETAIL A, C/ MB-2)  CONTINUOUS SHEATHING - MOOD  STRUCTURAL PANEL ADJACENT TO  GARAGE OPENINGS | I/2" GYPSUM WALLBOARD BLOCKED AT THE EDGES (W METHOD GB-BM-I, GB-BM-2) | BLOCKING REQUIRED<br>AT ALL GYPSUM<br>EDGES. USED<br>CORROSION RESISTANT<br>TYPE W 1-1/4" DRYWALL<br>SCREWS | 4" O.C.         | 12" O.C. |
| ю              | HOLD-DOWN  I. SEE SHEET WB-2 "P_"  INDICATOR SCHEDULE AND DETAILS  2. ARROW INDICATES LOCATION               | STRUCTURAL   | CROWN WIDTH FOR STAPL<br>PANEL.<br>PSUM FASTENING REQUIRE   |                 |          |
| METHOD IN COMP | I ANALYZED UTILIZING A PRESCRIPTIVE<br>PLIANCE WITH INTERNATIONAL RESIDENTIAL<br>ESS OTHERWISE NOTED.        | SPECS FOR T<br>3. USE OF STAP  | 5 IDENTIFIED. SEE PHASE<br>YPICAL GYPSUM FASTENER<br>LES IN WOOD STRUCTURAL<br>ETHOD ON WALLS PER ENG       | PANEL A         |          |

|                  | BRACED     | MALL LINE   | SCHEDULE      |                      |
|------------------|------------|-------------|---------------|----------------------|
| WIND SPEED (ULT) | IDENTIFIER | ACTUAL (FT) | REQUIRED (FT) | METHOD               |
| 130 MPH          | BWL 100.00 | 10,61       | 8.27          | CONTINUOUS (2 SIDES) |
| I30 MPH          | BWL 101.00 | 29.00'      | 10.76'        | MSP (2 SIDES)        |
| I30 MPH          | BWL 102.00 | 6.00'       | 5.89'         | CONTINUOUS (2 SIDES) |
| I30 MPH          | BWL 103.00 | 20.09'      | 18.13'        | 6B                   |
| 130 MPH          | BWL 104.00 | 29.00'      | 9.74          | MSP (2 SIDES)        |
| I30 MPH          | BWL 105.00 | 17.00'      | 10.761        | WSP (2 SIDES)        |
| 130 MPH          | BWL 200.00 | 14.00'      | 5.89'         | WSP (2 SIDES)        |
| I30 MPH          | BWL 201.00 | 29.00'      | 7.63'         | WSP (2 SIDES)        |
| I30 MPH          | BWL 202.00 | 6.88'       | 4.72'         | MSP (2 SIDES)        |
| 130 MPH          | BWL 203.00 | 12.00'      | 5.45'         | CONTINUOUS (2 SIDES) |
| 130 MPH          | BWL 204.00 | 29.84'      | 6.76'         | WSP (2 SIDES)        |
| 130 MPH          | BWL 205.00 | 14.54'      | 7.63'         | MSP (2 SIDES)        |

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