


# BIRCH

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

08/12/2021



DIV-COMM-LOT-UNIT  
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COMM-LOT  
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STREET ADDRESS  
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CITY  
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APT. NO.  
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STATE  
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ZIP  
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NVR, Inc.  
5285 Westview Drive, Suite 100  
Frederick, MD 21703

	SLAB FOUNDATION												STANDARD DETAILS	
	STD. DWGS.													
SPEC SHEET	SS-1													DR-1
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														SP-1
														SP-2
														SP-3
														ST-1
														WB-2
														WD-1
														WD-3
														WS-1b

FIRST FLOOR SQUARE FOOTAGE	
DESCRIPTION	TOTAL SQ. FT.
1ST FLOOR (BASE SF)	640 SF
	640 SF
SECOND FLOOR SQUARE FOOTAGE	
DESCRIPTION	TOTAL SQ. FT.
2ND FLOOR (BASE SF)	1040 SF
	1040 SF
GARAGE SQUARE FOOTAGE	
DESCRIPTION	TOTAL SQ. FT.
TWO CAR GARAGE	400 SF
	400 SF
TOTAL FINISHED SQUARE FOOTAGE	
DESCRIPTION	TOTAL SQ. FT.
1ST FLOOR (BASE SF)	640 SF
2ND FLOOR (BASE SF)	1040 SF
	1680 SF

SET - VERSION  
**BRH00 - 01** **CS-1**

V:\As-Sold\2-Jobs\ASD\2021 2nd Half-Complete\RLH\DETACHED\BIRCH\_BRH00\_01\ELK\_R\_OC\_011A\_CS-1 COVERSHEET.dwg 07/27/21 - 3:09 PM

GENERAL

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

CODE ANALYSIS

- 1. This note sheet only covers major code requirements. The plans are intended to conform to all current applicable codes including, but not limited to: NRC 2018, NCMC 2018, NCCP 2018, NCFCE 2018, NEC 2017 w/ NC Amendments, NCEC 2018, NCFCC 2018

ENERGY AND MECHANICAL

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

R-values shown below are the minimum used.

Table with 7 columns: CLIMATE ZONE, PENETRATION U-FACTOR, GLAZED PENETRATION SHGC, CEILING R-VALUE, FRAME WALL R-VALUE 2x4 / 2x6, FLOOR R-VALUE, BASEMENT WALL R-VALUE UNFIN. / FIN., SLAB R-VALUE & DEPTH, CRANL. SPACE WALL R-VALUE.

- 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.

DESIGN LOADS

Table of Loads for House Structure, Per Table R301.5

Table with 2 columns: Location (Floor Living Areas, Floor Sleeping Areas, Garage Floors, Roof Areas, Habitable Attics, Walls, Stairs) and Load (e.g., 40# P.S.F. (Live), 10# P.S.F. (Dead)).

Design Criteria

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

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

FOUNDATIONS

- 1. All plain and reinforced concrete shall comply with requirements in ACI 318. 2. Concrete footings shall be poured a maximum 5' slump, 3 bag mix, and 2300 psi minimum strength per Table R402.2.

- 10. Block piers to be solid block or mortar-filled hollow block. 11. A poured concrete foundation wall designed to withstand an equivalent fluid height of 30# per cubic ft. may be substituted where masonry units (block) are shown on plans.

FOUNDATION WALL DESIGN (c) NCECC PRESCRIPTIVE CODE OR ENGINEERED DESIGN PER ACI 318.2

Table with 6 columns: WALL HEIGHT, WALL THICKNESS, LATERAL SOIL UNBALANCED LOAD (k), VERTICAL FILL, VERTICAL REINFORCING (b), HORIZONTAL REINFORCING (b).

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

- a. SOIL CLASSES GM, GC, SM, SM-SG AND ML - 45 PSF. b. SPACINGS SHOWN IS BASED UPON Fy = 60,000 PSI STEEL FOR Fy = 40,000 PSI STEEL, REDUCE SPACINGS BY 0.67.

PLANS

- 1. Habitable attics and sleeping rooms shall have a window or door as a second means of egress that shall be minimum 5.7 sq. ft. of clearable glass area (5.0 sq. ft. if at grade level) with maximum sill height 44" above Finish Floor (min. hgt. 24", min. width 20") per R310.1.

SCREWN FASTENING SCHEDULE table with columns: Framing Spacing, Ceilings, Load-brg. walls, Non-load-brg. walls.

- 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. 18. Attic spaces shall be ventilated w/ ridge and soffit vents unless otherwise noted.

FOUNDATIONS

- 1. All plain and reinforced concrete shall comply with requirements in ACI 318. 2. Concrete footings shall be poured a maximum 5' slump, 3 bag mix, and 2300 psi minimum strength per Table R402.2.

ELECTRICAL

- 1. Ground-fault and arc-fault circuit interrupter protection is provided per NFPA 70 (National Electric Code). 2. Electric panel box installation to be in accordance with NFPA 70, Article 408 Section III. Location may vary by design.



Table with 3 columns: REV. NO., DATE, DESCRIPTION. Contains revision notes for code updates and energy notes.

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Table with 3 columns: SHEET NO., MODEL, DRAWING TITLE. Includes project information: NCRC 2018 SPEC SHEET, SINGLE FAMILY ATTACHED, SINGLE FAMILY DETACHED.



**ROOF VENTILATION CALCULATIONS**

HOUSE NAME  
PRODUCT LINE  
VENTILATION VALUES

HOUSE NAME	BIRCH
HOUSE VERSION	BRH00-01
PRODUCT LINE	RYANROMES
VENTILATION VALUES	SFFIT: 1.0 sq ft of vents per ft. SFF: 1.0 sq ft of vent per ft. RIDG / GABLE VENT: 1.0 sq ft of vent per unit

**USER GUIDE**

YES	(opt)	(opt)	VENT ON	No action req'd
NO	YES	OK VENT OK	NO VENT OK	No action req'd
NO	YES	LOW FAIL	INCREASE RIDG	
NO	YES	HIGH FAIL	INCREASE RIDG	
NO	NO	FAIL	INCREASE RIDG	

ELEVATION "A"															
Location / Option	Area (sq. ft.)	Required: A/150 (sq. ft.)	Required: A/200 (sq. ft.)	Soffit (sq. ft.)	Soffit Vent (sq. ft.)	Ridge (sq. ft.)	Ridge Vent (sq. ft.)	Upper Box / Gable Vent (sq. ft.)	Lower Box Vent (sq. ft.)	TOTAL (sq. ft.)	OK A/150	OK A/200	A/200 % vent at ridge	A/200 40% 50% OK	Notes
HOUSE WITH GARAGE	1000.00	1000.00	500.00	42	1000.00	14	252.00			648.00	NO	YES	47.00%	OK	

ELEVATION "B"															
Location / Option	Area (sq. ft.)	Required: A/150 (sq. ft.)	Required: A/200 (sq. ft.)	Soffit (sq. ft.)	Soffit Vent (sq. ft.)	Ridge (sq. ft.)	Ridge Vent (sq. ft.)	Upper Box / Gable Vent (sq. ft.)	Lower Box Vent (sq. ft.)	TOTAL (sq. ft.)	OK A/150	OK A/200	A/200 % vent at ridge	A/200 40% 50% OK	Notes
HOUSE WITH GARAGE	1000.00	1000.00	500.00	42	1000.00	14	252.00			648.00	NO	YES	47.00%	OK	

ELEVATION "K"															
Location / Option	Area (sq. ft.)	Required: A/150 (sq. ft.)	Required: A/200 (sq. ft.)	Soffit (sq. ft.)	Soffit Vent (sq. ft.)	Ridge (sq. ft.)	Ridge Vent (sq. ft.)	Upper Box / Gable Vent (sq. ft.)	Lower Box Vent (sq. ft.)	TOTAL (sq. ft.)	OK A/150	OK A/200	A/200 % vent at ridge	A/200 40% 50% OK	Notes
HOUSE WITH GARAGE	1000.00	1000.00	500.00	42	1000.00	14	252.00			648.00	NO	YES	47.00%	OK	

ELEVATION "L"															
Location / Option	Area (sq. ft.)	Required: A/150 (sq. ft.)	Required: A/200 (sq. ft.)	Soffit (sq. ft.)	Soffit Vent (sq. ft.)	Ridge (sq. ft.)	Ridge Vent (sq. ft.)	Upper Box / Gable Vent (sq. ft.)	Lower Box Vent (sq. ft.)	TOTAL (sq. ft.)	OK A/150	OK A/200	A/200 % vent at ridge	A/200 40% 50% OK	Notes
HOUSE WITH GARAGE	1000.00	1000.00	500.00	42	1000.00	14	252.00			648.00	NO	YES	47.00%	OK	



**HOUSE VOLUME CALCULATIONS**

HOUSE NAME	BIRCH
HOUSE VERSION	BRH00-01

**Note:** The volume of the structure has been computed in accordance 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
<b>Total House Volume</b>			<b>21711</b>

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
<b>Total House Volume</b>			<b>21925</b>

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
<b>Total House Volume</b>			<b>21915</b>

Additional areas of volume to be added to total house volume as needed			
Location / Area of house / option	Floor Area (sq. ft.)	Mean height (ft.)	Total volume (cu. Ft.)
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



DIV-COMM-LOT-UNIT

COMM-LOT

STREET ADDRESS

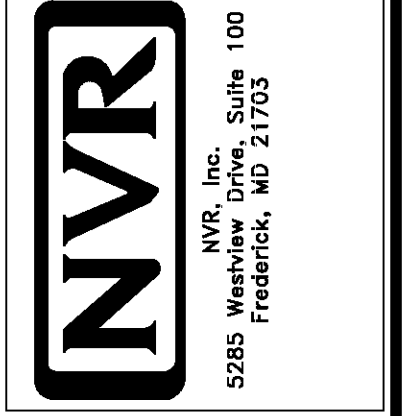
CITY

STATE

ZIP

APT. NO.

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SHEET NO. CA-1

MODEL BIRCH

DRAWING TITLE

OPTION DESCRIPTION

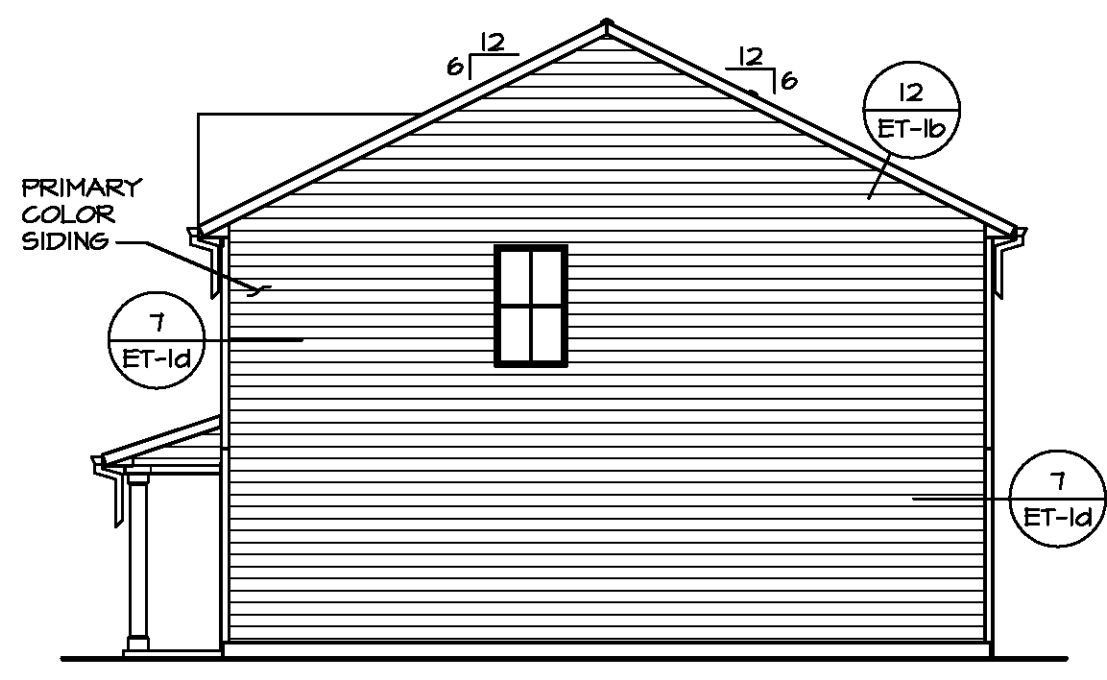
SET NO. BRH00

VERSION 01

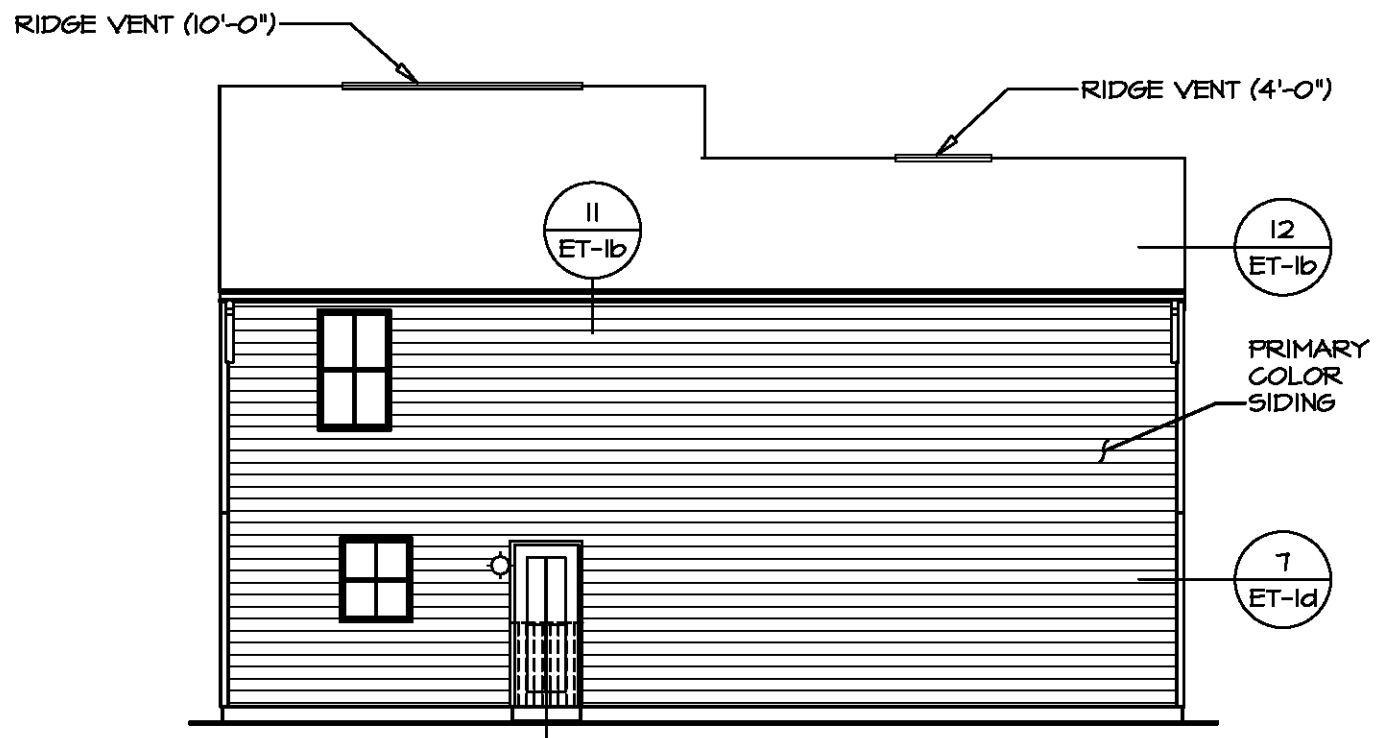
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DATE

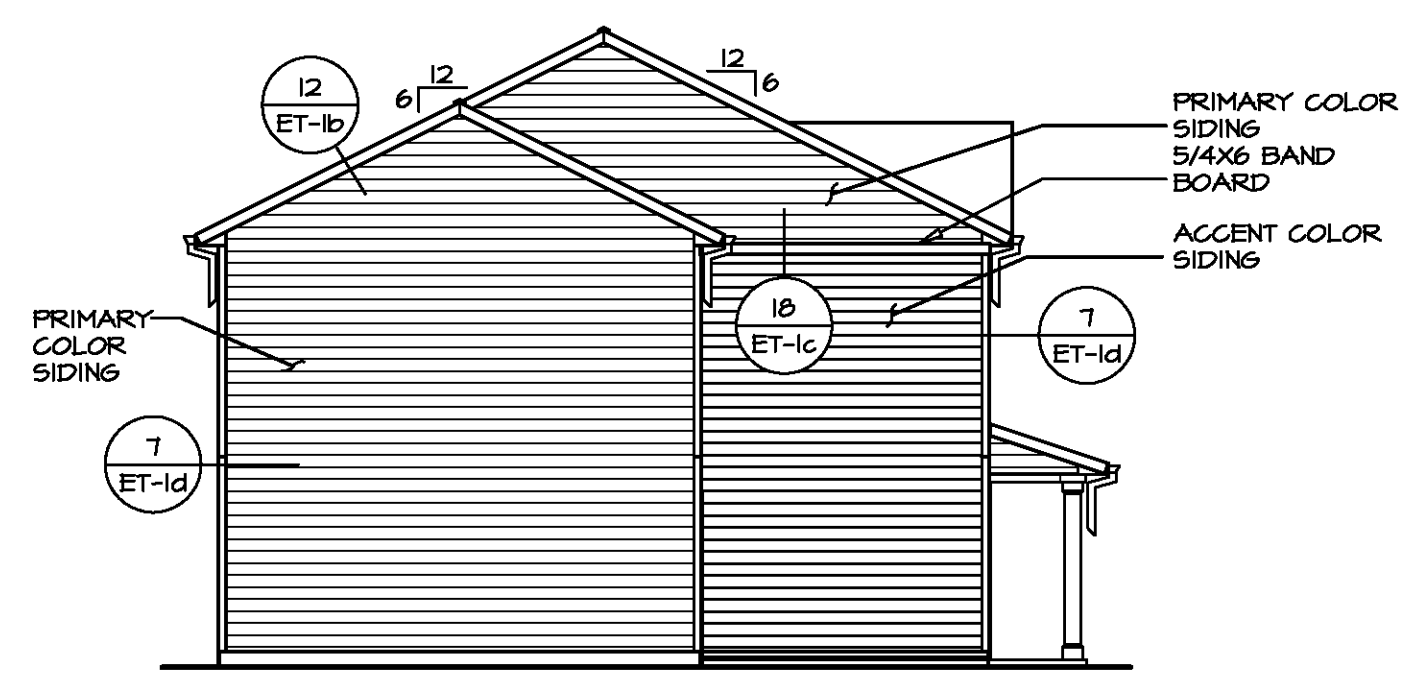
OPTION



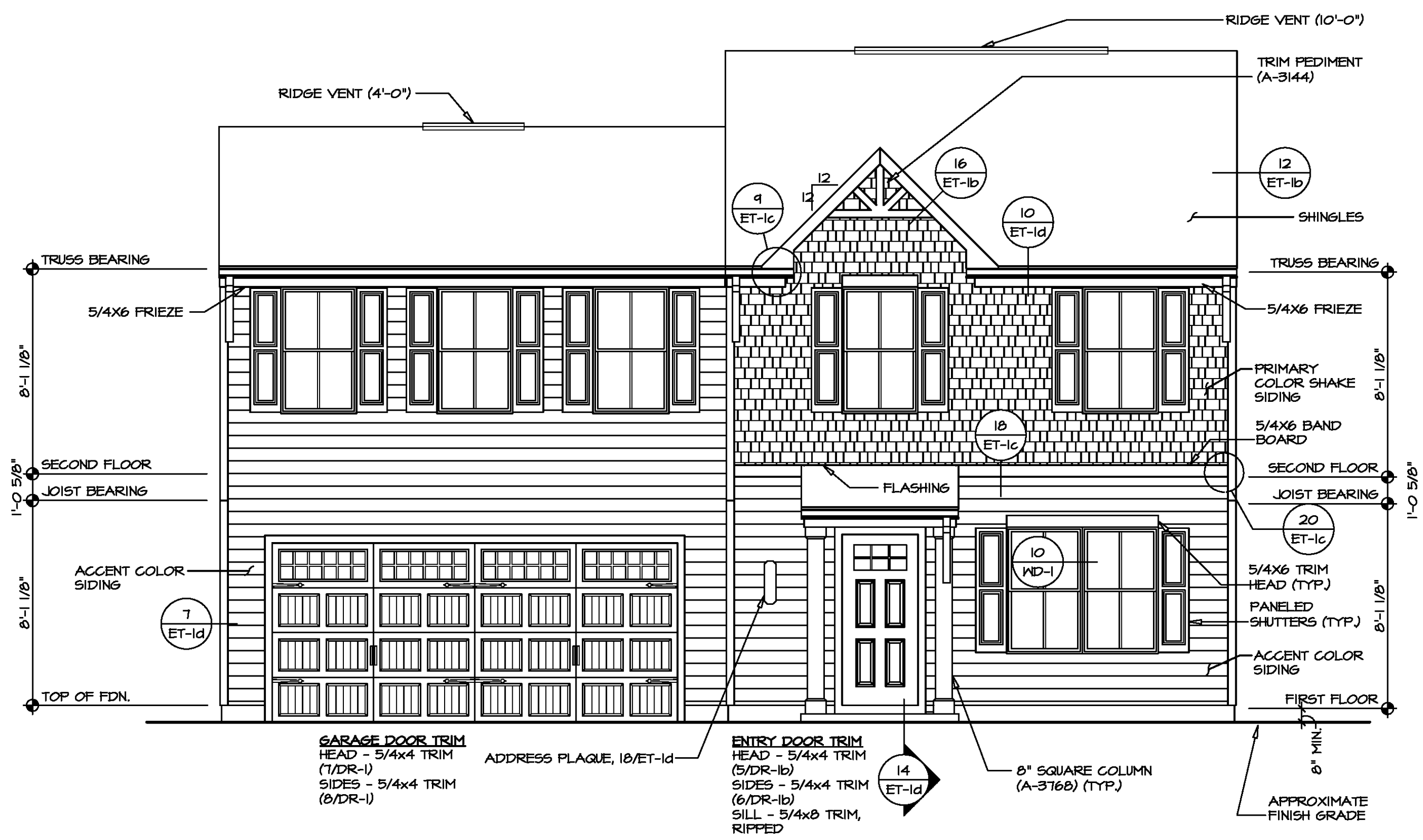
**2 RIGHT ELEVATION**  
SCALE: 1/8" = 1'-0"



**3 REAR ELEVATION**  
SCALE: 1/8" = 1'-0"



**4 LEFT ELEVATION**  
SCALE: 1/8" = 1'-0"

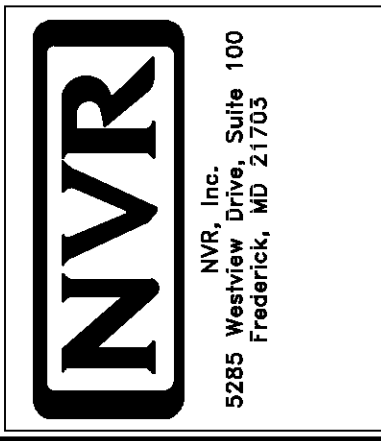


**1 FRONT ELEVATION "K"**  
SCALE: 1/4" = 1'-0"



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COM-LOT  
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SHEET NO.	MODEL	SET NO.	VERSION	DRAWN BY	DATE:	OPTION
A-1	BIRCH ELEVATIONS	01	01			FSM
4	SLAB FOUNDATION MONOLITHIC					

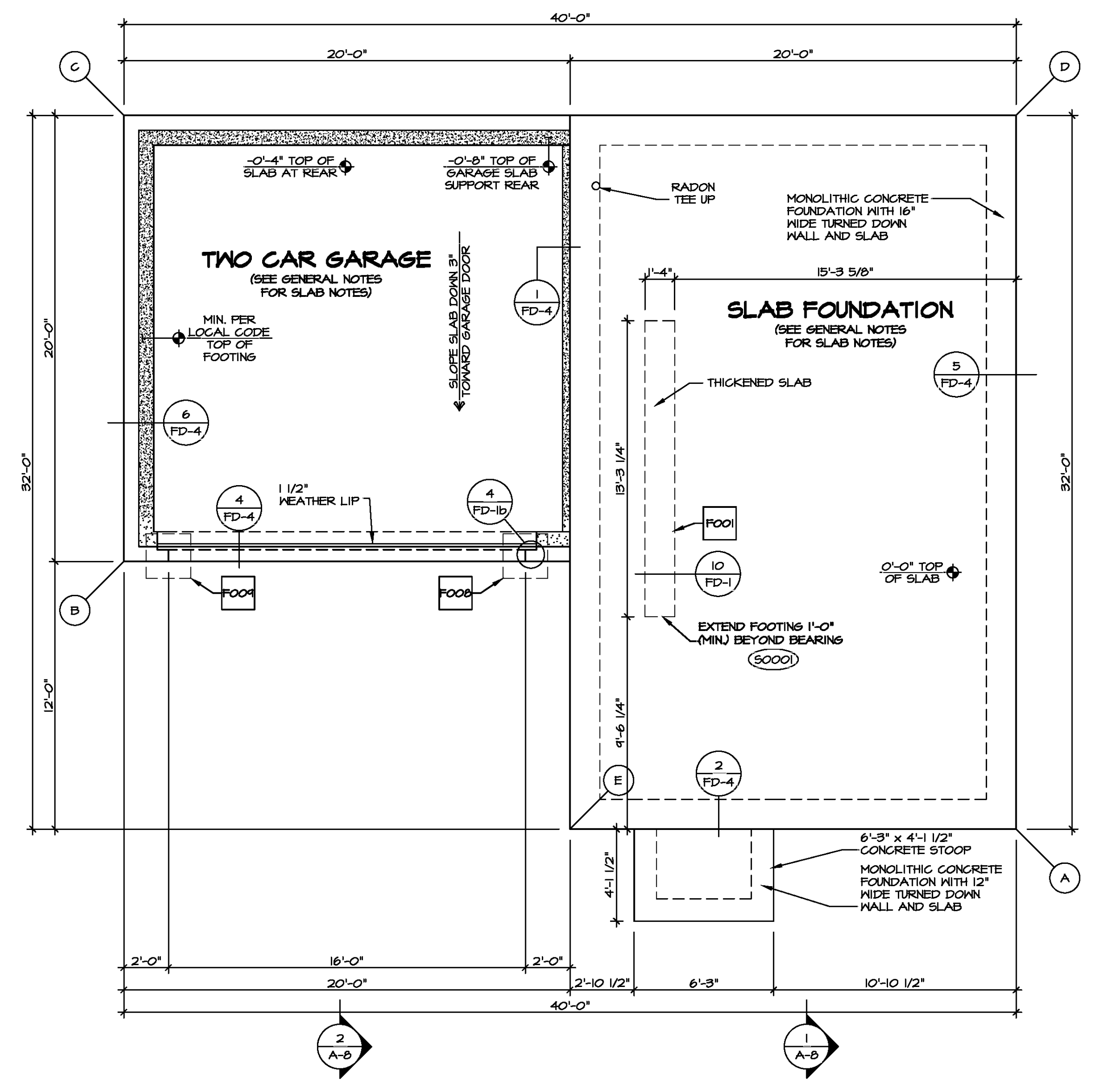


PAD FOOTING SCHEDULE					
IDENTIFIER	LENGTH	WIDTH	HEIGHT	ENS. N.M.	REMARKS
FO01	1'-4"	18'-3 1/4"	0'-8"	S0001	
FO02	2'-0"	2'-0"	1'-0"	101T	
FO04	2'-0"	2'-0"	1'-0"	101T	

FOUNDATION DIAGONALS			
A		B	
A	0"	A	41'-1 1/8"
B	41'-1 1/8"	B	0"
C	51'-2 11/16"	C	20'-0"
D	32'-0"	D	44'-8 11/16"
E	20'-0"	E	23'-3 7/8"

- FOUNDATION NOTES - SLAB**
- FOUNDATION UNDER HABITABLE SPACE:
    - CONCRETE SLAB ON 6 MIL VAPOR BARRIER OVER SUB-BASE (SEE SPEC SHEET FOR SLAB NOTES)
  - FOUNDATION UNDER GARAGE:
    - UNEXCAVATED WITH CONCRETE SLAB ON VAPOR BARRIER OVER SUB-BASE (SEE SPEC SHEET FOR SLAB NOTES) OR
    - STRUCTURAL CONCRETE SLAB ON VAPOR BARRIER OVER SUB-BASE (SEE SPEC SHEET FOR SLAB NOTES)
  - SEE FOUNDATION HOLD DOWN SHEET FOR CONNECTION INFORMATION.
  - SLAB LEDGE LOCATIONS VARY W/ GRADE BEAM(S) ORIENTATION. SEE GB-1 FOR DETAILS.
  - 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
  - TRUSS TIE DOWN
  - PORTAL FRAME
  - JOIST/TRUSS
  - LVL
  - ENGINEERING PAGE NUMBER
- SEE FC DETAILS FOR FRAMING CONNECTORS

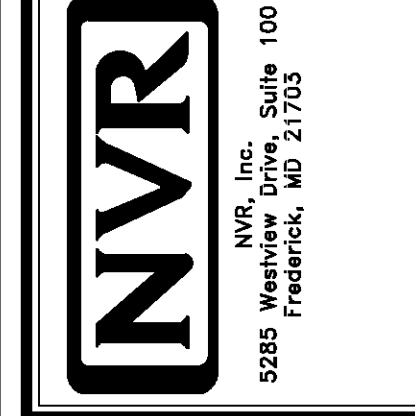


**1 FOUNDATION PLAN**  
SCALE: 1/4" = 1'-0"

DIV-COMM-LOT-UNIT  
COMM-LOT

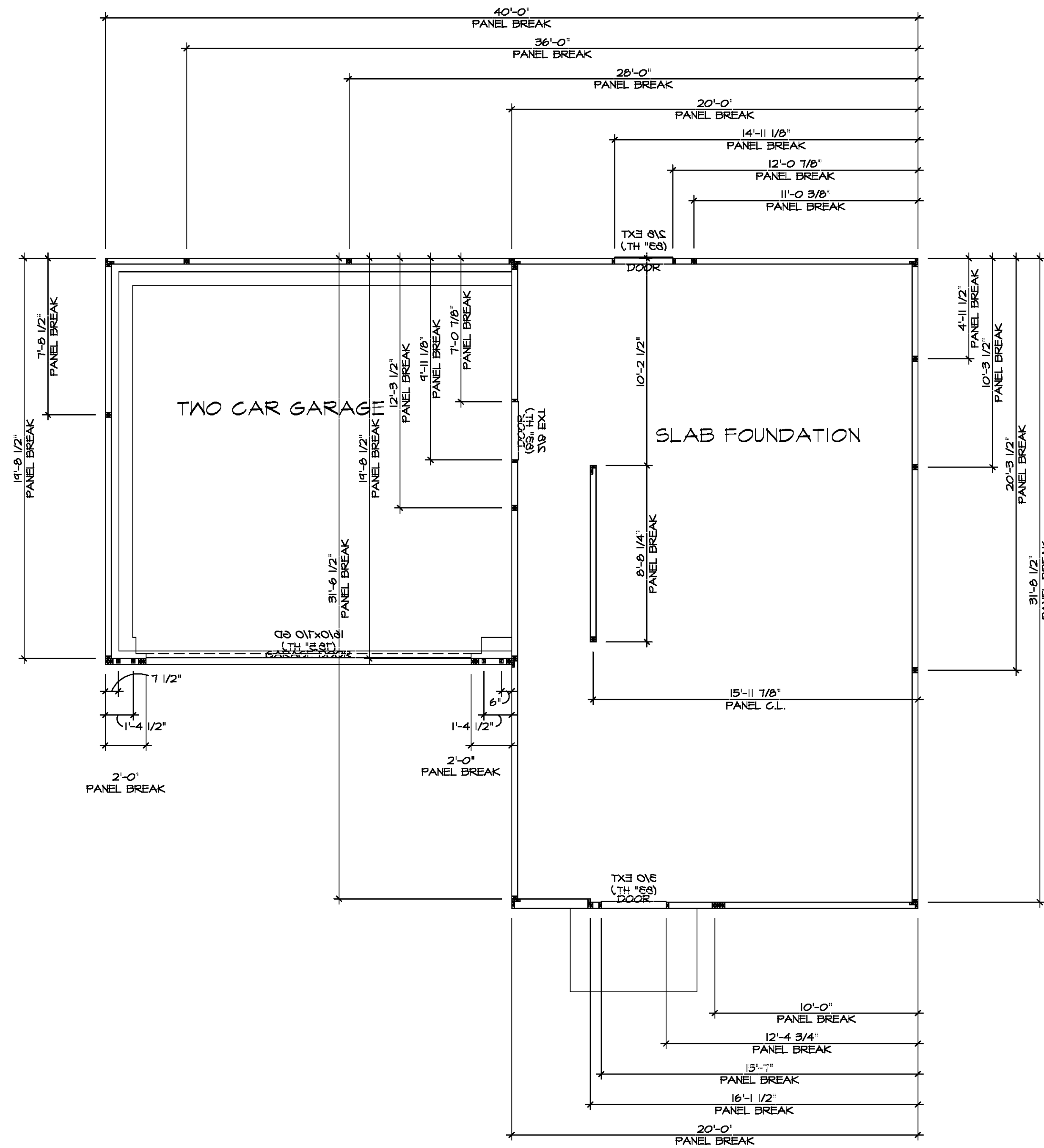
STREET ADDRESS  
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SET NO. BRH00  
VERSION 01  
DRAWN BY  
DATE:  
OPTION  
FSA

SHEET NO. **A-2**  
DRAWING TITLE **FOUNDATION PLAN**  
OPTION DESCRIPTION **SLAB FOUNDATION**  
PAGE NO. **8**



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

HOLD DOWN NOTES	
REFER TO DETAIL (4/FD-1) FOR HOLD DOWN OFFSET DIMENSIONS. REFER TO DETAIL (12/FD-1) FOR HOLD DOWNS ON CMU BLOCK.	
	1. ALL PANELS GREATER THAN 24" SHALL HAVE AN ANCHOR WITHIN 12" OF THE PANEL BREAKS / ENDS. (SEE DETAIL SHEET FF-1 FOR MORE INFORMATION ON ANCHOR DETAILS)
	1. STRAP: a. ON FOUNDATION USE (STHD14) b. ON FLOOR SYSTEM USE (STHD14R/L) 2. ALL OTHER HOLD DOWN SEE DETAIL (MB-1, 2, 4) FOR MORE INFORMATION. 3. STRAP LOCATION ON PLANS SHOWN BY DASHED DIMENSION TO CENTER OF STUDS
OR	
	1. 5/8"ø THREADED ROD 2. ALL OTHER HOLD DOWN SEE DETAIL (MB-1, 2, 4) FOR MORE INFORMATION. 3. BOLT LOCATION ON PLANS SHOWN BY SOLID DIMENSION TO CENTER OF BOLT

DIV-COMM-LOT-UNIT		COMM-LOT	
STREET ADDRESS		APT. NO.	
CITY		STATE	
ZIP		ZIP	

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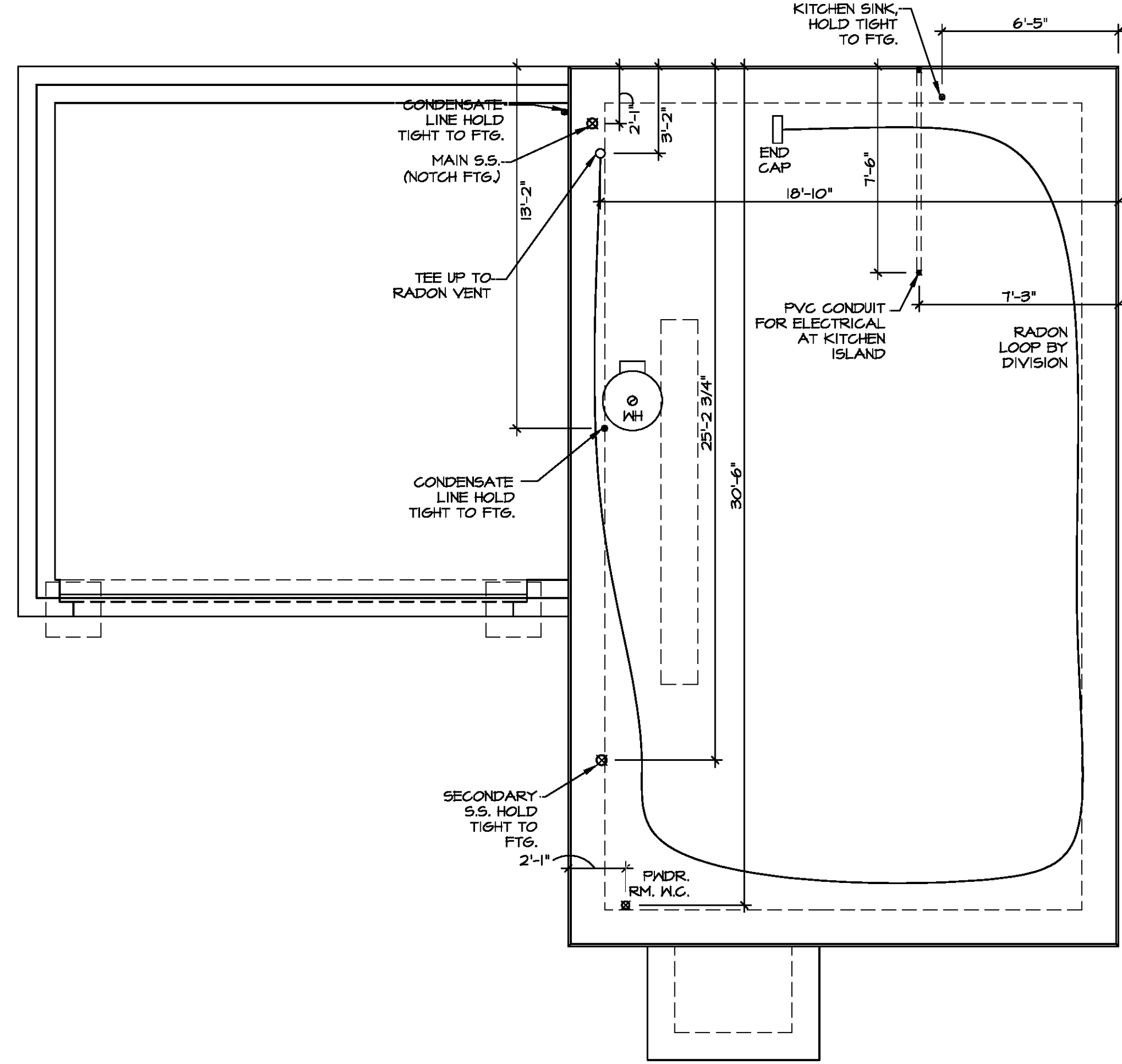
SET NO. BR400	VERSION 01
DRAWN BY	DATE
OPTION	OPTION

**FOUNDATION HOLD DOWN DETAILS**

SHEET NO. <b>A-3</b>	MODEL <b>BIRCH</b>
OPTION DESCRIPTION	OPTION DESCRIPTION
<b>13</b>	

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INSTALLATION OF RADON STACK AND LOOP TO BE DETERMINED BY DIVISION

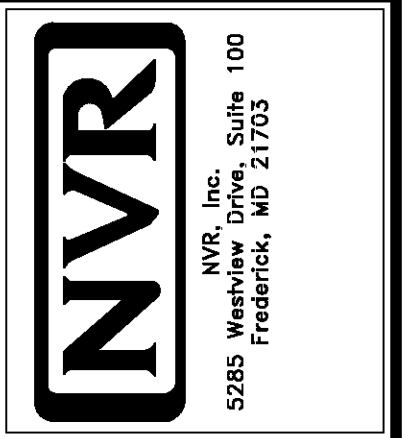


1 PLUMBING PLAN  
A-4 SCALE: 1/4" = 1'-0"



DIV-COMM-LOT-UNIT  
COMM-LOT  
STREET ADDRESS  
CITY STATE ZIP  
APT. NO.

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MODEL <b>BIRCH</b>	SET NO. BR400	VERSION 01
DRAWING TITLE PLUMBING PLAN	DRAWN BY	DATE:
OPTION DESCRIPTION	OPTION	
SHEET NO. <b>A-4</b>		
		14

FIRST FLOOR JACK SCHEDULE		
IDENTIFIER	DESCRIPTION	ENS. NUM.
J100	JACK - (4) 2X4 SFF STUD GRADE	1004
J101	JACK - (2) 2X4 SFF STUD GRADE	1002
J102	JACK - (3) 2X4 SFF STUD GRADE	1015
J103	JACK - (3) 2X4 SFF STUD GRADE	1015
J104	JACK - (4) 2X4 SFF STUD GRADE	1004
J105	JACK - (2) 2X4 SFF STUD GRADE	1008
J106	JACK - (2) 2X4 SFF 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 BEARINGS, UNLESS OTHERWISE NOTED. NO ADDITIONAL FLOOR SYSTEM BLOCKING OR CONTINUOUS LOAD PATH JACKS ARE REQUIRED UNLESS OTHERWISE NOTED.
  - ALL EXTERIOR WALLS TO BE 4" w/ OSB OR 3 1/2" w/ LAMINATED FIBROUS STRUCTURAL SHEATHING, ALL INTERIOR WALLS TO BE 3 1/2", UNLESS OTHERWISE NOTED.
  - HATCHED AREAS INDICATE DROPPED CEILINGS. ALL DROPPED CEILINGS ARE 12" UNLESS OTHERWISE NOTED.
  - SEE "BRACED WALL PANEL DETAIL SHEET" FOR SPECIAL WALL FRAMING LOCATIONS AND HEADER SIZES, IF APPLICABLE.
  - SEE STANDARD DETAIL CATEGORY "IT" SHEET(S) FOR INTERIOR TRIM DETAILS.
  - SEE ARCHITECTURAL DETAIL SHEET "AD" FOR HOUSE SPECIFIC INTERIOR TRIM OPTION TABLE.
  - ALL HEADERS IN NON-BEARING WALLS SHALL BE A SINGLE FLAT 2X4 OR 2X6 ATTACHED TO GRIFFLES ABOVE, UNLESS OTHERWISE NOTED.
  - TANKED WATER HEATER SHOWN AS BASE CONDITION. OPTIONAL TANKLESS WATER HEATER IS AVAILABLE IN LIEU OF TANKED WATER HEATER.

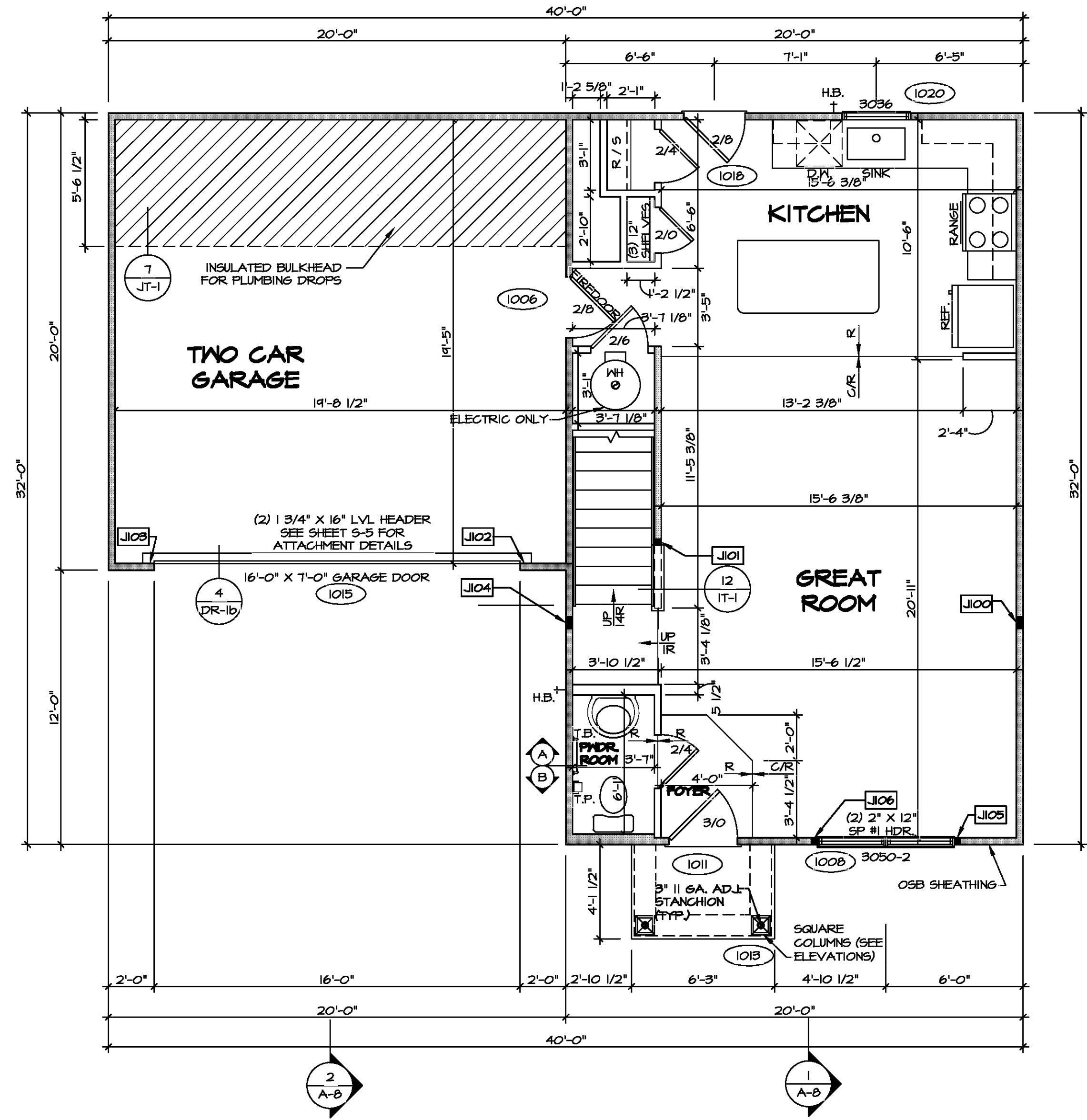
- GYPSUM NOTES**
- AT GARAGE:  
GYPSUM BOARD AT COMMON WALLS, CEILINGS, BEAM WRAPS AND SUPPORTS PER STANDARD DETAIL FA-1(B) FIRE ASSEMBLIES OR AS REQUIRED BY LOCAL CODE.
- AT STAIRS:  
1/2" GYPSUM BOARD AT UNDERSIDE OF STAIRS AND WALLS IN CLOSET

**LEGEND**

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

SEE FC DETAILS FOR FRAMING CONNECTORS

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

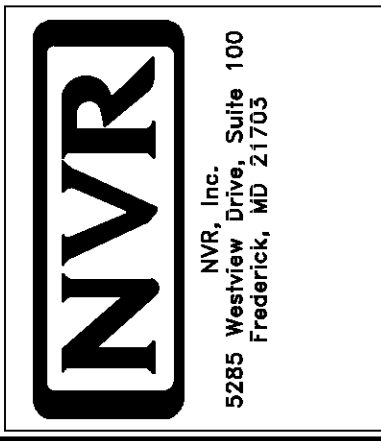


**FIRST FLOOR PLAN**  
SCALE: 1/4" = 1'-0"



DIV.-COMM.-LOT-UNIT  
COM.-LOT  
STREET ADDRESS  
CITY STATE ZIP  
APT. NO.

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SHEET NO.	MODEL	SET NO.	VERSION
A-6	BIRCH	01	01
17	DRAWING TITLE	DRAWN BY	DATE:
	FIRST FLOOR PLAN		OPTION



**FLOOR PLAN NOTES**

1. ALL HEADERS ARE (2) 2x6 w/ 2x4 WALLS OR (2) 2x6 w/ 2x6 WALLS, UNLESS OTHERWISE NOTED.
2. ALL HEADERS TO HAVE (1) 2x4 OR 2x6 JACK AND KING STUD EACH END, UNLESS OTHERWISE NOTED. MULTI-OPENING HEADERS TO HAVE (2) JACKS AT INTERMEDIATE BEARINGS, UNLESS OTHERWISE NOTED. NO ADDITIONAL FLOOR SYSTEM BLOCKING OR CONTINUOUS LOAD PATH JACKS ARE REQUIRED UNLESS OTHERWISE NOTED.
3. ALL EXTERIOR WALLS TO BE 4" w/ OSB OR 3 1/2" w/ LAMINATED FIBROUS STRUCTURAL SHEATHING, ALL INTERIOR WALLS TO BE 3 1/2", UNLESS OTHERWISE NOTED.
4. HATCHED AREAS INDICATE DROPPED CEILINGS. ALL DROPPED CEILINGS ARE 12" UNLESS OTHERWISE NOTED.
5. SEE "BRACED WALL PANEL DETAIL SHEET" FOR SPECIAL WALL FRAMING LOCATIONS AND HEADER SIZES, IF APPLICABLE.
6. SEE STANDARD DETAIL CATEGORY "IT" SHEET(S) FOR INTERIOR TRIM DETAILS.
7. SEE ARCHITECTURAL DETAIL SHEET "AD" FOR HOUSE SPECIFIC INTERIOR TRIM OPTION TABLE.
8. ALL HEADERS IN NON-BEARING WALLS SHALL BE A SINGLE FLAT 2x4 OR 2x6 ATTACHED TO CRIPPLES ABOVE, UNLESS OTHERWISE NOTED.
9. TANKED WATER HEATER SHOWN AS BASE CONDITION. OPTIONAL TANKLESS WATER HEATER IS AVAILABLE IN LIEU OF TANKED WATER HEATER.

**GYPSUM NOTES**

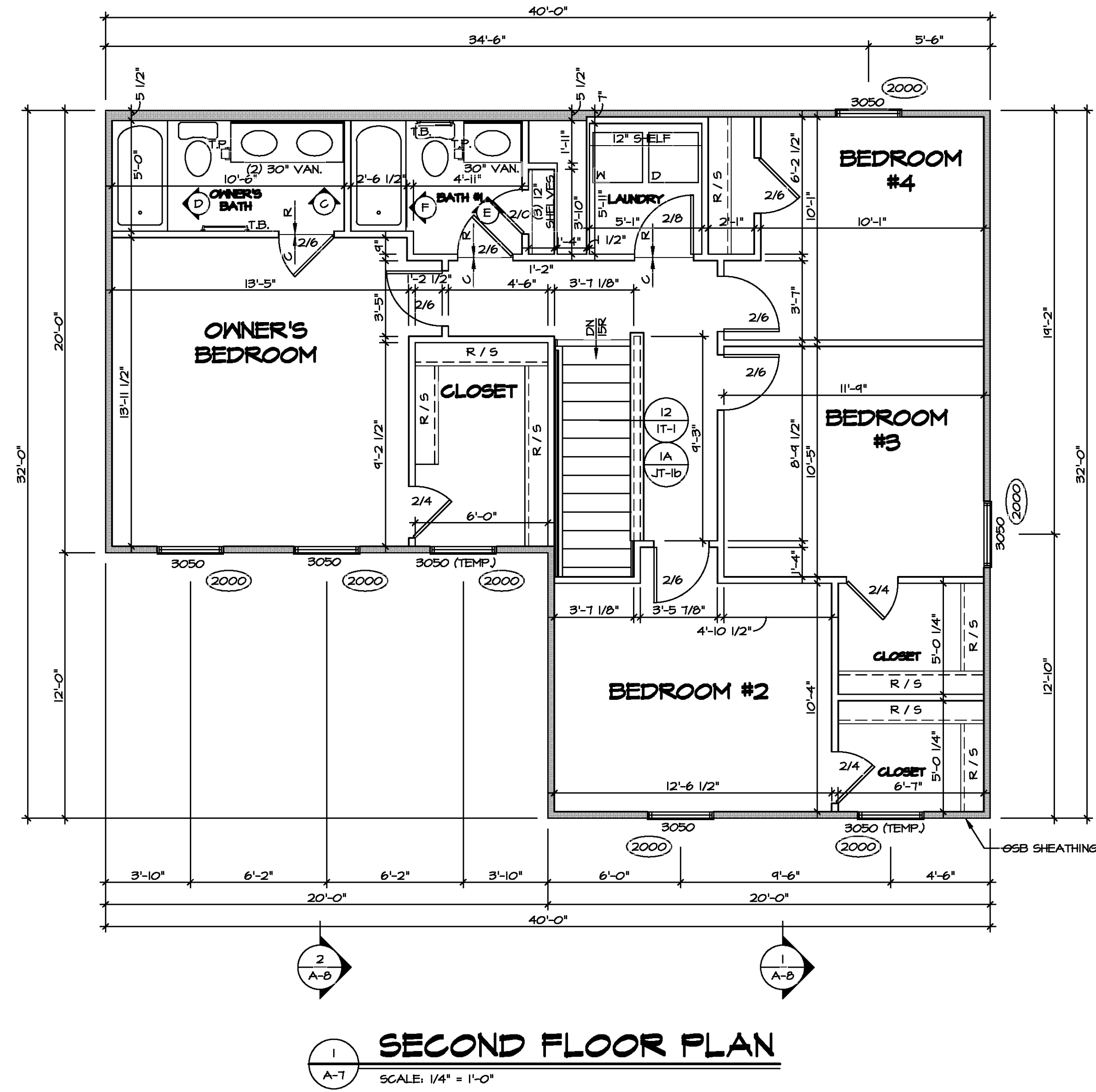
AT GARAGE:  
GYPSUM BOARD AT COMMON WALLS, CEILINGS, BEAM WRAPS AND SUPPORTS PER STANDARD DETAIL FA-1(b) FIRE ASSEMBLIES OR AS REQUIRED BY LOCAL CODE.

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

**LEGEND**

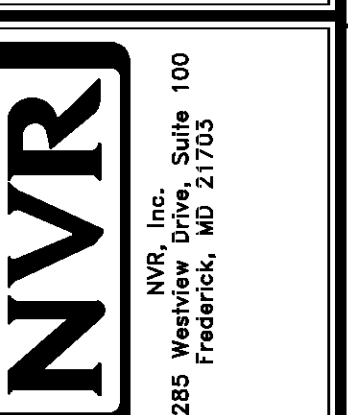
- BEARING WALL
  - NON BEARING WALL
  - INDICATES BEARING FROM POINT-LOAD ABOVE
  - JACKS
  - BEAM/HEADER
  - PAD FOOTING
  - STEEL COLUMN
  - TRUSS TIE DOWN
  - PORTAL FRAME
  - JOIST/TRUSS
  - LVL
  - ENGINEERING PAGE NUMBER
- SEE FC DETAILS FOR FRAMING CONNECTORS

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

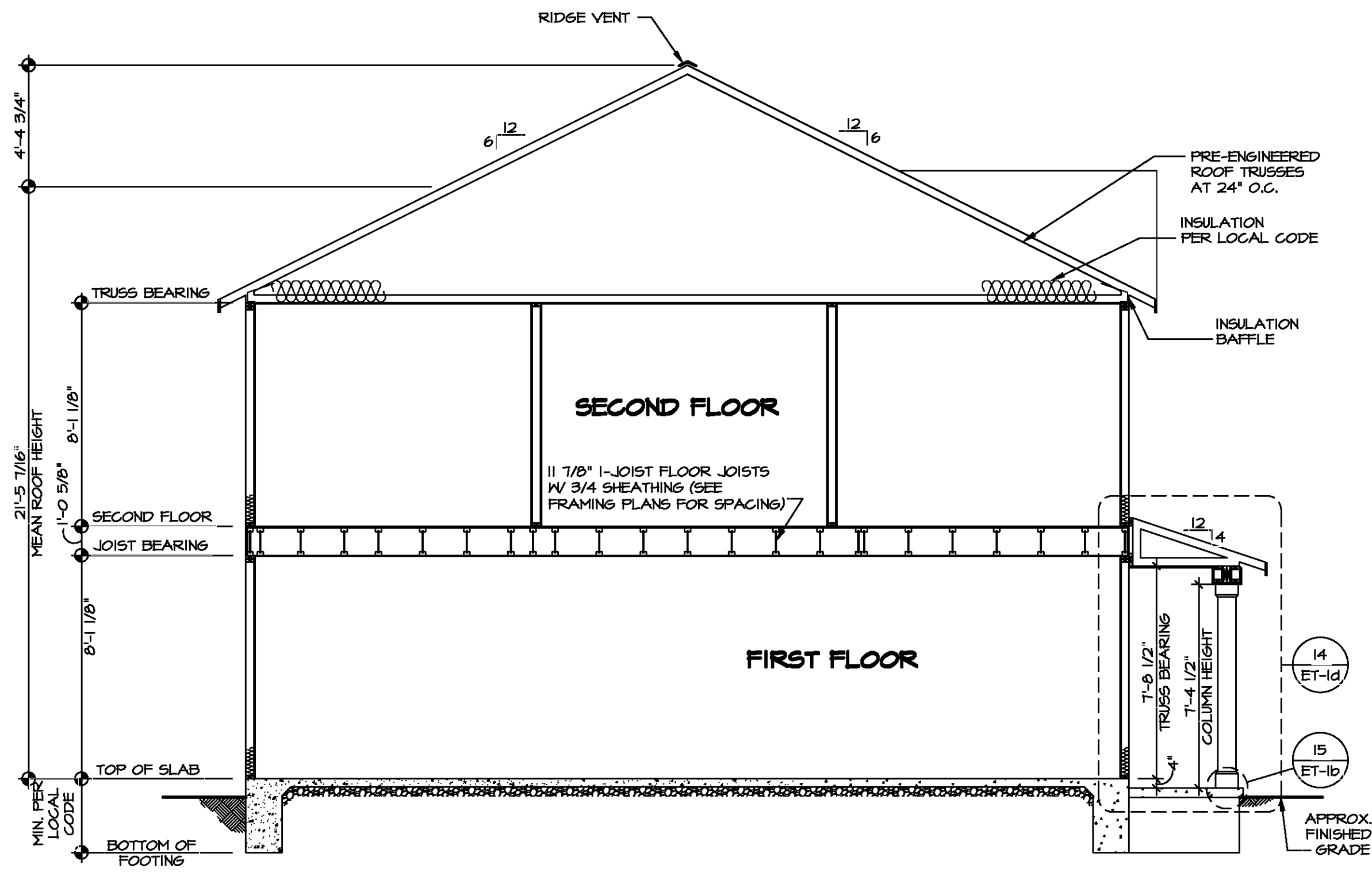


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 DIV-COMM-LOT-UNIT  
 COMM-LOT  
 STREET ADDRESS  
 CITY STATE ZIP  
 APT. NO.

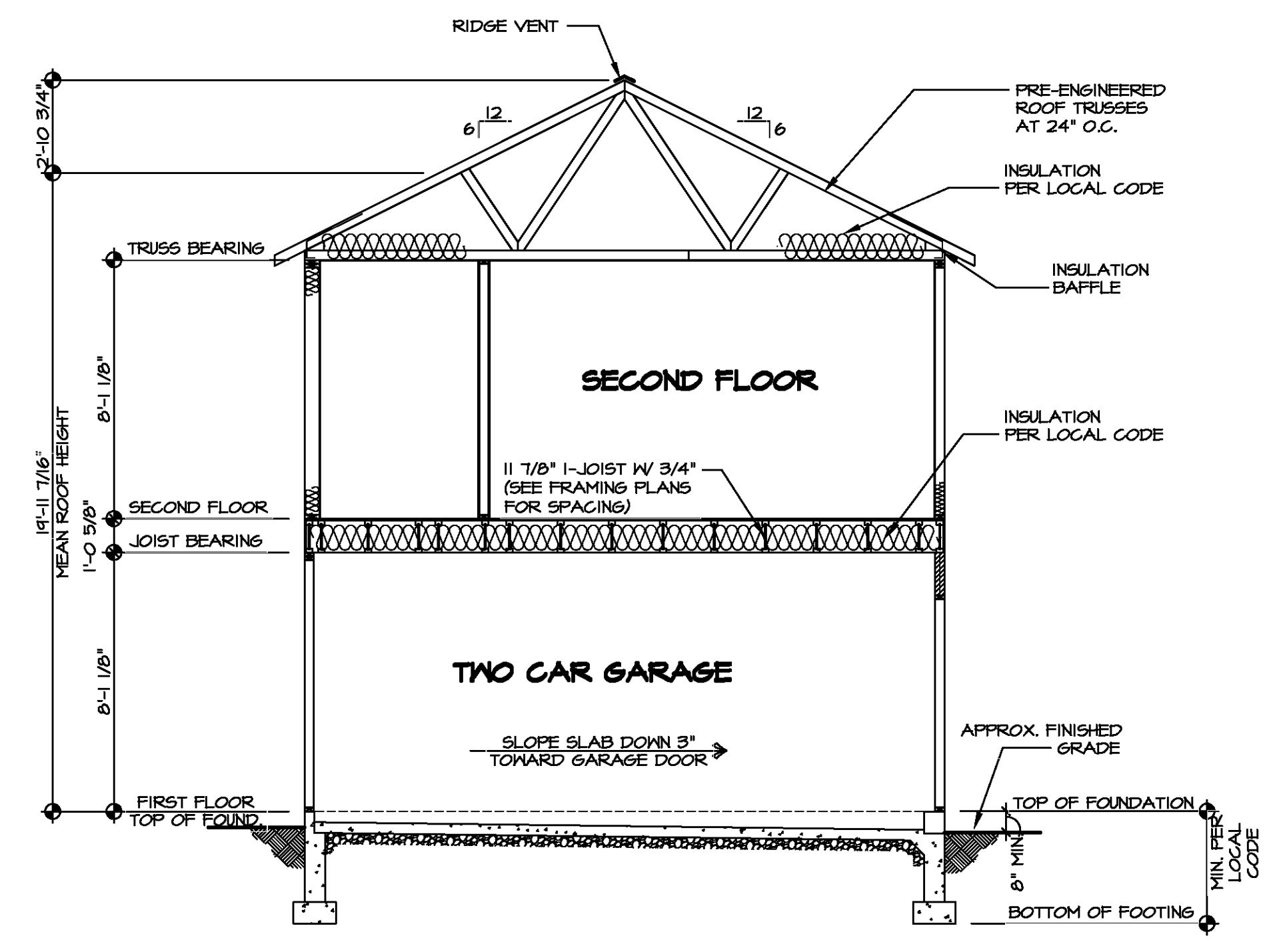
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SHEET NO.	MODEL	SET NO.	VERSION	DRAWN BY	DATE:	OPTION
A-7	BIRCH	01	01			
18				SECOND FLOOR PLAN		



**1 BUILDING SECTION - FOYER**  
 SCALE: 1/4" = 1'-0"

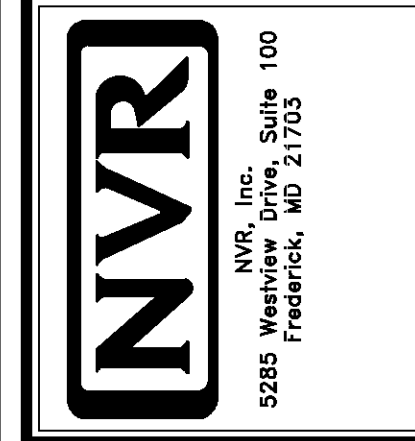


**2 BUILDING SECTION - GARAGE**  
 SCALE: 1/4" = 1'-0"



DIV-COMM-LOT-UNIT	
COM-LOT	---
STREET ADDRESS	---
CITY	---
STATE	---
APT. NO.	---
ZIP	---

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SHEET NO. <b>A-8</b>	MODEL <b>BIRCH</b>	SET NO. <b>BRH00</b>
	DRAWING TITLE <b>BUILDING SECTION</b>	VERSION <b>01</b>
OPTION DESCRIPTION <b>19</b>	DRAWN BY	DATE:
	OPTION	OPTION



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

- 1A - (2) PLY UP TO AND INCLUDING 11 7/8" TALL; FASTEN PLYS W/ (2) ROWS 16D NAILS AT 12" O.C. OR ALT 1/2" WIDE LVL FASTEN PLYS W/ (3) ROWS 12D NAILS AT 12" O.C.
- 2A - (2) PLY 14" TO AND 18" TALL (INCLUSIVE); FASTEN PLYS W/ (3) ROWS 16D NAILS AT 12" O.C. OR ALT 1/2" WIDE LVL FASTEN PLYS W/ (4) ROWS 12D NAILS AT 12" O.C.
- 3A - (2) PLY 20" TALL AND OVER; FASTEN PLYS W/ (4) ROWS 16D NAILS AT 12" O.C. OR ALT 1/2" WIDE LVL FASTEN PLYS W/ (5) ROWS 12D NAILS AT 12" O.C.
- 4A - (3) PLY UP TO AND INCLUDING 11 7/8" TALL; FASTEN PLYS W/ (2) ROWS 16D NAILS AT 12" O.C. FROM EACH SIDE OR ALT 1/2" WIDE LVL FASTEN PLYS W/ (3) ROWS 12D NAILS AT 12" O.C. FROM EACH SIDE.
- 5A - (3) PLY 14" TO AND 18" TALL (INCLUSIVE); FASTEN PLYS W/ (3) ROWS 16D NAILS AT 12" O.C. FROM EACH SIDE OR ALT 1/2" WIDE LVL FASTEN PLYS W/ (4) ROWS 12D NAILS AT 12" O.C. FROM EACH SIDE.
- 6A - (3) PLY 20" TALL AND OVER; FASTEN PLYS W/ (4) ROWS 16D NAILS AT 12" O.C. FROM EACH SIDE OR ALT 1/2" WIDE LVL FASTEN PLYS W/ (5) ROWS 12D NAILS AT 12" O.C. FROM EACH SIDE.
- 7A - (4) PLY (ALL SIZES); FASTEN PLYS W/ (2) ROWS 1/2" DIAMETER A307 BOLTS AT 24" O.C. SEE SHOP DRAWING FOR ADDITIONAL INFORMATION.

SECOND FLOOR FRAMING LENGTH SCHEDULE				
IDENTIFIER	DESCRIPTION	LENGTH	ENG. NUM.	REMARKS
2AE	FRI 60 - 11-14	34'-4 3/4"	1000	
2AH	FRI 60 - 11-14	20'-1 1/4"	1000	
2AJ	FRI 60 - 11-14	20'-2 3/8"	1000	
2AK	FRI 60 - 11-14	14'-4 3/4"	1030	J-0088
2AK-2	FRI 60 - 11-14 DEL	14'-4 3/4"	1031	J-0084
2AL	FRI 60 - 11-14	15'-10 1/2"	1032	J-0087
2AM	FRI 60 - 11-14	15'-11 1/8"	1033	J-0086
2AN	FRI 60 - 11-14	14'-10 7/8"	1034	J-0085
2AP	FRI 60 - 11-14	34'-4 3/4"	1036	J-0084
2AQ	FRI 60 - 11-14	14'-10 7/8"	1000	

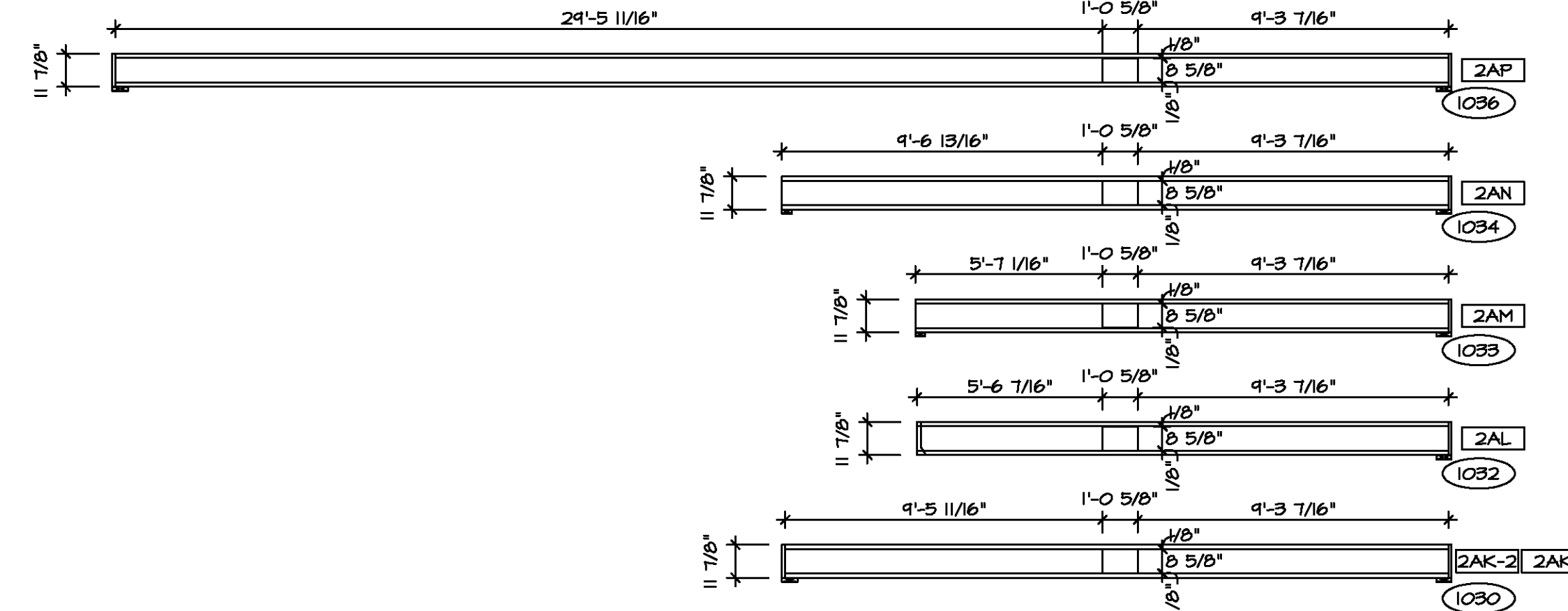
SECOND FLOOR LVL LENGTH SCHEDULE				
IDENTIFIER	DESCRIPTION	LENGTH	ENG. NUM.	REMARKS
L201-1	LVL 1.75 - 11-14	3'-5 13/16"	1002	

**1-JOIST FLOOR SYSTEM**

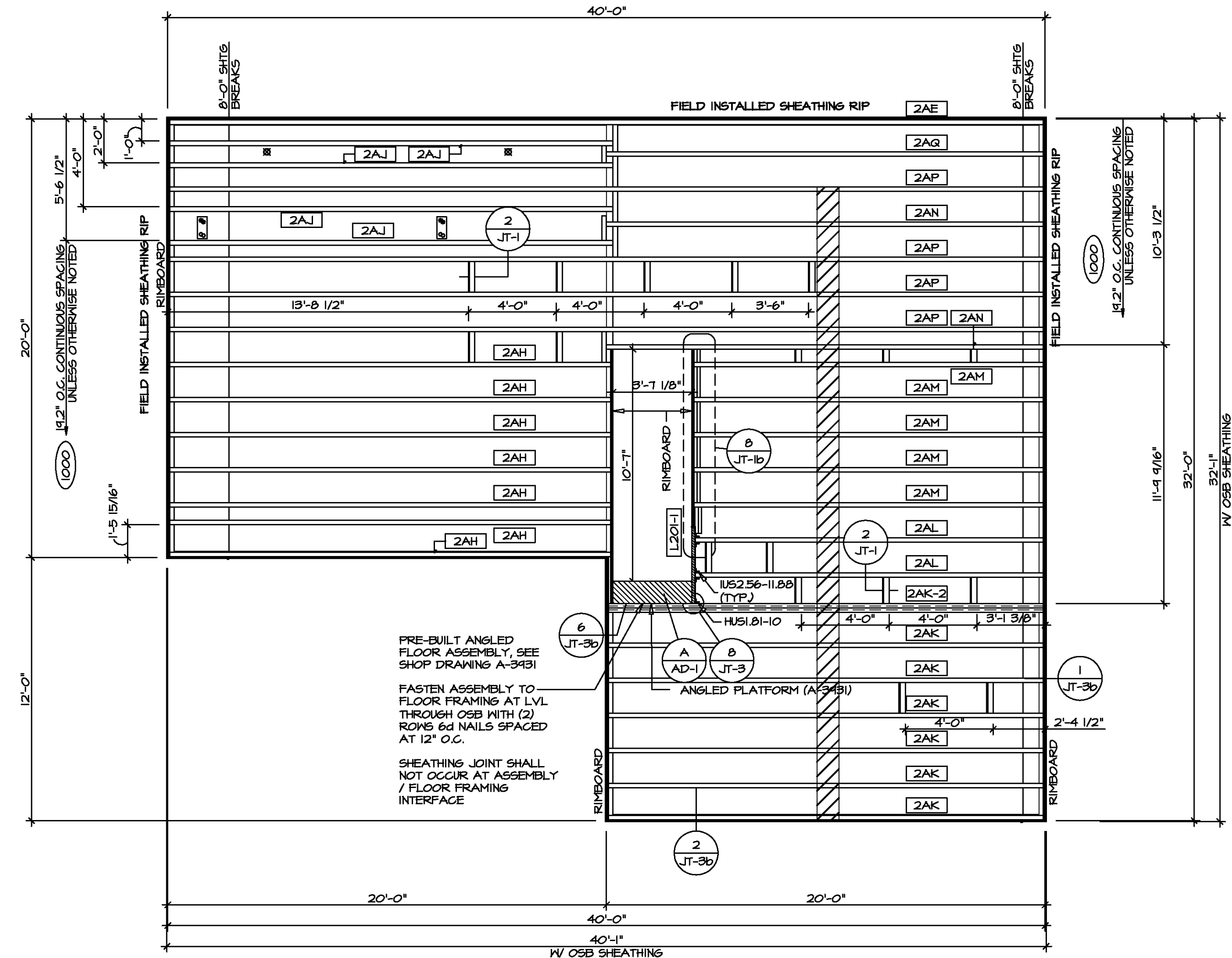
1. SUBFLOOR IS 3/4" TONGUE AND GROOVE OSB STANDARD.
2. JOIST LENGTHS SHIPPED IS THE NEXT HIGHEST LENGTH TO CUT FROM.
3. ALL RIMBOARD TO BE 1-1/8" THICK U.N.O.
4. REFER TO STANDARD DETAIL 7/JT-3 FOR HOLE CUTTING GUIDELINES.
5. PROVIDE RIMBOARD SOLID BLOCKING AT EXTERIOR WALLS AND BELOW ALL JACKS AS REQUIRED.
6. REFER TO DETAIL 8/JT-9 FOR HANGER DETAIL.
7. ALL JOISTS TO BE PRI40, PRI60 OR PRI80; REFERENCE SCHEDULE FOR SPECIFIC SERIES PER MEMBER.
  - A. PRI40 SERIES ARE SHOWN AS SHADED ON FRAMING PLAN.
8. SEE CONNECTOR / NAIL CHART IN STANDARD DETAILS (FC-4) FOR TYPICAL HANGERS.
10. ALL LVL BLOCKING CUT FROM 14'-0" MATERIAL.
11. ADHESIVE TO BE APPLIED AT THE RATE OF (1) TUBE PER TWO AND ONE-HALF SHEETS; SHEETS ARE TO BE GLUED AND PLACED ONE AT A TIME. **APPLY GLUE TO TONGUE AND GROOVE.**
12. 1-JOIST BLOCKING CUT FROM 2'-0" MATERIAL.
13. ADHESIVE TO BE ADDED TO ALL JOIST HANGERS PRIOR TO SETTING JOISTS.

**LEGEND**

- BEARING WALL
  - ⊗ INDICATES BEARING FROM POINT-LOAD ABOVE
  - J JACKS
  - B BEAM/HEADER
  - F PAD FOOTING
  - C STEEL COLUMN
  - X TRUSS TIE DOWN
  - X PORTAL FRAME
  - X JOIST/TRUSS
  - L LVL
  - X ENGINEERING PAGE NUMBER
- SEE FC DETAILS FOR FRAMING CONNECTORS



**2 HOLE CUT DETAIL**  
SCALE: 1/4" = 1'-0"



**1 SECOND FLOOR FRAMING PLAN**  
SCALE: 1/4" = 1'-0"

DIV-COMM-LOT-UNIT

COM-LOT

STREET ADDRESS

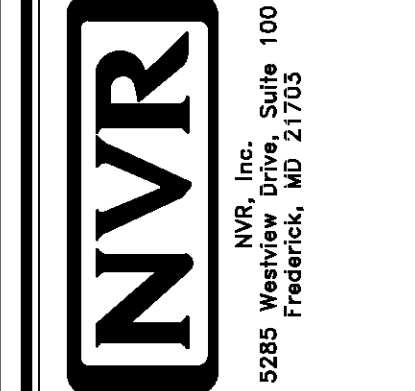
CITY

STATE

ZIP

APT. NO.

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MODEL: BIRCH

DRAWING TITLE: SECOND FLOOR JOIST LAYOUT

OPTION DESCRIPTION: 2B

SET NO. BRH00

VERSION 01

DRAWN BY

DATE:

OPTION

SHEET NO. S-2

2B



TRUSS SCHEDULE					
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
AE	SE	13174	32'-0"	6/12	SPECIAL
AF	SE	13155	3'-10 1/2"	4/12	MONO
AH	SE	16440	32'-0"	6/12	STUDDED GABLE
AJ	SE	16441	32'-0"	6/12	GABLE END
AK	SE	16442	20'-0"	6/12	GABLE END
VO1	VT	01261	2'-0"	12-6/12	VALLEY
VO2	VT	01262	4'-0"	12-6/12	VALLEY
VO3	VT	01263	6'-0"	12-6/12	VALLEY
VO4	VT	01264	8'-0"	12-6/12	VALLEY
VO6	VT	44108	8'-4"	12-6/12	VALLEY

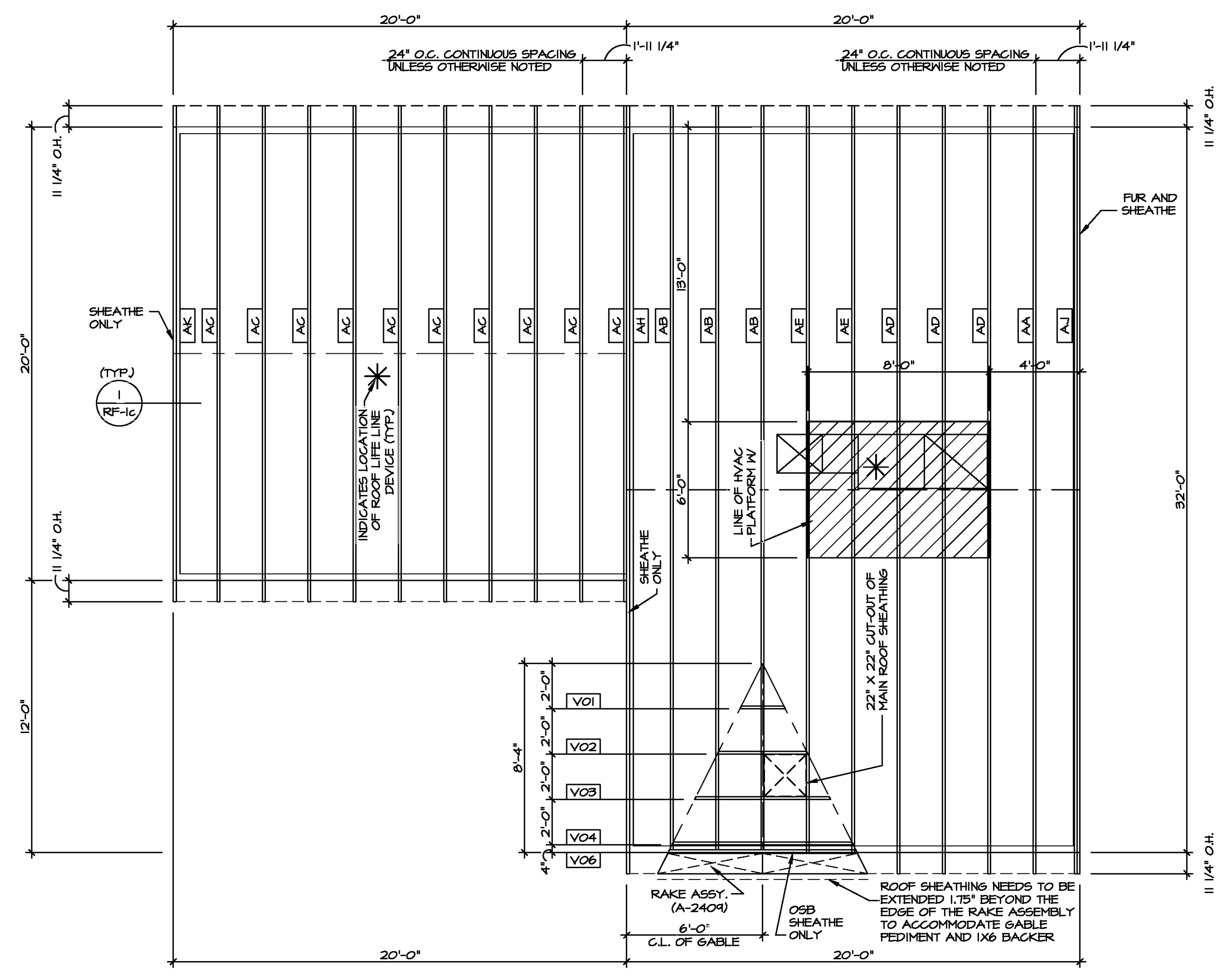
FIELD INSTALLED ROOF FRAMING BEAM/HEADER SCHEDULE				
IDENTIFIER	DESCRIPTION	LENGTH	ENG. NUM.	REMARKS
B201	BEAM BUILT 2X8 - 2 PLY RFF	6'-0"	1019	

- ROOF FRAMING NOTES**
- REFER TO THE STANDARD DETAILS FOR THE FOLLOWING:
    - TRUSS TIE-DOWNS (1/RF-1)
    - PIGGYBACK TRUSS ATTACHMENT (2/RF-1)
    - VALLEY GABLE TRUSS BRACING (3/RF-1)
    - GABLE BRACING (1/RF-1c)
    - TRUSS BRACING (2/RF-1c)
    - LIFELINE ATTACHMENT (5/RF-1)
    - FALL PROTECTION ON PLATFORM TRUSSES (1/RF-1)
  - IF TRUSS DOES NOT APPEAR ON THE TRUSS BRACING SHEET, NO ADDITIONAL LATERAL BRACING REQUIRED.

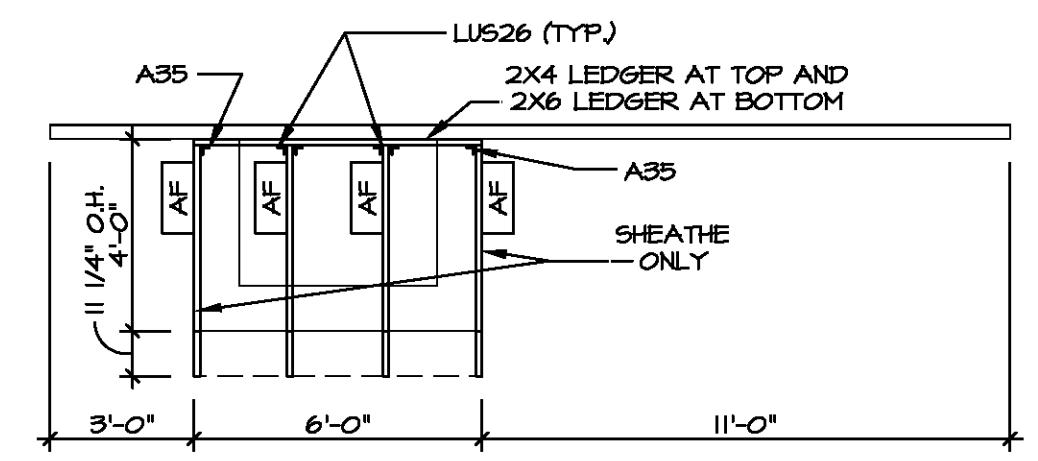
**LEGEND**

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

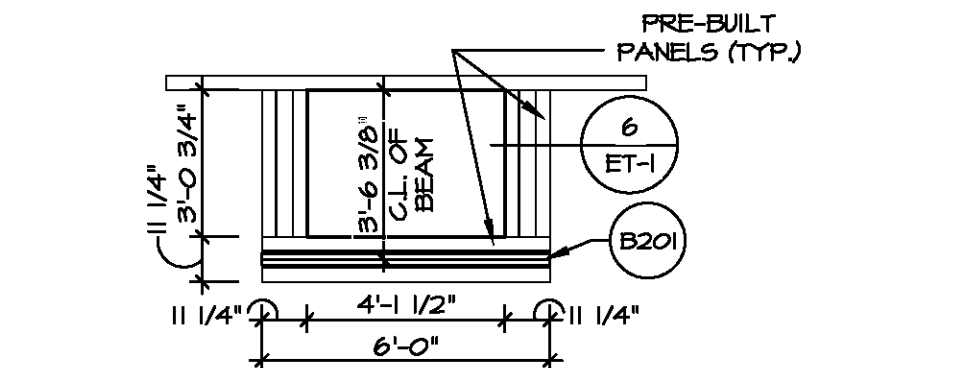
SEE FC DETAILS FOR FRAMING CONNECTORS



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



**2 PORCH ROOF FRAMING PLAN**  
SCALE: 1/4" = 1'-0"



**3 PORCH BEAM FRAMING PLAN**  
SCALE: 1/4" = 1'-0"

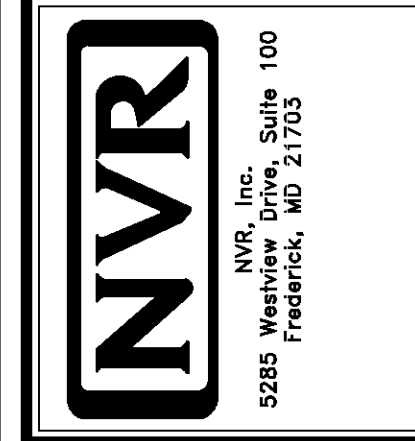
DIV-COMM-LOT-UNIT

COM-LOT

STREET ADDRESS

CITY STATE ZIP

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SHEET NO. **S-3**

MODEL **BIRCH**

DRAWING TITLE **ROOF FRAMING PLAN**

OPTION DESCRIPTION

SET NO. **BRH00**

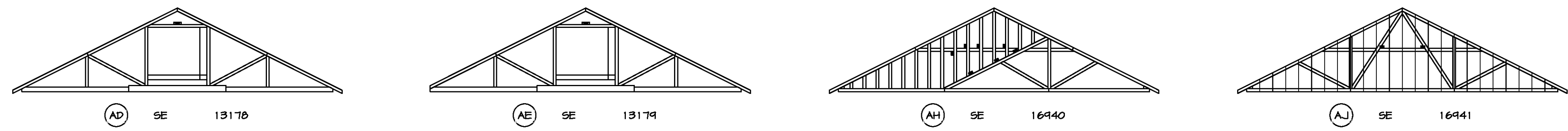
VERSION **01**

DRAWN BY

DATE:

OPTION

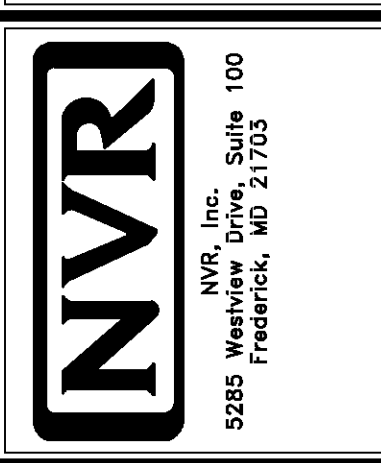
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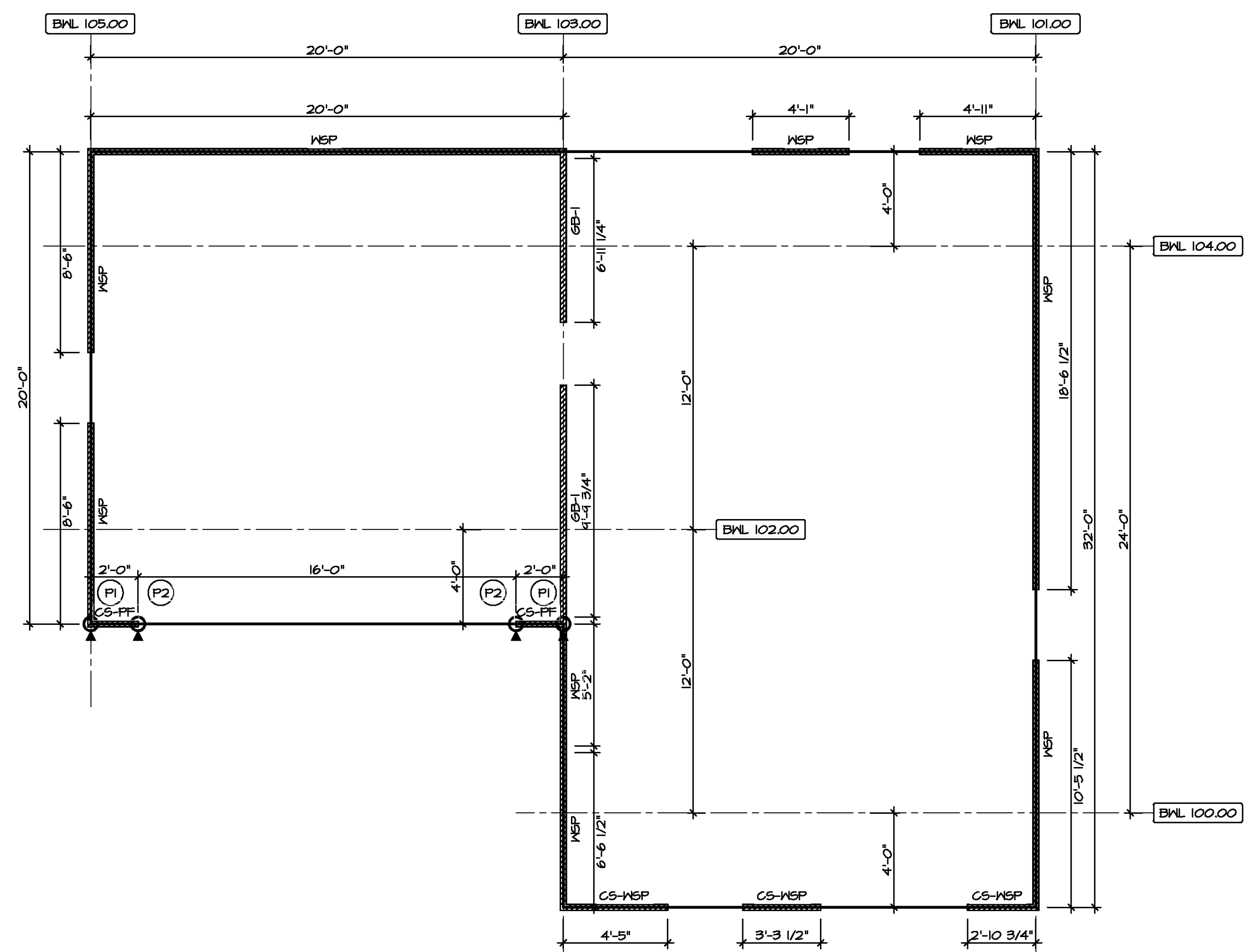
**TRUSS BRACING**  
SCALE: 1/8" = 1'-0"

- TRUSS BRACING NOTES**
- IF TRUSS DOES NOT APPEAR ON THIS TRUSS BRACING SHEET, NO ADDITIONAL LATERAL BRACING IS REQUIRED.
  - 1X6 SPP#2 LATERAL BRACES SHALL BE NAILED TO MINIMUM (3) TRUSS MEMBERS WITH MINIMUM (2) 10D NAILS. PROVISIONS MUST BE MADE AT ENDS OR SPECIFIED INTERVALS TO RESTRAIN OR ANCHOR LATERAL BRACING.
  - WEB "I" BRACE, DETAIL 5/RF-1c, IS REQUIRED WHERE LATERAL BRACING IS NOT CONTINUOUS ACROSS THREE (3) OR MORE TRUSSES AND MAY BE USED IN LIEU OF 1X6 LATERAL BRACING.
  - DIAGONAL BRACING REQUIRED WHEN LATERAL BRACING IS REQUIRED (7/RF-1)
  - STUDDED GABLE BRACING DETAIL 1/RF-1c TO BE UTILIZED FOR TRUSSES 6'-4" IN HEIGHT OR GREATER.
  - PARTIALLY SHEATHED GABLES, SEE 5/RF-1c FOR "L" BRACING WHEN REQUIRED.
  - LATERAL BRACING CAN BE APPLIED TO EITHER SIDE OF THE WEB MEMBER IDENTIFIED IN THE DRAWING.
  - SHEATHING (OSB OR GYPSUM) REPLACES LATERAL AND DIAGONAL TRUSS BRACING.

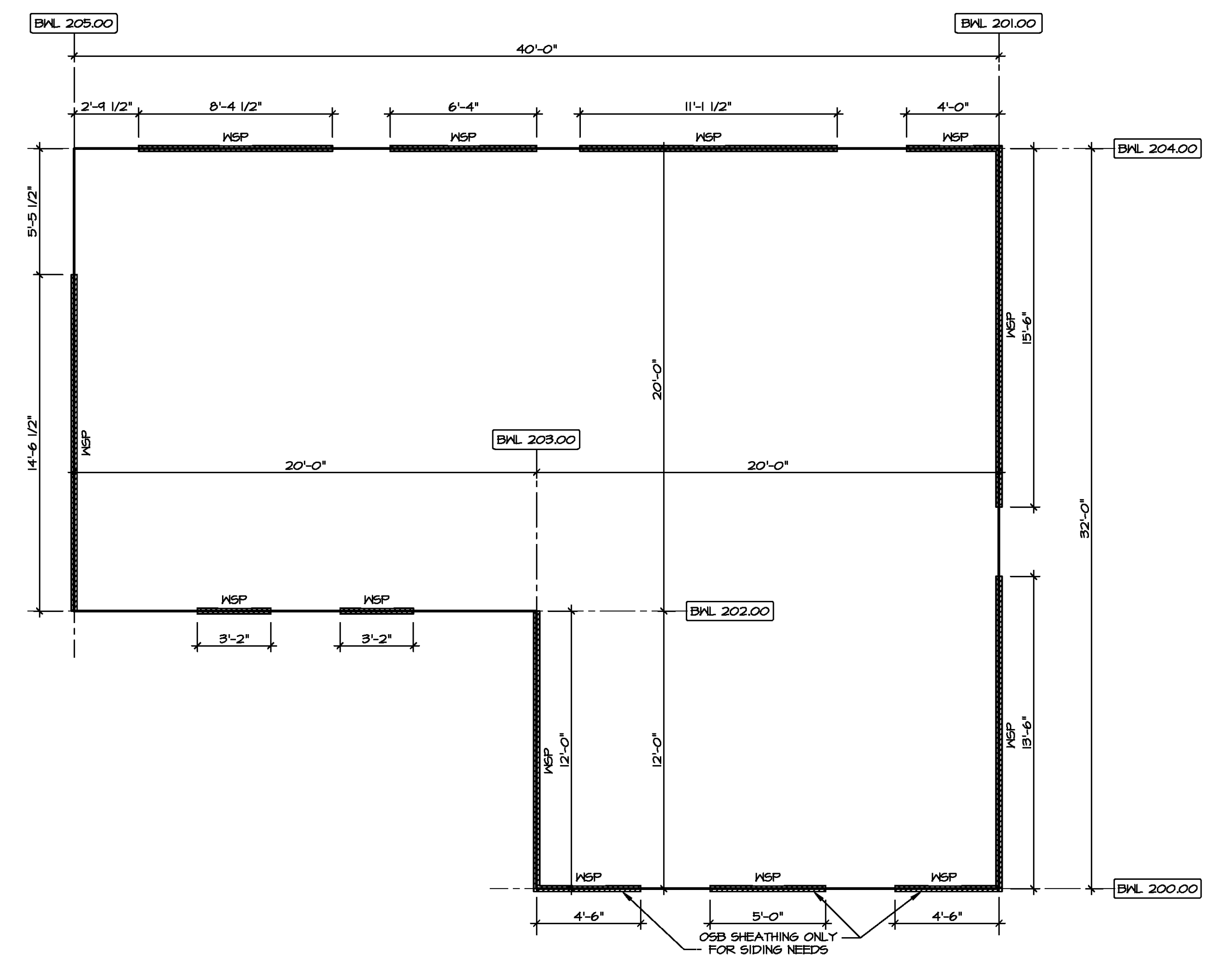
DIV-COMM-LOT-UNIT  
COMM-LOT  
STREET ADDRESS  
CITY STATE ZIP  
APT. NO.



MODEL <b>BIRCH</b>	SET NO. BRH00
DRAWING TITLE <b>TRUSS BRACING</b>	VERSION 01
OPTION DESCRIPTION	DRAWN BY
	DATE:
	OPTION
SHEET NO. <b>S-4</b>	
	<b>32</b>



**1 FIRST FLOOR WALL BRACING DETAIL**  
SCALE: 1/4" = 1'-0"



**2 SECOND FLOOR WALL BRACING DETAIL**  
SCALE: 1/4" = 1'-0"

**LEGEND**

BWL XXXXX BRACED WALL LINE I.D.

— BRACED WALL LINE

— HOUSE WALL

▨ BRACED WALL PANEL

WSP WOOD STRUCTURAL PANEL

GB GYPSUM BOARD (1) SIDED OR (2) SIDED

GB-BW GYPSUM BOARD BLOCKED WALL CONSTRUCTION (1) SIDED OR (2) SIDED (SEE STANDARD DETAIL 6/NB-2)

LIB LET-IN BRACING (SEE STANDARD DETAIL F / NB-2)

CS-WSP CONTINUOUS SHEATHING - WOOD STRUCTURAL PANEL

CS-PF CONTINUOUS SHEATHING - PORTAL FRAME, SEE FLOOR PLANS FOR PORTAL FRAME HEADER INFORMATION (SEE STANDARD DETAIL A, C / NB-2)

CS-G CONTINUOUS SHEATHING - WOOD STRUCTURAL PANEL ADJACENT TO GARAGE OPENINGS

○ HOLD-DOWN  
1. SEE SHEET WB-2 "P" - INDICATOR SCHEDULE AND DETAILS  
2. ARROW INDICATES LOCATION

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

**FASTENING SCHEDULE**

SHEATHING	FASTENER	SPACING	
		EDGES	FIELD
7/16" WOOD STRUCTURAL PANELS OR EQUIVALENT (W METHOD WSP, CS-WSP, CS-G)	8d COMMON NAILS  ALTERNATIVE FASTENER 1-3/4" 16-GAUGE CORROSION RESISTANT STAPLES	6" O.C.	12" O.C.
1/2" GYPSUM WALLBOARD (W METHOD GB-1, GB-2)	1-1/4" LONG, 1/4" HEAD, 108d DIA. ANNULAR-RINGED NAILS CORROSION RESISTANT TYPE W 1-1/4" DRYWALL SCREWS	7" O.C.	7" O.C.
LAMINATED FIBROUS STRUCTURAL SHEATHING	10d X 1 1/4" GALVANIZED ROOFING NAILS 1-1/4" 16-GAUGE CORROSION RESISTANT STAPLES	3" O.C.	3" O.C.
1/2" GYPSUM WALLBOARD BLOCKED AT THE EDGES (W METHOD GB-BW-1, GB-BW-2)	BLOCKING REQUIRED AT ALL GYPSUM EDGES. USED CORROSION RESISTANT TYPE W 1-1/4" DRYWALL SCREWS	4" O.C.	12" O.C.

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

**BRACED WALL LINE SCHEDULE**

WIND SPEED (ULT)	IDENTIFIER	ACTUAL (FT)	REQUIRED (FT)	METHOD
130 MPH	BWL 100.00	10.61'	8.27'	CONTINUOUS (2 SIDES)
130 MPH	BWL 101.00	24.00'	10.76'	WSP (2 SIDES)
130 MPH	BWL 102.00	6.00'	5.84'	CONTINUOUS (2 SIDES)
130 MPH	BWL 103.00	20.04'	18.13'	GB
130 MPH	BWL 104.00	29.00'	9.74'	WSP (2 SIDES)
130 MPH	BWL 105.00	17.00'	10.76'	WSP (2 SIDES)
130 MPH	BWL 200.00	14.00'	5.84'	WSP (2 SIDES)
130 MPH	BWL 201.00	29.00'	7.63'	WSP (2 SIDES)
130 MPH	BWL 202.00	6.88'	4.72'	WSP (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'	WSP (2 SIDES)

DIV-COMM-LOT-UNIT

COM-LOT

STREET ADDRESS

CITY

STATE

APT. NO.

ZIP

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Frederick, MD 21703

SET NO. BRH00  
VERSION 01  
DRAWN BY SKB  
DATE: \_\_\_\_\_  
OPTION

MODEL  
**BIRCH**  
DRAWING TITLE  
**WALL BRACING DETAILS**

SHEET NO.  
**S-5**

OPTION DESCRIPTION  
**33**