AREA MAP

FRONT ELEVATION

DRAWING INDEX

DWG INDEX #:

SHEET 1 OF 5

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

A0.0 COVER PAGE

OREGON ENERGY CODE SUMMARY 2021

[X] New Construction. All conditioned spaces within residential buildings must comply with Table N1101.1(1) and one additional measure from Table N1101.1(2)

[ ] Additions. Additions to existing buildings or structures may be made without making the entire building or structure comply if the new additions comply with the requirements of this chapter. (N1101.3)

[ ] Large additions. Additions that are equal to or more than 600 square feet (55m2) in area shall be required to comply with Table N1101.1(2).

[ ] Small additions. Additions that are less than 600 square feet (55m2) in area shall be required to select one measure from Table N1101.1(2) or comply with Table N1101.3.

[ ] Exception: Additions that are less than 225 square feet (20.9m2) in area shall not bet required to comply with Table N1101.1(2) or Table N1101.3.

TABLE N1101.1(1) PRESCRIPTIVE ENVELOPE REQUIREMENTS

BUILDING COMPONENT	STANDARD BASE CASE Required Performance	STANDARD BASE CASE Equiv. Value	LOG HOMES ONLY Required Performance	LOG HOMES ONLY Equiv. Value
Wall insulation-above grade	U-0.059[c]	R-21 intermediate[c]	Note d	Note d
Wall insulation-below grade [e]	C-0.063	R-15[c] / R-21	C-0.063	R-15/ R-21
Flat ceilings [f]	U-0.021	R-49	U-0.020	R-49 A [k]
Vaulted ceilings [g]	U-0.033	R-30 Rafter or R-30A [g,h] Scissor Truss	U-0.027	R-38A [k]
Underfloors	U-0.033	R-30	U-0.033	R-30
Slab edge perimeter [m]	F-0.520	R-15	F-0.520	R-15
Heated slab interior [i]	n/a	R-10	n/a	R-10
Windows [j]	U 0.27	U-0.27	U-0.27	U-0.27
Skylights	U-0.50	U-0.50	U-0.50	U-0.50
Exterior doors [k]	U-0.20	U-0.20	U-0.54	U-0.54
Exterior doors w/>2.5 ft glazing [l]	U-0.40	U-0.40	U-0.40	U-0.40

For SI: 1 inch=25.4 mm, 1 square foot = 0.0929 m^2, 1 degree = 0.0175 rad.

a. As allowed in Section N1104.1, thermal performance of a component may be adjusted provided that overall heat loss does not exceed the total resulting from conformance to the required U-value standards. Calculations to document equivalent heat loss shall be performed using the procedure and approved U-values contained in Table N1104.1(1).
b. R-values used in this table are nominal for the insulation only in standard wood framed construction and not for the entire assembly.
c. Wall insulation requirements apply to all exterior wood framed, concrete or masonry walls that are above grade. This includes cripple walls and rim joist areas. Nominal compliance with R-21 insulationin and intermediate Framing (N1104.2) with unsulated headers.
d. The wall component shall be a minimum solid log or timber wall thickness of 3.5 inches (90 mm).
e. Below-grade wood, concrete or masonry walls include all walls that are below grade and do not include those portions of such wall that extend more than 24 inches (609.6 mm) above grade. R-21 insulation in framed cavity, R-15 continuous insulation.
f. Insulation levels for ceilings that have limited attic/rafter depth such as dormers, bay windows or similar architectural features totalling not more than 150 square feet (13.9 m^2) in area may be reduced to not less than R-21.
g. Vaulted ceiling surface area exceeding 50 percent of the total heated space floor area shall have a U-factor no greater than U-0.026 (equivalent to R-38 rafter or scissor truss with R-38 advanced framing)
h. A = Advanced frame construction. See Section N1104.6.
i. Heated slab interior applies to concrete slab floors (both on and below grade) that incorporate a radiant heating system within the slab. Insulation shall be installed underneath the entire slab.
j. Sliding glass doors shall comply with window performance requirements. Windows exempt from testing in accordance with Section NF111.2, Item 3 shall comply with window performance requirements if constructed with thermal break aluminum or wood, or vinyl, or fiberglass frames and double-pane glazing with low-emissivity coatings of 0.10 or less.
Buildings designed to incorporate passive solar elements may include glazing with a U-factor greater than 0.35 by using Table N1004.1(1) to demonstrate equivalence to building envelope requirements.
k. A maximum of 28 square feet of exterior door area per dwelling unit can have a U-factor of 0.54 or less
l. Glazing that is either double pane with low-e coating on one surface, or triple pane shall be deemed to comply with this requirement.
m. Minimum 24-inch horizontal or vertical below grade.

TABLE N1101.1(2) ADDITIONAL MEASURES

Selected item number: 1

(1) High-efficiency HVAC system:[a]
[ ] a. Gas-fired furnace or boiler with minimum AFUE of 94% or
[ ] b. Air-source heat pump HSPF of 10.0/ 14.0 SEER cooling or
[ ] c. Ground source heat pump COP of 3.5 or Energy Star

(2) High-efficiency water heating system:
[ ] a. Natural gas/propane, water heater with minimum UEF .90 or
[ ] b. Electric heat pump water heater with minimum 2.0 COP or
[ ] c. Natural gas/propane tankless/istantaneous heater with minimum 0.80 UEF and Drain Water Recovery Unit installed on minimum of one shower/tub -shower.

(3) Wall Insulation upgrade:
[ ] Exterior walls-U-0.45/R-21 conventional framing with R-5.0 continuous insulation.

(4) Advanced envelope
[ ] Windows-U0.21 (Area weighted average), and
Flat ceiling-U-0.017/R-60 and
Framed floors-U0.26/R-38 or slab edge insulation to F-0.48 or less (R-10 for 48", R-15 for 36", R-5 fully insulated slab)

(5) Ductless heat pump:
[ ] For dwelling units with all-electric provide:
Ductless heat pump of minimum HSPF 10 in primary zone replaces zonal electric heat sources, and
Programmable thermostst for all heaters in bedrooms

(6) High efficiency thermal envelope UA[c]
[ ] Proposed UA is 8 percent lower than the code UA

(7) Glazing area:
[ ] Glazing area, measured as the total framed openings is less than 12 percent of conditioned floor area.

(8) 3 ACH air leakage control abd efficient ventilation:
[ ]Achieve a maximum of 3.0 ACH50 whole-house air leakage when third-party tested and provide a whole-house ventilation system including heat recovery with a minimum sensible heat recovery efficiency of not less than 66 percent.

For SI: 1 square foot = 0.093 m , 1 watt per square foot = 10.8 W/m
a. Appliances located within the building thermal envelope shall have sealed combustion air installed. Combustion air shall be ducted directly from the outdoors.
b. The maximum vaulted ceiling surface area shall be greater than 50 percent of the total heated space floor area unless vaulted area has a U-factor no greater than U-0.026.
c. In accordance with table N1104.1(1), the proposed UA total of the proposed alternative design shall be a minimum of 8 percent less than the code UA of the standard base case.

N1105.2 Insulation of ducts.

All new duct systems or new portions of duct systems exposed to unconditioned spaces, and buried ductwork within insulation that meets the exception to Section N1105.3, shall be insulated to minimum R-8.

Exceptions:

1. The replacement or addition of a furnace, air conditioner or heat pump shall not require existing ducts to be insulated to current code.
2. Exhaust and intake ductwork.

N1105.3 Installation of ducts.

All new duct systems and air handling equipment and appliances shall be located fully within the building thermal envelope.

Exceptions:

1. Ventilation intake ductwork and exhaust ductwork.
2. Up to 5 percent of the length of an HVAC system ductwork shall be permitted to be located outside of the thermal envelope.
3. Ducts deeply buried in insulation in accordance all of the following:
   3.1. Insulation shall be installed to fill gaps and voids between the duct and the ceiling, and aminimum of R-19 insulation shall be installed above the duct between the duct and unconditioned attic.
   3.2. Insulation depth marker flags shall be installed on the ducts every 10 feet (3048 mm) or as *approved* by the *building official*.

BUILDING CODE SUMMARY

BUILDING CODE: 2021 OREGON RESIDENTIAL SPECIALTY CODE,
2021 OREGON PLUMBING SPECIALTY CODE,
2020 OREGON ELECTRICAL SPECIALTY CODE,
2019 OREGON MECHANICAL SPECIALTY CODE
2019 OREGON STRUCTURAL SPECIALTY CODE

CONSTRUCTION TYPE: TYPE V B– WOOD FRAMED

OCCUPANCY TYPE: R – RESIDENTIAL

STRUCTURAL LOADS: FLOOR LOAD: 40PSF LL, 12 PSF DL,
10 PSF PARTITION
ROOF LOAD: 25 PSF SNOW (1810' ELEVATION)
15PSF DL

BUILDING PLANNING DATA:

1. SEISMIC DESIGN CATEGORY (SDC) FROM TABLE R301.2(1): D0
2. BASIC WIND SPEEDS FROM FIGURE R301.2(4): 100 m.p.h.
3. EXPOSURE CLASSIFICATION FROM SECTION R301.2.1.4: B
4. WIND LOADS FROM TABLE 301.2(1) AND TABLE R301.2(2): 18 psf
5. WEIGHTS OF MATERIALS PER SECTION R301.2.2.2.1:

	DEAD	LIVE
(A) ROOF/CEILING ASSEMBLY:	15 P.S.F.	25 P.S.F.-SNOW LOAD
(B) EXTERIOR WALL BRACED LINE:	15 P.S.F.	
(C) INTERIOR WALL BRACED LINE:	10 P.S.F.	
(D) FLOOR ASSEMBLY:	15 P.S.F.	40 P.S.F.

HEADER SPANS:

HEADER SPANS PER TABLE R502.5(1) & R502.5(2)
PAGE 5-7 / 5-8 OF CHAPTER 5, 2011 RESIDENTIAL CODE BOOK
AND SCHEDULE ON ROOF PLAN

ATTIC VENTING:

1/150 TOTAL NET FREE VENTILATING AREA
1/300 PROVIDED AT LEAST 50% AND NOT
MORE THAN 80% VENTILATION AREA PROVIDED
W/ VENT OPENINGS LOCATED IN UPPER PORTION
OF SPACE AT LEAST 3' ABOVE EAVES OR CORNICE
VENTS W/ BALANCE PROVIDED BY EAVE OR CORNICE VENTS

FOUNDATION VENTING:

THE MINIMUM NET AREA OF VENTILATION OPENINGS SHALL NOT BE LESS THAN 1 SQUARE FOOT (0.0929 M2) FOR EACH 150 SQUARE FEET (14 M2) OF UNDER-FLOOR SPACE AREA, UNLESS THE GROUND SURFACE IS COVERED BY A CLASS 1 VAPOR RETARDER MATERIAL. WHEN A CLASS 1 VAPOR RETARDER MATERIAL IS USED, THE MINIMUM NET AREA OF VENTILATION OPENINGS SHALL NOT BE LESS THAN 1 SQUARE FOOT (0.0929 M2) FOR EACH 1,500 SQUARE FEET (140 M2) OF UNDER-FLOOR SPACE AREA. ONE SUCH VENTILATING OPENING SHALL BE WITHIN 3 FEET (914 MM) OF EACH CORNER OF THE BUILDING.

PLANNING SUMMARY

PROPERTY DESCRIPTION:
ZONING DESIGNATION:
ASSESSOR'S PARCEL NUMBER: ---

LOT COVERAGE SUMMARY
PROPOSED BUILDING FOOTPRINT: 924 S.F.

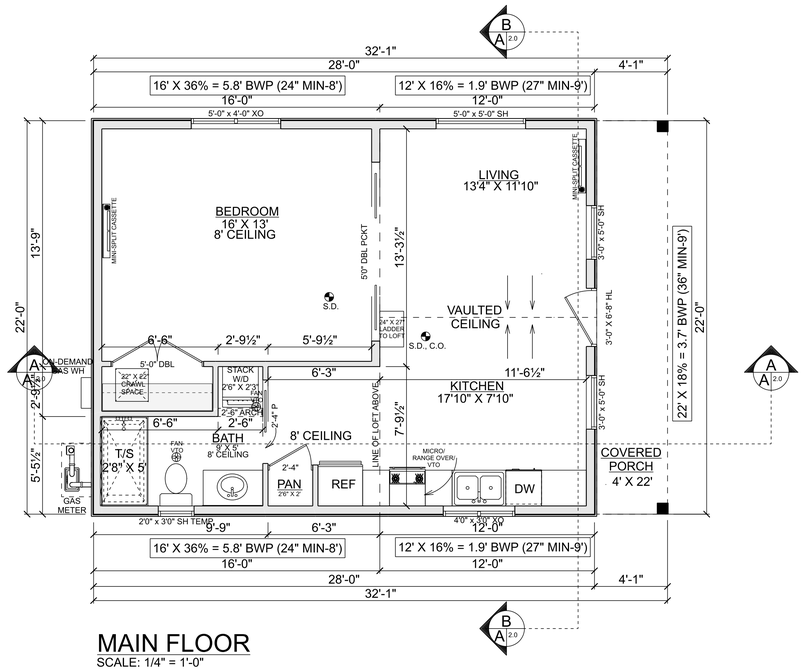
PROPOSED TOTAL LOT COVERAGE: 924 S.F.

TOTAL LOT AREA:
TOTAL LOT COVERAGE ALLOWED:
TOTAL PROPOSED LOT COVERAGE: 924 S.F.

GHFA TOTAL FOR PROPOSED RESIDENCE: 924 S.F.
GHFA MAIN FLOOR: 616 S.F.
GHFA UPPER FLOOR : 308 S.F.

HT. OF (N) ROOF: 21' 4"
TYPE/SLOPE OF ROOF: TRUSS/GABLES: 12/12 & SHEDS: 5/12
SETBACK STANDARDS:
FRONT:
REAR :
SIDE :

MODEL 616 ADU

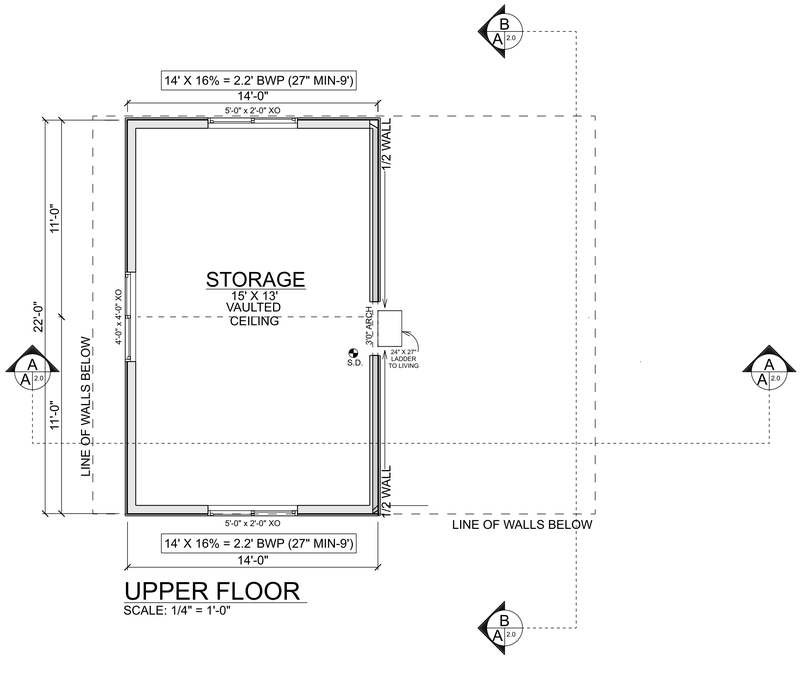


MAIN FLOOR
SCALE: 1/4" = 1'-0"

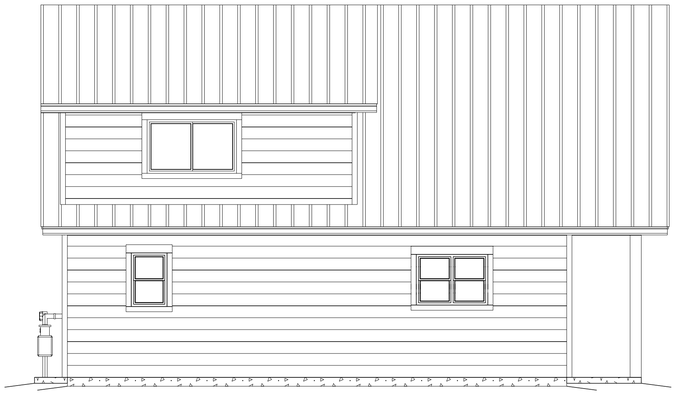
MAIN FLOOR:
LIVING S.F.: 616

STORAGE S.F.: 308

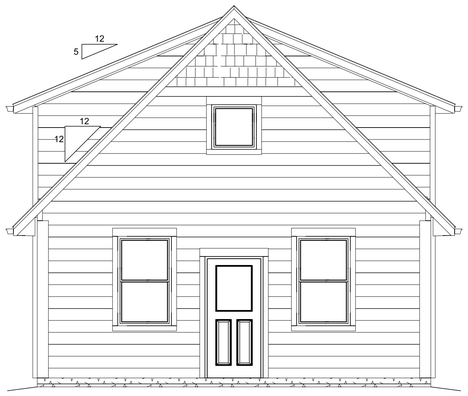
TOTAL LIVING S.F.: 616



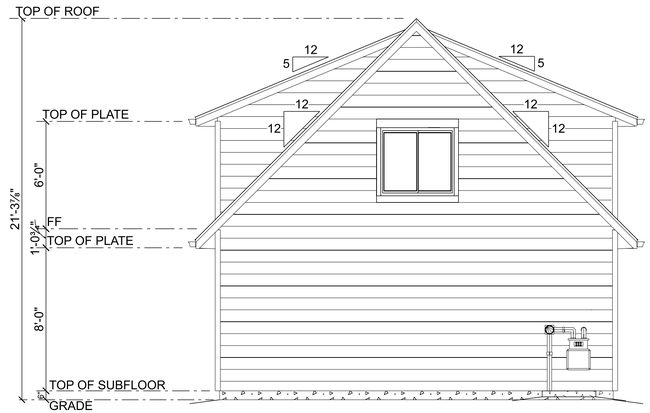
UPPER FLOOR
SCALE: 1/4" = 1'-0"



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



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



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

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

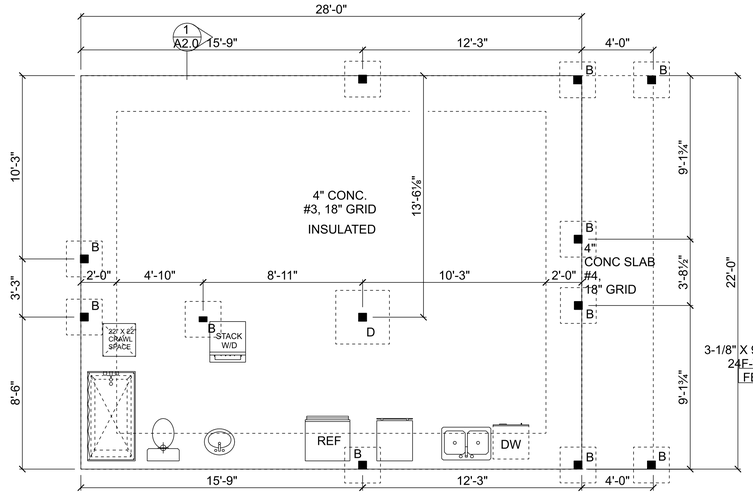
DWG INDEX #:

A1.0 FLOOR PLAN-EXT ELEV

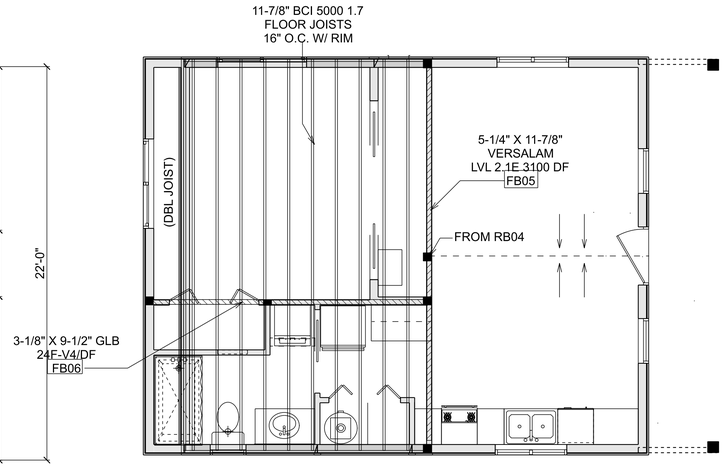
SHEET 2 OF 5

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

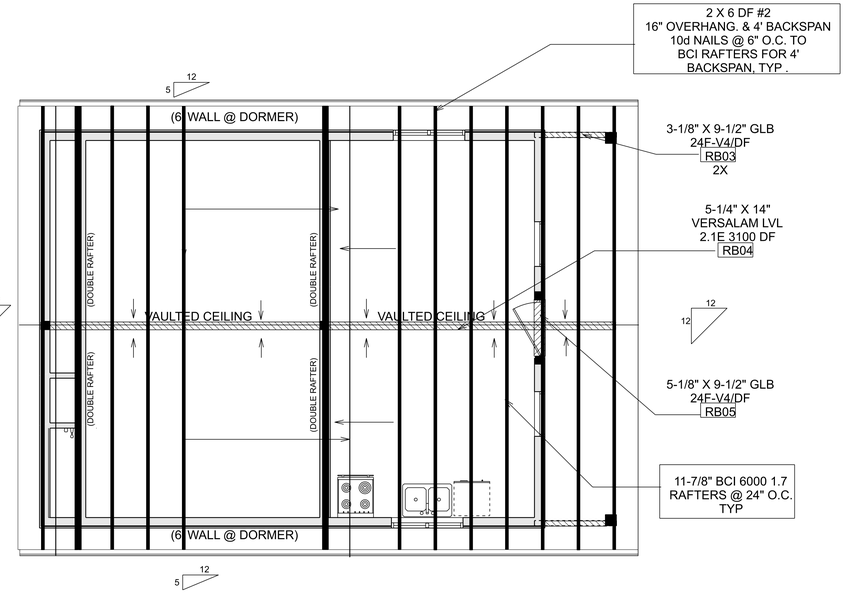
MODEL 616 ADU



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



UPPER FLOOR FRAMING
SCALE: 1/4" = 1'-0"



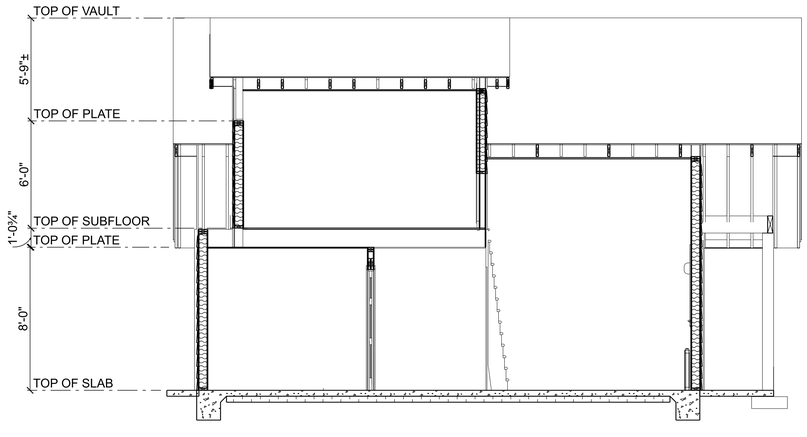
ROOF PLAN
SCALE: 1/4" = 1'-0"

CONCRETE FOOTING TABLE			
SYMBOL	SIZE	BAR	POST
A	16" X 16" X 6"	2 EA. #4 E.W.	4 X 4
B	24" X 24" X 8"	2 EA. #4 E.W.	4 X 4, 4 X 6, OR 6 X 6
C	30" X 30" X 12"	3 EA. #4 E.W.	4 X 6, OR 6 X 6
D	36" X 36" X 12"	4 EA. #4 E.W.	4 X 6, OR 6 X 6
E	42" X 42" X 12"	5 EA. #4 E.W.	6 X 6, OR 6 X 8

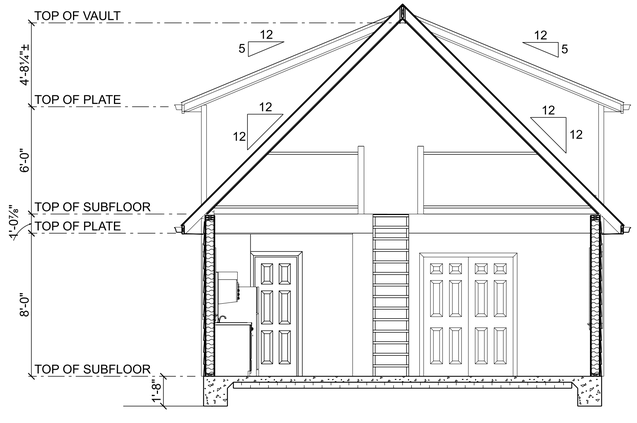
TYP HEADER SCHEDULE (NO POINT LOADS)				
SINGLE OR TOP STORY				
LENGTH	CODE	SIZE/TYPE	GABLE	HIP
3'-4'	HD4G	4 X 6 DF #2	X	
	HD4H	4 X 8 DF #2		X
4'-6'	HD6G	4 X 8 DF #2	X	
	HD6H	4 X 10 DF #2		X
6' - 8'	HD8G	4 X 10 DF #2	X	
	HD8H	4 X 12 DF #2		X

1 OF 2 STORIES-9' WALL ABOVE						
LENGTH	CODE	SIZE/TYPE	GABLE	HIP	PARALLEL CEILING JOIST	PERPENDICULAR CEILING JOIST
3'-4'	HD4GPL	4 X 8 DF #2	X		X	
	HD4HPL	4 X 8 DF #2		X	X	
	HD4GPR	4 X 8 DF #2	X			X
	HD4HPR	4 X 8 DF #2		X		X
4'-6'	HD6GPL	4 X 10 DF #2	X		X	
	HD6HPL	4 X 10 DF #2		X	X	
	HD6GPR	4 X 10 DF #2	X			X
	HD6HPR	4 X 12 DF #2		X		X
6' - 8'	HD8GPL	4 X 10 DF #2	X		X	
	HD8HPL	4 X 12 DF #2		X	X	
	HD8GPR	3 1/2 X 9 1/2 24F-V4/DF	X			X
	HD8HPR	3 1/2 X 9 1/2 24F-V4/DF		X		X

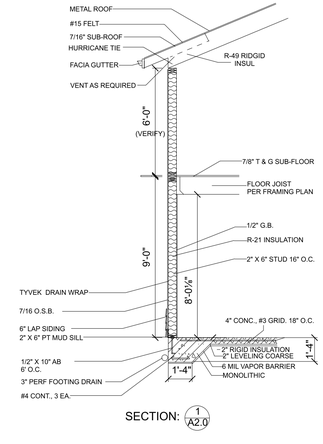
NOTE: BC CALCS CAN BE PROVIDED FOR ALL LISTED HEADERS



A A2.0 CROSS SECTION A
SCALE: 1/4" = 1'-0"



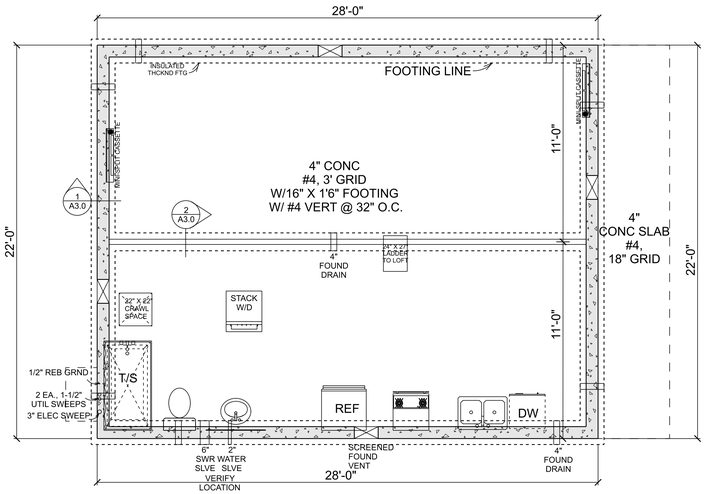
B A2.0 CROSS SECTION B
SCALE: 1/4" = 1'-0"



SECTION: 1 A2.0

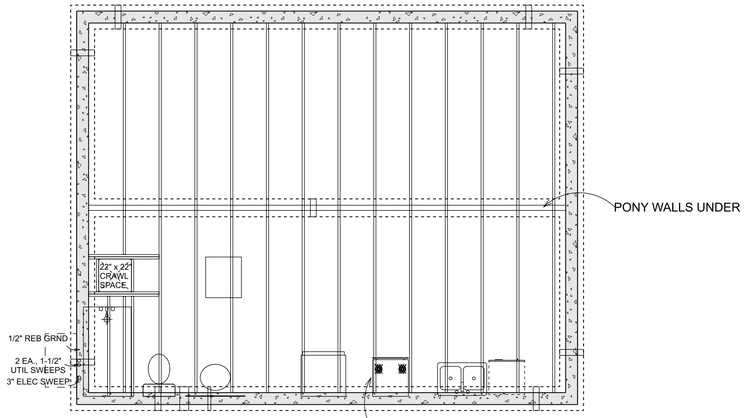
ADU Ext Wall, SS, Slab
SCALE: 1/4" = 1'-0"

DWG INDEX #:
A2.0 FOUNDATION-FRAMING-ROOF-SECTIONS
SHEET 3 OF 5
SCALE: 1/4" = 1'-0"
A2.0 FOUNDATION-FRAMING-ROOF-SECTIONS
MODEL 616 ADU



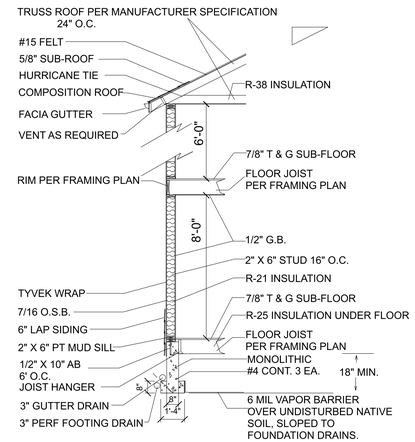
FOUNDATION PLAN-CRAWLSPACE

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



MAIN FLOOR FRAMING

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

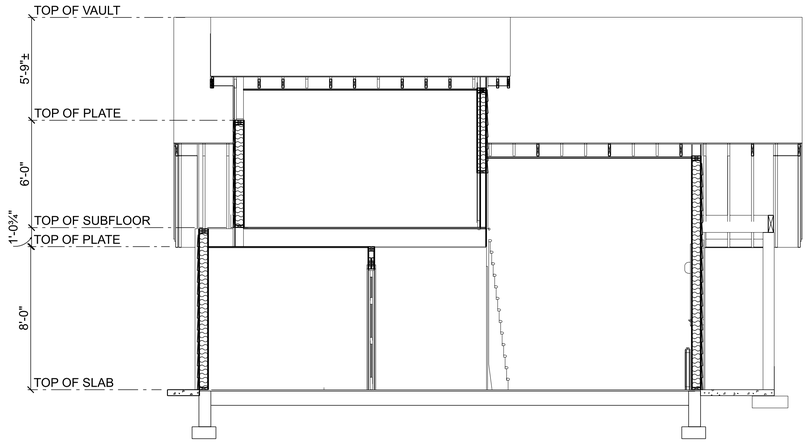


SECTION: 1 / A3.0

SCALE: 1/2" = 1'0"

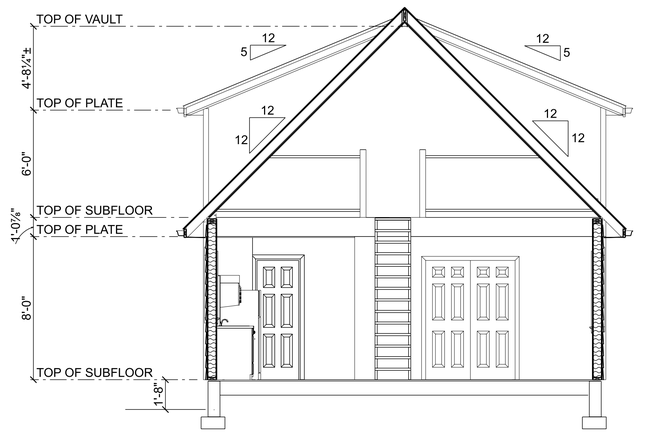
ADU Ext Wall, 8' 2S, Hung Joists

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



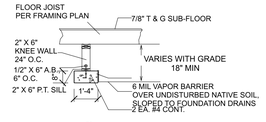
A / A3.0 ADU CROSS SECTION A-CRAWLSPACE

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



B / B3.0 ADU CROSS SECTION B-CRAWLSPACE

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



SECTION: 2 / A3.0 SCALE: 1/4" = 1'0"

ADU Pony Wall, 2S

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

DWG INDEX #:

A3.0 OPTIONAL FOUNDATION PLAN - MFF

SHEET 4 OF 5

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

A3.0 OPTIONAL FOUNDATION PLAN - MFF

MODEL 616 ADU

PER 2008 OREGON RESIDENTIAL SPECIALITY BUILDING CODE

BRACING SUMMARY SECTION

BRACED WALL PANEL CONSTRUCTION FOR SEISMIC ZONE D1 (MEDFORD)

R602.10.1 - BRACING IN SEISMIC DESIGN CATEGORIES D1 AND D2,

EXTERIOR BRACED WALLLINES SHALL HAVE A BRACED WALL PANEL LOCATED AT EACH END OF THE BRACED WALL LINE.

EXCEPTION: FOR BRACED WALL PANEL METHOD 3 OF SECTION R602.10.3, THE BRACED WALL PANEL SHALL BE PERMITTED TO BEGIN NO MORE THAN 8 FEET FROM EACH END OF THE BRACED WALL LINE PROVIDED ONE OF THE FOLLOWING IS SATISFIED:

1. A MINIMUM 24-INCH-WIDE PANEL IS APPLIED TO EACH SIDE OF THE BUILDING CORNER PER FIGUE R602.10.5, OR
2. FOR CONTINUOUSLY SHEATHED WALLS, THE END OF THE PANEL CLOSEST TO THE CORNER SHALL HAVE AN 1,800 LB. TIE DOWN.
3. FOR SEGMENTAL WALL BRACING, THE END OF EACH SIDE OF THE BRACED PANEL SHALL HAVE AN 1,800 LB. TIE DOWN.

TABLE 602.10.5: BRACED WALL PANEL LENGTH REQUIREMENTS FOR A CONTINUOUSLY SHEATHED WALL

8' WALL / SYMBOL	9' WALL / SYMBOL	10' WALL / SYMBOL	MAXIMUM OPENING HEIGHT OF BRACED WALL LINE (% OF WALL HEIGHT)
32" 8'-32" BWP	36" 9'-36" BWP	40" 10'-40" BWP	85%
24" 8'-24" BWP	27" 9'-27" BWP	30" 10'-30" BWP	67%

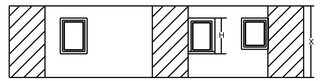
TABLE R602.1.3(2): CONTINUOUSLY SHEATHED WALL - AMOUNT OF BRACING REQUIRED (25' O.C. MAXIMUM)*

	CONDITION	MAXIMUM OPENING HEIGHT 67%	% x 0.57	MAXIMUM OPENING HEIGHT 85%	% x 0.57
SEISMIC CATEGORY D1 OR 110 MPH OR LESS	1ST OR TOP STORY	16%	9.12 %	18%	10.26 %
	1 OF 2, OR 2 OF 3	36%	20.52 %	40.5%	23.08 %
	1 OF 3	40%	22.80 %	54%	30.78 %

*THESE AMOUNTS MAY BE REDUCED BY .57 IF THE PANEL THICKNESS IS MIN. 7/16 INCH AND NAILED WITH 8d NALES WITH 4 INCH SPACING AT PANEL EDGES. THE AMOUNT OF BRACING MAY NOT BE LESS THAN THAT REQUIRED FOR THE SITES WIND SPEED FOR METHOD 3 IN TABLE R602.10.3(1).

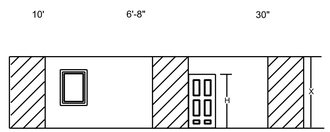
CONTINUOUSLY SHEATHED WALLS:

CALCULATE THE WALL OPENING PERCENTAGE (H/X) AND USE THE APPROPRIATE DIAGRAM



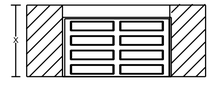
MAXIMUM OPENING HEIGHT (H) IS NOT MORE THAN 67% OF WALL HEIGHT

X (HEIGHT)	H MAX.	MIN. BRACED PANEL WIDTH (INCHES)
8'	5'-4"	24"
9'	6'-0"	27"
10'	6'-8"	30"



MAXIMUM OPENING HEIGHT (H) IS NOT MORE THAN 85% OF WALL HEIGHT

X (HEIGHT)	H MAX.	MIN. BRACED PANEL WIDTH (INCHES)
8'	6'-10"	32"
9'	7'-8"	36"
10'	8'-6"	40"



FULL-HEIGHT SHEATHED WALL SEGMENTS TO EITHER SIDE OF GARAGE OPENINGS THAT SUPPORT LIGHT FRAME ROOFS SHALL BE PERMITTED TO HAVE A 4:1 ASPECT RATIO.
USE (2) 1/2" X 10" ANCHOR BOLTS @E EACH WALL SEGMENT - NO ADDITIONAL HOLD-DOWNS REQUIRED.

X (HEIGHT)	MIN. BRACED PANEL WIDTH (INCHES)
8'	24"
9'	27"
10'	30"

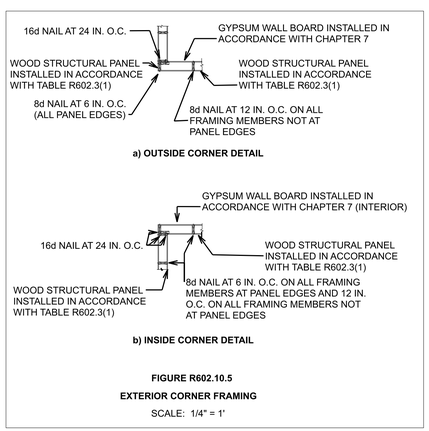


FIGURE R602.10.5
EXTERIOR CORNER FRAMING
SCALE: 1/4" = 1'

SECTION R602.10.1: BRACED WALL LINES

BRACED WALL LINES SHALL CONSIST OF BRACED WALL PANEL CONSTRUCTION METHODS IN ACCORDANCE WITH SECTION R602.10.3, SECTION R602.10.5 and/or SECTION R602.10.6. WHEN USING THE WALL-BRACING METHOD OF SECTION R602.10.5, ALL THE LEVELS OF THE STRUCTURE IN THE SAME VERTICAL PLAN SHALL BE BRACED USING THE WALL BRACING METHOD IN SECTION R602.10.5. THE AMOUNT AND LOCATION OF BRACING SHALL BE IN ACCORDANCE WITH TABLES R602.10.3(1) OR R602.10.3(2) AND THE AMOUNT OF BRACING SHALL BE THE GREATER OF THAT REQUIRED BY THE SEISMIC DESIGN CATEGORY OR THE DESIGN WIND SPEED. BRACED WALL PANELS SHALL BEGIN NO MORE THAN 8 FEET (2438 mm) FROM EACH END OF A BRACED WALL LINEAND SHALLBE SUBJECT TO THE LIMITATIONS OF SECTION R602.10.11. BRACED WALL PANELS THAT ARE COUNTED AS PART OF A BRACED WALL LINE SHALL BE IN LINE, EXCEPT THAT HORIZONTAL OFFSETS OUT-OF-PLANE OF UP TO 4 FEET (1219 mm) SHALL BE PERMITTED PROVIDED THAT THE TOTAL OUT-TO-OUT OFFSET DIMENSION IN ANY BRACED WALL LINE IS NOT MORE THAN 8 FEET (2438 mm). EXTERIOR BRACED WALL LINES SHALL ALIGN WITH EXTERIOR WALLS SUPPORTED BY AN APPROVED FOUNDATION EXCEPT THAT HORIZONTAL OFFSETS OUT-OF-PLAN SHALL BE PERMITTED AS ALLOWED IN SECTION R301.2.2.2.2(1) EXCEPTIONS. INTERIOR BRACED WALL LINES ARE NOT REQUIRED TO ALIGN WITH AN APPROVED FOUNDATION. BRACED WALL LINES GREATER THAN 12 FEET (3657 mm) IN LENGTH SHALL HAVE A MINIMUM OF TWO BRACED WALL PANELS.

SECTION R602.10.3: BRACED WALL PANEL CONSTRUCTION METHODS

THE CONSTRUCTION OF BRACED WALL PANELS SHALL BE IN ACCORDANCE WITH ONE OF THE FOLLOWING METHODS:
(NOTE: FOR METHODS 1,2,4,6, & 7 REFER TO CODE BOOK)

3. WOOD STRUCTURAL PANEL SHEATHING WITH A THICKNESS NOT LESS THAN 5/16 INCH FOR 16-INCH STUD SPACING AND NOT LESS THAN 3/8 INCH FOR 24-INCH STUD SPACING. WOOD STRUCTURAL PANELS SHALL BE ATTACHED TO STUDS IN ACCORDANCE WITH TABLE R602.3(1).

5. GYPSUM BOARD WITH MINIMUM 1/2-INCH THICKNESS PLACED ON STUDS SPACED A MAXIMUM OF 24 INCHES ON CENTER AND FASTENED AT THE EDGE OF THE PANEL AT 7 INCHES ON CENTER WITH THE SIZE NAILS SPECIFIED IN TABLE R602.3(1) FOR SHEETING AND TABLE R702.3.5 FOR INTERIOR GYPSUM BOARD FASTENING SCHEDULE AS OUTLINED BELOW

   13 GAGE, 1-3/8" LONG, 19/64" HEAD; 0.098 DIAMETER, 1-1/4" LONG, ANNULAR-RINGED; 5D COOLER NAIL, 0.086 DIAMETER, 1-5/8" LONG, 15/64" HEAD; OR GYPSUM BOARD NAIL, 0.086 DIAMETER, 1-5/8" LONG, 9/32" HEAD.

   SCREWS TO BE MAXIMALLY SPACED AT 12" O.C., TYPE S OR W PER ASTM C 79 AND SHALL BE SUFFICIENTLY LONG TO PENETRATE WOOD FRAMING NOT LESS THAN 5/8" AND METAL FRAMING NOT LESS THAN 3/8".

48" BP

SECTION R602.10.4: 48" MINIMUM BRACED WALL PANEL

FOR CONSTRUCTION METHOD 3 (REFER TO SECTION R602.10.3), EACH BRACED WALL PANEL SHALL BE AT LEAST 48 INCHES IN LENGTH, COVERING A MINIMUM OF THREE STUD SPACES WHERE STUDS ARE SPACED 16 INCHES ON CENTER AND COVERING A MINIMUM OF TWO STUD SPACES WHERE STUDS ARE SPACED 24 INCHES ON CENTER. FOR METHOD 5, EACH BRACED WALL PANEL SHALL BE AT LEAST 96 INCHES IN LENGTH WHERE APPLIED TO ONE FACE OF A BRACED WALL PANEL AND AT LEAST 48 INCHES WHERE APPLIED TO BOTH FACES.

EXCEPTIONS:

1. LENGTHS OF BRACED WALL PANELS FOR CONTINUOUS WOOD STRUCTURAL PANEL SHEATHING SHALL BE IN ACCORDANCE WITH SECTION R602.10.5.
2. LENGTHS OF ALTERNATE BRACED WALL PANELS SHALL BE IN ACCORDANCE WITH SECTION R602.10.6.

SECTION R602.10.5: CONTINUOUS STRUCTURAL PANEL SHEATHING

WHEN CONTINUOUS WOOD STRUCTURAL PANEL SHEATHING IS PROVIDED IN ACCORDANCE WITH METHOD 3 OF SECTION R602.10.3, ON ALL SHEETABLE AREAS OF ALL EXTERIOR WALLS, AND INTERIOR BRACED WALL LINES, WHERE REQUIRED, INCLUDING AREAS ABOVE AND BELOW OPENINGS, BRACED WALL PANEL LENGTHS SHALL BE IN ACCORDANCE WITH TABLE R602.10.5. ALL VERTICAL AND HORIZONTAL PANEL EDGES, REGARDLESS OF LOCATION ALONG A GIVEN BRACED WALL LINE, SHALL BE BLOCKED AND EDGES NAILED. WHEN THIS METHODOLOGY IS UTILIZED, THE MINIMUM LENGTH TO BE CONSIDERED A QUALIFYING BRACED PANEL SHALL COMPLY WITH TABLE R602.10.5. WOOD STRUCTURAL PANEL SHEATHING AT CORNERS SHALL BE INSTALLED IN ACCORDANCE WITH FIGURE R602.10.5. THE BRACING AMOUNTS IN TABLE R602.10.1 FOR METHOD 3 SHALL BE PERMITTED TO BE MULTIPLIED BY A FACTOR OF 0.9 FOR WALLS WITH A MAXIMUM OPENING HEIGHT THAT DOES NOT EXCEED 85 PERCENT OF THE WALL HEIGHT OR A FACTOR OF 0.8 FOR WALLS WITH A MAXIMUM OPENING HEIGHT THAT DOES NOT EXCEED 67 PERCENT OF THE WALL HEIGHT AS PER TABLE R602.10.3(2).

SECTION R602.10.6: ALTERNATE BRACED WALL PANELS

ALTERNATE BRACED WALL PANELS CONSTRUCTED IN ACCORDANCE WITH ONE OF THE FOLLOWING PROVISIONS SHALL BE PERMITTED TO REPLACE EACH 4 FEET OF BRACED WALL PANEL AS REQUIRED BY SECTION R602.10.4:

(**EXCEPTION 1:**WHEN ALTERNATE BRACED PANELS ARE REQUIRED TO BE SHEATHED ON BOTH FACES, WALLS MAY BE BRACED ON ONE SIDE OF THE WALL ONLY WHEN THE PANEL THICKNESS IS INCREASED TO A NOMINAL 1/2-INCH STRUCTURAL SHEATHING THICKNESS AND THE NAIL SPACING AT THE EDGE OF PANEL IS REDUCED TO 3 INCHES ON CENTER.)

1.1 N-1

1. IN ONE-STORY BUILDINGS, EACH PANEL SHALL HAVE A LENGTH OF NOT LESS THAN 32 INCHES AND A HEIGHT OF NOT MORE THAN 10 FEET. EACH PANEL SHALL BE SHEATHED ON ONE FACE WITH 3/8-INCH-MINIMUM-THICKNESS WOOD STRUCTURAL PANEL SHEATHING NAILED WITH 8d COMMON OR GALVANIZED BOX NAILS IN ACCORDANCE WITH TABLE R602.3(1) AND BLOCKED AT ALL WOOD STRUCTURAL PANEL SHEATHING EDGES. TWO ANCHOR BOLTS INSTALLED IN ACCORDANCE WITH FIGURE 403.1(1) OR APPROVED EQUIVALENT SHEAR CONNECTORS SHALL BE PROVIDED IN EACH PANEL. WHERE EACH PANEL IS SUPPORTED DIRECTLY ON A FOUNDATION OR ON FLOOR FRAMING SUPPORTED DIRECTLY ON A FOUNDATION, EACH PANEL END STUD SHALL HAVE A TIE-DOWN DEVICE FASTENED TO THE FOUNDATION, CAPABLE OF PROVIDING AN UPLIFT CAPACITY OF AT LEAST 1,800 POUNDS. THE TIE-DOWN DEVICE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE FOUNDATION WALL AND FOOTING SHALL BE REINFORCED WITH A MINIMUM OF TWO NO. 4 HORIZONTAL BARS, ONE LOCATED AT THE TOP OF THE WALL AND ONE LOCATED A MINIMUM OF 3 INCHES FROM THE BOTTOM OF THE FOOTING [OR TWO NO. 4 HORIZONTAL BARS LOCATED A MINIMUM OF 3 INCHES FROM THE BOTTOM OF THE FOOTING] EXTENDING NOT LESS THAN 5 FEET EACH WAY FROM THE CENTER OF THE PANEL WITH NO. 4 VERTICAL BARS SPACED NOT MORE THAN 24 INCHES ON CENTER. WHEN THE CONTINUOUS FOUNDATION IS REQUIRED TO HAVE A DEPTH GREATER THAN 12 INCHES, A MINIMUM 12-INCH-BY-12-INCH CONTINUOUS FOOTING OR TURNED DOWN SLAB EDGE IS PERMITTED AT DOOR OPENINGS IN THE BRACED WALL LINE. THIS CONTINUOUS FOOTING OR TURNED DOWN SLAB EDGE SHALL BE REINFORCED WITH NOT LESS THAN ONE NO.4 BAR TOP AND BOTTOM. THIS REINFORCEMENT SHALL BE LAPPED 15 INCHES WITH THE REINFORCEMENT REQUIRED IN THE CONTINUOUS FOUNDATION LOCATED DIRECTLY UNDER THE BRACED WALL LINE.

1.2 N-1

2. IN THE FIRST STORY OF TWO-STORY BUILDINGS, EACH BRACED WALL PANEL SHALL BE IN ACCORDANCE WITH R602.10.6.(1), EXCEPT THAT THE WOOD STRUCTURAL PANEL SHEATHING SHALL BE PROVIDED ON BOTH FACES, SHEETING EDGE NAILING SPACING SHALL NOT EXCEED FOUR INCHES ON CENTER, THREE ANCHOR BOLTS OR APPROVED EQUIVALENT SHEAR CONNECTORS SHALL BE PROVIDED, AND TIEDOWN DEVICE UPLIFT CAPACITY SHALL NOT BE LESS THAN 3,000 POUNDS. (SEE EXCEPTION)

1.3 N-1

3. IN THE SECOND STORY OF A THREE-STORY BUILDING, EACH PANEL SHALL HAVE A MINIMUM WIDTH OF 32 INCHES AND A MAXIMUM HEIGHT OF 10 FEET. EACH PANEL SHALL BE SHEATHED ON BOTH FACES WITH 3/8-INCH MINIMUM THICKNESS WOOD STRUCTURAL PANEL SHEATHING NAILED WITH 8d COMMON OR GALVANIZED BOX NAILS IN ACCORDANCE WITH TABLE R602.3(1) AND BLOCKED AT ALL EDGES. EACH PANEL END STUD SHALL BE CONNECTED TO AN EQUIVALENT CROSS SECTION OF STUD IN THE WALL BELOW WITH A CORROSION-RESISTANT STEEL TIE STRAP OR HOLD-DOWN CAPABLE OF PROVIDING AN APPROVED UPLIFT CAPACITY OF NOT LESS THAN 3,000 POUNDS. REINFORCEMENT OF THE FOUNDATION IS NOT REQUIRED WHEN ALTERNATE BRACED PANELS ARE SUPPORTED BY A BRACED PANEL. (SEE EXCEPTION)

1.4 N-1

4. IN THE TOP STORY OF A TWO-STORY OR THE TOP STORY OF A THREE-STORY BUILDING, EACH PANEL SHALL HAVE A MINIMUM WIDTH OF 32 INCHES AND A MAXIMUM OF 10 FEET IN HEIGHT. EACH PANEL SHALL BE SHEATHED ON ONE FACE WITH 3/8-INCH MINIMUM THICKNESS WOOD STRUCTURAL PANEL SHEATHING NAILED WITH 8d COMMON OR GALVANIZED BOX NAILS IN ACCORDANCE WITH TABLE R602.3(1) AND BLOCKED AT ALL EDGES. EACH PANEL END STUD SHALL BE CONNECTED TO AN EQUIVALENT CROSS SECTION OF STUD IN THE WALL BELOW WITH CORROSION-RESISTANT STEEL TIE STRAP OR HOLDDOWN CAPABLE OF PROVIDING AN APPROVED UPLIFT CAPACITY OF NOT LESS THAN 1,800 POUNDS. REINFORCEMENT OF THE FOUNDATION IS NOT REQUIRED WHEN ALTERNATE BRACED PANELS ARE SUPPORTED BY A BRACED PANEL.

SECTION R 602.10.9: INTERIOR BRACED WALL SUPPORT

2 N-1

BUILDINGS LOCATED IN SEISMIC DESIGN CATEGORY D1: INTERIOR BRACED WALL LINES SHALL BE SUPPORTED ON CONTINUOUS FOUNDATIONS AT INTERVALS NOT EXCEEDING 70 FEET. BRACED WALL PANELS LOCATD IN INTERIOR BRACED WALL LINES AT LESS THAN 70-FOOT INTERVALS SHALL BE SUPPORTED BY DOUBLE FLOOR JOISTS OR BLOCKING BETWEEN FLOOR JOISTS. WHERE FLOOR JOISTS ARE PERPENDICULAR TO THE BRACED WALL LINE, BLOCKING SHALL BE PROVIDED FOR THE LENGTH OF BRACED PANEL AND SHALL EXTEND TO THE NEXT AVAILABLE JOIST BELOW FOR BRACED PANELS WHOSE ENDS ARE NOT ALIGNED WITH JOISTS BELOW. THE LENGTH TO WIDTH RATIO OF THE HORIZONTAL DIAPHRAGM SUPPORTING INTERIOR BRACED WALL LINES SHALL NOT EXCEED 4 TO 1. FOR ALTERNATE BRACED PANELS, PROVIDE DOUBLE JOISTS OR DOUBLE BLOCKING AT THE END OF PANELS.

INTERIOR BRACED WALL LINES ARE NOT REQUIRED TO ALIGN VERTICALLY WITH INTERIOR BRACED WALL LINES ON ADJACENT STORIES. INTERIOR BRACED WALL LINES ARE REQUIRED TO EXTEND TO PERPENDICULAR EXTERIOR BRACED WALL LINES. INTERIOR BRACED WALL LINES SHALL CONSIST OF BRACED WALL PANELS WHICH MEET THE PERCENTAGE REQUIREMENT SET FORTH IN TABLE R602.10.3(1) OR TABLE R601.10.3(2) BUT NOT BE SUBJECT TO THE SPACING REQUIREMENT SET FORTH IN THESE TABLES. INTERIOR BRACED WALL PANELS SHALL BEGIN WITHIN 8 FEET FROM EACH END OF AN INTERIOR BRACED WALL LINE.

EXCEPTION:

INTERIOR BRACED WALL PANELS AT ONE END OF THE INTERIOR BRACED WALL LINE MAY EXCEED THE 8-FOOT DISTANCE, PROVIDED THE INTERIOR BRACED WALL PANEL AT THE OPPOPOTE END OF THE INTERIOR BRACED WALL LINE EXTENDS FULLY TO THE PERPENDICULAR EXTERIOR BRACED WALL LINE.

DWG INDEX #:

SHEET 5 OF 5

A4.4 NOTES

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

A4.0 NOTES

MODEL 616 ADU