



## LATERAL BRACING CALCULATIONS

### 2014 Oregon Residential Specialty Code (ORSC) Section R602.10

From table R602.10, identify the wall bracing type used: \_\_\_\_\_

Wood structural panels shall be not less than 7/16 plywood (or equal) with a span rating of 24/16 with a stud spacing of 16-inches on center, and nailed with 8d nails at 6-inches on center at the edges (staggered at panel edges), and 12-inches on center in the field.

The braced wall lines shall be measured as specified by section R602.10.1, ORSC.

Braced wall panels shall be constructed in accordance with the following:

- (a) Intermittent Bracing, Section R602.10.2, ORSC
- (b) Continuous, Sections R602.10.4 and R602.10.5, ORSC

Identify which method is used: \_\_\_\_\_

The length of the bracing along each braced wall line shall be the greater of that required by the design wind speed and braced wall line spacing in accordance with table R602.10.1.2(1). (Section R602.10.1.2, ORSC)

Braced wall panels located at exterior walls that support roof rafters, or trusses shall have framing members connected in accordance with section R602.10.1.2.1, ORSC.

Method used: \_\_\_\_\_

Braced wall panels shall be located in accordance with Figure R602.10.1.4 (1), and shall not be more than 25-feet on center, and shall be permitted to begin no more than 12.5-feet from the end of the braced wall line (Section R602.10.1.4, ORSC). In zone D, braced wall lines shall have a braced panel at each end of the braced wall line; except when WSP method is used, the required end panels may be located not more than 8-feet from the ends of the braced wall line provided they meet the requirements of section R602.10.1.4.1, ORSC.

Braced wall lines in seismic design category D shall not be spaced more than 25-feet on center in both longitudinal and transverse directions. Exception: In one- and two-story buildings, spacing between two adjacent braced wall lines shall not exceed 35-feet on center in order to accommodate one single room not exceeding 900 square feet. (Section R602.10.1.5, ORSC)

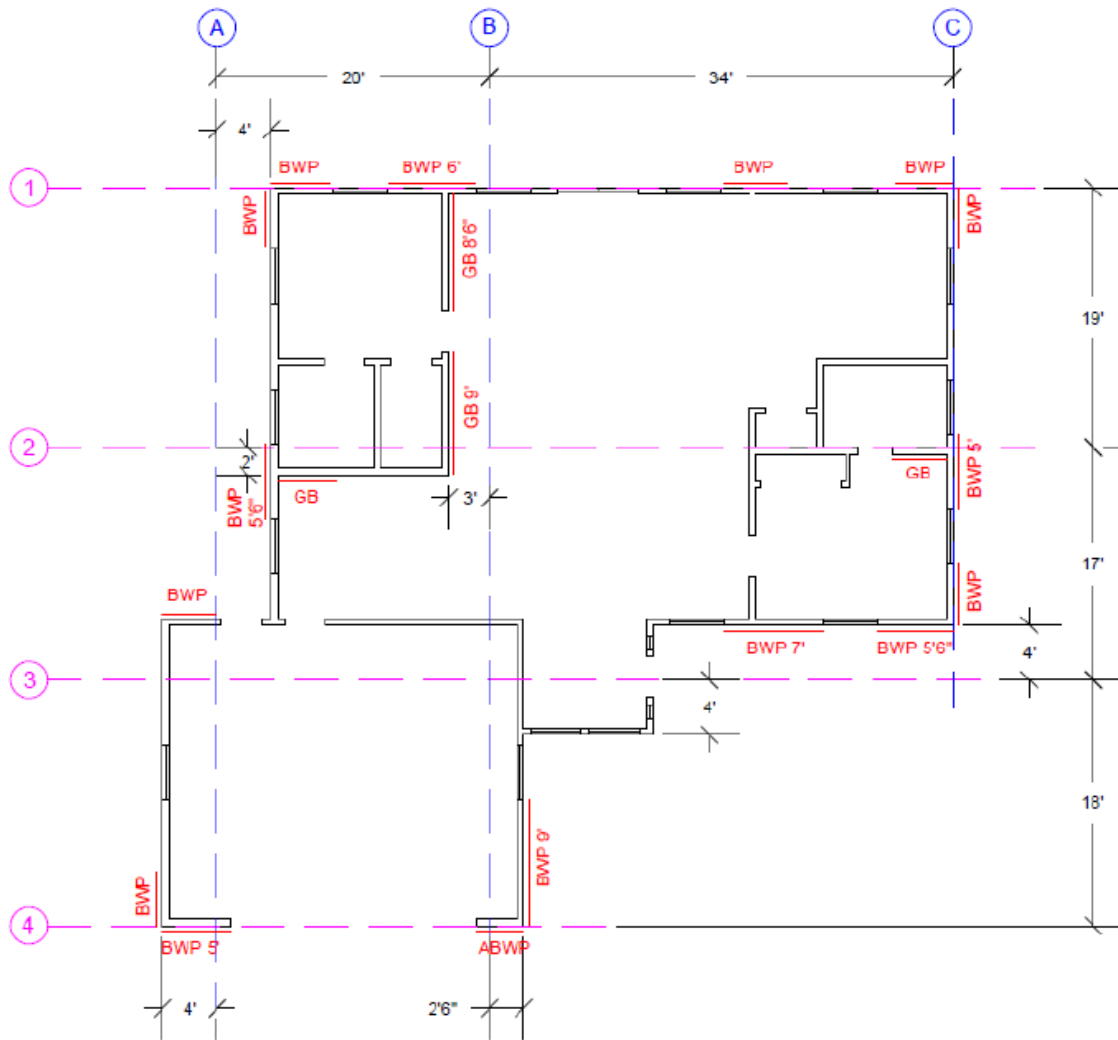
Use tables R602.10.1.2 (1), R602.10.1.2 (1), and R602.10.1.2 (2) to complete your calculations.

Job Site Information:

Date: _____	_____
Job Name: _____	Permit number: _____
Job Address: _____	City: _____
Check which floor level this applies to: First Floor <input type="checkbox"/> Second Floor <input type="checkbox"/>	
Number of Stories: _____	Seismic Zone: _____
Eave Height: _____	Wall Height: _____
Wind Speed Used: _____	Wind Exposure: _____

Insert lateral bracing plans here (see next page for example and instructions):

Identify your braced wall lines and braced wall locations (length and type). The following is an example of what your plan should resemble. Color was used in the example for clarity; however, it is not required. Plan needs to be to scale.



Lateral Bracing Plan

Scale: \_\_\_\_\_

Enter factors in the chart below to calculate the total wind adjustment factor:

Wall line ID:	1	2	3	4	5	A	B	C	D	E
Wind Exposure Factor (footnote b):										
Eave to Ridge Height Factor (footnote c):										
Wall Height Factor (footnote d):										
Number of Braced Wall Lines Factor (footnote e):										
Gypsum Wall Board Factor (footnote f):										
Gypsum Wall Board Nailing Factor (footnote g):										
Hold-down Factor (footnote i):										
<b>Total Wind Adjustment Factor:</b>										

Note: If you are not going to take the adjustment factor or the factor does not apply, then a value of 1 or 1.0 must be entered for the calculator to work.

Once factors have been entered to determine the total wind adjustment factor, enter the amount of bracing provided on the plan in the chart below to show that the bracing meets or exceeds code requirements.

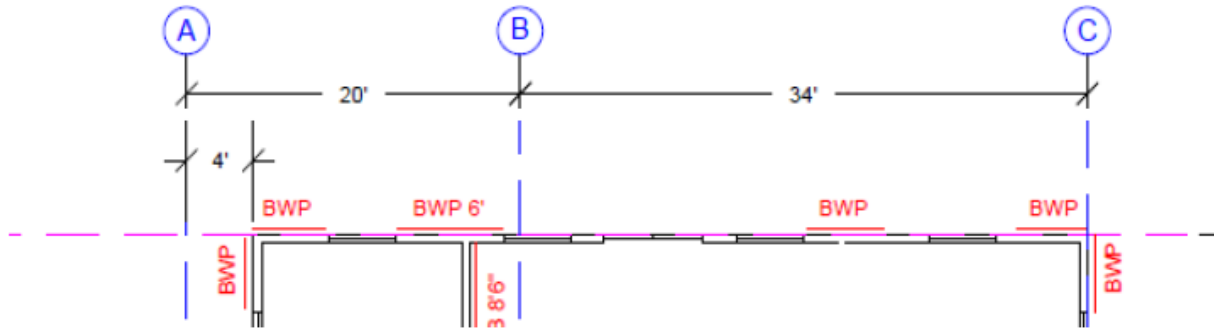
Use the furthest distance to an adjacent wall line on either side.

Example: Braced line spacing for

A = 20 (20 feet is the only adjacent line)

B = 34 (34 feet is the furthest adjacent line)

C = 34 (34 feet is the only adjacent line)



Braced Wall Line	Bracing Method	Braced Wall Line Spacing	Required Bracing	Total Wind ADJ Factor
1				
2				
3				
4				
5				
A				
B				
C				
D				
E				

Total Required Bracing Length	Length Provided	PASS or FAIL

Note: If all of the "PASS" or "FAIL" boxes say, "PASS", then the calculator part is complete and ready to be printed for submittal. If any of the boxes say, "FAIL", then you will need to go back and adjust your factors, or amount of bracing provided.