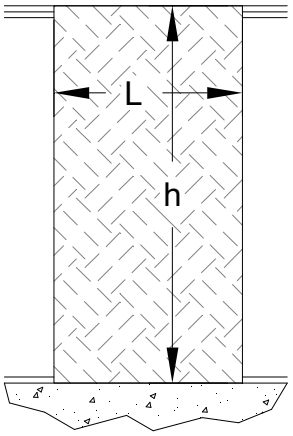
Minimum and Effective Lengths for Common Wall Bracing Methods – 2018 IRC

Intermittent Methods:

Method	Description		Maximum Opening Height (h_o)	Minimum Length Wall Height (h): 8'	9'	10'	11'	12'	Contrib. Length =	Notes
LIB	Let-In-Bracing		-	~4'-7"	~5'-2"	~5'-9"	NP	NP	L	Limited to top two stories and limited to low seismic regions.
WSP	Wood Structural Panel		-	4'-0"	4'-0"	4'-0"	4'-5"	4'-10"	L	3/8" minimum but is typically 7/16" OSB or 15/32" plywood.
				3'-6"	3'-6"	—	—	—	3'-0"	"Partial Credit" for narrow panels as describ. in Table R602.10.5.2 (SDC A-C only)
				3'-0"	—	—	—	—	2'-3"	
SFB	Structural Fiberboard Sheathing		-	4'-0"	4'-0"	4'-0"	4'-5"	4'-10"	L	Nails 3" on-center at panel edges and 6" on-center at intermediate supports.
				3'-6"	3'-6"	—	—	—	3'-0"	"Partial Credit" for narrow panels as describ. in Table R602.10.5.2 (SDC A-C only)
				3'-0"	—	—	—	—	2'-3"	
GB	Gypsum Board	Double Sided	-	4'-0"	4'-0"	4'-0"	4'-5"	4'-10"	L	Nails or screws at 7" on-center at panel edges.
		Single Sided	-	8'-0"	8'-0"	8'-0"	8'-10"	9'-8"	0.5 x L	
ABW	Alternate Braced Wall	SDC A-C	-	2'-4"	2'-8"	2'-10"	3'-2"	3'-6"	4'-0"	1,800-3,600 pound holdown required at each end (dependent on application). Additional construction requirements in Section R602.10.6.1.
		SDC D_0-D_2	-	2'-8"	2'-8"	2'-10"	NP	NP	4'-0"	
PFH	Intermittent Portal Frame with Holdowns	Single-Story	-	1-4"	1-4"	1-4"	NP	NP	4'-0"	3,500 pound embedded strap style holdown required at each end. Additional construction requirements in Section R602.10.6.2.
		1st of Two-Story	-	2'-0"	2'-0"	2'-0"	NP	NP	4'-0"	
PFG	Intermittent Portal Frame at Garage		-	2'-0"	2'-3"	2'-6"	NP	NP	1.5 x L	Limited to SDC A-C. Additional limits and requirements in Section R602.10.6.3.



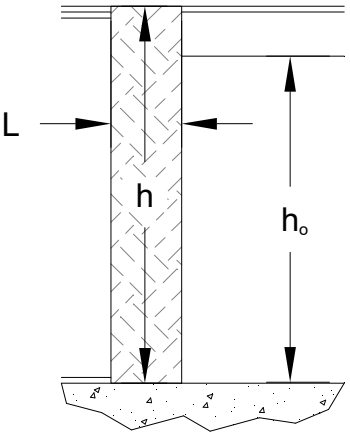
Intermittent Methods

Continuous Methods:

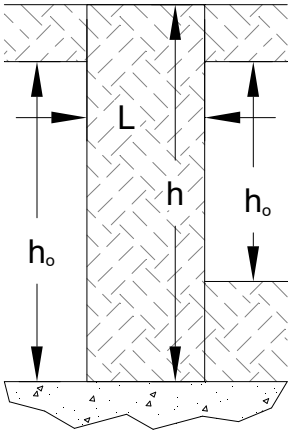
Method	Description	Maximum Opening Height (h_o)	Minimum Length Wall Height (h): 8'	9'	10'	11'	12'	Contrib. Length =	Notes
CS-WSP	Continuous Sheathing - Wood Structural Panel	5'-4"	2'-0"	2'-3"	2'-6"	2'-9"	3'-0"	L	See Table R602.10.5 for additional Minimum Length & Wall Height combinations.
		6'-8"	2-7"	2'-9"	2'-6"	3'-1"	3'-4"		
		h	4'-0"	4'-6"	5'-0"	5'-6"	6'-3"		
CS-G	Continuous Sheathing - Wood Structural Panel Adjacent to Garage Opening	10'-0"	2'-0"	2'-3"	2'-6"	NP	NP	L	In SDC D_0 - D_2, applies to one wall of a garage only, and is limited to supporting roof only above with a maximum roof covering dead load of 3 psf.
CS-PF	Continuous Sheathing - Portal Frame	9'-0"	1'-4"	1'-6"	1'-8"	NP*	NP*	1.5 x L (SDC A-C) / L (D_0-D_2)	See construction requirements in Section R602.10.6.4.

Note: All Continuous Sheathing methods require end conditions in accordance with Section R602.10.7 and Figure R602.10.7.

* PFH, PFG, and CS-PF maximum header height = 10'-0", but wall height permitted to be increased to 12'-0" with pony wall. Refer to Figures R602.10.6.2, R602.10.6.3, and R602.10.6.4, for additional requirements for PFH, PFG, and CS-PF methods, respectively.



Portal Frame Methods



Continuous Sheathing Method