



Figure 22: Typical steel stud-framed breakaway wall construction (simplified design method)

Steel stud-framed breakaway walls must be constructed in accordance with Figure 22. Table 9 provides the required spacing for steel studs as a function of wind speed and wall height. Stud spacing values may not be interpolated (e.g., use 150 mph design wind speed if actual design wind speed is greater than 140 mph but less than 150 mph). Table 10 provides the required number of self-tapping screws for different design wind speeds as a function of wall height and pile spacing (interpolation is allowed).

Table 9: Required 362S162-33 Stud Spacing for Steel Stud-Framed Breakaway Walls with Different Heights and Design Wind Speeds

Breakaway Wall Height (feet)	Design Wind Speed per ASCE 7-16 (mph)	Stud Spacing (inches)
6	140	24
	150	24
	160	24
	170	24
7	140	24
	150	24
	160	24
	170	16
8	140	24
	150	16
	160	16
	170	12
9	140	16
	150	12
	160	12
	170	Not permitted ⁽¹⁾

(1) Where not permitted, performance-based design method must be used for breakaway wall design.

Table 10: Required Number of 1-inch long No. 6 Self-Tapping Screws for Steel-Stud Framed Breakaway Walls with Different Heights and Design Wind Speeds

Breakaway Wall Height (feet)	Design Wind Speed per ASCE 7-16 (mph)	Pile Spacing (feet)	Number of Nails ⁽¹⁾
6	140	8	30
		10	36
		12	44
	150	8	34
		10	42
		12	50
	160	8	40
		10	50
		12	60
	170	8	46
		10	56
		12	68
7	140	8	34
		10	42
		12	50
	150	8	40
		10	50
		12	60
	160	8	46
		10	58
		12	70
	170	8	52
		10	66
		12	78

Table 10: Required Number of 1-inch long No. 6 Self-Tapping Screws for Steel-Stud Framed Breakaway Walls with Different Heights and Design Wind Speeds (cont.)

Breakaway Wall Height (feet)	Design Wind Speed per ASCE 7-16 (mph)	Pile Spacing (feet)	Number of Nails ⁽¹⁾
8	140	8	38
		10	48
		12	58
	150	8	46
		10	56
		12	68
	160	8	52
		10	66
		12	78
	170	8	60
		10	76
		12	90
9	140	8	44
		10	54
		12	66
	150	8	50
		10	64
		12	76
	160	8	60
		10	74
		12	88
	170	8	Not permitted ⁽²⁾
		10	
		12	

(1) Divided equally between top and bottom and evenly spaced and conforming to SAE J78 with a Type II Coating in accordance with ASTM B 633

(2) Where not permitted, performance-based design method must be used for breakaway wall design.