

Nexcem Inc. Table W-1a: Basement Wall Design Table - 1 or 2 Story Residential
SEISMIC GROUND ACCELERATION (PGA) ≤ 0.60

	Min. Concrete Thickness (mm / in)	Bar Size	Vertical reinforcing spacing with rebar in center of concrete wall thickness (mm, centre to centre 305mm = 12")																
			Basement Wall Unsupported Wall Height																
			ft	9				10				11				12			
			m	2.74				3.05				3.35				3.66			
				Backfill Height				Backfill Height				Backfill Height				Backfill Height			
			ft	6.0	7.0	8.0	8.5	7.0	8.0	9.0	9.5	8.0	9.0	10.0	10.5	9.0	10.0	11.0	11.5
m	1.83	2.13	2.44	2.59	2.13	2.44	2.74	2.90	2.44	2.74	3.05	3.20	2.74	3.05	3.35	3.51			
8" WF	125 / 4 7/8"	15M / #5	305	305	305	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
		20M / #6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
10" WF (R-14), 12" WF (R-22) 14" WF (R-28), 16" WF (R-36)	136 / 5.5"	15M / #5	305	305	305	305	305	305	n/a	n/a	305	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
		20M / #8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
10" WF (R-8), 12" WF (R-14)	174 / 6 7/8"	15M / #5	305	305	305	305	305	305	305	305	305	305	305*	305*	305	305*	n/a	n/a	
		20M / #6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	305	305	n/a	305	305*	n/a	n/a
14" WF (R-22), 16" (R-28)	190 / 7.5"	15M / #5	305	305	305	305	305	305	305	305	305	305	305*	305*	305	305*	n/a	n/a	
		20M / #6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	305	305	n/a	305	305*	305*	n/a
12" WF (R-8), 14" WF (R-14) 16" (R-22)	228 / 9"	15M / #5	305	305	305	305	305	305	305	305	305	305	305	305	305	305	305*	305*	
		20M / #6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	305	305	305
14" WF (R-8), 16" WF (R-14)	250 / 10.5"	15M / #5	305	305	305	305	305	305	305	305	305	305	305	305	305	305	305	305*	
		20M / #6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	305
16" WF (R-8)	316 / 12.5"	15M / #5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
		20M / #6	305	305	305	305	305	305	305	305	305	305	305	305	305	305	305	305	305

* Centre of vertical rebar positioned at 75mm / 3.0" from inside face (tension face) of concrete and not in the centre of the concrete wall thickness

Notes:

- 1 If an insulated block type is used that isn't listed above, for design purposes, use the block above with an equivalent minimum concrete thickness or smaller
- 2 The above design table assumes a concrete strength of 25 MPa / 3500psi at 28 days and a reinforcing steel yield strength of 400 Mpa / 58 ksi.
- 3 All concrete materials and testing to conform to CSA A23.1 and A23.2 and ACI 318 (latest revision). Reinforcing steel to be deformed bar conforming to CSA G30.18 (latest revision).
- 4 Soil parameters: Soil density = 18.0 kN/m³ / 115 pcf, K₀ = 0.50
- 5 All walls to be reinforced horizontally with minimum 10M (#3) @ 610mm (24") c/c.
- 6 The above table assumes the backfill height is equal to the unsupported wall height minus 150mm / 6".
- 7 Vertical reinforcing is assumed to be in the centre of the concrete thickness, unless noted with an asterisk.
- 8 This design table is valid for basement walls of a 1 or 2 story residential building. Only wall self weight used in increasing moment capacity. Conservatively based on 8ft wall heights above grade.
- 9 This table is for gravity and out of plane loading only.



Nexcem Inc. Table W-1b: Basement Wall Design Table
SEISMIC GROUND ACCELERATION (PGA) ≤ 0.60

	Min. Concrete Thickness (mm / in)	Bar Size	Vertical reinforcing spacing with rebar in center of concrete wall thickness (mm, centre to centre 305mm = 12")																
			Backfill Equivalent Fluid Density																
			kg / m3	720				883				963				1200			
			pcf	45				55				60				75			
				Unsupported Height (m)				Unsupported Height (m)				Unsupported Height (m)				Unsupported Height (m)			
			ft	9.0	10.0	11.0	12.0	9.0	10.0	11.0	12.0	9.0	10.0	11.0	12.0	9.0	10.0	11.0	12.0
m	2.74	3.05	3.35	3.66	2.74	3.05	3.35	3.66	2.74	3.05	3.35	3.66	2.74	3.05	3.35	3.66			
8" WF	125 / 4 7/8"	15M / #5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
		20M / #6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
10" WF (R-14), 12" WF (R-22) 14" WF (R-28), 16" WF (R-36)	136 / 5.5"	15M / #5	305	n/a	n/a	n/a	305	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
		20M / #8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
10" WF (R-8), 12" WF (R-14)	174 / 6 7/8"	15M / #5	305	305	305	n/a	305	305	305*	n/a	305	305	305*	n/a	305	n/a	n/a	n/a	
		20M / #6	n/a	n/a	n/a	305	n/a	n/a	305	305*	n/a	n/a	305	n/a	n/a	n/a	n/a	n/a	
14" WF (R-22), 16" (R-28)	190 / 7.5"	15M / #5	305	305	305	305*	305	305	305*	n/a	305	305	n/a	n/a	305	305*	n/a	n/a	
		20M / #6	n/a	n/a	n/a	305	n/a	n/a	305	305*	n/a	n/a	305*	305*	n/a	n/a	305*	n/a	
12" WF (R-8), 14" WF (R-14) 16" (R-22)	228 / 9"	15M / #5	305	305	305	305	305	305	305	305*	305	305	305	n/a	305	305	305*	n/a	
		20M / #6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	305	n/a	n/a	n/a	305	n/a	n/a	305	305	
14" WF (R-8), 16" WF (R-14)	250 / 10.5"	15M / #5	305	305	305	305	305	305	305	305	305	305	305	305	305	305	305	305*	
		20M / #6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	305	
16" WF (R-8)	316 / 12.5"	15M / #5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
		20M / #6	305	305	305	305	305	305	305	305	305	305	305	305	305	305	305	305	

* Centre of vertical rebar positioned at 75mm / 3.0" from inside face (tension face) of concrete and not in the centre of the concrete wall thickness

Notes:

- 1 If an insulated block type is used that isn't listed above, for design purposes, use the block above with an equivalent minimum concrete thickness or smaller
- 2 The above design table assumes a concrete strength of 25 MPa / 3500psi at 28 days and a reinforcing steel yield strength of 400 Mpa / 58 ksi.
- 3 All concrete materials and testing to conform to CSA A23.1 and A23.2 and ACI 318 (latest revision). Reinforcing steel to be deformed bar conforming to CSA G30.18 (latest revision).
- 4 All walls to be reinforced horizontally with minimum 10M (#3) @ 610mm (24") c/c.
- 5 The above table assumes the backfill height is equal to the unsupported wall height minus 150mm / 6".
- 6 Vertical reinforcing is assumed to be in the centre of the concrete thickness, unless noted with an asterisk.
- 7 This design table is valid for basement walls of a 1 or 2 story residential building, Assumptions used:
 Roof : Tributary area of 7.62m / 25ft (total roof truss span of 15.25m / 50ft), Specified Snow load = 3 kPa / 62.5 psf, Dead load = 1.1 kPa / 23 psf
 Second Floor Loading : Tributary area of 3.81m / 12.5ft (total joist span of 7.62m / 25ft), Live Load = 2.4 kPa / 50 psf, Dead load = 1.5 kPa / 31 psf
 First Floor Loading : Tributary area of 3.81m / 12.5ft (total joist span of 7.62m / 25ft), Live Load = 2.4 kPa / 50 psf, Dead load = 1.5 kPa / 31 psf
- 8 This table is for gravity and out of plane loading only.
- 9 If PGA is > 0.60 or other parameters are beyond the the limitations of this table, consult Nexcem for project specific calculations and interaction diagrams
- 10 Backfill Equivalent Fluid Density = γK_0



Nexcem Inc. Table W-2: Above Grade Wall Design Table - Main Floor Walls (1 or 2 story Residential)

Wall Type	Wall Weight psf kPa		S(T _a) M _v I _E (R _d R ₀)	Seismic Equivalent Specified Wind Load (kPa)	Min. Concrete Thickness (mm / in)	Vertical reinforcing spacing with rebar in center of concrete wall thickness (mm, centre to centre 305mm = 12")																			
						Specified Wind Load (1/50 year load)																			
						mph		88					101					140							
						kPa		0.96					1.25					2.40							
						psf		20					26					50							
Bar Size	ft	Unsupported Height					Unsupported Height					Unsupported Height													
		11.5	13.5	14.0	15.0	20.0	24.0	11.5	12.5	14.0	15.0	20.0	24.0	10.5	14.0	15.0	16.0	18.0	20.0						
	m	3.51	4.12	4.27	4.57	6.10	7.32	3.51	3.81	4.27	4.57	6.10	7.32	3.20	4.27	4.57	4.88	5.49	6.10						
8" WF	73	3.5	≤ 0.60	0.67	125 / 4 7/8"	10M / #3	305	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a					
			≤ 0.40	0.44		#4 (1/2")	610	n/a	n/a	n/a	n/a	n/a	305	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a				
			≤ 0.20	0.22		15M / #5	610	n/a	n/a	n/a	n/a	n/a	305	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a			
10" WF (R-14) 12" WF (R-22) 14" WF (R-28) 16" WF (R-36)	88	4.2	≤ 0.60	0.80	136 / 5.5"	10M / #3	305	305	n/a	n/a	n/a	n/a	305	305	n/a	n/a	n/a	n/a	305	n/a	n/a				
			≤ 0.40	0.53		15M / #5	610	610	305	n/a	n/a	n/a	610	610	305	n/a	n/a	n/a	610	n/a	n/a				
			≤ 0.20	0.27		20M / #6	n/a	n/a	n/a	305	n/a	n/a	n/a	n/a	305	n/a	n/a	n/a	n/a	305	n/a	n/a			
10" WF (R-8) 12" WF (R-14)	95	4.5	≤ 0.60	0.86	174 / 6 7/8"	10M / #3	305	305	305	305	n/a	n/a	305	305	305	n/a	n/a	n/a	305	n/a	n/a				
			≤ 0.40	0.57			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a				
			≤ 0.20	0.29		15M / #5	610	610	610	610	n/a	n/a	610	610	610	305	n/a	n/a	610	n/a	n/a				
14" WF (R-22) 16" (R-28)	105	5.0	≤ 0.60	0.95	190 / 7.5"	10M / #3	305	305	305	305	n/a	n/a	305	305	305	305	n/a	n/a	305	n/a	n/a				
			≤ 0.40	0.63		15M / #5	610	610	610	610	305	n/a	610	610	610	610	n/a	n/a	610	305	n/a				
			≤ 0.20	0.32		20M / #6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	305	305	n/a			
12" WF (R-8) 14" WF (R-14) 16" (R-22)	123	5.8	≤ 0.60	1.10	228 / 9"	10M / #3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a					
			≤ 0.40	0.74		15M / #5	305	305	305	305	305	305	305	305	305	305	n/a	305	305	305	305				
			≤ 0.20	0.37		20M / #6	610	610	610	610	610	610	610	610	610	610	305	610	610	610	610				
14" WF (R-8) 16" WF (R-14)	136	6.5	≤ 0.60	1.24	250 / 10.5"	10M / #3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a					
			≤ 0.40	0.83		15M / #5	305	305	305	305	305	305	305	305	305	305	305	305	305	305					
			≤ 0.20	0.41		20M / #6	610	610	610	610	610	610	610	610	610	610	610	610	610	610	305				
16" WF (R-8)	149	7.1	≤ 0.60	1.35	316 / 12.5"	10M / #3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a					
			≤ 0.40	0.90		15M / #5	305	305	305	305	305	305	305	305	305	305	305	305	305	305					
			≤ 0.20	0.45		20M / #6	610	610	610	610	610	610	610	610	610	610	610	610	610	610					

305mm = 12"

610mm = 24"

Notes:

- 1 If an insulated block type is used that isn't listed above, for design purposes, use the block above with an equivalent minimum concrete thickness or smaller
- 2 The above design table assumes a concrete strength of 25 MPa / 3500psi at 28 days and a reinforcing steel yield strength of 400 Mpa / 58 ksi.
- 3 All concrete materials and testing to conform to CSA A23.1 and A23.2 and ACI 318 (latest revision). Reinforcing steel to be deformed bar conforming to CSA G30.18 (latest revision).
- 4 All walls to be reinforced horizontally with minimum 10M (#3) @ 610mm (24") c/c.
- 5 This design table is valid for basement walls of a 1 or 2 story residential building, Assumptions used:
 Roof : Tributary area of 7.62m / 25ft (total roof truss span of 15.25m / 50ft), Specified Snow load = 3 kPa / 62.5 psf, Dead load = 1.1 kPa / 23 psf
 Second Floor Loading : Tributary area of 3.81m / 12.5ft (total joist span of 7.62m / 25ft), Live Load = 2.4 kPa / 50 psf, Dead load = 1.5 kPa / 31 psf
 First Floor Loading : Tributary area of 3.81m / 12.5ft (total joist span of 7.62m / 25ft), Live Load = 2.4 kPa / 50 psf, Dead load = 1.5 kPa / 31 psf
- 6 This table is for gravity and out of plane loading only.



Nexcem Inc. Table W-3: Above Grade Wall Design Table - Second Floor

Wall Type	Wall Weight psf kPa		S(T _a) M _v I _E (R _d R _o)		Seismic Equivalent Specified Wind Load (kPa)	Min. Concrete Thickness (mm / in)	Vertical reinforcing spacing with rebar in center of concrete wall thickness (mm, centre to centre 305mm = 12")																	
							Specified Wind Load (1/50 year load)																	
							mph		77				88				101				140			
							kPa		0.72				0.96				1.25				2.40			
							psf		15				20				26				50			
Bar Size	ft	Unsupported Height (m)				Unsupported Height (m)				Unsupported Height (m)				Unsupported Height (m)										
		9.0	10.0	11.0	12.0	9.0	10.0	11.0	12.0	9.0	10.0	11.0	12.0	9.0	10.0	11.0	12.0							
m	m	2.74	3.05	3.35	3.66	2.74	3.05	3.35	3.66	2.74	3.05	3.35	3.66	2.74	3.05	3.35	3.66							
8" WF	73	3.5	≤ 0.60	0.67	125 / 4 7/8"	10M / #3		305	305	305	305	305	305	305	n/a	n/a	n/a	n/a	n/a	n/a	n/a			
			≤ 0.40	0.44		#4 (1/2")		610	610	610	610	610	610	610	n/a	305	305	305	n/a	n/a	n/a	n/a		
			≤ 0.20	0.22		15M / #5		610	610	610	610	610	610	610	n/a	305	305	305	n/a	n/a	n/a	n/a		
10" WF (R-14) 12" WF (R-22) 14" WF (R-28) 16" WF (R-36)	88	4.2	≤ 0.60	0.80	136 / 5.5"	10M / #3		305	305	305	305	305	305	305	305	305	305	305	305	305	n/a	n/a		
			≤ 0.40	0.53		15M / #5		610	610	610	610	610	610	610	610	610	610	610	610	610	n/a	n/a		
			≤ 0.20	0.27		20M / #6		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	305	305	
10" WF (R-8) 12" WF (R-14)	95	4.5	≤ 0.60	0.86	174 / 6 7/8"	10M / #3		305	305	305	305	305	305	305	305	305	305	305	305	305	305	n/a	n/a	
			≤ 0.20	0.29		15M / #5		610	610	610	610	610	610	610	610	610	610	610	610	610	610	n/a	n/a	
14" WF (R-22) 16" (R-28)	105	5.0	≤ 0.60	0.95	190 / 7.5"	10M / #3		305	305	305	305	305	305	305	305	305	305	305	305	305	305	n/a	n/a	
			≤ 0.40	0.63		15M / #5		610	610	610	610	610	610	610	610	610	610	610	610	610	610	305	305	
			≤ 0.20	0.32		20M / #6		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
12" WF (R-8) 14" WF (R-14) 16" (R-22)	123	5.8	≤ 0.60	1.10	228 / 9"	10M / #3		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
			≤ 0.40	0.74		15M / #5		305	305	305	305	305	305	305	305	305	305	305	305	305	305	305	305	
			≤ 0.20	0.37		20M / #6		610	610	610	610	610	610	610	610	610	610	610	610	610	610	610	610	
14" WF (R-8) 16" WF (R-14)	136	6.5	≤ 0.60	1.24	250 / 10.5"	10M / #3		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
			≤ 0.40	0.83		15M / #5		305	305	305	305	305	305	305	305	305	305	305	305	305	305	305	305	
			≤ 0.20	0.41		20M / #6		610	610	610	610	610	610	610	610	610	610	610	610	610	610	610	610	
16" WF (R-8)	149	7.1	≤ 0.60	1.35	316 / 12.5"	10M / #3		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
			≤ 0.40	0.90		15M / #5		305	305	305	305	305	305	305	305	305	305	305	305	305	305	305	305	
			≤ 0.20	0.45		20M / #6		610	610	610	610	610	610	610	610	610	610	610	610	610	610	610		

305mm = 12" 610mm = 24"

Notes:

- 1 If an insulated block type is used that isn't listed above, for design purposes, use the block above with an equivalent minimum concrete thickness or smaller
- 2 The above design table assumes a concrete strength of 25 MPa / 3500psi at 28 days and a reinforcing steel yield strength of 400 Mpa / 58 ksi.
- 3 All concrete materials and testing to conform to CSA A23.1 and A23.2 and ACI 318 (latest revision). Reinforcing steel to be deformed bar conforming to CSA G30.18 (latest revision).
- 4 All walls to be reinforced horizontally with minimum 10M (#3) @ 610mm (24") c/c.
- 5 This design table is valid for basement walls of a 1 or 2 story residential building, Assumptions used:
 Roof : Tributary area of 7.62m / 25ft (total roof truss span of 15.25m / 50ft), Specified Snow load = 3 kPa / 62.5 psf, Dead load = 1.1 kPa / 23 psf
 Second Floor Loading : Tributary area of 3.81m / 12.5ft (total joist span of 7.62m / 25ft), Live Load = 2.4 kPa / 50 psf, Dead load = 1.5 kPa / 31 psf
 First Floor Loading : Tributary area of 3.81m / 12.5ft (total joist span of 7.62m / 25ft), Live Load = 2.4 kPa / 50 psf, Dead load = 1.5 kPa / 31 psf
- 6 This table is for gravity and out of plane loading only.



Nexcem Inc. Table W-4: Above Grade Wall Design Table - Concentrated Vertical Reinforcement for Shear Walls in SFRS

$$S(T_d) M_v I_E / (R_d R_o) \leq 0.60$$

Second Floor Walls of Two Story ICF Structure Supporting Wood Frame Roof (Total length of shear wall required = 7ft) or First Floor Walls of One Story ICF Structure Supporting Wood Frame Roof (Total length of shear wall required = 7ft) (Second Floor Wall heights limited to 10ft)					
Wall Height		Number of Concentrated Vertical 15M Reinforcing Bars at End of Each Shear Wall in Designated SFRS			
		Number and length of shear walls in designated SFRS			
ft	m	1 x 8'-0"	2 x 4'-0"	3 x 3'-0"	5 x 2'-0"
8	2.4	1	1	2	2
9	2.7	1	1	2	2
10	3.0	1	1	2	2
11	3.4	1	1	2	2
12	3.7	2	2	2	2
14	4.3	2	2	2	2
16	4.9	2	2	2	2
First Floor Walls of Two Story ICF Structure Supporting Wood Frame Roof (Total length of shear wall required = 13ft) or Basement Walls of One Story ICF Structure Supporting Wood Frame Roof (Total length of shear wall required = 13ft)					
Wall Height		Number of Concentrated Vertical 15M Reinforcing Bars at End of Each Shear Wall in Designated SFRS			
		Number and length of shear walls in designated SFRS			
ft	m	1 x 13'-0"	2 x 6'-6"	3 x 4'-6"	6 x 2'-0"
8	2.4	1	1	2	2
9	2.7	1	1	2	2
10	3.0	1	1	2	2
11	3.4	1	1	2	2
12	3.7	2	2	2	2
14	4.3	2	2	2	2
16	4.9	2	2	2	2
Basement Walls of Two Story ICF Structure Supporting Wood Frame Roof (Total length of shear wall required = 22ft)					

Shear wall reinforcing in designated SFRS is 15 @ 12" o/c vertical and 15M @ 12" o/c horizontal if providing total length required
 Shear wall reinforcing in designated SFRS is 15 @ 12" o/c vertical and 10M @ 12" o/c horizontal if providing total length required x 1.33
 Non designated SFRS walls reinforced as per Tables W1 - W-3
 Ensure continuity of designated SFRS to footing



Notes:

- 1 If an insulated block type is used that isn't listed above, for design purposes, use the block above with an equivalent minimum concrete thickness or smaller
- 2 The above design table assumes a concrete strength of 25 MPa / 3500psi at 28 days and a reinforcing steel yield strength of 400 Mpa / 58 ksi.
- 3 All concrete materials and testing to conform to CSA A23.1 and A23.2 and ACI 318 (latest revision). Reinforcing steel to be deformed bar conforming to CSA G30.18 (latest revision).
- 4 All walls to be reinforced horizontally with minimum 10M (#3) @ 610mm (24") c/c.
- 5 This design table is valid for basement walls of a 1 or 2 story residential building, Assumptions used:
 Roof : Specified Snow load = 3 kPa / 62.5 psf, Dead load = 1.1 kPa / 23 psf
 Second Floor Loading : Dead load = 1.5 kPa / 31 psf
 First Floor Loading : Dead load = 1.5 kPa / 31 psf
- 6 Total Building Area: 300m² / 3227ft². Adjust minimum wall length proportionately based on actual floor area
 Example: 340 m² building area requires 340 / 300 = 1.13 increase in minimum wall lengths above
 Multiply minimum wall lengths in above table by 1.13
- 7 This table is for seismic in-plane loading
- 8 Total length of shear wall is minimum required in each direction