

2.2.1 Load tables - walls designed for compression by refined calculation:

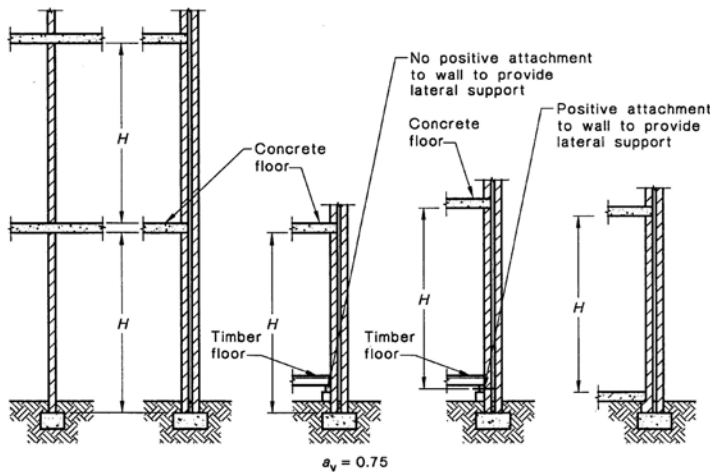
The tables in this section are for walls designed using refined calculation where the design is based on the height or the length of the wall. Refer to Section 2.2 to determine if wall height or wall length governs the design of the wall.

15MPa Blocks, 15MPa Grout

Table 1 - 2.2.1:	15MPa blocks, 15MPa grout, $a_v = 0.75$, height governs
Table 2 - 2.2.1:	15MPa blocks, 15MPa grout, $a_v = 0.85$, height governs
Table 3 - 2.2.1:	15MPa blocks, 15MPa grout, $a_v = 1.00$, height governs
Table 4 - 2.2.1:	15MPa blocks, 15MPa grout, $a_v = 1.50$, height governs
Table 5 - 2.2.1:	15MPa blocks, 15MPa grout, $a_v = 2.50$, height governs
Table 6 - 2.2.1:	15MPa blocks, 15MPa grout, $a_v = 0.75$, $a_h = 1.0$, length governs
Table 7 - 2.2.1:	15MPa blocks, 15MPa grout, $a_v = 0.85$, $a_h = 1.0$, length governs
Table 8 - 2.2.1:	15MPa blocks, 15MPa grout, $a_v = 1.00$, $a_h = 1.0$, length governs
Table 9 - 2.2.1:	15MPa blocks, 15MPa grout, $a_v = 1.50$, $a_h = 1.0$, length governs
Table 10 - 2.2.1:	15MPa blocks, 15MPa grout, $a_v = 2.50$, $a_h = 1.0$, length governs
Table 11 - 2.2.1:	15MPa blocks, 15MPa grout, $a_v = 0.75$, $a_h = 2.5$, length governs
Table 12 - 2.2.1:	15MPa blocks, 15MPa grout, $a_v = 0.85$, $a_h = 2.5$, length governs
Table 13 - 2.2.1:	15MPa blocks, 15MPa grout, $a_v = 1.00$, $a_h = 2.5$, length governs
Table 14 - 2.2.1:	15MPa blocks, 15MPa grout, $a_v = 1.50$, $a_h = 2.5$, length governs
Table 15 - 2.2.1:	15MPa blocks, 15MPa grout, $a_v = 2.50$, $a_h = 2.5$, length governs

Table 1 - 2.2.1:

140 MORTARLESS WALL (unchamfered blocks)															
Block: 15MPa			Wall span: VERTICAL (reinforced vertically)												
Grout: 15MPa			$a_v = 0.75$												
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)													
H (mm)	S_r	Eccentricity e_1													
		≤ 5.7 mm	10mm			20mm			30mm			40mm			≥ 57 mm
			e_2/e_1			e_2/e_1			e_2/e_1			e_2/e_1			
			1	0	-1	1	0	-1	1	0	-1	1	0	-1	
2000	10.7	276	219	241	262	167	207	247	115	174	233	62	140	218	0
2400	12.9	256	199	221	242	150	189	229	101	158	215	51	127	202	0
2800	15.0	235	179	201	223	133	172	210	87	142	198	40	113	186	0
3200	17.1	214	160	181	203	116	154	192	73	127	181	29	99	169	0
3600	19.3	194	140	162	183	99	136	173	59	111	163	18	86	153	0
4000	21.4	173	120	142	164	82	118	155	45	95	146	7	72	137	0
4400	23.6	152	100	122	144	65	101	136	31	79	128	0	58	120	0
4800	25.7	132	80	102	125	48	83	118	17	64	111	0	45	104	0
5200	27.9	111	60	82	105	31	65	99	3	48	93	0	31	88	0
5600	30.0	90	40	63	85	14	47	81	0	32	76	0	17	71	0
6000	32.1	69	20	43	66	0	30	62	0	17	58	0	4	55	0
6400	34.3	49	0	23	46	0	12	44	0	1	41	0	0	38	0
6800	36.4	28	0	3	27	0	0	25	0	0	24	0	0	22	0



Lateral support top and bottom
Partial rotational restraint top and bottom
Fully braced construction

Table 2 - 2.2.1:

140 MORTARLESS WALL (unchamfered blocks)

Block: 15MPa

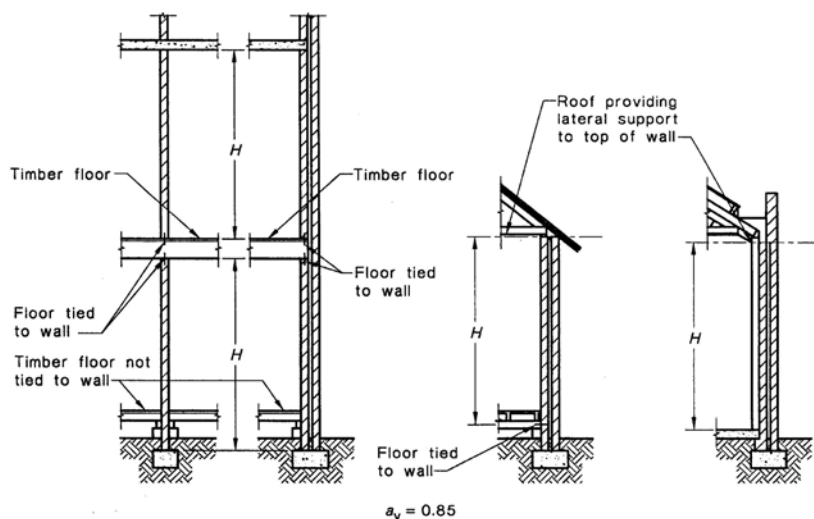
Wall span: VERTICAL

(reinforced vertically)

Grout: 15MPa

 $a_v = 0.85$

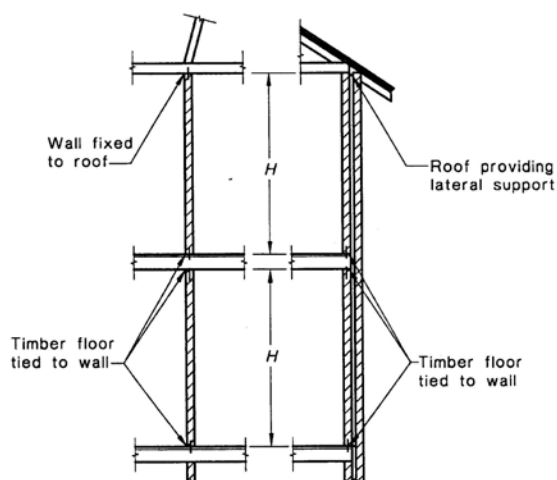
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)													
H (mm)	S_r	Eccentricity e_1													
		≤ 5.7 mm	10mm			20mm			30mm			40mm			≥ 57 mm
			e_2/e_1			e_2/e_1			e_2/e_1			e_2/e_1			
			1	0	-1	1	0	-1	1	0	-1	1	0	-1	
2000	12.1	263	206	227	249	156	238	287	129	199	270	67	160	253	0
2400	14.6	239	183	205	227	137	214	261	109	178	246	52	141	230	0
2800	17.0	216	161	183	204	117	189	236	90	156	222	37	122	208	0
3200	19.4	192	138	160	182	98	165	210	71	134	198	21	103	185	0
3600	21.9	169	116	138	160	79	140	184	51	112	174	6	84	163	0
4000	24.3	145	93	115	138	60	116	159	32	91	149	0	66	140	0
4400	26.7	122	70	93	115	40	91	133	12	69	125	0	47	117	0
4800	29.1	98	48	70	93	21	67	108	0	47	101	0	28	95	0
5200	31.6	75	25	48	71	2	42	82	0	25	77	0	9	72	0
5600	34.0	52	2	26	49	0	17	56	0	4	53	0	0	50	0
6000	36.4	28	0	3	27	0	0	31	0	0	29	0	0	27	0



Lateral support top and bottom
Partial rotational support one end
Fully braced construction

Table 3 - 2.2.1:

140 MORTARLESS WALL (unchamfered blocks)															
Block: 15MPa			Wall span: VERTICAL (reinforced vertically)												
Grout: 15MPa			$a_v = 1.00$												
			$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)												
H (mm)	S_r	Eccentricity e_1													
		≤ 5.7 mm	10mm			20mm			30mm			40mm			≥ 57 mm
			e_2/e_1			e_2/e_1			e_2/e_1			e_2/e_1			
			1	0	-1	1	0	-1	1	0	-1	1	0	-1	
2000	14.3	242	186	208	229	139	178	216	91	148	204	44	118	191	0
2400	17.1	214	160	181	203	116	154	192	73	127	181	29	99	169	0
2800	20.0	187	133	155	177	93	130	167	54	106	157	15	81	147	0
3200	22.9	159	106	129	151	71	107	142	35	85	134	0	63	126	0
3600	25.7	132	80	102	125	48	83	118	17	64	111	0	45	104	0
4000	28.6	104	53	76	98	26	59	93	0	43	88	0	26	82	0
4400	31.4	76	26	49	72	3	36	68	0	22	64	0	8	60	0
4800	34.3	49	0	23	46	0	12	44	0	1	41	0	0	38	0
5000	35.7	35	0	10	33	0	0	31	0	0	29	0	0	28	0



**Lateral support top and bottom
Fully braced construction**

Table 4 - 2.2.1:

140 MORTARLESS WALL (unchamfered blocks)

Block: 15MPa

Wall span: VERTICAL (reinforced vertically)

Grout: 15MPa

$a_v = 1.50$

		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)													
H (mm)	S_r	Eccentricity e_1													
		≤ 5.7 mm	10mm			20mm			30mm			40mm			≥ 57 mm
			e_2/e_1			e_2/e_1			e_2/e_1			e_2/e_1			
			1	0	-1	1	0	-1	1	0	-1	1	0	-1	
2000	21.4	173	120	142	164	82	118	155	45	95	146	7	72	137	0
2400	25.7	132	80	102	125	48	83	118	17	64	111	0	45	104	0
2800	30.0	90	40	63	85	14	47	81	0	32	76	0	17	71	0
3200	34.3	49	0	23	46	0	12	44	0	1	41	0	0	38	0
3400	36.4	28	0	3	27	0	0	25	0	0	24	0	0	22	0

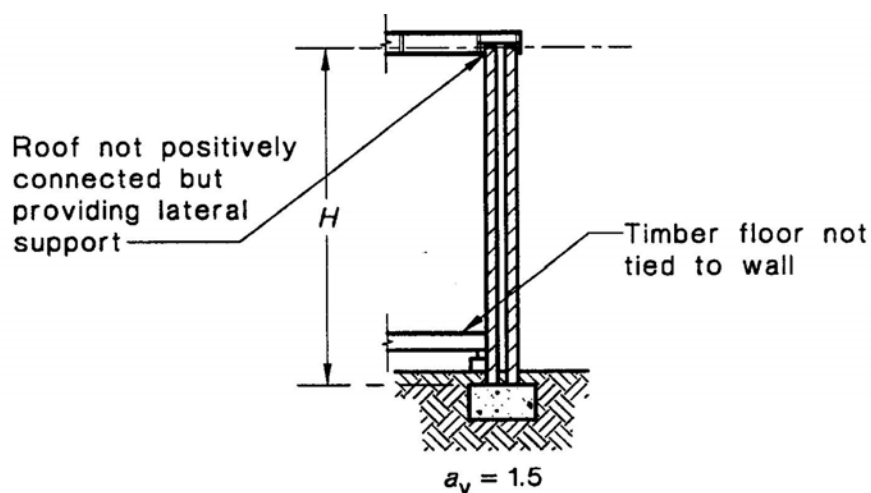


Table 5 - 2.2.1:

140 MORTARLESS WALL (unchamfered blocks)

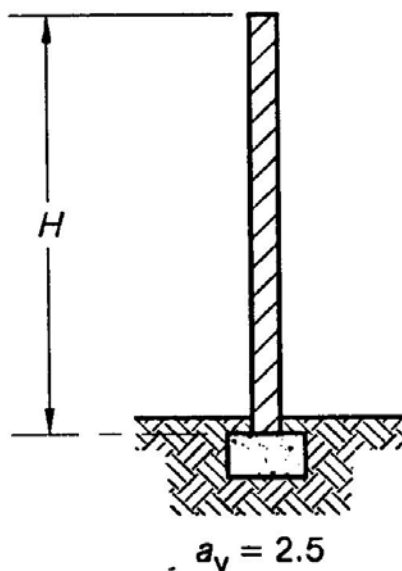
Block: 15MPa

Wall span: VERTICAL (reinforced vertically)

Grout: 15MPa

$a_v = 2.50$

		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)													
H (mm)	S_r	Eccentricity e_1													≥ 57 mm
		≤ 5.7 mm	10mm			20mm			30mm			40mm			
			e_2/e_1			e_2/e_1			e_2/e_1			e_2/e_1			
			1	0	-1	1	0	-1	1	0	-1	1	0	-1	
1000	17.9	207	153	175	197	110	148	186	68	121	175	26	95	164	0
1200	21.4	173	120	142	164	82	118	155	45	95	146	7	72	137	0
1400	25.0	138	86	109	131	54	89	124	21	69	117	0	49	109	0
1600	28.6	104	53	76	98	26	59	93	0	43	88	0	26	82	0
1800	32.1	69	20	43	66	0	30	62	0	17	58	0	4	55	0
2000	35.7	35	0	10	33	0	0	31	0	0	29	0	0	28	0



Free standing wall
No lateral support to top edge

Table 6 - 2.2.1:

140 MORTARLESS WALL (unchamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 15MPa		$a_v = 0.75$		$a_h = 1.0$			
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{HxL}$ (mm)	S_r	Eccentricity e_1					
		$\leq 5.7\text{mm}$	10mm	20mm	30mm	40mm	$\geq 57\text{mm}$
2000	8.7	296	239	183	128	73	0
2400	10.4	280	222	170	117	64	0
2800	12.1	263	206	156	106	55	0
3200	13.9	246	190	142	94	46	0
3600	15.6	229	174	128	83	37	0
4000	17.3	213	158	115	72	28	0
4400	19.1	196	142	101	60	20	0
4800	20.8	179	126	87	49	11	0
5200	22.5	162	109	74	38	2	0
5600	24.2	146	93	60	26	0	0
6000	26.0	129	77	46	15	0	0
6400	27.7	112	61	32	4	0	0
6800	29.4	96	45	19	0	0	0
7200	31.2	79	29	5	0	0	0
7600	32.9	62	13	0	0	0	0
8000	34.6	45	0	0	0	0	0
8400	36.4	29	0	0	0	0	0

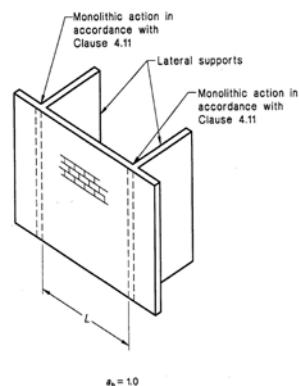
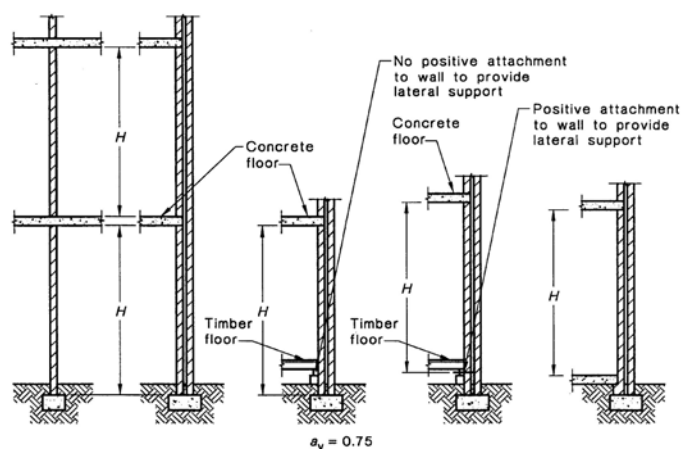


Table 7 - 2.2.1:

140 MORTARLESS WALL (unchamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 15MPa		$a_v = 0.85$		$a_h = 1.0$			
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{H \times L}$ (mm)	S_r	Eccentricity e_1					
		$\leq 5.7\text{mm}$	10mm	20mm	30mm	40mm	$\geq 57\text{mm}$
2000	9.2	291	233	179	125	70	0
2400	11.1	273	216	164	112	61	0
2800	12.9	255	199	150	100	51	0
3200	14.8	237	182	135	88	42	0
3600	16.6	220	165	120	76	32	0
4000	18.4	202	147	106	64	23	0
4400	20.3	184	130	91	52	13	0
4800	22.1	166	113	77	40	4	0
5200	24.0	148	96	62	28	0	0
5600	25.8	131	79	47	16	0	0
6000	27.7	113	62	33	4	0	0
6400	29.5	95	44	18	0	0	0
6800	31.3	77	27	4	0	0	0
7200	33.2	59	10	0	0	0	0
7600	35.0	42	0	0	0	0	0
7800	36.0	33	0	0	0	0	0

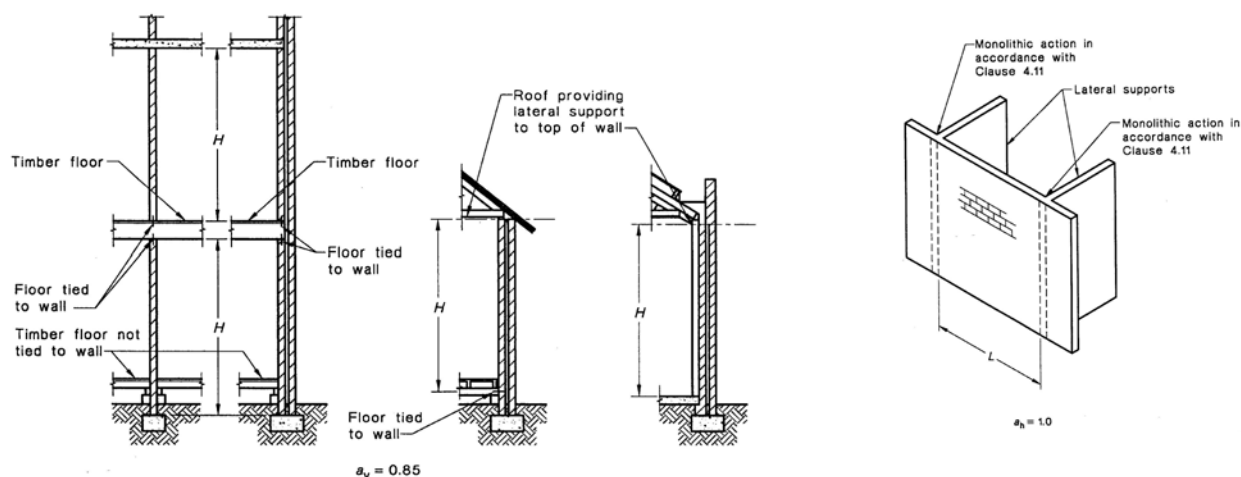


Table 8 - 2.2.1:

140 MORTARLESS WALL (unchamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 15MPa		$a_v = 1.00$		$a_h = 1.0$			
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{H \times L}$ (mm)	S_r	Eccentricity e_1					
		$\leq 5.7\text{mm}$	10mm	20mm	30mm	40mm	$\geq 57\text{mm}$
2000	10.0	283	226	173	119	66	0
2400	12.0	264	207	157	106	56	0
2800	14.0	245	189	141	93	46	0
3200	16.0	225	170	125	80	35	0
3600	18.0	206	152	109	67	25	0
4000	20.0	187	133	93	54	15	0
4400	22.0	167	114	78	41	4	0
4800	24.0	148	96	62	28	0	0
5200	26.0	129	77	46	15	0	0
5600	28.0	109	58	30	2	0	0
6000	30.0	90	40	14	0	0	0
6400	32.0	71	21	0	0	0	0
6800	34.0	52	2	0	0	0	0
7200	36.0	32	0	0	0	0	0

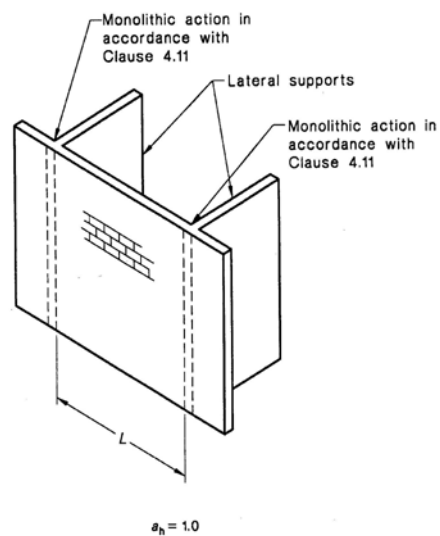
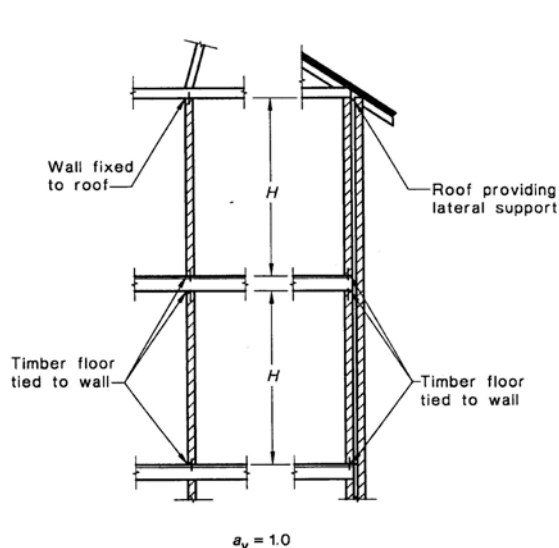


Table 9 - 2.2.1:

140 MORTARLESS WALL (unchamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 15MPa		$a_v = 1.50$		$a_h = 1.0$			
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{H \times L}$ (mm)	S_r	Eccentricity e_1					
		$\leq 5.7\text{mm}$	10mm	20mm	30mm	40mm	$\geq 57\text{mm}$
1200	7.3	322	251	194	137	80	0
1600	9.8	285	228	174	121	67	0
2000	12.2	262	205	155	105	55	0
2400	14.7	238	182	136	89	42	0
2800	17.1	214	159	116	73	29	0
3200	19.6	191	137	97	57	17	0
3600	22.0	167	114	77	41	4	0
4000	24.5	143	91	58	25	0	0
4400	26.9	120	68	38	9	0	0
4800	29.4	96	45	19	0	0	0
5200	31.8	72	23	0	0	0	0
5600	34.3	49	0	0	0	0	0
6000	36.7	25	0	0	0	0	0

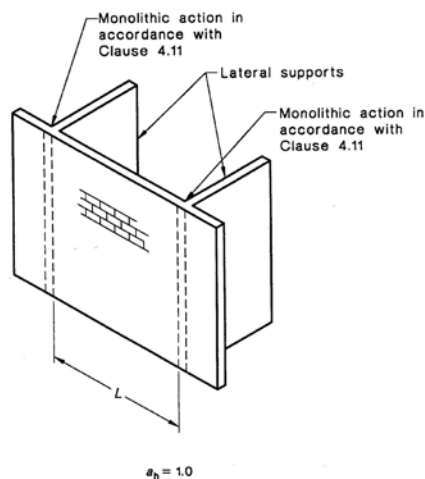
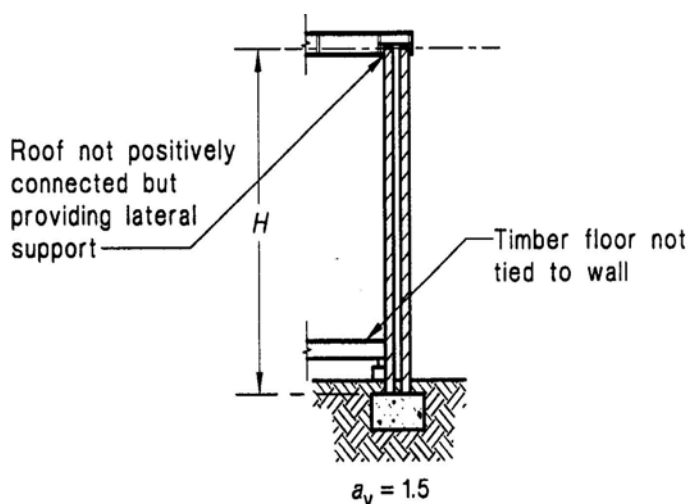
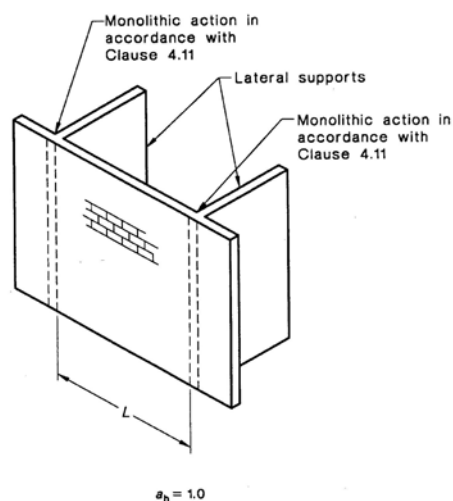
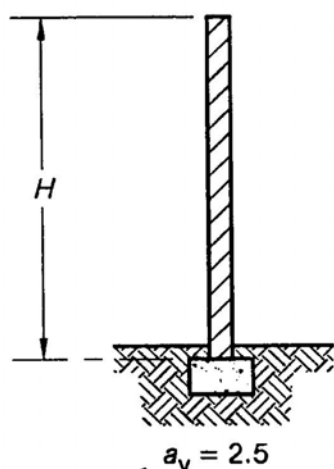


Table 10 - 2.2.1:

140 MORTARLESS WALL (unchamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 15MPa		$a_v = 2.50$		$a_h = 1.0$			
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{H \times L}$ (mm)	S_r	Eccentricity e_1					
		$\leq 5.7\text{mm}$	10mm	20mm	30mm	40mm	$\geq 57\text{mm}$
1200	9.5	288	231	177	123	69	0
1600	12.6	258	201	152	102	53	0
2000	15.8	227	172	127	81	36	0
2400	19.0	197	142	102	61	20	0
2800	22.1	166	113	77	40	4	0
3200	25.3	136	84	51	19	0	0
3600	28.5	105	54	26	0	0	0
4000	31.6	74	25	1	0	0	0
4400	34.8	44	0	0	0	0	0
4600	36.4	29	0	0	0	0	0



140 MORTARLESS WALL (unchamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 15MPa		$a_v = 0.75$		$a_h = 2.5$			
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{HxL}$ (mm)	S_r	Eccentricity e_1					
		$\leq 5.7\text{mm}$	10mm	20mm	30mm	40mm	$\geq 57\text{mm}$
2000	13.7	248	192	143	95	47	0
2400	16.4	221	166	122	77	33	0
2800	19.2	195	141	100	59	19	0
3200	21.9	168	115	78	42	5	0
3600	24.6	142	90	57	24	0	0
4000	27.4	115	64	35	6	0	0
4400	30.1	89	39	13	0	0	0
4800	32.9	63	13	0	0	0	0
5200	35.6	36	0	0	0	0	0

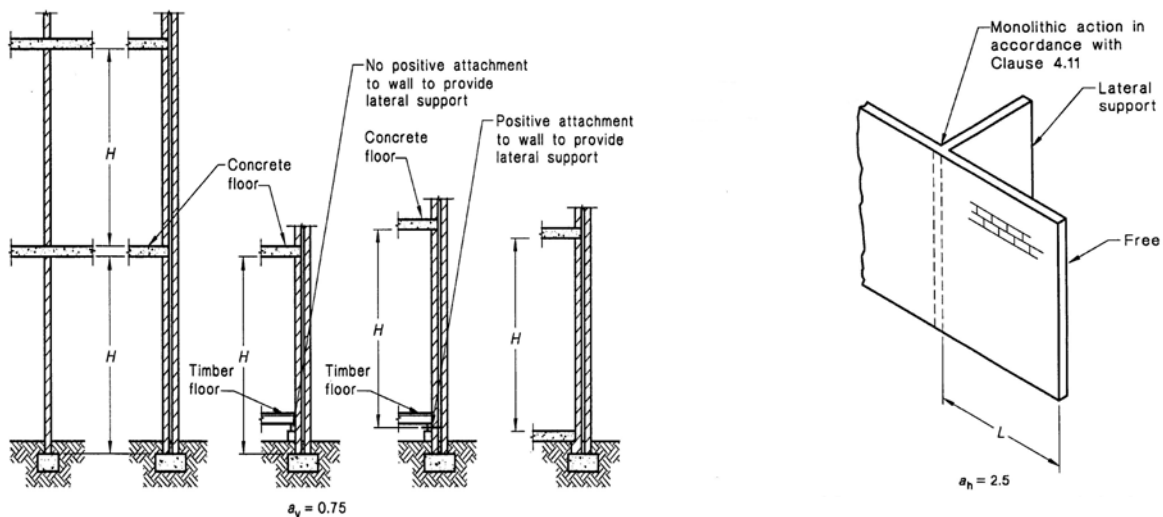


Table 12 - 2.2.1:

140 MORTARLESS WALL (unchamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 15MPa		$a_v = 0.85$		$a_h = 2.5$			
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{H \times L}$ (mm)	S_r	Eccentricity e_1					
		$\leq 5.7\text{mm}$	10mm	20mm	30mm	40mm	$\geq 57\text{mm}$
2000	14.6	239	183	136	90	43	0
2400	17.5	211	156	113	70	28	0
2800	20.4	183	129	90	51	13	0
3200	23.3	155	102	67	32	0	0
3600	26.2	126	75	44	13	0	0
4000	29.2	98	48	21	0	0	0
4400	32.1	70	20	0	0	0	0
4800	35.0	42	0	0	0	0	0
5000	36.4	28	0	0	0	0	0

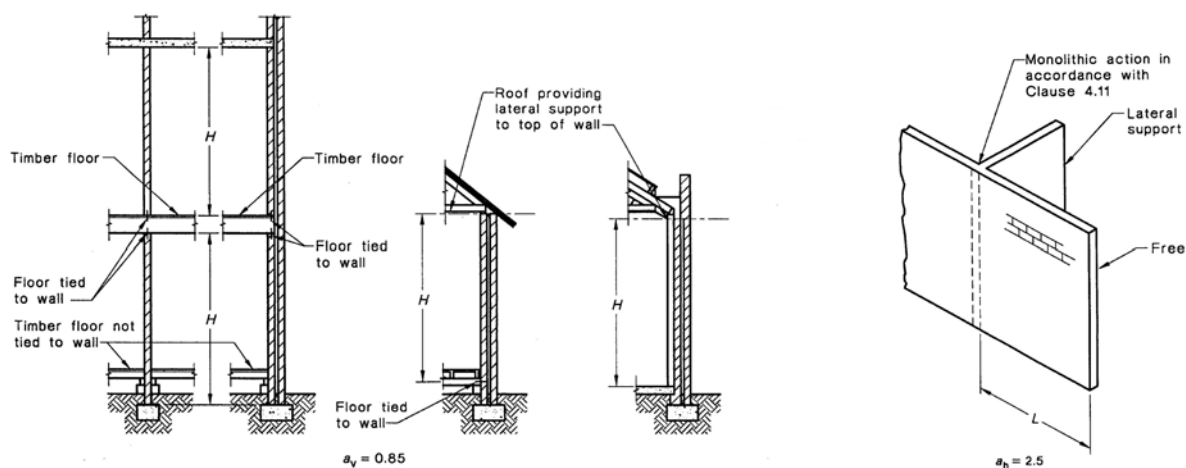


Table 13 - 2.2.1:

140 MORTARLESS WALL (unchamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 15MPa		$a_v = 1.00$		$a_h = 2.5$			
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{H \times L}$ (mm)	S_r	Eccentricity e_1					
		$\leq 5.7\text{mm}$	10mm	20mm	30mm	40mm	$\geq 57\text{mm}$
2000	15.8	227	172	127	81	36	0
2400	19.0	197	142	102	61	20	0
2800	22.1	166	113	77	40	4	0
3200	25.3	136	84	51	19	0	0
3600	28.5	105	54	26	0	0	0
4000	31.6	74	25	1	0	0	0
4400	34.8	44	0	0	0	0	0
4600	36.4	29	0	0	0	0	0

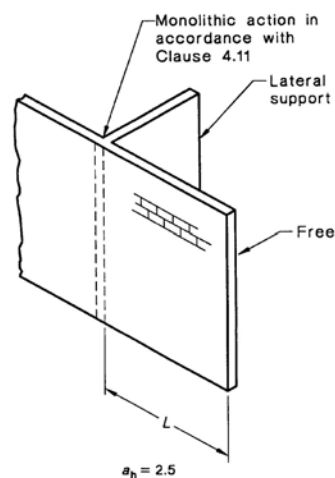
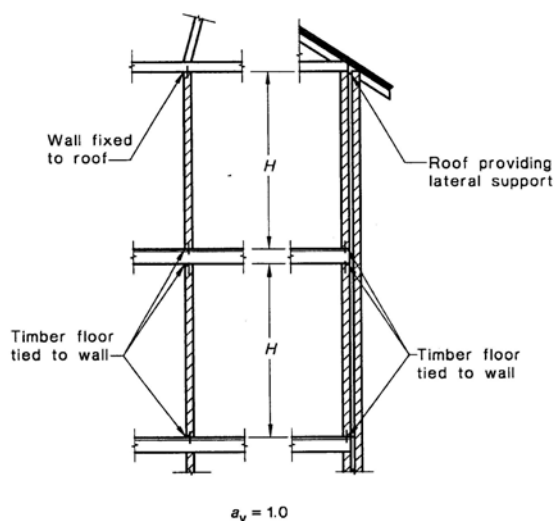


Table 14 - 2.2.1:

140 MORTARLESS WALL (unchamfered blocks)

Block: 15MPa

Wall Span: HORIZONTAL (reinforced vertically & horizontally)

Grout: 15MPa

$a_v = 1.50$

$a_h = 2.5$

		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{H \times L}$ (mm)	S_r	Eccentricity e_1					
		$\leq 5.7\text{mm}$	10mm	20mm	30mm	40mm	$\geq 57\text{mm}$
1200	11.6	268	211	160	109	58	0
1600	15.5	230	175	129	84	38	0
2000	19.4	193	139	99	58	18	0
2400	23.2	155	103	68	33	0	0
2800	27.1	118	67	37	8	0	0
3200	31.0	81	31	6	0	0	0
3600	34.9	43	0	0	0	0	0
3800	36.8	25	0	0	0	0	0

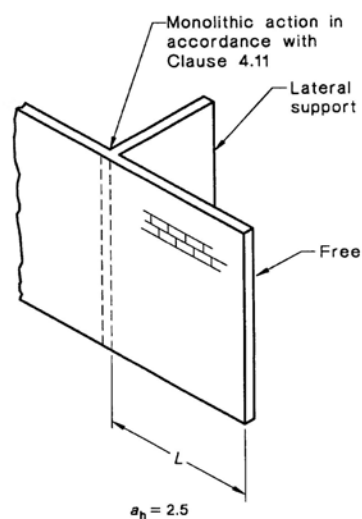
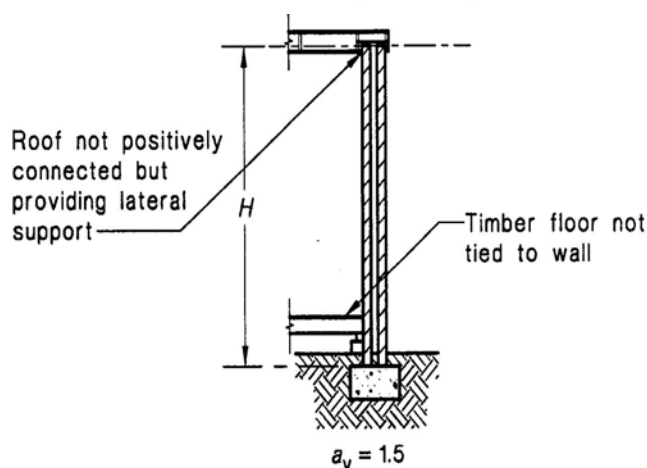


Table 15 - 2.2.1:

140 MORTARLESS WALL (unchamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 15MPa		$a_v = 2.50$		$a_h = 2.5$			
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{H \times L}$ (mm)	S_r	Eccentricity e_1					
		$\leq 5.7\text{mm}$	10mm	20mm	30mm	40mm	$\geq 57\text{mm}$
1200	15.0	235	179	133	87	40	0
1600	20.0	187	133	93	54	15	0
2000	25.0	138	86	54	21	0	0
2400	30.0	90	40	14	0	0	0
2800	35.0	42	0	0	0	0	0

