

## UBC Structural Systems (R) Table 16-N

Structural System	Description	R	Max Height in Zone 3 or 4
Bearing Walls	Shear Panels	5.5	65
	Tension (X) Bracing	2.8	65
Frame System	Steel Eccentric	7.0	240
	Concrete Shear	5.5	240
	Heavy Timber	5.6	65
Moment Frame	Steel	8.5	No Limit
	Concrete	8.5	No Limit
Dual Systems	Masonry/SMRF	5.5	160
	Steel EBF/SMRF	8.5	No Limit

## Seismic Coefficient $C_a$ Table 16-Q

Soil Profile	Z = 0.075	Z = 0.15	Z = 0.2	Z = 0.3	Z = 0.4
$S_A$	0.06	0.12	0.16	0.24	$0.32N_a$
$S_B$	0.08	0.15	0.20	0.30	$0.40N_a$
$S_C$	0.09	0.18	0.24	0.33	$0.40N_a$
$S_D$	0.12	0.22	0.28	0.36	$0.44N_a$
$S_E$	0.19	0.30	0.34	0.36	$0.36N_a$

## Seismic Coefficient $C_v$ , Table 16-R

Soil Profile	$Z = 0.075$	$Z = 0.15$	$Z = 0.2$	$Z = 0.3$	$Z = 0.4$
$S_A$	0.06	0.12	0.16	0.24	$0.32N_v$
$S_B$	0.08	0.15	0.20	0.30	$0.40N_v$
$S_C$	0.13	0.25	0.32	0.45	$0.56N_v$
$S_D$	0.18	0.32	0.40	0.54	$0.64N_v$
$S_E$	0.26	0.50	0.64	0.84	$0.96N_v$

$$V = F_t + \sum_{i=1}^n F_i \quad (30-13)$$

The concentrated force  $F_t$  at the top, which is in addition to  $F_n$ , shall be determined from the formula:

$$F_t = 0.07 T V \quad (30-14)$$

The value of  $T$  used for the purpose of calculating  $F_t$  shall be the period that corresponds with the design base shear as computed using Formula (30-4).  $F_t$  need not exceed  $0.25V$  and may be considered as zero where  $T$  is 0.7 second or less. The remaining por-

$$F_x = \frac{(V - F_t) w_x h_x}{\sum_{i=1}^n w_i h_i} \quad (30-15)$$