

- force-resisting system and elements of the damping system at effective ductility demand,  $\mu_M$ , Section 18.6.2.2
- $\beta_I$  = component of effective damping of the structure due to the inherent dissipation of energy by elements of the structure, at or just below the effective yield displacement of the seismic force-resisting system, Section 18.6.2.1
- $\beta_R$  = total effective damping in the residual mode of vibration of the structure in the direction of interest, calculated in accordance with Section 18.6.2 (using  $\mu_D = 1.0$  and  $\mu_M = 1.0$ )
- $\beta_{Vm}$  = component of effective damping of the  $m^{\text{th}}$  mode of vibration of the structure in the direction of interest due to viscous dissipation of energy by the damping system, at or just below the effective yield displacement of the seismic force-resisting system, Section 18.6.2.3
- $\delta_i$  = elastic deflection of Level  $i$  of the structure due to applied lateral force,  $f_i$ , Section 18.5.2.3
- $\delta_{i1D}$  = fundamental mode design deflection of Level  $i$  at the center of rigidity of the structure in the direction under consideration, Section 18.5.3.1
- $\delta_{iD}$  = total design deflection of Level  $i$  at the center of rigidity of the structure in the direction under consideration, Section 18.5.3
- $\delta_{iM}$  = total maximum deflection of Level  $i$  at the center of rigidity of the structure in the direction under consideration, Section 18.5.3
- $\delta_{iRD}$  = residual mode design deflection of Level  $i$  at the center of rigidity of the structure in the direction under consideration, Section 18.5.3.1
- $\delta_{im}$  = deflection of Level  $i$  in the  $m^{\text{th}}$  mode of vibration at the center of rigidity of the structure in the direction under consideration, Section 18.6.2.3
- $\Delta_{1D}$  = design story drift due to the fundamental mode of vibration of the structure in the direction of interest, Section 18.5.3.3
- $\Delta_D$  = total design story drift of the structure in the direction of interest, Section 18.5.3.3
- $\Delta_M$  = total maximum story drift of the structure in the direction of interest, Section 18.5.3
- $\Delta_{mD}$  = design story drift due to the  $m^{\text{th}}$  mode of vibration of the structure in the direction of interest, Section 18.4.3.3
- $\Delta_{RD}$  = design story drift due to the residual mode of vibration of the structure in the direction of interest, Section 18.5.3.3
- $\mu$  = effective ductility demand on the seismic force-resisting system in the direction of interest
- $\mu_D$  = effective ductility demand on the seismic force-resisting system in the direction of interest due to the design earthquake ground motions, Section 18.6.3
- $\mu_M$  = effective ductility demand on the seismic force-resisting system in the direction of interest due to the maximum considered earthquake ground motions, Section 18.6.3
- $\mu_{\max}$  = maximum allowable effective ductility demand on the seismic force-resisting system due to the design earthquake ground motions, Section 18.6.4
- $\phi_{i1}$  = displacement amplitude at Level  $i$  of the fundamental mode of vibration of the structure in the direction of interest, normalized to unity at the roof level, Section 18.5.2.3
- $\phi_{iR}$  = displacement amplitude at Level  $i$  of the residual mode of vibration of the structure in the direction of interest normalized to unity at the roof level, Section 18.5.2.7
- $\Gamma_1$  = participation factor of the fundamental mode of vibration of the structure in the direction of interest, Section 18.4.2.3 or 18.5.2.3 ( $m = 1$ )
- $\Gamma_m$  = participation factor in the  $m^{\text{th}}$  mode of vibration of the structure in the direction of interest, Section 18.4.2.3
- $\Gamma_R$  = participation factor of the residual mode of vibration of the structure in the direction of interest, Section 18.5.2.7
- $\nabla_{1D}$  = design story velocity due to the fundamental mode of vibration of the structure in the direction of interest, Section 18.5.3.4
- $\nabla_D$  = total design story velocity of the structure in the direction of interest, Section 18.4.3.4
- $\nabla_M$  = total maximum story velocity of the structure in the direction of interest, Section 18.5.3
- $\nabla_{mD}$  = design story velocity due to the  $m^{\text{th}}$  mode of vibration of the structure in the direction of interest, Section 18.4.3.4