d_i = thickness of any layer (between 0 and 30 m). $\sum_{i=1}^{n} d_i$ is equal to 30 m.

(b)
$$\bar{N} = \frac{\sum_{i=1}^{n} d_i}{\sum_{i=1}^{n} \dfrac{d_i}{N_i}}$$
(A.2)

where N_i = Standard Penetration Resistance as directly, measured in the field without corrections, and shall not be taken greater than 100 blows/ft. Where refusal is met for a rock layer, N_i shall be taken as 100 blows/ft. N_i and d_i in **Eq.(A.2)** are for cohesionless soil, cohesive soil and rock layers.

(c)
$$\bar{N}_{ch} = \frac{d_s}{\sum_{i=1}^{m} \dfrac{d_i}{N_i}}$$
(A.3)

where N_i and d_i in **Eq.(A.3)** are for cohesionless soil layers only.

d_s = total thickness of cohesionless soil layers in the top 30 m. $\sum_{i=1}^{m} d_i = d_s$

(d)
$$\bar{s}_u = \frac{d_c}{\sum_{i=1}^{k} \dfrac{d_i}{s_{ui}}}$$
(A.4)

where s_{ui} = undrained shear strength in kPa, and shall not be taken greater than 250 kPa.

d_c = total thickness of cohesive soil layers in the top 30 m. $\sum_{i=1}^{k} d_i = d_c$

A.2. Steps for classifying Soil Classes C,D,E,F

Step 1: Check for the four categories of Soil Class F (see **Table A.1**) requiring site-specific evaluation. If the site corresponds to any of these categories, classify the site as Soil Class F and conduct a site-specific evaluation.

Step 2: Check for the existence of a total thickness of soft clay > 3 m where a soft clay layer is defined by $s_u < 25$ kPa, $w \geq 40\%$ and $PI > 20$. If these criteria are satisfied, classify the site as Soil Class E.

Step 3: Categorize the site using one of the following three methods with $\bar{v}_s$, $\bar{N}$ and $\bar{s}_u$ computed in all cases as specified in **A.1.2**:

(a) $\bar{v}_s$ for the top 30 m ($\bar{v}_s$ method)
(b) $\bar{N}$ for the top 30 m ($\bar{N}$ method)
(c) $\bar{N}_{ch}$ for cohesionless soil layers ($PI < 20$) in the top 30 m and average $\bar{s}_u$ for cohesive soil layers ($PI > 20$) in the top 30 m ($\bar{s}_u$ method)