### 1.2 COVERAGE AND IMPLEMENTATION

This document gives the minimum loads that will be considered when designing structures for wind, including the main structural system, external facade elements, and other components that are exposed to wind.

The development of a structural design code is a long and continuous process that requires consensus from all parties involved. This code is the first step for a comprehensive wind design code for Dubai.

## 2. GENERAL GUIDELINES FOR WIND LOADS

Wind loads are composed of static and dynamic components. The loads given in this code are the equivalent static wind loads, under which the static deformations of the structure are equal to the sum of static and dynamic deformations induced by wind.

The total wind load on the main load carrying system of the structure is equal to the vectoral sum of the wind loads acting on all surfaces of the structure.

The wind loads on the main structural system, external facade elements, and other non-structural components that are exposed to wind cannot be less than 0.5 kN/m$^2$.

## 3. VELOCITY OF WIND

Wind velocity is defined by the following equation:

$$V(z,t) = V_m(z) + w(z,t) \tag{3.1}$$

where

$V(z,t)$ : Total wind velocity at height $z$ at time $t$.

$V_m(z)$ : Mean component (i.e., the average) of wind velocity at height $z$.

$w(z,t)$ : Dynamic component of wind velocity (i.e., turbulance) at height $z$ at time $t$.

### 3.1. AVERAGE WIND VELOCITY