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ASCE 7-10 Wind Load Calculation Example

A fully worked example of ASCE 7-10 wind load calculations

The effect of wind on structures during typhoon is one of the critical loads that a Structural Engineer should anticipate. No one would want to live in a building easily swayed by gust. In order to do so, guidelines on how to estimate this load is indicated in each local code provision.

SkyCiv released a free wind load calculator that has several code reference including the ASCE 7-10 wind load procedure. In this section, we are going to demonstrate how to calculate the wind loads, by using an S3D warehouse model below:

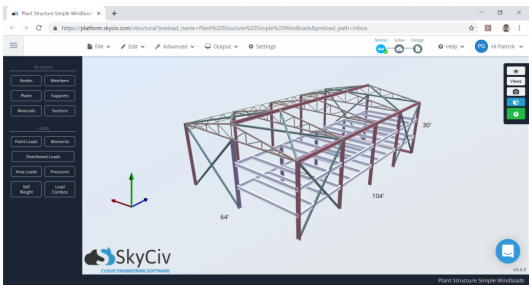

Figure 1. Warehouse model in SkyCiv S3D as example.

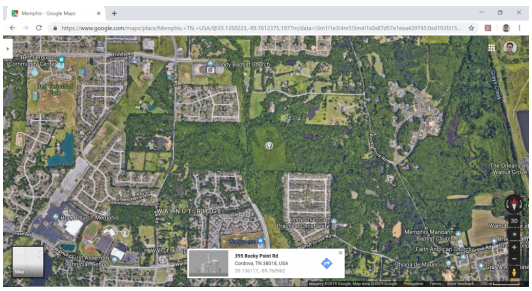

Figure 2. Site location (from Google Maps).

Table 1. Building data needed for our wind calculation.

Location	Cordova, Memphis, Tennessee
Occupancy	Miscellaneous – Plant Structure
Terrain	Flat farmland