Section 01 67 00

METEOROLOGICAL AND SEISMIC DESIGN CRITERIA

1. SCOPE. Buildings, non-structural components and non-building structures shall be designed in accordance with this section. In the event of conflict with requirements in other sections, the more stringent criteria shall be followed.

2. DESIGN CRITERIA. Non-structural components and non-building structures including anchorage of such items, shall be designed in accordance with the following criteria.

General Design Data:

Building code and references	IBC 2018, ASCE 7-16 "Minimum Design Loads and Associated Criteria for Buildings and Other Structures", AISC 360 "Specification for Structural Steel Buildings", AISC 341 "Seismic Provisions for Structural Steel Buildings"
Site elevation, above mean sea level (ft)	18.00
Design flood elevation, DFE (ft)	Not located in a FEMA Flood Zone

Wind Design Data:

Basic (Ultimate) Design wind speed, V (mph)	169
Allowable Stress (Nominal) Design wind speed, V_{asd} (mph)	131
Exposure category	C
Ground elevation factor, K_e	1.00
Risk Category	III

Snow Design Data:

Ground snow load, P_g (psf)	0

Seismic Design Data

Mapped MCE one second period spectral response acceleration, S_1	0.023g
Design short period spectral response acceleration, S_{DS}	0.050g
Design one second period spectral response acceleration, S_{D1}	0.037g
Risk Category	III
Building Importance factor, I	1.25
Building Seismic Design Category	A
Non-Structural Components Importance factors, I_P	Not Applicable
Non-Structural Components Seismic Design Category	Not Applicable
Non-Builidng Structures Importance factors, I	Not Applicable

3. <u>WIND ANCHORAGE</u>. Equipment that is to be located outdoors shall have anchor bolts designed for the effects of wind forces, as determined in accordance with ASCE 7, Chapters 26-31. Design of anchorage shall be in accordance with the Anchorage in Concrete and Masonry section.

4. <u>SEISMIC DESIGN</u>.

4-1. <u>General</u>. Structural systems shall provide continuous load paths, with adequate strength and stiffness to transfer all seismic forces from the point of application to the point of final resistance.

4-2. <u>Pre-Engineered Buildings</u>. Not used.

4-3. <u>Non-Structural Components</u>. Non-structural components are architectural, mechanical, and electrical items that are permanently attached to and supported by a structure but are not part of the structural system, as indicated in Chapter 13 of ASCE 7. Seismic design of non-structural components is not required because the site is in Seismic Design Category A.

4-4. <u>Non-Building Structures</u>. Non-building structures are the items described as such in Chapter 15 of ASCE 7. Seismic design of non-building structures is not required because the site is located in Seismic Design Category A.

End of Section