



Design Criteria for the State of Utah

SNOW:

- ❑ **Ground Snow Loads:** Site specific depending upon the County and site elevation. For assistance in determining the appropriate ground snow load please visit <https://utahsnowload.usu.edu> as referenced in Section 15A of Utah’s “State Construction and Fire Codes Act”.
- ❑ **Roof Snow Loads:** Shall be determined per Chapter 7 of ASCE 7-16.
- ❑ **Seismic Snow:** At locations where the roof snow load exceeds 30psf a percentage of the snow load must be considered in the effective seismic weight of the structure per Section 15A-3-107 of Utah’s “State Construction and Fire Codes Act”.

WIND:

- ❑ **Exposure:** Site specific. Typically “B” or “C”.
- ❑ **Speed:** Per local jurisdiction, typically as shown in Table 1.

Table 1. 2018 IBC Ultimate Design Wind Speeds

Risk Category <i>(per IBC Table 1604.5)</i>	<i>Ultimate Design Wind Speed</i> V_{ult} (mph)
I	100
II	105
III	110
IV	115

SEISMIC:

- ❑ **Ground Motions:** Shall be determined on a site-specific basis and not by use of a zip code. For specific acceleration values for a particular project please go to the Applied Technology Council to use their free “ATC Hazards by Location” tool: <https://hazards.atcouncil.org/>
- ❑ **Seismic Design Category:** Site specific (per Section 1613.2.5 of the IBC).

SOILS:

- ❑ **Frost Depth:** Per geotechnical report and local jurisdiction.
- ❑ **Geotechnical Report:**
 - All projects require a site-specific geotechnical report meeting the requirements of Section 1803 of the IBC. Additions to existing facilities of less than 3,000 square feet are exempted from this requirement.
 - All geotechnical reports submitted for DFCM approval must be dated no later than two years from the submittal date. Outdated reports must be accompanied by a letter from a qualified geotechnical engineer stating that the report requirements are still valid, or stating what items



- may have changed. All building code references must be updated to the current code adopted by the State of Utah.
- **Site Class:** Site specific. For projects not requiring a geotechnical report Site Class ‘D’ can be assumed per Sections 1613.3.2 and 1806.2 of the IBC.
 - **Allowable Bearing Pressures:**
 - Foundation pressure: 1,500psf, per Table 1806.2 of the IBC.
 - Lateral pressure: 100psf/f, per Table 1806.2 of the IBC.
 - The above listed values are maximum allowable values unless listed otherwise by a site-specific geotechnical report.
 - **Surface-Fault-Rupture Hazards:** All projects located in close proximity to active faults must provide an appropriate surface-fault-rupture-hazard study as discussed in the Utah Geologic Society’s “Guidelines for Investigating Geologic Hazards and Preparing Engineering-Geology Reports, with a Suggested Approach to Geologic-Hazard Ordinances in Utah”, as found at the following webpage: <https://ugspub.nr.utah.gov/publications/circular/c-122.pdf>

EXISTING BUILDINGS:

- **Mandatory Evaluations:** All existing buildings that are required to undergo a *mandatory* seismic upgrade must meet the performance levels defined in Section 303.3 of the 2018 International Existing Building Code (IEBC). Mandatory seismic upgrades may be required for projects which undergo a change in use or else a significant repair, alteration or addition as specified in the IEBC and Title 15A-3-801 of the Utah Amended Code.
- **Voluntary Evaluations:** Existing buildings which undergo a *voluntary* seismic upgrade are not required to meet the performance requirements outlined in Section 303.3 of the IEBC. Voluntary projects are nonetheless required to conform to either the IBC or the other existing building codes and standards listed for use by the State of Utah. In addition, a detailed engineering analysis must be provided to DFCM in accordance with Section 503.13 or 806.4 of the IEBC.

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