Building Division
3726 E Campus Dr Ste H.
Eagle Mountain, Utah 84005
buildinginspections@eaglemountain.gov
801-789-6614

DESIGN CRITERIA

The City of Eagle Mountain's Building Division uses the following design criteria when reviewing projects submitted for a building permit within City limits.

1. BUILDING CODES: The Building Division enforces the following building codes with State amendments.
   - 2021 International Building Code
   - 2021 International Residential Code
   - 2021 International Plumbing Code
   - 2021 International Mechanical Code
   - 2021 International Fuel Gas Code
   - 2021 International Energy Conservation Code* **as amended by the State*
   - 2021 International Existing Building Code
   - 2021 International Fire Code
   - 2020 National Electric Code
   - ICC A117.1-2017- Accessibility Standard
2. SNOW LOADS:
   a) Ground Snow Load: Site-specific depending upon elevation. The majority of the City is at or above 4,900 feet. All ground snow loads to be determined per the following website: https://utahsnowload.usu.edu/

   b) Roof Snow Loads:
   - Shall be determined per Chapter 7 of ASCE7-16.
   - 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 the Utah Amended Code.
3. WIND:
   a) Speed: All wind speeds listed below are 3-second gust at 33 feet above the ground.
   - Residential: 100 - 105 mph
   - Accessory buildings: 115 mph
   - Commercial
     - Risk Category I = 95 - 100 mph (see IBC Figure 1609.3(4))
     - Risk Category II = 100 - 105 mph (see IBC Figure 1609.3(1))
     - Risk Category III = 105 – 110 mph (see IBC Figure 1609.3(2))
     - Risk Category IV = 110 – 115 mph (see IBC Figure 1609.3(3))

   b) Exposure: Site specific (per Chapter 26 of ASCE 7-10). Assumed to be "C" unless justified.
4. SEISMIC:
   a) Seismic Design Category:
   - Residential: D2
   - Commercial: D

   b) Site-specific: Because ground motions tend to vary substantially throughout the City, the mapped spectral accelerations (S_S & S_1) should be obtained by considering the site-specific latitude and longitude values for the site and obtaining the ground motions from the "U.S. Seismic Design Maps" application developed by the USGS (http://earthquake.usgs.gov/designmaps/us/application.php).

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5. SOILS:
   a) Frost Depth: 30 inches.
   b) Site Class: Site specific. See geotechnical report for site class.
   c) Commercial Soils Reports: Full soils report required for all new buildings. *(Must be updated within 2 years of permit submittal)*
   d) Residential Soils Reports: Observation report required for each lot. *(Excludes accessory buildings)* Note: Per ASCE 7-16: 11.4.8- A site response analysis and/or ground motion hazard analysis may be required per IBC 1613.2.3
6. FLOOD HAZARDS: See Flood Map.
7. RAINFALL: Average annual rainfall is 22 inches.
8. CLIMATE ZONE: 5B
9. WEATHERING: Severe
10. TERMITE: None to Slight
11. WINTER DESIGN TEMP: 0°F
12. ICE SHIELD UNDERLAYMENT: Yes
13. AIR FREEZING INDEX: ≤ 1000
14. MEAN ANNUAL TEMP: 45°F

Last Revised: 10/24

Application Portal: eaglemountainut.portal.opengov.com