MINIMUM DESIGN STANDARDS

CODES

The purpose of the California Codes is to provide minimum standards to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures. The Town of Mammoth Lakes enforces the following Codes:


PLANS

With each application for a building permit, and when required by the Building Official for enforcement of any provisions of this Code, three (3) sets of plans, engineering calculations (if required), specifications, diagrams, and other necessary data shall be submitted. Each set of plans shall include a site plan, elevations, construction sections, and details. Site plan shall include location of all utilities. Elevations shall include a lot profile. Plans and specifications shall be drawn to scale on substantial paper and shall be of sufficient clarity to indicate the location, nature and extent of the work proposed, and show in detail that it will conform to the provisions of this Code and all relevant laws, ordinances, rules, and regulations (1/4" = 1' scale, paper size of minimum 18" x 24" is desirable). "Red lined" or sketched plans are unacceptable. Plans shall detail all fire resistive assemblies and indicate treatment of penetrations in such assemblies. All plans, specifications, and/or calculations prepared by a licensed architect or engineer shall bear the stamp and signature of the author. For more complete information regarding plans and specifications, refer to the "Plan Submittal and Plan Check" handout available from the Mammoth Lakes Building Division.
LEGAL DESCRIPTION

The legal description of your lot or parcel is part of the application and can be found on your deed, property tax statement, title policy, escrow instructions, or contract of sale. You will need:

1. lot number
2. subdivision name
3. assessor's parcel number
4. street name and address

WIND DESIGN

The minimum ultimate design wind speeds, \( V_{ult} \), are established for the following regions.

A. Town of Mammoth Lakes:
   - One and two family dwellings (R-3 occupancies): 110 miles per hour, three second gust.
   - Residential structures other than one and two family dwellings (R-3 occupancies) and non-residential structures (all are three second gust):
     • 100 miles per hour for risk category I buildings and other structures
     • 110 miles per hour for risk category II buildings and other structures
     • 115 miles per hour for risk category III and IV buildings and other structures

The wind design shall comply with exposure C requirements unless the architect or structural engineer in general charge can justify that the building site and surrounding terrain conform to other criteria.

SEISMIC

All structures within the boundaries of the Town shall be designed to the requirements of Seismic ground accelerations of \( S_s = 1.68 \) and \( S_1 = 0.68 \) as defined in the California Building Code or from the USGS seismic hazard web site maps. One-third (1/3) of the design snow load shall be added to the dead load for seismic design.

ENERGY DESIGN STANDARDS

The following shall be considered minimum design standards for calculations within the guidelines established by the California Energy Commission, Title 24, and State of California:

1. The Town shall be considered within Climatic Zone 16 as defined by the California Energy Commission;

2. Winter design temperature shall be minus two (-2) degrees Fahrenheit;

3. Summer design temperatures shall be seventy-four (74) degrees Fahrenheit;

4. Heating degree-days shall be eight thousand (8,000).
SNOW LOADS, SNOW SLIDING AND SHEDDING

A. The Town shall be considered a snow area. All structures within the Town shall be
designed to withstand snow loads and any additional effects created by snow.

B. 1. Basic ground snow load (Pg) is established as follows:
   a) One hundred (100) pounds per square foot for Mammoth Lakes Airport;
   b) Two hundred thirty (230) pounds for elevations eight thousand five hundred
      feet (8500') or less;
   c) Three hundred (300) pounds for elevations greater than eight thousand five
      hundred feet (8500').

2. Roof snow load (Pf) shall be established as follows:

\[
Pf = 0.7 \times Ce \times Ct \times Pg
\]

\[
Pf = \text{Snow exposure factor}
\]

\[
Ct = \text{Snow design importance factor}
\]

\[
Pg = \text{Basic ground snow load}
\]

\[
Ct = \text{Thermal factor}
\]

3. The snow exposure factor (Ce) shall be determined as follows or as per ASCE 7.

\[
Ce = 1.0 \text{ partially exposed roofs}
\]

\[
Ce = 0.90 \text{ fully exposed roof on all sides with no shelter from terrain,}
\text{ trees or higher structures}
\]

\[
Ce = 1.20 \text{ tightly forested}
\]

4. The snow design importance factor (I) shall be determined as follows or as per
   ASCE 7.

\[
I = 1.2 \text{ essential facilities}
\]

\[
I = 1.1 \text{ assembly areas with occupancy greater than three-}
\text{ hundred (300) and daycare facilities with occupancy greater than}
\text{ (150)}
\]

\[
I = 0.80 \text{ agricultural buildings and similar structures}
\]

\[
I = 1.00 \text{ all other structures}
\]

5. The thermal factor (Ct) shall be determined as follows or as per ASCE 7.

\[
Ct = 1.1 \text{ for structures with ventilated roofs and insulation R}
\text{ greater than (25)}.
\]

\[
Ct = 1.2 \text{ unheated structures}
\]

\[
Ct = 1.0 \text{ all other structures}
\]

C. Snow load reductions for roof pitch (but not for slippery surfaces) will be permitted per
ASCE 7, provided the roof design does not allow snow to accumulate from ground level
to the roof eave. This shall be assumed to be a minimum ten feet (10') from eave to
grade level. Design consideration shall be given to drifting snow and other
accumulations on the roof, exposure, impact, effects on adjacent property, and other
dynamic loading due to snow avalanching onto lower structural elements, against
projections such as vents, and onto targets on the ground.
D. Setbacks to Property Lines

1. All eaves of sloped roofs (>2:12) shall maintain setbacks so that snow shed impact areas will occur on the property of the subject structure. The minimum impact area setback shall be ten feet (10') measured horizontally from a vertical line projecting from the roof eave to the property line.

2. The eave of a structure may encroach into the impact area setback a maximum three feet (3') provided an engineered snow slide restraint device, designed in accordance with the provisions of this Code, is incorporated into the roof design.

3. Property owners shall maintain snow shed impact areas to prevent snow from encroaching onto adjacent properties.

E. The roof and eaves of all structures shall be designed so that snow shed impact areas will not occur in or on entries/exits (required exits only for R-3 occupancies), vehicle parking areas, driveways, LPG storage tanks, walkways, and public areas.

1. The minimum snow shed impact area shall have a setback of ten feet (10') measured horizontally from a vertical line projecting from the roof eave to the aforementioned improvement.

2. The snow shed impact area may be eliminated provided an engineered snow restraint system, designed in accordance with this Code, is incorporated into the roof design and, in other than R-3 occupancies, an approved roof drainage system (e.g., heated gutter and downspout) is installed to prevent ice formation/accumulation at the grade or access level.

3. Property owners shall maintain snow shed impact areas to prevent snow from encroaching beyond the impact area boundaries.

4. Existing structures may use engineered snow slide restraint devices to reduce hazards associated with the existing roof design.

F. Projections such as plumbing vents, equipment vents, and similar elements, which penetrate the roof, shall terminate within thirty-six inches (36") of the ridge or uppermost portion of the roof area. Mechanical vents and air intakes installed horizontally on vertical surfaces shall terminate at least two feet (2') above the anticipated snow depth (ten feet). Horizontal terminations subjected to shedding roof snow shall increase the height of the termination by 50%.

G. Overhead electrical service weatherheads and similar utility connections shall not be located in any area subject to damage from sliding snow or ice. Weatherheads may project through the roof with a riser constructed of two-inch (2") minimum diameter rigid galvanized steel conduit, provided no alternative locations are available and the location has been approved by the Building Official and servicing utility.

H. A roof projection such as a fireplace chase, parapet or similar structure, which could be subjected to sliding snow or ice, shall be designed for these horizontal forces (Fs).

The resultant moment produced from Fs shall be applied to the midheight of the projection.
\[
Fs = \frac{Fv(x)}{\sqrt{x^2 + y^2}}
\]

\[
Fv \text{ (for roof projections)} = \quad L \ (0.5L + B) \ Pf
\]

\[
Fv \text{ (for snow retention devices)} = \quad L \ (B) \ Pf
\]

Fs = Horizontal load against roof projection, pounds.
Fv = Snow weight against projection, pounds.
X = Vertical component of roof slope (rise), feet.
Y = Horizontal component of roof slope (run), feet.
L = Horizontal distance between projection and ridge, feet.
B = Width of projection, feet. Not to exceed six feet.
Pf = Minimum roof snow load, pounds per square foot (PSF).

I. Projections shall be protected with an ice splitter or cricket. All ice splitters shall be constructed the full width of the projection base and shall terminate not lower than the midpoint height of the projection.

J. Snow rails, roof cleats, and similar snow slide restricting devices shall be designed using the formula set forth in H. above, except calculations for Fv need only consider the tributary load area of the device. Snow slide restraint devices shall be installed within the first three feet (3') of the roof eave and spaced per the design of the system.

K. Warm roofs that drain water over the eaves shall be capable of supporting 2.0 x Pf on the overhangs when they are unventilated with insulation R-value less than (30) or ventilated roofs with R-Values less than (20).

All roof systems shall consider the effects of ice dams and shall be designed to prevent water infiltration at the eaves. As a minimum, the underlayment at the eaves shall consist of two layers of Type 15 felt solid cemented together with an approved cementing material or other approved equivalent material. The ice dam protection shall extend from the eave to a line six feet (6') inside the exterior wall line of the building.

SOIL BEARING

No soil bearing pressure over 2,000 psf will be permitted without a soil report by a licensed engineer or geologist. Site examination may require a soil analysis.

RETAINING WALLS

A building permit shall be required for retaining walls exceeding four feet (4') in height or retaining walls supporting any surcharge or special loads. A professional engineer licensed in the state shall design such walls.

FROST LINE

Footings and foundations shall extend below the frost line. The frost line shall be considered a minimum of twenty-four inches (24") below grade.

FLOOD HAZARD AREAS

Design for structures within flood hazard areas shall be per the requirements established in the most recent adopted flood plain management ordinance.
LOADS ON DRIVEWAY BRIDGES

The condition of concentrated or uniform live load producing the greatest stresses shall govern.

1. Concentrated Load: Each load shall be 40% of the gross weight of the maximum-size vehicle to be accommodated. Minimum vehicle size shall be 28,000 pounds.

2. A concentrated wheel loads is assumed to be placed upon a 3.5 square foot area.

3. Concentrated wheel load are assumed to be spaced 8 (eight) feet on center.

4. Maximum driveway vehicle loads shall be posted on the building. (e.g. DRIVEWAY: Max. Vehicle Load 28,000 pounds").

OTHER APPROVALS MAY BE REQUIRED

You may need to contact the following agencies for specific approval.

MAMMOTH LAKES FIRE PROTECTION DISTRICT; Post Office Box 5; Mammoth Lakes, CA 93546; (760) 934-2300. (Fees are paid directly to this agency.)

MAMMOTH COMMUNITY WATER DISTRICT; Post Office Box 597; Mammoth Lakes, CA 93546; (760) 934-2596. (Fees are paid directly to this agency.)

MAMMOTH UNIFIED SCHOOL DISTRICT; Post Office Box 3509; Mammoth Lakes, CA 93546; (760) 934-6802. (Fees are paid directly to the District.)

MAMMOTH LAKES COMMUNITY DEVELOPMENT DEPARTMENT, PLANNING DIVISION; Post Office Box 1609; Mammoth Lakes, CA 93546; (760) 934-8989, extension 224, to forward to the Planner of the day. (Planning, Zoning, Design Review Criteria.)

MAMMOTH LAKES PUBLIC WORKS DEVELOPMENT ENGINEERING DIVISION; Post Office Box 1609; Mammoth Lakes, CA 93546; (760) 934-8989, extension 254

SOUTH MONO COUNTY ENVIRONMENTAL HEALTH DEPARTMENT; Post Office Box 3329; Mammoth Lakes, CA 93546; (760) 924-1800.

SOUTHERN CALIFORNIA EDISON; Post Office Box 7329; Mammoth Lakes, CA 93546; (760) 934-8236.
I. PLAN SUBMITTAL
A. A completed Building Permit Application must accompany all Project proposals. The application must be signed by the owner or authorized agent.
B. Three complete, identical sets of stamped plans must be submitted for plan check.
C. Plans must be clear and legible on substantial paper. Minimum paper size is 8 ½ x 11. Pencil drawings, modified or "red lined" plans or plans labeled "Not For Construction Use" are not acceptable.
D. Plans must be drawn to scale. The minimum scale for plans other than site plans is 1/4" = 1', (1/8" = 1' may be used with prior approval). The recommended scale for site plans is 1" = 10', however, any other scale can be used that will accurately show the lot and building on it.
E. The plans shall clearly label all existing and proposed construction.
F. The plans shall clearly show the extent and type of work and compliance with the currently adopted California Building Codes and other applicable codes, statutes, and ordinances.
G. All plans shall bear the name, address, and phone number of the author.

II. PLANS & SPECIFICATIONS
A typical set of plans and specifications would include the following information:

1. Site Plan
A. Location and dimensions of new and existing buildings or additions and accessory structures. These include all projections such as stairs, decks, eaves, retaining walls or other permanent structures that fall outside the building footprint.
B. Setback dimensions to both building line and eaves from all property lines.
C. Projected roof plan showing all penetrations, pitch, and direction of slope.
D. Lot dimensions.
E. All easements/alleys with dimensions.
F. Lot number, subdivision, and street address.
G. Edge of pavement or curb and gutter and entire right-of-way width.
H. Location of all existing and proposed utilities.
I. Dimensions, locations, and layout of parking areas, driveways, and other paved areas or slabs.
J. Existing and proposed vegetation and/or landscaping. Notation of all existing trees that are to be removed.
K. Drainage/swales and topography with contours at 2' vertical intervals.
L. Compass bearings.
M. Identification of snow storage areas.
N. Identification of all areas to be graded.
O. Elevation benchmark at edge of pavement.
P. Cross-section or profile showing relationship of new structure to slope of lot, driveway, and street.
Q. Finish floor elevations for garage and first floor.

2. Foundation Plan
A. Location, size, and depth of continuous footings and/ or isolated piers.
B. Spacing of anchor bolts and other shear transfer details.
C. Location of hold downs and other framing hardware.
D. Details or references to details for reinforcement, retaining wall design, etc.
E. First floor framing.
F. Note access ventilation and insulation requirements.
G. Indicate any mechanical equipment to be located in subfloor area.
H. Ventilation requirements.

3. Framing/Structural Plans
A. One plan for each floor level (first floor framing may be included on foundation plan).
B. Notes and specifications.
C. Size, spacing, direction and type of joists and/or trusses.
D. Stud size and spacing and type.
E. Size and location and type of beams girders, purlins, headers, or other vertical load carrying members.
F. Location and size of framing hardware. i.e.: hold downs, straps, clips, saddles, etc.
G. Location of shear walls with references to shear panel schedules.
H. Framing details and location of stair well, crawl access, or other openings.
I. References to details and section views.
J. Floor sheathing and nailing requirements.

4. Roof Framing Plan
A. Notes and specifications.
B. Size, spacing, and direction and type of and rafters and/or trusses.
C. Size and location and type of beams, purlins, headers, and other vertical load carrying members.
D. Location and size of framing hardware.
E. Location of shear walls with references to shear panel schedules.
F. Framing details for attic access, hips, valleys, etc.
G. Roof sheathing and nailing requirements.

5. Floor/Architectural Plans
In addition to the following items, plans for additions need to show all existing adjacent rooms.
A. A code analysis including (as applicable) construction type, allowable height and area, use group classification, identification of each space including use group for that space and occupant load, maximum travel distance, common path of egress, required and provided exit widths, exit access, exit, and exit discharge/access to public way, automatic sprinkler requirements, fire resistant rated assemblies, handicapped accessibility, and any other code related information. One plan for each level.
B. Floor area of new building or addition.
C. Dimensions.
D. Identification of all rooms.
E. Doors and windows, cross-referenced to schedules.
F. General notes and references to details and section views.
G. Location of plumbing and electrical fixtures.
H. Size and location of any LPG appliances. Include method of providing combustion air and location of vents.
I. Note mandatory California Energy Commission requirements and other Title 24 energy compliance information.
J. Location of all new and existing fireplaces and/or woodstoves.
K. Location of all new and existing kitchen appliances.

6. Elevations
A. Exterior view of all elevations identified by compass orientation. Include lot slope.
B. Accurate topography adjacent to structure.
C. Building height relative to topography.
D. Doors, windows, and other openings.
E. Vertical dimensions.
F. Exterior finishes.
G. Finished floor elevations including garage floor.

7. Section Views
A. Complete stair, ramp, handrail, and guardrail information as applicable. Interior and exterior finishes including building wrap/weatherproofing as applicable.
B. Vertical dimensions including headroom requirements.
C. Insulation type and location including vapor barrier information.
D. Roof covering specifications including material classification, flashing, underlayment/ice shield, and snow restraint devices as applicable.
E. References to details.

8. Details
Sufficient details must be shown to clearly explain the method of construction and means of connection. These may include, but are not limited to, the following:

A. Design of fire resistive assemblies.
B. A method of maintaining fire resistive integrity in walls, floors, and roofs around penetrations, etc.
C. Shear transfer connections.
D. Post and beam connections.
E. Section views of foundation and retaining walls showing size, spacing, and location of reinforcing.
F. Details of sound transmission requirements.

9. Structural Calculation
A. Identification of input and output data. Appropriate identification of member analyzed.
B. Stamp and signature of the licensed professional responsible for the calculations.
C. Calculations performed by any person must bear the name, address, and phone number of the author.

10. Title 24 Energy Documentation
Submit appropriate forms to verify compliance with Title 24 energy requirements.

III. OTHER PLANS & SPECIFICATIONS
The following additional information may be required.

1. Soils Report
A report from a licensed professional engineer may be required due to soil conditions or code requirements.

2. Grading Plan/Permit
The Engineering Division will determine if this is required based on the proposed construction.

3. Electrical Plan
Drawing shall be submitted for systems exceeding 400 amps. A licensed architect or engineer shall design systems exceeding 600 amps.

4. Electrical Load Calculations

5. Mechanical Plan

6. Plumbing Plan

7. Disabled Access Requirements
Plans must show access, egress, and sanitary facilities for disabled persons.

8. Architect or Engineer Stamp and Signature
This is required for any project that is not a one or two family residence or a townhome, or if there is a deviation from standard engineering details.

IV. PLAN CHECK CORRECTIONS
Any corrections that need to be made on the plans must be made on the original drawings and reprinted. The corrected plans are then submitted for recheck. All corrections/changes other than those that are directly related to plan review responses must be clearly identified.

Anytime more than one back check is required for the original corrections, an additional plan check fee is required. The additional fee will be based on the Building Official's published hourly rate.

V. OTHER AGENCIES
In addition to those departments that review your plans within the Mammoth Lakes Town Offices, it may be necessary to get approval from one of more of the following outside agencies.

- Mammoth Lakes Fire Protection District
- Mono Community Health Department
- Mammoth Community Water District
- Mammoth Unified School District
- Southern California Edison Company
APPLICATION FOR PERMIT TO CONSTRUCT

(it is the policy of the Town of Mammoth Lakes to accept only COMPLETE SUBMITTALS for review by Town staff)

SCOPE OF WORK:


ESTIMATED COST OF CONSTRUCTION: ____________________________

Assessor Parcel #: __________________ Street Address: __________________

Condo Complex: ___________________ Unit #: ______ Circle: 1st 2nd 3rd floor or SFR □

PROPERTY OWNER: ____________________________

Mailing Address: ____________________________

Address: ____________________________

Phone: ____________________________

E-mail Address: ____________________________

Phone: ____________________________

E-mail Address: ____________________________

NEW OWNER? YES or NO

Purchased from: ____________________________

Purchase Date: ____________________________

GENERAL CONTRACTOR NAME:

License #: __________________ Class: __________________

Worker’s Comp. Carrier: __________________

Policy #: __________________

Phone: __________________

APPLICANT: ____________________________

Address: ____________________________

Phone: ____________________________

E-mail Address: ____________________________

SUBCONTRACTOR NAME/LICENSE:

______________________________

______________________________

(All contractor information must be on file with the
Building Division prior to the issuance of a permit.)

SIGNATURE OF APPLICANT:

______________________________

For Office use only

DATE: _______ PROJECT #: _______ ACCEPTED BY: _______ AMOUNT PAID: _______ CK/CC #: _______
Grading Authorization Application

Yes  No  Will the structure be located in a FEMA designated floodplain?
Yes  No  Will the project involve disturbance within a wetland?
Yes  No  Is the lot slope in excess of 30%? Engineered grading permit may be required.
Yes  No  Will you export material from the site? If yes, where?
Yes  No  Will excavation (excluding building footprint) exceed 200 cubic yards?
Yes  No  Will the impervious surface exceed 4000 square feet? A dry well will be required.

Yes  No  Is the street right-of-way less than 60 feet in width?

It is the responsibility of the owner/contractor to schedule an inspection prior to the start of any earthwork. Please call the Building Inspection Line at (760) 924-2534 (760-924-BLDG). Refer to the Pre-Grading Inspection Fact Sheet for additional information.

I declare that I have reviewed all title information and have indicated with accuracy all easements and physical encumbrances on the site plan.

I further declare that all contours show on the site plan are accurate to within one (1) foot and all dimensions are correct.

Owner, or designee, hereby acknowledges receipt of all terms, conditions, and details as outlined in attached.

Date: __________________________

Property Owner, Architect, or Engineer: ________________________________________

Grading Authorization

The Town of Mammoth Lakes, having received an application therefore, hereby authorizes and grants a Standard Grading Permit in accordance with Chapters 12.04 and 12.08 of the Town of Mammoth Lakes Municipal Code to do the work described below in accordance with all terms and conditions identified herein and any Special Conditions attached hereto and made part hereof.

Work permitted is for grading and erosion control only as shown on the approved plans. No foundation or concrete work is allowed with this authorization.

NO EARTH WORK IS TO BEGIN UNTIL INTERIM EROSION AND SEDIMENTATION CONTROL FACILITIES HAVE BEEN INSPECTED AND APPROVED.

Community and Economic Development Department

Date: __________________________

By: ___________________________________
PROJECT INFORMATION

Project Description: ____________________________________________

Project Address: ______________________________________________

Zoning District: ________________________________________________ APN: __________________________

(If applicable) Architect and / or Engineer of Record Name: _______________________________________

Architect / Engineer Address: _______________________________________

Architect / Engineer Phone Number: ________________________________

Building Area:

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Total Existing Construction Sq. ft. __________ Total New Construction Sq. ft. __________

Number of Residential Units: _____ 3-bdrms: _____ 2-bdrms: _____ 1-bdrms: _____ Studios: _____

Occupancy Classification: Group _______ Division _________ (California Building Code, see reference guide.)

Building Construction Type: _________ Use Type: _________ (California Building Code, see reference guide.)

Building Height: _______ feet
Slopes less than 10%: measured from finished grade at all points on lot to top of the structure directly above
Slopes of 10% or greater: the average of the primary corners of the foundation at finished grade to a horizontal plane which intersects the topmost point of the building (no portion shall exceed 10 feet above maximum allowed height)

Parking Spaces: __________
Residential: Minimum 3 spaces, 50% covered and 1 uncovered. Additional space(s) required for residences over 3,000 sq. ft. (see Municipal Code Section 17.44.030.A).
Commercial: See Municipal Code Section 17.44.030.B.

Snow Storage Area: Required: _________ sq. ft. Provided: _________ sq. ft.
Residential: Area equal to 75% of total required parking and driveway area. Area of parking/driveway: _________ sq. ft.
Commercial: Area equal to 60% of total required parking and driveway area. Area of parking/driveway: _________ sq. ft.
Industrial: Area equal to 40% of total required parking and driveway area. Area of parking/driveway: _________ sq. ft.

Landscape Area: _________ sq. ft. (Landscape Documentation Package required for areas greater than 2,500 sq. ft.)

Lot Coverage: Lot Area _________ sq. ft. Lot Coverage: _________ %
Lot coverage is the total area of all structures, ground level decks, driveways, parking areas, and other impervious surfaces, and one-half of all decks at least eight (8) feet above grade.

Easements: List all easements on the property (see title report): ________________________________