CITY OF LOVELOCK

RESIDENTIAL BUILDING GUIDE

RECOMMENDATIONS/GUIDELINES FOR NEW RESIDENTIAL SINGLE FAMILY DWELLING SUBMITTAL

RESIDENTIAL SUBMITTAL CHECKLIST

ALL new residences detached one- and two-family buildings and multi-family buildings three stories or less in height above grade, such as apartments, condominiums, and townhouses shall comply with the following codes:
2012 International Residential Code and 2012 International Energy Conservation Code.
Occupancies: Group R, Division 3.
Codes are available online at: http://publicecodes.cyberregs.com/icod/IC-P-2012-000019.htm

Standards for Residential Building Plans

Residential Plans must be prepared by a Nevada licensed Design Professional (Architect, Engineer, or Residential Designer), licensed Contractor (if they are building the home) or Owner-Builder (*).
**** In order to qualify as an Owner-Builder the applicant may only prepare plans for a single-family dwelling that the applicant owns and occupies for at least one year. Owner-Builders must complete the affidavit form provided by City. Owner-Builders are allowed under the exemption of NRS 623.335 and 623A.070(1)(a) and must comply with NRS 278.573.***

Provide 3 copies of all required drawings and specifications.
Plans, specifications and calculations submitted to the Building Official must be of sufficient nature to clearly show the project in its entirety with emphasis on the following:

1. Structural Integrity Design
2. Life Safety Assurance Design
3. Architectural Barriers Design
4. Building Code Compliance Analysis

The minimum required drawings will depend greatly upon the size, nature and complexity of the project. ***(*) If plans are by Owner-Builder, the applicant must show adequate skills and knowledge to demonstrate industry standards of construction and compliance with codes (per NRS 278.573 Owner-Builder construction must comply with all applicable laws, ordinances, building codes and zoning regulations) in their submissions.*** The following is indicative, yet not exclusive of the minimum standards required before the Building Official shall begin the plan review process. Additions and remodels may not require all of the following components for plan submittal and for a permit.

General Requirements

A permit application, which is available at the City Clerk's Office, must be filled out. Applications should be filled out completely. Plans, calculations and accompanying documents must be drawn to scale, presented in a clear, legible and organized manner conducive for plan review, meeting industry construction standards and demonstrating compliance *with all applicable laws, ordinances, building codes and zoning regulations*. Where

several sheets are submitted, they should be numbered and a Table of Contents provided for reference. Front cover of drawing sheets shall list code year and type used for permit submission. All plans, specifications and calculations prepared by a licensed professional shall be wet stamped, signed, and dated in accordance with NRS 625.140; 625.560, and 625.565.

ResCheck Requirements:

All new residences (detached one- and two-family buildings and multi-family buildings three stories or less in height above grade, such as apartments, condominiums, and townhouses) shall provide ResCheck reports for both **Building Envelope Compliance,** and the **Mechanical Compliance** using the latest DOE ResCheck software program which can be downloaded from DOE website link: http://www.energycodes.gov/rescheck/. REScheck-Web™ is accessible directly from the website without having to download and install. Reports generated from earlier software versions than 4.6.0 will not be accepted. Reports must be signed and based on 2012 IECC option.

Mechanical System:

Mechanical Systems includes Mechanical and Plumbing design drawings: Provide size of equipment based on BTU/HR. Provide gas pipe isometric drawing along with calculations verifying the equipment loads. Provide HVAC, combustion air locations and all equipment calculations. Provide venting locations and terminations. Provide water and drain isometrics and calculations. Provide Mechanical ResCheck calculations demonstrating passing report. Reports must be signed. Fill out an ERC (Equivalent Residential Credits) Form for your water and sewer use and connection

Electrical System:

The electrical system shall show points of connection to utilities, as well as all electrical fixtures (interior, exterior and site), wiring sizes, circuiting, grounding, panel schedules, single line diagram, load calculations, fixture schedules, location of main panel and any sub-panels.

Plans that are the responsibility of the contractor or the owner-builder shall be stamped by the Building Department with a special stamp stating this and signed by the responsible party assuming the design responsibility. Plans shall be in color or black ink on white paper with a maximum size of 30”h x42” w and contain no added “changes” in ink or pencil. If pre-engineered trusses are to be used, stamped/signed engineering calculations must be included with plans submitted to the Building Department. Plan submittal shall include at a minimum:

1. Site Plan
2. Foundation Plan
3. Floor Plan
4. Floor and Roof Framing Plan
5. Building Elevations
6. Building Sections and Wall Sections
7. Mechanical System (including plumbing)
8. Electrical System
9. Climatic and Geographic Design Criteria
10. Exterior Materials and internal finishes
11. Manufactures product listing data for specialty materials and equipment.

Site Plan:

Show proposed new structure, project address and author of drawings (design professionals, owner-builder or licensed contractor). Show any existing buildings, structures, utilities and dimension distances between these as well as to property lines. Show all property lines, streets, alleys, driveways, roads, easements and setbacks per zoning requirements with dimensions. Show all water, sewer and electrical points of connection. Show proposed service routes, existing and proposed utilities on the site. Show drainage and grading information (with reference to finished floor and adjacent street grades.) Indicate drainage flow locations and specify areas required to be maintained for drainage purposes. (Drainage from one lot to another is prohibited.) Show north arrow, finish floor elevation and grade elevation. Flood Certificate shall be required for finished floor elevations within designated flood zones prior to footing inspections.

Foundation Plan:

Show all foundations and footings. Indicate size, location, thickness, material strength and reinforcing. Show all embedded anchoring such as anchor bolts, hold-downs and post bases. If unknown or inadequate soil is anticipated, provide a soils report for the proposed site. Footing depth shall be minimum 24" below finished grade.

Floor Plan:

Show all floors including basements. Show all rooms marked with their "use", overall dimensions and locations of all structural elements. Show permanent equipment and dimension all openings (windows, doors, thorough ways). Show all doors and windows. Provide door and window schedules or sizes. Indicate all fire assemblies, fire separations required with fire rating, occupancy separations, fire and draft stops. Show location of furnace, water heater, appliances, and fixtures. Show reflected ceiling plans with lighting fixture layouts and insulation with R values. All rooms and openings shall be dimensioned.

Floor and Roof Framing Plans:

Show all structural members, their sizes, method of attachment, location and materials for floors and roofs. Show framing top and bottom plates, blocking rim joists, ceiling joists, roof rafters, or trusses. Show the roof covering, floor and roof insulation R-values. Indicate the roof sheeting and roof pitch and overhangs. Show attached decks, posts, piers and anchoring methods along with their sizes. Show all cross sectional changes in elevations on section and all dimensions. Show all lumber sizes, species, and spans of the materials used. If pre-engineered trusses are to be used, stamped/signed calculations must be submitted with each set of plans. A truss layout may be necessary to indicate their locations. Show pitch of roof and material.

Building Elevations:

Show all building elevations to include vertical height dimensions, opening sizes and façade materials.

Building Sections and Wall Sections:

Show, type and dimension for each wall, floor and roof components. Specifically, including water proofing and insulation R-values for each wall, roof, floor (crawls space and perimeter) and window/door Y/R values. Show fire rated assemblies and penetrations with listed assembly numbers. Provide **Building Envelope Compliance** using the latest DOE ResCheck software program which can be downloaded from DOE website link: http://www.energycodes.gov/rescheck/. REScheck-Web™ is accessible directly from the website without having to download and install. Reports generated from earlier software versions than 4.6.0 will not be accepted. Reports must be signed.

Climatic and Geographic Design Criteria:

1. **Ground Snow Load:** 30 PSF NO REDUCTIONS ALLOWED.
2. **Wind Speed:** 90 mph, Exposure C, (3 second gust). 76 mph, exposure C (fastest mile).
3. **Seismic Design Category: D1** To be verified by engineer-use longitude and latitude method.
4. **Weathering:** Severe.
5. **Frost Line Depth:** 36".
6. **Termites:** Moderate to Heavy.
7. **Decay:** Slight to none.
8. **Winter Design Temperature:** 10° (F).
9. **Flood Hazards:** (a) June 4, 2003. (b) November 20, 1998 (FIRM).
10. **Air Freezing Index:** 594 (°F-Days)
11. **Mean Annual Temperature:** 49.4 (°F).

Manufactures product listing data for specialty materials and equipment:

Where materials or equipment of a specialty nature will be used, valid research reports from a recognized listing agency (ICC, IAPMO, IAEI, ASTM, UL, AGA, ES report) shall be required addressing their code equivalency.

Materials, designs or methods of construction not specifically prescribed by the applicable code may require pre-approval from the Building Official.

Revisions and Standards:

All responses to plan review corrections shall be identified with a delta symbol, and clouded on the drawings or resubmitted as a new project ad shall be accompanied by a typed letter addressing each plan review comment and referencing the sheet # on which the revision has been made.

Standards

The City of Lovelock does not provide Design Services. The City provides a cursory review to verify code compliance upon submission of drawings and does not provide direction or consulting on codes without any submissions. It is the responsibility of the author of the design to ensure the submission is code compliant, complete, and meets industry standards. If the plans do not meet this criteria, the Building Official may take any of the following actions:

1. Provide a complete list of corrections.
2. Increase the plan check fee for additional plan review time required due to lack of completeness.
3. Return plans unchecked.
4. Report the design professional into the State Board for discipline.
5. Report the licensed contractor to the Nevada Board of Contractors.

Plan Preparation:

Plans shall be prepared by a Nevada State Licensed Engineer, Architect, Residential Designer, Contractor or Owner-Builder (with affidavit)- see Nevada Blue Book.

Geotechnical Investigations:

Geotechnical investigation reports shall be submitted with all new projects that are not single family dwellings. Further, geotechnical investigation reports shall be submitted with all tentative sub-division and parcel maps. The following copied portions of the original geotechnical investigation reports shall be submitted with residential plan reviews.

1. Project description: including but not limited to, project number, site location, access, structure information and grading concepts.
2. Discussions and Recommendations: Including, but not limited to general information, seismic design criteria, site preparation, trenching and excavation, grading and filling, subsidence and shrinkage, foundation design, slope stability and erosion control, site drainage concrete slabs and anticipated construction problems.
3. The recommendations of the soil engineer relating to site preparation, grading, compaction and foundation/footing design shall be made mandatory.

Re-inspection Fees:

Re-inspection fees may be assessed for each inspection or re-inspection of the work if any one of the following conditions occur:

1. Work for which inspection is requested is not complete.
2. Corrections identified in a previous inspection are not complete.
3. Inspection record card, approved plans or permit are not made available to the inspector on the work site.
4. Access to work is not provided or is restricted.
5. Work that requires inspection prior to the requested inspection has not been approved.
6. Deviating from the approved/submitted permit plans without prior written approval of changes by the

Building Official.

This section is not to be interpreted as requiring re-inspection fees the first time a job is rejected for failure to comply with the code, but as controlling the practice of calling for inspections before the job is ready for such inspections or re-inspection.

To obtain a re-inspection, the applicant shall pay the re-inspection fee in accordance with the adopted fee schedule. For instances where re-inspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid.

Permit Expiration:

Every permit issued is valid for 1 year from the date of issue and shall become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. A minimum of one inspection approval must be obtained as evidence that the work was commenced or that work has continued. The Building Official is authorized to grant, in writing, one or more extensions of time, for periods not more than 365 days each. The extension shall be requested in writing prior to the permits expiration and justifiable cause demonstrated. The determination as to whether work was suspended shall be based on the most recent inspection approval date. Permits may be renewed up to three times. The fee for renewing each permit shall be as set by the City, based on the nature and scope of work. Permits are not transferable and any change in occupancy, operation, tenancy or contractor of record or ownership shall require that a new permit be issued.

SETBACKS, ELEVATION, GRADING AND DRAINAGE

Building Division Procedure 5.0

All Commercial construction, single family dwellings shall require that a Civil Engineer, Soils Engineer, Engineering Geologist, or Land Surveyor with current Nevada registration provide a wet stamp/signed certification to the Building Department for the following:

Footing Inspection

1. A certification letter is needed stating the soils supporting the foundation are adequate for structure stability. (**Exception:** detached accessory buildings when fill or expansive soil is not apparent and approved by the Building Inspector).

2. Survey certification stating foundation setbacks are per the approved construction plans. (**Exception:** detached accessory buildings and attached additions when the Building Inspector can clearly verify setbacks).

Final Inspection:

Survey certification stating the final elevation, drainage and grading are per the approved construction plans. **(Exception:** detached accessory buildings when grading, drainage and elevations can be clearly verified by the Building Inspector).

Background:

Previously, Building Inspectors not qualified in soils engineering or surveying would be placed in a situation of approving soil conditions for foundation support and building setbacks at the time of footing inspection. The 2012 International Building Code Requires:

1803.1 Where required by the Building Department, the classification and investigation of the soil shall be made by a registered Design Professional.

1803.5.2 Questionable soil; Where the classification, strength or compressibility of the soil are in doubt or where a load bearing value superior to that specified in the IBC is claimed, the Building Inspector shall require that the necessary investigation be made.

1803.5.3 Expansive soils; in areas likely to have expansive soils, the building official shall require soil tests to determine where such soils do exist.

1803.6 Where required the owner or applicant shall submit a foundation and soils investigation to the Building Department.

To achieve compliance with this code, the City of Lovelock Building Department will be requiring a certificate of compliance from the engineer of record that soils and setbacks are as per approved plans prior to footing inspection.

Additionally, the 2012 International Building Code Section 1804.3 Site Grading, the ground adjacent to the foundation shall be sloped away from the building at a slope of not less than 5% for a minimum distance of 10 feet measured perpendicular to the face of the wall. If physical obstructions or lot lines prohibit 10 feet of horizontal distance, a 5% slope shall be provided to an approved alternative method of diverting water away from the foundation. Swales used for this purpose shall be sloped a minimum of 2% where located within 10 feet of the building foundation to an approved location. Also, per Section 1805.3.4 Foundation elevation on graded sites, the top of any exterior foundation shall extend above the elevation of the street gutter at a point of discharge or the inlet of an approved drainage device a minimum 12 inches plus 2%. To achieve compliance with this code, the City of Lovelock Building Department will require a certificate of compliance from the engineer of record stating that finish floor, drainage and elevation are as per approved plans prior to the final certificate of occupancy.

Engineering certifications will insure that the finish project will conform to the submitted and approved plot plans, with building codes and with accepted engineering soil standards.

Flood plain elevation certificates must be submitted to a Building Inspector prior to footing inspection when located within a flood hazard area.

No certificate of occupancy shall be issued until all the required wet/stamp-engineering certificates have been received and accepted by personnel of the department.

Applicability:

Where, in any specific case, different sections of the legally adopted code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.