

LYON COUNTY



TITLE 15

LAND USE AND DEVELOPMENT CODE

FLOODPLAIN MANAGEMENT

AND

FACILITIES STANDARDS

CHAPTERS 15.800 – 15.811

November 1, 2018

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1 **Chapter 15.800 Floodplain Management**

2

3 **15.800.01 Statutory Authorization**

4 The legislature of the state of Nevada has, in Nevada Revised Statutes chapters 244 and 543, delegated
5 the responsibility to local governmental units to adopt regulations designed to promote the public health,
6 safety and general welfare of its citizenry. Therefore, the county commissioners of Lyon County ordain as
7 set forth in this chapter.

8

9 **15.800.02 Findings of Fact**

10 A. The flood hazard areas of Lyon County are subject to periodic inundation which results in loss of life
11 and property, health and safety hazards, disruption of commerce and governmental services,
12 extraordinary public expenditures for flood protection and relief and impairment of the tax base, all of
13 which adversely affect the public health, safety and general welfare.

14

15 B. These flood losses are caused by the cumulative effect of obstructions in areas of special flood
16 hazards which increase flood heights and velocities and, when inadequately flood proofed, elevated or
17 otherwise protected from flood damage, also contribute to the flood loss.

18

19 **15.800.03 Purpose**

20 It is the purpose of this chapter to promote the public health, safety and general welfare and to minimize
21 public and private losses due to flood conditions in specific areas by provisions designed:

22 A. To protect human life and health;

23

24 B. To minimize expenditure of public money for costly flood control projects;

25

26 C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken
27 at the expense of the general public;

28

1 D. To help maintain a stable tax base by providing for the sound use and development of areas of
2 special flood hazard so as to minimize future flood blight areas;

3

4 E. To ensure that potential buyers are notified that property is in an area of special flood hazard;

5

6 F. To ensure that those who occupy the areas of special flood hazard assume responsibility for their
7 actions; and

8

9 G. To maintain eligibility for state and federal disaster relief.

10

11 **15.800.04 Methods of Reducing Flood Losses**

12 In order to accomplish its purposes, this chapter includes methods and provisions for:

13

14 A. Restricting or prohibiting uses which are dangerous to health, safety and property due to water or
15 erosion hazards or which result in damaging increases in erosion or in flood heights or velocities;

16

17 B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected
18 against flood damage at the time of initial construction;

19

20 C. Controlling the alteration of natural floodplains, stream channels and natural protective barriers which
21 help accommodate or channel floodwaters;

22

23 D. Controlling filling, grading, dredging and other development which may increase flood damage; and

24

25 E. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or
26 may increase flood hazards in other areas.

27

1 **15.800.05 Definitions**

2 Definitions of many of the words used in this chapter are contained in Appendix A to this title. Unless
3 specifically defined in Appendix A to this title or in this chapter, the words and phrases used in this
4 chapter should be interpreted to give them the meaning they have in common usage and to give this
5 chapter its most reasonable application. The director is the floodplain administrator for the county.
6

7 **15.800.06 Interpretation, Application and Compliance**

8 A. This chapter shall apply to all areas of special flood hazards within the jurisdiction of the county.
9

10 B. In the interpretation and application of this chapter, all provisions shall be:

- 11 1. Considered as minimum requirements;
- 12 2. Construed in favor of the governing body to promote public health, safety and welfare; and
- 13 3. Deemed neither to limit nor repeal any other powers granted under state statutes or local
14 ordinance.

15
16 C. This chapter is not intended to repeal, abrogate or impair any existing easements, covenants or deed
17 restrictions. However, where this chapter and another ordinance, easement, covenant or deed restriction
18 conflict or overlap, whichever imposes the more stringent restrictions shall prevail.
19

20 D. No structure or land shall hereafter be constructed, located, extended, converted or altered without
21 full compliance with the terms of this chapter and other applicable regulations. Violations of this
22 requirement (including violations of conditions and safeguards established in connection with conditions)
23 shall constitute a misdemeanor.
24

25 E. After discovery of a violation or alleged violation of this chapter, the floodplain administrator shall take
26 action to verify the existence of a violation(s) and remedy the violation(s) through administrative means
27 including stop work orders or other provisions of this code or applicable laws. If a property owner fails to
28 remedy any violation of this chapter, the administrator may submit a report to the governing body which

1 shall include all information available to the floodplain administrator which is pertinent to said violation,
2 and request that the governing body:

- 3 1. Take any necessary action to effect the abatement of such violation; or
- 4 2. Issue a variance to this chapter in accordance with the provisions of section 15.800.14; or
- 5 3. Submit to the administrator of federal insurance administration a declaration for denial of
6 insurance, stating that the property is in violation of a cited statute or local law, regulation or
7 ordinance, pursuant to section 1316 of the national flood insurance act of 1968, as amended.

8

9 **15.800.07 Basis for Establishing Areas of Special Flood Hazard; Information Maintained**

10 A. Flood Insurance Study and Maps: The areas of special flood hazard identified by the federal
11 insurance administration in a scientific and engineering report entitled "The Flood Insurance Study For
12 Lyon County", dated January 19, 1982, with accompanying flood insurance maps, and all subsequent
13 revisions, is hereby adopted by reference and declared to be a part of this chapter. The flood insurance
14 study is on file at the department, 27 South Main Street, Yerington, NV 89447.

15

16 B. Interpretations, where needed, as to location of the boundaries of the areas of special flood hazards
17 (for example, where there appears to be a conflict between a mapped boundary and actual field
18 conditions) shall be made by the floodplain administrator. The person contesting the location of the
19 boundary shall be given a reasonable opportunity to appeal the interpretation as provided in section
20 15.800.14.

21

22 C. Use of Other Base Flood Data: When base flood elevations are not available, the Floodplain
23 Administrator may use flood information from any other authoritative source, such as historical data, to
24 establish flood elevations within the Special Flood Hazard Areas. This information shall be submitted to
25 the Board for adoption. When base flood elevations are not available from any other source, base flood
26 elevations shall be obtained using one of two methods from the FEMA publication, FEMA 265, "Managing
27 Floodplain Development in Approximate Zone A Areas – A Guide for Obtaining and Developing Base
28 (100-year) Flood elevations," dated July 1995."

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D. Information Obtained and Maintained:

1. Where base flood elevation data is provided through the flood insurance study or acquired as in subsection B of this section, the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures and whether or not the structure contains a basement shall be obtained and recorded.
2. For all new or substantially improved flood proofed structures:
 - a. The actual elevation (in relation to mean sea level) shall be verified and recorded; and
 - b. The flood proofing certifications required in subsection 15.800.08B shall be maintained.
3. All records pertaining to the provisions of this chapter shall be maintained for public inspection.

15.800.08 Floodplain Development Permit

A. Permit Required: A development permit shall be obtained before construction or development begins within any area of special flood hazard established in subsection 15.800.08A. The permit shall be for all structures, including manufactured homes as defined herein or in Appendix A, and for all development, including fill and other activities, also as defined in Appendix A.

B. Application for Permit: The applicant shall provide at least the following information, where applicable. Additional information may be required as determined by the floodplain administrator.

1. The proposed elevation in relation to mean sea level, of the lowest floor (including basement) of all residential and nonresidential structures whether new or substantially improved to be located in zones A, A1-A30, AE, and AH, if base flood elevations data are available.
2. In zone AO the proposed elevation in relation to the elevation of the highest adjacent grade of all residential and nonresidential structures whether new or substantially improved.
3. The proposed elevation in relation to mean sea level, to which any new or substantially improved nonresidential structure will be flood proofed.
4. A certificate from a licensed professional engineer or architect in the state of Nevada that any utility flood proofing meets the criteria in subsection 15.800.12D, "Utilities".

1 5. A certificate from a licensed professional engineer or architect in the state of Nevada that any
2 nonresidential floodproofed structures meet the criteria in sections 15.800.12 and 15.800.13.

3 6. When a watercourse will be altered or relocated as a result of the proposed development, the
4 applicant must submit the maps, computations, and other materials required by the federal
5 emergency management agency (FEMA) to process a letter of map revision (LOMR) and pay any
6 fees or other costs assessed by FEMA for processing the revision.

7 7. A technical analysis, by a professional engineer licensed in the state of Nevada, showing the
8 proposed development located in the special flood hazard area will not cause physical damage to any
9 other property.

10 8. When there is no base flood elevation data available for zone A from any source, the base flood
11 elevation data will be provided by the permit applicant for all proposed development of subdivisions,
12 manufactured home and recreational vehicle parks in the special flood hazard areas, for all
13 developments of 50 lots or five (5) acres, whichever is less.

14
15 C. Permit Review and Approval: The director is appointed floodplain administrator to administer and
16 implement this chapter by granting or denying development permit applications in accordance with its
17 provisions.

18
19 Duties and responsibilities of the floodplain administrator shall include, but not be limited to:

20 1. Review all development permits to determine that the permit requirements of this chapter have
21 been satisfied.

22 2. Review all development permits to determine that all necessary permits have been obtained from
23 those federal, state or local governmental agencies from which prior approval is required.

24 3. Review all permits to determine that the structure(s) is reasonably safe from flooding.

25
26 **15.800.09 Alteration of Watercourses**

27 Prior to issuing a permit for any alteration or relocation of watercourse the floodplain administrator must:

28 A. Have processed and received a letter of map revision (LOMR).

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B. Notify all adjacent communities, Nevada's national flood insurance program coordinator, and submittal of evidence of such notification to the federal insurance administration, and the federal emergency management agency.

C. Determine that the potential permit recipient has provided for maintenance within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.

15.800.10 Retaining Floodplain Development Documentation

The floodplain administrator shall obtain and retain for public inspection and have available for the national flood insurance program coordinator or the federal emergency management agency representative conducting a community assistance visit, the following:

A. Floodplain development permits and certificates of compliance.

B. Certification required by section 15.800.13 (lowest floor elevation).

C. Certification required by section 15.800.13 (flood proofing nonresidential structures).

D. Certification of elevation required by section 15.800.12 (subdivision standards).

E. Certification required by section 15.800.13 (floodway encroachments).

F. Variances issued pursuant to section 15.800.14, "Variances and Appeals".

G. Notices required under section 15.800.09, "Alteration of Watercourses".

15.800.11 Maintenance of Flood Protection Measures

The maintenance of any and all flood protection measures (levees, dikes, dams or reservoirs) will be required of the jurisdiction where such measures provide protection. If these measures are privately owned, an operation or maintenance plan will be required of the owner to be on file with the department.

15.800.12 General Standards for Flood Hazard Reduction

In all areas of special flood hazards, the following standards are required:

A. Development Requirements:

1. All subdivision proposals shall be consistent with the need to minimize flood damage;
2. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage;
3. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; certification of compliance shall be required of the developer; and
4. Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivisions and other proposed developments which contain at least 50 lots or five (5) acres (whichever is less).

B. Anchoring:

1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
2. All manufactured homes must likewise be anchored to prevent flotation, collapse or lateral movement and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over the top or frame ties to ground anchors (see FEMA's "Manufactured Home Installation In Flood Hazard Areas" guidebook for additional techniques).
3. Propane and other liquid or gaseous fuel storage tanks shall be anchored to prevent flotation or lateral movement

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C. Construction Materials and Methods:

1. Materials: All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

2. Construction Methods and Practices: All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

3. Location of Service Facilities: Electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

4. Drainage Paths: Within zones AH or AO, all new construction and substantial improvements shall be constructed so that there are adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.

5. Elevation and Flood proofing:

a. New construction and substantial improvement of any structure shall have the lowest floor, including basement, elevated to or above the base flood elevation or depth number as follows:

In zone AO: Elevated above the highest adjacent grade to a height equal to or exceeding the depth number specified in feet on the FIRM by at least one (1) foot, or elevated at least two (2) feet above the highest adjacent grade if no depth number is specified.

In zone A: Elevated to or above the base flood elevation, as approved by the director.

In all other zones where the base flood elevation has been determined: The lowest floor elevated at least one (1) foot above the base flood elevation.

b. Manufactured homes shall meet the above standards.

Nonresidential structures may meet the standards in subsection C5c of this section. Upon completion of the structure, the elevation of the lowest floor, including basement, shall be certified

1 by a registered professional engineer or surveyor to verify to the floodplain administrator that
2 elevation requirements have been met. Notification of compliance shall be recorded as set forth in
3 subsection 15.800.07C2b.

4 c. Nonresidential construction shall either be elevated to conformance with subsection C5a of
5 this section or, together with attendant utility and sanitary facilities:

6 (1) Be flood proofed so that below the base flood level the structure is watertight with walls
7 substantially impermeable to the passage of water;

8 (2) Have structural components capable of resisting hydrostatic and hydrodynamic loads and
9 effects of buoyancy; and

10 (3) Be certified by a registered professional engineer or architect that the standards of this
11 subsection are satisfied. Such certifications shall be provided to the floodplain administrator.

12 6. Requirements for All Crawl Space Construction:

13 a. The building must be designed and adequately anchored to resist flotation, collapse, and
14 lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including
15 the effects of buoyancy. Hydrostatic loads and the effects of buoyancy can usually be addressed
16 through the required openings discussed in the next subsection. Because of hydrodynamic loads,
17 crawl space construction is not recommended in areas with flood velocities greater than five feet
18 (5') per second unless the design is reviewed by a qualified design professional, such as a
19 registered architect or professional engineer.

20 b. The crawl space is an enclosed area below the BFE or depth number and, as such, must
21 have openings that equalize hydrostatic pressures by allowing for the automatic entry and exit of
22 floodwaters. The bottom of each flood vent opening can be no more than one (1) foot above the
23 lowest adjacent exterior grade.

24 c. Portions of the building below the BFE or depth number must be constructed with materials
25 resistant to flood damage. This includes not only the foundation walls of the crawl space used to
26 elevate the building, but also any joists, insulation, or other materials that extend below the BFE
27 or depth number. The required construction practice is to elevate the bottom of joists and all
28 insulation two (2) feet above BFE or depth number. Insulation is not a flood resistant material.

1 When insulation becomes saturated with floodwater, the additional weight often pulls it away from
2 the joists and flooring. Ductwork or other utility systems located below the insulation may also pull
3 away from their supports.

4 d. Any building utility systems within the crawl space must be elevated above BFE or depth
5 number, or designed so that floodwaters cannot enter or accumulate within the system
6 components during flood conditions. Ductwork, in particular, must either be placed above the BFE
7 or depth number, or sealed from floodwaters.

8 e. Additional requirements for below grade crawl spaces:

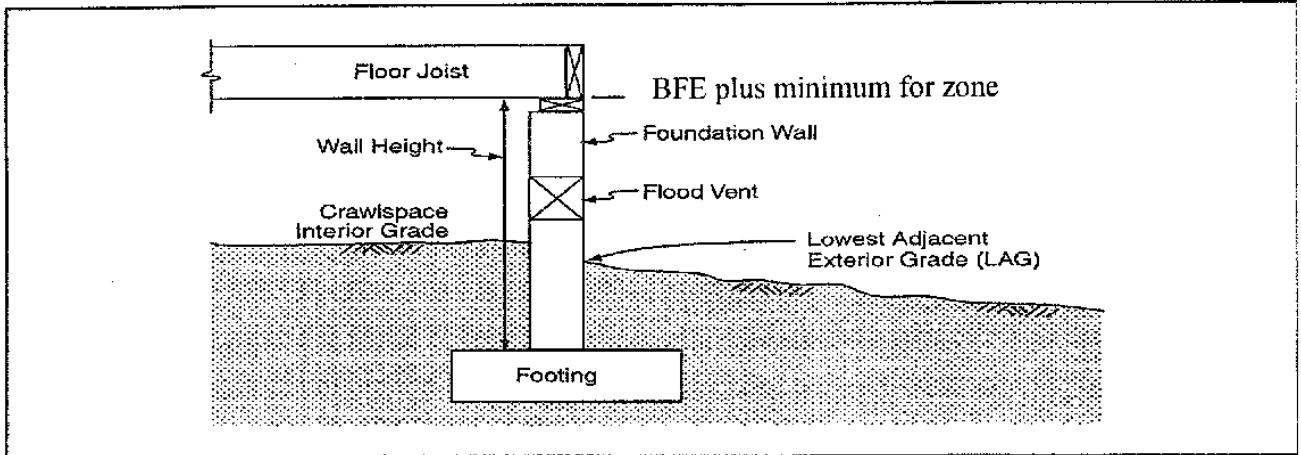
9 (1) The interior grade of a crawl space below the BFE or depth number must not be more
10 than two (2) feet below the lowest adjacent exterior grade (LAG), shown as “D” in figure 3 of
11 this section.

12 (2) The height of the below grade crawl space, measured from the interior grade of the crawl
13 space to the top of the crawl space foundation wall must not exceed four (4) feet (shown as
14 “L” in figure 3 of this section) at any point. The height limitation is the maximum allowable
15 unsupported wall height according to the engineering analyses and building code
16 requirements for flood hazard areas. This limitation will also prevent these crawl spaces from
17 being converted into habitable spaces.

18 (3) There must be an adequate drainage system that removes floodwaters from the interior
19 area of the crawl space. The enclosed area should be drained within a reasonable time after
20 a flood event. The type of drainage system will vary because of the site gradient and other
21 drainage characteristics, such as soil types. Possible options include natural drainage
22 through porous, well drained soils and drainage systems such as perforated pipes, drainage
23 tiles, or gravel or crushed stone drainage by gravity or mechanical means.

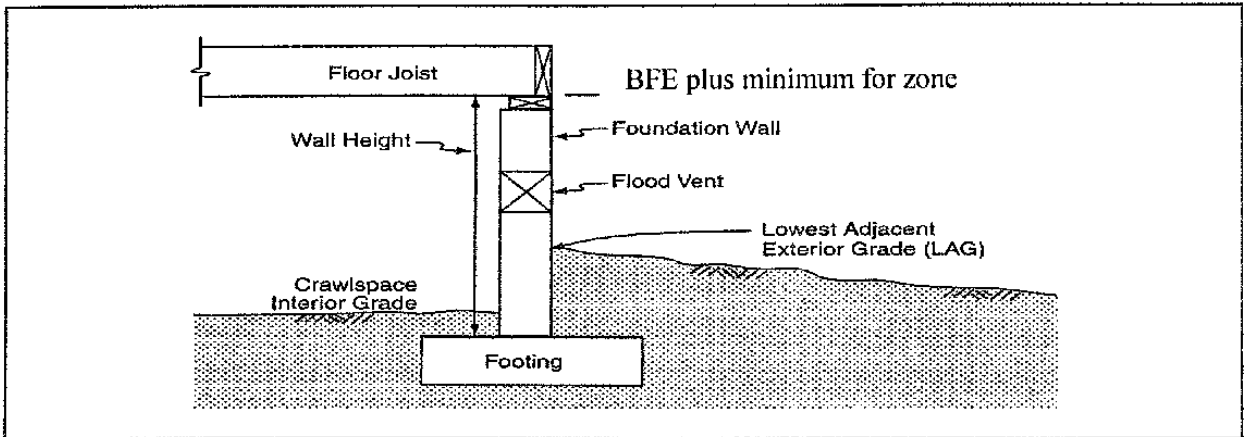
24 (4) The velocity of floodwaters at the site should not exceed five (5) feet per second for any
25 crawl space. For velocities in excess of five (5) feet per second, other foundation types
26 should be used.

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Figure 1 Preferred crawl space construction.



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Figure 2 Below grade crawl space construction.

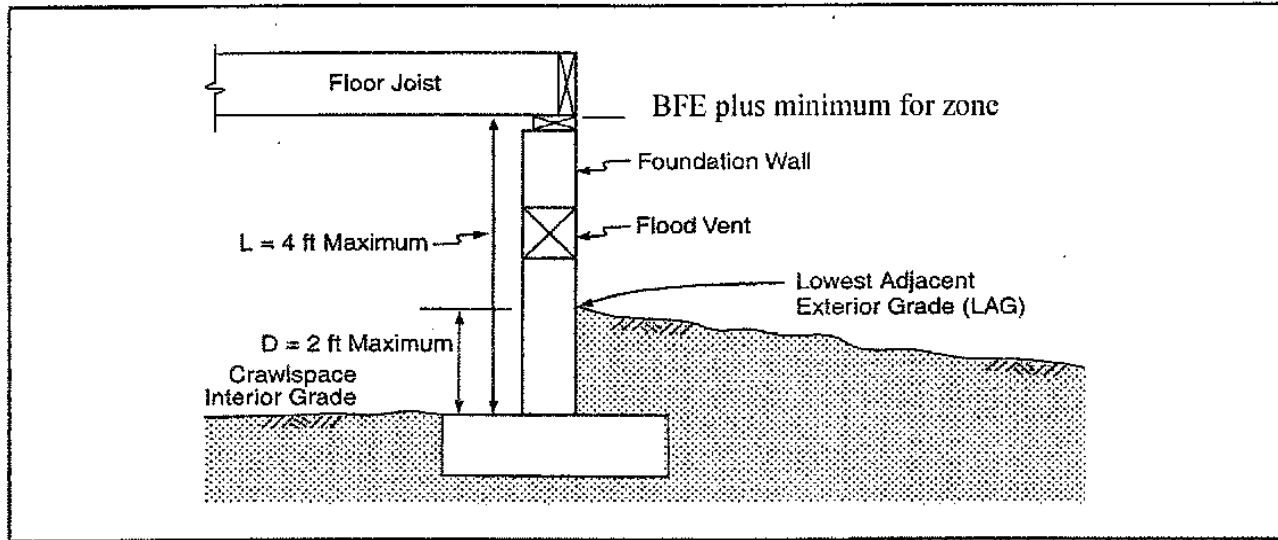


Figure 3 Requirements regarding below grade crawl space construction.

D. Utilities:

1. All new and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters or discharge from the systems into floodwaters. Sanitary sewer and storm drainage systems for buildings that have openings below the base flood elevation shall be provided with automatic backflow valves or other automatic backflow devices that are installed in each discharge line passing through a building's exterior wall.
2. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters; and
3. On site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

E. Review of Building Permits: Applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available.

15.800.13 Specific Standards for Flood Hazard Reduction

In all areas of special flood hazards where base flood elevation data has been provided as set forth in subsection 15.800.07A or B, the following provisions are required:

A. Residential Construction:

1. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one (1) foot above base flood elevation.
2. Fully enclosed areas below the lowest floor other than a crawl space constructed in conformance with subsection 15.800.12C6 subject to flooding are prohibited or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

- a. A minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided.
- b. The bottom of all openings shall be no higher than one (1) foot above grade.
- c. Openings may be equipped with screens, louvers or other coverings or devices; provided, that they may permit the automatic entry and exit of floodwaters.

B. Manufactured Homes: All manufactured homes to be placed or substantially improved within zones A, AH and AE shall be elevated on a permanent foundation such that the lowest floor bottom of the structural frame or the lowest point of any attached appliances, whichever is lower, of the manufactured home is at least one (1) foot above the base flood elevation or at least two (2) feet when no base flood elevation data is available and shall be securely anchored to an adequately anchored foundation system in accordance with the provisions of subsection 15.80012B2.

C. Nonresidential Construction: New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated to the level of the base flood elevation or, together with attendant utility and sanitary facilities, shall:

- 1 1. Be flood proofed so that below the base flood level the structure is watertight with walls
- 2 substantially impermeable to the passage of water;
- 3 2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects
- 4 of buoyancy;
- 5 3. Be certified by a Nevada registered professional engineer or architect that the design and
- 6 methods of construction are in accordance with accepted standards of practice for meeting provisions
- 7 of this subsection based on their development and/or review of the structural design, specifications
- 8 and plans. Such certifications shall be provided to the official as set forth in subsection 15.800.07C2.
- 9 4. Nonresidential structures that are elevated, not flood proofed, must meet the same standards for
- 10 space below the lowest floor as described in subsection A2 of this section.
- 11 5. Applicants flood proofing nonresidential buildings shall be notified that flood insurance premiums
- 12 will be based on rates that are one (1) foot below the flood proofed level (e.g., a building constructed
- 13 to the base flood level will be rated as one (1) foot below that level).
- 14
- 15 D. Floodways: Located within areas of special flood hazard established in subsection 15.800.07A are
- 16 areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of
- 17 floodwaters which carry debris, potential projectiles and erosion potential, the following provisions apply:
- 18 1. Encroachments, including fill, new construction, substantial improvements and other development
- 19 are prohibited unless it has been demonstrated through hydrologic and hydraulic analyses, performed
- 20 in accordance with standard engineering practice that the proposed encroachment would not result in
- 21 any increase in flood levels within the community during the occurrence of the base flood discharge,
- 22 and the federal emergency management agency has issued a conditional letter of map revision
- 23 (CLOMR).
- 24 2. If subsection D1 of this section is satisfied, all new construction and substantial improvements
- 25 shall comply with all applicable flood hazard reduction provisions of this section and section
- 26 15.800.12.
- 27

1 E. Recreational Vehicles: All recreational vehicles placed on sites within the floodplain on the FIRM will
2 be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is on its
3 wheels or jacking system, is attached to a site only by quick disconnect type utilities and security devices,
4 and has no permanently attached additions).

5

6 **15.800.14 Variances and Appeals**

7 A. Authority: The board shall hear and decide appeals and requests for variances from the requirements
8 of this chapter.

9 B. Appeals:

10 1. The board shall hear and decide appeals when it is alleged there is an error in any requirement,
11 decision or determination made by the floodplain administrator of this chapter.

12 2. Those aggrieved by the decision of the board may appeal such decision to the appropriate court
13 as provided in Nevada Revised Statutes.

14

15 C. Variances:

16 1. Application For Variance: In passing upon such applications, the board shall consider all technical
17 evaluations, all relevant factors, standards specified in other sections of this chapter, and:

18 a. The danger that materials may be swept onto other lands to the injury of others;

19 b. The danger to life and property due to flooding or erosion damage;

20 c. The susceptibility of the proposed facility and its contents to flood damage and the effect of
21 such damage on the individual owner;

22 d. The importance of the services provided by the proposed facility to the community;

23 e. The necessity to the facility of a waterfront location, where applicable;

24 f. The availability of alternative locations for the proposed use which are not subject to flooding
25 or erosion damage;

26 g. The compatibility of the proposed use with existing and anticipated development;

27 h. The relationship of the proposed use to the comprehensive plan and floodplain management
28 program for that area;

- 1 i. The safety of access to the property in times of flood for ordinary and emergency vehicles;
- 2 j. The expected heights, velocity, duration, rate of rise and sediment transport of the
- 3 floodwaters and the effects of wave action, if applicable, expected at the site; and
- 4 k. The costs of providing governmental services during and after flood conditions, including
- 5 maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water
- 6 system and streets and bridges.
- 7 2. Conditions May be Imposed: Upon consideration of the factors of subsection C1 of this section
- 8 and the purposes of this chapter, the board may attach such conditions to the granting of variances
- 9 as it deems necessary to further the purposes of this chapter.
- 10 3. Standards for Granting Variances:
- 11 a. Generally, the only condition under which a variance from the elevation standard may be
- 12 issued is for new construction and substantial improvements to be erected on a lot of one-half
- 13 (1/2) acre or less in size contiguous to and surrounded by lots with existing structures constructed
- 14 below the base flood level, providing items in subsections C1a through C1k of this section have
- 15 been fully considered. As the lot size increases, the technical justification required for issuing the
- 16 variance increases.
- 17 b. Variances may be issued for the rehabilitation or restoration of historic structures.
- 18 c. Variances shall not be issued within any designated floodway if any increase in flood levels
- 19 during the base flood discharge would result.
- 20 d. Variances shall only be issued upon determination that the variance is the minimum
- 21 necessary, considering the flood hazard to afford relief.
- 22 e. Variances shall only be issued upon:
- 23 (1) A showing of good and sufficient cause such as renovation, rehabilitation or
- 24 reconstruction. Variances issued for economic considerations, aesthetics or because
- 25 variances have been used in the past are not good and sufficient cause;
- 26 (2) A determination that failure to grant the variance would result in exceptional hardship to
- 27 the applicant; and

1 (3) A determination that the granting of a variance will not result in increased flood heights,
2 additional threats to public safety, extraordinary public expense, create nuisances, cause
3 fraud on or victimization of the public or conflict with existing local laws or ordinances.

4 f. Variances, as interpreted in the national flood insurance program, are based on the general
5 zoning law principle that they pertain to a physical piece of property, they are not personal in
6 nature and do not pertain to the structure, its inhabitants, economic or financial circumstances.
7 They primarily address small lots in densely populated residential neighborhoods. As such,
8 variances from the flood elevations should be quite rare.

9 g. Variances may be issued for nonresidential buildings in very limited circumstances to allow a
10 lesser degree of flood-proofing than watertight or dry flood-proofing, where it can be determined
11 that such action will have low damage potential, complies with all other variance criteria except
12 subsection C3a of this section and otherwise complies with subsections 15.80012A and B.

13 4. Notice When Variance Granted: Any applicant to whom a variance is granted shall be given
14 written notice that the structure will be permitted to be built with a lowest floor elevation below the
15 base flood elevation and that the cost of flood insurance will be commensurate with the increased risk
16 resulting from the reduced lowest floor elevation.

17
18 D. Records and Reports: The county clerk shall maintain the records of all appeal actions and report any
19 variances to the federal emergency management agency upon request.

20
21 **15.800.15 Letters of Map Revision/Amendment**

22 National flood insurance program regulations provide procedures to remove property from the 100-year
23 floodplain or from a special flood hazard area. Amendments and revisions to community flood insurance
24 rate maps cannot adversely impact the floodplain or floodway delineations of the level of the 100-year
25 flood.

1 There are several procedures provided whereby the federal insurance administrator will review
2 information from the community, an owner, or a lessee of property where it is believed the property
3 should not be included in a special flood hazard area.

4

5 Submissions to FEMA for revisions to effective flood insurance studies (FISs) by individual and
6 community requesters will require the signing of application/certification forms. These forms will provide
7 FEMA with assurance that all pertinent data relating to the revision is included in the submittal. They will
8 also assure that: a) the data and methodology are based on current conditions; b) qualified professionals
9 have assembled data and performed all necessary computations; and c) all individuals and organizations
10 impacted by proposed changes are aware of the changes and will have an opportunity to comment on
11 them. FEMA procedures permit the following types of request:

12

13 A request for a revision to the effective FIS information (FIRM, FBFM, and/or FIS report) is usually a
14 request that FEMA replace the effective floodplain boundaries, flood profiles, floodway boundaries, etc.,
15 with those determined by the requester. Before FEMA will replace the effective FIS information with the
16 revised, the requester must: a) provide all of the data used in determining the revised floodplain
17 boundaries, flood profiles, floodway boundaries, etc.; b) provide all data necessary to demonstrate that
18 the physical modifications to the floodplain have been adequately designed to withstand the impacts of
19 the one (1) percent annual chance flood event and will be adequately maintained; c) demonstrate that the
20 revised information (e.g., hydrologic and hydraulic analyses and the resulting floodplain and floodway
21 boundaries) is consistent with the effective FIS information.

22

23 Requests for amendments or revisions to FEMA maps must be reviewed and submitted to FEMA by the
24 board with the applicant for a map amendment or revision required to prepare all the supporting
25 information and appropriate FEMA forms.

26

27 The scientific or technical information to be submitted with these requests may include, but is not limited
28 to, the following:

- 1
- 2 A. An actual copy of the recorded plat map bearing the seal of the appropriate recordation official county
- 3 clerk or recorder of deeds indicating the official recordation and proper citation, deed or plat book volume
- 4 and page number, or an equivalent identification where annotation of the deed or plat book is not the
- 5 practice.
- 6
- 7 B. A topographical map showing:
- 8 1. Ground elevation contours in relation to the NAVD 88 (national geodetic vertical datum).
- 9 2. The total area of the property in question.
- 10 3. The location of the structure or structures located on the property in question.
- 11 4. The elevation of the lowest adjacent grade to a structure or structures.
- 12 5. An indication of the curvilinear line which represents the area subject to inundation by a base
- 13 flood. The curvilinear line should be based upon information provided by an appropriate authoritative
- 14 source, such as a federal agency, department of water resources, a county water control district, a
- 15 county or city engineer, a federal emergency management agency flood insurance study, or a
- 16 determination by a registered professional engineer.
- 17
- 18 C. A copy of the FHBM or FIRM indicating the location of the property in question.
- 19
- 20 D. A certification by a Nevada registered professional engineer or Nevada licensed land surveyor that
- 21 the lowest grade adjacent to the structure is above the base flood elevation.
- 22
- 23 E. The completion of the appropriate forms in the federal emergency management agency's packets,
- 24 amendments and revisions to national flood insurance program maps (MT-1 FEMA form 81-87 series and
- 25 MT-2 FEMA form 81-89 series).
- 26
- 27 F. The applicant shall provide the proposed map revision to the floodplain administrator in form and
- 28 format compatible with the county geographical information system (GIS). The scale of the plan,

1 improvements, monuments and other items shall be in model space correctly oriented to coordinate
2 system as established by the GIS coordinator.

3

4 **15.800.16 Warning and Disclaimer of Liability**

5 The degree of flood protection required by this chapter is considered reasonable for regulatory purpose
6 and is based on scientific and engineering considerations. Larger floods can and will occur on rare
7 occasions. Flood heights may be increased by manmade or natural causes. This chapter does not imply
8 that land outside the areas of special flood hazards or uses permitted within such areas will be free from
9 flooding or flood damages. This chapter shall not create liability on the part of Lyon County or any officer
10 or employee thereof or the federal insurance administration for any flood damages that result from
11 reliance on this chapter or any administrative decision lawfully made hereunder.

12

- 1 **Chapter 15.801 – Reserved**
- 2
- 3 **Chapter 15.802 – Reserved**
- 4
- 5 **Chapter 15.803 – Reserved**
- 6
- 7 **Chapter 15.804 – Reserved**
- 8
- 9 **Chapter 15.805 – Reserved**
- 10
- 11 **Chapter 15.806 – Reserved**
- 12
- 13 **Chapter 15.807 – Reserved**
- 14
- 15 **Chapter 15.808 – Reserved**
- 16
- 17 **Chapter 15.809 – Reserved**
- 18

- 1 **Chapter 15.810 Public Facilities and Improvement Standards**
- 2 Reserved for future addition
- 3

1 **Chapter 15.811 Reserved**

2

3