

ORDINANCE NO. 2472

AN ORDINANCE OF THE CITY OF REDLANDS AMENDING CHAPTER 15.32 OF THE REDLANDS MUNICIPAL CODE RELATING TO FLOOD DAMAGE PREVENTION

The City Council of the City of Redlands does ordain as follows:

Section 1. Chapter 15.32 of the Redlands Municipal Code is hereby deleted in its entirety and rewritten to read as follows:

"Chapter 15.32

FLOOD DAMAGE PREVENTION

Sections:

15.32.010	Purpose.
15.32.020	Definitions.
15.32.030	Applicability of Chapter provisions.
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15.32.010 Purpose.

The purpose of this Chapter is to promote the public health, safety and welfare, and to minimize public and private losses due to flood conditions in specific areas by establishing requirements and restrictions designed to protect human life and health, minimize expenditure of public money for costly flood control projects and damage to public facilities and utilities, minimize

the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public, maintain a stable tax base by providing for the sound use and development of areas of special hazards so as to minimize future flood blight areas and ensure that potential buyers are notified that property is in an area of special flood hazard.

15.32.020 Definitions.

The following words shall have the meanings ascribed to them:

Accessory use means a use which is incidental and subordinate to the principal use of the parcel of land on which it is located.

Alluvial fan means a geomorphologic feature characterized by a cone or fan-shaped deposit of boulders, gravel, and fine sediments that have been eroded from mountain slopes, transported by flood flows, and then deposited on the valley floors, and which is subject to flash flooding, high velocity flows, debris flows, erosion, sediment movement and deposition, and channel migration.

Apex means the point of highest elevation on an alluvial fan, which on undisturbed fans is generally the point where the major stream that formed the fan emerges from the mountain front.

Appeal means a request for a review of the Chief Building Official's interpretation of any provision of this Chapter.

Area of shallow flooding means a designated AO or AH Zone on the Flood Insurance Rate Map (FIRM) where the base flood depths range from one to three feet, a clearly defined channel does not exist, the path of flooding is unpredictable and indeterminate, and velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

Base Flood means a flood which has a one percent chance of being equaled or exceeded in any given year (also called the "100-year flood"). Base flood is the term used throughout this Chapter.

Basement means any area of the building having its floor subgrade (below ground level) on all sides.

Development means any man-made change to improved or unimproved real estate, including but not limited to buildings, structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

Encroachment means the advance or infringement of uses, plant growth, fill, excavation, buildings, permanent structures or development into a floodplain which may impede or alter the flow capacity of a floodplain.

Existing manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community.

Expansion to an existing manufactured home park or subdivision means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

Flood, flooding, or flood water means:

1. A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters, the unusual and rapid accumulation or runoff of surface waters from any source, and/or mudslides (i.e., mudflows); and
2. The condition resulting from flood-related erosion.

Flood boundary and floodway map (FBFM) means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of special flood hazard and the floodway.

Flood Hazard Boundary Map means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated the areas of flood hazards.

Flood insurance rate map (FIRM) means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of special flood hazards and the risk of premium zones applicable to the community.

Flood insurance study means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Insurance Rate Map, the Flood Boundary and Floodway Map and the water surface elevation of the base flood.

Floodplain or flood prone area means any land area susceptible to being inundated by water from any source (see "Flooding").

Floodplain Administrator means the City's Chief Building Official.

Floodplain management means the operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including but not limited to, emergency preparedness plans, flood

control works, floodplain management regulations and open space plans.

Floodplain management regulations means this Chapter, subdivision regulations, building codes, health regulations, ordinances (such as grading and erosion control) and other applications of police power regulations which control development in flood-prone areas. This term describes federal, state or local regulations, in any combination thereof, which provide standards for preventing and reducing flood loss and damage.

Flood proofing means any combination of structural and nonstructural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Floodway means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot (referred to as "Regulatory Floodway").

Floodway fringe means that area of the floodplain on either side of the "Regulatory Floodway" where encroachment may be permitted.

Fraud and victimization as related to Section 15.32.180 and 15.32.190 of this Chapter, means that the variance granted must not cause fraud on or victimization of the public. In examining this requirement, the City will consider the fact that every newly constructed building adds to government responsibilities and remains a part of the city for fifty to one-hundred years. Buildings that are permitted to be constructed below the base flood elevation are subject during all those years to increased risk of damage from floods, while future owners of the property and the City as a whole are subject to all the costs, inconvenience, danger, and suffering that those increased flood damages bring. In addition, future owners may purchase the property, unaware that it is subject to potential flood damage, and can be insured only at very high flood insurance rates.

Functionally dependent use means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water.

Governing body means the City Council of the City of Redlands, that is empowered to adopt and implement regulations to provide for the public health, safety and general welfare of its citizenry.

Hardship as related to Section 15.32.190, of this Chapter means the exceptional hardship that would result from a failure to grant a requested variance. The City Council requires that the variance be exceptional, unusual, and peculiar to the property involved. Mere economic or financial hardship alone is not exceptional. Inconvenience, aesthetic considerations, physical handicaps, personal preferences, or the disapproval one's neighbors likewise cannot, as a rule, qualify as an exceptional hardship. All of these problems can be resolved through other means without granting a variance, even if the alternative is more expensive, or requires the property owner to build

elsewhere or put the parcel to a different use than originally intended.

Highest adjacent grade means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Historic structure means any structure that is:

1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or
4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved state program as determined by the Secretary of the Interior or directly by the Secretary of the Interior in states without approved programs.

Levee system means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control or divert the flow of water so as to provide protection from temporary flooding.

Levee system means a flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accord with sound engineering practices.

Lowest floor means the lowest floor of the lowest enclosed area, including basement, (see "Basement") for:

1. An unfinished or flood resistant enclosure below the lowest floor that is usable solely for parking of vehicles, building access or storage in an area other than a basement area, is not considered a building's lowest floor provided it conforms to applicable non-elevation design requirements, but not limited to:
 - a. The wet floodproofing standard; in section 15.32.110 C
 - b. The anchoring standards; in sections 15.32.110 A
 - c. The construction materials and methods standards; in section 15.32.110 B and
 - d. The standards for utilities in section 15.32.120.

2. Residential structures, all subgrade enclosed areas are prohibited as they are considered to be basements (see Basement" definition). This prohibition includes below-grade garages and storage areas.

Manufactured home means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle."

Manufactured home park or subdivision means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

Market value means the cost to replace the structure in new condition and adjusting that cost figure by the amount of depreciation which has accrued since the structure was constructed. The cost of replacement of the structure shall be based on a square foot cost factor determined by reference to a building cost estimation guide recognized by the building construction industry. The amount of depreciation shall be determined by taking into account the age and physical deterioration of the structure and functional obsolescence as approved by the floodplain administrator, but shall not include economic or other forms of external obsolescence. Use of replacement costs or accrued depreciation factors different from those contained in recognized building cost estimation guides may be considered only if such factors are included in a report prepared by an independent professional appraiser and supported by written explanation of the differences.

Mean sea level means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevation shown on a community's Flood Insurance Rate Map are referenced.

Minimum necessary means to afford relief with a minimum of deviation from the requirements of this Chapter.

Mudslide (i.e., mudflow) prone area means an area with land surfaces and slopes of unconsolidated material where the history, geology, and climate indicate a potential for mudflow.

New construction for floodplain management purposes, means structures for which the "start of construction" commenced on or after the effective date of floodplain management regulations adopted by this community, and includes any subsequent improvements to such structures.

New manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by this City.

Obstruction means any dam, wall, wharf, embankment, levee, dike, pile, abutment, protection, excavation, channelization, bridge, conduit, culvert, building, wire, fence, rock, gravel, refuse, fill structure, vegetation or other material in, along, across or projection into any watercourse which may alter, impede, retard or change the direction and/or velocity of the flow of water, or due to its location, its propensity to snare or collect debris carried by the flow of water, or its likelihood of being carried downstream.

Public safety and nuisance, as related to Section 15.32.190 of this Chapter, means that the granting of a variance must not result in anything which is injurious to safety or health of an entire community or neighborhood, or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake or river, bay, stream, canal, or basin.

Recreational vehicle means a vehicle which is:

1. Built on a single chassis;
2. Four hundred square feet or less when measured at the largest horizontal projection;
3. Designed to be self-propelled or permanently towable by a light-duty truck; and
4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Regulatory floodway means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

Remedy a violation means to bring a structure or other development into compliance with State and local floodplain management regulations, or, if that is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of this Chapter or otherwise deterring future similar violations, or reducing State or Federal financial exposure with regard to the structure or other development.

Riverine means relating to, formed by, or resembling a river (including tributaries), stream or brook.

Special flood hazard area (SFHA) means an area in the floodplain subject to a one percent or greater chance of flooding in any given year and is shown on an FHBM or FIRM as Zone A, AO, A1-A30, AE, A99, or AH.

Start of construction includes substantial improvement, and other proposed new development and means the date the building permit was issued; provided, the actual start of construction, repair, reconstruction, rehabilitation, addition, placement or other improvement was within one hundred eighty days of the permit date. The "actual start" means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles,

the construction of columns, or any work beyond the stage of excavation; or the placement of manufactured home on a foundation. "Permanent construction" does not include land preparation, such as clearing, grading and filling, the installation of streets and/or walkways; nor does it include excavation of basements, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwellings units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structure part of a building, whether or not that alteration affects the external dimensions of the building.

Structure means a walled and roofed building that is principally above ground; including a gas or liquid storage tank or a manufactured homes.

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed fifty percent of the market value of the structure before the damage occurred.

Substantial improvement means any reconstruction, rehabilitation, addition, or other proposed new development of a structure, the cost of which equals or exceeds fifty percent of the market value of the structure before the start of construction of the improvement. This term includes structures which have incurred substantial damage, regardless of the actual repair work performed. The term does not, however, include either:

1. Any project for improvement of a structure to correct existing violations or state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or
2. Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.

Variance means a grant of relief from the requirements of this Chapter which permits construction in a manner that would otherwise be prohibited by this Chapter.

Violation means the failure of a structure or other development to be fully compliant with this Chapter. A structure or other development without the elevation certificate, other certification, or other evidence of compliance required by this Chapter is presumed to be in violation until such time as that documentation is provided.

Water surface elevation means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, (or the datum, where specified) of floods of various magnitudes and frequencies in the flood plains of coastal or riverine areas.

Watercourse means a lake, river, creek, stream, wash, arroyo, channel or other topographic

feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.

15.32.030 Applicability of Chapter provisions.

This Chapter applies to all areas of special flood hazards within the jurisdiction of the City.

15.32.040 Establishing the areas of special flood hazard.

The areas of special flood hazard identified by the Federal Insurance Administration (FIA) of the Federal Emergency Management Agency (FEMA) in the Flood Insurance Study (FIS) dated March 18, 1996 and the Flood Insurance Rate Map (FIRMs) and Flood Boundary and Floodway maps (FBFMs), dated March 18, 1996, and all subsequent amendments and/or revisions, are adopted by reference and declared to be a part of this Chapter. This Flood Insurance Study (FIS) and attendant mapping is the minimum area of applicability of this Chapter and may be supplemented by studies for other areas which allow implementation of this Chapter and which are recommended to the City Council by the Chief Building Official. The study, FIRMs and FBFMs are on file at 35 Cajon Street, Suite 20, Department of Building and Safety.

15.32.050 Compliance required.

No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the provisions of this Chapter and other applicable regulations. Any violations of the provisions of this Chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Nothing in this Chapter shall prevent the City from taking any action necessary to prevent or remedy a violation.

15.32.060 Abrogation or greater restrictions.

This Chapter is not intended to repeal, abrogate, or impair any existing easements, covenants or deed restrictions. However, where this Chapter and another ordinance, easement, covenant or deed restriction conflicts or overlaps, whichever imposes the more stringent restrictions shall prevail.

15.32.070 Interpretation.

In the interpretation and application of this Chapter, all provisions shall be considered as minimum requirements, liberally construed in favor of the City and deemed neither to limit nor repeal any other powers granted under State statutes.

15.32.080 Warning and disclaimer of liability.

The degree of flood protection required by this Chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on occasions and flood heights may be increased by man-made or natural causes. This Chapter does not imply that land outside the areas of special flood hazards, or uses permitted within such areas will be free from flooding or flood damages. This Chapter shall not create liability on the part of the City, any elected official, officer or employee thereof, the State of California, or the Federal Insurance Administration, Federal Emergency Management Agency, for any flood damages that result from reliance on this Chapter or any rule or regulation made pursuant to this Chapter.

15.32.090 Development permit--Required--Application.

A development permit shall be obtained before construction or development begins within any area of special flood hazard. Application for a development permit shall be made on forms furnished by the Chief Building Official and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions and elevation of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities and the location of the foregoing; provided, however, the following information is required:

A. Site plan, including but not limited to:

1. For all structures, spot ground elevations at building corners and 20-foot or smaller intervals along the foundation footprint, or foot contour elevation throughout the building site; and
2. Proposed location of water supply, sanitary sewer, and utilities; and
3. If available, the base flood elevation from the Flood Insurance Study and/or Flood insurance Rate Maps; and
4. If applicable, the location of the regulatory floodway; and

B. Foundation design detail, including but not limited to:

1. Proposed elevation in relation to mean sea level, of the lowest floor (including basement) of all structures; and
2. For a crawl-space foundation, located and total net area of foundation opening as required in Section 15.32.110 of this Chapter; and
3. For foundation placed on fill, the location and height of fill, and compaction requirements (compacted to 95 percent using the Standard Proctor Test

method) and

- C. Proposed elevation in relation to mean sea level to which any nonresidential structure will be flood proofed, as required in Section 15.32.110 of this Chapter; and
- D. All appropriate certification listed in Section 15.32.110 of this Chapter; and
- E. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

15.32.100 Chief Building Official--Duties and responsibilities.

The Chief Building Official shall administer, implement, and enforce this Chapter by granting or denying development permits in accordance with its provisions and the Chief Building Official duties and responsibilities shall include, but not be limited to:

- A. Permit Review. Review all development to determine that:
 - 1. Review all development permits to determine that the permit requirements of this Chapter have been satisfied;
 - 2. Ensure that all other state and federal permits have been obtained;
 - 3. Determine that the site is reasonably safe from flooding, and
 - 4. The proposed development does not adversely affect the carrying capacity of areas where base flood elevations have been determined but a floodway has not been designated. For purposes of this Chapter, "adversely affects" means that the cumulative effect of the proposed development when combined with all other existing and anticipated development will increase the water surface elevation of the base flood more than one foot at any point.
- B. Review, Use and Development of Other Base Flood Data.
 - 1. When base flood elevation data has not been provided in accordance with 15.32.040, the Chief building Official shall obtain, review and utilize any base flood elevation and floodway data available from a federal, state or other sources, or if no base flood elevation data is available from a federal or state agency or other source, in order to administer Section 15.32.120. Any such information shall be submitted to the City for adoption; or
 - 2. If no base flood elevation data is available from a federal or state agency or other source, then a base flood elevation shall be obtained using one of the two methods from the FEMA publication "Managing Floodplain Development in Approximate Zone A Areas-A Guide of Obtaining and Developing Bas (100-year) Flood Elevations" dated July 1995 in order to administer Section 15.32.120.

- a. Simplified method
 - i. 100 year or base flood discharge shall be obtained using the appropriate regression equation found in a U.S. Geological Survey publication, or the discharge-drainage area method; and
 - ii. Base flood elevation shall be obtained using the Quick-2 computer program developed by FEMA; or
- b. Detail method
 - i. 100 year or base flood discharge shall be obtained using the U.S. Army Corps of Engineer's HEC-HMS computer program; and
 - ii. base flood elevation shall be obtained using the U.S. Army Corps of Engineers' HEC-RAS computer program.

C. Notification of Other Agencies. In alteration or relocation of a watercourse:

- 1. Notify adjacent communities and the California Department of Water Resources prior to alteration or relocation;
- 2. Submit evidence of such notification to the Federal Insurance Administration, Federal Emergency Management Agency; and
- 3. Assure that the flood carrying capacity within the altered or relocated portion of said watercourse is maintained.

D. Documentation of Floodplain Development. Obtain and maintain for public inspection and make available as needed the following:

- 1. Certification required by Section 15.32.110 and 15.32.140 (lowest floor elevations),
- 2. Certification required by Section 15.32.110 C4 (elevation or floodproofing of non residential structures),
- 3. Certification of elevation require Section 15.32.110 C5 (wet floodproofing standards).
- 4. Certification of elevation required by Section 15.32.130 (subdivision standards).
- 5. Certification required by Section 15.32.160 (floodway encroachments),
- 6. Reports required by Section 15.32.160 (mudflow standards).

E. Map Determinations. Make interpretations, where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). Any person contesting the location of a boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 15.32.180 and 15.32.190 of this Chapter.

F. Remedial Action. Take action to remedy violations of this Chapter.

15.32.110 Construction standards.

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

A. 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 shall meet the anchoring standards of Section 15.32.140 of this section.

B. Construction Materials and Methods.

1. All new construction and substantial improvements shall be constructed with flood resistant materials and utility equipment resistant to flood damage;
2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
3. All new construction and substantial improvements shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding; and if
4. Within zone AH or AO, adequate drainage paths around structures on slopes to guide flood waters around and away from proposed structures.

C. Elevation and Flood proofing.

1. Residential construction, new or substantial improvement of any structure shall have the lowest floor, including basement, elevated to or above the base flood elevation. Upon the completion of the structure the elevation of the

lowest floor including basement shall be certified by a registered professional engineer or surveyor, or verified by the Chief Building Official to be properly elevated.

2. Residential construction, new or substantial improvement, of any structure in zone AO shall have the lowest floor, including basement, elevated above the highest adjacent grade to a height exceeding the depth number specified in feet on the FIRM by at least two feet, or elevated at least four feet above the highest adjacent grade if no depth number is specified. Upon the completion of the structure, the elevation of the lowest floor including basement shall be certified by a registered professional engineer or surveyor, or by the Chief Building Official to be properly elevated.
3. Residential construction, new or substantial improvement of any structure in zone A shall have the lowest floor, including basement, be elevated at least two feet above the base flood elevation. Upon the completion of the structure, the elevation of the lowest floor including basement shall be certified by a registered professional engineer or surveyor, or by the Chief Building Official to be properly elevated.
4. Nonresidential construction, new or substantial improvement, shall either be elevated in conformance with subsection C1 or C2 of this section or together with attendant utility and sanitary facilities be flood proofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water, have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy, and be certified by a registered professional engineer or architect that the standards of this subsection are satisfied. Such certifications shall be provided to the Chief Building Official.
5. All new construction and substantial improvements, that fully enclosed areas below the lowest floor (excluding basements) that are usable solely for parking of vehicles, building access or storage, and which are subject to flooding, shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood waters. Designs for meeting this requirement shall either be certified by a registered professional engineer or architect and must meet or exceed the following minimum criteria:
 - a. Have a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers,

valves or other coverings or devices; provided, that they permit the automatic entry and exit of flood waters; or

b. Be certified by a registered professional engineer or architect.

6. Manufactured homes shall satisfy the standards in Section 15.32.140.

15.32.120 Utility standards.

A. All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from the systems into flood waters.

B. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

15.32.130 Subdivision standards.

A. All preliminary subdivision proposals shall identify the special flood hazard area and the elevation of the base flood.

B. All final subdivision plans shall provide the elevation of proposed structures and pads. If the site is filled above the base flood elevation, the lowest floor and pad elevation shall be certified by a registered professional engineer or surveyor as provided to the Chief Building Official.

C. All subdivision proposals shall be consistent with the need to minimize flood damage.

D. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.

E. All subdivisions shall provide adequate drainage to reduce exposure to flood hazards.

15.32.140 Standards for manufactured homes.

A. All manufactured homes that are placed or substantially improved within Zones A1-30, AH, and AE on the community's Flood Insurance Rate Map, on sites located (1) outside of a manufactured home park or subdivision; (2) in a new manufactured home park or subdivision; (3) in an expansion to an existing manufactured home park or subdivision; (4) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to at least two feet above the base flood elevation and be securely fastened to an adequately anchored foundation system to resist floatation collapse and

lateral movement.

B. All manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within Zones A1 - 30, AH, and AE on the community's Flood Insurance Rate Map that are not subject to the provisions of subsection A of this section will be fastened to an adequately anchor foundation system to resist flotation, collapse, and lateral movement, and to be elevated so that either the:

1. The lowest floor of the manufactured home is at least two feet above the base flood elevation, or
2. The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than thirty-six inches in height above grade. Upon completion of the structure, the elevation of the lowest floor including basement shall be certified by a registered professional engineer or surveyor, and verified by the city building inspector to be properly elevated. Such certification and verification shall be provided to the Chief Building Official.

15.32.150 Standards for recreational vehicles.

All recreational vehicles placed on sites within a floodplain shown on the City's Flood Insurance Rate Map will either:

- A. Be on the site for fewer than 180 consecutive days;
- B. Be fully licensed and ready for highway use - a recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnects type utilities and security devices, and has no permanently attached additions, or
- C. Meet the permit requirements of this Chapter and the elevation and anchoring requirements for manufactured homes in 15.32.140 of this Chapter.

15.32.160 Floodways.

Located within areas of special flood hazard established in Section 15.32.040 of this Chapter are areas designated as floodways. Because the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles and erosion potential, the following provisions shall apply:

- A. Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in the base flood levels

during the occurrence of the base flood discharge.

B. If the above is satisfied, all new construction, substantial improvements, and proposed development shall comply with all other applicable flood hazard reduction provisions of this article.

15.32.170 Mudslide (ie., Mudflow Prone Areas)

A. The Chief Building Official shall review permits for proposed construction of other development to determine if it is proposed within a mudslide area.

B. Permits shall be reviewed to determine that the proposed site and improvement will be reasonably safe from mudslide hazards. Factors to be considered in making this determination include but are not limited to (1) the type and quality of soils; (2) evidence of ground water or surface water problems; (3) depth and quality of any fill; (4) overall slope of the site; (5) weight that any proposed development will impose on the slope.

C. Within areas which may have mudslide hazards, the Chief Building Official shall require that (1) a site investigation and further review be made by persons qualified in geology and soils engineering; (2) the proposed grading, excavation, new construction, and substantial improvement be adequately designed and protected against mudslide damages; (3) the proposed grading, excavation, new construction, and substantial improvement not aggravate the existing hazard by creating either on-site or off-site disturbances; (4) drainage, planting, watering, and maintenance not endanger slope stability.

15.32.180 Appeal board.

A. The Planning Commission shall hear and decide the appeals and requests for variances from the requirements of this Chapter when it is alleged that there is an error in any requirement, decision or determination made by the Chief Building Official in the enforcement or administration of the ordinance codified in this Chapter. In passing upon such applications, the Planning Commission shall consider all technical evaluations, all relevant factors, standards specified in other provisions of this Chapter, and:

1. The danger that materials may be swept onto other lands to the injury of others;
2. The danger of life and property due to flooding or erosion damage;
3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the existing individual owner and future owners of the property;
4. The importance of the services provided by the proposed facility to the

community;

5. The necessity for the facility of a waterfront location, where applicable;
6. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
7. The compatibility of the proposed use with existing and anticipated development;
8. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
9. The safety of access to the property in time of flood for ordinary and emergency vehicles;
10. The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site; and
11. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water system, and streets and bridges.

B. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the regulatory flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation. A copy of the notice shall be recorded by the Chief Building Official in the office of the County Recorder for San Bernardino County and shall be recorded in a manner so that it appears in the chain of title to the affected parcel of land.

C. Upon consideration of the factors listed in this section and the purposes of this Chapter, the Planning Commission may attach such conditions to the granting of variances as it deems necessary to further the purposes of this Chapter. The Chief Building Official shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.

15.32.190 Variance conditions.

A. Generally, variances may be issued for new construction and substantial improvements, and other proposed new development to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing Section 15.32.090 through 15.32.170 of the Chapter have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for

issuing the variance increases.

B. Variances may be issued for the reconstruction, rehabilitation or restoration of historic structures listed in the National Register of Historic Places or the State Inventory of Historic Places, upon a determination that the proposed reconstruction, rehabilitation or restoration will not preclude the structure's continued designation as an historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

C. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

D. Variances shall only be issued upon an determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

E. Variances shall be issued upon:

1. A showing of good and sufficient cause;
2. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and
3. A determination that the granting of a variance would not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of, the public or conflict with existing local laws or ordinances.

F. Variances may be issued for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use; provided, that the provisions of this article are satisfied and that the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety and does not create a public nuisance."

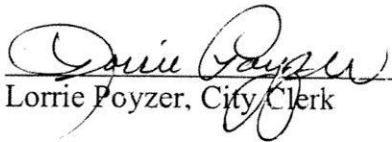
Section 2. This ordinance, and the various parts hereof, are hereby declared to be severable. Should any section of this ordinance be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole, or any portion hereof, other than the section so declared to be unconstitutional or invalid.

Section 3. The Mayor shall sign this ordinance and the City Clerk shall certify to the adoption of this ordinance and shall cause it, or a summary of it, to be published once in the Redlands Daily Facts, a newspaper of general circulation within the City and thereafter, this ordinance shall take effect as provided by law.



Pat Gilbreath, Mayor

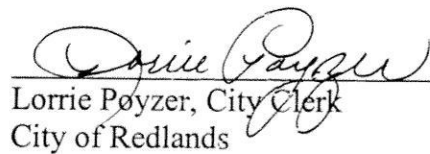
ATTEST:



Lorrie Poyzer, City Clerk

I, Lorrie Poyzer, City Clerk of the City of Redlands, hereby certify that the foregoing ordinance was duly adopted by the City Council at a regular meeting thereof held on the 19th day of June, 2001, by the following vote:

AYES:	Councilmembers George, Freedman, Peppler, Haws; Mayor Gilbreath
NOES:	None
ABSENT:	None
ABSTAIN:	None



Lorrie Poyzer, City Clerk
City of Redlands