

COUNCIL COMMUNICATION

TO: THE CITY COUNCIL
FROM: THE CITY MANAGER'S OFFICE

DATE:

June 3, 1987

NO.

SUBJECT:

ADOPTION OF FLOOD DAMAGE PREVENTION ORDINANCE

RECOMMENDED ACTION:

The City Council adopt a Flood Damage Prevention Ordinance which conforms to the requirements of the Federal Emergency Management Agency (FEMA) and the State Department of Water Resources.

BACKGROUND INFORMATION:

The City of Lodi has had "Floodplain Zoning" in place since 1973 when the City's first flood hazard studies were conducted by state and federal agencies. This zoning classification made our citizens eligible to purchase Flood Insurance and to receive grants and loans from Federal agencies in connection with flood damage.

During the last couple of years FEMA has had a new flood hazard study completed and the results of that study will be in effect June 18, 1987. In order to assure our citizens of continued Flood Insurance and grants and aids, the City Council must adopt a new Ordinance which conforms to Federal and State requirements.

The Model Ordinance which is being recommended to the City Council has no conflicts with our present floodplain management procedures.


James B. Schroeder
Community Development Director

Attachments

DEPARTMENT OF WATER RESOURCES

1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 443-9248



May 4, 1987

TO: Floodplain Administrator

Effective October 1, 1986, the Federal Emergency Management Agency (FEMA) changed some of the rules governing the National Flood Insurance Program (NFIP). These changes were published in the Federal Register dated Monday, August 25, 1986 on pages 30290-30318.

As a participant in the National Flood Insurance Program, your community has agreed to adopt and enforce a floodplain management ordinance which complies with the rules of the NFIP. The recent rule changes will require a revision to your current ordinance. The rules required that each community revise its ordinance by April 1, 1987. The Regional Director of Region IX FEMA has extended this deadline for an unspecified period so that the Department of Water Resources (DWR) may work with California communities on their revisions on behalf of FEMA.

Enclosed is a "model" floodplain management ordinance which fully complies with the current minimum requirements of the NFIP. The model covers all aspects of the program, including some which may not apply to your community. There are instructions at the end to delete sections from the model which are not applicable. Communities are encouraged to retain in their ordinance or to adopt any appropriate aspects which are more stringent than FEMA's minimum standards.

Also enclosed is an Ordinance Review Form to assist you in reviewing the adequacy of your current ordinance. The review form contains 34 items and is organized in the order in which items appear in the NFIP rules. (A copy of the latest NFIP rules is enclosed for ready reference). Below each of the provisions is found: (1) the section number where that provision is found in the NFIP rules; (2) the section number where that provision is found in the model ordinance; and (3) a blank which you fill in with the section number where that provision is to be found in your proposed ordinance.

If a number of changes are needed, or if it is difficult to identify all provisions in your ordinance we encourage you to adopt the model ordinance. When using the model, be sure to consider the appropriate deletions and the more stringent standards you already have which you want to retain.

RECEIVED

MAY 5 1987

Floodplain Administrator
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To ensure that your revised ordinance fully complies with the revised rules, please send within 30 days of receipt of this letter a copy of your proposed ordinance revision plus the completed ordinance review form to:

Department of Water Resources
Central District
3251 S Street
Sacramento, CA 95816
Attn: Matt Hilling

If you need an extension of time or have any questions, please call Matt Hilling at (916) 445-6518.

The ordinance will be reviewed by the District staff and returned to you with their comments. When your updated ordinance is adopted, please send a copy to the Regional Director, Region IX, FEMA; and a copy to the same DWR District Office as above. We thank you for your cooperation and we will make every effort to assist you in the review process.

Sincerely,



A. Jean Brown
State Coordinator, FPM

Enclosures - *F.E.M.A. regulations w/ follow
under separate cover.*



Federal Emergency Management Agency

Washington, D.C. 20472

MAY 18 1987

MAY 21 1987

ALICE J. RINICIO
CITY CLERK
CITY OF LODI

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

The Honorable David Hinchman
Mayor, City of Lodi
San Joaquin County
221 West Pine Street
Lodi, California 95240

Dear Mayor Hinchman:

The National Flood Insurance Program (NFIP) regulations (copy enclosed) require participating communities to adopt certain floodplain management measures. Please consider this an official notice that the City of Lodi has until June 18, 1987, to adopt floodplain management measures which satisfy the requirements of Section 60.3(d) of the regulations and have them approved by our Regional Office. Your community will be suspended from the NFIP effective that date unless these measures are received and approved by then. This will be your final notice of suspension.

I realize that your community may be in the final adoption process, or you may have recently adopted the required measures. These measures, which should be submitted to the Chief, Natural and Technological Hazards Division of the Federal Emergency Management Agency, Presidio of San Francisco, Building 105, San Francisco, California 94129 will be reviewed upon receipt. Our Regional Office staff will inform you of your community's continued eligibility if your measures are approved, or will assist your community if they find your measures to be deficient. As in previous correspondence, we urge you to contact our Regional Office if your community is encountering difficulties in enacting the required measures. Our Regional Office can be reached at (415) 923-7175.

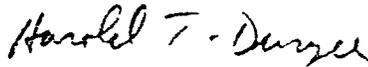
It should be emphasized that flood insurance may not be sold or renewed within suspended communities. In addition, such communities are subject to the provisions of Section 202(a) of Public Law 93-234, as amended. This Section prohibits Federal officers or agencies from approving any form of loan, grant, guaranty, insurance, payment, rebate, subsidy, disaster assistance loan or grant (in connection with a flood), or any other form of direct Federal assistance, other than general or special revenue sharing or formula grants made to States, for acquisition or construction purposes within your community's special flood hazard areas. Included in this prohibition, for example, is the making of mortgage loans guaranteed by the Veterans Administration or insured by the Federal Housing Administration. Approval of mortgage loans, secured by homes or farm buildings, by the Farmers Home Administration is similarly proscribed.

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Section 202(b) of Public Law 93-234, as amended, also requires federally regulated lending institutions to notify, as a condition of making, increasing, extending, or renewing any loan secured by improved real property situated in such special flood hazard areas, the purchaser or lessee of such property of whether, in the event of a disaster caused by flood to such property, Federal disaster relief assistance will be available to such property.

Again, we urge you to contact our Regional Office staff if you need assistance or have any questions.

Sincerely,



Harold T. Duryee
Administrator
Federal Insurance Administration

Enclosure

FLOOD DAMAGE PREVENTION ORDINANCE

SECTION 1.0

STATUTORY AUTHORIZATION, FINDINGS OF FACT,

PURPOSE AND METHODS

1.1 STATUTORY AUTHORIZATION. The Legislature of the State of California has in Government Code Sections 65302, 65560 and 65800 conferred upon local government units authority to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the City Council of the City of Lodi does ordain as follows:

1.2 FINDINGS OF FACT

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

B. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

1.3 STATEMENT OF PURPOSE. It is the purpose of this ordinance to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

A. To protect human life and health;

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

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

D. To minimize prolonged business interruptions;

E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;

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

G. To insure that potential buyers are notified that property is in an area of special flood hazard; and

H. To insure that those who occupy the areas of special flood hazard assume responsibility for their actions.

1.4 METHODS OF REDUCING FLOOD LOSSES. In order to accomplish its purposes, this ordinance includes methods and provisions for:

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

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

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

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

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

SECTION 2.0

DEFINITIONS

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

"Appeal" means a request for a review of the Floodplain Administrator's interpretation of any provision of this ordinance or a request for a variance.

"Area of shallow flooding" means a designated AO, or AH Zone on the Flood Insurance Rate Map (FIRM). 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.

"Area of special flood hazard" - See "Special flood hazard area".

"Base flood" means the flood having a one percent chance of being equalled or exceeded in any given year (also called the "100-year flood").

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

"Breakaway walls" are any type of walls, whether solid or lattice, and whether constructed of concrete, masonry, wood, metal, plastic or any other suitable building material which is not part of the structural support of the building and which is designed to break away under abnormally high tides or wave action without causing any damage to the structural integrity of the building on which they are used or any buildings to which they might be carried by flood waters. A breakaway wall shall have a safe design loading resistance of not less than ten and no more than twenty pounds per square foot. Use of breakaway walls must be certified by a registered engineer or architect and shall meet the following conditions:

1. Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and
2. The elevated portion of the building shall not incur any structural damage due to the effects of wind and water loads acting simultaneously in the event of the base flood.

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

"Flood or flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from (1) the overflow of flood waters, (2) the unusual and rapid accumulation or runoff of surface water from any source, and/or (3) the collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal

tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in this definition.

"Flood Boundary and Floodway Map" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of flood hazard and the floodway.

"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 premium zones applicable to the community.

"Flood Insurance Study" means the official report provided by the Federal Insurance Administration that includes flood profiles, the FIRM, 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 definition of "flooding").

"Floodplain management" means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works and floodplain management regulations.

"Floodplain management regulations" means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

"Floodproofing" means any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate 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. Also referred to as "Regulatory floodway".

"Functionally dependent use" means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

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

"Lowest floor" means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, 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, that such enclosure is not built

so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance.

"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 connected to the required utilities. For floodplain management purposes the term "manufactured home" also includes park trailers, travel trailers and other similar vehicles placed on a site for greater than 180 consecutive days.

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

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

"New construction" means, for floodplain management purposes, structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by this community.

"One hundred year flood" or "100-year flood" means a flood which has a one percent annual probability of being equalled or exceeded. It is identical to the "base flood", which will be the term used throughout this ordinance.

"Person" means an individual or his agent, firm, partnership, association or corporation, or agent of the aforementioned groups, or this state or its agencies or political subdivisions.

"Remedy a violation" means to bring the structure or other development into compliance with State or local floodplain management regulations, or, if this 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 the ordinance or otherwise deterring future similar violations, or reducing Federal financial exposure with regard to the structure or other development.

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

"Special flood hazard area S(SFHA)" means an area having special flood or flood-related erosion hazards, and shown on an FHBM or FIRM as Zone A, AO, A1-30, AE, A99 or AH.

"Start of Construction" includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement, or other improvement was within 180 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 a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, 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 dwelling units or not part of the main structure.

"Structure" means a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

"Substantial improvement" means any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:

- (1) before the improvement or repair is started; or
- (2) if the structure has been damaged, and is being restored, before the damage occurred.

For the purposes of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either:

- (1) any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions; or
- (2) any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

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

"Violation" means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this ordinance is presumed to be in violation until such time as that documentation is provided.

SECTION 3.0

GENERAL PROVISIONS

3.1 LANDS TO WHICH THIS ORDINANCE APPLIES. This ordinance shall apply to all areas of special flood hazards, with the jurisdiction of the City of Lodi.

3.2 BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD. The areas of special flood hazard, identified by the Federal Emergency Management Agency or the Federal Insurance Administration in a scientific and engineering report entitled "Flood Insurance Study for City of Lodi dated June 18, 1987, with an accompanying Flood Insurance Rate map is hereby adopted by reference and declared to be a part of this ordinance. This Flood Insurance Study is on file at City Hall, 221 West Pine Street, Lodi, California 95240. This Flood Insurance Study is the minimum area of applicability of this ordinance and may be supplemented by studies for other areas which allow implementation of this ordinance and which are recommended to the City Council by the Floodplain Administrator.

3.3 COMPLIANCE. No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violations of the provisions of this ordinance 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 herein shall prevent the City Council from taking such lawful action as is necessary to prevent or remedy any violation.

3.4 ABROGATION AND GREATER RESTRICTIONS. This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

3.5 INTERPRETATION. In the interpretation and application of this ordinance, all provisions shall be:

- A. Considered as minimum requirements;
- B. Liberally construed in favor of the governing body; and,
- C. Deemed neither to limit nor repeal any other powers granted under state statutes.

3.6 WARNING AND DISCLAIMER OF LIABILITY. The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance 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 ordinance shall not create liability on the part of City of Lodi, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

3.7 SEVERABILITY This ordinance and the various parts thereof 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 thereof other than the section so declared to be unconstitutional or invalid.

SECTION 4.0

ADMINISTRATION

4.1 ESTABLISHMENT OF DEVELOPMENT PERMIT. A Development Permit shall be obtained before construction or development begins within any area of special flood hazards, established in Section 3.2. Application for a Development Permit shall be made on forms furnished by the Floodplain Administrator 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. Specifically, the following information is required:

- A. Proposed elevation in relation to mean sea level, of the lowest floor (including basement) of all structures; in Zone AO or VO, elevation of highest adjacent grade and proposed elevation of lowest floor of all structures.
- B. Proposed elevation in relation to mean sea level to which any structure will be floodproofed;
- C. All appropriate certifications listed in Section 4.3.D of this ordinance; and
- D. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

4.2 DESIGNATION OF THE FLOODPLAIN ADMINISTRATOR. The Community Development Director is hereby appointed to administer and implement this ordinance by granting or denying development permits in accordance with its provisions.

4.3. DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR. The duties and responsibilities of the floodplain administrator shall include, but not be limited to:

- A. Permit review.
 - 1. Review all development permits to determine that the permit requirements of this ordinance have been satisfied;
 - 2. All other required state and federal permits have been obtained;
 - 3. The site is reasonably safe from flooding.
 - 4. The proposed development does not adversely affect the carrying capacity of the floodway. For purposes of this ordinance, "adversely affects" means that the cumulative effect of the proposed development when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood more than one foot any point.
- B. Use of Other Base Flood Data. When base flood elevation data has not been provided in accordance with Section 3.2., the Floodplain Administrator shall obtain, review, and reasonably utilize any base flood elevation and

floodway data available from a Federal, State or other source, in order to administer Section 5.0. Any such information shall be submitted to the City Council for adoption.

C. Whenever a watercourse is to be altered or relocated:

1. Notify adjacent communities and the California Department of Water Resources prior to such alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration;

2. Require that the flood carrying capacity of the altered or relocated portion of said watercourse is maintained.

D. Obtain and maintain for public inspection and make available as needed:

1. the certification required in Section 5.1.C.1 (floor elevations);

2. the certification required in Section 5.1.C.2 (elevations in areas of shallow flooding);

3. the certification required in Section 5.1.C.3.c (elevation or floodproofing of nonresidential structures);

4. the certification required in Section 5.1.C.4.a or 5.1.C.4.b (wet floodproofing standard);

5. the certified elevation required in Section 5.3.B (subdivision standards);

6. the certification required in Section 5.5A (floodway encroachments).

E. 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). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 6.0-.

F. Take action to remedy violations of this ordinance as specified in Section 3.3 herein.

SECTION 5.0

PROVISIONS FOR FLOOD HAZARD REDUCTION

5.1 STANDARDS OF CONSTRUCTION. 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 5.4.

B. Construction Materials and Methods.

1. All new construction and substantial improvements shall be constructed with 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.
4. Require within Zones AH or AO adequate drainage paths around structures on slopes to guide flood waters around and away from proposed structures.

C. Elevation and Floodproofing

1. New construction and substantial improvement of any structure shall have the lowest floor, including basement, elevated to or above the base flood elevation. Nonresidential structures may meet the standards in Section 5.1.C.3. 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 community building inspector to be properly elevated. Such certification or verification shall be provided to the Floodplain Administrator.
2. New construction and substantial improvement of any structure in zone AH or AO shall have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as the depth number specified in feet on the FIRM, or at least two feet if no depth number is specified. Nonresidential structures may meet the standards in

Section 5.1.C.3. 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 community building inspector to be properly elevated. Such certification or verification shall be provided to the Floodplain Administrator.

3. Nonresidential construction shall either be elevated in conformance with Section 5.1.C.1. or 2., or together with attendant utility and sanitary facilities:

- a. be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;
- b. have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
- c. be certified by a registered professional engineer or architect that the standards of this subsection are satisfied. Such certifications shall be provided to the Floodplain Administrator.

4. Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are subject to flooding 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 meet or exceed the following minimum criteria:

- a. Either 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 shall be provided. 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 floodwaters; or
- b. Be certified to comply with a local floodproofing standard approved by the Federal Insurance Administration.

5. Manufactured homes shall also meet the standards in Section 5.4.

5.2 STANDARDS FOR UTILITIES

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 systems into flood waters.

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

5.3 STANDARDS FOR SUBDIVISIONS.

- A. All preliminary subdivision proposals shall identify the flood hazard area and the elevation of the base flood.
- B. All final subdivision plans will provide the elevation of proposed structure(s) and pads. If the site is filled above the base flood, the final pad elevation shall be certified by a registered professional engineer or surveyor and provided to the Floodplain Administrator.
- 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.

5.4 STANDARDS FOR MANUFACTURED HOMES. All new and replacement manufactured homes and additions to manufactured homes shall:

- A. Be elevated so that the lowest floor is at or above the base flood elevation; and
- B. Be securely anchored to a permanent foundation system to resist flotation, collapse or lateral movement.

5.5 FLOODWAYS. Located within areas of special flood hazard established in Section 3.2 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood water which carry debris, potential projectiles, and erosion potential, the following provisions 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 flood levels during the occurrence of the base flood discharge.
- B. If Section 5.5.A is satisfied, all new construction and substantial improvements shall comply with all other applicable flood hazard reduction provisions of Section 5.

SECTION 6.0
VARIANCE PROCEDURES

6.1 APPEAL BOARD

A. The City Council of City of Lodi shall hear and decide appeals and requests for variances from the requirements of this ordinance.

B. The City Council shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Floodplain Administrator in the enforcement or administration of this ordinance.

C. In passing upon such applications, the City Council shall consider all technical evaluations, all relevant factors, standards specified in other sections of this ordinance, 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 individual owner;
4. the importance of the services provided by the proposed facility to the community;
5. the necessity to 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.

D. Generally, variances may be issued for new construction and substantial improvements 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 items 6.1.C.1. through 6.1.C.11 have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.

E. Upon consideration of the factors of Section 6.1.C and the purposes of this ordinance, the City Council may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.

F. The Floodplain Administrator shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.

6.2 CONDITIONS FOR VARIANCES

A. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed in the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this section.

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

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

D. Variances shall only 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 will 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.

E. 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 Sections 6.2.A through 6.2.D 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.

F. 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 flood 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 flood elevation. A copy of the notice shall be recorded by the Floodplain Board in the office of the San Joaquin County Recorder and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.

NATIONAL FLOOD INSURANCE PROGRAM
AND RELATED REGULATIONS

Revised as of October 1, 1985



Federal Emergency Management Agency

§ 60.2 Minimum compliance with flood plain management criteria.

(a) A flood-prone community applying for flood insurance eligibility shall meet the standards of § 60.3(a) in order to become eligible if a FHBM has not been issued for the community at the time of application. Thereafter, the community will be given a period of six months from the date the Administrator provides the data set forth in § 60.3 (b), (c), (d), or (e) in which to meet the requirements of the applicable paragraph. If a community has received a FHBM, but has not yet applied for Program eligibility, the community shall apply for eligibility directly under the standards set forth in § 60.3(b). Thereafter, the community will be given a period of six months from the date the Administrator provides the data set forth in § 60.3 (c), (d), or (e) in which to meet the requirements of the applicable paragraph.

(b) A mudslide (i.e., mudflow)-prone community applying for flood insurance eligibility shall meet the standards of § 60.4(a) to become eligible. Thereafter, the community will be given a period of six months from the date the mudslide (i.e., mudflow) areas having special mudslide hazards are delineated in which to meet the requirements of § 60.4(b).

(c) A flood-related erosion-prone community applying for flood insurance eligibility shall meet the standards of § 60.5(a) to become eligible. Thereafter, the community will be given a period of six months from the date the flood-related erosion areas having special erosion hazards are delineated in which to meet the requirements of § 60.5(b).

(d) Communities identified in Part 65 of this subchapter as containing more than one type of hazard (e.g., any combination of special flood, mudslide (i.e., mudflow), and flood-related erosion hazard areas) shall adopt flood plain management regulations for each type of hazard consistent with the requirements of §§ 60.3, 60.4 and 60.5.

(e) Local flood plain management regulations may be submitted to the State Coordinating Agency designated pursuant to § 60.25 for its advice and

concurrence. The submission to the State shall clearly describe proposed enforcement procedures.

(f) The community official responsible for submitting annual or biennial reports to the Administrator pursuant to § 59.22(b)(2) of this subchapter shall also submit copies of each annual or biennial report to any State Coordinating Agency.

(g) A community shall assure that its comprehensive plan is consistent with the flood plain management objectives of this part.

(h) The community shall adopt and enforce flood plain management regulations based on data provided by the Administrator. Without prior approval of the Administrator, the community shall not adopt and enforce flood plain management regulations based upon modified data reflecting natural or man-made physical changes.

[41 FR 46975, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, and amended at 48 FR 29318, June 24, 1983; 48 FR 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984; 50 FR 36024, Sept. 4, 1985]

EFFECTIVE DATE NOTE: At 50 FR 36024, Sept. 4, 1985, § 60.2(f), was amended by adding, after the word "annual" both times it appears the phrase, "or biennial", effective January 1, 1986.

§ 60.3 Flood plain management criteria for flood-prone areas.

The Administrator will provide the data upon which flood plain management regulations shall be based. If the Administrator has not provided sufficient data to furnish a basis for these regulations in a particular community, the community shall obtain, review and reasonably utilize data available from other Federal, State or other sources pending receipt of data from the Administrator. However, when special flood hazard area designations and water surface elevations have been furnished by the Administrator, they shall apply. The symbols defining such special flood hazard designations are set forth in § 64.3 of this subchapter. In all cases the minimum requirements governing the adequacy of the flood plain management regulations for flood-prone areas adopted by a particular community depend on the amount of technical data formally

provided to the community by the Administrator. Minimum standards for communities are as follows:

(a) When the Administrator has not defined the special flood hazard areas within a community, has not provided water surface elevation data, and has not provided sufficient data to identify the floodway or coastal high hazard area, but the community has indicated the presence of such hazards by submitting an application to participate in the Program, the community shall:

(1) Require permits for all proposed construction or other development in the community, including the placement of mobile homes, so that it may determine whether such construction or other development is proposed within flood-prone areas;

(2) Review proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334;

(3) Review all permit applications to determine whether proposed building sites will be reasonably safe from flooding. If a proposed building site is in a flood-prone area, all new construction and substantial improvements (including the placement of prefabricated buildings and mobile homes) shall (i) be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure, (ii) be constructed with materials and utility equipment resistant to flood damage, and (iii) be constructed by methods and practices that minimize flood damage;

(4) Review subdivision proposals and other proposed new development to determine whether such proposals will be reasonably safe from flooding. If a subdivision proposal or other proposed new development is in a flood-prone area, any such proposals shall be reviewed to assure that (i) all such proposals are consistent with the need to minimize flood damage within the flood-prone area, (ii) all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage, and (iii) adequate

drainage is provided to reduce exposure to flood hazards;

(5) Require within flood-prone areas new and replacement water supply systems to be designed to minimize or eliminate infiltration of flood waters into the systems; and

(6) Require within flood-prone areas (i) new and replacement sanitary sewage systems to be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters and (ii) onsite waste disposal systems to be located to avoid impairment to them or contamination from them during flooding.

(b) When the Administrator has designated areas of special flood hazards (A zones) by the publication of a community's FHBM or FIRM, but has neither produced water surface elevation data nor identified a floodway or coastal high hazard area, the community shall:

(1) Require permits for all proposed construction and other developments including the placement of mobile homes, within Zone A on the community's FHBM or FIRM;

(2) Require the application of the standards in paragraphs (a) (2), (3), (4), (5) and (6) of this section to development within Zone A on the community's FHBM or FIRM;

(3) Require that all subdivision proposals and other proposed new developments greater than 50 lots or 5 acres, whichever is the lesser, in the within such proposals base flood elevation data;

(4) Obtain, review, and reasonably utilize any base flood elevation data available from a Federal, State, or other source, until such other data has been provided by the Administrator, as criteria for requiring that (i) all new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated to or above the base flood level and (ii) all new construction and substantial improvements of nonresidential structures have the lowest floor (including basement) elevated or floodproofed to or above the base flood level;

(5) Within Zone A on a community's FHBM or FIRM: (i) Obtain the eleva-

tion (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not such structures contain a basement, (ii) obtain, if the structure has been floodproofed, the elevation (in relation to mean sea level) to which the structure was floodproofed, and (iii) maintain a record of all such information with the official designated by the community under § 59.22(a)(9)(iii);

(6) Notify, in riverine situations, adjacent communities and the State Coordinating Office prior to any alteration or relocation of a watercourse, and submit copies of such notifications to the Administrator;

(7) Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained;

(8) Require that all mobile homes to be placed within Zone A on a community's FHBM or FIRM shall be installed using methods and practices which minimize flood damage. For the purposes of this requirement, mobile homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not to be limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.

(9) Require that an evacuation plan indicating alternate vehicular access and escape routes be filed with appropriate Disaster Preparedness Authorities for mobile home parks and mobile home subdivisions located within Zone A on the community's FHBM or FIRM.

(c) When the Administrator has provided a notice of final flood elevations for one or more special flood hazard areas on the community's FIRM and, if appropriate, has designated other special flood hazard areas without base flood elevations on the community's FIRM, but has not identified a regulatory floodway or coastal high hazard area, the community shall:

(1) Require the standards of paragraph (b) of this section within all A1-30 zones, AE zones, A zones, AH zones,

and AO zones, on the community's FIRM;

(2) Require that all new construction and substantial improvements of residential structures within Zones A1-30, AE and AH zones on the community's FIRM have the lowest floor (including basement) elevated to or above the base flood level, unless the community is granted an exception by the Administrator for the allowance of basements and/or storm cellars in accordance with § 60.6(b)(3) and (b)(4);

(3) Require that all new construction and substantial improvements of non-residential structures within Zones A1-30, AE and AH zones on the community's firm (i) have the lowest floor (including basement) elevated to or above the base flood level or, (ii) together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;

(4) Provide that where a non-residential structure is intended to be made watertight below the base flood level, (i) a registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice for meeting the applicable provisions of paragraph (c)(3)(ii) or (c)(8)(ii) of this section, and (ii) a record of such certificates which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained with the official designated by the community under § 59.22(a)(9)(iii);

(5) Require that all mobile homes to be placed within Zones A1-30 and AE on the community's FIRM in new mobile home parks and mobile home subdivisions, in expansions to existing mobile home parks and mobile home subdivisions, and in existing mobile home parks and mobile home subdivisions where the repair, reconstruction or improvement of the streets, utilities

and pads equals or exceeds 50% of the value of the streets, utilities and pads before the repair, reconstruction or improvement has commenced, have the lowest floor of the mobile home elevated to or above the base flood level.

(6) Require that all mobile homes to be placed within Zones A1-30 and AE on the community's FIRM, which are not to be placed into a mobile home park or mobile home subdivision, have the lowest floor of the mobile home elevated to or above the base flood level.

(7) Require within any AO zone on the community's FIRM that all new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified);

(8) Require within any AO zone on the community's FIRM that all new construction and substantial improvements of nonresidential structures (i) have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified), or (ii) together with attendant utility and sanitary facilities be completely floodproofed to that level to meet the floodproofing standard specified in § 60.3(c)(3)(ii);

(9) Require within any A99 zones on a community's FIRM the standards of paragraphs (a)(1) through (a)(4)(i) and (b)(5) through (b)(9) of this section;

(10) Require until a regulatory floodway is designated, that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

(11) Require within Zones AH and AO, adequate drainage paths around structures on slopes, to guide floodwaters around and away from proposed structures.

(d) When the Administrator has provided a notice of final base flood elevations within Zones A1-30 and/or AE on the community's FIRM and, if appropriate, has designated AO zones, AH zones, A99 zones, and A zones on the community's FIRM, and has provided data from which the community shall designate its regulatory floodway, the community shall:

(1) Meet the requirements of paragraphs (c) (1) through (11) of this section;

(2) Select and adopt a regulatory floodway based on the principle that the area chosen for the regulatory floodway must be designed to carry the waters of the base flood, without increasing the water surface elevation of that flood more than one foot at any point;

(3) Prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway that would result in any increase in flood levels within the community during the occurrence of the base flood discharge;

(4) Prohibit the placement of any mobile homes, except in an existing mobile home park or mobile home subdivision, within the adopted regulatory floodway.

(e) When the Administrator has provided a notice of final base flood elevations within Zones A1-30 and/or AE on the community's FIRM and, if appropriate, has designated AH zones, AO zones, A99 zones, and A zones on the community's FIRM, and has identified on the community's FIRM coastal high hazard areas by designating Zones V1-30, VE, and/or V, the community shall:

(1) Meet the requirements of paragraphs (c)(1) through (11) of this section;

(2) Within Zones V1-30, VE, and V on a community's FIRM, (i) obtain the elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings and columns) of all

new and substantially improved structures, and whether or not such structures contain a basement, and (ii) maintain a record of all such information with the official designated by the community under § 59.22(a)(9)(iii);

(3) Provide that all new construction within Zones V1-30, VE, and V on the community's FIRM is located landward of the reach of mean high tide;

(4) Provide that all new construction and substantial improvements in Zones V1-30 and VE, and also Zone V of base flood elevation data is available, on the community's FIRM, are elevated on pilings and columns so that (i) the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to or above the base flood level; and (ii) the pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Wind and water loading values shall each have a one percent chance of being equalled or exceeded in any given year (100-year mean recurrence interval). A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of paragraphs (4)(i) and (ii) of this section.

(5) Provide that all new construction and substantial improvements within Zones V1-30, VE, and V on the community's FIRM have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. For the purposes of this section, a breakaway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot. The design of breakaway walls which exceed a design safe loading resistance of 20

pounds per square foot (either by design or when so required by local or State codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:

(i) Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and,

(ii) The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and non-structural). Maximum wind and water loading values to be used in this determination shall each have one percent chance of being equalled or exceeded in any given year (100-year mean recurrence interval).

Such enclosed space shall be useable solely for parking of vehicles, building access, or storage.

(6) Prohibit the use of fill for structural support of buildings within Zones V1-30, VE, and V on the community's FIRM;

(7) Prohibit the placement of mobile homes, except in existing mobile home parks and mobile home subdivisions, within Zones V1-30, VE, and V on the community's FIRM;

(8) Prohibit man-made alteration of sand dunes and mangrove stands within Zones V1-30, VE, and V on the community's FIRM which would increase potential flood damage.

[41 FR 46975, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, and amended at 46 FR 1274, Jan. 6, 1981; 48 FR 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984; 49 FR 33656, Aug. 24, 1984; 50 FR 36024, Sept. 4, 1985]

EFFECTIVE DATE NOTE: At 50 FR 36024, Sept. 4, 1985, § 60.3 was amended as follows, effective January 1, 1986:

(1) By adding after "FIRM" the phrase "or FIRM" in paragraphs (b) introductory text, (b)(1), (2), (5), and (9).

(2) By removing in paragraph (b)(5) the words "For the purpose of the determination of applicable flood insurance risk premium rates within" and adding in their place the word "within".

(3) By removing in paragraph (c)(1) the word "unnumbered" and adding in its place the phrase "AE zones";

(4) By adding after the phrase "A1-30" the phrase ", AE" in paragraphs (c)(2) and (3).

(5) By adding after the phrase "A1-30" the phrase "and AE" in paragraph (c)(10).

(6) In paragraph (d) by adding after the phrase "A1-30" the phrase "and/or AE" and by removing the phrase "A99 zones and unnumbered" and adding in its place the phrase ", AH zones, A99 zones, and";

(7) In paragraph (d)(1) by removing the phrase "(c)(9)" and adding in its place the phrase "(c)(11)";

(8) Also in § 60.3, paragraphs (b)(8), (c)(4), (5), (6) and (e) were revised, effective January 1, 1986. For the convenience of the user, the superseded text is set forth as follows:

§ 60.3 Flood plain management criteria for flood-prone areas.

(b) ...

...

(8) Require that all mobile homes to be placed within Zone A on a community's FIRM shall be anchored to resist flotation, collapse, or lateral movement by providing over-the-top and frame ties to ground anchors. Specific requirements shall be that (i) over-the-top ties be provided at each of the four corners of the mobile home, with two additional ties per side at intermediate locations and mobile homes less than 50 feet long requiring one additional tie per side; (ii) frame ties be provided at each corner of the home with five additional ties per side at intermediate points and mobile homes less than 50 feet long requiring four additional ties per side; (iii) all components of the anchoring system be capable of carrying a force of 4,800 pounds; and (iv) any additions to the mobile home be similarly anchored;

(c) ...

...

(4) Provide that where floodproofing is utilized for a particular structure in accordance with paragraphs (c) (3) and (8) of this section or (b)(3) of § 60.6 either (i) a registered professional engineer or architect shall certify that the floodproofing methods are adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the base flood, and a record of such certificates

indicating the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained with the official designated by the community under § 59.22(a)(9) (iii); or, (ii) a certified copy of a local regulation containing detailed flood-proofing specifications which satisfy the watertight performance standards of paragraph (c)(3) of this section or (b)(3) of § 60.6 shall be submitted to the Administrator for approval;

(5) Require within Zones A1-30 on the community's FIRM for new mobile home parks and mobile home subdivisions, for expansions to existing mobile home parks and mobile home subdivisions, and for existing mobile home parks and mobile home subdivisions where the repair, reconstruction or improvement of the streets, utilities and pads equals or exceeds 50% of the value of the streets, utilities and pads before repair, reconstruction or improvement has commenced, that (i) stands or lots are elevated on compacted fill or on pilings so that the lowest floor of the mobile home will be at or above the base flood level, (ii) adequate surface drainage and access for a hauler are provided, and (iii) in the instance of elevation on pilings, lots are large enough to permit steps, piling foundations are placed in stable soil no more than ten feet apart, and reinforcement is provided for pilings more than six feet above the ground level;

(6) Require for all mobile homes to be placed within Zones A1-30 on the community's FIRM, but not into a mobile home park or mobile home subdivision that (i) stands or lots are elevated on compacted fill or on pilings so that the lowest floor of the mobile home will be at or above the base flood level, (ii) adequate surface drainage and access for a hauler are provided, and (iii) in the instance of elevation on pilings, lots are large enough to permit steps, piling foundations are placed in stable soil no more than 10 feet apart, and reinforcement is provided for piers more than six feet above ground level;

(e) When the Administrator has provided a notice of final base flood elevations within Zones A1-30 on the community's FIRM and, if appropriate, has designated AO zones, A99 zones and unnumbered A zones on the community's FIRM, and has identified on the community's FIRM Zone V1-30 (coastal high hazard area), the community shall:

(1) Meet the requirements of paragraphs (c) (1) through (10) of this section;

(2) For the purpose of the determination of applicable flood insurance risk premium rates within Zone V1-30 on a community's FIRM: (i) Obtain the elevation (in relation

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to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not such structures contain a basement, (ii) obtain, if the structure has been flood-proofed, the elevation (in relation to mean sea level) to which the structure was flood-proofed, and (iii) maintain a record of all such information with the official designated by the community under § 59.22(a)(9)(iii);

(3) Provide that all new construction within Zones V1-30 on the community's FIRM is located landward of the reach of mean high tide;

(4) Provide (i) that all new construction and substantial improvements within Zones V1-30 on the community's FIRM are elevated on adequately anchored pilings or columns, and securely anchored to such piles or columns so that the lowest portion of the structural members of the lowest floor (excluding the pilings or columns) is elevated to or above the base flood level and (ii) that a registered professional engineer or architect certify that the structure is securely anchored to adequately anchored pilings or columns in order to withstand velocity waters and hurricane wave wash;

(5) Provide that all new construction and substantial improvements within Zones V1-30 on the community's FIRM have the space below the lowest floor free of obstructions or be constructed with "breakaway walls" intended to collapse under stress without jeopardizing the structural support of the structure so that the impact on the structure by abnormally high tides or wind-driven water is minimized. Such temporarily enclosed space shall not be used for human habitation;

(6) Prohibit the use of fill for structural support of buildings within Zones V1-30 on the community's FIRM;

(7) Prohibit the placement of mobile homes, except in existing mobile home parks and mobile home subdivisions, within Zones V1-30 on the community's FIRM;

(8) Prohibit man-made alteration of sand dunes and mangrove stands within Zones V1-30 on the community's FIRM which would increase potential flood damage.

§ 60.4 Flood plain management criteria for mudslide (i.e., mudflow)-prone areas.

The Administrator will provide the data upon which flood plain management regulations shall be based. If the Administrator has not provided sufficient data to furnish a basis for these regulations in a particular community, the community shall obtain, review, and reasonably utilize data available from other Federal, State or other

44 CFR Ch. I (10-1-85 Edition)

sources pending receipt of data from the Administrator. However, when special mudslide (i.e., mudflow) hazard area designations have been furnished by the Administrator, they shall apply. The symbols defining such special mudslide (i.e., mudflow) hazard designations are set forth in § 64.3 of this subchapter. In all cases, the minimum requirements for mudslide (i.e., mudflow)-prone areas adopted by a particular community depend on the amount of technical data provided to the community by the Administrator. Minimum standards for communities are as follows:

(a) When the Administrator has not yet identified any area within the community as an area having special mudslide (i.e., mudflow) hazards, but the community has indicated the presence of such hazards by submitting an application to participate in the Program, the community shall

(1) Require permits for all proposed construction or other development in the community so that it may determine whether development is proposed within mudslide (i.e., mudflow)-prone areas;

(2) Require review of each permit application to determine whether the proposed site and improvements will be reasonably safe from mudslides (i.e., mudflows). Factors to be considered in making such a determination should include but not be limited to (i) the type and quality of soils, (ii) any evidence of ground water or surface water problems, (iii) the depth and quality of any fill, (iv) the overall slope of the site, and (v) the weight that any proposed structure will impose on the slope;

(3) Require, if a proposed site and improvements are in a location that may have mudslide (i.e., mudflow) hazards, that (i) a site investigation and further review be made by persons qualified in geology and soils engineering, (ii) the proposed grading, excavations, new construction, and substantial improvements are adequately designed and protected against mudslide (i.e., mudflow) damages, (iii) the proposed grading, excavations, new construction and substantial improvements do not aggravate the existing hazard by creating either on-site or

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off-site disturbances, and (iv) drainage, planting, watering, and maintenance be such as not to endanger slope stability.

(b) When the Administrator has delineated Zone M on the community's FIRM, the community shall:

(1) Meet the requirements of paragraph (a) of this section; and

(2) Adopt and enforce a grading ordinance or regulation in accordance with data supplied by the Administrator which (i) regulates the location of foundation systems and utility systems of new construction and substantial improvements, (ii) regulates the location, drainage and maintenance of all excavations, cuts and fills and planted slopes, (iii) provides special requirements for protective measures including but not necessarily limited to retaining walls, buttress fills, sub-drains, diverter terraces, benchings, etc., and (iv) requires engineering drawings and specifications to be submitted for all corrective measures, accompanied by supporting soils engineering and geology reports. Guidance may be obtained from the provisions of the 1973 edition and any subsequent edition of the Uniform Building Code, sections 7001 through 7006, and 7008 through 7015. The Uniform Building Code is published by the International Conference of Building Officials, 50 South Los Robles, Pasadena, California 91101.

[41 FR 46975, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, and amended at 48 FR 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984]

§ 60.5 Flood plain management criteria for flood-related erosion-prone areas.

The Administrator will provide the data upon which flood plain management regulations for flood-related erosion-prone areas shall be based. If the Administrator has not provided sufficient data to furnish a basis for these regulations in a particular community, the community shall obtain, review, and reasonably utilize data available from other Federal, State or other sources, pending receipt of data from the Administrator. However, when special flood-related erosion hazard area designations have been furnished by the Administrator they shall apply.

The symbols defining such special flood-related erosion hazard designations are set forth in § 64.3 of this subchapter. In all cases the minimum requirements governing the adequacy of the flood plain management regulations for flood-related erosion-prone areas adopted by a particular community depend on the amount of technical data provided to the community by the Administrator. Minimum standards for communities are as follows:

(a) When the Administrator has not yet identified any area within the community as having special flood-related erosion hazards, but the community has indicated the presence of such hazards by submitting an application to participate in the Program the community shall

(1) Require the issuance of a permit for all proposed construction, or other development in the area of flood-related erosion hazard, as it is known to the community;

(2) Require review of each permit application to determine whether the proposed site alterations and improvements will be reasonably safe from flood-related erosion and will not cause flood-related erosion hazards or otherwise aggravate the existing flood related erosion hazard; and

(3) If a proposed improvement is found to be in the path of flood-related erosion or to increase the erosion hazard, require the improvement to be relocated or adequate protective measures to be taken which will not aggravate the existing erosion hazard

(b) When the Administrator has delineated Zone E on the community's FIRM, the community shall

(1) Meet the requirements of paragraph (a) of this section; and

(2) Require a setback for all new development from the ocean, lake, bay, riverfront or other body of water, to create a safety buffer consisting of natural vegetative or contour strip. This buffer will be designated by the Administrator according to the flood related erosion hazard and erosion rate, in conjunction with the anticipated "useful life" of structures, and depending upon the geologic, hydrologic, topographic and climatic characteristics of the community's land. The buffer may be used for suitable open

MEMORANDUM

TO: Tom Peterson, City Manager
FROM: Bob HoIm, Finance Director
DATE: May 27, 1987
SUBJECT: Downtown Parking Study--
N.W. Corner Locust & School Streets

The request to change from two hour parking to three hour parking at the N.W. corner of Locust and School Streets would be difficult to enforce, especially during the times we send one Parking Enforcement Assistant to the P.C.P. cannery area, June 1, to March 31, or when only one is on duty, i.e., Saturdays and Mondays or when one is on paid absence. We are presently enforcing four hour parking (east side Lot #5) and two hour parking (all of the downtown district).

The addition of a three hour parking area not only complicates an already complex patrol schedule but also opens the door for additional exceptions in the downtown area.

ORDINANCE NO. 1400

AN ORDINANCE OF THE LODI CITY COUNCIL
ENACTING A FLOOD DAMAGE PREVENTION ORDINANCE
PURSUANT TO GOVERNMENT CODE §§65302, 65560 AND 65800

BE IT ORDAINED BY THE LODI CITY COUNCIL.

SECTION 1. The Lodi Municipal Code is hereby amended to add a new Chapter relating to Flood damage prevention, pursuant to Government Code §§65302, 65560 and 65800, as hereinafter set forth:

____ STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND METHODS.

STATUTORY AUTHORIZATION. The Legislature of the State of California has in Government Code Sections 65302, 65560 and 65800 conferred upon local government units authority to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the City Council of the City of Lodi does ordain as follows:

____ FINDINGS OF FACT

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

B. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

____ STATEMENT OF PURPOSE. It is the purpose of this ordinance to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

A. To protect human life and health;

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

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

- D. To minimize prolonged business interruptions;
- E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
- F. To help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;
- G. To insure that potential buyers are notified that property is in an area of special flood hazard; and
- H. To insure that those who occupy the areas of special flood hazard assume responsibility for their actions.

 METHODS OF REDUCING FLOOD LOSSES. In order to accomplish its purposes, this ordinance includes methods and provisions for:

- A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;
- B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- D. Controlling filling, grading, dredging, and other development which may increase flood damage; and,
- E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

 DEFINITIONS.

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

"Appeal" means a request for a review of the Floodplain Administrator's interpretation of any provision of this ordinance or a request for a variance.

"Area of shallow flooding" means a designated AO, or AH Zone on the Flood Insurance Rate Map (FIRM). 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.

"Area of special flood hazard" - See "Special flood hazard area".

"Base flood" means the flood having a one percent chance of being equalled or exceeded in any given year (also called the "100-year flood").

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

"Breakaway walls" are any type of walls, whether solid or lattice, and whether constructed of concrete, masonry, wood, metal, plastic or any other suitable building material which is not part of the structural support of the building and which is designed to break away under abnormally high tides or wave action without causing any damage to the structural integrity of the building on which they are used or any buildings to which they might be carried by flood waters. A breakaway wall shall have a safe design loading resistance of not less than ten and no more than twenty pounds per square foot. Use of breakaway walls must be certified by a registered engineer or architect and shall meet the following conditions:

1. Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and
2. The elevated portion of the building shall not incur any structural damage due to the effects of wind and water loads acting simultaneously in the event of the base flood.

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

"Flood or flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from (1) the overflow of flood waters, (2) the unusual and rapid accumulation or runoff of surface water from any source, and/or (3) the collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in this definition.

"Flood Boundary and Floodway Map" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of flood hazard and the floodway.

"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 premium zones applicable to the community.

"Flood Insurance Study" means the official report provided by the Federal Insurance Administration that includes flood profiles, the FIRM, 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 definition of "flooding").

"Floodplain management" means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works and floodplain management regulations.

"Floodplain management regulations" means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

"Floodproofing" means any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate 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. Also referred to as "Regulatory floodway".

"Functionally dependent use" means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

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

"Lowest floor" means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, 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, that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance.

"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 connected to the required utilities. For floodplain management purposes the term "manufactured home" also includes park trailers, travel trailers and other similar vehicles placed on a site for greater than 180 consecutive days.

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

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

"New construction" means, for floodplain management purposes, structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by this community.

"One hundred year flood" or "100-year flood" means a flood which has a one percent annual probability of being equalled or exceeded. It is identical to the "base flood", which will be the term used throughout this ordinance.

"Person" means an individual or his agent, firm, partnership, association or corporation, or agent of the aforementioned groups, or this state or its agencies or political subdivisions.

"Remedy a violation" means to bring the structure or other development into compliance with State or local floodplain management regulations, or, if this 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 the ordinance or otherwise deterring future similar violations, or reducing Federal financial exposure with regard to the structure or other development.

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

"Special flood hazard area S(SFHA)" means an area having special flood or flood-related erosion hazards, and shown on an FHM or FIRM as Zone A, AO, A1-30, AE, A99 or AH.

"Start of Construction" includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement, or other improvement was within 180 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 a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, 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 dwelling units or not part of the main structure.

"Structure" means a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

"Substantial improvement" means any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:

- (1) before the improvement or repair is started; or
- (2) if the structure has been damaged, and is being restored, before the damage occurred.

For the purposes of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either:

- (1) any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions; or
- (2) any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

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

"Violation" means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this ordinance is presumed to be in violation until such time as that documentation is provided.

GENERAL PROVISIONS

 LANDS TO WHICH THIS ORDINANCE APPLIES. This ordinance shall apply to all areas of special flood hazards, with the jurisdiction of the City of Lodi.

 BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD. The areas of special flood hazard, identified by the Federal Emergency Management Agency or the Federal Insurance Administration in a scientific and engineering report entitled "Flood Insurance Study for City of Lodi dated June 18, 1987, with an accompanying Flood Insurance Rate map is hereby adopted by reference and declared to be a part of this ordinance. This Flood Insurance Study is on file at City Hall, 221 West Pine Street, Lodi, California 95240. This Flood Insurance Study is the minimum area of applicability of this ordinance and may be supplemented by studies for other areas which allow implementation of this ordinance and which are recommended to the City Council by the Floodplain Administrator.

 COMPLIANCE. No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violations of the provisions of this ordinance 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 herein shall prevent the City Council from taking such lawful action as is necessary to prevent or remedy any violation.

 ABROGATION AND GREATER RESTRICTIONS. This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

 INTERPRETATION. In the interpretation and application of this ordinance, all provisions shall be:

- A. Considered as minimum requirements;
- B. Liberally construed in favor of the governing body; and,
- C. Deemed neither to limit nor repeal any other powers granted under state statutes.

 WARNING AND DISCLAIMER OF LIABILITY. The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance 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 ordinance shall not create liability on the

part of City of Lodi, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

SEVERABILITY This ordinance and the various parts thereof 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 thereof other than the section so declared to be unconstitutional or invalid.

ADMINISTRATION

ESTABLISHMENT OF DEVELOPMENT PERMIT. A Development Permit shall be obtained before construction or development begins within any area of special flood hazards, established in Section _____. Application for a Development Permit shall be made on forms furnished by the Floodplain Administrator 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. Specifically, the following information is required:

- A. Proposed elevation in relation to mean sea level, of the lowest floor (including basement) of all structures; in Zone AO or VO, elevation of highest adjacent grade and proposed elevation of lowest floor of all structures.
- B. Proposed elevation in relation to mean sea level to which any structure will be floodproofed;
- C. All appropriate certifications listed in Section _____ of this ordinance; and
- D. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

DESIGNATION OF THE FLOODPLAIN ADMINISTRATOR. The Community Development Director is hereby appointed to administer and implement this ordinance by granting or denying development permits in accordance with its provisions.

DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR. The duties and responsibilities of the floodplain administrator shall include, but not be limited to:

A. Permit review.

1. Review all development permits to determine that the permit requirements of this ordinance have been satisfied;

2. All other required state and federal permits have been obtained;

3. The site is reasonably safe from flooding.

4. The proposed development does not adversely affect the carrying capacity of the floodway. For purposes of this ordinance, "adversely affects" means that the cumulative effect of the proposed development when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood more than one foot any point.

B. Use of Other Base Flood Data. When base flood elevation data has not been provided in accordance with Section _____, the Floodplain Administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source, in order to administer Section _____. Any such information shall be submitted to the City Council for adoption.

C. Whenever a watercourse is to be altered or relocated:

1. Notify adjacent communities and the California Department of Water Resources prior to such alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration;

2. Require that the flood carrying capacity of the altered or relocated portion of said watercourse is maintained.,

D. Obtain and maintain for public inspection and make available as needed:

1. the certification required in Section _____ (floor elevations);

2. the certification required in Section _____ (elevations in areas of shallow flooding);

3. the certification required in Section _____ (elevation or floodproofing of nonresidential structures);

4. the certification required in Section _____ or _____ (wet floodproofing standard);

5. the certified elevation required in Section _____ (subdivision standards);

6. the certification required in Section _____ (floodway encroachments).

E. 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). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section _____.

F. Take action to remedy violations of this ordinance as specified in Section _____ herein.

____ PROVISIONS FOR FLOOD HAZARD REDUCTION

____ STANDARDS OF CONSTRUCTION. 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 _____.

B. Construction Materials and Methods.

1. All new construction and substantial improvements shall be constructed with 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.

4. Require within Zones AH or AO adequate drainage paths around structures on slopes to guide flood waters around and away from proposed structures.

C. Elevation and Floodproofing

1. New construction and substantial improvement of any structure shall have the lowest floor, including basement, elevated to or above the base flood elevation. Nonresidential structures may meet the standards in Section _____. 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 community building inspector to be properly elevated. Such certification or verification shall be provided to the Floodplain Administrator.

2. New construction and substantial improvement of any structure in zone AH or AO shall have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as the depth number specified in feet on the FIRM, or at least two feet if no depth number is specified. Nonresidential structures may meet the standards in Section _____. 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 community building inspector to be properly elevated. Such certification or verification shall be provided to the Floodplain Administrator.

3. Nonresidential construction shall either be elevated in conformance with Section _____, or _____, or together with attendant utility and sanitary facilities:

a. be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;

b. have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and

c. be certified by a registered professional engineer or architect that the standards of this subsection are satisfied. Such certifications shall be provided to the Floodplain Administrator.

4. Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are subject to flooding 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 meet or exceed the following minimum criteria:

a. Either 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 shall be provided. 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 floodwaters; or

b. Be certified to comply with a local floodproofing standard approved by the Federal Insurance Administration.

5. Manufactured homes shall also meet the standards in Section _____.

STANDARDS FOR UTILITIES

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 systems into flood waters.

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

STANDARDS FOR SUBDIVISIONS.

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

B. All final subdivision plans will provide the elevation of proposed structure(s) and pads. If the site is filled above the base flood, the final pad elevation shall be certified by a registered professional engineer or surveyor and provided to the Floodplain Administrator.

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.

STANDARDS FOR MANUFACTURED HOMES. All new and replacement manufactured homes and additions to manufactured homes shall:

A. Be elevated so that the lowest floor is at or above the base flood elevation; and

B. Be securely anchored to a permanent foundation system to resist flotation, collapse or lateral movement.

____ FLOODWAYS. Located within areas of special flood hazard established in Section ____ are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood water which carry debris, potential projectiles, and erosion potential, the following provisions 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 flood levels during the occurrence of the base flood discharge.

B. If Section ____ is satisfied, all new construction and substantial improvements shall comply with all other applicable flood hazard reduction provisions of Section ____.

VARIANCE PROCEDURES

____ APPEAL BOARD

A. The City Council of City of Lodi shall hear and decide appeals and requests for variances from the requirements of this ordinance.

B. The City Council shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Floodplain Administrator in the enforcement or administration of this ordinance.

C. In passing upon such applications, the City Council shall consider all technical evaluations, all relevant factors, standards specified in other sections of this ordinance, 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 individual owner;
4. the importance of the services provided by the proposed facility to the community;
5. the necessity to 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.

D. Generally, variances may be issued for new construction and substantial improvements 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 items 6.1.C.1. through 6.1.C.11 have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.

E. Upon consideration of the factors of Section _____ and the purposes of this ordinance, the City Council may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.

F. The Floodplain Administrator shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.

CONDITIONS FOR VARIANCES

A. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed in the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this section.

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

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

D. Variances shall only 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 will 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.

E. 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 Sections _____ through _____ 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.

F. 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 flood 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 flood elevation. A copy of the notice shall be recorded by the Floodplain Board in the office of the San Joaquin County Recorder and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.

SECTION 2. All ordinances and parts of ordinances in conflict herewith are repealed insofar as such conflict may exist.

SECTION 3. This ordinance shall be published one time in the "Lodi News Sentinel", a daily newspaper of general circulation printed and published in the City of Lodi and shall be in force and take effect thirty days from and after its passage and approval.

Approved this 17th day of June, 1987



EVELYN M. OLSON
Mayor

Attest:

Alice M. Reimche
ALICE M. REIMCHE
City Clerk

State of California
County of San Joaquin, ss.

I, Alice M. Reimche, City Clerk of the City of Lodi, do hereby certify that Ordinance No. 1400 was introduced at a regular meeting of the City Council of the City of Lodi held June 3, 1987 and was thereafter passed, adopted and ordered to print at a regular meeting of said Council held June 17, 1987 by the following vote:

Ayes: Council Members - Hinchman, Pinkerton, Reid, Snider,
and Olson (Mayor)

Noes: Council Members - None

Absent: Council Members - None

Abstain: Council Members - None

I further certify that Ordinance No. 1400 was approved and signed by the Mayor on the date of its passage and the same has been published pursuant to law.

Alice M. Reimche
ALICE M. REIMCHE
City Clerk

Approved as to Form

Ronald M. Stein
RONALD M. STEIN
City Attorney