



P.O. Box 167
Sherwood, Oregon 97140
625-5522 625-5523

City of Sherwood
Planning Commission

AGENDA

April 20, 1987
855 No. Sherwood Blvd.
7:30 P.M.

- I. Call to Order
- II. Approval of Minutes, March 16, 1987
- III. Approval Request of the Revised Marshall Industrial Preliminary Subdivision Plat to add two lots.
- IV. Approval Request of the Revised ABC Mini Storage Site Plan to locate a security residence on site.
- V. Discussion Items
 - a. Commercial Zone Analysis
 - b. Flood Plain Ordinance Revisions
 - c. 99W Annexation

STAFF REPORT

TO: City of Sherwood
Planning Commission

DATE TYPED: March 23, 1987

FROM: Carole W. Connell
Consulting City Planner
Benkendorf & Associates

FILE NO.: 2271-52

SUBJECT: Approval Request for a Revised Preliminary Subdivision Plat for the Marshall Industrial Subdivision

I. PROPOSAL DATA

Applicant: P.M. Marshall
10002 S.W. Herman Road
Tualatin, Oregon 97062

Representative: Rick Martin
Westlake Consultants
7145 S.W. Varns Road
Tigard, Oregon 97223

Location: Located on the northwest corner of the S.W. Cipole Road and Tualatin-Sherwood Road intersection, further described as Map 2S-1-28A, tax lot 501.

II. BACKGROUND DATA

On February 6, 1986 the Planning Commission approved a Preliminary Subdivision Plat for the Marshall Industrial Subdivision. On January 19, 1987 the Planning Commission granted a six month extension to submit the final plat.

The final plat must be submitted by August 6, 1987. In 1986 Marshall had a minor land partition approved for a single lot adjoining the north property line that was to be sold and combined with the parcel occupied by Protein Products. The transaction never occurred and thus the single parcel is being combined with the industrial subdivision. **Two lots are being added to the original subdivision.**

III. SHERWOOD COMMUNITY DEVELOPMENT CODE PROVISIONS

- A. Chapter 2, Section 2.111 General Industrial (GI) Zone
- B. Chapter 7, Subdivision Regulations
- C. Sherwood Comprehensive Plan

IV. FINDINGS OF FACT

- A. The applicant is requesting the addition of two lots to the Preliminary Plat of Marshall Industrial Subdivision, for a total of 11 lots.
- B. The property is zoned General Industrial, GI and is intended for a wide variety of industrial uses.
- C. The GI zone requires a minimum lot size of 20,000 square feet, which each of the proposed lots will exceed.
- D. Each proposed lot meets the minimum required depth of 100 feet.
- E. Since the property abuts an industrial zone on the north and west sides, no building setbacks are required on these boundaries.
- F. On the south and east sides, the subject parcel adjoins Tualatin-Sherwood Road, designated a major arterial, and Cipole Road, designated a minor arterial. Washington County reviewed the original plan and required several county road improvements. All original conditions of approval are incorporated into this report.

- G. An additional traffic analysis was not a requirement of the revised plan.
- H. An access road to the adjoining Tax Lot 502 to the west remains in the revised plat.
- I. The original plat and the revised plat are the same, except for the addition of two lots, minor lot size modifications to lots 1, 2, 3 and 6, a narrower easement to Chavez Lumber and a slightly altered cul-de-sac shape.
- J. All previous findings of fact in the 12-18-85 Staff Report are hereby incorporated into this report and the report is attached.

V. CONCLUSIONARY FINDINGS AND RECOMMENDATION

- A. The proposed plat revisions comply with the intent of the Sherwood Comprehensive Plan and the GI Zone.
- B. The Sherwood Comprehensive Plan and the Washington County Plan recommend limited access to Tualatin-Sherwood Road.
- C. Access to Tax Lot 502 is expected to occur through the Marshall Subdivision.
- D. City sewer and water services are available to the site. All streets will be built to city standards.
- E. No land-locked parcels will be created by this proposal.

Based on the Background Data, the Findings of Fact and the original approval, staff recommends **approval** of the revised Preliminary Subdivision Plat, subject to the following conditions:

- 1. The applicant shall enter into a non-remonstrance agreement with the City for future road improvements to Cipole and Tualatin-Sherwood Roads.

2. **Comply with the Tualatin Fire District requirements.**
3. **Provide dedicated access 54 feet wide to the adjoining tax lot 502.**
4. **Provide a 15 foot wide driveway easement to Chavez Lumber.**
5. **Comply with the following Washington County road requirements:**
 - a. Sherwood Road is a major County arterial. Existing right-of-way is 60 feet; required right-of-way width is 45 feet from centerline, including adequate corner radius. The access spacing standard for Tualatin-Sherwood Road is 1000 feet.
 - b. Cipole Road is a County major collector. Existing right-of-way is 40 feet; required right-of-way is 35 feet from centerline. The access spacing standard is 100 feet.
 - c. A five (5) foot concrete sidewalk to County standard is required along all frontage.
 - d. Acceptable roadway drainage, which may involve the cleaning of ditches only.
 - e. Assurance that Cipole Road has a wearing surface and structural life of at least five (5) years, to a 22 foot width, between the north property line and Tualatin-Sherwood Road.
 - f. Sign a waiver not to remonstrate against the formation of a Local Improvement District to improve Cipole Road between Tualatin-Sherwood Road and S.W. Herman Road to a ST-4 standard, and Tualatin-Sherwood Road between Cipole and Edy Road to a ST-5 standard.
 - g. The County would allow only one access onto Tualatin-Sherwood Road, at the location as shown on the proposed site plan as a cul-de-sac, and this access should be designed to be shared with adjacent properties to the east and west. The ultimate

goal is to have only one access onto Tualatin-Sherwood Road between Cipole Road and Edy Road, to be shared access for all frontage between these roads. A one (1) foot non-access reserve strip should be established along all other Tualatin-Sherwood Road frontage.

STAFF REPORT

TO: City of Sherwood
Planning Commission **FILE NO:** DR 87-01

FROM: Carole Connell, Consulting Planner **DATE:** March 20, 1987
Benkendorf & Associates

SUBJECT: Request for a Revised Site Plan for Protein Product/ABC
Mini Storage

I. PROPOSAL DATA

APPLICANT: Lee Bodner
ABC Mini Storage
20475 S.W. Cipole Rd.
Sherwood, OR 97140

REQUEST: Design review request to revise the originally approved site plan in order to locate a security caretaker residence on the property.

LOCATION: Located at 20475 S.W. Cipole Road and further described as Map 2S1 28A, tax lot 601.

II. BACKGROUND DATA

On September 17, 1984, the Sherwood Design Review Board approved with conditions an application for a freezer plant and mini storage buildings on the subject site. The original plan specified five mini storage buildings, a freezer plant and an existing building to be used as an office. To date, there are three mini storage buildings and the office. The request is to locate a caretakers residence near the office. Some of the original landscaping and paving requirements have not been met.

III. SHERWOOD COMMUNITY DEVELOPMENT CODE REVISIONS

- a. Section 2.111 General Industrial Zone, (GI)
- b. Section 5.100 Site Planning

IV. FINDINGS OF FACT

- a. The General Industrial Zone permits a dwelling unit for a security person employed on the premises, and their immediate family.

- b. Because the subject property is not abutting a residential zone, there are no building setback requirements. The proposed residence will be about 470 feet from Cipole Road.
- c. Surrounding land uses include Therm Tec to the south, residential to the east and north, and open and industrial to the west.
- d. The proposed residence is to be located next to the existing office and entry so that anyone coming into the facility must pass the security building.
- e. The plan identifies four additional parking spaces for the residence, extended from the office parking area.
- f. The existing office facility is not connected to City water. The existing office is on a septic system in which the residence is proposed to be connected, as approved by the County. The applicant proposes to connect the office and the residence to City water.
- g. The driveway and parking area has not been fully paved.
- h. The landscaping planned along the driveway and around the property perimeter has not been installed.
- i. The applicant has purchased and partitioned a lot adjoining the west property line of the subject parcel, without City approval. The applicant intends to combine the two lots. See attached letter.

IV. CONCLUSION AND RECOMMENDATION

- a. Landscaping and paving shall be completed in accordance with the original plan prior to the issuance of an occupancy permit, except for the required landscaping along the back (west) property line, unless security equal to the cost of landscaping is filed with the City. If the installation of the landscaping is not completed within six (6) months, the security may be used by the City to complete the installation.
- b. Remove the off-premise sign advertising the mini storage facility located at the intersection of Cipole Road and Tualatin Sherwood Road.
- c. Minimize outdoor lighting, since security is being replaced by the caretaker.
- d. Upon receipt of the deed for tax lot 603, consolidate that lot with tax lot 601.

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2.114 FLOOD PLAIN (FP)

2.114.01 Purpose

- A. The FP zoning district is an overlay district that controls and regulates flood hazard areas, in order to protect the public health, safety and general welfare; to reduce potential flood damage losses; and to protect floodways and natural drainageways from encroachment by uses which may adversely affect waterflow and subsequent upstream or downstream flood levels. The FP zone shall be applied to all areas within the base flood, and shall supplement the regulations of the underlying zoning district.
- B. FP zoning districts are defined as areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for the City of Sherwood, Oregon," dated July 6, 1981, with accompanying Flood Insurance Maps, or as otherwise identified in accordance with Section 2.114.01.C. The Flood Insurance Study is adopted by reference as part of this Code, and is on file in the office of the City Public Works Director.
- C. When base flood elevation data is not available from the Flood Insurance Study, the City shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source, and standards developed by the Federal Emergency Management Agency, in order to administer the provisions of this Code.

2.114.02 Greenways

The FP zoning districts overlaying the Rock Creek and Cedar Creek flood plains are designated greenways in accordance with Section V of the Community Development Plan. All development in these two flood plains shall be governed by the policies in Section V, and Section 5.600 of this Code, in addition to the requirements of Section 2.114.

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2.114.03 Development Application

- A. In the FP zone the following uses are permitted as conditional uses, subject to the provisions of Section 2.114 and Section 4.300:
1. Any permitted or conditional use allowed in the underlying zoning district, when located within the flood fringe only, as specifically defined by this Code. Only those uses defined in Section 2.114.04 are allowed within the floodway.
- B. A conditional use permit (CUP) shall be approved before any use, construction, fill, alteration of a flood plain, floodway, or watercourse, or any other development begins within any FP zone, except as provided in Section 2.114.04.
- C. Application for a CUP for development in a flood plain shall conform to the requirements of Section 4.300 and may include, but is not limited to, plans and scale drawings showing the nature, location, dimensions, and elevations of the area in question, existing or proposed structures, fill, storage of materials, and drainage facilities.
- D. The following specific information is required in a flood plain CUP application and shall be certified and verified by a Registered Civil Engineer or Architect:
1. Elevations in relation to mean sea level of the lowest floor (including basement) of all structures;
 2. Elevations in relation to mean sea level to which any structure has been floodproofed;
 3. That the floodproofing methods for any structure meet the requirements of Section 2.114.07.
 4. Description of the extent to which any watercourse will be altered or relocated as a result of the proposed development.
 5. A base flood survey and impact study made by a Registered Civil Engineer.

6. Proof that all necessary notifications have been sent to, and permits have been obtained from, those Federal, State, or other local government agencies for which prior approval of the proposed development is required.
 7. Any other information required by Section 2.114, by any applicable Federal regulations, or as otherwise determined by the City to be necessary for the full and proper review of the application.
- E. Where elevation data is not available either through the Flood Insurance Study, or from other sources as per Section 2.114.01.C, a CUP for development in the flood plain shall be reviewed using other relevant data, as determined by the City, such as historical information, high water marks, and other evidence of past flooding. The City may require utility structures and habitable building floor elevations, and building flood proofing, to be at least two (2) feet above the probable base flood elevation, in such circumstances where more definitive flood data is not available.

2.114.04 Exceptions

In the FP zone the following uses are permitted outright, and do not require a CUP, provided that floodway flow, or flood plain capacity, will not be significantly impeded, as determined by the City:

- A. Agricultural uses, provided that associated structures are not allowed, except for boundary fences that do not significantly impede the movement of flood waters and flood-carried materials.
- B. Open space, park and recreational uses, and minor associated structures, if otherwise allowed in the underlying zoning district, that do not significantly impede the movement of floodwaters and flood-carried materials.
- C. Other accessory uses allowed in the underlying zoning district that do not involve structures, and will not, in the City's determination, materially alter the stability or storm drainage absorption capability of the flood plain.

2.114.05 Prohibited Uses

In the FP zone the following uses are expressly prohibited:

- A. The storage or processing of materials that are buoyant, flammable, contaminants, explosive, or otherwise potentially injurious to human, animal or plant life.
- B. Public and private sewerage treatment systems, including drainfields, septic tanks and individual package treatment plants.
- C. Any use not permitted in the underlying zoning district.
- D. Any use that, in the City's determination, will materially alter the stability or storm drainage absorption capability of the flood plain.
- E. Any use that, in the City's determination, could create an immediate or potential hazard to the public health, safety and welfare, if located in the flood plain.
- F. Any use or encroachment located in the floodway, including fill, new construction, or improvements to existing developments, except as otherwise allowed by Section 2.114.04.

2.114.06 Flood Plain Development

A. Flood Plain Alterations

1. Flood Plain Survey

The flood plain, including the floodway and flood fringe areas, shall be surveyed by a Registered Civil Engineer, and approved by the City, based on the findings of the Flood Insurance Study and other available data. Such delineation shall be based on mean sea level data and be field-located from recognized valid benchmarks.

2. Grading Plan

Alteration of the existing topography of flood plain areas may be made upon approval of a grading plan by the City. The plan shall include both existing and proposed topography and a plan for alternate drainage. Contour

intervals for existing and proposed topography shall be included and shall be not more than one (1) foot for ground slopes up to five percent (5%) and for areas immediately adjacent to a stream or drainageway, two (2) feet for ground slopes between five and ten percent (5% - 10%), and five (5) feet for greater slopes.

3. Fill and Diked Lands

- a. Proposed flood plain fill or diked lands may be developed if a site plan for the area to be altered within the flood plain is prepared and certified by a Registered Civil Engineer and approved by the Commission pursuant to the applicable provisions of this Code.
- b. Vehicular access shall be provided from a street above the elevation of the base flood to any proposed fill or dike area if the area supports structures for human occupancy. Unoccupied fill or dike areas shall be provided with emergency vehicle access.

4. Alteration Site Plan

The certified site plan prepared by a Registered Civil Engineer or Architect for an altered flood plain area shall show that:

- a. Proposed improvements will not alter the flow of surface water during flooding such as to cause a compounding of flood hazards or changes in the direction or velocity of flood water flow.
- b. No structure, fill, storage, impervious surface or other uses alone, or in combination with existing or future uses, will materially reduce the capacity of the flood plain or increase flood heights.
- c. Proposed flood plain fill or diked areas will benefit the public health, safety and welfare and incorporate adequate erosion and storm drainage controls, such as pumps, dams and gates.
- d. No serious environmental degradation shall occur to the natural features and existing ecological balance of upstream and downstream areas.

- e. Ongoing maintenance of altered areas is provided so that flood-carrying capacity will not be diminished by future erosion, settling, or other factors.

5. Subdivisions

All proposed subdivisions or land partitions within a FP zone shall:

- a. Be designed to include adequate drainage to reduce exposure to flood damage, and have public sewer, gas, electrical and other utility systems so located and constructed to minimize potential flood damage.
- b. For each parcel or lot intended for structures, a building site shall be provided, which is at, or above, the base flood elevation, and meets all setback standards of the underlying zoning district.

2.114.07 Flood Plain Structures

Structures in the FP zone shall be subject to the following conditions, in addition to the standards of the underlying zoning district:

A. Generally

- 1. All structures, including utility equipment, and manufactured housing, shall be anchored to prevent lateral movement, flotation, or collapse during flood conditions, and shall be constructed of flood-resistant materials, to standards approved by the City, State Structural and Plumbing Speciality Codes, and applicable building codes.
- 2. The lowest floor elevation of a structure designed for human occupancy shall be at least one and one-half (1 1/2) feet above the base flood elevation and the building site shall comply with the provisions of Section 2.114.07.A.
- 3. The lower portions of all structures shall be flood-proofed according to the provisions of the State Structural and Plumbing Specialty Codes, at least to an elevation of one and one-half (1 1/2) feet above the base flood elevation.

4. The finished ground elevation of any underfloor crawl space shall be above the grade elevation of an adjacent street, or natural or approved drainageway unless specifically approved by the City. A positive means of drainage from the low point of such crawl space shall be provided.

B. Utilities

1. Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities located within structures shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
2. Electrical service equipment, or other utility structures, shall be constructed at or above the base flood elevation. All openings in utility structures shall be sealed and locked.
3. Water supply and sanitary sewer systems shall be approved by the Washington County Health Department, and shall be designed to minimize or eliminate the infiltration of floodwaters into the systems, or any discharge from the systems into floodwaters.

C. Residential Structures

1. All residential structures shall have the lowest floor, including basement, elevated to or above base flood elevation.
2. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a Registered Professional Engineer or Architect, or must meet or exceed the following minimum criteria:
 - a. A minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided.

- b. The bottom of all openings shall be no higher than one (1) foot above grade.
- c. Openings may be equipped with screens, louvers, or other coverings or devices, provided that they permit the automatic entry and exit of floodwaters.

D. Nonresidential Construction

- 1. All commercial, industrial or other nonresidential structures shall either have the lowest floor, including basement, elevated to the level of the base flood elevation; or, together with attendant utility and sanitary facilities, shall:
 - 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;
 - c. Be certified by a Registered Professional Engineer or Architect that the design and methods of construction are in accordance with accepted standards of practice for meeting all provisions of Section 2.114.
 - d. Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as per Section 2.114.08.C2.

2.114.09 Additional Requirements

- A. Dimensional standards for developments in the FP zone shall be the same as in the underlying zoning district, except as provided in Section 2.114.09.B.
- B. Approval of a site plan pursuant to Section 5.100, may be conditioned by the City to protect the best interests of the surrounding area or the community as a whole, and to carry out the terms of the Comprehensive Plan. These conditions may include, but are not limited to:
 - 1. Increasing the required lot sizes, yard

dimensions, street widths, or parking spaces.

2. Limiting the height, size, or location of buildings.
3. Controlling the location and number of vehicle access points.
4. Limiting the number, size, location, or lighting of signs.
5. Requiring diking, fencing, screening, landscaping, or other facilities to protect the proposed development, or any adjacent or nearby property.
6. Designating sites for open space or water retention purposes.
7. Construction, implementation, and maintenance of special drainage facilities and activities.



Federal Emergency Management Agency

Region X

Federal Regional Center

Bothell, Washington 98021-9796

DEC 3 1986

DEC 2 9 1986

MEMORANDUM FOR: COMMUNITIES PARTICIPATING IN THE NATIONAL FLOOD INSURANCE PROGRAM (NFIP)

SUBJECT: DECEMBER 1986 REVISION OF MODEL FLOOD DAMAGE PREVENTION ORDINANCE

In September 1986 communities participating in the NFIP were notified by FEMA's Washington D.C. Office of the need to revise local ordinances to incorporate new Federal Regulations that went into effect on October 1, 1986. This notice indicated that communities had until April 1, 1987 to incorporate the new provisions in order to retain eligibility in the NFIP.

The last major NFIP regulation change occurred in October 1976. Our office followed with a suggested model ordinance in 1977. There have been minor changes to this model ordinance through the years, but never a major change; such a change is now necessary in view of not only the October 1, 1986 revisions, but also to reflect substantial regulation changes that occurred on October 1, 1984 and January 1, 1986. Attached is a revision to our 1977 model ordinance that incorporates all changes, for use in reviewing your existing ordinance and making appropriate changes.

USE OF MODEL ORDINANCE. As before, the model is not mandatory, but provides a convenient bridge between language in the Federal Regulations and language suitable for local ordinances. Adoption of the ordinance as is will obviously meet all NFIP requirements; but any community may alter the format or language as it sees fit as long as mandatory Regulation requirements are met. The requirements that are mandatory for FEMA approval are denoted throughout with an asterisk(*).

FORMAT. In this document we have taken an original model and marked it up to show actual changes, since most communities adopted all or portions of our original model ordinance. Thus, additions reflecting new regulation requirements or clarifications are in bold print; language that is superseded is either crossed out with slash marks (////) or denoted by the term "delete"; or both. The exception is Coastal High Hazard Area Attachment 2, which is an entirely new section; changes here were of such a nature that the "cut and paste" method would be difficult to use. We also have straight-typed versions of the model ordinance which can be provided to any community.

MANDATORY SECTIONS. Mandatory sections are those that must be in the ordinance in order for FEMA to approve it (although language can vary). They are denoted in the Outline and throughout the ordinance with an asterisk(*). Note that you do not need to incorporate new requirements denoted by bold face print if your measures are more restrictive. You are encouraged to retain more restrictive standards. An example is the original mobile home anchoring standard [Section 5.1-1(2)]. Also, some of the additions (bold print) merely clarify, and are not mandatory. An example of this is the changed definition of "Area of Shallow Flooding;" however, certain definitions may be required if they are specifically cross-referenced in the ordinance (e.g. the definition of "Development").

ATTACHMENTS/FEDERAL REGULATION SECTIONS 60.3(a), (b), (c), (d) and (e).

We have set up a single model which can be used to cover all circumstances by either adoption of the model, or the model with attachments. The basic ordinance relates to a community participating under Section 60.3(d), which addresses flood elevations and floodways. Following is a summary of the categories of participation, together with what that category means in terms of maps, zones and pertinent model ordinance attachments.

- 60.3(a): A community participating under Section 60.3(a) has no maps, and an ordinance change is not necessary.
- 60.3(b): The community has no flood elevations or floodways, but has flood boundaries and unnumbered A zones on its maps; at least the mandatory (asterisked) provisions of the model ordinance are required, but the Specific Standards at Section 5.2 will normally not apply (unless base flood elevations are available from another source, or are generated).
- 60.3(c): The community has flood elevations but no floodways, and should incorporate the Encroachment Standard referenced in the NOTE following Section 5.3, Floodways, in the last page of the ordinance.
- 60.3(d): The community has flood elevations and floodways. Adoption of the model, as is, will meet all requirements.
- 60.3(e): The community has coastal high hazard areas (V zones) and must incorporate the special construction standards in Attachment 2 in addition to the basic model.
- A0 zones: Any (c), (d) and/or (e) community can have A0 zones denoting shallow flooding. These zones are depicted by flood depths, not elevations and the community must adopt A0 zone standards in Attachment 1 in addition to the basic ordinance.

Any community may have a combination of categories. The model is flexible in that it will accommodate all combinations.

ADMINISTRATIVE PROCEDURES. The regulations specify that an ordinance must be legally enforceable. Many of the non-mandatory measures in the model, though not specifically required for FEMA approval, are administrative provisions aimed at making ordinances legally enforceable and are, therefore, recommended (e.g. the variance provisions, penalties for noncompliance, etc.).

Since failure to make the required changes by April 1, 1987 could lead to suspension from the program, we urge you to respond as quickly as possible. Draft ordinances should be sent to this office or to State Coordinators for review prior to final adoption if there is any question, or if there is a major discrepancy with the model. If assistance is desired, you should contact either the State Coordinating Agency for the NFIP, or this office. Appropriate State and FEMA Regional Office contacts are listed below.

As soon as the ordinance is adopted it should be sent to this office so that it can be reviewed and a formal compliance letter can be sent. We appreciate your cooperation.



Charles L. Steele, Chief
Natural and Technological
Hazards Division
(206) 483-7282

FEMA REGION X STAFF/GEOGRAPHICAL BREAKDOWN

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WASHINGTON: Bob Freitag (206) 483-7301

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Statehouse
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WASHINGTON: Jerry Louthain, Chief
Flood Plan Mgt Branch
Dept of Ecology, M/S PV-11
Olympia, Washington 98504
(206) 459-6791

OUTLINE OF FEMA REGION X
MODEL FLOOD DAMAGE PREVENTION ORDINANCE

Revised December 1986

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* Required for Approval by FEMA.

** Only applies to Subsection 4.3-1(2)

. Additions are in Bold Face

. Deletions are ~~crossed out~~ or noted by the term "Delete"

FLOOD DAMAGE PREVENTION ORDINANCE

SECTION 1.0

STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE, AND OBJECTIVES

1.1 STATUTORY AUTHORIZATION

The Legislature of the State of (State) has in (statutes) delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the (governing body) of (local unit) , (State) does ordain as follows:

1.2 FINDINGS OF FACT

- (1) The flood hazard areas of (local unit) 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.
- (2) 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:

- (1) To protect human life and health;
- (2) To minimize expenditure of public money and costly flood control projects;
- (3) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (4) To minimize prolonged business interruptions;
- (5) 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;
- (6) To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
- (7) To ensure that potential buyers are notified that property is in an area of special flood hazard; and,
- (8) To ensure 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:

- (1) 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 in flood heights or velocities;
- (2) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (3) Controlling the alteration of natural flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- (4) Controlling filling, grading, dredging, and other development which may increase flood damage; and
- (5) Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or may increase flood hazards in other areas.

* Required for approval by FEMA.

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 _____ (local 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. AO is characterized as sheet flow and AH indicates ponding.

"AREA OF SPECIAL FLOOD HAZARD" means the land in the flood plain within a community subject to a one percent or greater chance of flooding in any given year. Designation on maps always includes the letters A or V.

"BASE FLOOD" means the flood having a one percent chance of being equalled or exceeded in any given year. Also referred to as the "100-year flood." Designation on maps always includes the letters A or V.

"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 located within the area of special flood hazard.

~~"EXISTING/MOBILE/HOME/PARK/OR/MOBILE/HOME/SUBDIVISION"~~ (Delete)

~~"EXPANSION TO AN EXISTING MOBILE/HOME/PARK/OR/MOBILE/HOME/SUBDIVISION"~~ (Delete)

"FLOOD" or "FLOODING" means a general and temporary condition of partial or complete inundation of normally dry land areas from:

- (1) The overflow of inland or tidal waters and/or
- (2) The unusual and rapid accumulation of runoff of surface waters from any source.

"FLOOD INSURANCE RATE MAP (FIRM)" means the official map on which the 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 Flood Boundary-Floodway Map, and the water surface elevation of the base flood.

"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.

"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 found at Section 5.2-1(2).

"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 flood plain 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. For insurance purposes the term "manufactured home" does not include park trailers, travel trailers, and other similar vehicles.

"MANUFACTURED HOME PARK OR SUBDIVISION" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

~~"MOBILE/HOME"~~ (Delete)

"New Construction" means structures for which the "start of construction" commenced on or after the effective date of this ordinance.

~~"NEW MOBILE/HOME/PARK/ OR MOBILE/HOME/SUBDIVISION"~~ (Delete)

~~"START/OF/CONSTRUCTION"~~ (Delete entirely and replace with the following:)

"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 foundation 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 ~~to/~~ that is principally above ground.

"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.

SECTION 3.0 GENERAL PROVISIONS

3.1 LANDS TO WHICH THIS ORDINANCE APPLIES

This ordinance shall apply to all areas of special flood hazards within the jurisdiction of
(local unit).

3.2 * BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD

The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for the (local unit)," dated _____, 19____, with accompanying Flood Insurance Maps is hereby adopted by reference and declared to be a part of this ordinance. The Flood Insurance Study is on file at (address).

3.3 PENALTIES FOR NONCOMPLIANCE

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. Violation 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. Any person who violates this ordinance or fails to comply with any of its requirements shall upon conviction thereof be fined not more than _____ or imprisoned for not more than _____ days, or both, for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent the (local unit) from taking such other 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:

- (1) Considered as minimum requirements;
- (2) Liberally construed in favor of the governing body; and,
- (3) 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 (local unit), 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 hereunder.

SECTION 4.0 ADMINISTRATION

4.1 ESTABLISHMENT OF DEVELOPMENT PERMIT

4.1-1 * Development Permit Required

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 3.2. The permit shall be for all structures including ~~mobile~~ manufactured homes, as set forth in the "DEFINITIONS", and for all development including fill and other activities, also as set forth in the "DEFINITIONS".

4.1-2 Application for Development Permit

Application for a development permit shall be made on forms furnished by the (local administrator) and may include but not be limited to; plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations 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:

- (1) Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;
- (2) Elevation in relation to mean sea level to which any structure has been floodproofed;
- (3) Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in Section 5.2-2; and
- (4) Description of the extent to which a watercourse will be altered or relocated as a result of proposed development.

4.2 DESIGNATION OF THE (local administrator)

The (local administrator) is hereby appointed to administer and implement this ordinance by granting or denying development permit applications in accordance with its provisions.

4.3 DUTIES AND RESPONSIBILITIES OF THE (local administrator)

Duties of the (local administrator) shall include, but not be limited to:

4.3-1 Permit Review

- (1) Review all development permits to determine that the permit requirements of this ordinance have been satisfied.
- (2) * Review all development permits to determine that all necessary permits have been obtained from those Federal, State, or local governmental agencies from which prior approval is required.
- (3) Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of Section 5.3(1) are met.

4.3-2 * Use of Other Base Flood Data

When base flood elevation data has not been provided in accordance with Section 3.2, BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD, the (local administrator) obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, State or other source, in order to administer Sections 5.2, SPECIFIC STANDARDS, and 5.3 FLOODWAYS.

4.3-3 * Information to be Obtained and Maintained

- (1) Where base flood elevation data is provided through the Flood Insurance Study or required as in Section 4.3-2, obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.
- (2) For all new or substantially improved floodproofed structures:
 - (i) verify and record the actual elevation (in relation to mean sea level), and
 - (ii) maintain the floodproofing certifications required in Section 4.1(3).
- (3) Maintain for public inspection all records pertaining to the provisions of this ordinance.

4.3-4 * Alteration of Watercourses

- (1) Notify adjacent communities and the (State coordinating agency) prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.
- (2) Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.

4.3-5 Interpretation of FIRM Boundaries

Make interpretations where needed, as to 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 4.4.

4.4 VARIANCE PROCEDURE

4.4-1 Appeal Board

- (1) The (appeal board) as established by (local unit) shall hear and decide appeals and requests for variances from the requirements of this ordinance.
- (2) The (appeal board) shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the (local administrator) in the enforcement or administration of this ordinance.
- (3) Those aggrieved by the decision of the (appeal board), or any taxpayer, may appeal such decision to the (name of appropriate court), as provided in (statute).
- (4) In passing upon such applications, the (appeal board) shall consider all technical evaluations, all relevant factors, standards specified in other sections of this ordinance, and:
 - (i) the danger that materials may be swept onto other lands to the injury of others;
 - (ii) the danger to life and property due to flooding or erosion damage;
 - (iii) the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - (iv) the importance of the services provide by the proposed facility to the community;
 - (v) the necessity to the facility of a waterfront location, where applicable;
 - (vi) the availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
 - (vii) the compatibility of the proposed use with existing and anticipated development;
 - (viii) the relationship of the proposed use to the comprehensive plan and flood plain management program for that area;
 - (ix) the safety of access to the property in times of flood for ordinary and emergency vehicles;
 - (x) the expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and,
 - (xi) 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 systems, and streets and bridges.
- (5) Upon consideration of the factors of Section 4.4-1(4) and the purposes of this ordinance, the (appeal board) may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.
- (6) The (local administrator) shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.

Conditions for Variances

- (1) Generally, the only condition under which a variance from the elevation standard may be issued is 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 (i-xi) in Section 4.4-1(4) have been fully considered. As the lot size increases the technical justification required for issuing the variance increases.
- (2) Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in this section.
- (3) Variances shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result.
- (4) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- (5) Variances shall only be issued upon:
 - (i) a showing of good and sufficient cause;
 - (ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant;
 - (iii) 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 as identified in Section 4.1-4(4), or conflict with existing local laws or ordinances.
- (6) Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle that they pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small lots in densely populated residential neighborhoods. As such, variances from the flood elevations should be quite rare.
- (7) Variances may be issued for nonresidential buildings in very limited circumstances to allow a lesser degree of floodproofing than watertight or dry-floodproofing, where it can be determined that such action will have low damage potential, complies with all other variance criteria except 4.4-2(1), and otherwise complies with Sections 5.1-1 and 5.1-2 of the GENERAL STANDARDS
- (8) Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

SECTION 5.0
PROVISIONS FOR FLOOD HAZARD REDUCTION

* 5.1 GENERAL STANDARDS

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

* 5.1-1 Anchoring

- (1) All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
- (2) *All anchors shall be designed and installed in accordance with the Florida Building Code, Chapter 6, Part 6-10, and the Florida Building Code, Chapter 6, Part 6-11, and shall be installed in accordance with the Florida Building Code, Chapter 6, Part 6-12, and the Florida Building Code, Chapter 6, Part 6-13.*
 - (i) *anchors shall be designed and installed in accordance with the Florida Building Code, Chapter 6, Part 6-10, and the Florida Building Code, Chapter 6, Part 6-11, and shall be installed in accordance with the Florida Building Code, Chapter 6, Part 6-12, and the Florida Building Code, Chapter 6, Part 6-13.*

- (ii) *Υψάθε τις θε βε βεβιδεβυ ατ/εαχ/εοτνετ/οφ/θηε/ηοτνε/ωνιυ/λιβε/αδδινιόηαι/νιες/βετ/σιθε/ατ/ινιετμεδαιρε/πονηις/ωλιυ/ποβυιε/ηοτνε/λες/ληαν/50/λεετ/κοε/τεβυιηε/φορ/αδδινιόηαι/νιες/βετ/σιθε;*
 - (iii) *Αυ/οοποβιόηαις/οφ/θηε/αηεηοηιηε/συςτεπ/βε/εαβιβε/οφ/εαττυιηε/α/φοττε/οφ/4,800/ποβιηδς/αηα;*
 - (iv) *αης/αδδινιόηαις/αο/θηε/ποβυιε/ηοτνε/βε/συμυιλατυ/αηεηοηεα/τεβυιηε/ηιε/αδδινιόηαι/νιε/βετ/σιθε;*
 - (ii) *Υψάθε τις θε βε βεβιδεβυ ατ/εαχ/εοτνετ/οφ/θηε/ηοτνε/ωνιυ/λιβε/αδδινιόηαι/νιες/βετ/σιθε;*
 - (iii) *Αυ/εοτποβιόηαις/οφ/θηε/αηοηοηιηε/συςτεπ/βε/εαβιβε/οφ/εαττυιηε/α/φοττε/οφ/4,800/ποβιηδς/αηα;*
 - (iv) *αης/αδδινιόηαις/αο/θηε/ποβυιε/ηοτνε/βε/συμυιλατυ/αηεηοηεα/*
- (3) *Αυ/αηεηοηιηε/ηεηεηοα/οφ/αηεηοηιηε/ηαυ/ηηυοηε/α/συςτεπ/αεσηηεα/λο/ωηηεηοηα/α/ωηηα/φοττε/οφ/90/ηηηε/ηοηυ/ηη/εηεαηε///εεηηηεαηηοα/αηυστ/βε/εηεηοηεα/αο/θηε///αηεαη/αδδινιόηαις///ηηαη/ηηηε/εαηηοηαηηα/ηηηε/ηηηεη/ηηηε/*
- (2) All manufactured homes must likewise be anchored to prevent flotation, collapse or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (Reference FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques).

*** 5.1-2 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) Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

*** 5.1-3 Utilities**

- (1) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
- (2) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and,
- (3) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

*** 5.1-4 Subdivision Proposals**

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

*** 5.1-5 Review of Building Permits**

Where elevation data is not available either through the Flood Insurance Study or from another authoritative source (Section 4.3-2), Applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates.

*** 5.2 SPECIFIC STANDARDS**

In all areas of special flood hazards where base flood elevation data has been provided as set forth in Section 3.2, BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD or Section 4.3-2, Use of Other Base Flood Data, the following provisions are required:

*** 5.2-1 Residential Construction**

- (1) New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above base flood elevation.
- (2) Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:
 - (i) 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.
 - (ii) The bottom of all openings shall be no higher than one foot above grade.
 - (iii) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

*** 5.2-2 Nonresidential Construction**

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

- (1) be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;
- (2) have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
- (3) be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection and satisfied based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in Section 4.3-3(2)
- (4) Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in 5.2-1(2).
- (5) Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g. a building constructed to the base flood level will be rated as one foot below that level).

5.2-3 Mobile Homes

- (1) Mobile homes shall be anchored in accordance with Section 5.2-1.
- (2) For new mobile home parks and mobile home subdivisions, lot expansions, or existing mobile home parks and subdivisions where the repair/reconstruction of individual units or the streets, utilities, and pads/easements or exceeds 50 percent of value of the streets, utilities, and pads before the repair/reconstruction, or improvement has commenced, and for mobile homes or located in a mobile home park or subdivision, the following shall apply:
 - (i) standards or lots are elevated by construction in or on piling so that the lowest floor of the mobile home will be at or above the base flood level;
 - (ii) adequate surveys and records for the area will be maintained and provided to the appropriate authority;
 - (iii) the standards or elevation of the piling shall be at least one foot above the base flood level.

- Yots/are/large/enough/to/determine/steps.
- pling/foundations/are/placed/in/stable/soil/no/more/than/10/feet/above/and
- reinforcement/is/provided/for/plings/more/than/6/feet/above/the/ground/level.

- (3) No/mobile/home/shall/be/placed/in/a/floodway/except/in/an/existing/mobile/home/drv/or/existing/mobile/home/subdivision.

*** 5.2-3 Manufactured Homes**

All manufactured homes to be placed or substantially improved within Zones A1-30, AH, and AE shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at or above the base flood elevation and be securely anchored to an adequately anchored foundation system in accordance with the provisions of subsection 5.1-1(2).

*** 5.3 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 waters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

- (1) 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.
- (2) If Section 5.3(1) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Section 5.0, PROVISIONS FOR FLOOD HAZARD REDUCTION.

NOTE: Where base flood elevations have been provided but floodways have not, Section 5.3 should read as follows:

5.3 ENCROACHMENTS

The cumulative effect of any proposed development, when combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than one foot at any point.

*** Required for approval by FEMA.**

Attachment for Shallow Flooding (AO Zones)

REGION X MODEL FLOOD DAMAGE PREVENTION ORDINANCE

December 1986

If the FIRM has AO zones depicting shallow flooding, the following section must be added in order to address the depth designations in these zones, vs. the base flood elevations that are provided in other areas of detailed study. In the model ordinance, this section will appear as either 5.3, 5.4 or 5.5 depending on whether or not the flood data in a particular community includes floodways and/or coastal high hazard areas.

5.4 STANDARDS FOR SHALLOW FLOODING AREAS (AO ZONES)

Shallow flooding areas appear on FIRM's as AO zones with depth designations. The base flood depths in these zones range from 1 to 3 feet where a clearly defined channel does not exist, or where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is usually characterized as sheet flow. In these areas, the following provisions apply:

- (1) New construction and substantial improvements of residential structures within AO zones shall have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, to or above the depth number specified on the FIRM (at least two feet if no depth number is specified).
- (2) New Construction and substantial improvements of nonresidential structures within AO zones shall either:
 - (i) have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, to or above the depth number specified on the FIRM (at least two feet if no depth number is specified); or
 - (ii) together with attendant utility and sanitary facilities, be completely flood proofed to or above that level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and and hydrodynamic loads and effects of bouyancy. If this method is used, compliance shall be certified by a registered professional engineer or architect as in section 5.2-2(3).
- (3) Require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.

Attachment for Coastal High Hazard Areas (V Zones)

REGION X MODEL FLOOD DAMAGE PREVENTION ORDINANCE

December 1986

If the FIRM has V zones (V1-V30, VE, V) depicting coastal high hazard areas and invoking Section 60.3(e) of the Federal Regulations, two definitions and the following section must be added. In the model ordinance this section will appear as either 5.3, 5.4, or 5.5 depending on whether or not flood data in a particular community includes floodways and/or AO (shallow flooding) zones.

1. SECTION 2.0 DEFINITIONS. Delete the old definition of breakaway wall and add the following:

"BREAKAWAY WALL" means a wall that is not a part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

"COASTAL HIGH HAZARD AREA" means the area subject to high velocity waters, including but not limited to, storm surge or tsunamis. The area is designated on the FIRM as Zone V1-V30, VE or V.

2. Add the following section for Coastal High Hazard Areas. Note that this is an entirely new section from the original model ordinance attachment. This is because the changes are such that it is almost impossible to mesh the old and the new requirements. For informational purposes, the old coastal flooding attachment is reproduced at the bottom of the second page of this attachment.

5.4 COASTAL HIGH HAZARD AREAS

Located within areas of special flood hazard established in Section 3.2 are Coastal High Hazard Areas, designated as Zones V1-V30, VE and/or V. These areas have special flood hazards associated with high velocity waters from tidal surges and, therefore, in addition to meeting all provisions in this ordinance, the following provisions shall also apply:

- (1) All new construction and substantial improvements in Zones V1-V30 and VE (V if base flood elevation data is available) shall be elevated on pilings and columns so that:
 - (1) 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 (1) and (ii) of this Section.

- (2) 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 in Zones VI-30 and VE, and whether or not such structures contain a basement. The local administrator shall maintain a record of all such information.
- (3) All new construction shall be located landward of the reach of mean high tide.
- (4) Provide that all new construction and substantial improvements have the space below the lowest floor either free of obstruction or constructed with nonsupporting 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 purpose 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. Use 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 nonstructural). Maximum wind and water loading values to be used in this determination shall each have a one percent chance of being equalled or exceeded in any given year (100-year mean recurrence interval).
- (5) If breakaway walls are utilized, such enclosed space shall be useable solely for parking of vehicles, building access, or storage. Such space shall not be used for human habitation.
- (6) Prohibit the use of fill for structural support of buildings.
- (7) Prohibit man-made alteration of sand dunes which would increase potential flood damage.

- (1) All buildings or structures shall be located landward of the mean high tide.
- (2) All buildings or structures shall be elevated so that the lowest supporting member is located no lower than the base flood elevation level, with all space below the lowest supporting member open so as not to impede the flow of water, except for breakaway walls as provided for in Section 5.4(8).
- (3) All buildings or structures shall be securely anchored on pilings or columns. Pilings or columns used as structural support shall be designed and anchored so as to withstand all applied loads of the base flood flow.
- (4) Compliance with provisions of Section 5.4(2), (3) and (4) shall be certified to by a registered professional engineer or architect.
- (5) There shall be no fill used for structural support.
- (6) There shall be no alteration of sand dunes which would increase potential flood damage.
- (7) Breakaway walls shall be allowed below the base flood elevation provided they are not a part of the structural support of the building and are designed so as to breakaway under abnormally high tides or wave action, without damage to the structural integrity of the building on which they are to be used.
- (8) If breakaway walls are utilized, such enclosed space shall not be used for human habitation.
- (9) Prior to construction, plans for any structure that will have breakaway walls must be submitted to the (local administrator) for approval.
- (10) Prohibit the placement of mobile homes, except in an existing mobile home park or mobile home subdivision.
- (11) Any alteration, repair, reconstruction or improvement to a structure started after the enactment of this ordinance shall not enclose the space below the lowest floor unless breakaway walls are used as provided for in Section 5.4(8) and (9).

Superseded

APPROVED MINUTES

**CITY OF SHERWOOD
PLANNING COMMISSION MEETING
APRIL 20, 1987**

I. Call to Order

The meeting was called to order by Chairman Glen Warmbier at 7:32 p.m. Members present were Walt Hitchcock, Jim Scanlon, Joe Galbreath, Glenn Blankenbaker, Grant McClellan, and Clarence Langer Jr. Ken Shannon was absent. Consulting Planner, Carole Connell was also present.

II. Approval of Minutes, March 16, 1987

Mr. Hitchcock moved and Mr. Galbreath seconded the minutes of March 16, 1987 be approved as submitted. The motion passed unanimously.

III. Approval Request of the Revised Marshall Industrial Preliminary Subdivision Plat to add two lots

Ms. Connell explained the events leading up to the landlocked lot. Protein Products had intended to combine the partitioned lot with their parcel but the sale fell through. Marshall Co. now wishes to incorporate this lot into their subdivision and create two additional lots at the north end of the subdivision. Chavez Lumber will be provided a 15' easement to the rear of their lot.

Rick Martin of Westlake, explained an extension for the subdivision was approved in January. The addition of the two lots requires a revision to the preliminary plat.

Carole Connell read the staff conclusions and recommended approval with 5 conditions listed in the staff report dated March 23, 1987.

Mr. Blankenbaker asked if the realignment of Sherwood-Tualatin Road would affect the platting of the subdivision. Mr. Martin said the surveyor is trying to determine the current right-of-way on Sherwood-Tualatin Road. If the right-of-way does not allow for correct sizing of lots, Marshall Co. may ask for some kind of adjustment.

Jim Scanlon moved to approve the request for a revised preliminary subdivision plat for the Marshall Industrial Subdivision subject to the 5 conditions set out in the staff report dated March 23, 1987. Mr. Blankenbaker seconded the motion. The motion passed unanimously.

IV. Approval Request of the Revised ABC Mini Storage Site Plan

to locate a security residence on site.

Ms. Connell explained this request is to locate a security residence on the mini storage site.

Lee Bodner, representing ABC Mini-Storage, explained why the paving hasn't been completed. Mr. Bodner said the existing office building will be used for shop area for RV repairs, the back area of the lot will be used for RV storage. Mr. Bodner agreed to place \$16,000.00 in a cash escrow account for completion of site plan requirements.

Mr. Hitchcock asked when they would be required to connect to sewer. It was explained sewer is only available at this time by pumping into the line. However when Therm-tec builds, gravity sewer will be available. Water is currently on site with a fire hydrant located 250' down the driveway.

Commission reviewed and agreed to the revised landscaping plan along Cipole Road. Commission agreed condition IV. a. should stipulate a site plan completion date of October 20, 1987 rather than 6 months. Commission agreed to remove condition IV. b., that the off-premise sign at the intersection of Cipole Road and Tualatin-Sherwood Rd. be removed.

Mr. Galbreath moved to approve the revised site plan for ABC Mini-Storage with conditions IV. a., c, and d. listed on the staff report dated March 20, 1987, with condition a. to stipulate October 20, 1987 as a completion date for the original site plan. Marian Hosler seconded, the motion passed unanimously.

Hal Roth, Request for Extension to Relocate Sales Office

Mr. Warmbier recognized Mr. Hal Roth. Mr. Roth explained PGE had been unable to provide electricity to the office site. Mr. Roth requested an extension until May 1.

Mr. Galbreath moved and Mr. Blankenbaker seconded that Hal Roth be granted an extension until May 1. The motion passed unanimously.

V. Discussion Items

a. Commercial Zone Analysis

Ms. Connell explained there were two types of zoning ordinances. One is a laundry list and the other type is a generic listing. In the laundry list type, each use must be specifically included. This revision will clean up the code and make it more contemporary. This revision eliminates the office commercial zone and allows office uses to mix with general commercial uses. Since many of the Commission Members did not have their commercial zone analysis with them, this item was postponed for discussion to the next agenda.

b. Flood Plain Ordinance Revisions

Ms. Connell explained the floodplain zone protects the floodplain and provides citizens with the opportunity to secure flood insurance from the Federal Government.

Mr. Galbreath recommended temporary uses include temporary farm related structures.

Mr. Langer moved the revisions to the Flood Plain zone be approved. Mr. Hitchcock seconded, the motion passed unanimously.

c. 99W Annexation

Ms. Connell relayed the Council's action on the 99W Annexation.

There being no further business, the meeting was adjourned.

Polly Blankenbaker, Recorder