Exhibit D

Title 24 Building Regulations

(Title replaced by Ordinance _____, effective January 1, 2025.)

Chapter 24.10 Administration and Enforcement

24.10.010 Title.

This Title is known as the "Building Regulations," and may be so cited and pleaded and is referred to in this Title as "this Title."

24.10.020 Purpose.

The purpose of this Title is to provide minimum performance standards to safeguard the health, safety, welfare, comfort, and security of occupants and users of buildings and structures within the City, and will provide for the use of modern methods, devices, materials, techniques, and practicable maximum energy conservation by regulating and controlling the design, construction, quality of materials, use, and occupancy, location and maintenance of all buildings, structures and land within this jurisdiction.

24.10.030 Scope.

The provisions of this Title apply to the construction, alteration, moving, demolition, repair, and use of any building, structure or land, and to any land clearing or grading within the City. Exceptions are work in the public right-of-way; publicly constructed sanitary and storm sewer systems and facilities; and public utility towers and poles, mechanical equipment not specifically regulated in this Code.

24.10.040 Codes.

A. Structural Specialty Code. The provisions of the State of Oregon Structural Specialty Code 2022 Edition, as published by the International Code Council and known as the International Building Code 2021 Edition and amended by the Building Codes Division of the Oregon Department of Consumer and Business Services, including the appendices and standards adopted by the State of Oregon and Chapter 1, as amended by the Building Codes Division of the Oregon Department of Consumer and Business Services effective April 1, 2021, are adopted by this reference. The Structural Specialty Code is on file in the Development Services Center.

B. Compliance with recognized standards. Where requirements of this Title do not provide necessary regulation or are not fully detailed with regard to processes, methods, specifications, equipment testing, and maintenance, standards of design, performance, and installation, and other pertinent criteria, the applicable standards and recommendation of the National Fire Protection Association, as set forth in its National Fire Code apply, a copy of which is on file in the City Auditor's Office. Said volumes and all subsequent editions are incorporated in this Title by this reference.

C. Application of other titles. Nothing in this Title is intended to permit the establishment or conversion of any structure or use of any land in any zone that is not in accordance with the applicable sections of Portland City Code Title 25 (Plumbing Regulations), Title 26 (Electrical Regulations), Title 27 (Heating and Ventilating Regulations), Title 33 (Planning and Zoning Regulations).

D. Residential Code. The provisions of the State of Oregon Residential Specialty Code, 2023 Edition, as adopted effective October 1, 2023, and published by the International Code Council, and known as the International Residential Code, 2021 Edition, and amended by the Building Codes Division of the Oregon Department of Consumer and Business Services, including the appendices and standards adopted by the State of Oregon, are adopted by this reference. The Residential Specialty Code is on file in the Development Services Center.

E. 2021 Oregon Energy Efficiency Specialty Code. The provisions of the 2021 Oregon Energy Efficiency Specialty Code, consisting of Chapter 13 of the Oregon Structural Specialty Code, 2019 Edition, ANSI/ASHRAE/IES Standard 90.1 – 2019, as amended by the Building Codes Division of the Oregon Department of Consumer and Business Services, are adopted by this reference. The 2021 Oregon Energy Efficiency Specialty Code is on file in the Development Services Center.

F. International Building Code. The International Building Code 2021 edition, as published by the International Code Council, Chapter 32 in entirety and Chapter 33, Sections 3301, 3306, 3307, 3308, are adopted by this reference. The International Building Code is on file in the Development Services Center.

24.10.050 Organization.

A. Portland Permitting & Development. Portland Permitting & Development is under the jurisdiction of the City Administrator.

B. Enforcement of this Title. The City Administrator is authorized and directed to enforce all provisions of this Title except to the extent to which the Building Code empowers and requires the Building Official, as that term is defined in Section 24.15.055, to act. For such purpose the City Administrator and Building Official have the powers of a law enforcement officer.

C. Deputies. The City Administrator may appoint officers, inspectors, and assistants and other employees. The City Administrator may also deputize employees as may be necessary to carry out the duties of Portland Permitting & Development.

D. Right of entry. Whenever an inspection is necessary to enforce any of the provisions of this Title, or whenever the City Administrator has reasonable cause to believe that there exists in any building or upon any premises any condition that makes such building or premises substandard as defined within this Title, or upon presentation of a lawfully issued warrant, the City Administrator may enter such building or premises at all reasonable times to inspect or to perform any imposed duty and will have recourse to every remedy provided by law to secure entry.

24.10.060 Enforcement.

Subject to Subsection 24.10.050 B.:

A. All permitted work is subject to inspection by the City Administrator, and certain work may have continuous inspection by special inspectors as specified in Chapter 24.20. Approval as a result of an inspection will not be construed to be an approval of a violation of the provisions of this Title or of any other laws or regulations. Inspections presuming to give authority to violate or cancel the provisions of this Title or of any other laws or regulations will not be valid. The City Administrator may make or require all inspections necessary to ascertain compliance with this Title and any other laws enforced by the City pursuant to this Title.

B. The City Administrator, upon notification from the permit holder or the permit holder's agent, will either approve of those portions of the construction requiring inspection or will notify the permit holder, or the permit holder's agent, in writing, wherein the same fails to comply with the provisions of this Title.

C. Stop work orders. When it is necessary to obtain compliance with this Title, the City Administrator may issue a stop work order requiring that all work, except work directly related to elimination of the violation, be immediately and completely stopped. If the City Administrator issues a stop work order, activity subject to the order may not be resumed until such time as the City Administrator gives specific approval in writing. The stop work order will be in writing, except when an emergency condition exists, the City Administrator may issue a stop work order orally, followed by a written stop work order. All stop work orders will conform to the requirements of Portland City Code Section 3.30.080. Any person subject to a stop work order may seek review of the order by the City Administrator and may appeal the determination in accordance with Section 3.30.080.

D. It is unlawful for any person, firm, or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert or demolish, equip, use, occupy, or

maintain any building or structure in the City, or cause the same to be done, contrary to or in violation of any of the provisions of this Title.

E. If an unoccupied structure or structure under construction is open or unattended, the City Administrator may enter to determine if a hazardous condition exists. If such a condition exists, the City Administrator will notify the owner of the condition and order the structure immediately secured against the entry of unauthorized persons.

F. In the event the property owner, permit holder or the owner's agent fails or neglects to carry out any requirement, or fails to correct any noted violation of this Title, the City Administrator may gain compliance by any of the remedies outlined in Chapter 3.30 of this Code and is authorized to institute any appropriate proceeding at law or in equity to restrain, correct, or abate such violation or to require the removal or termination of the unlawful occupancy of the building or structure in violation of the provisions of this Title or of the order or direction made pursuant to it.

24.10.070 Application for Permits.

A. Permits required. No person, firm, or corporation may erect, construct, enlarge, alter, repair, move, improve, remove, convert, change occupancy group of, or demolish any building or structure, or do any clearing or grading, or cause any of the same to be done without first obtaining the proper permit, or where appropriate a minor structural label as outlined in Section 24.10.095. The limitations of Oregon Revised Statutes 455.020 notwithstanding, permits are required to construct, alter, repair or move any structure as identified in this Title or in the Oregon Structural Specialty Code or the Oregon Residential Specialty Code, as adopted in Chapter 24.10 of this Title. Building permits and fees for work on private property are waived whenever the work appears on plans and specifications approved by the City Administrator. This work will be limited to the construction of streets, public sewers, public stormwater management facilities, driveways, retaining walls, fences, walkways, parking pads, steps, and tree, shrub, and brush removal.

B. Plans and specifications.

1. Plans, engineering diagrams, and other data must be submitted with each application and must comply with the requirements of Chapter 1 of the Oregon Structural Specialty Code and this Title. If a structural design is required, computations, stress diagrams, computer data, and such additional data as required by the City Administrator, sufficient to show the correctness of the plans and compliance with the structural provisions of this Title must be submitted. The above data must include a brief summary of all basic assumptions, design methods, structural systems, loading, lateral bracing systems, and a table of contents of the computations. Computer calculations submitted as substantiation of the design must include a copy of the program user manual for each program, definition, sketches, index of data runs, and properly identified input and output listings. For other than nationally

recognized programs, the correctness of the program must be substantiated in a manner acceptable to the City Administrator. When required by the City Administrator, or when required under ORS 672 (State Engineering Law) or ORS 671 (State Architectural Law), plans must be prepared and certified by a registered design professional licensed to practice in the State of Oregon. If the City Administrator determines that the proposed work is of a highly technical nature or there is an unreasonable potential risk to life and/or safety of the structure, the City Administrator can require that the plans be prepared and designed by an engineer or architect licensed by the State to practice under ORS 672 or ORS 671.

2. Examination of documents. The City Administrator will examine or cause to be examined plans and specifications and will ascertain by such examination whether the construction indicated and described is in accordance with the requirements of this Title and other laws and regulations of the City.

C. Parking lots. Parking lots will not require a separate building permit when they are clearly shown on plans submitted and their valuation is included on the application for the principal building permit.

D. Compliance with Chapter 17.88 (Street Access) of this Code is required prior to issuance of a permit issued under this Chapter 24.10.

E. Plans for other than one- and two-family dwelling repairs, remodels, or additions must be approved by the Fire Marshal prior to approval by the City Administrator.

F. Issuance of permits. Except as otherwise provided in this Title, permits will be issued in accordance with Chapter 1 of the Oregon Structural Specialty Code and the provisions of this Title, provided that plans for all commercial buildings and any off-street parking area where the parking of three or more cars is to be established must be approved by the City Engineer and the City Traffic Engineer before a building permit may be issued.

1. Action on application. The City Administrator will issue a permit if the City Administrator is satisfied that the proposed work conforms to the requirements of this Title and other laws and regulations of the City.

2. Validity of permit. The issuance or granting of a permit must not be construed to be a permit for, or an approval of, any violation of any provisions of this Title or of any other laws or regulations of the City. Permits presuming to give authority to violate or cancel the provisions of this Title or other laws or regulations of the City must not be valid. The City Administrator may prevent occupancy or use of a structure where in violation of this Title or any other laws or regulations of the City.

3. Suspension or revocation. The City Administrator may suspend or revoke a permit issued under the provisions of this Title wherever the permit is issued in error or on the basis of incorrect, inaccurate, or incomplete information, or in violation of any provisions of this Title or any other laws or regulations of the City.

G. Charge for partial permits. When complete plans and specifications are not available, the City Administrator may issue partial permits to assist in the commencement of the work, provided that a partial permit charge is paid to the bureau. The number of partial permits issued may not exceed six on any individual project, except that in special circumstances the City Administrator may allow this number to be exceeded.

H. Retention of plans.

1. Plans and specifications for all buildings, or their photographic image, must be retained permanently in the files of Portland Permitting & Development, except as follows:

a. Plans and specifications for work that does not concern or affect the structural stability of a building and that does not affect a change of occupancy may be destroyed after 5 years from date of building permit for same;

b. Plans and specifications for one or two family dwellings, and/or buildings accessory to them may be destroyed after 5 years from date of building permit for same.

I. A separate permit will be required for site development, changes in use, or other work performed in compliance with Portland City Code Title 33, Chapter 33.700, Administration, that is not otherwise included with the permit described in Subsection A. of this Section. Reviews and approval of site plans or other documents must be obtained from Portland Permitting & Development prior to issuance of the permit.

J. Life of Permit Limited.

1. Permit applications.

a. Initial permit application. Except for Personal Wireless Service Facility permit applications, a permit application that is inactive for a period of 180 days will be deemed abandoned. If an abandoned permit application is not reactivated within 180 days of abandonment, the permit application will be void. If a permit application is void, a new permit application is required for the subject work. A Personal Wireless Service Facility permit application, for which a permit is not issued within 180 calendar days from the date the permit application is under

review status will be deemed abandoned, unless the City Administrator has granted an extension. An abandoned Personal Wireless Service Facility permit application may not be reactivated.

b. Extensions. The City Administrator may extend a permit application with justifiable cause, as determined in the City Administrator's sole discretion. A permit application may be extended for a period of up to 180 days. Extension requests must be in writing and received by Portland Permitting & Development before the scheduled permit abandonment date.

c. Reactivations. Except for Personal Wireless Service Facility permits, the City Administrator may reactivate a permit application that has been abandoned for less than 180 days with justifiable cause, as determined in the City Administrator's sole discretion. Reactivation requests must be in writing and received by Portland Permitting & Development within 180 days after permit expiration. If no activity occurs within 180 days after a permit application is reactivated, the permit application will be deemed abandoned. A permit application may be reactivated only once.

2. Issued permits.

a. Initial issued permit. Except for Personal Wireless Service Facility permits, if no inspection is approved within 180 days after permit issuance, the permit will expire. If an expired permit is not reactivated within 180 days of expiration, the permit will be void. If a permit is void, a new permit is required for the subject work. A Personal Wireless Service Facility permit that has not received final inspection approval within 180 days from the date the permit is issued will expire, unless the City Administrator has granted an extension.

b. Extensions. Except for Personal Wireless Service Facility permits, each time an inspection is approved, the permit will automatically be extended for 180 days. The City Administrator may also extend a permit for periods of up to 180 days with justifiable cause, as determined in the City Administrator's sole discretion. Extension requests must be in writing and received by Portland Permitting & Development before the scheduled permit expiration date. If no inspection is approved or additional extension granted within the extended time period, the permit will expire.

c. Reactivations. The City Administrator may reactivate a permit that has been expired for less than 180 days, provided no changes have been made to the scope of work, and with justifiable cause as determined in the City Administrator's sole discretion. Except for

Personal Wireless Service Facility Permits, a void permit may be reactivated provided there have been no changes to the scope of work and only the final inspection remains unapproved. A void Personal Wireless Service Facility permit may not be reactivated. Reactivation requests must be in writing and received by Portland Permitting & Development within 180 days after permit expiration. If no inspection is approved within 180 days of reactivation, the permit will expire. A permit may be reactivated only once.

3. Fees. When a new permit is required, a new permit application must be submitted and new fees must be paid based on the current adopted Portland Permitting & Development fee schedule. Portland Permitting & Development will adopt policies for fee refunds or credits of previously submitted permit applications. Fees for permit extensions and reactivations may also be charged as adopted in Portland Permitting & Development fee schedule.

K. Maintenance agreements. If any building element, structure, or utility crosses a real property line, a maintenance agreement and access easement must be signed by all affected property owners and recorded in the County Recorder's Office on all affected properties. The agreement and easement must address the repair, upkeep, and replacement of and access to all elements, structures, and utilities that cross a real property line. Prior to recording, the maintenance agreement and access easement must be reviewed and approved by the City Administrator. The maintenance agreement and access easement may not be modified or suspended without the City Administrator's prior written approval. The applicant must provide a copy of the recorded maintenance agreement and access easement to the City Administrator prior to issuance of the building permit.

24.10.072 Other Structures and Construction Activities.

A. Regulated structures and construction activities. The provisions of this Title apply to the following structures and construction activities regardless of when a permit was applied for or approved:

1. Fire safety during construction.

2. Protection of adjoining properties in accordance with the International Building Code.

3. Temporary use of streets, alleys and public property in accordance with the International Building Code.

4. Encroachment into the right-of-way in accordance with the International Building Code.

5. Mechanical equipment not specifically regulated in the Oregon Structural Specialty Code or Oregon Residential Specialty Code.

6. Retaining walls, unless exempt pursuant to Subsection 24.10.072 B.

7. Fences, unless exempt pursuant to Subsection 24.10.072 B.

8. Tanks that are located exterior to and not attached to or supported by a building, unless exempt pursuant to Subsection 24.10.072 B.

9. Cell phone, radio, television, and other telecommunication and broadcast towers that are not attached to or supported by a building.

10. Ground mounted flagpoles, antennae, and similar structures over 25 feet in height that are not attached to or supported by a building.

11. Signs not attached to or supported by a building.

12. Ground-mounted photovoltaic arrays, unless exempt pursuant to Subsection 24.10.072 B.

13. Fixed docks, piers or wharves with no superstructure.

14. Equipment shelters not intended for human occupancy with a building area of 250 square feet or less, designated as Risk Category I or II.

15. Transitional housing accommodations, as defined in ORS 197.746, as amended by House Bill 2916 (2019).

16. Unoccupied grain elevators and silos not exempted by ORS 455.315.

17. Rodentproofing, in accordance with Oregon Structural Specialty Code Appendix F.

18. The design and construction of in-ground swimming pools accessory to not more than four dwelling units.

19. Hydraulic flood control structures, including but not limited to dams and levees.

20. Structures located within flood hazard areas as defined in Chapter 24.50, regardless of whether such structures are exempt under the State of Oregon Residential Specialty Code or Structural Specialty Code.

B. Exempt structures. Exemption from the requirements of this Title may not be deemed to grant authorization for any work to be done in any manner in violation of

the provisions of this Title or any other laws or regulations of the City. The following structures are exempt from the provisions of this Title:

1. Fences constructed of wood and similar materials not over 7 feet (2134 mm) high, fences constructed of masonry, concrete and similar materials not over 4 feet high, and typical field fencing not over 8 feet (2438 mm) high when constructed of woven wire or chain link. Exception: all barriers around swimming pools require a permit.

2. Retaining walls that are not over 4 feet in height measured from the bottom of the footing to the top of the wall, except where the retaining wall supports ascending slopes exceeding 3:1 or where the retaining wall supports a nonsoil surcharge.

3. Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons (18,927 L) and the ratio of height to diameter or width does not exceed 2 to 1.

4. Swings and other playground equipment.

5. Ground mounted photovoltaic systems 10 feet (3038 mm) or less in height measured to the highest point of the installation when no public access is permitted beneath the structures.

24.10.075 Portland Permitting & Development Administrative Appeal Board.

A. Appointment of Administrative Appeal Board. Portland Permitting & Development Administrative Appeal Board consists of the Building Official and Bureau staff members appointed by the City Administrator. In appointing staff members, the City Administrator will consider the issues presented by the appeal and what particular expertise will be helpful in addressing those issues. The staff will act in an advisory capacity to the City Administrator. The Administrative Appeal Board may:

1. review appeals of the Bureau's application and interpretation of the State of Oregon specialty codes adopted in this Title (collectively referred to as the "Building Code");

2. review requests for modifications to the strict application of the Building Code; and

3. review requests to use alternative materials, design or methods of construction and equipment.

B. Appeals to the Administrative Appeal Board and final decisions. Any person aggrieved by a decision of the Bureau related to the application and interpretation of the Building Code or who wants to request a modification to the strict interpretation of the Building Code or consideration of an alternative material, design or method of construction or equipment may file an appeal with the Administrative Appeal Board. Such an appeal must be filed within 180 days of the Bureau decision being appealed; provided, however, the Building Code in effect at the time the Bureau decision was made will be applied to the administrative appeal. The Administrative Appeal Board may:

1. grant an appeal if the Administrative Appeal Board finds that the Building Code was not correctly interpreted or applied;

2. grant a modification to the application of the Building Code where special individual reasons make application of the strict letter of the Building Code impractical, the modification is in compliance with the intent and purpose of the Building Code, and such modification does not lessen health, accessibility, life and fire safety or structural requirements of the structure;

3. approve an alternative material, design or method of construction and equipment if the Administrative Appeal Board finds that any such alternative complies with the intent of the Building Code and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in the Building Code in quality, strength, effectiveness, fire resistance, durability, accessibility and safety. The Administrative Appeal Board may not waive the requirements of the Building Code. The Administrative Appeal Board review will culminate in a final decision by the Building Official. The Administrative Appeal Board meeting is not open to attendance by the appellant or the public. The Bureau will provide final decisions to the appellant by publication of the decision on the Bureau's website within 10 calendar days of the hearing, provided the Bureau has received all required information from the applicant; and

4. grant requirements that are in addition to the Building Code, this Title, or other laws or regulations of the City as part of an appeal.

C. Reconsideration of final decisions and appeals to the Building Code Board of Appeal. Any person aggrieved by a final decision of the Building Official made under Subsection B. above may either file a reconsideration of that decision within 180 days of the decision based on new or revised information or appeal the decision to the Building Code Board of Appeal in accordance with Section 24.10.080 within 90 days of the final decision being appealed. The appeal package may not be altered from the administrative hearing. There is no additional fee for the first reconsideration of an Administrative Appeal Board decision or for an appeal to the Building Code Board of Appeal. The Building Code in effect at the time of the final

decision being reconsidered or appealed will be applied to the reconsideration or subsequent appeal to the Building Code Board of Appeal.

D. Fees for appeals. The fees for administrative appeals are as stated in the Fee Schedule adopted by the City Council. The current approved Fee Schedule is available at the Development Services Center and on the Bureau's website.

24.10.080 Building Code Board of Appeal.

A. Appointment of Building Code Board of Appeal. In order to hear appeals of final decisions of the Building Official made under Section 24.10.075, there is a Building Code Board of Appeal, consisting of three members and three alternates appointed by the Mayor and approved by the City Council.

1. Each member and alternate member must be qualified by experience and training to make decisions pertaining to the Building Code and building construction. At least one member and one alternate member must be competent builders who have engaged in the construction business in the City for at least two years immediately preceding their appointments, and at least one member and one alternate member must be competent architects who have practiced their profession for at least three years. The River Community Advisory Committee, see Section 28.03.015, may appoint a subject matter expert to advise on subjects specific to floating structures.

2. Building Code Board of Appeal appointments will be for 3-year terms. Appeal Board members may serve no more than two 3-year terms. Board members may serve a third term if their board has not convened during the board member's first two terms, or the City Administrator recommends approval of a longer term, and the Mayor and City Council approve the extended appointment. Vacancies occurring prior to the end of a term for whatever cause may be filled by qualified persons through appointment by the Mayor for the remainder of the term. If a board member does not convene in one of their first two terms, they are automatically rolled into a third term. Board members may opt out of a third term at their discretion.

3. Any member may be removed by the Mayor for incompetence, dereliction of duty, incapacity or other sufficient cause.

4. Members of the Building Code Board of Appeal must comply with the State ethics laws applicable to public officials.

5. Members of the Building Code Board of Appeal must serve in a voluntary capacity and without pay.

B. Appeals to the Building Code Board of Appeal. The Building Code Board of Appeal may review Administrative Appeal Board decisions or any other final decision

of the Building Official related to the application and interpretation of the Building Code. The Building Code appeal will be limited to the facts and record reviewed by the Administrative Appeal Board and the Building Official related to the decision being appealed. A hearing will be held within 45 days after an interested party submits a written appeal to the Building Code Board of Appeal. A panel of three Building Code Board of Appeal members will hear each appeal. The Board may, by a majority vote, affirm, annul, or modify the decision.

C. Powers and limitations of authority of the Building Code Board of Appeal. The Building Code Board of Appeal may provide reasonable interpretations of the requirements of the Building Code and may grant an appeal if the Board finds one of the following:

1. the Building Official did not correctly apply or interpret the Building Code;

2. special individual reasons make application of the strict letter of the Building Code impractical, the modification is in compliance with the intent and purpose of the Building Code, and such modification does not lessen health, accessibility, life and fire safety or structural requirements of the structure; or

3. any alternative material, design or method of construction and equipment complies with the intent of the Building Code and the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in the Building Code in quality, strength, effectiveness, fire resistance, durability, accessibility and safety. The Building Code Board of Appeal may not waive the requirements of the Building Code.

Any person aggrieved by a final decision of the Building Code Board of Appeal may, within 30 days after the date of the decision, appeal to the appropriate advisory board of the State of Oregon Department of Consumer and Business Services.

24.10.085 Structural Engineering Advisory Committee.

A. There is created a Structural Engineering Advisory Committee consisting of six members licensed in Oregon to practice structural engineering, appointed by the Mayor and approved by the City Council.

Members may be appointed to no more than two consecutive 3-year terms, unless the City Administrator recommends approval of a longer term, and the Mayor and City Council approve the extended appointment. In addition, the City Administrator or designee will be an exofficio- member of the board.

B. Any member of the board may be removed from office by the Mayor for malfeasance in office or neglect of duty at any time during the member’s tenure.

C. The committee will elect a chairperson, adopt rules of procedure, and set the time and place for regular meetings. A quorum consisting of at least three members of the committee is required to conduct committee business. Written minutes of all meetings must be made and kept subject to the requirements and limitations of ORS 192.610 to ORS 192.690.

D. It is the duty of the board to advise the City Administrator and the Appeals Board in structural matters relative to reasonable interpretation and to alternate materials and methods of construction.

E. Any action of the board will be in an advisory capacity to the City. Subsequent action taken by the City as a result of advice from the boards will be the sole responsibility of the City.

24.10.087 Alternative Technology Reviews.

A. Portland Permitting & Development will determine which of the following boards of appeal to consult with regarding new or innovative sustainable building technologies and products:

1. Building Code Board of Appeal

2. Mechanical Code Board of Appeal

3. Electrical Code Board of Appeal

4. Plumbing Code Board of Appeal.

B. The Alternative Technology Advisory Review serves only in an advisory capacity to the City. Subsequent action taken by the City as a result of the applicable board of appeal's review will be the sole responsibility of the City.

24.10.090 Pre-application and Pre-construction Meetings.

Where major construction projects involve coordination between City bureaus and the design/ construction teams, the City Administrator may hold a pre-application or pre- construction meeting with representatives of the interested parties as an aid to the enforcement of this Title.

24.10.095 Commercial and Industrial Minor Structural Labels.

General. Oregon Revised Statutes Chapter 455.155 gives the Department of Consumer and Business Services the authority to create a statewide permit and inspection system for minor construction work. The Oregon Building Codes Division under the Department of Consumer and Business Services has created a mandatory statewide minor labels program. Implementation rules are found in Oregon

Administrative Rules 918-100-0000 through 918-100-0600. The Bureau, in accordance with OAR 918-100-0060, will conduct inspections and issue necessary correction notices for minor commercial and industrial labels issued pursuant to the statewide minor labels program.

24.10.100 Fees

A. General. The following fees are required to be paid to the City as set forth in this Chapter.

B. Building permit and plan check/process fee.

1. All required fees are stated in the Fee Schedule adopted by City Council. Fees will be updated annually or on an as needed basis. The approved Fee Schedule will be available at the Development Services Center.

2. A plan checking fee is payable when the plans and application are accepted by the City Administrator for examination and are not refundable. A permit fee must be paid to the City before a building permit is issued.

3. Permit and plan check fees will, as a general rule, be refunded when the services covered by the fee have not commenced, and the permit or plan review fees were paid incorrectly due to an error on the part of the City. When a permit applicant requests a refund, but the City was not at fault in accepting payment, fees may be retained to cover the cost of plan review or inspections actually performed and 20 percent of the amount remaining. State surcharge fees are only refundable when a permit was issued in error. Requests for refunds must be made within 6 months of payment or permit issuance, whichever is later. Refunds are to be made to the same person or firm who paid the fee within 3 months of the request. Exceptions to the above requirements may be made by the City Administrator or designee.

24.10.150 Severability.

If any provision of this Title, or its application to any person or circumstance, is held invalid by any court, the remainder of this Title and its application to other persons and circumstances, other than that which has been held invalid, will not be affected by such invalidity, and to that extent the provisions of this Title are declared to be severable.

Chapter 24.15 Definitions

24.15.010 General.

For the purpose of this Title, certain terms, phrases, words, and their derivatives must be construed as specified in this Chapter. Words used in the singular include the plural

and the plural the singular. Words used in the masculine gender include the feminine and the feminine the masculine. Terms, words, phrases, and their derivatives used, but not specifically defined in this Chapter either will have the meaning defined in this Chapter or, if not defined in this Chapter, will have the meanings commonly accepted in the community.

24.15.020 Abandoned Structure.

An **abandoned structure** is a structure that has been vacant for a period in excess of six months or any period less than 6 months when a vacant structure or portion thereof constitutes an attractive nuisance or hazard to the public.

24.15.030 Agreement/Contract to Repair/Work.

An **agreement or contract to repair/work** is a written agreement in which an owner of a structure agrees to carry out repair/work on any abandoned, unsafe, dangerous structure, or structure between a specified commencement and completion date.

24.15.040 Approved Testing Agency.

An **approved testing agency** is an established and recognized agency regularly engaged in conducting testing and furnishing inspection services.

24.15.045 Boarded.

Secured against entry by apparatus that is visible off the premises and is not both lawful and customary to install on occupied structures.

24.15.050 Building.

A **building** is a structure used or intended for sheltering any use or occupancy.

24.15.055 Building Official.

The **building official** for the City or a duly authorized representative charged with the administration and enforcement of the Building Code. The Building Official serves as the authority having jurisdiction over the Building Code.

24.15.060 Dangerous Structure.

Any structure that has any or all of the conditions or defects described in this Section, to the extent that life, health, property, or safety of the public or its occupants are endangered, will be deemed to be a dangerous structure and such condition or defects must be abated pursuant to Sections 24.55.250 and 24.55.300 of this Chapter.

A. Whenever the stress in any materials, member, or portion thereof, due to all dead and live loads, is more than 1-1/2 times the working stress or stresses allowed in the Oregon Structural Specialty Code and Fire and Life Safety Code for new buildings of similar structure, purpose, or location.

B. Whenever any portion thereof has been damaged by fire, earthquake, wind, flood, or by any other cause, to such an extent that the structural strength or stability thereof is materially less than it was before such catastrophe and is less than the minimum requirements of the Oregon Structural Specialty Code and Fire and Life Safety Code for new buildings of similar structure, purpose, or location.

C. Whenever any portion or member of appurtenance thereof is likely to fail, or to become detached or dislodged, or to collapse and injure persons or damage property.

D. Whenever any portion of a building, or any member, appurtenance, or ornamentation of the exterior thereof is not of sufficient strength or stability, or is not so anchored, attached or fastened in place so as to be capable of resisting a wind pressure of one-half of that specified in the Oregon Structural Specialty Code and Fire and Life Safety Code for new buildings of similar structures, purpose, or location without exceeding the working stresses permitted in the Oregon Structural Specialty Code and Fire and Life Safety Code for such buildings.

E. Whenever any portion thereof has wrecked, warped, buckled, or settled to such an extent that walls or other structural portions have materially less resistance to winds or earthquakes than is required in the case of similar new construction.

F. Whenever the building or structure, or any portion thereof, because of

1. dilapidation, deterioration, or decay;

2. faulty construction**;**

3. the removal, movement, or instability of any portion of the ground necessary for the purpose of supporting such building;

4. the deterioration, decay, or inadequacy of its foundation; or

5. any other cause, is likely to partially or completely collapse.

G. Whenever, for any reason, the building or structure, or any portion thereof, is manifestly unsafe for the purpose for which it is being used.

H. Whenever the exterior walls or other vertical structural members list, lean, or buckle to such an extent that a plumb line passing through the center of gravity does not fall inside the middle one-third of the base.

I. Whenever the building or structure exclusive of the foundation, shows 33 percent or more damage or deterioration of its supporting member or members, or 50 percent damage or deterioration of its non-supporting members, enclosing, or outside wall coverings.

J. Whenever the building or structure has been so damaged by fire, wind, earthquake or flood or any other cause, or has become so dilapidated or deteriorated as to become (I) an attractive nuisance, or (ii) a harbor for vagrants or criminals.

K. Whenever any building or structure has been constructed, exists, or is maintained in violation of any specific requirement or prohibition applicable to such building or structure provided by the building regulations of this City, as specified in the Oregon Structural Specialty Code and Fire and Life Safety Code or any law or ordinance of this State or City relating to the condition, location, or structure or buildings.

L. Whenever any building or structure that, whether or not erected in accordance with all applicable laws and ordinances, has in any non-supporting part, member, or portion, less than 50 percent, or in any supporting part, member, or portion less than 66 percent of the

1. strength,

2. fire-resisting qualities or characteristics required by law in the case of a newly constructed building of like area, height, and occupancy in the same location. This Subsection does not apply to strength required to resist seismic loads. For application of seismic requirements see Chapter 24.85.

M. Whenever any building or structure, because of dilapidated condition, deterioration, damage, inadequate exits, lack of sufficient fire-resistive construction, faulty electric wiring, gas connections, or heating apparatus, or other cause, is a fire hazard.

N. Whenever any building or structure is in such a condition as to constitute a public nuisance known to the common law or in equity jurisprudence.

O. Whenever any portion of a building or structure remains on a site for more than 30 days after the demolition or destruction of the building or structure.

24.15.065 Derelict Commercial Building.

Any building or structure:

A. In which there are no dwelling units, and

B. That is not an accessory building to a building in which there are dwelling units, and

C. Which building, structure or a portion thereof is unoccupied; and

D. That meets any of the following criteria:

1. Has been ordered vacated by the City Administrator pursuant to Subsection 24.55.250 F; or

2. Has been issued a correction notice by the City Administrator pursuant to Subsection 24.55.250 A.; or

3. Is unsecured; or

4. Is boarded; or

5. Has been posted for violation of Portland City Code Section 18.03.050 more than once in any two-year period; or

6. Has, while vacant, had a nuisance abated by the City pursuant to Sections 18.03.010 or 18.03.030.

24.15.070 Director.

Director means the Director of Portland Permitting & Development or a duly authorized representative of the Director.

24.15.075 Dwelling Unit.

One or more habitable rooms that are occupied by or designed or intended to be occupied by one person, or by a family or group of housemates living together as a single housekeeping unit.

24.15.080 Exterior Property Area.

Exterior property area is the open space on the premises and on adjoining property under the control of the owner or operator of such premises.

24.15.090 Hearings Officer.

Hearings Officer is the office of the Code Enforcement Hearings Officer created pursuant to Section 22.02.010 of the City Code.

24.15.100 Imminently Dangerous.

Imminently dangerous means any condition posing a direct and immediate threat to human life, health, or safety.

24.15.110 Inspections Manager.

The **Inspections Manager** is the City Administrator's duly authorized representative responsible for the administration of the Inspections Division of Portland Permitting & Development.

24.15.115 Master Permit/Facilities Permit Program.

The **Master Permit/Facilities Permit program** is a special alternative inspection program authorized under Oregon Revised Statute 455.190. This program is available to commercial/industrial building owners and building management companies to streamline the approval of maintenance/repair and tenant improvement work on their private facilities.

24.15.120 Owner.

Owner is any person, agent, firm, or corporation having a legal or equitable interest in a property.

24.15.125 Personal Wireless Service Facility.

An antenna facility, including: (a) an antenna designed for the purpose of emitting radiofrequency (RF) radiation, to be operated or operating from a fixed location pursuant to FCC authorization, for the provision of personal wireless service and any commingled information services; (b) antenna equipment, including equipment, switches, wiring, cabling, power sources, shelters or cabinets associated with an antenna, located at the same fixed location as the antenna for personal wireless service; or (c) a structure that is primarily used or that will be primarily used for the provision of personal wireless service, whether such service is provided on a stand-alone basis or commingled with other wireless communications services.

24.15.130 Repair.

Repair is the reconstruction or renewal of any part of an existing structure for the purpose of its maintenance.

24.15.140 Residential Structure.

Residential structure means any building or other improvements designed or intended to be used for residential purposes.

24.15.150 Requested Inspection.

Requested inspection means any additional inspection that is not part of the City's regular or mandated inspection program.

24.15.160 Service Station Site.

A **service station site** means premises improved as a Group S, Division 3, occupancy for use as automobile or truck service stations used for supplying fuel, oil, minor accessories, and trailers, excluding body and fender repair for passenger automobiles, trucks, and truck trailers at retail direct to the customer.

24.15.170 Substandard.

Substandard means in violation of any of the minimum requirements as set out in this Title.

24.15.180 Special Inspector.

Special Inspector means a qualified person approved by the City Administrator as having the competence necessary to inspect the particular type of construction requiring a special inspection.

24.15.190 Subject Structure.

A **subject structure** is any abandoned, unsafe, or dangerous structure upon which Portland Permitting & Development has commenced abatement proceedings.

24.15.200 Structure.

A **structure** is that which is built or constructed, an edifice or building of any kind, or any piece or work artificially built up or composed of parts joined together in some definite manner.

24.15.215 Tree Removal.

Tree Removal has the same meaning as "removal" as defined in Portland City Code Title 11 Trees.

24.15.220 Unoccupied.

Not being used for a lawful occupancy.

24.15.230 Unsafe.

Means:

A. Any structure that is structurally unsafe or not provided with adequate egress, or that constitutes a fire hazard or is otherwise dangerous to human life.

B. Unsafe use is any use of structures constituting a hazard to health, safety, or public welfare by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster, damage, or abandonment.

C. Unsafe appendages are parapet walls, cornices, spires, towers, tanks, statuaries, or other appendages or structural members that are supported by, attached to, or part of a building, and that are in a deteriorated condition or otherwise unable to sustain the design loads that are specified in the Oregon Structural Specialty and Fire and Life Safety Code.

24.15.240 Unsecured.

Any building or structure in which doors, windows, or apertures are open or broken so as to allow access by unauthorized persons.

24.15.250 Value/Valuation.

Value or **valuation** of a structure or building is the estimated cost to replace the structure or building in kind, based on either the building valuation data reported in the latest issue of the ICBO Building Standards Journal or by any alternate method approved by the City Administrator to give an accurate assessment of building replacement costs.

24.15.260 Warehousing.

Warehousing means securing a structure against vandalism, deterioration, and unauthorized entry pending its return to active use or occupancy.

Chapter 24.20 Special Inspections

24.20.010 General.

A. In addition to the inspections required under Section 110 of the Oregon Structural Specialty Code, the owner or the owner's agent must employ a Special Inspector during construction of the types of work specified in Chapter 17 of the Oregon Structural Specialty Code or for cases specifically required by the City Administrator.

B. The City Administrator may adopt and enforce written rules concerning the conduct and administration of special inspections in Portland.

24.20.020 Selection of the Special Inspectors and/or Agencies.

With the approval of the City Administrator, Special Inspectors and approved inspection and/or testing agencies must be chosen and paid by the owner, and will report to the licensed architect or engineer whose signature and seal appear on the design drawings and to Portland Permitting & Development. No changes of Special Inspectors or inspection/testing agency approved by the City Administrator may be made without obtaining approval of the responsible architect/engineer and the City Administrator.

24.20.030 General Duties of the Special Inspector.

A. The Special Inspector must observe the work assigned for conformance with the approved construction documents.

B. The Special Inspector must keep records of inspections and must furnish inspection reports to the City Administrator, the Registered Design Professional, as that term is defined in Chapter 2 of the Oregon Structural Code. All discrepancies must be brought to the immediate attention of the contractor for correction, then, if uncorrected, to the City Administrator.

C. The Special Inspector/Inspection Agency must submit a final signed summary report stating whether the work requiring special inspection was, to the best of their knowledge, in conformance with the approved plans and specifications and the applicable workmanship provisions in the Building Code.

Chapter 24.25 Moving of Buildings

24.25.010 General.

No building may be moved from one location to another until permits have been obtained.

24.25.020 Permit Information Required.

The applicant must file with Portland Permitting & Development an application for a permit to move the structure, it must be signed by the owner or the owner’s authorized agent, and must contain a description of the building to be moved, the location where it is to be moved, and the use and occupancy proposed, in addition to the information required by Section 24.10.070 of this Title regarding foundation or other work at the final location.

24.25.030 Direction of City Engineer.

No building may be moved across or along any street until the route to be followed and the time allowed for moving has been submitted to the City Engineer and approved by them. Moving must be under the direction of the City Engineer. For the regulations covering the use of public streets see Chapter 33 of the Structural Specialty Code.

24.25.040 Housing Code Inspection Report Required.

The City Administrator may inspect any residential building that is proposed to be moved to ensure its compliance with the provisions of Title 29 of this Code.

Chapter 24.30 Home Occupations

24.30.010 Permits Required.

A permit is required to establish a home occupation. The permit must be renewed every two years to maintain said home occupation.

24.30.020 Compliance with Planning and Zoning Regulations.

All home occupations must comply with the provisions of Title 33 of this Code.

24.30.030 Fees for Home Occupations.

The fee for a home occupation permit is as provided in Chapter 24.10 of this Title.

Chapter 24.40 Use of and Projections Over Public Streets and Property

24.40.010 Street Use.

A person undertaking work covered by a building permit, may, on proof of necessity, be entitled to a permit for use of the street, sidewalks, and/or roadway. Applications are subject to the approval of the City Administrator. Material or equipment necessary for the work may be placed or stored on public property in the following locations:

A. On the roadway, adjacent to the curb in front of the site for which a building permit has been issued.

B. On the roadway in front of an adjoining site.

C. On the public sidewalk, in front of the construction site, except on those sidewalks required to be kept open. A street use permit may be issued for a minimum period of week and a maximum period of 90 days. The permit may be extended if, in the judgment of the City Administrator, an extension is warranted by existing conditions. The use of the street by persons holding a permit and/or the fencing-off of street space may not be continued longer than is necessary. If the permit for street use is within the Special Traffic Control Districts outlined in Portland City Code Section 17.23.030, the prior approval of the City Engineer must be obtained if the street use extends beyond the curb line.

When work not requiring a building permit is undertaken for maintenance of buildings or structures in the congested areas where parking meters are located, the person undertaking such work may not close off any portion of the sidewalk or roadway areas without first obtaining, subject to the approval of the City Administrator, a street use permit; the time limit for such permit will be as specified above. If the street use permit is within the special Traffic Control Districts outlined in Section 17.23.030, the prior approval of the City Engineer must be obtained if the street use extends beyond the curb line. While work is in progress, a roped-off passageway not less than 4 feet in width must be maintained for pedestrians. This passageway may be no closer than 6 feet horizontally from any scaffold, ladder, machinery, or equipment. The passageway must be entirely contained within the existing sidewalk area. The City Administrator may also require pedestrian protection as outlined in Chapter 33 of the Structural Specialty Code. In order to ensure coordination of construction activity within the Street area and to provide that the private and public needs are met, the City Administrator may also require a preconstruction meeting as outlined in Section 24.10.090 of this Title.

24.40.020 Dirt on Streets from Construction Projects.

If dirt or debris falls on any public right-of-way and such debris originates from a construction project for which a building, plumbing, or electrical permit has been issued, it is unlawful for the permit holder and/or owner not to remove it immediately. Failure of either the owner and/or permit holder to remove the spillage within 24 hours after notification given either orally or in writing may result in the City Administrator gaining compliance by any of the methods outlined in Section 24.10.060 of this Title.

24.40.030 Fees.

Fees for street use are as indicated in Chapter 24.10 of this Title.

Chapter 24.45 Parking and Driveway Surfaces

24.45.010 General.

All vehicular driveways, parking spaces, and areas utilized for the maneuvering of vehicles must be surfaced in accordance with this Chapter.

24.45.020 Minimum Surfacing Standards for Parking Areas and Garages for Passenger Cars and Trucks not Exceeding 1/2-Ton Capacity and Driveways Serving Structures 150 Feet or Less from an Improved Public Right-of-Way.

Surfaced areas must be constructed on properly drained, well-compacted subgrade, that is free of organic materials. Minimum pavement structure must be:

A. Three and one-quarter inches Portland cement concrete having a compressive strength of 2,000 psi after 28 days, or

B. One and one-half inches of asphalt concrete placed over a base of 4 inches of crushed stone or gravel, or

C. Grid paving blocks, paving stones or materials with adequate spacing for drainage infiltration, or other stormwater management control surfaces. Where such surfaces are provided in accessible parking and as part of an accessible pedestrian path, the surfaces must meet accessibility standards of the Building Code.

24.45.030 Minimum Surfacing Standards for Driveways Serving Structures More than 150 Feet from an Improved Public Right-of-Way.

Surfaced areas must be constructed on properly drained, well-compacted subgrade, that is free of organic materials. Minimum pavement structure must be:

A. Two inches of asphalt concrete on 4 inches of 1-inch minus, compacted crushed rock; or

B. Five inches of Portland cement concrete having a compressive strength of 3,000 psi after 28 days, or

C. A driveway surfaced as per Section 24.45.020 for the first 40 feet contiguous with the right-of-way paving and the remaining portion of 8 inches of 1-inch minus, compacted crushed gravel over filter fabric, or

D. Grid paving blocks, paving stones or materials with adequate spacing for drainage infiltration, or other stormwater management control surfaces. Where such surfaces are provided in accessible parking and as part of an accessible pedestrian path, the surfaces must meet accessibility standards of the Building Code.

24.45.040 Minimum Surfacing Standards for Trucks Over 1/2-Ton Capacity and Other Vehicles.

Surface of parking, storing, and maneuvering areas for vehicles and motorized equipment not regulated elsewhere in this Chapter must be by a method approved by the City Administrator that will effectively eliminate dust, mud, or other contaminating elements on surrounding street areas and/or abutting property and be constructed of materials capable of supporting the maximum axle weight of the largest piece of equipment. At each street entrance, a concrete or asphalt driving apron must extend from the right-of-way paving at least 40 feet into the surface area.

24.45.050 Private Streets.

Private street improvements must consist of 1-1/2 inches of Class "C" asphalt concrete on 1-1/2 inches of Class "B" asphalt concrete on 6 inches of 1-1/2 inch minus compacted crushed gravel upon a compacted subgrade that has achieved 95 percent compaction.

No gates or other barriers that would restrict vehicles or pedestrians from using the private street may be located on a private street approved under this Section.

Chapter 24.50 Flood Hazard Areas

24.50.010 Purpose.

The purpose of this Chapter is to promote the public health, safety, and general welfare and to minimize public and private losses due to flooding in flood hazard areas.

24.50.020 General.

A. All development and construction within flood hazard areas, as defined in Section 24.50.030, are subject to the terms of this Chapter and all other applicable regulations.

B. If an inconsistency or conflict exists between Chapter 24.50 and other provisions of this Code, including Title 33, the more restrictive uses or requirements will apply.

C. A structure or use that was lawful when it was established or approved by the City, but that does not conform with the current provisions of this Chapter may be continued subject to the provisions of the Building Code pertaining to existing structures.

D. The flood protection elevations and the floodway and flood fringe areas specified by this Chapter, based on the 100-year flood elevations and the February 1996 Flood Inundation Area, as described in the Composite February 1996 Flood Inundation Area Mapping described in Subsection 24.50.040 E. below, are considered reasonable for regulatory purposes. Greater flood heights and more extensive flood fringe areas associated with climate change and larger floods may occur or the flood height and extent of flooding may be increased by human or natural causes, such as log jams, bridge openings or culverts restricted by debris, or changes in basin conditions. Areas within designated drainage districts and those areas not covered by adequate topographic maps may contain unmapped watercourses subject to flooding. The identification of designated flood hazard areas does not imply that lands outside of such areas will be free from flooding or flood damage.

The City, any officer or employee thereof, and the Federal Insurance Administration will not be liable for any flood damages that result from reliance on the provisions or designations of this Chapter or any administrative decision lawfully made under it.

E. Portland Permitting & Development administers and enforces the State of Oregon Specialty Codes, as adopted in Chapter 24.10, which contain certain provisions that apply to the design and construction of buildings and structures located in flood hazard areas, as defined in this Chapter. This Chapter will be administered and enforced in conjunction with such Specialty Codes.

F. The City Administrator will appoint a Floodplain Administrator who will be responsible for administering, implementing, and enforcing this Chapter, including granting or denying development permits in accordance with its provisions. The Floodplain Administrator may delegate authority to implement these provisions.

24.50.030 Flood Related Definitions.

The definitions contained in this Section relate to flood hazard areas and considerations outlined in this Chapter.

A. Appeal means a request for a review of the City's interpretation of any provision of this Chapter or a request for a variance.

B. Area of shallow flooding means a designated AO or AH zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from 1 to 3 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.

C. Areas of special flood hazard mean the land in the floodplain subject to a one percent or greater chance of flooding in any given year. Designation on Flood Insurance Rate Maps always includes the letters A or V. "Special flood hazard area" is synonymous with the phrase "area of special flood hazard."

D. Base flood (100-year flood) means the flood having 1 percent chance of being equaled or exceeded in any given year.

E. Base flood elevation (BFE) means the elevation to which floodwater is anticipated to rise during the base flood.

F. Basement means any area of the building having its floor, including crawlspace, below ground level on all sides.

G. Building – See Structure.

H. City datum means the reference datum for the City's maps. The FIRM maps described in Section 24.50.050 are referenced to the North American Vertical Datum (NAVD) of 1988. To convert NAVD 1988 level to City datum, subtract 2.125 feet from the elevation referenced to NAVD 1988 level.

I. Design flood means the greater of the base flood or the February 1996 Flood Inundation Area.

J. Design flood elevation means the greater of the base flood elevation or the February 1996 Flood Inundation Area elevation.

K. Development means any human-created change to improved or unimproved real estate, including but not limited to buildings, bridges, other structures, and mining, dredging, filling, grading, paving, excavation, fencing, landscaping, drainage facilities, drilling operations, or storage of equipment or material.

L. Existing manufactured home park or manufactured home subdivision means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale for which the construction of facilities for servicing the lot on which the manufactured home is to be affixed (including as a minimum, the installation of utilities, either final site grading or the pouring of concrete pads, and the construction of streets) is completed before October 18, 1979.

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

N. FIA means the Federal Insurance Administration.

O. Flood hazard area means any area that has been identified as subject to flooding.

P. Flood Insurance Study means the official report provided by the Federal Insurance Administration that contains information regarding flooding, discusses the engineering methods used to develop the Flood Insurance Rate Maps (FIRMs), and includes flood profiles, and the water surface elevation of the base flood.

Q. Flood Insurance Rate Map (FIRM) means the official map on which the Federal Insurance Administration has delineated the areas of special flood hazards.

R. Flood or flooding means a general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters, or the unusual and rapid accumulation of runoff of surface waters from any source.

S. Flood protection elevation means the design flood elevation plus a freeboard allowance.

T. Floodplain means the channel of watercourse and adjacent land areas that are subject to inundation by the design flood.

U. Floodplain Administrator means the City official designated by the City Administrator to administer and enforce this Chapter.

V. Floodproofing means any combination of structural and nonstructural additions, changes, or adjustments to structures that reduce or eliminate the risk of flood damage to real estate or improved real property, sanitary, and water facilities, structures, and their contents. Floodproofed structures are those that have the structural integrity and design to be watertight with walls substantially impermeable to the passage of water.

W. 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 a designated height. The actual floodway boundaries are computer generated and approximate. These boundaries are depicted on the FIRM. Boundaries for other watercourses may be subject to identification by the Sewage System Administrator. The width of the floodway for unidentified watercourses may not be less than 15 feet unless otherwise approved by the Sewage System Administrator.

X. Flood fringe area means any area lying outside the floodway that is subject to flooding by a base flood and for which water surface elevations and floodway and flood fringe boundaries have been determined by a Flood Insurance Study and are shown on the FIRMs. Boundaries for unidentified watercourses may be subject to identification by the Sewage System Administrator.

Y. Freeboard means an additional height above the design flood elevation to account for factors that may contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as filling in the flood fringe, wave action, effect of urbanization of the watershed, map inaccuracies, irregular watercourse cross sections, irregular constructions at bridges, and the uncertainties of flood discharge computations.

Z. Functionally-dependent use means a use that cannot fulfill its intended purpose unless it is located or carried out in close proximity to water. For purposes of this Chapter, this definition applies only to docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship-building and ship-repair facilities, and does not include long-term storage or related manufacturing facilities.

AA. High hazard area means the area comprised of and measured to the farthest landward extent of the floodway or the area inundated by a flood event having a 10 percent or greater chance of flooding in a given year as mapped or determined by FEMA.

BB. 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 Subsection 24.50.060 F.2.

CC. Manufactured home means a structure transportable in one or more sections, that 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. For insurance purposes, the term "manufactured home" does not include park trailers, travel trailers, and other similar vehicles.

DD. New construction means structures for which the start of construction commenced on or after October 18, 1979.

EE. New manufactured home park or manufactured home subdivision means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale for which the construction of facilities for servicing the lots on which the manufactured home is to be affixed (including as a minimum, the installation of utilities, either final site grading or the pouring of concrete pads and the construction of streets) is completed on or after October 18, 1979.

FF. Reasonably safe from flooding means floodwaters and subsurface waters related to the design flood or other sources identified by the Sewage System Administrator will not damage proposed or existing structures.

GG. Sewage System Administrator means the person designated by the Bureau of Environmental Services who is responsible for regulating the public sanitary and stormwater facilities. The Sewage System Administrator may delegate their authority for the purpose of implementing these provisions.

HH. Start of construction means the date the building permit was issued, provided the actual construction, repair, reconstruction, substantial improvement, placement, or other improvement was commenced within 180 days of the permit issuance 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, or filling; the installation of streets, walkways, sanitary sewers, storm sewers, or drainage facilities; excavation for a basement, footings, piers, or a foundation or the erection of temporary forms; or 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.

II. Structure or accessory structure means a walled and roofed building, including a gas or liquid storage tank, as well as a manufactured home.

JJ. Substantial damage means damage of any origin sustained by a structure when the cost of restoring the structure to its pre-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

KK. 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 start of construction of the improvement or repair, or

2. If the structure has been damaged, and is being restored, before the damage occurred. 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:

a. Any project for improvement of a structure to comply with existing State or local health, sanitary, or safety code specifications that are solely necessary to assure safe living conditions; or

b. Any alteration of a structure listed on the National Register of Historic Places or the State Inventory of Historic Places.

LL. **Top of bank** means the largest decrease in slope that is 10 percent or greater between the ordinary high water mark of a water body and a point 50 feet landward from the ordinary high water mark. See Chapter 33.930, Measurements. If there is no decrease in slope that is 10 percent or greater within a distance of 50 feet from the ordinary high water mark, then the top of bank will be the default top of bank location described in Chapter 33.930.

MM. **Variance** means a grant of relief from the requirements of this Chapter that permits construction in a manner that would otherwise not be allowed under this Chapter.

NN. **Water surface elevation** means the height of the water surface of the design flood for any point along the longitudinal course of a watercourse.

OO. **Watercourse** means a channel in which a flow of water occurs, either continuously or intermittently, and if the latter, with some degree of regularity. Watercourses may be either natural or artificial.

PP. **Willamette River Central and South Reach** means that portion of the Willamette River Flood Zone south of the Fremont Bridge on the west bank and the Broadway Bridge on the east bank.

QQ. **Willamette River North Reach** means that portion of the Willamette River Flood Zone north of the Fremont Bridge on the west bank and the Broadway Bridge on the east bank.

24.50.040 Flood Insurance Administration Study and Flood Hazard Maps.

The following study and maps in this Section are adopted and declared to be a part of this Chapter.

A. Flood Insurance Study is the official scientific and engineering report entitled "Flood Insurance Study for City of Portland, Oregon: Multnomah, Clackamas and Washington Counties," dated November 26, 2010, prepared by the Federal Insurance Administration (FIA) under agency agreement with the Portland District Corps of Engineers. The latest edition of the report, along with accompanying FIRMs, are on file with Portland Permitting & Development

B. Flood Insurance Rate Maps (FIRMs) are the official maps entitled "The Flood Insurance Rate Maps (FIRMs) for City of Portland, Oregon: Multnomah, Clackamas and Washington Counties," dated either October 19, 2004, or November 26, 2010, whichever is more current, on which the Federal Insurance Administration has

delineated the areas of flood hazards along with the 100-year (base flood) and 500-year flood boundaries, the floodway zone boundaries and the 100-year flood elevations.

C. Other Flood Insurance Studies and Flood Insurance Rate Maps for areas within jurisdictions subject to Chapter 24.50 under separate intergovernmental agreements.

D. When base flood elevation data has not been provided by the FIA study, the Sewage System Administrator may obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source. This data will be utilized only after technical review and approval by the Sewage System Administrator.

E. The "Composite February 1996 Flood Inundation Area Mapping" published by the City. The identified areas are subject to the regulations of this Title.

24.50.050 Flood Hazard Areas and Flood Protection Elevations.

Flood hazard areas contain all lands located within the floodway boundary, flood zones within the flood fringe areas, and other identified flood zones. Identified and unidentified flood hazard areas and flood protection elevations are described in this Section. When a structure is partially located in a flood hazard area, the entire structure is subject to the requirements for new construction, substantial improvements, and substantial damage. When a structure is located within multiple flood zones, the more restrictive flood zone elevations apply.

A. Columbia River FIRM Flood Zone AE. These flood zones represent areas for which base flood elevations are determined. The flood protection elevation is the base flood elevation plus 1 foot of freeboard. The nominal 1-foot increase for freeboard reflects the relatively wide floodplain of the Columbia River. In the vicinity of the confluence of the Columbia and Willamette Rivers, the Columbia River floodplain is considered to be east of the westerly flood fringe boundary of the Columbia Slough.

B. Multnomah Drainage District No. 1, Peninsula Drainage District No. 1, and Peninsula Drainage District No. 2 FIRM Flood Zones AH and A. FIRM Flood Zone AH represents isolated areas of shallow flooding (1 to 3 feet in depth, resulting from upslope runoff) for which base flood elevations are determined. FIRM Flood Zone A represents areas for which base flood elevations are not determined. In the case of unidentified watercourses occurring within the boundaries of the Drainage Districts, the base flood elevation will be estimated by procedures described in Subsection I. below. The flood protection elevation is the base flood elevations plus 1 foot of freeboard.

C. Columbia River FIRM Flood Zone A. These flood zones represent areas for which base flood elevations are not determined. The flood protection elevation is either the grade at the adjacent flood fringe boundary or the crown of the nearest street, whichever is higher, plus 1 foot of freeboard.

D. Willamette River FIRM Flood Zone AE. These flood zones represent areas for which the base flood elevations are determined. The flood protection elevation is the base flood elevation plus 2 feet of freeboard.

E. Johnson Creek, Fanno Creek and Crystal Springs Creek FIRM Flood Zone AE. This flood zone represents areas for which the base flood elevations are determined. The flood protection elevation is the base flood elevation plus 2 feet of freeboard.

F. Johnson Creek FIRM Flood Zone AH. This flood zone represents areas of shallow flooding depth (1 to 3 feet) for which base flood elevations are determined. The flood protection elevation is the base flood elevation plus 2 feet of freeboard.

G. Johnson Creek FIRM Flood Zone AO. This flood zone represents areas of shallow flooding depth (1 to 3 feet) for which the depths of flooding are determined. The flood protection elevation is the depth of flooding shown on the FIRM map plus 2 feet of freeboard above the highest adjacent grade.

H. Johnson Creek, Fanno Creek, Tryon Creek, and Crystal Springs Creek FIRM Flood Zone A. These flood zones represent areas for which base flood elevations are not determined. The flood protection elevation is the base flood elevation plus 2 feet of freeboard. Base flood elevations will be calculated in accordance with Subsection I. below.

I. Unidentified Watercourse Flood Zones. These watercourses, generally draining one acre or more, are not identified in a Federal Insurance Study. The flood protection elevation is the base flood elevation plus 2 feet of freeboard. The width of the floodway may not be less than 15 feet, unless otherwise approved by the Sewage System Administrator. The floodway boundary, flood fringe boundary, and flood protection elevation data will be based upon watercourse geometry, slope, channel roughness, effect of obstructions, backwater and other factors that affect flood flow. The requisite flood hazard data, maps, and sections must be obtained and developed by procedures approved by the Sewage System Administrator. When appropriate and necessary data are available, the flood protection elevation and floodway and flood fringe boundary data may be provided by the Sewage System Administrator. If pertinent hydrologic data and topographic data are not available, inaccurate, or outdated, and where substantial alterations or relocations of a watercourse are involved, the Sewage System Administrator may require the permit applicant to secure a registered engineer and surveyor to develop and supply the requisite flood hazard data, maps, and sections.

J. February 1996 Flood Inundation Areas must have a flood protection elevation that provides a minimum of 2 feet of freeboard above the February 1996 Flood Inundation Elevation. February 1996 Flood Inundation Areas adjacent to Columbia River FIRM Flood Zone AE, Multnomah Drainage District No. 1, Peninsula Drainage District No. 1, Peninsula Drainage District No. 2 Firm Zone AH, and Columbia River FIRM Flood Zone A must have a minimum freeboard of 1 foot. The February 1996 Flood Inundation Elevations must be determined using an approved method such as river gage data; high water marks recorded during the flood; data from state, local, or other authorities; inundation area elevation contour interpolation; or a technical analysis stamped by a professional engineer licensed in the State of Oregon and approved by the Sewage System Administrator.

24.50.060 Provisions for Flood Hazard Reduction.

In all flood hazard areas defined in Section 24.50.050, the following requirements apply:

A. Permits. All permit applications will be reviewed to determine whether proposed development and building sites comply with the provisions of this Chapter and will be reasonably safe from flooding. A development or building permit must be obtained before construction or development begins within any flood hazard area. The development or building permit is required for all structures, including manufactured homes, and for all other development, as defined in this Chapter, including fill. Such applications for permits must include the following information:

1. Boundary of flood hazard areas.

2. Boundaries of the high hazard area, top of bank, and 50-foot setback as applicable.

3. The base flood elevation and design flood elevation.

4. Elevation of lowest floor, including basement, for all structures and floodproofed elevations for nonresidential structures.

5. When required by the Floodplain Administrator, documentation necessary to verify substantial improvement or substantial damage.

6. Elevation of lowest point of bridge structures.

7. Existing and proposed topography of the site taken at a contour interval (normally 1 foot) sufficiently detailed to define the topography over the entire site and adjacent watercourses subject to flooding. Ninety percent of the contours must be plotted within 1 contour interval of the true location.

8. All necessary permits obtained from the federal and state governmental agencies from which prior approval is required.

9. Where elevation data is not available either through the Flood Insurance Study or from another authoritative source (see Subsection 24.50.050 I.), applications for building permits will 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 any available hydrological data, drainage basin hydrology, historical data, high water marks, photographs of past flooding, etc., where available. Failure to elevate at least 2 feet above grade in these zones may result in higher insurance rates.

B. Elevation reference. The survey reference datum for finished lowest floor including basement, floodproofed elevations, and finished site grades must be either the North American Vertical Datum of 1988 or City of Portland datum, whichever is appropriate. When approved by the City Engineer, a local onsite survey reference datum may be adopted for FIRM Zones A and Unidentified Watercourse Flood Zones. The survey reference datum must be indicated on all relevant plan and section drawings, calculations, and the certified FEMA Elevation Certificate.

C. Certification of elevations and floodproofing.

1. All elevations specified below must be certified on a FEMA (FIA) Elevation Certificate by a licensed surveyor or engineer secured by the permittee and made part of the permit records.

a. During construction elevations of the lowest floor, including basement, of all new or substantially improved structures upon placement of the lowest floor but prior to further vertical construction;

b. As-built finished elevation of lowest floor including basement of all new or substantially improved structures;

c. As-built finished floodproofed elevation of all new or substantially improved nonresidential structures;

d. As-graded finished elevation of lowest grade within 25 feet of structures; and

e. As-graded finished elevation of lowest crawl space grade, as applicable.

2. All floodproofing materials and methods for nonresidential structures must be certified by a licensed professional engineer or architect as meeting the criteria in Subsection 24.50.060 F.7.

D. Floodway. Encroachments into the floodway by development and structures defined in Section 24.50.030 are prohibited unless it is demonstrated by technical analysis from a registered engineer that the development will result in no increase in the base flood elevation. In areas where a regulatory floodway has not been designated, no new construction, substantial improvement or other development (including fill) will be permitted within Zone AE, 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 1 foot at any point within the flood hazard areas regulated by the City. Technical analysis will be reviewed and approved by the Sewage System Administrator. However, the minimum width of the floodway may not be less than 15 feet, unless otherwise approved by the Sewage System Administrator.

E. New Technical Data and Notifications of Other Entities. Portland Permitting & Development will:

1. City boundary alterations. Notify the Federal Insurance Administration in writing whenever the boundaries of the City have been modified by annexation or the City has otherwise assumed authority or no longer has authority to adopt and enforce floodplain management regulations for a particular area, to ensure that all Flood Hazard Boundary Maps (FHBM) and Flood Insurance Rate Maps (FIRM) accurately represent the City's boundaries. The Bureau will include within such notification a copy of a map of the City suitable for reproduction, clearly delineating the new corporate limits or new area for which the City has assumed or relinquished floodplain management regulatory authority.

2. Watercourse alterations. Notify adjacent communities, the Department of Land Conservation and Development, and other appropriate state and federal agencies, prior to any alteration or relocation of a watercourse as identified in the Flood Insurance Study and Flood Insurance Rate Map, and submit evidence of such notification to the Federal Insurance Administration. The applicant must provide this notification to the Federal Insurance Administration as a Conditional Letter of Map Revision (CLOMR) along with either:

a. A proposed maintenance plan to ensure the flood-carrying capacity within the altered or relocated portion of the watercourse will be maintained; or

b. Certification by a registered professional engineer that the project has been designed to retain its flood carrying capacity without periodic maintenance.

3. New technical data. Notify the Federal Insurance Administration of changes in the special flood hazard area based on new or improved scientific data that more accurately reflect the flood hazard boundaries and water surface elevations. The City will apply to FEMA for a CLOMR prior to permit issuance for:

a. Proposed floodway encroachments that will increase the base flood elevation; and

b. Proposed development that will increase the base flood elevation by more than 1 foot in areas where FEMA has provided base flood elevations but no floodway (see Subsection 24.50.060 D.)

4. Letter of Map Revision. Require the applicant to notify FEMA within six months of project completion when FEMA has issued a CLOMR for the project. This notification to FEMA must be provided as a Letter of Map Revision (LOMR).

F. Flood hazard areas.

1. General. All new construction and substantial improvements must be anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrostatic and hydrodynamic loads and effects of buoyancy.

2. Residential construction.

a. New construction and substantial improvement of any residential structure must have the lowest floor, including basement, elevated to or above the flood protection elevation. Floodproofing of “lowest floor” space is not permitted.

b. Enclosed areas below the lowest floor that are subject to flooding are prohibited unless they are used solely for parking of vehicles, building access or limited storage and are designed to automatically equalize hydrostatic flood forces on exterior walls by allowing the entry and exit of floodwaters. Designs for meeting this requirement must meet or exceed the following minimum criteria:

(1) There must be a minimum of two openings on different sides of each enclosed area;

(2) The total net area of all openings for each enclosed area must not be less than one square inch for every square foot of enclosed area subject to flooding or be certified by a registered design professional;

(3) The bottom of all openings may be no higher than 1 foot above grade;

(4) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters; and

(5) An agreement approved by the Floodplain Administrator not to convert the use of the enclosed area must be recorded

against the property deed when required by the Floodplain Administrator.

c. Fill required to elevate the lowest floor to the flood protection level must comply with Chapter 24.70. Fill selection and placement must recognize the effects of inundation from floodwaters on slope stability, fill settlement, and scour. The minimum elevation at the top of the fill slope must be at or above the design flood elevation. Minimum distance from any point of the building perimeter to the top of the fill slope must be at least 25 feet or twice the depth of fill at that point, whichever is the greater distance.

3. Subdivision proposals.

a. All subdivision proposals must be consistent with the need to minimize flood damage;

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

c. All subdivision proposals must have adequate drainage provided to reduce exposure to flood damage; and,

d. Where base flood elevation data have not been provided or are not available from another authoritative source, it must be generated for subdivision proposals and other proposed developments that contain at least 50 lots or 5 acres.

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

a. Be floodproofed so that below the flood protection elevation 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 design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this Subsection based on the professional engineer’s or architect’s

development or review of the structural design, specifications and plans. Such certifications must be provided to Portland Permitting & Development.

d. Nonresidential structures that are elevated, but not floodproofed, must meet the same standards for space below the lowest floor as described for residential structures.

e. Applicants floodproofing nonresidential buildings will be notified that flood insurance premiums will be based on rates as if the building is 1 foot below the floodproofed level (i.e., a building constructed to the base flood level will be rated as 1 foot below that level).

5. Manufactured homes. All manufactured homes to be placed or substantially improved within the flood hazard area must be elevated on a permanent foundation such that the lowest floor of the manufactured home is at or above the flood protection elevation; securely anchored to prevent flotation, collapse or lateral movement; and installed using methods and practices that minimize flood damage. The construction must conform to the requirements of Subsection 24.50.060 F.2. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (Refer to FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques).

6. Utilities. All new and replacement water supply and sanitary sewage systems must be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the sanitary sewage systems into floodwaters. On-site waste disposal systems must be located to avoid impairment to them or contamination from them during flooding.

7. Construction materials and methods. All new construction and substantial improvements must be constructed with materials and utility equipment resistant to flood damage, using methods and practices that minimize flood damage. Electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities must be protected to or above the flood protection elevation.

8. Tanks.

a. Underground tanks must be anchored to prevent flotation, collapse, and lateral movement under conditions of the design flood.

b. Above-ground tanks must be installed at or above the flood protection elevation or be anchored to prevent flotation, collapse, and lateral movement under conditions of the design flood.

9. Uncontained hazardous materials as referred to in Section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S. Section 9601 et seq.) (CERCLA), Section 502 (13) of the Clean Water Act and any other substances so designated by the City Administrator are prohibited in flood hazard areas.

10. Johnson Creek Flood Risk Areas - Special Provisions. In addition to other requirements of this Chapter, the following requirements apply within the Johnson Creek Flood Risk Area, as established in Chapter 33.537:

a. Reduction in flooding capacity prohibited. Structures, fill or other development are only allowed in the Johnson Creek Flood Risk Area when they are designed so that there will be no significant reduction in the storage capacity of the floodway and flood fringe and there will be no significant impediment to the passage of floodwaters.

b. Exceptions to the applicability of Subsection 24.50.060 F.10.a.:

(1) One-story, detached accessory buildings used as tool and storage sheds, playhouses or similar uses, provided the floor area does not exceed 120 square feet.

(2) Parking garages accessory to one- and two-family structures, provided the floor area does not exceed 300 square feet.

(3) Fences that do not prevent the flow of water.

c. Buildings designed to meet all of the following criteria will be presumed to comply with Subsection 24.50.060 F.10.:

(1) At least 50 percent of perimeter walls located at, or below, the base flood elevation will remain open and unenclosed;

(2) At least 25 percent of each perimeter wall located at, or below, the base flood elevation will remain open and unenclosed; and

(3) The footprint of all portions of the building located at, or below, the base flood elevation may not exceed 15 percent

of the footprint of the building located above the base flood elevation.

11. AH/AO Zone Drainage. Adequate drainage paths must be provided around structures on slopes to guide floodwaters around and away from proposed structures.

G. Compensatory excavation or removal required.

1. The following compensatory excavation or removal regulations apply at the time of a building or development permit application.

The provisions of this Subsection apply exclusively to the compensatory excavation and removal requirements of Subsection 24.50.060 G.

a. Applications for building or development permits will be processed based on the compensatory excavation or removal regulations in effect on the date a complete permit application is filed with the City. For the purposes of this Section, a complete building or development permit application contains the information necessary to determine whether the proposal conforms with all applicable regulations and development standards.

b. Exceptions to the application of Subsection 24.50.060 G.1.a.:

(1) Applications for building or development permits for development approved by an Environmental Review, Greenway Review, South Waterfront Greenway Review, Land Division, Conditional Use Master Plan, Planned Development Review, or River Review land use decision that has not expired may be processed based on the compensatory excavation or removal regulations in effect on the date the land use application was filed with the City, as specified in Chapter 33.700, provided a building or development permit is issued before expiration of the final land use decision.

(2) Applications for building or development permits for development approved by a Central City Master Plan land use decision may be processed based on the compensatory excavation or removal regulations in effect on the date the complete land use application was filed with the City, as specified in Chapter 33.700, provided the building or development permits are issued no later than 10 years after the date of the final land use decision.

c. Revisions to building or development permit applications will be processed based on the compensatory excavation or removal regulations in effect when the original complete permit application was filed.

2. In all flood hazard areas regulated by the City: The application must provide for a compensatory volume, consisting of either the excavation of soil or rock or the removal of permanent structures that displace floodwater, or both, to compensate for the loss of flood storage volume as described in the Subsections below. The compensatory volume must be located within the same flood hazard area, identified in Subsections 24.50.050 A. through J., as the fill or structure causing the loss of flood storage, except for the Johnson Creek flood zones, where the compensatory volume must be on the same site.

a. Columbia River Flood Zones, Willamette River Central and South Reach Flood Zones, and Fanno Creek Flood Zones: The volume of floodwater displaced by fill and structures placed within the special flood hazard area at or below the base flood elevation requires a compensatory volume below the base flood elevation as follows:

(1) Within the high hazard area, the compensatory volume must be equal to or greater than twice the displaced volume (a ratio of 2 to 1) and must be located within the high hazard area.

(2) Within a 50-foot setback measured landward from top of bank, the compensatory volume must be equal to or greater than one and a half times the displaced volume (a ratio of 1.5 to 1) and must be located within the same setback, the high hazard area, or both.

(3) Landward of the 50-foot setback from top of bank, the compensatory volume must be equal to or greater than the displaced volume (a ratio of 1 to 1).

(4) Exceptions to the application of Subsections 24.50.060 G.2.a.(1) – (3):

(a) Subsections 24.50.060 G.2.a.(1) – (3) do not apply to areas with Heavy Industrial (IH), General Industrial 2 (IG2), or General Employment 2 (EG2) zoning.

(b) Subsections 24.50.060 G.2.a.(1) – (3) do not apply to the portion of the South Waterfront

Subdistrict of the Central City Plan District north of Willamette River mile 14.6 as described in the Flood Insurance Study.

(c) Subsections 24.50.060 G.2.a.(1) – (3) do not apply to the portion of the University District/South Downtown Subdistrict of the Central City Plan District south of Willamette River mile 13.4 as described in the Flood Insurance Study.

b. Crystal Springs Creek Flood Zones, Johnson Creek Flood Zones, Tryon Creek Flood Zones, Willamette River North Reach Flood Zones, Multnomah Drainage District No. 1, Peninsula Drainage District No. 1 and Peninsula Drainage District No. 2 Flood Zones, District No. 1 and Peninsula Drainage District No. 2 Flood Zones, areas with Heavy Industrial (IH), General Industrial 2 (IG2) or General Employment 2 (EG2) zoning, and Unidentified Watercourse Flood Zones: The volume of floodwater displaced by fill placed within the special flood hazard area at or below the base flood elevation requires a compensatory volume below the base flood elevation equal to or greater than the displaced volume (a ratio of 1 to 1).

c. February 1996 Flood Inundation Areas: The volume of floodwater displaced by fill placed within the February 1996 Flood Inundation Area requires a compensatory volume below the February 1996 Flood Inundation Elevation as follows:

(1) In areas outside of the special flood hazard area, the compensatory volume must be equal to or greater than the displaced volume (a ratio of 1 to 1).

(2) In areas within both the special flood hazard area and the February 1996 Flood Inundation Area, where the February 1996 Flood Inundation Elevation is greater than the base flood elevation, the compensatory volume must be equal to or greater than the displaced volume between the February 1996 Flood Inundation Elevation and the base flood elevation (a ratio of 1 to 1). Compensatory excavation requirements at and below the base flood elevation are described in Subsections 24.50.060 G.2.a. and b.

3. Excavation of soil or rock or the removal of permanent structures from an area may not be counted as compensatory volume if the area will be filled with water in non-storm winter or spring conditions.

4. Compensatory excavation areas must be designed to freely drain to the source of flooding to the extent practicable to avoid stranding fish.

5. Temporary fills permitted during construction must be removed prior to final inspection approval of the permit.

6. Mitigation bank credits may be substituted for compensatory excavation or removal of permanent structures, provided the mitigation bank has been approved by the City and the mitigation bank is located within the same flood hazard area as the development and satisfies the requirements of Subsections 24.50.060 G.2.a. through c.

24.50.065 Recreational Vehicles located in Areas of Special Flood Hazard or Base Flood Zones.

A. Any recreational vehicle placed on a site located in either an area of special flood hazard or in the base flood zone must:

1. Meet the elevation and anchoring requirements for manufactured homes;

2. Be on the site for fewer than 180 consecutive days; or

3. Be fully licensed and ready for highway use. As used in this Section, **ready for highway use** means that the vehicle is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and has no permanently attached additions.

B. For the purpose of this Section, **recreational vehicle** means any vehicle that is:

1. Built on a single chassis;

2. 400 square feet or less when measured at the largest horizontal projection;

3. Designed to be self-propelled or permanently towable by a light duty truck; and

4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

24.50.070 Appeals and Variances.

A. Appeals. Any person aggrieved by a requirement, decision, or determination made pursuant to the administration of this Chapter may appeal such requirement, decision, or determination to the Administrative Appeal Board in accord with Chapter 24.10.

B. Variances. If variances from requirements of this Chapter are requested, all relevant factors and standards specified in this Chapter will be considered, as well as the following:

1. The danger that materials may be swept into other lands to the injury of others;

2. The danger to 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 City;

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

6. The availability of alternative locations, not subject to flooding or erosion damage;

7. The compatibility of the proposed use with existing 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 times of flood for ordinary and emergency vehicles;

10. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site;

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 systems, and streets and bridges; and

12. The potential impact on federally protected species.

C. Conditions for variances. Upon consideration of the factors listed above and the purposes of this Chapter, such conditions may be attached to the granting of variances as are deemed necessary.

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 1/2 acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, provided the items in Subsection 24.50.070 B. have been fully considered. As the lot size increases, the technical justification required for issuing the variance increases.

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

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

4. Variances will only be issued upon:

a. A showing of good and sufficient cause;

b. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and

c. A determination that the granting of a variance would not result in increased flood heights, additional threats to public safety, extraordinary public expense, creating a nuisance, causing fraud on or victimization of the public, or creating a conflict with existing local laws or ordinances.

5. Variances may be issued for new construction, substantial improvements, or other development necessary for the conduct of a functionally-dependent use, provided that the criteria of Subsection 24.50.070 C.2. through C.4. are satisfied.

6. Any applicant to whom a variance is granted will 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 as applicable.

7. Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle in that they pertain to a physical piece of property. Variances are not personal in nature and do not pertain to the structure, its inhabitants, or economic or financial circumstances. As such, variances from the flood elevations should be quite rare.

8. 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 Subsection 24.50.070 C.1. and otherwise complies with Subsections 24.50.060 F.1. and 24.50.060 F.7.

Chapter 24.51 Wildfire Hazard Zones

24.51.010 Purpose.

The purpose of this Chapter is to adopt the criteria that will be used to specify areas of the City to be classified as Wildfire Hazard Zones, so that roof materials may be limited.

24.51.020 Definitions

The definitions contained in this Section relate to Wildfire Hazard zones and considerations outlined in this Chapter.

A. Chief means the Chief of Portland Fire & Rescue or the Chief's duly authorized representative.

B. Department of Forestry (DOF) means the State of Oregon Department of Forestry.

C. Wildfire Hazard Zone means those areas of the City as determined by the Chief that rate a minimum score of 5 or higher using the following criteria developed by DOF:

1. Topography hazard factor value

2. Natural vegetative fuel hazard factor value

3. Natural vegetative fuel distribution hazard factor value

D. Wildfire Hazard Zone Map means the WHZM attached to Ordinance No. 177433 and as it may be amended from time to time based on the criteria in this Chapter.

E. Hazard factor. Hazard factors are topography, certain natural vegetative fuels and natural, vegetative fuel distribution. Any of these factors, or a combination thereof, may cause an area of the City to be included within a Wildfire Hazard Zone.

F. Topography hazard factor value means the hazard value as determined by DOF associated with site slope that effects the fire spread velocity.

G. Natural vegetative hazard factor value means the numerical value assigned by DOF, extrapolated from the "Aids to Determining Fuel Models for Estimating Fire Behavior" published by the Forest Service, USDA Intermountain Forest and Range Experiment Station in 1982 as General Technical Report INT-122, for various common vegetation.

H. Natural vegetative fuel distribution hazard factor value means the numerical value assigned by DOF for the percentage of site that is covered by vegetation described in 24.51.020 G.

24.51.030 Wildfire Hazard Zone Map Adoption.

A. Wildfire Hazard Zone Map adoption.

1. A Wildfire Hazard Zone Map (WHZM) has been developed for the City of Portland through a review of topography, weather, type vegetation and fuel density. This map is dated October 11, 2002.

2. The WHZM dated October 11, 2002, is adopted by this reference and incorporated into this ordinance.

3. The Chief will provide the City Administrator with a copy of the official map adopted in Subsection one of this Section. Copies of the map are available for review in the Development Services Center, First Floor 1900 SW 4th Avenue, Portland Oregon.

B. Revisions to the Wildfire Hazard Zone Map.

1. The WHZM may be amended from time to time to either include or exclude properties as the facts may warrant.

2. The Chief may revise the Wildfire Hazard Zone Map.

3. All Wildfire Hazard Zone map revisions will be determined using the criteria set forth below. Any site having a cumulative hazard value of five (5) or more will be included in a wildfire hazard zone.

a. Topography Hazard Factor Value. The topography hazard value will be calculated as follows:

(1) Determine site slope using the appropriate 7.5 minute quadrangle map published by the U.S. Geological Survey, USDI.

(2) Select appropriate hazard value using Table 1.

TABLE 1

APPROPRIATE TOPOGRAPHY HAZARD FACTOR VALUE

Site Slope as determined by the 7.5 minute quadrangle map	Hazard Value
Slopes 00 to < 03%	0
Slopes 03 to < 12%	1
Slopes 12 to < 20%	2
Slopes 20% or greater	3

b. Natural Vegetative Fuel Hazard Factor Value. The natural vegetative fuel hazard value is calculated as follows:

(1) Divide the jurisdiction into geographic areas that best describe the natural vegetation expected to occupy sites for the next 10 to 15 years.

(2) Select the appropriate hazard value from Table 2.

TABLE 2

NATURAL VEGETATIVE FUEL
HAZARD FACTOR VALUE

Natural Vegetative Fuel Description 1		**Hazard Value 2**
Limited	Little or no natural vegetative fuels are present.	0
Grass	Very little shrub or timber is present, generally less than one-third of the area. Main fuel is generally less than two feet in height. Fires are surface fires that move rapidly through cured grass and associated material. (Fuel model 1)	3
Grass	Open shrub lands and pine stands or scrub oak stands that cover one-third to two-thirds of the area. Main fuel is generally less that two feet in height. Fires are surface fires that spread primarily through the fine herbaceous fuels, either curing or dead. (Fuel model 2)	3
Grass	Beach grasses, prairie grasses, marshland grasses and wild or cultivated grains that have not been harvested. Main fuel is generally less than four feet in height, but considerable variation may occur. Fires are the most intense of the grass group and display high rates of spread under the influence of wind.(Fuel model 3)	3

Natural Vegetative Fuel Description 1		Hazard Value 2
Shrubs	Stands of mature shrubs have foliage known for its flammability, such as gorse, manzanita and snowberry. Main fuel is generally six feet or more tall. Fires burn with high intensity and spread very rapidly. (Fuel model 4)	3
Shrubs	Young shrubs with little dead material and having foliage not known for its flammability, such as laurel, vine maple and alders. Main fuel is generally three feet tall or less. Fires are generally carried in the surface fuels and are generally not very intense. (Fuel model 5)	1
Shrubs	Older shrubs with foliage having a flammability less than fuel model 4, but more than fuel model 5. Widely spaced juniper and sagebrush are represented by this group. Main fuel is generally less than six feet in height. Fires will drop to the ground at low wind speeds and in stand openings. (Fuel model 6)	2
Timber	Areas of timber with little undergrowth and small amounts of litter buildup. Healthy stands of lodgepole pine, spruce, fir and larch are represented by this group. Fires will burn only under severe weather conditions involving high temperatures, low humidity and high winds. (Fuel model 8)	1
Timber	Areas of timber with more surface litter than fuel model 8. Closed stands of healthy ponderosa pine and white oak are in this fuel model. Spread of fires	2

Natural Vegetative Fuel Description 1		Hazard Value 2
	will be aided by rolling or blowing leaves. (Fuel model 9)	
Timber	Areas of timber with heavy buildups of ground litter caused by over-maturity or natural events of wind throw or insect infestations. Fires are difficult to control due to large extent of ground fuel. (Fuel model 10)	3

1. Some areas may contain vegetative fuels other than those listed in Table 2. Additional natural fuel hazard factors may be found in “Aids to Determining Fuel Models for Estimating Fire Behavior” published by the Forest Service, USDA Intermountain Forest and Ranger Experiment Station in 1982 as General Technical Report INT-122. Vegetative fuel hazard factors determined using General Technical Report INT-122 must be used as alternative factors, for review under this chapter, as the facts warrant.

2. Due to various factors, such as variations in local vegetation species or vegetation conditions, the fuel models used in Table 2 may not accurately portray wildfire behavior. The Chief may make modifications to the hazard values as necessary to accurately reflect the following characteristics:

A hazard value of 1 describes vegetation that typically produces a flame length of up to 5 feet, a wildfire that exhibits very little spotting, torching, or crowning, and that results in a burned area that can normally be entered within 15 minutes.

A hazard value of 2 describes vegetation that typically produces a flame length of 5 to 8 feet, a wildfire that exhibits sporadic spotting, torching, or crowning, and that results in a burned area that can normally be entered within one hour.

(c) A hazard value of 3 describes vegetation that typically produces a flame length of over 8 feet, a wildfire that exhibits frequent spotting, torching, or crowning, and that results in a burned area that normally cannot be entered for over one hour.

c. Natural Vegetative Fuel Distribution Hazard Factor Value. To determine the natural vegetative fuel distribution hazard factor value:

(1) Determine the percentage of each individual area that is covered by vegetation.

(2) Using the calculated percentage, assign a value using Table 3.

TABLE 3

NATURAL VEGETATIVE FUEL DISTRIBUTION HAZARD FACTOR

Natural Vegetative Fuel Distribution	Hazard Value
0 to 10% of the area	0
10 to 25% of the area	1
25 to 40% of the area	2

24.51.040 Map Revision Process

A. Wildfire Hazard Zones may be applied to or removed from areas of the City as follows:

1. During periodic review by the Chief, based upon the criteria listed in Section 24.51.030. Periodic review will occur every five years.

2. Upon request to the Chief by any property owner, prior to periodic review, on the grounds that conditions have changed.

B. Prior to applying the Wildfire Hazard Zone to any property the Chief will provide notice of such proposed zoning and provide a date for a public hearing.

The notice will be sent to all properties to which the zone would be applied. The notice will be sent fourteen days prior to the date of the hearing. Extensions of time for the hearing may be requested and may be provided by the Chief. The notice will provide information regarding the City's intention to apply the Wildfire Zone, the reasons therefore and the time and place for the hearing.

Within seven days of the hearing the Chief will issue a written decision, based upon the criteria listed above, that will include findings supporting that decision and will contain information regarding the right to appeal the Chief's decision to the Portland Permitting & Development Administrative Appeal Board (Board). A copy of the decision will be sent to all properties that received notice of the City's intention to include these properties within a Wildfire Hazard Zone.

C. When a property owner provides the Chief with a written request that the Wildfire Hazard Zone be removed from specific property the Chief will consider the request and, based upon the criteria listed above, will either approve or deny the request.

Such action by the Chief will occur within 14 days of the date of the request and will be in writing, will include findings based upon the facts and criteria and will contain information regarding the right to appeal the Chief's decision to the Board. This decision will be mailed to the property owner requesting the change in status.

24.51.050 Appeals of Decisions Made by the Chief

Notwithstanding any contradictory portion of Section 24.10.080:

A. Any decision made by the Chief, regarding the application of a Wildfire Hazard Zone to any area in the City, may be appealed to the Portland Permitting & Development Administrative Appeal Board (Board) solely in accordance with this Subsection. In considering such appeals the Board will act solely in accord with this Section.

B. Such appeal must be in writing and must be filed with the Board within fourteen days of the date of the Chief's decision. The appeal must include a statement regarding the elements of the Chief's decision with which the appellant takes issue. Reference to facts and the criteria listed above, is required.

C. A copy of the appeal must be provided to the Chief at the same time that it is filed with the Board. The Chief will have fourteen days from the date of the appeal to respond, in writing, to the Board and all appellants.

D. The Board will issue a notice of a hearing date and the place and time of the hearing. Notice will be provided to the appellants and the Chief.

E. The Board will then hold a hearing upon any such appeal. After considering the issues raised on appeal, and the reasonableness of the Chief's interpretation of applicable criteria, the Board will, by majority vote, affirm or modify the Chief's decision. The Board's decision will be based solely upon the criteria set out in this Chapter and will include findings addressing the facts and the criteria. The decision of the Board will have full force and effect. A certified copy of the decision will be delivered to the appellant.

Any appeal of the Board's decision must be by writ of review.

24.51.060 General

A. In addition to all other applicable City Code provisions, all structures located in wildfire hazard zones as identified in the Wildfire Hazard Zone map must meet the applicable requirements in the Oregon Structural Specialty Code or the Residential Specialty Code as applicable.

B. The requirements in Chapter 24.75, Uniform Building Address System, supercede the requirements found in OSSC Appendix L, Section L101.7, for premises identification.

Chapter 24.55 Building Demolition

24.55.100 Demolition - Debris - Barricades - Nuisances.

It is unlawful for any owner or persons in control of any such structure that is being demolished, or that has been damaged by fire, to leave any portion of the structure unsupported for more than 1 hour, if such section is liable to collapse or is in any way a danger to the public. In no event may a portion of the structure be left unsupported for more than 24 hours. Suitable barricades must be provided to prevent access to the vicinity of any unsupported section of the structure. Any permanent structural supports provided as a result of application to this section must be designed by a structural engineer registered to practice in the State of Oregon and hired by the applicant. All such designs, calculations, drawings, and inspection reports must be approved by the City Administrator.

All combustible debris or material must be removed from the premises on which the demolition is carried out within 30 days from the completion of the demolition, or from the stoppage of the work thereon if the work remains uncompleted. All non-combustible debris or material resulting from demolition must be removed within 30 days after the completion of the demolition or stoppage thereof, unless the City Administrator extends the time therefore because of weather, terrain, or other special circumstances, but such extension may not exceed 3 months. It is unlawful for any owner or person in possession of real property to permit the debris to remain on the property without disposal in excess of the periods mentioned above or of any specific extension thereof as set forth above.

Any of the above-mentioned things existing while there is a duty to remove or correct the same constitute a public nuisance. Any unsupported portions of a building or structure existing beyond the periods set forth above are subject to summary abatement by the City. The abatement will be in accordance with the procedure set forth in Title 29, Chapter 29.60, Administration and Enforcement.

All structures to be demolished must be taken down in a safe manner. The streets or sidewalks may not be littered with rubbish and must be wet down, if necessary. During any demolition work, all receptacles, drop boxes, shafts, or piping used in such demolition work must be covered in an appropriate manner. After removal of any structure all foundations that are not to be used for new construction must be removed and all excavations filled in compliance with Chapter 24.70 of this Title, to a level of the adjoining grade. Plans must be submitted for any new construction proposed, utilizing the remaining foundations. Any remaining foundations approved for further use must be barricaded by a fence no less than 6 feet high maintained until the new construction has progressed sufficiently to remove any hazards to the public. Such period of time is not to exceed 30 days. For regulations on the use of public streets and protection of pedestrians during demolition see Chapter 24.40 of this Title.

24.55.150 Definitions.

A. Demolition. Demolition means removal of all exterior walls above the foundation.

B. Major residential addition. Major residential addition means adding more than 500 square feet of new interior space and expanding the structure's footprint or envelope. The new interior space does not include areas of existing space within the building envelope.

C. Major residential alteration. Major residential alteration means removing 50 percent or more of the exterior walls above the foundation.

D. Recognized organization. Recognized organization includes neighborhood coalitions and neighborhood associations recognized by the Portland Office of Community & Civic Life.

E. Demolition manager. Demolition manager means the person designated by the property owner or demolition permit applicant who will be responsible for implementing and overseeing the demolition plan and who will be the contact person for PP&D and other regulatory agencies regarding the demolition plan. The demolition manager is a "responsible party" as defined in this Section 24.55.150.

F. Demolition plan. Demolition plan means the plan signed by the demolition manager that outlines the techniques and equipment that will be used during all demolition activities to ensure compliance with dust suppression as required, reviewed and approved by Portland Permitting & Development. (See also Administrative Rule Related to Chapter 24.55 – Demolitions.)

G. Mechanical demolition activities. Mechanical demolition activities means pulling down any part of a structure using mechanical tools such as cranes, bulldozers, excavators, rams, or similar heavy machinery. Mechanical demolition activities also includes mechanical loading and transfer of demolition materials.

H. Lead-based paint. Lead-based paint means any paint or other surface coatings that contain lead equal to or exceeding 1.0 milligram per square centimeter, 0.5 percent by weight, or 5,000 parts per million (ppm).

I. Responsible party. Responsible party means the property owner or any other person authorized to act on the owner's behalf and any person causing or contributing to a violation of this Title.

24.55.200 Residential Demolition Delay - Housing Preservation.

A. Purpose. The residential demolition delay provisions are intended to allow an adequate amount of time to help save viable housing in the City while recognizing a property owner's right to develop or redevelop property. The regulations provide an opportunity for public notice of impending residential demolitions and coordination of the efforts of various City bureaus. The regulations also encourage seeking alternatives to demolition. The provisions accomplished this through a two part process:

1. a 35 day notice period during which demolition is delayed, and

2. a possible 60-day extension of the demolition delay period.

B. Where the delay applies. The residential demolition delay regulations of this Section (24.55.200) apply to sites with residential structures that are regulated under the Oregon Residential Specialty Code and that are located in areas with a residential Comprehensive Plan Map designation. The regulations only apply to applications for demolition of residential structures. They do not apply to demolitions of accessory structures such as garages or other outbuildings.

C. Application for building permit for demolition.

1. Signed statement. The application for a building permit for demolition must include a statement signed by the owner(s) of the property. The statement must acknowledge that the owner(s) are aware of the primary uses permitted under the current zoning on the site without a conditional use, zone change, Comprehensive Plan Map amendment, or other land use approval and that such an approval will be required before other uses will be permitted on the site. The statement may be on forms that the Director may make available.

2. Delay in issuing. The building permit for demolition will not be issued except as provided for in this Section (24.55.200).

D. Notification.

1. Mailed notice. Within 5 days of receipt of a complete application for a residential demolition permit, Portland Permitting & Development will mail written notice of the demolition request to all properties within 150 feet of the site to be demolished, to the recognized organization(s) whose boundaries include the site, to the Architectural Heritage Center/Bosco-Milligan Foundation, Inc. A complete application means when Portland Permitting & Development has received a complete permit application, project plans and the intake, review and notice fees have been paid. The notification letter will contain at least the following information.

a. Notice that the site has been proposed for demolition,

b. The date the application for demolition was received,

c. Notice that there is a demolition delay period of 35 days that may be extended upon request from the recognized organization(s) whose boundaries include the site or an interested party,

d. The contact information of the applicant,

e. The last day that requests for extended delay may be submitted, and

f. The location where more information is available.

2. Posted notice. Not more than 2 weeks nor less than 72 hours before demolition activity commences, the applicant must post door hangers provided by Portland Permitting & Development on all properties within 300 feet of the site to be demolished. The notice must contain all of the following information.

a. Name and phone number of the Demolition Manager.

b. Notice that the site has been proposed for demolition,

c. The demolition permit number,

d. The approximate date demolition activity will commence,

e. Contact information of the agencies that regulate asbestos and lead-based paint,

f. Contact information for the applicant,

g. Recommended safety information for surrounding properties, such as closing windows and keeping children away from the site, and

h. The location where more information is available.

E. 35-day notice period. The building permit for residential demolition will not be issued during the 35-day notice period. The notice period begins on the day the complete permit application is received and all intake fees have been paid. If no written request to extend the demolition delay is received during the 35-day notice period as provided in Subsection 24.55.200 F. below, then Portland Permitting & Development will issue the building permit for demolition.

F. Requests for extension of demolition delay period. Requests to extend the demolition delay period may be made as follows:

1. Who may request. Requests to extend the demolition delay period an additional 60 days may be made by a recognized organization whose boundaries include the site or any other interested party.

2. How to request. The request to extend the demolition delay period must be made in writing, on forms provided by Portland Permitting & Development. The request must be submitted to Portland Permitting & Development by 4:30 p.m. on the last day of the initial 35-day notice period. The request must be accompanied by an appeal of the demolition permit application submitted to the Bureau for a hearing before the Code Hearings Officer, as provided in Subsection 24.55.200 H. below, along with the appeal fee or a waiver of the fee and a copy of the letter requesting a meeting with the property owner as described in Subsection 24.55.200 H.1. below. A fee waiver will only be granted to recognized organizations whose boundaries include the site.

G. 60-day extension of residential demolition delay period. If a signed request for extension of the demolition delay is received as provided in Subsection 24.55.200 F. above, issuance of the building permit for demolition will be stayed until the Code Hearings Officer has rendered a decision of the appeal filed as provided in Subsection 24.55.200 H. below.

H. Appeal of the residential demolition permit application. An interested party may appeal issuance of the demolition permit by completing an appeal application on forms provided by the Bureau. The appeal application must be accompanied by the appeal fee or a fee waiver, along with a copy of the letter requesting a meeting with the property owner as described in Subsection 1. below. Appeals will be forwarded to the Code Hearings Officer and will be governed by the provisions in Chapter 22.10, unless there is a conflict between Chapter 22.10 and this Section, in which case this Section will apply. The provisions of Chapter 22.03 do not apply to appeals under this Section except for Sections 22.03.050 (Hearing Procedure), 22.03.080 (Evidence), and 22.03.110 (Orders). The appeal may be filed any time within the initial 35-day delay period. The demolition permit may not be issued from the time the Bureau receives an appeal application and the fee or fee waiver, until

the Code Hearings Officer has rendered a decision or the 60-day extension period has expired. If the fee waiver is denied, the appealing party must submit the appeal fee to the Bureau within three business days of the denial or the appeal will be rejected. The appealing party has the burden of proving that it is actively pursuing an alternative to demolition and must demonstrate all of the following by submitting evidence to the Code Hearings Officer, either with the appeal application or at the appeal hearing:

1. The requesting party has contacted the property owner or property owner's representative to request a meeting to discuss alternatives to demolition by sending a letter to the property owner by registered or certified mail, return receipt requested;

2. The particular property subject to the demolition permit application has significance to the neighborhood. Evidence of the significance may include, but is not limited to, architectural significance, the age and condition of the structure or other factors;

3. The requesting party has a plan to save the structure; and

4. The requesting party has a reasonable potential to consummate the plan within 95 days of the date the Bureau accepted the complete demolition permit application by providing a proposed budget and either evidence of funds on hand or a fund raising plan sufficient to meet the financial requirements of that budget. "Consummate the plan" as used in this Subsection means coming to an agreement among the parties within the 95 days; it does not mean that the plan itself must be completed in that time.

I. Moving as an alternative. If the applicant decides to move the structure instead of demolishing it, then the demolition notice period and/or extended delay period becomes moot. The demolition delay period is automatically terminated when a building permit to move the structure from the site and a building permit to relocate the structure to another site are issued.

J. Findings of the Code Hearings Officer. If the Code Hearings Officer finds that the requesting party has demonstrated that it is actively pursuing an alternative to demolition and has met all of the criteria in Subsections 24.55.200 H.1. – 4. above, the Code Hearings Officer may grant an extension of the demolition delay for up to 60 additional days from the date the initial 35 day delay period has expired. If the Code Hearings Officer finds that the requesting party has not met its burden, then the Bureau may issue the demolition permit immediately upon receipt of the decision, provided that all other requirements for issuing the demolition permit have been satisfied.

K. End of the extension period. If the Code Hearings Officer has not rendered a decision within the 60-day extension period as provided in Subsections 24.55.200 H.

and J. above, the building permit for demolition may be issued any time after 60 days have elapsed since the expiration of the initial 35-day notice period. In no event will the permit issuance be delayed more than 95 days from the date the Bureau received the complete demolition permit application if all other requirements for issuing the demolition permit have been satisfied.

L. Exceptions to demolition delay.

1. The provisions of this Section (24.55.200) do not apply to applications for building permits for demolition that are required by the City to remove structures because of a public hazard, nuisance, or liability. The structure must be subject to a demolition order from the City, or be the subject of enforcement proceedings for demolition and be stipulated by the owner as a dangerous building, in order to be exempt from the demolition delay provisions.

2. The provisions of this Section (24.55.200) do not apply to applications for building permits for demolition of structures that are subject to the demolition review provisions of Title 33. In this situation, the provisions of Title 33, Planning and Zoning, apply to the application. Any application not subject to the demolition review provisions of Title 33 is subject to the demolition delay provisions of this Section (24.44.200).

24.55.205 Site Control Measures in Residential Demolitions.

A. Scope. The provisions of this Section 24.55.205 apply to the following, regardless of zoning or Comprehensive Plan Map designation:

1. Demolition of structures used for residential purposes with four or fewer dwelling units, including mixed use structures. “Mixed use” for purposes of this Section 24.55.205 means the combination on a site of residential uses with commercial or industrial uses.

2. Any detached accessory structures with a floor area over 200 square feet on a site with a structure covered by Subsection 1. above.

3. Major residential alterations, as that term is defined in Section 24.55.150. Except for this Subsection A., whenever the term “demolition” is used in this Section 24.55.205, it includes major residential alterations.

B. Documentation required. A permit to demolish a structure within the scope of this Section as defined in Subsection A. above will not be issued until Portland Permitting & Development (PP&D) has received all of the following:

1. A copy of the asbestos survey required under Oregon Revised Statutes 468A.757 and Oregon Administrative Rules Chapter 340, Division 248, Section 0270, as each of these is amended from time-to-time.

2. If asbestos is identified in the asbestos survey: A close-out letter from the licensed asbestos abatement contractor verifying all of the asbestos identified in the asbestos survey has been abated and all required DEQ notification forms and the asbestos waste shipment form.

3. A Demolition Plan as described in Section 24.55.150.

4. The applicant must provide a lead-based paint inspection report in order to seek an exemption from the lead-hazard reduction requirements in Subsection C.1. of this Section. The requirements for the inspection report will be contained in the PP&D Administrative Rule Related to Chapter 24.55 – Demolitions.

5. Verification of all required certifications as described in the PP&D Administrative Rule Related to Chapter 24.55 – Demolitions.

C. Requirements for demolitions

1. Lead hazard reduction. Prior to commencing mechanical demolition activities, all painted exterior non-structural surfaces, including, but not limited to, doors, windows, railings, soffits, trim, exterior porches (except for concrete or masonry materials), and all layers of siding (unless such surfaces have been tested as set forth in Section B.4. above and found not to contain lead-containing paint) must be removed, and all such materials must be placed in 6 mil plastic and deposited in a covered container. During the removal of these exterior painted materials, 6-mil plastic sheeting or equivalent must be placed at the base of the exterior shear wall and extend at least 10 feet beyond the perimeter of the structure or work area, whichever is greater. If a property line prevents 10 feet of ground covering, vertical containment must be erected to protect neighboring properties.

All lead hazard reduction work must be completed and inspected by PP&D as outlined in the PP&D Administrative Rule Related to Chapter 24.55 – Demolitions.

2. Dust suppression. During mechanical demolition activities, including transfer and loading of materials, the structure, mechanical equipment parts that come in direct contact with building materials, and debris must be continuously wetted with a water spray sufficient in volume and force to prohibit airborne emission of dust and particulates from leaving the site. In addition, all debris piles must be wetted down each day prior to commencing

mechanical demolition activities and at the end of each day during which mechanical demolition activities have occurred.

3. Wind speed. Mechanical demolition activities must be suspended when winds exceed 25 MPH, verified regularly during mechanical demolition activities by using a hand-held anemometer prior to commencing mechanical demolition activities each day and any time wind speeds noticeably increase. Only deconstruction or other activities that do not generate dust may be conducted on the site when winds exceed 25 MPH.

4. Debris containment/management: All demolition debris must be contained on site per the requirements set forth in the PP&D Administrative Rule Related to Chapter 24.55 – Demolitions.

5. Runoff. All stormwater or any other water generated on the site that pools or is collected on the site must comply with all City requirements for water discharge.

6. Exemption for unsafe or hazardous structures. An applicant may request an exemption from the lead hazard reduction requirements in Subsection 2. above if the structure is structurally unsafe or otherwise hazardous to human life to the extent that the activities described in Subsection 2. above could not be safely executed. The request must accompany the application for the demolition permit, unless the unsafe or hazardous condition is not discovered until after the permit application has been submitted. Reasons for exemption consideration could include, but are not limited to, extensive fire damage, drug manufacturing, or severe structural issues that cannot be mitigated without complete mechanical demolition. Request for an unsafe or hazardous structure exemption must be submitted to Portland Permitting & Development and include all of the following:

a. A letter on company or organization letterhead from one of the following professionals stating that performing the lead hazard reduction requirements would not be safe:

(1) Structural Engineer licensed in the State of Oregon.

(2) Hazardous material professional with credentials to perform work in the State of Oregon.

b. A statement by a professional listed in Subsection a. above who provides a letter indicating that neither the professional, a relative of the professional, nor a business entity with which the professional is associated has a financial or other interest in the property or project. **Relative** means the spouse, parent, stepparent, child, sibling, step-sibling, son-in-law, or daughter-in-law of the professional.

c. Supporting evidence documenting the condition of the structure and reasons why the lead hazard reduction activities are not recommended due to safety concerns.

7. Notification and posting.

a. All demolitions that are subject to the provisions of this Section 24.55.205 must comply with the notification requirements in Subsection 24.55.200 D.2.

b. All such sites must also be posted with a sign during demolition activities that meets the requirements set forth in the PP&D Administrative Rule Related to Chapter 24.55 – Demolitions.

D. Demolition-related inspections

1. PP&D will conduct a pre-demolition inspection to determine whether the site control measures outlined in the Demolition Plan, along with erosion and sediment control measures are adequate based on specific site conditions or other City regulations. This initial inspection will be used to review the Demolition Plan, including any necessary permanent site control measures. In addition, the initial pre-demolition inspection will ensure that there is a Demolition Manager and that a copy of the Demolition Plan is on site.

2. PP&D will conduct inspections during demolition activities to confirm the Demolition Plan is being properly implemented and maintained during the demolition process. PP&D will verify that exterior painted surfaces are removed, as required, prior to beginning mechanical demolition and required wetting for dust suppression is operational during the start of mechanical demolition.

3. PP&D will conduct a post-demolition inspection to verify that the structure(s) and all demolition-related debris has been removed as detailed in the Demolition Plan and that the site is free of debris and Title 10 erosion and sediment control requirements are met.

E. Enforcement and fines

1. Enforcement. Enforcement of this Section 24.55.205 is set forth in the PP&D Administrative Rule Related to Chapter 24.55 – Demolitions.

2. Fines. Fines are established for violations of this Section 24.55.205 as set forth in the Enforcement Fee and Penalty Schedule as adopted by the City Council. These fines will be assessed as a result of an issued citation for violations of this Section 24.55.205 and are in addition to any other fines

authorized by law. See Administrative Rule Related to Chapter 24.55 – Demolitions.

3. Administrative Review and Appeals. If a responsible party has received a stop work order or written citation and the responsible party believes the order or citation was issued in error, the responsible party may request that the order or citation be reviewed by the City Administrator. The responsible party must submit a written request for an Administrative Review within 15 calendar days of the date of the order or citation, along with the Administrative Review appeal fee. (See current PP&D Enforcement Fee Schedule). The appeal fee is due when the written request for an Administrative Review is submitted to PP&D. This fee will only be refunded if it is determined that all of the contested violations were cited in error. A written Administrative Review determination will be served on the responsible party by regular mail.

Additionally, the party that sought the Administrative Review may appeal the written Administrative Review determination to the City Code Hearings Office in accordance with Chapter 22.10 of the Portland City Code.

F. Demolition permit compliance prerequisite for new building permit. No building permit for a new structure on the site that is subject to the demolition permit (including all lots in a land division or lot confirmation) will be issued until the final inspection for the demolition permit has been completed and approved.

24.55.210 Major Residential Alterations and Additions.

A. Purpose. The delay provisions are intended to provide notice of a major residential alteration or addition to recognized organizations and to surrounding neighbors.

B. Where the provisions apply. The major residential alteration and addition delay applies to sites with residential structures that are regulated under the Oregon Residential Specialty Code and that are located in areas with a residential Comprehensive Plan Map designation. The delay provisions do not apply to accessory structures such as garages or other outbuildings.

C. Delay in issuing. The building permit for a major residential alteration or addition will not be issued except as provided for in this Section (24.55.210).

D. Notification.

1. Emailed notice. At least 35 days before a building permit is issued for a major residential alteration or addition, the applicant for the permit must email a letter to the recognized organization(s) whose boundaries include the site that contains at least the following information.

a. Notice that an application for a major alteration or addition has been or will be submitted to Portland Permitting & Development,

b. The date the application was filed, if applicable,

c. A general description of the proposed alteration or addition,

d. Notice that there is a delay period of 35 days from the date the notice is sent, and

e. The contact information of the applicant.

2. Posted notice. At least 35 days before the building permit is issued for a major residential addition, the applicant must post door hangers provided by Portland Permitting & Development on the 10 surrounding properties from the site of the project. See Figure 210-1 below for a typical configuration. The notice must contain all of the following information.

a. Notice that an application for a major addition has been or will be submitted to Portland Permitting & Development,

b. The permit application number, if an application has already been filed,

c. The approximate date the construction activity will commence,

d. Contact information of the agencies that regulate asbestos and lead-based paint, and

e. Contact information for the applicant.

E. Required information prior to permit issuance. Prior to issuing a major alteration or addition permit, the delay period must expire and the applicant must submit to Portland Permitting & Development:

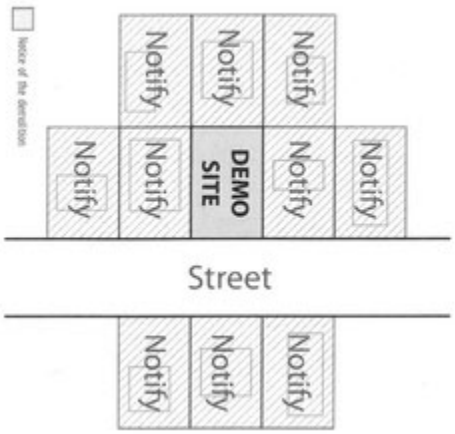
1. A copy of the sent email and a list of the names and email addresses of all recognized organizations that received the notification and the date the notifications were emailed, certified by the applicant or the owner or owner's agent, and

2. For major residential additions, a list of addresses of all properties that received the notification and the date the notifications were posted, certified by the applicant or the owner or owner's agent.

F. End of the delay period. The building permit for the major alteration or addition may be issued any time after the end of the 35-day notice period.

G. Expiration of permit application. If for any reason, the permit application for a major residential alteration or addition expires prior to issuance of the permit or if an issued permit expires prior to the project being commenced, a new permit application, notification and delay period will be required.

FIGURE 210-1



Chapter 24.60 Fences

24.60.020 Barbed Wire Fencing.

It is unlawful for any person to construct or maintain a fence containing barbed wire, unless the barbed wire is placed not less than 6 inches above the top of the fence and the fence is not less than 4 feet high.

Chapter 24.65 Sidewalk Vault Openings

24.65.010 Location of Sidewalk Vault Openings.

Access lids constructed in sidewalk corridors for fuel, elevators, stairs, or other purposes must meet the placement criteria laid out in Transportation Administrative Rule TRN-10.19

24.65.020 Number of Sidewalk Vault Openings.

There may not be more than one opening for each individual building frontage and in no case openings closer than 25 feet to an existing sidewalk opening.

24.65.030 Sidewalk Elevators.

Openings in sidewalks provided for in Section 24.65.010 must be supplied with doors attached to a frame built into the sidewalk and must be capable of supporting a uniform live load of 250 pounds per square foot and a concentrated live load of 8,000 pounds. The live loads do not need to be applied concurrently. The door must be constructed of sheet steel or other approved metal that has an approved non-slip surface. The dimensions of the door in any direction may not exceed the dimension of the opening by more than 6 inches. The doors and frames must be so constructed and maintained that there is no projection above or below the sidewalk exceeding 1/4 inch and existing doors that do not conform to the requirements must be changed to conform within a period of 10 days after notice is given to change the same. Sidewalk doors must be provided with a metal guard that, when the doors are open, will hold the doors open. This guard must be located on the side of the sidewalk opening nearest the property line. The guard must be made in the form of a grating with openings not exceeding 6 inches in dimension and so arranged that a child cannot get under or through the guard. This guard is not required for doors having metal gratings that are level with the sidewalk when the doors are open and the elevator platform is below the sidewalk level. Such gratings must be capable of supporting a uniform live load of 250 pounds per square foot and a concentrated live load of 8,000 pounds. The live loads do not need to be applied concurrently. Elevators having these sidewalk gratings must be provided with a 3/4-inch steel bar to hold the doors open.

24.65.040 Operation of Sidewalk Elevator.

A. When not in operation the elevator must be kept in its down position and the sidewalk doors must be closed.

B. When the elevator is being raised, pedestrians must be warned of the fact by an automatic warning device approved by the Director.

C. The sidewalk elevator may not be raised sooner than 15 minutes prior to a delivery and must be placed in a down position and the sidewalk doors closed within 15 minutes of the completion of a delivery.

24.65.050 Plans Required.

The construction of sidewalk vaults must be considered as part of a building and plans must be submitted showing the construction of the same.

Chapter 24.70 Clearing, Grading, And Retaining Walls

24.70.010 General.

The provisions of this Chapter regulate clearing, grading and earthwork construction on private property. Tree removal, whether associated with clearing, grading, earthwork

construction or conducted separately is regulated pursuant to Title 11, Trees. Erosion control is regulated by Title 10.

24.70.020 Permits.

Permits for clearing, grading, and retaining walls are required as specified in this Section. Where a specific activity does not require a clearing or grading permit, a separate tree permit may still be required, as specified in Title 11 Trees. Where a clearing or grading development permit shows trees to be removed and has been reviewed and approved by the City, a separate tree permit is not required in conjunction with the clearing or grading permit. An erosion, sediment and pollutant control plan if required by Title 10 must be submitted with clearing or grading permit applications. Applicants for permits made in conjunction with land divisions will be responsible for all clearing, grading, tree removal and erosion control within the land division, even where a specific activity is exempt from an individual permit.

A. Clearing Permits. A permit is required and will be issued in accordance with Section 24.10.070 for clearing activities in the following areas:

1. The Tualatin River sub-basins, Johnson Creek Basin Plan District, environmental zones, greenway zones, or natural resource management plans; or

2. Property larger than five acres. Except that no permit is required for clearing an area less than 5,000 square feet.

B. Grading permits. A permit is required and will be issued in accordance with Section 24.10.070 for all grading operations with the exception of the following:

1. Grading in an area where, in the opinion of the City Administrator, there is no apparent danger, adverse drainage, or erosion effect on private/public property, or inspection is not necessary;

2. An excavation below finished grade for basements and footings of a building, retaining wall, or other structure authorized by a valid building permit. This does not exempt any fill made with the material from such excavation nor exempt any excavation having an unsupported height greater than 5 feet after the completion of such structure.

3. Cemetery graves.

4. Refuse disposal sites controlled by other regulations.

5. Excavations for wells or tunnels.

6. Mining, quarrying, excavating, processing, stockpiling of rock, sand, gravel, aggregate, or clay where established and provided for by law provided such operations do not affect the lateral support or increase the stresses in or pressure upon any adjacent or contiguous property.

7. Exploratory excavations under the direction of soil (geotechnical) engineers or engineering geologists.

8. An excavation that

a. Is less than 2 feet in depth, or

b. Does not create a cut slope greater than 5 feet in height and steeper than 1-1/2 horizontal to 1 vertical.

9. A fill less than 1 foot in depth, and placed on natural terrain with a slope flatter than 5 horizontal to 1 vertical, or less than 3 feet in depth, not intended to support structures, that does not obstruct a drainage course and that does not exceed 10 cubic yards on any one lot.

C. Retaining walls. A permit is required and will be issued in accordance with Section 24.10.070 for all retaining walls over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, and for retaining walls supporting a surcharge.

D. Tree removal. Removal of trees six inches and larger in diameter will be reviewed with the clearing or grading permits as part of the Tree Plan review pursuant to Title 11. When removing 5 or more trees on a site with an average slope of at least 20 percent, applicants must provide a geotechnical engineering report that assesses the stability of the site after tree felling and root grubbing operations.

E. Permits required under this Chapter must be obtained before the commencement of any tree removal, root grubbing or soil disturbance takes place.

24.70.030 Hazards.

The City Administrator may determine that any clearing, grading, retaining wall, or geologic condition on private property has or may become a hazard to life and limb, or endanger property, or cause erosion, or adversely affect drainage or the safety, use or stability of a public way or drainage channel. Upon receipt of notice in writing from the City Administrator, the owner must mitigate the hazard and be in conformity with the requirements of this Title. The City Administrator may require that plans and specifications and engineering reports be prepared in compliance with this Chapter.

24.70.040 Special Definitions.

The definitions contained in this Section relate to excavation and grading work only as outlined in this Chapter.

A. Approval means a written engineering or geological opinion concerning the progress and completion of the work.

B. As graded is the surface conditions exposed on completion of grading.

C. Bedrock is in-place solid rock.

D. Bench is a relatively level step excavated into earth material on which fill is to be placed.

E. Borrow is earth material acquired from an off-site location for use in grading on a site.

F. Civil engineer means a professional engineer registered in the State to practice in the field of civil works.

G. Civil engineering means the application of the knowledge of the forces of nature, principles of mechanics, and the properties of materials to the evaluation, design, and construction of civil works for the beneficial uses of mankind.

H. Clearing is the cutting or removal of vegetation that results in exposing any bare soil.

I. Compaction is the densification of a fill by mechanical means.

J. Earth material is any rock, natural soil, or fill and/or any combination thereof.

K. Engineering geologist means a geologist experienced and knowledgeable in engineering geology and registered as an engineering geologist in the State of Oregon.

L. Engineering geology means the application of geologic knowledge and principles in the investigation and evaluation of naturally occurring rock and soil for use in the design of civil works.

M. Erosion is the wearing away of the ground surface as a result of the movement of wind, water, and/or ice.

N. Excavation is the mechanical removal of earth material.

O. Fill is a deposit of earth material placed by artificial means.

P. Geological hazard means a potential or apparent risk to persons or property because of geological or soil instability either existing at the time of construction or that would result from construction.

Q. Grade means the vertical location of the ground surface.

R. Existing grade is the grade prior to grading.

S. Rough grade is the stage at which the grade approximately conforms to the approved plan.

T. Finish grade is the final grade of the site that conforms to the approved plan.

U. Grading is any excavating or filling or combination thereof.

V. Key is a designed compacted fill placed in a trench excavated in earth material beneath the toe of a proposed fill slope.

W. Retaining wall is a structure that provides lateral support for a mass of soil or fluid and other imposed loads.

X. Site is any lot or parcel of land or contiguous combination thereof, under the same ownership, where grading is performed or permitted.

Y. Slope is an inclined ground surface the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

Z. Soil is naturally occurring surficial deposits overlying bedrock.

AA. Soil (Geotechnical) engineer means a civil engineer competent by education, training, and experience in the practice of soil engineering.

BB. Soil (Geotechnical) engineering means the application of the principles of soil mechanics in the investigation, evaluation, and design of civil works involving the use of earth materials and the inspection and testing of the construction thereof.

CC. Terrace is a relatively level step constructed in the face of a graded slope surface for drainage and maintenance purposes.

24.70.050 Information on Plans and in Specifications.

Plans and specifications must be submitted in accordance with Section 24.10.070 and in addition must comply with the following:

A. Plans must be drawn to scale upon substantial paper or cloth and must be of sufficient clarity to indicate the nature and extent of the work proposed and show in

detail that they will conform to the provisions of this Title and all relevant laws, ordinances, rules, and regulations. The first sheet of each set of plans must give the location of the work and the name and address of the owner and the person by whom they were prepared.

The plans must include the following information.

1. General vicinity of the proposed site.

2. Property limits and accurate contours of existing ground and details of terrain and area drainage for the site and surrounding area.

3. Limiting dimensions, elevations, or finish contours to be achieved by the grading and the proposed drainage channels and related construction.

4. Detailed schedule of when each portion of the site is to be graded; how long the soil is to be exposed; and when the area is to be covered with buildings, paving, new vegetation or temporary erosion control measures.

5. Detailed plans of all surface and subsurface drainage devices, walls, retaining walls, cribbing, dams, and other protective devices to be constructed with, or as a part of, the proposed work together with a map showing the drainage area and the estimated runoff of the area served by any drains.

6. Location of any buildings or structures on the property where the work is to be performed and the location of any buildings or structures on land of adjacent owners or trees in the adjacent rights-of-way that are within 15 feet of the property or that may be affected by the proposed grading operations.

7. Specifications must contain information covering construction and material requirements.

8. Civil engineering report. The civil engineering report, when required by the City Administrator, must include hydrological calculations of runoff and the existing or required safe storm drainage capacity outlet of channels both on site and off site, and 1- in 100-year flood elevations for any adjacent watercourse. The report must include recommendations for stormwater control and disposal.

9. Soil (Geotechnical) engineering report. The soil engineering report, when required by the City Administrator, must include data regarding the nature, distribution, and strength of existing soils, design criteria, and conclusions and recommendations applicable to the proposed development. The report must include recommendation for subdrainage, and for groundwater control and disposal. Recommendations included in the report and approved by the City Administrator must be incorporated in the plans and specifications. For single

family residences, a surface reconnaissance and stability questionnaire may be substituted for a formal soils report at the discretion of the City Administrator.

10. Engineering geology report. The engineering geology report, when required by the City Administrator, must include an adequate description of the geology of the site, and conclusions and recommendations regarding the effect of geologic conditions on the proposed development and site(s) to be developed.

Recommendations included in the report and approved by the City Administrator must be incorporated in the grading plans and specifications.

B. Issuance. Section 24.10.070 is applicable to grading permits. The City Administrator may require that:

1. The amount of the site exposed during any one period of time be limited; and

2. Grading work be scheduled to avoid weather periods or avoid critical habitat use periods for areas existing on, or adjacent to, the development site.

Subsequent to the issuance of the grading permit, the City Administrator may require that grading operations and project designs be modified if delays occur that can result in weather generated problems not considered at the time the permit was issued.

24.70.060 Bonds.

The City Administrator may require bonds in such form and amounts as may be deemed necessary to assure that the work, if not completed in accordance with the approved plans and specifications, will be corrected to eliminate hazardous conditions.

In lieu of a surety bond, the applicant may file a cash bond or instrument of credit with the City Administrator in an amount equal to that which would be required in the surety bond.

24.70.070 Cuts.

A. General. Unless otherwise recommended in the approved soil engineering and/or engineering geology reports, cuts must conform to the provisions of this Section.

B. Slope. The slope of cut surfaces may be no steeper than is safe for the intended use. Cut slopes may be no steeper than 2 horizontal to 1 vertical.

C. Drainage and terracing. Drainage and terracing must be provided as required by Section 24.70.100.

24.70.080 Fills.

A. General. Unless otherwise recommended in the approved soil engineering report, fills must conform to the provisions of this Section.

In the absence of an approved soil engineering report these provisions may be waived for minor fills not intended to support structures. Such fills are subject to review at the discretion of the City Administrator.

B. Ground preparation. The ground surface must be prepared to receive fill by removing vegetation, noncomplying fill, top-soil, and other unsuitable materials scarifying to provide a bond with the new fill, and where slopes are steeper than 5 to 1, and the height greater than 5 feet, by benching into competent material or sound bedrock as determined by the soils engineer. The bench under the toe of a fill on a slope steeper than 5 to 1 must be at least 10 feet wide. The area beyond the toe of fill must be sloped for sheet overflow or a paved drain must be provided. Where fill is to be placed over a cut the bench under the toe of a fill must be at least 10 feet wide but the cut must be made before placing fill and approved by the soils engineer and engineering geologist as a suitable foundation for fill. Unsuitable soil is soil that, in the opinion of the Director or the civil engineer or the soils engineer or the engineering geologist, is not competent to support either soil or fill, to support structures or to satisfactorily perform the other functions for which the soil is intended.

C. Fill material. Only permitted material free from tree stumps, detrimental amounts of organic matter, trash, garbage, sod, peat, and similar materials may be used. Rocks larger than 6 inches in greatest dimension may not be used unless the method of placement is properly devised, continuously inspected, and approved by the City Administrator.

The following also apply:

1. Rock sizes greater than 6 inches in maximum dimension must be 10 feet or more below grade, measured vertically.

2. Rocks must be placed so as to assure filling all voids with fines. Topsoil may be used in the top 12-inch surface layer to aid in planting and landscaping.

D. Compaction of fill. All fills must be compacted to a minimum relative dry density of 90 percent as determined in accordance with ASTM Standard D-1557-78. Field density verification must be determined in accordance with ASTM Standard D-1556-82 or equivalent and must be submitted for any fill 12 inches or more in depth where

such fill may support the foundation for a structure. A higher relative dry density, or additional compaction tests, or both, may be required at any time by the City Administrator.

E. Fill slope. The slope of fill surfaces may be no steeper than is safe for the intended use. Fill slopes may be no steeper than 2 horizontal to 1 vertical.

F. Drainage and terracing. Drainage and terracing must be provided and the area above fill slopes and the surfaces of terraces must be graded and paved as required by Section 24.70.100.

24.70.085 Retaining Walls.

A. Retaining walls not regulated by the Oregon Residential Specialty Code or the Oregon Structural Specialty Code must be designed in accordance with ASCE 7-16 and this section.

B. Soil loads must be determined in accordance with ASCE 7-16. Retaining walls in which horizontal movement is restricted at the top must be designed for at-rest pressure. Retaining walls free to move and rotate at the top must be permitted to be designed for active pressure. Lateral pressure from surcharge loads must be added to the lateral earth pressure load. Lateral pressure must be increased if soils at the site are expansive or the retaining wall will support an ascending slope. Retaining walls must be designed to support the weight of the full hydrostatic pressure of undrained backfill unless a drainage system is installed.

C. Retaining walls supporting more than 6 feet of backfill height, measured from the base of the footing to the top of the wall, must incorporate an additional dynamic seismic lateral earth pressure. When the Monobe-okabe method is used to calculate the active dynamic seismic lateral earth pressure, a horizontal acceleration coefficient equal to or greater than one-half (0.5) the design peak horizontal ground acceleration must be used.

D. Retaining walls must be designed to ensure stability against overturning, sliding, excessive foundation pressure and water uplift. Retaining walls must be designed to resist the lateral action of soil to produce sliding and overturning with a minimum safety factor of 1.5 in each case. The load combinations of ASCE 7-16 do not apply to this requirement. Instead, the design must be based on 0.7 times nominal earthquake loads, 1.0 times other nominal loads, and investigation with one or more of the variable loads set to zero. The safety factor against lateral sliding must be taken as the available soil resistance at the base of the retaining wall foundation divided by the net lateral force applied to the retaining wall.

Exception: Where earthquake loads are included, the minimum safety factor for retaining wall sliding and overturning is 1.1.

24.70.090 Setbacks.

A. General. The setbacks and other restrictions specified by this Section are minimal and may be increased by the City Administrator, or by the recommendation of the civil engineer, soils engineer, or engineering geologist, if necessary for safety and stability or to prevent damage of adjacent properties from deposition or erosion or to provide access for slope maintenance and drainage. Retaining walls may be used to reduce the required setbacks when approved by the City Administrator.

B. Setbacks from property lines. The tops of cuts and toes of fill slopes must be set back from the outer boundaries of the permit area, including slope right areas and easements, in accordance with Figure No. 2 and Table No. 24.70-C at the end of this Chapter.

C. Design standards for setbacks. Setbacks between graded slopes (cut or fill) and structures must be provided in accordance with Figure No. 3 and Table No. 24-70-C at the end of this Chapter.

24.70.100 Drainage and Terracing.

A. General. Unless otherwise indicated on the approved grading plan, drainage facilities and terracing must conform to the provisions of this Section.

B. Terrace. Terraces at least 6 feet in width must be established at not more than 30-foot vertical intervals on all cut or fill slopes to control surface drainage and debris except that where only one terrace is required, it must be at mid-height. For cut or fill slopes greater than 60 feet and up to 120 feet in vertical height one terrace at approximately mid-height must be 12 feet in width. Terrace widths and spacing for cut and fill slopes greater than 120 feet in height must be designed by the civil engineer and approved by the City Administrator. Suitable access must be provided to permit proper cleaning and maintenance.

A single run of swale or ditch may not collect runoff from a tributary area exceeding 13,500 square feet (projected) without discharging into a downdrain.

C. Subsurface drainage. Cut and fill slopes must be provided with subdrainage as necessary for stability. Adequate culverts must be laid under all fills placed in natural watercourses and along the flow line of any tributary branches in such a manner that the hydraulic characteristics of the stream are not adversely altered. In addition, subdrainage must be installed if active or potential springs or seeps are covered by the fill. All culverts/subdrainage must be installed after the suitable subgrade preparation. Design details of culverts/subdrainage must be shown on each plan and be subject to the approval of the City Administrator and of other government/private agencies as may be required.

A subdrain system must be provided for embedded foundation/ retaining walls and floor slabs where ground water or seepage has a potential to affect the performance of the structure. The plans must indicate

1. subdrainage details with appropriate specifications,

2. location of footing subdrain/discharge lines and,

3. method of disposal.

In lieu of above, walls/floors may be waterproofed and designed to resist hydrostatic pressure.

D. Disposal. All drainage facilities must be designed to carry waters to the nearest practicable drainageway or approved stormwater management facility, as approved by the City Administrator and/or other appropriate jurisdiction as a safe place to deposit such waters. Erosion of ground in the area of discharge must be prevented by installation of non-erosive downdrains or other devices.

Building pads must have a drainage gradient of 2 percent toward approved drainage facilities, unless waived by the City Administrator.

Exception: The gradient from the building pad may be 1 percent if all of the following conditions exist throughout the permit area:

1. No proposed fills are greater than 10 feet in maximum depth.

2. No proposed finish cut or fill slope faces have a vertical line in excess of 10 feet.

3. No existing slope faces that have a slope face steeper than 10 horizontal to 1 vertical have a vertical height in excess of 10 feet.

E. Interceptor drains. Paved interceptor drains must be installed along the top of all cut slopes where the tributary drainage area above slopes towards the cut and has a drainage path greater than 40 feet measured horizontally. Interceptor drains must be paved with a minimum of 3 inches of concrete or gunite and reinforced. They must have a minimum depth of 12 inches and a minimum paved width of 30 inches measured horizontally across the drain. The slope of the drain must be approved by the City Administrator.

24.70.120 Grading Inspection.

A. General. All grading operations for which a permit is required is subject to inspection by the City Administrator. When required by the City Administrator,

special inspection of grading operations and special testing must be performed in accordance with the provisions of Subsection 24.70.120 C.

B. Grading designation. All grading in excess of 5,000 cubic yards must be performed in accordance with the approved grading plan prepared by a civil engineer and must be designated as “engineered grading.” Grading involving less than 5,000 cubic yards may also be designated as “engineered grading” by the City Administrator if the grading will:

1. support a building or structure of a permanent nature;

2. support other engineering works such as, but not limited to, tanks, towers, machinery, retaining wall, and paving;

3. be deemed a potential hazard under Section 24.70.030. The permittee with the approval of the City Administrator may also choose to have the grading performed as “engineered grading.” Otherwise, the grading must be designated as “regular grading.”

C. Engineered grading requirements. For engineered grading, it is the responsibility of the civil engineer who prepares the approved grading plan to incorporate all recommendations from the soil engineering and engineering geology reports into the grading plan. The civil engineer is also responsible for the professional inspection and approval of the grading within the civil engineer’s area of technical specialty. This responsibility includes, but need not be limited to, inspection and approval as to the establishment of line, grade, and drainage of the development area. The civil engineer must act as the coordinating agent in the event that need arises for liaison between the other professionals, the contractor, and the City Administrator. The civil engineer will also be responsible for the preparation of revised plans and the submission of as-graded grading plans upon completion of the work. The grading contractor must submit in a form prescribed by the City Administrator a statement of compliance to said as-graded plan.

Soil engineering and engineering geology reports will be required as specified in Section 24.70.050. During grading all necessary reports, compaction data, and soil engineering and engineering geology recommendations must be submitted to the civil engineer and the City Administrator by the soil engineer and the engineering geologist. The soil engineer’s area of responsibility includes, but need not be limited to, the professional inspection and approval concerning the preparation of ground to receive fills, testing for required compaction, stability of all finish slopes, and the design of buttress fills, where required, incorporating data supplied by the engineering geologist.

The engineering geologist’s area of responsibility includes, but need not be limited to, professional inspection and approval of the adequacy of natural ground for receiving fills and the stability of cut slopes with respect to geological matters, and

the need for subdrains or other ground water drainage devices. The engineering geologist must report the findings to the soil engineer and the civil engineer for engineering analysis.

The City Administrator may inspect the project at the various stages of work requiring approval and at more frequent intervals necessary to determine that adequate control is being exercised by the professional consultants.

D. Regular grading requirements. The City Administrator may require inspection and testing by an approved testing agency. The testing agency's responsibility includes, but need not be limited to, approval concerning the inspection of cleared areas and benches to receive fill, and the compaction of fills. When the City Administrator has cause to believe that geological factors may be involved the grading operation will be required to conform to "engineered grading" requirements.

E. Notification of noncompliance. If, in the course of fulfilling their responsibility under this Chapter, the civil engineer, the soil engineer, the engineering geologist, or the testing agency finds that the work is not being done in conformity with this Chapter or the approved grading plans, the discrepancies must be reported immediately in writing to the person in charge of the grading work and to the City Administrator. Recommendations for corrective measures, if necessary, must be submitted.

F. Transfer of responsibility for approval. If the civil engineer, the soil engineer, the engineering geologist, or the testing agency of record are changed during the course of the work, the work must be stopped until the replacement has agreed to accept the responsibility within the area of their technical competence for approval upon completion of the work.

24.70.130 Completion of Work.

A. Final reports. Upon completion of the rough grading work and that final completion of the work the Building Official may require the following reports and drawings and supplements to it:

1. An as-graded grading plan prepared by the civil engineer including original ground surface elevations, as-graded ground surface elevations, lot drainage patterns, and locations and elevations of all surface and sub-surface drainage facilities. The civil engineer must provide approval that the work was done in accordance with the final approved grading plan.

2. A Soil Grading Report prepared by the soil engineer including locations and elevations of field density tests, summaries of field and laboratory tests and other substantiating data and comments on any changes made during grading and their effect on the recommendations made in the soil engineering

investigation report. The soil engineer must provide approval as to the adequacy of the site for the intended use.

3. A Geological Grading Report prepared by the engineering geologist including a final description of the geology of the site including any new information disclosed during the grading and the effect of same on recommendations incorporated in the approved grading plan. The engineering geologist must provide approval as to the adequacy of the site for the intended use as affected by geological factors.

B. Notification of completion. The permittee or their agent must notify the City Administrator when the grading operation is ready for final inspection. Final approval will not be given until all work including installation of all drainage facilities and their protective devices and all erosion control measures have been completed in accordance with the final approved grading plan and the required reports have been submitted.

Chapter 24.75 Uniform Building Address System

24.75.010 Uniform System.

A. There is established a uniform system of numbering all buildings in separate ownership or occupancy in the City dividing the City into six addressing districts. In establishing the system Williams Avenue, Naito Parkway, View Point Terrace and Tryon Creek State Natural Area and the centerline of the Willamette River southerly from Oregon Street and northerly from Clay Street, constitutes the north and south base line from which the numbers on all buildings running easterly and westerly from said streets must be extended each way, upon the basis of one number for each ten feet of property frontage, wherever possible, starting at the base line with the number 1 continuing with consecutive hundreds at each intersection, wherever possible.

B. All even numbers must be placed upon buildings on the southerly side of streets, avenues, alleys and highways, and all odd numbers must be placed upon buildings on the northerly side of streets, avenues, alleys and highways. Burnside Street constitutes the east and west base line from which the numbers on all streets running north and south from said streets must be extended each way, upon the basis of one number for each 10 feet of property frontage, wherever possible, starting at the base line with number 1 and continuing with consecutive hundreds at each intersection, wherever possible. All even numbers must be placed upon buildings on the easterly side of streets, avenues, alleys, and highways, and all odd numbers upon buildings on the westerly side of said streets, avenues, alleys, and highways. Freestanding buildings on private streets that are separately owned or occupied must be separately numbered so as to most closely conform to this system. Each portion of a building that is separately owned or occupied and has a separate entrance from the outside must have a separate number assigned to it.

C. Suffixes to Building Numbers. Where building address requirements exceed numbers available within the numbering system, the City Administrator may use the suffix “A”, “B”, “C”, etc. as may be required to provide the numbering required by this Chapter.

24.75.020 Size and Location of Building Numbers.

All numbers placed in accordance with this Chapter must be permanently affixed to a permanent structure and of sufficient size and so placed as to be distinctly legible from the public way providing primary access to the building. All numbers must be posted as nearly as possible in a uniform place and positioned on the front of each building near the front entrance. Where outside illumination is provided, the numbers must be placed so as to be illuminated by the outside light. In instances where building mounted numbers are not distinctly visible from a public way, a duplicate set of numbers must be permanently affixed to a permanent structure at the primary entranceway to such property. If, in the judgment of the City Administrator, the numbering, sequence, legibility, size or location does not meet the requirements as set forth above, the property owner or agent will be notified and within 30 days must make such changes as required in the notification.

24.75.030 Administration.

The City Administrator will assign address numbers, keep records of address assignments, and exercise such other powers as are necessary to carry out the provisions of this Chapter.

24.75.040 Owner Responsibility.

Whenever any new building is erected, modified, or occupied in a manner requiring an address assignment, the owner or owner’s agent must procure the correct address number or numbers designated by the City Administrator and pay required fees.

The owner or agent must, prior to occupancy or within 30 days of assignment, whichever occurs later, place the assigned address number(s) upon the building or in a manner and location as provided in this Chapter.

24.75.050 Alteration of Building Number - Improper Number.

It is unlawful for any person to cause or knowingly permit a building number to be displayed that is different than that assigned pursuant to this Chapter. It is unlawful for any person to own or have possession of a building that does not display the number assigned pursuant to this Chapter in the manner provided by this Chapter.

24.75.060 Building Defined.

As used in this Chapter, **building** is any structure used or intended for supporting or sheltering any use or occupancy.

24.75.070 Enforcement.

The City Administrator will provide written notices to the owner of any building in violation of the provisions of this Chapter. The notice will state the violations existing and specify the owner has 30 days to obtain compliance.

In the event the owner fails or neglects to comply with the violation notice in the prescribed time the City Administrator may gain compliance by:

A. Instituting an action before the Code Enforcement Hearings Officer as provided in Title 22 of the City Code, or

B. Causing appropriate action to be instituted in a court of competent jurisdiction, or

C. Taking such other action as the City Administrator deems appropriate.

Chapter 24.85 Seismic Design Requirements for Existing Buildings

24.85.010 Scope.

A. The provisions of this Chapter prescribe the seismic design requirements for existing buildings undergoing changes of occupancy, additions, alterations, catastrophic damage, fire, or earthquake repair, or mandatory or voluntary seismic strengthening. The requirements of this Chapter only apply to buildings for which a building permit has been applied for to change the occupancy classification, add square footage to the building, alter or repair the building.

B. Under the authority provided by State law, the provisions of this Chapter prescribing seismic rehabilitation standards for existing buildings can be used in lieu of meeting the requirements of the current edition of the State of Oregon Structural Specialty Code.

24.85.015 Structural Design Meeting.

Upon request, PP&D engineering staff is available to meet with an owners design engineer to review proposed seismic strengthening plans in a pre-design meeting. A written record of the meeting discussion and determinations will be placed in the permit record.

24.85.020 Seismic Related Definitions.

The definitions contained in this Section relate to seismic design requirements for existing buildings outlined in this Chapter.

A. ASCE 41 means the Seismic Evaluation and Retrofit of Existing Buildings ASCE/SEI 41-17 published by the American Society of Civil Engineers and the Structural Engineering Institute.

B. ASCE 41 Evaluation means the process of evaluating an existing building for the potential earthquake-related risk to human life posed by that building, or building component, and the documentation of that evaluation, performed and written according to the provisions of ASCE 41. Tier 1 and Tier 2 deficiency based evaluation for both structural and non-structural components using the Basic Performance Objective for Existing Buildings (BPOE) as defined in ASCE 41 is the performance objective for the evaluation, unless a Tier 3 evaluation is required by ASCE 41.

C. ASCE 41-BPOE Improvement Standard means the Tier 1 and Tier 2 Deficiency based retrofit for both structural and non-structural components using the Basic Performance Objective for Existing Buildings (BPOE) as defined in ASCE 41, unless a Tier 3 evaluation is required by ASCE 41.

D. ASCE 41-BPON Improvement Standard means Tier 3 Retrofit for both structural and non-structural components using the Basic Performance Objective Equivalent to New Buildings (BPON) as defined in ASCE 41.

E. ATC 20 means the latest Edition of the manual on “Procedures for Post Earthquake Safety Evaluation of Buildings” published by Applied Technology Council.

F. BPOE- Basic Performance Objective for Existing Buildings. A series of defined Performance Objectives based on a building’s Risk Category meant for evaluation and retrofit of existing buildings; See Table 2-1 and Table 2-2 of ASCE 41.

G. BPON- Basic Performance Objective Equivalent to New Building Standards. A series of defined Performance Objectives based on a building’s Risk Category meant for evaluation and retrofit of existing buildings to achieve a level of performance commensurate with the intended performance of buildings designed to a standard for new construction; See Table 2-3 of ASCE 41.

H. BSE-1E. Basic Safety Earthquake-1 for use with the Basic Performance Objective for Existing Buildings, taken as a seismic hazard with a 20 percent probability of exceedance in 50 years, except that the design spectral response acceleration parameters Sxs and Sx1 for BSE-1E seismic hazard level may not be taken as less than 75 percent of the respective design spectra response

acceleration parameters obtained from BSE-1N seismic hazard level and need not be greater than BSE-2N at a site.

I. BSE-1N. Basic Safety Earthquake-1 for use with the Basic Performance Objective Equivalent to New Buildings Standards, taken as two-thirds of the BSE- 2N.

J. BSE-2E. Basic Safety Earthquake-2 for use with the Basic Performance Objective for Existing Buildings, taken as a seismic hazard with a 5 percent probability of exceedance in 50 years, except that the design spectral response acceleration parameters of Sxs and Sx1 for BSE-2E seismic hazard level may not be taken as less than 75 percent of the respective design spectra response acceleration parameters obtained from BSE- 2N Seismic hazard level and may not be greater than BSE-2N at a site.

K. BSE-2N. Basic Safety Earthquake-2 for use with the Basic Performance Objective Equivalent to New Buildings Standards, taken as the ground shaking based on Risk-Targeted Maximum Considered Earthquake (MCER) per ASCE 7 at a site.

L. Building addition means an extension or increase in floor area or height of a building or structure.

M. Building alteration means any change, addition or modification in construction.

N. Catastrophic damage means damage to a building that causes an unsafe structural condition from fire, vehicle collision, explosion, or other events of similar nature.

O. Essential facility has the same meaning as defined in the OSSC.

P. Fire and Life safety for Existing Buildings (FLEx) Guide means a code guide published by Portland Permitting & Development, outlining alternative materials and methods of construction that are allowed for existing buildings in Portland.

Q. FM 41 Agreement means a joint agreement between Portland Fire & Rescue, Portland Permitting & Development and a building owner, subject to approval by the City Administrator, to schedule improvements to the building following a determination of the fire and life safety hazards posed by the existing condition of the building as provided under Oregon law.

R. Live/Work space means a combination working space and dwelling unit. A live/work space includes a room or suite of rooms on one or more floors designed for and occupied by not more than one family and including adequate working space reserved for the resident's occupancy. A live/work space is individually equipped with an enclosed bathroom containing a lavatory, water closet, shower/and or bathtub and appropriate venting.

S. Net floor area means the entire area of a structurally independent building, including an occupied basement, measured from the inside of the permanent outer building walls, excluding any major vertical penetrations of the floor, such as elevator and mechanical shafts.

T. Occupant load means the number of persons for which the means of egress of a building or portion thereof is designed. The occupant load is calculated based on occupant load factors in the table assigned to each space in the Oregon Structural Specialty Code (OSSC).

U. Oregon Structural Specialty Code (OSSC) means the provisions of the State of Oregon Structural Specialty Code as adopted by Subsection 24.10.040 A.

V. PP&D means Portland Permitting & Development.

W. Reinforced masonry means masonry having both vertical and horizontal reinforcement as follows:

1. Vertical reinforcement of at least 0.20 in2 in cross-section at each corner or end, at each side of each opening, and at a maximum spacing of 4 feet throughout. One- or two-story buildings may have vertical reinforcing spaced at greater than 4 feet throughout provided that a rational engineering analysis is submitted that shows that existing reinforcing and spacing provides adequate resistance to all required design forces without net tension occurring in the wall.

2. Horizontal reinforcement of at least 0.20 in2 in cross-section at the top of the wall, at the top and bottom of wall openings, at structurally connected roof and floor openings, and at a maximum spacing of 10 feet throughout.

3. The sum of the areas of horizontal and vertical reinforcement must be at least 0.0005 times the gross cross-sectional area of the element.

4. The minimum area of reinforcement in either direction may not be less than 0.000175 times the gross cross-sectional area of the element.

X. Risk category. A categorization of a building for determination of earthquake performance based on Oregon Structural Specialty Code (OSSC).

Y. Roof covering repair or replacement means the installation of a new roof covering following the removal of an area of the building's roof covering exceeding 50 percent or more of the total roof area within the previous 5 year period.

Z. Unreinforced masonry (URM) means adobe, burned clay, concrete or sand-lime brick, hollow clay or concrete block, hollow clay tile, rubble and cut stone and unburned clay masonry that does not satisfy the definition of reinforced masonry as

defined in this Chapter. Plain unreinforced concrete is not considered unreinforced masonry for the purpose of this Chapter.

AA. Unreinforced masonry bearing wall means a URM wall that provides vertical support for a floor or roof for which the total superimposed vertical load exceeds 100 pounds per lineal foot of wall.

BB. Unreinforced masonry bearing wall building means a building that contains at least one URM bearing wall.

24.85.030 Seismic Improvement Standards.

For changes of occupancy structural additions, building alterations and catastrophic or earthquake damage repair, the design standard is the current edition of the OSSC unless otherwise noted by this Chapter.

24.85.040 Change of Occupancy or Use.

The following table is used to classify the relative hazard of all building occupancies:

TABLE 24.85-A

Relative Hazard Classification	OSSC Occupancy Classification	Seismic Improvement Standard
6 (Highest)	A, E, I-2, I-3, H-1, H-2, H-3, H-4, H-5	OSSC or ASCE 41-BPON
5	R-1, SR, I-1, I-4	
4	R-2	ASCE 41-BPOE
3	B, M	
2	F-1, F-2, S-1, S-2	
1 (Lowest)	R-3, U	

A. Occupancy change to a higher relative hazard classification. An occupancy change to a higher relative hazard classification will require seismic improvements based upon the factors of changes in the net floor area and the occupant load increases as indicated in Table 24.85-B below. All improvements to either the OSSC or ASCE 41 improvement standard must be made such that the entire building conforms to the appropriate standard indicated in Table 24.85-B.

TABLE 24.85-B				
Percentage of Building Net Floor Area Changed	**-**	**Occupant Load Increase**	**Required Improvement Standard**	**Relative Hazard Classification**
1/3 of area or less	and	Less than 150	None	1 through 6
More than 1/3 of area	or	150 and above	ASCE 41-BPOE	1, 2, 3 and 4
More than 1/3 of area	or	150 and above	OSSC or ASCE 41-BPON	5 and 6

Multiple occupancy changes to a single building may be made under this Section without triggering a seismic upgrade provided the cumulative changes do not exceed 1/3 of the building net floor area or add more than 149 occupants with respect to the legal building occupancy as of October 1, 2004.

B. Occupancy change to same or lower relative hazard classification. An occupancy change to the same or a lower relative hazard classification or a change in use within any occupancy classification will require seismic improvements using either the OSSC or ASCE 41 improvement standard, as identified in Table 24.85-A above, where the change results in an increase in occupant load of more than 149 people as defined by the OSSC. Where seismic improvement is required, the entire building must be improved to conform to the appropriate improvement standard identified in Table 24.85-A.

Multiple occupancy changes to a single building may be made under this Section without triggering a seismic upgrade provided the cumulative changes do not result in the addition of more than 149 occupants with respect to the legal building occupancy as of October 1, 2004.

C. Occupancy change to live work space. Any building occupancy classified as relative hazard category 1, 2, or 3 may undergo a change of occupancy to live/work space provided that:

1. The building must be improved such that the entire building conforms to the ASCE 41-BPOE improvement standard; and

2. The building meets the fire and life safety standards of either the FLEx Guide or the current OSSC.

3. Any unreinforced masonry bearing wall building converted to live/work space, regardless of construction costs, must be improved such that the entire building conforms to the ASCE 41-BPOE improvement standard.

D. Occupancy change to essential facilities. All structures that are being converted to essential facilities, as defined in the OSSC, must comply with current state code seismic requirements or ASCE 41-BPON improvement standard, regardless of other requirements in this Section.

24.85.050 Building Additions or Structural Alterations.

An addition that is not structurally independent from an existing building must be designed and constructed such that the entire building conforms to the seismic force resistance requirements for new buildings unless the following two conditions listed below are met. Furthermore, structural alterations to an existing building or its structural elements must also meet the following two conditions:

A. The addition or structural alteration must comply with the requirements for new buildings; and

B. Any existing lateral load-carrying structural element whose demand-capacity ratio with the addition(s) or structural alteration(s) considered is no more than 10 percent greater than its demand-capacity ratio with the addition(s) or structural alteration(s) ignored may be permitted to remain unaltered. For purposes of this paragraph, comparisons of demand-capacity ratios and calculation of design lateral loads, forces, and capacities must account for the cumulative effects of additions and structural alterations since original construction.

24.85.051 Mezzanine Additions.

A mezzanine addition does not require seismic strengthening of the entire building when all of the following conditions are met:

A. Entire building strengthening is not required by any other provision contained in this Title;

B. The net floor area of the of the proposed mezzanine addition is less than 1/3 of the net floor area of the building;

C. The mezzanine addition does not result in an occupant load increase, as defined by the OSSC, of more than 149 people; and

D. Subsections 24.85.050 A. - C. also applies to mezzanine additions.

24.85.055 Structural Systems Damaged by Catastrophic Events.

A. Building Lateral Load Resisting systems along any principal axis damaged less than or equal to 50 percent.

1. If a building is damaged by a catastrophic event such that less than or equal to 50 percent of the capacity of the existing lateral load resisting system along any principal axis of the building are damaged, only the damaged lateral load resisting components of the building's structural system must be designed and constructed to current provisions of the OSSC. These components must also be connected to the balance of the undamaged lateral load resisting system in conformance with current code provisions. Undamaged components need not be upgraded to current lateral load provisions of the current code, unless required by other provisions of this title.

2. New lateral system vertical elements must be compatible with any existing lateral system elements, including foundations. In multistory buildings, the engineer must confirm that the new lateral system vertical elements do not introduce soft or weak story seismic deficiencies, as defined by ASCE 41, where they did not previously exist, or make existing conditions more hazardous.

B. Building Lateral Load Resisting systems along any principal axis damaged more than 50 percent. Where a building is damaged by a catastrophic event such that more than 50 percent of the capacity of the existing lateral load resisting system along any principal axis of the building is damaged, all lateral load resisting components of the entire building's structural system along that principal axis must be designed and constructed to the current provisions of the OSSC or ASCE 41-BPON improvement standard.

24.85.056 Structural Systems Damaged by an Earthquake.

As a result of an earthquake, the City Administrator may determine through either an ATC 20 procedure or through subsequent discovery any structure or portion thereof to be in an unsafe condition as defined by State law. As a result of making this determination, the City Administrator may declare the structure or portion thereof to be a public nuisance and to be repaired or rehabilitation as provided in Subsections 24.85.056 A.-C., or abated by demolition or removal in accordance with Portland City Code Title 29. For the purposes of this Section, an "unsafe condition" includes, but is not limited to any portion, member or appurtenance of a building that has become detached or dislodged or appears likely to fail or collapse and injure persons or damage property; or any portion of a building or structure that has been damaged to the extent that the structural strength or stability of the building is substantially less than it was prior to the damaging event.

A. Buildings built prior to January 1, 1974 with lateral support systems that have unsafe conditions must be repaired or improved to resist seismic forces such that the repaired lateral system conforms to the ASCE 41-BPOE improvement standard.

1. Where less than 50 percent of the lateral support system has been damaged, only the damaged elements must be repaired.

2. Where 50 percent or more of the lateral support system has been damaged, then the entire lateral support system must be repaired to resist seismic forces such that the repaired system conforms to the ASCE 41-BPOE improvement standard.

B. Buildings built on or after January 1, 1974 with lateral support systems that have unsafe conditions must be repaired or improved to resist seismic forces such that the repaired lateral system conforms to the code to which the building was originally designed, but not less than that required to conform to the ASCE 41-BPOE improvement standard.

1. Where less than 50 percent of the lateral support system has been damaged, only the damaged elements must be repaired.

2. Where 50 percent or more of the lateral support system has been damaged, then the entire lateral support system must be repaired to resist seismic forces such that the repaired system conforms to the code to which the building was originally designed, but not less than that required to conform to the ASCE 41-BPOE improvement standard.

C. New lateral system vertical elements must be compatible with any existing lateral system elements, including foundations. In multistory buildings, the engineer must confirm that the new lateral system vertical elements do not introduce soft or weak story seismic deficiencies, as defined by ASCE 41, where they did not previously exist, or make existing conditions more hazardous.

24.85.060 Required Seismic Evaluation.

When an alteration for which a building permit is required has a value (not including costs of mechanical, electrical, plumbing, permanent equipment, painting, fire extinguishing systems, site improvements, eco-roofs and finish works) of more than $175,000, an ASCE 41 evaluation is required. This value of $175,000 will be modified each year after 2004 by the percent change in the R.S Means Construction Index for Portland on file with Portland Permitting & Development. A letter of intent to have an ASCE 41 evaluation performed may be submitted along with the permit application. The evaluation must be completed before any future permits will be issued. The following are exempt from this requirement:

A. Buildings constructed or renovated to seismic zone 2, 2b or 3 under a permit issued after January 1, 1974.

B. Detached One- and two-family dwellings, and their accessory structures.

C. Single story, light frame metal and light wood frame buildings, not more than 20 feet in height from the top surface of the lowest floor to the highest interior overhead finish and ground area of 4,000 square feet or less.

A previously prepared seismic study may be submitted for consideration by the City Administrator as equivalent to an ASCE 41 evaluation.

24.85.065 Seismic Strengthening of Unreinforced Masonry Bearing Wall Buildings.

When any building alterations or repairs occur at an unreinforced masonry bearing wall building, all seismic hazards must be mitigated as set forth in Subsections 24.85.065 A. and B. A previously permitted seismic strengthening scheme designed in accordance with FEMA 178/310/ASCE 31 may be submitted for consideration by the City Administrator as equivalent to the ASCE 41 improvement standard.

A. Roof repair or replacement. When a roof covering is repaired or replaced, as defined in 24.85.020, the building structural roof system, anchorage, and parapets must be repaired or rehabilitated such that, at a minimum, the wall anchorage for both in-plane and out-of-plane forces at the roof and parapet bracing conform to the ASCE 41-BPOE improvement standard. In-plane brick shear tests are not required as part of the ASCE evaluation under this Subsection.

B. Additional triggers.

1. Building alterations or repair. When the cost of alteration or repair work that requires a building permit in a 2-year period exceeds the following criteria, then the building must be improved to resist seismic forces such that the entire building conforms to the ASCE 41-BPOE improvement standard.

Table 24.85-C

Building Description	Cost of Alteration or Repair
Single Story Building	$40 per square foot
Buildings Two Stories or Greater	$30 per square foot

2. Special building hazards. Where an unreinforced masonry building of any size contains any of the following hazards, the building must be seismically improved if the cost of alteration or repair exceeds $30 per square foot:

a. The Building possesses an Occupancy Classification listed within the Relative Hazard Category 5 as determined in Section 24.85.040 of this Chapter; or

b. The building is classified as possessing either vertical or plan irregularities as defined in the OSSC.

3. Exclusions from cost calculations. Costs for site improvements, eco-roofs, mandated FM41 agreements, mandated ADA improvements, mandated non-conforming upgrades under Portland City Code Title 33, mandated elevator improvements and mandated or voluntary seismic improvements or work exempted from permit as described in Chapter 1 of the OSSC will not be included in the dollar amounts listed in Subsections 24.85.065 B.1. and 2.

4. Live/work spaces in unreinforced masonry buildings. See Subsection 24.85.040 B. for requirements when a unreinforced masonry building is converted to contain live/work spaces.

5. Automatic cost increase. The dollar amounts listed in Subsections 24.85.065 B.1. and 2. will be modified each year after 2004 by the percent change in the R.S. Means of Construction Cost Index for Portland, Oregon. The revised dollar amounts will be made available at the Development Services Center.

24.85.067 Voluntary Seismic Strengthening.

Subject to permit approval, a building may be strengthened to resist seismic forces on a voluntary basis provided all of the following conditions are met:

A. Mandatory seismic strengthening is not required by other provisions of this Title;

B. The overall seismic resistance of the building or elements may not be decreased such that the building is more hazardous;

C. Testing and special inspection are in accordance with the OSSC and the City's Administrative Rules;

D. The standard used for the seismic strengthening is clearly noted on the drawings along with the pertinent design parameters; and

E. A written narrative must be clearly noted on the drawings summarizing the building lateral system, seismic strengthening and known remaining deficiencies.

The summary information must reflect the level of analysis that was performed on the building.

24.85.070 Phasing of Improvements.

A. The City Administrator may approve a multi-year phased program of seismic improvements when the improvements are pre-designed and an improvement/implementation plan is approved by the City Administrator. The maximum total time allowed for completion of phased improvements is ten years. A legal agreement between the building owner and the City must be formulated outlining the phased seismic improvements and must be recorded with the property deed at the County.

B. Upon review, the City Administrator may extend the maximum time for the phased improvements. The City Administrator may adopt rules under Portland City Code Section 3.30.035 describing the process for granting an extension.

24.85.075 Egress Through Existing Buildings.

The building structure and seismic resistance of an egress path through, under or over an existing building must meet the required seismic improvement standard specified in Section 24.85.040, Table 24.85-A, under any of the following conditions:

A. The egress path is from an adjacent new building or addition and the new building or addition area equals 1/3 or more of the existing building area; or,

B. The egress path is from an adjacent existing building that undergoes alterations or a change of occupancy requiring its egress path(s) meet the seismic improvement standards as required by this Chapter; or

C. The additional occupant load, as determined by the OSSC, using the egress path through the existing building is 150 people or more.

24.85.080 Application of Other Requirements.

Building permit applications to improve the seismic capability of a building will not trigger: accessibility improvements so long as the seismic improvement does not lessen accessibility; fire life safety improvements so long as the seismic improvement does not lessen the buildings fire resistance or exiting capability; landscape improvements required by Title 33; or street tree improvements required by Title 11.

Conformance with these regulations may not exempt buildings from future seismic regulations.

24.85.090 Fee Reductions.

Building permit, plan review and fire life safety review fees for structural work related to seismic strengthening covered by this Chapter will be waived when such fees total less than $2,500, and will be and reduced by 50 percent when such fees would total $2,500 or more.

24.85.095 Appeals.

Because unanticipated circumstances may arise in the enforcement of these requirements for existing buildings, consideration as to the reasonable application of this Chapter may be addressed through the Board of Appeals as provided in Section 24.10.080.

Chapter 24.90 Manufactured Dwelling Installation and Accessory Structures, Manufactured Dwelling Parks, Recreation Parks, Recreational Park Trailer Installation and Accessory Structures

24.90.010 Purpose.

The purpose of this Chapter is to provide minimum standards for the following:

A. Installation and maintenance of manufactured dwellings and accessory structures.

B. Development and maintenance of manufactured dwelling parks.

C. Installation and maintenance of park trailers and recreational vehicle accessory structures.

D. Development and maintenance of recreational vehicle parks.

24.90.020 Scope.

Regulation under this Chapter covers all installations or alteration of manufactured dwellings, recreational park trailers and other recreational vehicles, and accessory structures. Regulation under this Chapter covers the development and maintenance of manufactured dwelling parks, recreational vehicle parks, recreation parks, picnic parks, and organizational camps.

24.90.030 Adoption of Codes and Regulatory Authority.

A. Manufactured Dwelling Installation Specialty Code. The provisions of the State of Oregon, Manufactured Dwelling Installation Specialty Code, 2010 Edition, as developed at the direction of the Building Codes Division of the Oregon Department

of Consumer and Business Services through the Residential and Manufactured Structures Board, is adopted by this reference. The Manufactured Dwelling Installation Specialty Code is on file in the Development Services Center.

B. Manufactured Dwelling and Park Specialty Code. The following provisions of the State of Oregon, Manufactured Dwelling and Park Specialty Code, 2002 Edition, as developed at the direction of the Oregon Building Codes Division Administrator through the Oregon Manufactured Structures and Parks Advisory Board, a copy of which is on file in the Development Services Center, are adopted by this reference:

1. All of Chapter One (Administration), except the following:

a. 1-1.4 (Design Loads)

b. 1-2.4 (Energy Conservation Equivalents)

c. 1-3 (Manufactured Dwellings Sold “As Is”)

d. 1-6.7 (Plot Plans Required)

e. 1-6.8 (Plot Plans Not Required)

f. 1-6.11 (Multiple-family Housing Plans)

g. 1-7.12 (Manufactured Dwelling Installation Permits)

h. 1-8.6 (Visual Inspections)

i. 1-8.7 (Appliance Inspections)

j. 1-8.9 (Alteration Inspections)

k. 1-8.11 (Quality Assurance Inspections)

l. 1-8.13 (Installation Inspections)

m. 1-9 (Insignias and Labels)

n. 1-10 (Certifications), except section 1-10.2.1 (Certificates of Occupancy Required) is adopted

o. 1-11 (License Required) –all, except for introductory language and paragraph (h) in 1-11.3 (Electrical) and introductory language and paragraph (i) in 1-11.4 (Plumbing) are adopted

2. All of Chapter Ten (Manufactured Dwelling Park Construction) and the corresponding tables and figures

3. Appendix A (Definitions)

4. Appendix B (Acronyms)

5. Appendix C (Symbols)

C. The City, through Portland Permitting & Development ("Bureau"), adopts regulatory authority for the installation maintenance and alteration of manufactured dwellings and accessory structures as authorized in ORS 446.250 and 446.253, and OAR 918-500-0055; for the development and maintenance of manufactured dwelling parks as authorized in ORS 446.062 and 446.430 and OAR 918-600-0010; for the development and maintenance of recreation parks, picnic parks and organizational camps as authorized in ORS 455.170; and for the installation, maintenance and alteration of residential park trailers, other recreational vehicles and accessory structures as authorized in ORS 455.170 and OAR 918-525-0370. Nothing contained in this Chapter provides regulatory authority when delegation of authority is expressly withheld by the State.

24.90.040 Definitions.

For the purposes of this Chapter definitions contained in Chapter 24.15 apply in conjunction with definitions found in ORS 446.003, ORS 455.010, OAR 918-500-0005, OAR 918-525-0005, OAR 918-600-0005 and OAR 918-650-0005. Definitions in ORS or OAR take precedence over other conflicting definitions.

24.90.050 Administration and Enforcement.

This Chapter will be administered and enforced in conformance with applicable provisions of the 2010 Edition of the Oregon Manufactured Dwelling Installation Specialty Code, the provisions of the 2002 Edition of the Oregon Manufactured Dwelling and Park Specialty Code adopted by reference in Subsection 24.90.030 B. of this Chapter, and the Oregon Administrative Rules contained in Chapter 918 Division 500, 515, 525, 530, 600 and 650.

24.90.060 Special Regulation.

Manufactured Dwellings and Cabanas installed on a residential lot must be certified by the manufacturer to have an exterior thermal envelope meeting performance standards that reduce levels equivalent to the performance standards required of single family dwellings constructed under the state building code. Skirting and permanent enclosures are required for all park trailer and cabana installations.

24.90.070 Permit Application.

Permits are required for the establishment, construction, enlargement, alteration or removal of manufactured dwelling parks, recreation parks, and organizational camps. Permit applications, plans and specifications and permit issuance must conform to Section 24.10.070, and applicable Oregon Administrative Rules. Permits are required for the installation or alteration of manufactured dwellings, recreational park trailers, recreational vehicles as defined in OAR 918-525-0005, and accessory structures. Plans and specifications are required in conformance with Section 24.10.070 and applicable Oregon Administrative Rules except when:

A. All installation is within an existing manufactured dwelling park and all the installation is performed in accordance with the manufacturer's approved installation instructions.

B. All installation is within an existing recreational vehicle or combination park, and all installation is performed under OAR 918-530-0005 through 918-530-0120.

When the City Administrator determines special installation or construction requires design by a registered engineer or architect, such design must be submitted in triplicate and approved by the City Administrator prior to commencement or continuance of installation or construction.

24.90.080 Violations.

Any person who violates any provision of this Chapter or any codes adopted under it will be subject to the penalties as prescribed by law.

24.90.090 Appeals.

Any person aggrieved by a decision of the Bureau related to the application and interpretation of the Codes listed in Section 24.90.030 of this Chapter may request an administrative appeal with the Administrative Appeal Board in accordance with Section 24.10.075. Any person aggrieved by a final decision of the City Administrator made under Section 24.10.075 may appeal the decision to the appropriate Board of Appeal described in Sections 24.10.080, 25.07, 26.03.070 and 27.02.031. Within 30 days of the final appeal finding by the Board of Appeal, an appellant who continues to be aggrieved may appeal to the appropriate State Specialty Advisory Board pursuant to ORS 455.690.

Figures 1-2 and Table 24-70-C (Title 24)

Figure 1 from Chapter 24.70

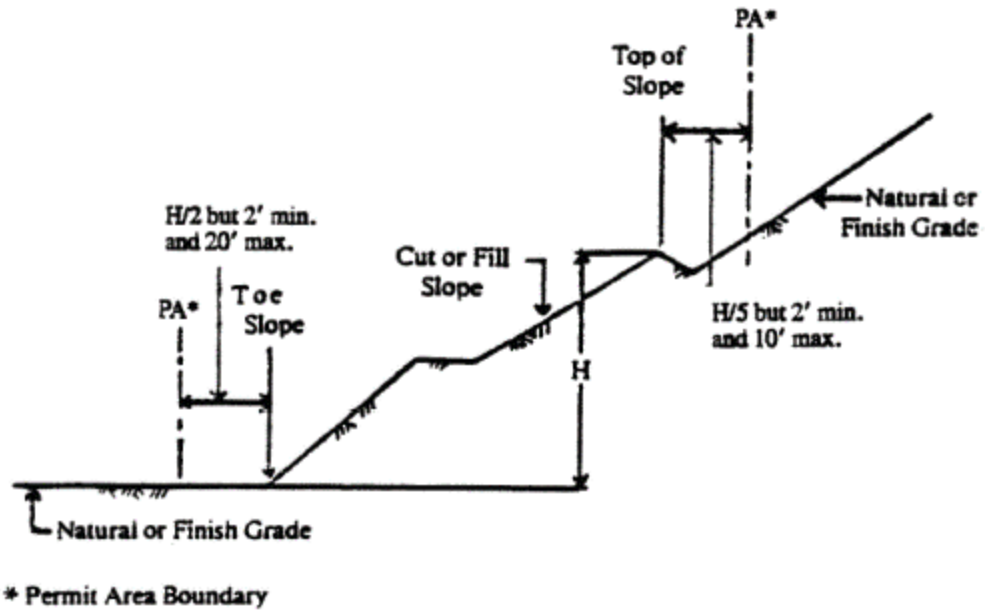


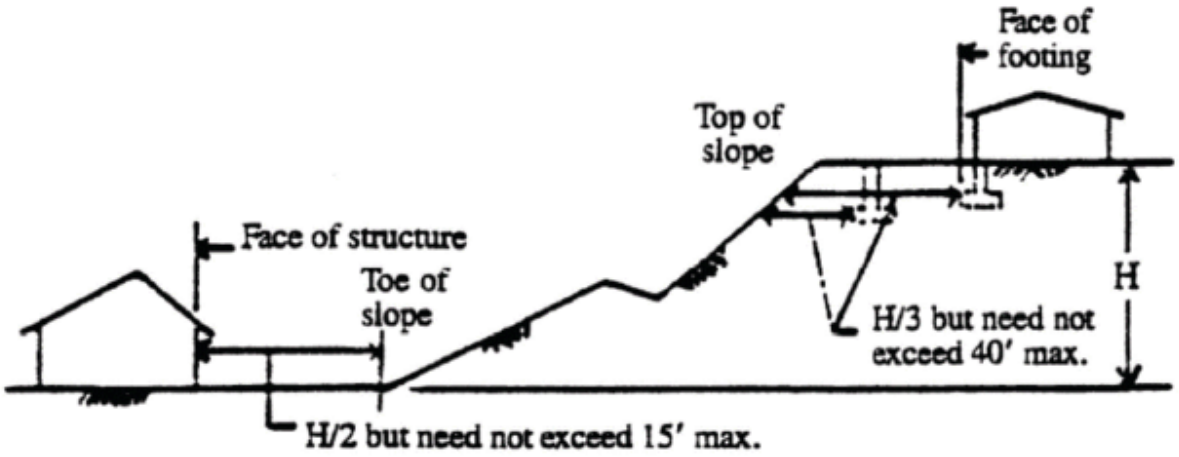
Table 24-70C from Chapter 24.70

Table No. 24.70-C
Required Setbacks from permit area boundary (in feet)

	SETBACKS	
H	a	b'
Under 5	0	1
5 - 30	H/2	H/5
Over 30	15	6

Additional width may be required for interceptor drain.

Figure 2 from Chapter 24.70


Face of
footing
Top of
slope
Face of structure
Toe of
slope
H
H/3 but need not
exceed 40′ max.
H/2 but need not exceed 15′ max.