

APPENDIX J

GRADING

Adopted by the State of Oregon for optional use in municipalities.

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

SECTION J101 GENERAL

J101.1 Scope. The provisions of this chapter apply to grading, excavation and earthwork construction, including fills and embankments. Where conflicts occur between the technical requirements of this chapter and the soils report, the soils report shall govern.

J101.2 Flood hazard areas. The provisions of this chapter shall not apply to grading, excavation and earthwork construction, including fills and embankments, in floodways within flood hazard areas established in Section 1612.3 unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed work will not result in any increase in the level of the base flood.

SECTION J102 DEFINITIONS

J102.1 Definitions. For the purposes of this appendix chapter, the terms, phrases and words listed in this section and their derivatives shall have the indicated meanings.

BENCH. A relatively level step excavated into earth material on which fill is to be placed.

COMPACTION. The densification of a fill by mechanical means.

CUT. See Excavation.

DOWN DRAIN. A device for collecting water from a swale or ditch located on or above a slope, and safely delivering it to an approved drainage facility

EROSION. The wearing away of the ground surface as a result of the movement of wind, water or ice.

EXCAVATION. The removal of earth material by artificial means, also referred to as a cut.

FILL. Deposition of earth materials by artificial means.

GRADE. The vertical location of the ground surface.

GRADE, EXISTING. The grade prior to grading.

GRADE, FINISHED. The grade of the site at the conclusion of all grading efforts.

GRADING. An excavation or fill or combination thereof.

KEY. A compacted fill placed in a trench excavated in earth material beneath the toe of a slope.

SLOPE. An inclined surface, the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

TERRACE. A relatively level step constructed in the face of a graded slope for drainage and maintenance purposes.

SECTION J103 PERMITS REQUIRED

J103.1 Permits required. Except as exempted in Section J103.2, no grading shall be performed without first having obtained a permit therefor from the building official. A grading permit does not include the construction of retaining walls or other structures.

J103.2 Exemptions. A grading permit shall not be required for the following:

1. Grading in an isolated, self-contained area, provided there is no danger to the public, and that such grading will not adversely affect adjoining properties.
2. Excavation for construction of a structure permitted under this code.
3. Cemetery graves.
4. Refuse disposal sites controlled by other regulations.
5. Excavations for wells, or trenches for utilities.
6. Mining, quarrying, excavating, processing or stockpiling rock, sand, gravel, aggregate or clay controlled by other regulations, provided such operations do not affect the lateral support of, or significantly increase stresses in, soil on adjoining properties.
7. Exploratory excavations performed under the direction of a registered design professional.

Exemption from the permit requirements of this appendix shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

SECTION J104 PERMIT APPLICATION AND SUBMITTALS

J104.1 Submittal requirements. In addition to the provisions of Section 105.3, the applicant shall state the estimated quantities of excavation and fill.

J104.2 Site plan requirements. In addition to the provisions of Section 106, a grading plan shall show the existing grade and finished grade in contour intervals of sufficient clarity to indicate the nature and extent of the work and show in detail that it complies with the requirements of this code. The plans shall show the existing grade on adjoining properties in sufficient detail to identify how grade changes will conform to the requirements of this code.

J104.3 Soils report. A soils report prepared by registered design professionals shall be provided which shall identify the nature and distribution of existing soils; conclusions and recommendations for grading procedures; soil design criteria for any structures or embankments required to accomplish the proposed grading; and, where necessary, slope stability studies, and recommendations and conclusions regarding site geology.

Exception: A soils report is not required where the building official determines that the nature of the work applied for is such that a report is not necessary.

J104.4 Liquefaction study. For sites with mapped maximum considered earthquake spectral response accelerations at short periods (S_s) greater than 0.5g as determined by Section 1615, a study of the liquefaction potential of the site shall be provided, and the recommendations incorporated in the plans.

Exception: A liquefaction study is not required where the building official determines from established local data that the liquefaction potential is low.

**SECTION J105
INSPECTIONS**

J105.1 General. Inspections shall be governed by Section 109 of this code.

J105.2 Special inspections. The special inspection requirements of Section 1704.7 shall apply to work performed under a grading permit where required by the building official.

**SECTION J106
EXCAVATIONS**

J106.1 Maximum slope. The slope of cut surfaces shall be no steeper than is safe for the intended use, and shall be no steeper than 2 horizontal to 1 vertical (50 percent) unless the applicant furnishes a soils report justifying a steeper slope.

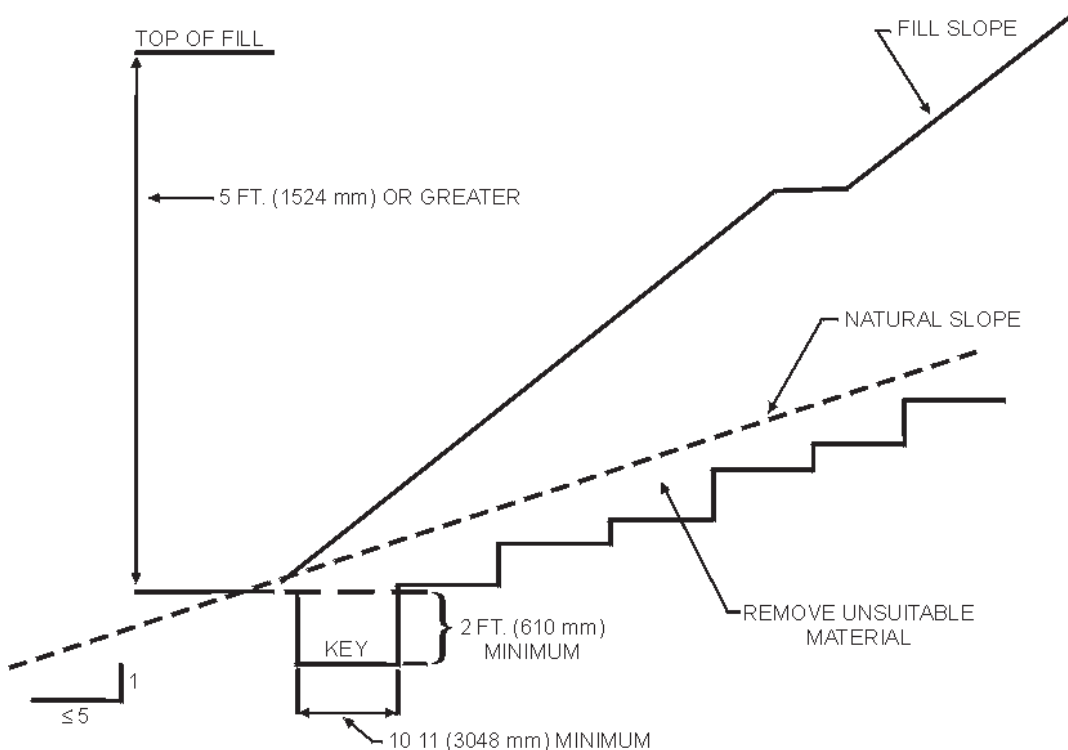
Exceptions:

1. A cut surface may be at a slope of 1.5 horizontal to 1 vertical (67 percent) provided that all the following are met:
 - 1.1. It is not intended to support structures or surcharges.
 - 1.2. It is adequately protected against erosion.
 - 1.3. It is no more than 8 feet (2438 mm) in height.
 - 1.4. It is approved by the building official.
2. A cut surface in bedrock shall be permitted to be at a slope of 1 horizontal to 1 vertical (100 percent).

**SECTION J107
FILLS**

J107.1 General. Unless otherwise recommended in the soils report, fills shall conform to provisions of this section.

J107.2 Surface preparation. The ground surface shall be prepared to receive fill by removing vegetation, topsoil and other unsuitable materials, and scarifying the ground to provide a bond with the fill material.



For SI: 1 foot = 304.8 mm

**FIGURE J107.3
BENCHING DETAILS**

J107.3 Benching. Where existing grade is at a slope steeper than 5 horizontal to 1 vertical (20 percent) and the depth of the fill exceeds 5 feet (1524 mm) benching shall be provided in accordance with Figure J107.3. A key shall be provided which is at least 10 feet (3048 mm) in width and 2 feet (610 mm) in depth.

J107.4 Fill material. Fill material shall not include organic, frozen or other deleterious materials. No rock or similar irreducible material greater than 12 inches (305 mm) in any dimension shall be included in fills.

J107.5 Compaction. All fill material shall be compacted to 90 percent of maximum density as determined by ASTM D1557, Modified Proctor, in lifts not exceeding 12 inches (305 mm) in depth.

J107.6 Maximum slope. The slope of fill surfaces shall be no steeper than is safe for the intended use. Fill slopes steeper than 2 horizontal to 1 vertical (50 percent) shall be justified by soils reports or engineering data.

SECTION J108 SETBACKS

J108.1 General. Cut and fill slopes shall be set back from the property lines in accordance with this section. Setback dimensions shall be measured perpendicular to the property line and shall be as shown in Figure J108.1, unless substantiating data is submitted justifying reduced setbacks.

J108.2 Top of slope. The setback at the top of a cut slope shall not be less than that shown in Figure J108.1, or than is required to accommodate any required interceptor drains, whichever is greater.

J108.3 Slope protection. Where required to protect adjacent properties at the toe of a slope from adverse effects of the grading, additional protection, approved by the building official,

shall be included. Such protection may include but shall not be limited to:

1. Setbacks greater than those required by Figure J108.1.
2. Provisions for retaining walls or similar construction.
3. Erosion protection of the fill slopes.
4. Provision for the control of surface waters.

SECTION J109 DRAINAGE AND TERRACING

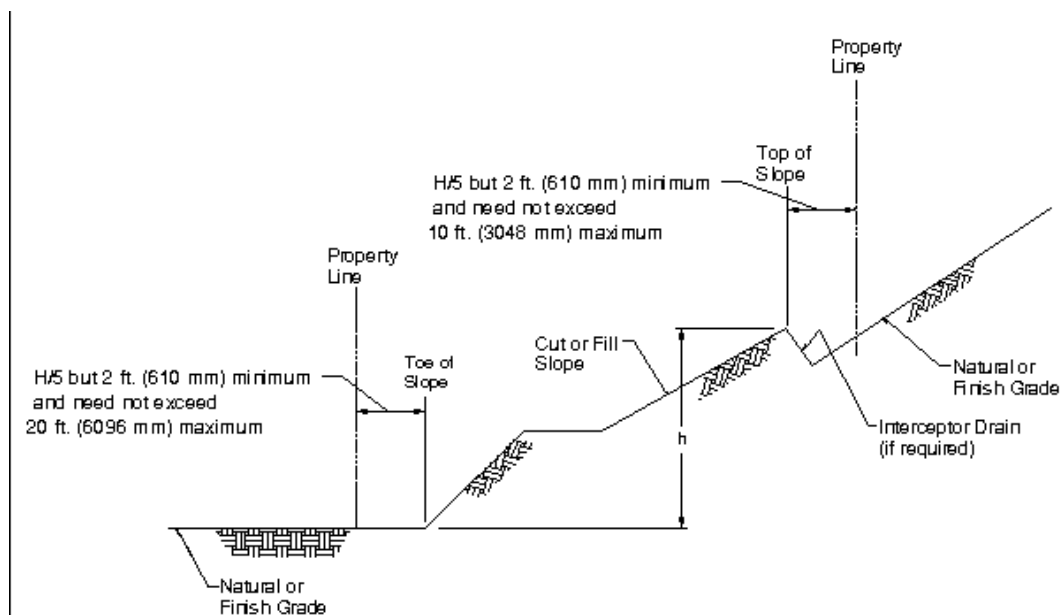
J109.1 General. Unless otherwise recommended by a registered design professional, drainage facilities and terracing shall be provided in accordance with the requirements of this section.

Exception: Drainage facilities and terracing need not be provided where the ground slope is not steeper than 3 horizontal to 1 vertical (33 percent).

J109.2 Terraces. Terraces at least 6 feet (1829 mm) in width shall be established at not more than 30-foot (9144 mm) vertical intervals on all cut or fill slopes to control surface drainage and debris. Suitable access shall be provided to allow for cleaning and maintenance.

Where more than two terraces are required, one terrace, located at approximately mid-height, shall be at least 12 feet (3658 mm) in width.

Swales or ditches shall be provided on terraces. They shall have a minimum gradient of 20 horizontal to 1 vertical (5 percent) and shall be paved with concrete not less than 3 inches (76 mm) in thickness, or with other materials suitable to the application. They shall have a minimum depth of 12 inches (305 mm) and a minimum width of 5 feet (1524 mm).



For SI: 1 foot = 304.8 mm

FIGURE J108.1
DRAINAGE DIMENSIONS

A single run of swale or ditch shall not collect runoff from a tributary area exceeding 13,500 square feet (1256 m²) (projected) without discharging into a down drain.

J109.3 Interceptor drains. Interceptor drains shall be installed along the top of cut slopes receiving drainage from a tributary width greater than 40 feet (12 192 mm), measured horizontally. They shall have a minimum depth of 1 foot (305 mm) and a minimum width of 3 feet (915 mm). The slope shall be approved by the building official, but shall not be less than 50 horizontal to 1 vertical (2 percent). The drain shall be paved with concrete not less than 3 inches (76 mm) in thickness, or by other materials suitable to the application. Discharge from the drain shall be accomplished in a manner to prevent erosion and shall be approved by the building official.

J109.4 Drainage across property lines. Drainage across property lines shall not exceed that which existed prior to grading. Excess or concentrated drainage shall be contained on site or directed to an approved drainage facility. Erosion of the ground in the area of discharge shall be prevented by installation of nonerosive down drains or other devices.

SECTION J110 EROSION CONTROL

J110.1 General. The faces of cut and fill slopes shall be prepared and maintained to control erosion. This control shall be permitted to consist of effective planting.

Exception: Erosion control measures need not be provided on cut slopes not subject to erosion due to the erosion-resistant character of the materials.

Erosion control for the slopes shall be installed as soon as practicable and prior to calling for final inspection.

J110.2 Other devices. Where necessary, check dams, cribbing, riprap or other devices or methods shall be employed to control erosion and provide safety.

SECTION J111 REFERENCED STANDARDS

ASTM D 1557-00	Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort [56,000 ft-lb/ft ³ (2,700kN-m/m ³)].	J107.6
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APPENDIX K

FIRE-EXTINGUISHING SYSTEMS

Adopted by the State of Oregon for optional use in municipalities

SECTION K101 GENERAL

K101.1 Scope. The procedure for determining fire-flow requirements for buildings or portions of buildings hereafter constructed shall be in accordance with this appendix. This appendix does not apply to structures other than buildings.

SECTION K102 DEFINITIONS

K102.1 Definitions. For the purpose of this appendix, certain terms are defined as follows:

FIRE FLOW. The flow rate of a water supply, measured at 20 pounds per square inch (psi) (138 kPa) residual pressure, that is available for fire fighting.

FIRE-FLOW CALCULATION AREA. The floor area, in square feet (m²), used to determine the required fire flow.

SUBSTANTIAL ALTERATION. Any alteration where the total costs of all alterations (including but not limited to electrical, mechanical, plumbing and structural changes) for a building or facility within any 12-month period amounts to 40 percent or more of the assessed value of the structure before the alteration occurred. For the purposes of this appendix, standard building maintenance, rewiring, residing or reroofing are not considered as alterations.

SUBSTANTIAL DAMAGE. Any damage of any origin to a structure whereby the cost of restoring the structure to its original condition would be equal to or exceed 40 percent of the assessed value of the structure before the alteration occurred.

SECTION K103 MODIFICATIONS

K103.1 Decreases. Fire-flow requirements may be modified downward by approval of the fire code official and the building official for isolated buildings or a group of buildings in rural areas or small communities where the development of full fire-flow requirements is impractical.

K103.2 Increases. Fire-flow requirements may be modified upward by approval of the fire code official and the building official where conditions indicate an unusual susceptibility to group fires or conflagrations. An increase shall not be more than twice that required for the building under consideration.

SECTION K104 FIRE AREA

K104.1 General. The fire-flow calculation area shall be the total floor area of all floor levels within the exterior walls, and under the horizontal projections of the roof of a building, except as modified in Section K104.2.

K104.2 Fire walls. Portions of buildings which are separated by fire walls without openings, constructed in accordance with Chapter 7, are allowed to be considered as separate fire-flow calculation areas.

K104.3 Type IA and IB construction. The fire-flow calculation area of buildings constructed of Type IA and Type IB construction shall be the area of the three largest successive floors.

SECTION K105 FIRE-FLOW REQUIREMENTS FOR BUILDINGS

K105.1 One- and two-family dwellings. The minimum fire-flow requirements for one- and two-family dwellings shall be 1,000 gallons per minute (gpm) (3785.4 L/min).

Exception: A reduction in required fire flow of 50 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system

K105.2 Buildings other than one- and two-family dwellings. The required fire flow for buildings other than one- and two-family dwellings shall be determined by the size, construction and occupancy hazard of the building being considered as designated by Table K105.2 and multiplied by the following occupancy factors:

Light Hazard Occupancies	1.00
Ordinary Hazard (Group 1)	1.10
Ordinary Hazard (Group 2)	1.20
Extra Hazard (Group 1)	1.40
Extra Hazard (Group 2)	1.50

Fire Flow = Occupancy Factor x Table K105.2)

The product of the above multiplication gives the required fire flow.

K105.3 Fire-flow reductions. The required fire flow may be reduced by one of the following options, but in no case to less than 1,500 gpm (5678 L/m) at 20 psi (137.9 kPa) residual:

1. Up to 75 percent where a complete approved automatic fire-extinguishing system meeting the requirements of Chapter 9 is installed throughout the building and the system is fully and electrically supervised in accordance with Section 903.4.
2. Fifty percent where a complete automatic fire-extinguishing system meeting the requirements of Chapter 9 is installed throughout the building and not monitored per Section 903.4.
3. Twenty-five percent where a complete automatic and manual fire alarm system is installed in accordance with approved central, proprietary or remote station service or local alarm which gives audible and visual signals at a constantly attended location.

**TABLE K105.2
MINIMUM REQUIRED FIRE FLOW AND FLOW DURATION FOR BUILDINGS**

FIRE-FLOW CALCULATION AREA (square feet)					FIRE FLOW (gallons per minute) ^b	FLOW DURATION (hours)
Type IA and IB ^a	Type MA and IMA ^a	Type IV and V-A ^a	Type MB and 1MB ^a	Type V-B ^a		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	3
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	4
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901 - Greater	166,501- Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	
—	—	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
—	—	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
—	—	135,501-145,800	97,901-106,800	60,201-64,800	6,750	
—	—	145,801-156,700	106,801-113,200	64,801-69,600	7,000	
—	—	156,701-167,900	113,201-121,300	69,601-74,600	7,250	
—	—	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
—	—	179,401-191,400	129,601-138,300	79,801-85,100	7,750	
—	—	191,401 - Greater	138,301- Greater	85,101 - Greater	8,000	

For SI: 1 square foot = 0.0929 m², 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

a. Types of construction are based on the Chapter 6 of this code.

b. Measured at 20 psi.

K105.4 Required fire-flow. No building shall be constructed, altered, enlarged or repaired in a manner that by reason of size, type of construction, number of stories, occupancy or any combination thereof creates a need for a fire flow in excess of 3,000 gpm (1.14 m³/min) at 20 psi (137.9 kPa) residual pressure, or exceeds the available fire flow at the site of the structure.

K105.5 Excess fire flow. Fire flow requirements in excess of 3,000 gpm (1.14 m³/min) may be allowed if, in the opinion of the building official, all reasonable methods of reducing the fire flow have been included within the development and no unusual hazard to life and property exists.

K105.6 Existing building fire flow. Existing buildings that require a fire flow in excess of 3,000 gpm (1.14 m³/min) are not required to comply with the fire flow requirements of this section. However, alterations, additions or repairs shall not further increase the required fire flow for the buildings.

**SECTION K106
FIRE DEPARTMENT ACCESS
AND FIRE HYDRANTS**

K106.1 Fire department access and fire hydrants. See the *Oregon Fire Code*.

**SECTION K107
ALTERATION OF EXISTING
GROUP R-1 OCCUPANCIES**

K107.1 Requirements. Where substantial alterations are made or substantial damage occurs to a Group R-1 occupancy, an approved automatic multipurpose sprinkler system complying with NFPA 13D shall be installed only in the substantially damaged dwelling units. When more than 50 percent of the dwelling units within a building are substantially damaged, the entire building shall be provided with a NFPA 13D multipurpose sprinkler system.

APPENDIX L

WILDFIRE HAZARD MITIGATION

Adopted by the State of Oregon for optional use in municipalities.

SECTION L101 GENERAL

L101.1 Purpose. The purpose of this appendix is to provide minimum standards for buildings located in or adjacent to vegetated areas subject to wildfires to reduce or eliminate hazards presented by such fires.

L101.2 Scope. The provisions of this appendix shall apply to buildings required to be protected against wildfire by a jurisdiction which has adopted wildfire hazard zoning restrictions.

L101.3 Wildfire hazard zone. A wildfire hazard zone is an area legally determined by a jurisdiction to have special hazards caused by a combination of combustible natural fuels, topography and climatic conditions that result in a significant hazard of catastrophic fire over relatively long periods each year. Wildfire hazard zones shall be determined using criteria established by the Oregon Department of Forestry.

L101.4 Wildfire hazard zone requirements. Buildings shall be protected against wildfire by the following requirements in addition to other requirements of this code.

L101.5 Roofing. All buildings regulated by this code in wildfire hazard zones shall have Class A or B roofing according to Section 1506.

L101.6 Reroofing or repair of roofing of existing buildings. When 50 percent or more of the roof covering of any building is repaired or replaced within one year, the entire roof covering shall be made to comply with this section and attic ventilation shall be made to comply with this code.

L101.7 Premises identification. In addition to Section 501.2, any premises regulated by this section shall have approved numbers or addresses provided for the premises in such a position as to be visible and legible from the public right-of-way. If the premises are not visible from the right-of-way due to distance or obstacles, the driveway(s) servicing the premises shall be identified by a sign where the driveway(s) enters the public right-of-way. The size, color, reflectivity, content, appearance, location and maintenance of the identification may be determined by the city or county having jurisdiction.

APPENDIX SR

GROUP SR – SPECIAL RESIDENCE (ASSISTED SELF-PRESERVATION) OCCUPANCIES

The provisions contained in this appendix are adopted by the State of Oregon.

SECTION SR101 GENERAL

SR101.1 General. Group SR occupancies shall comply with the provisions of this appendix and other applicable provisions of this code. These provisions shall apply to special residence occupancies that are licensed by the state, where personal care is provided to residents that may require assisted self-preservation.

Adult foster homes, child care facilities (located in a private residence) and Group I-1, I-2, R-3 and R-4 occupancies are not regulated by this appendix.

SR101.2 Scope. This appendix shall establish supplementary minimum requirements for Group SR-1, SR-2, SR-3 and SR-4 occupancies.

SR101.2.1 Design, construction and occupancy. The design, construction and occupancy requirements for Group SR-1, SR-2, SR-3 and SR-4 occupancies shall comply with the following:

1. Group SR-1 occupancies shall comply with Group I-1 occupancy requirements and the supplementary requirements of this appendix.
2. Group SR-2 occupancies shall comply with Group I-2 occupancy requirements and the supplementary requirements of this appendix.
3. Group SR-3 occupancies shall comply with Group R-3 occupancy requirements and the supplementary requirements of this appendix.
4. Group SR-4 occupancies shall comply with Group R-4 occupancy requirements and the supplementary requirements of this appendix.

SR101.2.2 Use by other occupancy groups. Group I-1, I-2, R-3, and R-4 occupancies not subject to the requirements of this appendix may apply the provisions of Section SR108.3. Group I-2 occupancies not subject to the requirements of this appendix may apply the provisions of Section SR107.3.3.

SR101.3 Application. At the time of application for a building permit, the applicant shall provide written documentation from the agency providing licensure for the recommended occupancy classification. The documentation shall state the proposed type of use, the maximum number of residents allowed by license and the anticipated evacuation capability of the residents. The building official may use Appendix Table SR109.1 as a guide for the determination of occupancy classification.

SR101.3.1 Failure to provide documentation. When an applicant fails to provide a recommended occupancy classi-

fication for Group SR-1 and SR-4 occupancies as required by this section, the building official shall classify the occupancy as Group SR-2.

SR101.3.2 Separating Group SR facilities. Separating resident or occupant counts into smaller, less restrictive occupancies by using fire walls is prohibited.

Exception: Modifications to existing facilities with approval from the building official and applicable licensing agency.

SECTION SR102 DEFINITIONS

SR102.1 Definitions. The following words and terms shall, for the purposes of this section, have the meanings shown herein.

[F] ALARM VERIFICATION. A feature of automatic fire detection and alarm systems to reduce unwanted alarms wherein smoke detectors report alarm conditions for a minimum period of time, or confirm alarm conditions within a given time period after being reset, in order to be accepted as a valid alarm initiation signal.

ASSISTED SELF-PRESERVATION. The capability of a resident to evacuate to a point of safety with physical assistance. Occupancies where personal care is administered and assisted self-preservation is permitted shall be subject to licensure by the Oregon Department of Human Services, or any other state agency. Assisted self-preservation shall be considered one of the following:

1. **ASSISTED SELF-PRESERVATION:** All residents, staff and other occupants shall reach a point of safety in a timely manner, determined by an evacuation score of less than 5 or with evacuation drill times not in excess of 13 minutes, as regulated by the Oregon Department of Human Services and in accordance with NFPA 101A, or
2. **ASSISTED SELF-PRESERVATION (IMPRACTICAL):** All residents, staff and other occupants shall reach a point of safety in a timely manner, determined by an evacuation score of 5 or greater or with evacuation drill times over 13 minutes, as regulated by the Oregon Department of Human Services and in accordance with NFPA 101A.

EVACUATION CAPABILITY. The ability of residents and staff as a group to evacuate the building or relocate from a point of occupancy to a point of safety based on evacuation drill times, or as determined by their evacuation capability scores in accordance with NFPA 101A.

HEALTH CARE. Continuous acute, chronic or convalescent medical services provided to either an individual recipient or a

group of recipients requiring nursing care. For the purposes of this appendix, health care recipients are those individuals or group of individuals who are generally incapable of self-preservation and unable to evacuate in case of emergency because of physical or mental disability. Health care services are typically administered in licensed facilities as defined in ORS 442.015 and classified as Group I-2 occupancies.

[F] PAGING SYSTEM. A system intended to page one or more persons by such means as voice over loudspeaker, coded audible or visible signals or lamp annunciators.

PERSONAL CARE. For the purpose of occupancy classification in the *Oregon Structural Specialty Code*, personal care is defined as the care, treatment and training of residents in residential homes or facilities, subject to licensure by the state, who do not require health care except as provided by the rules of the Department of Human Services governing these residences. Personal care may include provider responsibility for the resident's safety while inside the building.

POINT OF SAFETY. An area of refuge used by building occupants in evacuation of Group SR occupancies.

[F] POSITIVE ALARM SEQUENCE. An automatic sequence that results in an alarm signal, even when manually delayed for investigation, unless the system is reset.

SELF-PRESERVATION. Self-preservation is the ability of building occupants to reach an approved predetermined point of safety without physical assistance from staff. Self-preservation may be accomplished with the aid of technical devices or assistance animals.

SECTION SR103 CLASSIFICATION

SR103.1 General. Group SR occupancies shall comply with the provisions of this section and other applicable provisions of this appendix.

SR103.2 Special Residence Group SR. A Special Residence Group SR occupancy includes, among others, the use of a building or structure, or a portion thereof, for residences where personal care is administered and assisted self-preservation may be required. Group SR occupancies are licensed by, or are subject to licensure by, or under the authority of the Oregon Department of Human Services in accordance with ORS Chapter 418 or 443, or any other state agency.

Special residence occupancies shall include the following:

- SR-1** Special residence uses for more than 16 residents.
- SR-2** Special residence uses for more than five residents who may require assisted self-preservation (impractical).
- SR-3** Special residence uses for five or fewer residents.
- SR-4** Special residence uses for more than five, but not more than 16 residents.

SECTION SR104 SPECIAL DETAILED OCCUPANCY REQUIREMENTS

SR104.1 General. Group SR occupancies shall comply with the provisions of this section and other applicable provisions of this appendix.

SR104.2 Corridor walls. Corridor walls in Group SR occupancies serving over 10 occupants shall be constructed as required in Section 710 for smoke partitions.

SR104.2.1 Corridor doors. Doors in corridor walls constructed as required for smoke partitions may comply with Section 407.3.1 when the following conditions are met:

1. The doors are located on a floor where staff is awake 24 hours and stationed on that floor, and
2. The floor has an approved automatic sprinkler system that conforms to NFPA 13, and
3. An approved fire alarm system is installed in accordance with NFPA 72 and SR 107.3.

SR104.3 Point of safety. At least one point of safety is required for every Group SR occupancy. Each point of safety shall provide a minimum of 10 square feet (0.93 m²) of refuge area for each building occupant and shall be one of the following:

1. A point exterior to, and not less than 50 feet (15,240 mm) away from the building that shall be provided with access to a public way; or
2. A public way; or
3. A point within a building that is protected throughout by an approved automatic sprinkler system and is either:
 - 3.1. Within a vertical exit enclosure constructed per Section 1019; or
 - 3.2. Within another portion of the building that is separated by a smoke barrier and that portion of the building has access to a means of escape or exit.

SR104.3.1 Smoke barriers isolating points of safety. Smoke barriers that isolate points of safety shall be provided to subdivide every story used by residents for sleeping or treatment into at least two smoke compartments with an area of not more than 10,000 square feet (929 m²), or more than 16 residents per smoke compartment, per floor. Smoke barriers shall be in accordance with Section 709.

SR104.3.1.1 Fire barrier. A minimum of one smoke barrier shall conform to the fire barrier requirements of Section 706 when resident sleeping areas are located on or above the second story in Types III, IV and V construction, and one or more smoke barriers are provided in accordance with Section SR 104.3.1.

SECTION SR105 BUILDING HEIGHT REQUIREMENTS

SR105.1 General. Group SR occupancies shall comply with the provisions of this section and other applicable provisions of this appendix.

SR105.2 Height modifications. The provisions of Section 504 shall apply to the occupancies classified in this appendix.

Exception: Group SR-1 and SR-4 occupancies constructed of Type IIB, III, IV, or V construction shall not be allowed to increase building height, or to add a story per Section 504.2, even if the building is protected throughout by an approved automatic sprinkler system.

SECTION SR106 FIRE-RESISTIVE- RATED CONSTRUCTION

SR106.1 General. Group SR occupancies shall comply with the provisions of this section and other applicable provisions of this appendix.

SR106.2 Sleeping room separation. Walls separating sleeping rooms in Group SR-3 and SR-4 occupancies shall be separated from other rooms and corridors with construction equal to 1/2-inch (12.7 mm) nonrated gypsum wallboard. Doors shall be provided and shall include latches, stops and jams.

SECTION SR107 FIRE PROTECTION SYSTEMS

SR107.1 General. Group SR occupancies shall comply with the provisions of this section and other applicable provisions of this appendix.

SR107.2 Sprinkler systems. An approved automatic sprinkler system shall be provided throughout buildings with a Group SR fire area in accordance with Section 903.3 and the following:

Group SR-1 and Group SR-2 occupancies shall be in accordance with Section 903.3.1.1. (NFPA 13)

Group SR-3 occupancies shall be in accordance with Section 903.3.1.3. (NFPA 13-D)

Group SR-4 occupancies shall be in accordance with Section 903.3.1.2. (NFPA 13-R)

SR107.3 Fire alarm systems. An approved manual and automatic, supervised fire alarm system shall be installed throughout all Group SR occupancies.

Exceptions:

1. Manual fire alarm boxes located in resident sleeping areas shall not be required at exits if located at all constantly attended staff locations, provided such locations are visible and continually accessible and that travel distances required in Section 907.3.1 are not exceeded.
2. Approved household fire alarm systems with automatic and manual provisions are permitted in Group SR-3 occupancies when installed in accordance with NFPA 72.

SR107.3.1 Smoke detectors. Smoke detectors that comply with UL 268 shall be provided in corridors, sleeping rooms and spaces open to the corridors in all Group SR occupancies.

SR107.3.1.1 Smoke detectors in sleeping rooms and living units. Smoke detectors in sleeping rooms and living units of Group SR occupancies shall be monitored by on-site staff in an approved manner.

SR107.3.2 Group SR-1 and SR-4 fire alarm verification. Group SR-1 and SR-4 occupancies, licensed by Department of Human Services, or any other state agency, shall be permitted the use of a "Positive Alarm Sequence" as an approved method of alarm verification before transmitting the alarm off site. "Positive Alarm Sequence" systems shall be only a function of the unit or sleeping room detector. A "Pos-

itive Alarm Sequence" system shall be installed and shall function in accordance with NFPA 72 and this section:

1. The system shall be acknowledged by trained personnel within 15 seconds of the receipt of an alarm, or the system will immediately and automatically transmit all building and remote alarm signals.
2. Trained personnel shall not exceed 180 seconds to investigate the initiation of the alarm and reset the alarm, or the system will immediately and automatically transmit the alarm signal off site.
3. If a second alarm is transmitted or any other initiating device is actuated at any time before or during the investigation phase, all building and remote alarm signals shall be transmitted immediately and automatically.

SR107.3.2.1 Facility requirements. Facilities incorporating a "Positive Alarm Sequence" shall have the approval of the building official and shall be in accordance with the following:

1. Facilities shall be in compliance with current building and fire codes and shall be constructed of not less than 1-hour construction, and
2. Approved fire protection systems required for this purpose shall be interconnected and installed in accordance with their listings.

SR107.3.3 Approved paging systems. Group I-2 and SR-2 occupancies shall be permitted to install an approved fire alarm system for the purpose of only notifying staff in accordance with NFPA 72.

Paging systems approved for such use shall be capable of notifying all staff within the smoke compartment of the alarm origin by means of a voice over loudspeaker, coded visible signals or coded audible signals.

The use of an approved paging system shall be supplementary to the approved fire alarm system required by Chapter 9 and shall not delay or interrupt the alarm from being transmitted to other areas of the building, to approved on-site monitoring locations and to the supervising station.

SECTION SR108 MEANS OF EGRESS

SR108.1 General. Group SR-1 and SR-2 occupancies shall comply with the provisions of this section and other applicable provisions of this appendix. Group I-1, I-2, R-3 and R-4 occupancies may use any applicable provisions of this section.

SR108.2 Corridors. Corridors shall comply with Section 1016 and the following:

SR108.2.1 Corridor width. The minimum corridor width shall comply with Section 1005.

Exception: Corridors serving residential sleeping areas in Group SR-1, SR-2 and SR-4 occupancies serving over 10 occupants shall be a minimum of 72 inches (1829 mm) in width.

SR108.2.2 Corridor continuity. Corridors required to be fire rated shall be continuous from the point of entry to an exit, and shall not be interrupted by intervening rooms.

Exceptions:

1. Foyers, lobbies or reception rooms constructed as required for corridors shall not be construed as intervening rooms.
2. In Group SR-1 and SR-4 occupancies, common living and dining areas serving under 50 persons per individual area are allowed to be open to a corridor, provided such areas are constructed as required for corridors, and such areas provide a direct, obvious means of egress to a corridor or exit, and in such areas the exit access width is free and unobstructed.

SR108.3 Controlled egress locks. Approved and listed controlled egress locks shall be permitted to be installed on doors, provided that the doors unlock in accordance with the requirements of Section SR108.3.3 and the following systems are installed throughout the building:

1. An approved automatic sprinkler system installed in accordance with the requirements of Section SR107.2, and
2. An approved smoke detection system installed in accordance with Section SR107.3.1, and
3. An approved automatic fire alarm system installed in accordance with the requirements of Section SR107.3.

SR108.3.1 Controlled egress sprinkler requirements. An approved automatic sprinkler system shall be provided throughout a structure containing a Group SR occupancy. The sprinkler system shall be installed in accordance with its listing, and it shall be not less than the following:

Group SR-1, SR-2, I-1 and I-2 occupancies shall be in accordance with Section 903.3.1.1. (NFPA 13)

Group SR-4 and R-4 occupancies shall be in accordance with Section 903.3.1.2. (NFPA 13-R)

Group SR-3 and R-3 occupancies shall be in accordance with Section 903.3.1.3. (NFPA 13-D)

The sprinkler system installed to comply with this section shall not be used as a substitute for 1-hour construction.

Where a 13-R or 13-D system is allowed, sprinklers shall also be provided in closets and storage rooms exceeding 25 square feet (2.4 m²), bathrooms, attics and attached enclosed garages.

Exception: Attics and attached, enclosed garages that are unheated shall be permitted to be protected by approved heat detectors.

SR108.3.2 Controlled egress fire alarm requirements. An approved automatic fire alarm system shall be provided in accordance with Section 907, NFPA 72 and this appendix.

The fire alarm system shall include smoke detectors in all sleeping areas and common living spaces of the facility.

Exception: Smoke detectors shall not be installed within 3 feet (914 mm) of any of the following:

- A door to a kitchen.

- A door to a bathroom containing a bathtub or shower compartment.

The supply registers of a forced air HVAC system.

SR108.3.3 Controlled egress locking system requirements. The controlled egress locking system shall comply with all of the following:

1. The egress control system, fire alarm system and sprinkler system shall be electrically interconnected.
2. The controlled egress locks shall automatically deactivate upon activation of either the sprinkler system or the fire alarm system.
3. The controlled egress locks shall automatically deactivate upon loss of primary or emergency electrical power to the egress control system or the fire alarm system.
4. The controlled egress locks shall be capable of being deactivated by a signal from an approved device located at each door equipped with such locks. Cross-corridor doors equipped with egress control shall be capable of being deactivated by a signal from an approved device located on each side of the door. Additional switches shall be permitted in other approved locations.

Exception: Where the point of safety is located within a fenced or walled yard, egress-control devices located on doors or gates in the fence or wall need not automatically deactivate when the point of safety is exterior to, and not less than 50 feet (15 240 mm) away from the building, and access to a public way is provided. Except where provided in a public way, each point of safety shall have a minimum of 10 square feet (0.93 m²) of net clear area for each occupant as determined in Section 1004.1.

5. To reach the exterior of the building during evacuation, occupants within a controlled egress facility shall not be required to pass through more than two doors having controlled egress locks.

SECTION SR109 OCCUPANCY CLASSIFICATION GUIDE

Appendix Table SR109.1. Appendix SR Table SR109.1 is not part of this code, but is provided here for the reader's convenience. Table SR109.1 is based on the 2003 *Construction Project Guide Handbook for Facilities Licensed by the Oregon Department of Human Services (DHS)*, as regulated by, and subject to change by DHS. Appendix Table SR-109.1 is a general conversion of the Department of Human Services personal care licensed categories to building code occupancy group classifications. This table does not include the conversion of DHS/IBC Group R-2 occupancies. The table includes the related *Oregon Structural Specialty Code* occupancy classifications prior to October 1, 2004, and evacuation capability as regulated by DHS in accordance with NFPA 101A. The building official may use Table SR109.1 as a guide for the determination of occupancy classification.

The *Construction Project Guide for Facilities to be Licensed by DHS* may be obtained from the Oregon Department of Human Services, Facilities Planning and Safety, 3420 Cherry Ave. NE Suite No.110, Keizer, Oregon 97303. (503) 373-7201.

**APPENDIX TABLE SR109.1
OCCUPANCY CLASSIFICATION GUIDE**

OSSC/IBC OCCUPANCY REQUIREMENTS ¹	PRIOR OSSC/IBC OCCUPANCY REQUIREMENTS	DHS CATEGORY INCLUDED IN 2004 OSSC	EVACUATION CAPABILITY ² & NO. OF RESIDENTS
I-1	R-1	Congregate Care Residences: Not subject to licensure by, or under authority of DHS.	NA
I-1	SR-3.1	Personal Care: Residential Care and Residential Treatment, Private Residential Schools and Other Similar Services, Residential Treatment Facilities, Secure Residential Treatment Facilities, Adult Residential with Child Care, 24-Hour Community Residential Services Large Group Facilities	Self-Preservation > 16
I-1 & Appendix SR SR-1	SR-3.1 & SR-2.1	Personal Care: Residential Care and Residential Treatment, Private Residential Schools and Other Similar Services, Residential Treatment Facilities, Secure Residential Treatment Facilities, Adolescent Ambulatory, Adolescent Ambulatory Unlocked, Nonresidential Detox, Adult Residential with Child Care, 24-Hour Community Residential Services Large Group Facilities, 24-Hour Community Residential Services Large Group Homes, Residential Care Facilities, Assisted Living Facilities	Assisted Self-Preservation > 16
I-2 & Appendix SR SR-2	SR-1.1	Personal Care: Residential Care and Residential Treatment, Residential Treatment Facilities, Secure Residential Treatment Facilities, Adolescent Ambulatory, Adolescent Ambulatory Unlocked, Nonresidential Detox, Adult Residential with Child Care, 24-Hour Community Residential Services Large Group Facilities, 24-Hour Community Residential Services Large Group Homes, Residential Care Facilities, Assisted Living Facilities	(Impractical) Assisted Self-Preservation > 16
	SR-1.2	Personal Care: Residential Care and Residential Treatment, Residential Treatment Facilities, Secure Residential Treatment Facilities, Adolescent Ambulatory, Adolescent Ambulatory Unlocked, Nonresidential Detox, Adult Residential with Child Care, 24-Hour Community Residential Services Large Group Homes, Residential Care Facilities, Assisted Living Facilities	(Impractical) Assisted Self-Preservation 6-16 (Impractical) Assisted Self-Preservation >5
R-3	NA	Personal Care: Private Residential Schools and Other Similar Services, Adult Foster Homes, Residential Transition Programs, Supportive Living Services for three or fewer, Semi-independent Living Services for two or fewer, 24-Hour Community Residential Services Small Group Homes	Not regulated under the OSSC.
R-3	SR-3.3	Personal Care: Private Residential Schools and Other Similar Services, Residential Treatment Homes, Adult Residential with Child Care, Residential Transition Programs, 24-Hour Residential Services/Duplexes Apartments, 24-Hour Community Residential Services Small Group Homes	Self-Preservation ≤ 5
R-3 & Appendix SR SR-3	SR-3.3 & SR-2.3	Personal Care: Private Residential Schools and Other Similar Services, Adolescent Ambulatory, Adolescent Ambulatory Unlocked, Nonresidential Detox, Adult Residential with Child Care, Residential Transition Programs, 24-Hour Residential Services/Duplexes Apartments, 24-Hour Community Residential Services Small Group Homes	Assisted Self-Preservation ≤ 5
	SR-1.3	Personal Care: Residential Treatment Homes, Adolescent Ambulatory, Adolescent Ambulatory Unlocked, Nonresidential Detox, Adult Residential with Child Care, Residential Transition Programs	(Impractical) Assisted Self-Preservation ≤ 5
R-4	SR-3.2	Personal Care: Residential Care and Residential Treatment, Private Residential Schools and Other Similar Services, Residential Treatment Facilities, Secure Residential Treatment Facilities, Adult Residential with Child Care, 24-Hour Community Residential Services Large Group Homes	Self-Preservation 6-16
R-4 & Appendix SR SR-4	SR-2.2	Personal Care: Residential Care and Residential Treatment, Private Residential Schools and Other Similar Services, Residential Treatment Facilities, Secure Residential Treatment Facilities, Adolescent Ambulatory, Adolescent Ambulatory Unlocked, Nonresidential Detox, Adult Residential with Child Care, 24-Hour Community Residential Services Large Group Homes, Residential Care Facilities, Assisted Living Facilities	Assisted Self-Preservation 6-16

1. For building permit application requirements for Group SR-1 and SR-4 occupancies see Section SR101.3.

2. Evacuation capability is regulated in facilities that are licensed by DHS to provide personal care. Evacuation capability is the ability of residents and staff as a group to evacuate the building or relocate from a point of occupancy to a point of safety based on evacuation drill times, or as determined by their evacuation capability scores in accordance with NFPA 101A.

